



THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE OF TENN. CODE ANN. §62-2-306.

| SHEET NAME  | SHEET NO.     |
|---|---------------|
| SIGNATURE SHEET .....                                       | ROADWAY-SIGN1 |
| TITLE SHEET .....   | 1             |
| ROADWAY INDEX AND STANDARD ROADWAY DRAWINGS .....           | 1A            |
| ESTIMATED ROADWAY QUANTITIES .....                          | 2             |
| TYPICAL SECTIONS AND PAVEMENT SCHEDULE .....                | 2B            |
| GENERAL NOTES .....   | 2C, 2C1       |
| SPECIAL NOTES .....   | 2D            |
| ENVIRONMENTAL NOTES .....                                   | 2E            |
| TABULATED QUANTITIES .....                                  | 2F            |
| RIGHT-OF-WAY NOTES, UTILITY NOTES, AND UTILITY OWNERS ..... | 3             |
| RIGHT-OF-WAY ACQUISITION TABLE AND PROPERTY MAP .....       | 3A & 3B       |
| PRESENT LAYOUT .....  | 4             |
| RIGHT-OF-WAY DETAILS .....                                  | 4A            |
| PROPOSED LAYOUT .....                                       | 4B            |
| PROPOSED PROFILE .....                                      | 4C            |
| DRAINAGE MAP .....  | 7             |
| CULVERT SECTION .....                                       | 8             |
| EROSION PREVENTION AND SEDIMENT CONTROL PLANS .....         | 9 - 13        |
| SIGN SCHEDULE SHEET .....                                   | 14            |
| ROADWAY CROSS SECTIONS .....                                | 15 – 56       |
| TRAFFIC CONTROL PLANS .....                                 | T1 – T7       |

| YEAR   | PROJECT NO.   | SHEET NO.     |
|--|---------------|---------------|
| 2025   | 18S298-M3-002 | ROADWAY-SIGN1 |
|  |               |               |
|  |               |               |
|  |               |               |
|  |               |               |
|  |               |               |
|  |               |               |
|  |               |               |
|  |               |               |
|  |               |               |
|  |               |               |
|  |               |               |
|  |               |               |
|  |               |               |
| <b>STATE OF TENNESSEE<br/>DEPARTMENT OF TRANSPORTATION</b> |               |               |
| <b>SIGNATURE<br/>SHEET</b>                                 |               |               |



Index Of Sheets  
SEE SHEET NO. 1A

STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION  
BUREAU OF ENGINEERING

CUMBERLAND COUNTY

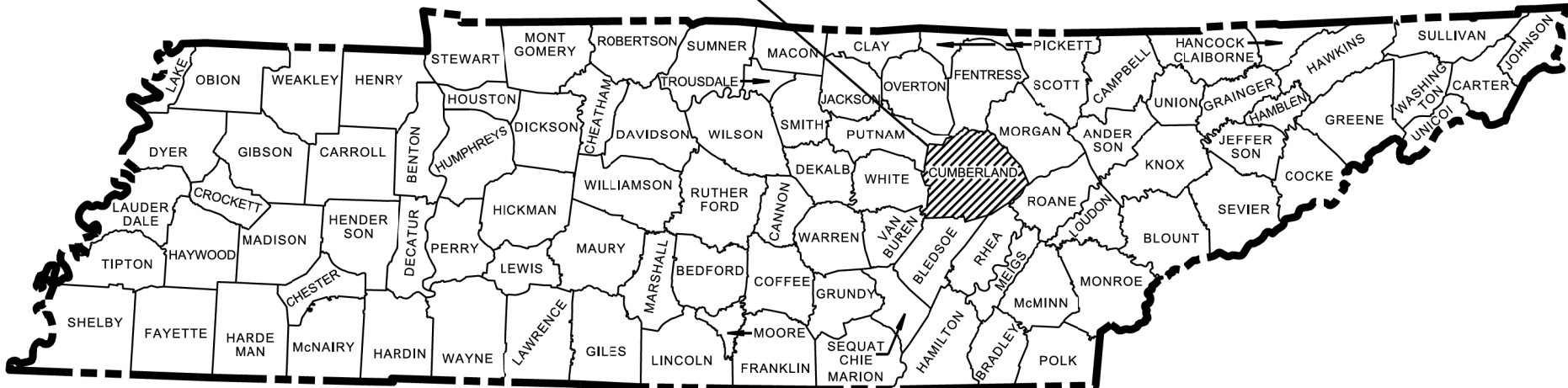
M21LTR2\_C18  
SMALL STRUCTURE REPAIR  
SR-298 LM 8.5

PS&E  
CULVERT REPLACEMENT, RETAINING WALL, PAVE, DRAIN & GUARDRAIL  
STATE ROUTE NO. 298 (F.A.H.S. NO. N/A)

|  |       |      |
|--|-------|------|
| DOES THIS PROJECT QUALIFY FOR UTILITY CHAPTER 86 | YES   | NO X |
| WORK ZONE SIGNIFICANCE DETERMINATION             |       |      |
| SIGNIFICANT                                      | YES X | NO   |

|                    |               |           |
|--------------------|---------------|-----------|
| TENN.              | YEAR          | SHEET NO. |
|                    | 2025          | 1         |
| FED. AID PROJ. NO. | N/A           |           |
| STATE PROJ. NO.    | 18S298-M3-002 |           |

PROJECT LOCATION



NO EXCLUSIONS

ROAD TO BE CLOSED  
DURING CONSTRUCTION



18S298-M1-002 R.O.W. (UTILITIES ONLY)  
END PROJECT NO. 18S298-M3-002 CONSTRUCTION

STA. 18+78.46  
N 628287.8441 E 2273929.0911

18S298-M1-002 R.O.W. (UTILITIES ONLY)  
BEGIN PROJECT NO. 18S298-M3-002 CONSTRUCTION

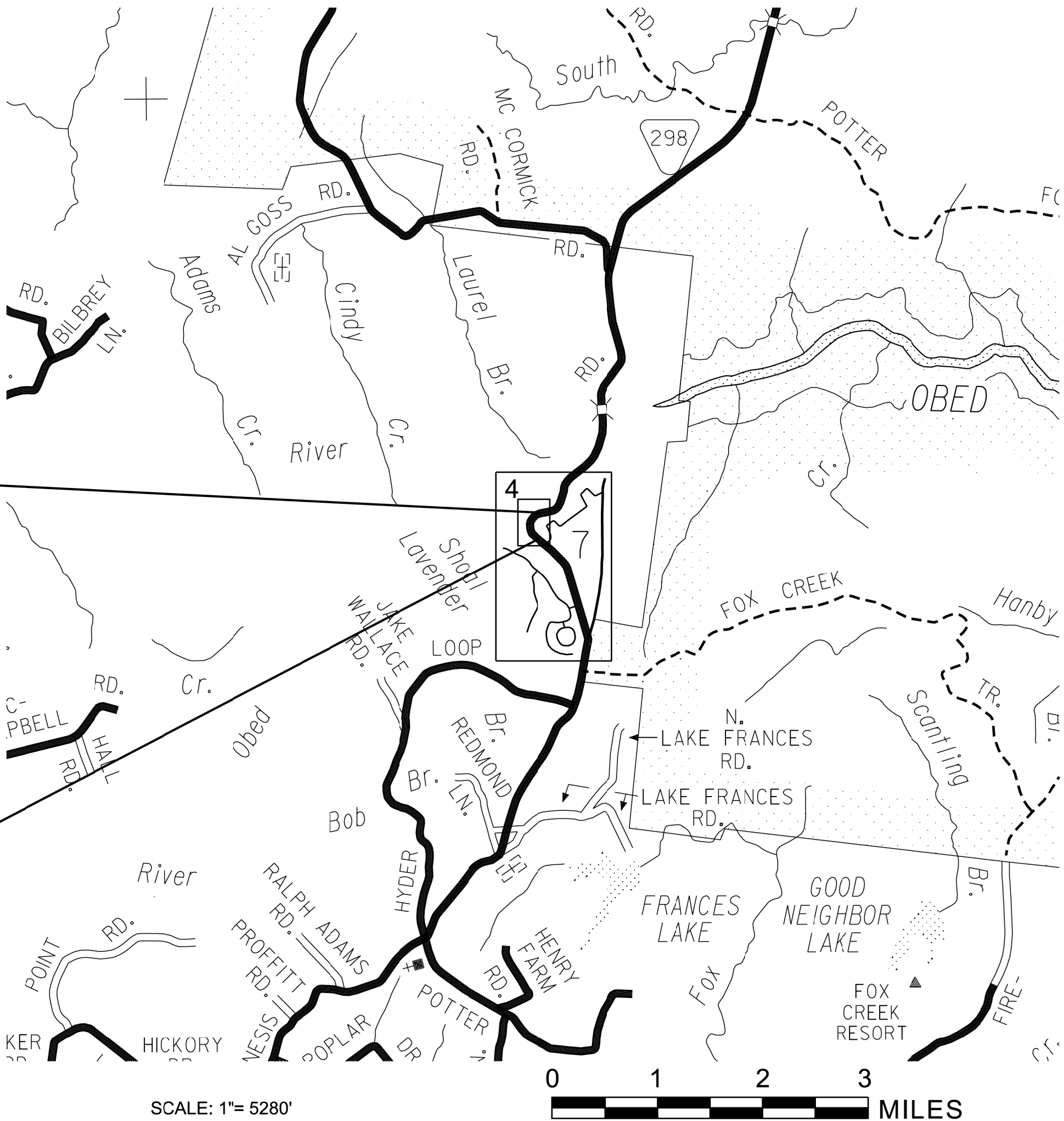
STA. 12+00.00  
N 627775.1685 E 2273647.8656

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 JANUARY 1, 2021 AND ADDITIONAL SPECIFICATIONS AND SPECIAL PROVISIONS CONTAINED IN THE PLANS AND IN THE PROPOSAL CONTRACT.

TDOT PROJECT MANAGER : ROB HOWARD  
TDOT DESIGN MANAGER: JASON INGRAM, P.E.  
DESIGNER : ETHAN SATURDAY, P.E. CHECKED BY : JOSEPH DELORENZO, P.E.  
P.E. NO. 18S298-M1-002  
PIN NO. 131702.00

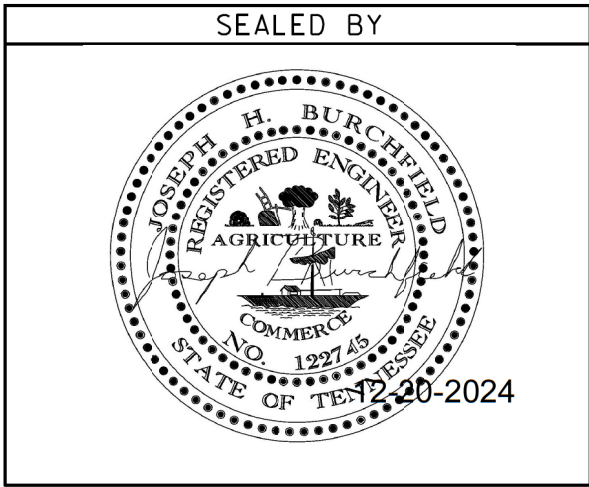


|                   |               |
|-------------------|---------------|
| R.O.W. LENGTH     | 0.000 MILES   |
| ROADWAY LENGTH    | 0.128 MILES   |
| BRIDGE LENGTH     | 0.000 MILES   |
| BOX BRIDGE LENGTH | 0.000 MILES   |
| BOX BRIDGE LENGTH | 0.000 MILES ▲ |
| PROJECT LENGTH    | 0.128 MILES   |

▲ Not included in the project length (Non Riding Surface).

| SURVEY 05-09-21 |        | TRAFFIC DATA |         |
|-----------------|--------|--------------|---------|
| 11/16/2021      | UPDATE | ADT (2025)   | 1,190   |
|                 |        | ADT (2045)   | 1,550   |
|                 |        | DHV (2045)   | 186     |
|                 |        | D            | 65 - 35 |
|                 |        | T (ADT)      | 7 %     |
|                 |        | T (DHV)      | 5 %     |
|                 |        | V            | 35 MPH  |

STATE PLANE COORDINATES ARE BASED ON GPS MEASUREMENTS OBTAINED 05-09-21 USING GEOID 12B CONUS MODEL AND DATUM ADJUSTMENT FACTOR OF 1.0000



APPROVED: Will Reid  
WILL REID, CHIEF ENGINEER

DATE: \_\_\_\_\_

APPROVED: Howard H. Eley  
HOWARD H. ELEY, COMMISSIONER

U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION

APPROVED: \_\_\_\_\_  
DIVISION ADMINISTRATOR DATE



13-FEB-2025 14:05  
\\tdot02nas002.tdot.state.tn.us\02Shared\Design County Folders\Cumberland\SR298LM8.sSmallStructure\01-001A\_INDEX.sht

ROADWAY INDEX

| SHEET NAME  | SHEET NO.     |
|---|---------------|
| SIGNATURE SHEET .....                                       | ROADWAY-SIGN1 |
| TITLE SHEET .....   | 1             |
| ROADWAY INDEX AND STANDARD ROADWAY DRAWINGS .....           | 1A            |
| ESTIMATED ROADWAY QUANTITIES .....                          | 2             |
| TYPICAL SECTIONS AND PAVEMENT SCHEDULE .....                | 2B            |
| GENERAL NOTES .....   | 2C, 2C1       |
| SPECIAL NOTES .....   | 2D            |
| ENVIRONMENTAL NOTES .....                                   | 2E            |
| TABULATED QUANTITIES .....                                  | 2F            |
| RIGHT-OF-WAY NOTES, UTILITY NOTES, AND UTILITY OWNERS ..... | 3             |
| RIGHT-OF-WAY ACQUISITION TABLE AND PROPERTY MAP .....       | 3A & 3B       |
| PRESENT LAYOUT .....  | 4             |
| RIGHT-OF-WAY DETAILS .....                                  | 4A            |
| PROPOSED LAYOUT .....                                       | 4B            |
| PROPOSED PROFILE .....                                      | 4C            |
| DRAINAGE MAP .....  | 7             |
| CULVERT SECTION .....                                       | 8             |
| EROSION PREVENTION AND SEDIMENT CONTROL PLANS .....         | 9 - 13        |
| SIGN SCHEDULE SHEET .....                                   | 14            |
| ROADWAY CROSS SECTIONS .....                                | 15 – 56       |
| TRAFFIC CONTROL PLANS .....                                 | T1 – T7       |
| RETAINING WALL PLANS .....                                  | R-1           |
| GEOTECHNICAL PLANS .....                                    | G-1           |
| STORM WATER POLLUTION PREVENTION PLAN (SWPPP) PLANS .....   | S-1           |
| UTILITIES PLANS .....                                       | U1-1          |
| OMITTED .....   | 2A, 5-6       |

NOTES:

THE ALPHABETICAL LETTERS "I", "O" & "Q" ARE NOT USED IN THE NUMBERING OF SHEETS.

NO PROJECT COMMITMENTS INCLUDED IN THIS PROJECT.


STANDARD ROADWAY DRAWINGS

| DWG.  | REV.     | DESCRIPTION  |
|---|----------|--|
| <b>10-100.00 STANDARD ROADWAY TITLE SHEET, ABBREVIATIONS, AND LEGENDS</b> |          |  |
| RD-TP-1   | 10-01-24 | STANDARD ROADWAY DRAWINGS TITLE SHEET  |
| RD-A-1  | 02-20-20 | STANDARD ABBREVIATIONS A THROUGH L   |
| RD-A-2  |          | STANDARD ABBREVIATIONS M THROUGH Z   |
| RD-L-1  | 02-20-20 | STANDARD LEGEND  |
| RD-L-1A   |          | STANDARD LEGEND  |
| RD-L-2  | 02-20-20 | STANDARD LEGEND FOR UTILITY INSTALLATIONS  |
| RD-L-5  | 07-30-24 | STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL  |
| RD-L-6  | 02-20-20 | STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL  |
| RD-L-7  | 02-20-20 | STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL  |
| <b>10-101.00 ROADWAY DESIGN STANDARDS</b>                                 |          |  |
| RD11-SE-1   |          | TRANSITION AND CROSS SLOPE DETAILS   |
| RD11-SE-2   |          | SUPERELEVATION TRANSITION DETAILS FOR UNDIVIDED ROADWAYS   |
| RD11-SE-2A  |          | SUPERELEVATION TRANSITION SECTIONS FOR UNDIVIDED ROADWAYS  |
| RD11-TS-2   |          | DESIGN STANDARDS FOR COLLECTORS, 2-LANE ROADS AND STREETS  |
| RD11-LR-2   |          | MINIMUM RUNOFF LENGTHS (LR) FOR RURAL HIGHWAYS   |
| RD11-S-11   |          | DESIGN AND CONSTRUCTION DETAILS FOR ROADSIDE SLOPE DEVELOPMENT   |
| RD11-S-11A  |          | ROADSIDE DITCH DETAILS FOR DESIGN AND CONSTRUCTION   |
| RD11-S-11B  |          | DESIGN AND CONSTRUCTION DETAILS FOR ROCK CUT SLOPE AND CATCHMENT   |
| <b>10-102.00 PIPE CULVERTS AND ENDWALLS</b>                               |          |  |
| D-PB-1  | 03-01-23 | STANDARD DETAILS FOR CONCRETE PIPE INSTALLATION  |
| D-PEW-1   |          | PROTECTED ENDWALLS FOR ROUND & OVAL PIPES (PIPE SIZES 18" TO 72", ALL SKEWS, 2:1 & 3:1 SLOPES)               |
| D-PEW-2   |          | PROTECTED ENDWALLS FOR ROUND PIPES DETAILS & QUANTITIES (PIPE SIZES 18" TO 72", ALL SKEWS, 2:1 & 3:1 SLOPES) |
| <b>10-104.00 ROADWAY, PAVEMENT APPURTENANCES, AND FENCES</b>              |          |  |
| W-MSE-1   | 05-01-20 | ROADWAY FEATURES FOR MSE SEGMENTAL PRECAST FACING RETAINING WALL   |
| W-MSE-2   | 05-01-20 | ROADWAY FEATURES FOR MSE MODULAR BLOCK FACING RETAINING WALL   |
| <b>10-106.00 SAFETY DESIGN AND GUARDRAILS</b>                             |          |  |
| S-CZ-1  | 06-28-19 | CLEAR ZONE CRITERIA  |
| S-PL-1  | 03-01-23 | SAFETY PLAN FOR BARRIER LENGTH OF NEED   |
| S-PL-1A   | 03-01-23 | SAFETY PLAN FOR BARRIER LENGTH OF NEED (FOR RIGID OBJECTS)   |
| S-PL-1B   | 03-01-23 | SAFETY PLAN FOR BARRIER LENGTH OF NEED ON CURVED ROADWAYS  |
| S-GR31-1  | 06-15-21 | GUARDRAIL DETAILS  |
| S-GR31-1A   | 06-28-19 | GUARDRAIL AND BLOCK-OUT DETAILS  |

| DWG.   | REV.     | DESCRIPTION   |
|--|----------|---|
| S-GR31-1B  |          | GUARDRAIL FASTENING HARDWARE  |
| S-GR31-1C  | 07-07-23 | GUARDRAIL GENERAL NOTES AND POST DETAILS                                      |
| S-GR31-1D  | 03-01-23 | GUARDRAIL POST PLACEMENT IN ROCK  |
| S-GRA-1  | 06-28-19 | TYPE 12 GUARDRAIL ANCHOR  |
| S-GRS-4  | 05-04-22 | SPECIAL CASE GUARDRAIL HEIGHT TRANSITION DETAIL                               |
| S-GRT-1  | 10-29-21 | TYPE 12 GUARDRAIL TERMINAL BURIED IN BACKSLOPE                                |
| S-GRT-1A   |          | LAYOUT OF FLARED GUARDRAIL (TL- 3)  |
| S-GRT-2  | 06-28-19 | TYPE 38 GUARDRAIL END TERMINAL  |
| S-GRT-2P   | 10-16-20 | EARTH PAD FOR TYPE 38 AND TYPE 21 TERMINAL                                    |
| <b>10-107.00 DESIGN - TRAFFIC CONTROL</b>                |          |   |
| T-M-1  | 06-28-19 | DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS AND MARKING ABBREVIATIONS |
| T-M-2  | 01-09-24 | DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS                           |
| T-M-16   | 07-30-24 | RUMBLE STRIPE INSTALLATION LAYOUT   |
| T-WZ-10  | 04-02-12 | ADVANCED ROAD WORK SIGNING ON HIGHWYS AND FREEWAYS                            |
| <b>10-108.00 EROSION PREVENTION AND SEDIMENT CONTROL</b> |          |   |
| EC-STR-34  | 05-04-22 | EROSION CONTROL BLANKET FOR SLOPE INSTALLATION                                |
| EC-STR-37  | 06-10-14 | SEDIMENT TUBE   |
| EC-STR-6   | 11-30-20 | ROCK CHECK DAM  |
| EC-STR-6A  | 05-06-16 | ENHANCED ROCK CHECK DAM   |
| EC-STR-25  | 08-01-12 | TEMPORARY CULVERT CROSSING, CONSTRUCTION EXIT, CONSTRUCTION FORD              |
| EC-STR-32  | 08-01-12 | TEMPORARY DIVERSION CULVERTS  |
| EC-STR-33  | 08-01-12 | SUSPENDED PIPE DIVERSION (DOWNSTREAM)   |
| EC-STR-33A   | 08-01-12 | SUSPENDED PIPE DIVERSION (UPSTREAM)   |

| TYPE | YEAR | PROJECT NO.   | SHEET NO. |
|------|------|---------------|-----------|
| PIH  | 2025 | 18S298-M3-002 | 1A        |
| PS&E | 2025 | 18S298-M3-002 | 1A        |
|      |      |               |           |
|      |      |               |           |

SEALED BY



STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

ROADWAY INDEX  
AND  
STANDARD  
ROADWAY  
DRAWINGS

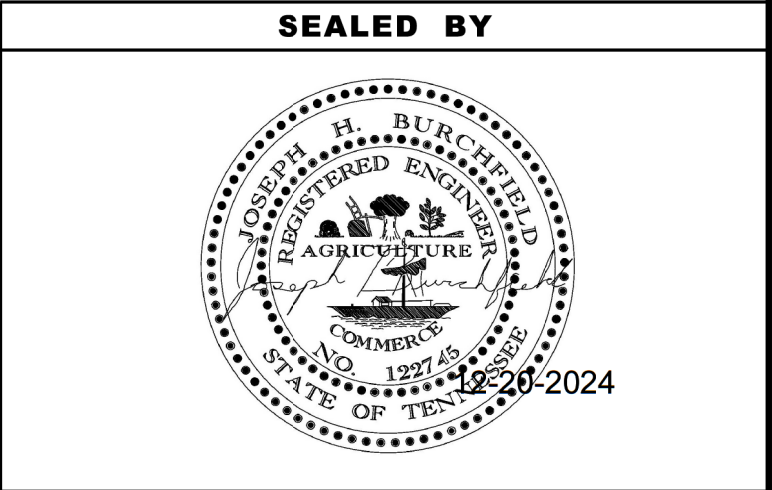


| ESTIMATED ROADWAY QUANTITIES |             |  |               |
|------------------------------|-------------|--|---------------|
| ITEM NO.                     | DESCRIPTION | UNIT   | QUANTITY      |
|                              |             |  | 18S298-M3-002 |
| (1)                          | 105-01      | CONSTRUCTION STAKES, LINES AND GRADES                  | LS 1          |
|                              | 201-01      | CLEARING AND GRUBBING                                  | LS 1          |
|                              | 202-02.01   | REMOVAL OF PIPE (30 " CMP. STA. 14+19.00)              | L.F. 88       |
|                              | 203-01      | ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED)              | C.Y. 2514     |
|                              | 203-04      | PLACING AND SPREADING TOPSOIL                          | C.Y. 142      |
|                              | 203-06      | WATER  | M.G. 6        |
| (2)                          | 208-01.05   | BROOMING & DEGRASSING SHOULDERS                        | L.M. 0.1      |
|                              | 209-05      | SEDIMENT REMOVAL                                       | C.Y. 145      |
|                              | 209-08.02   | TEMPORARY SILT FENCE (WITH BACKING)                    | L.F. 1426     |
| (2)                          | 209-08.07   | ROCK CHECK DAM PER                                     | EACH 22       |
| (2)(15)                      | 209-08.08   | ENHANCED ROCK CHECK DAM                                | EACH 6        |
| (2)(13)                      | 209-09.01   | SANDBAGS   | BAG 300       |
| (2)(13)                      | 209-20.03   | POLYETHYLENE SHEETING (6 MIL. MINIMUM)                 | S.Y. 30       |
| (2)                          | 303-01      | MINERAL AGGREGATE, TYPE A BASE, GRADING D              | TON 769       |
|                              | 303-10.01   | MINERAL AGGREGATE (SIZE 57)                            | TON 13        |
|                              | 307-01.01   | ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING A     | TON 254       |
|                              | 307-01.08   | ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING B-M2  | TON 158       |
|                              | 402-01      | BITUMINOUS MATERIAL FOR PRIME COAT (PC)                | TON 2.1       |
|                              | 402-02      | AGGREGATE FOR COVER MATERIAL (PC)                      | TON 7         |
| (3)                          | 403-01      | BITUMINOUS MATERIAL FOR TACK COAT (TC)                 | TON 0.6       |
|                              | 407-20.05   | SAW CUTTING ASPHALT PAVEMENT                           | L.F. 60       |
|                              | 411-01.10   | ACS MIX(PG64-22) GRADING D                             | TON 107       |
| (4)                          | 411-12.04   | SCORING FOR RUMBLE STRIPE (NON-CONTINUOUS) (4IN WIDTH) | L.M. 0.2      |
|                              | 415-01.01   | COLD PLANING BITUMINOUS PAVEMENT                       | TON 20        |
|                              | 604-07.01   | RETAINING WALL (WALL 1)                                | S.F. 2573     |
| (5)                          | 604-07.02   | RETAINING WALL (WALL 2)                                | S.F. 450      |
|                              | 607-07.03   | 36" CONCRETE PIPE CULVERT (CLASS IV)                   | L.F. 62       |
| (6)                          | 610-12.02   | HORIZONTAL DRAINS                                      | L.F. 300      |
|                              | 611-07.01   | CLASS A CONCRETE (PIPE ENDWALLS)                       | C.Y. 3        |
| (2)(13)                      | 611-07.02   | STEEL BAR REINFORCEMENT (PIPE ENDWALLS)                | LB. 109       |
|                              | 621-03.03   | 24" TEMPORARY DRAINAGE PIPE                            | L.F. 110      |
|                              | 705-02.10   | GUARDRAIL TRANSITION 27IN TO 31IN                      | EACH 1        |
|                              | 705-04.02   | GUARDRAIL TERMINAL (TYPE 12)                           | EACH 2        |
|                              | 705-04.09   | EARTH PAD FOR TYPE 38 GR END TREATMENT                 | EACH 1        |
|                              | 705-06.02   | W BEAM GR (TYPE 2) MASH TL3 (LONG POST)                | L.F. 675      |
|                              | 705-06.20   | TANGENT ENERGY ABSORBING TERM MASH TL-3                | EACH 1        |
|                              | 706-01      | GUARDRAIL REMOVED                                      | L.F. 708      |
| (7)                          | 709-05.05   | MACHINED RIP-RAP (CLASS A-3)                           | TON 120       |
| (8)                          | 709-05.06   | MACHINED RIP-RAP (CLASS A-1)                           | TON 1288      |
| (9)                          | 712-01      | TRAFFIC CONTROL  | LS 1          |
| (9)(16)                      | 712-04.01   | FLEXIBLE DRUMS (CHANNELIZING)                          | EACH 10       |
|                              | 712-05.01   | WARNING LIGHTS (TYPE A)                                | EACH 14       |
|                              | 712-06      | SIGNS (CONSTRUCTION)                                   | S.F. 1028     |
| (9)                          | 712-07.03   | TEMPORARY BARRICADES (TYPE III)                        | L.F. 48       |
|                              | 713-11.02   | PERFORATED/KNOCKOUT SQUARE TUBE POST                   | LB. 340       |
|                              | 713-13.02   | FLAT SHEET ALUMINUM SIGNS (0.080" THICK)               | S.F. 60       |
|                              | 713-13.14   | FLORESCENT YELLOW SIGN SHEETING                        | S.F. 60       |
| (12)                         | 713-15      | REMOVAL OF SIGNS, POSTS AND FOOTINGS                   | LS 1          |
| (9)                          | 713-16.01   | CHANGEABLE MESSAGE SIGN UNIT                           | EACH 2        |
|                              |             |  |               |
|                              |             |  |               |
|                              |             |  |               |
|                              |             |  |               |

| ESTIMATED ROADWAY QUANTITIES |             |   |               |
|------------------------------|-------------|---|---------------|
| ITEM NO.                     | DESCRIPTION | UNIT  | QUANTITY      |
|                              |             |   | 18S298-M3-002 |
| (10)                         | 716-01.21   | SNOWPLOWABLE RAISED PAVEMENT MARKERS (BI-DIR) (1 COLOR) | EACH 15       |
|                              | 716-01.30   | REMOVAL OF SNOWPLOWABLE REFLECTIVE MARKER               | EACH 8        |
|                              | 716-12.02   | ENHANCED FLATLINE THERMO PWMT MRKNG (6IN LINE)          | L.M. 0.5      |
|                              | 717-01      | MOBILIZATION  | LS 1          |
| (7)                          | 740-10.03   | GEOTEXTILE (TYPE III)(EROSION CONTROL)                  | S.Y. 103      |
| (11)                         | 740-10.04   | GEOTEXTILE (TYPE IV)(STABILIZATION)                     | S.Y. 439      |
| (2)(14)                      | 740-11.02   | TEMPORARY SEDIMENT TUBE 12IN                            | L.F. 447      |
| (2)(13)                      | 797-11.38   | BY-PASS PUMPING   | LS 1          |
| (2)                          | 801-01      | SEEDING (WITH MULCH)                                    | UNIT 17       |
| (2)                          | 801-01.07   | TEMPORARY SEEDING (WITH MULCH)                          | UNIT 24       |
| (2)                          | 801-01.16   | BONDED FIBER MATRIXHYDROMULCH (W/PERMANENT SEED)        | UNIT 10       |
| (2)                          | 801-01.38   | NATIVE SEED MX FINAL STABILIZATN OF SLOPES              | UNIT 10       |
| (2)                          | 801-03      | WATER (SEEDING & SODDING)                               | M.G. 4.4      |
| (2)                          | 805-12.02   | EROSION CONTROL BLANKET (TYPE II)                       | S.Y. 586      |

| FOOTNOTES |  |
|-----------|--|
| 1         | INCLUDES 9 C.Y. FOR EPSC / TCE MEASURES, AND 224 C.Y (SEE G SHEETS) FOR REMOVAL OF SCoured MATERIAL BETWEEN 14+00 AND 14+35 BELOW EXISTING CULVERT AS DIRECTED BY ENGINEER   |
| 2         | SEE SECTION 209.07 OF THE STANDARD SPECIFICATIONS FOR MAINTENANCE AND REPLACEMENT. ALL EPSC QUANTITIES TO BE USED AS DIRECTED BY THE ENGINEER.   |
| 3         | TO BE USED AS DIRECTED BY THE ENGINEER   |
| 4         | TEST BORINGS INDICATE THAT EXCAVATION FOR THE M.S.E. REINFORCED ZONE WILL ENCOUNTER TDOT TYPE C MATERIAL. SEE SHEET G2 - SOFT ROCK OR DEGRADEABLE ROCK AND SOILS AND GEOLOGY REPORT.   |
| 5         | THIS ITEM SHALL INCLUDE, AND NOT BE LIMITED TO, ALL ENGINEERING DESIGN (USING DESIGN VALUES CONTAINED IN THE R SHEETS), LABOR, DRILLING, GROUT, SHOTCRETE, MATERIALS, AND ALL INCIDENTALS REQUIRED FOR THE COMPLETE INSTALLATION OF SOIL NAILS IN ACCORDANCE WITH SPECIAL PROVISION 624 REGARDING RETAINING WALLS. |
| 6         | INSTALL APPROX. 10 (EACH) PER SPECIAL PROVISION 610HD REGARDING HORIZONTAL DRAINS.   |
| 7         | TO BE USED IN CONSTRUCTION OF TEMPORARY CONSTRUCTION EXITS   |
| 8         | INCLUDES 602 TONS FOR BACKFILLING OF SCoured MATERIAL AND BUILDING LEVEL BUILDING PLATFORM, AND 686 TONS FOR ARMORING OF "M.S.E. 'RETAINING WALL BENCH, SEE SHEET G-7 TYPICAL SECTION" AS DIRECTED BY ENGINEER.  |
| 9         | TO BE USED AS DIRECTED BY THE ENGINEER FOR TEMPORARY TRAFFIC CONTROL.  |
| 10        | CONTRACTOR MAY ELECT TO SUBSTITUTE PREFORMED PLASTIC FOR THERMOPLASTIC. PREFORMED PLASTIC SHALL BE PAID FOR AT THE SAME UNIT PRICE AS BID FOR THERMOPLASTIC.   |
| 11        | FOR SEPARATION LINER BETWEEN GROUND AND RIP-RAP, SEE 'TYPICAL SECTIONS' OF GEOTECHNICAL SHEETS.  |
| 12        | THIS ITEM INCLUDES THE REMOVAL OF 7 POSTS AND 13 FLAT SHEETS WITHIN CONSTRUCTION LIMITS.   |
| 13        | TO BE USED IN CONSTRUCTION OF FLEXIBLE PIPE DIVERSION  |
| 14        | QUANTITY INCLUDES 17 L.F. TO BE USED IN CONSTRUCTION OF TYPE 2 CULVERT PROTECTION  |
| 15        | QUANTITY INCLUDES 2 TO BE USED IN CONSTRUCTION OF TYPE 2 CULVERT PROTECTION  |
| 16        | 5 FLEXIBLE DRUMS TO BE USED WITH EACH CHANGEABLE MESSAGE SIGN UNIT.  |

| TYPE   | YEAR | PROJECT NO.   | SHEET NO. |
|--------|------|---------------|-----------|
| R.O.W. | 2023 | 18S298-M1-002 | 2         |
| PIH    | 2025 | 18S298-M3-002 | 2         |
| PS&E   | 2025 | 18S298-M3-002 | 2         |
|        |      |               |           |



STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

ESTIMATED  
ROADWAY  
QUANTITIES



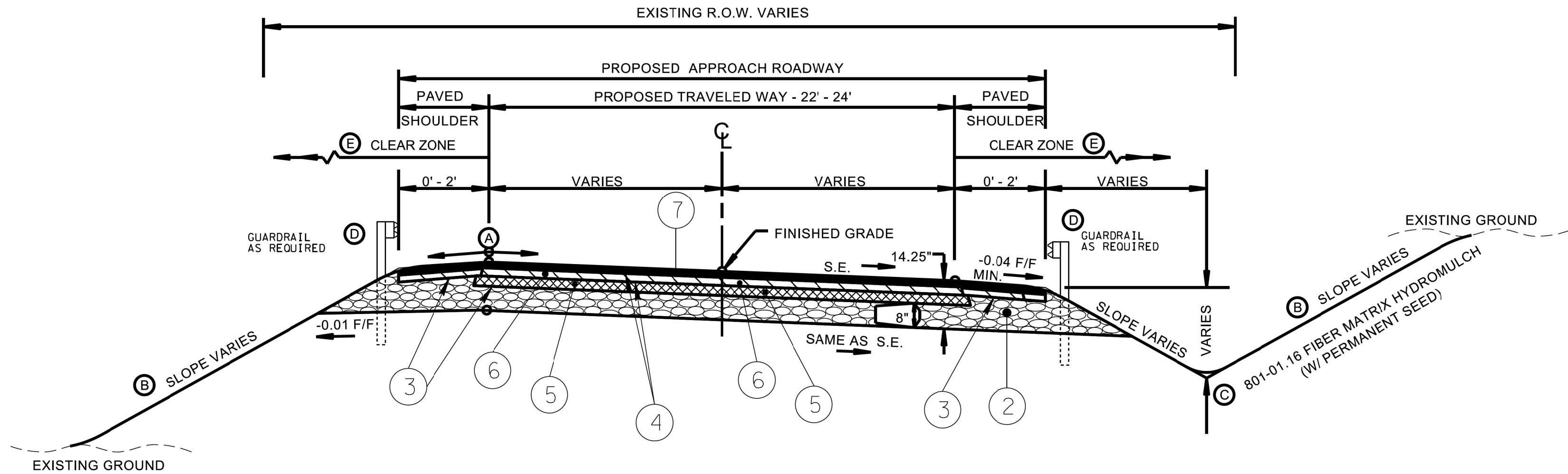
20-DEC-2024 09:46  
\\tdot02nas002.tdot.state.tn.us\02Shared\Design County Folders\Cumberland\SR298\LM8.5\SmallStructure\01-002B\_TYPICALS.SHT

SHOULDER TRANSITION DETAIL

| WIDTH | LT. STA. | RT. STA. |
|-------|----------|----------|
| 0'    | 12+74.00 | 12+74.00 |
| 2'    | 13+19.00 | 13+22.00 |
| 2'    | 14+73.00 | 14+73.00 |
| 0'    | 15+18.00 | 15+18.00 |

LANE TRANSITION DETAIL

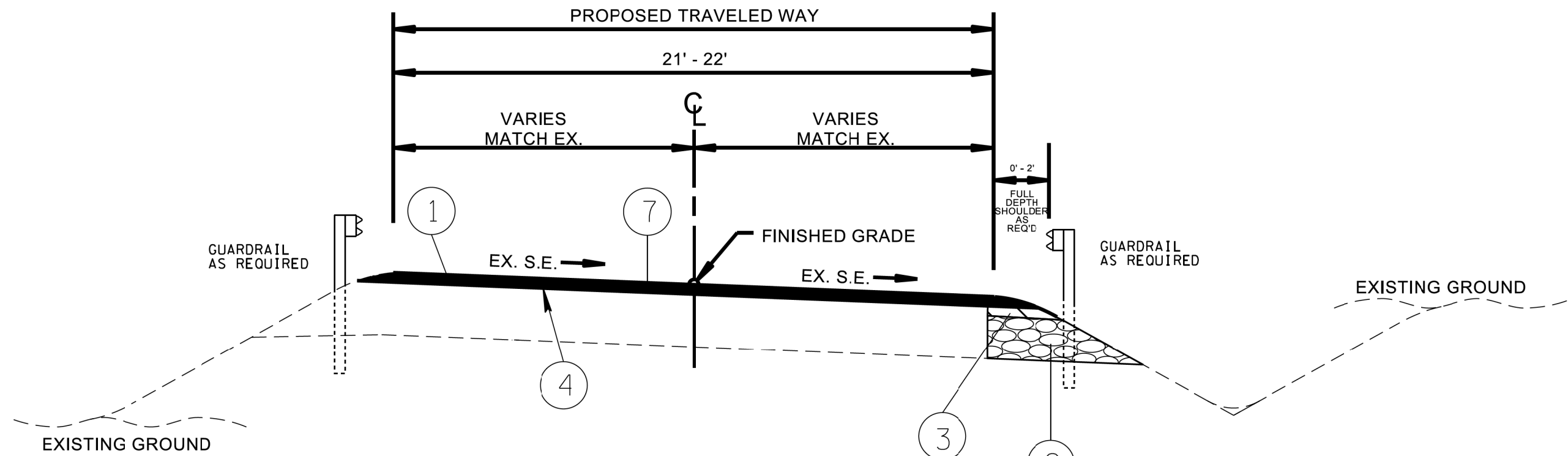
| WIDTH | LT. STA. | RT. STA. |
|-------|----------|----------|
| 11'   | 12+74.00 | 12+74.00 |
| 12'   | 13+19.00 | 13+22.00 |
| 12'   | 14+73.00 | 14+73.00 |
| 11'   | 15+70.00 | 15+70.00 |



SUPERELEVATED SECTION  
(SR-298)

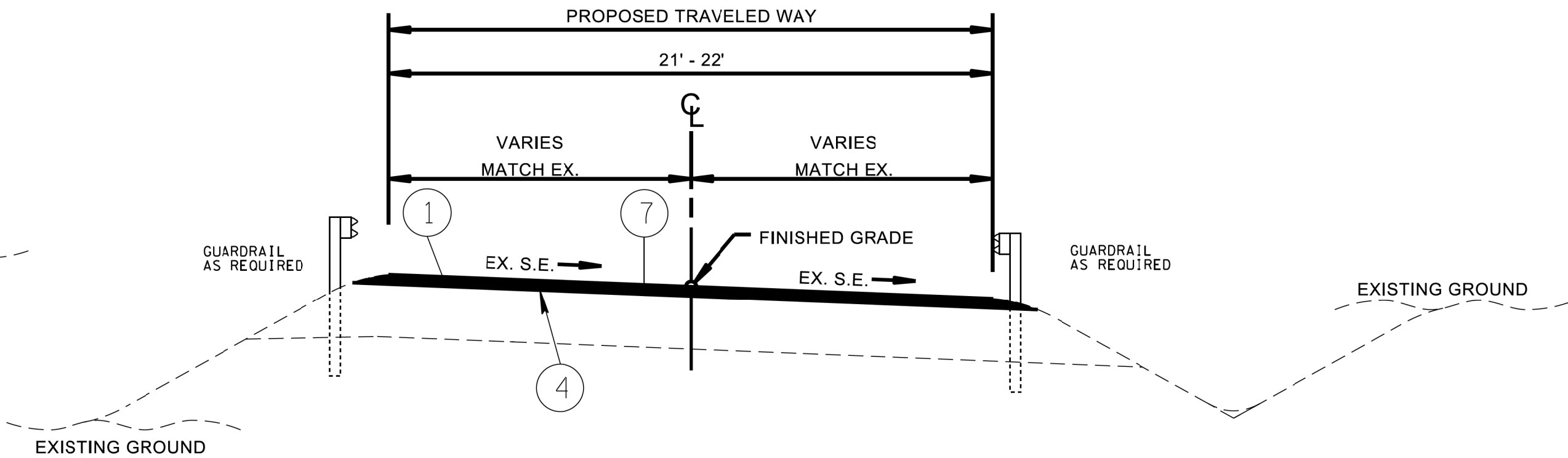
(BASED ON STD. DWG. RD11-TS-2)  
FROM STA. 12+74.00 TO STA. 17+48.11

- (A) THE SLOPE OF THE SHOULDER AND THE ROADWAY PAVEMENT SHALL NOT EXCEED AN ALGEBRAIC DIFFERENCE OF 7%.
- (B) SEE STANDARD DRAWINGS RD11-S-11 AND RD11-S-11B FOR FILL AND CUT SLOPE TABLES, ROUNDING ON TOP OF CUT SLOPES AND TOE OF FILL SLOPES, SPECIAL ROCK TREATMENT AND SUB GRADE ROUNDING IF APPLICABLE.
- (C) SEE STANDARD DRAWING RD11-S-11A FOR ROUNDING OF ROADSIDE DITCH SLOPES.
- (D) SEE STANDARD DRAWING S-PL-6 FOR TYPICAL GUARDRAIL PLACEMENT.
- (E) SEE STANDARD DRAWING S-CZ-1 FOR CLEAR ZONE CRITERIA. SEE THE "ROADSIDE DESIGN GUIDE", AASHTO, 2011, FOR FURTHER INFORMATION REGARDING CLEAR ZONES.
- (F) SEE SHEET R2 FOR RETAINING WALL TYPICAL SECTION.



COLD PLANING & RESURFACING  
(SR-298)

FROM STA. 12+00.00 TO STA. 12+74.00



COLD PLANING & RESURFACING  
(SR-298)

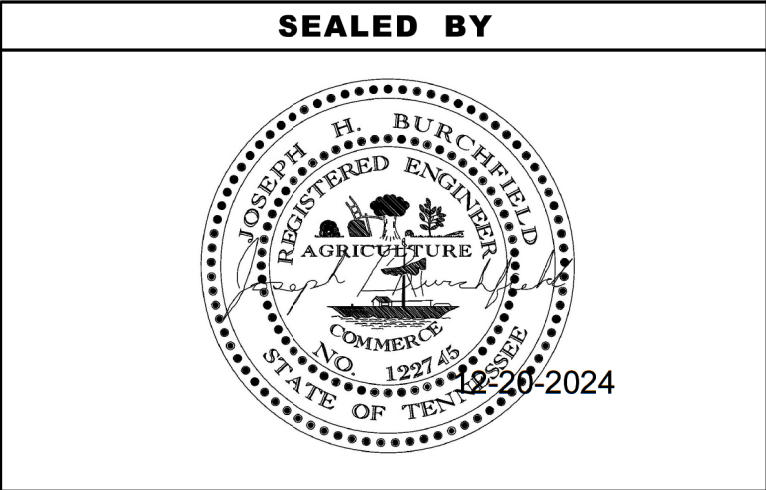
FROM STA. 17+48.11 TO STA. 18+00.00

## PROPOSED PAVEMENT SCHEDULE

|   |   |   |
|---|---|---|
| (1) COLD PLANE BITUMINOUS PAVEMENT 415-01.01<br>MILL 1.25" OF EXISTING PAVEMENT AS DIRECTED BY THE TDOT ENGINEER<br>131.25 LBS/SY | (2) MINERAL AGGREGATE BASE GRADE "D" 303-01<br>8" THICKNESS<br>2.03 TONS/C.Y.                 | (3) PRIME COAT<br>RATE= 0.30 - 0.35 GAL/S.Y.BITUMINOUS MATERIAL 402-01<br>RATE = 8 - 12 LB./SY AGGREGATE FOR COVER MATERIAL (PC) 402-02 |
| (4) TACK COAT 403-01<br>SEE 403.05 FOR DETERMINING APPLICATION RATE IN THE FIELD.   | (5) BITUMINOUS BASE MIX 307-01.01<br>AC MIX(PG 64-22) GRADING "A" 3.00" THICK<br>345 LBS/S.Y. | (6) BITUMINOUS BASE MIX 307-01.08<br>AC MIX(PG 64-22) GRADING "B-M2" 2.00" THICK<br>226 LBS/S.Y.  |

|  |
|--|
| (7) ASPHALT CONCRETE SURFACE (D-MIX) 411-01.10<br>GRADING "D" SURFACE (PG 64-22) 1.25" THICK<br>132.5 LBS/SY |
|--|

| TYPE | YEAR | PROJECT NO.   | SHEET NO. |
|------|------|---------------|-----------|
| ROW  | 2023 | 18S298-M1-002 | 2B        |
| PIH  | 2025 | 18S298-M3-002 | 2B        |
| PS&E | 2025 | 18S298-M3-002 | 2B        |



STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

TYPICAL  
SECTIONS AND  
PAVEMENT  
SCHEDULE



20-DEC-2024 09:46  
\\tdot02nas002.tdot.state.tn.us\02Shared\Design County Folders\Cumberland\SR298\LM8.5\small\structure\01-002C\_GENERAL NOTES.sht

GENERAL NOTES

GRADING

- (1) ANY AREA THAT IS DISTURBED OUTSIDE LIMITS OF CONSTRUCTION DURING THE LIFE OF 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 (FEMA) WITHOUT APPROVAL BY FEMA. 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) ALL EXISTING ROADS WITHIN THE RIGHT-OF-WAY AND NOT IN THE GRADED AREA THAT ARE TO BE ABANDONED SHALL BE SCARIFIED, OBLITERATED, TOPSOILED AND SEEDED. SCARIFYING AND OBLITERATING THE PAVEMENT WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COST WILL BE INCLUDED IN THE COST OF OTHER ITEMS. TOPSOIL, IN ACCORDANCE WITH SECTION 203 OF THE STANDARD SPECIFICATIONS, WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 203-04 AND/OR 203-07. SEEDING, IN ACCORDANCE WITH SECTION 801 OF THE STANDARD SPECIFICATIONS, WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 801-01.
- (2) 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.
- (3) ITEM NO. 801-01.38 SHALL BE USED ON SLOPES 3:1 OR STEEPER AND OTHER AREAS AS INDICATED IN THE PLANS THAT ARE INACCESSIBLE FOR MOWING.

GUARDRAIL

- (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.
- (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) EXCAVATION FOR 607-07.03 WILL NOT BE MEASURED AND PAID FOR DIRECTLY BUT WILL BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF PIPE (CHOOSE THE APPLICABLE ITEM(S) FROM THE FOLLOWING: PIPE CULVERTS, STORM SEWERS, CONDUITS, ALL OTHER CULVERTS AND MINOR STRUCTURES).
- (4) THE CUTTING OF INLET AND OUTLET DITCHES WHERE SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER WILL BE MEASURED AND PAID FOR AS ITEM NO. 203-01 ROAD AND DRAINAGE EXCAVATION (UNCLASSIFIED).
- (5) 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 WILL NOT RESULT IN AN INCREASE OR DECREASE IN THE AMOUNT OF PAYMENT THAT WILL BE MADE DUE TO SUCH CHANGE.
- (6) 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.

MISCELLANEOUS

- (1) ALL DETOUR, ACCESS, SERVICE AND FRONTAGE ROADS SHALL BE CONSTRUCTED WITH A MINIMUM OF ONE (1) COURSE OF BASE MATERIAL BEFORE TRAFFIC IS INTERRUPTED ON EXISTING ROADS.

- (2) THE CONTRACTOR SHALL BE REQUIRED TO REMOVE AND RESET MAILBOXES AND POSTS WHERE AND AS DIRECTED BY THE ENGINEER. COST TO BE INCLUDED IN PRICE BID FOR OTHER CONSTRUCTION ITEMS.
- (3) 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.

ROAD CLOSURE

- (1) NO LESS THAN SEVEN (7) DAYS PRIOR TO THE CLOSURE OF THE ROAD, THE CONTRACTOR SHALL NOTIFY THE FOLLOWING INDIVIDUALS OR AGENCIES COMPLETELY DESCRIBING THE AFFECTED ROADS AND THE APPROXIMATE DURATION OF THE CONSTRUCTION: THESE PARTIES INCLUDE, BUT ARE NOT LIMITED TO: (1) LOCAL LAW ENFORCEMENT OFFICE, (2) LOCAL FIRE DEPARTMENT, (3) AMBULANCE SERVICE, (4) LOCAL SCHOOL SUPERINTENDENT, (5) UNITED STATES POSTAL SERVICE, AND (6) LOCAL ROAD SUPERINTENDENT.

PAVEMENT MARKINGS

FINAL PAVEMENT MARKING

- (5) THE CONTRACTOR WILL BE REQUIRED TO PERFORM THE FOLLOWING WORK:

a. SHOULDERS SHALL BE BROOMED AND DE-GRASSED AND MATERIAL SHALL BE PICKED UP AND REMOVED. THIS WILL BE PAID FOR UNDER ITEM NO. 208-01.05.

b. REMOVE ALL GARBAGE AND CONSTRUCTION DEBRIS FROM PROJECT. THE COST FOR THIS WILL BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS OF CONSTRUCTION.
- (8) PERMANENT PAVEMENT LINE MARKINGS SHALL BE 6" ENHANCED FLATLINE THERMOPLASTIC 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. 716-12.02, ENHANCED FLATLINE THERMO PVMT MRKNG (6IN 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.

SNOWPLOWABLE REFLECTIVE PAVEMENT MARKERS

- (19) REMOVE EXISTING SNOWPLOWABLE MARKERS PRIOR TO PAVING AND/OR COLD PLANING. REMOVE ALL ADHESIVES PRIOR TO PAVING. PATCH ANY HOLES OR DIVOTS RESULTING FROM THE REMOVAL OF A MARKER IN A MANNER WHICH ENSURES A UNIFORM PAVED SURFACE. PATCH WORK SHALL BE INCLUDED WITH COST OF OTHER ITEMS OF CONSTRUCTION.

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.
- (3) THE CONTRACTOR SHALL ATTACH A DEVICE TO THE SCREED OF THE PAVER SUCH THAT MATERIAL IS CONFINED AT THE END GATE AND EXTRUDES THE ASPHALT MATERIAL IN SUCH A WAY THAT RESULTS IN A CONSOLIDATED WEDGE-SHAPE PAVEMENT EDGE OF APPROXIMATELY 25 TO 30 DEGREES AS IT LEAVES THE PAVER (MEASURED FROM A LINE PARALLEL TO THE PAVEMENT SURFACE.) THE DEVICE SHALL MEET THE REQUIREMENTS THAT ARE CURRENTLY SET FORTH IN SPECIAL PROVISION 407SE.

RESURFACING

- (7) 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) FOR ALL PERMANENT PANEL SIGNS WITH A SILVER-WHITE, YELLOW, RED, GREEN, BROWN, OR BLUE BACKGROUND, PROVIDE REFLECTIVE SHEETING THAT MEETS OR EXCEEDS AASHTO M268, TYPE D.
- (4) THE TOP OF THE SIGN FOOTINGS SHALL BE PLACED LEVEL WITH THE GROUND LINE.
- (5) 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.
- (7) ALL SIGNS MARKED "TO BE REMOVED" ARE TO BE REMOVED BY THE CONTRACTOR AND PAID FOR UNDER ITEM NO. 713-15 AND BECOME THE PROPERTY OF THE CONTRACTOR.
- (8) THE EXISTING FOOTINGS ARE TO BE REMOVED 6 INCHES BELOW GROUND LINE.
- (9) THE LETTERS, DIGITS, ARROWS, BORDERS, AND ALPHABET ACCESSORIES ON ALL FLAT SHEET SIGNS SHALL BE APPLIED BY SILK SCREENING PROCESS, EXCEPT THAT CUT-OUT DIRECT APPLIED COPY SHALL BE USED ON ALL FLAT SHEET SIGNS WITH A GREEN BACKGROUND, OR BROWN BACKGROUND.
- (10) 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.
- (11) THE LETTERS, DIGITS, ARROWS, BORDERS, AND ALPHABET ACCESSORIES ON ALL FLAT SHEET SIGNS SHALL BE APPLIED BY SILK SCREENING PROCESS.
- (12) ALL SIGNS WHICH INTERFERE WITH CONSTRUCTION WILL BE RELOCATED OUTSIDE LIMITS OF CONSTRUCTION BY THE CONTRACTOR. UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR WILL RESTORE THE SIGNS TO ORIGINAL LOCATION. THE CONTRACTOR SHALL CHECK WITH THE REGIONAL TRAFFIC ENGINEER PRIOR TO MOVING ANY PERMANENT SIGNS.

TRAFFIC CONTROL DIRECTIONAL SIGNING

- (2) THE SIZE OF THESE NEW TEMPORARY SIGNS WILL BE DETERMINED BY THE MESSAGE. THE MESSAGE SHALL BE THE SAME AS THE EXISTING SIGN THAT THESE NEW TEMPORARY SIGNS WILL BE REPLACING. THE LETTER SIZE SHALL BE A MINIMUM OF 8 INCH, "D" UPPER CASE LETTER. THE DIRECTIONAL ARROW WILL BE A "B" ARROW AT A 45 DEGREE ANGLE (SAME ANGLE AS THE EXISTING ARROW). THE MATERIAL SHALL BE 0.100 INCH SHEET ALUMINUM; THE COLOR SHALL BE A REFLECTIVE GREEN BACKGROUND WITH REFLECTIVE WHITE COPY.
- (3) ALL WORK AND MATERIAL TO MAKE THESE NEW TEMPORARY DIRECTIONAL SIGNS ALONG WITH ADEQUATE SUPPORTS AND TO MOVE THEM AS NEEDED DURING EACH PHASE OF CONSTRUCTION WILL BE PAID FOR UNDER ITEM NO. 712-06, AS DIRECTED BY THE ENGINEER.
- (4) SOME OF THESE DIRECTIONAL SIGNS WILL NEED AN INTERSTATE, U.S., OR A STATE HIGHWAY SHIELD, A CARDINAL DIRECTION, AND A DIRECTION ARROW TO ACCOMPANY THE DIRECTIONAL SIGN. THESE SIGNS SHALL BE MOUNTED BELOW THE DIRECTIONAL SIGN.
- (5) ALL EXISTING "EMERGENCY REFERENCE MARKERS" AND "HOSPITAL SIGNS" SHALL BE MAINTAINED WITHIN FULL VIEW OF THE MOTORING PUBLIC THROUGHOUT ALL PHASES OF CONSTRUCTION. ALL WORK IN MOVING AND TEMPORARY SUPPORTS SHALL BE PAID FOR UNDER ITEM NO. 712-01.

|      |      |               |           |
|------|------|---------------|-----------|
| TYPE | YEAR | PROJECT NO.   | SHEET NO. |
| PIH  | 2025 | 18S298-M3-002 | 2C        |
| PS&E | 2025 | 18S298-M3-002 | 2C        |
|      |      |               |           |
|      |      |               |           |

SEALED BY



STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES



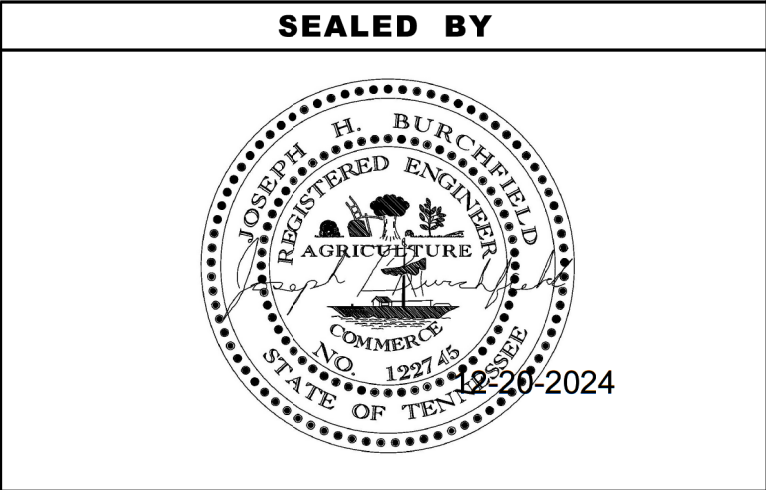
20-DEC-2024 09:46  
\\tdot02nas002.tdot.state.tn.us\02Shared\Design County Folders\Cumberland\SR298\LM8.5\small\structure\01-002C1\_GENERAL NOTES.SHT

GENERAL NOTES CONT.

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, 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 AN 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.
- (8) ALL DETOURS SHALL BE PAVED, STRIPED, SIGNED, AND FLEXIBLE DRUMS ARE TO BE IN PLACE BEFORE IT IS OPENED TO TRAFFIC.
- (9) THE CONTRACTOR SHALL BE RESPONSIBLE FOR STAKING CONSTRUCTION SIGNS. THE COST OF THIS WORK SHALL BE INCLUDED IN ITEM NO. 712-06, SIGNS (CONSTRUCTION), S.F.

| TYPE | YEAR | PROJECT NO.   | SHEET NO. |
|------|------|---------------|-----------|
| PIH  | 2025 | 18S298-M3-002 | 2C1       |
| PS&E | 2025 | 18S298-M3-002 | 2C1       |
|      |      |               |           |
|      |      |               |           |



STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

GENERAL  
NOTES



# 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 1 BUILDING IN KNOXVILLE, 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 NO. 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.

## RETAINING WALLS

- (1) THE (RIGHT-OF-WAY/EASEMENT) BETWEEN STATION 13+00.00 TO STATION 16+75.00 SHALL REMAIN CLEAR FOR THE CONSTRUCTION OF THE RETAINING WALL. NO UTILITY LINES MAY BE PLACED THERE WITHOUT APPROVAL FROM STRUCTURES DIVISION.
- (2) THE OPTIONS FOR RETAINING WALL TYPES SHALL BE LIMITED TO THE APPROVED ALTERNATIVES AS SPECIFIED ON THE RETAINING WALL SHEETS.
- (4) ALL COST OF BUILDING, INSTALLING AND BACKFILLING THE RETAINING WALL, INCLUDING GRANULAR BACKFILL, GEOTEXTILE FABRIC (TYPE IV), LEVELING PAD, AMD MOMENT SLAB, SHALL BE INCLUDED IN THE COST OF THE RETAINING WALL. COSTS FOR EXCAVATION OF THE WALL SHALL BE INCLUDED IN ITEM NO. 203-01, ROAD AND DRAINAGE EXCAVATION PER CUBIC YARD. END AREAS FOR EXCAVATION FOR THE WALL SHALL BE INCLUDED IN END AREA TOTALS ON CROSS-SECTIONS.

| TYPE | YEAR | PROJECT NO.   | SHEET NO. |
|------|------|---------------|-----------|
| PIH  | 2025 | 18S298-M3-002 | 2D        |
| PS&E | 2025 | 18S298-M3-002 | 2D        |
|      |      |               |           |
|      |      |               |           |

SEALED BY



STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

SPECIAL  
NOTES



# ENVIRONMENTAL NOTES

## ENVIRONMENTAL GENERAL NOTES

### NATURAL RESOURCES

- (1) SOIL MATERIALS MUST BE PREVENTED FROM ENTERING WATERS OF THE STATE/U.S. EPSC MEASURES TO PROTECT NATURAL RESOURCES AND WATER QUALITY SHALL 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 NATURAL RESOURCES IN CLEARED AREAS TO PREVENT SEDIMENT MIGRATION INTO STREAMS, WETLANDS OR OTHER NATURAL FEATURES IN ACCORDANCE WITH TDOT STANDARDS. EPSC MEASURES SHALL BE INSTALLED ON THE CONTOUR, ENTRENCHED AND STAKED, AND EXTEND THE WIDTH OF THE AREA TO BE CLEARED.
- (2) NEW CHANNEL CONSTRUCTION SHALL BE COMPLETED IN THE DRY AND STABILIZED FOR AT LEAST 72 HOURS PRIOR TO DIVERTING WATER FROM THE EXISTING AND/OR TEMPORARY CHANNEL.
- (3) INSTREAM EPSC DEVICES REQUIRE THE TDOT ENVIRONMENTAL DIVISION, PERMITS SECTION REVIEW AND MUST BE PROCESSED BY THE PERMITS SECTION TO OBTAIN WATER QUALITY PERMITS.
- (4) THE OPERATION OF EQUIPMENT IN WATERS OF THE STATE/U.S., INCLUDING WETLANDS AND EPHEMERAL, INTERMITTENT, AND PERENNIAL STREAMS, IS NOT ALLOWED.
- (5) THE WIDTH OF THE FILL ASSOCIATED WITH TEMPORARY CROSSINGS SHALL BE LIMITED TO THE MINIMUM NECESSARY FOR THE ACTUAL CROSSING, NOT TO EXCEED THE WIDTH SPECIFIED IN THE STANDARD DRAWING.
- (6) STREAM BEDS SHALL NOT BE USED AS TRANSPORTATION ROUTES FOR CONSTRUCTION EQUIPMENT. TEMPORARY CULVERT CROSSINGS SHALL BE LIMITED TO ONE POINT PER STREAM AND EPSC MEASURES SHALL BE USED WHERE THE STREAM BANKS ARE DISTURBED. WHERE THE STREAMBED IS NOT COMPOSED OF BEDROCK, A PAD OF CLEAN ROCK SHALL 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 SHALL BE COMPLETELY REMOVED IN THEIR ENTIRETY AFTER THE WORK IS COMPLETED AND THE AFFECTED AREAS RETURNED TO PREEXISTING ELEVATIONS. ALL TEMPORARY CROSSINGS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. DWG. EC-STR-25 UNLESS SPECIFICALLY ADDRESSED IN THE EPSC PLANS. ALTERNATIVELY, PLACING A TEMPORARY BRIDGE (E.G. 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.
- (7) HEAVY EQUIPMENT WORKING IN WETLANDS WITH PERMITTED TEMPORARY IMPACTS SHALL BE PLACED ON MATS, OR OTHER MEASURES MUST BE TAKEN TO MINIMIZE SOIL DISTURBANCE AND COMPACTION UNLESS SPECIFICALLY ADDRESSED IN THE CONSTRUCTION PLANS. ANY MATS AND OTHER MEASURES USED FOR HEAVY EQUIPMENT SHALL BE REMOVED IN THEIR ENTIRETY AFTER THE WORK IS COMPLETED. ALL AFFECTED AREAS SHOULD BE RETURNED TO PRE-EXISTING CONDITIONS.
- (8) WETLANDS SHALL NOT BE USED AS EQUIPMENT STORAGE, STAGING, OR TRANSPORTATION AREAS, UNLESS SPECIFICALLY PROVIDED FOR IN THE CONSTRUCTION PLANS AND PERMITS.
- (9) THE CONTRACTOR SHALL TAKE APPROPRIATE STEPS PRIOR TO ANY CONSTRUCTION AND MAINTENANCE ACTIVITIES TO ENSURE THAT ENVIRONMENTAL FEATURES (E.G., STREAMS, WETLANDS, SPRINGS, ETC.) ARE NOT IMPACTED BEYOND PERMITTED LOCATIONS. IF THE CONTRACTOR OR TDOT INSPECTOR IS UNSURE OF THE IDENTITY OF AN ENVIRONMENTAL FEATURE, THE INSPECTOR SHALL CONTACT THE TDOT REGION ENVIRONMENTAL TECH GROUP IMMEDIATELY.

### SPECIES

- (10) 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.
- (11) SHOULD CLIFF SWALLOW OR BARN SWALLOW NESTS, EGGS, OR BIRDS (YOUNG AND ADULTS) BE PRESENT, THE CONTRACTOR SHALL CONTACT THE REGIONAL ECOLOGY OFFICE TO DETERMINE IF SEASONAL RESTRICTIONS WILL BE NECESSARY. GENERALLY, BIRDS, NESTS, AND EGGS MAY NOT BE DISTURBED BETWEEN APRIL 15 AND JULY 31. FROM AUGUST 1 TO APRIL 14, NESTS CAN BE REMOVED OR DESTROYED SO LONG AS BIRDS OR EGGS ARE NOT PRESENT, AND MEASURES IMPLEMENTED TO PREVENT FUTURE NEST BUILDING AT THE SITE (I.E., CLOSING OFF AREA USING NETTING).
- (12) IF THE REMOVAL OF ANY TREES WITH A DIAMETER AT BREAST HEIGHT (DBH) GREATER THAN 3 INCHES IS DEEMED NECESSARY THE TDOT SUPERVISOR SHALL CONTACT THE TDOT ENVIRONMENTAL DIVISION, ECOLOGY SECTION IMMEDIATELY.

### PERMITS, PLANS & RECORDS

- (13) THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR AND OBTAIN ANY NECESSARY ENVIRONMENTAL PERMITS OR APPROVALS, INCLUDING BUT NOT LIMITED TO ARCHAEOLOGY, ECOLOGY, HISTORICAL, HAZARDOUS MATERIALS, AIR AND NOISE, TDEC ARAP/401, USACE SECTION 404, TVA SECTION 26A, AND TDEC NPDES PERMITS, FROM FEDERAL, STATE AND/OR LOCAL AGENCIES REGARDING ANY MATERIAL AND STAGING AREAS AND THE OPERATION OF ANY PROJECT-DEDICATED ASPHALT AND/OR CONCRETE PLANTS TO BE USED. ANY SUCH PERMITS SHALL BE SUPPLIED TO THE TDOT PROJECT RESPONSIBLE PARTY PRIOR TO THE USE OF THE PERMITTED AREA(S).
- (14) ANY DISAGREEMENT BETWEEN THE CONSTRUCTION PLANS, THE PROJECT AS CONSTRUCTED, AND THE PERMIT(S) ISSUED FOR THE PROJECT, SHALL BE BROUGHT TO THE ATTENTION OF THE TDOT PROJECT RESPONSIBLE PARTY. THE ENVIRONMENTAL DIVISION, 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.
- (15) IF A CHANGE IN PROJECT SCOPE OCCURS DURING CONSTRUCTION, INCLUDING VALUE ENGINEERING, THE TDOT PERMIT SECTION SHALL BE CONTACTED TO DETERMINE WHETHER PERMIT REVISIONS ARE NEEDED. THE ROADWAY DESIGN DIVISION SHALL BE CONTACTED TO DETERMINE IF ANY PLAN REVISIONS ARE NEEDED.
- (16) THE CONTRACTOR SHALL REVIEW ALL EXISTING PERMITS TO ENSURE THAT WORK AT PERMITTED SITES DOES NOT EXCEED EXPIRATION DATE. IF WORK IS GOING TO BE CONTINUED AFTER EXPIRATION DATES, THE CONTRACTOR SHALL CONTACT THE TDOT PROJECT RESPONSIBLE PARTY TO COMMENCE PERMIT RENEWAL PROCESS.
- (17) ALL WATER QUALITY PERMITS 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 BRIEF 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.

