THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Cains, Joseph

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JOSEPH CAINS III
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 124729
STATE OF TENNESSEE

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STANTEC CONSULTING SERVICES, INC.
1200 BRICKYARD LN SUITE 400
BATON ROUGE, LA 70802
JOSEPH CAINS III, P.E. NO.124729

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
STANDARD ROADWAY DRAWINGS	1A1, 1A2
STANDARD STRUCTURE AND TRAFFIC DESIGN DRAWINGS	1A3
PROJECT COMMITMENTS	1B
ESTIMATED ROADWAY QUANTITIES	2, 2-1
TYPICAL SECTIONS AND PAVEMENT SCHEDULE	2B
TYPICAL SECTIONS	2B1 – 2B5
GENERAL NOTES	2C, 2C1
SPECIAL NOTES	2D
ENVIRONMENTAL NOTES	2E
TABULATED QUANTITIES	2F, 2F1 – 2F4
CONTROL POINTS TABLE	2G
DETAIL SHEETS	2G1
RIGHT-OF-WAY NOTES, UTILITY NOTES AND UTILITY OWNERS	3
RIGHT-OF-WAY ACQUISITION TABLE(S)	3A
PROPERTY MAP(S)	3B – 3F
PRESENT LAYOUT(S)	4 – 11
RIGHT-OF-WAY DETAILS	4A – 11A
PROPOSED LAYOUT(S)	4B – 11B
PROPOSED PROFILE(S)	4C – 11C
SIDE ROAD PROFILE(S)	12 – 13
HAUL ROAD PROFILE(S)	14
PRIVATE DRIVE, BUSINESS, AND FIELD ENTRANCE PROFILE(S)	15 – 19
DRAINAGE MAP(S)	20 – 29
CULVERT SECTION(S)	30 – 36
EROSION PREVENTION AND SEDIMENT CONTROL PLANS	37, 38, 39 – 41G
SIGNING AND PAVEMENT MARKING PLANS	42 – 49
SIGN SCHEDULE SHEET(S)	50 – 53
ROADWAY CROSS SECTIONS	54 – 97
SIDE ROAD CROSS SECTIONS	98 – 112
TRAFFIC CONTROL PLANS	T1–T6G

NOTE: THE ALPHABETICAL LETTERS “I”, “O”, AND “Q” ARE NOT USED IN THE NUMBERING OF SHEETS.

YEAR	PROJECT NO.	SHEET NO.
2026	STP/HPP-31(12)	ROADWAY-SIGN1

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNATURE SHEET

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING

HAWKINS COUNTY

SEE SHEET 1A FOR INDEX.

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

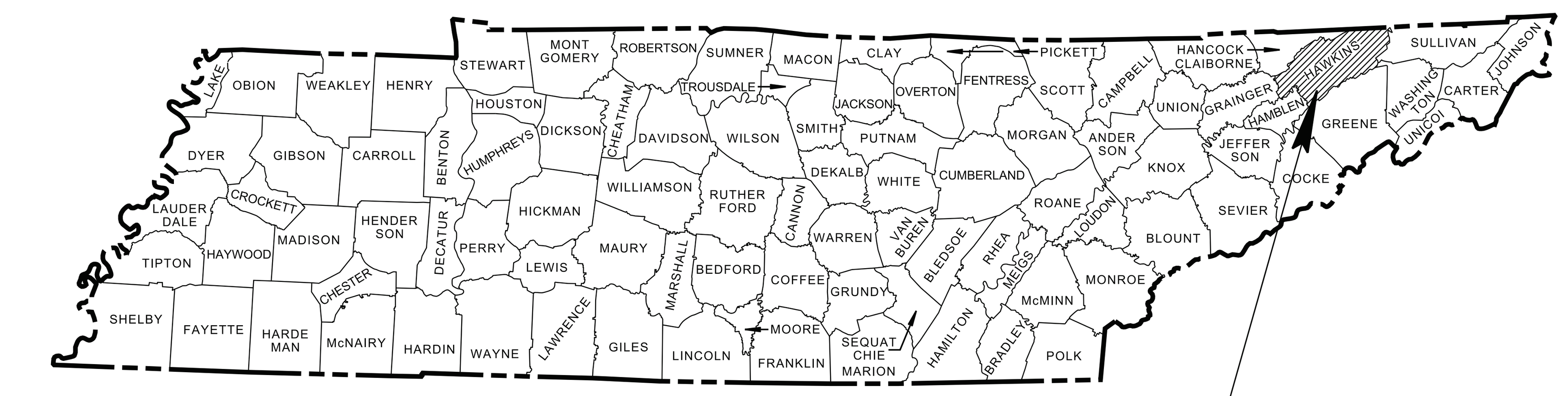
TENN.	YEAR	SHEET NO.
	2026	1
FED. AID PROJ. NO.	STP/HPP-31(12)	
STATE PROJ. NO.	37022-3219-14	

STATE ROUTE 31
FROM MOORESBURG TO ADAMS LANE (***) (IA) (TMA)
LOG MILE 0.100 TO 4.350
PS&E
(WIDENING,TURN LANE IMPROVEMENTS,
DRAINAGE & BRIDGE REPLACEMENT)

STATE HIGHWAY NO. 31 F.A.H.S. NO. 31

CONSTRUCTION LIMITS
PROJECT LENGTH

SECTION 1 STA. 10+70.93 TO STA. 47+37.30 = 3,666.37'
SECTION 2 STA. 69+52.87 TO STA. 82+05.49 = 1,252.62'
SECTION 3 STA. 219+07.50 TO STA. 241+00.00 = 2,192.50'
7,111.49



PROJECT LOCATION
MOORESBURG BRANCH BRIDGE ID. # 37-SR031-0001
POOR VALLEY CREEK BRIDGE ID. # 37-SR031-0007

EXCLUSIONS	
STATION TO STATION	LENGTH (FT.)
47+37.30 - 69+52.87	2215.57
82+05.49 - 219+07.50	13702.01
-	.
TOTAL=	15917.58

WIDE LOAD DETOUR WILL BE REQUIRED DURING CONSTRUCTION

37022-3219-14
END PROJECT NO. STP/HPP-31(12) CONST.
STA. 241+00.00
N 761848.1058 E 2787294.2856

37022-2219-14
END PROJECT NO. STP/HPP-31(12) R.O.W.
STA. 239+00.00
N 761718.6071 E 2787466.6997

37022-2219-14
BEGIN PROJECT NO. STP/HPP-31(12) R.O.W.
STA. 16+93.84
N 743697.4666 E 2784867.9955

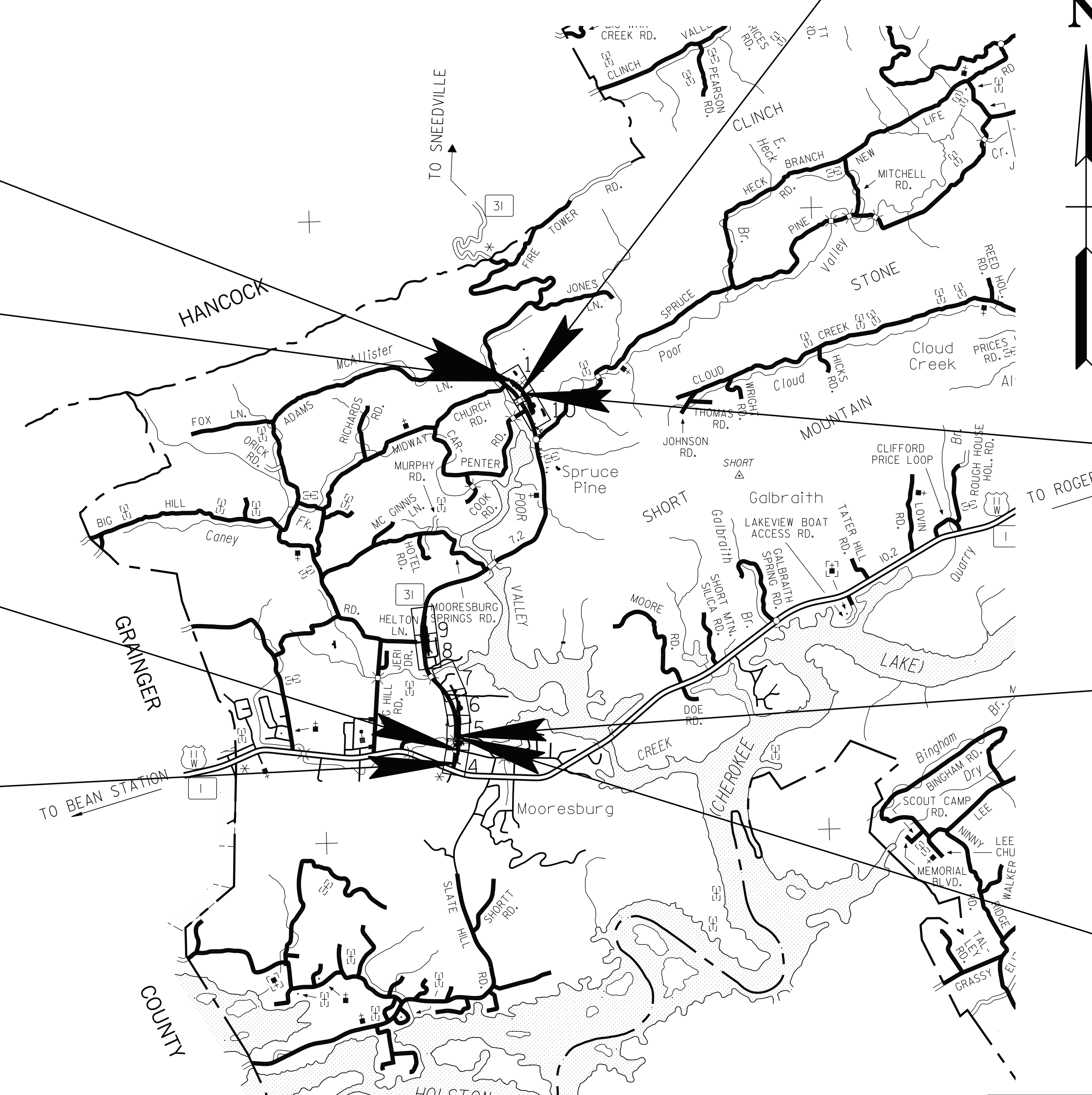
37022-3219-14
BEGIN PROJECT NO. STP/HPP-31(12) CONST.
STA. 10+70.93
N 743064.2419 E 2784761.1131

END BRIDGE
STA. 231+37.50

BEGIN BRIDGE
STA. 230+14.50

END SPAN BRIDGE
STA. 23+86.68

BEGIN SPAN BRIDGE
STA. 23+06.68



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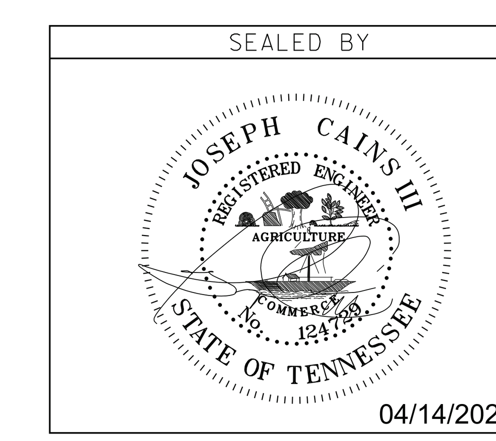

SPECIAL NOTES

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: TRACIE WIDNER
DESIGNED BY : STANTEC CONSULTING SERVICES, INC.
DESIGNER : JOSEPH CAINS III, P.E. CHECKED BY VEDA LOAHOM, P.E. (VEDA NGUYEN)
P.E. NO. 37022-1209-04 (DESIGN)
PIN NO. 101394.00

R.O.W. LENGTH	1.157 MILES
ROADWAY LENGTH	1.317 MILES
SPAN BRIDGE LENGTH	0.015 MILES
BRIDGE LENGTH	0.030 MILES
PROJECT LENGTH	1.470 MILES

SURVEY 09-2001	TRAFFIC DATA	
12-10-04 UPDATED	ADT (2026)	2890
06-10-11 UPDATED	ADT (2046)	3460
03-04-13 UPDATED	DHV (2046)	346
06-11-15 UPDATED	D	65 - 35
04-20-17 UPDATED	T (ADT)	3 %
08-23-24 UPDATED	T (DHV)	2 %
	V	45/ 55 MPH

COORDINATES ARE NAD 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.000084 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WIH GEOID 12B.

APPROVED:
SHANE HESTER, CHIEF ENGINEER

DATE:

APPROVED:
WILL REID, COMMISSIONER

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	1A
PS & E	2026	STP/HPP-31(12)	1A

PS & E INDEX OF SHEETS

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

STANDARD ROADWAY DRAWINGS

DWG.	REV.	DESCRIPTION
10-100.00 STANDARD ROADWAY TITLE SHEET, ABBREVIATIONS, AND LEGENDS		
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-3	03-01-23	STANDARD LEGEND FOR SIGNALIZATION AND LIGHTING
RD-L-4	10-01-24	STANDARD LEGEND FOR SIGNALIZATION AND LIGHTING
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
RD-L-8	02-20-20	STANDARD LEGEND FOR NATURAL STREAM DESIGN
10-101.00 STANDARDS ROADWAY DRAWINGS		
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-1	06-28-19	DESIGN STANDARDS FOR LOW-VOLUME ROADS
RD11-TS-1A	06-28-19	DESIGN STANDARDS FOR LOCAL ROADS AND STREETS
RD11-TS-2		DESIGN STANDARDS FOR COLLECTORS, 2-LANE ROADS AND STREETS
RD11-TS-3		DESIGN STANDARD FOR ARTERIAL HIGHWAYS (2-LANE)
RD11-TS-6		TYPICAL CURB & GUTTER SECTIONS WITH SHOULDERS AND WITH GRASS STRIPS
RD11-TS-6A		TYPICAL CURB & GUTTER SECTIONS WITHOUT SHOULDERS AND WITH GRASS STRIPS
RD11-TS-6B		TYPICAL CURB AND GUTTER SECTIONS WITH SHOULDERS AND WITHOUT GRASS STRIPS
RD11-TS-6C		TYPICAL CURB AND GUTTER SECTIONS WITHOUT SHOULDERS AND WITHOUT GRASS STRIPS
RD11-TS-7	07-17-20	DESIGN STANDARDS 2-LANE CURB & GUTTER WITH CONTINUOUS 2-WAY LEFT-TURN LANE WITHOUT GRASS STRIPS
RD11-TS-7A	07-17-20	DESIGN STANDARDS 2-LANE CURB & GUTTER WITH CONTINUOUS 2-WAY LEFT-TURN LANE WITH GRASS STRIPS
RD11-TS-7B	06-12-25	DESIGN STANDARDS 2-LANE HIGHWAYS WITH CONTINUOUS 2-WAY LEFT-TURN LANE
RD11-LR-1		MINIMUM RUNOFF LENGTHS (LR) FOR URBAN HIGHWAYS
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
RD11-SD-1		INTERSECTION SIGHT DISTANCE DESIGN AND GENERAL NOTES
RD11-SD-2		INTERSECTION SIGHT DISTANCE LANDSCAPE AND OBSTRUCTION
RD11-SD-3		INTERSECTION SIGHT DISTANCE 2-LANE ROADWAYS
RD-UD-3	01-09-24	UNDERDRAIN DETAILS
RD-UD-4	06-28-19	UNDERDRAIN LATERAL DETAILS
RD-UD-6	06-28-19	LATERAL UNDERDRAIN ENDWALL DETAIL FOR 1:1 & 2:1 SLOPES
RD-UD-7	06-28-19	LATERAL UNDERDRAIN ENDWALL DETAIL FOR 3:1 & 4:1 SLOPES
RD-UD-8	06-28-19	LATERAL UNDERDRAIN ENDWALL DETAIL FOR 5:1 SLOPES
RD-UD-9	06-28-19	LATERAL UNDERDRAIN ENDWALL DETAIL FOR 6:1 SLOPES
10-102.00 PIPE CULVERTS AND ENDWALLS		
D-FLU-2	07-07-23	BRIDGE END DRAIN FLUME DETAILS
D-FLU-2A	07-07-23	BRIDGE END DRAIN FLUME DETAILS
D-FLU-3	04-14-25	BRIDGE END DRAIN FLUME DETAILS
D-PB-1	03-01-23	STANDARD DETAILS FOR CONCRETE PIPE INSTALLATION
D-PB-2	03-01-23	STANDARD DETAILS FOR FLEXIBLE PIPE INSTALLATION
D-PB-3	11-30-20	INDUCED TRENCH SOIL EMBANKMENT FOR PIPE CULVERT INSTALLATION
D-PB-4	01-09-24	PIPE COLLAR DETAILS
D-PG-3	06-28-19	FERROUS AND ALUMINUM CORRUGATED METAL PIPE
D-PG-4	06-28-19	FERROUS AND ALUMINUM CORRUGATED METAL PIPE ARCHES
D-PO-1	06-28-19	STANDARD OVAL AND REINFORCED CONCRETE ARCH PIPE CULVERT
D-PS-1	06-28-19	STRUTTING DETAILS FOR CORR. METAL & STRUCTURAL PLATE ROUND PIPE
D-PE-4	06-28-19	STRAIGHT CONCRETE ENDWALLS (PIPE SIZES 18" TO 30")
D-PE-5	09-28-19	STRAIGHT CONCRETE ENDWALLS FOR HORIZONTAL OVAL CONCRETE PIPES (ALL SIZES AND SKEWS)
D-PE-15A	09-28-19	TYPE "U" CROSS DRAIN ENDWALL FOR 15" PIPE (FOR 3:1, 4:1 & 6:1 SLOPES)
D-PE-18A	06-28-19	TYPE "U" CROSS DRAIN ENDWALL FOR 18" PIPE (FOR 3:1, 4:1 & 6:1 SLOPES)
D-PE-18B	06-28-19	TYPE "U" CROSS DRAIN ENDWALL FOR 18" PIPE, BILL OF STEEL AND PRECAST NOTES
D-PE-24A	06-28-19	TYPE "U" CROSS DRAIN ENDWALL FOR 24" PIPE (FOR 3:1, 4:1 & 6:1 SLOPES)
D-PE-24B	06-28-19	TYPE "U" CROSS DRAIN ENDWALL FOR 24" PIPE, BILL OF STEEL AND PRECAST NOTES
D-PE-36A	06-28-19	TYPE "U" CROSS DRAIN ENDWALL FOR 36" PIPE WITH STEEL PIPE GRATE (FOR 3:1, 4:1 & 6:1 SLOPES)
D-PE-36B	06-28-19	TYPE "U" CROSS DRAIN ENDWALL FOR 36" PIPE, BILL OF STEEL AND PRECAST NOTES
D-PE-99	03-04-21	TYPE "U" CROSS DRAIN ENDWALL DETAILS, PIPE GRATE & SKEWED CONNECTION
D-PEW-1		PROTECTED ENDWALLS FOR ROUND & OVAL PIPES (PIPE SIZES 18" TO 72", ALL SKEWS, 2:1 & 3:1 SLOPES)

SEALED BY

JOSEPH CAINS III
STATE OF TENNESSEE

04/14/2026

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ROADWAY INDEX AND STANDARD ROADWAY DRAWINGS

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DWG.	REV.	DESCRIPTION
D-PEW-2		PROTECTED ENDWALLS FOR ROUND PIPES DETAILS & QUANTITIES (PIPE SIZES 18" TO 72", ALL SKEWS, 2:1 & 3:1 SLOPES)
D-PEW-3		PROTECTED ENDWALLS FOR OVAL PIPES DETAILS & QUANTITIES (EQU. PIPE SIZES 18" TO 72", ALL SKEWS, 2:1 & 3:1 SLOPES)
D-PEW-4		PROTECTED STRAIGHT ENDWALLS (PIPE SIZES 18" TO 30" & EQU. OVAL PIPES)
D-PEW-5		RIP-RAP END TREATMENT FOR CORRUGATED METAL PIPE, OVAL AND PIPE ARCH CULVERTS WITH BEVELED ENDS (PIPE SIZES 42" & LARGER)
D-SEW-1A	07-07-23	TYPE "SAFETY" SIDE ENDWALL WITH STEEL PIPE GRATE, FOR 15" THRU 48" PIPES, 6:1 SLOPE
D-SEW-12D	07-07-23	TYPE "SAFETY" SIDE DRAIN ENDWALL WITH STEEL PIPE GRATE, FOR 18" PIPE, 12:1 SLOPE
SD-MSE-1	06-28-19	SIDE DRAIN MITERED END SECTION

10-104.00 CATCH BASINS AND MANHOLES

DWG.	REV.	DESCRIPTION
D-CB-DI		ALTERNATE CATCH BASIN DROP INLET DETAILS
D-CB-10LPC	02-20-20	LOW PROFILE LOWERED CURB 32" X 26" RECTANGULAR CONCRETE NO. 10LPC CATCH BASIN
D-CB-10RA	01-28-22	STANDARD PRECAST 48" CIRCULAR NO. 10 CATCH BASIN FOR USE WITH 6" VERTICAL CURB
D-CB-10S	02-20-20	STANDARD RECTANGULAR CONCRETE N0. 10 CATCH BASIN
D-CB-10SB	02-20-20	STANDARD 4' X 4' SQUARE CONCRETE NO. 10 CATCH BASIN
D-CB-12LP	02-20-20	LOW PROFILE 32" X 32" SQUARE CONCRETE NO. 12LP CATCH BASIN FOR USE WITH 6" VERTICAL CURB
D-CB-12LPA		ALTERNATE REINFORCEMENT FOR PRECAST CONCRETE 32" X 32" NO. 12LP CATCH BASIN
D-CB-12P	02-20-20	STANDARD PRECAST RECTANGULAR CONCRETE NO.12 CATCH BASIN
D-CB-12RA	01-28-22	STANDARD PRECAST 48" CIRCULAR NO. 12 CATCH BASIN FOR USE WITH 6" VERTICAL CURB
D-CB-12RB	02-20-20	STANDARD PRECAST 60" AND 72" CIRCULAR NO. 12 CATCH BASIN FOR USE WITH 6" VERTICAL CURB
D-CB-12RC	02-20-20	STANDARD PRECAST 84" THRU 120" CIRCULAR NO. 12 CATCH BASIN FOR USE WITH 6" VERTICAL CURB
D-CB-12S	02-20-20	STANDARD RECTANGULAR CONCRETE NO. 12 CATCH BASIN
D-CB-12SB	02-20-20	STANDARD 4' X 4' SQUARE CONCRETE NO. 12 CATCH BASIN
D-CB-12SC	02-20-20	STANDARD 5' 2" X 5' 2" SQUARE CONCRETE NO. 12 CATCH BASIN
D-CB-12SD	02-20-20	STANDARD 7' X 7' SQUARE CONCRETE NO. 12 CATCH BASIN
D-CB-14P	02-20-20	STANDARD PRECAST RECTANGULAR CONCRETE NO. 14 CATCH BASIN
D-CB-14RB	02-20-20	STANDARD PRECAST CIRCULAR NO. 14RB CATCH BASIN
D-CB-14S	02-20-20	STANDARD RECTANGULAR CONCRETE NO. 14 CATCH BASIN
D-CB-25SD	02-20-20	STANDARD 7' X 7' SQUARE CONCRETE NO. 25 CATCH BASIN (FOR USE WITH 6" SLOPING CURB)
D-CB-38RB	03-04-21	STANDARD PRECAST CIRCULAR NO. 38 CATCH BASIN
D-CB-38S	03-04-21	STANDARD 32" X 32" SQUARE CONCRETE NO. 38 CATCH BASIN
D-CB-38SB	03-04-21	STANDARD 4' X 4' SQUARE CONCRETE NO. 38 CATCH BASIN
D-CB-38SC	03-04-21	STANDARD 5' 2" X 5' 2" SQUARE CONCRETE NO. 38 CATCH BASIN
D-CBB-12A	06-28-19	TYPE 'B' CAST IRON FRAME, GRATE & VERTICAL INLET DETAILS FOR NOS. 10, 12, 14, 16 & 17 TYPE CATCH BASINS
D-CBB-12B	06-28-19	TYPE 'B' CAST IRON FRAME, GRATE & 6" SLOPING INLET DETAILS FOR NOS. 25, 26 & 27 TYPE CATCH BASINS
D-CBB-12D	07-07-23	TYPE "B" CAST IRON FRAME, GRATE & CURB HOOD DETAILS FOR NOS. 12, 14, 16 & 17 TYPE CATCH BASINS
D-CBB-13	06-28-19	TYPE 'B' CAST IRON FRAME, GRATE & VERTICAL INLET DETAILS FOR NO. 13 TYPE CATCH BASINS
D-CBB-31	02-20-20	TYPE "B" CAST IRON FRAME, GRATE & INLET DETAILS FOR NOS. 31, 41, 45, 46, & 51 TYPE CATCH BASINS
D-CBB-42	10-29-21	CAST IRON GRATE DETAILS FOR NOS. 42, 43 & 44 TYPE CATCH BASINS
D-RL-1		ROUND LID DETAILS FOR SINGLE CURB AND WALL INLET
D-RL-2		ROUND LID DETAILS FOR DOUBLE CURB AND WALL INLET
D-RL-3		ROUND LID DETAILS FOR SINGLE OPENING AREA DRAIN
D-RL-4		ROUND LID DETAILS FOR DOUBLE OPENING AREA DRAIN
D-RS-1		PRECAST ROUND STRUCTURES (48" THRU 120")
D-RS-2		PRECAST ROUND STRUCTURES REINFORCEMENT DETAILS
D-RS-3		MISCELLANEOUS DETAILS FOR ROUND STRUCTURES
D-RJB-1		PRECAST ROUND JUNCTION BOX STRUCTURES (48" THRU 120")
D-MH-3	02-20-20	TYPICAL DESIGN OF LIDS FOR NO. 3 MANHOLE
D-MH-4	02-20-20	STANDARD NO. 3 MANHOLE CASTINGS AND STEPS
D-MH-5	02-20-20	STANDARD 5' 2" X 5' 2" SQUARE CONCRETE NO. 3 MANHOLE
D-MH-6	02-20-20	STANDARD 7' X 7' SQUARE CONCRETE NO. 3 MANHOLE
D-MH-7	02-20-20	STANDARD 9' X 9' SQUARE CONCRETE NO. 3 MANHOLE
D-RMH-1		PRECAST MANHOLE STRUCTURES (48" THRU 120")

10-106.00 ROADWAY, PAVEMENT APPURTENANCES, AND FENCES

DWG.	REV.	DESCRIPTION
RP-CS-3		CONCRETE SHOULDER MILLED RUMBLE STRIP DETAILS
RP-J-1	05-01-20	PORTLAND CEMENT CONCRETE PAVEMENT JOINT TYPES AND SPACING
RP-J-3	05-01-20	PORTLAND CEMENT CONCRETE PAVEMENT JOINT TYPES AND SPACING
RP-J-9	05-01-20	CONTRACTION AND CONSTRUCTION JOINTS FOR CONCRETE PAVEMENT
RP-J-11	05-01-20	3/4" AND 1 3/4" EXPANSION AND EDGE PAVEMENT JOINTS
RP-J-13	05-01-20	3/4" AND 1 3/4" ELASTOMERIC COMPRESSION JOINT SEALS
RP-J-15	05-01-20	LONGITUDINAL CONTRACTION AND CONSTRUCTION JOINTS
RP-J-17	05-01-20	DOWEL ASSEMBLY DEVICES
RP-J-18	01-28-22	DOWEL ASSEMBLY DEVICES
RP-J-19	05-01-20	DOWEL ASSEMBLY DEVICES
RP-J-23	01-28-22	CONCRETE PAVEMENT REPAIR DETAILS
RP-J-24	05-01-20	CONCRETE PAVEMENT SPALL AND RANDOM CRACK REPAIR DETAILS
RP-J-25	05-01-20	CONCRETE PAVEMENT JOINT REPAIR DETAILS
RP-D-15	04-01-25	DETAILS OF STANDARD CONCRETE DRIVEWAYS
RP-D-16	04-01-25	DETAILS OF LOWERED STANDARD CONCRETE DRIVEWAYS
RP-I-5	05-01-20	EXAMPLES OF STREET & ALLEY INTERSECTIONS
RP-R-1	04-21-25	STANDARD RAMP DETAILS FOR ROADWAYS AND DRIVEWAYS
RP-R-1A	04-21-25	STANDARD RAMP DETAILS FOR LOW VOLUME RURAL ROADWAYS
RP-SC-1	05-04-22	SLOPING CONCRETE CURB AND CURB AND GUTTER
RP-VC-10	03-04-21	VERTICAL CONCRETE CURB AND CURB AND GUTTER (FOR 8" TO 12" GUTTER DEPTH)
RP-VC-11	03-04-21	VERTICAL CONCRETE CURB AND CURB AND GUTTER (FOR 6" & 7" GUTTER DEPTH)
S-F-1	03-01-23	HIGH VISIBILITY FENCE
S-F-10	07-17-20	STANDARD RIGHT-OF-WAY STOCK FENCE
S-F-10A	06-28-19	STANDARD RIGHT-OF-WAY STOCK FENCE WITH TIMBER POSTS
S-F-10B	06-28-19	STANDARD RIGHT-OF-WAY CHAIN LINK FENCE
S-F-10C	06-28-19	RIGHT-OF-WAY FENCE AT BRIDGES AND BOX CULVERTS
S-FG-20	06-28-19	EXAMPLES OF WATER GATES AND WATER CROSSINGS
S-RP-2	06-28-19	STANDARD CONCRETE RIGHT-OF-WAY MARKERS
MM-BS-1		TYPICAL BUS STOP LOCATION

10-108.00 SAFETY DESIGN AND GUARDRAILS

DWG.	REV.	DESCRIPTION
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-PL-3	03-01-23	SAFETY PLAN MINIMUM INSTALLATION AT BRIDGE ENDS
S-PL-4	01-09-24	SAFETY PLAN FOR BRIDGE PIERS IN DEPRESSED MEDIAN
S-PL-4A	01-09-24	SAFETY PLAN TO FOR BRIDGE PIERS/ ABUTMENTS OUTSIDE THE SHOULDER
S-PL-5	06-28-19	SAFETY PLAN FOR BRIDGE ENDS IN MEDIANS
S-PL-6	07-30-24	SAFETY PLAN SAFETY HARDWARE PLACEMENT ON OUTSIDE EDGE
S-PL-6A	06-28-19	SAFETY PLAN SAFETY HARDWARE PLACEMENT IN MEDIAN
S-PL-7		SAFETY PLAN HARDWARE PLACEMENT AT INTERSECTIONS
S-CC-1	10-01-24	CRASH CUSHION
S-CC-2	06-28-19	CRASH CUSHION (GATING) BARREL ARRAY
S-GR31-1	10-31-25	GUARDRAIL DETAILS
S-GR31-1A	06-28-19	GUARDRAIL AND BLOCK-OUT DETAILS
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-GRC-4	10-31-25	GUARDRAIL CONNECTION TO BRIDGE RAILING CONCRETE PARAPET
S-GRC-5	10-31-25	GUARDRAIL CONNECTION TO BRIDGE ENDS (TRAILING ENDS)
S-GRC-6	10-31-25	GUARDRAIL CONNECTION TO BRIDGE ENDS FOR LOW-SPEED ROADWAYS

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	1A1
PS & E	2026	STP/HPP-31(12)	1A1

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JOSEPH CAINS III
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
STATE OF TENNESSEE

04/14/2026

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

STANDARD
ROADWAY
DRAWINGS

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	1A2
PS & E	2026	STP/HPP-31(12)	1A2

DWG.	REV.	DESCRIPTION
S-CPW-1		CURVED PARAPET WALL ≤ 40 M.P.H.
S-GRS-1	06-15-21	SPECIAL CASE LONG SPAN GUARDRAIL 1 POST, 2 OR 3 POSTS OMITTED
S-GRS-2	01-28-22	SPECIAL CASE GUARDRAIL ATTACHMENT TO CONCRETE DECKS
S-GRS-3	06-28-19	SPECIAL CASE GUARDRAIL FOOTING
S-GRS-4	05-04-22	SPECIAL CASE GUARDRAIL HEIGHT TRANSITION DETAIL
S-GRS-5		SPECIAL CASE WEAK-POST GUARDRAIL ATTACHMENT TO CULVERT
S-GRS-5A	06-15-21	WEAK-POST GUARDRAIL ASSEMBLY DETAILS FOR TYPE 1 & 2
S-GRS-5B		WEAK-POST GUARDRAIL ASSEMBLY DETAILS FOR TYPE 3 & 4
S-GRS-6	01-30-25	SPECIAL CASE FLEXIBITLTY ON GUARDRAIL POST INSTALLATIONS
S-GRS-7	01-09-24	SHORT RADIUS-GR SYSTEM (SRGS) CONNECTION TO BRIDGE END
S-GRS-7A	07-30-24	SHORT RADIUS-GUARDRAIL SYSTEM (SRGS) ANCHOR DETAILS
S-GRS-7B		SHORT RADIUS-GR SYSTEM (SRGS) EYE-BOLT SPACING DETAILS
S-GRS-8		SAFETY PLAN AT SIDEROADS OR DRIVEWAYS FOR LOW SPEED ROADWAYS
S-GRT-1	10-29-21	TYPE 12 GUARDRAIL TERMINAL BURIED-IN-BACKSLOPE
S-GRT-1A		LAYOUT OF FLARED GUARDRAIL (TL- 3)
S-GRT-1B		LAYOUT OF FLARED GUARDRAIL (TL- 2)
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
S-GRT-2R	06-28-19	EARTH PAD FOR TYPE 38 AND TYPE 21 TERMINAL (RETROFIT)
S-GRT-3	06-28-19	TYPE 21 GUARDRAIL END TERMINAL
S-GRT-4	01-30-25	TYPE 21 GATING END TERMINAL
S-GRT-4A		TYPE 21 GATING END TERMINAL ANCHOR DETAILS
S-GRT-4B		GATING TERMINAL POST & RAIL DETAILS
S-GRA-1	06-28-19	TYPE 12 GUARDRAIL ANCHOR
S-GRA-1A	06-28-19	GUARDRAIL ANCHOR FOR TYPE 12 TERMINAL (ALTERNATIVE)
S-GRA-3	01-09-24	TYPE 13 GUARDRAIL ANCHOR
S-GRA-4	03-01-23	IN-LINE GUARDRAIL ANCHOR TO PRIVATE DRIVE
S-GRA-5	06-28-19	FLARED GUARDRAIL ANCHOR

10-109.00 EROSION PREVENTION AND SEDIMENT CONTROL

DWG.	REV.	DESCRIPTION
EC-STR-1	08-01-12	DEWATERING STRUCTURE
EC-STR-2	08-01-12	SEDIMENT FILTER BAG
EC-STR-3B	06-15-21	SILT FENCE
EC-STR-3C	03-01-23	SILT FENCE WITH WIRE BACKING
EC-STR-3D	03-01-23	ENHANCED SILT FENCE
EC-STR-3E	04-01-08	SILT FENCE FABRIC JOINING DETAILS
EC-STR-4	07-30-24	ENHANCED SILT FENCE CHECK (TRAPEZOIDAL DITCH)
EC-STR-4A	07-30-24	ENHANCED SILT FENCE CHECK (V-DITCH)
EC-STR-4B	08-01-12	ENHANCED SILT FENCE CHECK DETAILS
EC-STR-6	11-30-20	ROCK CHECK DAM
EC-STR-6A	05-06-16	ENHANCED ROCK CHECK DAM
EC-STR-7	05-04-22	SEDIMENT TRAP WITH CHECK DAM
EC-STR-8	06-10-14	FILTER SOCK
EC-STR-11	03-16-17	CULVERT PROTECTION TYPE 1
EC-STR-11A	08-01-12	CULVERT PROTECTION TYPE 2
EC-STR-12	08-01-12	ROCK SEDIMENT DAM
EC-STR-13	08-01-12	ROCK AND EARTH SEDIMENT EMBANKMENT
EC-STR-15	08-01-12	SEDIMENT BASIN
EC-STR-16	08-01-12	SEDIMENT BASIN RISER AND COLLAR APPURTENANCES
EC-STR-17	08-01-12	SEDIMENT BASIN EMBANKMENT DETAILS
EC-STR-18		SEDIMENT BASIN FLOATING OUTLET STRUCTURE
EC-STR-19	04-01-08	CATCH BASIN PROTECTION
EC-STR-25	08-01-12	TEMPORARY CULVERT CROSSING, CONSTRUCTION EXIT, CONSTRUCTION FORD
EC-STR-27	08-01-12	TEMPORARY SLOPE DRAIN AND BERM
EC-STR-29	08-01-12	PERMANENT SLOPE DRAIN PIPE
EC-STR-31	05-04-22	TEMPORARY DIVERSION CHANNEL
EC-STR-32	08-01-12	TEMPORARY DIVERSION CULVERTS
EC-STR-33	08-01-12	SUSPENDED PIPE DIVERSION (DOWNSTREAM)
EC-STR-33A	01-20-06	SUSPENDED PIPE DIVERSION (UPSTREAM)
EC-STR-34	05-04-22	EROSION CONTROL BLANKET FOR SLOPE INSTALLATION
EC-STR-35	08-01-12	FILTER BERMS
EC-STR-36	05-04-22	TURF REINFORCEMENT MAT FOR CHANNEL INSTALLATION
EC-STR-37	06-10-14	SEDIMENT TUBE
EC-STR-38	08-01-12	FLOATING TURBIDITY CURTAIN
EC-STR-39	08-01-12	CURB INLET PROTECTION TYPE 1 & 2
EC-STR-39A	08-01-12	CURB INLET PROTECTION TYPE 3 & 4
EC-STR-40		CATCH BASIN FILTER ASSEMBLY FOR CIRCULAR STRUCTURES
EC-STR-41		CATCH BASIN FILTER ASSEMBLY (TYPE 1)
EC-STR-41A		CATCH BASIN FILTER ASSEMBLY (TYPE 1) SLIPCOVER DETAILS
EC-STR-42		CATCH BASIN FILTER ASSEMBLY (TYPE 2)
EC-STR-42A		CATCH BASIN FILTER ASSEMBLY (TYPE 2) SLIPCOVER DETAILS
EC-STR-43		CATCH BASIN FILTER ASSEMBLY (TYPE 3)
EC-STR-43A		CATCH BASIN FILTER ASSEMBLY (TYPE 3) SLIPCOVER DETAILS
EC-STR-44		CATCH BASIN FILTER ASSEMBLY (TYPE 4)
EC-STR-44A		CATCH BASIN FILTER ASSEMBLY (TYPE 4) SLIPCOVER DETAILS
EC-STR-45		CATCH BASIN FILTER ASSEMBLY (TYPE 5)
EC-STR-45A		CATCH BASIN FILTER ASSEMBLY (TYPE 5) SLIPCOVER DETAILS
EC-STR-46		CATCH BASIN FILTER ASSEMBLY (TYPE 6)
EC-STR-46A		CATCH BASIN FILTER ASSEMBLY (TYPE 6) SLIPCOVER DETAILS
EC-STR-47		CATCH BASIN FILTER ASSEMBLY (TYPE 7)
EC-STR-47A		CATCH BASIN FILTER ASSEMBLY (TYPE 7) SLIPCOVER DETAILS
EC-STR-48		CATCH BASIN FILTER ASSEMBLY (TYPE 8)
EC-STR-48A		CATCH BASIN FILTER ASSEMBLY (TYPE 8) SLIPCOVER DETAILS
EC-STR-49		CATCH BASIN FILTER ASSEMBLY (TYPE 9)
EC-STR-49A		CATCH BASIN FILTER ASSEMBLY (TYPE 9) SLIPCOVER DETAILS
EC-STR-50		CATCH BASIN FILTER ASSEMBLY (TYPE 10)
EC-STR-50A		CATCH BASIN FILTER ASSEMBLY (TYPE 10) SLIPCOVER DETAILS
EC-STR-51		CATCH BASIN FILTER ASSEMBLY (TYPE 11)
EC-STR-51A		CATCH BASIN FILTER ASSEMBLY (TYPE 11) SLIPCOVER DETAILS
EC-STR-55	08-01-12	GABION CHECK DAM
EC-STR-56	04-01-08	GABION CHECK DAM DESIGN TABLES
EC-STR-57	04-01-08	GABION ASSEMBLY DETAILS
EC-STR-58	04-01-08	GABION ASSEMBLY DETAILS
EC-STR-59	08-01-12	GABION CHECK DAM GENERAL NOTES AND COMPONENT PROPERTIES
EC-STR-61	03-16-17	LEVEL SPREADERS

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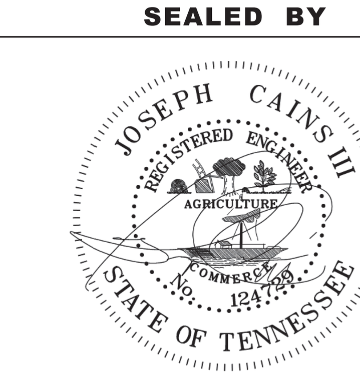

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

STANDARD ROADWAY DRAWINGS

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	1A4
PS & E	2026	STP/HPP-31(12)	1A3

STANDARD STRUCTURE AND TRAFFIC DESIGN DRAWINGS

STANDARD STRUCTURE DRAWINGS

10-300.00 NEW STRUCTURES

DWG.	REV.	DESCRIPTION
STD-1-1SS	07-09-25	BRIDGE RAILING CONCRETE PARAPET
STD-1-2SS	05-31-24	STEEL SLIDER PLATE ASSEMBLIES FOR SINGLE SLOPE CONCRETE PARAPET AND BRIDGE DECK DRAIN DETAILS
STD-1-5	06-05-23	REINFORCED CONCRETE PAVEMENT AT BRIDGE ENDS
STD-1-7	05-10-21	BRIDGE END DRAIN DETAILS 2' X 8'-7" & 4' X 8'-7" WITH PAVEMENT AT BRIDGE ENDS
STD-2-1	08-26-25	BRIDGE MOUNTED INTERCONNECTED PORTABLE BARRIER RAIL
STD-2-3	08-26-25	BRIDGE MOUNTED INTERCONNECTED PORTABLE BARIER RAIL ALTERNATE CONNECTION DETAIL
STD-4-1	04-08-05	STANDARD PRECAST PRESTRESSED BRIDGE DECK PANELS GENERAL DETAILS
STD-4-2	04-08-05	STANDARD PRECAST PRESTRESSED BRIDGE DECK PANELS DESIGN CRITERIA
STD-4-3	03-02-02	STANDARD PRECAST PRESTRESSED BRIDGE DECK PANELS GENERAL DETAILS
STD-4-4	06-10-96	STANDARD PRECAST PRESTRESSED BRIDGE DECK PANELS CONSTRUCTION DETAILS
STD-5-1		STANDARD PILE DETAILS
STD-6-1	12-08-23	STANDARD SEISMIC DETAILS
STD-8-4	02-26-25	SIGN, LUMINAIRE, AND TRAFFIC SIGNAL SUPPORTS
STD-8-6	10-03-18	TRI-STAR STATE EMBLEM FINISH DETAILS
STD-9-1	10-07-08	STANDARD REINFORCING BAR SUPPORT DETAILS FOR CONCRETE SLABS
STD-10-1	06-05-23	MISCELLANEOUS ABUTMENT AND DRAINAGE DETAILS
STD-10-2	06-05-23	MISC. ABUTMENT & PAVEMENT AT BRIDGE ENDS BACKFILL DETAILS
STD-14-2	03-06-24	STANDARD DETAILS AND INTERMEDIATE DIAPHRAGM DETAILS FOR I-BEAMS
STD-14-3	03-06-24	STANDARD DETAILS FOR PRESTRESSED BOX BEAMS

10-301.00 LRFD BOX CULVERTS

DWG.	REV.	DESCRIPTION
STD-17-1		INDEX OF DRAWINGS
STD-17-2		TERMINOLOGY OF DRAWINGS
STD-17-10		TYPICAL WINGWALL DETAILS AND NOTES
STD-17-11		WINGWALL DIMENSIONS AND QUANTITIES
STD-17-12		WINGWALL DIMENSIONS AND QUANTITIES
STD-17-13		WINGWALL DIMENSIONS AND QUANTITIES
STD-17-14		WINGWALL DIMENSIONS AND QUANTITIES
STD-17-15		WINGWALL AND SPECIAL RETAINING WALL DESIGN SECTIONS
STD-17-16		WINGWALL DESIGN SECTIONS
STD-17-17	06-01-11	BACKFILL AND DRAINAGE DETAILS
STD-17-18		BACKFILL DETAILS
STD-17-20		LOW FLOW CHANNEL CONSTRUCTION DETAILS FOR CULVERT INLET AND OUTLET
STD-17-21		DEBRIS DEFLECTION WALL FOR BOX BRIDGE
STD-17-26		EXTENSION DETAILS
STD-17-28		END SECTION DETAILS
STD-17-29		PRECAST BOX CULVERT DETAILS
STD-17-34		STANDARD INTERNAL ENERGY DISSIPATOR FOR BOX AND PIPE CULVERTS
STD-17-51	05-01-14	BOX BRIDGE, 1 BARREL AT 6', CLEAR HTS. 3' - 6', 0 - 60'
SBR-2-134	01-04-96	DETAILS SHOWING GUARDRAIL ATTACHMENT AT BRIDGE ENDS TO EXISTING CONCRETE VERTICAL FACE ENDPOST – 1989
SBR-2-144	01-22-02	STANDARD SHOWING DETAILS OF ATTACHING GUARDRAIL BRIDGERAIL TO TOP OF EXISTING CURBS – 1992

STANDARD TRAFFIC DESIGN DRAWINGS

10-200.00 SIGNS

DWG.	REV.	DESCRIPTION
T-S-6	07-30-25	STANDARD MOUNTING DETAILS - BOLTED EXTRUDED PANELS
T-S-9	07-30-25	STANDARD LAYOUT - GROUND MOUNTED SIGNS
T-S-10	07-30-25	STANDARD MOUNTING DETAILS FLAT SHEET SIGNS, ALUMINUM-STEEL DESIGN
T-S-12	07-30-25	STANDARD STEEL GROUND MOUNTED SIGNS, BREAK-AWAY TYPE POST FOOTING DETAILS, SQUARE TUBES
T-S-16	07-30-25	GROUND MOUNTED ROADSIDE SIGN PLACEMENT DETAILS
T-S-16A	07-02-15	GROUND MOUNTED ROADSIDE SIGN PLACEMENT DETAILS
T-S-17	07-30-25	STANDARD GROUND MOUNTED SIGN USING PERFORATED/KNOCKOUT SQUARE TUBE
T-S-18	07-30-25	END OF ROADWAY, DEAD END SIGNS, AND METAL BARRICADES (TYPE III)
T-S-19	07-30-25	STANDARD STEEL SIGN SUPPORTS
T-S-20	07-30-25	SIGN DETAILS
T-S-23A	07-30-25	MULTI-DIRECTIONAL SLIP BASE BREAKAWAY P-POST SIGN SUPPORT
T-S-23C	07-30-25	BREAKWAY POST SIGN SUPPORTS

10-201.00 SIGNALS

DWG.	REV.	DESCRIPTION
T-SG-5	06-27-16	CONTROLLER CABINET DETAILS
T-SG-6	10-21-19	PEDESTRIAN SIGNAL DETAILS
T-SG-7	10-21-19	SIGNAL HEAD ASSEMBLIES
T-SG-9A	07-12-17	MISCELLANEOUS SIGNAL DETAILS
T-SG-10	09-12-23	MAST ARM POLE AND STRAIN POLES FOUNDATION DETAILS
T-SG-11	07-12-17	MAINTENANCE OF EXISTING SIGNALS DURING HIGHWAY CONSTRUCTION
T-SG-12	12-20-19	TYPICAL WIRING FOR SIGNAL HEADS AND DETECTION LOOPS
T-SG-13	06-27-16	FLASHING BEACON DETAIL

10-202.00 LIGHTING AND UTILITY POLES

DWG.	REV.	DESCRIPTION
T-FO-1		FIBER OPTIC AERIAL ENTRANCE DETAILS
T-FO-2		FIBER OPTIC UNDERGROUND ENTRANCE DETAILS
T-FO-3		FIBER OPTIC AERIAL CONNECTION DETAILS
T-FO-4		FIBER OPTIC PULL BOX, CABINET & POLE DETAILS

10-204.00 DESIGN - TRAFFIC CONTROL

DWG.	REV.	DESCRIPTION
T-M-1	01-24-25	DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS AND MARKING ABBREVIATIONS
T-M-2	01-24-25	DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS
T-M-3	01-24-25	MARKING STANDARDS FOR TRAFFIC ISLANDS, PAVED SHOULDERS AND MEDIANS FOR CONVENTIONAL ROADS
T-M-4	01-24-25	STANDARD INTERSECTION PAVEMENT MARKINGS
T-M-15A	01-24-25	ASPHALT SHOULDER RUMBLE STRIP INSTALLATION DETAILS FOR NON-ACCESS CONTROLLED RURAL ROUTES
T-M-16	01-24-25	RUMBLE STRIPE INSTALLATION LAYOUT
T-M-16A	01-24-25	RUMBLE STRIPE DETAILS FOR EDGE OF PAVEMENT AND CENTERLINE
T-M-16B		MUMBLE STRIP/STRIPE DETAILS FOR EDGE OF PAVEMENT
T-WZ-10	03-26-25	ADVANCE ROAD WORK SIGNING ON HIGHWAYS AND FREEWAYS
T-WZ-30	03-26-25	TRAFFIC CONTROL 2-LANE, 2-WAY DIVERSION (40 MPH OR LESS)
T-WZ-31	03-26-25	TRAFFIC CONTROL 2-LANE, 2-WAY DIVERSION (GREATER THAN 40 MPH)
T-WZ-32	03-26-25	TRAFFIC CONTROL PLAN SIGNAL LAYOUT FOR SIGNAL TRAFFIC AT TWO LANE BRIDGE RECONSTRUCTION SITE
T-WZ-34	03-26-25	TRAFFIC CONTROL PLAN GENERAL NOTES FOR TRAFFIC SIGNAL AT TWO LANE BRIDGE RECONSTRUCTION SITE
T-WZ-35	03-26-25	TRAFFIC CONTROL PLAN PAY ITEM AND SIGN DETAILS FOR TRAFFIC SIGNAL AT TWO LANE BRIDGE RECONSTRUCTION SITE
T-WZ-36	03-26-25	LANE CLOSURE ON LOW-VOLUME 2-LANE HIGHWAY
T-WZ-56	03-26-25	TRANSVERSE RUMBLE STRIP USE WITHIN WORK ZONES
T-WZ-FAB1	03-26-25	FLASHING YELLOW ARROW BOARD
T-WZ-PBR2	03-26-25	DETAILS FOR WORK ZONE CHANNELIZATION DEVICES
T-WZ-PCB2	03-26-25	20 FOOT PORTABLE CONCRETE BARRIER RAIL
T-WZ-PCB2A	03-26-25	20 FOOT PORTABLE CONCRETE BARRIER RAIL STIFFENER TUBE

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

STANDARD STRUCTURE AND TRAFFIC DESIGN DRAWINGS

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	1B
P-I-H	2025	STP/HPP-31(12)	1B
PS & E	2026	STP/HPP-31(12)	1B

PROJECT COMMITMENTS

COMMITMENT ID	SOURCE DIVISON	DESCRIPTION	STA. / LOCATION
EDHZ001	ENVIRONMENT-ENVIRONMENTAL DIVISION, HAZARDOUS MATERIALS	AN ASBESTOS CONTAINING MATERIAL (ACM) SURVEY WAS CONDUCTED ON BRIDGE No. 37SR0310005, SR-31 OVER POOR VALLEY CREEK, LM 2.34 (37-SR031-02.34). NO ACM WAS DETECTED. NO SPECIAL ACCOMMODATION FOR DEMOLITION AND WASTE DISPOSAL ARE ANTICIPATED FOR THESE STRUCTURES AND THE MATERIAL CAN BE DEPOSITED IN A C&D LANDFILL. PRIOR TO THE DEMOLITION OR REHABILITATION OF ANY STRUCTURE (BRIDGE OR BUILDING), THE CONTRACTOR IS REQUIRED TO SUBMIT THE NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS STANDARD 10-DAY NOTICE OF DEMOLITION TO THE TDEC OF AIR POLLUTION CONTROL (STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (JANUARY 2021) SECTIONS 107.08 D AMD 202.03)	OUTSIDE PROJECT LIMITS
EDHZ002	ENVIRONMENT-ENVIRONMENTAL DIVISION, HAZARDOUS MATERIALS	AN ASBESTOS CONTAINING MATERIAL (ACM) SURVEY WAS COMPLETED ON BRIDGE NO. 37SR0310007, SR-31 BRIDGE OVER POOR VALLEY CREEK, LM 4.17 (37-SR031-4.17). THE BRIDGE HAS ASBESTOS IN THE VIBRATION DAMPENER BEARING PAD MATERIAL BETWEEN BEAMS AND BENT CAPS AND IN CEMENTITIOUS DECK DRAINS. THER ARE APPROXIMATELY 50 LINEAR FEET OF DECK DRAINS AT 20% CHRYSOTILE AND 5% CROCIDOLITE AND APPROXIMATELY 50 SQUARE FEET OF DAMPENER MATERIAL BETWEEN BEAM AND BENT CAPS AT 35-70% CHRYSOTILE. PLEASE SEE THE REPORT FOR FURTHER DETAILS AND PHOTOGRAPHS.	43.7' LT, STA 231+32.9 SR 31 N: 761,152.7370 E: 2,787,954.2603 LATITUDE: N 36° 23' 31.98" LONGITUDE: W 83° 23' 58.18"
EDHZ003	ENVIRONMENT-ENVIRONMENTAL DIVISION, HAZARDOUS MATERIALS	THE STATE OF TENNESSEE ASBESTOS ACCREDIDATION REQUIREMENTS (TDEC RULES CHAPTER 1200-01-20) MANDATES THAT ACM ABATEMENT WORK BE PERFORMED BY AN ACCREDITED FIRM (CONTRACTOR) USING ACCREDITED ABATEMENT WORKERS AND SUPERVISORS. ABATEMENT OF THIS MATERIAL SHOULD BE ACCOMPLISHED PER SP202ACM SPECIAL PROVISION REGARDING REMOVAL OF ASBESTOS-CONTAINING MATERIALS. ACM ABATEMENT SHOULD BE COMPLETED PRIOR TO ANY DEMOLITION ACTIVITIES IF POSSIBLE. PRIOR TO THE DEMOLITION OR REHABILITATION OF ANY STRUCTURE (BRIDGE OR BUILDING), THE CONTRACTOR IS REQUIRED TO SUBMIT THE NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS STANDARD 10-DAY NOTICE OF DEMOLITION TO THE TDEC DIVISION OF AIR POLLUTION CONTROL (PER TDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (JANUARY1 2021) SECTIONS 107.08 D AND 202.03).	43.7' LT, STA 231+32.9 SR 31 N: 761,152.7370 E: 2,787,954.2603 LATITUDE: N 36° 23' 31.98" LONGITUDE: W 83° 23' 58.18"
EDHZ004	ENVIRONMENT-ENVIRONMENTAL DIVISION, HAZARDOUS MATERIALS	AN ASBESTOS CONTAINING MATERIAL (ACM) SURVEY WAS COMPLETED ON BRIDGE NO. 37SR0310001, SR-31 BRIDGE OVER MOORESBURG BRANCH LM. 0.24 (27-SR031-00.24). THE BRIDGE HAS ASBESTOS IN 80 SQUARE FEET OF TEXTURE COATINGS ON THE WING WALLS AT 2-3% CHRYSOTILE. PLEASE SEE THE REPORT FOR FURTHER DETAILS AND PHOTOGRAPHS. SEE NOTE EDHZ003.	5.7' RT, STA 23+32 SR 31 N: 744,334.9012 E: 2,784,903.5894 LATITUDE: N 36° 20' 47.14" LONGITUDE: W 83° 13' 41.69"
EDEC002	ENVIRONMENT-ENVIRONMENTAL DIVISION, ECOLOGY	ALL NECESSARY TREE CLEARING WITHIN PROJECT LIMITS WILL BE ACCOMPLISHED BETWEEN OCTOBER 1 AND MARCH 31	PROJECT WIDE COMMITMENT

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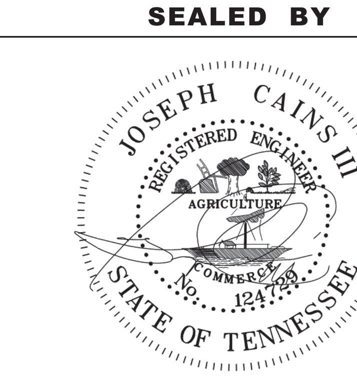

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROJECT COMMITMENTS

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	2
P-I-H	2025	STP/HPP-31(12)	2
PS & E	2026	STP/HPP-31(12)	2

ESTIMATED ROADWAY QUANTITIES

	ITEM NO.	DESCRIPTION	UNIT	QUANTITY 37022-3219-14
	105-01	CONSTRUCTION STAKES, LINES AND GRADES	LS	1
(1)(2)	106-04.01	SMPLNG & TSTNG OF POTENTIALLY ACIDIC MAT	EACH	112
(3)	201-01	CLEARING AND GRUBBING	LS	1
(4)(48)	202-01	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LS	1
(5)	202-04.50	REMOVAL OF STRUCTURES (BOX CULVERT EXTENSION, STA. 10+89.39)	LS	1
(6)	202-06.01	REMOVAL OF BUILDINGS (TRACK NO. 17)	LS	1
(6)	202-06.02	REMOVAL OF BUILDINGS (TRACK NO. 18)	LS	1
(6)	202-06.03	REMOVAL OF BUILDINGS (TRACK NO. 20)	LS	1
(6)	202-06.04	REMOVAL OF BUILDINGS (TRACK NO. 26)	LS	1
(6)	202-06.05	REMOVAL OF BUILDINGS (TRACK NO. 28)	LS	1
(6)	202-06.06	REMOVAL OF BUILDINGS (TRACK NO. 28A)	LS	1
(6)	202-06.07	REMOVAL OF BUILDINGS (TRACK NO. 29)	LS	1
(6)	202-06.08	REMOVAL OF BUILDINGS (TRACK NO. 44A)	LS	1
(6)	202-06.09	REMOVAL OF BUILDINGS (TRACK NO. 52)	LS	1
(6)	202-06.10	REMOVAL OF BUILDINGS (TRACK NO. 53)	LS	1
(6)	202-06.11	REMOVAL OF BUILDINGS (TRACK NO. 54)	LS	1
(6)	202-06.12	REMOVAL OF BUILDINGS (TRACK NO. 57)	LS	1
(6)	202-06.13	REMOVAL OF BUILDINGS (TRACK NO. 112)	LS	1
(6)	202-06.14	REMOVAL OF BUILDINGS (TRACK NO. 113)	LS	1
(7)(8)	203-01	ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED)	C.Y.	44142
(2)(9)	203-01.07	RD & DRNG EXCV (ACID PRODUCING- OFF SITE DISPOSAL)	C.Y.	8640
(2)	203-02.01	BORROW EXCAVATION (GRADED SOLID ROCK)	TON	1500
	203-04	PLACING AND SPREADING TOPSOIL	C.Y.	5667
(10)	203-05	UNDERCUTTING	C.Y.	206
	203-06	WATER	M.G.	152
(11)	203-50	CONSTRUCTION OF HAUL ROAD (PHASE 1 & 2 HAUL ROAD)	LS	1
(12)	204-01	CULVERT EXCAVATION (UNCLASSIFIED)	C.Y.	37
(13)	204-08	FOUNDATION FILL MATERIAL	C.Y.	6
(14)	204-08.01	BACKFILL MATERIAL (FLOWABLE FILL)	C.Y.	15
	209-05	SEDIMENT REMOVAL	C.Y.	677
(14)	209-08.02	TEMPORARY SILT FENCE (WITH BACKING)	L.F.	443
(14)	209-08.03	TEMPORARY SILT FENCE (WITHOUT BACKING)	L.F.	2100
(14)	209-08.07	ROCK CHECK DAM PER	EACH	36
(14)	209-09.01	SANDBAGS	BAG	4700
(14)	209-09.03	SEDIMENT FILTER BAG (15'X15')	EACH	2
(14)	209-09.40	CURB INLET PROTECTION (TYPE 1)	EACH	17
	209-10.01	TEMPORARY DEWATERING STRUCTURE	C.Y.	298
(14)	209-20.03	POLYETHYLENE SHEETING (6 MIL. MINIMUM)	S.Y.	39
	209-20.04	POLYETHYLENE SHEETING (10MIL.)	S.Y.	2
(14)	209-40.41	CATCH BASIN FILTER ASSEMBLY(TYPE 1)	EACH	7
(15)	303-01	MINERAL AGGREGATE, TYPE A BASE, GRADING D	TON	18151
(12)	303-01.01	GRANULAR BACKFILL (ROADWAY)	TON	95
(14)	303-10.01	MINERAL AGGREGATE (SIZE 57)	TON	261
	303-10.04	MINERAL AGGREGATE (SIZE 67)	TON	2430
	307-01.01	ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING A	TON	2444
(16)	307-01.08	ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING B-M2	TON	3447
	402-01	BITUMINOUS MATERIAL FOR PRIME COAT (PC)	TON	27
	402-02	AGGREGATE FOR COVER MATERIAL (PC)	TON	96
	403-01	BITUMINOUS MATERIAL FOR TACK COAT (TC)	TON	19
	411-01.07	ACS MIX (PG64-22) GRADING E SHOULDER	TON	295
(16)	411-01.10	ACS MIX(PG64-22) GRADING D	TON	1936
	411-12.01	SCORING SHOULDERS(CONTINUOUS) (16 In WIDTH)	L.M.	1.6
	411-12.05	SCORING FOR CENTERLINE RUMBLE (4In WIDTH - 24In SPACING)	L.M.	1
	415-01.01	COLD PLANING BITUMINOUS PAVEMENT	TON	635
	602-01	STRUCTURAL STEEL	LB.	64
(12)(17)	604-01.01	CLASS A CONCRETE (ROADWAY)	C.Y.	8
(12)	604-01.02	STEEL BAR REINFORCEMENT (ROADWAY)	LB.	1240
(19)(18)	607-03.02	18" CONCRETE PIPE CULVERT (CLASS III)	L.F.	1351
(20)(18)	607-05.02	24" CONCRETE PIPE CULVERT (CLASS III)	L.F.	1110
(20)(18)	607-07.02	36" CONCRETE PIPE CULVERT (CLASS III)	L.F.	102
(21)(18)	607-11.03	60" CONCRETE PIPE CULVERT (CLASS III)	L.F.	56

ESTIMATED ROADWAY QUANTITIES

	ITEM NO.	DESCRIPTION	UNIT	QUANTITY 37022-3219-14
(22)	607-39.02	18" PIPE CULVERT (SIDE DRAIN)	L.F.	495
	607-39.04	30" PIPE CULVERT (SIDE DRAIN)	L.F.	371
	611-01.02	MANHOLES, > 4' - 8' DEPTH	EACH	3
	611-01.03	MANHOLES, > 8' - 12' DEPTH	EACH	1
	611-01.21	REWORK MANHOLE	EACH	1
(23)	611-07.01	CLASS A CONCRETE (PIPE ENDWALLS)	C.Y.	19.92
(24)	611-07.02	STEEL BAR REINFORCEMENT (PIPE ENDWALLS)	LB.	977
	611-07.31	18" ENDWALL (SIDE DRAIN)	EACH	10
	611-07.33	30" ENDWALL (SIDE DRAIN)	EACH	1
(25)	611-07.54	18IN ENDWALL (CROSS DRAIN) 3:1	EACH	2
	611-07.55	18IN ENDWALL (CROSS DRAIN) 4:1	EACH	7
	611-07.56	18IN ENDWALL (CROSS DRAIN) 6:1	EACH	1
	611-07.57	24IN ENDWALL (CROSS DRAIN) 3:1	EACH	1
	611-07.63	36IN ENDWALL (CROSS DRAIN) 3:1	EACH	1
(26)	611-09.03	CAPPING EXISTING CATCH BASIN	EACH	1
	611-12.01	CATCH BASINS, TYPE 12, 0' - 4' DEPTH	EACH	2
	611-12.02	CATCH BASINS, TYPE 12, > 4' - 8' DEPTH	EACH	13
	611-25.02	CATCH BASINS, TYPE 25, 4' - 8' DEPTH	EACH	1
	611-38.01	CATCH BASINS, TYPE 38, 0' - 4' DEPTH	EACH	3
	611-38.02	CATCH BASINS, TYPE 38, 4' - 8' DEPTH	EACH	3
(14)	621-03.02	18" TEMPORARY DRAINAGE PIPE	L.F.	100
	701-02	CONCRETE DRIVEWAY	S.F.	247
	702-03	CONCRETE COMBINED CURB & GUTTER	C.Y.	240
	703-01	PORTLAND CEMENT CONCRETE DITCH PAVING	C.Y.	373
(27)	705-01.04	METAL BEAM GUARD FENCE	L.F.	39
(28)	705-06.01	W BEAM GR (TYPE 2) MASH TL3	L.F.	2406
(27)	705-06.09	WEAK-POST GUARDRAIL ATTACHMENT TO CULVERT(MASH TL-3)(TYPE 21)	EACH	4
	705-06.11	GR TERMINAL (IN-LINE) MASH TL3	EACH	8
	705-06.20	TANGENT ENERGY ABSORBING TERM MASH TL-3	EACH	9
	705-06.25	THRIE BEAM BRIDGE TRANSITION MASH TL-3	EACH	8
(29)	705-06.30	GR TERMINAL (ENERGY ABSORBING) MASH TL2	EACH	1
(30)	706-06.03	RADIUS RAIL	L.F.	241
(30)	706-10.26	ROUNDED END ELEMENT	EACH	6
	707-01.11	CHAIN LINK FENCE (6 FOOT)	L.F.	375
	707-06.01	REMOVAL OF FENCE (CHAIN-LINK FENCE)	L.F.	2493
	707-08.01	FENCE (BARDED WIRE)	L.F.	1033
	707-08.11	HIGH-VISIBILITY CONSTRUCTION FENCE	L.F.	390
	708-02.01	MARKERS (CONCRETE R.O.W. POSTS)	EACH	75
(14)(31)	709-05.06	MACHINED RIP-RAP (CLASS A-1)	TON	569
(32)	709-05.08	MACHINED RIP-RAP (CLASS B)	TON	1744
(33)	709-05.09	MACHINED RIP-RAP (CLASS C)	TON	350
(12)	710-09.01	6" PERFORATED PIPE WITH VERTICAL DRAIN SYSTEM	L.F.	15
(27)(34)	712-01	TRAFFIC CONTROL	LS	1
(27)	712-02.02	INTERCONNECTED PORTABLE BARRIER RAIL	L.F.	510
(27)	712-02.10	PORTABLE BARRIER RAIL (MASH TL-3)	L.F.	220
(27)	712-02.60	TEMPORARY WORK ZONE CRASH CUSHION (MASH LT-3)	EACH	4
(27)(35)	712-04.01	FLEXIBLE DRUMS (CHANNELIZING)	EACH	1233
(27)	712-05.01	WARNING LIGHTS (TYPE A)	EACH	12
(27)	712-05.03	WARNING LIGHTS (TYPE C)	EACH	49
(27)	712-06	SIGNS (CONSTRUCTION)	S.F.	2064
(27)	712-07.03	TEMPORARY BARRICADES (TYPE III)	L.F.	160
	713-01.01	CLASS A CONCRETE (FOUNDATION FOR SIGNS SUPPORTS)	C.Y.	8
	713-01.02	STEEL BAR REINFORCEMENT(FOUNDATION FOR SIGNS SUPPORTS)	LB.	1863
	713-02.26	CONCRETE BARRIER/PARAPET DELINEATOR	EACH	6
	713-11.02	PERFORATED/KNOCKOUT SQUARE TUBE POST	LB.	2794
	713-11.21	P POST SLIP BASE	EACH	36
	713-11.22	U POST SLIP BASE	EACH	1
	713-13.02	FLAT SHEET ALUMINUM SIGNS (0.080" THICK)	S.F.	212
(36)	713-13.03	FLAT SHEET ALUMINUM SIGNS (0.100" THICK)	S.F.	446
(37)	713-15	REMOVAL OF SIGNS, POSTS AND FOOTINGS	LS	1
(38)	713-15.02	REMOVAL & RELOCATION OF SIGN & SUPPORT	EACH	12

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JOSEPH CAINS III
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
STATE OF TENNESSEE

04/14/2026

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ESTIMATED ROADWAY QUANTITIES

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	2
P-I-H	2025	STP/HPP-31(12)	2-1
PS & E	2026	STP/HPP-31(12)	2-1

ESTIMATED ROADWAY QUANTITIES

	ITEM NO.	DESCRIPTION	UNIT	QUANTITY 37022-3219-14
	713-16.01	CHANGEABLE MESSAGE SIGN UNIT	EACH	6
(27)	716-01.07	TEMPORARY RAISED PAVEMENT MARKERS, YELLOW	EACH	1002
	716-01.21	SNOWPLOWABLE RAISED PAVEMENT MARKERS (BI-DIR) (1 COLOR)	EACH	234
	716-01.22	SNOWPLOWABLE RAISED PAVMENT MARKERS (MONO-DIR)(1 COLOR)	EACH	32
	716-02.04	PLASTIC PAVEMENT MARKING (CHANNELIZATION STRIPING)	S.Y.	29
	716-02.05	PLASTIC PAVEMENT MARKING (STOP LINE)	L.F.	223
	716-02.06	PLASTIC PAVEMENT MARKING (TURN LANE ARROW)	EACH	14
	716-04.01	PLASTIC PAVEMENT MARKING (STRAIGHT-TURN ARROW)	EACH	3
(27)	716-05.05	PAINTED PAVEMENT MARKING (STOP LINE)	L.F.	304
(27)	716-05.20	PAINTED PAVEMENT MARKING (6" LINE)	L.M.	13
(39)	716-12.01	ENHANCED FLATLINE THERMO PVMT MRKNG (4IN LINE)	L.M.	1
(40)	716-12.02	ENHANCED FLATLINE THERMO PVMT MRKNG (6IN LINE)	L.M.	5
	716-12.05	ENHANCED FLATLINE THERMO PVMT MRKNG (6IN DOTTED LINE)	L.F.	2213
	716-12.06	ENHANCED FLATLINE THERMO PVMT MRKNG (8IN LINE)	L.F.	600
	717-01	MOBILIZATION	LS	1
(27)	730-40.01	PORTABLE TRAFFIC SIGNAL SYSTEM	EACH	9
(41)	740-06.01	GEOMEMBRANE	S.Y.	3356
	740-07.04	GEOGRID REINFORCEMENT (TYPE 2)	S.Y.	2105
(14)(42)	740-10.03	GEOTEXTILE (TYPE III)(EROSION CONTROL)	S.Y.	1137
(2)(43)	740-10.04	GEOTEXTILE (TYPE IV)(STABILIZATION)	S.Y.	22799
(44)	801-01	SEEDING (WITH MULCH)	UNIT	1084
(45)	801-01.38	NATIVE SEED MIX FINAL STABILIZATION OF SLOPES	UNIT	35
(14)	801-02	SEEDING (WITHOUT MULCH)	UNIT	44
(46)	801-03	WATER (SEEDING & SODDING)	M.G.	22
	803-01	SODDING (NEW SOD)	S.Y.	2407
(14)	805-12.01	EROSION CONTROL BLANKET (TYPE I)	S.Y.	17432
(47)	806-02.03	PROJECT MOWING	CYCL	6
	801-01.36	SPECIAL WETLAND SEED MIXTURE	UNIT	2

FOOTNOTES

(1)	TO BE CONDUCTED IN ACCORDANCE WITH SP107L. COST TO INCLUDE COLLECTING SAMPLE, PACKAGING, SHIPPING, HANDLING, AND TEST ANALYSIS FROM STA 219+00 TO STA 228+50. COPY OF TEST RESULTS SHALL BE EMAILED TO TDOT.GEOTECH@TN.GOV, INCLUDING PROJECT DESCRIPTION, CONTRACT NUMBER, AND PIN FOR REVIEW.
(2)	REFER TO GEOTECHNICAL PLANS FOR MORE INFORMATION.
(3)	ESTIMATED AT 19.905 ACRES
(4)	SEE TABULATED QUANTITIES SHEET NO. 2F3 FOR REMOVAL OF DRAINAGE PIPES AND DRAINAGE STRUCTURES.
(5)	INCLUDES REMOVAL OF CUT OFF WALLS/TOE WALLS, CURBS, WING WALLS AT THE BOX CULVERT EXTENSION. SEE SHEETS 4B AND 30 FOR MORE DETAILS.
(6)	BID PRICE INCLUDES ALL SALVAGE VALUE OF MATERIAL. SEE TABULATED QUANTITIES SHEET NO. 2F3 FOR REMOVAL OF BUILDINGS AND OBSTRUCTIONS DESCRIPTION BLOCK.
(7)	INCLUDES EXCAVATION OF 537 CY FOR EPSC, AND 43,605 CY OF EMBANKMENT USED THROUGHOUT MAINLINE, SIDE ROADS, AND DRIVEWAYS
(8)	SEE SHEET 2D FOR GRADING SPECIAL NOTES.
(9)	INCLUDES EXCAVATION, HAULING, PERMITTING, AND LANDFILL FEES.
(10)	GRADED SOLID ROCK/UNDERCUT, SEE GEOTECHNICAL SHEETS G-9 TO G-14 FOR MORE DETAILS.
(11)	HAUL ROAD SHALL BE CONSTRUCTED WITHIN PROPOSED RIGHTS-OF-WAY AND EASEMENTS WITHIN THE PROJECT LIMITS AS DEFINED IN THE CONTRACT PLANS. PAYMENT OF THIS ITEM INCLUDES ALL REQUIREMENTS FOR INSTALLATION INCLUDING GRADING, ROCK, GEOTEXTILE, AND 57 STONE NEEDED FOR BUILDING OF THE HAUL ROAD, MAINTENANCE OF THE HAUL ROAD DURING THE LIFE OF THE PROJECT, AND THE REMOVAL OF THE HAUL ROAD TO PREEXISTING CONDITIONS INCLUDING SEEDING AND STRAWING UPON COMPLETION OF THE HAUL ROAD REMOVAL. NO ADDITIONAL COMPENSATION WILL BE MADE FOR CLEARING, SURVEYING OR INCIDENTALS DUE TO THE LOCATION CHOSEN BY THE CONTRACTOR FOR ACCESS TO THE SITE. THE CONTRACTOR IS REQUIRED TO SUBMIT A PROPOSED LOCATION AND PLAN FOR REVIEW AND APPROVAL TO THE TDOT MANAGER PRIOR TO CONSTRUCTION OF HAUL ROAD. IN THE EVENT THAT THE HAUL ROAD FOOTPRINT OVERLAPS WITH PROPOSED RIP-RAP AT THE BRIDGE ABUTMENTS, THE CONTRACTOR MAY USE THE HAUL ROAD 57 STONE AS BEDDING MATERIAL FOR THE PROPOSED RIP-RAP. FINAL SLOPE AND GRADE WILL NOT BE ALTERED BY THIS ACTION.
(12)	USED FOR 6'X4' RCBC EXTENSION AT STATION 10+89.39
(13)	USED FOR ABANDONED PIPES
(14)	ALL EROSION PREVENTION AND SEDIMENT CONTROL QUANTITIES ARE TO BE USED AS DIRECTED BY ENGINEER. SEE SUBSECTION 209.07 OF THE STANDARD SPECIFICATIONS FOR MAINTENANCE REPLACEMENT.
(15)	USED FOR BASE MATERIAL ON SR 31, SIDE ROADS. INCLUDES 810 TON FOR DRIVEWAYS AND 304 TON FOR TRAFFIC CONTROL PLANS QUANTITIES.
(16)	INCLUDES 225 TONS FOR MAINTENANCE OF TRAFFIC UNDER ITEM 307-01.08 AND 195 TONS FOR DRIVEWAYS UNDER ITM 411-01.10.
(17)	INCLUDES 1 CY USED FOR SPECIAL CASE GUARDRAIL FOOTING (S-GRS-3) OVER CB15
(18)	BEDDING MATERIAL SHALL BE INCLUDED IN THE COST OF THE PROPOSED PIPE CULVERT. SEE STANDARD DRAWING NO. D-PB-1 AND D-PB-2 FOR ADDITIONAL DETAILS.
(19)	INCLUDES 297 LF FOR CROSS DRAINS & 1054 LF FOR STORM DRAIN
(20)	FOR STORM DRAINS
(21)	FOR CROSS DRAINS

FOOTNOTES

(22)	METAL PIPES SHALL NOT BE CONSIDERED AS AN ACCEPTABLE PIPE MATERIAL FOR SIDE DRAIN
(23)	INCLUDES 2.84 CY FOR STORM DRAINS & 17.1 CY FOR CROSS DRAINS
(24)	INCLUDES 109 LBS FOR STORM DRAINS & 868 LBS FOR CROSS DRAINS
(25)	USED FOR CROSS DRAINS
(26)	ITEM INCLUDES THE CONTRACTOR PROVIDING A TRAFFIC RATED COVER THAT MEETS TDOT STANDARDS & SPECIFICATIONS. SURVEY LAYOUT AND INCIDENTALS REQUIRED FOR FIELD VERIFICATION DURING CONSTRUCTION ARE INCLUDED IN THE COST OF THE ITEM.
(27)	USED FOR MAINTENANCE OF TRAFFIC
(28)	INCLUDES 2074 LF USED FOR PROPOSED LAYOUT AND 332 LF USED FOR TRAFFIC CONTROL PLANS QUANTITIES.
(29)	USED FOR THE PROPOSED LAYOUT.
(30)	USED FOR DRIVEWAY ENTERANCE RETURNS AND SIDE STREETS
(31)	USED FOR CULVERT PROTECTION TYPE 1 ON EPSC PLANS AND INCLUDES 6 TONS USED FOR TEMPORARY SLOPE DRAIN PIPE
(32)	USED FOR BRIDGE ABUTMENT AREA AND INCLUDED 105 TON FOR 6'X4' RCBC EXTENSION. RIP-RAP INSTALLATION ON MOORSBURG BRANCH BRIDGE # 37-SR031-0001 NEEDS TO BE EXTENDED TO ROCK IN ALL LOCATIONS UNLESS OTHERWISE. IF ROCK IS ENCOUNTERED HIGHER THAN EXPECTED, THE ABUTMENT BERM ELEVATION CAN BE INCREASED TO MAINTAIN THE MINIMUM RIP-RAP THICKNESS WITH THE APPROVAL OF THE STRUCTURAL EMGINEER.
(33)	USED FOR ENDWALLS 111,113,115, AND 116 AND INCLUDES 54 TONS USED FOR EPSC PLANS
(34)	INCLUDES THE COST OF BLACKOUT TAPE AND REMOVAL OF PAVEMENT MARKINGS
(35)	TO BE INCREASED OR DECREASED AS DIRECTED THE TDOT ENGINEER
(36)	INCLUDES 168 SF FOR I2-5 AND D12-5 SIGNS
(37)	REMOVE SIGNS, SUPPORTS, AND FOOTINGS ON ALL THREE SEGMENTS PER THE SIGNING AND PAVEMENT MARKING SHEETS. APPROXIMATELY 40 EXISTING SIGNS AND SUPPORTS.
(38)	RELOCATE SIGNS AS SHOWN IN THE PLANS. COORDINATE WITH THE TDOT TRAFFIC DESIGN DIVISION IF THE SIGNS AND SUPPORTS NEED TO BE REPLACED.
(39)	FOR PERMANENT STRIPING ON SIDE ROADS & STREETS
(40)	FOR PERMANENT STRIPING ON SR 31. CONTRACTOR SHALL USE THE EXTRUDED OR RIBBON METHOD FOR APPLICATION.
(41)	USED UNDER CEMENT CONCRETE DITCH PAVING ON SECTIONS 1 AND 2
(42)	INCLUDES 11 SY FOR PIPE OUTLET PROTECTION, 904 SY FOR 15 CULVERT PROTECTIONS (TYPE 1), AND 222 SY FOR TEMPORARY SEDIMENT FILTER BAG AND FLEXIBLE PIPE DIVERSION.
(43)	INCLUDES 780 SY FROM GEOTECHNICAL PLANS AND 1152 SY FOR ABUTMENT AND PAVEMENT AT BRIDGE ENDS FOR SEGMENTS 1 AND 3.
(44)	INCLUDES QUANTITY NEEDED FOR DITCHES
(45)	PERMANENT STABILIZATION WITH NATIVE OR NATURALIZED PERENNIAL VEGETATION IS REQUIRED IN ALL AREAS AUTHORIZED FOR TEMPORARY AND PERMANENT IMPACTS TO STREAMS AND RIPARIAN AREAS, INCLUDING ADJACENT BUFFER ZONES WITHIN 60 FEET OF THE EDGE OF WATER. THE APPROXIMATE SEED MIXTURE FOR THE REGION AND SITE CONDITIONS SHALL SELECTED FROM TABLE 7.9-1 (PREFERRED SEED MIXES USING NATIVES OR NATURALIZED PLANTS AND PLANTING DATES) FOUND IN CHAPTER 7.9 (PERMANENT VEGETATION OF THE TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION (TDEC) TENNESSEE EROSION & SEDIMENT CONTROL HANDBOOK 4TH EDTION.
(46)	INCLUDES 14,530 GALLONS FOR EROSION PREVENTION AND SEDIMENT CONTROL.
(47)	ITEM INCLUDES LITTER AND TRASH REMOVAL. THIS WORK WILL NOT BE MEASURED AND PAID FOR DIRECTLY BUT WILL BE INCLUDED IN THE COST OF ITEM NO. 806-02.03 PROJECT MOWING PER CYCLE.
(48)	CONTRACTOR SHALL NOT DISTURB PRIVATE WATERLINE ON PARCEL 28 DURING DEMOLITION OF STRUCTURES.

NOTES:
1. COST OF BRIDGE REMOVAL IS INCLUDED IN THE COST OF THE NEW BRIDGE.
2. METAL PIPES SHALL NOT BE CONSIDERED AS AN ACCEPTABLE PIPE MATERIAL FOR THIS PROJECT.
3. FOR ITEMS 607-39.04 AND 611-07.33, SEE FOOTNOTES (4) AND (5) ON EPSC SHEET 38.

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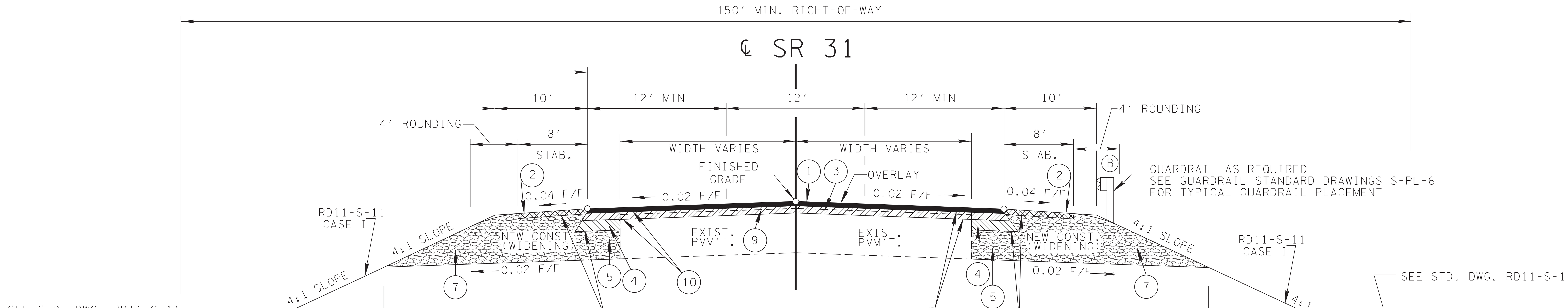
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ESTIMATED ROADWAY QUANTITIES

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	2B
P-I-H	2025	STP/HPP-31(12)	2B
PS & E	2026	STP/HPP-31(12)	2B



TANGENT SECTION

(BASED ON STD. DWG. RD11-TS-7B)

STA 10+70.93 TO STA 12+50.00

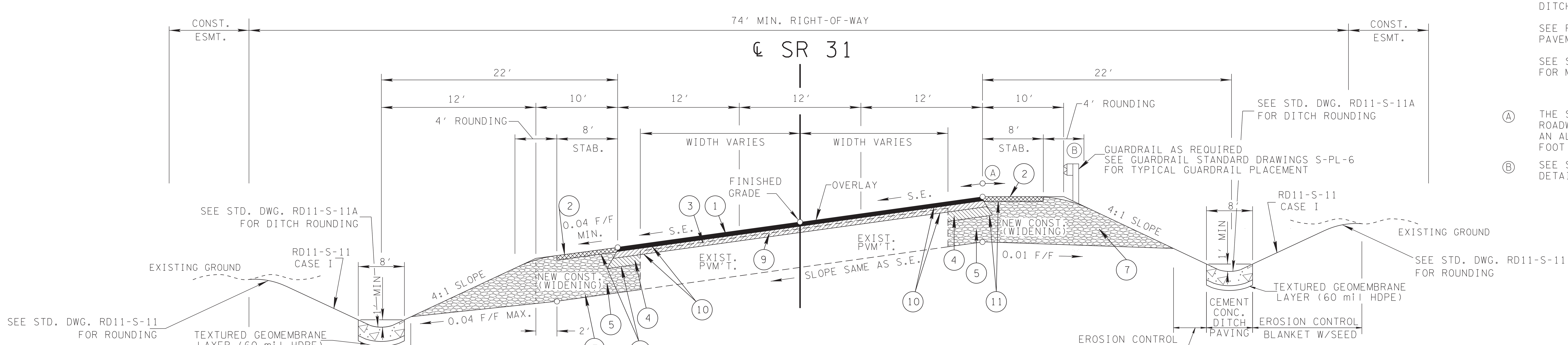
NOTE: REFER TO PROPOSED LAYOUT SHEET FOR DITCH LINING

SEE PROPOSED LAYOUT SHEET 4B FOR PAVEMENT TRANSITIONS

SEE STD. DWG. RD11-SE-2 & RD11-SE-2A FOR MORE DETAILS

(A) THE SLOPES OF THE SHOULDER AND ROADWAY PAVEMENT SHALL NOT EXCEED AN ALGEBRAIC DIFFERENCE OF 0.07 FOOT PER FOOT

(B) SEE SHEET 2B5 FOR SHOULDER WIDENING DETAIL FOR GUARDRAIL WHEN REQUIRED



SUPERELEVATED SECTION

(BASED ON STD. DWG. RD11-TS-7B)

STA 12+50.00 TO STA 17+40.00

PROPOSED PAVEMENT SCHEDULE

(1) ASPHALTIC CONCRETE SURFACE (HOT MIX) @ 1.25" THICK APPROX. 132.5 LBS./SQ.YD. 411-01.10 ACS MIX (PG64-22) GRADING "D"	(5) MINERAL AGGREGATE BASE @ 8" THICK (ROADWAY) 303-01 MINERAL AGGREGATE, TYPE "A" BASE GRADING "D"	(9) COLD PLANING OF BITUMINOUS PAVEMENT @ 1.25" THICK 415-01.01 COLD PLANING OF BITUMINOUS PAVEMENT
(2) ASPHALTIC CONCRETE SURFACE (HOT MIX) @ 1.50" THICK APPROX. 128.75 LBS./SQ.YD. 411-01.07 ACS MIX (PG64-22) GRADING E SHOULDER	(6) MINERAL AGGREGATE BASE @ 10.00" THICK (ROADWAY) 303-01 MINERAL AGGREGATE, TYPE "A" BASE GRADING "D"	(10) BITUMINOUS TACK COAT 403-01 BITUMINOUS MATERIAL FOR TACK COAT (TC) (SEE 403.05 FOR DETERMINING APPLICATION RATE IN THE FIELD)
(3) BITUMINOUS PLANT MIX BASE (HOT MIX) @ 2" THICK (APPROX. 226 LBS./SQ.YD) 307-01.08 ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING 'B-M2'	(7) MINERAL AGGREGATE BASE @ 12.75" THICK (ROADWAY) 303-01 MINERAL AGGREGATE, TYPE "A" BASE GRADING "D"	(11) BITUMINOUS PRIME COAT 402-01 BITUMINOUS MATERIAL FOR PRIME COAT (PC) (RATE 0.35 GAL./SQ.YD.)
(4) BITUMINOUS PLANT MIX BASE (HOT MIX) @ 3" THICK APPROX. 345 LBS./SQ.YD. 307-01.01 ASPHALT CONCRETE MIX (PG64-22) (BPMB) GRADING 'A'	(8) CONCRETE COMBINED CURB AND GUTTER TYPE 6-30 DEPTH 9" 702-03 CONCRETE CURB AND GUTTER DWG. NO. RP-VC-10	402-02 AGGREGATE FOR COVER MATERIAL (PC) (RATE 10 LBS./SQ.YD.)

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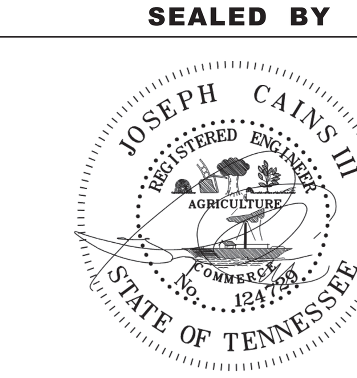

04/14/2026

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS AND PAVEMENT SCHEDULE

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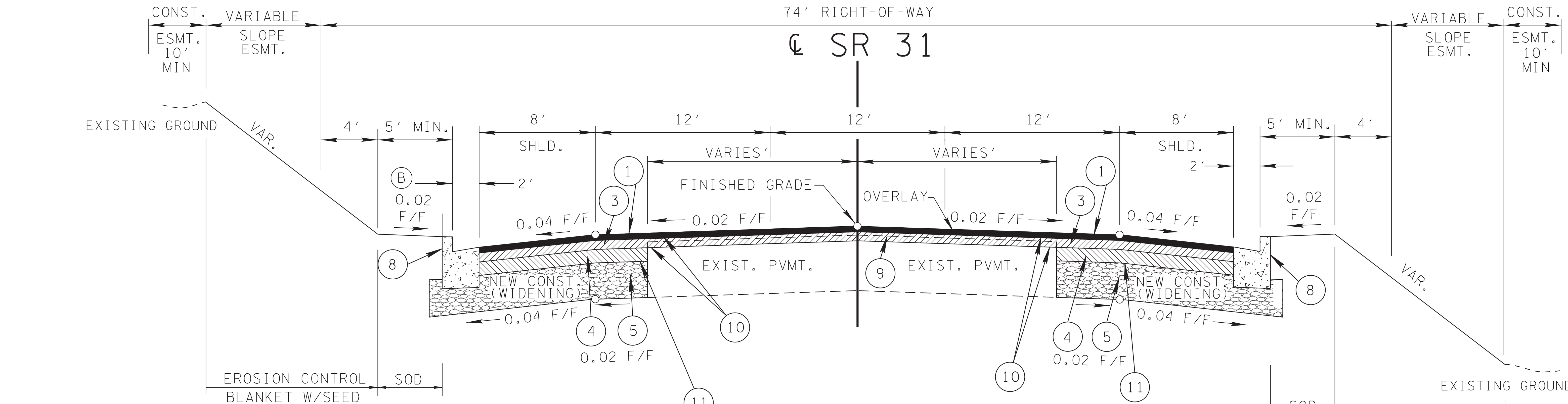
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	2B1
P-I-H	2025	STP/HPP-31(12)	2B1
PS & E	2026	STP/HPP-31(12)	2B1

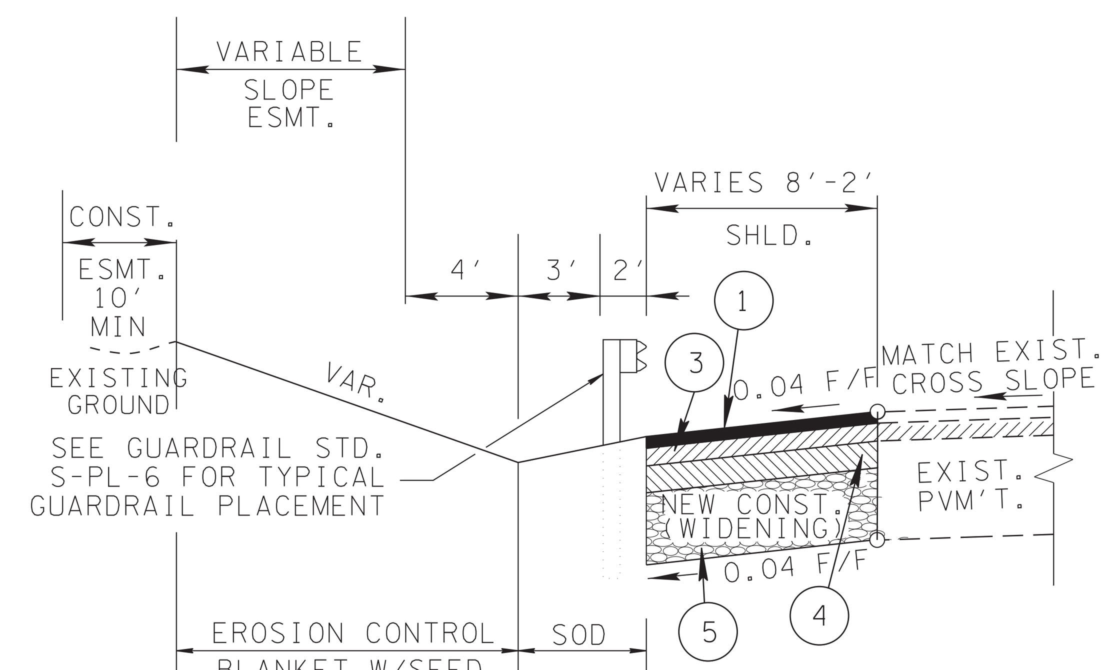


TANGENT SECTION

(BASED ON STD. DWG. RD11-TS-7A)

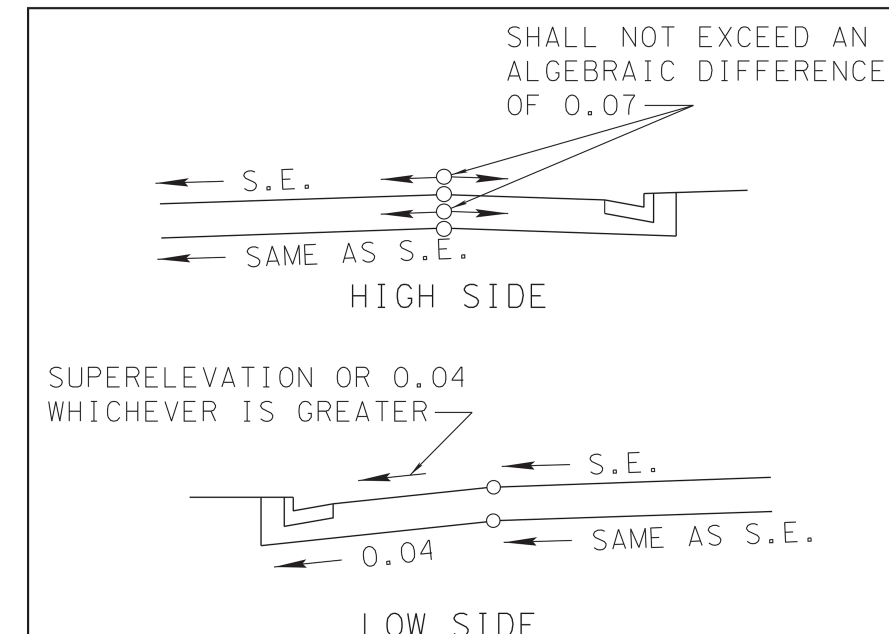
STA 19+50.00 TO STA 23+06.68
STA 23+86.68 TO STA 31+50.00

NOTE: SEE PROPOSED LAYOUT SHEETS 4B, 5B & 6B FOR PAVEMENT TRANSITION NOTES.
(SR31: RT CONCRETE DITCH APPLIES STA. 23+13.24 TO STA.26+00.00

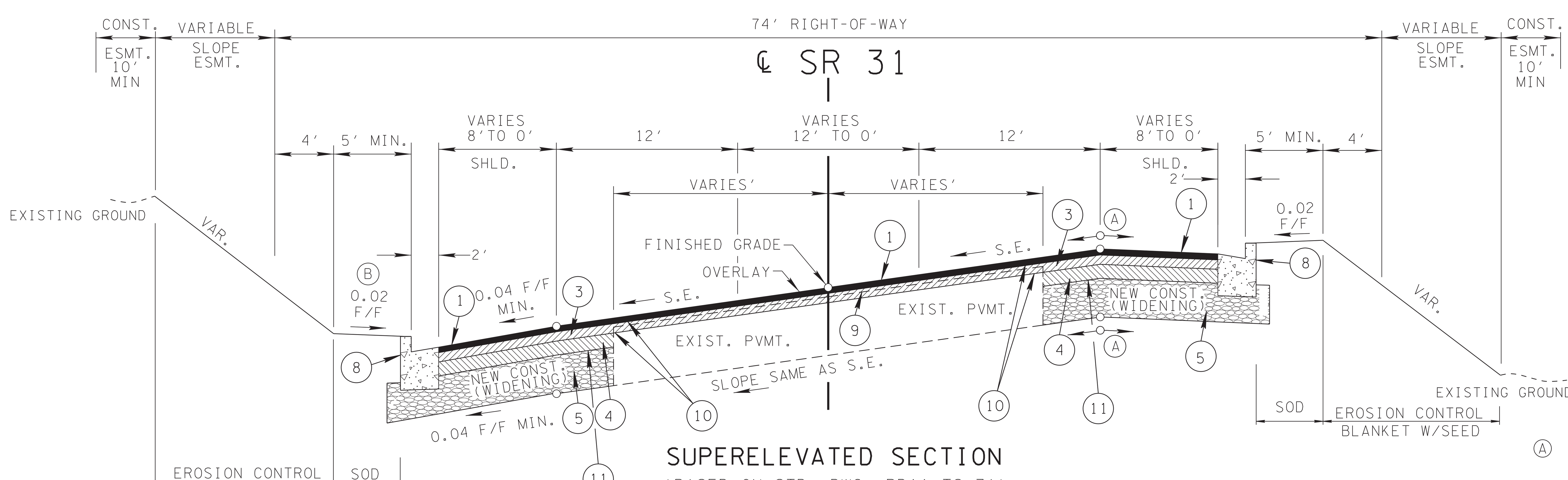


SECTION DETAIL (B)

STA 33+50.50 TO 36+75.00
LEFT SIDE



SUPERELEVATION DETAIL FOR SHOULDERS



SUPERELEVATED SECTION

(BASED ON STD. DWG. RD11-TS-7A)

STA 17+40.00 TO STA 19+50.00
STA 31+50.00 TO STA 34+20.00

(A) THE SLOPES OF THE SHOULDER AND ROADWAY PAVEMENT SHALL NOT EXCEED AN ALGEBRAIC DIFFERENCE OF 0.07 FOOT PER FOOT

(B) SEE SHEET 2B5 FOR SHOULDER WIDENING DETAIL FOR GUARDRAIL WHEN REQUIRED

NOTE: SEE PROPOSED LAYOUT SHEETS 4B, 5B & 6B FOR PAVEMENT TRANSITION NOTES.

SEALED BY

JOSEPH CAINS III
REGISTERED ENGINEER
STATE OF TENNESSEE

04/14/2026

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

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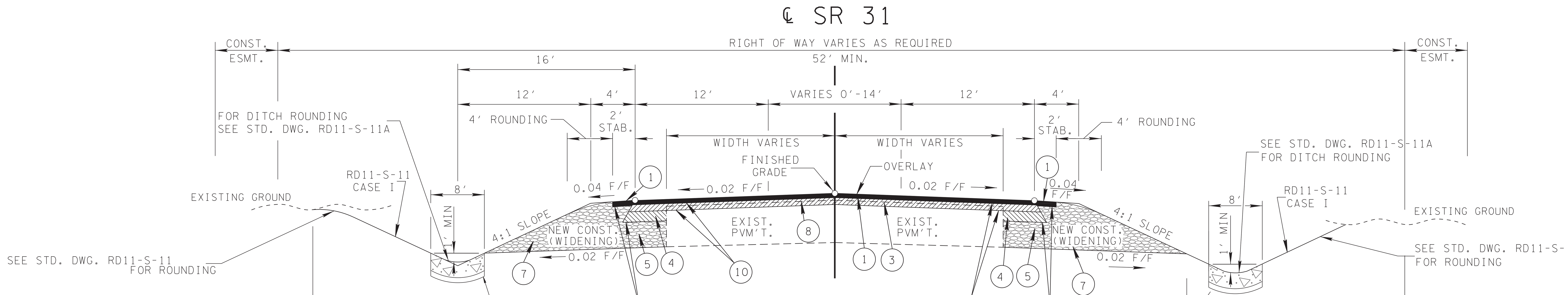
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	2B2
P-I-H	2025	STP/HPP-31(12)	2B2
PS & E	2026	STP/HPP-31(12)	2B2

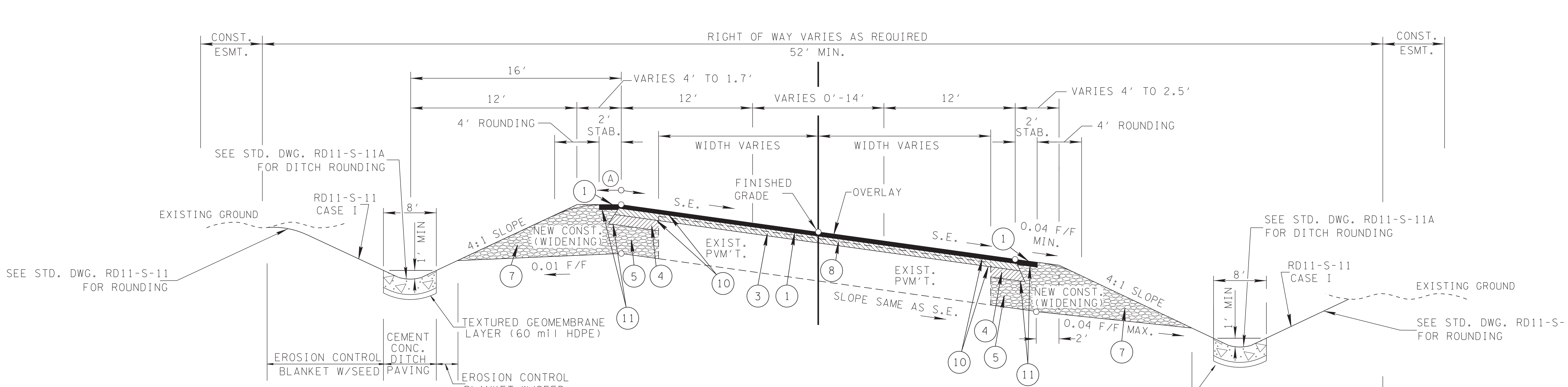


TANGENT SECTION

(BASED ON STD. DWG. RD11-TS-7B)

STA 69+52.87 TO STA 77+79.26

NOTE: SEE PROPOSED LAYOUT SHEETS 8B & 9B FOR PAVEMENT TRANSITIONS.



SUPERELEVATED SECTION

(BASED ON STD. DWG. RD11-TS-7B)

STA 77+79.26 TO STA 82+05.49

(A) THE SLOPES OF THE SHOULDER AND ROADWAY PAVEMENT SHALL NOT EXCEED AN ALGEBRAIC DIFFERENCE OF 0.07 FOOT PER FOOT

(B) SEE SHEET 2B5 FOR SHOULDER WIDENING DETAIL FOR GUARDRAIL WHEN REQUIRED

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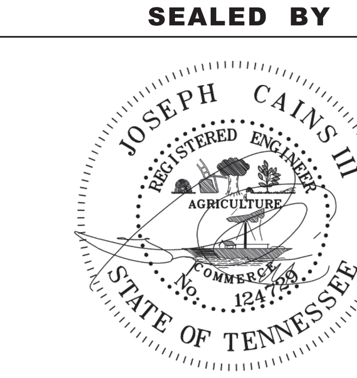

04/14/2026

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

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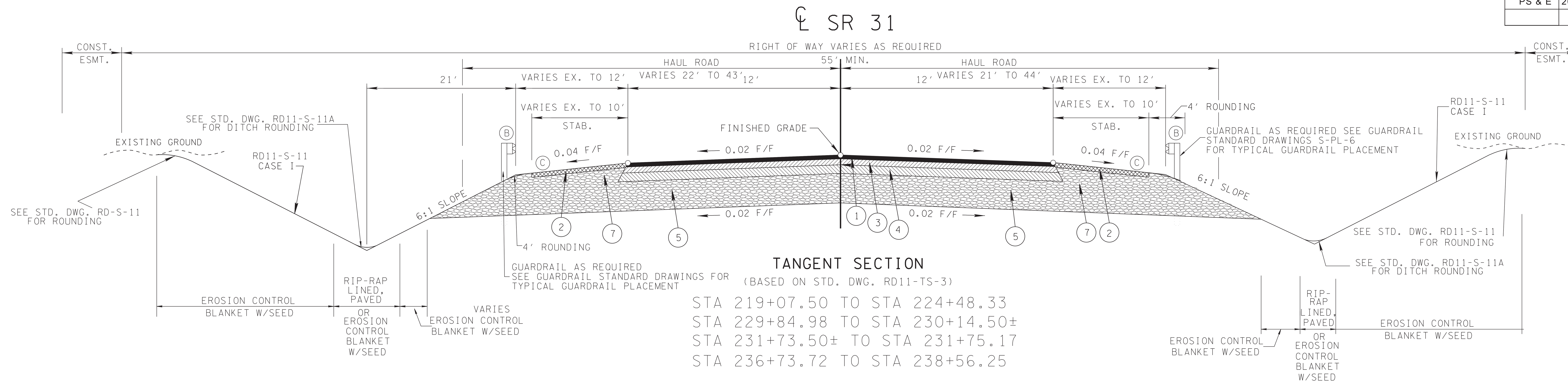
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	2B3
P-I-H	2025	STP/HPP-31(12)	2B3
PS & E	2026	STP/HPP-31(12)	2B3

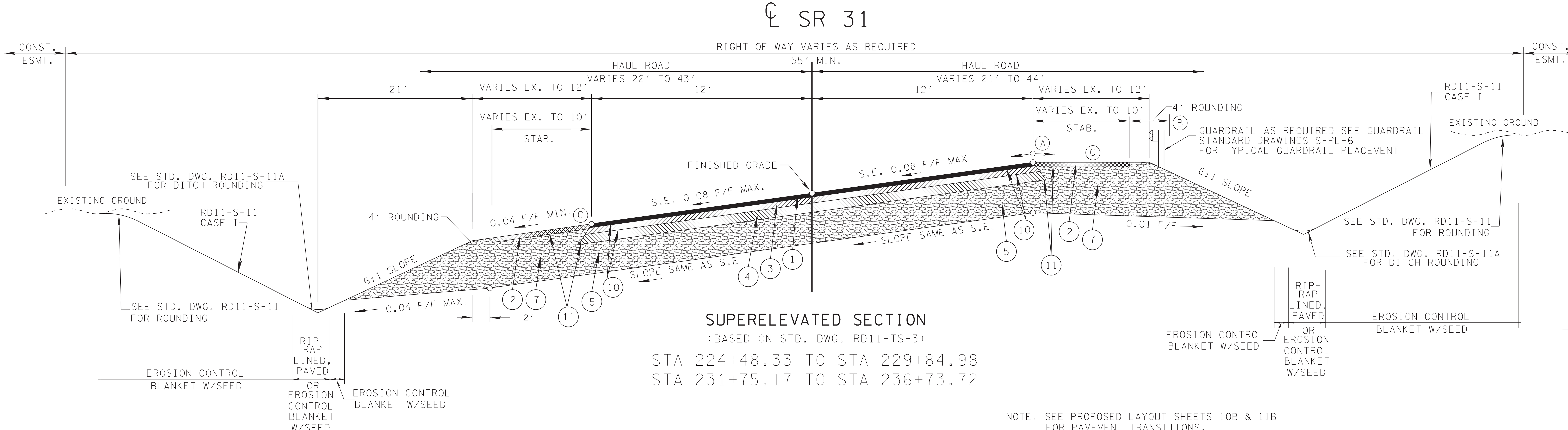


TANGENT SECTION

(BASED ON STD. DWG. RD11-TS-3)

STA 219+07.50 TO STA 224+48.33
STA 229+84.98 TO STA 230+14.50±
STA 231+73.50± TO STA 231+75.17
STA 236+73.72 TO STA 238+56.25

NOTE: SEE PROPOSED LAYOUT SHEETS 10B & 11B FOR PAVEMENT TRANSITIONS.



SUPERELEVATED SECTION

(BASED ON STD. DWG. RD11-TS-3)

STA 224+48.33 TO STA 229+84.98
STA 231+75.17 TO STA 236+73.72

NOTE: SEE PROPOSED LAYOUT SHEETS 10B & 11B FOR PAVEMENT TRANSITIONS.

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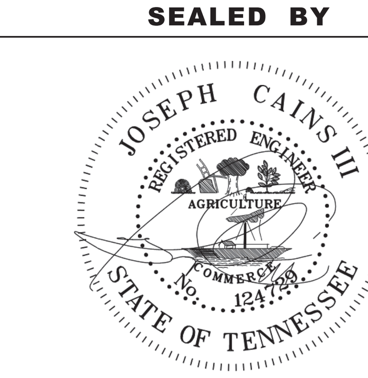

04/14/2026

Ⓐ THE SLOPES OF THE SHOULDER AND ROADWAY PAVEMENT SHALL NOT EXCEED AN ALGEBRAIC DIFFERENCE OF 0.07 FOOT PER FOOT

Ⓑ SEE SHEET 2B5 FOR SHOULDER WIDENING DETAIL FOR GUARDRAIL WHEN REQUIRED

Ⓒ WHERE SHOULDER IS DEONTED ON THE TTC TO BE UTILIZED FOR TEMPORARY TRAFFIC CONTROL, USE TRAVEL LANE PAVING DESIGN. (SEE TTC PLANS)

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

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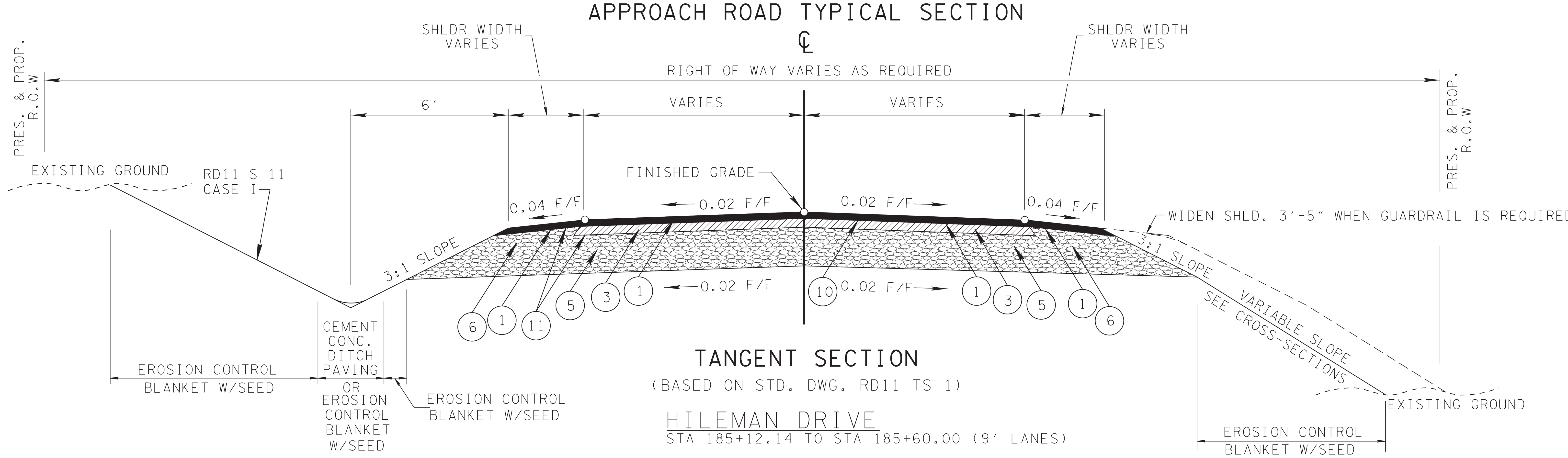
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	2B4
P-I-H	2025	STP/HPP-31(12)	2B4
PS & E	2026	STP/HPP-31(12)	2B4

APPROACH ROAD TYPICAL SECTION



TANGENT SECTION

(BASED ON STD. DWG. RD11-TS-1)

HILEMAN DRIVE

STA 185+12.14 TO STA 185+60.00 (9' LANES)

HELTON LANE Ⓓ

STA 188+25.00 TO STA 189+78.62

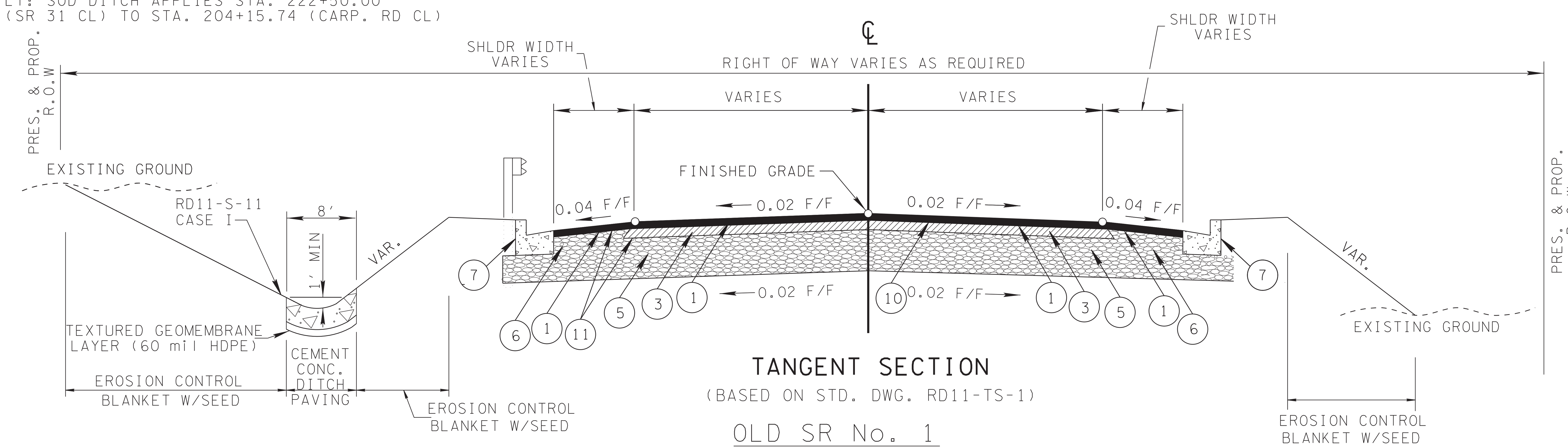
LT: CONCRETE DITCH APPLIES STA. 188+30.00 (HELTON LANE CL) TO STA. 80+00.00 (SR 31 CL)

CARPENTER ROAD

STA 204+35.00 TO STA 204+88.00

LT: SOD DITCH APPLIES STA. 222+50.00 (SR 31 CL) TO STA. 204+15.74 (CARP. RD CL)

APPROACH ROAD TYPICAL SECTION



TANGENT SECTION

(BASED ON STD. DWG. RD11-TS-1)

OLD SR No. 1

STA 148+48.29 TO STA 151+51.24

STA 151+51.24 TO STA 152+37.81 (OVERLAY ONLY)

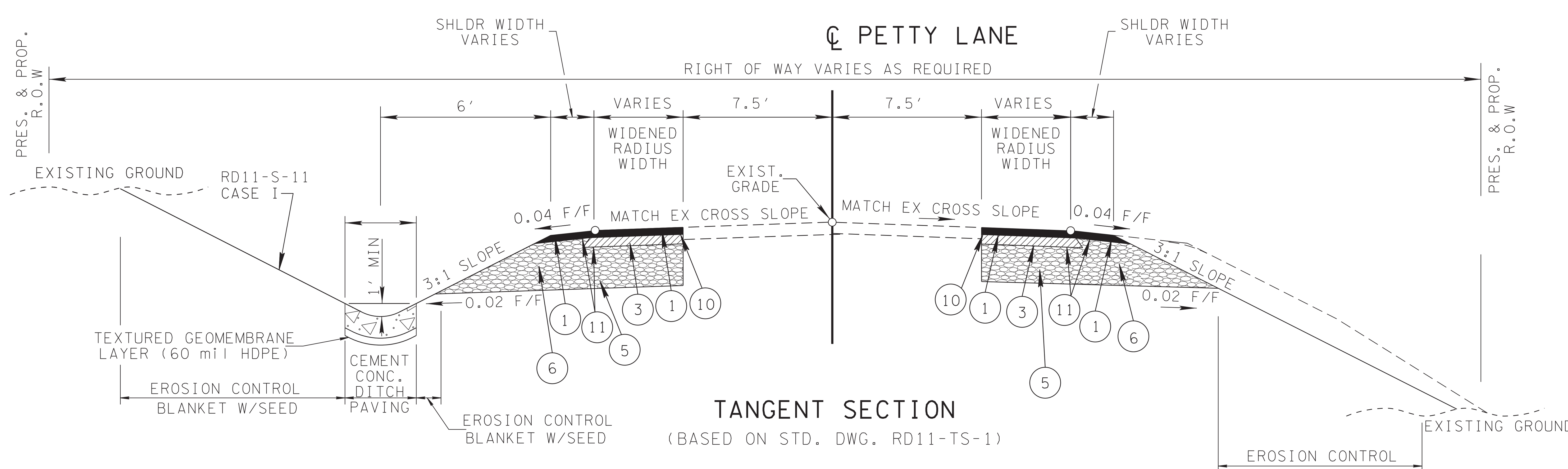
RT: CONCRETE DITCH APPLIES STA. 150+80.02 TO STA.150+92.79

LT: CONCRETE DITCH APPLIES STA. 151+18.25(OLD SR1 CL) TO STA. 22+17.50 (SR31 CL)

CHURCH LANE

STA 155+17.93 TO STA 155+75.00

℄ PETTY LANE



TANGENT SECTION

(BASED ON STD. DWG. RD11-TS-1)

PETTY LANE

STA 195+11.81 TO STA 195+75.00
(TURNING RADIUS WIDENING)

Ⓐ THE SLOPES OF THE SHOULDER AND ROADWAY PAVEMENT SHALL NOT EXCEED AN ALGEBRAIC DIFFERENCE OF 0.07 FOOT PER FOOT

Ⓑ SEE SHEET 2B5 FOR SHOULDER WIDENING DETAIL FOR GUARDRAIL WHEN REQUIRED

Ⓓ FOR HELTON LANE USE S.R. 31 PAVEMENT DESIGN FULL DEPTH, TRAVEL LANES AND SHOULDERS

NOTE: SEE PROPOSED LAYOUT SHEETS 5B, 7B, 8B, 9B & 10B FOR PAVEMENT TRANSITIONS.

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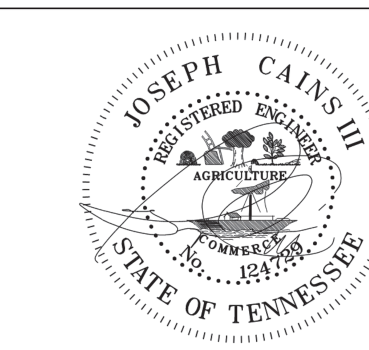

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

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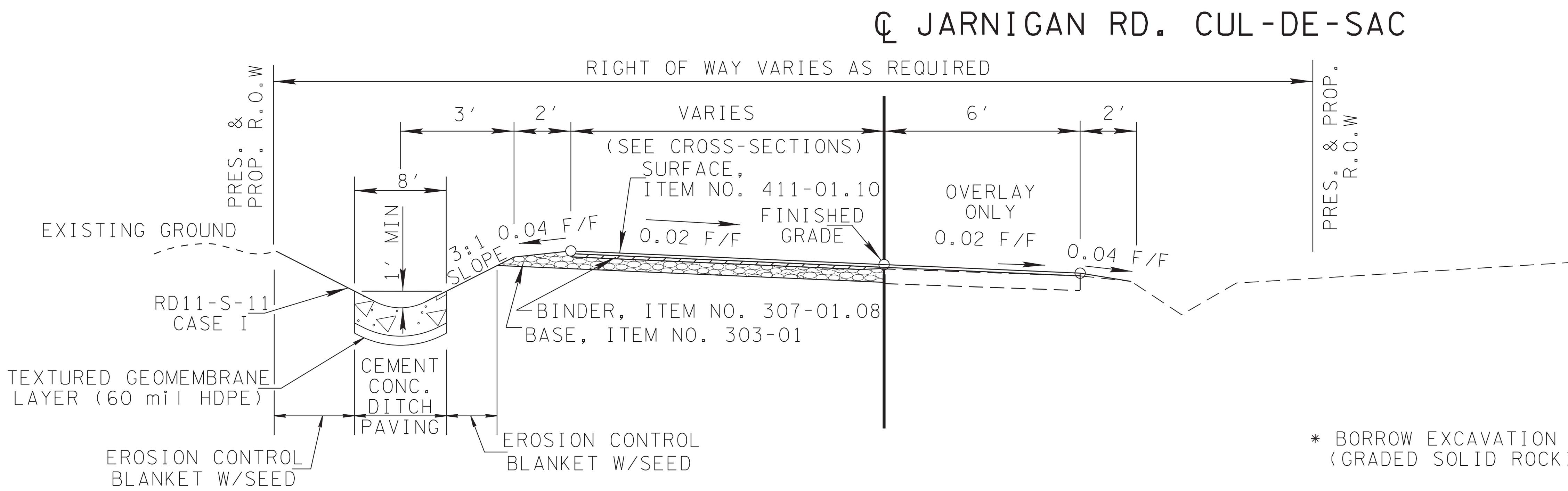
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	2B5
P-I-H	2025	STP/HPP-31(12)	2B5
PS & E	2026	STP/HPP-31(12)	2B5

CUL-DE-SAC

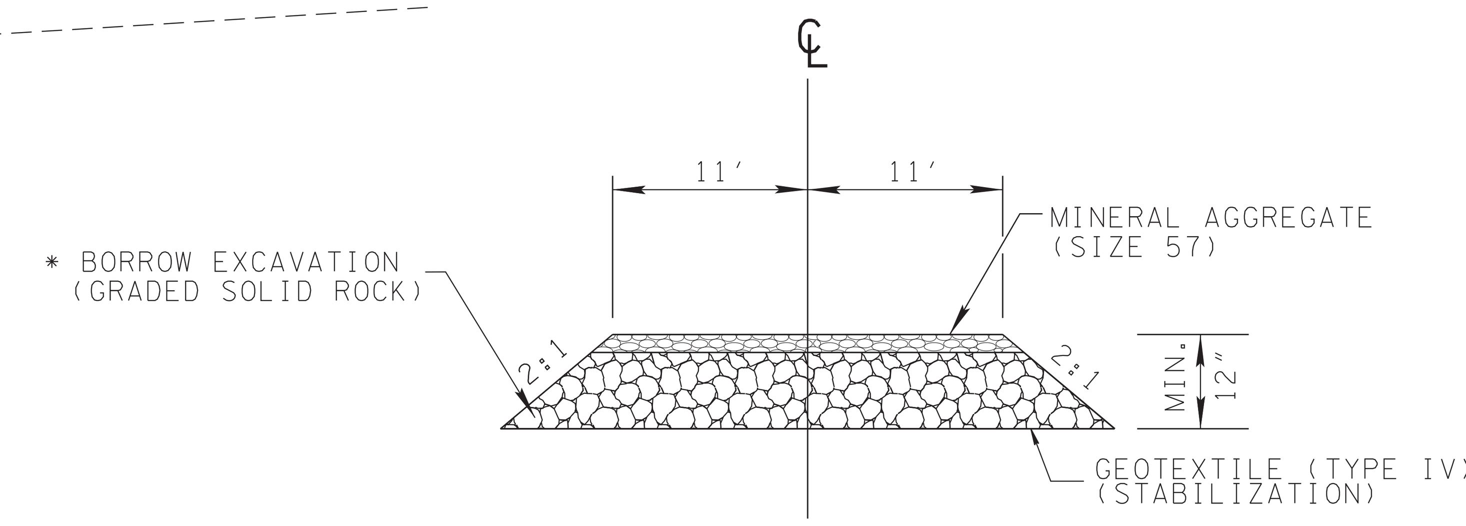
SURFACE - 1¼" ±
BINDER - 1¾" ±
BASE - 4" ±



TANGENT SECTION

JARNIGAN RD CUL-DE-SAC

STA 100+60 TO STA 101+64.26



TANGENT SECTION

HAUL ROAD

STA 224+48 TO STA 235+60

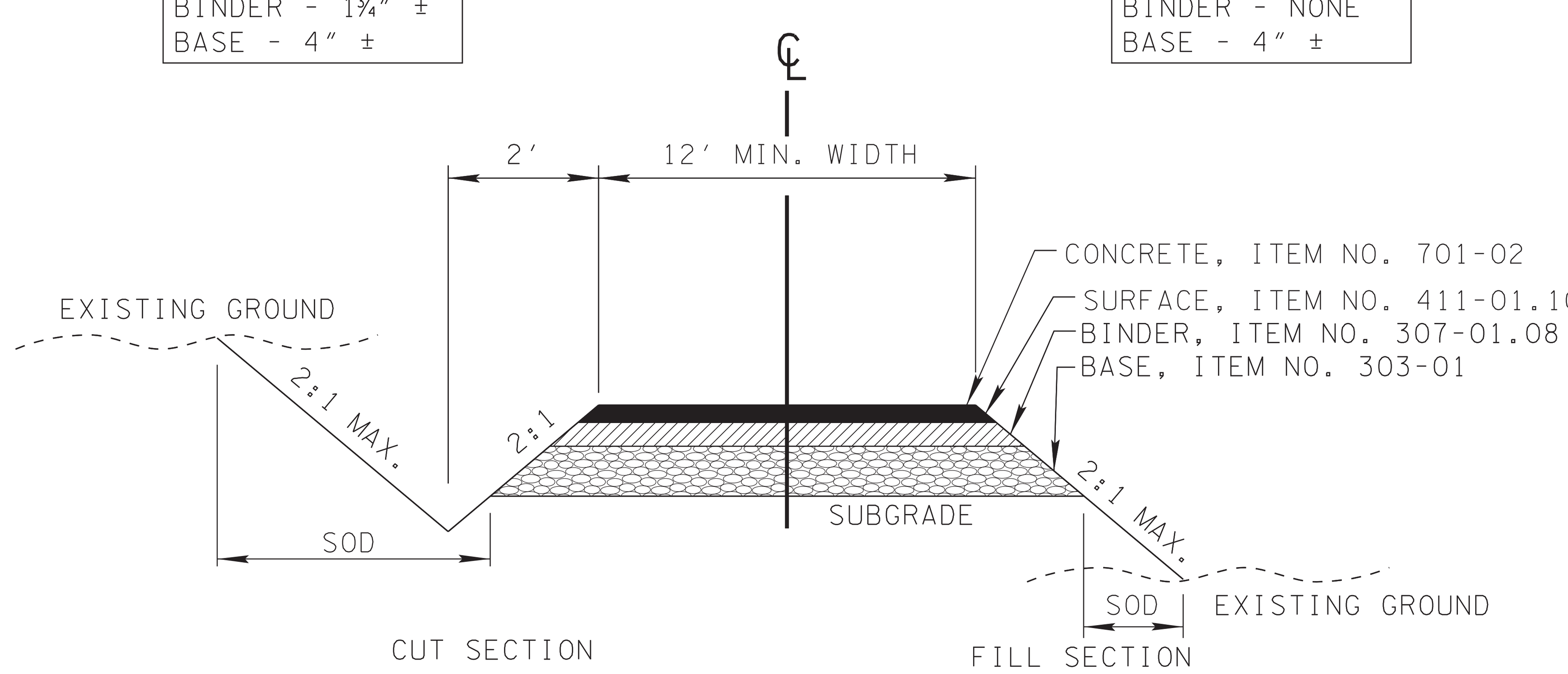
NOTE: GEOTEXTILE (TYPE IV) (STABILIZATION) DOES NOT APPLY FROM STA.229+25.00 TO STA.230+14.50 (BEGIN BRIDGE). THE PROPOSED HAUL ROAD MATERIAL OVERLAPS WITH THE PROPOSED GSR FROM THE GEOTECHNICAL PLANS. IN THE AREA OF THE OVERLAP, THE HAUL ROAD GSR SHALL REMAIN PERMANENTLY.

BUSINESS

SURFACE - 1¼" ±
BINDER - 1¾" ±
BASE - 4" ±

FIELD OR RESIDENTIAL

SURFACE - 1½" ±
BINDER - NONE
BASE - 4" ±



NOTE: DITCH TO BE CONSTRUCTED WHERE DIRECTED BY THE ENGINEER

TYPICAL SECTION

PRIVATE DRIVE TO BUSINESS, FIELD, OR RESIDENTIAL PROPERTY

SEE PROJECT R.O.W. NOTES FOR NOTES REGARDING DRIVEWAYS

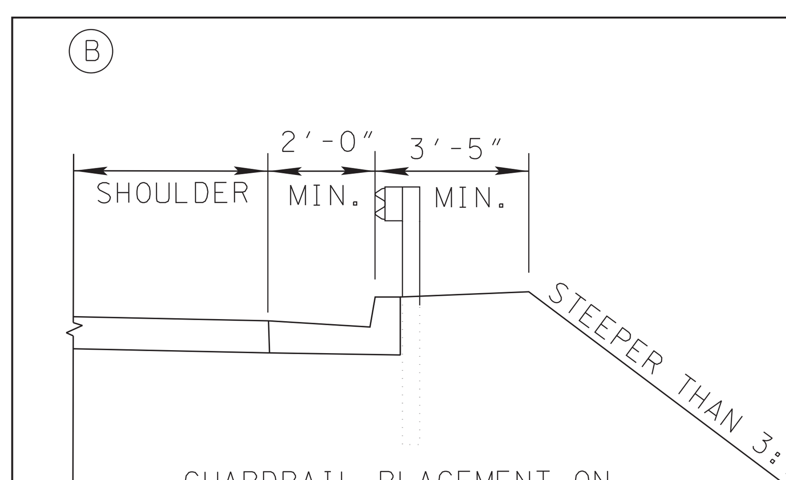
WHERE SURFACE OF EXISTING DRIVE IS CONCRETE, SUBSTITUTE 6" CONCRETE FOR BASE & SURFACE.

FOR CURB AND GUTTER SECTIONS, THIS TYPICAL SECTION IS TO BEGIN AT THE BACK EDGE OF THE PROPOSED OR FUTURE SIDEWALK. SEE STANDARD DRAWINGS RP-D-15 & RP-D-16 FOR DESIGN OF DRIVES FROM CURB LINE TO BACK OF SIDEWALK.

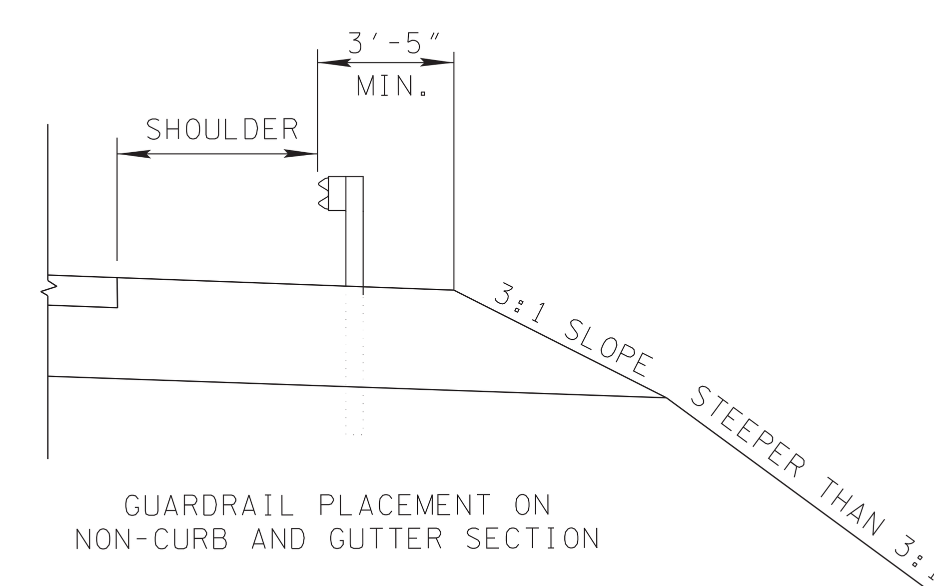
IF EXISTING DRIVE IS GRAVEL, SURFACING WILL BE FOR ONE SHOULDER WIDTH. THE REMAINDER OF THE DRIVE WILL BE REPLACED WITH GRAVEL TO THE TOUCHDOWN POINT.

DRIVES WHICH TIE DOWN IN PARKING AREAS SHALL HAVE 12:1 SIDE SLOPES.

ALL RADII AT PRIVATE DRIVES SHALL BE 15' UNLESS NOTED DIFFERENTLY ON PLAN SHEETS.

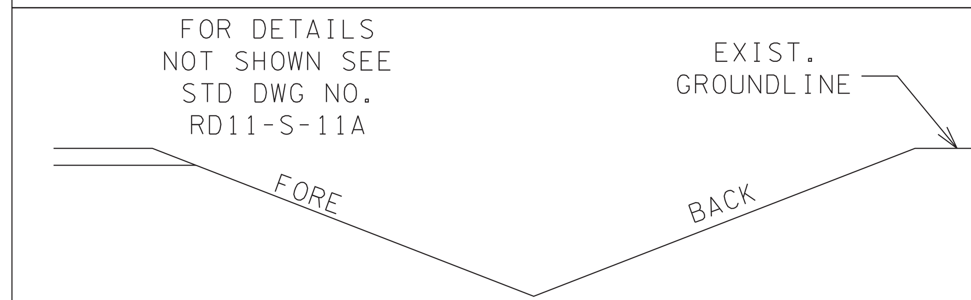


GUARDRAIL PLACEMENT ON CURB AND GUTTER SECTION



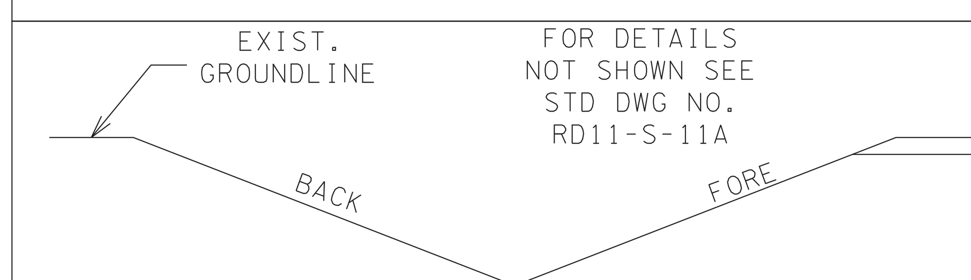
GUARDRAIL PLACEMENT ON NON-CURB AND GUTTER SECTION

DETAIL NO. 1



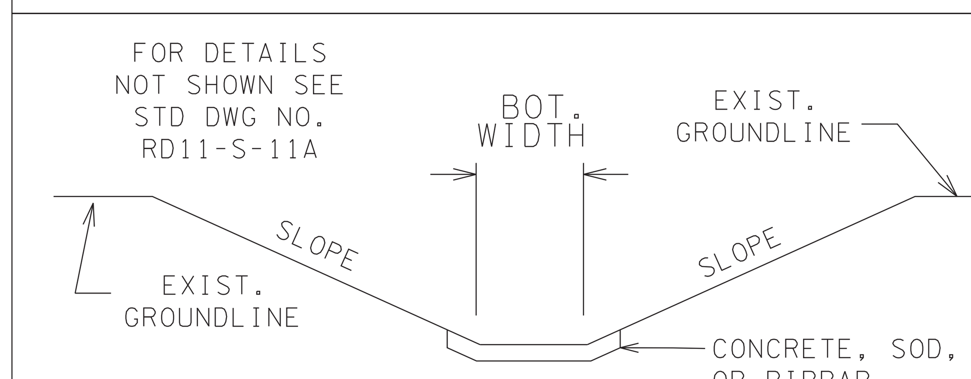
PROP. RT. "V" BOTTOM
CONCRETE, SODDED, OR RIPRAPPED DITCH
RT. STA. 13+50.00 TO 17+10.00 SR 31
RT. STA. 21+37.16 TO 22+17.50 SR 31
RT. STA. 23+20.88 TO 24+34.65 SR 31
RT. STA. 24+95.31 TO 26+00.00 SR 31
RT. STA. 219+24.18 TO 228+89.60 SR 31
RT. STA. 231+19.96 TO 236+08.91 SR 31
RT. STA. 236+53.62 TO 238+54.22 SR 31
RT. STA. 150+80.02 TO 151+49.95 OLD SR 1
RT. STA. 148+48.49 TO 148+93.09 OLD SR 1
RT. STA. 149+26.96 TO 149+62.73 OLD SR 1
RT. STA. 195+22.24 TO 195+75.00 PETTY LANE
RT. STA. 204+15.74 TO 204+54.15 CARPENTER RD.

DETAIL NO. 2



PROP. LT. "V" BOTTOM
CONCRETE, SODDED, OR RIPRAPPED DITCH
LT. STA. 16+50.00 TO 17+17.68 SR 31
LT. STA. 155+49.74 TO LT. 155+75.11 CHURCH LN.
LT. STA. 78+31.33 TO 80+00.00 SR 31
LT. STA. 219+07.44 TO 219+73.95 SR 31
LT. STA. 222+50.00 TO 223+50.00 SR 31
LT. STA. 224+50.00 TO 230+83.04 SR 31
LT. STA. 150+37.59 TO 151+18.25 OLD SR 1
LT. STA. 188+30.00 TO 189+23.17 HELTON LANE
LT. STA. 222+50.00 TO RT. STA. 204+15.74 CARPENTER ROAD
LT. STA. 34+00.00 TO LT. STA. 35+50.00 SR 31

DETAIL NO. 3



PROP. TRAPIZOIDAL
CONCRETE, SODDED, OR RIPRAPED DITCH

RT. STA. 23+20.88 TO 24+34.65 SR 31
LT. STA. 70+09.20 TO 73+89.73 SR 31
RT. STA. 231+19.96 TO 236+08.91 SR 31

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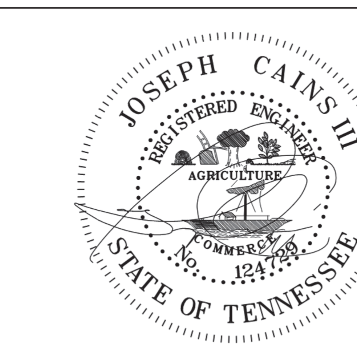

04/14/2026

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	2C
PS & E	2026	STP/HPP-31(12)	2C

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 FLOODWAY 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 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, SEEDING (WITH MULCH), SHALL BE USED WHERE EROSION CONTROL BLANKET OR SOD ARE NOT APPLIED.

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

.GUARDRAIL

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

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

DRAINAGE

(1) EXCAVATION FOR PIPES CULVERTS AND STORM SEWERS WILL NOT BE MEASURED AND PAID FOR DIRECTLY BUT WILL BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF PIPE.

(2) 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.

(3) 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).

(4) 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.

(5) ALL EXISTING PIPES AS SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER THAT ARE TO BE LEFT IN PLACE AND ABANDONED MUST BE BACKFILLED AND PLUGGED. ALL COST FOR THIS WORK SHALL BE INCLUDED IN ITEM NO. 204-08.01, BACKFILL MATERIAL (FLOWABLE FILL), C.Y.

(6) AT ALL SIDE DRAIN LOCATIONS, CONTRACTOR SHALL HARMONIZE UPSTREAM ENDWALL INVERT WITH EXISTING SWALE USING A 1:6 SLOPE.

(7) ALL EXISTING DRAINAGE STRUCTURES TO BE REMOVED UNLESS NOTED OTHERWISE IN THE PLANS. SEE SHEET 2F3 FOR TABLE SHOWING DRAINAGE PIPES AND OTHER RELEVANT DRAINAGE STRUCTURES TO BE REMOVED.

FENCING

(1) LOCATION OF THE FENCE SHALL BE ONE FOOT INSIDE THE RIGHT-OF-WAY EXCEPT WERE SHOWN OTHERWISE ON THE PLANS.

(2) FENCES SHALL BE TURNED IN AT DRAINAGE STRUCTURES, STOCK PASSES AND BRIDGES WHERE DIRECTED BY THE ENGINEER SO AS TO ABUT WINGWALLS AND/OR ABUTMENTS.

(3) THE CONTRACTOR SHALL GIVE THE AFFECTED PROPERTY OWNERS A TWO-WEEK NOTICE PRIOR TO CUTTING FENCES.

(4) THE CONTRACTOR SHALL BE REQUIRED TO INSTALL ACCESS CONTROL FENCES PRIOR TO CUTTING EXISTING STOCK FENCES IN AREAS UTILIZED BY DOMESTIC LIVESTOCK OR OTHER AREAS AS DIRECTED BY THE ENGINEER.

(5) CONTRACTOR SHALL REMOVE EXISTING FENCING WITHIN THE LIMITS OF THE PROPOSED RIGHT OF WAY.

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.

FINAL PAVEMENT MARKING

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

a. BROOMING & DE-GRASSING SHOULDERS SHALL INCLUDE CLIPPING OF MATERIAL INTERFERING WITH PROPER DRAINAGE OF ROADWAY (INCLUDING PAVED AND GRAVEL SHOULDER), AS DIRECTED BY THE ENGINEER.

b. ALL MATERIAL FROM CLIPPING, BROOMING AND DE-GRASSING SHOULDER SHALL BE PICKED UP, REMOVED AND PROPERLY DISPOSED AS DIRECTED BY THE ENGINEER.

c. REMOVE ALL GARBAGE AND CONSTRUCTION DEBRIS FROM PROJECT. THE COST FOR THIS WILL BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS OF CONSTRUCTION.

(2) PERMANENT PAVEMENT LINE MARKINGS SHALL BE 4” 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. 716-12.01, ENHANCED FLATLINE THERMO PVMT MRKNG (4IN LINE), L.M. THE CONTRACTOR SHALL HAVE THE OPTION OF USING REFLECTORIZED PAINT INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAY’S WORK AND THEN INSTALLING THE PERMANENT MARKINGS AFTER THE PAVING OPERATION IS COMPLETED. THE TEMPORARY MARKINGS FOR THE FINAL SURFACE WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COSTS ARE TO BE INCLUDED IN THE PRICE BID FOR THE PERMANENT MARKINGS.

(3) 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.

(4) PERMANENT PAVEMENT LINE MARKINGS SHALL BE 8” 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. 716-12.06, ENHANCED FLATLINE THERMO PVMT MRKNG (8IN BARRIER LINE), L.F. 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

(1) 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.

PAVING

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

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

RESURFACING

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

(2) ALL PUBLIC SIDE ROADS SHALL BE PAVED ONE PAVER WIDTH THROUGH THE INTERSECTION AS A MINIMUM. A SATISFACTORY TRANSITION FROM THE NEW PAVEMENT TO THE EXISTING GRADE OF THE INTERSECTING PUBLIC ROAD OR BUSINESS ENTRANCE SHALL BE PROVIDED. SHOULD THE PAVEMENT OF THE INTERSECTING PUBLIC ROAD BE DISTRESSED, THE RESURFACING WIDTH MAY BE INCREASED TO THE NORMAL RIGHT OF WAY LINE.

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

(4) ON CURB AND GUTTER SECTIONS, PUBLIC ROAD INTERSECTIONS SHALL BE RESURFACED TO THE END OF RADIUS. A SATISFACTORY TRANSITION FROM THE NEW PAVEMENT TO THE EXISTING GRADE OF THE INTERSECTING PUBLIC ROAD SHALL BE PROVIDED.

(5) ON URBAN TYPICAL SECTIONS, (CURB AND GUTTER), RESIDENTIAL DRIVEWAYS AND BUSINESS ENTRANCES SHALL HAVE A MINIMUM WIDTH OF MATERIAL NOT LESS THAN ONE FOOT USED IN THE TRANSITION TO FEATHER THE PAVEMENT EDGE.

(6) 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.

SIGNING

(1) 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. THE LETTERS, DIGITS, ARROWS, BORDERS, AND ALPHABET ACCESSORIES ON ALL EXTRUDED PANEL SIGNS SHALL BE DIRECT APPLIED OR DEMOUNTABLE. ALL EXTRUDED PANEL SIGNS SHALL BE ATTACHED TO THE SIGN FACE, AS OUTLINED IN THE STANDARD SPECIFICATIONS.

SEALED BY

JOSEPH CAINS III
STATE OF TENNESSEE

04/14/2026

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	2C1
PS & E	2026	STP/HPP-31(12)	2C1

GENERAL NOTES (CONT'D)

ALL SHIELDS ON GUIDE SIGNS SHALL BE DIRECT APPLIED OR DEMOUNTABLE AND ATTACHED TO THE SIGN FACE AS OUTLINED IN THE STANDARD SPECIFICATIONS.

(2) 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.

(3) THE LENGTHS OF ALL SIGN SUPPORTS SHOWN ON THE SIGN SCHEDULE ARE APPROXIMATE AND ARE FOR ESTIMATING PURPOSES ONLY. THE LENGTHS WERE COMPUTED FROM THE CROSS-SECTIONS CONTAINED IN THE CONSTRUCTION PLANS. IN THE EVENT THE SUPPORT LENGTHS ARE 2 FEET SHORTER OR LONGER THAN SHOWN ON THE PLANS, THE ENGINEER SHALL VERIFY THE SUPPORT TYPE WITH THE TRAFFIC DESIGN DIVISION, SIGNING SECTION, TELEPHONE NO. (615)-741-0802. THE CONTRACTOR SHALL VERIFY ALL SUPPORT LENGTHS AT THE SITE PRIOR TO ORDERING MATERIAL.

(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.

(6) THE CONTRACTOR SHALL BE REQUIRED TO FURNISH LAYOUT DRAWINGS OF ALL EXTRUDED PANEL SIGNS WITH SPACING OF ALL LETTERS, NUMERALS, SHIELDS, AND ARROWS. ONE PDF SET OF THE LAYOUT DRAWINGS SHALL BE SENT TO THE TRAFFIC DESIGN DIVISION, SIGNING SECTION (TDOT.TrafficDesign.SignsandMarking@tn.gov) FOR REVIEW. ONE PDF SET OF THE LAYOUT DRAWINGS SHALL BE SENT TO THE REGIONAL SIGN DESIGNER FOR REVIEW.

(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) AFTER THE PERMANENT SIGN LOCATIONS HAVE BEEN STAKED, THERE SHALL BE A FIELD INSPECTION AND APPROVAL BY THE CONSTRUCTION FIELD OFFICE. PAYMENT FOR LOCATION AND STAKING SHOULD BE INCLUDED IN THE BID PRICE FOR OTHER ITEMS OF CONSTRUCTION. ANY RELOCATION REQUIRED, DUE TO THE SIGN NOT BEING INSTALLED IN THE CORRECT LOCATION, WILL BE DONE AT THE CONTRACTOR'S EXPENSE.

SIGNALIZATION

(1) EQUIPMENT AND INSTALLATION OF TRAFFIC SIGNALS SHALL COMPLY WITH TDOT STANDARD SPECIFICATIONS, SECTION 730.

(2) SALVAGEABLE EQUIPMENT SHALL BECOME THE PROPERTY OF THE COUNTY AND SHALL BE STOCKPILED AT A LOCATION DESIGNATED BY THE ENGINEER FOR PICKUP BY THE COUNTY.

(3) ANY SIGNAL HEADS, WHEN VISIBLE TO DRIVERS BUT NOT OPERATIONAL, SHALL BE COMPLETELY COVERED.

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 THE 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.

SEALED BY

04/14/2026

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	2D
PS & E	2026	STP/HPP-31(12)	2D

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.

(6) THE CONTRACTOR SHALL CONSTRUCT AND COMPACT ALL EMBANKMENTS AND BRIDGE APPROACHES WITHIN THE PROJECT LIMITS AS PER 205.04.C IN THE STANDARD SPECIFICATIONS FOR DEGRADABLE ROCK. STOCKPILING OF NON-DEGRADABLE MATERIAL MAY BE REQUIRED FOR USE IN CAPPING EMBANKMENT. NO SEPARATE PAYMENT WILL BE MADE FOR STOCKPILING OR ADDITIONAL HANDLING OF NON-DEGRADABLE MATERIAL.

(7) ACID PRODUCING MATERIAL (APM) SHALL BE TRANSPORTED OFF-SITE FOR DISPOSAL AT AN APPROPRIATE WASTE FACILITY. ONSITE ENCAPSULATION OR BLENDING SHALL NOT BE ALOWED.

DEMOLITION OF BUILDINGS

(1) IF THE ASBESTOS SURVEY AND ABATEMENT IS NOT PART OF THE CONTRACT, THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE TDOT HAZARDOUS MATERIALS OFFICE TO VERIFY THAT AN ASBESTOS SURVEY HAS BEEN COMPLETED FOR ANY BUILDING TO BE REMOVED. IN THE CASE THAT NO SURVEY HAS BEEN COMPLETED, THE CONTRACTOR SHALL COORDINATE WITH THE HAZARDOUS MATERIAL OFFICE IN SCHEDULING A SURVEY.

(2) ASBESTOS-CONTAINING MATERIALS (ACM) ABATEMENT SHALL BE COMPLETED PRIOR TO ANY DEMOLITION ACTIVITIES FOR BUILDINGS INCLUDED IN THE PROJECT. ABATEMENT SHOULD BE ACCOMPLISHED PER SP202ACM SPECIAL PROVISION REGARDING REMOVAL OF ASBESTOS-CONTAINING MATERIALS. STATE OF TENNESSEE ASBESTOS ACCREDITATION REQUIREMENTS (TCA 1200-01-20) MANDATE THAT ACM ABATEMENT WORK BE PERFORMED BY AN ACCREDITED FIRM (CONTRACTOR) USING ACCREDITED ABATEMENT WORKERS AND SUPERVISORS.

(3) THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING A NOTICE TO THE TDEC, DIVISION OF AIR POLLUTION CONTROL TEN (10) DAYS IN ADVANCE OF ANY ACM ABATEMENT, DEMOLITION, OR MAJOR REPAIR INVOLVING THE REMOVAL/REPLACEMENT OF A STRUCTURAL COMPONENT.

DEMOLITION, REPAIR, OR REHABILITATION OF BRIDGES

(1) THE CONTRACTOR SHALL VERIFY THAT AN ASBESTOS SURVEY HAS BEEN COMPLETED PRIOR TO ANY DEMOLITION, REPAIR OR REHABILITATIONS ACTIVITIES (NOT INCLUDING ASPHALT MILLING OR OVERLAY).

(2) ASBESTOS-CONTAINING MATERIALS (ACM) ABATEMENT IS THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE COMPLETED PRIOR TO ANY DEMOLITION, REPAIR OR REHABILITATION OF BRIDGE(S). ABATEMENT SHOULD BE ACCOMPLISHED PER SP202ACM SPECIAL PROVISION REGARDING REMOVAL OF ASBESTOS-CONTAINING MATERIALS. STATE OF TENNESSEE ASBESTOS ACCREDITATION REQUIREMENTS (TCA 1200-01-20) MANDATE THAT ACM ABATEMENT WORK BE PERFORMED BY AN ACCREDITED FIRM (CONTRACTOR) USING ACCREDITED ABATEMENT WORKERS AND SUPERVISORS.

(3) THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING A NOTICE TO THE TDEC, DIVISION OF AIR POLLUTION CONTROL TEN (10) DAYS IN ADVANCE OF ANY ACM ABATEMENT, DEMOLITION, OR MAJOR REPAIR INVOLVING THE REMOVAL/REPLACEMENT OF A STRUCTURAL COMPONENT.

HISTORICAL

(1) THE CONTRACTOR WILL BE RESPONSIBLE FOR REMOVING AND COORDINATING WITH THE TDOT REGIONAL SIGN SHOP FOR STORING HISTORIC MARKER(S). AT THE TIME THE MARKER(S) IS TAKEN DOWN, LINDA WYNN WITH THE TENNESSEE HISTORICAL COMMISSION SHOULD BE NOTIFIED AT (615)-770-1093. AT THE END OF CONSTRUCTION, MARKER(S) WILL BE RESET BY THE SIGN SHOP AT THE DIRECTION OF THE REGIONAL TRAFFIC ENGINEER. IF THE MARKER CANNOT BE RESET OUTSIDE OF THE CLEAR ZONE, THE REGIONAL TRAFFIC ENGINEER WILL CONTACT THE TENNESSEE HISTORIC COMMISSION AND RETURN THE MARKER(S).

DRAINAGE

(1) DURING CONSTRUCTION OF DRAINAGE STRUCTURES EXCEPT THE 60" PROPOSED CULVERT IN SECTION 3, 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.

SIGNING

(1) ALL SIGNS WHICH INTERFERE WITH CONSTRUCTION WILL BE RELOCATED OUTSIDE LIMITS OF CONSTRUCTION BY THE CONTRACTOR. UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR WILL RELOCATE THE SIGNS TO THE PROPOSED LOCATION. THE CONTRACTOR SHALL CHECK WITH THE REGIONAL TRAFFIC ENGINEER FOR STATE MAINTAINED SIGNAGE AND WITH HAWKINS COUNTY HIGHWAY SUPERINTENDENT FOR COUNTY MAINTAINED SIGNS PRIOR TO MOVING ANY PERMANENT SIGNS.

RIGHT-OF-WAY

(1) RIGHT-OF-WAY MARKERS ARE TO BE INSTALLED FLUSH WITH THE FINISHED GRADED OR PRESENT PAVED SURFACE IN AREAS WHERE MOTORIZED VEHICLES ARE ANTICIPATED.

HIGH VISIBILITY FENCE

(1) HIGH VISIBILITY FENCE THAT IS DOMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACE AT THE CONSTRUCTORS EXPENSE ON THE SAME DAY THE DAMAGE OCCURS.

SEALED BY

JOSEPH CAINS III
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
STATE OF TENNESSEE

04/14/2026

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SPECIAL NOTES

ENVIRONMENTAL NOTES

(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

(1) 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.

(2) 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).

(3) 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

(1) 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).

(2) 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.

(3) 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.

(4) 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.

(5) 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

(1) 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.

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

(1) STAFF FROM THE TDOT ENVIRONMENTAL DIVISION OR A DESIGNEE SHALL ADVISE THE CONTRACTOR DURING THE PRECONSTRUCTION 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.

(2) 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.

(3) 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.

PROJECT COMMITMENTS

(1) SEE PROJECT COMMITMENTS, SHEET 1B, FOR DETAILS RELATING TO SPECIAL ENVIRONMENTAL COMMITMENTS REQUIRED BY THIS PROJECT.

SCOPE OF WORK

(1) ROADWAY WIDENING, INTERSECTION AND DRAINAGE IMPROVEMENTS, AND BRIDGE REPLACEMENT.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	2E
PS & E	2026	STP/HPP-31(12)	2E

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ENVIRONMENTAL NOTES

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	2E
P-I-H	2025	STP/HPP-31(12)	2F
PS & E	2026	STP/HPP-31(12)	2F

CATCH BASINS AND MANHOLES

SHEET NO.	LOCATION	STATION	OFFSET (FT.)	DRAINAGE CODE	GRATE/ TOP ELEV.	INVERT ELEV.	DEPTH (FT.)	INSIDE DIM.	STANDARD DRAWING NO.	PAY ITEMS TYPE 3 611-01.02 4'-8'	TYPE 3 611-01.03 8'-12'	TYPE 12 611-12.01 0'-4'	TYPE 12 611-12.02 4'-8'	TYPE 25 611-25.02 0'-4'	TYPE 38 611-38.01 0'-4'	TYPE 38 611-38.02 4'-8'
4B	RT - S.R. 31	17+08.13	43.98	CB2	1097.50	1093.00	4.50	4' X 4'	D-CB-38SB							1
4B	LT - S.R. 31	17+17.82	43.01	CB1	1095.17	1090.81	4.36	4' X 4'	D-CB-38SB							1
4B	RT - S.R. 31	17+35.14	27.02	MH201	1098.90	1089.92	8.98	60"X 60"	D-MH-3		1					
5B	RT - S.R. 31	19+50.00	26.32	CB202	1090.72	1086.22	4.50	36" X 36"	D-CB-12P				1			
5B	RT - S.R. 31	20+32.27	33.71	CB9	1089.93	1085.43	4.50	36" X 36"	D-CB-12P				1			
5B	RT - S.R. 31	20+45.00	21.24	JB6	1089.36	1085.06	4.30	EXIST.								
5B	LT - S.R. 31	20+45.59	30.44	CB5	1090.05	1085.33	4.72	36" X 36"	D-CB-12P				1			
5B	LT - S.R. 31	20+01.22	109.06	CB3	1090.40	1086.06	4.34	4' X 4'	D-CB-38SB							1
5B	LT - S.R. 31	20+45.17	21.13	JB203	1089.25	1085.30	4.06	EXIST.								
5B	RT - S.R. 31	20+56.77	47.56	CB8	1089.75	1084.99	4.45	36" X 36"	D-CB-12P				1			
5B	RT - S.R. 31	20+79.46	23.10	MH7	1090.34	1084.70	5.64	EXIST.								
5B	LT - S.R. 31	20+91.00	53.00	CB4	1089.60	1085.70	3.90	36" X 36"	D-CB-12P			1				
5B	RT - S.R. 31	21+27.00	24.23	MH13	1090.39	1084.19	6.00	60"X 60"	D-MH-2	1						
5B	RT - S.R. 31	21+28.00	41.64	CB14	1089.49	1085.02	4.47	36" X 36"	D-CB-12P				1			
5B	LT - S.R. 31	21+55.00	42.32	CB10	1089.85	1085.53	4.32	36" X 36"	D-CB-12P				1			
5B	LT - S.R. 31	21+81.34	32.40	CB11	1090.08	1085.28	4.67	36" X 36"	D-CB-12P				1			
5B	RT - S.R. 31	21+81.34	25.16	MH12	1090.38	1084.02	6.28	60"X 60"	D-MH-2	1						
5B	RT - S.R. 31	22+76.04	27.14	CB15	1090.19	1083.19	7.00	7' X7'	D-CB-25SD					1		
5B	RT - S.R. 31	24+15.15	27.17	CB21	1090.21	1083.34	6.89	5'2" X 5'2"	D-CB-12SC				1			
5B	LT - S.R. 31	24+01.68	26.00	CB22	1090.47	1087.81	2.66	4' X 4'7"	STD-1-7							
5B	LT - S.R. 31	24+36.82	22.00	MH301	1090.58	1085.68	4.90	60"X 60"	D-MH-2	1						
5B	RT - S.R. 31	25+10.00	27.04	CB25	1090.27	1084.10	6.17	36" X 36"	D-CB-12P				1			
5B	LT - S.R. 31	25+15.39	27.04	CB24	1090.28	1084.94	5.34	36" X 36"	D-CB-12P				1			
5B	LT - S.R. 31	27+25.00	27.04	CB26	1092.23	1088.23	4.00	36" X 36"	D-CB-12P			1				
5B	RT - S.R. 31	27+25.00	27.04	CB27	1092.23	1087.27	4.96	36" X 36"	D-CB-12P				1			
5B	LT - S.R. 31	30+75.00	27.04	CB28	1100.91	1096.87	4.04	36" X 36"	D-CB-12P				1			
5B	RT - S.R. 31	30+75.00	27.04	CB29	1100.91	1095.85	5.06	36" X 36"	D-CB-12P				1			
6B	RT - S.R. 31	34+00.00	24.14	CB30	1109.22	1105.22	4.00	4' X 4'	D-CB-38SB						1	
6B	LT - S.R. 31	34+00.00	29.00	CB31	1107.50	1103.20	4.00	4' X 4'	D-CB-38SB						1	
6B	LT - S.R. 31	36+30.00	25.50	CB32	1114.55	1103.20	4.00	4' X 4'	D-CB-38SB						1	
	TOTALS									3	1	2	13	1	3	3

STORM DRAIN ENDWALLS

LOCATION \ SHEET NO.	STATION	OFFSET (FT.)	SKEW	CODE	TYPE	STANDARD DRAWING NO.	PROTECTED ENDWALLS CLASS "A" CONCRETE 611-07.01 (C.Y.)	STEEL BAR REINFORCING 611-07.02 (LB.)	SAFETY ENDWALLS (ITEM NO. 611-07.54 THRU 611-07.71 SERIES) 24" IN. 3:1 07.57 (EACH)	36" IN. 3:1 07.63 (EACH)
S.R. 31 - 5B	22+81.97	45.23	90°	EW16	A	D-PEW-1 & D-PEW-2	2.84	109		1
S.R. 31 - 5B	24+05.35	48.84	90°	EW20	U	D-PE-24A			1	
TOTALS							2.84	109	1	1

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TABULATED QUANTITIES

SHEET 1 OF 5

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	2E1
P-I-H	2025	STP/HPP-31(12)	2F1
PS & E	2026	STP/HPP-31(12)	2F1

CROSS DRAIN ENDWALLS

LOCATION	STATION	OFFSET (FT.)	SKEW	DRAINAGE CODE	TYPE	STANDARD DRAWING NO.	RIP-RAP CLASS "C" 709-05.09 (TON)	PROTECTED ENDWALLS CLASS "A" CONCRETE 611-07.01 (C.Y.)	PROTECTED ENDWALLS STEEL BAR REINFORCING 611-07.02 (LB.)	SAFETY ENDWALLS (ITEM NO. 611-07.54 THRU 611-07.71 SERIES) 18 IN. 3:1 07.54 (EACH)	18 IN. 4:1 07.55 (EACH)	18 IN. 6:1 07.56 (EACH)	30" IN. 6:1 07.33 (EACH)
CHURCH LANE	155+50.00	22.00 LT	90°	EW19	U	D-PE-18A					1		
CHURCH LANE	155+50.00	22.00 RT	90°	EW18	U	D-PE-18A				1			
PETTY LANE	195+19.97	27.50 LT	90°	EW110	U	D-PE-18A					1		
PETTY LANE	195+19.97	39.18' RT	90°	EW109	U	D-PE-18A					1		
HILEMAN DR	185+26.77	19.00 RT	90°	EW 117	U	D-PE-18A					1		
HILEMAN DR	185+28.73	17.00 LT	90°	EW118	U	D-PE-18A					1		
OLD SR 1	152+11.25	21.94 LT	90°	EW2A	U	D-PE-18A, D-PE-18B, AND D-SEW-1A						1	
OLD SR 1	151+79.18	22.88 LT	90°	EW2B	U	D-PE-18A, D-PE-18B, AND D-SEW-1A						1	
SR 31	11+91.63	41.12 LT	90°	EW1A	U	D-PE-18A, D-PE-18B, AND D-SEW-1A						1	
SR 31	12+31.48	41.41 LT	90°	EW1B	U	D-PE-18A, D-PE-18B, AND D-SEW-1A						1	
SR 31	72+10.28	32.85 RT	90°	EW117A	U	D-PE-18A						1	
SR 31	72+42.27	33.49 RT	90°	EW117B	U	D-PE-18A						1	
SR 31	70+09.24	37.00 LT	90°	EW117C	U	D-PE-18A						1	
SR 31	69+77.73	37.00 LT	90°	EW117D	U	D-PE-18A						1	
SR 31	77+43.61	46.41 LT	90°	EW111	U	D-PE-18A	28				1		
SR 31	77+53.59	29.75 RT	90°	EW112	U	D-PE-18A					1		
SR 31	77+67.39	38.95 RT	90°	EW112B	U	D-PE-18A, D-PE-18B, AND D-SEW-1A						1	
SR 31	78+17.22	34.08 RT	90°	EW112A	U	D-PE-18A, D-PE-18B, AND D-SEW-1A						1	
SR 31	220+50.00	40.00 LT	90°	EW113	U	D-PE-18A	28			1			
SR 31	220+50.00	33.00 RT	90°	EW114	U	D-PE-18A						1	
SR 31	236+56.23	28.18 LT	90°	EW115	A	D-PEW-1 & D-PEW-2	165	8.54	434				
SR 31	236+56.23	28.09 RT	90°	EW116	A	D-PEW-1 & D-PEW-2	75	8.54	434				
SR 32	240+ 50.00	22.75' RT	90°	EW (TEMP.)	SAFETY	D-SEW-1A							1
TOTALS							296	17.08	868	2	7	11	1

RIGHT OF WAY MARKERS

SHEET NO.	Item #: 708-02.01 QUANTITIES "A"	"B"	"C"	TOTALS
4A			2	2
5A	20		3	23
6A	7		2	9
7A			2	2
8A	7			7
9A	9		2	11
10A	6	1	3	10
11A	9		2	11
TOTALS	58	1	16	75

CROSS DRAIN TABULATION

STATION	SKEW	DRAINAGE CODE	RCP CLASS III OR CMP 14 GA OR PVC OR SRTRP OR HDPE OR PP FILL HEIGHT ≤ 16 FT. 607-03.02 18"	607-11.03 60"	END TREATMENT INLET TYPE	INLET DRAWING NO.	OUTLET TYPE	OUTLET DRAWING NO.	REMARKS
SECTION 1									
155+49.25	90°	EW18/EW19	44		U	D-PE-18A	U	D-PE-18A	CHURCH LANE
195+19.97	90°	EW109/EW110	68		U	D-PE-18A	U	D-PE-18A	PETTY LANE
SECTION 2									
185+28.24	90°	EW117/EW118	36		U	D-PE-18A	U	D-PE-18A	HILEMAN DRIVE
77+50.00	82°39'11" LT	EW111/EW112	76		U	D-PE-18A	U	D-PE-18A	S.R. 31
SECTION 3									
220+50.00	90°	EW113/EW114	73		U	D-PE-18A	U	D-PE-18A	S.R. 31
236+56.23	90°	EW115/EW116		56	A	D-PEW-1 & D-PEW-2	A	D-PEW-1 & D-PEW-2	S.R. 31
TOTALS			297	56					

Pipe Tabulation For Local Roadways

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TABULATED QUANTITIES

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	2E1
P-I-H	2025	STP/HPP-31(12)	2F2
PS & E	2026	STP/HPP-31(12)	2F2

STORM DRAINAGE PIPES

SHEET NO.	INLET CODE NO.	INLET OUTLET ELEV.	OUTLET CODE NO.	OUTLET INLET ELEV.	% GRADE	REINFORCED CONCRETE PIPE-CLASS, ITEM NO., SIZE & LENGTH (FT.) CLASS III 607-03.02 18"	CLASS III 607-05.02 24"	CLASS III 607-07.02 36"
4B	CB2	1093.00	MH201	1089.92	11.85%		26	
4B	CB1	1090.81	MH201	1089.92	1.35%		66	
4B-5B	MH201	1089.92	CB202	1086.22	1.76%		210	
5B	CB202	1086.22	CB9	1085.43	1.01%		78	
5B	CB9	1085.43	CB8	1084.99	1.69%		26	
5B	CB8	1084.99	MH7	1084.70	1.00%		29	
5B	CB5	1085.33	JB203	1085.30	0.50%		6	
5B	CB3	1086.06	CB4	1085.70	0.65%	55		
5B	CB4	1085.70	CB5	1085.33	0.77%	48		
5B	CB14	1085.02	MH13	1084.19	6.38%	13		
5B	CB10	1085.53	CB11	1085.28	1.00%	25		
5B	CB11	1085.28	MH12	1084.02	2.38%	53		
5B	MH12	1084.02	CB15	1083.19	0.95%			87
5B	CB15	1083.19	EW16	1082.52	4.47%			15
5B	CB22	1085.97	MH301	1085.68	7.34%	29		
5B	MH301	1085.68	CB24	1084.94	1.00%	78		
5B	CB21	1083.34	EW20	1082.91	2.05%		21	
5B	CB25	1084.10	CB21	1083.34	0.84%		90	
5B	CB24	1084.94	CB25	1084.10	3.29%	51		
5B	CB27	1087.27	CB25	1084.10	1.50%		211	
5B	CB26	1088.23	CB27	1087.27	1.88%	51		
5B	CB29	1095.85	CB27	1087.27	2.48%			
5B	CB28	1096.87	CB29	1095.85	2.00%	51	346	
5B-6B	CB31	1103.20	CB28	1096.87	2.00%	323		
6B	CB30	1105.22	CB31	1103.20	4.00%	50		
6B	CB32	1110.55	CB31	1103.20	3.24%	227		
TOTALS						1054	1109	102

PROPOSED GUARDRAIL

SHEET NO.	LOCATION	SIDE LT	SIDE RT	STATIONS FROM	STATIONS TO	GUARDRAIL: W BEAM GR (TYPE 2) MASH TL3 705-06.01 (L.F.)	GUARDRAIL: IN-LINE MASH TL3 705-06.11 (EACH)	GUARDRAIL: TYPE 38 MASH TL3 (46.875') 705-06.20 (EACH)	TERMINAL ANCHORS: THRIE BEAM BRIDGE TRAN. MASH TL-3 (20.65') 705-06.25 (EACH)	TERMINAL ANCHORS: TYPE 21 MASH TL2 (21.875') 705-06.30 (EACH)	TERMINAL ANCHORS: RADIUS RAIL 706-06.03 (EACH)	TERMINAL ANCHORS: ROUND END ELEMENT (21.875') 706-10.26 (EACH)	REMARKS
4B	SR 31 SECT-1		X	10+57.95	12+13.39	173		2			70		
5B	SR 31 SECT-1	X		22+71.42	22+91.68	11	1		1		18	1	
5B	SR 31 SECT-1		X	21+41.68	22+91.68	150		1	1				SPECIAL CASE GUARDRAIL FOOTING QUANTITES ARE INCLUDED THE ESTIMATED ROADWAY QUANTITES TABLES
5B	SR 31 SECT-1	X		24+20.00	24+80.12	77	1		1		24	1	
5B	SR 31 SECT-1		X	24+01.68	24+55.82	56	1		1	1	54		SPECIAL CASE GUARDRAIL FOOTING QUANTITES ARE INCLUDED THE ESTIMATED ROADWAY QUANTITES TABLES
6B	SR 31 SECT-1	X		32+62.50	35+25.00	261		2					
10B	SR 31 SECT-3	X		228+36.39	229+00.00	64		1	1			1	
10B	SR 31 SECT-3		X	227+57.65	229+00.00	144	1		1		21		
11B	SR 31 SECT-3	X		229+00.00	230+21.29	122			1				
11B	SR 31 SECT-3		X	229+00.00	229+71.95	73			1			1	
11B	SR 31 SECT-3	X		232+16.11	236+21.61	400	1				21		
11B	SR 31 SECT-3		X	231+66.70	233+38.13	173	1	1				1	
11B	SR 31 SECT-3	X		236+37.73	238+14.78	186	1	1			13	1	
11B	SR 31 SECT-3		X	236+35.10	238+15.24	184	1	1			13		
TOTALS						2074	8	9	8	1	234	6	

NOTE: FOR TEMPORARY GUARDRAIL QUANTITIES, REFER TO TRAFFIC CONTROL PLANS.

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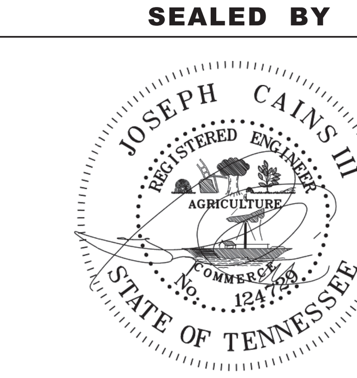

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TABULATED QUANTITIES

SHEET 3 OF 5

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	2F3
PS & E	2026	STP/HPP-31(12)	2F3

REMOVAL OF DRAINAGE PIPES AND DRAINAGE STRUCTURES

SHEET NO.	STATION	LOCATION	DESCRIPTION	SIZE	REMARKS
4	11+91.63	LEFT OF CENTERLINE SR 31	CONCRETE ENDWALL & PIPE FROM EXISTING DRIVEWAY	18"	5 FT LONG PIPE 41.12 FT OFFSET
4	12+31.48	LEFT OF CENTERLINE SR 31	CONCRETE ENDWALL & PIPE FROM EXISTING DRIVEWAY	18"	6 FT LONG PIPE 41.12 FT OFFSET
4	16+00.00	RIGHT OF CENTERLINE SR 31	CONCRETE DITCH	259'X5'	39.05 FT OFFSET
4	16+00.00	LEFT OF CENTERLINE SR 31	CONCRETE DITCH	366'X3'	40.92 FT OFFSET
4	18+19.75	RIGHT OF CENTERLINE SR. 31	DRAINAGE PIPE	24"	61.00 FT LONG 23.64 FT OFFSET
5	19+71.50	RIGHT OF CENTERLINE SR 31	DRAINAGE PIPE	24"	143.00 FT LONG 21.98 FT OFFSET
5	149+09.90	RIGHT OF CENTERLINE OLD SR NO. 1	CONCRETE ENDWALL & PIPE FROM EXISTING DRIVEWAY	18"	50.00 FT LONG PIPE 18.59 FT OFFSET
5	149+35.29	RIGHT OF CENTERLINE OLD SR NO. 2	CONCRETE CATCH BASIN	12'X4'	18.85 FT OFFSET
5	150+90.52	RIGHT OF CENTERLINE SR 31	METAL PIPE	15"	20.00 FT LONG 21.87 FT OFFSET
5	24+64.43	RIGHT OF CENTERLINE SR 31	RCP	24"	30.00 FT LONG 25.19 FT OFFSET
5	24+94.64	LEFT OF CENTERLINE SR 31	CONCRETE ENDWALL & METAL PIPE FROM EXISTING DRIVEWAY	18"	48.00 FT LONG 20.98 FT OFFSET
5	25+53.85	RIGHT OF CENTERLINE SR 31	METAL PIPE	18"	31.00 FT LONG 23.23 FT OFFSET
5	26+54.59	RIGHT OF CENTERLINE SR 31	METAL PIPE	15"	25.00 FT LONG 19.98 FT OFFSET
5	26+91.49	RIGHT OF CENTERLINE SR 31	METAL PIPE	15"	30.00 FT LONG 20.43 FT OFFSET
5	27+62.54	RIGHT OF CENTERLINE SR 31	METAL PIPE	15"	47.00 FT LONG 19.70FT OFFSET
5	29+08.62	RIGHT OF CENTERLINE SR 31	RCP	18"	50.00 FT LONG 21.26 FT OFFSET
5	29+20.79	LEFT OF CENTERLINE SR 31	METAL PIPE	24"	36.00 FT LONG 20.95 FT OFFSET
5	30+16.35	RIGHT OF CENTERLINE SR 31	METAL PIPE	15"	50.00 FT LONG 20.38 FT OFFSET
5	31+11.92	LEFT OF CENTERLINE SR 31	METAL PIPE	18"	41.00 FT LONG 21.34 FT OFFSET
6	32+28.10	LEFT OF CENTERLINE SR 31	METAL PIPE	18"	28.00 FT LONG 20.41 FT OFFSET
6	32+51.46	RIGHT OF CENTERLINE SR 31	METAL PIPE	15"	24.00 FT LONG 21.58 FT OFFSET
6	33+97.42	CROSS CENTERLINE SR 31	RCP	18"	45.00 FT LONG
6	36+08.91	RIGHT OF CENTERLINE SR 31	METAL PIPE	15"	20.00 FT LONG 20.22 FT OFFSET
8	69+88.33	RIGHT OF CENTERLINE SR 31	METAL PIPE	15"	36.00 FT LONG 22.87 FT OFFSET
8	72+26.27	RIGHT OF CENTERLINE SR 31	METAL PIPE	18"	21.00 FT LONG 21.72 FT OFFSET
9	77+92.34	RIGHT OF CENTERLINE SR 31	PLASTIC PIPE	18"	47.00 FT LONG 23.09 FT OFFSET
10	220+52.36	CROSS CENTERLINE SR 31	METAL PIPE	18"	47.00 FT LONG
11	236+56.23	CROSS CENTERLINE SR 31	METAL PIPE	60"	42.00 FT LONG

NOTE: TO BE PAID FOR UNDER ITEM 202-01

REMOVAL OF BUILDINGS AND OBTRUCTIONS DESCRIPTION BLOCK

PAY ITEM	TRACT NO.	DESCRIPTION
203-06.01	17	204 SF OF CONCRETE DRIVEWAY
203-06.02	18	66 LF OF 4' CHAIN LINK FENCE, 40 LF OF CONCRETE CURB, 26 LF OF 18" METAL STORM DRAINAGE PIPE
203-06.03	20	395 LF OF 4' CHAIN LINK FENCE, 190 SF ONE-STORY RESTROOM BUILDING, 115 LF OF 24" CORRUGATED METAL STORM DRAINAGE PIPE.
203-06.04	26	52 SF OF MASONRY BLOCK & BRICK RETAINING WALLS.
203-06.05	28	ONE-STORY, 896 SF FORMER DWELLING IN POOR CONDITION, CONCRETE SEPTIC SYSTEM, 75' DEEP WATER WALL.
203-06.06	28A	SEPTIC SYSTEM DRAINFIELD.
203-06.07	29	28 LF OF 24" METAL STORM DRAINAGE PIPE.
203-06.08	44A	223 LF OF 3- STRAND BARBED WIRE FENCE.
203-06.09	52	400 LF WOVEN WIRE FENCE.
203-06.10	53	215 LF OF 3- STRAND BARBED WIRE FENCE.
203-06.11	54	4' & 6' METAL BARRIER POLES, 65 LF OF 24" METAL DRAINAGE PIPE, 35 LF WATER LINE.
203-06.12	57	25 SF OF MASONRY BLOCK, STONE VENEER DRIVEWAY COLUMNS.
203-06.13	112	265 LF OF 3" WOVEN WIRE FENCING.
203-06.14	113	282 LF OF 2-STRAND BARBED WIRE FENCING, 140 LF OF 2-STRAND BARBED WIRE FENCING (ENCROACHMENT ON CURRENT ROW).

NOTE: TO BE PAID FOR UNDER ITEMS 202-06.01 TO 202-06.14

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TABULATED QUANTITIES

SHEET 4 OF 5

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	2F4
PS & E	2026	STP/HPP-31(12)	2F4

BOX CULVERT \ BRIDGE TABULATION

STATION/OFFSET	LOCATION	DRAINAGE CODE	TYPE: BOX	TYPE: SLAB	SKEW	NO. BARRELS	WIDTH	HEIGHT	LENGTH	DRAINAGE AREA ACRES	STANDARD DRAWING NO.	CULVERT ≤ 20 FT. CLASS "A" CONCRETE 604-01.01 CU. YD.	CULVERT ≤ 20 FT. STEEL BAR REINF. 604-01.02 LB.	STD. DWG. STD-17-17 & 18 FOUNDATION FILL MATERIAL 204-08 CU. YD.	STD. DWG. STD-17-17 & 18 GRANULAR BACKFILL 303-01.01 TONS	RIP-RAP CLASS B 709-05.08 TON	CHANNEL EXC. 203-08 CU. YD.	CULVERT EXC. 204-01 CU. YD.
10+89.39/ 57.07' RT	SR 31	EW1	X		90°	1	6	4	6	35	STD-17-11, STD-17-26, & STD-17-51	6.63	1240	6	95	105		37
TOTALS												6.63	1240	6	95	105	0	37

NOTE: QUANTITY SHOWN FOR PAY ITEMS 604-01.01 AND 604-01.02
ACCOUNTS FOR BOX CULVERT EXTENSION AND WINGWALLS.

ESTIMATED GRADING QUANTITIES

DESCRIPTION	UNADJUSTED VOLUMES (CY) EXC.	UNADJUSTED VOLUMES (CY) EMB.	ADJUSTED VOLUMES (CY) EXC.
MAINLINE	24565	12436	23337
SIDE ROADS	2556	705	2429
PVT. DRIVES, BUSINESS AND FIELD ENTRANCES	341	395	324
INDEPENDENT DITCHES	0	0	
TEMPORARY CONSTRUCTION EXITS	0	0	
OTHER (BRIDGE EXCAVATION, PAVEMENT, ETC...)	0	0	
TOPSOIL (EMB.)			
TOPSOIL (EXC.)			
TOPSOIL TOTALS (SEE TOPSOIL TAB)			

ROCK (C.Y.) EXC.	ROCK (C.Y.) EMB.	TOTALS (C.Y.) EXC. (UNCL.)	TOTALS (C.Y.) EMB. (UNCL.)	TOTALS (C.Y.) EXC (COMMON)	TOTALS (C.Y.) EXC. (AVAIL.)	TOTALS (C.Y.) EXC. (ADJ.)
3456	851	30919	12686	27463	27463	29546

BALANCE SUMMARY

SHRINK = 5 % SWELL = 0 %

	EXC.		EMB.
	29546	VS.	-12686
AVAILABLE		=	16860
WASTE MATERIAL		=	17703
BORROW ROCK		=	894

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.
305980	0	0	14152	5667	5667	0	8485

IF EXISTING TOPSOIL IS NOT 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.
	N/A	N/A	N/A	0	N/A	0	N/A

PAVEMENT QUANTITIES

TYPE - GRADE - PAY ITEM (TON)

LOCATION (ROADWAY)	MINERAL AGG. D 303-01	BITUMINOUS PLANT MIX BASE (HOT MIX) A 307-01.01	BITUMINOUS PLANT MIX BASE (HOT MIX) B-M2 307-01.08	PRIME COAT 402-01	PRIME COAT 402-02	TACK COAT 403-01	ASPHALTIC CONCRETE SURFACE (HOT MIX) D 411-01.10	ASPHALTIC CONCRETE SURFACE (HOT MIX) E 411-01.07	COLD PLANING BITUMINOUS PLANT MIX TON 415-01.01
SECTION 1	7727	1301	1867	13	44	10	1102	82	412
SECTION 2	2709	351	708	4	13	4	455		222
SECTION 3	7411	791	625	12	38	4	377	213	
TOTALS	17847	2444	3200	29	95	18	1935	295	635

Quantities include all sideroads and driveways along each section

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TABULATED QUANTITIES

SHEET 5 OF 5

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	2F
P-I-H	2025	STP/HPP-31(12)	2G
PS & E	2026	STP/HPP-31(12)	2G

COORDINATE VALUES ARE NAD/83 (1995),AND ARE DATUM ADJUSTED BY THE FACTOR OF 1.00006, AND ARE TIED TO THE TENNESSEE GEODETIC REFERENCE NETWORK. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988, WITH GEOID 99

CONTROL POINT COORDINATES

POINTS	NORTH	EAST	ELEV.	STATION	OFFSET	DESCRIPTION	TYPE	SHEET #
CP-S1	742953.0354	2784751.6965	1128.97	-	-	XCP, 37-031-01	STAMPED ALUMINUM DISK	*
CP-S2	743363.7551	2784850.9919	1120.24	13+61.92	26.15 (RT)	XCP, 37-031-02	STAMPED ALUMINUM DISK	4
CP-S3	744054.5414	2784909.4738	1089.90	20+52.41	23.92 (RT)	XCP, 37-031-03	STAMPED ALUMINUM DISK	5
CP-S4	744908.5115	2784885.4167	1096.14	29+05.07	30.98 (LT)	XCP, 37-031-04	STAMPED ALUMINUM DISK	5
CP-S5	745575.2106	2784947.6312	1115.82	35+71.16	25.83 (RT)	XCP, 37-031-05	STAMPED ALUMINUM DISK	6
CP-S6	746162.5474	2784845.1170	1130.94	41+62.88	27.01 (RT)	XCP, 37-031-06	STAMPED ALUMINUM DISK	6
CP-S7	746545.9744	2784707.2435	1127.82	45+66.51	30.53 (RT)	XCP, 37-031-07	STAMPED ALUMINUM DISK	7
CP-S8	747359.5666	2784164.0350	1112.48	-	-	XCP, 37-031-08	STAMPED ALUMINUM DISK	*
CP-S9	747625.9004	2783828.9349	1100.42	-	-	XCP, 37-031-09	STAMPED ALUMINUM DISK	*
CP-S10	748077.5202	2783515.3060	1091.93	-	-	XCP, 37-031-10	STAMPED ALUMINUM DISK	*
CP-S11	748538.2395	2783381.3259	1101.04	69+86.76	17.40 (LT)	XCP, 37-031-11	STAMPED ALUMINUM DISK	8
CP-S12	749322.1257	2783324.2981	1119.36	77+71.22	22.83 (RT)	XCP, 37-031-12	STAMPED ALUMINUM DISK	9
CP-S13	750147.8032	2783325.2473	1147.82	86+06.63	29.74 (RT)	XCP, 37-031-13	STAMPED ALUMINUM DISK	9
CP-S14	750693.6380	2783418.7435	1160.19	-	-	XCP, 37-031-14	STAMPED ALUMINUM DISK	*
CP-S15	751375.9881	2783525.4460	1149.51	-	-	XCP, 37-031-15	STAMPED ALUMINUM DISK	*
CP-S16	751813.9140	2783913.9325	1142.72	-	-	XCP, 37-031-16	STAMPED ALUMINUM DISK	*
CP-S17	752055.1878	2784411.2691	1141.93	-	-	XCP, 37-031-17	STAMPED ALUMINUM DISK	*
CP-S18	752205.1524	2785040.5473	1123.61	-	-	XCP, 37-031-18	STAMPED ALUMINUM DISK	*
CP-S19	752301.5111	2785437.9206	1114.97	-	-	XCP, 37-031-19	STAMPED ALUMINUM DISK	*
CP-S20	752757.5073	2786372.6241	1087.27	-	-	XCP, 37-031-20	STAMPED ALUMINUM DISK	*
CP-S21	753209.9375	2786834.6956	1085.17	-	-	XCP, 37-031-21	STAMPED ALUMINUM DISK	*
CP-S22	753644.7155	2787754.3828	1144.99	-	-	XCP, 37-031-22	STAMPED ALUMINUM DISK	*
CP-S23	754017.0848	2788226.5646	1176.92	-	-	XCP, 37-031-23	STAMPED ALUMINUM DISK	*
CP-S24	754250.5778	2788733.0016	1194.72	-	-	XCP, 37-031-24	STAMPED ALUMINUM DISK	*
CP-S25	755026.4181	2789142.2711	1166.83	-	-	XCP, 37-031-25	STAMPED ALUMINUM DISK	*
CP-S26	755548.3550	2789317.6730	1149.53	-	-	XCP, 37-031-26	STAMPED ALUMINUM DISK	*
CP-S27	756483.1832	2789192.7382	1139.72	-	-	XCP, 37-031-27	STAMPED ALUMINUM DISK	*
CP-S28	757491.0300	2789194.6348	1120.85	-	-	XCP, 37-031-28	STAMPED ALUMINUM DISK	*
CP-S29	758161.0604	2788962.2905	1096.81	-	-	XCP, 37-031-29	STAMPED ALUMINUM DISK	*
CP-S30	759268.7377	2788818.7494	1087.80	-	-	XCP, 37-031-30	STAMPED ALUMINUM DISK	*
CP-S31	760052.2597	2788605.8978	1098.14	-	-	XCP, 37-031-31	STAMPED ALUMINUM DISK	*
CP-S32	760967.0145	2788098.5140	1091.54	228+97.14	43.30 (LT)	XCP, 37-031-32	STAMPED ALUMINUM DISK	10
CP-S33	761562.6629	2787656.3200	1091.97	236+39.31	16.91 (RT)	XCP, 37-031-33	STAMPED ALUMINUM DISK	11
CP-S34	762181.1472	2786934.1079	1103.56	-	-	XCP, 37-031-34	STAMPED ALUMINUM DISK	*
CP-S35	762767.8212	2786666.0953	1113.80	-	-	XCP, 37-031-35	STAMPED ALUMINUM DISK	*
CP-S36	762665.0727	2786451.4710	1128.22	-	-	XCP, 37-031-36	STAMPED ALUMINUM DISK	*

* DENOTES BEING OUTSIDE THE LIMITS OF SHEET COVERAGE

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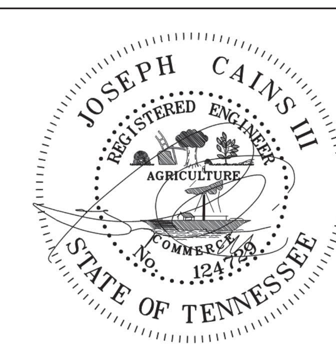

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

CONTROL POINTS TABLE

SHEET 1 OF 1

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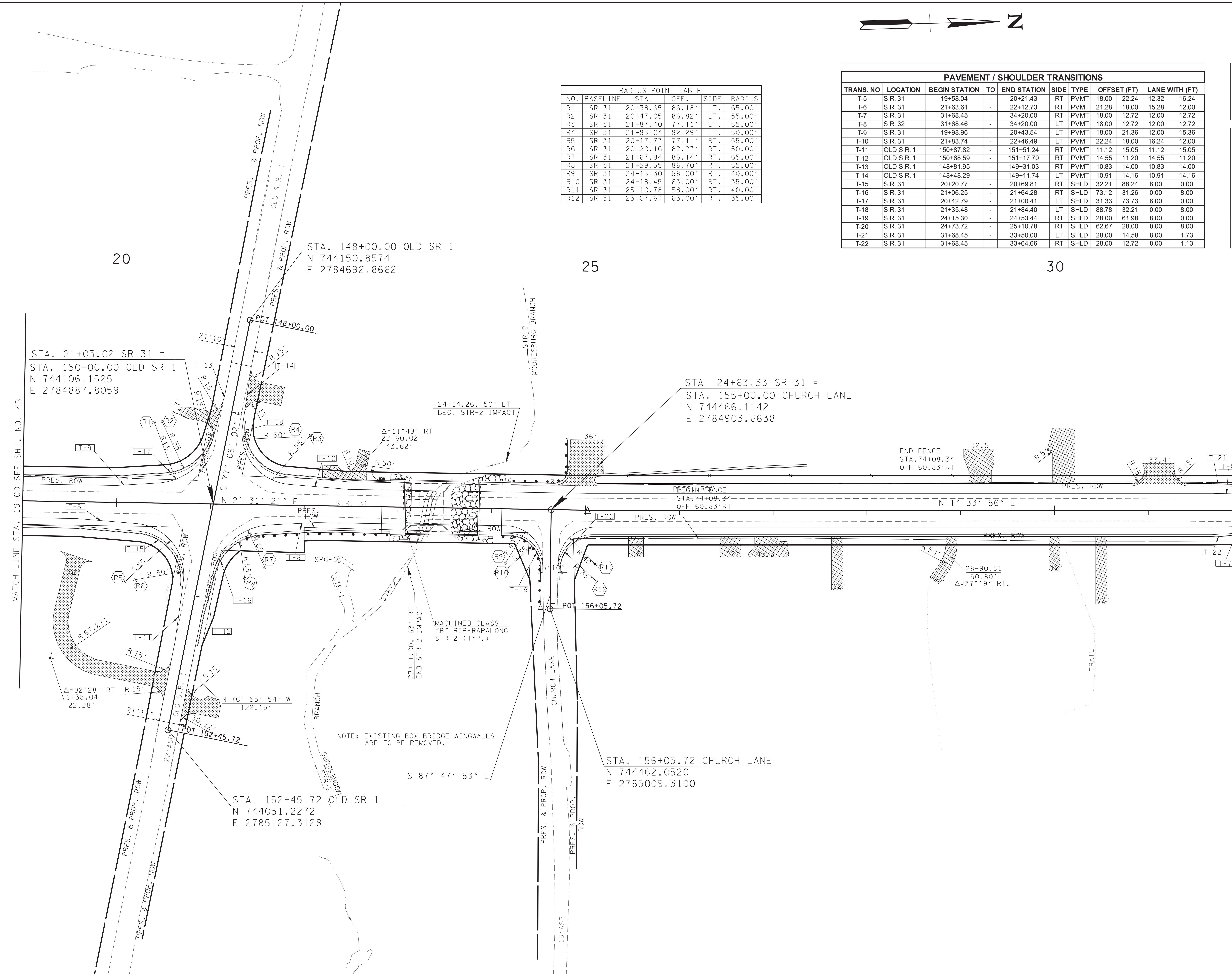
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	
PS & E	2026	STP/HPP-31(12)	2G1

06-17-2024 REVISED STRUCTURE TYPE AT STR-2 CROSSING.

RADIUS POINT TABLE					
NO.	BASELINE	STA.	OFF.	SIDE	RADIUS
R1	SR 31	20+38.65	86.18′	LT.	65.00′
R2	SR 31	20+47.05	86.82′	LT.	55.00′
R3	SR 31	21+87.40	77.11′	LT.	55.00′
R4	SR 31	21+85.04	82.29′	LT.	50.00′
R5	SR 31	20+17.77	77.11′	RT.	55.00′
R6	SR 31	20+20.16	82.27′	RT.	50.00′
R7	SR 31	21+67.94	86.14′	RT.	65.00′
R8	SR 31	21+59.55	86.70′	RT.	55.00′
R9	SR 31	24+15.30	58.00′	RT.	40.00′
R10	SR 31	24+18.45	63.00′	RT.	35.00′
R11	SR 31	25+10.78	58.00′	RT.	40.00′
R12	SR 31	25+07.67	63.00′	RT.	35.00′

PAVEMENT / SHOULDER TRANSITIONS										
TRANS. NO	LOCATION	BEGIN STATION	TO	END STATION	SIDE	TYPE	OFFSET (FT)		LANE WITH (FT)	
T-5	S.R. 31	19+58.04	-	20+21.43	RT	PVMT	18.00	22.24	12.32	16.24
T-6	S.R. 31	21+63.61	-	22+12.73	RT	PVMT	21.28	18.00	15.28	12.00
T-7	S.R. 31	31+68.45	-	34+20.00	RT	PVMT	18.00	12.72	12.00	12.72
T-8	S.R. 32	31+68.46	-	34+20.00	LT	PVMT	18.00	12.72	12.00	12.72
T-9	S.R. 31	19+98.96	-	20+43.54	LT	PVMT	18.00	21.36	12.00	15.36
T-10	S.R. 31	21+83.74	-	22+46.49	LT	PVMT	22.24	18.00	16.24	12.00
T-11	OLD S.R. 1	150+87.82	-	151+51.24	RT	PVMT	11.12	15.05	11.12	15.05
T-12	OLD S.R. 1	150+68.59	-	151+17.70	RT	PVMT	14.55	11.20	14.55	11.20
T-13	OLD S.R. 1	148+81.95	-	149+31.03	RT	PVMT	10.83	14.00	10.83	14.00
T-14	OLD S.R. 1	148+48.29	-	149+11.74	LT	PVMT	10.91	14.16	10.91	14.16
T-15	S.R. 31	20+20.77	-	20+69.81	RT	SHLD	32.21	88.24	8.00	0.00
T-16	S.R. 31	21+06.25	-	21+64.28	RT	SHLD	73.12	31.26	0.00	8.00
T-17	S.R. 31	20+42.79	-	21+00.41	LT	SHLD	31.33	73.73	8.00	0.00
T-18	S.R. 31	21+35.48	-	21+84.40	LT	SHLD	88.78	32.21	0.00	8.00
T-19	S.R. 31	24+15.30	-	24+53.44	RT	SHLD	28.00	61.98	8.00	0.00
T-20	S.R. 31	24+73.72	-	25+10.78	RT	SHLD	62.67	28.00	0.00	8.00
T-21	S.R. 31	31+68.45	-	33+50.00	LT	SHLD	28.00	14.58	8.00	1.73
T-22	S.R. 31	31+68.45	-	33+64.66	RT	SHLD	28.00	12.72	8.00	1.13



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JOSEPH CAINS III
REGISTERED ENGINEER
AGRICULTURE COMMERCE
STATE OF TENNESSEE

04/14/2026

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

DETAIL SHEET

STA. 19+00 TO STA. 32+00
SCALE: 1"= 50'

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	3
P-I-H	2025	STP/HPP-31(12)	3
PS & E	2026	STP/HPP-31(12)	3

RIGHT-OF-WAY NOTES

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

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

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

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

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

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

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

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

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

(10) ON PROJECTS WITH CURB AND GUTTER THAT ARE ON STATE ROUTES, IT WILL BE THE RESPONSIBILITY OF THE OWNER TO SECURE A PERMIT. AFTER THE PERMIT HAS BEEN GRANTED, THE DEPARTMENT WILL CONSTRUCT THE DRIVEWAY OR FIELD ENTRANCE THROUGH THE CURB AND SIDEWALK, PROVIDED THE CURB AND SIDEWALK HAVE NOT BEEN CONSTRUCTED. IT WILL BE THE RESPONSIBILITY OF THE PROPERTY OWNER TO CONSTRUCT THE DRIVEWAY OR FIELD ENTRANCE FROM BACK OF SIDEWALK TO TOUCHDOWN POINT FOR ANY ADDITIONAL DRIVEWAYS OR FIELD ENTRANCES OTHER THAN THOSE PROVIDED IN THE PLANS.

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

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.

(6) NO WORK SHALL OCCUR IN THE AREA MARKED ON THE PLANS AS STREAM/WETLAND MITIGATION RIGHT-OF-WAY OR MITIGATION AREA. NO UTILITY RELOCATION OR OTHER LAND DISTURBANCE IS AUTHORIZED. ONLY ACTIVITIES PERTAINING TO THE CONSTRUCTION OR MANAGEMENT OF THE STREAM/WETLAND MITIGATION SITE MAY OCCUR, WHICH WILL BE INDICATED ON THE STREAM MITIGATION PLANS. ANY VIOLATIONS OF THE ABOVE MENTIONED WILL RESULT IN NON-COMPLIANCE WITH THE ENVIRONMENTAL PERMIT REQUIREMENTS.

UTILITY OWNERS

ELECTRIC:
HOLSTON ELECTRIC COOPERATIVE
1200 W Main St
Rogersville, TN 37857
CONTACT: Nathan Franklin
OFFICE PHONE: 423 272 8821
CELL PHONE:
Email: NFranklin@holstonelectric.com

FIBER:
HOLSTON CONNECT
1200 W Main St
Rogersville, TN 37857
CONTACT: Sam Trent
OFFICE PHONE: 423 272 1091
CELL PHONE:
Email: STrent@holstonelectric.com

TELEPHONE:
AT&T
9733 Parkside Drive
Knoxville, TN 37922
CONTACT: Jay Frazier
OFFICE PHONE: 825 387 2685
CELL PHONE:
Email: JF092G@ATT.COM

WATER & SEWER:
MOORESBURG UTILITY DISTRICT
P.O. BOX 2
Mooresburg, TN 37811
CONTACT: Eddie Douglas
OFFICE PHONE: 423 272 9810
CELL PHONE:
Email: Douglaseddie@gmail.com

TELEPHONE:
CHARTER COMMUNICATION
1774 Henry G Lane ST.
Maryville, TN 37801
CONTACT: Billy Click
OFFICE PHONE: 865 388 7524
CELL PHONE:
Email: Billy.click@charter.com

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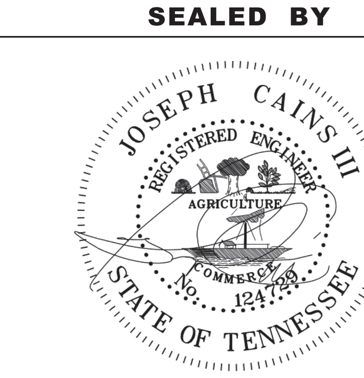

04/14/2026

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

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

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	3A
P-I-H	2025	STP/HPP-31(12)	3A
PS & E	2026	STP/HPP-31(12)	3A

R.O.W. ACQUISITION TABLE

TRACT NO.	PROPERTY OWNERS	COUNTY RECORDS				TOTAL AREA ACRES			AREA TO BE ACQUIRED ACRES			AREA REMAINING ACRES		EASEMENT (SQUARE FEET)			
		TAX MAP NO.	PARCEL NO.	DEED DOCUMENT REFERENCE BK.	PAGE	LEFT	RIGHT	TOTAL	LEFT	RIGHT	TOTAL	LEFT	RIGHT	PERM. DRAINAGE	SLOPE	CONST.	
1	ROBBY D. DRINNON	132	68.08	1057	872	7.638		7.638	334 S.F.		334 S.F.	7.630			2874	892	①
2	CARL DWAINE McANALLY AND WIFE, PATSY SUE McANALLY	132	68.03	428	586		0.230	0.230		379 S.F.	379 S.F.		0.221		1031	662	①
4	SHARON COFFEY (DECEASED), PATRICIA EPPERSON, ROBERT HALL, AND MERLE CARPENTER, JR. WITH LIFE ESTATE RETAINED BY PHYLLIS HALL	132	67	PROBATE BOOK	27/168		0.354	0.354		1005 S.F.	1005 S.F.		0.331		1352	1094	①
4A	JESSICA N. HATFIELD	132	67.01	1560	326-330		0.717	0.717		1 S.F.	1 S.F.		0.717		143	817	①
5	JESSICA N. HATFIELD	132	66.01	1560	326-330		0.180	0.180		3384 S.F.	3384 S.F.		0.102		265	1768	①
6	LINDA MAYNARD	132	66	1199	754	0.190		0.190	2290 S.F.		2290 S.F.	0.137			0.115 AC	987	①
7	LINDA MAYNARD	132	65	1109	474	0.730		0.730	1477 S.F.		1477 S.F.	0.696		389	1334	2504	①
8	SHAWN GARBER	132	64	1160	17	0.730		0.730				0.730			10	219	①
11	PHILLIP B. HADLEY AND WIFE, TAMMY HADLEY	132	54	1073	571	0.560		0.560	2535 S.F.		2535 S.F.	0.502		685	412	822	①
12	PHILLIP B. HADLEY AND WIFE, TAMMY HADLEY	132	53	1389	323	0.500		0.500	1287 S.F.		1287 S.F.	0.470		3678		186	①
13	GRANT HOWZE AND WIFE, CHRISTINE HOWZE	132-JA	20	1290	774		0.820	0.820		2353 S.F.	2353 S.F.		0.766	1334	1724	2351	①
15	DAVID N. COOK AND WIFE, KATHY K. COOK	132-JA	1	1405	185		1.060	1.060		1642 S.F.	1642 S.F.		1.022	1966	1275	609	①
15S	DAVID N. COOK AND WIFE, KATHY K. COOK	132-JA	1	1405	185		1.022	1.022					1.022	1320			①
17	SANDRA FAYE ELKINS AND REBECCA MICHELLE ELKINS	132	70.02	1288	895		0.830	0.830		1535 S.F.	1535 S.F.		0.795		1007	1478	①
18	BELLSOUTH TELECOMMUNICATIONS LLC	132	70.07	261	788		2788 S.F.	2788 S.F.		363 S.F.	363 S.F.		2425 S.F.		34	85	①
20	HAWKINS COUNTY BOARD OF EDUCATION	132	52	193,162,59	41,152,296	6.899		6.899	0.145		0.145	6.754		442	2835	0.154 AC	①
② ~~21~~	~~LAKEVIEW VOLUNTEER FIRE DEPARTMENT (LEASEHOLD INTEREST TRACT 20)~~	~~132~~	~~52.00~~	~~428~~	~~392~~												
22	JASON A. HURST AND AMANDA L. HURST	132	70.03	1390	483		1.150	1.150		1719 S.F.	1719 S.F.		1.111		950	2649	①
24	LINDA MORIE, GLENDA DAVIS, PATRICK DOUGLAS, AND JACKIE WEBB	132	50.02	276	243		1.350	1.350		428 S.F.	428 S.F.		1.340		131	969	① ①
25	LINDA MORIE, GLENDA DAVIS, PATRICK DOUGLAS, AND JACKIE WEBB	132	50.01	381	823		1.310	1.310		372 S.F.	372 S.F.		1.301			856	①
26	JOHNNY DOYLE MOORE, LINDA MORIE, GLENDA DAVIS, PATRICK DOUGLAS, AND JACKIE WEBB	132	50	381,276	825,248		1.260	1.260		68 S.F.	68 S.F.		1.258			362	①
27	LINDA MORIE	132	50.03	276	101		1.400	1.400					1.400			415	①
28	CHRISTINA COOK	132	49.01	1112	874		1.441	1.441		577 S.F.	577 S.F.		1.428			0.322 AC	③
28A	LARRY F. COOK AND RUBY FAYE COOK	132	49	360	295		1.352	1.352		0.199	0.199		1.153			1647	③
29	LYNN RODDY AND WIFE, MAUREEN RODDY	132	58	1034	526	179.429	8.568	187.997	822 S.F.		822 S.F.	179.410	8.568		222	1043	①
30A	BRIAN JOHN COOK AND CHRISTINA COOK OWENS	132	48	1109	263		0.463	0.463		297 S.F.	297 S.F.		0.456				
34	LESTER WEBBER AND WIFE, WANDA C. WEBBER	132	41.11	1292	612		0.378	0.378		715 S.F.	715 S.F.		0.362				
44A	MFP PROPERTIES, LLC	132	30.04	1076	708	17.700		17.700	0.192		0.192	17.508					
49	MARIE B. CARROLL	132	19	157	126		1.490	1.490		3360 S.F.	3360 S.F.		1.413				
50	CAROLYNN RUSSELL, LOIS FAYE RUSSELL JOHNSON, AND LARRY RAY RUSSELL	132	17	1358	74		0.955	0.955		3636 S.F.	3636 S.F.		0.872				
52	ALMA DELOIS COOK BUELL AND JERRY BUELL	132	14	146	396	5.869		5.869	0.567		0.567	5.302					
53	MARIE HELTON	132	16.01	287	433		2.460	2.460		0.262	0.262		2.198				
54	JOSHUA G. BRADY & ZAHARY W. BRADY	132	15	220	218		1.950	1.950		0.138	0.138		1.812				
55	RENEE HECK AND RAYMOND LEROY OGLESBEE	121	40.00	1338	255	1.452		1.452	0.291		0.291	1.161					
~~56~~	~~RENEE E. HECK AND RAYMOND L. OGLESBEE~~	~~121~~	~~40.01~~	~~1338~~	~~253~~	~~1.004~~		~~1.004~~				~~1.004~~					
57	EARNEST GENTRY JR. AND ELIZABETH MAE GENTRY	121	41	1326	62		2.490	2.490		0.143	0.143		2.347				
58	ROBERT LEE HELTON	121	40.03	1066	880	22.342		22.342	0.115		0.115	22.227					
110	RITA KAY COLLINS AND FLOYD DANIEL COLLINS	109	52	418	772	3.312		3.312	431 S.F.		431 S.F.	3.302					
~~111~~	~~DON AND JOYCE A. BREWER~~	~~109~~	~~51~~	~~226~~	~~422~~		~~0.580~~	~~0.580~~					~~0.580~~				
112	CAROLYN F. CARPENTER	109	49.01	830	411	0.346	15.863	16.209	0.346	1.911	2.257	0 S.F.	13.952				
113	LLOYD AND MARY STUBBLEFIELD	109	50.01	243 & 236	588 & 294	4.332		4.332	0.282		0.282	4.050					
116	LUTHER MILO MILLER AND WIFE, JANN WALLACE MILLER	109	44	1301	44	2037 S.F.	58.784	58.831	2037 S.F.	1.143	1.190		57.641				
117	BETTY JEAN COOK PRICE	109	43	198	75	6.357		6.357	0.177		0.177	6.180					
117S	BETTY JEAN COOK PRICE	109	43	198	75	6.180		6.180				6.180		1628		1183	

① TO BE USED FOR ROADWAY CONSTRUCTION WORKING ROOM AND FOR THE PLACEMENT OF EROSION AND SEDIMENT CONTROL DEVICES.
② 0.342 ACRE LEASEHOLD FROM TRACT 20,(INCLUDES 718 SF OF R.O.W.,141 SF OF SLOPE ESMT.,& 681 SF OF CONST.ESMT.ACQUIRED FROM TRACT NO.20)
③ FOR REMOVAL OF STRUCTURES.

REVISION NOTES:

08-15-2023 ADDED NOTE FOR TRACTS 28 AND 28A

06-17-2024 REVISED STRUCTURE TYPE AT STR-2 CROSSING. UPDATED PERM. DRAINAGE, SLOPE, AND CONST. ESMT. QUANTITIES FOR TRACT 15. ADDED TRACT 15S.

09-06-2024 TRACT 4A: ADD 1SF TO FEE SIMPLE. TRACT 11: REMOVED TCE FROM THE NORTH SIDE OF THE ENTRANCE. TRACT 28: CORRECTED THE TOTAL ACREAGE AND AREA REMAINING.

09-25-2024 TRACT 4A & TRACT 5: CHANGED OWNER NAME AND DEED REFERENCE.

09-04-2025 ADDED TRACT 117S FOR TCE AND PERM. DRAINAGE ESMT.

01-28-2026 TRACT 117S: CORRECTED PERMANENT DRAINAGE AREA.

DISTURBED AREA

CONSTRUCTION SECTION	SECTION 1	SECTION 2	SECTION 3	TOTAL PROJECT
IN BETWEEN SLOPE LINES	6.220 (AC)	2.979 (AC)	5.008 (AC)	14.207 (AC)
15 FOOT WIDE STRIP (OUTSIDE SLOPE LINES)	2.943 (AC)	1.184 (AC)	1.815 (AC)	5.942 (AC)
TOTAL PROJECT DISTURBED AREA	9.163 (AC)	4.163 (AC)	6.823 (AC)	20.149 (AC)
TOTAL PROJECT UNDISTURBED AREA	0.540 (AC)	0.070 (AC)	0.183 (AC)	0.793 (AC)
TOTAL PROJECT AREA	9.703 (AC)	4.233 (AC)	7.006 (AC)	20.942 (AC)

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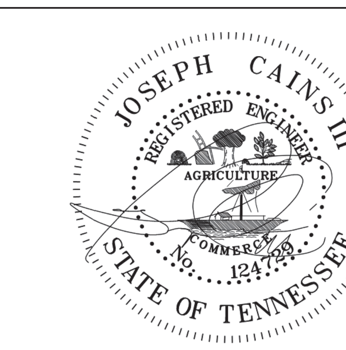

04/14/2026

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RIGHT-OF-WAY ACQUISITION TABLE

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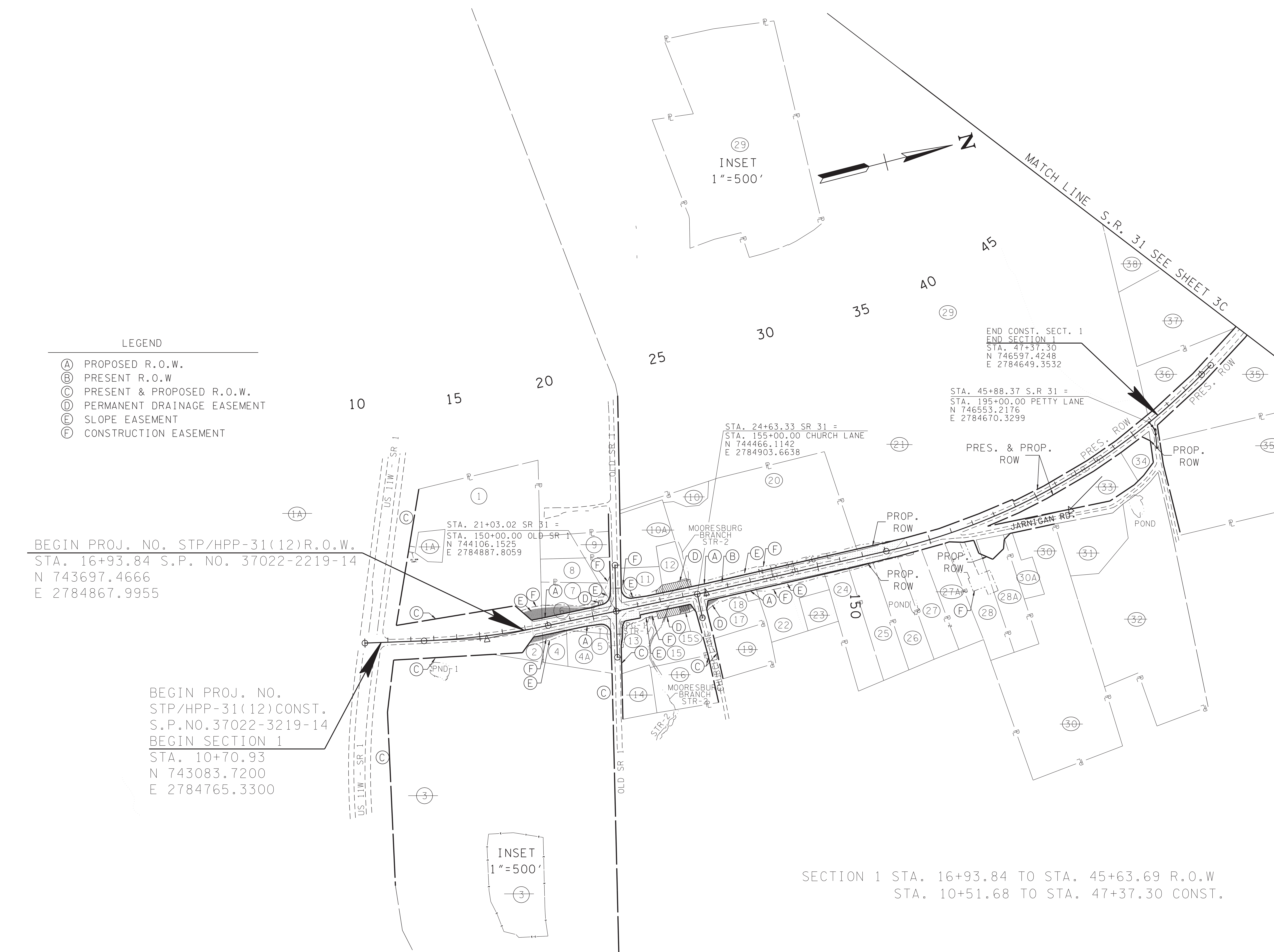
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	3B
P-I-H	2025	STP/HPP-31(12)	3B
PS & E	2026	STP/HPP-31(12)	3B

HAWKINS CO.

08-15-2023 TEMPORARY CONSTRUCTION EASEMENT ADDED FOR TRACTS 28 & 28A

06-17-2024 REVISED STRUCTURE TYPE AT STR-2 CROSSING. UPDATED PERM. DRAINAGE, SLOPE, AND CONST. ESMT. BOUNDARIES FOR TRACT 15, CREATED TRACT 15S.
REVISED TEMPORARY CONSTRUCTION EASEMENT LIMITS ON TRACT 28



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPERTY MAP

STA. 16+93.84 TO STA. 49+53
SCALE: 1"=200'

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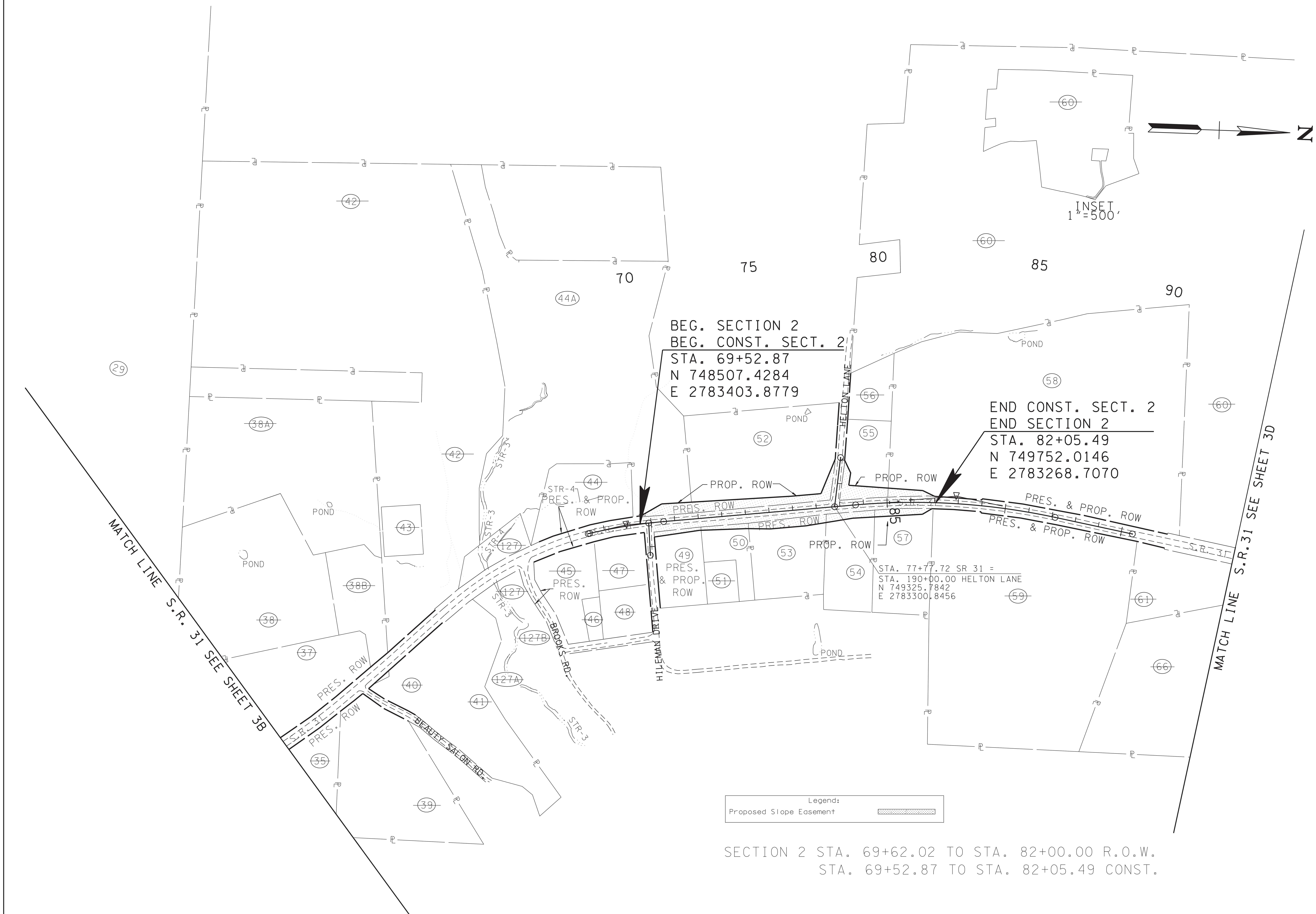
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	3C
P-I-H	2025	STP/HPP-31(12)	3C
PS & E	2026	STP/HPP-31(12)	3C

HAWKINS CO.



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPERTY MAP

STA. 67+30 TO STA. 87+14
SCALE: 1"=200'

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	3D
P-I-H	2025	STP/HPP-31(12)	3D
PS & E	2026	STP/HPP-31(12)	3D

HAWKINS CO.

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPERTY MAP

SCALE: 1"=200'

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	3E
P-I-H	2025	STP/HPP-31(12)	3E
PS & E	2026	STP/HPP-31(12)	3E

HAWKINS CO.

PS & E
FIELD
REVIEW

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STATE OF TENNESSEE
AGRICULTURE COMMERCE

04/14/2026

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPERTY MAP

SCALE: 1"=200'

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	3F
P-I-H	2025	STP/HPP-31(12)	3F
PS & E	2026	STP/HPP-31(12)	3F

REVISION NOTE:
09-04-2025 ADDED TRACT 117S FOR TCE AND PERM. DRAINAGE ESMT.

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REGISTERED ENGINEER
AGRICULTURE
COMMERCE
STATE OF TENNESSEE

04/14/2026

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPERTY MAP

STA. 224+75 TO STA. 235+72
SCALE: 1"=200'

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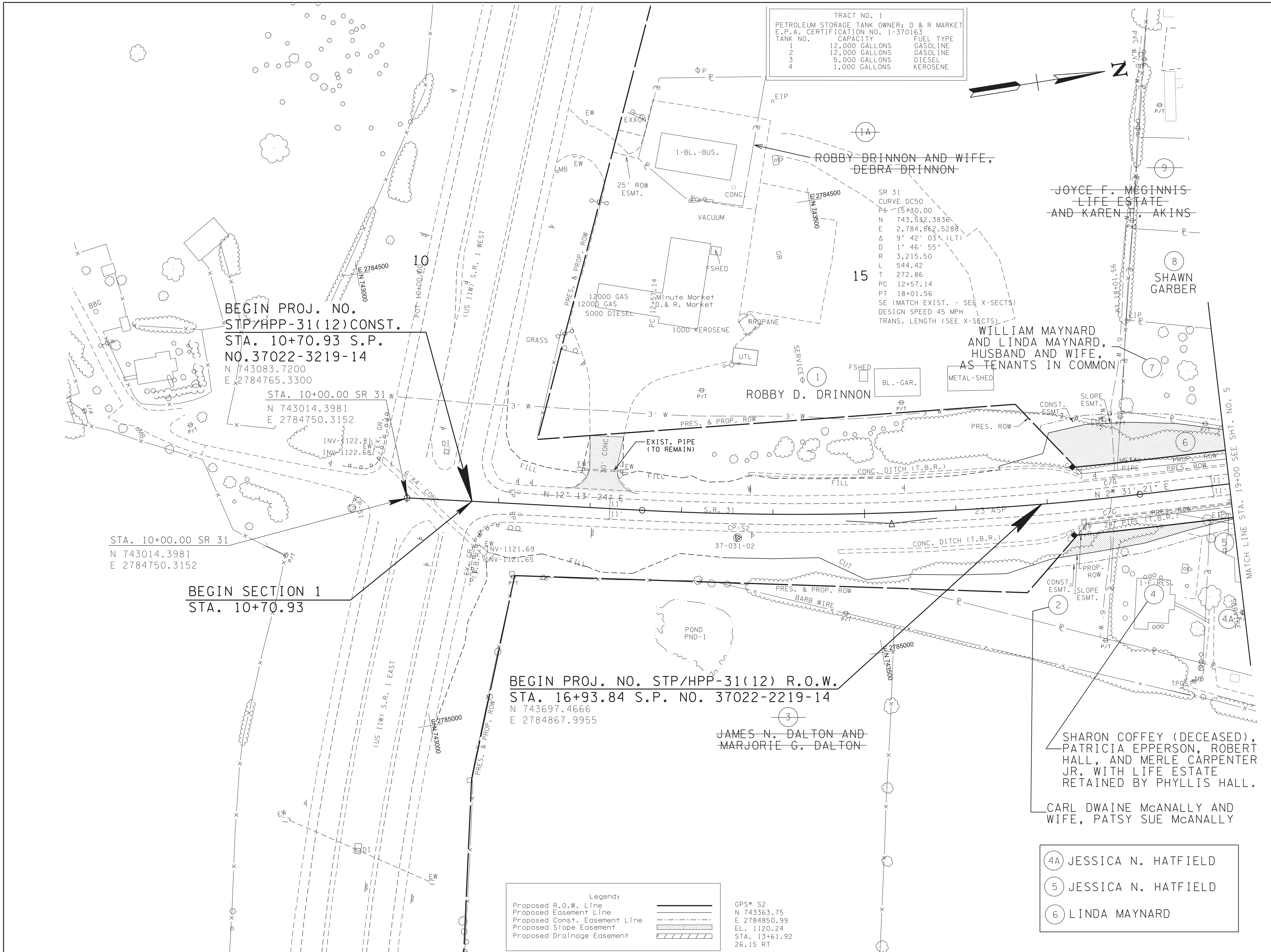
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	4
P-I-H	2025	STP/HPP-31(12)	4
PS & E	2026	STP/HPP-31(12)	4

REVISION NOTE:

06-17-2024 ADDED NOTE ON TRACT 4

03-25-2026 UPDATED PROPERTY OWNERS NAMES FOR TRACTS 4, 4A, 5, AND 6.



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

STA. 10+51.68 STA. 19+00
SCALE: 1"= 50'

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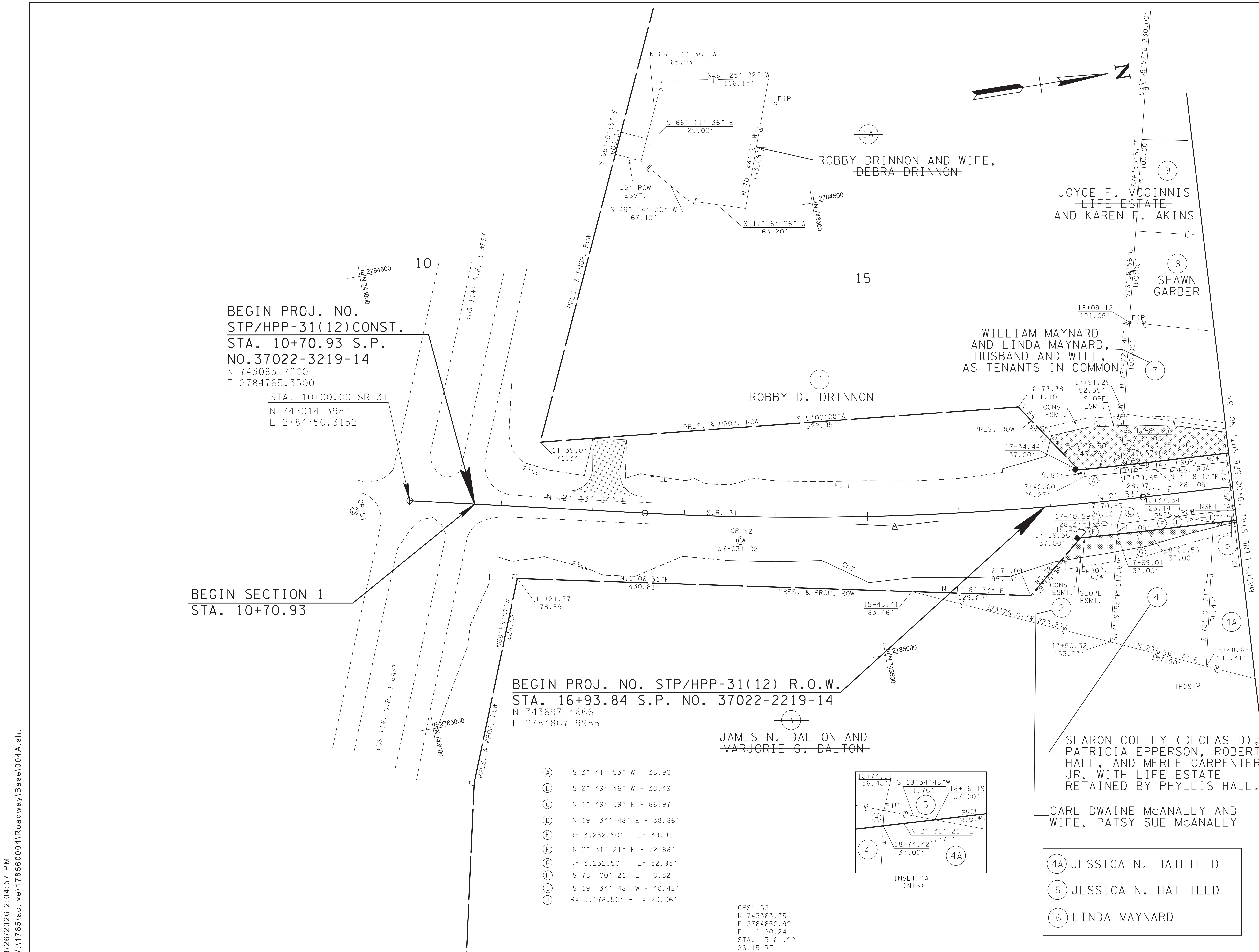
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	4A
P-I-H	2025	STP/HPP-31(12)	4A
PS & E	2026	STP/HPP-31(12)	4A

REVISION NOTE:

03-25-2026 UPDATED PROPERTY OWNERS NAMES FOR TRACTS 4, 4A, 5, AND 6.



Legend:

Proposed R.O.W. Line	
Proposed Easement Line	
Proposed Const. Easement Line	
Proposed Slope Easement	
Proposed Drainage Easement	

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REGISTERED ENGINEER
AGRICULTURE
COMMERCE
STATE OF TENNESSEE

04/14/2026

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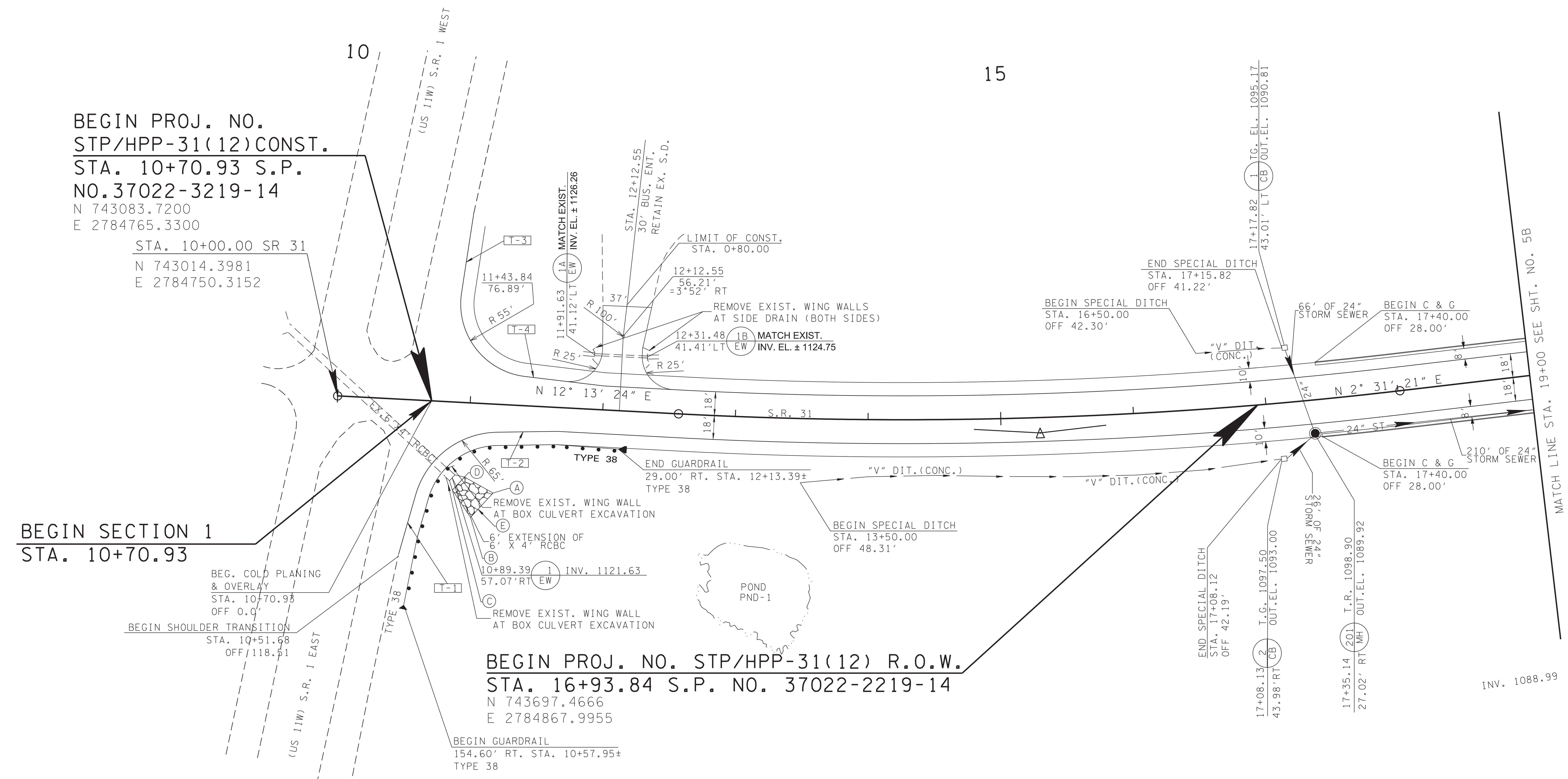
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

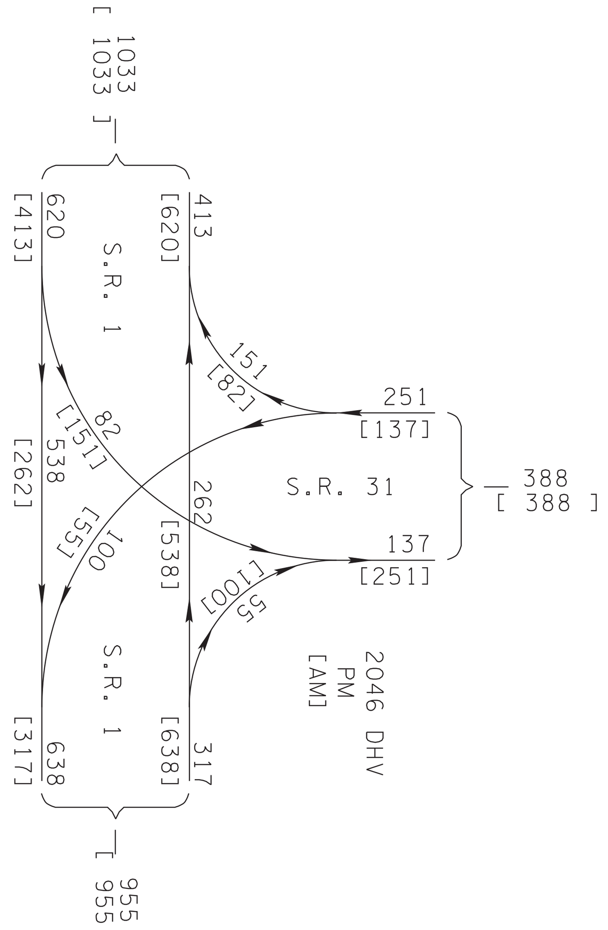
RIGHT-OF-WAY DETAILS

STA. 10+51.68 STA . 19+00
SCALE: 1"= 50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	4B
P-I-H	2025	STP/HPP-31(12)	4B
PS & E	2026	STP/HPP-31(12)	4B

PROPOSED DRAINAGE FEATURES							
STATION	OFFSET	SIDE	NO.	BASE LINE	TYPE	TOP GRATE/INLET OR RIM ELEV.	OUTLET/ FLOW LINE/ INV. ELEV.
17+08.13	43.98'	LT	2	SR 31	CB	1097.50	1093.00
17+17.82	43.01'	LT	1	SR 31	CB	1095.17	1090.81
17+35.14	27.02'	LT	201	SR 31	CB	1098.90	1089.92





NOTES:

- (A) STA. 11+20.77 OFF 66.91'(RT)
- (B) STA.11+04.78 OFF 86.13'(RT)
- (C) STA.10+90.03 OFF 66.33'(RT)
- (D) STA.10+98.61 OFF 56.02'(RT)
- (E) CONST. (1) 24'X25' MACHINED RIP-RAP APRON (CLASS B) AT PIPE OULET-TYPE A

PAVEMENT / SHOULDER TRANSITIONS										
TRANS. NO	LOCATION	BEGIN STATION	TO	END STATION	SIDE	TYPE	OFFSET (FT)		LANE WIDTH (FT)	
T-1	S.R 31	10+51.68	-	10+62.62	RT	PVMT	118.51	71.21	23.38	26.42
T-2	S.R. 31	11+21.61	-	11+66.51	RT	PVMT	21.00	18.00	15.00	12.00
T-3	S.R. 31	10+95.16	-	10+89.11	LT	PVMT	142.71	82.38	23.58	27.42
T-4	S.R. 31	11+40.17	-	12+00.29	LT	PVMT	22.02	18.00	16.02	12.00

PS & E
FIELD
REVIEW

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

STA. 10+51.68 STA. 19+00
SCALE: 1"= 50'

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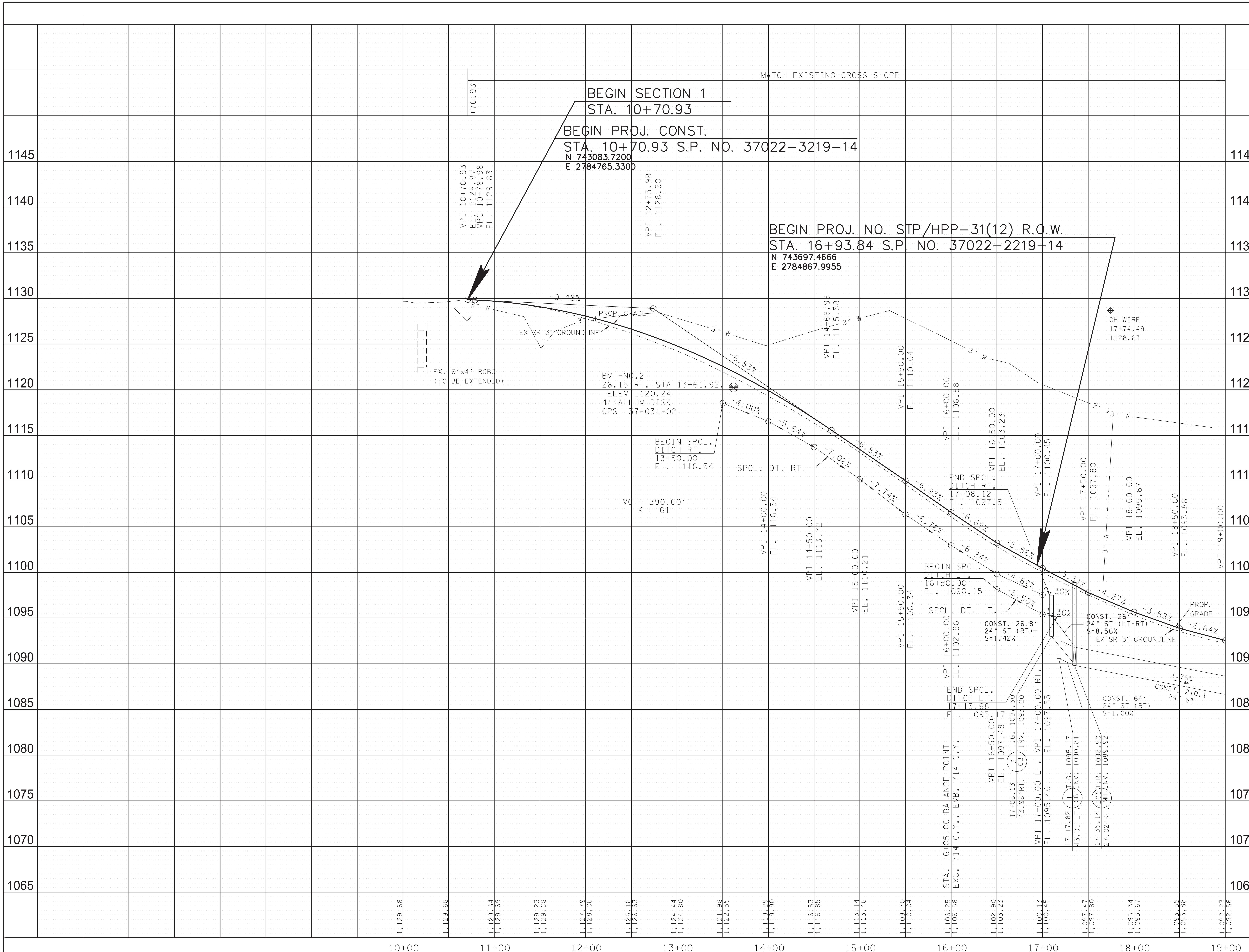
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31(12)	4C
P-I-H	2025	STP/HPP-31(12)	4C
PS&E	2026	STP/HPP-31(12)	4C



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STATE OF TENNESSEE

04/14/2026

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED PROFILE

STA. 10+51.68 STA. 19+00

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

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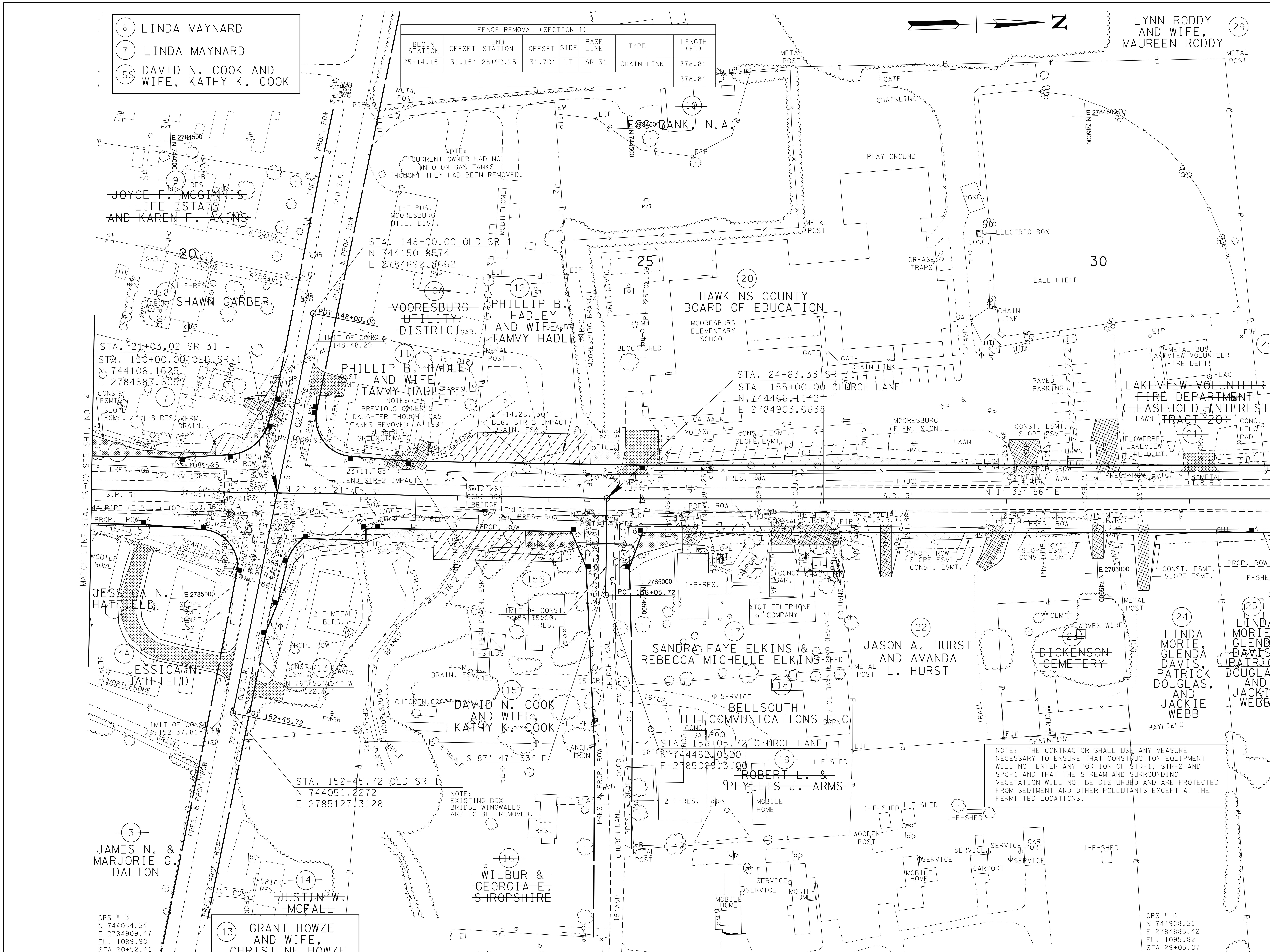

FENCE REMOVAL (SECTION 1)							
BEGIN STATION	OFFSET	END STATION	OFFSET	SIDE	BASE LINE	TYPE	LENGTH (FT)
25+14.15	31.15'	28+92.95	31.70'	LT	SR 31	CHAIN-LINK	378.81
							378.81

NOTE: THE CONTRACTOR SHALL USE ANY MEASURE NECESSARY TO ENSURE THAT CONSTRUCTION EQUIPMENT WILL NOT ENTER ANY PORTION OF STR-1, STR-2 AND SPG-1 AND THAT THE STREAM AND SURROUNDING VEGETATION WILL NOT BE DISTURBED AND ARE PROTECTED FROM SEDIMENT AND OTHER POLLUTANTS EXCEPT AT THE PERMITTED LOCATIONS.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	5
P-I-H	2025	STP/HPP-31(12)	5
PS & E	2026	STP/HPP-31(12)	5

REVISION NOTE:

06-17-2024 REVISED STRUCTURE TYPE AT STR-2 CROSSING. UPDATED PERM. DRAINAGE, SLOPE, AND CONST. ESMT. FOR TRACT 15. CREATED TRACT 15S.