### SUPPORT ACTIVITIES

- (18) MATERIALS AND STAGING AREAS SHALL NOT AFFECT ANY WATERS OF THE STATE/U.S. UNLESS THESE AREAS ARE SPECIFICALLY COVERED BY ENVIRONMENTAL PERMITS, OBTAINED SOLELY BY THE CONTRACTOR. THE CONTRACTOR SHALL REVIEW ALL EXISTING PERMITS TO ENSURE THAT WORK AT PERMITTED SITES DOES NOT EXCEED EXPIRATION DATES. IF WORK IS GOING TO BE CONTINUED AFTER EXPIRATION DATES, THE CONTRACTOR SHALL CONTACT THE TDOT PROJECT RESPONSIBLE PARTY TO COMMENCE PERMIT RENEWAL PROCESS.

### STREAMS, WETLANDS & BUFFER ZONES

#### ENVIRONMENTAL

- (20) 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.

### ENVIRONMENTAL SPECIAL NOTES

#### ENVIRONMENTAL

- (1) STAFF FROM THE TDOT ENVIRONMENTAL DIVISION COMPLIANCE AND FIELD SERVICES OFFICE SHALL BE INVITED TO ALL PRE-CONSTRUCTION MEETINGS.

#### ECOLOGY

- (2) STAFF FROM THE TDOT ENVIRONMENTAL DIVISION OR A DESIGNEE SHALL ADVISE THE CONTRACTOR DURING THE PRE-CONSTRUCTION MEETING WHEN ENVIRONMENTAL DIVISION PERSONNEL OR A DESIGNATED CONSULTANT WILL NEED TO BE ONSITE FOR WORK BEING DONE WHICH COULD AFFECT WATERS OF THE STATE/U.S. OR SPECIES.
- (3) STAFF FROM THE TDOT ENVIRONMENTAL DIVISION OR A DESIGNEE SHALL ATTEND THE PRE-CONSTRUCTION MEETING FOR ALL PROJECTS WHICH HAVE THREATENED OR ENDANGERED SPECIES OR CRITICAL HABITAT PROXIMAL TO SCHEDULED WORK. THIS WILL PROVIDE THE OPPORTUNITY TO ENSURE THAT PERSONNEL INCLUDING THE CONTRACTOR'S PERSONNEL AND SUBCONTRACTORS ARE MADE AWARE OF THE NECESSARY PRECAUTIONS THAT MUST BE FOLLOWED.
- (4) ALL PROJECTS WITH LEGALLY PROTECTED SPECIES OR CRITICAL HABITAT IDENTIFIED SHALL HAVE MEASURES IN PLACE TO CONTAIN CONCRETE DUST, CEMENT DUST AND ALL OTHER MATERIALS. THESE MATERIALS ARE NOT ALLOWED TO ENTER WATERS OF THE STATE/U.S.

### SCOPE OF WORK

- (6) REPLACEMENT OF THE EXISTING CROSS-DRAIN, GRADING AND SLOPE REPAIR VIA RIP-RAP PADS, SLOPE ARMORING, RETAINING-WALL, SOIL NAILS AND INSTALLMENT OF ADDITIONAL GUARDRAIL.

| TYPE   | YEAR | PROJECT NO.   | SHEET NO. |
|--------|------|---------------|-----------|
| R.O.W. | 2023 | 18S298-M1-002 | 2E        |
| PIH    | 2025 | 18S298-M3-002 | 2E        |
| PS&E   | 2025 | 18S298-M3-002 | 2E        |
|        |      |               |           |

SEALED BY



12-20-2024

STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

ENVIRONMENTAL  
NOTES



20-DEC-2024 09:47 \\tdot02nas002.tdot.state.tn.us\02Shared\Design County Folders\Cumberland\SR298\LM8.5\small\structure\01-002F\_TABULATED QUANTITIES.sht

| ESTIMATED GRADING QUANTITIES                |      |                           |      |                       |   |             |  |
|---|------|---------------------------|------|-----------------------|---|-------------|--|
| DESCRIPTION                                 |      | UNADJUSTED VOLUMES (CY)   |      | ADJUSTED VOLUMES (CY) | BALANCE SUMMARY   |             |  |
|   |      | EXC.                      | EMB. | EXC.                  |   |             |  |
| MAINLINE                                    |      | 1932                      | 496  | 1643                  | SHRINK = 15 % SWELL = 20 %<br><br>EXC. EMB.<br><br>1650 VS. -496<br><br>AVAILABLE = 1154<br><br>WASTE MATERIAL = 1328 |             |  |
| SIDE ROADS                                  |      | 0                         | 0    |                       |   |             |  |
| PVT. DRIVES, BUSINESS AND FIELD ENTRANCES   |      | 0                         | 0    |                       |   |             |  |
| INDEPENDENT DITCHES                         |      | 0                         | 0    |                       |   |             |  |
| TEMPORARY CONSTRUCTION EXITS                |      | 9                         | 0    | 8                     |   |             |  |
| OTHER (BRIDGE EXCAVATION, PAVEMENT, ETC...) |      | 0                         | 0    |                       |   |             |  |
| TOPSOIL (EMB.)                              |      | 0                         |      |                       |   |             |  |
| TOPSOIL (EXC.)                              |      | 340                       |      |                       |   |             |  |
| TOPSOIL TOTALS (SEE TOPSOIL TABLE)          |      |                           |      |                       |   |             |  |
| ROCK (C.Y.)                                 |      | TOTALS (C.Y.)             |      |                       |   |             |  |
| EXC.  | EMB. | EXC. (UNCL.) EMB. (UNCL.) |      | EXC (COMMON)          | EXC. (AVAIL.)   | EXC. (ADJ.) |  |
| 0   | 0    | 2281                      | 496  | 2281                  | 1941  | 1650        |  |

| PROPOSED GUARDRAIL |          |      |    |          |          |                      |                    |                  |                      |                      |
|--------------------|----------|------|----|----------|----------|----------------------|--------------------|------------------|----------------------|----------------------|
| SHEET NO.          | LOCATION | SIDE |    | STATIONS |          | GUARDRAIL            | TERMINAL ANCHORS   |                  | TRANSITION           | EARTH PAD            |
|                    |          |      |    |          |          | W BEAM GR (TYPE 2)   | TYPE 38            | TYPE 12          | GUARDRAIL TRANSITION | EARTHPAD FOR TYPE 38 |
|                    |          |      |    |          |          | MASH TL3 (LONG POST) | MASH TL3 (46.875') | MASH TL-2        | 27IN TO 31 IN        | GR END TREATMENT     |
|                    |          | LT   | RT | FROM     | TO       | 705-06.02 (L.F.)     | 705-06.20 (EACH)   | 705-04.02 (EACH) | 705-02.10 (EACH)     | 705-04.09 (EACH)     |
| 4B                 | SR-298   |      | X  | 12+39.38 | 14+69.38 | 187.50               | 1                  | 1                |                      | 1                    |
| 4B                 | SR-298   | X    |    | 12+70.00 | 17+48.48 | 487.50               |                    | 1                | 1                    |                      |
| TOTALS             |          |      |    |          |          | 675.00               | 1                  | 2                | 1                    | 1                    |

| TYPE | YEAR | PROJECT NO.   | SHEET NO. |
|------|------|---------------|-----------|
| ROW  | 2023 | 18S298-M1-002 | 2F        |
| PIH  | 2025 | 18S298-M3-002 | 2F        |
| PS&E | 2025 | 18S298-M3-002 | 2F        |
|      |      |               |           |

| CROSS DRAIN TABULATION |           |   |                                      |             |        |             |                          |
|------------------------|-----------|---|--------------------------------------|-------------|--------|-------------|--------------------------|
| STATION                | SKEW      | RCP CLASS III OR CMP 14 GA<br>OR PVC OR SRTRP OR HDPE OR PP<br>FILL HEIGHT ≤ 16 FT.<br>(L.F.) | END TREATMENT                        |             |        |             | REMARKS                  |
|                        |           |   | INLET                                |             | OUTLET |             |                          |
|                        |           |   | TYPE                                 | DRAWING NO. | TYPE   | DRAWING NO. |                          |
|                        |           | 36"   |                                      |             |        |             |                          |
| 14+20.00               | 89°02'06" | 62 FT   | PEW                                  | D-PEW-1     | N/A    | N/A         | OUTLET IN RETAINING WALL |
| TOTALS                 |           | 62 FT   | Pipe Tabulation For Rural Collectors |             |        |             |                          |


| PAVEMENT QUANTITIES   |                               |         |                      |           |            |        |           |                    |
|---|-------------------------------|---------|----------------------|-----------|------------|--------|-----------|--------------------|
| LOCATION<br>(ROADWAY)   | TYPE - GRADE - PAY ITEM (TON) |         |                      |           |            |        |           |                    |
|   | COLD PLANED MATERIAL          | MINERAL | BITUMINOUS PLANT MIX |           | PRIME COAT |        | TACK COAT | ASPHALTIC CONCRETE |
|   |                               | AGG.    | BASE (HOT MIX)       |           |            |        |           | SURFACE (HOT MIX)  |
|   |                               | D       | A                    | B-M2      |            |        |           | D                  |
|   | 415-01.01                     | 303-01  | 307-01.01            | 307-01.08 | 402-01     | 402-02 | 403-01    | 411-01.10          |
| SR-298 STA. 12+00.00 TO 12+74.00 and STA 17+48.00 TO STA. 18+00.00 (RESURFACING ONLY) | 20                            |         |                      |           |            |        | 0.15      | 22.3               |
| SR-298 STA. 12+74.00 TO STA. 17+48.00   |                               | 769.0   | 254.0                | 158.0     | 2.1        | 7.0    | 0.43      | 83.8               |
| TOTALS  | 20.00                         | 769.0   | 254.0                | 158.0     | 2.1        | 7.0    | 0.6       | 107.0              |

| GUARDRAIL REMOVAL |          |      |    |          |          |
|-------------------|----------|------|----|----------|----------|
| SHEET #           | LOCATION | SIDE |    | STATIONS |          |
|                   |          | LT   | RT | FROM     | TO       |
| 4                 | S.R.-298 | X    |    | 12+70.00 | 17+44.54 |
| 4                 | S.R.-298 |      | X  | 12+44.47 | 14+77.99 |
| TOTAL             |          |      |    |          | 708.00   |

| TOPSOIL                                   |                         |                         |                               |                       |                             |                               |                     |
|---|-------------------------|-------------------------|-------------------------------|-----------------------|-----------------------------|-------------------------------|---------------------|
| IF EXISTING TOPSOIL IS SUITABLE FOR REUSE |                         |                         |                               |                       |                             |                               |                     |
| PROPOSED SLOPE AREA S.F.                  | EXISTING TOPSOIL (EXC.) | EXISTING TOPSOIL (EMB.) | EXISTING TOPSOIL (TOTAL) C.Y. | REQUIRED TOPSOIL C.Y. | PLACING TOPSOIL 203-04 C.Y. | FURNISHED TOPSOIL 203-07 C.Y. | EXCESS TOPSOIL C.Y. |
| 7647                                      | 340                     | 0                       | 340                           | 142                   | 142                         | 0                             | 198                 |

| CROSS DRAIN ENDWALLS |          |              |      |      |                      |                                  |   |
|----------------------|----------|--------------|------|------|----------------------|----------------------------------|---|
| LOCATION             | STATION  | OFFSET (FT.) | SKEW | TYPE | STANDARD DRAWING NO. | SAFETY ENDWALLS                  |   |
|                      |          |              |      |      |                      | CLASS A CONCRETE (PIPE ENDWALLS) | STEEL BAR REINFORCEMENT (PIPE ENDWALLS) |
|                      |          |              |      |      |                      | 611-07.01 (CY)                   | 611-07.02 (LB)                          |
| SR-298               | 14+20.00 | 39           | 90°  | PEW  | D-PEW-1, D-PEW-2     | 2.82                             | 109                                     |
| TOTALS               |          |              |      |      |                      | 2.82                             | 109                                     |

SEALED BY



STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

TABULATED QUANTITIES



RIGHT-OF-WAY

- (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.
- (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.

UTILITY

- (1)

THE LOCATIONS OF UTILITIES SHOWN WITHIN THESE PLANS ARE APPROXIMATE ONLY. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. ABOVE GRADE AND UNDERGROUND UTILITIES SHOWN WERE TAKEN FROM VISIBLE APPURTENANCES AT THE SITE, PUBLIC RECORDS, AND/OR MAPS PREPARED BY OTHERS. THEREFORE, RELIANCE UPON THE TYPE, SIZE, AND LOCATION OF UTILITIES SHOWN SHOULD BE DONE SO WITH THIS CIRCUMSTANCE CONSIDERED. DETAILED VERIFICATION OF EXISTENCE, LOCATION, AND DEPTH SHOULD ALSO BE MADE PRIOR TO ANY DECISION RELATIVE THERETO IS MADE. AVAILABILITY AND COST OF SERVICE SHOULD BE CONFIRMED WITH THE APPROPRIATE UTILITY COMPANY. IN TENNESSEE, IT IS A REQUIREMENT, PER "THE UNDERGROUND UTILITY DAMAGE PREVENTION ACT", THAT ANYONE WHO ENGAGES IN EXCAVATION MUST NOTIFY ALL KNOWN UNDERGROUND UTILITY OWNERS, NO LESS THAN THREE (3) OR NOT MORE THAN TEN (10) WORKING DAYS PRIOR TO THE DATE OF THEIR INTENT TO EXCAVATE AND ALSO TO AVOID ANY POSSIBLE HAZARD OR CONFLICT. 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 ITS 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. NOTIFICATION BY CALLING THE TENNESSEE ONE CALL SYSTEM, INC AT 1-800-351-1111 WILL BE REQUIRED.

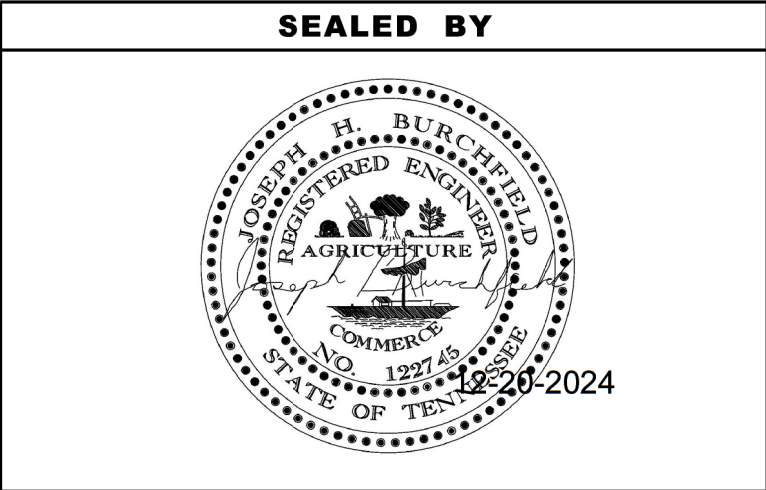
UTILITY OWNERS

ELECTRIC:  
VOLUNTEER ENERGY  
COOPERATIVE  
PO BOX 277  
DECATUR, TN 37322  
CONTACT: LARRY LARGENT  
OFFICE PHONE: 865-850-7830  
CELL PHONE: \_\_\_\_\_  
EMAIL: LLARGENT@VEC.ORG

INTERNET:  
BEN LOMAND CONNECT / VOL  
FIRST  
PO BOX 670  
MCMINNVILLE, TN 37111  
CONTACT: RICHARD BOYD  
PHONE: 931-235-7515  
EMAIL:  
[RICHARDBOYD@BENLOMAND.ORG](mailto:RICHARDBOYD@BENLOMAND.ORG)

INTERNET:  
FRONTIER COMMUNICATIONS  
2104 W EMORY ROAD  
POWELL, TN 37849  
CONTAACT: JIM HEATHERLY  
PHONE: 865-236-5083  
EMAIL:  
JAMES.HEATHERLY@FTR.COM

| TYPE   | YEAR | PROJECT NO.   | SHEET NO. |
|--------|------|---------------|-----------|
| R.O.W. | 2023 | 18S298-M1-002 | 3         |
| PIH    | 2025 | 18S298-M3-002 | 3         |
| PS&E   | 2025 | 18S298-M3-002 | 3         |
|        |      |               |           |



STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

RIGHT-OF-WAY  
NOTES,  
UTILITY NOTES  
AND  
UTILITY OWNERS




|      |      |               |           |
|------|------|---------------|-----------|
| TYPE | YEAR | PROJECT NO.   | SHEET NO. |
| ROW  | 2023 | 18S298-M1-002 | 3A        |
| PIH  | 2025 | 18S298-M3-002 | 3A        |
| PS&E | 2025 | 18S298-M3-002 | 3A        |
|      |      |               |           |

| R.O.W. ACQUISITION TABLE   |                   |                |            |                         |      |                    |       |       |                             | 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 |      | LEFT               | RIGHT | TOTAL | LEFT                        | RIGHT                    | TOTAL | LEFT                   | RIGHT | PERM DRAINAGE          | SLOPE | CONST | AIR RIGHTS | PERM RAILROAD |  |
|                            |                   |                |            | BOOK                    | PAGE |                    |       |       |                             |                          |       |                        |       |                        |       |       |            |               |  |
| 3                          | Julian D. Vertner | 51D            | 27.00      | PL4                     | 36   |                    | 0.456 | 0.456 |                             |                          |       |                        | 0.456 |                        |       |       |            |               |  |
| 4                          | Gordon F. Grant   | 51D            | 26.00      | PL4                     | 36   |                    | 0.517 | 0.517 |                             |                          |       |                        | 0.517 |                        |       |       |            |               |  |
| 4                          | Gordon F. Grant   | 51D            | 24.00      | PL4                     | 36   |                    | 0.517 | 0.517 |                             |                          |       |                        | 0.517 |                        |       |       |            |               |  |
| 5                          | Robert H. Cheek   | 51D            | 23.00      | PL4                     | 36   |                    | 0.419 | 0.419 |                             |                          |       |                        | 0.419 |                        |       |       |            |               |  |
| 6                          | Leon S. Smith     | 51D            | 22.00      | PL4                     | 36   |                    | 0.416 | 0.416 |                             |                          |       |                        | 0.416 |                        |       |       |            |               |  |
| 7                          | David A. Hodge    | 51             | 2.14       | 1450                    | 1147 | 6.235              |       | 6.235 |                             |                          |       | 6.235                  |       |                        |       |       |            |               |  |
| 8                          | Lee Roy Hodge     | 51             | 2.15       | PL11                    | 186  | 6.434              |       | 6.434 |                             |                          |       | 6.434                  |       |                        |       |       |            |               |  |
| ACQUISITION TOTALS (ACRES) |                   |                |            |                         |      |                    |       |       |                             |                          |       |                        |       |                        |       |       |            |               |  |

| DISTURBED AREA                            |  |            |
|---|--|------------|
| IN BETWEEN SLOPE LINES                    |  | 0.658 (AC) |
| 15 FOOT WIDE STRIP (OUT SIDE SLOPE LINES) |  | 0.316 (AC) |
| TOTAL DISTURBED AREA                      |  | 0.974 (AC) |
| TOTAL PROJECT AREA                        |  | 2.009 (AC) |

SEALED BY



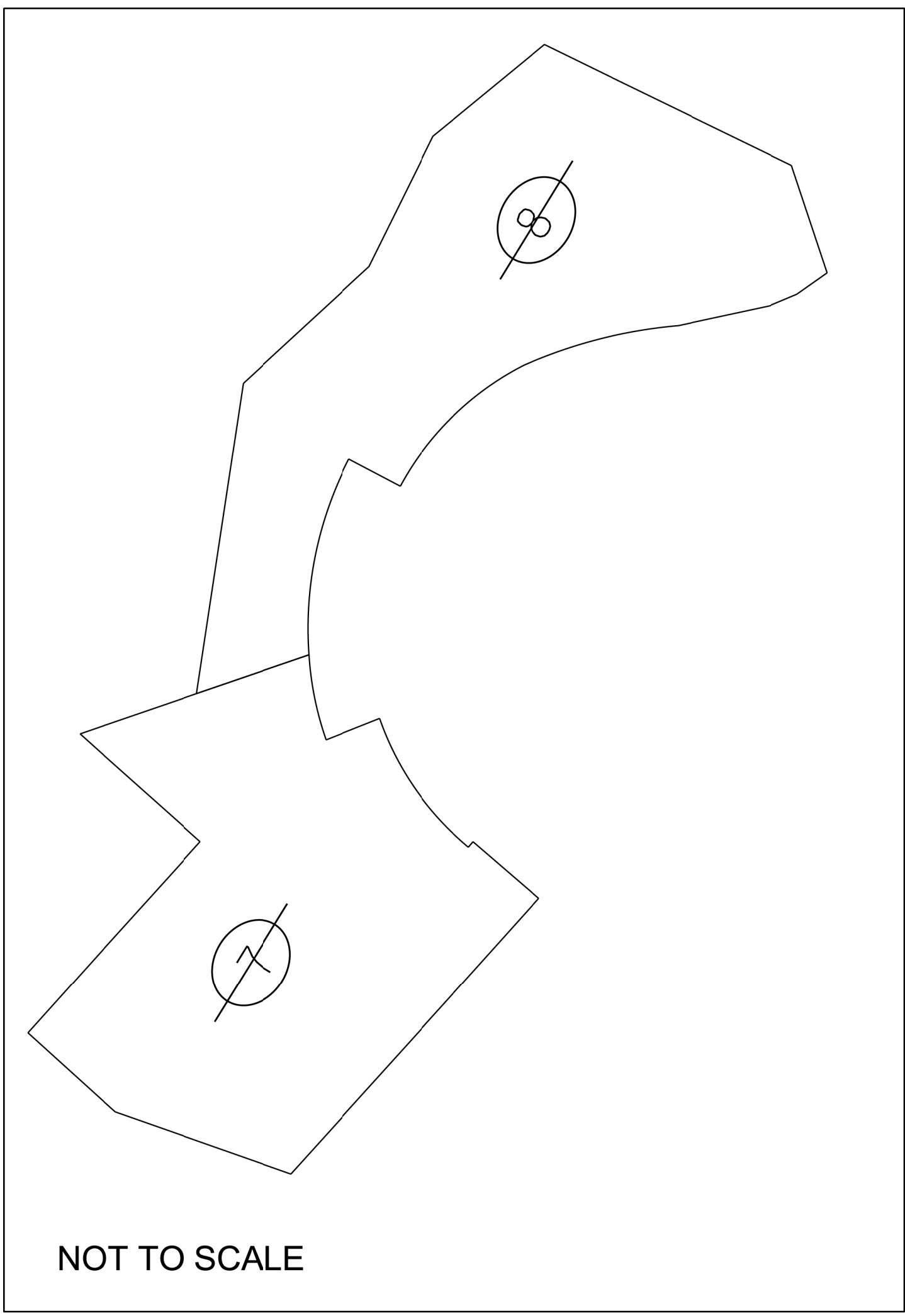
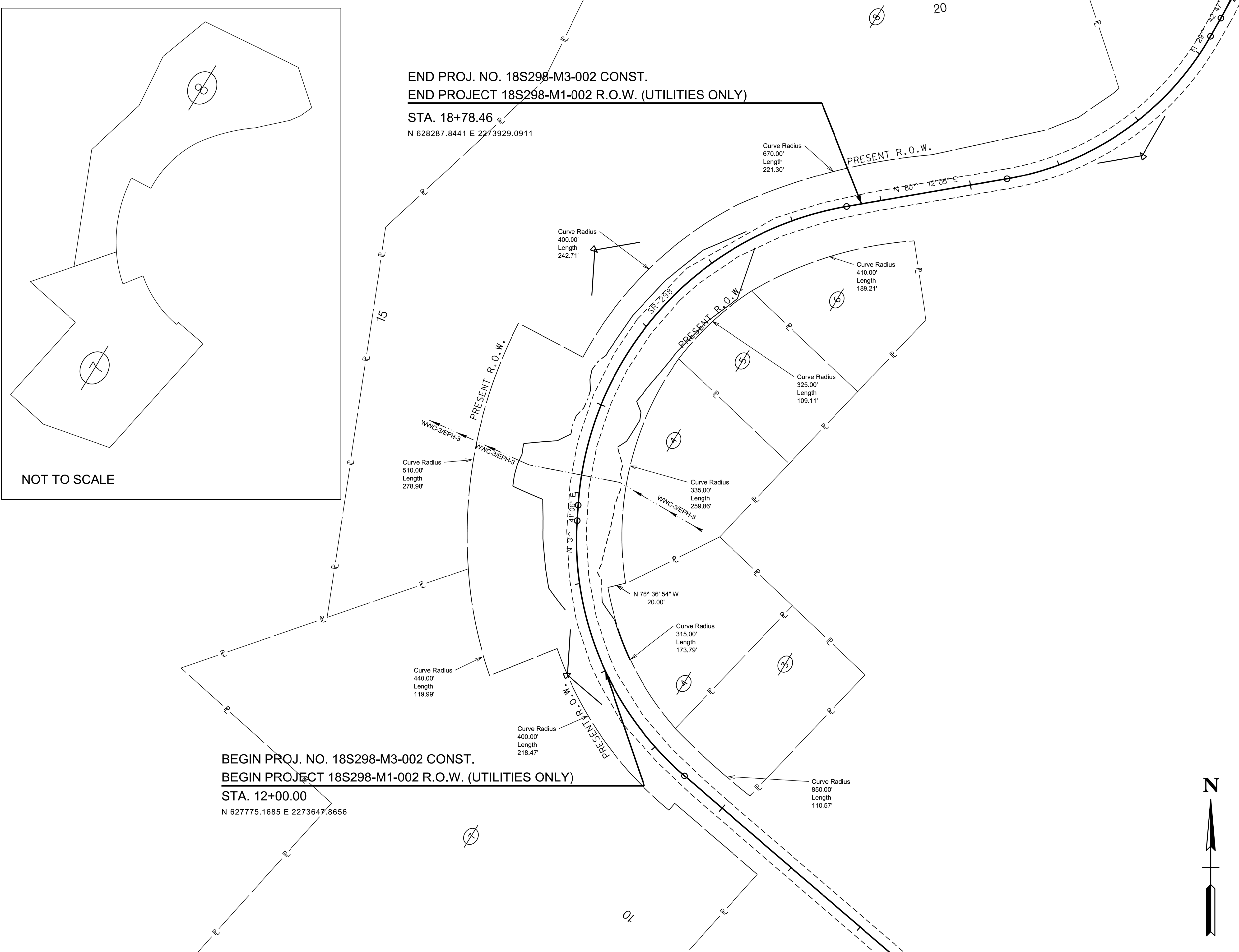
12/31/2024

STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

RIGHT-OF-WAY  
ACQUISITION  
TABLE



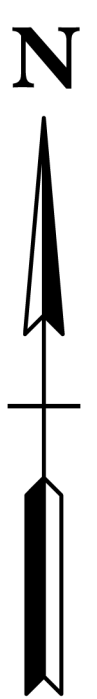
20-DEC-2024 09:48  
\\tdot02nas002.tdot.state.tn.us\02Shared\Design County Folders\Cumberland\SR298\LM8.5\small\structure\01-003B\_PROPERTY MAP.SHT



END PROJ. NO. 18S298-M3-002 CONST.  
END PROJECT 18S298-M1-002 R.O.W. (UTILITIES ONLY)  
STA. 18+78.46  
N 628287.8441 E 2273929.0911

BEGIN PROJ. NO. 18S298-M3-002 CONST.  
BEGIN PROJECT 18S298-M1-002 R.O.W. (UTILITIES ONLY)  
STA. 12+00.00  
N 627775.1685 E 2273647.8656

| TYPE | YEAR | PROJECT NO.   | SHEET NO. |
|------|------|---------------|-----------|
| ROW  | 2023 | 18S298-M1-002 | 3B        |
| PIH  | 2025 | 18S298-M3-002 | 3B        |
| PS&E | 2025 | 18S298-M3-002 | 3B        |
|      |      |               |           |



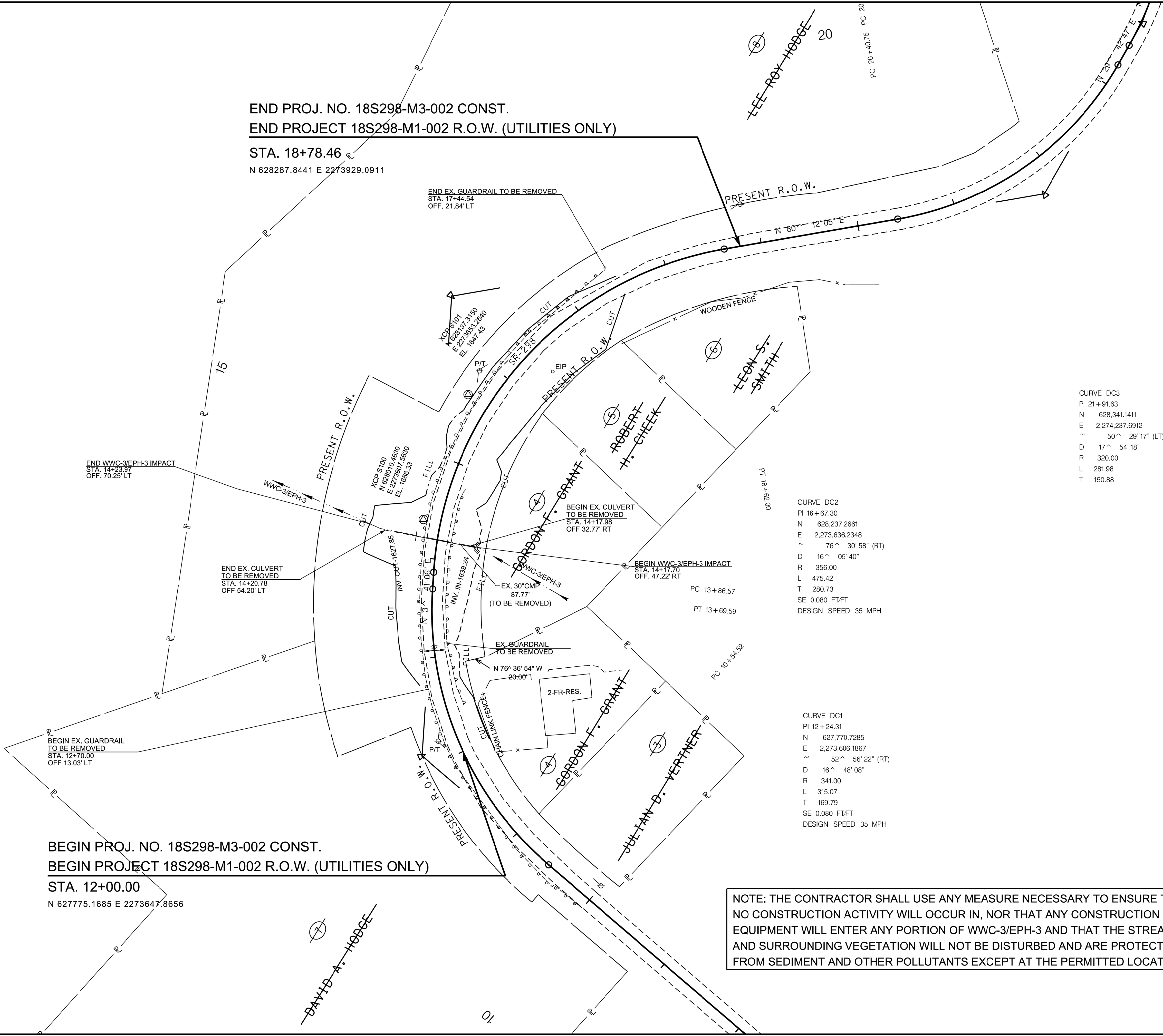
**SEALED BY**  
  
COORDINATES ARE NAD 83(X), ARE DATUM ADJUSTED BY THE FACTOR OF 1.000 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WITH GEOID 12B.

**STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION**

**PROPERTY MAP**  
STA. 12+00.00 TO STA. 18+78.46  
SCALE 1"=50'



20-DEC-2024 09:48  
\\dot02nas002\dot.state.tn.us\02Shared\Design County Folders\Cumberland\SR298\LM8.5\SmallStructure\01-004\_PRES.SHT



| TYPE | YEAR | PROJECT NO.   | SHEET NO. |
|------|------|---------------|-----------|
| ROW  | 2023 | 18S298-M1-002 | 4         |
| PIH  | 2025 | 18S298-M3-002 | 4         |
| PS&E | 2025 | 18S298-M3-002 | 4         |
|      |      |               |           |

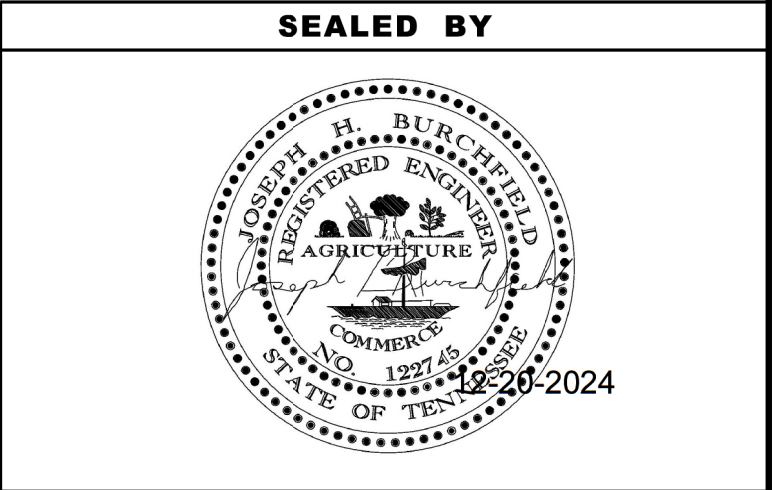
CURVE DC4  
PI 23+71.62  
N 628,514.6496  
E 2,274,336.7116  
~ 9° 17' 27" (LT)  
D 17' 54' 18"  
R 320.00  
L 51.89  
T 26.00

CURVE DC3  
PI 21+91.63  
N 628,341.1411  
E 2,274,237.6912  
~ 50° 29' 17" (LT)  
D 17' 54' 18"  
R 320.00  
L 281.98  
T 150.88

CURVE DC2  
PI 16+67.30  
N 628,237.2661  
E 2,273,636.2348  
~ 76° 30' 58" (RT)  
D 16' 05' 40"  
R 356.00  
L 475.42  
T 280.73  
SE 0.080 FT/FT  
DESIGN SPEED 35 MPH

CURVE DC1  
PI 12+24.31  
N 627,770.7285  
E 2,273,606.1867  
~ 52° 56' 22" (RT)  
D 16' 48' 08"  
R 341.00  
L 315.07  
T 169.79  
SE 0.080 FT/FT  
DESIGN SPEED 35 MPH

NOTE: THE CONTRACTOR SHALL USE ANY MEASURE NECESSARY TO ENSURE THAT NO CONSTRUCTION ACTIVITY WILL OCCUR IN, NOR THAT ANY CONSTRUCTION EQUIPMENT WILL ENTER ANY PORTION OF WWC-3/EPH-3 AND THAT THE STREAM AND SURROUNDING VEGETATION WILL NOT BE DISTURBED AND ARE PROTECTED FROM SEDIMENT AND OTHER POLLUTANTS EXCEPT AT THE PERMITTED LOCATIONS.



COORDINATES ARE NAD 83(X), ARE DATUM ADJUSTED BY THE FACTOR OF 1.000 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WITH GEOID 12B.

STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

PRESENT  
LAYOUT

STA.12+00.00 TO STA.18+78.46  
SCALE: 1"=50'





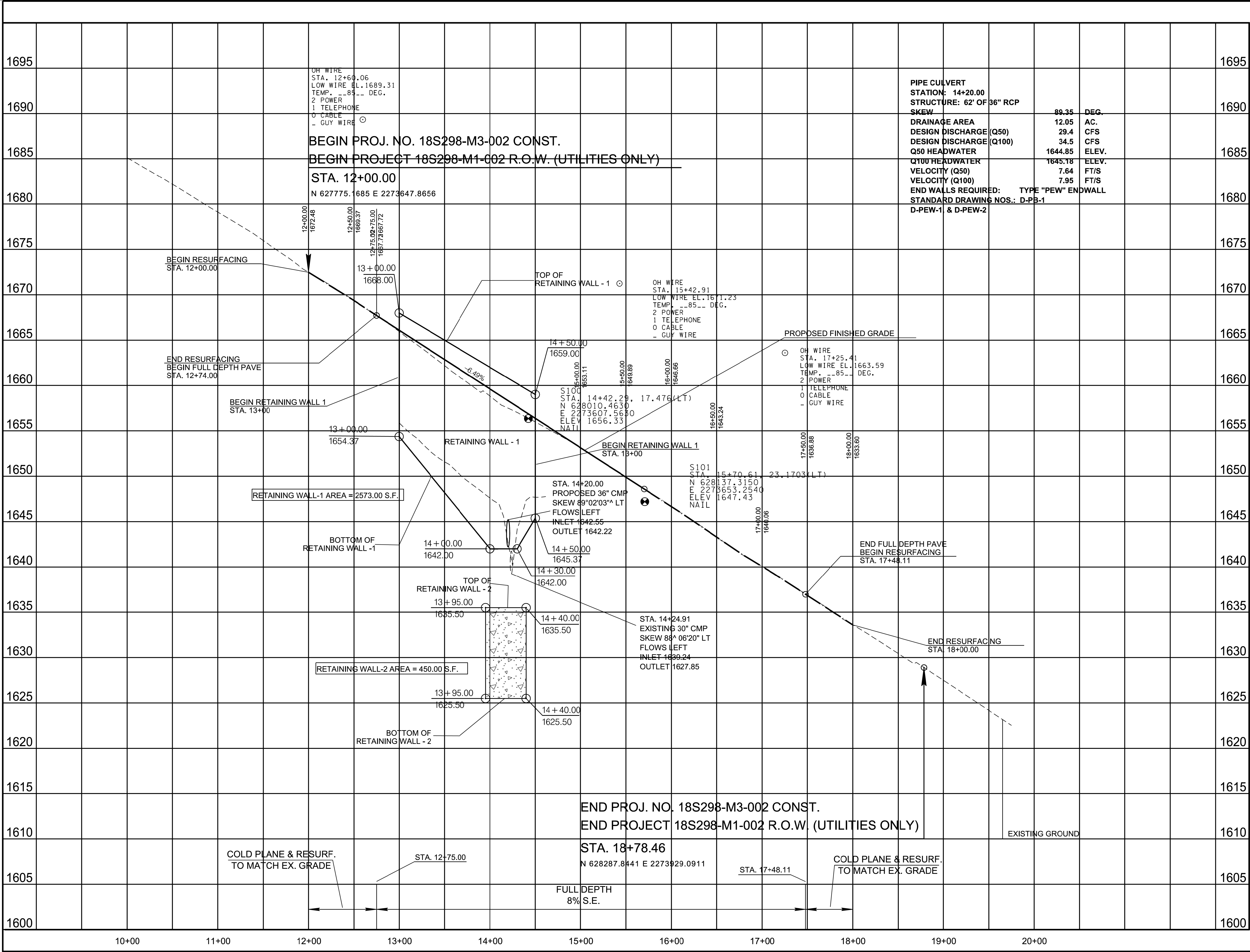






20-DEC-2024 09:48

\\dot02nas002\dot.state.tn.us\02Shared\Design\Cumberland\SR298\LM8.5\small\structure\01-004C\_PROF.SHT



| TYPE | YEAR | PROJECT NO.   | SHEET NO. |
|------|------|---------------|-----------|
| ROW  | 2023 | 18S298-M1-002 | 4C        |
| PIH  | 2025 | 18S298-M3-002 | 4C        |
| PS&E | 2025 | 18S298-M3-002 | 4C        |
|      |      |               |           |

SEALED BY

COORDINATES ARE NAD 83(X), ARE DATUM ADJUSTED BY THE FACTOR OF 1.000 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WITH GEOID 12B.

STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

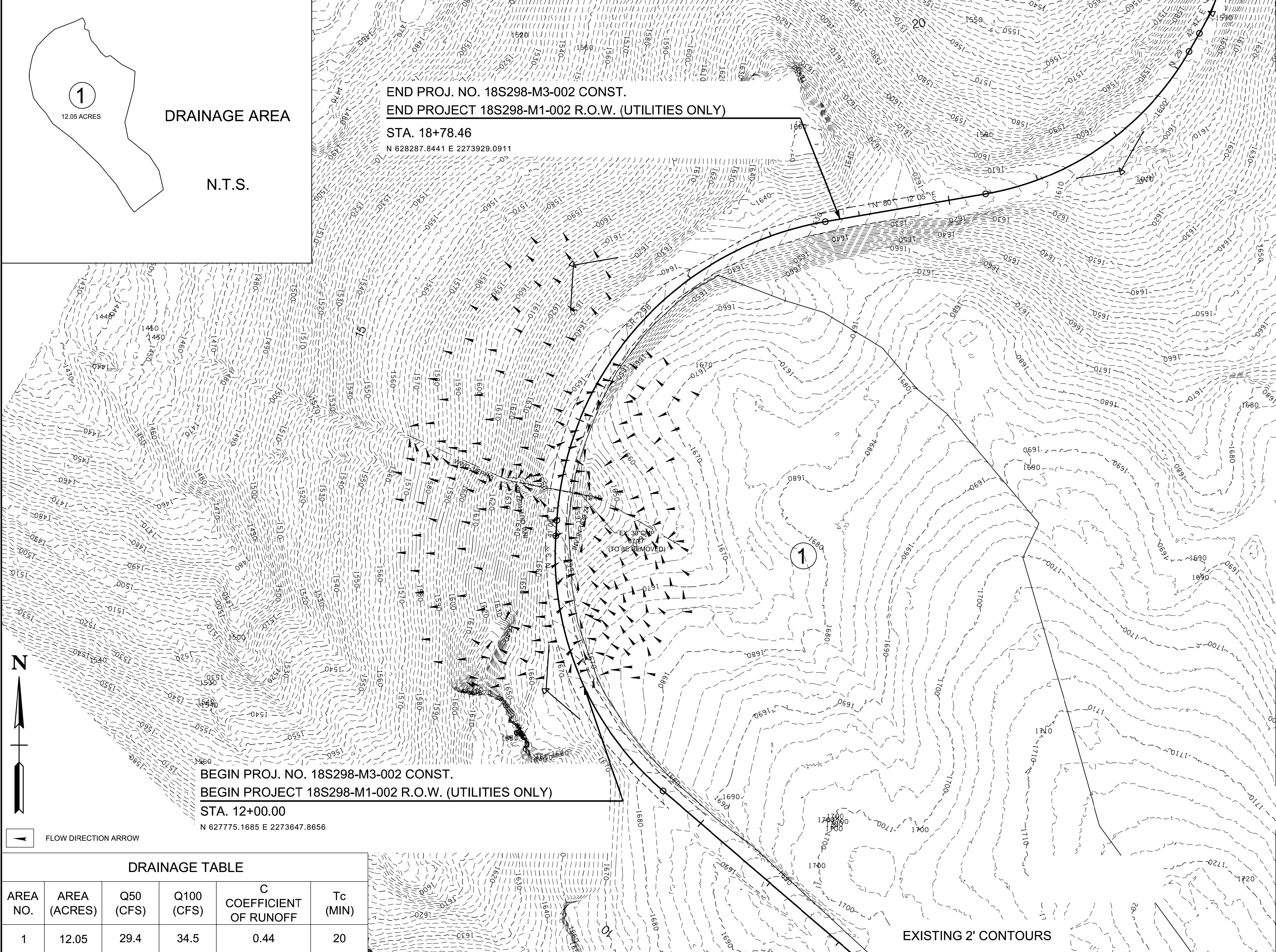
**PROPOSED  
PROFILE**

STA. 12+00.00 TO STA. 18+78.46

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



20-DEC-2024 09:48  
\\tdot02nas002.tdot.state.tn.us\02Shared\Design County Folders\Cumberland\SR298\LM8.5\SmallStructure\01-007\_DRAINAGEMAP.SHT



| TYPE | YEAR | PROJECT NO.   | SHEET NO. |
|------|------|---------------|-----------|
| ROW  | 2023 | 18S298-M1-002 | 7         |
| PIH  | 2025 | 18S298-M3-002 | 7         |
| PS&E | 2025 | 18S298-M3-002 | 7         |
|      |      |               |           |

**SEALED BY**

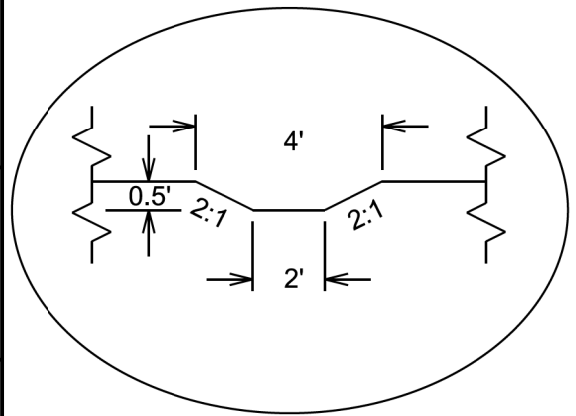
COORDINATES ARE NAD 83(X), ARE DATUM ADJUSTED BY THE FACTOR OF 1.000 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WITH GEOID 12B.

**STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION**

**DRAINAGE MAP**  
STA. 12+00.00 TO STA. 18+78.46  
SCALE: 1"=50'




\\tdot02nas002.tdot.state.tn.us\02Shared\Design County Folders\Cumberland\SR298LM8.5SmallStructure\01-008\_CULVXSECTIONS.SHT



### BUTTRESS CHANNEL DETAIL

**SEALED BY**



# CULVERT SECTION

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



EROSION PREVENTION AND SEDIMENT CONTROL GENERAL NOTES

DISTURBED AREA

- (1)

IF DISTURBED ACREAGE IS EQUAL TO ONE ACRE OR MORE, PLEASE CONTACT TDOT ENVIRONMENTAL DIVISION, PERMITS SECTION AS SOON AS POSSIBLE BECAUSE AN NPDES PERMIT WILL BE REQUIRED.
- (2)

AREAS TO BE UNDISTURBED SHALL BE CLEARLY MARKED IN THE FIELD BEFORE CONSTRUCTION ACTIVITIES BEGIN.
- (3)

UNLESS OTHERWISE NOTED IN THE PLANS, THE CONTRACTOR SHALL NOT CLEAR/DISTURB ANY AREA BEYOND 15 FEET FROM SLOPE LINES.
- (4)

PRE-CONSTRUCTION VEGETATIVE GROUND COVER SHALL NOT BE DESTROYED, REMOVED OR DISTURBED (I.E. CLEARING AND GRUBBING INITIATED) MORE THAN 14 CALENDAR DAYS PRIOR TO GRADING OR EARTH MOVING ACTIVITIES UNLESS THE AREA IS MULCHED, SEEDED WITH MULCH, OR OTHER TEMPORARY COVER IS APPLIED.
- (5)

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

SEDIMENT CONTROL

- (6)

EPSC MEASURES SHALL BE INSTALLED AND FUNCTIONAL PRIOR TO ANY EARTH MOVING OPERATIONS AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD EXCEPT AS SUCH WORK MAY BE NECESSARY TO INSTALL EPSC MEASURES.
- (7)

TEMPORARY EPSC MEASURES MAY BE REMOVED AT THE BEGINNING OF THE WORKDAY BUT MUST BE REINSTALLED AT THE END OF THE WORKDAY OR BEFORE/DURING A PRECIPITATION EVENT.
- (8)

THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN A PROACTIVE METHOD TO PREVENT THE OFFSITE MIGRATION OR DEPOSIT OF SEDIMENT OFF THE PROJECT LIMITS (E.G. R.O.W., EASEMENTS, ETC.), INTO WATERS OF THE STATE/U.S., OR ONTO ROADWAYS USED BY THE GENERAL PUBLIC. IF SEDIMENT ESCAPES THE CONSTRUCTION SITE, OFFSITE ACCUMULATIONS OF SEDIMENT THAT HAVE NOT REACHED A STREAM MUST BE REMOVED AT A FREQUENCY SUFFICIENT TO MINIMIZE OFFSITE 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 NEGOTIATED WITH THE ADJOINING PROPERTY OWNER BEFORE REMOVAL OF SEDIMENT.
- (9)

OFFSITE VEHICLE TRACKING OF SEDIMENTS AND THE GENERATION OF DUST SHALL BE MINIMIZED. A STABILIZED CONSTRUCTION EXIT (A POINT OF ENTRANCE/EXIT TO THE CONSTRUCTION PROJECT) SHALL BE PROVIDED TO REDUCE THE TRACKING OF MUD AND DIRT ONTO PUBLIC ROADS BY CONSTRUCTION VEHICLES.
- (10)

THE DEWATERING OF WORK AREAS, TRENCHES, FOUNDATIONS, EXCAVATIONS, ETC. THAT HAVE COLLECTED STORMWATER, WATER FROM VEHICLE WASH AREAS, OR GROUNDWATER SHALL BE EITHER HELD IN SETTLING BASINS OR TREATED BY FILTRATION AND/OR CHEMICAL TREATMENT PRIOR TO ITS DISCHARGE. ALL PHYSICAL AND/OR CHEMICAL TREATMENT WILL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S GUIDELINES AND FULLY DESCRIBED IN THE EPSC PLANS. WATER DISCHARGED SHALL NOT CAUSE AN OBJECTIONABLE COLOR CONTRAST WITHIN THE RECEIVING NATURAL RESOURCE. 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.

INSPECTION, MAINTENANCE & REPAIR

- (12)

THE TDOT CONSTRUCTION SUPERVISOR (OR THEIR DESIGNEE) AND THE CONTRACTOR'S RESPONSIBLE PARTY ARE RESPONSIBLE FOR INSPECTIONS. MAINTENANCE AND REPAIR ACTIVITIES ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE TDOT CONSTRUCTION SUPERVISOR OR THEIR DESIGNEE SHALL COMPLETE THE EPSC INSPECTION REPORTS AND DISTRIBUTE COPIES PER THE CONTRACT.
- (13)

TDOT CONSULTANTS AND CONTRACTOR STAFF RESPONSIBLE FOR THE INSPECTION, IMPLEMENTATION, MAINTENANCE, AND/OR REPAIR OF EPSC MEASURES 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. TDOT STAFF AND SUPERVISORS RESPONSIBLE FOR THE INSPECTION, IMPLEMENTATION, MAINTENANCE, AND/OR REPAIR OF EPSC MEASURES SHALL SUCCESSFULLY COMPLETE THE TDOT "FUNDAMENTALS OF EROSION AND SEDIMENT CONTROL" CLASS AND ANY REFRESHER COURSES AS REQUIRED TO MAINTAIN CERTIFICATION.
- (14)

EPSC CONTROLS SHALL BE INSPECTED ACCORDING TO PERMIT REQUIREMENTS TO VERIFY MEASURES HAVE BEEN INSTALLED AND MAINTAINED IN ACCORDANCE WITH TDOT STANDARD DRAWINGS, SPECIFICATIONS, AND GOOD ENGINEERING PRACTICES. EPSC INSPECTIONS SHALL BE DOCUMENTED ON THE TDOT EPSC INSPECTION REPORT.
- (15)

DISCHARGE POINTS SHALL BE INSPECTED TO ASCERTAIN WHETHER EPSC MEASURES ARE EFFECTIVE IN PREVENTING EROSION AND CONTROLLING SEDIMENT INCLUDING SIGNIFICANT IMPACTS TO SURROUNDING NATURAL RESOURCES AND ADJACENT PROPERTY OWNERS. WHERE DISCHARGE LOCATIONS ARE INACCESSIBLE, NEARBY DOWN GRADIENT LOCATIONS SHALL BE INSPECTED. LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFFSITE ROADWAY SEDIMENT TRACKING.
- (16)

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 24 HOUR TIMEFRAME, WRITTEN DOCUMENTATION SHALL BE PROVIDED IN THE FIELD DIARY AND EPSC INSPECTION REPORT. AN ESTIMATED REPAIR, REPLACEMENT OR MODIFICATION SCHEDULE SHALL BE DOCUMENTED WITHIN 24 HOURS AFTER IDENTIFICATION.
- (17)

INSPECTION, REPAIR, AND MAINTENANCE OF EPSC MEASURES SHALL 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 STEPS TO ENSURE THAT STRUCTURAL COMPONENTS OF EPSC MEASURES ARE NOT DAMAGED AND THUS MADE INEFFECTIVE. IF DAMAGE DOES OCCUR, THE CONTRACTOR SHALL REPAIR THE EPSC MEASURES AT THE CONTRACTOR'S OWN EXPENSE.
- (18)

THE EPSC PLAN SHALL BE UPDATED 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.
- (19)

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

EROSION PREVENTION

- (20)

CONSTRUCTION SHALL BE SEQUENCED AND STAGED TO MINIMIZE THE EXPOSURE TIME OF GRADED OR DENUDED SOIL AREAS, PRESERVE TOPSOIL, AND MINIMIZE SOIL COMPACTION.
- (21)

THE ACCEPTED EPSC PLAN SHALL REQUIRE THAT EPSC MEASURES BE IN PLACE BEFORE CLEARING, GRUBBING, EXCAVATION, GRADING, CULVERT OR BRIDGE CONSTRUCTION, CUTTING, FILLING, OR ANY OTHER EARTHWORK OCCURS, EXCEPT AS SUCH WORK MAY BE NECESSARY TO INSTALL EPSC MEASURES.
- (22)

NO WORK SHALL BE STARTED UNTIL THE CONTRACTOR'S PLAN FOR THE STAGING OF OPERATIONS, INCLUDING THE PLAN FOR STAGING OF TEMPORARY AND PERMANENT EPSC MEASURES, HAS BEEN ACCEPTED BY THE TDOT RESPONSIBLE PARTY. THE CONTRACTOR'S EPSC PLAN SHALL INCORPORATE AND SUPPLEMENT, AS ACCEPTABLE, THE BASIC EPSC DEVICES ON THE EPSC PLAN.

- (23)

TEMPORARY STABILIZATION SHALL BE INITIATED WITHIN 14 CALENDAR DAYS 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 MEASURES IN DISTURBED AREAS SHALL BE INITIATED WITHIN 14 CALENDAR DAYS AFTER FINAL GRADING OF ANY PHASE OF CONSTRUCTION.
- (24)

STEEP SLOPES SHALL BE TEMPORARILY STABILIZED NOT LATER THAN 7 DAYS AFTER CONSTRUCTION ACTIVITY ON THE SLOPE HAS TEMPORARILY OR PERMANENTLY CEASED. STEEP SLOPES ARE DEFINED AS A NATURAL OR CREATED SLOPE OF 35% GRADE OR GREATER REGARDLESS OF HEIGHT.
- (25)

PERMANENT STABILIZATION WILL REPLACE TEMPORARY MEASURES AS SOON AS PRACTICABLE. PRIORITY SHALL BE GIVEN TO FINISHING OPERATIONS AND PERMANENT EPSC MEASURES OVER TEMPORARY EPSC MEASURES ON ALL PROJECTS.
- (26)

TEMPORARY OR PERMANENT STABILIZATION MUST BE FREE OF FINES (SILT AND CLAY SIZED PARTICLES). UNPACKED GRAVEL CONTAINING FINES OR CRUSHER-RUN WILL NOT BE CONSIDERED SUFFICIENT STABILIZATION.
- (27)

DELAYING THE PLANTING OF COVER VEGETATION UNTIL WINTER MONTHS OR DRY MONTHS SHOULD BE AVOIDED.

PERMITS, PLANS & RECORDS

- (28)

THE EPSC PLAN IS TO SERVE AS AN INITIAL GUIDE FOR SITE PERSONNEL AS THE CONSTRUCTION PROCESS DEVELOPS. IT MUST BE AMENDED, MODIFIED, AND UPDATED WHENEVER A CHANGE IN THE DESIGN OR CONSTRUCTION OF THE PROJECT OCCURS. THE STAGES DEPICTED IN THE EPSC PLANS MAY NOT COINCIDE WITH THE ACTUAL PHASES OF CONSTRUCTION ESTABLISHED BY THE CONTRACTOR DURING CONSTRUCTION, THUS MODIFICATIONS WILL BE REQUIRED TO ENSURE THE EPSC PLAN IS MAINTAINED TO DEPICT CURRENT SITE CONDITIONS. IT SHOULD BE MAINTAINED SUCH THAT IT WILL ALWAYS REFLECT THE MEASURES THAT ARE INSTALLED DURING THE VARIOUS PHASES OF CONSTRUCTION. IT IS IMPRACTICAL TO DETERMINE ALL THE INTERMEDIATE PHASES OF CONSTRUCTION THAT WILL OCCUR; THUS THESE DOCUMENTS WILL HAVE TO BE UPDATED THROUGHOUT THE LIFE OF THE CONSTRUCTION PROJECT.

GOOD HOUSEKEEPING MEASURES & WASTE DISPOSAL

- (29)

THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN A PROACTIVE METHOD TO PREVENT LITTER AND CONSTRUCTION WASTES FROM ENTERING WATERS OF THE STATE/U.S. THESE MATERIALS SHALL BE REMOVED FROM STORMWATER EXPOSURE PRIOR TO ANTICIPATED STORM EVENTS OR BEFORE BEING CARRIED OFFSITE BY WIND, OR OTHERWISE PREVENTED FROM BECOMING A POLLUTANT SOURCE FOR STORMWATER DISCHARGES. AFTER USE, MATERIALS USED FOR EPSC SHALL BE REMOVED FROM THE SITE.
- (30)

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. APPROPRIATE CONTAINMENT MEASURES FOR THESE AREAS SHALL BE USED.
- (31)

CONTRACTORS SHALL PROVIDE DESIGNATED TRUCK WASHOUT AREAS ON THE SITE. THESE AREAS MUST BE SELF CONTAINED, NOT CONNECTED TO ANY STORMWATER OUTLET OF THE SITE, AND PROPERLY SIGNED. WASH DOWN OR WASTE DISCHARGE OF CONCRETE TRUCKS SHALL NOT BE PERMITTED ONSITE UNLESS PROPER SETTLEMENT AREAS HAVE BEEN PROVIDED IN ACCORDANCE WITH BOTH STATE AND FEDERAL REGULATIONS.
- (32)

WHEEL WASH WATER SHALL BE COLLECTED AND ALLOWED TO SETTLE OUT SUSPENDED SOLIDS PRIOR TO DISCHARGE. WHEEL WASH WATER SHALL NOT BE DISCHARGED DIRECTLY INTO ANY STORMWATER SYSTEM OR STORMWATER TREATMENT SYSTEM.
- (33)

IF PORTABLE SANITARY FACILITIES ARE PROVIDED ON CONSTRUCTION SITES, SANITARY WASTE SHALL BE COLLECTED FROM THE PORTABLE UNITS IN A TIMELY MANNER BY A LICENSED WASTE MANAGEMENT CONTRACTOR OR AS REQUIRED BY ANY REGULATIONS. THE CONTRACTOR SHALL OBTAIN ANY AND ALL NECESSARY PERMITS TO DISPOSE OF SANITARY WASTE.

|        |      |               |           |
|--------|------|---------------|-----------|
| TYPE   | YEAR | PROJECT NO.   | SHEET NO. |
| R.O.W. | 2023 | 18S298-M1-002 | 8         |
| PIH    | 2025 | 18S298-M3-002 | 9         |
| PS&E   | 2025 | 18S298-M3-002 | 9         |
|        |      |               |           |

SEALED BY



12-20-2024

STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

EROSION  
PREVENTION &  
SEDIMENT CONTROL  
(EPSC) NOTES



GOOD HOUSEKEEPING MEASURES & WASTE DISPOSAL CONT.

- (34)

ONLY CONSTRUCTION PRODUCTS NEEDED SHALL BE STORED ONSITE BY THE CONTRACTOR. THE CONTRACTOR SHALL STORE ALL MATERIALS UNDER COVER AND IN APPROPRIATE CONTAINERS. PRODUCTS MUST BE STORED IN ORIGINAL CONTAINERS AND LABELED. MATERIAL MIXING SHALL BE CONDUCTED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. THE CONTRACTOR'S RESPONSIBLE PARTY SHALL INSPECT MATERIALS STORAGE AREAS REGULARLY TO ENSURE PROPER USE AND DISPOSAL.
- (35)

WHEN POSSIBLE, ALL PRODUCTS SHALL BE USED COMPLETELY BEFORE PROPERLY DISPOSING OF THE CONTAINER OFFSITE. THE MANUFACTURER'S DIRECTIONS FOR DISPOSAL OF MATERIALS AND CONTAINERS SHALL BE FOLLOWED.
- (36)

ALL PAINT CONTAINERS SHALL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT SHALL BE DISPOSED OF ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS AND APPLICABLE STATE AND LOCAL REGULATIONS.
- (37)

ALL HAZARDOUS WASTE MATERIALS SHALL BE DISPOSED OF IN A MANNER WHICH IS COMPLIANT WITH LOCAL OR STATE REGULATIONS. SITE PERSONNEL SHALL BE INSTRUCTED IN THESE PRACTICES, AND THE INDIVIDUAL DESIGNATED AS THE CONTRACTOR'S RESPONSIBLE PARTY SHALL BE RESPONSIBLE FOR SEEING THAT THESE PRACTICES ARE FOLLOWED. THE CONTRACTOR SHALL OBTAIN ANY AND ALL NECESSARY PERMITS TO DISPOSE OF HAZARDOUS MATERIAL.
- (38)

OPEN BURNING IS PROHIBITED UNLESS IT IS SPECIFICALLY ALLOWED BY LAW. IF ALLOWED, NATURAL VEGETATION, TREES, AND UNTREATED LUMBER SHALL BE THE ONLY MATERIALS THAT CAN BE OPEN BURNED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL APPLICABLE STATE AND LOCAL PERMITS PRIOR TO ANY BURNING.
- (39)

DISPOSAL OF ONSITE VEGETATION AND TREES BY CHIPPING THEM INTO MULCH IS PREFERABLE TO OPEN BURNING. THIS MULCH MAY BE USED AS AN ONSITE SOIL STABILIZATION MEASURE WHERE APPROPRIATE.
- (40)

WASTE MATERIAL (EARTH, ROCK, ASPHALT, CONCRETE, ETC.) NOT REQUIRED FOR THE CONSTRUCTION OF THE PROJECT WILL BE DISPOSED OF BY THE CONTRACTOR. IMPACTS TO WATERS OF THE STATE/U.S. SHALL BE AVOIDED IF POSSIBLE. IF UNAVOIDABLE, THE CONTRACTOR WILL OBTAIN ANY AND ALL NECESSARY PERMITS INCLUDING, BUT NOT LIMITED TO NPDES, AQUATIC RESOURCES ALTERATION PERMIT(S), CORPS OF ENGINEERS SECTION 404 PERMITS, AND TVA SECTION 26A PERMITS TO DISPOSE OF WASTE MATERIALS.

SUPPORT ACTIVITIES

- (41)

IF OFFSITE BORROW AND WASTE AREAS BECOME NECESSARY DURING THE LIFE OF THE PROJECT, THIS SUPPORT ACTIVITY SHALL BE ADDRESSED PER THE TDOT WASTE AND BORROW MANUAL.
- (42)

MATERIALS AND STAGING AREAS SHALL BE LOCATED IN NON-WETLAND AREAS AND ABOVE THE 100-YEAR, FEDERAL EMERGENCY MANAGEMENT AGENCY FLOODPLAIN.
- (43)

IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SUPPLY EPSC PLANS FOR THE MATERIAL AND STAGING AREAS TO THE ENVIRONMENTAL DIVISION COMPLIANCE AND FIELD SERVICES OFFICE FOR REVIEW.

SPILL PREVENTION, MANAGEMENT & NOTIFICATION

- (44)

ALL ONSITE VEHICLES SHALL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE AND SPILLS.
- (45)

FOR ALL HAZARDOUS MATERIALS STORED ONSITE, THE MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEAN UP SHALL BE CLEARLY POSTED. SITE PERSONNEL SHALL BE MADE AWARE OF THE PROCEDURES AND THE LOCATIONS OF THE INFORMATION AND CLEANUP SUPPLIES.
- (46)

APPROPRIATE CLEANUP MATERIALS AND EQUIPMENT SHALL BE MAINTAINED BY THE CONTRACTOR IN THE MATERIALS STORAGE AREA ONSITE AND UNDER COVER. SPILL RESPONSE EQUIPMENT SHALL BE INSPECTED AND MAINTAINED BY THE CONTRACTOR AS NECESSARY TO REPLACE ANY MATERIALS USED IN SPILL RESPONSE ACTIVITIES.
- (47)

ALL SPILLS SHALL BE CLEANED IMMEDIATELY AFTER DISCOVERY AND THE MATERIALS DISPOSED OF PROPERLY. THE SPILL AREA SHALL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.

- (48)

THE CONTRACTOR'S RESPONSIBLE PARTY SHALL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT THE SITE SUPERINTENDENT HAS HAD APPROPRIATE TRAINING FOR HAZARDOUS MATERIALS HANDLING, SPILL MANAGEMENT, AND CLEANUP.
- (49)

IF AN OIL SHEEN IS OBSERVED ON SURFACE WATER (E.G. SETTLING PONDS, DETENTION PONDS, SWALES), ACTION SHALL BE TAKEN IMMEDIATELY TO REMOVE THE MATERIAL CAUSING THE SHEEN. THE CONTRACTOR SHALL USE APPROPRIATE MATERIALS TO CONTAIN AND ABSORB THE SPILL. THE SOURCE OF THE OIL SHEEN WILL ALSO BE IDENTIFIED AND REMOVED OR REPAIRED AS NECESSARY TO PREVENT FURTHER RELEASES.
- (50)

FERTILIZERS SHALL BE APPLIED ONLY IN THE AMOUNTS SPECIFIED. ONCE APPLIED, FERTILIZERS SHALL BE WORKED INTO THE SOIL TO LIMIT THE EXPOSURE TO STORMWATER.
- (51)

IF A SPILL OCCURS THE CONTRACTOR'S RESPONSIBLE PARTY SHALL BE RESPONSIBLE FOR COMPLETING THE SPILL REPORTING FORM AND FOR REPORTING THE SPILL TO THE TDOT PROJECT RESPONSIBLE PARTY. 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.
- (52)

WHERE A RELEASE CONTAINING A HAZARDOUS SUBSTANCE IN AN AMOUNT EQUAL TO OR IN EXCESS OF A REPORTABLE QUANTITY ESTABLISHED UNDER EITHER 40 CFR 117 OR 40 CFR 302 OCCURS DURING A 24 HOUR PERIOD, SEE THE LATEST TENNESSEE GENERAL PERMIT NO. TNR100000 STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES SECTION 5.1 FOR REPORTING REQUIREMENTS.
- (53)

CONTRACTOR'S BULK FUEL AND PETROLEUM PRODUCTS STORED ONSITE OR ADJACENT TO THE R.O.W. IN ABOVE GROUND STORAGE CONTAINERS WITH A COMBINED CAPACITY OF 1320 GALLONS OR MORE SHALL HAVE SECONDARY CONTAINMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING A SPILL PREVENTION CONTROL AND COUNTERMEASURE (SPCC) PLAN FOR THE BULK STORAGE AND BE SOLELY RESPONSIBLE FOR OBTAINING ANY NECESSARY LOCAL, STATE, AND FEDERAL PERMITS. THE SPCC PLAN AND/OR PERMITS SHALL BE KEPT ONSITE AND A COPY PROVIDED TO THE TDOT PROJECT RESPONSIBLE PARTY PRIOR TO STORING 1320 GALLONS ON SITE.

STREAMS, WETLANDS & BUFFER ZONES

- (54)

ANY WORK WITHIN THE STREAM CHANNEL AREA (E.G., PIER FOOTING, RIP-RAP PLACEMENT, 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.

EROSION PREVENTION AND SEDIMENT CONTROL SPECIAL NOTES

STREAMS, WETLANDS & BUFFER ZONES

- (1)

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. 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.
- (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. 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.

- (3)

BUFFER ZONES ARE NOT SEDIMENT CONTROL MEASURES AND MUST 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. 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. WHERE ISSUED, ARAP/401 REQUIREMENTS WILL PREVAIL IF IN CONFLICT WITH THESE BUFFER ZONE REQUIREMENTS.