03-25-2026 UPDATED PROPERTY OWNERS NAMES FOR TRACTS 4A, 5, 6, 7, 12, 13, 15, 15S, 18, 22, 24, AND 25 AND ADDED STRIKETHOUGH LINES FOR TRACT 21.

Legend:
- Proposed R.O.W. Line
- Proposed Easement Line
- Proposed Const. Easement Line
- Proposed Slope Easement
- Proposed Drainage Easement
- SCARIFY & OBLITERATE EXIST. PAVEMENT

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

STA. 19+00 TO STA. 32+00
SCALE: 1"= 50'

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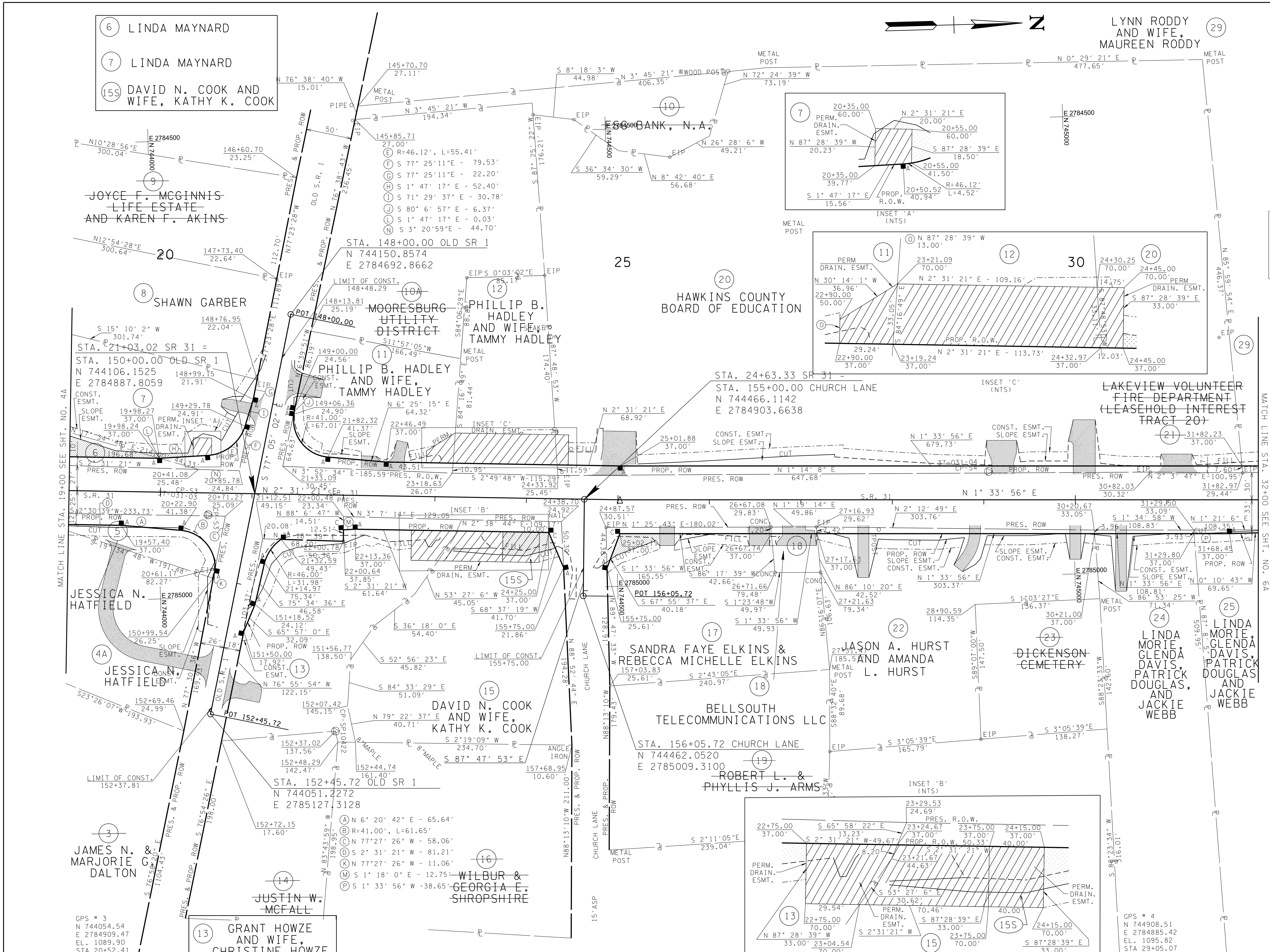

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	5A
P-I-H	2025	STP/HPP-31(12)	5A
PS & E	2026	STP/HPP-31(12)	5A

REVISION NOTE:

06-17-2024 REVISED STRUCTURE TYPE AT STR-2 CROSSING. UPDATED PERM. DRAINAGE, SLOPE, AND CONST. ESMT. FOR TRACT 15. CREATED TRACT 15S.

02-25-2026 UPDATED DIMENSION FOR DRAINAGE EASEMENT TRACT 15S AND STATION FOR TRACT 13.

03-25-2026 UPDATED PROPERTY OWNERS NAMES FOR TRACTS 4A, 5, 6, 7, 12, 13, 15, 15S, 18, 22, 24, AND 25 AND ADDED STRIKETHOUGH LINES FOR TRACT 21.

Legend:
Proposed R.O.W. Line
Proposed Easement Line
Proposed Const. Easement Line
Proposed Slope Easement
Proposed Drainage Easement

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RIGHT-OF-WAY DETAILS

STA. 19+00 TO STA. 32+00
SCALE: 1"= 50'

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	5B
P-I-H	2025	STP/HPP-31(12)	5B
PS & E	2026	STP/HPP-31(12)	5B

06-17-2024 REVISED STRUCTURE TYPE AT STR-2 CROSSING.

PROPOSED DRAINAGE FEATURES							
STATION	OFFSET	SIDE	NO.	BASE LINE	TYPE	TOP GRATE/INLET OR RIM ELEV.	OUTLET/ FLOW LINE/ INV. ELEV.
20+01.22	109.06'	LT	3	SR 31	CB	1090.40	1086.06
20+91.00	53.00'	LT	4	SR 31	CB	1089.60	1085.70
20+45.59	30.44'	LT	5	SR 31	CB	1090.05	1085.33
21+55.00	42.32'	LT	10	SR 31	CB	1089.85	1085.53
21+81.34	32.40'	LT	11	SR 31	CB	1089.95	1085.28
24+01.68	24.00'	LT	22	SR 31	CB	1090.47	1087.81
25+15.39	27.04'	LT	24	SR 31	CB	1090.28	1085.78
27+25.00	28.00'	LT	26	SR 31	CB	1092.23	1088.23
30+75.00	28.00'	LT	28	SR 31	CB	1100.91	1096.87
20+45.17	21.13'	LT	203	SR 31	JB	1089.25	1085.30

NOTES:

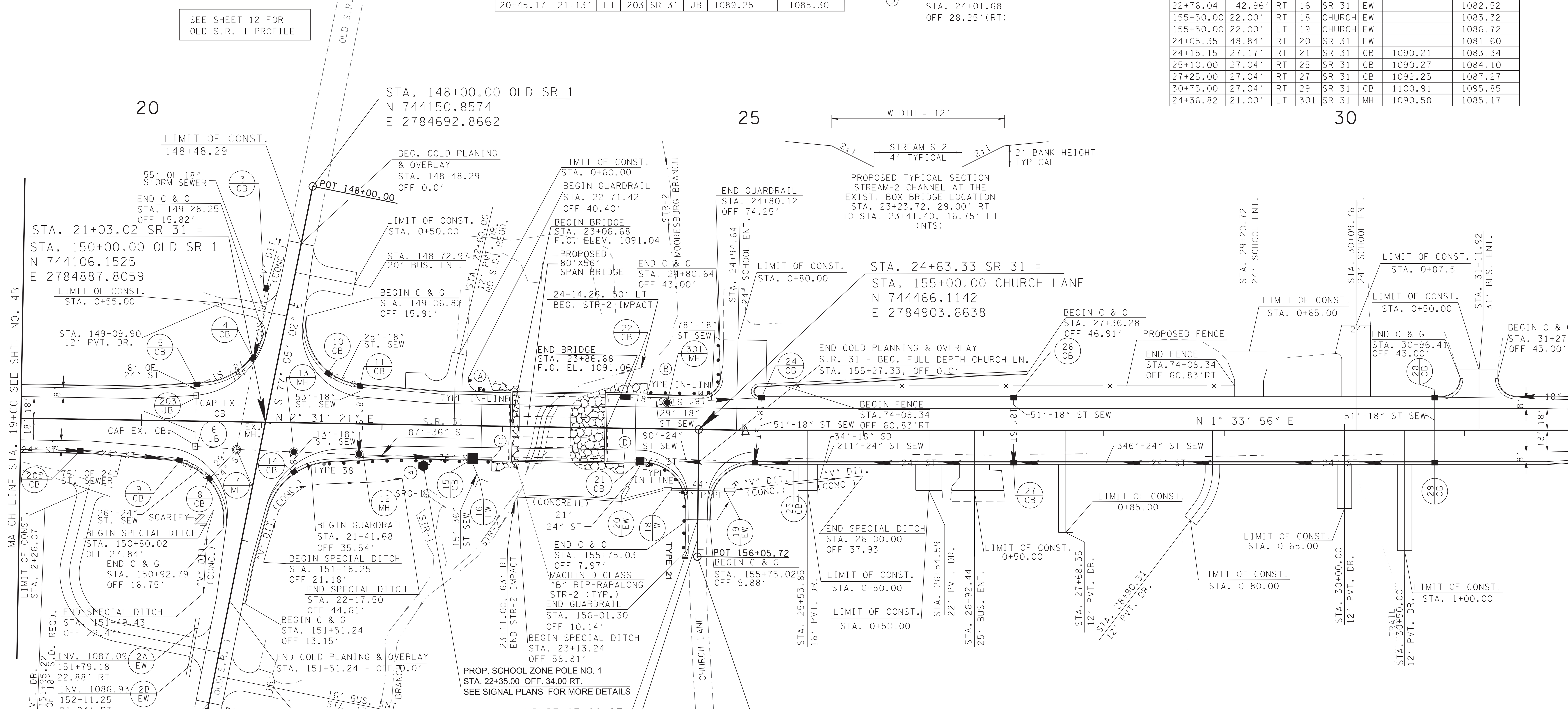
Ⓐ END GUARDRAIL
STA. 22+91.68
OFF 28.25'(LT)

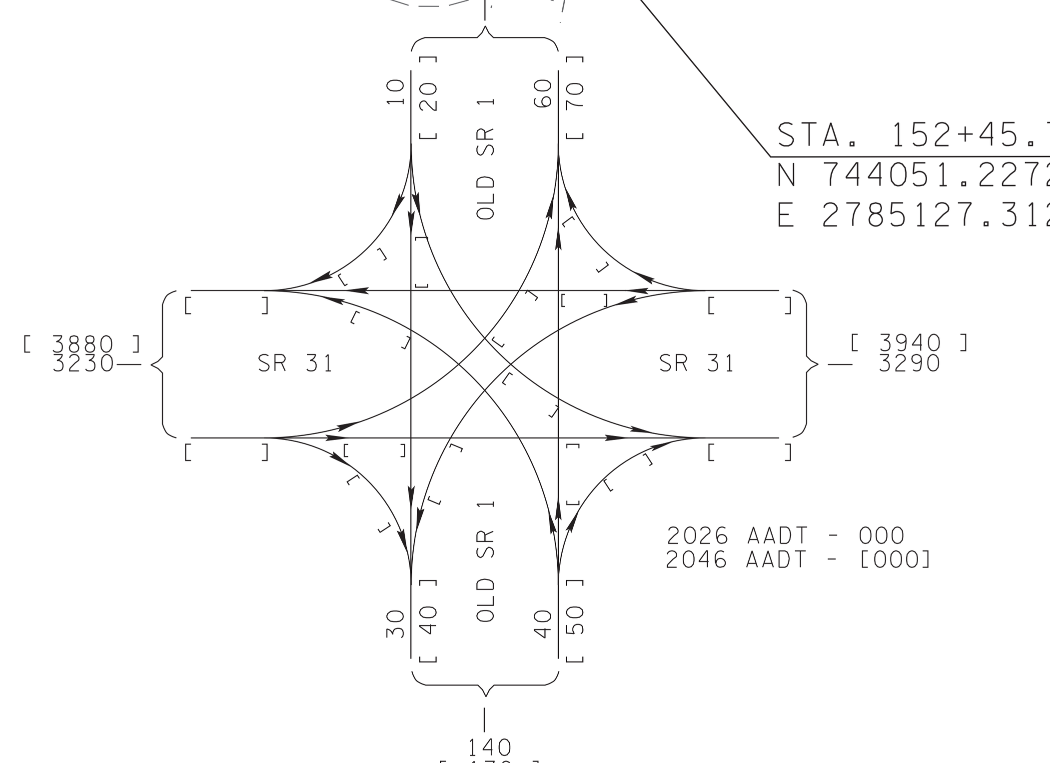
Ⓑ BEGIN GUARDRAIL
STA. 24+20.00
OFF 28.25'(LT)

Ⓒ END GUARDRAIL
STA. 22+91.68
OFF 28.25'(RT)

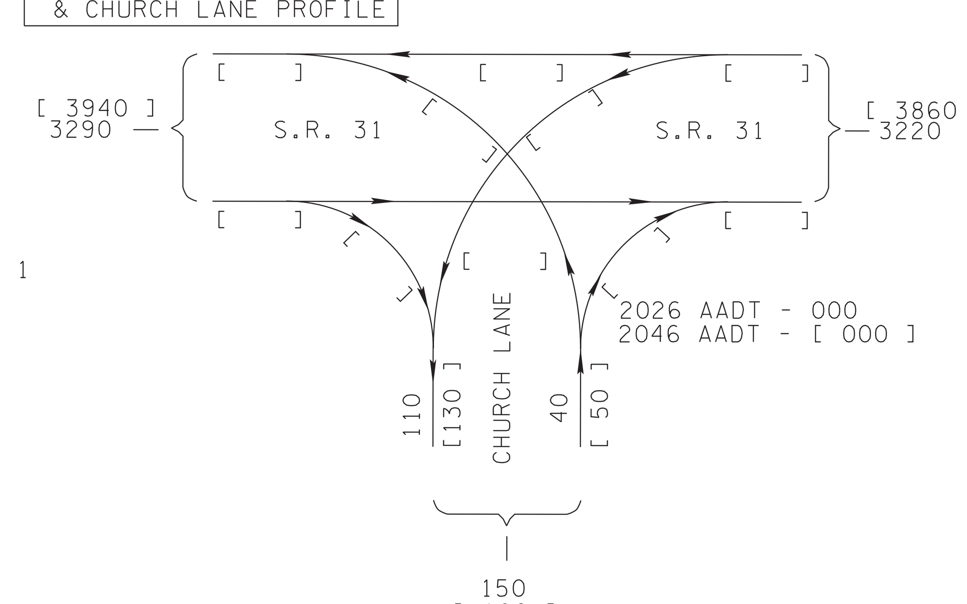
Ⓓ BEGIN GUARDRAIL
STA. 24+01.68
OFF 28.25'(RT)

PROPOSED DRAINAGE FEATURES							
STATION	OFFSET	SIDE	NO.	BASE LINE	TYPE	TOP GRATE/INLET OR RIM ELEV.	OUTLET/ FLOW LINE/ INV. ELEV.
19+50.00	26.32'	RT	202	SR 31	CB	1090.72	1086.22
20+45.00	21.24'	RT	6	SR 31	JB	1089.36	1085.06
20+79.46	23.10'	RT	7	SR 31	MH	1090.34	1084.70
20+56.77	47.56'	RT	8	SR 31	CB	1089.75	1084.99
20+32.27	33.71'	RT	9	SR 31	CB	1089.93	1085.43
21+81.34	25.16'	RT	12	SR 31	MH	1090.38	1084.02
21+27.00	24.23'	RT	13	SR 31	MH	1090.39	1084.19
21+28.00	41.64'	RT	14	SR 31	CB	1089.49	1085.02
22+76.04	27.14'	RT	15	SR 31	CB	1090.19	1083.19
22+76.04	42.96'	RT	16	SR 31	EW		1082.52
155+50.00	22.00'	RT	18	CHURCH	EW		1083.32
155+50.00	22.00'	LT	19	CHURCH	EW		1086.72
24+05.35	48.84'	RT	20	SR 31	EW		1081.60
24+15.15	27.17'	RT	21	SR 31	CB	1090.21	1083.34
25+10.00	27.04'	RT	25	SR 31	CB	1090.27	1084.10
27+25.00	27.04'	RT	27	SR 31	CB	1092.23	1087.27
30+75.00	27.04'	RT	29	SR 31	CB	1100.91	1095.85
24+36.82	21.00'	LT	301	SR 31	MH	1090.58	1085.17





STA. 151+51.24 OLD S.R. 1 TO STA. 152+37.81 OLD S.R. 1 OVERLAY EXISTING PAVEMENT.



CONSTRUCT DITCH TABLE								
OFFSET	BEG. STA.	BASELINE	TO	OFFSET	END STA.	BASELINE	TYPE	TREAT.
27.84' RT.	STA. 150+80.02	OLD SR 1	TO	22.40' RT.	STA. 151+49.95	OLD SR 1	SPECIAL "V"	CONC.
43.07' LT.	STA. 150+45.63	OLD SR 1	TO	21.18' LT.	STA. 151+18.25	OLD SR 1	SPECIAL "V"	CONC.
52.65' RT.	STA. 21+37.16	SR 31	TO	44.61' RT.	STA. 22+17.50	SR 31	SPECIAL "V"	CONC.
57.88' RT.	STA. 23+20.88	SR 31	TO	50.22' RT.	STA. 24+34.65	SR 31	TRAP. -2'	CONC.
49.56' RT.	STA. 24+95.31	SR 31	TO	37.93' RT	STA. 26+00.00	SR 31	SPECIAL "V"	CONC.
39.70' LT.	STA. 155+49.74	CHURCH LN	TO	16.00' LT.	STA. 155+75.11	CHURCH LANE	SPECIAL "V"	CONC.
17.88' RT.	STA. 148+48.49	OLD SR 1	TO	21.45' RT.	STA. 148+93.09	OLD SR 1	SPECIAL "V"	CONC.
23.74' RT.	STA. 149+26.96	OLD SR 1	TO	63.54' RT.	STA. 149+62.73	OLD SR 1	SPECIAL "V"	CONC.

NOTE:
1. EXISTING BOX BRIDGE WINGWALLS ARE TO BE REMOVED.
2. SEE DETAIL SHEET 2G1 FOR CURB RETURN RADII AND PAVEMENT/SHOULDER TRANSITIONS.
3. REFER TO THE BRIDGE PLAN GENERAL NOTES SHEET U-101-2 FOR SPECIAL NOTE REGARDING RIP-RAP INSTALLATION AROUND MOORSBURG BRANCH BRIDGE, ID.#37-SR031-0001.

Legend:

SCARIFY & OBLITERATE EXIST. PAVEMENT

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04/14/2026

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

STA. 19+00 TO STA. 32+00
SCALE: 1"= 50'

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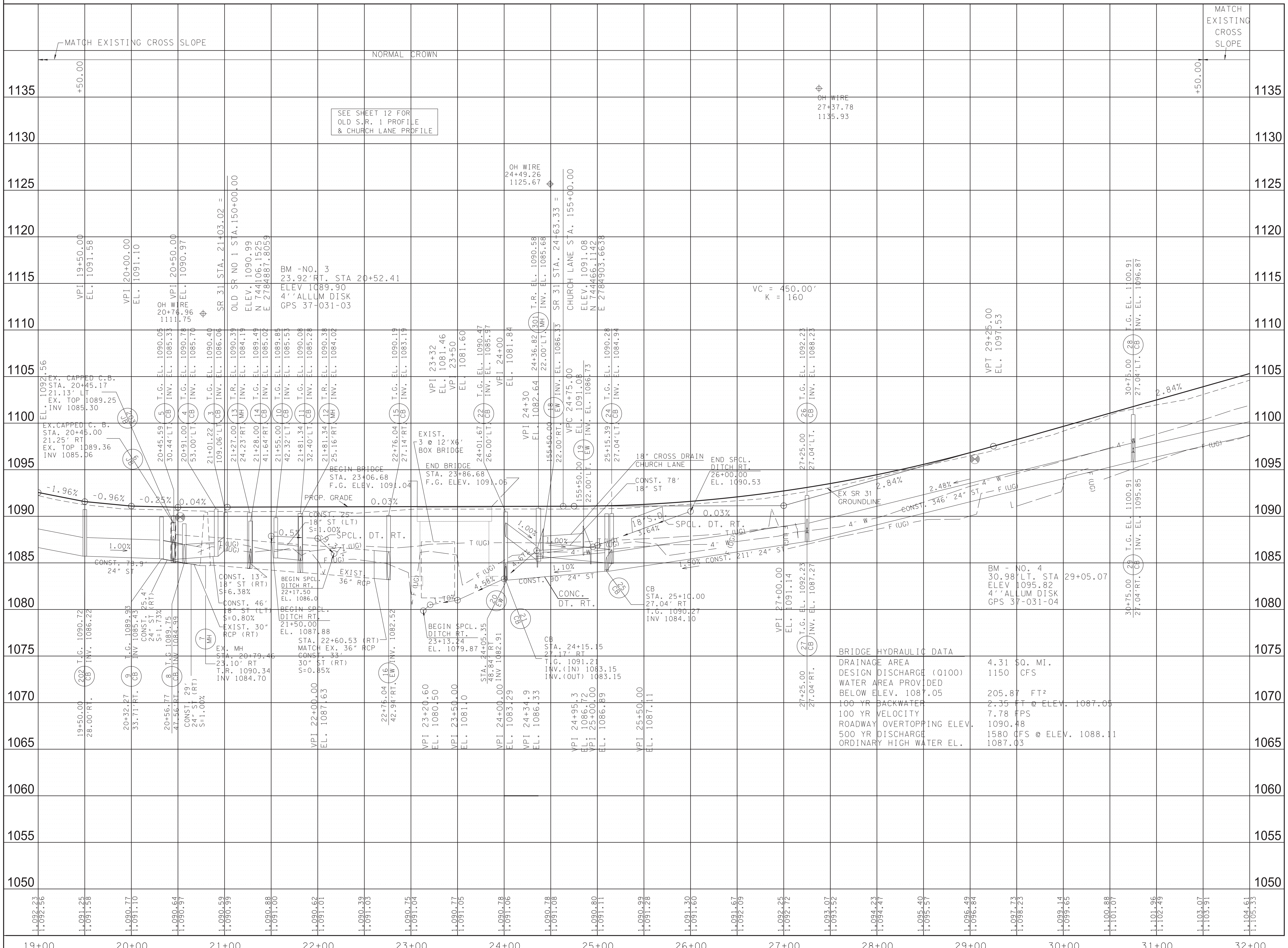
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31(12)	5C
P-I-H	2025	STP/HPP-31(12)	5C
PS&E	2026	STP/HPP-31(12)	5C

06-17-2024 REVISED STRUCTURE TYPE AT STR-2 CROSSING. ADJUSTED CB-21, CB-22, AND EW-20



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04/14/2026

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED PROFILE

STA. 19+00 TO STA. 32+00

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

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	6
P-I-H	2025	STP/HPP-31(12)	6
PS & E	2026	STP/HPP-31(12)	6

REVISION NOTE:

08-15-2023 TEMPORARY CONSTRUCTION EASEMENT ADDED FOR TRACTS 28 & 28A

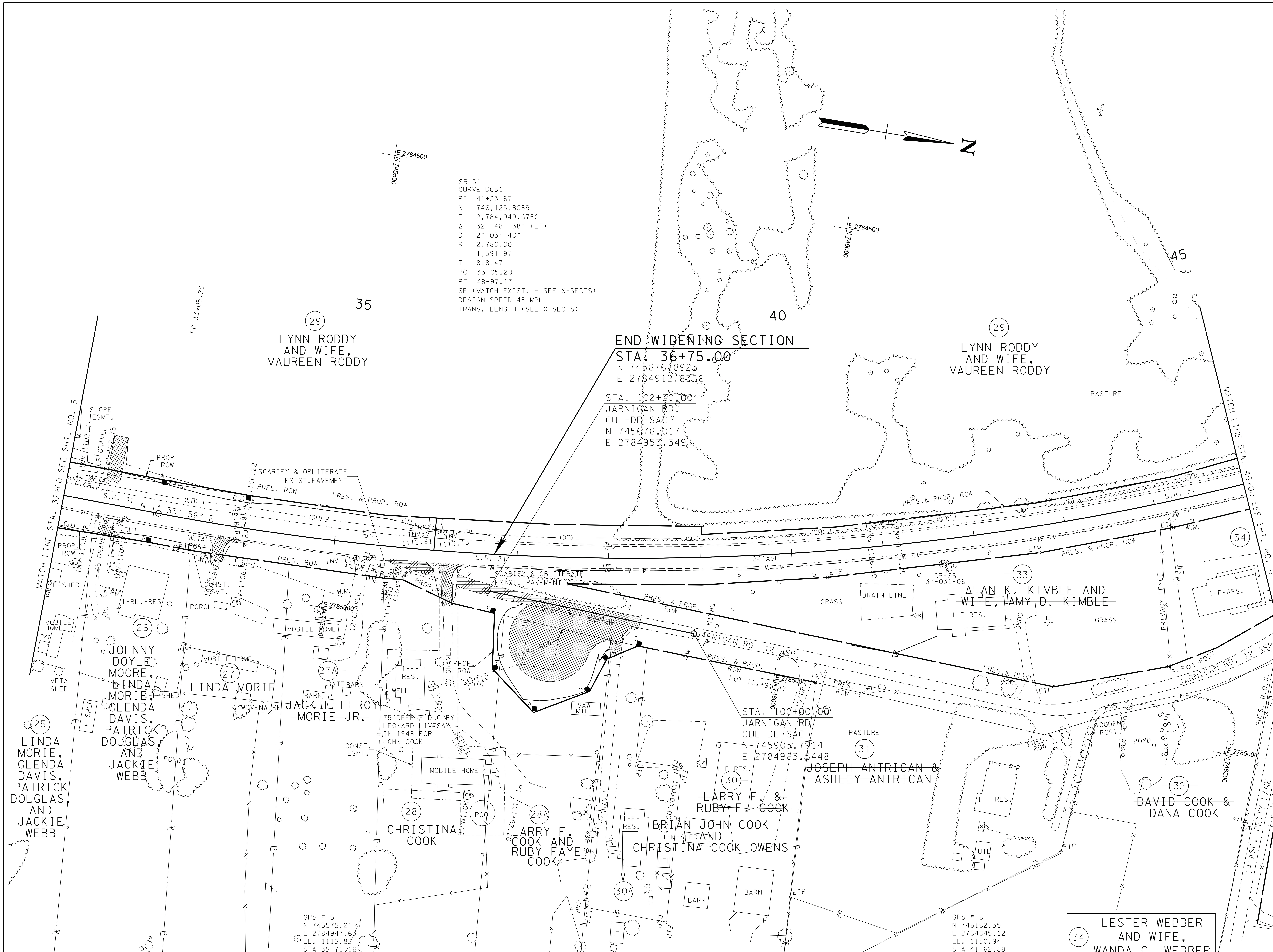
06-17-2024 REVISED TEMPORARY CONSTRUCTION EASEMENT ON TRACT 28 TO INCLUDE 1-F-RES.

12-04-2025 ADDED AN EXISTING WATER METER ON TRACT 28.

03-25-2026 UPDATED PROPERTY OWNERS NAMES FOR TRACTS 25, 26, AND 28A AND ADDED STRIKETHOUGH LINES FOR TRACT 30.

NOTE:

CONTRACTOR SHALL NOT DISTURB PRIVATE WATERLINE DURING DEMOLITION OF STRUCTURES.



Legend:

Proposed R.O.W. Line	
Proposed Easement Line	
Proposed Const. Easement Line	
Proposed Slope Easement	
Proposed Drainage Easement	
SCARIFY & OBLITERATE EXIST. PAVEMENT	

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04/14/2026

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

STA. 32+00 TO STA. 45+00
SCALE: 1"= 50'

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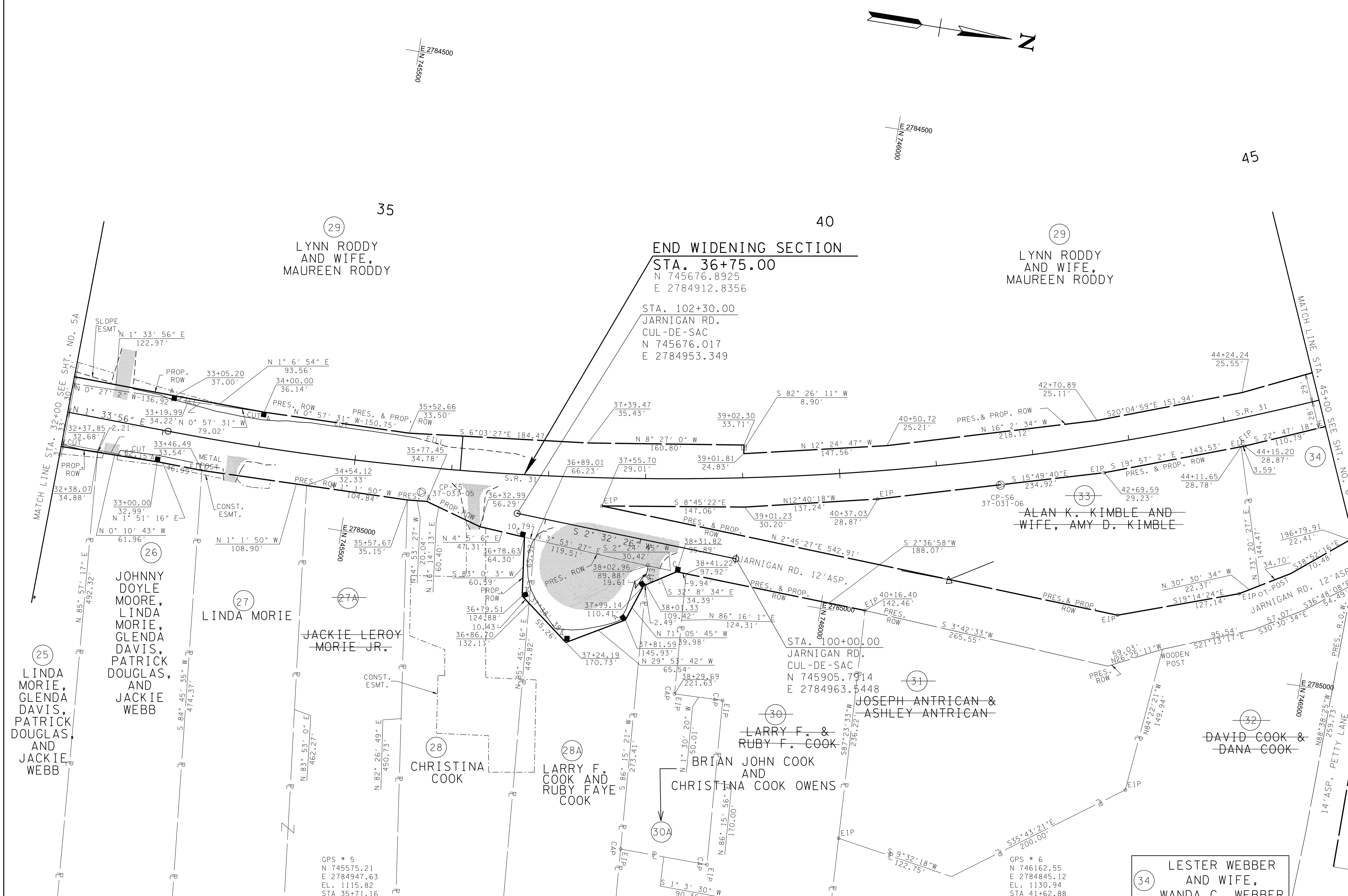
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	6A
P-I-H	2025	STP/HPP-31(12)	6A
PS & E	2026	STP/HPP-31(12)	6A

REVISION NOTE:

08-15-2023 TEMPORARY CONSTRUCTION EASEMENT ADDED FOR TRACTS 28 & 28A

03-25-2026 UPDATED PROPERTY OWNERS NAMES FOR TRACTS 25, 26, AND 28A AND ADDED STRIKETHOUGH LINES FOR TRACT 30.



Legend:

- Proposed R.O.W. Line
- Proposed Easement Line
- Proposed Const. Easement Line
- Proposed Slope Easement
- Proposed Drainage Easement

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RIGHT-OF-WAY DETAILS

STA. 32+00 TO STA. 45+00
SCALE: 1"= 50'

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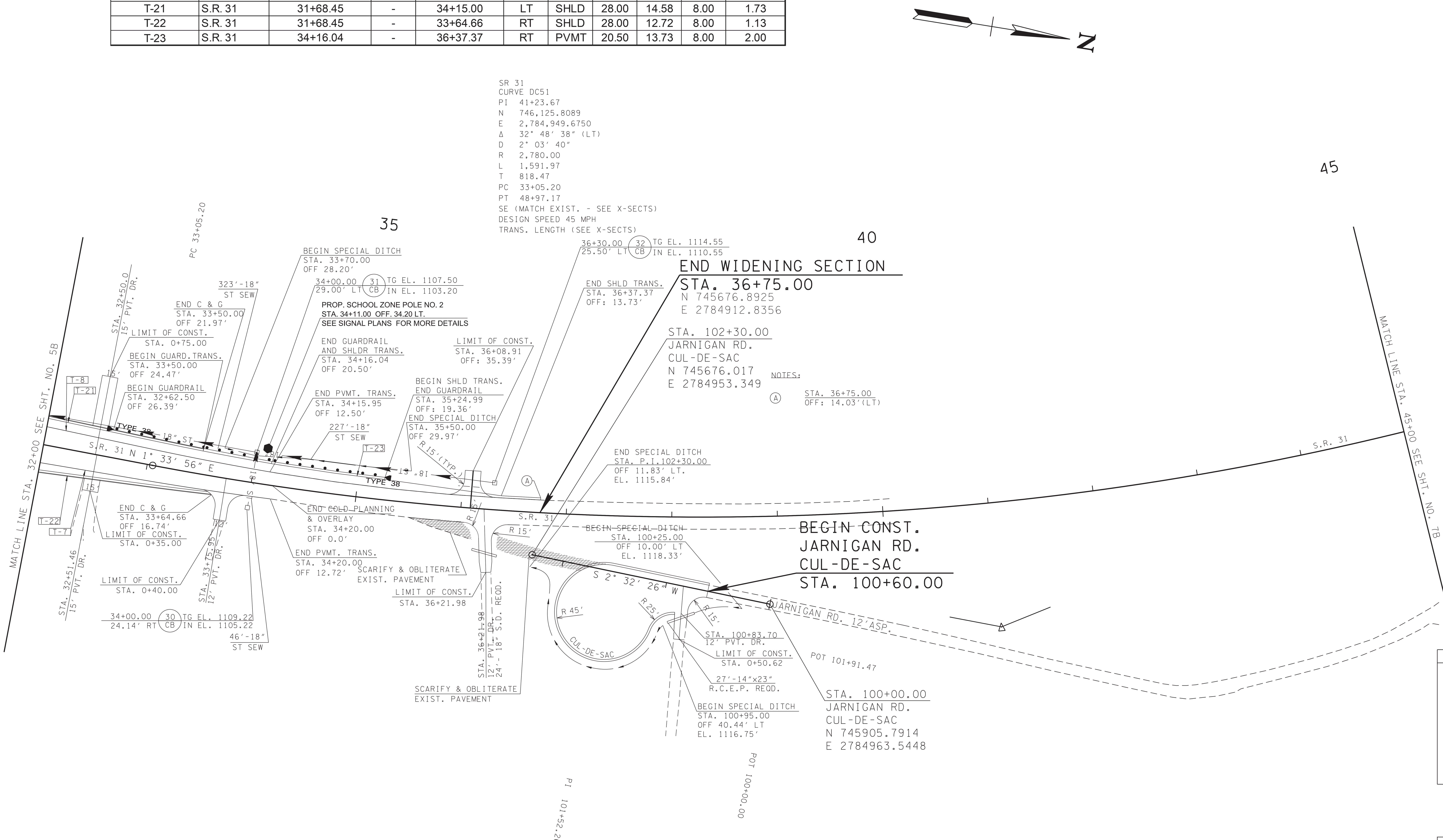
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	6B
P-I-H	2025	STP/HPP-31(12)	6B
PS & E	2026	STP/HPP-31(12)	6B

PAVEMENT / SHOULDER TRANSITIONS

TRANS. NO	LOCATION	BEGIN STATION	TO	END STATION	SIDE	TYPE	OFFSET (FT)		LANE WITH (FT)	
T-7	S.R. 31	31+68.45	-	34+20.00	RT	PVMT	18.00	12.72	12.00	12.72
T-8	S.R. 32	31+68.46	-	34+16.04	LT	PVMT	18.00	12.50	12.00	12.50
T-21	S.R. 31	31+68.45	-	34+15.00	LT	SHLD	28.00	14.58	8.00	1.73
T-22	S.R. 31	31+68.45	-	33+64.66	RT	SHLD	28.00	12.72	8.00	1.13
T-23	S.R. 31	34+16.04	-	36+37.37	RT	PVMT	20.50	13.73	8.00	2.00



PROPOSED DRAINAGE FEATURES							
STATION	OFFSET	SIDE	NO.	BASE LINE	TYPE	TOP GRATE/INLET OR RIM ELEV.	OUTLET/ FLOW LINE/ INV. ELEV.
34+00.00	24.14′	LT	30	SR 31	CB	1109.22	1105.22
34+00.00	23.03′	LT	31	SR 31	CB	1107.20	1103.20

Legend:

SCARIFY & OBLITERATE EXIST. PAVEMENT

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PROPOSED LAYOUT

STA. 32+00 TO STA. 45+00
SCALE: 1"= 50'

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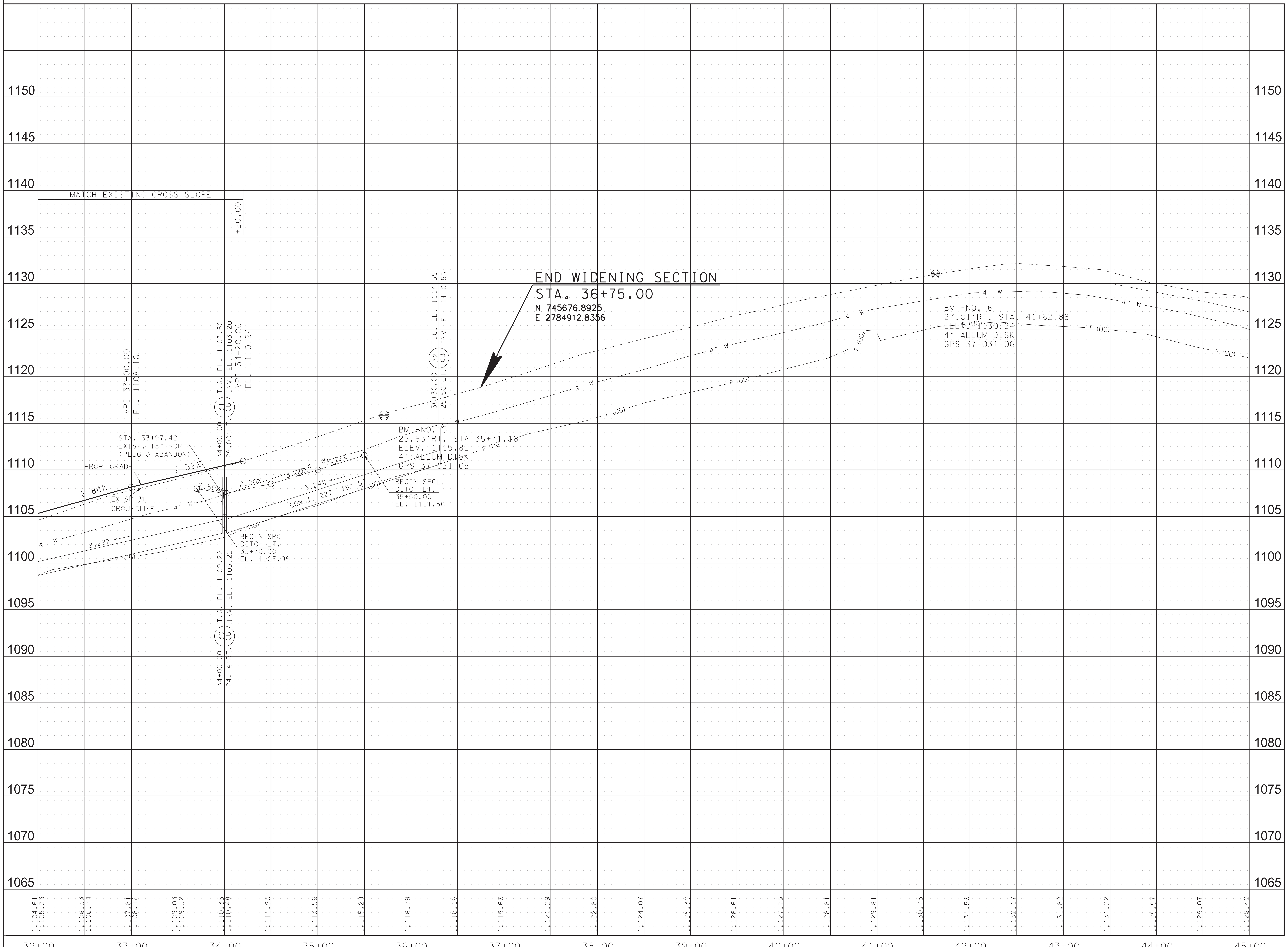
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31(12)	6C
P-I-P	2025	STP/HPP-31(12)	6C
PS&E	2026	STP/HPP-31(12)	6C



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04/14/2026

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED PROFILE

STA. 32+00 TO STA. 45+00

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

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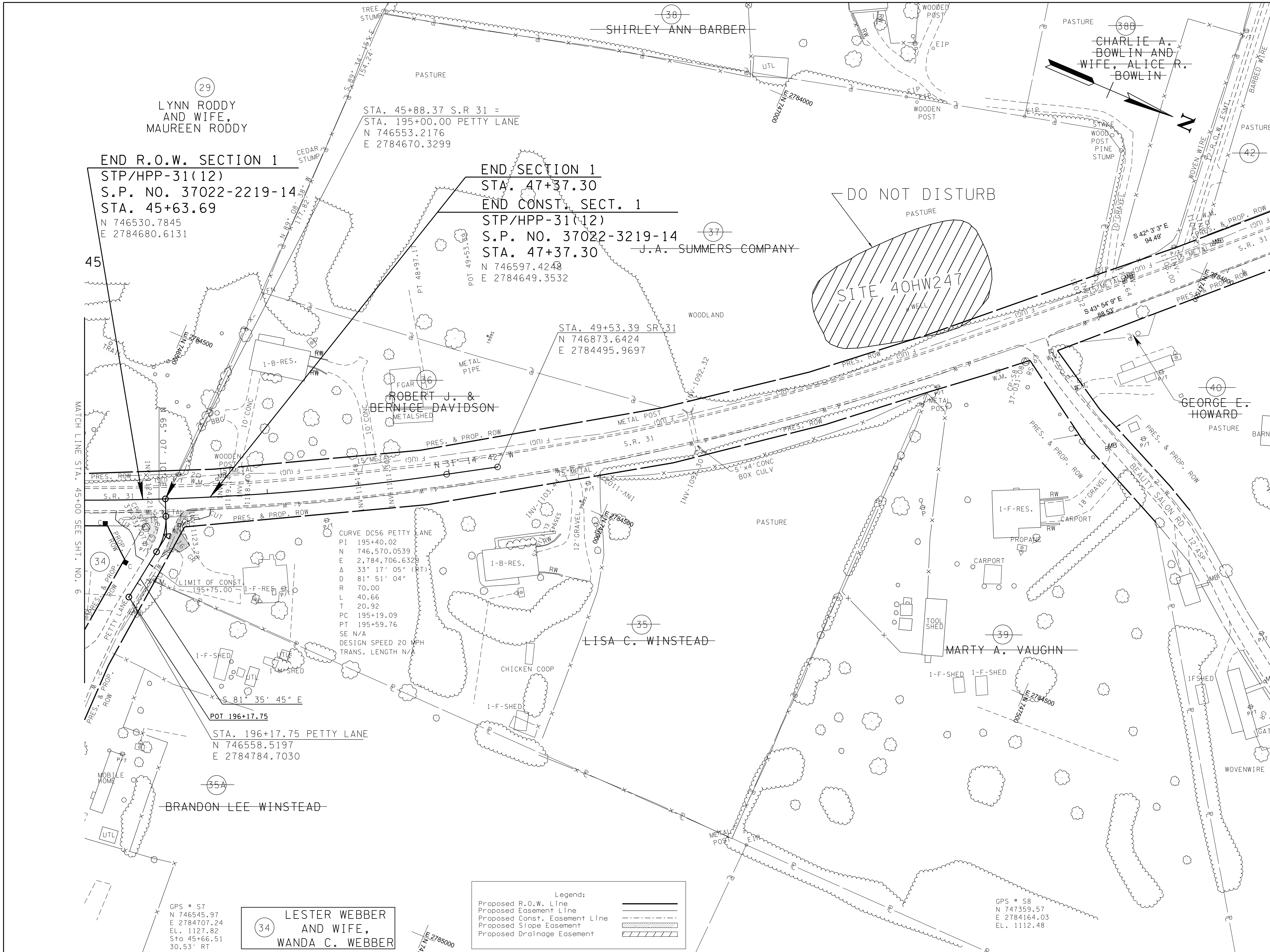
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	7
P-I-H	2025	STP/HPP-31(12)	7
PS & E	2026	STP/HPP-31(12)	7



R.O.W.
PLANS

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT
LAYOUT

STA. 45+00 TO STA.47.37.30
SCALE: 1"= 50'

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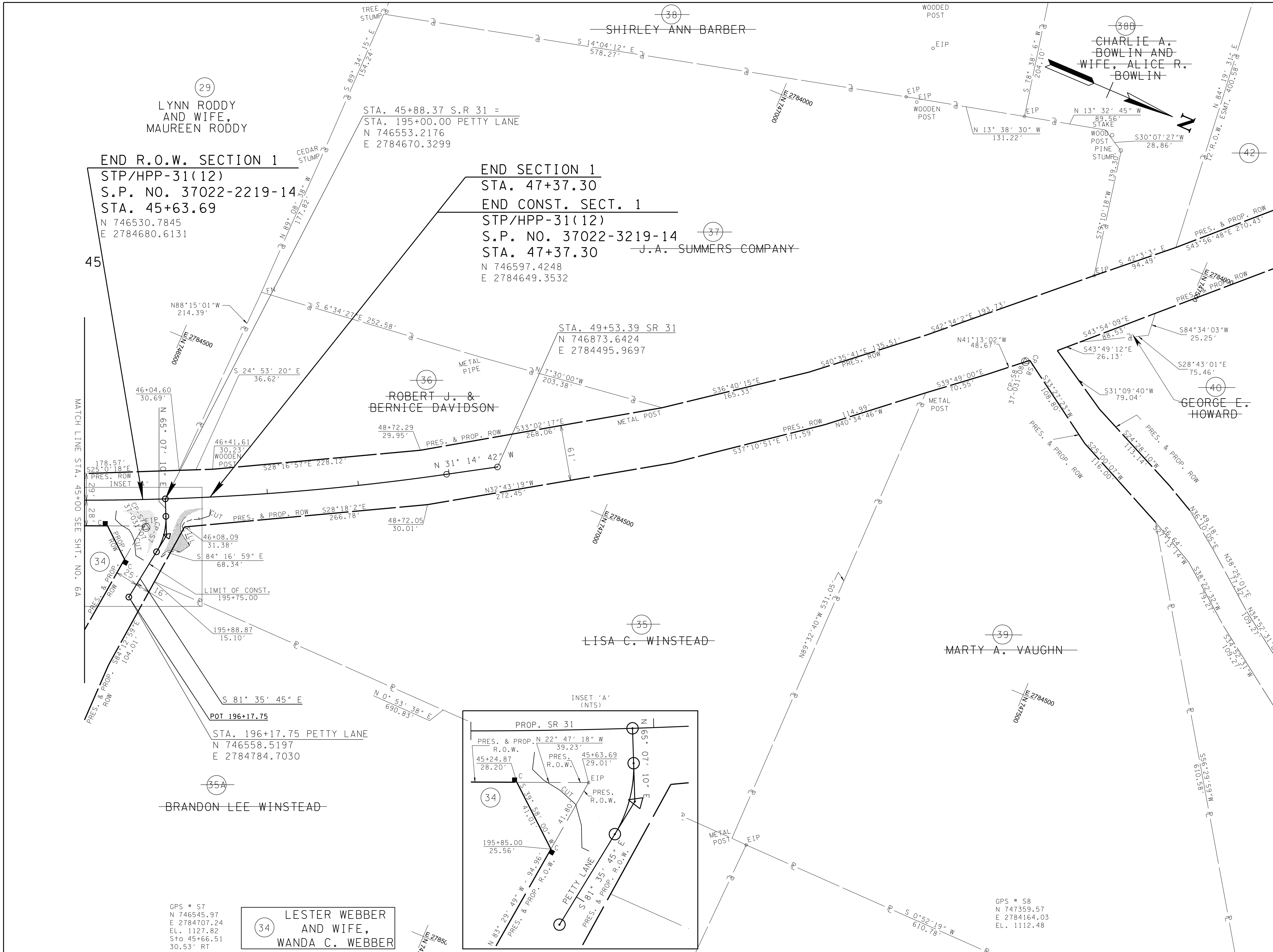

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	7A
P-I-H	2025	STP/HPP-31(12)	7A
PS & E	2026	STP/HPP-31(12)	7A

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STATE OF TENNESSEE

04/14/2026

COORDINATES ARE NAD 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00006 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WITH GEOID 99 .

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RIGHT-OF-WAY DETAILS

STA. 45+00 TO STA. 47+37.30
SCALE: 1"= 50'

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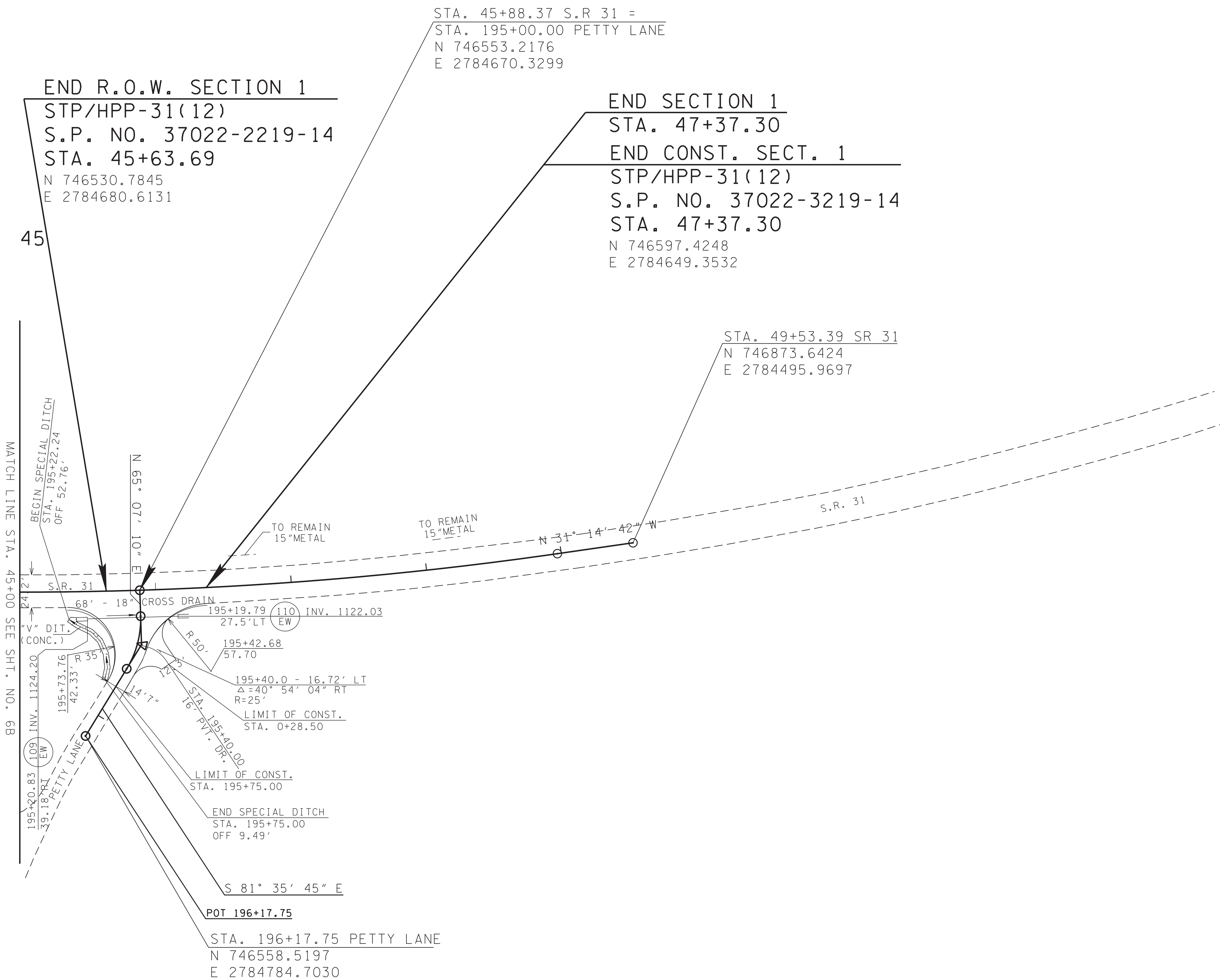
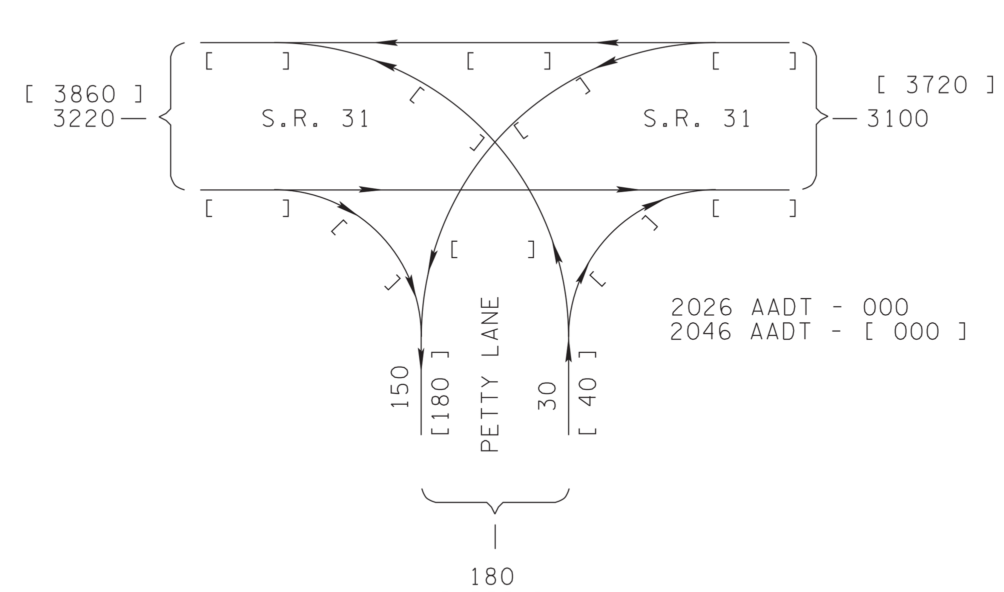
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	7B
P-I-H	2025	STP/HPP-31(12)	7B
PS & E	2026	STP/HPP-31(12)	7B





EXCLUSIONS
STA. 47+37.30 TO STA. 69+52.87

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STATE OF TENNESSEE

04/14/2026

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

STA. 45+00 TO STA. 47+37.30
SCALE: 1"= 50'

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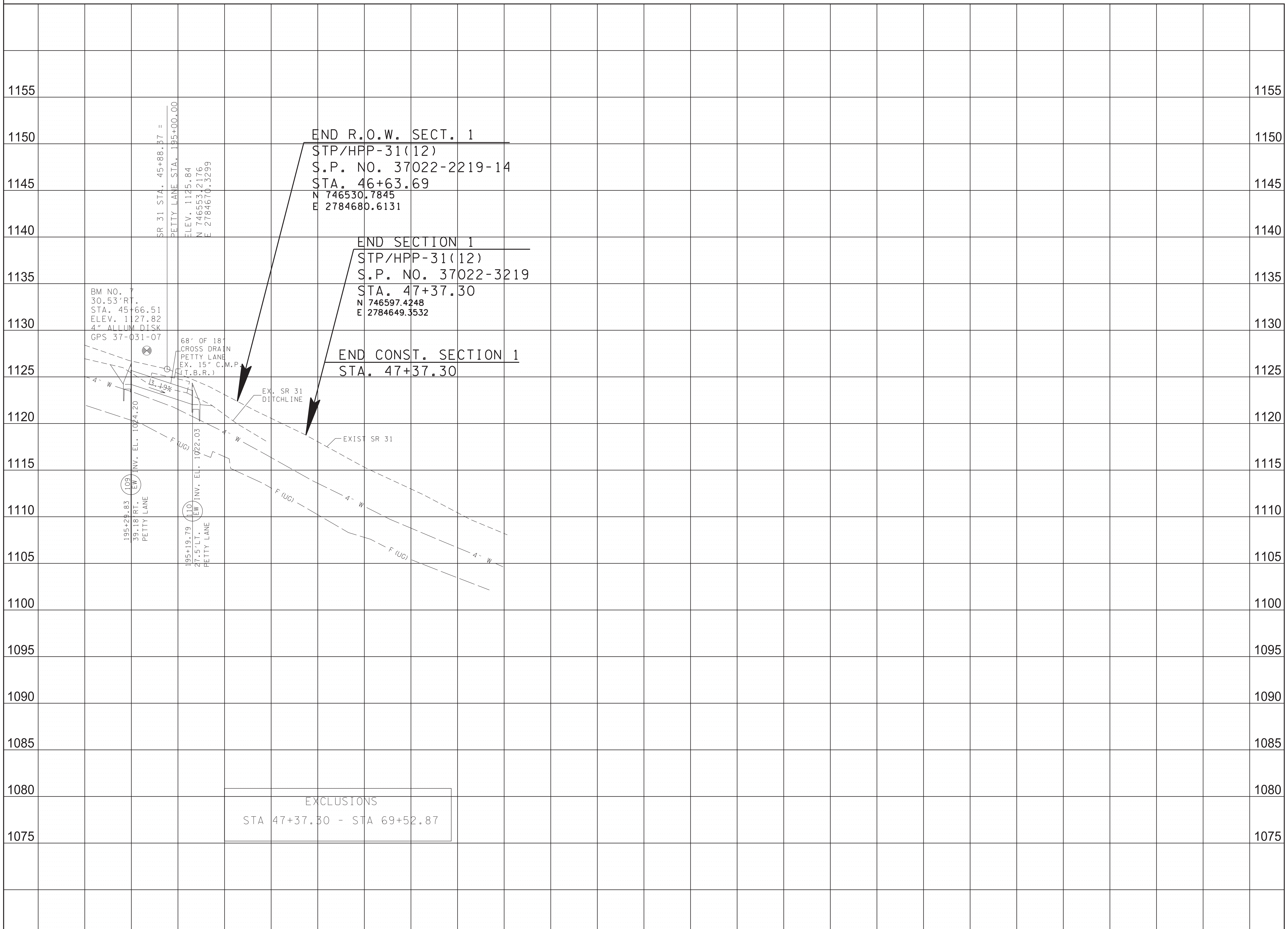
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31(12)	7C
P-I-H	2025	STP/HPP-31(12)	7C
PS&E	2026	STP/HPP-31(12)	7C



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04/14/2026

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED PROFILE

STA. 45+00 TO STA. 47+37.30

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

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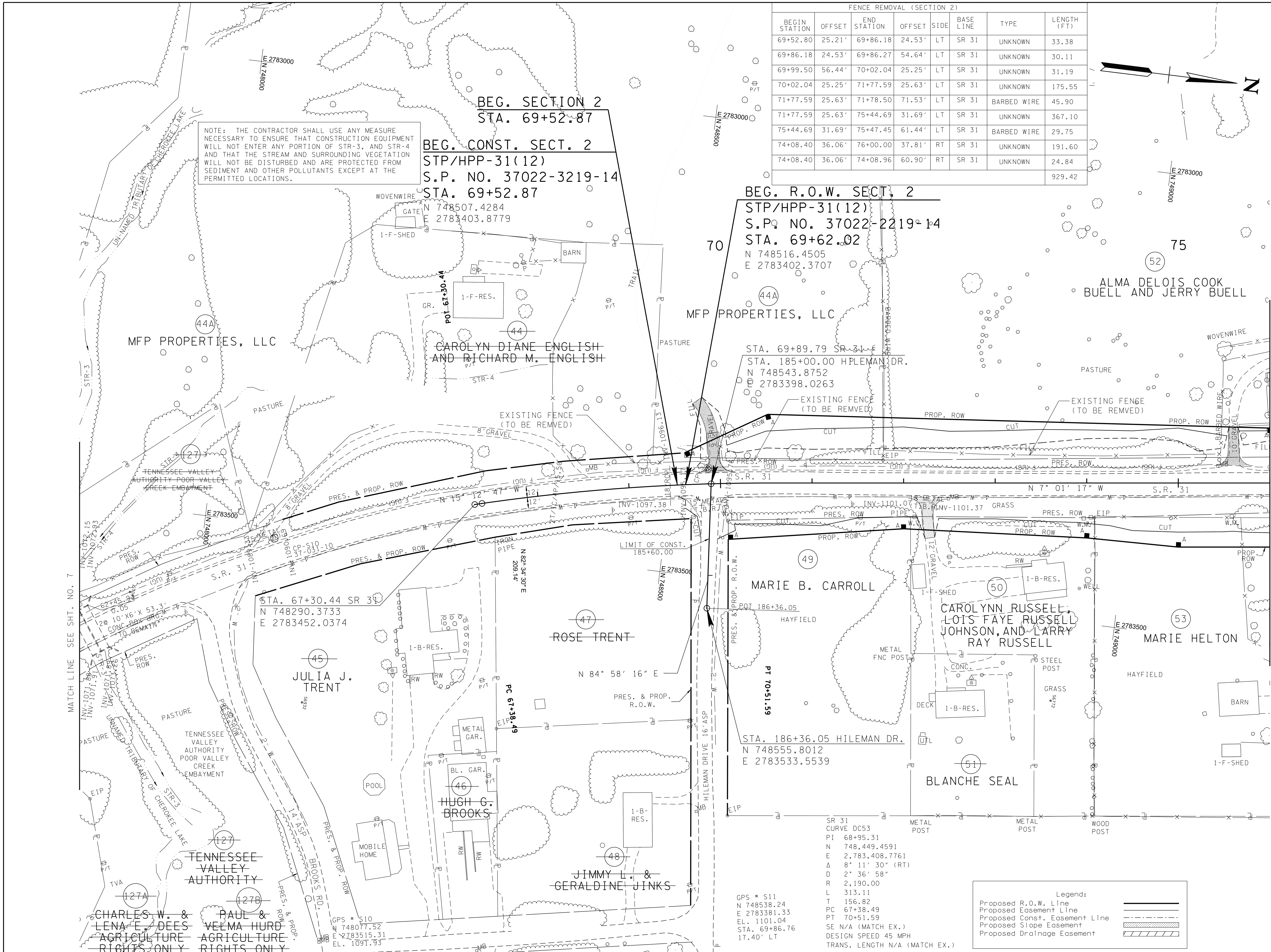
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	8
P-I-H	2025	STP/HPP-31(12)	8
PS & E	2026	STP/HPP-31(12)	8

REVISION NOTE:

03-25-2026 UPDATED PROPERTY OWNERS NAMES FOR TRACTS 49, 50, 52, AND 53.

FENCE REMOVAL (SECTION 2)

BEGIN STATION	OFFSET	END STATION	OFFSET	SIDE	BASE LINE	TYPE	LENGTH (FT)
69+52.80	25.21'	69+86.18	24.53'	LT	SR 31	UNKNOWN	33.38
69+86.18	24.53'	69+86.27	54.64'	LT	SR 31	UNKNOWN	30.11
69+99.50	56.44'	70+02.04	25.25'	LT	SR 31	UNKNOWN	31.19
70+02.04	25.25'	71+77.59	25.63'	LT	SR 31	UNKNOWN	175.55
71+77.59	25.63'	71+78.50	71.53'	LT	SR 31	BARBED WIRE	45.90
71+77.59	25.63'	75+44.69	31.69'	LT	SR 31	UNKNOWN	367.10
75+44.69	31.69'	75+47.45	61.44'	LT	SR 31	BARBED WIRE	29.75
74+08.40	36.06'	76+00.00	37.81'	RT	SR 31	UNKNOWN	191.60
74+08.40	36.06'	74+08.96	60.90'	RT	SR 31	UNKNOWN	24.84
							929.42



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

STA. 69+52.87 TO STA. 76+00

SCALE: 1"= 50'

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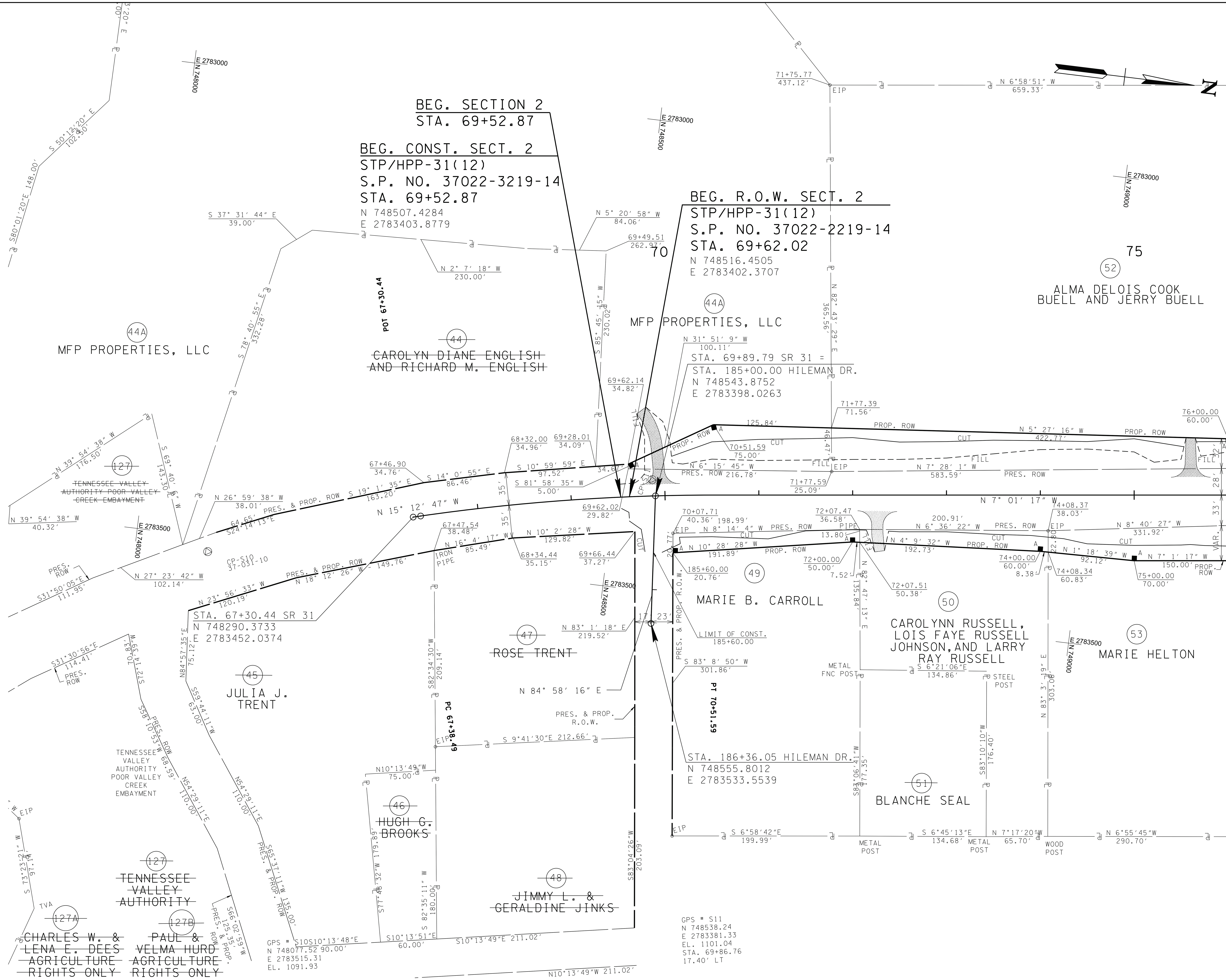
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	8A
P-I-H	2025	STP/HPP-31(12)	8A
PS & E	2026	STP/HPP-31(12)	8A

REVISION NOTE:

03-25-2026 UPDATED PROPERTY OWNERS NAMES FOR TRACTS 49, 50, 52, AND 53.



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RIGHT-OF-WAY DETAILS

STA. 69+52.87 TO STA. 76+00
SCALE: 1"= 50'

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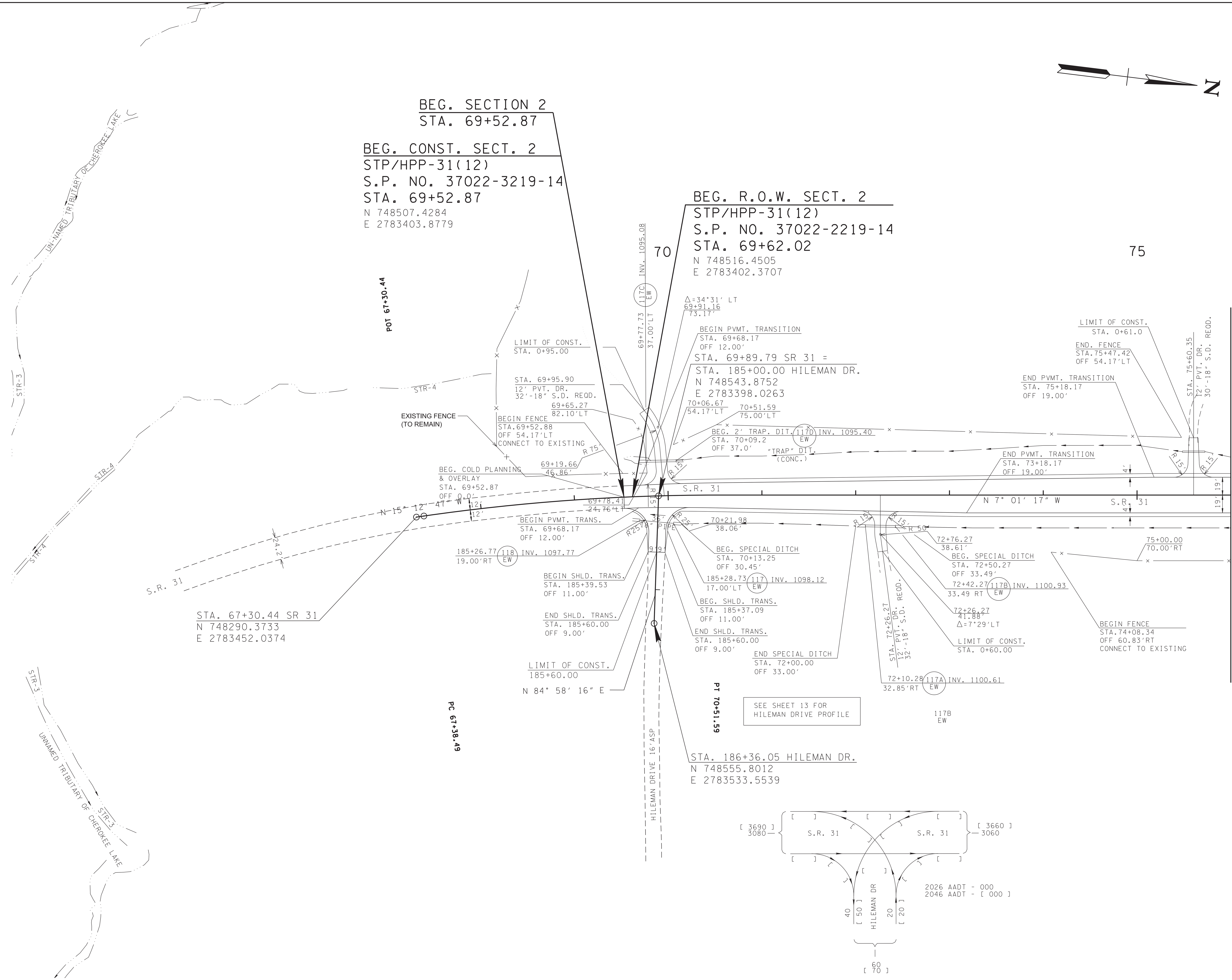
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	8B
P-I-H	2025	STP/HPP-31(12)	8B
PS & E	2026	STP/HPP-31(12)	8B



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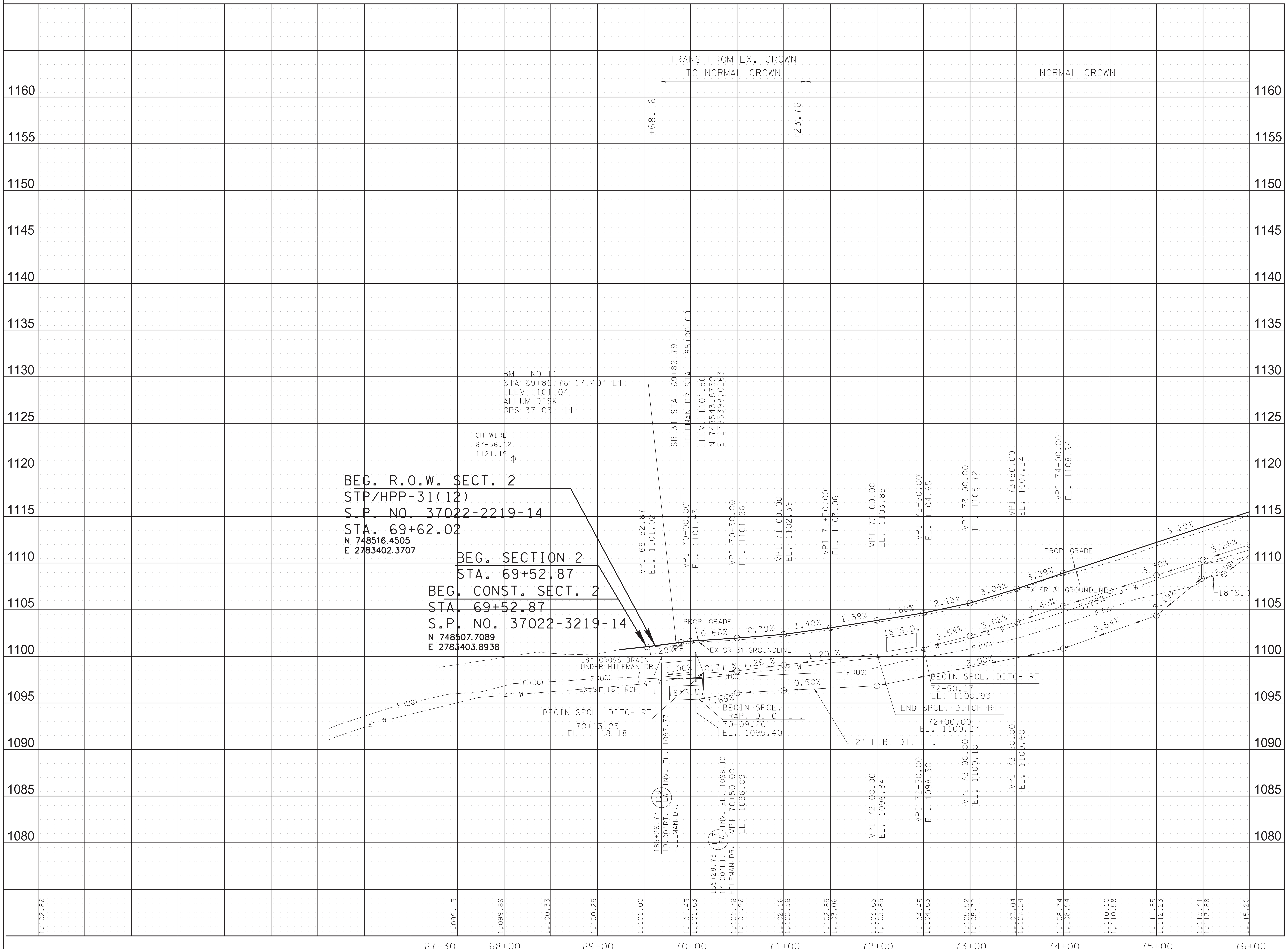
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

STA. 69+52.87 TO STA. 76+00
SCALE: 1"= 50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31(12)	8C
P-I-H	2025	STP/HPP-31(12)	8C
PS&E	2026	STP/HPP-31(12)	8C



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED PROFILE

STA. 69+52.87 TO STA. 76+00

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

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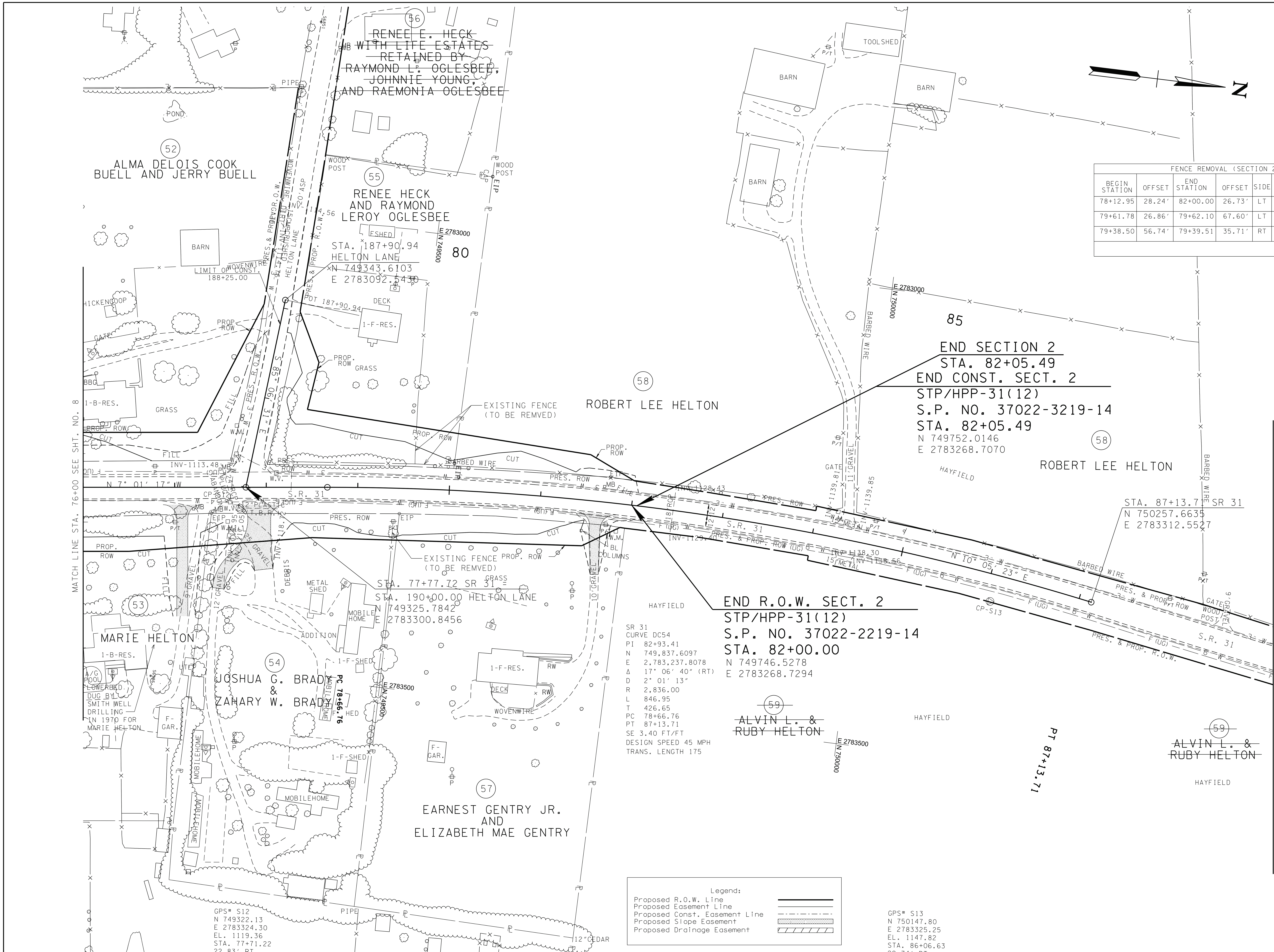
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	9
P-I-H	2025	STP/HPP-31(12)	9
PS & E	2026	STP/HPP-31(12)	9

REVISION NOTE:

03-25-2026 UPDATED PROPERTY OWNERS NAMES FOR TRACTS 52, 53, 54, 55, AND 57.



FENCE REMOVAL (SECTION 2)							
BEGIN STATION	OFFSET	END STATION	OFFSET	SIDE	BASE LINE	TYPE	LENGTH (FT)
78+12.95	28.24'	82+00.00	26.73'	LT	SR 31	BARBED WIRE	387.05
79+61.78	26.86'	79+62.10	67.60'	LT	SR 31	BARBED WIRE	40.74
79+38.50	56.74'	79+39.51	35.71'	RT	SR 31	UNKNOWN	21.03
							448.82

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

STA. 76+00 TO STA. 82+05.49
SCALE: 1"= 50'

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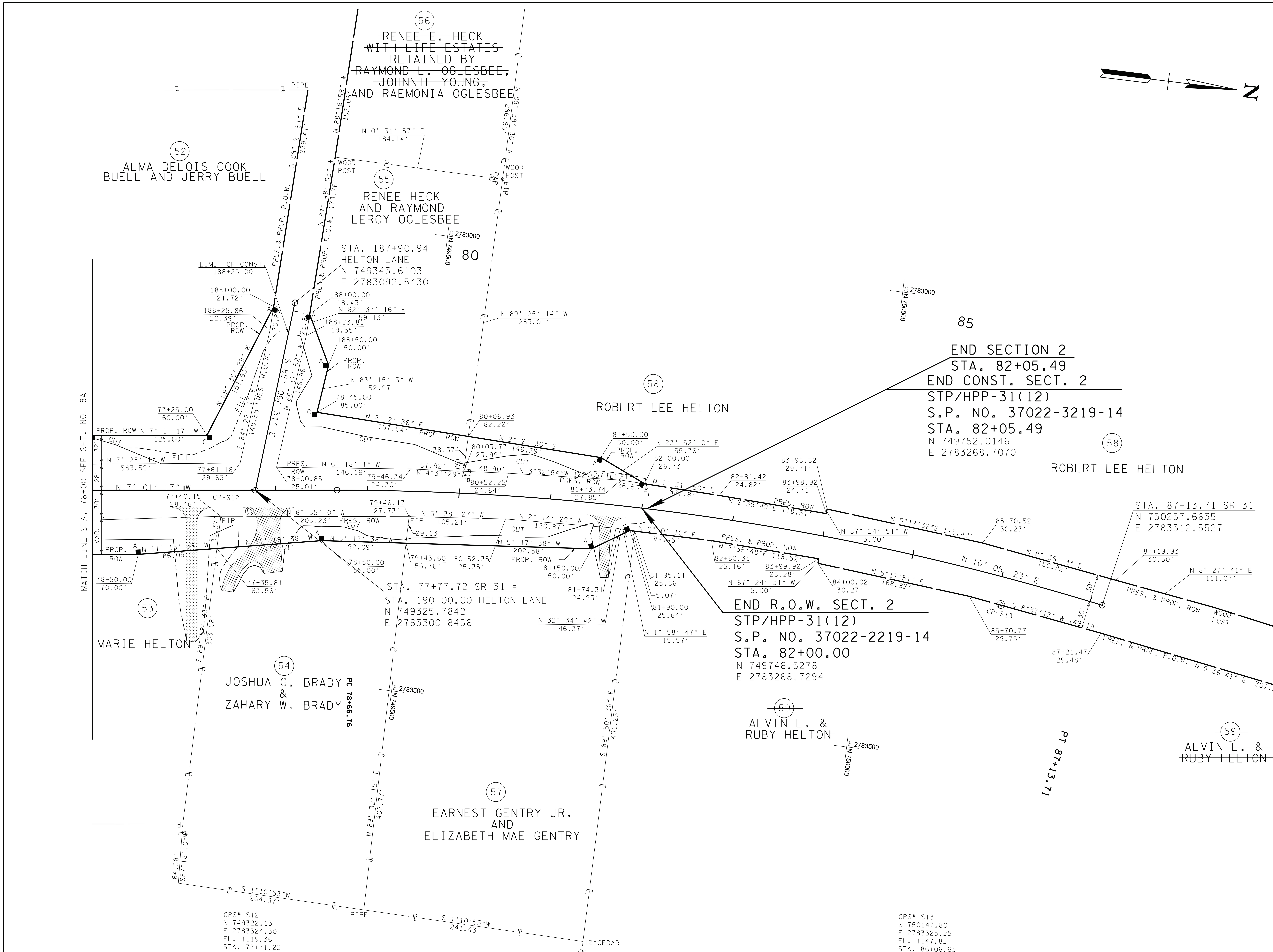
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	9A
P-I-H	2025	STP/HPP-31(12)	9A
PS & E	2026	STP/HPP-31(12)	9A

REVISION NOTE:

03-25-2026 UPDATED PROPERTY OWNERS NAMES FOR TRACTS 52, 53, 54, 55, AND 57.



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RIGHT-OF-WAY DETAILS

STA. 76+00 TO STA. 82+05.49
SCALE: 1"= 50'

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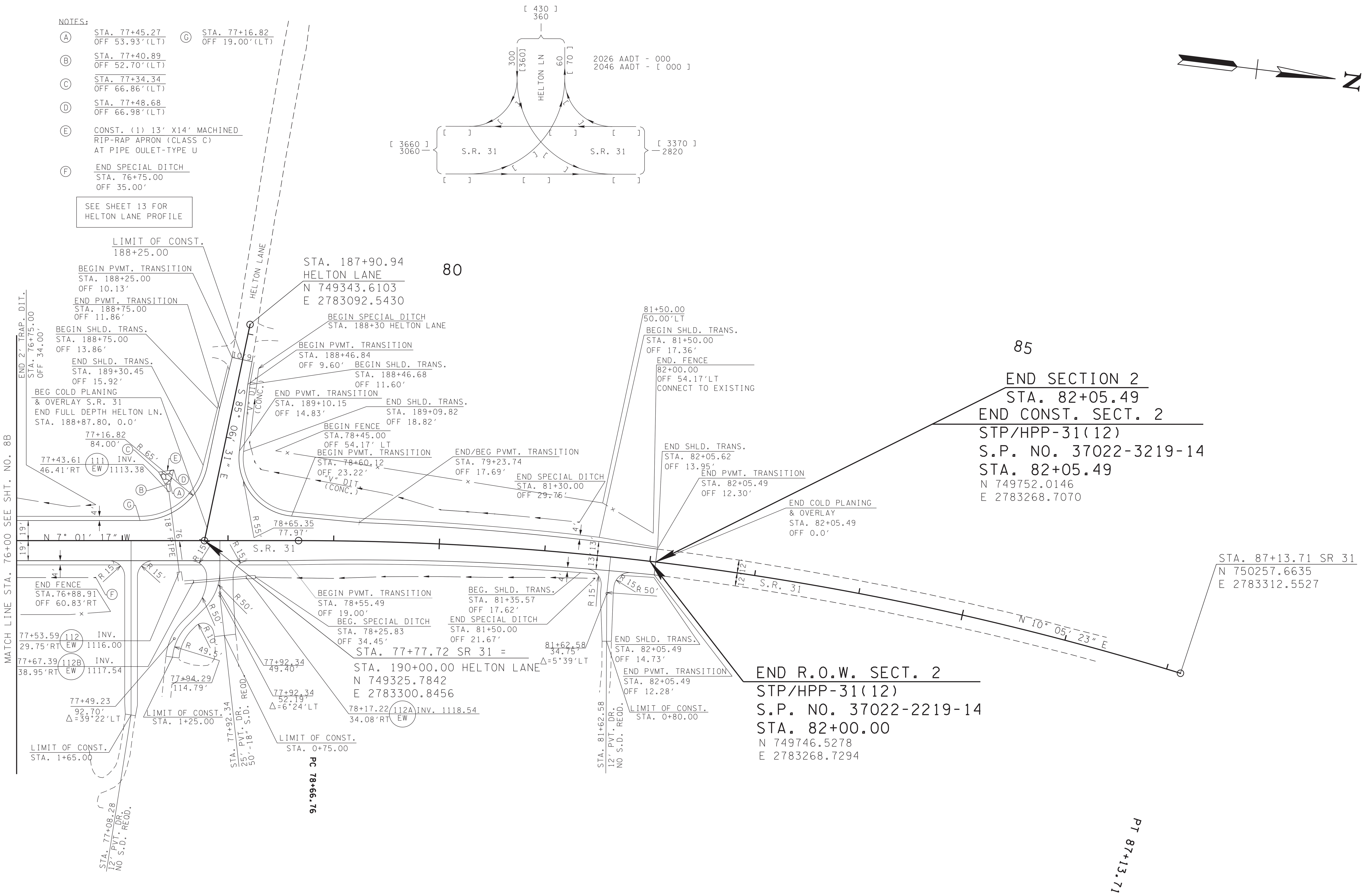
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	9B
P-I-H	2025	STP/HPP-31(12)	9B
PS & E	2026	STP/HPP-31(12)	9B



EXCLUSIONS
STA. 82+05.49 TO STA. 218+99.50

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04/14/2026

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

STA. 76+00 TO STA. 82+05.49
SCALE: 1"= 50'

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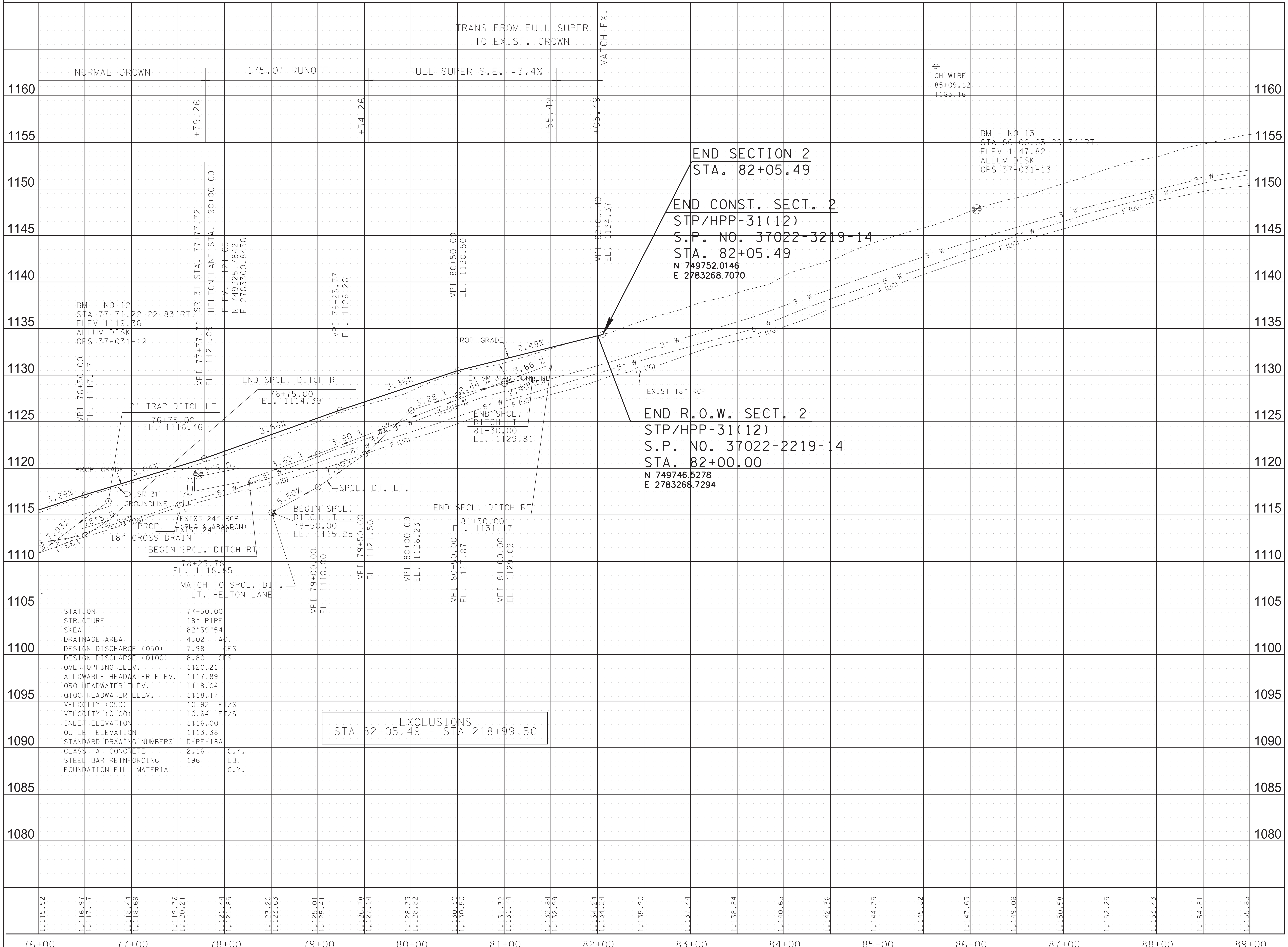
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31(12)	9C
P-I-H	2025	STP/HPP-31(12)	9C
PS & E	2026	STP/HPP-31(12)	9C



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04/14/2026

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED PROFILE

STA. 76+00 TO STA. 82+05.49

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

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	10
P-I-H	2025	STP/HPP-31(12)	10
PS & E	2026	STP/HPP-31(12)	10

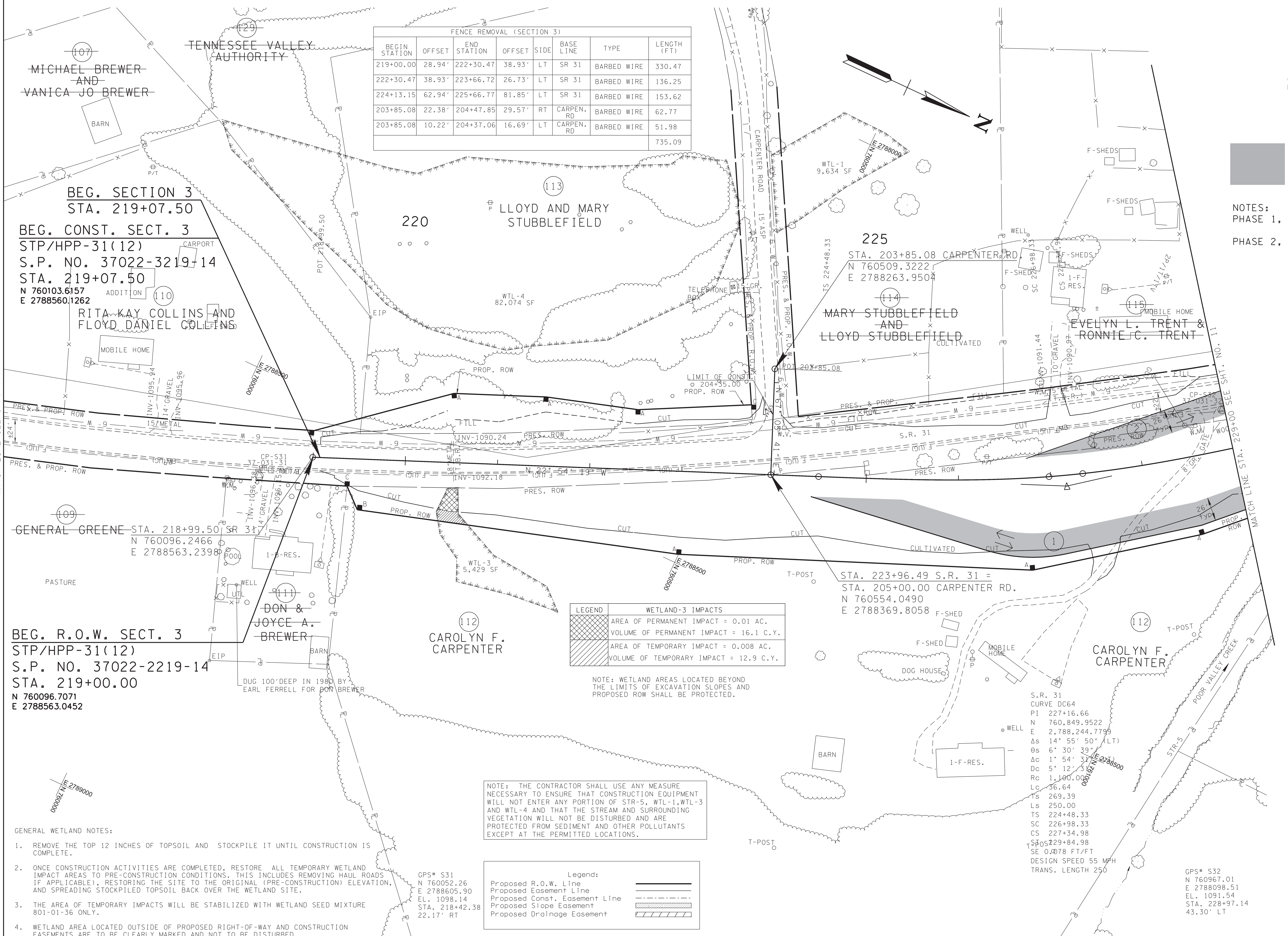
REVISION NOTE:

03-25-2026 UPDATED PROPERTY OWNERS NAME FOR TRACT 110.

LEGEND:

PROPOSED HAUL ROAD AREA

NOTES:
PHASE 1, USE 1 HAUL ROADS
PHASE 2, USE 2 HAUL ROADS



FENCE REMOVAL (SECTION 3)

BEGIN STATION	OFFSET	END STATION	OFFSET	SIDE	BASE LINE	TYPE	LENGTH (FT)
219+00.00	28.94'	222+30.47	38.93'	LT	SR 31	BARBED WIRE	330.47
222+30.47	38.93'	223+66.72	26.73'	LT	SR 31	BARBED WIRE	136.25
224+13.15	62.94'	225+66.77	81.85'	LT	SR 31	BARBED WIRE	153.62
203+85.08	22.38'	204+47.85	29.57'	RT	CARPEN. RD	BARBED WIRE	62.77
203+85.08	10.22'	204+37.06	16.69'	LT	CARPEN. RD	BARBED WIRE	51.98
							735.09

LEGEND	WETLAND-3 IMPACTS
	AREA OF PERMANENT IMPACT = 0.01 AC.
	VOLUME OF PERMANENT IMPACT = 16.1 C.Y.
	AREA OF TEMPORARY IMPACT = 0.008 AC.
	VOLUME OF TEMPORARY IMPACT = 12.9 C.Y.

NOTE: WETLAND AREAS LOCATED BEYOND THE LIMITS OF EXCAVATION SLOPES AND PROPOSED ROW SHALL BE PROTECTED.

NOTE: THE CONTRACTOR SHALL USE ANY MEASURE NECESSARY TO ENSURE THAT CONSTRUCTION EQUIPMENT WILL NOT ENTER ANY PORTION OF STR-5, WTL-1, WTL-3 AND WTL-4 AND THAT THE STREAM AND SURROUNDING VEGETATION WILL NOT BE DISTURBED AND ARE PROTECTED FROM SEDIMENT AND OTHER POLLUTANTS EXCEPT AT THE PERMITTED LOCATIONS.

S.R. 31
CURVE DC64
PI 227+16.66
N 760,849.9522
E 2,788,244.7799
Δs 14° 55' 50" (LT)
θs 6° 30' 39"
Δc 1° 54' 31" (LT)
Dc 5° 12' 31"
Rc 1,100.00
Lc 36.64
Ts 269.39
Ls 250.00
TS 224+48.33
SC 226+98.33
CS 227+34.98
ST 229+84.98
SE 0.078 FT/FT
DESIGN SPEED 55 MPH
TRANS. LENGTH 250

GENERAL WETLAND NOTES:

1. REMOVE THE TOP 12 INCHES OF TOPSOIL AND STOCKPILE IT UNTIL CONSTRUCTION IS COMPLETE.
2. ONCE CONSTRUCTION ACTIVITIES ARE COMPLETED, RESTORE ALL TEMPORARY WETLAND IMPACT AREAS TO PRE-CONSTRUCTION CONDITIONS. THIS INCLUDES REMOVING HAUL ROADS IF APPLICABLE), RESTORING THE SITE TO THE ORIGINAL (PRE-CONSTRUCTION) ELEVATION, AND SPREADING STOCKPILED TOPSOIL BACK OVER THE WETLAND SITE.
3. THE AREA OF TEMPORARY IMPACTS WILL BE STABILIZED WITH WETLAND SEED MIXTURE 801-01-36 ONLY.
4. WETLAND AREA LOCATED OUTSIDE OF PROPOSED RIGHT-OF-WAY AND CONSTRUCTION EASEMENTS ARE TO BE CLEARLY MARKED AND NOT TO BE DISTURBED.

GPS# S31
N 760052.26
E 2788605.90
EL. 1098.14
STA. 218+42.38
22.17' RT

Legend:
Proposed R.O.W. Line
Proposed Easement Line
Proposed Const. Easement Line
Proposed Slope Easement
Proposed Drainage Easement

GPS# S32
N 760967.01
E 2788098.51
EL. 1091.54
STA. 228+97.14
43.30' LT

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04/14/2026

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

STA. 219+00 TO STA. 229+00
SCALE: 1"= 50'

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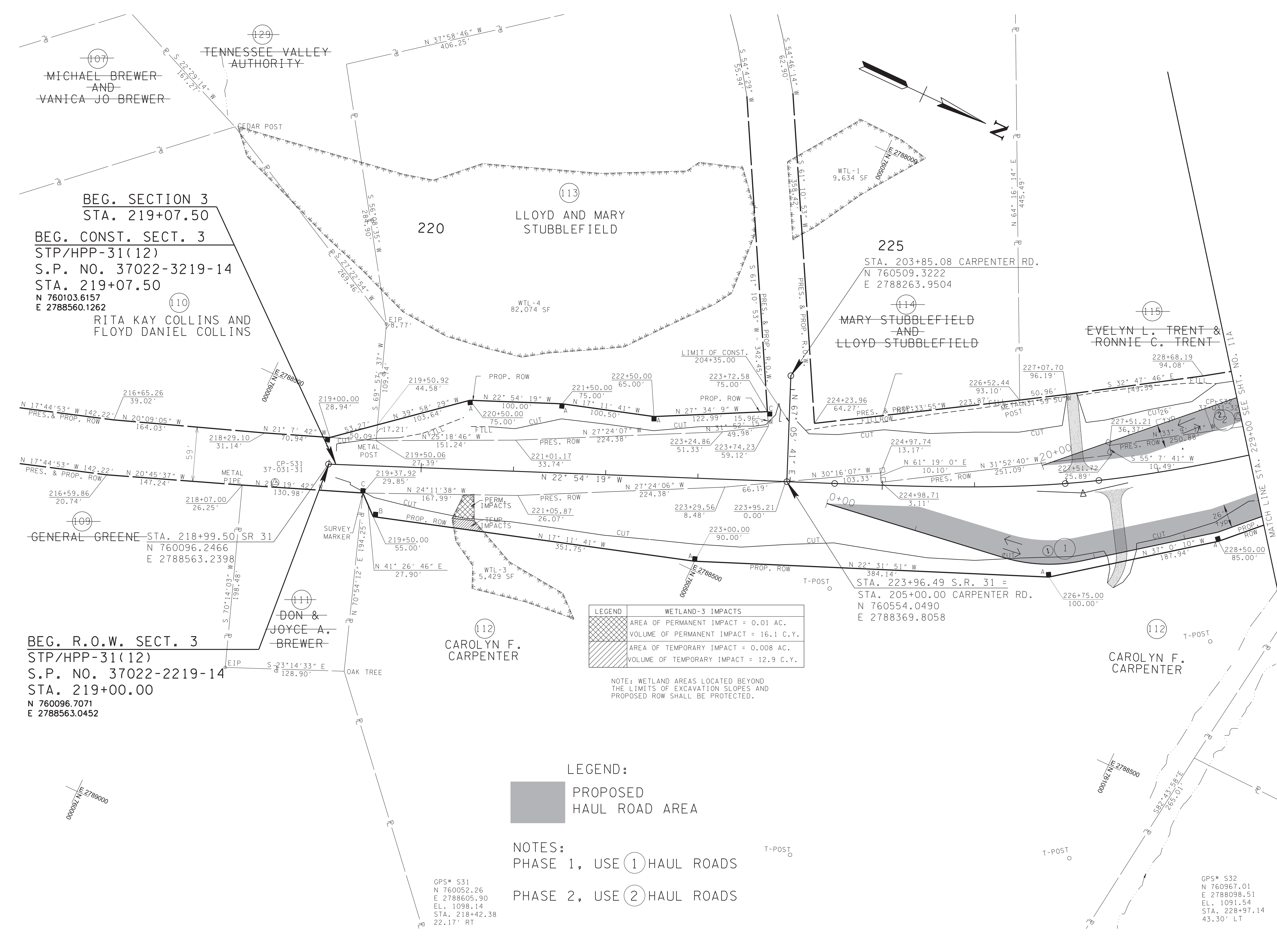
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	10A
P-I-H	2025	STP/HPP-31(12)	10A
PS & E	2026	STP/HPP-31(12)	10A

REVISION NOTE:

03-25-2026 UPDATED PROPERTY OWNERS NAME FOR TRACT 110.



Legend:

- Proposed R.O.W. Line
- Proposed Easement Line
- Proposed Const. Easement Line
- Proposed Slope Easement
- Proposed Drainage Easement

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DEPARTMENT OF TRANSPORTATION

RIGHT-OF-WAY DETAILS

STA. 219+00 TO STA. 229+00
SCALE: 1"= 50'

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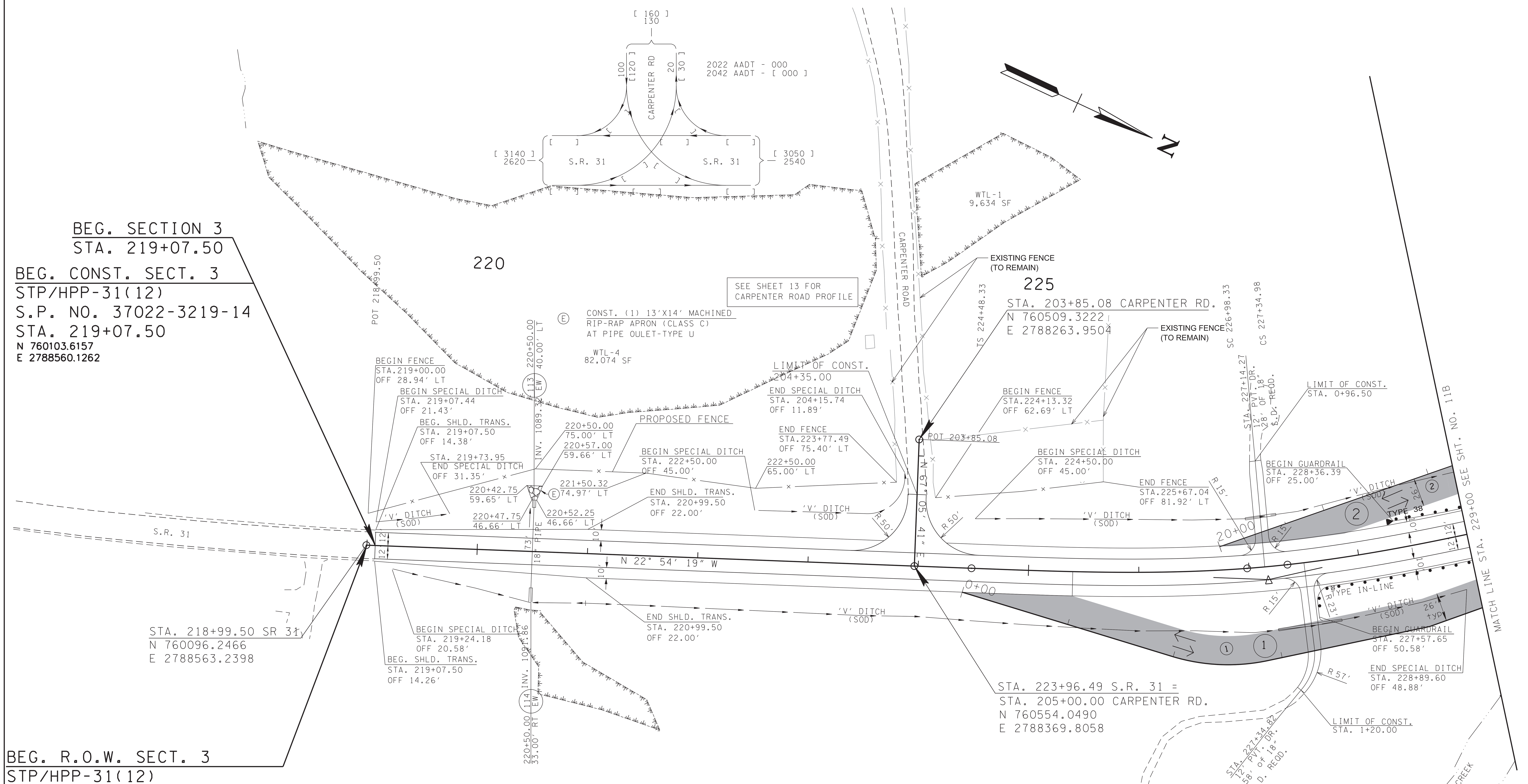
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	10B
P-I-H	2025	STP/HPP-31(12)	10B
PS & E	2026	STP/HPP-31(12)	10B



NOTE: WETLAND AREAS LOCATED BEYOND THE LIMITS OF EXCAVATION SLOPES AND PROPOSED ROW SHALL BE PROTECTED.

S.R. 31
CURVE DC64
PI 227+16.66
N 760,849.9522
E 2,788,244.7799
Δs 14° 55' 50" (LT)
θs 6° 30' 39"
Δc 1° 54' 31" (LT)
Dc 5° 12' 31"
Rc 1,100.00
Lc 36.64
Ts 269.39
Ls 250.00
TS 224+48.33
SC 226+98.33
CS 227+34.98
ST 229+84.98
SE 0.078 FT/FT
DESIGN SPEED 55 MPH
TRANS. LENGTH 250

POOR VALLEY CREEK

STR-5

GENERAL WETLAND NOTES:

1. REMOVE THE TOP 12 INCHES OF TOPSOIL AND STOCKPILE IT UNTIL CONSTRUCTION IS COMPLETE.
2. ONCE CONSTRUCTION ACTIVITIES ARE COMPLETED, RESTORE ALL TEMPORARY WETLAND IMPACT AREAS TO PRE-CONSTRUCTION CONDITIONS. THIS INCLUDES REMOVING HAUL ROADS (IF APPLICABLE), RESTORING THE SITE TO THE ORIGINAL (PRE-CONSTRUCTION) ELEVATION, AND SPREADING STOCKPILED TOPSOIL BACK OVER THE WETLAND SITE.
3. THE AREA OF TEMPORARY IMPACTS WILL BE STABILIZED WITH WETLAND SEED MIXTURE 801-01-36 ONLY.

LEGEND:

PROPOSED HAUL ROAD AREA

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DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

STA. 219+00 TO STA. 229+00
SCALE: 1"= 50'

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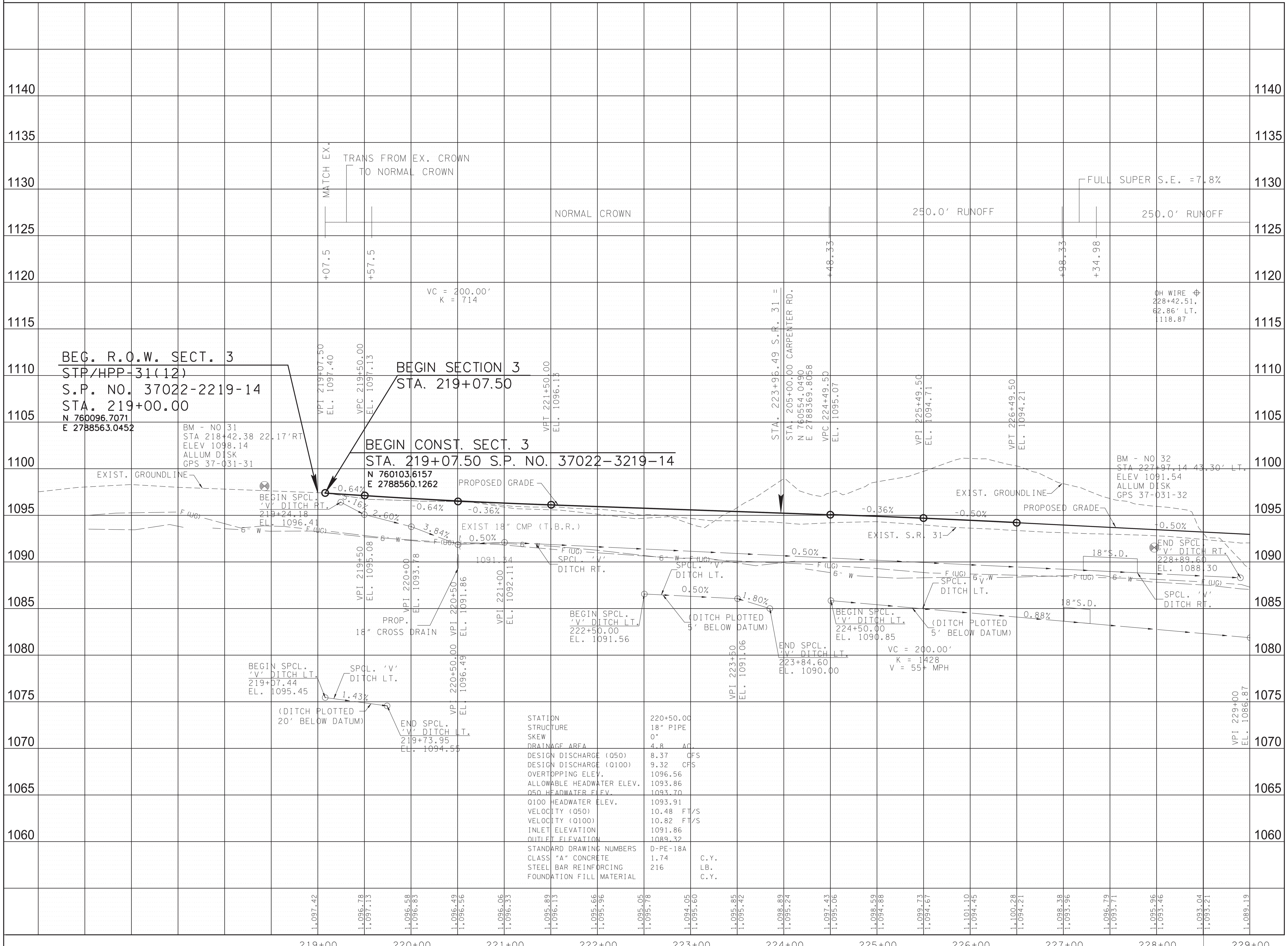
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31(12)	10C
P-I-H	2025	STP/HPP-31(12)	10C
PS&E	2026	STP/HPP-31(12)	10C



STATION	220+50.00	
STRUCTURE	18" PIPE	
SKEW	0°	
DRAINAGE AREA	4.8	AC.
DESIGN DISCHARGE (Q50)	8.37	CFS
DESIGN DISCHARGE (Q100)	9.32	CFS
OVERTOPPING ELEV.	1096.56	
ALLOWABLE HEADWATER ELEV.	1093.86	
Q50 HEADWATER ELEV.	1093.70	
Q100 HEADWATER ELEV.	1093.91	
VELOCITY (Q50)	10.48	FT/S
VELOCITY (Q100)	10.82	FT/S
INLET ELEVATION	1091.86	
OUTLET ELEVATION	1089.32	
STANDARD DRAWING NUMBERS	D-PE-18A	
CLASS "A" CONCRETE	1.74	C.Y.
STEEL BAR REINFORCING	216	LB.
FOUNDATION FILL MATERIAL		C.Y.

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04/14/2026

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED PROFILE

STA. 219+00 TO STA. 229+00

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

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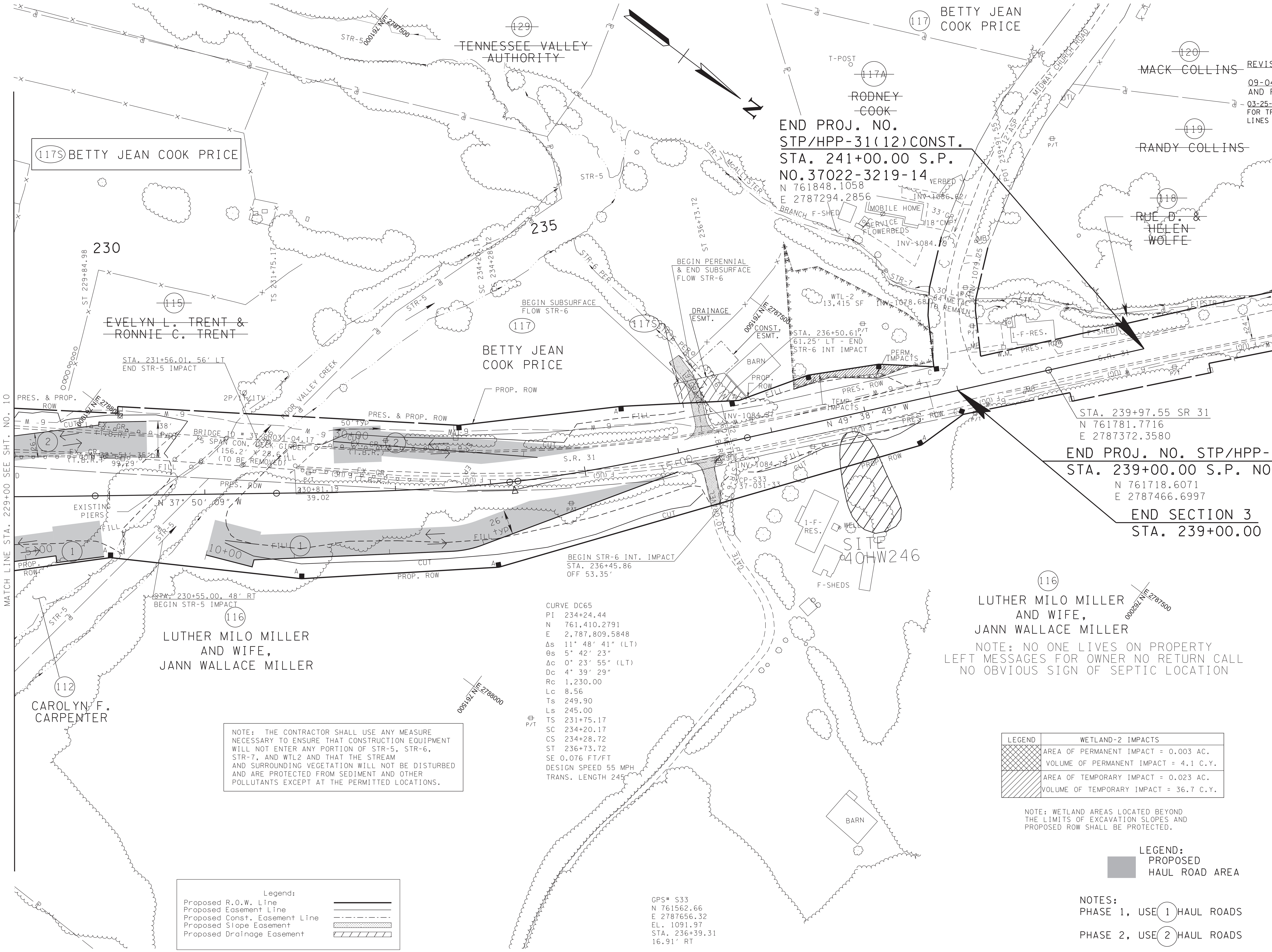
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	11
P-I-H	2025	STP/HPP-31(12)	11
PS & E	2026	STP/HPP-31(12)	11

REVISION NOTE:

09-04-2025 ADDED TRACT 117S FOR TCE AND PERM. DRAINAGE ESMT.

03-25-2026 UPDATED PROPERTY OWNERS NAMES FOR TRACTS 116, 117, AND 117S AND STRIKETHOUGH LINES FOR TRACT 115.



CURVE DC65
PI 234+24.44
N 761,410.2791
E 2,787,809.5848
Δs 11° 48' 41" (LT)
θs 5° 42' 23"
Δc 0° 23' 55" (LT)
Dc 4° 39' 29"
Rc 1,230.00
Lc 8.56
Ts 249.90
Ls 245.00
TS 231+75.17
SC 234+20.17
CS 234+28.72
ST 236+73.72
SE 0.076 FT/FT
DESIGN SPEED 55 MPH
TRANS. LENGTH 245

NOTE: THE CONTRACTOR SHALL USE ANY MEASURE NECESSARY TO ENSURE THAT CONSTRUCTION EQUIPMENT WILL NOT ENTER ANY PORTION OF STR-5, STR-6, STR-7, AND WTL2 AND THAT THE STREAM AND SURROUNDING VEGETATION WILL NOT BE DISTURBED AND ARE PROTECTED FROM SEDIMENT AND OTHER POLLUTANTS EXCEPT AT THE PERMITTED LOCATIONS.

GPS# S33
N 761562.66
E 2787656.32
EL. 1091.97
STA. 236+39.31
16.91' RT

LEGEND	WETLAND-2 IMPACTS
(cross-hatch)	AREA OF PERMANENT IMPACT = 0.003 AC.
	VOLUME OF PERMANENT IMPACT = 4.1 C.Y.
(hatch)	AREA OF TEMPORARY IMPACT = 0.023 AC.
	VOLUME OF TEMPORARY IMPACT = 36.7 C.Y.

NOTE: WETLAND AREAS LOCATED BEYOND THE LIMITS OF EXCAVATION SLOPES AND PROPOSED ROW SHALL BE PROTECTED.

Legend:
Proposed R.O.W. Line
Proposed Easement Line
Proposed Const. Easement Line
Proposed Slope Easement
Proposed Drainage Easement

LEGEND:
PROPOSED HAUL ROAD AREA

NOTES:
PHASE 1, USE 1 HAUL ROADS
PHASE 2, USE 2 HAUL ROADS

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

STA. 229+00 TO STA. 239+00
SCALE: 1"= 50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	11A
P-I-H	2025	STP/HPP-31(12)	11A
PS & E	2026	STP/HPP-31(12)	11A

REVISION NOTE:

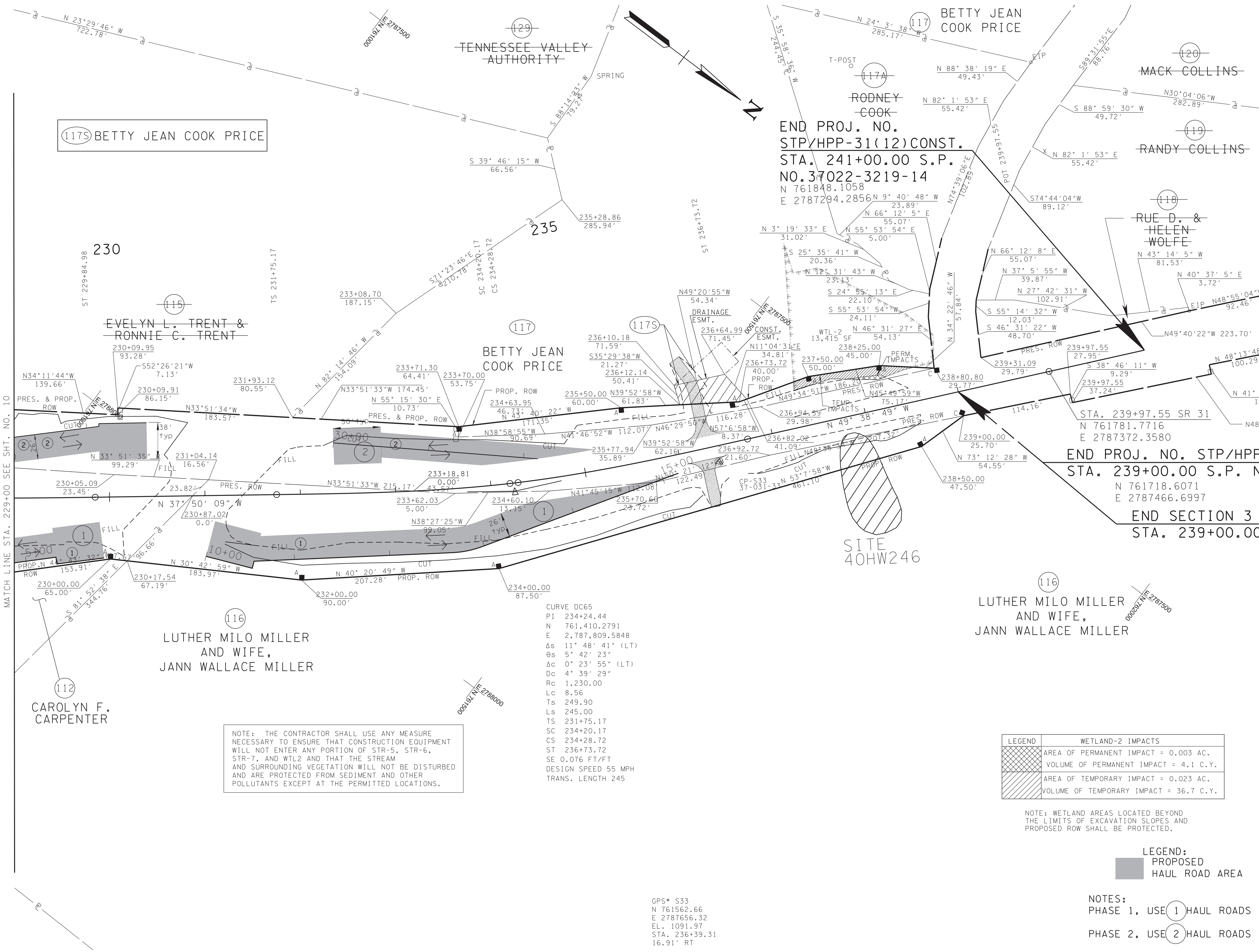
09-04-2025 ADDED TRACT 117S FOR TCE AND PERM. DRAINAGE ESMT.

01-28-2026 TRACT 117S: ADDED BEARING AND DISTANCE LABELS TO PERMANENT DRAINAGE AREA.

03-25-2026 UPDATED PROPERTY OWNERS NAMES FOR TRACTS 116,117 AND 117S AND ADDED STRIKETHOUGH LINES FOR TRACT 115.

Legend:

Proposed R.O.W. Line
Proposed Easement Line
Proposed Const. Easement Line
Proposed Slope Easement
Proposed Drainage Easement



NOTE: THE CONTRACTOR SHALL USE ANY MEASURE NECESSARY TO ENSURE THAT CONSTRUCTION EQUIPMENT WILL NOT ENTER ANY PORTION OF STR-5, STR-6, STR-7, AND WTL2 AND THAT THE STREAM AND SURROUNDING VEGETATION WILL NOT BE DISTURBED AND ARE PROTECTED FROM SEDIMENT AND OTHER POLLUTANTS EXCEPT AT THE PERMITTED LOCATIONS.

LEGEND	WETLAND-2 IMPACTS
	AREA OF PERMANENT IMPACT = 0.003 AC.
	VOLUME OF PERMANENT IMPACT = 4.1 C.Y.
	AREA OF TEMPORARY IMPACT = 0.023 AC.
	VOLUME OF TEMPORARY IMPACT = 36.7 C.Y.

NOTE: WETLAND AREAS LOCATED BEYOND THE LIMITS OF EXCAVATION SLOPES AND PROPOSED ROW SHALL BE PROTECTED.

LEGEND:
PROPOSED HAUL ROAD AREA

NOTES:
PHASE 1, USE 1 HAUL ROADS
PHASE 2, USE 2 HAUL ROADS

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DEPARTMENT OF TRANSPORTATION

RIGHT-OF-WAY DETAILS

STA. 229+00 TO STA. 239+00
SCALE: 1"= 50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	11B
P-I-H	2025	STP/HPP-31(12)	11B
PS & E	2026	STP/HPP-31(12)	11B

NOTES:

(A) STA. 236+45.76 OFF 35.15'(LT)

(B) STA. 236+40.66 OFF 61.11'(LT)

(C) STA. 236+68.76 OFF 61.50'(LT)

(D) STA. 236+66.36 OFF 35.46'(LT)

(E) CONST. (1) 33' X 28' MACHINED RIP-RAP APRON (CLASS C) AT PIPE OULET-TYPE A

(F) CONST. (1) 20'X 27' MACHINED RIP-RAP APRON (CLASS C) AT PIPE INLET-TYPE A

(G) GRADED SOLID ROCK/UNDERCUT SEE GEOTECHICAL SHEET G-9 FOR MORE DETAILS

(H) STA. 236+46.00 OFF 35.27'(RT)

(I) STA. 236+66.48 OFF 35.26'(RT)

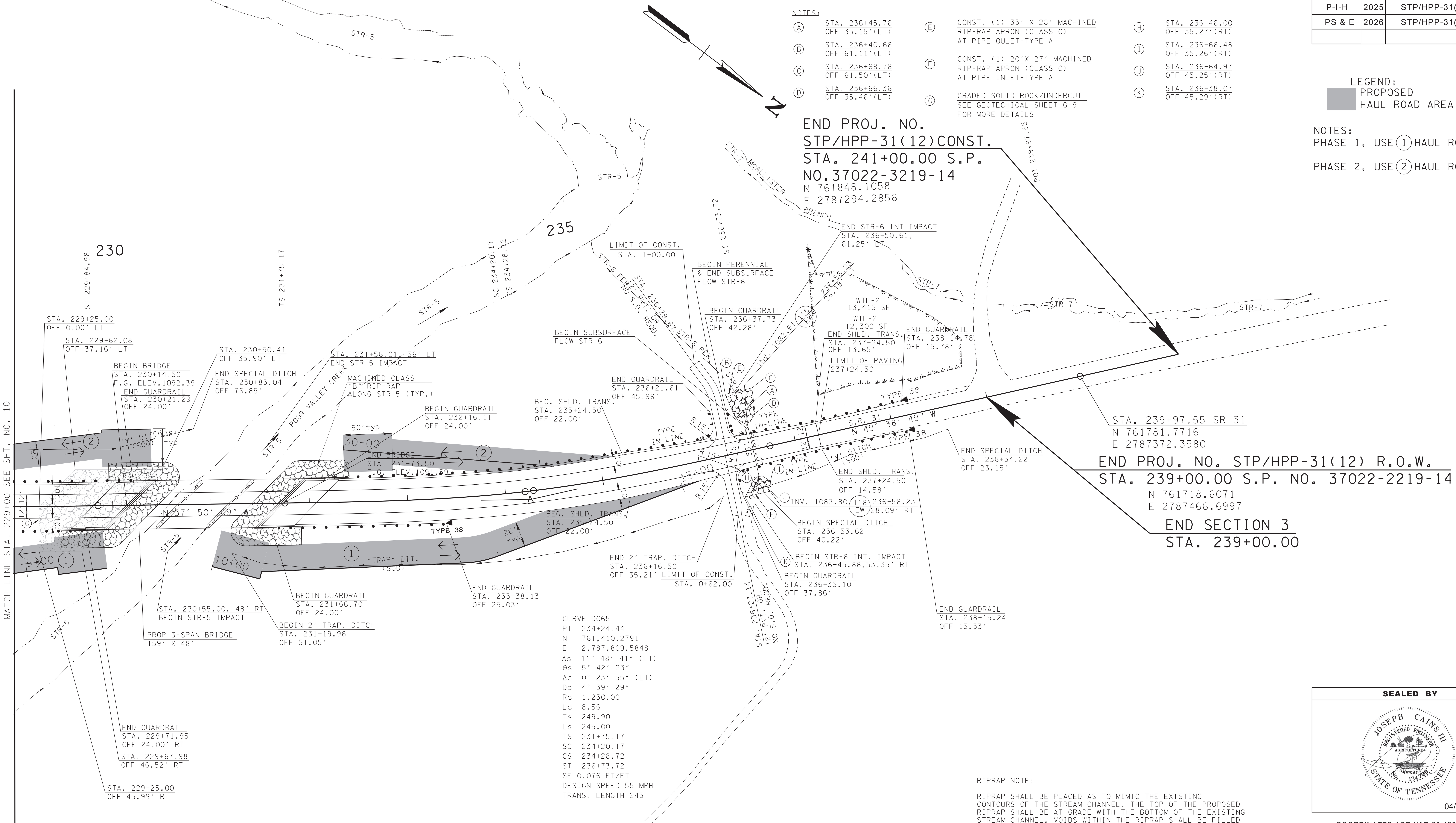
(J) STA. 236+64.97 OFF 45.25'(RT)

(K) STA. 236+38.07 OFF 45.29'(RT)

LEGEND:
PROPOSED HAUL ROAD AREA

NOTES:
PHASE 1, USE (1) HAUL ROADS

PHASE 2, USE (2) HAUL ROADS



GENERAL WETLAND NOTES:

1. REMOVE THE TOP 12 INCHES OF TOPSOIL AND STOCKPILE IT UNTIL CONSTRUCTION IS COMPLETE.
2. ONCE CONSTRUCTION ACTIVITIES ARE COMPLETED, RESTORE ALL TEMPORARY WETLAND IMPACT AREAS TO PRE-CONSTRUCTION CONDITIONS. THIS INCLUDES REMOVING HAUL ROADS (IF APPLICABLE), RESTORING THE SITE TO THE ORIGINAL (PRE-CONSTRUCTION) ELEVATION, AND SPREADING STOCKPILED TOPSOIL BACK OVER THE WETLAND SITE.
3. THE AREA OF TEMPORARY IMPACTS WILL BE STABILIZED WITH WETLAND SEED MIXTURE 801-01-36 ONLY.
4. WETLAND AREA LOCATED OUTSIDE OF PROPOSED RIGHT-OF-WAY AND CONSTRUCTION EASEMENTS ARE TO BE CLEARLY MARKED AND NOT TO BE DISTURBED.

RIPRAP NOTE:

RIPRAP SHALL BE PLACED AS TO MIMIC THE EXISTING CONTOURS OF THE STREAM CHANNEL. THE TOP OF THE PROPOSED RIPRAP SHALL BE AT GRADE WITH THE BOTTOM OF THE EXISTING STREAM CHANNEL. VOIDS WITHIN THE RIPRAP SHALL BE FILLED WITH STREAM BED SUBSTRATE, IF AVAILABLE, TO PREVENT LOSS OF STREAM WITHIN RIPRAP AREAS. STREAM BED SUBSTRATE CAN BE REMOVED FROM RIPRAP EMBEDMENT AREA. IF STREAM SUBSTRATE IS NOT AVAILABLE, THE FOLLOWING SHOULD BE USED. PRIOR TO PLACEMENT OF RIPRAP, IT SHOULD BE MIXED WITH MIXTURE OF 70% CREEK GRAVEL AND 30% SAND TO FILL THE VOIDS. ONCE THE RIPRAP MIXTURE HAS BEEN INSTALLED, THE AREA SHOULD BE THOROUGHLY COMPACTED. ONCE COMPACTED AN ADDITIONAL 1-2 INCHES OF SAND AND CREEK GRAVEL SHALL BE ADDED TO FILL IN THE REMAINING VOIDS IF NEEDED. THE CONTRACTOR SHALL ENSURE THAT WATER WILL FLOW OVER THE RIPRAP AND THAT FLOW IS NOT LOST BELOW OR WITHIN THE ROCK.

CONSTRUCTION PHASING NOTE:

REFER TO THE TEMPORARY TRAFFIC CONTROL PLANS FOR MORE DETAILS ON THE PHASES, TEMPORARY SIGNALS, AND PORTABLE BARRIERS.

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DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

STA. 229+00 TO STA. 239+00
SCALE: 1"= 50'

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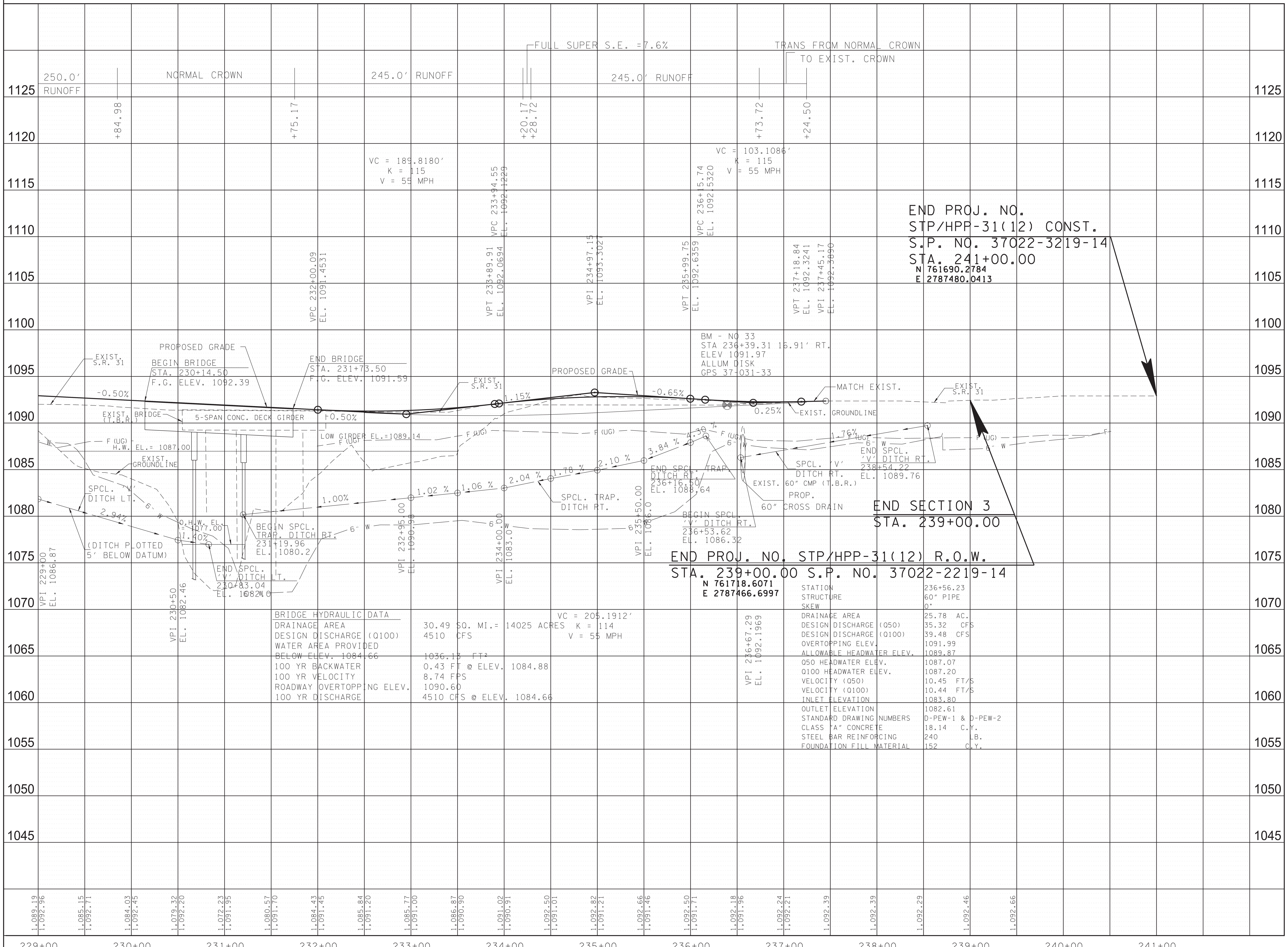
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31(12)	11C
P-I-H	2025	STP/HPP-31(12)	11C
PS&E	2026	STP/HPP-31(12)	11C



BRIDGE HYDRAULIC DATA	
DRAINAGE AREA	30.49 SQ. MI.= 14025 ACRES
DESIGN DISCHARGE (Q100)	4510 CFS
WATER AREA PROVIDED BELOW ELEV. 1084.66	1036.13 FT²
100 YR BACKWATER	0.43 FT @ ELEV. 1084.88
100 YR VELOCITY	8.74 FPS
ROADWAY OVERTOPPING ELEV.	1090.60
100 YR DISCHARGE	4510 CFS @ ELEV. 1084.66

STATION	236+56.23
STRUCTURE	60" PIPE
SKEW	0°
DRAINAGE AREA	25.78 AC.
DESIGN DISCHARGE (Q50)	35.32 CFS
DESIGN DISCHARGE (Q100)	39.48 CFS
OVERTOPPING ELEV.	1091.99
ALLOWABLE HEADWATER ELEV.	1089.87
Q50 HEADWATER ELEV.	1087.07
Q100 HEADWATER ELEV.	1087.20
VELOCITY (Q50)	10.45 FT/S
VELOCITY (Q100)	10.44 FT/S
INLET ELEVATION	1083.80
OUTLET ELEVATION	1082.61
STANDARD DRAWING NUMBERS	D-PEW-1 & D-PEW-2
CLASS "A" CONCRETE	18.14 C.Y.
STEEL BAR REINFORCING	240 LB.
FOUNDATION FILL MATERIAL	152 C.Y.

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04/14/2026

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PROPOSED PROFILE

STA. 229+00 TO STA. 239+00

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

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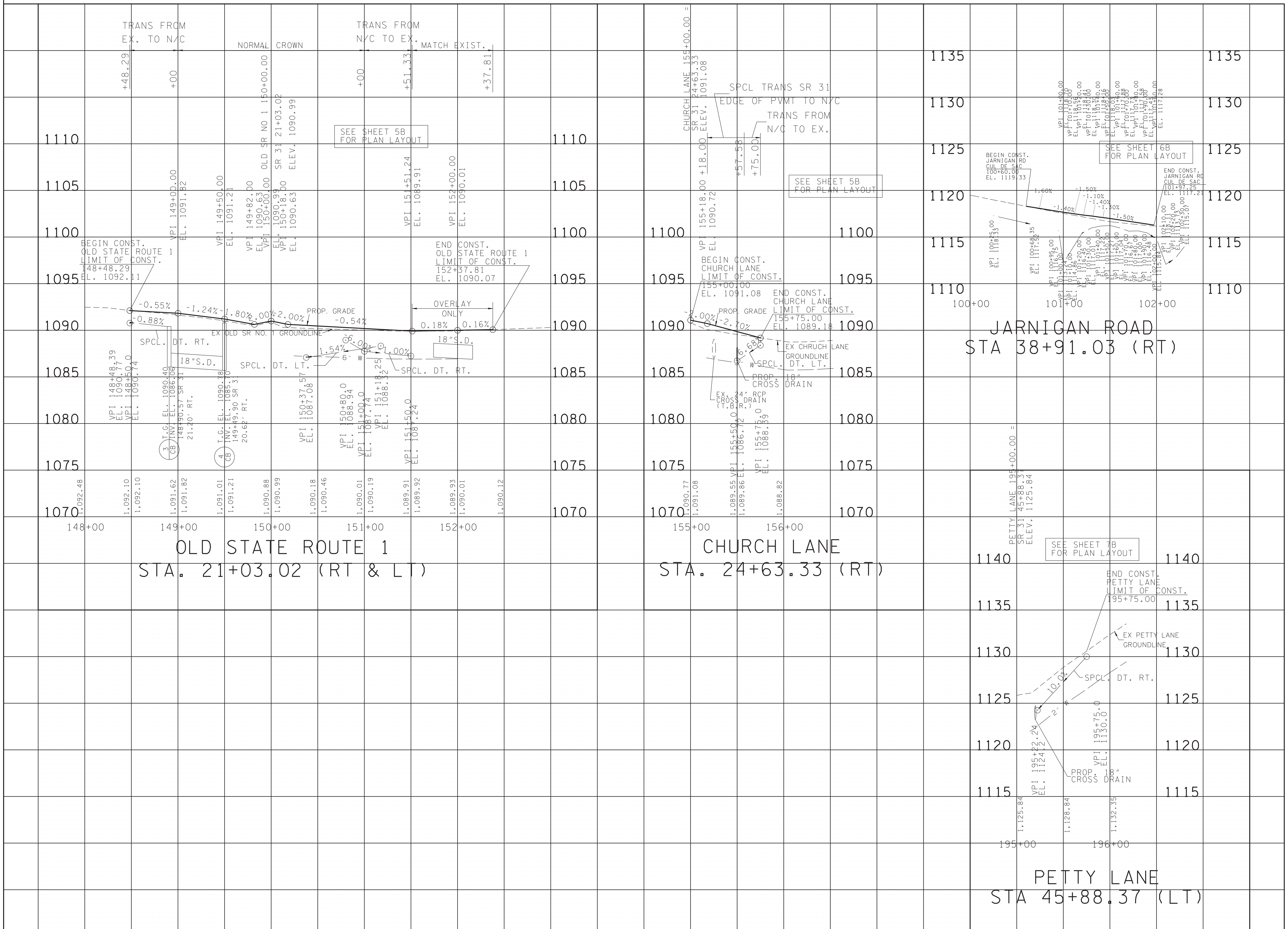
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31(12)	12
P-I-H	2025	STP/HPP-31(12)	12
PS & E	2026	STP/HPP-31(12)	12



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SIDE ROAD PROFILE

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

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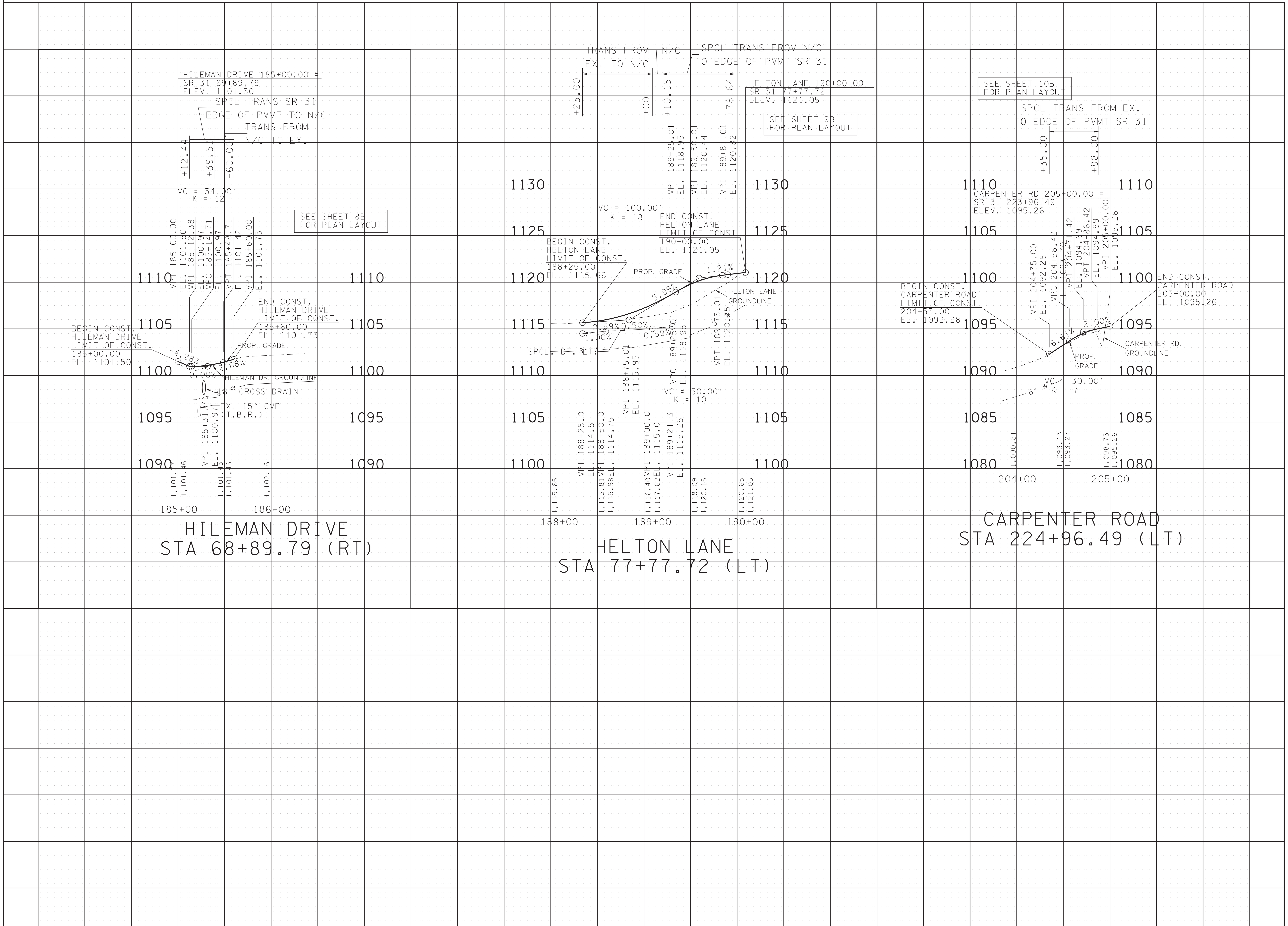
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31(12)	13
P-I-H	2025	STP/HPP-31(12)	13
PS & E	2026	STP/HPP-31(12)	13



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SIDE ROAD PROFILE

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

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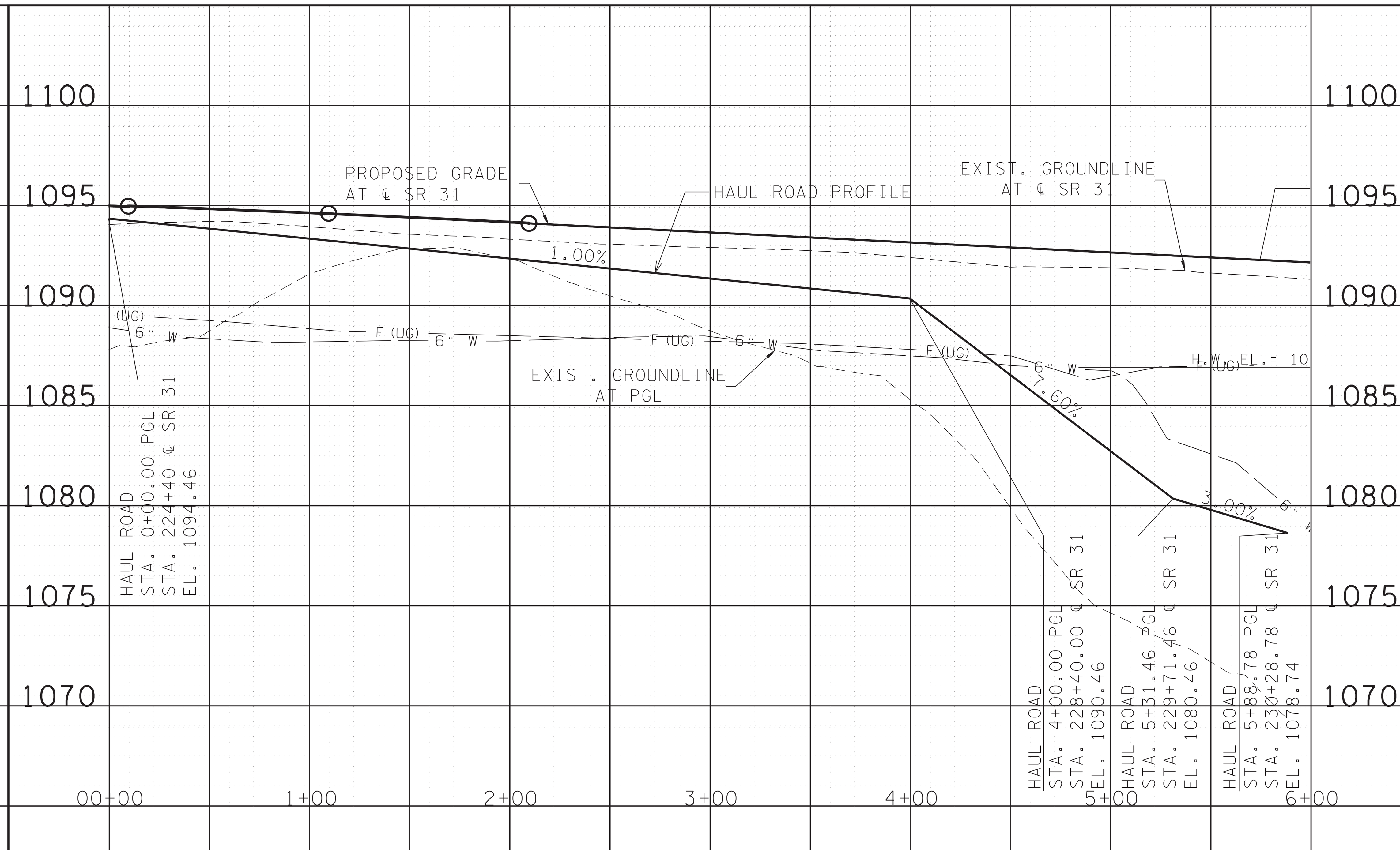
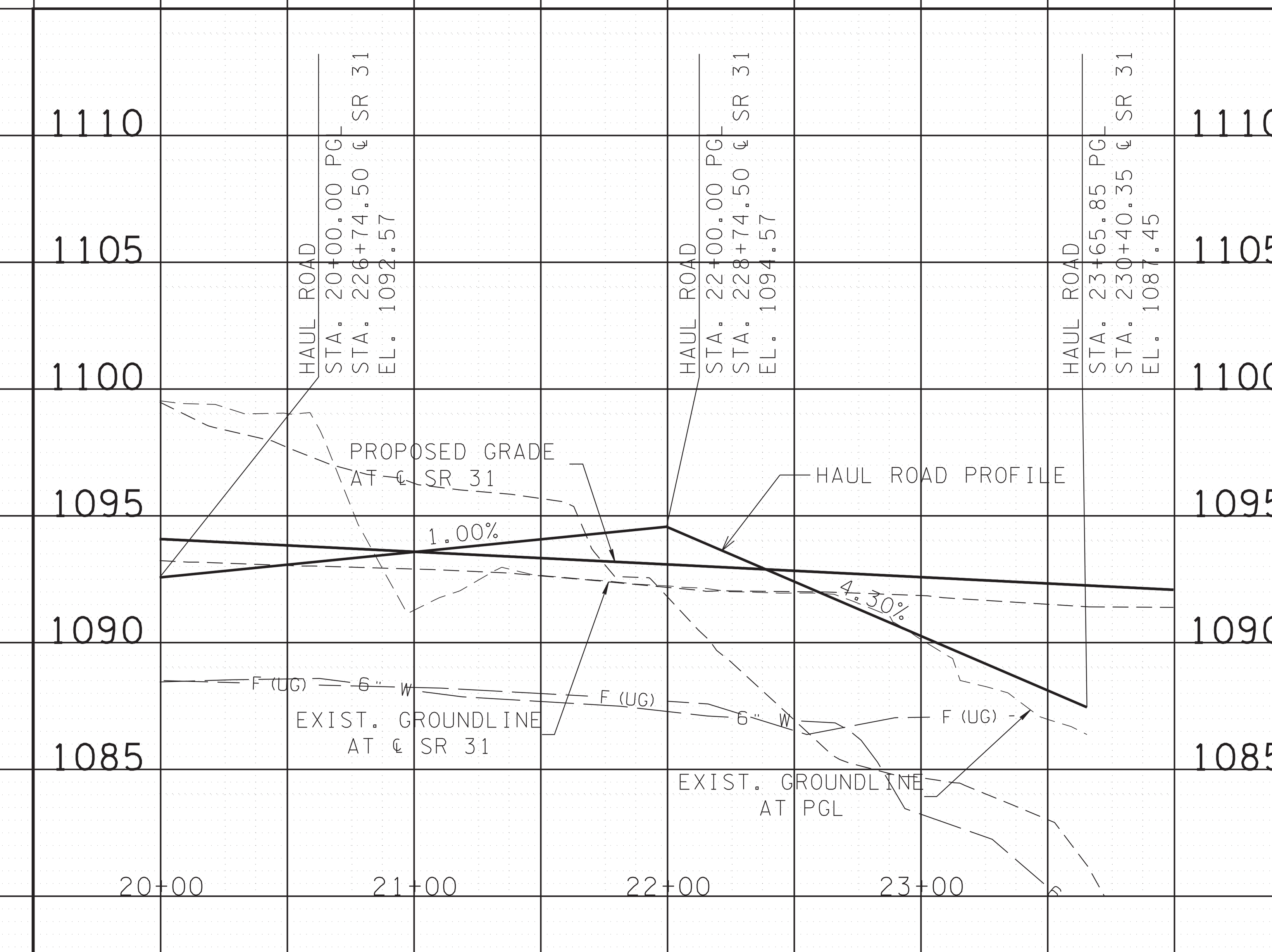
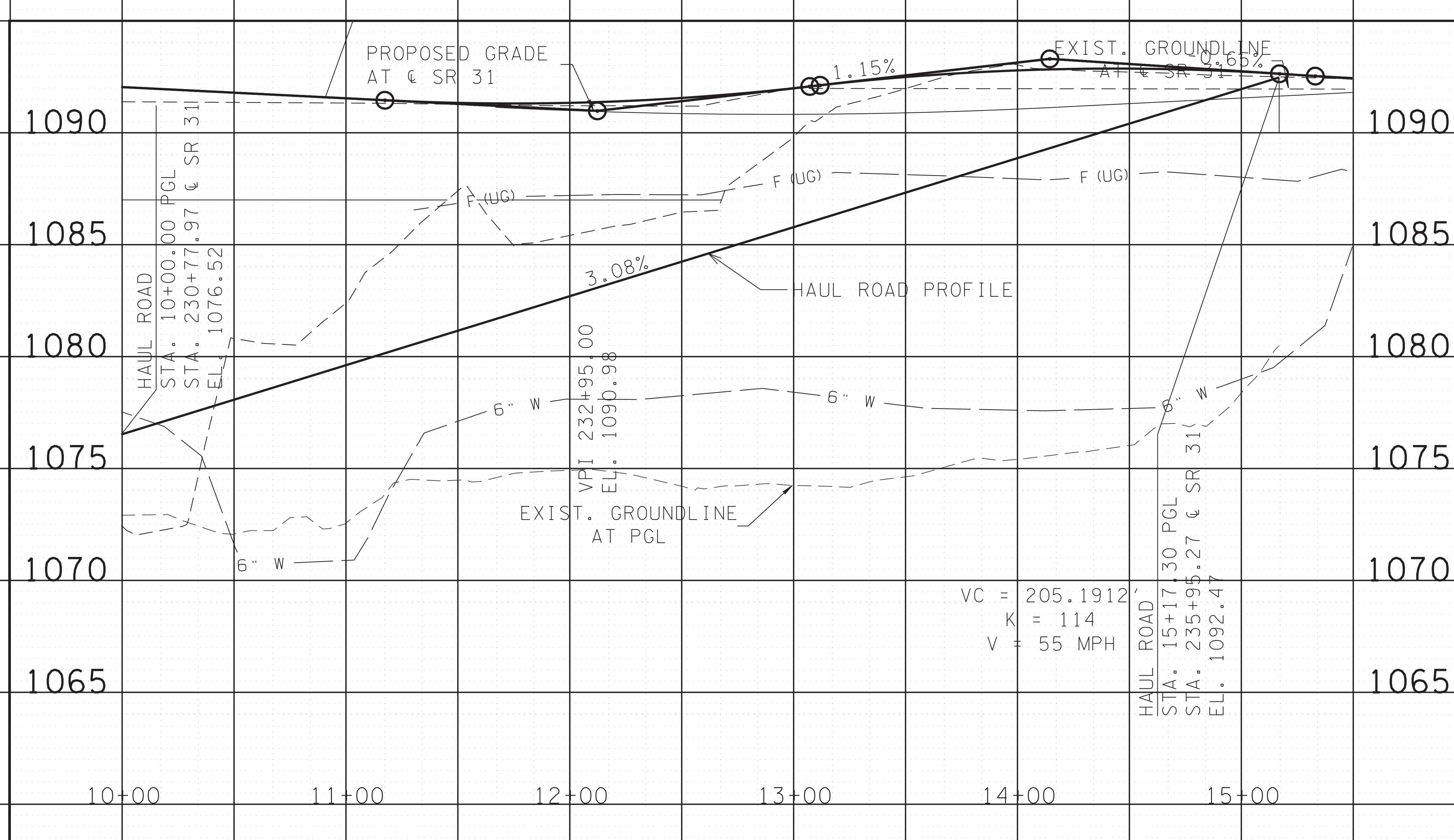
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	
PS & E	2026	STP/HPP-31(12)	14



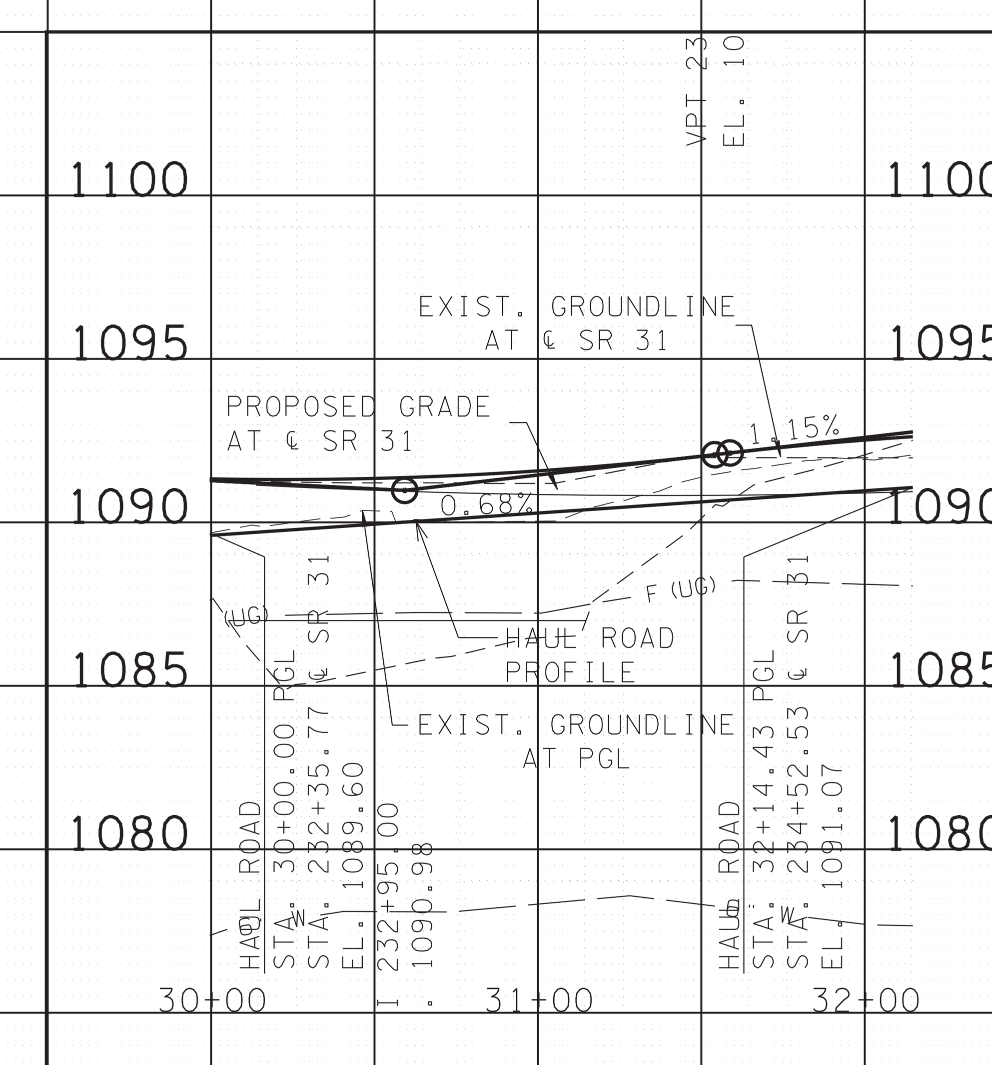
PHASE 1 HAUL ROAD 1



PHASE 2 HAUL ROAD 1



PHASE 1 HAUL ROAD 2



PHASE 2 HAUL ROAD 2

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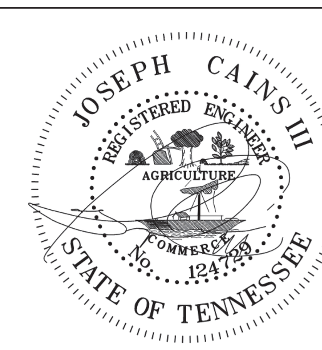

04/14/2026

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DEPARTMENT OF TRANSPORTATION

HAUL ROAD PROFILE

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

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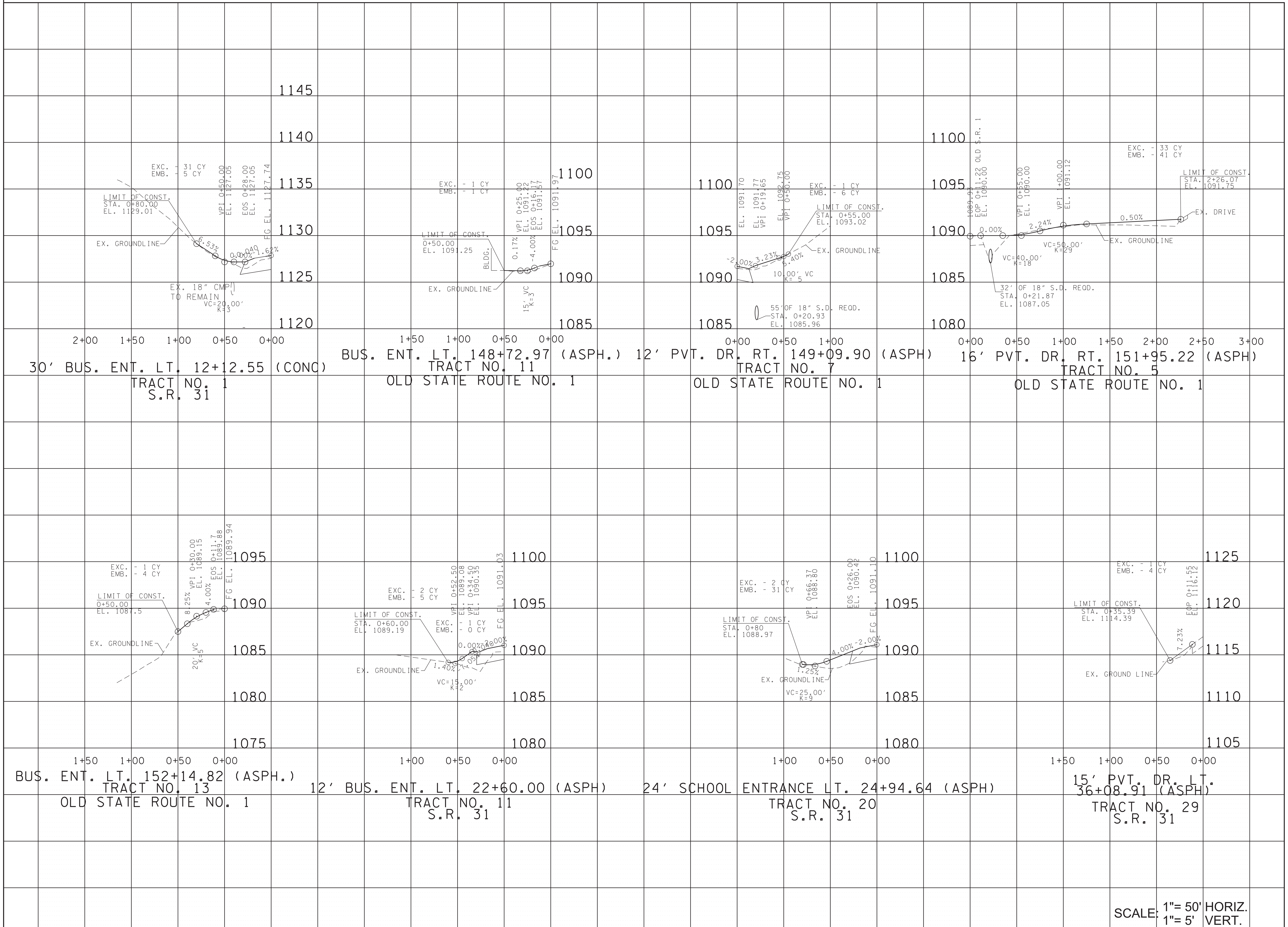
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31(12)	14
P-I-H	2025	STP/HPP-31(12)	14
PS & E	2026	STP/HPP-31(12)	15



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

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PRIVATE DRIVE, BUSINESS, AND FIELD ENTRANCE PROFILE

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31(12)	14A
P-I-H	2025	STP/HPP-31(12)	14A
PS & E	2026	STP/HPP-31(12)	16
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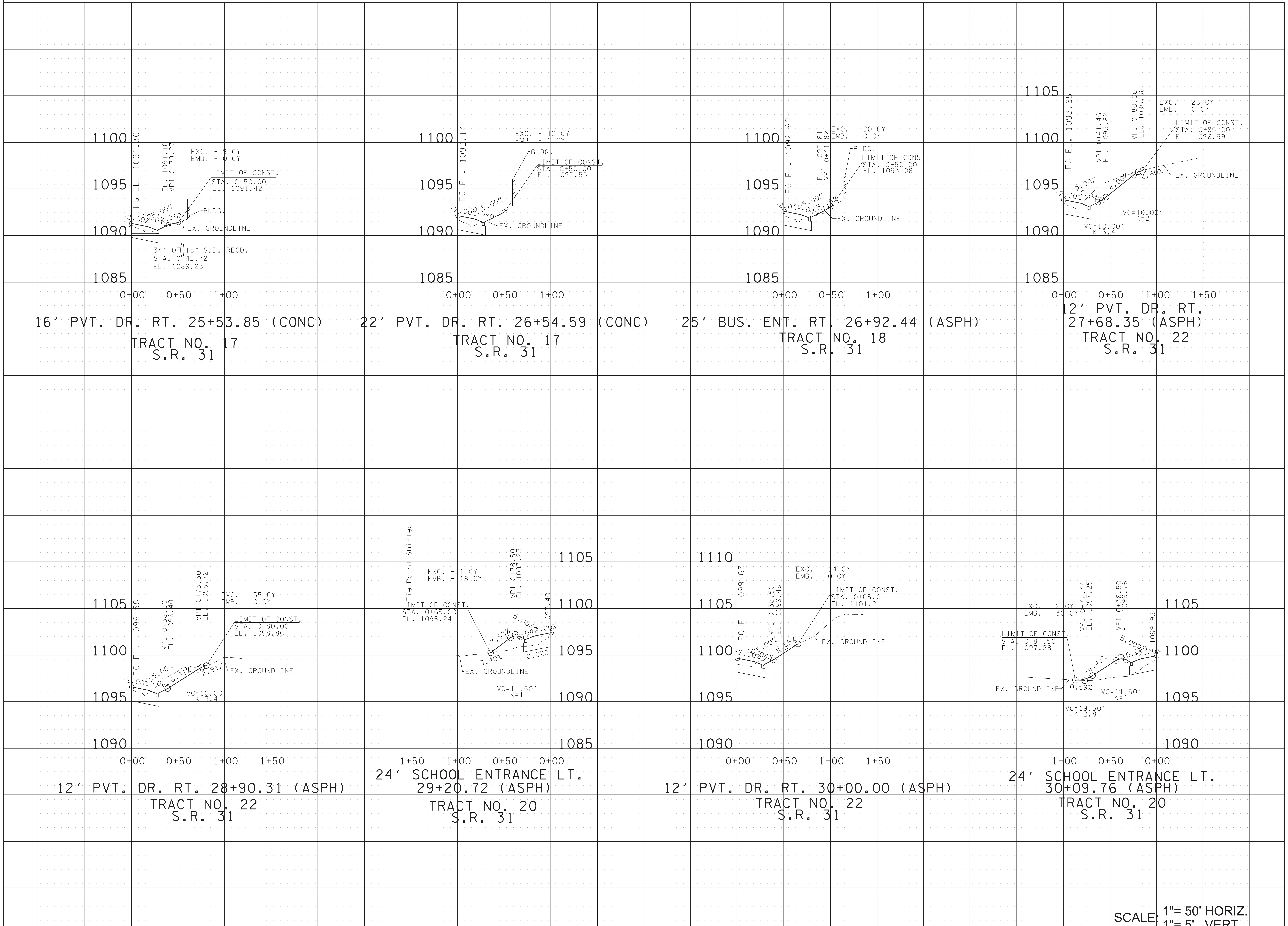

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DEPARTMENT OF TRANSPORTATION

PRIVATE DRIVE, BUSINESS, AND FIELD ENTRANCE PROFILE

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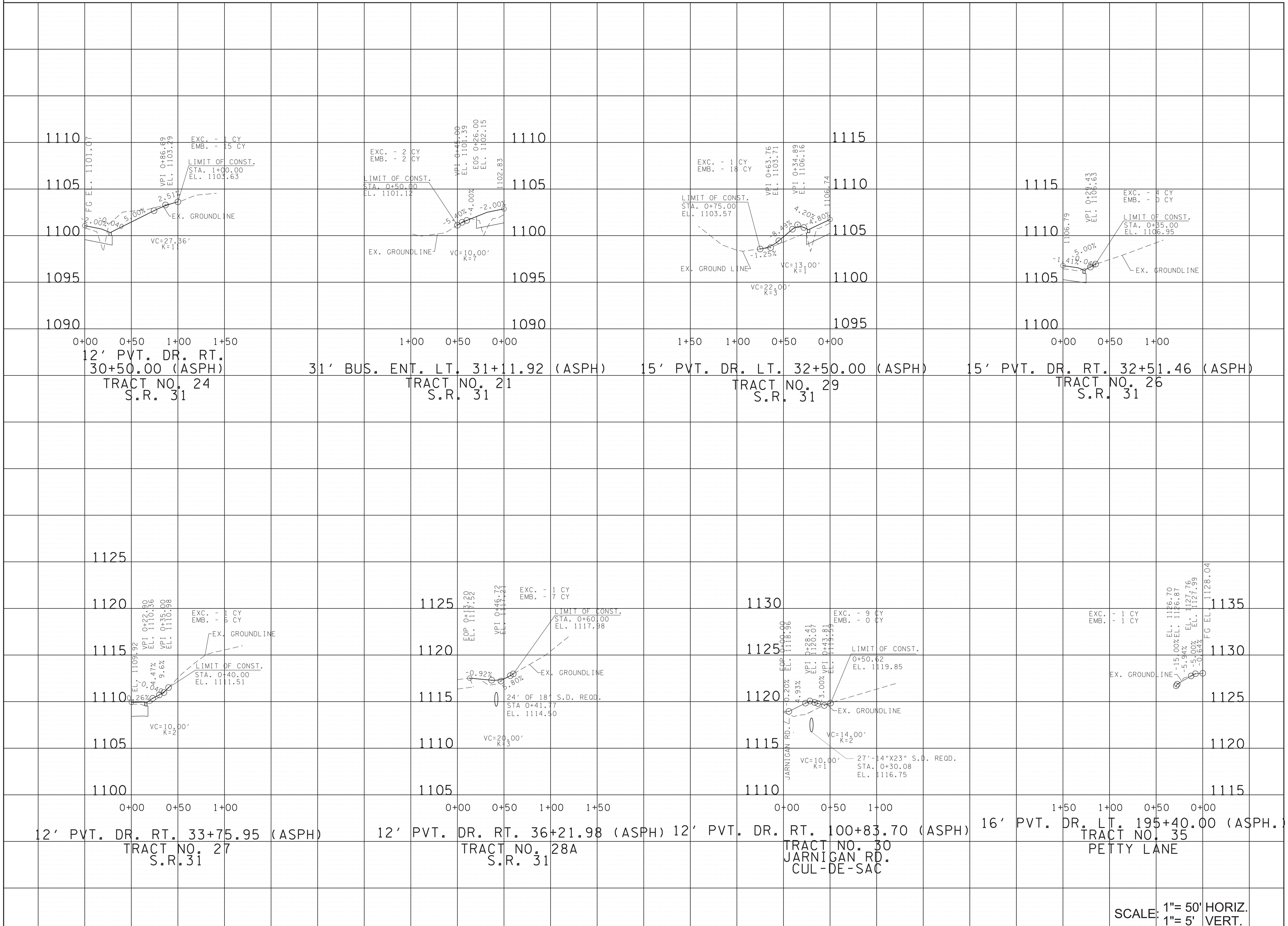
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31(12)	14B
P-I-H	2025	STP/HPP-31(12)	14B
PS & E	2026	STP/HPP-31(12)	17



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

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04/14/2026

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRIVATE DRIVE, BUSINESS, AND FIELD ENTRANCE PROFILE

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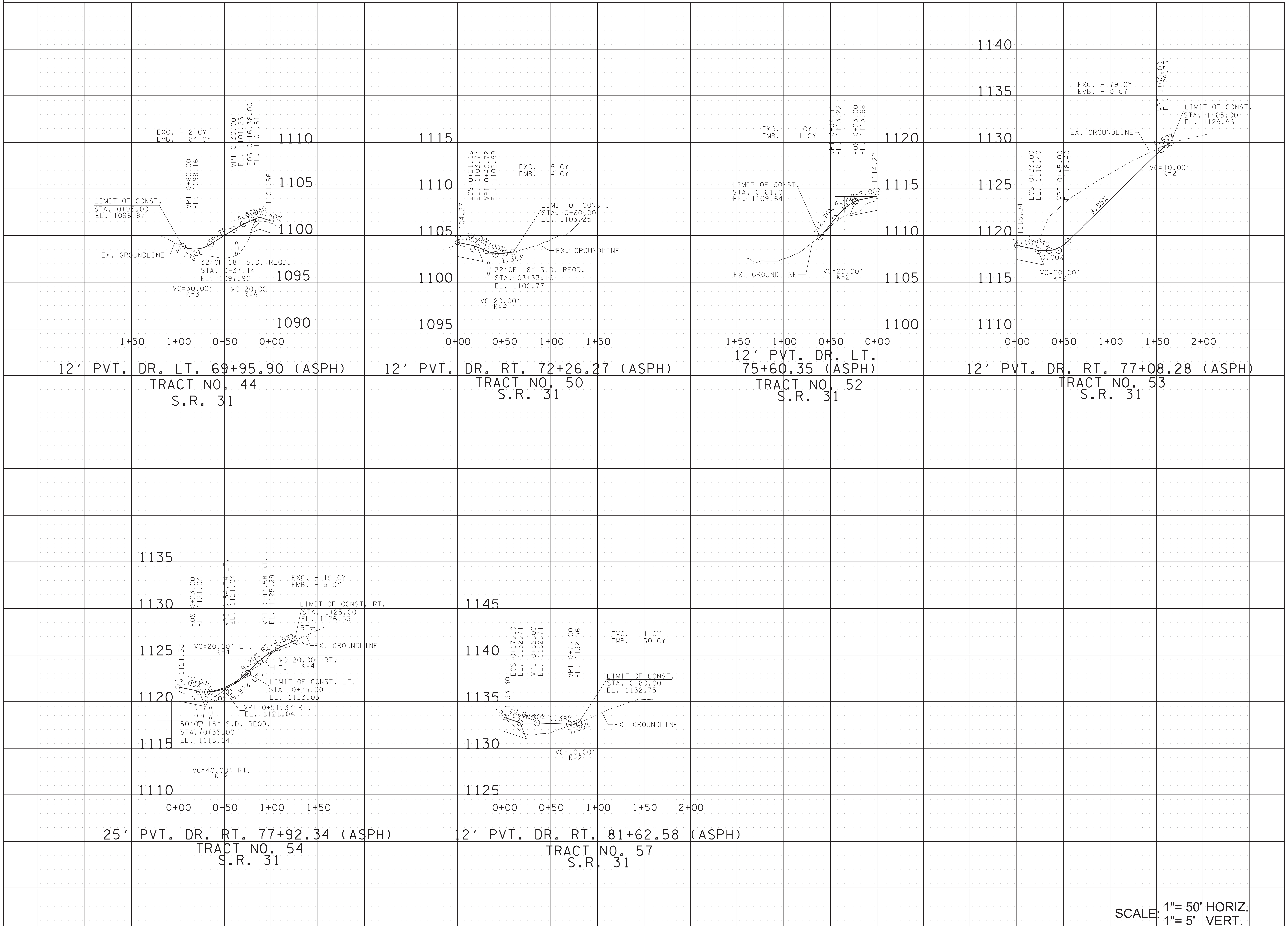
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31(12)	14C
P-I-H	2025	STP/HPP-31(12)	14C
PS & E	2026	STP/HPP-31(12)	18



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PRIVATE DRIVE, BUSINESS, AND FIELD ENTRANCE PROFILE

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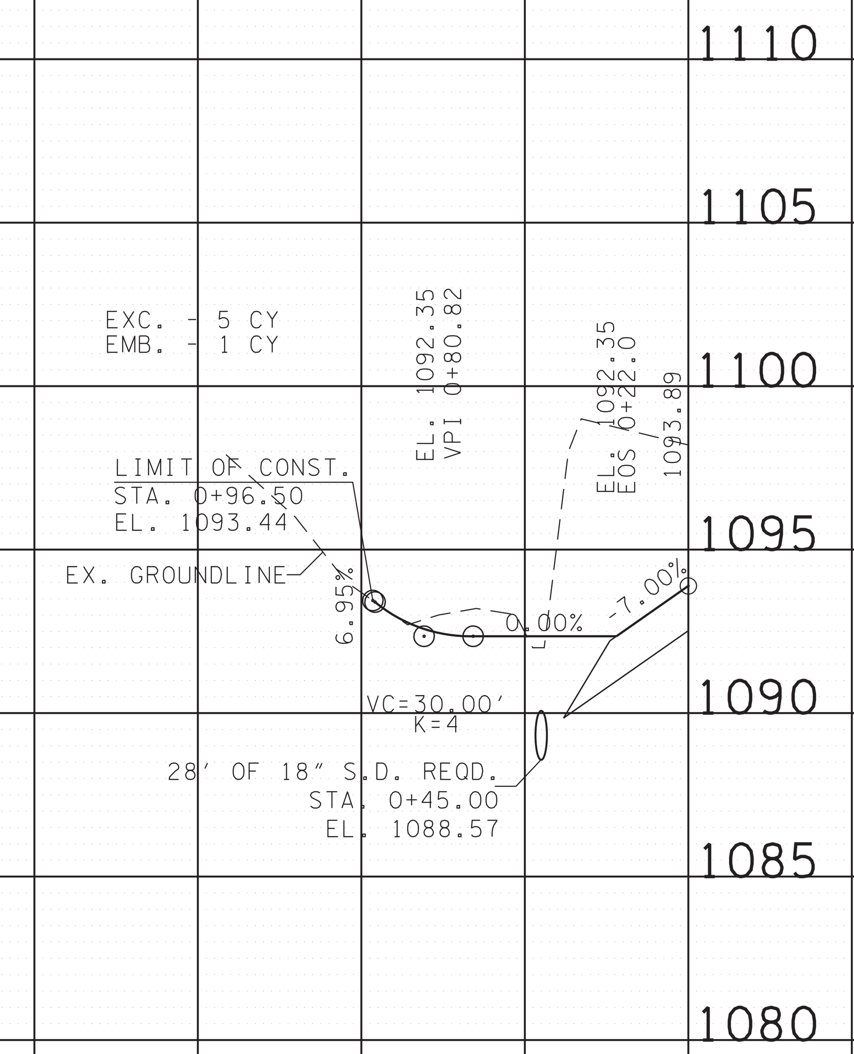
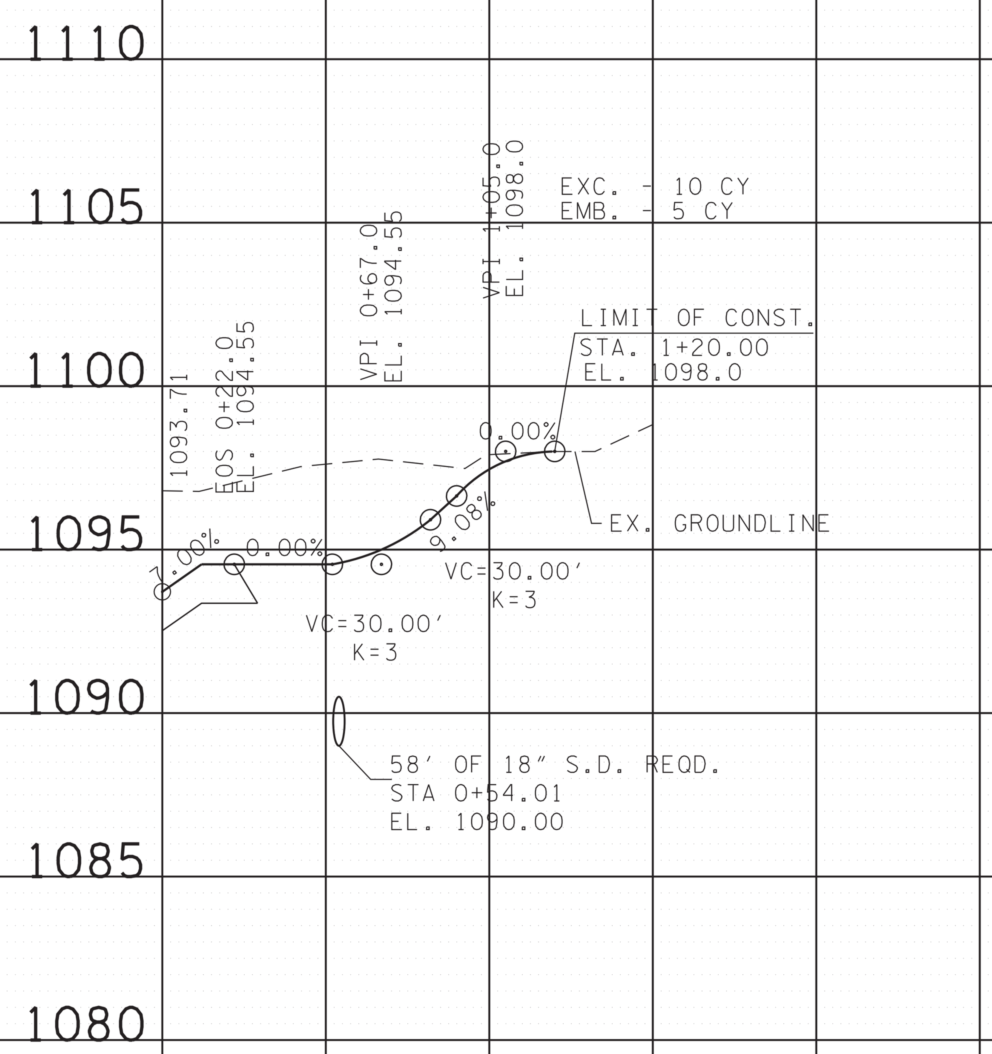
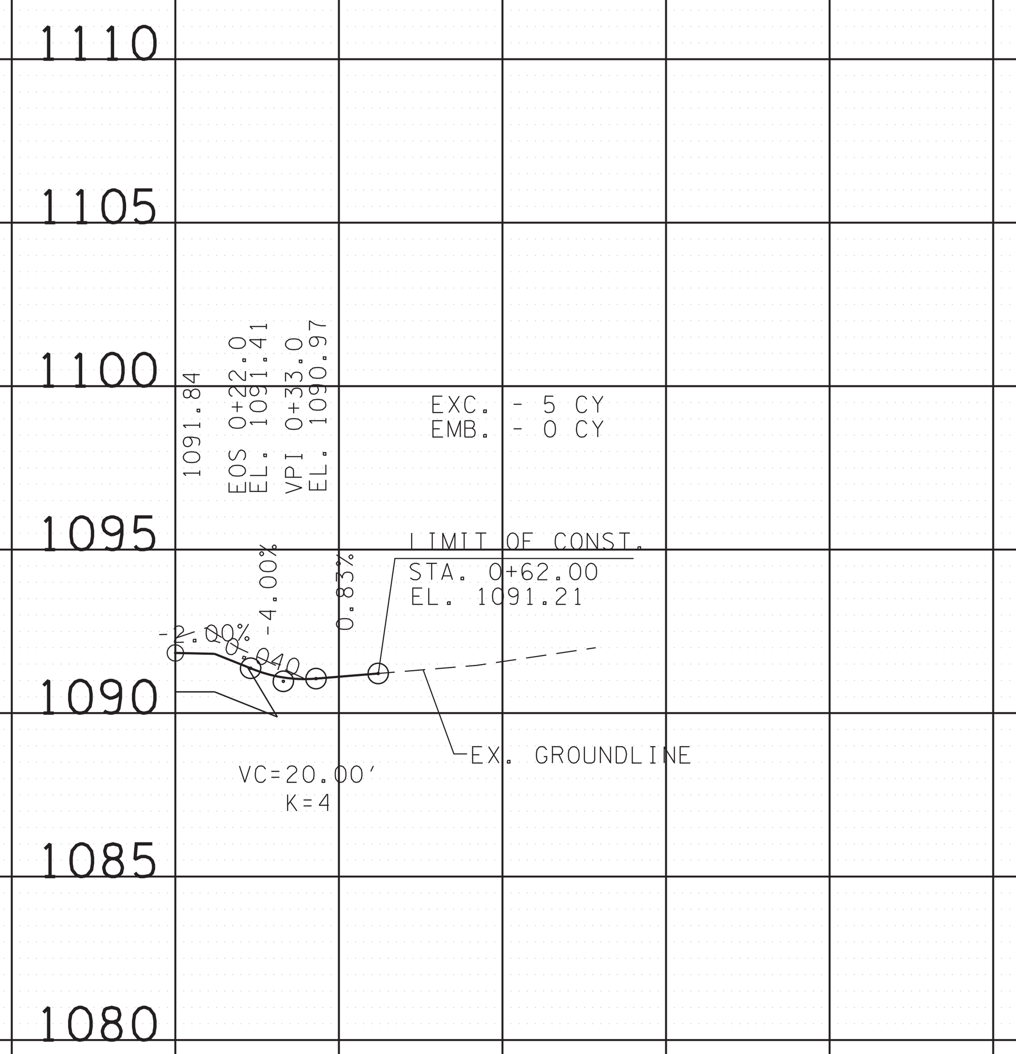
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31(12)	14D
P-I-H	2025	STP/HPP-31(12)	14D
PS & E	2026	STP/HPP-31(12)	19



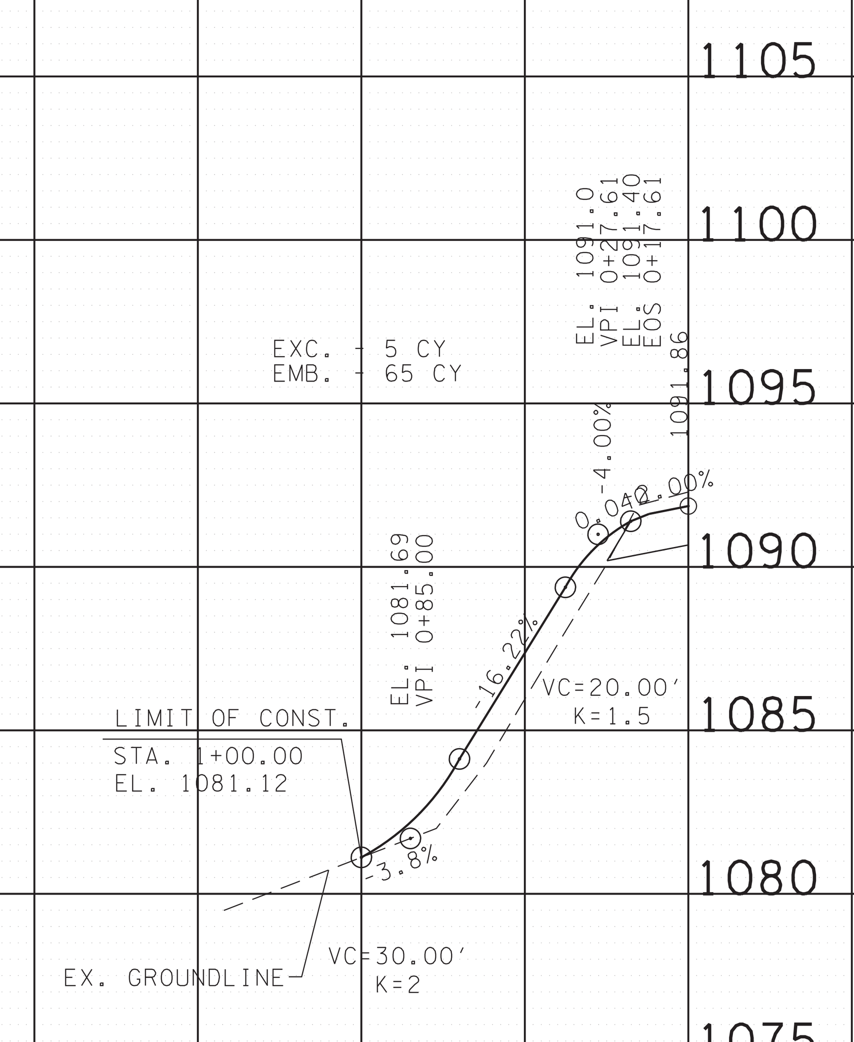
12' PVT. DR. LT. 227+14.27 (ASPH)
TRACT NO. 115
S.R. 31



12' PVT. DR. RT. 227+50.00 (ASPH)
TRACT NO. 112
S.R. 31



12' PVT. DR. RT. 236+27.14 (ASPH)
TRACT NO. 116
S.R. 31



12' PVT. DR. LT. 236+29.67 (ASPH)
TRACT NO. 117
S.R. 31

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

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PRIVATE DRIVE, BUSINESS, AND FIELD ENTRANCE PROFILE

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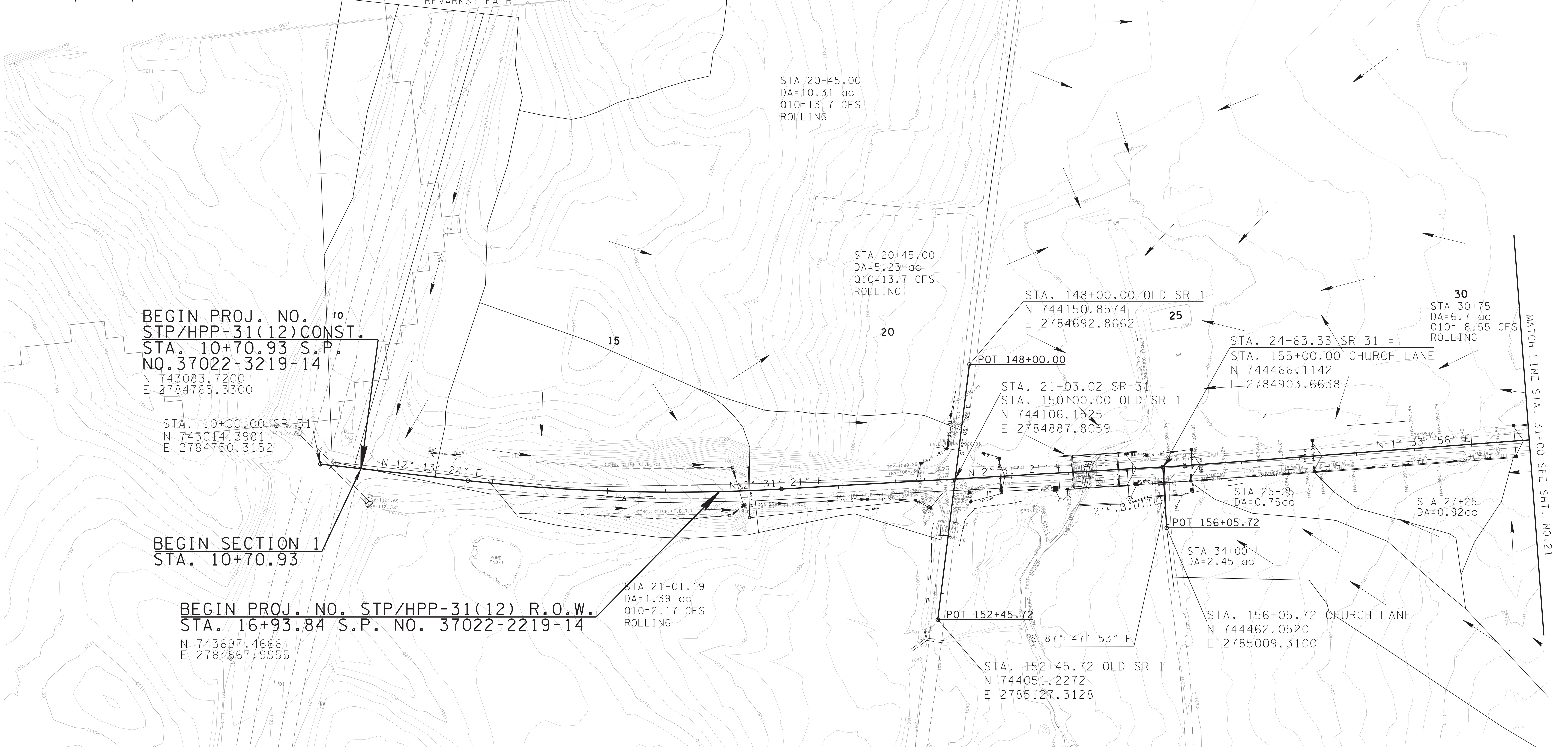
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	17
P-I-H	2025	STP/HPP-31(12)	15
PS & E	2026	STP/HPP-31(12)	20

SECTION 1 - STA. 10+51.68 TO STA.34+20.00

06-17-2024 REVISED STRUCTURE TYPE AT STR-2 CROSSING. ADJUSTED CB-21, CB-22, AND EW-20

DRAINAGE DATA FOR 7'X4' BOX CULVERT
STATION
DIRECTION OF FLOW: RIGHT
DRAINAGE AREA 35 AC , ( ) FLAT; ( ) ROLLING; ( ) HILLY; ( ) MTNS.
PRESENT STRUCTURE:
EXISTING STRUCTURE CONDITION: UNKNOWN
REMARKS: q50=38.8 q100=46.9

DRAINAGE DATA FOR PIPE
STATION 20+22.59
DIRECTION OF FLOW LT. TO RT.
DRAINAGE AREA 28.09 AC. FLAT, ROLLING, HILLY, MTNS.
PRESENT STRUCTURE: 36" RCP
EXISTING STRUCTURE CONDITION: FAIR
REMARKS: FAIR



DRAINAGE/ HYDRAULIC DATA FOR BRIDGE

STATION 23+29.32 STREAM NAME MOORESBURG BRANCH
STREAM BED LINING: ROCKY
DIRECTION OF FLOW LT TO RT
DRAINAGE AREA 2675.2 AC. FLAT, ROLLING, HILLY, MTNS.
PRESENT STRUCTURE: SPAN 3@12' HEIGHT 6' STRUCTURE CONC
BEGIN STATION-OFFSET 22+86.86 END STATION-OFFSET 23+25.68
LOW BEAM ELEV. 1087.34 LOCATION. C.L. CULV UPSTREAM
INLET INVERT ELEV. 1081.44 OUTLET INVERT. 1081.14
NORMAL WATER ELEV. 1081.05 EXTREME HIGHWATER ELEV. 1087.04 DATE. SPRING 1977
HOW OBTAINED. LOCAL INFO
BACKWATER FROM WHAT STREAM (IF APPLICABLE):
EXISTING STRUCTURE CONDITION: FAIR
SEE STREAM CROSS-SECTIONS FOR VEGETATIVE COVER, SEE PRESENT LAYOUT (LEVEL 40) FOR STREAM ALIGNMENT AND CRC
SEE CENTERLINE PROFILE OR FIELD BOOK FOR EXISTING BRIDGE OPENING SKETCHES.
REMARKS: DRAINAGE AREA TAKEN FROM T.V.A. DATA

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DEPARTMENT OF TRANSPORTATION

DRAINAGE MAP

STA. 10+51.68 TO STA. 31+00
SCALE: 1"=100'

3/25/2026 1:22:53 PM
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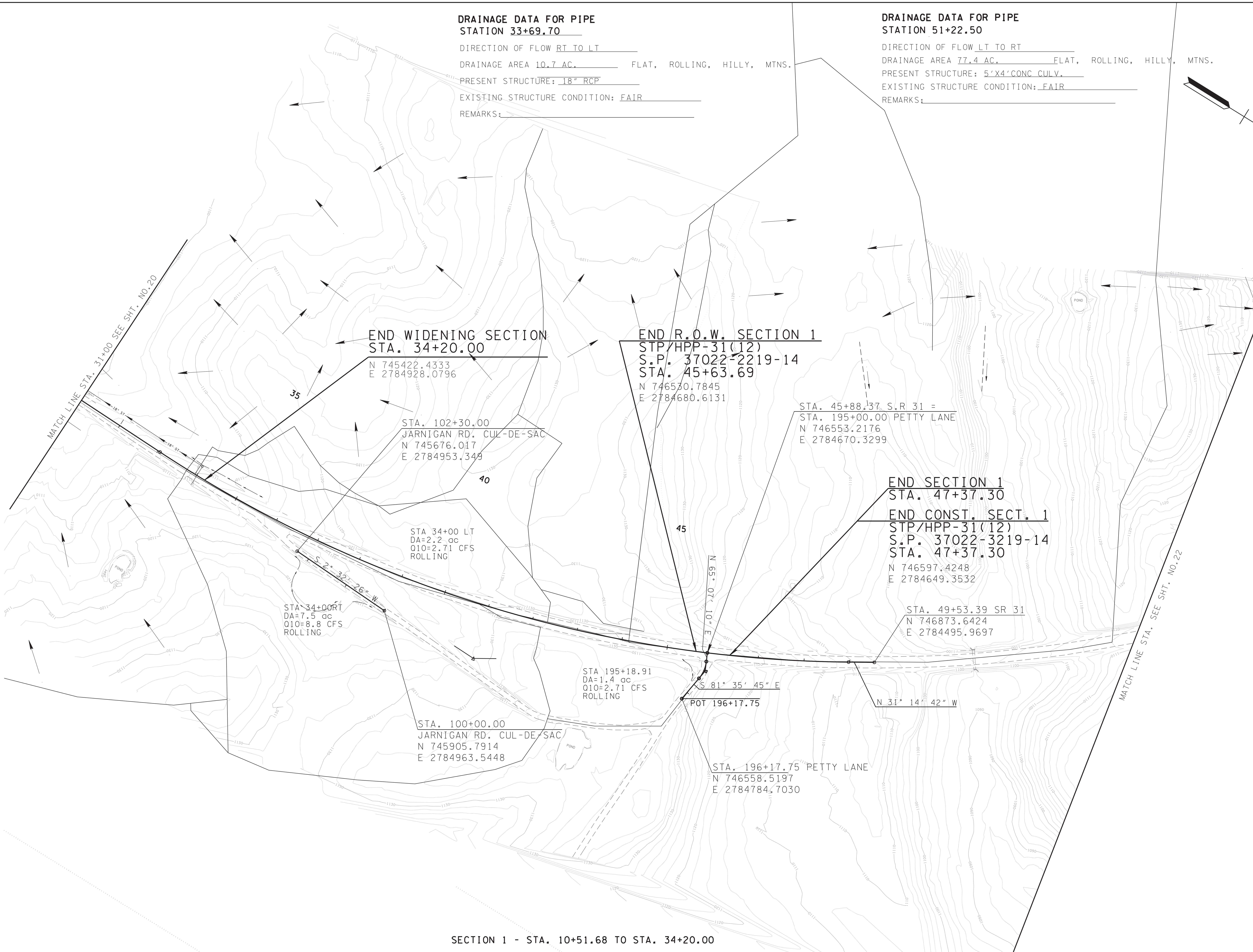
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	17A
P-I-H	2025	STP/HPP-31(12)	16
PS & E	2026	STP/HPP-31(12)	21



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

DRAINAGE MAP

STA. 31+00 TO STA. 49+53

SCALE: 1"=100'

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	17B
P-I-H	2025	STP/HPP-31(12)	17
PS & E	2026	STP/HPP-31(12)	22

DRAINAGE/ HYDRAULIC DATA FOR BRIDGE

STATION 62+35.62 STREAM NAME BRANCH

STREAM BED LINING: ROKY AND SOIL

DIRECTION OF FLOW LT TO RT

DRAINAGE AREA 896.0 AC. FLAT, ROLLING, HILLY, MTNS.

PRESENT STRUCTURE: SPAN 2@10' HEIGHT 6' STRUCTURE CONC. SUPERSTRUCTURE CONC.

BEGIN STATION-OFFSET 62+25.32 END STATION-OFFSET 62+45.93

LOW BEAM ELEV. 1078.11 LOCATION. C.L. CULV.

INLET INVERT ELEV. 1072.11 OUTLET INVERT. 1071.90

NORMAL WATER ELEV. 1072.72 EXTREME HIGHWATER ELEV. 1071.90 DATE. SPRING 1977

HOW OBTAINED. LOCAL INFO.

BACKWATER FROM WHAT STREAM (IF APPLICABLE):

EXISTING STRUCTURE CONDITION: FAIR

SEE STREAM CROSS-SECTIONS FOR VEGETATIVE COVER, SEE PRESENT LAYOUT (LEVEL 40) FOR STREAM ALIGNMENT AND CROSS-SECTION LOCATIONS.

SEE CENTERLINE PROFILE OR FIELD BOOK FOR EXISTING BRIDGE OPENING SKETCHES.

REMARKS: DRAINAGE AREA FROM T.V.A. DATA

DRAINAGE DATA FOR PIPE

STATION 68+83.00

DIRECTION OF FLOW RT TO LT

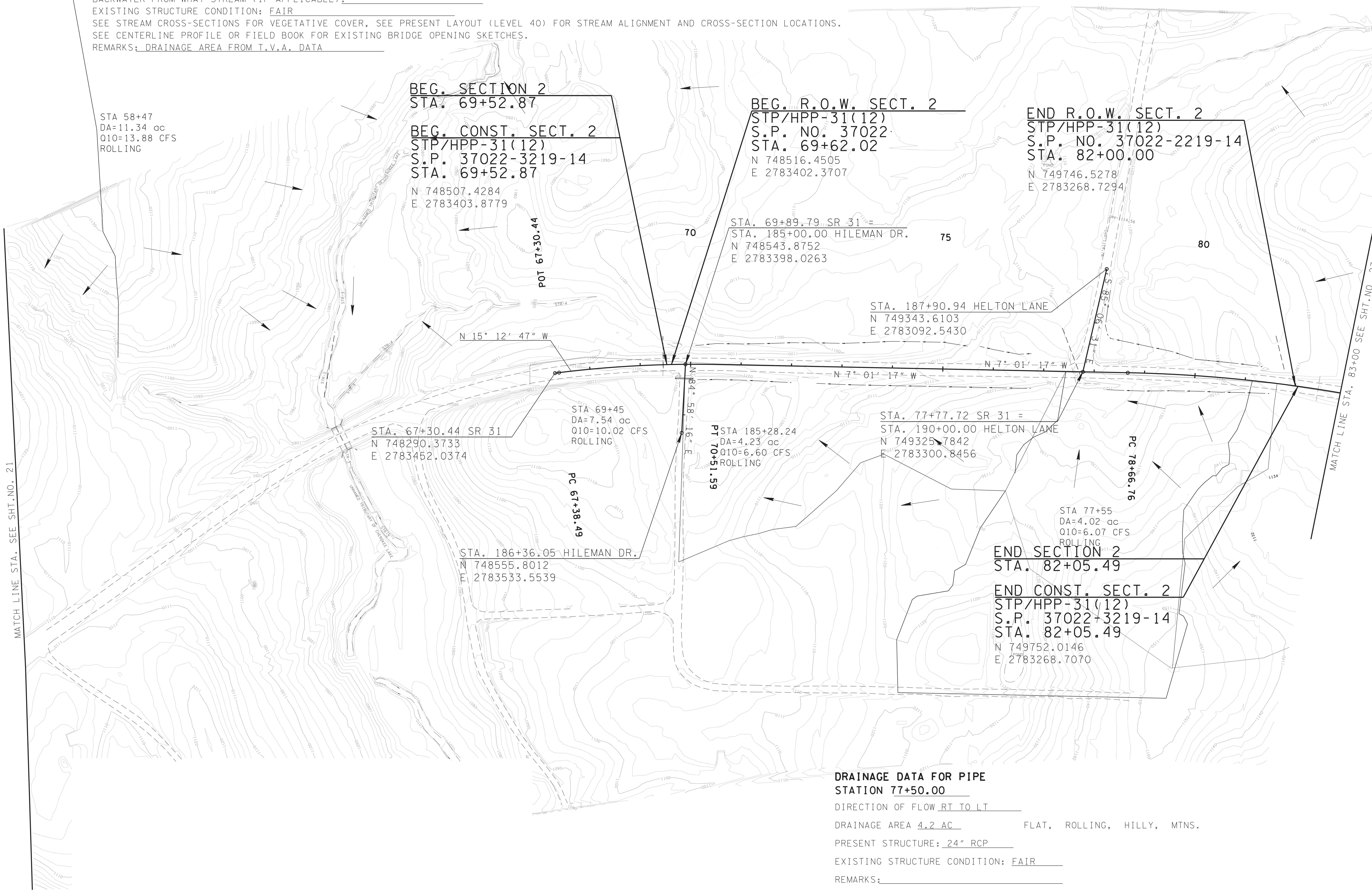
DRAINAGE AREA 7.5 AC. FLAT, ROLLING, HILLY, MTNS.

PRESENT STRUCTURE: 18" RCP

EXISTING STRUCTURE CONDITION: FAIR

REMARKS:

SECTION 2 - STA. 69+52.87 TO STA. 82+05.49



DRAINAGE DATA FOR PIPE

STATION 77+50.00

DIRECTION OF FLOW RT TO LT

DRAINAGE AREA 4.2 AC FLAT, ROLLING, HILLY, MTNS.

PRESENT STRUCTURE: 24" RCP

EXISTING STRUCTURE CONDITION: FAIR

REMARKS:

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COMMERCE
No. 124709
STATE OF TENNESSEE

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

DRAINAGE MAP

STA. 57+00 TO STA. 83+00

SCALE: 1"=100'

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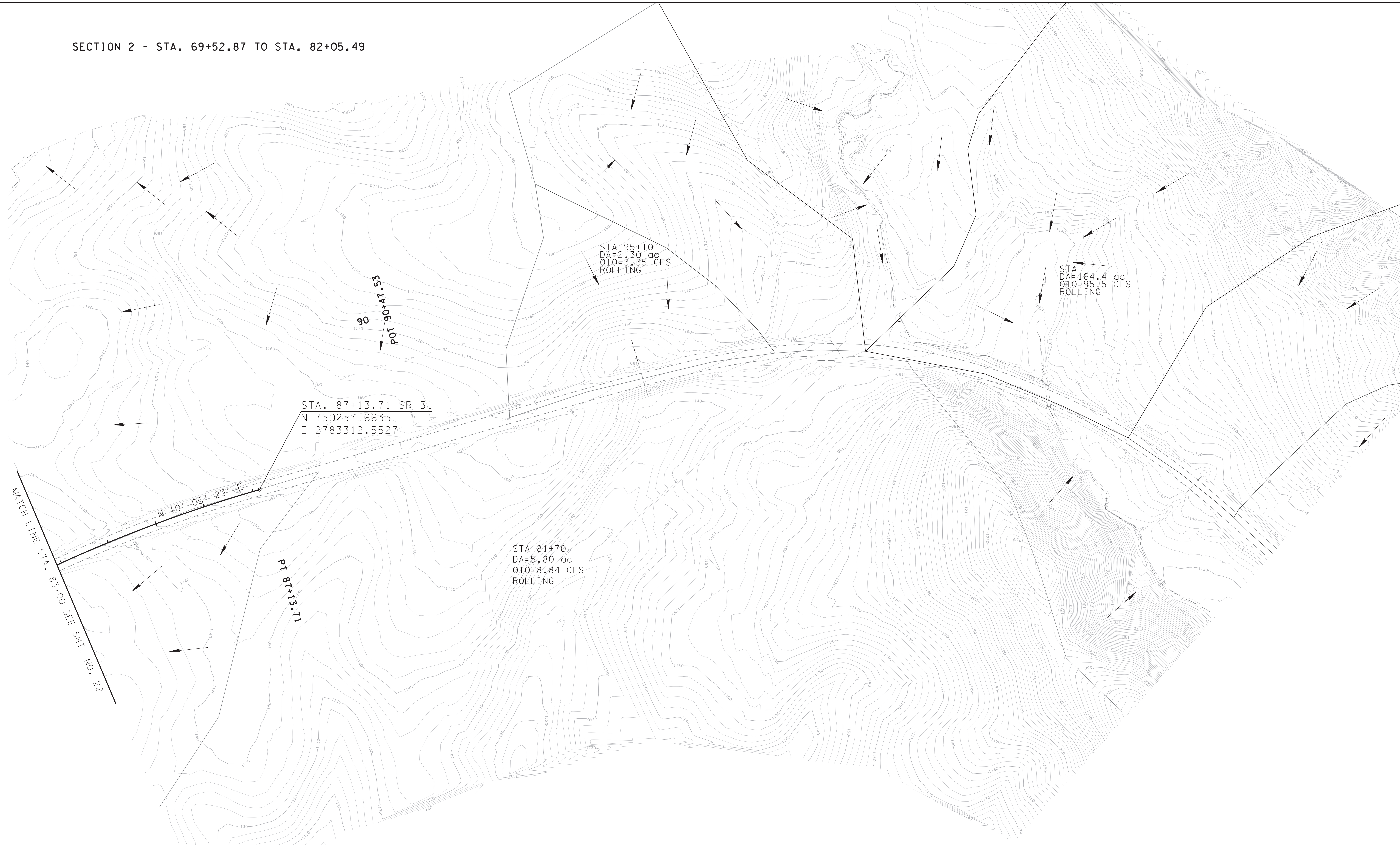
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	17C
P-I-H	2025	STP/HPP-31(12)	18
PS & E	2026	STP/HPP-31(12)	23

SECTION 2 - STA. 69+52.87 TO STA. 82+05.49



DRAINAGE DATA FOR PIPE
STATION 102+57.26
DIRECTION OF FLOW LT TO RT
DRAINAGE AREA 164.4 AC. FLAT, ROLLING, HILLY, MTNS.
PRESENT STRUCTURE: 6'X4'CONC. CULV.
EXISTING STRUCTURE CONDITION: FAIR
REMARKS:

DRAINAGE DATA FOR PIPE
STATION 81+50.00
DIRECTION OF FLOW RT TO LT
DRAINAGE AREA 5.8AC. FLAT, ROLLING, HILLY, MTNS.
PRESENT STRUCTURE: 18"RCP
EXISTING STRUCTURE CONDITION: FAIR
REMARKS:

DRAINAGE DATA FOR PIPE
STATION 94+45.00
DIRECTION OF FLOW LT TO RT
DRAINAGE AREA 2.88 AC. FLAT, ROLLING, HILLY, MTNS.
PRESENT STRUCTURE: 24"RCP
EXISTING STRUCTURE CONDITION: FAIR
REMARKS:

DRAINAGE DATA FOR PIPE
STATION 106+45.00
DIRECTION OF FLOW LT TO RT
DRAINAGE AREA 5.34 AC. FLAT, ROLLING, HILLY, MTNS.
PRESENT STRUCTURE: 30" RCP
EXISTING STRUCTURE CONDITION: FAIR
REMARKS:

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

DRAINAGE MAP

STA. 83+00 TO STA. 109+00
SCALE: 1"=100'

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	17D
P-I-H	2025	STP/HPP-31(12)	19
PS & E	2026	STP/HPP-31(12)	24

DRAINAGE DATA FOR PIPE
STATION 116+23.00
DIRECTION OF FLOW RT TO LT
DRAINAGE AREA 184.5 AC. FLAT, ROLLING, HILLY, MTNS.
PRESENT STRUCTURE: 5'X5'CONC CULV.
EXISTING STRUCTURE CONDITION: FAIR
REMARKS:

DRAINAGE DATA FOR PIPE
STATION 122+25.00
DIRECTION OF FLOW LT TO RT
DRAINAGE AREA 209.6 AC. FLAT, ROLLING, HILLY, MTNS.
PRESENT STRUCTURE: 8'X4'CONC. CULV.
EXISTING STRUCTURE CONDITION: FAIR
REMARKS:

DRAINAGE/ HYDRAULIC DATA FOR BRIDGE
STATION 134+89.19 STREAM NAME POOR VALLEY CREEK
STREAM BED LINING: SANDY &ROCKY
DIRECTION OF FLOW LEFT TO RT.
DRAINAGE AREA 40.6 S. MI. FLAT, ROLLING, HILLY, MTNS.
PRESENT STRUCTURE: SPAN 3 SPAN HEIGHT STRUCTURE CONC. DECK SUPERSTRUCTURE STEEL BEAM
BEGIN STATION-OFFSET 134+11.43 24. END STATION-OFFSET 135+66.95 29.6
LOW BEAM ELEV. 1080.56 LOCATION. CENTER BRG
INLET INVERT ELEV.N/A OUTLET INVERT. N/A
NORMAL WATER ELEV.N/A EXTREME HIGHWATER ELEV. N/A DATE.
HOW OBTAINED.
BACKWATER FROM WHAT STREAM (IF APPLICABLE): HOLSTON RIVER
EXISTING STRUCTURE CONDITION:
SEE STREAM CROSS-SECTIONS FOR VEGETATIVE COVER, SEE PRESENT LAYOUT (LEVEL 40) FOR STREAM ALIGNMENT AND CROSS-SECTION LOCATIONS.
SEE CENTERLINE PROFILE OR FIELD BOOK FOR EXISTING BRIDGE OPENING SKETCHES.
REMARKS: NOTE: NORMAL POOL EL= 1075.00 H.W. CONTROLED BY T.V.A.

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DEPARTMENT OF TRANSPORTATION

DRAINAGE MAP

SCALE: 1"=100'

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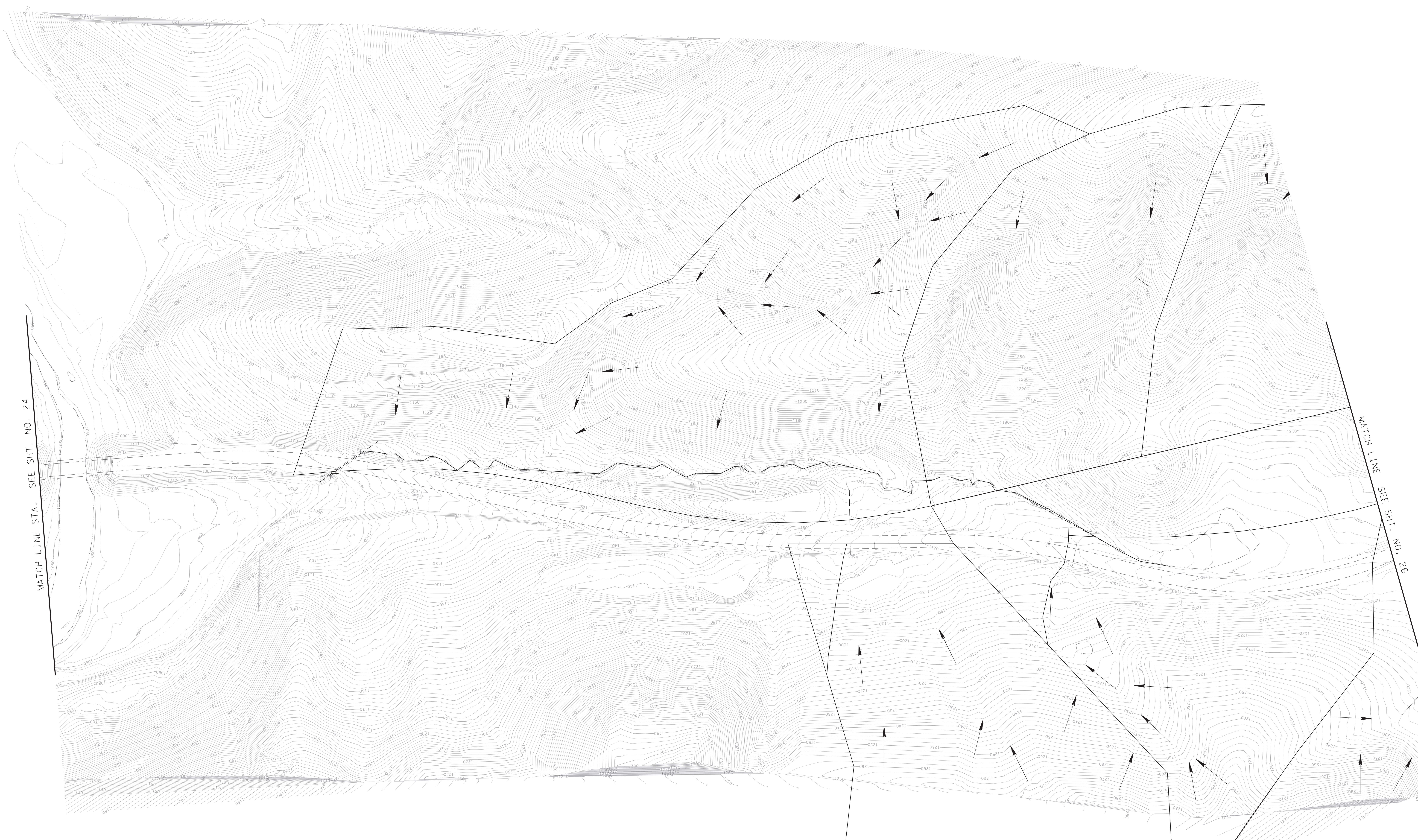
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	17E
P-I-H	2025	STP/HPP-31(12)	20
PS & E	2026	STP/HPP-31(12)	25



DRAINAGE DATA FOR PIPE
STATION 139+95.00

DIRECTION OF FLOW LT TO RT
DRAINAGE AREA 58.1 AC. FLAT, ROLLING, HILLY, MTNS.
PRESENT STRUCTURE: 5'X4'CONC CULV
EXISTING STRUCTURE CONDITION: FAIR
REMARKS:

DRAINAGE DATA FOR PIPE
STATION 153+00.00

DIRECTION OF FLOW LT TO RT
DRAINAGE AREA 7.02 FLAT, ROLLING, HILLY, MTNS.
PRESENT STRUCTURE: N/A
EXISTING STRUCTURE CONDITION: N/A
REMARKS:

DRAINAGE DATA FOR PIPE
STATION 157+25.00

DIRECTION OF FLOW LT TO RT
DRAINAGE AREA 5.67 FLAT, ROLLING, HILLY, MTNS.
PRESENT STRUCTURE: N/A
EXISTING STRUCTURE CONDITION: N/A
REMARKS:

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DEPARTMENT OF TRANSPORTATION

DRAINAGE MAP

SCALE: 1"=100'

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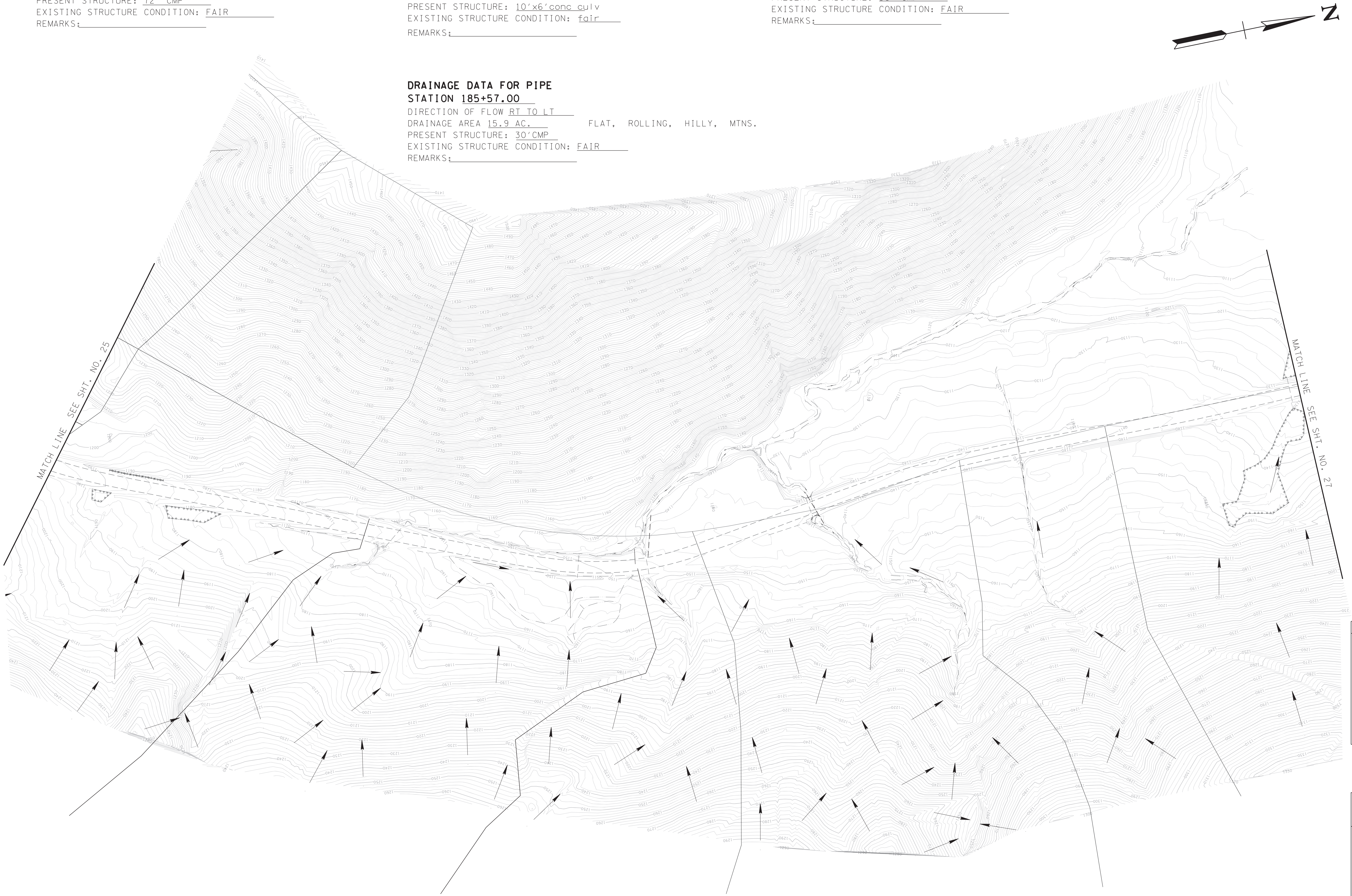
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	17F
P-I-H	2025	STP/HPP-31(12)	21
PS & E	2026	STP/HPP-31(12)	26

DRAINAGE DATA FOR PIPE
STATION 171+82.50
DIRECTION OF FLOW RT TO LT
DRAINAGE AREA 189.8 FLAT, ROLLING, HILLY, MTNS.
PRESENT STRUCTURE: 72" CMP
EXISTING STRUCTURE CONDITION: FAIR
REMARKS:

DRAINAGE DATA FOR PIPE
STATION 175+38.00
DIRECTION OF FLOW RT TO LT
DRAINAGE AREA 354.5 FLAT, ROLLING, HILLY, MTNS.
PRESENT STRUCTURE: 10'x6'conc culv
EXISTING STRUCTURE CONDITION: fair
REMARKS:

DRAINAGE DATA FOR PIPE
STATION 179+80.00
DIRECTION OF FLOW RT TO LT
DRAINAGE AREA 30.8 AC. FLAT, ROLLING, HILLY, MTNS.
PRESENT STRUCTURE: 36" CMP
EXISTING STRUCTURE CONDITION: FAIR
REMARKS:

DRAINAGE DATA FOR PIPE
STATION 185+57.00
DIRECTION OF FLOW RT TO LT
DRAINAGE AREA 15.9 AC. FLAT, ROLLING, HILLY, MTNS.
PRESENT STRUCTURE: 30'CMP
EXISTING STRUCTURE CONDITION: FAIR
REMARKS:



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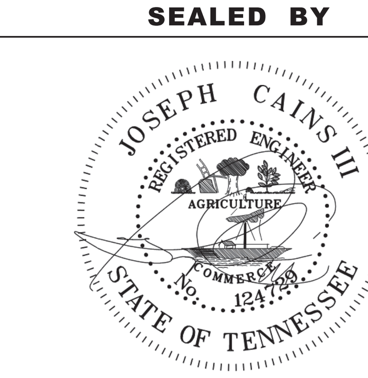

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

DRAINAGE MAP

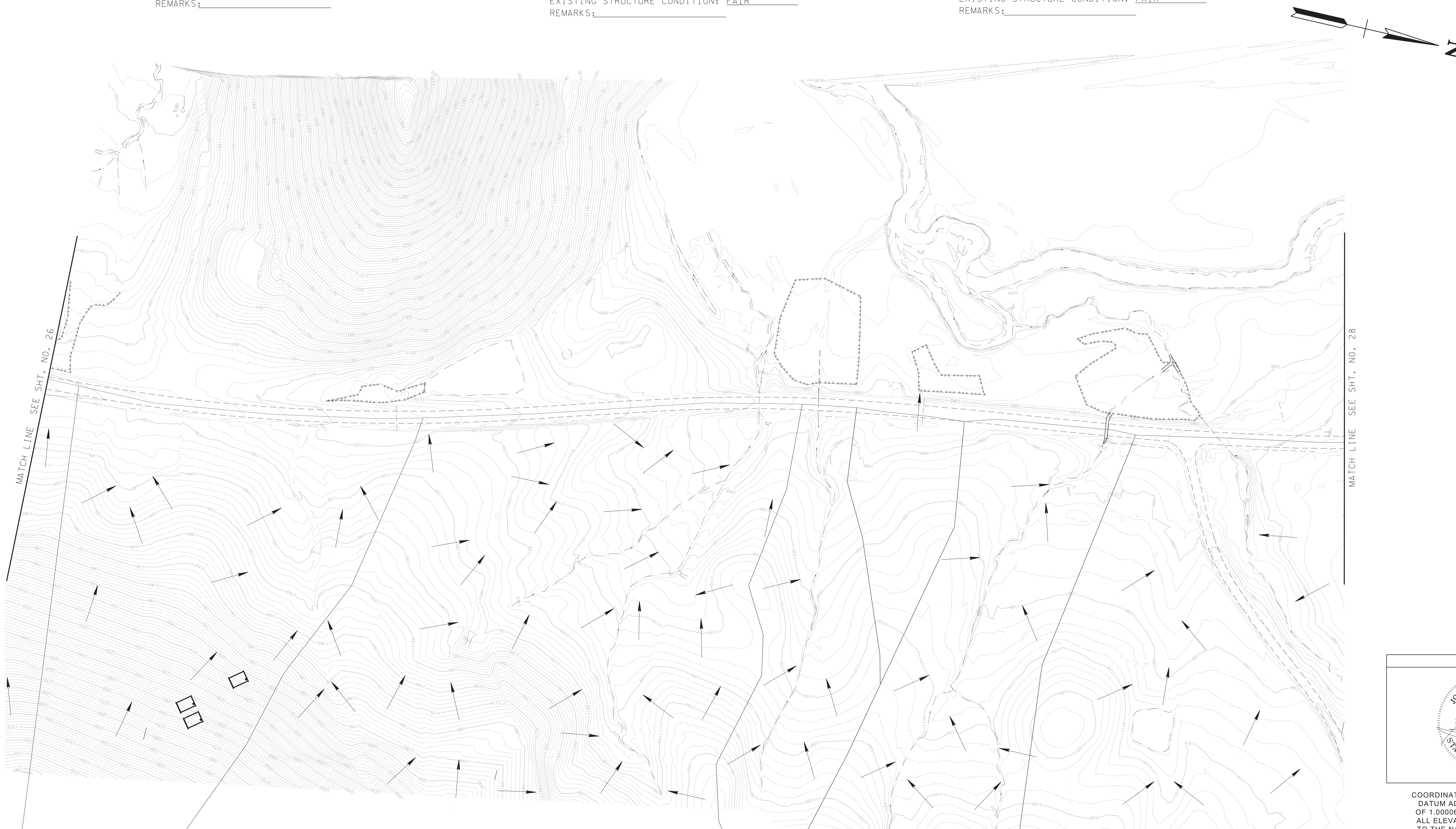
SCALE: 1"=100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	17G
P-I-H	2025	STP/HPP-31(12)	22
PS & E	2026	STP/HPP-31(12)	27

DRAINAGE DATA FOR PIPE
STATION 192+86.00
DIRECTION OF FLOW RT TO LT
DRAINAGE AREA 13.6 AC. FLAT, ROLLING, HILLY, MTNS.
PRESENT STRUCTURE: 30" CMP
EXISTING STRUCTURE CONDITION: FAIR
REMARKS:

DRAINAGE DATA FOR PIPE
STATION 200+06.00
DIRECTION OF FLOW RT TO LT
DRAINAGE AREA 236.5 FLAT, ROLLING, HILLY, MTNS.
PRESENT STRUCTURE: 78" CMP
EXISTING STRUCTURE CONDITION: FAIR
REMARKS:

DRAINAGE DATA FOR PIPE
STATION 201+24.00
DIRECTION OF FLOW RT TO LT
DRAINAGE AREA 4.2 AC. FLAT, ROLLING, HILLY, MTNS.
PRESENT STRUCTURE: 30" CMP
EXISTING STRUCTURE CONDITION: FAIR
REMARKS:



DRAINAGE DATA FOR PIPE
STATION 203+30.00
DIRECTION OF FLOW RT TO LT
DRAINAGE AREA 1.7 AC. FLAT, ROLLING, HILLY, MTNS.
PRESENT STRUCTURE: 18" CMP
EXISTING STRUCTURE CONDITION: FAIR
REMARKS:

DRAINAGE DATA FOR PIPE
STATION 206+88.00
DIRECTION OF FLOW RT TO LT
DRAINAGE AREA 69.6 AC. FLAT, ROLLING, HILLY, MTNS.
PRESENT STRUCTURE: 60" CMP
EXISTING STRUCTURE CONDITION: FAIR
REMARKS:

DRAINAGE DATA FOR PIPE
STATION 209+73.00
DIRECTION OF FLOW RT TO LT
DRAINAGE AREA 101.8 FLAT, ROLLING, HILLY, MTNS.
PRESENT STRUCTURE: 60" CMP
EXISTING STRUCTURE CONDITION: FAIR
REMARKS:

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

DRAINAGE
MAP

SCALE: 1"=100'

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	17H
P-I-H	2025	STP/HPP-31(12)	23
PS & E	2026	STP/HPP-31(12)	28

DRAINAGE DATA FOR PIPE
STATION 213+55.00
DIRECTION OF FLOW RT TO LT
DRAINAGE AREA 7.5 AC. FLAT, ROLLING, HILLY, MTNS.
PRESENT STRUCTURE: 18" CMP
EXISTING STRUCTURE CONDITION: FAIR
REMARKS:

DRAINAGE DATA FOR PIPE
STATION 219+38.00
DIRECTION OF FLOW RT TO LT
DRAINAGE AREA 4.8 AC. FLAT, ROLLING, HILLY, MTNS.
PRESENT STRUCTURE: 18" CMP
EXISTING STRUCTURE CONDITION: FAIR
REMARKS:

DRAINAGE DATA FOR PIPE
STATION 235+50.00
DIRECTION OF FLOW RT TO LT
DRAINAGE AREA 23.0 AC. FLAT, ROLLING, HILLY, MTNS.
PRESENT STRUCTURE: 60" CMP
EXISTING STRUCTURE CONDITION: FAIR
REMARKS:

DRAINAGE DATA FOR PIPE
STATION 223+25.00
DIRECTION OF FLOW RT TO LT
DRAINAGE AREA 3.3 AC. FLAT, ROLLING, HILLY, MTNS.
PRESENT STRUCTURE: NONE
EXISTING STRUCTURE CONDITION: N/A
REMARKS:

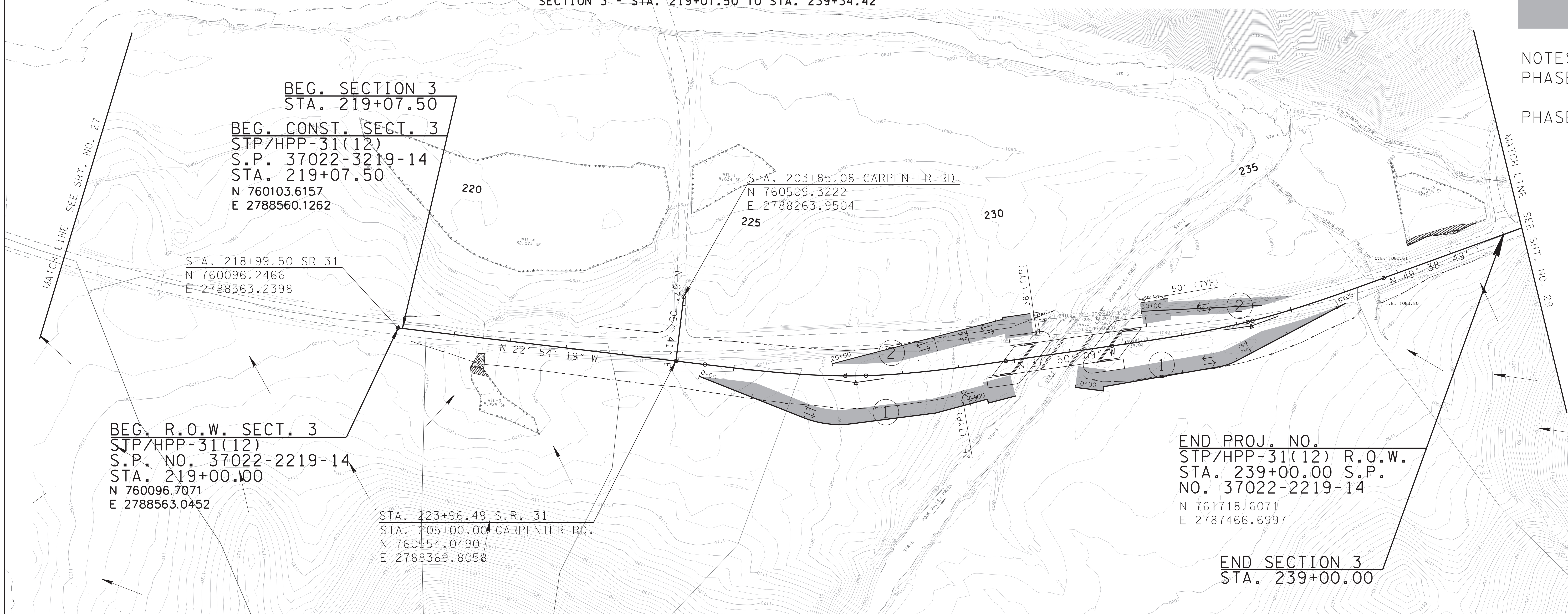
DRAINAGE/ HYDRAULIC DATA FOR BRIDGE
STATION 229+72.00 STREAM NAME POOR VALLEY CREEK
STREAM BED LINING: SANDY
DIRECTION OF FLOW RT TO LT
DRAINAGE AREA 32.3 S. MI. FLAT, ROLLING, HILLY, MTNS.
PRESENT STRUCTURE: SPAN 5 SPAN HEIGHT STRUCTURE CONC. DECK SUPERSTRUCTURE GIRDER
BEGIN STATION-OFFSET 229+23.89 37. END STATION-OFFSET 230+81.19 39.0
LOW BEAM ELEV. 1089.14 LOCATION. CENTER BRIDGE
INLET INVERT ELEV. 1072.3 OUTLET INVERT. 1072.7
NORMAL WATER ELEV. 1077.00 EXTREME HIGHWATER ELEV. 1087.00 DATE. SPRING 1977
HOW OBTAINED. LOCAL INFO
BACKWATER FROM WHAT STREAM (IF APPLICABLE):
EXISTING STRUCTURE CONDITION: FAIR
SEE STREAM CROSS-SECTIONS FOR VEGETATIVE COVER, SEE PRESENT LAYOUT (LEVEL 40) FOR STREAM ALIGNMENT AND CROSS-SECTION LOCATIONS.
SEE CENTERLINE PROFILE OR FIELD BOOK FOR EXISTING BRIDGE OPENING SKETCHES.
REMARKS: DRAINAGE AREA TAKEN FROM T.V.A. DATA

NOTE: THE CONTRACTOR SHALL USE ANY MEASURE NECESSARY TO ENSURE THAT CONSTRUCTION EQUIPMENT WILL NOT ENTER ANY PORTION OF STR-5, STR-6, STR-7, WTL-1, WTL-2, WTL-3 AND WTL-4 AND THAT THE STREAM AND SURROUNDING VEGETATION WILL NOT BE DISTURBED AND ARE PROTECTED FROM SEDIMENT AND OTHER POLLUTANTS EXCEPT AT THE PERMITTED LOCATIONS.