NPDES

UTILITY RELOCATION

- (5)

STORMWATER WHICH COLLECTS IN THE UTILITY TRENCH SHALL BE PUMPED INTO A DEWATERING STRUCTURE OR SEDIMENT FILTER BAG AND TREATED PRIOR TO DISCHARGE.
- (6)

SILT FENCE SHALL BE INSTALLED ON THE DOWNGRAIDENT SIDE OF STOCKPILED SOIL. TRENCHING ACROSS WET WEATHER CONVEYANCES SHALL BE DONE DURING DRY CONDITIONS AND STABILIZED BY THE END OF THE WORKDAY.
- (7)

UTILITY CROSSINGS IN ENVIRONMENTAL FEATURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH TDOT STANDARDS AND NO WORK SHALL BE CONDUCTED IN FLOWING WATERS. ENVIRONMENTAL PERMITS APPLY TO UTILITIES IN THIS PROJECT. THE STATE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF THE PERMITS.
- (8)

IT IS THE RESPONSIBILITY OF THE STATE UTILITY CONTRACTOR TO PROTECT EXPOSED EARTH FROM EROSION AND TO PROVIDE FOR CONTAINMENT OF SEDIMENT THAT MAY RESULT FROM THEIR WORK. PRIOR TO BEGINNING WORK, ADEQUATE MEASURES MUST BE IN PLACE TO TRAP ANY SEDIMENT THAT MAY TRAVEL OFFSITE IN THE EVENT OF RAIN. DURING THE PROGRESSION OF THEIR WORK, EXPOSED EARTH AREAS SHALL BE STABILIZED AS SOON AS POSSIBLE TO PREVENT EROSION. AT NO TIME SHALL EXPOSED EARTH RESULTING FROM THEIR OPERATIONS HAVE UNPROTECTED ACCESS TO FLOWING OFFSITE AND ENTERING WATERS OF THE STATE/U.S.
- (9)

FOR THE INSTALLATION OF BURIED UTILITIES (PIPES AND CABLES), TRENCHES SHALL BE BACKFILLED DAILY AS CONSTRUCTION PROCEEDS. BACKFILLED TRENCHES SHALL BE SEEDED AND MULCHED OR SODDED DAILY IF POSSIBLE, BUT NO LATER THAN SEVEN DAYS AFTER BEING BACKFILLED. ANY TEMPORARY SPOILS OF EXCAVATED EARTH SHALL BE LOCATED WITHIN TDOT EPSC MEASURES OR RECEIVE SEPARATE EPSC MEASURES. IF TRENCHES ARE NOT BACKFILLED OVERNIGHT, APPROPRIATE EPSC MEASURES WILL BE INSTALLED BY THE STATE UTILITY CONTRACTOR UNTIL SUCH TIME AS THE TRENCH IS BACKFILLED.
- (10)

IN REGARD TO EPSC, TDEC REGULATIONS APPLY TO THE STATE UTILITY CONTRACTORS ON THIS PROJECT. THE STATE CONTRACTOR IS RESPONSIBLE FOR EPSC MEASURES RELATED TO UTILITY CONSTRUCTION INCLUDED IN THE STATE CONTRACT.
- (11)

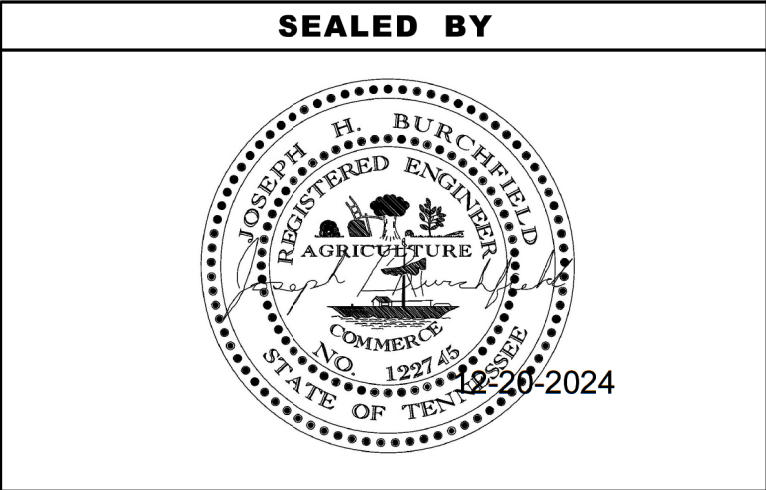
TRENCHES FORMED FOR THE INSTALLATION OF BURIED UTILITIES MAY CAUSE STORMWATER RUNOFF TO CONCENTRATE AT THE TRENCH LINE. ADDITIONAL EPSC MEASURES MAY BE REQUIRED TO BE INSTALLED AS APPROVED BY THE TDOT PROJECT RESPONSIBLE PARTY.
- (12)

FOR THE INSTALLATION OF UNDERGROUND UTILITIES OUTSIDE OF THE TDOT RIGHT-OF-WAY, EPSC MEASURES SHALL BE INSTALLED PRIOR TO CLEARING (TRENCHING AND ASSOCIATED BLASTING) IN THOSE AREAS NECESSARY TO PREVENT SEDIMENT FROM LEAVING THE CONSTRUCTION AREA. THESE EPSC MEASURES SHALL REMAIN UNTIL THE BACKFILLED TRENCH IS STABILIZED WITH FINAL VEGETATIVE COVER.
- (13)

THE UTILITY CONTRACTOR SHALL RESTORE ALL AFFECTED WET WEATHER CONVEYANCES TO THE EXISTING TOPOGRAPHIC CONDITIONS AS APPROVED BY THE TDOT RESPONSIBLE PARTY.
- (14)

THE UTILITY CONTRACTOR WILL PROVIDE APPROPRIATE EPSC MEASURES TO REPLACE ONSITE EPSC MEASURES REMOVED TO FACILITATE THE INSTALLATION OF UTILITIES. REPLACEMENT OF EPSC MEASURES WILL BE COORDINATED WITH THE TDOT RESPONSIBLE PARTY BEFORE COMMENCING WORK.

| TYPE   | YEAR | PROJECT NO.   | SHEET NO. |
|--------|------|---------------|-----------|
| R.O.W. | 2023 | 18S298-M1-002 | 8A        |
| PIH    | 2025 | 18S298-M3-002 | 9A        |
| PS&E   | 2025 | 18S298-M3-002 | 9A        |
|        |      |               |           |



STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

EROSION  
PREVENTION &  
SEDIMENT CONTROL  
(EPSC) NOTES



|         | TABULATED EPSC QUANTITIES |   |      |               |
|---------|---------------------------|---|------|---------------|
|         | ITEM NO.                  | DESCRIPTION                                       | UNIT | QUANTITY      |
|         |                           |   |      | 18S298-M3-002 |
| (1)     | 203-01                    | ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED)         | C.Y. | 9             |
| (1) (2) | 209-05                    | SEDIMENT REMOVAL                                  | C.Y. | 145           |
| (1)     | 209-08.02                 | TEMPORARY SILT FENCE (WITH BACKING)               | L.F. | 1426          |
| (1)     | 209-08.07                 | ROCK CHECK DAM                                    | EACH | 22            |
| (1)(6)  | 209-08.08                 | ENHANCED ROCK CHECK DAM                           | EACH | 6             |
| (1) (4) | 209-09.01                 | SANDBAGS  | BAG  | 300           |
| (1) (4) | 209-20.03                 | POLYETHYLENE SHEETING (6 MIL. MINIMUM)            | S.Y. | 30            |
| (1) (5) | 303-10.01                 | MINERAL AGGREGATE (TYPE 57)                       | TON  | 13            |
| (1) (4) | 621-03.03                 | 24" TEMPORARY DRAINAGE PIPE                       | L.F. | 110           |
| (1) (3) | 709-05.05                 | MACHINED RIP-RAP (CLASS A-3)                      | TON  | 120           |
| (1) (3) | 740-10.03                 | GEOTEXTILE (TYPE III)(EROSION CONTROL)            | S.Y. | 103           |
| (1)(5)  | 740-11.02                 | TEMPORARY SEDIMENT TUBE 12IN                      | L.F. | 447           |
| (1) (4) | 797-11.38                 | BY-PASS PUMPING                                   | LS   | 1             |
| (1)     | 801-01.07                 | TEMPORARY SEEDING (WITH MULCH)                    | UNIT | 24            |
| (1) (2) | 801-01.16                 | BONDED FIBER MATRIX HYDROMULCH (W/PERMANENT SEED) | UNIT | 10            |
| (1) (2) | 801-01.38                 | NATVE SEED MX FINAL STABILIZATN OF SLOPES         | UNIT | 10            |
| (1)     | 801-03                    | WATER (SEEDING & SODDING)                         | M.G. | 4.4           |
| (1)     | 805-12.02                 | EROSION CONTROL BLANKET (TYPE II)                 | S.Y. | 586           |
| (1)     | 801-01                    | SEEDING (WITH MULCH)                              | UNIT | 17            |

| FOOTNOTES |  |
|-----------|--|
| (1)       | ALL EROSION PREVENTION AND SEDIMENT CONTROL QUANTITIES ARE TO BE USED AS DIRECTED BY THE ENGINEER. |
| (2)       | SEE SUBSECTION 209.07 OF THE STANDARD SPECIFICATIONS FOR MAINTENANCE REPLACEMENT                   |
| (3)       | TO BE USED IN CONSTRUCTION OF TEMPORARY CONSTRUCTION EXIT  |
| (4)       | TO BE USED IN CONSTRUCTION OF FLEXIBLE PIPE DIVERSION  |
| (5)       | QUANTITY INCLUDES 17 L.F. TO BE USED IN CONSTRUCTION OF TYPE 2 CULVERT PROTECTION                  |
| (6)       | QUANTITY INCLUDES 2 TO BE USED IN CONSTRUCTION OF TYPE 2 CULVERT PROTECTION                        |

### STAGE 1 - CLEARING AND GRUBBING








- 1) INSTALL EPSC MEASURES AS DIRECTED BY THE TDOT ENGINEER.
- 2) CLEAR AND GRUB IN WORK ZONE.
- 3) CONSTRUCT PROPOSED ROCK BUTTRESS.

### STAGE 2 - INTERMEDIATE GRADING

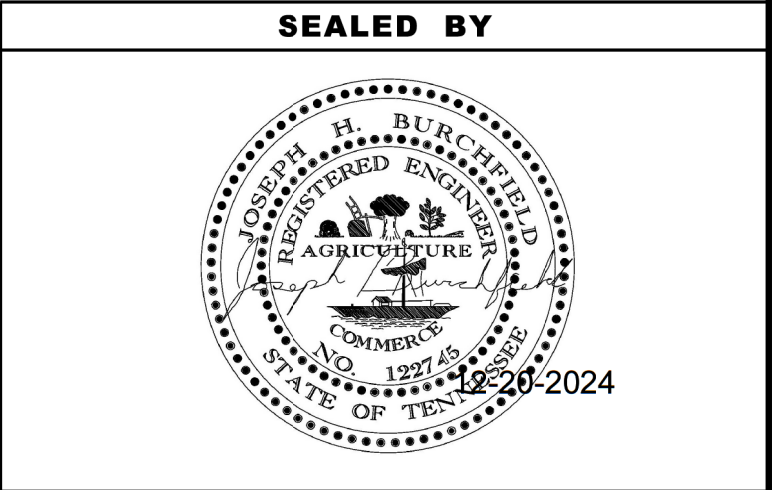
- 1) INSTALL EPSC MEASURES AS DIRECTED BY THE TDOT ENGINEER.
- 2) REFER TO SHEET 12A FOR DETAILS A, B, & C.

### STAGE 3 - FINAL STABILIZATION

- 1) INSTALL EPSC MEASURES AS DIRECTED BY THE TDOT ENGINEER. LEAVE EXISTING EPSC MEASURES FROM PREVIOUS STAGE AS REQUIRED.
- 2) FINISH FINAL STABILIZATION IN DISTURBED AREAS.
- 3) REMOVE ALL EPSC MEASURES AFTER THE FINAL STABILIZATION HAS TAKEN HOLD.

| EROSION PREVENTION AND SEDIMENT CONTROL LEGEND                                      |                                   |                         |
|---|-----------------------------------|-------------------------|
| SYMBOL  | ITEM                              | STD. DWG.               |
| * SFB* SFB* SFB*  | SILT FENCE WITH WIRE BACKING      | EC-STR-3C               |
|  | ROCK CHECK DAM (V-DITCH)          | EC-STR-6                |
|  | ENHANCED ROCK CHECK DAM (V-DITCH) | EC-STR-6A               |
|  | CULVERT PROTECTION (TYPE 2)       | EC-STR-11A              |
|  | TEMPORARY CONSTRUCTION EXIT       | EC-STR-25               |
|  | TEMPORARY DIVERSION CULVERT (24") | EC-STR-32               |
|  | SUSPENDE PIPE DIVERSION           | EC-STR-33<br>EC-STR-33A |
|  | EROSION CONTROL BLANKET           | EC-STR-34               |
| **TUBE 12" **TUBE 12" **  | 12 INCH SEDIMENT TUBE             | EC-STR-37               |

| TYPE   | YEAR | PROJECT NO.   | SHEET NO. |
|--------|------|---------------|-----------|
| R.O.W. | 2023 | 18S298-M2-002 | 9         |
| PIH    | 2025 | 18S298-M3-002 | 10        |
| PS&E   | 2025 | 18S298-M3-002 | 10        |
|        |      |               |           |



STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

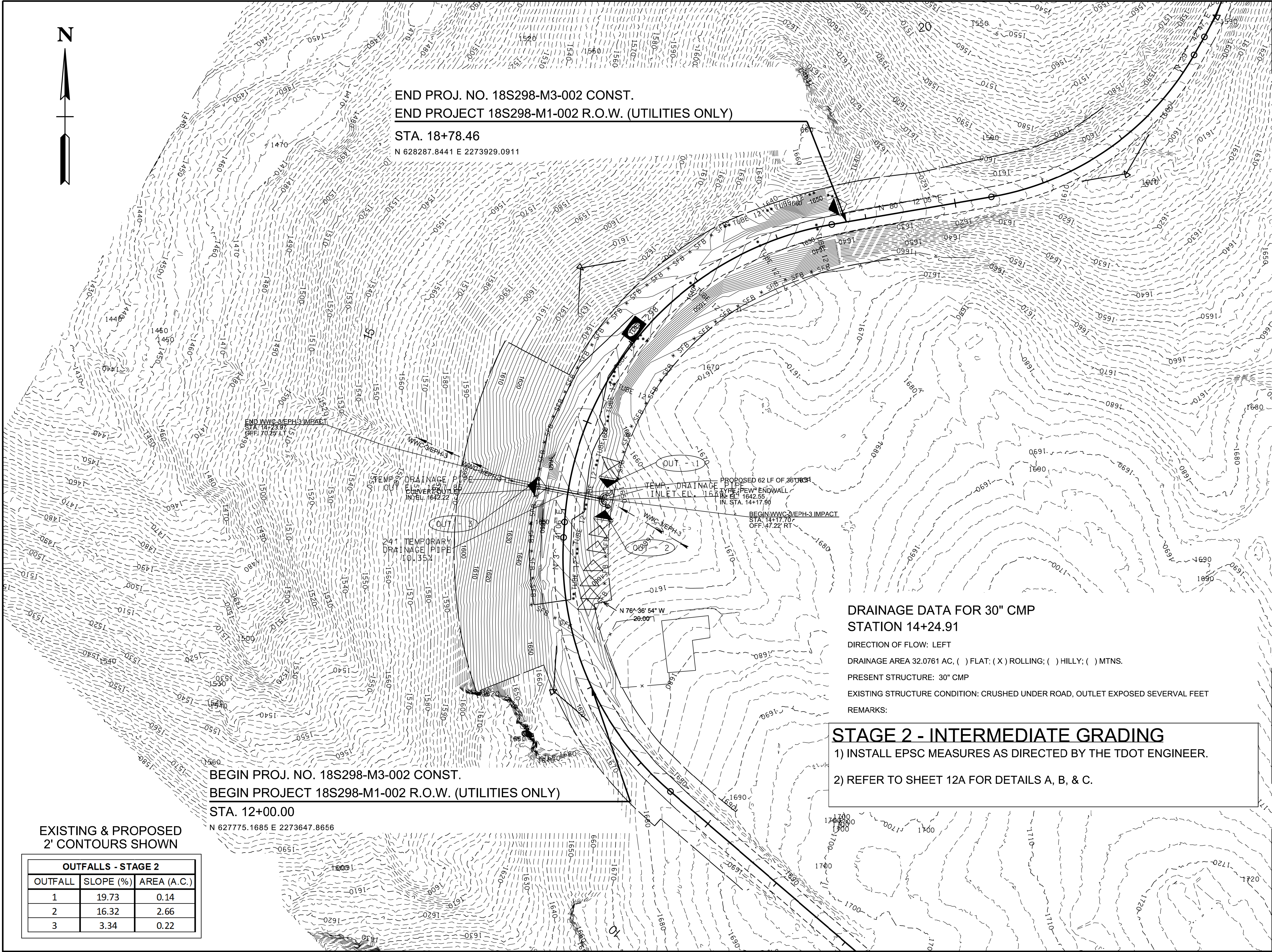
EROSION  
PREVENTION &  
SEDIMENT CONTROL  
(EPSC) LEGEND &  
TABULATION







20-DEC-2024 09:49  
\\tdot02nas002.tdot.state.tn.us\02Shared\Design County Folders\Cumberland\SR298\LM8.5\SmallStructure\01-012\_EPSC Stage 2.sht



| TYPE   | YEAR | PROJECT NO.   | SHEET NO. |
|--------|------|---------------|-----------|
| R.O.W. | 2023 | 18S298-M1-002 | 11        |
| PIH    | 2025 | 18S298-M3-002 | 12        |
| PS&E   | 2025 | 18S298-M3-002 | 12        |
|        |      |               |           |

**SEALED BY**

COORDINATES ARE NAD 83(X), ARE DATUM ADJUSTED BY THE FACTOR OF 1.000 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WITH GEOID 12B.

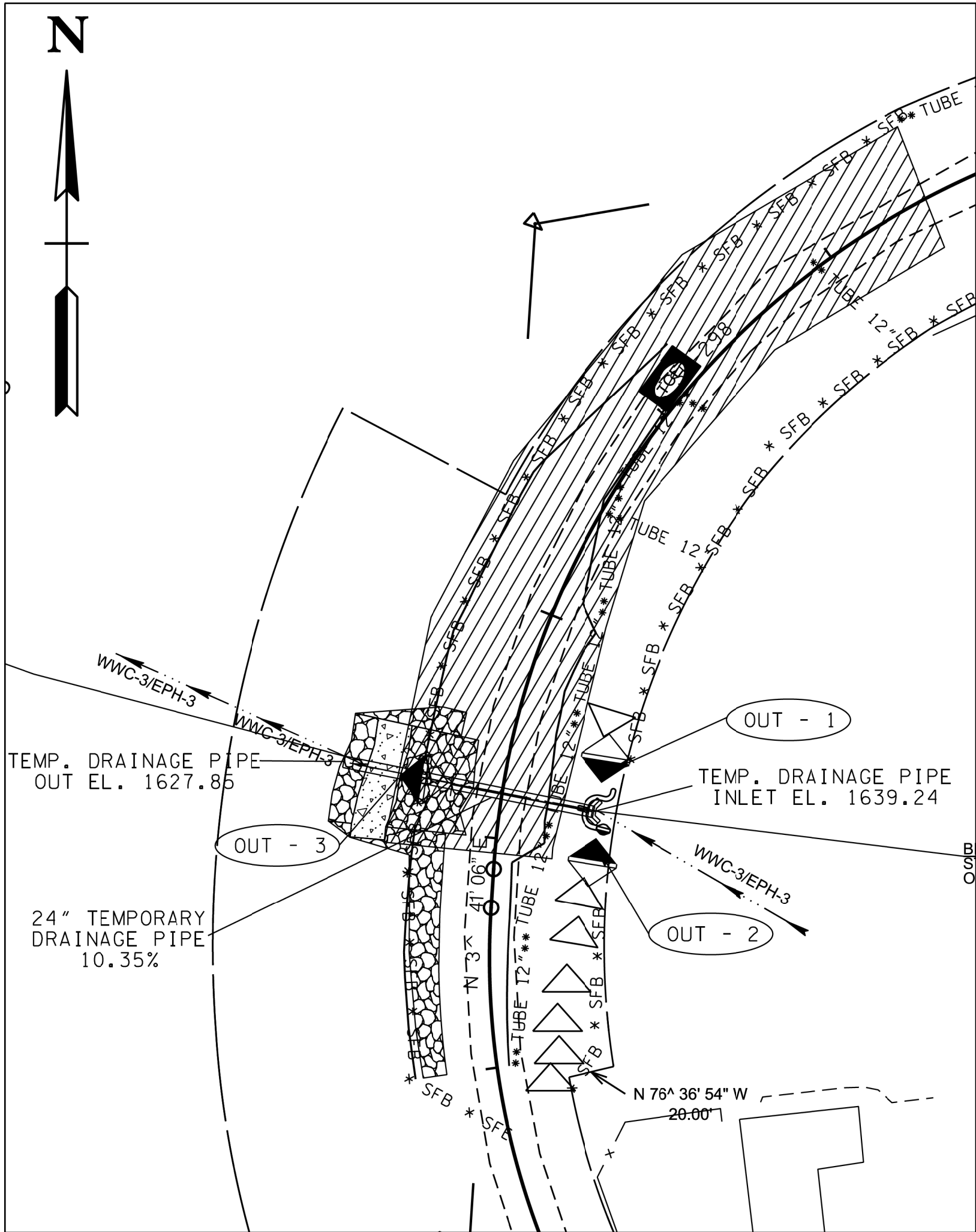
**STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION**

**EROSION  
PREVENTION &  
SEDIMENT CONTROL  
(EPSC) PLANS**

STA.12+00.00 TO STA.18+78.46  
SCALE: 1"=50'

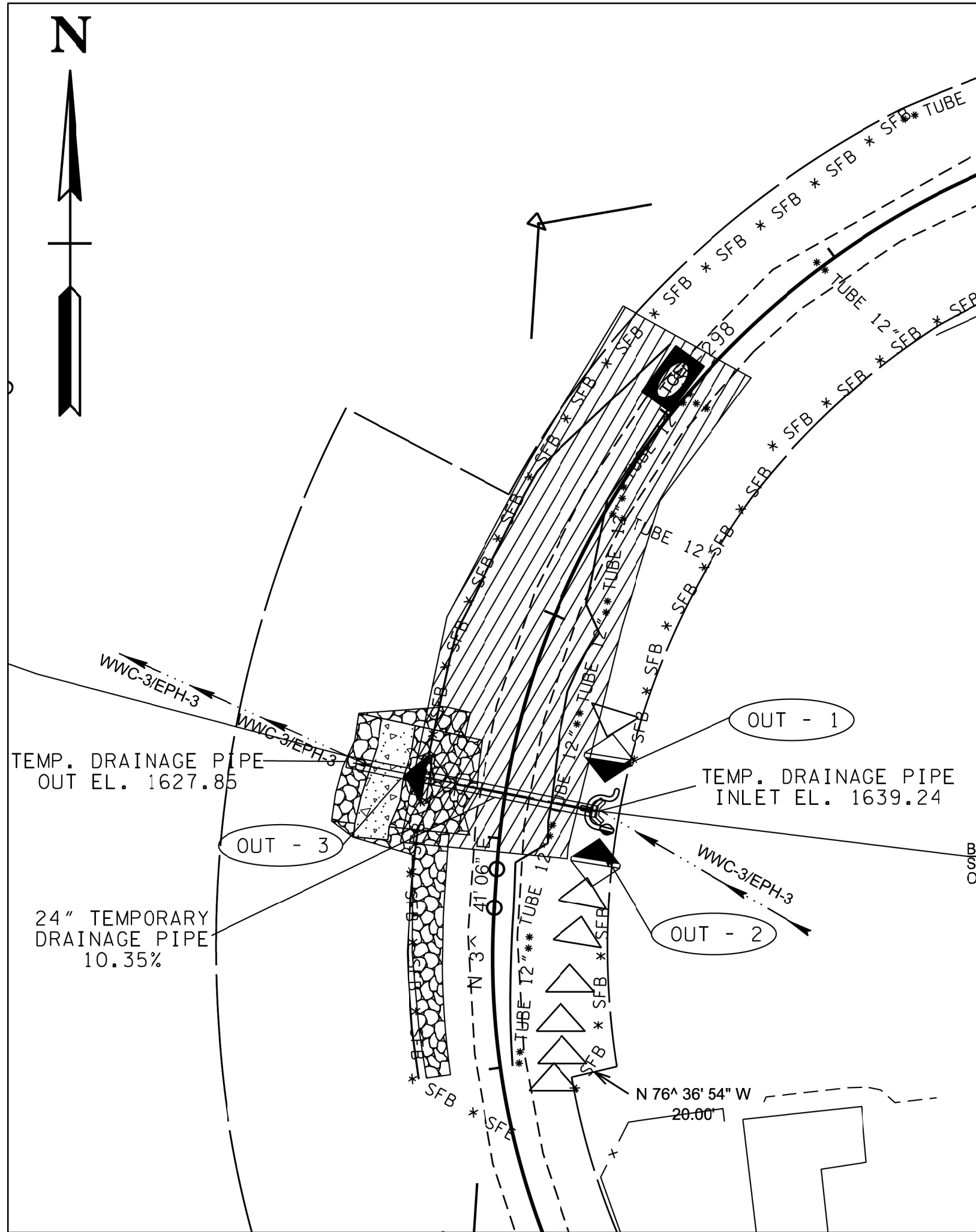


20-DEC-2024 09:49  
\\tdot02nas002.tdot.state.tn.us\02Shared\Design County Folders\Cumberland\SR298\LM8.5\small\structure\01-012A\_EPSC Stage 2A.sht



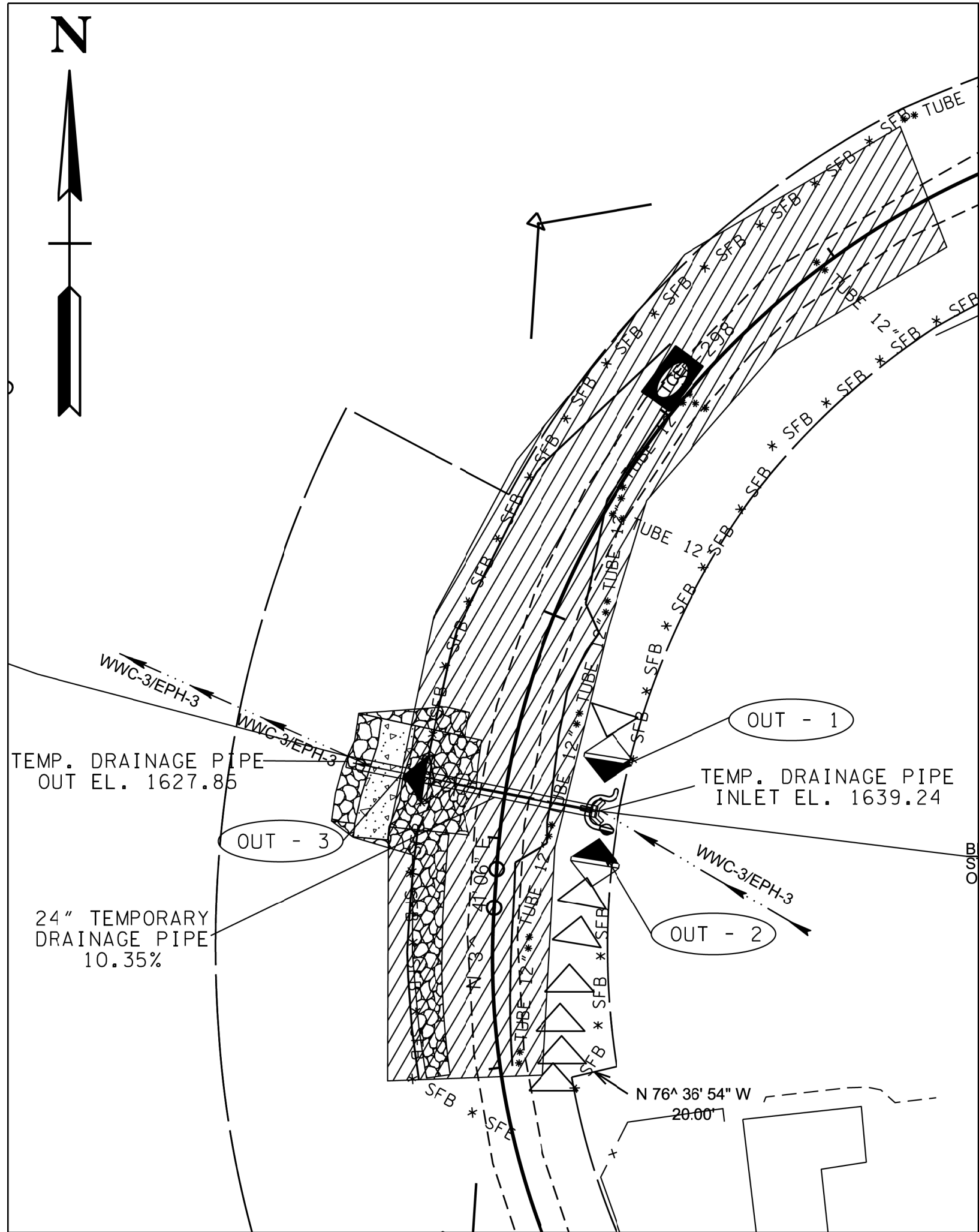
**DETAIL A:**

- 1) PLACE AND MAINTAIN EPSC MEASURES AS DIRECTED BY THE TDOT ENGINEER.
- 2) INSTALL 24" TEMPORARY DRAINAGE PIPE AND BY-PASS PUMP
- 3) OPEN CUT & INSTALL PROPOSED CULVERT
- 4) ONCE THE PROPOSED 36" CULVERT HAS BEEN INSTALLED, INSTALL THE CULVERT PROTECTION AND REMOVE THE TEMPORARY PIPE
- 5) BUILD THE SLOPE ARMORING MEASURES STATED IN G-SHEETS



**DETAIL B:**

- 1) PLACE AND MAINTAIN EPSC MEASURES AS DIRECTED BY THE TDOT ENGINEER.




**DETAIL C:**

- 1) PLACE AND MAINTAIN EPSC MEASURES AS DIRECTED BY THE TDOT ENGINEER.
- 3) BUILD THE RETAINING WALL.

| OUTFALLS - STAGE 2 |           |             |
|--------------------|-----------|-------------|
| OUTFALL            | SLOPE (%) | AREA (A.C.) |
| 1                  | 19.73     | 0.14        |
| 2                  | 16.32     | 2.66        |
| 3                  | 3.34      | 0.22        |

| TYPE   | YEAR | PROJECT NO.   | SHEET NO. |
|--------|------|---------------|-----------|
| R.O.W. | 2023 | 18S298-M1-002 | 11A       |
| PIH    | 2025 | 18S298-M3-002 | 12A       |
| PS&E   | 2025 | 18S298-M3-002 | 12A       |
|        |      |               |           |

**SEALED BY**  
  
COORDINATES ARE NAD 83(X), ARE DATUM ADJUSTED BY THE FACTOR OF 1.000 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WITH GEOID 12B.

**STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION**  
**EROSION  
PREVENTION &  
SEDIMENT CONTROL  
(EPSC) PLANS**  
STA.12+00.00 TO STA.18+78.46  
SCALE: 1"=50'



20-DEC-2024 09:50  
\\tdot02nas002.tdot.state.tn.us\02Shared\Design County Folders\Cumberland\SR298\LM8.5\SmallStructure\01-013\_EPSC Stage 3.sht



PROPOSED 2' CONTOURS SHOWN

| OUTFALLS - STAGE 3 |       |      |
|--------------------|-------|------|
| OUTFALL            | SLOPE | AREA |
| 1                  | 19.73 | 0.14 |
| 2                  | 16.32 | 2.66 |
| 3                  | 4.94  | 0.04 |

END PROJ. NO. 18S298-M3-002 CONST.

END PROJECT 18S298-M1-002 R.O.W. (UTILITIES ONLY)

STA. 18+78.46

N 628287.8441 E 2273929.0911

BEGIN PROJ. NO. 18S298-M3-002 CONST.

BEGIN PROJECT 18S298-M1-002 R.O.W. (UTILITIES ONLY)

STA. 12+00.00

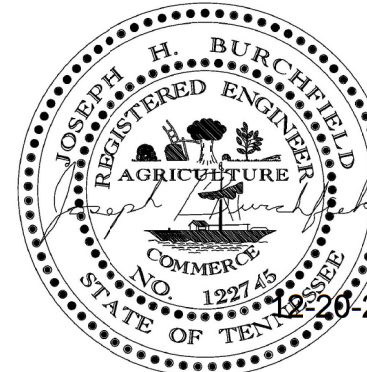
N 627775.1685 E 2273647.8656

## STAGE 3 - FINAL STABILIZATION

- 1) INSTALL EPSC MEASURES AS DIRECTED BY THE TDOT ENGINEER. LEAVE EXISTING EPSC MEASURES FROM PREVIOUS STAGE AS REQUIRED.
- 2) FINISH FINAL STABILIZATION IN DISTURBED AREAS.
- 3) REMOVE ALL EPSC MEASURES AFTER THE FINAL STABILIZATION HAS TAKEN HOLD.

| TYPE   | YEAR | PROJECT NO.   | SHEET NO. |
|--------|------|---------------|-----------|
| R.O.W. | 2023 | 18S298-M1-002 | 12        |
| PIH    | 2025 | 18S298-M3-002 | 13        |
| PS&E   | 2025 | 18S298-M3-002 | 13        |

SEALED BY






COORDINATES ARE NAD 83(X), ARE DATUM ADJUSTED BY THE FACTOR OF 1.000 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WITH GEOID 12B.

STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

EROSION  
PREVENTION &  
SEDIMENT CONTROL  
(EPSC) PLANS  
STA.12+00.00 TO STA.18+78.46  
SCALE: 1"=50'




ALL SIGNS SHOWN WITH DESIGNATIONS ARE TO BE FABRICATED AS  
DETAILED IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (CURRENT EDITION)

| SIGN NO | LEGEND  | SHEET NO | SIZE   |        |        |              | COPY    |            |         |        | SHIELD | ARROW | SIGN FACE |                |                       | STEEL DESIGN (BREAK-AWAY) |                |         |               |                 | MINIMUM VERTICAL CLEARANCE | REMARKS |
|---------|---|----------|--------|--------|--------|--------------|---------|------------|---------|--------|--------|-------|-----------|----------------|-----------------------|---------------------------|----------------|---------|---------------|-----------------|----------------------------|---------|
|         |   |          | LENGTH | HEIGHT | RADIUS | BORDER WIDTH | CAPITAL | LOWER CASE | NUMERAL | SERIES |        |       | COPY      | BACKGROUND     | MATERIAL              | SUPPORT TYPE              | SUPPORT LENGTH | FOOTING | CONC. CU. YD. | REIN STEEL LBS. |                            |         |
| 1       |  W1-8L |          | 18"    | 24"    |        |              |         |            |         |        |        |       | BLACK     | YELLOW (FLOR.) | 0.080" SHEET ALUMINUM | P2                        | 12' - 0"       |         |               |                 | 5' - 0"                    |         |
| 2       |  W1-8R |          | 18"    | 24"    |        |              |         |            |         |        |        |       | BLACK     | YELLOW (FLOR.) | 0.080" SHEET ALUMINUM | P2                        | 12' - 0"       |         |               |                 | 5' - 0"                    |         |
| 3       |  W2-2L |          | 36"    | 36"    |        |              |         |            |         |        |        |       | BLACK     | YELLOW (FLOR.) | 0.080" SHEET ALUMINUM | P5                        | 14' - 0"       |         |               |                 | 5' - 0"                    |         |
|         |   |          |        |        |        |              |         |            |         |        |        |       |           |                |                       |                           |                |         |               |                 |                            |         |
|         |   |          |        |        |        |              |         |            |         |        |        |       |           |                |                       |                           |                |         |               |                 |                            |         |
|         |   |          |        |        |        |              |         |            |         |        |        |       |           |                |                       |                           |                |         |               |                 |                            |         |
|         |   |          |        |        |        |              |         |            |         |        |        |       |           |                |                       |                           |                |         |               |                 |                            |         |
|         |   |          |        |        |        |              |         |            |         |        |        |       |           |                |                       |                           |                |         |               |                 |                            |         |
|         |   |          |        |        |        |              |         |            |         |        |        |       |           |                |                       |                           |                |         |               |                 |                            |         |
|         |   |          |        |        |        |              |         |            |         |        |        |       |           |                |                       |                           |                |         |               |                 |                            |         |
|         |   |          |        |        |        |              |         |            |         |        |        |       |           |                |                       |                           |                |         |               |                 |                            |         |
|         |   |          |        |        |        |              |         |            |         |        |        |       |           |                |                       |                           |                |         |               |                 |                            |         |
|         |   |          |        |        |        |              |         |            |         |        |        |       |           |                |                       |                           |                |         |               |                 |                            |         |
|         |   |          |        |        |        |              |         |            |         |        |        |       |           |                |                       |                           |                |         |               |                 |                            |         |
|         |   |          |        |        |        |              |         |            |         |        |        |       |           |                |                       |                           |                |         |               |                 |                            |         |

|      |      |               |           |
|------|------|---------------|-----------|
| TYPE | YEAR | PROJECT NO.   | SHEET NO. |
| PIH  | 2025 | 18S298-M3-002 | 14        |
| PS&E | 2025 | 18S298-M3-002 | 14        |
|      |      |               |           |
|      |      |               |           |

SEALED BY



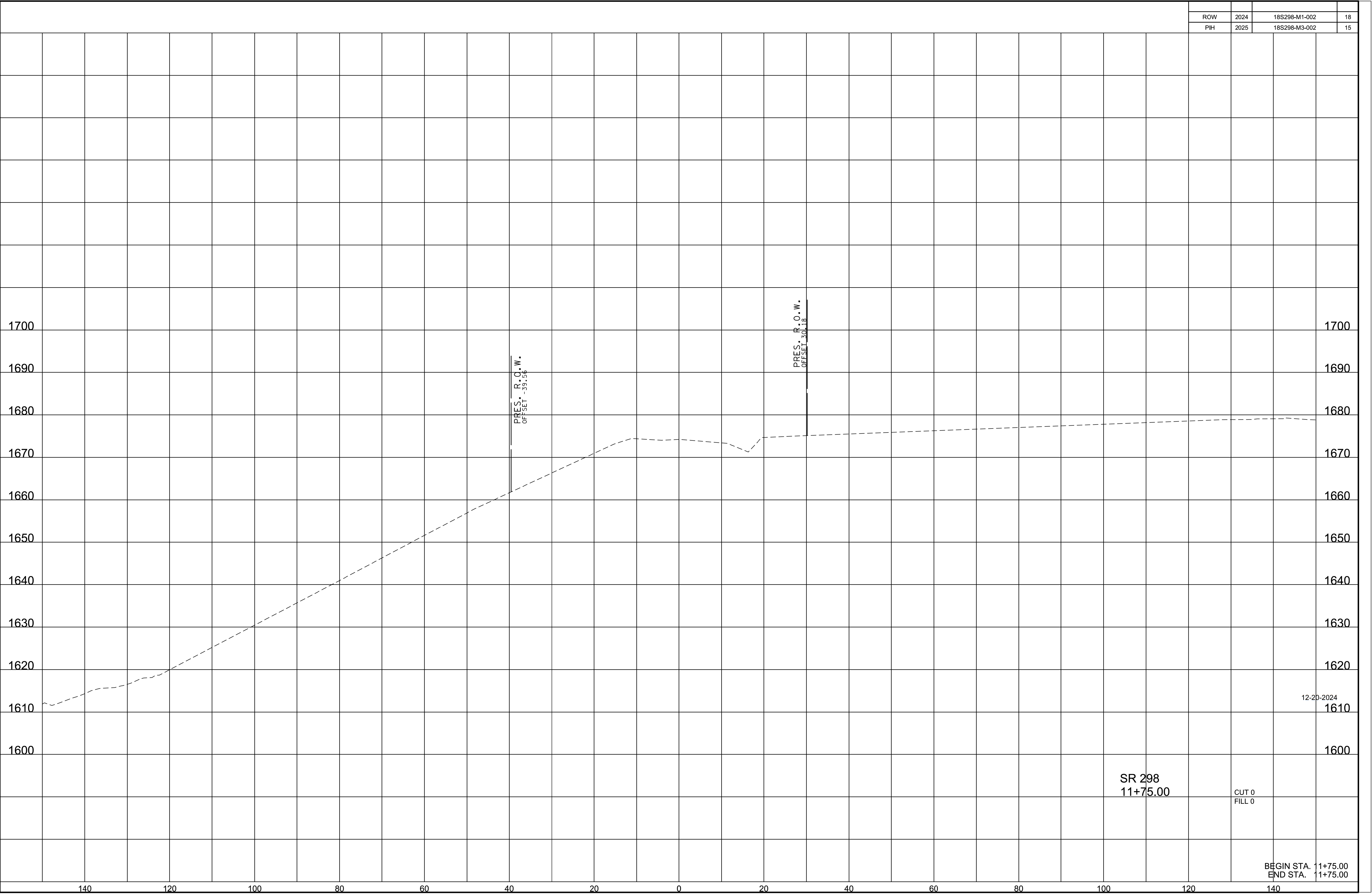
12-20-2024

STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

SIGN  
SCHEDULE



20-DEC-2024 09:50  
\\tdot02nas002.tdot.state.tn.us\02Shared\Design County Folders\Cumberland\SR298\LM8.5small\Structure\01-015-056\_MLX\SECTIONS.SHT



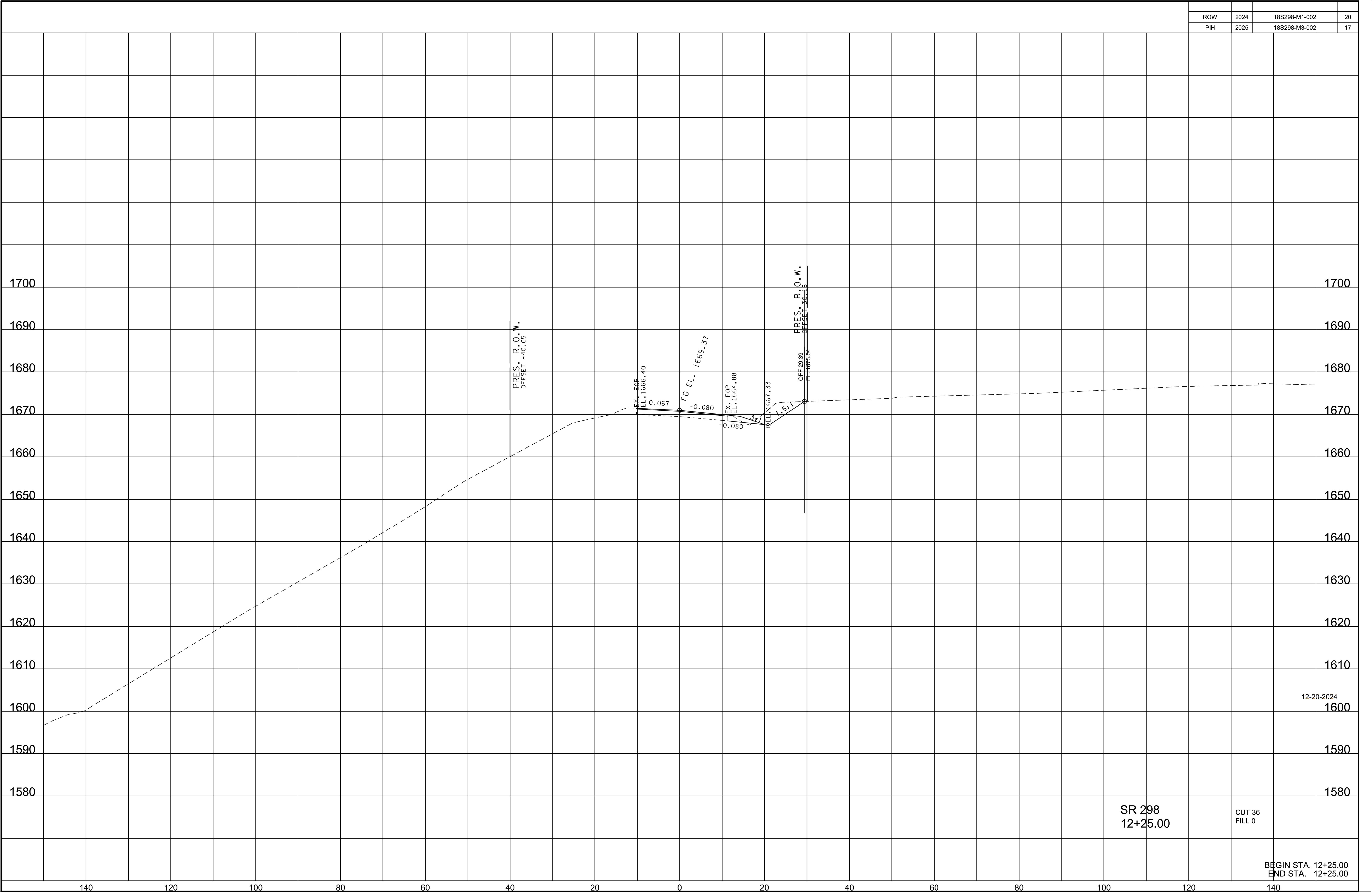


20-DEC-2024 09:50  
\\tdot02nas002.tdot.state.tn.us\02Shared\Design County Folders\Cumberland\SR298\LM8.5small\Structure\01-015-056\_MLXSECTIONS.SHT





20-DEC-2024 09:50  
\\tdot02nas002.tdot.state.tn.us\02Shared\Design County Folders\Cumberland\SR298\LM8.5small\Structure\01-015-056\_MLXSECTIONS.SHT



|     |      |               |    |
|-----|------|---------------|----|
| ROW | 2024 | 18S298-M1-002 | 20 |
| PIH | 2025 | 18S298-M3-002 | 17 |

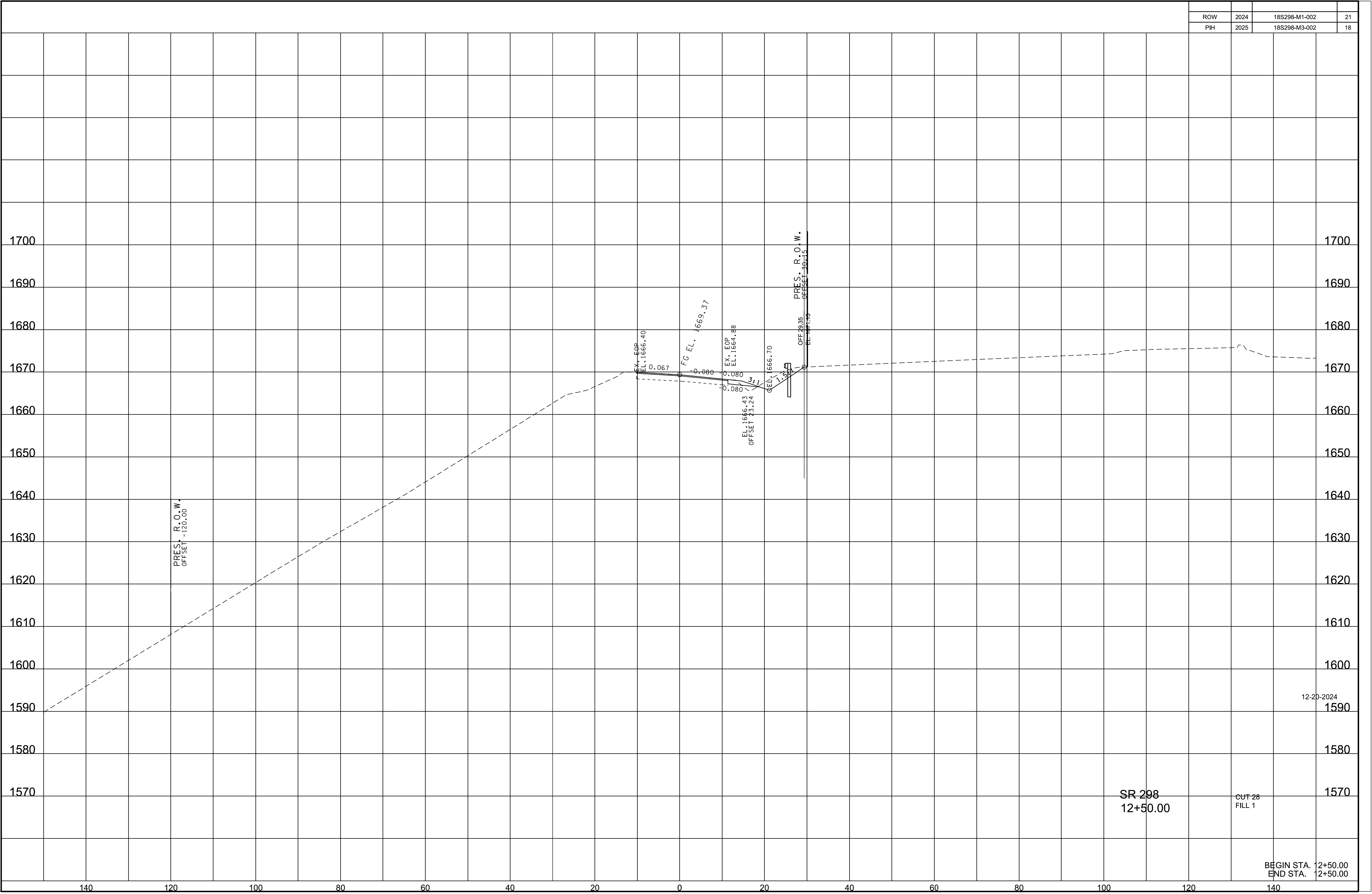
SR 298  
12+25.00

CUT 36  
FILL 0

BEGIN STA. 12+25.00  
END STA. 12+25.00



20-DEC-2024 09:50  
\\dot02nas002.tn.us\02Shared\Design County Folders\Cumberland\SR298\LM8.5small\Structure\01-015-056\_MLX\SECTIONS.SHT



|     |      |               |    |
|-----|------|---------------|----|
| ROW | 2024 | 18S298-M1-002 | 21 |
| PIH | 2025 | 18S298-M3-002 | 18 |

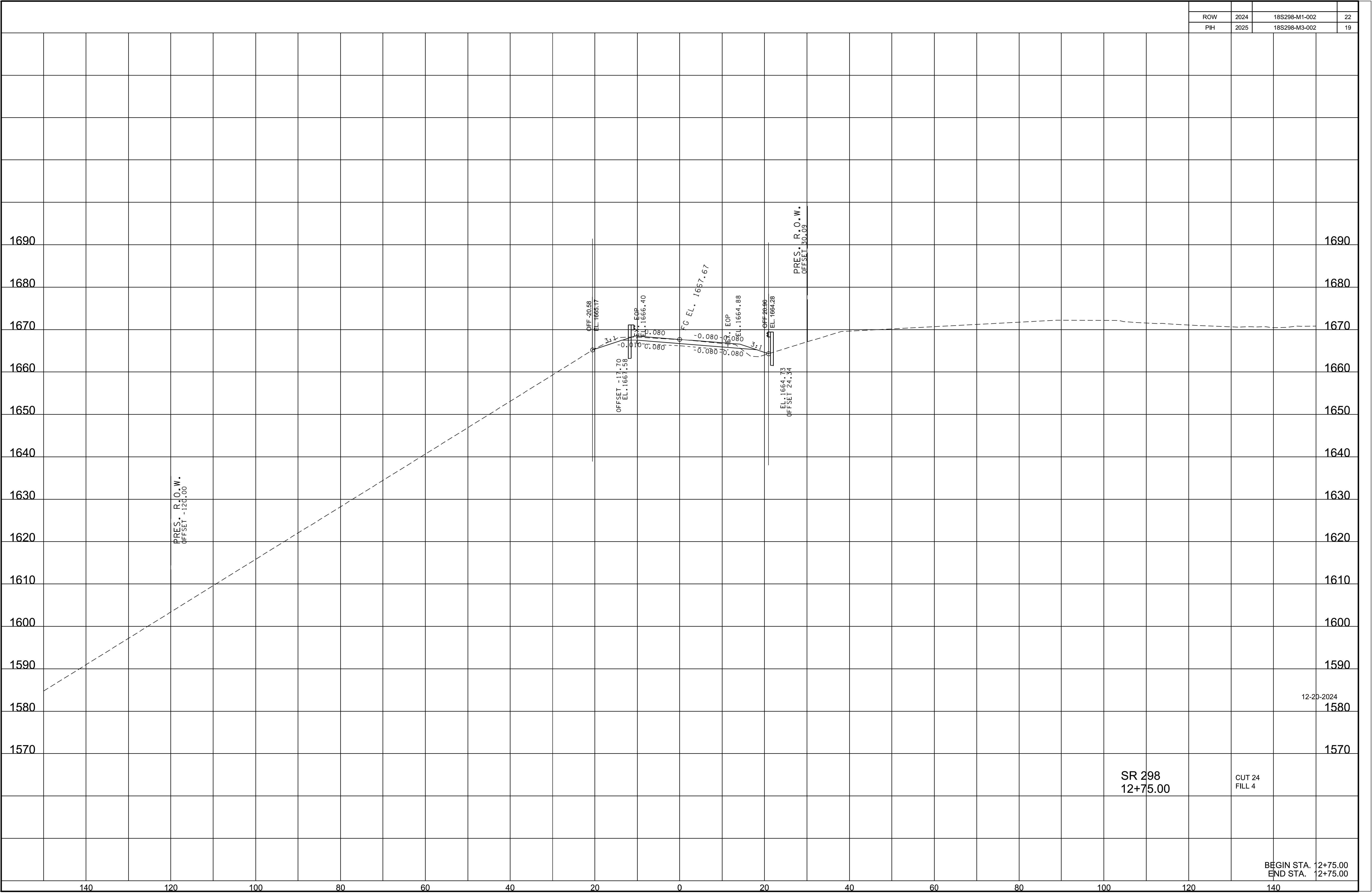
SR 298  
12+50.00

CUT 28  
FILL 1

BEGIN STA. 12+50.00  
END STA. 12+50.00



20-DEC-2024 09:50  
\\tdot02nas002.tdot.state.tn.us\02Shared\Design County Folders\Cumberland\SR298\LM8.5small\Structure\01-015-056\_MLX\SECTIONS.SHT





20-DEC-2024 09:50  
\\dot02nas002.tdot.state.tn.us\02Shared\Design County Folders\Cumberland\SR298\LM8.5small\Structure\01-015-056\_MLX\SECTIONS.SHT

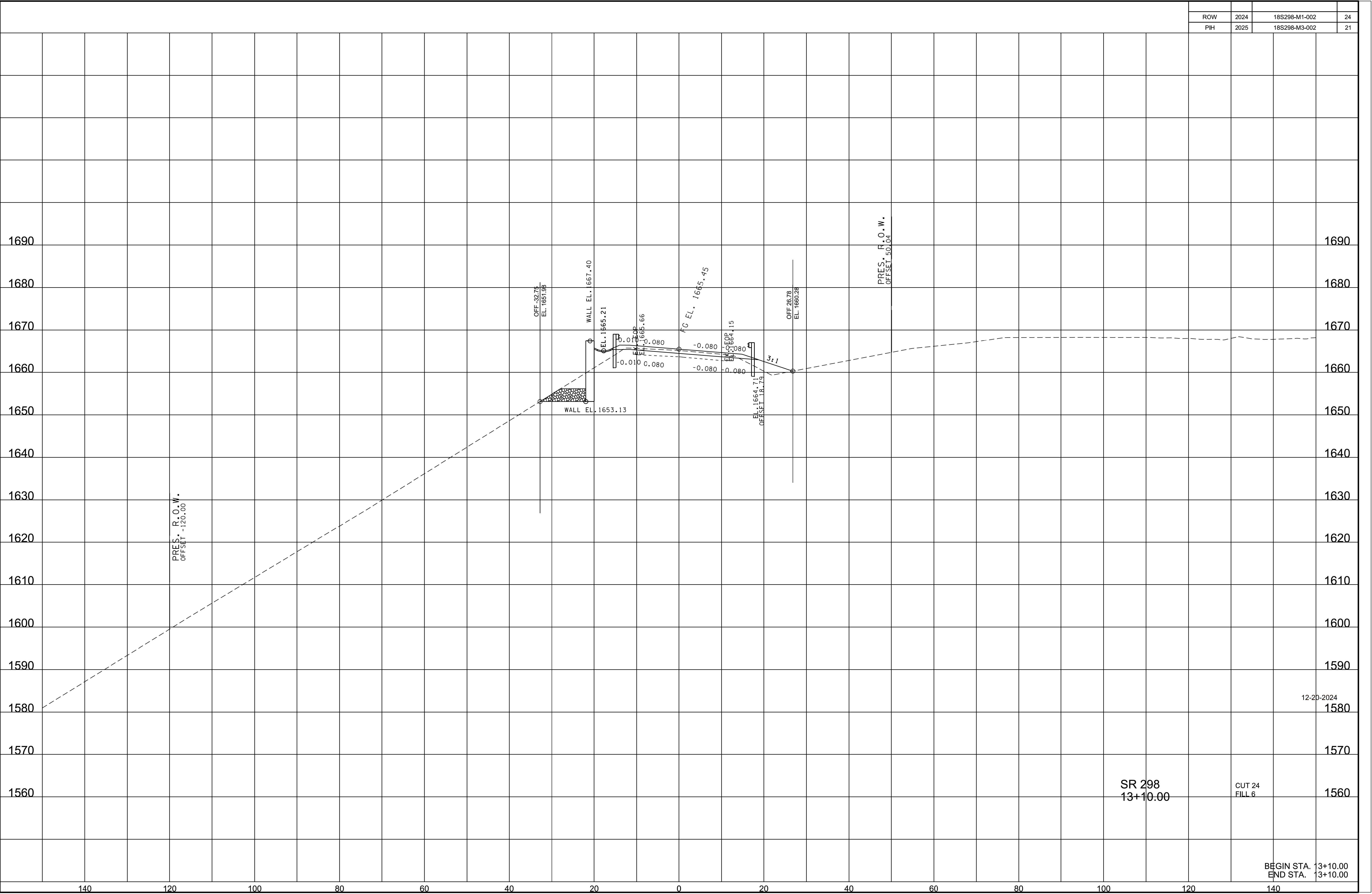


|     |      |               |    |
|-----|------|---------------|----|
| ROW | 2024 | 18S298-M1-002 | 23 |
| PIH | 2025 | 18S298-M3-002 | 20 |

BEGIN STA. 13+00.00  
END STA. 13+00.00

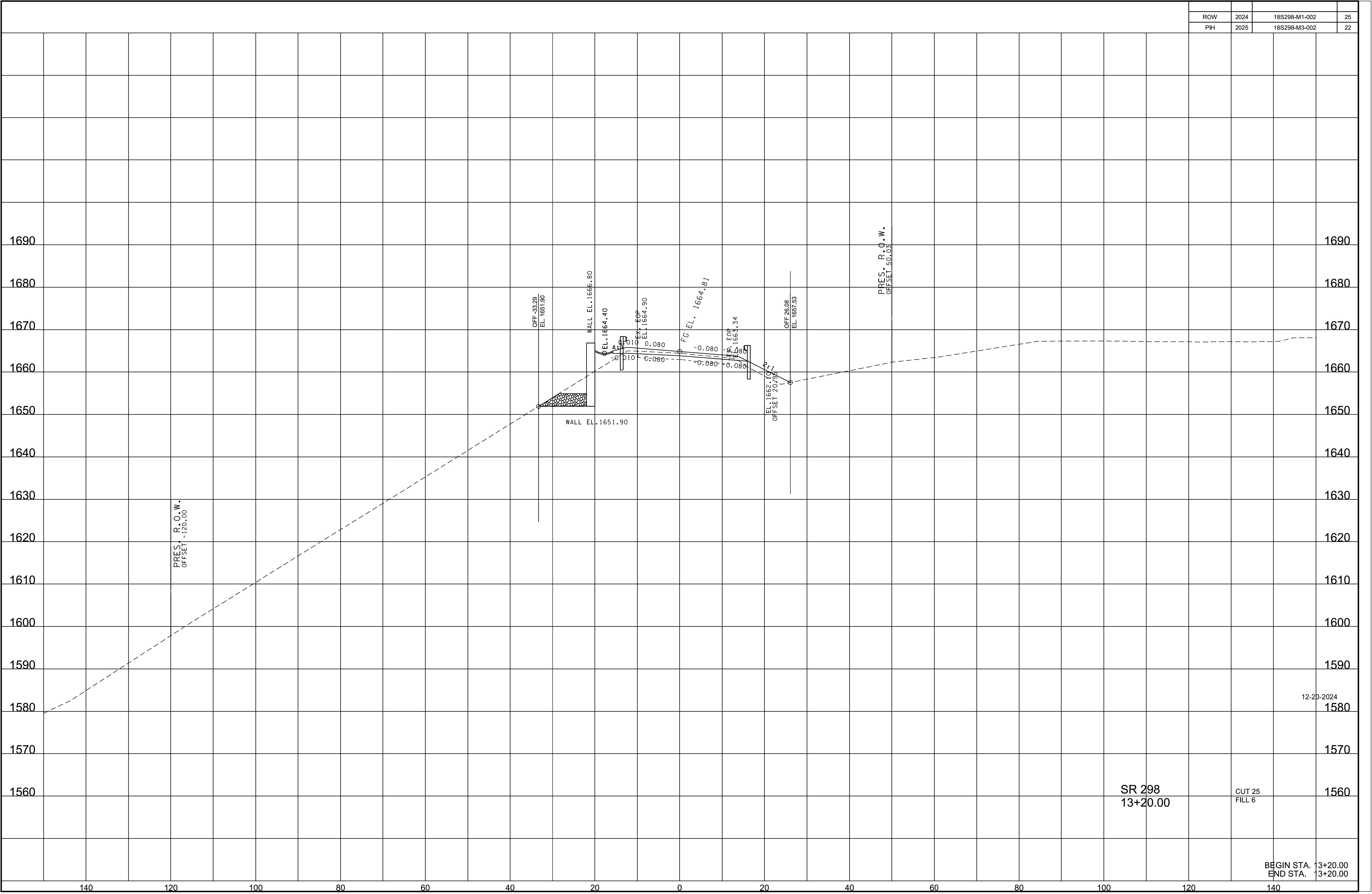


20-DEC-2024 09:50  
\\dot02nas002.tdot.state.tn.us\02Shared\Design County Folders\Cumberland\SR298\LM8.5small\Structure\01-015-056\_MLX\SECTIONS.SHT



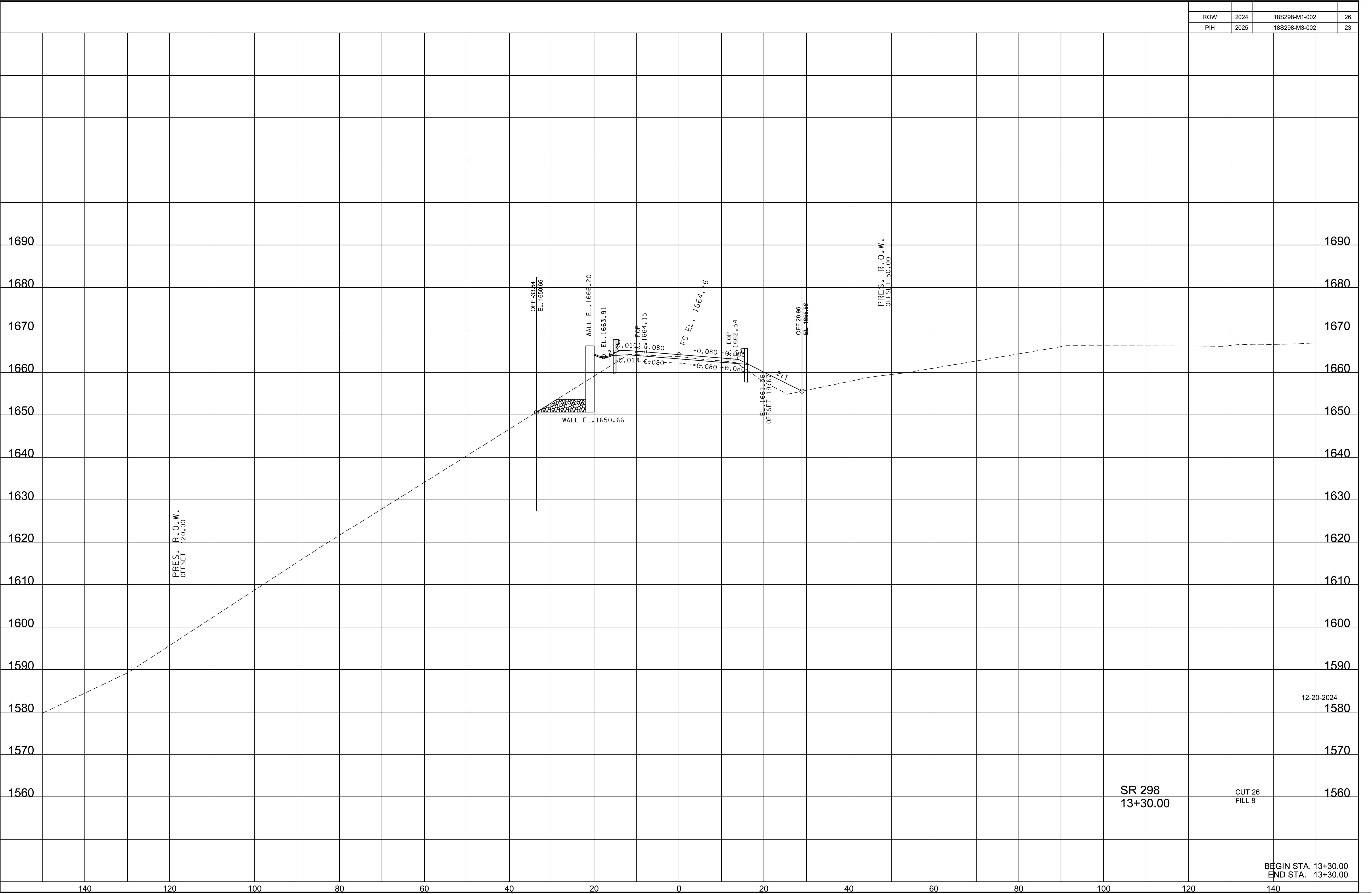


20-DEC-2024 09:50  
\\dot02nas002.tdot.state.tn.us\02Shared\Design County Folders\Cumberland\SR298\LM8.5small\Structure\01-015-056\_MLX\SECTIONS.SHT





20-DEC-2024 09:51  
\\tdot02nas002.tdot.state.tn.us\02Shared\Design County Folders\Cumberland\SR298\LM8.5small\Structure\01-015-056\_MLX\SECTIONS.SHT



|     |      |               |    |
|-----|------|---------------|----|
| ROW | 2024 | 18S298-M1-002 | 26 |
| PIH | 2025 | 18S298-M3-002 | 23 |