LEGEND:
PROPOSED HAUL ROAD AREA

NOTES:
PHASE 1, USE 1 HAUL ROADS
PHASE 2, USE 2 HAUL ROADS

SECTION 3 - STA. 219+07.50 TO STA. 239+34.42



GENERAL WETLAND NOTES:

1. REMOVE THE TOP 12 INCHES OF TOPSOIL AND STOCKPILE IT UNTIL CONSTRUCTION IS COMPLETE.
2. ONCE CONSTRUCTION ACTIVITIES ARE COMPLETED, RESTORE ALL TEMPORARY WETLAND IMPACT AREAS TO PRE-CONSTRUCTION CONDITIONS. THIS INCLUDES REMOVING HAUL ROADS (IF APPLICABLE), RESTORING THE SITE TO THE ORIGINAL (PRE-CONSTRUCTION) ELEVATION, AND SPREADING STOCKPILED TOPSOIL BACK OVER THE WETLAND SITE.
3. THE AREA OF TEMPORARY IMPACTS WILL BE STABILIZED WITH WETLAND SEED MIXTURE 801-01-36 ONLY.
4. WETLAND AREA LOCATED OUTSIDE OF PROPOSED RIGHT-OF-WAY AND CONSTRUCTION EASEMENTS ARE TO BE CLEARLY MARKED AND NOT TO BE DISTURBED.

LEGEND	WETLAND-3 IMPACTS
(cross-hatched)	AREA OF PERMANENT IMPACT = 0.01 AC.
	VOLUME OF PERMANENT IMPACT = 16.1 C.Y.
(hatched)	AREA OF TEMPORARY IMPACT = 0.008 AC.
	VOLUME OF TEMPORARY IMPACT = 12.9 C.Y.

NOTE: WETLAND AREAS LOCATED BEYOND THE LIMITS OF EXCAVATION SLOPES AND PROPOSED ROW SHALL BE PROTECTED.

LEGEND	WETLAND-2 IMPACTS
(cross-hatched)	AREA OF PERMANENT IMPACT = 0.003 AC.
	VOLUME OF PERMANENT IMPACT = 4.1 C.Y.
(hatched)	AREA OF TEMPORARY IMPACT = 0.023 AC.
	VOLUME OF TEMPORARY IMPACT = 36.7 C.Y.

NOTE: WETLAND AREAS LOCATED BEYOND THE LIMITS OF EXCAVATION SLOPES AND PROPOSED ROW SHALL BE PROTECTED.

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DEPARTMENT OF TRANSPORTATION

DRAINAGE MAP

STA. 219+07 TO STA. 239+34
SCALE: 1"=100'

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	17I
P-I-H	2025	STP/HPP-31(12)	24
PS & E	2026	STP/HPP-31(12)	29

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DRAINAGE MAP

SCALE: 1"=100'

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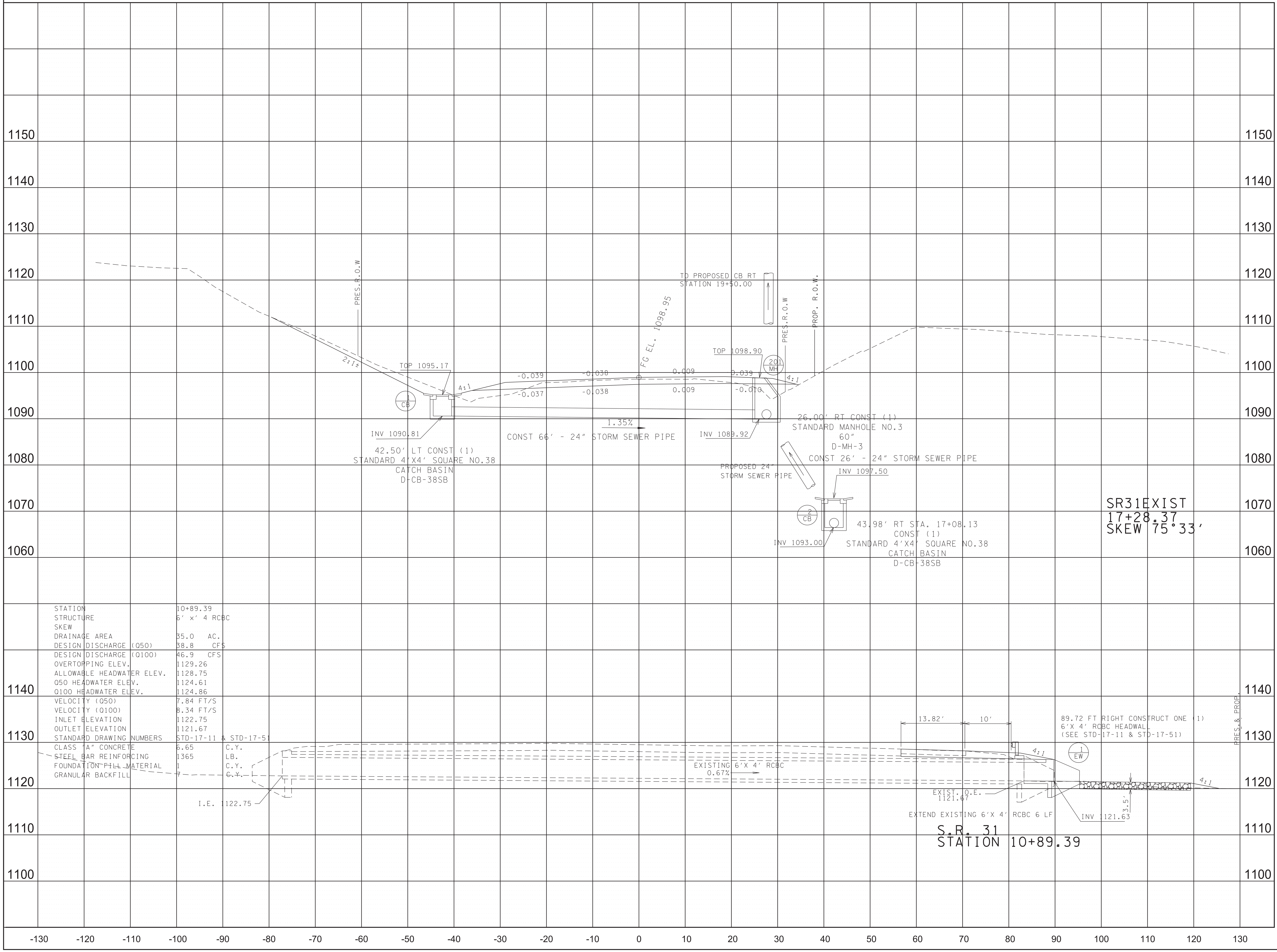
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31(12)	18
P-I-H	2025	STP/HPP-31(12)	25
PS & E	2026	STP/HPP-31(12)	30



STATION	10+89.39	
STRUCTURE	6' x' 4 RCBC	
SKEW		
DRAINAGE AREA	35.0 AC.	
DESIGN DISCHARGE (Q50)	38.8 CFS	
DESIGN DISCHARGE (Q100)	46.9 CFS	
OVERTOPPING ELEV.	1129.26	
ALLOWABLE HEADWATER ELEV.	1128.75	
Q50 HEADWATER ELEV.	1124.61	
Q100 HEADWATER ELEV.	1124.86	
VELOCITY (Q50)	7.84 FT/S	
VELOCITY (Q100)	8.34 FT/S	
INLET ELEVATION	1122.75	
OUTLET ELEVATION	1121.67	
STANDARD DRAWING NUMBERS	STD-17-11 & STD-17-51	
CLASS "A" CONCRETE	6.65	C.Y.
STEEL BAR REINFORCING	1365	LB.
FOUNDATION FILL MATERIAL	1	C.Y.
GRANULAR BACKFILL	7	C.Y.

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

CULVERT SECTIONS

STA. 10+20.18
STA 17+28.37

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

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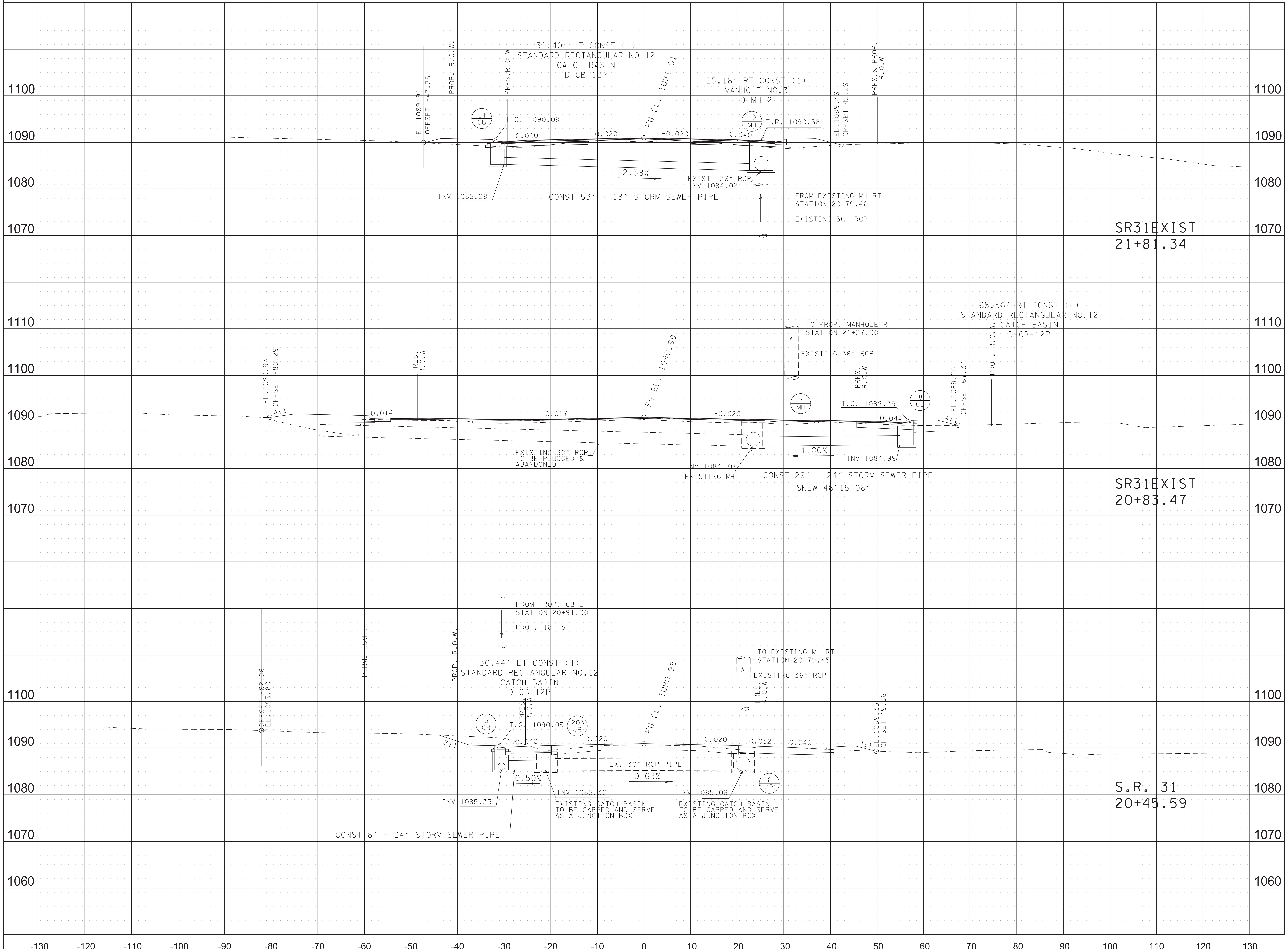
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31(12)	18A
P-I-H	2025	STP/HPP-31(12)	26
PS & E	2026	STP/HPP-31(12)	31



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

CULVERT SECTIONS

STA. 20+45.59
STA. 20+83.47
STA. 21+81.34

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

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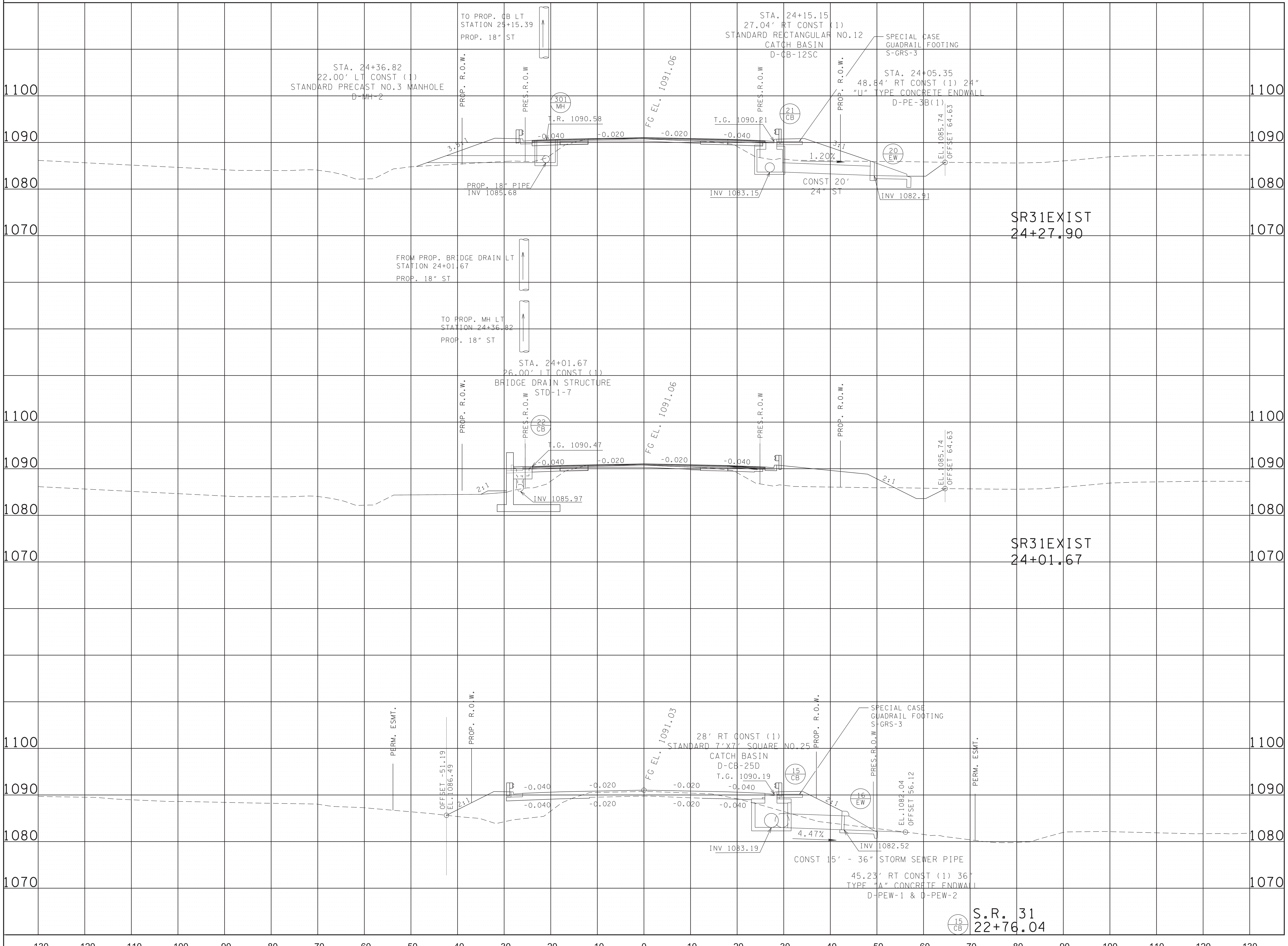
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31(12)	18B
P-I-H	2025	STP/HPP-31(12)	27
PS & E	2026	STP/HPP-31(12)	32

06-17-2024 REVISED STRUCTURE TYPE AT STR-2 CROSSING. REMOVED CULVERT SECTION 23+29.32. REPLACED CULVERT SECTION 23+65.43 WITH CULVERT SECTION 24+01.68



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AGRICULTURE
COMMERCE
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CULVERT SECTIONS

STA. 22+76.04
STA. 24+01.67
STA. 24+27.90

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

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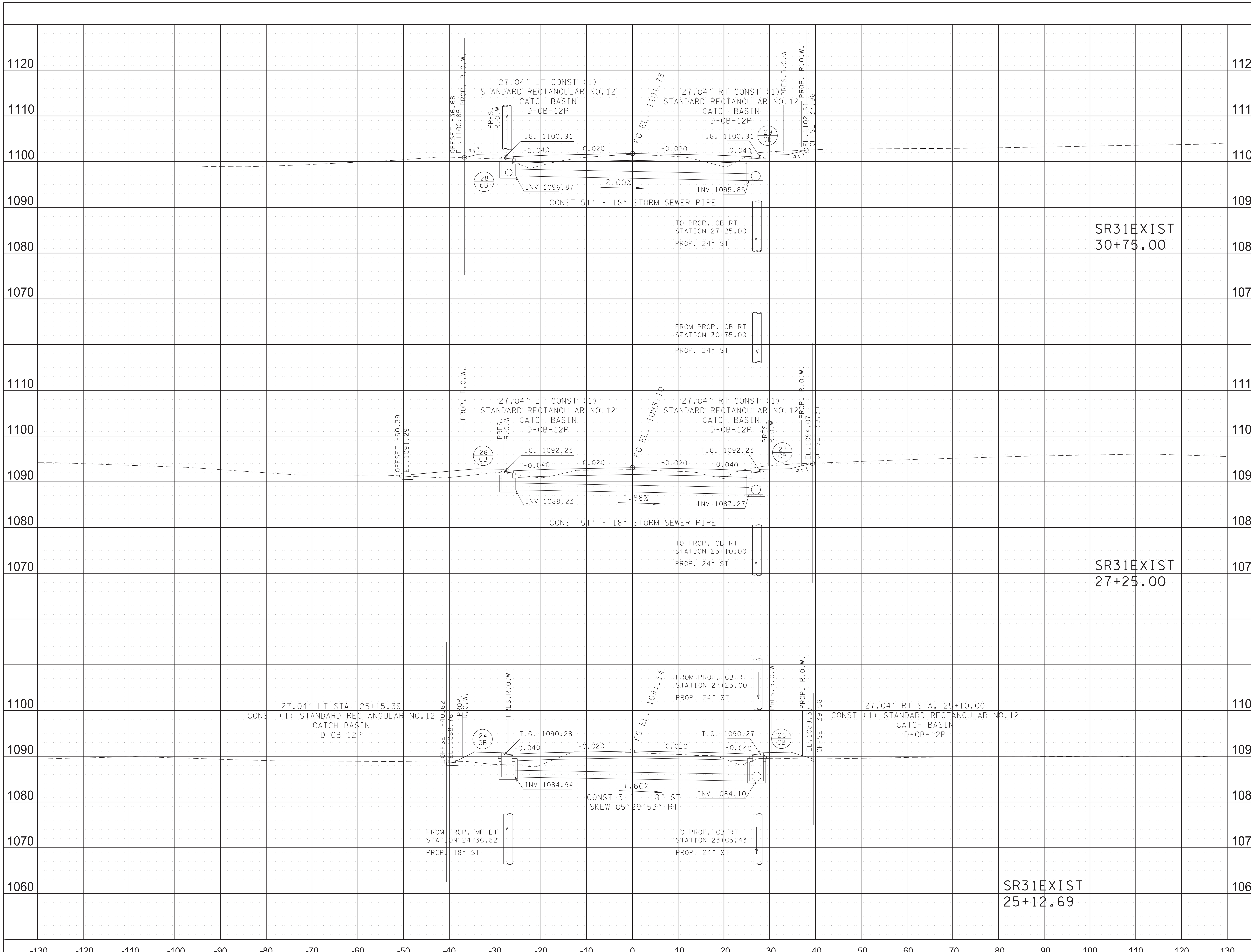
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31(12)	18C
P-I-H	2025	STP/HPP-31(12)	28
PS & E	2026	STP/HPP-31(12)	33



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CULVERT SECTIONS

STA. 25+12.69
STA. 27+25.00
STA. 30+75.00

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

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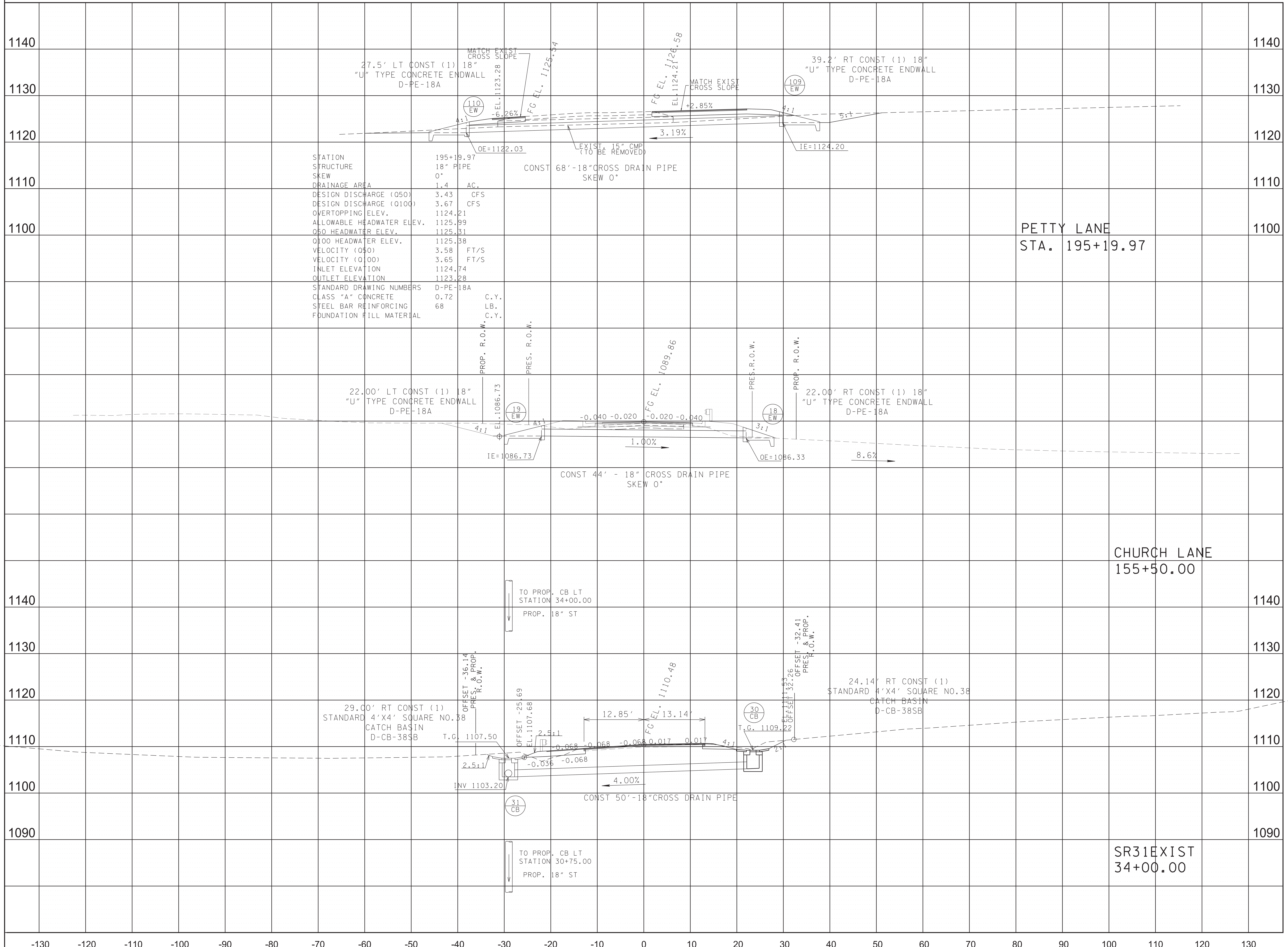
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31(12)	18D
P-I-H	2025	STP/HPP-31(12)	29
PS & E	2026	STP/HPP-31(12)	34



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CULVERT SECTIONS

STA. 34+00.00
STA. 155+50.00
STA. 195+19.97
SCALE: 1"= 10' HORIZ. 1"=10' VERT.

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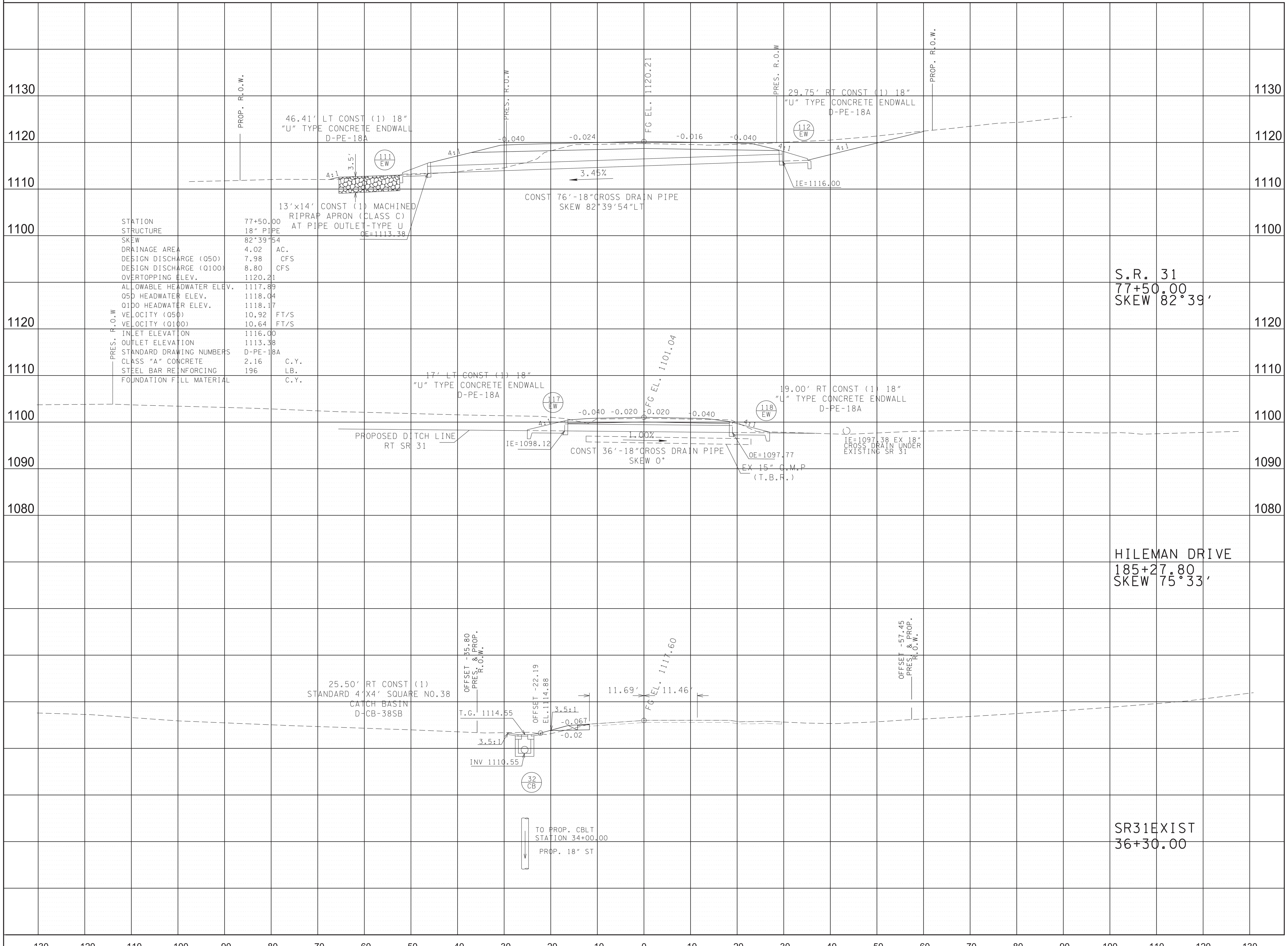
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31(12)	18E
P-I-H.	2025	STP/HPP-31(12)	30
PS & E	2026	STP/HPP-31(12)	35



STATION	77+50.00	
STRUCTURE	18" PIPE	
SKEW	82°39"54	
DRAINAGE AREA	4.02	AC.
DESIGN DISCHARGE (Q50)	7.98	CFS
DESIGN DISCHARGE (Q100)	8.80	CFS
OVERTOPPING ELEV.	1120.21	
ALLOWABLE HEADWATER ELEV.	1117.89	
Q50 HEADWATER ELEV.	1118.04	
Q100 HEADWATER ELEV.	1118.17	
VELOCITY (Q50)	10,92	FT/S
VELOCITY (Q100)	10.64	FT/S
INLET ELEVATION	1116.00	
OUTLET ELEVATION	1113.38	
STANDARD DRAWING NUMBERS	D-PE-18A	
CLASS "A" CONCRETE	2.16	C.Y.
STEEL BAR REINFORCING	196	LB.
FOUNDATION FILL MATERIAL		C.Y.

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CULVERT SECTIONS

STA. 185+27.80
STA. 77+50.00

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

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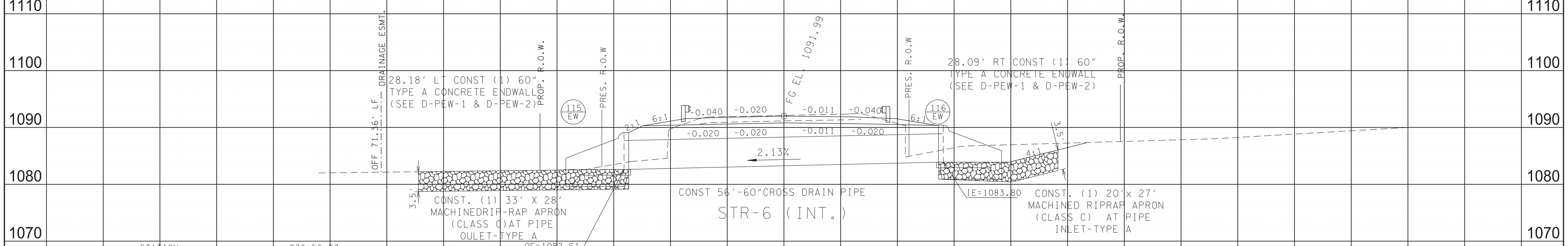
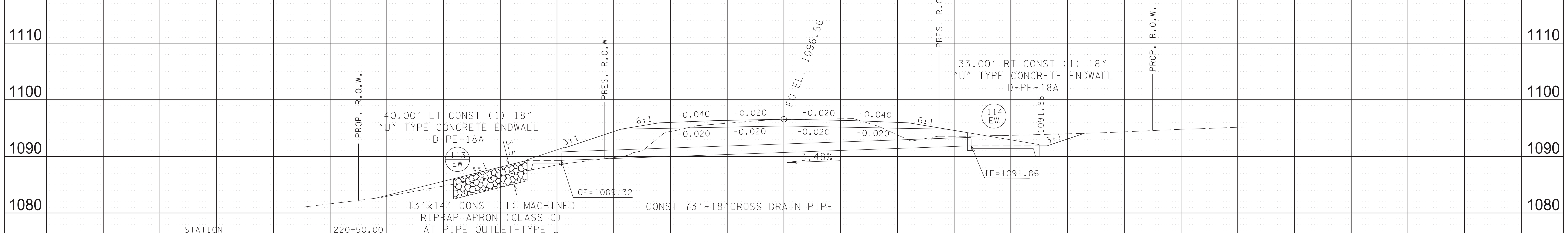
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31(12)	18F
P-I-H	2025	STP/HPP-31(12)	31
PS & E	2026	STP/HPP-31(12)	36



STATION	236+56.23
STRUCTURE	60" PIPE
SKEW	0°
DRAINAGE AREA	25.78 AC.
DESIGN DISCHARGE (Q50)	35.32 CFS
DESIGN DISCHARGE (Q100)	39.48 CFS
OVERTOPPING ELEV.	1091.99
ALLOWABLE HEADWATER ELEV.	1089.87
Q50 HEADWATER ELEV.	1087.07
Q100 HEADWATER ELEV.	1087.20
VELOCITY (Q50)	10.45 FT/S
VELOCITY (Q100)	10.44 FT/S
INLET ELEVATION	1083.80
OUTLET ELEVATION	1082.61
STANDARD DRAWING NUMBERS	D-PEW-1 & D-PEW-2
CLASS "A" CONCRETE	18.14 C.Y.
STEEL BAR REINFORCING	240 LB.
FOUNDATION FILL MATERIAL	152 C.Y.

S.R. 31
236+56.23



STATION	220+50.00
STRUCTURE	18" PIPE
SKEW	0°
DRAINAGE AREA	4.8 AC.
DESIGN DISCHARGE (Q50)	8.37 CFS
DESIGN DISCHARGE (Q100)	9.32 CFS
OVERTOPPING ELEV.	1096.56
ALLOWABLE HEADWATER ELEV.	1093.86
Q50 HEADWATER ELEV.	1093.70
Q100 HEADWATER ELEV.	1093.91
VELOCITY (Q50)	10.48 FT/S
VELOCITY (Q100)	10.82 FT/S
INLET ELEVATION	1091.86
OUTLET ELEVATION	1089.32
STANDARD DRAWING NUMBERS	D-PE-18A
CLASS "A" CONCRETE	1.74 C.Y.
STEEL BAR REINFORCING	216 LB.
FOUNDATION FILL MATERIAL	C.Y.

S.R. 31
220+50.00

-130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100 110 120 130

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CULVERT SECTIONS

STA. 185+28.24
STA. 77+50.00

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

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	21
P-I-H	2025	STP/HPP-31(12)	32
PS & E	2026	STP/HPP-31(12)	37

EPSC 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

(1) 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.

(2) 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.

(3) 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.

(4) 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) 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

(1) REFER TO THE STORM WATER POLLUTION AND PREVENTION PLAN SHEET SERIES (S-1) FOR SWPPP, PERMITS, AND RECORDS NOTES.

GOOD HOUSEKEEPING MEASURES & WASTE DISPOSAL

(2) 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.

(3) 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.

(4) 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.

(5) 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.

(6) 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.

(7) 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.

(8) 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.

(9) 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.

(10) 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.

(11) 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.

(12) 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.

(13) 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.

STREAMS, WETLANDS & BUFFER ZONES

(1) 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.

ENVIRONMENTAL

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

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DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL SPECIAL NOTES

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	21
P-I-H	2025	STP/HPP-31(12)	32
PS & E	2026	STP/HPP-31(12)	38

TABULATED EPSC QUANTITIES

	ITEM NO.	DESCRIPTION	UNIT	STAGE I QUANTITY 37022-2219-14	STAGE II QUANTITY 0	STAGE III QUANTITY 0	TOTAL QUANTITY
(1)(2)	203-01	ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED)	C.Y	467	70		537
(1)	209-08.02	TEMPORARY SILT FENCE (WITH BACKING)	LF	443			443
(1)	209-08.03	TEMPORARY SILT FENCE (WITHOUT BACKING)	LF	2100			2100
(1)	209-08.07	ROCK CHECK DAM PER	EACH		36		36
(3)	209-09.01	SANDBAGS	BAG		1635	3065	4700
	209-09.03	SEDIMENT FILTER BAG (15'X15')	EACH		1	1	2
(1)	209-09.40	CURB INLET PROTECTION TYPE 1	EACH			17	17
(1)	209-10.01	TEMPORARY DEWATERING STRUCTURE	C.Y.		298		298
	209-20.03	POLYETHYLENE SHEETING (6 MIL. MINIMUM)	S.Y.		14	25	39
(1)	209-40.41	CATCH BASIN FILTER ASSEMBLY TYPE 1	EACH		7		7
(1)(4)	303-10.01	MINERAL AGGREGATE (SIZE 57)	TON	239	22		261
(5)	607-39.04	30" PIPE CULVERT (SIDE DRAIN)	L.F.		371		371
(6)	611-07.33	30" ENDWALL (SIDE DRAIN)	EACH	1			1
	621-03.02	18" TEMPORARY DRAINAGE PIPE	L.F.		50	50	100
(1)(7)	709-05.06	MACHINED RIP-RAP (CLASS A-1)	TON	563	6		569
	709-05.09	MACHINED RIP-RAP (CLASS C)	TON		27	27	54
(1)	740-10.03	GEOTEXTILE (TYPE III)	SY	1137			1137
(1)	801-02	SEEDING (WITHOUT MULCH)	UNIT			44	44
(1)	805-12.01	EROSION CONTROL BLANKET (TYPE I)	SY			17432	17432

EROSION PREVENTION AND SEDIMENT CONTROL LEGEND

SYMBOL	ITEM	STD. DWG.
* SF * SF * SF *	SILT FENCE	EC-STR-3B
* SFB * SFB * SFB *	SILT FENCE WITH WIRE BACKING	EC-STR-3C
	ROCK CHECK DAM (V-DITCH)	EC-STR-6
	ROCK CHECK DAM (TRAPEZOIDAL DITCH)	EC-STR-6
	TEMPORARY DIVERSION CHANNEL (DESCRIBE-SIZE AND TYPE OF LINING)	EC-STR-31
	CULVERT PROTECTION (TYPE 1)	EC-STR-11
1	CATCH BASIN FILTER ASSEMBLY (TYPE 1)	EC-STR-41
1	CURB INLET PROTECTION (TYPE 1)	EC-STR-39
SFB	SEDIMENT FILTER BAG	EC-STR-2
* HVF * HVF *	HIGH VISIBILITY FENCE	S-F-1
	TEMPORARY SLOPE DRAIN	EC-STR-27

FOOTNOTES

(1) SEE SUBSECTION OF 209.07 OF THE STANDARD SPECIFICATIONS FOR MAINTENANCE REPLACEMENT. ALL EROSION PREVENTION AND SEDIMENT CONTROL QUANTITIES ARE TO BE USED AS DIRECTED BY THE ENGINEER.

(2) INCLUDED 467 C.Y FOR 15 CULVERT PROTECTION TYPE 1 (15" to 24") AND 70 C.Y FOR TEMPORARY SLOPE DRAIN PIPE.

(3) COST OF PUMP TO BE INCLUDED IN THE COST OF SEDIMENT FILTER BAG.

(4) INCLUDED 217 TON FOR 15 CULVERT PROTECTION TYPE 1 (15" to 24") AND 44 TON TEMPORARY SEDIMENT FILTER BAG AND FLEXIBLE PIPE DIVERSION.

(5) USED FOR TEMPORARY SLOPE DRAIN PIPE. HDPE MATERIAL SHALL BE USED FOR TEMPORARY SLOPE DRAIN PIPE.

(6) USED FOR TEMPORARY SLOPE DRAIN PIPE SAFETY ENDWALL.

(7) INCLUDED 563 TON FOR 15 CULVERT PROTECTION TYPE 1 (15" to 24") AND 6 TON FOR TEMPORARY SLOPE DRAIN PIPE.

OUTFALL INFORMATION

OUTFALL NO.	STATION	OFFSET	LOCATION	DRAIN. AREA (AC)	SLOPE WITHIN ROW (%)	SEDIMENT BASIN OR EQUIVALENT MEASURE(S) (YES, NO OR NA)	RECEIVING NATURAL RESOURCE NAME OR LABEL
1	22+96.06	43.00' RT.	SR 31	15.45	6.50	YES	STR - 2
2	23+38.63	33.50' RT	SR 31	2.68	0.50	NO	STR - 2
3	24+60.54	21.67' LT	SR 31	1.21	1.80	YES	STR - 2
4	46+10.25	18.93' RT	SR 31	1.40	2.00	YES	STR - 2
5	69+76.54	37.24' LT	SR 31	7.54	1.50	YES	STR - 4
6	69+72.90	27.22' RT	SR 31	4.23	2.70	YES	STR - 3
7	188+30.00	16.54' LT	HELTON LN	0.94	3.00	YES	STR - 3
8	77+42.26	57.71' LT	SR 31	4.02	3.30	YES	STR - 4
9	220+49.17	62.28' LT	SR 31	4.80	0.50	YES	WETLAND - 3
10	224+84.60	84.26' LT	SR 31	0.56	0.50	YES	WETLAND - 3
11	230+83.04	76.85' LT	SR 31	1.90	0.50	YES	STR - 5
12	228+89.43	48.90' RT	SR 31	1.36	0.50	YES	STR - 5
13	231+20.72	50.14' RT	SR 31	1.35	1.40	YES	STR - 5
14	23+58.31	56.61' RT	SR 31	18.80	1.80	YES	STR- 2
15	236+56.23	43.23' LT	SR 31	25.78	1.00	YES	STR- 6 INT. & PER.

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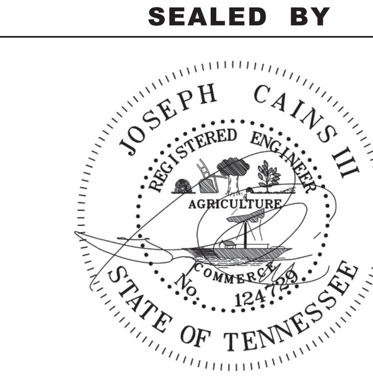

04/14/2026

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL LEGEND AND TABULATION

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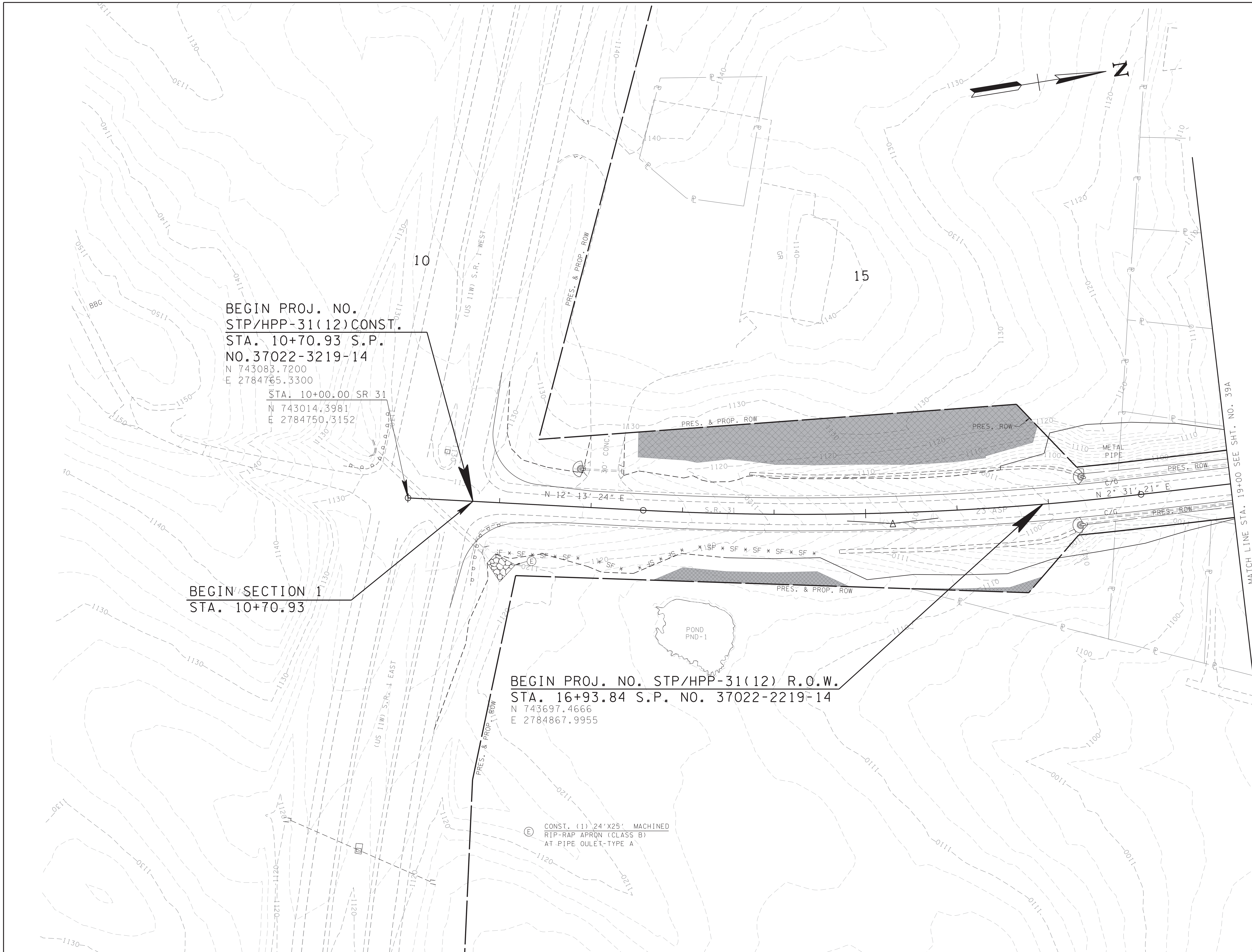
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	21A
P-I-H	2025	STP/HPP-31(12)	33
PS & E	2026	STP/HPP-31(12)	39



LEGEND:

Existing countours:	— xxxx —
Undisturbed Area:	(shaded)

STAGE 1
CLEARING AND GRUBBING

SEALED BY

JOSEPH CAINS III
REGISTERED ENGINEER
AGRICULTURE COMMERCE
STATE OF TENNESSEE

04/14/2026

COORDINATES ARE NAD 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00006 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WITH GEOID 99 .

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLANS

STA. 10+00 TO STA. 19+00
SCALE: 1" =50'

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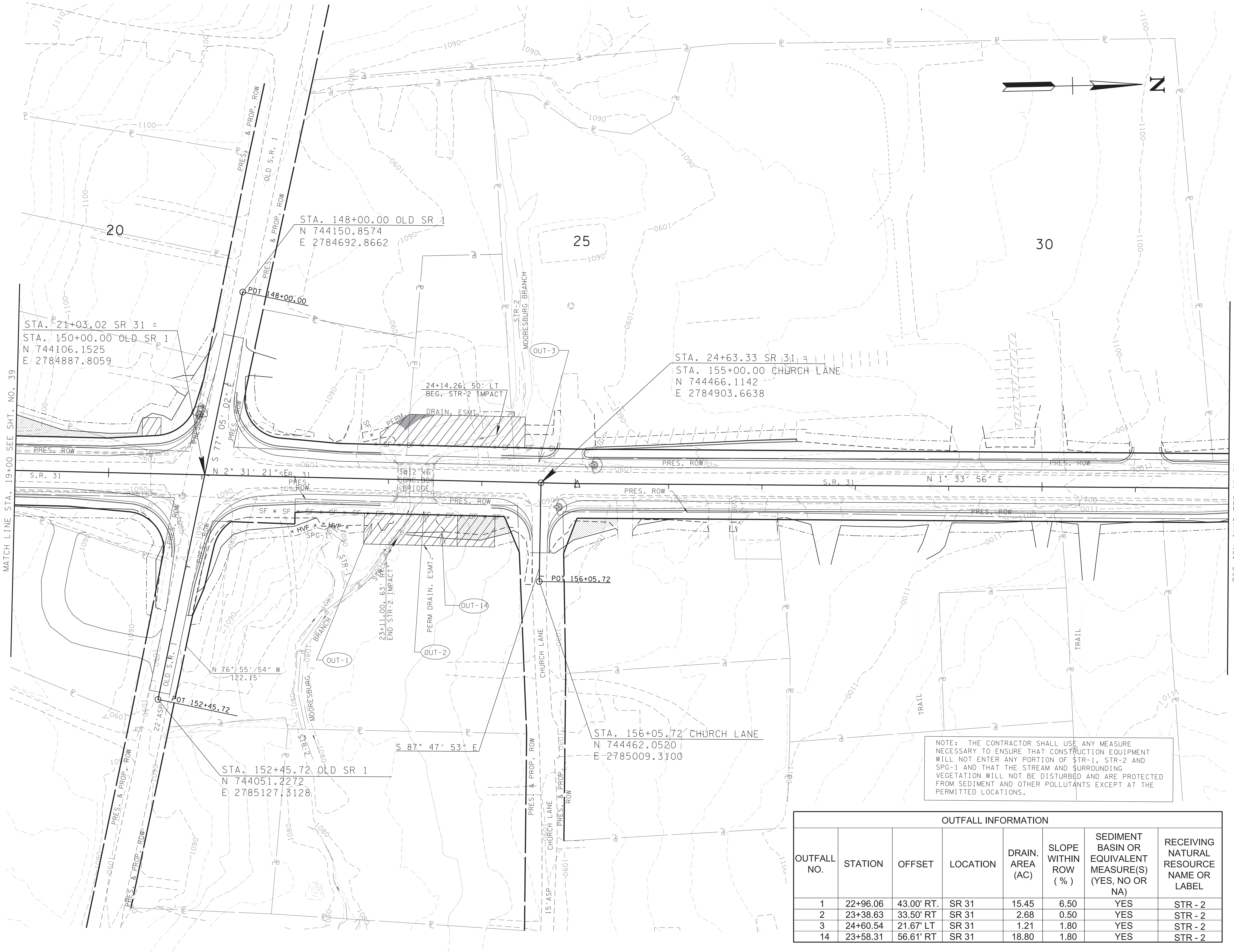
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	21B
P-I-H	2025	STP/HPP-31(12)	34
PS & E	2026	STP/HPP-31(12)	39A



06-17-2024 REVISED STRUCTURE TYPE AT STR-2 CROSSING.

09-06-2024 TRACT 4A: ADDED 1SF TO FEE SIMPLE TOTAL. TRACT 11: REMOVED TCE FROM THE NORTH SIDE OF THE ENTRANCE. TRACT 28: CORRECTED THE TOTAL ACREAGE AND AREA REMAINING.

LEGEND:

Existing countours: — — XXXX — —

STAGE 1 CLEARING AND GRUBBING

NOTE: THE CONTRACTOR SHALL USE ANY MEASURE NECESSARY TO ENSURE THAT CONSTRUCTION EQUIPMENT WILL NOT ENTER ANY PORTION OF STR-1, STR-2 AND SPG-1 AND THAT THE STREAM AND SURROUNDING VEGETATION WILL NOT BE DISTURBED AND ARE PROTECTED FROM SEDIMENT AND OTHER POLLUTANTS EXCEPT AT THE PERMITTED LOCATIONS.

OUTFALL INFORMATION

OUTFALL NO.	STATION	OFFSET	LOCATION	DRAIN. AREA (AC)	SLOPE WITHIN ROW (%)	SEDIMENT BASIN OR EQUIVALENT MEASURE(S) (YES, NO OR NA)	RECEIVING NATURAL RESOURCE NAME OR LABEL
1	22+96.06	43.00' RT.	SR 31	15.45	6.50	YES	STR - 2
2	23+38.63	33.50' RT	SR 31	2.68	0.50	YES	STR - 2
3	24+60.54	21.67' LT	SR 31	1.21	1.80	YES	STR - 2
14	23+58.31	56.61' RT	SR 31	18.80	1.80	YES	STR - 2

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AGRICULTURE
STATE OF TENNESSEE

04/14/2026

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLANS

STA. 19+00 TO STA. 32+00
SCALE: 1" =50'

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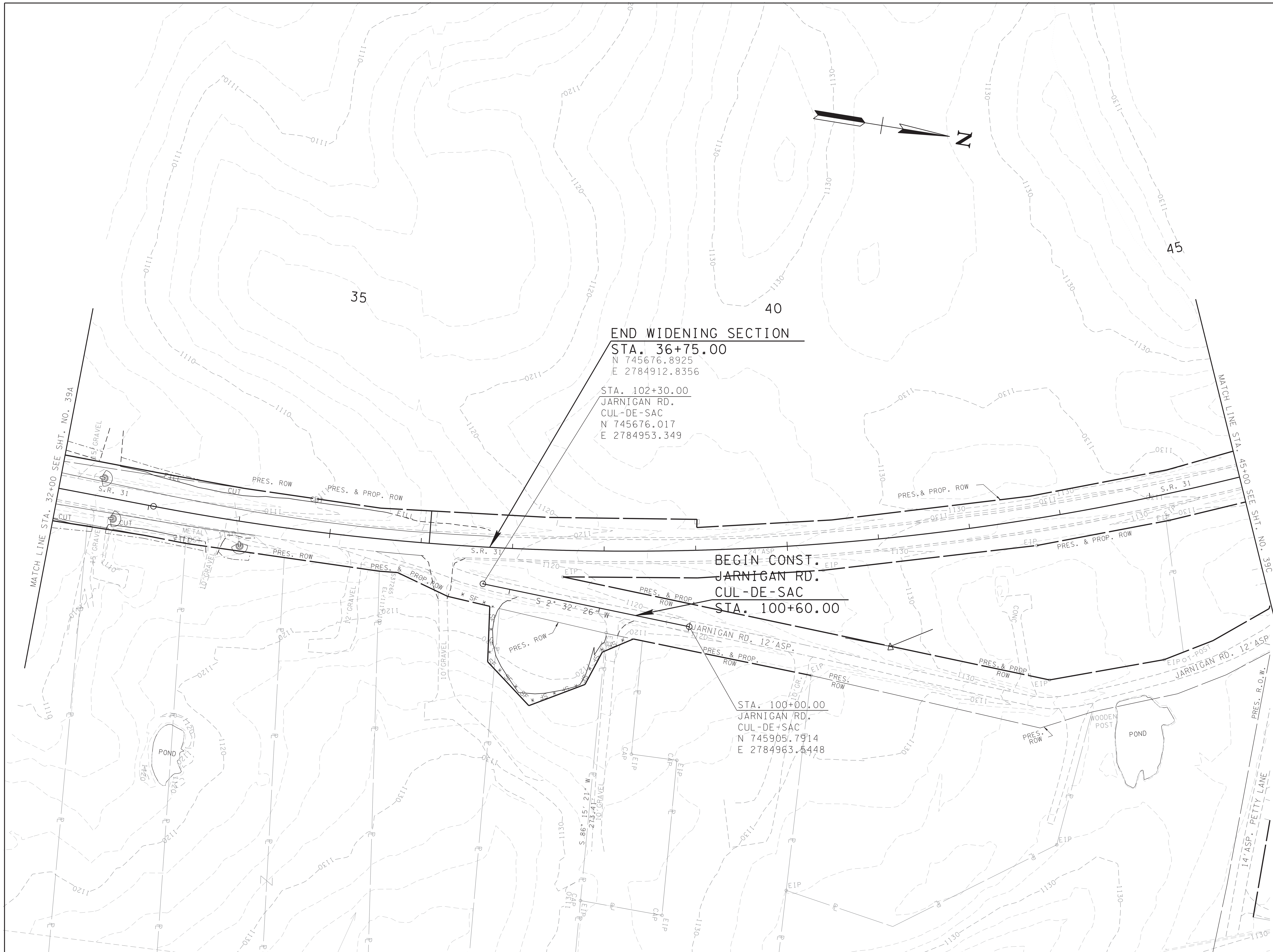
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	21C
P-I-H	2025	STP/HPP-31(12)	35
PS & E	2026	STP/HPP-31(12)	39B



LEGEND:

Existing countours: — — xxxx— —

STAGE 1
CLEARING AND
GRUBBING

SEALED BY

JOSEPH CAINS III
REGISTERED ENGINEER
STATE OF TENNESSEE

04/14/2026

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION
PREVENTION
AND SEDIMENT
CONTROL PLANS

STA. 32+00 TO STA. 45+00
SCALE: 1" =50'

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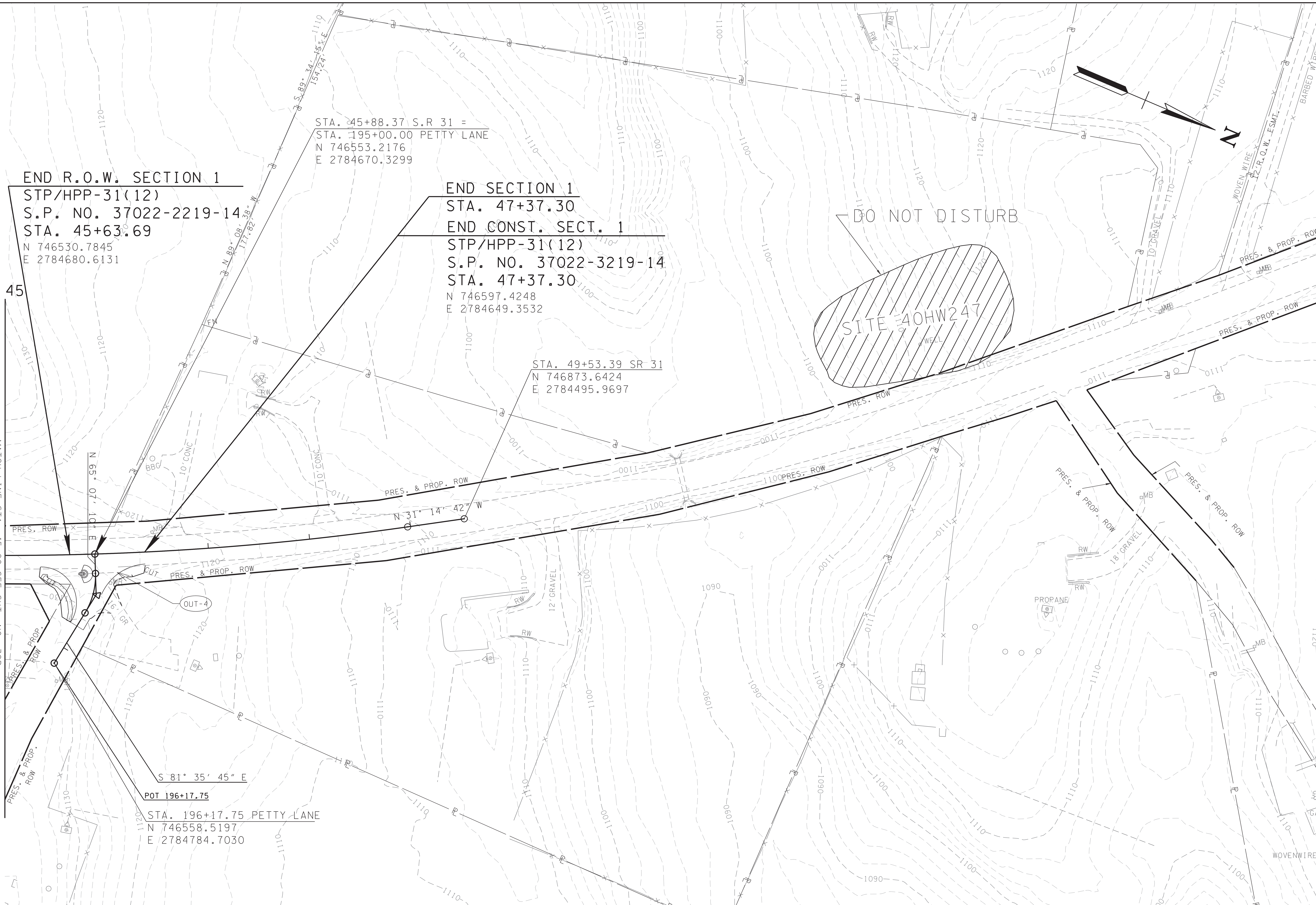
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	21D
P-I-H	2025	STP/HPP-31(12)	36
PS & E	2026	STP/HPP-31(12)	39C



LEGEND:

Existing countours: — — XXXX — —

Undisturbed Area:

STAGE 1
CLEARING AND
GRUBBING

SEALED BY

JOSEPH CAINS III
REGISTERED ENGINEER
STATE OF TENNESSEE

04/14/2026

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLANS

STA. 45+00 TO STA. 49+00
SCALE: 1" =50'

OUTFALL INFORMATION

OUTFALL NO.	STATION	OFFSET	LOCATION	DRAIN. AREA (AC)	SLOPE WITHIN ROW (%)	SEDIMENT BASIN OR EQUIVALENT MEASURE(S) (YES, NO OR NA)	RECEIVING NATURAL RESOURCE NAME OR LABEL
4	46+10.25	18.93' RT	SR 31	1.40	2.00	YES	STR - 2

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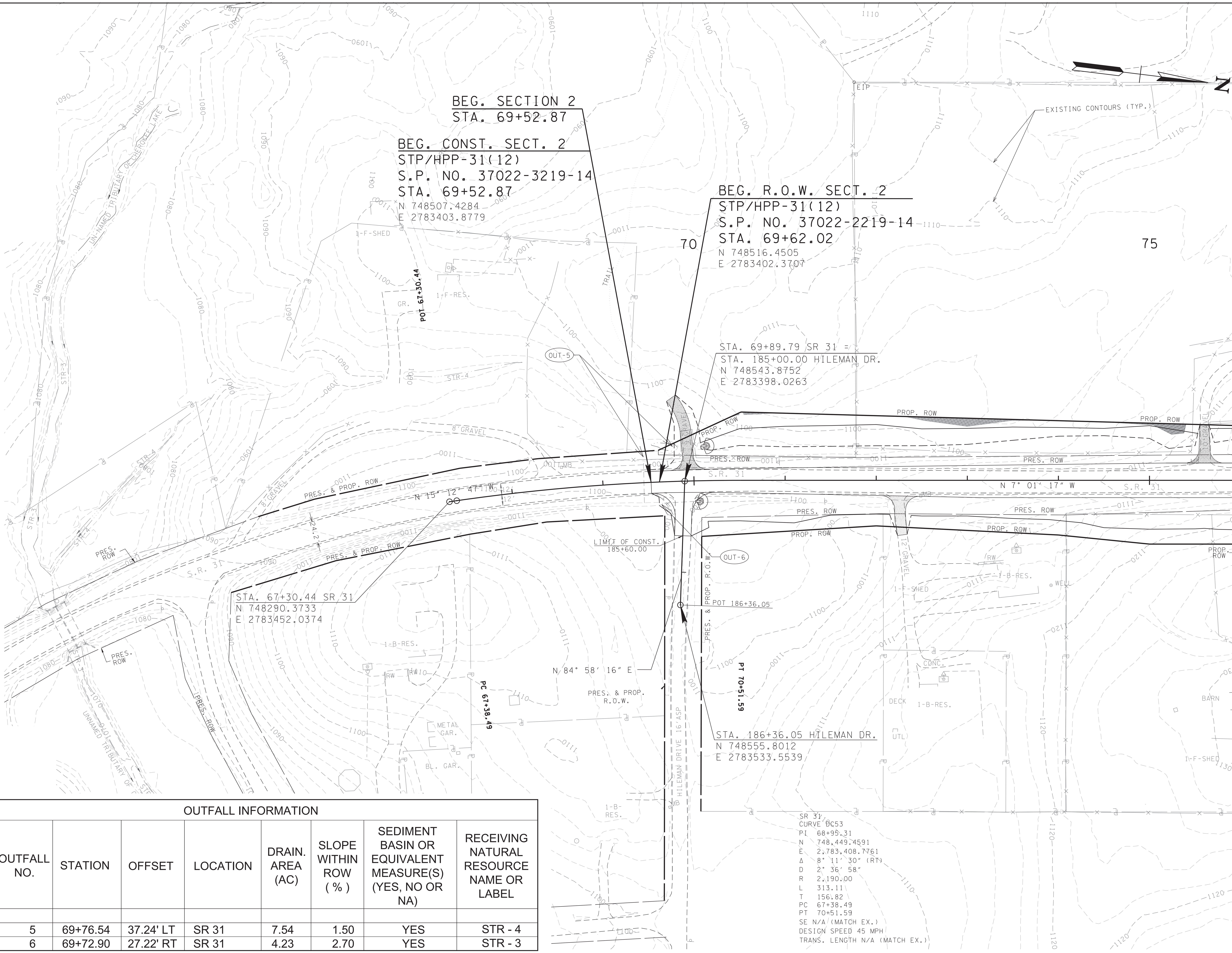
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	21E
P-I-H	2025	STP/HPP-31(12)	36A
PS & E	2026	STP/HPP-31(12)	39D



OUTFALL INFORMATION

OUTFALL NO.	STATION	OFFSET	LOCATION	DRAIN. AREA (AC)	SLOPE WITHIN ROW (%)	SEDIMENT BASIN OR EQUIVALENT MEASURE(S) (YES, NO OR NA)	RECEIVING NATURAL RESOURCE NAME OR LABEL
5	69+76.54	37.24' LT	SR 31	7.54	1.50	YES	STR - 4
6	69+72.90	27.22' RT	SR 31	4.23	2.70	YES	STR - 3

LEGEND:

Existing countours:	— — xxxx — —
Undisturbed Area:	

STAGE 1
CLEARING AND
GRUBBING

SEALED BY

JOSEPH CAINS III
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 121769
STATE OF TENNESSEE

04/14/2026

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION
PREVENTION
AND SEDIMENT
CONTROL PLANS
STA. 67+30 TO STA. 76+00
SCALE: 1" =50'

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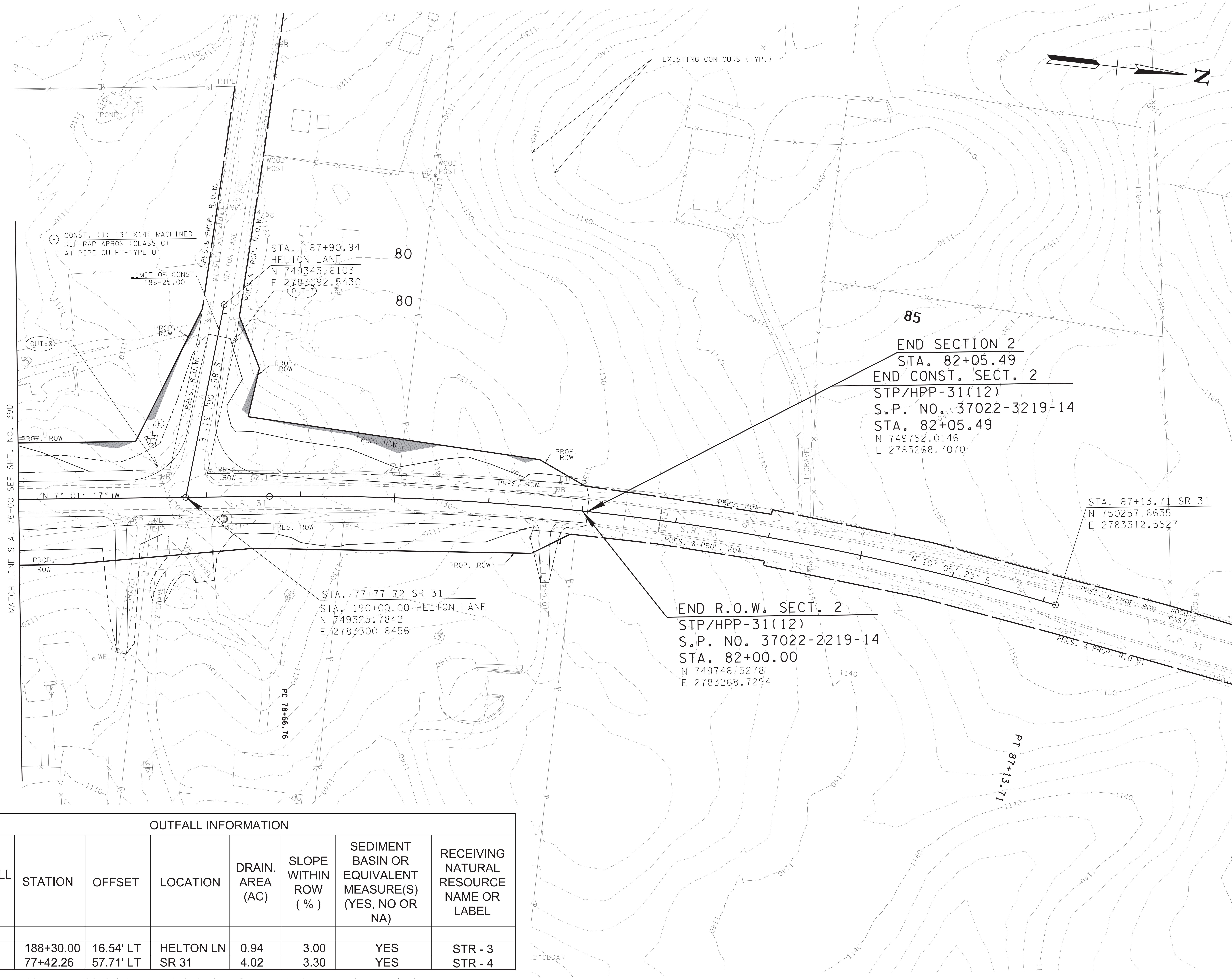
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	21F
P-I-H	2025	STP/HPP-31(12)	36B
PS & E	2026	STP/HPP-31(12)	39E



OUTFALL INFORMATION

OUTFALL NO.	STATION	OFFSET	LOCATION	DRAIN. AREA (AC)	SLOPE WITHIN ROW (%)	SEDIMENT BASIN OR EQUIVALENT MEASURE(S) (YES, NO OR NA)	RECEIVING NATURAL RESOURCE NAME OR LABEL
7	188+30.00	16.54' LT	HELTON LN	0.94	3.00	YES	STR - 3
8	77+42.26	57.71' LT	SR 31	4.02	3.30	YES	STR - 4

LEGEND:

Existing countours: — — XXXX —

Undisturbed Area:

STAGE 1
CLEARING AND GRUBBING

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04/14/2026

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLANS

STA. 76+00 TO STA. 87+14
SCALE: 1" =50'

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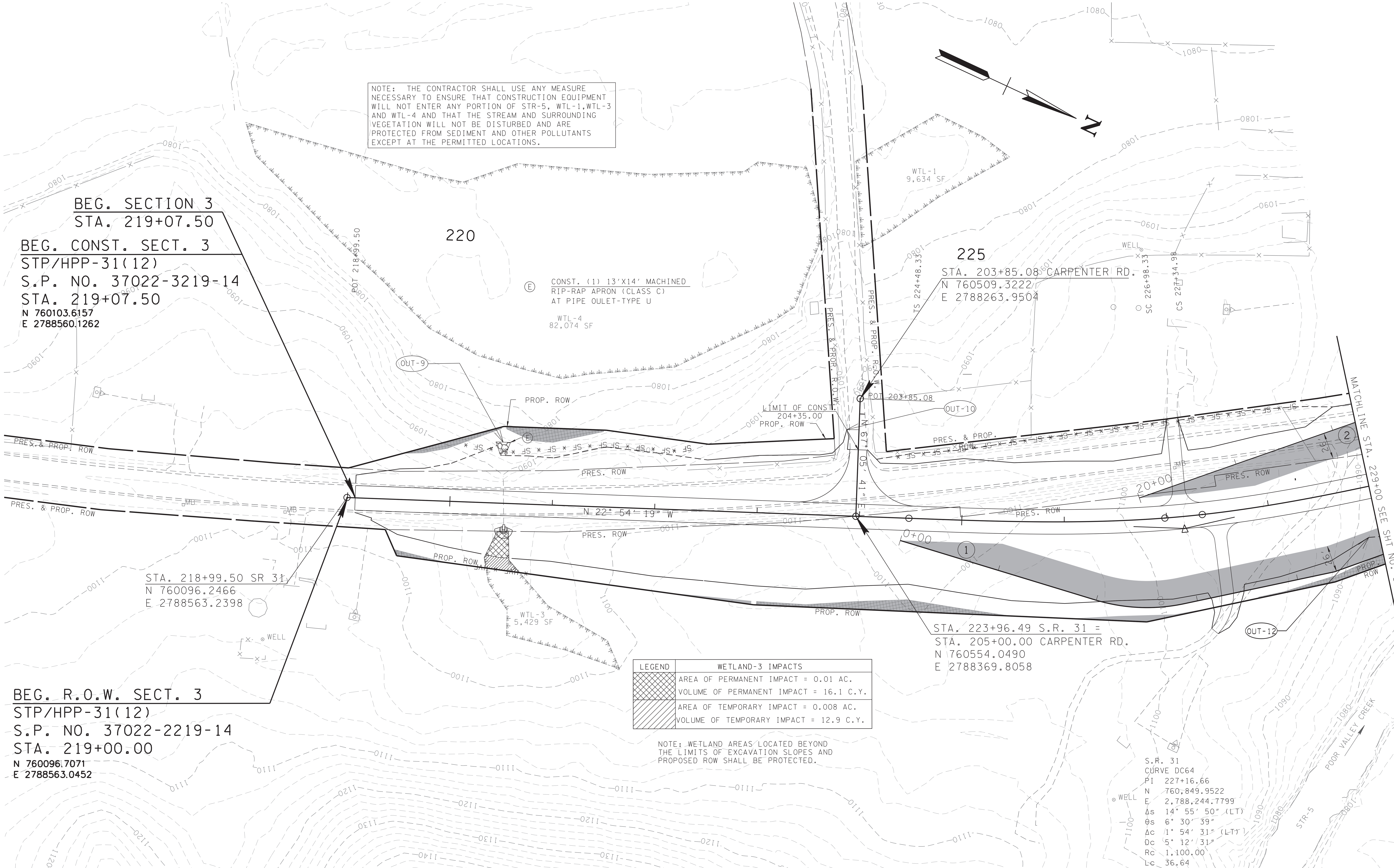
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	21G
P-I-H	2025	STP/HPP-31(12)	36C
PS & E	2026	STP/HPP-31(12)	39F



LEGEND	WETLAND-3 IMPACTS
(cross-hatch)	AREA OF PERMANENT IMPACT = 0.01 AC.
	VOLUME OF PERMANENT IMPACT = 16.1 C.Y.
(hatch)	AREA OF TEMPORARY IMPACT = 0.008 AC.
	VOLUME OF TEMPORARY IMPACT = 12.9 C.Y.

NOTE: WETLAND AREAS LOCATED BEYOND THE LIMITS OF EXCAVATION SLOPES AND PROPOSED ROW SHALL BE PROTECTED.

LEGEND:

- Existing countours: —xxxx—
- Proposed Contours: —xxxx—
- Undisturbed Area:
- Proposed Haul Road Area:

NOTES:
PHASE 1, USE (1) HAUL ROADS
PHASE 2, USE (2) HAUL ROADS

S.R. 31
CURVE DC64
PI 227+16.66
N 760,849.9522
E 2,788,244.7799
Δs 14° 55' 50" (LT)
θs 6° 30' 39"
Δc 1° 54' 31" (LT)
Dc 5° 12' 31"
Rc 1,100.00
Lc 36.64
Ts 269.39
Ls 250.00
TS 224+48.33
SC 226+98.33
CS 227+34.98
ST 229+84.98
SE 0.078 FT/FT
DESIGN SPEED 55 MPH
TRANS. LENGTH 250

GENERAL WETLAND NOTES:

1. REMOVE THE TOP 12 INCHES OF TOPSOIL AND STOCKPILE IT UNTIL CONSTRUCTION IS COMPLETE.
2. ONCE CONSTRUCTION ACTIVITIES ARE COMPLETED, RESTORE ALL TEMPORARY WETLAND IMPACT AREAS TO PRE-CONSTRUCTION CONDITIONS. THIS INCLUDES REMOVING HAUL ROADS (IF APPLICABLE), RESTORING THE SITE TO THE ORIGINAL (PRE-CONSTRUCTION) ELEVATION, AND SPREADING STOCKPILED TOPSOIL BACK OVER THE WETLAND SITE.
3. THE AREA OF TEMPORARY IMPACTS WILL BE STABILIZED WITH WETLAND SEED MIXTURE 801-01-36 ONLY.

OUTFALL INFORMATION

OUTFALL NO.	STATION	OFFSET	LOCATION	DRAIN. AREA (AC)	SLOPE WITHIN ROW (%)	SEDIMENT BASIN OR EQUIVALENT MEASURE(S) (YES, NO OR NA)	RECEIVING NATURAL RESOURCE NAME OR LABEL
9	220+49.17	62.28' LT	SR 31	4.80	0.50	YES	WETLAND - 3
10	224+84.60	84.26' LT	SR 31	0.56	0.50	YES	WETLAND - 3
12	228+89.43	48.9' RT	SR 31	1.36	0.50	YES	STR - 5

STAGE 1 CLEARING AND GRUBBING

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STATE OF TENNESSEE
04/14/2026

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLANS

STA. 219+00 TO STA. 229+00
SCALE: 1" =50'

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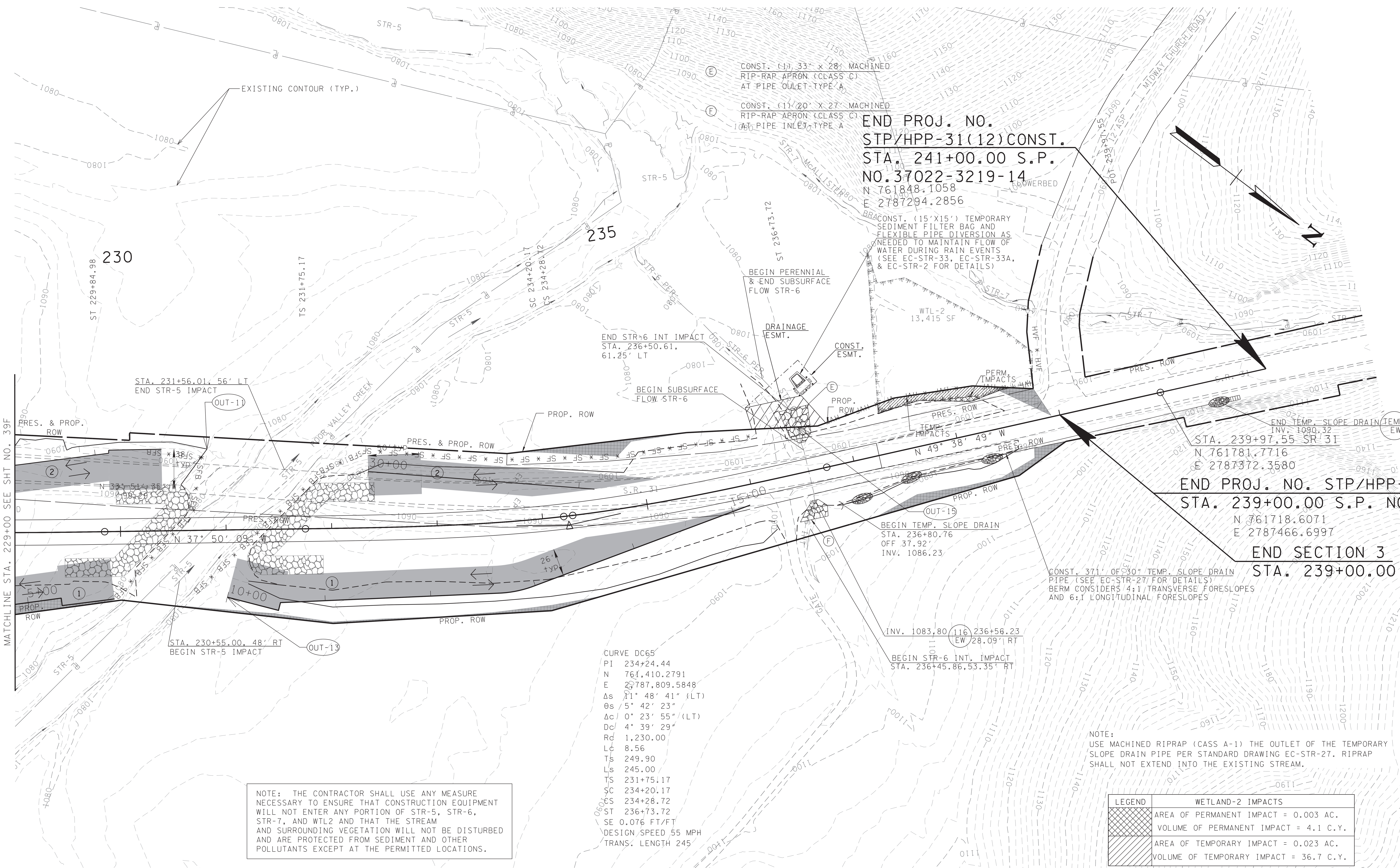
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	21H
P-I-H	2025	STP/HPP-31(12)	36D
PS & E	2026	STP/HPP-31(12)	39G



LEGEND	WETLAND-2 IMPACTS
(permanent)	AREA OF PERMANENT IMPACT = 0.003 AC.
	VOLUME OF PERMANENT IMPACT = 4.1 C.Y.
(temporary)	AREA OF TEMPORARY IMPACT = 0.023 AC.
	VOLUME OF TEMPORARY IMPACT = 36.7 C.Y.

LEGEND:

Existing countours:	---xxxx---
Proposed Contours:	---xxxx---
Undisturbed Area:	
Proposed Haul Road Area:	

NOTES:
PHASE 1, USE (1) HAUL ROADS
PHASE 2, USE (2) HAUL ROADS

STAGE 1 CLEARING AND GRUBBING

OUTFALL INFORMATION

OUTFALL NO.	STATION	OFFSET	LOCATION	DRAIN. AREA (AC)	SLOPE WITHIN ROW (%)	SEDIMENT BASIN OR EQUIVALENT MEASURE(S) (YES, NO OR NA)	RECEIVING NATURAL RESOURCE NAME OR LABEL
11	230+83.04	76.85' LT	SR 31	1.90	0.50	YES	STR - 5
13	231+20.72	50.14' RT	SR 31	1.35	1.40	YES	STR - 5
15	236+56.23	43.23' LT	SR 31	25.78	1.00	YES	STR- 6 INT. & PER.

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04/14/2026

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLANS

STA. 229+00 TO STA. 239+98
SCALE: 1" =50'

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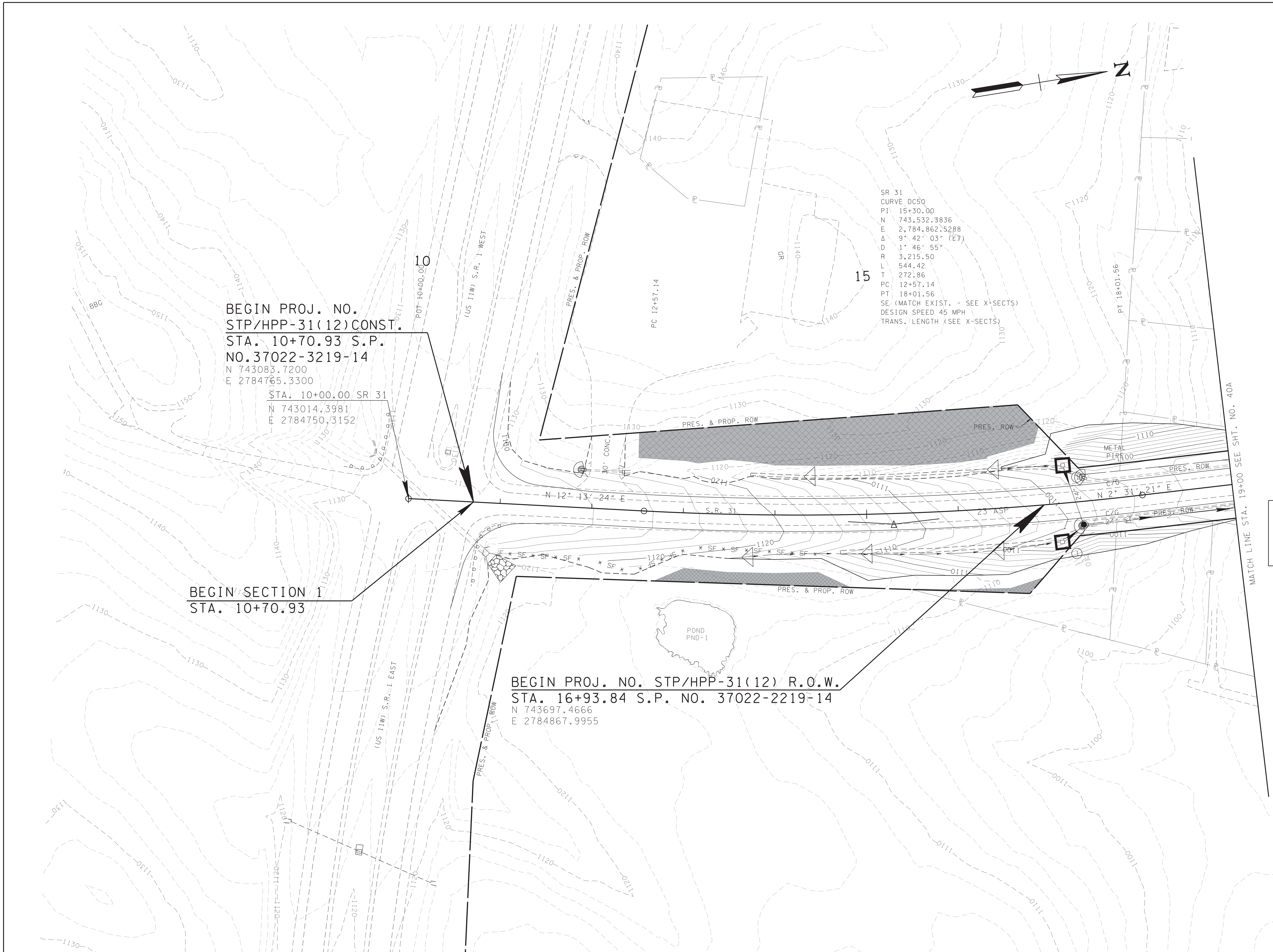
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	21A
P-I-H	2025	STP/HPP-31(12)	33
PS & E	2026	STP/HPP-31(12)	40



STAGE 2
INTERMIATE
GRADING

SEALED BY

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REGISTERED ENGINEER
AGRICULTURE
COMMERCE
STATE OF TENNESSEE

04/14/2026

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLANS

STA. 10+00 TO STA. 19+00
SCALE: 1" =50'

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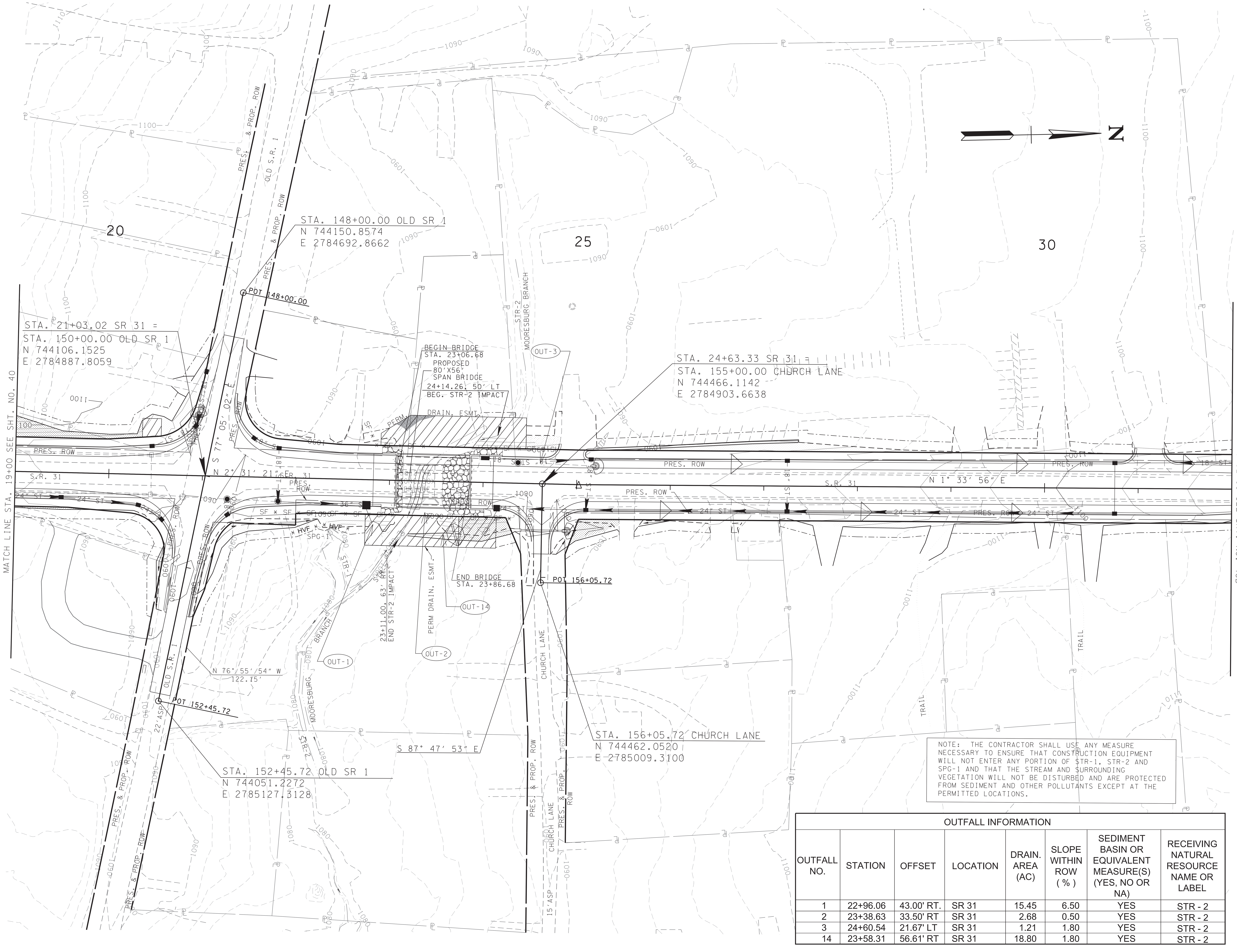
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	21B
P-I-H	2025	STP/HPP-31(12)	34
PS & E	2026	STP/HPP-31(12)	40A



06-17-2024 REVISED STRUCTURE TYPE AT STR-2 CROSSING.

09-06-2024 TRACT 4A: ADDED 1SF TO FEE SIMPLE TOTAL. TRACT 11: REMOVED TCE FROM THE NORTH SIDE OF THE ENTRANCE. TRACT 28: CORRECTED THE TOTAL ACREAGE AND AREA REMAINING.

LEGEND:

Existing countours: XXXX
Proposed Contours: XXXX
Undisturbed Area:
Permanent Drainage Easement Area:

NOTE: THE CONTRACTOR SHALL USE ANY MEASURE NECESSARY TO ENSURE THAT CONSTRUCTION EQUIPMENT WILL NOT ENTER ANY PORTION OF STR-1, STR-2 AND SPG-1 AND THAT THE STREAM AND SURROUNDING VEGETATION WILL NOT BE DISTURBED AND ARE PROTECTED FROM SEDIMENT AND OTHER POLLUTANTS EXCEPT AT THE PERMITTED LOCATIONS.

OUTFALL INFORMATION

OUTFALL NO.	STATION	OFFSET	LOCATION	DRAIN. AREA (AC)	SLOPE WITHIN ROW (%)	SEDIMENT BASIN OR EQUIVALENT MEASURE(S) (YES, NO OR NA)	RECEIVING NATURAL RESOURCE NAME OR LABEL
1	22+96.06	43.00' RT.	SR 31	15.45	6.50	YES	STR - 2
2	23+38.63	33.50' RT	SR 31	2.68	0.50	YES	STR - 2
3	24+60.54	21.67' LT	SR 31	1.21	1.80	YES	STR - 2
14	23+58.31	56.61' RT	SR 31	18.80	1.80	YES	STR - 2

STAGE 2
INTERMEDIATE
GRADING

SEALED BY

JOSEPH CAINS III
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
STATE OF TENNESSEE

04/14/2026

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLANS

STA. 19+00 TO STA. 32+00
SCALE: 1" =50'

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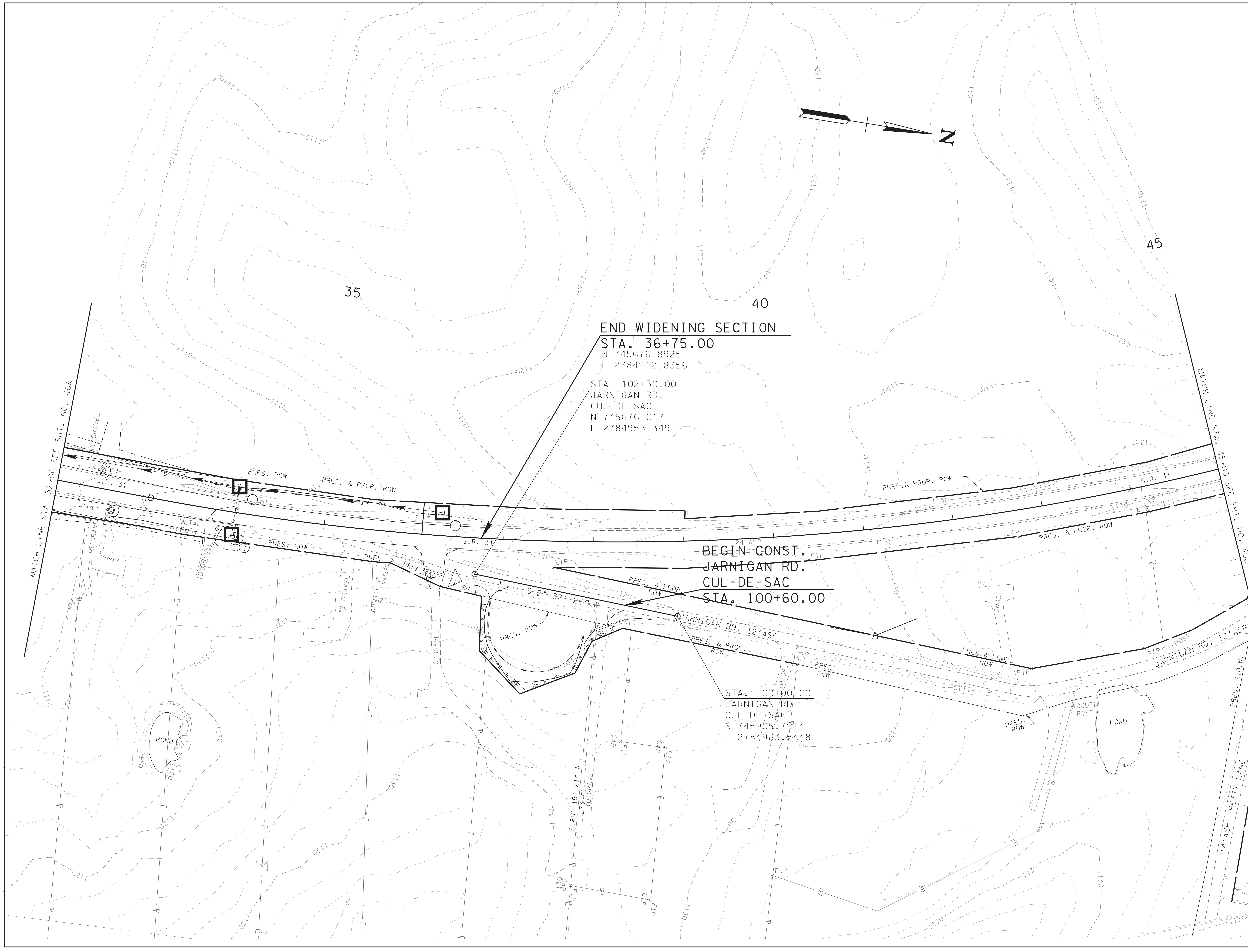
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	21C
P-I-H	2025	STP/HPP-31(12)	35
PS & E	2026	STP/HPP-31(12)	40B



LEGEND:

Existing countours: — — xxxx— —

Proposed Contours: ———xxxx———

Undisturbed Area:

STAGE 2 INTERMEDIATE GRADING

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AGRICULTURE
COMMERCE
STATE OF TENNESSEE

04/14/2026

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLANS

STA. 32+00 TO STA. 45+00
SCALE: 1" =50'

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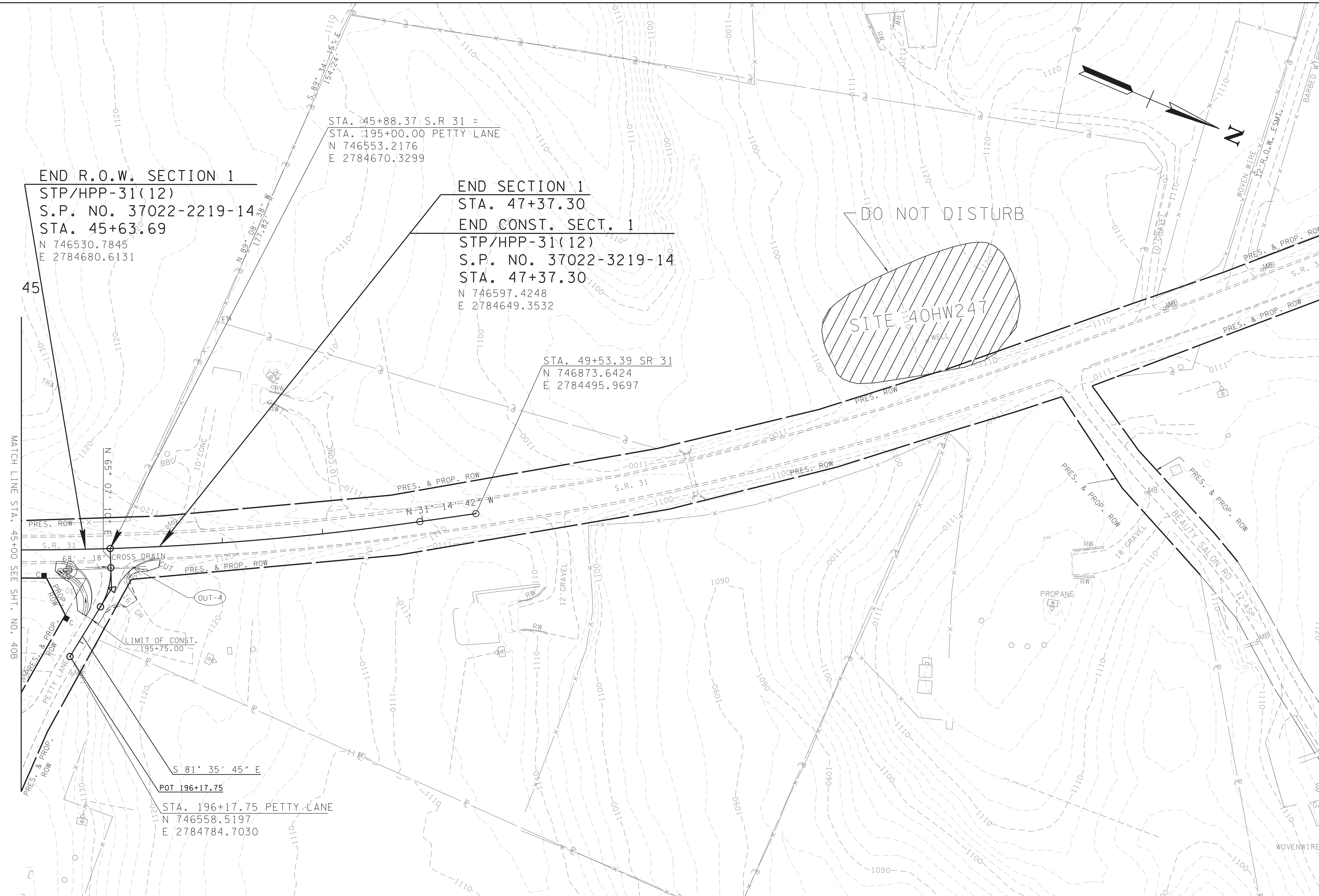
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	21D
P-I-H	2025	STP/HPP-31(12)	36
PS & E	2026	STP/HPP-31(12)	40C



LEGEND:

Existing countours: — — xxxx — —

OUTFALL INFORMATION							
OUTFALL NO.	STATION	OFFSET	LOCATION	DRAIN. AREA (AC)	SLOPE WITHIN ROW (%)	SEDIMENT BASIN OR EQUIVALENT MEASURE(S) (YES, NO OR NA)	RECEIVING NATURAL RESOURCE NAME OR LABEL
4	46+10.25	18.93' RT	SR 31	1.40	2.00	YES	STR - 2

STAGE 2
INTERMEDIATE
GRADING

SEALED BY

JOSEPH CAINS III
REGISTERED ENGINEER
AGRICULTURE COMMERCE
STATE OF TENNESSEE

04/14/2026

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLANS

STA. 45+00 TO STA. 49+00
SCALE: 1" =50'

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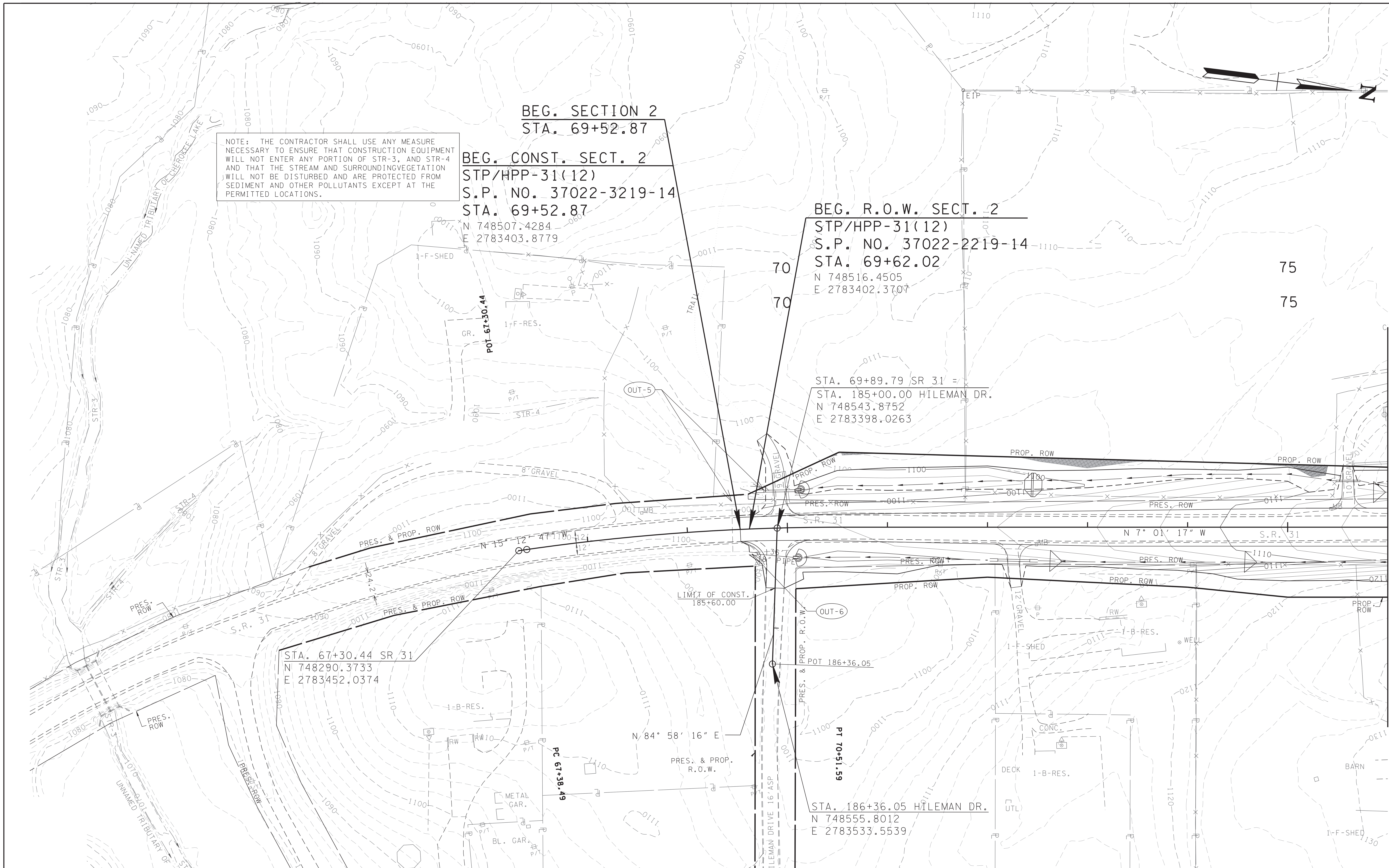
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	21A
P-I-H	2025	STP/HPP-31(12)	36A
PS & E	2026	STP/HPP-31(12)	40D



OUTFALL INFORMATION

OUTFALL NO.	STATION	OFFSET	LOCATION	DRAIN. AREA (AC)	SLOPE WITHIN ROW (%)	SEDIMENT BASIN OR EQUIVALENT MEASURE(S) (YES, NO OR NA)	RECEIVING NATURAL RESOURCE NAME OR LABEL
5	69+76.54	37.24' LT	SR 31	7.54	1.50	YES	STR - 4
6	69+72.90	27.22' RT	SR 31	4.23	2.70	YES	STR - 3

LEGEND:

Existing countours: ——xxxx——

Proposed Contours: ——xxxx——

Undisturbed Area:

STAGE 2
INTERMEDIATE
GRUBBING

SEALED BY

JOSEPH CAINS III
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
STATE OF TENNESSEE

04/14/2026

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION
PREVENTION
AND SEDIMENT
CONTROL PLANS

STA. 67+30 TO STA. 76+00
SCALE: 1" =50'

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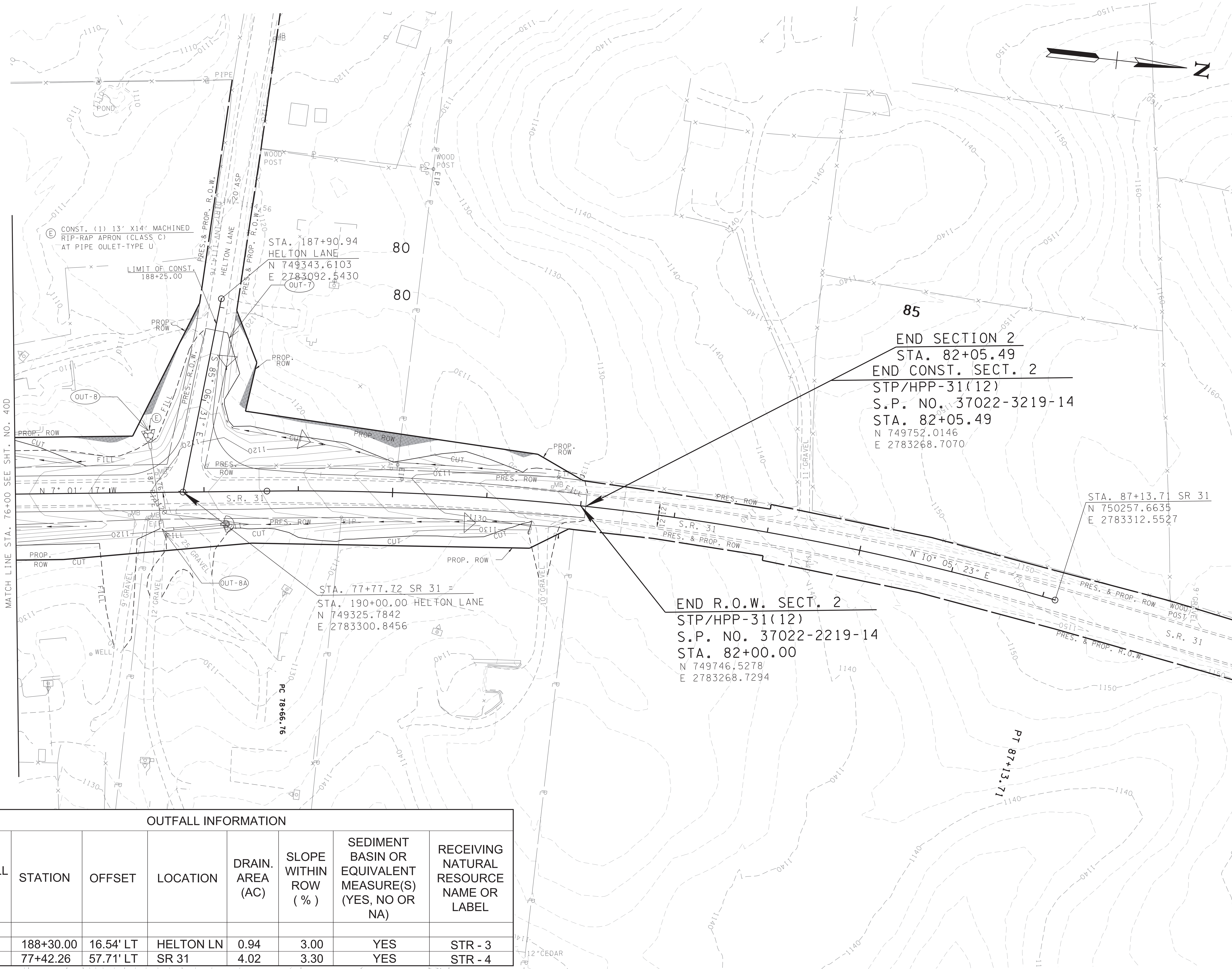
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	21F
P-I-H	2025	STP/HPP-31(12)	36B
PS & E	2026	STP/HPP-31(12)	40E



LEGEND:

Existing countours: ——xxxx——
Proposed Contours: ——xxxx——
Undisturbed Area:

OUTFALL INFORMATION

OUTFALL NO.	STATION	OFFSET	LOCATION	DRAIN. AREA (AC)	SLOPE WITHIN ROW (%)	SEDIMENT BASIN OR EQUIVALENT MEASURE(S) (YES, NO OR NA)	RECEIVING NATURAL RESOURCE NAME OR LABEL
7	188+30.00	16.54' LT	HELTON LN	0.94	3.00	YES	STR - 3
8	77+42.26	57.71' LT	SR 31	4.02	3.30	YES	STR - 4

STAGE 2
INTERMEDIATE
GRADING

SEALED BY

JOSEPH CAINS III
STATE OF TENNESSEE

04/14/2026

COORDINATES ARE NAD 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00006 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WITH GEOID 99 .

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLANS

STA. 76+00 TO STA. 87+14
SCALE: 1" =50'

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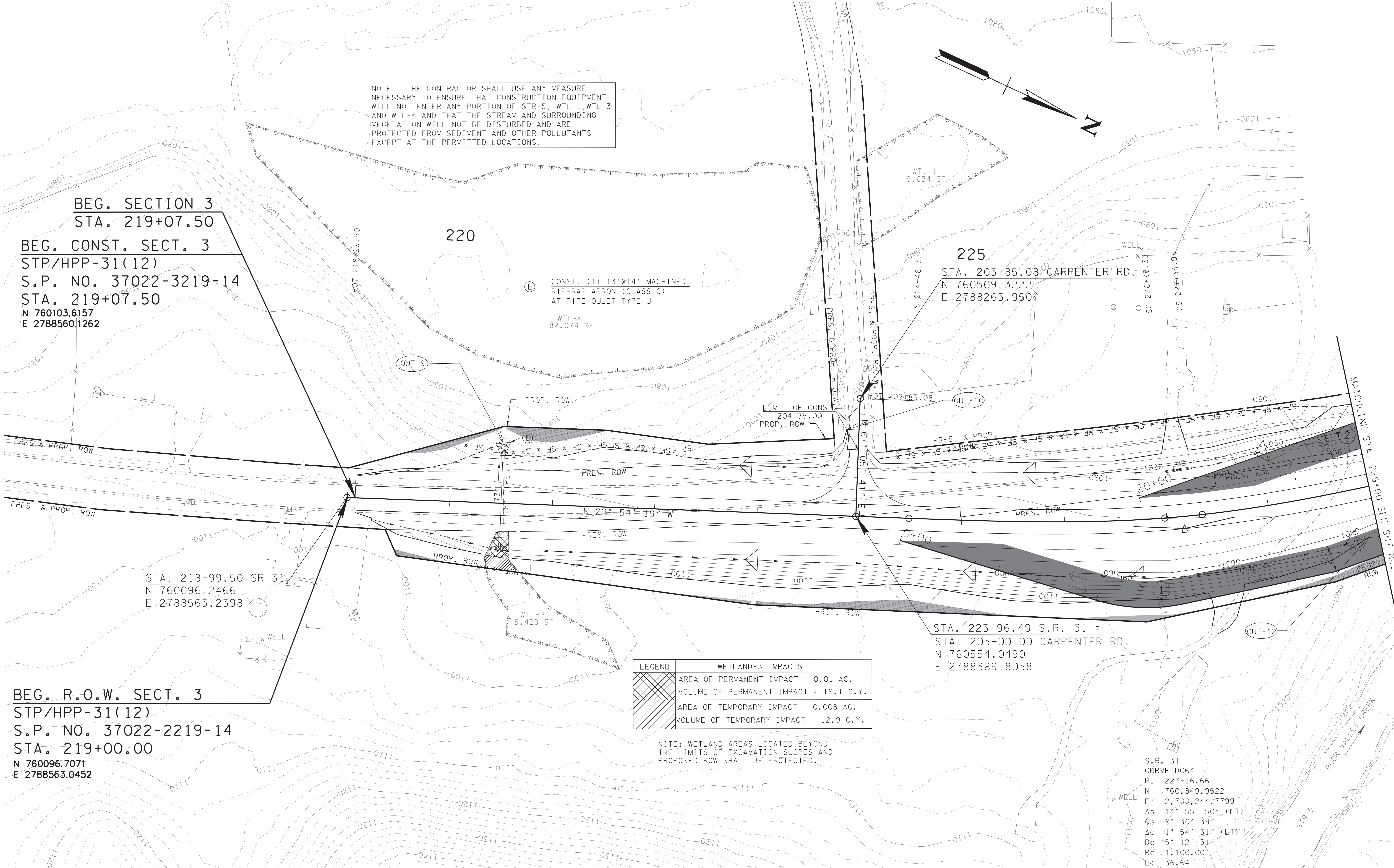
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	21G
P-I-H	2025	STP/HPP-31(12)	36C
PS & E	2026	STP/HPP-31(12)	40F



LEGEND	WETLAND-3 IMPACTS
(cross-hatch)	AREA OF PERMANENT IMPACT = 0.01 AC.
	VOLUME OF PERMANENT IMPACT = 16.1 C.Y.
(hatch)	AREA OF TEMPORARY IMPACT = 0.008 AC.
	VOLUME OF TEMPORARY IMPACT = 12.9 C.Y.

NOTE: WETLAND AREAS LOCATED BEYOND THE LIMITS OF EXCAVATION SLOPES AND PROPOSED ROW SHALL BE PROTECTED.

S.R. 31
CURVE DC64
PI 227+16.66
N 760,849.9522
E 2,788,244.7799
Δs 14° 55' 50" (LT)
θs 6° 30' 39"
Δc 1° 54' 31" (LT)
Dc 5° 12' 31"
Rc 1,100.00
Lc 36.64
Ts 269.39
Ls 250.00
TS 224+48.33
SC 226+98.33
CS 227+34.98
ST 229+84.98
SE 0.078 FT/FT
DESIGN SPEED 55 MPH
TRANS. LENGTH 250

LEGEND:

Existing countours: XXXX

Proposed Contours: XXXX

Undisturbed Area:

Proposed Haul Road Area:

NOTES:

PHASE 1, USE (1) HAUL ROADS

PHASE 2, USE (2) HAUL ROADS

GENERAL WETLAND NOTES:

1. REMOVE THE TOP 12 INCHES OF TOPSOIL AND STOCKPILE IT UNTIL CONSTRUCTION IS COMPLETE.
2. ONCE CONSTRUCTION ACTIVITIES ARE COMPLETED, RESTORE ALL TEMPORARY WETLAND IMPACT AREAS TO PRE-CONSTRUCTION CONDITIONS. THIS INCLUDES REMOVING HAUL ROADS IF APPLICABLE), RESTORING THE SITE TO THE ORIGINAL (PRE-CONSTRUCTION) ELEVATION, AND SPREADING STOCKPILED TOPSOIL BACK OVER THE WETLAND SITE.
3. THE AREA OF TEMPORARY IMPACTS WILL BE STABILIZED WITH WETLAND SEED MIXTURE 801-01-36 ONLY.
4. WETLAND AREA LOCATED OUTSIDE OF PROPOSED RIGHT-OF-WAY AND CONSTRUCTION EASEMENTS ARE TO BE CLEARLY MARKED AND NOT TO BE DISTURBED.

OUTFALL INFORMATION

OUTFALL NO.	STATION	OFFSET	LOCATION	DRAIN. AREA (AC)	SLOPE WITHIN ROW (%)	SEDIMENT BASIN OR EQUIVALENT MEASURE(S) (YES, NO OR NA)	RECEIVING NATURAL RESOURCE NAME OR LABEL
9	220+49.17	62.28' LT	SR 31	4.80	0.50	YES	WETLAND - 3
10	224+84.60	84.26' LT	SR 31	0.56	0.50	YES	WETLAND - 3
12	228+89.43	48.9' RT	SR 31	1.36	0.50	YES	STR - 5

STAGE 2
INTERMEDIATE
GRADING

SEALED BY

JOSEPH CAINS III
REGISTERED ENGINEER
STATE OF TENNESSEE

04/14/2026

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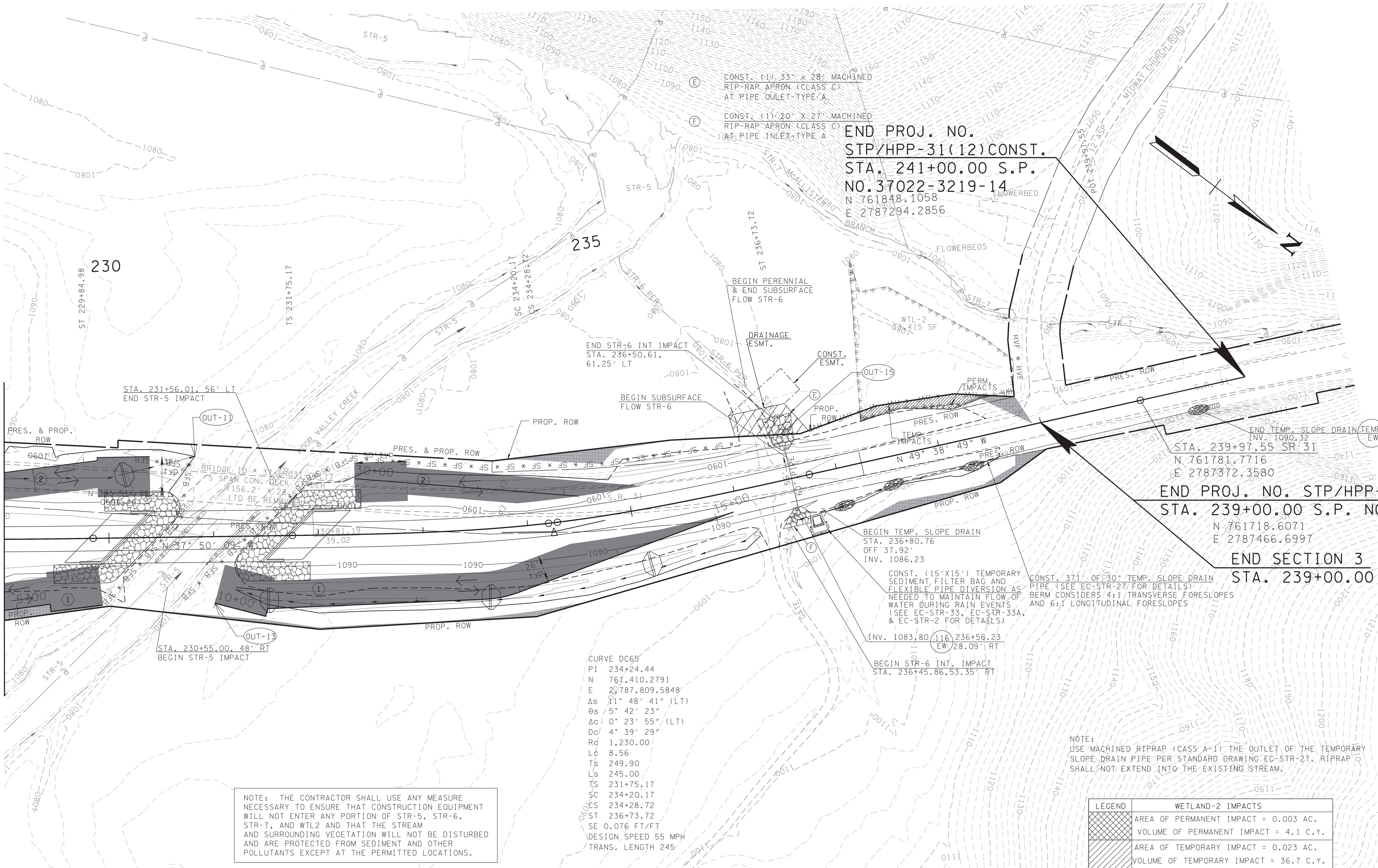
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION
PREVENTION
AND SEDIMENT
CONTROL PLANS

STA. 219+00 TO STA. 229+00
SCALE: 1" =50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	21H
P-I-H	2025	STP/HPP-31(12)	36D
PS & E	2026	STP/HPP-31(12)	40G



LEGEND	WETLAND-2 IMPACTS
	AREA OF PERMANENT IMPACT = 0.003 AC.
	VOLUME OF PERMANENT IMPACT = 4.1 C.Y.
	AREA OF TEMPORARY IMPACT = 0.023 AC.
	VOLUME OF TEMPORARY IMPACT = 36.7 C.Y.

LEGEND:

- Existing countours:
- Proposed Contours:
- Undisturbed Area:
- Proposed Haul Road Area:
- Permanent Drainage Easement Area:

NOTES:
PHASE 1, USE ① HAUL ROADS
PHASE 2, USE ② HAUL ROADS

STAGE 2 INTERMEDIATE GRADING

OUTFALL INFORMATION

OUTFALL NO.	STATION	OFFSET	LOCATION	DRAIN. AREA (AC)	SLOPE WITHIN ROW (%)	SEDIMENT BASIN OR EQUIVALENT MEASURE(S) (YES, NO OR NA)	RECEIVING NATURAL RESOURCE NAME OR LABEL
11	230+83.04	76.85' LT	SR 31	1.90	0.50	YES	STR - 5
13	231+20.72	50.14' RT	SR 31	1.35	1.40	YES	STR - 5
15	236+56.23	43.23' LT	SR 31	25.78	1.00	YES	STR- 6 INT. & PER.

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04/14/2026

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLANS

STA. 229+00 TO STA. 239+98
SCALE: 1" =50'

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	21I
P-I-H	2025	STP/HPP-31(12)	36E
PS & E	2026	STP/HPP-31(12)	41

STAGE 3
FINAL
CONSTRUCTION

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JOSEPH CAINS III
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STATE OF TENNESSEE

04/14/2026

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLANS

STA. 10+00 TO STA. 19+00
SCALE: 1"= 50'

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	21J
P-I-H	2025	STP/HPP-31(12)	36F
PS & E	2026	STP/HPP-31(12)	41A

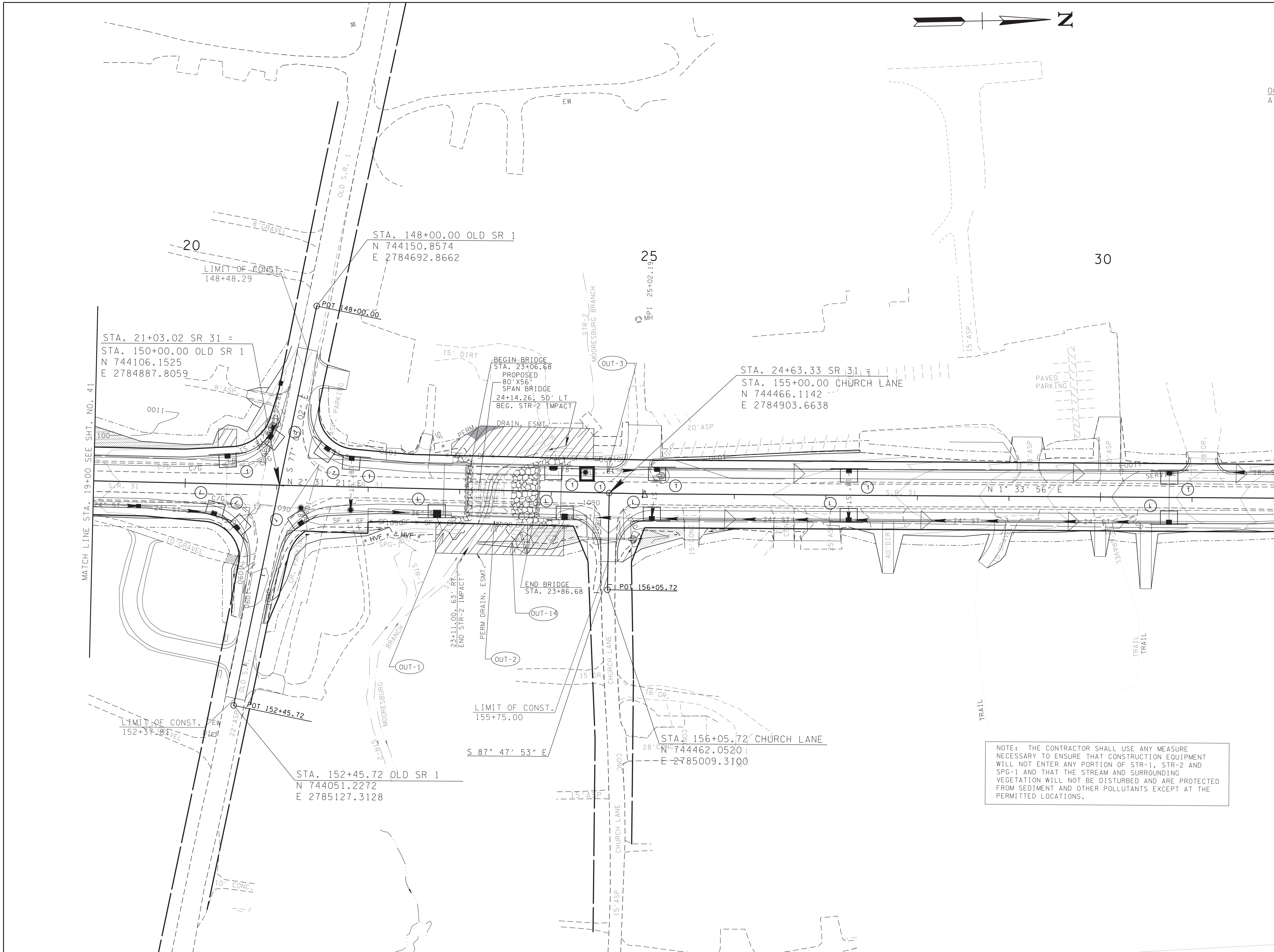
06-17-2024 REVISED STRUCTURE TYPE AT STR-2 CROSSING

LEGEND:

Proposed Contours: xxxx

Undisturbed Area:

Permanent Drainage Easement Area:



STAGE 3
FINAL
CONSTRUCTION

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STATE OF TENNESSEE

04/14/2026

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLANS

STA. 19+00 TO STA. 32+00

SCALE: 1"= 50'

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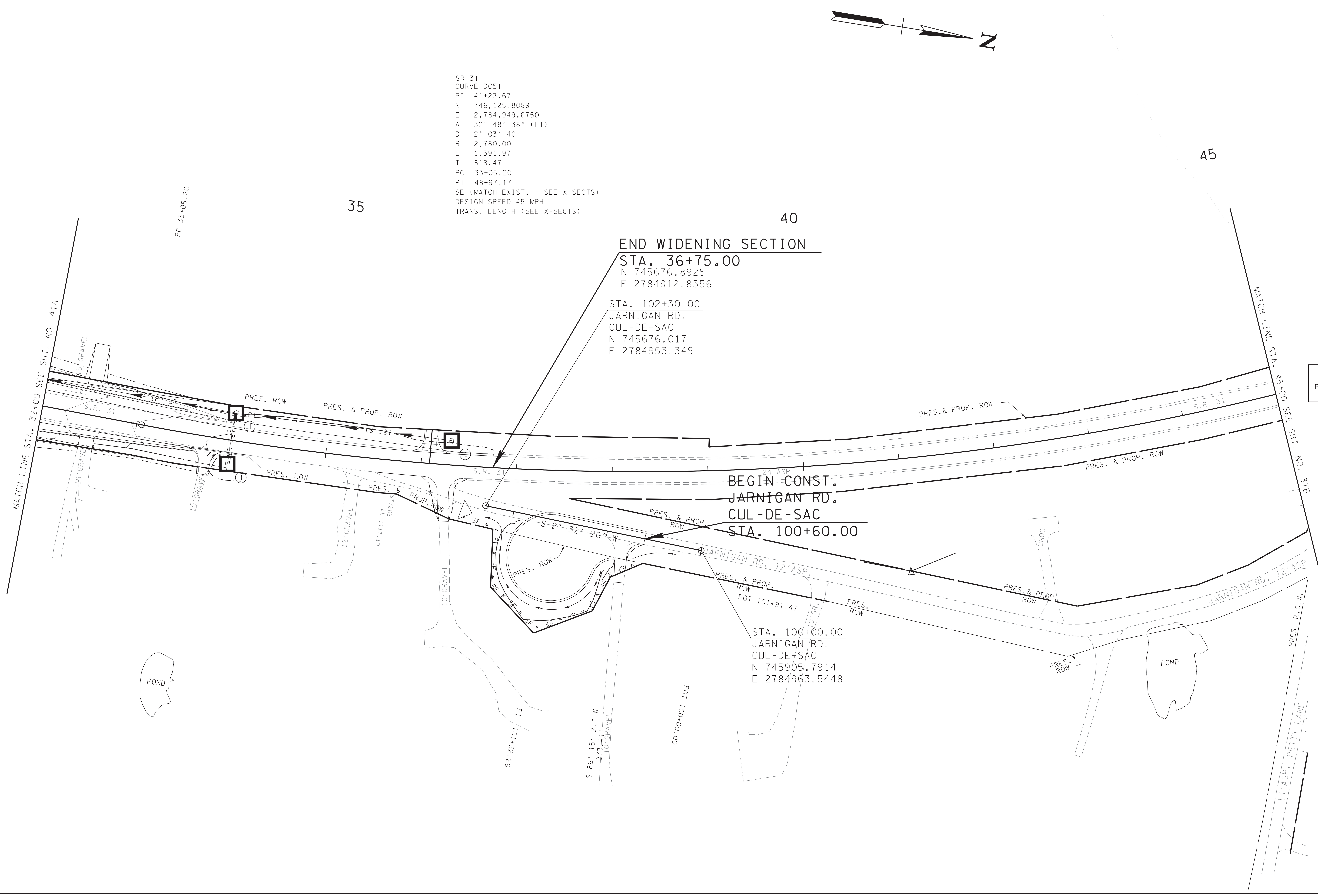
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	21K
P-I-H	2025	STP/HPP-31(12)	36H
PS & E	2026	STP/HPP-31(12)	41B



LEGEND:

Proposed Contours: ——XXXX——

STAGE 3
FINAL
CONSTRUCTION

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REGISTERED ENGINEER
AGRICULTURE COMMERCE
STATE OF TENNESSEE

04/14/2026

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLANS

STA. 32+00 TO STA. 45+00

SCALE: 1"= 50'

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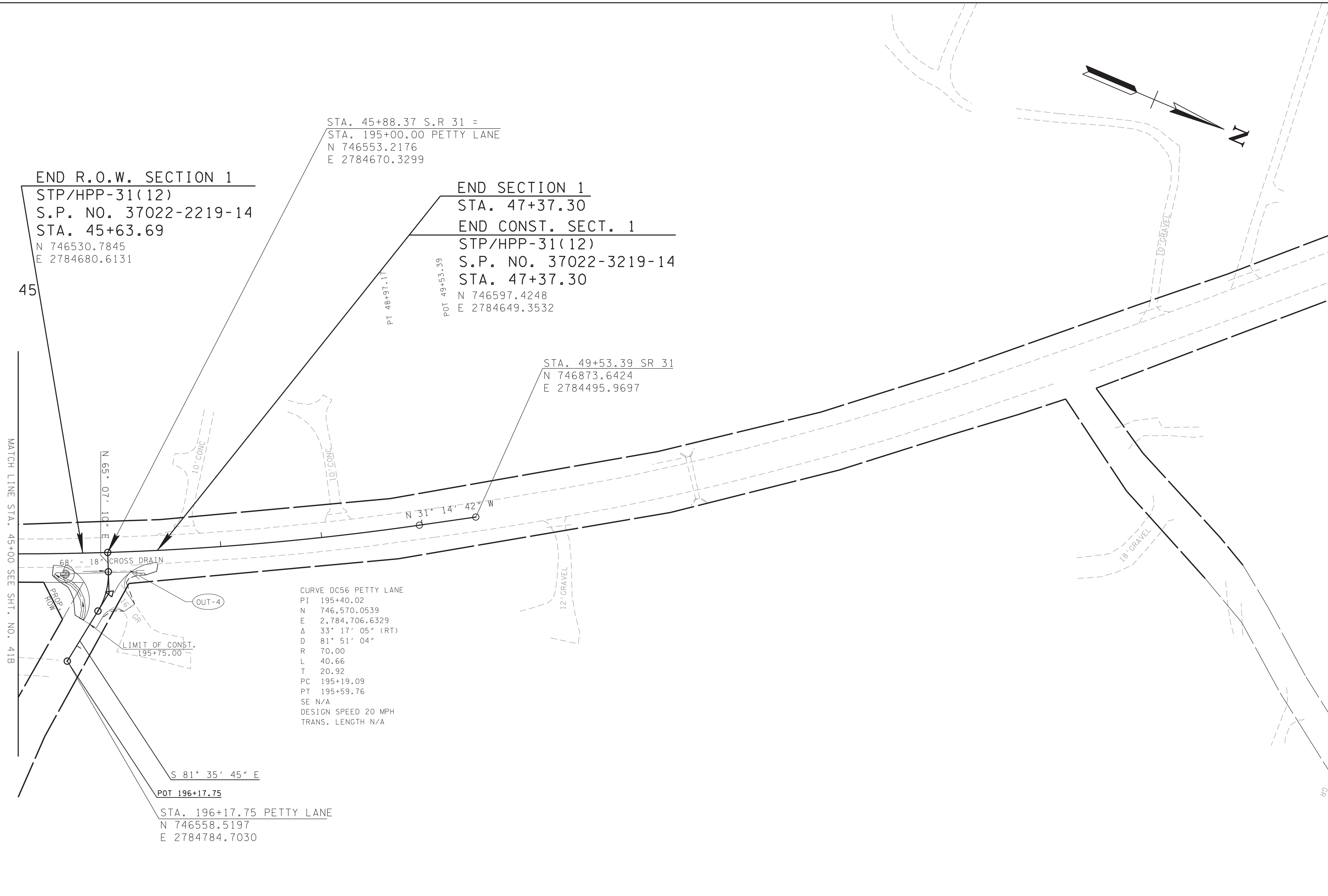

STAGE 3
FINAL
CONSTRUCTION

OUTFALL INFORMATION							
OUTFALL NO.	STATION	OFFSET	LOCATION	DRAIN. AREA (AC)	SLOPE WITHIN ROW (%)	SEDIMENT BASIN OR EQUIVALENT MEASURE(S) (YES, NO OR NA)	RECEIVING NATURAL RESOURCE NAME OR LABEL
4	46+10.25	18.93' RT	SR 31	1.40	2.00	YES	STR - 2

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AGRICULTURE
COMMERCE
STATE OF TENNESSEE

04/14/2026

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLANS
STA. 45+00 TO STA. 49+53
SCALE: 1"= 50'

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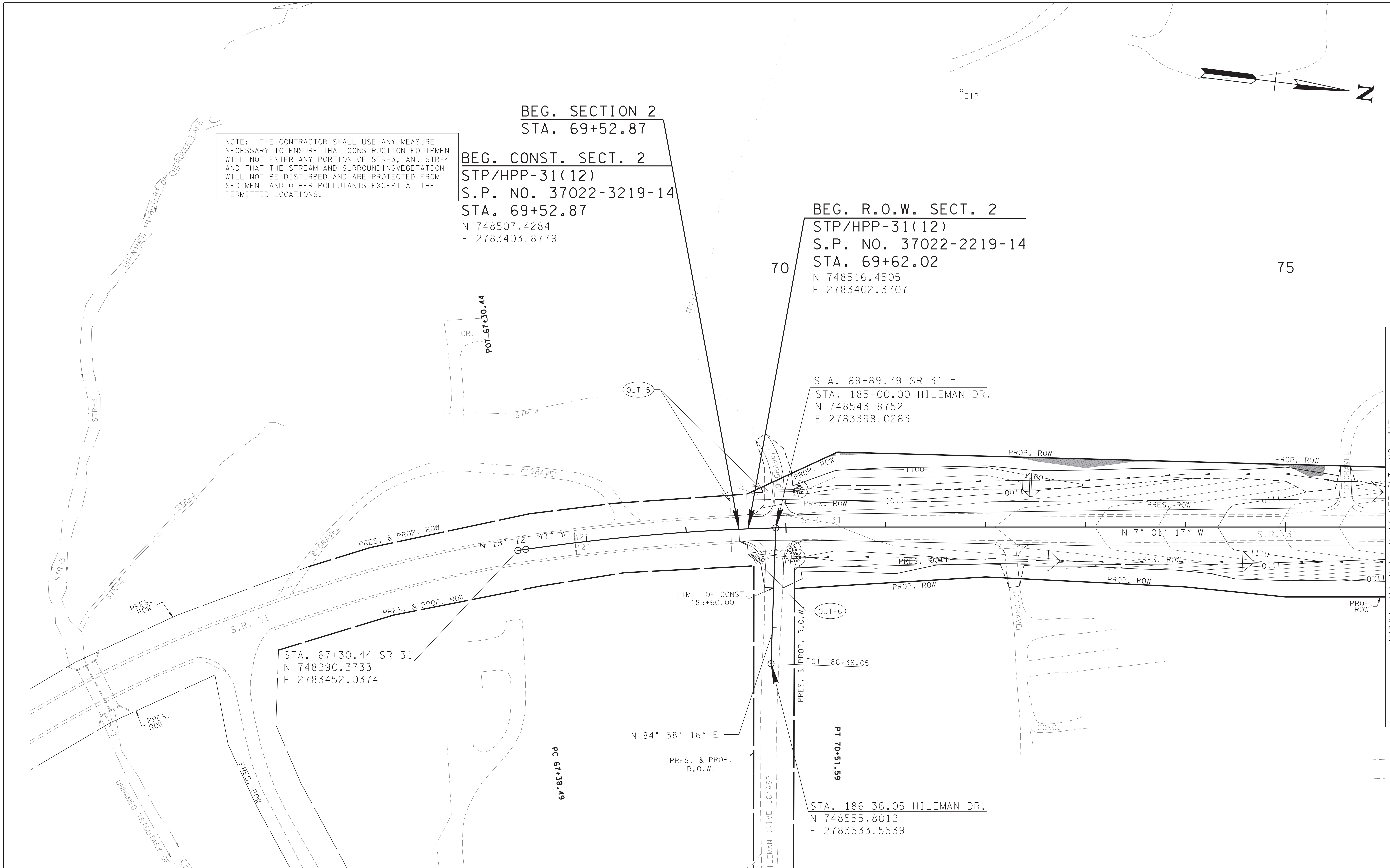
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	21M
P-I-H	2025	STP/HPP-31(12)	36I
PS & E	2026	STP/HPP-31(12)	41D



SR 31
CURVE DC53
PI 68+95.31
N 748,449.4591
E 2,783,408.7761
Δ 8° 11' 30" (RT)
D 2° 36' 58"
R 2,190.00
L 313.11
T 156.82
PC 67+38.49
PT 70+51.59
SE N/A (MATCH EX.)
DESIGN SPEED 45 MPH
TRANS. LENGTH N/A (MATCH EX.)

OUTFALL INFORMATION

OUTFALL NO.	STATION	OFFSET	LOCATION	DRAIN. AREA (AC)	SLOPE WITHIN ROW (%)	SEDIMENT BASIN OR EQUIVALENT MEASURE(S) (YES, NO OR NA)	RECEIVING NATURAL RESOURCE NAME OR LABEL
5	69+76.54	37.24' LT	SR 31	7.54	1.50	YES	STR - 4
6	69+72.90	27.22' RT	SR 31	4.23	2.70	YES	STR - 3

STAGE 3 FINAL CONSTRUCTION

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JOSEPH CAINS III
04/14/2026

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLANS

STA. 67+30 TO STA. 76+00
SCALE: 1"= 50'

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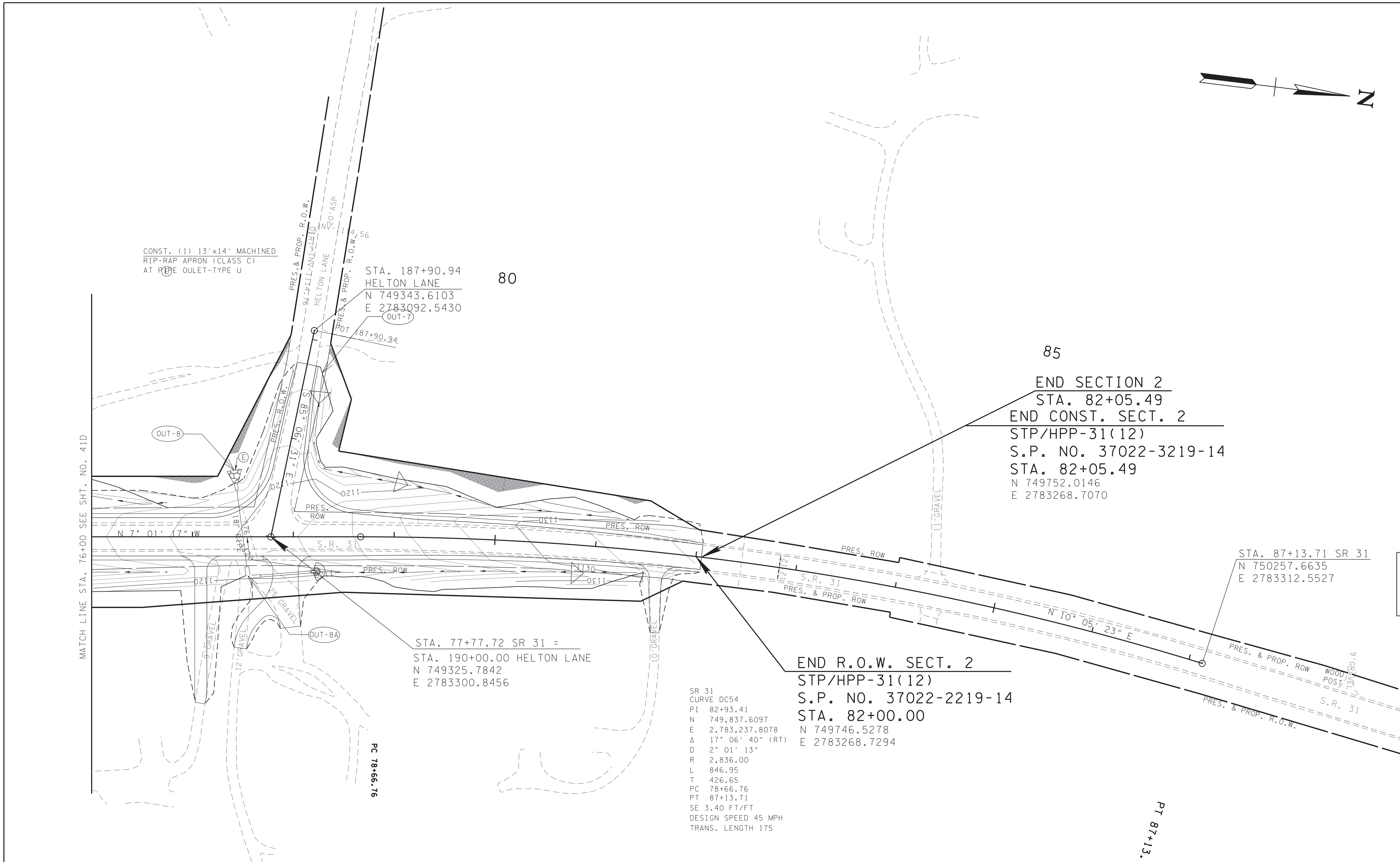
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	21N
P-I-H	2025	STP/HPP-31(12)	36J
PS & E	2026	STP/HPP-31(12)	41E



OUTFALL INFORMATION							
OUTFALL NO.	STATION	OFFSET	LOCATION	DRAIN. AREA (AC)	SLOPE WITHIN ROW (%)	SEDIMENT BASIN OR EQUIVALENT MEASURE(S) (YES, NO OR NA)	RECEIVING NATURAL RESOURCE NAME OR LABEL
7	188+30.00	16.54' LT	HELTON LN	0.94	3.00	YES	STR - 3
8	77+42.26	57.71' LT	SR 31	4.02	3.30	YES	STR - 4

STAGE 3
FINAL
CONSTRUCTION

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLANS
STA. 76+00 TO STA. 87+14
SCALE: 1"= 50'

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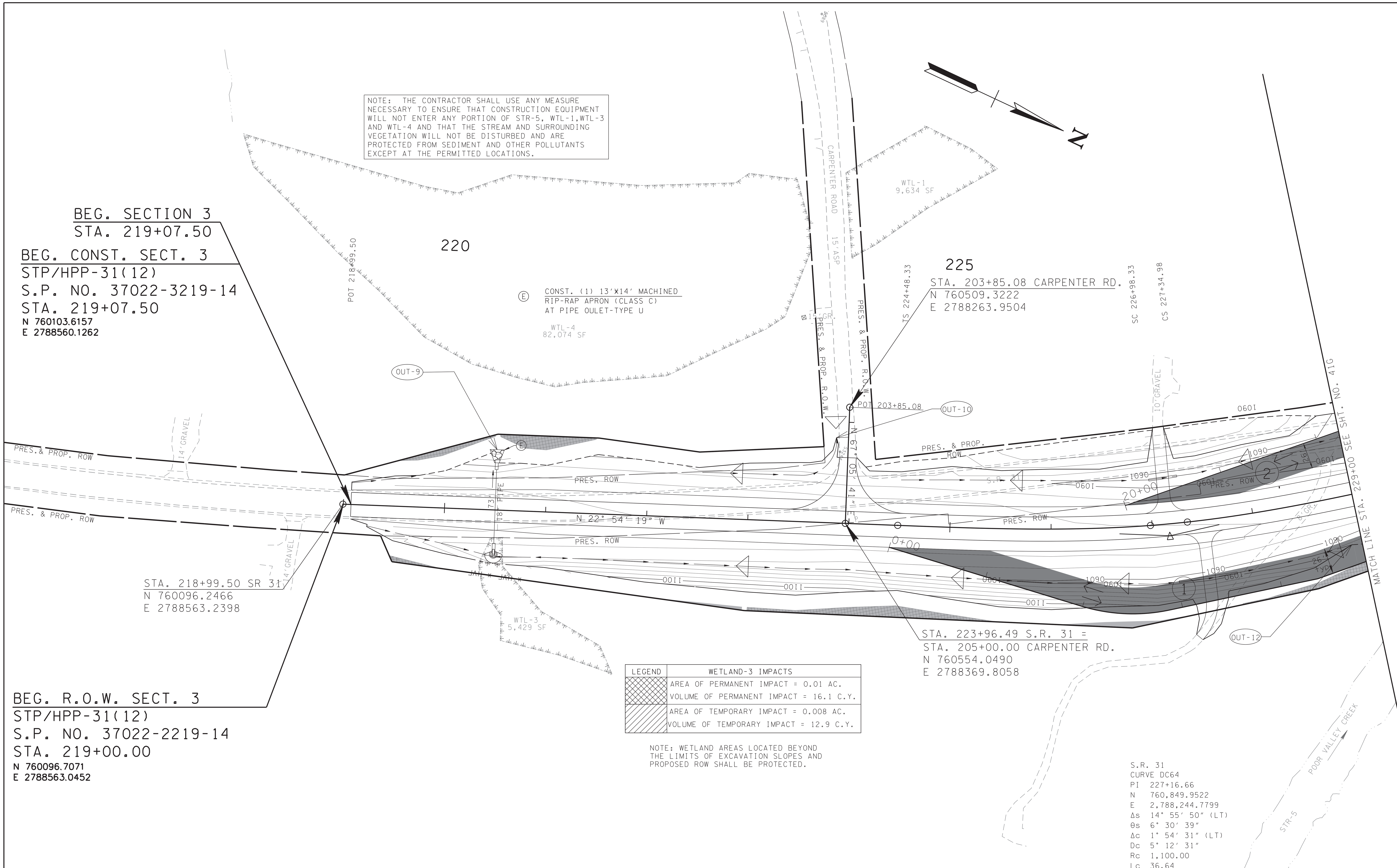
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	21O
P-I-H	2025	STP/HPP-31(12)	36K
PS & E	2026	STP/HPP-31(12)	41F



LEGEND	WETLAND-3 IMPACTS
(cross-hatch)	AREA OF PERMANENT IMPACT = 0.01 AC.
	VOLUME OF PERMANENT IMPACT = 16.1 C.Y.
(hatch)	AREA OF TEMPORARY IMPACT = 0.008 AC.
	VOLUME OF TEMPORARY IMPACT = 12.9 C.Y.

NOTE: WETLAND AREAS LOCATED BEYOND THE LIMITS OF EXCAVATION SLOPES AND PROPOSED ROW SHALL BE PROTECTED.

LEGEND:
- Proposed Contours: ——XXXX——
- Undisturbed Area:
- Proposed Haul Road Area:

NOTES:
PHASE 1. USE (1) HAUL ROADS
PHASE 2. USE (2) HAUL ROADS

STAGE 3
FINAL
CONSTRUCTION

S.R. 31
CURVE DC64
PI 227+16.66
N 760,849.9522
E 2,788,244.7799
Δs 14° 55' 50" (LT)
θs 6° 30' 39"
Δc 1° 54' 31" (LT)
Dc 5° 12' 31"
Rc 1,100.00
Lc 36.64
Ts 269.39
Ls 250.00
TS 224+48.33
SC 226+98.33
CS 227+34.98
ST 229+84.98
SE 0.078 FT/FT
DESIGN SPEED 55 MPH
TRANS. LENGTH 250

GENERAL WETLAND NOTES:

1. REMOVE THE TOP 12 INCHES OF TOPSOIL AND STOCKPILE IT UNTIL CONSTRUCTION IS COMPLETE.
2. ONCE CONSTRUCTION ACTIVITIES ARE COMPLETED, RESTORE ALL TEMPORARY WETLAND IMPACT AREAS TO PRE-CONSTRUCTION CONDITIONS. THIS INCLUDES REMOVING HAUL ROADS (IF APPLICABLE), RESTORING THE SITE TO THE ORIGINAL (PRE-CONSTRUCTION) ELEVATION, AND SPREADING STOCKPILED TOPSOIL BACK OVER THE WETLAND SITE.
3. THE AREA OF TEMPORARY IMPACTS WILL BE STABILIZED WITH WETLAND SEED MIXTURE 801-01-36 ONLY.

OUTFALL INFORMATION

OUTFALL NO.	STATION	OFFSET	LOCATION	DRAIN. AREA (AC)	SLOPE WITHIN ROW (%)	SEDIMENT BASIN OR EQUIVALENT MEASURE(S) (YES, NO OR NA)	RECEIVING NATURAL RESOURCE NAME OR LABEL
9	220+49.17	62.28' LT	SR 31	4.80	0.50	YES	WETLAND - 3
10	224+84.60	84.26' LT	SR 31	0.56	0.50	YES	WETLAND - 3
12	228+89.43	48.9' RT	SR 31	1.36	0.50	YES	STR - 5

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REGISTERED ENGINEER
STATE OF TENNESSEE
AGRICULTURE COMMERCE
04/14/2026

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLANS
STA. 218+99 TO STA. 229+00
SCALE: 1"= 50'

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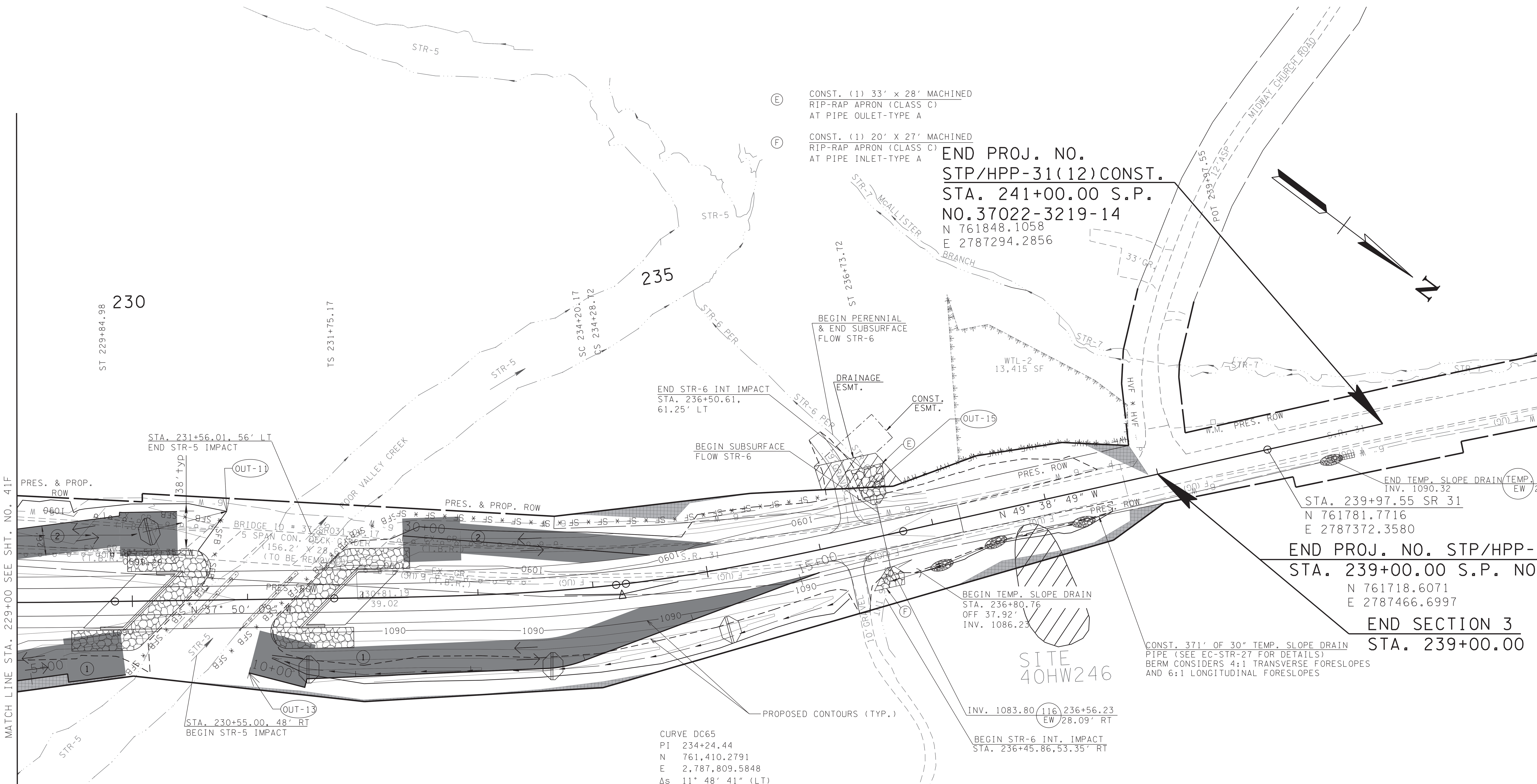
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	21P
P-I-H	2025	STP/HPP-31(12)	36L
PS & E	2026	STP/HPP-31(12)	41G



CURVE DC65
PI 234+24.44
N 761,410.2791
E 2,787,809.5848
Δs 11° 48' 41" (LT)
θs 5° 42' 23"
Δc 0° 23' 55" (LT)
Dc 4° 39' 29"
Rc 1,230.00
Lc 8.56
Ts 249.90
Ls 245.00
TS 231+75.17
SC 234+20.17
CS 234+28.72
ST 236+73.72
SE 0.076 FT/FT
DESIGN SPEED 55 MPH
TRANS. LENGTH 245

NOTE: THE CONTRACTOR SHALL USE ANY MEASURE NECESSARY TO ENSURE THAT CONSTRUCTION EQUIPMENT WILL NOT ENTER ANY PORTION OF STR-5, STR-6, STR-7, AND WTL2 AND THAT THE STREAM AND SURROUNDING VEGETATION WILL NOT BE DISTURBED AND ARE PROTECTED FROM SEDIMENT AND OTHER POLLUTANTS EXCEPT AT THE PERMITTED LOCATIONS.

NOTE:
USE MACHINED RIPRAP (CASS A-1) THE OUTLET OF THE TEMPORARY SLOPE DRAIN PIPE PER STANDARD DRAWING EC-STR-27. RIPRAP SHALL NOT EXTEND INTO THE EXISTING STREAM.

STAGE 3
FINAL
CONSTRUCTION

OUTFALL INFORMATION

OUTFALL NO.	STATION	OFFSET	LOCATION	DRAIN. AREA (AC)	SLOPE WITHIN ROW (%)	SEDIMENT BASIN OR EQUIVALENT MEASURE(S) (YES, NO OR NA)	RECEIVING NATURAL RESOURCE NAME OR LABEL
11	230+83.04	76.85' LT	SR 31	1.90	0.50	YES	STR - 5
13	231+20.72	50.14' RT	SR 31	1.35	1.40	YES	STR - 5
15	236+56.23	43.23' LT	SR 31	25.78	1.00	YES	STR- 6 INT. & PER.

LEGEND:

Proposed Contours:	XXXX
Undisturbed Area:	
Proposed Haul Road Area:	
Permanent Drainage Easement Area:	

NOTES:
PHASE 1. USE ① HAUL ROADS
PHASE 2. USE ② HAUL ROADS

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AGRICULTURE
COMMERCE
STATE OF TENNESSEE

04/14/2026

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLANS
STA. 229+00 TO STA. 239+98
SCALE: 1"= 50'

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	37
PS & E	2026	STP/HPP-31(12)	42

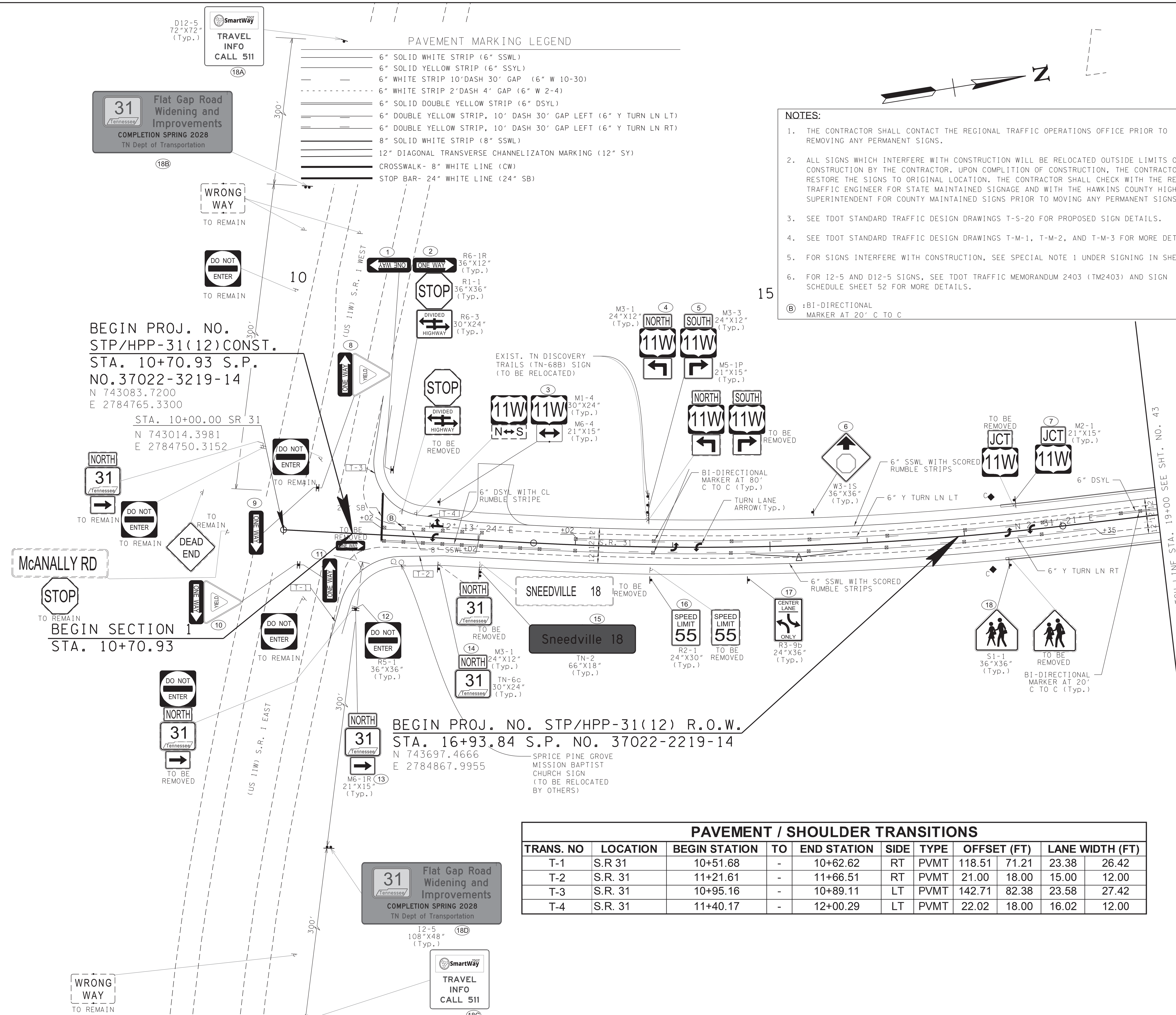
PAVEMENT MARKING LEGEND

- 6" SOLID WHITE STRIP (6" SSWL)
- 6" SOLID YELLOW STRIP (6" SSYL)
- 6" WHITE STRIP 10'DASH 30' GAP (6" W 10-30)
- 6" WHITE STRIP 2'DASH 4' GAP (6" W 2-4)
- 6" SOLID DOUBLE YELLOW STRIP (6" DSYL)
- 6" DOUBLE YELLOW STRIP, 10' DASH 30' GAP LEFT (6" Y TURN LN LT)
- 6" DOUBLE YELLOW STRIP, 10' DASH 30' GAP LEFT (6" Y TURN LN RT)
- 8" SOLID WHITE STRIP (8" SSWL)
- 12" DIAGONAL TRANSVERSE CHANNELIZATON MARKING (12" SY)
- CROSSWALK- 8" WHITE LINE (CW)
- STOP BAR- 24" WHITE LINE (24" SB)

NOTES:

1. THE CONTRACTOR SHALL CONTACT THE REGIONAL TRAFFIC OPERATIONS OFFICE PRIOR TO REMOVING ANY PERMANENT SIGNS.
2. ALL SIGNS WHICH INTERFERE WITH CONSTRUCTION WILL BE RELOCATED OUTSIDE LIMITS OF CONSTRUCTION BY THE CONTRACTOR. UPON COMPLITION OF CONSTRUCTION, THE CONTRACTOR WILL RESTORE THE SIGNS TO ORIGINAL LOCATION. THE CONTRACTOR SHALL CHECK WITH THE REGIONAL TRAFFIC ENGINEER FOR STATE MAINTAINED SIGNAGE AND WITH THE HAWKINS COUNTY HIGHWAY SUPERINTENDENT FOR COUNTY MAINTAINED SIGNS PRIOR TO MOVING ANY PERMANENT SIGNS
3. SEE TDOT STANDARD TRAFFIC DESIGN DRAWINGS T-S-20 FOR PROPOSED SIGN DETAILS.
4. SEE TDOT STANDARD TRAFFIC DESIGN DRAWINGS T-M-1, T-M-2, AND T-M-3 FOR MORE DETAILS.
5. FOR SIGNS INTERFERE WITH CONSTRUCTION, SEE SPECIAL NOTE 1 UNDER SIGNING IN SHEET 2D.
6. FOR I2-5 AND D12-5 SIGNS, SEE TDOT TRAFFIC MEMORANDUM 2403 (TM2403) AND SIGN SCHEDULE SHEET 52 FOR MORE DETAILS.

(B) :BI-DIRECTIONAL MARKER AT 20' C TO C



PAVEMENT / SHOULDER TRANSITIONS

TRANS. NO	LOCATION	BEGIN STATION	TO	END STATION	SIDE	TYPE	OFFSET (FT)		LANE WIDTH (FT)	
T-1	S.R 31	10+51.68	-	10+62.62	RT	PVMT	118.51	71.21	23.38	26.42
T-2	S.R. 31	11+21.61	-	11+66.51	RT	PVMT	21.00	18.00	15.00	12.00
T-3	S.R. 31	10+95.16	-	10+89.11	LT	PVMT	142.71	82.38	23.58	27.42
T-4	S.R. 31	11+40.17	-	12+00.29	LT	PVMT	22.02	18.00	16.02	12.00

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04/14/2026

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNING AND PAVEMENT MARKING PLANS

STA. 10+51.68 STA. 19+00

SCALE: 1"= 50'

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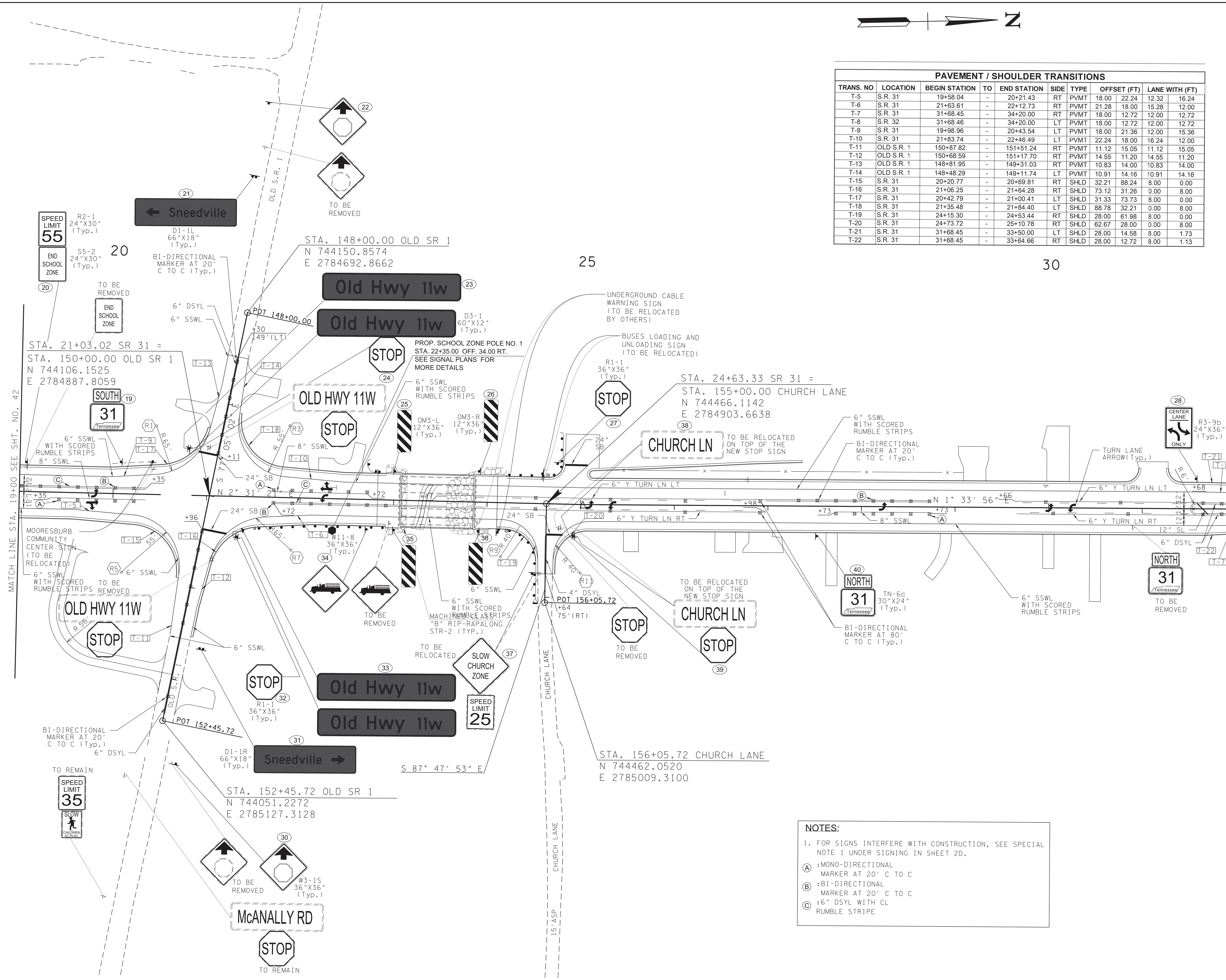
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	38
PS & E	2026	STP/HPP-31(12)	43



PAVEMENT / SHOULDER TRANSITIONS										
TRANS. NO	LOCATION	BEGIN STATION	TO	END STATION	SIDE	TYPE	OFFSET (FT)		LANE WITH (FT)	
T-5	S.R. 31	19+58.04	-	20+21.43	RT	PVMT	18.00	22.24	12.32	16.24
T-6	S.R. 31	21+63.61	-	22+12.73	RT	PVMT	21.28	18.00	15.28	12.00
T-7	S.R. 31	31+68.45	-	34+20.00	RT	PVMT	18.00	12.72	12.00	12.72
T-8	S.R. 32	31+68.46	-	34+20.00	LT	PVMT	18.00	12.72	12.00	12.72
T-9	S.R. 31	19+98.96	-	20+43.54	LT	PVMT	18.00	21.36	12.00	15.36
T-10	S.R. 31	21+83.74	-	22+46.49	LT	PVMT	22.24	18.00	16.24	12.00
T-11	OLD S.R. 1	150+87.82	-	151+51.24	RT	PVMT	11.12	15.05	11.12	15.05
T-12	OLD S.R. 1	150+68.59	-	151+17.70	RT	PVMT	14.55	11.20	14.55	11.20
T-13	OLD S.R. 1	148+81.95	-	149+31.03	RT	PVMT	10.83	14.00	10.83	14.00
T-14	OLD S.R. 1	148+48.29	-	149+11.74	LT	PVMT	10.91	14.16	10.91	14.16
T-15	S.R. 31	20+20.77	-	20+69.81	RT	SHLD	32.21	88.24	8.00	0.00
T-16	S.R. 31	21+06.25	-	21+64.28	RT	SHLD	73.12	31.26	0.00	8.00
T-17	S.R. 31	20+42.79	-	21+00.41	LT	SHLD	31.33	73.73	8.00	0.00
T-18	S.R. 31	21+35.48	-	21+84.40	LT	SHLD	88.78	32.21	0.00	8.00
T-19	S.R. 31	24+15.30	-	24+53.44	RT	SHLD	28.00	61.98	8.00	0.00
T-20	S.R. 31	24+73.72	-	25+10.78	RT	SHLD	62.67	28.00	0.00	8.00
T-21	S.R. 31	31+68.45	-	33+50.00	LT	SHLD	28.00	14.58	8.00	1.73
T-22	S.R. 31	31+68.45	-	33+64.66	RT	SHLD	28.00	12.72	8.00	1.13

NOTES:

1. FOR SIGNS INTERFERE WITH CONSTRUCTION, SEE SPECIAL NOTE 1 UNDER SIGNING IN SHEET 2D.

(A) :MONO-DIRECTIONAL MARKER AT 20' C TO C

(B) :BI-DIRECTIONAL MARKER AT 20' C TO C

(C) :6" DSYL WITH CL RUMBLE STRIPE

SEALED BY

JOSEPH CAINS III
REGISTERED ENGINEER
AGRICULTURE COMMERCE
STATE OF TENNESSEE

04/14/2026

COORDINATES ARE NAD 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00006 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WITH GEOID 99 .

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNING AND PAVEMENT MARKING PLANS

STA. 19+00 TO STA. 32+00
SCALE: 1"= 50'

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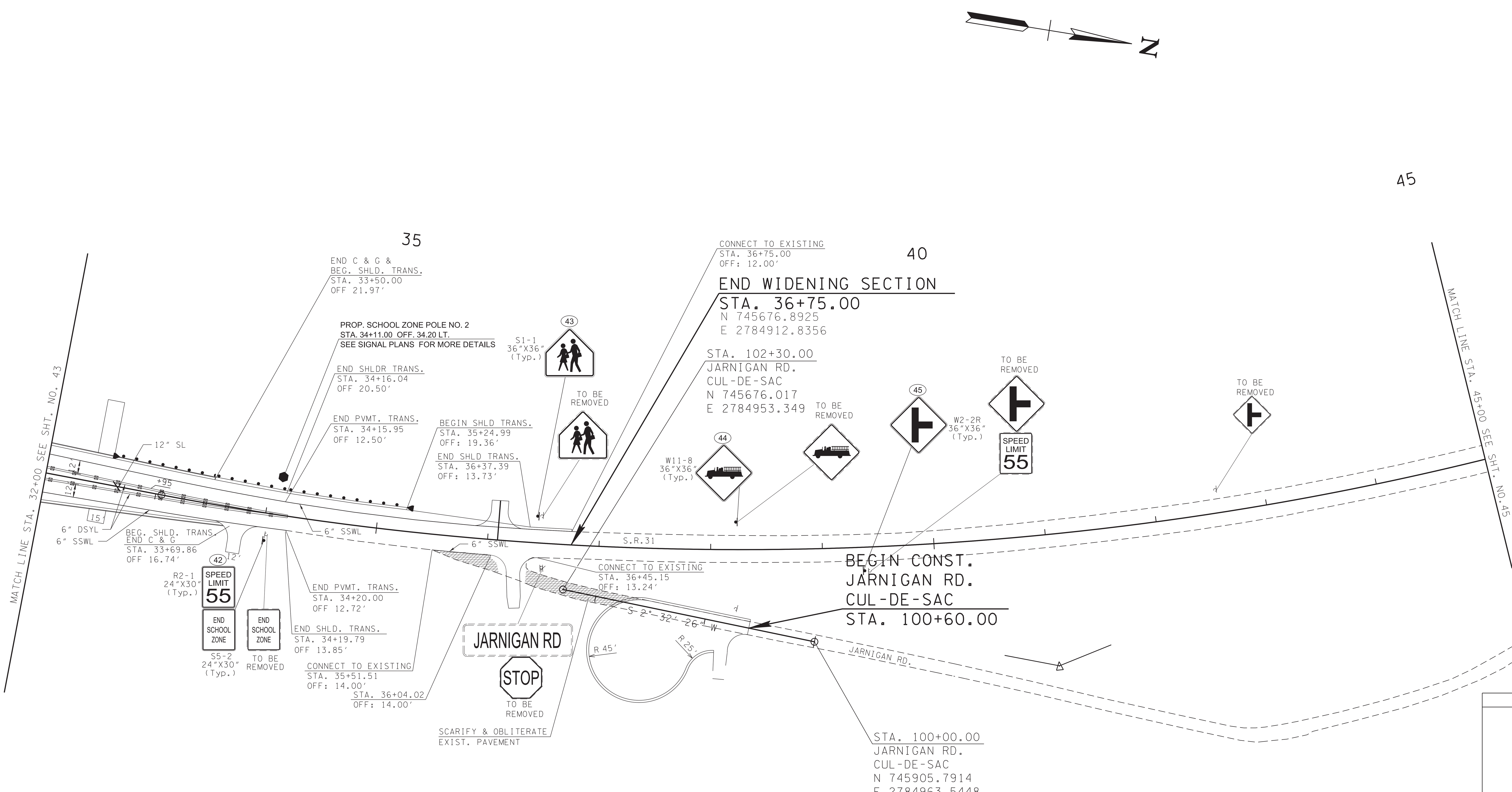
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	39
PS & E	2026	STP/HPP-31(12)	44



NOTE:

1. FOR SIGNS INTERFERE WITH CONSTRUCTION, SEE SPECIAL NOTE 1 UNDER SIGNING IN SHEET 2D.

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04/14/2026

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNING AND PAVEMENT MARKING PLANS

STA. 32+00 TO STA. 45+00

SCALE: 1"= 50'

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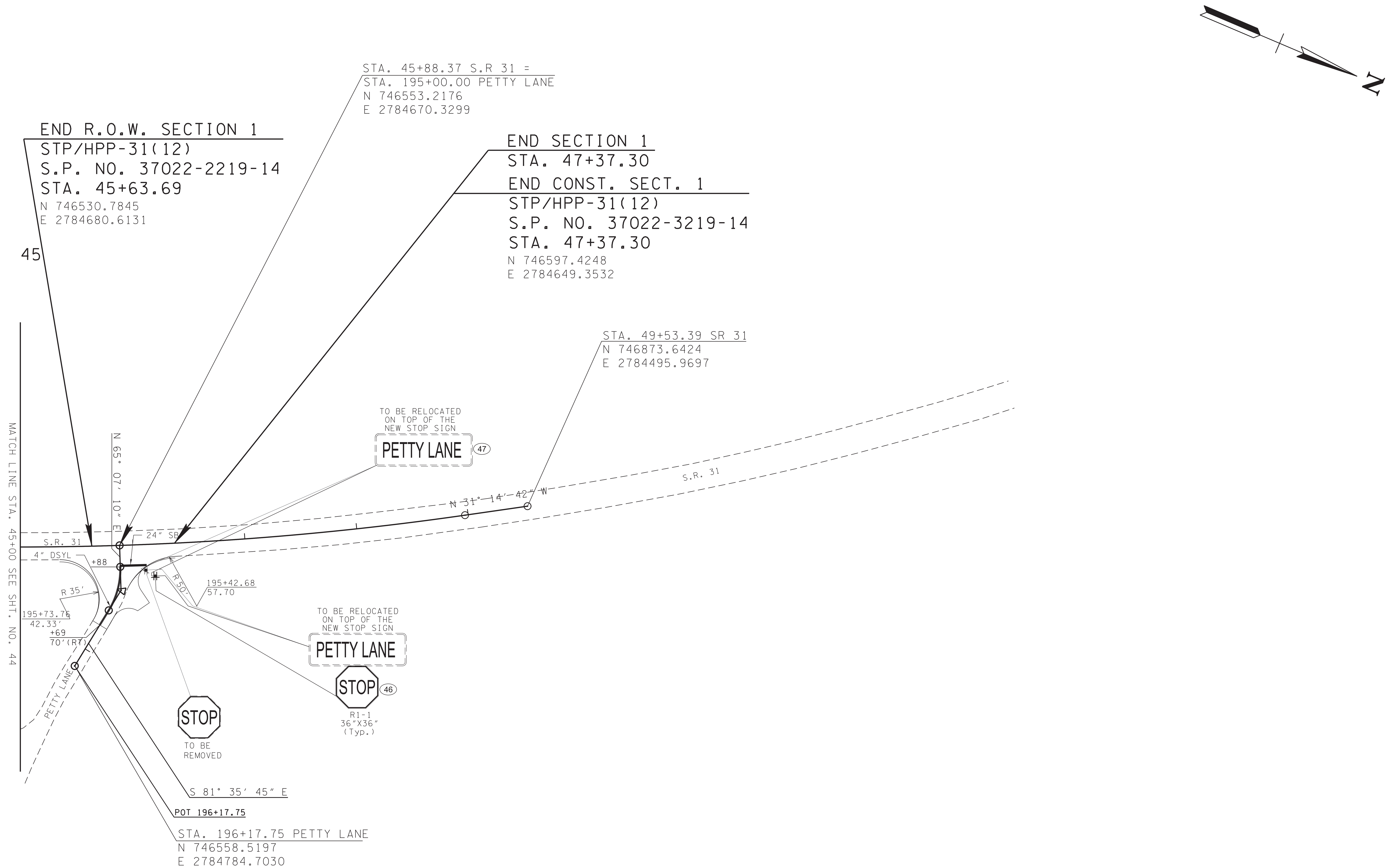
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	40
PS & E	2026	STP/HPP-31(12)	45



NOTE:

1. FOR SIGNS INTERFERE WITH CONSTRUCTION, SEE SPECIAL NOTE 1 UNDER SIGNING IN SHEET 2D.

EXCLUSIONS
STA. 47+37.30 TO STA. 69+52.87

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04/14/2026

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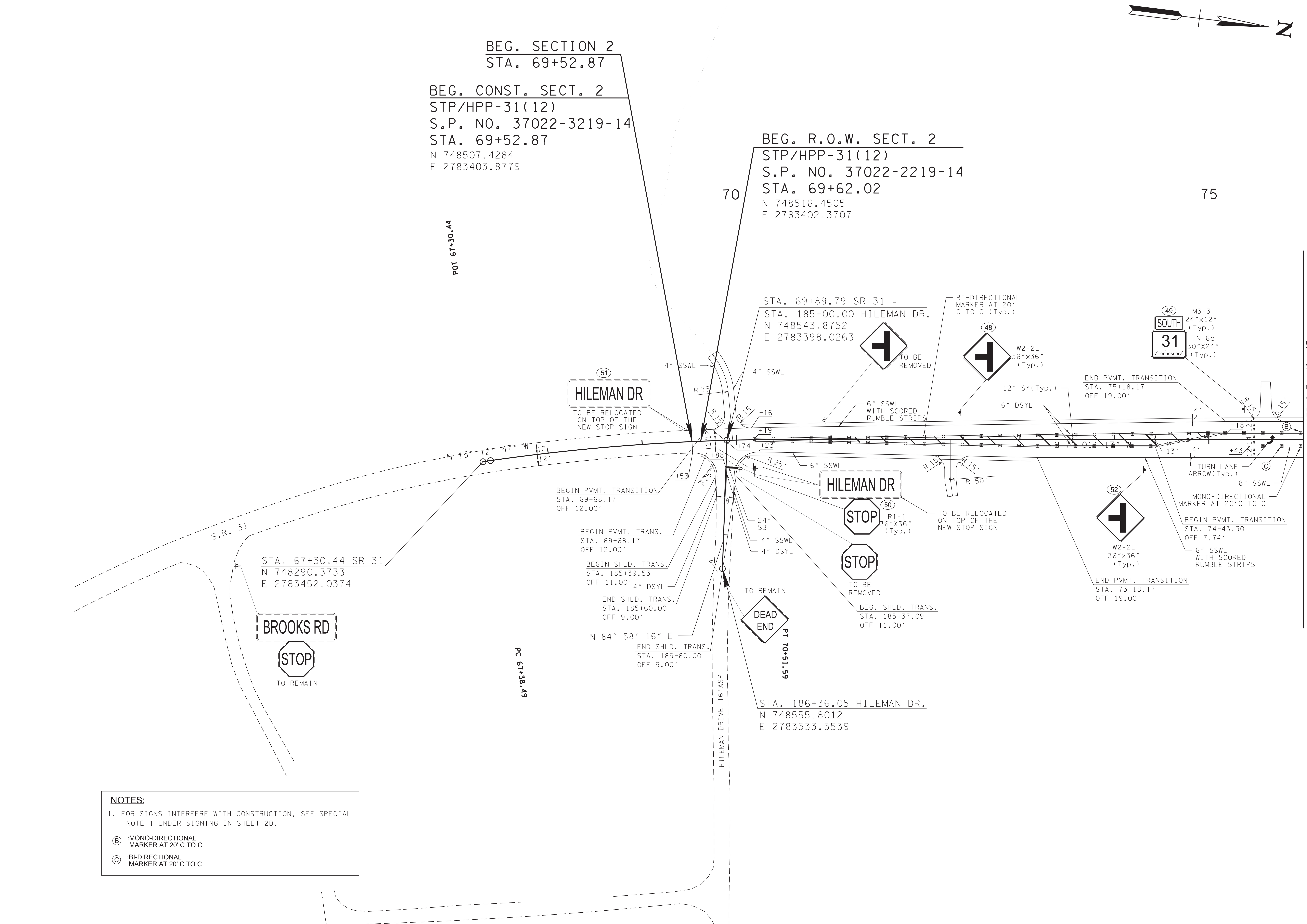
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNING AND PAVEMENT MARKING PLANS

STA. 45+00 TO STA. 47+37.30

SCALE: 1"= 50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	41
PS & E	2026	STP/HPP-31(12)	46



NOTES:

1. FOR SIGNS INTERFERE WITH CONSTRUCTION, SEE SPECIAL NOTE 1 UNDER SIGNING IN SHEET 2D.

(B) :MONO-DIRECTIONAL MARKER AT 20' C TO C

(C) :BI-DIRECTIONAL MARKER AT 20' C TO C

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNING AND PAVEMENT MARKING PLANS

STA. 69+52.87 TO STA. 76+00

SCALE: 1"= 50'

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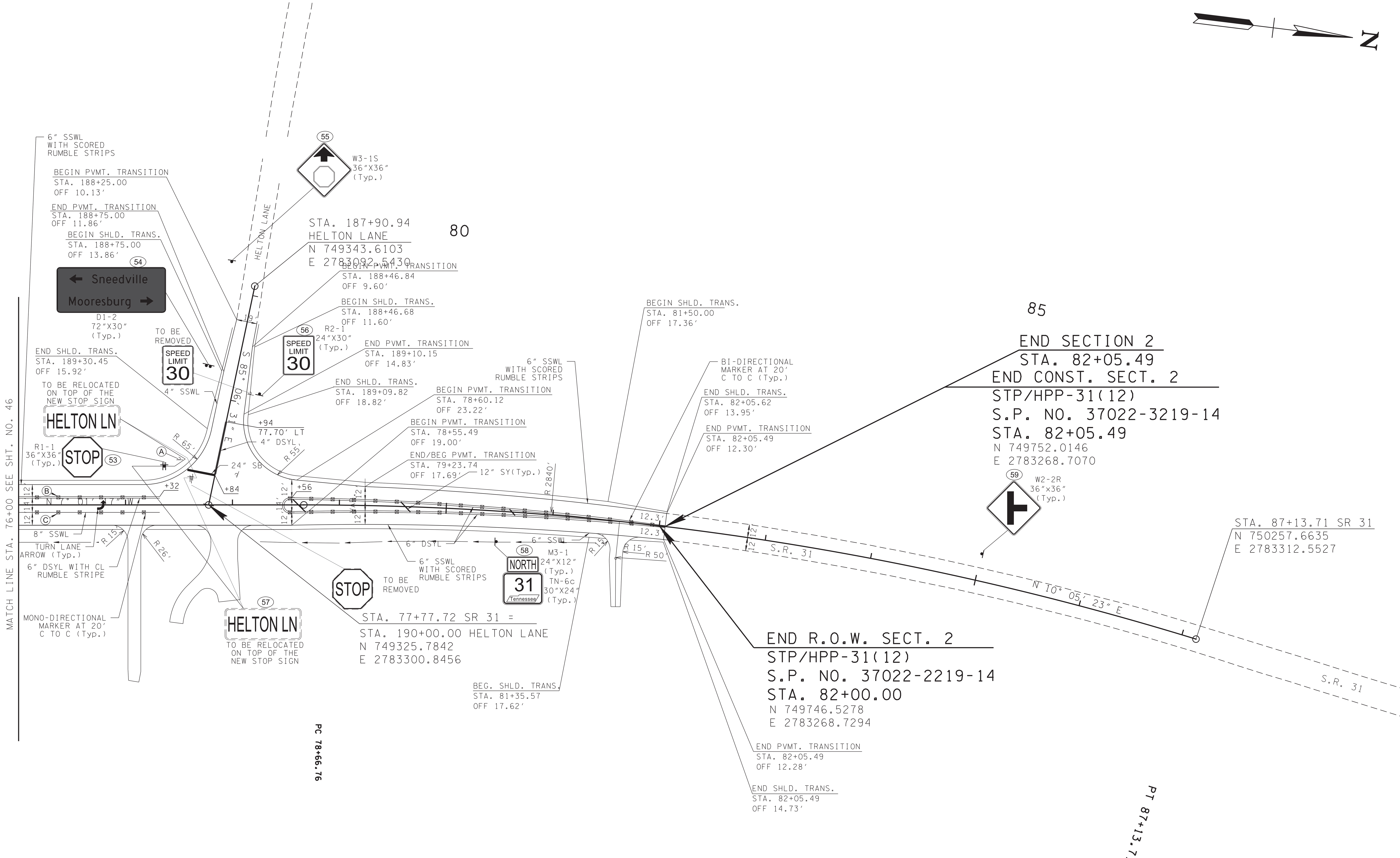
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	42
PS & E	2026	STP/HPP-31(12)	47



NOTES:

1. FOR SIGNS INTERFERE WITH CONSTRUCTION, SEE SPECIAL NOTE 1 UNDER SIGNING IN SHEET 2D.

(A) :UNDERGROUND CABLE WARNING SIGN (TO REMAIN)

(B) :MONO-DIRECTIONAL MARKER AT 20' C TO C

(C) :BI-DIRECTIONAL MARKER AT 20' C TO C

EXCLUSIONS
STA. 82+05.49 TO STA. 218+99.50

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AGRICULTURE COMMERCE
STATE OF TENNESSEE

04/14/2026

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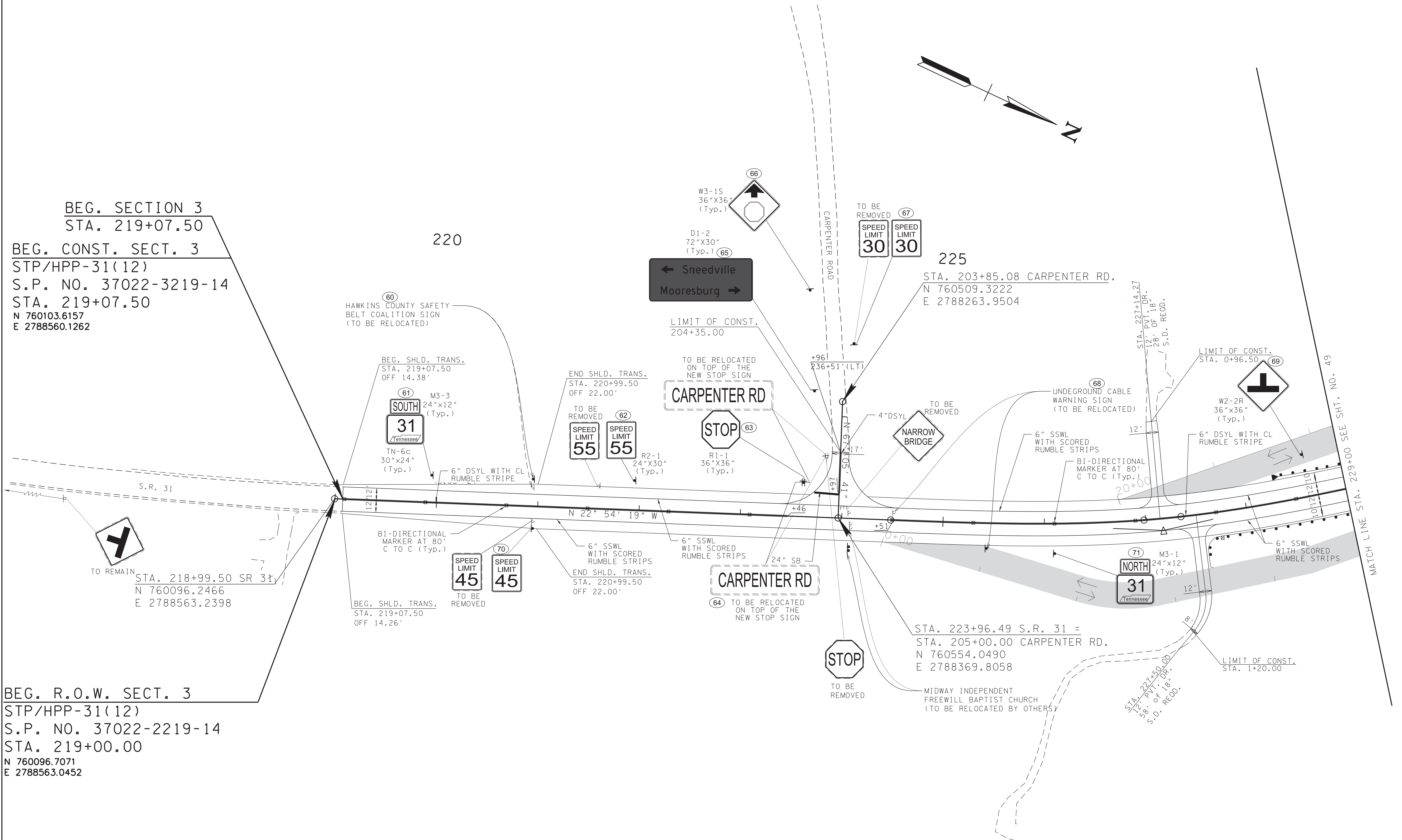
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNING AND PAVEMENT MARKING PLANS

STA. 76+00 TO STA. 82+05.49

SCALE: 1"= 50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	43
PS & E	2026	STP/HPP-31(12)	48



NOTE:

1. FOR SIGNS INTERFERE WITH CONSTRUCTION, SEE SPECIAL NOTE 1 UNDER SIGNING IN SHEET 2D.

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STATE OF TENNESSEE

04/14/2026

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNING AND PAVEMENT MARKING PLANS

STA. 219+00 TO STA. 229+00

SCALE: 1"= 50'

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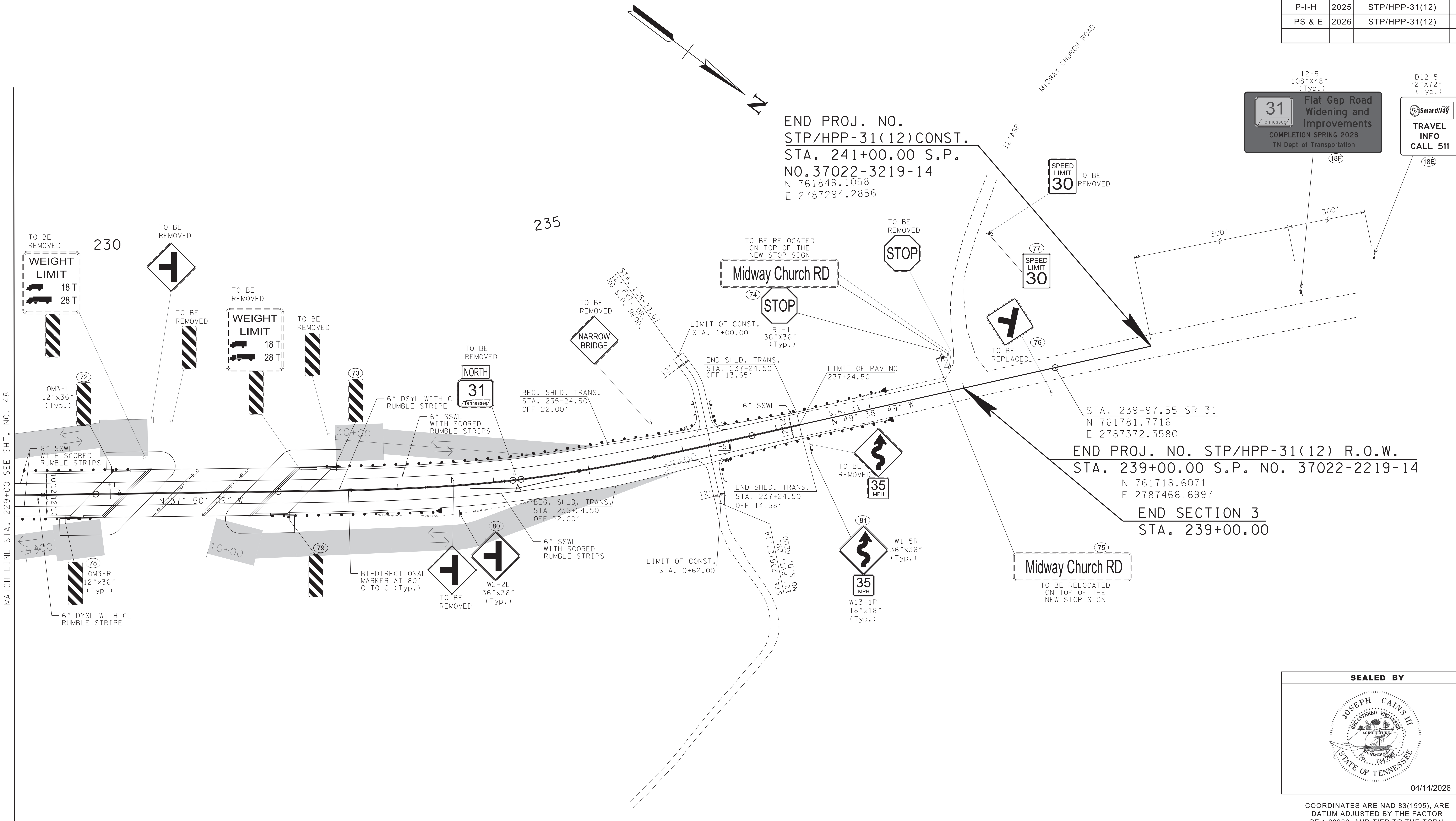
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	44
PS & E	2026	STP/HPP-31(12)	49



NOTE:

1. FOR SIGNS INTERFERE WITH CONSTRUCTION, SEE SPECIAL NOTE 1 UNDER SIGNING IN SHEET 2D.

LEGEND:
PROPOSED HAUL ROAD AREA

SEALED BY

JOSEPH CAINS III — REGISTERED ENGINEER — AGRICULTURE COMMERCE — STATE OF TENNESSEE

04/14/2026

COORDINATES ARE NAD 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00006 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WITH GEOID 99 .

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNING AND PAVEMENT MARKING PLANS

STA. 229+00 TO STA. 239+00

SCALE: 1"= 50'

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	45
PS & E	2026	STP/HPP-31(12)	50

ALL SIGNS SHOWN WITH DESIGNATIONS ARE TO BE FABRICATED AS DETAILED IN THE CURRENT EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" OR THE CURRENT EDITION OF THE "TENNESSEE SUPPLEMENT TO THE STANDARD HIGHWAY SIGNS BOOK"

CONCRETE AND STEEL QUANTITIES FOR FOOTINGS ARE PER EACH

SIGN NO	LEGEND	SHEET NO	SIZE: LENGTH	SIZE: HEIGHT	SIZE: RADIUS	SIZE: BORDER WIDTH	COPY: CAPITAL	COPY: LOWER CASE	COPY: NUMERAL	COPY: SERIES	SHIELD	ARROW	SIGN FACE: COPY	SIGN FACE: BACKGROUND	SIGN FACE: MATERIAL	STEEL DESIGN (BREAK-AWAY): SUPPORT TYPE	SUPPORT LENGTH	FOOTING	CONC. CU. YD.	REIN STEEL LBS.	MINIMUM VERTICAL CLEARANCE	REMARKS
2	ONE WAY R6-1		36"	12"									BLACK	WHITE	0.080" THICK SHEET ALUMINUM							
	STOP R1-1	42	36"	36"									WHITE	RED (REF.)	0.100" THICK SHEET ALUMINUM	P6	h = 16'-3"	TYPE 4 1'-0" DIA	0.12	24.9	5'-0"	P6 SUPPORTS REQUIRE SLIP BASE ITEM NO 713-11.21 (INCLUDES STUB) - SEE DETAILS ON STD. DWG. T-S-23A.
	DIVIDED HIGHWAY R6-3		30"	24"									BLACK	WHITE (REF.)	0.080" THICK SHEET ALUMINUM							
3	11W M1-4	42	30"	24"									BLACK	WHITE (REF.)	0.080" THICK SHEET ALUMINUM	P3	h = 13'-0"	TYPE 4 1'-0" DIA	0.12	24.9	5'-0"	
	M6-4		21"	15"									BLACK	WHITE (REF.)	0.080" THICK SHEET ALUMINUM							
4	NORTH M3-1		24"	12"									BLACK	WHITE (REF.)	0.080" THICK SHEET ALUMINUM							
	11W M1-4	42	30"	24"									BLACK	WHITE (REF.)	0.080" THICK SHEET ALUMINUM	P5	h = 14'-3"	TYPE 4 1'-0" DIA	0.12	24.9	5'-0"	P5 SUPPORTS REQUIRE SLIP BASE ITEM NO 713-11.21 (INCLUDES STUB) - SEE DETAILS ON STD. DWG. T-S-23A.
	M5-1L		21"	15"									BLACK	WHITE (REF.)	0.080" THICK SHEET ALUMINUM							
5	SOUTH M3-3		24"	12"									BLACK	WHITE (REF.)	0.080" THICK SHEET ALUMINUM							
	11W M1-4	42	30"	24"									BLACK	WHITE (REF.)	0.080" THICK SHEET ALUMINUM	P5	h = 14'-3"	TYPE 4 1'-0" DIA	0.12	24.9	5'-0"	P5 SUPPORTS REQUIRE SLIP BASE ITEM NO 713-11.21 (INCLUDES STUB) - SEE DETAILS ON STD. DWG. T-S-23A.
	M5-1L		21"	15"									BLACK	WHITE (REF.)	0.080" THICK SHEET ALUMINUM							
6	W3-1S	42	36"	36"									BLACK AND WHITE	YELLOW & RED (REF.)	0.100" THICK SHEET ALUMINUM	P5	h = 13'-0"	TYPE 4 1'-0" DIA	0.12	24.9	5'-0"	P5 SUPPORTS REQUIRE SLIP BASE ITEM NO 713-11.21 (INCLUDES STUB) - SEE DETAILS ON STD. DWG. T-S-23A.
22 & 30		43																				
55		47																				
66		48																				
7	JCT M2-1		21"	15"									BLACK	WHITE (REF.)	0.080" THICK SHEET ALUMINUM							
	11W M1-4	42	30"	24"									BLACK	WHITE (REF.)	0.080" THICK SHEET ALUMINUM	P3	h = 12'-9"	TYPE 4 1'-0" DIA	0.12	24.9	5'-0"	
1	ONE WAY R6-1	42	36"	12"									BLACK	WHITE (REF.)	0.080" THICK SHEET ALUMINUM							SIGNS 1, 9, &11 ARE POSTED BACK TO BACK WITH R6-1 OF ASSEMBLIES 2, 8, & 10
9																						
11																						
8	ONE WAY R6-1		36"	12"									BLACK	WHITE (REF.)	0.080" THICK SHEET ALUMINUM							
10	YIELD R1-2	42	36"	36"									WHITE	WHITE & RED (REF.)	0.100" THICK SHEET ALUMINUM	P5	h = 13'-6"	TYPE 4 1'-0" DIA	0.12	24.9	5'-0"	P5 SUPPORTS REQUIRE SLIP BASE ITEM NO 713-11.21 (INCLUDES STUB) - SEE DETAILS ON STD. DWG. T-S-23A.
12	DO NOT ENTER R5-1	42	36"	36"									WHITE	WHITE & RED (REF.)	0.100" THICK SHEET ALUMINUM							SIGN 12 IS POSTED BACK TO BACK WITH M-1R 13 OF ASSEMBLY 11
13	NORTH M3-1		24"	12"										WHITE (REF.)	0.080" THICK SHEET ALUMINUM							
	31 Tennessee TN-6c	42	30"	24"									BLACK	WHITE (REF.)	0.080" THICK SHEET ALUMINUM	P5	h = 14'-3"	TYPE 4 1'-0" DIA	0.12	24.9	5'-0"	P5 SUPPORTS REQUIRE SLIP BASE ITEM NO 713-11.21 (INCLUDES STUB) - SEE DETAILS ON STD. DWG. T-S-23A.
	M6-1R		21"	15"										WHITE (REF.)	0.080" THICK SHEET ALUMINUM							
14	NORTH M3-1	42	24"	12"									BLACK	WHITE (REF.)	0.080" THICK SHEET ALUMINUM							
40		43																				
58	31 Tennessee TN-6c	47	30"	24"									BLACK	WHITE (REF.)	0.080" THICK SHEET ALUMINUM	P3	h = 12'-9"	TYPE 4 1'-0" DIA	0.12	24.9	5'-0"	
71		48																				
15	Sneedville 18 TN-2	42	66"	18"	2.25"	0.75"	6"	4.5"					WHITE (REF.)	GREEN (REF.)	0.100" THICK SHEET ALUMINUM	2 @ P2	h = 11'-0" h1 = 11'-0"	TYPE 4 1'-0" DIA	0.12	24.9	5'-0"	
16	SPEED LIMIT 55 R2-1	42	24"	30"									BLACK	WHITE (REF.)	0.080" THICK SHEET ALUMINUM	P2	h = 12'-0"	TYPE 4 1'-0" DIA	0.12	24.9	5'-0"	
62		48																				
17	CENTER LANE ONLY R3-9b	42	24"	36"									BLACK	WHITE (REF.)	0.080" THICK SHEET ALUMINUM	P5	h = 12'-6"	TYPE 4 1'-0" DIA	0.12	24.9	5'-0"	P5 SUPPORTS REQUIRE SLIP BASE ITEM NO 713-11.21 (INCLUDES STUB) - SEE DETAILS ON STD. DWG. T-S-23A.
28		43																				

NOTE:
THE MINIMUM HEIGHT, MEASURED VERTICALLY FROM THE BOTTOM OF THE SIGN TO THE TOP OF THE CURB, OR IN THE ABSENCE OF CURB, MEASURED VERTICALLY FROM THE BOTTOM OF THE SIGN TO THE ELEVATION OF THE NEAR EDGE OF TRAVELED WAY, OF SIGNS INSTALLED AT THE SIDE OF THE ROAD WAY SHALL BE 5 FEET. IN BUSINESS, COMMERCIAL, OR RESIDENTIAL AREAS WHERE PARKING OR PEDESTRIAN MOVEMENTS ARE LIKELY TO OCCUR, WHERE THE VIEW OF THE SIGN MIGHT BE OBSTRUCTED, THE MINIMUM VERTICAL CLEARANCE SHALL BE 7 FEET.

U-POST SUBSTITUTION TABLE

BID ITEM 713-11.01	SUBSTITUTION ALLOWED
2#/FT. U1	2#/FT. MUI OR 2#/FT. R1
2.5#/FT. U3	2.5#/FT. MU3 OR 3#/FT. R2*
3#/FT. U6	
4#/FT. U7	NO SUBSTITUTES

* PAID AT A RATE OF 2.5#/FT.

SEALED BY

JOSEPH CAINS III
REGISTERED ENGINEER
AGRICULTURE COMMERCE
STATE OF TENNESSEE

04/14/2026

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGN SCHEDULE SHEET

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	46
PS & E	2026	STP/HPP-31(12)	51

ALL SIGNS SHOWN WITH DESIGNATIONS ARE TO BE FABRICATED AS DETAILED IN THE CURRENT EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" OR THE CURRENT EDITION OF THE "TENNESSEE SUPPLEMENT TO THE STANDARD HIGHWAY SIGNS BOOK"

CONCRETE AND STEEL QUANTITIES FOR FOOTINGS ARE PER EACH

SIGN NO	LEGEND	SHEET NO	SIZE: LENGTH	SIZE: HEIGHT	SIZE: RADIUS	SIZE: BORDER WIDTH	COPY: CAPITAL	COPY: LOWER CASE	COPY: NUMERAL	COPY: SERIES	SHIELD	ARROW	SIGN FACE: COPY	SIGN FACE: BACKGROUND	SIGN FACE: MATERIAL	STEEL DESIGN (BREAK-AWAY): SUPPORT TYPE	SUPPORT LENGTH	FOOTING	CONC. CU. YD.	REIN STEEL LBS.	MINIMUM VERTICAL CLEARANCE	REMARKS
18 43	S1-1	42 44	36"	36"									BLACK	YELLOW (REF.)	0.100" THICK SHEET ALUMINUM	P5	h = 12'-6"	TYPE 4 1'-0" DIA	0.12	24.9	5'-0"	P5 SUPPORTS REQUIRE SLIP BASE ITEM NO 713-11.21 (INCLUDES STUB) - SEE DETAILS ON STD. DWG. T-S-23A.
19 49 61	SOUTH M3-3 31 Tennessee TN-6c	43 46 48	24" 30"	12" 24"									BLACK BLACK	WHITE (REF.) WHITE (REF.)	0.080" THICK SHEET ALUMINUM 0.080" THICK SHEET ALUMINUM	P5	h = 13'-3"	TYPE 4 1'-0" DIA	0.12	24.9	5'-0"	P5 SUPPORTS REQUIRE SLIP BASE ITEM NO 713-11.21 (INCLUDES STUB) - SEE DETAILS ON STD. DWG. T-S-23A.
24 32	Old Hwy 11w D3-1 STOP R1-1	43	60" 36"	12" 36"	1.5"	0.5"	6"	4.5"		D			WHITE (REF.) WHITE	GREEN (REF.) RED (REF.)	0.080" THICK SHEET ALUMINUM 0.100" THICK SHEET ALUMINUM	P5	h = 13'-9"	TYPE 4 1'-0" DIA	0.12	24.9	5'-0"	P5 SUPPORTS REQUIRE SLIP BASE ITEM NO 713-11.21 (INCLUDES STUB) - SEE DETAILS ON STD. DWG. T-S-23A.
23 33	Old Hwy 11w D3-1	43 43	60"	12"	1.5"	0.5"	6"	4.5"		D			WHITE (REF.)	GREEN (REF.)	0.080" THICK SHEET ALUMINUM							SIGN 23 IS POSTED BACK TO BACK WITH R D3-1 OF ASSEMBLIES 24 AND 32
21	← Sneedville D1-1L	43	66"	18"	2.25"	0.75"	6"	4.5"		D		TYPE "A"	WHITE	GREEN (REF.)	0.100" THICK SHEET ALUMINUM	2 @ P2	h = 11'-0" h1 = 11'-0"	TYPE 4 1'-0" DIA	0.12	24.9	5'-0"	
31	Sneedville → D1-1R	43	66"	18"	2.25"	0.75"	6"	4.5"		D		TYPE "A"	WHITE	GREEN (REF.)	0.100" THICK SHEET ALUMINUM	2 @ P2	h = 11'-0" h1 = 11'-0"	TYPE 4 1'-0" DIA	0.12	24.9	5'-0"	
25 26 35 36 72 73 78 79	OM3-R&L	43 43 43 43 49 49 49 49	12"	36"									BLACK	YELLOW (REF.)	0.080" THICK SHEET ALUMINUM	U3	h = 10'-6"	TYPE 4 1'-0" DIA	0.12	24.9	4'-0"	
34 44	W11-8	43 44	36"	36"									BLACK	YELLOW (REF.)	0.100" THICK SHEET ALUMINUM	P5	h = 12'-6"	TYPE 4 1'-0" DIA	0.12	24.9	5'-0"	P5 SUPPORTS REQUIRE SLIP BASE ITEM NO 713-11.21 (INCLUDES STUB) - SEE DETAILS ON STD. DWG. T-S-23A.
39	CHURCH LN STOP R1-1	43	36"	36"									WHITE	RED (REF.)	0.100" THICK SHEET ALUMINUM	P5	h = 13'-9"	TYPE 4 1'-0" DIA	0.12	24.9	5'-0"	TO BE RELOCATED ON TOP OF THE NEW STOP SIGN P5 SUPPORTS REQUIRE SLIP BASE ITEM NO 713-11.21 (INCLUDES STUB) - SEE DETAILS ON STD. DWG. T-S-23A.
38	CHURCH LN																					SIGN 38 TO BE RELOCATED ON TOP OF ASSEMBLY 39
20 42	SPEED LIMIT 55 R2-1 END SCHOOL ZONE S5-2	43 44	24" 24"	30" 30"									WHITE BLACK	BLACK (REF.) WHITE (REF.)	0.080" THICK SHEET ALUMINUM 0.080" THICK SHEET ALUMINUM	P6	h = 14'-9"	TYPE 4 1'-0" DIA	0.12	24.9	5'-0"	P6 SUPPORTS REQUIRE SLIP BASE ITEM NO 713-11.21 (INCLUDES STUB) - SEE DETAILS ON STD. DWG. T-S-23A.
46	PETTY LANE STOP R1-1	45	36"	36"									WHITE	RED (REF.)	0.100" THICK SHEET ALUMINUM	P5	h = 13'-9"	TYPE 4 1'-0" DIA	0.12	24.9	5'-0"	TO BE RELOCATED ON TOP OF THE NEW STOP SIGN P5 SUPPORTS REQUIRE SLIP BASE ITEM NO 713-11.21 (INCLUDES STUB) - SEE DETAILS ON STD. DWG. T-S-23A.
47	PETTY LANE																					SIGN 47 TO BE RELOCATED ON TOP OF ASSEMBLY 46
45 59 69	W2-2R	44 47 48	36"	36"									BLACK	YELLOW (REF.)	0.100" THICK SHEET ALUMINUM	P5	h = 12'-0"	TYPE 4 1'-0" DIA	0.12	24.9	5'-0"	P5 SUPPORTS REQUIRE SLIP BASE ITEM NO 713-11.21 (INCLUDES STUB) - SEE DETAILS ON STD. DWG. T-S-23A.

NOTE:
THE MINIMUM HEIGHT, MEASURED VERTICALLY FROM THE BOTTOM OF THE SIGN TO THE TOP OF THE CURB, OR IN THE ABSENCE OF CURB, MEASURED VERTICALLY FROM THE BOTTOM OF THE SIGN TO THE ELEVATION OF THE NEAR EDGE OF TRAVELED WAY, OF SIGNS INSTALLED AT THE SIDE OF THE ROAD WAY SHALL BE 5 FEET. IN BUSINESS, COMMERCIAL, OR RESIDENTIAL AREAS WHERE PARKING OR PEDESTRIAN MOVEMENTS ARE LIKELY TO OCCUR, WHERE THE VIEW OF THE SIGN MIGHT BE OBSTRUCTED, THE MINIMUM VERTICAL CLEARANCE SHALL BE 7 FEET.

U-POST SUBSTITUTION TABLE

BID ITEM 713-11.01	SUBSTITUTION ALLOWED
2#/FT. U1	2#/FT. MUI OR 2#/FT. R1
2.5#/FT. U3	2.5#/FT. MU3 OR 3#/FT. R2*
3#/FT. U6	
4#/FT. U7	NO SUBSTITUTES

* PAID AT A RATE OF 2.5#/FT.

SEALED BY

JOSEPH CAINS III
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 124290
STATE OF TENNESSEE

04/14/2026

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGN SCHEDULE SHEET

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	47
PS & E	2026	STP/HPP-31(12)	52

ALL SIGNS SHOWN WITH DESIGNATIONS ARE TO BE FABRICATED AS DETAILED IN THE CURRENT EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" OR THE CURRENT EDITION OF THE "TENNESSEE SUPPLEMENT TO THE STANDARD HIGHWAY SIGNS BOOK"

CONCRETE AND STEEL QUANTITIES FOR FOOTINGS ARE PER EACH

SIGN NO	LEGEND	SHEET NO	SIZE: LENGTH	SIZE: HEIGHT	SIZE: RADIUS	SIZE: BORDER WIDTH	COPY: CAPITAL	COPY: LOWER CASE	COPY: NUMERAL	COPY: SERIES	SHIELD	ARROW	SIGN FACE: COPY	SIGN FACE: BACKGROUND	SIGN FACE: MATERIAL	STEEL DESIGN (BREAK-AWAY): SUPPORT TYPE	SUPPORT LENGTH	FOOTING	CONC. CU. YD.	REIN STEEL LBS.	MINIMUM VERTICAL CLEARANCE	REMARKS
48	W2-2L	46	36"	36"									BLACK	YELLOW (REF.)	0.1000" THICK SHEET ALUMINUM	P5	h = 12'-0"	TYPE 4 1'-0" DIA	0.12	24.9	5'-0"	P5 SUPPORTS REQUIRE SLIP BASE ITEM NO 713-11.21 (INCLUDES STUB) - SEE DETAILS ON STD. DWG. T-S-23A.
80		49																				
50	HILEMAN DR STOP R1-1	46	36"	36"									WHITE	RED (REF.)	0.100" THICK SHEET ALUMINUM	P5	h = 13'-9"	TYPE 4 1'-0" DIA	0.12	24.9	5'-0"	TO BE RELOCATED ON TOP OF THE NEW STOP SIGN P5 SUPPORTS REQUIRE SLIP BASE ITEM NO 713-11.21 (INCLUDES STUB) - SEE DETAILS ON STD. DWG. T-S-23A.
51	HILEMAN DR																					SIGN 51 IS TO BE RELOCATED ON TOP OF ASSEMBLy 50
56	SPEED LIMIT 30 R2-1	47	24"	30"									BLACK	WHITE (REF.)	0.080" THICK SHEET ALUMINUM	P2	h = 12'-0"	TYPE 4 1'-0" DIA	0.12	24.9	5'-0"	
67		48																				
77		49																				
54	← Sneedville Mooresburg → D1-2	47	72"	30"	2.25"	0.75"	6"	4.5"		D			WHITE (REF.)	GREEN (REF.)	0.100" THICK SHEET ALUMINUM	2 @ P3	h = 12'-0" h1 = 12'-0"	TYPE 4 1'-0" DIA	0.12	24.9	5'-0"	
65		48																				
53	HELTON LN STOP R1-1	47	36"	36"									WHITE	RED (REF.)	0.100" THICK SHEET ALUMINUM	P5	h = 13'-9"	TYPE 4 1'-0" DIA	0.12	24.9	5'-0"	TO BE RELOCATED ON TOP OF THE NEW STOP SIGN P5 SUPPORTS REQUIRE SLIP BASE ITEM NO 713-11.21 (INCLUDES STUB) - SEE DETAILS ON STD. DWG. T-S-23A.
57	HELTON LN																					SIGN 57 IS TO BE RELOCATED ON TOP OF ASSEMBLy 53
70	SPEED LIMIT 45 R2-1	48	24"	30"									BLACK	WHITE (REF.)	0.080" THICK SHEET ALUMINUM	P2	h = 12'-0"	TYPE 4 1'-0" DIA	0.12	24.9	5'-0"	
63	CARPENTER RD STOP R1-1	48	36"	36"									WHITE	RED (REF.)	0.100" THICK SHEET ALUMINUM	P5	h = 13'-9"	TYPE 4 1'-0" DIA	0.12	24.9	5'-0"	TO BE RELOCATED ON TOP OF THE NEW STOP SIGN P5 SUPPORTS REQUIRE SLIP BASE ITEM NO 713-11.21 (INCLUDES STUB) - SEE DETAILS ON STD. DWG. T-S-23A.
64	CARPENTER RD																					SIGN 64 IS TO BE RELOCATED ON TOP OF ASSEMBLy 63
74	Midway Church RD STOP R1-1	49	36"	36"									WHITE	RED (REF.)	0.100" THICK SHEET ALUMINUM	P5	h = 13'-9"	TYPE 4 1'-0" DIA	0.12	24.9	5'-0"	TO BE RELOCATED ON TOP OF THE NEW STOP SIGN P5 SUPPORTS REQUIRE SLIP BASE ITEM NO 713-11.21 (INCLUDES STUB) - SEE DETAILS ON STD. DWG. T-S-23A.
75	Midway Church RD																					SIGN 74 IS TO BE RELOCATED ON TOP OF ASSEMBLy 75
81	W1-5R	49	36"	36"									BLACK	YELLOW (REF.)	0.100" THICK SHEET ALUMINUM	P5	h = 13'-6"	TYPE 4 1'-0" DIA	0.12	24.9	5'-0"	P5 SUPPORTS REQUIRE SLIP BASE ITEM NO 713-11.21 (INCLUDES STUB) - SEE DETAILS ON STD. DWG. T-S-23A.
	35 MPH W13-1P		18"	18"									BLACK	YELLOW (REF.)	0.080" THICK SHEET ALUMINUM							

NOTE:
THE MINIMUM HEIGHT, MEASURED VERTICALLY FROM THE BOTTOM OF THE SIGN TO THE TOP OF THE CURB, OR IN THE ABSENCE OF CURB, MEASURED VERTICALLY FROM THE BOTTOM OF THE SIGN TO THE ELEVATION OF THE NEAR EDGE OF TRAVELED WAY, OF SIGNS INSTALLED AT THE SIDE OF THE ROAD WAY SHALL BE 5 FEET. IN BUSINESS, COMMERCIAL, OR RESIDENTIAL AREAS WHERE PARKING OR PEDESTRIAN MOVEMENTS ARE LIKELY TO OCCUR, WHERE THE VIEW OF THE SIGN MIGHT BE OBSTRUCTED, THE MINIMUM VERTICAL CLEARANCE SHALL BE 7 FEET.

U-POST SUBSTITUTION TABLE

BID ITEM 713-11.01	SUBSTITUTION ALLOWED
2#/FT. U1	2#/FT. MUI OR 2#/FT. R1
2.5#/FT. U3	2.5#/FT. MU3 OR 3#/FT. R2*
3#/FT. U6	
4#/FT. U7	NO SUBSTITUTES

* PAID AT A RATE OF 2.5#/FT.

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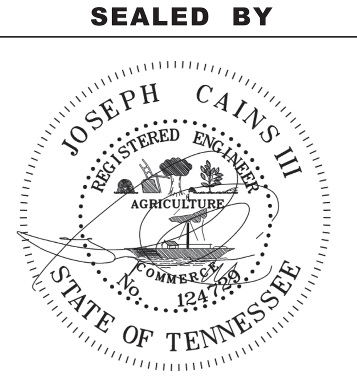

04/14/2026

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGN SCHEDULE SHEET

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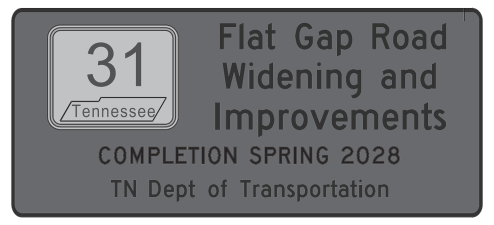
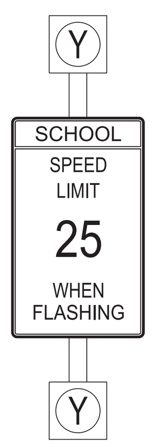
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	
PS & E	2026	STP/HPP-31(12)	53

ALL SIGNS SHOWN WITH DESIGNATIONS ARE TO BE FABRICATED AS DETAILED IN THE CURRENT EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" OR THE CURRENT EDITION OF THE "TENNESSEE SUPPLEMENT TO THE STANDARD HIGHWAY SIGNS BOOK"

CONCRETE AND STEEL QUANTITIES FOR FOOTINGS ARE PER EACH

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			WHITE (REF.) COPY	GREEN (REF.) BACKGROUND	0.080" THICK SHEET ALUMINUM	SUPPORT TYPE	SUPPORT LENGTH	FOOTING	CONC. CU. YD.	REIN STEEL LBS.		
18A		42																				
18C	 D12-5	42	72"	72"	3"	1"	6"	4.56"		D			WHITE	BLUE (REF.)	0.100" THICK SHEET ALUMINUM	P6	h = 15'-6"	TYPE 4 1'-0" DIA	0.12	24.9	5'-0"	P6 SUPPORTS REQUIRE SLIP BASE ITEM NO 713-11.21 (INCLUDES STUB) - SEE DETAILS ON STD. DWG. T-S-9.
18E		49																				
18B		42																				
18D	 I2-5	42	108"	48"	3"	1.3"	6"	4.56"		D			WHITE (REF.)	GREEN (REF.)	0.100" THICK SHEET ALUMINUM	3 @ P3	h1 = 13'-6" h2 = 13'-6" h3 = 13'-6"	TYPE 4 1'-0" DIA	0.12	24.9	5'-0"	SEE DETAILS ON STD. DWG. T-S-9.
18F		49																				
S1	 TN-8-S(MOD.)	SIG-2	36"	60"									BLACK	FLUO. YELLOW-GREEN/ (REF.)	0.100" SHEET ALUMINUM						7'	LOCATED ON TYPE A PEDESTAL POLE. SEE SIGNAL SHEETS FOR MORE INFORMATION.
S2		SIG-3											BLACK	WHITE (REF.)								

NOTE:
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BID ITEM 713-11.01	SUBSTITUTION ALLOWED
2#/FT. U1	2#/FT. MUI OR 2#/FT. R1
2.5#/FT. U3	2.5#/FT. MU3 OR 3#/FT. R2*
3#/FT. U6	
4#/FT. U7	NO SUBSTITUTES

* PAID AT A RATE OF 2.5#/FT.

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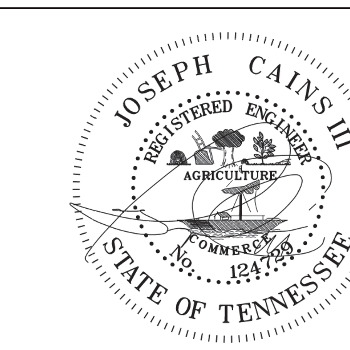

04/14/2026

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGN SCHEDULE SHEET

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31 (12)	48
P-I-H	2025	STP/HPP-31 (12)	48
PS&E	2026	STP/HPP-31 (12)	54

SECTION 1

SR 31 HAWKINS CO.

BEGIN STA. 10+00.00
END STA. 11+50.00

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31 (12)	49
P-I-H	2025	STP/HPP-31 (12)	49
PS&E	2026	STP/HPP-31 (12)	55

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SECTION 1

SR 31 HAWKINS CO.

BEGIN STA. 12+00.00
END STA. 12+50.00

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31 (12)	50
P-I-H	2025	STP/HPP-31 (12)	50
PS&E	2026	STP/HPP-31 (12)	56

3/25/2026 2:37:51 PM
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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31 (12)	51
P-I-H	2025	STP/HPP-31 (12)	51
PS&E	2026	STP/HPP-31 (12)	57

SECTION 1

SR 31 HAWKINS CO.

BEGIN STA. 14+00.00
END STA. 14+50.00

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31 (12)	52
P-I-H	2025	STP/HPP-31 (12)	52
PS&E	2026	STP/HPP-31 (12)	58

SECTION 1

SR 31 HAWKINS CO.

BEGIN STA. 15+00.00
END STA. 15+50.00

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31 (12)	53
P-I-H	2025	STP/HPP-31 (12)	53
PS&E	2026	STP/HPP-31 (12)	59

SECTION 1

SR 31 HAWKINS CO.

BEGIN STA. 16+00.00
END STA. 16+50.00

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31 (12)	54
P-I-H	2025	STP/HPP-31 (12)	54
PS&E	2026	STP/HPP-31 (12)	60

SECTION 1

SR 31 HAWKINS CO.

BEGIN STA. 17+00.00
END STA. 17+50.00

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31 (12)	55
P-I-H	2025	STP/HPP-31 (12)	55
PS&E	2026	STP/HPP-31 (12)	61

SECTION 1
SR 31 HAWKINS CO.
BEGIN STA. 18+00.00
END STA. 18+50.00

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31 (12)	56
P-I-H	2025	STP/HPP-31 (12)	56
PS&E	2026	STP/HPP-31 (12)	62

SECTION 1

SR 31 HAWKINS CO.

BEGIN STA. 19+00.00
END STA. 19+50.00

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31 (12)	57
P-I-H	2025	STP/HPP-31 (12)	57
PS&E	2026	STP/HPP-31 (12)	63

SECTION 1

SR 31 HAWKINS CO.

BEGIN STA. 20+00.00
END STA. 21+00.00

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31 (12)	58
P-I-H	2025	STP/HPP-31 (12)	58
PS&E	2026	STP/HPP-31 (12)	64

SECTION 1

SR 31 HAWKINS CO.

BEGIN STA. 21+50.00
END STA. 22+50.00

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31 (12)	59
P-I-H	2025	STP/HPP-31 (12)	59
PS&E	2026	STP/HPP-31 (12)	65

SECTION 1

SR 31 HAWKINS CO.

BEGIN STA. 23+00.00
END STA. 24+00.00

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31 (12)	60
P-I-H	2025	STP/HPP-31 (12)	60
PS&E	2026	STP/HPP-31 (12)	66

SECTION 1

SR 31 HAWKINS CO.

BEGIN STA. 24+50.00
END STA. 25+50.00

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31 (12)	61
P-I-H	2025	STP/HPP-31 (12)	61
PS&E	2026	STP/HPP-31 (12)	67

SECTION 1

SR 31 HAWKINS CO.

BEGIN STA. 26+00.00
END STA. 27+00.00

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31 (12)	62
P-I-H	2025	STP/HPP-31 (12)	62
PS&E	2026	STP/HPP-31 (12)	68

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31 (12)	63
P-I-H	2025	STP/HPP-31 (12)	63
PS&E	2026	STP/HPP-31 (12)	69

SECTION 1

SR 31 HAWKINS CO.

BEGIN STA. 29+00.00
END STA. 30+00.00

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31 (12)	64
P-I-H	2025	STP/HPP-31 (12)	64
PS&E	2026	STP/HPP-31 (12)	70

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31 (12)	65
P-I-H	2025	STP/HPP-31 (12)	65
PS&E	2026	STP/HPP-31 (12)	71

SECTION 1

SR 31 HAWKINS CO.

BEGIN STA. 32+00.00
END STA. 33+00.00

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31 (12)	66
P-I-H	2025	STP/HPP-31 (12)	66
PS&E	2026	STP/HPP-31 (12)	72

SECTION 1

SR 31 HAWKINS CO.

BEGIN STA. 33+50.00
END STA. 34+50.00

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31 (12)	
P-I-H	2025	STP/HPP-31 (12)	
PS&E	2026	STP/HPP-31 (12)	73

3/25/2026 2:38:25 PM
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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31 (12)	
P-I-H	2025	STP/HPP-31 (12)	
PS&E	2026	STP/HPP-31 (12)	74

SECTION 1

SR 31 HAWKINS CO.

BEGIN STA. 37+00.00
END STA. 36+50.00

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31 (12)	41
P-I-H	2025	STP/HPP-31 (12)	67
PS&E	2026	STP/HPP-31 (12)	75

SECTION 2

SR 31 HAWKINS CO.

BEGIN STA. 69+00.00
END STA. 70+50.00

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31 (12)	42
P-I-H	2025	STP/HPP-31 (12)	68
PS&E	2026	STP/HPP-31 (12)	76

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31 (12)	43
P-I-H	2025	STP/HPP-31 (12)	69
PS&E	2026	STP/HPP-31 (12)	77

SECTION 2
SR 31 HAWKINS CO.
BEGIN STA. 72+50.00
END STA. 73+50.00

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31 (12)	44
P-I-H	2025	STP/HPP-31 (12)	70
PS&E	2026	STP/HPP-31 (12)	78

SECTION 2
SR 31 HAWKINS CO.

BEGIN STA. 74+00.00
END STA. 75+00.00

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31 (12)	45
P-I-H	2025	STP/HPP-31 (12)	71
PS&E	2026	STP/HPP-31 (12)	79

SECTION 2

SR 31 HAWKINS CO.

BEGIN STA. 75+50.00
END STA. 76+50.00

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31 (12)	46
P-I-H	2025	STP/HPP-31 (12)	72
PS&E	2026	STP/HPP-31 (12)	80

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31 (12)	47
P-I-H	2025	STP/HPP-31 (12)	73
PS&E	2026	STP/HPP-31 (12)	81

SECTION 2
SR 31 HAWKINS CO.

BEGIN STA. 78+50.00
END STA. 79+50.00

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31 (12)	48
P-I-H	2025	STP/HPP-31 (12)	74
PS&E	2026	STP/HPP-31 (12)	82

SECTION 2

SR 31 HAWKINS CO.

BEGIN STA. 80+00.00
END STA. 81+00.00

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31 (12)	49
P-I-H	2025	STP/HPP-31 (12)	75
PS&E	2026	STP/HPP-31 (12)	83

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31 (12)	50
P-I-H	2025	STP/HPP-31 (12)	76
PS&E	2026	STP/HPP-31 (12)	84

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31 (12)	51
P-I-H	2025	STP/HPP-31 (12)	77
PS&E	2026	STP/HPP-31 (12)	85

SECTION 3

SR 31 HAWKINS CO.

BEGIN STA. 220+50.00
END STA. 221+50.00

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31 (12)	52
P-I-H	2025	STP/HPP-31 (12)	78
PS&E	2026	STP/HPP-31 (12)	86

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31 (12)	53
P-I-H	2025	STP/HPP-31 (12)	79
PS&E	2026	STP/HPP-31 (12)	87

SECTION 3

SR 31 HAWKINS CO.

BEGIN STA. 223+50.00
END STA. 224+00.00

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31 (12)	54
P-I-H	2025	STP/HPP-31 (12)	80
PS&E	2026	STP/HPP-31 (12)	88

SECTION 3

SR 31 HAWKINS CO.

BEGIN STA. 224+50.00
END STA. 225+00.00

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31 (12)	54
P-I-H	2025	STP/HPP-31 (12)	81
PS&E	2026	STP/HPP-31 (12)	89

SECTION 3

SR 31 HAWKINS CO.

BEGIN STA. 225+50.00
END STA. 226+00.00

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31 (12)	55
P-I-H	2025	STP/HPP-31 (12)	82
PS&E	2026	STP/HPP-31 (12)	90

SECTION 3

SR 31 HAWKINS CO.

BEGIN STA. 226+50.00
END STA. 227+00.00

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31 (12)	56
P-I-H	2025	STP/HPP-31 (12)	83
PS&E	2026	STP/HPP-31 (12)	91

SECTION 3

SR 31 HAWKINS CO.

BEGIN STA. 227+50.00
END STA. 228+50.00

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31 (12)	57
P-I-H	2025	STP/HPP-31 (12)	84
PS&E	2026	STP/HPP-31 (12)	92

SECTION 3
SR 31 HAWKINS CO.

BEGIN STA. 229+00.00
END STA. 230+14.15

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31 (12)	58
P-I-H	2025	STP/HPP-31 (12)	85
PS&E	2026	STP/HPP-31 (12)	93

SECTION 3

SR 31 HAWKINS CO.

BEGIN STA. 231+73.50
END STA. 233+00.00

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31 (12)	59
P-I-H	2025	STP/HPP-31 (12)	86
PS&E	2026	STP/HPP-31 (12)	94

SECTION 3
SR 31 HAWKINS CO.

BEGIN STA. 233+50.00
END STA. 234+50.00

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31 (12)	60
P-I-H	2025	STP/HPP-31 (12)	87
PS&E	2026	STP/HPP-31 (12)	95

SECTION 3
SR 31 HAWKINS CO.

BEGIN STA. 235+00.00
END STA. 236+00.00

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31 (12)	61
P-I-H	2025	STP/HPP-31 (12)	88
PS&E	2026	STP/HPP-31 (12)	96

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2021	STP/HPP-31 (12)	61
P-I-H	2025	STP/HPP-31 (12)	89
PS&E	2026	STP/HPP-31 (12)	97

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	62
P-I-H	2025	STP/HPP-31(12)	90
PS&E	2026	STP/HPP-31(12)	98

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	64
P-I-H	2025	STP/HPP-31(12)	91
PS&E	2026	STP/HPP-31(12)	99

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	66
P-I-H	2025	STP/HPP-31(12)	92
PS&E	2026	STP/HPP-31(12)	100

SECTION 1
OLD SR NO. 1

BEGIN STA. 151+00.00
END STA. 152+00.00

3/25/2026 2:40:10 PM
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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	67
P-I-H	2025	STP/HPP-31(12)	93
PS&E	2026	STP/HPP-31 (12)	101

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	72
P-I-H	2025	STP/HPP-31(12)	94
PS&E	2026	STP/HPP-31 (12)	102

STA. 100+60.00 BEGIN CONSTRUCTION

SECTION 1
JARNIGAN RD
CUL-DE-SAC

BEGIN STA. 100+50.00
END STA. 100+80.00

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	73
P-I-H	2025	STP/HPP-31(12)	95
PS&E	2026	STP/HPP-31 (12)	103

SECTION 1
JARNIGAN RD
CUL-DE-SAC

BEGIN STA. 100+90.00
END STA. 101+10.00

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	73
P-I-H	2025	STP/HPP-31(12)	96
PS&E	2026	STP/HPP-31 (12)	104

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	74
P-I-H	2025	STP/HPP-31(12)	97
PS&E	2026	STP/HPP-31 (12)	105

SECTION 1
JARNIGAN RD
CUL-DE-SAC

BEGIN STA. 101+50.00
END STA. 101+70.00

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	98
PS&E	2026	STP/HPP-31 (12)	106

SECTION 1
JARNIGAN RD
CUL-DE-SAC

BEGIN STA. 101+80.00
END STA. 102+10.00

3/25/2026 2:40:36 PM
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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	
PS&E	2026	STP/HPP-31 (12)	107

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	99
PS&E	2026	STP/HPP-31 (12)	108

SECTION 1

PETTY LANE

BEGIN STA. 195+00.00
END STA. 195+18.91

3/25/2026 2:40:52 PM
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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	100
PS&E	2026	STP/HPP-31 (12)	109

STA. 195+75.00 END CONSTRUCTION & WIDENING

SECTION 1

PETTY LANE

BEGIN STA. 195+39.43
END STA. 195+75.00

3/25/2026 2:40:52 PM
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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	68
P-I-H	2025	STP/HPP-31(12)	101
PS&E	2026	STP/HPP-31 (12)	110

SECTION 2
HILEMAN DR

BEGIN STA. 185+00.00
END STA. 186+00.00

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	69
P-I-H	2025	STP/HPP-31(12)	102
PS&E	2026	STP/HPP-31 (12)	111

SECTION 2

HELTON LANE

BEGIN STA. 188+00.00
END STA. 189+00.00

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	70
P-I-H	2025	STP/HPP-31(12)	103
PS&E	2026	STP/HPP-31 (12)	112

SECTION 2

HELTON LANE

BEGIN STA. 189+50.00
END STA. 190+00.00

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	T1
PS & E	2026	STP/HPP-31(12)	T1

GENERAL NOTES

THE CONTRACTOR SHALL COMPLY WITH 712 REGARDING "TEMPORARY TRAFFIC CONTROL" OF STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION IN THE IMPLEMENTION OF THIS TRAFFIC CONTROL PLAN AND IN ACCORDANCE WITH THE CURRENT EDITION OF THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES".

AN ELEVEN FOOT TEMPORARY TRAFFIC LANE IS DESIRABLE, A NINE FOOT TRAFFIC LANE IS ACCEPTABLE, IF CONDITIONS WARRANT.

EXISTING REGULATORY AND WARNING SIGNS WHICH CONFLICT WITH THE CONSTRUCTION SIGNING SHALL BE REMOVED DURING CONSTRUCTION AND REINSTALLED AS DIRECTED BY THE ENGINEER. ALL COST TO BE INCLUDED IN THE PRICE BID FOR ITEM 712-01, TRAFFIC CONTROL, PER LUMP SUM.

THE SPACING OF SIGNS AND CHANNELIZATION DEVICES MY BE ADJUSTED TO FIT THE GEOMETRIC CONDITIONS ENCOUNTERED, SUCH AS DRIVEWAYS, INTERSECTING ROADWAYS, VERTICAL AND HORIZONTAL ALIGNMENT, ETC., AS APPROVED BY THE ENGINEER.

TRAFFIC CONTROL SIGNS AND DEVICES SHALL BE COORDINATED WITH UTILITY REMOVALS, RELOCATIONS AND INSTALLATIONS TO AVOID CONFLICTS AND DELAYS. ISSUES DISCOVERED WILL BE REPORTED TO THE ENGINEER FOR RESOLUTION.

LANES SHIFTS

THE PAVEMENT MARKINGS ON THE LANE SHIFT FOR EDGE LINES WILL BE INSTALLED AND MAINTAINED TO THE SAME STANDARDS AS FOR PERMANENT MARKINGS ON THE MAIN ROADWAY. THESE MARKINGS SHALL BE IN PLACE PRIOR TO ALLOWING TRAFFIC ONTO THE PAVEMENT. THESE PAVEMENT MARKINGS SHALL MEASURED AND PAID FOR UNDER ITEM NO. 716-05.01 LM.