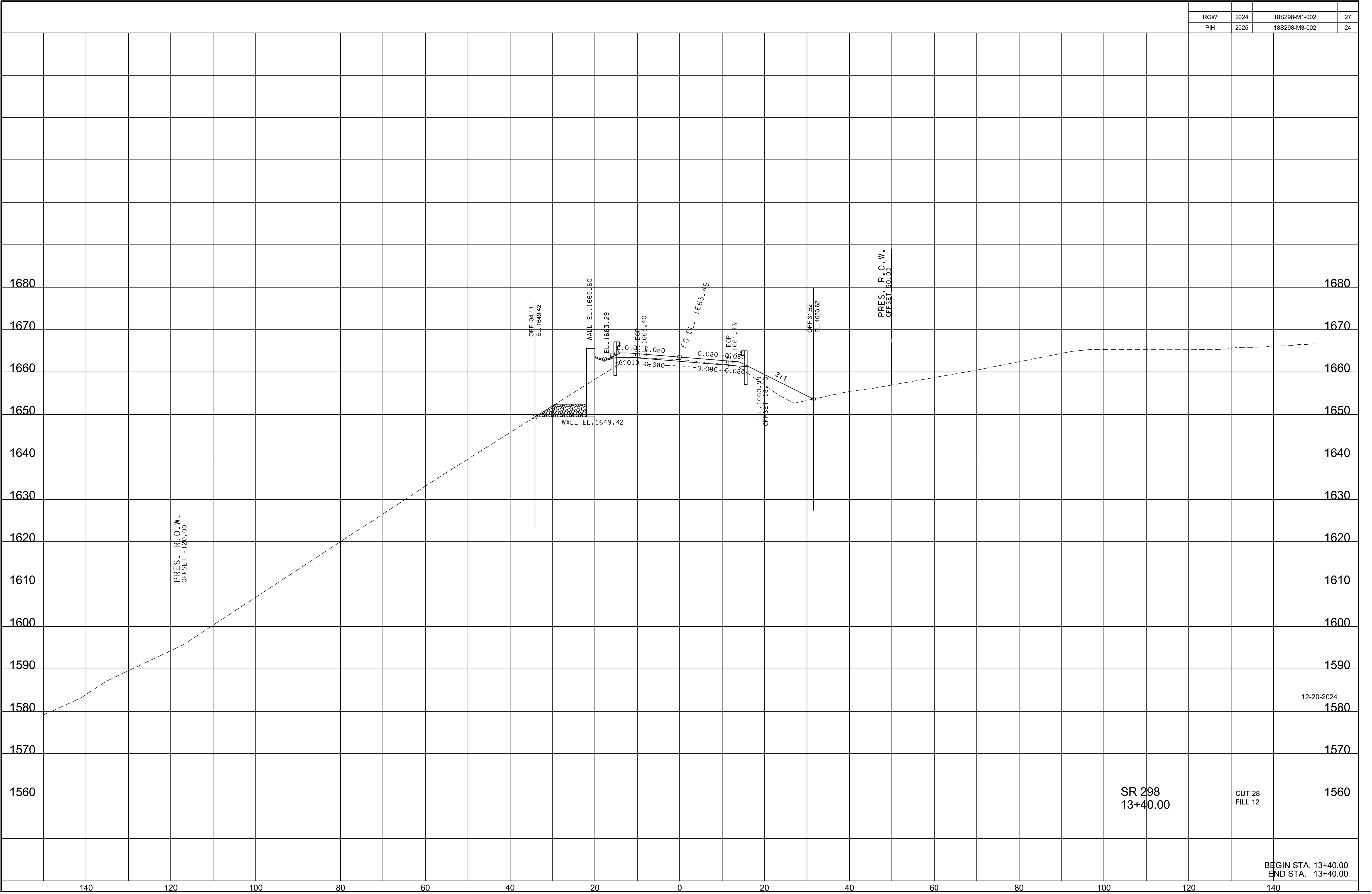
SR 298  
13+30.00

CUT 26  
FILL 8

BEGIN STA. 13+30.00  
END STA. 13+30.00

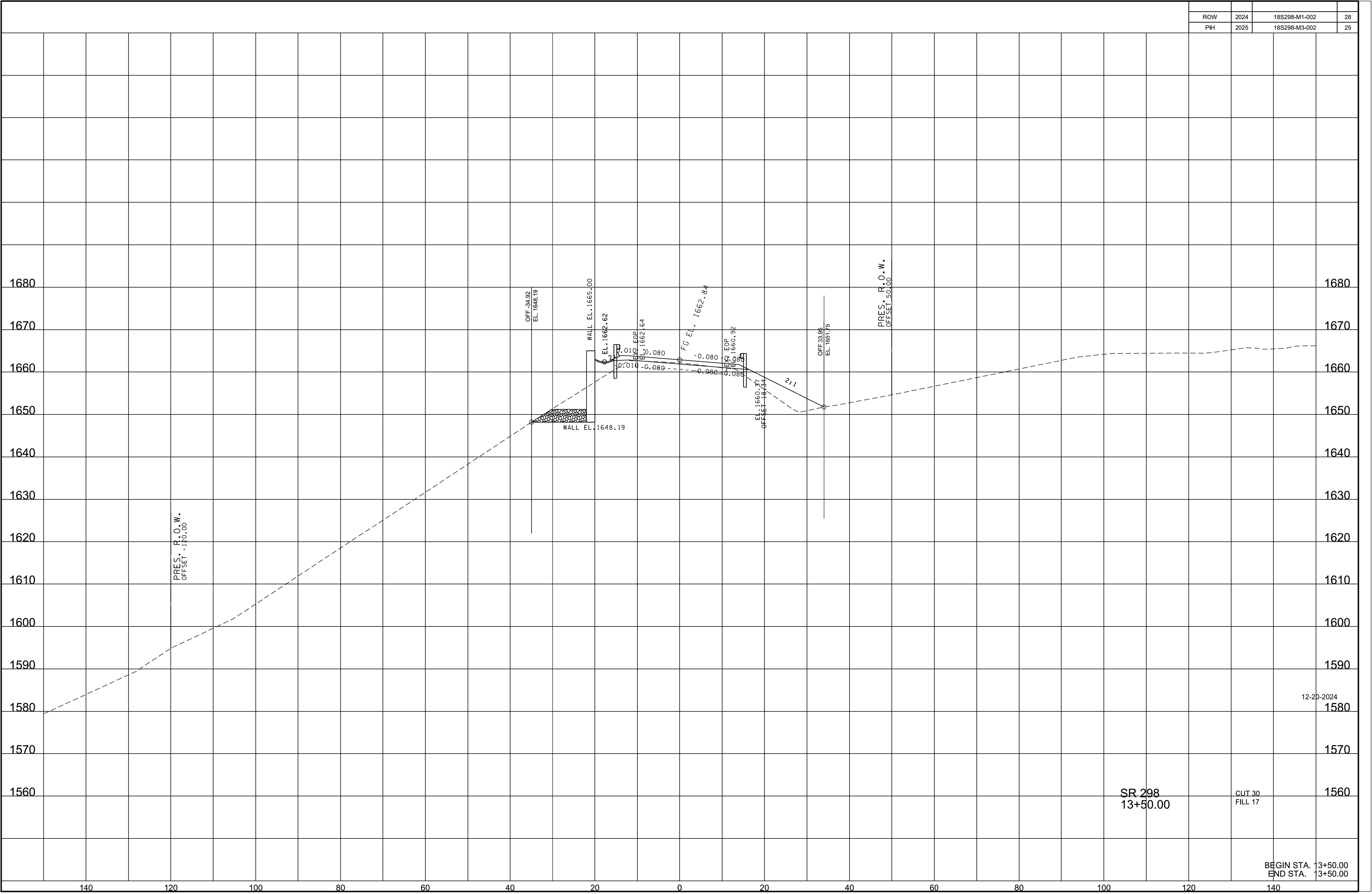


20-DEC-2024 09:51  
\\tdot02nas002.tdot.state.tn.us\02Shared\Design County Folders\Cumberland\SR298\LM8.5small\Structure\01-015-056\_MLX\SECTIONS.SHT



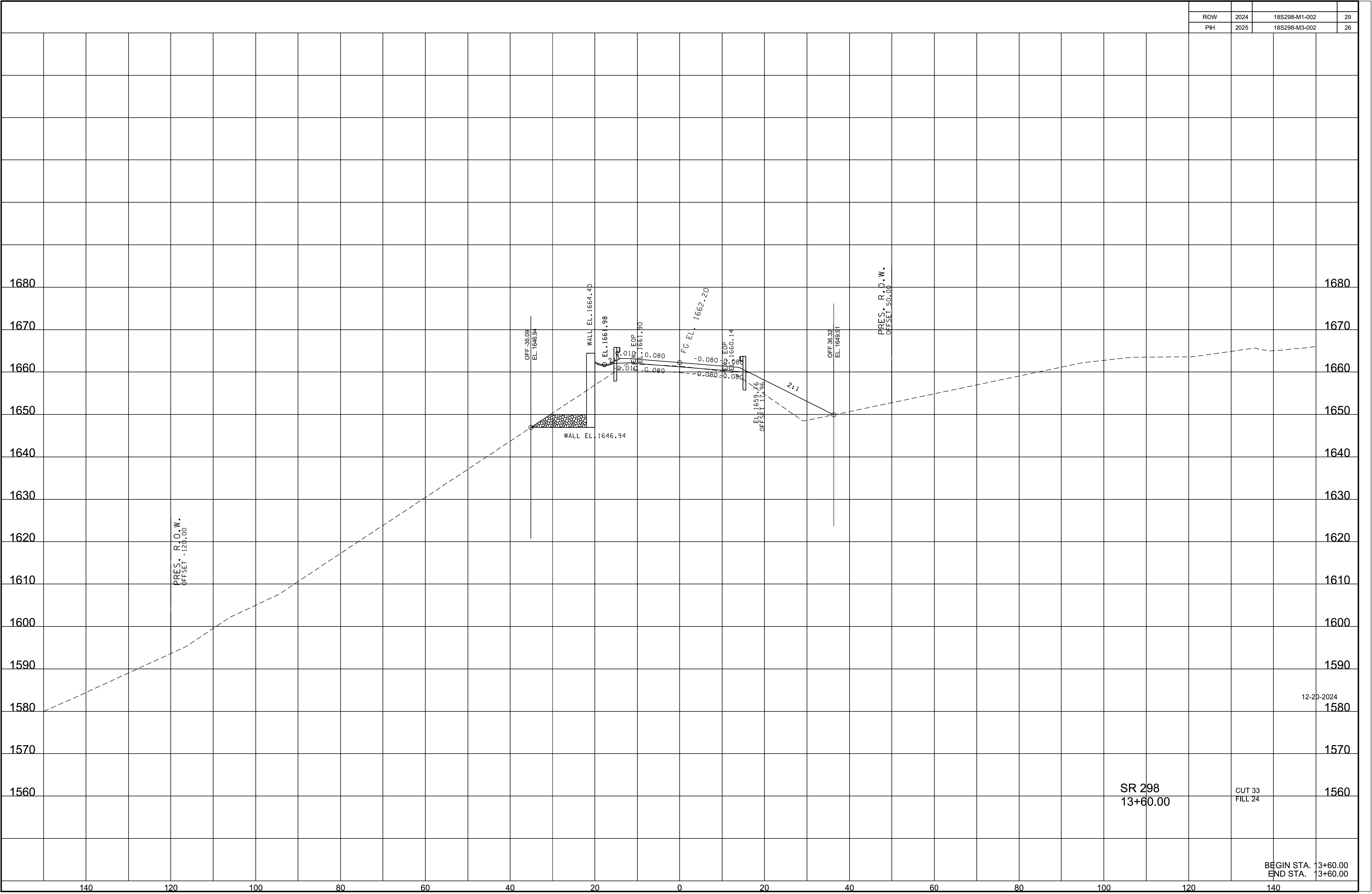


20-DEC-2024 09:51  
\\dot02nas002.tdot.state.tn.us\02Shared\Design County Folders\Cumberland\SR298\LM8.5small\Structure\01-015-056\_MLX\SECTIONS.SHT



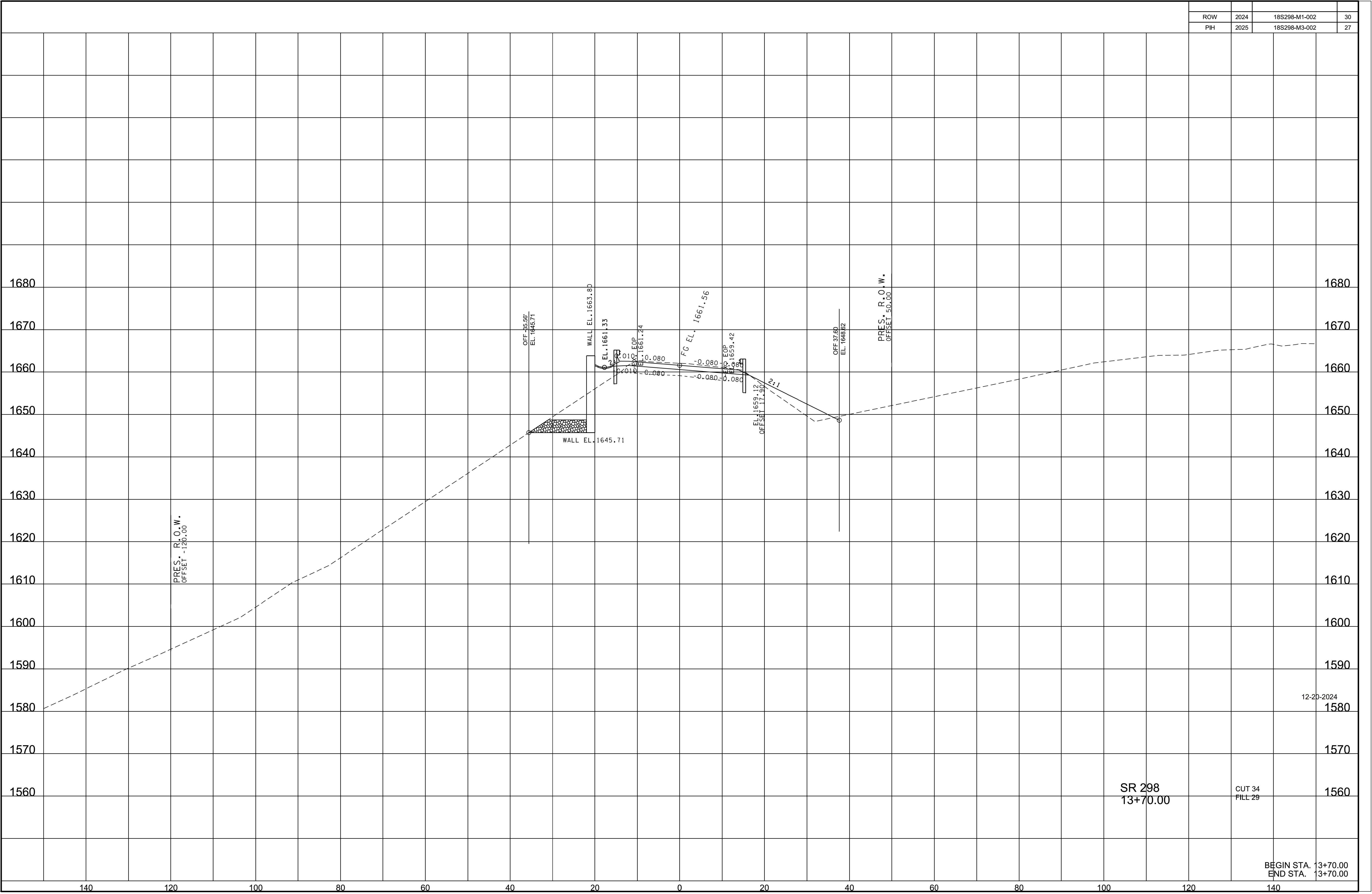


20-DEC-2024 09:51  
\\dot02nas002.tdot.state.tn.us\02Shared\Design County Folders\Cumberland\SR298\LM8.5small\Structure\01-015-056\_MLX\SECTIONS.SHT



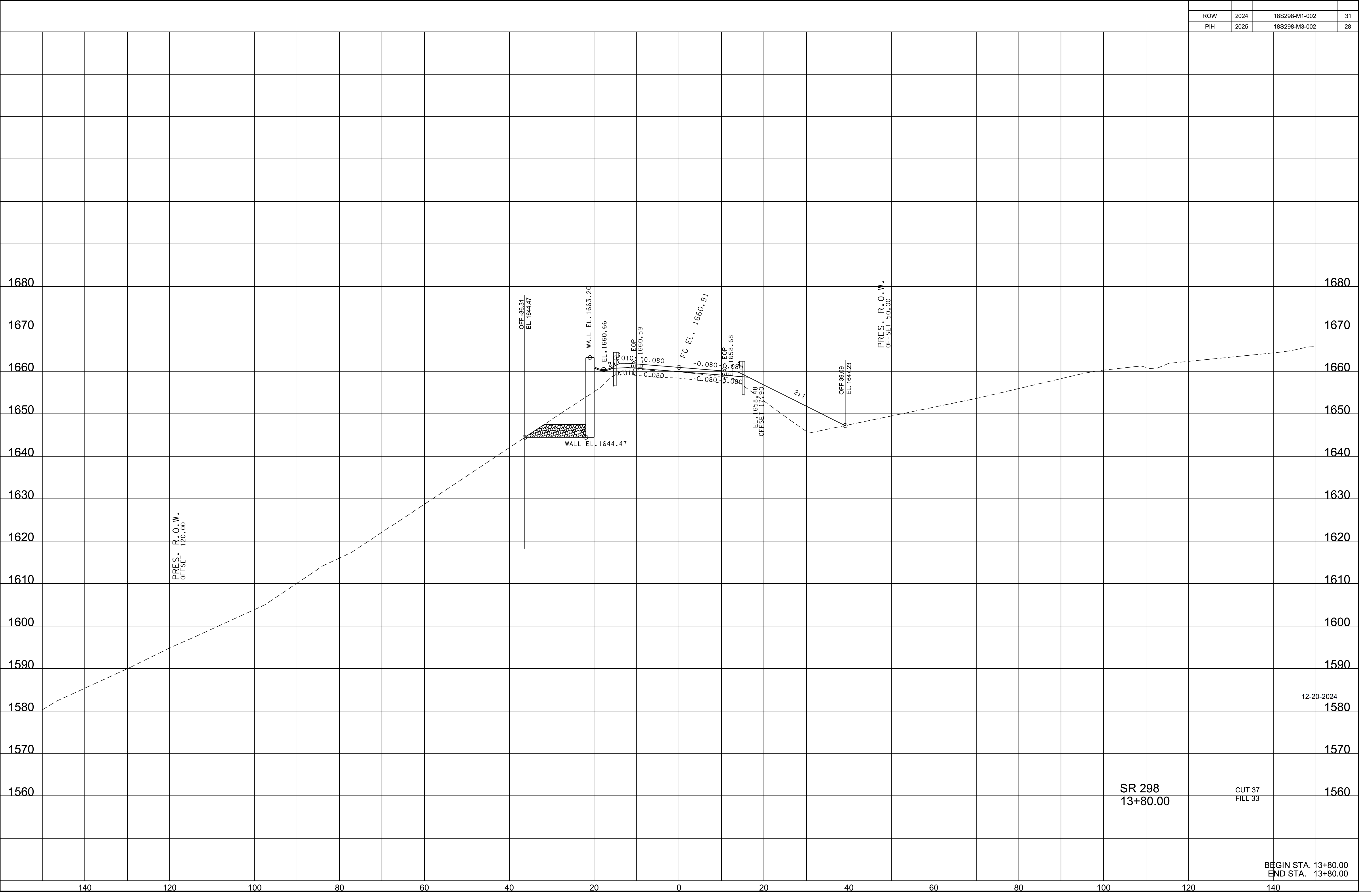


20-DEC-2024 09:51  
\\tdot02nas002.tdot.state.tn.us\02Shared\Design County Folders\Cumberland\SR298\LM8.5small\Structure\01-015-056\_MLX\SECTIONS.SHT





20-DEC-2024 09:51  
\\dot02nas002.tdot.state.tn.us\02Shared\Design County Folders\Cumberland\SR298\LM8.5small\Structure\01-015-056\_MLX\SECTIONS.SHT



SR 298  
13+80.00

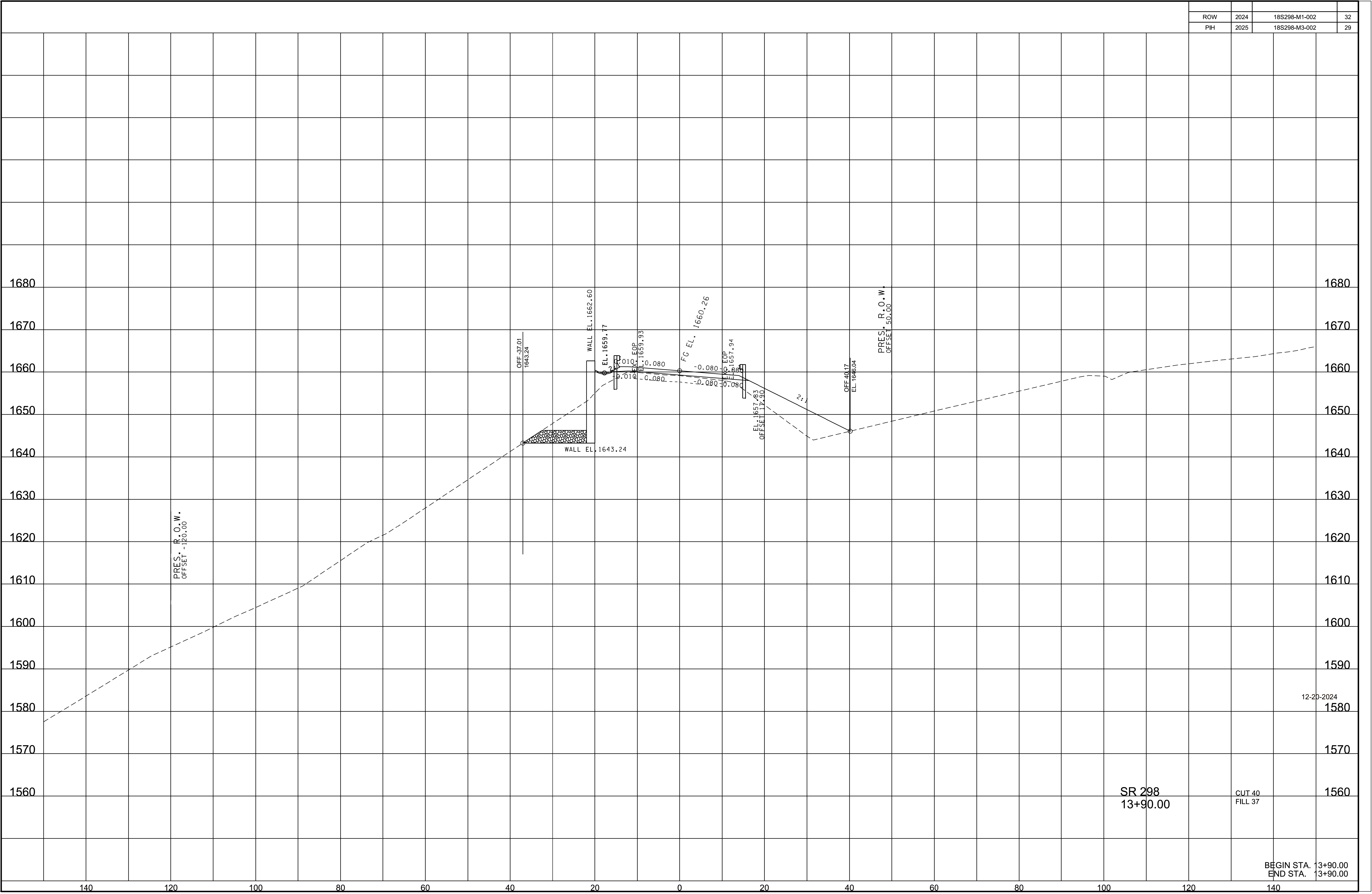
CUT 37  
FILL 33

BEGIN STA. 13+80.00  
END STA. 13+80.00

12-20-2024



20-DEC-2024 09:51  
\\tdot02nas002.tdot.state.tn.us\02Shared\Design County Folders\Cumberland\SR298\LM8.5small\Structure\01-015-056\_MLX\SECTIONS.SHT



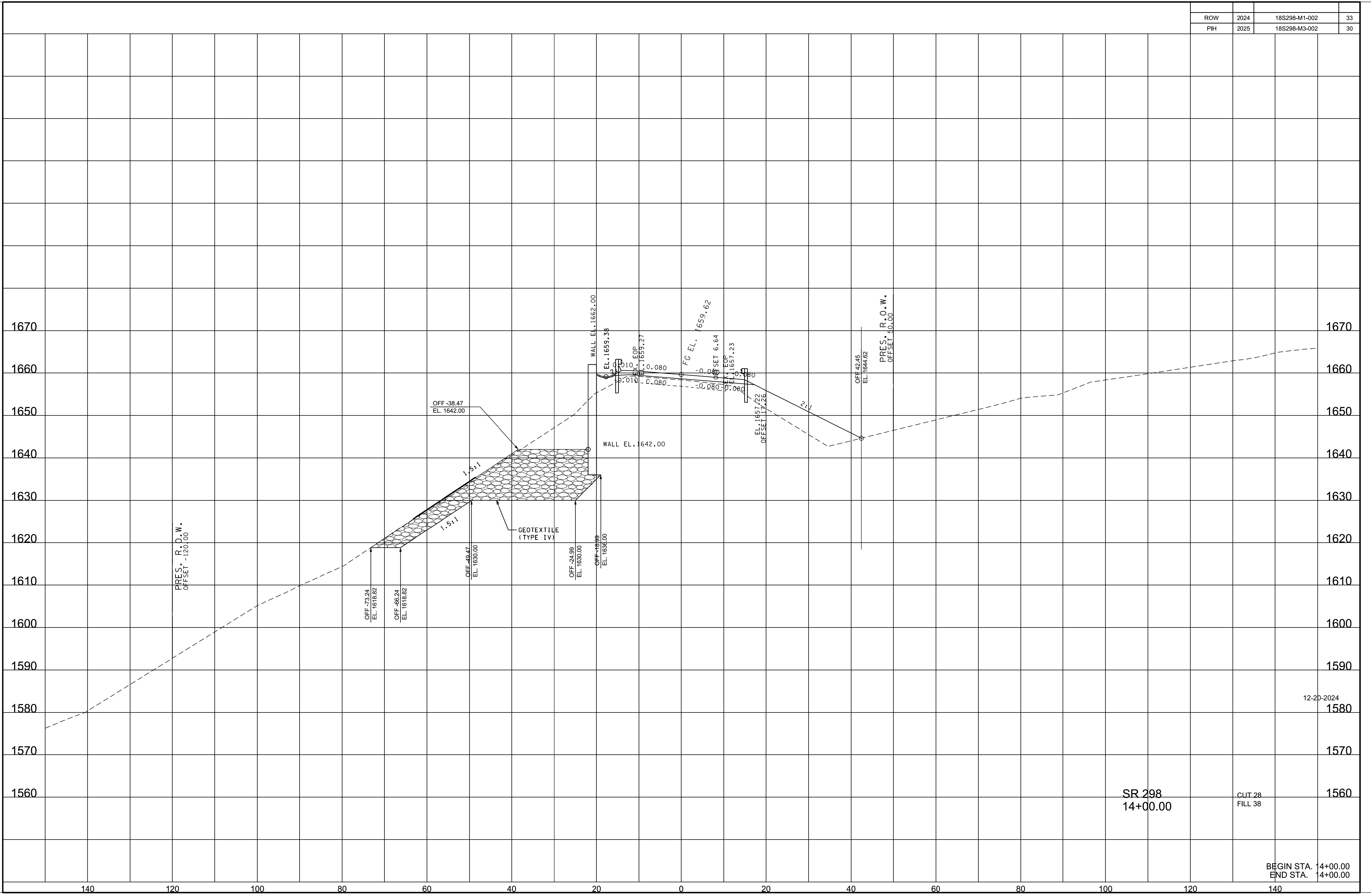
SR 298  
13+90.00

CUT 40  
FILL 37

BEGIN STA. 13+90.00  
END STA. 13+90.00



20-DEC-2024 09:51  
\\tdot02nas002.tdot.state.tn.us\02Shared\Design County Folders\Cumberland\SR298\LM8.5small\Structure\01-015-056\_MLX\SECTIONS.SHT



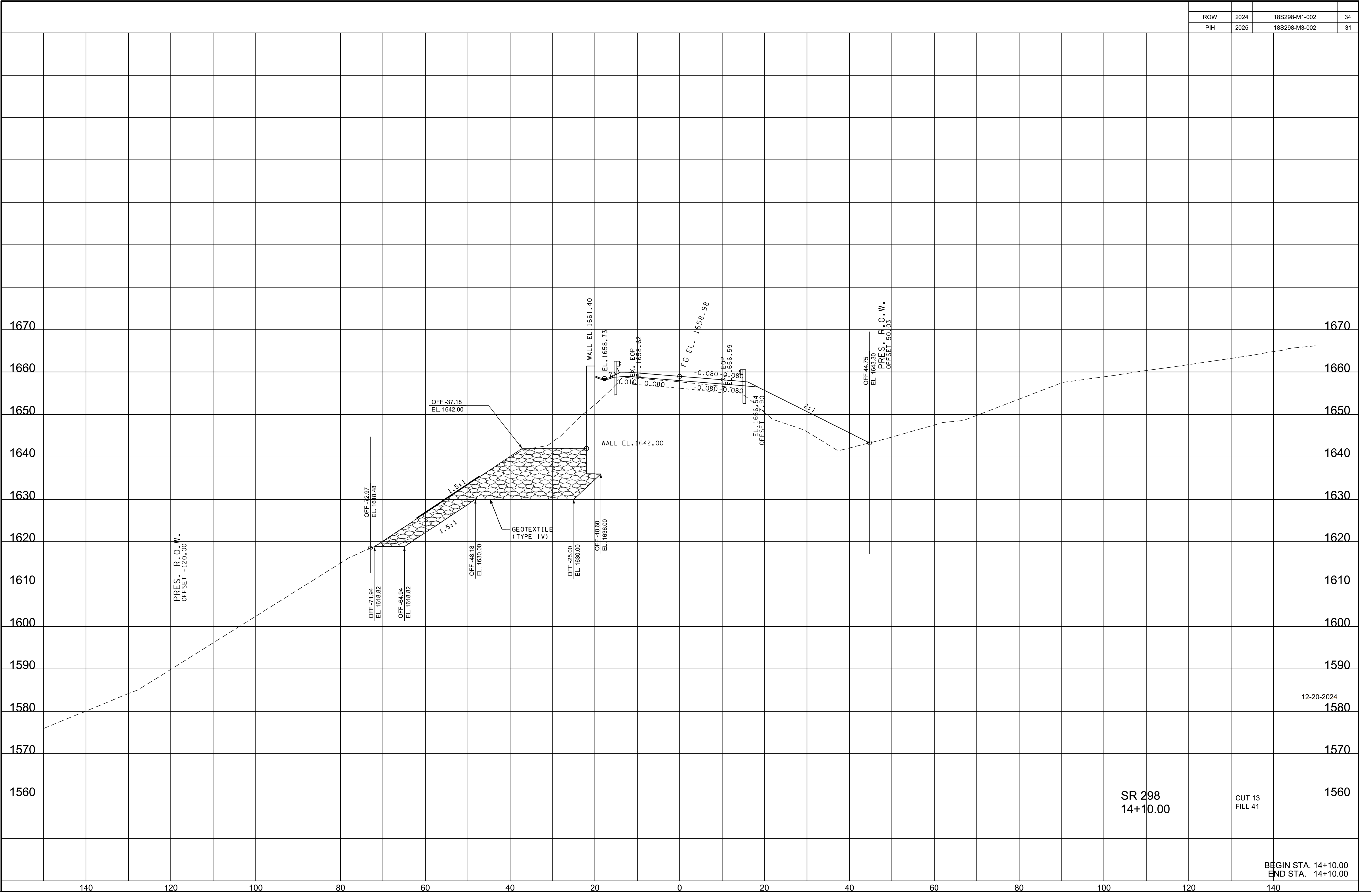
SR 298  
14+00.00

CUT 28  
FILL 38

BEGIN STA. 14+00.00  
END STA. 14+00.00

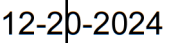


20-DEC-2024 09:51  
\\dot02nas002.tdot.state.tn.us\02Shared\Design County Folders\Cumberland\SR298\LM8.5small\Structure\01-015-056\_MLXSECTIONS.SHT

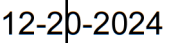


BEGIN STA. 14+10.00  
END STA. 14+10.00



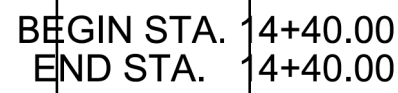






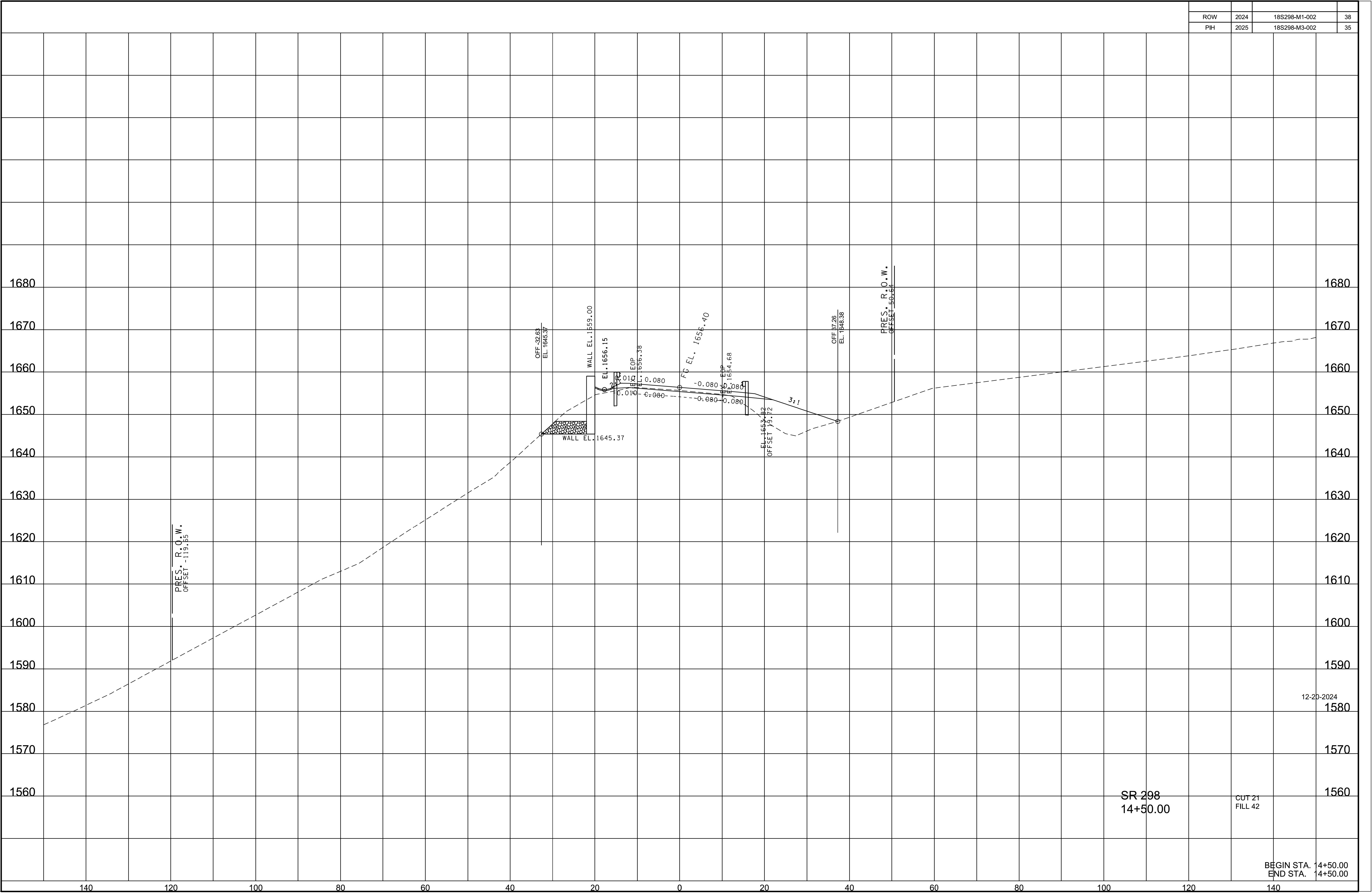


|  |
|--|
|  |
|--|





20-DEC-2024 09:52  
\\dot02nas002.tdot.state.tn.us\02Shared\Design County Folders\Cumberland\SR298\LM8.5small\Structure\01-015-056\_MLXSECTIONS.SHT

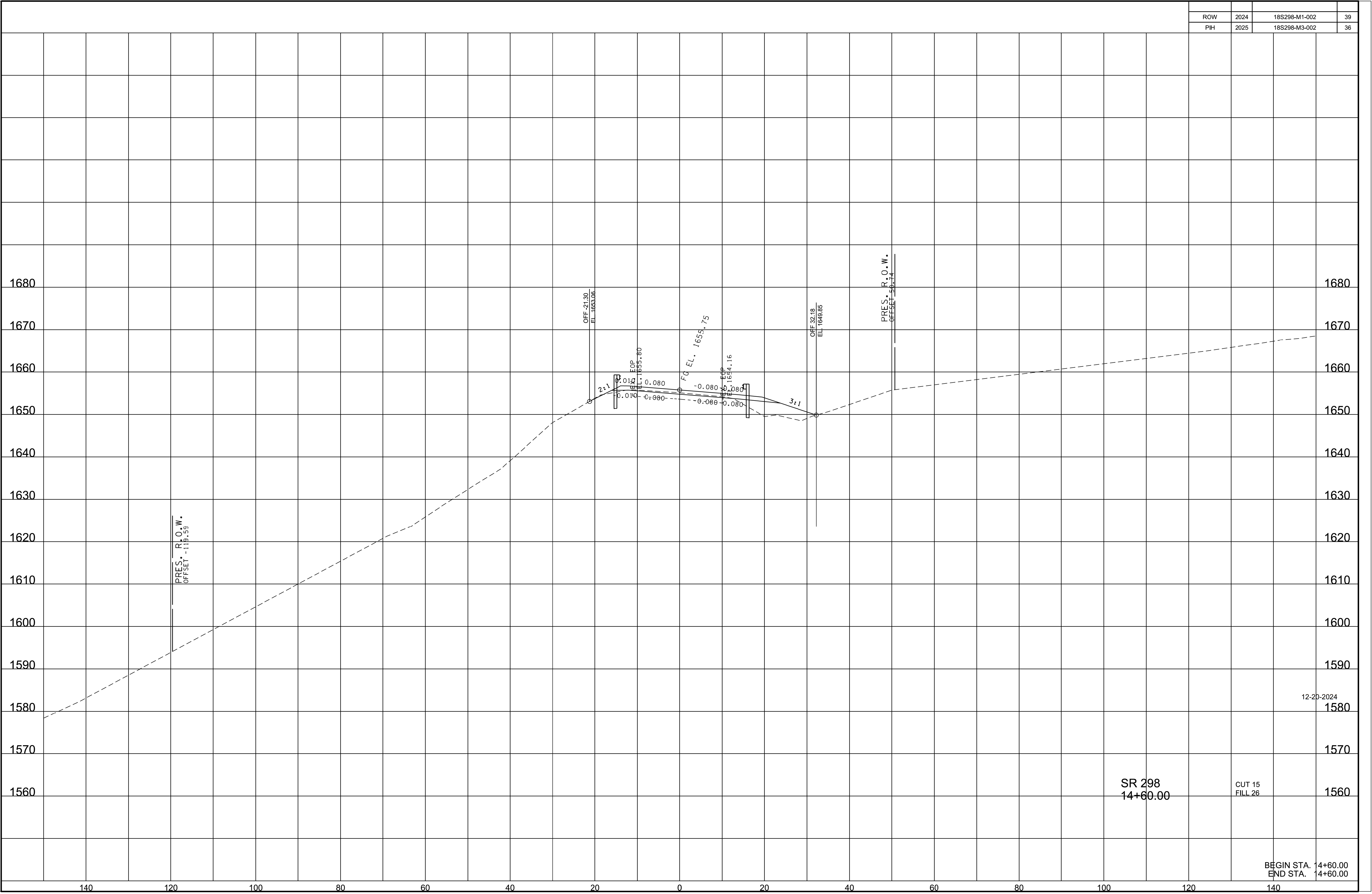


|     |      |               |    |
|-----|------|---------------|----|
| ROW | 2024 | 18S298-M1-002 | 38 |
| PIH | 2025 | 18S298-M3-002 | 35 |

12-20-2024

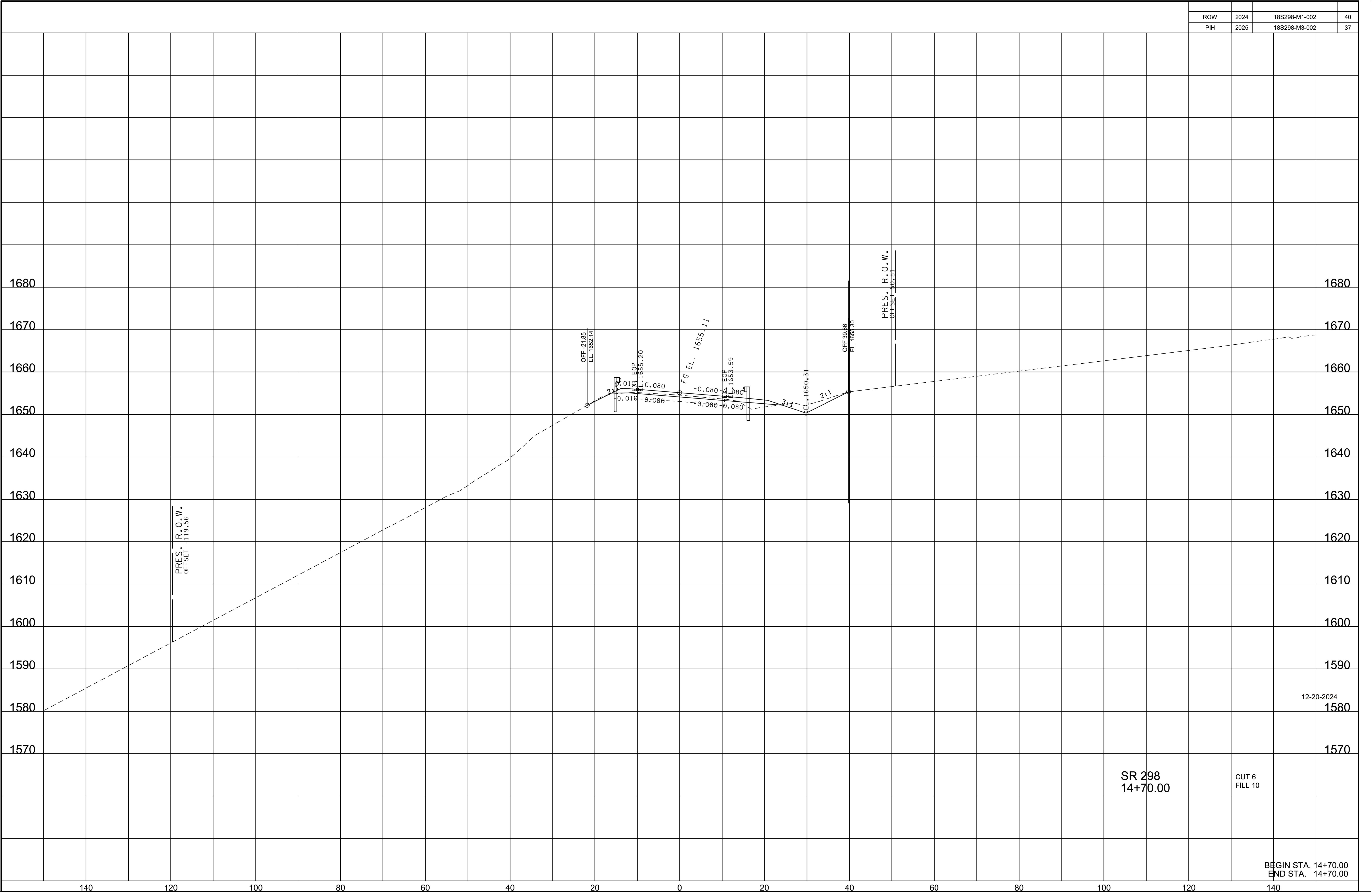


20-DEC-2024 09:52  
\\tdot02nas002.tdot.state.tn.us\02Shared\Design County Folders\Cumberland\SR298\LM8.5small\Structure\01-015-056\_MLX\SECTIONS.SHT





20-DEC-2024 09:52  
\\tdot02nas002.tdot.state.tn.us\02Shared\Design County Folders\Cumberland\SR298\LM8.5small\Structure\01-015-056\_MLXSECTIONS.SHT



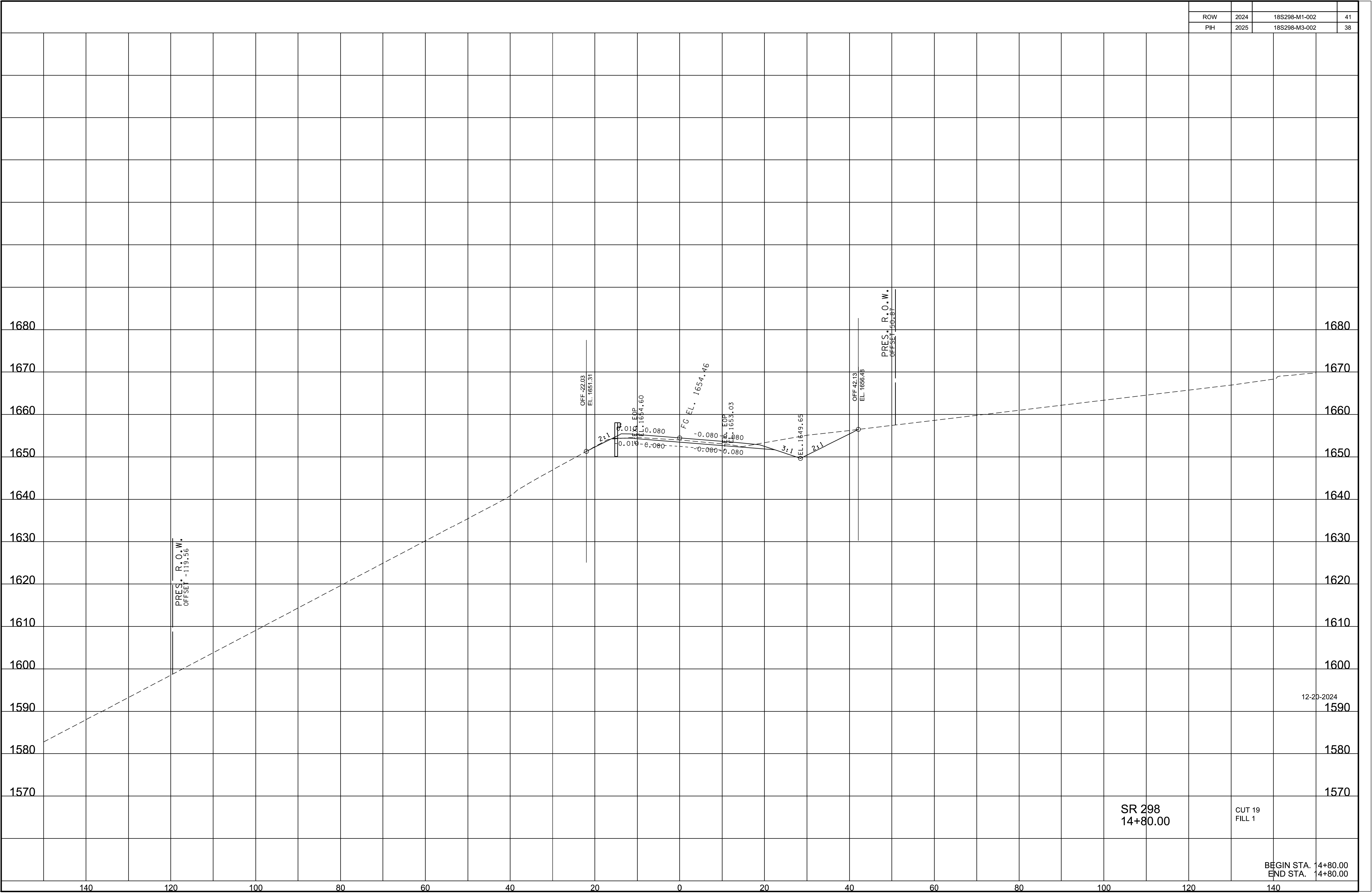
SR 298  
14+70.00

CUT 6  
FILL 10

BEGIN STA. 14+70.00  
END STA. 14+70.00



20-DEC-2024 09:52  
\\tdot02nas002.tdot.state.tn.us\02Shared\Design County Folders\Cumberland\SR298\LM8.5small\Structure\01-015-056\_MLX\SECTIONS.SHT



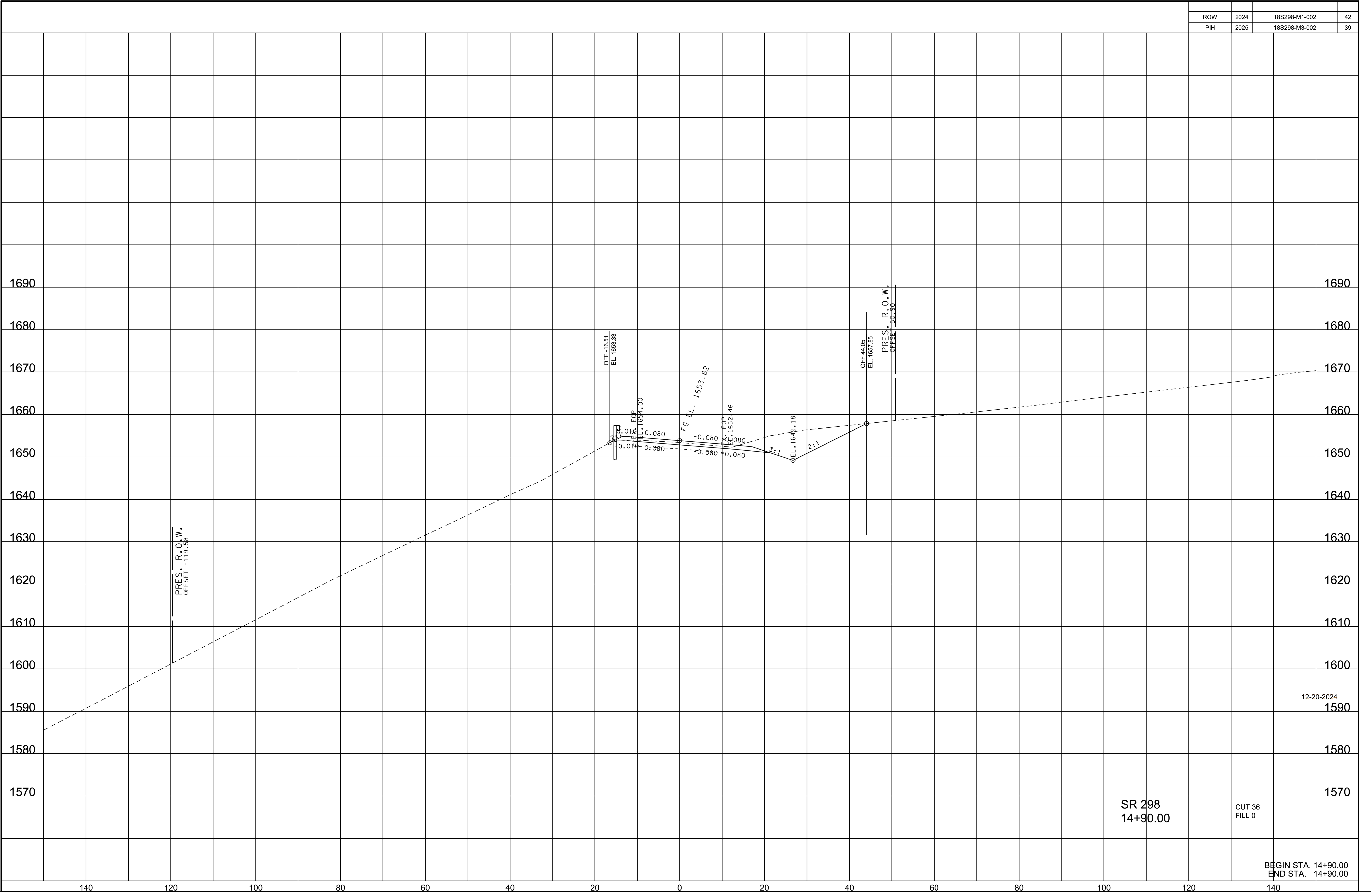
SR 298  
14+80.00

CUT 19  
FILL 1

BEGIN STA. 14+80.00  
END STA. 14+80.00



20-DEC-2024 09:52  
\\tdot02nas002.tdot.state.tn.us\02Shared\Design County Folders\Cumberland\SR298\LM8.5small\Structure\01-015-056\_MLX\SECTIONS.SHT

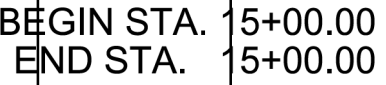


|     |      |               |    |
|-----|------|---------------|----|
| ROW | 2024 | 18S298-M1-002 | 42 |
| PIH | 2025 | 18S298-M3-002 | 39 |

BEGIN STA. 14+90.00  
END STA. 14+90.00

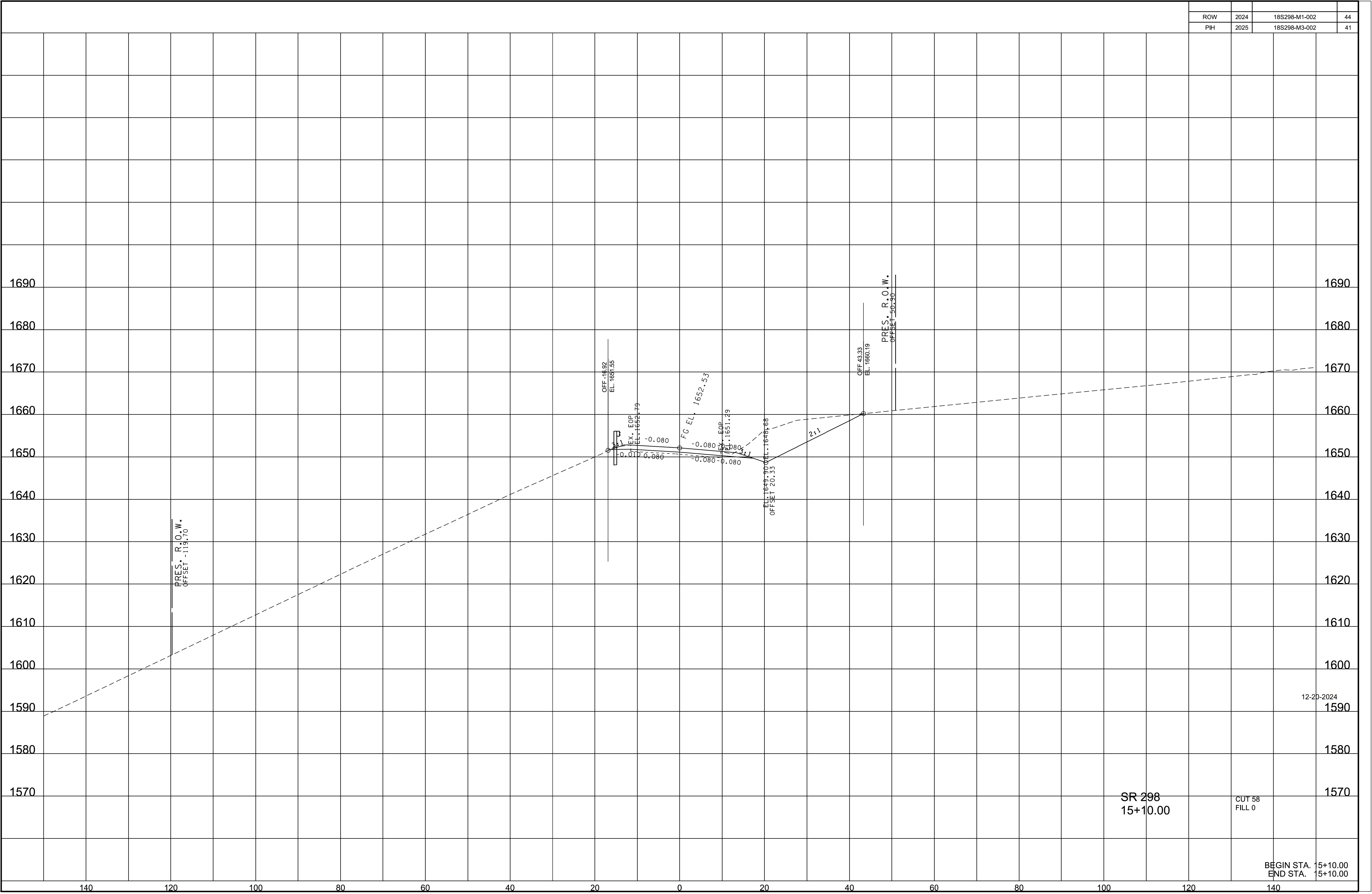


\\tdot02nas002.tdot.state.tn.us\02Shared\Design County Folders\Cumberland\SR298LM8.5SmallStructure\01-015-056\_MLXSECTIONS.SHT



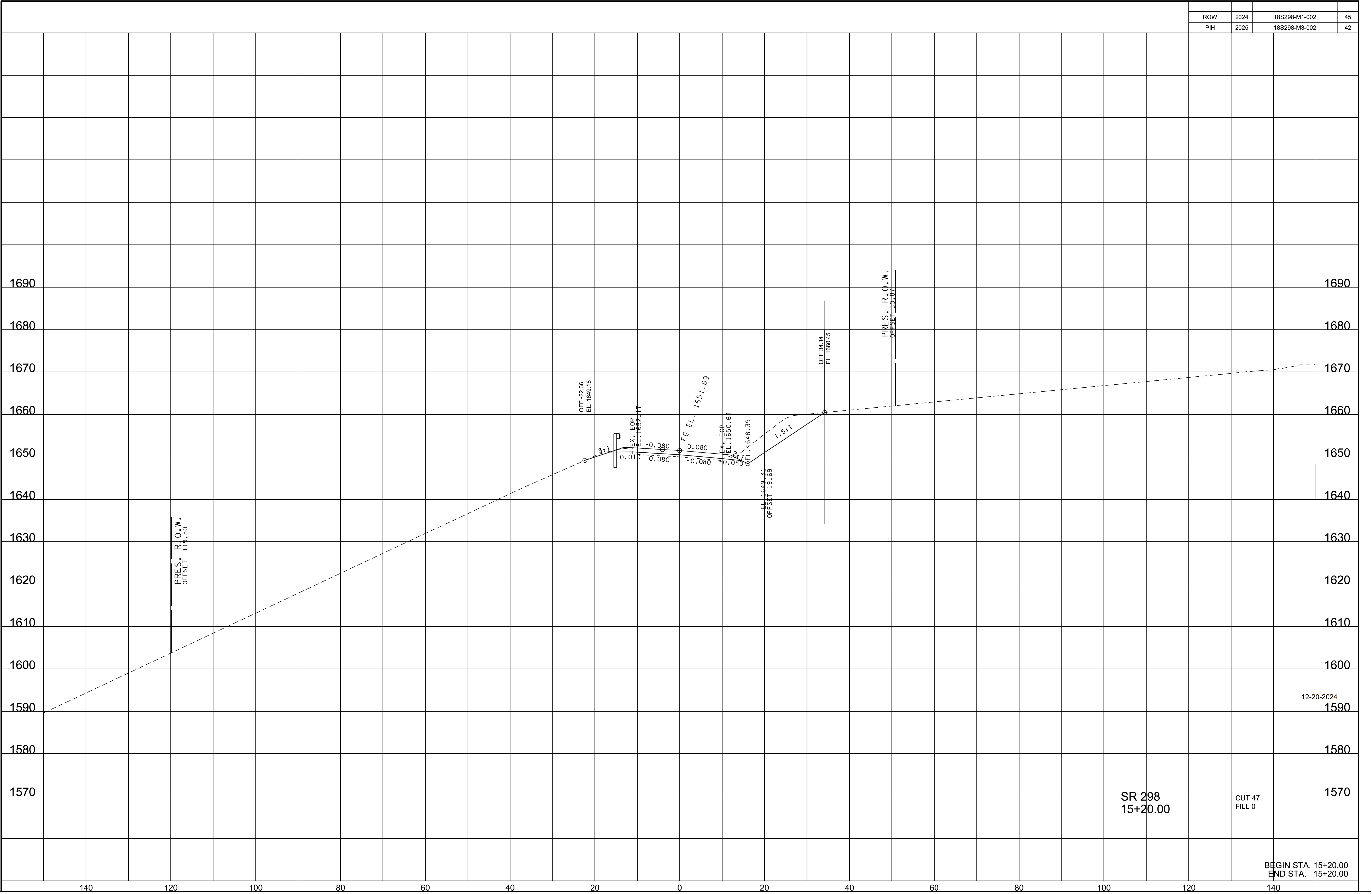


20-DEC-2024 09:52  
\\tdot02nas002.tdot.state.tn.us\02Shared\Design County Folders\Cumberland\SR298\LM8.5small\Structure\01-015-056\_MLX\SECTIONS.SHT





20-DEC-2024 09:52  
\\dot02nas002.tdot.state.tn.us\02Shared\Design County Folders\Cumberland\SR298\LM8.5small\Structure\01-015-056\_MLX\SECTIONS.SHT



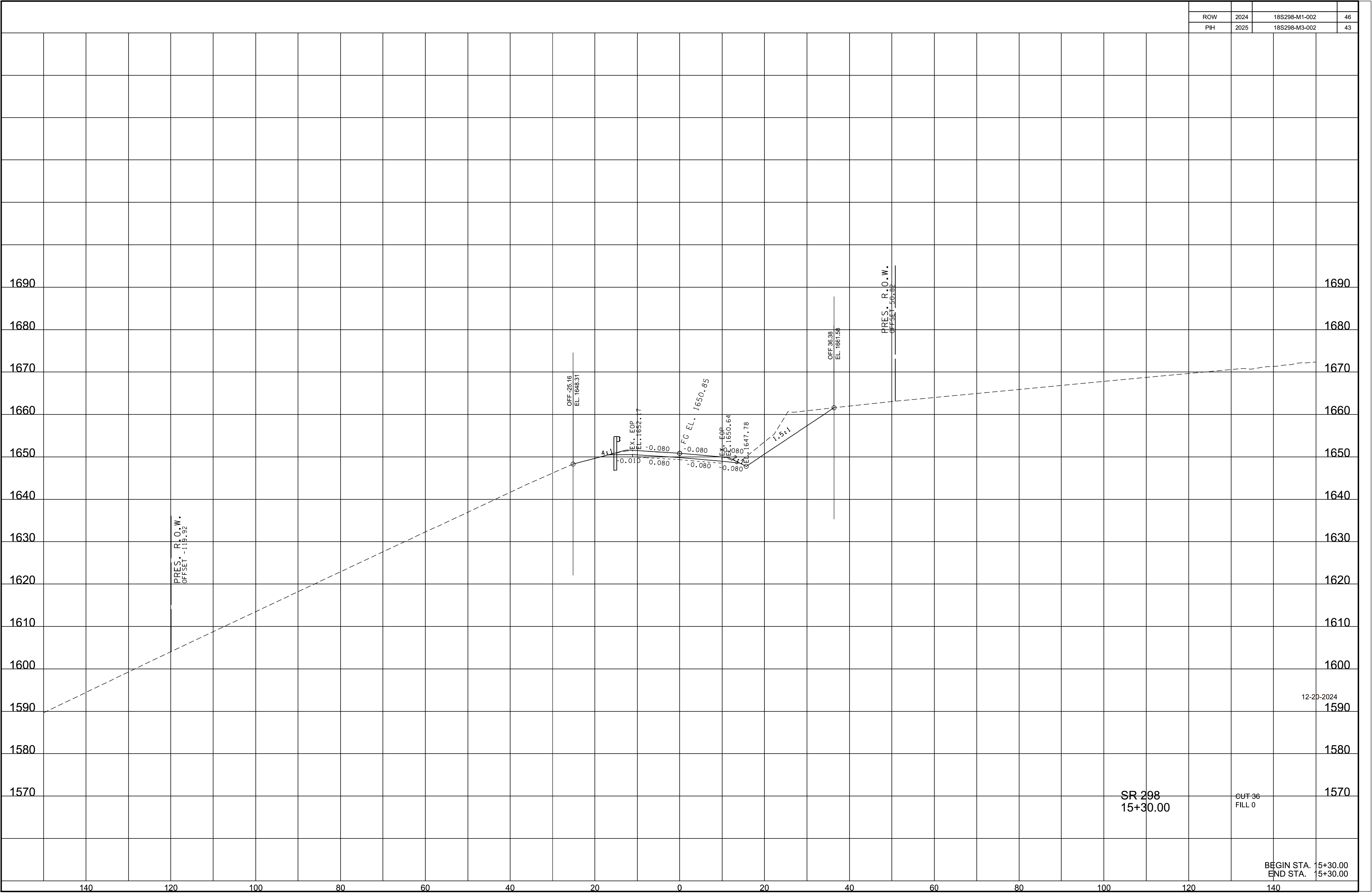
BEGIN STA. 15+20.00  
END STA. 15+20.00

CUT 47  
FILL 0

12-20-2024



20-DEC-2024 09:52  
\\tdot02nas002.tdot.state.tn.us\02Shared\Design County Folders\Cumberland\SR298\LM8.5small\Structure\01-015-056\_MLX\SECTIONS.SHT



|     |      |               |    |
|-----|------|---------------|----|
| ROW | 2024 | 18S298-M1-002 | 46 |
| PIH | 2025 | 18S298-M3-002 | 43 |

SR 298  
15+30.00

CUT 36  
FILL 0

BEGIN STA. 15+30.00  
END STA. 15+30.00

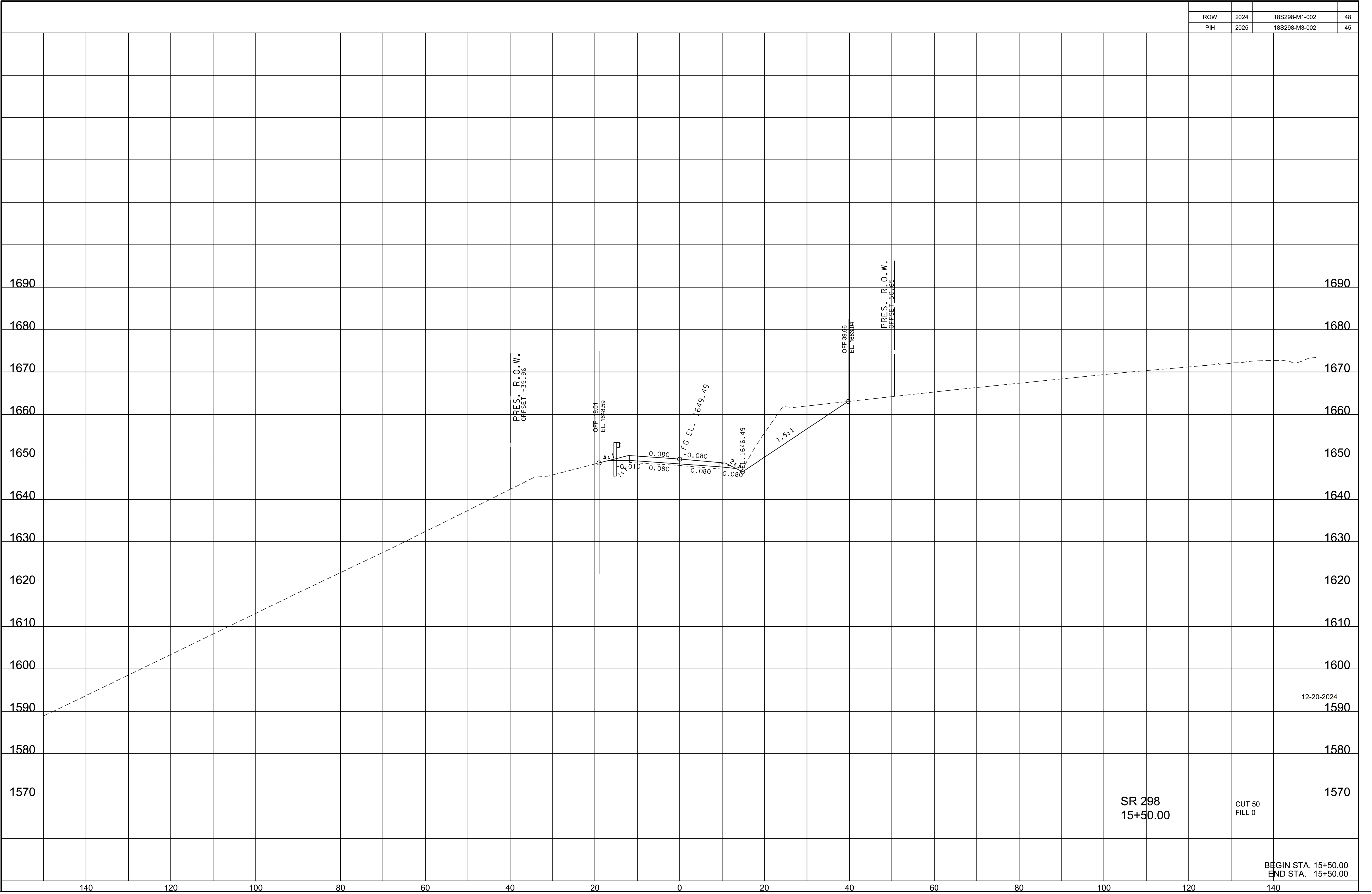


|  |
|--|
|  |
|--|



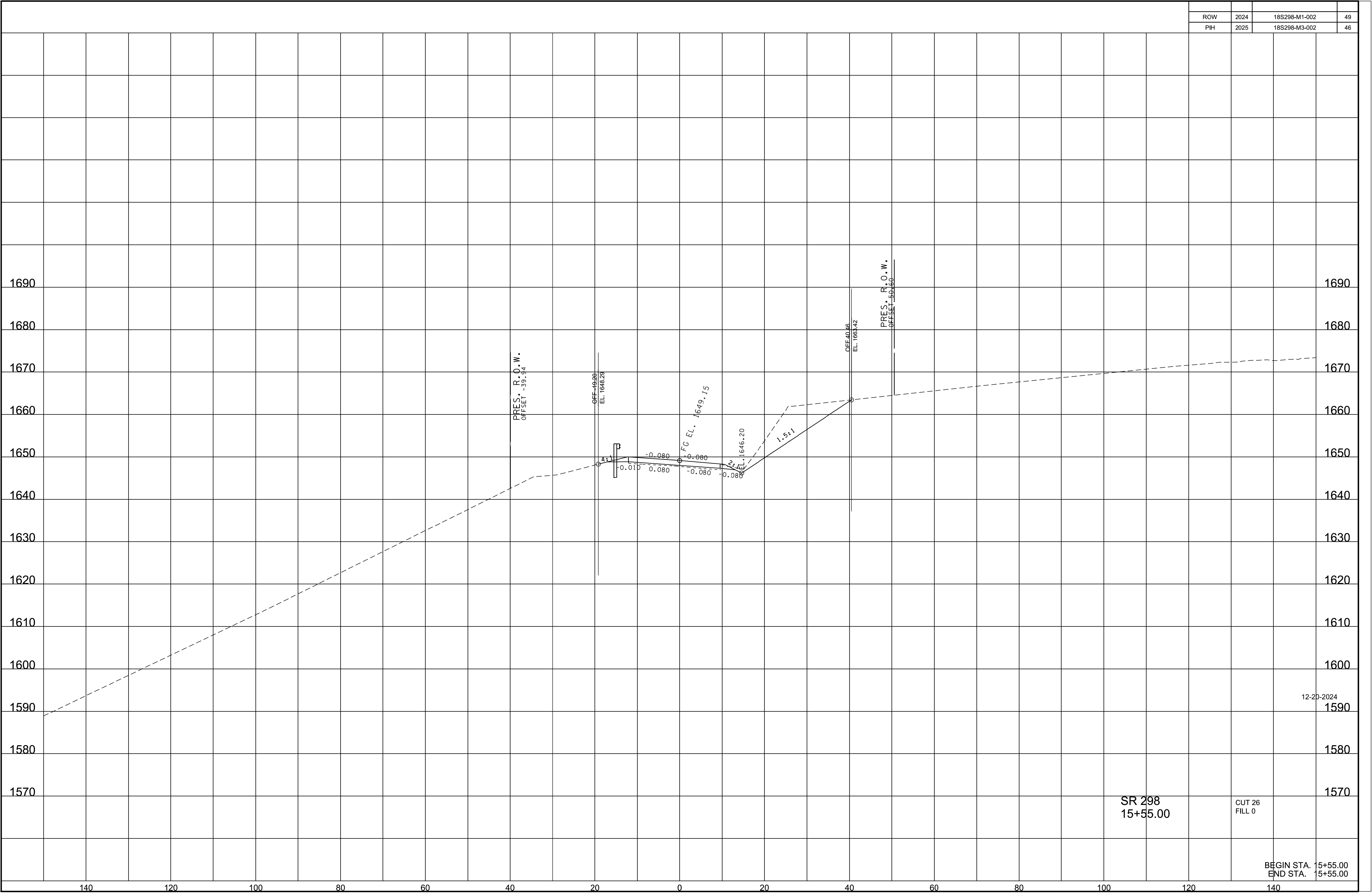


20-DEC-2024 09:53  
\\tdot02nas002.tdot.state.tn.us\02Shared\Design County Folders\Cumberland\SR298LM8.5small\Structure\01-015-056\_MLXSECTIONS.SHT



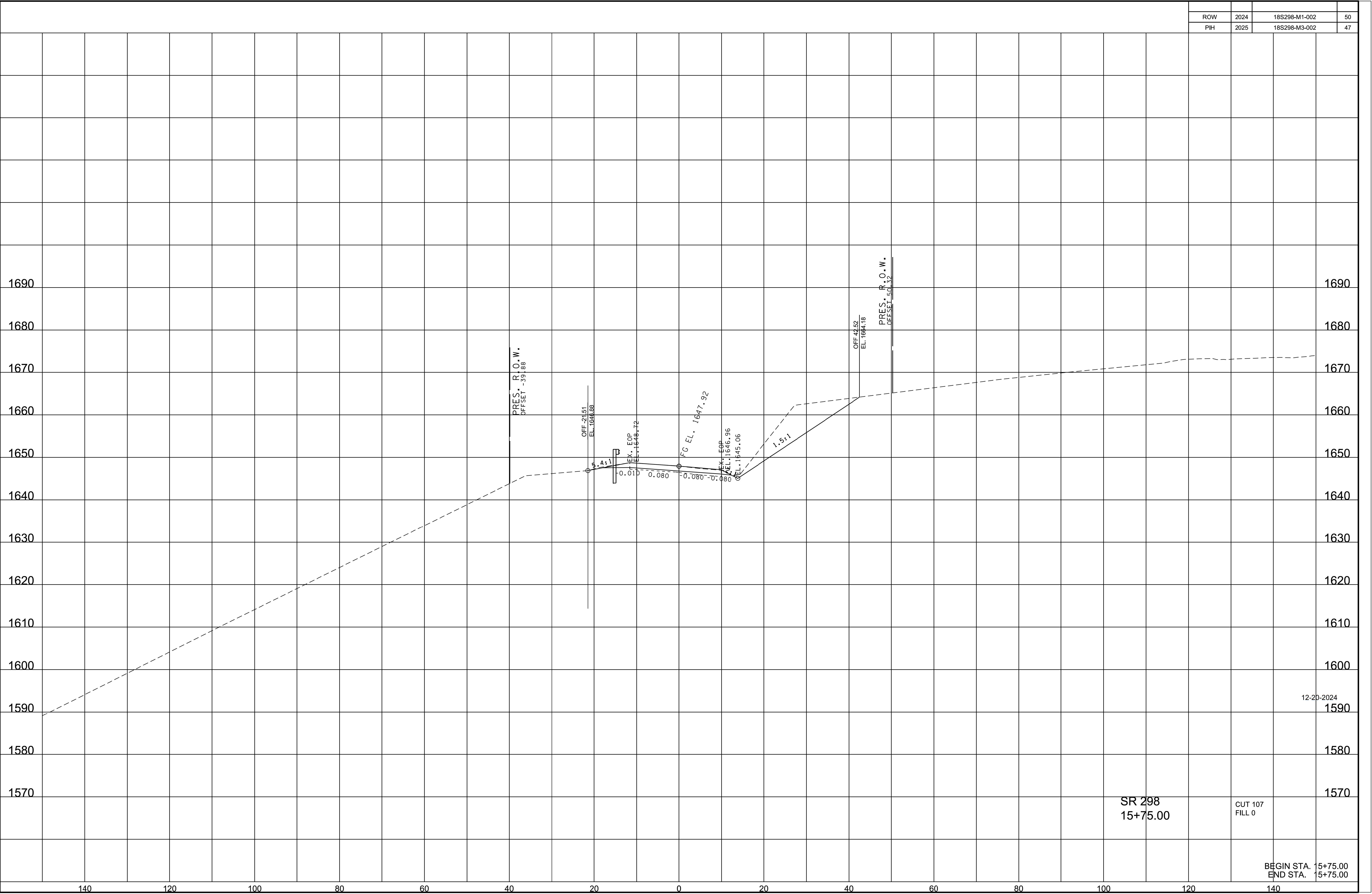


20-DEC-2024 09:53  
\\dot02nas002.tdot.state.tn.us\02Shared\Design County Folders\Cumberland\SR298\LM8.5small\Structure\01-015-056\_MLX\SECTIONS.SHT



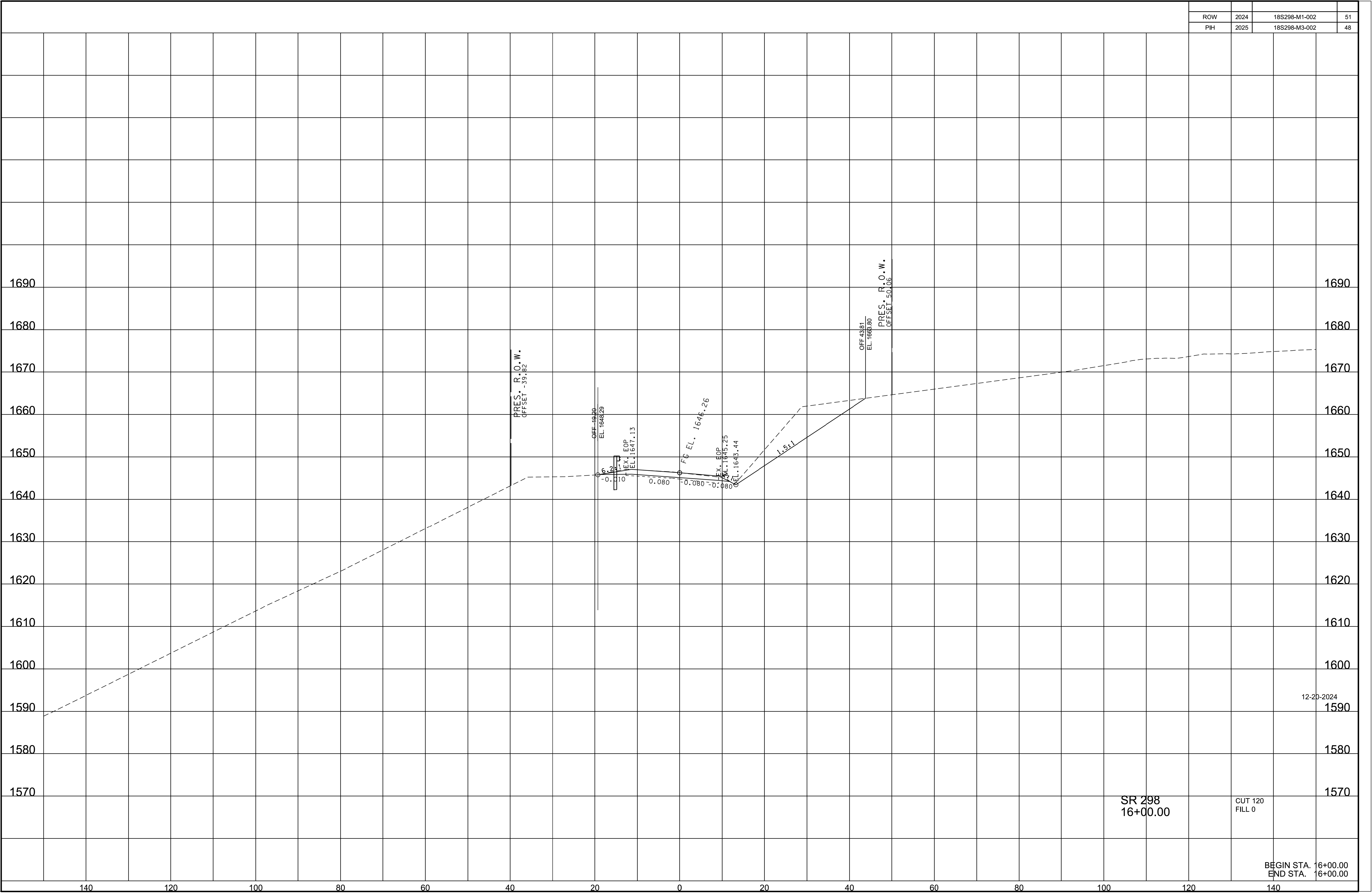


20-DEC-2024 09:53  
\\tdot02nas002.tdot.state.tn.us\02Shared\Design County Folders\Cumberland\SR298\LM8.5small\Structure\01-015-056\_MLXSECTIONS.SHT



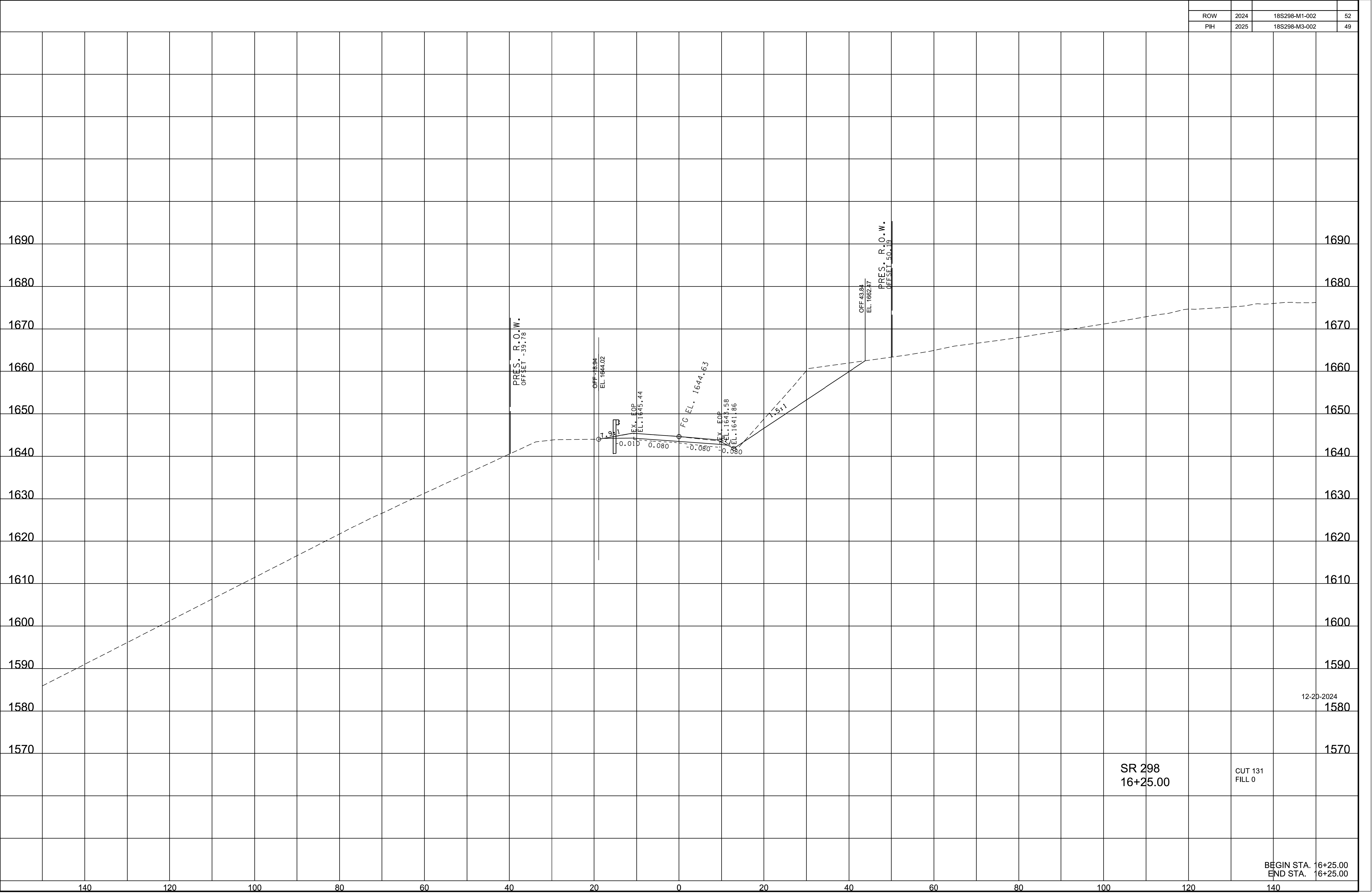


20-DEC-2024 09:53  
\\dot02nas002.tdot.state.tn.us\02Shared\Design County Folders\Cumberland\SR298LM8.5small\Structure\01-015-056\_MLXSECTIONS.SHT





20-DEC-2024 09:53  
\\tdot02nas002.tdot.state.tn.us\02Shared\Design County Folders\Cumberland\SR298\LM8.5small\Structure\01-015-056\_MLX\SECTIONS.SHT

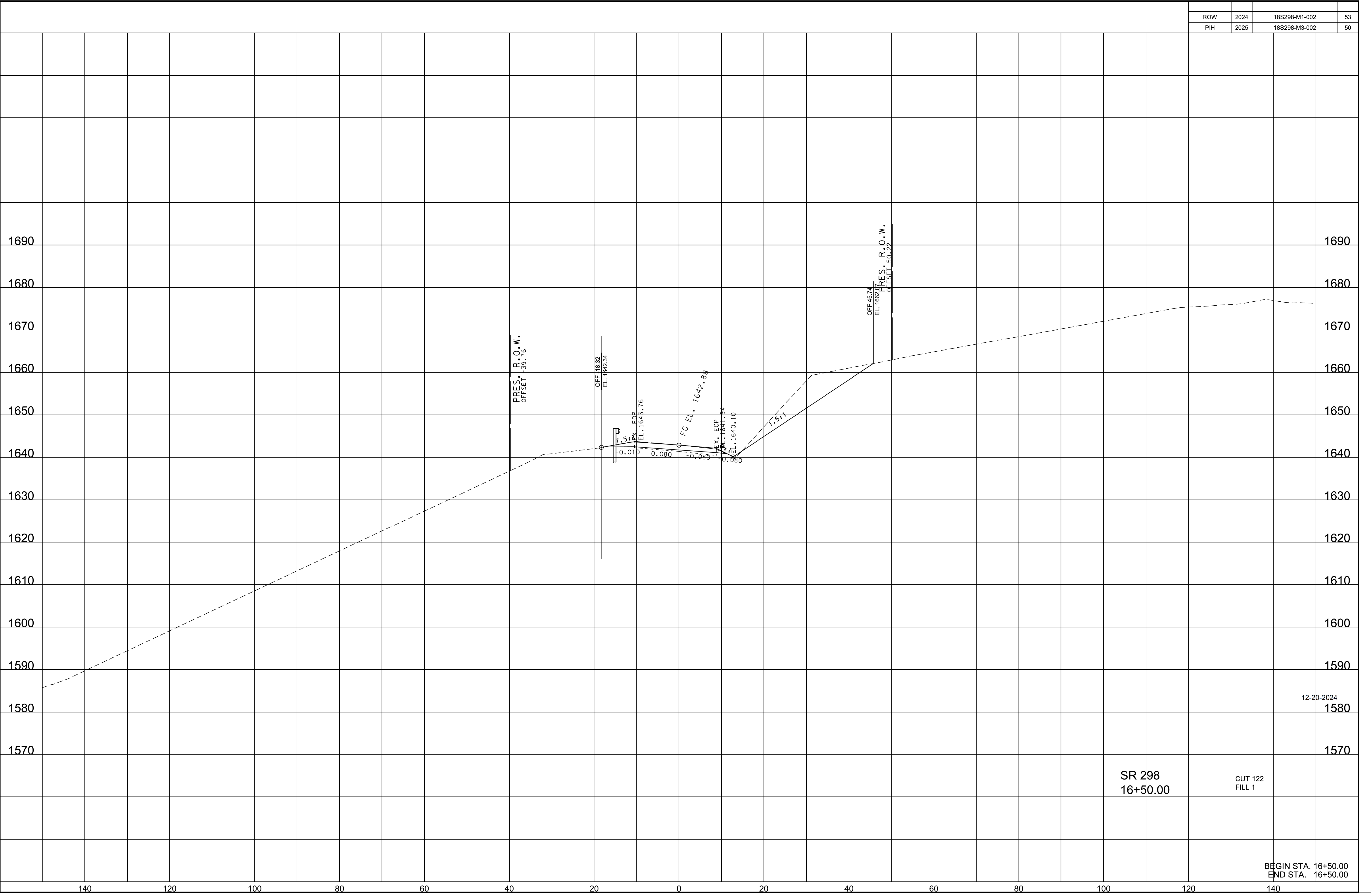


12-20-2024

BEGIN STA. 16+25.00  
END STA. 16+25.00

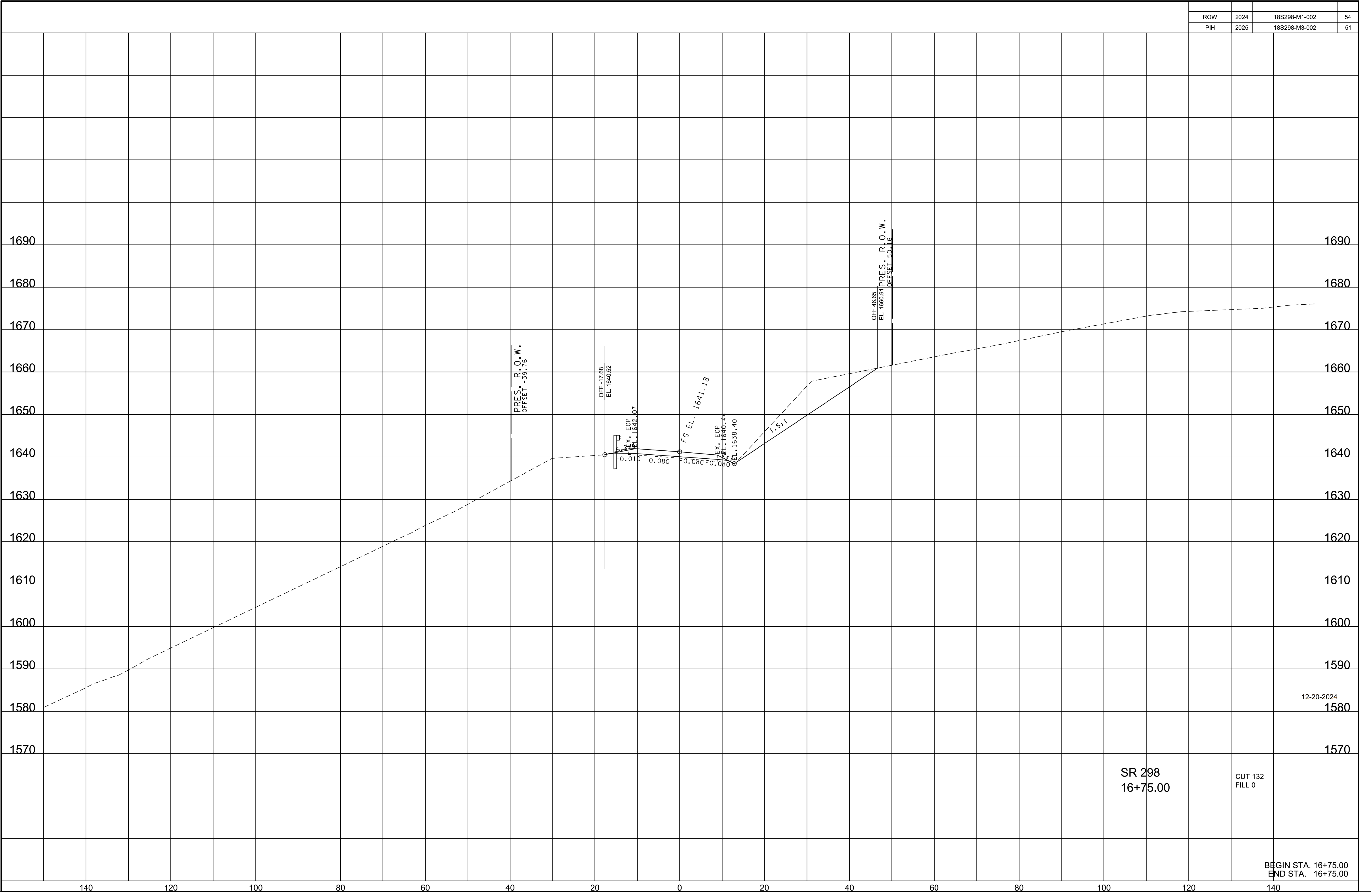


20-DEC-2024 09:53  
\\tdot02nas002.tdot.state.tn.us\02Shared\Design County Folders\Cumberland\SR298\LM8.5small\Structure\01-015-056\_MLXSECTIONS.SHT

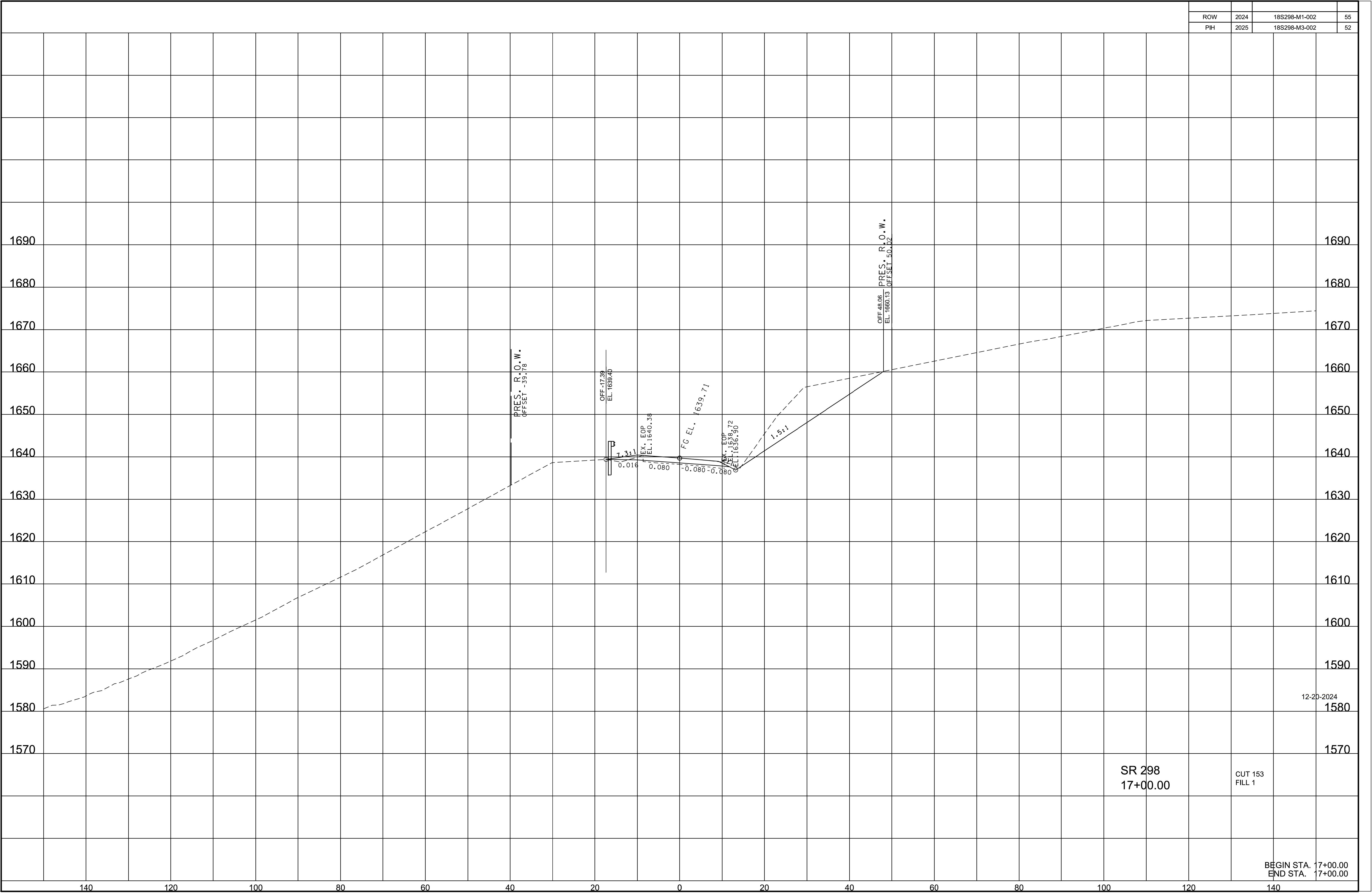




20-DEC-2024 09:53  
\\tdot02nas002.tdot.state.tn.us\02Shared\Design County Folders\Cumberland\SR298\LM8.5small\Structure\01-015-056\_MLX\SECTIONS.SHT

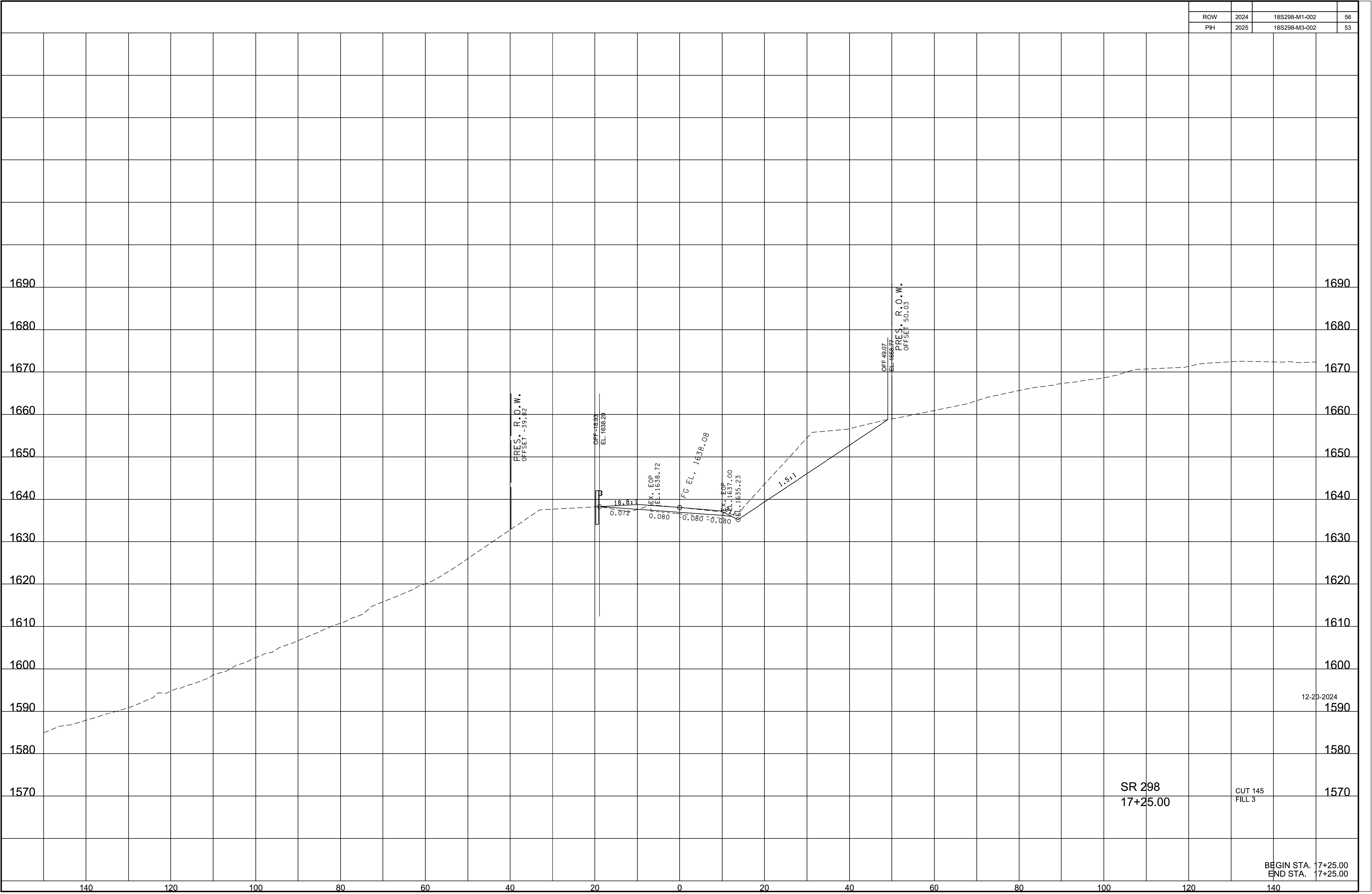


20-DEC-2024 09:53  
\\tdot02nas002.tdot.state.tn.us\02Shared\Design County Folders\Cumberland\SR298\LM8.5small\Structure\01-015-056\_MLX\SECTIONS.SHT

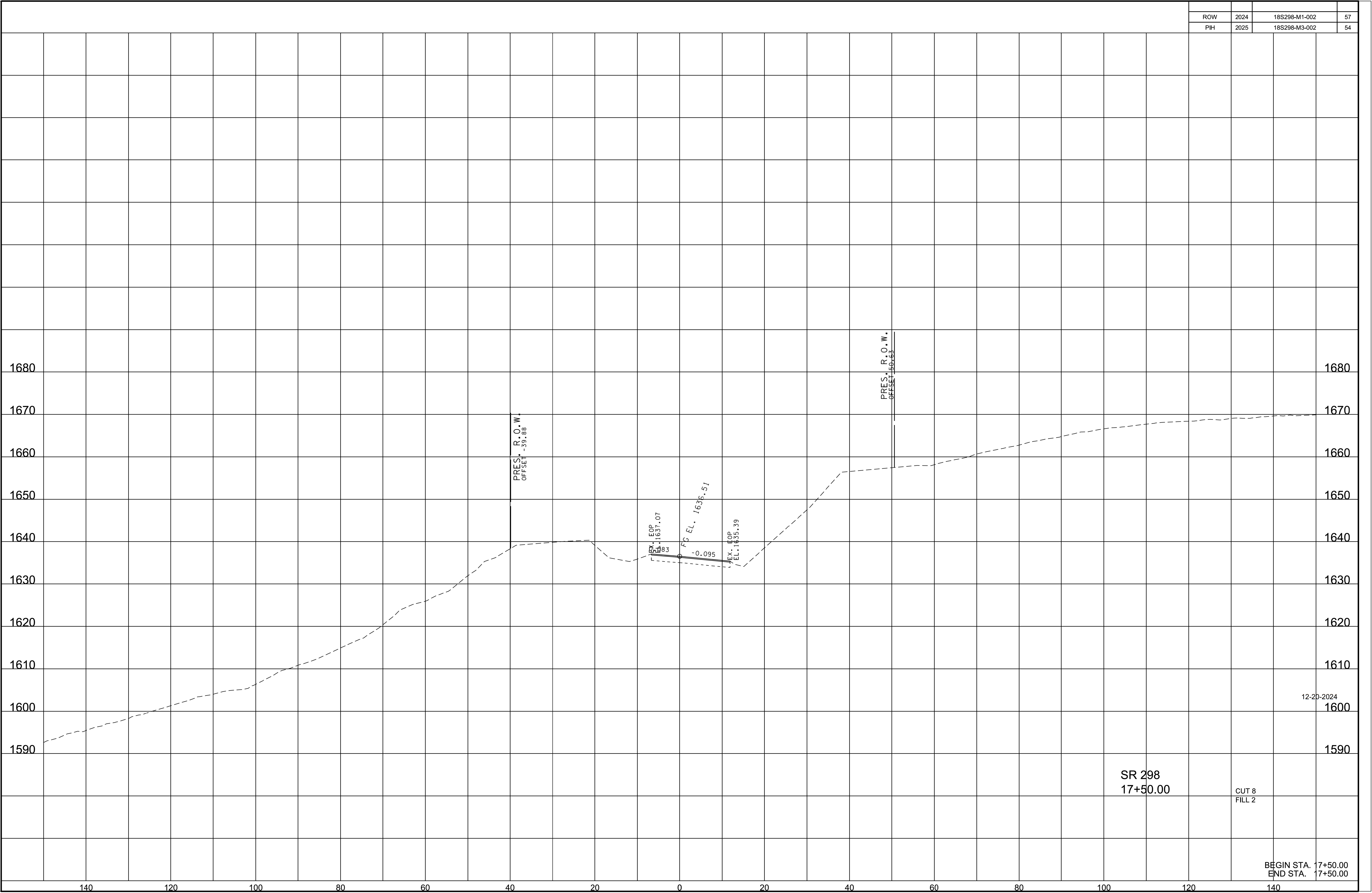




20-DEC-2024 09:53  
\\tdot02nas002.tdot.state.tn.us\02Shared\Design County Folders\Cumberland\SR298\LM8.5small\Structure\01-015-056\_MLX\SECTIONS.SHT

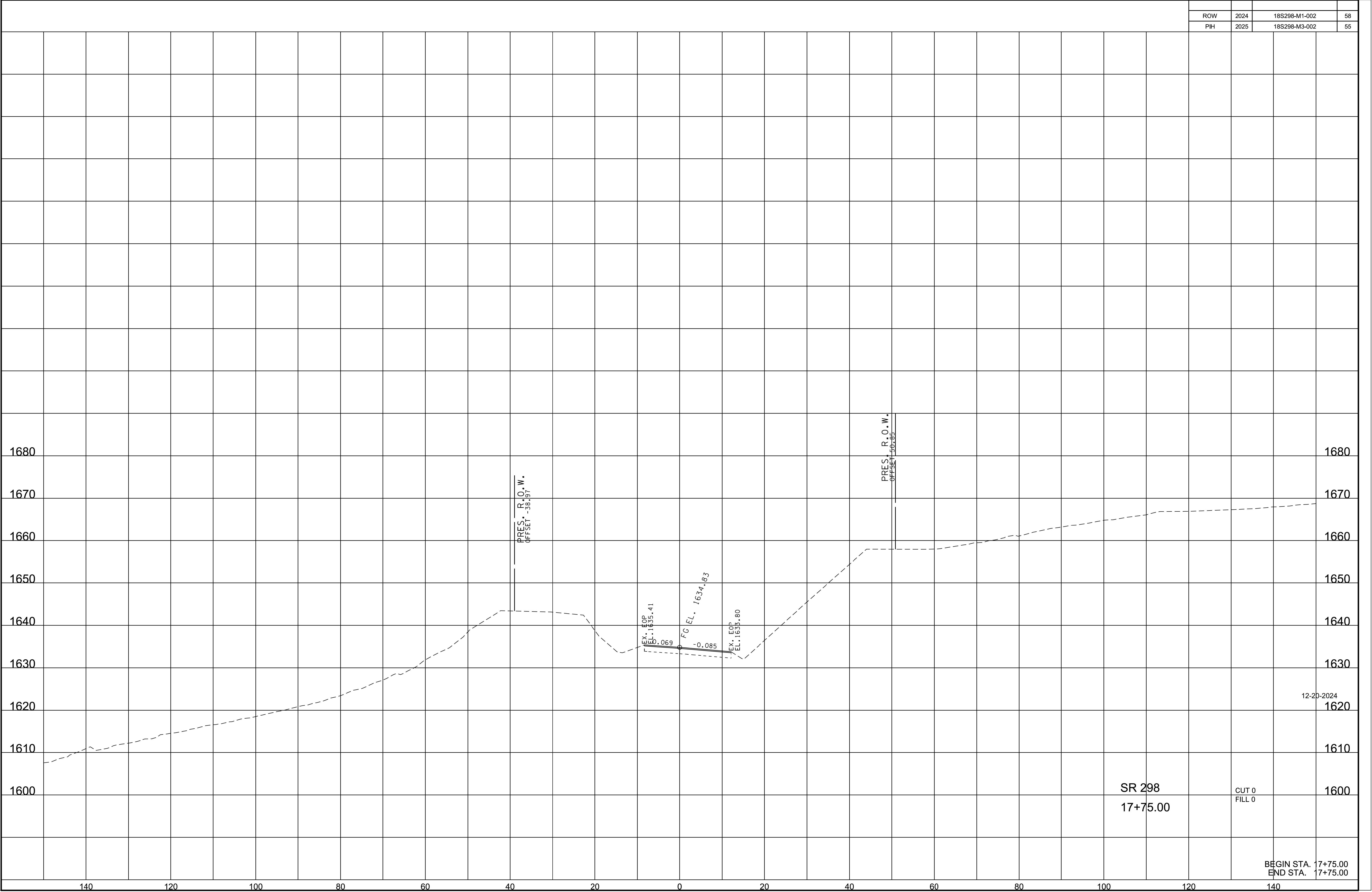


20-DEC-2024 09:53  
\\tdot02nas002.tdot.state.tn.us\02Shared\Design County Folders\Cumberland\SR298\LM8.5small\Structure\01-015-056\_MLX\SECTIONS.SHT

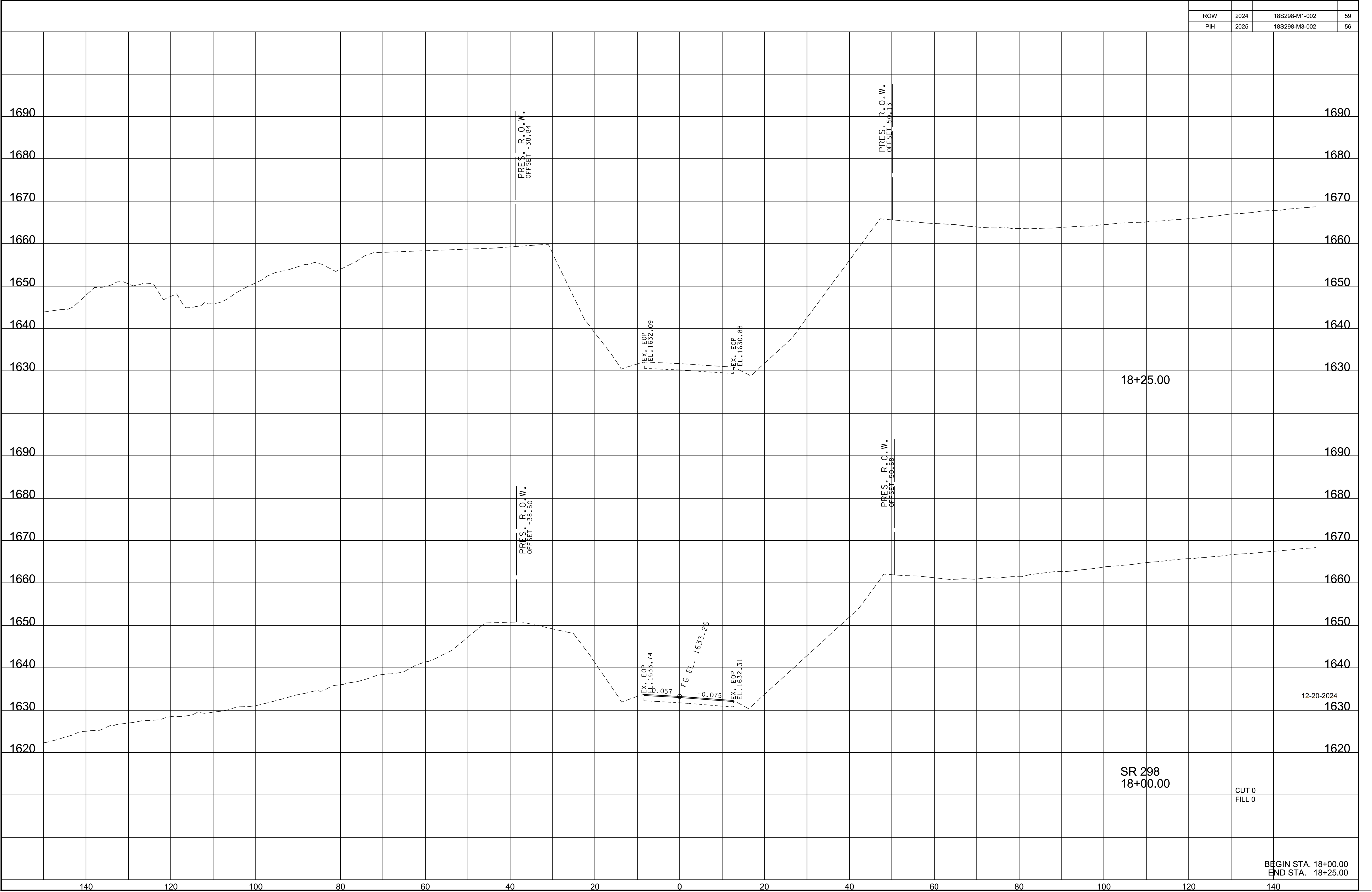




20-DEC-2024 09:54  
\\tdot02nas002.tdot.state.tn.us\02Shared\Design County Folders\Cumberland\SR298\LM8.5small\Structure\01-015-056\_MLXSECTIONS.SHT



20-DEC-2024 09:54  
\\dot02nas002.tdot.state.tn.us\02Shared\Design County Folders\Cumberland\SR298LM8.5small\Structure\01-015-056\_MLX\SECTIONS.SHT





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 1.75 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 1.75 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 INCHES, THE CONTRACTOR MAY USE WARNING SIGNS AND/OR PROTECTIVE DEVICES AS APPLICABLE AND APPROVED BY THE REGIONAL TRAFFIC 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.

a. 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.

|      |      |               |           |
|------|------|---------------|-----------|
| TYPE | YEAR | PROJECT NO.   | SHEET NO. |
| ROW  | 2023 | 18S298-M1-002 | T1        |
| PIH. | 2025 | 18S298-M3-002 | T1        |
| PS&E | 2025 | 18S298-M3-002 | T1        |
|      |      |               |           |

SEALED BY



STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

PAVEMENT EDGE  
DROP-OFF NOTES  
FOR  
TRAFFIC CONTROL





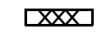


(1)(2)

(1)

(1)

| TABULATED TRAFFIC CONTROL QUANTITIES |                                 |      |                           |
|--------------------------------------|---------------------------------|------|---------------------------|
| ITEM NO.                             | DESCRIPTION                     | UNIT | QUANTITY<br>18S298-M1-002 |
| 712-01                               | TRAFFIC CONTROL                 | LS   | 1                         |
| 712-04.01                            | FLEXIBLE DRUMS (CHANNELIZING)   | EACH | 10                        |
| 712-05.01                            | WARNING LIGHTS (TYPE A)         | EACH | 14                        |
| 712-06                               | SIGNS (CONSTRUCTION)            | S.F. | 1028                      |
| 712-07.03                            | TEMPORARY BARRICADES (TYPE III) | L.F. | 48                        |
| 713-16.01                            | CHANGEABLE MESSAGE SIGN UNIT    | EACH | 2                         |
|                                      |                                 |      |                           |

| TRAFFIC CONTROL LEGEND  |                                |
|---|--------------------------------|
| SYMBOL  | ITEM                           |
|  | WORK ZONE                      |
|  | FLEXIBLE DRUMS (CHANNELIZING)  |
|  | SIGN (CONSTRUCTION)            |
|  | TRAFFIC FLOW                   |
|  | TEMPORARY BARRICADE (TYPE III) |

PHASE 1  
1)PLACE TRAFFIC CONTROL SIGNS AS INSTRUCTED BY TDOT PROJECT ENGINEER  
2)CLOSE THE ROAD AND MOVE TRAFFIC TO THE DETOUR AS SHOWN IN T6  
3)BEGIN CONSTRUCTION, INCLUDING CULVERT REPLACEMENT AND RETAINING WALL CONSTRUCTION.

PHASE 2  
1)COMPLETE COLD PLANING AND PAVING, INSTALL RUMBLE STRIPES, PERMANENT PAVEMENT MARKING, SPM'S AND GR INSTALLATION PRIOR TO OPENING TO TRAFFIC.

| TYPE   | YEAR | PROJECT NO.   | SHEET NO. |
|--------|------|---------------|-----------|
| R.O.W. | 2023 | 18S298-M1-002 | T2        |
| PIH.   | 2025 | 18S298-M3-002 | T2        |
| PS&E   | 2025 | 18S298-M3-002 | T2        |
|        |      |               |           |


FOOTNOTES

- (1) TO BE USED AS DIRECTED BY TDOT ENGINEER.
- (2) 5 FLEXIBLE DRUMS TO BE USED WITH EACH CHANGEABLE MESSAGE SIGN UNIT.

TRAFFIC CONTROL SIGN TABULATION

| M.U.T.C.D.<br>SIGN NO. | LEGEND                                   | SIZE<br>IN INCHES |   |     | S.F. | NO.<br>REQUIRED<br>PHASE I | NO.<br>REQUIRED<br>PHASE II | TOTAL<br>NO.<br>REQUIRED | ITEM NO.<br>712-06<br>S.F. | STANDARD<br>DRAWING<br>NO. | REMARKS |
|------------------------|--|-------------------|---|-----|------|----------------------------|-----------------------------|--------------------------|----------------------------|----------------------------|---------|
|                        |  | L                 | X | W   |      |                            |                             |                          |                            |                            |         |
| G20-2                  | END ROAD WORK                            | 48"               | X | 24" | 8    |                            | 2                           | 2                        | 16                         | T-WZ-10                    |         |
| M3-1                   | NORTH                                    | 36"               | X | 18" | 5    | 4                          |                             | 4                        | 18                         |                            |         |
| M3-1                   | NORTH                                    | 24"               | X | 12" | 2    | 23                         |                             | 23                       | 46                         |                            |         |
| M3-3                   | SOUTH                                    | 36"               | X | 18" | 5    | 4                          |                             | 4                        | 18                         |                            |         |
| M3-3                   | SOUTH                                    | 24"               | X | 12" | 2    | 28                         |                             | 28                       | 56                         |                            |         |
| M4-8                   | DETOUR                                   | 30"               | X | 15" | 3    | 8                          |                             | 8                        | 25                         |                            |         |
| M4-8                   | DETOUR                                   | 24"               | X | 12" | 2    | 51                         |                             | 51                       | 102                        |                            |         |
| M4-8A                  | END DETOUR                               | 24"               | X | 12" | 2    | 2                          |                             | 2                        | 4                          |                            |         |
| M5-1L                  | ADVANCED LEFT TURN                       | 21"               | X | 15" | 2    | 4                          |                             | 4                        | 9                          |                            |         |
| M5-1R                  | ADVANCED RIGHT TURN                      | 21"               | X | 15" | 2    | 2                          |                             | 2                        | 4                          |                            |         |
| M5-2L                  | ADVANCED ANGLE LEFT TURN                 | 21"               | X | 15" | 2    | 1                          |                             | 1                        | 2                          |                            |         |
| M5-2R                  | ADVANCED ANGLE RIGHT TURN                | 30"               | X | 21" | 4    | 2                          |                             | 2                        | 9                          |                            |         |
| M5-2R                  | ADVANCED ANGLE RIGHT TURN                | 21"               | X | 15" | 2    | 1                          |                             | 1                        | 2                          |                            |         |
| M6-1L                  | LEFT ARROW                               | 21"               | X | 15" | 2    | 7                          |                             | 7                        | 15                         |                            |         |
| M6-1R                  | RIGHT ARROW                              | 21"               | X | 15" | 2    | 2                          |                             | 2                        | 4                          |                            |         |
| M6-2R                  | DIRECTIONAL ARROW                        | 30"               | X | 21" | 4    | 2                          |                             | 2                        | 9                          |                            |         |
| M6-3                   | STRAIGHT ARROW                           | 30"               | X | 21" | 4    | 14                         |                             | 14                       | 61                         |                            |         |
| M6-3                   | STRAIGHT ARROW                           | 21"               | X | 15" | 2    | 24                         |                             | 24                       | 53                         |                            |         |
| R11-3                  | ROAD CLOSED                              | 48"               | X | 30" | 10   | 2                          |                             | 2                        | 20                         |                            |         |
| R11-3A                 | ROAD CLOSED 16 MILES AHEAD LOCAL ONLY    | 60"               | X | 30" | 13   | 1                          |                             | 1                        | 13                         |                            |         |
| R11-3A                 | ROAD CLOSED 6 MILES AHEAD LOCAL ONLY     | 60"               | X | 30" | 13   | 1                          |                             | 1                        | 13                         |                            |         |
| R11-3A                 | SR 298 S CLOSED 5 MILES AHEAD LOCAL ONLY | 60"               | X | 30" | 13   | 1                          |                             | 1                        | 13                         |                            |         |
| R11-3A                 | SR 298 S CLOSED 2 MILES AHEAD LOCAL ONLY | 60"               | X | 30" | 13   | 1                          |                             | 1                        | 13                         |                            |         |
| TN-6b                  | STATE ROUTE 298                          | 45"               | X | 36" | 11   | 8                          |                             | 8                        | 90                         |                            |         |
| TN-6b                  | STATE ROUTE 298                          | 30"               | X | 24" | 5    | 51                         |                             | 51                       | 255                        |                            |         |
| W20-1                  | ROAD WORK 1/2 MILE                       | 48"               | X | 48" | 16   |                            | 2                           | 2                        | 32                         | T-WZ-10                    |         |
| W20-1                  | ROAD WORK 1000 FT                        | 48"               | X | 48" | 16   |                            | 2                           | 2                        | 32                         | T-WZ-10                    |         |
| W20-1                  | ROAD WORK 500 FT                         | 48"               | X | 48" | 16   |                            | 2                           | 2                        | 32                         | T-WZ-10                    |         |
| W20-3                  | ROAD CLOSED 1000 FT                      | 48"               | X | 48" | 16   | 2                          |                             | 2                        | 32                         |                            |         |
| W20-3                  | ROAD CLOSED 500 FT                       | 48"               | X | 48" | 16   | 2                          |                             | 2                        | 32                         |                            |         |
| TOTAL                  |  |                   |   |     |      |                            |                             | 1028                     | S.F.                       |                            |         |

SEALED BY



STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

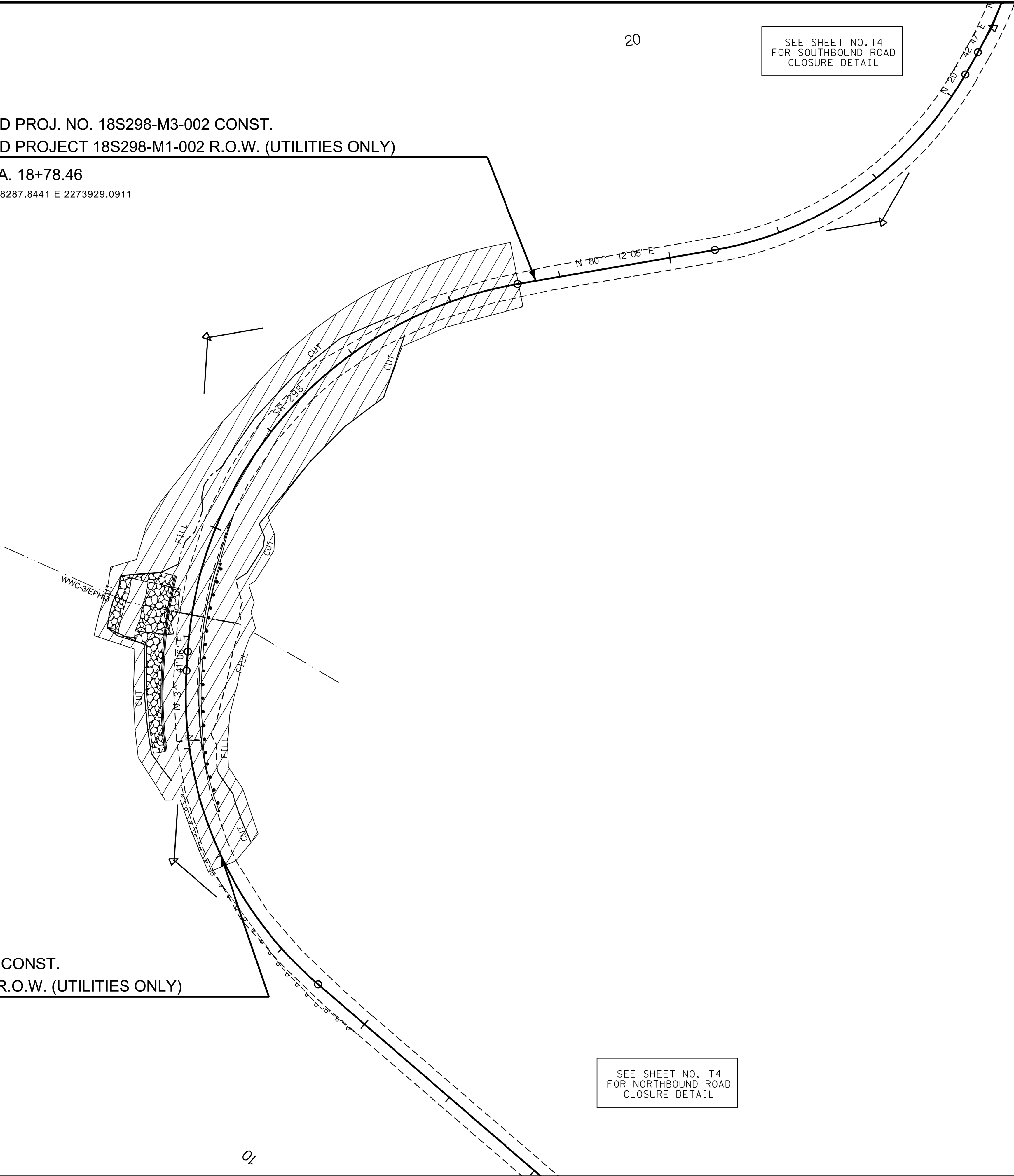
TRAFFIC CONTROL  
PHASING NOTES,  
LEGEND AND  
TABULATION



20-DEC-2024 09:54  
\\t-dot02nas002.tn.us\02Shared\Design County Folders\Cumberland\SR298\LM8.5\small\structure\01-036\_T3.SHT

BEGIN PROJ. NO. 18S298-M3-002 CONST.  
BEGIN PROJECT 18S298-M1-002 R.O.W. (UTILITIES ONLY)  
STA. 12+00.00  
N 627775.1685 E 2273647.8656

END PROJ. NO. 18S298-M3-002 CONST.  
END PROJECT 18S298-M1-002 R.O.W. (UTILITIES ONLY)  
STA. 18+78.46  
N 628287.8441 E 2273929.0911



SEE SHEET NO. T4  
FOR SOUTHBOUND ROAD  
CLOSURE DETAIL

SEE SHEET NO. T4  
FOR NORTHBOUND ROAD  
CLOSURE DETAIL

| TYPE   | YEAR | PROJECT NO.   | SHEET NO. |
|--------|------|---------------|-----------|
| R.O.W. | 2023 | 18S298-M1-002 | T3        |
| PIH.   | 2025 | 18S298-M3-002 | T3        |
| PS&E   | 2025 | 18S298-M3-002 | T3        |
|        |      |               |           |



COORDINATES ARE NAD 83(X), ARE  
DATUM ADJUSTED BY THE FACTOR  
OF 1.000 AND TIED TO THE TGRN.  
ALL ELEVATIONS ARE REFERENCED  
TO THE NAVD 1988 WITH GEOID 12B.

STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

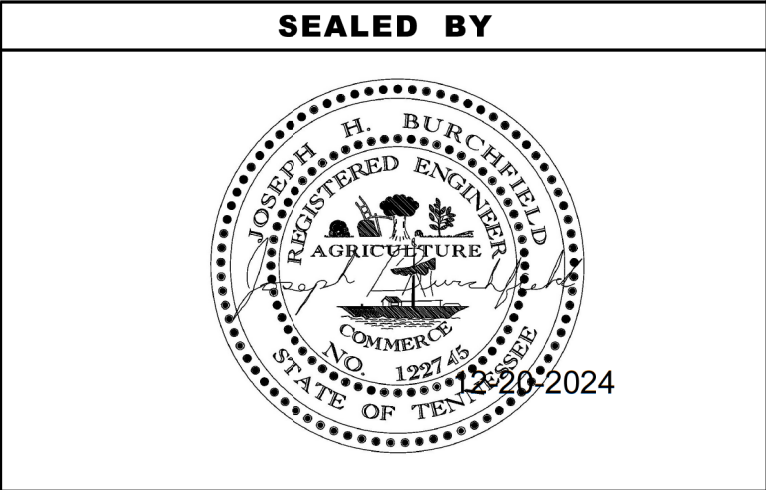
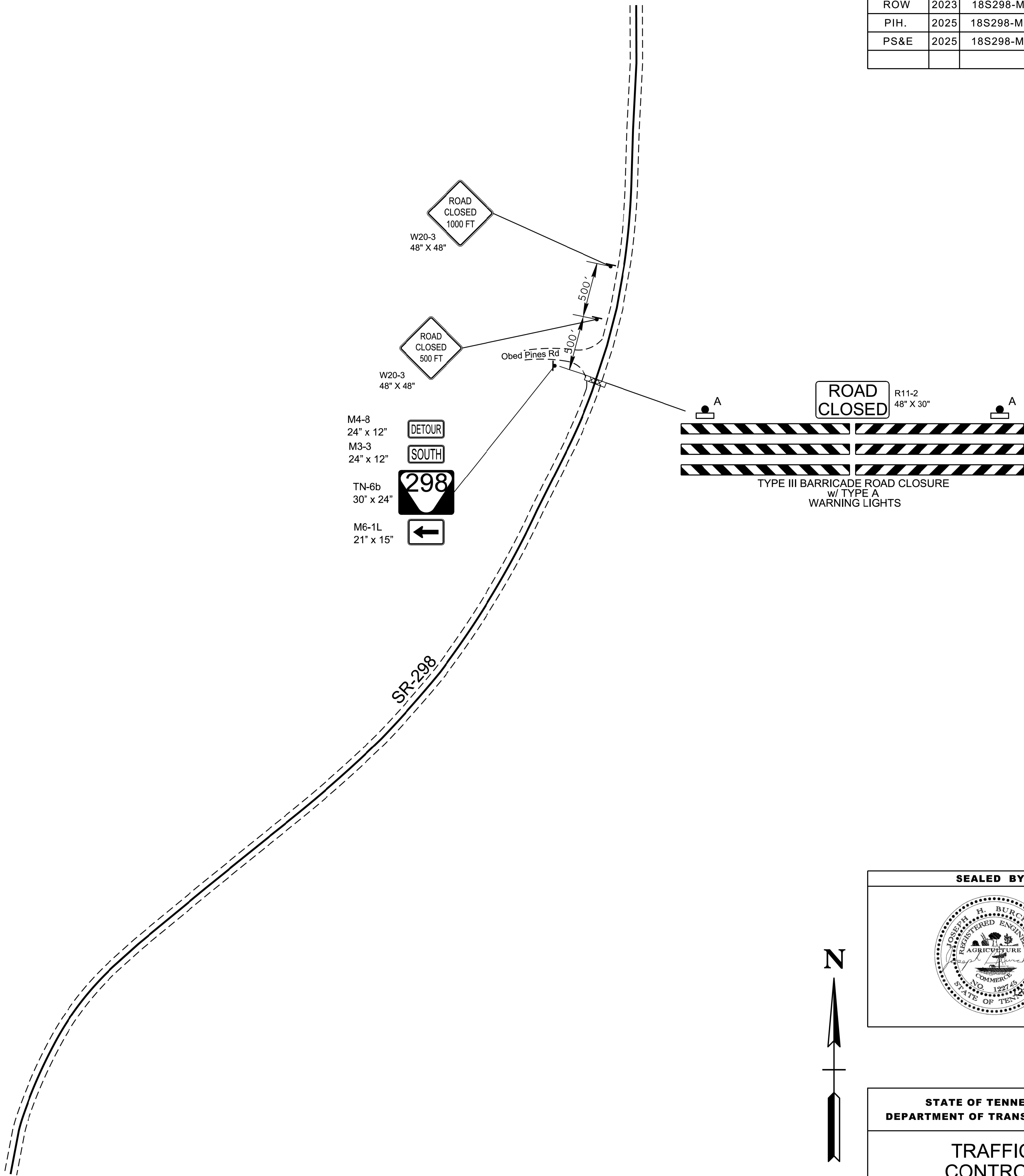
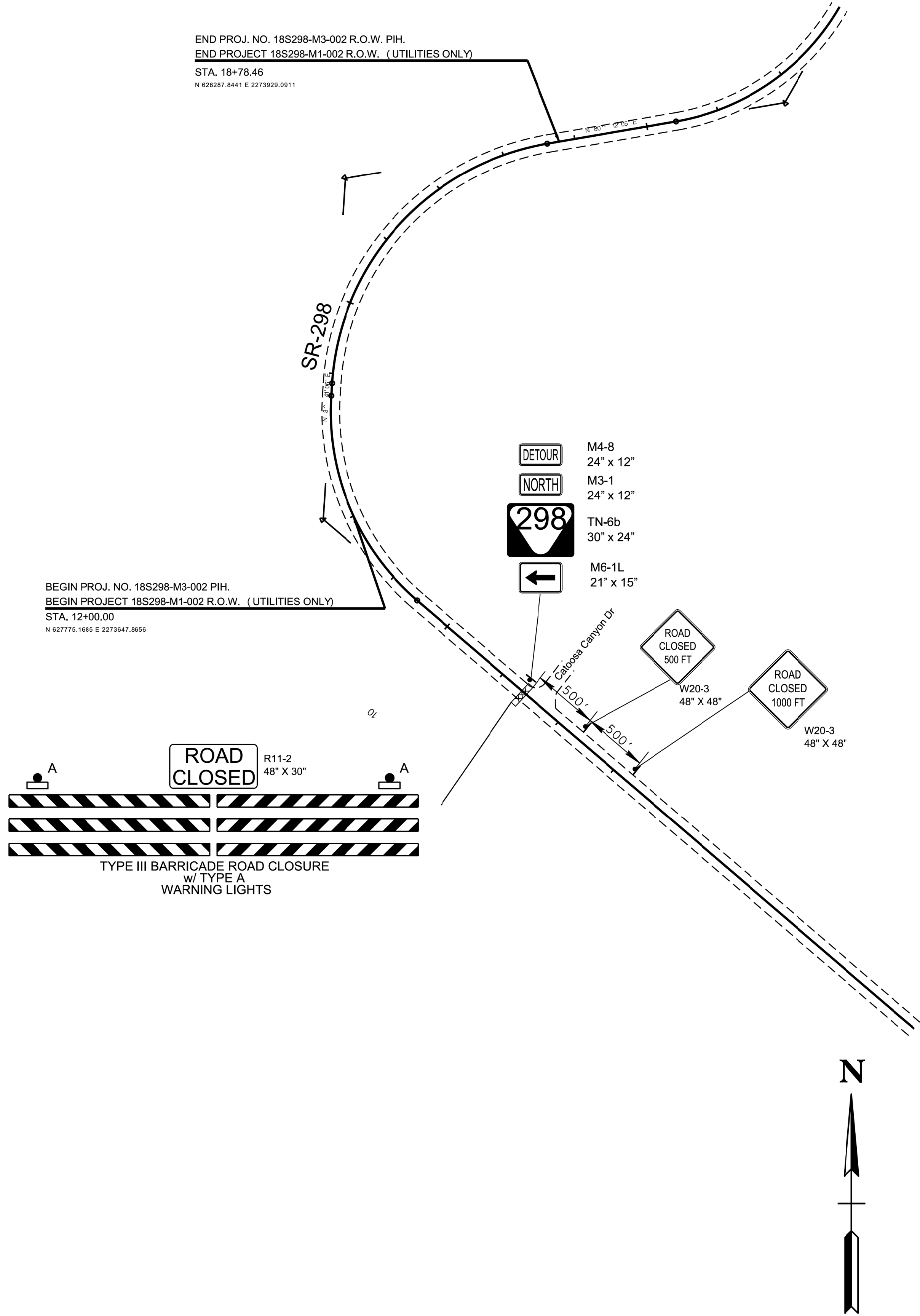
TRAFFIC  
CONTROL PLANS

STA.12+00.00 TO STA. 18+78.46  
SCALE: 1"=50'

PHASE I

20-DEC-2024 09:54  
\\tdot02nas002.tdot.state.tn.us\02Shared\Design County Folders\Cumberland\SR298\M8.5\SmallStructure\01-036\_T4\_SHT

| TYPE | YEAR | PROJECT NO.   | SHEET NO. |
|------|------|---------------|-----------|
| ROW  | 2023 | 18S298-M1-002 | T4        |
| PIH. | 2025 | 18S298-M3-002 | T4        |
| PS&E | 2025 | 18S298-M3-002 | T4        |
|      |      |               |           |



STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLANS  
STA.12+00.00 TO 18+78.46  
SCALE: 1"=100'

PHASE I



| TYPE | YEAR | PROJECT NO.   | SHEET NO. |
|------|------|---------------|-----------|
| ROW. | 2023 | 18S298-M1-002 | T6        |
| PIH. | 2025 | 18S298-M3-002 | T5        |
| PS&E | 2025 | 18S298-M3-002 | T5        |
|      |      |               |           |

SEE SHEET NO. T6  
SECTION C

SEE SHEET NO. T6  
SECTION D

SEE SHEET NO. T6  
SECTION E

SEE SHEET NO. T6  
SECTION F

END PROJ. NO. 18S298-M3-002 CONST.  
END PROJECT 18S298-M1-002 R.O.W. (UTILITIES ONLY)  
STA. 18+78.46  
N. 628287.8441 E 2273929.0911

SEE SHEET NO. T3

BEGIN PROJ. NO. 18S298-M3-002 CONST.  
BEGIN PROJECT 18S298-M1-002 R.O.W. (UTILITIES ONLY)  
STA. 12+00.00  
N. 627775.1685 E 2273647.8656



SEE SHEET NO. T6  
SECTION B

SEE SHEET NO. T6  
SECTION A

A

DETOUR

24" x 12"

M4-8

NORTH

24" x 12"

M3-1

298

30" x 24"

TN-6b

↑

21" x 15"

M6-3

B

DETOUR

24" x 12"

M4-8

SOUTH

24" x 12"

M3-3

298

30" x 24"

TN-6b

↑

21" x 15"

M6-3

SEALED BY

COORDINATES ARE NAD 83(X), ARE DATUM ADJUSTED BY THE FACTOR OF 1.000 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WITH GEOID 12B.