BEFORE OPENING THE LANE SHIFT TO TRAFFIC, THE TRANSITIONAL MARKINGS ON THE EXISTING ROADWAY MUST BE IN PLACE. THESE MARKINGS SHALL BE MEASURED AND PAID FOR UNDER ITEM NO. 716-05.20 LF. ALL EXISTING MARKINGS IN THE AREA OF THESE TRADITIONAL MARKINGS SHALL BE OBLITERATED OR COVERED WITH BLACKOUT TAPE, AND ALL RAISED PAVEMENT MARKERS SHALL BE REMOVED TO ELIMINATE CONFLICTING MARKINGS. BLACKOUT TAPE, REMOVAL OF THE EXISTING MARKINGS AND RAISED PAVEMENT MARKERS WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COST WILL BE INCLUDED IN ITEM NO. 712-01 TRAFFIC CONTROL, LUMP SUM.

CONSTRUCTION WORK ZONE & TRAFFIC CONTROL

(1)ADVANCE WARNING SIGNS IN ACCORDANCE WITH T-WZ-10 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. COST OF REMOVE, COVERING AND REINSTALLING SIGNS SHALL NOT BE MEASURED AND PAID FOR SEPARATELY, BUT COST SHALL INCLUDED IN THE ORIGINAL UNIT PRICE BID ITEM NO. 712-06, SIGNS (CONSTRUCTION) PER SQUARE FOOT.

(3)A LONG TERM BUT SPORADIC USE WARNING SIGN, SUCH AS FLAGGER SIGN, MAY BE 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 TRAVEL 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. THE DISTANCE SHALL INCREASE TO FORTY-FIVE (45) FEET FOR ROADWAYS FOR CURRENT ADT'S OF 1500 OR GRATER 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 ALTERNATIVE 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 SPEEDS 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 LESS THAN 60 MPH. THE 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 ALTERNATIVE 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 PLACED 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 (CONSTRUCTION), S.F.

(10)THE CONTRACTOR SHALL MAINTAIN DRIVEWAY ACCESS THROUGHOUT THE CONSTRUCTION PERIOD TO ALLOW PASSAGE OF PRIVATE VEHICLES AND DELIVERIES. COST TO MAINTAIN DRIVEWAYS WILL BE INCLUDE IN OTHER BID ITEMS. WHEN DRIVEWAYS ARE RESURFACED DURING CONSTRUCTION, RESURFACING SHALL BE PHASED OR SCHEDULED TO MAINTAIN NORMAL ACCESS THROUGH THE DRIVEWAY. COORDINATION SHALL BE MAINTAINED WITH THE ENTITY SERVED BY THE DRIVEWAY TO MINIMIZE DISRUPTION TO NORMAL OPERATIONS.

PAVEMENT EDGE DROP-OFF TRAFFIC CONTROL NOTES

(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 2000 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 LANES 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 ALLOWED TO TRAVERSE THE 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 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 LANES (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 THE 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 TRHOU8GHOUT 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 ROAD. 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 HIGHWAY 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 ENGINEERS 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 PROTECTIVE DEVICES AS SPECIFIED IN PARAGRAPH a, AND 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 PROTECTIVE 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 6 INCHES OR LESS.

TEMPORARY PAVEMENT MARKINGS ON INTERMEDIATE LAYERS

(1)TEMPORARY PAVEMENT LINE MARKINGS ON INTERMEDIATE LAYERS OF PAVEMENT SHALL BE REFLECTIVE TAPE OR REFLECTORIZED PAINT INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAY'S WORK. SHORT, UNMARKED SECTIONS SHALL NOT BE ALLOWED. THESE MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 716-05.20, PAINTED PAVEMENT MARKING (6" LINE), L.M.

DETOURS, LANE SHIFTS AND MEDIAN CROSS-OVERS

(1)THE PAVEMENT MARKING ON SR 31 WILL BE INSTALLED AND MAINTAINED TO THE SAME STANDARDS AS FOR PERMANENT MARKINGS ON THE MAIN ROADWAY. THESE MARKINGS SHALL BE IN PLACE PRIOR TO ALLOWING TRAFFIC ONTO THE PAVEMENT. THESE PAVEMENT MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 716-05.20, L.M.

(2)BEFORE OPENING SR 31 TO TRAFFIC, THE TRANSITIONAL MARKINGS ON THE EXISTING ROADWAY MUST BE IN PLACE. THESE MARKINGS SHALL BE MEASURED AND PAID FOR UNDER ITEM NO. 712-09.08 PER L.F. ALL EXISTING MARKINGS IN THE AREA OF THESE TRANSITIONAL MARKINGS SHALL BE OBLITERATED AND ALL EXISTING RAISED PAVEMENT MARKERS SHALL BE REMOVED TO ELIMINATE CONFLICTING MARKINGS. REMOVAL OF THE EXISTING CONFLICTING MARKINGS AND RAISED PAVEMENT MARKERS WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COST WILL BE INCLUDED IN ITEM NO. 712-01, TRAFFIC CONTROL, LUMP SUM.

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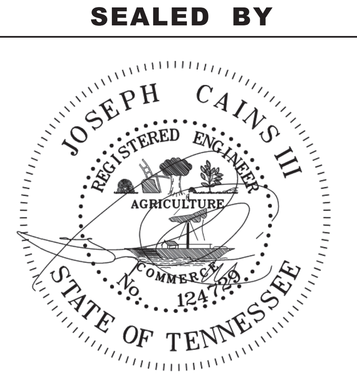

04/14/2026

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLANS (GENERAL NOTES)

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	T2
PS & E	2026	STP/HPP-31(12)	T2

TRAFFIC CONTROL SIGN TABULATION

M.U.T.C.D. SIGN NO.	LEGEND	SIZE IN INCHES L X W	S.F.	NO. REQUIRED SECT. 3 CULVERT INSTALL	NO. REQUIRED PHASE I	NO. REQUIRED PHASE II	NO. REQUIRED PHASE III	TOTAL NO. REQUIRED	ITEM NO. 712-06 S.F.	STANDARD DRAWING NO.	REMARKS
M4-9L	DETOUR	24" x 30"	5	0	1	0	0	1	5		SEE MUTCD FOR MORE INFORMATION
G20-2	END ROADWORK	18" x 36"	4.5	3	15	13	7	37	172		
R1-1	STOP SIGN	24" x 24"	4	0	0	3	0	3	12		
R2-1	SPEED LIMIT (35 MPH)	24" x 30"	5	0	2	1	2	5	25		
R2-1	SPEED LIMIT (45 MPH)	24" x 30"	5	0	4	4	5	13	65		
R2-5a	REDUCE SPEED AHEAD	24" x 30"	5	0	6	5	5	16	80		
R4-7	KEEP RIGHT (SYMBOL)	24" x 30"	5	2	0	5	0	7	35		
R11-2	ROAD CLOSED	30" x 48"	10	0	1	2	0	3	30		
W3-3	SIGNAL AHEAD	36" x 36"	9	2	2	2	0	6	54	T-WZ-32	
W5-1	NARROW ROAD	36" x 36"	9	0	0	1	0	1	9		
W5-2	NARROW BRIDGE	36" x 36"	9	0	2	0	0	2	18		
W20-1	ROAD WORK AHEAD	48" x 48"	16	1	12	13	5	30	496		
W20-1F	ROAD WORK (500FT)	36" x 36"	9	2	5	5	5	17	153	T-WZ-32	
W20-1F	ROAD WORK (1000FT)	36" x 36"	9	0	4	4	4	12	108	T-WZ-10	
W20-1M	ROAD WORK (1 MILE)	48" x 48"	16	2	4	4	4	14	224	T-WZ-10	
W20-1M	ROAD WORK (1/2 MILE)	48" x 48"	16	2	4	4	4	14	224	T-WZ-10	
W20-4	ONE LANE ROAD AHEAD	36" x 36"	9	2	2	4	5	9	117	T-WZ-32	
W20-7	FLAGGER (SYMBOL)	36" x 36"	9	0	0	4	0	4	36		
W21-5aR	RIGHT SHOULDER CLOSED	36" x 36"	9	0	3	0	0	3	27		
								DETOUR	192.0	S.F.	
								TOTAL	2064	S.F.	

TRAFFIC CONTROL QUANTITIES

PAY ITEM	DESCRIPTION	UNITS	NO. REQUIRED SECT. 3 CULVERT INSTALL	NO. REQUIRED PHASE I	NO. REQUIRED PHASE II	NO. REQUIRED PHASE III	TOTAL NO. REQUIRED	REMARKS
303-01	MINERAL AGGREGATE, TYPE A BASE	TON		304			304	
705-01.04	METAL BEAM GUARD FENCE	LF		39			39	
705-06.01	W BEAM GR (TYPE 2) MASH TL3	LF		219	113		332	
705-06.09	WEAK POST GUARDRAIL ATTACHMENT TO CULVERT (MASH TL-3)(TYPE 21)	EA		4			4	
712-01	TRAFFIC CONTROL	LS					1	
712-02.02	INTERCONNECTED PORTABLE BARRIER RAIL	LF	260		250		510	
712-02.10	PORTABLE BARRIER RAIL (MASH TL-3)	LF			220		220	
712-02.60	TEMPORARY WORK ZONE CRASH CUSHION (MASH TL-3)	EA	2		2		4	
712-04.01	FLEXIBLE DRUMS (CHANNELIZING)	EA	28	479	534	192	1233	INCLUDE ALL SECTIONS PER PHASE
712-05.01	WARNING LIGHTS (TYPE A)	EA		12	0		12	
712-05.03	WARNING LIGHTS (TYPE C)	EA		16	33		49	
712-06	SIGNS (CONSTRUCTION)	SF	221	625	618	408	2064	INCLUDES 192 S.F. DETOUR SIGNS
712-07.03	TEMPORARY BARRICADES (TYPE III)	LF	20	20	120		160	
716-01.07	TEMPORARY RAISED PAVEMENT MARKERS, YELLOW	EA		547	198	257	1002	
716-05.05	PAINTED PAVEMENT MARKING (STOP LINE)	LF		99	50	155	304	
716-05.20	PAINTED PAVEMENT MARKING (6" LINE)	LM		4.3	5.0	3.8	13.1	BLACKOUT TAPE IS OPTIONAL
730-40.01	PORTABLE TRAFFIC SIGNAL SYSTEM	LS	3	6	0		9	QUANTITY PER PHASE

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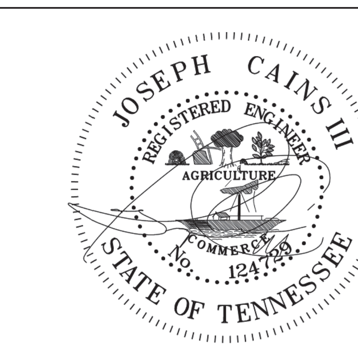

04/14/2026

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC
CONTROL PLANS
(TABULATIONS)

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	T2
PS & E	2026	STP/HPP-31(12)	T2A

PHASING NOTES

DRAINAGE CONSTRUCTION PRE PHASE I

1. CONSTRUCTION OF CROSS DRAIN AT STA. 236+56.2 TO BE CONSTRUCTED BEFORE PHASE I CONSTRUCTION BEGINS.

2. USE SINGLE LANE TWO WAY DIVERSION IN A TWO PHASE SEQUENCE OF CONSTRUCTION FOR CROSS DRAIN BEGINNING ON DOWNSTREAM END.

3. PLACE ANCHORED PORTABLE CONCRETE BARRIER IN THE CONFIGURATION SHOWN WITH CHANNELIZING DEVICES, STOP BARS, SIGNS, AND PORTABLE WIRELESS SIGNALS TO ESTABLISH A SINGLE LANE TWO-WAY DIVERSION AS SHOWN IN PLANS.

4. CONSTRUCT DOWNSTREAM PORTION OF CROSS DRAIN UP TO WITHIN 6 INCHES OF THE BACK OF THE PORTABLE CONCRETE BARRIER. A SUMP AND PUMP SYSTEM WILL COLLECT ANY RUNOFF AND CONVEY IT THROUGH CROSS DRAIN TO THE DOWNSTREAM SIDE OF THE CROSS DRAIN CONSTRUCTION.

5. WHEN THE CONSTRUCTION OF THE DOWNSTREAM PORTION OF CROSS DRAIN IS COMPLETE, SHIFT TRAFFIC ONTO FINISHED ROADWAY AND REVERSE ANCHORED PORTABLE CONCRETE AND CHANNELIZING DEVICES TO PROVIDE WORK ZONE FOR REMAINING PORTION OF CROSS DRAIN AS SHOWN IN TYPICAL SECTION.

6. COMPLETE CONSTRUCTION OF CROSS DRAIN AND REMOVE PORTABLE CONCRETE BARRIER, CHANNELIZING DEVICES, SIGNS, AND PORTABLE SIGNALS. OPEN COMPLETED CROSS DRAIN TO TRAFFIC AND INITIATE SEGMENT 3 PHASE I TTCP.

SEGMENT 1

PHASE 1
1. REDUCE LANES TO 10 FEET AND SHIFT LANES WITHIN EXISTING PAVEMENT LIMITS. PLACE CHANNELIZING DEVICES AT 30' SPACING ON BOTH SIDES. CONSTRUCT WIDENING ON BOTH SIDES. LIMIT LENGTH OF LINEAR SEGMENTS OF ROADWAY CONSTRUCTION SO THAT EXCAVATED AREAS ADJACENT TO EXISTING PAVEMENT CAN BE BACK FILLED TO EXISTING GRADE AT THE END OF DAILY WORK PERIOD.

2.CONSTRUCT WIDENING AND ASSOCIATED DRAINAGE FACILITIES ON BOTH SIDES. CONSTRUCT ENTRANCE TO PETTY LANE WITH CLOSURE TO PETTY LANE AND DETOUR THROUGH JARNIGAN ROAD. WORK ON PETTY LANE MUST BE COMPLETED PRIOR TO STARTING CONSTRUCTION ON JARNIGAN ROAD. CONSTRUCT CUL-DE-SAC ON JARNIGAN ROAD. CLOSE PORTION OF JARNIGAN ROAD TO COMPLETE CONSTRUCTION THROUGH PETTY LANE. MAINTAIN ACCESS TO PROPERTIES DURING CONSTRUCTION.

3. CONSTRUCT PAVEMENT TO BOTTOM OF FRICTION COURSE AND INSTALL GUARDRAIL AS REQUIRED. EDGES OF PAVEMENT SHALL RECEIVE SAFETY WEDGE TO AVOID DROP OFF CONDITIONS.

4. SHIFT TRAFFIC TO RIGHT ON EXISTING BRIDGE CULVERT USING SINGLE LANE 12 FOOT WIDE LANE. MOUNT WEAK POST GUARDRAIL ON RIGHT SIDE OF BRIDGE CULVERT HEADWALL WITH TYPE 21 TERMINALS. MOUNT GUARDRAIL TO DECK OF EXISTING CULVERT AND CONNECT TO TYPE 21 TERMINALS. REMOVE WESTERN PORTION OF CULVERT AND BUILD FIRST PHASE OF PROPOSED BRIDGE OVER MOORESBURG BRANCH TO PROVIDE 2 LANES OF TRAFFIC OVER BRIDGE. MOUNT STIFFENED PORTABLE CONCRETE BARRIER ALONG RIGHT EDGE OF PROPOSEDBRIDGE DECK WITH ADJOINING ANCHORED PORTABLE CONCRETE BARRIER SEGMENTS AND ATTENUATORS.

PHASE 2
1. SHIFT TRAFFIC TO OUTER LIMITS OF WIDENED SHOULDER PAVEMENT AND PLACE CHANNELIZING DEVICES.

2. CONSTRUCT ROADWAY OVER EXISTING PAVEMENT THAT HAS BEEN COLD PLANED. PROVIDE TEMPORARY CROSSOVERS AS NEEDED FOR PROPERTY ACCESS.

3. SUBSTANTIALLY COMPLETE PROPOSED BRIDGE CONSTRUCTION OVER MOORESBURG BRANCH.

4. CONSTRUCT PAVEMENT TO BOTTOM OF FRICTION COURSE AND INSTALL GUARDRAIL AS REQUIRED. PROVIDE SAFETY EDGES OF PAVEMENT LAYER 3 TO AVOID DROP OFF CONDITIONS.

PHASE 3
1. USING THE PAVED SHOULDER SHIFT TRAFFIC LEFT TO 2-11 FOOT LANES WITH A 2-FOOT OFFSET FROM CENTERLINE. PAVE RIGHT SIDE OF ROADWAY WITH FRICTION COURSE. AT TAPERS USE SINGLE LANE CLOSURES WITH FLAGGERS USING MUTCD TYPICAL APPLICATION 10 (FLAGGER OPERATION) TO COMPLETE PAVING ON RIGHT SIDE TO CENTERLINE.

2. REVERSE TRAFFIC, SHIFT TO THE RIGHT SIDE OF ROADWAY WITH TRAFFIC CONES TO CHANNELIZE TRAFFIC LANES AND USING FLAGGERS WITH MUTCD TYPICAL APPLICATION 10 (FLAGGER OPERATION) FOR TAPER PAVING. PAVE LEFT SIDE OF ROADWAY WITH FRICTION COURSE.

3. SPLIT TRAFFIC ONTO SHOULDERS NB AND SB AND PLACE STRIPING FOR CENTER TWO-WAY LEFT TURN LANE. SHIFT TRAFFIC TO TRAFFIC LANE AND CENTER LANE TO PLACE EDGE LINES. REMOVE CHANNELIZING DEVICES AND TRAFFIC CONTROL SIGNS. OPEN TO TRAFFIC.

TRAFFIC CONTROL LEGEND

SYMBOL	ITEM
	WORK ZONE AREA
	FLEXIBLE DRUM (CHANNELIZING)
	TEMPORARY PAVEMENT
	TRAFFIC DIRECTION ARROWS
	TEMPORARY TRAFFIC CONTROL SIGN
	MOBILE WIRELESS SIGNAL TRAILER
	TEMPORARY GUARDRAIL
	TEMPORARY BARRICADE (TYPE III)
	WARNING FLAGS (ON SIGN)
	ATTENUATOR

SEGMENT 2

PHASE 1
1. PLACE ADVANCE SIGNING ACCORDING TO T-WZ-10 AND POSITION CHANNELIZING DEVICES AT 30 FOOT SPACING WITH REMOVABLE TAPE TO TRANSITION THE EXISTING LANES TO 11-FOOT-WIDE TRAVEL LANES WITHIN THE WORK ZONE AND CENTERED ON THE EXISTING CENTERLINE. MAINTAIN ACCESS TO SIDE STREETS AND DRIVEWAYS.

2. COMPLETE WIDENING AND MILLING & RESURFACING ON HELTON LANE USING FLAGGERS AND SINGLE LANE CLOSURES. PLACE FINAL STRIPPING ON HELTON LANE UP TO SR 31.

PHASE 2
1. PLACE TEMPORARY PAVEMENT ON OUTSIDE PROPOSED SHOULDERS SUFFICIENT TO PROVIDE 11' WIDE TRAVEL LANES FOR PHASE 2.

2. CONSTRUCT THE IMPROVEMENTS ON THE INSIDE OF THE TCP TRAVEL LANES UP TO THE FINAL SURFACE COURSE OF PAVEMENT. AVOID DROP-OFF CONDITIONS BY BACK FILLING NEXT TO EXISTING PAVEMENT AT THE END OF EACH WORK PERIOD WITH SAFETY WEDGE.

3. COMPLETE FINAL GRADING AND ROADSIDE FEATURES OUTSIDE THE TEMPORARY TRAVEL LANES ACCORDING TO THE PLANS.

PHASE 3
1. USING THE PAVED SHOULDER AND TEMPORARY PAVEMENT, SHIFT TRAFFIC RIGHT TO 2-11 FOOT TRAVEL LANES WITH 1-FOOT OFFSET FROM OUTSIDE EDGE OF SHOULDER AND A 1-FOOT OFFSET FROM THE CENTERLINE. PAVE LEFT SIDE OF ROADWAY WITH FRICTION COURSE. AT TAPERS USE SINGLE LANE CLOSURES WITH FLAGGERS USING MUTCD TYPICAL APPLICATION 10 (FLAGGER OPERATION) TO COMPLETE PAVING ON THE LEFT SIDE TO CENTERLINE.

2. REVERSE TRAFFIC SHIFT TO LEFT SIDE OF ROADWAY WITH TRAFFIC CONES TO CHANNELIZE TRAFFIC INTO 2-10 FOOT TRAVEL LANES AND USING FLAGGERS WITH MUTCD TYPICAL APPLICATION 10 (FLAGGER OPERATION)FOR TAPER AREAS. PAVE FRICTION COURSE ON RIGHT SIDE.

3. SPLIT TRAFFIC ONTO PAVED SHOULDERS NB AND SB AND PLACE STRIPING FOR CENTER TWO-WAY LEFT TURN LANE. SHIFT TRAFFIC TO TRAVEL LANE AND CENTER LANE TO PLACE EDGE LINES LEFT AND RIGHT. REMOVE TEMPORARY PAVEMENT AND RESTORE ROADSIDE WITH FINAL GRADING AND SOD. REMOVE CHANNELIZING DEVICES AND TRAFFIC CONTROL SIGNS. OPEN TO TRAFFIC.

SEGMENT 3

PHASE 1
1. INSTALL ADVANCE SIGNING AND SHIFT TRAFFIC LEFT WITHIN EXISTING PAVEMENT USING 2-11' WIDE LANES.

2. IN ALIGNMENT OVERLAP AREAS SHIFT TRAFFIC LEFT WITHIN EXISTING PAVEMENT USING 2-10' WIDE LANES WITH A 200' TRANSITION.

3. USE CHANNELIZING DEVICES AT 30' SPACING ALONG NB & SB TRAVEL LANES. USE 6" DOUBLE YELLOW CENTER STRIP AND 6" WHITE STRIP ON RIGHT SIDE OF NB TRAVEL LANE.

4. MAINTAIN TRAFFIC ON CARPENTER ROAD.

5. MAINTAIN SHOULDER SURFACES AT END OF WORK PERIOD TO AVOID DROP OFFS.

6. MAINTAIN ACCESS TO DRIVEWAYS.

7. USE HAUL ROADS TO CONSTRUCT NEW BRIDGE AND ROADWAY APPROACHES ON NEW ALIGNMENT AND PROFILE.

PHASE 2
1. MAINTAIN ADVANCE SIGNING.

2. DIVERT TRAFFIC TO NEW ALIGNMENT OVER NEW BRIDGE USING CHANNELIZING DEVICES AND PROPOSED STRIPING.

3. USE HAUL ROADS TO REMOVE EXISTING BRIDGE AND ROAD BED AS REQUIRED AND REGRADE FOR FINAL DRESSING.

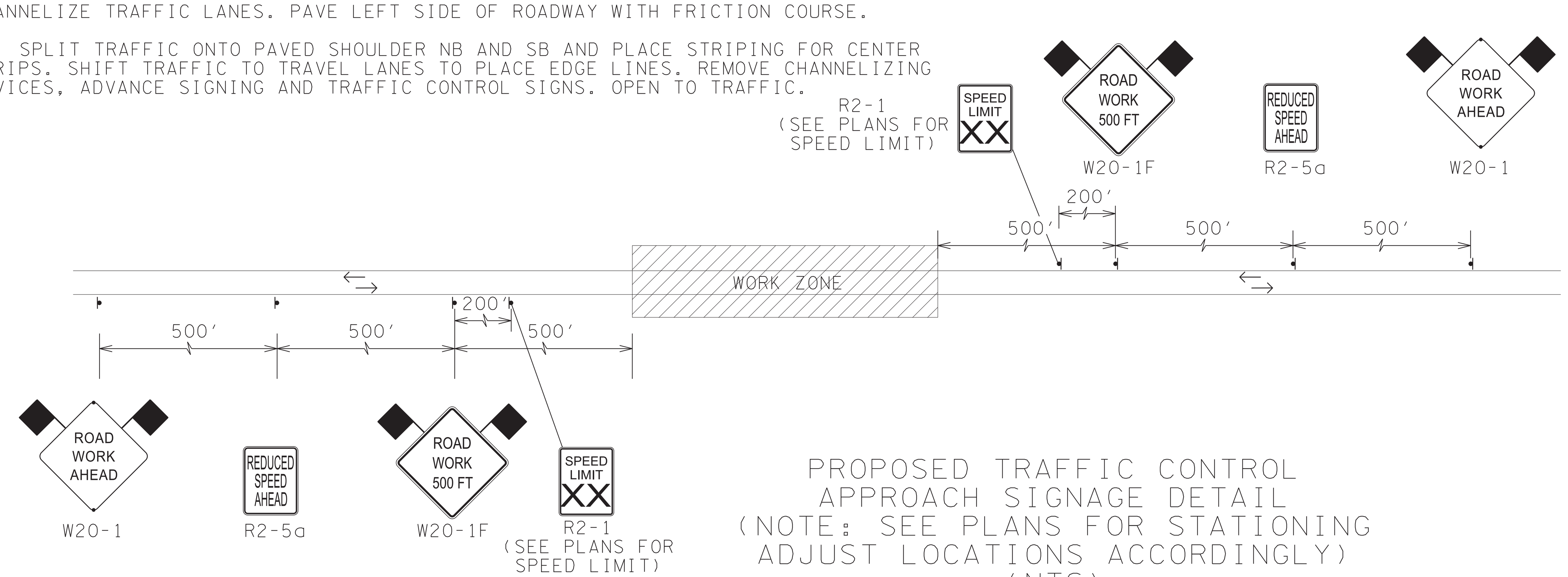
4. MAINTAIN ACCESS TO EXISTING ROADS AND DRIVEWAYS.

PHASE 3

1. USING PAVED SHOULDERS, SHIFT TRAFFIC LEFT TO 2-10 TRAVEL LANES WITH 1-FOOT OFFSET FROM OUTSIDE EDGE OF SHOULDER AND A 1-FOOT OFFSET FROM CENTERLINE. PAVE RIGHT SIDE OF ROADWAY WITH FRICTION COURSE.

2. REVERSE TRAFFIC SHIFT TO RIGHT SIDE OF ROADWAY WITH TRAFFIC CONES TO CHANNELIZE TRAFFIC LANES. PAVE LEFT SIDE OF ROADWAY WITH FRICTION COURSE.

3. SPLIT TRAFFIC ONTO PAVED SHOULDER NB AND SB AND PLACE STRIPING FOR CENTER STRIPS. SHIFT TRAFFIC TO TRAVEL LANES TO PLACE EDGE LINES. REMOVE CHANNELIZING DEVICES, ADVANCE SIGNING AND TRAFFIC CONTROL SIGNS. OPEN TO TRAFFIC.



PROPOSED TRAFFIC CONTROL APPROACH SIGNAGE DETAIL (NOTE: SEE PLANS FOR STATIONING ADJUST LOCATIONS ACCORDINGLY) (NTS)

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JOSEPH CAINS III
STATE OF TENNESSEE

04/14/2026

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLANS (PHASING NOTES, & LEGEND)

SCALE: N.T.S.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	T3
PS & E	2026	STP/HPP-31(12)	T3

TRAFFIC CONTROL NOTES

THE WIDE LOAD DETOUR SIGNING IS TO SERVE AS A GUIDE ONLY. ADDITIONAL SIGNS MAY BE NEEDED DURING VARIOUS PHASES OF CONSTRUCTION. EXACT LOCATION OF SIGNS WILL DEPEND ON EXISTING ROADWAY FEATURES.

THIS TRAFFIC CONTROL PLAN DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF INSTALLING TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE CURRENT EDITION OF "THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES".

ALL DETOUR SIGNS ON THE PROJECT SHALL BE COVERED WHEN NOT IN USE. COST COVERING /UNCOVERING SIGNS SHALL NOT BE MEASURED AND PAID FOR SEPARATELY, BUT ALL COST SHALL BE INCLUDED IN THE ORIGINAL UNIT PRICE BID FOR ITEM NO. 712-06, SIGNS (CONSTRUCTION) PER SQUARE FOOT.

TRAFFIC CONTROL SIGN TABULATION

M.U.T.C.D. SIGN NO.	LEGEND	SIZE IN INCHES L X W	S.F.	NO. REQUIRED	TOTAL NO. REQUIRED	ITEM NO. 712-6 S.F.	STANDARD DRAWING NO.	REMARKS
M3-1	CARDINAL DIRECTION MARKER - NORTH	21" x 15"	2	5	5	10		SEE MUTCD FOR MORE INFORMATION
M3-3	CARDINAL DIRECTION MARKER - SOUTH	21" x 15"	2	9	9	18		
M4-8	DETOUR	24" x 12"	2	15	15	30		
M4-8A	END DETOUR	24" x 18"	3	2	2	6		
M4-8 MOD.	WIDE LOAD	24" x 12"	2	5	5	10		
M5-1L	ADVANCE TURN ARROW 90	21" x 15"	2	1	1	2		
M5-1R	ADVANCE TURN ARROW 90	21" x 15"	2	2	2	4		
M5-2L	ADVANCE TURN ARROW 45	21" x 15"	2	1	1	2		
M6-1L	DIRECTIONAL ARROW LT	21" x 15"	2	1	1	2		
M6-1R	DIRECTIONAL ARROW RT	21" x 15"	2	2	2	4		
M6-2R	DIRECTIONAL ARROW 45 RT	21" x 15"	2	2	2	4		
M6-3	STRAIGHT ARROW	21" x 15"	2	6	6	12		
TN-6C	STATE ROUTE NUMBER (2 DIGITS)	30" x 24"	5	14	14	70		
W20-2	DETOUR AHEAD	36" x 36"	9	2	2	18		
					TOTAL	192	S.F.	

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JOSEPH CAINS III
REGISTERED ENGINEER
AGRICULTURE COMMERCE
No. 124799
STATE OF TENNESSEE

04/14/2026

COORDINATES ARE NAD 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00006 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WITH GEOID 99 .

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLANS (WIDE LOAD DETOUR)

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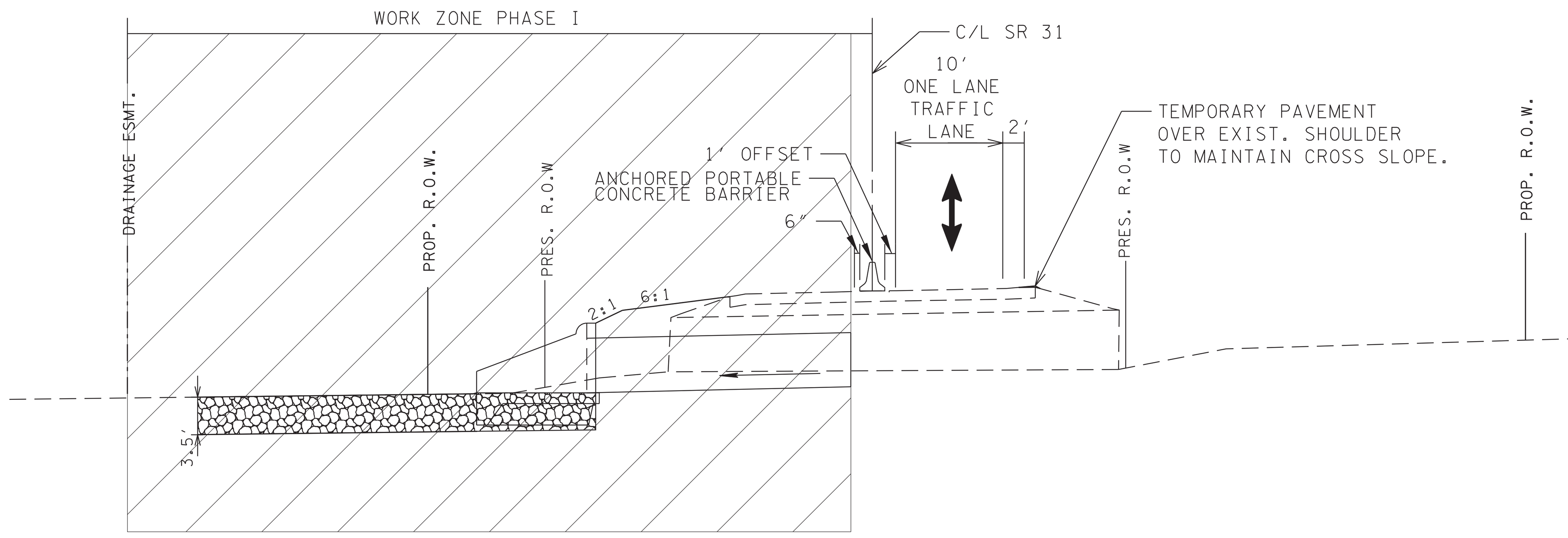
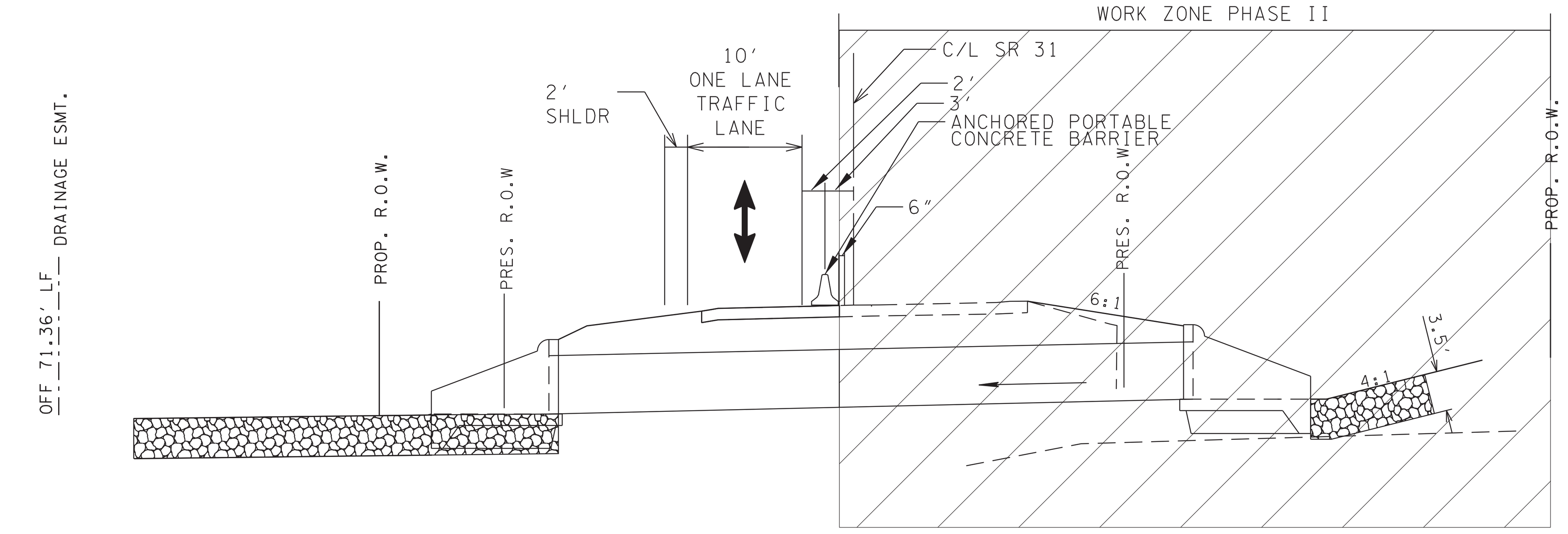
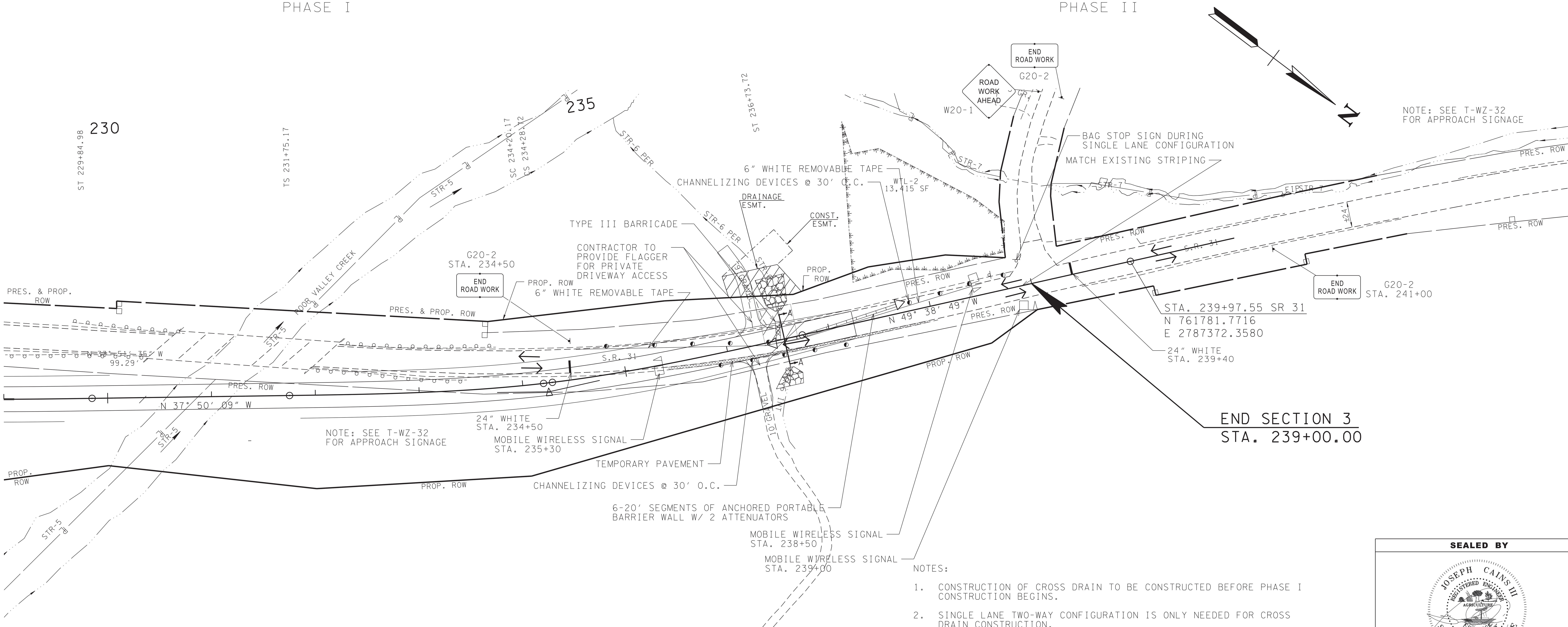
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	
PS & E	2026	STP/HPP-31(12)	T4



SECTION A-A
PHASE I



SECTION A-A
PHASE II



LEGEND

SYMBOL	ITEM
(hatch)	WORK ZONE AREA
◑	FLEXIBLE DRUM (CHANNELIZING)
(grid)	TEMPORARY PAVEMENT
←	TRAFFIC DIRECTION ARROWS
▽□	MOBILE WIRELESS SIGNAL TRAILER
△	ATTENUATOR

NOTES:

1. CONSTRUCTION OF CROSS DRAIN TO BE CONSTRUCTED BEFORE PHASE I CONSTRUCTION BEGINS.
2. SINGLE LANE TWO-WAY CONFIGURATION IS ONLY NEEDED FOR CROSS DRAIN CONSTRUCTION.
3. ADJUSTMENTS TO CONFIGURATION ARE ACCEPTABLE PENDING APPROVAL BY ENGINEER.
4. CONFIGURATION FOR REMAINING CROSS DRAIN WORK WILL BE SIMILAR TO TYPICALS.
5. SINGLE LANE TWO-WAY CONFIGURATION WILL BE DEACTIVATED AND REMOVED AS SOON AS WORK IS COMPLETED AND ACCEPTED.
6. ADVANCE SIGNING FOR SINGLE LANE TWO-WAY CONFIGURATION TO BE IN ACCORDANCE WITH T-WZ-32.
7. CONTRACTOR MAY COORDINATE WITH PROPERTY OWNER TO CLOSE DRIVEWAY WHILE WORK ZONE IS ACTIVE AND AVOID USING ATTENUATOR AND ACUTE PLACEMENT OF BARRIER.
8. CONTRACTOR SHALL INSTALL TEMPORARY SLOPE DRAIN TO ISOLATE AND CONVEY OFFSITE DRAINAGE TO OUTFALL. CONTRACTOR SHALL MAINTAIN POSITIVE ONSITE DRAINAGE WHILE TEMPORARY SLOPE DRAIN IS INSTALLED.
9. ANY SHORING OF THE ROADWAY FOR DRAINAGE STRUCTURES, MAINTENANCE OF TRAFFIC OR OTHER INCIDENTALS ARE INCLUDED IN THE COST OF THE ITEMS AND WILL NOT BE PAID DIRECTLY.

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLANS (DRAINAGE PIPE CONSTRUCTION)

SCALE: 1"= 50'

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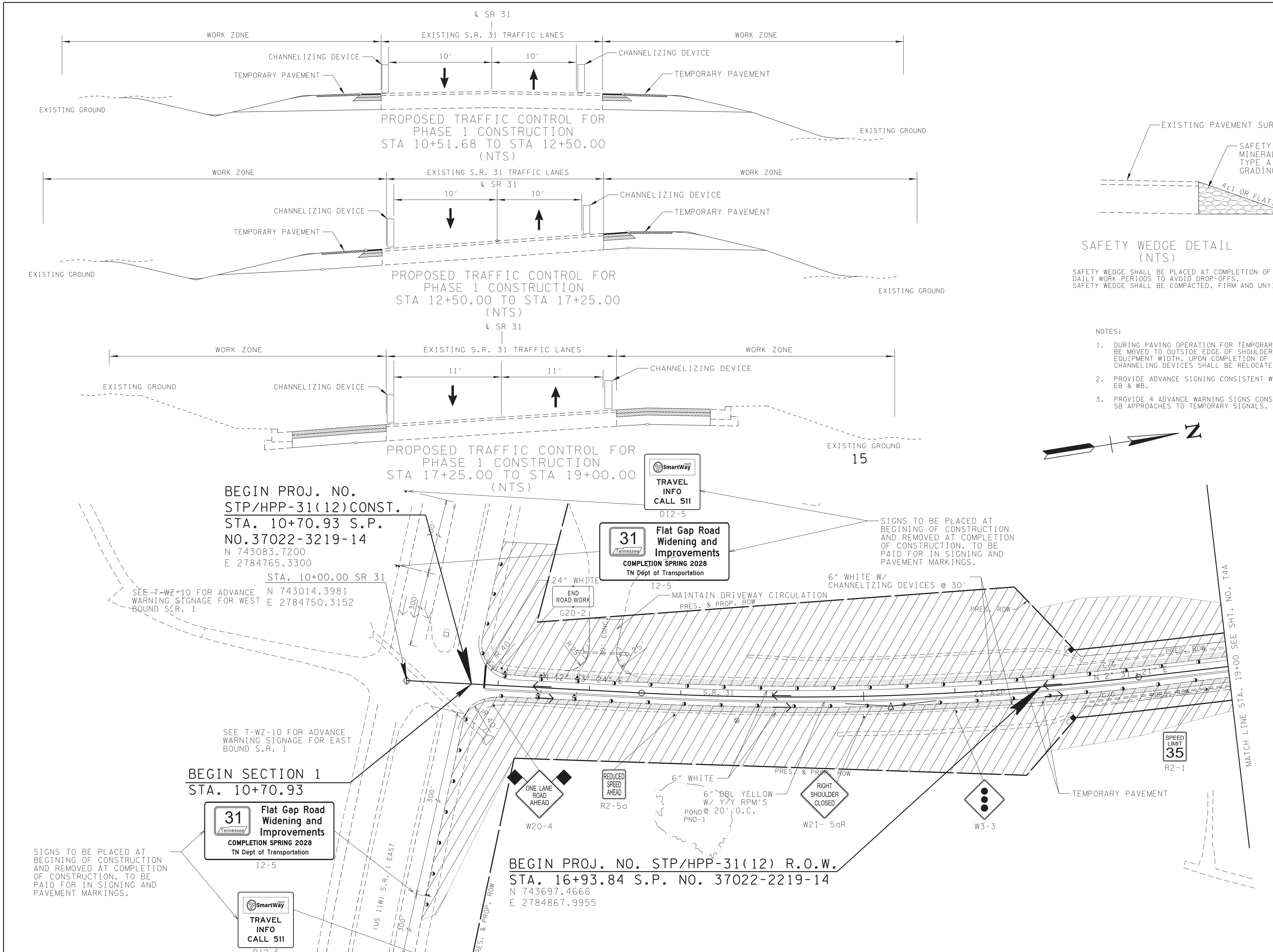
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	T3A
PS & E	2026	STP/HPP-31(12)	T4A



NOTES:

1. DURING PAVING OPERATION FOR TEMPORARY PAVEMENT, CHANNELIZING DEVICES WILL BE MOVED TO OUTSIDE EDGE OF SHOULDER OR FURTHER DEPENDING ON PAVING EQUIPMENT WIDTH. UPON COMPLETION OF PAVING TEMPORARY PAVEMENT, CHANNELING DEVICES SHALL BE RELOCATED TO THEIR ORIGINAL LOCATION.
2. PROVIDE ADVANCE SIGNING CONSISTENT WITH T-WZ-10 ON US HWY 11 (SR 1 EAST) EB & WB.
3. PROVIDE 4 ADVANCE WARNING SIGNS CONSISTENT WITH T-WZ-32 ON SR 31 NB & SB APPROACHES TO TEMPORARY SIGNALS.

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLANS (PHASE 1)
STA. 10+51.68 TO STA. 19+00
SCALE: 1"= 50'

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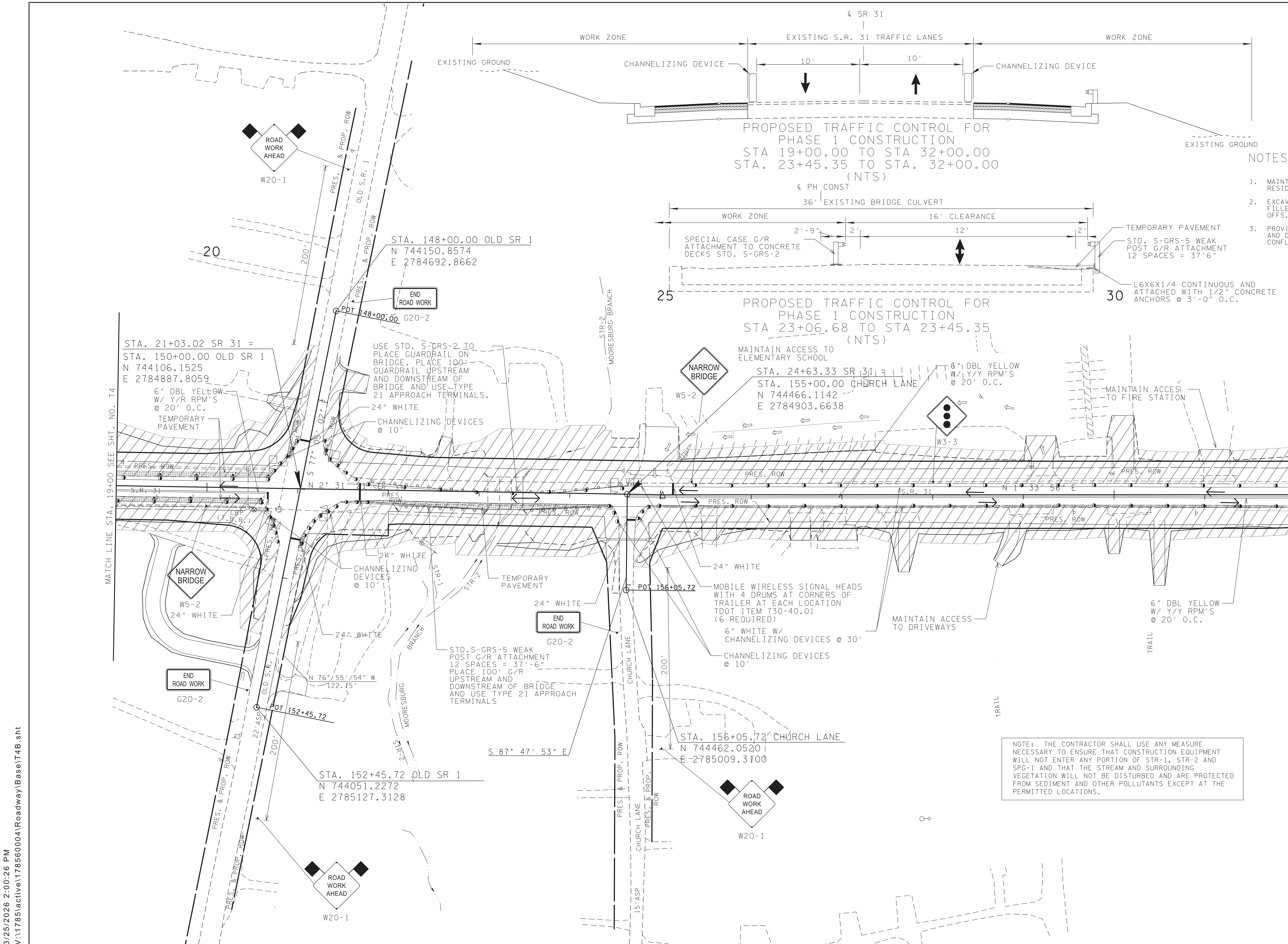
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	T3B
PS & E	2026	STP/HPP-31(12)	T4B



NOTES

1. MAINTAIN ACCESS TO SCHOOL, BUSINESS AND RESIDENTS.
2. EXCAVATIONS NEXT TO EXISTING LANES SHALL BE FILLED AT THE END OF WORK PERIOD TO AVOID DROP OFFS.
3. PROVIDE FLAGGER DURING SCHOOL BUS ARRIVAL AND DEPARTURE HOURS TO MINIMIZE TRAFFIC TURNING CONFLICTS.

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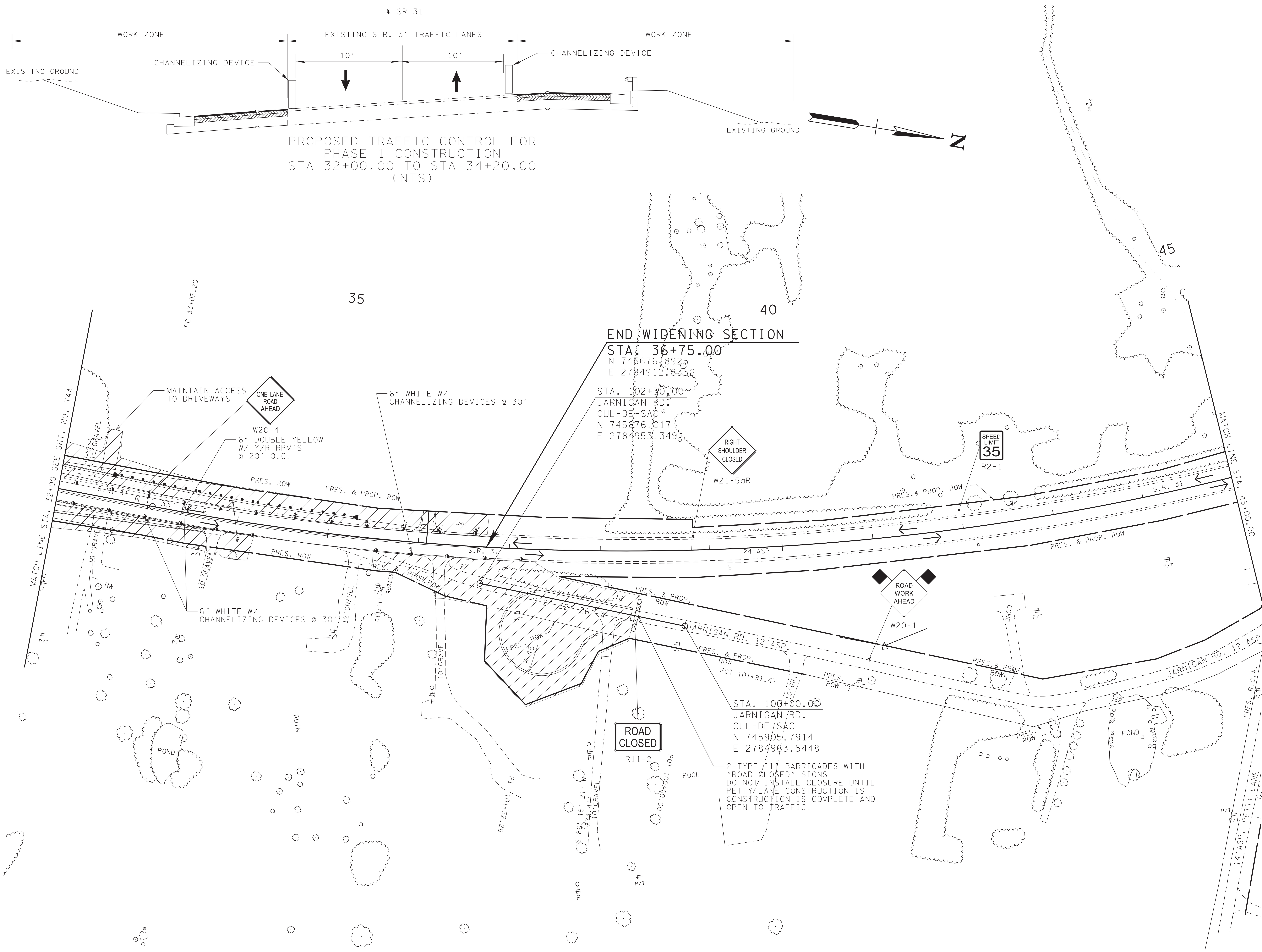
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLANS (PHASE 1)

STA. 19+00 TO STA. 32+00

SCALE: 1"= 50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	T3C
PS & E	2026	STP/HPP-31(12)	T4C



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLANS (PHASE 1)

STA. 32+00 TO STA. 45+00
SCALE: 1"= 50'

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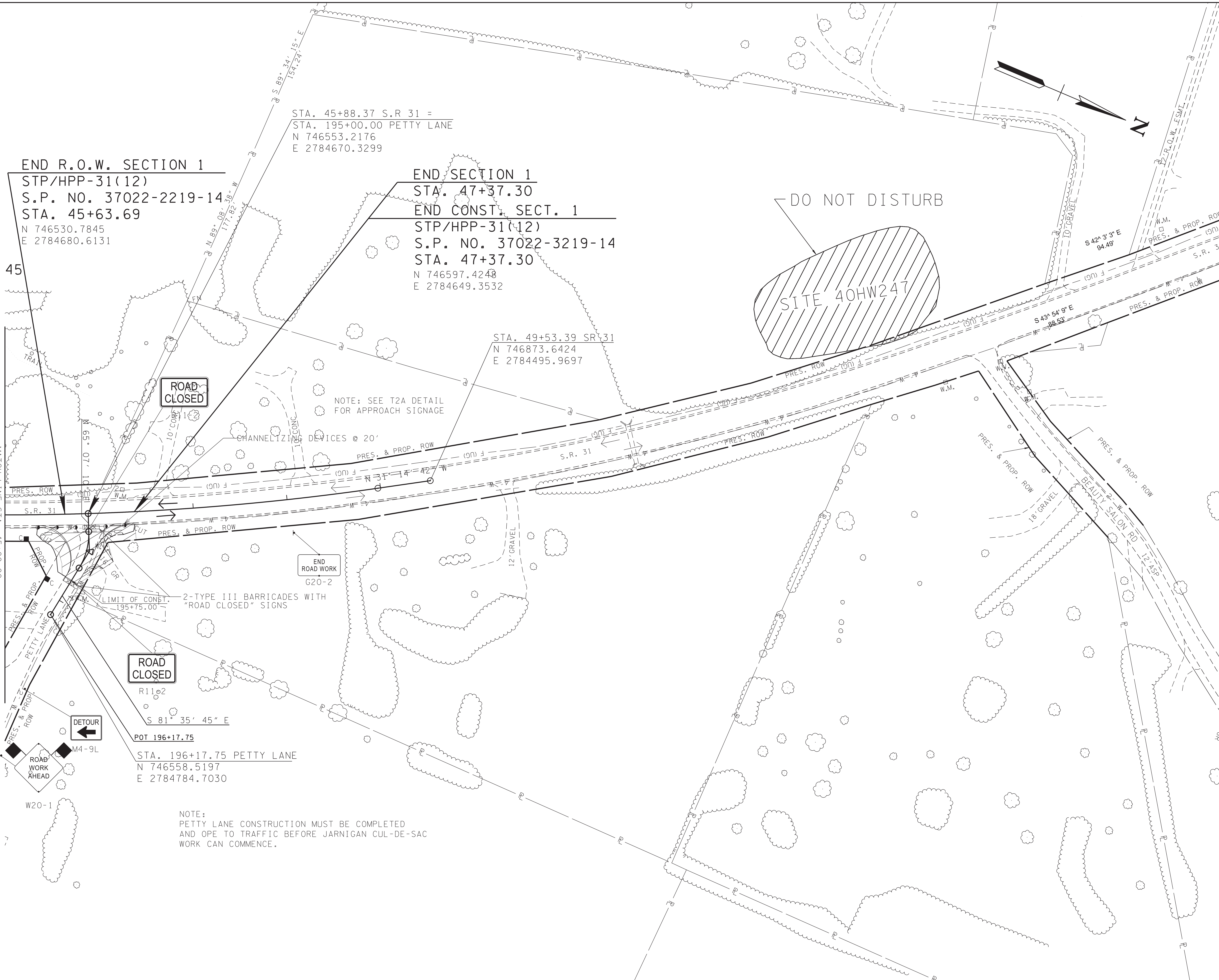
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	7
P-I-H	2025	STP/HPP-31(12)	
PS & E	2026	STP/HPP-31(12)	T4D



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STATE OF TENNESSEE
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TRAFFIC
CONTROL PLANS
(PHASE 1)

STA. 45+00 TO STA. 50+00
SCALE: 1"= 50'

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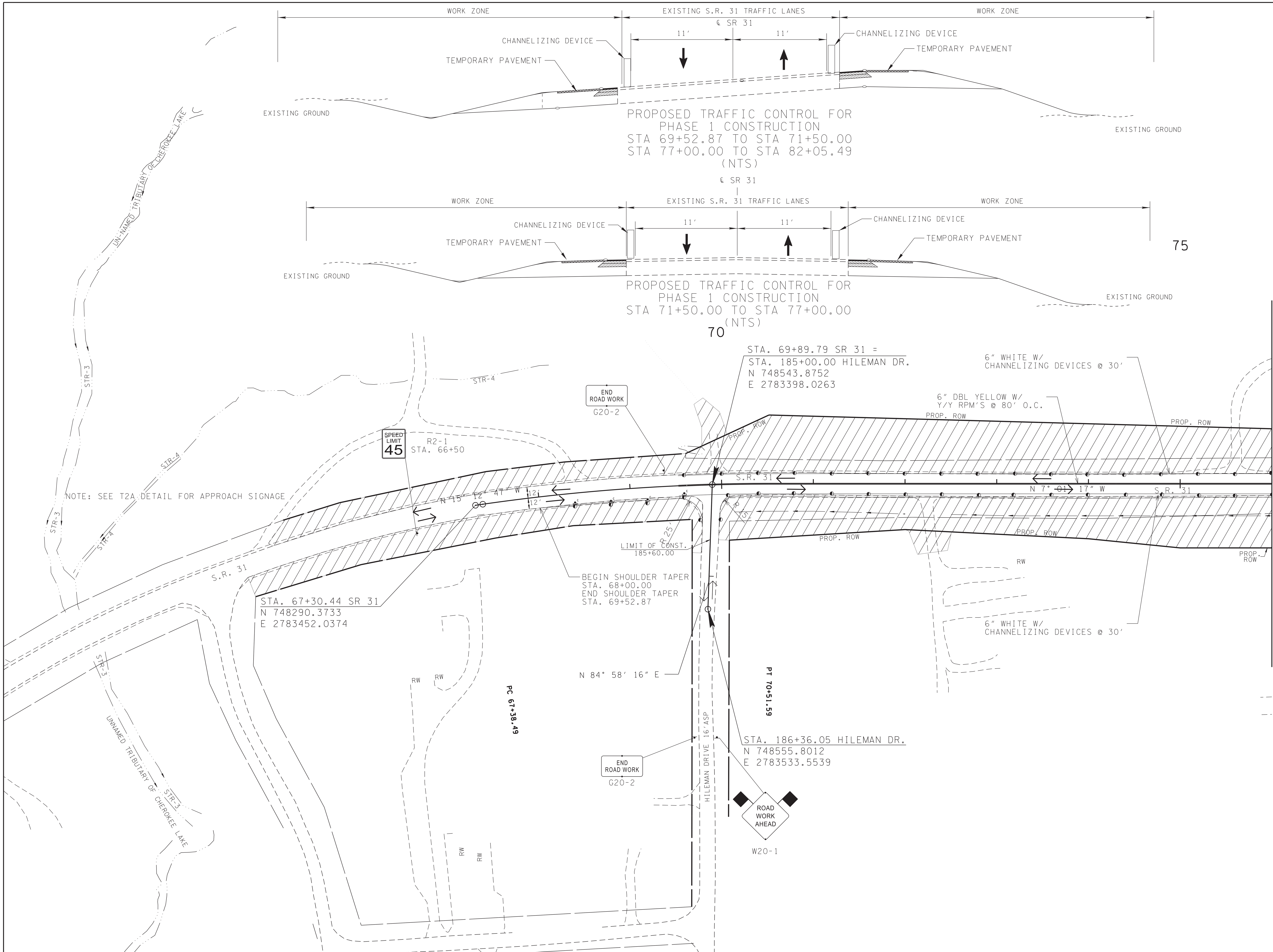
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	T3G
PS & E	2026	STP/HPP-31(12)	T4E



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC
CONTROL PLANS
(PHASE 1)
STA. 62+52.87 TO STA. 76+00
SCALE: 1"= 50'

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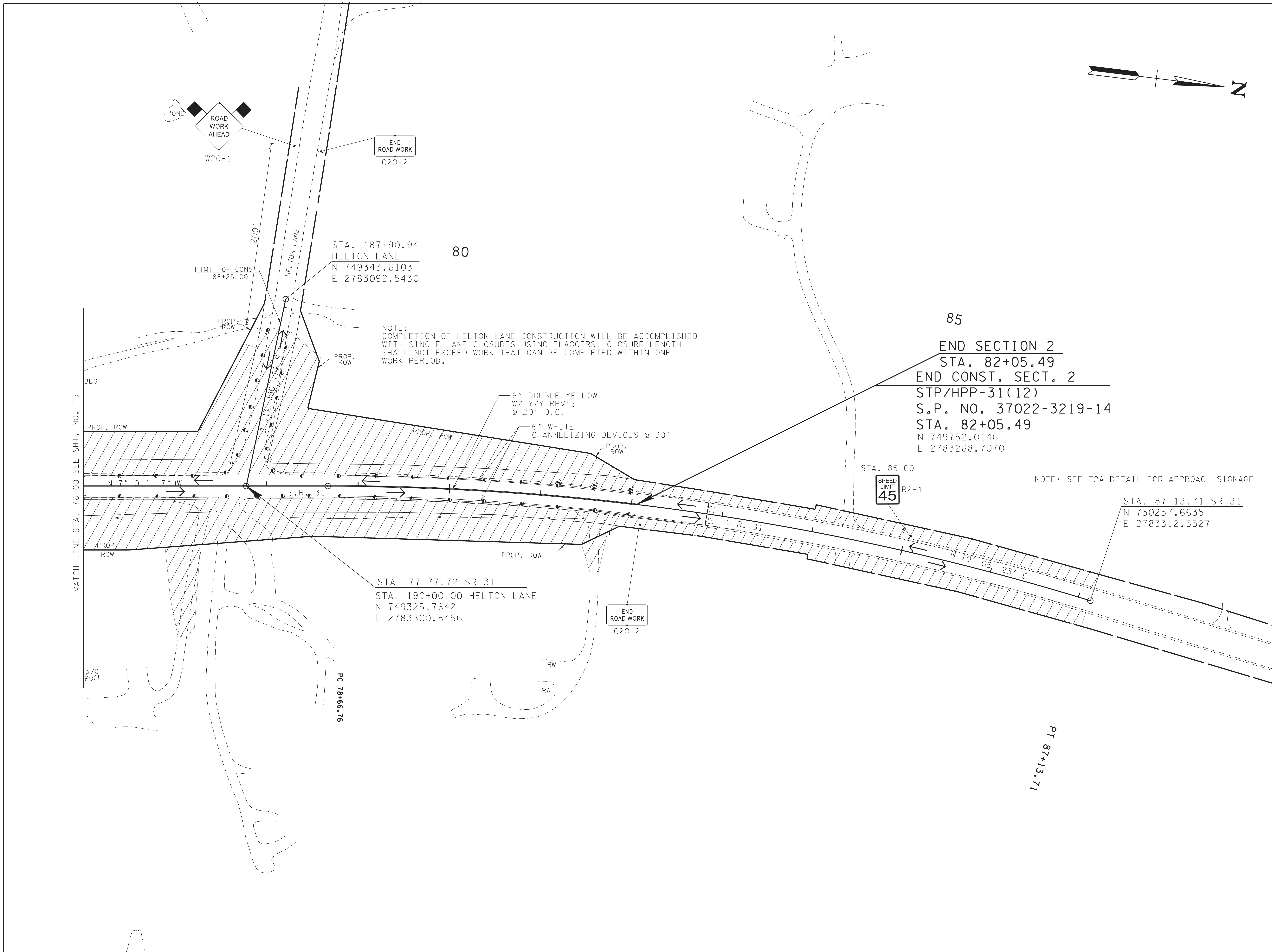
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	T3H
PS & E	2026	STP/HPP-31(12)	T4F



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC
CONTROL PLANS
(PHASE 1)
STA. 76+00 TO STA. 82+05.49
SCALE: 1"= 50'

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	T3K
PS & E	2026	STP/HPP-31(12)	T4G

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STATE OF TENNESSEE
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TRAFFIC CONTROL PLANS (PHASE 1)

SCALE: 1"= 50'

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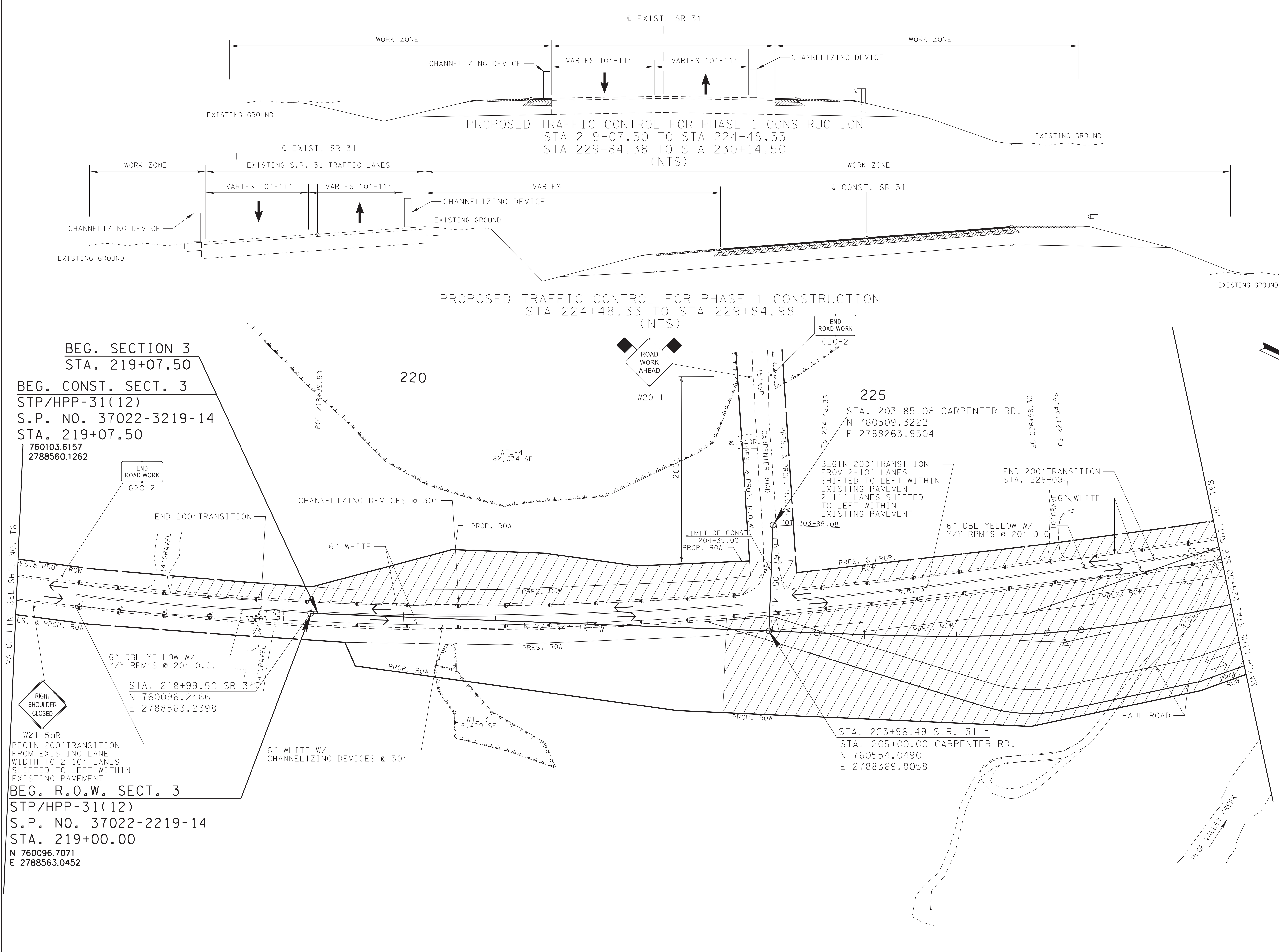
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	T3L
PS & E	2026	STP/HPP-31(12)	T4H



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STATE OF TENNESSEE
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TRAFFIC CONTROL PLANS (PHASE 1)
STA. 219+00 TO STA. 229+00
SCALE: 1"= 50'

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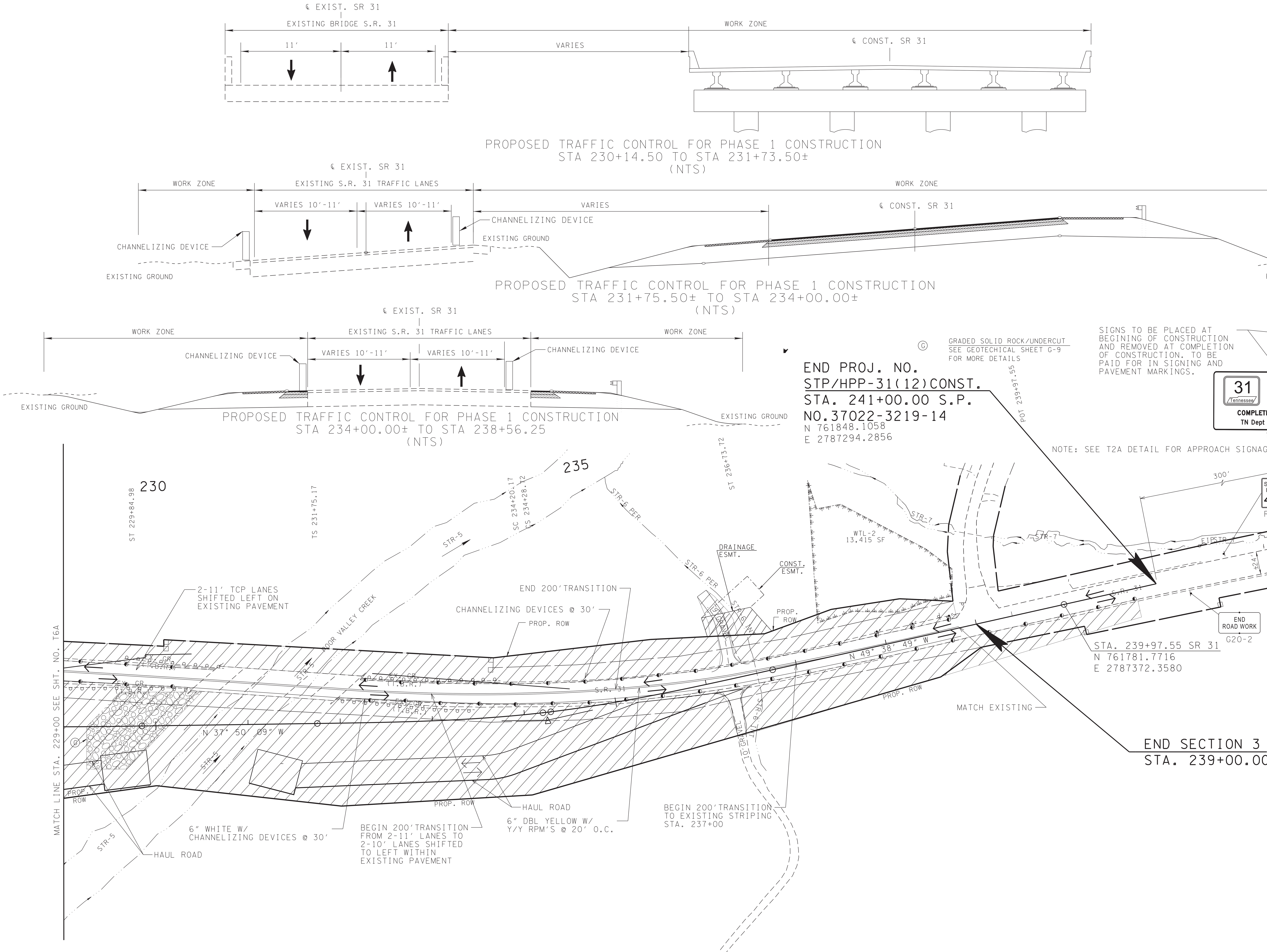
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	T3M
PS & E	2026	STP/HPP-31(12)	T4J



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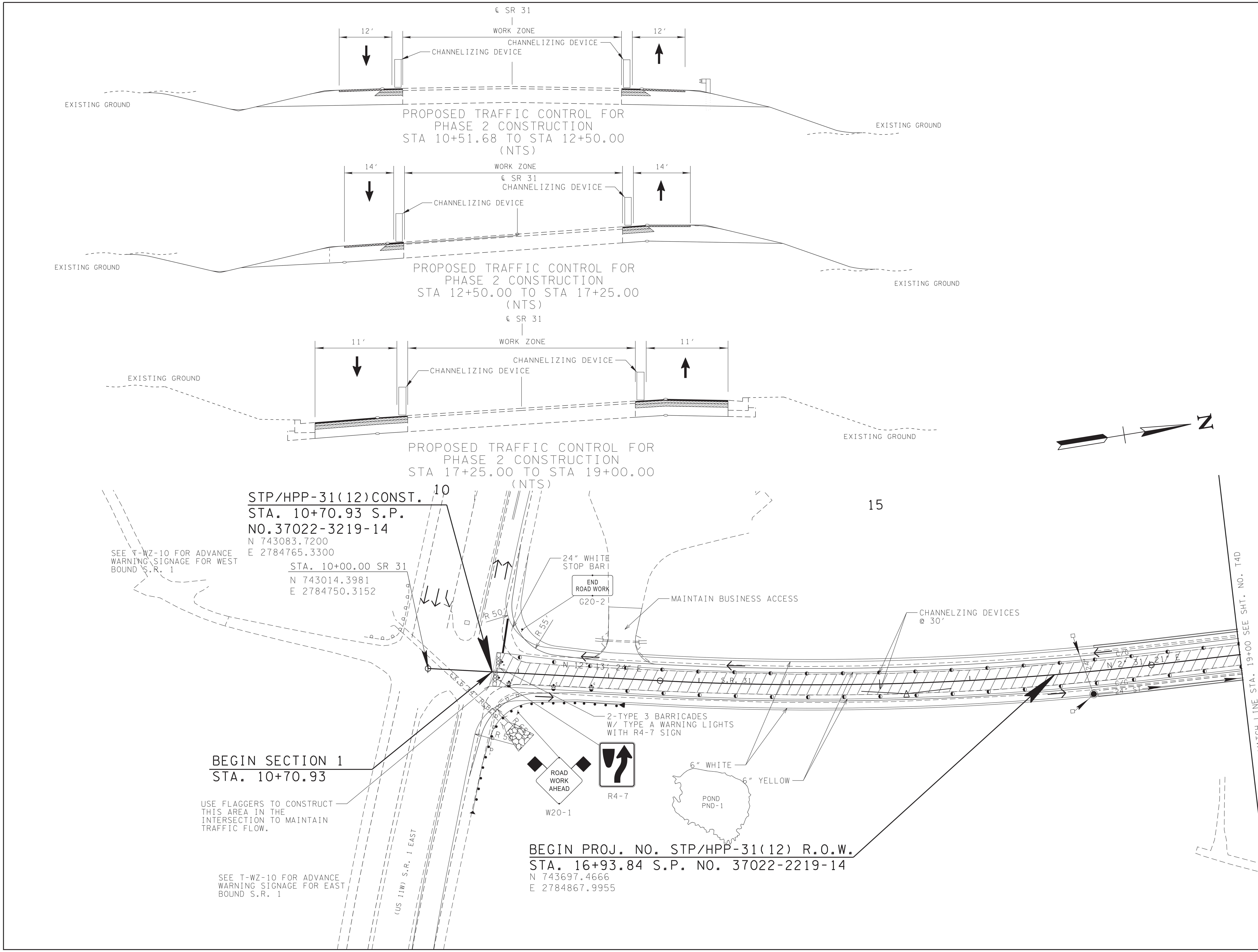
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC
CONTROL PLANS
(PHASE 1)
STA. 229+00 TO STA. 239+00
SCALE: 1"= 50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	T3D
PS & E	2026	STP/HPP-31(12)	T5



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TRAFFIC CONTROL PLANS (PHASE 2)

STA. 10+51.68 TO STA. 19+00

SCALE: 1"= 50'

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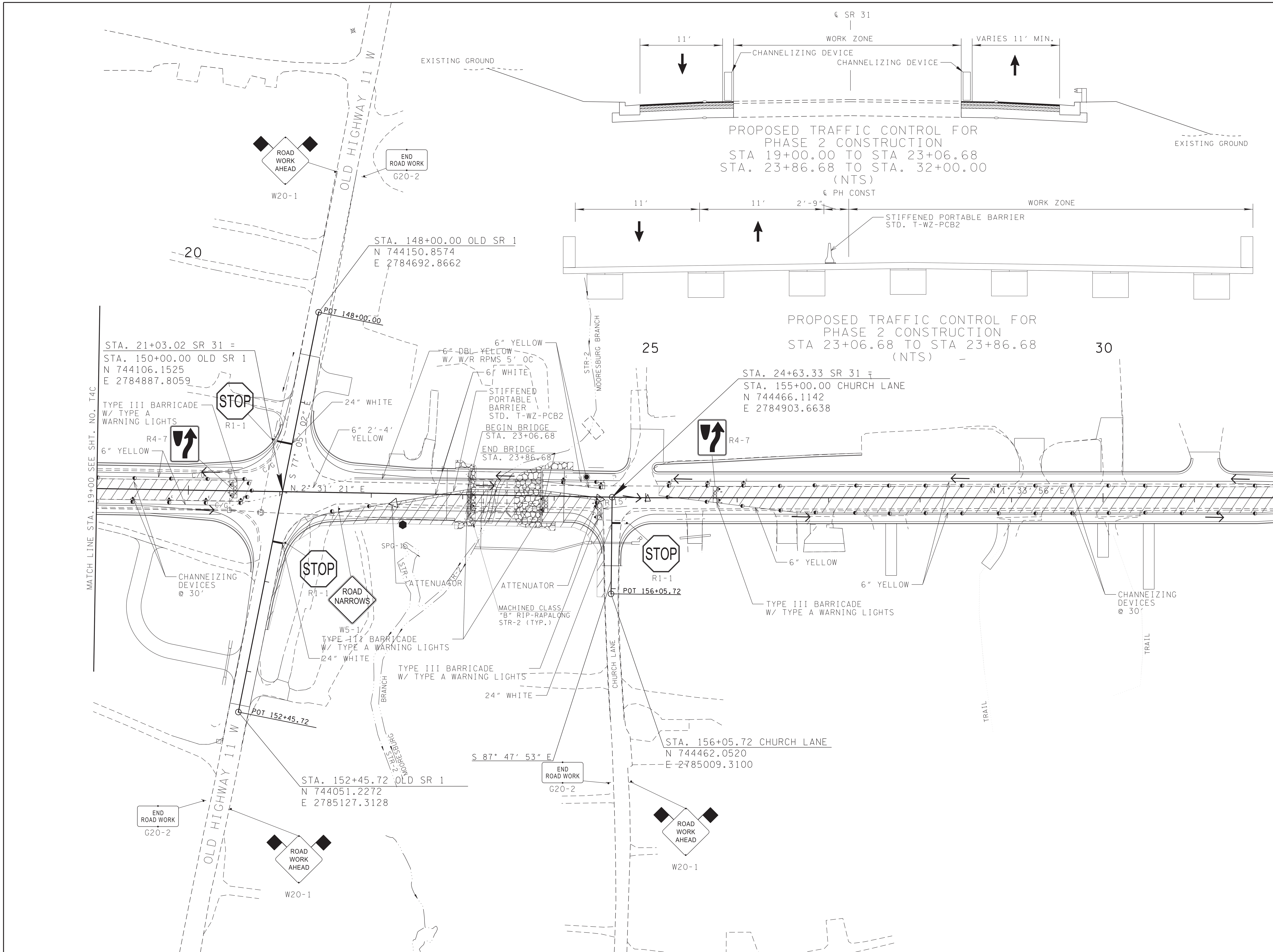
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	T3E
PS & E	2026	STP/HPP-31(12)	T5A



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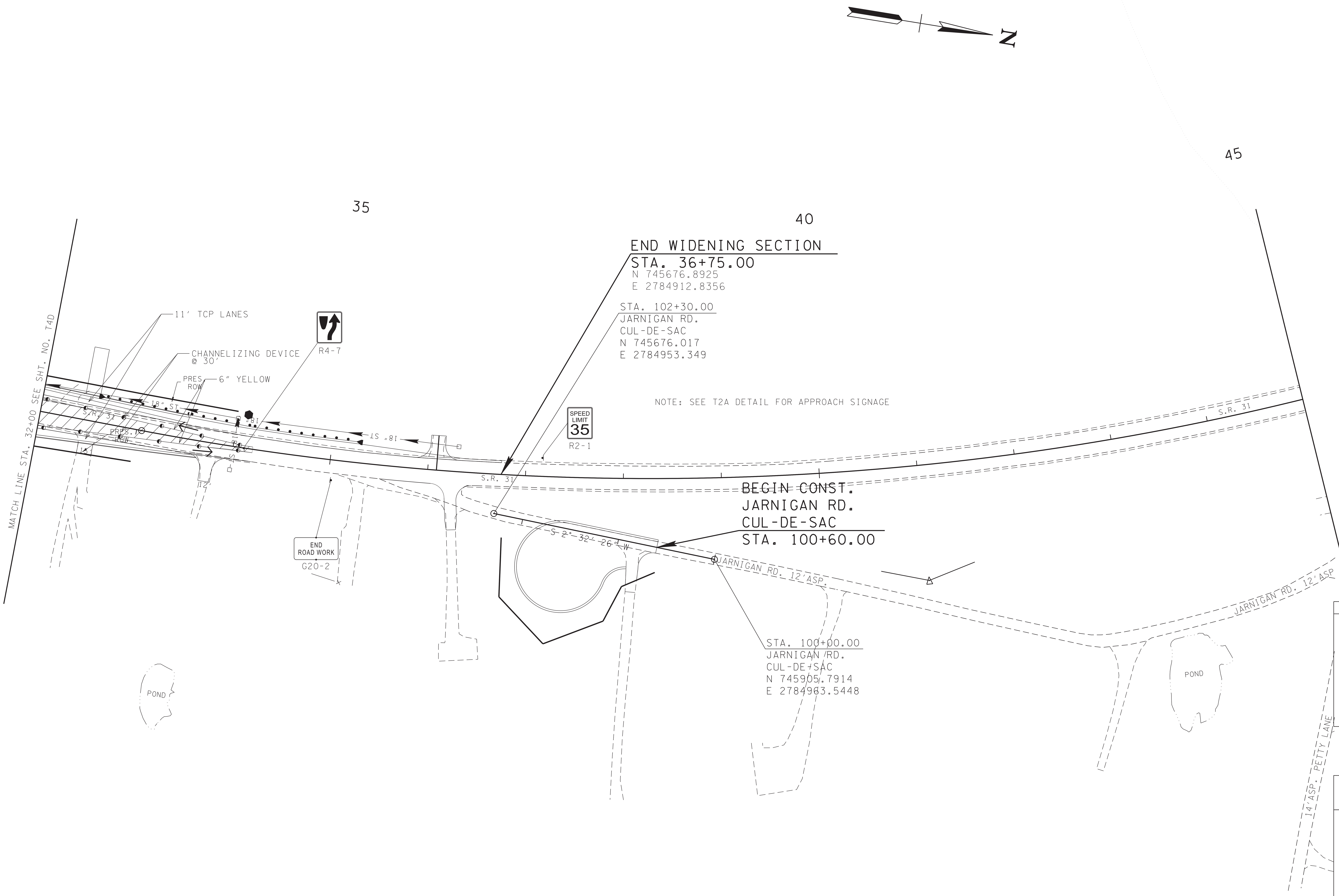
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLANS (PHASE 2)

STA. 19+00 TO STA. 32+00
SCALE: 1"= 50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	T3F
PS & E	2026	STP/HPP-31(12)	T5B



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC
CONTROL PLANS
(PHASE 2)
STA. 32+00 TO STA. 45+00
SCALE: 1"= 50'

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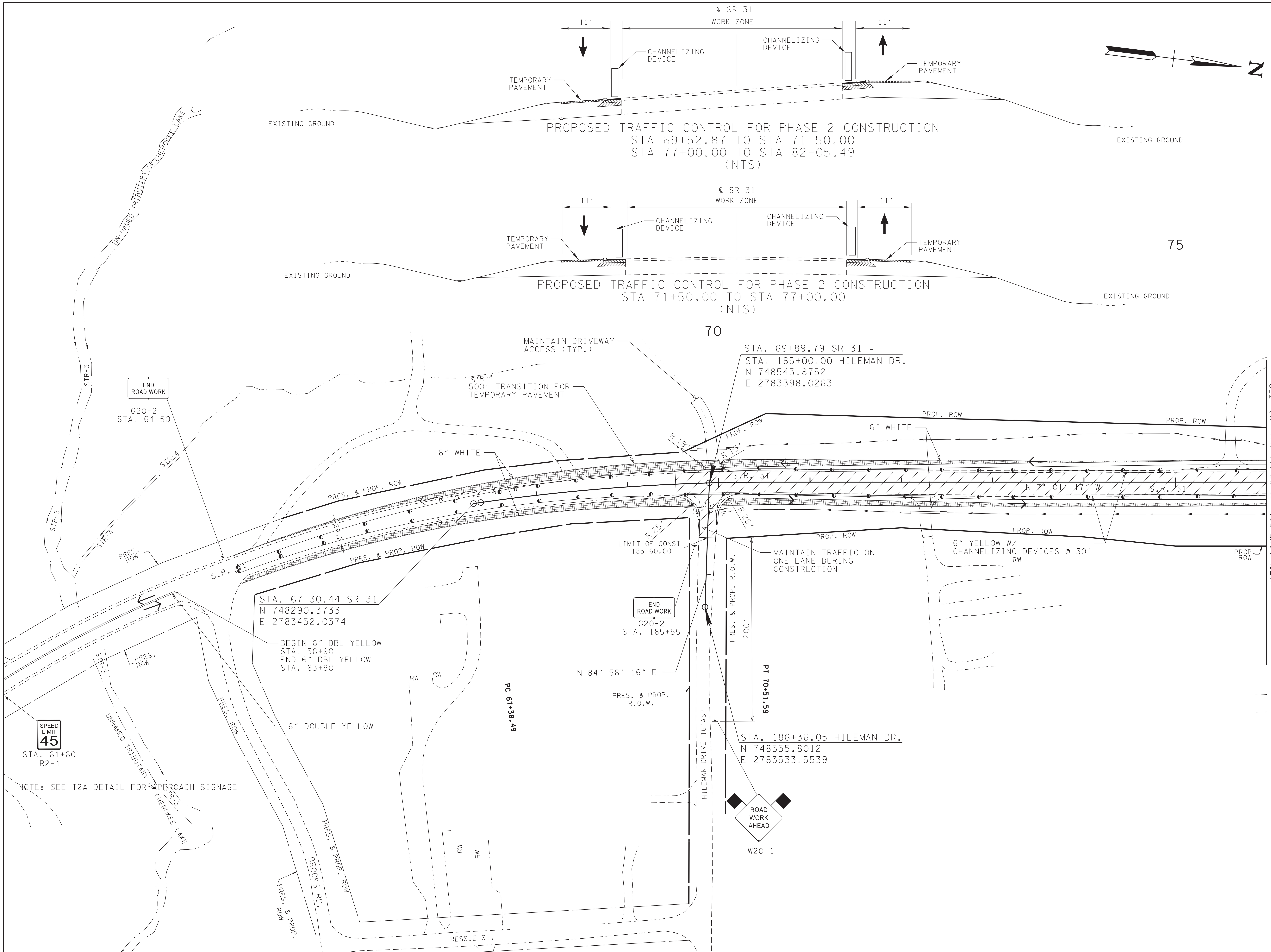
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	T3I
PS & E	2026	STP/HPP-31(12)	T5C



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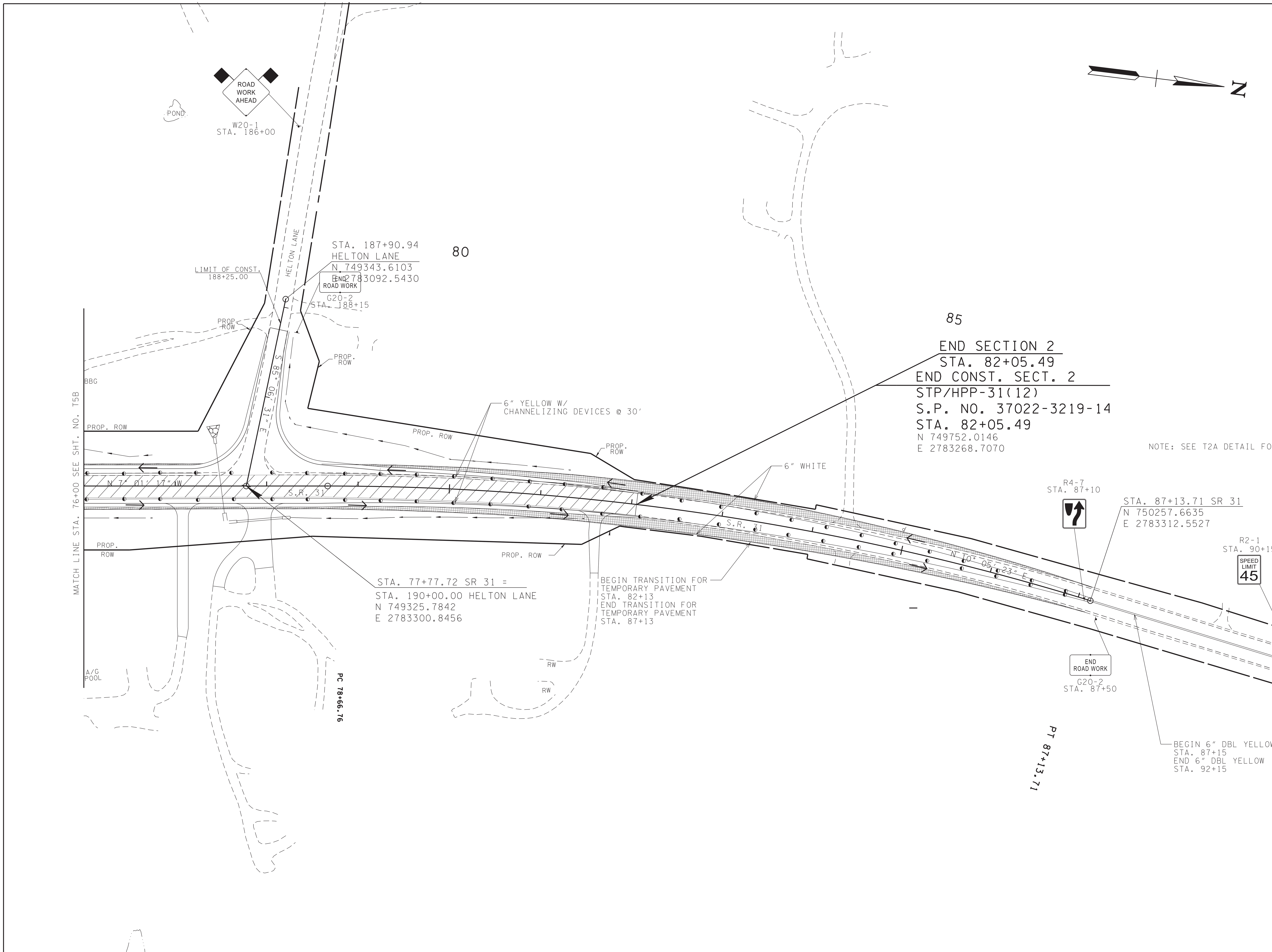
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLANS (PHASE 2)

STA. 62+52.87 TO STA. 76+00

SCALE: 1"= 50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	T3J
PS & E	2026	STP/HPP-31(12)	T5D



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TRAFFIC CONTROL PLANS (PHASE 2)

STA. 76+00 TO STA. 82+05.49

SCALE: 1"= 50'

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	T3N
PS & E	2026	STP/HPP-31(12)	T5E

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC
CONTROL PLANS
(PHASE 2)

SCALE: 1"= 50'

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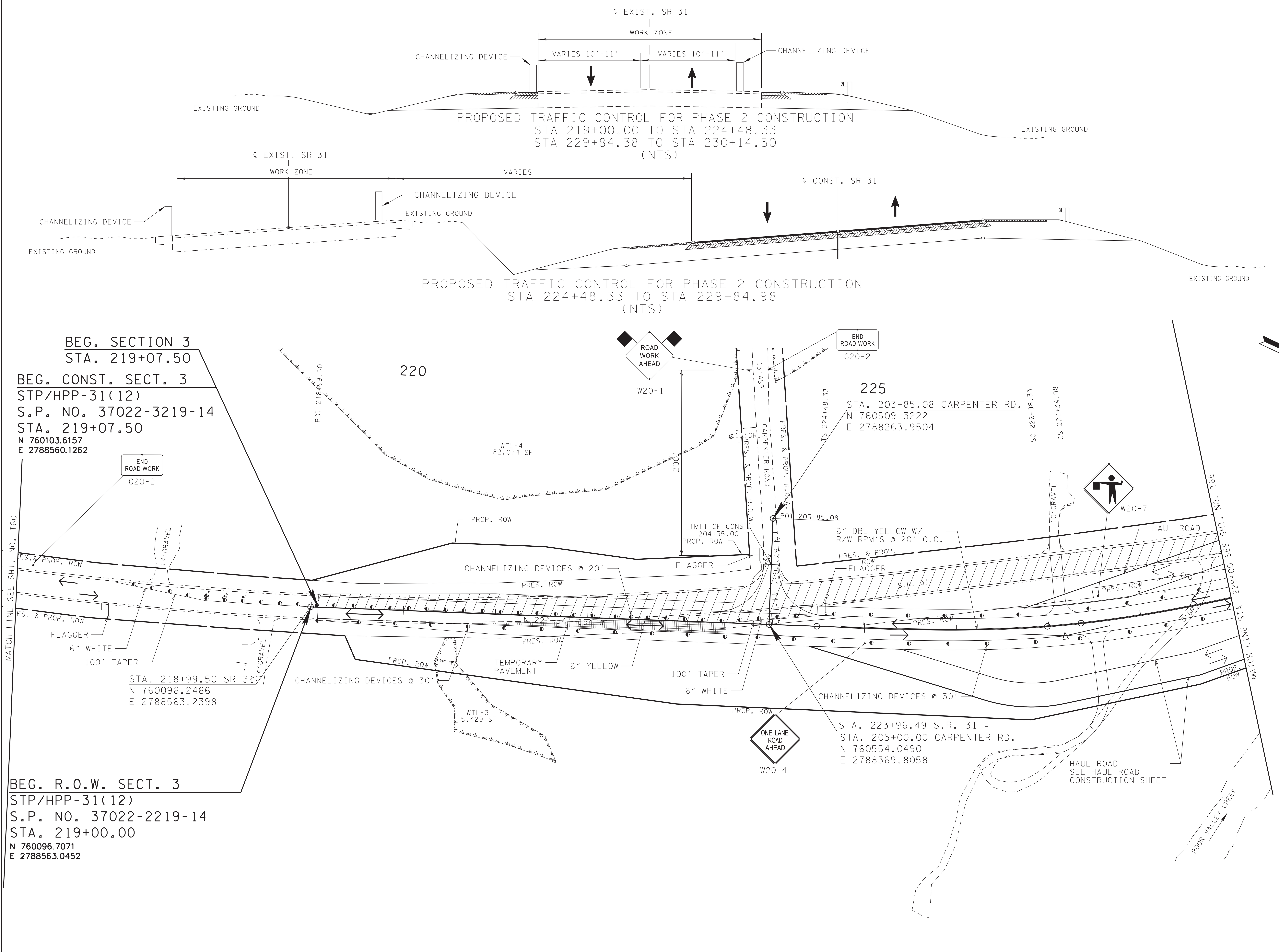
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	T3O
PS & E	2026	STP/HPP-31(12)	T5F



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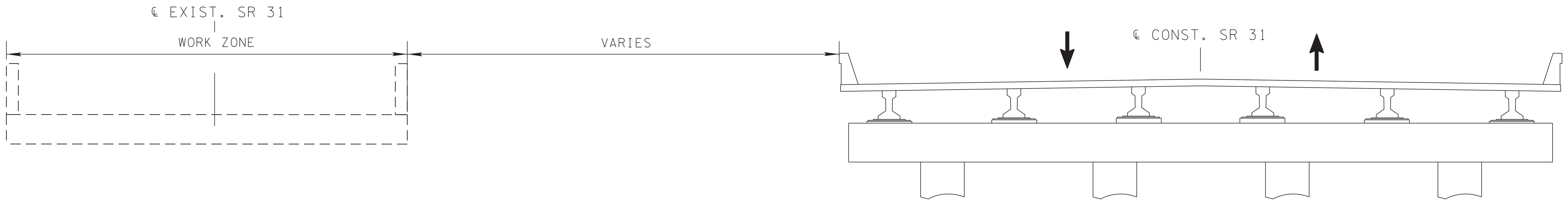
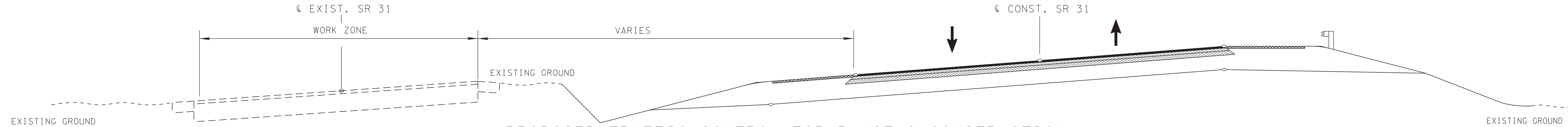
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC
CONTROL PLANS
(PHASE 2)
STA. 219+00 TO STA. 229+00
SCALE: 1"= 50'

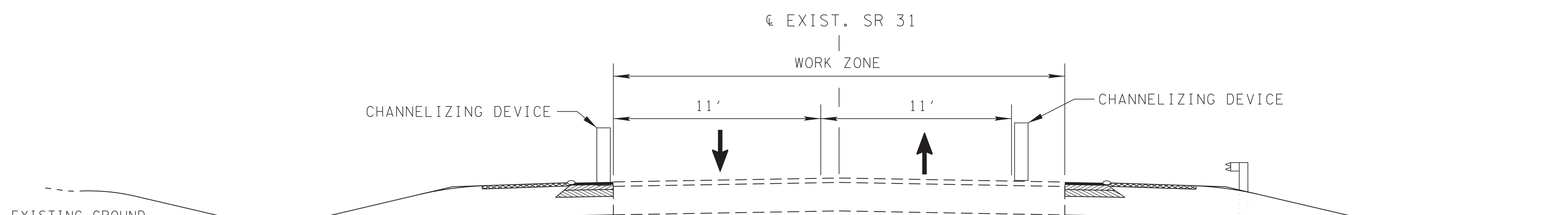
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	T3P
PS & E	2026	STP/HPP-31(12)	T5G



PROPOSED TRAFFIC CONTROL FOR PHASE 2 CONSTRUCTION
STA 230+14.50 TO STA 231+73.50±
(NTS)



PROPOSED TRAFFIC CONTROL FOR PHASE 2 CONSTRUCTION
STA 231+75.17 TO STA 234+00.00±
(NTS)



PROPOSED TRAFFIC CONTROL FOR PHASE 2 CONSTRUCTION
STA 234+00.00± TO STA 238+56.25
(NTS)

PS & E
FIELD
REVIEW

NOTES:

1. SHOULDER CLOSURE CONFIGURATION IS ONLY NEEDED FOR NW WING-WALL COMPLETION WITH GUARDRAIL CONNECTION.
2. ADJUSTMENTS TO CONFIGURATION ARE ACCEPTABLE PENDING APPROVAL BY ENGINEER.
3. SINGLE LANE TWO-WAY CONFIGURATION WILL BE DEACTIVATED AND REMOVED AS SOON AS WORK IS COMPLETED AND ACCEPTED.
4. ADVANCE SIGNING FOR SINGLE LANE TWO-WAY CONFIGURATION TO BE IN ACCORDANCE WITH T-WZ-32.

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC
CONTROL PLANS
(PHASE 2)
STA. 229+00 TO STA. 239+00
SCALE: 1"= 50'

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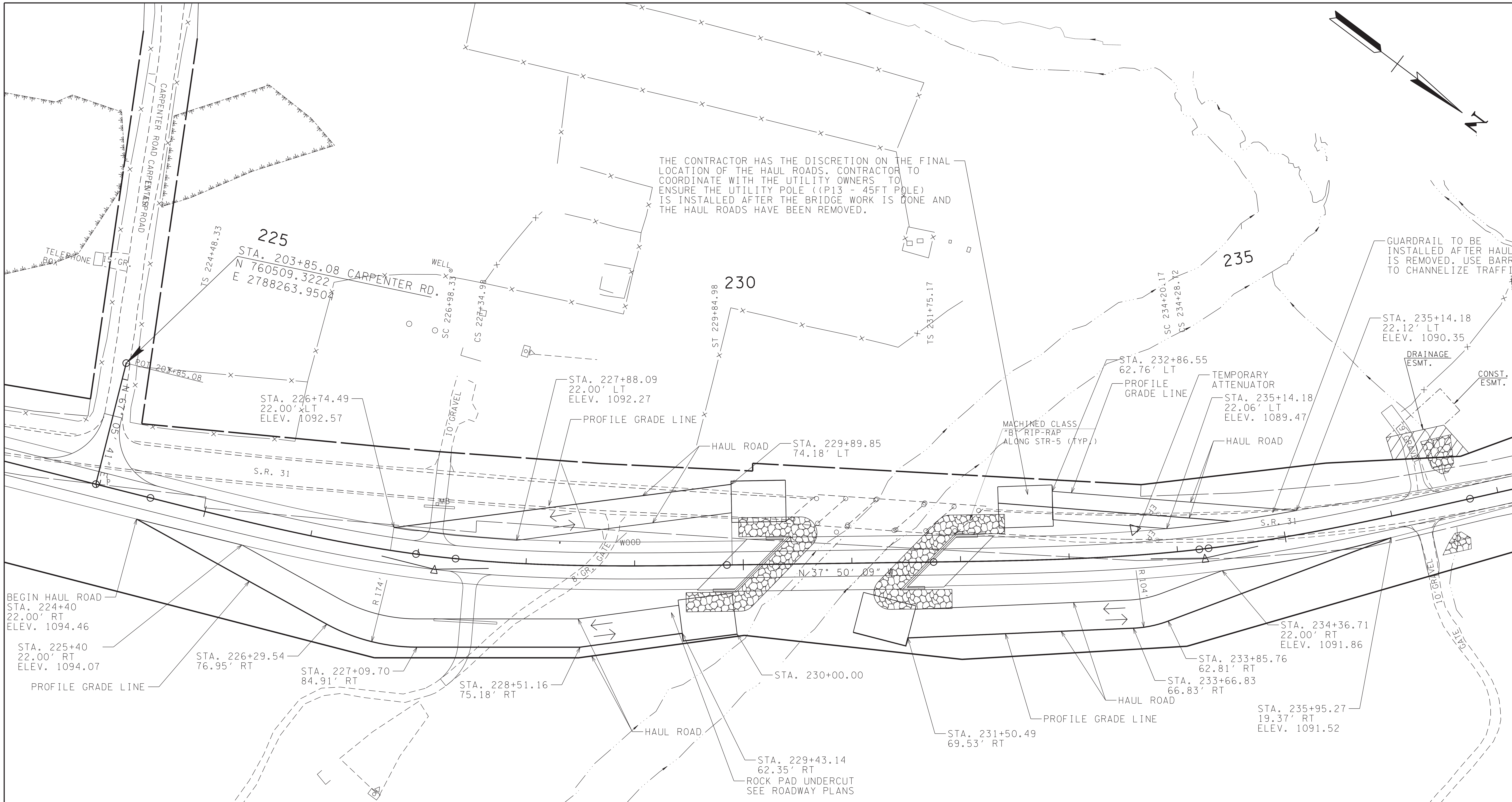
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	
PS & E	2026	STP/HPP-31(12)	T5H



NOTES:

1. RIP-RAP LOCATED WITHIN THE FOOTPRINT OF THE HAUL ROADS WILL BE PLACED AFTER THE HAUL ROAD IS REMOVED AND HAUL ROAD AGGREGATE WILL BE USED AS A BEDDING FOR THE RIP-RAP.

2. HAUL ROAD ALIGNMENTS AND PROFILES TO BE USED AS A MINIMUM GUIDE FOR ESTIMATING AND CAN BE ADJUSTED BASED ON ACTUAL EQUIPMENT USED, HYDRAULIC PARAMETERS, GEOTECHNICAL LIMITATIONS, AND GEOMETRIC REQUIREMENTS. HAUL ROAD INSTALLATION SEQUENCE BASED ON PROPOSED BRIDGE CONSTRUCTION AND EXISTING BRIDGE REMOVAL REQUIREMENTS.

3. WHERE HAUL ROADS CROSS DRIVEWAYS, CONNECTIONS WILL BE MADE TO ALLOW DRIVEWAY ACCESS AND SAFE PASSAGE OF VEHICLES AND DELIVERIES. HAUL ROAD TRAFFIC WILL YIELD TO DRIVEWAY TRAFFIC.

4. EXISTING SR31 PAVEMENT THAT IS WITHIN FOOTPRINT OF HAUL ROAD WILL BE SCARIFIED DURING REMOVAL OF HAUL ROAD.

5. ROCK PAD UNDERCUT WILL BE PLACED PRIOR TO HAUL ROAD CONSTRUCTION AND RIP-RAP ABUTMENT ONE. GEOTEXTILE FABRIC WILL NOT BE DISTURBED DURING THE HAUL ROAD CONSTRUCTION AND REMOVAL. ANY GEOTEXTILE THAT IS EXPOSED DURING HAUL ROAD REMOVAL WILL BE COVERED WITH BEDDING STONE PRIOR TO RIP-RAP INSTALLATION.

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REGISTERED ENGINEER
AGRICULTURE
COMMERCE
STATE OF TENNESSEE

04/14/2026

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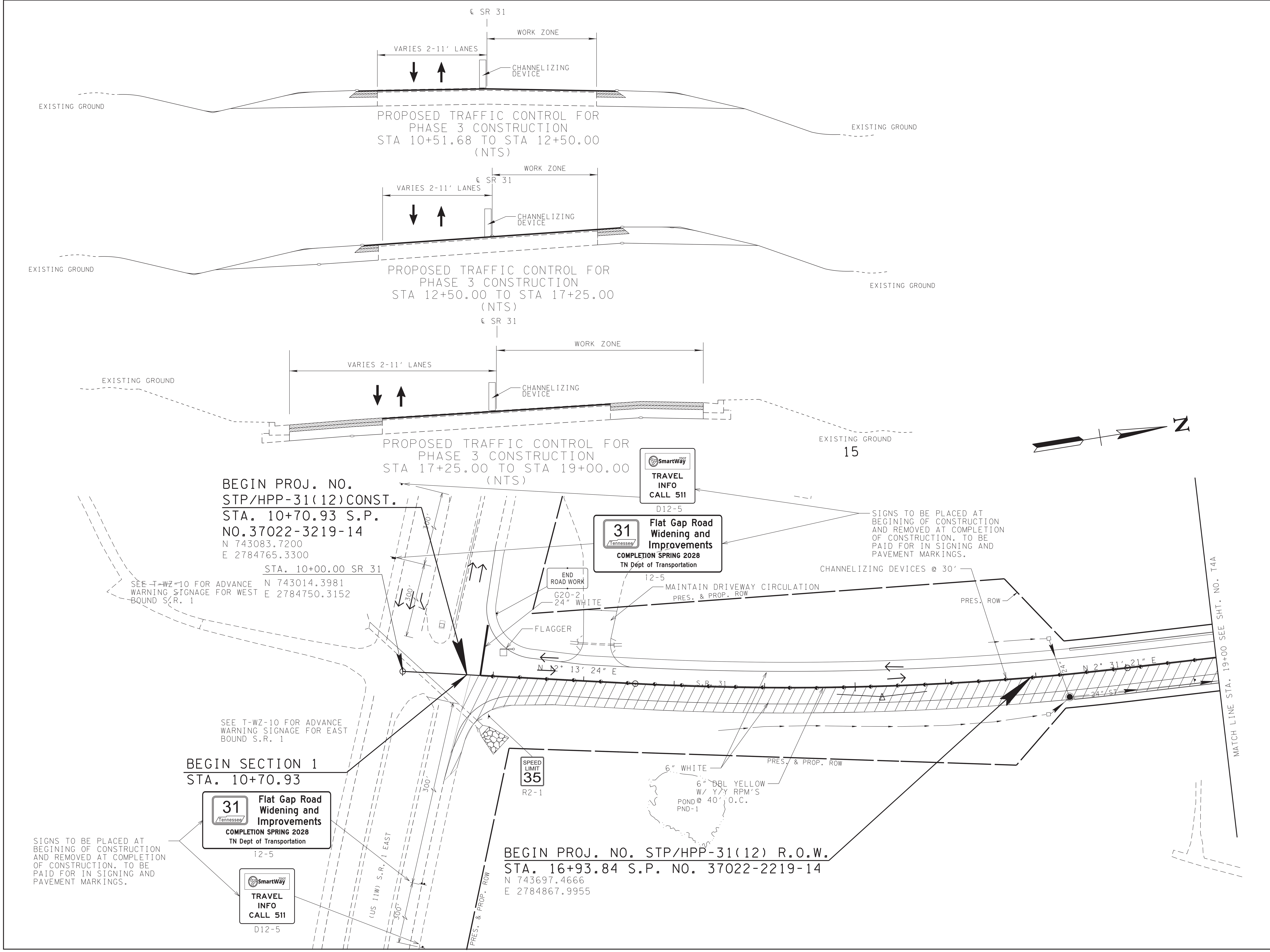
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLANS (HAUL ROADS)

SCALE: 1"= 50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	T3A
PS & E	2026	STP/HPP-31(12)	T6



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLANS (PHASE 3)

STA. 10+51.68 TO STA. 19+00

SCALE: 1"= 50'

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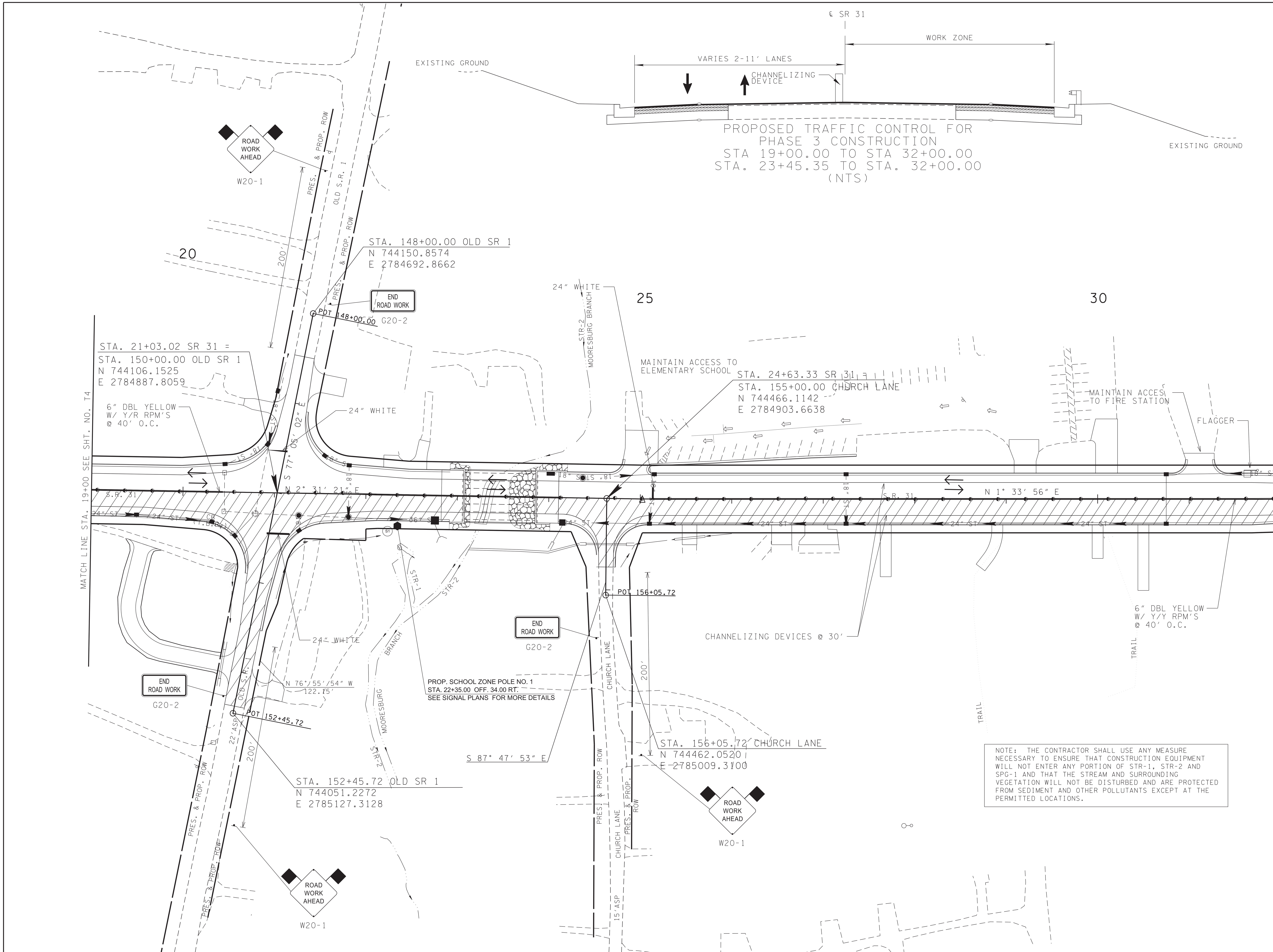
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	T3B
PS & E	2026	STP/HPP-31(12)	T6A



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLANS (PHASE 3)

STA. 19+00 TO STA. 32+00
SCALE: 1"= 50'

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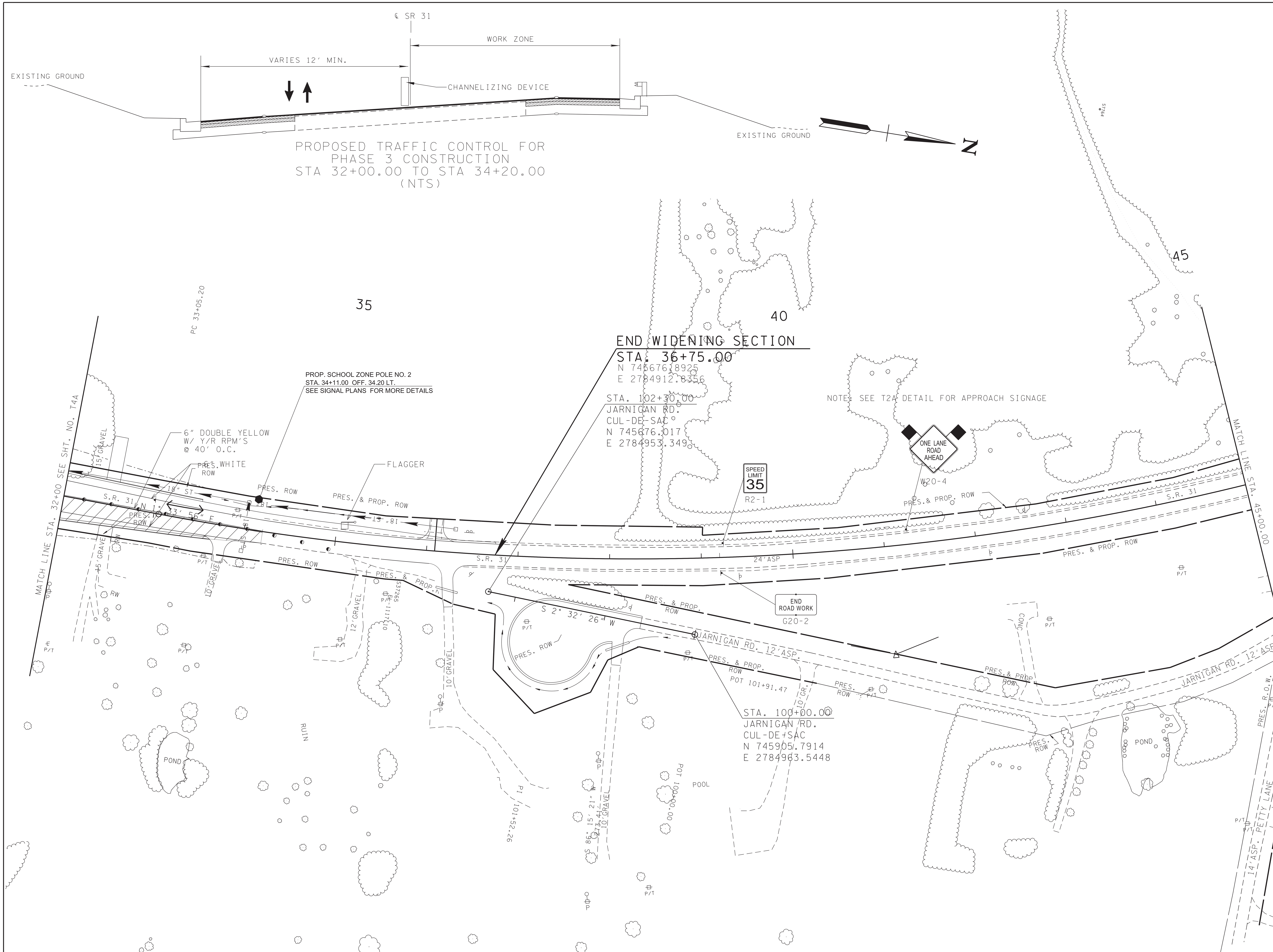
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	T3C
PS & E	2026	STP/HPP-31(12)	T6B



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLANS (PHASE 3)

STA. 32+00 TO STA. 45+00
SCALE: 1"= 50'

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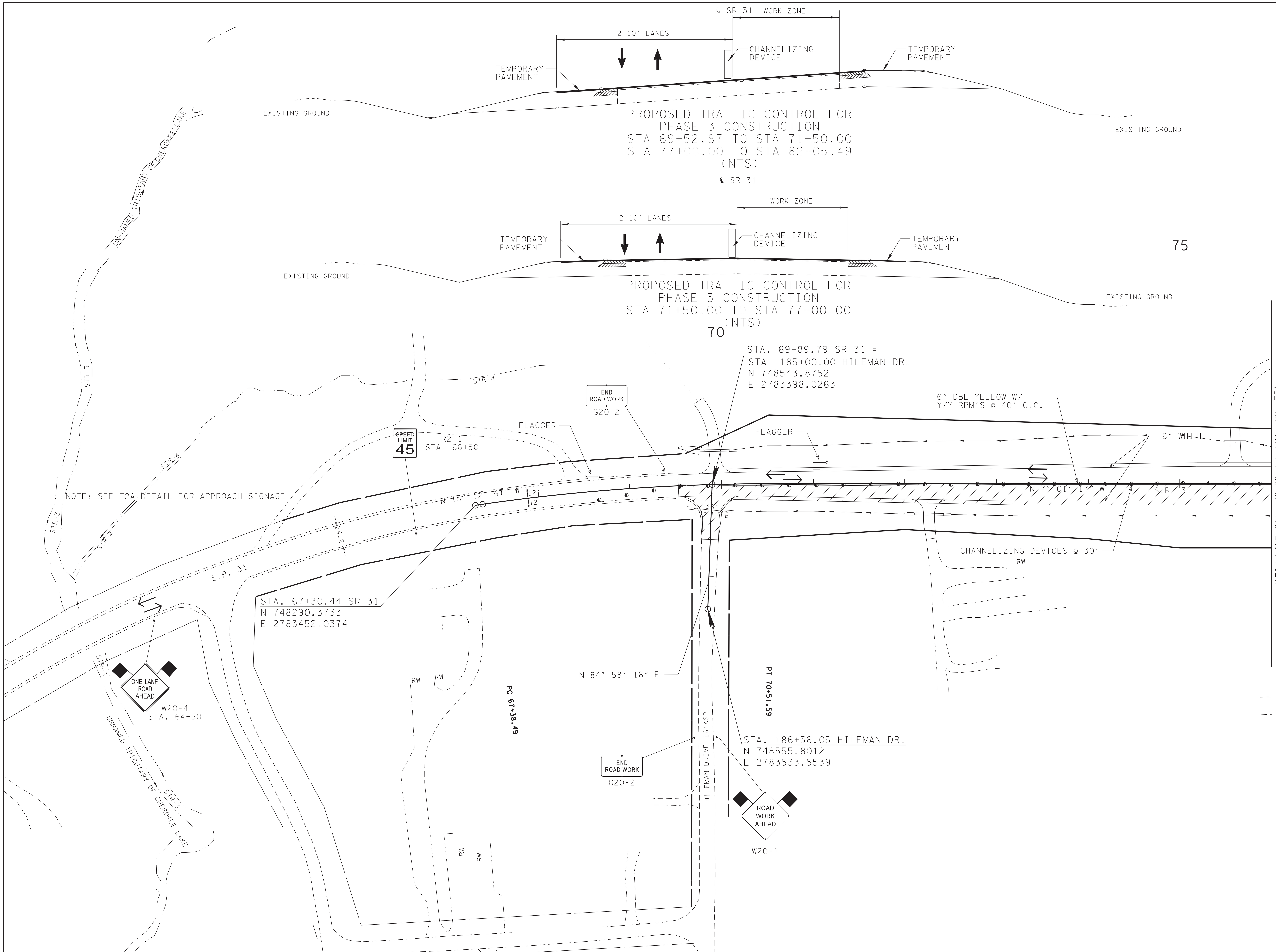
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	T3G
PS & E	2026	STP/HPP-31(12)	T6C



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLANS (PHASE 3)

STA. 62+52.87 TO STA. 76+00

SCALE: 1"= 50'

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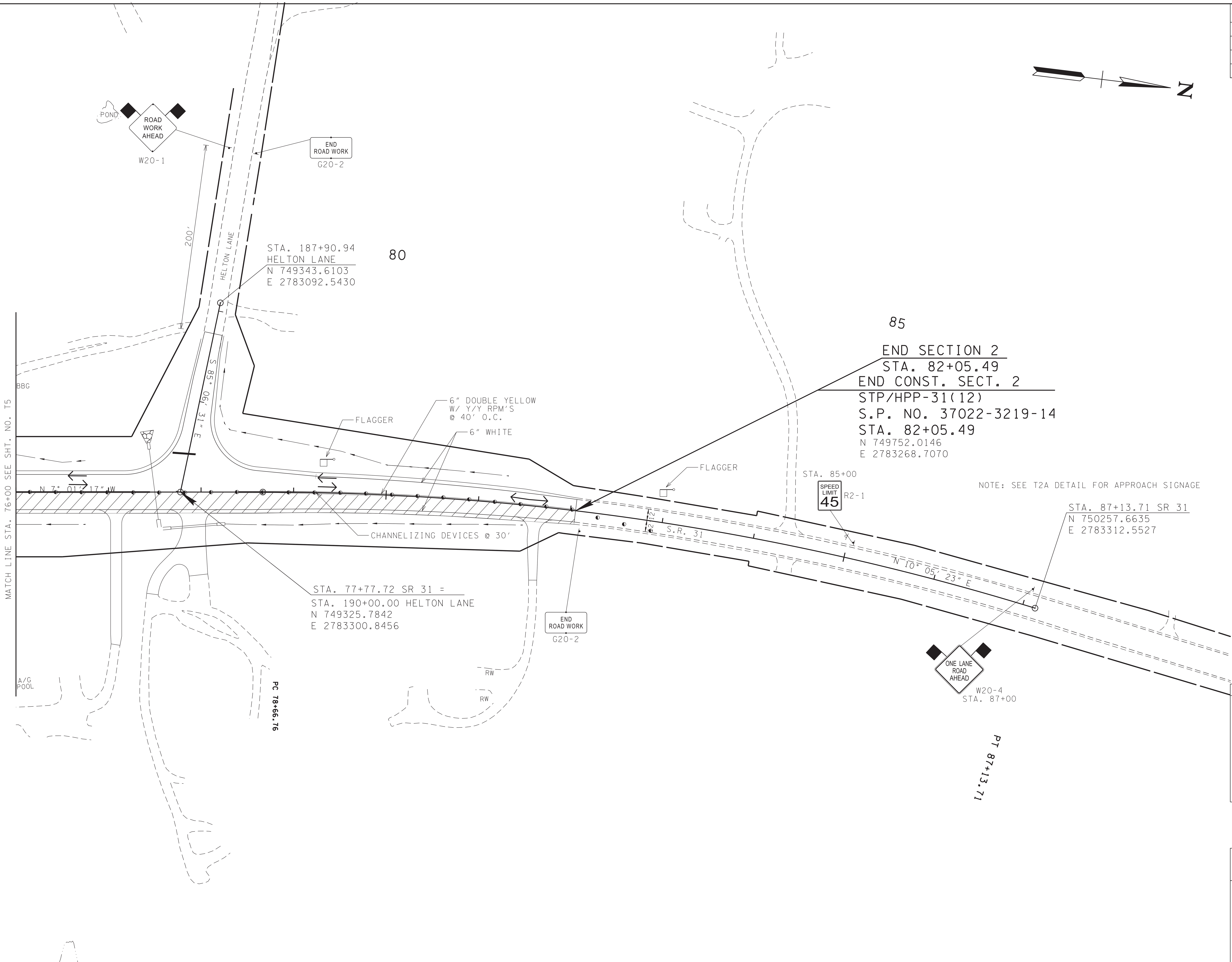
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	T3H
PS & E	2026	STP/HPP-31(12)	T6D



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLANS (PHASE 3)

STA. 76+00 TO STA. 82+05.49

SCALE: 1"= 50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	T3K
PS & E	2026	STP/HPP-31(12)	T6E

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC
CONTROL PLANS
(PHASE 3)

SCALE: 1"= 50'

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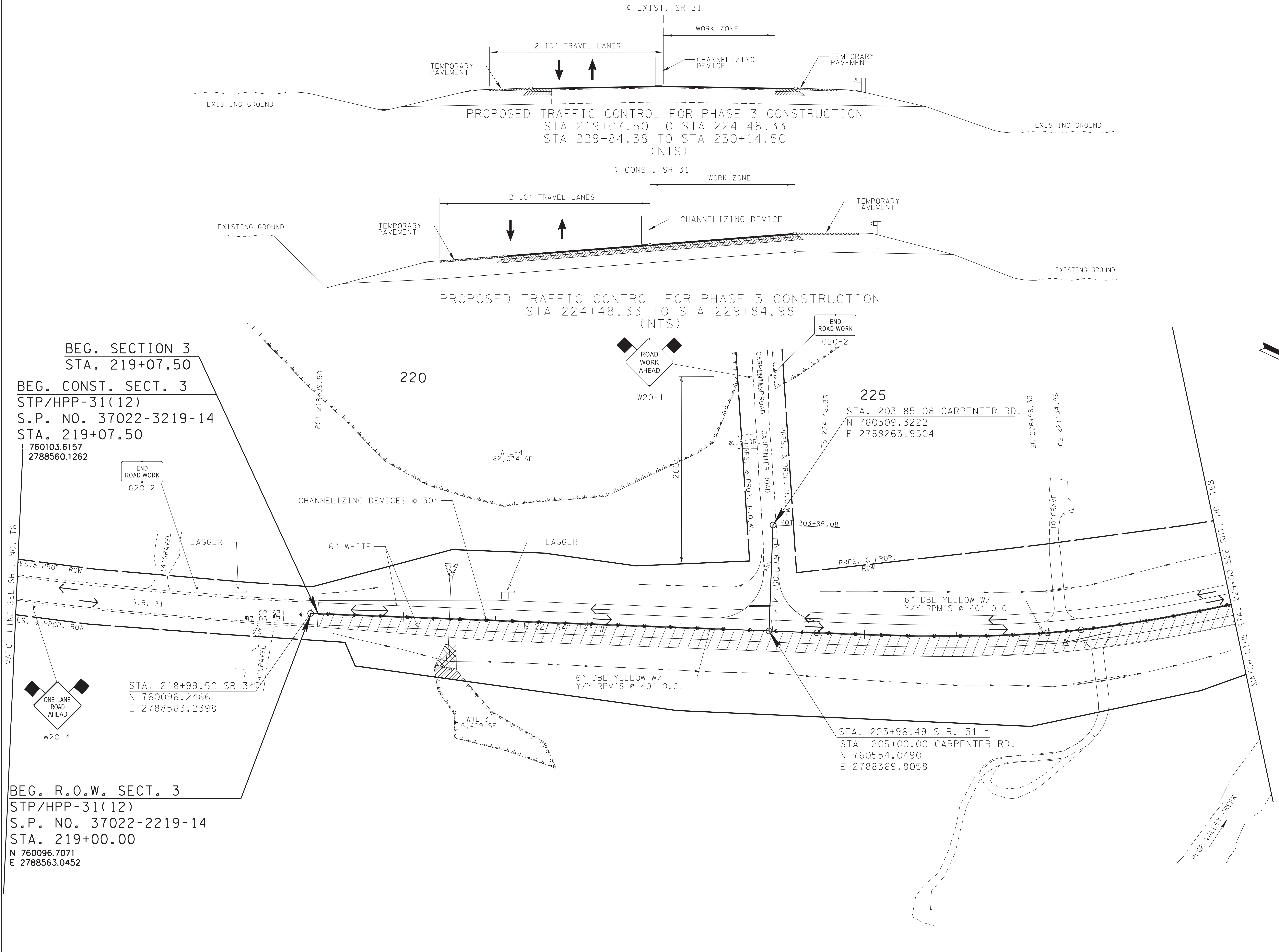
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	T3L
PS & E	2026	STP/HPP-31(12)	T6F



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STATE OF TENNESSEE

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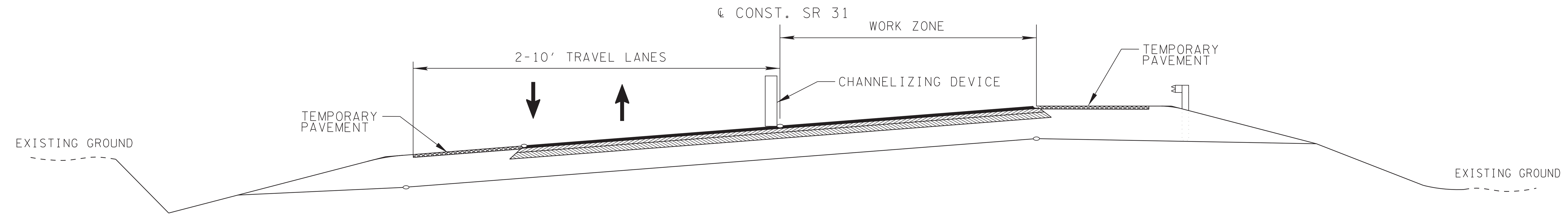
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLANS (PHASE 3)

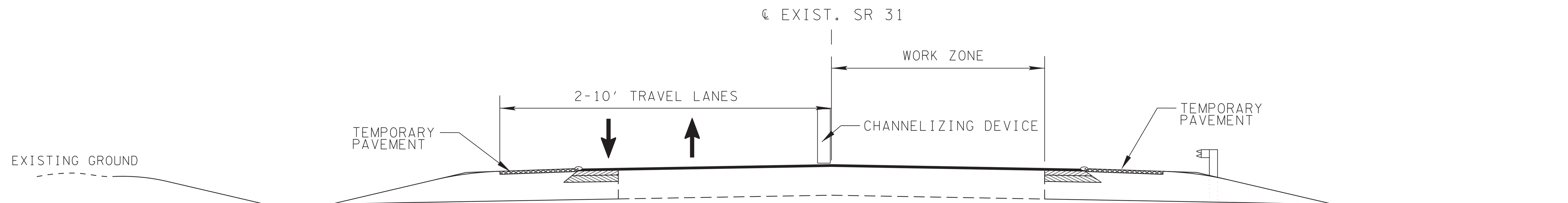
STA. 219+00 TO STA. 229+00

SCALE: 1"= 50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2021	STP/HPP-31(12)	
P-I-H	2025	STP/HPP-31(12)	T3M
PS & E	2026	STP/HPP-31(12)	T6G



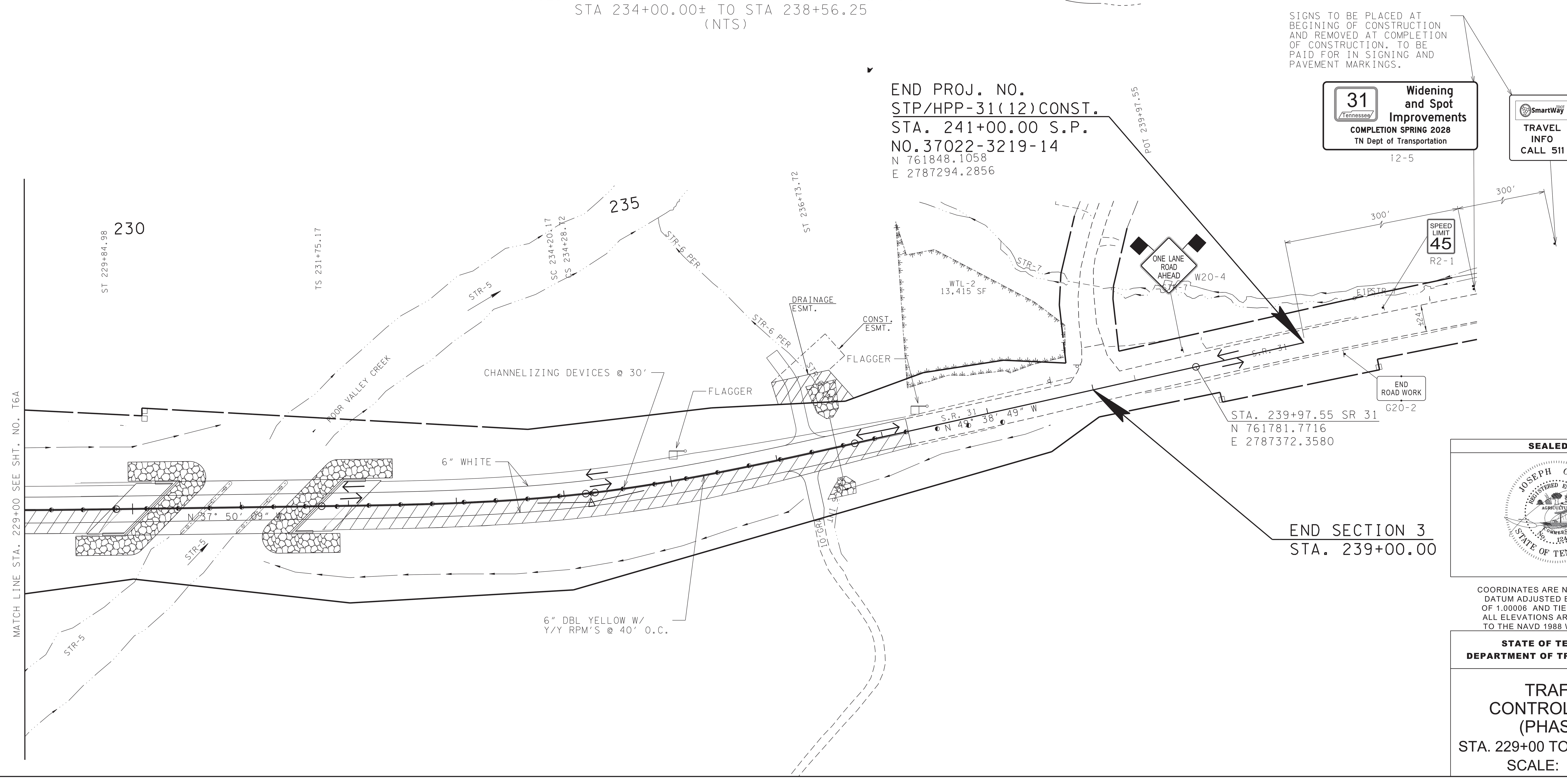
PROPOSED TRAFFIC CONTROL FOR PHASE 3 CONSTRUCTION
STA 231+75.50± TO STA 234+00.00±
(NTS)



PROPOSED TRAFFIC CONTROL FOR PHASE 3 CONSTRUCTION
STA 234+00.00± TO STA 238+56.25
(NTS)

NOTES:

1. SEE T2A DETAIL FOR APPROACH SIGNAGE
2. ADJUSTMENTS TO CONFIGURATION ARE ACCEPTABLE PENDING APPROVAL BY ENGINEER.
3. SINGLE LANE TWO-WAY CONFIGURATION WILL BE DEACTIVATED AND REMOVED AS SOON AS WORK IS COMPLETED AND ACCEPTED.
4. ADVANCE SIGNING FOR SINGLE LANE TWO-WAY CONFIGURATION TO BE IN ACCORDANCE WITH T-WZ-32.



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STATE OF TENNESSEE

04/14/2026

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLANS (PHASE 3)

STA. 229+00 TO STA. 239+00
SCALE: 1"= 50'

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YEAR	PROJECT NO.	SHEET NO.
2026	STP/HHP-31(12)	STRUCTURE-SIGN1

THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Joseph Andrew Laine

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED. THE SIGNATURE MUST BE VERIFIED ON THE ELECTRONIC DOCUMENTS.

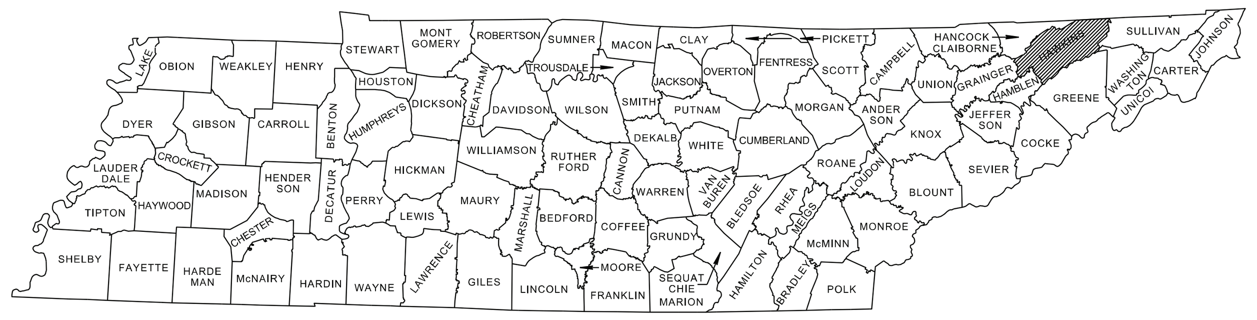
TENNESSEE DEPARTMENT OF TRANSPORTATION
JAMES K. POLK BUILDING, SUITE 1100
505 DEADERICK STREET
NASHVILLE, TN 37243
JOSEPH ANDREW LAINE, P.E. NO. 123434

2/18/26

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

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNATURE SHEET



HAWKINS COUNTY

BRIDGE NO. 1	BRIDGE NO. 2
STATE ROUTE 31 OVER MOORSBURG BRANCH STATION 23+46.68	STATE ROUTE 109 OVER POOR VALLEY CREEK STATION 230+94.00
CONTINIOUS PRECAST PRESTRESSED CONCRETE BOX BEAM (33" x 36") WITH COMPOSITE CONCRETE DECK SLAB	CONTINIOUS PRECAST PRESTRESSED CONCRETE I-BEAM (TYPE II) WITH COMPOSITE CONCRETE DECK SLAB
SINGLE SPAN BRIDGE TOTAL LENGTH = 80'-0"	3 SPAN BRIDGE SPAN NO. 1 = 53'-8½" SPAN NO. 2 = 51'-7" SPAN NO. 3 = 53'-8½" TOTAL LENGTH = 159'-0"
56'-0" ROADWAY WITH STD-1-1SS PARAPET 90°00'00" SKEW	48'-0" ROADWAY WITH STD-1-1SS PARAPET 45°00'00" SKEW
LAYOUT OF BRIDGE DWG. NO. U-101-001	LAYOUT OF BRIDGE DWG. NO. U-101-019

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	TOTAL	TOTAL	GRAND TOTAL
202-01.02	REMOVAL OF ASBESTOS	L.S.	1	1	2
202-04.01	REMOVAL OF STRUCTURES (EXISTING BRIDGE NO. 37SR0310001)	L.S.	1		1
202-04.02	REMOVAL OF STRUCTURES (EXISTING BRIDGE NO. 37-SR031-00.07)	L.S.		1	1
204-02.01	DRY EXCAVATION (BRIDGES)	C.Y.	275	361	636
204-03.01	WET EXCAVATION (BRIDGES	C.Y.		98	98
204-04.01	ROCK EXCAVATION (BRIDGES)	C.Y.		130	130
204-05	ROCK DRILLING (BRIDGES)	L.F.		120	120
204-10.02	FOUNDATION PREPARATION (BRIDGE NO. 2, PIER NO.1, STA. 230+68.21)	L.S.		1	1
204-10.03	FOUNDATION PREPARATION (BRIDGE NO. 2, PIER NO.2, STA. 231+19.79)	L.S.		1	1
204-14	CORE DRILLING FOR PILES (ROCK)	L.F.	165		165
204-15	CORE DRILLING FOR PILES (SOIL)	L.F.	40		40
303-01.02	GRANULAR BACKFILL (BRIDGES)	TON	105	42	147
604-02.03	EPOXY COATED REINFORCING STEEL	LB.	25,372	75,434	100,806
604-03.01	CLASS 'A' CONCRETE (BRIDGES)	C.Y.	82	351	433
604-03.02	STEEL BAR REINFORCEMENT (BRIDGES)	LB.	12,157	52,533	64,690
604-03.04	PAVEMENT @ BRIDGE ENDS	S.Y.	299	248	547
604-03.09	CLASS D CONCRETE (BRIDGE DECK)	C.Y.	120	219	339
604-04.01	APPLIED TEXTURE FINISH (NEW STRUCTURES)	S.Y.	349	1,024	1,373
604-05.31	BRIDGE DECK GROOVING (MECHANICAL)	S.Y.	768	827	1,595
606-02.03	STEEL PILES (10 INCH)	L.F.	232	341	573
606-02.06	PILE TIPS (STEEL PILES, 10 INCH)	L.F.		22	22
615-01.02	PRESTRESSED CONCRETE I-BEAM (TYPE II)	L.F.		902	902
615-02.05	PRESTRESSED CONCRETE BOX BEAM (33" x 36")	L.F.	616		616
617-02	BRIDGE DECK CRACK SEALING	L.F.	80	159	239
617-05	SEALANT (HMWM)	GAL.	1	1	2
620-05.01	CONCRETE PARAPET SINGLE SLOPE (STD-1-1SS)	L.F.	234	376	610
621-05.02	TEMPORARY SHORING	L.S.	1		1
710-09.01	6" PERF. PIPE WITH VERTICAL DRAIN SYSTEM	L.F.	181	166	347
710-09.02	6" PIPE UNDERDRAIN	L.F.	52	34	86

BRIDGE NO. 1 LIST OF DRAWINGS

LIST OF DRAWINGS	DWG. NO.	LAST REV. DATE
LAYOUT OF BRIDGE	U-101-001	
GENERAL NOTES AND ESTIMATED QUANTITIES	U-101-002	
FOUNDATION DATA	U-101-003	
FOUNDATION DATA	U-101-004	
SUPERSTRUCTURE	U-101-005	
SUPERSTRUCTURE DETAILS	U-101-006	
SUPERSTRUCTURE DETAILS	U-101-007	
PHASE CONSTRUCTION DETAILS	U-101-008	
PHASE CONSTRUCTION DETAILS	U-101-009	
PRESTRESSED BOX BEAM DETAILS	U-101-010	
ABUTMENT NO. 1	U-101-011	
ABUTMENT NO. 1 DETAILS	U-101-012	
ABUTMENT NO. 1 DETAILS	U-101-013	
ABUTMENT NO. 2	U-101-014	
ABUTMENT NO. 2 DETAILS	U-101-015	
ABUTMENT NO. 2 DETAILS	U-101-016	
FINAL FOUNDATION DATA	U-101-017	
BILL OF STEEL	U-101-018	

LIST OF STANDARD DRAWINGS

LIST OF STANDARD DRAWINGS	DWG. NO.	LAST REV. DATE
BRIDGE RAILING SINGLE SLOPE CONCRETE PARAPET	STD-1-1SS	07-09-2025
STEEL SLIDER PLATE ASSEMBLIES FOR SINGLE SLOPE CONCRETE PARAPET AND BRIDGE DECK DRAIN DETAILS	STD-1-2SS	05-31-2024
REINFORCED CONCRETE PAVEMENT AT BRIDGE ENDS	STD-1-5	06-05-2023
BRIDGE MOUNTED INTERCONNECTED PORTABLE BARRIER RAIL	STD-2-1	08-26-25
BARRIER RAIL ALTERNATE CONNECTION DETAIL	STD-2-3	08-26-25
STANDARD PRECAST PRESTRESSED BRIDGE DECK PANELS GENERAL DETAILS	STD-4-1	04-08-2005
STANDARD PRECAST PRESTRESSED BRIDGE DECK PANELS DESIGN CRITERIA	STD-4-2	04-08-2005
STANDARD PRECAST PRESTRESSED BRIDGE DECK PANELS DESIGN DETAILS	STD-4-3	03-02-2002
STANDARD PRECAST PRESTRESSED BRIDGE DECK PANELS CONSTRUCTION DETAILS	STD-4-4	06-10-1996
STANDARD PILE DETAILS	STD-5-1	
STANDARD SEISMIC DETAILS	STD-6-1	12-08-2023
TRI-STAR STATE EMBLEM FINISH DETAILS	STD-8-6	10-03-2018
STANDARD REINFORCEMENT BAR SUPPORT DETAILS FOR CONCRETE SLABS	STD-9-1	10-07-2008
MISCELLANEOUS ABUTMENT AND DRAINAGE DETAILS	STD-10-1	06-05-2023
MISCELLANEOUS ABUTMENT AND PAVEMENT AT BRIDGE ENDS BACKFILL DETAILS	STD-10-2	06-05-2023
DETAILS FOR I-BEAMS	STD-14-2	03-06-2024
STANDARD DETAILS AND INTERMEDIATE DIAPHRAGM BOX BEAMS	STD-14-3	03-06-2024

LIST OF SPECIAL PROVISIONS

LIST OF SPECIAL PROVISIONS	PROV. NO.	LAST REV. DATE
REMOVAL OF ASBESTOS CONTAINING MATERIALS (ACM)	202ACM	07-07-2014
REPAIR OF BRIDGE CRACKS	604CR	02-08-2021

BRIDGE NO. 2 LIST OF DRAWINGS

LIST OF DRAWINGS	DWG. NO.	LAST REV. DATE
LAYOUT OF BRIDGE	U-101-019	
GENERAL NOTES	U-101-020	
ESTIMATED QUANTITIES	U-101-021	
FOUNDATION DATA	U-101-022	
FOUNDATION DATA	U-101-023	
SUPERSTRUCTURE	U-101-024	
SUPERSTRUCTURE DETAILS	U-101-025	
SUPERSTRUCTURE DETAILS	U-101-026	
SUPERSTRUCTURE DETAILS	U-101-027	
PHASE CONSTRUCTION DETAILS	U-101-028	
PRESTRESSED I-BEAM DETAILS	U-101-029	
PRESTRESSED I-BEAM DETAILS	U-101-030	
PRESTRESSED I-BEAM DETAILS	U-101-031	
ABUTMENT NO. 1	U-101-032	
ABUTMENT NO. 1 DETAILS	U-101-033	
ABUTMENT NO. 1 DETAILS	U-101-034	
ABUTMENT NO. 2	U-101-035	
ABUTMENT NO. 2 DETAILS	U-101-036	
ABUTMENT NO. 2 DETAILS	U-101-037	
PIER NO. 1	U-101-038	
PIER NO. 2	U-101-039	
PIER NO. 1 AND NO. 2 DETAILS	U-101-040	
FINAL FOUNDATION DATA	U-101-041	
BILL OF STEEL	U-101-042	

P.E. NO.: 37022-3219-14

PROJECT NO.	YEAR	SHEET NO.
STP/HPP-31(12)	2026	B-1

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

MISC. DRAWINGS

MISC. DRAWINGS	DWG. NO.	LAST REV. DATE
SIGNATURE SHEET	STRUCTURE-SIGN1	
INDEX OF BRIDGE QUANTITIES AND ESTIMATED QUANTITIES	B-1	

EXISTING BRIDGE NO. 2 LIST OF DRAWINGS

LIST OF DRAWINGS	DWG. NO.
ELEVATION VIEW OF BRIDGE TO BE REPAIRED	BR-102-1
PLAN OF BRIDGE TO BE REPAIRED	BR-102-2
GENERAL NOTES AND ESTIMATED BRIDGE QUANTITIES	BR-102-3
SUPERSTRUCTURE	BR-102-4
SUPERSTRUCTURE DETAILS	BR-102-5
SUPERSTRUCTURE DETAILS	BR-102-6
SUPERSTRUCTURE DETAILS	BR-102-7
SUPERSTRUCTURE DETAILS	BR-102-8
STRUCTURAL STEEL DETAILS	BR-102-9
ABUTMENT NO. 1 REPAIR DETAILS	BR-102-10
ABUTMENT NO. 2 REPAIR DETAILS	BR-102-11
PIER REPAIR DETAILS	BR-102-12
MISCELLANEOUS REPAIR DETAILS	BR-102-13
ENDPOST REPLACEMENT DETAILS	BR-102-14
LAYOUT OF BRIDGE	K-72-121
STRUCTURAL STEEL DETAILS	K-72-123
SUPERSTRUCTURE	K-72-122
ABUTMENT NO. 1 & 2	K-72-124
PIERS NO. 1 & 2	K-72-125
BILL OF STEEL	K-72-126
GENERAL DRAWINGS	K-72-126A
FOUNDATION PLAN AND REVETMENT	K-72-126B
EAST AND WEST ABUTMENTS	K-72-126C
PIERS A & B	K-72-126D
ROADWAY SLAB AND RAILINGS	K-72-126F
STRUCTURAL STEEL	K-72-126E
REINFORCING STEEL	K-72-126G

PIN NO.: 101394.00
DESIGN BY: J. LAINE DATE: 09/24
DRAWN BY: A. HUNTER DATE: 05/25
SUPERVISED BY: EASTERLY/SHOULDERS DATE: 05/25
CHECKED BY: DATE: /

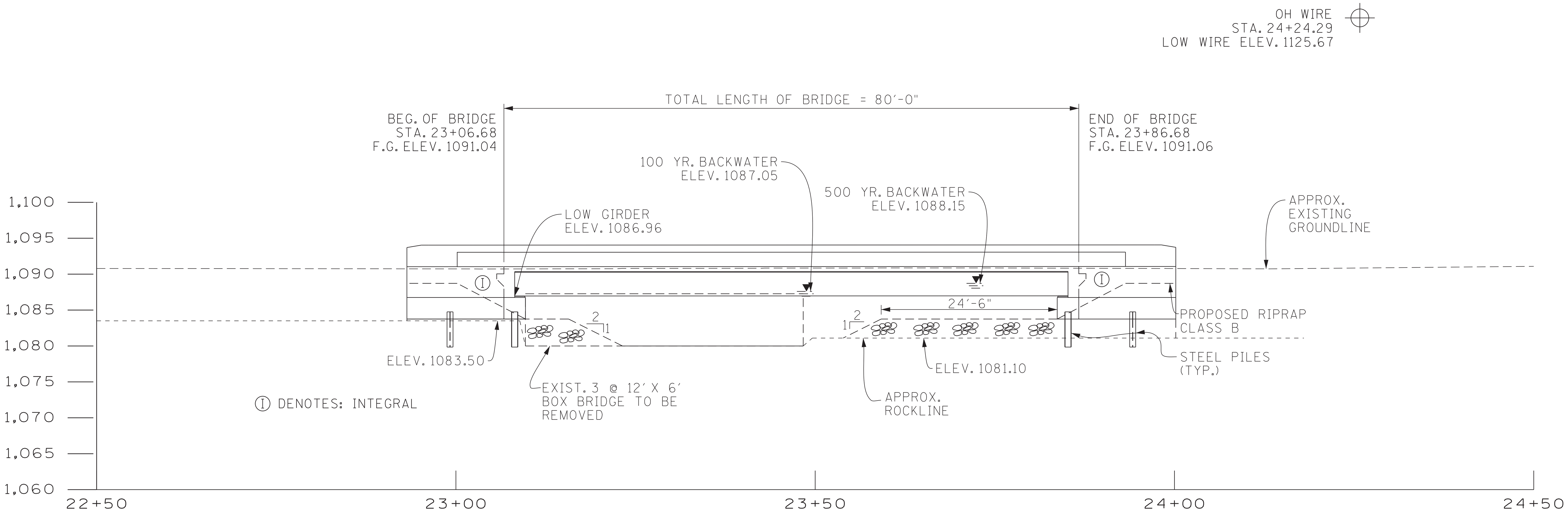
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

INDEX OF BRIDGES AND ESTIMATED QUANTITIES STATE ROUTE 31 FROM MOORESBURG TO ADAMS LANE HAWKINS COUNTY

PROJECT NO.	YEAR	SHEET NO.
STP/HPP-31(12)	2026	

REVISIONS

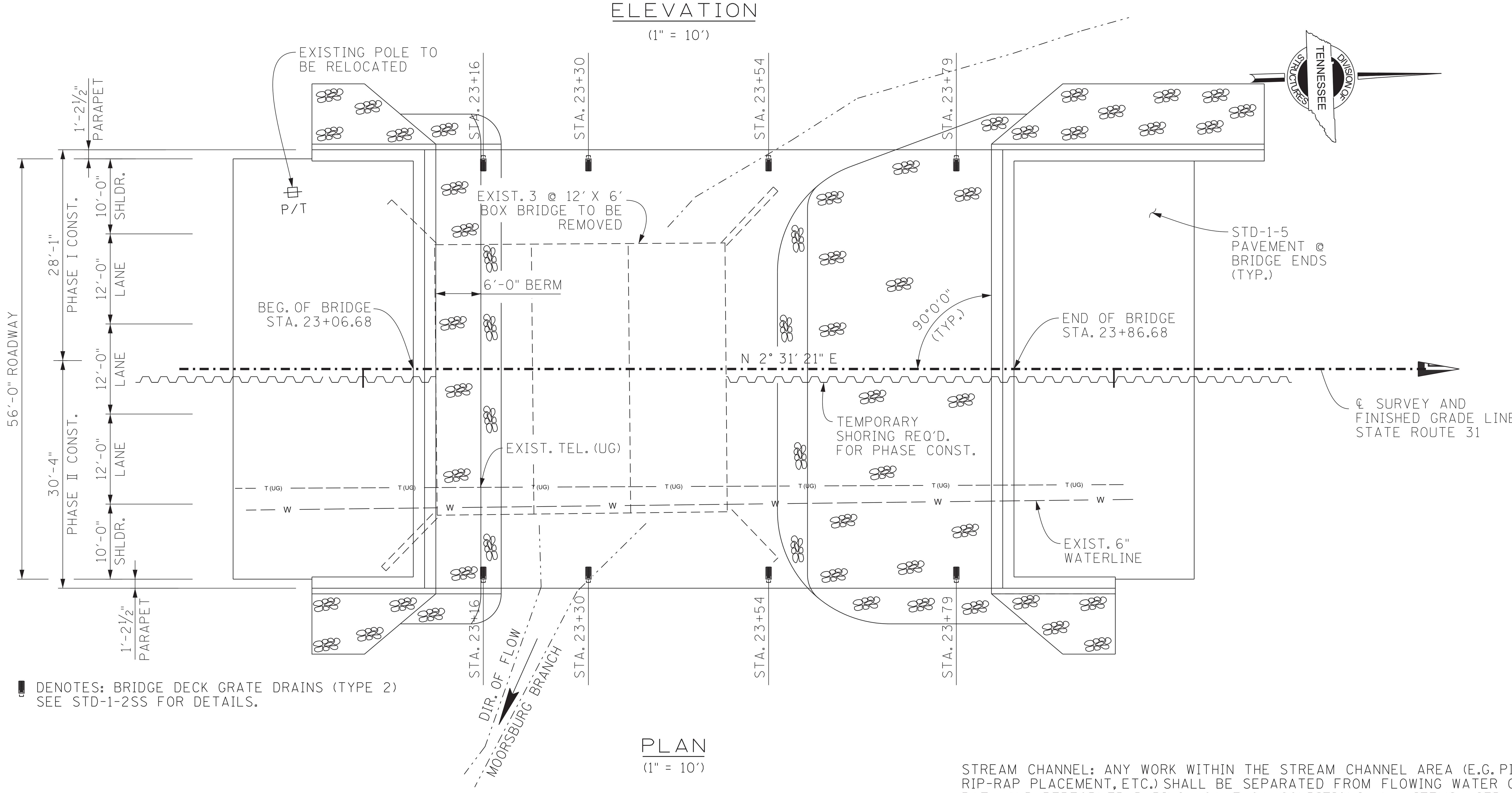
NO.	DATE	BY	BRIEF DESCRIPTION
	- -		
	- -		
	- -		
	- -		
	- -		



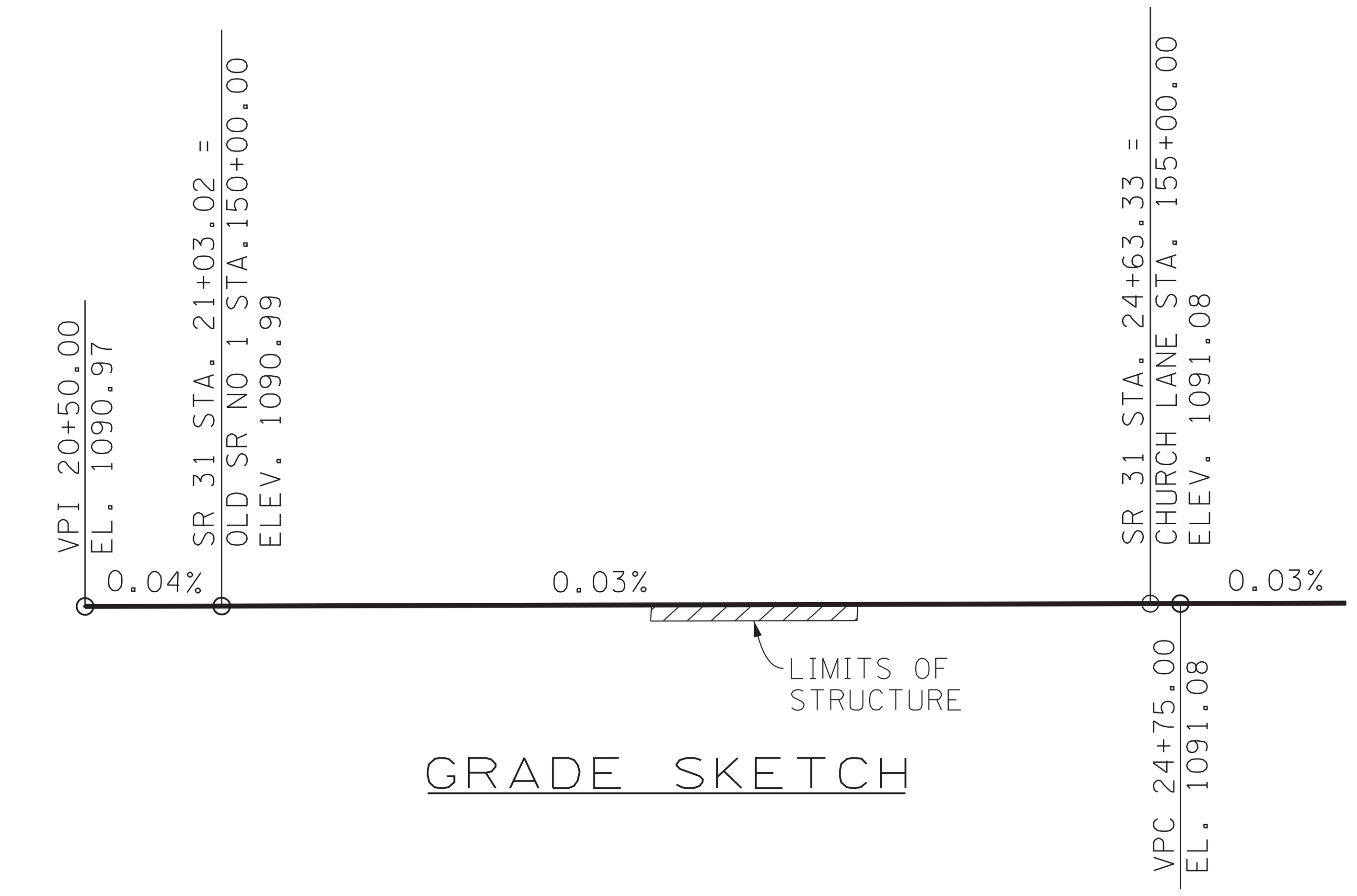
ELEVATION
(1" = 10')

HYDRAULIC DATA

DRAINAGE AREA = 4.31 mi.²
DESIGN DISCHARGE (100 YR.) = 1150 cfs
100 YEAR VELOCITY = 7.65 fps
WATER AREA PROVIDED BELOW EL. 1087.05 = 205.87 ft.²
ROADWAY OVERTOPPING ELEVATION 1090.48 ft.
100 YR. BRIDGE BACKWATER = 0.07 ft. @ EL. 1087.05 ft.
500 YEAR DISCHARGE 1580 cfs @ EL. 1088.15 ft.



PLAN
(1" = 10')

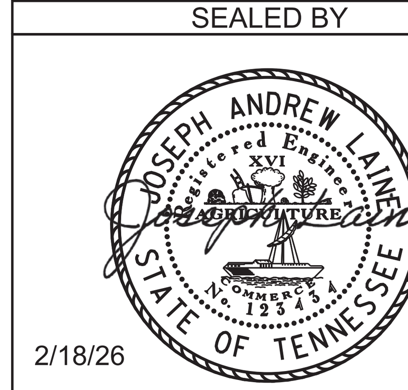


GRADE SKETCH

STREAM CHANNEL: ANY WORK WITHIN THE STREAM CHANNEL AREA (E.G. PIER/BENT FOOTING, RIP-RAP PLACEMENT, 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 TEMPORARY DIVERSION CHANNELS (EC-STR.31).

2042 ADT = 4,630
56'-0" ROADWAY WITH
STD-1-1SS PARAPETS
DESIGN SPEED = 55 mph

SEALED BY



2/18/26

BRIDGE NO. 1
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

LAYOUT OF BRIDGE
STATE ROUTE 31
OVER
MOORSBURG BRANCH
BRIDGE ID. NO. 37SR0310001
LOG MILE 0.24
STATION 23+46.68
HAWKINS COUNTY

U-101-1

PIN NO.: 101394.00
DESIGN BY: J. LAINE DATE: 09/24
DRAWN BY: P. MOSHER DATE: 05/25
SUPERVISED BY: EASTERLY/SHOULDERS DATE: 05/25
CHECKED BY: A. DAHIR DATE: 03/25

2/18/2026 10:48:53 AM
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GENERAL NOTES

CONSTRUCTION SPECIFICATIONS: TENNESSEE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (JANUARY 1, 2021 EDITION).

DESIGN SPECIFICATIONS: 9TH EDITION (2020) AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS AND THE 2ND EDITION (2011) AASHTO GUIDE SPECIFICATIONS FOR LRFD SEISMIC BRIDGE DESIGN WITH INTERIMS.

LOADING:

A. HL-93 LIVE LOADING
B. SEISMIC DESIGN CATEGORY "A" WITH A_S= 0.138, S_{DS}=0.254, S_{D1}=0.066, (1000 YEAR RETURN PERIOD).
C. DEAD LOAD INCLUDES 35 LB/SQ. FT. FOR FUTURE WEARING SURFACE.

CONCRETE: TO BE CLASS A (CAST-IN-PLACE) F'C = 3000 PSI EXCEPT AS NOTED OTHERWISE.

BRIDGE DECKS: CLASS D CONCRETE FOR BRIDGE DECKS SHALL BE IN ACCORDANCE WITH SECTION 604 OF THE STANDARD SPECIFICATIONS.

BRIDGE DECK SURFACE FINISH: TO BE IN ACCORDANCE WITH METHOD 3 IN ARTICLE 604.22 OF THE STANDARD SPECIFICATIONS.

BRIDGE DECK FORMS: BRIDGE DECK FORMS FOR CONCRETE DECKS SHALL BE CONSTRUCTED USING EITHER REMOVABLE FORMS OR PERMANENT FORMS. PERMANENT FORMS SHALL BE REMAIN-IN-PLACE STEEL. FORMS SHALL BE ATTACHED BY MEANS OTHER THAN WELDING TO MAIN STRUCTURAL MEMBERS OR REINFORCING STEEL. TEMPORARY ERECTION DIAPHRAGMS MUST BE USED AT THE ENDS OF PRECAST CONCRETE GIRDERS WHERE END DIAPHRAGMS, SUPPORT DIAPHRAGMS, OR ABUTMENT ENDWALLS ARE TO BE POURED CONCURRENTLY WITH THE DECK AND SHALL BE PROVIDED ELSEWHERE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS TO PREVENT GIRDER ROTATION. SEE STANDARD DRAWING STD-14-3 AND ARTICLE 604.05 OF THE STANDARD SPECIFICATIONS.

REINFORCING STEEL: SHALL BE ASTM A615 GRADE 60 UNLESS NOTED OTHERWISE. SEE SECTIONS 604 AND 907 OF THE STANDARD SPECIFICATIONS.

STREAM CHANNEL: ANY WORK WITHIN THE STREAM CHANNEL AREA (E.G. PIER/BENT FOOTING, RIP-RAP PLACEMENT, 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 TEMPORARY DIVERSION CHANNELS (EC-STR-31).

ABUTMENTS ON FILL: THE FILLS AT THE ENDS OF THE BRIDGE SHALL BE IN PLACE AND THOROUGHLY COMPACTED BEFORE ANY ABUTMENT PILES ARE DRIVEN.

END-BEARING STEEL PILES: TO BE HP10X42 DRIVEN TO REFUSAL ON ROCK OR A MINIMUM BEARING OF 84 TONS FOR THE ABUTMENTS. ALL PILES SHALL BE ASTM A709 GRADE 50 STEEL.

UTILITIES: IT IS INTENDED THAT THE COST OF MATERIALS AND LABOR NECESSARY FOR THE COMPLETE INSTALLATION OF UTILITIES SHALL BE BORNE BY OTHERS AND SHALL NOT BE PAID FOR AS A PART OF THIS CONTRACT. THE CONTRACTOR SHALL COOPERATE WITH OTHERS IN THE INSTALLATION OF UTILITIES WITH NO ADDITIONAL COMPENSATION ALLOWED THE CONTRACTOR AS A RESULT.

SHOP DRAWINGS: SEE SECTION 105.02 OF THE STANDARD SPECIFICATIONS.

PARAPET SYSTEM: BUILD PARAPETS ACCORDING TO STANDARD DRAWING STD-1-1SS. THE PARAPETS SHALL BE FORMED AND CAST PLUMB, NOT PERPENDICULAR TO THE SLAB. THE DIMENSIONS AT THE TRAFFIC FACE SHALL BE KEPT CONSTANT, WITH VARIATION DUE TO CROSS-SLOPE ACCOMMODATED AT THE REAR FACE.

VALUE ENGINEERING ALTERNATE BRIDGE DESIGN CRITERIA: ALTERNATE BRIDGE DESIGN PROPOSALS MAY NOT DIMINISH THE FUNCTIONAL OR STRUCTURAL EQUIVALENCY OF THE BRIDGE AND MUST MEET OR EXCEED THE CAPACITIES OF THE CONTRACT PLANS STRUCTURE AT ALL LIMIT STATES IN AASHTO TABLE 3.4.1-1. ADDITIONALLY, THE WATERWAY OPENING AND FLOOD CLEARANCES MAY NOT BE REDUCED. FOR GRADE SEPARATIONS, THE HORIZONTAL CLEARANCES MAY NOT BE REDUCED, NOR MAY THE VERTICAL CLEARANCES BE LESS THAN THE MINIMUM ACCEPTABLE FOR THE TYPE FACILITY CROSSED.

REQUIREMENTS AND RESTRICTIONS FOR PHASE CONSTRUCTION:

A. THE PHASE CONSTRUCTION SEQUENCE MAY PROHIBIT THE EXTRACTION OF SOME SHEET PILING. ALL COSTS ASSOCIATED WITH SHEET PILING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR OTHER ITEMS.

B. THE LOCATION OF LONGITUDINAL CONSTRUCTION JOINTS SHALL NOT BE CHANGED TO ACCOMMODATE STAY-IN-PLACE DECK FORMS.

C. NO SHEET PILES OR BEARING PILES MAY BE DRIVEN FROM THE EXISTING OR PROPOSED STRUCTURE.

FINISHING CONCRETE SURFACES: CONCRETE FINISHING SHALL BE IN ACCORDANCE WITH SECTION 604.21 OF THE STANDARD SPECIFICATIONS. A CLASS I FINISH FOLLOWED BY AN APPLIED TEXTURE FINISH SHALL BE USED IN LIEU OF A CLASS II FINISH. NO TEXTURE FINISH SHALL BE APPLIED PRIOR TO COMPLETION OF PAVING AND HAULING OPERATIONS AT THE BRIDGE SITE. THE APPLIED TEXTURE FINISH SHALL BE MEASURED AND PAID FOR UNDER ITEM NO. 604-04.01.

TEXTURE FINISH: IN ADDITION TO THE SURFACES SHOWN IN THE APPLIED TEXTURE FINISH SKETCH, ALL EXPOSED SURFACES OF THE [WINGWALLS, ABUTMENT BEAMS, APRON WALLS, AND EXTERIOR PORTIONS OF THE ENDWALLS SHALL RECEIVE AN APPLIED TEXTURE FINISH, (GRAY, AMS-STD-595A, COLOR NO. 36440).

MECHANICAL COUPLERS: CONTRACTOR TO VERIFY ALL BAR LENGTHS SPLICED WITH AX BARS TO ENSURE ALL MINIMUM CLEARANCES ARE MAINTAINED. MECHANICAL COUPLER SIZE NOT KNOWN AT THE TIME OF DESIGN.

RIP-RAP: RIP-RAP TO EXTEND TO ROCK IN ALL LOCATIONS UNLESS NOTATED OTHERWISE. IF ROCK IS ENCOUNTERED HIGHER THAN EXPECTED, THE ABUTMENT BERM ELEVATION CAN BE INCREASED TO MAINTAIN THE MINIMUM RIP-RAP THICKNESS WITH THE APPROVAL OF THE STRUCTURAL ENGINEER.

END-BEARING STEEL PILES AT ABUTMENTS: FOUNDATIONS FOR ABUTMENTS SHALL BE EXCAVATED TO THE BOTTOM OF ABUTMENT BEAM OR WING BEAM ELEVATIONS SHOWN. ROD SOUNDINGS SHALL THEN BE MADE AS DIRECTED BY THE ENGINEER. FROM THE RESULTS OBTAINED, THE ENGINEER OF STUCTURES WILL DECIDE IF PILES WILL BE USED OR THE ABUTMENT AND WING BEAMS WILL BE LOWERED TO ROCK. COST OF ROD SOUNDINGS TO BE INCLUDED IN THE UNIT PRICE BID FOR OTHER ITEMS.
NO REINFORCING STEEL FOR ABUTMENT BEAMS OR WING BEAMS SHALL BE ORDERED UNTIL FINAL FOOTING ELEVATIONS HAVE BEEN DETERMINED.

ESTIMATED QUANTITIES NOTES

(1) **NOTE:** PRIOR TO CONSTRUCTION OF THE PAVEMENT AT BRIDGE ENDS, THE CONTRACTOR SHALL SUBMIT A PROPOSED BILL OF STEEL TO THE ENGINEER FOR APPROVAL.

(2) **NOTE:** LUMP SUM EXISTING CULVERT NO. 37SR0310001 TO BE REMOVED. CONSIST OF THREE 12' X 7' BOXES WITH AN ASPHALT OVERLAY. TOTAL LENGTH = 39'-0" OUT-TO-OUT = 35'-4"

(3) **NOTE:** SEE PROJECT COMMITMENTS AND SPECIAL PROVISION 202ACM.

(4) **NOTE:** EXCAVATION BASED ON FINAL PROFILE AT ABUTMENTS.

(5) **NOTE:** COST OF 8 BRIDGE PARAPET DRAINS TO BE INCLUDED IN THE UNIT PRICE BID FOR THE PARAPET.

(6) **NOTE:** THE COST OF WATER STOPS, BITUMINOUS-FIBERBOARD, ETC. AND ALL MISCELLANEOUS JOINT MATERIAL TO BE INCLUDED IN THE UNIT PRICE BID FOR OTHER ITEMS.

(7) **NOTE:** COST OF ELASTOMERIC PADS AND RUBBER BONDING CEMENT TO BE INCLUDED IN THE UNIT PRICE BID FOR THE PRESTRESSED BEAM.

(8) **NOTE:** COST OF POLYETHYLENE SHEETING AND ALL MISCELLANEOUS ITEMS NECESSARY FOR INSTALLATION TO BE INCLUDED IN THE UNIT PRICE BID FOR PERFORATED PIPE.

(9) **NOTE:** MECHANICAL BAR SPLICERS MUST BE ON THE TDOT QUALIFIED PRODUCTS LIST 27. THE BAR SPLICERS SHALL MEET AASHTO LRFD SPECIFICATIONS FOR MECHANICAL CONNECTION. WHEN EPOXY COATING IS REQUIRED, THE EXPOSED THREADS SHALL BE REPAIRED AFTER SPLICING ACCORDING TO SECTION 907 OF THE STANDARD SPECIFICATIONS. THE COST OF FURNISHING THE BAR SPLICERS, (AND EPOXY COATING WHEN REQUIRED) INCLUDING ALL LABOR AND MATERIALS NECESSARY FOR COMPLETE INSTALLATION, SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM NO. 604-02.03 AND ITEM NO. 604-03.02.

(10) **NOTE:** GRANULAR BACKFILL SHALL BE TYPE "A" GRADING "D" MATERIAL. SEE STANDARD DRAWING STD-10-1

(11) **NOTE:** INCLUDES ALL COSTS FOR INSTALLING THE BRIDGE DECK CRACK SEALER (HWMW) INCLUDING CRACK PREPARATION, CLEANING, LABOR, AND ALL MISCELLANEOUS MATERIALS REQUIRED TO SEAL THE LONGITUDINAL CONSTRUCTION JOINT ACCORDING TO SPECIAL PROVISION 604CR AND MANUFACTURERS' SPECIFICATIONS. CRACK SEALING SHALL BE DONE AT THE END OF CONSTRUCTION TO ALLOW SHRINKAGE OF DECK CONCRETE CAUSING THE CRACK TO OCCUR.

(12) **NOTE:** TEMPORARY SHORING IS ANTICIPATED AND TO BE REQUIRED IN ORDER TO MAINTAIN TRAFFIC SHOWN IN THE TRAFFIC CONTROL PLANS AND FOR SUPPORT OF EXCAVATION ADJACENT TO EXISTING STRUCTURES, ROADWAYS OR UTILITIES. THIS ITEM SHALL INCLUDE ALL COSTS ASSOCIATED WITH ANY TEMPORARY SHORING NEEDED FOR PROJECT CONSTRUCTION INCLUDING DESIGN, SUBMITTAL, CONSTRUCTION AND REMOVAL IF NECESSARY. THE TYPE AND EXTENT OF TEMPORARY SHORING WILL BE DETERMINED BASED ON THE CONTRACTORS DESIRED MEANS AND METHODS AND SHALL CONSIDER AVAILABLE GEOTECHNICAL DATA (ROCK ELEVATIONS, WATER TABLE, ETC.), EXISTING AND PROPOSED STRUCTURES, UTILITIES, AND OTHER CONSTRAINTS AS NEEDED. NO CHANGE TO THE BID PRICE FOR THIS ITEM WILL BE MADE BASED UPON CONDITIONS THAT ARE READILY AVAILABLE FOR REVIEW DURING THE BIDDING PHASE.

PROJECT NO.	YEAR	SHEET NO.
STP/HPP-31(12)	2026	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
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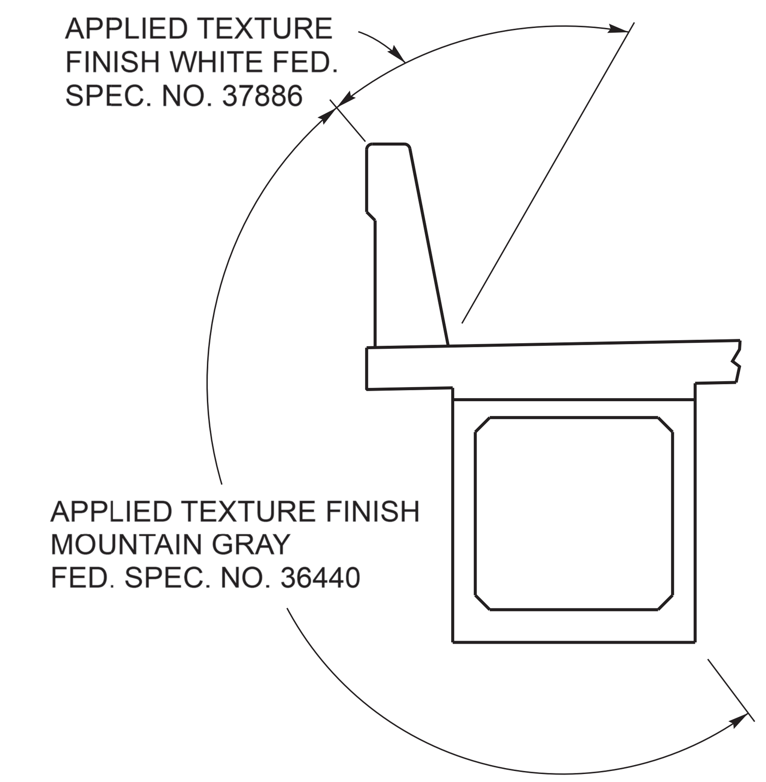
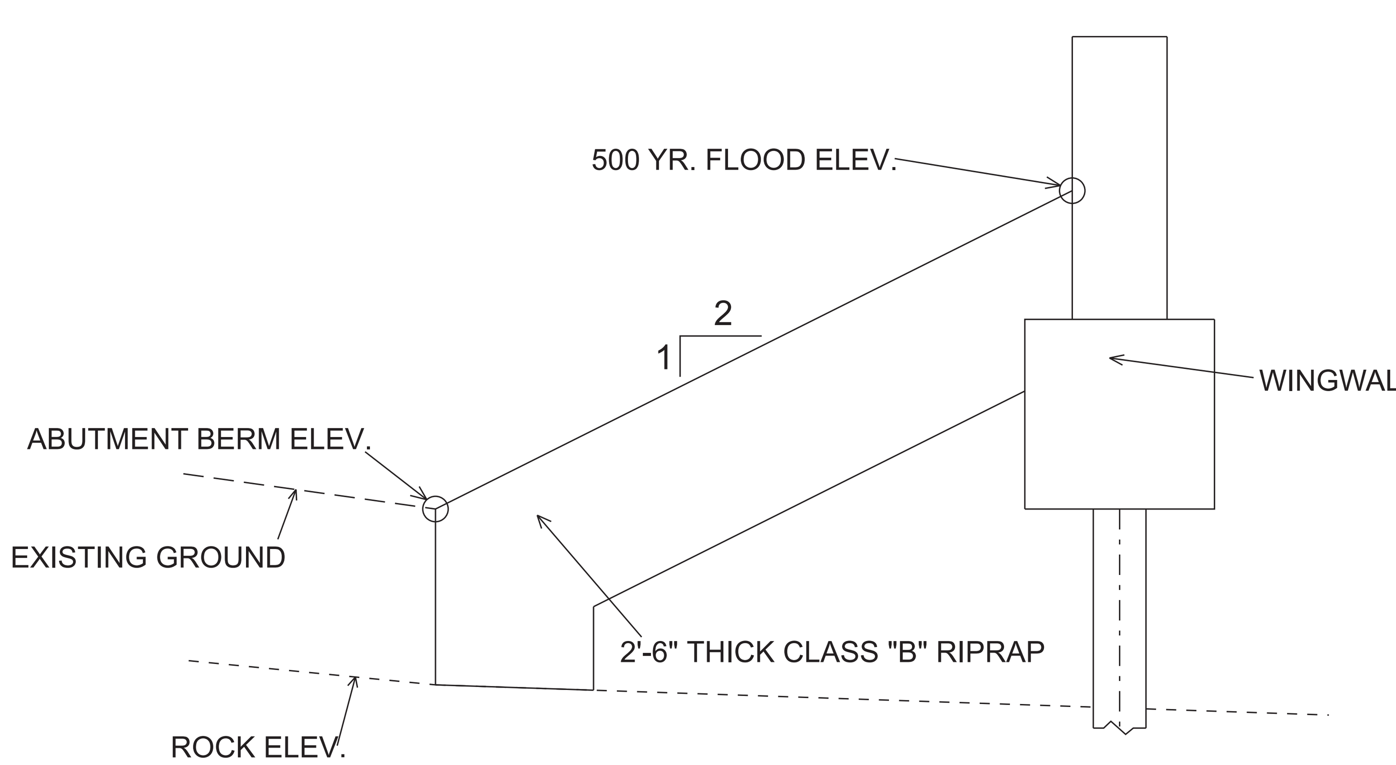


APPLIED TEXTURE FINISH SKETCH

NOTE: IN ADDITION TO THE SURFACES SHOWN IN THE APPLIED TEXTURE FINISH SKETCH ALL EXPOSED SURFACES OF THE WINGWALLS, ABUTMENT BEAMS, EXTERIOR PORTIONS OF ENDWALLS AND PIERS ARE TO RECEIVE AN APPLIED TEXTURE FINISH MOUNTAIN GRAY, FED. SPEC. NO. 36440



WINGWALL RIP-RAP DETAIL

NOTE: RIPRAP TO BE KEYED TO ROCK ONCE HITTING THE BERM ELEVATION.

ESTIMATED QUANTITIES

	ITEM NO.	DESCRIPTION	UNIT	TOTAL	SUPERSTRUCTURE	ABUT. NO. 1	ABUT. NO. 2
(3)	202-01.02	REMOVAL OF ASBESTOS	L.S.	1			
(2)	202-04.01	REMOVAL OF STRUCTURES (EXISTING BRIDGE NO. 37SR031000	L.S.	1			
(4)	204-02.01	DRY EXCAVATION (BRIDGES)	C.Y.	711		66	645
	204-14	CORE DRILLING FOR PILES (ROCK)	L.F.	165		57	108
	204-15	CORE DRILLING FOR PILES (SOIL)	L.F.	40		35	5
(10)	303-01.02	GRANULAR BACKFILL (BRIDGES)	TONS	105		48	57
(9)	604-02.03	EPOXY COATED REINFORCING STEEL	LB.	25,372	21,185	2,076	2,111
13	604-03.01	CLASS "A" CONCRETE (BRIDGES)	C.Y.	82		35	47
(9)	604-03.02	STEEL BAR REINFORCEMENT (BRIDGES)	LB.	12,157		5,426	6,731
(1)	604-03.04	PAVEMENT @ BRIDGE ENDS	S.Y.	299			
	604-03.09	CLASS "D" CONCRETE (BRIDGE DECK)	C.Y.	120			
	604-04.01	APPLIED TEXTURE FINISH (NEW STRUCTURES)	S.Y.	349	263	34	52
	604-05.31	BRIDGE DECK GROOVING (MECHANICAL)	S.Y.	768			
	606-02.03	STEEL PILES (10 INCH)	L.F.	232		104	128
(7)	615-02.05	PRESTRESSED CONCRETE BOX BEAM (33" X 36")	L.F.	616			
(11)	617-02	BRIDGE DECK CRACK SEALING	L.F.	80	80		
	617-05	SEALANT (HMWM)	GAL	1			
(5)	620-05.01	CONC PARAPET SINGLE SLOPE (STD-1-1SS)	L.F.	234			
(12)	621-05.02	TEMPORARY SHORING	L.S.	1			
(8)	710-09.01	6" PERFORATED PIPE WITH VERTICAL DRAIN SYSTEM	L.F.	181		77	104
	710-09.02	6" PIPE UNDERDRAIN	L.F.	52		26	26

PIN NO.: 101394.00
DESIGN BY: J. LAINE DATE: 09/24
DRAWN BY: TRENT JOHNSTON DATE: 04/25
SUPERVISED BY: EASTERLY/SHOULDERS DATE: 04/25
CHECKED BY: A. DAHIR DATE: 03/25

SEALED BY

JOSEPH ANDREW LAINE
STATE OF TENNESSEE

2/18/26

BRIDGE NO. 1
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
GENERAL NOTES AND ESTIMATED QUANTITIES
STATE ROUTE 31
OVER
MOORSBURG BRANCH
BRIDGE ID. NO. 37SR0310001
LOG MILE 0.24
STATION 23+46.68
HAWKINS COUNTY

U-101-2

PROJECT NO.	YEAR	SHEET NO.
STP/HPP-31(12)	2026	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
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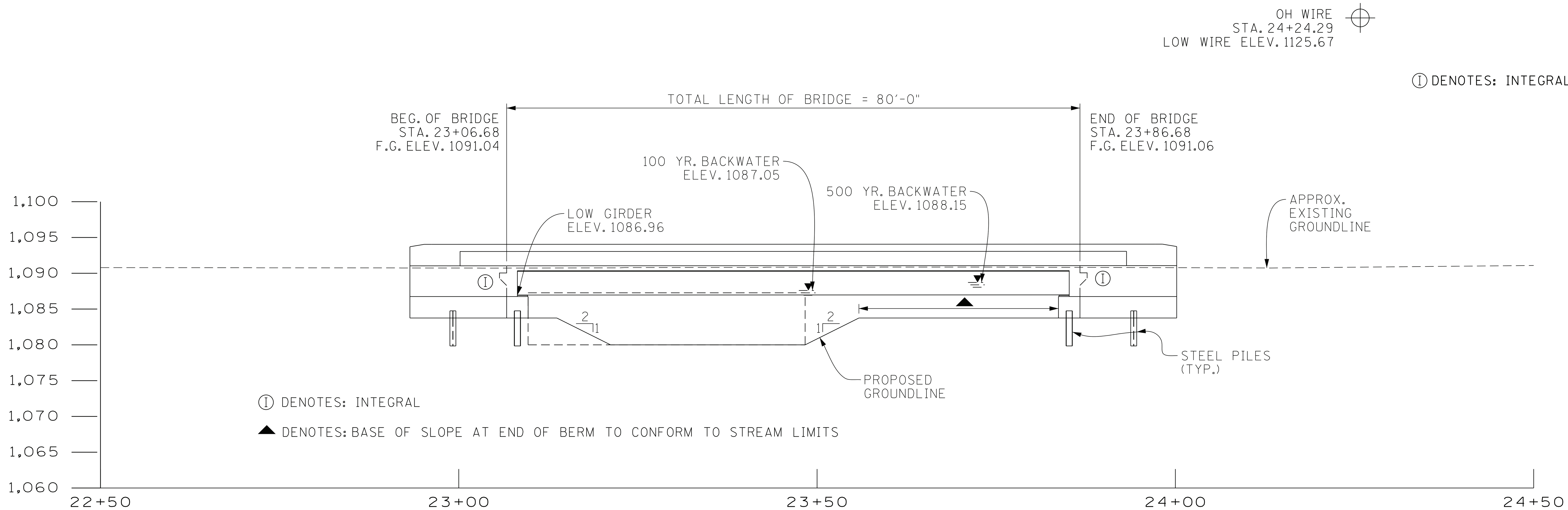
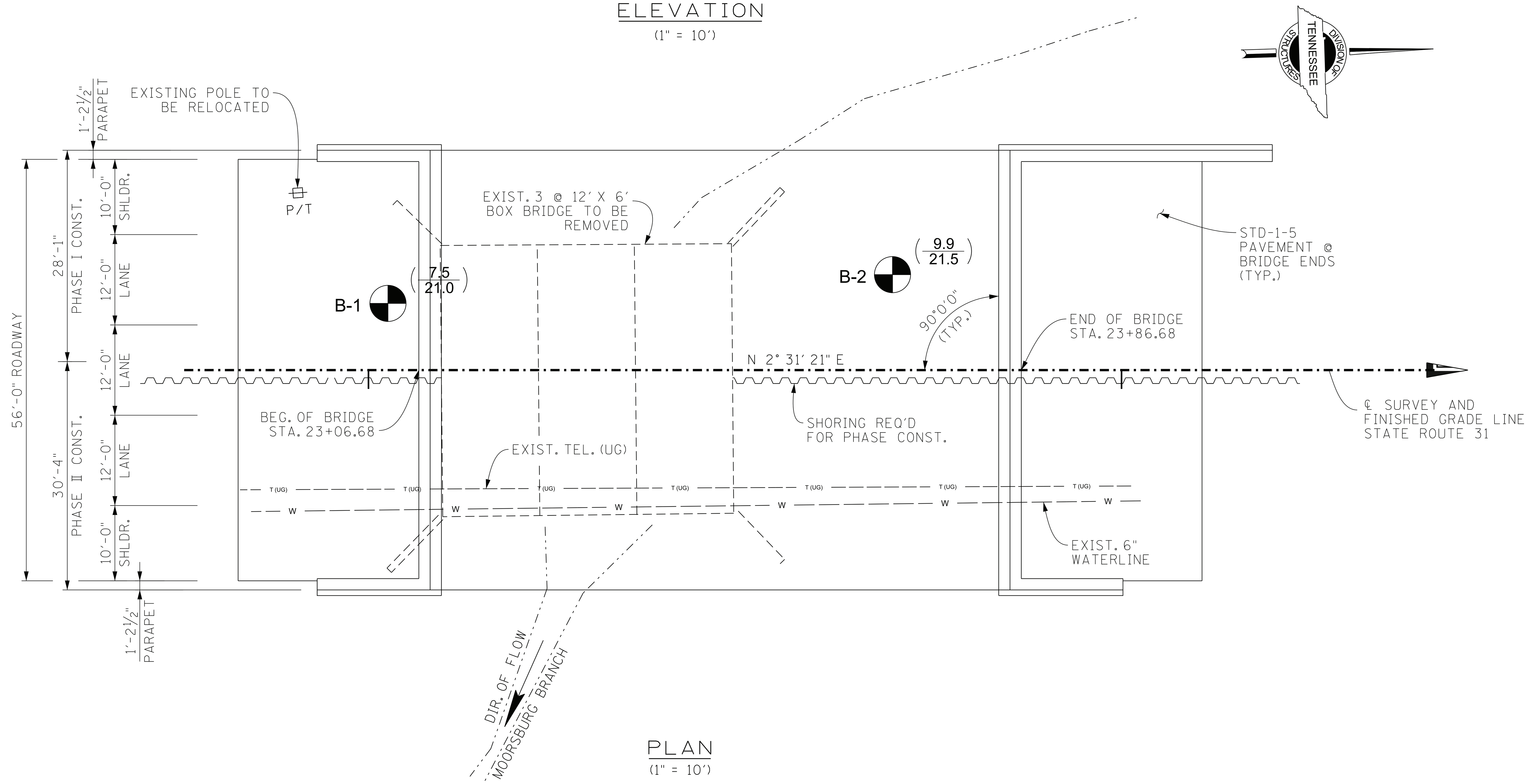


ELEVATION
(1" = 10')



PLAN
(1" = 10')

☞ NOTE: THIS DRAWING IS FOR FOUNDATION DATA ONLY AND IS NOT TO BE USED AS A LAYOUT.

PIN NO.: 101394.00
DESIGN BY: J. LAINE DATE: 09/24
DRAWN BY: P. MOSHER DATE: 05/25
SUPERVISED BY: EASTERLY/SHOULDERS DATE: 04/25
CHECKED BY: A. DAHIR DATE: 03/25

BRIDGE NO. 1
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

FOUNDATION DATA
STATE ROUTE 31
OVER
MOORSBURG BRANCH
BRIDGE ID. NO. 37SR0310001
LOG MILE 0.24
STATION 23+46.68
HAWKINS COUNTY

U-101-3

PROJECT NO.	YEAR	SHEET NO.
STP/HPP-31(12)	2026	

REVISIONS

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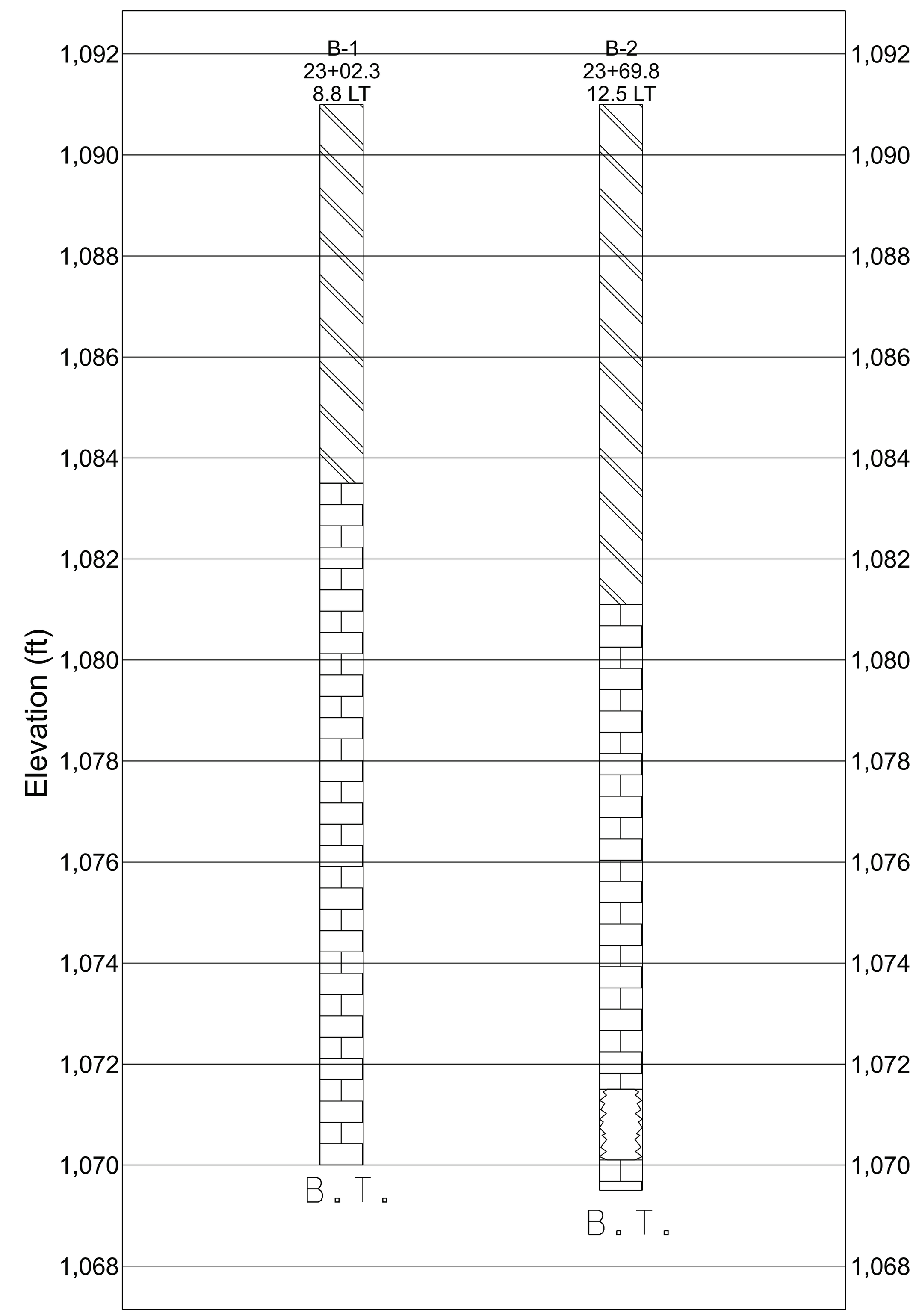
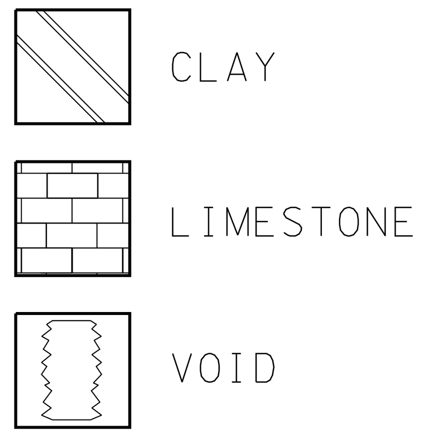
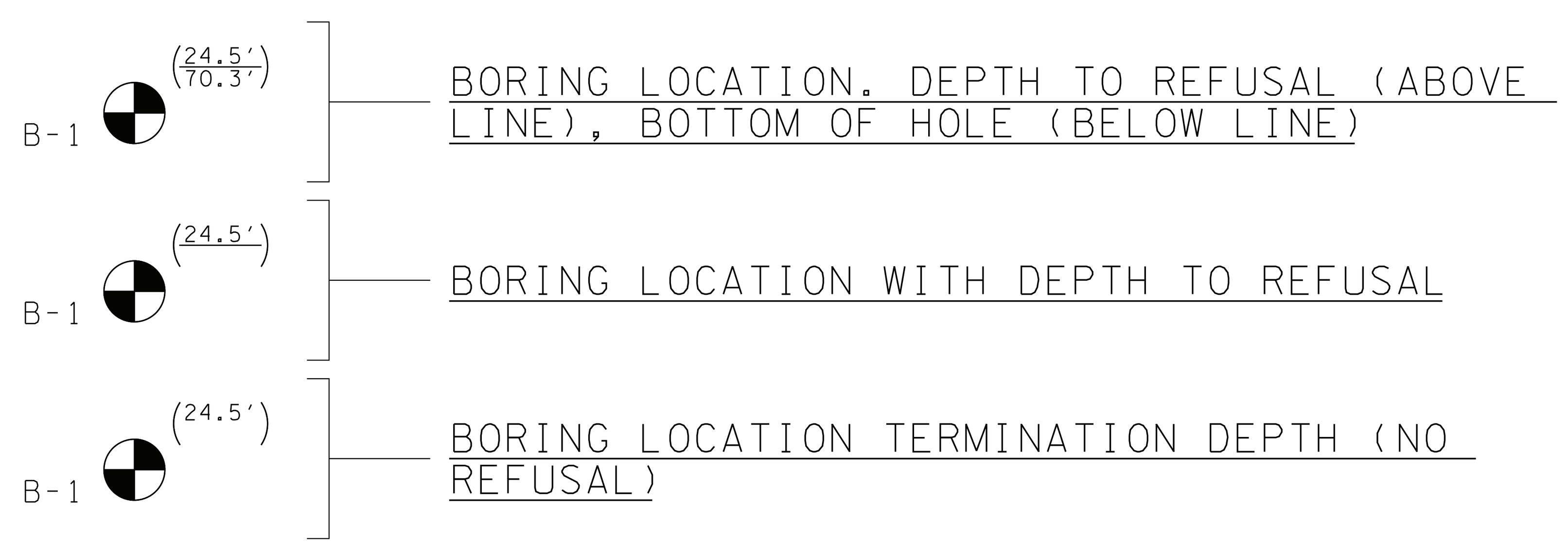


LEGEND



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

LEGEND



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DRAWN BY: P. MOSHER DATE: 05/25
SUPERVISED BY: EASTERLY/SHOULDERS DATE: 04/25
CHECKED BY: A. DAHIR DATE: 03/25

BRIDGE NO. 1
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

FOUNDATION DATA
STATE ROUTE 31
OVER
MOORSBURG BRANCH
BRIDGE ID. NO. 37SR0310001
LOG MILE 0.24
STATION 23+46.68
HAWKINS COUNTY

U-101-4

10/20/2025 2:35:49 PM
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PROJECT NO.	YEAR	SHEET NO.
STP/HPP-31(12)	2026	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
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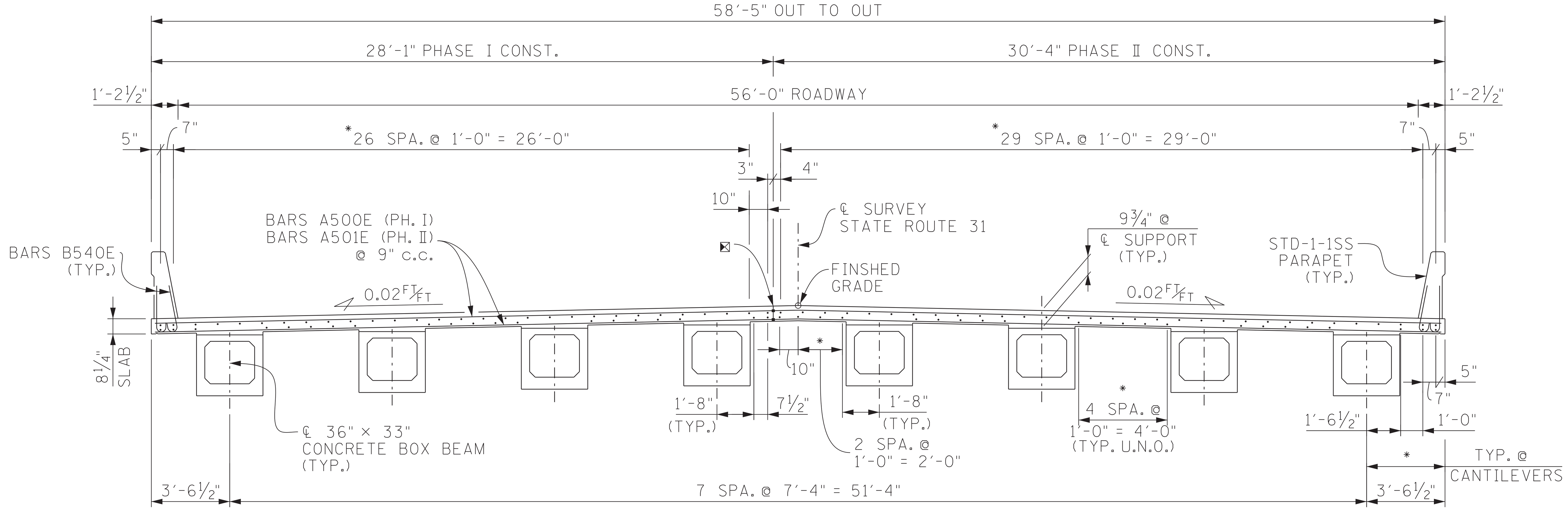


TYPICAL CROSS-SECTION

(LOOKING FORWARD ON SURVEY)

* DENOTES: BARS A400E &W BARS A401E

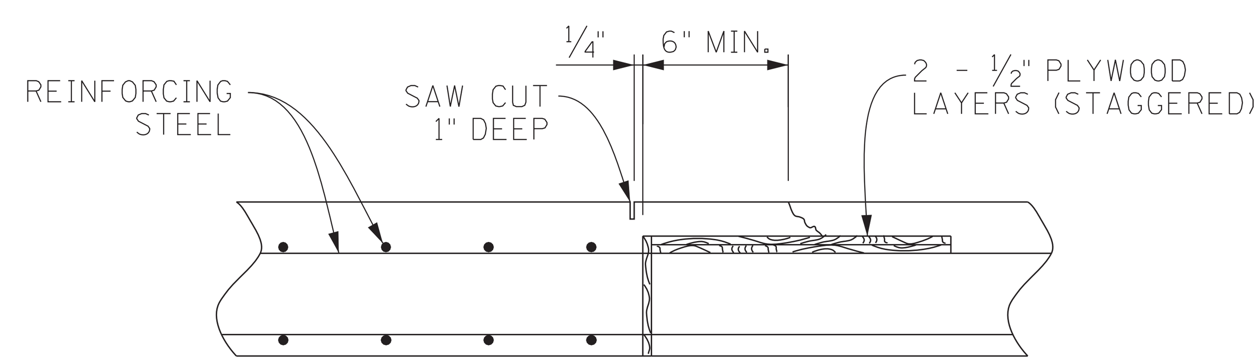
⊠ DENOTES: PHASE CONST. JOINT AND LOCATION OF MECHANICAL COUPLERS.

NOTES

NOTE: NO PORTION OF THE (CURBS, PARAPETS, OR MEDIAN BARRIER RAIL) SHALL BE POURED UNTIL THE ENTIRE DECK SLAB IS IN PLACE (UNLESS REQUIRED FOR PHASE CONSTRUCTION).

NOTE: WHEN POURING SLAB, PROVISIONS SHALL BE MADE FOR SETTING REINFORCING STEEL FOR PARAPET. THE PARAPET SHALL NOT BE POURED UNTIL THE SLAB IS POURED AND CURED. ALSO SEE STD. DWG. NO. STD-1-1SS.

NOTE: THE CONTRACTOR IS SOLELY RESPONSIBLE FOR SUPPORTING THE BEAMS TO PREVENT DAMAGE DUE TO TWISTING OR OVERTURNING DURING ALL PHASES OF CONSTRUCTION. WHILE IT IS STRONGLY RECOMMENDED THAT THE TEMPORARY ERECTION DIAPHRAGMS BE INSTALLED PRIOR TO PLACING ANY LOADS ON THE BEAMS, IT IS REQUIRED THAT ALL TEMPORARY ERECTION DIAPHRAGMS BE FULLY INSTALLED PRIOR TO POURING ANY PORTION OF THE SLAB.

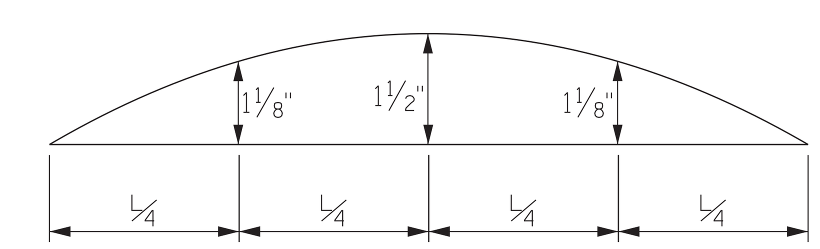


SLAB CONSTRUCTION JOINT DETAIL

DECK CONCRETE POURING SEQUENCE: SLAB CONSTRUCTION JOINTS MAY BE LOCATED AT THE CONTRACTOR'S OPTION SUBJECT TO THE FOLLOWING:

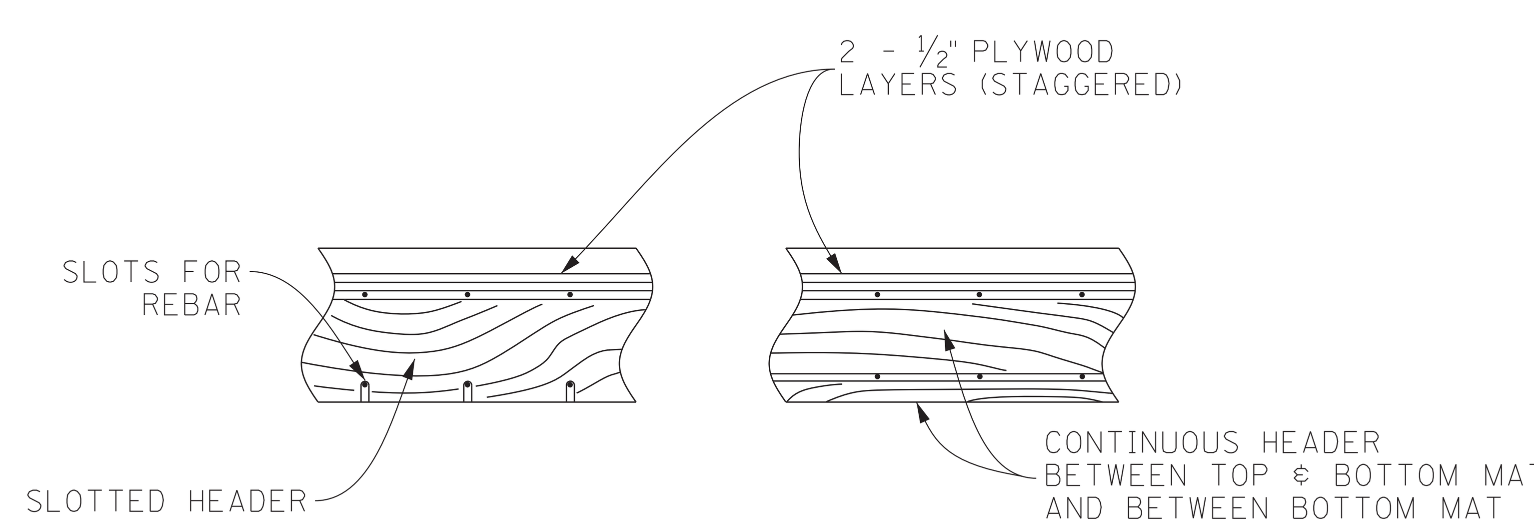
1. NO CONSTRUCTION JOINT MAY BE LOCATED CLOSER THAN 10 FEET OR FURTHER THAN 15 FEET FROM AN INTERIOR SUPPORT.
2. THE SLAB IN THE MIDDLE SECTION OF BOTH ADJACENT SPANS MUST BE POURED TO WITHIN AT LEAST 15 FEET OF THE SUPPORTS EITHER PRIOR TO OR CONCURRENTLY WITH THE SLAB OVER AN INTERIOR SUPPORT.

NOTE: ALL SLAB CONSTRUCTION JOINTS SHALL BE IN ACCORDANCE WITH THE SLAB CONSTRUCTION JOINT DETAIL SHOWN ABOVE.



DEAD LOAD CORRECTION CURVE

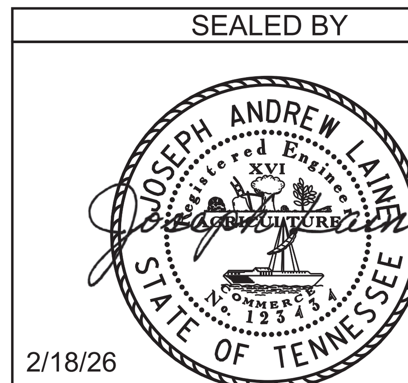
DEAD LOAD CORRECTION CURVE: THIS CURVE IS FOR DEAD LOAD SLAB AND ALL DEAD LOADS THAT ARE APPLIED AFTER SLABS ARE IN PLACE AND SHOULD BE CORRECTED TO COMPENSATE FOR THE EFFECTS DUE TO VERTICAL CURVE.



ALTERNATE "A" ALTERNATE "B"

ALTERNATE HEADER DETAILS

SEALED BY



2/18/26

BRIDGE NO. 1

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE
STATE ROUTE 31
OVER
MOORSBURG BRANCH
BRIDGE ID. NO. 37SR0310001
LOG MILE 0.24
STATION 23+46.68
HAWKINS COUNTY

U-101-5

PIN NO.:	101394.00		
DESIGN BY:	J. LAINE	DATE:	09/24
DRAWN BY:	P. MOSHER	DATE:	03/25
SUPERVISED BY:	EASTERLY/SHOULDERS	DATE:	03/25
CHECKED BY:	A. DAHIR	DATE:	03/25

PROJECT NO.	YEAR	SHEET NO.
STP/HPP-31(12)	2026	

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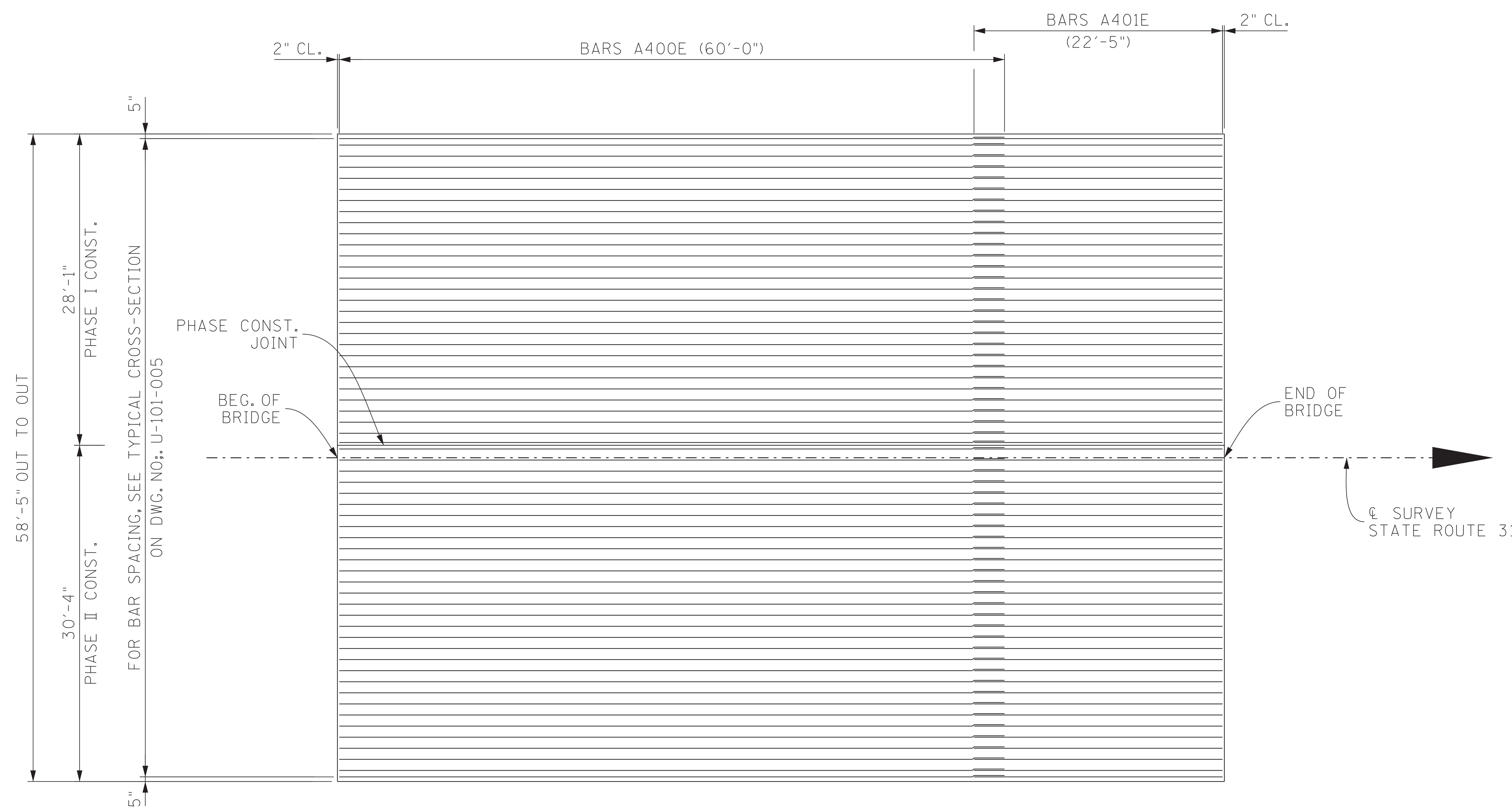
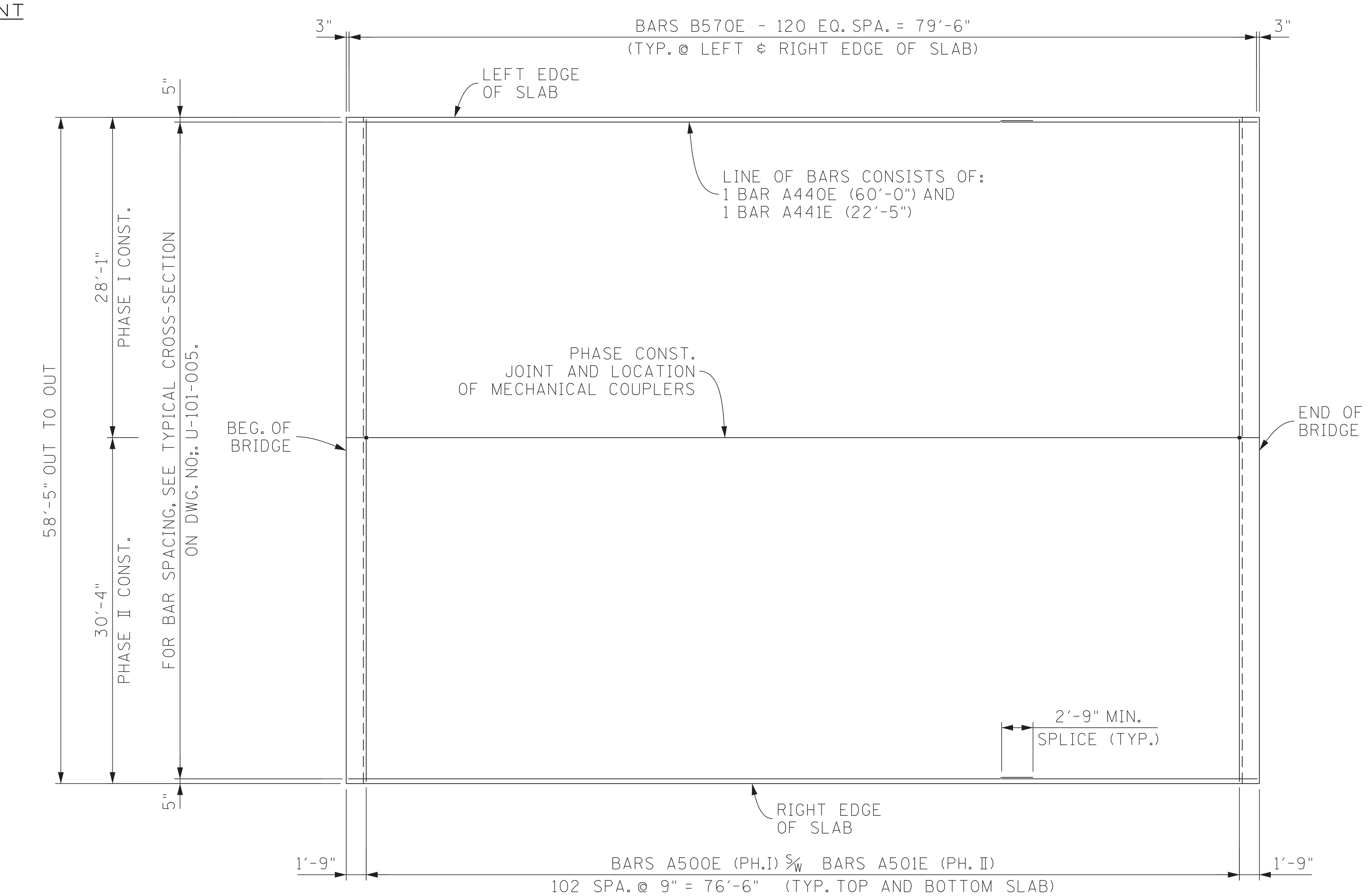


PLAN OF MAIN REINFORCEMENT



SLAB PLAN

SEALED BY

JOSEPH ANDREW LAINE
STATE OF TENNESSEE
2/18/26

BRIDGE NO. 1

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS
STATE ROUTE 31
OVER
MOORSBURG BRANCH
BRIDGE ID. NO. 37SR0310001
LOG MILE 0.24
STATION 23+46.68
HAWKINS COUNTY

U-101-6

PIN NO.: 101394.00
DESIGN BY: J. LAINE DATE: 09/24
DRAWN BY: P. MOSHER DATE: 03/25
SUPERVISED BY: EASTERLY/SHOULDERS DATE: 03/25
CHECKED BY: A. DAHIR DATE: 03/25

10/20/2025 3:08:09 PM
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PROJECT NO.	YEAR	SHEET NO.
STP/HPP-31(12)	2026	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
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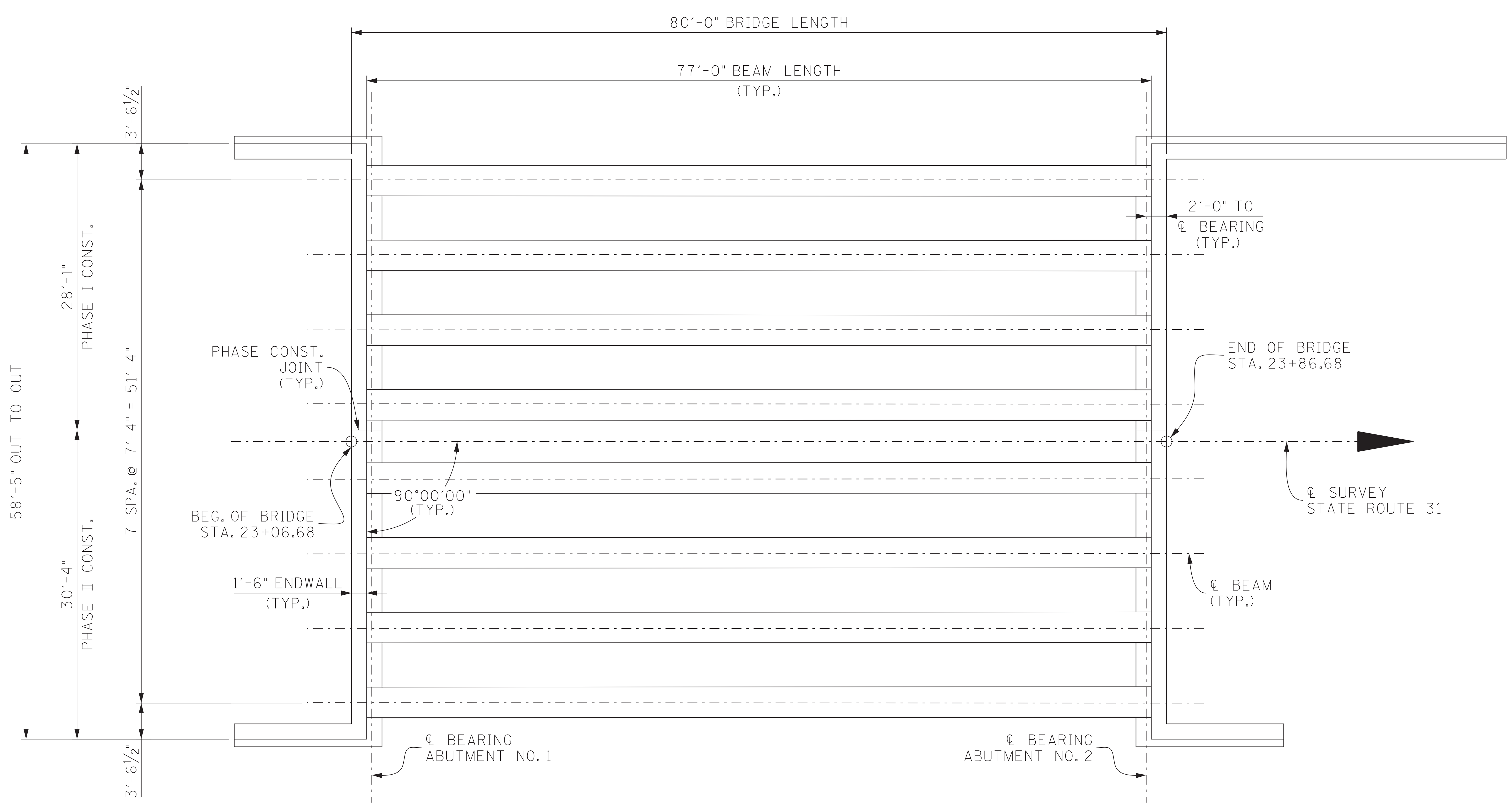
	- -		



FRAMING PLAN

SEALED BY

2/18/26

BRIDGE NO. 1
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS
STATE ROUTE 31
OVER
MOORSBURG BRANCH
BRIDGE ID. NO. 37SR0310001
LOG MILE 0.24
STATION 23+46.68
HAWKINS COUNTY

U-101-7

PIN NO.: 101394.00
DESIGN BY: J. LAINE DATE: 09/24
DRAWN BY: P. MOSHER DATE: 03/25
SUPERVISED BY: EASTERLY/SHOULDERS DATE: 03/25
CHECKED BY: A. DAHIR DATE: 03/25

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PROJECT NO.	YEAR	SHEET NO.
STP/HPP-31(12)	2026	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
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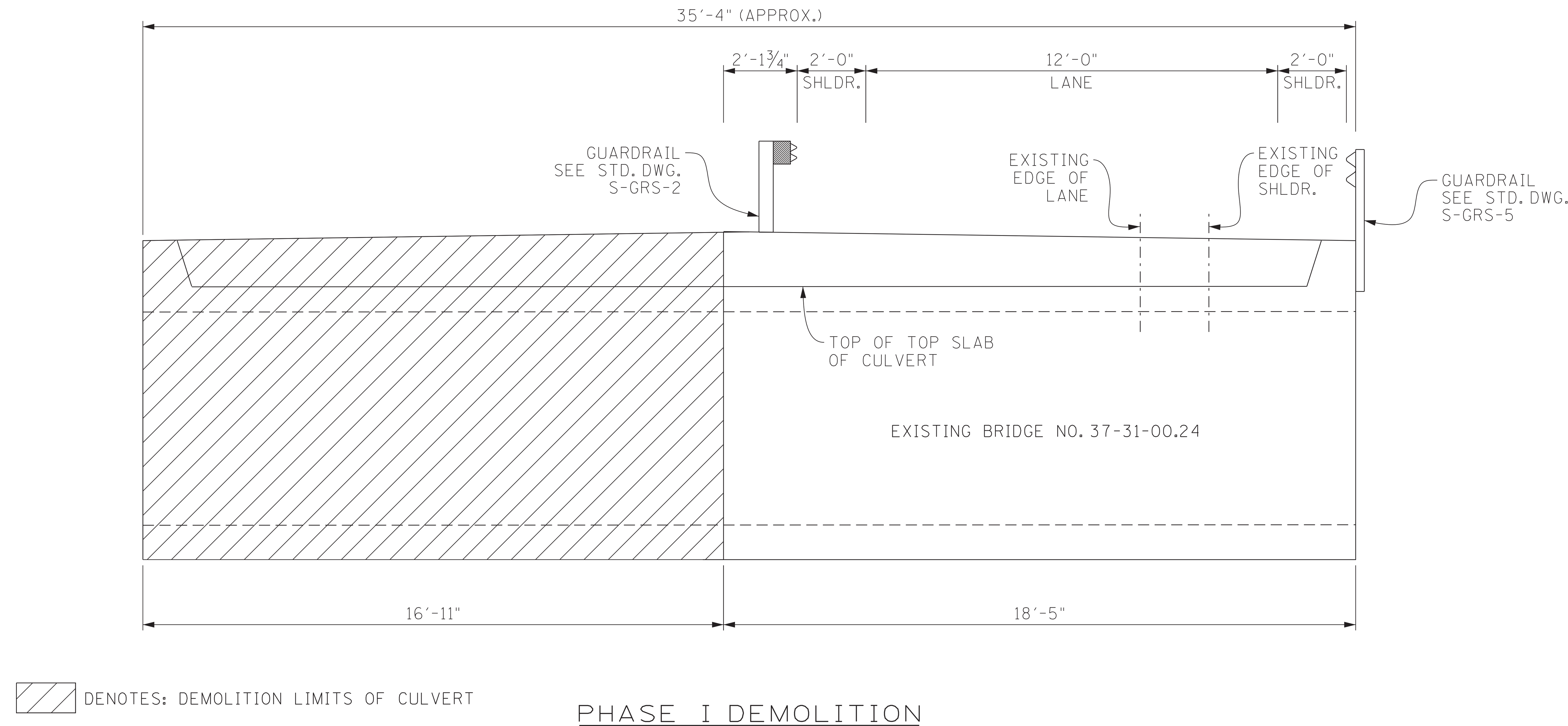
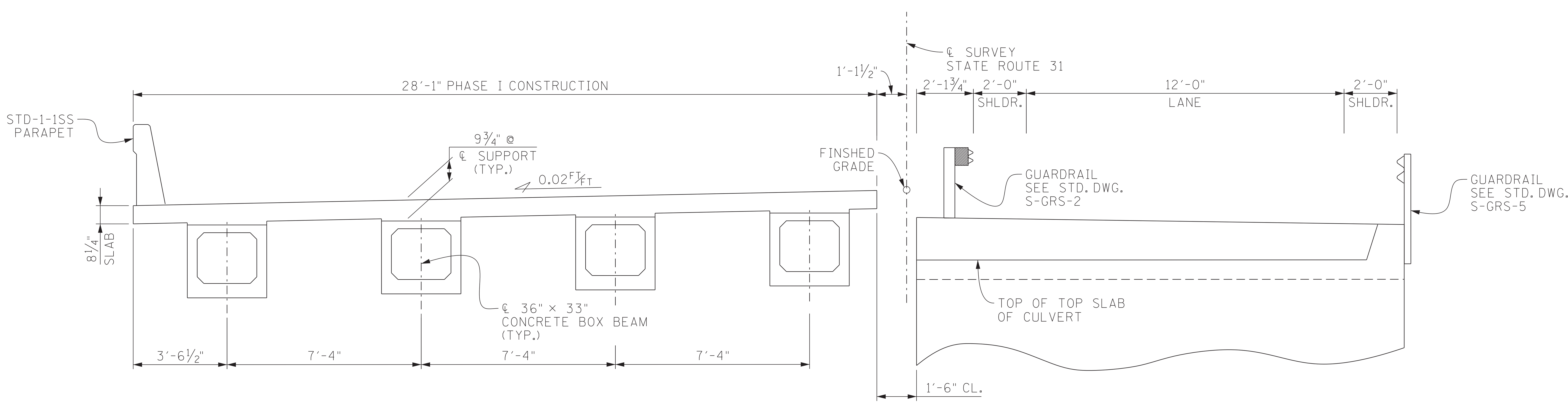


PHASE I DEMOLITION

(LOOKING FORWARD ON SURVEY)



PHASE I CONSTRUCTION

(LOOKING FORWARD ON SURVEY)

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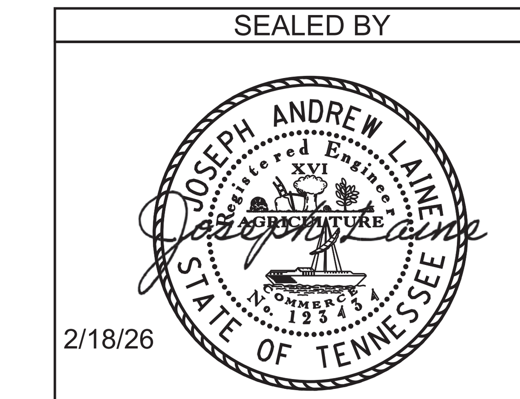

BRIDGE NO. 1
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PHASE CONSTRUCTION DETAILS
STATE ROUTE 31
OVER
MOORSBURG BRANCH
BRIDGE ID. NO. 37SR0310001
LOG MILE 0.24
STATION 23+46.68
HAWKINS COUNTY

U-101-8

PIN NO.:	101394.00		
DESIGN BY:	J. LAINE	DATE:	09/24
DRAWN BY:	P. MOSHER	DATE:	03/25
SUPERVISED BY:	EASTERLY/SHOULDERS	DATE:	03/25
CHECKED BY:	A. DAHIR	DATE:	03/25

PROJECT NO.	YEAR	SHEET NO.
STP/HPP-31(12)	2026	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
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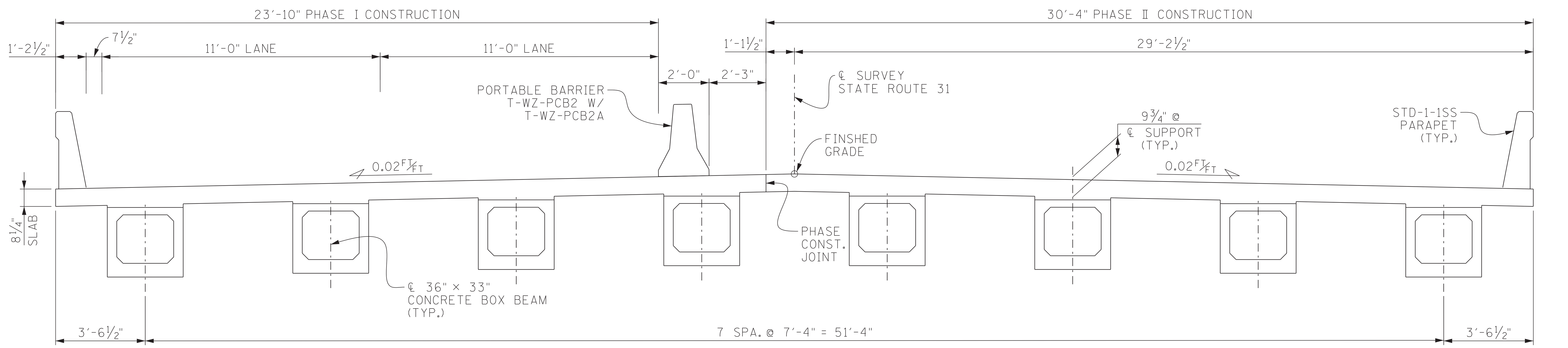
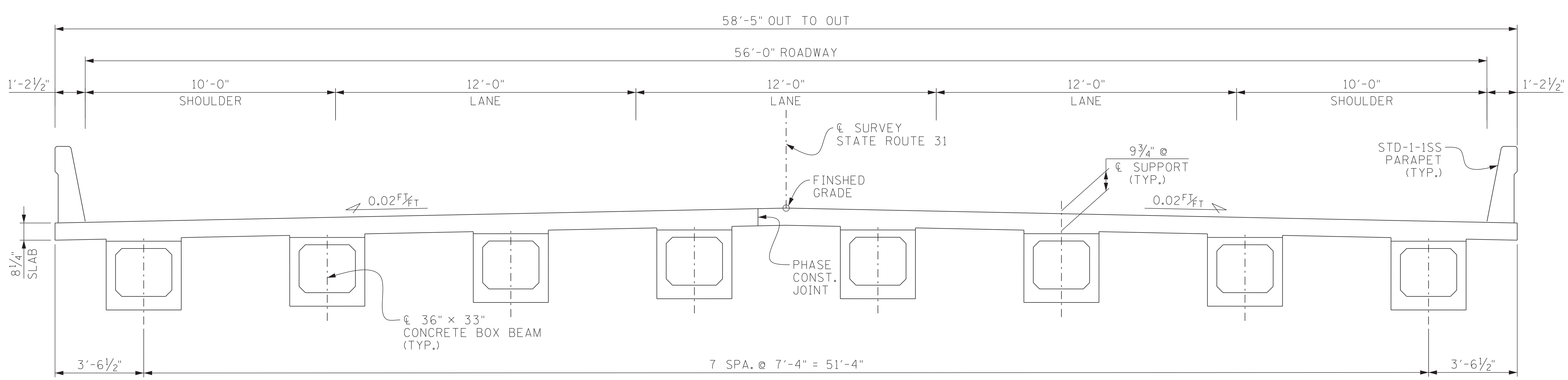
	- -		
	- -		
	- -		



PHASE II CONSTRUCTION

(LOOKING FORWARD ON SURVEY)



TYPICAL CROSS-SECTION

(LOOKING FORWARD ON SURVEY)

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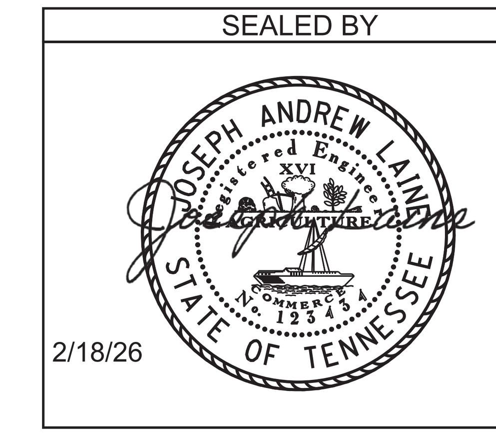

2/18/26

PIN NO.: 101394.00
DESIGN BY: J. LAINE DATE: 09/24
DRAWN BY: P. MOSHER DATE: 03/25
SUPERVISED BY: EASTERLY/SHOULDERS DATE: 03/25
CHECKED BY: A. DAHIR DATE: 03/25

BRIDGE NO. 1
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PHASE CONSTRUCTION DETAILS
STATE ROUTE 31
OVER
MOORSBURG BRANCH
BRIDGE ID. NO. 37SR0310001
LOG MILE 0.24
STATION 23+46.68
HAWKINS COUNTY

U-101-9

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BEAMS NOTES:

NOTE: SEE STD-14-3 FOR BOX BEAM STANDARD DETAILS, NOTES AND REINFORCING.

THE CONCRETE FOR THIS CONSTRUCTION SHALL BE OF SUCH PROPERTIES AS TO ATTAIN A COMPRESSIVE STRENGTH OF NOT LESS THAT 9,000 PSI AT THE AGE OF 28 DAYS AND STRESS TRANSFER SHALL NOT BE MADE TO THE BRIDGE MEMBER UNTIL THE TEST SPECIMENS INDICATE THAT THE CONCRETE HAS REACHED A COMPRESSIVE STRENGTH OF AT LEAST 8,500 PSI. SEE GENERAL NOTES FOR CONCRETE FINISHING NOTE.

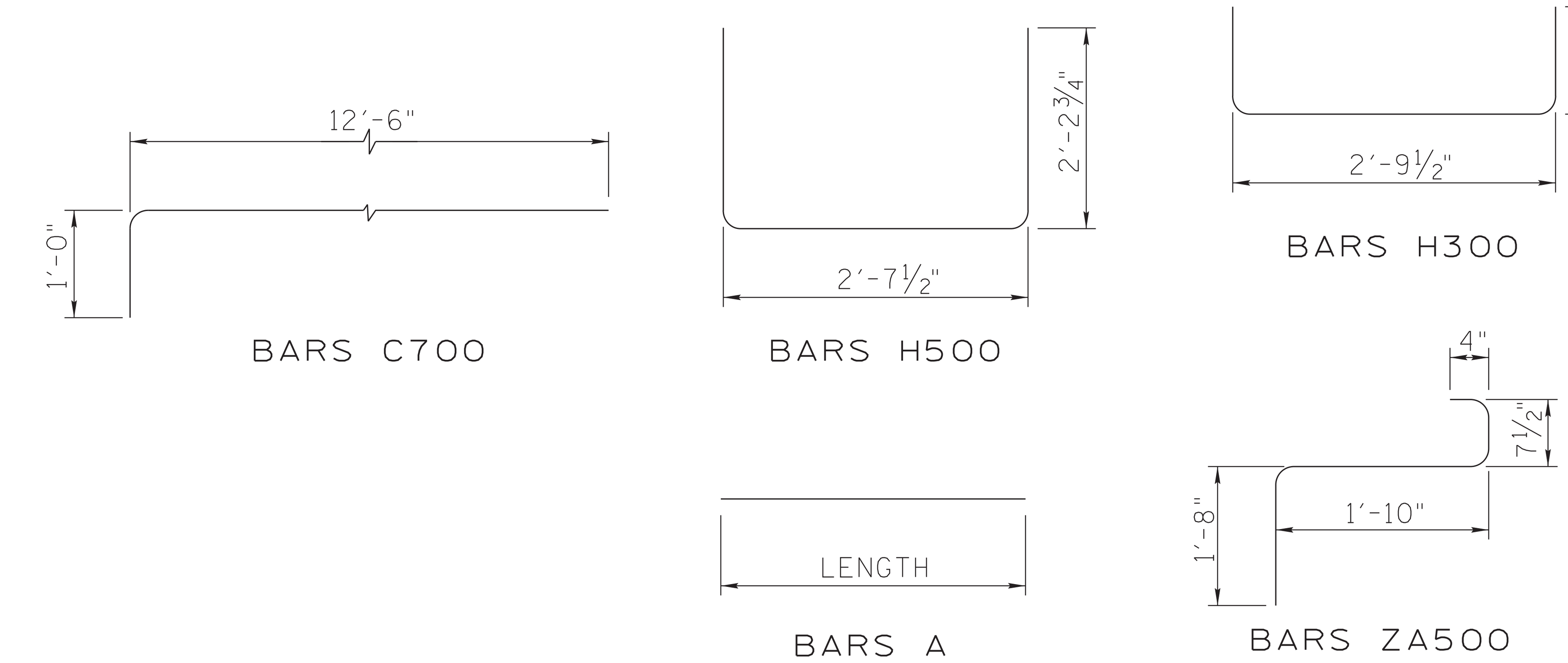
NOTES: ALL PRESTRESSING STRANDS SHALL BE 6/10"Ø, UNCOATED 7-WIRE STRANDS, ASTM A416 GRADE 270, LOW-LAX, As = 0.217 in.^{2} PULLED TO 43,943 LB. PER STRAND UNLESS OTHERWISE NOTED.

NOTE: THE PRESTRESSING BEAMS SHALL ATTAIN AN AGE OF AT LEAST 90 DAYS PRIOR TO POURING THE SUPPORT DIAPHRAGMS (EXCLUDING BOTTOM 15 INCHES) AND DECK SLAB.

PRESTRESSED BEAM DESIGN DATA (PER BEAM):

LIVE LOAD DISTRIBUTION FACTOR: MOMENT = 0.77 LANES
SHEAR = 0.77 LANES
COMPOSITE DEAD LOAD: DC = 98 LB/FT
DW = 240 LB/FT
COMPOSITE SLAB DESIGN STRENGTH: F 'C' = 4000 PSI

DENOTES: 3 SPA. @ 6" = 1'-6"
DENOTES: 3 SPA. @ 4½" = 1'-1½"



PROJECT NO.	YEAR	SHEET NO.
STP/HPP-31(12)	2026	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
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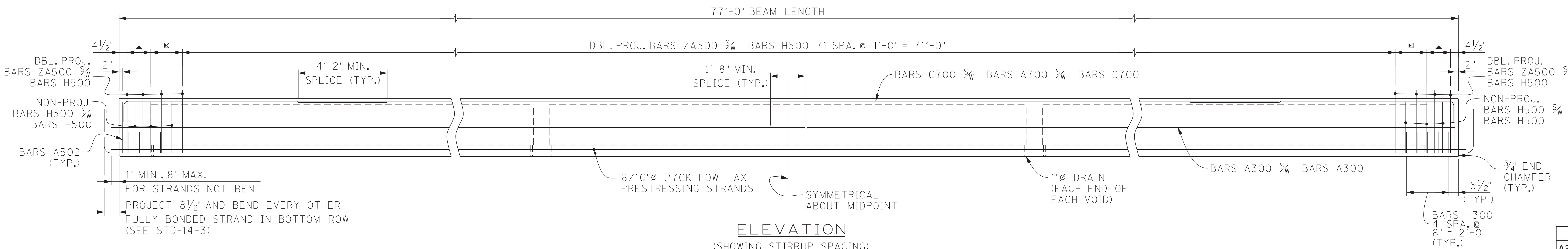
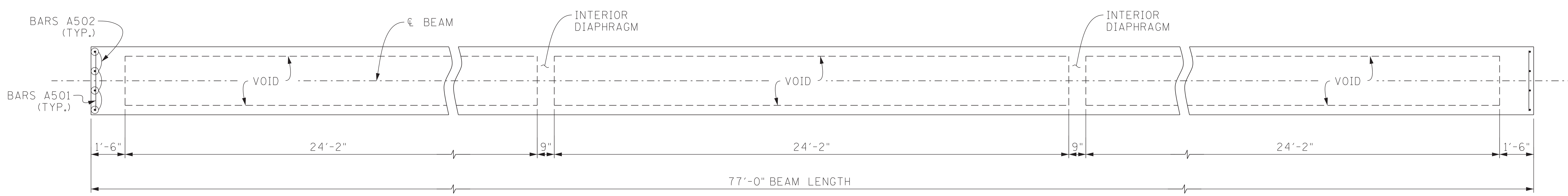


ELEVATION
(SHOWING STIRRUP SPACING)



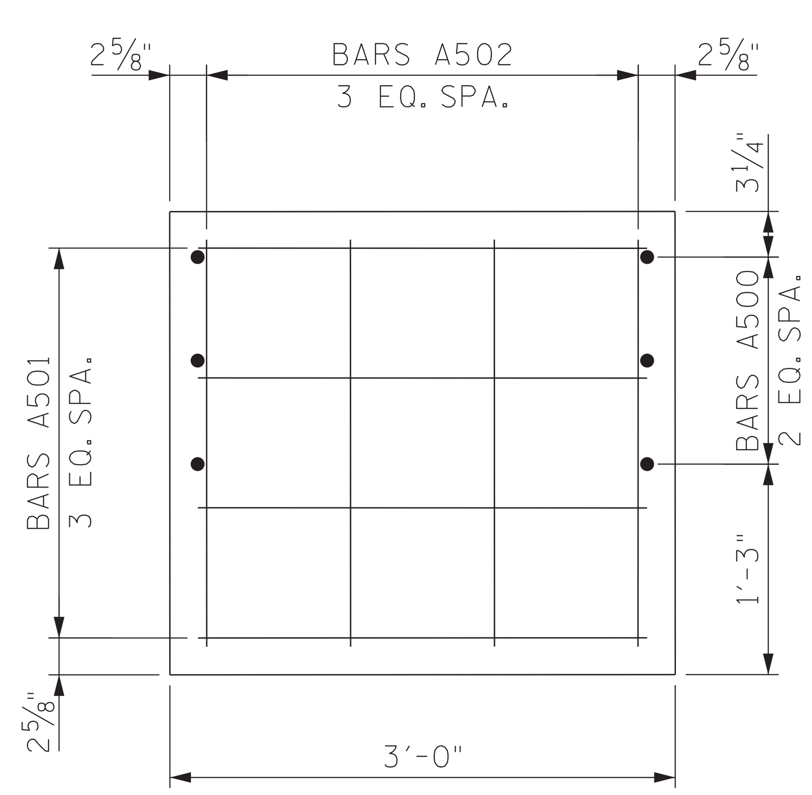
PLAN

BILL OF STEEL
(PER BEAM)

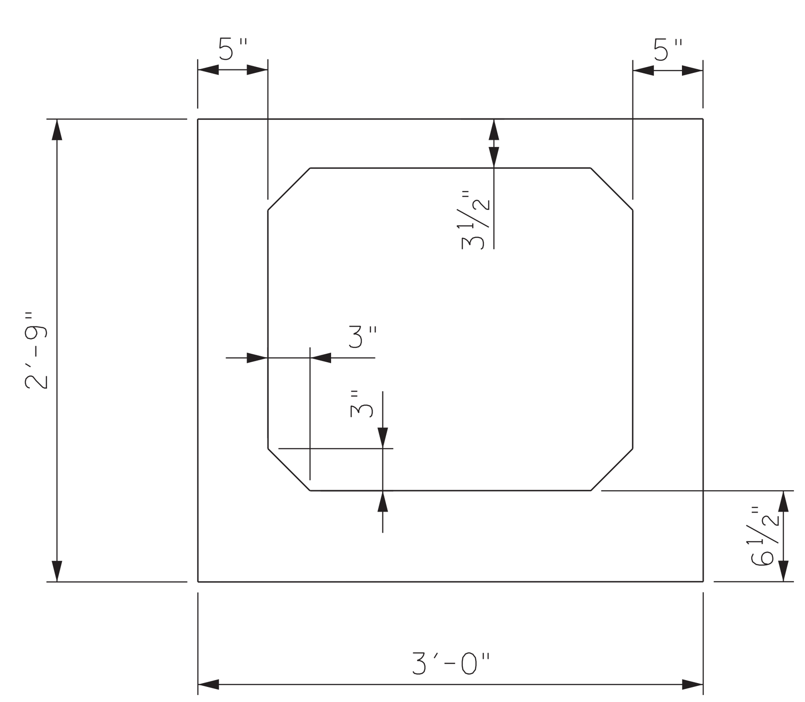
BAR	SIZE	NO. REQ'D.	LENGTH
A300	3	4	39'-4"
A500	5	12	5'-6"
A501	5	8	2'-8"
A502	5	8	2'-5"
A700	7	4	60'-0"
C700	7	8	12'-6"
H300	3	10	3'-10"
H500	5	90	7'-6"
ZA500	5	156	3'-10"

ESTIMATED QUANTITIES - PER BEAM

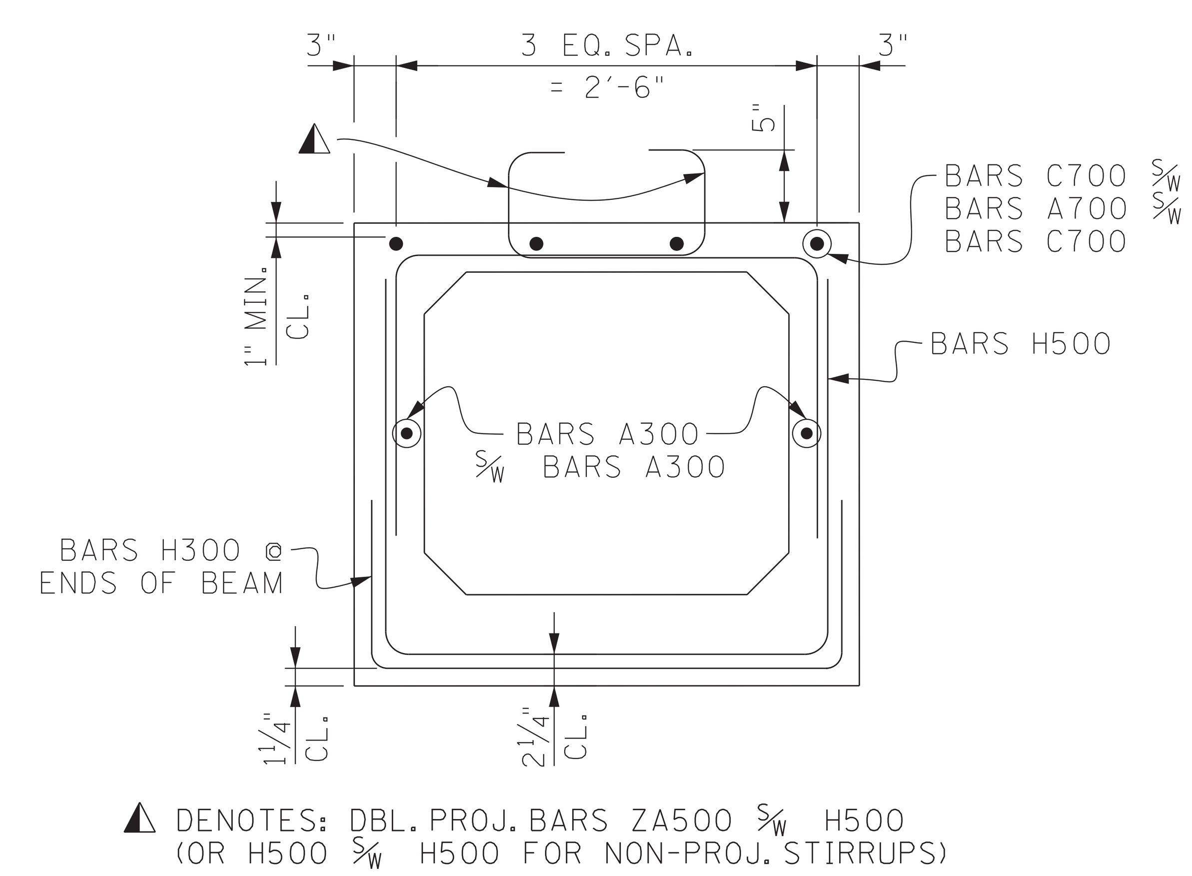
NO. BEAMS REQ'D.	CLASS "P" CONCRETE C.Y.	STEEL BAR REINFORCING LB.	PRESTRESSING STRANDS (LOW RELAXATION) LB.
8	13	2,207	1,592



END ELEVATION

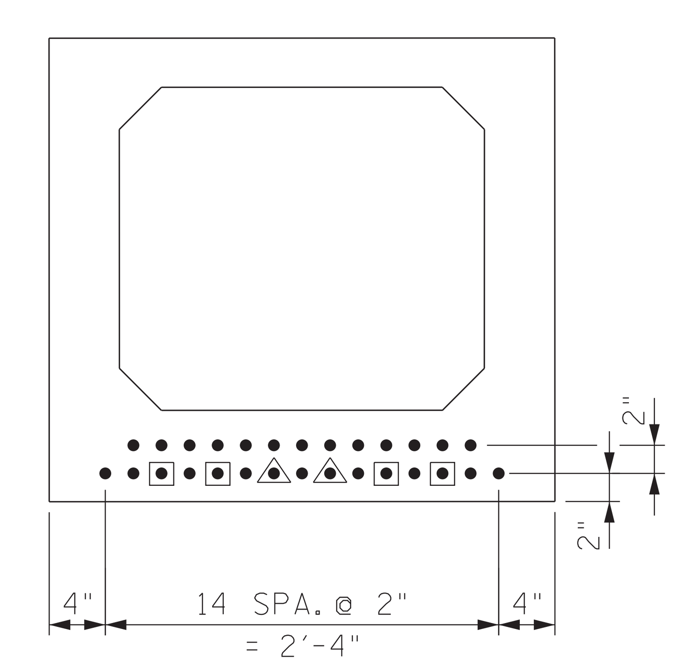


BEAM DIMENSIONS



DENOTES: DBL. PROJ. BARS ZA500 & H500 (OR H500 & H500 FOR NON-PROJ. STIRRUPS)

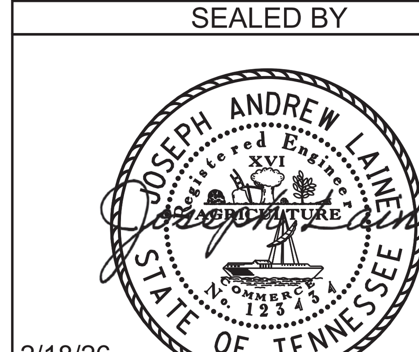
REINFORCEMENT



PRESTRESSING STRANDS
(28 STRANDS TOTAL)

BOND BREAKS 6' FROM END OF BEAM
BOND BREAKS 3' FROM END OF BEAM

SEALED BY



2/18/26

BRIDGE NO. 1
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESTRESSED BOX BEAM DETAILS
STATE ROUTE 31
OVER
MOORSBURG BRANCH
BRIDGE ID. NO. 37SR0310001
LOG MILE 0.24
STATION 23+46.68
HAWKINS COUNTY

U-101-10

PIN NO.: 101394.00
DESIGN BY: J. LAINE DATE: 09/24
DRAWN BY: P. MOSHER DATE: 03/25
SUPERVISED BY: EASTERLY/SHOULDERS DATE: 03/25
CHECKED BY: A. DAHIR DATE: 03/25

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PROJECT NO.	YEAR	SHEET NO.
STP/HPP-31(12)	2026	

REVISIONS

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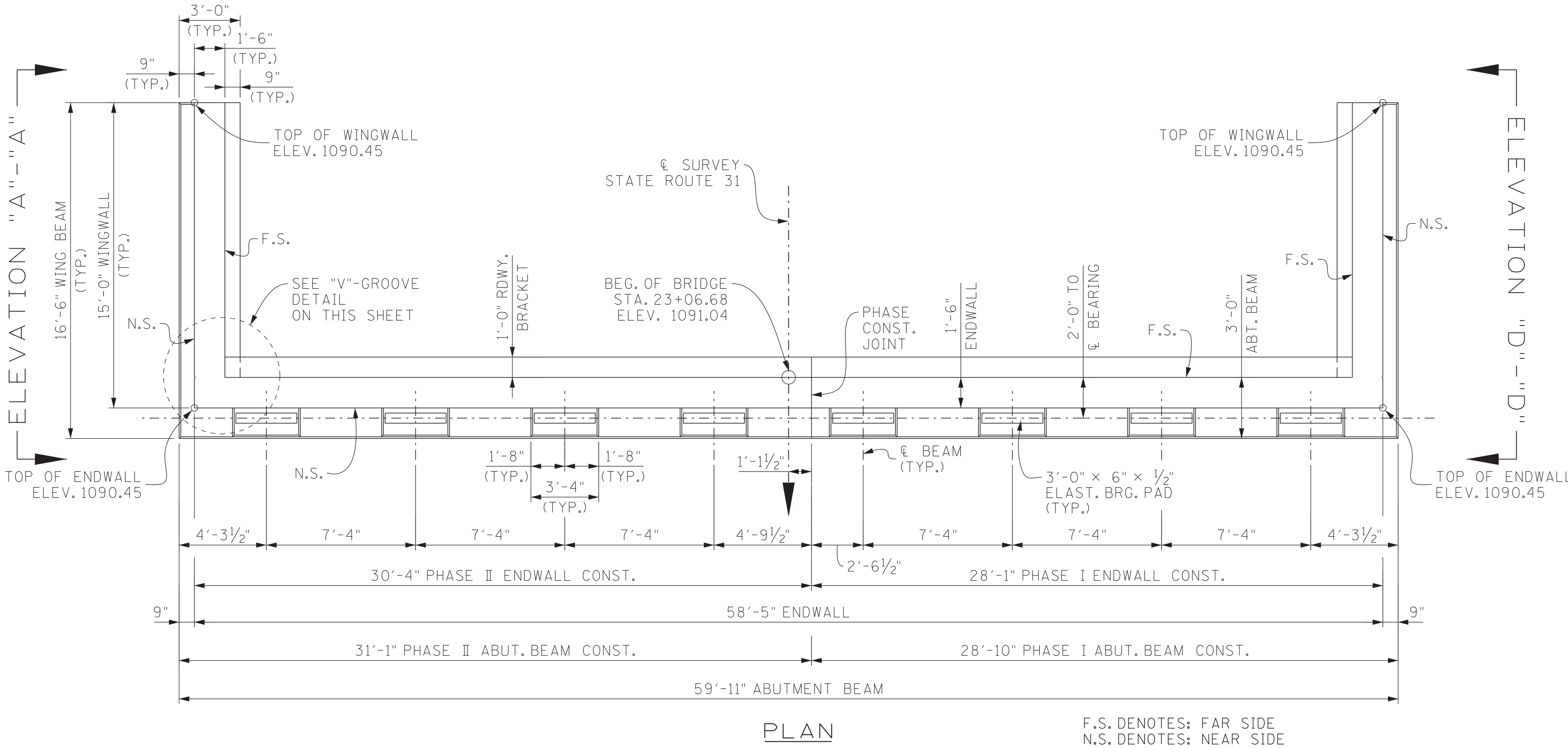
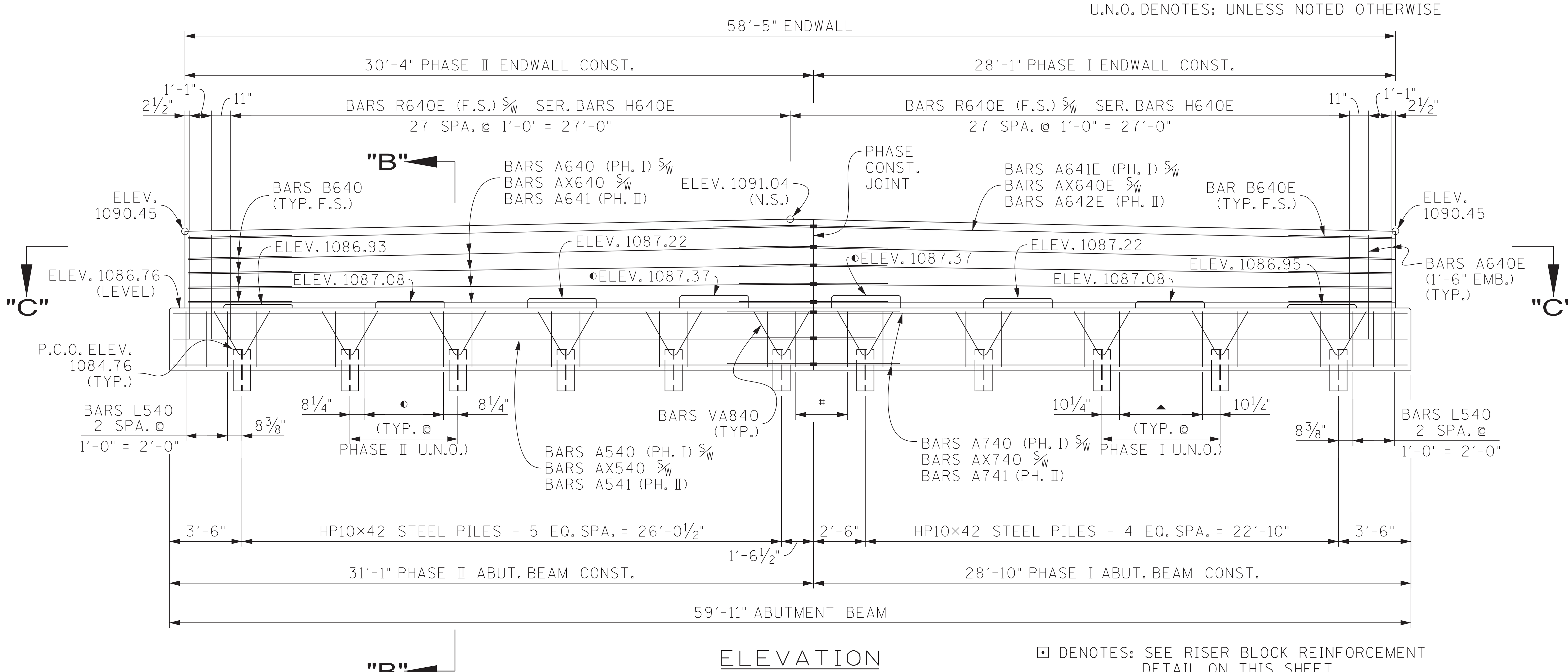


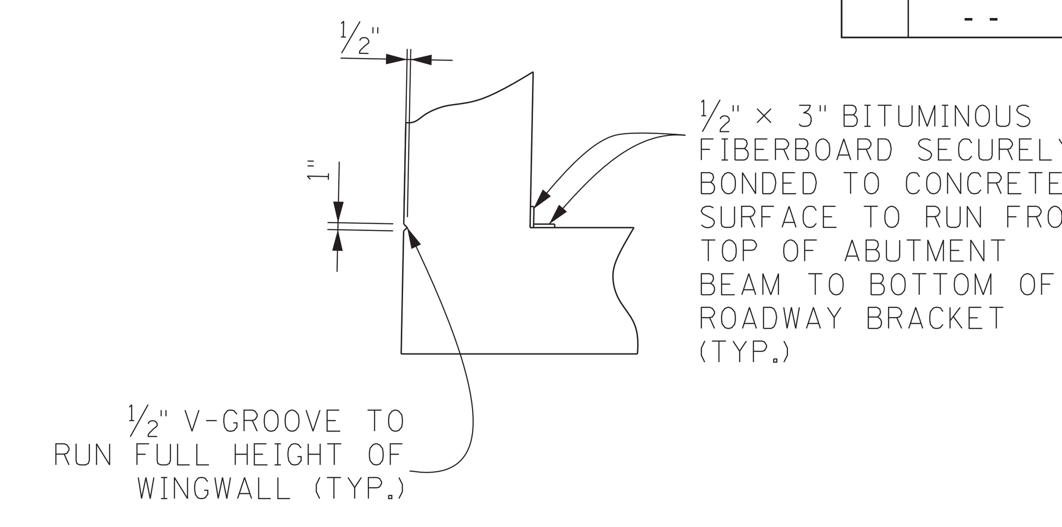
PLAN

F.S. DENOTES: FAR SIDE
N.S. DENOTES: NEAR SIDE
P.C.O. DENOTES: PILE CUT-OFF
U.N.O. DENOTES: UNLESS NOTED OTHERWISE



ELEVATION
(LOOKING BACK ON SURVEY)

⊡ DENOTES: SEE RISER BLOCK REINFORCEMENT DETAIL ON THIS SHEET.
▲ DENOTES: BARS L540 - 4 SPA. @ 1'-0" = 4'-0" (TYP. BETWEEN PILES, PHASE I)
◐ DENOTES: BARS L540 - 4 SPA. @ 11 1/2" = 3'-10" (TYP. BETWEEN PILES, PHASE II)
▪ DENOTES: BARS L540 - 3 SPA. @ 10" = 2'-6"



V-GROOVE DETAIL

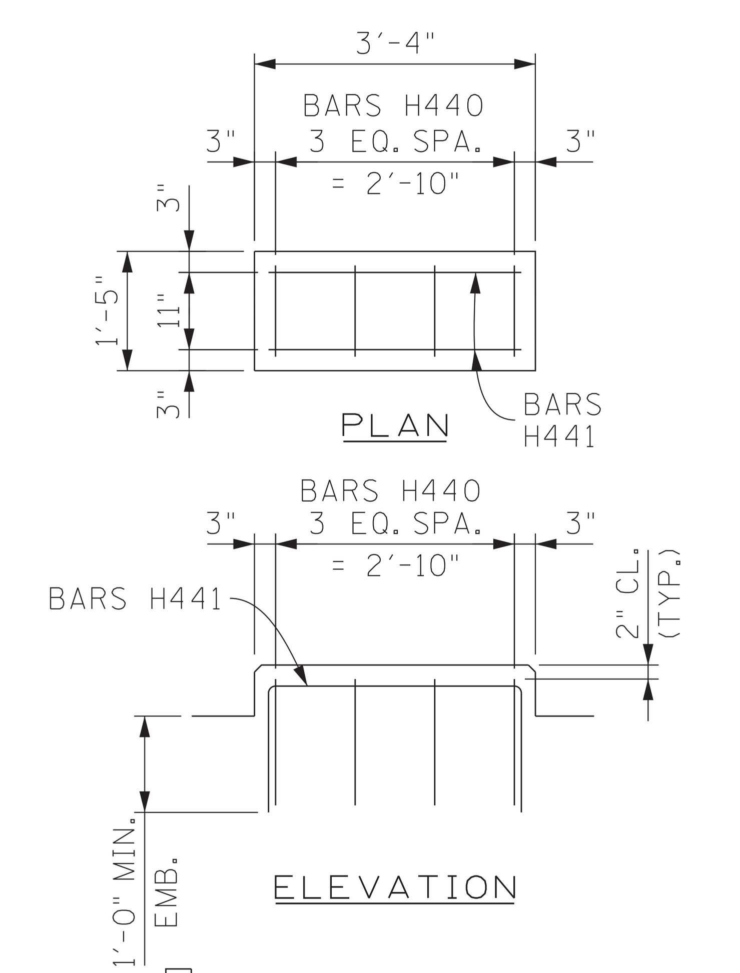
NOTE: RISER BLOCKS SHALL BE POURED MONOLITHICALLY WITH THE ABUTMENT BEAM.

NOTE: ELASTOMERIC PADS SHALL BE IN PLACE A MINIMUM OF ONE DAY BEFORE BEING DISTURBED BY SETTING BEAMS. PLACE RUBBER BONDING CEMENT IN SUCH A WAY THAT VISIBLE CONCRETE SURFACES WILL NOT BE STAINED.

NOTE: WHEN POURING WINGWALLS, PROVISIONS SHALL BE MADE FOR SETTING REINFORCING STEEL FOR WINGPOSTS AND PARAPETS. FOR DETAILS OF WINGPOSTS AND PARAPETS, SEE STD. DWG. NO. STD-1-1SS.

NOTE: NOT LESS THAN HALF OF THE SLAB SHALL BE POURED PRIOR TO, OR CONCURRENTLY WITH, PLACEMENT OF ANY PART OF THE ABUTMENT ENDWALLS. ONE ABUTMENT ENDWALL SHALL BE POURED FULL HEIGHT CONCURRENTLY WITH THE END OF SLAB. AT LEAST THE TOP 12 INCHES OF THE OTHER ENDWALL SHALL BE POURED CONCURRENTLY WITH THE END OF SLAB.

NOTE: COST OF PARAPET AND POST IS TO BE INCLUDED IN THE UNIT PRICE BID FOR THE PARAPET SYSTEM.



⊡ RISER BLOCK REINFORCEMENT DETAIL

SEALED BY

JOSEPH ANDREW LAINE, STATE OF TENNESSEE

2/18/26

BRIDGE NO. 1
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ABUTMENT NO. 1
STATE ROUTE 31
OVER
MOORSBURG BRANCH
BRIDGE ID. NO. 37SR0310001
LOG MILE 0.24
STATION 23+46.68
HAWKINS COUNTY

U-101-11

PIN NO.: 101394.00
DESIGN BY: J. LAINE DATE: 09/24
DRAWN BY: P. MOSHER DATE: 04/25
SUPERVISED BY: EASTERLY/SHOULDERS DATE: 04/25
CHECKED BY: A. DAHIR DATE: 03/25

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PROJECT NO.	YEAR	SHEET NO.
STP/HPP-31(12)	2026	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
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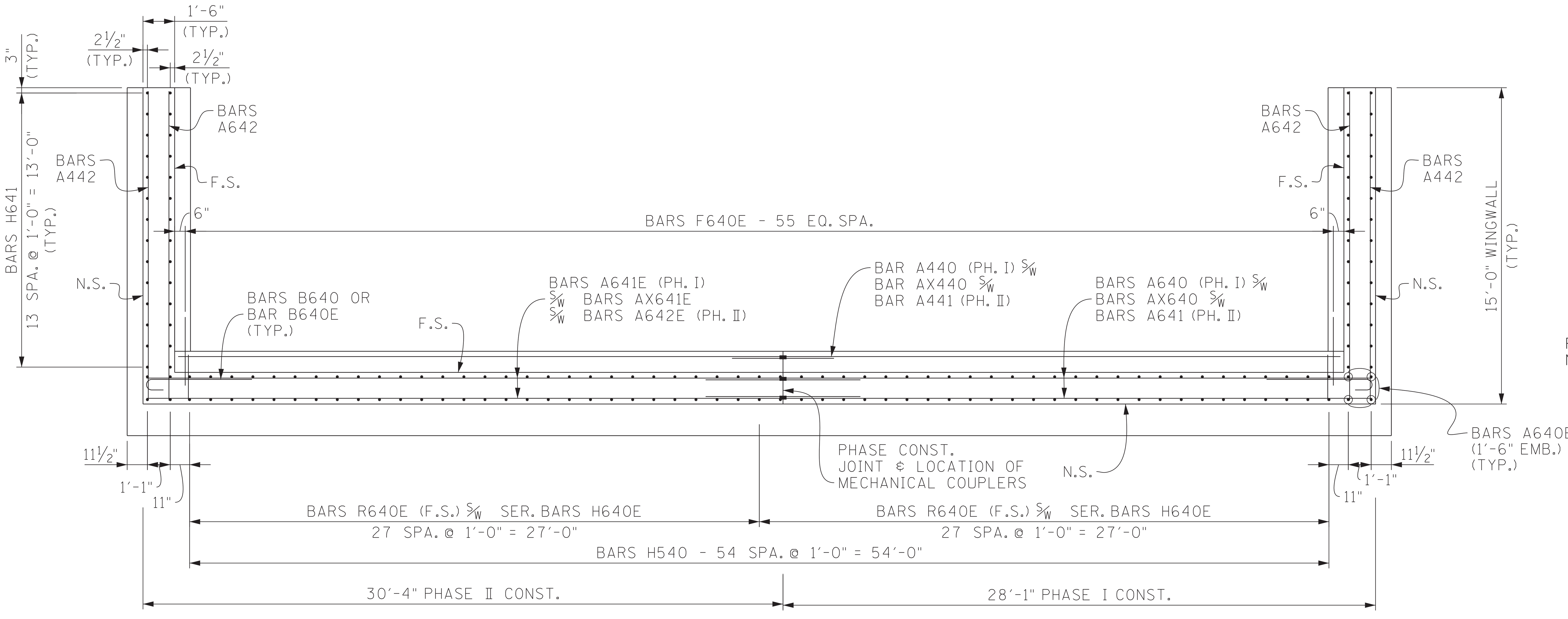
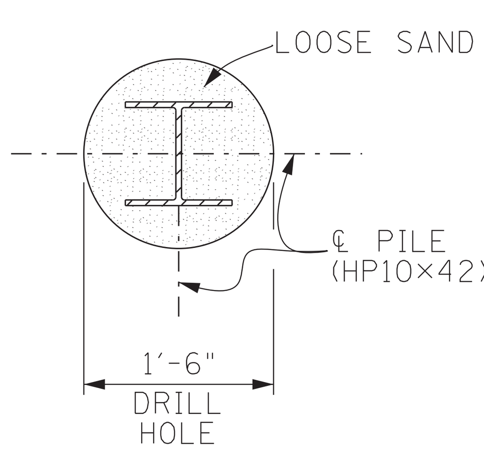


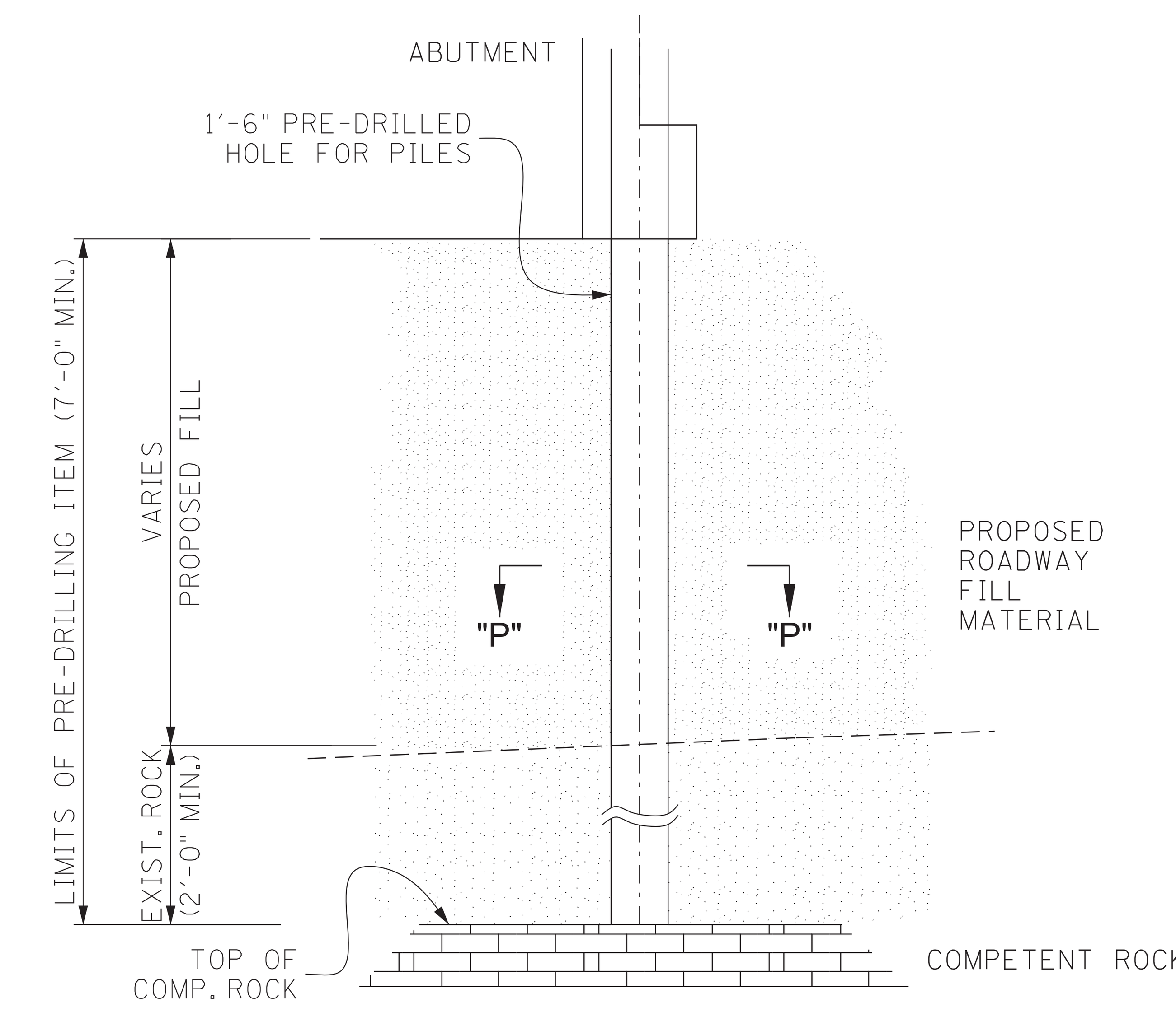
SECTION "C"-"C"

F.S. DENOTES: FAR SIDE
N.S. DENOTES: NEAR SIDE



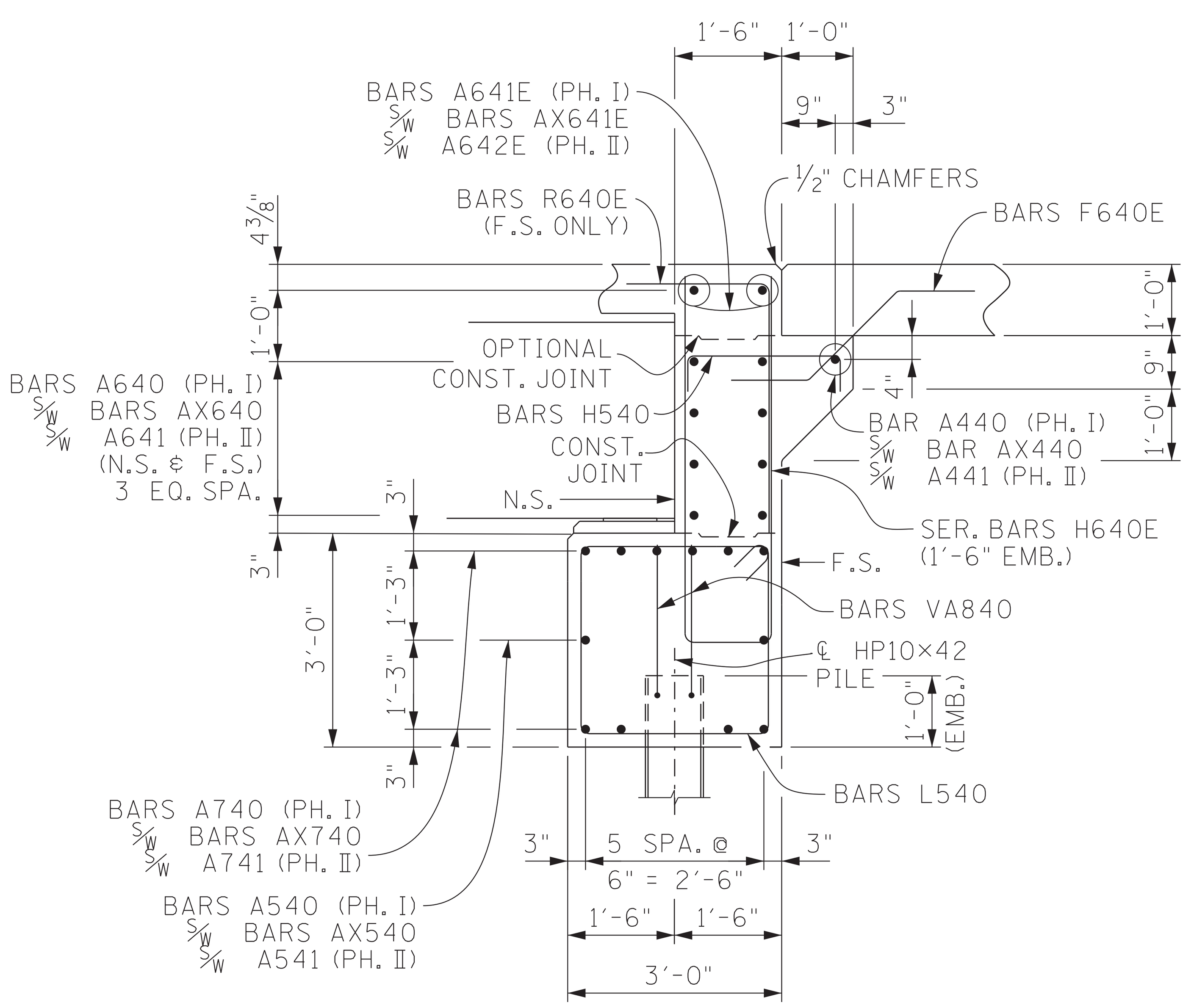
DETAIL "P"-"P"

PREDRILLING AND INSTALLATION FOR STEEL PILES: 1'-6" DIAMETER HOLES SHALL BE DRILLED AT THE PROPOSED PILE LOCATIONS. THE HOLES SHALL TERMINATE AT THE TOP OF SOUND ROCK. ONCE THE DRILLING IS COMPLETE, THE HOLE SHALL BE BACKFILLED WITH LOOSE SAND. WHEN THE SAND IS IN PLACE, THE STEEL H-PILE (WITH PILE TIP ATTACHED) SHALL BE DRIVEN BY HAMMER TO THE TOP OF SOUND ROCK TO SEAT THE PILE. THE COST OF THE LOOSE SAND SHALL BE INCLUDED IN THE UNIT PRICE BID OF THE CORE DRILLING FOR PILE ITEMS (204-14 AND 204-15).

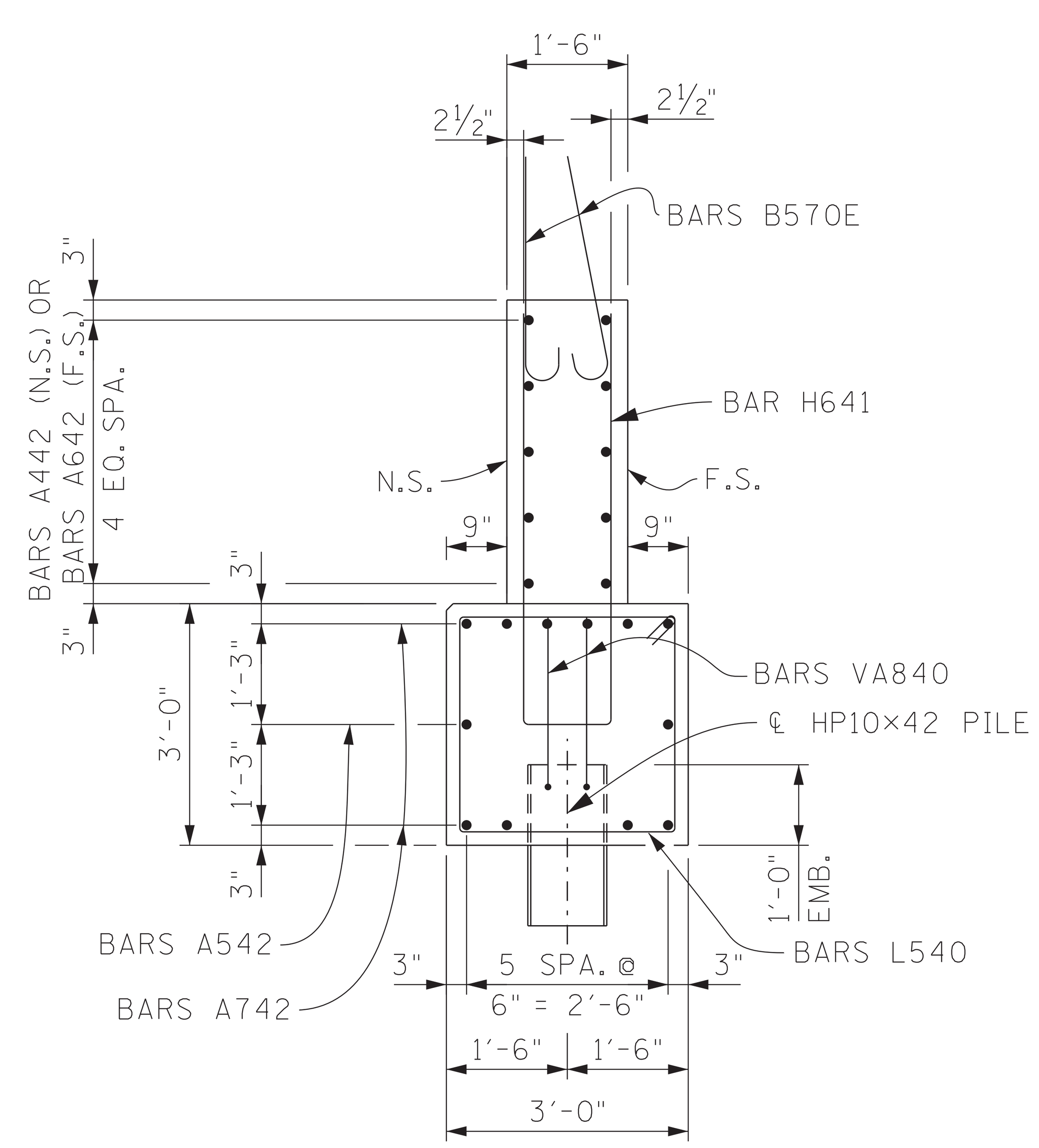


PRE-DRILLED ITEM DETAIL

(TYP. @ PER ABUTMENT)



SECTION "B"-"B"



SECTION "E"-"E"

SEALED BY

2/18/26

BRIDGE NO. 1
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ABUTMENT NO. 1 DETAILS
STATE ROUTE 31
OVER
MOORSBURG BRANCH
BRIDGE ID. NO. 37SR0310001
LOG MILE 0.24
STATION 23+46.68
HAWKINS COUNTY

U-101-12

PIN NO.:	101394.00		
DESIGN BY:	J. LAINE	DATE:	09/24
DRAWN BY:	P. MOSHER	DATE:	04/25
SUPERVISED BY:	EASTERLY/SHOULDERS	DATE:	04/25
CHECKED BY:	A. DAHIR	DATE:	03/25

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PROJECT NO.	YEAR	SHEET NO.
STP/HPP-31(12)	2026	

REVISIONS

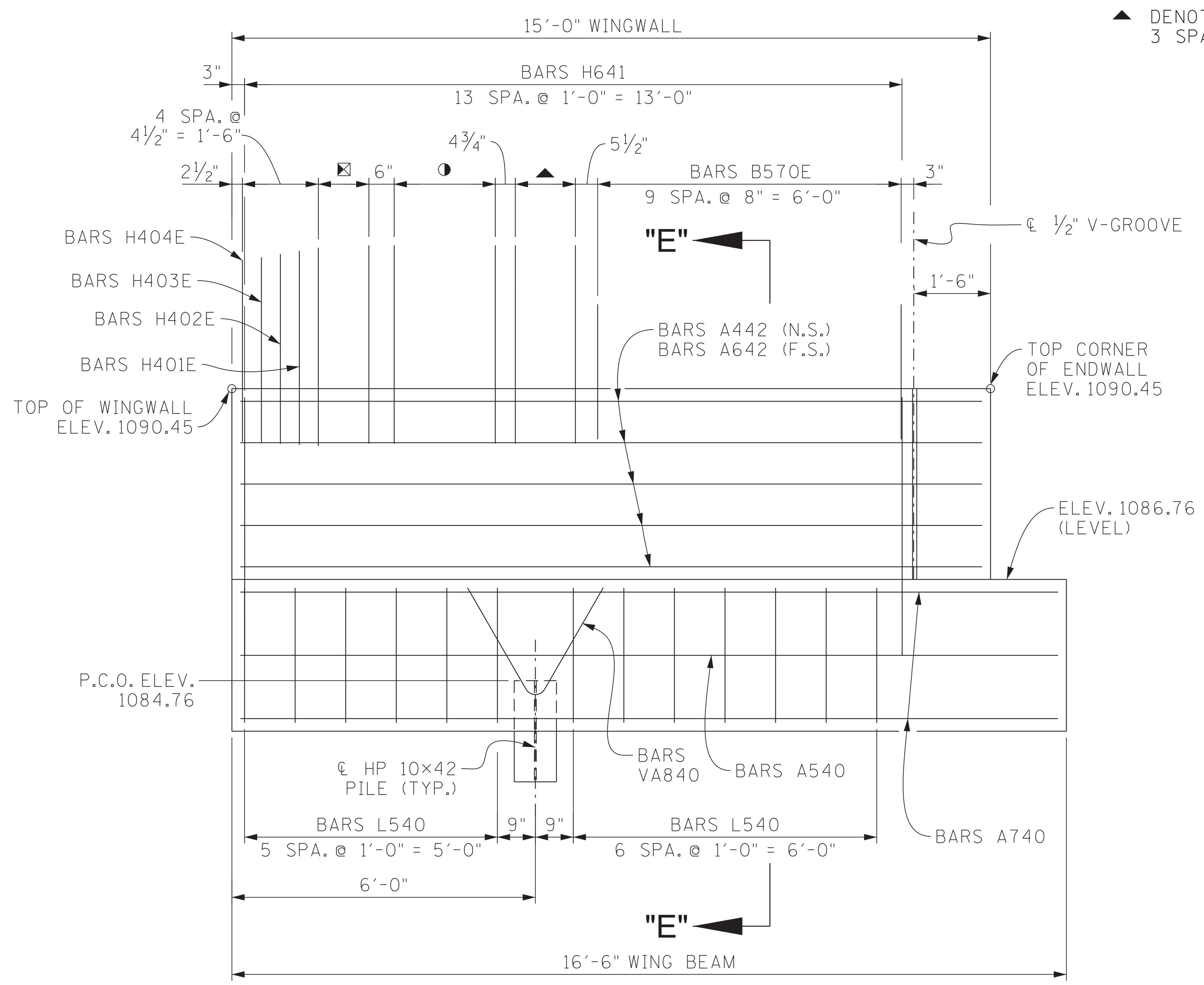
NO.	DATE	BY	BRIEF DESCRIPTION
	- -		
	- -		
	- -		
	- -		
	- -		

⊠ DENOTES: BARS H400E
2 SPA. @ 6" = 1'-0"

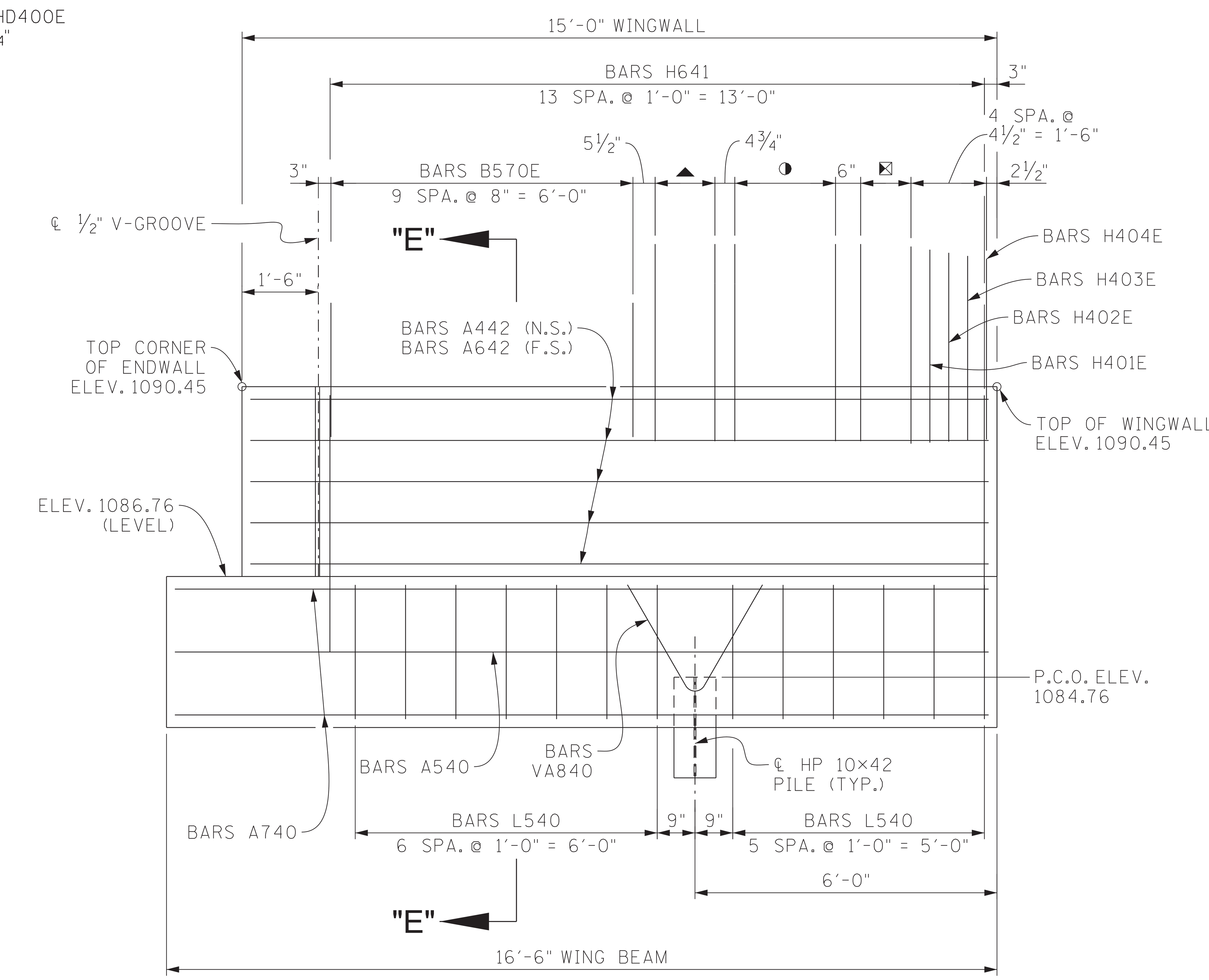
◑ DENOTES: SER. BARS HD401E
4 SPA. @ 6" = 2'-0"

▲ DENOTES: SER. BARS HD400E
3 SPA. @ 4¾" = 1'-2¼"

F.S. DENOTES: FAR SIDE
N.S. DENOTES: NEAR SIDE
P.C.O. DENOTES: PILE CUT-OFF

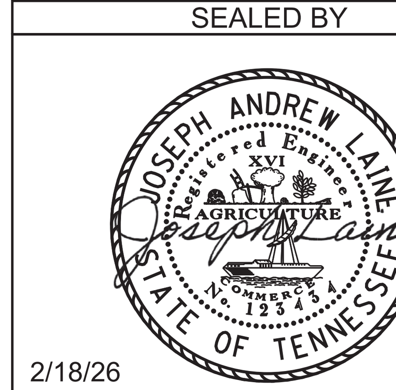


ELEVATION "A"-"A"



ELEVATION "D"-"D"

SEALED BY



2/18/26

BRIDGE NO. 1
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ABUTMENT NO. 1 DETAILS
STATE ROUTE 31
OVER
MOORSBURG BRANCH
BRIDGE ID. NO. 37SR0310001
LOG MILE 0.24
STATION 23+46.68
HAWKINS COUNTY

U-101-13

PIN NO.: 101394.00
DESIGN BY: J. LAINE DATE: 09/24
DRAWN BY: P. MOSHER DATE: 04/25
SUPERVISED BY: EASTERLY/SHOULDERS DATE: 04/25
CHECKED BY: A. DAHIR DATE: 03/25

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PROJECT NO.	YEAR	SHEET NO.
STP/HPP-31(12)	2026	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
	- -		
	- -		
	- -		
	- -		
	- -		

NOTE: RISER BLOCKS SHALL BE POURED MONOLITHICALLY WITH THE ABUTMENT BEAM.

NOTE: ELASTOMERIC PADS SHALL BE IN PLACE A MINIMUM OF ONE DAY BEFORE BEING DISTURBED BY SETTING BEAMS. PLACE RUBBER BONDING CEMENT IN SUCH A WAY THAT VISIBLE CONCRETE SURFACES WILL NOT BE STAINED.

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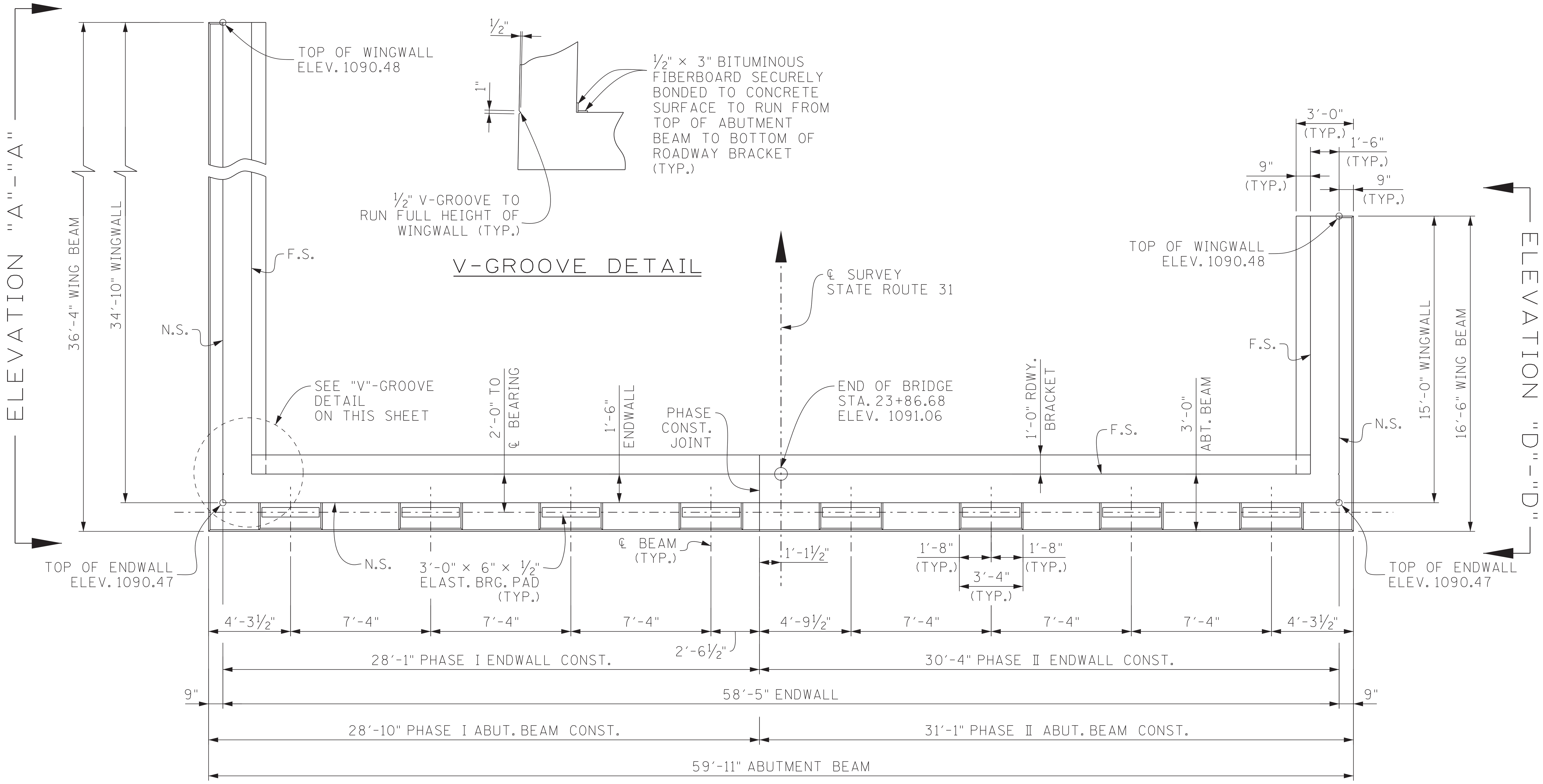
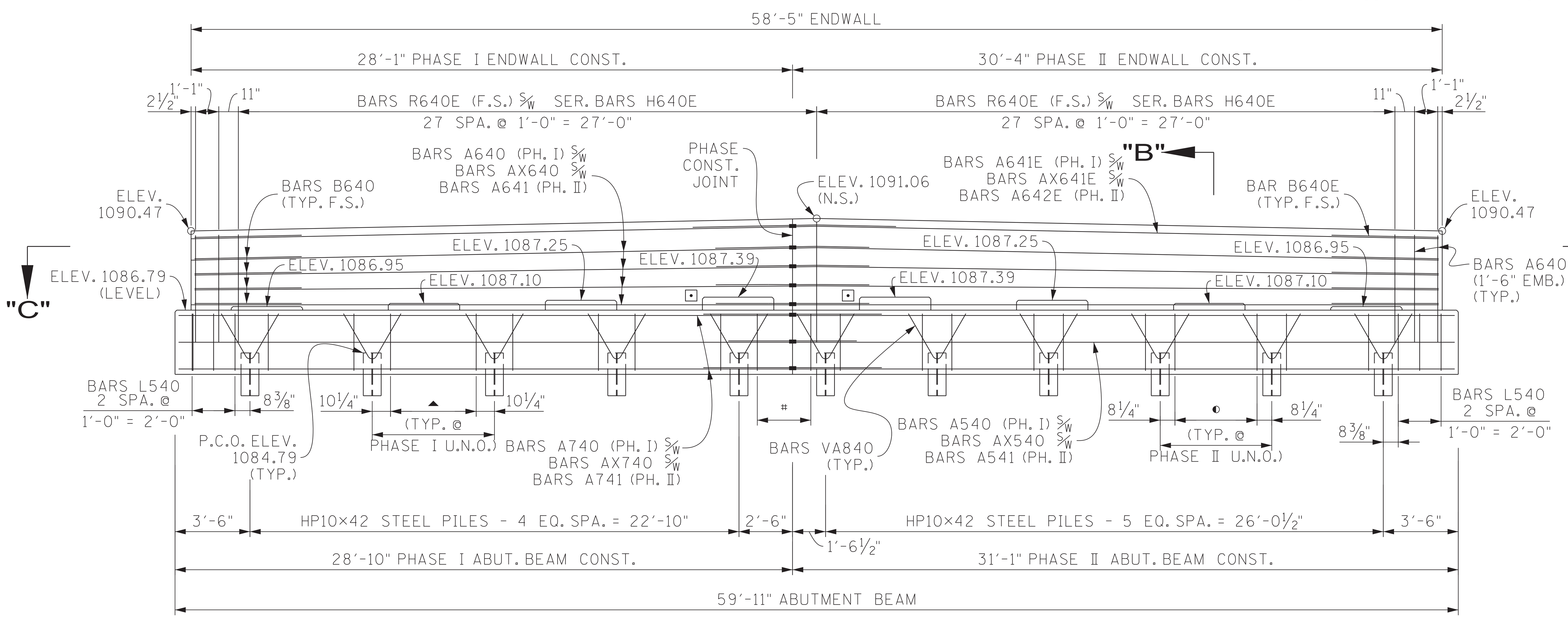
NOTE: COST OF PARAPET AND POST IS TO BE INCLUDED IN THE UNIT PRICE BID FOR THE PARAPET SYSTEM.



PLAN

F.S. DENOTES: FAR SIDE
N.S. DENOTES: NEAR SIDE
P.C.O. DENOTES: PILE CUT-OFF
U.N.O. DENOTES: UNLESS NOTED OTHERWISE



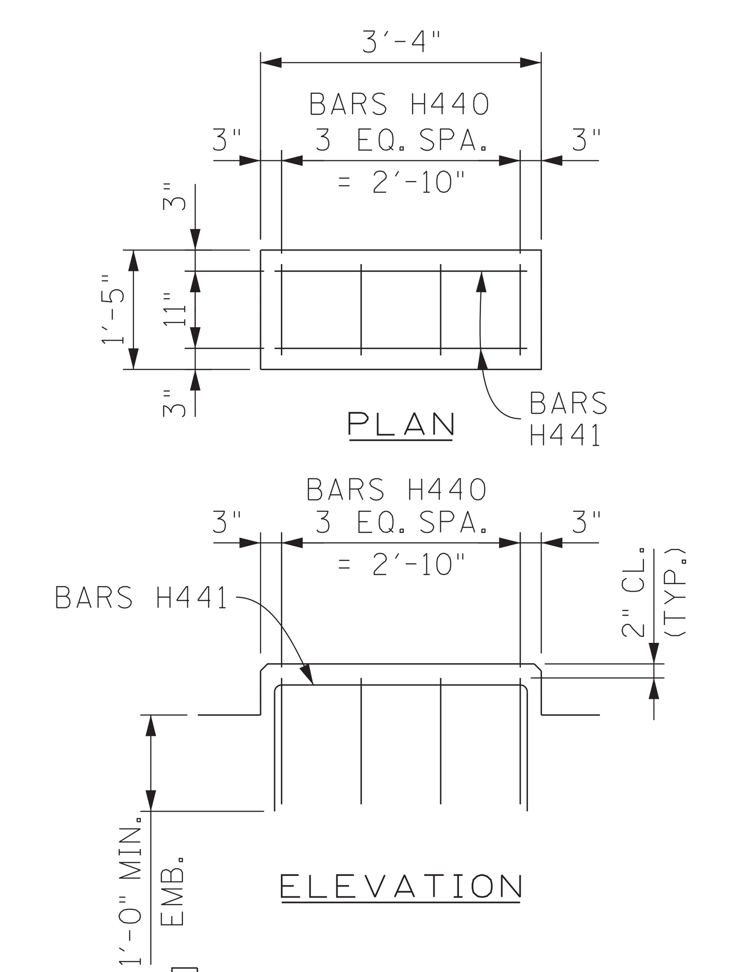
⊡ DENOTES: SEE RISER BLOCK REINFORCEMENT DETAIL ON THIS SHEET.

▲ DENOTES: BARS L540 - 4 SPA. @ 1'-0" = 4'-0" (TYP. BETWEEN PILES, PHASE I)

◐ DENOTES: BARS L540 - 4 SPA. @ 11½" = 3'-10" (TYP. BETWEEN PILES, PHASE II)

\# DENOTES: BARS L540 - 3 SPA. @ 10" = 2'-6"

ELEVATION
(LOOKING FORWARD ON SURVEY)



⊡ RISER BLOCK REINFORCEMENT DETAIL

SEALED BY

JOSEPH ANDREW LAINE
STATE OF TENNESSEE

2/18/26

BRIDGE NO. 1
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ABUTMENT NO. 2
STATE ROUTE 31
OVER
MOORSBURG BRANCH
BRIDGE ID. NO. 37SR0310001
LOG MILE 0.24
STATION 23+46.68
HAWKINS COUNTY

U-101-14

PIN NO.: 101394.00
DESIGN BY: J. LAINE DATE: 09/24
DRAWN BY: P. MOSHER DATE: 04/25
SUPERVISED BY: EASTERLY/SHOULDERS DATE: 04/25
CHECKED BY: A. DAHIR DATE: 03/25

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PROJECT NO.	YEAR	SHEET NO.
STP/HPP-31(12)	2026	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
	- -		
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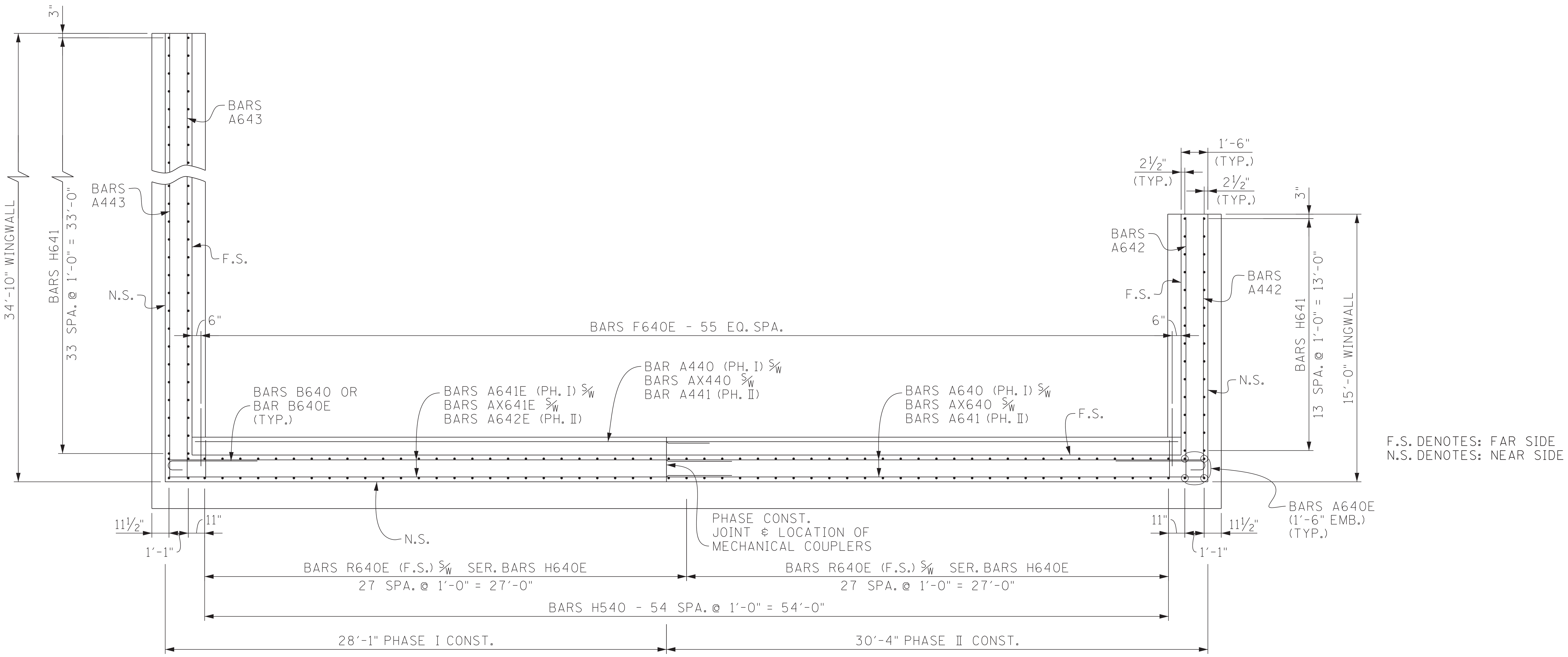
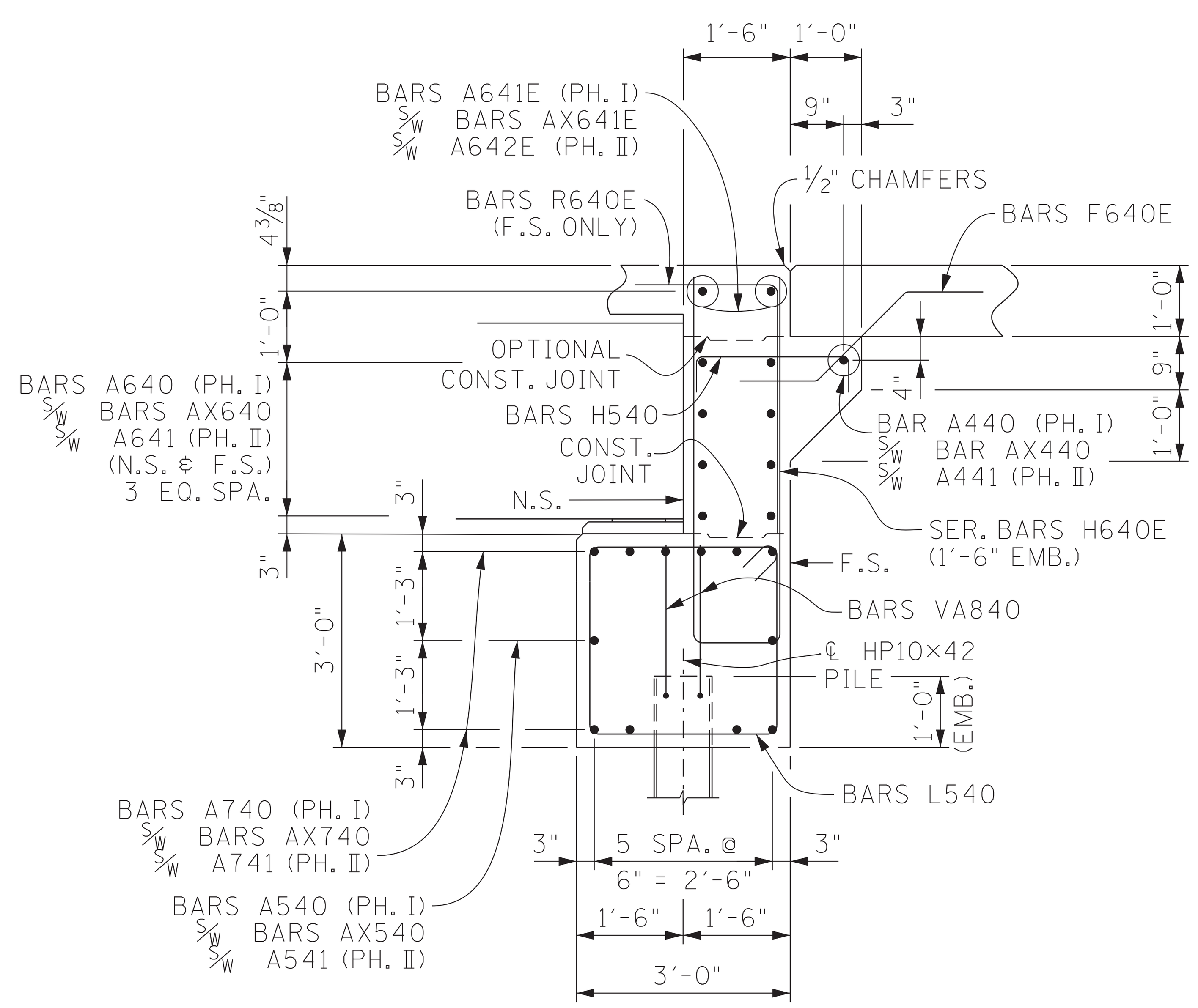
	- -		
	- -		

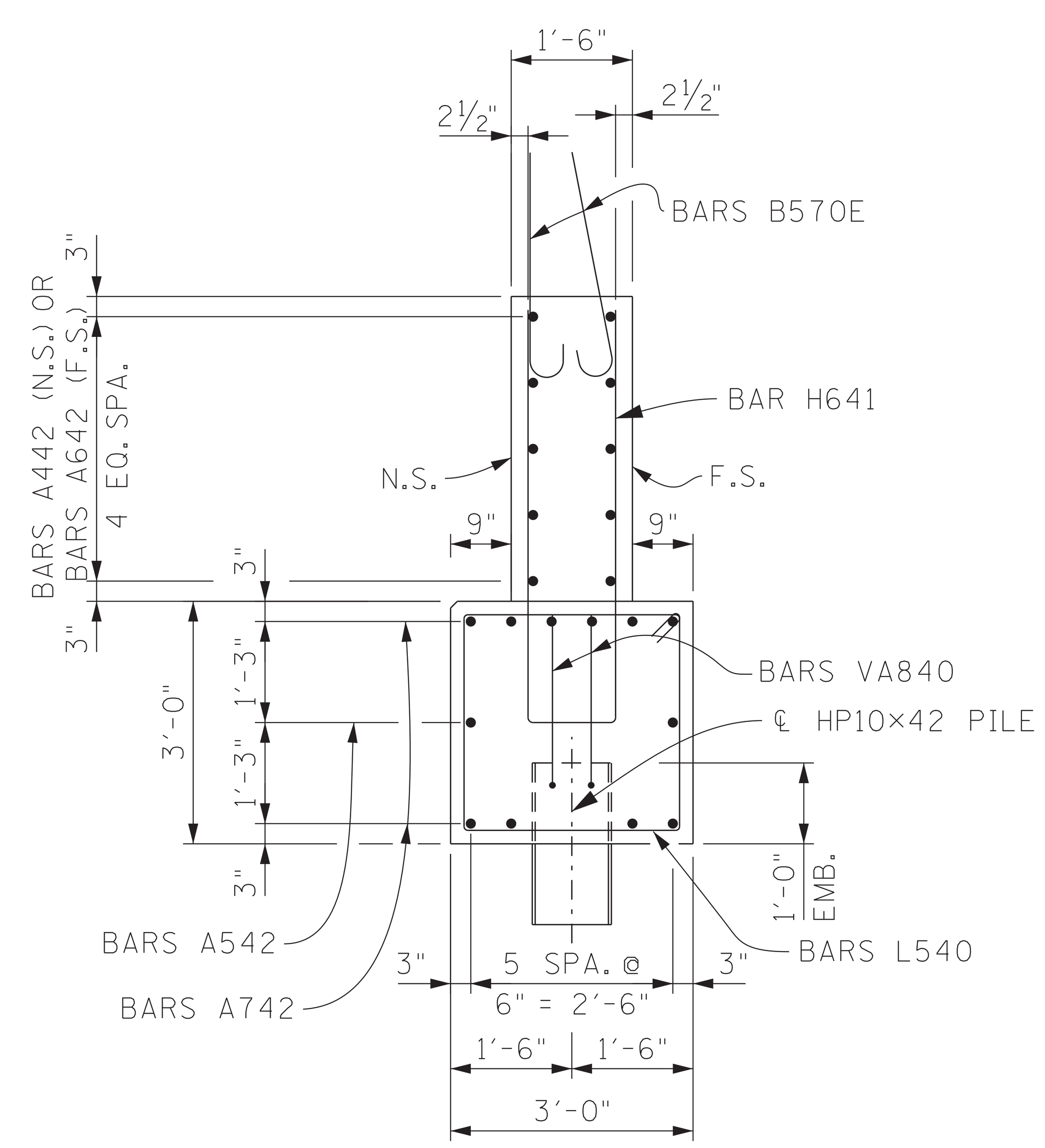


F.S. DENOTES: FAR SIDE
N.S. DENOTES: NEAR SIDE

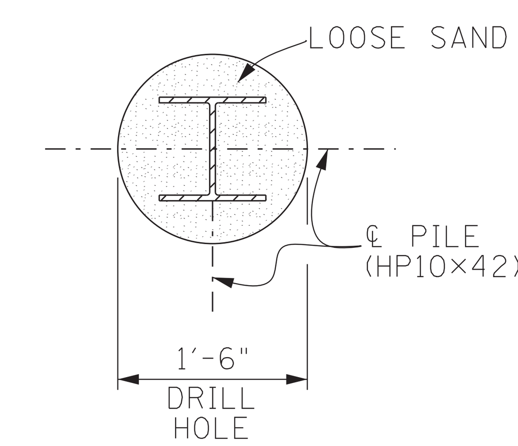
SECTION "C"-"C"



SECTION "B"-"B"

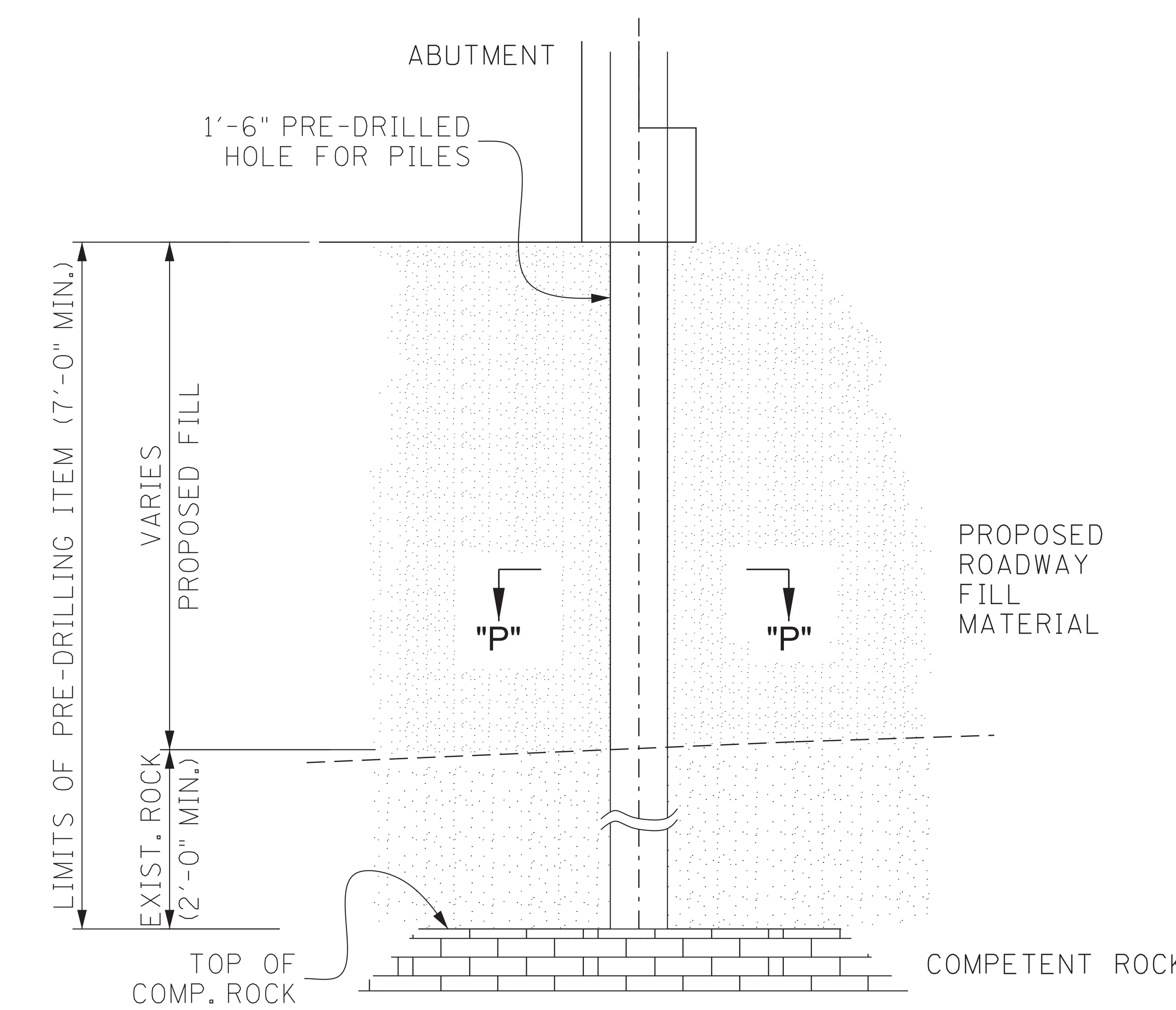


SECTION "E"-"E"



DETAIL "P"-"P"

PREDRILLING AND INSTALLATION FOR STEEL PILES: 1'-6" DIAMETER HOLES SHALL BE DRILLED AT THE PROPOSED PILE LOCATIONS. THE HOLES SHALL TERMINATE AT THE TOP OF SOUND ROCK. ONCE THE DRILLING IS COMPLETE, THE HOLE SHALL BE BACKFILLED WITH LOOSE SAND. WHEN THE SAND IS IN PLACE, THE STEEL H-PILE (WITH PILE TIP ATTACHED) SHALL BE DRIVEN BY HAMMER TO THE TOP OF SOUND ROCK TO SEAT THE PILE. THE COST OF THE LOOSE SAND SHALL BE INCLUDED IN THE UNIT PRICE BID OF THE CORE DRILLING FOR PILE ITEMS (204-14 AND 204-15).



PRE-DRILLED ITEM DETAIL

(TYP. @ PER ABUTMENT)

SEALED BY

JOSEPH ANDREW LAINE
STATE OF TENNESSEE

2/18/26

BRIDGE NO. 1
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ABUTMENT NO. 2 DETAILS
STATE ROUTE 31
OVER
MOORSBURG BRANCH
BRIDGE ID. NO. 37SR0310001
LOG MILE 0.24
STATION 23+46.68
HAWKINS COUNTY

U-101-15

PIN NO.: 101394.00
DESIGN BY: J. LAINE DATE: 09/24
DRAWN BY: P. MOSHER DATE: 04/25
SUPERVISED BY: EASTERLY/SHOULDERS DATE: 04/25
CHECKED BY: A. DAHIR DATE: 03/25

10/20/2025 2:30:00 PM
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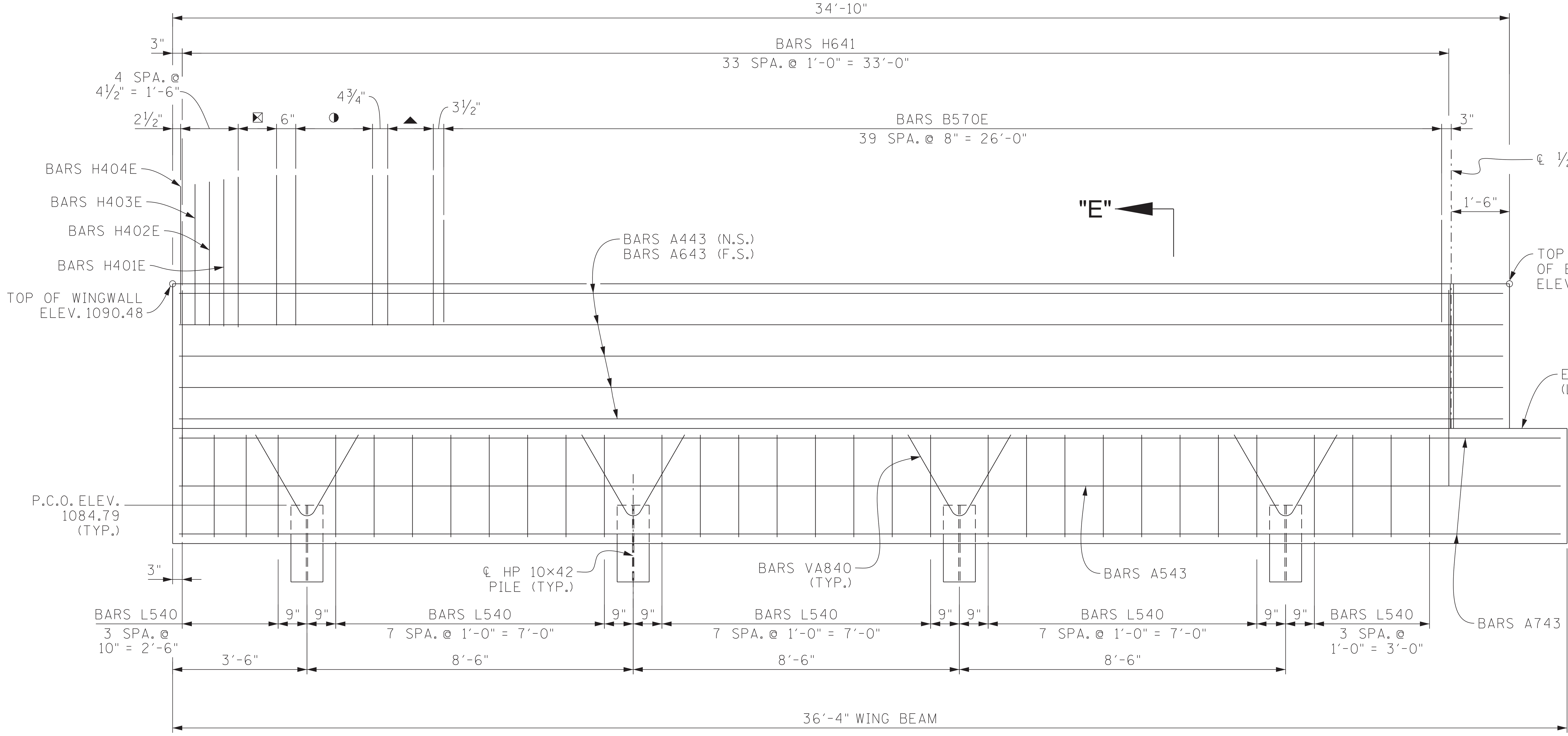
PROJECT NO.	YEAR	SHEET NO.
STP/HPP-31(12)	2026	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
	- -		
	- -		
	- -		
	- -		
	- -		



ELEVATION "A"-"A"

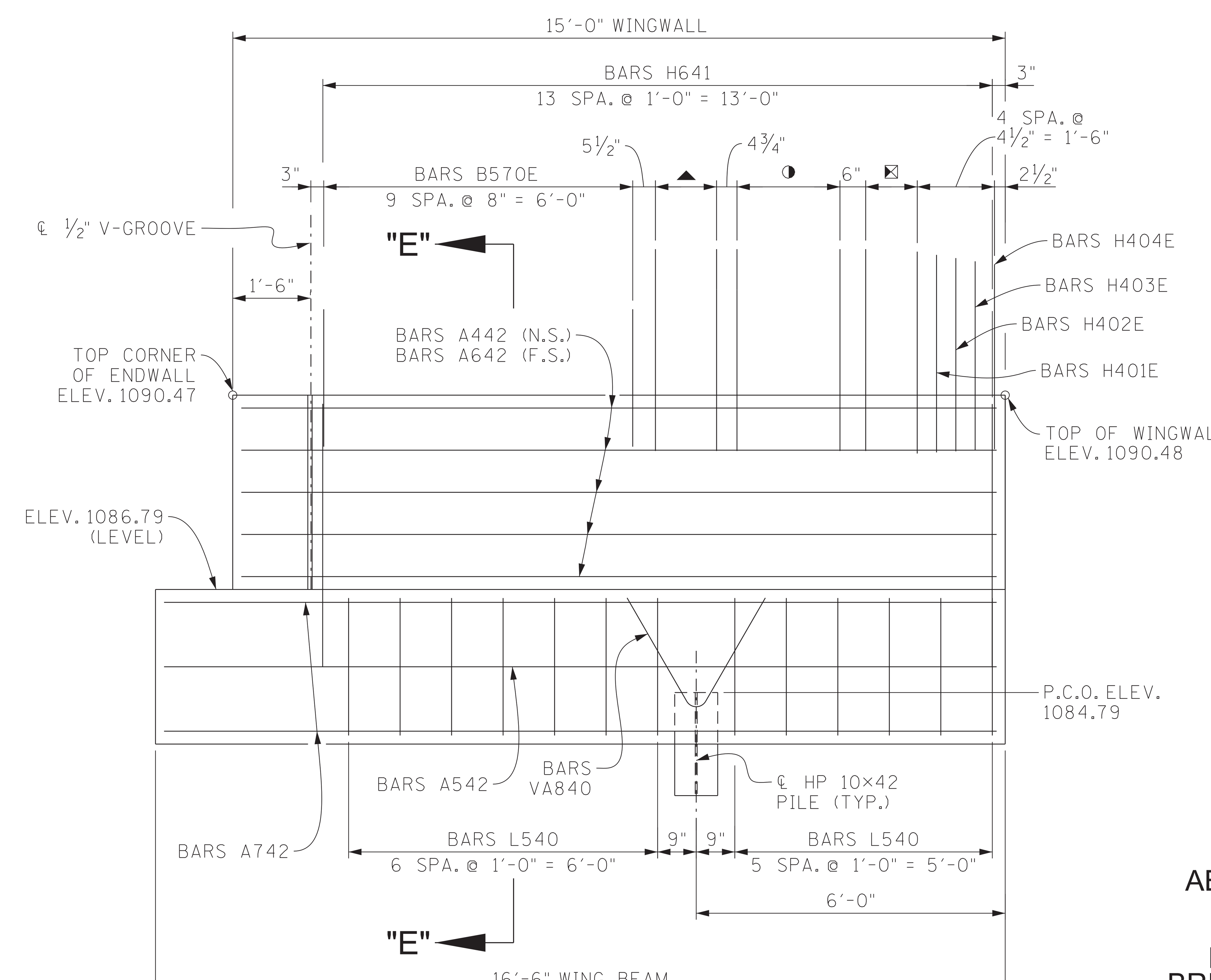
"E"

DENOTES: BARS H400E
2 SPA. @ 6" = 1'-0"

DENOTES: SER. BARS HD401E
4 SPA. @ 6" = 2'-0"

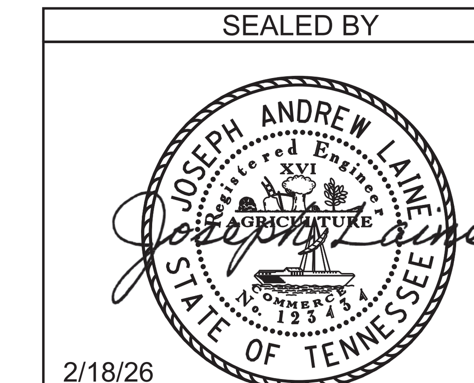
DENOTES: SER. BARS HD400E
3 SPA. @ 4¾" = 1'-2¼"

F.S. DENOTES: FAR SIDE
N.S. DENOTES: NEAR SIDE
P.C.O. DENOTES: PILE CUT-OFF



ELEVATION "D"-"D"

SEALED BY



BRIDGE NO. 1
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ABUTMENT NO. 2 DETAILS
STATE ROUTE 31
OVER
MOORSBURG BRANCH
BRIDGE ID. NO. 37SR0310001
LOG MILE 0.24
STATION 23+46.68
HAWKINS COUNTY

U-101-16

PIN NO.: 101394.00
DESIGN BY: J. LAINE DATE: 09/24
DRAWN BY: P. MOSHER DATE: 04/25
SUPERVISED BY: EASTERLY/SHOULDERS DATE: 04/25
CHECKED BY: A. DAHIR DATE: 03/25

PROJECT NO.	YEAR	SHEET NO.
STP/HPP-31(12)	2026	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
	- -		
	- -		
	- -		
	- -		
	- -		

ABUTMENT NO. 1

ABUTMENT NO. 2

SEALED BY

PILE DATA TABLE

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
ABUTMENT NO. 1	PILE CUT-OFF ELEVATION																
	PILE TIP ELEVATION																
	IN PLACE PILE LENGTH																
ABUTMENT NO. 2	PILE CUT-OFF ELEVATION																
	PILE TIP ELEVATION																
	IN PLACE PILE LENGTH																

PIN NO.: 101394.00
DESIGN BY: J. LAINE DATE: 09/24
DRAWN BY: P. MOSHER DATE: 05/25
SUPERVISED BY: EASTERLY/SHOULDERS DATE: 05/25
CHECKED BY: A. DAHIR DATE: 03/25

NOTE TO CONTRACTOR AND CONSTRUCTION OFFICE:
THE BLANKS ON THIS SHEET ARE TO BE FILLED IN BY THE CONSTRUCTION OFFICE AND/OR FIELD ENGINEER GIVING AS BUILT CONDITIONS. AFTER COMPLETION, IT IS TO BE SENT TO THE STRUCTURES OF THE ENGINEERING DIVISION TO BECOME PART OF FINAL BRIDGE DOCUMENTS.

BRIDGE NO. 1
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

FINAL FOUNDATION DATA
STATE ROUTE 31
OVER
MOORSBURG BRANCH
BRIDGE ID. NO. 37SR0310001
LOG MILE 0.24
STATION 23+46.68
HAWKINS COUNTY

U-101-17

SUPERSTRUCTURE (EPOXY)

BARS	LOCATION	SIZE	NO. REQ'D.	BENDING DIMENSIONS A	B	C	D	LENGTH (FEET)
A400E	SLAB	4	101					60'-0"
A401E	SLAB	4	101					22'-5"
A500E	SLAB	5	206					27'-9"
A501E	SLAB	5	206					30'-4"
AX500E	SLAB	5	206	3'-6"	3'-6"			7'-0"
B570E	SLAB/PARAPET	5	484	2'-8"				3'-3"

ABUTMENT NO. 1 EPOXY

BARS	LOCATION	SIZE	NO. REQ'D.	BENDING DIMENSIONS A	B	C	D	LENGTH (FEET)
A640E	ENDWALL	6	8					5'-0"
A641E	ENDWALL (PH. I)	6	2					27'-9"
A642E	ENDWALL (PH. II)	6	2					30'-4"
AX641E	ENDWALL	6	2	4'-10"	4'-10"			9'-8"
B570E	WINGWALL/PARAPET	5	40	2'-8"				3'-3"
F640E	ENDWALL/P.A.B.E.	6	56	1'-1"	1'-3"	1'-1"	1'-3"	4'-0"
H400E	WINGWALL/PARAPET	4	6	10 1/2"	3'-11"			8'-9"
H401E	WINGWALL/PARAPET	4	2	9 7/8"	3'-10"			8'-6"
H402E	WINGWALL/PARAPET	4	2	8 3/4"	3'-9"			8'-3"
H403E	WINGWALL/PARAPET	4	2	7 5/8"	3'-8"			8'-0"
H404E	WINGWALL/PARAPET	4	2	6 1/2"	3'-7"			7'-9"
SER								
HD400E	WINGWALL/PARAPET	4	2	*	3'-11"	4'-0"	9"	33'-4"
				DIM. A VARIES FROM 3 3/4" TO 5 7/8" IN INC. OF 17/24" (4 BARS)				
SER								
HD401E	WINGWALL/PARAPET	4	2	*	3'-11"	4'-0"	9"	43'-1"
				DIM. A VARIES FROM 6 1/2" TO 10" IN INC. OF 7/8" (5 BARS)				
SER								
H640E	ENDWALL	6	2	1'-2"	*			232'-2"
				DIM. B VARIES FROM 5'-7 3/16" TO 5'-0 3/4" IN INC. OF 3/8" (18 BARS)				
R640E	ENDWALL/SLAB	6	56	2'-0"	3'-6"			5'-6"

ABUTMENT NO. 1 REGULAR

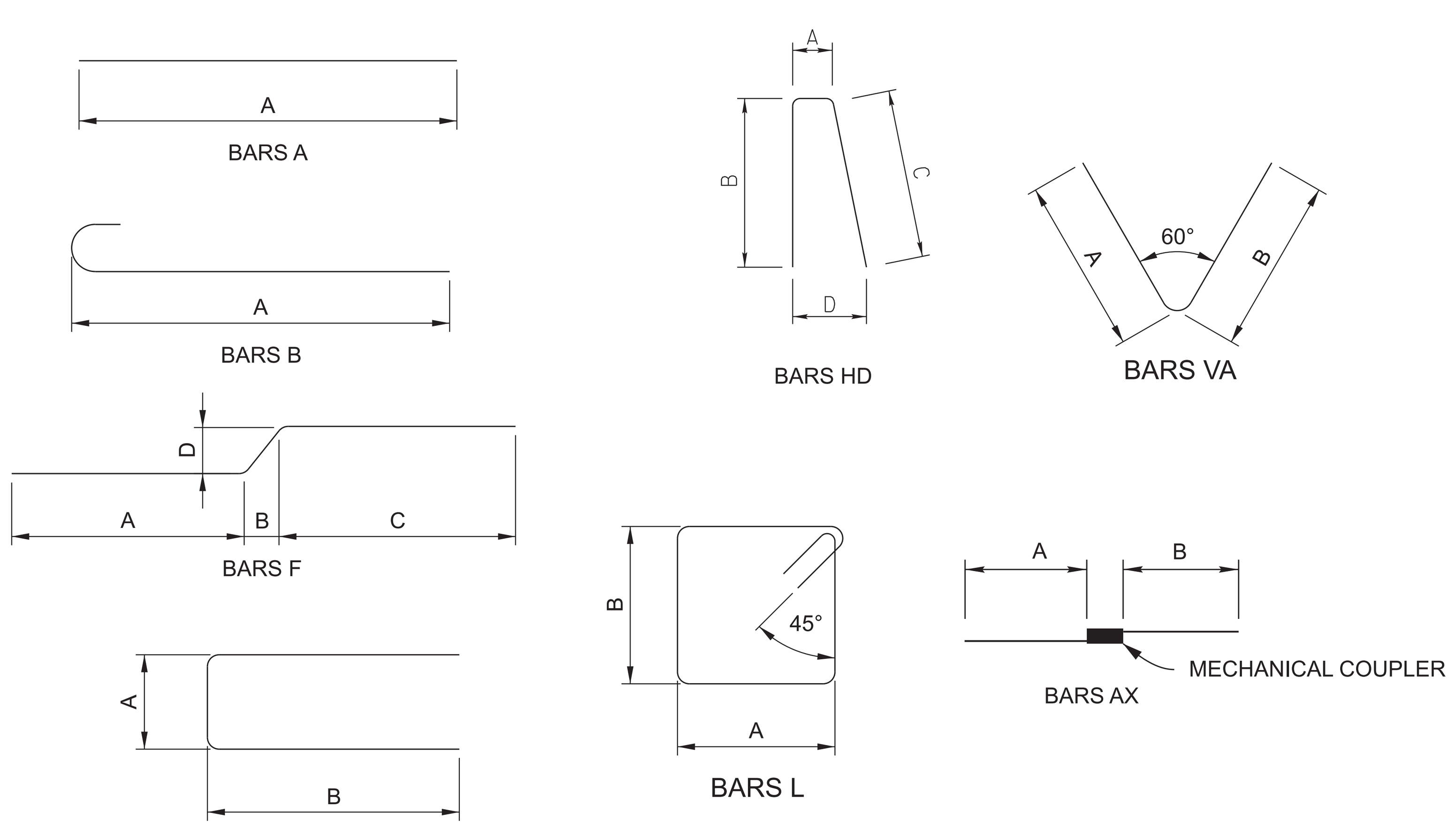
BARS	LOCATION	SIZE	NO. REQ'D.	BENDING DIMENSIONS A	B	C	D	LENGTH (FEET)
A440	ROADWAY BRKT. (PH. I)	4	1					26'-3"
A441	ROADWAY BRKT. (PH. II)	4	1					28'-10"
A442	WINGWALL	4	10					14'-8"
AX440	ROADWAY BRKT	4	1	2'-5"	2'-5"			4'-10"
A540	ABUT. BEAM (PH. I)	5	2					27'-9"
A541	ABUT. BEAM (PH. II)	5	2					30'-4"
A542	WING BEAM	5	4					16'-2"
AX540	ABUT. BEAM	5	2	3'-0"	3'-0"			6'-0"
A640	ENDWALL (PH. I)	6	8					27'-9"
A641	ENDWALL (PH. II)	6	8					30'-4"
A642	WINGWALL	6	10					14'-8"
AX640	ENDWALL	6	8	3'-7"	3'-7"			7'-2"
A740	ABUT. BEAM (PH. I)	7	10					28'-6"
A741	ABUT. BEAM (PH. II)	7	10					30'-4"
A742	WING BEAM	7	20					16'-2"
AX740	ABUT. BEAM	7	10	4'-2"	4'-2"			8'-4"
B640	ENDWALL	6	8	5'-0"				5'-8"
H440	RISER	4	8	3'-0"	1'-6"			6'-0"
H441	RISER	4	4	1'-1"	1'-6"			4'-1"
H540	RDWY. BRKT./PABE	5	56	2'-2"	6"			3'-2"
H641	WING BEAMS	6	28	1'-2"	5'-0"			11'-2"
L540	ABUTMENT BEAM/WING BEAM	5	78	2'-8"	2'-8"			11'-6"
VA850	PILES	8	26	2'-6"	2'-6"			5'-0"

ABUTMENT NO. 2 EPOXY

BARS	LOCATION	SIZE	NO. REQ'D.	BENDING DIMENSIONS A	B	C	D	LENGTH (FEET)
A640E	ENDWALL	6	8					5'-0"
A641E	ENDWALL (PH. I)	6	2					27'-9"
A642E	ENDWALL (PH. II)	6	2					30'-4"
AX641E	ENDWALL	6	2	4'-10"	4'-10"			9'-8"
B570E	WINGWALL/PARAPET	5	50	2'-8"				3'-3"
F640E	ENDWALL/P.A.B.E.	6	56	1'-1"	1'-3"	1'-1"	1'-3"	4'-0"
H400E	WINGWALL/PARAPET	4	6	10 1/2"	3'-11"			8'-9"
H401E	WINGWALL/PARAPET	4	2	9 7/8"	3'-10"			8'-6"
H402E	WINGWALL/PARAPET	4	2	8 3/4"	3'-9"			8'-3"
H403E	WINGWALL/PARAPET	4	2	7 5/8"	3'-8"			8'-0"
H404E	WINGWALL/PARAPET	4	2	6 1/2"	3'-7"			7'-9"
SER								
HD400E	WINGWALL/PARAPET	4	2	*	3'-11"	4'-0"	9"	33'-4"
				DIM. A VARIES FROM 3 3/4" TO 5 7/8" IN INC. OF 17/24" (4 BARS)				
SER								
HD401E	WINGWALL/PARAPET	4	2	*	3'-11"	4'-0"	9"	43'-1"
				DIM. A VARIES FROM 6 1/2" TO 10" IN INC. OF 7/8" (5 BARS)				
SER								
H640E	ENDWALL	6	2	1'-8"	*			232'-2"
				DIM. B VARIES FROM 5'-7 3/16" TO 5'-0 3/4" IN INC. OF 3/8" (18 BARS)				
R640E	ENDWALL/SLAB	6	56	2'-0"	3'-6"			5'-6"

ABUTMENT NO. 2 REGULAR

BARS	LOCATION	SIZE	NO. REQ'D.	BENDING DIMENSIONS A	B	C	D	LENGTH (FEET)
A440	ROADWAY BRKT. (PH. I)	4	1					26'-3"
A441	ROADWAY BRKT. (PH. II)	4	1					28'-10"
A442	WINGWALL (PH. II)	4	5					14'-8"
A443	WINGWALL (PH. I)	4	5					34'-6"
AX440	ROADWAY BRKT.	4	1	2'-5"	2'-5"			4'-10"
A540	ABUT. BEAM (PH. I)	5	2					27'-9"
A541	ABUT. BEAM (PH. II)	5	2					30'-4"
A542	WING BEAM (PH. II)	5	4					16'-2"
A543	WING BEAM (PH. I)	5	2					36'-0"
AX540	ABUT. BEAM	5	2	3'-0"	3'-0"			6'-0"
A640	ENDWALL (PH. I)	6	8					27'-9"
A641	ENDWALL (PH. II)	6	8					30'-4"
A642	WINGWALL (PH. II)	6	5					14'-8"
A643	WINGWALL (PH. I)	6	5					34'-6"
AX640	ENDWALL	6	8	3'-7"	3'-7"			7'-2"
A740	ABUT. BEAM (PH. I)	7	10					28'-6"
A741	ABUT. BEAM (PH. II)	7	10					30'-4"
A742	WING BEAM (PH. II)	7	10					16'-2"
A743	WING BEAM (PH. I)	7	10					36'-0"
AX740	ABUT. BEAM	7	10	4'-2"	4'-2"			8'-4"
B640	ENDWALL	6	8	5'-0"				5'-8"
H440	RISER	4	8	3'-0"	1'-6"			6'-0"
H441	RISER	4	4	1'-1"	1'-6"			4'-1"
H540	RDWY. BRKT./PABE	5	56	2'-2"	6"			3'-2"
H641	WING BEAMS	6	48	1'-2"	5'-0"			11'-2"
L540	ABUTMENT BEAM/WING BEAM	5	97	2'-8"	2'-8"			11'-6"
VA850	PILES	8	32	2'-6"	2'-6"			5'-0"



PROJECT NO.	YEAR	SHEET NO.
STP/HPP-31(12)	2026	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
	- -		
	- -		
	- -		
	- -		
	- -		

SEALED BY

JOSEPH ANDREW LAINE
STATE OF TENNESSEE

2/18/26

PIN NO.: 101394.00
DESIGN BY: J. LAINE DATE: 09/24
DRAWN BY: D. EASTERLY DATE: 07/25
SUPERVISED BY: EASTERLY/SHOULDERS DATE: 07/25
CHECKED BY: A. DAHIR DATE: 03/25

BRIDGE NO. 1
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

BILL OF STEEL
STATE ROUTE 31
OVER
MOORSBURG BRANCH
BRIDGE ID. NO. 37SR0310001
LOG MILE 0.24
STATION 23+46.68
HAWKINS COUNTY

U-101-18

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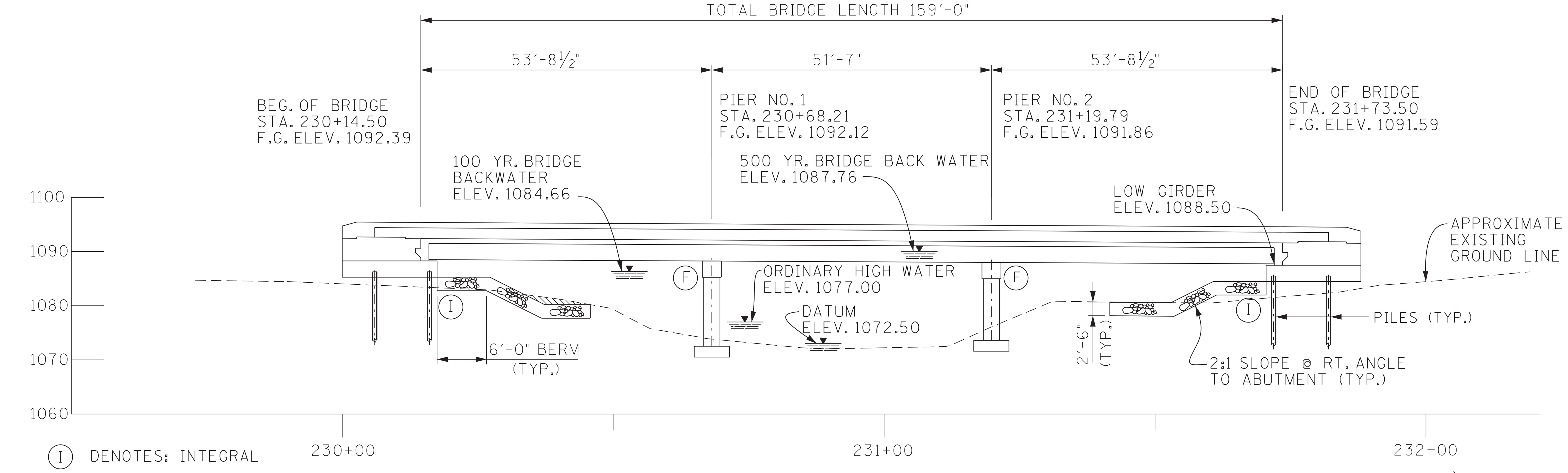
PROJECT NO.	YEAR	SHEET NO.
STP/HPP-31(12)	2026	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
	- -		
	- -		



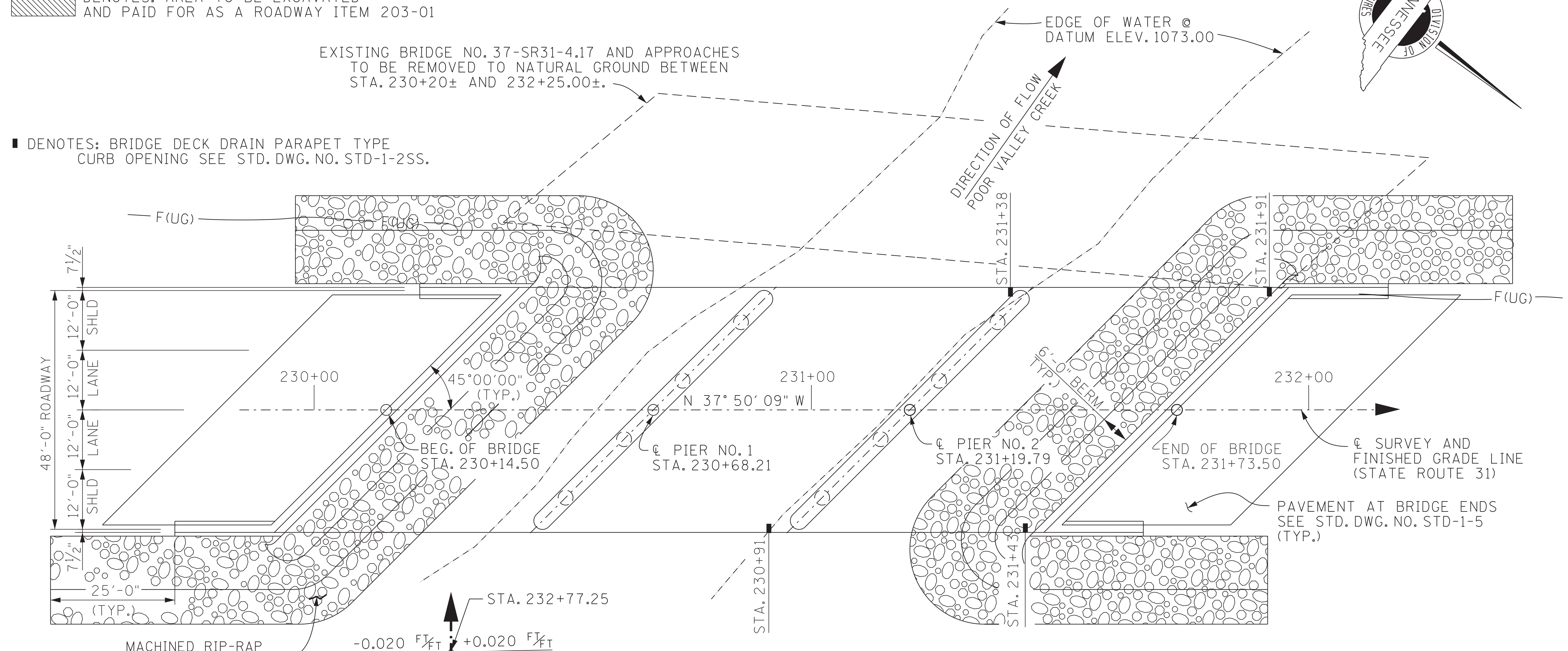
(I) DENOTES: INTEGRAL

(F) DENOTES: FIXED

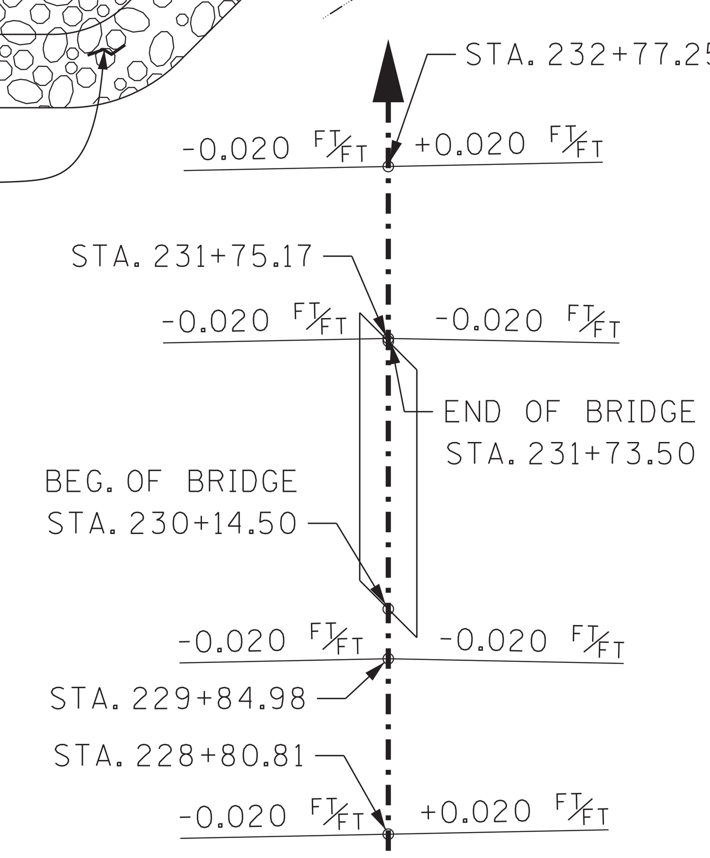
DENOTES: AREA TO BE EXCAVATED AND PAID FOR AS A ROADWAY ITEM 203-01

ELEVATION

■ DENOTES: BRIDGE DECK DRAIN PARAPET TYPE CURB OPENING SEE STD. DWG. NO. STD-1-2SS.



PLAN



TRANSITION SKETCH
(STATE ROUTE 31)

LIST OF DRAWINGS

	DWG. NO.	LAST REV. DATE
LAYOUT OF BRIDGE	U-101-019	--_--_--
GENERAL NOTES	U-101-020	--_--_--
ESTIMATED QUANTITIES	U-101-021	--_--_--
FOUNDATION DATA	U-101-022	--_--_--
FOUNDATION DATA	U-101-023	--_--_--
SUPERSTRUCTURE	U-101-024	--_--_--
SUPERSTRUCTURE DETAILS	U-101-025	--_--_--
SUPERSTRUCTURE DETAILS	U-101-026	--_--_--
SUPERSTRUCTURE DETAILS	U-101-027	--_--_--
PHASE CONSTRUCTION DETAILS	U-101-028	--_--_--
PRESTRESSED I-BEAM DETAILS SPAN NO. 1	U-101-029	--_--_--
PRESTRESSED I-BEAM DETAILS SPAN NO. 2	U-101-030	--_--_--
PRESTRESSED I-BEAM DETAILS SPAN NO. 3	U-101-031	--_--_--
ABUTMENT NO. 1	U-101-032	--_--_--
ABUTMENT NO. 1 DETAILS	U-101-033	--_--_--
ABUTMENT NO. 1 DETAILS	U-101-034	--_--_--
ABUTMENT NO. 2	U-101-035	--_--_--
ABUTMENT NO. 2 DETAILS	U-101-036	--_--_--
ABUTMENT NO. 2 DETAILS	U-101-037	--_--_--
PIER NO. 1	U-101-038	--_--_--
PIER NO. 2	U-101-039	--_--_--
PIER NO. 1 AND NO. 2 DETAILS	U-101-040	--_--_--
FINAL FOUNDATION DATA	U-101-041	--_--_--
BILL OF STEEL	U-101-042	--_--_--

LIST OF STANDARD DRAWINGS

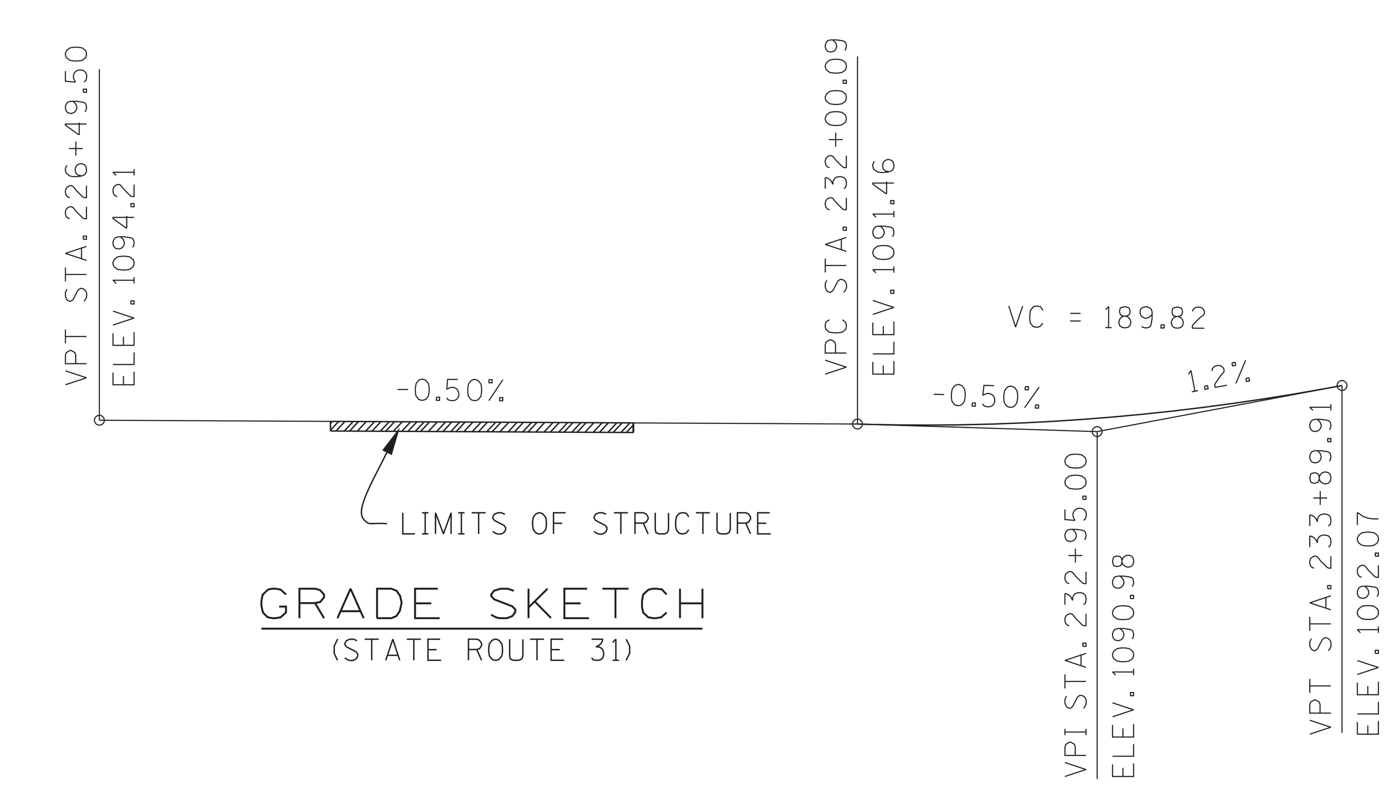
	DWG. NO.	LAST REV. DATE
BRIDGE RAILING SINGLE SLOPE CONCRETE PARAPET	STD-1-1SS	07-09-25
STEEL SLIDER PLATE ASSEMBLIES FOR SINGLE SLOPE CONCRETE PARAPET AND BRIDGE DECK DRAIN DETAILS	STD-1-2SS	05-31-24
REINFORCED CONCRETE PAVEMENT AT BRIDGE ENDS	STD-1-5	06-05-23
BRIDGE MOUNTED INTERCONNECTED PORTABLE BARRIER RAIL	STD-2-1	08-26-25
BRIDGE MOUNTED INTERCONNECTED PORTABLE BARRIER RAIL ALTERNATE CONNECTION DETAIL	STD-2-3	08-26-25
STANDARD PRECAST PRESTRESSED BRIDGE DECK PANELS GENERAL DETAILS	STD-4-1	04-08-05
STANDARD PRECAST PRESTRESSED BRIDGE DECK PANELS DESIGN CRITERIA	STD-4-2	04-08-05
STANDARD PRECAST PRESTRESSED BRIDGE DECK PANELS GENERAL DETAILS	STD-4-3	03-02-02
STANDARD PRECAST PRESTRESSED BRIDGE DECK PANELS CONSTRUCTION DETAILS	STD-4-4	06-10-96
STANDARD PILE DETAILS	STD-5-1	
STANDARD SEISMIC DETAILS	STD-6-1	12-08-23
STANDARD REINFORCING BAR SUPPORT DETAILS FOR CONCRETE SLABS	STD-9-1	10-07-08
MISCELLANEOUS ABUTMENT AND DRAINAGE DETAILS	STD-10-1	06-05-23
MISCELLANEOUS ABUTMENT & PAVEMENT AT BRIDGE ENDS BACKFILL DETAILS	STD-10-2	06-05-23
STANDARD DETAILS AND INTERMEDIATE DIAPHRAGM DETAILS FOR I-BEAMS	STD-14-2	03-06-24

LIST OF SPECIAL PROVISIONS

	PROV. NO.	LAST REV. DATE
REMOVAL OF ASBESTOS CONTAINING MATERIALS (ACM)	202ACM	07-07-14
REPAIR OF BRIDGE CRACKS	604CR	02-08-21

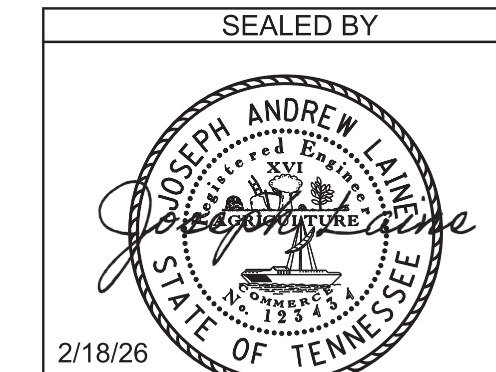
HYDRAULIC DATA

DRAINAGE AREA	30.49 SQ. MI.
DESIGN DISCHARGE (100YR)	4510 CFS
WATER AREA PROVIDED BELOW ELEV. 1083.50	510.47
100 YR BRIDGE BACKWATER	1.22 FT @ ELEV. 1084.62
100 YR VELOCITY	8.74 FPS
ROADWAY OVERTOPPING ELEV.	1090.6
500 YR DISCHARGE 6080 CFS @ ELEV. 1086.57	



GRADE SKETCH
(STATE ROUTE 31)

SEALED BY



2/18/26

NOTE: ANY EXCAVATION OF THE STREAM CHANNEL AREA SHALL BE SEPARATED FROM FLOWING WATER OR EXPECTED FLOW PATH AND PERFORMED DURING LOW FLOW CONDITIONS. THIS SHALL BE ACCOMPLISHED BY THE USE OF SHEET PILES, FLUMES, DIVERSION PIPE WITH SAND BAG DAM AT PIPE INLET, LINED DIVERSION CHANNEL WITH SAND BAG BERM, JERSEY BARRIERS, ETC. ANY EXCAVATION NOT DESIGNATED AS BRIDGE EXCAVATION 204-11 IS TO BE PAID FOR AS ROADWAY ITEM NUMBER 203-01 ROAD AND DRAINAGE EXCAVATION (UNCLASSIFIED) AND FOOTNOTED "UNSUITABLE FOR ROADWAY FILL MATERIAL." OTHER ITEMS FOR EROSION CONTROL AND DIVERSION LIKE BUT NOT LIMITED TO THE ITEMS LISTED ABOVE ARE TO BE PAID AS A LUMP SUM FOR SEQUENCING FOR CONSTRUCTION IN THE DRY UNDER ITEM NUMBER 209-65.23.

PIN NO.:	101394.00		
DESIGN BY:	J. LAINE	DATE:	2-25
DRAWN BY:	B. ERVIN	DATE:	3-25
SUPERVISED BY:	STEELE/J. SHOULDER	DATE:	2-25
CHECKED BY:	A. DAHIR	DATE:	3-25

CORRECT Ted A Kmiecewycz
ENGINEER OF STRUCTURES

BRIDGE NO. 2
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
LAYOUT OF BRIDGE
STATE ROUTE 31
OVER
POOR VALLEY CREEK
BRIDGE ID. NO. 37SR0310007
STATION 230+94.00
LOG MILE 4.17
HAWKINS COUNTY

U-101-19

8:50:51 AM
2/4/2026

GENERAL NOTES

CONSTRUCTION SPECIFICATIONS: TENNESSEE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (JANUARY 1, 2021 EDITION).

DESIGN SPECIFICATIONS: 9TH EDITION (2020) AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS AND THE 2ND EDITION (2011) AASHTO GUIDE SPECIFICATIONS FOR LRFD SEISMIC BRIDGE DESIGN WITH INTERIMS.

LOADING:

A. HL-93 LIVE LOADING
B. SEISMIC DESIGN CATEGORY A WITH A_S= 0.137, S_{DS}=0.303, S_{D1}=0.111, (1000 YEAR RETURN PERIOD).
C. DEAD LOAD INCLUDES 35 LB/SQ. FT. FOR FUTURE WEARING SURFACE.

CONCRETE: TO BE CLASS A (CAST-IN-PLACE) F'C = 3000 PSI EXCEPT AS NOTED OTHERWISE.

BRIDGE DECKS: CLASS D CONCRETE FOR BRIDGE DECKS SHALL BE IN ACCORDANCE WITH SECTION 604 OF THE STANDARD SPECIFICATIONS.

BRIDGE DECK SURFACE FINISH: TO BE IN ACCORDANCE WITH METHOD 3 IN ARTICLE 604.22 OF THE STANDARD SPECIFICATIONS.

BRIDGE DECK FORMS: BRIDGE DECK FORMS FOR CONCRETE DECKS SHALL BE CONSTRUCTED USING EITHER REMOVABLE FORMS OR PERMANENT FORMS. PERMANENT FORMS SHALL BE REMAIN-IN-PLACE STEEL. FORMS SHALL BE ATTACHED BY MEANS OTHER THAN WELDING TO MAIN STRUCTURAL MEMBERS OR REINFORCING STEEL. TEMPORARY ERECTION DIAPHRAGMS MUST BE USED AT THE ENDS OF PRECAST CONCRETE GIRDERS WHERE END DIAPHRAGMS, SUPPORT DIAPHRAGMS, OR ABUTMENT ENDWALLS ARE TO BE POURED CONCURRENTLY WITH THE DECK AND SHALL BE PROVIDED ELSEWHERE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS TO PREVENT GIRDER ROTATION. SEE STANDARD DRAWING STD-14-2 AND ARTICLE 604.05 OF THE STANDARD SPECIFICATIONS.

REINFORCING STEEL: SHALL BE ASTM A615 GRADE 60 UNLESS NOTED OTHERWISE. SEE SECTIONS 604 AND 907 OF THE STANDARD SPECIFICATIONS.

FOUNDATION PREPARATION: SEE SECTION 204 OF THE STANDARD SPECIFICATIONS. IF IT IS DETERMINED THAT COFFERDAMS ARE REQUIRED, THEY SHALL BE IN ACCORDANCE WITH SECTION 204.09 OF THE STANDARD SPECIFICATIONS.

SPREAD FOOTINGS FOR BENTS: FOOTINGS SHALL BE EMBEDDED 6 INCHES INTO SOUND ROCK. AS AN ALTERNATE, FOOTINGS MAY BE PLACED DIRECTLY ON CLEAN, SOUND ROCK WITH #8 BARS (1'-0" EMB., 1'-0" PROJ.) SPACED AT 2'-0" MAXIMUM GRID WITH A MAXIMUM EDGE DISTANCE TO THE OUTER BARS OF 1'-6" ALONG BOTH THE LENGTH AND WIDTH OF THE FOOTINGS. AFTER EXCAVATION TO ROCK FOR FOOTING HAS BEEN COMPLETED, HOLES 6' DEEP SHALL BE DRILLED AT POINTS DESIGNATED BY THE ENGINEER. FROM THE RESULTS OBTAINED, THE ENGINEER OF STRUCTURES SHALL DETERMINE THE FINAL FOOTING ELEVATIONS. NO REINFORCING STEEL FOR BENT COLUMNS OR FOOTINGS SHALL BE ORDERED UNTIL FINAL FOOTING ELEVATIONS HAVE BEEN DETERMINED.

ABUTMENTS ON FILL: THE FILLS AT THE ENDS OF THE BRIDGE SHALL BE IN PLACE AND THOROUGHLY COMPACTED BEFORE ANY ABUTMENT PILES ARE DRIVEN.

END-BEARING STEEL PILES: TO BE HP10X42 DRIVEN TO REFUSAL ON ROCK OR A MINIMUM BEARING OF 85 TONS FOR THE ABUTMENTS. ALL PILES SHALL BE ASTM A709 GRADE 50 STEEL.

PILE TIPS: PILES SHALL BE EQUIPPED WITH CAST STEEL POINTS. ALSO, SEE STANDARD DRAWING STD-5-1 FOR ADDITIONAL NOTES.

STREAM CHANNEL: ANY WORK WITHIN THE STREAM CHANNEL AREA (E.G. PIER/BENT FOOTING, RIP-RAP PLACEMENT, 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 TEMPORARY DIVERSION CHANNELS (EC-STR-31).

UTILITIES: IT IS INTENDED THAT THE COST OF MATERIALS AND LABOR NECESSARY FOR THE COMPLETE INSTALLATION OF UTILITIES SHALL BE BORNE BY OTHERS AND SHALL NOT BE PAID FOR AS A PART OF THIS CONTRACT. THE CONTRACTOR SHALL COOPERATE WITH OTHERS IN THE INSTALLATION OF UTILITIES WITH NO ADDITIONAL COMPENSATION ALLOWED THE CONTRACTOR AS A RESULT.

SHOP DRAWINGS: SEE SECTION 105.02 OF THE STANDARD SPECIFICATIONS.

PARAPET SYSTEM: BUILD PARAPETS ACCORDING TO STANDARD DRAWING STD-1-1SS. THE PARAPETS SHALL BE FORMED AND CAST PLUMB, NOT PERPENDICULAR TO THE SLAB. THE DIMENSIONS AT THE TRAFFIC FACE SHALL BE KEPT CONSTANT, WITH VARIATION DUE TO CROSS-SLOPE ACCOMMODATED AT THE REAR FACE.

RIP-RAP: MACHINED RIP-RAP SHALL BE CLASS 'B' AND SHALL BE 3" TO 2'-3" IN SIZE, UNIFORMLY GRADED, IN ACCORDANCE WITH SECTION 709 OF THE STANDARD SPECIFICATIONS AND SHALL BE MEASURED AND PAID FOR UNDER ROADWAY ITEM NO. 709-05.08.

VALUE ENGINEERING ALTERNATE BRIDGE DESIGN CRITERIA: ALTERNATE BRIDGE DESIGN PROPOSALS MAY NOT DIMINISH THE FUNCTIONAL OR STRUCTURAL EQUIVALENCY OF THE BRIDGE AND MUST MEET OR EXCEED THE CAPACITIES OF THE CONTRACT PLANS STRUCTURE AT ALL LIMIT STATES IN AASHTO TABLE 3.4.1-1. ADDITIONALLY, THE WATERWAY OPENING AND FLOOD CLEARANCES MAY NOT BE REDUCED. FOR GRADE SEPARATIONS, THE HORIZONTAL CLEARANCES MAY NOT BE REDUCED, NOR MAY THE VERTICAL CLEARANCES BE LESS THAN THE MINIMUM ACCEPTABLE FOR THE TYPE FACILITY CROSSED.

REQUIREMENTS AND RESTRICTIONS FOR PHASE CONSTRUCTION

A. THE PHASE CONSTRUCTION SEQUENCE MAY PROHIBIT THE EXTRACTION OF SOME SHEET PILING. ALL COSTS ASSOCIATED WITH SHEET PILING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR OTHER ITEMS.

B. THE LOCATION OF LONGITUDINAL CONSTRUCTION JOINTS SHALL NOT BE CHANGED TO ACCOMMODATE STAY-IN-PLACE DECK FORMS.

C. NO SHEET PILES OR BEARING PILES MAY BE DRIVEN FROM THE EXISTING OR PROPOSED STRUCTURE.

D. TWO 12'-0" TRAFFIC LANES SHALL BE MAINTAINED AT ALL TIMES.

FINISHING CONCRETE SURFACES: CONCRETE FINISHING SHALL BE IN ACCORDANCE WITH SECTION 604.21 OF THE STANDARD SPECIFICATIONS. A CLASS I FINISH FOLLOWED BY AN APPLIED TEXTURE FINISH SHALL BE USED IN LIEU OF A CLASS II FINISH. NO TEXTURE FINISH SHALL BE APPLIED PRIOR TO COMPLETION OF PAVING AND HAULING OPERATIONS AT THE BRIDGE SITE. THE APPLIED TEXTURE FINISH SHALL BE MEASURED AND PAID FOR UNDER ITEM NO. 604-04.01.

CONSTRUCTION JOINTS: CONSTRUCTION JOINT SURFACE SHALL BE INTENTIONALLY ROUGHENED TO FULL AMPLITUDE OF 0.25 INCHES TO ENHANCE SHEAR TRANSFER. THE SURFACE SHOULD BE CLEAN AND FREE OF LAITANCE, WITH EXPOSED AGGREGATE BEFORE THE NEXT POUR.

PROJECT NO.	YEAR	SHEET NO.
STP/HPP-31(12)	2026	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
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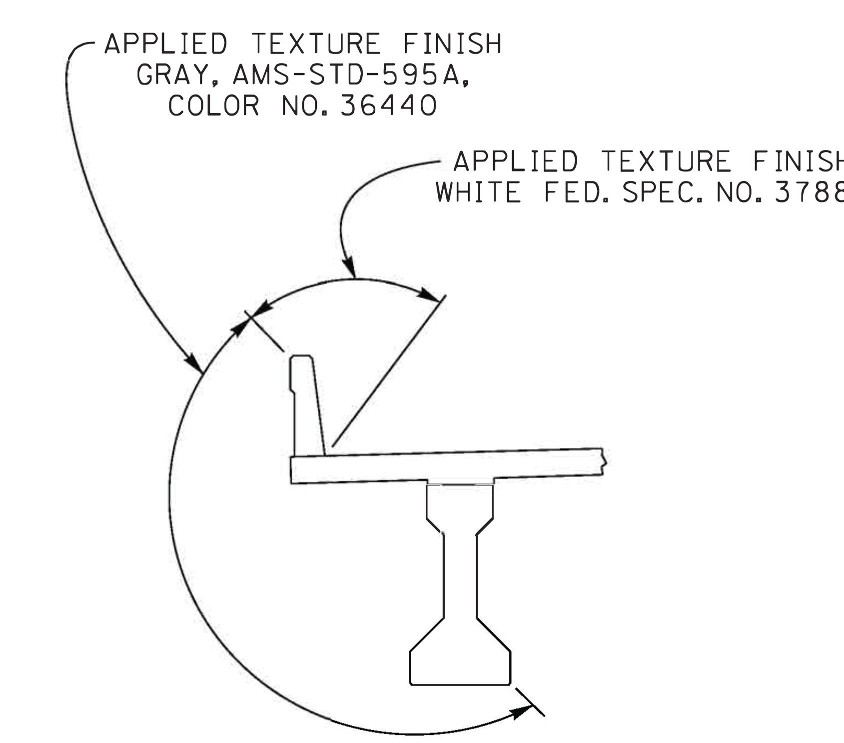
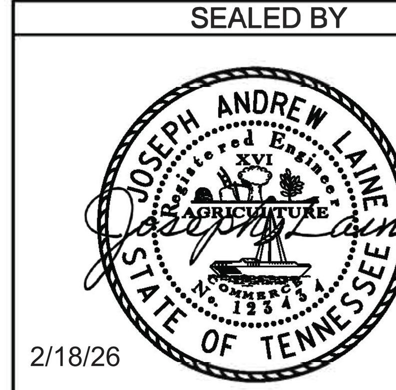


TYPICAL AT CANTILEVER

APPLIED TEXTURE FINISH SKETCH

NOTE: IN ADDITION TO THE SURFACES SHOWN IN THE APPLIED TEXTURE FINISH SKETCH ALL EXPOSED SURFACES OF THE WINGWALLS, ABUTMENTS, PIERS AND EXTERIOR PORTIONS OF ENDWALLS SHALL RECEIVE AN APPLIED TEXTURE FINISH (GRAY, AMS-STD-595A, COLOR NO. 36440).

SEALED BY



2/18/26

PIN NO.: 101394.00
DESIGN BY: J. LAINE DATE: 2-25
DRAWN BY: B. ERVIN DATE: 7-25
SUPERVISED BY: STEELE/J. SHOULDER DATE: 2-25
CHECKED BY: A. DAHIR DATE: 3-25

BRIDGE NO. 2
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
GENERAL NOTES
STATE ROUTE 31
OVER
POOR VALLEY CREEK
BRIDGE ID. NO. 37SR0310007
STATION 230+94.00
LOG MILE 4.17
HAWKINS COUNTY

U-101-20

10/23/2025 11:35:50 AM

PROJECT NO.	YEAR	SHEET NO.
STP/HPP-31(12)	2026	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
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ESTIMATED QUANTITIES

	ITEM NO.	DESCRIPTION	UNIT	TOTAL	SUPERSTRUCTURE	ABUT. NO. 1	PIER. NO. 1	PIER. NO. 2	ABUT. NO. 2
3	202-01.02	REMOVAL OF ASBESTOS	L.S.	1					
2	202-04.02	REMOVAL OF STRUCTURES (EXISTING BRIDGE NO. 37-SR031-00.07)	L.S.	1					
4	204-02.01	DRY EXCAVATION (BRIDGES)	C.Y.	361		115	18	113	115
4	204-03.01	WET EXCAVATION (BRIDGES)	C.Y.	98			49	49	
4	204-04.01	ROCK EXCAVATION (BRIDGES)	C.Y.	130			65	65	
	204-05	ROCK DRILLING (BRIDGES)	L.F.	120			60	60	
	204-10.02	FOUNDATION PREPARATION(BRIDGE NO. 2, PIER NO. 1, STA 230+68.21)	LS	1			1		
	204-10.03	FOUNDATION PREPARATION(BRIDGE NO. 2, PIER NO. 2, STA 231+19.79)	LS	1				1	
10	303-01.02	GRANULAR BACKFILL (BRIDGES)	TON	42		21			21
9	604-02.03	EPOXY COATED REINFORCING STEEL	LB.	75,434	70,382	2,526			2,526
13 8	604-03.01	CLASS A CONCRETE (BRIDGES)	C.Y.	351		66	110	109	66
9	604-03.02	STEEL BAR REINFORCEMENT (BRIDGES)	LB.	52,533	2,254	7,529	17,598	17,522	7,630
1	604-03.04	PAVEMENT @ BRIDGE ENDS	S.Y.	248		124			124
	604-03.09	CLASS D CONCRETE (BRIDGE DECK)	C.Y.	219	219				
	604-04.01	APPLIED TEXTURE FINISH (NEW STRUCTURES)	S.Y.	1,024	565	75	155	154	75
	604-05.31	BRIDGE DECK GROOVING (MECHANICAL)	S.Y.	827	827				
12	606-02.03	STEEL PILES (10 INCH)	L.F.	341		176			165
14	606-02.06	PILE TIPS (STEEL PILES, 10 INCH)	EA.	22		11			11
6	615-01.02	PRESTRESSED CONCRETE I-BEAM (TYPE II)	L.F.	902					
	617-02	BRIDGE DECK CRACK SEALING	L.F.	159					
11	617-05	SEALANT (HMWM)	GAL.	1					
5	620-05.01	CONC PARAPET SINGLE SLOPE (STD-1-1SS)	L.F.	376					
7	710-09.01	6" PERFORATED PIPE WITH VERTICAL DRAIN SYSTEM	L.F.	166		83			83
	710-09.02	6" PIPE UNDERDRAIN	L.F.	34		17			17

1 **NOTE:** PRIOR TO CONSTRUCTION OF THE PAVEMENT AT BRIDGE ENDS, THE CONTRACTOR SHALL SUBMIT A PROPOSED BILL OF STEEL TO THE ENGINEER FOR APPROVAL.

2 **NOTE:** LUMP SUM EXISTING BRIDGE NO. 37SR0310007 TO BE REMOVED CONSIST OF 5 SPANS CONCRETE DECK GIRDERS WITH A CONCRETE DECK AND SUBSTRUCTURE. TOTAL BRIDGE LENGTH = 157'-0" OUT-TO-OUT = 28'-6"

3 **NOTE:** SEE PROJECT COMMITMENTS AND SPECIAL PROVISION 202ACM.

4 **NOTE:** EXCAVATION BASED ON FINAL PROFILE AT ABUTMENTS AND EXISTING GROUND AT PIERS.

5 **NOTE:** COST OF 4 BRIDGE PARAPET DRAINS TO BE INCLUDED IN THE UNIT PRICE BID FOR THE PARAPET.

6 **NOTE:** COST OF ELASTOMERIC PADS AND RUBBER BONDING CEMENT TO BE INCLUDED IN THE UNIT PRICE BID FOR THE PRESTRESSED BEAM.

7 **NOTE:** COST OF POLYETHYLENE SHEETING AND ALL MISCELLANEOUS ITEMS NECESSARY FOR INSTALLATION TO BE INCLUDED IN THE UNIT PRICE BID FOR PERFORATED PIPE.

8 **NOTE:** THE COST OF ALL MATERIALS AND LABOR NECESSARY FOR THE INSTALLATION OF 6 ANCHOR BOLT ASSEMBLIES SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CLASS A CONCRETE (BRIDGES), ITEM NO. 604-03.01.

9 **NOTE:** MECHANICAL BAR SPLICERS MUST BE ON THE TDOT QUALIFIED PRODUCTS LIST 27. THE BAR SPLICERS SHALL MEET AASHTO LRFD SPECIFICATIONS FOR MECHANICAL CONNECTION. WHEN EPOXY COATING IS REQUIRED, THE EXPOSED THREADS SHALL BE REPAIRED AFTER SPLICING ACCORDING TO SECTION 907 OF THE STANDARD SPECIFICATIONS. THE COST OF FURNISHING THE BAR SPLICERS, (AND EPOXY COATING WHEN REQUIRED) INCLUDING ALL LABOR AND MATERIALS NECESSARY FOR COMPLETE INSTALLATION, SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM NO. 604-02.03 AND ITEM NO. 604-03.02.

10 **NOTE:** GRANULAR BACKFILL SHALL BE TYPE "A" GRADING "D" MATERIAL. SEE STANDARD DRAWING STD-10-1.

11 **NOTE:** INCLUDES ALL COSTS FOR INSTALLING THE BRIDGE DECK CRACK SEALER (HMWM) INCLUDING CRACK PREPARATION, CLEANING, LABOR, AND ALL MISCELLANEOUS MATERIALS REQUIRED TO SEAL THE LONGITUDINAL CONSTRUCTION JOINT ACCORDING TO SPECIAL PROVISION 604CR AND MANUFACTURERS' SPECIFICATIONS. CRACK SEALING SHALL BE DONE AT THE END OF CONSTRUCTION TO ALLOW SHRINKAGE OF DECK CONCRETE CAUSING THE CRACK TO OCCUR.

12 **NOTE:** THE COST OF CORRUGATED PIPE TO PROTECT THE PILES DURING GSR FILL INSTALLATION AT ABUTMENT 1 SHALL BE INCLUDED IN THE UNIT BID PRICE FOR THE PILES. SEE BRIDGE FOUNDATION REPORT FOR MORE INFORMATION.

13 **NOTE:** THE COST OF CONSTRUCTION JOINT ROUGHENING TO BE INCLUDED IN THE COST FOR CLASS "A" CONCRETE. SEE GENERAL NOTES FOR MORE INFORMATION.

14 **NOTE:** THE UNIT PRICE BID FOR THE CAST STEEL POINTS SHALL INCLUDE FURNISHING AND INSTALLATION TO THE PILES.

SEALED BY

2/18/26

BRIDGE NO. 2

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ESTIMATED QUANTITIES
STATE ROUTE 31
OVER
POOR VALLEY CREEK
BRIDGE ID. NO. 37SR0310007
STATION 230+94.00
LOG MILE 4.17
HAWKINS COUNTY

PIN NO.:	101394.00		
DESIGN BY:	J. LAINE	DATE:	2-25
DRAWN BY:	B. ERVIN	DATE:	3-25
SUPERVISED BY:	STEELE/J. SHOULDER	DATE:	2-25
CHECKED BY:	A. DAHIR	DATE:	3-25

10/23/2025 11:32:31 AM

U-101-21

PROJECT NO.	YEAR	SHEET NO.
STP/HPP-31(12)	2026	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
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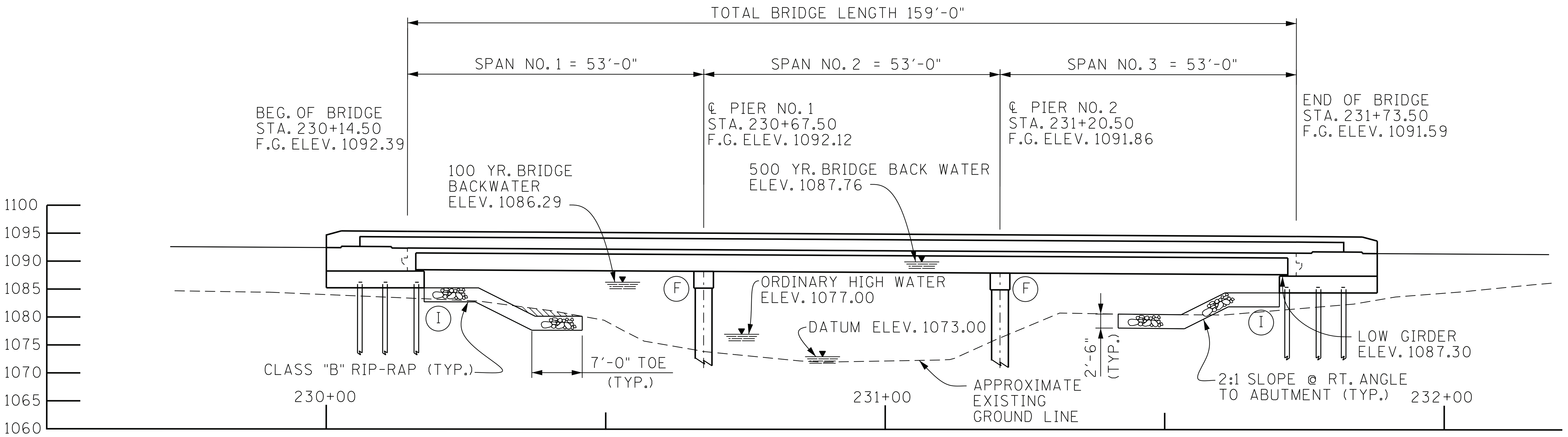


(I) DENOTES: INTEGRAL

(F) DENOTES: FIXED

DENOTES AREA TO BE EXCAVATED AND PAID FOR AS A ROADWAY ITEM.

ELEVATION

(SCALE 1" = 15'-0")

Boring No.	Station	Offset	Ground Elevation (ft)	Refusal Elevation (ft)	Total Depth (ft)
1	230+15.4	13.5' RT	1082.6	1072.5	31.0
2	230+26.9	15.6' LT	1084.1	1072.2	31.3
3	231+60.4	19.5' LT	1079.4	1070.7	25.5
4	231+47.7	7.8' LT	1080.1	1071.4	26.3
5	231+30.9	7.7' RT	1081.0	1071.9	31.6

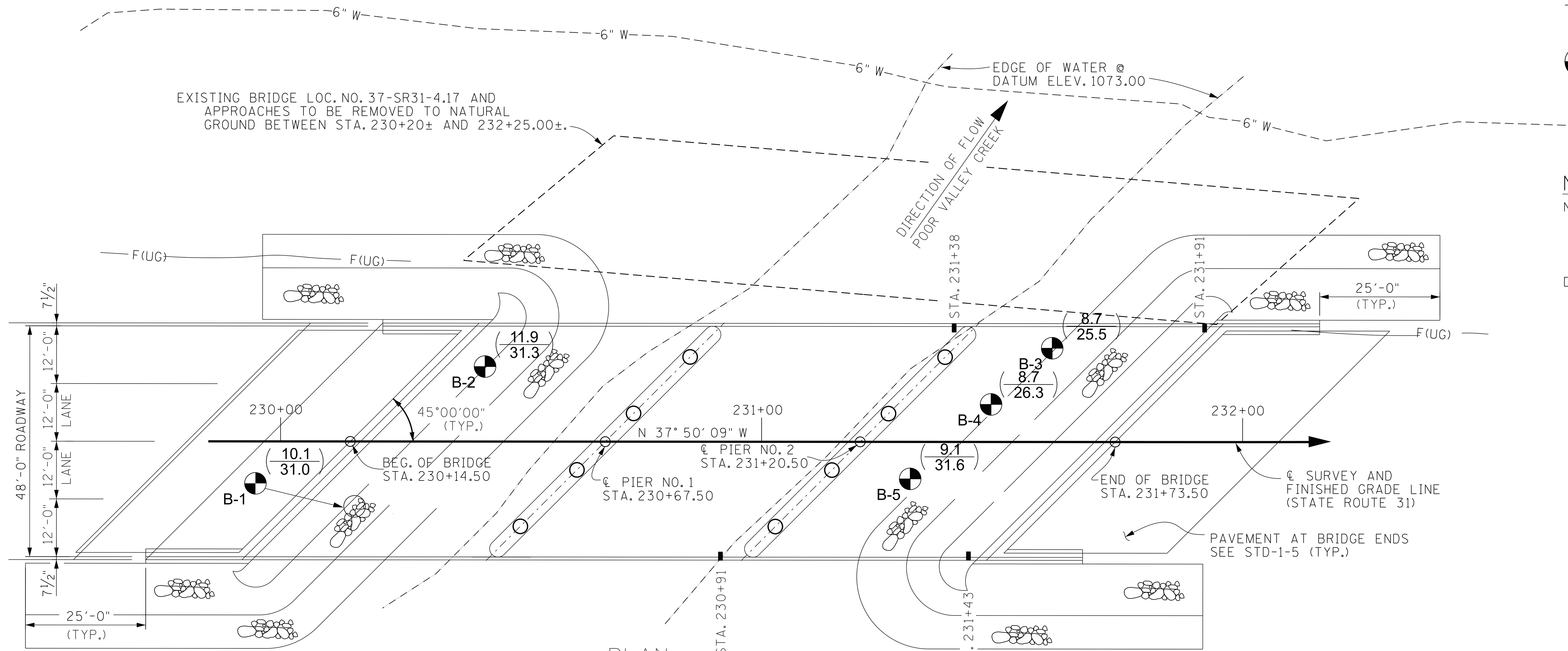
LEGEND

(24.5' / 70.3') BORING LOCATION. DEPTH TO REFUSAL (ABOVE LINE), BOTTOM OF HOLE (BELOW LINE)

NOTES:

NOTE: A PORTION OF EXISTING STRUCTURE SHALL BE REMOVED AND TRAFFIC SHALL BE MAINTAINED ON EXISTING BRIDGE STRUCTURE DURING CONSTRUCTION OF NEW BRIDGE. TEMPORARY SHORING MIGHT BE REQUIRED AT END OF BRIDGE ABUTMENT.

DESIGN SPECIFICATIONS: 9TH EDITION (2020) AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS AND 2ND EDITION (2011) AASHTO GUIDE SPECIFICATIONS FOR LRFD SEISMIC BRIDGE DESIGN WITH INTERIMS. SEISMIC CATEGORY "A" WITH AS = 0.162, SDS = 0.301, SD1 = 0.111, (1000 YEAR RETURN PERIOD).



PLAN

(SCALE 1" = 15'-0")

THIS DRAWING IS FOR FOUNDATION DATA ONLY AND IS NOT TO BE USED AS A LAYOUT.

PIN NO.:	101394.00		
DESIGN BY:	J. LAINE	DATE:	2-25
DRAWN BY:	JERRY W. SIMPSON	DATE:	3-24
SUPERVISED BY:	STEELE/J. SHOULDER	DATE:	2-25
CHECKED BY:	A. DAHIR	DATE:	3-25

CORRECT Ted A Kniazewycz
ENGINEER OF STRUCTURES

BRIDGE NO. 2

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

FOUNDATION DATA
STATE ROUTE 31
OVER
POOR VALLEY CREEK
BRIDGE ID. NO. 37SR0310007
STATION 230+94.00
LOG MILE 4.17
HAWKINS COUNTY

U-101-22

10/24/2025 7:56:19 AM

PROJECT NO.	YEAR	SHEET NO.
STP/HPP-31(12)	2026	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
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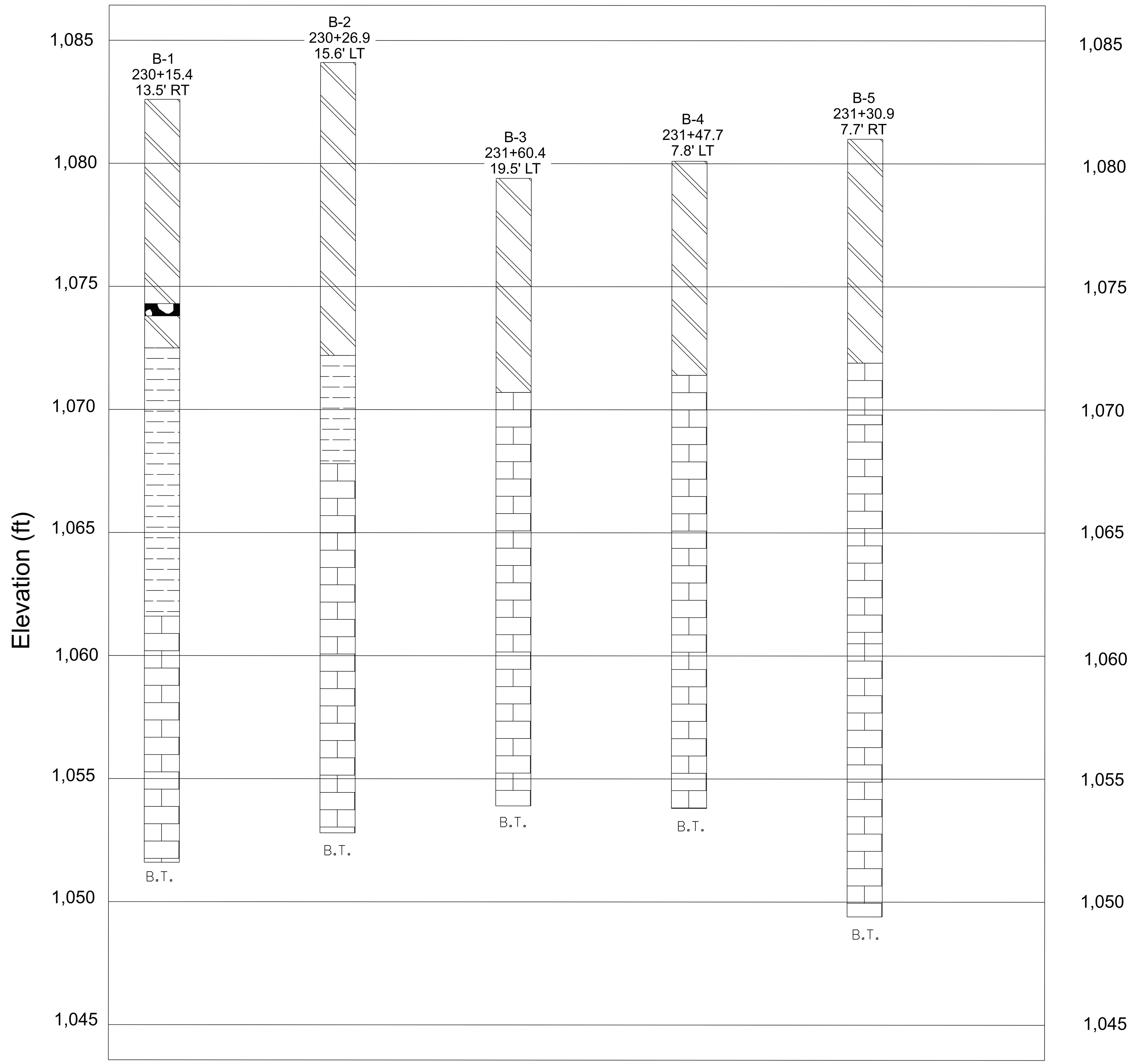

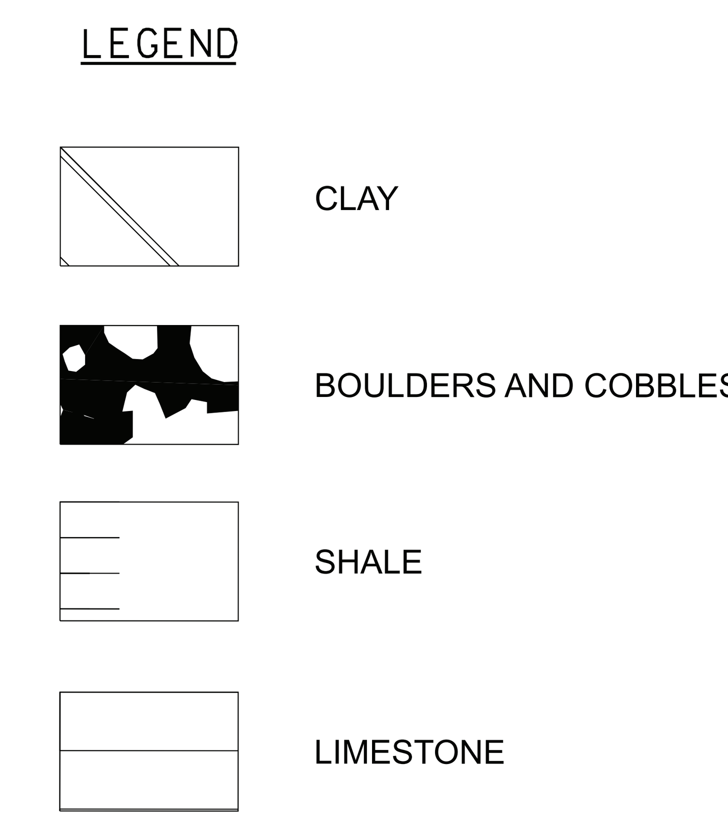

TYPE MATERIAL-SEE DEFINITION OF EARTHWORK TERMS ON NOTES AND GEOTECHNICAL EST. QTYS. SHEET.
B.T.= BORING TERMINATED
REF.= AUGER REFUSAL

BRIDGE NO. 2
STATE OF TENNESSEE
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FOUNDATION DATA
STATE ROUTE 31
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CORRECT Ted A. Kniazewycz
ENGINEER OF STRUCTURES

U-101-23

PIN NO.: 101394.00
DESIGN BY: J. LAINE DATE: 2-25
DRAWN BY: JERRY W. SIMPSON DATE: 3-24
SUPERVISED BY: STEELE/J. SHOULDER DATE: 2-25
CHECKED BY: A. DAHIR DATE: 3-25

10/24/2025 8:05:44 AM

PROJECT NO.	YEAR	SHEET NO.
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REVISIONS

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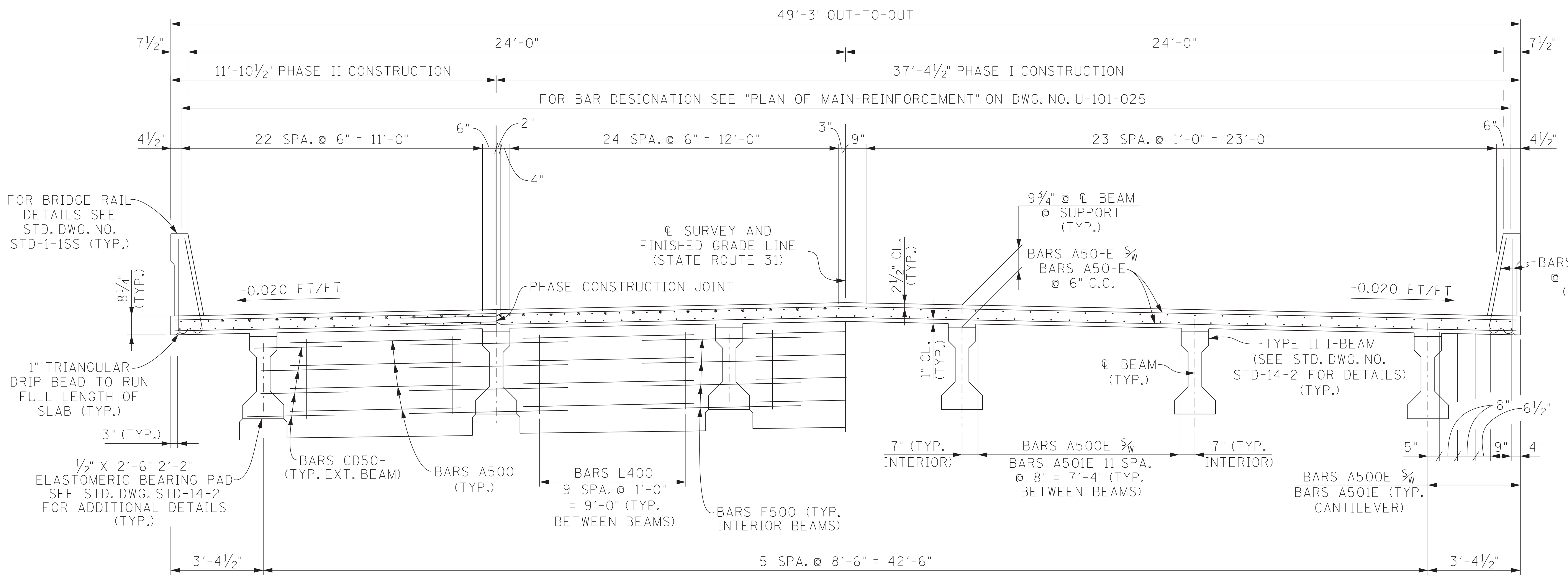


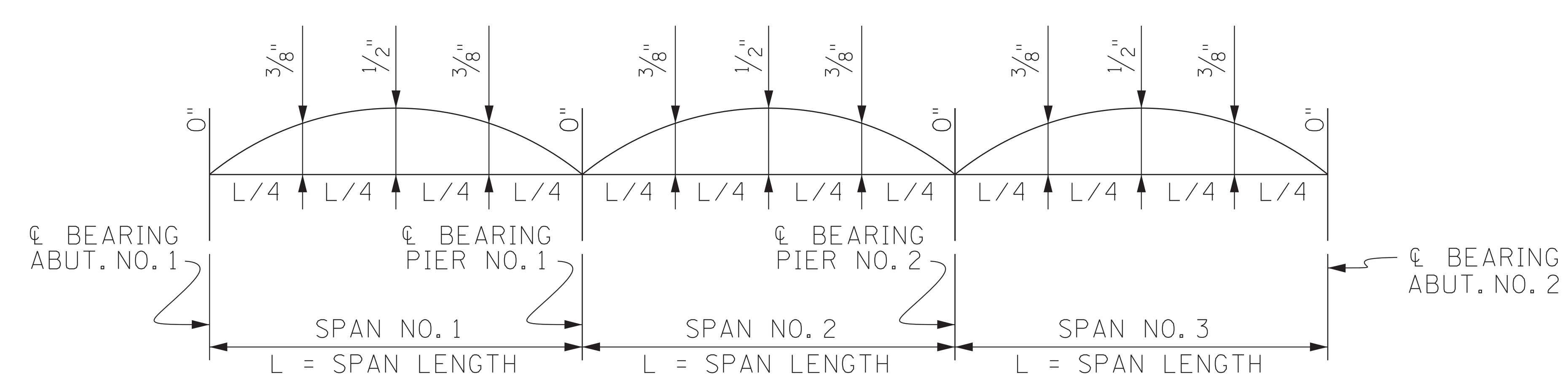
TYPICAL CROSS-SECTION

NOTE: NO PORTION OF THE PARAPETS SHALL BE POURED UNTIL THE ENTIRE DECK SLAB IS IN PLACE UNLESS REQUIRED FOR PHASE CONSTRUCTION.

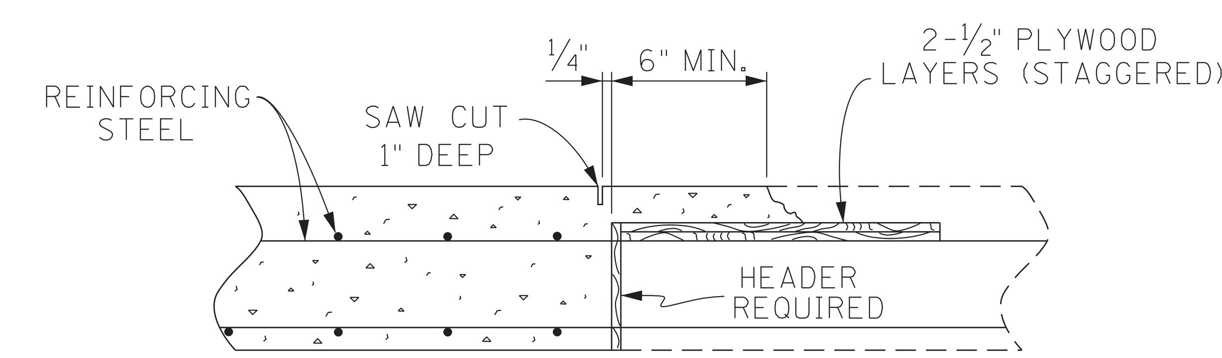
NOTE: THE OUTSIDE EDGE OF SLAB AND PARAPET TO CONFORM TO HORIZONTAL CURVE.

NOTE: WHEN POURING SLAB, PROVISIONS SHALL BE MADE FOR SETTING REINFORCING STEEL FOR PARAPET. THE PARAPET SHALL NOT BE POURED UNTIL THE SLAB IS POURED AND CURED. ALSO SEE STD. DWG. NO. STD-1-1SS.

NOTE: THE CONTRACTOR IS SOLELY RESPONSIBLE FOR SUPPORTING THE BEAMS TO PREVENT DAMAGE DUE TO TWISTING OR OVERTURNING DURING ALL PHASES OF CONSTRUCTION. WHILE IT IS STRONGLY RECOMMENDED THAT THE TEMPORARY ERECTION DIAPHRAGMS BE INSTALLED PRIOR TO PLACING ANY LOADS ON THE BEAMS, IT IS REQUIRED THAT ALL TEMPORARY ERECTION DIAPHRAGMS IN A SPAN BE FULLY INSTALLED PRIOR TO POURING ANY PORTION OF THE SLAB IN THAT SPAN.



DEAD LOAD CORRECTION CURVE



SLAB CONSTRUCTION JOINT DETAIL

DECK CONCRETE POURING SEQUENCE: SLAB CONSTRUCTION JOINTS MAY BE LOCATED AT THE CONTRACTOR'S OPTION SUBJECT TO THE FOLLOWING:
1. NO CONSTRUCTION JOINT MAY BE LOCATED CLOSER THAN 10 FEET OR FURTHER THAN 15 FEET FROM AN INTERIOR SUPPORT.
2. THE SLAB IN THE MIDDLE SECTION OF BOTH ADJACENT SPANS MUST BE POURED TO WITHIN AT LEAST 15 FEET OF THE SUPPORTS EITHER PRIOR TO OR CONCURRENTLY WITH THE SLAB OVER AN INTERIOR SUPPORT.
3. ALL SLAB CONSTRUCTION JOINTS SHALL BE IN ACCORDANCE WITH THE SLAB CONSTRUCTION JOINT DETAILS SHOWN ON THIS SHEET.

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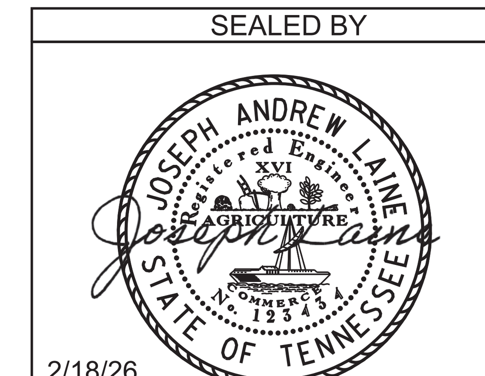

2/18/26

BRIDGE NO. 2
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
SUPERSTRUCTURE
STATE ROUTE 31
OVER
POOR VALLEY CREEK
BRIDGE ID. NO. 37SR0310007
STATION 230+94.00
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HAWKINS COUNTY

PIN NO.:	101394.00		
DESIGN BY:	J. LAINE	DATE:	2-25
DRAWN BY:	C. STAPLER	DATE:	3-25
SUPERVISED BY:	STEELE/J. SHOULDER	DATE:	2-25
CHECKED BY:	A. DAHIR	DATE:	3-25

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U-101-24

PROJECT NO.	YEAR	SHEET NO.
STP/HPP-31(12)	2026	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
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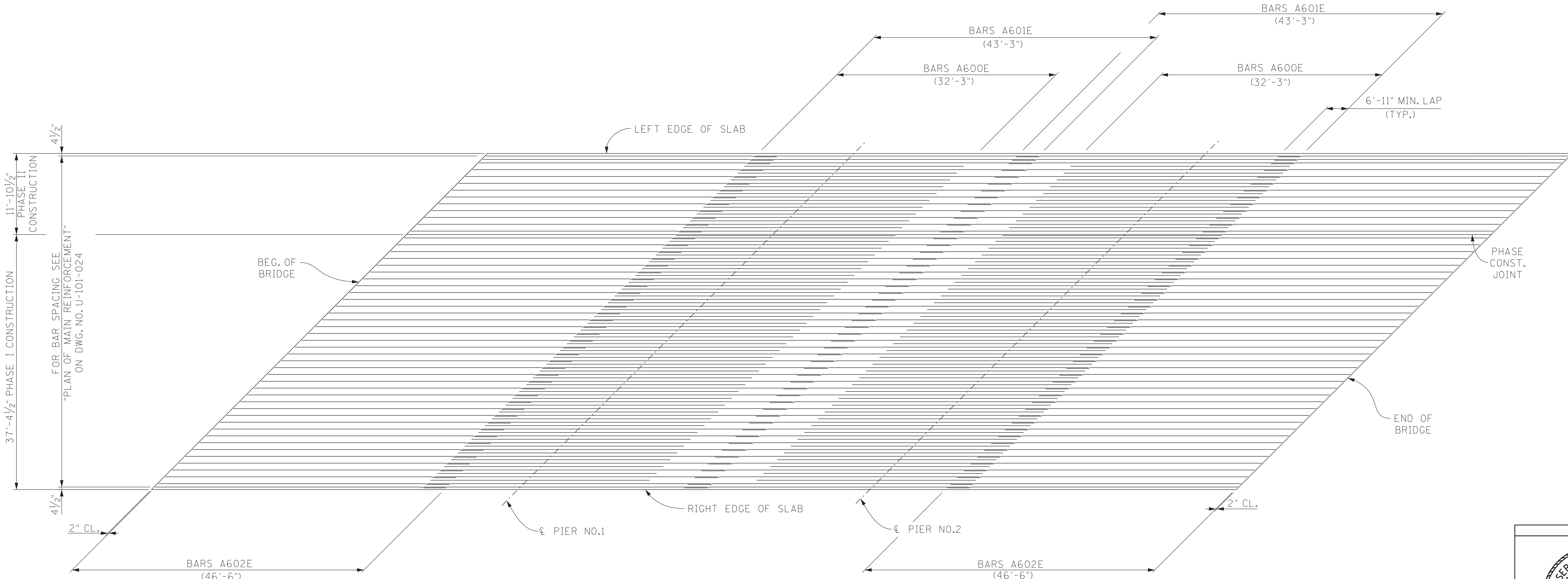

PLAN OF MAIN REINFORCEMENT

SEALED BY

JOSEPH ANDREW LAINE
STATE OF TENNESSEE

2/18/26

BRIDGE NO. 2

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS
STATE ROUTE 31
OVER
POOR VALLEY CREEK
BRIDGE ID. NO. 37SR0310007
STATION 230+94.00
LOG MILE 4.17
HAWKINS COUNTY

U-101-25

PIN NO.:	101394.00		
DESIGN BY:	J. LAINE	DATE:	2-25
DRAWN BY:	C. STAPLER	DATE:	3-25
SUPERVISED BY:	STEELE/J. SHOULDER	DATE:	2-25
CHECKED BY:	A. DAHIR	DATE:	3-25

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PROJECT NO.	YEAR	SHEET NO.
STP/HPP-31(12)	2026	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
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	- -		
	- -		

SLAB PLAN

(SHOWING BOTTOM OF SLAB UNLESS NOTED OTHERWISE)

SEALED BY

2/18/26

BRIDGE NO. 2

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS
STATE ROUTE 31
OVER
POOR VALLEY CREEK
BRIDGE ID. NO. 37SR0310007
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PIN NO.: 101394.00
DESIGN BY: J. LAINE DATE: 2-25
DRAWN BY: C. STAPLER DATE: 3-25
SUPERVISED BY: STEELE/J. SHOULDER DATE: 2-25
CHECKED BY: A. DAHIR DATE: 3-25

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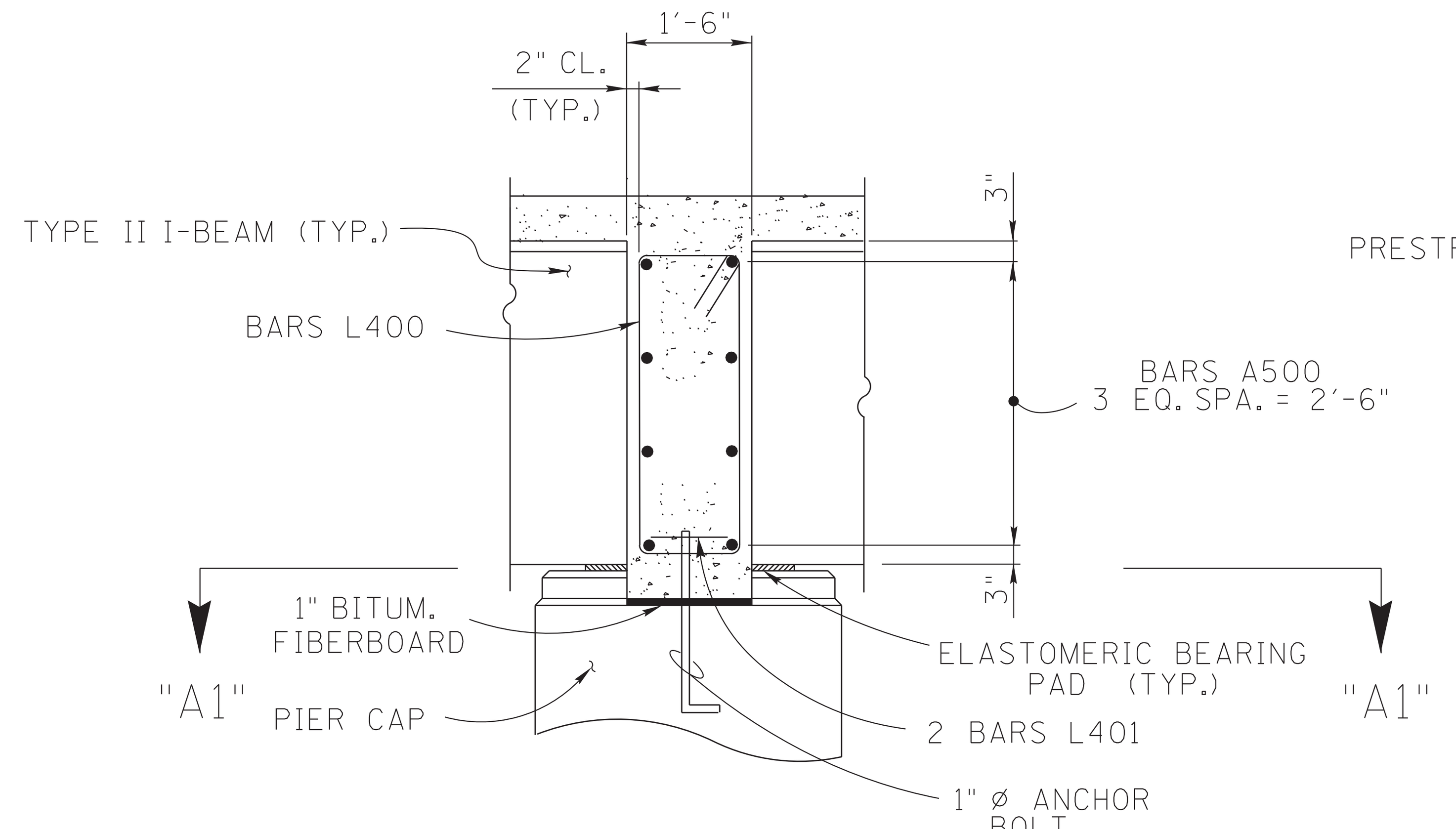
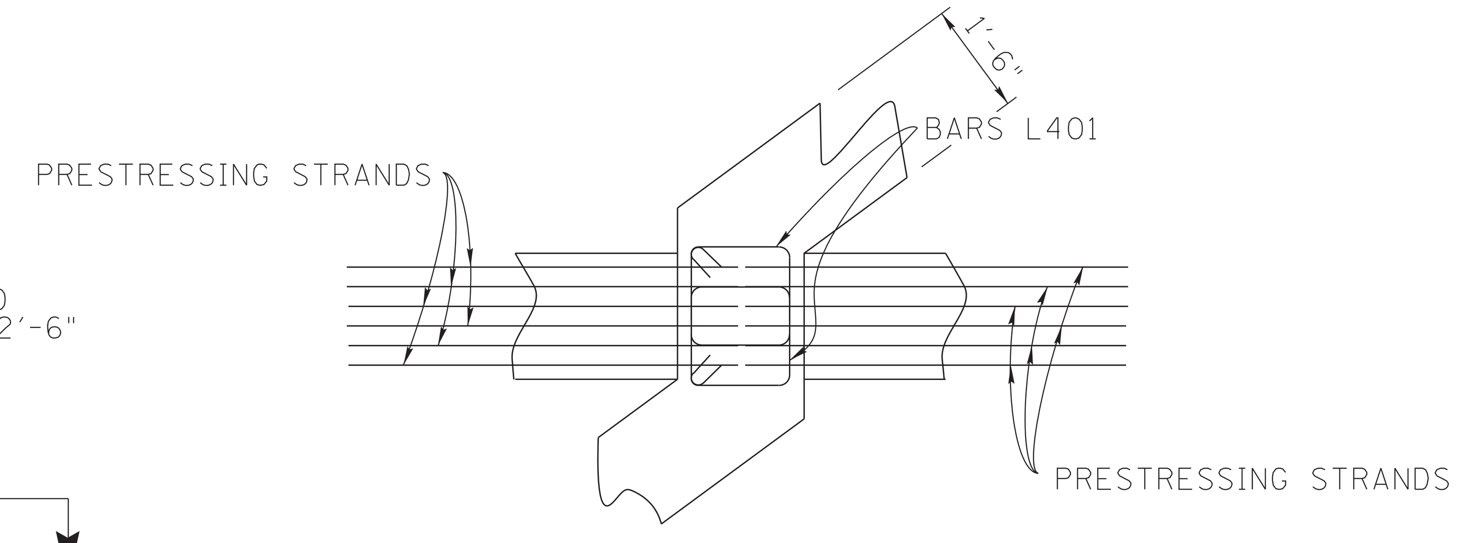
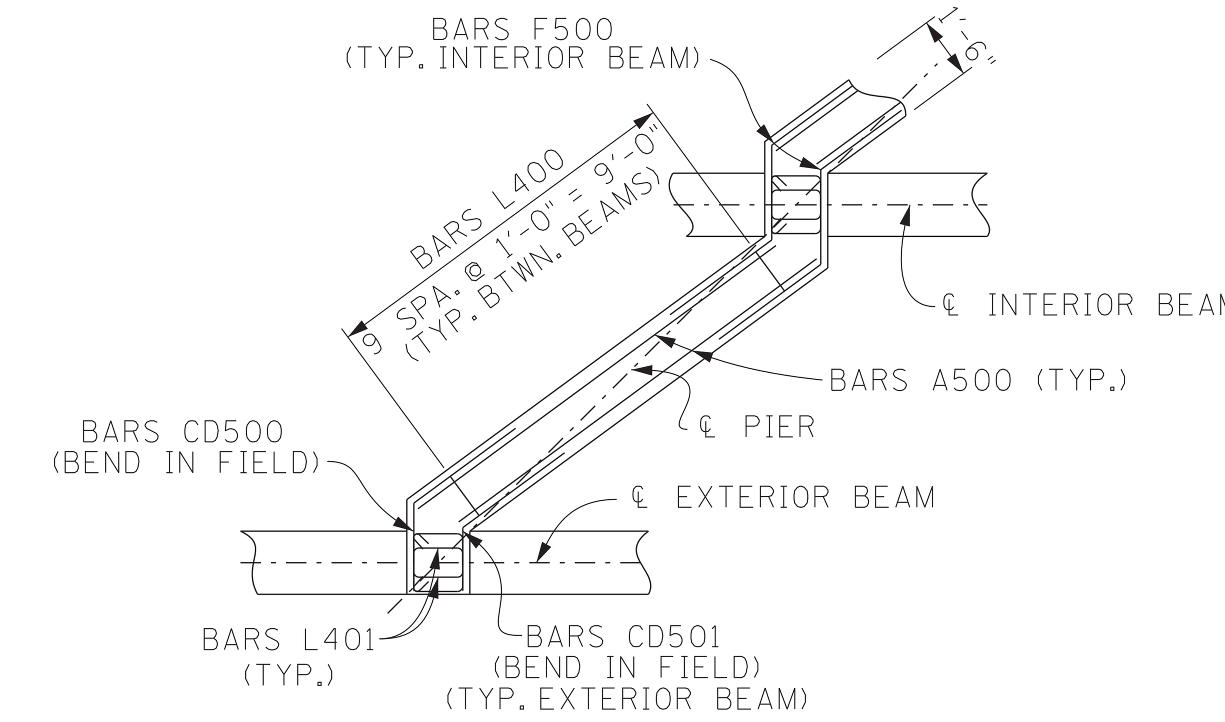
U-101-26



SECTION "A"-"A"



SECTION "A1"-"A1"



PARTIAL PLAN OF DIAPHRAGM

PROJECT NO.	YEAR	SHEET NO.
STP/HPP-31(12)	2026	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
	- -		
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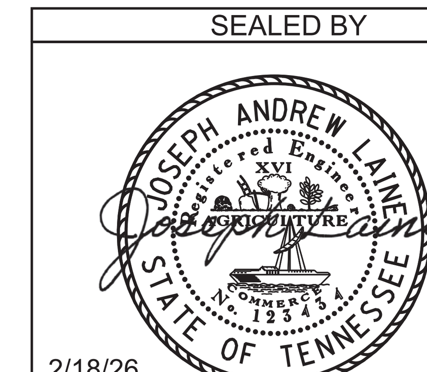
	- -		

NOTE: THE SUPPORT DIAPHRAGMS AT THE PIERS SHALL BE FORMED AND THE BOTTOM 15" POURED AS SOON AS POSSIBLE AFTER THE BEAMS HAVE BEEN SET. THE REMAINDER OF THE DIAPHRAGMS SHALL BE POURED CONCURRENTLY WITH THE DECK SLAB. THE BEAMS SHALL ATTAIN AN AGE OF AT LEAST 90 DAYS PRIOR TO POURING THE REMAINDER OF THE SUPPORT DIAPHRAGMS AND DECK SLAB. ALL DIAPHRAGM CONCRETE SHALL BE INCLUDED IN THE QUANTITY FOR CLASS D CONCRETE.

ANCHOR BOLTS AT PIERS: ANCHOR BOLT ASSEMBLIES AT PIERS SHALL BE IN ACCORDANCE WITH STANDARD DRAWING STD-6-1.

FRAMING PLAN

SEALED BY



2/18/26

BRIDGE NO. 2
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
SUPERSTRUCTURE DETAILS
STATE ROUTE 31
OVER
POOR VALLEY CREEK
BRIDGE ID. NO. 37SR0310007
STATION 230+94.00
LOG MILE 4.17
HAWKINS COUNTY

PIN NO.: 101394.00
DESIGN BY: J. LAINE DATE: 2-25
DRAWN BY: C. STAPLER DATE: 3-25
SUPERVISED BY: STEELE/J. SHOULDER DATE: 2-25
CHECKED BY: A. DAHIR DATE: 3-25

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REVISIONS

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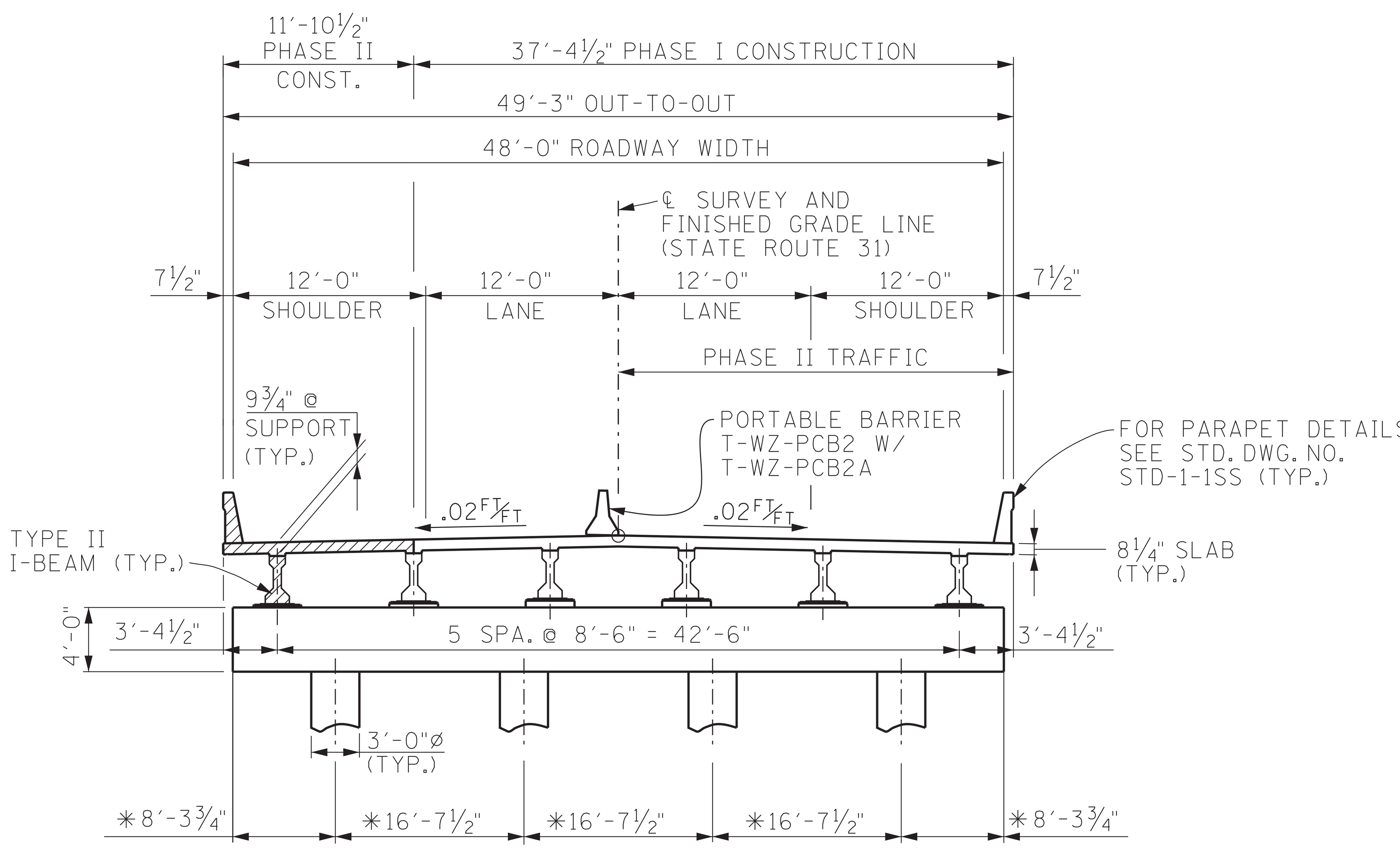
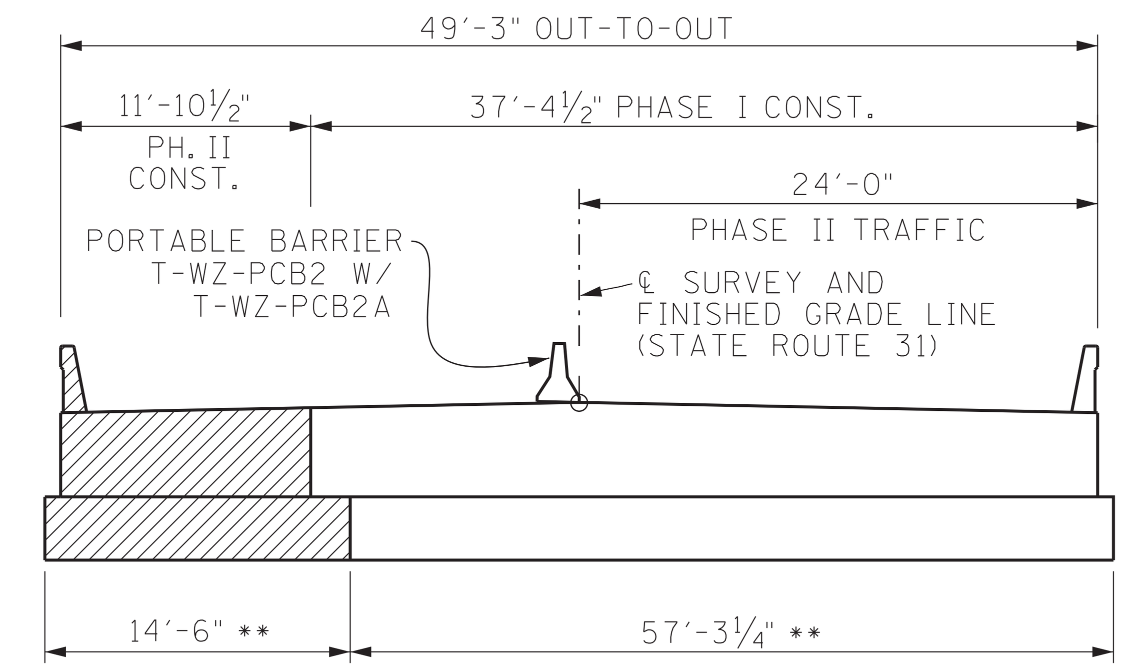


TYPICAL CROSS-SECTION

(LOOKING FORWARD ON SURVEY)

✱ DENOTES: MEASURED ALONG ℄ PIER.

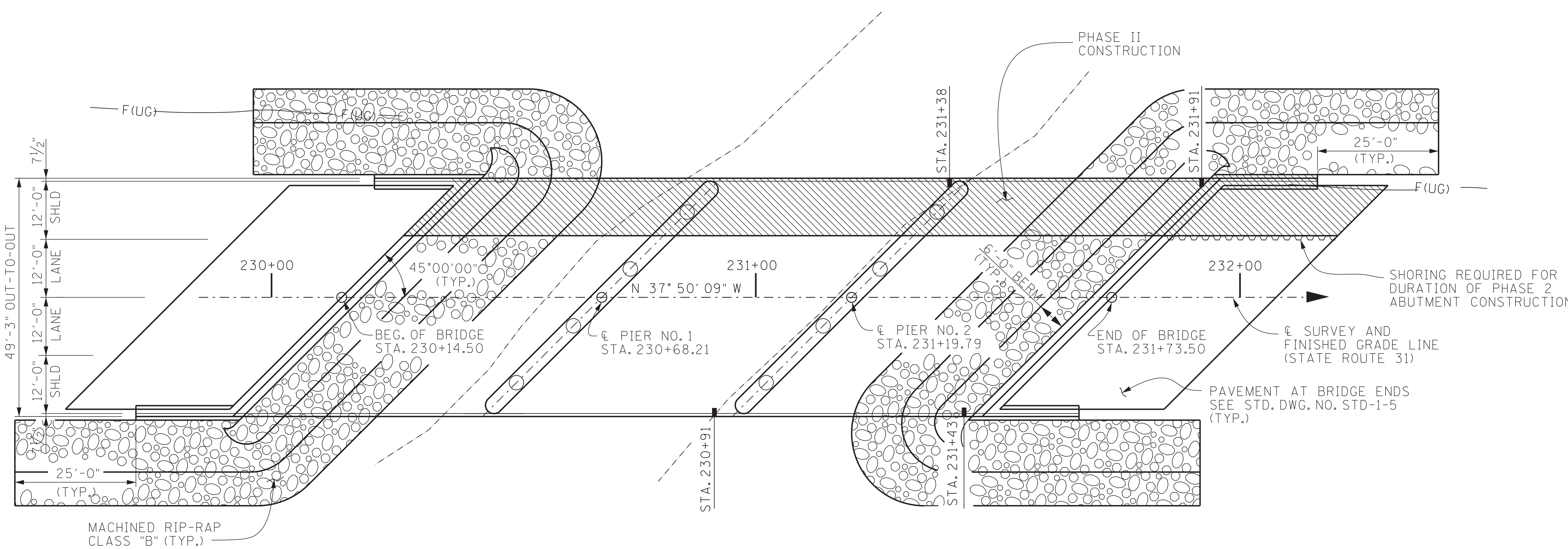


✱✱ DENOTES: MEASURED ALONG THE SKEW.

ELEVATION VIEW @ ABUT. NO. 2

(LOOKING FORWARD ON SURVEY)

DENOTES: PHASE II CONSTRUCTION



PHASE 2 CONSTRUCTION CONCEPT

SEALED BY

JOSEPH ANDREW LAINE STATE OF TENNESSEE

2/18/26

BRIDGE NO. 2

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PHASE CONSTRUCTION DETAILS
STATE ROUTE 31
OVER
POOR VALLEY CREEK
BRIDGE ID. NO. 37SR0310007
STATION 230+94.00
LOG MILE 4.17
HAWKINS COUNTY

PIN NO.:	101394.00		
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DRAWN BY:	C. STAPLER	DATE:	3-25
SUPERVISED BY:	STEELE/J. SHOULDER	DATE:	2-25
CHECKED BY:	A. DAHIR	DATE:	3-25

U-101-28

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PROJECT NO.	YEAR	SHEET NO.
STP/HPP-31(12)	2026	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
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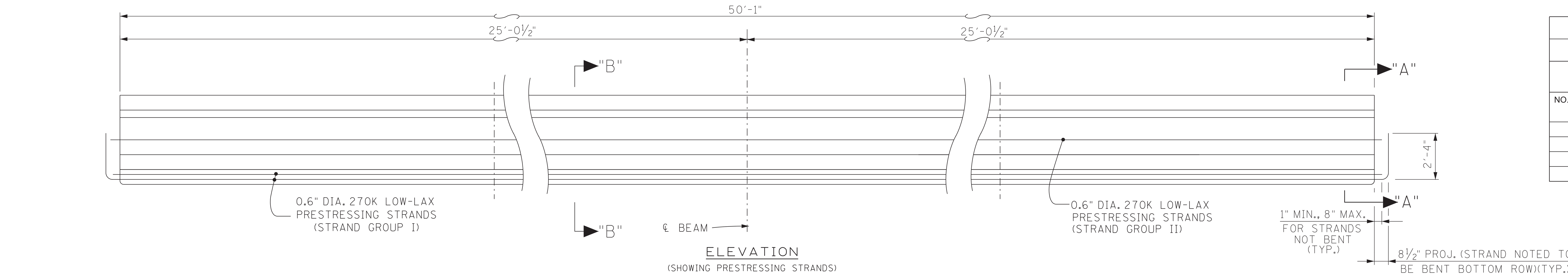
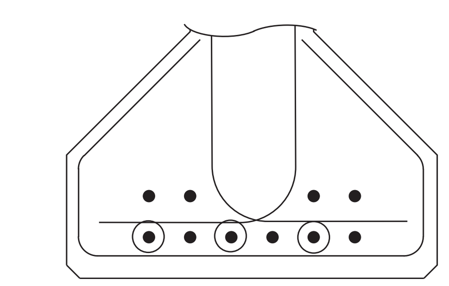
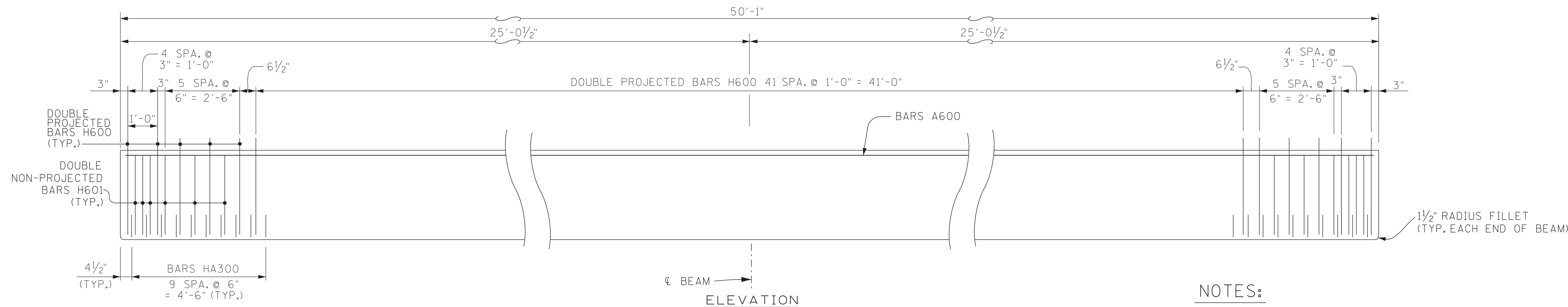


ELEVATION
(SHOWING PRESTRESSING STRANDS)



BENT STRANDS DETAIL

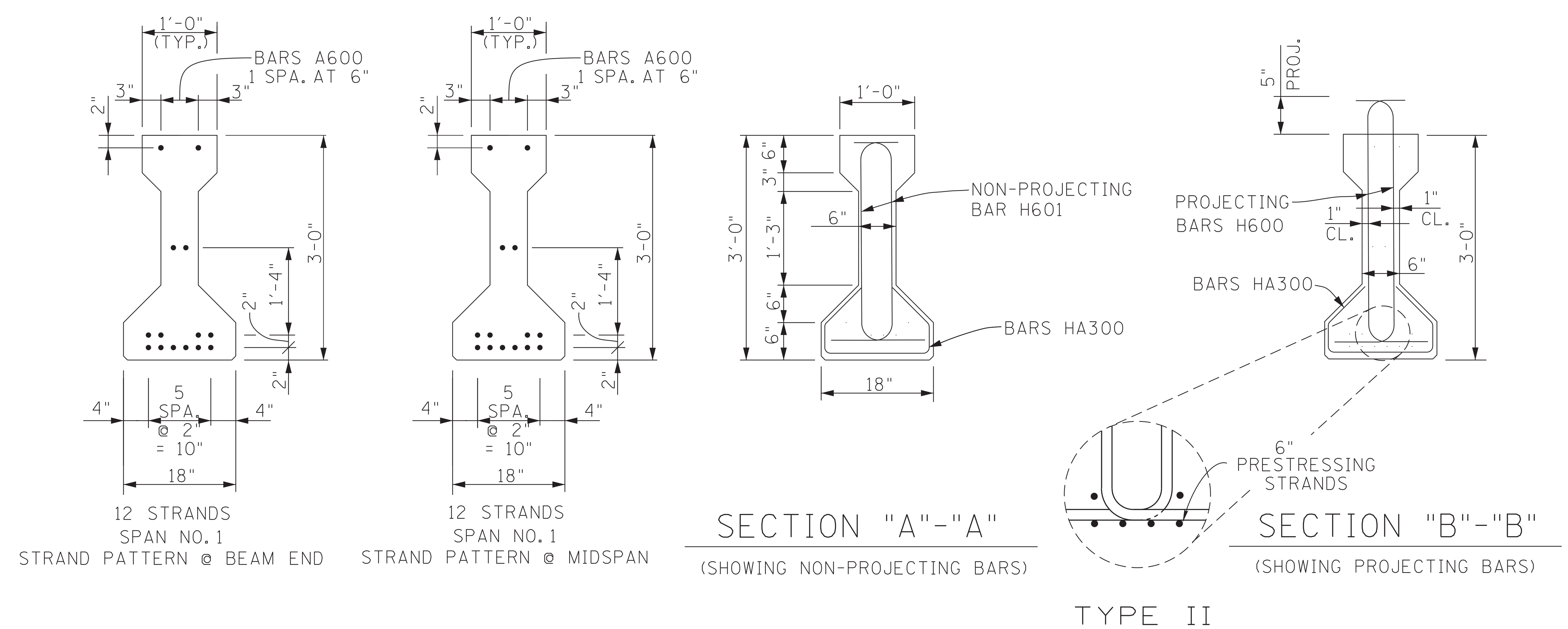
⦿ DENOTES: STRANDS TO BE BENT



ELEVATION
(SHOWING REINFORCING STEEL)

BILL OF STEEL

BAR	SIZE	NO. REQ'D.	LENGTH
A500	5	6	5'-6"
A600	6	2	49'-9"
H600	6	104	4'-4"
H601	6	24	3'-8"
HA300	3	20	3'-5"



NOTES:

NOTE: SEE STD-14-2 FOR I-BEAM STANDARD DETAILS, NOTES AND REINFORCING.

NOTE: ALL BEAMS ARE AASHTO - PCI STANDARD TYPE II.

NOTE: THE PRESTRESSED BEAMS SHALL ATTAIN AN AGE OF AT LEAST 90 DAYS PRIOR TO POURING THE SUPPORT DIAPHRAGMS (EXCLUDING BOTTOM 15") AND DECK SLAB.

NOTE: THE CONCRETE FOR THIS CONSTRUCTION SHALL BE OF SUCH PROPERTIES AS TO ATTAIN A COMPRESSIVE STRENGTH OF NOT LESS THAN 8,000 PSI AT THE AGE OF 28 DAYS AND STRESS TRANSFER SHALL NOT BE MADE TO THE BRIDGE MEMBER UNTIL THE TEST SPECIMENS INDICATE THAT THE CONCRETE HAS REACHED A COMPRESSIVE STRENGTH OF AT LEAST 6,000 PSI. SEE GENERAL NOTES FOR CONCRETE FINISHING NOTE.

NOTE: DOWNWARD DEFLECTION UNDER TOTAL DL IS NOT ALLOWED.

PRESTRESSING STRANDS: ALL STRANDS SHALL BE 6/10" DIAMETER, UNCOATED 7- WIRE STRANDS, ASTM A416 GRADE 270, LOW-LAX, A = 0.217 SQ. IN. PULLED TO 43,943 LBS. PER STRAND UNLESS OTHERWISE NOTED.

PRESTRESSED BEAM DESIGN DATA (PER BEAM):

LIVE LOAD DISTRIBUTION FACTOR: MOMENT = 0.80 LANES
SHEAR = 1.03 LANES

COMPOSITE DEAD LOAD: DC = 130 LB/FT
DW = 274 LB/FT

COMPOSITE SLAB DESIGN STRENGTH: F 'C = 4,000 PSI

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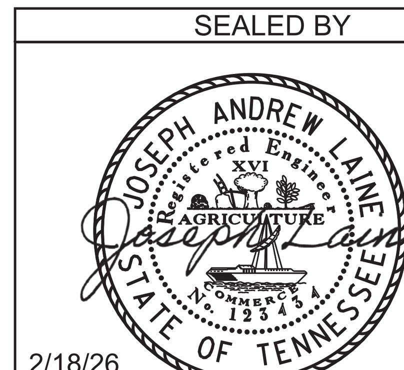

2/18/26

ESTIMATED QUANTITIES - PER BEAM

NO. OF BEAMS	PRESTRESSING STRANDS (LOW RELAXATION) LB.	CLASS "A" CONCRETE C.Y.	REINFORCING STEEL LB.
6	467	4.8	1,019

PIN NO.: 101394.00
DESIGN BY: J. LAINE DATE: 2-25
DRAWN BY: JERRY W. SIMPSON DATE: 2-25
SUPERVISED BY: STEELE/J. SHOULDER DATE: 2-25
CHECKED BY: A. DAHIR DATE: 3-25

BRIDGE NO. 2
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESTRESSED I-BEAM DETAILS
SPAN NO. 1
STATE ROUTE 31
OVER
POOR VALLEY CREEK
BRIDGE ID. NO. 37SR0310007
STATION 230+94.00
LOG MILE 4.17
HAWKINS COUNTY

U-101-29

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PROJECT NO.	YEAR	SHEET NO.
STP/HPP-31(12)	2026	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
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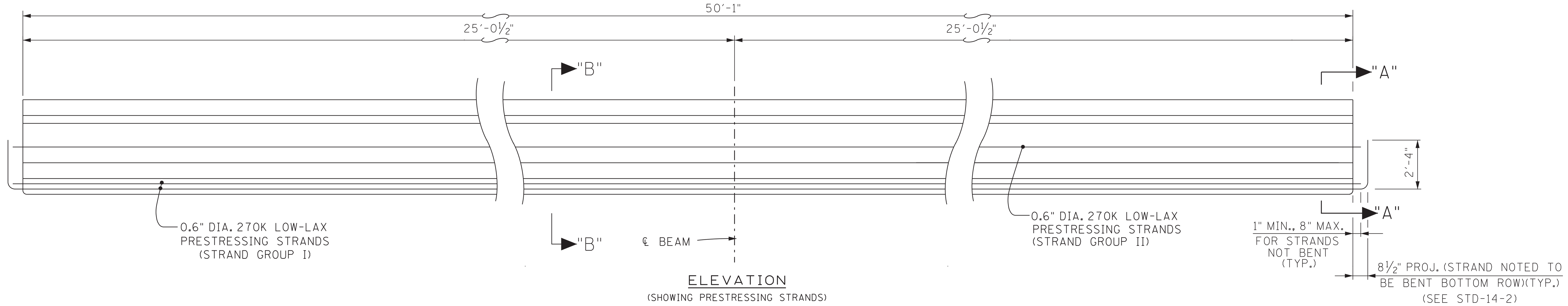
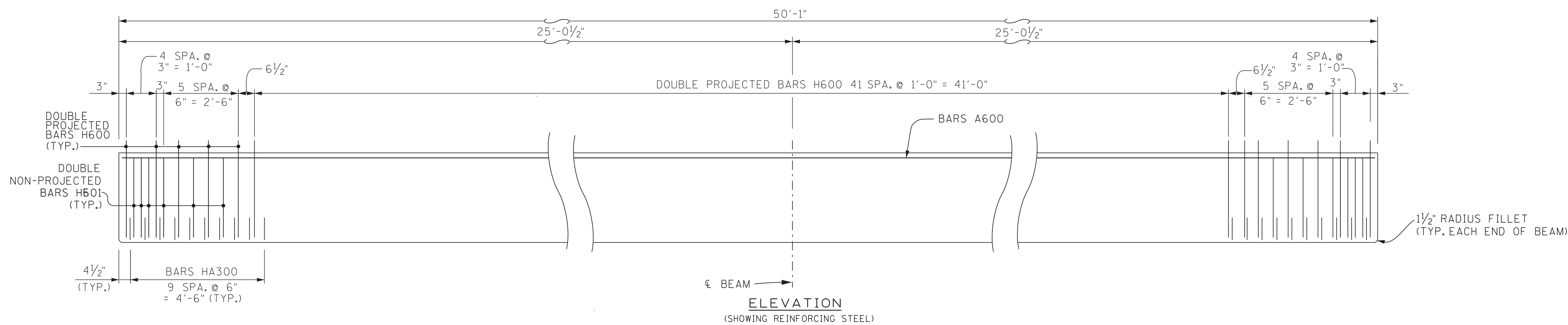
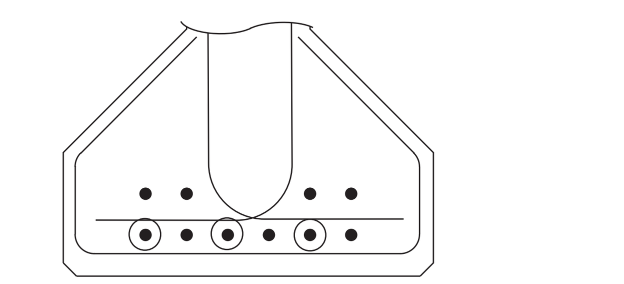


ELEVATION
(SHOWING PRESTRESSING STRANDS)



ELEVATION
(SHOWING REINFORCING STEEL)



BENT STRANDS DETAIL

⦿ DENOTES: STRANDS TO BE BENT

BILL OF STEEL

BAR	SIZE	NO. REQ'D.	LENGTH
A500	5	6	5'-6"
A600	6	2	49'-9"
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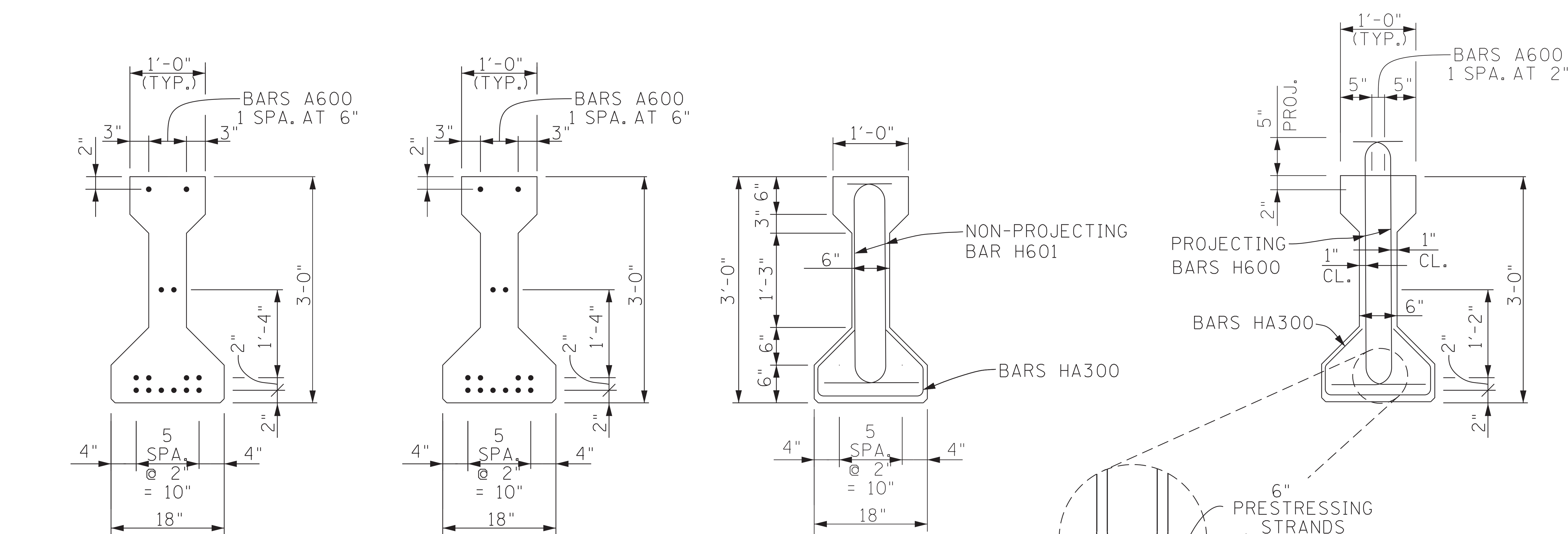

12 STRANDS
SPAN NO. 2
STRAND PATTERN @ BEAM END

12 STRANDS
SPAN NO. 2
STRAND PATTERN @ MIDSPAN

SECTION "A"-"A"
(SHOWING NON-PROJECTING BARS)

SECTION "B"-"B"
(SHOWING PROJECTING BARS)

TYPE II

NOTES:

NOTE: SEE STD-14-2 FOR I-BEAM STANDARD DETAILS, NOTES AND REINFORCING.

NOTE: ALL BEAMS ARE AASHTO - PCI STANDARD TYPE II.

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PRESTRESSED BEAM DESIGN DATA (PER BEAM):

LIVE LOAD DISTRIBUTION FACTOR: MOMENT = 0.80 LANES
SHEAR = 1.03 LANES

COMPOSITE DEAD LOAD: DC = 130 LB/FT
DW = 274 LB/FT

COMPOSITE SLAB DESIGN STRENGTH: F 'C = 4,000 PSI

ESTIMATED QUANTITIES - PER BEAM

NO. OF BEAMS	PRESTRESSING STRANDS (LOW RELAXATION) LB.	CLASS "P" CONCRETE C.Y.	REINFORCING STEEL LB.
6	467	4.8	1019

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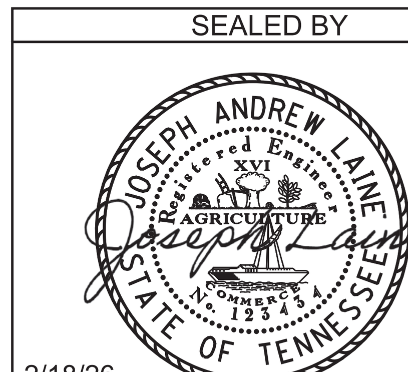

2/18/26

BRIDGE NO. 2
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESTRESSED I-BEAM DETAILS
SPAN NO. 2
STATE ROUTE 31
OVER
POOR VALLEY CREEK
BRIDGE ID. NO. 37SR0310007
STATION 230+94.00
LOG MILE 4.17
HAWKINS COUNTY

PIN NO.: 101394.00
DESIGN BY: J. LAINE DATE: 2-25
DRAWN BY: JERRY W. SIMPSON DATE: 2-25
SUPERVISED BY: STEELE/J. SHOULDER DATE: 2-25
CHECKED BY: A. DAHIR DATE: 3-25

U-101-30

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PROJECT NO.	YEAR	SHEET NO.
STP/HPP-31(12)	2026	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
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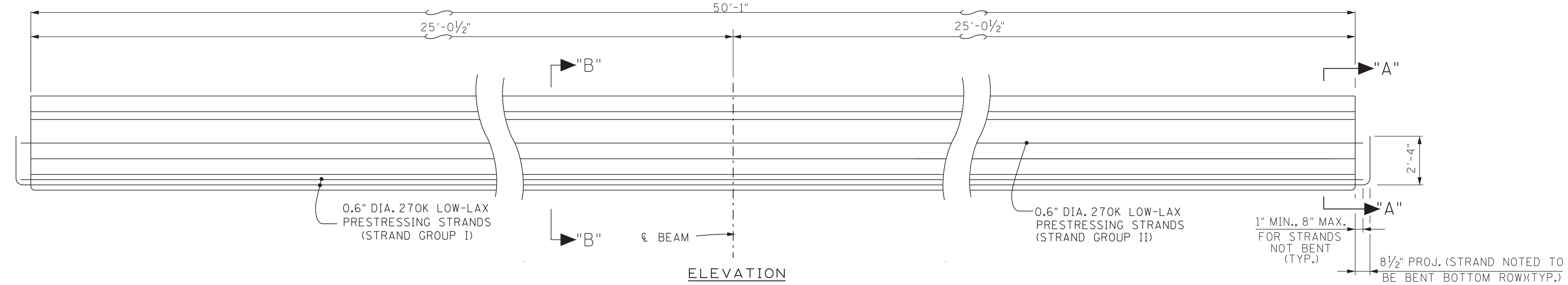
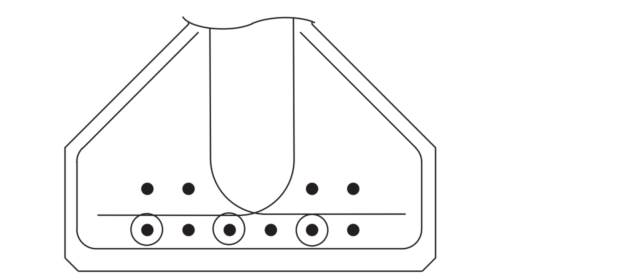
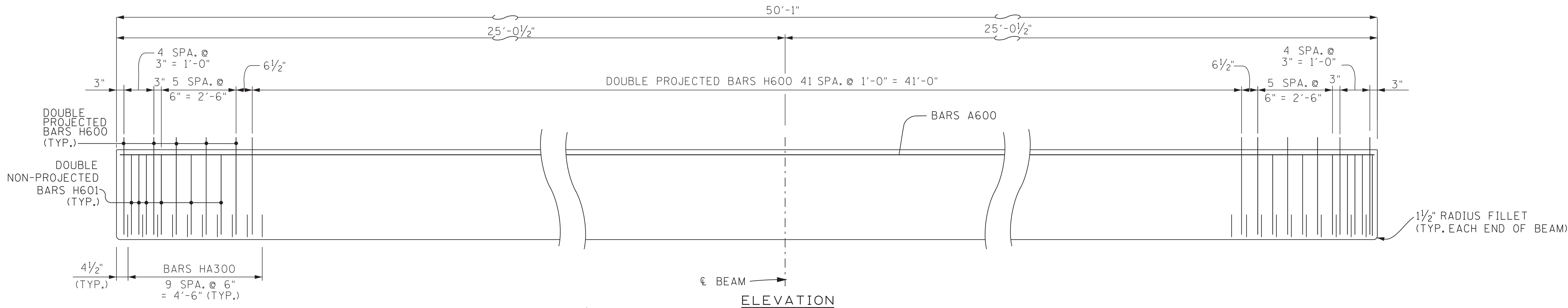


ELEVATION
(SHOWING PRESTRESSING STRANDS)





ELEVATION
(SHOWING REINFORCING STEEL)

BILL OF STEEL

BAR	SIZE	NO. REQ'D.	LENGTH
A500	5	6	5'-6"
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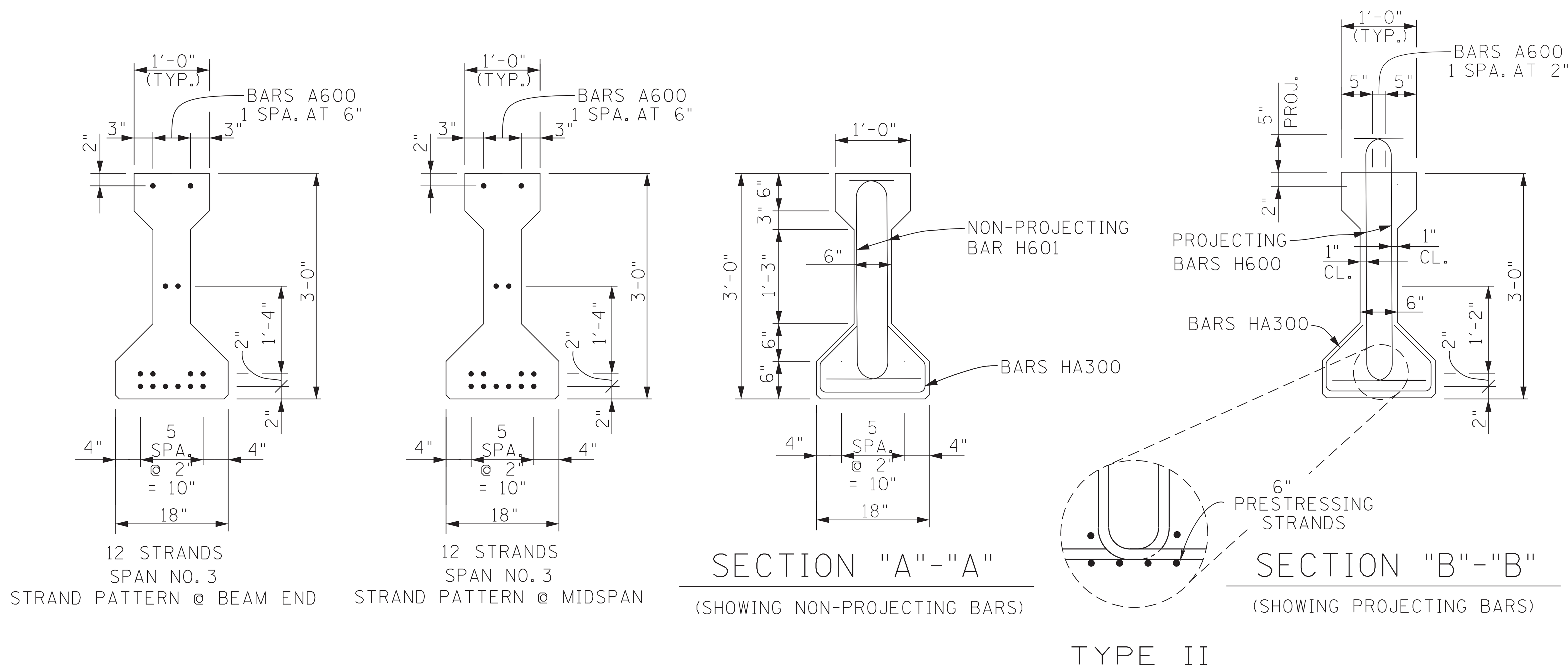

NOTES:

NOTE: SEE STD-14-2 FOR I-BEAM STANDARD DETAILS, NOTES AND REINFORCING.

NOTE: ALL BEAMS ARE AASHTO - PCI STANDARD TYPE II.

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COMPOSITE SLAB DESIGN STRENGTH: F 'C = 4,000 PSI

ESTIMATED QUANTITIES - PER BEAM

NO. OF BEAMS	PRESTRESSING STRANDS (LOW RELAXATION) LB.	CLASS "A" CONCRETE C.Y.	REINFORCING STEEL LB.
6	467	4.8	1019

SEALED BY
JOSEPH ANDREW LAINE
STATE OF TENNESSEE
2/18/26

BRIDGE NO. 2
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
PRESTRESSED I-BEAM DETAILS
SPAN NO. 3
STATE ROUTE 31
OVER
POOR VALLEY CREEK
BRIDGE ID. NO. 37SR0310007
STATION 230+94.00
LOG MILE 4.17
HAWKINS COUNTY

PIN NO.: 101394.00
DESIGN BY: J. LAINE DATE: 2-25
DRAWN BY: JERRY W. SIMPSON DATE: 2-25
SUPERVISED BY: STEELE/J. SHOULDER DATE: 2-25
CHECKED BY: A. DAHIR DATE: 3-25

U-101-31

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PROJECT NO.	YEAR	SHEET NO.
STP/HPP-31(12)	2026	

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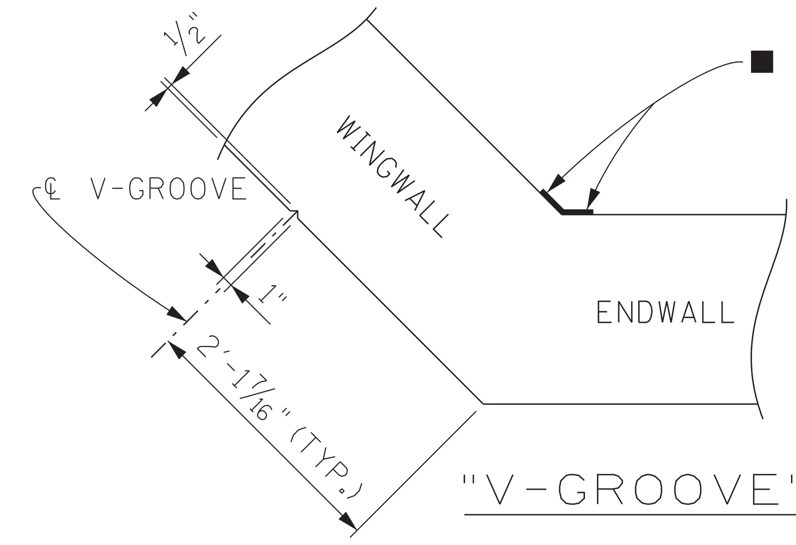
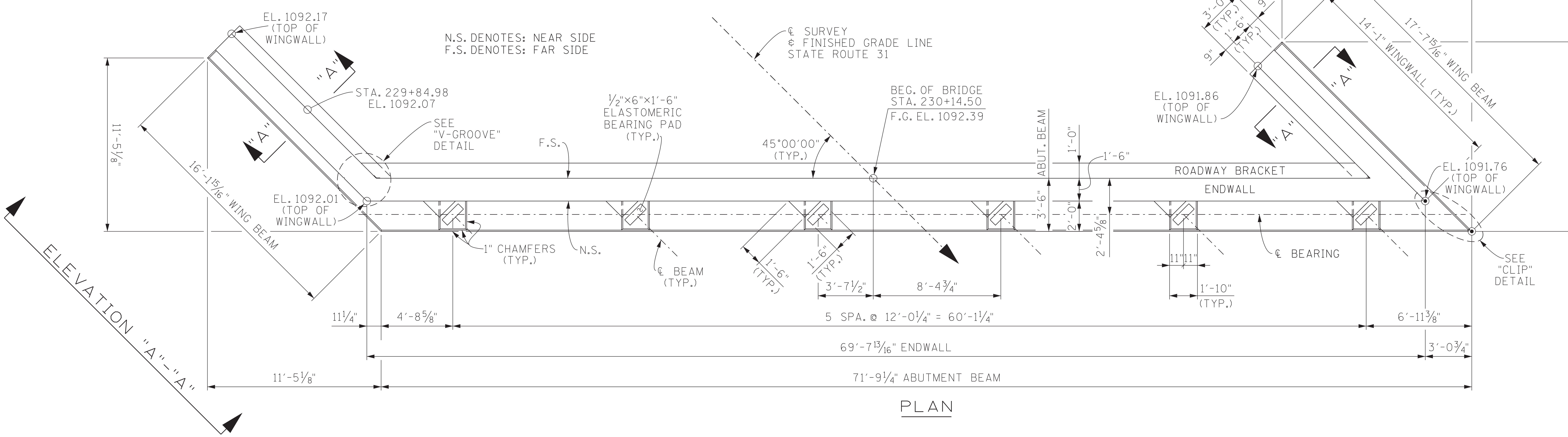


■ DENOTES: ½"×3" BITUMINOUS FIBERBOARD SECURELY BONDED TO CONCRETE SURFACE TO RUN FROM TOP OF ABUTMENT BEAM TO BOTTOM OF ROADWAY BRACKET (TYP.)

"V-GROOVE" DETAIL

N.S. DENOTES: NEAR SIDE
F.S. DENOTES: FAR SIDE

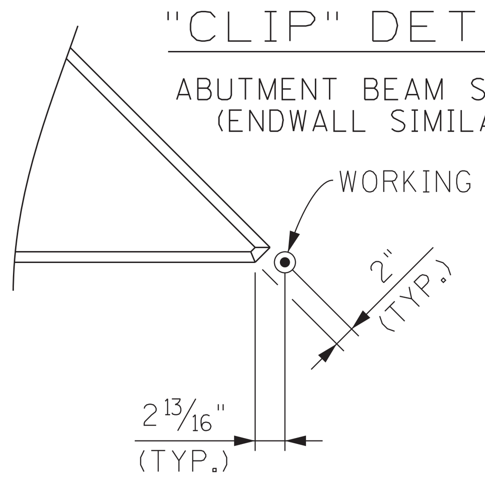


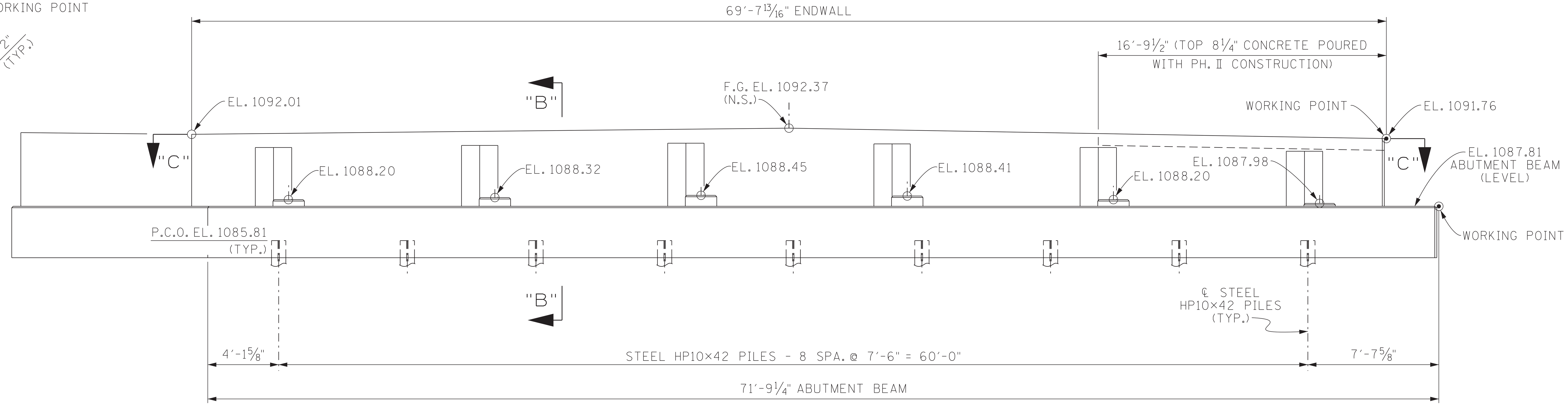
PLAN

NOTE: FOR ELEVATION "A"-"A", ELEVATION "B"-"B", SECTION "A"-"A", SECTION "B"-"B", AND SECTION "C"-"C" SEE DRAWING NO. U-101-034.

"CLIP" DETAIL

ABUTMENT BEAM SHOWN (ENDWALL SIMILAR)





ELEVATION

(LOOKING BACK ON SURVEY)

NOTE: RISER BLOCKS SHALL BE POURED MONOLITHICALLY WITH THE ABUTMENT BEAM.

NOTE: ELASTOMERIC PADS SHALL BE IN PLACE A MINIMUM OF ONE DAY BEFORE BEING DISTURBED BY SETTING BEAMS. PLACE RUBBER BONDING CEMENT IN SUCH A WAY THAT VISIBLE CONCRETE SURFACES WILL NOT BE STAINED.

NOTE: WHEN POURING WINGWALLS, PROVISIONS SHALL BE MADE FOR SETTING REINFORCING STEEL FOR WINGPOSTS AND PARAPETS. FOR DETAILS OF WINGPOSTS AND PARAPETS, SEE STD. DWG. NO. STD-1-1SS.

NOTE: NOT LESS THAN HALF OF THE SLAB IN THE END SPANS SHALL BE POURED PRIOR TO, OR CONCURRENTLY WITH, PLACEMENT OF ANY PART OF THE ABUTMENT ENDWALLS. AT LEAST THE TOP 12 INCHES OF THE ENDWALLS SHALL BE POURED CONCURRENTLY WITH THE END OF SLAB.

NOTE: COST OF PARAPET AND POST IS TO BE INCLUDED IN THE UNIT PRICE BID FOR THE PARAPET SYSTEM.

NOTE: SEE STANDARD DRAWING STD-6-1 FOR PILE SEISMIC ATTACHMENT DETAILS AND NOTES.

NOTE: WINGBEAM PILES SHALL BE DRIVEN TO THE PLANS TIP ELEVATION OR REFUSAL. SEISMIC ATTACHMENT IS NOT REQUIRED FOR WINGBEAM PILES.

NOTE: CORRUGATED PIPE REQUIRED FOR PILE LOCATIONS DURING THE INSTALLATION OF GSR FILL UNDER THE ABUTMENTS. SEE BRIDGE FOUNDATION REPORT FOR MORE INFORMATION. SEE ESTIMATED QUANTITIES SHEET FOR PAYMENT INFORMATION.

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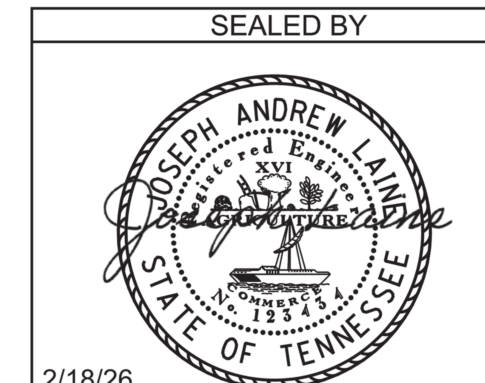

2/18/26

BRIDGE NO. 2
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
ABUTMENT NO. 1
STATE ROUTE 31
OVER
POOR VALLEY CREEK
BRIDGE ID. NO. 37SR0310007
STATION 230+94.00
LOG MILE 4.17
HAWKINS COUNTY

PIN NO.:	101394.00		
DESIGN BY:	J. LAINE	DATE:	2-25
DRAWN BY:	T. WISEMAN	DATE:	2-25
SUPERVISED BY:	STEELE/J. SHOULDER	DATE:	2-25
CHECKED BY:	A. DAHIR	DATE:	3-25

11/17/2025 8:12:50 AM

U-101-32

PROJECT NO.	YEAR	SHEET NO.
STP/HPP-31(12)	2026	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
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	- -		
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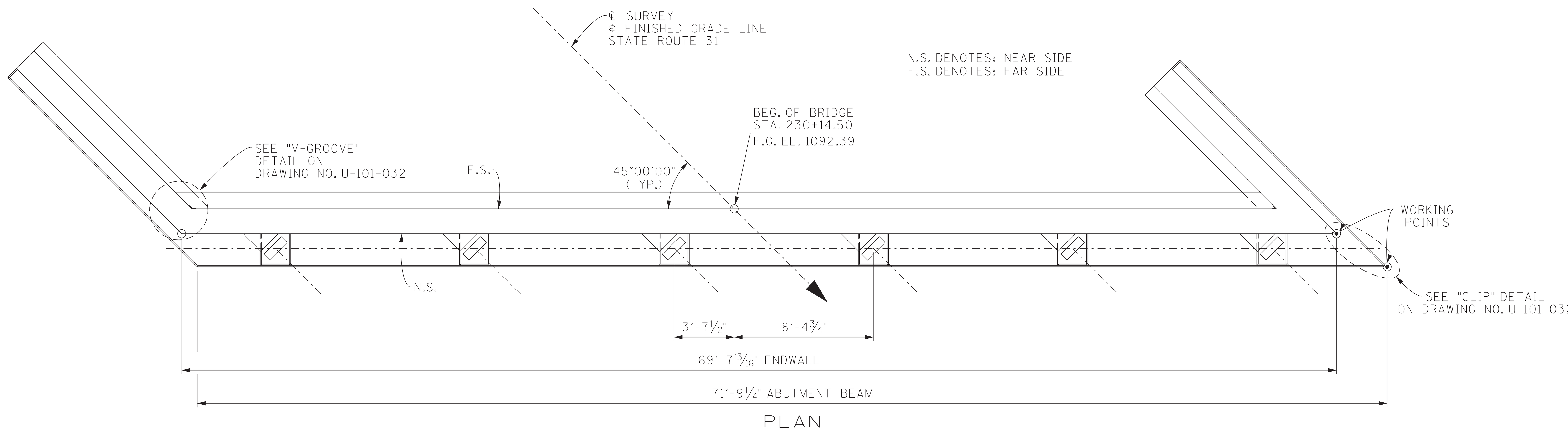
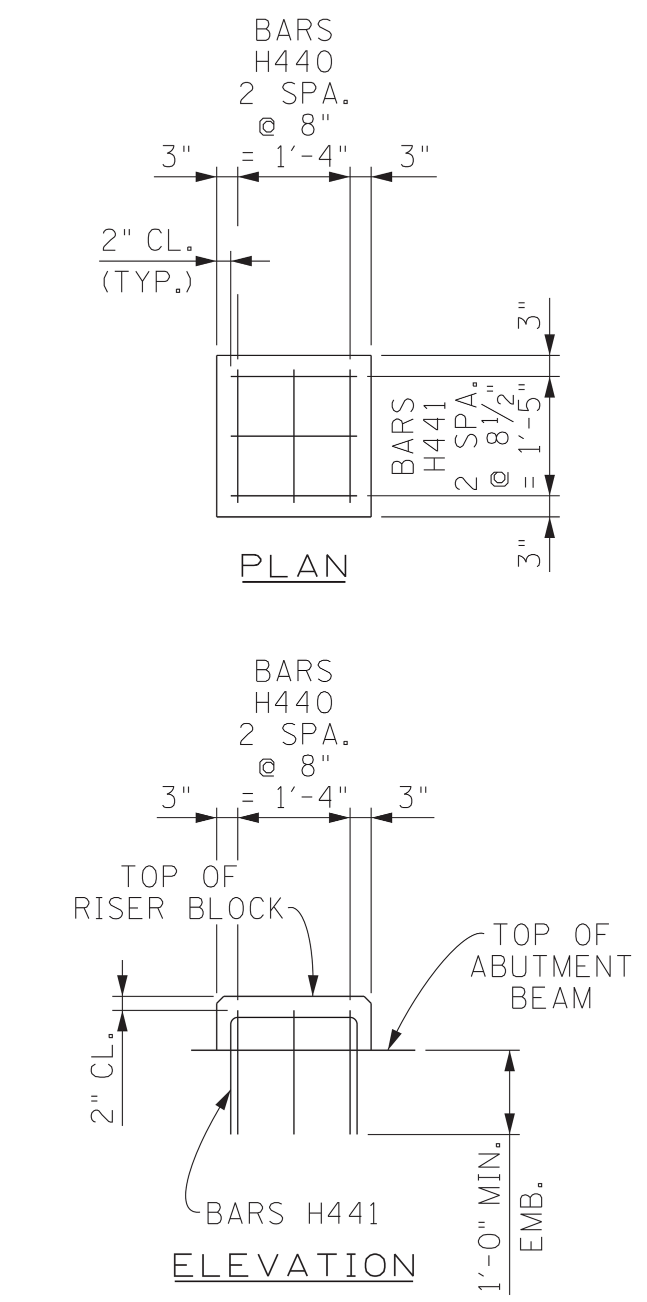
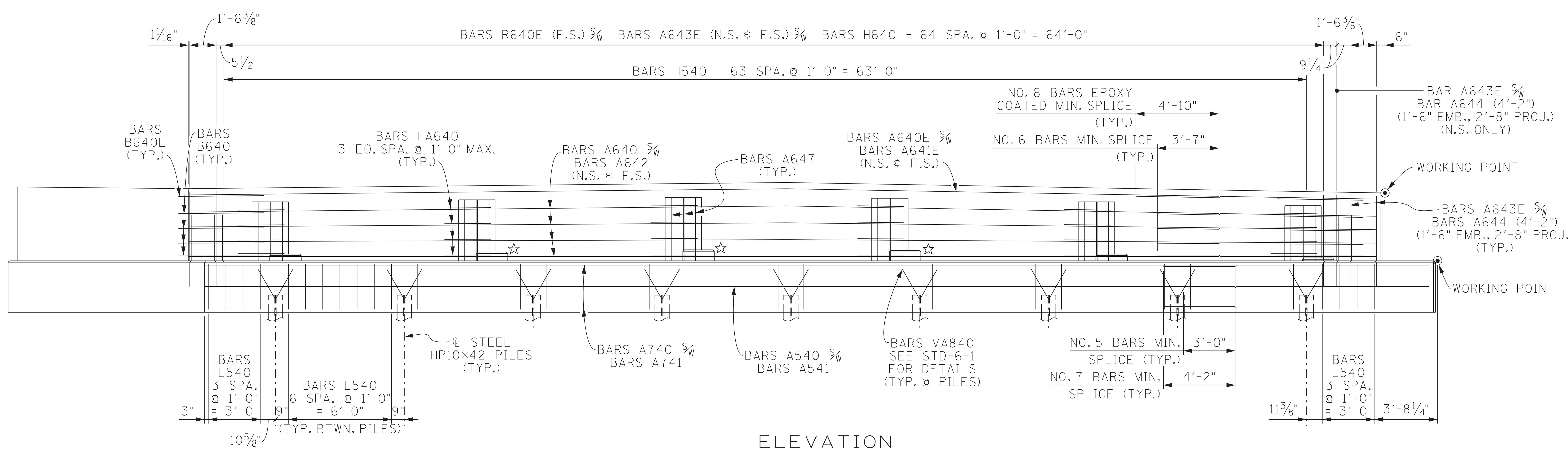


PLAN



RISER BLOCK REINFORCEMENT DETAILS

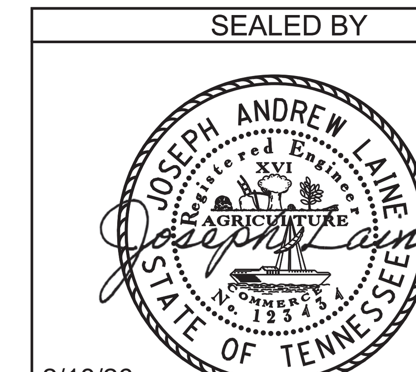


ELEVATION

(LOOKING BACK ON SURVEY)
(SHOWING STEEL ONLY)

☆ DENOTES: RISER BLOCKS TO BE REINFORCED.
FOR DETAILS SEE RISER BLOCK REINFORCEMENT DETAILS ON THIS DRAWING.