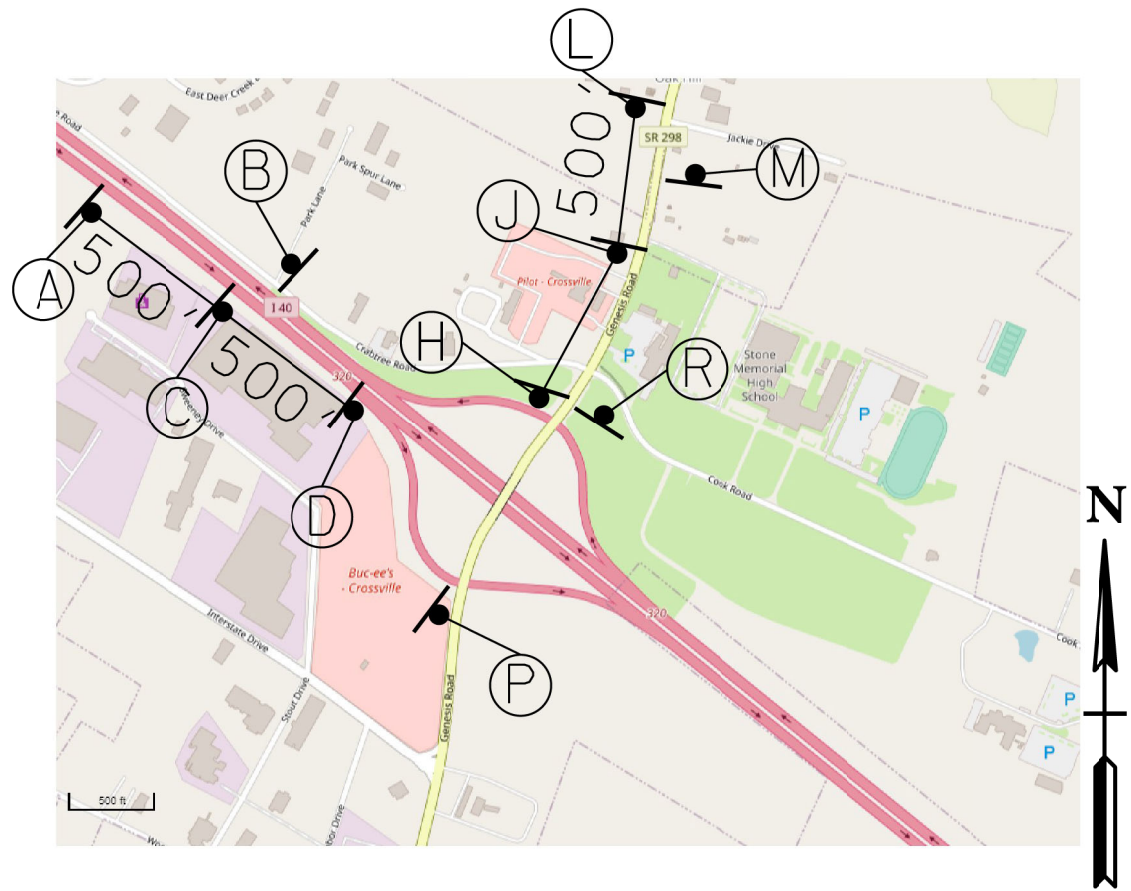
STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL  
DETOUR

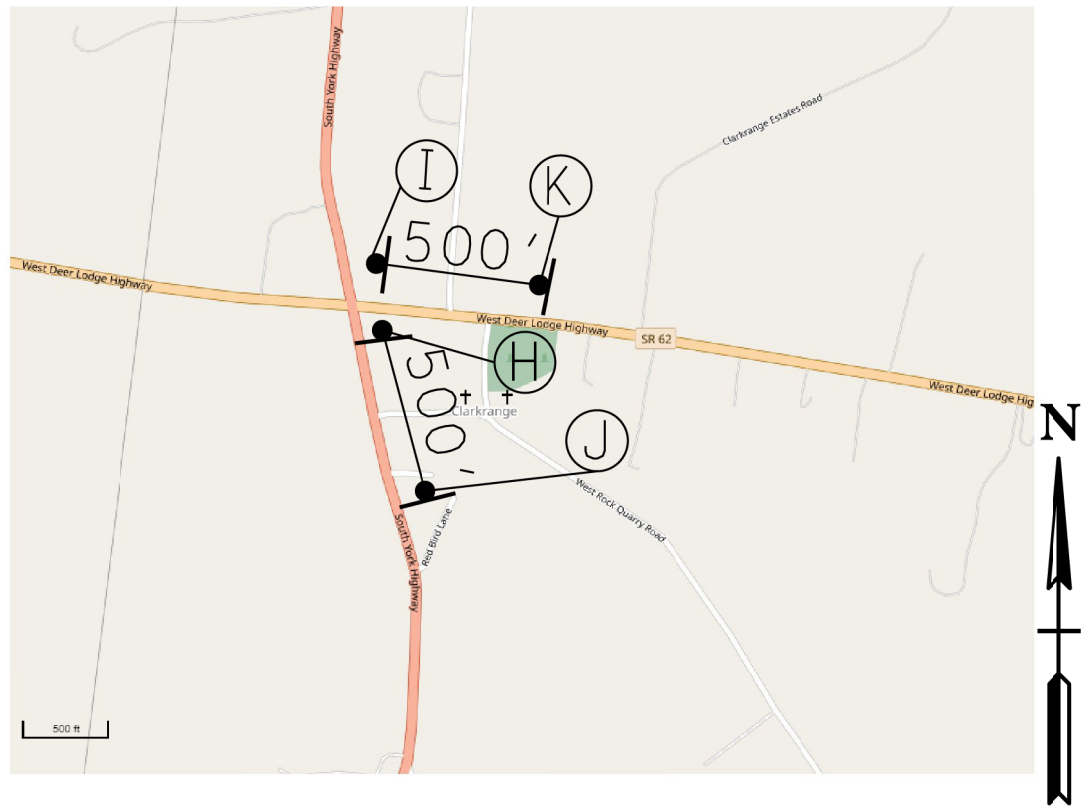
PHASE I



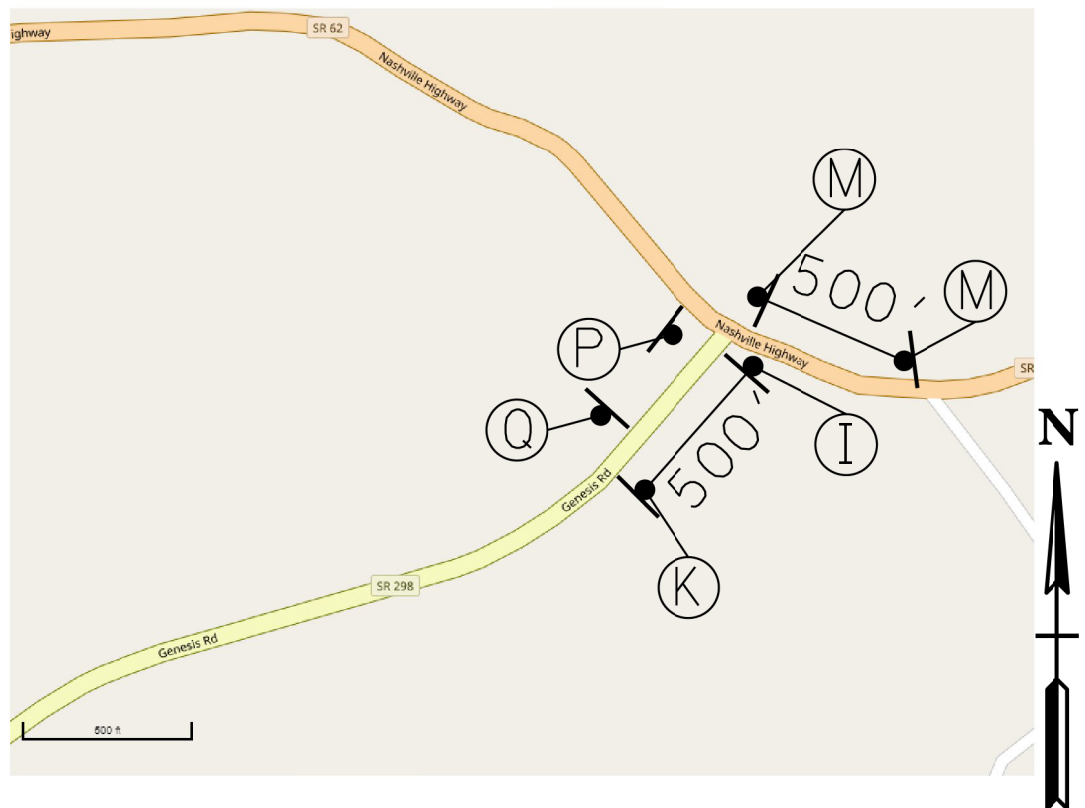
SECTION A



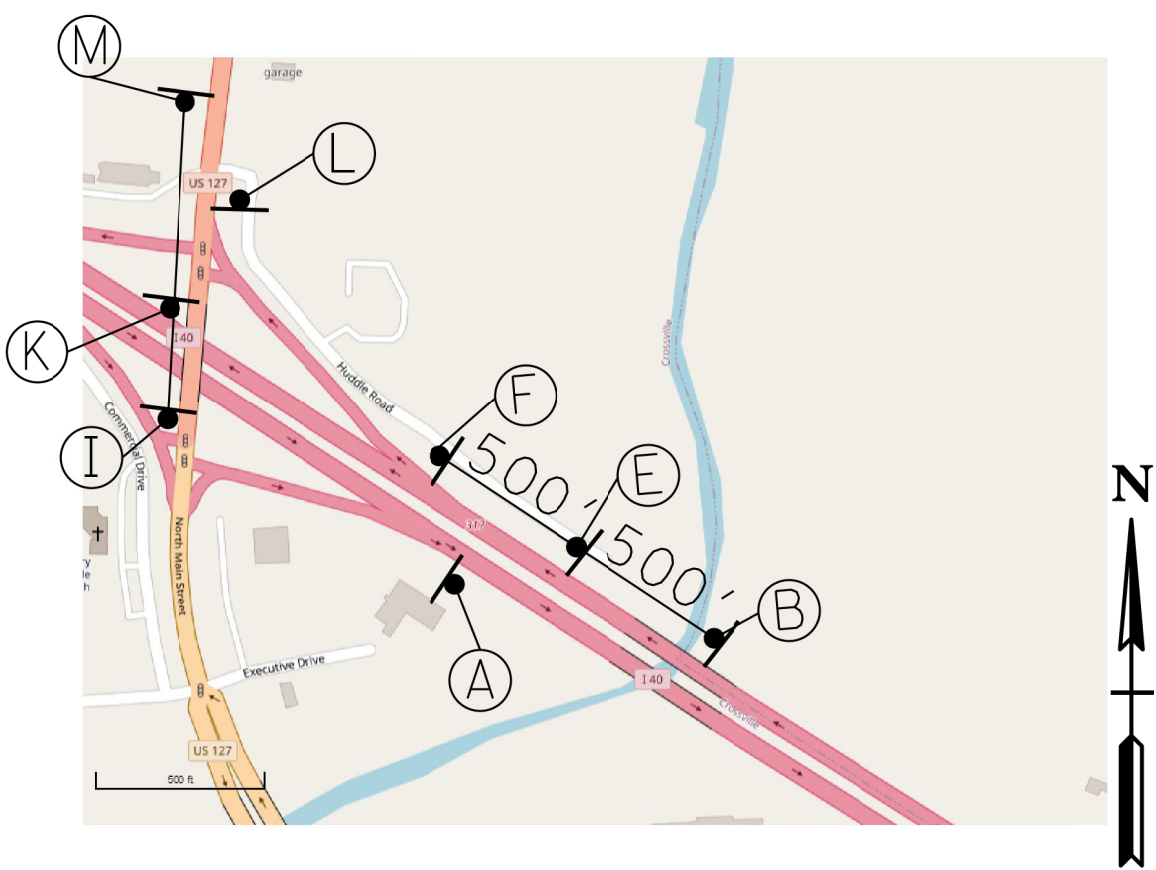
SECTION C



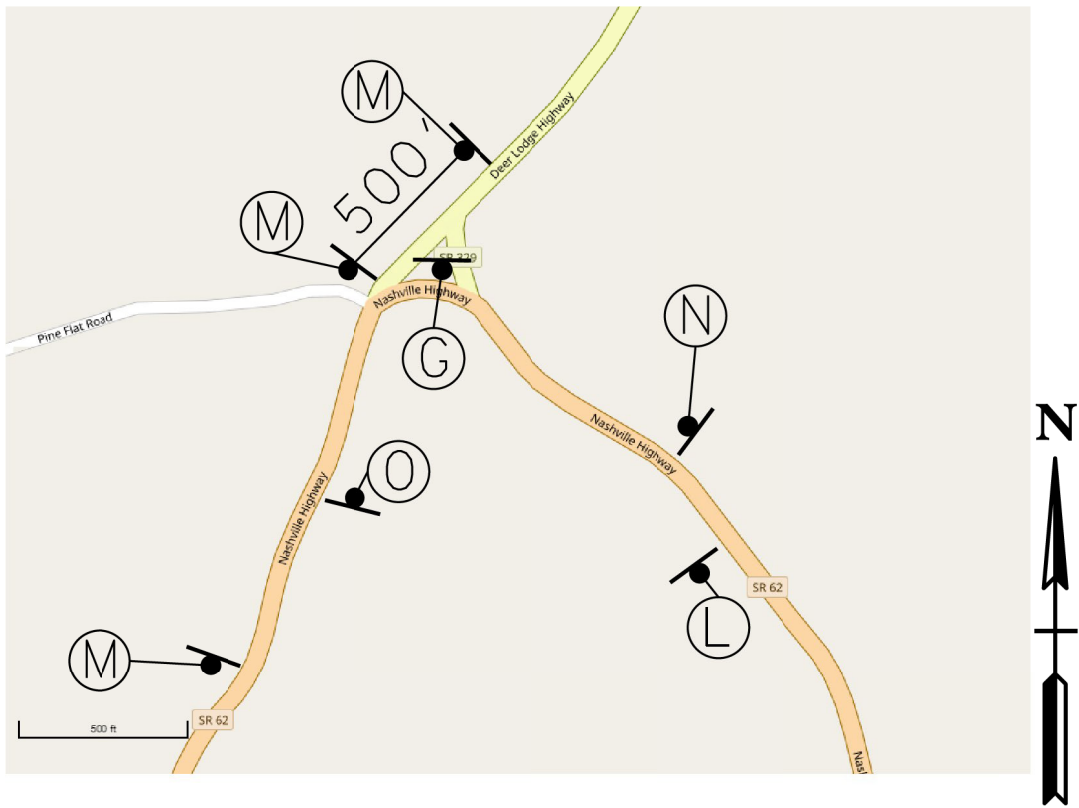
SECTION E



SECTION B



SECTION D



SECTION F



|   |   |   |  |
|---|---|---|--|
| <div><div>Ⓐ</div><div>DETOUR<br/>SOUTH</div><div>298</div><div>↑</div></div> <div>M4-8<br/>30" x 15"<br/>M3-3<br/>36" x 18"<br/>TN-6b<br/>45" x 36"<br/>M6-3<br/>30" x 21"</div>  | <div><div>Ⓑ</div><div>DETOUR<br/>NORTH</div><div>298</div><div>↑</div></div> <div>M4-8<br/>30" x 15"<br/>M3-1<br/>36" x 18"<br/>TN-6b<br/>45" x 36"<br/>M6-3<br/>30" x 21"</div>  | <div><div>Ⓒ</div><div>DETOUR<br/>SOUTH</div><div>298</div><div>↗</div></div> <div>M4-8<br/>30" x 15"<br/>M3-3<br/>36" x 18"<br/>TN-6b<br/>45" x 36"<br/>M5-2R<br/>30" x 21"</div> | <div><div>Ⓓ</div><div>DETOUR<br/>SOUTH</div><div>298</div><div>↗</div></div> <div>M4-8<br/>30" x 15"<br/>M3-3<br/>36" x 18"<br/>TN-6b<br/>45" x 36"<br/>M6-2R<br/>30" x 21"</div>  |
| <div><div>Ⓔ</div><div>DETOUR<br/>NORTH</div><div>298</div><div>↖</div></div> <div>M4-8<br/>30" x 15"<br/>M3-1<br/>36" x 18"<br/>TN-6b<br/>45" x 36"<br/>M5-2R<br/>30" x 21"</div> | <div><div>Ⓕ</div><div>DETOUR<br/>NORTH</div><div>298</div><div>↖</div></div> <div>M4-8<br/>30" x 15"<br/>M3-1<br/>36" x 18"<br/>TN-6b<br/>45" x 36"<br/>M6-2R<br/>30" x 21"</div> | <div><div>Ⓖ</div><div>DETOUR<br/>NORTH</div><div>298</div><div>←</div></div> <div>M4-8<br/>24" x 12"<br/>M3-1<br/>24" x 12"<br/>TN-6b<br/>30" x 24"<br/>M6-1L<br/>21" x 15"</div> | <div><div>Ⓗ</div><div>DETOUR<br/>NORTH</div><div>298</div><div>→</div></div> <div>M4-8<br/>24" x 12"<br/>M3-1<br/>24" x 12"<br/>TN-6b<br/>30" x 24"<br/>M6-1R<br/>21" x 15"</div>  |
| <div><div>Ⓘ</div><div>DETOUR<br/>SOUTH</div><div>298</div><div>←</div></div> <div>M4-8<br/>24" x 12"<br/>M3-3<br/>24" x 12"<br/>TN-6b<br/>30" x 24"<br/>M6-1L<br/>21" x 15"</div> | <div><div>Ⓙ</div><div>DETOUR<br/>NORTH</div><div>298</div><div>→</div></div> <div>M4-8<br/>24" x 12"<br/>M3-1<br/>24" x 12"<br/>TN-6b<br/>30" x 24"<br/>M5-1R<br/>21" x 15"</div> | <div><div>Ⓚ</div><div>DETOUR<br/>SOUTH</div><div>298</div><div>←</div></div> <div>M4-8<br/>24" x 12"<br/>M3-3<br/>24" x 12"<br/>TN-6b<br/>30" x 24"<br/>M5-1L<br/>21" x 15"</div> | <div><div>Ⓛ</div><div>DETOUR<br/>NORTH</div><div>298</div><div>↑</div></div> <div>M4-8<br/>24" x 12"<br/>M3-1<br/>24" x 12"<br/>TN-6b<br/>30" x 24"<br/>M6-3<br/>21" x 15"</div>   |
| <div><div>Ⓜ</div><div>DETOUR<br/>SOUTH</div><div>298</div><div>↑</div></div> <div>M4-8<br/>24" x 12"<br/>M3-3<br/>24" x 12"<br/>TN-6b<br/>30" x 24"<br/>M6-3<br/>21" x 15"</div>  | <div><div>Ⓝ</div><div>DETOUR<br/>SOUTH</div><div>298</div><div>↖</div></div> <div>M4-8<br/>24" x 12"<br/>M3-3<br/>24" x 12"<br/>TN-6b<br/>30" x 24"<br/>M5-2L<br/>21" x 15"</div> | <div><div>ⓐ</div><div>DETOUR<br/>NORTH</div><div>298</div><div>↗</div></div> <div>M4-8<br/>24" x 12"<br/>M3-1<br/>24" x 12"<br/>TN-6b<br/>30" x 24"<br/>M5-2R<br/>21" x 15"</div> | <div><div>Ⓟ</div><div>END<br/>DETOUR</div></div> <div>M4-8A<br/>24" x 12"</div> <div><div>Ⓠ</div><div>ROAD CLOSED<br/>16 MILES AHEAD<br/>LOCAL TRAFFIC ONLY</div></div> <div><div>Ⓡ</div><div>ROAD CLOSED<br/>6 MILES AHEAD<br/>LOCAL TRAFFIC ONLY</div></div> |

| TYPE   | YEAR | PROJECT NO.   | SHEET NO. |
|--------|------|---------------|-----------|
| R.O.W. | 2023 | 18S298-M1-002 | T7        |
| PIH.   | 2025 | 18S298-M3-002 | T6        |
| PS&E   | 2025 | 18S298-M3-002 | T6        |

JOSEPH H. BURCHFIELD

REGISTERED ENGINEER

AGRICULTURE

NO. 122116

STATE OF TENNESSEE

12/20/2024

COORDINATES ARE NAD 83(X), ARE DATUM ADJUSTED BY THE FACTOR OF 1.000 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WITH GEOID 12B.

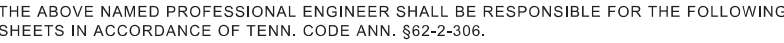
STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL  
DETOUR

PHASE I







**Robert Jowers** Digitally signed by Robert Jowers  
Date: 2024.12.20 16:42:23 -06'00'

TENNESSEE DEPARTMENT OF TRANSPORTATION  
MATERIALS & TESTS DIVISION- GEOTECHNICAL ENGINEERING SECTION  
6601 CENTENNIAL BLVD.  
NASHVILLE, TN 37243  
TRAVIS W. SMITH, P.E. NO. 113851

SIGNATURE SHEET .....GEOTECH-SIGN1  
GEOTECHNICAL PLANS .....G-1 - G-8

STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

---

SIGNATURE  
SHEET



12/17/2024 11:32:41 AM  
\\DOT03NAS002.tdot.state.tn.us\03Shared\Geotech\Files\Region 2\18-Cumberland\FY2022\1806522-SR298Culvert\02-CADD\02-Geo Drawing Sheets\131702-00-CONSTRUCTION\131702-00-SR298 SMALL STRUCT

|      |      |               |           |
|------|------|---------------|-----------|
| TYPE | YEAR | PROJECT NO.   | SHEET NO. |
| PS&E | 2025 | 18S298-M3-002 | G-1       |
|      |      |               |           |
|      |      |               |           |
|      |      |               |           |

## GEOTECHNICAL INDEX

| SHEET NAME   | SHEET NO.     |
|--|---------------|
| SIGNATURE SHEET .....                                  | GEOTECH-SIGN1 |
| GEOTECHNICAL INDEX.....                                | G-1           |
| GEOTECHNICAL NOTES AND ESTIMATED QUANTITIES SHEET..... | G-2           |
| GEOTECHNICAL BORING LAYOUTS .....                      | G-3           |
| GEOTECHNICAL BORING PROFILES .....                     | G-4           |
| GEOTECHNICAL TYPICAL SECTIONS .....                    | G-5 – G-8     |

SEALED BY



STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL  
INDEX

DEFINITION OF EARTHWORK TERMS

THE TERMS AND DEFINITIONS BELOW SHALL CHARACTERIZE THE MATERIAL TYPE THAT WILL BE ENCOUNTERED DURING EXCAVATION AND GRADING. SEE TYPE MATERIAL REFERENCE IN TYPICAL SECTIONS LEGEND.

A. SOIL MATERIAL

SOIL MATERIAL IS MATERIAL THAT IS PREDOMINANTLY MADE UP OF NATURALLY OCCURRING MINERAL PARTICLES WHICH ARE FAIRLY READILY SEPARATED INTO RELATIVELY SMALL PIECES, AND IN WHICH THE MASS MAY CONTAIN AIR, WATER OR ORGANIC MATERIALS. THIS MATERIAL MAY CONTAIN ROCK PIECES IN THE FORM OF DISCONNECTED SLABS, LENSES, OR BOULDERS OF LESS THAN APPROXIMATELY 0.5 CUBIC YARDS. THE MAIN SOIL GROUPS CONSIST OF CLAY, SILT, SAND, GRAVEL, COBBLES, BOULDERS (LESS THAN 0.5 CUBIC YARD VOLUME) OR A COMBINATION OF ANY OF THE CONSTITUENTS. FOR CONSTRUCTION PURPOSES, THIS MATERIAL WOULD TYPICALLY BE CONSIDERED TO BE EXCAVATABLE BY CONVENTIONAL EXCAVATION MACHINERY SUCH AS PANS, TRACK HOES, OR FRONT END EXCAVATORS/LOADERS.

B. SOLID ROCK MATERIAL

SOLID ROCK MATERIAL IS THAT NATURALLY OCCURRING MATERIAL COMPOSED OF MINERAL PARTICLES SO FIRMLY BONDED TOGETHER THAT RELATIVELY GREAT EFFORT IS REQUIRED TO SEPARATE THE PARTICLES (I.E. BLASTING OR HEAVY CRUSHING FORCES). FOR CONSTRUCTION PURPOSES, THIS MATERIAL WOULD TYPICALLY HAVE TO BE BLASTED TO SEPARATE INTO PIECES SMALL ENOUGH TO LOAD AND TRANSPORT ON EARTH MOVING TRUCKS AND WHICH WHEN SUBJECTED TO PROPER PRE-SPLIT AND PRODUCTION BLASTING WOULD RESULT IN A UNIFORM STABLE ROCK CUT FACE. NOTE THAT THIS MATERIAL WOULD NOT BY DEFINITION NECESSARILY BE A PROVEN SOURCE OF ANY ROCK TYPE AGGREGATE SUCH AS SOLID ROCK, GRADED SOLID ROCK, RIP RAP, OR OTHER ROCK AGGREGATE CONSTRUCTION PRODUCTS.

C. SOFT ROCK OR DEGRADABLE ROCK

THIS MATERIAL IS THAT NATURALLY OCCURRING MATERIAL COMPOSED OF MINERAL PARTICLES THAT ARE SO FIRMLY BONDED SUCH THAT THEY ARE NOT FAIRLY READILY SEPARATED INTO SMALL PIECES YET HAS SUCH RELATIVELY LOW BONDING STRENGTH THAT WOULD ALLOW FOR SEPARATING INTO SMALL PIECES THROUGH MODERATE TO HEAVY CRUSHING FORCES. FOR CONSTRUCTION PURPOSES THIS MATERIAL WOULD HAVE TO BE SUBJECTED TO RIPPING TYPE EQUIPMENT, HOE RAMS, OR RUGGED USE OF A LARGE BULLDOZER IN ORDER TO SEPARATE THE MATERIAL SUCH THAT IT CAN BE READILY LOADED INTO EARTH MOVING TRUCKS. THESE MATERIALS WOULD TYPICALLY BE SHALES, CLAYSTONES, SILTSTONES, WEATHERED SANDSTONES, WEATHERED SCHIST AND WEATHERED GNEISS.

D. TRANSITIONAL MATERIALS

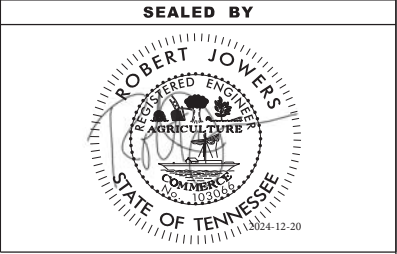
THIS MATERIAL IS THAT MATERIAL COMPRISED OF A COMBINATION OF SOIL AND ROCK (MATERIALS A, B, AND C) OCCURRING IN EITHER NON-UNIFORM INTERBEDDED LAYERS OF THE ABOVE MATERIALS (I.E. SHALE MATERIAL WITH RELATIVELY THIN LAYERS OF SOLID ROCK SUCH AS HARD LIMESTONE) OR ERRATIC LOCALIZED CHANGES OF MATERIAL TYPES BOTH Laterally AND WITH DEPTH (SUCH AS A GEOLOGIC FORMATION RESULTING IN PINNACLED ROCK COLUMNS, FLOATING BOULDERS OR LENSES INTERCALATED WITH CLAY SOIL, A COMMON OCCURRENCE IN CERTAIN REGIONS OF TENNESSEE). FOR CONSTRUCTION PURPOSES, THIS MATERIAL MAY HAVE TO BE EXCAVATED USING A COMBINATION OF EXCAVATION METHODS SUCH AS BLASTING OF ROCK PINNACLES, LAYERS OR BOULDERS ALONG WITH A RIPPING OF WEATHERED ROCK AND EXCAVATING OF SOIL WITH TRACK HOES OR LOADERS ALL WITHIN A LOCALIZED AREA. THIS MATERIAL WOULD NOT BE SUITABLE FOR THE USE OF EXCAVATING PAN TYPE EQUIPMENT.

|      |      |               |           |
|------|------|---------------|-----------|
| TYPE | YEAR | PROJECT NO.   | SHEET NO. |
| PS&E | 2025 | 18S298-M3-002 | G-2       |
|      |      |               |           |
|      |      |               |           |

| ESTIMATED GEOTECHNICAL QUANTITIES |   |      |          |
|-----------------------------------|---|------|----------|
| ITEM NO.                          | DESCRIPTION                               | UNIT | QUANTITY |
| ① 203-01                          | ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED) | C.Y. | 224      |
| ② 709-05.06                       | MACHINED RIP-RAP (CLASS A-1)              | TON  | 1288     |
| ③ 740-10.04                       | GEOTEXTILE (TYPE IV)(STABILIZATION)       | S.Y. | 439      |
|                                   |   |      |          |

FOOTNOTES:

- ① FOR REMOVAL OF SCoured MATERIAL BETWEEN 14+00 AND 14+35 BELOW EXISTING CULVERT AS DIRECTED BY ENGINEER.
- ② INCLUDES 602 TON FOR BACKFILLING OF SCoured MATERIAL AND BUILDING LEVEL BUILDING PLATFORM, AND 686 TON FOR ARMORING OF M.S.E. RETAINING WALL BENCH. SEE SHEET G-7 'TYPICAL SECTION'. AS DIRECTED BY ENGINEER.
- ③ FOR SEPARATION LINER BETWEEN GROUND AND RIP-RAP. SEE 'TYPICAL SECTIONS' OF GEOTECHNICAL SHEETS.

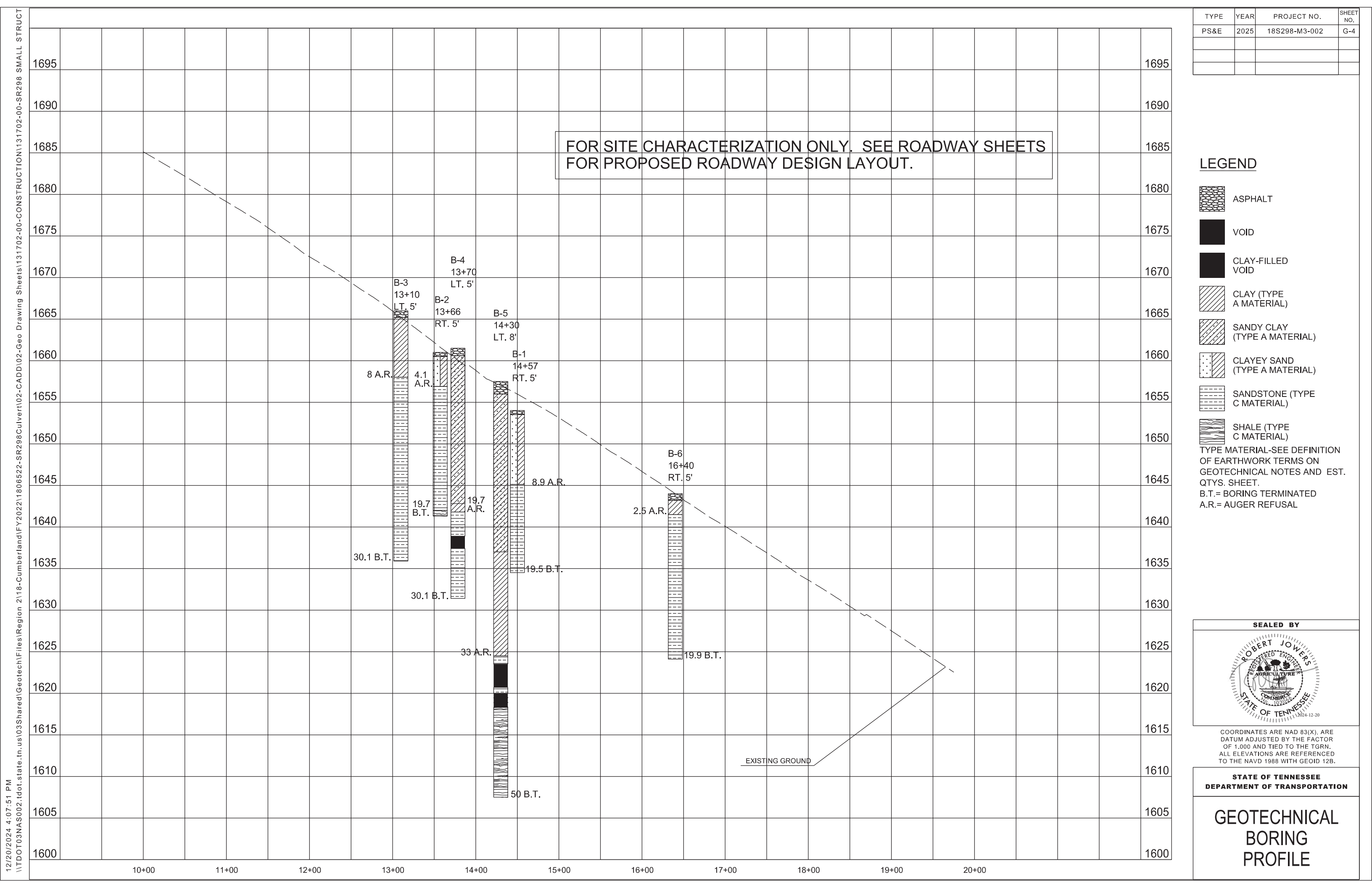


STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

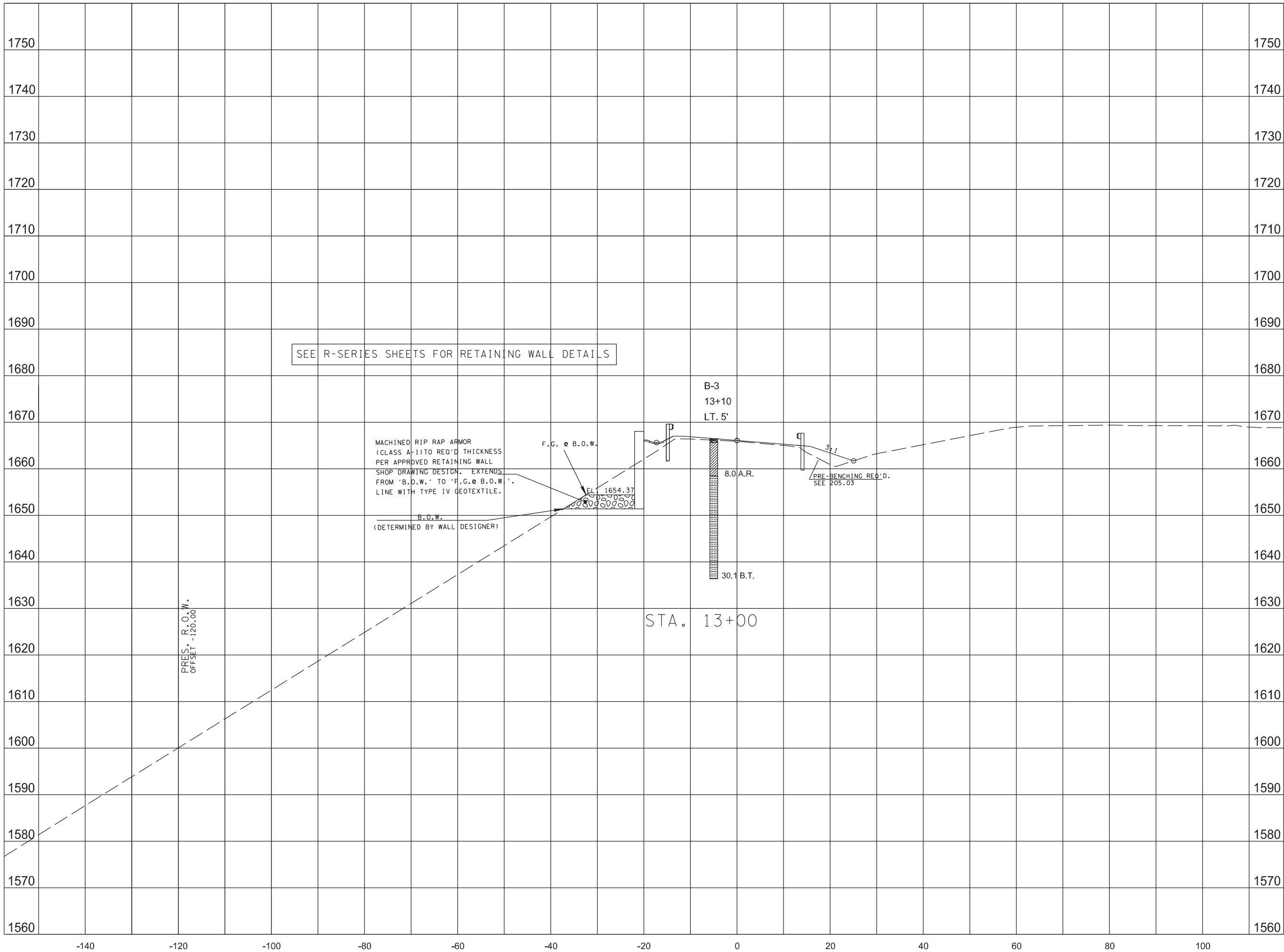
GEOTECHNICAL  
NOTES &  
EST. QTYS.











## LEGEND



## ASPHALT



VOID

CLAY-FILLED  
VOIDCLAY (TYPE  
A MATERIAL)

SANDY CLAY  
(TYPE A MATERIAL)



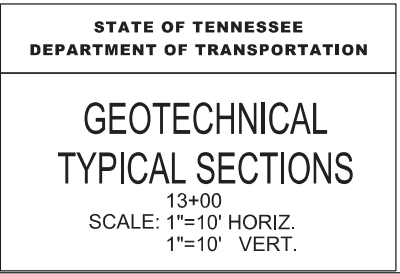
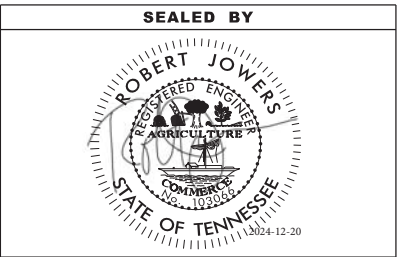
CLAYEY SAND  
(TYPE A MATERIAL)

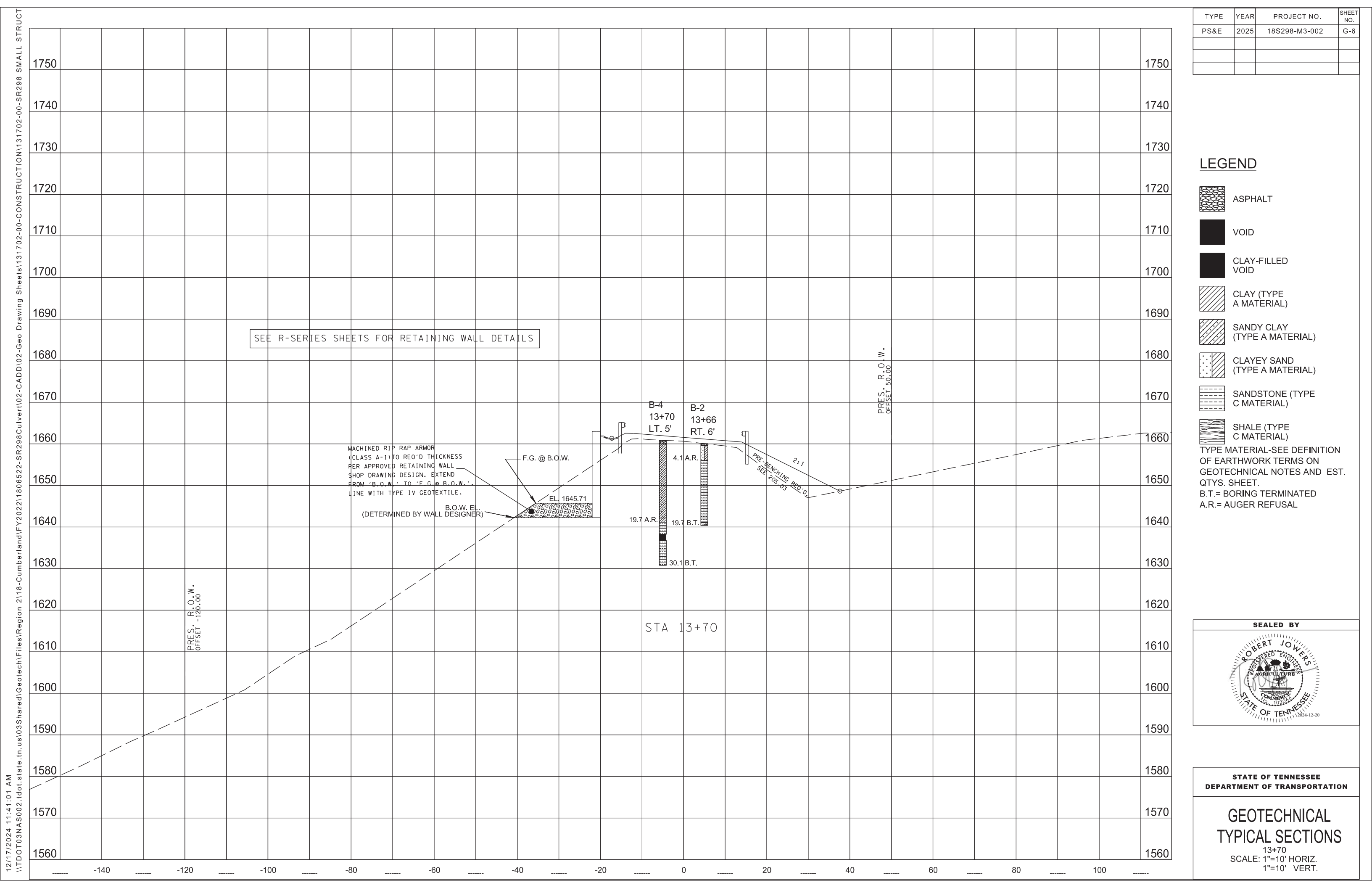


SANDSTONE (TYPE C MATERIAL)

SHALE (TYPE  
C MATERIAL)

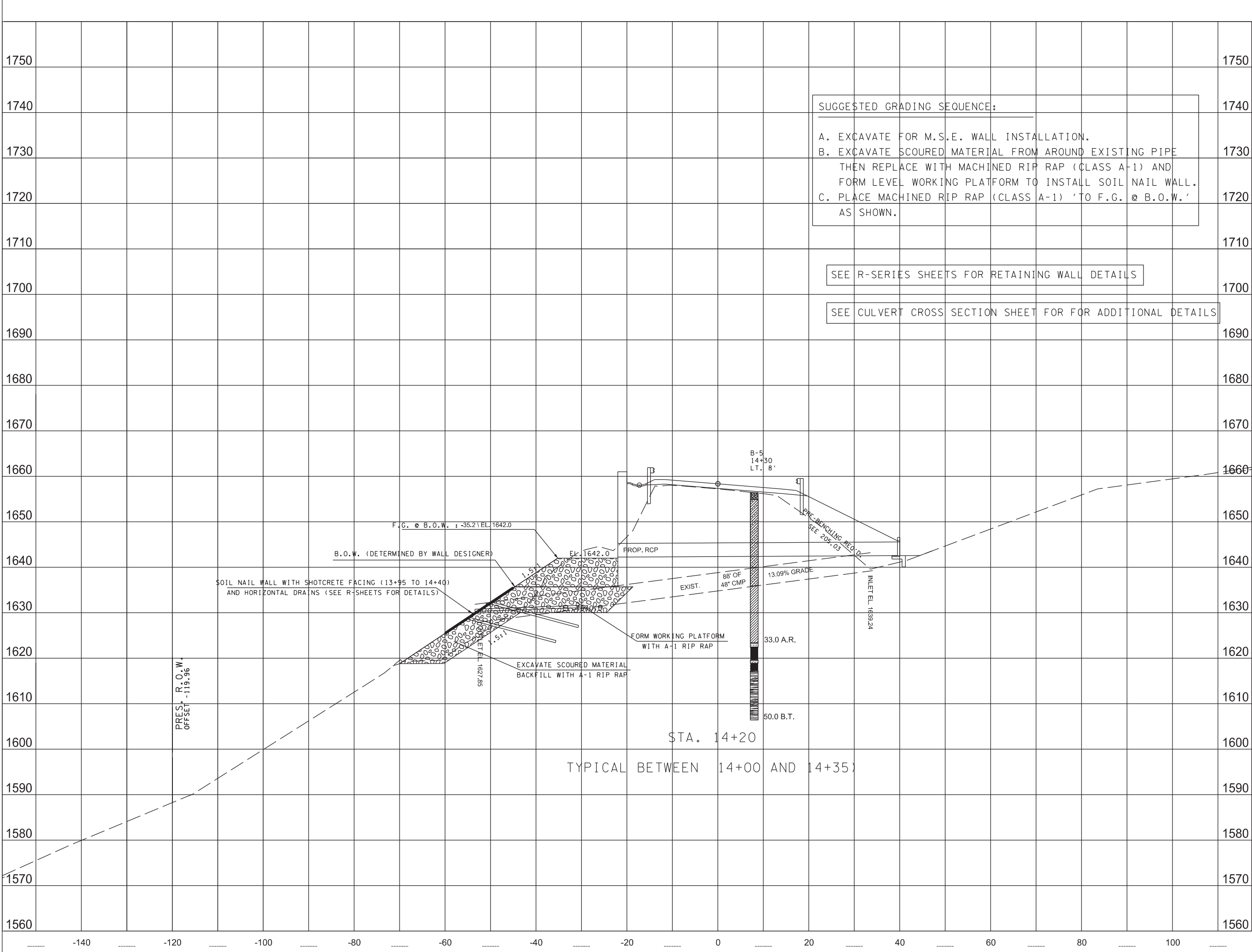
TYPE MATERIAL-SEE DEFINITION  
OF EARTHWORK TERMS ON  
GEOTECHNICAL NOTES AND EST.  
QTY'S. SHEET.  
B.T.= BORING TERMINATED  
A.R.= AUGER REFUSAL







12/17/2024 2:19:09 PM  
\\DOT03NAS002.tdot.state.tn.us\03Shared\Geotech\Files\Region 2\18-Cumberland\Files\Region 2\18-Cumberland\02-Geo Drawing Sheets\131702-00-CONSTRUCTION\131702-00-SR298 SMALL STRUCT

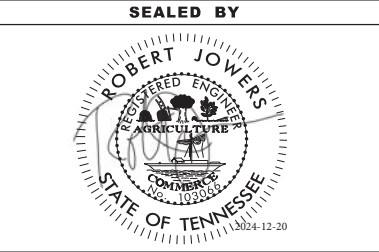


| TYPE | YEAR | PROJECT NO.   | SHEET NO. |
|------|------|---------------|-----------|
| PS&E | 2025 | 18S298-M3-002 | G-7       |
|      |      |               |           |
|      |      |               |           |

## LEGEND

- ASPHALT
- VOID
- CLAY-FILLED VOID
- CLAY (TYPE A MATERIAL)
- SANDY CLAY (TYPE A MATERIAL)
- CLAYEY SAND (TYPE A MATERIAL)
- SANDSTONE (TYPE C MATERIAL)
- SHALE (TYPE C MATERIAL)
- GRADED SOLID ROCK

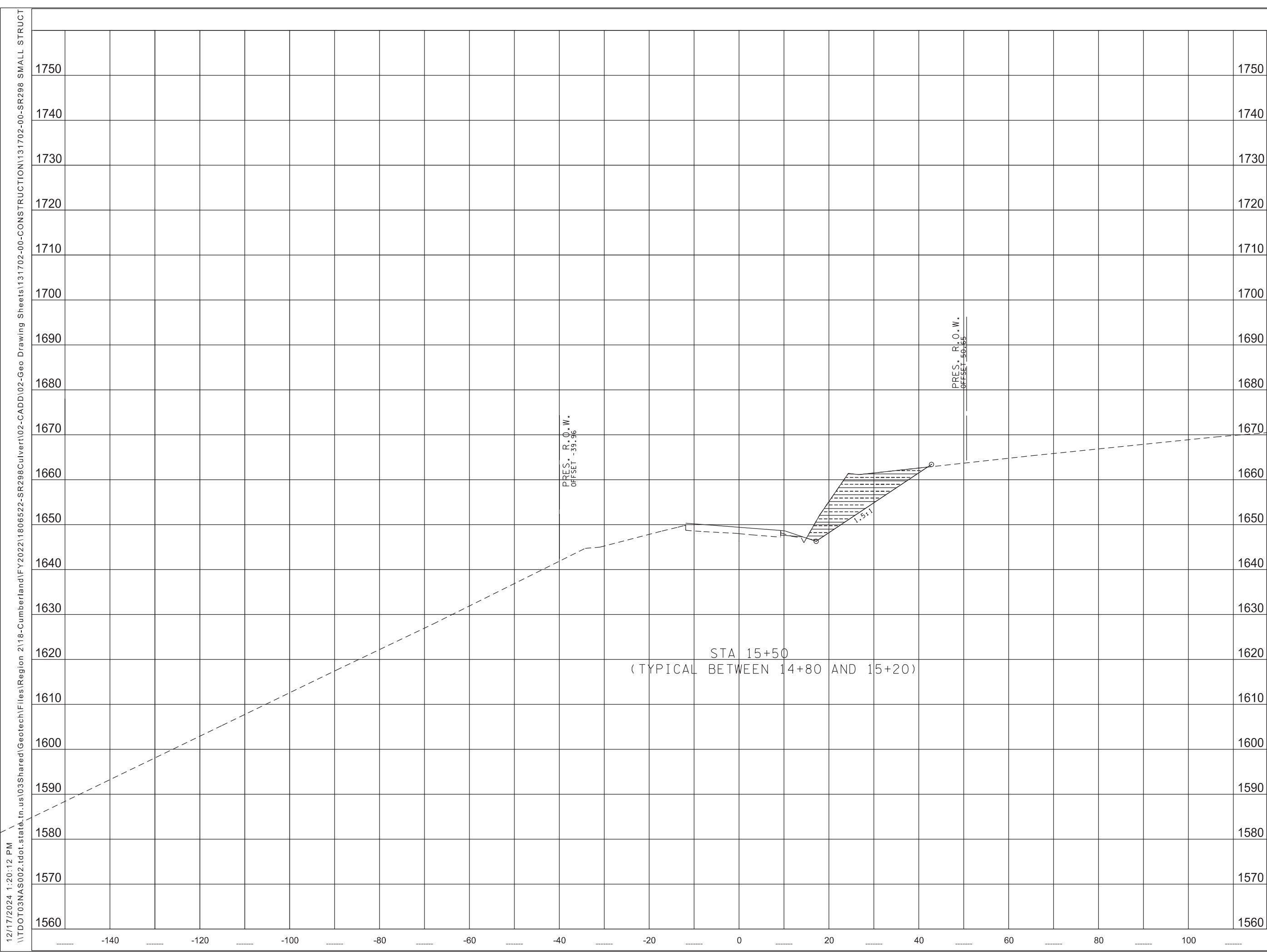
TYPE MATERIAL-SEE DEFINITION OF EARTHWORK TERMS ON GEOTECHNICAL NOTES AND EST. QTYS. SHEET.  
B.T.= BORING TERMINATED  
A.R.= AUGER REFUSAL



STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

**GEOTECHNICAL  
TYPICAL SECTIONS**

14+20  
SCALE: 1"=10' HORIZ.  
1"=10' VERT.

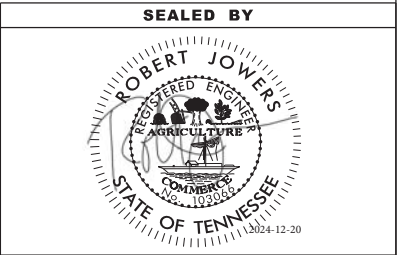


| TYPE | YEAR | PROJECT NO.   | SHEET NO. |
|------|------|---------------|-----------|
| PS&E | 2025 | 18S298-M3-002 | G-8       |
|      |      |               |           |
|      |      |               |           |

LEGEND

- ASPHALT
- VOID
- CLAY-FILLED VOID
- CLAY (TYPE A MATERIAL)
- SANDY CLAY (TYPE A MATERIAL)
- CLAYEY SAND (TYPE A MATERIAL)
- SANDSTONE (TYPE C MATERIAL)
- SHALE (TYPE C MATERIAL)

TYPE MATERIAL-SEE DEFINITION OF EARTHWORK TERMS ON GEOTECHNICAL NOTES AND EST. QTYS. SHEET.  
B.T.= BORING TERMINATED  
A.R.= AUGER REFUSAL



STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

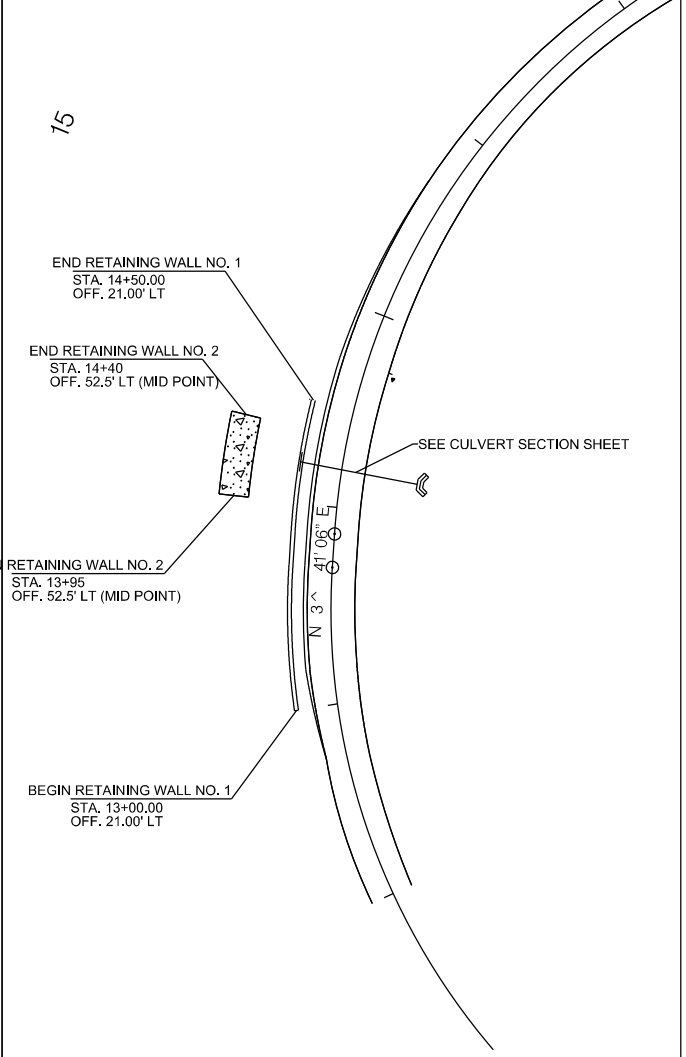
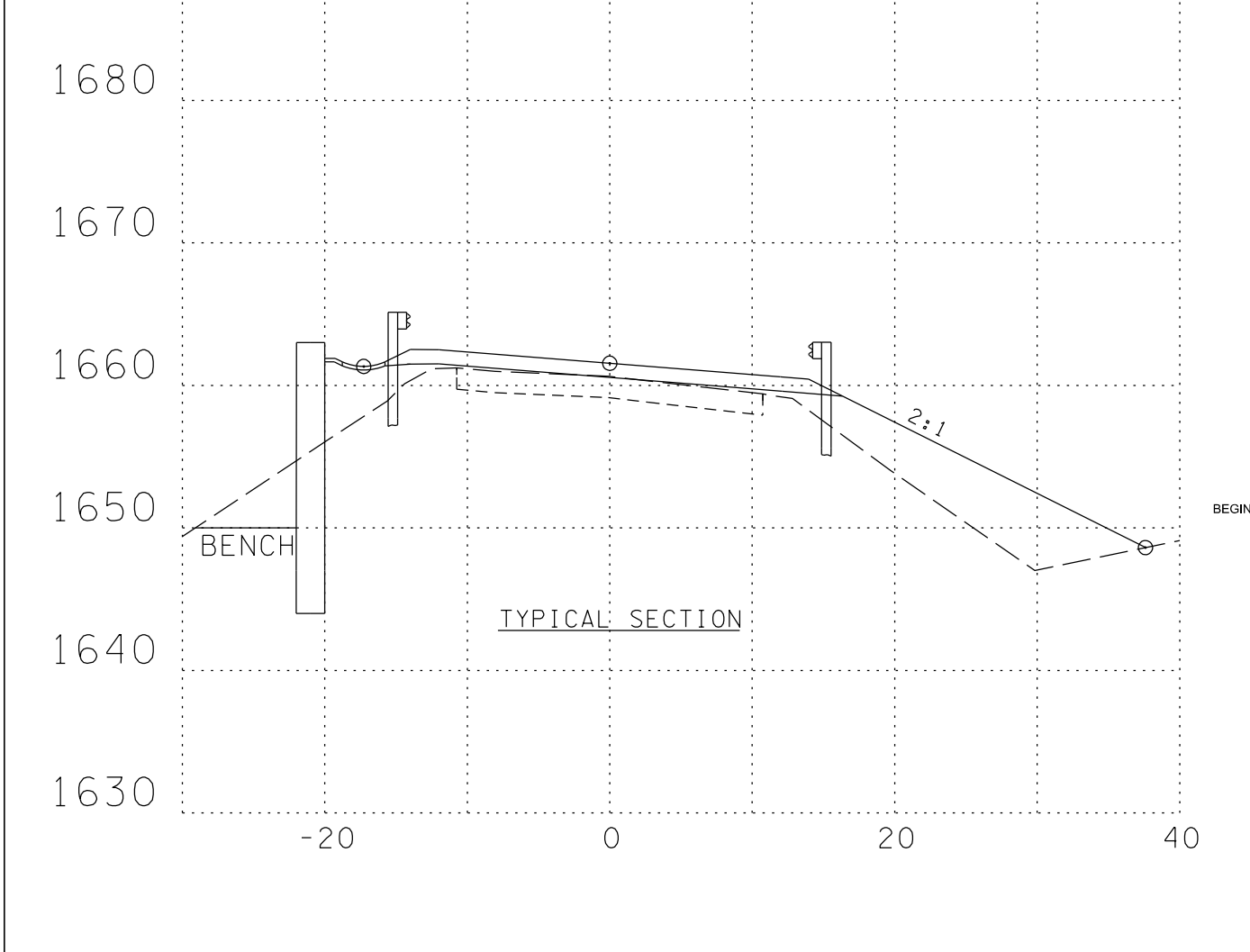
GEOTECHNICAL  
TYPICAL SECTIONS

15+50  
SCALE: 1"=10' HORIZ.  
1"=10' VERT.



12/20/2024 11:40:01 AM  
\\TDOT03NAS002.tdot.state.tn.us\03Shared\Geotech\Files\Region 2\18-Cumberland\FY2022\1806522-SR298Culvert\02-CADD\02-Geo Drawing Sheets\131702-00-CONSTRUCTION\131702-00-SR298 SMALL STRUCT

| TYPE | YEAR | PROJECT NO.   | SHEET NO. |
|------|------|---------------|-----------|
| PS&E | 2025 | 18S298-M3-002 | R1        |
|      |      |               |           |
|      |      |               |           |
|      |      |               |           |

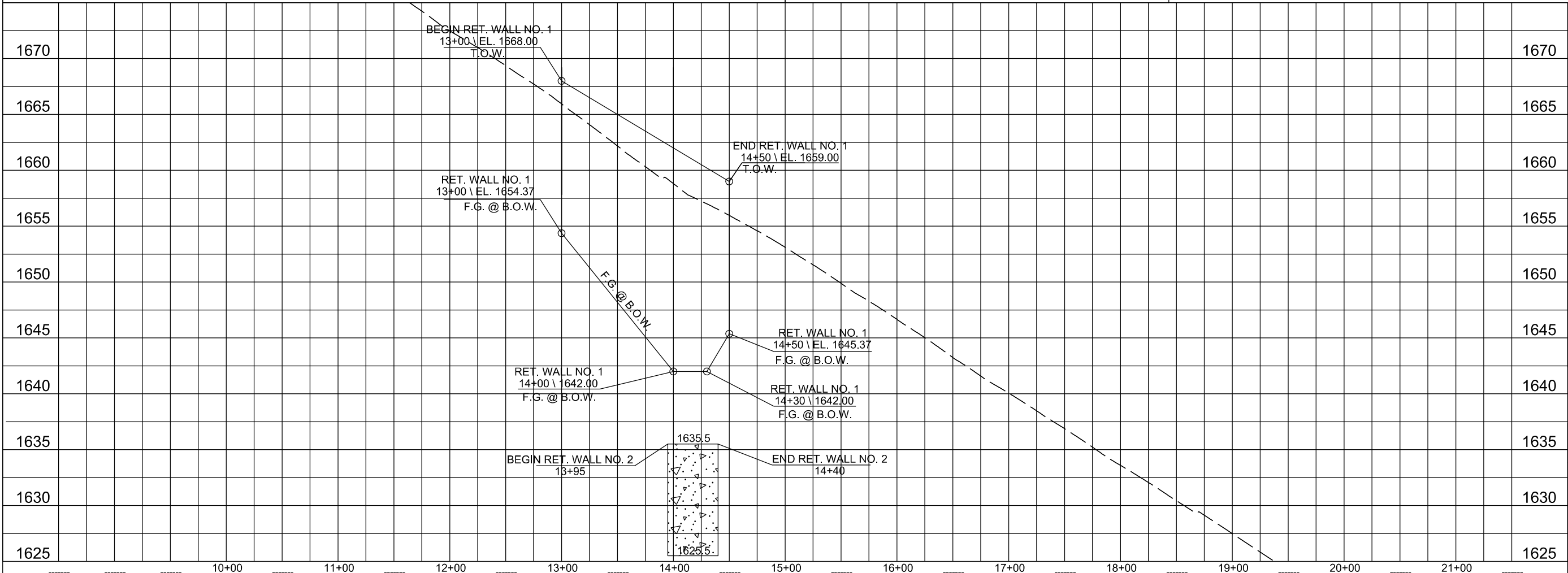


ACCEPTABLE WALL TYPES

- RETAINING WALL NO. 1: MECHANICALLY STABILIZED EARTH (MSE) WALL  
- MODULAR BLOCK
- RETAINING WALL NO. 2: SOIL NAIL WALL

THE RETAINING WALL(S) SHALL BE ONE OF THE WALL TYPE(S) AS LISTED ABOVE. SEE FORTHCOMING "RETAINING WALL DESIGN NOTES AND REQUIREMENTS" SHEET(S). ANY PROPRIETARY RETAINING WALL SYSTEM SHALL BE LISTED AS PRE-APPROVED IN OPL 38.

ROADWAY DESIGN FEATURES SHOWN ON RETAINING WALL SHEET(S) SUCH AS PAVEMENT, CULVERT, ETC. ARE DEPICTED FOR ILLUSTRATION ONLY. USE PROPOSED ROADWAY DESIGN INFORMATION CONTAINED IN OTHER SHEETS FOR ROADWAY LAYOUT.



SEALED BY

COORDINATES ARE NAD 83(X), ARE DATUM ADJUSTED BY THE FACTOR OF 1.000 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WITH GEOID 12B.

STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

RETAINING WALL  
GEOMETRIC  
LAYOUT

2/16/2024 11:28:36 AM  
\\TD0103NA5002.fdot.state.tn.us\035shared\Geotech\Region 2\B-Cumberland\FY2022\B06522-SR298Culvert\02-CADD\02-Geo Drawing Sheets\31702-00-CONSTRUCTION\31702-00-SR298 SMALL STRUCTURES\31702-00-RGeoShr-01.dgn

RETAINING WALL NO. 1

ACCEPTABLE WALL TYPES

MECHANICALLY STABILIZED EARTH (MSE) WALL - MODULAR BLOCK

THE RETAINING WALL(S) SHALL BE ONE OF THE WALL TYPE(S) AS LISTED ABOVE OR ON FORTHCOMING "RETAINING WALL DETAIL-GEOMETRIC LAYOUT" SHEET(S). ANY PROPRIETARY RETAINING WALL SYSTEM SHALL BE LISTED AS PRE-APPROVED IN OPL 38.

WALL NO. 1 ESTIMATED RETAINING WALL QUANTITIES

| ITEM NO.    | DESCRIPTION                 | UNIT | QUANTITY |
|-------------|-----------------------------|------|----------|
| ① 604-07.01 | RETAINING WALL (WALL NO. 1) | S.F. | 2573     |

FOOTNOTES:

- ① TEST BORINGS INDICATE THAT EXCAVATION FOR THE M.S.E. REINFORCED ZONE WILL ENCOUNTER TDOT TYPE C MATERIAL. SEE SHEET G2 - SOFT ROCK OR DEGRADEABLE ROCK AND SOILS AND GEOLOGY REPORT.