SEALED BY



2/18/26

BRIDGE NO. 2

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ABUTMENT NO. 1 DETAILS
STATE ROUTE 31
OVER
POOR VALLEY CREEK
BRIDGE ID. NO. 37SR0310007
STATION 230+94.00
LOG MILE 4.17
HAWKINS COUNTY

PIN NO.:	101394.00		
DESIGN BY:	J. LAINE	DATE:	2-25
DRAWN BY:	T. WISEMAN	DATE:	2-25
SUPERVISED BY:	STEELE/J. SHOULDER	DATE:	2-25
CHECKED BY:	A. DAHIR	DATE:	3-25

U-101-33

10/23/2025 11:26:02 AM

PROJECT NO.	YEAR	SHEET NO.
STP/HPP-31(12)	2026	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
	- -		
	- -		
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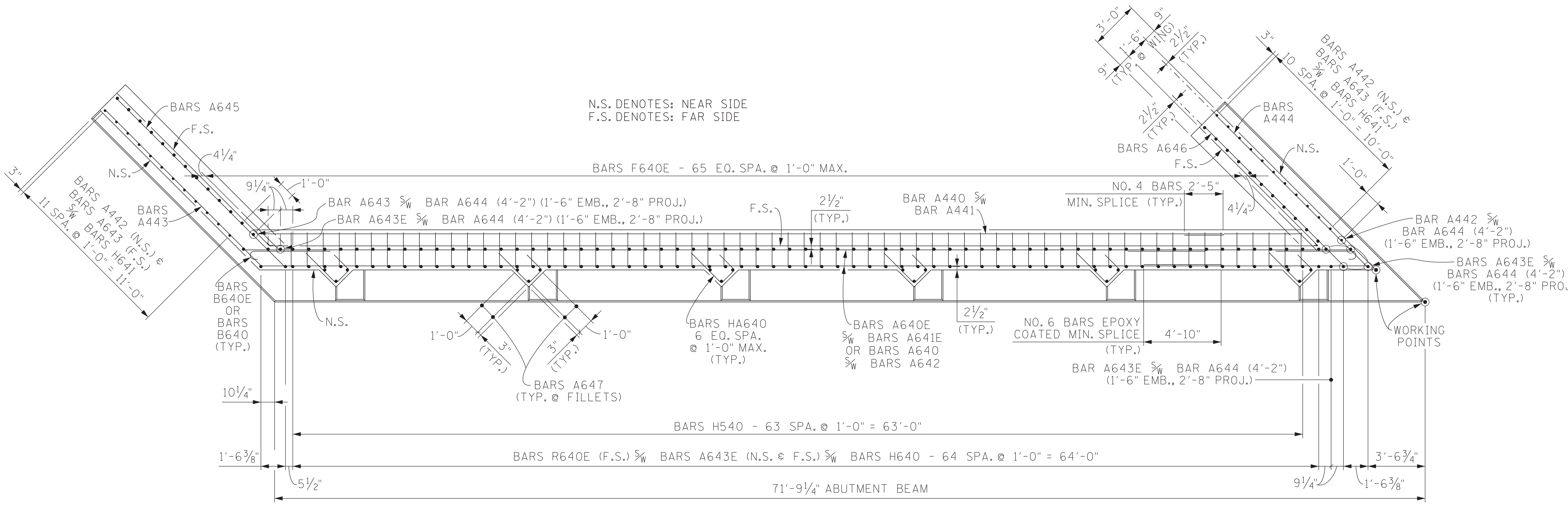
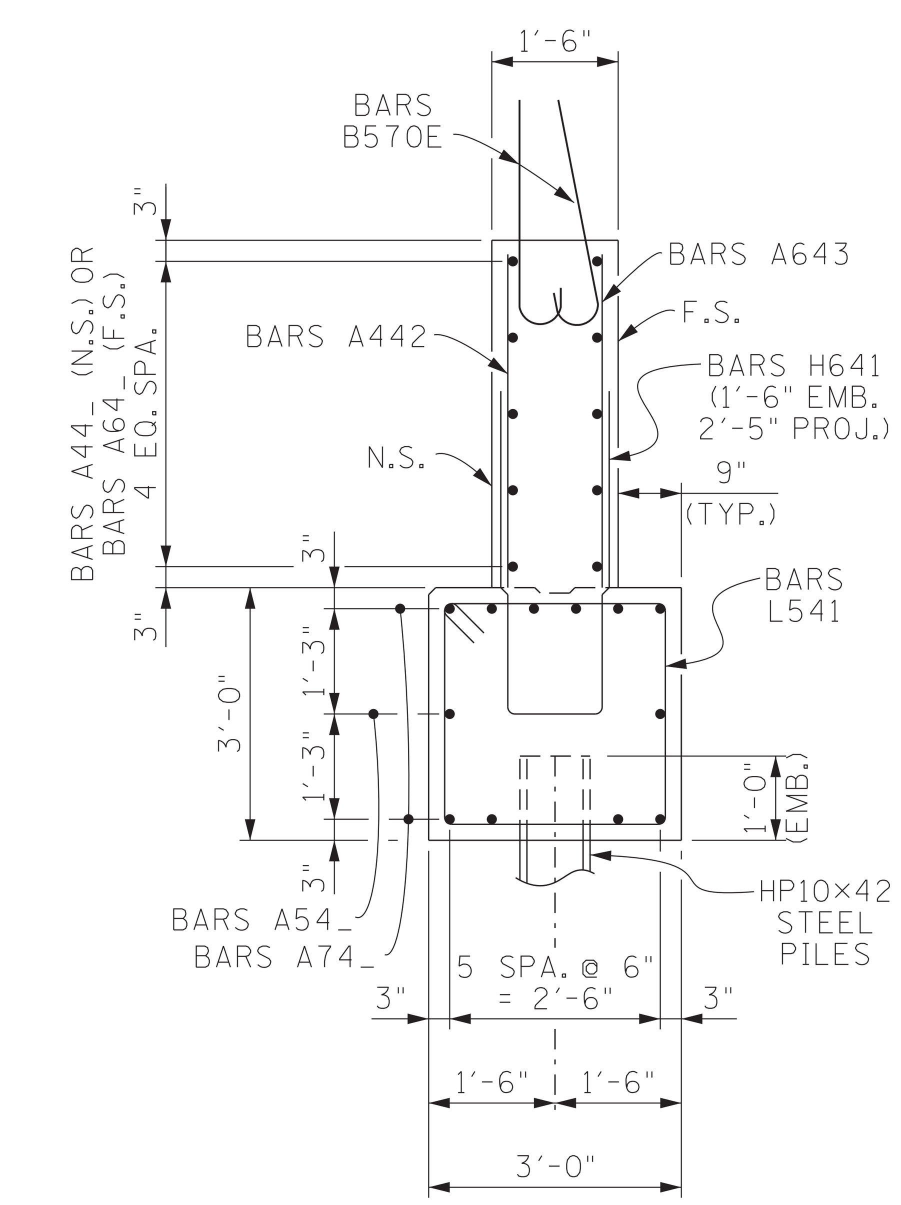
	- -		
	- -		

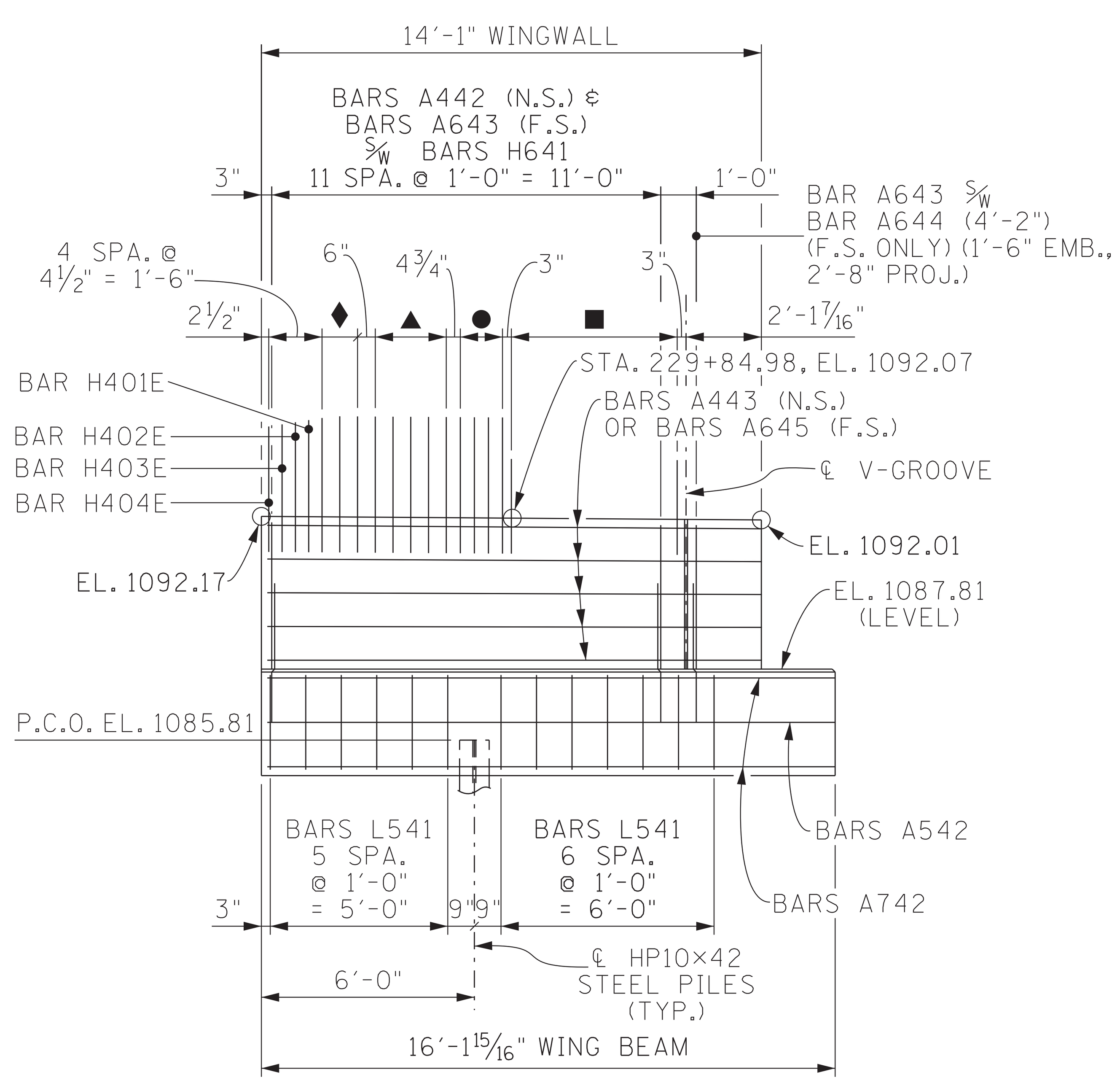
N.S. DENOTES: NEAR SIDE
F.S. DENOTES: FAR SIDE



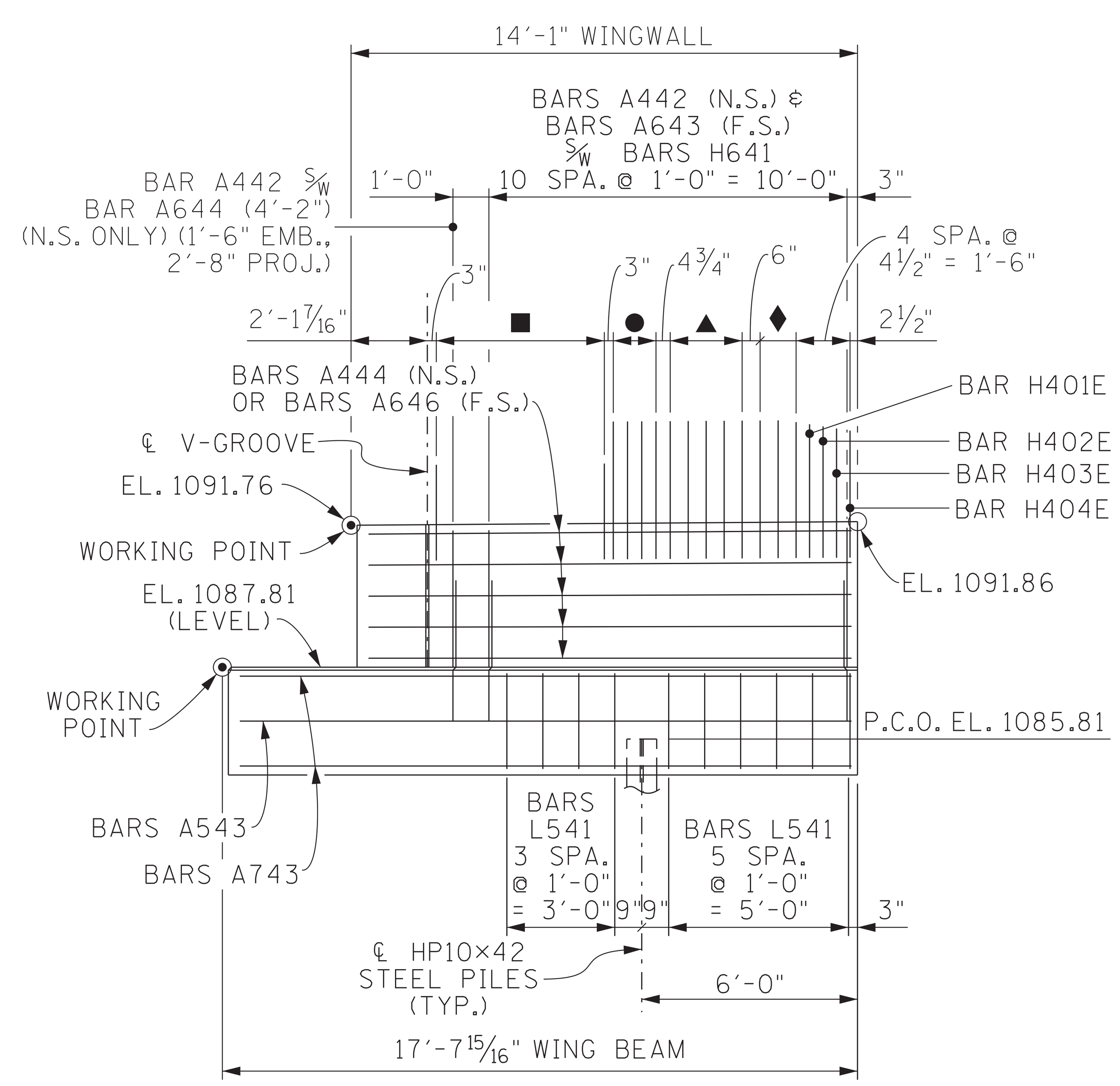
SECTION "C"-"C"



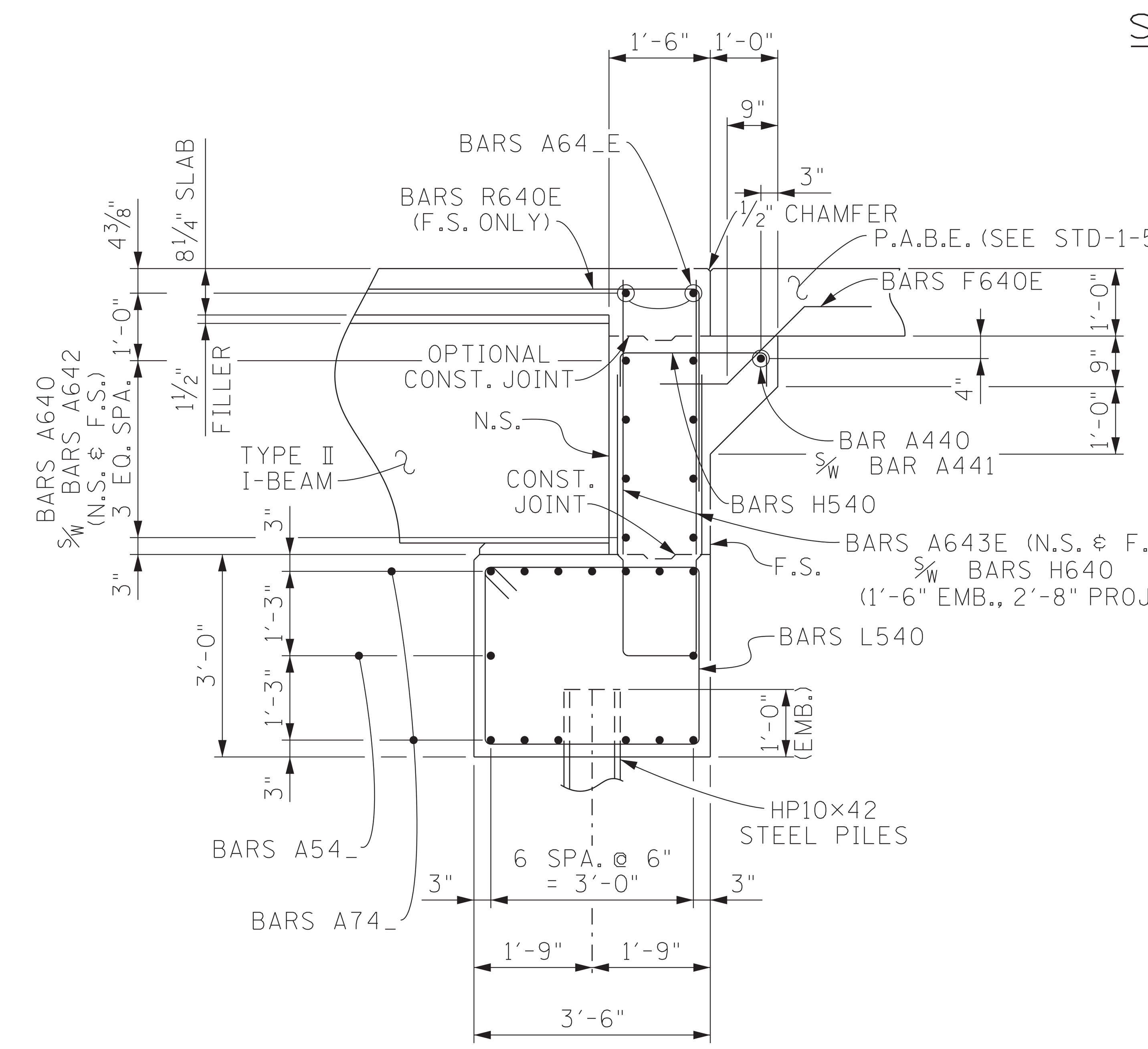
SECTION "A"-"A"



ELEVATION "A"-"A"



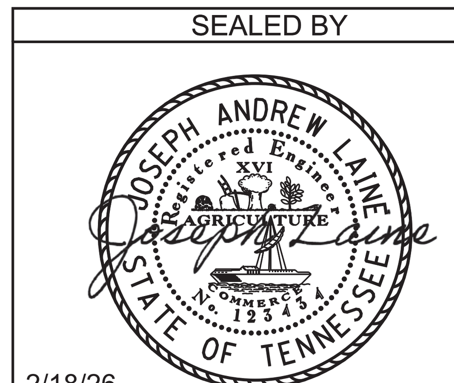
ELEVATION "B"-"B"



SECTION "B"-"B"

♦ DENOTES: BARS H400E - 2 SPA. @ 6" = 1'-0"
▲ DENOTES: SERIES BARS HD401E - 4 SPA. @ 6" = 2'-0"
● DENOTES: SERIES BARS HD400E - 3 SPA. @ 4 3/4" = 1'-2 1/4"
■ DENOTES: DOUBLE BARS B570E - 8 SPA. @ 8" MAX. = 4'-8 1/16"
P.C.O. EL. DENOTES: PILE CUT-OFF ELEVATION

SEALED BY



2/18/26

PIN NO.:	101394.00		
DESIGN BY:	J. LAINE	DATE:	2-25
DRAWN BY:	T. WISEMAN	DATE:	2-25
SUPERVISED BY:	STEELE/J. SHOULDER	DATE:	2-25
CHECKED BY:	A. DAHIR	DATE:	3-25

BRIDGE NO. 2
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
ABUTMENT NO. 1 DETAILS
STATE ROUTE 31
OVER
POOR VALLEY CREEK
BRIDGE ID. NO. 37SR0310007
STATION 230+94.00
LOG MILE 4.17
HAWKINS COUNTY

U-101-34

11/17/2025 8:32:54 AM

PROJECT NO.	YEAR	SHEET NO.
STP/HPP-31(12)	2026	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
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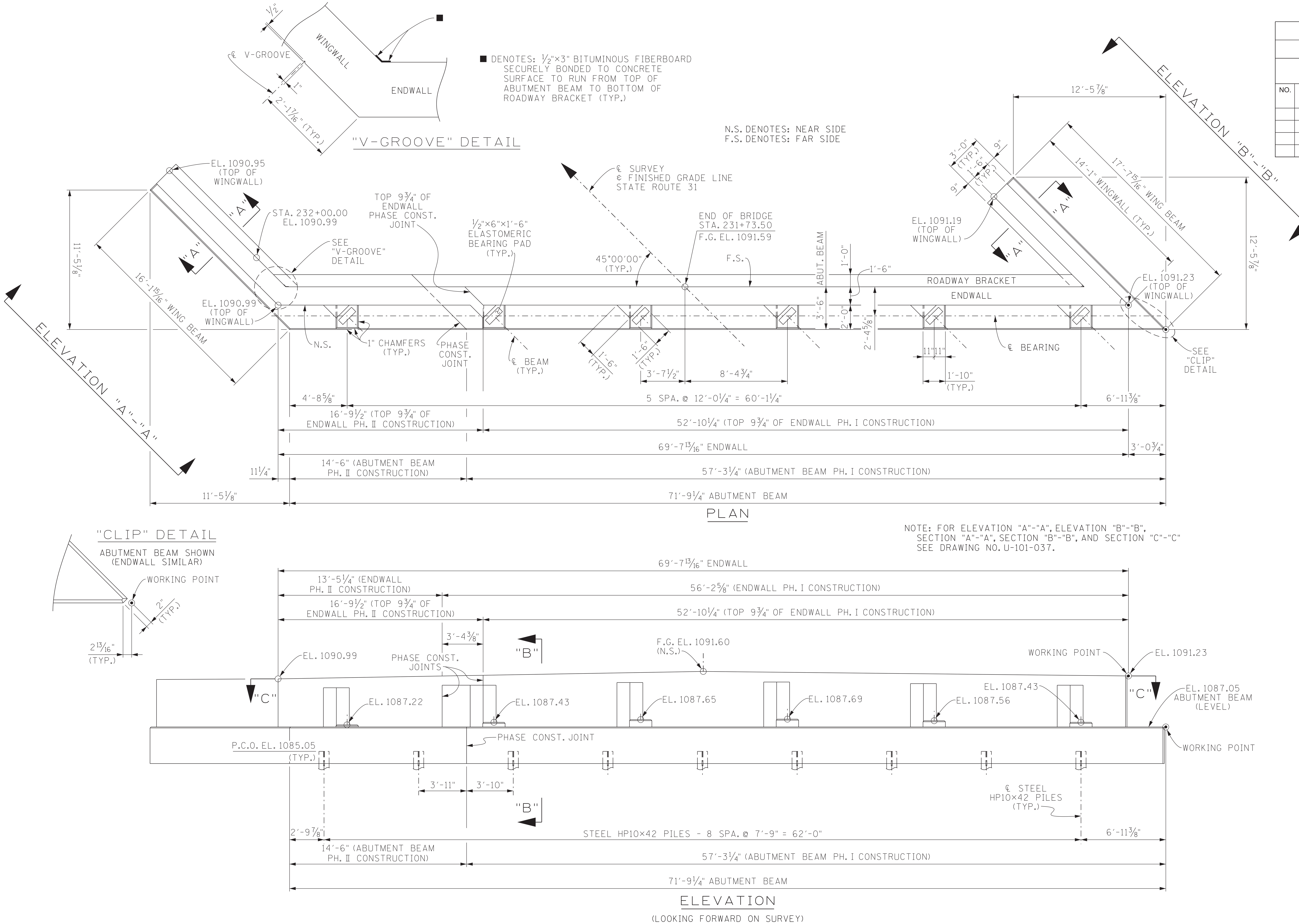
	- -		



NOTE: RISER BLOCKS SHALL BE POURED MONOLITHICALLY WITH THE ABUTMENT BEAM.

NOTE: ELASTOMERIC PADS SHALL BE IN PLACE A MINIMUM OF ONE DAY BEFORE BEING DISTURBED BY SETTING BEAMS. PLACE RUBBER BONDING CEMENT IN SUCH A WAY THAT VISIBLE CONCRETE SURFACES WILL NOT BE STAINED.

NOTE: WHEN POURING WINGWALLS, PROVISIONS SHALL BE MADE FOR SETTING REINFORCING STEEL FOR WINGPOSTS AND PARAPETS. FOR DETAILS OF WINGPOSTS AND PARAPETS, SEE STD. DWG. NO. STD-1-1SS.

NOTE: NOT LESS THAN HALF OF THE SLAB IN THE END SPANS SHALL BE POURED PRIOR TO, OR CONCURRENTLY WITH, PLACEMENT OF ANY PART OF THE ABUTMENT ENDWALLS. AT LEAST THE TOP 12 INCHES OF THE ENDWALLS SHALL BE POURED CONCURRENTLY WITH THE END OF SLAB.

NOTE: COST OF PARAPET AND POST IS TO BE INCLUDED IN THE UNIT PRICE BID FOR THE PARAPET SYSTEM.

NOTE: SEE STANDARD DRAWING STD-6-1 FOR PILE SEISMIC ATTACHMENT DETAILS AND NOTES.

NOTE: WINGBEAM PILES SHALL BE DRIVEN TO THE PLANS TIP ELEVATION OR REFUSAL. SEISMIC ATTACHMENT IS NOT REQUIRED FOR WINGBEAM PILES.

SEALED BY

JOSEPH ANDREW LAINE
STATE OF TENNESSEE

2/18/26

PIN NO.: 101394.00
DESIGN BY: J. LAINE DATE: 2-25
DRAWN BY: T. WISEMAN DATE: 2-25
SUPERVISED BY: STEELE/J. SHOULDER DATE: 2-25
CHECKED BY: A. DAHIR DATE: 3-25

BRIDGE NO. 2
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ABUTMENT NO. 2
STATE ROUTE 31
OVER
POOR VALLEY CREEK
BRIDGE ID. NO. 37SR0310007
STATION 230+94.00
LOG MILE 4.17
HAWKINS COUNTY

U-101-35

11/17/2025 8:15:45 AM

PROJECT NO.	YEAR	SHEET NO.
STP/HPP-31(12)	2026	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
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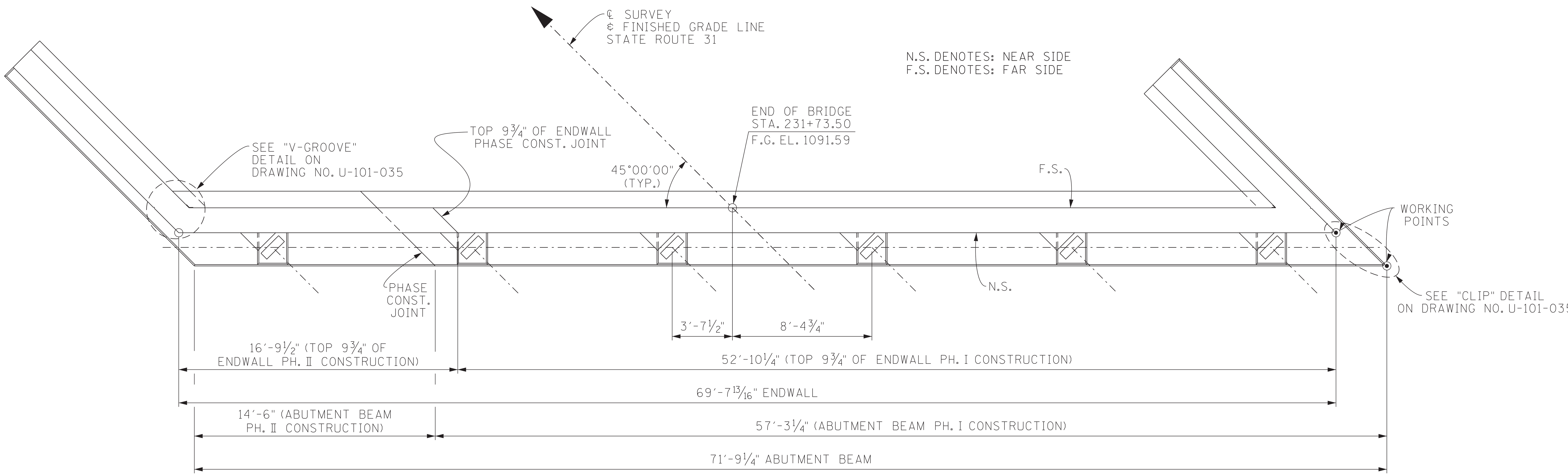
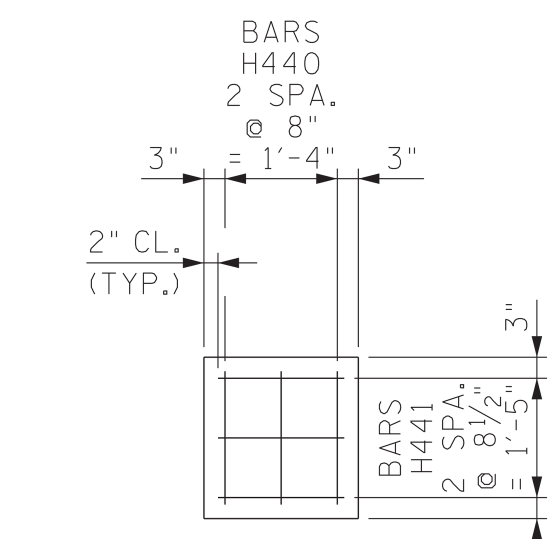
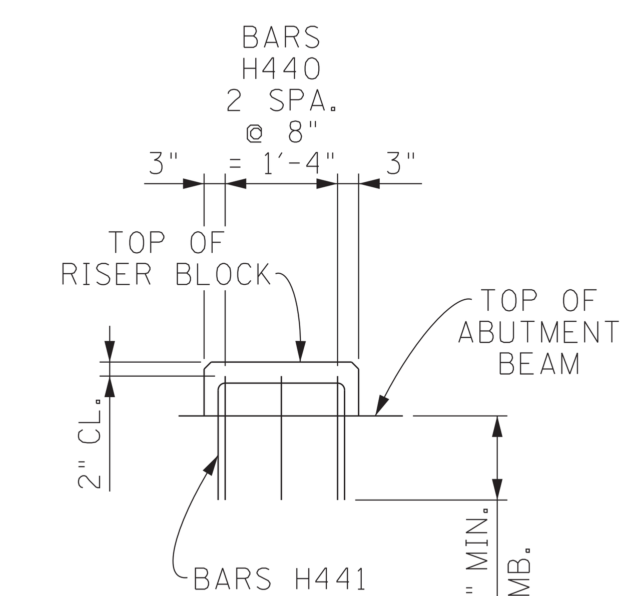
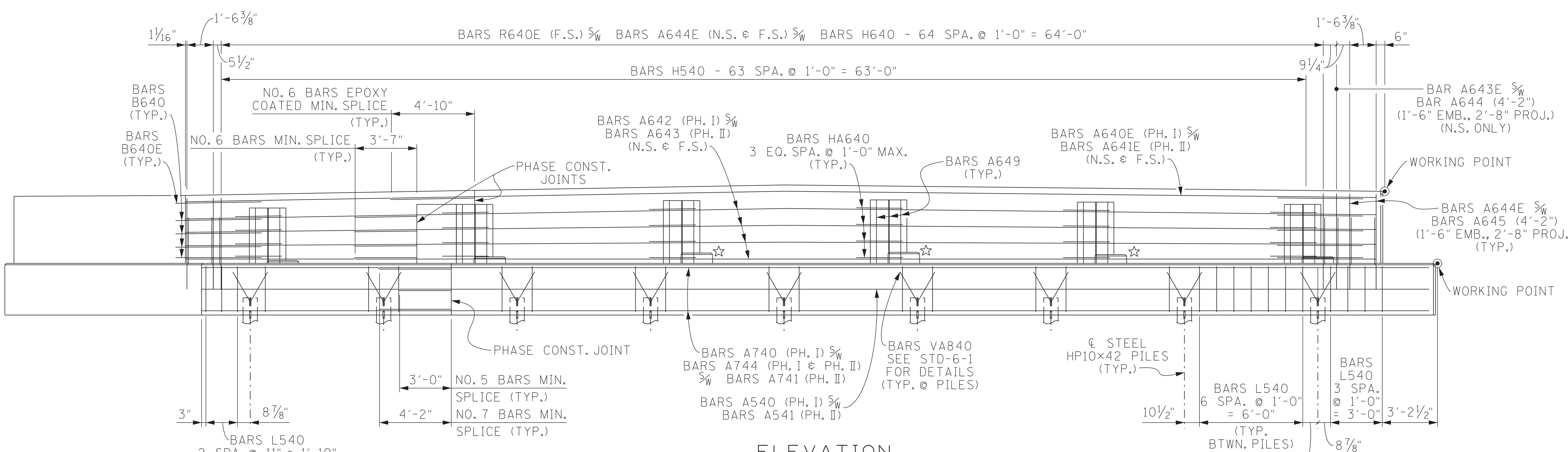


PLAN





RISER BLOCK REINFORCEMENT DETAILS

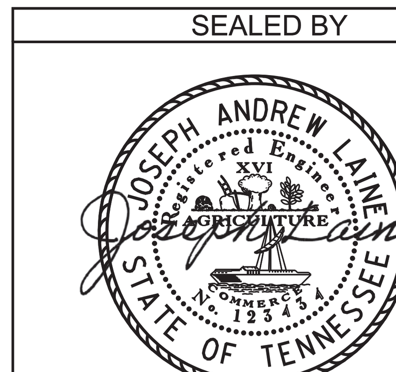


ELEVATION

(LOOKING FORWARD ON SURVEY)
(SHOWING STEEL ONLY)

☆ DENOTES: RISER BLOCKS TO BE REINFORCED. FOR DETAILS SEE RISER BLOCK REINFORCEMENT DETAILS ON THIS DRAWING.

SEALED BY



2/18/26

BRIDGE NO. 2

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ABUTMENT NO. 2 DETAILS
STATE ROUTE 31
OVER
POOR VALLEY CREEK
BRIDGE ID. NO. 37SR0310007
STATION 230+94.00
LOG MILE 4.17
HAWKINS COUNTY

PIN NO.:	101394.00		
DESIGN BY:	J. LAINE	DATE:	2-25
DRAWN BY:	T. WISEMAN	DATE:	2-25
SUPERVISED BY:	STEELE/J. SHOULDER	DATE:	2-25
CHECKED BY:	A. DAHIR	DATE:	3-25

U-101-36

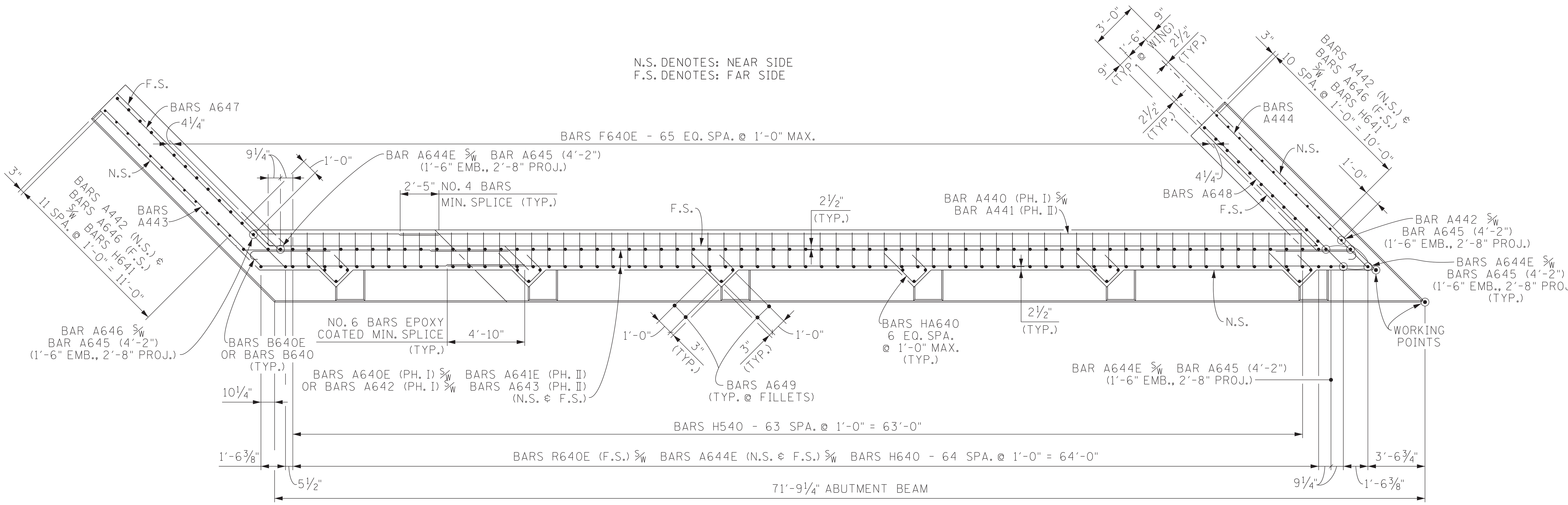
10/23/2025 11:31:27 AM

PROJECT NO.	YEAR	SHEET NO.
STP/HPP-31(12)	2026	

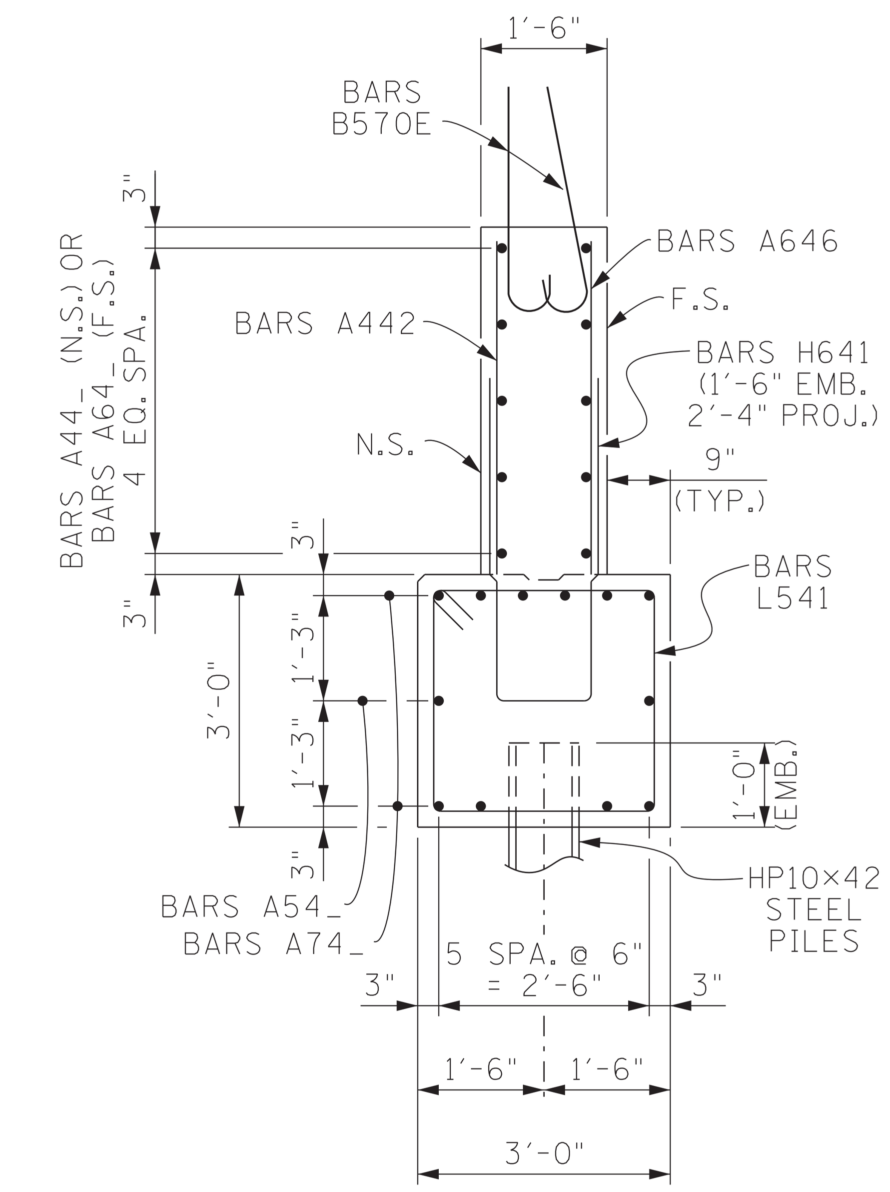
REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
	- -		
	- -		
	- -		
	- -		
	- -		

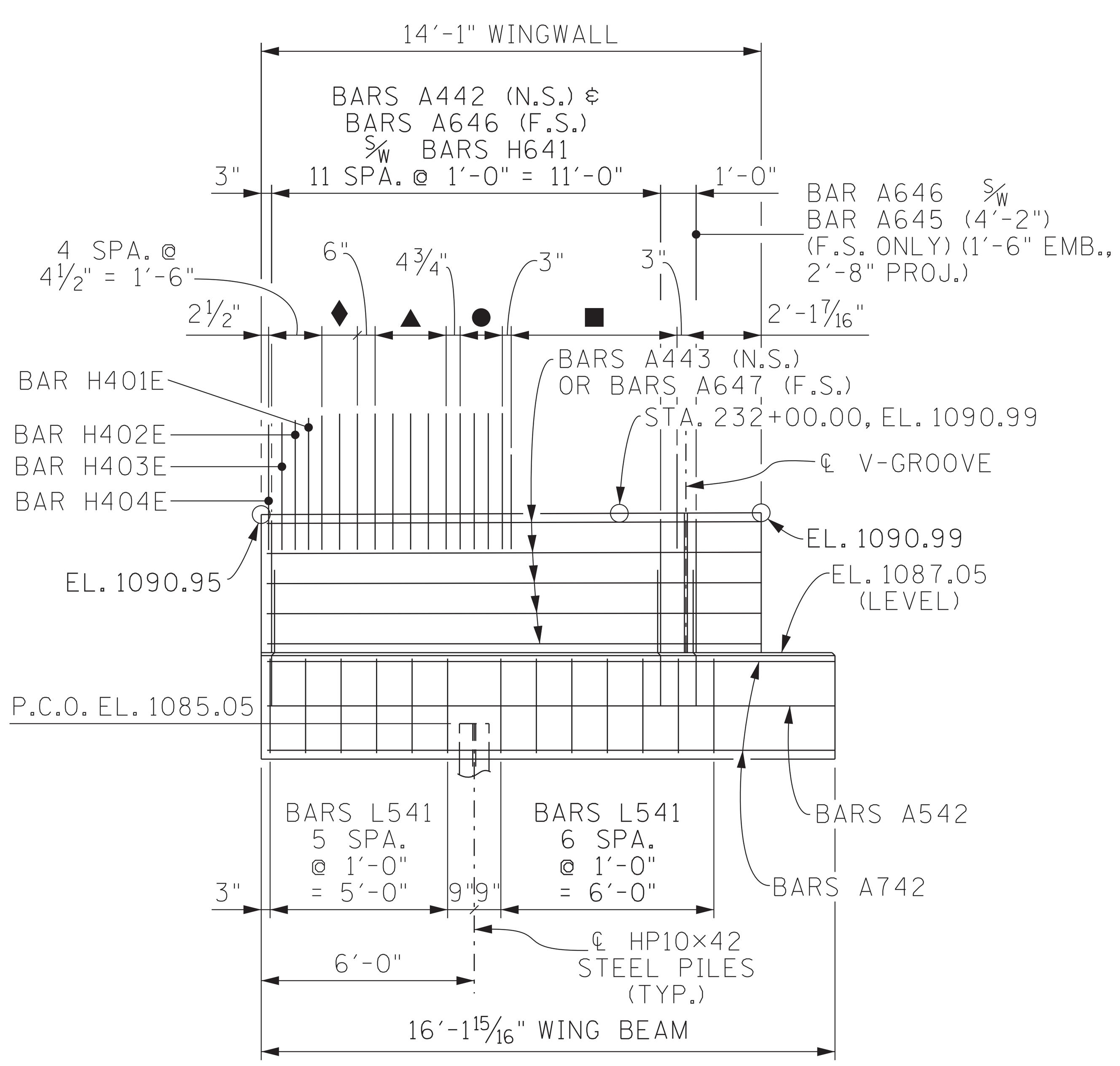
N.S. DENOTES: NEAR SIDE
F.S. DENOTES: FAR SIDE



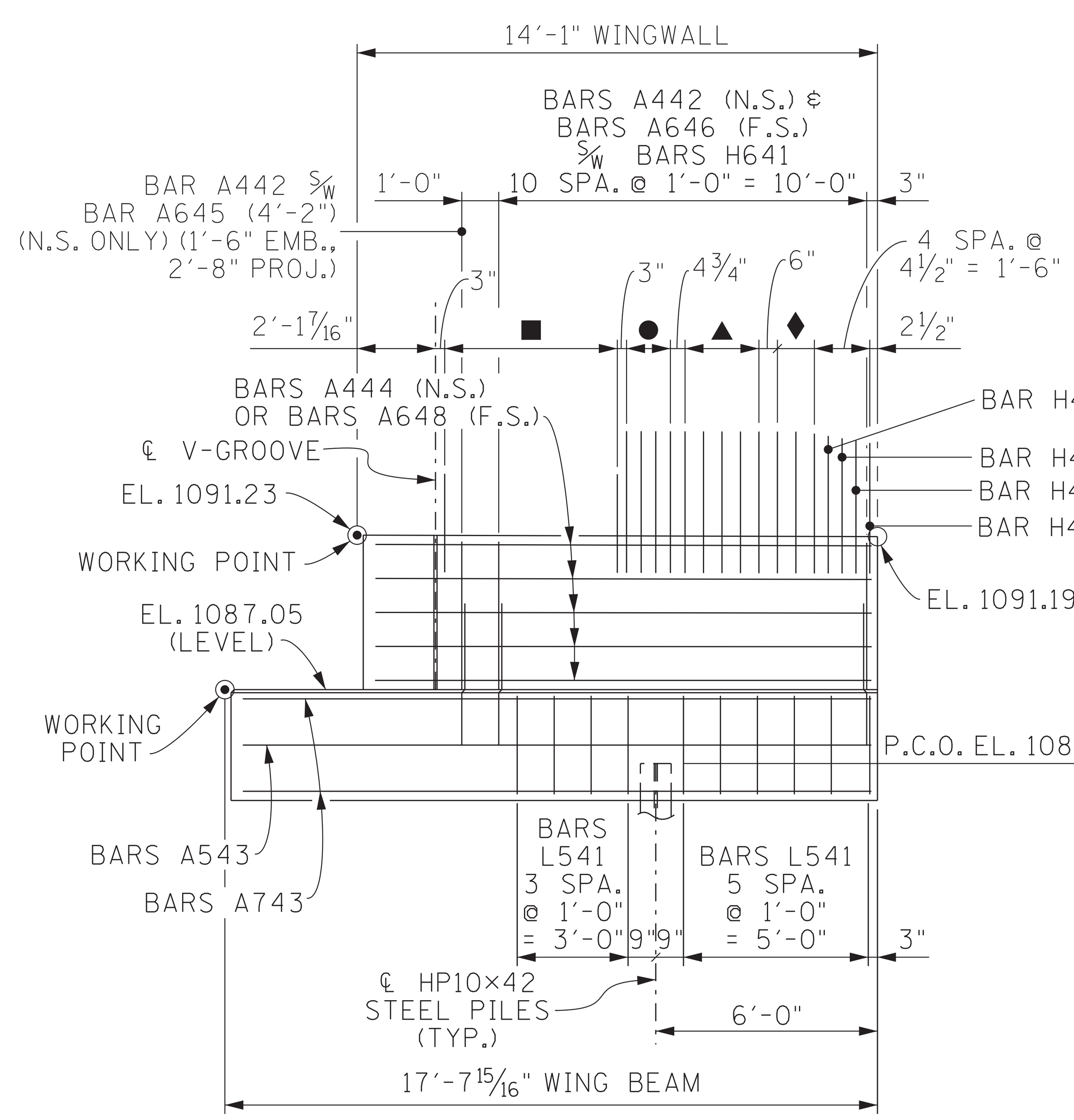
SECTION "C"-"C"



SECTION "A"-"A"

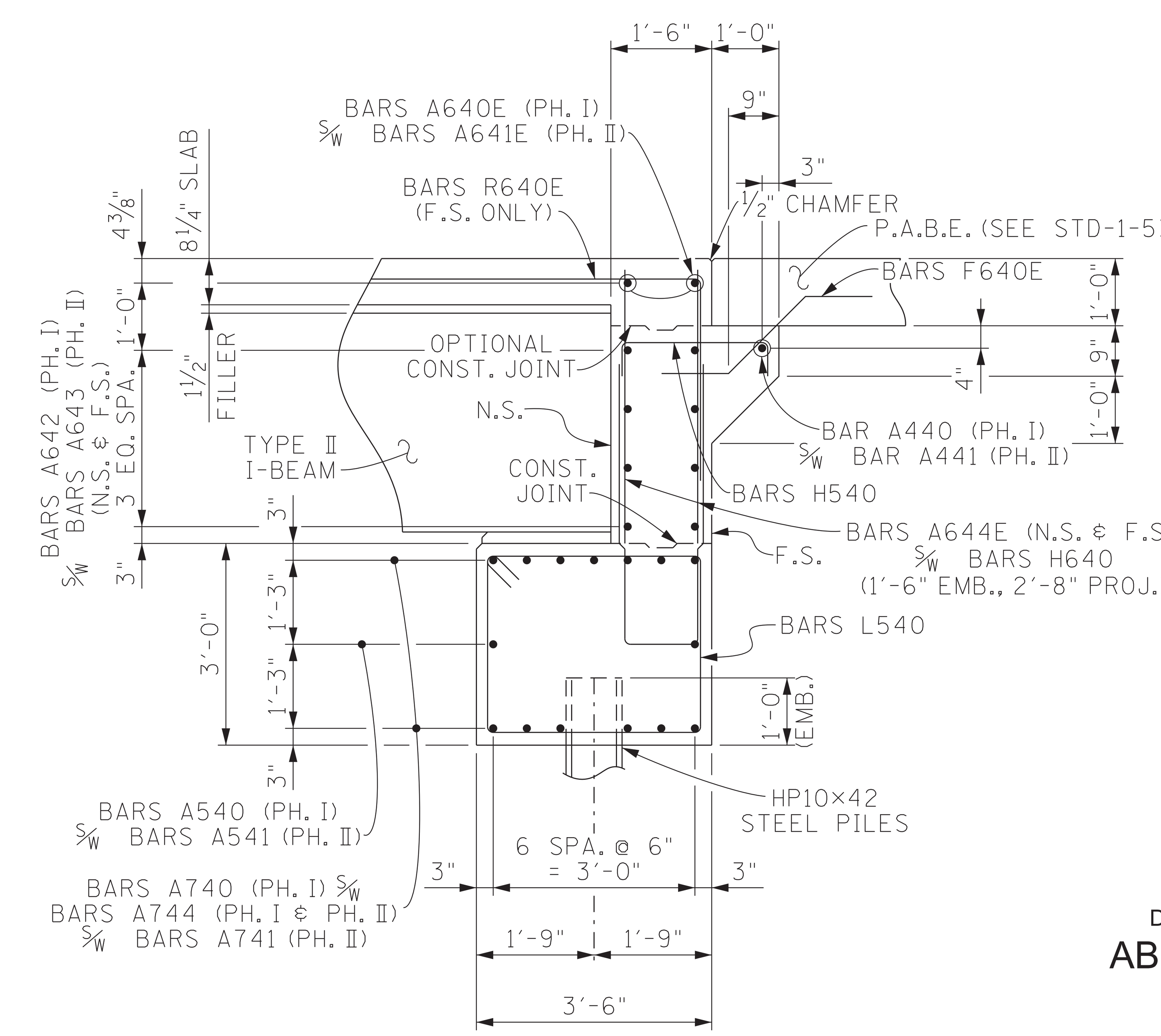


ELEVATION "A"-"A"



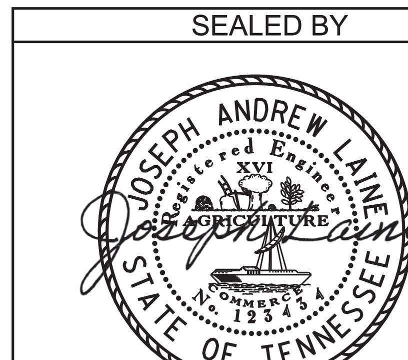
ELEVATION "B"-"B"

◆ DENOTES: BARS H400E - 2 SPA. @ 6" = 1'-0"
▲ DENOTES: SERIES BARS HD401E - 4 SPA. @ 6" = 2'-0"
● DENOTES: SERIES BARS HD400E - 3 SPA. @ 4¾" = 1'-2¼"
■ DENOTES: DOUBLE BARS B570E - 8 SPA. @ 8" MAX. = 4'-8 1/16"
P.C.O. EL. DENOTES: PILE CUT-OFF ELEVATION



SECTION "B"-"B"

SEALED BY



2/18/26

PIN NO.:	101394.00		
DESIGN BY:	J. LAINE	DATE:	2-25
DRAWN BY:	T. WISEMAN	DATE:	2-25
SUPERVISED BY:	STEELE/J. SHOULDER	DATE:	2-25
CHECKED BY:	A. DAHIR	DATE:	3-25

BRIDGE NO. 2
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
ABUTMENT NO. 2 DETAILS
STATE ROUTE 31
OVER
POOR VALLEY CREEK
BRIDGE ID. NO. 37SR0310007
STATION 230+94.00
LOG MILE 4.17
HAWKINS COUNTY

U-101-37

11/17/2025 8:17:16 AM

PROJECT NO.	YEAR	SHEET NO.
STP/HPP-31(12)	2026	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
	- -		
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	- -		
	- -		
	- -		

NOTE: WHEN POURING CAP BEAM, PROVISIONS SHALL BE MADE FOR SETTING ANCHOR BOLTS. SEE STANDARD DRAWING STD-6-1. BOLT PROJECTION 11".

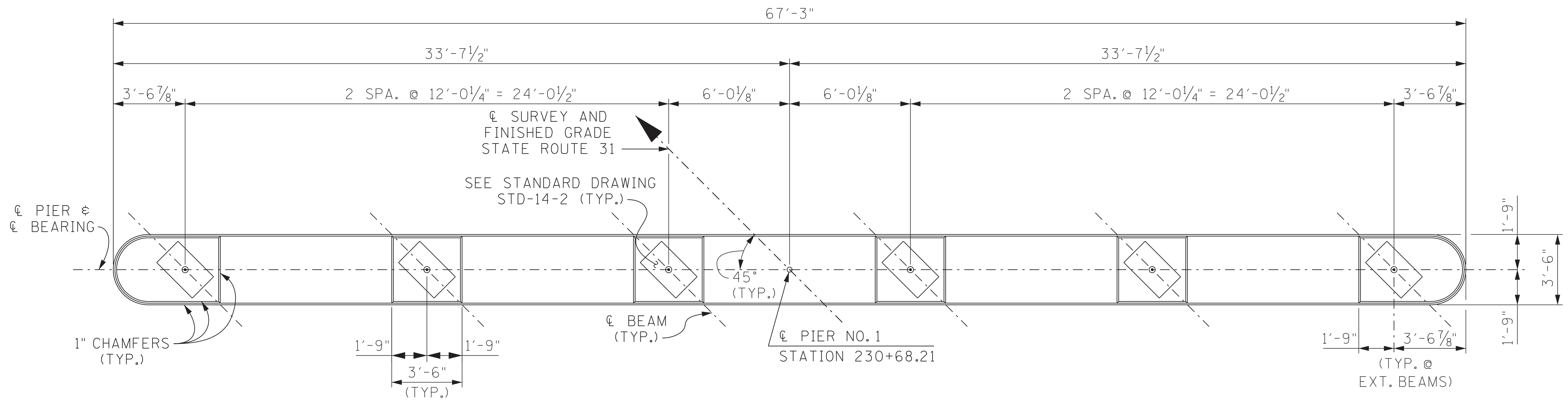
NOTE: RISER BLOCKS SHALL BE POURED MONOLITHICALLY WITH PIER CAP.

NOTE: RISER BLOCK BEARING SURFACE SHALL CONFORM TO BOTTOM OF BEAM GRADE.

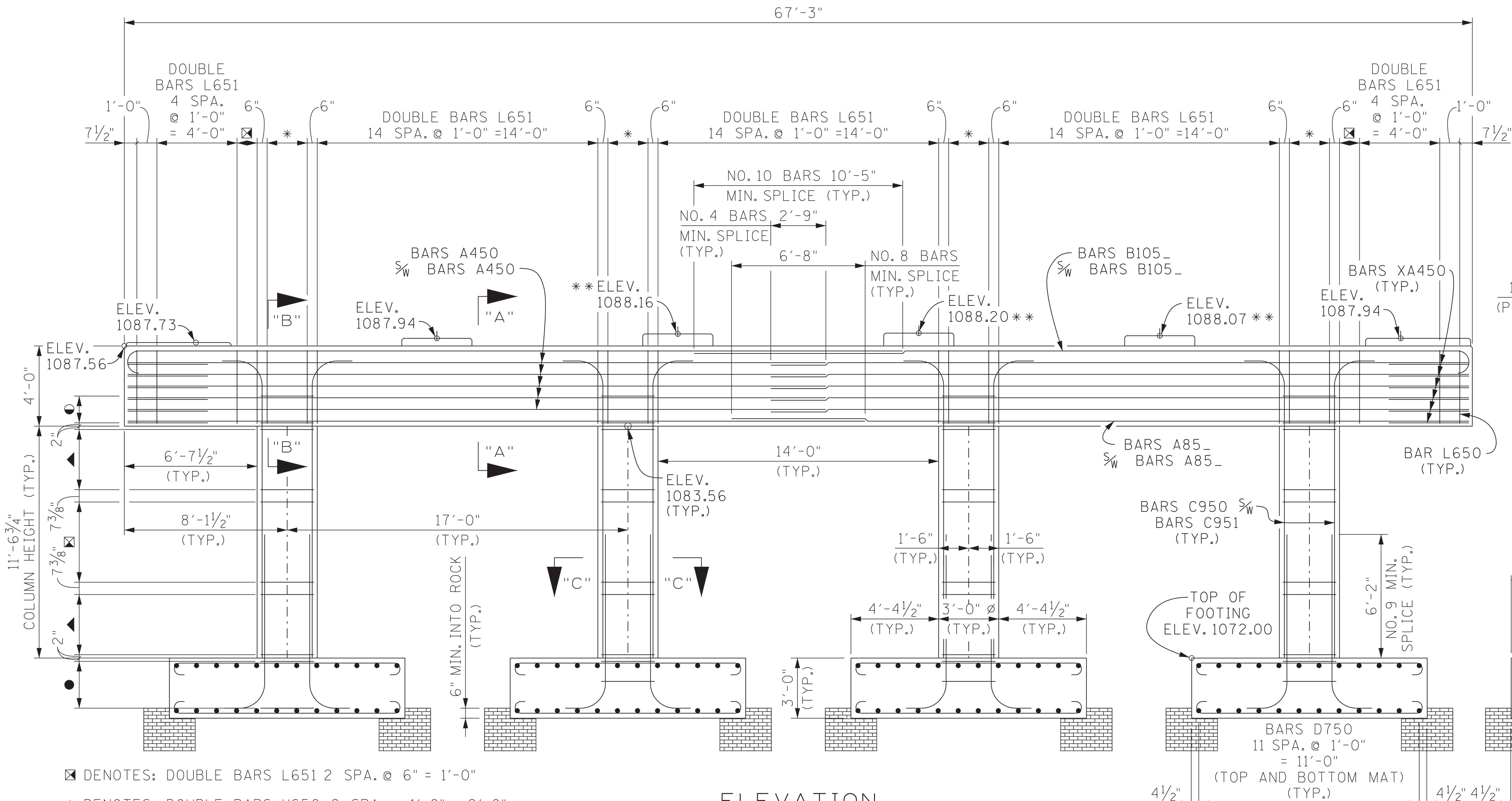
NOTE: ELASTOMERIC PADS SHALL BE IN PLACE A MINIMUM OF ONE DAY BEFORE BEING DISTURBED BY SETTING BEAMS ON CONCRETE. PLACE RUBBER BONDING CEMENT IN SUCH A WAY THAT VISIBLE CONCRETE SURFACES WILL NOT BE STAINED.

NOTE: COLUMN STEEL SHALL EXTEND 3'-3" INTO PIER CAP.

NOTE: FOR SECTIONS "A"-"A", "B"-"B", AND "C"-"C" SEE DWG. NO. U-101-040.



PLAN



☒ DENOTES: DOUBLE BARS L651 2 SPA. @ 6" = 1'-0"

* DENOTES: DOUBLE BARS H650 2 SPA. @ 1'-0" = 2'-0"

◐ DENOTES: BARS T550 4 SPA. @ 4" = 1'-4"

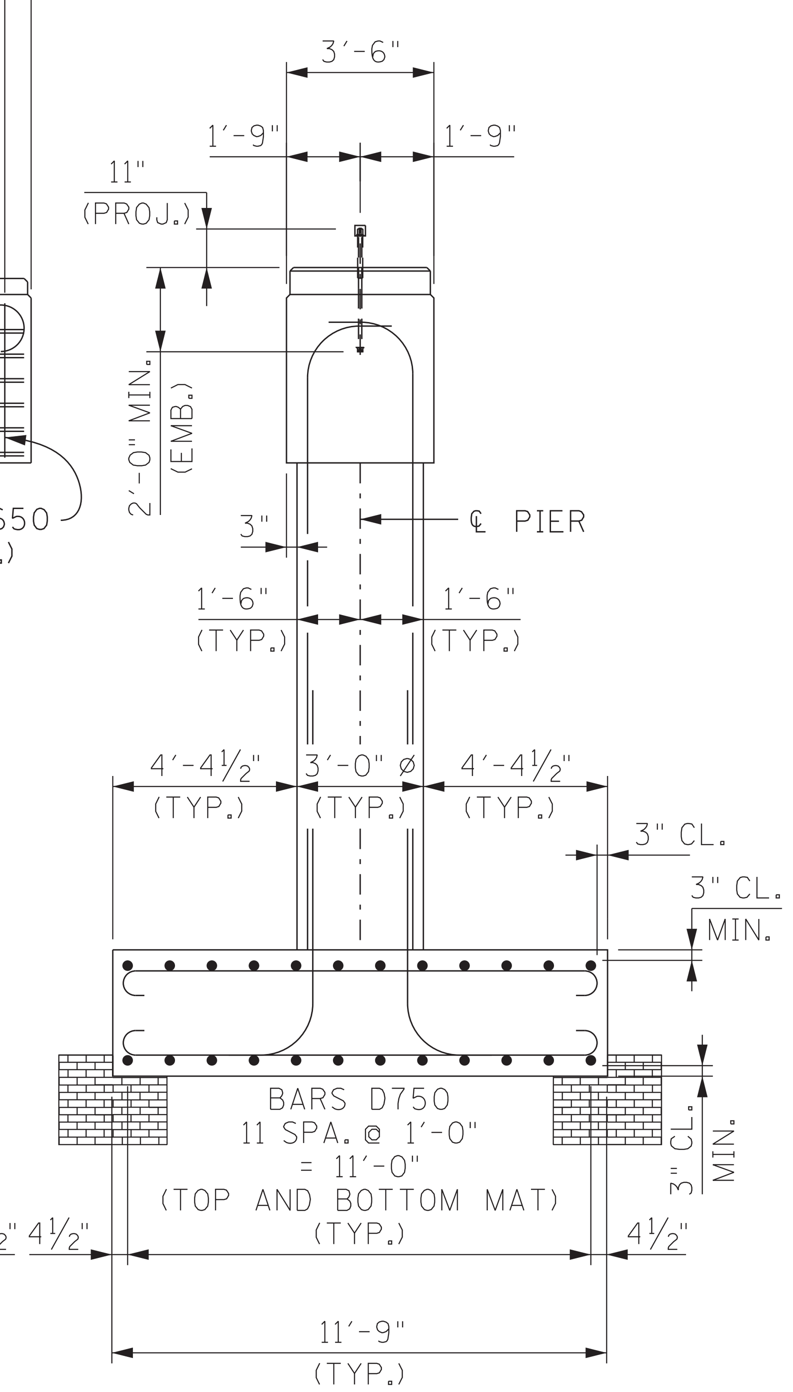
☒ DENOTES: BARS T550 4 SPA. @ 1'-0" = 4'-0"

▲ DENOTES: BARS T550 9 SPA. @ 4" = 3'-0"

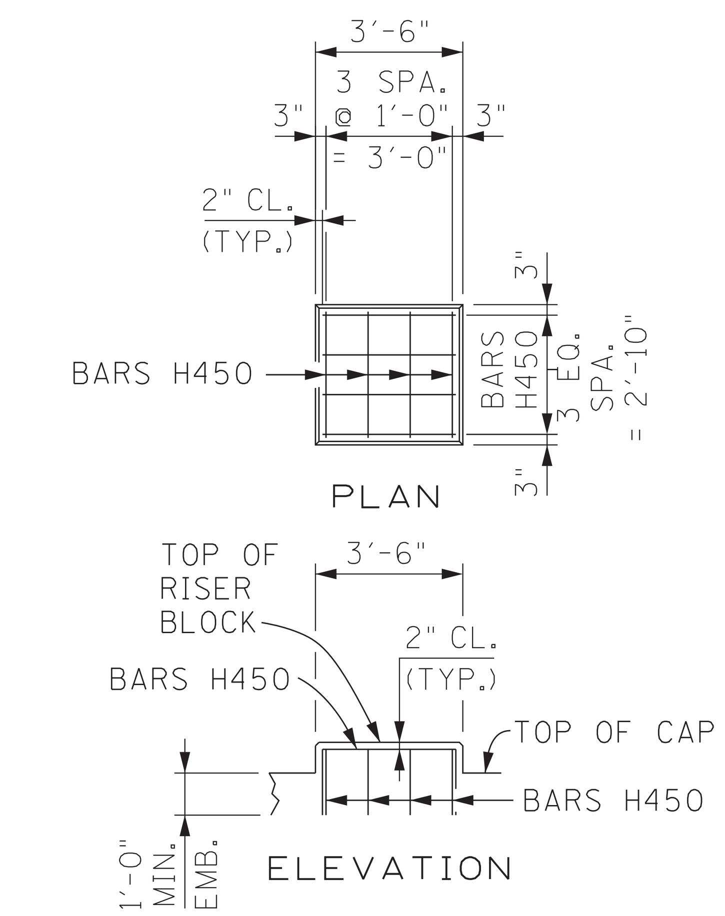
● DENOTES: BARS T550 7 SPA. @ 4" = 2'-4"

** DENOTES: REINFORCED RISER BLOCK

ELEVATION
(LOOKING FOWARD ON SURVEY)



END ELEVATION



RISER BLOCK REINFORCEMENT DETAILS

SEALED BY

JOSEPH ANDREW LAINE
STATE OF TENNESSEE

2/18/26

BRIDGE NO. 2
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
PIER NO. 1
STATE ROUTE 31
OVER
POOR VALLEY CREEK
BRIDGE ID. NO. 37SR0310007
STATION 230+94.00
LOG MILE 4.17
HAWKINS COUNTY

PIN NO.:	101394.00		
DESIGN BY:	J. LAINE	DATE:	2-25
DRAWN BY:	B. ERVIN	DATE:	2-25
SUPERVISED BY:	STEELE/J. SHOULDER	DATE:	2-25
CHECKED BY:	A. DAHIR	DATE:	3-25

U-101-38

10/23/2025 11:20:55 AM

PROJECT NO.	YEAR	SHEET NO.
STP/HPP-31(12)	2026	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
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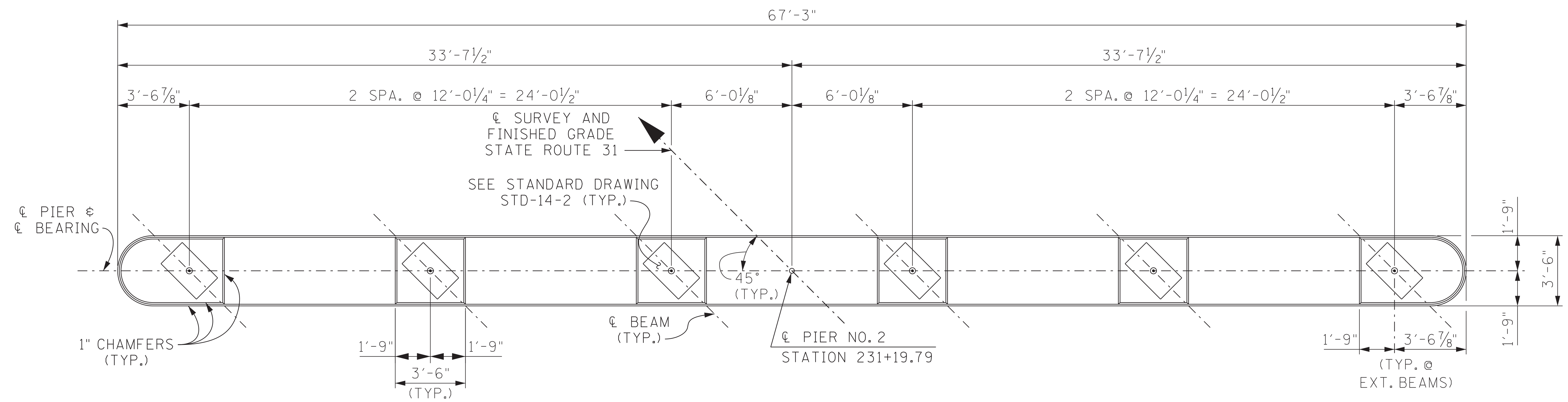
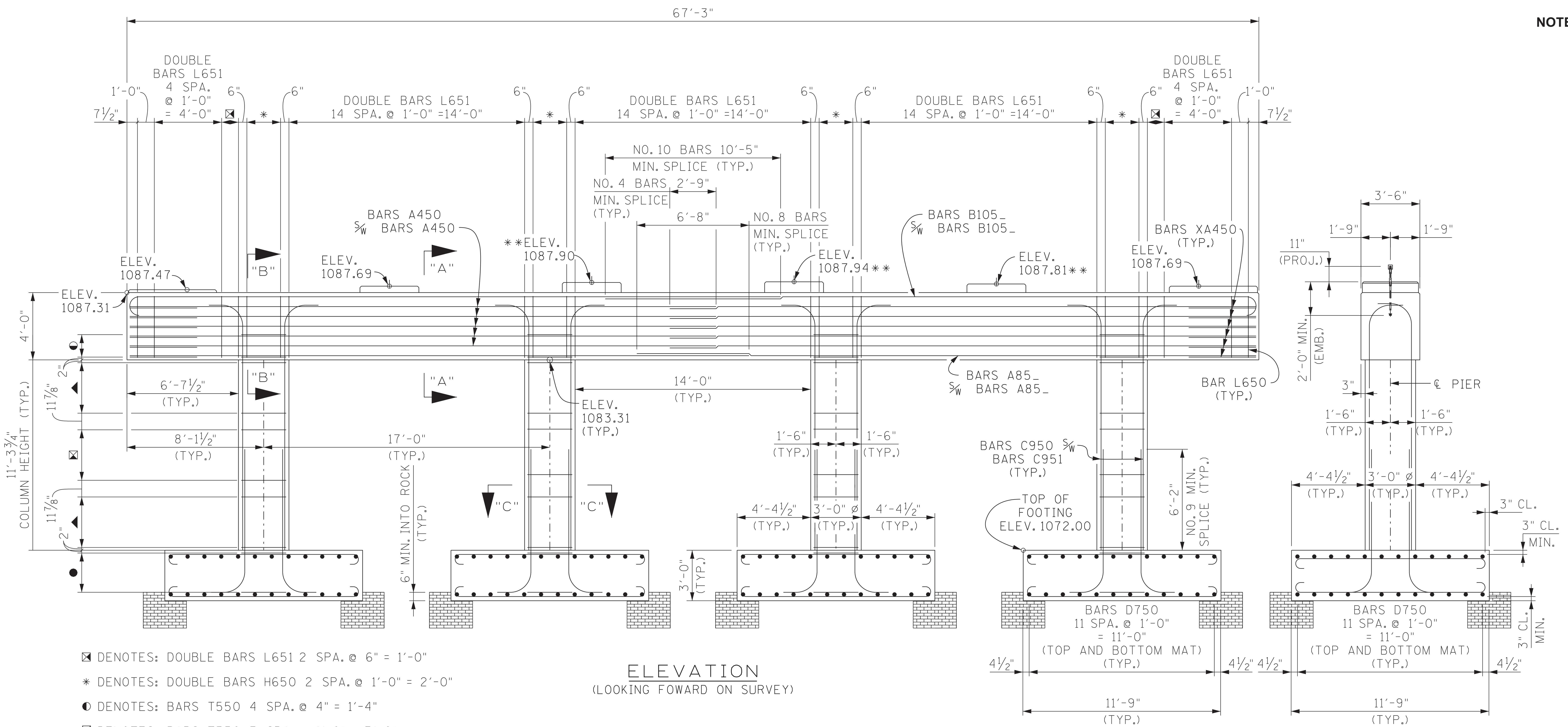
	- -		



PLAN



ELEVATION
(LOOKING FOWARD ON SURVEY)

END ELEVATION

NOTE: WHEN POURING CAP BEAM, PROVISIONS SHALL BE MADE FOR SETTING ANCHOR BOLTS. SEE STANDARD DRAWING STD-6-1. BOLT PROJECTION 11".

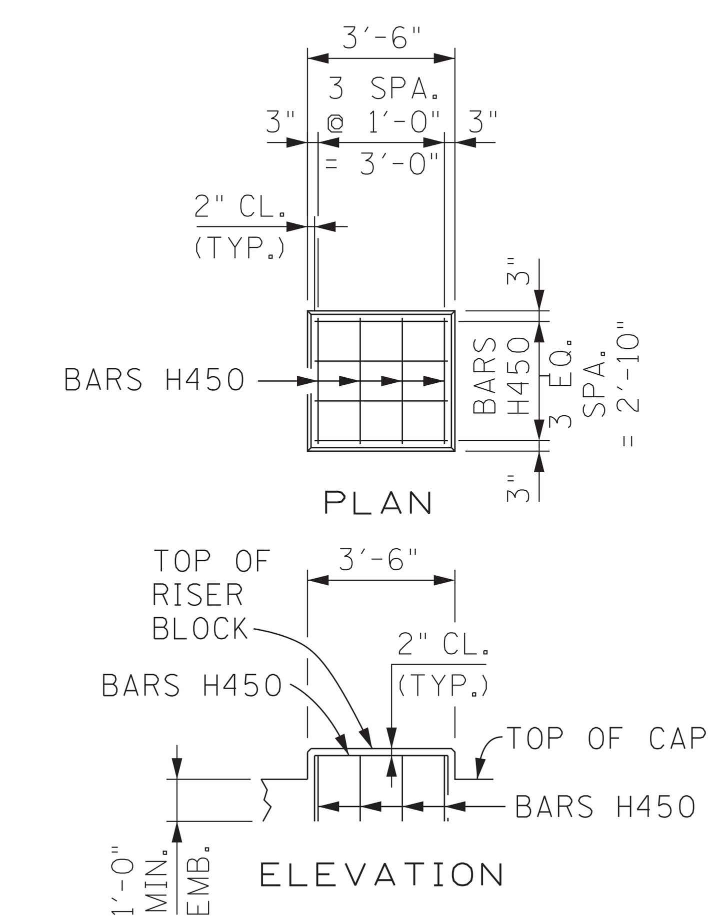
NOTE: RISER BLOCKS SHALL BE POURED MONOLITHICALLY WITH PIER CAP.

NOTE: RISER BLOCK BEARING SURFACE SHALL CONFORM TO BOTTOM OF BEAM GRADE.

NOTE: ELASTOMERIC PADS SHALL BE IN PLACE A MINIMUM OF ONE DAY BEFORE BEING DISTURBED BY SETTING BEAMS ON CONCRETE. PLACE RUBBER BONDING CEMENT IN SUCH A WAY THAT VISIBLE CONCRETE SURFACES WILL NOT BE STAINED.

NOTE: COLUMN STEEL SHALL EXTEND 3'-3" INTO PIER CAP.

NOTE: FOR SECTIONS "A"-"A", "B"-"B", AND "C"-"C" SEE DWG. NO. U-101-040.



RISER BLOCK REINFORCEMENT DETAILS

⊠ DENOTES: DOUBLE BARS L651 2 SPA. @ 6" = 1'-0"
∗ DENOTES: DOUBLE BARS H650 2 SPA. @ 1'-0" = 2'-0"
◐ DENOTES: BARS T550 4 SPA. @ 4" = 1'-4"
⊠ DENOTES: BARS T550 3 SPA. @ 1'-0" = 3'-0"
▲ DENOTES: BARS T550 9 SPA. @ 4" = 3'-0"
● DENOTES: BARS T550 7 SPA. @ 4" = 2'-4"
** DENOTES: REINFORCED RISER BLOCK

PIN NO.: 101394.00
DESIGN BY: J. LAINE DATE: 2-25
DRAWN BY: B. ERVIN DATE: 2-25
SUPERVISED BY: STEELE/J. SHOULDER DATE: 2-25
CHECKED BY: A. DAHIR DATE: 3-25

SEALED BY
JOSEPH ANDREW LAINE
STATE OF TENNESSEE
2/18/26

BRIDGE NO. 2
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
PIER NO. 2
STATE ROUTE 31
OVER
POOR VALLEY CREEK
BRIDGE ID. NO. 37SR0310007
STATION 230+94.00
LOG MILE 4.17
HAWKINS COUNTY

U-101-39

⊠ DENOTES: DOUBLE BARS L650 2 SPA. @ 6" = 1'-0"

∗ DENOTES: DOUBLE BARS H650 2 SPA. @ 1'-0" = 2'-0"

PROJECT NO.	YEAR	SHEET NO.
STP/HPP-31(12)	2026	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
	- -		
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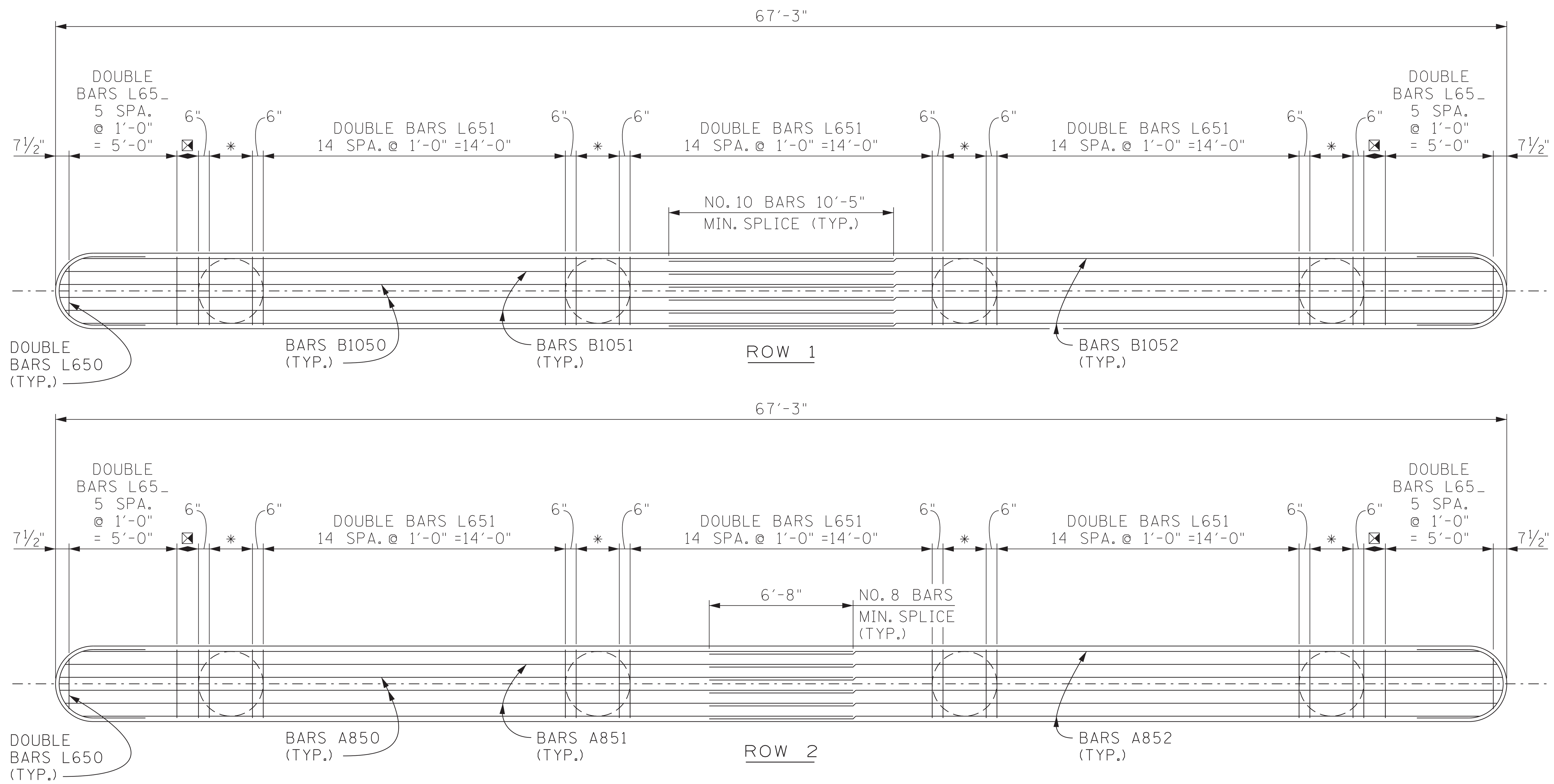
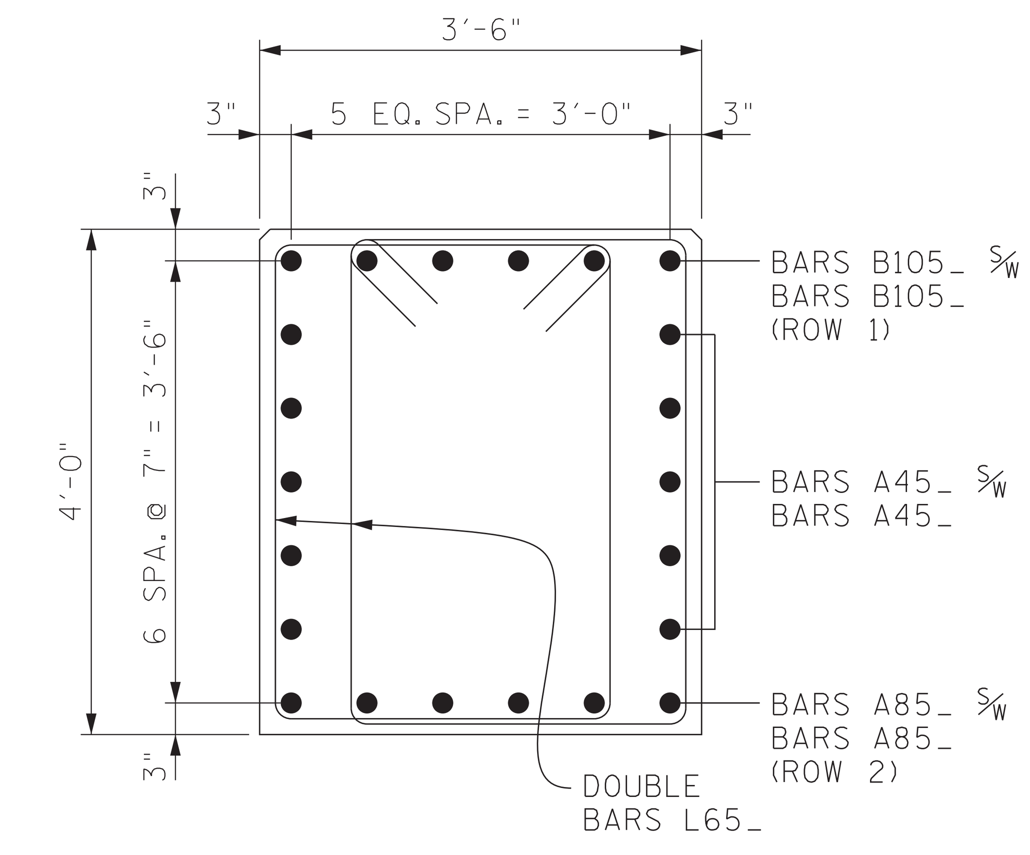
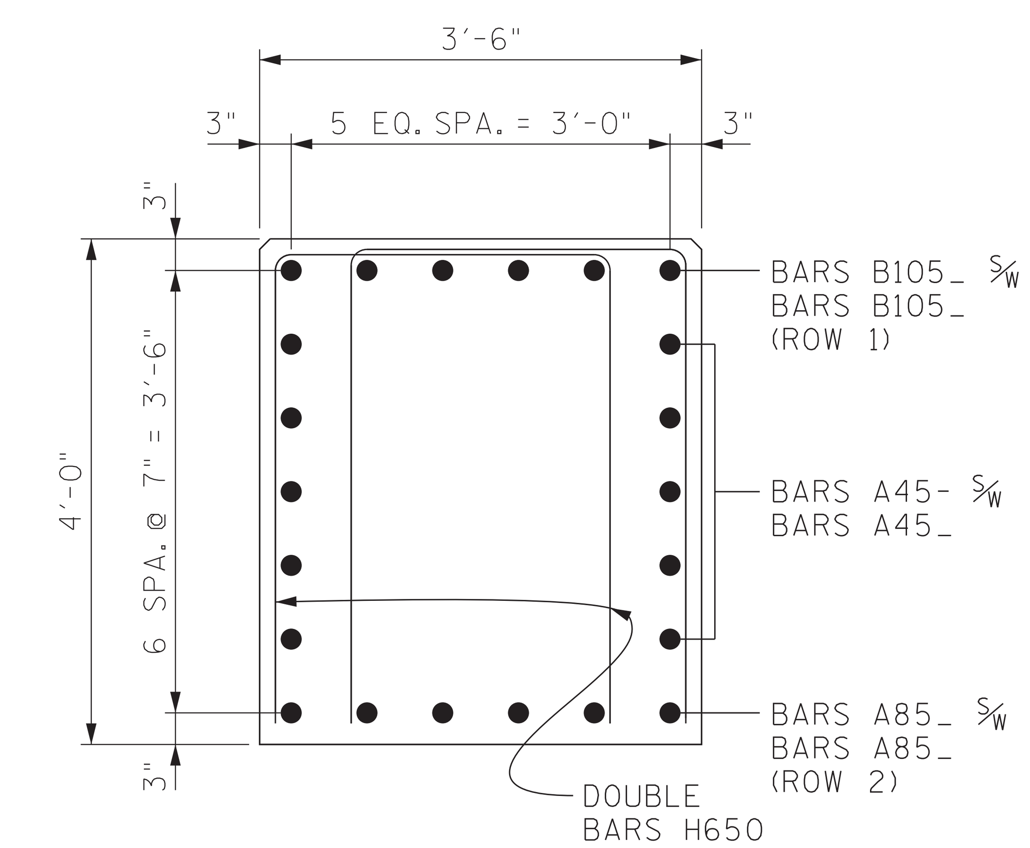
	- -		



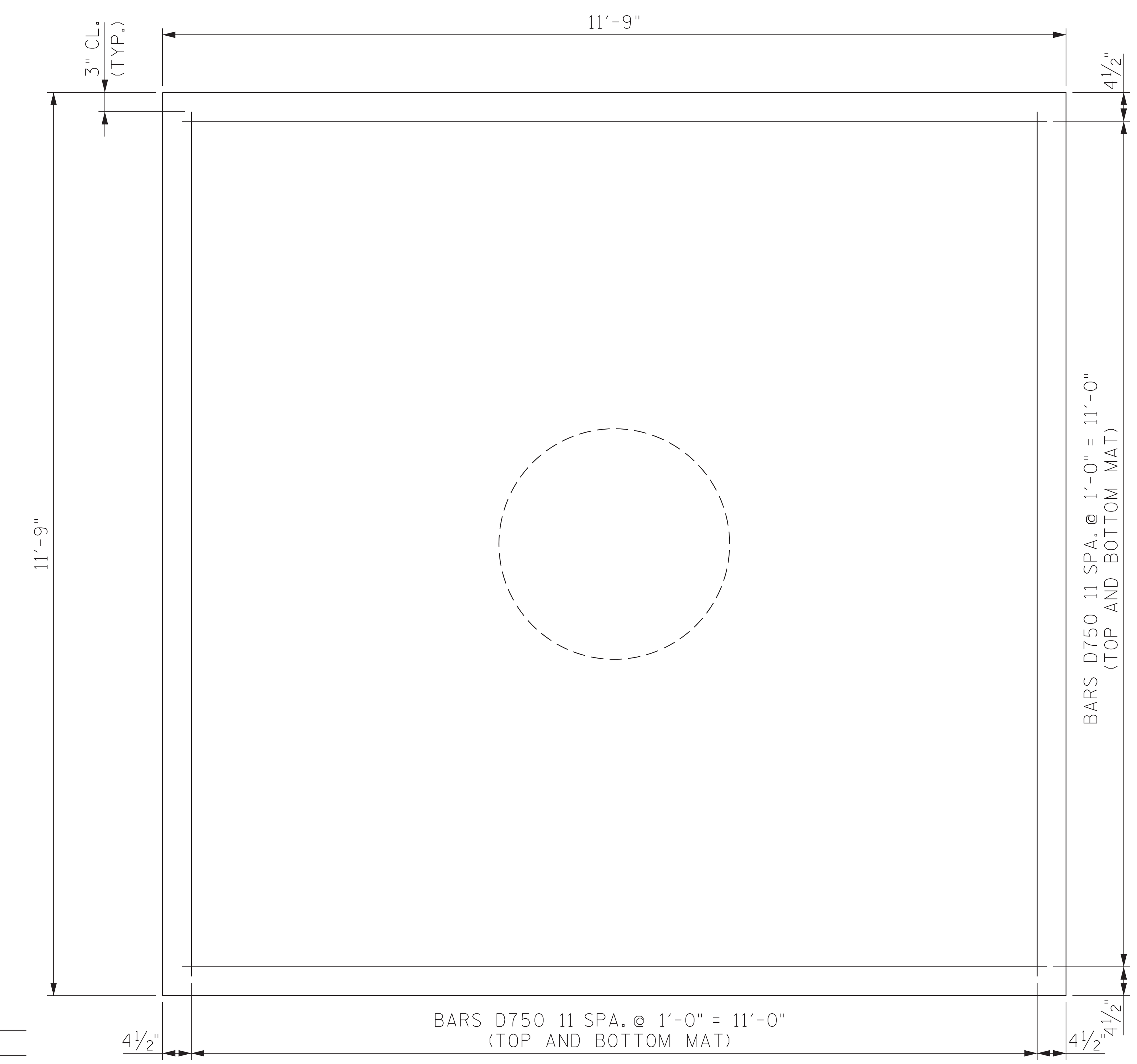
PLAN OF MAIN REINFORCING



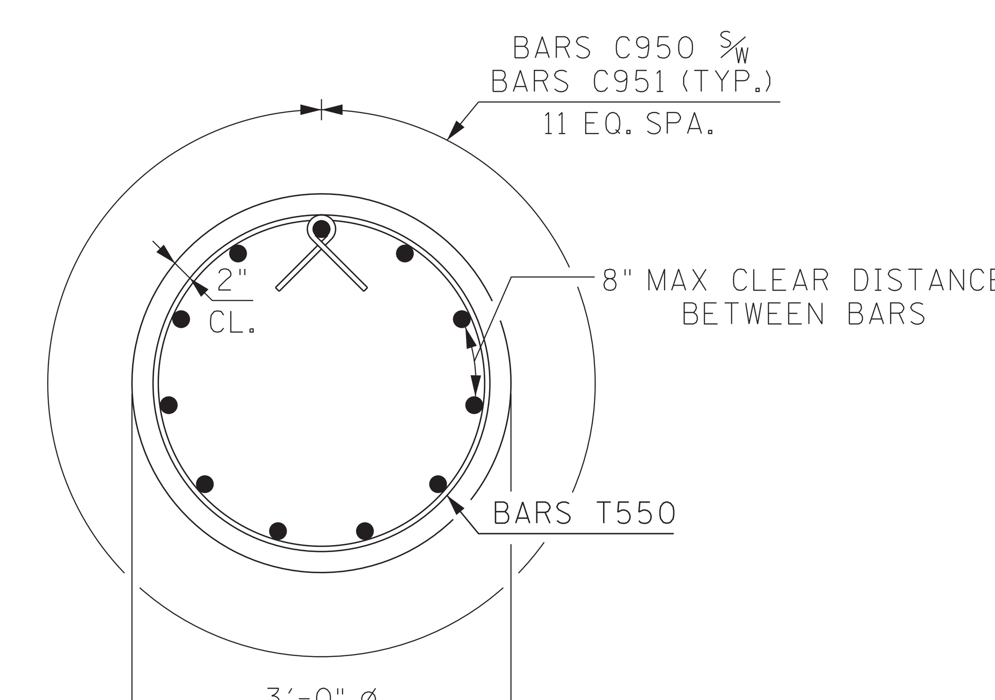
SECTION "A"-"A"



SECTION "B"-"B"

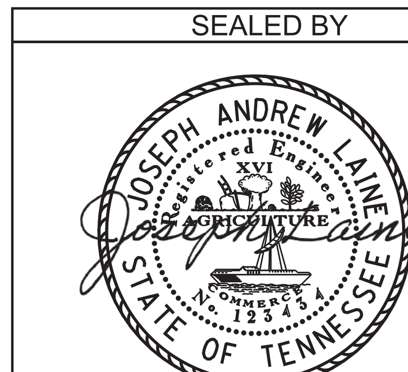


PLAN OF FOOTING



SECTION "C"-"C"

SEALED BY



2/18/26

PIN NO.:	101394.00		
DESIGN BY:	J. LAINE	DATE:	2-25
DRAWN BY:	B. ERVIN	DATE:	2-25
SUPERVISED BY:	STEELE/J. SHOULDER	DATE:	2-25
CHECKED BY:	A. DAHIR	DATE:	3-25

BRIDGE NO. 2
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
PIER NO. 1 AND NO. 2 DETAILS
STATE ROUTE 31
OVER
POOR VALLEY CREEK
BRIDGE ID. NO. 37SR0310007
STATION 230+94.00
LOG MILE 4.17
HAWKINS COUNTY

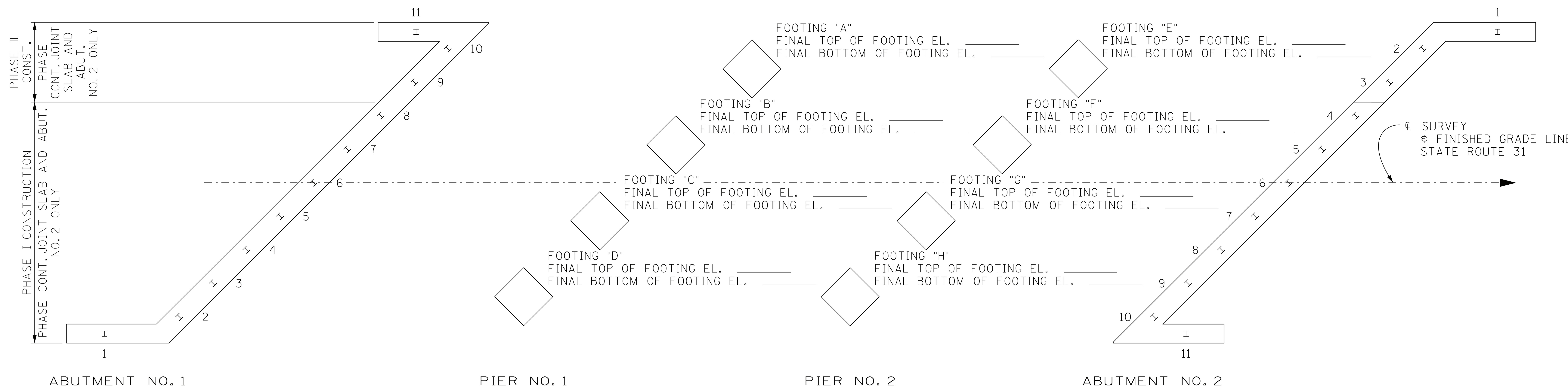
U-101-40

10/23/2025 11:24:11 AM

PROJECT NO.	YEAR	SHEET NO.
STP/HPP-31(12)	2026	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
	- -		
	- -		
	- -		
	- -		
	- -		



PLAN

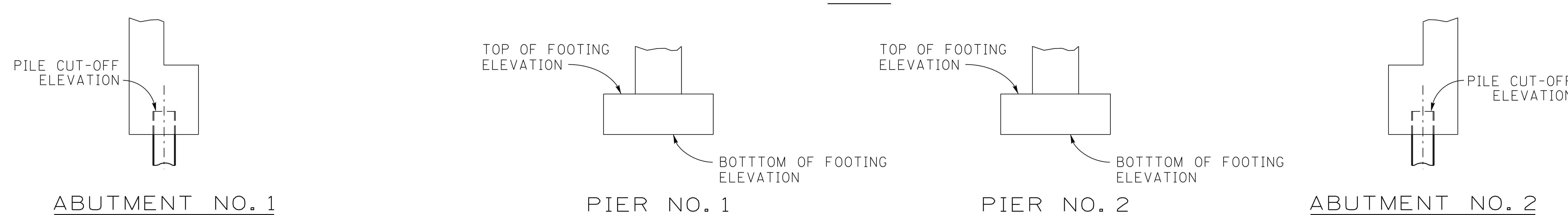


TABLE OF PILE DATA

		1	2	3	4	5	6	7	8	9	10	11
ABUTMENT NO. 1	PILE CUT-OFF ELEVATION											
	PILE TIP ELEVATION											
	IN PLACE PILE LENGTH											
ABUTMENT NO. 2	PILE CUT-OFF ELEVATION											
	PILE TIP ELEVATION											
	IN PLACE PILE LENGTH											

☞NOTE TO CONTRACTOR AND CONSTRUCTION OFFICE:
THE BLANKS ON THIS SHEET ARE TO BE FILLED IN BY THE CONSTRUCTION OFFICE AND/OR FIELD ENGINEER GIVING AS BUILT CONDITIONS. AFTER COMPLETION IT IS TO BE SENT TO THE DIVISION OF STRUCTURES TO BECOME PART OF FINAL BRIDGE DOCUMENTS.

SEALED BY

BRIDGE NO. 2
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
FINAL FOUNDATION DATA
STATE ROUTE 31
OVER
POOR VALLEY CREEK
BRIDGE ID. NO. 37SR0310007
STATION 230+94.00
LOG MILE 4.17
HAWKINS COUNTY

PIN NO.: 101394.00
DESIGN BY: J. LAINE DATE: 2-25
DRAWN BY: B. ERVIN DATE: 3-25
SUPERVISED BY: STEELE/J. SHOULDER DATE: 2-25
CHECKED BY: A. DAHIR DATE: 3-25

11:28:14 AM
10/23/2025

U-101-41

PROJECT NO.	YEAR	SHEET NO.
STP/HPP-31(12)	2026	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
	- -		
	- -		
	- -		
	- -		
	- -		

SUPERSTRUCTURE (EPOXY)

BARS	LOCATION	SIZE	NO. REQ'D.	BENDING DIMENSIONS A	B	C	D	LENGTH (FEET)
A500E	SLAB	5	144					60'-0"
A501E	SLAB	5	72					50'-0"
A502E	SLAB	5	460					42'-11"
A503E	SLAB	5	590					11'-9"
SERIES								
A504E	SLAB	5	2					99'-2"
				LENGTH VARIES FROM 11'-6 3/16" TO				
				6'-6 3/16" IN INC. OF 6" (11 BARS)				
SERIES								
A505E	SLAB	5	2					1715'-2"
				LENGTH VARIES FROM 42'-8 11/16" TO				
				11'-8 11/16" IN INC. OF 6" (63 BARS)				
SERIES								
A506E	SLAB	5	2					98'-0"
				LENGTH VARIES FROM 11'-8 11/16" TO				
				6'-2 11/16" IN INC. OF 6" (18 BARS)				
SERIES								
A507E	SLAB	5	2					1854'-4"
				LENGTH VARIES FROM 43'-2 11/16" TO				
				6'-2 11/16" IN INC. OF 6" (75 BARS)				
A600E	SLAB	6	94					32'-3"
A601E	SLAB	6	102					43'-3"
A602E	SLAB	6	102					46'-6"
B570E	PARAPET	5	956	2'-8"				3'-3"
SERIES								
C500E	SLAB/ENDWALL	5	4	*				38'-6"
				*DIM. A VARIES FROM 2'-2 11/16" TO				
				5'-8 11/16" IN INC. OF 6" (8 BARS)				
SERIES								
C501E	SLAB/ENDWALL	5	2	*				111'-7"
				*DIM. A VARIES FROM 11'-8 11/16" TO				
				6'-2 11/16" IN IINC. OF 6" (11 BARS)				

SUPERSTRUCTURE

BARS	LOCATION	SIZE	NO. REQ'D.	BENDING DIMENSIONS A	B	C	D	LENGTH (FEET)
A500	DIAPHRAGM	5	80					10'-9"
CD500	DIAPHRAGM	5	16	3'-0"	1'-7 1/8"	2'-7 1/8"		4'-7"
CD501	DIAPHRAGM	5	16	3'-0"	1'-5 1/4"	2'-4"		4'-5"
F500	DIAPHRAGM	5	64	3'-0"	1'-4"	3'-0"	1'-9 3/4"	8'-3"
L400	DIAPHRAGM	4	100	1'-2"	2'-8"			8'-6"
L401	DIAPHRAGM	4	24	1'-2"	1'-2"			5'-6"

ABUTMENT NO. 1

BARS	LOCATION	SIZE	NO. REQ'D.	BENDING DIMENSIONS A	B	C	D	LENGTH (FEET)
A440	ROADWAY BRACKET	4	1					60'-0"
A441	ROADWAY BRACKET	4	1					7'-5"
A442	WINGWALLS	4	24					3'-9"
A443	WINGWALL	4	5					13'-11"
A444	WINGWALL	4	5					13'-5"
A540	ABUTMENT BEAM	5	2					60'-0"
A541	ABUTMENT BEAM	5	2					14'-3"
A542	WING BEAM	5	2					16'-0"
A543	WING BEAM	5	2					14'-6"
A640	ENDWALL	6	8					60'-0"
A642	ENDWALL	6	8					12'-8"
A643	WINGWALLS	6	24					3'-9"
A644	ENDWALL/ABUTMENT BEAM	6	12					4'-2"
A645	WINGWALL	6	5					14'-11"
A646	WINGWALL	6	5					12'-5"
A647	FILLETS	6	18					3'-0"
A740	ABUTMENT BEAM	7	13					60'-0"
A741	ABUTMENT BEAM	7	13					15'-5"
A742	WING BEAM	7	10					16'-0"
A743	WING BEAM	7	10					14'-6"
B640	ENDWALL	6	8	5'-0"				5'-8"
H440	RISERS	4	9	1'-7"	1'-6"			4'-7"
H441	RISERS	4	9	1'-6"	1'-6"			4'-6"
H540	ENDWALL/ROADWAY BRACKET	5	64	2'-2"	6"			3'-2"
H640	ENDWALL/ABUTMENT BEAM	6	65	1'-2"	4'-2"			9'-6"
H641	WINGWALLS/WING BEAMS	6	23	1'-2"	3'-11"			9'-0"
HA640	FILLETS	6	24	1'-2"	2'-8"	1'-4"		5'-2"
L540	ABUTMENT BEAM	5	64	3'-2"	2'-8"			12'-7"
L541	WING BEAMS	5	23	2'-8"	2'-8"			11'-7"
VA840	PILES	8	18	2'-6"	2'-6"			5'-0"

ABUTMENT NO. 1 (EPOXY)

BARS	LOCATION	SIZE	NO. REQ'D.	BENDING DIMENSIONS A	B	C	D	LENGTH (FEET)
A640E	ENDWALL	6	2					60'-0"
A641E	ENDWALL	6	2					14'-0"
A643E	ENDWALL	6	140					3'-9"
B570E	PARAPET/WINGWALLS	5	36	2'-8"				3'-3"
B640E	ENDWALL	6	2	5'-0"				5'-8"
F640E	P.A.B.E.	6	66	1'-1"	1'-3"	1'-1"	1'-3"	4'-0"
H400E	PARAPET	4	6	11"	3'-11"			8'-9"
H401E	PARAPET	4	2	11"	3'-10"			8'-7"
H402E	PARAPET	4	2	10"	3'-9"			8'-4"
H403E	PARAPET	4	2	8"	3'-8"			8'-0"
H404E	PARAPET	4	2	5"	3'-7"			7'-7"
SERIES								
HD400E	PARAPET	4	2	*	3'-11"	4'-0"	9"	33'-4"
				*DIM. A VARIES FROM 4 3/8" TO 5 1/4"				
				IN INC. OF 5/16" (4 BARS)				
SERIES								
H401E	PARAPET	4	2	*	3'-11"	4'-0"	9"	42'-2"
				*DIM. A VARIES FROM 5 1/2" TO 6 7/8"				
				IN INC. OF 5/16" (5 BARS)				
R640E	SLAB/ENDWALL	6	65	5'-2"	3'-0"			8'-2"

ABUTMENT NO. 2

BARS	LOCATION	SIZE	NO. REQ'D.	BENDING DIMENSIONS A	B	C	D	LENGTH (FEET)
A440	ROADWAY BRACKET	4	1					56'-3"
A441	ROADWAY BRACKET	4	1					11'-1"
A442	WINGWALLS	4	24					3'-8"
A443	WINGWALL	4	5					13'-11"
A444	WINGWALL	4	5					13'-5"
A540	ABUTMENT BEAM	5	2					60'-0"
A541	ABUTMENT BEAM	5	2					14'-3"
A542	WING BEAM	5	2					16'-0"
A543	WING BEAM	5	2					14'-6"
A642	ENDWALL	6	8					59'-6"
A643	ENDWALL	6	8					13'-2"
A645	ABUTMENT BEAM/ENDWALL	6	12					4'-2"
A646	WINGWALLS	6	24					3'-8"
A647	WINGWALL	6	5					14'-11"
A648	WINGWALL	6	5					12'-5"
A649	FILLETS	6	18					3'-0"
A740	ABUTMENT BEAM	7	13					57'-0"
A741	ABUTMENT BEAM	7	13					14'-3"
A742	WING BEAM	7	10					16'-0"
A743	WING BEAM	7	10					14'-6"
A744	ABUTMENT BEAM	7	13					8'-4"
B640	ENDWALL	6	8	5'-0"				5'-8'
H440	RISERS	4	9	1'-7"	1'-6"			4'-7"
H441	RISERS	4	9	1'-6"	1'-6"			4'-6"
H540	ENDWALL/ROADWAY BRACKET	5	64	2'-2"	6"			3'-2"
H640	ENDWALL/ABUTMENT BEAM	6	65	1'-2"	4'-2"			9'-6'
H641	WINGWALLS/WING BEAMS	6	23	1'-2"	3'-10"			8'-10"
HA640	FILLETS	6	24	1'-2"	2'-8"	1'-4"		5'-2"
L540	ABUTMENT BEAM	5	64	3'-2"	2'-8"			12'-7"
L541	WING BEAMS	5	23	2'-8"	2'-8"			11'-7"
VA840	PILES	8	18	2'-6"	2'-6"			5'-0'

ABUTMENT NO. 2 (EPOXY)

BARS	LOCATION	SIZE	NO. REQ'D.	BENDING DIMENSIONS A	B	C	D	LENGTH (FEET)
A640E	ENDWALL	6	2					57'-5"
A641E	ENDWALL	6	2					19'-7"
A644E	ENDWALL	6	140					3'-9"
B570E	PARAPET/WINGWALLS	5	36	2'-8"				3'-3"
B640E	ENDWALL	6	2	5'-0"				5'-8"
F640E	P.A.B.E.	6	66	1'-1"	1'-3"	1'-1"	1'-3"	4'-0"
H400E	PARAPET	4	6	11"	3'-11"			8'-9"
H401E	PARAPET	4	2	11"	3'-10"			8'-7"
H402E	PARAPET	4	2	10"	3'-9"			8'-4"
H403E	PARAPET	4	2	8"	3'-8"			8'-0"
H404E	PARAPET	4	2	5"	3'-7"			7'-7"
SERIES								
HD400E	PARAPET	4	2	*	3'-11"	4'-0"	9"	33'-4"
				*DIM. A VARIES FROM 4 3/8" TO 5 1/4"				
				IN INC. OF 5/16" (4 BARS)				
SERIES								
HD401E	PARAPET	4	2	*	3'-11"	4'-0"	9"	42'-2"
				*DIM. A VARIES FROM 5 1/2" TO 6 7/8"				
				IN INC. OF 5/16" (5 BARS)				
R640E	SLAB/ENDWALL	6	65	5'-2"	3'-0"			8'-2"

PIER NO. 1

BARS	LOCATION	SIZE	NO. REQ'D.	BENDING DIMENSIONS A	B	C	D	LENGTH (FEET)
A450	CAP	4	20					34'-9"
A850	CAP	8	4					40'-1"
A851	CAP	8	4					39'-10"
A852	CAP	8	4					39'-1"
B1050	CAP	10	4					46'-8"
B1051	CAP	10	4					46'-5"
B1052	CAP	10	4					45'-8"
C950	CAP/COLUMNS	9	44	14'-10"				16'-5"
C951	COLUMNS/FOOTINGS	9	44	8'-10"				10'-5"
D750	FOOTINGS	7	192	11'-0"				12'-11"
H450	RISERS	4	16	3'-2"	1'-8"			6'-6"
H650	CAP	6	24	2'-6"	3'-8"			9'-10"
L650	CAP	6	2	1'-11"	3'-8"			12'-6"
L651	CAP	6	118	2'-6"	3'-8"			13'-8"
T550	COLUMNS	5	152	2'-8"				9'-5"
XA450	CAP	4	12	1'-7"	2'-9"			10'-6"

PIER NO. 2

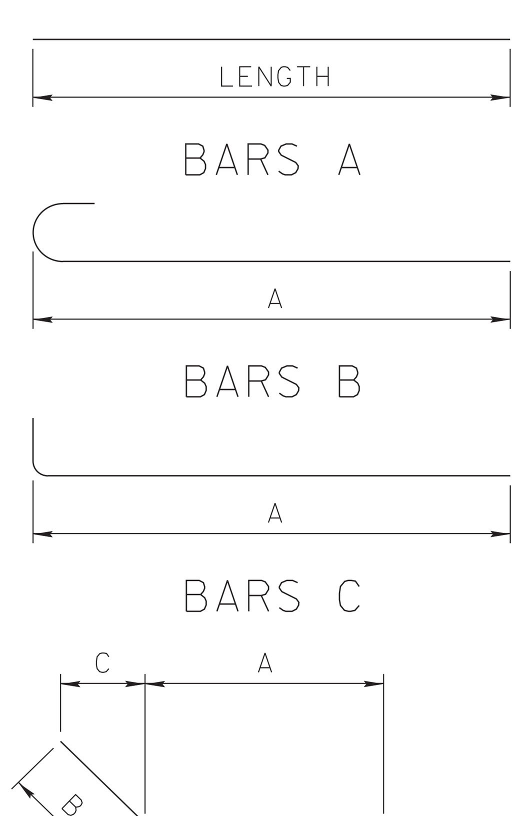
BARS	LOCATION	SIZE	NO. REQ'D.	BENDING DIMENSIONS A	B	C	D	LENGTH (FEET)
A450	CAP	4	20					34'-9"
A850	CAP	8	4					40'-1"
A851	CAP	8	4					39'-10"
A852	CAP	8	4					39'-1"
B1050	CAP	10	4					46'-8"
B1051	CAP	10	4					46'-5"
B1052	CAP	10	4					45'-8"
C950	CAP/COLUMNS	9	44	14'-7"				16'-2"
C951	COLUMNS/FOOITNGS	9	44	8'-10"				10'-5"
D750	FOOTINGS	7	192	11'-0"				12'-11"
H450	RISERS	4	16	3'-2"	1'-8"			6'-6"
H650	CAP	6	24	2'-6"	3'-8"			9'-10"
L650	CAP	6	2	1'-10"	3'-8"			12'-6"
L651	CAP	6	118	2'-6"	3'-8"			13'-8"
T550	COLUMNS	5	148	2'-8"				9'-5"
XA450	CAP	4	12	1'-7"	2'-9"			10'-6"

REINFORCING STEEL CODE

TYPE	SIZE	SERIES
A	5	06

NOTE: DIMENSIONS SHOWN ON THIS SHEET ARE OUTSIDE TO OUTSIDE OF BAR. STANDARD C.R.S.I. HOOK DETAILS SHALL APPLY, EXCEPT AS NOTED.

NOTE: THE SUFFIX E FOR BARS SO MARKED DENOTES EPOXY COATED REINFORCEMENT.

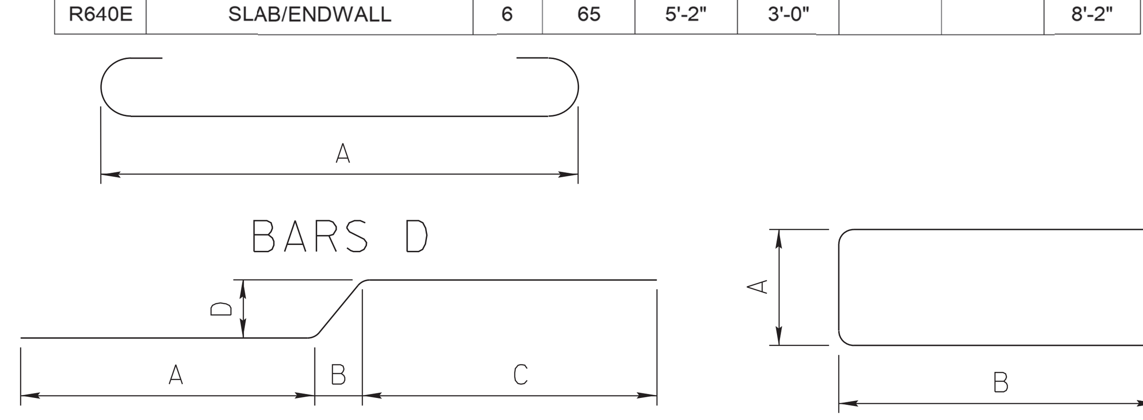


BARS A

BARS B

BARS C

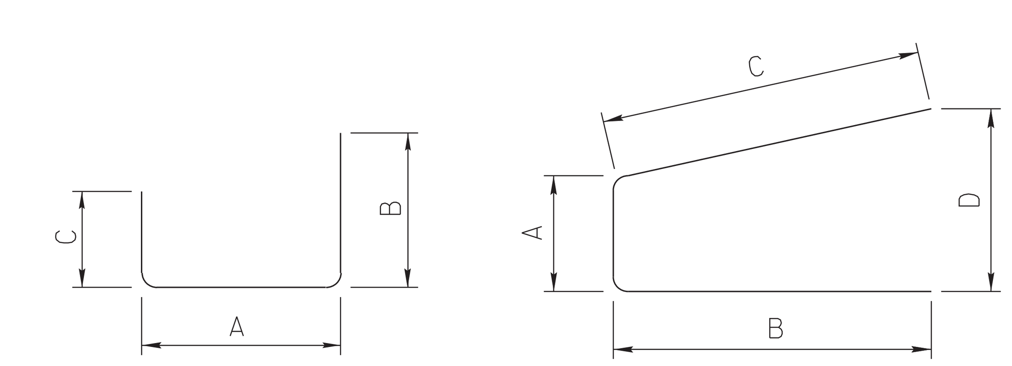
BARS CD



BARS D

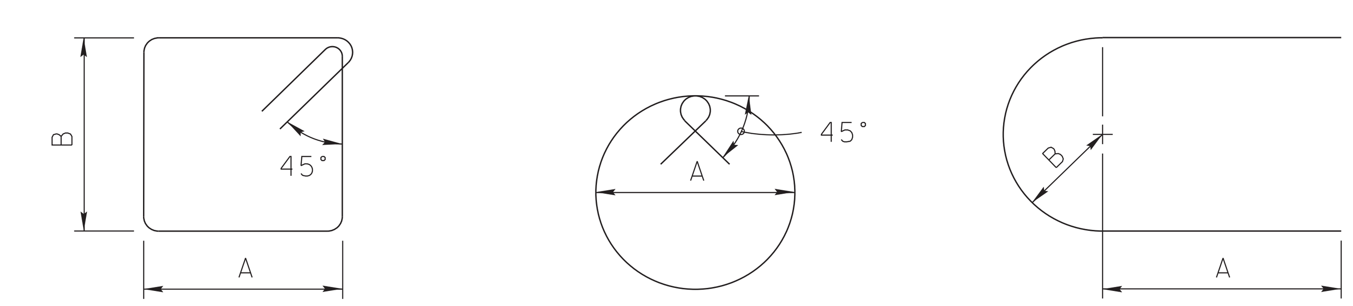
BARS F

BARS H



BARS HA

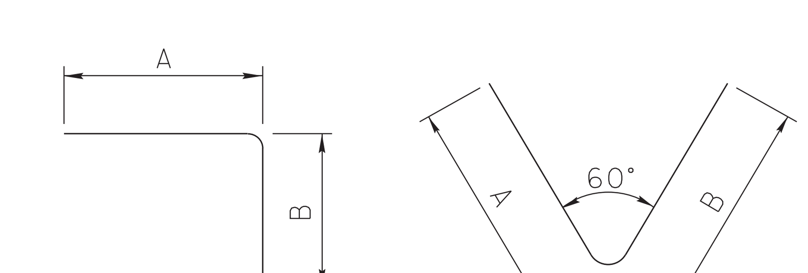
BARS HD



BARS L

BARS T

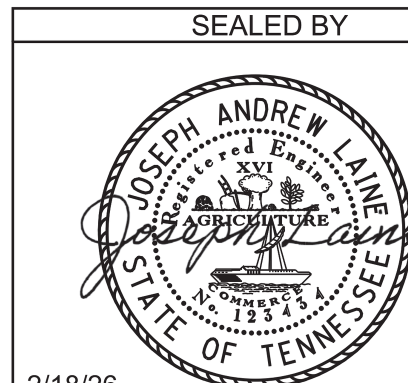
BARS XA



BARS R

BARS VA

SEALED BY



2/18/26

PIN NO.: 101394.00
DESIGN BY: J. LAINE DATE: 2-25
DRAWN BY: T. WISEMAN DATE: 3-25
SUPERVISED BY: STEELE/J. SHOULDER DATE: 2-25
CHECKED BY: A. DAHIR DATE: 3-25

BRIDGE NO. 2
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BILL OF STEEL
STATE ROUTE 31
OVER
POOR VALLEY CREEK
BRIDGE ID. NO. 37SR0310007
STATION 230+94.00
LOG MILE 4.17
HAWKINS COUNTY

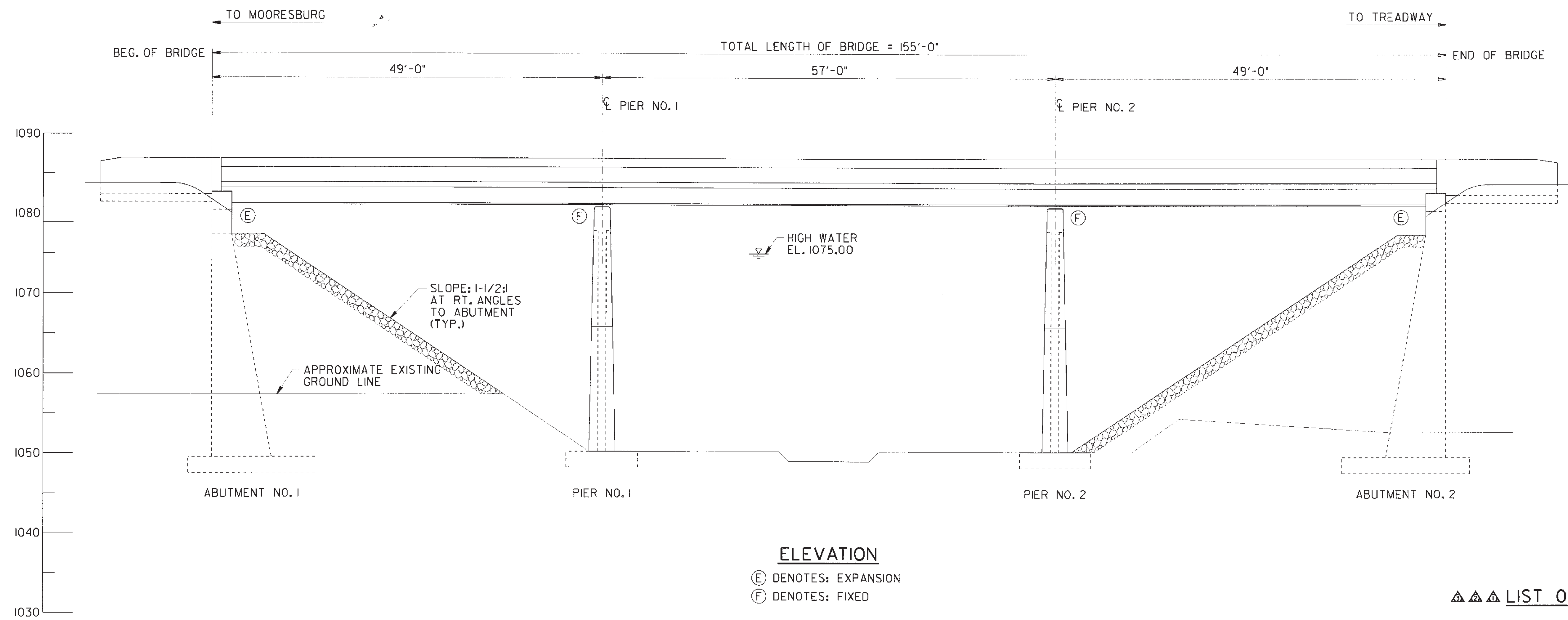
U-101-42

10/23/2025 11:35:07 AM

PROJECT NO.		YEAR	SHEET NO.
FEDERAL	BH-STP-31(9)	2010	
STATE	37022-3215-94		

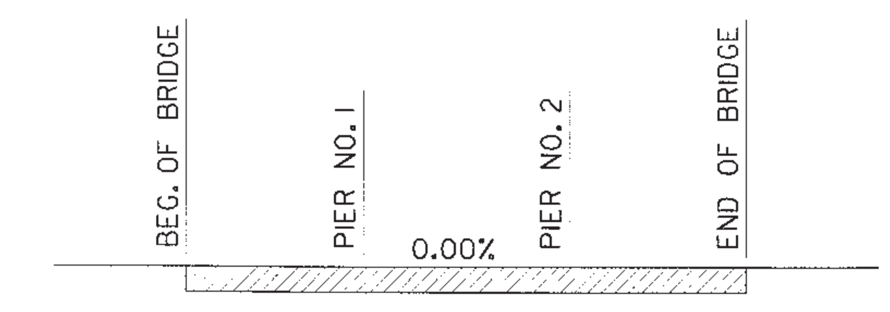
REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	6-10-10	SMH	REVISED LIST OF DRAWINGS
2	6-23-10	SMH	REVISED LIST OF DRAWINGS
3	9-07-10	SMH	REVISED LIST OF DRAWINGS AND GENERAL SCOPE OF WORK



ELEVATION

Ⓔ DENOTES: EXPANSION
Ⓕ DENOTES: FIXED



SKETCH SHOWING GRADE

△ GENERAL SCOPE OF WORK

1. PROVIDE REQUIRED TRAFFIC CONTROL TO MAINTAIN ONE LANE OF TRAFFIC AT ALL TIMES ON THE EXISTING BRIDGE.
2. REMOVE EXISTING 3 1/4" +/- ASPHALT OVERLAY FOR THE ENTIRE LENGTH OF BRIDGE AND FOR A 100 FOOT TRANSITION LENGTH BEYOND EACH END OF THE BRIDGE.
3. REMOVE EXISTING CURBS, CONCRETE PARAPET AND STRUCTURAL STEEL TUBE RAILING, AND REINFORCED CONCRETE SLAB WITHIN THE PHASED CONSTRUCTION LIMITS SHOWN.
4. CONSTRUCT NEW 8 1/4" SLAB (32'-9" INSIDE TOP OF PARAPET RAILS) WITH NEW STD-1-1SS CONCRETE PARAPETS AND PARAPET DRAINS. CONSTRUCT (4) NEW CONCRETE ENDPOSTS, OFF-BRIDGE, (3 SPANS). SEE DETAILS AND NOTES ON STD. DWG. NO. STD-1-1SS AND DWG. NO. BR-102-4. USE LIGHTWEIGHT CONCRETE.
5. MECHANICALLY GROOVE BRIDGE DECK.
6. BLAST CLEAN AND PAINT ALL EXISTING STRUCTURAL STEEL GIRDERS, BEARING DEVICES AND CROSS FRAMES. SEE BLAST CLEANING AND PAINTING NOTES ON DWG. NO. BR-102-3.
7. REPLACE AREAS OF STRUCTURAL STEEL WHERE SIGNIFICANT SECTION LOSS HAS OCCURRED IN FLANGES OR WEB. ALSO ALL CROSS-FRAMES WITH LOSS OF SECTION AS SHOWN ON DWG. NO. BR-102-9.
8. REMOVE ALL EXISTING ROLLER TYPE BEARING DEVICES AT BOTH ABUTMENTS, CONSTRUCT NEW RISER BLOCKS AND INSTALL NEW NEOPRENE BEARING PADS TO MATCH EXISTING NEOPRENE BEARING PADS IN THE EXISTING WIDENED SECTION OF THE BRIDGE.
9. REMOVE EXISTING EXPANSION JOINT SYSTEM AND INSTALL NEW ELASTOMERIC CONCRETE SILICONE SEAL SYSTEM WITH BACKER ROD AT BOTH ABUTMENTS.
10. REMOVE THE EXISTING GUARDRAIL AT BRIDGE ENDS AND INSTALL NEW METAL GUARDRAIL ATTACHMENT AT BRIDGE ENDS AT ALL FOUR CORNERS OF THE EXISTING BRIDGE.
11. INSTALL NEW GUARDRAIL TO TIE NEW GUARDRAIL AT BRIDGE ENDS INTO EXISTING GUARDRAIL AS SHOWN ON SHEET 2C.
12. REPAIR CONCRETE SURFACE DEFECTS ON EXISTING ABUTMENTS AND PIERS BY CHIPPING TO SOUND CONCRETE AND PATCHING BACK TO ORIGINAL LINES WITH THE OPTION OF POLYMER MODIFIED CEMENTIOUS PATCHING MATERIAL OR HIGH EARLY STRENGTH CONCRETE DEPENDING ON THE DEPTH OF DETERIORATION.
13. REPAIR AREAS OF FILL SETTLEMENT OR EROSION UNDER ABUTMENTS USING SACK CONCRETE.
14. REMOVE AND DISPOSE OF ALL BRUSH AND TREES FOR A DISTANCE OF 10'-0" ALONG EACH SIDE OF THE BRIDGE AS DIRECTED BY THE ENGINEER.
15. APPLY HIGH MOLECULAR WEIGHT METHACRYLATE (HMWM) CRACK SEAL IN LONGITUDINAL CONSTRUCTION JOINTS. SEALER SHALL BE APPLIED AFTER CONCRETE HAS REACHED AN APPROPRIATE CURE TIME AND DECK GROOVING HAS BEEN COMPLETED.
16. APPLY TEXTURE FINISH TO ALL PIERS, PARAPETS, ENDPOSTS, CANTILEVERS AND ALL EXPOSED ABUTMENT SURFACES.

△△△ LIST OF DRAWINGS

DWG. NO.	LAST REV. DATE	DRAWING
BR-102-1	9-07-10	ELEVATION OF BRIDGE TO BE REPAIRED
BR-102-2		PLAN OF BRIDGE TO BE REPAIRED
BR-102-3	6-23-10	GENERAL NOTES AND ESTIMATED BRIDGE QUANTITIES
BR-102-4	9-07-10	SUPERSTRUCTURE
BR-102-5		SUPERSTRUCTURE DETAILS
BR-102-6		SUPERSTRUCTURE DETAILS
BR-102-7	9-07-10	SUPERSTRUCTURE DETAILS
BR-102-8	6-23-10	SUPERSTRUCTURE DETAILS
BR-102-9		STRUCTURAL STEEL DETAILS
BR-102-10		ABUTMENT NO. 1 REPAIR DETAILS
BR-102-11		ABUTMENT NO. 2 REPAIR DETAILS
BR-102-12		PIER REPAIR DETAILS
BR-102-13		MISCELLANEOUS REPAIR DETAILS
BR-102-14		ENDPOST REPLACEMENT DETAILS

* LIST OF STANDARD DRAWINGS

DWG. NO.	LAST REV. DATE	DRAWING
S-GR-SERIES	VARIES	STANDARD GUARDRAIL DETAILS
STD-1-1SS		BRIDGE RAILING SINGLE SLOPE CONCRETE PARAPET
STD-1-2SS		STEEL SLIDER PLATE ASSEMBLIES FOR SINGLE SLOPE CONCRETE PARAPET AND BRIDGE DECK DRAIN DETAILS - 2007
STD-1-5	8-8-08	PAVEMENT AT BRIDGE ENDS
STD-2-1		BRIDGE MOUNTED INTERCONNECTED PORTABLE BARRIER RAIL
STD-2-2		VERTICAL PANEL DETAILS
STD-9-1	12-19-94	REINFORCING BAR SUPPORT DETAILS FOR CONCRETE SLAB

* LIST OF REFERENCE DRAWINGS

DWG. NO.	DRAWING
K-72-121 THRU K-72-126G	EXISTING BRIDGE PLANS

LIST OF SPECIAL PROVISIONS

NO.	LAST REV. DATE	REGARDING
602	**	STEEL STRUCTURES
604CR	**	REPAIR OF BRIDGE DECK CRACKS

* DENOTES: THESE DRAWINGS ARE TO BE PRINTED WITH PLANS.
** DENOTES: CURRENT REVISION DATE, AS PER CONTRACT DOCUMENTS.

SONG MICHAEL HAN
REGISTERED ENGINEER
AGRICULTURE COMMERCE
NO. 108841
STATE OF TENNESSEE
9/7/10

ROADWAY WIDTH = 32'-9"
WITH STD-1-1SS CONCRETE PARAPETS
2009 EST. ADT = 2,500
POSTED SPEED LIMIT = 55 M.P.H.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ELEVATION OF BRIDGE TO BE REPAIRED
STATE ROUTE 31
OVER
POOR VALLEY CREEK
BRIDGE NO. 37-SR31-2.34
HAWKINS COUNTY
2010

DESIGNED BY	M. HAN	DATE	01/10
DRAWN BY	M. JONES	DATE	01/10
SUPERVISED BY	S. EDWARDS	DATE	01/10
CHECKED BY	M. JONES, M. HAN	DATE	01/10

mtjones
9/8/2010
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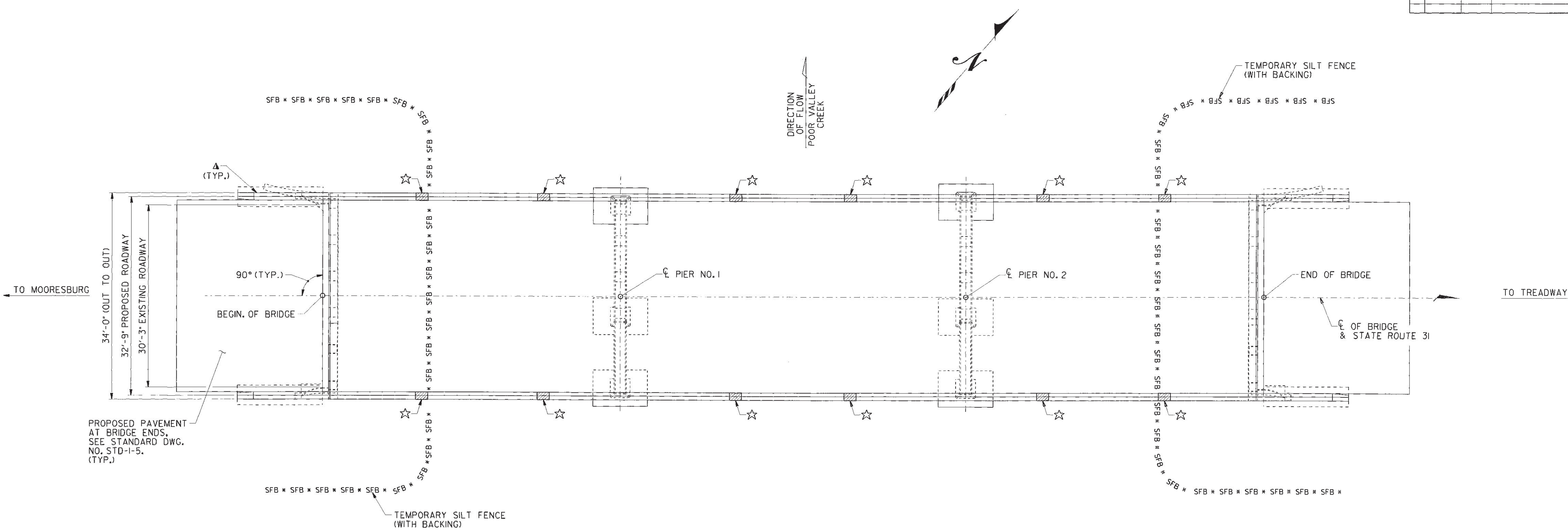
SCANNED

PROJECT NO.		YEAR	SHEET NO.
FEDERAL	BH-STP-31(9)	2010	
STATE	37022-3215-94		

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

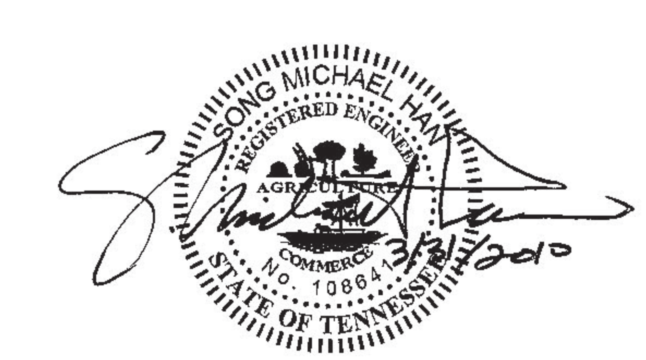


PLAN

☆ DENOTES: NEW PARAPET DRAINS REQUIRED. FOR DETAILS SEE STANDARD DWG. NO. STD-1-2

▲ DENOTES: NEW 14'-0" CONCRETE PARAPET ENDPOST REQUIRED AT BRIDGE ENDS. SEE STD. DWG. NO. STD-1-1SS AND DWG. NO. BR-102-14.

PARAPET DRAIN LOCATIONS	
LEFT SIDE	RIGHT SIDE
STA. 113+48.33	STA. 113+48.33
STA. 113+68.33	STA. 113+68.33
STA. 114+00.00	STA. 114+00.00
STA. 114+19.00	STA. 114+19.00
STA. 114+50.67	STA. 114+50.67
STA. 114+70.67	STA. 114+70.67



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PLAN OF BRIDGE TO BE REPAIRED
STATE ROUTE 31
OVER
POOR VALLEY CREEK
BRIDGE NO. 37-SR31-2.34
HAWKINS COUNTY
2010

DESIGNED BY	M. HAN	DATE	01/10
DRAWN BY	M. JONES, R. LITTRELL	DATE	01/10
SUPERVISED BY	S. EDWARDS	DATE	01/10
CHECKED BY	M. JONES, M. HAN	DATE	01/10

BR-102-2

TOTAL DISTURBED AREA = 15,010 S.F. (0.34 ACRES)

ESTIMATED BRIDGE QUANTITIES

REV.	ITEM NO.	DESCRIPTION	UNIT	FOOTNOTE	TOTAL QUANTITY
	201-07.01	REMOVAL AND DISPOSAL OF BRUSH AND TREES	L.S.		1
	202-04.01	REMOVAL OF STRUCTURES (BR. NO. 37-SR31-02.34) (ENTIRE BRIDGE DECK)	L.S.	1	1
	602-10.19	JACKING STEEL SPANS	L.S.	2	1
	602-10.32	STRUCTURAL STEEL (REPAIRS)	LB.	3	27,515
	602-10.60	BEARING DEVICE (ELASTOMERIC)	E.A.	18	8
	603-02.01	REPAINTING OF EXISTING STEEL STRUCTURES (BR. NO. 37-SR31-02.34)	L.S.	4	1
	603-05.20	CONTAINMENT AND DISPOSAL OF WASTE (BR. NO. 37-SR31-02.34)	L.S.	5	1
	604-02.03	EPOXY COATED REINFORCING STEEL	LB.	6	41,222
1	604-03.04	PAVEMENT @ BRIDGE ENDS	S.Y.		168
	604-03.35	CLASS "L" CONCRETE	C.Y.	7	136
	604-04.02	APPLIED TEXTURE FINISH (EXISTING STRUCTURES)	S.Y.	9	911
	604-05.31	BRIDGE DECK GROOVING (MECHANICAL)	S.Y.	10	510
	604-10.05	CONCRETE	S.F.	12 13	8
	604-10.14	REMOVE EXISTING WEARING SURFACE	L.S.	19	1
2	604-10.42	CONCRETE REPAIRS	C.F.	11 17	283
	604-10.44	EXPANSION JOINT REPAIRS	L.F.	8	68
	604-10.54	CONCRETE REPAIRS	S.F.	12 13	8
	604-10.90	MISCELLANEOUS BRIDGE ITEMS	L.S.		1
	617-02	BRIDGE DECK CRACK SEALING	L.F.	14	521
	617-05	SEALANT (HMWM)	GAL.	15	7
1	620-05.01	CONC PARAPET SINGLE SLOPE (STD-1-1SS)	L.F.	16	306

FOOTNOTES:

(1) INCLUDES ALL LABOR AND MATERIALS NECESSARY FOR THE REMOVAL AND DISPOSAL OF ENTIRE DECK SLAB, CONCRETE PARAPET AND STRUCTURAL STEEL TUBING, EXISTING CURBS, SIDEWALKS AND CONCRETE ENDPOSTS AT BRIDGE ENDS AS INDICATED ON DWG. NOS. BR-102-7, BR-102-10, BR-102-11, AND STD. DWG. NO. STD-1-1SS. (NOTE: THERE ARE NO SHEAR STUDS ON ANY STEEL GIRDERS OF THE BRIDGE).

(2) INCLUDES ALL LABOR AND MATERIALS NECESSARY TO JACK SPANS AT ABUTMENT NOS. 1 AND 2, AND TO PROVIDE TEMPORARY SUPPORTS FOR GIRDERS DURING BEARING REPLACEMENT. SEE NOTES CONCERNING JACKING OF STRUCTURE ON DWG. NO. BR-102-9.

△2 (3) INCLUDES ALL LABOR, EQUIPMENT AND MATERIALS NECESSARY FOR THE REMOVAL AND REPLACEMENT OF EXISTING GIRDERS, STEEL DIAPHRAGMS, CONNECTOR PLATES. SEE DETAILS ON DWG. NOS. BR-102-8 AND BR-102-9.

△2 (4) INCLUDES ALL LABOR AND MATERIALS NECESSARY FOR THE SURFACE PREPARATION AND PAINTING OF TOP FLANGE PLATES (AFTER SLAB REMOVAL), ALL STRUCTURAL STEEL, DIAPHRAGMS, AND PLATE CONNECTORS FOR AN APPROXIMATE WEIGHT OF 110,115 LBS. SEE BLAST CLEANING AND PAINTING NOTES ON THIS SHEET.

(5) INCLUDES CONTAINMENT AND DISPOSAL OF ALL WASTE GENERATED DURING CLEANING AND PAINTING OF STRUCTURAL STEEL.

(6) INCLUDES EPOXY COATED REINFORCING STEEL REQUIRED FOR THE NEW CONCRETE DECK SLAB. SEE DWG. NOS. BR-102-4 AND BR-102-5.

(7) INCLUDES ALL LABOR AND MATERIALS (EXCEPT REINFORCING STEEL) NECESSARY TO PLACE NEW SLAB, SEE DETAILS AND NOTES ON DWG. NOS. BR-102-4, AND BR-102-5.

(8) INCLUDES ALL LABOR AND MATERIALS ASSOCIATED WITH THE REMOVAL OF EXISTING SLIDER PLATE EXPANSION JOINT SYSTEM AND PLACEMENT OF THE NEW ELASTOMERIC CONCRETE SILICONE SEAL EXPANSION JOINT SYSTEM.

(9) INCLUDES ALL LABOR AND MATERIALS NECESSARY FOR THE APPLICATION OF ALL TEXTURE COATING FOR FULL LENGTH OF BRIDGE AS SHOWN IN DETAIL ON THIS SHEET AND ALL EXPOSED ABUTMENT AND PIER SURFACES. ALSO INCLUDES SURFACE PREPARATION USING A HIGH PRESSURE WATER WASH TO REMOVE ALL LOOSE COATINGS, FLAKING AND OTHER FOREIGN SUBSTANCES TO THE FULL SATISFACTION OF THE ENGINEER.

(10) INCLUDES GROOVING OF BRIDGE DECK TO WITHIN ONE FOOT OF PARAPET. SEE BRIDGE DECK SURFACE FINISH NOTE ON THIS SHEET.

△2 (11) INCLUDES ALL LABOR AND MATERIALS NECESSARY FOR THE EXCAVATION AND BACKFILLING WITH CLASS "A" CONCRETE AT ENDS OF BRIDGE. SEE DETAILS ON SHEET NO. 2C. ALSO INCLUDES ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY FOR REMOVAL AND RECONSTRUCTION OF TOP 3'-0"± OF BACKWALLS AND NEW ROADWAY BRACKETS. SEE DETAILS AND NOTES ON DWG. NO. BR-102-8.

(12) INCLUDES ALL LABOR AND POLYMER MODIFIED CEMENTITIOUS PATCHING MATERIAL TO REPAIR CONCRETE SPALLS ON ABUTMENTS AND PIERS. SEE DETAILS ON DWG. NOS. BR-102-10, BR-102-11, AND BR-102-12.

(13) INCLUDES ALL LABOR AND CONCRETE TO REPAIR CONCRETE SURFACE DEFECTS ON ABUTMENTS AND PIERS. SEE DETAILS ON DWG. NOS. BR-102-10, BR-102-11, AND BR-102-12.

(14) INCLUDES ALL COST FOR INSTALLING THE BRIDGE DECK CRACK SEALER (HMWM) INCLUDING CRACK PREPARATION, CLEANING, LABOR AND ALL MISCELLANEOUS REQUIRED TO SEAL ALL CONSTRUCTION JOINTS ACCORDING TO SPECIAL PROVISION 604CR AND MANUFACTURER'S SPECIFICATIONS. THIS ITEM DOES NOT INCLUDE THE COST OF FURNISHING THE BRIDGE CRACK SEALANT ITSELF.

(15) INCLUDES ALL COSTS FOR FURNISHING THE SEALER MATERIAL (HMWM) FOR SEALING CRACKS. THE SEALER (HMWM) SHALL BE IN ACCORDANCE WITH SPECIAL PROVISION 604CR.

△1 (16) INCLUDES ALL LABOR AND MATERIALS NECESSARY TO CONSTRUCT NEW CONCRETE PARAPET WITH PARAPET DRAINS AND NEW 14'-0" ENDPOSTS, (OFF BRIDGE) (USING LIGHTWEIGHT CONCRETE). SEE DWG. NO. BR-102-14 AND STD. DWG. NO. STD-1-1SS.

(17) INCLUDES AREAS OF EXISTING CONCRETE TO BE REMOVED AND REPOURED, SEE DETAILS AND NOTES ON DWG. NOS. BR-102-10 AND BR-102-11.

(18) INCLUDES COST OF ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO REMOVE AND REPLACE THE EXISTING BEARING DEVICES AS SHOWN IN THE PLANS.

(19) INCLUDES COST OF ALL LABOR AND MATERIALS REQUIRED TO REMOVE AND DISPOSE OF THE EXISTING ASPHALT WEARING SURFACE (APPROX. DEPTH = 3½"±) WITHIN THE LIMITS OF THE BRIDGE. ALL COSTS FOR LABOR AND MATERIALS REQUIRED FOR THE REPAIR OF ANY DAMAGE DONE TO ANY PART OF THE EXISTING BRIDGE DURING THE ASPHALT REMOVAL OPERATION SHALL BE SOLELY THE CONTRACTOR'S.

BLAST CLEANING AND PAINTING NOTES

CLEANING AND PAINTING: ALL STRUCTURAL STEEL SHALL BE BLAST CLEANED AND PAINTED. BLAST CLEANING SHALL BE IN ACCORDANCE WITH SECTION 603.05(b). PAINT SHALL BE SYSTEM "A" - INORGANIC ZINC. COLOR OF THE FINISH COAT SHALL COMPLY WITH FEDERAL STANDARD NO. 595b, 14110 BRIGHT GREEN. SEE SECTIONS 603 AND 910 OF THE STANDARD SPECIFICATIONS.

CONTAINMENT AND DISPOSAL: ACCORDING TO OUR RECORDS THE EXISTING PAINT SYSTEM CONTAINS LEAD AND/OR CHROMATE. THE CONTRACTOR SHALL CONTAIN AND DISPOSE OF ALL PAINT REMOVAL WASTE IN ACCORDANCE WITH SECTION 603.13.

SPECIAL NOTE

SEASONAL LIMITATIONS NOTE: THE SWALLOW NESTS CANNOT BE DISTURBED WHILE EGGS OR YOUNG ARE PRESENT IN THE NEST. THE APPROXIMATE DATE FOR NESTING ACTIVITIES BEGINNING IS MAY 1 AND THE FLEDGLING FOR THE CLIFF SWALLOW IS JULY 15. NOTE THAT THESE ARE APROXIMATE DATES, AND NESTING COULD OCCUR EARLIER AND LAST UNTIL LATER. THE DATES ARE FOR GUIDANCE ONLY AND THE EMPHASIS IS ON THE PRESENCE OR ABSENCE OF EGGS OR YOUNG, NOT THE DATES.

SPECIAL NOTE TO CONTRACTOR: CONTRACTOR SHALL USE EXTREME CARE AND TAKE ANY MEASURE NECESSARY TO INSURE THAT NO DEBRIS IS DROPPED INTO THE STREAM. THIS SHALL BE ACCOMPLISHED BY THE USE OF BASKETS, NETTING, WRAPPING, WORK PLATFORM, OR OTHER SIMILARLY EFFECTIVE MEANS. ANY DEBRIS WHICH IS ALLOWED TO DROP ON THE BANKS BELOW THE BRIDGE SHALL NOT BE ALLOWED TO ENTER THE STREAM AND SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR. COST OF REMOVING AND DISPOSING OF DEBRIS SHALL BE INCLUDED IN ITEMS BID ON.

NOTE: FRESHLY POURED CONCRETE SHALL NOT BE ALLOWED TO COME INTO CONTACT WITH STREAM WATER.

DESIGNED BY	M. HAN	DATE	01/10
DRAWN BY	M. JONES	DATE	01/10
SUPERVISED BY	S. EDWARDS	DATE	01/10
CHECKED BY	M. JONES, M. HAN	DATE	01/10

GENERAL NOTES

SPECIFICATIONS: STANDARD ROAD AND BRIDGE SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION (MARCH 1, 2006 EDITION).

DESIGN SPECIFICATIONS: AASHTO 2002 EDITION WITH ADDENDA.

CONCRETE: SHALL BE CLASS "A", f'c = 3,000 PSI EXCEPT AS NOTED OTHERWISE.

BRIDGE DECK CONCRETE: SHALL BE CLASS "L" CONCRETE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

BRIDGE DECK FORMS: BRIDGE DECK FORMS FOR CONCRETE DECKS SHALL BE CONSTRUCTED USING EITHER REMOVABLE FORMS OR PERMANENT FORMS. PERMANENT FORMS MAY BE REMAIN-IN-PLACE STEEL, IN EITHER CASE, FORMS SHALL BE ATTACHED BY MEANS OTHER THAN WELDING TO MAIN STRUCTURAL MEMBERS OR REINFORCING STEEL.

BRIDGE DECK SURFACE FINISH: TO BE IN ACCORDANCE WITH NOTE C IN ARTICLE 604.22 OF THE STANDARD SPECIFICATIONS.

RIDEABILITY OF BRIDGE DECK AND APPROACHES: TO BE IN ACCORDANCE WITH ARTICLE 604.27 OF THE STANDARD SPECIFICATIONS EXCEPT THAT THE RIDEABILITY REQUIREMENTS AND SMOOTHNESS TESTS SHALL BE LIMITED TO THE BRIDGE.

CONCRETE CURING: ALL CONCRETE IN REPAIR AREAS TO BE CURED ACCORDING TO THE STANDARD SPECIFICATIONS UNLESS SPECIFIED OTHERWISE.

CONCRETE OR PATCHING MATERIAL: CONCRETE OR PATCHING MATERIALS SHALL NOT BE PLACED BY PNEUMATIC METHODS.

CONCRETE FINISH: SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. ONLY SURFACES DESIGNATED ON PLANS SHALL RECEIVE AN APPLIED TEXTURED FINISH.

REINFORCING STEEL: SEE THE STANDARD SPECIFICATIONS.

MECHANICAL BAR SPLICERS: MUST BE ON THE APPROVED LIST MAINTAINED BY THE DIVISION OF MATERIALS AND TESTS. THE BAR SPLICERS SHALL MEET AASHTO STANDARD SPECIFICATIONS FOR MECHANICAL CONNECTION. WHEN EPOXY COATING IS REQUIRED, THE EXPOSED THREADS SHALL BE REPAIRED AFTER SPLICING ACCORDING TO SECTION 907 OF THE STANDARD SPECIFICATIONS. THE COST OF FURNISHING THE BAR SPLICERS, AND EPOXY COATING WHEN REQUIRED INCLUDING ALL LABOR AND MATERIALS NECESSARY FOR COMPLETE INSTALLATION, SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM NO. 604-02.03, EPOXY COATED REINFORCING STEEL (REPAIRS), LB., UNLESS NOTED OTHERWISE.

DEMOLITION: THE CONTRACTOR SHALL TAKE SPECIAL CARE TO PROTECT ANY PARTS OF THE STRUCTURE THAT ARE NOT TO BE REMOVED SPECIFICALLY. THE CONTRACTOR IS NOT ALLOWED TO USE A HYDRAULIC RAM MOUNTED ON A BACKHOE (COMMONLY CALLED A HOE RAM) OR OTHER SIMILARLY HEAVY EQUIPMENT FOR CONCRETE REMOVAL. PNEUMATIC HAMMERS MAY BE USED TO REMOVE UNSOUND CONCRETE. PNEUMATIC HAMMERS FOR PARTIAL DEPTH REPAIR AREAS, FULL DEPTH REPAIR AREAS AND ALL DECK REPAIR AREAS OVER BEAMS WILL BE RESTRICTED TO 60 POUND CLASS. SAWING OR CUTTING OF THE CONCRETE IS ACCEPTABLE SO LONG AS ANY SPECIFIED PROJECTION OF THE EXISTING REINFORCING STEEL IS MAINTAINED. ALL DEVICES PROPOSED FOR CONCRETE DEMOLITION SHALL MEET THE APPROVAL OF THE ENGINEER.

SHOP DRAWINGS: SHALL BE SUBMITTED ACCORDING TO THE STANDARD SPECIFICATIONS. SHOP DRAWINGS SHALL BE SUBMITTED TO THE BRIDGE REPAIR OFFICE OF THE DIVISION OF STRUCTURES.

PATCHING MATERIAL: WHERE INDICATED PATCHING MATERIAL SHALL BE A POLYMER MODIFIED CEMENTITIOUS STRUCTURAL PATCHING MATERIAL. SEE T.D.O.T. QUALIFIED PRODUCTS LIST 13, SECTION B.6, FOR ACCEPTABLE PATCHING MATERIALS.

GROUTED BARS IN DRILLED HOLES: HORIZONTALLY DRILLED HOLES SHALL BE DRILLED ½" IN DIAMETER LARGER THAN THE BAR, CLEANED, PACKED WITH NON-SHRINK GROUT AND THE BAR ROTATED (NOT DRIVEN) TO ITS SEAT. VERTICALLY DRILLED HOLES SHALL BE DRILLED ¼" IN DIAMETER LARGER THAN THE BAR, CLEANED, PACKED WITH EPOXY GROUT AND BAR DRIVEN TO ITS SEAT. ALL GROUTING MATERIAL SHALL BE APPROVED BY T.D.O.T. MATERIALS AND TESTS.

STRUCTURAL STEEL: SHALL CONFORM TO AASHTO M270 GRADE 50W AND GRADE 36 (ASTM A709 GRADE 50W AND GRADE 36) UNLESS OTHERWISE NOTED.

WELDING: SHALL BE IN ACCORDANCE WITH CURRENT ANSI/AASHTO/AWS D1.5 BRIDGE WELDING CODE AND SECTION 602 OF THE STANDARD SPECIFICATIONS.

BOLTS: SHALL BE HIGH TENSILE STRENGTH BOLTS (ASTM-A325), UNLESS OTHERWISE NOTED. SIZE TO BE AS NOTED ON PLANS. SEE AASHTO SPECIFICATIONS; ARTICLE 10.32.3 DIVISION I0. EXISTING CONTACT SURFACES SHALL BE CLEANED TO SSPC-10 SPECIFICATIONS PRIOR TO ATTACHMENT OF NEW MEMBERS.

WORKER PROTECTION: OUR MAINTENANCE RECORDS INDICATE THAT THIS BRIDGE WAS ORIGINALLY PAINTED WITH MATERIALS CONTAINING LEAD AND/OR CHROMATES AND THE CONTRACTOR SHALL BE REQUIRED TO PROCEED ACCORDINGLY TO TAKE ALL MANDATORY SAFEGUARDS PRESCRIBED BY THE STATE AND FEDERAL LAW FOR WORKER PROTECTION AND HAZARDOUS MATERIALS DISPOSAL.

SPECIAL NOTE CONCERNING CURING OF CONCERTE DECK AND PARAPETS: CONCRETE SHALL BE MOIST AND CURED WITH BURLAP MATS AND SOAKER HOSES AS PRESCRIBED IN THE STANDARD SPECIFICATION. MOIST CURING WITH BURLAP MATS SHALL BE VERY STRICTLY ENFORCED BY THE ENGINEER. ANY DEVIATION FROM MOIST CURING WITH BURLAP MATS SHALL REQUIRE THE EXPRESSED WRITTEN APPROVAL OF T.D.O.T. HEADQUARTERS, BRIDGE INSPECTION AND REPAIR OFFICE. THE CONTRACTOR SHALL CURE DECK AND PARAPETS AS FOLLOWS: IMMEDIATELY AFTER PLACEMENT, PRESOAKED WET BURLAP SHALL BE PLACED OVER THE NEW CONCRETE. THIS SHOULD BE DONE AS SOON AS THE NEW CONCRETE WILL HOLD THE WEIGHT OF THE WET BURLAP. A SOAKER HOSE AND PLASTIC WILL THEN BE PLACED ON TOP OF THE NEW CONCRETE AND BURLAP. THE NEW CONCRETE WILL BE CONTINUOUSLY WET CURED FOR APPROXIMATELY 24 HOURS.

NOTE: ANY AREA THAT IS DISTURBED OUTSIDE THE LIMITS OF THE CONSTRUCTION DURING THE LIFE OF THE PROJECT SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.

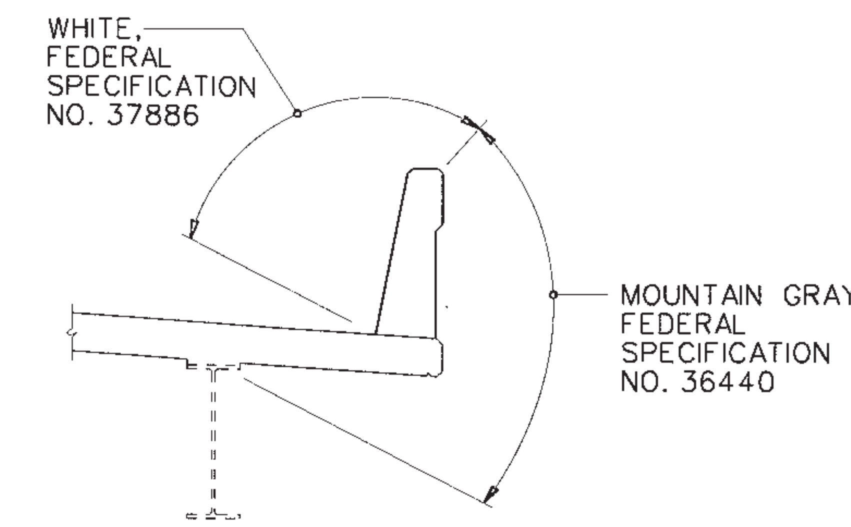
NOTE: ALL NEW STRUCTURAL STEEL SHALL BE SHOP PRIMED BEFORE DELIVERY TO THE JOB SITE.

HIGH EARLY STRENGTH CONCRETE: THE MIX TO MEET THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS, CLASS "A", EXCEPT THE CEMENT CONTENT SHALL BE A MINIMUM OF 714 LBS., THE WATER CEMENT RATIO SHALL BE A MAXIMUM OF 0.40, NO FLY ASH REPLACEMENT WILL BE PERMITTED, AND THE MINIMUM 28 DAY COMPRESSIVE STRENGTH SHALL BE 3,500 P.S.I. TRAFFIC SHALL NOT BE PERMITTED ON ANY OF THE REPAIR AREAS UNTIL TEST SPECIMENS ATTAIN A COMPRESSIVE STRENGTH OF 3,000 P.S.I. MINIMUM AND THE CONCRETE HAS BEEN IN PLACE A MINIMUM OF TEN (10) DAYS.

PROJECT NO.		YEAR	SHEET NO.
FEDERAL	BH-STP-31(9)	2010	2
STATE	37022-3215-94		

REVISIONS

REV.	NO.	DATE	BY	BRIEF DESCRIPTION
△1	1	6-10-10	SMH	ADDED QUANTITY, REVISED ITEM NUMBER AND DESCRIPTION, REVISED FOOTNOTE
△2	2	6-23-10	SMH	REVISED FOOTNOTES AND QUANTITY



TEXTURE COATING DETAIL

(STATE ROUTE 31 OVER POOR VALLEY CREEK)

NOTE: COST OF TEXTURE COATING SHALL BE INCLUDED IN ITEM NO. 604-04.02, AND INCLUDES PARAPETS, ENDPOSTS, AND ALL EXPOSED ABUTMENT AND BENT SURFACES. INCLUDING BOTH BENT NO. 1 AND BENT NO. 2 LOCATIONS.

TEXTURE COATING NOTES

NOTE: THE CONTRACTOR SHALL USE CONTAINMENT SCREENS OR OTHER MEASURES AS NECESSARY TO PREVENT ANY TEXTURE COATING FROM ENTERING THE ENVIRONMENT. CONTAINMENT MEASURES SHALL BE APPROVED BY THE ENGINEER AND COST SHALL BE INCLUDED IN ITEMS BID ON.

NOTE: THE EXISTING SURFACES THAT ARE TO RECEIVE A TEXTURE FINISH SHALL BE FREE OF ALL EFFLORESCENCE, FLAKING, COATING, RUST, DIRT, OIL, MOLD AND OTHER FOREIGN SUBSTANCE AND TO BE CLEANED TO THE SATISFACTION OF THE ENGINEER USING A HIGH PRESSURE WASH. COST TO BE INCLUDED IN ITEM NO. 604-04.02.

NOTE: THE WASTE WATER FROM THE PRESSURE WASHING OPERATION SHALL BE COLLECTED AND FILTERED. THE COLLECTED WASTE WATER SHALL NOT BE RELEASED INTO THE ENVIRONMENT UNTIL IT IS CLEAR. ALL SOLID DEBRIS FROM THE PRESSURE WASHING OPERATION SHALL BE COLLECTED AND DISPOSED OF IN AN APPROPRIATE MANNER.

SONG MICHAEL HAN
REGISTERED ENGINEER
AGRICULTURE COMMERCE
NO. 108841
STATE OF TENNESSEE
6/23/10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

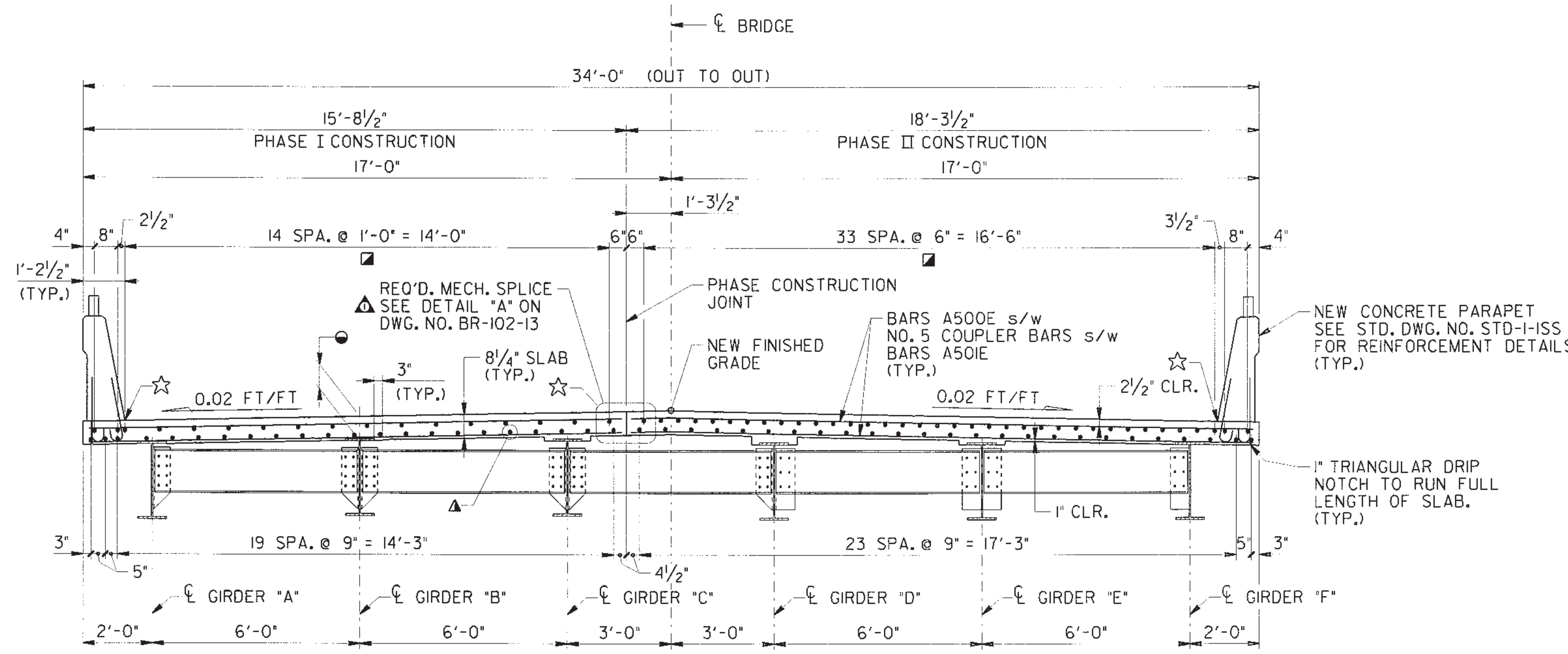
GENERAL NOTES AND ESTIMATED BRIDGE QUANTITIES
STATE ROUTE 31
OVER
POOR VALLEY CREEK
BRIDGE NO. 37-SR31-2.34
HAWKINS COUNTY
2010

BR-102-3

PROJECT NO.		YEAR	SHEET NO.
FEDERAL	BH-STP-31(9)	2010	
STATE	37022-3215-94		

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	6-17-10	SMH	REVISED NOTE
2	9-07-10	SMH	REVISED DIMENSIONS



HALF SECTION AT MID-SPAN   HALF SECTION AT SUPPORT

TYPICAL CROSS SECTION

(LOOKING FORWARD ON SURVEY)

DENOTES: 8¼" @ ℄ OF GIRDERS "A" & "F"
8½" @ ℄ OF GIRDER "B"
9⅞" @ ℄ OF GIRDER "C"
11⅛" @ ℄ OF GIRDER "D"
9¾" @ ℄ OF GIRDER "E"

DENOTES: BARS A503E s/w BARS A505E s/w BARS A503E (TYP.)

☆ DENOTES: CONTRACTOR TO SEAL LONGITUDINAL DECK CRACK WITH (HMWM) CRACK SEALANT.

DENOTES: FOR BAR DESIGNATIONS, SEE MAIN REINFORCEMENT PLAN ON DWG. NO. BR-102-5.

NOTE: THE COST OF REMOVING AND DISPOSING OF THE EXISTING CONCRETE CURBS, BRIDGERAILS AND SLAB WITHIN THE LIMITS SHOWN IS TO BE INCLUDED IN ITEM NO. 202-04.01 REMOVAL OF STRUCTURES L.S.

NOTE: WHEN POURING SLAB, PROVISIONS SHALL BE MADE FOR SETTING REINFORCING STEEL FOR PARAPET. THE PARAPET SHALL NOT BE POURED UNTIL THE SLAB IS POURED AND CURED.

DESIGNED BY	M. HAN	DATE	01/10
DRAWN BY	M. JONES, R. LITTRELL	DATE	01/10
SUPERVISED BY	S. EDWARDS	DATE	01/10
CHECKED BY	M. JONES, M. HAN	DATE	01/10

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

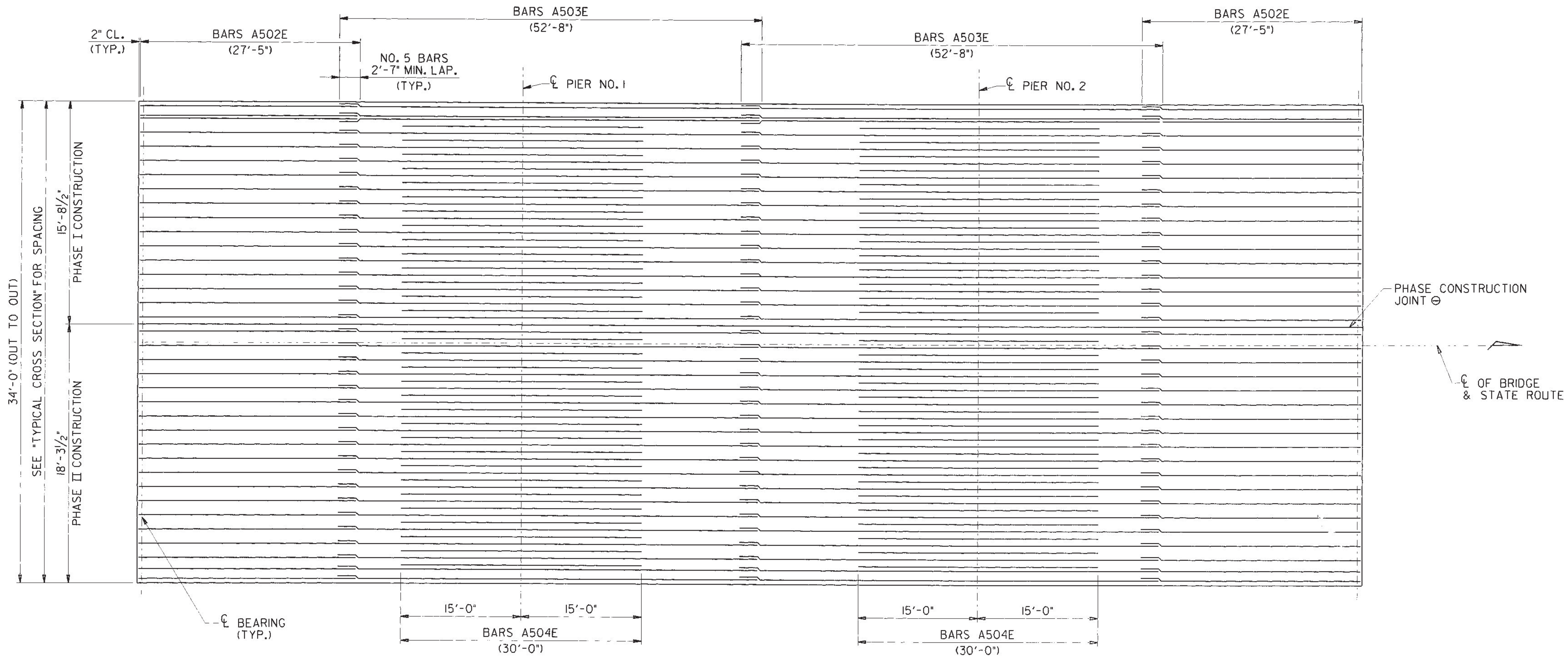
SUPERSTRUCTURE
STATE ROUTE 31
OVER
POOR VALLEY CREEK
BRIDGE NO. 37-SR31-2.34
HAWKINS COUNTY
2010

BR-102-4

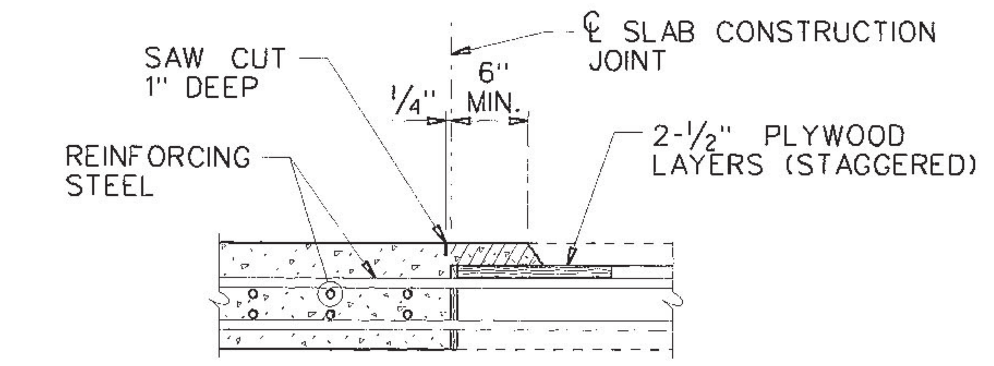
PROJECT NO.		YEAR	SHEET NO.
FEDERAL	BH-STP-31(9)	2010	
STATE	37022-3215-94		

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION



PLAN OF MAIN REINFORCEMENT



SLAB CONSTRUCTION JOINT DETAIL

DECK CONCRETE POURING SEQUENCE: SLAB CONSTRUCTION JOINTS MAY BE LOCATED AT THE CONTRACTOR'S OPTION SUBJECT TO THE FOLLOWING:

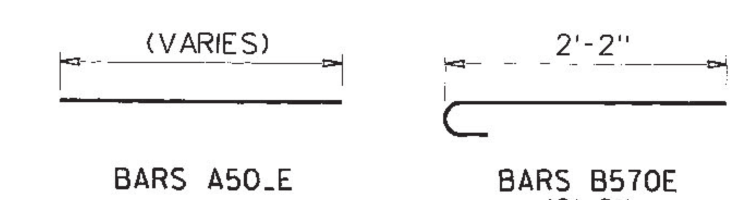
1). NO CONSTRUCTION JOINT MAY BE LOCATED CLOSER THAN 10 FEETOR FURTHER THAN 15 FEET FROM AN INTERIOR SUPPORT.
2). THE SLAB IN THE MIDDLE SECTION OF BOTH ADJACENT SPANS MUST BE POURED TO WITHIN AT LEAST 15 FEET OF THE SUPPORTS EITHER PRIOR TO OR CONCURRENTLY WITH THE SLAB OVER INTERIOR SUPPORT.

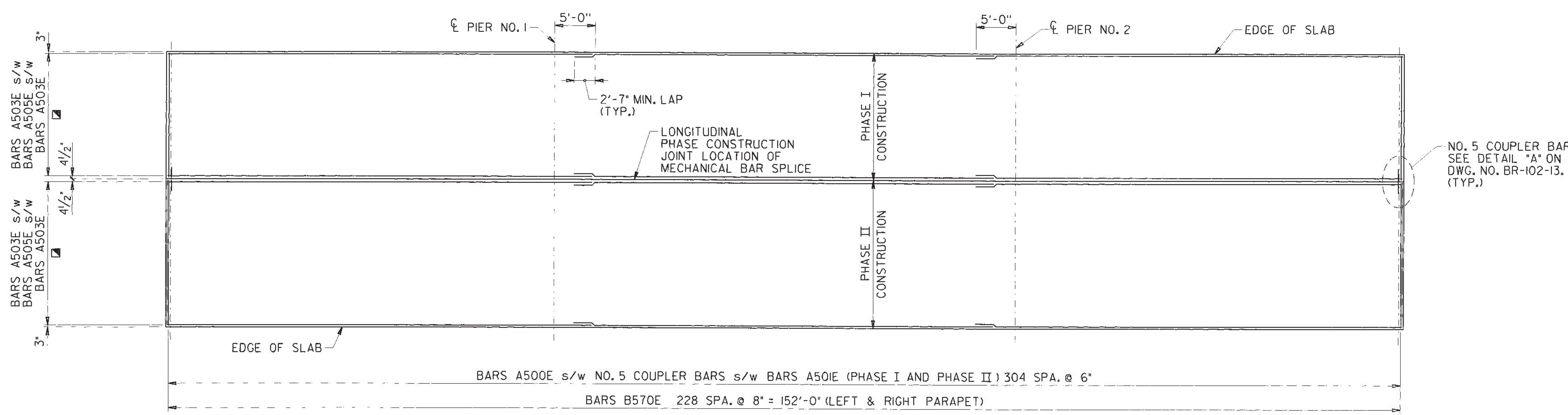
ALL SLAB CONSTRUCTION JOINTS SHALL BE IN ACCORDANCE WITH THE "SLAB CONSTRUCTION JOINT DETAIL" SHOWN ABOVE.

BILL OF STEEL

BAR	SIZE	NO. REQ'D.	LENGTH
A500E	5	610	18'-0"
NO. 5 COUPLER	5	610	2'-9"
A501E	5	610	15'-5"
A502E	5	72	27'-5"
A503E	5	166	52'-8"
A504E	5	62	30'-0"
A505E	5	47	52'-2"
B570E	5	912	2'-8"

ALL REINFORCING STEEL SHALL BE EPOXY COATED AND SHALL BE PAID FOR UNDER ITEM NO. 604-02.03, EPOXY COATED REINFORCING STEEL, LB.





SLAB PLAN

◪ DENOTES: FOR SPACING SEE DWG. NO. BR-102-4 (BOTTOM OF SLAB)

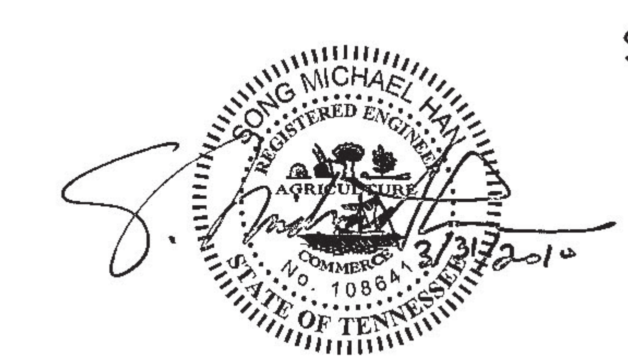
△ DENOTES: ALL REINFORCING STEEL SHALL BE EPOXY COATED. THE COST OF EPOXY COATED REINFORCING STEEL TO BE INCLUDED IN ITEM NO. 604-02.03, EPOXY COATED REINFORCING STEEL, LB.

ESTIMATED SUPERSTRUCTURE REPAIRS

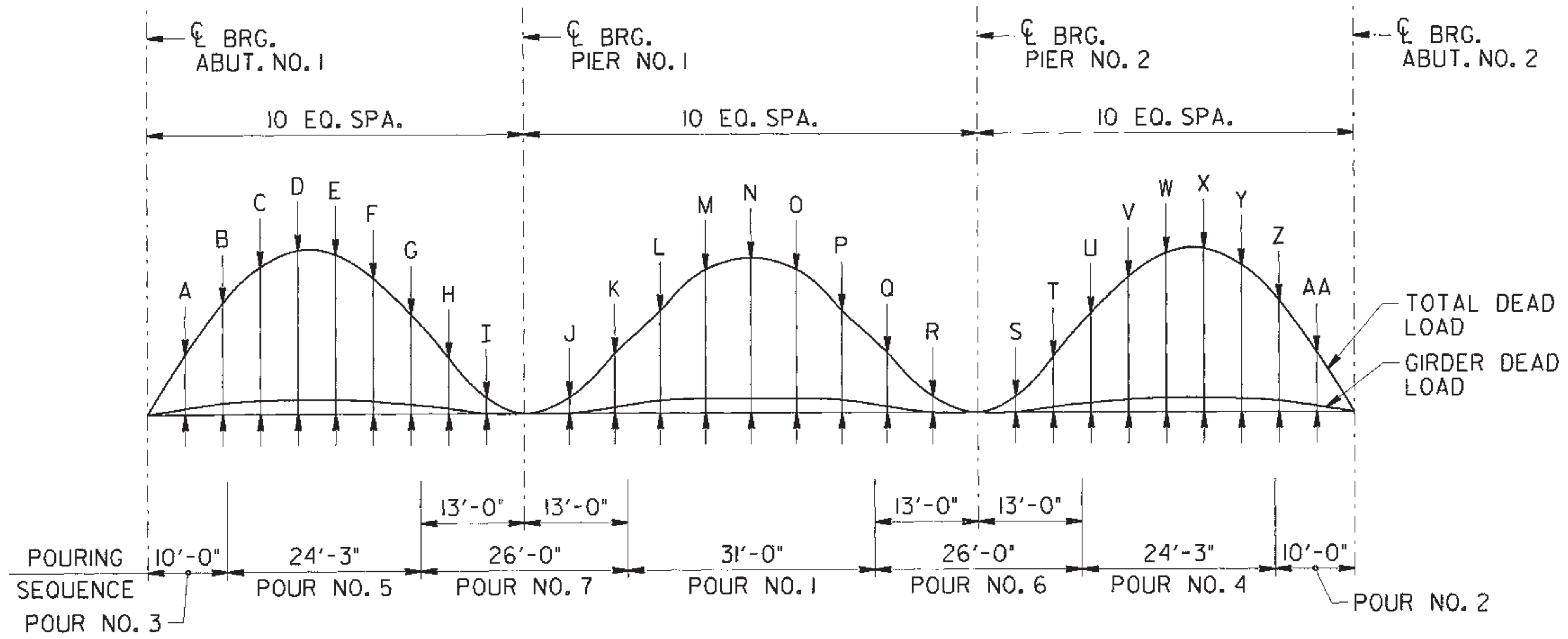
ITEM NO. 604-02.03 L.B.	ITEM NO. 604-03.09 C.Y.
41,222	137

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS
STATE ROUTE 31
OVER
POOR VALLEY CREEK
BRIDGE NO. 37-SR31-2.34
HAWKINS COUNTY
2010



DESIGNED BY	M. HAN	DATE	01/10
DRAWN BY	M. JONES, R. LITTRELL	DATE	01/10
SUPERVISED BY	S. EDWARDS	DATE	01/10
CHECKED BY	M. JONES, M. HAN	DATE	01/10



DEAD LOAD CORRECTION AND POURING SEQUENCE

(DEAD LOAD CORRECTION TYPICAL FOR ALL GIRDERS)

NOTE: POURS TO BE MADE IN NUMERICAL SEQUENCE. POURS WITH THE SAME NUMBER DESIGNATION MAY BE PLACED SIMULTANEOUSLY. POURING LIMITS SHOWN ARE ON A LINE PARALLEL TO PIERS AND ABUTMENTS.

TABLE OF DIMENSIONS (ALL GIRDERS)

ITEM	A	B	C	D	E	F	G	H	I	J	K	L	M	N
TOTAL DEAD LOAD	5/32"	9/32"	3/8"	7/16"	13/32"	11/32"	1/4"	9/64"	3/64"	3/64"	5/32"	1/4"	23/64"	25/64"
GIRDER DEAD LOAD	1/64"	1/32"	1/32"	3/64"	3/64"	1/32"	1/64"	1/64"	0	0	1/64"	1/32"	1/32"	3/64"

ITEM	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA
TOTAL DEAD LOAD	23/64"	1/4"	5/32"	3/64"	3/64"	9/64"	1/4"	11/32"	13/32"	7/16"	3/8"	9/32"	5/32"
GIRDER DEAD LOAD	1/32"	1/32"	1/64"	0	0	1/64"	1/64"	1/32"	3/64"	3/64"	1/32"	1/32"	1/64"

GIRDER END REACTIONS

LEFT LANE			RIGHT LANE		
LOCATION	DEAD LOAD (KIPS)	LIVE LOAD (KIPS)	LOCATION	DEAD LOAD (KIPS)	LIVE LOAD (KIPS)
ABUTMENT NO. 1	15.4	69.3	ABUTMENT NO. 1	15.4	69.3
ABUTMENT NO. 2	15.4	69.3	ABUTMENT NO. 2	15.4	69.3

PROJECT NO.		YEAR	SHEET NO.
FEDERAL	BH-STP-31(9)	2010	
STATE	37022-3215-94		

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

SONG MICHAEL HAN
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 108641
STATE OF TENNESSEE
3/31/2010

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS
STATE ROUTE 31
OVER
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BRIDGE NO. 37-SR31-2.34
HAWKINS COUNTY
2010

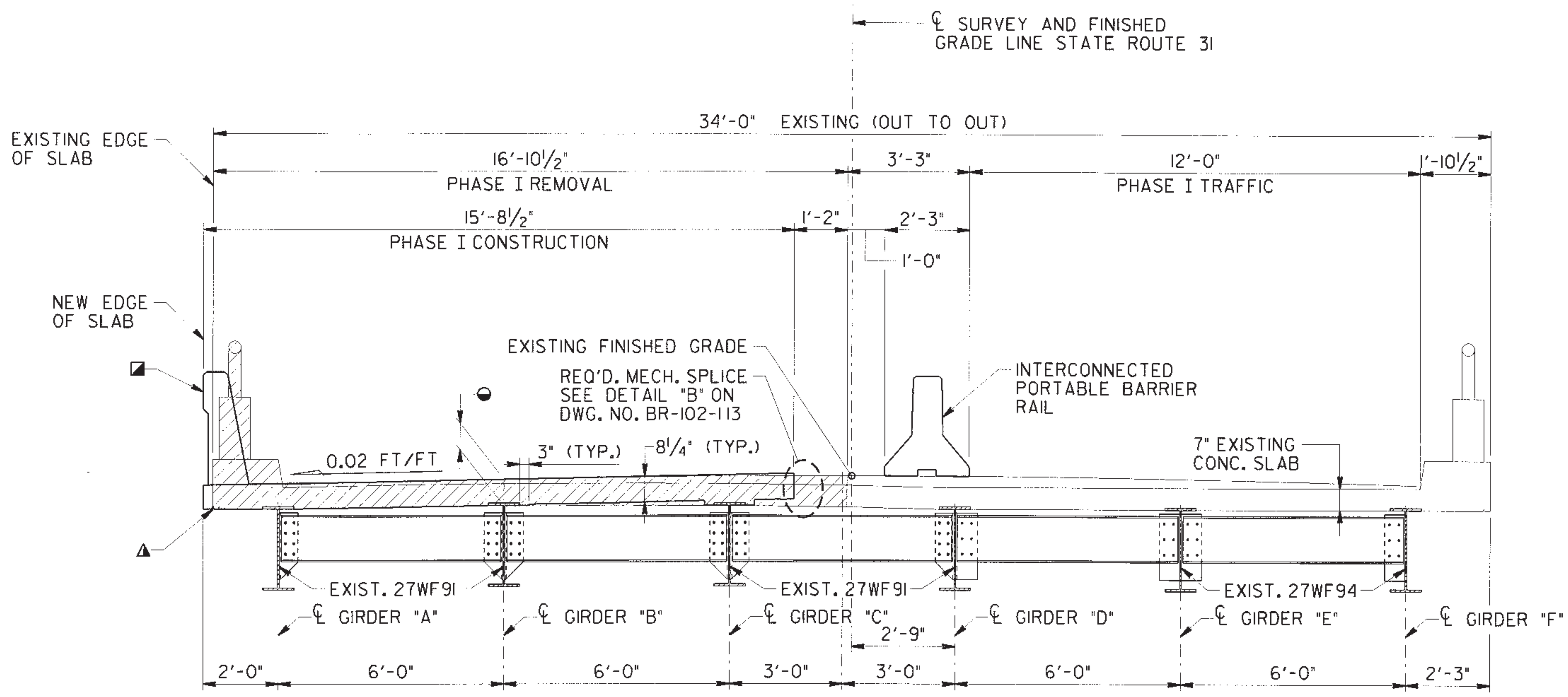
DESIGNED BY M. HAN DATE 01/10
DRAWN BY M. JONES, R. LITTRELL DATE 01/10
SUPERVISED BY S. EDWARDS DATE 01/10
CHECKED BY M. JONES, M. HAN DATE 01/10

BR-102-6

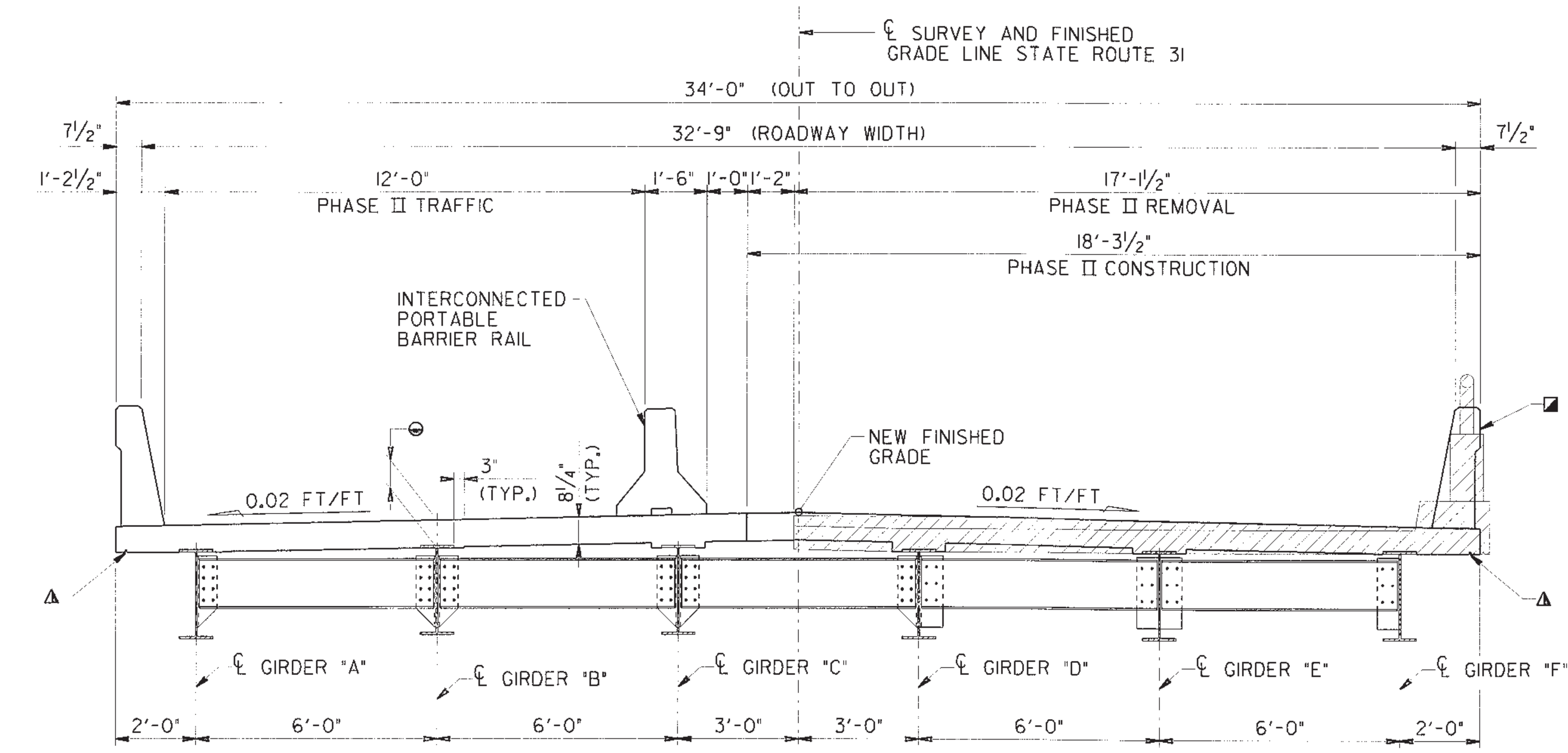
PROJECT NO.		YEAR	SHEET NO.
FEDERAL	BH-STP-31(9)	2010	
STATE	37022-3215-94		

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	9-07-10	SMH	REVISED NOTE



PHASE I CONSTRUCTION



PHASE II CONSTRUCTION

TYPICAL CROSS SECTION

(LOOKING FORWARD ON SURVEY)

◪ DENOTES: NEW CONCRETE PARAPET. SEE STD. DWG. NO. STD-1-1SS

▲ DENOTES: 1" TRIANGULAR NOTCH DRIP BEAD TO RUN FULL LENGTH OF SLAB (TYP.)

▨ DENOTES: AREAS OF EXISTING STRUCTURE TO BE REMOVED

△ ⊖ DENOTES: SEE DWG. NO. BR-102-4 FOR SLAB DEPTHS @ ℄ BEAMS.

NOTE: THE COST OF REMOVING AND DISPOSING OF THE EXISTING CONCRETE CURBS, BRIDGERAILS AND SLAB WITHIN THE LIMITS SHOWN IS TO BE INCLUDED IN ITEM NO. 202-04.01 REMOVAL OF STRUCTURES L.S.

NOTE: THE SLAB SHALL NOT BE POURED UNTIL ALL STRUCTURAL STEEL IS ERECTED AND ALL BOLTING IS COMPLETE FOR EACH PHASE. THE CONTRACTOR SHALL MAKE ADEQUATE PROVISIONS DURING PLACEMENT OF THE SLAB TO PREVENT THE EXTERIOR BEAM FROM TWISTING.

NOTE: WHEN POURING SLAB, PROVISIONS SHALL BE MADE FOR SETTING REINFORCING STEEL FOR PARAPET. THE PARAPET SHALL NOT BE POURED UNTIL THE SLAB IS POURED AND CURED.

SONG MICHAEL HAN REGISTERED ENGINEER AGRICULTURE COMMERCE NO. 108641 STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

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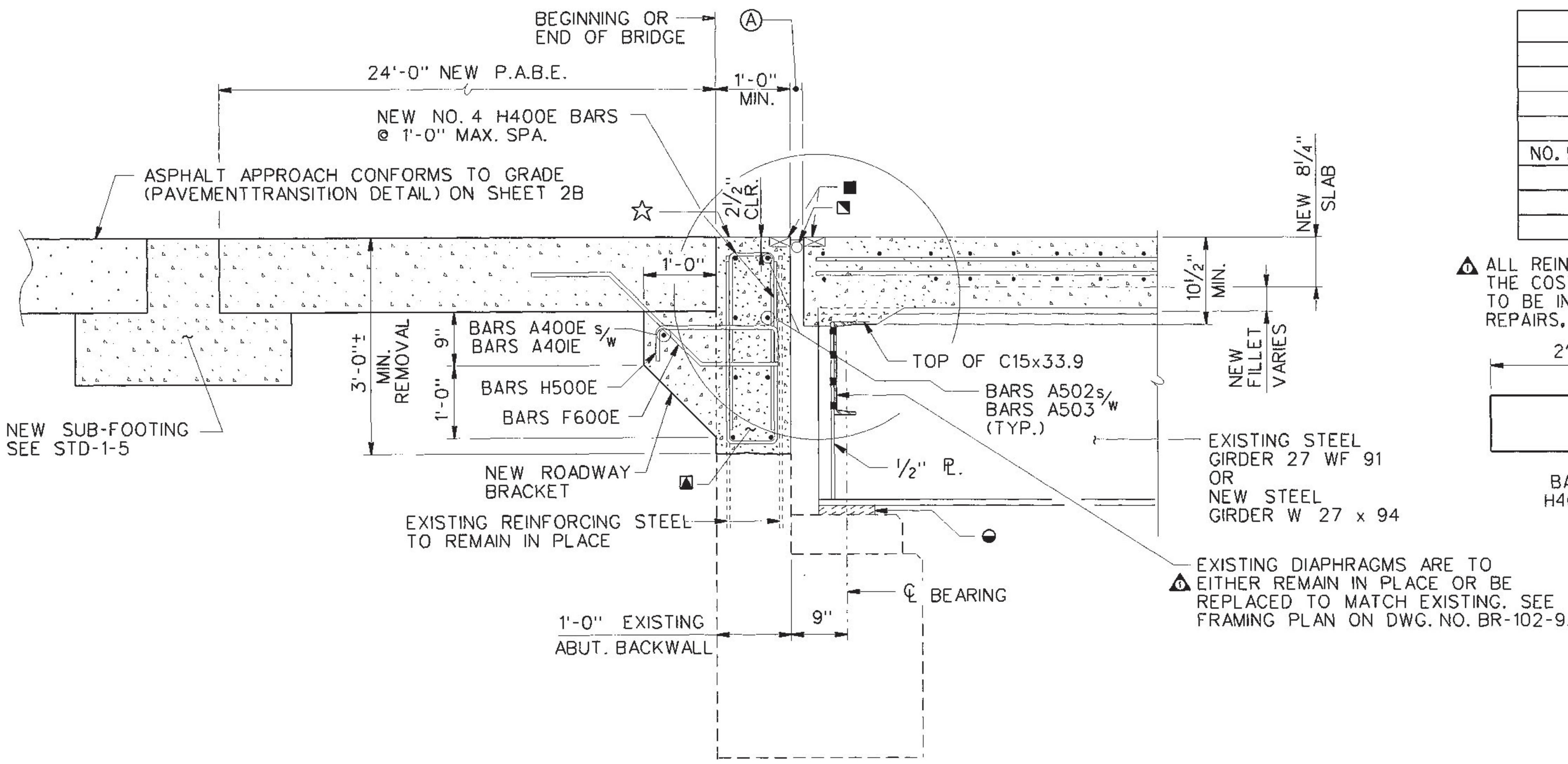
CHECKED BY M. JONES, M. HAN DATE 01/10

BR-102-7

PROJECT NO.		YEAR	SHEET NO.
FEDERAL	BH-STP-31(9)	2010	
STATE	37022-3215-94		

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	6-23-10	SMH	REVISED NOTES, REVISED DETAIL, REVISED BILL OF STEEL, ADDED GIRDER DETAILS AND NOTES



SECTION ABUTMENT AT JOINT

DENOTES: EXISTING 10" x 9" x 1 1/2" NEOPRENE BEARING PAD WITH 1 1/2" x 2 1/2" SLOTTED HOLES.

DENOTES: BACKER ROD AND SILICONE SEAL.

DENOTES: 1 1/2"x3 1/2" WOOD BLOCK AT NEW CONCRETE. BLOCK OUT TO BE FILLED WITH NEW ELASTOMERIC CONCRETE.

☆ DENOTES: AFTER CONCRETE HAS REACHED AN APPROPRIATE CURE TIME, THE LONGITUDINAL JOINT BETWEEN PHASE I AND PHASE II CONSTRUCTION SHALL BE SEALED WITH A HIGH MOLECULAR WEIGHT METHACRYLATE SEALER. APPLICATION TO BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. ALSO SEE SPECIAL PROVISION 604CR. ALL COSTS FOR FURNISHING AND APPLYING THE SEALER IS INCLUDED IN OTHER ITEMS BID ON.

DENOTES: PORTION OF THE EXISTING ENDWALL TO BE REMOVED. CARE SHALL BE TAKEN NOT TO DAMAGE THE EXISTING REINFORCING STEEL. EXISTING REINFORCING STEEL SHALL BE COMPLETELY CLEANED AND REALIGNED TO THE COMPLETE SATISFACTION OF THE ENGINEER PRIOR TO PLACING NEW CONCRETE.

NOTE: SEE DETAIL "A" THIS SHEET FOR JOINT DIMENSIONS.

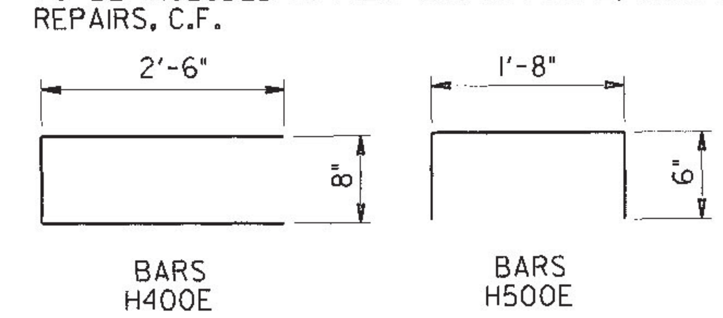
NOTE: THE COST OF ALL LABOR AND MATERIALS ASSOCIATED WITH REMOVAL OF EXISTING SLIDER PLATE EXPANSION JOINT SYSTEM AND PLACEMENT OF THE NEW ELASTOMERIC CONCRETE SILICONE SEAL SYSTEM AT ABUTMENT NO. 1 AND NO. 2 AS SHOWN AND PER MANUFACTURER'S SPECIFICATIONS SHALL BE INCLUDED FOR ITEM NO. 604-10.44, EXPANSION JOINT REPAIRS, L.F.

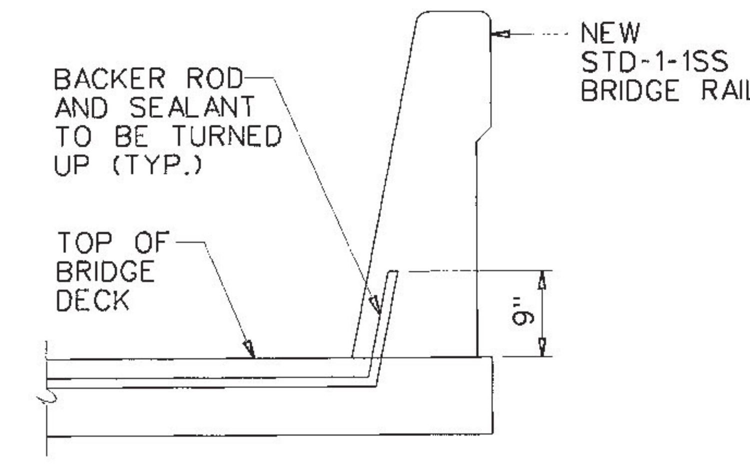
NOTE: THE SILICONE IS NOT TO BE PLACED UNTIL ALL DECK GRINDING AND MECHANICAL GROOVING HAS BEEN PERFORMED.

BILL OF STEEL

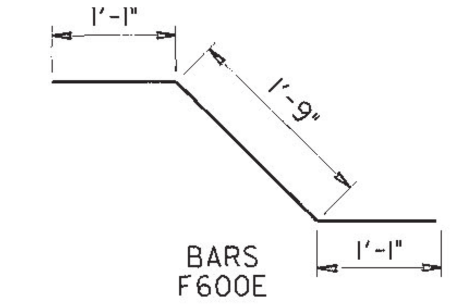
BAR	SIZE	NO. REQ'D.	LENGTH
A400E	4	2	18'-0"
A401E	4	2	15'-5"
H400E	4	136	5'-8"
A500E	5	16	18'-0"
NO. 5 COUPLER	5	16	2'-9"
A501E	5	16	15'-5"
H500E	5	64	2'-8"
F600E	6	64	3'-11"

ALL REINFORCING STEEL SHALL BE EPOXY COATED. THE COST OF EPOXY COATED REINFORCING STEEL TO BE INCLUDED IN ITEM NO. 604-10.42, CONCRETE REPAIRS, C.F.





JOINT TURN UP DETAIL



DETAIL "A"

A	B	C	D
JOINT OPENING AT TIME OF SEALING	DISTANCE FROM TOP OF BACKER ROD TO FINISHED GRADE	DEPTH OF SEALANT FROM TOP OF BACKER ROD TO SURFACE OF SEALANT	DISTANCE FROM FROM TOP OF SEALANT TO FINISHED GRADE
UP TO 2" (TO BE VERIFIED BY CONTRACTOR)	1 1/4" MIN. - 1 3/8" MAX.	1/2" MIN. - 5/8" MAX.	3/4"

BASED ON TEMPERATURE OF 77°F ± 2° AND 50% RH ± 5%

GENERAL EXPANSION JOINT NOTES:

1) THE EXPANSION JOINT SYSTEM USED SHALL BE ON THE TDOT APPROVED QUALIFIED LISTS FOR ACCEPTABLE PRODUCTS. THE JOINT SYSTEM SHALL BE INSTALLED UNDER THE DIRECT SUPERVISION OF AN AUTHORIZED TECHNICIAN SUPPLIED BY THE EXPANSION JOINT SUPPLIER.
2) COST OF INSTALLING NEW BACKER ROD, NEW JOINT SEALER, LABOR AND ANY MISCELLANEOUS MATERIAL NECESSARY TO INSTALL THE NEW EXPANSION JOINT TO BE INCLUDED UNDER ITEM NO. 604-10.44, EXPANSION JOINT REPAIRS, L.F.
3) TOP 3" OF JOINT SHALL BE BLAST CLEANED TO REMOVE LAITANCE AND OTHER DELETERIOUS MATERIAL BEFORE INSTALLATION OF BACKER ROD OR SEALANT.
4) ALL DEBRIS AND EXISTING JOINT MATERIAL SHALL BE REMOVED FOR THE FULL DEPTH OF THE EXISTING JOINT OPENING.
5) EXPANSION GAP WILL CHANGE AT OTHER TEMPERATURES AND THE CONTRACTOR SHALL COMPENSATE FOR JOINT MATERIAL IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS NO INCREASE IN THE UNIT BID PRICE SHALL BE ALLOWED.
6) THE DEPTH OF THE JOINT POURED SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS FOR PROPER INSTALLATION, THE PAVEMENT AND AIR TEMPERATURE SHALL BE 40°F AND RISING AND SHALL NOT FALL BELOW 40°F PRIOR TO COMPLETE CURE OF THE SEALANT.
7) THE SEALANT THICKNESS PLACED SHALL BE CHECKED PRIOR TO CURING AT A MINIMUM OF THREE (3) LOCATIONS ACROSS THE LENGTH OF JOINT TO ASSURE PROPER THICKNESS.
8) THE MOVEMENT GAP SHALL BE CAULKED WITH A BACKER ROD OF SUITABLE DIAMETER. THE ROD SHALL BE PLACED AT A DEPTH TO ENSURE THE CORRECT WIDTH DEPTH RATIO OF THE NEW BRIDGE JOINT SEALANT. BACKER ROD AND CAULK SHALL BE AS PER THE SEALANT MANUFACTURER.

EXPANSION JOINT REPAIR NOTES:

THE JOINT SEALANT SYSTEM CONSISTS OF A SURFACE PRIMER, A SELF-LEVELING OR NON-SAG SEALANT, AND BACKER MATERIAL. DETAILED SPECIFICATIONS AND INSTALLATION PROCEDURES SHALL BE SUBMITTED TO THE PROJECT ENGINEER PRIOR TO CONSTRUCTION. THE MANUFACTURER AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE WORKMANSHIP AND PERFORMANCE OF THE INSTALLED JOINT.

JOINT SEALANT:

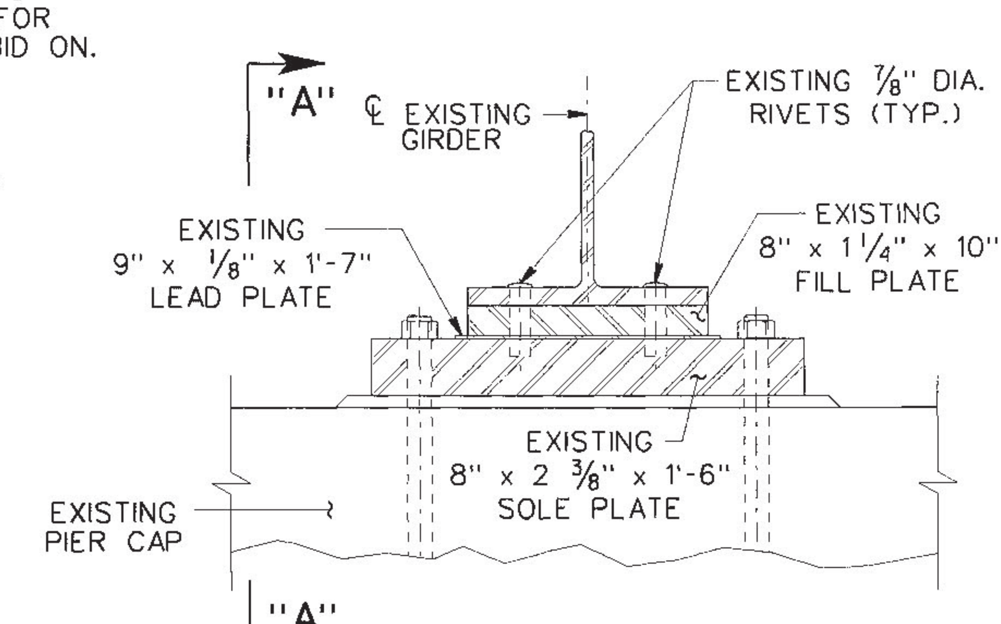
THE SELF-LEVELING SILICONE SEALANT MATERIAL SHALL BE LISTED IN THE T.D.O.T. QUALIFIED PRODUCTS LIST NO. 5, SECTION A.

SURFACE PRIMER:

THE JOINT SEALANT MUST BE APPLIED TO CONCRETE SURFACES WITH THE USE OF A SPECIAL PRIMER FOR EACH APPLICATION. THE VERTICAL FACES OF THE JOINT RECEIVING SURFACE PRIMER ARE TO BE FREE OF DUST PARTICLES, MOISTURE, OILS, AND LAITANCE AT THE TIME THE SURFACE PRIMER IS APPLIED, PER THE MANUFACTURER'S REQUIREMENTS. THE SURFACE PRIMER SHALL BE FULLY CURED BEFORE THE JOINT SEALANT IS INSTALLED.

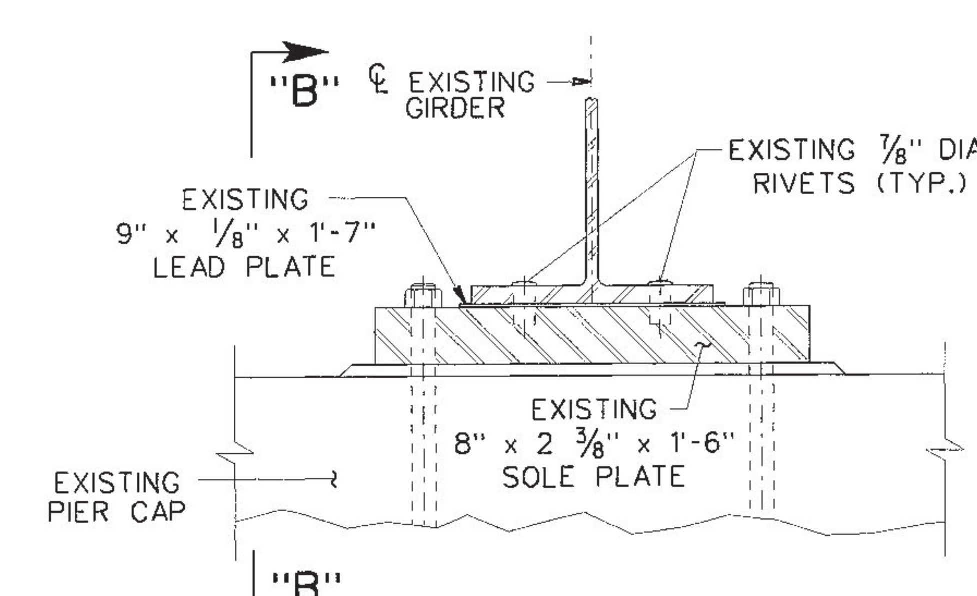
JOINTS:

ALL EXISTING JOINT OPENINGS SHALL BE THOROUGHLY CLEANED OF FOREIGN MATERIAL AND EXISTING JOINT MATERIAL BEFORE PLACING THE NEW EXPANSION JOINTS.



INTERIOR BEARING AT PIER

(TYP.)

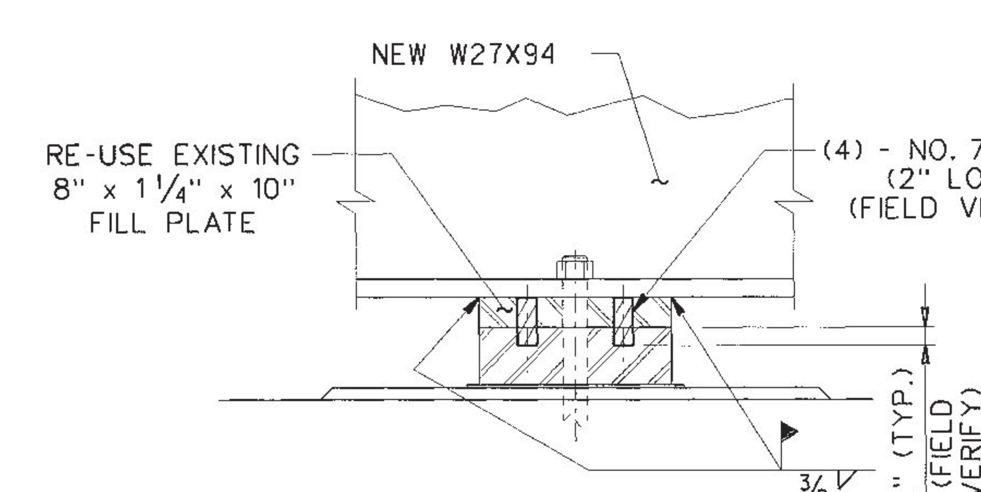


EXTERIOR BEARING AT PIER

(TYP.)

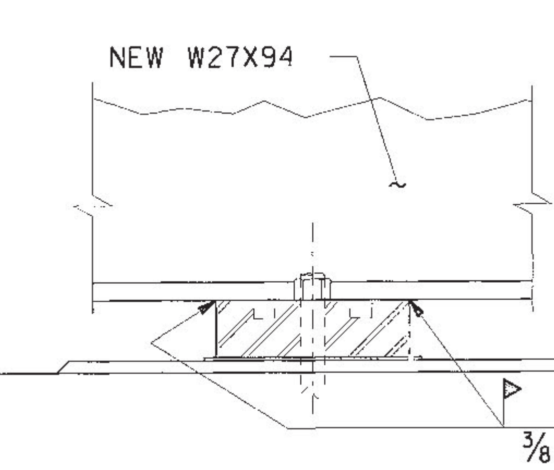
GIRDER REPLACEMENT NOTES:

1) REMOVE RIVETS TO DISCONNECT THE GIRDER(S) FOR REMOVAL. CARE SHALL BE TAKEN TO AVOID DAMAGE TO THE EXISTING BEARING PLATES.
2) REMOVE GIRDER(S).
3) CHECK CONDITIONS OF THE FILLER PLATES AT INTERIOR BEAM LINE. RE-USE IF THEY ARE IN FAIR CONDITION. IF NOT, REPLACE WITH A NEW ONE.
4) CLEAN ALL CONTACT SURFACES AND RIVET HOLES. INSTALL FILLER PLATES (INTERIOR GIRDERS ONLY), AND 2" LONG BARS INTO RIVET HOLES.
4) INSTALL NEW GIRDERS AND WELD NEW GIRDERS TO THE PLATES AS SHOWN IN SECTION "A"-"A" AND SECTION "B"-"B".



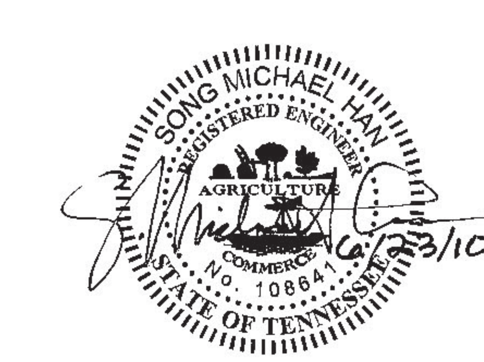
SECTION "A"-"A"

(TYP.)



SECTION "B"-"B"

(TYP.)



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

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HAWKINS COUNTY
2010

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DRAWN BY	M. JONES, R. LITTRELL	DATE	01/10
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BR-102-8

PROJECT NO.		YEAR	SHEET NO.
FEDERAL	BH-STP-31(9)	2010	
STATE	37022-3215-94		

REVISIONS

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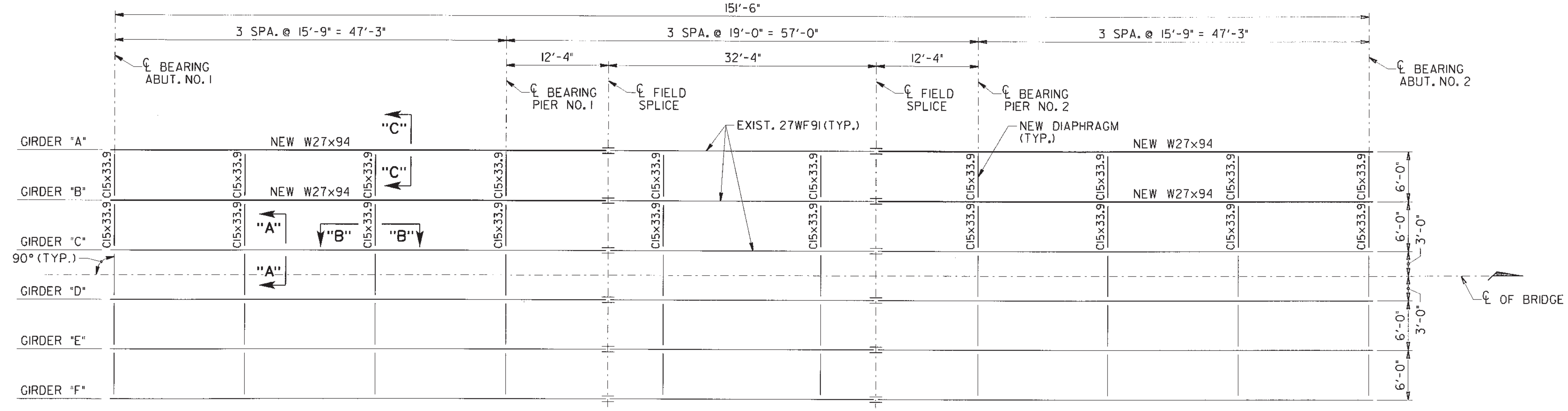
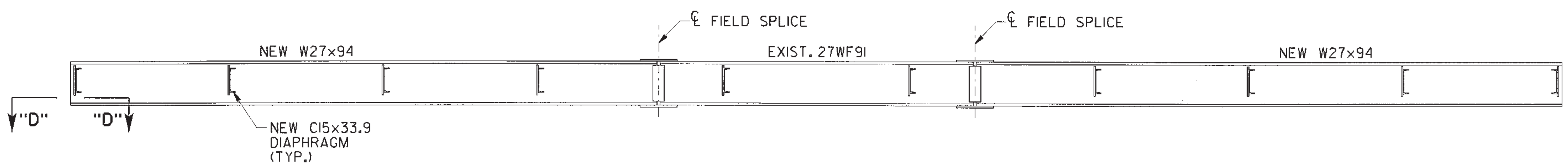
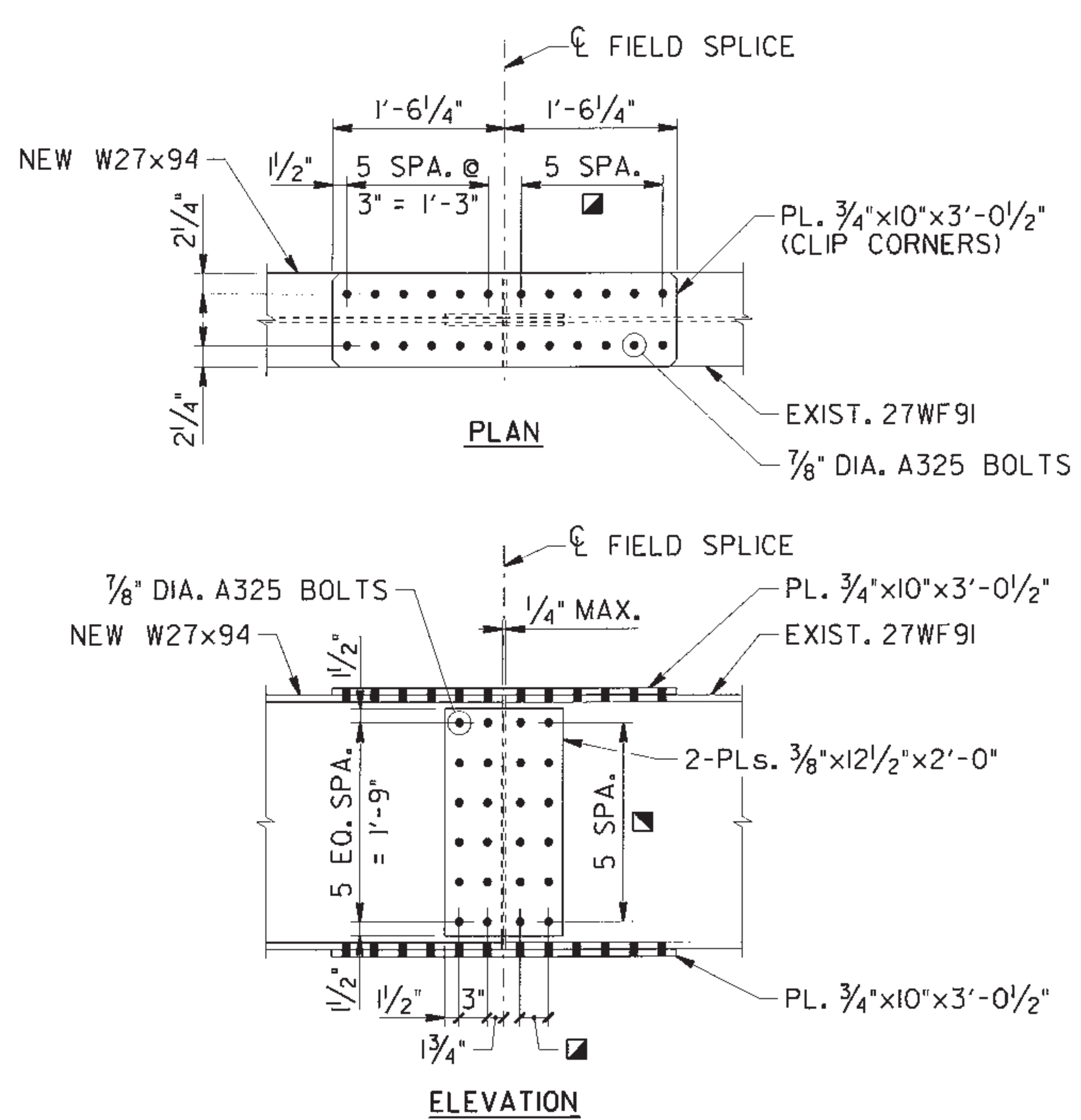


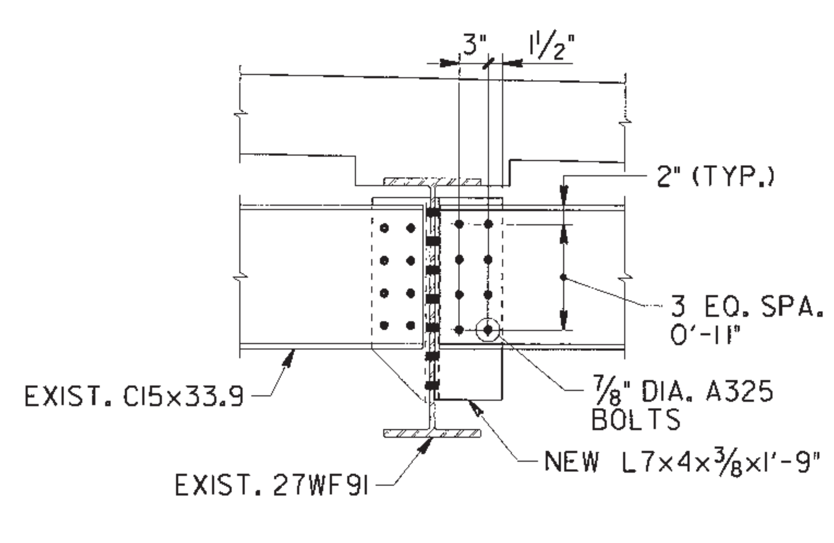
FRAMING PLAN



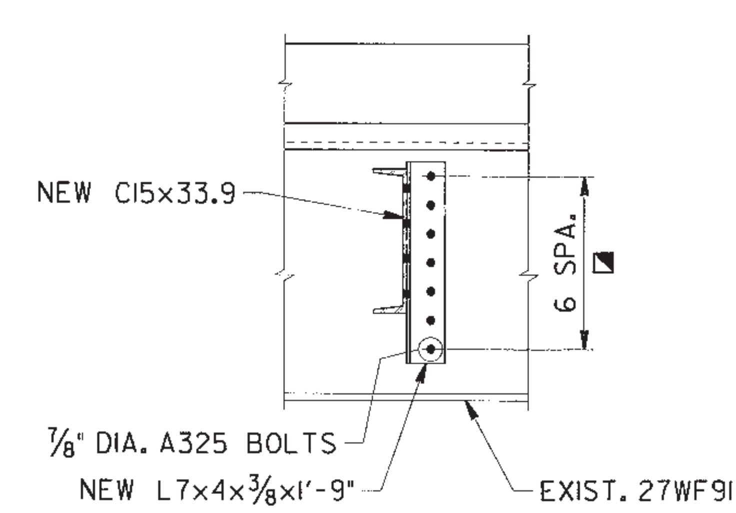
ELEVATION OF GIRDER "A" OR "B"



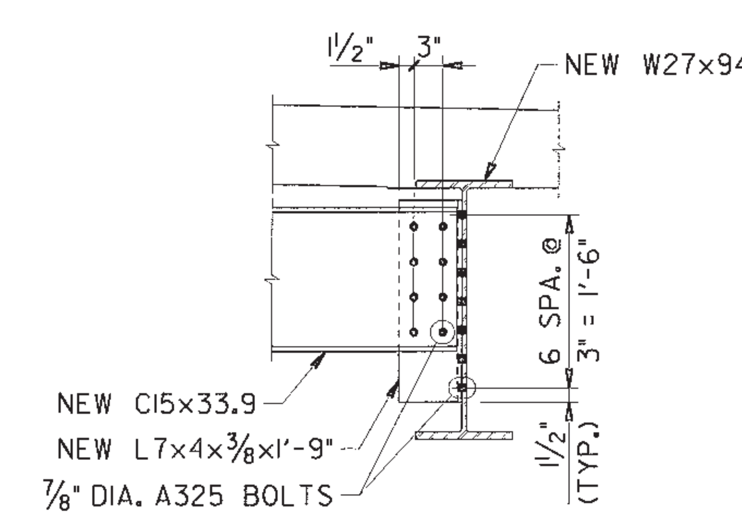
NEW GIRDER FIELD SPLICE



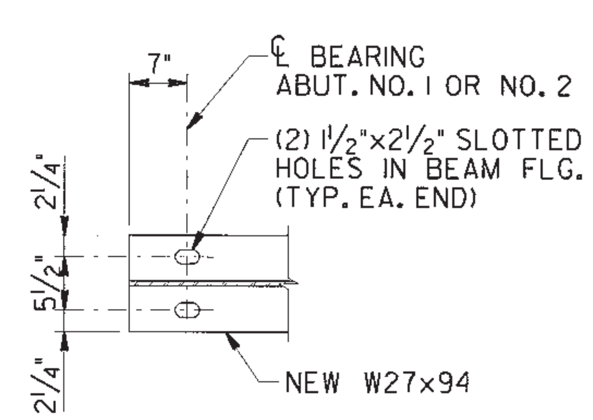
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

STRUCTURAL STEEL NOTES

FABRICATION OF STRUCTURAL STEEL: NO FABRICATION SHALL BE STARTED UNTIL THE MATERIALS INVOLVED HAVE BEEN APPROVED BY THE TENNESSEE HIGHWAY DIVISION OF TESTS. HEAT NUMBERS ON MAIN MATERIAL MUST BE PRESERVED OR TRANSFERRED DURING FABRICATION AND SHOP PAINTING SO THAT THEY WILL BE IDENTIFIABLE IN THE FIELD.

STRUCTURAL STEEL: STRUCTURAL STEEL SHALL CONFORM TO AASHTO M270 (ASTM A709) GRADE 50 FOR GIRDERS & GRADE 36 FOR CHANNELS AND ANGLES.

FIELD CONNECTIONS: SHALL BE ⅞" DIA. HIGH TENSILE STRENGTH BOLTS ASTM-A325 - SEE AASHO SPECS. ART. 10.32.3. ALL FIELD CONNECTIONS ARE FRICTION TYPE.

WELDING: AWS CURRENT SPECIFICATIONS AND SPECIAL PROVISION REGARDING WELDED STRUCTURES. THE COST OF RADIOGRAPHIC AND MAGNETIC PARTICLE INSPECTION IS TO BE INCLUDED IN THE PRICE BID FOR STRUCTURAL STEEL.

CONCRETE DECK: THE CONCRETE DECK SHALL NOT BE POURED UNTIL ALL STRUCTURAL STEEL IS ERECTED AND ALL BOLTING IS COMPLETED.

CAMBER: ALL BEAMS SHALL BE CAMBERED TO COMPENSATE FOR DEAD LOAD DEFLECTION. SEE DWG. NO. BR-102-6 FOR DEAD LOAD CORRECTION CURVE.

ELASTOMERIC EXPANSION BEARING DETAILS ABUTMENTS NO. 1 AND NO. 2

(NO. REQUIRED = 4)

1) THE CONTRACTOR SHALL JACK THE EXISTING STRUCTURE. RAISE THE STRUCTURE ONLY THE MINIMUM AMOUNT NEEDED TO ENABLE REMOVAL AND REPLACEMENT OF THE EXISTING BEARING DEVICES WITH THE NEW ELASTOMERIC BEARINGS. COST OF JACKING THE STRUCTURE AND TEMPORARY SUPPORTS SHALL BE INCLUDED IN UNIT PRICE BID FOR ITEM NO. 602-10.19, JACKING STEEL SPANS, L.S.

2) PROCEDURES AND APPURTENANCES FOR JACKING OF THE STRUCTURE SHALL BE DESIGNED BY AN ENGINEER LICENSED IN TENNESSEE. ALL CALCULATIONS AND JACKING PLANS SHALL BE SUBMITTED TO THE HEADQUARTERS OF BRIDGE INSPECTION AND REPAIR OFFICE FOR APPROVAL. JACKING OF THE STRUCTURE WILL NOT BE ALLOWED UNTIL THE JACKING PLAN HAS BEEN APPROVED.

3) THE CONTRACTOR SHALL SUBMIT A COMPLETE SET OF SHOP DRAWINGS FOR THE ELASTOMERIC BEARING PADS TO THE HEADQUARTERS OF BRIDGE INSPECTION AND REPAIR OFFICE FOR APPROVAL BEFORE STARTING FABRICATION.

4) THE COST OF REMOVING EXISTING BEARING DEVICES, ROUGHENING EXISTING RISER BLOCKS, NEW ELASTOMERIC BEARING PADS, MECHANICALLY ANCHORED BOLTS AND WELDING SHALL BE INCLUDED UNDER ITEM NO. 602-10.60 BEARING DEVICE ELASTOMERIC.

5) THE ELASTOMER USED FOR THE FABRICATION OF THE BEARING PADS SHALL BE 50 DUROMETER. ALL INTERNAL STEEL LAMINATES SHALL BE A36 STEEL.

NOTE: COST OF REMOVING EXISTING GIRDER SECTION, DIAPHRAGMS AND SPLICE PLATE AND INSTALLING ALL NEW STRUCTURAL STEEL MEMBERS, BOLTS, LABOR AND ALL MISCELLANEOUS MATERIALS NECESSARY TO COMPLETE THE REPAIRS AS SHOWN SHALL BE PAID FOR UNDER ITEM NO. 602-10.32, STRUCTURAL STEEL (REPAIRS), LBS.

NOTE: CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING MEMBER DIMENSIONS SHOWN FOR NEW STRUCTURAL STEEL PRIOR TO STEEL FABRICATION.

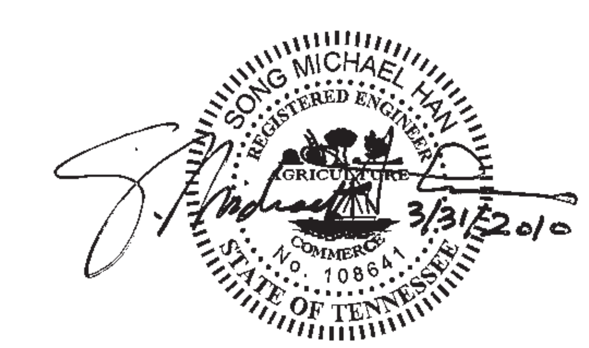
NOTE: CONTRACTOR SHALL SUBMIT A COMPLETE SET OF SHOP DRAWINGS FOR APPROVAL TO THE HEADQUARTERS BRIDGE INSPECTION AND REPAIR OFFICE BEFORE ANY FABRICATION IS BEGUN.

NOTE: ALL NEW STRUCTURAL STEEL SHALL RECEIVE A SHOP COAT OF INORGANIC ZINC PRIMER.

NOTE: CONNECTION OF NEW DIAPHRAGM TO EXISTING GIRDERS AND OF NEW SPLICE PLATES TO EXISTING GIRDERS: REMOVE EXISTING RIVETS AND REAM HOLES TO ¹⁵⁄₁₆" DIA. FOR NEW BOLTS.

NOTE: FOR SETTING THE NEW BEAMS, CRANE SHALL BE POSITIONED OFF THE BRIDGE. NO BRIDGE CLOSURE OR DETOUR WILL BE NECESSARY FOR COMPLETION OF THIS WORK.

◪ DENOTES: MATCH HOLE PATTERN OF EXISTING GIRDER.



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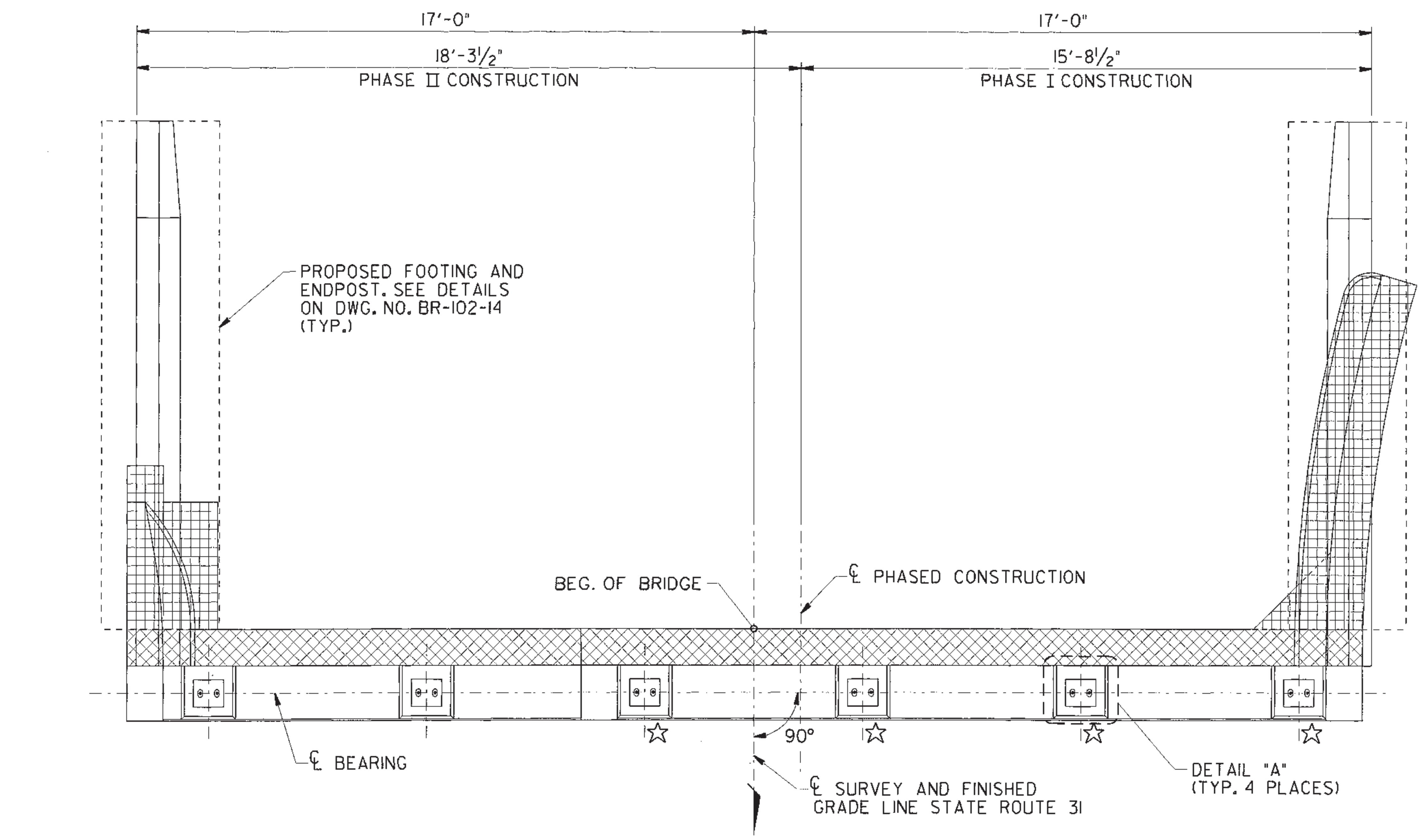
HAWKINS COUNTY
2010

BR-102-9

PROJECT NO.		YEAR	SHEET NO.
FEDERAL	BH-STP-31(9)	2010	
STATE	37022-3215-94		

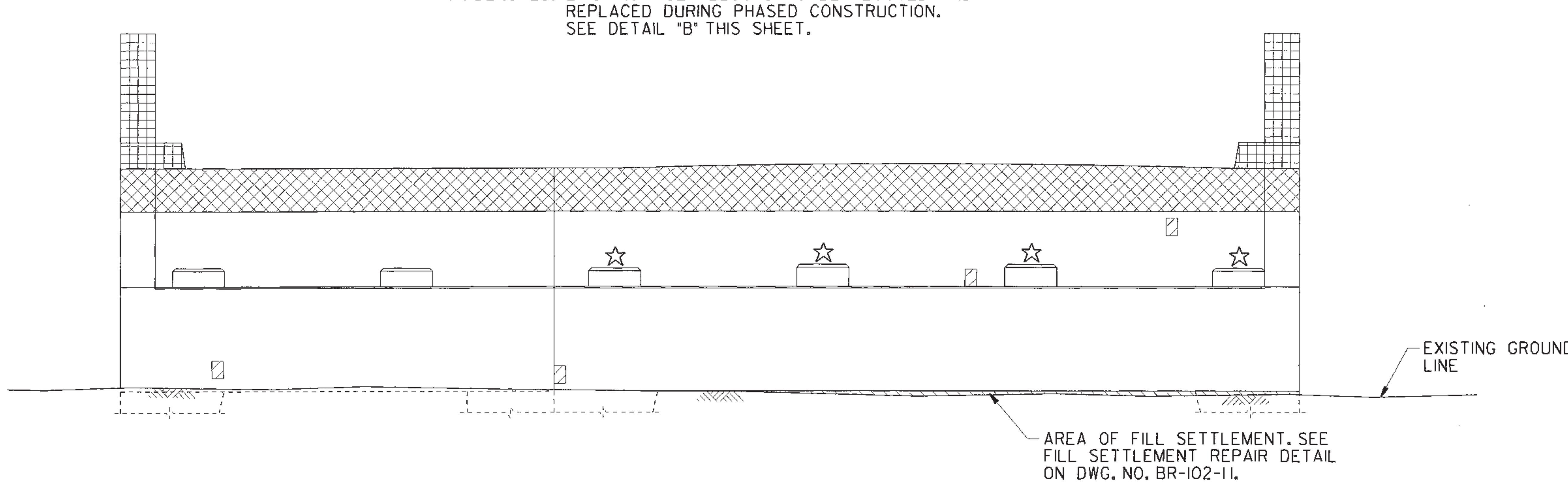
REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION



PLAN

☆ DENOTES: EXISTING RISER BLOCKS TO BE REMOVED AND REPLACED DURING PHASED CONSTRUCTION. SEE DETAIL "B" THIS SHEET.



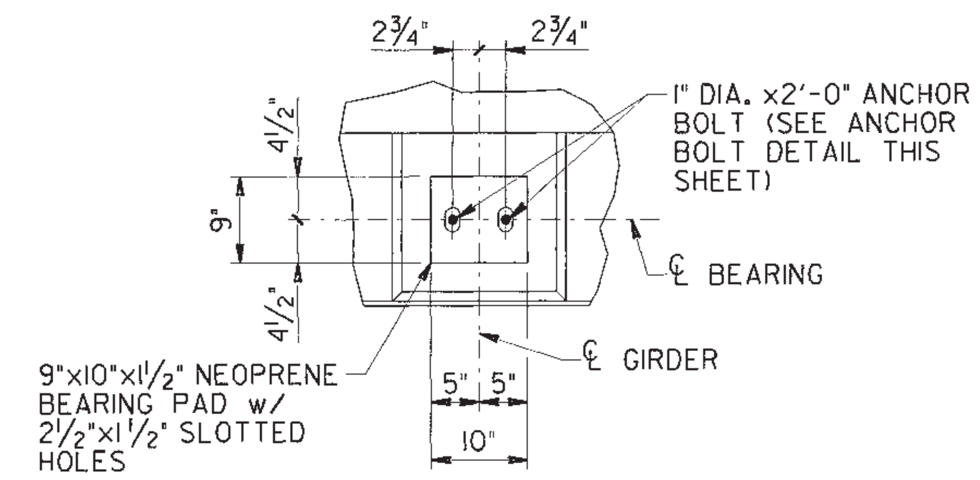
ELEVATION

(LOOKING BACK ON SURVEY)

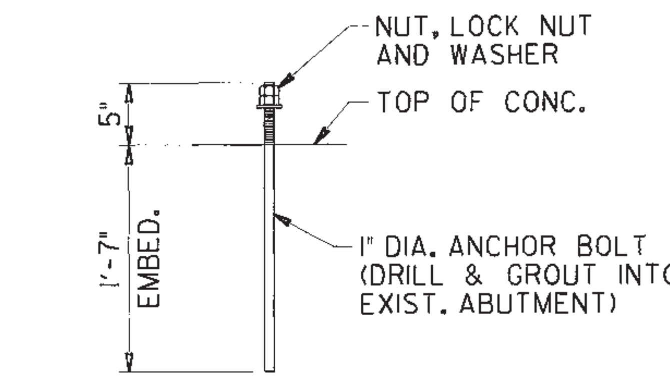
DENOTES: AREAS OF EXISTING SPALLED OR DELAMINATED CONCRETE TO BE REPAIRED. SEE SPALL REPAIR DETAILS ON DWG. NO. BR-102-13.

DENOTES: AREAS OF EXISTING CONCRETE TO BE REMOVED AND REPOURED. SEE DETAILS AND NOTES ON DWG. NO. BR-102-7.

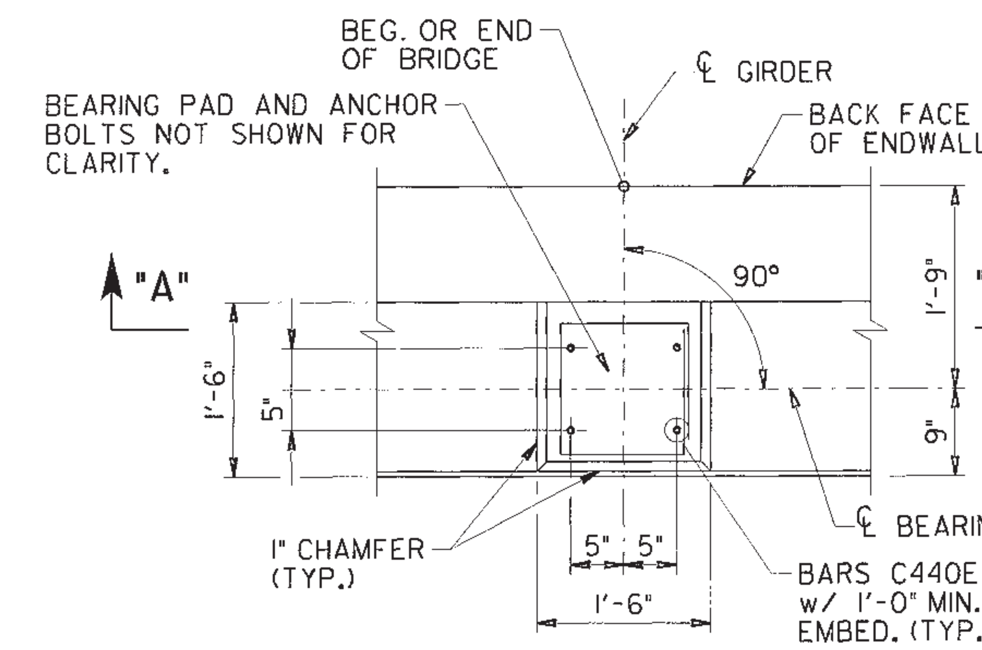
DENOTES: AREAS OF EXISTING CONCRETE TO BE REMOVED. SEE DETAILS AND NOTES ON DWG. NO. BR-102-7.



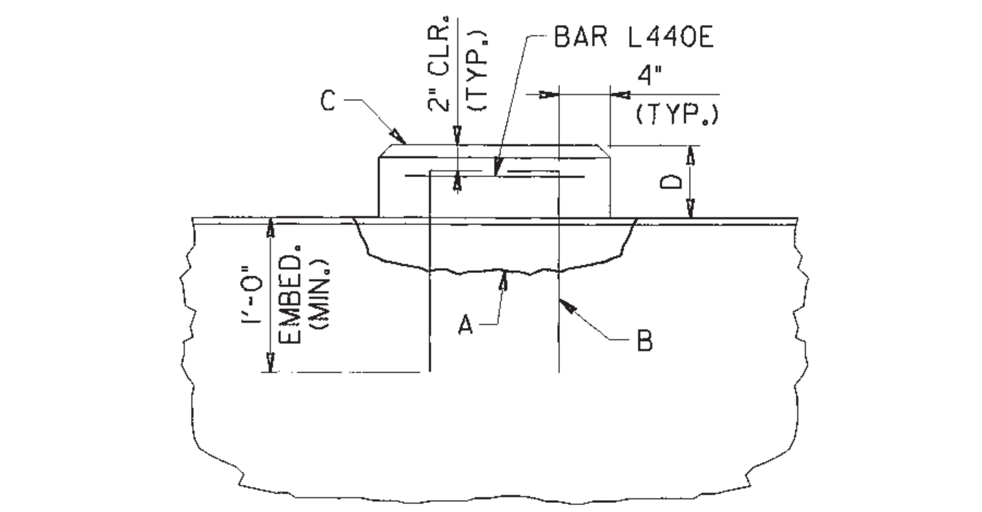
DETAIL "A"



ANCHOR BOLT DETAIL



PLAN



SECTION "A-A"

A) REMOVE THE EXISTING RISER IN ITS ENTIRETY.

B) DRILL AND GROUT BARS C440E AT FOUR LOCATIONS. PLACE BARS L440E AND FORM TO THE DIMENSION INDICATED.

C) FINISH THE TOP OF THE RISER AS INDICATED TO RECEIVE THE NEW NEOPRENE BEARING PAD.

D) RISER BLOCK HEIGHT VARIES PER GIRDER. HEIGHT TO BE DETERMINED BY THE FIELD ENGINEER.

DETAIL "B"

NOTE: SAW CUT EXISTING CONCRETE SURFACES SO AS TO OBTAIN SQUARED CORNERS. (90° TYP.)

NOTE: PROVISIONS SHALL BE MADE DURING CONCRETE REMOVAL TO PROTECT THE EXISTING REINFORCING STEEL FROM DAMAGE. THE EXISTING REINFORCING STEEL SHALL BE COMPLETELY CLEANED, REALIGNED AND INCORPORATED INTO THE NEW CONSTRUCTION.

NOTE: THE COST OF REMOVING PORTIONS OF THE EXISTING CONCRETE WITHIN THE LIMITS SHOWN, SAW CUTTING, COMPLETELY CLEANING EXISTING REINFORCING STEEL, CONCRETE, FORMING, DRILLING, GROUTING, ANCHOR BOLTS, LABOR AND ALL MISCELLANEOUS MATERIAL NECESSARY TO COMPLETE THE REPAIR AS SHOWN SHALL BE INCLUDED IN THE PRICE BID FOR ITEM NO. 604-10.42, CONCRETE REPAIRS, C.F., AND SHALL BE BID WITH THE CONTINGENCY THAT THEY MAY BE INCREASED, DECREASED OR ELIMINATED AS DIRECTED BY THE ENGINEER.

NOTE: POWER HAND DRIVEN TOOLS USED FOR REMOVAL OF UNSOUND CONCRETE ARE SUBJECT TO THE FOLLOWING RESTRICTIONS:
1. PNEUMATIC HAMMERS HEAVIER THAN THE 35 LB. CLASS SHALL NOT BE USED.
2. CHIPPING HAMMERS OF THE 15 LB. CLASS SHALL BE USED TO REMOVE CONCRETE FROM BEHIND REINFORCING STEEL.

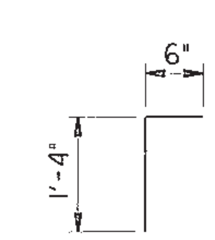
ESTIMATED ABUTMENT REPAIRS

LOCATION	ITEM NO. 604-10.05 S.F.	ITEM NO. 604-10.54 S.F.	ITEM NO. 604-10.42 C.F.
ABUT. NO. 1	1	1	50

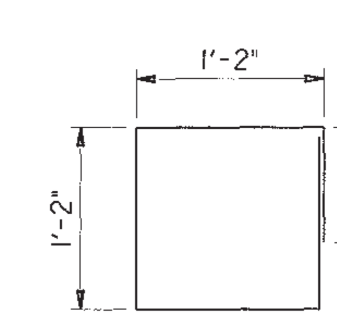
BILL OF STEEL

BAR	SIZE	NO. REQ'D.	LENGTH
C440E	4	32	1'-10"
L440E	4	8	5'-8"

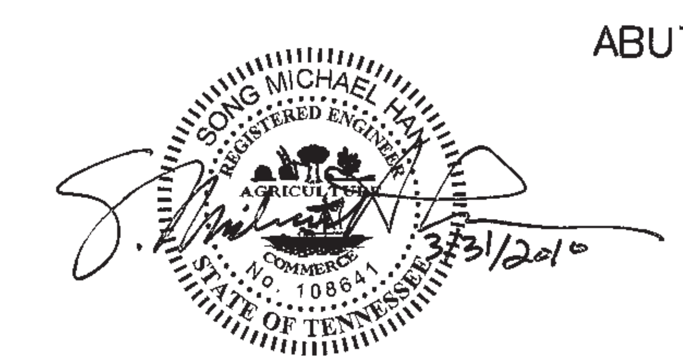
NOTE: ALL REINFORCING STEEL SHALL BE EPOXY COATED. THE COST OF EPOXY COATED REINFORCING STEEL TO BE INCLUDED IN ITEM NO. 604-10.18, REINFORCING STEEL (REPAIRS), LBS.



BARS C440E



BARS L440E



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ABUTMENT NO. 1 REPAIR DETAILS
STATE ROUTE 31
OVER
POOR VALLEY CREEK
BRIDGE NO. 37-SR31-2.34
HAWKINS COUNTY
2010

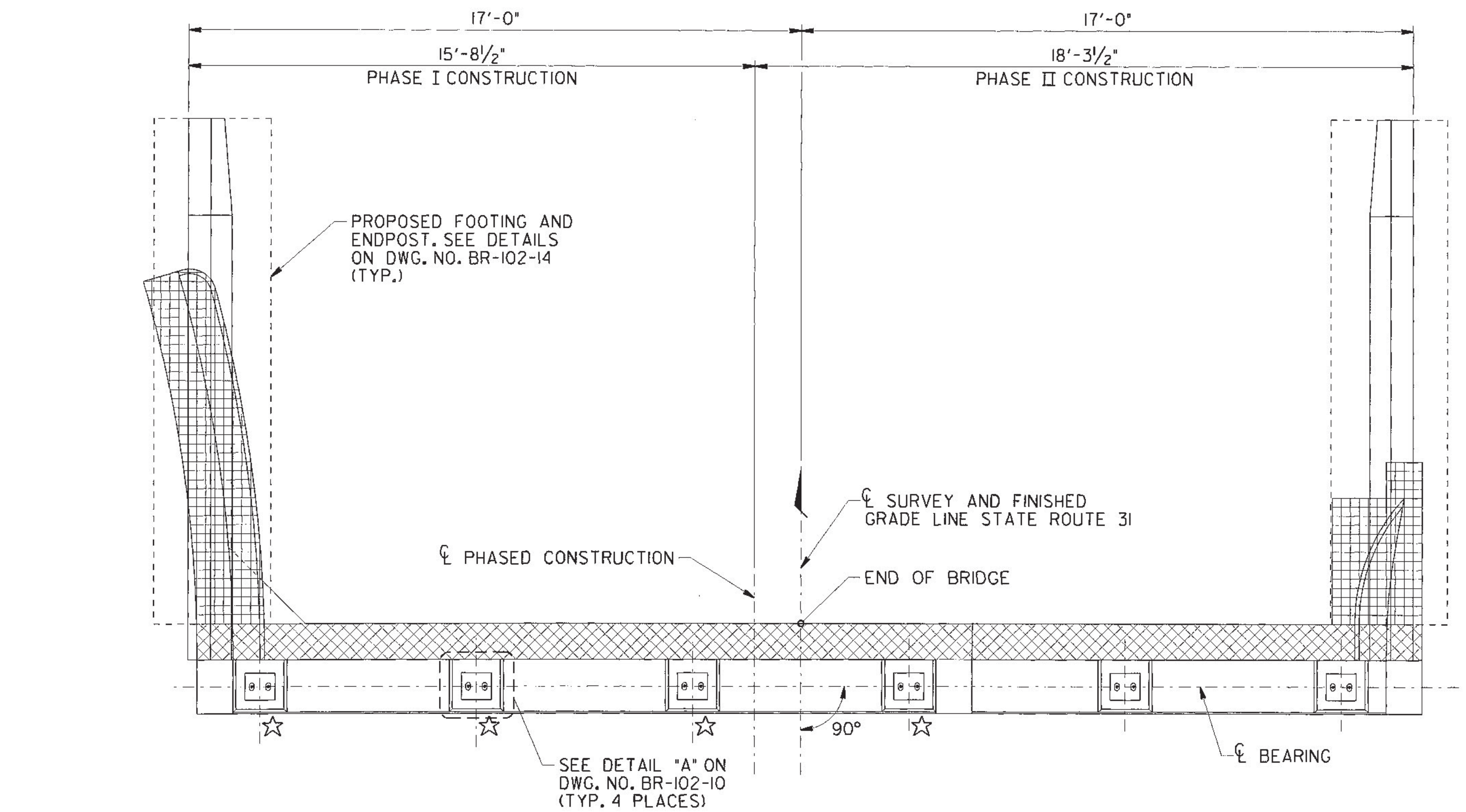
DESIGNED BY	M. HAN	DATE	01/10
DRAWN BY	M. JONES	DATE	01/10
SUPERVISED BY	S. EDWARDS	DATE	01/10
CHECKED BY	M. JONES, M. HAN	DATE	01/10

BR-102-10

PROJECT NO.		YEAR	SHEET NO.
FEDERAL	BH-STP-31(9)	2010	
STATE	37022-3215-94		

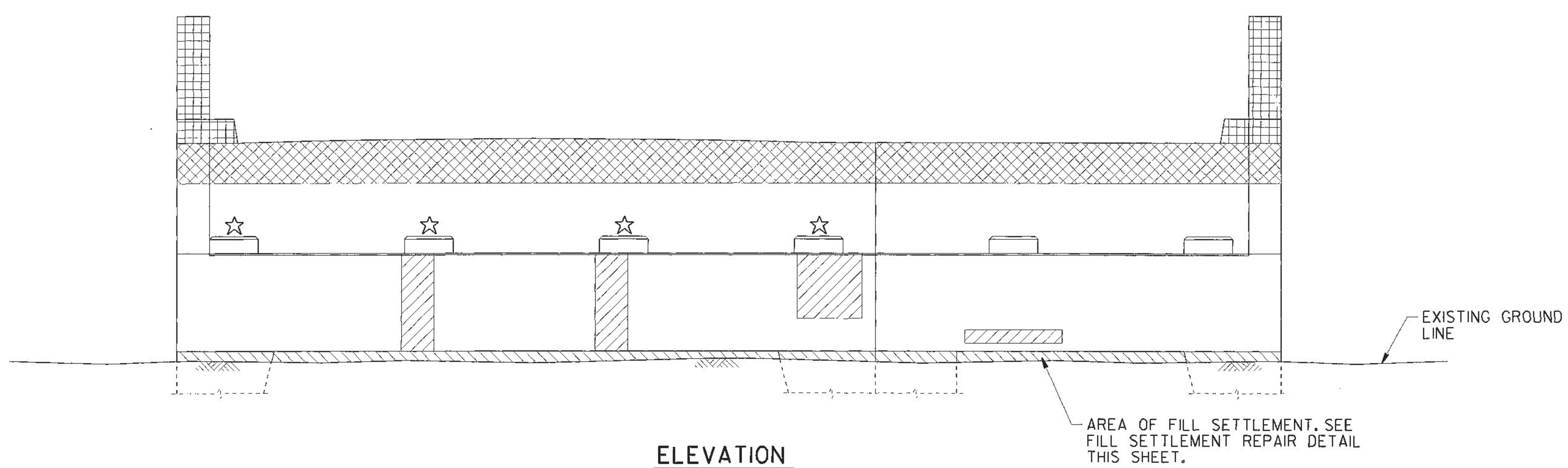
REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION



PLAN

☆ DENOTES: EXISTING RISER BLOCKS TO BE REMOVED AND REPLACED DURING PHASED CONSTRUCTION. SEE DETAIL "B" ON DWG. NO. BR-102-10.



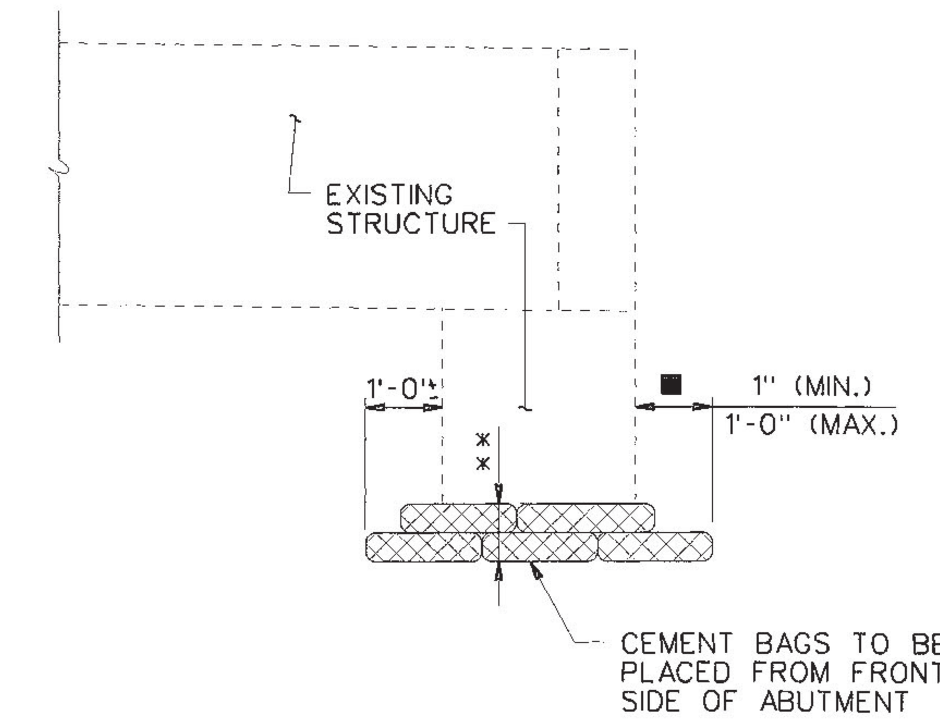
ELEVATION

(LOOKING FORWARD ON SURVEY)

▨ DENOTES: AREAS OF EXISTING SPALLED OR DELAMINATED CONCRETE TO BE REPAIRED. SEE SPALL REPAIR DETAILS ON DWG. NO. BR-102-13.

▨ DENOTES: AREAS OF EXISTING CONCRETE TO BE REMOVED AND REPOURED. SEE DETAILS AND NOTES ON DWG. NO. BR-102-7.

▦ DENOTES: AREAS OF EXISTING CONCRETE TO BE REMOVED. SEE DETAILS AND NOTES ON DWG. NO. BR-102-7.



FILL SETTLEMENT REPAIR DETAIL

■ DENOTES: WHEN THE SURFACE OF THE FILL SETTLEMENT EXTENDS FURTHER THAN 1'-0" BEHIND THE ABUTMENT, OR VISUAL INSPECTION REVEALS THAT PORTIONS OF FILL SETTLEMENT ARE INACCESSIBLE AND CANNOT BE ADEQUATELY FILLED FROM THE FRONT SIDE OF THE ABUTMENT, THE CONTRACTOR WILL BE REQUIRED TO EXCAVATE THE EROSION POCKET FROM BEHIND THE EXISTING ABUTMENT PRIOR TO PLACEMENT OF CEMENT BAGS. THE NECESSITY FOR EMBANKMENT EXCAVATION WILL BE AT THE DISCRETION OF THE ENGINEER.

x x DENOTES: HAND EXCAVATION MAY BE REQUIRED IN ORDER TO ATTAIN TIGHT PACKING OF CEMENT BAGS.

NOTE: COST OF LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS ASSOCIATED WITH EXCAVATION AND PLACEMENT OF CEMENT BAGS TO REPAIR FILL SETTLEMENT AT ABUTMENTS SHALL BE PAID FOR UNDER ITEM NO. 604-10.90, MISCELLANEOUS BRIDGE ITEMS, L.S.

ESTIMATED ABUTMENT REPAIRS

LOCATION	ITEM NO. 604-10.05 S.F.	ITEM NO. 604-10.54 S.F.	ITEM NO. 604-10.42 C.F.
ABUT. NO. 2	5	5	50

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ABUTMENT NO. 2 REPAIR DETAILS
STATE ROUTE 31
OVER
POOR VALLEY CREEK
BRIDGE NO. 37-SR31-2.34
HAWKINS COUNTY
2010

SONG MICHAEL HAN
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 108641
STATE OF TENNESSEE
3/3/2010

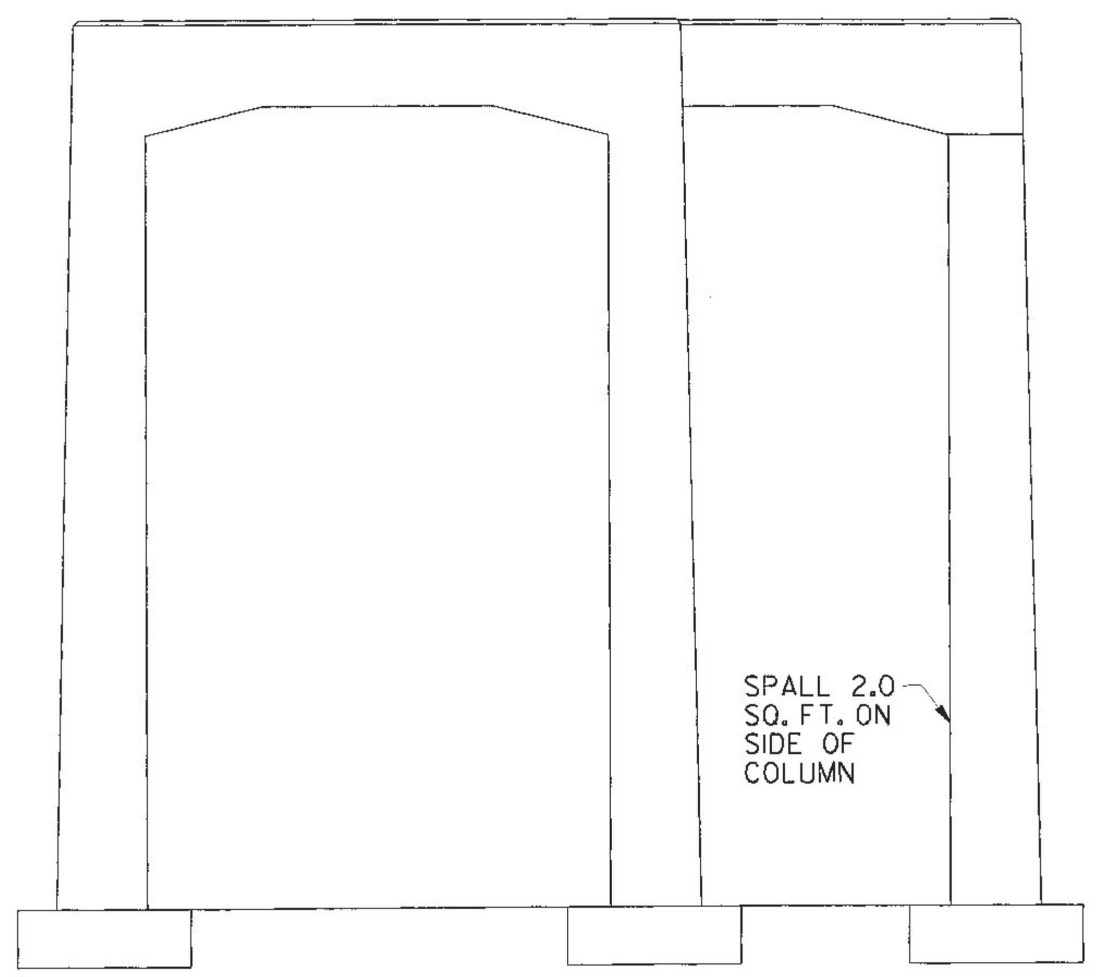
DESIGNED BY M. HAN DATE 01/10
DRAWN BY M. JONES DATE 01/10
SUPERVISED BY S. EDWARDS DATE 01/10
CHECKED BY M. JONES, M. HAN DATE 01/10

BR-102-11

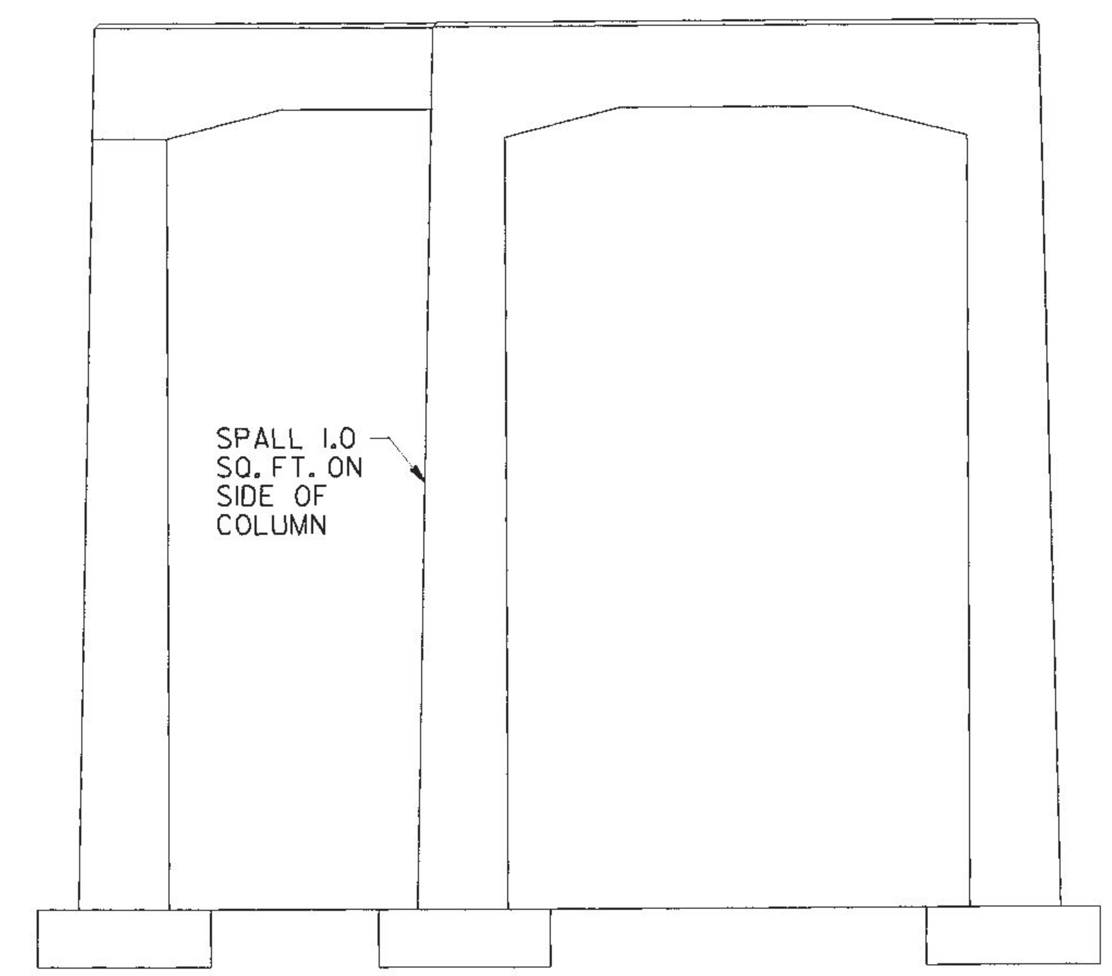
PROJECT NO.		YEAR	SHEET NO.
FEDERAL	BH-STP-31(9)	2010	
STATE	37022-3215-94		

REVISIONS

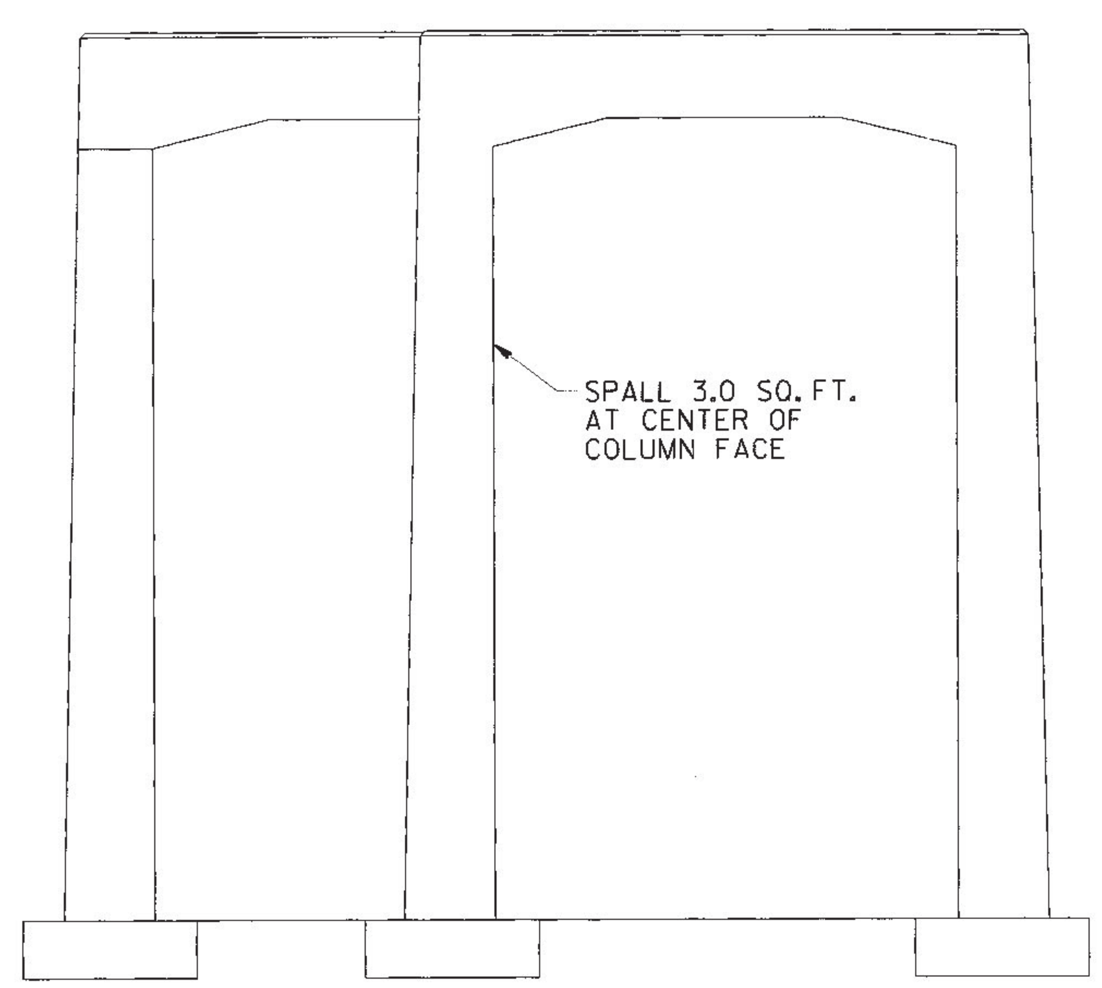
NO.	DATE	BY	BRIEF DESCRIPTION



ELEVATION - PIER NO. 1
(LOOKING FORWARD ON SURVEY)



ELEVATION - PIER NO. 1
(LOOKING BACK ON SURVEY)



ELEVATION - PIER NO. 2
(LOOKING BACK ON SURVEY)

ESTIMATED PIER REPAIRS

LOCATION	ITEM NO. 604-10.05 S.F.	ITEM NO. 604-10.54 S.F.
PIER NO. 1	2	1
PIER NO. 2	2	1

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PIER REPAIR DETAILS
STATE ROUTE 31
OVER
POOR VALLEY CREEK
BRIDGE NO. 37-SR31-2.34
HAWKINS COUNTY
2010

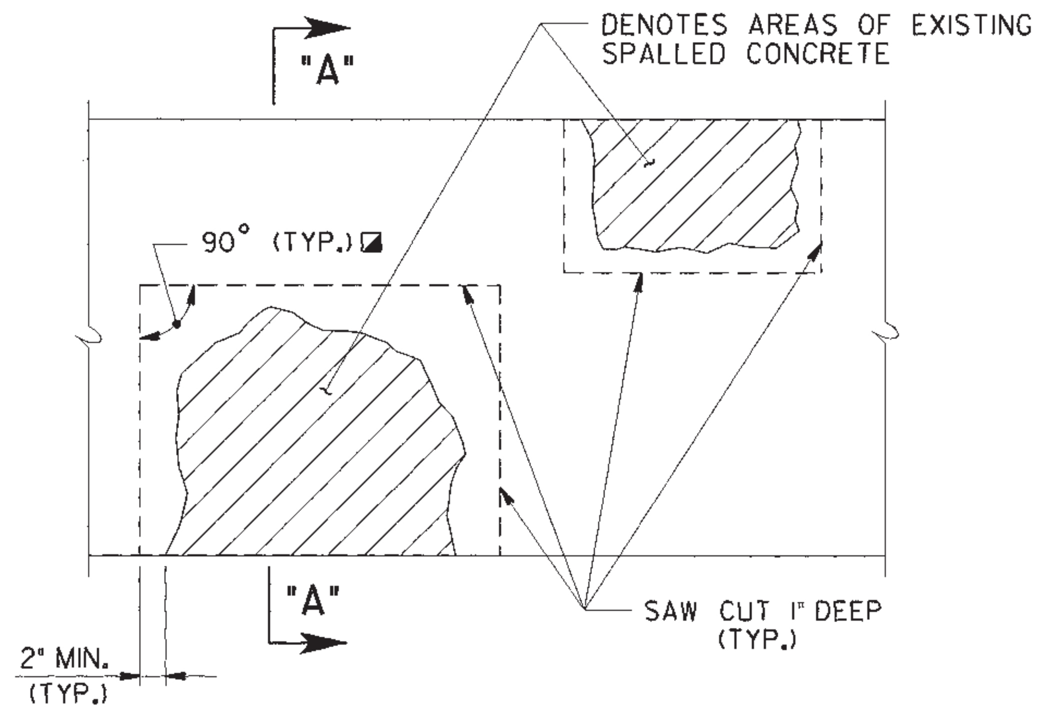
DESIGNED BY M. HAN DATE 01/10
DRAWN BY M. JONES DATE 01/10
SUPERVISED BY S. EDWARDS DATE 01/10
CHECKED BY M. JONES, M. HAN DATE 01/10

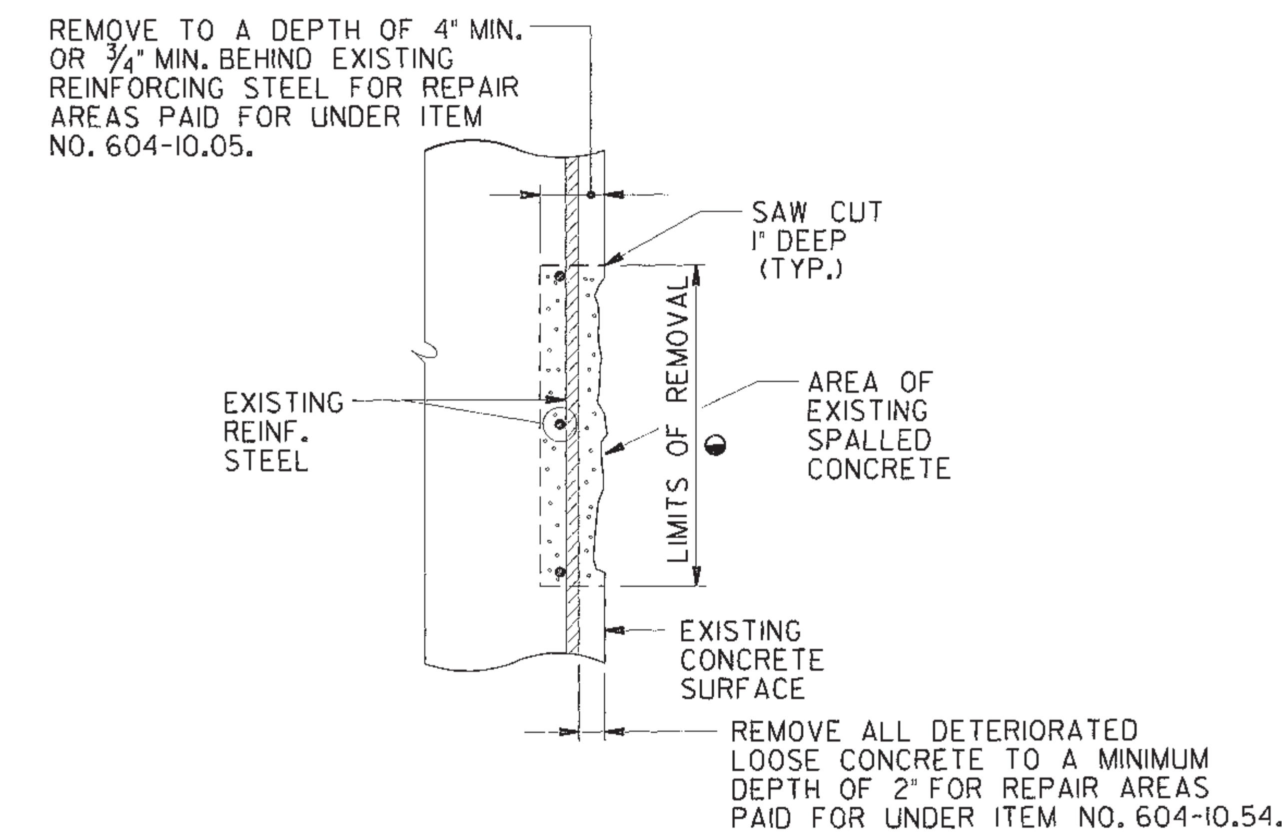
BR-102-12

PROJECT NO.		YEAR	SHEET NO.
FEDERAL	BH-STP-31(9)	2010	
STATE	37022-3215-94		

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION





SECTION "A-A"

DETAIL SHOWING AREAS OF EXISTING SPALLED CONCRETE SURFACES TO BE REMOVED AND REPAIRED

◒ DENOTES: LIMITS AND LOCATION OF REPAIRS TO BE DESIGNATED BY THE ENGINEER.

◪ DENOTES: SAW CUT EXISTING CONCRETE SURFACES SO AS TO OBTAIN SQUARED CORNERS.

NOTE: EXTREME CARE SHALL BE TAKEN WHEN REMOVING THE EXISTING SPALLED CONCRETE SO AS NOT TO DAMAGE THE EXISTING REINFORCING STEEL. ALL EXPOSED EXISTING REINFORCING STEEL SHALL RECEIVE A COMPLETE CLEANING TO REMOVE ALL RUST. ALL EXISTING REINFORCEMENT SHALL REMAIN IN PLACE. ALL WORK MUST MEET THE FULL APPROVAL OF THE ENGINEER.

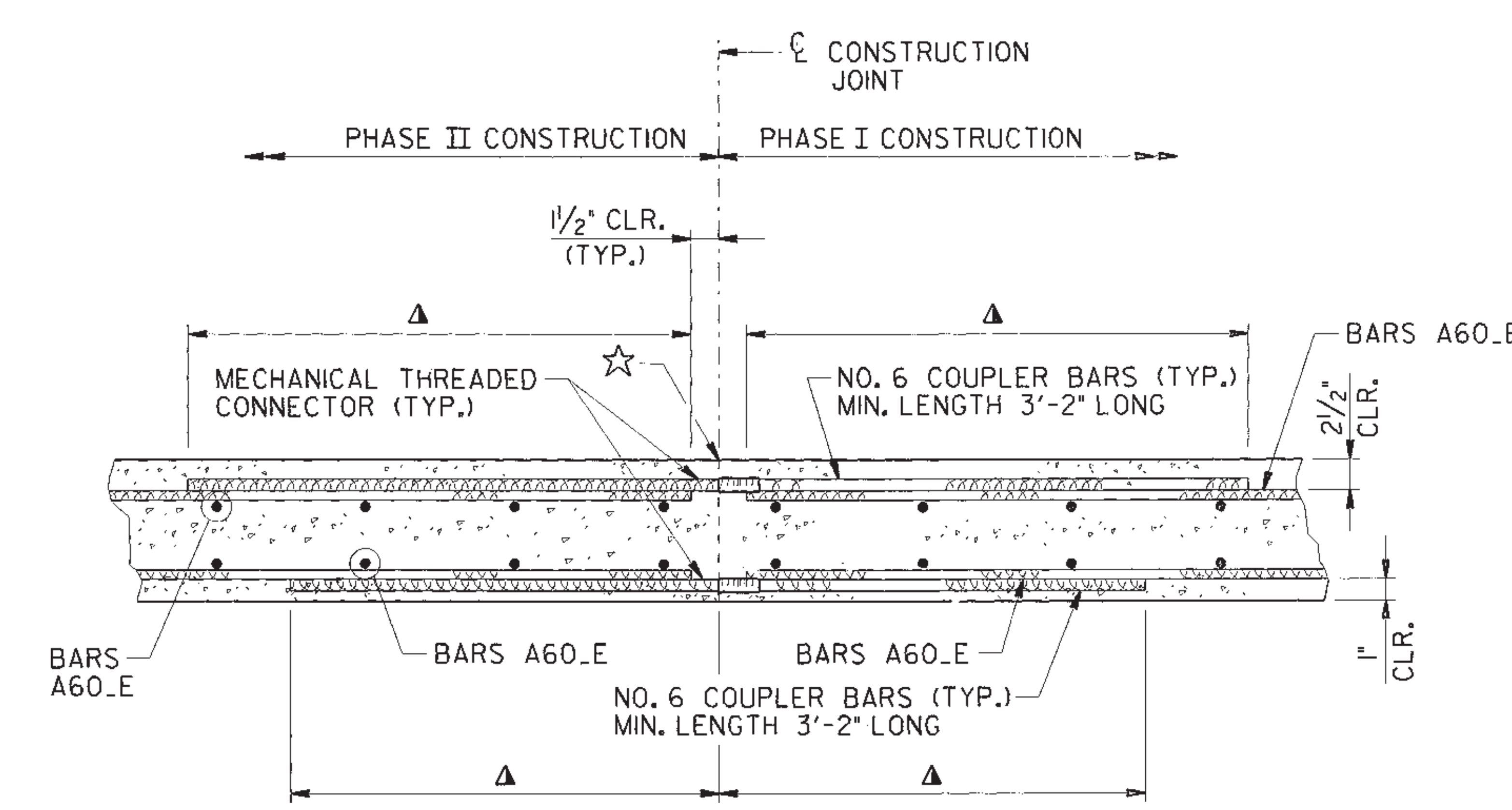
NOTE: THE ENGINEER SHALL HAVE THE OPTION OF DESIGNATING A SPALL AREA TO BE REPAIRED UNDER ITEM NO. 604-10.05 OR 604-10.54. PATCHING MATERIAL FOR ITEM NO. 604-10.05 SHALL BE HIGH EARLY STRENGTH CONCRETE. PATCHING MATERIAL FOR ITEM NO. 604-10.54 SHALL BE A POLYMER MODIFIED CEMENTITIOUS STRUCTURAL PATCHING MATERIAL. SEE T.D.O.T. QUALIFIED PRODUCTS LIST 13, SECTION B.6.

NOTE: CONCRETE OR PATCHING MATERIALS SHALL NOT BE PLACED BY PNEUMATIC METHODS.

NOTE: THE COST OF SAW CUTTING, REMOVING SPALLED CONCRETE, CLEANING, PATCHING MATERIAL, LABOR AND ANY MISCELLANEOUS MATERIALS NECESSARY TO COMPLETE THE REPAIRS AS SHOWN TO BE INCLUDED IN ITEM NO. 604-10.54, CONCRETE REPAIRS, S.F. OR ITEM NO. 604-10.05, CONCRETE, S.F.

NOTE: THE ENGINEER SHALL DESIGNATE ALL SPALLED CONCRETE REPAIR AREAS IN THE FIELD. QUANTITIES GIVEN ARE APPROXIMATE. ITEM NO. 604-10.05 AND 604-10.54 SHALL BE BID WITH THE CONTINGENCY THAT THEY MAY BE INCREASED, DECREASED OR ELIMINATED AS DIRECTED BY THE ENGINEER.

NOTE: POWER HAND DRIVEN TOOLS USED FOR REMOVAL OF UNSOUND CONCRETE ARE SUBJECT TO THE FOLLOWING RESTRICTIONS:
1. PNEUMATIC HAMMERS HEAVIER THAN THE 35 LB. CLASS SHALL NOT BE USED.
2. CHIPPING HAMMERS OF THE 15 LB. CLASS SHALL BE USED TO REMOVE CONCRETE FROM BEHIND REINFORCING STEEL.

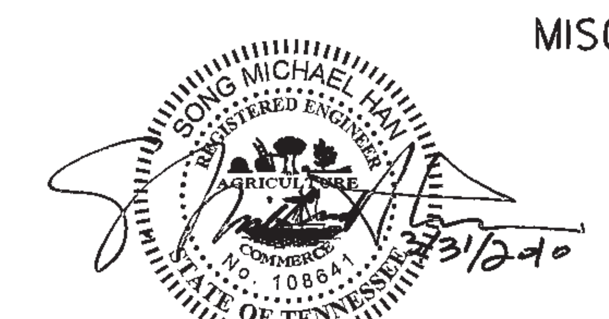


DETAIL "A"

Δ DENOTES: MIN. LAP = 3'-2" (EPOXY)

☆ DENOTES: SEAL LONGITUDINAL DECK CRACKS WITH (HMWM) CRACK SEALANT.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION



MISCELLANEOUS REPAIR DETAILS
STATE ROUTE 31
OVER
POOR VALLEY CREEK
BRIDGE NO. 37-SR31-2.34
HAWKINS COUNTY
2010

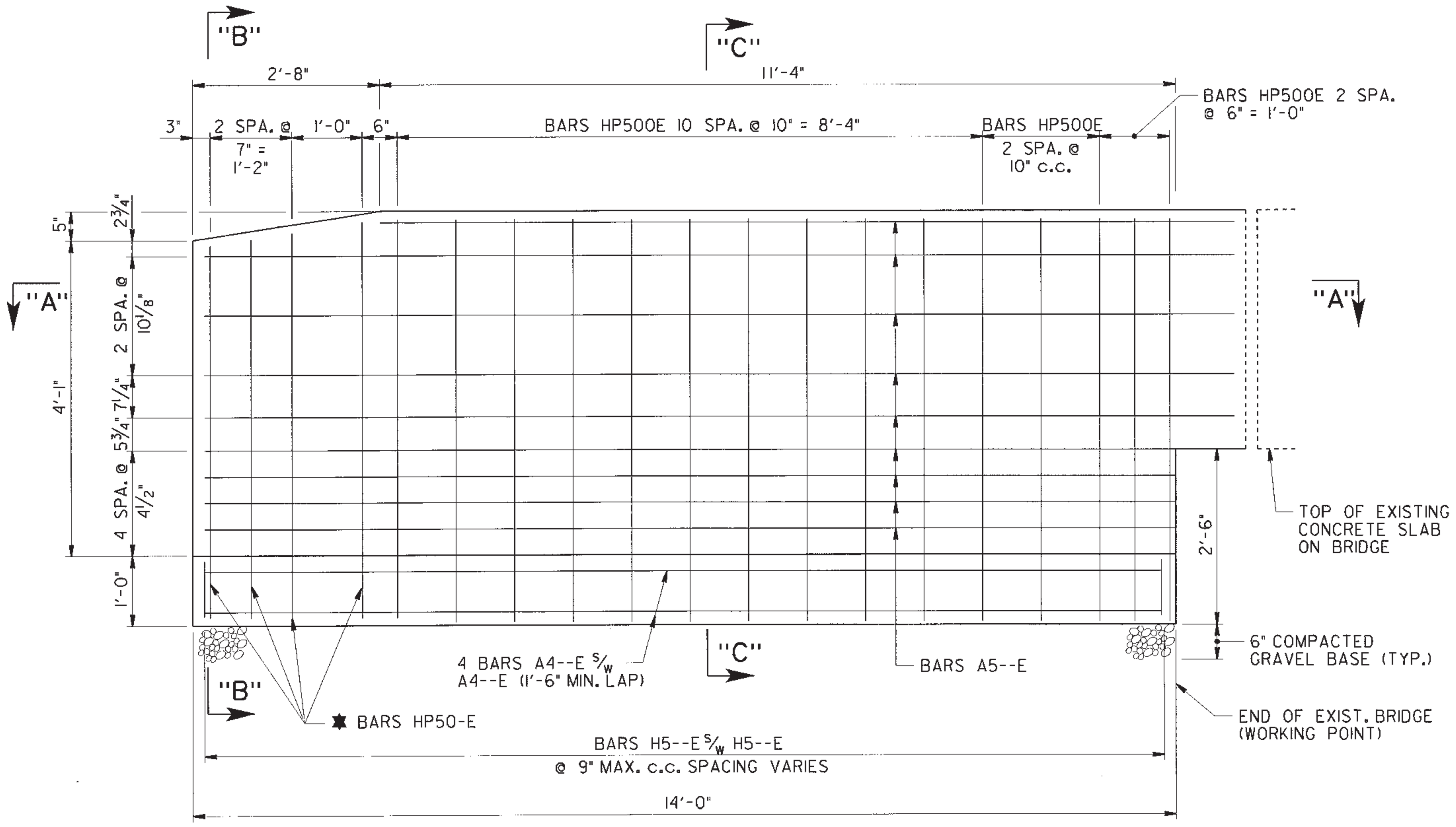
DESIGNED BY	M. HAN	DATE	01/10
DRAWN BY	M. JONES	DATE	01/10
SUPERVISED BY	S. EDWARDS	DATE	01/10
CHECKED BY	M. JONES, M. HAN	DATE	01/10

BR-102-13

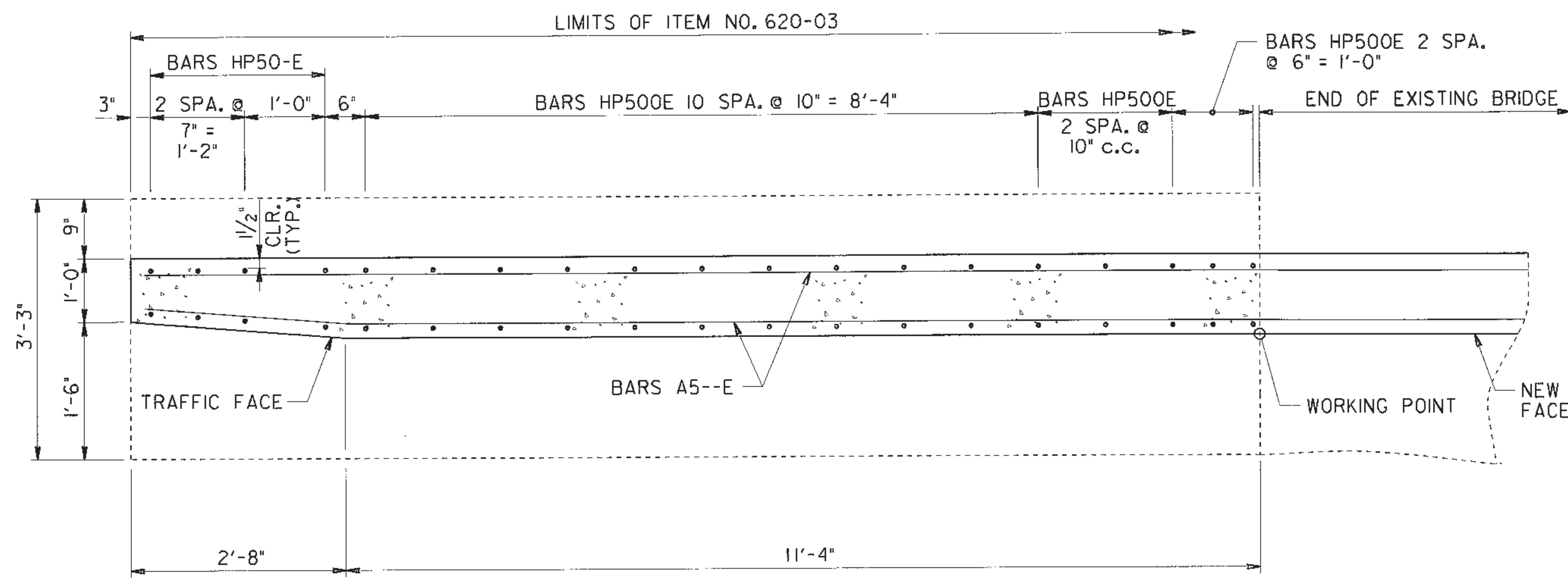
PROJECT NO.		YEAR	SHEET NO.
FEDERAL	BH-STP-31(9)	2010	
STATE	37022-3215-94		

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

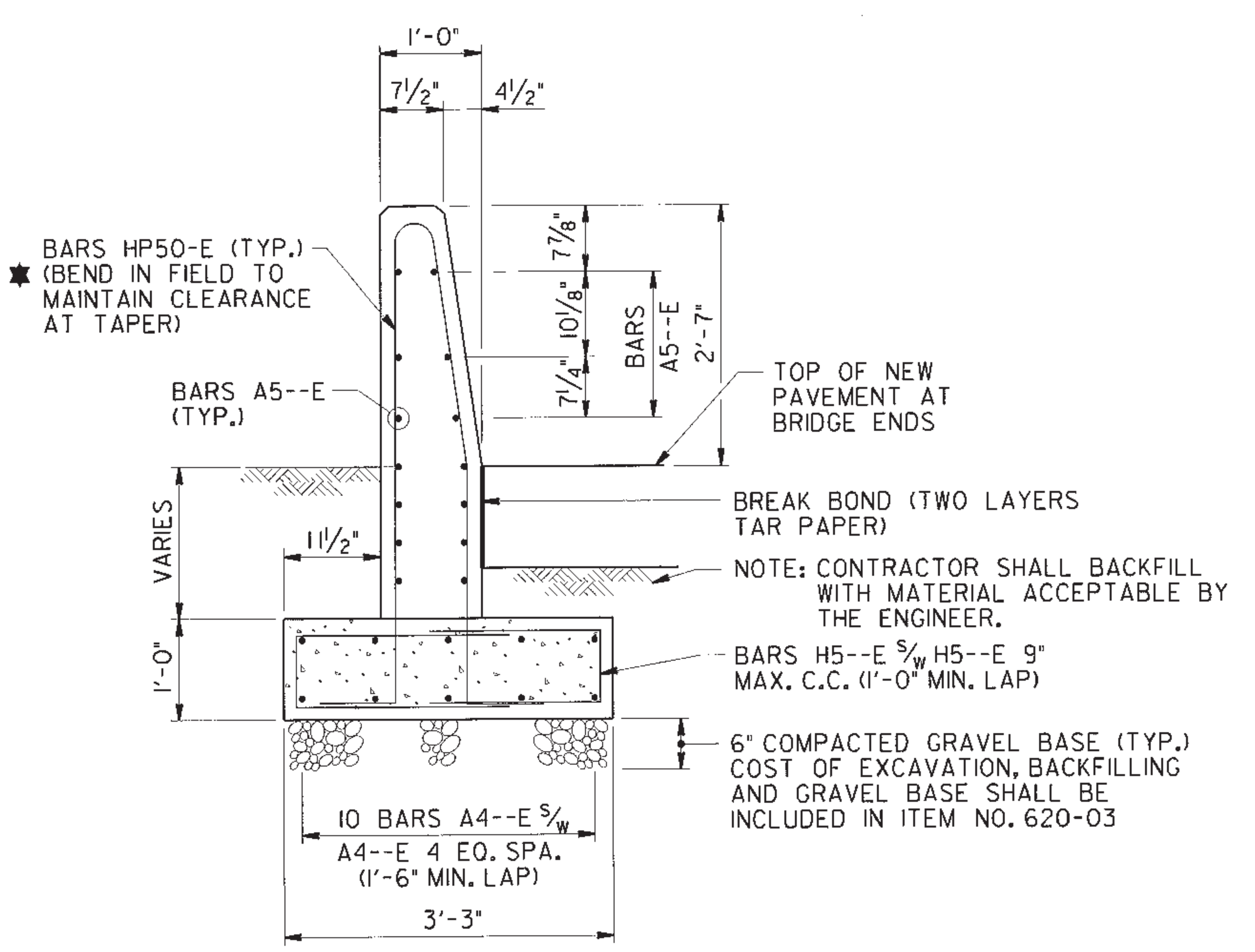


TYPICAL ELEVATION SHOWING REINFORCEMENT OF NEW PARAPET RAIL ENDPOST

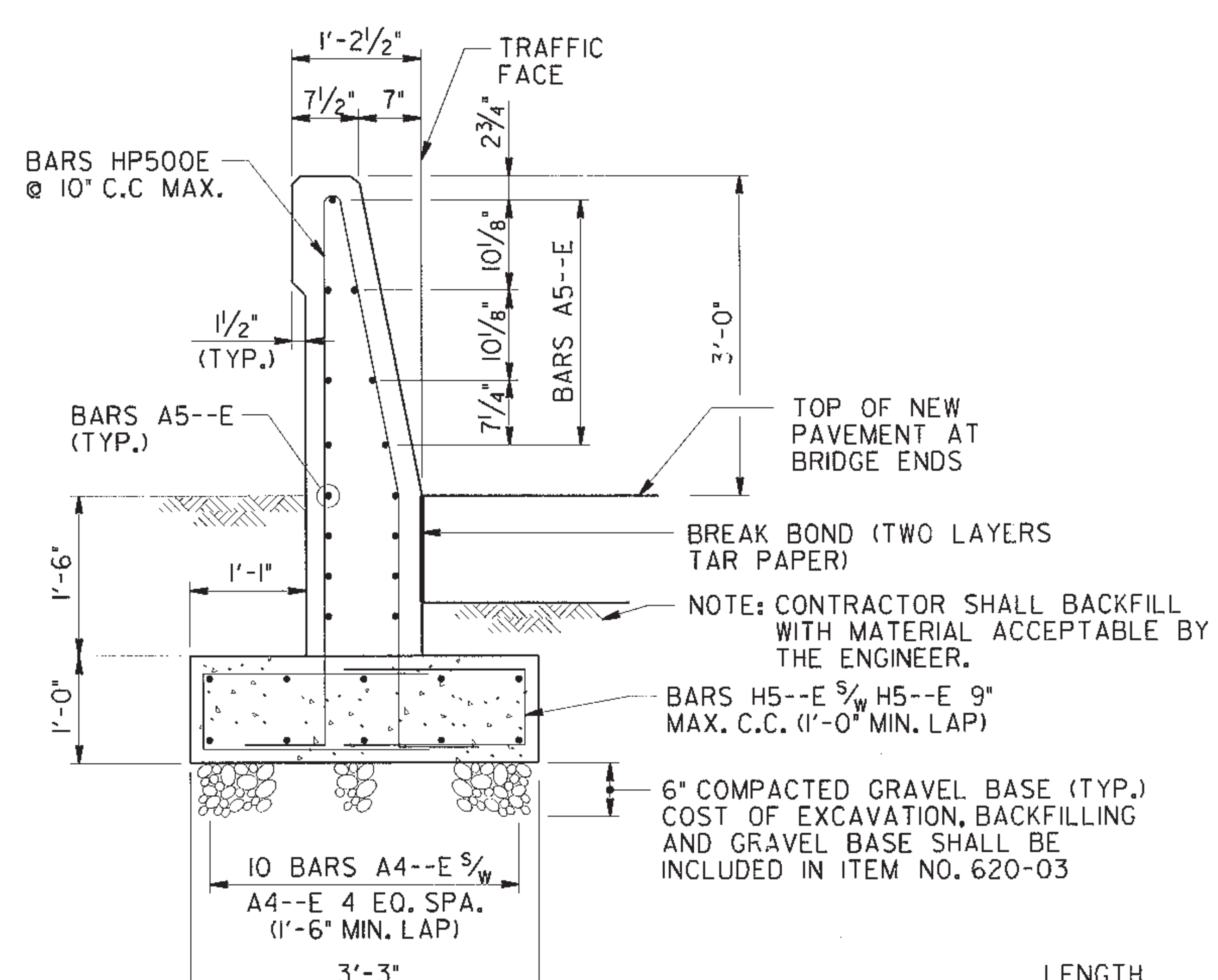


SECTION "A-A"

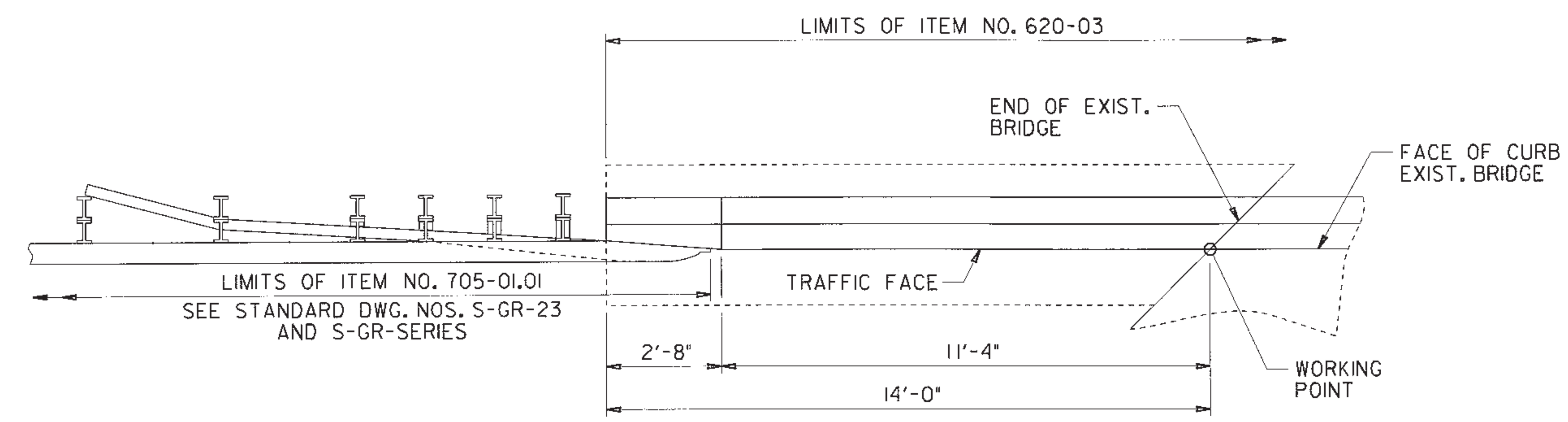
NOTE: FOR DIMENSIONS NOT SHOWN, SEE STANDARD DWG. NOS. STD-1-ISS AND S-GR-23.



SECTION "B-B"



SECTION "C-C"

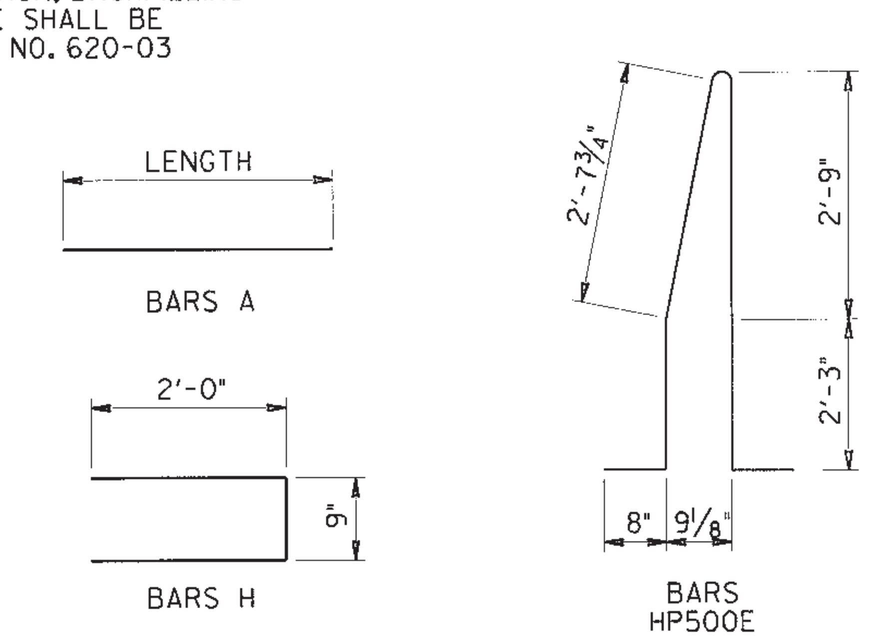


PLAN - NEW PARAPET RAIL ENDPOST

(RIGHT SKEW)

NOTE: WHEN POURING NEW CONCRETE ENDPOST, THE CONTRACTOR SHALL MAKE PROVISIONS FOR SETTING THE GUARDRAIL CONNECTION INSERT ASSEMBLIES. SEE GUARDRAIL ATTACHMENT AND INSERT ASSEMBLY DETAILS ON STANDARD DWG. NOS. STD-1-ISS AND S-GR-23. COST OF GUARDRAIL ATTACHMENT INSERT ASSEMBLIES SHALL BE INCLUDED IN ITEM NO. 620-03.

NOTE: FOR DIMENSIONS NOT SHOWN, SEE STANDARD DWG. NOS. STD-1-ISS AND S-GR-23.



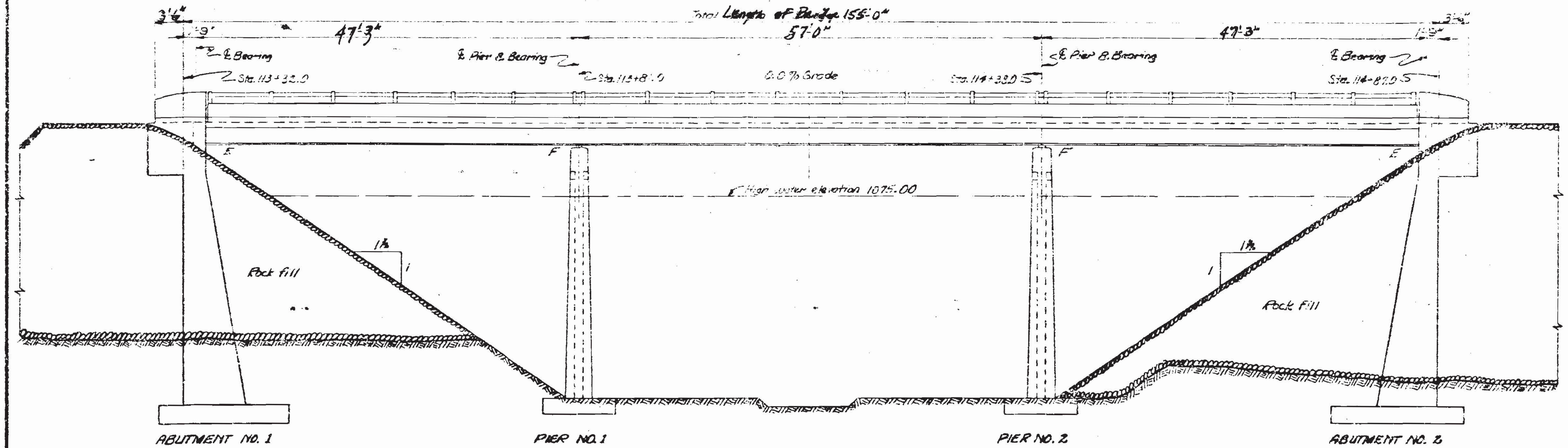
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ENDPOST REPLACEMENT DETAILS
STATE ROUTE 31
OVER
POOR VALLEY CREEK
BRIDGE NO. 37-SR31-2.34
HAWKINS COUNTY
2010

SONG MICHAEL HAN REGISTERED ENGINEER AGRICULTURE COMMERCE No. 108841 STATE OF TENNESSEE

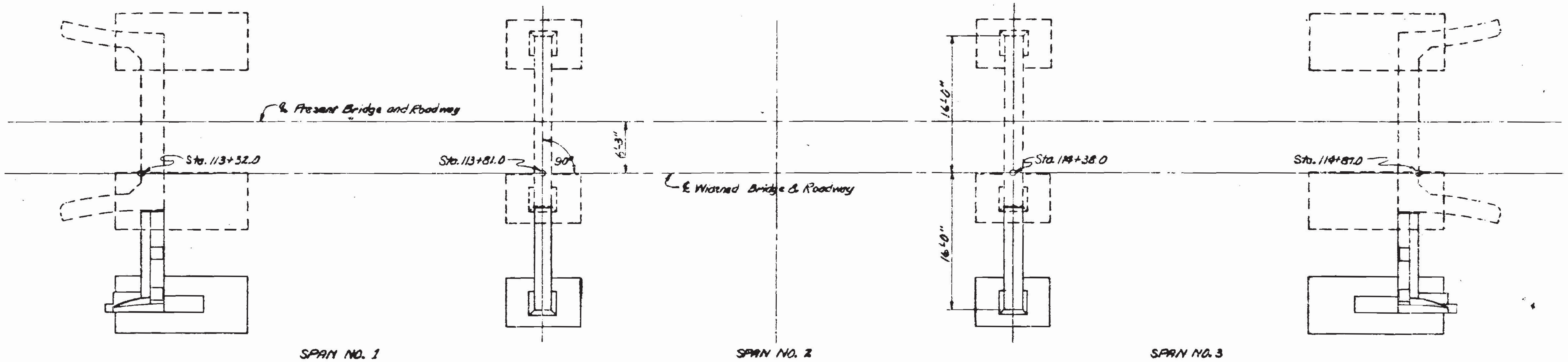
DESIGNED BY	M. HAN	DATE	01/10
DRAWN BY	M. JONES	DATE	01/10
SUPERVISED BY	S. EDWARDS	DATE	01/10
CHECKED BY	M. JONES, M. HAN	DATE	01/10

BR-102-14



ELEVATION

Note:
F = Fixed
E = Expansion



PLAN

ESTIMATED QUANTITIES

Item	Concrete Class "A" Cu. Yds. *	Steel Lbs. Reinforcing	Steel Lbs. Structural **	Linseed Oil Treatment Sq. Yds.
Superstructure	62.3	13,398		
Abutment No. 1	34.5	7390		
Pier No. 1	22.6	3204		
Pier No. 2	22.6	3204		
Abutment No. 2	34.5	7390		
Total	176.5	34,586	lump sum	752

* Cast in place

** Total estimated weight Structural Steel 36,615 Lbs. including bearing devices, roadway expansion devices.

Note: Cost of the following items to be included in the unit price of Class "A" Concrete: Removal of present handrail and parts of the present Curbs, slab and Abutment Wings, drilling for bars, furnishing and placing of Expansion Bolts and Bituminous Fiber Joint Material and neoprene bearing pads.

Note: Cost of excavation to be included in the cost of items bid on.

Note: Bituminous surfacing is included in the Roadway Quantities.

Note: The parapet and [illegible] quantities are included in the superstructure and abutment quantities.

Required: 40 - ¾" ø X 1'-6" Expansion Bolts.

GENERAL NOTES:

SPECIFICATIONS: Standard Road & Bridge Specifications of the Tennessee Department of Highways.

DESIGN: AASHO Specifications - 1965.

LOADING: HS20-44.

CONCRETE: To be Class "A" (Cast-in-Place).

REINFORCING STEEL: To be ASTM A615.

STRUCTURAL STEEL: See notes on Dwg. K-72-123

APPROVAL OF MATERIALS: No fabrication shall be started until the materials involved have been approved by the Tennessee Highway Division of Tests.

IDENTITY OF MAIN MATERIALS: Heat numbers on main material must be preserved or transferred during fabrication and shop painting so that they will be identifiable in the field.

HIGH STRENGTH BOLTS: See notes on Dwg. K-72-123

WELDING: See Special Provision Regarding Welded Structures.

PAINT: Red lead and Aluminum. See Tennessee Highway Standard Specifications.

BRIDGE RAIL NOTES:

Build parapet according to dwg. K-72-122. Salvage existing metal rail and posts and use in new parapet construction. For endpost details see dwg. K-72-124.

SPECIAL NOTE - ABUTMENTS

Remove the necessary portion of existing rock fill from both sides of existing abutment buttresses in such a manner as to maintain the stability of present structure during the new construction. After completion of construction fill around structure with rock fill.

Note: The contractor shall have the regional office of the Tennessee Highway Department check the beam lengths in the field before any structural steel is fabricated.

LIST OF DRAWINGS

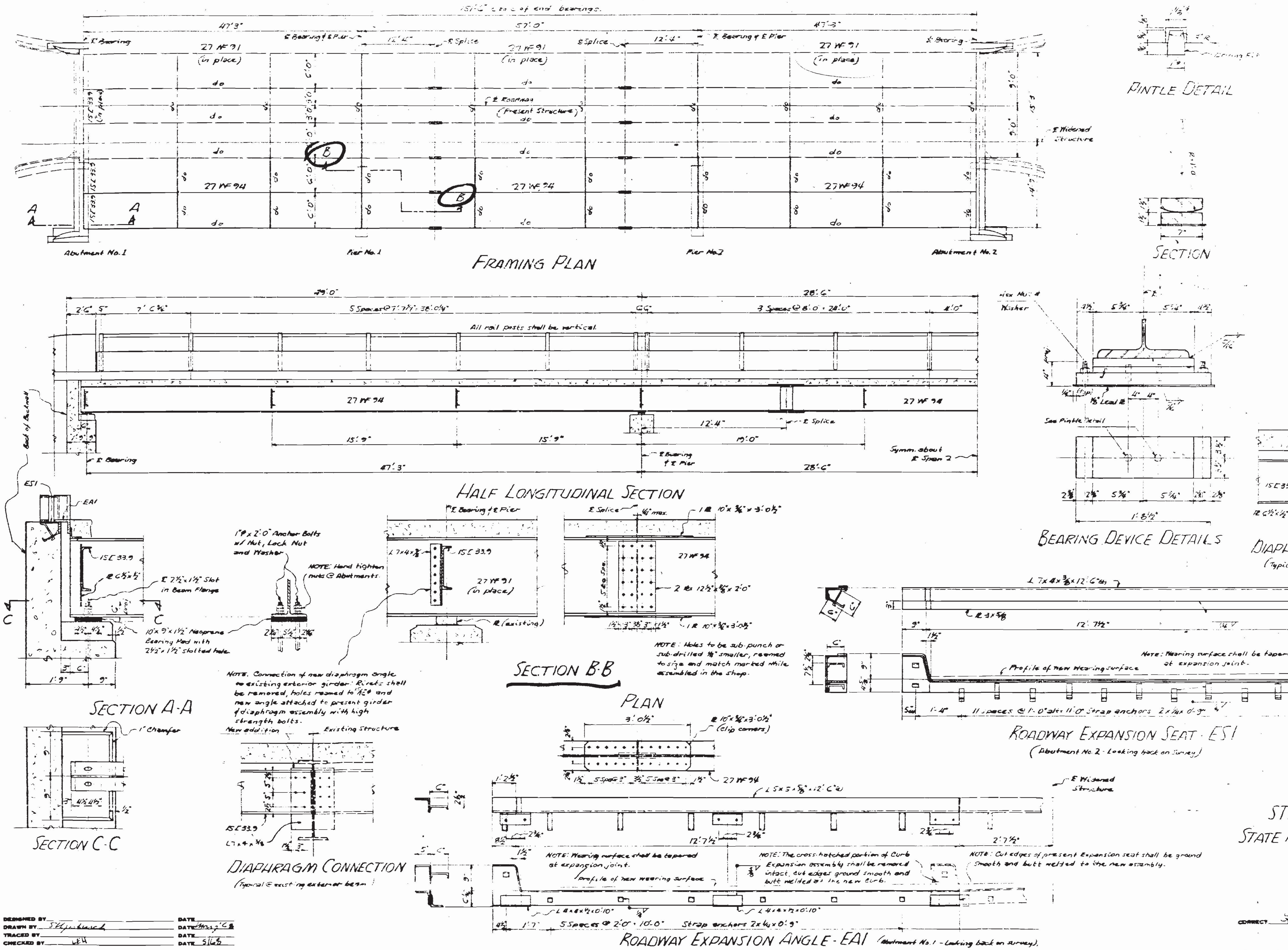
32' ROADWAY WITH PARAPET WALL
STATE OF TENNESSEE
DEPARTMENT OF HIGHWAYS
NASHVILLE
DETAILS OF BRIDGE WIDENING
LAYOUT OF BRIDGE
STATE ROUTE 31 OVER POOR VALLEY CREEK
STATION 113+32
HAWKINS COUNTY
1968

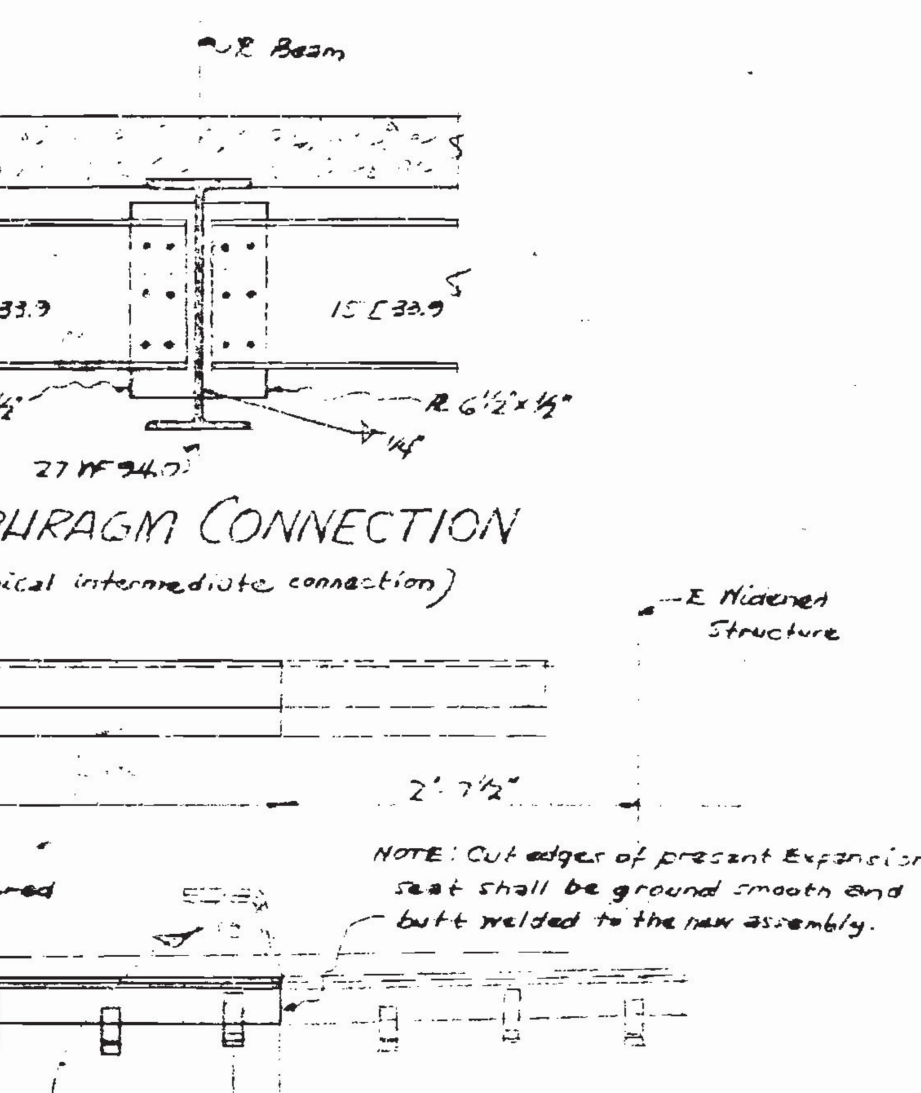
DESIGNED BY ____ DATE ____
DRAWN BY N. Graves DATE 5/68
TRACED BY ____ DATE ____
CHECKED BY L.E.H. DATE 5/68

CORRECT [signature] BRIDGE ENGINEER
APPROVED [signature] STATE HIGHWAY ENGINEER

K-72-121

K-72-121





NOTES

Fabrication of Structural Steel: No fabrication shall be started until the materials involved have been approved by the Tennessee Highway Division of Tests. Heat numbers on main material must be preserved or transferred during fabrication and shop painting so that they will be identifiable in the field.

Structural Steel: To be ASTM A36 unless otherwise noted.

Field Connections: Shall be 7/8"⌀ high tensile strength bolts ASTM-A325 - See AASHO Specs. Art. 7.10.20. All field connections are friction type.

Paint: See Tenn. Highway Standard Specifications - Red Lead and Aluminum. No shop paint shall be applied to the top surfaces of the top flanges or at any field bolted connection. Splices and other field connections shall be cleaned and primed before forming slab.

Welding: AWS Current Specs. and Special Provision regarding welded structures. The cost of radiographic and magnetic particle inspection is to be included in the price bid for structural steel.

Concrete Deck: The concrete deck shall not be poured until all structural steel is erected and all bolting is completed.

Camber: All beams shall be cambered to compensate for dead load deflection. See dwg. K-72-122 for dead load correction curve.

NOTE: The cross-hatched portion of Curb expansion assembly shall be removed intact, cut edges ground smooth and butt welded at the new curb.

STATE OF TENNESSEE
DEPARTMENT OF HIGHWAYS
NASHVILLE

STRUCTURAL STEEL DETAILS
STATE ROUTE 31 OVER POOR VALLEY CREEK
STATION 113+32.00
HAWKINS COUNTY
1968

CORRECT: ______ BRIDGE ENGINEER

APPROVED: ______ STATE HIGHWAY ENGINEER

K-72-123

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
3	TENN.				

REVISIONS

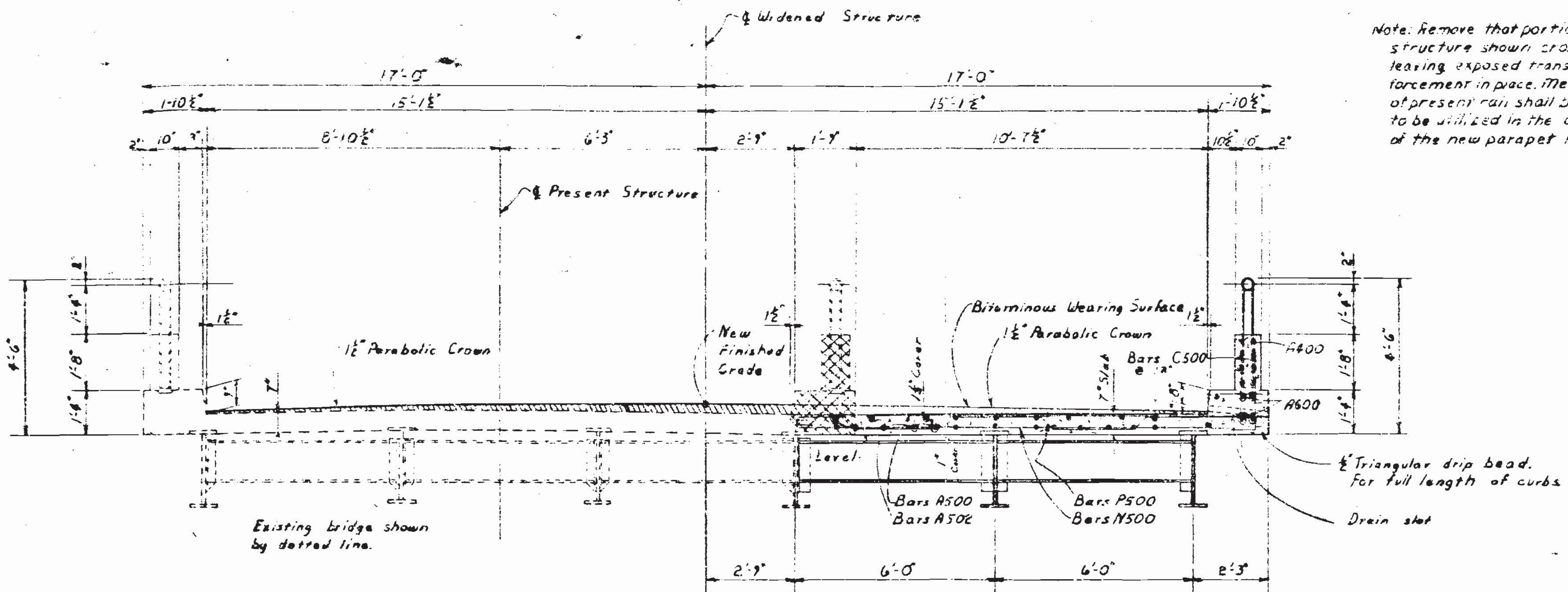
NO.	DATE	BY	BRIEF DESCRIPTION

Note: Remove that portion of present structure shown cross-hatched, leaving exposed transverse reinforcement in place. Metal portion of present rail shall be salvaged to be utilized in the construction of the new parapet railing.

Note: When pouring curb, provisions shall be made for setting reinforcing steel for parapet.

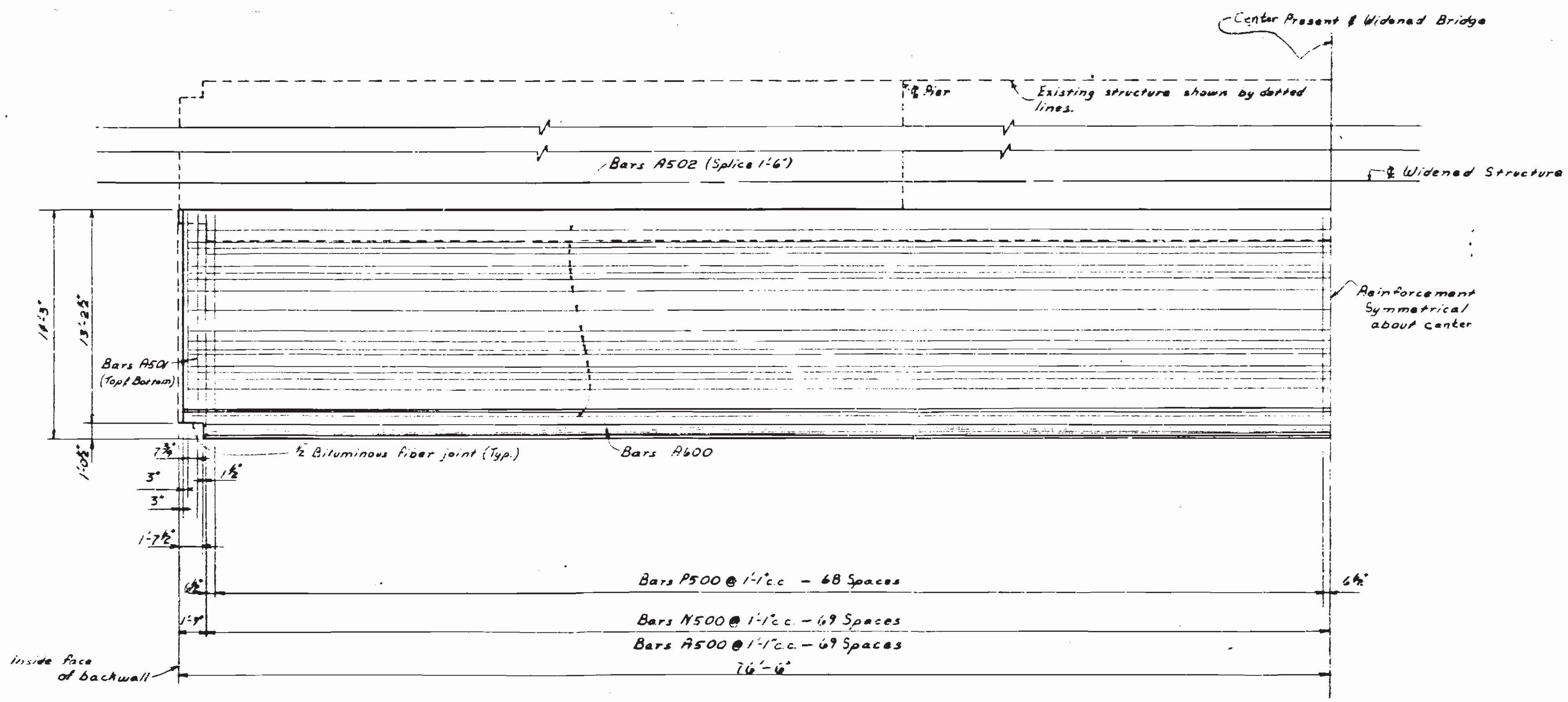
Note: New finish grade is 1" above old finish grade.

Note: No portion of the curb shall be poured until the entire deck slab is in place.



CROSS SECTION

Looking Forward on Survey

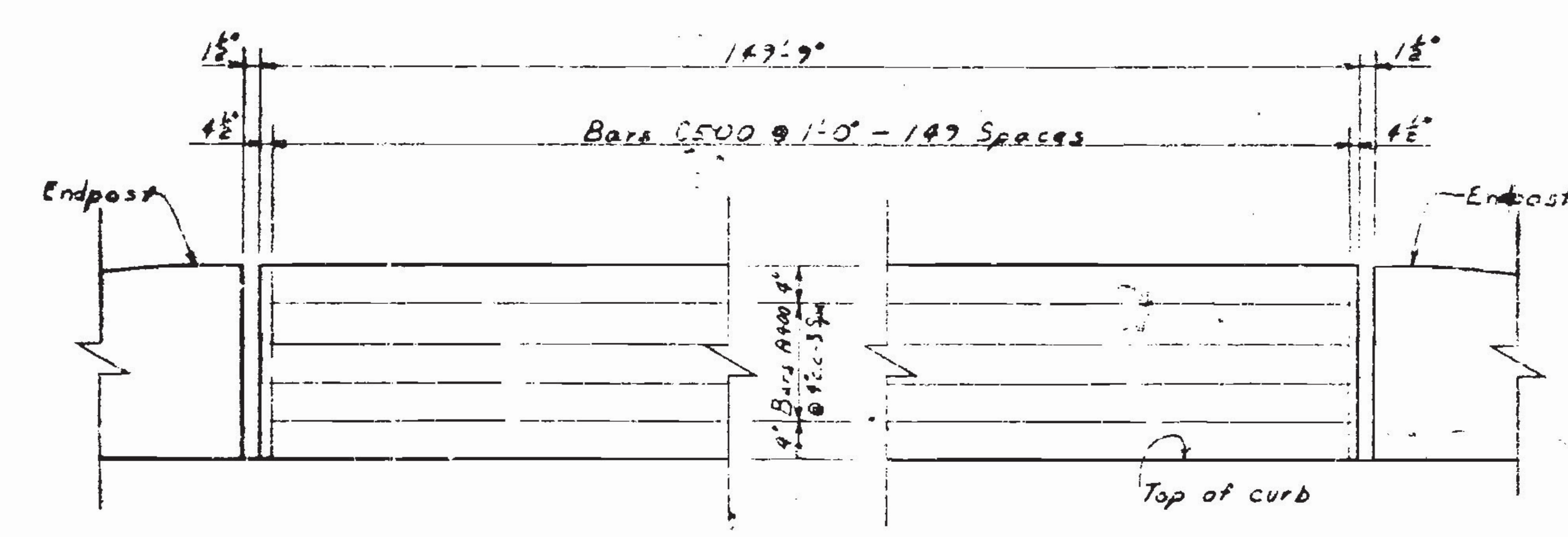


PLAN

Span No. 1

HALF PLAN

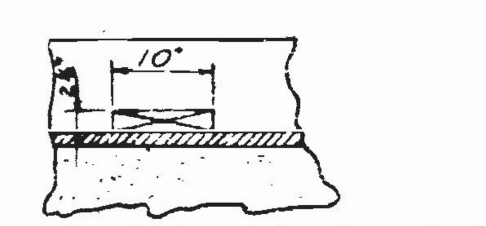
Span No. 2



ELEVATION OF PARAPET

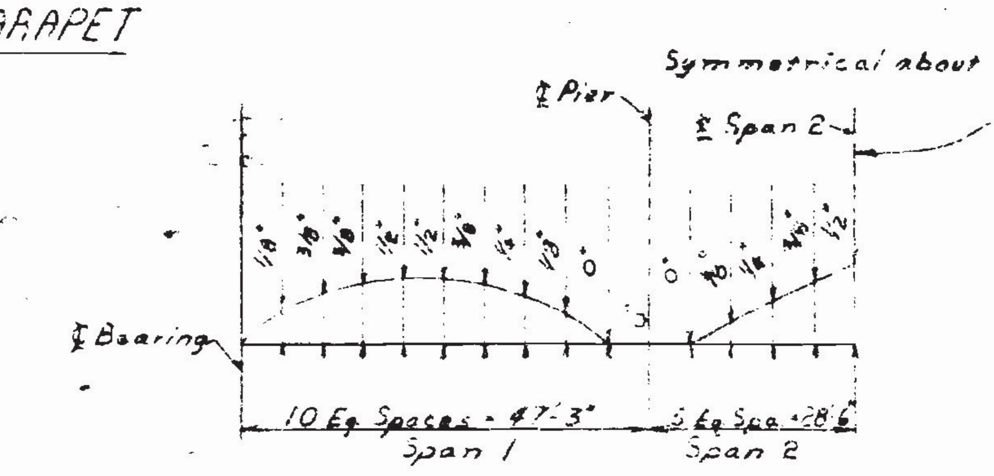
ESTIMATED QUANTITIES

Concrete Class "A" Cu. Yds.	Reinforcing Steel Lbs.
62.3	13,398



Locate drain slots at center of every other railing panel.

DRAINAGE SLOT DETAIL



Dead Load Correction Diagram

Curve is based on total dead load

STATE OF TENNESSEE

DEPARTMENT OF HIGHWAYS

NASHVILLE

DETAILS OF BRIDGE WIDENING

SUPERSTRUCTURE

ST. RT. 31 over POOR VALLEY CREEK

STATION 113+32.00

HAWKINS COUNTY

1968

DESIGNED BY LEH DATE
DRAWN BY JDA DATE 2/8/68
TRACED BY DATE
CHECKED BY LEH DATE 5/68

CORRECT H.H. DeHart (BRIDGE ENGINEER)

APPROVED (STATE HIGHWAY ENGINEER)

K-72-122

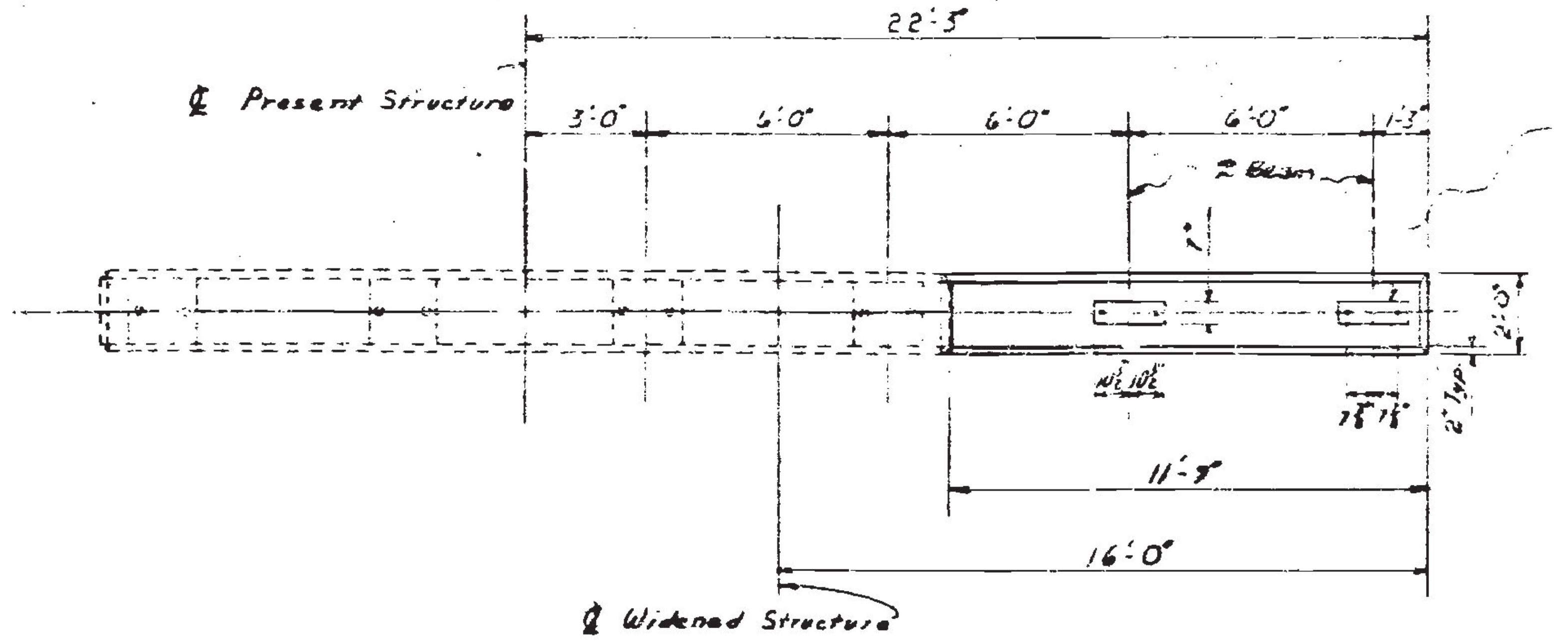
K-72-122

REVISIONS
NOTE: Present Structure shown by dashed lines
PLAN
NOTE: Remove portions of existing structure which interfere with new construction.
NOTE: New curb and endpost to replace existing. Existing steel to be cut off 2" below new concrete and tied to new steel.
SECTION B-B
SECTION C-C
ELEVATION
END VIEW
PLAN
ENDPOST DETAILS
SECTION A-A
SECTION D-D
SECTION E-E
Showing arrangement of Expansion Bolts.
ELEVATION
ABUTMENT NO. 2 (Looking Forward on Survey).
ABUTMENT NO. 1 (Looking Back on Survey. Similar, but with new Addition on Left side.)
NOTE. Remove the necessary portion of existing rock fill from both sides of existing structure in such a manner as to maintain the stability of present structure during the new construction.
* NOTE: 2 - 7/8" ø A307 Anchor Bolts with hex. nut and washer req'd at each endpost. Galvanized to ASTM A153 Cost to be included in bid items.
END ELEVATION
ESTIMATED QUANTITIES*
CLASS "A" CONCRETE 34.2 CU YDS
REINFORCING STEEL 7390 LBS
* Each Abutment
Req'd: 10 3/4" ø x 1'-6" Expansion Bolts-each Abutment.
FOOTING PLAN
(Showing reinforcement in top of Footing.)
(Showing reinforcement in bottom of Footing.)
SECTION F-F
SECTION G-G
STATE OF TENNESSEE
DEPARTMENT OF HIGHWAYS
NASHVILLE
ABUTMENT NO. 1 & 2
STATE ROUTE 31 OVER POOR VALLEY CREEK
STATION 113+32.00
HAWKINS COUNTY
1968
CORRECT
BRIDGE ENGINEER
APPROVED
STATE HIGHWAY ENGINEER
K-72-124
K-72-124

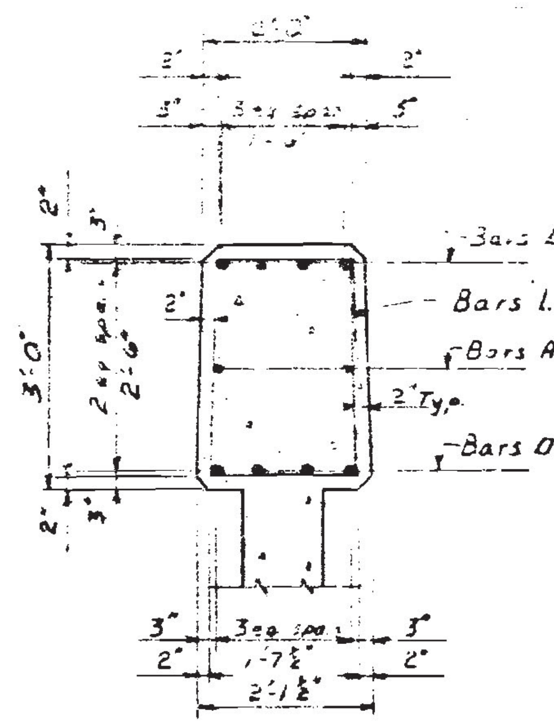
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
3	TENN.				

REVISIONS

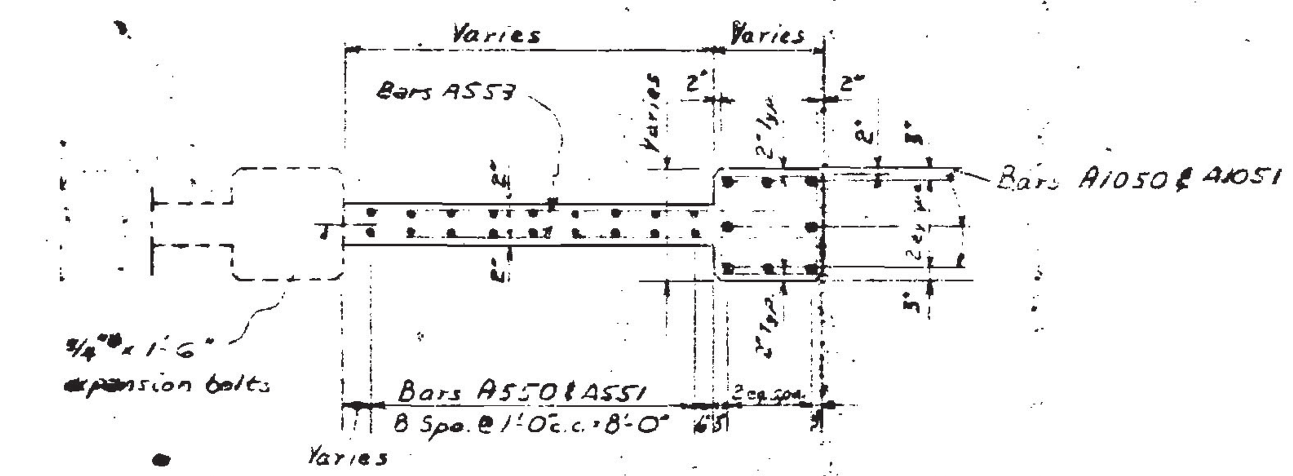
NO.	DATE	BY	BRIEF DESCRIPTION



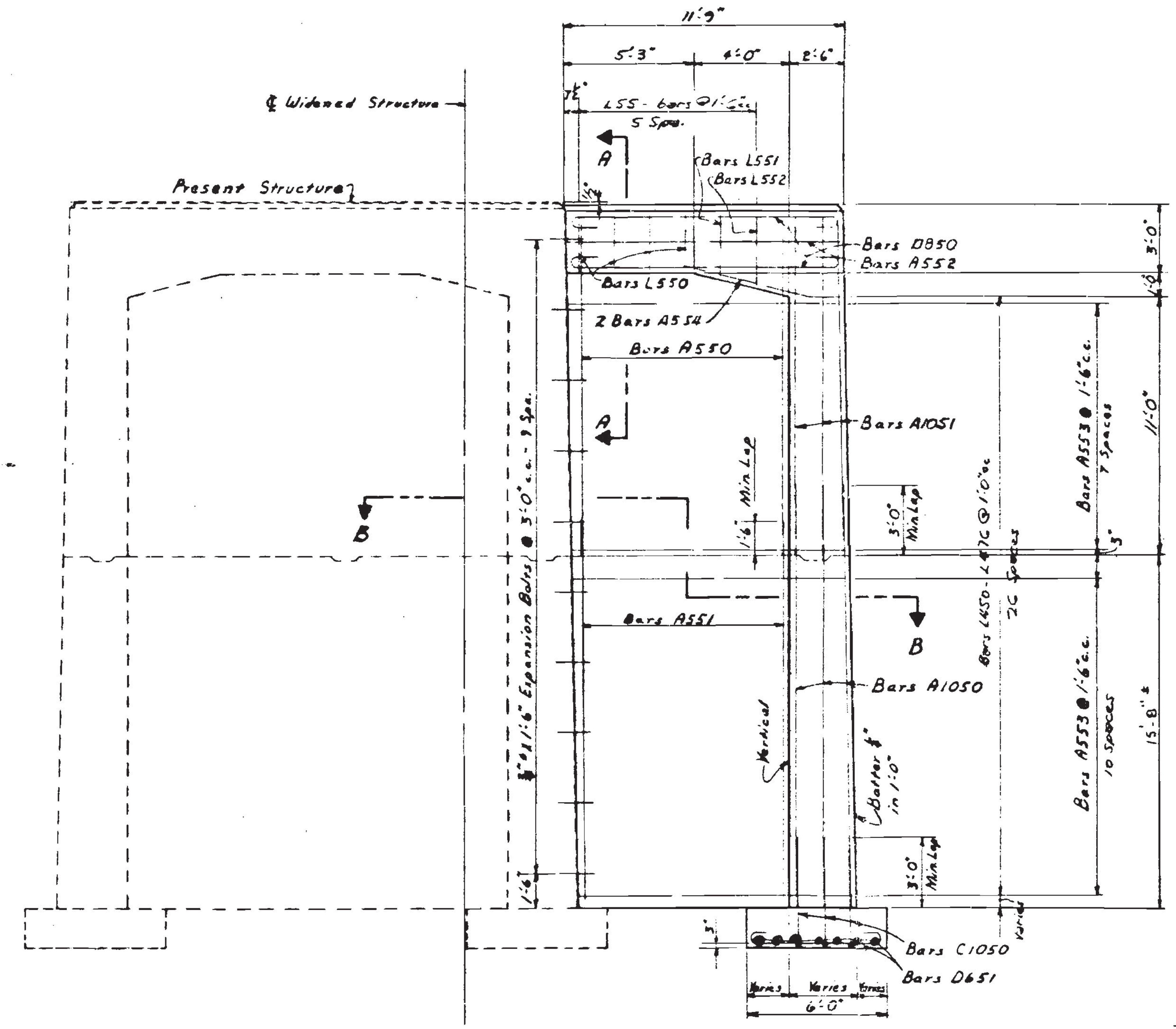
PLAN



SECTION A-A

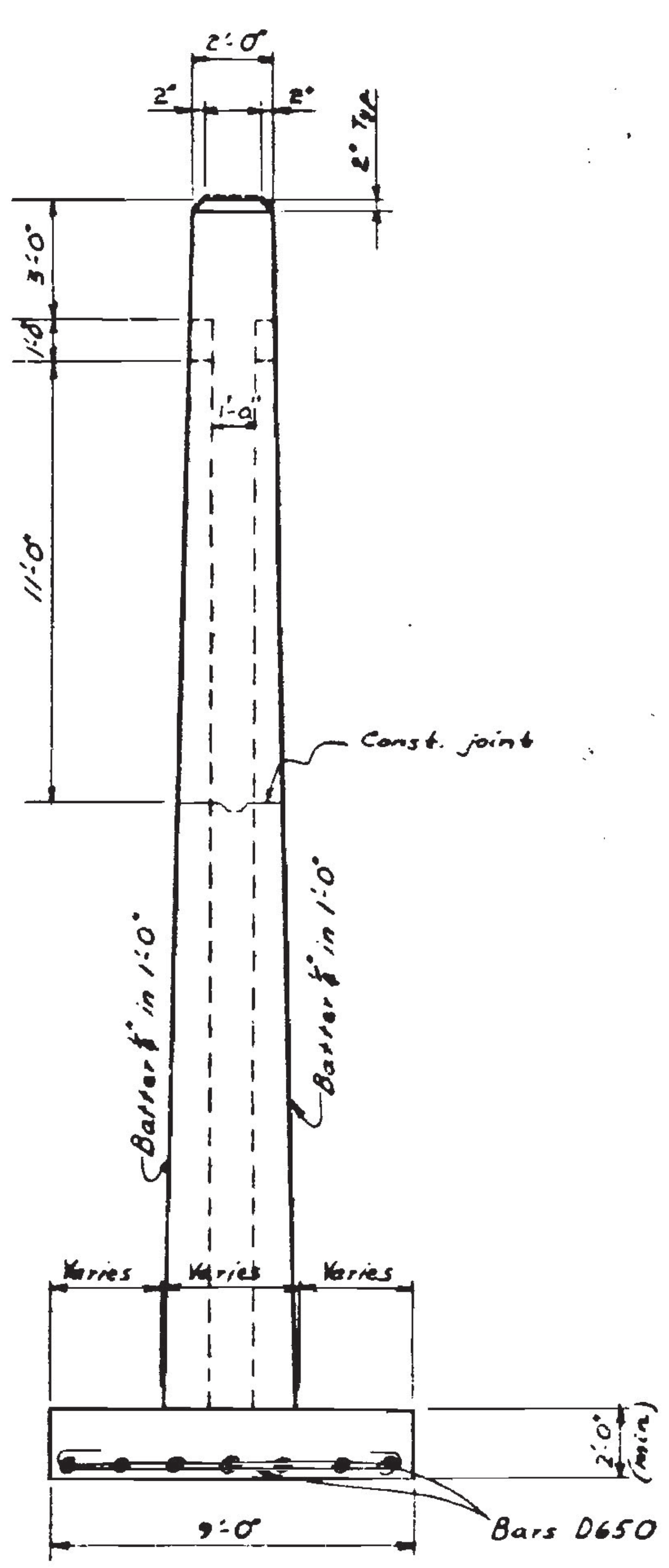


SECTION B-B

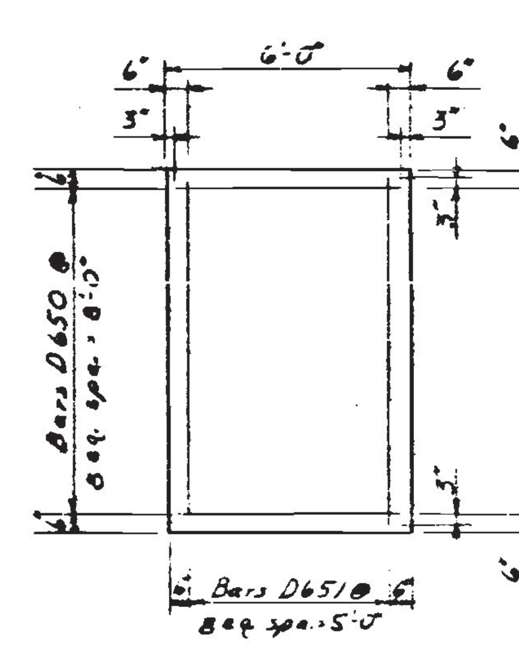


ELEVATION

Piers No. 1 & 2
Looking Forward
on Survey



END ELEVATION



FOOTING PLAN

ESTIMATED QUANTITIES

ITEM	Concrete Class "A"	Reinforcing Steel
Pier 1	22.6 C.Y.	3204 Lb.
Pier 2	22.6 C.Y.	3204 Lb.

Req'd: 10 ¾"⌀ x 1'-6" Expansion Bolts.
Each Pier

STATE OF TENNESSEE
DEPARTMENT OF HIGHWAYS
NASHVILLE

DETAILS OF BRIDGE WIDENING
PIERS NO. 1 & 2
ST. RT. 31 OVER POOR VALLEY CREEK
STATION 113+32.00
HAWKINS COUNTY
1968

DESIGNED BY	LEH	DATE	
DRAWN BY	JDA	DATE	May 10, 1968
TRACED BY		DATE	
CHECKED BY	LEH	DATE	5/15

CORRECT [signature] BRIDGE ENGINEER
APPROVED [signature] STATE HIGHWAY ENGINEER

K-72-125

K-72-125

BILL OF STEEL

SUPERSTRUCTURE

BAR	LOCATION	SIZE	NO. REQ'D	BENDING DIMENSIONS a	b	c	d	LENGTH
A400	Parapet	#4	32					38'-5"
A500	Slab	#5	139					13'-11"
A501	Slab	#5	9					12'-10"
A502	Slab	#5	96					39'-2"
A600	Curb	#6	16					38'-5"
C500	Parapet	#5	300	2'-8"				3'-5"
N500	Slab	#5	139	13'-11"	1'-5"	2'-4½"	4⅛"	15'-11"
P500	Slab	#5	138	1'-0"	3'-0"	2'-3"	3'-2"	15'-6"

ABUTMENTS NO. 1 & 2

BAR	LOCATION	SIZE	NO. REQ'D	BENDING DIMENSIONS a	b	c	d	LENGTH
A540	Backwall	#5	44					3'-3"
A541	"	#5	16					12'-2"
A542	Wingwall	#5	16					6'-8"
A543	Curb	#5	6					4'-3"
A544	Wingwall	#5	4					7'-1"
A545	"	#5	4					7'-0"
A546	"	#5	4					6'-11"
A547	"	#5	4					6'-9"
A548	"	#5	4					6'-6"
A549	"	#5	4					6'-3"
A550	Wingwall	#5	8					6'-2"
A551	End Post	#5	16					5'-8"
A552	Curb	#5	8					5'-8"
A640	Beam	#6	4					12'-2"
A641	"	#6	2					5'-6"
A642	Beam & Footing	#6	8					6'-6"
A740	Footing	#7	14					6'-6"
A940	Column	#9	24					28'-9"
A941	Buttress	#9	20					17'-3"
A942	"	#9	24					16'-5"
A1040	"	#10	10					17'-3"
A1041	"	#10	10					16'-5"
B940	Buttress & Beam	#9	6	10'-0"				11'-3"
C940	Buttress & Footing	#9	24	4'-10"				6'-3"
C1040	Buttress & Footing	#10	10	4'-10"				10'-10"
D940	Beam	#9	20	12'-2"				14'-8"
D941	"	#9	10	5'-6"				8'-0"
D942	Beam	#9	6	6'-6"				9'-0"
D1040	Footing	#10	26	15'-6"				18'-9"
D1041	Footing	#10	24	6'-6"				9'-9"
H440	Buttress	#4	32	1'-8"	2'-4"			6'-4"
H441	"	#4	64	1'-8"	3'-9"			9'-2"
H442	Buttress	#4	16	1'-8"	4'-1"			9'-10"
H540	Beam & Wall	#5	34	8"	2'-0"			4'-8"
H541	Curb & End Post	#5	2	8"	3'-8"			8'-0"
H542	"	#5	2	8"	3'-7"			7'-10"
H543	"	#5	2	8"	3'-6"			7'-8"
H544	"	#5	2	8"	3'-4"			7'-4"
H545	"	#5	2	8"	3'-2"			7'-0"
H546	Curb & Endpost	#5	2	8"	2'-10"			6'-4"
L440	Column	#4	56	2'-2"	1'-0"	2'-2"		9'-8"
L441	Curb	#4	8	1'-7"	6"	11"		5'-6"
L540	Beam	#5	20	2'-8"	1'-0"	2'-8"		10'-8"

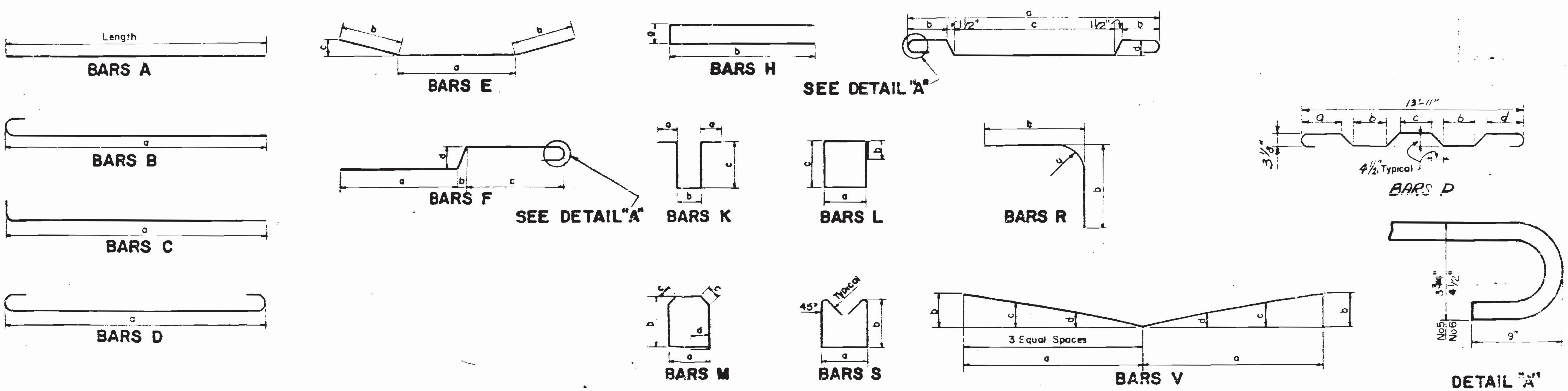
PIERS NO. 1 & 2

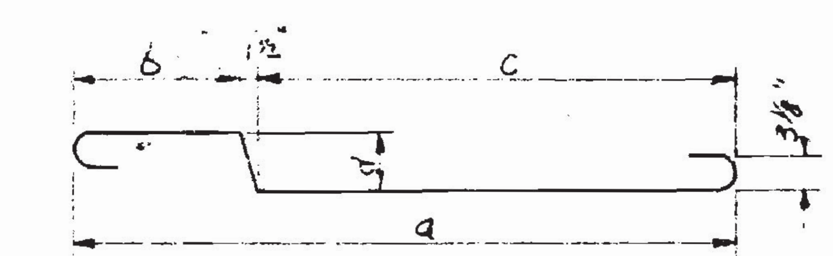
BAR	LOCATION	SIZE	NO. REQ'D	BENDING DIMENSIONS a	b	c	d	LENGTH
A550	Web	#5	36					13'-6"
A551	"	#5	36					17'-2"
A552	Cap Beam	#5	4					11'-5"
A553	Web	#5	76					11'-4"
A554	Cap Beam	#5	4					8'-9"
A1050	Column	#10	16					18'-8"
A1051	"	#10	16					14'-9"
C1050	Column & Footing	#10	16	4'-10"				6'-4"
D650	Footing	#6	18	5'-6"				6'-10"
D651	"	#6	18	8'-6"				9'-10"
D850	Cap Beam	#8	16	11'-5"				13'-7"
L450	Column	#4	2	2'-2"	1'-0"	1'-10"		9'-0"
L451	"	#4	2	2'-2"	1'-0"	1'-10½"		9'-1"
L452	"	#4	2	2'-2½"	1'-0"	1'-11"		9'-3"
L453	"	#4	2	2'-2½"	1'-0"	1'-11½"		9'-4"
L454	"	#4	2	2'-3"	1'-0"	2'-0"		9'-6"
L455	"	#4	2	2'-3"	1'-0"	2'-0½"		9'-7"
L456	"	#4	2	2'-3½"	1'-0"	2'-1"		9'-9"
L457	"	#4	2	2'-3½"	1'-0"	2'-1½"		9'-10"
L458	"	#4	2	2'-4"	1'-0"	2'-2"		10'-0"
L459	"	#4	2	2'-4"	1'-0"	2'-2½"		10'-1"
L460	"	#4	2	2'-4½"	1'-0"	2'-3"		10'-3"
L461	"	#4	2	2'-4½"	1'-0"	2'-3½"		10'-4"
L462	"	#4	2	2'-5"	1'-0"	2'-4"		10'-6"
L463	"	#4	2	2'-5"	1'-0"	2'-4½"		10'-7"
L464	"	#4	2	2'-5½"	1'-0"	2'-5"		10'-9"
L465	"	#4	2	2'-5½"	1'-0"	2'-5½"		10'-10"
L466	"	#4	2	2'-6"	1'-0"	2'-6"		11'-0"
L467	"	#4	2	2'-6"	1'-0"	2'-6½"		11'-1"
L468	"	#4	2	2'-6½"	1'-0"	2'-7"		11'-3"
L469	"	#4	2	2'-6½"	1'-0"	2'-7½"		11'-4"
L470	"	#4	2	2'-7"	1'-0"	2'-8"		11'-6"
L471	"	#4	2	2'-7"	1'-0"	2'-8½"		11'-7"
L472	"	#4	2	2'-7½"	1'-0"	2'-9"		11'-9"
L473	"	#4	2	2'-7½"	1'-0"	2'-9½"		11'-10"
L474	"	#4	2	2'-8"	1'-0"	2'-10"		12'-0"
L475	"	#4	2	2'-8"	1'-0"	2'-10½"		12'-1"
L476	Column	#4	2	2'-8½"	1'-0"	2'-11"		12'-3"
L550	Cap Beam	#5	8	1'-8"	1'-0"	2'-8"		9'-8"
L551	"	#5	2	1'-8"	1'-0"	3'-0"		10'-4"
L552	Cap Beam	#5	2	1'-8"	1'-0"	3'-3"		10'-10"

REINFORCING STEEL CODE

TYPE	SIZE	SERIES
A	5	06

NOTE: Dimensions shown on this sheet are outside to outside of bar. Standard C.R.S.I. Hook Details Shall Apply, Except As Noted.





STATE OF TENNESSEE
DEPARTMENT OF HIGHWAYS
NASHVILLE

BILL OF STEEL

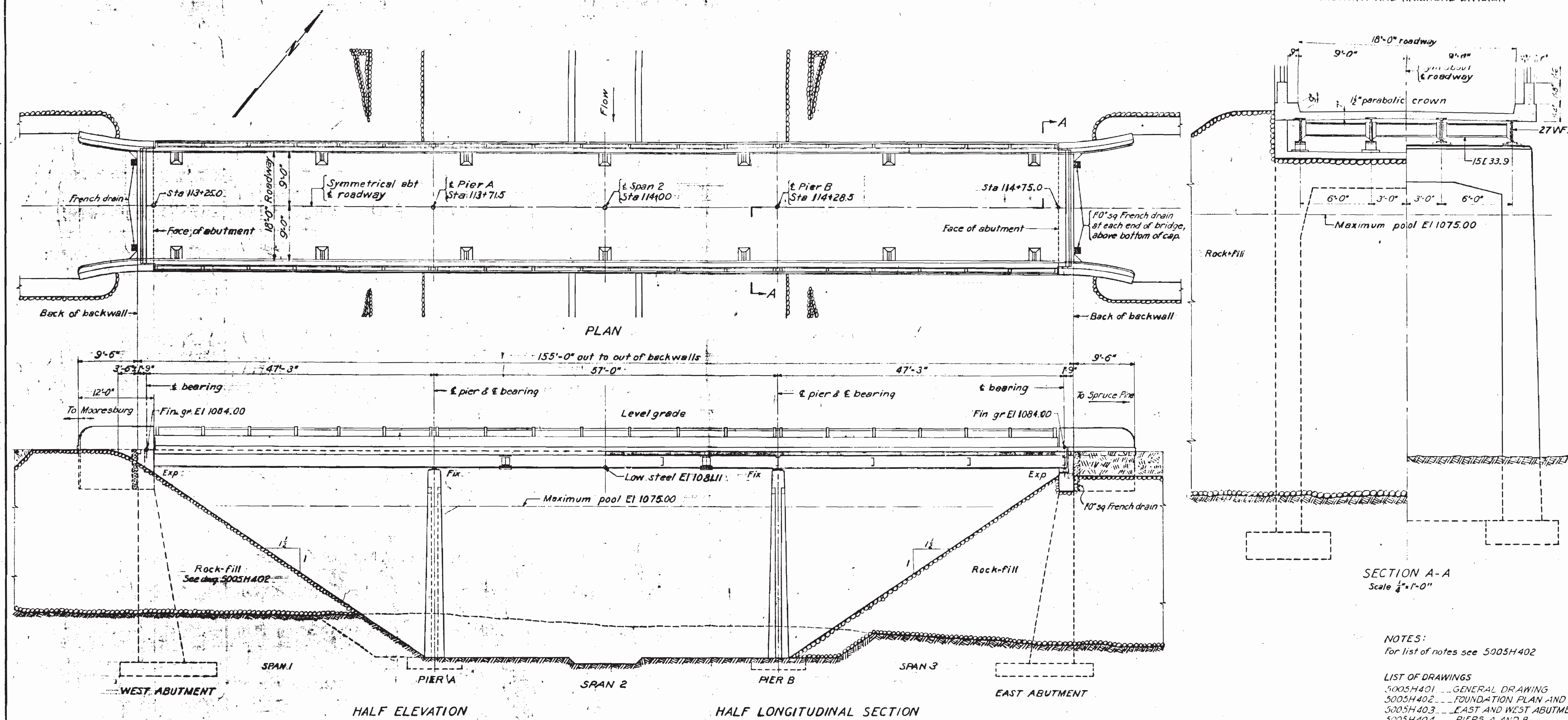
STATE ROUTE 31 OVER POOR VALLEY CREEK
STATION 113+32
HAWKINS COUNTY
1968

DESIGNED BY ______ DATE ______
DRAWN BY W.G. DATE 5/68
TRACED BY ______ DATE ______
CHECKED BY L.E.H. DATE 5/68

CORRECT: A.H. Butler, BRIDGE ENGINEER
APPROVED: ______

K-72-126

HIGHWAY AND RAILROAD DIVISION



NOTES:
For list of notes see 5005H402

LIST OF DRAWINGS
5005H401 ___ GENERAL DRAWING
5005H402 ___ FOUNDATION PLAN AND REVETMENT
5005H403 ___ EAST AND WEST ABUTMENTS
5005H404 ___ PIERS A AND B
5005H405 ___ STRUCTURAL STEEL
5005H406 ___ ROADWAY SLAB AND RAILINGS
5005H407 ___ REINFORCING STEEL
5005H3001-3002 ___ SHOP DRAWINGS
5005B3003-3005 ___ SHOP DRAWINGS

Scale ⅛" = 1'-0"
Except as noted

PROJECT 12-5005

SUMMARY OF QUANTITIES					
ITEM NO.	129	401	418	421	545
ITEM	Excavation for Struct.	Class A Concrete	Reinf Steel	Structural Steel	Cofferdams
UNIT	CU YD	CU YD	LB	LB	EACH
West Abutment	120.0	58.6	11,288	—	1
Pier A	19.6	45.2	6,226	—	1
Pier B	19.6	46.0	6,226	—	1
East Abutment	60.0	58.3	11,288	—	1
Superstr	—	101.0	24,439	73,500	—
Total	219.2	309.1	59,467	73,500	4

1	3-5-41	RLK						
Final field revisions								
REV NO	DATE	MADE	CHKD	SUPV	INSP	SUBM	RECM	

DSGN ____ SUPV RLK
DRWN B.G.
CHKD R.L.K.
TRCD ____ ENGINEER
COMP ____

MOORESBURG-FLAT GAP ROAD

POOR VALLEY CREEK BRIDGE
GENERAL DRAWING

CHEROKEE PROJECT
TENNESSEE VALLEY AUTHORITY
DESIGN DEPARTMENT

SUBMITTED	RECOMMENDED	APPROVED
Ervin Harsch	Frank W. Webster	George K. Reed

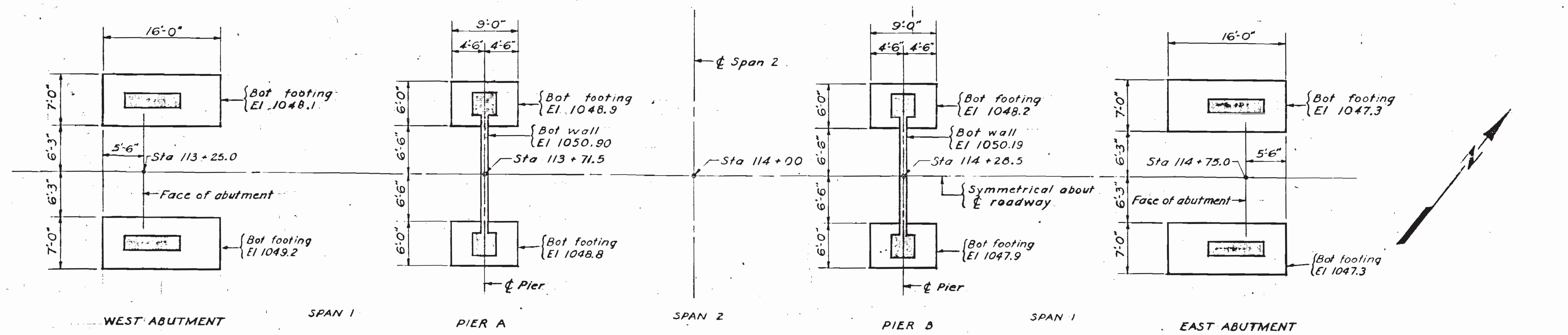
CHATTANOOGA | 3-20-41 | 12 | HR | 5 | 5005H401R1

RECORD DRAWING AS CONSTRUCTED
Frank W. Webster 6-11-45

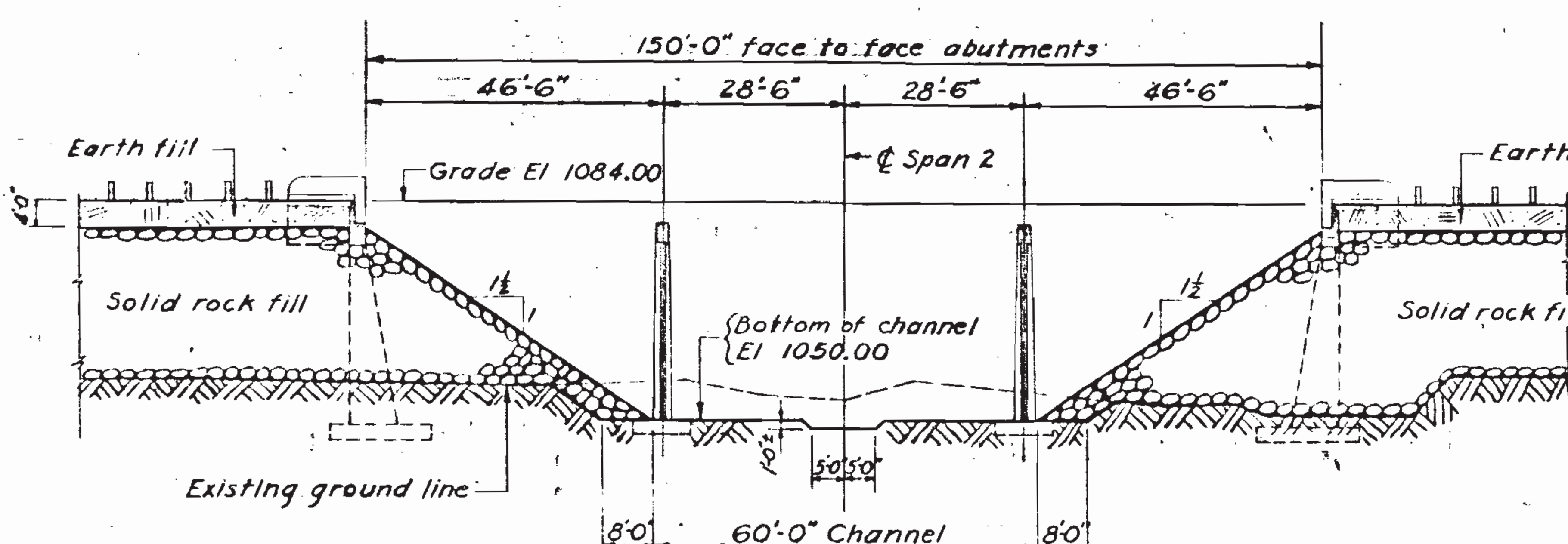
37-31-2.34

K72-126A

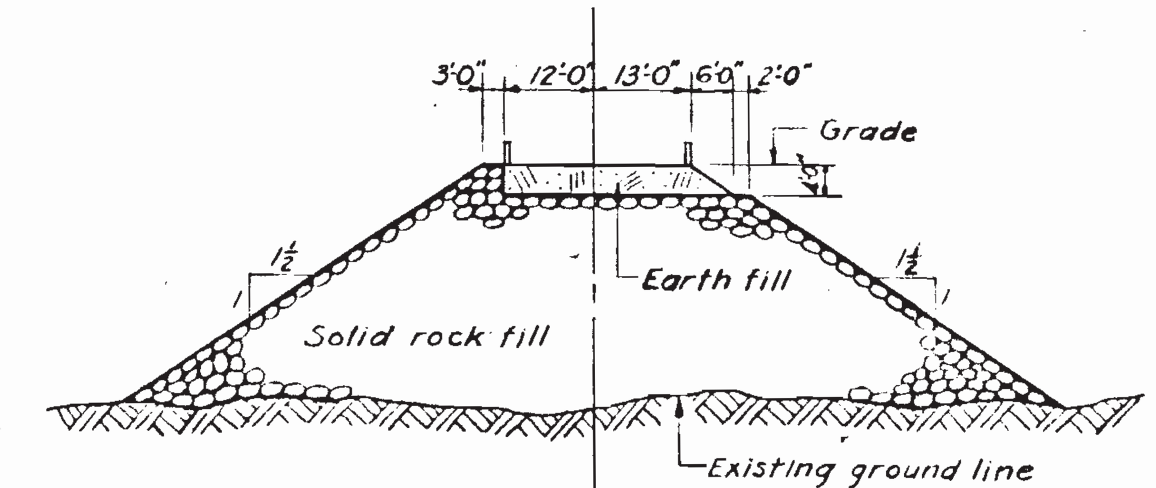
HIGHWAY AND RAILROAD DIVISION



FOUNDATION PLAN
Scale 1/8" = 1'-0"

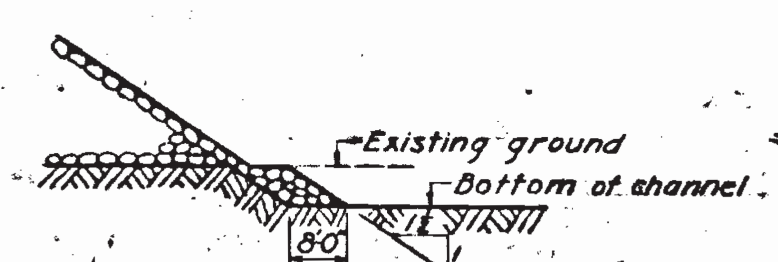


SECTION B-B
Scale 1" = 20'-0"

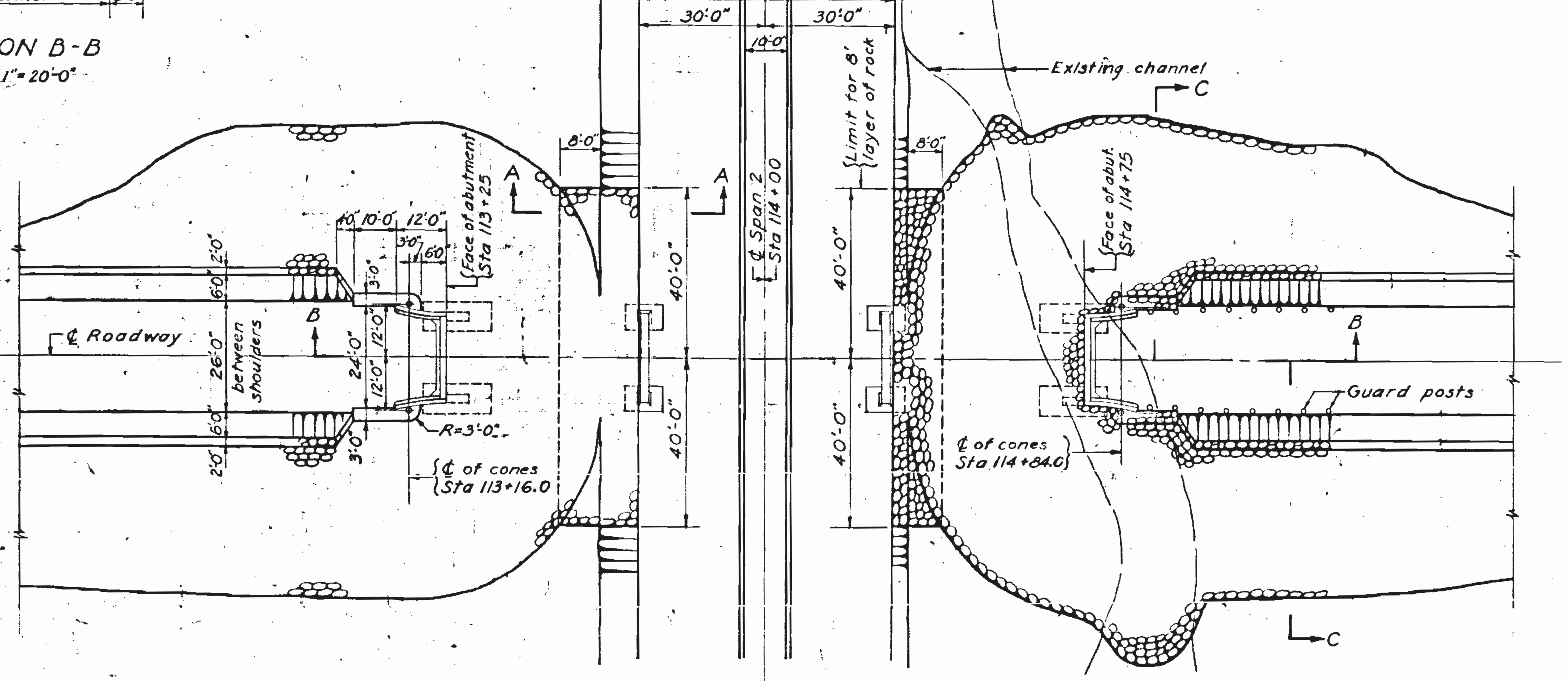


SECTION C-C
Scale 1" = 20'-0"

NOTES:
SPECIFICATIONS: Sections 125, 400, 418, and 420 of TVA Specifications for Highway Construction by C. & M. Division, revised June 1, 1940.
DESIGN LIVE LOAD: H15 on one lane - AASHO Specification, ~~Second Edition,~~ 1935.
FOUNDATIONS: All footings shall bear on sound rock. If sound rock is not encountered at, or above elevations called for, the Bridge Engineer shall be notified immediately.
CONCRETE: All concrete shall be Class A, made with Type B portland cement. Maximum size aggregate shall be size 4 for superstructure and size 3 for substructure. All surfaces exposed to view in the finished structure shall have a board-mark finish, except as noted otherwise. Corners shall be chamfered 3/4", except as noted otherwise.
REINFORCING STEEL: All dimensions relative to reinforcing steel are to centers of bars. For schedule and bending diagrams, see 5005H407.



SECTION A-A
Scale 1" = 20'-0"



GRADING PLAN
Scale 1" = 20'-0"

1	5545	L.B.L.						
Final field revisions.								
REV NO	DATE	MADE	CHKD	SUPV	INSP	SUBM	RECM

DSGN ____ SUPV G.F.
DRWN C.F.K. INSP ____
CHKD G.F.
TRCD ____ ENGINEER
COMP ____

Scale as noted

PROJECT 12 5005

MOORESBURG - FLAT GAP ROAD

POOR VALLEY CREEK BRIDGE
FOUNDATION PLAN & REVETMENT

CHEROKEE PROJECT
TENNESSEE VALLEY AUTHORITY
DESIGN DEPARTMENT

SUBMITTED	RECOMMENDED	APPROVED
Erwin Harsch	Frank W. Webster	George K. Leonard

CHATTANOOGA | 1-21-41 | 12 | HR | 5 | 5005H402

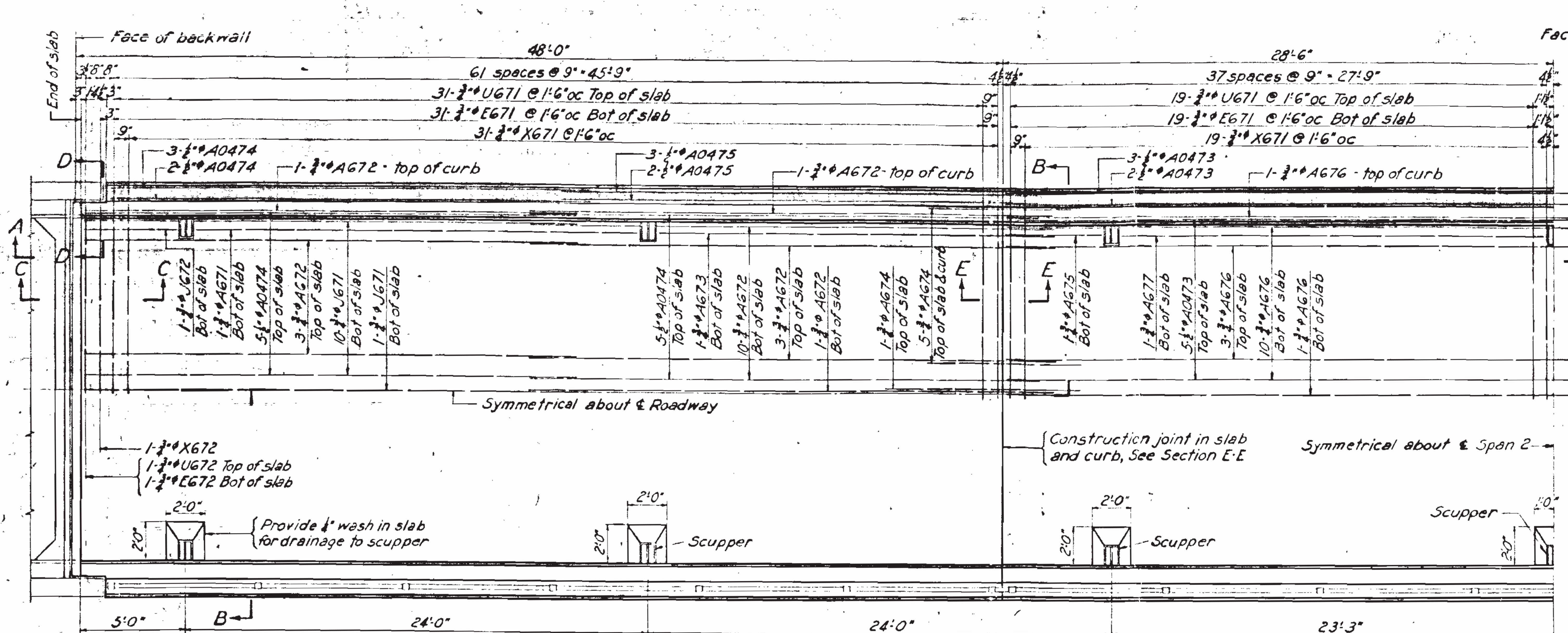
RECORD DRAWING AS CONSTRUCTED
Frank W. Webster 6-11-45

K72-126B


HIGHWAY AND RAILROAD DIVISION
SECTION B-B
Scale: 3/8" = 1'-0"
SECTION F-F
SECTIONAL PLAN A-A
SECTION C-C
Scale: 1/2" = 1'-0"
SECTION D-D
Scale: 1/2" = 1'-0"
SECTION E-E
Scale: 1/2" = 1'-0"
Constr joint
1"φ Anchor bolts, Assembly AB1, 8 Required
Symmetrical about ℄ Roadway
Sta 113+25.0 West Abut.
Sta 114+75.0 East Abut.
AB1 - Set pipe sleeve 1/2" below fin. bearing surface
Keyways 4"×1 1/2"×1'-0" @ 2'-0" c.c.
T0401 to T0414
T0415 to T0428
Concrete above and left of these construction joints shall not be poured until superstructure is in place and riveted up complete at abutment.
Fin. grade El 1084.00
Fin. bearing El 1080.46
Constr Jt El 1080.46
Constr Jt 2 Keyways 9"×2"×1'-2"
Constr Jt El 1062.96 2 Keyways 12"×2"×1'-0"
18'-0" Roadway
21'-6"
El 1087.79
13'-5 1/2" E abut, N col
13'-5 1/2" E abut, S col
12'-4 1/2" W abut, N col
11'-5 1/2" W abut, S col
Constr jt:
El 1049.50, E abut, N col
El 1049.50, E abut, S col
El 1050.57, W abut, N col
El 1051.48, W abut, S col
Bottom of footing:
El 1047.3, E abut, N col
El 1047.3, E abut, S col
El 1048.1, W abut, N col
El 1049.2, W abut, S col
SIDE ELEVATION
ELEVATION
FOOTING PLAN
SHOWING REINFORCEMENT IN BOTTOM OF FOOTING
SHOWING DIMENSIONS AND REINFORCEMENT IN TOP OF FOOTING
Face of abut.
Sym about ℄ Roadway
For East Abutment
For West Abutment
Scale: 1/4" = 1'-0"
Except as noted
NOTES:
Forms for all exposed surfaces of wings and cap shall be lined with plywood, or similar material, in sections having a minimum of horizontal joints. Vertical joints shall be placed not closer than 8'-0" on centers.
For bending diagrams and schedule of reinforcing steel, see 5005H407.
For additional notes, see 5005H402.
PROJECT 12-5005
MOORESBURG-FLAT GAP ROAD
POOR VALLEY CREEK BRIDGE
EAST AND WEST ABUTMENTS
CHEROKEE PROJECT
TENNESSEE VALLEY AUTHORITY
DESIGN DEPARTMENT
SUBMITTED
RECOMMENDED
APPROVED
CHATTANOOGA
1-21-41
12 HR 5 5005H403 R2
RECORD DRAWING AS CONSTRUCTED
Final field revisions
Reinf in back & wing walls added
K72-126C

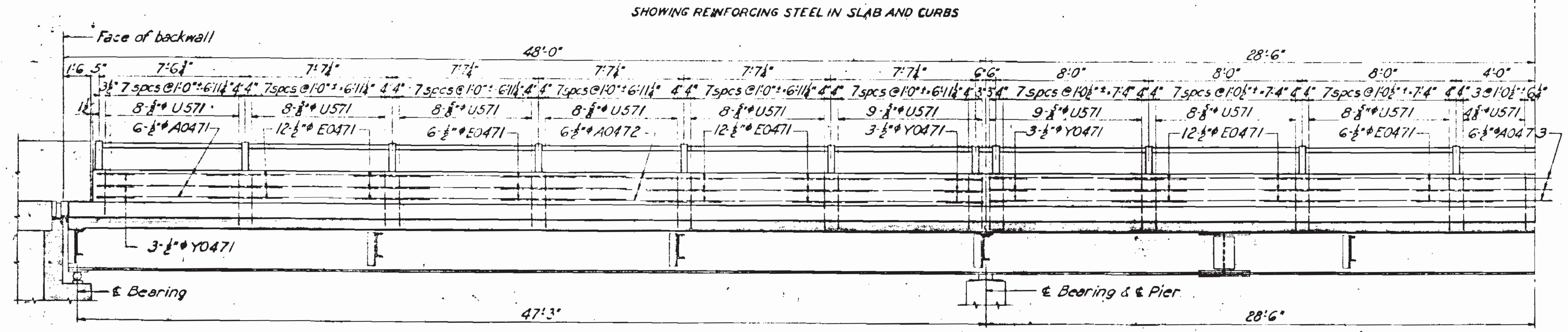

HIGHWAY AND RAILROAD DIVISION
PLAN
Pour bearing areas 1/4" high. Bush-hammer and grind smooth with a carborundum brick to correct elevations.
1"φ Anchor bolts, Assembly AB2, 8 required each pier
℄ Pier A Sta 113+71.5
℄ Pier B Sta 114+28.5
SECTION A-A
Scale: 1/2"=1'-0"
END ELEVATION
ELEVATION
Finished bearing surface El. 1080.90
Const Jt El. 1065.88
Symmetrical about ℄ Roadway
Round tops of piers between bearing areas as shown
SECTION B-B
Bottom of footing: El 1048.9, pier A, N col El 1048.8, pier A, S col El 1048.2, pier B, N col El 1047.3, pier B, S col
Constr jt: El 1050.99, pier A El 1050.19, pier B
FOOTING PLAN
Keyways 2" deep. Use similar keyways at all construction joints in columns.
SECTION C-C
SHOWING REINFORCEMENT ABOVE El. 1065.88
SHOWING REINFORCEMENT BELOW El. 1065.88
NOTES:
For notes on concrete, forms, and reinforcing steel, see 5005H402.
For bending diagrams and schedule of reinforcing steel, see 5005H407.
Scale: 1/4"=1'-0"
Except as noted
PROJECT 12-5005
MOORESBURG - FLAT GAP ROAD
POOR VALLEY CREEK BRIDGE
PIERS A & B
CHEROKEE PROJECT
TENNESSEE VALLEY AUTHORITY
DESIGN DEPARTMENT
SUBMITTED
RECOMMENDED
APPROVED
CHATTANOOGA
1-21-41
5005H404R1
RECORD DRAWING AS CONSTRUCTED
Final field revisions
K72-126D

HIGHWAY AND RAILROAD DIVISION

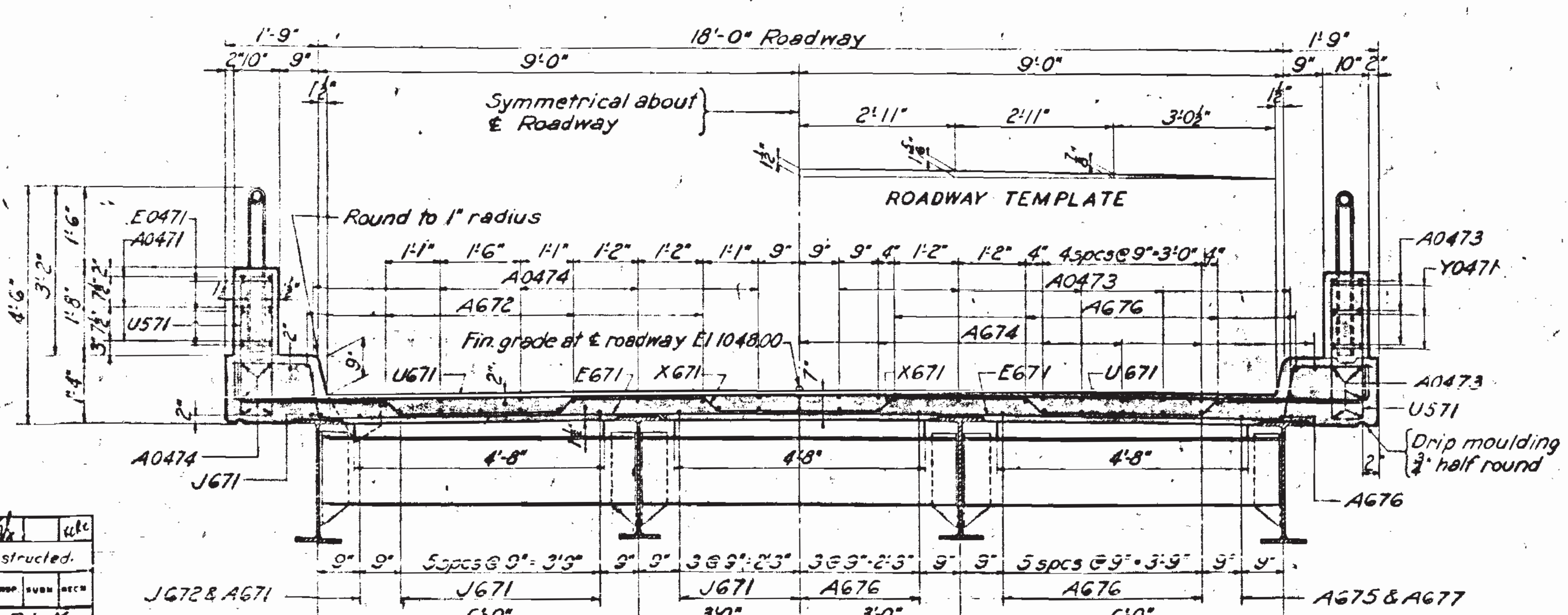


HALF PLAN

SHOWING REINFORCING STEEL IN SLAB AND CURBS

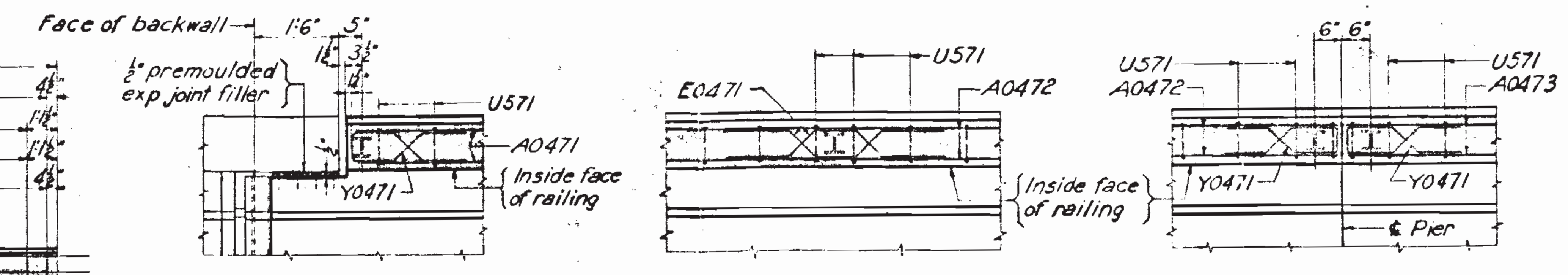


SECTION A-A



SECTION B-B

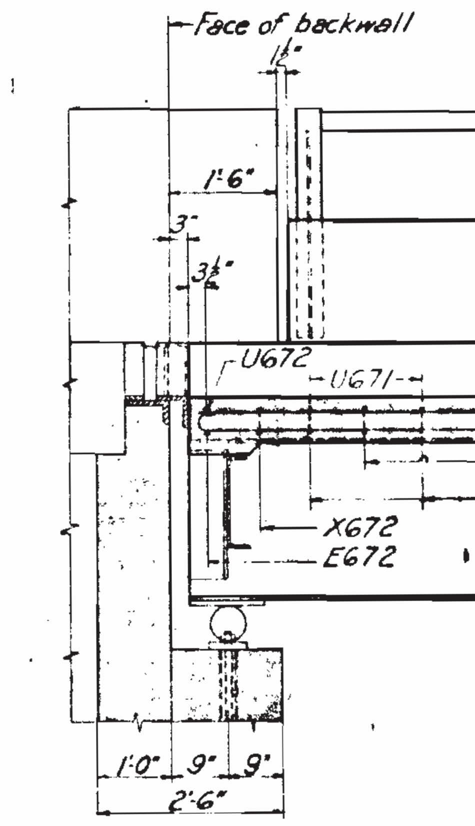
Scale ½"=1'-0"



AT ABUTMENT — AT INTERIOR POSTS — AT PIERS

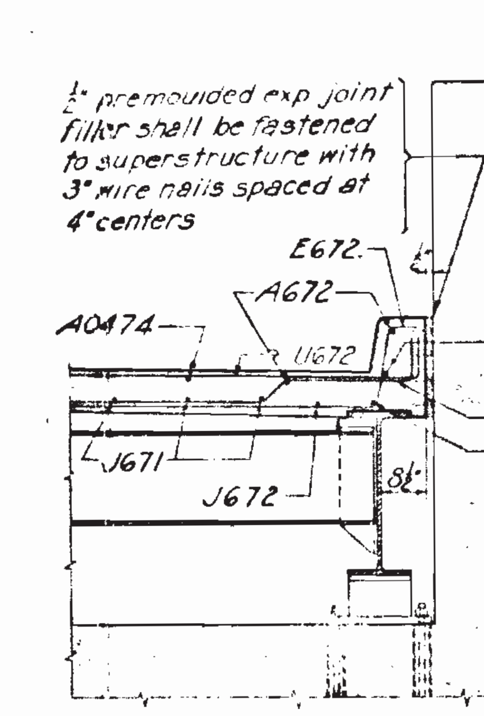
HORIZONTAL SECTIONS AT RAIL POSTS

Scale ½"=1'-0"



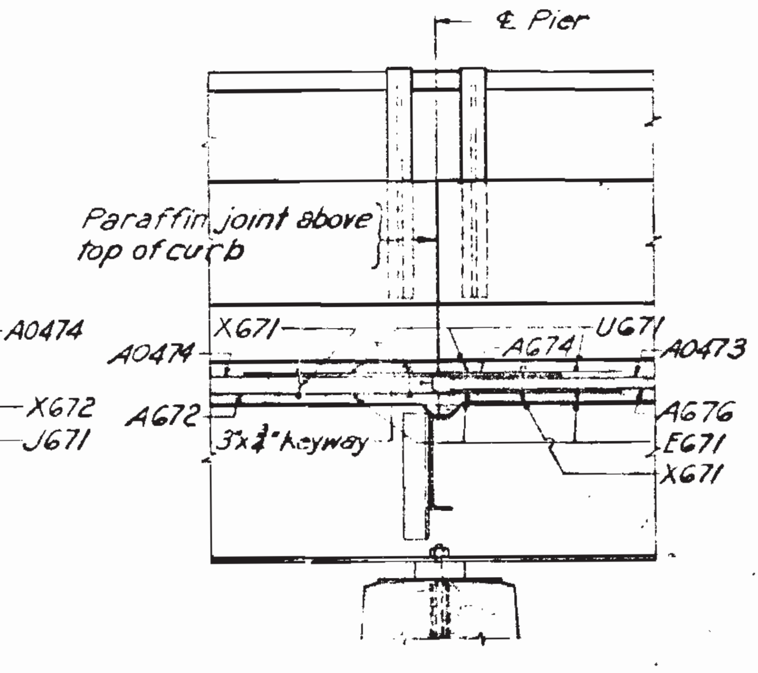
SECTION C-C

Scale ½"=1'-0"



SECTION D-D

Scale ½"=1'-0"



SECTION E-E

Scale ½"=1'-0"

NOTES:

FORMS: Forms for curb and railing shall be lined with plywood, or similar material in sections, having no horizontal joints. Vertical joints shall be spaced not closer then 8'-0" on centers.

CONCRETE: All concrete in superstructure shall be Class A. All cement shall be Type B portland cement. Maximum size of coarse aggregate shall be size 4. All exposed corners shall be chamfered ¾" except as noted.

POURING: The roadway slabs in the end spans shall be poured first. The slab in these spans shall be poured simultaneously, beginning at the ends of the bridge and progressing at a uniform rate in both spans, toward the center of the bridge. No railing shall be constructed until the slab and curb have been poured for the entire bridge. The railing shall be poured in the same sequence as the slab.

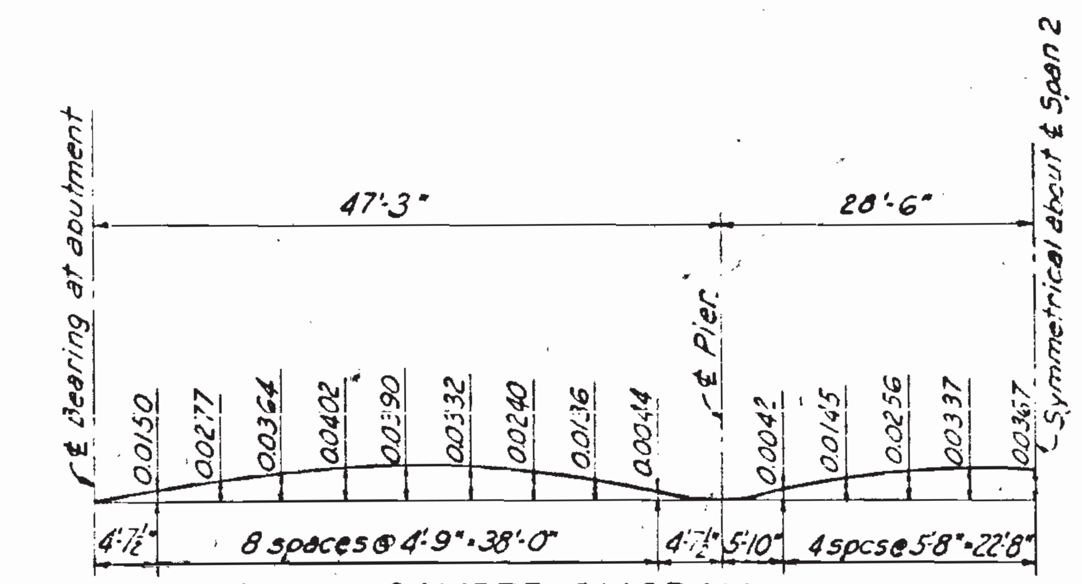
EXPANSION DEVICES: End expansion devices shall be adjusted to fit throughout and shall be rigidly supported in correct position while the concrete is placed.

METAL RAILING: The metal railings shall be completely assembled and adjusted to correct line and grade before any portion of the concrete railing is poured.

REINFORCING STEEL: All dimensions relative to reinforcing steel are to centers of bars. For schedule and bending diagrams see 5005H407.

For additional notes see 5005H402

For summary of quantities see 5005H401



CAMBER DIAGRAM

(Vertical ordinates in feet)

Not to scale

Note: The forms for the top of the curbs shall be set higher than the theoretical elevations by the distances shown in the above camber diagram to allow for the deflection of the steel beams under the load of the concrete. No camber need be provided in setting forms for the top of the concrete railing. The pipe rail and the top of the concrete railing shall be parallel to the finished grade line.

Scale ¼" = 1'-0"
Except as noted

PROJECT 12-5005

MOORESBURG - FLAT GAP ROAD

POOR VALLEY CREEK BRIDGE

ROADWAY SLAB AND RAILINGS

CHEROKEE PROJECT
TENNESSEE VALLEY AUTHORITY
DESIGN DEPARTMENT

SUBMITTED	RECOMMENDED	APPROVED
Erwin Harsch	Frank W. Webster	George K. Leo

CHATTANOOGA | 3-20-41 | 12 | HR | 5 | 5005H406 R1

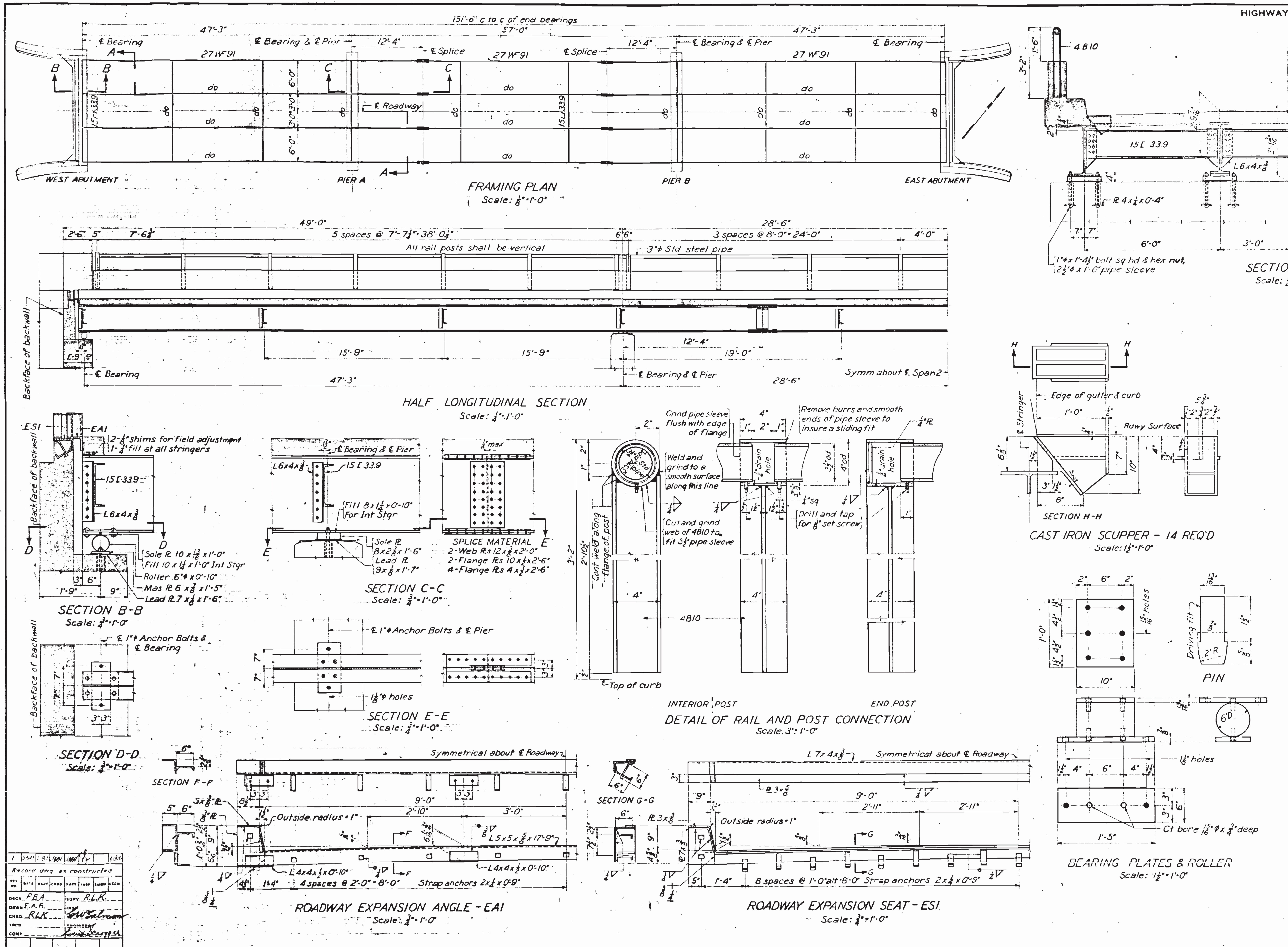
RECORD DRAWING AS CONSTRUCTED — Frank W. Webster 6-11-45

Record dwg as constructed.

DSGN. P.B.A. SUPV. R.L.K.
DRWN. W.C.O.
CHKD. R.L.K.

K72-126F

HIGHWAY AND RAILROAD DIVISION



NOTES:

MATERIAL:

- Carbon Structural steel except as noted ... ASTM A7-39
- Rivets: Rivet steel ... ASTM A141-39
- Rollers: Cold rolled shafting ... ASTM A108-36 Grade 6 or 7
- Pipe Railing: Steel pipe-Std wt-seamless ... ASTM A120-36 or Wrought iron pipe ... ASTM A72-39
- Scuppers: Grey iron casting ... ASTM A48-36 Class 20
- Misc Parts: Carbon steel of std commercial quality.

FABRICATION: All connections shall be riveted. Rivets 7/8"φ. Holes: 15/16"φ except as noted. Holes for stringer splices shall be sub-punched and reamed or drilled from the solid with connecting parts assembled in correct relative position. Pieces shall be match marked to ensure correct assembly in the field. Expansion devices shall be assembled in the shop in correct relative position and matched to ensure an accurate fit. Pipe sleeves for railing posts shall be centered on posts and have ends flush with edges of post flanges, with a maximum tolerance of 1/32". Ends of pipe sleeves and welded surfaces exposed to view shall be ground or milled, to a surface finish equal to that of the adjacent rolled surfaces.

CAMBER: Stringers shall be fabricated so that any existing camber is positive.

WELDING: Electric arc method in accordance with specifications for "Design, Construction, Alteration and Repair of Highway and Railway Bridges by Fusion Welding" of the American Welding Society, 1936.

SHOP PAINT: One coat of red or blue lead paint, except that inside surfaces of pipe rails shall have two coats. Contact surfaces and surfaces in contact with concrete shall not be painted.

FIELD PAINT: Two coats of aluminum paint - 1st coat tinted.

Scale as noted

PROJECT 12-5005

MOORESBURG-FLAT GAP ROAD

POOR VALLEY CREEK BRIDGE

STRUCTURAL STEEL

CHEROKEE PROJECT
TENNESSEE VALLEY AUTHORITY
DESIGN DEPARTMENT

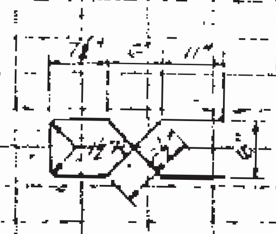
SUBMITTED	RECOMMENDED	APPROVED
Erwin Hansch	Frank W. Webster	George K. Rich
CHATTANOOGA	12 HR 5	5005H405 R1

RECORD DRAWING AS CONSTRUCTED
Frank W. Webster 6-11-45

K72-126E

POOR VALLEY CREEK BRIDGE — PROJECT 12-5005
ITEM: ROADWAY SLAB AND RAILINGS — PAGE 7 OF 7

Location	Mark	No	Size	Length								Weight
Railing	A0471	24	3/4"φ	27'6"								441
	A0472	24	3/4"φ	20'3"								325
Slab, Curb & Rail	A0473	64	3/4"φ	29'2"								1247
Slab & Curb	A0474	80	3/4"φ	15'7"								1025
Curb	A0475	20	3/4"φ	24'2"								323
Slab	A671	4	3/4"φ	23'2"								139
"	A672	74	3/4"φ	26'5"								2936
"	A673	4	3/4"φ	21'1"								127
Slab & Curb	A674	22	3/4"φ	5'0"								165
Slab	A675	4	3/4"φ	4'8"								28
"	A676	48	3/4"φ	[illegible]								2577
"	[illegible]	4	3/4"φ	22'5"								135
Railing	F0471	32		4'5"	6"	1'2"	8½"	6"	8"		4'0"	567
Slab	F671	100		27'11"	2"	[illegible]			18'0"		[illegible]	3442
[illegible]												63
[illegible]		42		27'4"	1'0"	[illegible]						1724
[illegible]		4		5'3"	1'0"	4'3"					4'4½"	32
Curb	[illegible]	312		5'0"	2'6½"	2½"	4"				1'7"	1398
Slab	[illegible]	100		[illegible]		4½"	20'7"				3" 2'1"	3442
[illegible]		2		20'11"	9½"	4½"	18'1"				3" 19'1"	63
	X671	100		21'6"	See detail							3555
	X672	2		21'8"	See detail							65
Railing	Y0471	36		5'0"	See detail							120
											Total	24,439



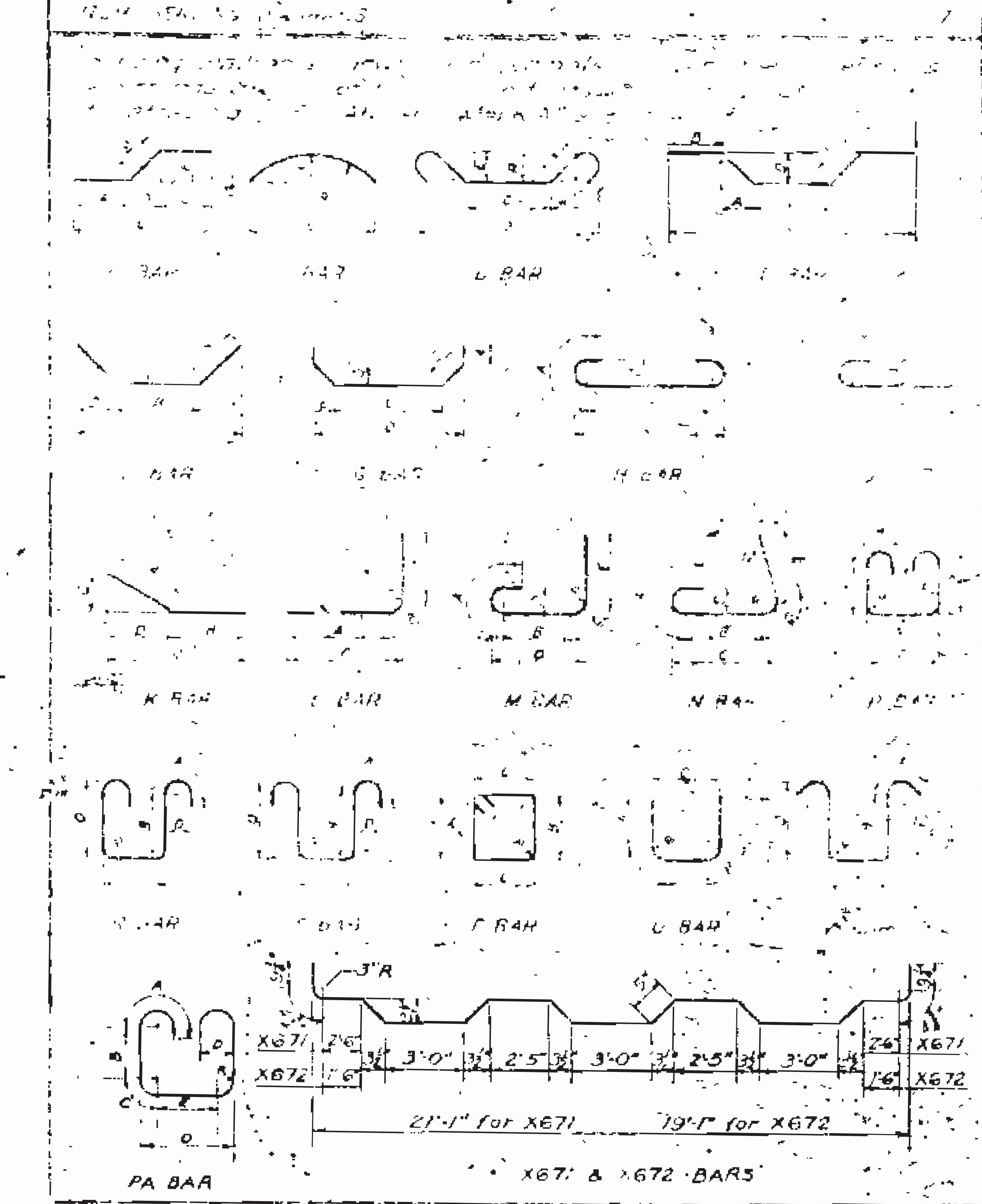
POOR VALLEY CREEK BRIDGE — PROJECT 12-5005
ITEM: PIERS A & B (One-half of the total number of bars of each mark is reqd in ea pier) — PAGE 7

Location	Mark	No	Size	Length									Weight
Footing	A640	32	3/4"φ	5'4"									256
"	H840	16	1"φ	10'4"	1'4"	7'8"		8"				8'4"	562
"	L940	8	1⅛"φ	11'2"	3'1"	7'	1'0"				4½"	3'11½"	385
"	M940	24	1⅛"φ	13'11"	1'6"	4'9½"	7"	9"	7'0"		4½"	5'6½"	1438
Wall	A542	44	5/8"φ	14'1"									646
"	A543	44	5/8"φ	17'10"									818
"	A544	72	5/8"φ	21'0"									1577
"	H0540	6	1"φ	25'0"	1'4"	20'4"		5"				21'0"	368
Column	A840	32	1"φ	14'8"									1596
"	A940	32	1⅛"φ	19'9"									2719
"	T0443	4	½"φ	12'1"	6"	2'5½"	2'10"			1"			32
"	T0444	4	½"φ	12'0"	6"	2'8½"	2'9"			1"			32
"	T0445	4	½"φ	11'10"	6"	2'6½"	2'9"			1"			32
"	T0446	4	½"φ	11'9"	6"	2'7½"	2'8½"			1"			31
"	T0447	4	½"φ	11'7"	6"	2'7½"	2'8"			1"			31
"	T0448	4	½"φ	11'6"	6"	2'4½"	2'7½"			1"			31
"	T0449	4	½"φ	11'4"	6"	[illegible]	2'7"			1"			30
"	T0450	4	½"φ	11'3"	6"	2'4½"	2'6½"			1"			30
"	T0451	4	½"φ	11'1"	6"	2'6½"	2'6"			1"			30
"	T0452	4	½"φ	11'0"	6"	2'6½"	2'5½"			1"			29
"	T0453	4	½"φ	10'10"	6"	2'6"	2'5"			1"			29
"	T0454	4	½"φ	10'9"	6"	2'5½"	2'4½"			1"			29
"	T0455	4	½"φ	10'7"	6"	2'5½"	2'4"			1"			28
"	T0456	4	½"φ	10'6"	6"	2'5½"	2'3½"			1"			28
"	T0457	4	½"φ	10'4"	6"	2'5"	2'3"			1"			28
"	T0458	4	½"φ	10'3"	6"	2'4½"	2'2½"			1"			27
"	T0459	4	½"φ	10'1"	6"	2'4½"	2'2"			1"			27
"	T0460	4	½"φ	10'0"	6"	2'4½"	2'1½"			1"			27
"	T0461	4	½"φ	9'10"	6"	2'4"	2'1"			1"			26
"	T0462	4	½"φ	9'9"	6"	2'3½"	2'0½"			1"			26
"	T0463	4	½"φ	9'7"	6"	2'3½"	2'0"			1"			26
"	T0464	4	½"φ	9'6"	6"	2'3½"	1'11½"			1"			25
"	T0465	4	½"φ	9'4"	6"	2'3"	1'11"			1"			25
"	T0466	4	½"φ	9'3"	6"	2'2½"	1'10½"			1"			25
												Total	11049

POOR VALLEY CREEK BRIDGE — PROJECT 12-5005
ITEM: EAST & WEST ABUTMENTS — PAGE 3 OF 7

One-half of the total number of bars of each mark is required in each abutment.

Location	Mark	No	Size	Length								Weight
Footing	A601	40	3/4"φ	6'4"								381
"	A701	28	7/8"φ	6'0"								343
"	J601	8	1"φ	8'4"	1'5"	6'11"		8"			7'3"	227
"	J901	32	1⅛"φ	16'7"	1'7½"	14'11"		9"			15'4"	2283
"	M801	40	1"φ	12'3"	1'4½"	3'3½"	6"	8"	7'2"	4"	3'10½"	1666
"	M901	20	1⅛"φ	21'6"	1'7½"	11'9½"	7"	9"	7'8"	4½"	12'4½"	1850
Footing & Wing	A602	32	3/4"φ	5'6"								264
Column	A0801	8	1"φ	13'0"								278
"	A801	48	1"φ	17'4"								2829
"	A802	20	1"φ	20'0"								1360
"	A803	12	1"φ	17'3"								704
"	A901	20	1⅛"φ	17'9"								1528
"	A902	20	1⅛"φ	20'0"								1721
"	J0801	12	1"φ	11'7"	1'5"	10'2"		8"			10'6"	371
"	J802	8	1"φ	18'4"	1'5"	16'11"		8"			17'3"	496
"	T0401	4	½"φ	18'1"	6"	1'7"	6'11½"			1"		48
"	T0402	4	½"φ	17'9"	6"	1'7"	6'9½"			1"		47
"	T0403	4	½"φ	17'5"	6"	1'7"	6'7½"			1"		47
"	T0404	4	½"φ	17'0"	6"	1'7"	6'5"			1"		45
"	T0405	4	½"φ	16'8"	6"	1'7"	6'3"			1"		45
"	T0406	4	½"φ	16'4"	6"	1'7"	6'1"			1"		44
"	T0407	4	½"φ	16'0"	6"	1'7"	5'11"			1"		43
"	T0408	4	½"φ	15'7"	6"	1'7"	5'8½"			1"		42
"	T0409	4	½"φ	15'3"	6"	1'7"	5'6½"			1"		41
"	T0410	4	½"φ	14'11"	6"	1'7"	5'4½"			1"		40
"	T0411	4	½"φ	14'7"	6"	1'7"	5'2½"			1"		39
"	T0412	4	½"φ	14'3"	6"	1'7"	5'0½"			1"		38
"	T0413	4	½"φ	13'10"	6"	1'7"	4'10"			1"		37
"	T0414	4	½"φ	13'6"	6"	1'7"	4'8"			1"		36
"	T0415	4	½"φ	13'2"	6"	1'7"	4'6"			1"		35
"	T0416	4	½"φ	12'10"	6"	1'7"	4'4"			1"		34
"	T0417	4	½"φ	12'6"	6"	1'7"	4'2"			1"		33
											Total	16995



POOR VALLEY CREEK BRIDGE — PROJECT 12-5005
ITEM: PIERS A & B — PAGE 7

Location	Mark	No	Size	Length						Weight
Column	T0467	4	½"φ	9'1"	6"	2'2½"	1'10"	1"		24
"	T0468	4	½"φ	9'0"	6"	2'7½"	1'9½"	1"		24
"	T0469	4	½"φ	8'10"	6"	2'2"	1'9"	1"		24
Cap	A540	4	5/8"φ	21'0"						88
"	A541	8	5/8"φ	9'0"						75
"	A0840	8	1"φ	21'0"						449
"	T0440	12	½"φ	9'5"	6"	1'8"	2'6½"	1"		76
"	T0441	4	½"φ	10'1"	6"	1'8"	2'10½"	1"		27
"	T0442	4	½"φ	10'9"	6"	1'8"	3'2½"	1"		29
"	U0840	8	1"φ	27'6"	3'2"	6"	20'2"	4"	20'10"	587
									Total	1403

One-half of the total number of bars of each mark is required in each pier.

POOR VALLEY CREEK BRIDGE — PROJECT 12-5005
ITEM: EAST & WEST ABUTMENTS — PAGE 4 OF 7

Location	Mark	No	Size	Length		A	C	D				Weight
Column	T0418	4	½"φ	12'1"	6"	1'7"	3'11½"			1"		32
"	T0419	4	½"φ	11'9"	6"	1'7"	3'9½"			1"		31
"	T0420	4	½"φ	11'5"	6"	1'7"	3'7½"			1"		31
"	T0421	4	½"φ	11'1"	6"	1'7"	3'5½"			1"		30
"	T0422	4	½"φ	10'8"	6"	1'7"	3'3"			1"		29
"	T0423	4	½"φ	10'4"	6"	1'7"	3'1"			1"		28
"	T0424	4	½"φ	10'0"	6"	1'7"	2'11"			1"		27
"	T0425	4	½"φ	9'10"	6"	1'8"	2'9"			1"		26
"	T0426	4	½"φ	10'0"	6"	1'11"	2'7"			1"		27
"	T0427	4	½"φ	10'1"	6"	2'2"	2'4½"			1"		27
"	T0428	4	½"φ	10'3"	6"	2'5"	2'2½"			1"		27
Cap	A603	4	3/4"φ	21'0"								126
"	H801	10	1"φ	22'7"	1'4½"	19'10"		8"			20'6"	768
"	M0801	8	1"φ	9'7"	1'5"	2'0"	6"	8"	5'8"	4"	2'8"	205
"	PA1001	6	1¼"φ	28'3"	1'10"	1'10"	8"	10"	19'7"	5"	20'5"	901
"	T0429	24	½"φ	10'8"	6"	2'2"	2'8"			1"		171
"	U501	24	5/8"φ	9'11"	4'6½"	2½"	5"			1½"	8"	248
Wing	A604	24	3/4"φ	7'3"								261
"	K601	12	3/4"φ	8'3"	1'6"	6'9"	1'0"	1'1½"			7'10½"	149
									TOTAL WEIGHT			3144
Back wall	A501	14	5/8"φ	21'0"								307
"	U502	24	5/8"φ	5'7"	2'7"	2½"	0			1½"	3"	140
Haunch	F501	12	5/8"φ	7'6"	1'3"	5'0"	10½"	10½"			6'9"	94
Wing	A502	40	5/8"φ	10'0"								417
"	A503	48	5/8"φ	7'0"								350
"	A504	52	5/8"φ	11'10"								642
"	L0801	8	1"φ	16'10"	7'8"	3'6"	5'8"			2'3"	9'11"	360
"	L0802	8	1"φ	14'0"	6'9"	6"	6'9"			4"	7'1"	299
Curb	L501	8	5/8"φ	11'9"	10'0"	11"	10"			7"	10'7"	98
"	P0401	44	½"φ	5'0"	8¼"	1'3"	1'1½"	4"		1"	1'5"	147
									TOTAL WEIGHT			2437

One-half of the total number of bars of each mark is required in each abutment.

NOTES

[illegible] deformed bars [illegible] grade ASTM A15 [illegible]
Bending [illegible] Unless dimensioned otherwise, [illegible]

REFERENCE DRAWINGS

5005H403....EAST AND WEST ABUTMENTS
5005H404....PIERS A AND B
5005H406....ROADWAY SLAB AND RAILINGS

E BAR bending diagr. corrected
Superstr. & Abut. steel added

C.E.K.

PROJECT 12-5005

MOORESBURG - FLAT GAP ROAD

POOR VALLEY CREEK BRIDGE

REINFORCING STEEL

CHEROKEE PROJECT

TENNESSEE VALLEY AUTHORITY

1-14-41 12 5005H407 R3

RECORD DRAWING AS CONSTRUCTED

K72-1268

YEAR	PROJECT NO.	SHEET NO.
2026	STP/HPP-31(12)	GEOTECH-SIGN1

LORI ANN FIORENTINO
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 113743
STATE OF TENNESSEE

THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Lori Fiorentino Digitally signed by Lori Fiorentino
Date: 2026.03.11 11:11:09 -04'00'

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TENNESSEE DEPARTMENT OF TRANSPORTATION
MATERIALS & TESTS DIVISION- GEOTECHNICAL ENGINEERING SECTION
7345 REGION LN.
KNOXVILLE, TN 37914
LORI ANN FIORENTINO, P.E. NO. 113743

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

GEOTECHNICAL INDEX

PS&E

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNATURE
SHEET

$$$$SYTIME$$$$$$
$$$$DGNSPEC$$$

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	G-1

GEOTECHNICAL INDEX

SHEET NAME **SHEET NO.**

PS&E

STATE OF TENNESSEE
DEPARTMENT OF
TRANSPORTATION

GEOTECHNICAL
INDEX

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TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	G-2

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.

ESTIMATED GEOTECH QUANTITIES

	ITEM NO.	DESCRIPTION	UNIT	QUANTITY
1 4	106-04.01	SMPLING & TSTING OF POTENTIALLY ACIDIC MAT	EACH	112
2 4	203-01.07	RD & DRING EXCV (ACID PRODUCING- OFF SITE DISPOSAL)	C.Y.	8,640
3 4	203-02.01	BORROW EXCAVATION (GRADED SOLID ROCK)	TON	1,500
3 4	740-10.04	GEOTEXTILE (TYPE IV) (STABILIZATION)	S.Y.	780

FOOTNOTES:

1. TO BE CONDUCTED IN ACCORDANCE WITH SP107L. COST TO INCLUDE COLLECTING SAMPLE, PACKAGING, SHIPPING, HANDLING, AND TEST ANALYSIS FROM STA 219+00 TO STA 228+50. COPY OF TEST RESULTS SHALL BE EMAILED TO TDOT.GEOTECH@TN.GOV, INCLUDING PROJECT DESCRIPTION, CONTRACT NUMBER, AND PIN FOR REVIEW.
2. INCLUDES EXCAVATION, HAULING, PERMITTING, AND LANDFILL FEES.
3. TO BE USED BETWEEN STATION 229+25 TO BEGINNING OF BRIDGE.
4. FOR BIDDING PURPOSES, THESE QUANTITIES ARE INCLUDED IN THE SHEET 2 SERIES.

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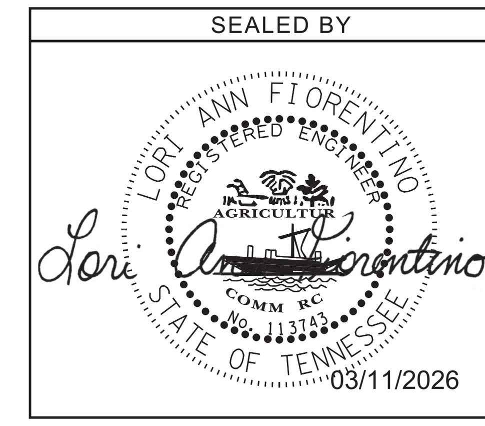
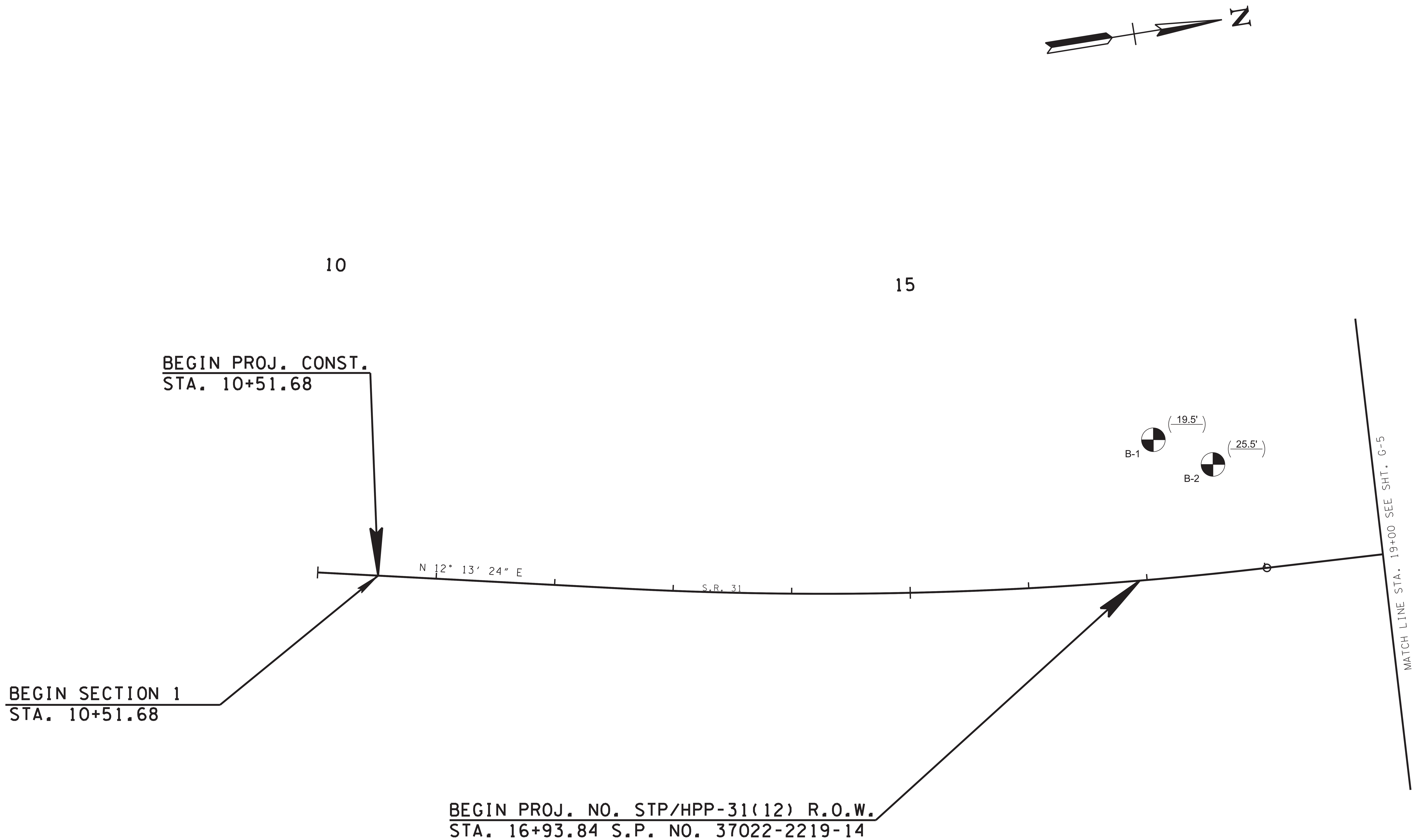


03/11/2026

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL NOTES & QUANTITIES

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	G-3



LEGEND

B-1 (24.5') — BORING LOCATION WITH DEPTH TO REFUSAL

SEALED BY

LORI ANN FIORENTINO
REGISTERED ENGINEER
AGRICULTURE COMMERCE
STATE OF TENNESSEE
Lori Ann Fiorentino
03/11/2026

COORDINATES ARE NAD 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00006 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WITH GEOID 99 .

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL
BORING
LAYOUT

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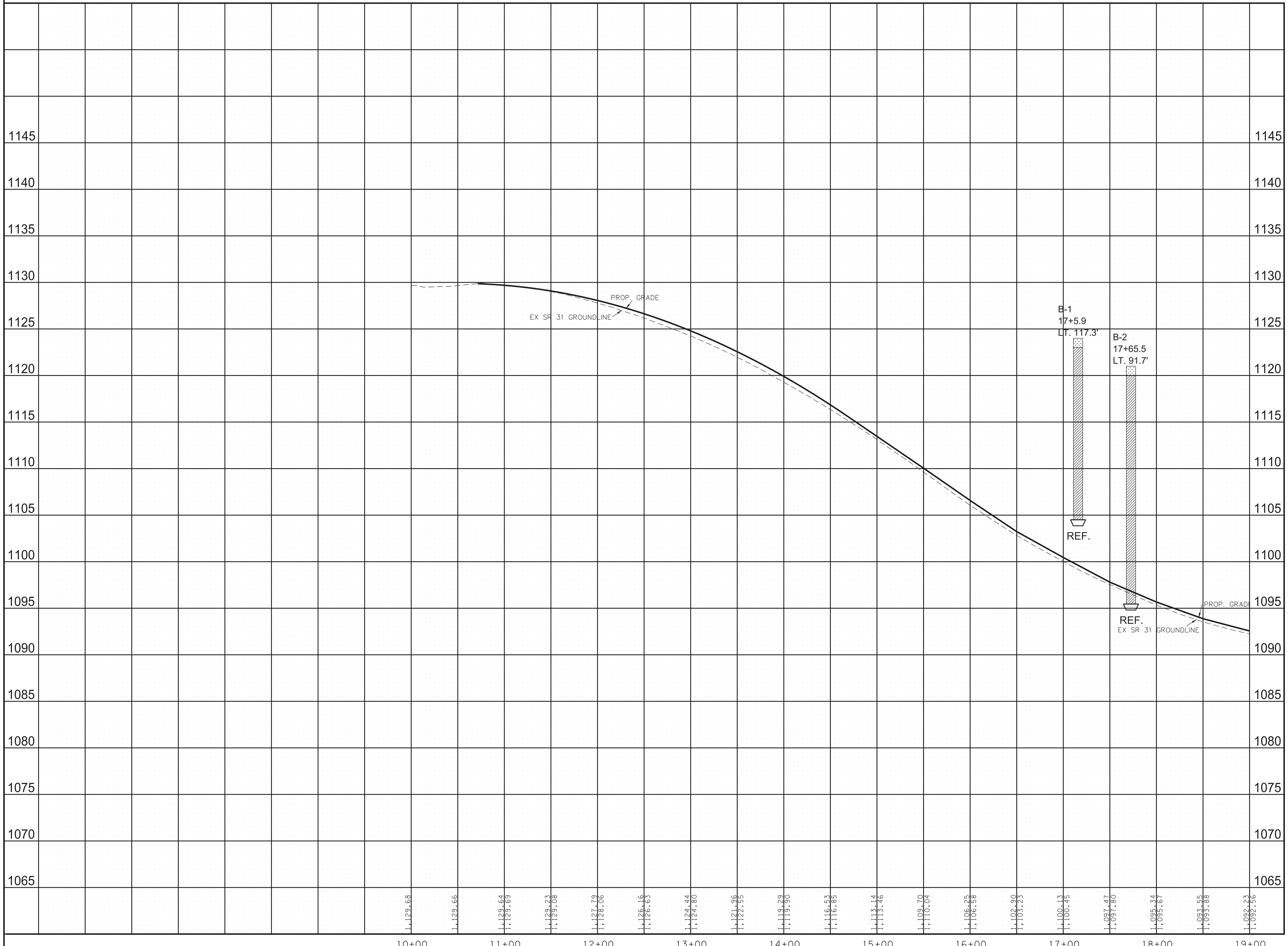
TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	G-4



LEGEND

TOPSOIL

CLAY (TYPE A MATERIAL)

TYPE MATERIAL-SEE DEFINITION OF EARTHWORK TERMS ON NOTES AND GEOTECHNICAL EST. QTYS. SHEET.
REF. = AUGER REFUSAL

SEALED BY

LORI ANN FIORENTINO
STATE OF TENNESSEE
Lori Ann Fiorentino
03/11/2026

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL BORING PROFILE

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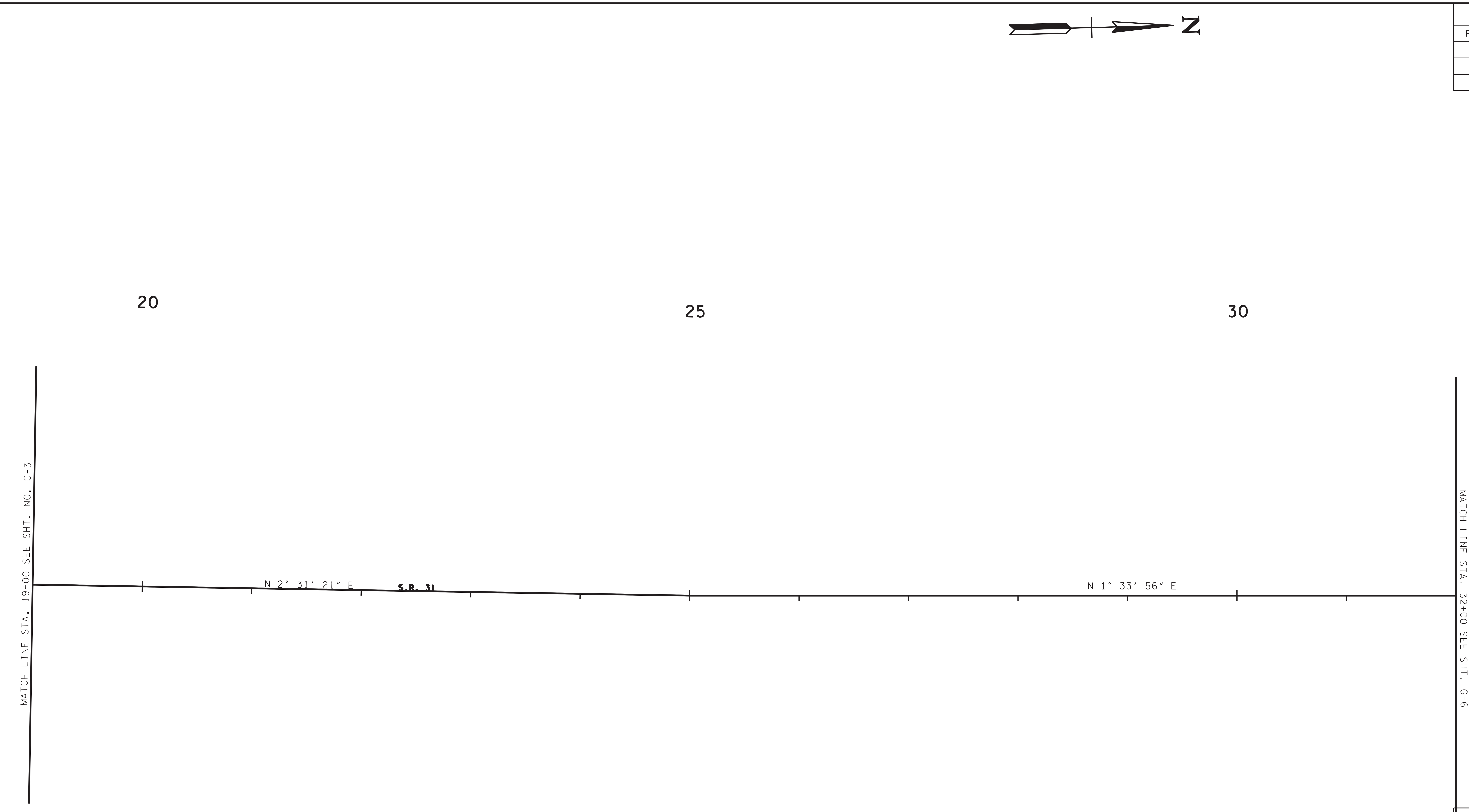
TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	G-5



NO BORINGS PRESENT

SEALED BY

Lori Ann Fiorentino

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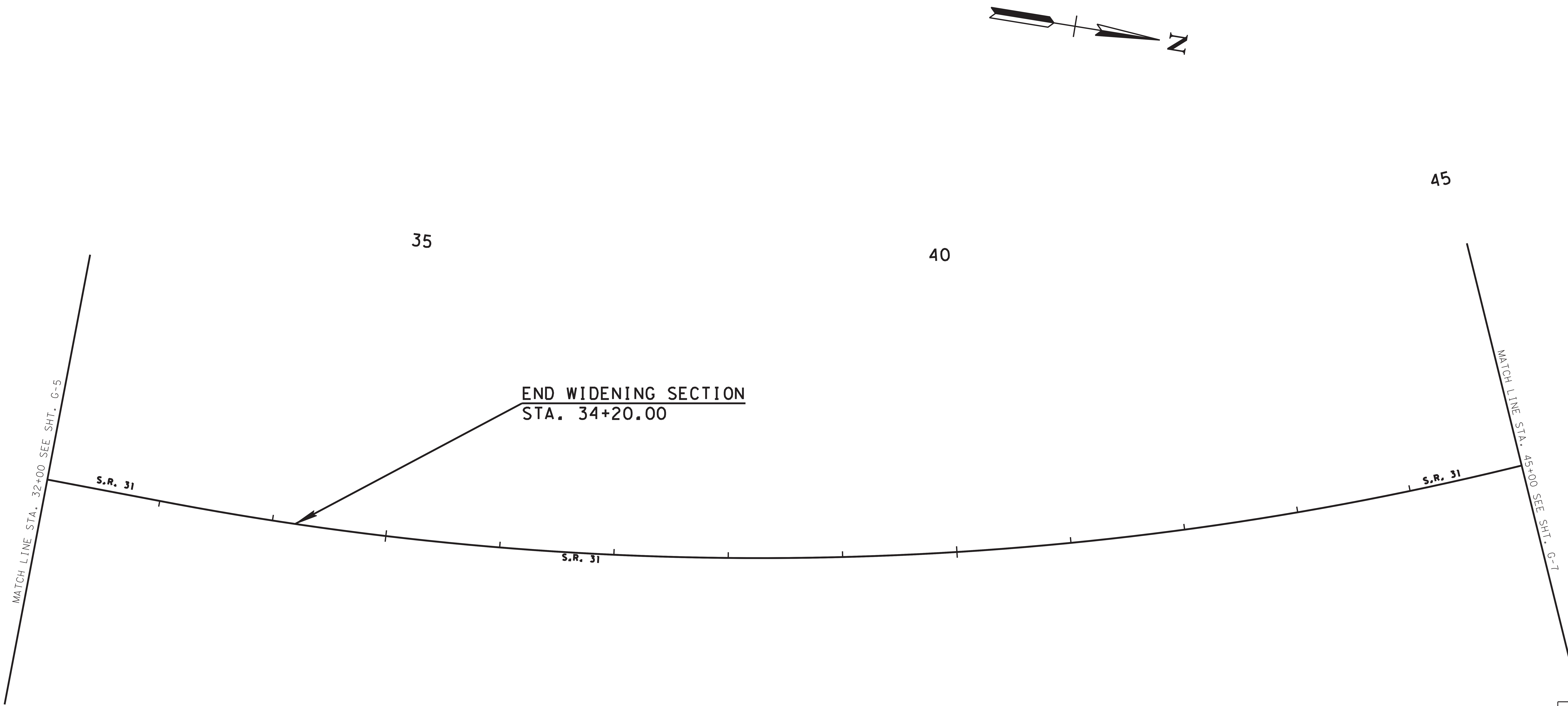
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL
BORING
LAYOUT

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	G-6



NO BORINGS PRESENT

SEALED BY

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STATE OF TENNESSEE
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GEOTECHNICAL
BORING
LAYOUT

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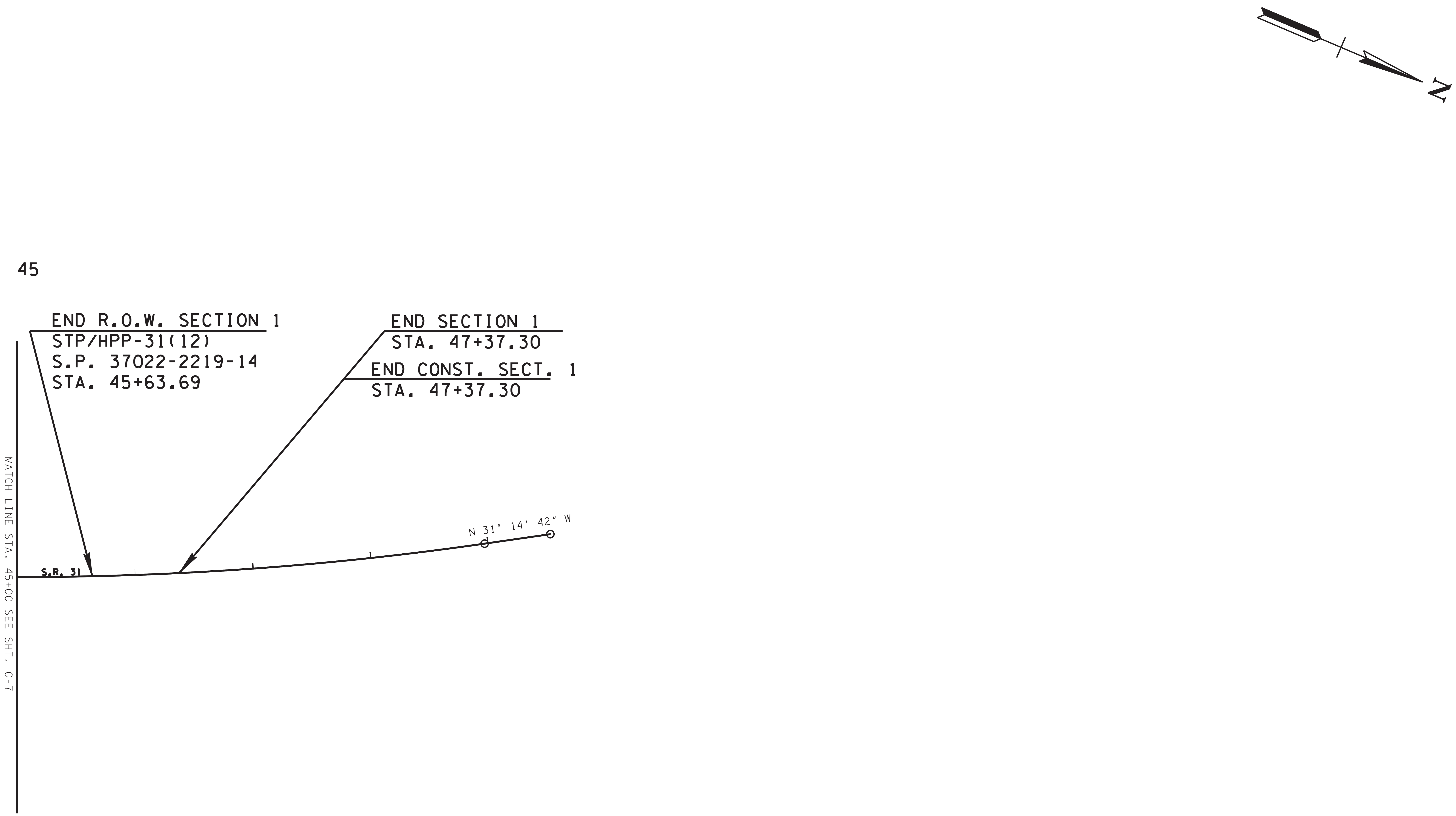
TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	G-7



NO BORINGS PRESENT

SEALED BY

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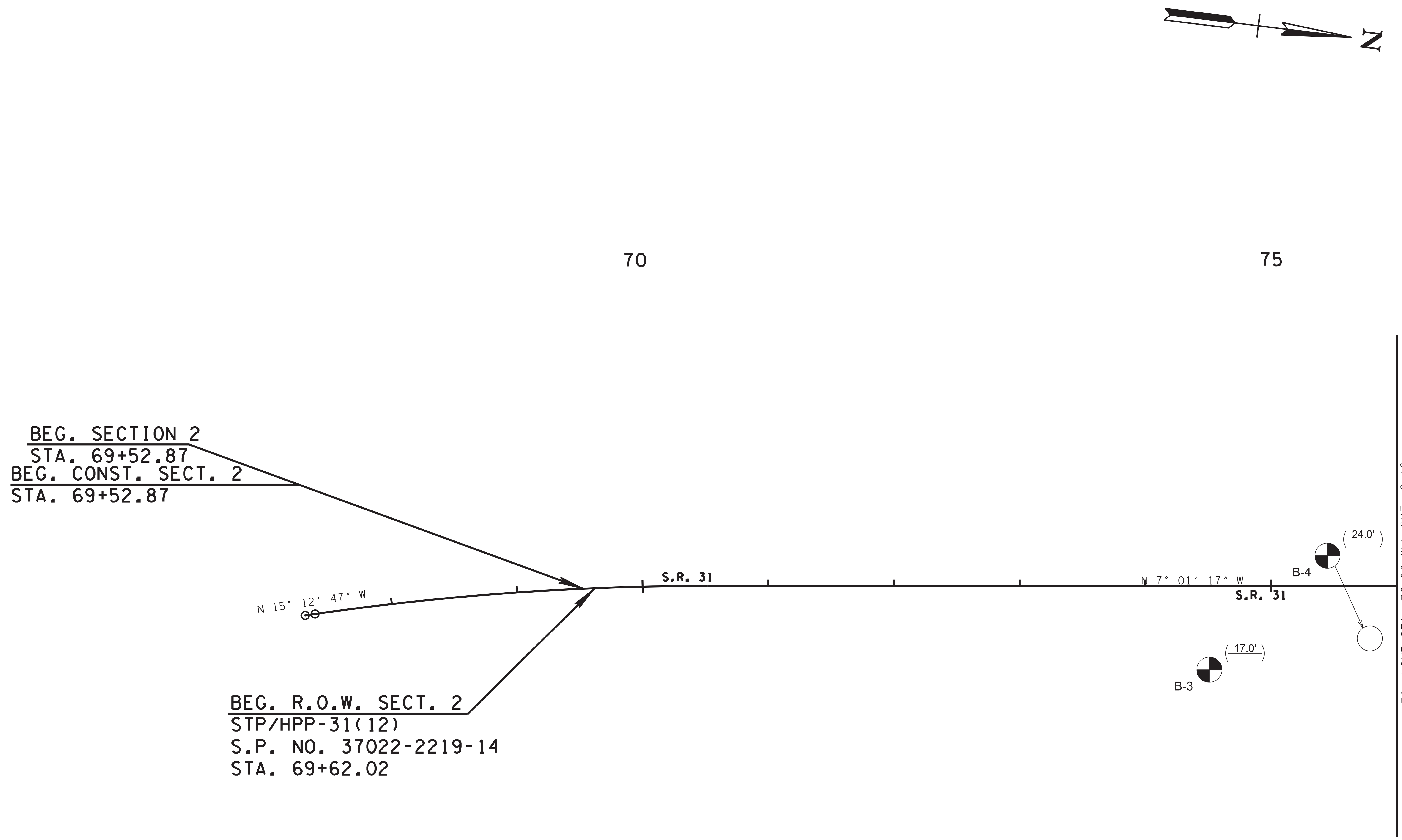
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL
BORING
LAYOUT

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	G-8



LEGEND

B-1 (24.5') — BORING LOCATION WITH DEPTH TO REFUSAL

B-1 (24.5') — BORING LOCATION TERMINATION DEPTH (NO REFUSAL)

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LORI ANN FIORENTINO
STATE OF TENNESSEE

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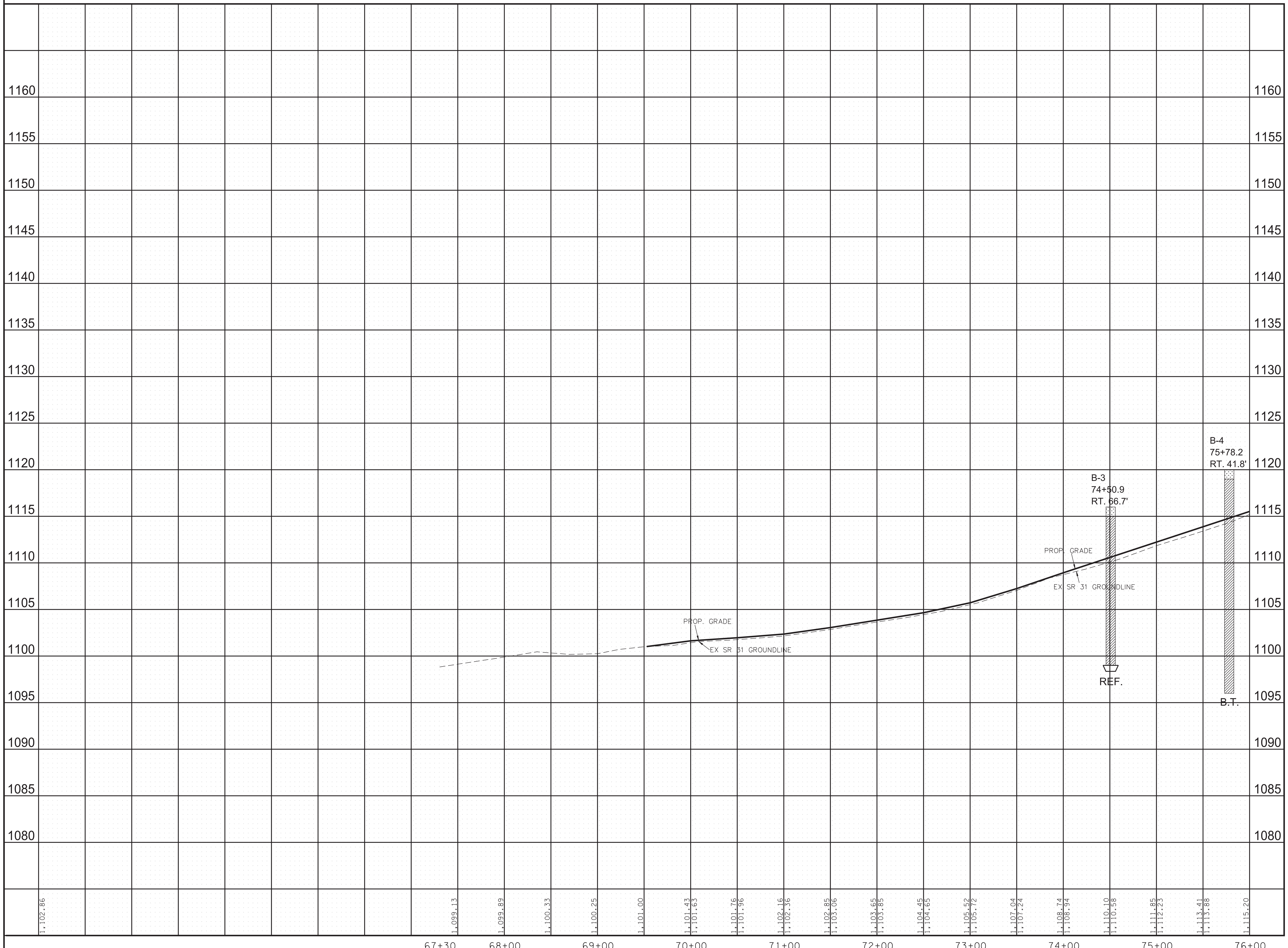
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL
BORING
LAYOUT

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	G-9



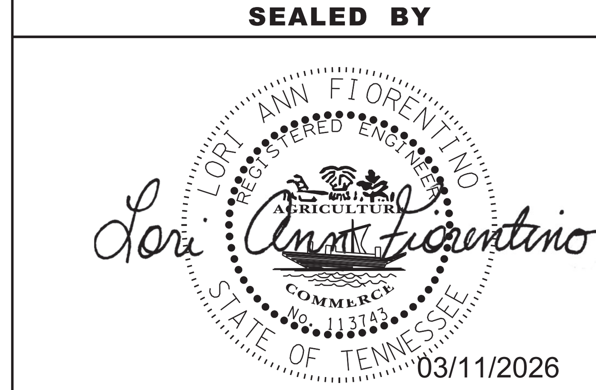
LEGEND

TOPSOIL

CLAY (TYPE A MATERIAL)

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

SEALED BY



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STATE OF TENNESSEE
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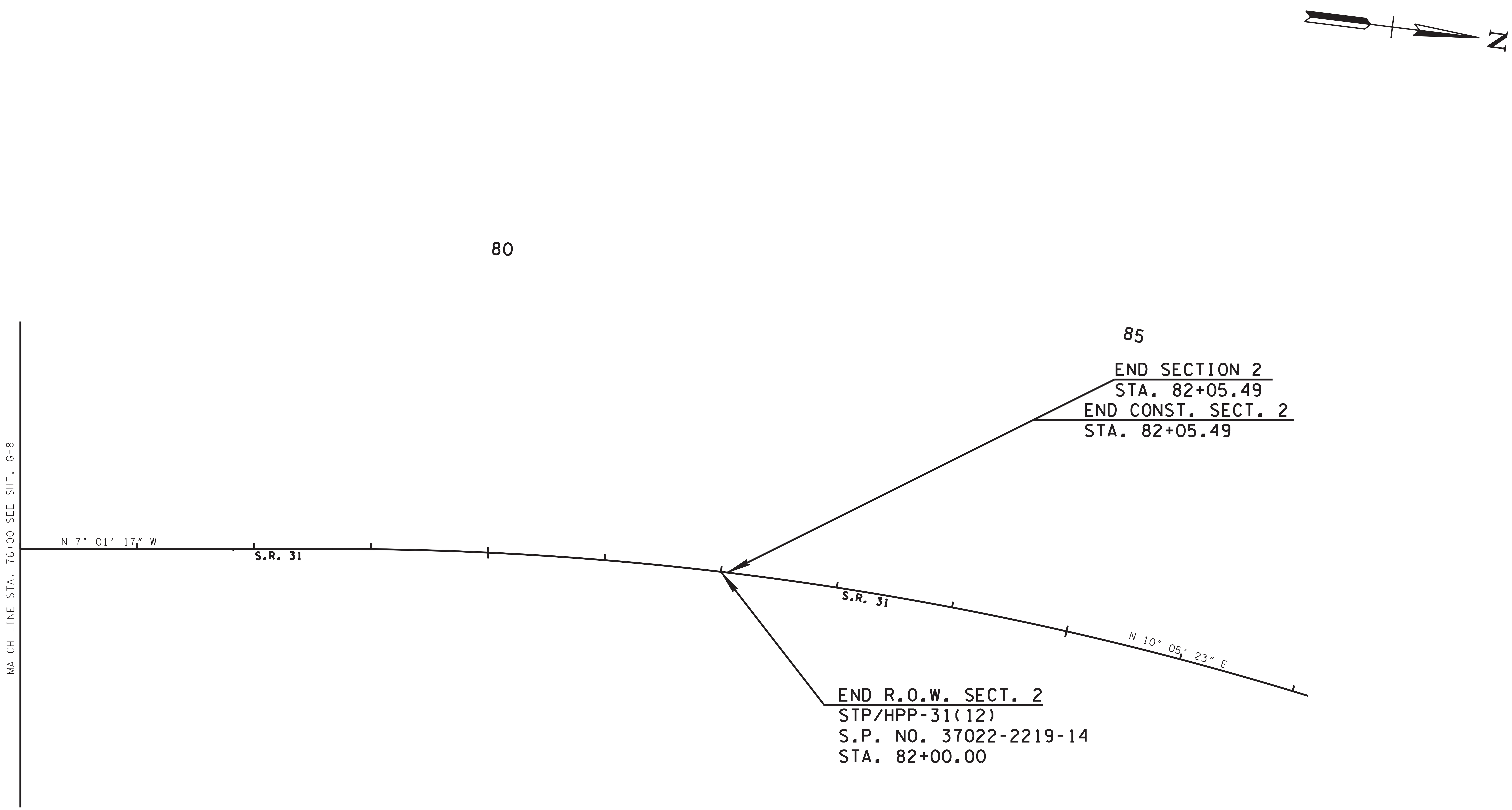
GEOTECHNICAL BORING PROFILE

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	G-10



NO BORINGS PRESENT

SEALED BY

LORI ANN FIORENTINO
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
STATE OF TENNESSEE

Lori Ann Fiorentino

03/11/2026

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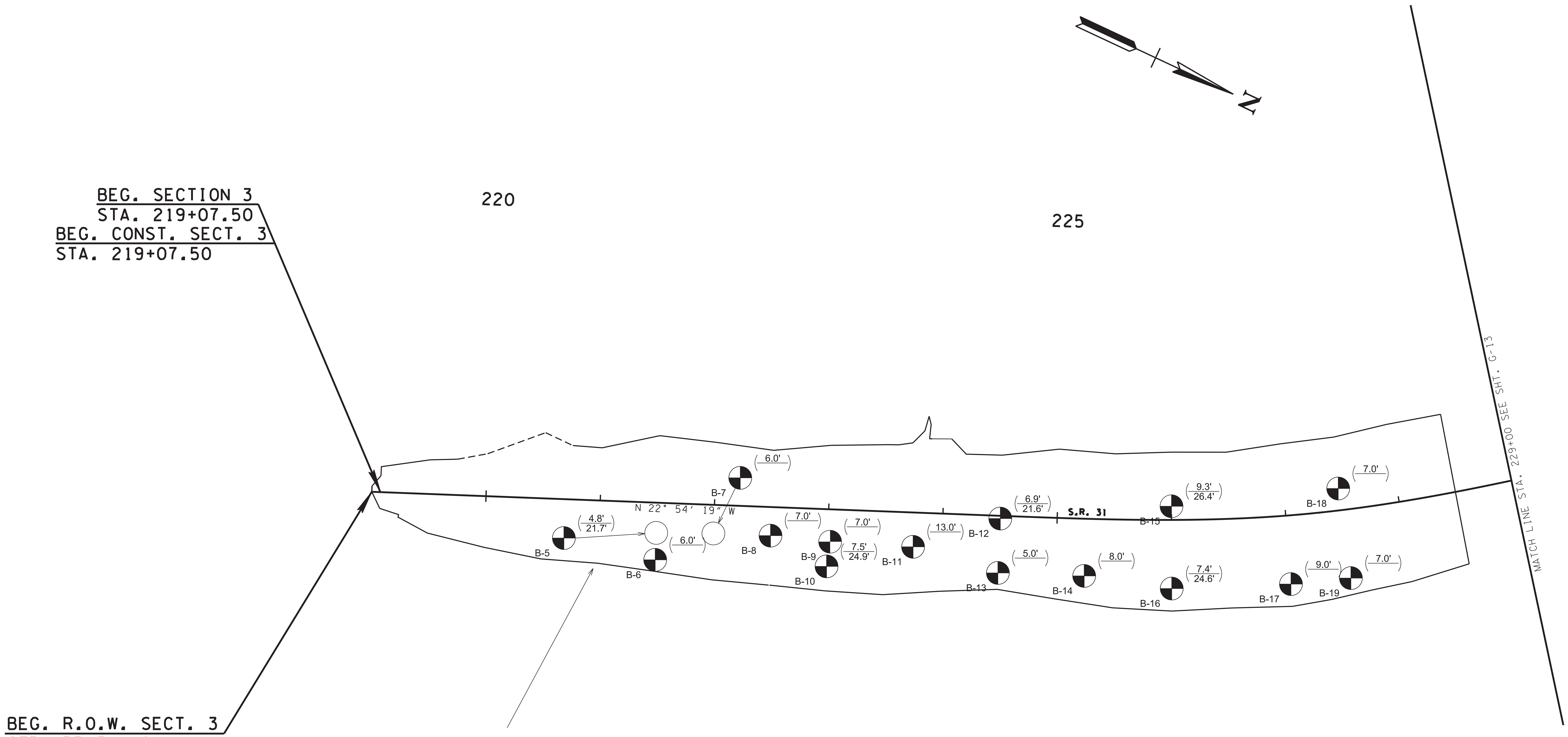
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL
BORING
LAYOUT

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	G-11



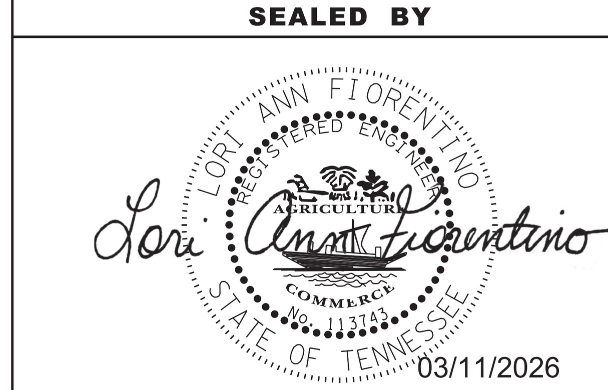
NOTE:
ABA ANALYSIS IN ACCORDANCE WITH SPECIAL PROVISION 107L IS REQUIRED BEFORE EXCAVATING MATERIAL LEFT AND RIGHT OF THE CENTERLINE BETWEEN 219+00 AND 228+50. MATERIAL DETERMINED TO BE APM OR PAPM SHALL BE DISPOSED IN A LANDFILL APPROVED IN ADVANCE BY THE TDOT ENVIRONMENTAL DIVISION

LEGEND

B-1 (24.5' / 70.3') — BORING LOCATION. DEPTH TO REFUSAL (ABOVE LINE), BOTTOM OF HOLE (BELOW LINE)

B-1 (24.5') — BORING LOCATION WITH DEPTH TO REFUSAL

SEALED BY



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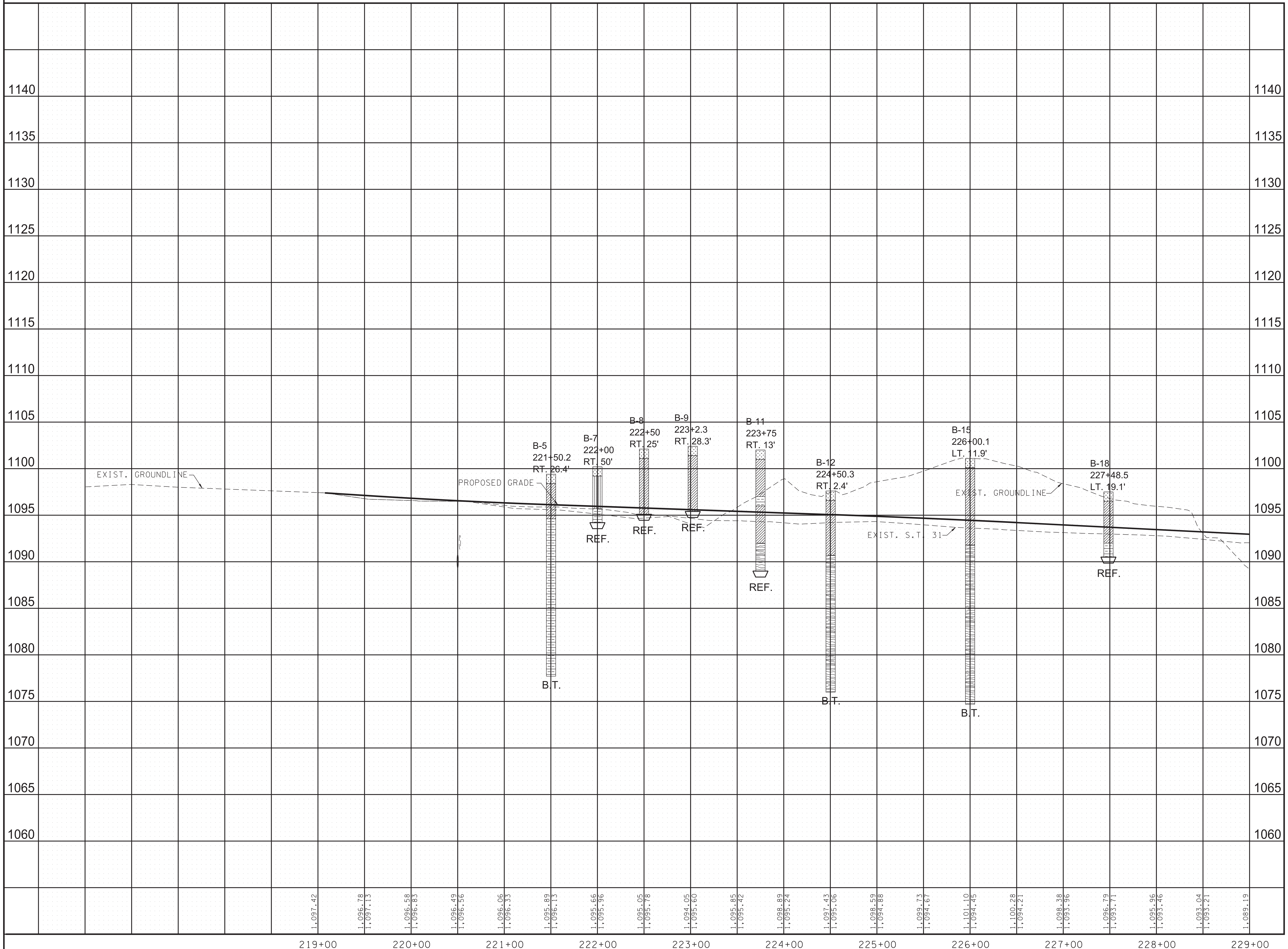
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL
BORING
LAYOUT

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	G-12



LEGEND

- TOPSOIL
- CLAY (TYPE A MATERIAL)
- SILT (TYPE A MATERIAL)
- SANDSTONE (TYPE B MATERIAL)
- SHALE (TYPE B MATERIAL)

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

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Lori Ann Fiorentino
LORI ANN FIORENTINO
STATE OF TENNESSEE
AGRICULTURE
COMMERCE
03/11/2026

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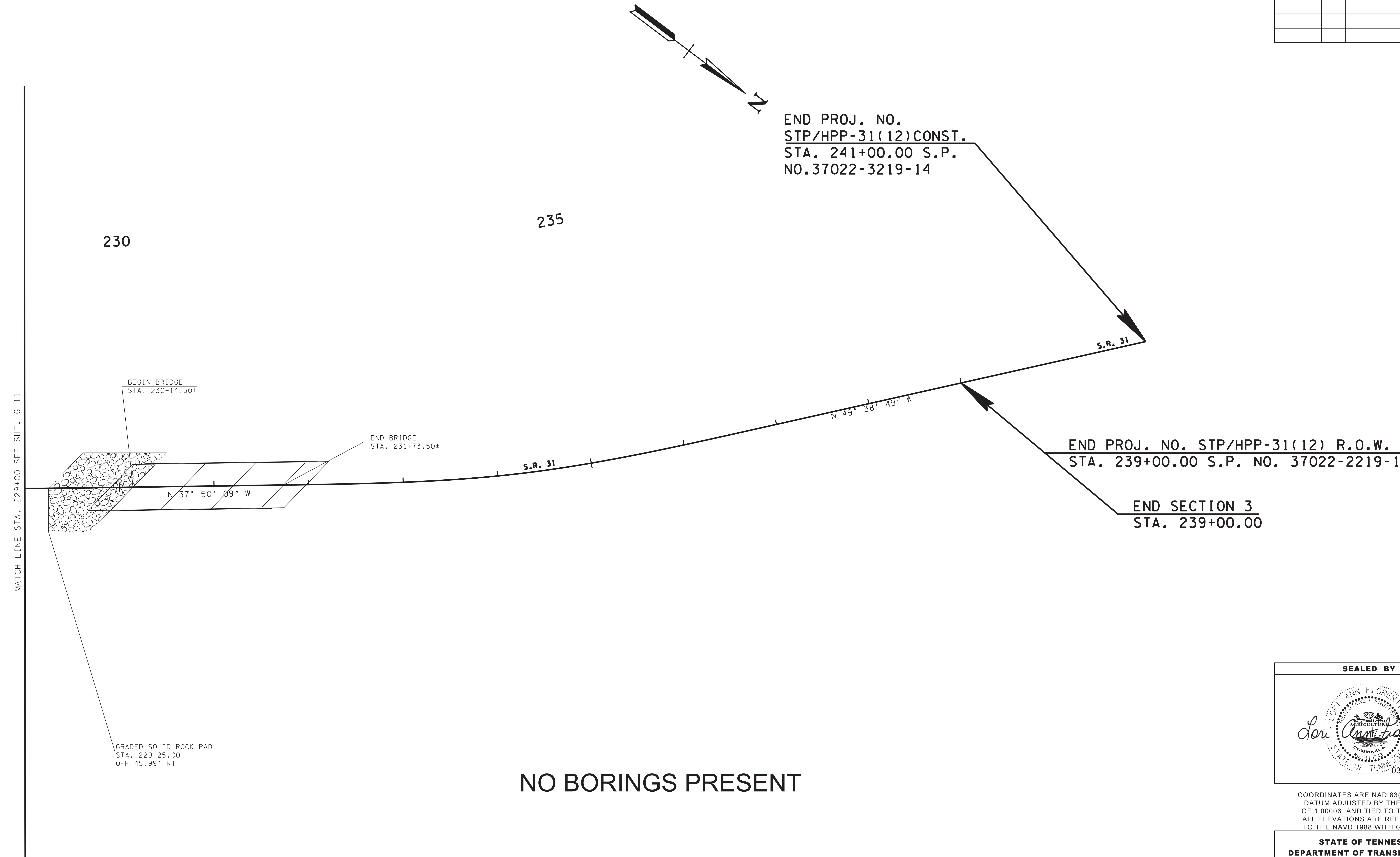
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL BORING PROFILE

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	G-13



NO BORINGS PRESENT

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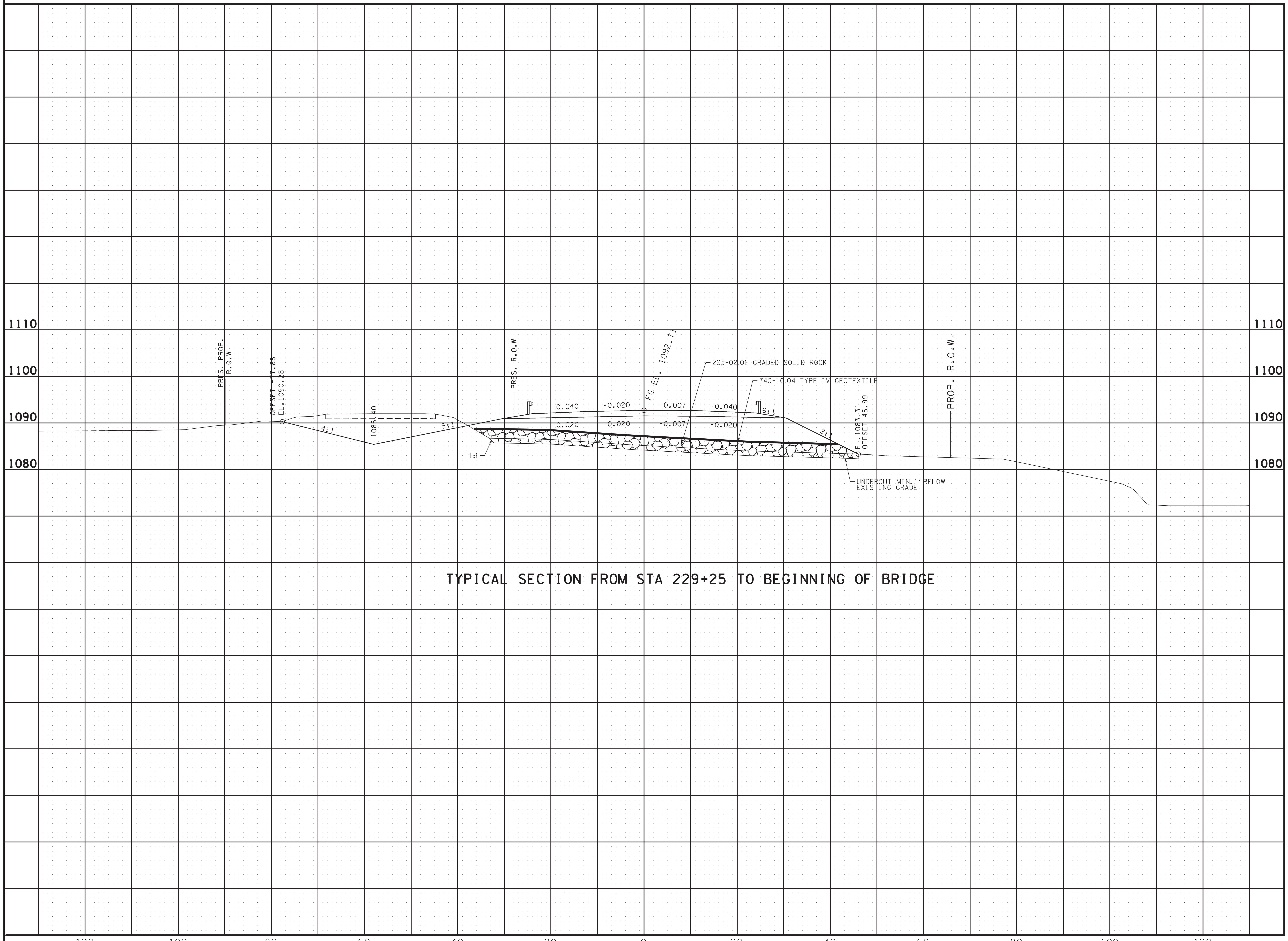
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL BORING LAYOUT

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	G-14



TYPICAL SECTION FROM STA 229+25 TO BEGINNING OF BRIDGE

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Lori Ann Fiorentino

LORI ANN FIORENTINO
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
STATE OF TENNESSEE

03/11/2026

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL
TYPICAL SECTIONS

THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

JACOB D BRASHEAR

Digitally signed by JACOB D BRASHEAR
Date: 2026.02.24 12:14:35 -05'00'

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TENNESSEE DEPARTMENT OF TRANSPORTATION
7345 REGION LANE
KNOXVILLE, TN 37914
JACOB BRASHEAR, P.E. NO. 122645

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

YEAR	PROJECT NO.	SHEET NO.
2026	STP/HPP-31(12)	SIGNAL-SIGN-1

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNATURE SHEET

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	SIG-1

SIGNAL INDEX

SHEET NAME	SHEET NO.
SIGNATURE SHEET	SIGNAL-SIGN-1
SIGNAL INDEX AND SPECIAL NOTES	SIG-1
ESTIMATED SIGNAL QUANTITIES	SIG-1A
SIGNAL LAYOUT	SIG-2 – SIG-3
SIGNAL DETAILS	SIG-3A

SPECIAL NOTES

SIGNAL HEADS

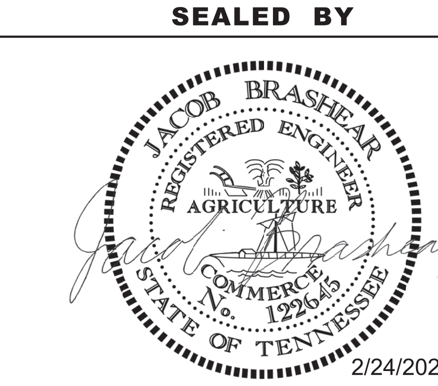
(1) ALL CIRCULAR AND ARROW INDICATIONS WITHIN ALL VEHICULAR SIGNAL HEADS PROPOSED FOR THIS PROJECT SHALL CONSIST OF AN LED (LIGHT EMITTING DIODE) SIGNAL MODULE UNLESS OTHERWISE NOTED IN THE PLANS.

(2) CIRCULAR INDICATIONS SHALL MEET “ITE VTCSH-LED CIRCULAR SIGNAL SUPPLEMENT” FOR EXPANDED/EXTENDED VIEW. ARROW INDICATIONS SHALL MEET “ITE VTCSH-3 LED ARROW SPECIFICATION” FOR EXPANDED/EXTENDED VIEW.

(3) INCANDESCENT OR SCREW-IN MODULES ARE NOT ACCEPTABLE.

(4) MANUFACTURER SHALL PROVIDE A MINIMUM FIVE-YEAR WARRANTY FOR OPERATION OF THE UNIT.

SEALED BY



2/24/2026

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNAL INDEX
AND
SPECIAL NOTES

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	SIG-1A

ESTIMATED SIGNAL QUANTITIES

	ITEM NO.	DESCRIPTION	UNIT	QUANTITY 37022-3219-14
(1)	730-01.02	REMOVAL OF SIGNAL EQUIPMENT	EACH	2
(2)	730-05.01	ELECTRICAL SERVICE CONNECTION	EACH	2
	730-15.33	CABINET (FLASHER)	EACH	2
	730-16.05	CONTROLLER (FLASHER)	EACH	2
(3)	730-23.29	PEDESTAL POLE (TYPE B)	EACH	2
(4)	730-50.31	SCHOOL SPEED LIMIT FLASHING ASSEMBLY (HARD-WIRED)	EACH	2

FOOTNOTES

(1) INCLUDES REMOVAL OF ALL SCHOOL SPEED LIMIT FLASHING BEACON SIGNS, CABLES, HARDWARE, AND ANY OTHER SIGNAL RELATED EQUIPMENT ALONG THE WEST AND EAST SIDE OF MOORESBURG ELEMENTARY SCHOOL.

(2) THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE LOCAL UTILITY TO OBTAIN THE ESTIMATE FOR ANY CHARGES BY THE UTILITY FOR PROVIDING ELECTRICAL SERVICE TO THE SIGNAL CONTROLLER. THESE CHARGES AND ANY OTHER EQUIPMENT NECESSARY FOR A COMPLETE SERVICE CONNECTION SHALL BE INCLUDED IN THE BID PRICE FOR THIS ITEM FOR PAYMENT BY THE CONTRACTOR.

(3) SEE SPECIAL PROVISION 700SIG FOR POLE DESIGN REQUIREMENTS. BID ITEM SHALL INCLUDE THE COST OF ALL MATERIALS AND LABOR NECESSARY FOR COMPLETE INSTALLATION OF THE POLE FOUNDATION. SELECT THE APPROPRIATE FOUNDATION DESIGN FROM TDOT STANDARD DESIGN DRAWING, T-SG-10.

(4) COST OF ASSEMBLY SHALL INCLUDE THE SCHOOL SPEED LIMIT FLASHING BEACON SIGN, SIGNAL CABLE, MOUNTING HARDWARE, AND ANY RELATED EQUIPMENT FOR FULL OPERATION OF ASSEMBLY.