TABLE 1-DESIGN REQUIREMENTS AND PARAMETERS

| DESCRIPTION  | MSE WALLS  | NOTE     |
|--|--|----------|
| DESIGN LIFE  | 75 YEARS   |          |
| SEISMIC ACCELERATION COEFFICIENTS                                |  |          |
| As   | 0.130  |          |
| Sps  | 0.252  |          |
| S01  | 0.139  |          |
| EFFECTIVE (DRAINED) FRICTION ANGLE                               |  |          |
| RETAINED BACKFILL-UNCLASSIFIED SITE OR BORROW SOIL               | 30 °   |          |
| RETAINED BACKFILL-SELECT BACKFILL                                | 34 ° TO MAX 40 °                                     | 1        |
| REINFORCED BACKFILL  | 34 ° TO MAX 40 °                                     | 1        |
| UNIT WEIGHT  |  |          |
| UNCLASSIFIED SITE OR BORROW SOIL                                 | 120 POUNDS PER CUBIC FOOT                            |          |
| SELECT BACKFILL MATERIAL   | VARIES   | 1A       |
| DESIGN BASIS   |  |          |
| COEFFICIENT OF SLIDING FRICTION                                  | SEE TABLE 2  | 3        |
| NOMINAL BEARING RESISTANCE                                       | SEE TABLE 2  | 3        |
| MINIMUM LENGTH OF SOIL REINFORCEMENT, L                          | GREATER OF 8-FT OR 0.7H OR AS SPECIFIED ON THE PLANS | 2,2A, 2B |
| LIMITING ECCENTRICITY  | L/4 (SOIL), 3L/8 (ROCK)                              |          |
| RESISTANCE FACTORS   |  |          |
| SLIDING-STATIC   | 1.0  |          |
| SLIDING-COMBINED STATIC+EARTHQUAKE                               | 1.0  |          |
| BEARING-STATIC   | 0.65   |          |
| BEARING-COMBINED STATIC+EARTHQUAKE                               | 0.9  |          |
| PULLOUT RESISTANCE OF METALLIC REINFORCEMENT                     |  |          |
| STATIC   |  |          |
| -STEEL STRIP REINFORCEMENTS                                      | 0.90   |          |
| -STEEL GRID REINFORCEMENTS                                       | 0.90   |          |
| COMBINED STATIC/EARTHQUAKE                                       |  |          |
| -STEEL STRIP REINFORCEMENTS                                      | 1.20   |          |
| -STEEL GRID REINFORCEMENTS                                       | 1.20   |          |
| PULLOUT RESISTANCE OF GEOSYNTHETIC REINFORCEMENT                 |  |          |
| STATIC   |  |          |
| -GEOTEXTILES AND GEOGRIDS  | 0.70   |          |
| -GEOSTRIP REINFORCEMENTS   | 0.70   |          |
| COMBINED STATIC/EARTHQUAKE                                       |  |          |
| -GEOTEXTILES AND GEOGRIDS  | 1.00   |          |
| -GEOSTRIP REINFORCEMENTS   | 1.00   |          |
| TENSILE RESISTANCE OF METALLIC REINFORCEMENTS AND CONNECTORS     |  |          |
| STATIC   |  |          |
| -STRIP REINFORCEMENT   | 0.75   |          |
| -GRID REINFORCEMENT  | 0.65   |          |
| COMBINED STATIC/EARTHQUAKE                                       |  |          |
| -STRIP REINFORCEMENT   | 1.00   |          |
| -GRID REINFORCEMENT  | 0.85   |          |
| TENSILE RESISTANCE OF GEOSYNTHETIC REINFORCEMENTS AND CONNECTORS |  |          |
| STATIC   |  |          |
| -GEOTEXTILE AND GEOGRID REINFORCEMENTS                           | 0.80   |          |
| -GEOSTRIP REINFORCEMENTS   | 0.55   |          |
| COMBINED STATIC/EARTHQUAKE                                       |  |          |
| -GEOTEXTILE AND GEOGRID REINFORCEMENTS                           | 1.00   |          |
| -GEOSTRIP REINFORCEMENTS   | 1.00   |          |

NOTES FOR TABLE 1

| NO. | NOTE   |
|-----|--|
| 1   | A MAXIMUM FRICTION ANGLE OF 34 DEGREES CAN BE ASSUMED FOR MATERIAL MEETING SPECIFICATIONS IN SECTION F, PART 1. MATERIALS OF TENNESSEE DEPARTMENT OF TRANSPORTATION SPECIAL PROVISION 624 REGARDING RETAINING WALLS. A HIGHER FRICTION ANGLE THAN 34 DEGREES CAN BE UTILIZED IF THE CONTRACTOR SUBMITS INDEPENDENT TESTING AND IT IS VERIFIED BY TDOT. HOWEVER, IN NO CASE SHALL THE FRICTION ANGLE FOR ANALYSIS EXCEED 40-DEGREES. INDEPENDENT TESTING MUST BE VERIFIED ANNUALLY.   |
| 1A  | SELECT BACKFILL UNIT WEIGHT TO BE DETERMINED BY CONTRACTOR/DESIGNER DEPENDING ON ACTUAL BACKFILL MATERIAL USED. SELECT BACKFILL IS DEFINED AS MATERIAL MEETING SPECIFICATIONS IN SECTION F, PART 1. MATERIALS OF TENNESSEE DEPARTMENT OF TRANSPORTATION SPECIAL PROVISION 624 REGARDING RETAINING WALLS. IN ORDER TO UTILIZE Ø FOR SELECT BACKFILL DESIGN, SELECT BACKFILL MUST BE PLACED FOR A MINIMUM ZONE FORMED BY A 1:1 SLOPE FROM 2 FEET BEHIND THE BOTTOM OF BACK OF WALL FOOTING OR REINFORCED SOIL ZONE FOR MSE WALLS UP TO FINISHED GRADE.   |
| 2   | H IS DESIGN HEIGHT OF THE WALL AND IS DEFINED AS THE DIFFERENCE IN ELEVATION BETWEEN THE FINISHED GRADE AT THE TOP OF THE WALL AND THE TOP OF LEVELING PAD OR BOTTOM OF FOOTING FOR NON-MSE WALLS. THE TOP OF THE LEVELING PAD SHALL ALWAYS BE BELOW THE MINIMUM EMBEDMENT REFERENCE LINE AS INDICATED ON THE PLANS FOR THAT LOCATION. THE LENGTH OF THE SOIL REINFORCEMENT, L, IS MEASURED FROM THE BACKFACE OF THE WALL FACING UNIT. IN CASE OF GRID TYPE REINFORCEMENTS THE LENGTH OF THE SOIL REINFORCEMENT IS MEASURED FROM THE BACKFACE OF THE WALL FACING UNIT TO THE LAST FULL TRANSVERSE MEMBER. FOR MODULAR BLOCKFACING UNITS, THE TOTAL LENGTH OF THE REINFORCEMENT, Br AS MEASURED FROM THE FRONT FACE OF THE WALL IS THE LENGTH L AS DEFINED ABOVE PLUS THE WIDTH OF THE MODULAR BLOCK UNIT (THE HORIZONTAL DIMENSION OF THE BLOCK UNIT MEASURED PERPENDICULAR TO THE WALL FACE). |
| 2A  | WALL DESIGNER MUST ADJUST THE REINFORCEMENT LENGTHS BEYOND THOSE MINIMUM REQUIRED LENGTHS, IF REQUIRED, TO MEET BOTH INTERNAL AND EXTERNAL STABILITY REQUIREMENTS. MINIMUM REINFORCEMENT LENGTHS MAY BE REQUIRED FOR GLOBAL STABILITY. THIS REQUIREMENT WILL BE SHOWN IN THE PLANS.  |
| 2B  | ALL DESIGN SECTION REINFORCEMENT LENGTHS SHALL BE EQUAL.   |
| 3   | THESE VALUES WILL BE PROVIDED IN TABLES 2 AND/OR 3   |
| 4   | PASSIVE RESISTANCE SHALL NOT BE CONSIDERED IN EVALUATION OF SLIDING RESISTANCE. NO SHEAR KEYS NOR DOWELS WILL BE PERMITTED. FOR CAST-IN-PLACE CONCRETE CANTILEVER WALLS, THE FOOTING SHALL BE UNIFORM IN THICKNESS THROUGHOUT THE DESIGN SECTION.  |
| 5   | FOR ALL LIMIT STATES, THE DESIGN LOADING FOR THE RETAINING WALL SYSTEM SHALL NOT EXCEED THE FACTORED BEARING RESISTANCE, WHICH IS THE PRODUCT OF THE NOMINAL BEARING RESISTANCE SPECIFIED IN TABLES 2 AND/OR 3 AND THE APPROPRIATE RESISTANCE FACTOR.  |
| 6   | LIVE LOAD DUE TO VEHICULAR TRAFFIC SHALL BE INCLUDED IN THE COMPUTATIONS TO DETERMINE THE MAXIMUM TENSILE FORCES IN REINFORCEMENT LAYERS, BUT SHALL BE NEGLECTED IN THE COMPUTATIONS FOR PULLOUT RESISTANCE.   |
| 7   | APPLY TO GROSS CROSS-SECTION LESS SACRIFICIAL AREA. FOR SECTIONS WITH HOLES, REDUCE GROSS AREA IN ACCORDANCE WITH ARTICLE 6.8.3 OF AASHTO (2020) AND APPLY TO NET SECTION LESS SACRIFICIAL AREA.   |
| 8   | APPLIES TO GRID REINFORCEMENTS CONNECTED TO A RIGID FACING ELEMENT, E.G., A CONCRETE PANEL OR BLOCK. FOR GRID REINFORCEMENTS CONNECTED TO A FLEXIBLE FACING MAT OR WHICH ARE CONTINUOUS WITH THE FACING MAT, USE THE RESISTANCE FACTOR FOR STRIP REINFORCEMENTS.   |

| TYPE | YEAR | PROJECT NO.   | SHEET NO. |
|------|------|---------------|-----------|
| PS&E | 2025 | 18S298-M3-002 | R2        |
|      |      |               |           |
|      |      |               |           |
|      |      |               |           |

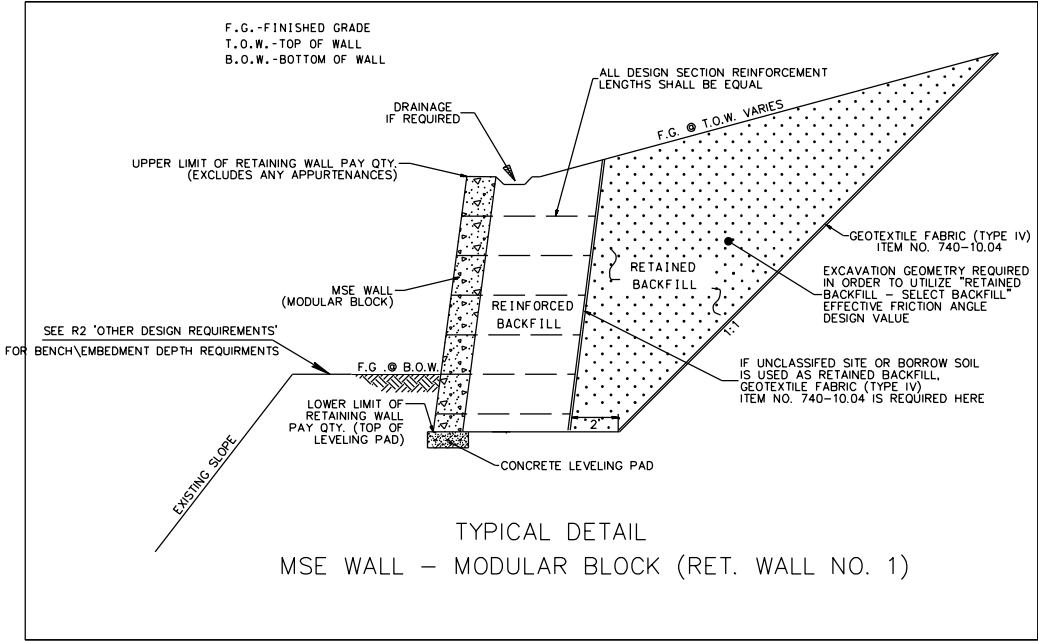


TABLE 2-FOUNDATION PARAMETERS AND REQUIREMENTS FOR MSE WALLS

| STATION LIMITS | FOUNDATION (REINFORCED ZONE) BEARING CONDITION REQUIREMENT | NOMINAL BEARING RESISTANCE (psf) | COEFFICIENT OF SLIDING FRICTION |
|----------------|--|----------------------------------|---------------------------------|
| 13+00 TO 14+50 | ON SOIL SUBGRADE (NO FOUNDATION IMPROVEMENT REQUIRED)      | 15,000                           | 0.60                            |

OTHER DESIGN REQUIREMENTS

WITH REFERENCE TO SHEET R1 RETAINING WALL GEOMETRIC LAYOUT, A HORIZONTAL BENCH MEASURING 5 FEET WIDE MINIMUM SHALL BE PROVIDED IN FRONT OF THE WALL AT F.G. @ B.O.W.

WITH REFERENCE TO SHEET R1 RETAINING WALL GEOMETRIC LAYOUT, THE B.O.W. ELEVATION SHALL BE EMBEDDED A MINIMUM DISTANCE EQUAL TO THE EXPOSED WALL HEIGHT DIVIDED BY FIVE. THE EXPOSED WALL HEIGHT SHALL BE DEFINED AS THAT ELEVATION DIFFERENCE OF THE T.O.W. AND THE F.G.@ B.O.W.

THE WALL DESIGN MUST INCLUDE AN UNFACTORED UNIFORM DEAD LOAD OF 175 PSF TO ACCOUNT FOR THE TRAFFIC BEHIND THE WALL.

ANY SHIMMING PLATES MUST BE PERMANENT (NO ASPHALT SHIMS).

IF A STEEPER THAN 1:1 CONSTRUCTION BACKSLOPE IS USED BEHIND THE RETAINING WALL (AS ILLUSTRATED IN THE MSE WALL TYPICAL DETAIL), THE RETAINED BACKFILL EFFECTIVE FRICTION ANGLE DESIGN VALUE SHALL BE THE VALUE FOR "UNCLASSIFIED SITE OR BORROW SOIL".

THE WALL SHALL HAVE A DRAINAGE GUTTER AT THE TOP DESIGNED TO CARRY SURFACE RUNOFF TO EITHER OR BOTH ENDS OF WALLS. DETAILS OF THIS DRAINAGE FEATURE SHALL BE PROVIDED IN WALL DESIGNER/CONTRACTOR'S WALL DESIGN PLANS AND COSTS SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE WALL.

STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

RETAINING WALL NO. 1  
GEOTECHNICAL  
DESIGN NOTES &  
REQUIREMENTS



RETAINING WALL NO. 2

ACCEPTABLE WALL TYPES

SOIL NAIL WALL

①  
②

| WALL NO. 2 ESTIMATED RETAINING WALL QUANTITIES |                             |      |          |
|--|-----------------------------|------|----------|
| ITEM NO.                                       | DESCRIPTION                 | UNIT | QUANTITY |
| 610-12.02                                      | HORIZONTAL DRAINS           | L.F. | 300      |
| 604-07.02                                      | RETAINING WALL (WALL NO. 2) | S.F. | 450      |
|  |                             |      |          |
|  |                             |      |          |
|  |                             |      |          |

FOOTNOTES:

- ① INSTALL APPROXIMATELY 10 (EACH) PER SPECIAL PROVISION 610HD REGARDING HORIZONTAL DRAINS.
- ② THIS ITEM SHALL INCLUDE, AND NOT BE LIMITED TO, ALL ENGINEERING DESIGN (USING DESIGN VALUES CONTAINED IN THESE PLANS), LABOR, DRILLING, GROUT, SHOTCRETE, MATERIALS, AND ANY AND ALL INCIDENTALS REQUIRED FOR THE COMPLETE INSTALLATION OF SOIL NAILS IN ACCORDANCE WITH SPECIAL PROVISION 624 REGARDING RETAINING WALLS.

TABLE 1-DESIGN REQUIREMENTS AND PARAMETERS

| DESCRIPTION  | SOIL NAIL WALLS |         | NOTE * |
|--|-----------------|---------|--------|
| DESIGN LIFE  | 75 YEARS        |         |        |
| SEISMIC ACCELERATION COEFFICIENTS                    |                 |         |        |
| A <sub>s</sub>                                       | 0.130           |         |        |
| S <sub>DS</sub>                                      | 0.252           |         |        |
| S <sub>D1</sub>                                      | 0.139           |         |        |
| RESISTANCE FACTORS                                   |                 |         |        |
| BASAL HEAVE: PERMANENT WALL, SHORT TERM $\phi_{BH}$  | 0.65            |         |        |
| BASAL HEAVE: PERMANENT WALL, LONG TERM $\phi_{BH}$   | 0.50            |         |        |
|  | STATIC          | SEISMIC |        |
| PULLOUT RESISTANCE $\phi_{p0}$                       | 0.65            | 0.65    |        |
| TENSILE RESISTANCE OF TENDON: GRADES 60/75 $\phi_T$  | 0.75            | 0.75    |        |
| TENSILE RESISTANCE OF TENDON: GRADES 95/150 $\phi_T$ | 0.65            | 0.65    |        |
| FLEXURE RESISTANCE FACING INITIAL AND FINAL          | 0.90            | 0.90    |        |
| PUNCHING SHEAR AT FACING INITIAL AND FINAL           | 0.90            | 0.90    |        |
| LATERAL SLIDING $\phi_{LS}$                          | 1.00            | 0.90    |        |
| HEADED STUD IN TENSION: A307 STEEL BOLT              | 0.70            | 0.65    |        |
| HEADED STUD IN TENSION: A325 STEEL BOLT              | 0.80            | 0.75    |        |

TABLE 2 AND 3 INTENTIONALLY OMMITED

| TYPE | YEAR | PROJECT NO.   | SHEET NO. |
|------|------|---------------|-----------|
| PS&E | 2025 | 18S298-M3-002 | R3        |
|      |      |               |           |
|      |      |               |           |
|      |      |               |           |
|      |      |               |           |

TABLE 4- DESIGN REQUIREMENTS AND PARAMETERS FOR SOIL NAIL WALLS  
LOAD PARAMETERS

| LENGTH OF WALL LIMITS | ELEVATION INTERVAL          | MATERIAL         | FRICTION ANGLE | COHESION | UNIT WEIGHT |
|-----------------------|-----------------------------|------------------|----------------|----------|-------------|
| SEE SHEET G7 & R1     | TOP OF WALL TO BASE OF WALL | IN SITU MATERIAL | 31 DEGREES     | 0 PSF    | 120 PCF     |

RESISTANCE PARAMETERS

| LENGTH OF WALL LIMITS | ELEVATION INTERVAL          | MATERIAL         | NOMINAL SOIL/GROUT BOND STRENGTH | UNCONFINED COMPRESSIVE STRENGTH | UNIT WEIGHT |
|-----------------------|-----------------------------|------------------|----------------------------------|---------------------------------|-------------|
| SEE SHEET G7 & R1     | TOP OF WALL TO BASE OF WALL | IN SITU MATERIAL | 700 PSF                          | 500 PSF                         | 120 PCF     |

OTHER DESIGN REQUIREMENTS

SHOP DRAWING DESIGN SUBMITTAL SHALL USE SOIL STRENGTH AND GEOMETRIC COORDINATES PROVIDED IN PLANS FOR ANALAYSES AND ACHIEVE A MINIMUM SLOPE STABILITY FACTOR OF SAFETY OF 1.3.

TWO ROWS OF SOIL NAILS, LOCATED APPROXIMATELY FIFTY AND FIFTY-FIVE FEET LEFT OF CENTERLINE, SHALL STABILIZE THE SLOPE AS APPROXIMATELY DEPICTED ON SHEET G-7.

HORIZONTAL NAIL SPACING SHALL NOT EXCEED 5 FEET. DRILL INCLINATION SHALL BE NO STEEPER THAN TWENTY FIVE DEGREES.

MINIMUM DIAMETER OF STEEL TENDON NAILS SHALL BE 1.5 INCHES (33 KSI MIN STEEL) WITH AN OUTER MINIMUM GROUTED DIAMETER OF 4 INCHES, AND PULLOUT STRENGTH OF 1,080 PSF.

COMPLETE INSTALLATION OF RETAINING WALL NO. 2 SOIL NAIL WALL SHALL BE ACCOMPLISHED PRIOR TO INSTALLATION OF M.S.E. RETAINING WALL NO. 1 AS THE GLOBAL STABILITY OF THE MSE WALL RELIES ON THE FOUNDATION IMPROVEMENT OF THE SOIL NAIL WALL.

THE SOIL NAIL WALL SHALL HAVE A PERMANENT STRUCTURAL WALL FACING DESIGNED BY THE CONTRACTOR, CAPABLE OF TRANSMITTING ALL DESIGN LOADS EXERTED ON THE WALL SYSTEM COMPONENTS TO THE SOILS.

VERIFICATION TESTING SHALL BE PERFORMED ON A MINIMUM OF 1 “SACRIFICIAL” NAIL PER WALL, IN ACCORDANCE WITH PUBLICATION FHWA-NHI-14-007/FHWA GEC 007 SOIL NAIL WALLS REFERENCE MANUAL FEBRUARY 2015. THE LOCATION OF THE VERIFICATION TESTS SHALL BE SHOWN ON THE CONTRACTOR’S WALL DESIGN SHOP DRAWING SUBMITTAL.

THE APPROVED DESIGN SHALL INCORPORATE THE DESIGN VALUES AND METHODOLOGIES CONTAINED HEREIN. VERIFICATION TEST RESULTS HIGHER THAN THE VALUES PROVIDED SHALL NOT BE USED TO REVISE THE APPROVED WALL DESIGN. VERIFICATION TEST RESULTS THAT INDICATE A BOND STRENGTH LOWER THAN THE VALUES PROVIDED SHALL BE TAKEN INTO CONSIDERATION DURING CONSTRUCTION.

PROOF TESTING SHALL BE PERFORMED ON A MINIMUM OF 5 PERCENT OF THE TOTAL PRODUCTION NAILS INSTALLED, IN ACCORDANCE WITH PUBLICATION FHWA-NHI-14-007/FHWA GEC 007 SOIL NAIL WALLS REFERENCE MANUAL FEBRUARY 2015. PROOF TEST LOCATIONS SHALL BE CHOSEN AT THE DISCRETION OF THE ENGINEER.

PROOF TEST RESULTS LOWER THAN THE DESIGN VALUES SHALL RESULT IN A REVIEW OF THE CONTRACTOR’S INSTALLATION METHODS AND/OR SOIL CONDITIONS. THE ENGINEER MAY REQUIRE THE INSTALLATION AND TESTING OF ADDITIONAL PROOF TEST NAILS TO VERIFY THAT ADJACENT PREVIOUSLY INSTALLED PRODUCTION NAILS HAVE SUFFICIENT NOMINAL PULLOUT RESISTANCE. INSTALLATION AND TESTING OF ADDITIONAL PROOF TEST NAILS AS A RESULT OF PROOF TEST NAIL FAILURE(S) SHALL BE AT NO ADDITIONAL COST. THE TEMPORARY UNBONDED TEST LENGTH IN PROOF TEST NAILS SHALL BE GROUTED IMMEDIATELY AFTER THE COMPLETION OF THE PROOF TEST.

ALL PROOF AND VERIFICATION TESTING COSTS SHALL BE INCLUDED IN THE LINEAR FOOTAGE PAY ITEM COST OF THE SOIL NAIL STABILIZATION.

STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

RETAINING WALL NO. 2  
GEOTECHNICAL  
DESIGN NOTES &  
REQUIREMENTS

2/16/2024 10:09 PM \\TD0103NAS002.Tdot.state.tn.us\03Shared\Geotech\Region 2\18-Cumberland\FY2022\1806522-SR298Culvert\02-CADD\02-Geo Drawing Sheets\31702-00-CONSTRUCTION\31702-00-SR298 SMALL STRUCTURES\31702-00-RGeoSht-01.dgn

RETAINING WALL DESIGN NOTES

UNLESS SPECIFICALLY STATED OTHERWISE IN THE CONTRACT PLANS, THE BIDDING FOR, THE DESIGN OF AND THE CONSTRUCTION OF RETAINING WALLS SHOWN IN THE PLANS SHALL BE GOVERNED BY THE TENNESSEE DEPARTMENT OF TRANSPORTATION SPECIAL PROVISION 624 REGARDING RETAINING WALLS. THIS SPECIAL PROVISION SHALL BE CONSIDERED AS ONE OF THOSE DOCUMENTS WHICH THE BIDDER/CONTRACTOR HAS EXAMINED AND MADE HIMSELF FAMILIAR WITH AS DESCRIBED IN SECTION 102.04 - EXAMINATION OF THE SITE, THE WORK, THE PLANS, AND THE SPECIFICATIONS IN THE TDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

EXCAVATION FOR THE WALL AND/OR ITS FOOTING SHALL NOT BE ACCOMPLISHED UNTIL THE CONTRACTOR HAS SUBMITTED WALL DESIGNS AND CALCULATIONS AND HAS BEEN ISSUED AN APPROVED SET OF WALL PLANS AND HAS LABOR AND MATERIAL RESOURCES AVAILABLE TO BEGIN AND CONTINUE WALL CONSTRUCTION IMMEDIATELY AFTER EXCAVATION.

THIS WALL SHALL BE DESIGNED IN ACCORDANCE WITH LRFD DESIGN PROCEDURES AND REQUIREMENTS AS DESCRIBED IN:

- AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 2020
- PUBLICATION FHWA-NHI-10-024/FHWA GEC 011, DESIGN AND CONSTRUCTION OF MECHANICALLY STABILIZED EARTH WALLS AND REINFORCED SOIL SLOPES, NOVEMBER 2009 FOR MSE WALLS
- PUBLICATION FHWA-NHI-14-007/FHWA GEC 007. SOIL NAIL WALLS REFERENCE MANUAL FEBRUARY 2015

FOR PROPRIETARY WALL SYSTEMS THAT HAVE BEEN APPROVED AS SHOWN IN OPL 38, THE WALL DESIGNER SHALL BE RESPONSIBLE FOR PROVIDING WALL DESIGNS INCORPORATING MATERIALS AND COMPONENTS (I.E. REINFORCEMENT CONNECTION DEVICES, SPECIFIC MANUFACTURER AND PROPERTIES OF GEOGRID) AS WAS ORIGINALLY SUBMITTED AND APPROVED BY TDOT. IF A MATERIAL AND/OR COMPONENT OF THE WALL SYSTEM HAVE BEEN MODIFIED FROM THE ORIGINALLY APPROVED SYSTEM, A WALL DESIGN AND SET OF PLANS AND CALCULATIONS FOR THIS WALL SYSTEM CANNOT BE SUBMITTED FOR REVIEW AND APPROVAL UNTIL THE WALL SYSTEM DESIGNER WHO ORIGINALLY SUBMITTED THE WALL SYSTEM FOR APPROVAL BY TDOT SUBMITS A REQUEST FOR RE-APPROVAL UTILIZING THE MODIFIED ELEMENTS OF THE WALL. THIS SUBMITTAL DOES NOT GUARANTEE APPROVAL OF THE MODIFIED SYSTEM. IF THIS RE-APPROVAL PROCESS DOES NOT MEET THE CONTRACTOR'S SCHEDULE OR IF THE MODIFIED SYSTEM IS NOT APPROVED, THE CONTRACTOR/WALL DESIGNER SHALL PROVIDE A WALL DESIGN FOR ONE OF THE APPROVED SYSTEMS AT NO CHANGE IN CONTRACT PRICE FOR THE RETAINING WALL AND NO CHANGE IN PROJECT SCHEDULE REQUIREMENTS WILL BE ALLOWED.

THE WALL DESIGNER SHALL PROVIDE RETAINING WALL PLANS, DETAILS AND CALCULATIONS AS REQUIRED BY SPECIAL PROVISION 624 AND AS REQUIRED HEREIN.

- THE WALL DESIGNER SHALL UTILIZE THE GEOTECHNICAL PARAMETERS AND RESISTANCE FACTORS AS PROVIDED FOR EACH PROJECT RETAINING WALL TO PREPARE AND SUBMIT DESIGN CALCULATIONS. LOAD FACTORS AND OTHER PERTINENT DESIGN REQUIREMENTS PROVIDED IN AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 2020 AND INTERIMS SHALL BE USED FOR NON-MSE WALLS, PUBLICATION FHWA-NHI-10-024/FHWA GEC 011, DESIGN AND CONSTRUCTION OF MECHANICALLY STABILIZED EARTH WALLS AND REINFORCED SOIL SLOPES, NOVEMBER 2009 FOR MSE WALLS, AND PUBLICATION FHWA-NHI-14-007/FHWA GEC 007 SOIL NAIL WALLS REFERENCE MANUAL, FEBRUARY 2015 SHALL BE USED FOR SOIL NAIL WALLS.
- CALCULATIONS FOR BOTH INTERNAL AND EXTERNAL STABILITY (SLIDING, ECCENTRICITY, AND BEARING CAPACITY-GLOBAL STABILITY AND SETTLEMENT BEING THE EXCEPTIONS) SHALL BE PROVIDED FOR EACH CRITICAL WALL SECTION WHICH DEMONSTRATES THE REQUIRED CAPACITY TO DEMAND RATIO OF 1.0 IS MET UTILIZING THE DESIGN PARAMETERS PROVIDED. FOR MSE WALLS, THE WALL DESIGNER MUST ADJUST THE REINFORCEMENT LENGTHS BEYOND THOSE MINIMUM REQUIRED LENGTHS, IF REQUIRED, TO MEET BOTH INTERNAL AND EXTERNAL REQUIREMENTS. THE WALL DESIGNER/CONTRACTOR PLANS MUST INCLUDE ANY FOUNDATION IMPROVEMENTS AS REQUIRED HEREIN ON THE WALL DESIGNER/CONTRACTOR'S WALL ELEVATION VIEWS AND ANY CROSS-SECTIONAL DETAIL DRAWINGS.
- UNLESS OTHERWISE STATED, THE WALL DESIGNER CAN ASSUME THAT MINIMUM GLOBAL STABILITY AND SETTLEMENT CRITERIA IS ACHIEVED WITH A WALL DESIGN MEETING OTHER MINIMUM EXTERNAL STABILITY REQUIREMENTS AND ASSUMING WALL FOUNDATION BEARING IMPROVEMENTS ARE MET. WHILE THE WALL DESIGNER'S DESIGN MUST DEMONSTRATE COMPLIANCE WITH EXTERNAL STABILITY REQUIREMENTS AS DISCUSSED ABOVE, THE WALL DESIGNER PROVIDES CERTIFICATION (BY SIGNING AND STAMPING BY PROFESSIONAL ENGINEER REGISTERED IN STATE OF TENNESSEE) OF THE WALLS, PLANS, AND CALCULATIONS "FOR INTERNAL STABILITY ONLY".
- LOAD COMBINATIONS STRENGTH I, EXTREME EVENT I, AND EXTREME EVENT II SHALL BE EVALUATED AS GIVEN IN AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 2020 AND INTERIMS.
- FOR MSE WALLS, LOAD COMBINATIONS STRENGTH I, EXTREME EVENT I, AND EXTREME EVENT II AS GIVEN IN TABLE 4-1 OF PUBLICATION FHWA-NHI-10-024/FHWA GEC 011, DESIGN AND CONSTRUCTION OF MECHANICALLY STABILIZED EARTH WALLS AND REINFORCED SOIL SLOPES, NOVEMBER 2009 FOR MSE WALLS SHALL BE EVALUATED.

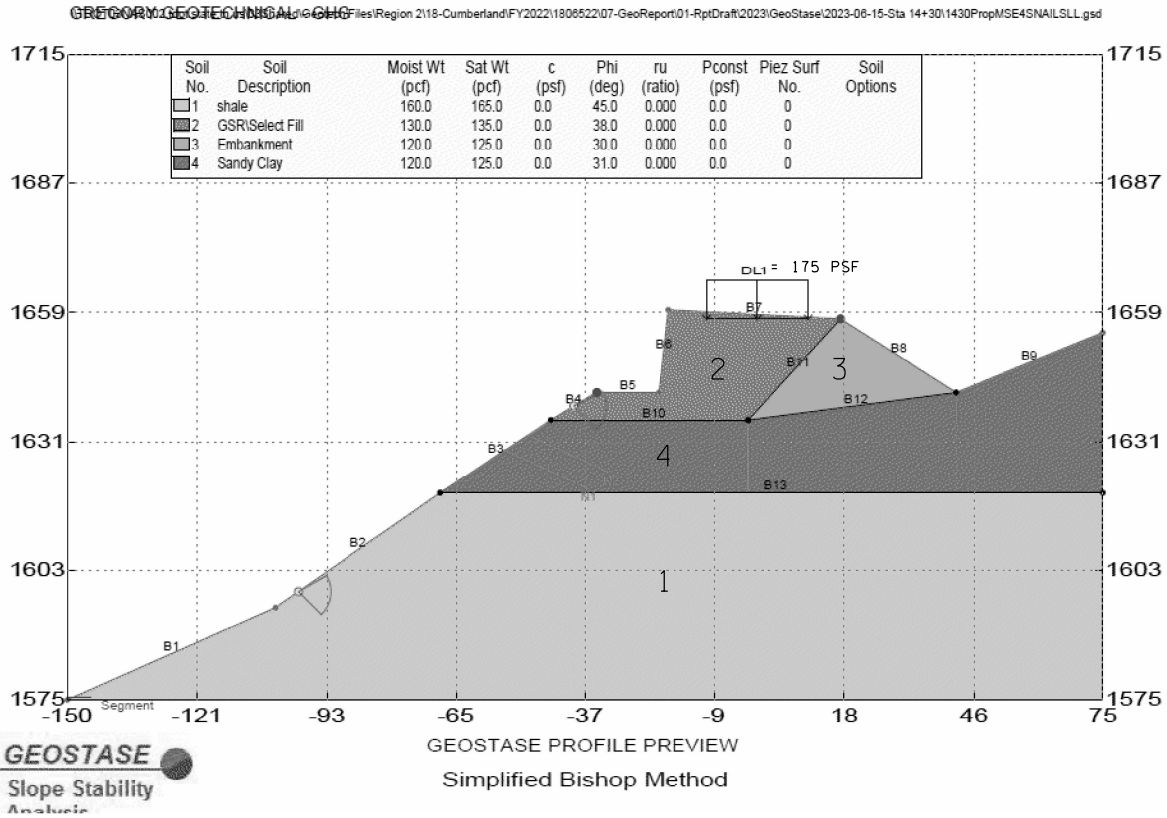
ALL CONSTRUCTION MUST STAY WITHIN TDOT ROW, SLOPE EASEMENT, AND CONSTRUCTION EASEMENT.

THE CONTRACTOR SHALL COORDINATE AND PERFORM ALL UTILITY RELOCATION SO THAT IT DOES NOT INTERFERE WITH THE RETAINING WALL INSTALLATION.

NOTE REGARDING CONSTRUCTION SLOPES

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING THE EXCAVATION IN ACCORDANCE WITH OSHA AND OTHER APPLICABLE STATE AND LOCAL REGULATIONS REGARDING CONSTRUCTION SLOPES AND TRENCHES. IN ADDITION TO FOLLOWING APPLICABLE REGULATORY REQUIREMENTS, AS A MINIMUM REQUIREMENT, ALL TEMPORARY CONSTRUCTION SLOPES SHALL BE PLACED AT A MAXIMUM OF A 1:1 SLOPE IN SOIL AND SHALL NOT BE LEFT OPEN WITHOUT SHORING FOR ANY LONGER THAN ABSOLUTELY NECESSARY. THE CONTRACTOR BUILDING THE WALL SHALL ENSURE THAT THESE TEMPORARY BACK SLOPES ARE NOT AND DO NOT BECOME UNSTABLE. IF SLOPE IS UNSTABLE, BECOMES UNSTABLE, IS CUT STEEPER THAN A 1:1 SLOPE OR IS UNACCEPTABLE FOR ANOTHER REASON, THEN TEMPORARY SHORING SHALL BE USED. ANY UNUSUAL SOIL CONDITIONS OTHER THAN THOSE ASSUMED SHOULD BE REPORTED TO THE PROJECT ENGINEER.

SR-298 Culvert Replacement, Cumberland Co  
MSE - 14+20 - 20 ft LT



GEOMETRIC COORDINATES

PROFILE - Define Boundary Coordinates and Slope Orientation - GEOSTASE

|    | X - 1    | Y - 1    | X - 2    | Y - 2    | Soil Below |  |
|----|----------|----------|----------|----------|------------|--|
| 1  | -150.000 | 1575.000 | -105.000 | 1595.000 | 1          |  |
| 2  | -105.000 | 1595.000 | -69.000  | 1620.000 | 1          |  |
| 3  | -69.000  | 1620.000 | -45.000  | 1636.000 | 4          |  |
| 4  | -45.000  | 1636.000 | -35.200  | 1642.000 | 2          |  |
| 5  | -35.200  | 1642.000 | -21.500  | 1642.000 | 2          |  |
| 6  | -21.500  | 1642.000 | -19.500  | 1660.000 | 2          |  |
| 7  | -19.500  | 1660.000 | 18.000   | 1658.000 | 2          |  |
| 8  | 18.000   | 1658.000 | 43.000   | 1642.000 | 3          |  |
| 9  | 43.000   | 1642.000 | 75.000   | 1655.000 | 4          |  |
| 10 | -45.000  | 1636.000 | -2.000   | 1636.000 | 4          |  |
| 11 | -2.000   | 1636.000 | 18.000   | 1658.000 | 3          |  |
| 12 | -2.000   | 1636.000 | 43.000   | 1642.000 | 4          |  |
| 13 | -69.000  | 1620.000 | 75.000   | 1620.000 | 1          |  |

STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

RETAINING WALL  
GENERAL  
GEOTECHNICAL  
DESIGN NOTES &  
REQUIREMENTS



SWPPP INDEX OF SHEETS

| DESCRIPTION   | SHT. |
|---|------|
| 1. SWPPP REQUIREMENTS (5.0.)  | 1    |
| 2. SITE DESCRIPTION (5.5.1.)  | 1    |
| 3. ORDER OF CONSTRUCTION ACTIVITIES (5.5.1.a)                       | 1    |
| 4. STREAM, OUTFALL, WETLAND, TMDL AND ECOLOGY INFORMATION           | 1-2  |
| 5. EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) MEASURES (5.5.3.) | 2-3  |
| 6. FLOCCULANTS (3.5.3.1.b)  | 3    |
| 7. UTILITY RELOCATION   | 3-4  |
| 8. MAINTENANCE AND INSPECTION                                       | 4    |
| 9. SITE ASSESSMENTS (5.5.3.8.)                                      | 4    |
| 10. STORMWATER MANAGEMENT (5.5.3.11.h)                              | 4-5  |
| 11. NON-STORMWATER DISCHARGES (5.5.3.12.)                           | 5    |
| 12. SPILL PREVENTION, MANAGEMENT AND NOTIFICATION (5.5.3.7.c, 6.1)  | 5-6  |
| 13. RECORD-KEEPING  | 6-7  |
| 14. SITE WIDE/PRIMARY PERMITTEE CERTIFICATION (8.7.5.)              | 7    |
| 15. SECONDARY PERMITTEE (OPERATOR) CERTIFICATION (8.7.6.)           | 7    |
| 16. ENVIRONMENTAL PERMITS (1.5.2.)                                  | 7    |
| 17. OUTFALL TABLE (5.5.1.c, 6.4.1.e, 6.4.1.f)                       | 8    |

NOTE: CITATIONS IN PARENTHESIS INDICATE SECTIONS OF THE CURRENT CGP.

1. **SWPPP REQUIREMENTS** (5.0.)

1.1. HAS THE SWPPP TEMPLATE BEEN PREPARED BY AN INDIVIDUAL THAT HAS THE FOLLOWING LICENSING AND/OR CERTIFICATIONS (5.2)?

☒ YES (CHECK ALL THAT APPLY BELOW) OR ☐ NO

☐ CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL (CPESC)☐ A TN LICENSED PROFESSIONAL ENGINEER OR LANDSCAPE ARCHITECT☒ HAS SUCCESSFULLY COMPLETED TDEC LEVEL II COURSE

1.2. DO THE EPSC PLANS INVOLVE STRUCTURAL DESIGN, HYDRAULIC, HYDROLOGIC OR OTHER ENGINEERING CALCULATIONS FOR EPSC STRUCTURAL MEASURES (E.G. SEDIMENT BASINS) (5.2.)? YES ☐ NO ☒

IF YES, HAVE THE EPSC PLANS BEEN PREPARED, STAMPED AND CERTIFIED BY A TN LICENSED PROFESSIONAL ENGINEER OR LANDSCAPE ARCHITECT? ☐ YES ☐ NO

1.3. DO THE PROJECT STORMWATER OUTFALLS DISCHARGE INTO THE FOLLOWING (6.4.1.)? ☐ YES (CHECK ALL THAT APPLY BELOW) ☒ NO

☐ WATERS WITH UNAVAILABLE PARAMETERS (303d FOR SILTATION)☐ EXCEPTIONAL TENNESSEE WATERS (ETW)

2. **SITE DESCRIPTION** (5.5.1.)

2.1. PROJECT LIMITS (5.5.1.f): REFER TO TITLE SHEET

2.2. TOTAL PROJECT AREA (5.5.1.b): 2.009 ACRES

2.3. TOTAL AREA TO BE DISTURBED (5.5.1.b): 0.974 ACRES

2.4. PROJECT DESCRIPTION (5.5.1.a):

TITLE: Culvert Replacement  
COUNTY: Cumberland  
PIN: 131702.00

2.5. SITE MAP(S) (3.2.2.): REFER TO TITLE SHEET

2.6. DESCRIPTION OF EXISTING SITE TOPOGRAPHY (5.5.1.c): REFER TO EXISTING CONTOURS SHEET(S) 10 - 12, DRAINAGE MAP SHEET(S) 6, USGS QUAD MAP, AND THE OUTFALL TABLE IN SECTION 4.2.

2.7. MAJOR SOIL DISTURBING ACTIVITIES (5.5.1.a) (CHECK ALL THAT APPLY):

☒ CLEARING AND GRUBBING☒ EXCAVATION☒ CUTTING AND FILLING☒ FINAL GRADING AND SHAPING☐ UTILITIES☐ OTHER (DESCRIBE): \_\_\_\_\_

2.8. NO MORE THAN 50 ACRES OF ACTIVE SOIL DISTURBANCE IS ALLOWED AT ANY TIME DURING THE CONSTRUCTION OF THE PROJECT.

2.9. ARE THERE ANY SEASONAL LIMITATIONS ON WORK? ☐ YES ☒ NO  
IF YES, LIST THE CORRESPONDING PLAN SHEET: \_\_\_\_\_

- 2.10. WAS ROW FINALIZED PRIOR TO FEBRUARY 1, 2010 (4.1.2.2)?

☐ YES \_\_\_\_\_ (DATE) ☒ NO  
**IF ROW WAS FINALIZED PRIOR TO FEBRUARY 1, 2010, THIS PROJECT IS CONSIDERED A PRE-APPROVED SITE (4.1.2.2)**
- 2.11. SOIL PROPERTIES (5.5.1.d, 5.5.3.3.d, 5.5.3.6.b).

SOIL PROPERTIES FOR THE PRIMARY SOILS ARE LISTED IN THE TABLE BELOW.

| SOIL PROPERTIES   |     |           |                       |
|---|-----|-----------|-----------------------|
| PRIMARY SOIL NAME   | HSG | % OF SITE | ERODIBILITY (k value) |
| JEFFERSON-VARILLA-SHELOCTA COMPLEX, 20 TO 60 PERCENT SLOPES, VERY STONY | A   | 30.4      |                       |
| LILY LOAM, 6 TO 12 PERCENT SLOPES                                       | B   | 64.8      |                       |
| RAMSEY-ROCK OUTCROP COMPLEX, 12 TO 20 PERCENT SLOPES                    | D   | 4.8       |                       |
|   |     |           |                       |
|   |     |           |                       |
|   |     |           |                       |

- 2.12. IS ACID PRODUCING ROCK (APR) (i.e. PYRITE) LOCATED WITHIN THE PROJECT LIMITS? ☐ YES ☒ NO

2.12.1. IF YES TO SECTION 2.13, HAVE APR LOCATIONS BEEN IDENTIFIED WITHIN THE CONSTRUCTION PLANS AND/OR THE GEOTECHNICAL REPORT? ☐ YES ☐ NO; AND

2.12.2. IF YES TO SECTION 2.12.1, HAS A SPECIAL HANDLING PLAN AND/OR ADAPTIVE MANAGEMENT PLAN (AMP) BEEN PREPARED FOR THE PROJECT? ☐ YES ☐ NO ☐ N/A (TDOT SP107L WILL BE APPLIED.)
- 2.13. PROJECT RUNOFF COEFFICIENTS AND AREA PERCENTAGES (5.5.3.6.a).

| RUNOFF COEFFICIENTS FOR EXISTING CONDITIONS |          |                              |           |           |
|---|----------|------------------------------|-----------|-----------|
| AREA TYPE                                   | AREA(AC) | PERCENTAGE OF TOTAL AREA (%) | RUNOFF CN | C FACTOR  |
| IMPERVIOUS: PAVEMENT/SHOULDER               | 0.364    | 18                           |           | 0.8 - 0.9 |
| PERVIOUS: FORESTED, ROCKY SAND, SLOPES      | 1.645    | 82                           |           | 0.5 - 0.7 |
| TOTAL PROJECT AREA                          | 2.009    | 100                          |           |           |
| WEIGHTED CURVE NUMBER OR C-FACTOR =         |          |                              |           |           |

| RUNOFF COEFFICIENTS FOR POST-CONSTRUCTION CONDITIONS |          |                              |           |           |
|--|----------|------------------------------|-----------|-----------|
| AREA TYPE  | AREA(AC) | PERCENTAGE OF TOTAL AREA (%) | RUNOFF CN | C FACTOR  |
| IMPERVIOUS: PAVEMENT                                 | 0.364    | 18                           |           | 0.8 - 0.9 |
| PERVIOUS: FORESTED, ROCKY SAND, SLOPES               | 1.575    | 78.5                         |           | 0.5 - 0.7 |
| PERVIOUS: BUTRRESS/RETAINING WALL                    | 0.07     | 3.5                          |           | 0.4 - 0.6 |
| TOTAL PROJECT AREA                                   | 2.009    | 100                          |           |           |
| WEIGHTED CURVE NUMBER OR C-FACTOR =                  |          |                              |           |           |

3. **ORDER OF CONSTRUCTION ACTIVITIES** (5.5.1.a)

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

CONSTRUCTION ACTIVITIES AND THE BASIC EPSC DEVICES DEPICTED ON THE EPSC PLAN CONTAINED WITHIN THE APPROVED SWPPP.

- 3.1. SPECIAL SEQUENCING REQUIREMENTS (SEE SHEETS 10 - 12)
- 3.2. INSTALL STABILIZED CONSTRUCTION EXITS.
- 3.3. INSTALL PERIMETER PROTECTION WHERE RUNOFF SHEET FLOWS FROM THE SITE.
- 3.4. INSTALL INITIAL EPSC MEASURES BEFORE CLEARING, GRUBBING, EXCAVATION, GRADING, CULVERT OR BRIDGE CONSTRUCTION, CUTTING, FILLING, OR ANY OTHER EARTHWORK OCCURS, EXCEPT AS SUCH WORK MAY BE NECESSARY TO INSTALL EPSC MEASURES.
- 3.5. PERFORM CLEARING AND GRUBBING (NOT MORE THAN TWO WEEKS PRIOR TO GRADING OR EARTH-MOVING. REFER TO THE STABILIZATION PRACTICES BELOW.).
- 3.6. REMOVE AND STORE TOPSOIL.
- 3.7. STABILIZE DISTURBED AREAS WITHIN 2 WEEKS OF COMPLETING ANY STAGE AND/OR PHASE OF ACTIVITY (STEEP SLOPES SHALL BE STABILIZED WITHIN 1 WEEK AFTER CONSTRUCTION ACTIVITY HAS TEMPORARY OR PERMANENTLY CEASED).
- 3.8. INSTALL UTILITIES, STORM SEWERS, CULVERTS AND BRIDGE STRUCTURES.
- 3.9. INSTALL INLET AND CULVERT PROTECTION ONCE STRUCTURES ARE IN PLACE AND CAPABLE OF INTERCEPTING PERFORM FLOW. FINAL GRADING AND I
- 3.10. NSTALL BASE STONE.
- 3.11. COMPLETE FINAL PAVING AND SEALING OF CONCRETE.
- 3.12. INSTALL TRAFFIC CONTROL AND PROTECTION DEVICES.
- 3.13. COMPLETE PERMANENT STABILIZATION (TOPSOIL, SEEDING, MULCH, EROSION CONTROL BLANKET, SOD, ETC.)
- 3.14. REMOVE TEMPORARY EROSION CONTROLS AND ACCUMULATED SEDIMENT FROM AREAS THAT HAVE ESTABLISHED AT LEAST 70 PERCENT UNIFORM PERMANENT VEGETATIVE COVER.
- 3.15. RE-STABILIZE AREAS DISTURBED BY REMOVAL ACTIVITIES.

4. **STREAM, OUTFALL, WETLAND, TMDL AND ECOLOGY INFORMATION**

4.1. STREAM INFORMATION (5.5.1.h, 5.5.1.i)

4.1.1. WILL CONSTRUCTION AND/OR EROSION PREVENTION AND SEDIMENT CONTROLS IMPACT ANY STREAMS WITHIN THE PROJECT LIMITS? ☐ YES ☒ NO  
IF YES, THE IMPACT(S) HAVE BEEN INCLUDED IN THE TOTAL PROJECT IMPACTS AND HAVE BEEN INCLUDED IN THE WATER QUALITY PERMITS.

4.1.2. HAVE ANY OF THE RECEIVING STATE WATERS LESS THAN OR EQUAL TO 1 FLOW MILE DOWN GRADIENT OF THE PROJECT LIMITS BEEN CLASSIFIED BY TDEC AS FOLLOWS (CHECK ALL THAT APPLY):

☒ 303d WITH UNAVAILABLE PARAMETERS FOR SILTATION☒ EXCEPTIONAL TENNESSEE WATERS (ETW)

4.1.3. RECEIVING WATERS OF THE STATE (5.5.1.h, 5.5.1.j, 5.5.1.k).

| RECEIVING WATERS OF THE STATE INFORMATION |                               |  |                 |   |  |
|---|-------------------------------|--|-----------------|---|--|
| TDOT STATE WATER LABEL FROM EBR           | NAME OF RECEIVING STATE WATER | 303d WITH UNAVAILABLE PARAMETERS FOR SILTATION (YES OR NO) | ETW (YES OR NO) | LOCATED WITHIN PROJECT LIMITS (YES OR NO) | LOCATED WITHIN ≤ 1 FLOW MILE DOWN GRADIENT OF PROJECT LIMITS (YES OR NO) |
| STR-1                                     | OBED RIVER                    | NO   | NO              | YES                                       | YES  |
| STR-2                                     | EMORY RIVER                   | YES  | YES             | NO  | NO   |
|   |                               |  |                 |   |  |
|   |                               |  |                 |   |  |
|   |                               |  |                 |   |  |

- 4.1.4. RECEIVING WATERS OF THE US (NON STATE WATERS) (4.1.2). LIST ANY FEATURE THAT IS IDENTIFIED AS A WET WEATHER



CONVEYANCE (TDEC) AND IDENTIFIED AS WATERS OF THE US BY THE ARMY CORPS OF ENGINEERS.

| WET WEATHER CONVEYANCES THAT ARE WATERS OF THE US |   |  |
|---|---|--|
| TDOT STATE WATER LABEL FROM EBR                   | LOCATED WITHIN PROJECT LIMITS (YES OR NO) | LOCATED WITHIN ≤ 1 FLOW MILE DOWN GRADIENT OF PROJECT LIMITS (YES OR NO) |
| WWC-1/EPH-1                                       | YES                                       | YES  |
| WWC-2/EPH-2                                       | YES                                       | YES  |
| WWC-3/EPH-3                                       | YES                                       | YES  |
| WWC4/EPH-4  | NO  | NO   |
| WWC-5/EPH-5                                       | NO  | NO   |
| WWC-6/EPH-6                                       | NO  | NO   |

- 4.1.5. ARE THERE ANY WATER QUALITY RIPARIAN BUFFER ZONES REQUIRED FOR WATERS OF THE STATE? (5.5.1.i, 6.4.2.)  
☐ YES ☒ NO

**BUFFER ZONE REQUIREMENTS ARE NOT REQUIRED FOR PRE-APPROVED SITES (4.1.2.2.)**

IF YES, THEY HAVE BEEN INCLUDED ON PLAN SHEET(S) \_\_\_\_\_.  
IF YES, CHECK THE APPROPRIATE BOX BELOW FOR SIZE OF BUFFER.

- ☐ 60-FEET FOR WATERS WITH UNAVAILABLE PARAMETERS AND EXCEPTIONAL TENNESSEE WATERS (ETW) (AVERAGE WIDTH PER SIDE WITH A MINIMUM OF 30-FEET).

A 60 FOOT NATURAL WATER QUALITY RIPARIAN BUFFER ZONE ADJACENT TO AND ON BOTH SIDES OF THE RECEIVING STATE STREAM WITH THIS DESIGNATION SHALL BE PRESERVED TO THE MAXIMUM EXTENT PRACTICABLE DURING CONSTRUCTION ACTIVITIES AT THE SITE. 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. IF THE CONSTRUCTION SITE ENCOMPASSES BOTH SIDES OF A STREAM, BUFFER AVERAGING CAN BE APPLIED TO BOTH SIDES, BUT MUST BE APPLIED INDEPENDENTLY.

- ☐ 30-FEET FOR ALL OTHER STREAMS (AVERAGE WIDTH PER SIDE WITH A MINIMUM OF 15-FEET).

A 30 FOOT NATURAL WATER QUALITY RIPARIAN BUFFER ZONE ADJACENT TO AND ON BOTH SIDES OF THE RECEIVING STATE STREAM SHALL BE PRESERVED TO THE MAXIMUM EXTENT PRACTICABLE DURING CONSTRUCTION ACTIVITIES AT THE SITE. 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. IF THE CONSTRUCTION SITE ENCOMPASSES BOTH SIDES OF A STREAM, BUFFER AVERAGING CAN BE APPLIED TO BOTH SIDES, BUT MUST BE APPLIED INDEPENDENTLY.

- ☐ 15-FEET FOR ANY WET WEATHER CONVEYANCES IDENTIFIED AS WATERS OF THE US BY THE US ARMY CORPS OF ENGINEERS.

- 4.1.6. ARE THERE ANY WATER QUALITY RIPARIAN BUFFER ZONES NOT REQUIRED FOR STATE WATERS DUE TO A TDEC ARAP? (1.5.2.)  
☐ YES ☒ NO

- 4.1.7. ARE THERE WATER QUALITY RIPARIAN BUFFER ZONE EXEMPTIONS? (4.1.2.1.) ☐ YES ☒ NO  
IF YES, EXISTING CONDITIONS DESCRIPTION:\_\_\_\_\_

- 4.1.8. EVERY ATTEMPT SHOULD BE MADE FOR CONSTRUCTION ACTIVITIES TO NOT TAKE PLACE WITHIN THE WATER QUALITY RIPARIAN BUFFER ZONE AND FOR EXISTING FORESTED AREAS TO BE PRESERVED. (4.1.2., 6.4.2.)

- 4.1.9. BECAUSE OF HEAVY SEDIMENT LOAD ASSOCIATED WITH CONSTRUCTION SITE RUNOFF, WATER QUALITY RIPARIAN BUFFER ZONES ARE NOT SEDIMENT CONTROL MEASURES AND SHOULD NOT BE RELIED UPON AS PRIMARY SEDIMENT CONTROL MEASURES. THE WATER QUALITY RIPARIAN BUFFER ZONE SHALL BE ESTABLISHED BETWEEN THE TOP OF THE STREAM BANK AND THE DISTURBED CONSTRUCTION AREA.

- 4.1.10. WHERE IT IS NOT PRACTICABLE TO MAINTAIN A FULL WATER QUALITY RIPARIAN BUFFER, BEST MANAGEMENT PRACTICES (BMPs) PROVIDING EQUIVALENT PROTECTION AS THE NATURAL RIPARIAN ZONE MUST 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 CGP. WHERE ISSUED, ARAP/401 REQUIREMENTS WILL PREVAIL IF IN CONFLICT WITH THESE BUFFER ZONE REQUIREMENTS.

4.2. OUTFALL INFORMATION

- 4.2.1. OUTFALL TABLE (5.5.1.c). SEE SWPPP SHEET S-8 FOR OUTFALL INFORMATION.

- 4.2.2. HAVE ALL OUTFALLS BEEN LABELED ON THE EPSC PLAN SHEETS (5.5.1.f)? ☒ YES ☐ NO

- 4.2.3. HAVE ALL OUTFALLS BEEN LABELED ON A USGS TOPOGRAPHIC MAP INCLUDED IN THE “DOCUMENTATION AND PERMITS” BINDER (3.2.2.)? ☒YES ☐ NO

- 4.2.4. WHERE POSSIBLE, HAS NON-PROJECT RUN-ON BEEN DIVERTED AROUND OR THROUGH THE PROJECT TO ELIMINATE CONTACT WITH DISTURBED AREAS OF THE PROJECT AND SEPARATE IT FROM PROJECT RUN-OFF THEREBY REDUCING THE DRAINAGE AREA OF TO THE OUTFALLS IN THIS AREA?  
☐ YES ☒ NO ☐ N/A

- 4.2.5. ARE EQUIVALENT MEASURES BEING SUBSTITUTED FOR A SEDIMENT BASIN(S) OR SEDIMENT TRAP(S)? (5.5.3.5.)  
☐ YES ☐ NO ☒ N/A

- 4.2.6. A SEDIMENT BASIN, OR EQUIVALENT MEASURE(S) WILL BE PROVIDED FOR ANY OUTFALL IN A DRAINAGE AREA:

OF TEN ACRES OR MORE FOR AN OUTFALL(S) THAT DOES NOT DISCHARGE TO A STATE STREAM WITH UNAVAILABLE PARAMETERS OR EXCEPTIONAL TENNESSEE WATERS (ETW). A TEMPORARY (OR PERMANENT) SEDIMENT BASIN OR EQUIVALENT CONTROL MEASURES THAT PROVIDES STORAGE FOR A CALCULATED VOLUME OF RUNOFF FROM A MINIMUM 2-YEAR/ 24-HOUR STORM EVENT, SHALL BE PROVIDED UNTIL PERMANENT STABILIZATION OF THE SITE. (5.5.3.5)

OR

OF FIVE ACRES OR MORE FOR AN OUTFALL(S) THAT DISCHARGES TO A STATE STREAM WITH UNAVAILABLE PARAMETERS OR EXCEPTIONAL TENNESSEE WATERS (ETW). 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 PERMANENT STABILIZATION OF THE SITE. (6.4.1.e).

ALL CALCULATIONS RELATED TO DRAINAGE AREAS, RUNOFF COEFFICIENTS, BASIN VOLUMES AND EQUIVALENT CONTROL MEASURES MUST BE PROVIDED IN THE SWPPP (5.5.3.5.)

- 4.2.7. A SEDIMENT TRAP, OR EQUIVALENT MEASURE(S) WILL BE PROVIDED FOR ANY OUTFALL IN A DRAINAGE AREA:

OF 3.5 - 4.9 ACRES FOR AN OUTFALL(S) THAT DISCHARGES TO A STATE STREAM WITH UNAVAILABLE PARAMETERS (303d SILTATION) OR EXCEPTIONAL TENNESSEE WATERS (ETW). A SEDIMENT TRAP 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 PERMANENT STABILIZATION OF THE SITE. (6.4.1.f).

IN BOTH INSTANCES, 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.

- 4.2.8. SEDIMENT STRUCTURES TREATING DRAINAGE AREAS IN EXCESS OF 25 ACRES REQUIRE A SITE-SPECIFIC DESIGN THAT ACCURATELY DEFINES THE SITE HYDROLOGY, SITE-SPECIFIC SEDIMENT LOADING, HYDRAULICS OF THE SITE, AND ADHERES TO ALL TENNESSEE EROSION AND SEDIMENT CONTROL HANDBOOK DESIGN RECOMMENDATIONS FOR SEDIMENT BASINS. (5.5.3.5.)

4.3. WETLAND INFORMATION

WILL CONSTRUCTION AND/OR EROSION AND SEDIMENT CONTROLS IMPACT ANY WETLANDS? ☐ YES ☒ NO

IF YES, THE STRUCTURAL EPSC MEASURES HAVE BEEN INCLUDED IN THE TOTAL PROJECT IMPACTS AND IN THE WATER QUALITY PERMITS.

| WETLAND INFORMATION |                       |                     |                        |                        |
|---------------------|-----------------------|---------------------|------------------------|------------------------|
| TDOT WETLAND LABEL  | FROM STATION LT OR RT | TO STATION LT OR RT | TEMPORARY IMPACTS (AC) | PERMANENT IMPACTS (AC) |
| N/A                 | N/A                   | N/A                 | N/A                    | N/A                    |
|                     |                       |                     |                        |                        |

4.4. TOTAL MAXIMUM DAILY LOADS (TMDL) INFORMATION (1.3.j)

- 4.4.1. IS THIS PROJECT LOCATED IN A HUC-8 WATERSHED THAT MAINTAINS AN EPA APPROVED TMDL FOR SILTATION AND HABITAT ALTERATION?  
☐YES ☒ NO

- 4.4.2. IF YES, IS THIS PROJECT LOCATED WITHIN A HUC-12 SUBWATERSHED WITH A WASTE LOAD ALLOCATION (WLA)?  
☐ YES ☐ NO

- 4.4.3. IF YES, DOES THE PROJECT HAVE A DIRECT DISCHARGE TO A 303(d) LISTED STREAM FOR SILTATION?  
☐ YES ☐ NO

IF YES, SWPPP INCORPORATES MEASURES OR CONTROLS CONSISTENT WITH THE ASSUMPTIONS AND REQUIREMENTS OF THE TMDL.

4.5. ECOLOGY INFORMATION (3.5.5.e)

DOES THE TDOT ENVIRONMENTAL BOUNDARIES REPORT SPECIFY SPECIAL NOTES TO BE ADDED TO THE PLAN SHEETS?

☐ YES ☒ NO

IF YES, THEY HAVE BEEN INCLUDED ON PLAN SHEET(S) \_\_\_\_\_.

4.6. ENVIRONMENTAL COMMITMENTS

ARE THERE ANY NOTES ON THE ENVIRONMENTAL COMMITMENT SHEET?

☒ YES ☐ NO

IF YES, THEY HAVE BEEN INCLUDED ON PLAN SHEET(S) 1B.

5. **EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) MEASURES (5.5.3.)**

- 5.1. EPSC MEASURES MUST BE DESIGNED, INSTALLED AND MAINTAINED TO CONTROL STORMWATER VOLUME AND VELOCITY WITHIN THE SITE TO MINIMIZE EROSION (4.1.1).

- 5.2. EPSC MEASURES MUST CONTROL STORMWATER DISCHARGES, INCLUDING BOTH PEAK FLOWS AND TOTAL STORMWATER VOLUME, TO MINIMIZE EROSION AT OUTLETS, STREAM CHANNELS, AND STREAM BANKS. (4.1.1)

- 5.3. HAVE THE CONTROL MEASURES BEEN DESIGNED PER THE SIZE AND SLOPE OF THE DISTURBED DRAINAGE AREA (5.5.3.5.)?  
☐YES ☒ NO

- 5.4. THE CONTROL MEASURES HAVE, AT A MINIMUM, BEEN DESIGNED FOR THE 2-YEAR, 24 HOUR STORM EVENT (5.5.3.5., 6.4.1.b).

- 5.5. ARE THE LIMITS OF DISTURBANCE CLEARLY MARKED ON THE EPSC PLANS (5.5.1.f)? ☒ YES ☐ NO

- 5.6. AREAS TO BE UNDISTURBED SHALL BE CLEARLY MARKED IN THE FIELD BEFORE CONSTRUCTION ACTIVITIES BEGIN.

- 5.7. UNLESS OTHERWISE NOTED IN THE PLANS, THE CONTRACTOR SHALL NOT CLEAR/DISTURB ANY AREA BEYOND 15 FEET FROM SLOPE LINES OR ROW/ EASEMENT LINE, WHICHEVER IS LESSER.



- 5.8. CLEARING, GRUBBING, AND OTHER DISTURBANCE TO RIPARIAN VEGETATION SHALL BE LIMITED TO THE MINIMUM NECESSARY FOR SLOPE CONSTRUCTION AND EQUIPMENT OPERATIONS. EXISTING VEGETATION, INCLUDING STREAM AND WETLAND BUFFERS (UNLESS PERMITTED), SHOULD BE PRESERVED TO THE MAXIMUM EXTENT POSSIBLE. UNNECESSARY VEGETATION REMOVAL IS PROHIBITED.
- 5.9. HAS A THREE STAGED EPSC PLAN BEEN PREPARED FOR THE PROJECT (5.5.2.)?  
YES ☒ NO ☐  
**PLEASE NOTE THAT A THREE STAGED EPSC PLAN IS REQUIRED FOR ALL TDOT PROJECTS FOR WHICH AN NPDES PERMIT IS REQUIRED.**
- 5.10. STEEP SLOPES ARE DEFINED AS A NATURAL OR CREATED SLOPE OF 35% GRADE OR GREATER REGARDLESS OF HEIGHT. HAVE STEEP SLOPES BEEN MINIMALLY DISTURBED AND/OR PROTECTED BY CONVEYING RUNOFF NON-EROSIVELY AROUND OR OVER THE SLOPE (5.5.3.4.) (10. "STEEP SLOPE")? ☐ YES ☐ NO ☒ N/A
- 5.11. THE STRUCTURAL EPSC MEASURES HAVE BEEN INCLUDED IN THE TOTAL PROJECT IMPACTS AND HAVE BEEN INCLUDED IN THE AQUATIC RESOURCE ALTERATION (ARAP) PERMIT OR SECTION 401 CERTIFICATION (5.5.1.h). REFER TO THE LIST OF APPLICABLE ENVIRONMENTAL PERMITS LOCATED ON SWPPP SHEET 7. ALL PERMITS WILL BE MAINTAINED ON SITE WITHIN THE "DOCUMENTATION AND PERMITS" BINDER.
- 5.12. THE EPSC CONTROL MEASURES LISTED IN THE QUANTITIES TABLE ON SHEET 9 HAVE BEEN SELECTED IN ACCORDANCE WITH TDOT STANDARD DRAWINGS AND GOOD ENGINEERING PRACTICES (5.1., 5.5.3.1.b, 5.5.3.5.).
- 5.13. EPSC MEASURES SHALL BE INSTALLED PER TDOT STANDARDS (i.e. STANDARD DRAWINGS) AND SHALL BE FUNCTIONAL PRIOR TO ANY EARTH MOVING OPERATIONS.
- 5.14. EPSC MEASURES WILL NOT BE INSTALLED WITHIN A STREAM WITHOUT FIRST OBTAINING APPROVAL FROM THE PERMITS SECTION.
- 5.15. TEMPORARY EPSC MEASURES MAY BE REMOVED AT THE BEGINNING OF THE WORKDAY, BUT MUST BE REINSTALLED AT THE END OF THE WORKDAY OR BEFORE A PRECIPITATION EVENT.
- 5.16. EPSC MEASURES LOCATED IN WOTUS (EPHEMERAL STREAMS) MUST BE CONSIDERED TEMPORARY AND SHALL BE REMOVED AT THE END OF CONSTRUCTION.
- 5.17. THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN A PROACTIVE METHOD TO PREVENT THE OFF-SITE MIGRATION OR DEPOSIT OF SEDIMENT OFF THE PROJECT LIMITS (E.G. R.O.W., EASEMENTS, ETC.), INTO WATERS OF THE STATE/U.S., OR ONTO ROADWAYS USED BY THE PUBLIC. IF SEDIMENT ESCAPES THE CONSTRUCTION SITE, OFF-SITE ACCUMULATIONS OF SEDIMENT THAT HAVE NOT REACHED A STREAM MUST BE REMOVED TO A LEVEL 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. SEDIMENT THAT MIGRATES INTO WATERS OF THE STATE/US SHALL NOT BE REMOVED WITHOUT GUIDANCE FROM TDOT ENVIRONMENTAL PERSONNEL.
- 5.18. OFFSITE VEHICLE TRACKING OF SEDIMENTS AND THE GENERATION OF DUST SHALL BE MINIMIZED. A STABILIZED CONSTRUCTION EXIT (A POINT OF ENTRANCE/EXIT TO THE CONSTRUCTION PROJECT) SHALL BE PROVIDED TO REDUCE THE TRACKING OF MUD AND DIRT ONTO PUBLIC ROADS BY CONSTRUCTION VEHICLES.
- 5.19. THE QUANTITIES REQUIRED FOR STABILIZED CONSTRUCTION EXITS PER TDOT STANDARDS HAVE BEEN SPECIFIED ON SHEET 9 (5.5.3.1.j)).
- 5.20. DISCHARGES FROM DEWATERING ACTIVITIES ARE PROHIBITED UNLESS MANAGED BY APPROPRIATE CONTROLS THAT PROVIDE THE LEVEL OF TREATMENT (FILTRATION) NECESSARY TO COMPLY WITH PERMIT REQUIREMENTS. (4.1.3.).
- 5.21. SETTLING BASINS AND SEDIMENT TRAPS SHALL BE PROPERLY DESIGNED PER 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.
- 5.22. DISCHARGES FROM SEDIMENT BASINS AND IMPOUNDMENTS SHALL UTILIZE OUTLET STRUCTURES THAT ONLY WITHDRAW WATER FROM NEAR

THE SURFACE OF THE BASIN OR IMPOUNDMENT. TREATED WATER MUST BE DISCHARGED THROUGH A PIPE, WELL- VEGETATED AND/OR LINED CHANNEL, SO THAT THE DISCHARGE DOES NOT CAUSE EROSION OR SEDIMENT TRANSPORT. (5.5.3.5.).

- 5.23. THE DEWATERING OF WORK AREAS, TRENCHES, FOUNDATIONS, EXCAVATIONS, ETC. THAT HAVE COLLECTED STORMWATER, WATER FROM VEHICLE WASH AREAS, OR GROUNDWATER SHALL BE EITHER HELD IN SETTLING BASINS OR TREATED BY FILTRATION AND/OR CHEMICAL TREATMENT PRIOR TO ITS DISCHARGE. ALL CHEMICAL TREATMENTS MUST BE APPLIED PER SECTION 6 FLOCCULANTS.
- 5.24. WATER DISCHARGED FROM DEWATERING ACTIVITIES SHALL NOT CAUSE AN OBJECTIONABLE COLOR CONTRAST WITHIN THE RECEIVING NATURAL RESOURCE. WATER MUST BE HELD WITHIN SETTLING BASINS UNTIL IT IS AT LEAST AS CLEAR AS THE RECEIVING WATERS.
- 5.25. DEWATERING STRUCTURES, SEDIMENT FILTER BAGS, SEDIMENT BASINS AND TRAPS SHALL NOT BE LOCATED CLOSER THAN 30 FEET (60 FEET DESIRABLE VEGETATIVE BUFFER) FOR WATERS WITH UNAVAILABLE PARAMETERS AND EXCEPTIONAL TENNESSEE WATERS (ETW) AND 15 FEET (30 FEET DESIRABLE VEGETATIVE BUFFER) FOR ALL OTHER FEATURES FROM THE TOP BANK OF A STREAM, WOTUS (EPHEMERAL), WETLAND OR OTHER NATURAL RESOURCE AND SHALL BE PROPERLY DESIGNED PER THE SIZE OF THE DRAINAGE AREAS OR VOLUME OF WATER TO BE TREATED.
- 5.26. STABILIZATION PRACTICES: PRE-CONSTRUCTION VEGETATIVE COVER WILL NOT BE DESTROYED, REMOVED OR DISTURBED MORE THAN 2 WEEKS PRIOR TO GRADING OR EARTH MOVING UNLESS THE AREA WILL BE SEEDED AND/OR MULCHED OR OTHER TEMPORARY COVER IS INSTALLED (5.5.3.5.f)).
- 5.27. STABILIZATION MEASURES WILL BE INITIATED AS SOON AS POSSIBLE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. TEMPORARY OR PERMANENT STABILIZATION WILL BE COMPLETED WITHIN 2 WEEKS AFTER ACTIVITY HAS TEMPORARILY OR PERMANENTLY CEASED IN THAT AREA. PERMANENT STABILIZATION WILL REPLACE TEMPORARY MEASURES AS SOON AS PRACTICABLE (5.5.3.4.).
- 5.28. PRIORITY SHALL BE GIVEN TO FINISHING OPERATIONS AND PERMANENT EPSC MEASURES OVER TEMPORARY EPSC MEASURES ON ALL PROJECTS. UNPACKED GRAVEL CONTAINING FINES (SILT AND CLAY SIZED PARTICLES) OR CRUSHER-RUN WILL NOT BE CONSIDERED A NON-ERODIBLE SURFACE
- 5.29. DELAYING THE PLANTING OF COVER VEGETATION UNTIL WINTER MONTHS OR DRY MONTHS SHOULD BE AVOIDED, IF POSSIBLE.
- 5.30. STEEP SLOPES SHALL BE TEMPORARILY STABILIZED NOT LATER THAN 1 WEEK AFTER CONSTRUCTION ACTIVITY ON THE SLOPE HAS TEMPORARILY OR PERMANENTLY CEASED. (5.5.3.4.).

6. **FLOCCULANTS (3.5.3.1.b)**

IS ADDITIONAL PHYSICAL OR CHEMICAL TREATMENT OF STORMWATER RUNOFF NECESSARY (5.5.3.5.)? ☐ YES ☒ NO

IF YES, THE FOLLOWING NOTES APPLY:

- 6.1. ENSURE THE FLOCCULANT EMULSIONS AND POWDERS ARE OF THE ANIONIC TYPE (5.5.3.5.). AND MEET THE FOLLOWING REQUIREMENTS:
- 6.1.1. MEETS THE EPA AND FDA ACRYLAMIDE MONOMER LIMITS OF EQUAL TO OR GREATER THAN 0.005% ACRYLAMIDE MONOMER.
- 6.1.2. HAS A DENSITY OF 10% TO 55% BY WEIGHT AND A MOLECULAR WEIGHT OF 16 TO 24 MG/MOLE (MILLIGRAM PER MOLE).
- 6.1.3. MIXTURE IS NON-COMBUSTIBLE.
- 6.1.4. CONTAINS ONLY MANUFACTURER'S RECOMMENDED ADDITIVES.
- 6.2. FLOCCULANT SHALL BE MIXED AND APPLIED IN ACCORDANCE WITH ALL OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) MATERIAL SAFETY DATA SHEET REQUIREMENTS AND THE MANUFACTURER'S RECOMMENDATIONS FOR THE SPECIFIED USES CONFORMING TO ALL FEDERAL, STATE, AND LOCAL LAWS, RULES, AND REGULATIONS.
- 6.3. ALL VENDORS AND SUPPLIERS OF FLOCCULANT BLENDS SHALL PRESENT OR SUPPLY A WRITTEN TOXICITY REPORT WHICH VERIFIES ACCEPTABLE TOXICITY PARAMETERS WHICH MEET OR EXCEED THE EPS REQUIREMENTS FOR THE STATE AND FEDERAL WATER QUALITY STANDARDS. WHOLE EFFLUENT TESTING DOES NOT MEET THIS REQUIREMENT AS PRIMARY REACTIONS HAVE OCCURRED AND TOXIC POTENTIALS HAVE BEEN REDUCED. CATIONIC FORMS OF FLOCCULANTS ARE NOT ALLOWED UNDER THIS SECTION DUE TO HIGH LEVELS OF

TOXICITY TO AQUATIC ORGANISMS. FLOCCULANT EMULSIONS SHALL NEVER BE APPLIED DIRECTLY TO STORMWATER RUNOFF OR RIPARIAN WATERS DUE TO SURFACTANT TOXICITY. THE CONTRACTOR MUST SEEK THE APPROVAL OF THE EPSC DESIGN ENGINEER AND TDOT IF CHITOSAN IS PROPOSED FOR THIS PROJECT.

- 6.4. ALL VENDORS AND SUPPLIERS OF FLOCCULANT BLENDS SHALL SUPPLY WRITTEN "SITE SPECIFIC" TESTING RESULTS DEMONSTRATING A PERFORMANCE OF 95% OR GREATER REDUCTION OF NTU OR TSS FROM STORMWATER DISCHARGES.
- 6.5. EMULSION BATCHES SHALL BE MIXED FOLLOWING RECOMMENDATIONS OF THE TESTING LABORATORY THAT DETERMINES THE PROPER PRODUCT AND RATE TO MEET SITE REQUIREMENTS. APPLICATION METHODS SHALL ENSURE UNIFORM COVERAGE TO THE TARGET AREA. EMULSIONS SHALL NEVER BE APPLIED DIRECTLY TO STORMWATER RUNOFF OR RIPARIAN BUFFERS.
- 6.6. FLOCCULANT POWDER MAY BE APPLIED BY A HAND OR MECHANICAL SPREADER. MIXING OF THE FLOCCULANT POWDER WITH DRY SILICA SAND WILL AID IN SPREADING.
- 6.7. PREMIXING OF FLOCCULANT POWDER INTO FERTILIZER, SEED, OR OTHER SOIL AMENDMENTS IS ALLOWED WHEN SPECIFIED IN THE DESIGN PLAN. APPLICATION METHOD SHALL ENSURE UNIFORM COVERAGE TO THE TARGET AREA.
- 6.8. FLOCCULANT LOGS OR BLOCKS SHALL BE APPLIED FOLLOWING SITE TESTING RESULTS TO ENSURE PROPER PLACEMENT AND PERFORMANCE AND SHALL MEET OR EXCEED STATE AND FEDERAL WATER QUALITY REQUIREMENTS.
- 6.9. DO NOT APPLY FLOCCULANTS DIRECTLY TO, OR WITHIN 60 FEET, OF ANY STREAMS, WETLANDS, OR OTHER NATURAL WATER RESOURCE LOCATED ON OR ADJACENT TO THE CONSTRUCTION SITE. DO NOT APPLY FLOCCULANTS DIRECTLY INTO WATERS CONTAINED WITHIN SEDIMENT PONDS OR TO SLOPES THAT PRODUCE RUNOFF DIRECTLY INTO A STREAM, WETLAND, OR OTHER NATURAL WATER RESOURCE. DO NOT APPLY FLOCCULANTS IMMEDIATELY AT A STORMWATER OUTFALL WHERE RUNOFF LEAVES THE PROJECT LIMITS.

7. **UTILITY RELOCATION**

ARE UTILITIES INCLUDED IN THE CONTRACT? ☐ YES ☒ NO

IF YES, THE FOLLOWING APPLY:

- 7.1. STORMWATER WHICH COLLECTS IN THE UTILITY TRENCH SHALL BE PUMPED INTO A DEWATERING STRUCTURE OR SEDIMENT FILTER BAG AND TREATED PRIOR TO DISCHARGE.
- 7.2. SILT FENCE SHALL BE INSTALLED ON THE DOWNGRAIDENT SIDE OF STOCKPILED SOIL. ANY TRENCHING ACROSS WET WEATHER CONVEYANCES SHALL BE DONE DURING DRY CONDITIONS, REMOVED AND STABILIZED BY THE END OF THE WORK DAY.
- 7.3. UTILITY CROSSINGS IN ENVIRONMENTAL FEATURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH TDOT STANDARDS AND NO WORK SHALL BE CONDUCTED IN FLOWING WATERS. ENVIRONMENTAL PERMITS APPLY TO UTILITIES IN THIS PROJECT. THE STATE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF THE PERMITS.
- 7.4. IT IS THE RESPONSIBILITY OF THE STATE UTILITY CONTRACTOR TO PROTECT EXPOSED EARTH FROM EROSION AND TO PROVIDE FOR CONTAINMENT OF SEDIMENT THAT MAY RESULT FROM THEIR WORK. PRIOR TO BEGINNING WORK, ADEQUATE EPSC MEASURES MUST BE IN PLACE TO TRAP ANY SEDIMENT THAT MAY TRAVEL OFF-SITE IN THE EVENT OF RAIN. DURING THE PROGRESSION OF THEIR WORK, EXPOSED EARTH AREAS SHALL BE STABILIZED AS SOON AS POSSIBLE TO PREVENT EROSION. AT NO TIME, SHALL EXPOSED EARTH RESULTING FROM THEIR OPERATIONS HAVE UNPROTECTED ACCESS TO FLOWING OFF-SITE AND ENTERING WATERS OF THE STATE/U.S.
- 7.5. FOR THE INSTALLATION OF BURIED UTILITIES (PIPES AND CABLES), TRENCHES SHALL BE BACKFILLED DAILY AS CONSTRUCTION PROCEEDS. BACKFILLED TRENCHES SHALL BE SEEDED AND MULCHED OR SODDED DAILY IF POSSIBLE, BUT NO LATER THAN FOURTEEN DAYS AFTER BEING BACKFILLED. ANY TEMPORARY SPOILS OF EXCAVATED EARTH SHALL BE LOCATED WITHIN TDOT EPSC MEASURES OR RECEIVE SEPARATE EPSC MEASURES. IF TRENCHES ARE NOT BACKFILLED OVERNIGHT, APPROPRIATE EPSC MEASURES WILL BE INSTALLED BY THE STATE UTILITY CONTRACTOR UNTIL THE TRENCH IS BACKFILLED.
- 7.6. IN REGARDS TO EPSC, TDEC REGULATIONS APPLY TO THE STATE UTILITY CONTRACTORS ON THIS PROJECT. THE STATE CONTRACTOR IS RESPONSIBLE FOR EPSC MEASURES RELATED TO UTILITY CONSTRUCTION INCLUDED IN THE STATE CONTRACT.



- 7.7. TRENCHES FORMED FOR THE INSTALLATION OF BURIED UTILITIES MAY CAUSE STORMWATER RUNOFF TO CONCENTRATE AT THE TRENCH LINE. ADDITIONAL EPSC MEASURES MAY BE REQUIRED TO BE INSTALLED AS APPROVED BY THE TDOT PROJECT ENGINEER.
- 7.8. FOR THE INSTALLATION OF UNDERGROUND UTILITIES OUTSIDE OF THE TDOT RIGHT-OF-WAY, EPSC MEASURES SHALL BE INSTALLED PRIOR TO CLEARING (TRENCHING AND ASSOCIATED BLASTING) IN THOSE AREAS NECESSARY TO PREVENT SEDIMENT FROM LEAVING THE CONSTRUCTION AREA. THESE EPSC MEASURES SHALL REMAIN UNTIL THE BACKFILLED TRENCH IS STABILIZED WITH PERMANENT VEGETATIVE COVER.
- 7.9. THE UTILITY CONTRACTOR SHALL RESTORE ALL AFFECTED WET WEATHER CONVEYANCES TO THE EXISTING TOPOGRAPHIC CONDITIONS AS APPROVED BY THE TDOT RESPONSIBLE PARTY.
- 7.10. THE UTILITY CONTRACTOR WILL PROVIDE APPROPRIATE EPSC MEASURES TO REPLACE ONSITE EPSC MEASURES REMOVED TO FACILITATE THE INSTALLATION OF UTILITIES. REPLACEMENT OF EPSC MEASURES WILL BE COORDINATED WITH THE TDOT ENGINEER BEFORE COMMENCING WORK.
- 7.11. FOR UTILITY CROSSINGS THAT UTILIZE HORIZONTAL DIRECTIONAL DRILLING THE FOLLOWING SHALL APPLY:

7.11.1. THE ENTRY AND EXIT POINTS SHALL BE AT LEAST 50 FEET FROM THE STREAM BANK OR WETLAND BOUNDARY.

7.11.2. THE DEPTH OF BORE BELOW THE STREAMBED IS SUFFICIENT TO PREVENT RELEASE OF DRILLING FLUID, BASED ON THE PARENT MATERIAL.

7.11.3. A SITE-SPECIFIC CONTINGENCY AND CONTAINMENT PLAN FOR INADVERTENT RELEASE OF DRILLING FLUID SHALL BE ESTABLISHED PRIOR TO COMMENCEMENT OF WORK. THIS PLAN SHALL BE SUBMITTED TO THE TDOT PROJECT ENGINEER AND THE TDOT ENVIRONMENTAL DIVISION PERMITS AND/OR COMPLIANCE AND FIELD SERVICES OFFICE FOR REVIEW AND APPROVAL.

8. **MAINTENANCE AND INSPECTION**

- 8.1. INSPECTION PRACTICES (5.5.3.9.)

8.1.1. PROJECT EPSC INSPECTORS AND ENGINEERS (INCLUDING TDOT STAFF, CONSULTANTS AND CONTRACTOR STAFF) RESPONSIBLE FOR THE INSPECTION, IMPLEMENTATION, MAINTENANCE. AND/OR REPAIR OF EPSC MEASURES SHALL MEET ONE OF THE FOLLOWING REQUIREMENTS (5.5.3.10.):

8.1.1.1. SUCCESSFULLY COMPLETED THE TDOT EPSC INSPECTIONS TRAINING AND ANY RECERTIFICATION COURSE AS REQUIRED.

8.1.1.2. SUCCESSFULLY COMPLETED THE TDEC “LEVEL I - FUNDAMENTALS OF EROSION PREVENTION AND SEDIMENT CONTROL” COURSE AND ANY RECERTIFICATION COURSES AS REQUIRED.

8.1.1.3. BE A CURRENT TN LICENSED PROFESSIONAL ENGINEER OR LANDSCAPE ARCHITECT.

8.1.1.4. BE A CURRENT CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL (CPESC).

8.1.1.5. SUCCESSFULLY COMPLETED TDEC “LEVEL II – DESIGN PRINCIPLES FOR EROSION PREVENTION AND SEDIMENT CONTROL FOR CONSTRUCTION SITES” COURSE AND ANY RECERTIFICATION COURSE AS REQUIRED.
- 8.1.2. THE TDOT CONSTRUCTION ENGINEER (OR THEIR DULY AUTHORIZED REPRESENTATIVE) AND THE CONTRACTOR'S SITE SUPERINTENDENT ARE RESPONSIBLE FOR INSPECTIONS. MAINTENANCE AND REPAIR ACTIVITIES ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE TDOT CONSTRUCTION ENGINEER OR THEIR DULY AUTHORIZED REPRESENTATIVE SHALL COMPLETE THE EPSC INSPECTION REPORTS AND DISTRIBUTE COPIES PER THE CONTRACT.
- 8.1.3. THE INSPECTOR SHALL CONDUCT PRE-CONSTRUCTION INSPECTIONS TO VERIFY AREAS THAT ARE NOT TO BE DISTURBED HAVE BEEN MARKED IN THE SWPPP AND IN THE FIELD BEFORE LAND DISTURBANCE ACTIVITIES BEGIN AND INITIAL MEASURES HAVE BEEN INSTALLED (10 “INSPECTOR”) (5.5.1.f).
- 8.1.4. EPSC CONTROLS SHALL BE INSPECTED TO VERIFY MEASURES HAVE BEEN INSTALLED AND MAINTAINED IN ACCORDANCE WITH TDOT STANDARD DRAWINGS, SPECIFICATIONS, AND GOOD ENGINEERING PRACTICES. EPSC INSPECTIONS SHALL BE DOCUMENTED ON THE TDOT EPSC INSPECTION REPORT FORM

AND THE TDEC CONSTRUCTION STORMWATER INSPECTION CERTIFICATION (TWICE-WEEKLY INSPECTIONS) FORM.

- 8.1.5. OUTFALL POINTS SHALL BE INSPECTED TO ASCERTAIN WHETHER EPSC MEASURES ARE EFFECTIVE IN PREVENTING EROSION AND CONTROLLING SEDIMENT INCLUDING SIGNIFICANT IMPACTS TO SURROUNDING STATE WATERS, WOTUS (EPHEMERAL), WETLANDS, OTHER NATURAL RESOURCES AND ADJACENT PROPERTY OWNERS. WHERE DISCHARGE LOCATIONS ARE INACCESSIBLE, NEARBY DOWN GRADIENT LOCATIONS SHALL BE INSPECTED. LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFF-SITE ROADWAY SEDIMENT TRACKING.
- 8.1.6. INSPECTIONS WILL BE CONDUCTED AT LEAST TWICE EVERY CALENDAR WEEK AND AT LEAST 72 HOURS APART (5.5.3.11.a). A CALENDAR WEEK IS DEFINED AS SUNDAY THROUGH SATURDAY. QUALITY ASSURANCE INSPECTIONS OF TDOT EPSC, NPDES AND WATER QUALITY PERMIT REQUIREMENTS SHALL BE PERFORMED PER THE TDOT ENVIRONMENTAL DIVISION COMPLIANCE AND FIELD SERVICES OFFICE.
- 8.1.7. THE FREQUENCY OF EPSC INSPECTIONS MAY BE REDUCED TO ONCE A MONTH WHERE SITES OR PORTIONS OF SITES HAVE BEEN TEMPORARILY STABILIZED UNTIL CONSTRUCTION ACTIVITIES RESUME WITH WRITTEN NOTIFICATION BY THE TDOT REGIONAL ENGINEER TO TDEC NASHVILLE CENTRAL OFFICE AND SUBSEQUENT TDEC APPROVAL. WRITTEN NOTIFICATION MUST INCLUDE THE INTENT TO CHANGE FREQUENCY AND JUSTIFICATION (5.5.3.11.a).
- 8.1.8. ALL DISTURBED AREAS OF THE SITE THAT HAVE NOT BEEN PERMANENTLY STABILIZED, AREAS USED FOR MATERIAL STORAGE THAT ARE EXPOSED TO PRECIPITATION, STRUCTURAL CONTROL MEASURES, AND LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE, AND EACH OUTFALL WILL BE INSPECTED (5.5.3.11.b).
- 8.1.9. THE INSPECTOR WILL OVERSEE THE REQUIREMENTS OF OTHER CONSTRUCTION-RELATED WATER QUALITY PERMITS (I.E. TDEC ARAP, USACE SECTION 404, AND TVA SECTION 26a PERMITS) FOR CONSTRUCTION ACTIVITIES AROUND WATERS OF THE STATE (10 “INSPECTOR”).
- 8.1.10. THE SWPPP WILL BE REVISED AS NECESSARY BASED ON THE RESULTS OF THE INSPECTION. REVISION(S) WILL BE RECORDED WITHIN 1 WEEK OF THE INSPECTION. REVISION(S) WILL BE IMPLEMENTED WITHIN 2 WEEKS OF THE INSPECTION (5.5.3.11.e AND 5.5.3.11.f).
- 8.1.11. DOCUMENTATION OF INSPECTIONS WILL BE MAINTAINED ON SITE IN THE “DOCUMENTATION AND PERMITS” BINDER. REPORTS WILL BE SUBMITTED TO THE TDOT PROJECT ENGINEER PER THE CONTRACT.
- 8.1.12. THESE INSPECTION REQUIREMENTS DO NOT APPLY TO DEFINABLE AREAS OF THE SITE THAT HAVE MET PERMANENT STABILIZATION REQUIREMENTS AND HAVE BEEN NOTED IN THE SWPPP.
- 8.1.13. TRAINED CERTIFIED INSPECTORS SHALL COMPLETE INSPECTION TO THE BEST OF THEIR ABILITY. FALSIFYING INSPECTION RECORDS OR OTHER DOCUMENTATION OR FAILURE TO COMPLETE INSPECTION DOCUMENTATION SHALL RESULT IN A VIOLATION OF THIS PERMIT AND ANY OTHER APPLICABLE ACTS OR RULES (5.5.3.11.h).
- 8.2. DULY AUTHORIZED REPRESENTATIVE (8.7.3.)

THE PROJECT ENGINEER MAY DELEGATE AN INDIVIDUAL AND/OR CONSULTANT TO SIGN EPSC INSPECTIONS REPORTS. FOR SATISFYING SIGNATORY REQUIREMENTS FOR EPSC INSPECTION REPORTS, THE PROJECT ENGINEER AND NEWLY AUTHORIZED INDIVIDUAL ACCEPTING RESPONSIBILITY MUST COMPLETE AND SIGN THE TDOT CONSTRUCTION DIVISION EPSC DELEGATION OF AUTHORITY.
- 8.3. MAINTENANCE PRACTICES (5.1 AND 8.13.)

8.3.1. ALL CONTROLS WILL BE MAINTAINED IN GOOD AND EFFECTIVE OPERATING ORDER AND IN ACCORDANCE WITH TDOT STANDARD DRAWINGS AND GOOD ENGINEERING PRACTICES. (5.1. AND 5.5.3.1.b)

8.3.2. MAINTENANCE AND REPAIR ACTIVITIES ARE THE RESPONSIBILITY OF THE CONTRACTOR.

8.3.3. 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 24-HOUR TIMEFRAME, WRITTEN DOCUMENTATION PROVIDED BY THE CONTRACTOR SHALL BE PLACED IN THE FIELD DIARY AND EPSC INSPECTION REPORT. AN ESTIMATED REPAIR, REPLACEMENT OR MODIFICATION SCHEDULE SHALL BE DOCUMENTED WITHIN 24 HOURS AFTER IDENTIFICATION. (5.5.3.11.e).

- 8.3.4. SEDIMENT SHALL BE REMOVED FROM SEDIMENT CONTROL STRUCTURES (SEDIMENT TRAPS, SILT FENCE, SEDIMENT BASINS, OTHER CONTROLS, ETC.) WHEN THE DESIGN CAPACITY HAS BEEN REDUCED BY FIFTY PERCENT (50%). (5.5.3.1.d).
- 8.3.5. DURING SEDIMENT REMOVAL, THE CONTRACTOR SHALL TAKE STEPS TO ENSURE THAT STRUCTURAL COMPONENTS OF EPSC MEASURES ARE NOT DAMAGED AND THUS MADE INEFFECTIVE. IF DAMAGE DOES OCCUR, THE CONTRACTOR SHALL REPAIR THE EPSC MEASURES AT THE CONTRACTOR'S OWN EXPENSE.
- 8.3.6. CHECK DAMS WILL BE INSPECTED FOR STABILITY. SEDIMENT WILL BE REMOVED WHEN DEPTH REACHES ONE-HALF (½) THE HEIGHT OF THE DAM.
- 8.3.7. SEDIMENT REMOVED FROM SEDIMENT CONTROL STRUCTURES SHALL BE PLACED AND TREATED IN A MANNER SO THAT THE SEDIMENT IS CONTAINED WITHIN THE PROJECT LIMITS, DOES NOT MIGRATE INTO FEATURES REMOVED FROM, AND DOES NOT MIGRATE ONTO ADJACENT PROPERTIES AND/OR INTO WATERS OF THE STATE/U.S.
- 8.3.8. LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS EXPOSED TO STORMWATER WILL BE PICKED UP AND REMOVED FROM STORMWATER EXPOSURE PRIOR TO ANTICIPATED STORM EVENTS OR BEFORE BEING CARRIED OFF THE SITE BY WIND, OR OTHERWISE PREVENTED FROM BECOMING A POLLUTANT SOURCE FOR STORMWATER DISCHARGES. AFTER USE, MATERIALS USED FOR EROSION CONTROL WILL BE REMOVED (5.5.3.7.a).
- 8.3.9. ALL SEEDED AREAS WILL BE CHECKED FOR BARE SPOTS, EROSION WASHOUTS, AND VIGOROUS GROWTH FREE OF SIGNIFICANT WEED INFESTATIONS.

9. **SITE ASSESSMENTS (5.5.3.8.)**

QUALITY ASSURANCE SITE ASSESSMENTS OF EROSION PREVENTION AND SEDIMENT CONTROLS SHALL BE PERFORMED PER THE TDOT ENVIRONMENTAL DIVISION COMPLIANCE AND FIELD SERVICES OFFICE GUIDELINES.

10. **STORMWATER MANAGEMENT (5.5.3.11.h)**

- 10.1. STORMWATER MANAGEMENT WILL BE HANDLED BY TEMPORARY CONTROLS OUTLINED IN THIS SWPPP AND ANY PERMANENT CONTROLS NEEDED TO MEET PERMANENT STORMWATER MANAGEMENT NEEDS IN THE POST CONSTRUCTION PERIOD. PERMANENT CONTROLS WILL BE DEPICTED ON THE PLANS AND NOTED AS PERMANENT.
- 10.2. DESCRIBE ANY SPECIFIC POST-CONSTRUCTION MEASURES THAT WILL CONTROL VELOCITY, POLLUTANTS, AND/OR EROSION (5.5.3.6.c): CLEARING & GRUBBING, SODS, SILT FENCE, RIP RAPS, EROSION CONTROL BLANKET, ROCK CHECK DAM, SEDIMENT TUBES
- 10.3. OTHER ITEMS NEEDING CONTROL (5.5.3.7.)

CONSTRUCTION MATERIALS: THE FOLLOWING MATERIALS OR SUBSTANCES ARE EXPECTED TO BE PRESENT ON THE SITE DURING THE CONSTRUCTION PERIOD. (CHECK ALL THAT APPLY).

- ☒ LUMBER, GUARDRAIL, TRAFFIC CONTROL DEVICES
- ☐ CONCRETE WASHOUT
- ☒ PIPE CULVERTS (I.E. CONCRETE, CORRUGATED METAL, HDPE, ETC.)
- ☐ MINERAL AGGREGATES, ASPHALT
- ☐ EARTH
- ☐ LIQUID TRAFFIC STRIPING MATERIALS, PAINT
- ☒ ROCK
- ☐ CURING COMPOUND
- ☐ EXPLOSIVES
- ☐ OTHER \_\_\_\_\_

THESE MATERIALS WILL BE HANDLED AS NOTED IN THIS SWPPP.



10.4. WASTE MATERIALS (5.5.3.7.c)

WASTE MATERIAL (EARTH, ROCK, ASPHALT, CONCRETE, ETC.) NOT REQUIRED FOR THE CONSTRUCTION OF THE PROJECT WILL BE DISPOSED OF BY THE CONTRACTOR IN ACCORDANCE WITH THE TDOT CONSTRUCTION CONTRACT AND FEDERAL AND STATE REGULATIONS. IMPACTS TO WATERS OF THE STATE/U.S. SHALL BE AVOIDED IF POSSIBLE. IF UNAVOIDABLE, THE CONTRACTOR WILL OBTAIN ALL NECESSARY PERMITS INCLUDING, BUT NOT LIMITED TO NPDES, AQUATIC RESOURCES ALTERATION PERMIT(S) CORPS OF ENGINEERS SECTION 404 PERMITS, AND TVA SECTION 26A PERMITS TO DISPOSE OF WASTE MATERIALS.

10.5. HAZARDOUS WASTE (5.5.3.7.c) (8.8)

ALL HAZARDOUS WASTE MATERIALS WILL BE DISPOSED OF IN A MANNER WHICH IS COMPLIANT WITH LOCAL OR STATE REGULATIONS. SITE PERSONNEL WILL BE INSTRUCTED IN THESE PRACTICES, AND THE INDIVIDUAL DESIGNATED AS THE CONTRACTOR'S ON-SITE REPRESENTATIVE WILL BE RESPONSIBLE FOR SEEING THAT THESE PRACTICES ARE FOLLOWED. THE CONTRACTOR WILL OBTAIN ALL NECESSARY PERMITS TO DISPOSE OF HAZARDOUS MATERIAL.

10.6. SANITARY WASTE (5.5.3.7.b)

PORTABLE SANITARY FACILITIES WILL BE PROVIDED ON ALL CONSTRUCTION SITES. SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS IN A TIMELY MANNER BY A LICENSED WASTE MANAGEMENT CONTRACTOR OR AS REQUIRED BY ANY LOCAL REGULATIONS. THE CONTRACTOR WILL OBTAIN ALL NECESSARY PERMITS TO DISPOSE OF SANITARY WASTE.

10.7. OTHER MATERIALS

THE FOLLOWING MATERIALS OR SUBSTANCES ARE EXPECTED TO BE PRESENT ON THE SITE DURING THE CONSTRUCTION PERIOD. (CHECK ALL THAT APPLY).

- ☒ FERTILIZERS AND LIME
- ☐ PESTICIDES AND/OR HERBICIDES
- ☒ DIESEL AND GASOLINE
- ☒ MACHINERY LUBRICANTS (OIL AND GREASE)

THESE MATERIALS WILL BE HANDLED AS NOTED IN THIS SWPPP.

11. **NON-STORMWATER DISCHARGES (5.5.3.12.)**

11.1. THE FOLLOWING NON-STORMWATER DISCHARGES ARE ANTICIPATED DURING THE CONSTRUCTION OF THIS PROJECT (CHECK ALL THAT APPLY):

- ☐ DEWATERING OF WORK AREAS OF COLLECTED STORMWATER AND GROUND WATER.
- ☐ WATERS USED TO WASH VEHICLES (OF DUST AND SOIL) WHERE DETERGENTS ARE NOT USED AND DETENTION AND/OR FILTERING IS PROVIDED BEFORE THE WATER LEAVES THE SITE.
- ☒ WATER USED TO CONTROL DUST. (3.5.3.1.n)
- ☐ POTABLE WATER SOURCES INCLUDING WATERLINE FLUSHING FROM WHICH CHLORINE HAS BEEN REMOVED TO THE MAXIMUM EXTENT PRACTICABLE.
- ☐ UNCONTAMINATED GROUNDWATER OR SPRING WATER.
- ☐ FOUNDATION OR FOOTING DRAINS WHERE FLOWS ARE NOT CONTAMINATED WITH POLLUTANTS.
- ☐ OTHER: \_\_\_\_\_

11.2. ALL ALLOWABLE NON-STORMWATER DISCHARGES WILL BE DIRECTED TO STABLE DISCHARGE STRUCTURES PRIOR TO LEAVING THE SITE. FILTERING OR CHEMICAL TREATMENT MAY BE NECESSARY PRIOR TO DISCHARGE. ALL CHEMICAL TREATMENTS MUST BE APPLIED PER SECTION 6 FLOCCULANTS.

11.3. THE DESIGN OF ALL IMPACTED EPSC MEASURES RECEIVING FLOW FROM ALLOWABLE NON-STORMWATER DISCHARGES MUST BE DESIGNED TO HANDLE THE VOLUME OF THE NON-STORMWATER COMPONENT.

11.4. WASH DOWN OR WASTE DISCHARGE OF CONCRETE TRUCKS WILL NOT BE PERMITTED ON-SITE UNLESS PROPER SETTLEMENT AREAS HAVE BEEN PROVIDED IN ACCORDANCE WITH BOTH STATE AND FEDERAL REGULATIONS.

11.5. ARE ANY DISCHARGES ASSOCIATED WITH INDUSTRIAL (NON-CONSTRUCTION STORMWATER) ACTIVITY EXPECTED (5.5.1.g)?

- ☐ YES ☒ NO

IF YES, SPECIFY THE LOCATION OF THE ACTIVITY AND ITS PERMIT NUMBER: \_\_\_\_\_

12. **SPILL PREVENTION, MANAGEMENT AND NOTIFICATION (5.5.3.7.c, 6.1)**

12.1. SPILL PREVENTION (5.5.3.7.c)

12.1.1. CONTRACTOR'S BULK FUEL AND PETROLEUM PRODUCTS STORED ON-SITE OR ADJACENT TO THE R.O.W. IN ABOVE GROUND STORAGE TANKS WITH AGGREGATE STORAGE CAPACITY IN EXCESS OF 1,320 GALLONS SHALL HAVE SECONDARY CONTAINMENT.

12.1.2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING A SPILL PREVENTION CONTROL AND COUNTERMEASURE (SPCC) PLAN AS REQUIRED BY TDOT SPECIAL PROVISION 107FP (REGARDING WATER QUALITY AND STORM WATER PERMITS) AND THE LAW PRIOR TO STORING 1320 GALLONS ON SITE.

12.1.3. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR OBTAINING ANY NECESSARY LOCAL, STATE, AND FEDERAL PERMITS. THE SPCC PLAN AND/OR PERMITS SHALL BE KEPT ON-SITE AND A COPY PROVIDED TO THE TDOT CONSTRUCTION ENGINEER.

12.2. MATERIAL MANAGEMENT

12.2.1. HOUSEKEEPING

ONLY CONSTRUCTION PRODUCTS NEEDED SHALL BE STORED ON-SITE BY THE CONTRACTOR. EXCEPT FOR BULK MATERIALS THE CONTRACTOR WILL STORE ALL MATERIALS UNDER COVER AND IN APPROPRIATE CONTAINERS. PRODUCTS MUST BE STORED IN ORIGINAL CONTAINERS AND LABELED. MATERIAL MIXING WILL BE CONDUCTED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. WHEN POSSIBLE, ALL PRODUCTS WILL BE USED COMPLETELY BEFORE PROPERLY DISPOSING OF THE CONTAINER OFF SITE. THE MANUFACTURER'S DIRECTIONS FOR DISPOSAL OF MATERIALS AND CONTAINERS WILL BE FOLLOWED. THE CONTRACTOR'S SITE SUPERINTENDENT WILL INSPECT MATERIALS STORAGE AREAS REGULARLY TO ENSURE PROPER USE AND DISPOSAL. DUST GENERATED WILL BE CONTROLLED IN AN ENVIRONMENTALLY SAFE MANNER. VEGETATION AREAS NOT ESSENTIAL TO THE CONSTRUCTION PROJECT WILL BE PRESERVED AND MAINTAINED AS NOTED ON THE PLANS.

12.2.2. HAZARDOUS MATERIALS

PRODUCTS MUST BE STORED IN ORIGINAL CONTAINERS UNLESS THE CONTAINER IS NOT RE-SEALABLE. ORIGINAL LABELS AND MATERIAL SAFETY DATA SHEETS WILL BE RETAINED IN A SAFE PLACE TO RELAY IMPORTANT PRODUCT INFORMATION. IF SURPLUS PRODUCT MUST BE DISPOSED OF, MANUFACTURER'S LABEL DIRECTIONS FOR DISPOSAL WILL BE FOLLOWED. MAINTENANCE AND REPAIR OF ALL EQUIPMENT AND VEHICLES INVOLVING OIL CHANGES, HYDRAULIC SYSTEM DRAIN DOWN, DE-GREASING OPERATIONS, FUEL TANK DRAIN DOWN AND REMOVAL, AND OTHER ACTIVITIES WHICH MAY RESULT IN THE ACCIDENTAL RELEASE OF CONTAMINANTS WILL BE CONDUCTED ON AN IMPERVIOUS SURFACE AND UNDER COVER DURING WET WEATHER TO PREVENT THE RELEASE OF CONTAMINANTS ONTO THE GROUND. WHEEL WASH WATER WILL BE COLLECTED AND ALLOWED TO SETTLE OUT SUSPENDED SOLIDS PRIOR TO DISCHARGE. WHEEL WASH WATER WILL NOT BE DISCHARGED DIRECTLY INTO ANY STORMWATER SYSTEM OR STORMWATER TREATMENT SYSTEM. POTENTIAL pH-MODIFYING MATERIALS SUCH AS: BULK CEMENT, CEMENT KILN DUST, FLY ASH, NEW CONCRETE WASHINGS AND CURING WATERS, CONCRETE PUMPING, AND MIXER WASHOUT WATERS WILL BE COLLECTED ON SITE AND MANAGED TO PREVENT CONTAMINATION OF STORMWATER RUNOFF.

12.3. PRODUCT SPECIFIC PRACTICES

12.3.1. PETROLEUM PRODUCTS: ALL ON-SITE VEHICLES WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE. PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED.

12.3.2. FERTILIZERS: FERTILIZERS WILL BE APPLIED ONLY IN THE AMOUNTS SPECIFIED BY TDOT. ONCE APPLIED, FERTILIZERS WILL BE WORKED INTO THE SOIL TO LIMIT THE EXPOSURE TO STORMWATER. FERTILIZERS WILL BE STORED IN AN ENCLOSED AREA UNDER COVER. THE CONTENTS OF PARTIALLY USED FERTILIZER BAGS WILL BE TRANSFERRED TO SEALABLE CONTAINERS TO AVOID SPILLS.

12.3.3. PAINTS: ALL CONTAINERS WILL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. THE EXCESS WILL BE DISPOSED

OF PER THE MANUFACTURER'S INSTRUCTIONS AND APPLICABLE STATE AND LOCAL REGULATIONS.

12.3.4. CONCRETE TRUCKS: CONTRACTORS WILL PROVIDE DESIGNATED TRUCK WASHOUT AREAS ON THE SITE. THESE AREAS MUST BE SELF CONTAINED AND NOT CONNECTED TO ANY STORMWATER OUTLET OF THE SITE, AND PROPERLY SIGNED. UPON COMPLETION OF CONSTRUCTION WASHOUT AREAS WILL BE PROPERLY STABILIZED.

12.4. SPILL MANAGEMENT

IN ADDITION TO THE PREVIOUS HOUSEKEEPING AND MANAGEMENT PRACTICES, THE FOLLOWING PRACTICES WILL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP IF NECESSARY:

12.4.1. ALL ONSITE VEHICLES SHALL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTATIVE MAINTENANCE TO REDUCE THE CHANGE OF LEAKAGE AND SPILLS.

12.4.2. FOR ALL HAZARDOUS MATERIALS STORED ON SITE, THE MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEAN UP WILL BE CLEARLY POSTED. SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATIONS OF THE INFORMATION AND CLEANUP SUPPLIES.

12.4.3. APPROPRIATE CLEANUP MATERIALS AND EQUIPMENT WILL BE MAINTAINED BY THE CONTRACTOR IN THE MATERIALS STORAGE AREA ON-SITE AND UNDER COVER. SPILL RESPONSE EQUIPMENT SHALL BE INSPECTED AND MAINTAINED BY THE CONTRACTOR AS NECESSARY TO REPLACE ANY MATERIALS USED IN SPILL RESPONSE ACTIVITIES.

12.4.4. ALL SPILLS SHALL BE CLEANED IMMEDIATELY AFTER DISCOVERY AND THE MATERIALS DISPOSED OF PROPERLY. THE SPILL AREA WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.

12.4.5. THE CONTRACTOR'S RESPONSIBLE PARTY WILL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT THE SITE SUPERINTENDENT HAS HAD APPROPRIATE TRAINING FOR HAZARDOUS MATERIALS HANDLING, SPILL MANAGEMENT, AND CLEANUP.

12.4.6. IF SPILLS REPRESENT AN IMMINENT THREAT OF ESCAPING THE SITE AND ENTERING RECEIVING WATERS, PERSONNEL WILL RESPOND IMMEDIATELY TO CONTAIN THE RELEASE AND NOTIFY THE SUPERINTENDENT AFTER THE SITUATION HAS BEEN STABILIZED.

12.4.7. IF AN OIL SHEEN IS OBSERVED ON SURFACE WATER (E.G. SETTLING PONDS, DETENTION PONDS, SWALES), ACTION WILL BE TAKEN IMMEDIATELY TO REMOVE THE MATERIAL CAUSING THE SHEEN. THE CONTRACTOR WILL USE APPROPRIATE MATERIALS TO CONTAIN AND ABSORB THE SPILL. THE SOURCE OF THE OIL SHEEN WILL ALSO BE IDENTIFIED AND REMOVED OR REPAIRED AS NECESSARY TO PREVENT FURTHER RELEASES.

12.4.8. IF A SPILL OCCURS THE CONTRACTOR'S RESPONSIBLE PARTY SHALL BE RESPONSIBLE FOR COMPLETING THE SPILL REPORTING FORM AND FOR REPORTING THE SPILL TO THE TDOT PROJECT RESPONSIBLE PARTY. 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.

12.5. SPILL NOTIFICATION (6.1)

WHERE A RELEASE CONTAINING A HAZARDOUS SUBSTANCE IN AN AMOUNT EQUAL TO, OR MORE THAN A REPORTABLE QUANTITY ESTABLISHED UNDER EITHER 40 CFR 117 OR 40 CFR 302 OCCURS DURING A 24 HOUR PERIOD:

12.5.1. THE TDOT PROJECT ENGINEER IS RESPONSIBLE FOR NOTIFYING THE REGIONAL PROJECT DEVELOPMENT OFFICE (E.G. TRANSPORTATION ENVIRONMENTAL STUDIES SPECIALIST) AS SOON AS HE OR SHE HAS KNOWLEDGE OF THE DISCHARGE.

12.5.2. THE TDOT REGIONAL PROJECT DEVELOPMENT OFFICE WILL NOTIFY THE LOCAL TDEC ENVIRONMENTAL FIELD OFFICE AND ANY OTHER APPLICABLE REGULATORY AGENCIES WITHIN 24 HOURS OF THE SPILL.

12.5.3. IN ADDITION TO ANY FOLLOW UP NOTIFICATIONS REQUIRED BY FEDERAL LAW, A WRITTEN DESCRIPTION OF THE RELEASE, DATE OF RELEASE AND CIRCUMSTANCES LEADING TO THE RELEASE,



WHAT ACTIONS WERE TAKEN TO MITIGATE EFFECTS OF THE RELEASE, AND STEPS TAKEN TO MINIMIZE THE CHANCE OF FUTURE OCCURRENCES WILL BE SUBMITTED TO THE APPROPRIATE TDEC ENVIRONMENTAL FIELD OFFICE WITHIN 2 WEEKS OF KNOWLEDGE OF THE RELEASE.

- 12.5.4. THE SWPPP MUST BE MODIFIED WITHIN 2 WEEKS OF KNOWLEDGE OF THE RELEASE PROVIDING A DESCRIPTION OF THE RELEASE, CIRCUMSTANCES LEADING TO THE RELEASE, AND THE DATE OF RELEASE. THE SWPPP WILL BE REVIEWED AND MODIFIED AS NECESSARY TO IDENTIFY MEASURES TO PREVENT THE REOCCURRENCE OF SUCH RELEASES AND TO RESPOND TO SUCH RELEASES.

13. RECORD-KEEPING

13.1. REQUIRED RECORDS

TDOT OR THEIR DULY AUTHORIZED REPRESENTATIVE WILL MAINTAIN AT THE SITE THE FOLLOWING RECORDS OF CONSTRUCTION ACTIVITIES (7.2.1.) (7.2.1.):

13.1.1. THE DATES WHEN MAJOR GRADING ACTIVITIES OCCUR.

13.1.2. THE DATES WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE.

13.1.3. THE DATES WHEN STABILIZATION MEASURES ARE INITIATED.

13.1.4. RECORDS EPSC INSPECTION REPORTS AND CORRECTIVE MEASURES.

13.1.5. RECORDS OF QUALITY ASSURANCE SITE ASSESSMENTS.

13.1.6. COPY OF SITE EPSC INSPECTOR'S CERTIFICATION AND/OR LICENSING

13.1.7. A COPY OF ANY REGULATORY CORRESPONDENCE REGARDING THE EFFECTIVENESS OF THE SWPPP OR EPSC CONTROLS.

13.2. RAINFALL MONITORING PLAN (7.2.1.):

13.2.1. EQUIPMENT

AT A MINIMUM, THE CONTRACTOR WILL INSTALL A FENCE POST TYPE RAIN GAUGE TO MEASURE RAINFALL. THE STANDARD FENCE POST RAIN GAUGE WILL BE A WEDGE-SHAPED GAUGE THAT MEASURES UP TO 6 INCHES OF RAINFALL. AN ENGLISH SCALE WILL BE PROVIDED ON ONE FACE, WITH A METRIC SCALE ON THE OTHER FACE. GRADUATION WILL BE PERMANENTLY MOLDED IN DURABLE WEATHER-RESISTANT PLASTIC. THE MINIMUM GRADUATION WILL BE 0.01 INCH (OR 0.1MM). AN ALUMINUM BRACKET WITH SCREWS MAY BE USED TO MOUNT THE GAUGE ON A WOODEN SUPPORT.

13.2.2. LOCATION

THE RAIN GAUGE WILL BE LOCATED AT OR ALONG THE PROJECT SITE, AS DEFINED IN THE NOI OF THE NPDES PERMIT, IN AN OPEN AREA SUCH THAT THE MEASUREMENT WILL NOT BE INFLUENCED BY OUTSIDE FACTORS (I.E. OVERHANGS, GUTTER, TREES, ETC.). AT LEAST ONE RAIN GAUGE PER LINEAR MILE IS REQUIRED ALONG (AS MEASURED ALONG THE CENTERLINE OF THE PRIMARY ALIGNMENT) THE PROJECT WHERE CLEARING, GRUBBING, EXCAVATION, GRADING, CUTTING OR FILLING IS ACTIVELY PERFORMED, OR EXPOSED SOIL HAS NOT YET BEEN PERMANENTLY STABILIZED.

13.2.3. METHODS

RAINFALL MONITORING WILL BE INITIATED PRIOR TO CLEARING, GRUBBING, EXCAVATION, GRADING, CUTTING, OR FILLING, EXCEPT AS SUCH MINIMAL CLEARING MAY BE NECESSARY TO INSTALL A RAIN GAUGE IN AN OPEN AREA. THE RAIN GAUGE WILL BE CHECKED FOR OPERATIONAL SOUNDNESS DAILY (DURING NORMAL BUSINESS HOURS) IN WET TIMES AND WEEKLY IN DRY TIMES. GAUGES WILL BE REPAIRED OR REPLACED ON THE SAME DAY IF FOUND TO BE NON-OPERATIONAL OR MISSING.

- 13.2.4. EACH RAIN GAUGE WILL BE READ (FOR DETAILED RECORDS OF RAINFALL) AND EMPTIED AFTER EVERY RAINFALL EVENT OCCURRING ON THE PROJECT SITE AT APPROXIMATELY THE SAME TIME OF THE DAY (DURING NORMAL BUSINESS HOURS). DURING PERIODS OF DRY CONDITIONS, IT WILL NOT BE NECESSARY TO READ THE RAIN GAUGE EVERY DAY. IN LIEU OF THIS REQUIREMENT ON WEEKENDS AND ON STATE HOLIDAYS, THE RAIN GAUGES CAN BE EMPTIED THE NEXT BUSINESS DAY AND A REFERENCE SITE USED FOR A RECORD OF DAILY AMOUNT OF PRECIPITATION FOR THOSE DAYS. A REFERENCE SITE IS THE DOCUMENTATION FROM THE CLOSEST GAUGE WITHIN PROXIMITY

OF THE PROJECT FROM A RECOGNIZED SOURCE SUCH AS THE NOAA NATIONAL WEATHER SERVICE.

- 13.2.5. DETAILED RECORDS WILL BE RECORDED OF RAINFALL EVENTS INCLUDE DATES, AMOUNTS OF RAINFALL, AND THE APPROXIMATE DURATION (OR THE STARTING AND ENDING TIMES). THE RAINFALL RECORDS SHALL BE RECORDED ON THE TDOT RAINFALL RECORD SHEET AND SHALL BE MAINTAINED IN THE "DOCUMENTATION AND PERMITS" BINDER.

- 13.2.6. IF THE RAINFALL EVENT IS STILL IN PROGRESS AT THE DAILY RECORDING TIME, THE GAUGE WILL BE EMPTIED AND THE RECORD WILL INDICATE THAT THE STORM EVENT WAS STILL IN PROGRESS.

- 13.2.7. RAIN GAUGE INFORMATION (DETAILED RECORDS), INCLUDING THE LOCATION OF THE NEAREST OUTFALL, WILL BE RECORDED ON THE EPSC INSPECTION REPORT FORMS AT THE TIME OF MEASUREMENT.

13.3. KEEPING PLANS CURRENT (5.4.)

- 13.3.1. THE EPSC PLAN IS TO SERVE AS AN INITIAL GUIDE FOR SITE PERSONNEL AS THE CONSTRUCTION PROCESS DEVELOPS. IT MUST BE AMENDED, MODIFIED, AND UPDATED WHENEVER EPSC INSPECTIONS INDICATE, OR WHERE STATE OR FEDERAL REGULATORY 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 STORMWATER DISCHARGES ASSOCIATED WITH THE CONSTRUCTION ACTIVITY.

- 13.3.2. THE STAGES DEPICTED WITHIN THE EPSC PLANS MAY NOT COINCIDE WITH THE ACTUAL STAGES OF CONSTRUCTION ESTABLISHED BY THE CONTRACTOR DURING CONSTRUCTION, THUS MODIFICATIONS WILL BE REQUIRED TO ENSURE THE EPSC PLAN IS MAINTAINED TO DEPICT CURRENT SITE CONDITIONS. IT SHOULD BE MAINTAINED SUCH THAT IT WILL ALWAYS REFLECT THE MEASURES THAT ARE INSTALLED DURING THE VARIOUS STAGES OF CONSTRUCTION. IT IS IMPRACTICAL TO DETERMINE ALL THE INTERMEDIATE STAGES OF CONSTRUCTION THAT WILL OCCUR, THUS THESE DOCUMENTS MUST BE UPDATED THROUGHOUT THE LIFE OF THE CONSTRUCTION PROJECT.

- 13.3.3. THE TDOT EPSC INSPECTOR OR THEIR DULY AUTHORIZED REPRESENTATIVE WILL MODIFY AND UPDATE THE SWPPP WHEN ANY OF THE FOLLOWING CONDITIONS APPLY:

- 13.3.3.1. WHENEVER THERE IS A CHANGE IN THE SCOPE OF THE PROJECT THAT WOULD BE EXPECTED TO HAVE A SIGNIFICANT EFFECT ON THE DISCHARGE OF POLLUTANTS TO THE WATERS OF THE STATE AND WHICH HAS NOT OTHERWISE BEEN ADDRESSED IN THE SWPPP;

- 13.3.3.2. WHENEVER INSPECTIONS OR INVESTIGATIONS BY SITE OPERATORS, LOCAL, STATE, OR FEDERAL OFFICIALS INDICATE THE SWPPP IS PROVING INEFFECTIVE IN ELIMINATING OR SIGNIFICANTLY MINIMIZING POLLUTANTS FROM CONSTRUCTION ACTIVITY SOURCES, OR IS OTHERWISE NOT ACHIEVING THE GENERAL OBJECTIVES OF CONTROLLING POLLUTANTS IN STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY; WHERE LOCAL, STATE, OR FEDERAL OFFICIALS DETERMINE THAT THE SWPPP IS INEFFECTIVE IN ELIMINATING OR SIGNIFICANTLY MINIMIZING POLLUTANT SOURCES, A COPY OF ANY CORRESPONDENCE TO THAT EFFECT MUST BE RETAINED IN THE SWPPP;

- 13.3.3.3. WHEN ANY NEW OPERATOR AND/OR SUB-OPERATOR IS ASSIGNED OR RELIEVED OF THEIR RESPONSIBILITY TO IMPLEMENT A PORTION OF THE SWPPP;

- 13.3.3.4. TO PREVENT A NEGATIVE IMPACT TO LEGALLY PROTECTED STATE OR FEDERALLY LISTED OR PROPOSED THREATENED OR ENDANGERED AQUATIC FAUNA;

- 13.3.3.5. WHEN THERE IS A CHANGE IN CHEMICAL TREATMENT METHODS INCLUDING: USE OF DIFFERENT TREATMENT CHEMICALS, DIFFERENT DOSAGE OR APPLICATION RATES OR A DIFFERENT AREA OF APPLICATION NOT SPECIFIED ON THE EPSC PLANS.

- 13.3.3.6. ALL SWPPP REVISION(S) SHALL BE RECORDED WITHIN 1 WEEK BY THE PROJECT EPSC INSPECTOR.

- 13.3.3.7. WHEN A TMDL IS DEVELOPED FOR THE RECEIVING WATERS FOR A POLLUTANT OF CONCERN (SILTATION

AND/OR HABITAT ALTERATION), CONSTRUCTION SHALL NOTIFY THE PERMITS SECTION FOR PROPER COORDINATION.

13.4. MAKING PLANS ACCESSIBLE

- 13.4.1. TDOT WILL RETAIN A COPY OF THIS SWPPP (INCLUDING A COPY OF THE "DOCUMENTATION AND PERMITS" BINDER AT THE CONSTRUCTION SITE (OR OTHER LOCATION ACCESSIBLE TO TDEC AND THE PUBLIC) FROM THE DATE CONSTRUCTION COMMENCES TO THE DATE OF PERMANENT STABILIZATION. TDOT WILL HAVE A COPY OF THE SWPPP AVAILABLE AT THE LOCATION WHERE WORK IS OCCURRING ON-SITE FOR THE USE OF OPERATORS AND THOSE IDENTIFIED AS HAVING RESPONSIBILITIES UNDER THE SWPPP WHENEVER THEY ARE ON THE CONSTRUCTION SITE (7.2.).

- 13.4.2. PRIOR TO THE INITIATION OF LAND DISTURBING ACTIVITIES AND UNTIL THE SITE HAS MET THE PERMANENT STABILIZATION CRITERIA, TDOT OR THEIR DULY AUTHORIZED REPRESENTATIVE WILL POST A NOTICE NEAR THE MAIN ENTRANCE OF THE CONSTRUCTION SITE WITH THE FOLLOWING INFORMATION (5.3.4.) (7.2.1.):

- 13.4.2.1. A COPY OF THE NOTICE OF COVERAGE (NOC) WITH THE NPDES PERMIT NUMBER FOR THE PROJECT;

- 13.4.2.2. THE INDIVIDUAL NAME, COMPANY NAME, E-MAIL ADDRESS (IF APPLICABLE) AND TELEPHONE NUMBER OF THE LOCAL PROJECT SITE OWNER AND OPERATOR CONTACT;

- 13.4.2.3. A BRIEF DESCRIPTION OF THE PROJECT; AND

- 13.4.2.4. THE LOCATION OF THE SWPPP.

- 13.4.3. ALL INFORMATION DESCRIBED IN SECTION 13.4.2 MUST BE MAINTAINED IN LEGIBLE CONDITION. IF POSTING THIS INFORMATION NEAR A MAIN ENTRANCE IS INFESIBLE DUE TO SAFETY CONCERNS, THE NOTICE SHALL BE POSTED IN A LOCAL BUILDING. THE NOTICE MUST BE PLACED IN A PUBLICLY ACCESSIBLE LOCATION WHERE CONSTRUCTION IS ACTIVELY UNDERWAY AND MOVED AS NECESSARY.

13.5. NOTICE OF TERMINATION (9.0.)

- 13.5.1. WHEN ALL STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES THAT ARE AUTHORIZED BY THE PERMIT ARE ELIMINATED BY PERMANENT STABILIZATION, THE TDOT REGIONAL ENGINEER WILL SUBMIT A NOTICE OF TERMINATION (NOT) THAT IS SIGNED IN ACCORDANCE WITH THE PERMIT TO THE TDEC CENTRAL OFFICE IN NASHVILLE, TN.

- 13.5.2. FOR THE PURPOSES OF THE CERTIFICATION REQUIRED BY THE NOT, THE ELIMINATION OF STORMWATER DISCHARGES ASSOCIATED WITH THE CONSTRUCTION ACTIVITY MEANS THE

- 13.5.2.1. ALL EARTH-DISTURBING ACTIVITIES ON THE SITE ARE COMPLETED AND ALL DISTURBED SOILS AT THE PORTION OF THE CONSTRUCTION SITE WHERE THE OPERATOR HAD CONTROL HAVE BEEN PERMANENTLY STABILIZED; AND

- 13.5.2.2. ALL CONSTRUCTION MATERIALS, WASTE AND WASTE HANDLING DEVICES, AND ALL EQUIPMENT, AND VEHICLES THAT WERE USED DURING CONSTRUCTION HAVE BEEN REMOVED AND PROPERLY DISPOSED; AND

- 13.5.2.3. ALL STORMWATER CONTROLS THAT WERE INSTALLED AND MAINTAINED DURING CONSTRUCTION, EXCEPT THOSE THAT ARE INTENDED FOR LONG-TERM USE FOLLOWING TERMINATION OF PERMIT COVERAGE, HAVE BEEN REMOVED; AND

- 13.5.2.4. ALL POTENTIAL POLLUTANTS AND POLLUTANT GENERATING ACTIVITIES ASSOCIATED WITH CONSTRUCTION HAVE BEEN REMOVED; AND

- 13.5.2.5. THE PERMITTEE HAS IDENTIFIED WHO IS RESPONSIBLE FOR ONGOING MAINTENANCE OF ANY STORMWATER CONTROLS LEFT ON THE SITE FOR LONG-TERM USE FOLLOWING TERMINATION OF PERMIT COVERAGE; AND

- 13.5.2.6. TEMPORARY EPSC MEASURES HAVE BEEN OR WILL BE REMOVED AT AN APPROPRIATE TIME TO ENSURE PERMANENT STABILIZATION IS MAINTAINED; AND

- 13.5.2.7. ALL STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES FROM THE IDENTIFIED SITE THAT ARE AUTHORIZED BY A NPDES GENERAL PERMIT



HAVE OTHERWISE BEEN ELIMINATED FROM THE PORTION OF THE CONSTRUCTION SITE WHERE THE OPERATOR HAD CONTROL.

13.6. RETENTION OF RECORDS (7.1.)

TDOT WILL RETAIN COPIES OF THE SWPPP, ALL REPORTS REQUIRED BY THE PERMIT, AND RECORDS OF ALL DATA USED TO COMPLETE THE NOTICE OF INTENT FOR THE PROJECT FOR A PERIOD OF AT LEAST THREE (3) YEARS FROM THE DATE THE NOT WAS FILED.

14. SITE WIDE/PRIMARY PERMITTEE CERTIFICATION (8.7.5.)

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED BY ME, OR UNDER MY DIRECTION OR SUPERVISION. THE SUBMITTED INFORMATION IS TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT. AS SPECIFIED IN TENNESSEE CODE ANNOTATED SECTION 39-16-702(a)(4), THIS DECLARATION IS MADE UNDER PENALTY OF PERJURY.

Scott Medlin  
Digitally signed by Scott Medlin  
Date: 2024.01.17 14:13:34 -05'00'

AUTHORIZED TDOT PERSONNEL SIGNATURE (5.3.3.)

E. SCOTT MEDLIN

PRINTED NAME

MANAGER

TITLE

17 JAN 2024

DATE

15. SECONDARY PERMITTEE (OPERATOR) CERTIFICATION (8.7.6.)

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE REVIEWED THIS DOCUMENT, ANY ATTACHMENTS, AND THE SWPPP REFERENCED ABOVE. BASED ON MY INQUIRY OF THE CONSTRUCTION SITE OWNER/DEVELOPER IDENTIFIED ABOVE AND/OR MY INQUIRY OF THE PERSON DIRECTLY RESPONSIBLE FOR ASSEMBLING THIS NOI AND SWPPP, I BELIEVE THE INFORMATION SUBMITTED IS ACCURATE. I AM AWARE THAT THIS NOI, IF APPROVED, MAKES THE ABOVE-DESCRIBED CONSTRUCTION ACTIVITY SUBJECT TO NPDES PERMIT NUMBER TNR100000, AND THAT CERTAIN OF MY ACTIVITIES ONSITE ARE THEREBY REGULATED. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS, AND FOR FAILURE TO COMPLY WITH THESE PERMIT REQUIREMENTS. AS SPECIFIED IN TENNESSEE CODE ANNOTATED SECTION 39-16-702(a)(4), THIS DECLARATION IS MADE UNDER PENALTY OF PERJURY.

AUTHORIZED CONTRACTOR PERSONNEL SIGNATURE (5.3.3.)

PRINTED NAME

TITLE

DATE

16. ENVIRONMENTAL PERMITS (1.5.2.)

LIST ALL ENVIRONMENTAL PERMITS AND EXPIRATION DATES FOR PROJECT (TO BE COMPLETED AT THE ENVIRONMENTAL PRECONSTRUCTION MEETING BY TDOT CONSTRUCTION OR THEIR DULY AUTHORIZED REPRESENTATIVE):

| ENVIRONMENTAL PERMITS      |           |                        |                  |
|----------------------------|-----------|------------------------|------------------|
| PERMIT                     | YES OR NO | PERMIT OR TRACKING NO. | EXPIRATION DATE* |
| TDEC ARAP                  |           |                        |                  |
| CORPS OF ENGINEERS (USACE) |           |                        |                  |
| TVA 26A                    |           |                        |                  |
| TDEC CGP                   |           |                        |                  |
| OTHER:                     |           |                        |                  |

\*THE TDOT ENVIRONMENTAL DIVISION MUST BE NOTIFIED SIX MONTHS PRIOR TO PERMIT EXPIRATION DATE.





12/18/2024 7:44:37 AM  
M:\Reg 2 ROW Utilities\Relocation Projects\CUMBERLAND\131702.00 SR-298 Structure Repair LM 8.5\Microstation Files\U1-1 NoCost SR298 SM STRUCT.dgn

| Index Of Sheets  |              |
|--|--------------|
| SHEET NAME   | SHEET NUMBER |
| UTILITIES INDEX, UTILITIES OWNERS,<br>GENERAL NOTES AND UTILITY SHEETS | U1-1 TO U1-2 |

STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION  
BUREAU OF ENGINEERING

CUMBERLAND COUNTY

SMALL STRUCTURE REPAIR SR-298 (GENESIS ROAD) L.M. 8.5

UTILITY OWNERS AND CONTACTS:

|   |  |
|---|--|
| <div>ELECTRIC:</div> <div>VOLUNTEER ELECTRIC COOPERATIVE<br/>P.O.BOX 277<br/>DECATURE, TN 37322</div> <div>MR. LARRY LARGENT<br/>LLARGENT@VEC.ORG<br/>865-850-7830</div>        | <div>TELEPHONE/FIBER:</div> <div>BEN LOMAND CONNECT/VOL FIRST<br/>P.O.BOX 670<br/>MCMINNVILLE, TN 37111</div> <div>MR. RICHARD BOYD<br/>RICHARDBOYD@BENLOMAND.NET<br/>(931) 235-7515</div> |
| <div>TELEPHONE:</div> <div>FRONTIER COMMUNICATIONS<br/>2104 WEST EMORY ROAD<br/>POWELL, TN 37849</div> <div>MR. JIM HEATHERLY<br/>JIMHEATHERLY@MSN.COM<br/>(865) 236-5083</div> |  |
|   |  |

| TYPE | YEAR | PROJECT NO.   | SHEET NO. |
|------|------|---------------|-----------|
| PS&E | 2025 | 18S298-M3-002 | U1-1      |
|      |      | PIN 131702.00 |           |
|      |      | _____         |           |
|      |      |               |           |

SPECIAL NOTES

UTILITIES ARE MOVING AT NO  
COST TO THE STATE.

LOCATIONS ARE APPROXIMATE  
AND FOR REFERENCE  
ONLY

SEALED BY

STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

UTILITY  
REFERENCE

| TYPE  | YEAR | PROJECT NO.   | SHEET NO. |
|-------|------|---------------|-----------|
| PS&E  | 2025 | 18S298-M3-002 | U1 - 2    |
| ----- | ---- | PIN 131702.00 | -----     |
| ----- | ---- | -----         | -----     |
| ----- | ---- | -----         | -----     |

END PROJ. NO. 18S298-M3-002 R.O.W. CONST.  
END PROJECT 18S298-M1-002 R.O.W. (UTILITIES ONLY)

STA. 18+78.46  
N 628287.8441 E 2273929.0911

UTILITIES ARE MOVING AT  
NO COST TO THE STATE.

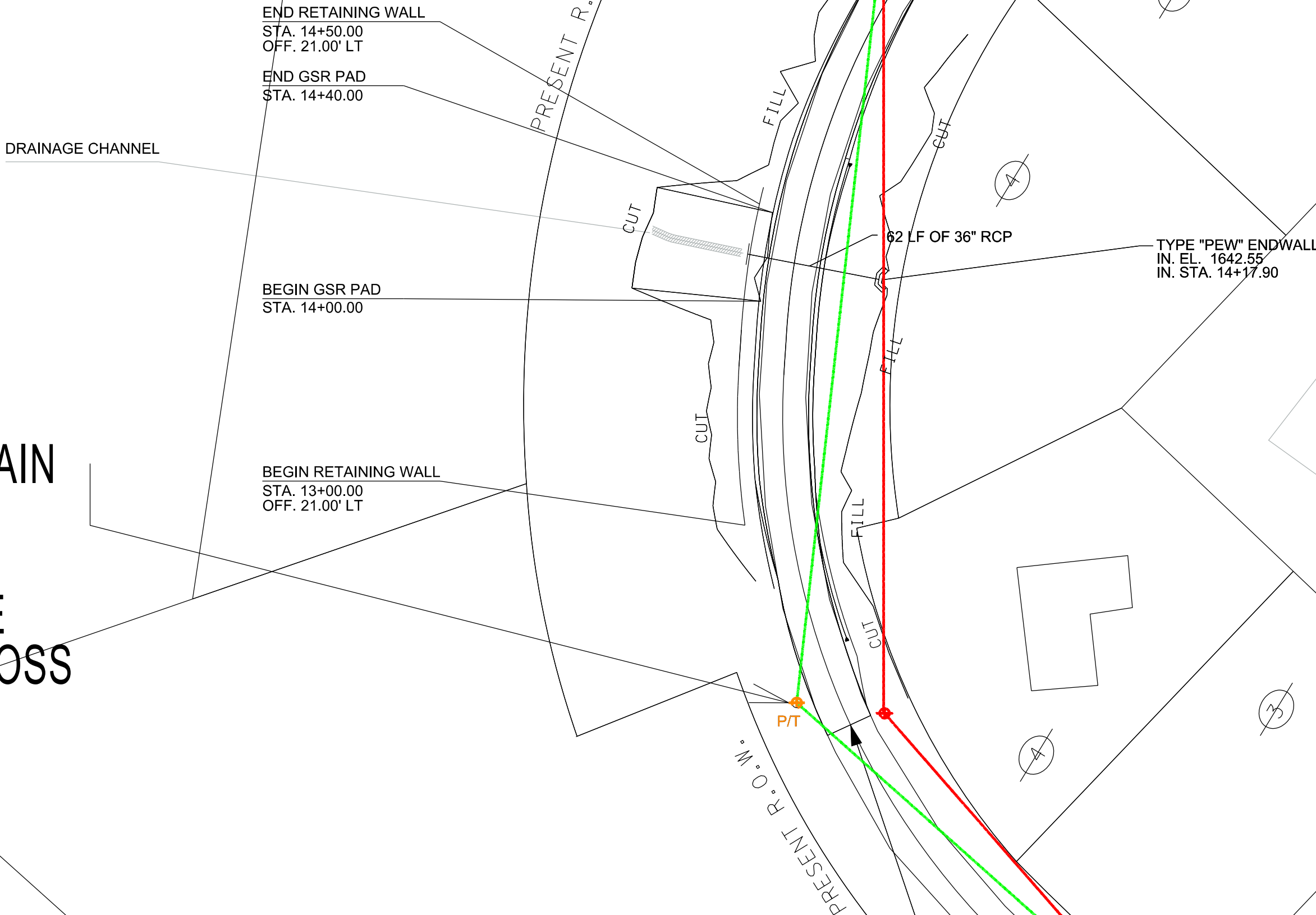
LOCATIONS ARE APPROXIMATE  
AND FOR REFERENCE ONLY.

LEGEND

- ALIGNMENT OF NEW FACILITIES
- EXISTING TO REMAIN
- ALIGNMENT TO BE REMOVED

EXISTING POLE TO REMAIN  
DURING PROJECT.  
UTILITY COMPANY WILL  
PLACE A NEW GUY WIRE  
TO SUPPORT POLE ACROSS  
THE STATE ROUTE  
UPON PROJECT  
COMPLETION.

BEGIN PROJ. NO. 18S298-M3-002 CONST.  
BEGIN PROJECT 18S298-M1-002 R.O.W. (UTILITIES ONLY)  
STA. 12+00.00  
N 627775.1685 E 2273647.8656



SEALED BY

COORDINATES ARE NAD 83(X), ARE DATUM ADJUSTED BY THE FACTOR OF 1.000 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WITH GEOID 12B.

STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

UTILITY  
REFERENCE

STA.12+00.00 TO STA.18+78.46  
SCALE: 1"=50'