SEALED BY

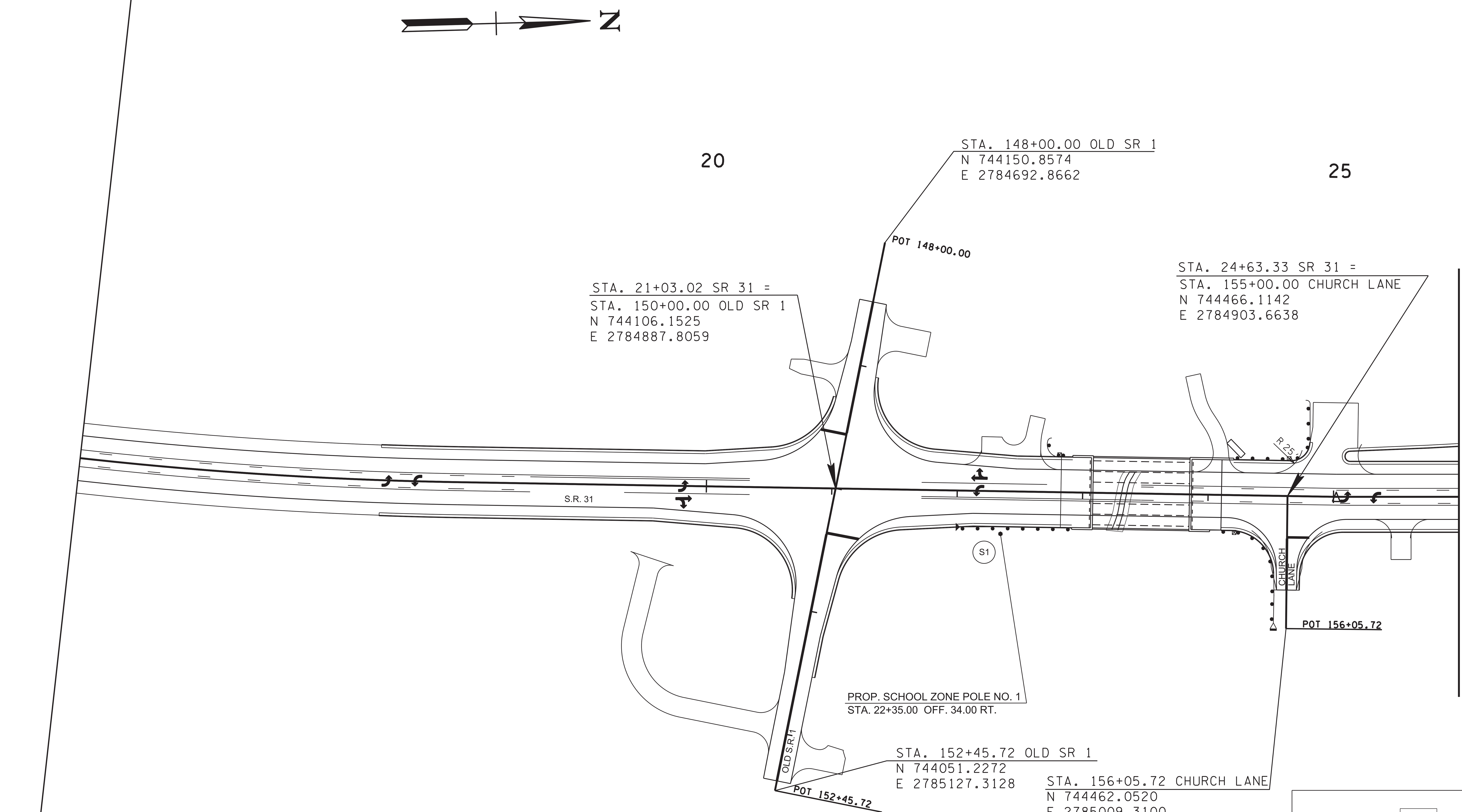
JACOB BRASHEAR
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 122645
STATE OF TENNESSEE

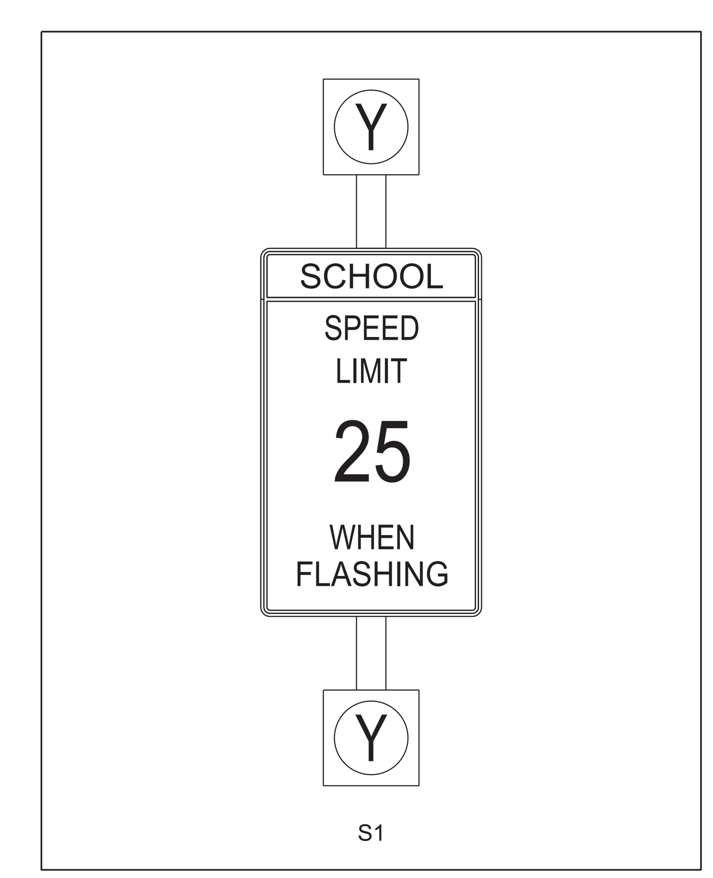
2/24/2026

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ESTIMATED
SIGNAL
QUANTITIES

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	SIG-2





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REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 122645
STATE OF TENNESSEE
2/24/2026

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNAL LAYOUT

STA 15+00 TO STA. 26+00

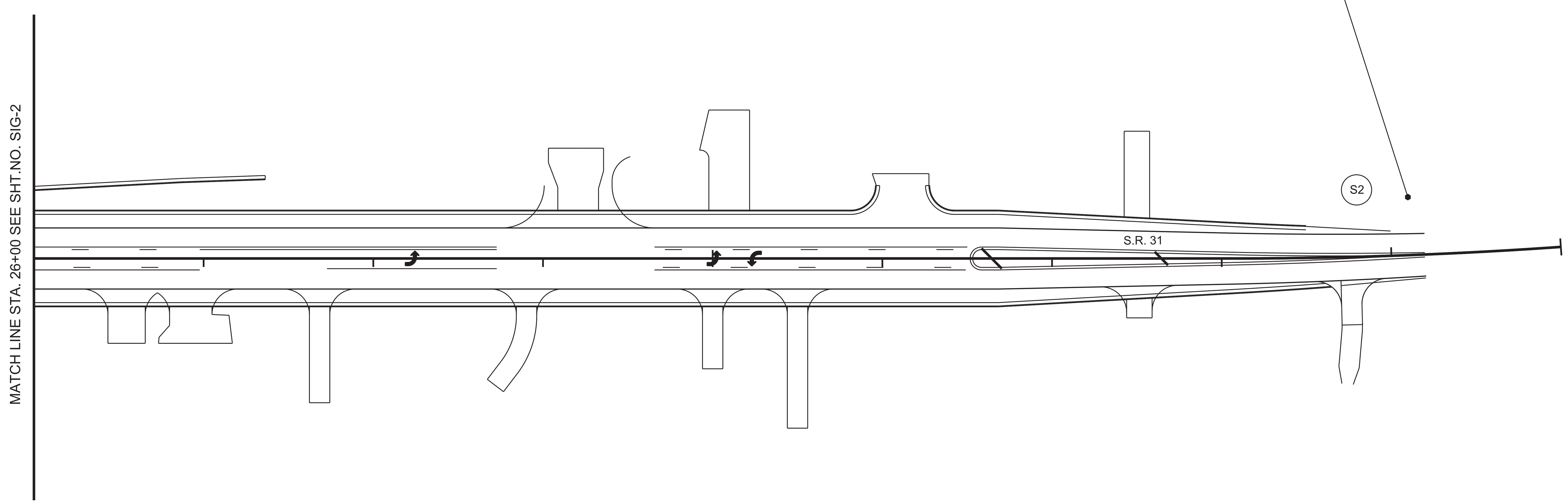
SCALE: 1"=50'

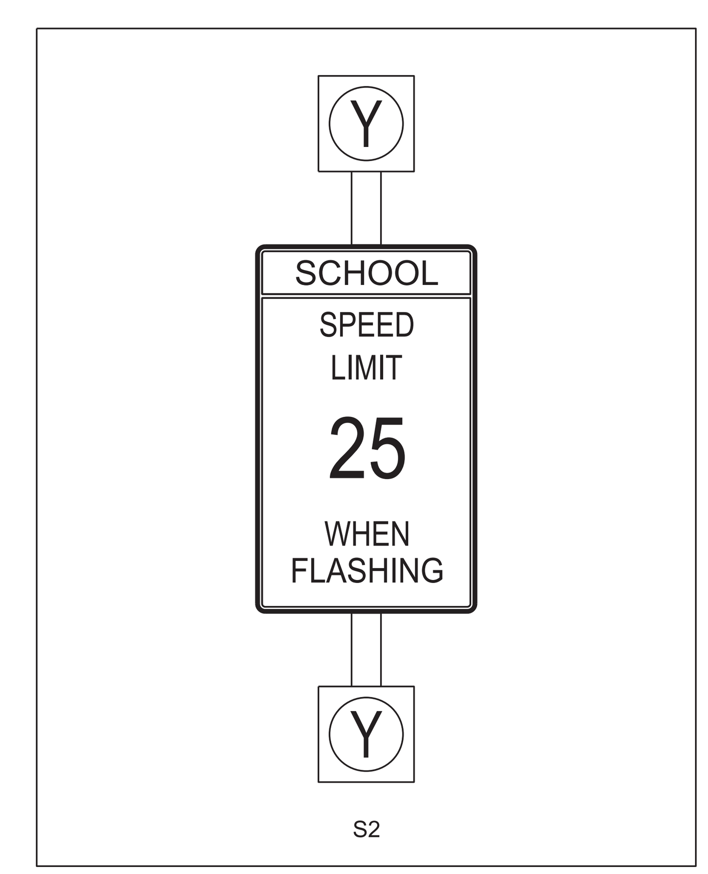
NOTE: SEE SIGNING AND PAVEMENT MARKING SHEETS AND SIGN SCHEDULE SHEETS FOR END SCHOOL ZONE SIGN DETAILS.

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	SIG-3

N

30





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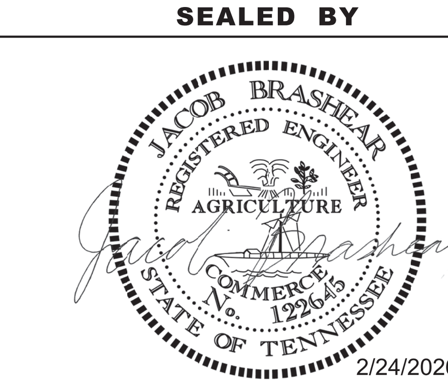

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNAL LAYOUT

STA. 26+00 TO STA. 35+00

SCALE: 1"=50'

NOTE: SEE SIGNING AND PAVEMENT MARKING SHEETS AND SIGN SCHEDULE SHEETS FOR END SCHOOL ZONE SIGN DETAILS.

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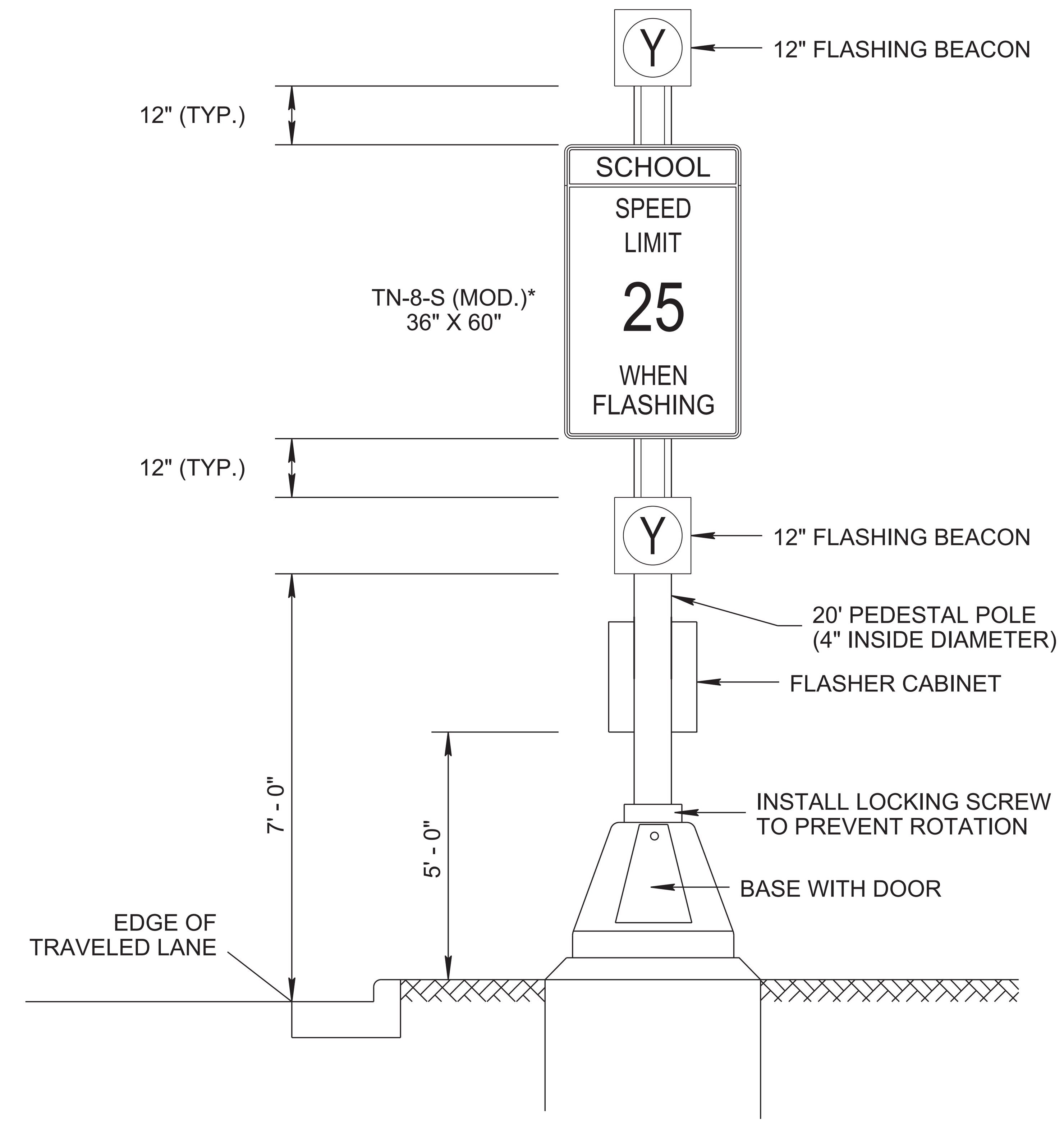

*THE COST OF ASSEMBLY SHALL INCLUDE THE SCHOOL SPEED LIMIT FLASHING BEACON SIGN, SIGNAL CABLE, AND MOUNTING HARDWARE. COSTS INCLUDED IN ITEMS BELOW.

730-23.29 PEDESTAL POLE (TYPE B)
730-50.31 SCHOOL SPEED LIMIT FLASHING ASSEMBLY (HARD-WIRED)

SIGNAL SUPPORT POLE DATA AND SPAN DETAILS							
POLE NO.	STATION	OFFSET	NORTHING	EASTING	S		GROUND EL. @ POLE
S1	22+35.00	34.00' RT	744236.5063	2784927.5815	0.0'		1087.02'
S2	34+11.00	34.20' LT	745413.0669	2784893.9928	0.0'		1108.46'

MOORESBURG ELEMENTARY SCHOOL

SEALED BY

JACOB BRASHEAR REGISTERED ENGINEER AGRICULTURE COMMERCE No. 122645 STATE OF TENNESSEE

2/24/2026

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNAL DETAILS

NOT TO SCALE

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TYPE	YEAR	PROJECT NO.	SHEET NO.
P.D.	2000	37022-1209-04	
PS&E	2026	STP-/HPP-31(12)	S-1

SWPPP INDEX OF SHEETS

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): 20.698 ACRES

2.3. TOTAL AREA TO BE DISTURBED (5.5.1.b): 19.905 ACRES

2.4. PROJECT DESCRIPTION (5.5.1.a):

TITLE: State Route 31 from Mooresburg to Adams Lane (EPD) (IA)(TMA)
COUNTY: Hawkins
PIN: 101394.00

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) 39-39G , DRAINAGE MAP SHEET(S) 20-29, 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: NA

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 (section 1)			
PRIMARY SOIL NAME	HSG	% OF SITE	ERODIBILITY (k value)
DeC	B	0.7	.37
EtB	B	9.0	.37
LaB	C	47.5	.43
MnD	D	32	.24
SkC2	C	1.6	.43
Ss	B	6.9	.32
TbC2	C	0.8	.43
TrD	C	1.4	.43
SOIL PROPERTIES (section 2)			
Ha	C	15.2	.37
MnD	D	33.5	.24
RtE	D	27.5	NA
SkC2	C	23.8	.43
SOIL PROPERTIES (section 3)			
BoF	A	0.0	.17
JeC	A	52.5	.32
JeD	A	12.6	.32
Se	B	1.8	.32
Sn	C	12.0	.37
Ta	C/D	21.0	.37

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).

3. RUNOFF COEFFICIENTS FOR EXISTING CONDITIONS (section 1)				
AREA TYPE	AREA(AC)	PERCENTAGE OF TOTAL AREA (%)	RUNOFF CN	C FACTOR
IMPERVIOUS	2.984	33.46	98	0.9
PERVIOUS	5.935	66.54	39	0.1
TOTAL	8.919	100	NA	NA
WEIGHTED CURVE NUMBER OR C-FACTOR =			59	0.4

RUNOFF COEFFICIENTS FOR POST-CONSTRUCTION CONDITIONS (section 1)				
AREA TYPE	AREA(AC)	PERCENTAGE OF TOTAL AREA (%)	RUNOFF CN	C FACTOR
IMPERVIOUS	3.71	41.60	98	0.9
PERVIOUS	5.209	58.40	39	0.1
TOTAL	8.919	100	NA	NA
WEIGHTED CURVE NUMBER OR C-FACTOR =			64	0.4

RUNOFF COEFFICIENTS FOR EXISTING CONDITIONS (section 2)				
AREA TYPE	AREA(AC)	PERCENTAGE OF TOTAL AREA (%)	RUNOFF CN	C FACTOR
IMPERVIOUS	1.129	27.12	98	0.9
PERVIOUS	3.034	72.88	39	0.1
TOTAL	4.163	100	NA	NA
WEIGHTED CURVE NUMBER OR C-FACTOR =			55	0.3

RUNOFF COEFFICIENTS FOR POST-CONSTRUCTION CONDITIONS (section 2)				
AREA TYPE	AREA(AC)	PERCENTAGE OF TOTAL AREA (%)	RUNOFF CN	C FACTOR
IMPERVIOUS	1.399	33.61	98	0.9
PERVIOUS	2.764	66.39	39	0.1
TOTAL	4.163	100	NA	NA
WEIGHTED CURVE NUMBER OR C-FACTOR =			59	0.4

RUNOFF COEFFICIENTS FOR EXISTING CONDITIONS (section 3)				
AREA TYPE	AREA(AC)	PERCENTAGE OF TOTAL AREA (%)	RUNOFF CN	C FACTOR
IMPERVIOUS	1.352	18.87	98	0.9
PERVIOUS	5.811	81.13	39	0.1
TOTAL	7.163	100	NA	NA
WEIGHTED CURVE NUMBER OR C-FACTOR =			50	0.3

RUNOFF COEFFICIENTS FOR POST-CONSTRUCTION CONDITIONS (section 3)				
AREA TYPE	AREA(AC)	PERCENTAGE OF TOTAL AREA (%)	RUNOFF CN	C FACTOR
IMPERVIOUS	1.905	26.60	98	0.9
PERVIOUS	5.258	73.40	39	0.1
TOTAL	7.163	100	NA	NA
WEIGHTED CURVE NUMBER OR C-FACTOR =			55	0.3

4. 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.

4.1. SPECIAL SEQUENCING REQUIREMENTS (SEE SHEETS 32)
4.2. INSTALL STABILIZED CONSTRUCTION EXITS.
4.3. INSTALL PERIMETER PROTECTION WHERE RUNOFF SHEET FLOWS FROM THE SITE.
4.4. 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.
4.5. PERFORM CLEARING AND GRUBBING (NOT MORE THAN TWO WEEKS PRIOR TO GRADING OR EARTH-MOVING. REFER TO THE STABILIZATION PRACTICES BELOW.).
4.6. REMOVE AND STORE TOPSOIL.
4.7. 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).
4.8. INSTALL UTILITIES, STORM SEWERS, CULVERTS AND BRIDGE STRUCTURES.
4.9. INSTALL INLET AND CULVERT PROTECTION ONCE STRUCTURES ARE IN PLACE AND CAPABLE OF INTERCEPTING FLOW.
4.10. PERFORM FINAL GRADING AND INSTALL BASE STONE.
4.11. COMPLETE FINAL PAVING AND SEALING OF CONCRETE.
4.12. INSTALL TRAFFIC CONTROL AND PROTECTION DEVICES.
4.13. COMPLETE PERMANENT STABILIZATION (TOPSOIL, SEEDING, MULCH, EROSION CONTROL BLANKET, SOD, ETC.)
4.14. REMOVE TEMPORARY EROSION CONTROLS AND ACCUMULATED SEDIMENT FROM AREAS THAT HAVE ESTABLISHED AT LEAST 70 PERCENT UNIFORM PERMANENT VEGETATIVE COVER.
4.15. RE-STABILIZE AREAS DISTURBED BY REMOVAL ACTIVITIES.

5. STREAM, OUTFALL, WETLAND, TMDL AND ECOLOGY INFORMATION

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

5.1.1. 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.

5.1.2. 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)

5.1.3. 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	STR-2, Mooresburg Branch	NO	NO	YES	YES
STR-2	Cherokee Lake	NO	NO	YES	YES
STR-3	Cherokee Lake	NO	NO	YES	YES
STR-4	STR-3	NO	NO	NO	YES
STR-5	Cherokee Lake	YES	NO	YES	YES
STR-6	STR-5, Poor Valley Creek	NO	NO	YES	YES
STR-7	STR-5, Poor Valley Creek	NO	NO	NO	YES

5.1.4. 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)

5.1.5. 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) NA.

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.

5.1.6. ARE THERE ANY WATER QUALITY RIPARIAN BUFFER ZONES NOT REQUIRED FOR STATE WATERS DUE TO A TDEC ARAP? (1.5.2.)

☒ YES ☐ NO

5.1.7. ARE THERE WATER QUALITY RIPARIAN BUFFER ZONE EXEMPTIONS? (4.1.2.1.) ☒ YES ☐ NO

IF YES, EXISTING CONDITIONS DESCRIPTION: existing land use and ARAP

5.1.8. 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.)

5.1.9. 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.

5.1.10. 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.

5.2. OUTFALL INFORMATION

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

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

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

5.2.4. 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

5.2.5. ARE EQUIVALENT MEASURES BEING SUBSTITUTED FOR A SEDIMENT BASIN(S) OR SEDIMENT TRAP(S)? (5.5.3.5.)

☒ YES ☐ NO ☐ N/A

5.2.6. 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.)

5.2.7. 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.

5.2.8. 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.)

5.3. 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)
WTL-1	NA	NA	NA	NA
WTL-2	STA 237+40 LT	STA 238 +75 LT	0.023	0.003
WTL-3	STA 220+50 RT	STA 221+88 RT	0.008	0.01
WTL-4	NA	NA	NA	NA

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

5.4.1. IS THIS PROJECT LOCATED IN A HUC-8 WATERSHED THAT MAINTAINS AN EPA APPROVED TMDL FOR SILTATION AND HABITAT ALTERATION?

☐YES ☒ NO

5.4.2. IF YES, IS THIS PROJECT LOCATED WITHIN A HUC-12 SUBWATERSHED WITH A WASTE LOAD ALLOCATION (WLA)?

☐ YES ☒ NO

5.4.3. 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.

5.5. 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) NA.

5.6. ENVIRONMENTAL COMMITMENTS

ARE THERE ANY NOTES ON THE ENVIRONMENTAL COMMITMENT SHEET?

☒ YES ☐ NO

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

6. EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) MEASURES (5.5.3.)

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

6.2. 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)

6.3. HAVE THE CONTROL MEASURES BEEN DESIGNED PER THE SIZE AND SLOPE OF THE DISTURBED DRAINAGE AREA (5.5.3.5.)?

☐YES ☒ NO

6.4. THE CONTROL MEASURES HAVE, AT A MINIMUM, BEEN DESIGNED FOR THE 5-YEAR, 24 HOUR STORM EVENT (5.5.3.5., 6.4.1.b).

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

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

6.7. 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.

6.8. 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.

6.9. 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.

6.10. 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

6.11. 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 S-7. ALL PERMITS WILL BE MAINTAINED ON SITE WITHIN THE "DOCUMENTATION AND PERMITS" BINDER.

6.12. THE EPSC CONTROL MEASURES LISTED IN THE QUANTITIES TABLE ON SHEET 32 HAVE BEEN SELECTED IN ACCORDANCE WITH TDOT STANDARD DRAWINGS AND GOOD ENGINEERING PRACTICES (5.1., 5.5.3.1.b, 5.5.3.5.).

6.13. EPSC MEASURES SHALL BE INSTALLED PER TDOT STANDARDS (i.e. STANDARD DRAWINGS) AND SHALL BE FUNCTIONAL PRIOR TO ANY EARTH MOVING OPERATIONS.

6.14. EPSC MEASURES WILL NOT BE INSTALLED WITHIN A STREAM WITHOUT FIRST OBTAINING APPROVAL FROM THE PERMITS SECTION.

6.15. 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.

6.16. EPSC MEASURES LOCATED IN WOTUS (EPHEMERAL STREAMS) MUST BE CONSIDERED TEMPORARY AND SHALL BE REMOVED AT THE END OF CONSTRUCTION.

6.17. 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.

6.18. 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.

6.19. THE QUANTITIES REQUIRED FOR STABILIZED CONSTRUCTION EXITS PER TDOT STANDARDS HAVE BEEN SPECIFIED ON SHEET 32 (5.5.3.1.j).

6.20. 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.).

6.21. 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.

6.22. 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.).

6.23. 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.

6.24. 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.

6.25. 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.

6.26. 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).

6.27. 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.).

6.28. 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

6.29. DELAYING THE PLANTING OF COVER VEGETATION UNTIL WINTER MONTHS OR DRY MONTHS SHOULD BE AVOIDED, IF POSSIBLE.

6.30. 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.).

7. 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:

7.1. ENSURE THE FLOCCULANT EMULSIONS AND POWDERS ARE OF THE ANIONIC TYPE (5.5.3.5.). AND MEET THE FOLLOWING REQUIREMENTS:

7.1.1. MEETS THE EPA AND FDA ACRYLAMIDE MONOMER LIMITS OF EQUAL TO OR GREATER THAN 0.005% ACRYLAMIDE MONOMER.

7.1.2. HAS A DENSITY OF 10% TO 55% BY WEIGHT AND A MOLECULAR WEIGHT OF 16 TO 24 MG/MOLE (MILLIGRAM PER MOLE).

7.1.3. MIXTURE IS NON-COMBUSTIBLE.

7.1.4. CONTAINS ONLY MANUFACTURER'S RECOMMENDED ADDITIVES.

7.2. 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.

7.3. 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.

7.4. 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.

7.5. 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.

7.6. FLOCCULANT POWDER MAY BE APPLIED BY A HAND OR MECHANICAL SPREADER. MIXING OF THE FLOCCULANT POWDER WITH DRY SILICA SAND WILL AID IN SPREADING.

7.7. 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.

7.8. 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.

7.9. 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.

8. UTILITY RELOCATION

ARE UTILITIES INCLUDED IN THE CONTRACT? ☒ YES ☐ NO

IF YES, THE FOLLOWING APPLY:

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

8.2. SILT FENCE SHALL BE INSTALLED ON THE DOWNGRADIENT 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.

8.3. 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.

8.4. 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.

8.5. 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.

8.6. 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.

8.7. 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.

8.8. 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.

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

8.10. 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.

8.11. FOR UTILITY CROSSINGS THAT UTILIZE HORIZONTAL DIRECTIONAL DRILLING THE FOLLOWING SHALL APPLY:

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

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

8.11.3. 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.

9. MAINTENANCE AND INSPECTION

9.1. INSPECTION PRACTICES (5.5.3.9.)

9.1.1. 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.):

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

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

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

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

9.1.1.5. SUCCESSFULLY COMPLETED TDEC "LEVEL II – DESIGN PRINCIPLES FOR EROSION PREVENTION AND SEDIMENT CONTROL FOR CONSTRUCTION SITES" COURSE AND ANY RECERTIFICATION COURSE AS REQUIRED.

9.1.2. 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.

9.1.3. 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).

9.1.4. 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.

9.1.5. 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.

9.1.6. 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.

9.1.7. 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).

9.1.8. 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).

9.1.9. 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").

9.1.10. 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).

9.1.11. 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.

9.1.12. 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.

9.1.13. 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).

9.2. 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.

9.3. MAINTENANCE PRACTICES (5.1 AND 8.13.)

9.3.1. 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)

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

9.3.3. 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).

9.3.4. 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).

9.3.5. 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.

9.3.6. CHECK DAMS WILL BE INSPECTED FOR STABILITY. SEDIMENT WILL BE REMOVED WHEN DEPTH REACHES ONE-HALF (½) THE HEIGHT OF THE DAM.

9.3.7. 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.

9.3.8. 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).

9.3.9. ALL SEEDED AREAS WILL BE CHECKED FOR BARE SPOTS, EROSION WASHOUTS, AND VIGOROUS GROWTH FREE OF SIGNIFICANT WEED INFESTATIONS.

10. 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.

11. STORMWATER MANAGEMENT (5.5.3.11.h)

11.1. 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.

11.2. DESCRIBE ANY SPECIFIC POST-CONSTRUCTION MEASURES THAT WILL CONTROL VELOCITY, POLLUTANTS, AND/OR EROSION (5.5.3.6.c): _____

11.3. 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.

11.4. 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.

11.5. 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.

11.6. 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.

11.7. 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.

12. NON-STORMWATER DISCHARGES (5.5.3.12.)

12.1. 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: _____

12.2. 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.

12.3. 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.

12.4. 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.

12.5. 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: NA

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

13.1. SPILL PREVENTION (5.5.3.7.c)

13.1.1. 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.

13.1.2. 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.

13.1.3. 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.

13.2. MATERIAL MANAGEMENT

13.2.1. 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.

13.2.2. 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.

13.3. PRODUCT SPECIFIC PRACTICES

13.3.1. 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.

13.3.2. 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.

13.3.3. 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.

13.3.4. 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.

13.4. SPILL MANAGEMENT

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

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

13.4.2. 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.

13.4.3. 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.

13.4.4. 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.

13.4.5. 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.

13.4.6. 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.

13.4.7. 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.

13.4.8. 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.

13.5. 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:

13.5.1. 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.

13.5.2. 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.

13.5.3. 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.

13.5.4. 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.

14. <u>RECORD-KEEPING</u>

14.1. 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.):

14.1.1. THE DATES WHEN MAJOR GRADING ACTIVITIES OCCUR.

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

14.1.3. THE DATES WHEN STABILIZATION MEASURES ARE INITIATED.

14.1.4. RECORDS EPSC INSPECTION REPORTS AND CORRECTIVE MEASURES.

14.1.5. RECORDS OF QUALITY ASSURANCE SITE ASSESSMENTS.

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

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

14.2. RAINFALL MONITORING PLAN (7.2.1.):

14.2.1. 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.

14.2.2. 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.

14.2.3. 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.

14.2.4. 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.

14.2.5. 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.

14.2.6. 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.

14.2.7. 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.

14.3. KEEPING PLANS CURRENT (5.4.)

14.3.1. 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.

14.3.2. 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.

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

14.3.3.1. 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;

14.3.3.2. 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;

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

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

14.3.3.5. 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.

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

14.3.3.7. 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.

14.4. MAKING PLANS ACCESSIBLE

14.4.1. 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.).

14.4.2. 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.):

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

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

14.4.2.3. A BRIEF DESCRIPTION OF THE PROJECT; AND

14.4.2.4. THE LOCATION OF THE SWPPP.

14.4.3. ALL INFORMATION DESCRIBED IN SECTION 13.4.2 MUST BE MAINTAINED IN LEGIBLE CONDITION. IF POSTING THIS INFORMATION NEAR A MAIN ENTRANCE IS INFEASIBLE 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.

14.5. NOTICE OF TERMINATION (9.0.)

14.5.1. 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.

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

14.5.2.1. 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

14.5.2.2. 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

14.5.2.3. 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

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

14.5.2.5. 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

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

14.5.2.7. 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.

14.6. 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.

15. <u>SITE WIDE/PRIMARY PERMITTEE CERTIFICATION</u> (<u>8.7.5.</u>)

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.

AUTHORIZED TDOT PERSONNEL SIGNATURE (5.3.3.)

PRINTED NAME

TITLE

DATE

16. <u>SECONDARY PERMITTEE (OPERATOR) CERTIFICATION</u> (<u>8.7.6.</u>)

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

17. <u>ENVIRONMENTAL PERMITS</u> (<u>1.5.2.</u>)

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	YES	NR25.158a NR25.158b NR25.158c	5/2030
CORPS OF ENGINEERS (USACE)	YES	LRN-2000-01322	3/14/2026
TVA 26A	YES	RLR #4038904	N/A
TDEC CGP	YES	NA	NA
OTHER:	NA	NA	NA

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

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
P.E-D	2000	37022-1209-04	
PS&E	2026	STP/HPP-31(12)	S-8

17. OUTFALL TABLE (5.5.1.c, 6.4.1.e, 6.4.1.f)

OUTFALL LABEL	SUB OUT-FALL	STATION CL, LT OR RT	SLOPE WITHIN ROW (%)	STAGE 1 DRAINAGE AREA (AC)	STAGE 2 DRAINAGE AREA (AC)	STAGE 3 DRAINAGE AREA (AC)	SEDIMENT BASIN OR EQUIVALENT MEASURE(S) (YES, NO OR N/A)	SEDIMENT TRAP OR EQUIVALENT MEASURE(S) (YES, NO OR N/A)	RECEIVING RESOURCE (TDOT EBR LABEL) OR OTHER	COMMENTS
1		22+96.06 RT	6.5	15.45	15.45	15.45	YES	NA	STR-2	
2		23+38.63 RT	0.5	2.675	2.675	2.675	NO	NA	STR-2	
3		24+60.54 LT	1.8	1.21	1.21	1.21	YES	NA	STR-2	
4		46+10.25	2.0	1.4	1.4	1.4	YES	NA	STR-2	
5		69.76.54	1.5	7.54	7.54	7.54	YES	NA	STR-4	
6		69.72.90	2.7	4.23	4.23	4.23	YES	NA	STR-3	
7		188+30.00	3.0	0.94	0.94	0.94	YES	NA	STR-3	
8		77+42.26	3.3	4.02	4.02	4.02	YES	NA	STR-4	
9		220+49.17	0.5	4.8	4.8	4.8	YES	NA	WETLAND-3	
10		224+84.60	0.5	0.56	0.56	0.56	YES	NA	WETLAND-3	
11		230+83.04	0.5	1.9	1.9	1.9	YES	NA	STR-5	
12		228+89.43	05	1.36	1.36	1.36	YES	NA	STR-5	
13		231+20.72	1.4	1.35	1.35	1.35	YES	NA	STR-5	
14		23+58.31	1.8	18.8	18.8	18.8	YES	NA	STR-2	
15		236+56.23	1.0	25.78	25.78	25.78	NO	NA	STR-6	Clean water diversion through pipe

ALL UNUSED FIELDS WITHIN THE OUTFALL TABLE ARE TO BE SHADED, HATCHED, OR REMOVED TO INDICATE THEIR NON-USAGE.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

STORMWATER POLLUTION PREVENTION PLAN

TENN.	YEAR	SHEET NO.
	2026	U1-1
STATE PROJ. NO.	37022-3219-14	
FED. PROJ. NO.	STP/HPP-31(12)	

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING

HAWKINS COUNTY

SR-31: FROM MOORESBURG TO ADAMS LANE, LM 0.1 TO 4.35 (EPD) (IA) (TMA)

Index Of Sheets

STANDARD LEGEND

EXISTING UTILITES

POWER	P	POWER POLE	
TELEPHONE	T	TELEPHONE POLE	
WATER	W	POWER/TELEPHONE POLE	
CABLE TV	C	MANHOLE	
SANITARY SEWER	SA	WATER METER	W.M.
UNDERGROUND TELEPHONE	T (UG)	WATER VALVE	W.V.
GAS	G	LIGHT POLE	
FORCE MAIN SEWER	FMS		
UNDERGROUND POWER	P (UG)		
UNDERGROUND FIBER OPTIC	F (UG)		

PROPOSED UTILITIES & MODIFICATIONS

POWER	P	POWER POLE	P
UNDERGROUND POWER	P (UG)	TELEPHONE POLE	T
TELEPHONE	T	WATER METER	W.M.
WATER	W	R	REMOVE
CABLE TV	C	RIP	RETIRE IN PLACE
SANITARY SEWER	SA		
UNDERGROUND TELEPHONE	T (UG)		
GAS	G		
FORCE MAIN SEWER	FMS		
UNDERGROUND FIBER OPTIC	F (UG)		
EX. WATER LINE (RETIRED IN PLACE)	6" W RIP		
EX.GAS LINE (RETIRED IN PLACE)	8" G RIP		
EX.SEWER LINE (RETIRED IN PLACE)	8" FMS RIP		
EX.TELEPHONE LINE (RETIRED IN PLACE)	T(UG) RIP		

UTILITY OWNERS AND CONTACTS:

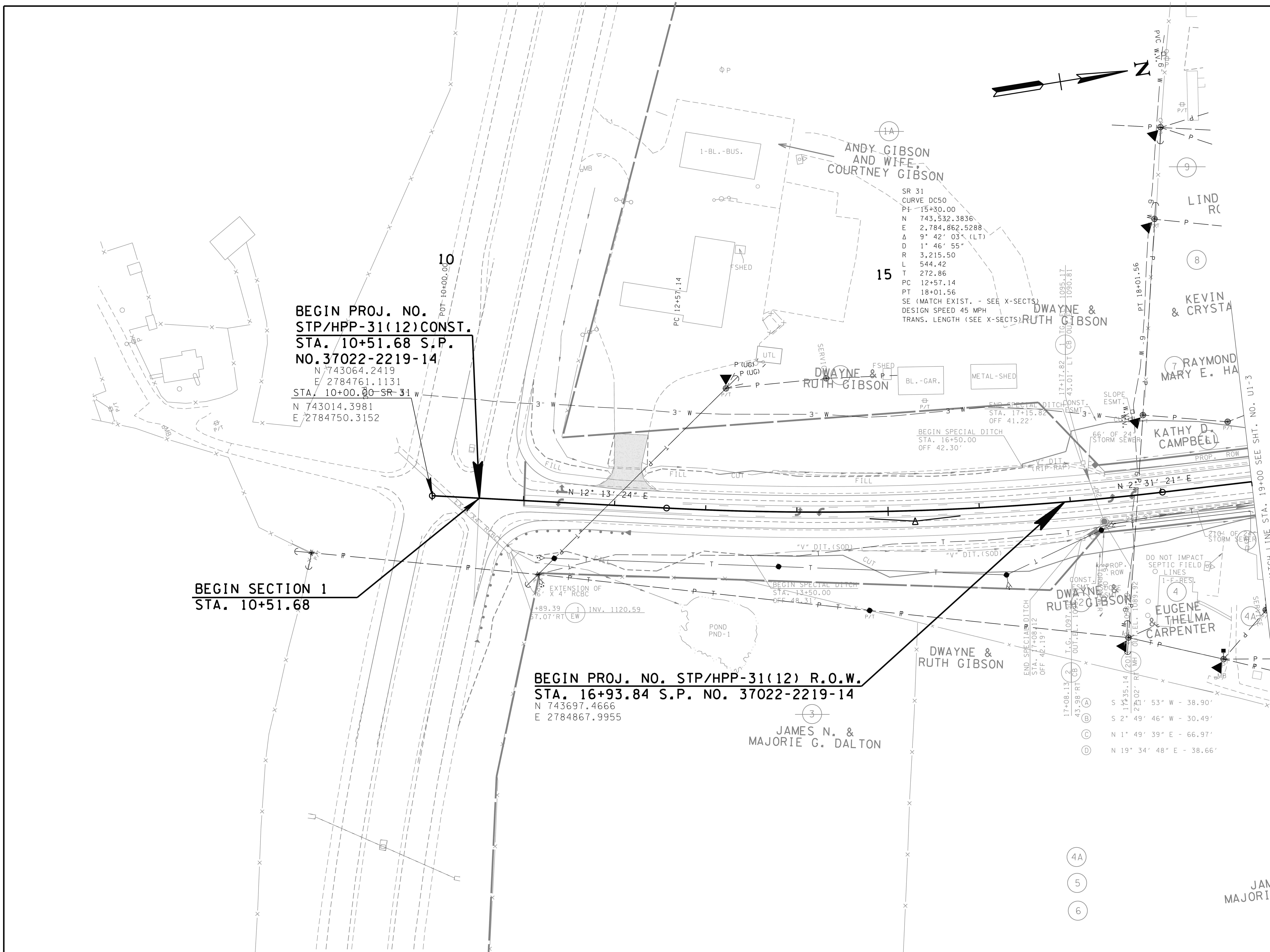
ELECTRIC:	HOLSTON ELECTRIC COOPERATIVE 1200 W MAIN ST ROGERSVILLE, TN 37857 NATHAN FRANKLIN NFRANKLIN@HOLSTONELECTRIC.COM O: 423-272-8821	WATER & SEWER:	MOORESBURG UTILITY DISTRICT P.O. BOX 2 MOORESBURG, TN 37811 EDDIE DOUGLAS DOUGLASEDDIE@GMAIL.COM O: 423-272-9810
FIBER:	HOLSTON CONNECT 1200 W MAIN ST ROGERSVILLE, TN 37857 SAM TRENT STRENT@HOLSTONELECTRIC.COM O: 423-272-1091	TELEPHONE:	CHARTER COMMUNICATION 1774 HENRY G LANE ST MARYVILLE, TN 37801 BILLY CLICK BILLY.CLICK@CHARTER.COM O: 865-388-7524
TELEPHONE:	AT&T 9733 PARKSIDE DRIVE KNOXVILLE, TN 37922 JAY FRAZIER JF092G@ATT.COM O: 825-387-2685		

SPECIAL NOTES

SOME UTILITIES CAN BE LOCATED BY CALLING THE TENNESSEE ONE CALL SYSTEM, INC. AT 1-800-351-1111

NOTE TO CONTRACTORS	UNDERGROUND UTILITIES NOTE	NOTE TO CONTRACTORS
CONTRACTOR TO FOLLOW ALL ADA RULES PERTAINING TO SIDE WALKS.	ALL UNDERGROUND UTILITIES MUST BE DIRECTIONAL BORED UNDER ALL STREAMS IDENTIFIED IN THE PLANS	DIRECTIONAL BORING MUST BE PLACED A MINIMUM OF 50' AWAY FROM STREAM BANKS

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U1-2



COORDINATES ARE NAD 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.000070 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

UTILITY LAYOUT

STA. 10+00 TO STA. 19+00
SCALE: 1"= 50'

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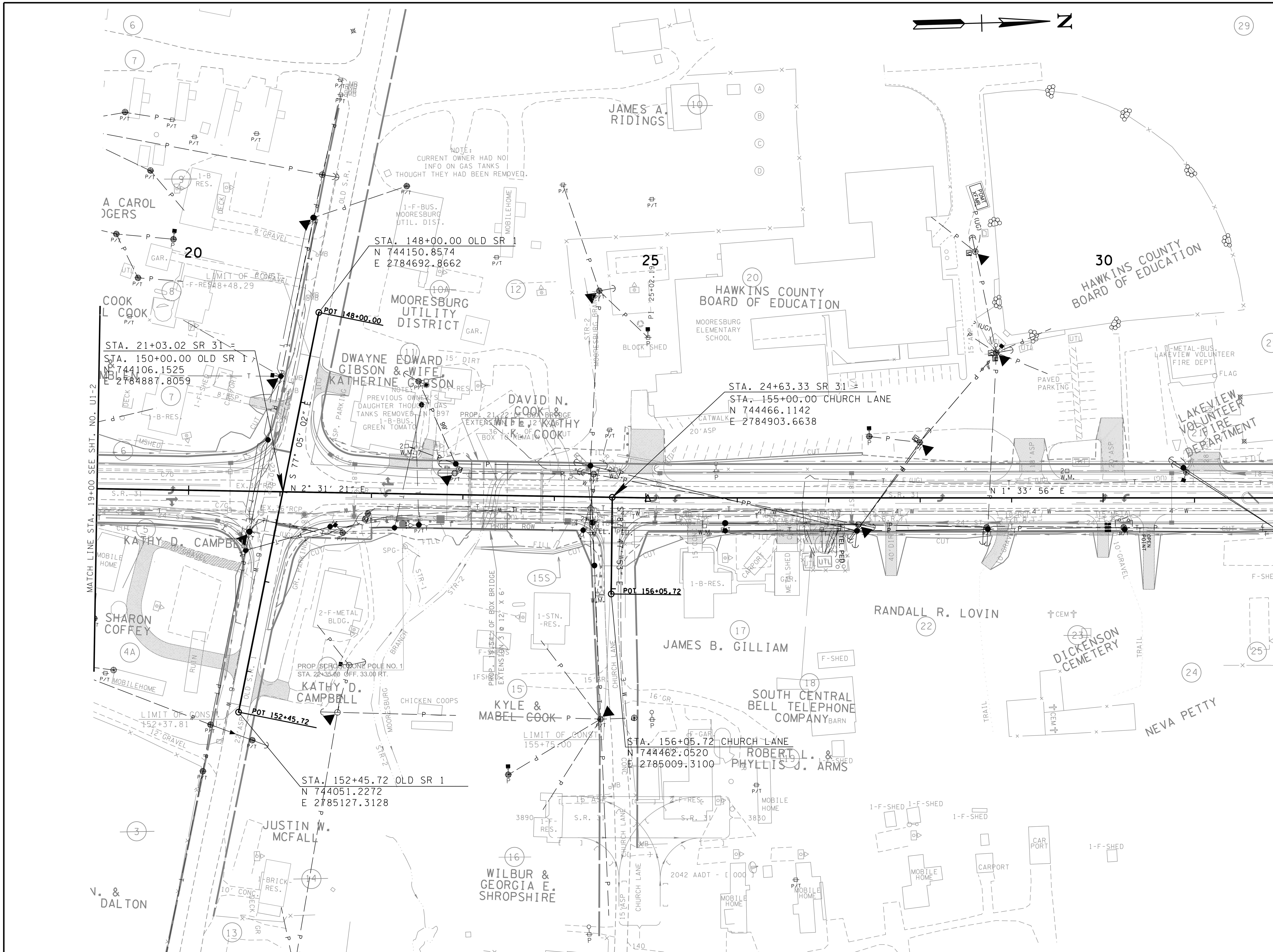
TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U1-3



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

UTILITY LAYOUT

STA. 19+00 TO STA. 32+00
SCALE: 1"= 50'

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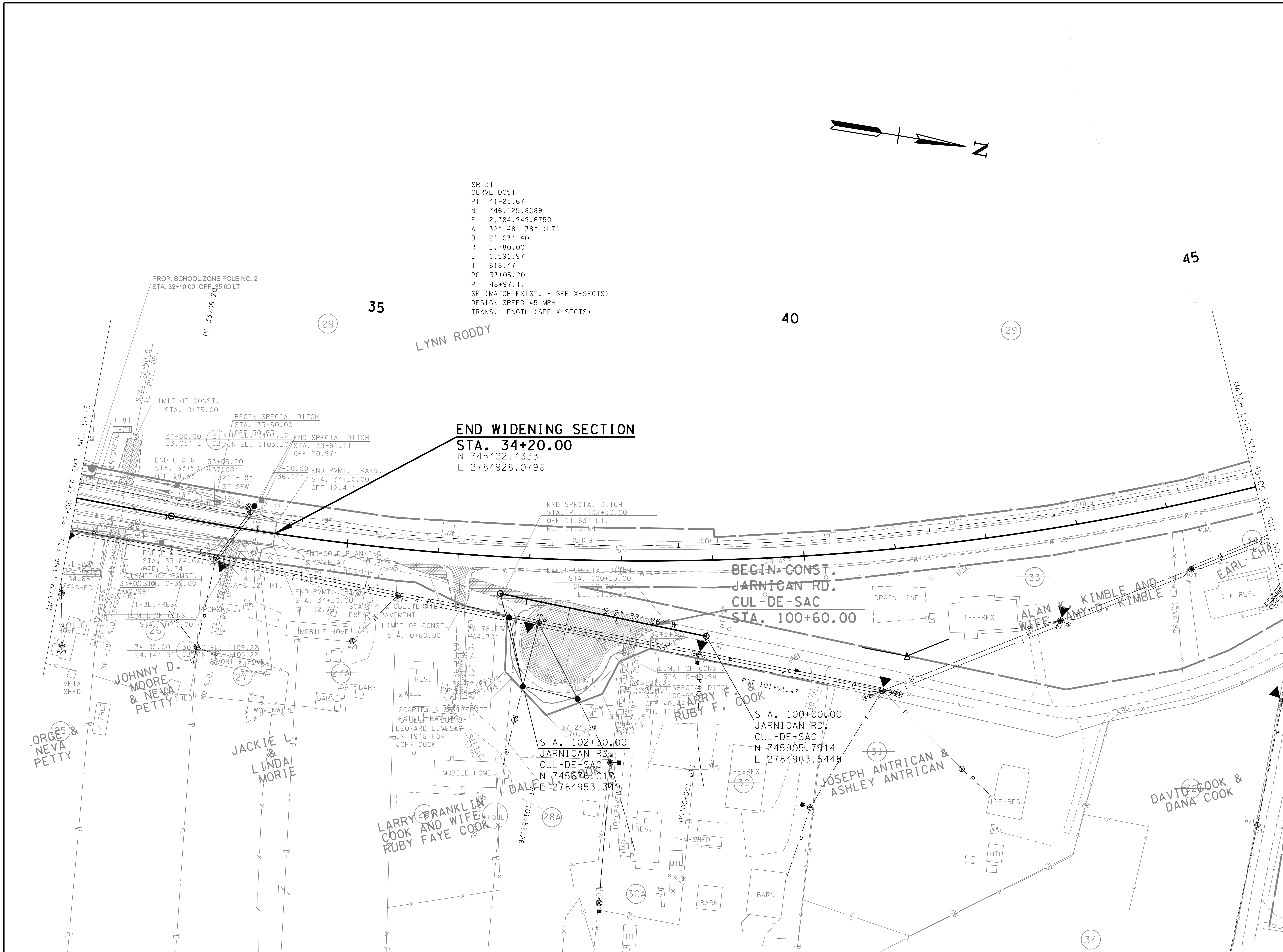
TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U1-4



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

UTILITY LAYOUT

STA. 32+00 TO STA. 45+00
SCALE: 1"= 50'

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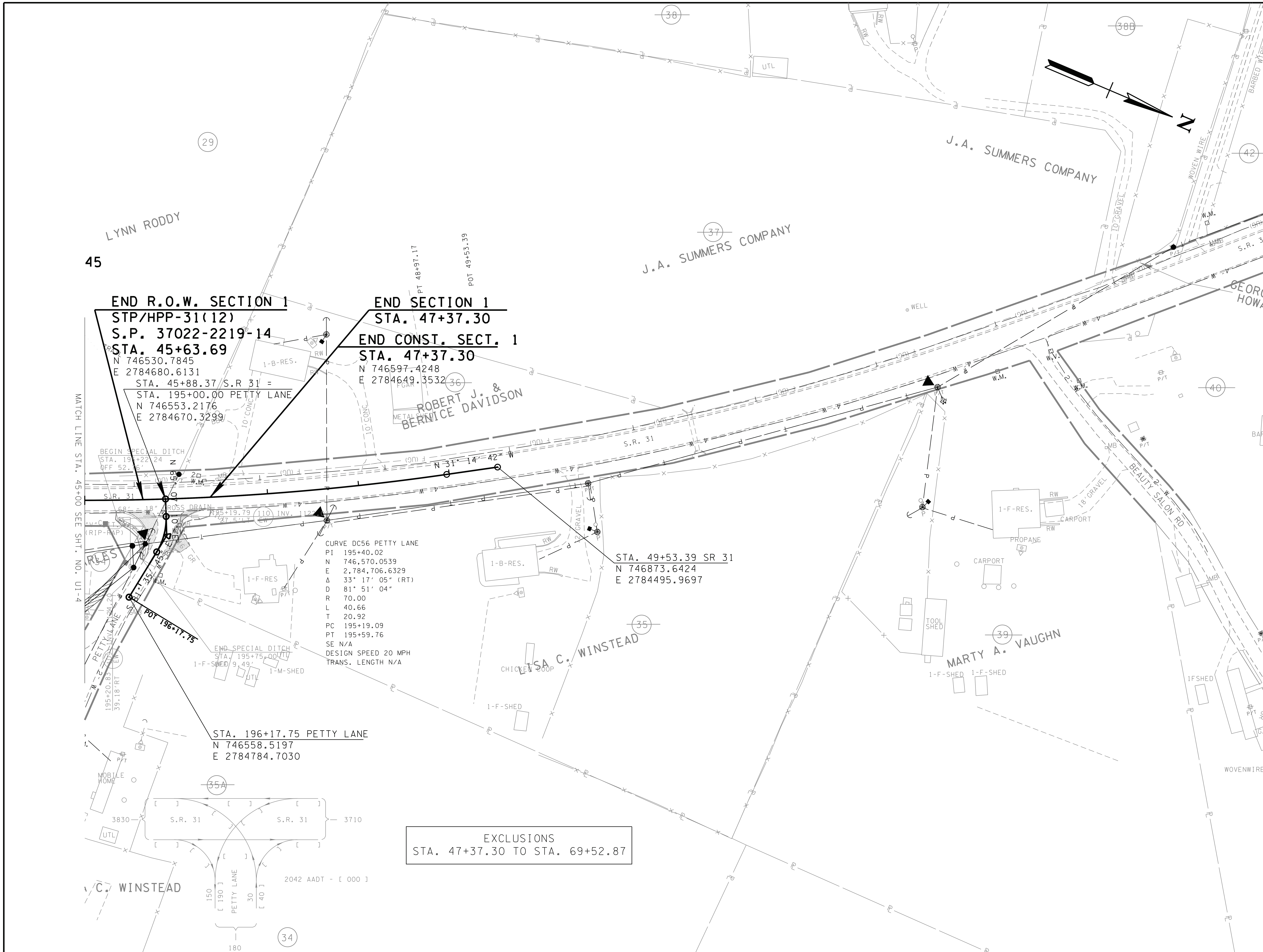
TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U1-5



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

UTILITY LAYOUT

STA. 45+00 TO STA. 49+53
SCALE: 1"= 50'

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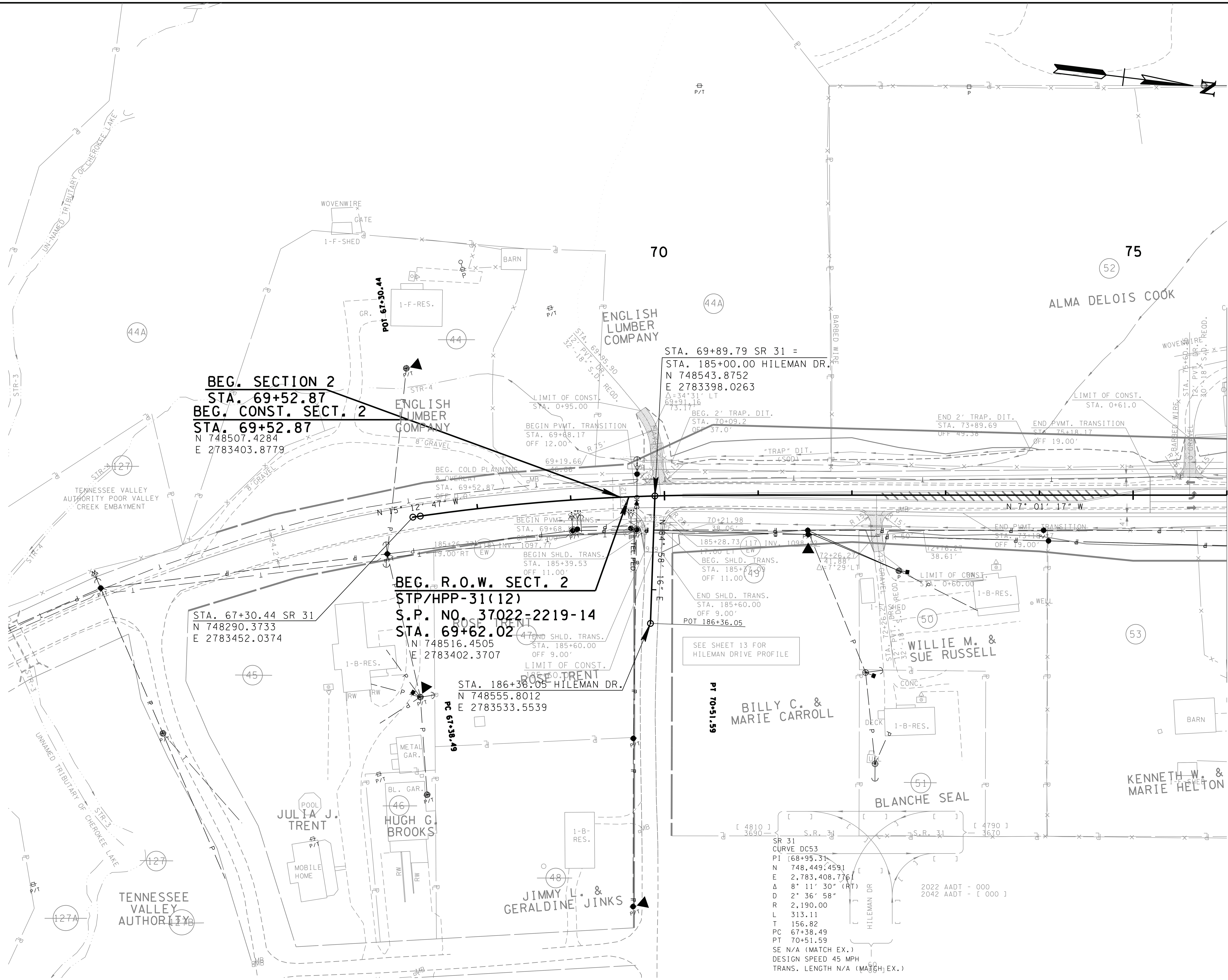
TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U1-6



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

UTILITY LAYOUT

STA. 67+30 TO STA. 76+50
SCALE: 1"= 50'

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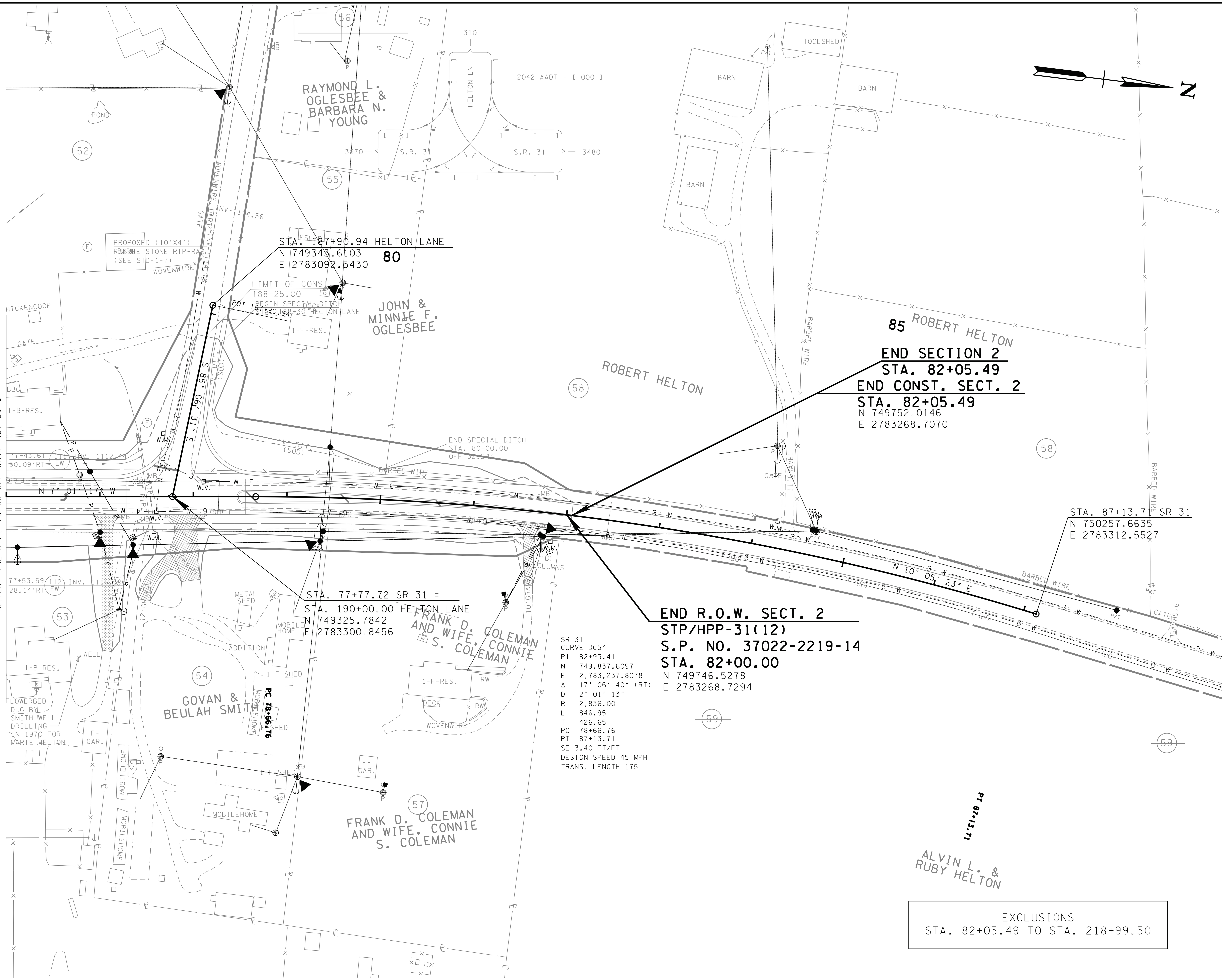
TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U1-7



EXCLUSIONS
STA. 82+05.49 TO STA. 218+99.50

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

UTILITY LAYOUT

STA. 76+00 TO STA. 87+14
SCALE: 1"= 50'

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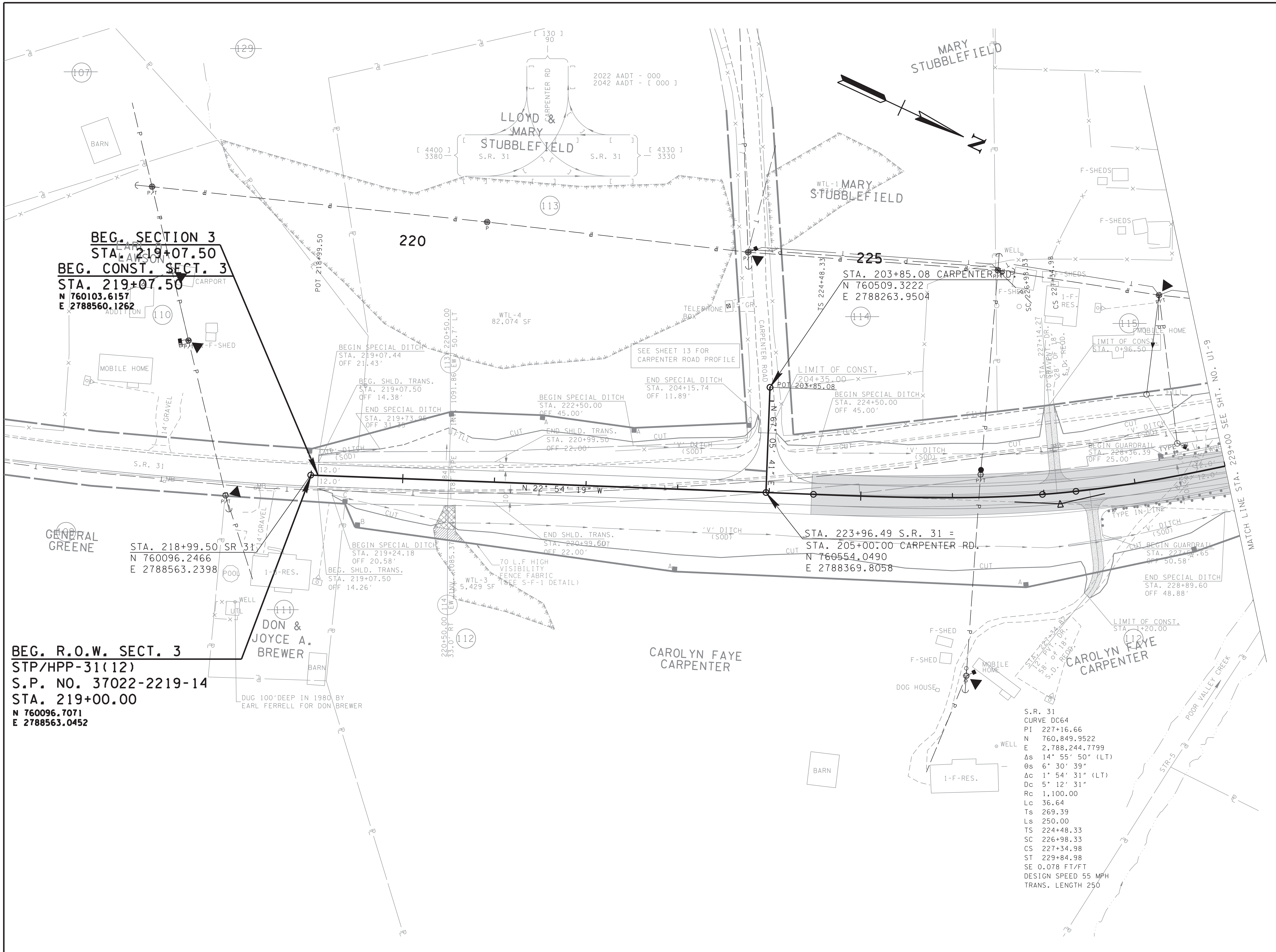
TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U1-8



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

UTILITY LAYOUT

STA. 218+99 TO STA. 229+00
SCALE: 1"= 50'

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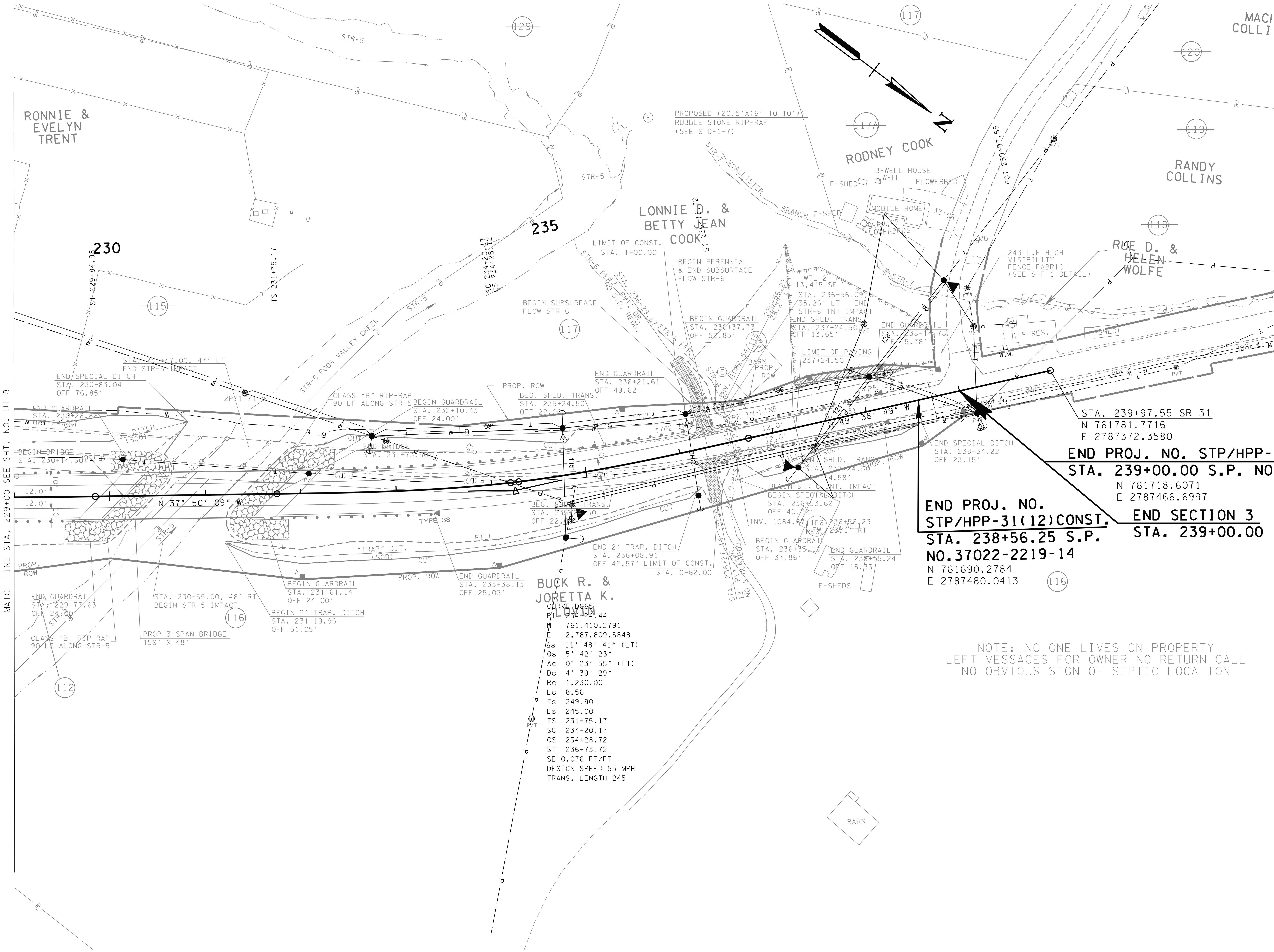
TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U1-9



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

UTILITY LAYOUT

STA. 229+00 TO STA. 239+98
SCALE: 1"= 50'

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TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U2-1

S.R. 31 HAWKINS CO
32022-3219-14
PIN *101394.00

UTILITY INDEX

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DETAILS	U2-15
DETAILS	U2-16

ESTIMATED UTILITY QUANTITIES

Note	ITEM NO.	DESCRIPTION	HEC STANDARD DRAWINGS	Project no. 1: STP/HPP-31 (12)	
				UNIT	QUANTITY
1	790-02.04	POLE 35FT CLASS 5 WOOD	35-5	EACH	1
1	790-03.03	POLE 40FT CLASS 4 WOOD	40-4	EACH	8
1	790-04.02	POLE 45FT CLASS 2 WOOD	45-2	EACH	4
1	790-04.03	POLE 45FT CLASS 3 WOOD	45-3	EACH	8
1	790-05.03	POLE 50FT CLASS 3 WOOD	50-3	EACH	3
1	790-06.02	POLE 55FT CLASS 2 WOOD	55-2	EACH	2
2	790-21.04	1Ø SGL SUPPORT 15KV	A1	EACH	2
2	790-21.05	1Ø DBL PRIMARY SUPPORT 15KV	A2	EACH	3
2	790-21.06	1Ø PRIMARY MED ANGLE 15KV	A3	EACH	2
2	790-21.08	1Ø DEADEND 15KV	A5	EACH	2
2	790-21.10	1Ø VERTICAL DDE 15KV	A4, A6	EACH	3
	790-25.11	3Ø CROSSARM DBL PRIM SUP LRG COND 15KV	C1-3-A	EACH	11
2	790-25.15	3Ø VERTICAL 15KV	A5-1, A5-2	EACH	7
2	790-25.21	3Ø CROSSARM DEADEND SGL 15KV	C7, C7-1	EACH	3
2	790-25.23	3Ø CROSSARM DDE 15KV	C8-2-A	EACH	2
2	790-25.30	3Ø CROSSARM DBL 10FT LRG COND 15KV	C2-2-A	EACH	4
	790-30.01	SECONDARY ASSEMBLIES SMALL ANGLE	J5, J8	EACH	3
	790-30.03	SECONDARY ASSEMBLIES DEADEND	J6, J10, K11C	EACH	23
	790-30.14	SECONDARY CONDUCTOR 1/0 AL TRIPLEX	TRIPLEX	LF	1145
	790-32.01	DOWN GUY - THROUGH BOLT TYPE	E1-2	EACH	33
	790-33.26	SCREW TYPE ANCHOR 28,000LB	F1-5S	EACH	27
	790-32.07	OH GUY - THROUGH BOLT TYPE	E2-2	EACH	2
	790-32.23	GUY GUARD	E3-10	EACH	27
	790-36.04	TRANSFER SERVICE	METER	EACH	4
	790-36.06	TRANSFER LIGHT	M26-5B, M26-5D	EACH	2
	790-36.07	TRANSFER 3-PHASE ASSEMBLY	M3-3A	EACH	1
3	790-36.11	TRANSFER 1PH XFMR/RECLOSER	G3	EACH	9
	790-40.02	OH COND 2 7/1 ACSR SPARATE	#2 ACSR	LF	566
	790-40.03	OH COND 1/0 6/1 ACSR RAVEN	1/0	LF	8460
	790-43.46	SECONDARY PULLBOX LARGE	HH	EACH	1
	790-43.51	SECONDARY RISER W/ 3IN CONDUIT	UM6	EACH	1
	790-46.01	1Ø TRANSFORMER	G3	EACH	3
	790-58.03	CUTOUT KNIFE SWITCH, SNGL LOADBREAK 15KV	M5-6, M5-9	EACH	3
	790-58.06	GOAB SWITCH 15KV	M3-3A N/O	EACH	2
	790-68.01	POLE GROUND ROD TYPE	M2-11	EACH	40
	790-61.10	3PH SECTLR OR RECL W/ BYPASS SW 25KV	M3-30	EACH	1
	790-98.01	REMOVE WIRE		L.F.	13480
	790-98.02	REMOVE POLES		EACH	22
	790-98.03	REMOVE FRAMING/ASSOCIATED APPARATUS		EACH	151

FOOTNOTES:

1 INCLUDES ALL MATERIALS, LABOR AND EQUIPMENT FOR COMPLETE INSTALLATION INCLUDING BUT NOT LIMITED TO SETUP, TRAFFIC CONTROL, DIGGING HOLE, FILLING HOLE, BLASTING, BUTT WRAP OR SINGLE GROUND ROD, MGNV, NUMBERING POLE.

2 ASSEMBLIES OF SIMILAR CONSTRUCTION BUT DIFFERING ONLY IN USE OF EPOXY VS. PORCELAIN INSULATORS OR FIBERGLASS VS. WOOD CROSSARMS OR LACK OF NEUTRAL ASSEMBLY SHOULD BE GROUPED WITHIN THE SAME ITEM.

3 TRANSFER EXISTING 1PH TRANSFORMER/RECLOSER

UTILITY COMPANY CONTACT

NATHAN FRANKLIN
HOLSTON ELECTRIC COOPERATIVE
DIRECTOR OF ENGINEERING
1200 WEST MAIN ST.
ROGERSVILLE, TN. 37857
423-272-8821
EMAIL: NFRANKLIN@HOLSTONELECTRIC.COM

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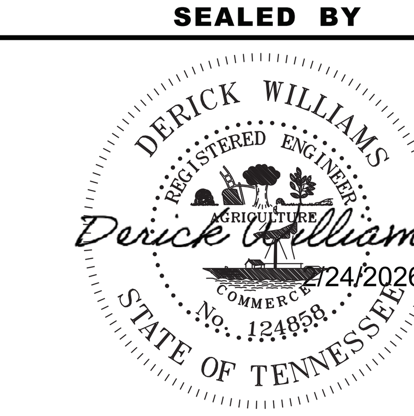

COORDINATES ARE NAD 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00006 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WITH GEOID 99 .

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ESTIMATED UTILITY QUANTITIES

SCALE: NONE

2/24/2026
Z:\01370-0003\03-Drawings\03-Utilities\4_Design\01_Sheets\U2-1.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U2-2

S.R. 31
32022-3219-14
PIN *101394.00

HAWKINS CO.

GENERAL NOTES:

1. THE TOPOGRAPHIC & BOUNDARY DATA WAS TAKEN FROM A SURVEY RECEIVED FROM TENNESSEE DEPARTMENT OF TRANSPORTATION (TDOT).
2. ALL CONTRACTOR INSTALLATIONS MUST BE INSPECTED BY HEC. CONTACT HEC ENGINEERING AT LEAST THREE (3) WORKING DAYS PRIOR TO CONSTRUCTION.
3. LOCATE EXISTING UTILITIES. CALL THE TENNESSEE ONE CALL SYSTEM AT 1-800-351-1111.
4. PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL CONTACT THE UTILITY OWNERS TO NOTIFY THEM OF WORK IN THE AREA AND REQUEST THEM TO PROPERLY LOCATE THEIR RESPECTIVE UTILITY. NOTIFICATION SHALL BE GIVEN AT LEAST THREE BUSINESS DAYS PRIOR TO COMMENCEMENT OF OPERATIONS AROUND THE UTILITY.
5. THE LOCATIONS OF THE EXISTING UTILITIES SHOWN ON THESE DRAWINGS ARE APPROXIMATE. THE EXACT LOCATIONS SHALL BE DETERMINED IN THE FIELD BY POTHOLING AND BY CONTACTING THE UTILITY COMPANIES INVOLVED.
6. PROVIDE ALL NECESSARY PROTECTIVE MEASURES TO SAFEGUARD EXISTING UTILITIES FROM DAMAGE DURING THE CONSTRUCTION OF THIS PROJECT. FURNISH ANY SPECIAL EQUIPMENT REQUIRED TO WORK OVER AND AROUND THE UTILITIES AT NO ADDITIONAL COST.
7. TRENCH DESIGN AND SAFETY FOR UNDERGROUND CONSTRUCTION IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL CONFORM WITH ALL APPLICABLE LOCAL, STATE, AND OSHA REGULATIONS.
8. THE PROPOSED SITE LAYOUT SHOWN ON THESE DRAWINGS IS APPROXIMATE. REFER TO ROADWAY PLANS FOR ACTUAL DIMENSIONS. COORDINATE WITH ON-SITE SURVEYOR TO MARK PROPOSED FACILITIES, PROPOSED GRADE CHANGE, AND RIGHT-OF-WAY BEFORE SETTING POLES. ALL INSTALLATIONS SHALL BE LOCATED OUTSIDE OF PAVED AREAS UNLESS OTHERWISE NOTED.
9. TDOT WILL IMPLEMENT AND MAINTAIN TRAFFIC CONTROL AS SHOWN ON PLANS. THIS DOES NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITIES TO THE SAFETY OF THE TRAVELING PUBLIC. CONTRACTOR IS RESPONSIBLE FOR INCLUDING ANY ADDITIONAL TRAFFIC CONTROL DEEMED NECESSARY IN ACCORDANCE WITH THE FEDERAL HIGHWAY ADMINISTRATION'S "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES."
10. EROSION CONTROL DEVICES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH TDEC'S EROSION AND SEDIMENT CONTROL HANDBOOK. DAMAGES TO ADJACENT PROPERTY AND/OR THE CONSTRUCTION SITE CAUSED BY THE CONTRACTOR'S FAILURE TO PROVIDE AND MAINTAIN ADEQUATE DRAINAGE AND EROSION/SEDIMENT CONTROL FOR THE CONSTRUCTION AREA SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
11. QUANTITIES SHOWN ON MATERIAL LISTS ARE NOT INTENDED TO BE CONTRACTUAL LIMITS. BIDDER SHALL EXAMINE JOB SITE, PLANS, SPECIFICATIONS, AND STANDARDS AND SHALL INCLUDE ALL INCIDENTAL MATERIALS AND QUANTITIES NEEDED FOR A COMPLETE INSTALLATION.
12. WHERE MORRISTOWN UTILITIES 3PH POWER AND HOLSTON ELECTRIC 3PH POWER ARE ON THE SAME POLES, HOLSTON ELECTRIC WILL BE UTILIZING MORRISTOWN UTILITIES NEUTRAL WIRE. THE NEUTRAL WILL BE SHARED BETWEEN THE TWO UTILITIES AND WILL BE THE PROPERTY OF MORRISTOWN UTILITIES.

TDOT STANDARD UTILITY NOTES

1. EXCEPT FOR EROSION SEDIMENT CONTROL ITEMS, NO ROADWAY OR BRIDGE ITEMS SHALL BE UTILIZED TO COMPENSATE FOR WORK METHODS OR MATERIALS ASSOCIATED WITH AND/OR SPECIFIED FOR THE UTILITY INSTALLATION, EVEN THOUGH THE SAME OR SIMILAR ROADWAY OR BRIDGE MATERIALS MAY HAVE BEEN CALLED FOR IN THE UTILITY SPECIFICATIONS OR DRAWINGS.
2. ALL MATERIALS, METHODS, AND/OR INTEGRAL MATERIALS OUTLINED IN THE UTILITY SPECIFICATIONS OR DRAWINGS NECESSARY TO PROVIDE A COMPLETE AND FUNCTIONAL INSTALLATION MUST BE INCLUDED IN THE UNIT PRICE FOR THE ASSOCIATED UTILITY WORK ITEM.
3. THE CONTRACTOR MUST MAINTAIN ALL SERVICES DURING THE CONSTRUCTION OF THE RELOCATED FACILITY. ANY COSTS ASSOCIATED WITH INSTALLATION OF REQUIRED TEMPORARY SERVICE LINES DUE TO THE ROADWAY CONSTRUCTION SEQUENCE OF WORK (I.E., CUTS, FILLS, PHASING, ETC.) SHALL BE INCLUDED IN THE COST OF THE PERMANENT UTILITY ITEMS.
4. IT SHALL BE THE RESPONSIBILITY OF THE PRIME CONTRACTOR'S SURVEYOR TO LAY OUT ALL THE FACILITIES BEING RELOCATED WITHIN THE CONTRACT.
5. FOR BURIED UTILITIES, THE PRIME CONTRACTOR OR SUBCONTRACTOR SHALL BE REQUIRED TO PROVIDE TO THE UTILITY, UPON COMPLETION OF THE UTILITY'S RELOCATION WORK, A SET OF AS-BUILT DRAWINGS FOR THEIR RECORDS. THESE AS-BUILT DRAWINGS SHOULD BE PREPARED AS THE JOB PROGRESSES TO ENSURE THEIR ACCURACY.
6. WHERE EROSION CONTROL MEASURES ARE NEEDED FOR THE UTILITY RELOCATION WORK OCCURRING INSIDE OR OUTSIDE STATE RIGHT-OF-WAY, THE CONTRACTOR SHALL SUBMIT TO THE TDOT PROJECT SUPERVISOR FOR APPROVAL A PROPOSED EROSION AND SEDIMENT CONTROL PLAN PRIOR TO BEGINNING THE WORK. TDOT APPROVAL MUST BE RECEIVED BEFORE THE EROSION CONTROL PAY ITEMS FOR ROADWAY CONSTRUCTION CAN BE USED FOR ANY ADDITIONAL EROSION CONTROL MEASURES REQUIRED FOR THE UTILITY RELOCATION WORK.
7. DRIVEWAY, SIDEWALK, AND ROADWAY TEMPORARY RESTORATION SHALL BE PART OF THE IN-PLACE COST OF PLACING THE UTILITY ITEM WITHIN THE RIGHT-OF-WAY.

ELECTRIC UTILITY NOTES:

1. WORK SHALL CONFORM TO NATIONAL, STATE, & LOCAL CODES AS WELL AS TO HOLSTON ELECTRIC COOPERATIVE (HEC) STANDARD DRAWINGS, SPECIFICATIONS, & CONTRACT DOCUMENTS. WHERE A CONFLICT EXISTS BETWEEN APPLICABLE CODES, THE MOST CONSERVATIVE OR STRINGENT VERSION SHALL BE APPLIED.
2. CONTRACTOR SHALL OBTAIN LATEST COPY OF STANDARD DRAWINGS AND SPECIFICATIONS FROM TDOT PRIOR TO PLACING MATERIAL ORDER OR BEGINNING WORK.
3. POLE NUMBERS REFERENCED ON PLANS ARE FOR LOCATION REFERENCE ONLY. CONTRACTOR TO LABEL EQUIPMENT PER CURRENT HEC SPECIFICATIONS. ANY BLANK NUMBERS (I.E., #_____) SHOWN ON PLANS SHALL BE OBTAINED FROM HEC PROJECT REPRESENTATIVE. COORDINATE WITH HEC PROJECT MANAGER (JASON MONTGOMERY, 423-677-2743) FOR FINAL POLE NUMBERS WHERE APPLICABLE.
4. HEC WILL FURNISH PROPOSED TRANSFORMERS. COORDINATE WITH HEC PROJECT MANAGER PRIOR TO INSTALLING NEW OR TRANSFERRED TRANSFORMERS TO CONFIRM TRANSFORMER SIZE AND LOADING REQUIREMENTS. TRANSFORMERS THAT ARE REMOVED SHALL BE RETURNED TO HEC. ALL OTHER MATERIAL TO BE RETURNED TO HEC UNLESS OTHERWISE NOTED.
5. HEC WILL PROVIDE TRANSFORMER INFORMATION SHEETS AND CONTRACTOR WILL BE REQUIRED TO COMPLETE AND RETURN A TRANSFORMER INFORMATION SHEET FOR EACH TRANSFORMER UNIT REMOVED AND INSTALLED ON THE PROJECT.
6. RE-ATTACH ALL TAP AND TRANSFORMER CONNECTIONS AS NEEDED TO MAINTAIN EXISTING PHASE CONNECTIONS. COORDINATE ANY NEW CONNECTIONS WITH HEC DISPATCH OR HEC PROJECT MANAGER.
7. POLE LOCATION COORDINATES ARE FOR GENERAL LOCATION REFERENCE. CONTRACTOR SHALL ADJUST TANGENT POLES WHERE POSSIBLE TO ELIMINATE UNNECESSARY LINE ANGLES.
8. SPAN LENGTHS ARE APPROXIMATE AND MEASURED FROM CENTER OF POLE TO CENTER OF POLE.
9. PRIOR TO PULLING CONDUCTORS, CONTRACTOR SHALL REQUEST APPROPRIATE SAG CHARTS TO ENSURE CORRECT INSTALLATION TENSIONS.
10. EXISTING CONDUCTORS SHALL BE TRANSFERRED TO NEW POLES EXCEPT WHERE NOTED TO BE REMOVED. IF EXISTING CONDUCTORS ARE FOUND TO BE IN POOR CONDITION, COORDINATE WITH HEC FOR REPLACEMENT. LABOR FOR CONDUCTOR TRANSFER FROM OLD POLES TO NEW POLES SHALL BE INCLUDED IN THE COST OF INSTALLATION AND REMOVAL OF POLE FRAMING'S. WHERE APPLICABLE, SPLICE AND SLEEVE CONDUCTORS PER HEC STANDARDS AND SPECIFICATIONS.
11. COORDINATE ALL TRANSFORMER AND SERVICE OUTAGES WITH HEC A MINIMUM OF TEN (10) WORKING DAYS PRIOR TO OUTAGE.
12. CONDUCTOR SIZES SHOWN ON PLANS ARE ESTIMATED FROM RECORD DRAWINGS AND GROUND-LEVEL FIELD OBSERVATIONS. CONTRACTOR IS RESPONSIBLE FOR VERIFYING THAT INSULATORS, CLAMPS, OR OTHER HARDWARE ITEMS ARE SIZED APPROPRIATELY.
13. INSTALL FIBERGLASS STRAIN INSULATORS WHERE DOWNGUY PASSES WITHIN 12-INCHES OF ENERGIZED CONDUCTOR.
14. INSTALL YELLOW PLASTIC, FULL-ROUND, SLIT-SPIRAL GUYGUARDS ON THE TOP MOST DOWNGUY AT EACH ANCHOR.
15. UNLESS OTHERWISE NOTED, POLE EMBEDMENT SHALL BE A MINIMUM OF 6 FEET OR 10% OF TOTAL POLE HEIGHT PLUS 2 FEET, WHICHEVER IS GREATER. FOR POLES INSTALLED PRIOR TO FINAL GRADING, POLE EMBEDMENT DEPTHS SHALL BE MEASURED FROM FINAL GRADE FOR PROPOSED CUT AREAS AND EXISTING GRADE FOR PROPOSED FILL AREAS.
16. POLE HEIGHTS HAVE BEEN SELECTED PER FINAL GRADE. IF GRADING CANNOT BE COMPLETED PRIOR TO POLE INSTALLATION, COORDINATE WITH GRADING CONTRACTOR, HEC PROJECT REPRESENTATIVE, AND HEC PROJECT MANAGER TO DETERMINE BEST COURSE OF ACTION.
17. BACKFILL MATERIAL SHALL BE CLEAN, COMPACTABLE SOIL OR CLEAN, DAMP CRUSHER RUN UNLESS OTHERWISE NOTED. TRANSMISSION POLES SHALL ALWAYS BE BACKFILLED WITH CLEAN, DAMP CRUSHER RUN. PROPERLY DISPOSE OF UNSUITABLE BACKFILL MATERIAL SUCH AS ROCKS, SAND, SWAMPY, OR MUCKY SOIL IF FOUND DURING EXCAVATION.
18. TREE TRIMMING FOR PROPOSED ELECTRICAL LINES MAY BE OUTSIDE OF PROPOSED ROADWAY CLEARING. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH PRIME CONTRACTOR TO ENSURE THAT ALL TREE TRIMMING WITHIN ELECTRICAL RIGHT-OF-WAY HAS BEEN ACCOUNTED FOR WITH THE APPROPRIATE BID ITEM. COORDINATE WITH HEC AND PROPERTY OWNER(S) PRIOR TO ANY TREE-TRIMMING OR CLEARING OUTSIDE THE RIGHT-OF-WAY.

LEGEND:

EXISTING PRIMARY CONDUCTOR(S) TO REMAIN
EXISTING PRIMARY CONDUCTOR(S) TO BE REMOVED
PROPOSED PRIMARY CONDUCTOR(S) TO BE INSTALLED
EXISTING SECONDARY DUPLEX OR SERVICE CONDUCTOR(S) TO REMAIN
EXISTING SECONDARY DUPLEX OR SERVICE CONDUCTOR(S) TO BE REMOVED
PROPOSED SECONDARY DUPLEX OR SERVICE CONDUCTOR(S) TO BE INSTALLED
EXISTING SECONDARY TRIPLEX OR SERVICE CONDUCTOR(S) TO REMAIN
EXISTING SECONDARY TRIPLEX OR SERVICE CONDUCTOR(S) TO BE REMOVED
PROPOSED SECONDARY TRIPLEX OR SERVICE CONDUCTOR(S) TO BE INSTALLED
EXISTING SECONDARY UNDERGROUND OR SERVICE CONDUCTOR(S) TO REMAIN
EXISTING SECONDARY UNDERGROUND OR SERVICE CONDUCTOR(S) TO BE REMOVED
PROPOSED SECONDARY UNDERGROUND OR SERVICE CONDUCTOR(S) TO BE INSTALLED
EXISTING HEADGUY(S) TO REMAIN
EXISTING HEADGUY(S) TO BE REMOVED
PROPOSED HEADGUY(S) TO BE INSTALLED
EXISTING POWER UTILITY POLE TO REMAIN
EXISTING POWER UTILITY POLE TO BE REMOVED
PROPOSED POWER UTILITY POLE TO BE INSTALLED
PROPOSED HEC POWER UTILITY POLE TO BE INSTALLED
EXISTING COMMUNICATIONS UTILITY POLE TO REMAIN
EXISTING COMMUNICATIONS UTILITY POLE TO BE REMOVED
PROPOSED COMMUNICATIONS UTILITY POLE TO BE REPLACED
PROPOSED COMMUNICATIONS UTILITY POLE
EXISTING POWER UTILITY ANCHOR & DOWNGUY(S) TO REMAIN
EXISTING POWER UTILITY ANCHOR & DOWNGUY(S) TO BE REMOVED
PROPOSED POWER UTILITY ANCHOR & DOWNGUY(S)
EXISTING 13KV SWITCH TO REMAIN
EXISTING 13KV SWITCH TO BE REMOVED
PROPOSED 13KV SWITCH
EXISTING FUSE TO REMAIN
EXISTING FUSE TO BE REMOVED
PROPOSED FUSE

EXISTING OVERHEAD TRANSFORMER(S) TO REMAIN OR TO BE TRANSFERRED TO NEW POLE
EXISTING OVERHEAD TRANSFORMER(S) TO BE REMOVED
PROPOSED OVERHEAD TRANSFORMER(S) TO BE INSTALLED
WORK OFF OF TDOT ROW
110 PROPOSED ROADWAY CENTERLINE & STATION IDENTIFICATION
15° PROPOSED LINE ANGLE

AA	ALL ALUMINUM CONDUCTOR
ACSR	ALUMINUM CONDUCTOR STEEL REINFORCED
CU	COPPER
DI	DUCTILE IRON
DX	DUPLEX CABLE
EXST.	EXISTING
NEU	NEUTRAL
OWS	OPEN WIRE SECONDARY
PRI	PRIMARY
PVT LT	PRIVATE LIGHT (OWNED BY HEC)
QX	QUADRUPLEX CABLE
RR	RAILROAD
R.T.S.	REDUCED TENSION STRAIN
SEC	SECONDARY
STLT	STREET LIGHT (OWNED BY OTHERS)
TX	TRIPLEX CABLE
TYP.	TYPICAL
UG	UNDERGROUND
WP	WOOD POLE

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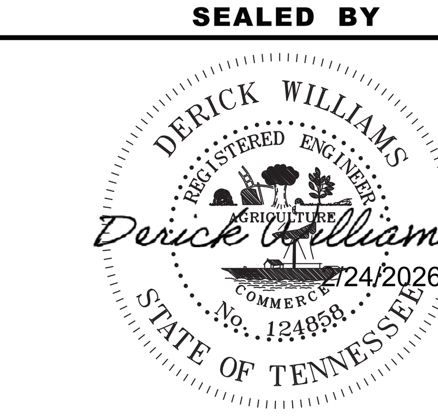

COORDINATES ARE NAD 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00006 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WITH GEOID 99.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

CONSTRUCTION NOTES & LEGEND

SCALE: N.T.S.

2/24/2026
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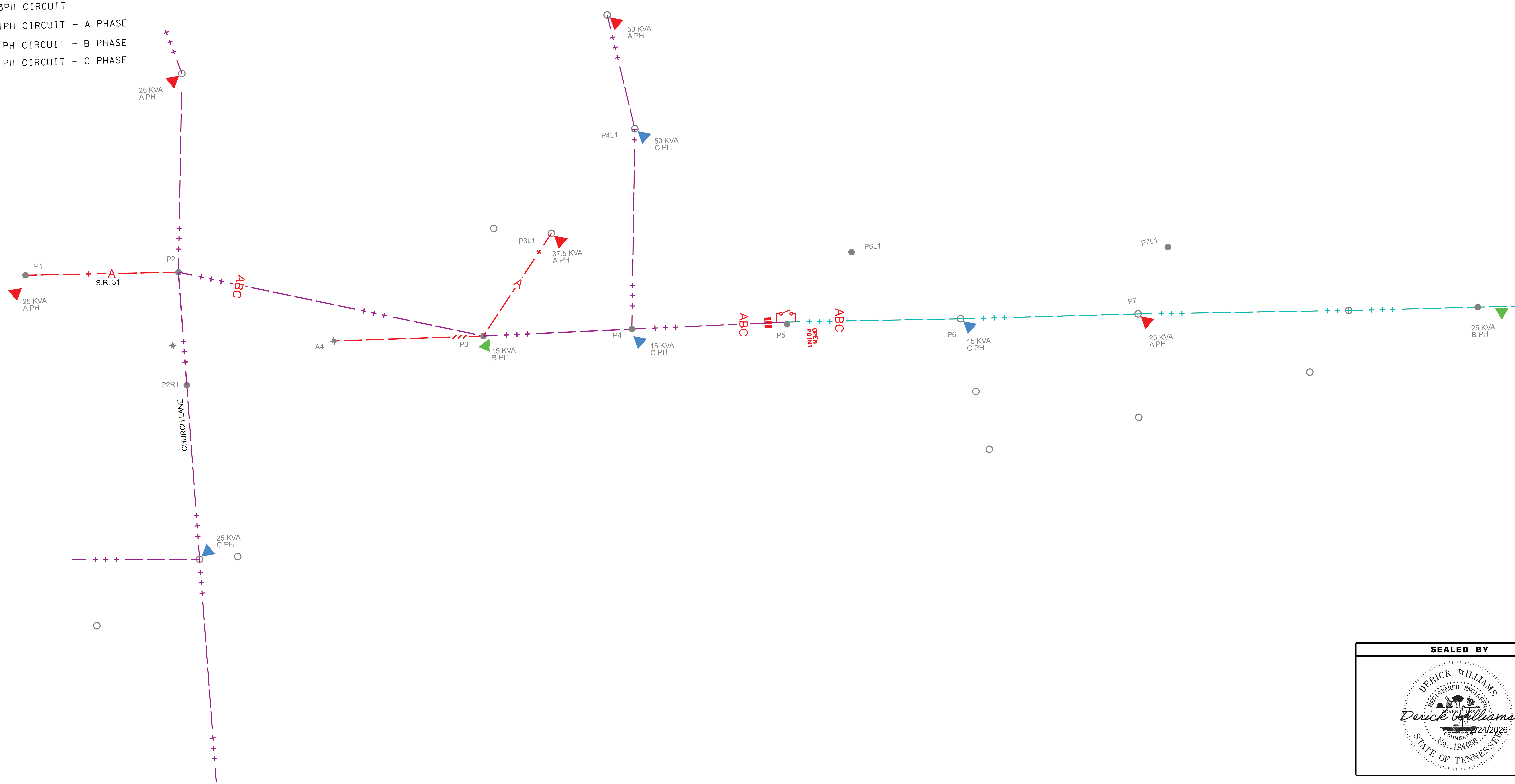
TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U2-3

S.R. 31 HAWKINS CO
32022-3219-14
PIN *101394.00

3PH CIRCUIT
3PH CIRCUIT
1PH CIRCUIT - A PHASE
1PH CIRCUIT - B PHASE
1PH CIRCUIT - C PHASE



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

CIRCUIT DIAGRAM

SCALE: N.T.S.

2/24/2026
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TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U2-3A

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

CIRCUIT DIAGRAM

SCALE: N.T.S.

2/24/2026
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TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U2-3B

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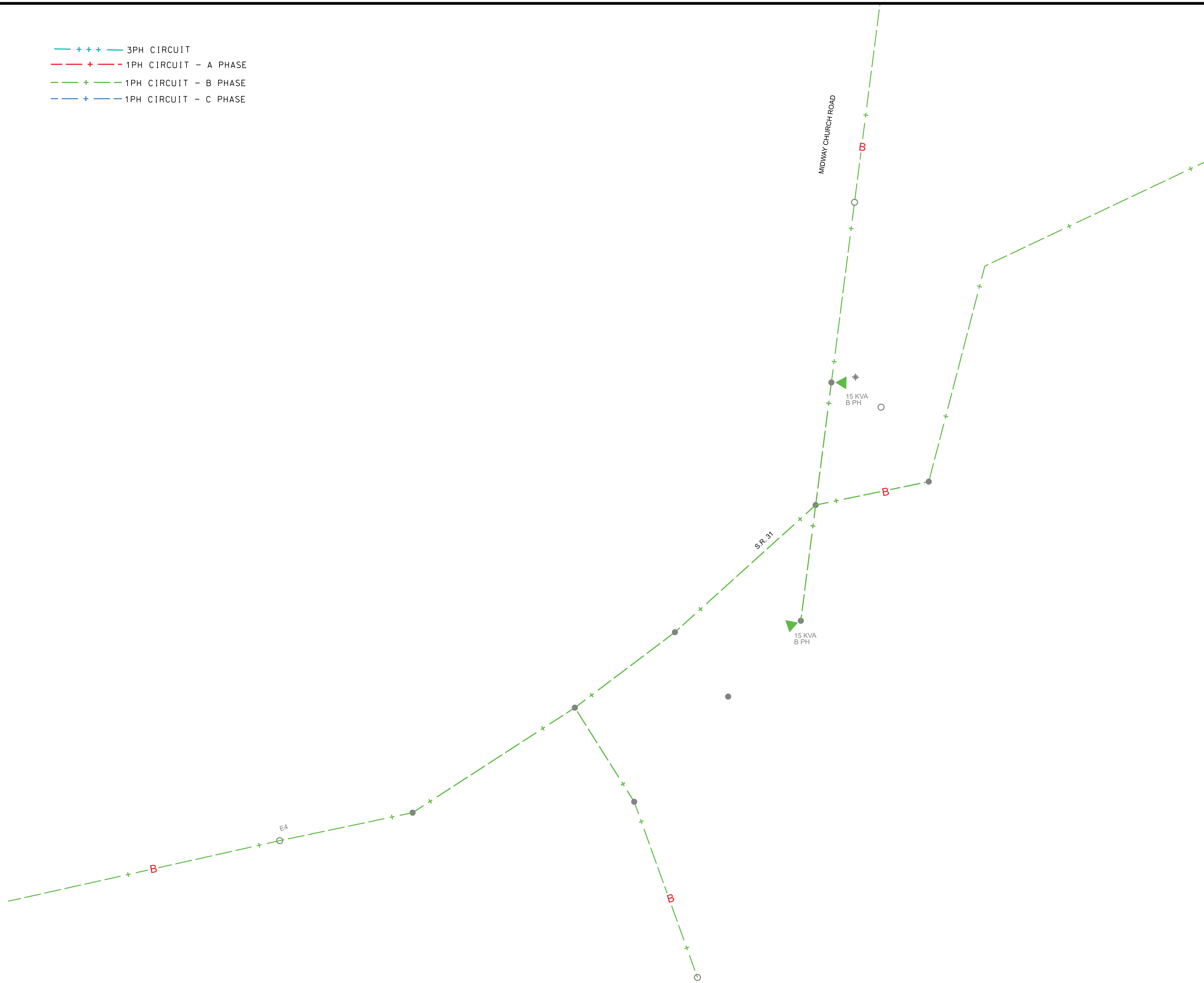

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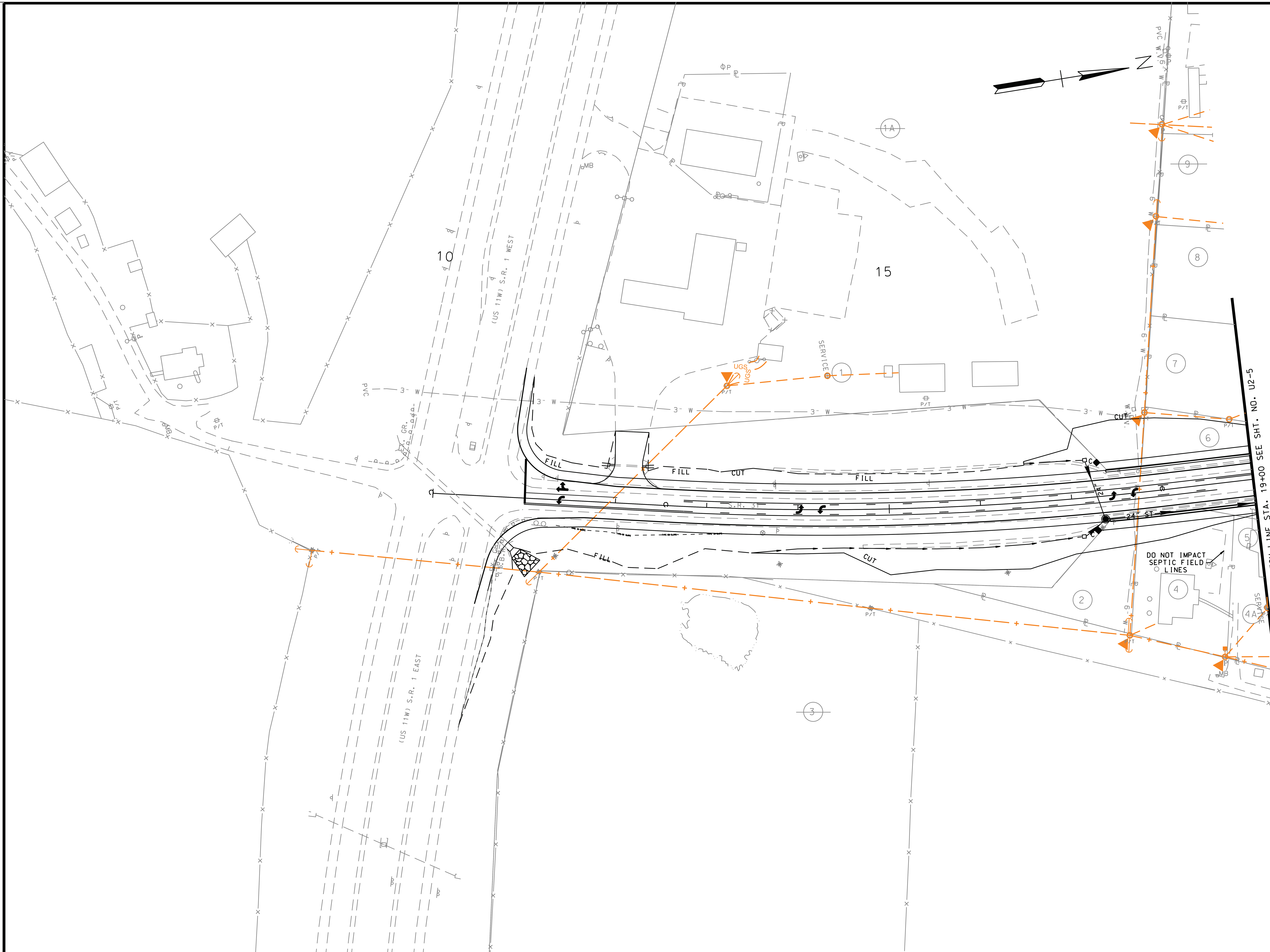
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

CIRCUIT DIAGRAM

SCALE: N.T.S.

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U2-4

S.R. 31 HAWKINS CO
32022-3219-14
PIN *101394.00



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

STA. 10+00 TO STA. 19+00
SCALE: 1"= 50'

2/24/2026
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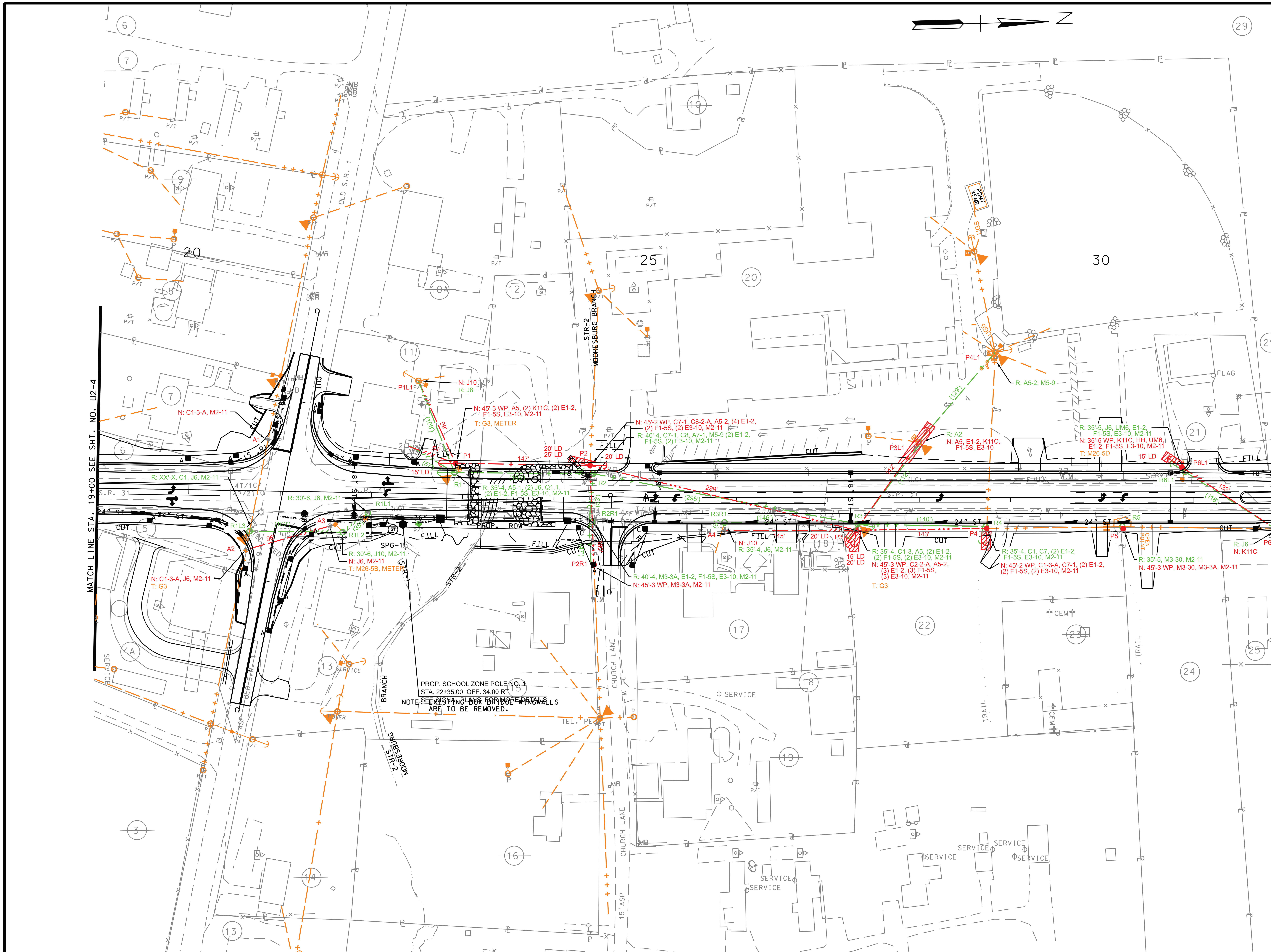

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U2-5

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

STA. 19+00 TO STA. 32+00
SCALE: 1"= 50'

2/24/2026
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TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U2-6

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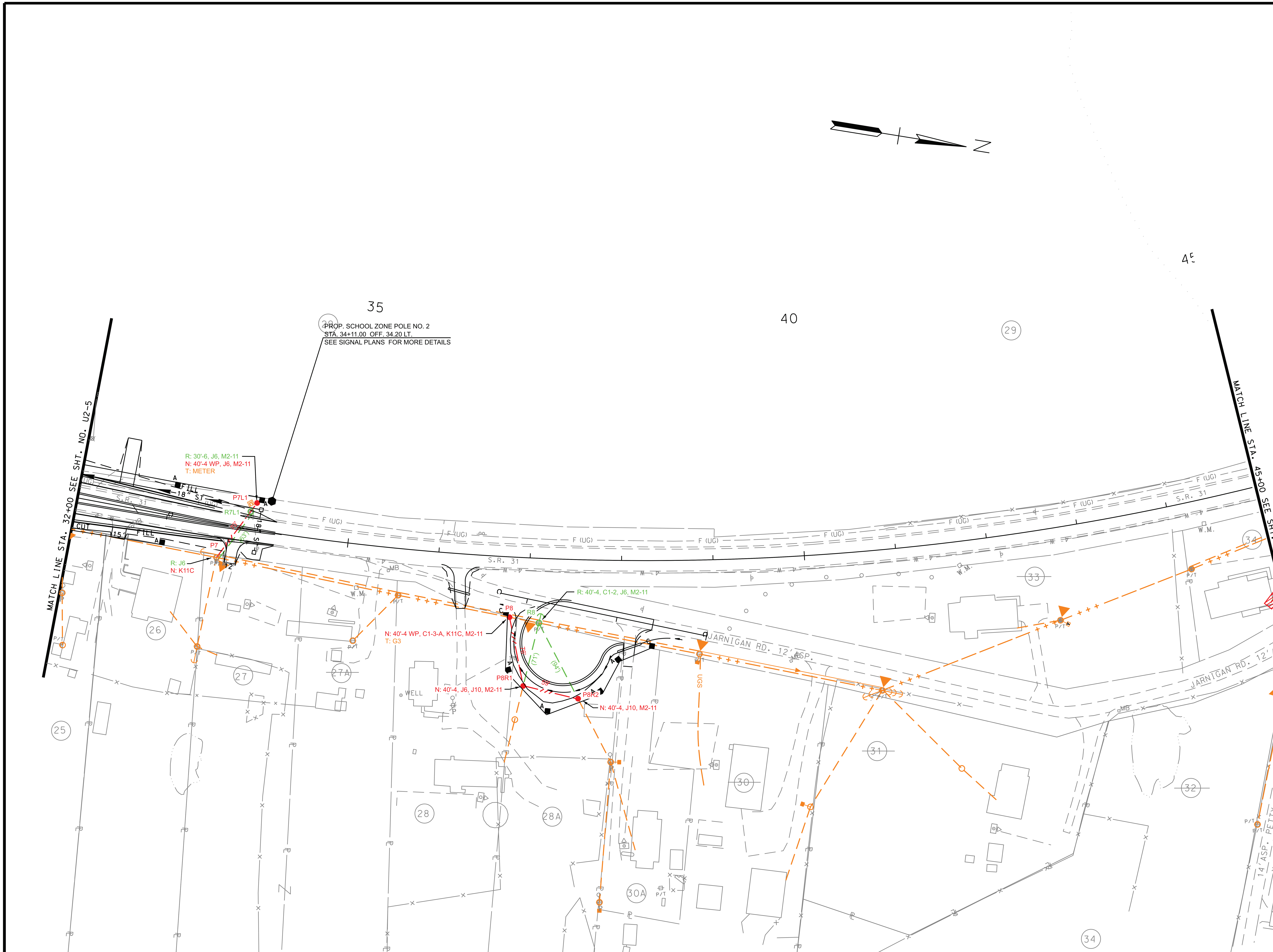
PIN •101394.00

HAWKINS CO



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

STA. 32+00 TO STA. 45+00
SCALE: 1"= 50'

2/24/2026
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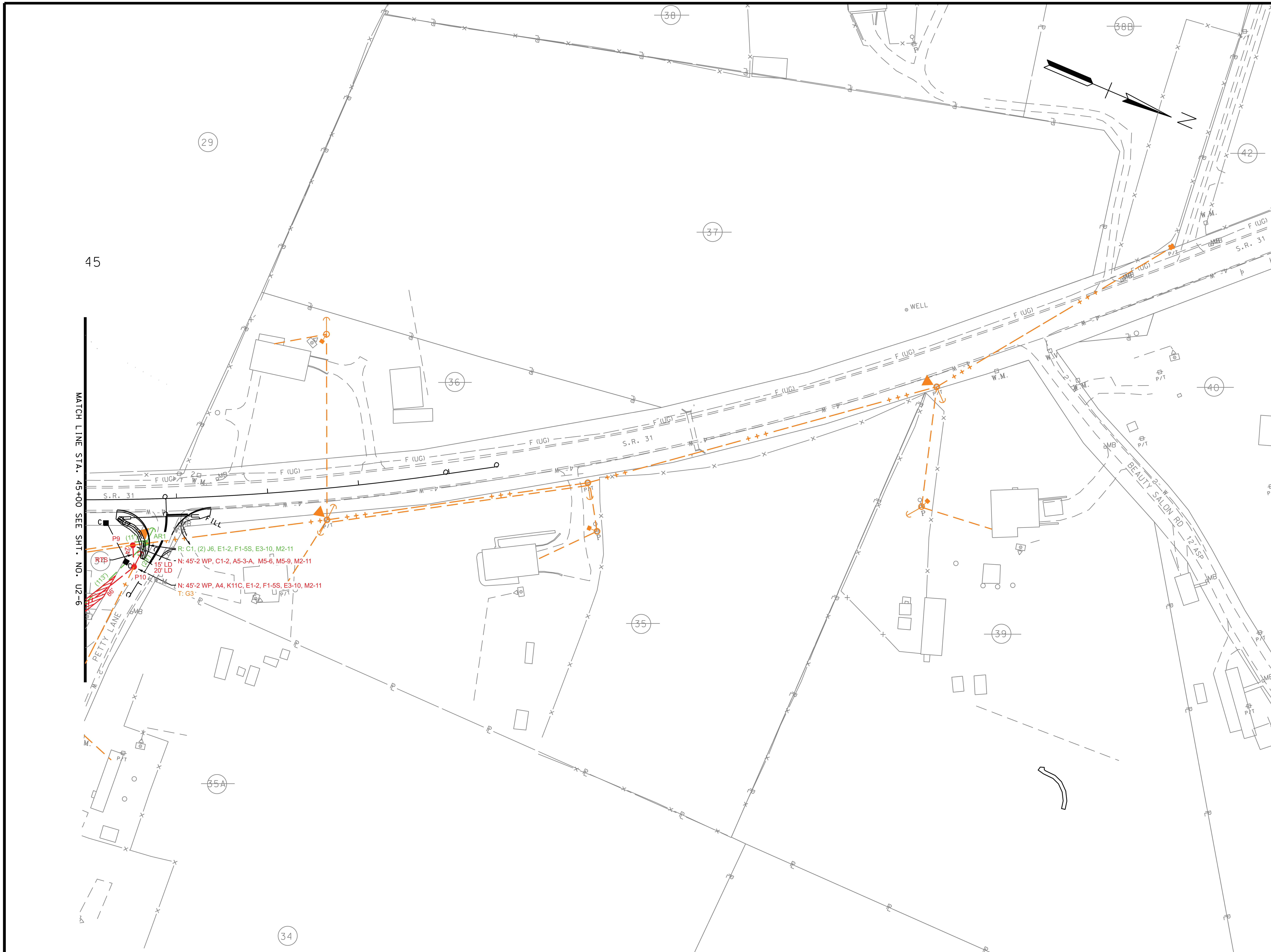
TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U2-7

S.R. 31
32022-3219-14
PIN •101394.00

HAWKINS CO



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

STA. 45+00 TO STA. 49+53
SCALE: 1"= 50'

2/24/2026
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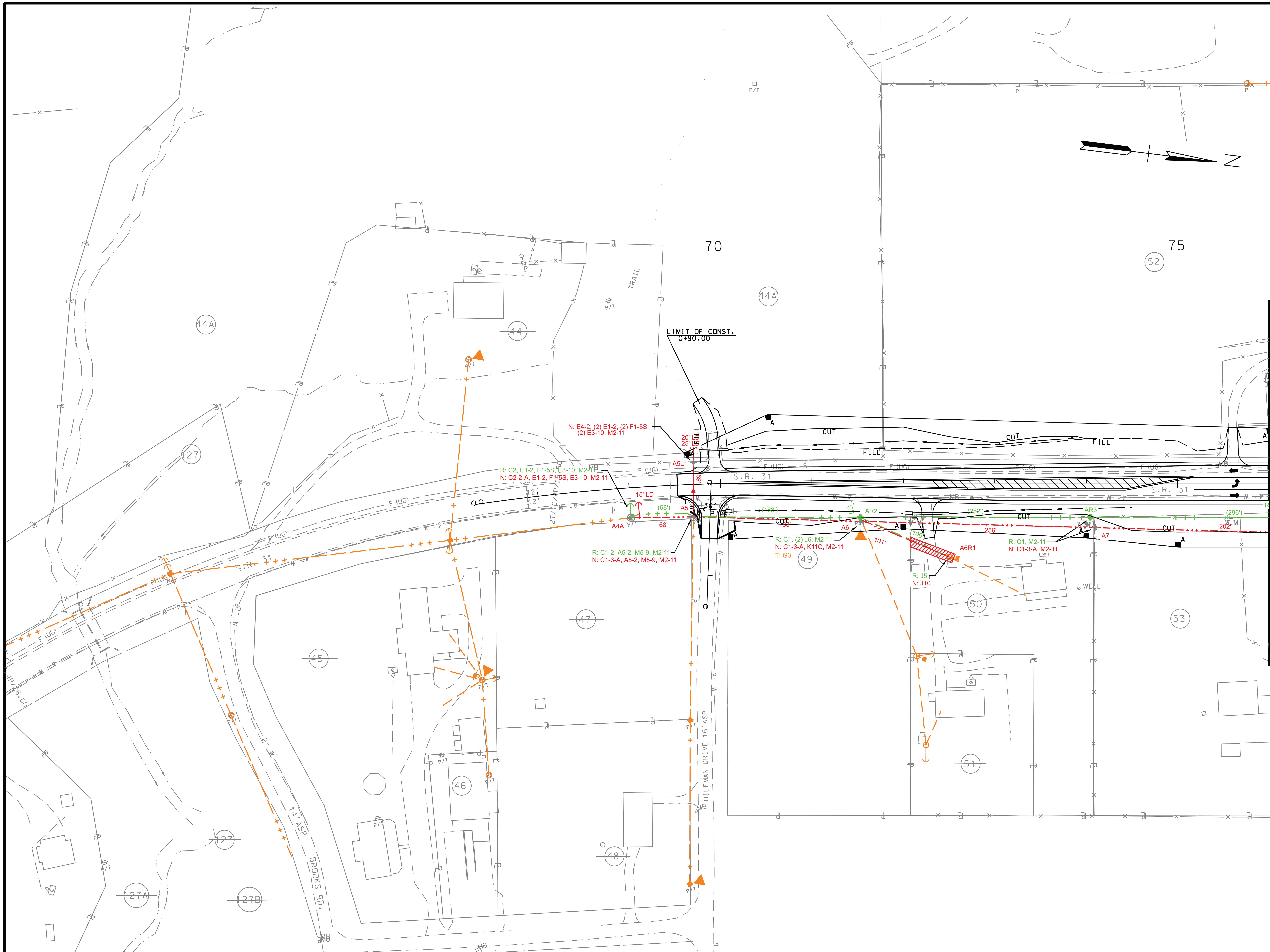
TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U2-8

S.R. 31
32022-3219-14
PIN 101394.00

HAWKINS CO.



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

STA. 67+30 TO STA. 76+50
SCALE: 1"= 50'

2/24/2026
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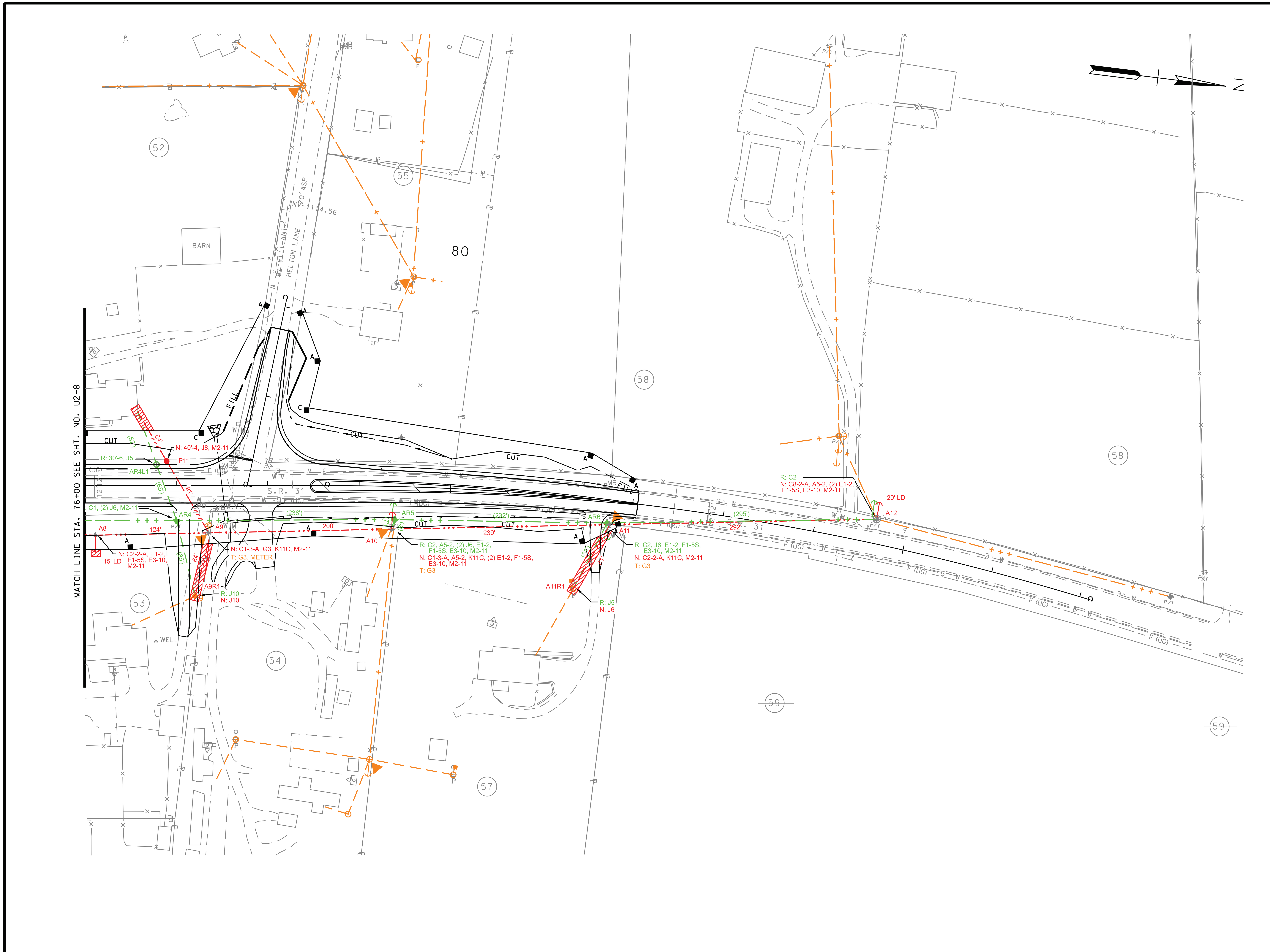
TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U2-9

S.R. 31 HAWKINS CO
32022-3219-14
PIN •101394.00



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

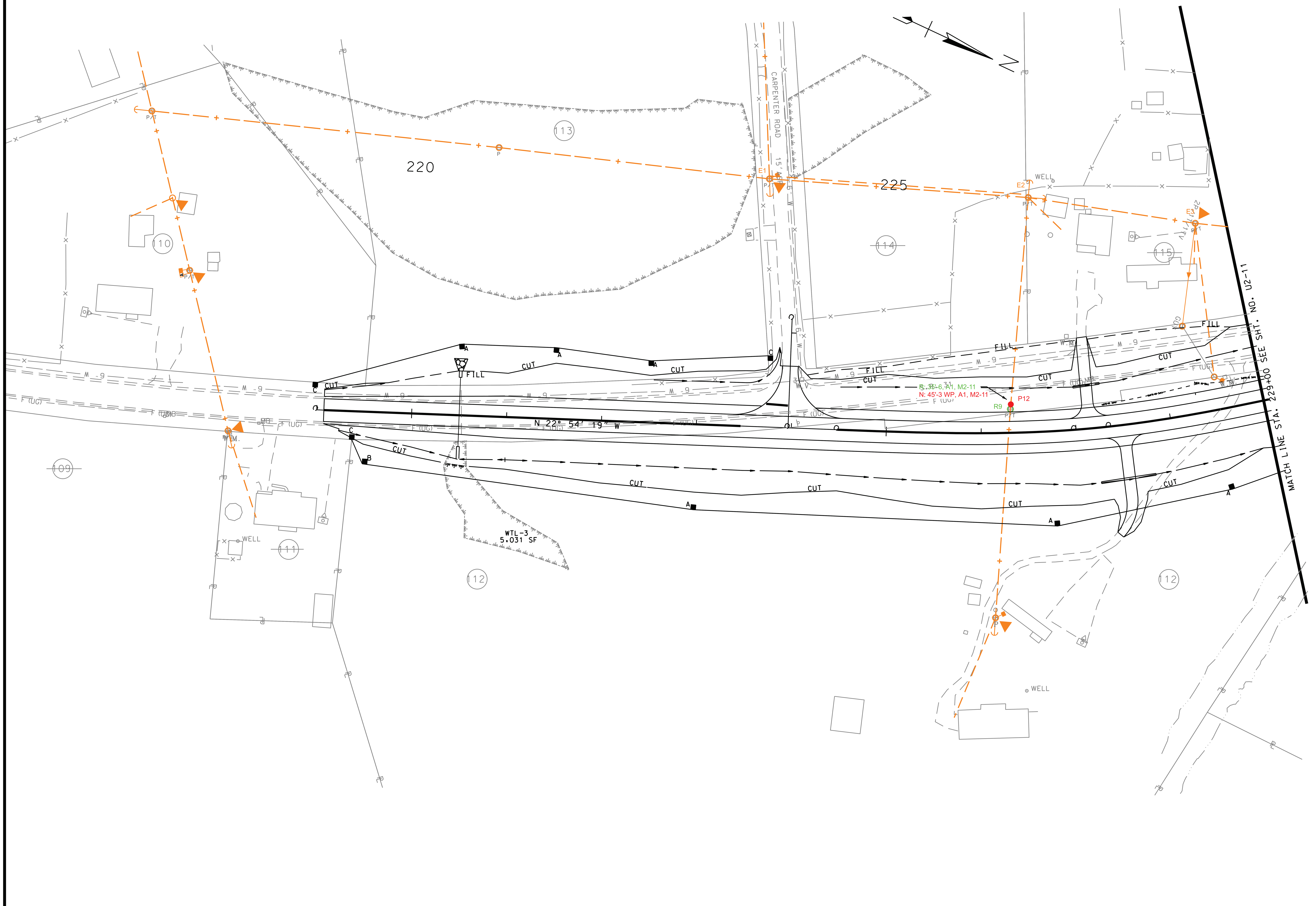
STA. 76+00 TO STA. 87+14
SCALE: 1"= 50'

2/24/2026
Z:\01370-0003\03-Drawings\03-Utilities\4_Design\01_Sheets\U2-9.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U2-10

S.R. 31
32022-3219-14
PIN *101394.00

HAWKINS CO



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

STA. 218+99 TO STA. 229+00
SCALE: 1"= 50'

2/24/2026
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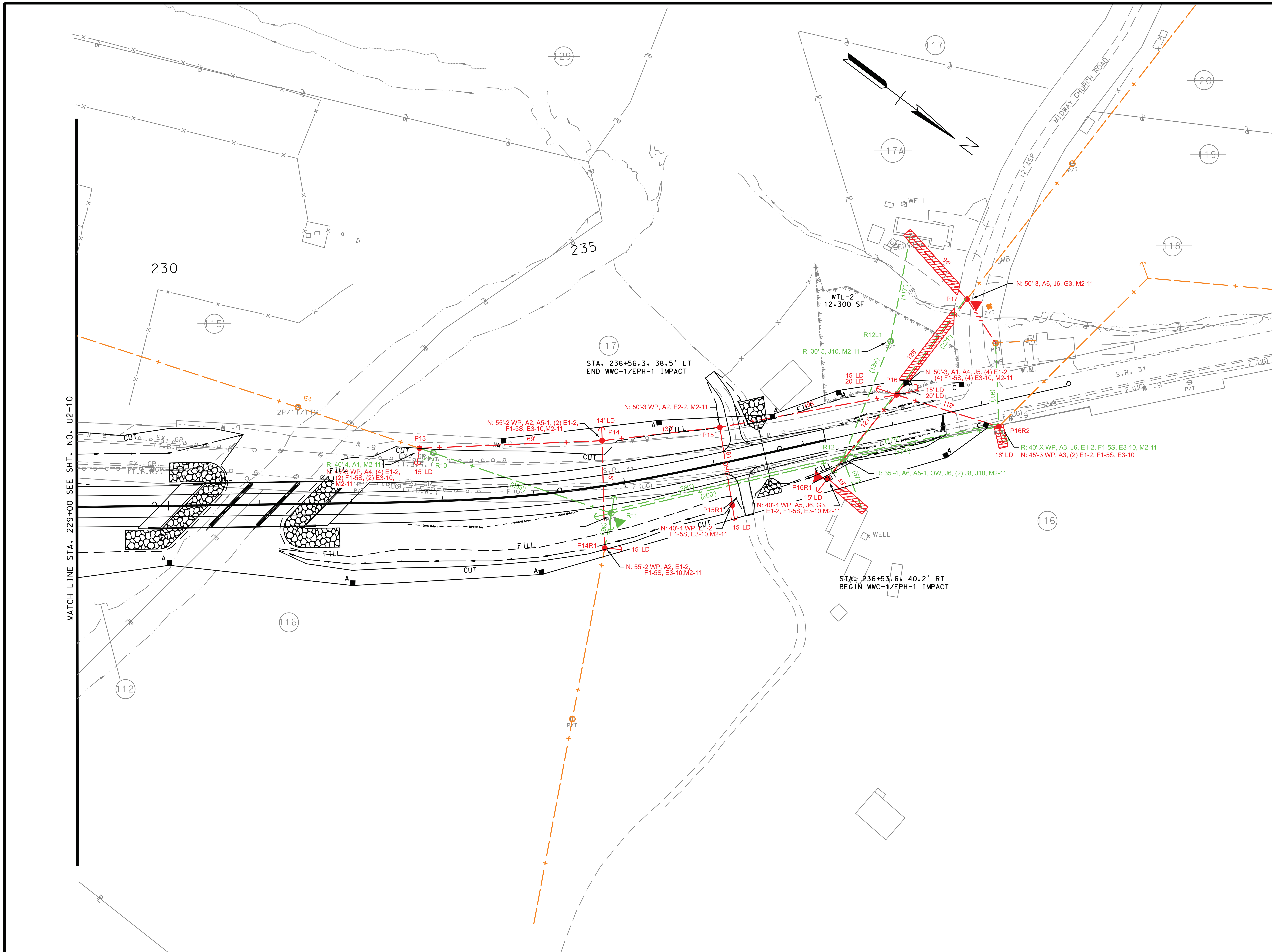
TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U2-11

S.R. 31
32022-3219-14
PIN *101394.00

HAWKINS CO



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

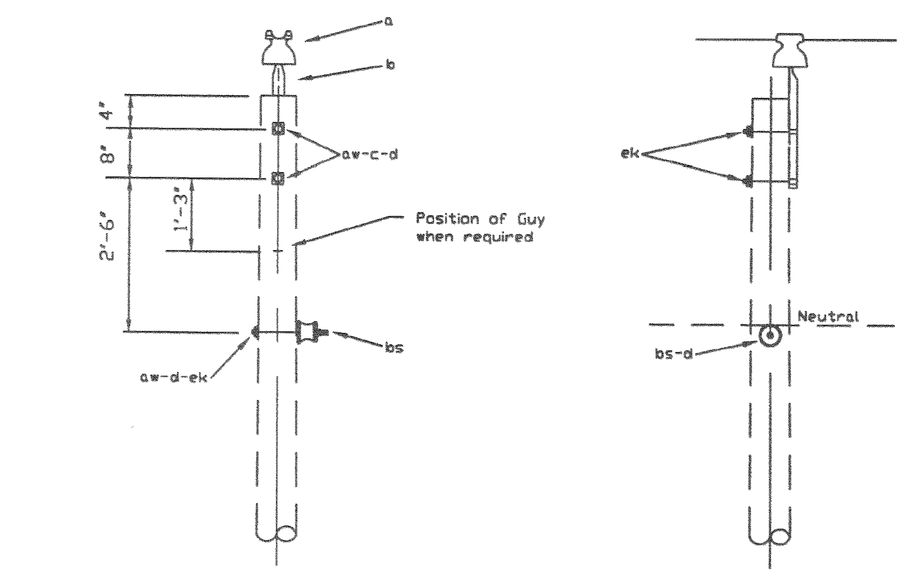
STA. 229+00 TO STA. 239+98
SCALE: 1"= 50'

2/24/2026
Z:\101370-0003\03-Drawings\03-Utilities\4_Design\01_Sheets\U2-11.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U2-12

S.R. 31
32022-3219-14
PIN *101394.00

HAWKINS CO



NOTES:
1- Maximum transverse load: 500 lbs. per conductor
2- Maximum line angle within load limits: 5°

ITEM	HEC NO.	QTY	DESCRIPTION
a	1040-5R	1	insulator, pin type
b	900	1	pin, pole top
c	358	2	machine bolt, 5/8" x 10"
j	550	2	screw, lag, 1/2" x 4"
ek	655	3	locknuts, 5/8"

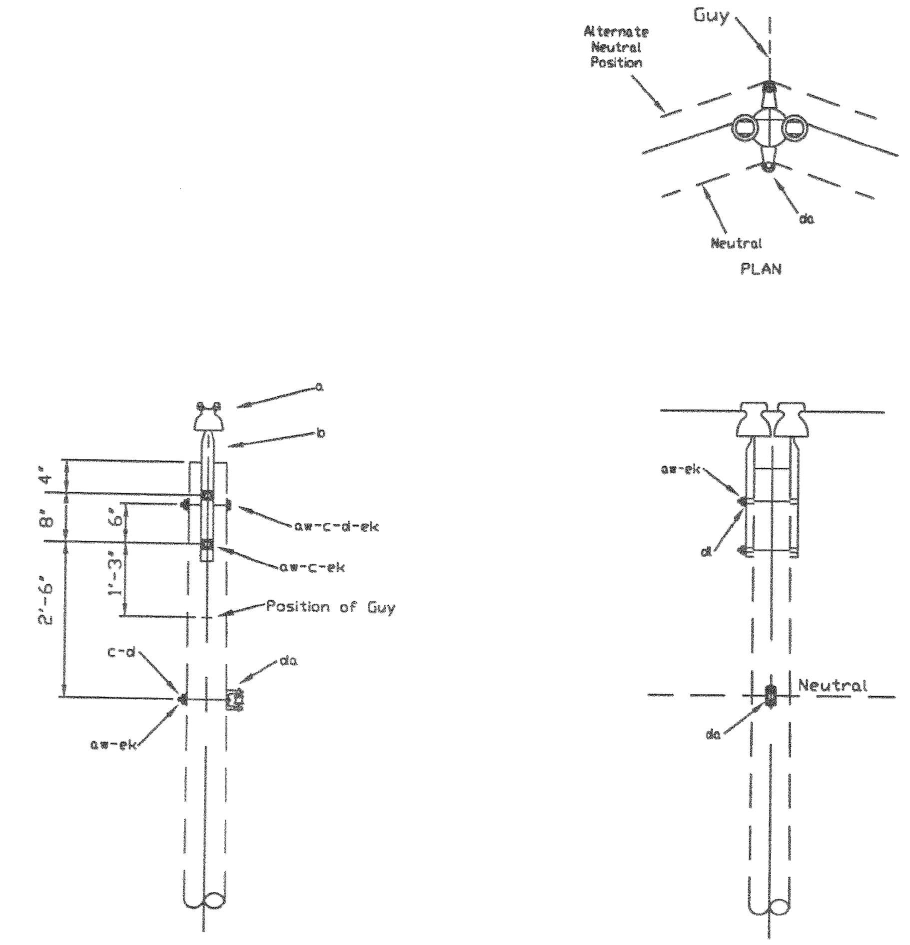
ITEM	HEC NO.	QTY	DESCRIPTION
cm	1030	1	insulator, spool type
d	605	3	square washer, 2 1/4"
bs	425	1	bolt, single upset, 10"
ec		1	offset neutral bracket

HOLSTON ELECTRIC

SINGLE PHASE PRIMARY
SINGLE PRIMARY SUPPORT

DATE: 3-18-02

STANDARD NUMBER
A1



NOTES:
1- Maximum transverse load: 1000 lbs. per conductor

2- Maximum line angle within load limits: 20°

ITEM	HEC NO.	QTY	DESCRIPTION
a	1040-5R	2	insulator, pin type
b	900	2	pin, pole top
c	358	4	machine bolt, 5/8" x 10"
d	605	3	square washer, 2 1/4"

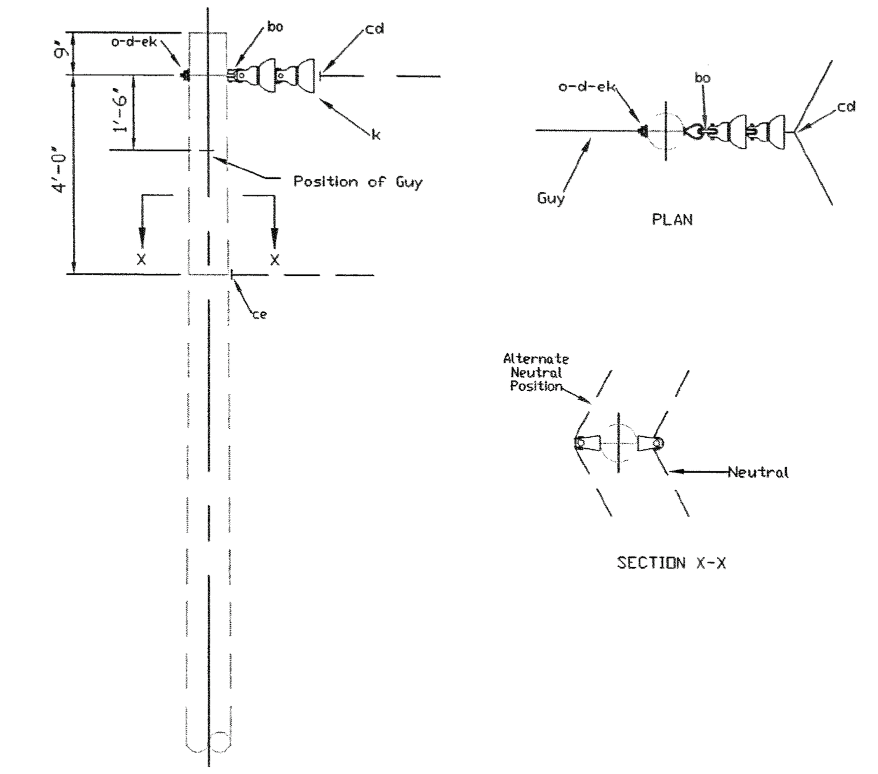
ITEM	HEC NO.	QTY	DESCRIPTION
da	1820	1	rigid clevis
ek	655	2	locknuts, 5/8"

HOLSTON ELECTRIC

SINGLE PHASE PRIMARY
SMALL ANGLE STRUCTURE
DOUBLE PRIMARY SUPPORT

DATE: 3-18-02

STANDARD NUMBER
A2



NOTES:
1- Details for primary and neutral angle assembly may be found on drawings M10-5 and M10-9
2- Maximum transverse load: 4000 lbs. per conductor
3- Design angle: 20° - 60° for 1/0 ACSR and larger
30° - 60° for smaller conductors

ITEM	HEC NO.	QTY	DESCRIPTION
d	610	1	washer, square, curved, 3"
k	1110	2	suspension insulator
o	315	1	bolts, eye, 5/8" x 10"

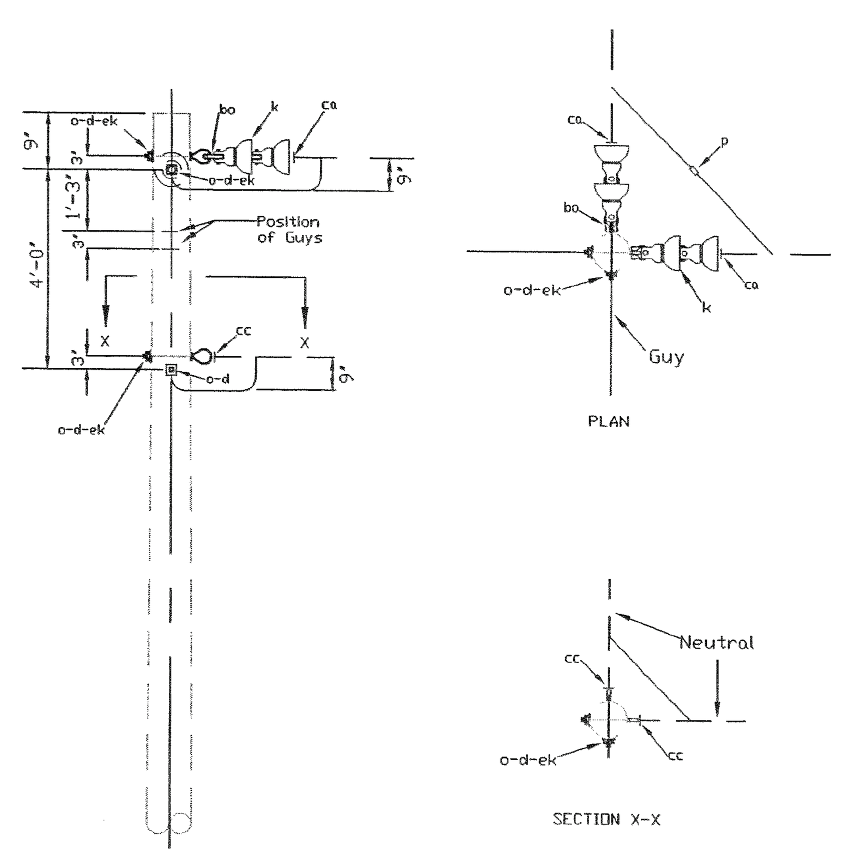
ITEM	HEC NO.	QTY	DESCRIPTION
bo	1360	1	anchor shackle
cd		1	angle assembly, primary
ce		1	angle assembly, neutral
ek	655	2	locknuts, 5/8"

HOLSTON ELECTRIC

SINGLE PHASE PRIMARY
LARGE ANGLE STRUCTURE

DATE: 6-1-99

STANDARD NUMBER
A3



ITEM	HEC NO.	QTY	DESCRIPTION
d	610	4	washer, square, curved, 3"
k	1110	4	suspension insulator
o	315	4	bolts, eye, 5/8" x 10"
p		1	connectors, as required

ITEM	HEC NO.	QTY	DESCRIPTION
ca		2	deadend assembly, primary
cc		2	deadend assembly, neutral
ek	655	4	locknuts, 5/8"

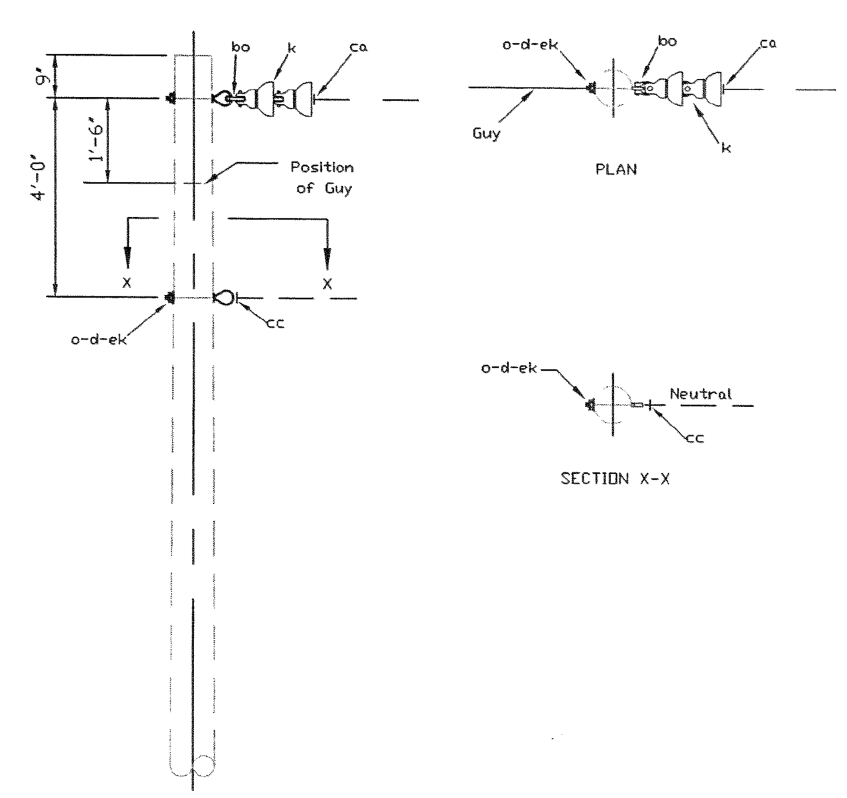
1- Details for primary and neutral deadend assemblies may be found on drawings M10-6 and M10-10

HOLSTON ELECTRIC

SINGLE PHASE PRIMARY
LARGE ANGLE DOUBLE DEAD-END

DATE: 6-1-99

STANDARD NUMBER
A4



NOTES:
1- Details for primary and neutral deadend assemblies may be found on drawings M10-6 and M10-10

ITEM	HEC NO.	QTY	DESCRIPTION
d	610	2	washer, square, curved, 3"
k	1110	2	suspension insulator
o	315	2	bolts, eye, 5/8" x 10"

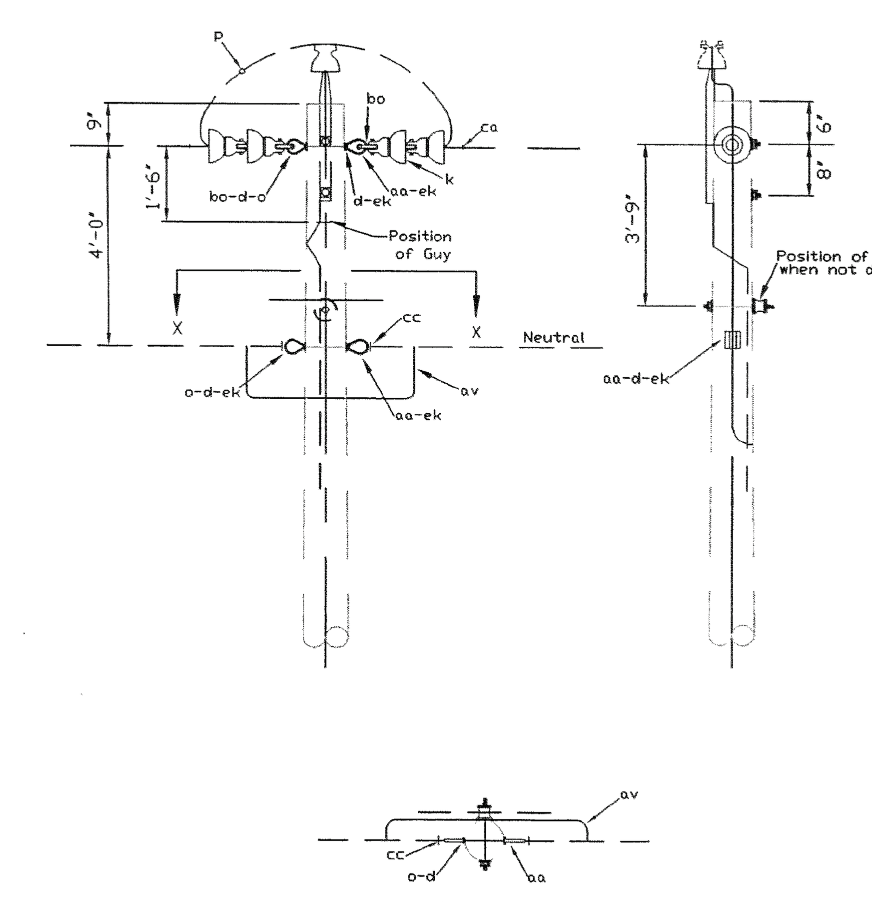
ITEM	HEC NO.	QTY	DESCRIPTION
ca		1	deadend assembly, primary
cc		1	deadend assembly, neutral
ek	655	2	locknuts, 5/8"

HOLSTON ELECTRIC

SINGLE PHASE PRIMARY
DEAD-END (SINGLE)

DATE: 6-1-99

STANDARD NUMBER
A5



NOTES:
1- Details for primary and neutral deadend assemblies may be found on drawings M10-6 and M10-10

ITEM	HEC NO.	QTY	DESCRIPTION
d	610	4	washer. square, curved, 3"
k	1110	4	suspension insulator
o	315	2	bolts, eye, 5/8" x 10"
p			connectors, as required

ITEM	HEC NO.	QTY	DESCRIPTION
aa	640	2	nuts, oval eye
av			jumpers and leads, as required
ca		2	deadend assembly, primary
cc		2	deadend assembly, neutral
ek	655	3	locknuts, 5/8"

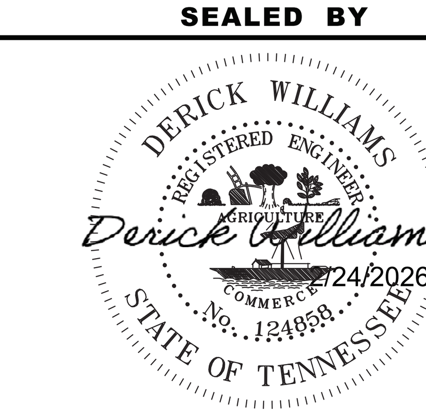
HOLSTON ELECTRIC

SINGLE PHASE PRIMARY
DOUBLE DEAD-END

DATE: 6-1-99

STANDARD NUMBER
A6

SEALED BY



COORDINATES ARE NAD 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00006 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WITH GEOID 99 .

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

DETAILS

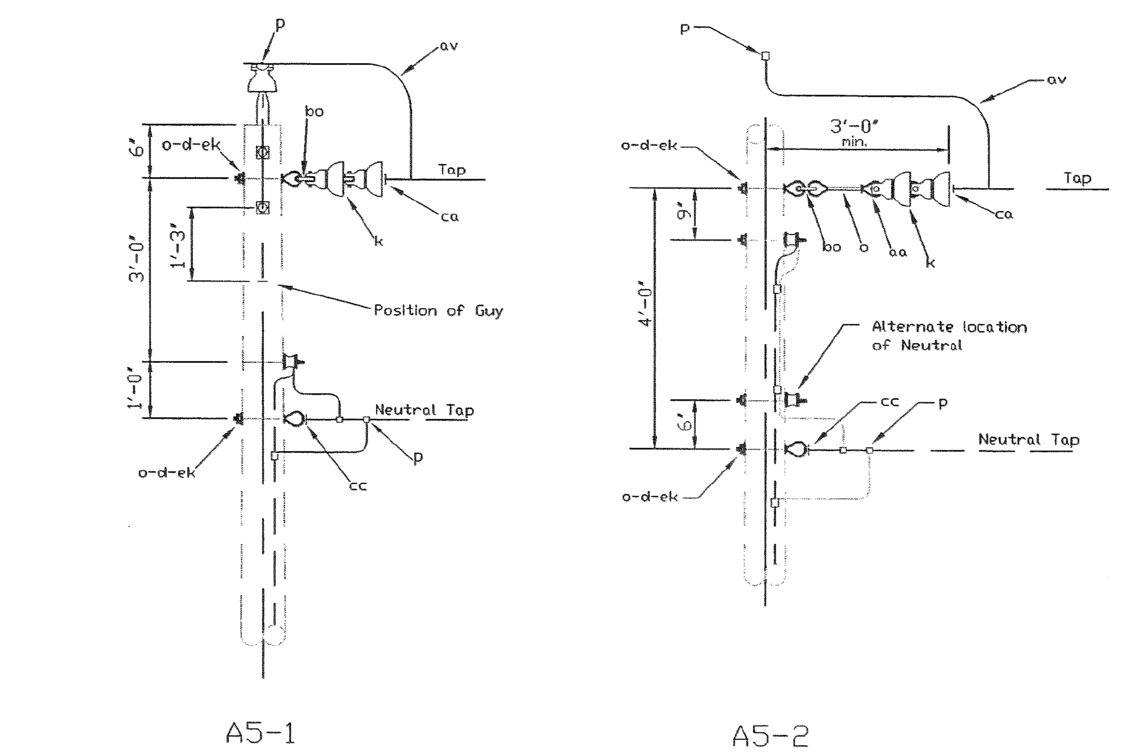
SCALE: NONE

2/24/2026
Z:\01370-0003\03-Drawings\03-Utilities\4_Design\01_Sheets\U2-12.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U2-13

S.R. 31
32022-3219-14
PIN •101394.00

HAWKINS CO



NOTES:
1- Details for primary and neutral deadend assemblies may be found on drawings M10-6 and M10-10
2- A5-1 assembly may be used with drawings such as: A1, A1-1, A2
3- A5-1 assembly may be used with drawings such as: B1, B2, B7, C1, C1-2, C1-3, C1-4, C2-1, C2-2

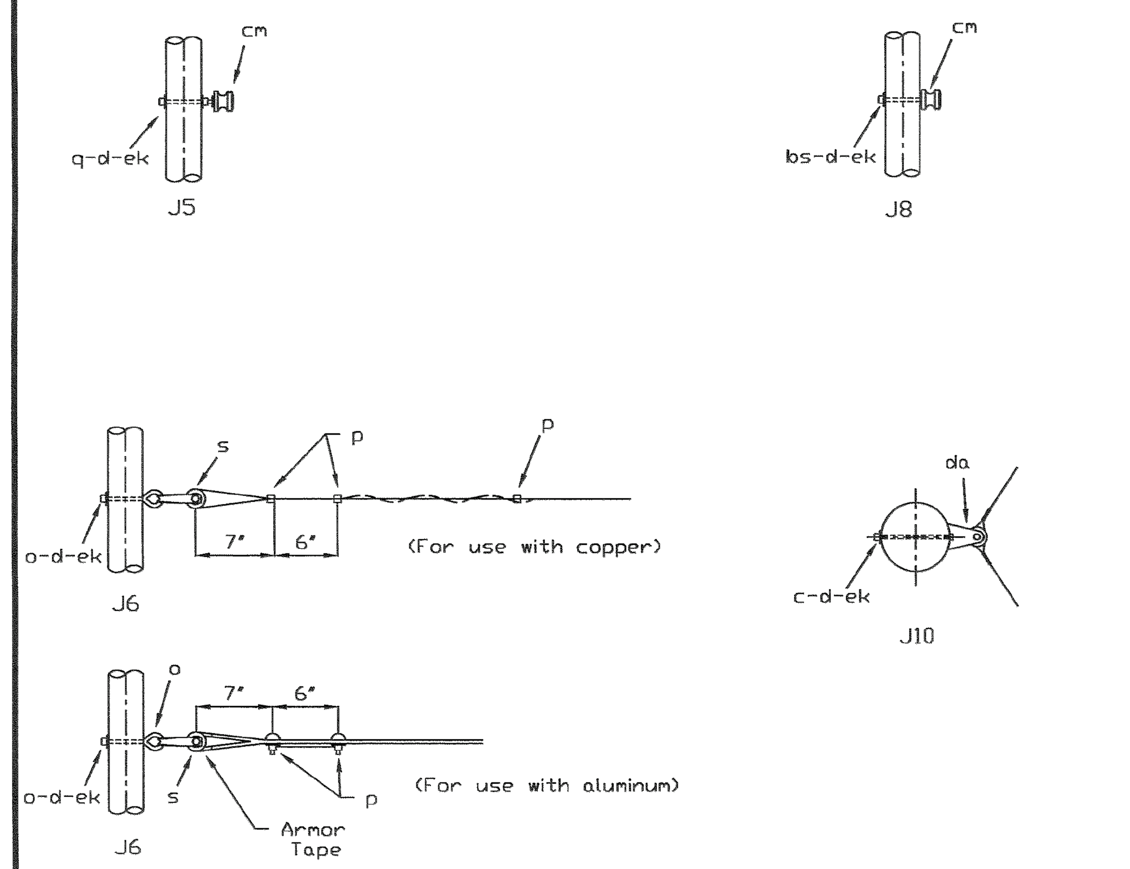
ITEM	HEC NO.	DESCRIPTION	NUMBER REQUIRED A5-1	NUMBER REQUIRED A5-2
d	610	washer, square, curved, 3"	2	2
k	1110	suspension insulator	2	2
o	315	bolts, eye, 5/8" x 10"	2	3
p		connectors, as required		
aa	640	nuts, oval eye		1
av		jumpers and leads, as required		
ca		deadend assembly, primary	1	1
cc		deadend assembly, neutral	1	1
bo	1360	anchor shackle		1
ek	655	locknuts, 5/8"	2	2

HOLSTON ELECTRIC

SINGLE PHASE PRIMARY
SINGLE PHASE TAP

DATE: 6-1-99

STANDARD NUMBER
A5-1
A5-2



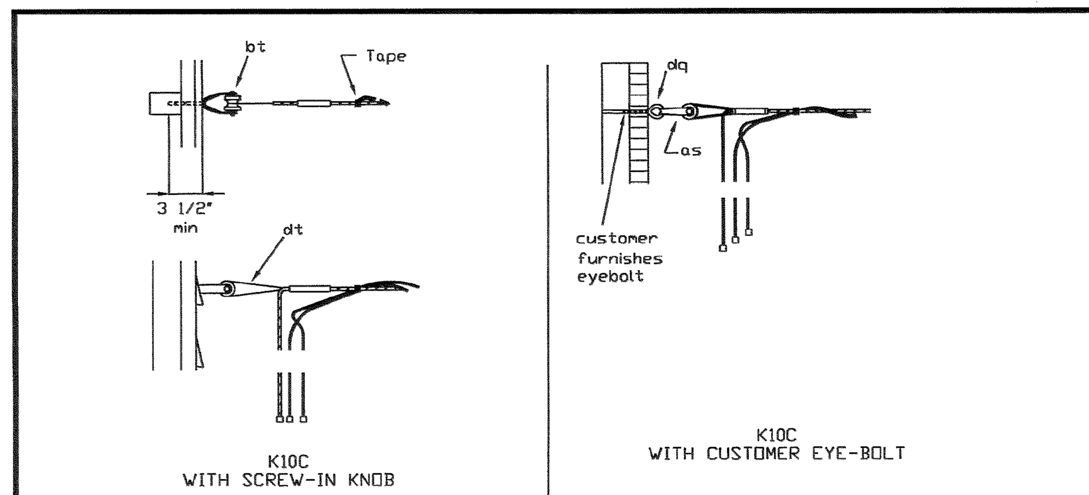
			J5	J6	J8	J10
c	358	machine bolt, 5/8" x 10"		1	1	1
d	605	square washer, 2 1/4"	1		1	1
ek	655	locknuts, 5/8"	1	1	1	1
cm	1030	insulator, spool type	1	1	1	1
bs	425	bolt, single upset, 10"			1	
q	435	bolt, double upset, 10"	1			
o	315	bolts, eye, 5/8" x 10"		1		
s	1820	clevis, secondary deadend		1		
p		connectors, as required		2		
da	1820	rigid clevis				1

HOLSTON ELECTRIC

SECONDARY ASSEMBLIES

DATE: 3-18-02

STANDARD NUMBER
J5 to
J10

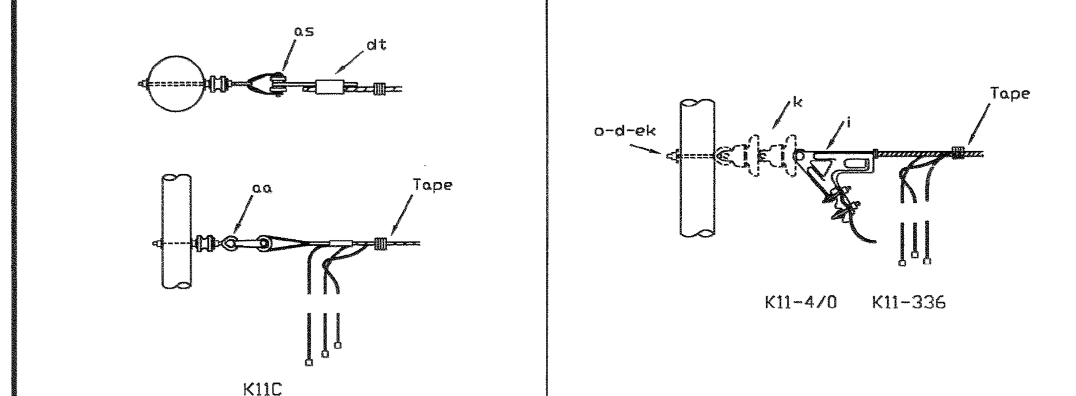


K10C
WITH SCREW-IN KNOB

ITEM	HEC NO.	QTY	DESCRIPTION
cm	1030	1	spool insulator
as	1800	1	clevis, service J0-75
dt	1980	1	wedge clamp
ph	3048	5	H-frame connector
p	3150	3	connector - squeezn linkits
sc	3982	5	secondary cover

K10C
WITH CUSTOMER EYE-BOLT

ITEM	HEC NO.	QTY	DESCRIPTION
cm	1030	1	spool insulator
as	1800	1	clevis, service J0-75
dt	1980	1	wedge clamp
ph	3048	5	H-frame connector
p	3150	3	connector - squeezn linkits
sc	3982	5	secondary cover



K11C

ITEM	HEC NO.	QTY	DESCRIPTION
o	315	1	eye bolt 5/8" x 10"
d	605	1	square washers
aa	640	2	oval eye nuts
cm	1030	1	spool insulator
as	1810	1	clevis, secondary D.E.
dt	1980	1	wedge clamp

K11-4/0 K11-336

			K11-4/0	K11-336
o	320	eye bolt, 5/8" x 10"	1	1
d	605	square washer, 2 1/4"	1	1
ek	655	locknuts, 5/8"	1	1
k	1110	suspension insulator	1	1
i	1940	DE shoe for 4/0	1	
i	1950	DE shoe for 336		1

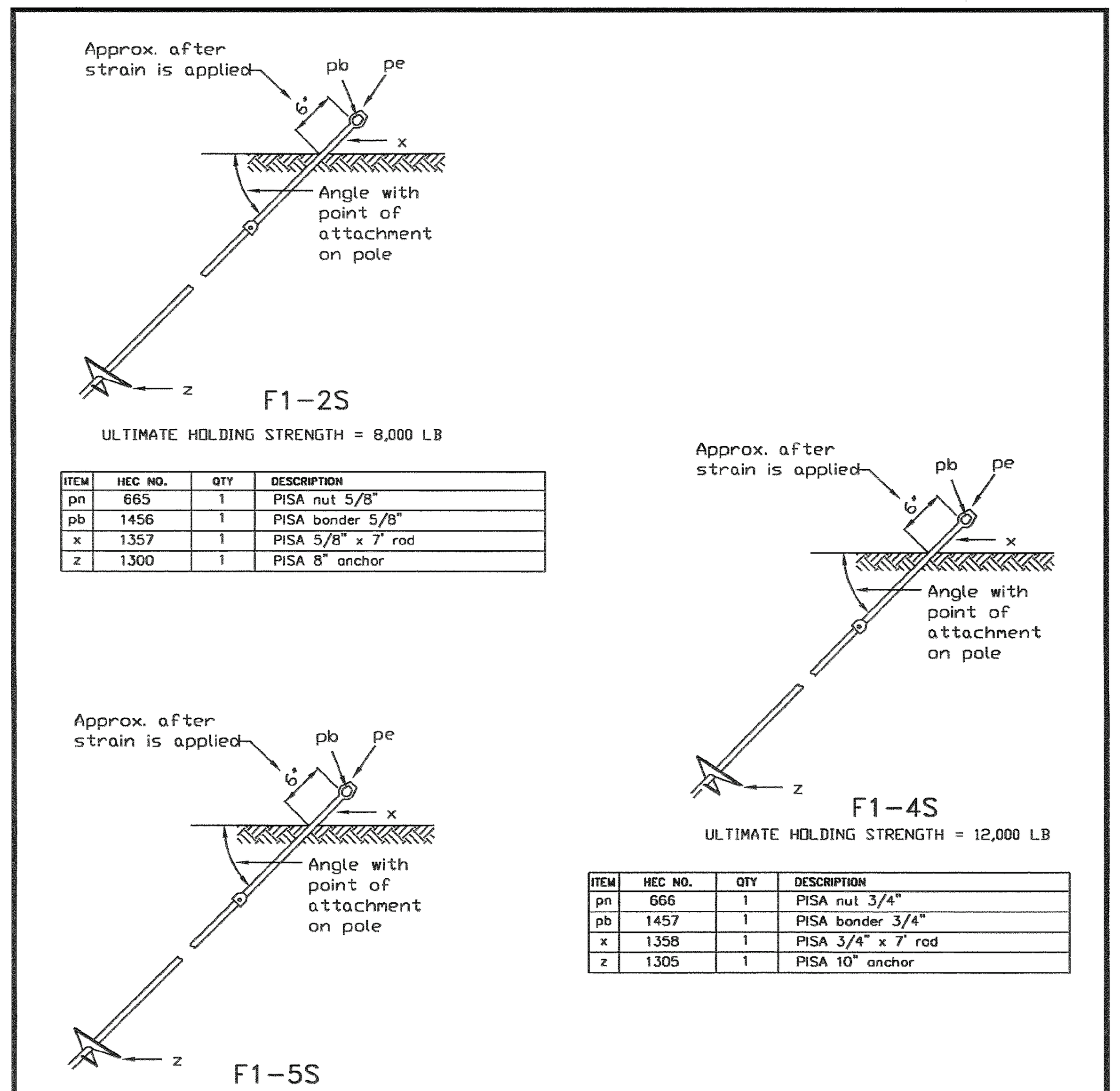
NOTES:
1- This type of construction should be used for 3 or 4 conductor service cables with bare A.C.S.R. neutral.

HOLSTON ELECTRIC

SERVICE ASSEMBLIES
DUPLEX, TRIPLEX, OR QUADPLEX

DATE: 3-18-02

STANDARD NUMBER
K10C to
K11-336



F1-2S
ULTIMATE HOLDING STRENGTH = 8,000 LB

ITEM	HEC NO.	QTY	DESCRIPTION
pn	665	1	PISA nut 5/8"
pb	1456	1	PISA bonder 5/8"
x	1357	1	PISA 5/8" x 7' rod
z	1300	1	PISA 8" anchor

F1-4S
ULTIMATE HOLDING STRENGTH = 12,000 LB

ITEM	HEC NO.	QTY	DESCRIPTION
pn	666	1	PISA nut 3/4"
pb	1457	1	PISA bonder 3/4"
x	1358	1	PISA 3/4" x 7' rod
z	1305	1	PISA 10" anchor

F1-5S
ULTIMATE HOLDING STRENGTH = 20,000 LB

ITEM	HEC NO.	QTY	DESCRIPTION
pn	666	1	PISA nut 1"
pb	1457	1	PISA bonder 1"
x	1358	1	PISA 1" x 7' rod
z	1305	1	PISA 12" anchor

NOTES:
1- the ultimate holding strength is obtained only when the anchor is installed to the manufacturers specified torque.

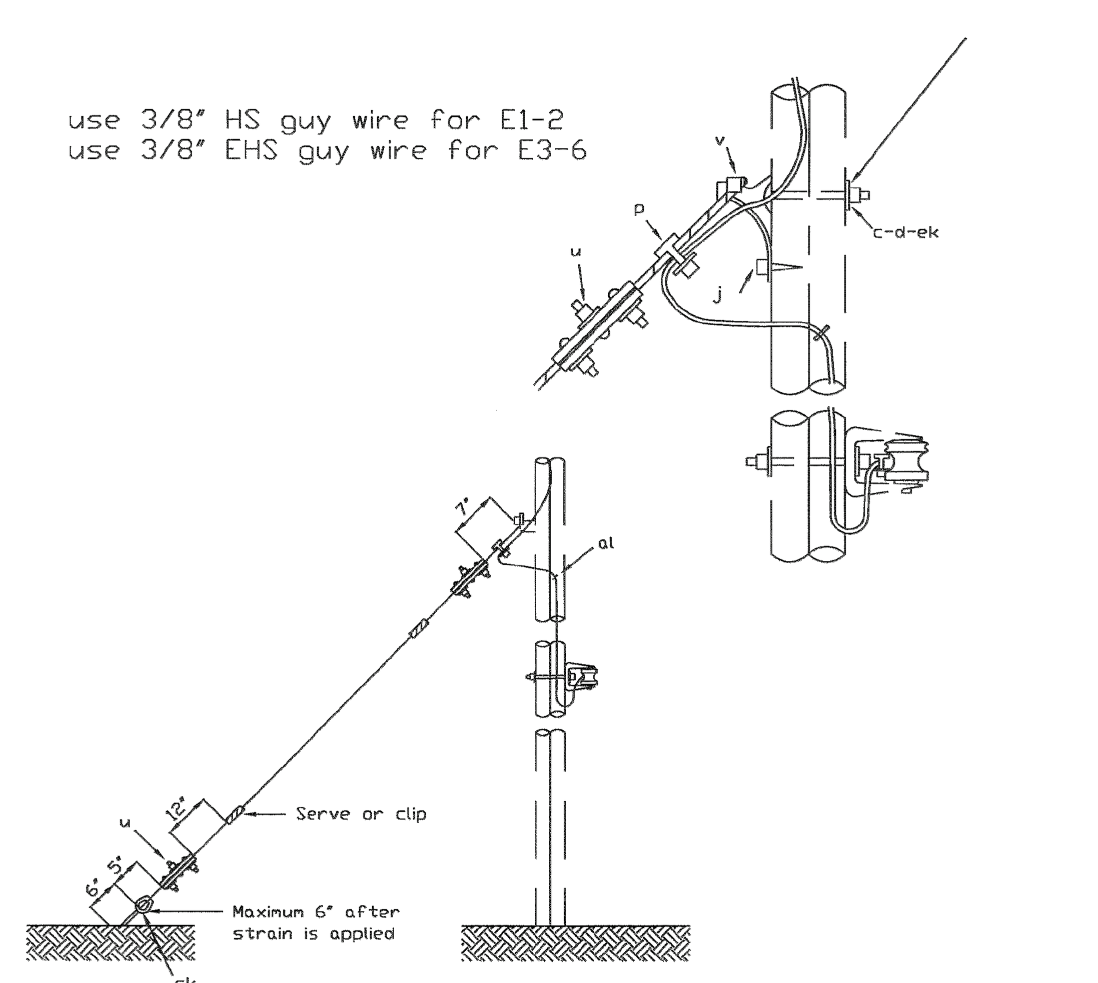
HOLSTON ELECTRIC

POWER INSTALLED SCREW ANCHORS

DATE: 3-18-02

STANDARD NUMBER
F1-2S, F1-4S
F1-5S

use 3/8" HS guy wire for E1-2
use 3/8" EHS guy wire for E3-6



NOTES:
1- Three bolt clamps may be substituted for guy grips

ITEM	HEC NO.	DESCRIPTION	E1-2 QTY	E3-5 QTY
c	358	bolt, machine 5/8" x 10"	1	
c	358	bolt, machine 3/4" x 10"		1
d	610	washer, curved	1	1
u	1462	guy grips	2	2
v	1467	guy attachment, goathead	1	1
p	3024	connector, al-cu par.	1	1
p	3026	connector, al-cu over armor	1	1

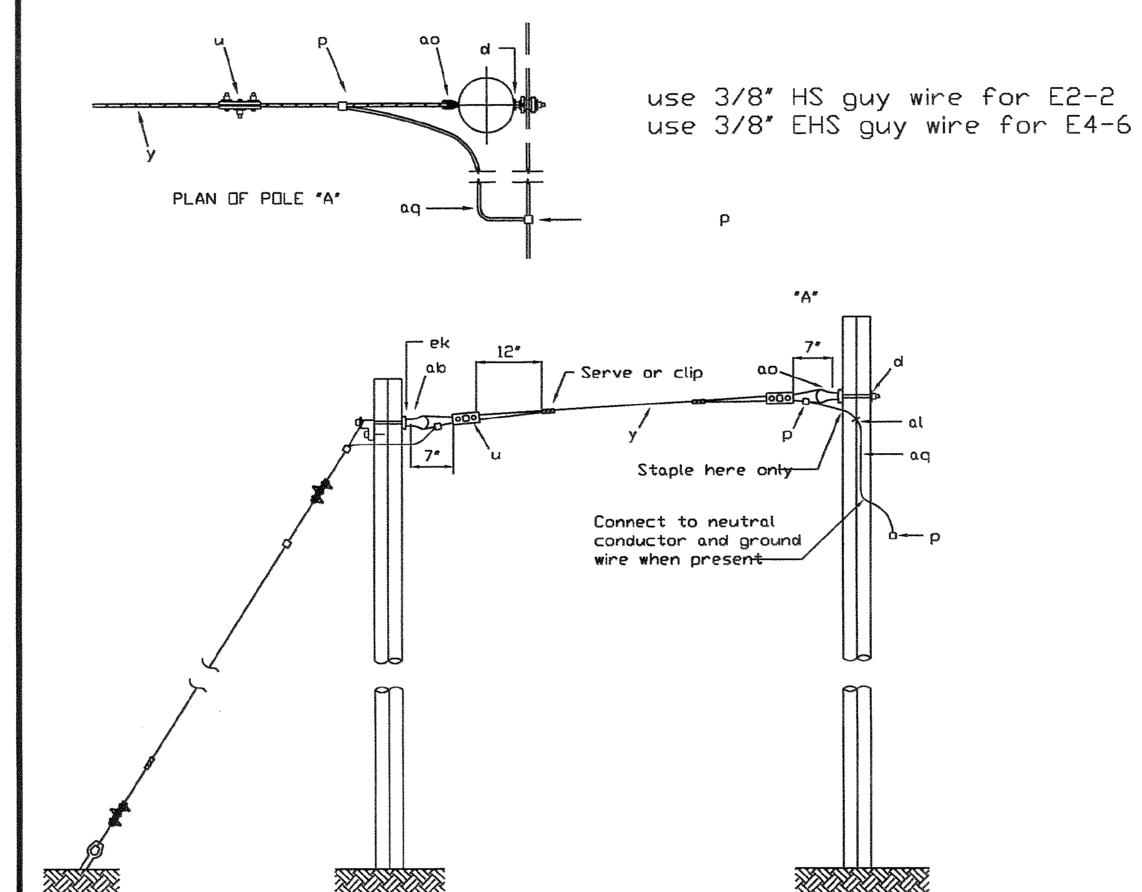
HOLSTON ELECTRIC

SINGLE DOWN GUY
THROUGH BOLT TYPE

DATE: 3-18-02

STANDARD NUMBER
E1-2
E3-6

use 3/8" HS guy wire for E2-2
use 3/8" EHS guy wire for E4-6



NOTES:
1- Three bolt clamps may be substituted for guy grips

ITEM	HEC NO.	DESCRIPTION	E2-2 QTY	E4-6 QTY
aa	346	bolt, thimble eye, 5/8" x 10"	1	
aa	346	bolt, thimble eye, 3/4" x 10"		1
d	610	washer, curved	1	1
ab	660	nuts, thimble eye	1	1
u	1462	guy grips	2	2
v	1467	guy attachment, goathead	1	1
p	3024	connector, al-cu par.	1	1
p	3026	connector, al-cu over armor	1	1

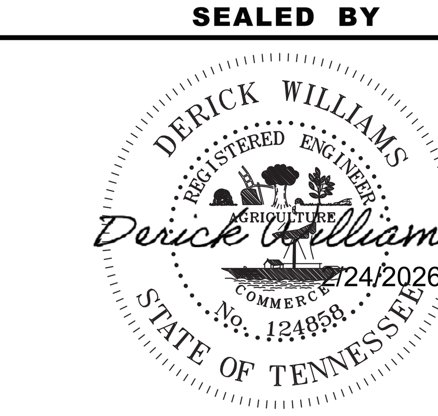
HOLSTON ELECTRIC

SINGLE OVERHEAD GUY
THROUGH BOLT TYPE

DATE: 3-18-02

STANDARD NUMBER
E2-2
E4-6

SEALED BY



COORDINATES ARE NAD 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00006 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WITH GEOID 99 .

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

DETAILS

SCALE: NONE

2/24/2026
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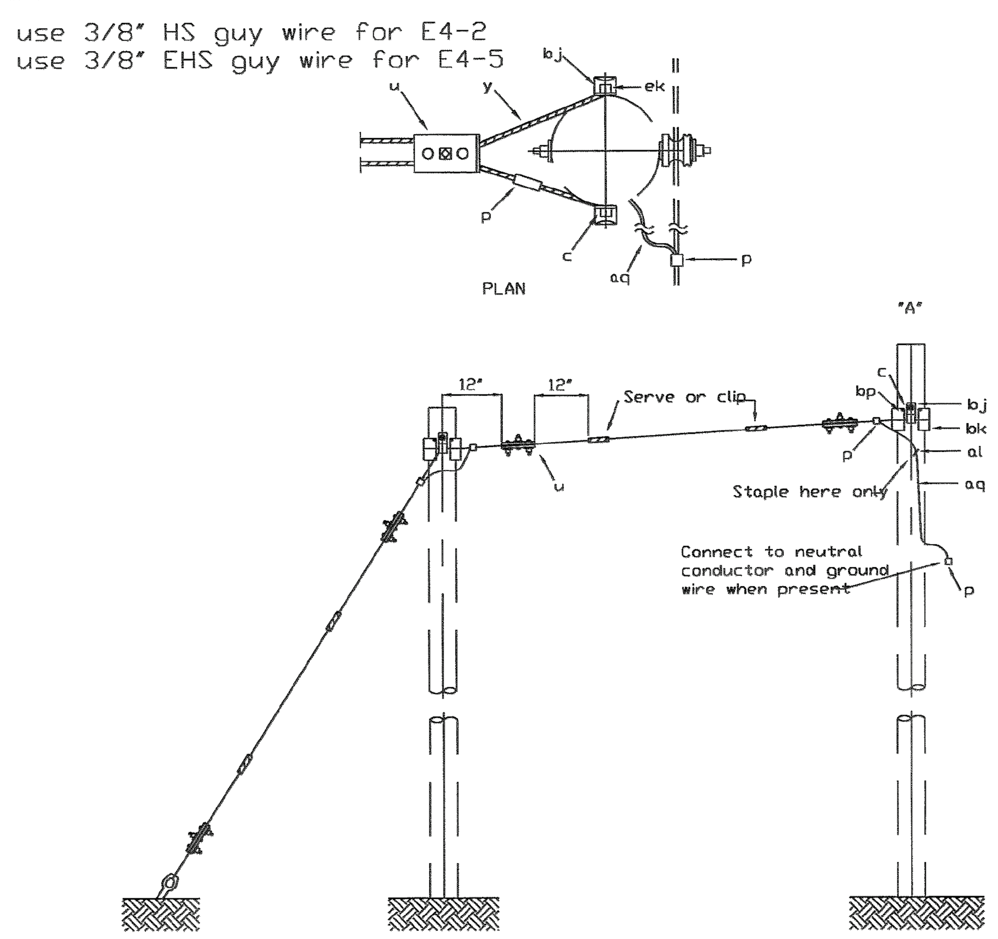
TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U2-14

S.R. 31
32022-3219-14
PIN *101394.00

HAWKINS CO

use 3/8" HS guy wire for E4-2
use 3/8" EHS guy wire for E4-5



EH4-2	3/8" STRAND
EH4-3	7/16" STRAND

NOTES:
1- Other accepted and equivalent (item u) guy clamps may be substituted for the 3-bolt clamps shown.

NOTES:
1- Three bolt clamps may be substituted for guy grips

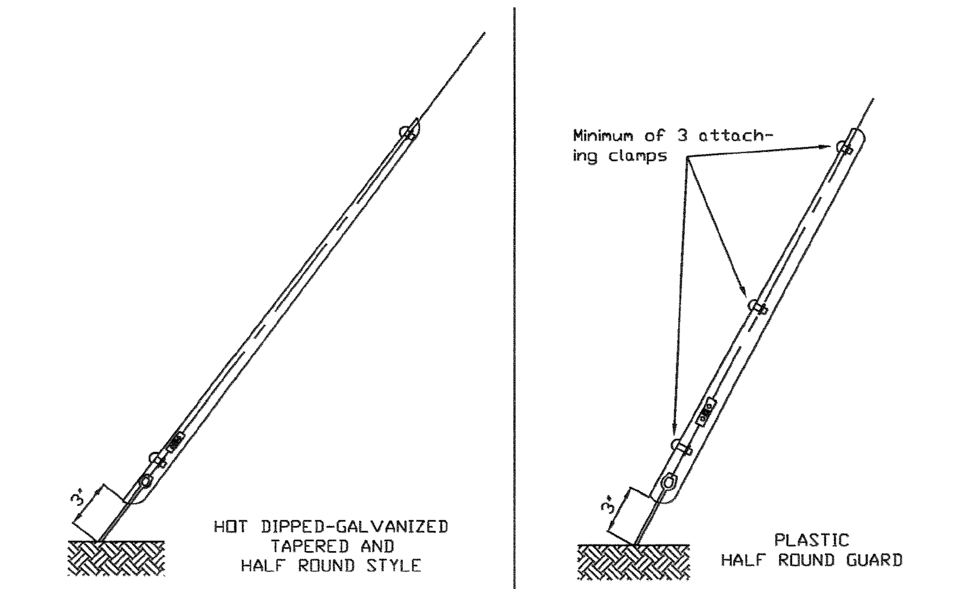
ITEM	HEC NO.	DESCRIPTION	E4-2 QTY	E4-6 QTY
c	358	bolt, machine 5/8" x 10"	2	
c	358	bolt, machine 3/4" x 10"		2
bj	1460	guy hooks	4	4
u	1440	guy clamps, 3-bolt	2	2
v	1467	guy attachment, goathead	1	1
bk	1540	guy plate	4	4
p	3024	connector, al-cu par.	1	1
p	3026	connector, al-cu over armor	1	1

HOLSTON ELECTRIC

SINGLE OVERHEAD GUY
WRAP TYPE

DATE: 3-18-02

STANDARD NUMBER
E4-2
E4-5

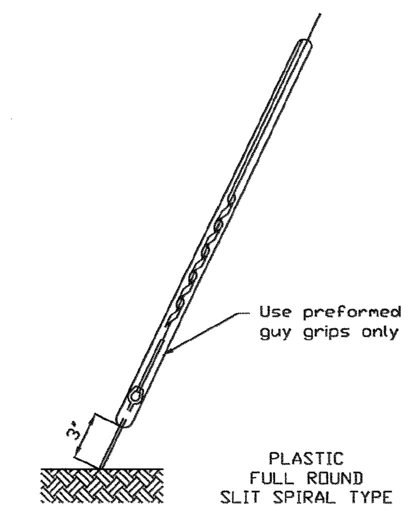


HOT DIPPED-GALVANIZED
TAPERED AND
HALF ROUND STYLE

PLASTIC
HALF ROUND GUARD

NOTES:
1- Guy guards shall be no less than 8 feet long.
2- Visibility of colored plastic guards can be improved by use of color or color patterns which provide contrast with the surroundings.
3- Guards for sidewalk guys should be full round type or installed so that mounting clamps will not come in contact with pedestrians.
4- Guards shall be installed so that anchor rod eye is covered.

DESIGNATE
E3-10G (Galvanized)
E3-10P (Plastic)



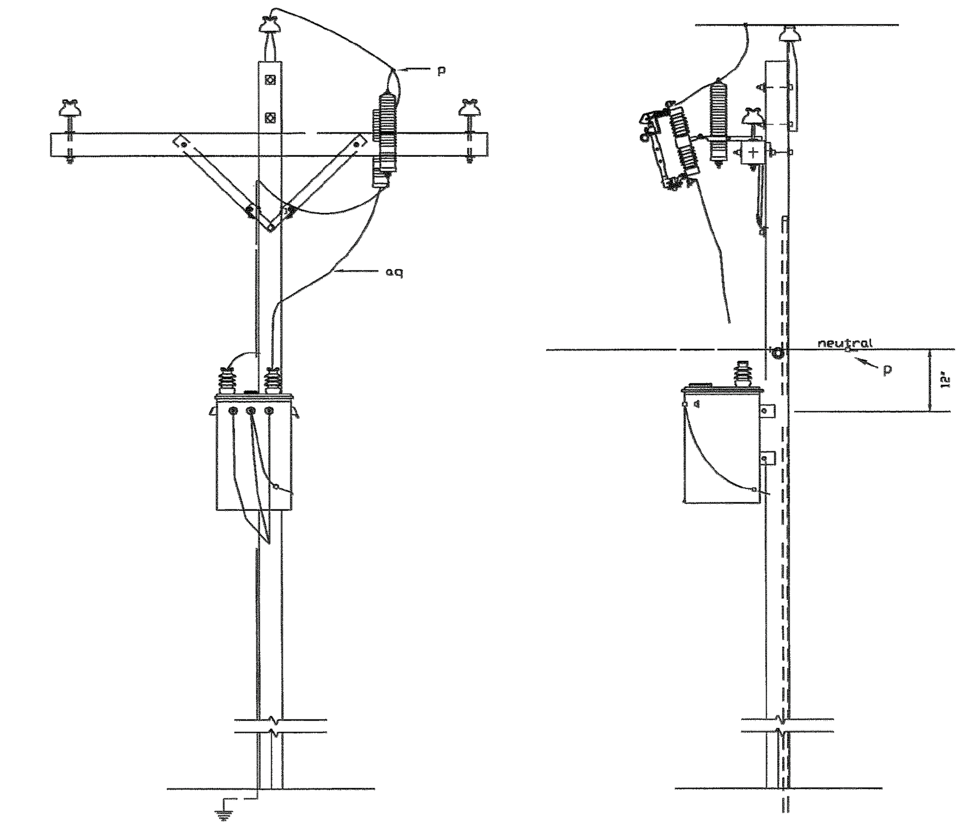
PLASTIC
FULL ROUND
SLIT SPIRAL TYPE

HOLSTON ELECTRIC

GUY MARKER

DATE: 3-18-02

STANDARD NUMBER
E3-10



NOTES:
1- Bond transformer neutral to system ground.

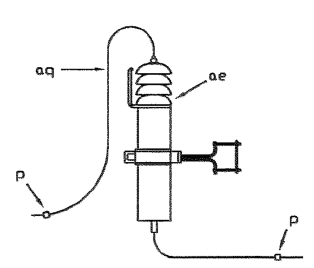
ITEM	HEC NO.	QTY	DESCRIPTION
c	358	3	machine bolt, 5/8" x 10"
j	550	1	lag screw
d	605	3	square washer, 2 1/4"
eq	880	1	C5A type metal pole bracket
hl	2000	1	hot line clamp
p	3000	3	connector - #6 copper
p	3024	2	connector - al-cu par
p	3026	2	connector al-cu over armor
ae	5015	1	lightning arrestor
af	5120	1	disconnect

HOLSTON ELECTRIC

SINGLE PHASE CONVENTIONAL TRANSFORMER
INSTALLED ON THREE PHASE POLE
WITH EXTERNAL ARRESTOR AND DISCONNECT

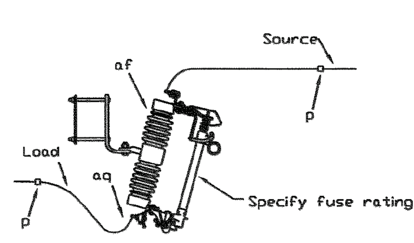
DATE: 3-18-02

STANDARD NUMBER
G3



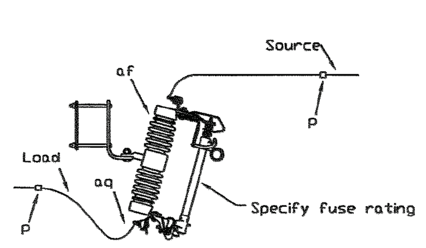
M5-6

ITEM	HEC NO.	QTY	DESCRIPTION
p	3000	2	connectors - #6 copper
as	5015	1	lightning arrestors



M5-9

ITEM	HEC NO.	QTY	DESCRIPTION
j	550	1	lag screw
eq	880	1	C5A type metal pole bracket
hl	2000	1	hot line clamp
af	5120	1	disconnect



M5-9LB

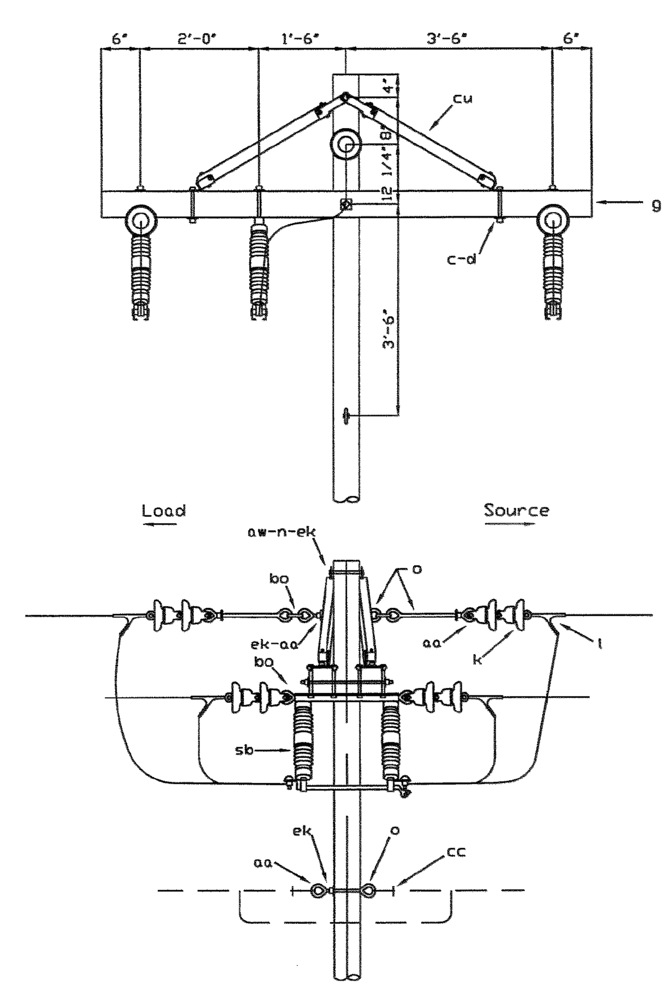
ITEM	HEC NO.	QTY	DESCRIPTION
j	550	1	lag screw
eq	880	1	C5A type metal pole bracket
hl	2000	1	hot line clamp
af	5125	1	load break disconnect

HOLSTON ELECTRIC

MISCELLANEOUS PRIMARY
ASSEMBLY UNITS

DATE: 3-18-02

STANDARD NUMBER
M5-6 TO
M5-9LB



ITEM	HEC NO.	QTY	DESCRIPTION
n	256	2	bolts, D.A., 18"
o	320	2	eye bolt, 5/8" x 12"
c	351	4	machine bolt, 1/2" x 6"
c	358	2	machine bolt, 5/8" x 10"
d	600	4	round washer
d	605	12	square washer, 2 1/4"
g	710	2	crossarms, 3 3/4 x 4 3/4 x 8'
cu	830	2	wood crossarm brace, 60"

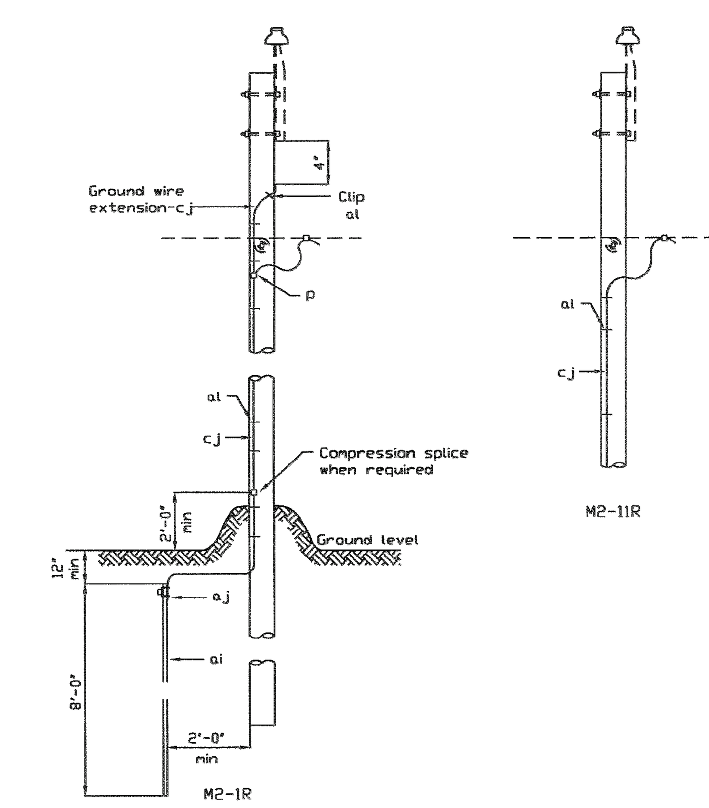
ITEM	HEC NO.	QTY	DESCRIPTION
cm	1030	2	spool insulator
k	1110	12	suspension insulator, 6"
el	1130	4	extension link
bo	1360	6	anchor shackle
as	1810	2	clevis, secondary D.E.
l	1940	6	dead end clamps, #4-2/0
p	3012	6	connectors, large copper
p	3046	4	connector, secondary al 412
p	3150	1	connector - squeezn link
sb	5215	3	disconnect switch - blade type

HOLSTON ELECTRIC

TWO OR THREE PHASE PRIMARY
TWO OR THREE BLADE TYPE SWITCHES

DATE: 3-18-02

STANDARD NUMBER
M3-2A
M3-3A



NOTES:
1- Ground wire to be located on same side as neutral conductor and in quadrant opposite climbing space or pole top pin.

2- Staples on ground wire shall be 2'-0" apart. Except for a distance of 8'-0" above ground and 8'-0" from top of pole, where they shall be 6" apart.

3- Ground wire to clear all hardware by 2" minimum, and shall be stapled to maintain this position.

4- Ground wire moulding may be installed at discretion of owner.

ITEM	HEC NO.	QTY	DESCRIPTION
ai	1730	1	ground rod
aj	2020	1	ground rod clamps
p	3000	2	connectors - #6 copper
p	3026	1	connectors - al-cu over armor

HOLSTON ELECTRIC

POLE GROUNDING ASSEMBLY
GROUND ROD TYPE

DATE: 3-18-02

STANDARD NUMBER
M2-11

SEALED BY

DERICK WILLIAMS
REGISTERED ENGINEER
AGRICULTURE COMMERCE
No. 124059
STATE OF TENNESSEE
Derick Williams
2/24/2026

COORDINATES ARE NAD 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00006 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WITH GEOID 99.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

DETAILS

SCALE: NONE

2/24/2026
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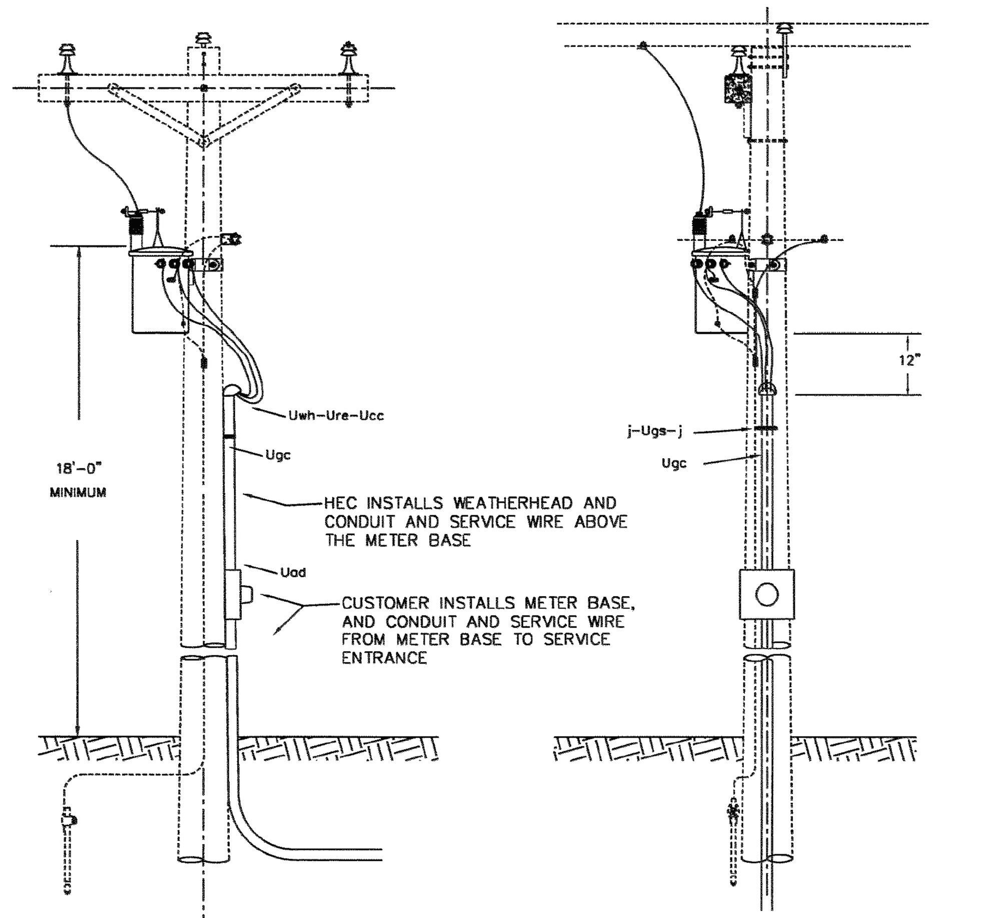
TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U2-15

S.R. 31
32022-3219-14
PIN •101394.00

HAWKINS CO



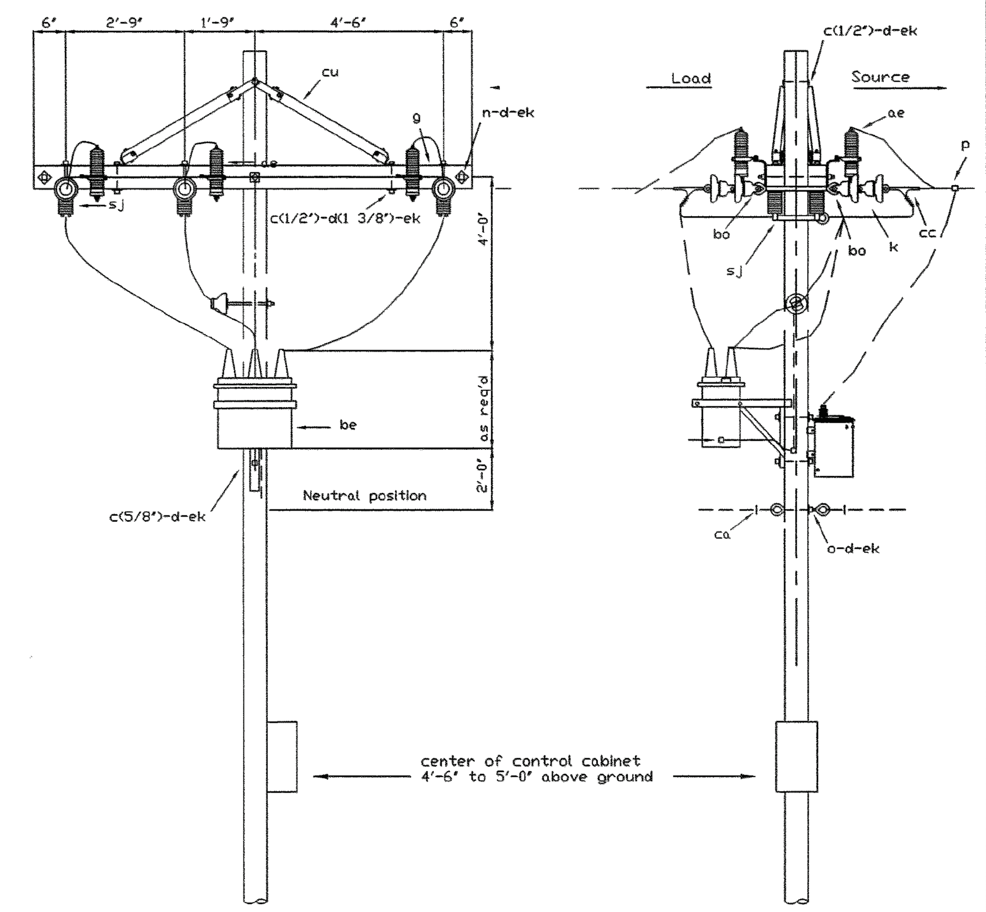
ITEM	HEC ITEM	QTY.	MATERIAL
j	550	10	screw, lag
Ugc	4270	20 ft	conduit, 2 1/2 in. schedule 80
Ucc	4296	1	PVC conduit coupler
Uad	4296	1	2 1/2" PVC adapter
Ure	4296	1	2 1/2" to 2" PVC reducer
Ucs	4298	5	conduit straps
Uwh	4297	1	URD weatherhead

HOLSTON ELECTRIC

SINGLE PHASE UNDERGROUND
SECONDARY TERMINAL POLE
100A OR 200A SERVICE

DATE: 3-18-02

STANDARD NUMBER
UM6



ITEM	HEC NO.	QTY	DESCRIPTION
n	256	5	bolts, D.A., 18"
c	351	4	machine bolt, 1/2" x 6"
c	358	3	machine bolt, 5/8" x 10"
d	600	4	round washer
d	605	12	square washer, 2 1/4"
aa	640	6	oval eye nuts
g	710	2	crossarms, 3 3/4" x 4 3/4" x 10'
cu	830	2	wood crossarm brace, 60"

ITEM	HEC NO.	QTY	DESCRIPTION
k	1110	12	suspension insulator, 6"
bo	1360	6	anchor shackle
l	1940	2	dead end clamps, #4-2/0
l	1950	6	dead end clamps, 336.4 ACSR
hl	2010	6	hot line clamps
p	3000	6	connectors, #6 copper
p	3012	6	connectors, large copper
ae	5015	6	lightning arrestors
sb	5215	3	disconnect switch – blade type
be	REC-3P	1	3 phase recloser – M3-30 only
be	REC-VWE	1	WE type recloser – M3-30VWE only

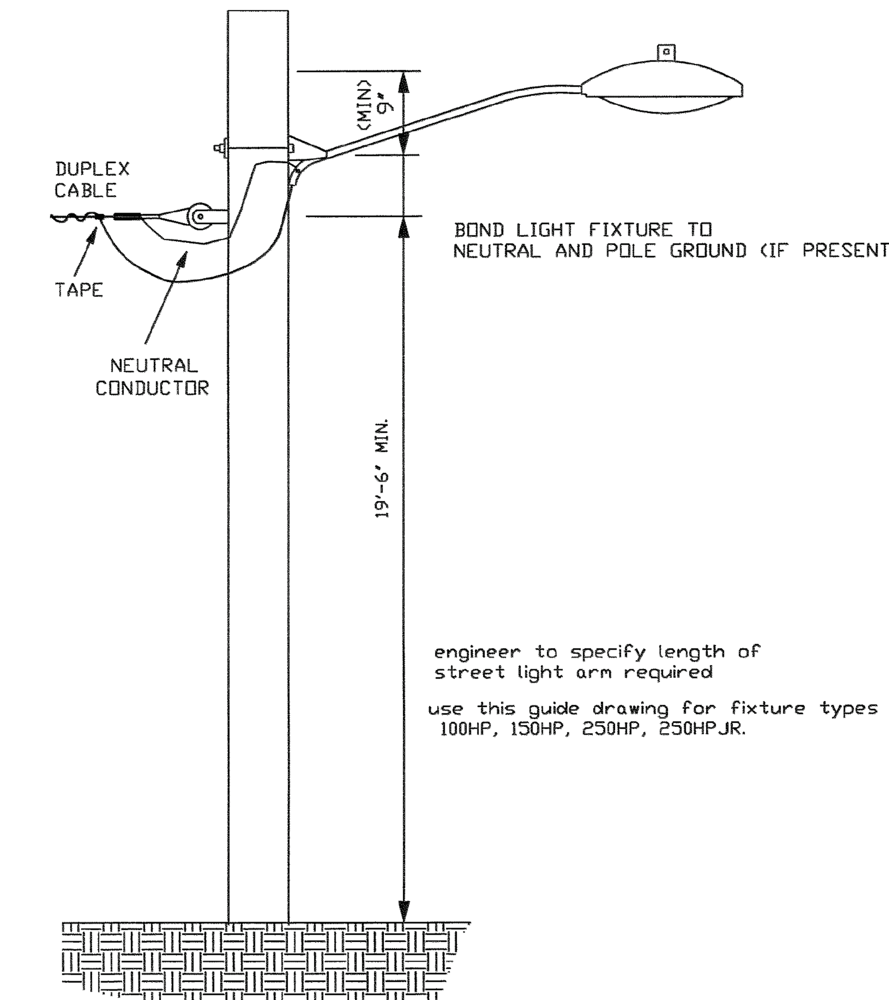
note: for M3-30 delete transformer, control cable, and control cabinet

HOLSTON ELECTRIC

THREE PHASE PRIMARY
THREE PHASE RECLOSER WITH
BLADE TYPE BYPASS SWITCHES

DATE: 3-18-02

STANDARD NUMBER
M3-30
M3-30VWE



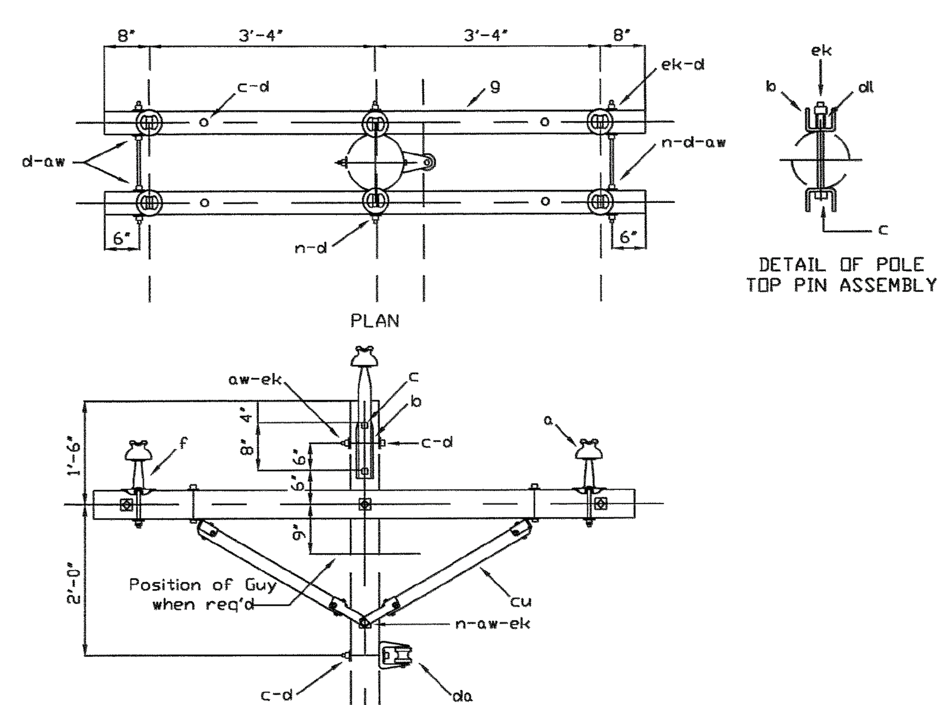
HEC NO.	DESCRIPTION	100HP QTY	150HP QTY	250HP QTY	250HPJR QTY
358	5/8" x 10" machine bolt	2	2	2	2
550	lag screw	2	2	2	2
605	square washer	1	1	1	1
3000	#6 copper connecter	2	2	2	2
3048	H-frame connecter	2	2	2	2
6159	100W HPS cobra	1			
6162	150W HPS cobra jr.		1		
6163	250W HPS cobra jr.				1
6172	250W HPS cobra			1	
7000	photo control	1	1	1	1

HOLSTON ELECTRIC

CITY STREET LIGHT INSTALLATION GUIDE

DATE: 3-18-02

STANDARD NUMBER
M26-5A



-A for 1/0ACSR or 2/0ACSR primary
-B for 4/0ACSR or 266ACSR primary
-C for 336ACSR primary
-D for 556AAC or 795AAC primary

NOTES:
1- This construction required for conductors having breaking strength of more than 4500 pounds.
2- Maximum transverse load: 1000 lbs. per conductor
3- Maximum line angle within load limits - 5°

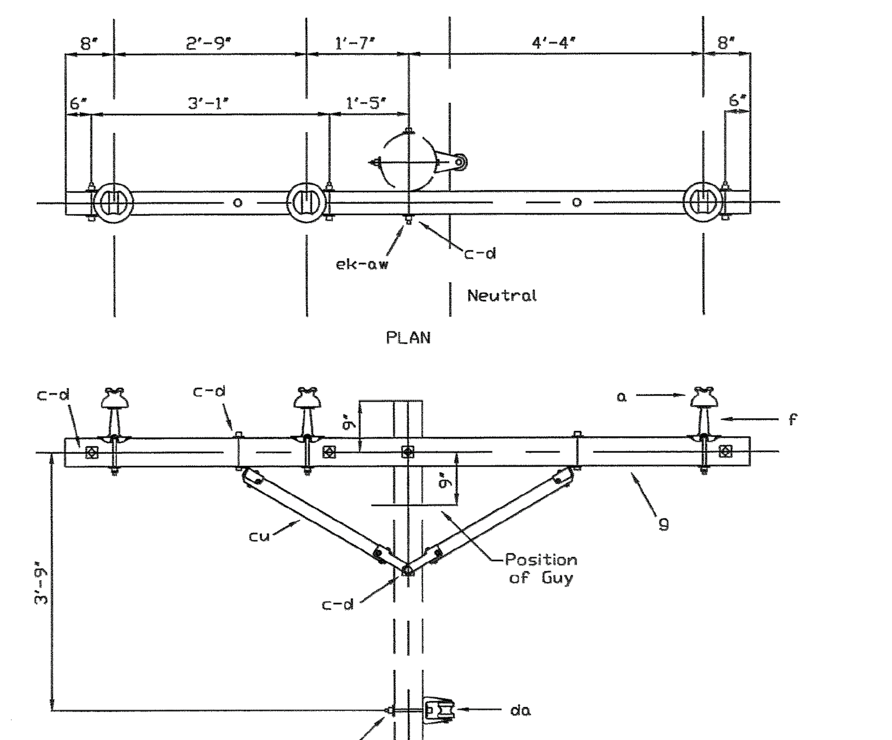
ITEM	HEC NO.	QTY	DESCRIPTION	C1-3-A QTY	C1-3-B QTY	C1-3-C QTY	C1-3-D QTY
a	1040-5R	1	insulator, pin type	6	6	6	
a	1040-6R	1	insulator, pin type				6
b	900	1	pin, pole top	2	2	2	2
c	358	1	machine bolt, 5/8" x 10"	4	4	4	4
c	351	1	bolt, machine, 1/2" x 6"	4	4	4	4
d	605	1	square washer, 2 1/4"	13	13	13	13
d	600	1	washer, round, 1 3/8", 13/16" hole	4	4	4	4
f	910	1	pins, steel wide base	4	4	4	4
g	710	1	crossarms, 3 3/4 x 4 3/4 x 8'	2	2	2	2
n	256	1	bolts, D.A., 18"	4	4	4	4
cu	810	1	wood crossarm brace, 28"	2	2	2	2
da	1820	1	rigid clevis	1	1	1	1
dl		1	pipe spacer	2	2	2	2
ek	650,655	1	locknuts as required				

HOLSTON ELECTRIC

THREE PHASE PRIMARY
CROSSARM CONSTRUCTION
DOUBLE PRIMARY SUPPORT
LARGE CONDUCTORS

DATE: 3-18-02

STANDARD NUMBER
C1-3
(A-D)



-A for 1/0ACSR or 2/0ACSR primary
-B for 4/0ACSR or 266ACSR primary
-C for 336ACSR primary
-D for 556AAC or 795AAC primary

NOTES:
1- Maximum transverse load: 500 lbs. per conductor
2- Maximum line angle within load limits: 5°

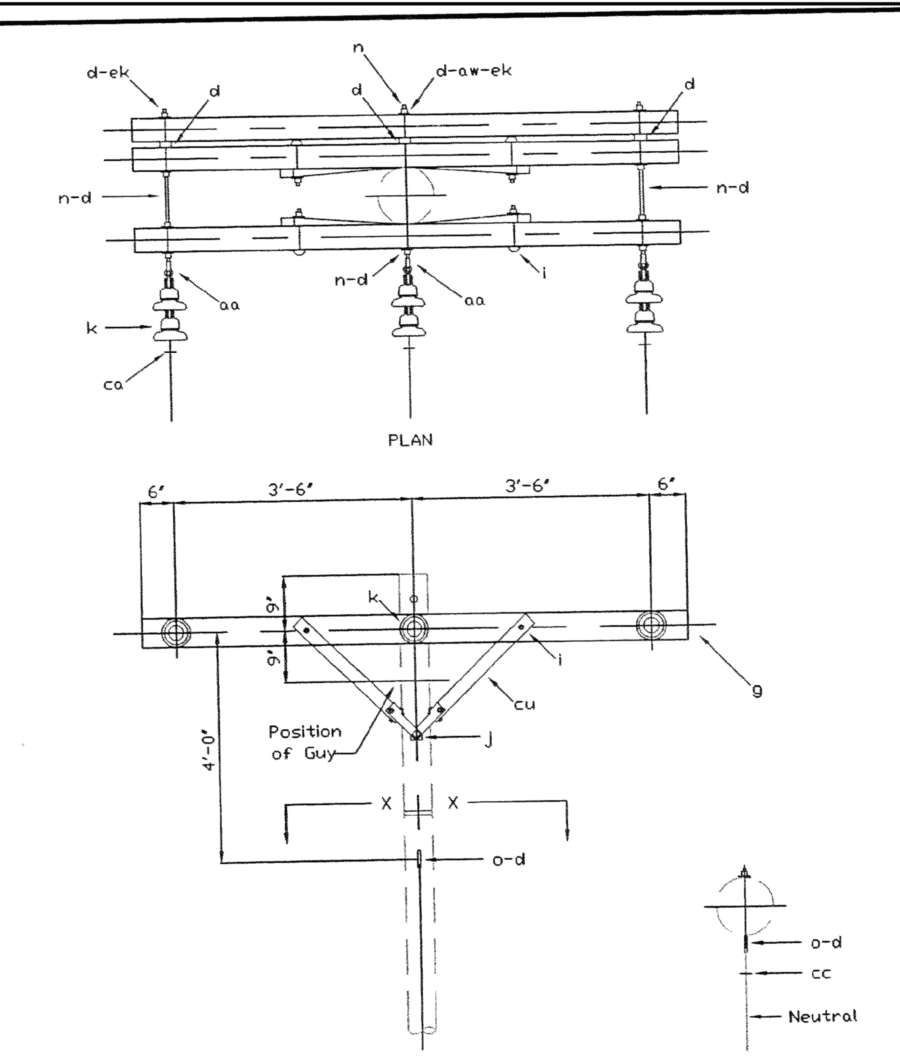
ITEM	HEC NO.	DESCRIPTION	C1-7-A QTY	C1-7-B QTY	C1-7-C QTY	C1-7-D QTY
a	1040-6R	insulator, pin type	3	3	3	
a	1040-9R	insulator, pin type				3
c	358	machine bolt, 5/8" x 10"	2	2	2	2
c	351	bolt, machine, 1/2" x 6"	5	5	5	5
d	605	square washer, 2 1/4"	10	10	10	10
d	600	washer, round, 1 3/8", 13/16" hole	2	2	2	2
f	910	pins, steel wide base	3	3	3	3
g	710	crossarms, 3 3/4 x 4 3/4 x 8'	1	1	1	1
bs	425	bolt, single upset, 10"	1	1	1	1
cu	830	wood crossarm brace 60"	1	1	1	1
ek	650,655	locknuts, as required				
cm	1030	insulator, spool type	1	1	1	1
da	1820	rigid clevis	1	1	1	1

HOLSTON ELECTRIC

THREE PHASE PRIMARY
CROSSARM CONSTRUCTION
UNDERBUILD STRUCTURE - SINGLE PRIMARY SUPPORT
LARGE CONDUCTORS - ALL PHASES ON CROSSARM

DATE: 3-18-02

STANDARD NUMBER
C1-7
(A-D)



NOTES:
1- Maximum transverse load: 1500 lbs. per conductor
2- Details for primary and neutral deadend assemblies may be found on drawings M10-6 and M10-10
3- Designate C7-1 for assembly with three crossarms.

ITEM	HEC NO.	QTY	DESCRIPTION
d	605	11	square washer, 2 1/4"
d	610	1	washer, square, curved, 3"
g	710	3	crossarms, 3 3/4 x 4 3/4 x 8'
cu	810	2	wood crossarm brace, 28"
i	210	4	bolt, carriage, 3/8" x 4 1/2"
j	550	2	screw, lag, 1/2" x 4"
k	1110	6	suspension insulator

ITEM	HEC NO.	QTY	DESCRIPTION
n	256	3	bolts, D.A., 18"
o	315	1	bolts, eye, 5/8" x 10"
aa	640	3	nuts, oval eye
ca	1940	4	dead end clamp, #4 – 2/0
ek	655	1	locknuts, 5/8", as required

HOLSTON ELECTRIC

THREE PHASE PRIMARY
CROSSARM CONSTRUCTION
DEAD END (SINGLE)
THREE CROSSARMS

DATE: 6-1-99

STANDARD NUMBER
C7
C7-1

SEALED BY

DERICK WILLIAMS
REGISTERED ENGINEER
AGRICULTURE COMMERCE
No. 124059
STATE OF TENNESSEE
Derick Williams
2/24/2026

COORDINATES ARE NAD 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00006 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WITH GEOID 99 .

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

DETAILS

SCALE: NONE

2/24/2026
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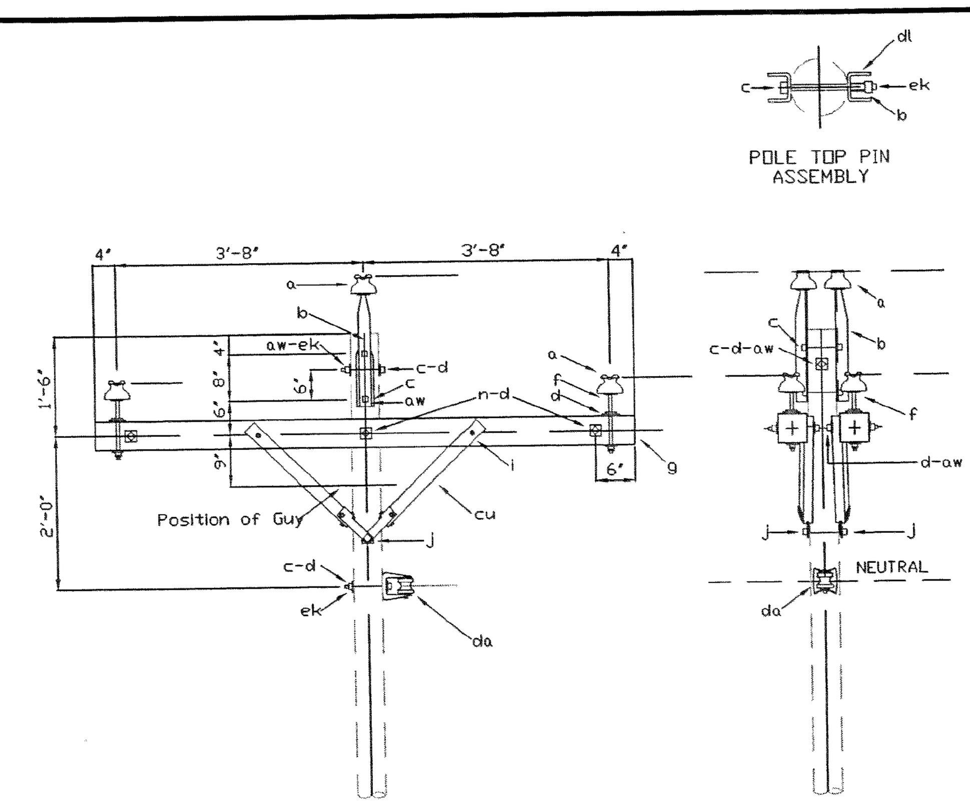
TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U2-16

S.R. 31
32022-3219-14
PIN #101394.00

HAWKINS CO



NOTES:
1- Maximum transverse load: 1000 lbs. per conductor

ITEM	HEC NO.	QTY	DESCRIPTION
a	1040-5R	6	insulator, spool type
b	900	2	pin, pole top
c	358	4	machine bolt, 5/8" x 10"
d	605	17	square washer, 2 1/4"
f	915	4	pins, steel bolt shanks
g	710	2	crossarms, 3 3/4 x 4 3/4 x 8'
cu	810	2	wood crossarm brace, 28"

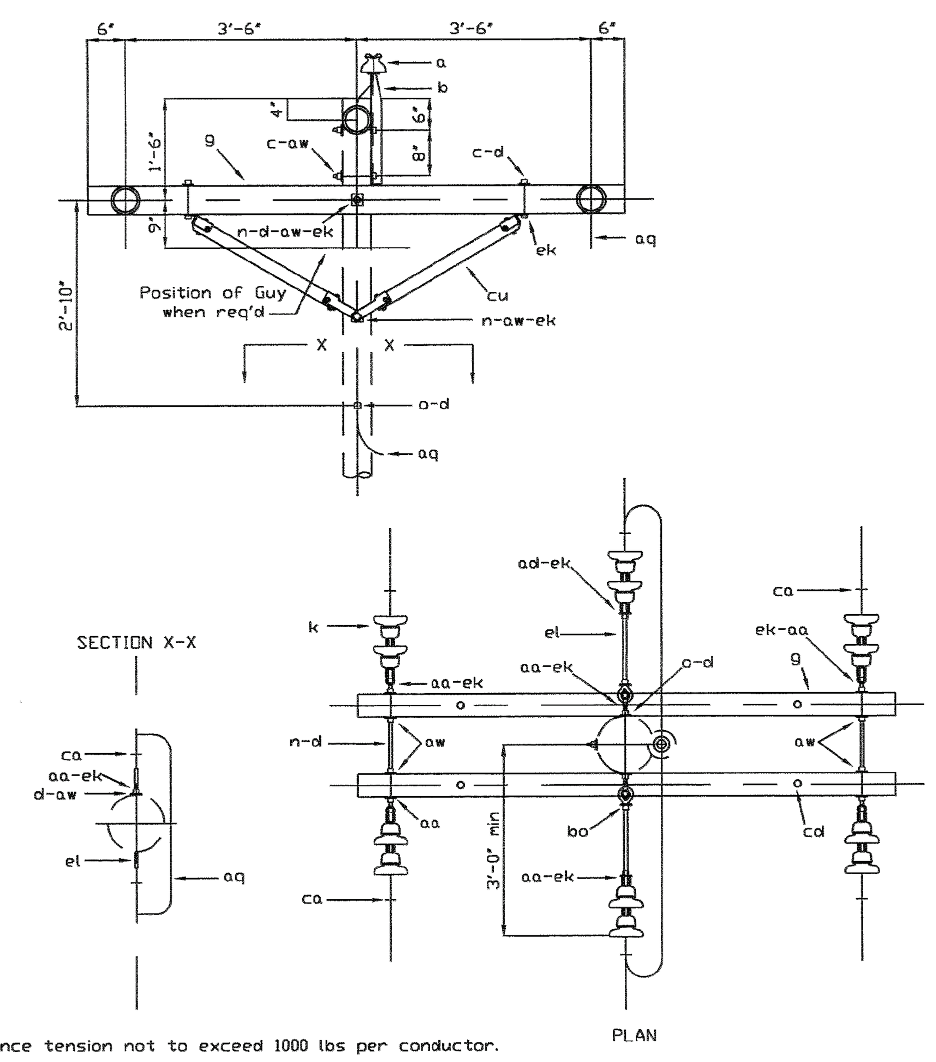
ITEM	HEC NO.	QTY	DESCRIPTION
i	210	4	bolt, carriage, 3/8" x 4 1/2"
j	550	2	screw, lag, 1/2" x 4"
n	256	3	bolts, D.A., 18"
da	1820	1	rigid clevis
dl		2	pipe spacer
ek	655		locknuts, 5/8", as required
cm	1030	1	insulator, spool type

HOLSTON ELECTRIC

THREE PHASE PRIMARY
CROSSARM CONSTRUCTION
SMALL ANGLE
DOUBLE PRIMARY SUPPORT

DATE: 6-1-99

STANDARD NUMBER
C2



NOTES:
1- Maximum unbalance tension not to exceed 1000 lbs per conductor.
2- Details for primary and neutral deadend assemblies may be found on drawings M10-6 and M10-10

ITEM	HEC NO.	QTY	DESCRIPTION
a	1040-5R	1	insulator, pin type
b	900	1	pin, pole top
c	351	1	bolt, machine, 1/2" x 6"
c	358	4	machine bolt, 5/8" x 10"
d	605	14	square washer, 2 1/4"
d	600	4	washer, round, 1 3/8", 13/16" hole
g	710	2	crossarms, 3 3/4 x 4 3/4 x 8'
k	1110	12	suspension insulator
n	256	4	bolts, D.A., 18"
ek	655	1	locknuts, 5/8", as required

ITEM	HEC NO.	QTY	DESCRIPTION
o	315	4	bolts, eye, 5/8" x 10"
p			connectors, as required
aa	640	8	nuts, oval eye
av			jumpers and leads, as required
bo	1360	2	anchor shackle
ca	1940	6	deadend clamp #4 - 2/0
el	1130	2	insulated extension link
cu	830	2	wood crossarm brace, 60"

HOLSTON ELECTRIC

THREE PHASE PRIMARY
CROSSARM CONSTRUCTION
DEAD END (DOUBLE)

DATE: 3-18-02

STANDARD NUMBER
C8

SEALED BY

DERICK WILLIAMS
REGISTERED ENGINEER
STATE OF TENNESSEE
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Derick Williams
2/24/2026

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

DETAILS

SCALE: NONE

2/24/2026
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TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U3-1

S.R. 31 HAMBLEN CO.
32022-3219-14
PIN #101394.00

UTILITY INDEX

ESTIMATED UTILITY QUANTITIES

Project No. 1: STP/HPP-31(12)

	ITEM NO.	DESCRIPTION	HEC/RUS UNITS	UNIT	QUANTITY
	790-74.31	FIBER TANGENT ASSM	F1	EACH	18
	790-74.32	FIBER DEADEND ASSM	DDE-A. DDE-S	EACH	1
	790-74.33	FIBER DOUBLE DEADEND ASSM	DDE-A. DDE-S	EACH	6
1	793-04.07	AERIAL SPLICE CLOSURE (ADSS FIBER NAP)	G6-NAP	EACH	2
2	793-07.07	144 FIBER(MATERIAL ONLY)	ADSS	L.F.	548
3	793-07.17	108-144 FIBER(INSTALLATION ONLY		L.F.	548
4	793-07.23	FIBER OPTIC MAINTENANCE LOOP	FSSL, FSSL-ALT 100'	EACH	2
8	793-07.25	SINGLE FIBER OPTIC CABLE SPLICE	HO1	EACH	288
	REMOVAL				
6	793-98.01	REMOVE AERIAL CABLE AND WIRE	xxSEA,xxCO, xxC, ADSS	L.F.	634
	793-98.10	REMOVE FIBER STORAGE BRACKET	FSSL	EACH	1
	TRANSFER				
9	793-15.05	TRANSFER DIP CABLE/EQUIPMENT	G6-NAP	EACH	1
7	793-15.01	TRANSFER AERIAL CABLE	CFO(12), CFO(144)	EACH	17

FOOTNOTES:

1. INCLUDES ALL MATERIALS, LABOR AND EQUIPMENT INCLUDING BUT NOT LIMITED TO SETUP, TRAFFIC CONTROL, MOUNTING HARDWARE, BONDING/GROUNDING AND SPLICING.
2. INCLUDES ALL MATERIALS AND EQUIPMENT INCLUDING BUT NOT LIMITED TO MOUNTING HARDWARE, BONDING/GROUNDING, STRAND SIZE AS INDICATED IN SPECS., AND LOOPS.
3. INCLUDES ALL LABOR INCLUDING TRAFFIC CONTROL AND SETUP, REMOVAL OF LID AND COLLARS, BACKFILL WITH GRAVEL.
4. INCLUDES DELASHING AND RELASHING ACCOMPLISHING THE PLACEMENT/RELOCATION OF THE FIBER LOOP, INCLUDES TRAFFIC CONTROL.
5. INCLUDES CROSSARMS, TRANSFORMERS, SWITCHES, ETC.
6. INCLUDES ALL CABLES, DROPS, GUYS, STRAND, FUSE LINKS, TERMINALS
7. TRANSFER CABLE ATTACHMENTS ON THE POLE LINE INCLUDING ALL HARDWARE AND TRAFFIC CONTROL
8. SINGLE FIBER OPTIC CABLE SPLICE INCLUDES TESTING EACH FIBER
9. TRANSFER MISC. ATTACHMENTS ON THE POLE LINE INCLUDING ALL HARDWARE, TRAFFIC CONTROL,SETUP

UTILITY COMPANY CONTACT

SAM TRENT
HOLSTONCONNECT, LLC
1200 W. MAIN STREET
P.O. BOX 190
ROGERSVILLE, TN. 37857-0190
423-272-1091
EMAIL: STREMT@HOLSTONELECTRIC.COM

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Derick Williams
2/24/2026

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ESTIMATED UTILITY QUANTITIES

SCALE: NONE

$$$$SYTIME$$$$$
$$$$DGNSPEC$$$$

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U3-2

S.R. 31
32022-3219-14
PIN #101394.00

HAMBLEN CO.

GENERAL NOTES:

1. THE TOPOGRAPHIC & BOUNDARY DATA WAS TAKEN FROM A SURVEY RECEIVED FROM TENNESSEE DEPARTMENT OF TRANSPORTATION (TDOT).
2. ALL CONTRACTOR INSTALLATIONS MUST BE INSPECTED BY. CONTACT MUS FIBER ENGINEERING AT LEAST THREE (3) WORKING DAYS PRIOR TO CONSTRUCTION.
3. LOCATE EXISTING UTILITIES. CALL THE TENNESSEE ONE CALL SYSTEM AT 1-800-351-1111.
4. PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL CONTACT THE UTILITY OWNERS TO NOTIFY THEM OF WORK IN THE AREA AND REQUEST THEM TO PROPERLY LOCATE THEIR RESPECTIVE UTILITY. NOTIFICATION SHALL BE GIVEN AT LEAST THREE BUSINESS DAYS PRIOR TO COMMENCEMENT OF OPERATIONS AROUND THE UTILITY.
5. THE LOCATIONS OF THE EXISTING UTILITIES SHOWN ON THESE DRAWINGS ARE APPROXIMATE. THE EXACT LOCATIONS SHALL BE DETERMINED IN THE FIELD BY POTHOLING AND BY CONTACTING THE UTILITY COMPANIES INVOLVED.
6. PROVIDE ALL NECESSARY PROTECTIVE MEASURES TO SAFEGUARD EXISTING UTILITIES FROM DAMAGE DURING THE CONSTRUCTION OF THIS PROJECT. FURNISH ANY SPECIAL EQUIPMENT REQUIRED TO WORK OVER AND AROUND THE UTILITIES AT NO ADDITIONAL COST.
7. TRENCH DESIGN AND SAFETY FOR UNDERGROUND CONSTRUCTION IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL CONFORM WITH ALL APPLICABLE LOCAL, STATE, AND OSHA REGULATIONS.
8. THE PROPOSED SITE LAYOUT SHOWN ON THESE DRAWINGS IS APPROXIMATE. REFER TO ROADWAY PLANS FOR ACTUAL DIMENSIONS. COORDINATE WITH ON-SITE SURVEYOR TO MARK PROPOSED FACILITIES, PROPOSED GRADE CHANGE, AND RIGHT-OF-WAY BEFORE SETTING POLES. ALL INSTALLATIONS SHALL BE LOCATED OUTSIDE OF PAVED AREAS UNLESS OTHERWISE NOTED.
9. TDOT WILL IMPLEMENT AND MAINTAIN TRAFFIC CONTROL AS SHOWN ON PLANS. THIS DOES NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITIES TO THE SAFETY OF THE TRAVELING PUBLIC. CONTRACTOR IS RESPONSIBLE FOR INCLUDING ANY ADDITIONAL TRAFFIC CONTROL DEEMED NECESSARY IN ACCORDANCE WITH THE FEDERAL HIGHWAY ADMINISTRATION'S "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES."
10. EROSION CONTROL DEVICES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH TDEC'S EROSION AND SEDIMENT CONTROL HANDBOOK. DAMAGES TO ADJACENT PROPERTY AND/OR THE CONSTRUCTION SITE CAUSED BY THE CONTRACTOR'S FAILURE TO PROVIDE AND MAINTAIN ADEQUATE DRAINAGE AND EROSION/SEDIMENT CONTROL FOR THE CONSTRUCTION AREA SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
11. QUANTITIES SHOWN ON MATERIAL LISTS ARE NOT INTENDED TO BE CONTRACTUAL LIMITS. BIDDER SHALL EXAMINE JOB SITE, PLANS, SPECIFICATIONS, AND STANDARDS AND SHALL INCLUDE ALL INCIDENTAL MATERIALS AND QUANTITIES NEEDED FOR A COMPLETE INSTALLATION.
12. LIST OF PREQUALIFIED CONTRACTORS:
    WAVEGUIDE COMMUNICATIONS

TDOT STANDARD UTILITY NOTES

1. EXCEPT FOR EROSION SEDIMENT CONTROL ITEMS, NO ROADWAY OR BRIDGE ITEMS SHALL BE UTILIZED TO COMPENSATE FOR WORK METHODS OR MATERIALS ASSOCIATED WITH AND/OR SPECIFIED FOR THE UTILITY INSTALLATION, EVEN THOUGH THE SAME OR SIMILAR ROADWAY OR BRIDGE MATERIALS MAY HAVE BEEN CALLED FOR IN THE UTILITY SPECIFICATIONS OR DRAWINGS.
2. ALL MATERIALS, METHODS, AND/OR INTEGRAL MATERIALS OUTLINED IN THE UTILITY SPECIFICATIONS OR DRAWINGS NECESSARY TO PROVIDE A COMPLETE AND FUNCTIONAL INSTALLATION MUST BE INCLUDED IN THE UNIT PRICE FOR THE ASSOCIATED UTILITY WORK ITEM.
3. THE CONTRACTOR MUST MAINTAIN ALL SERVICES DURING THE CONSTRUCTION OF THE RELOCATED FACILITY. ANY COSTS ASSOCIATED WITH INSTALLATION OF REQUIRED TEMPORARY SERVICE LINES DUE TO THE ROADWAY CONSTRUCTION SEQUENCE OF WORK (I.E., CUTS, FILLS, PHASING, ETC.) SHALL BE INCLUDED IN THE COST OF THE PERMANENT UTILITY ITEMS.
4. IT SHALL BE THE RESPONSIBILITY OF THE PRIME CONTRACTOR'S SURVEYOR TO LAY OUT ALL THE FACILITIES BEING RELOCATED WITHIN THE CONTRACT.
5. FOR BURIED UTILITIES, THE PRIME CONTRACTOR OR SUBCONTRACTOR SHALL BE REQUIRED TO PROVIDE TO THE UTILITY, UPON COMPLETION OF THE UTILITY'S RELOCATION WORK, A SET OF AS-BUILT DRAWINGS FOR THEIR RECORDS. THESE AS-BUILT DRAWINGS SHOULD BE PREPARED AS THE JOB PROGRESSES TO ENSURE THEIR ACCURACY.
6. WHERE EROSION CONTROL MEASURES ARE NEEDED FOR THE UTILITY RELOCATION WORK OCCURRING INSIDE OR OUTSIDE STATE RIGHT-OF-WAY, THE CONTRACTOR SHALL SUBMIT TO THE TDOT PROJECT SUPERVISOR FOR APPROVAL A PROPOSED EROSION AND SEDIMENT CONTROL PLAN PRIOR TO BEGINNING THE WORK. TDOT APPROVAL MUST BE RECEIVED BEFORE THE EROSION CONTROL PAY ITEMS FOR ROADWAY CONSTRUCTION CAN BE USED FOR ANY ADDITIONAL EROSION CONTROL MEASURES REQUIRED FOR THE UTILITY RELOCATION WORK.
7. DRIVEWAY, SIDEWALK, AND ROADWAY TEMPORARY RESTORATION SHALL BE PART OF THE IN-PLACE COST OF PLACING THE UTILITY ITEM WITHIN THE RIGHT-OF-WAY.

FIBER UTILITY NOTES:

1. WORK SHALL CONFORM TO NATIONAL, STATE, & LOCAL CODES AS WELL AS TO HOLSTONCONNECT, LLC STANDARD DRAWINGS, SPECIFICATIONS, & CONTRACT DOCUMENTS. WHERE A CONFLICT EXISTS BETWEEN APPLICABLE CODES, THE MOST CONSERVATIVE OR STRINGENT VERSION SHALL BE APPLIED.
2. CONTRACTOR SHALL OBTAIN LATEST COPY OF STANDARD DRAWINGS AND SPECIFICATIONS FROM TDOT PRIOR TO PLACING MATERIAL ORDER OR BEGINNING WORK.
3. POLE NUMBERS REFERENCED ON PLANS ARE FOR LOCATION REFERENCE ONLY. CONTRACTOR TO LABEL EQUIPMENT PER CURRENT HOLSTONCONNECT, LLC FIBER SPECIFICATIONS. ANY BLANK NUMBERS (I.E., #_____) SHOWN ON PLANS SHALL BE OBTAINED FROM HEC CONNECT FIBER PROJECT REPRESENTATIVE. COORDINATE WITH HOLSTONCONNECT, LLC FIBER PROJECT MANAGER (SAM TRENT, 423-272-1091) FOR FINAL POLE NUMBERS WHERE APPLICABLE.
4. RE-ATTACH ALL DROPS TO MAINTAIN SERVICE TO END USERS. COORDINATE ANY NEW CONNECTIONS WITH HOLSTONCONNECT, LLC FIBER PROJECT MANAGER.
5. POLE LOCATION COORDINATES ARE FOR GENERAL LOCATION REFERENCE. CONTRACTOR SHALL ADJUST TANGENT POLES WHERE POSSIBLE TO ELIMINATE UNNECESSARY LINE ANGLES.
6. SPAN LENGTHS ARE APPROXIMATE AND MEASURED FROM CENTER OF POLE TO CENTER OF POLE.
7. PRIOR TO PULLING CABLES. CONTRACTOR SHALL ENSURE CORRECT INSTALLATION TENSIONS.
8. EXISTING CABLES SHALL BE TRANSFERRED TO NEW POLES EXCEPT WHERE NOTED TO BE REMOVED. IF EXISTING CABLES ARE FOUND TO BE IN POOR CONDITION, COORDINATE WITH MUS FIBER FOR REPLACEMENT. LABOR FOR CABLES TRANSFER FROM OLD POLES TO NEW POLES SHALL BE INCLUDED IN THE COST OF INSTALLATION AND REMOVAL OF POLE FRAMING'S.
9. INSTALL YELLOW PLASTIC, FULL-ROUND, SLIT-SPIRAL GUY GUARDS ON THE TOP MOST DOWNGUY AT EACH ANCHOR.

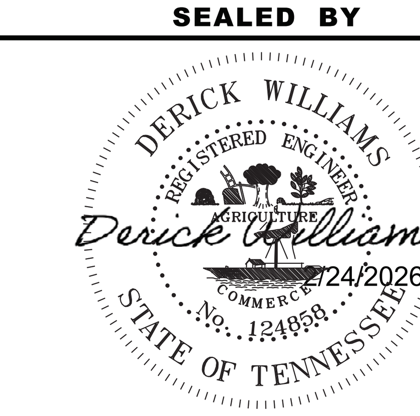
LEGEND:

EXISTING STORAGE LOOP TO REMAIN
EXISTING STORAGE LOOP TO BE RETIRED
PROPOSED STORAGE LOOP TO REMAIN
EXISTING SPLICE TO REMAIN
EXISTING SPLICE TO BE RETIRED
PROPOSED SPLICE
EXISTING CABINET TO REMAIN
EXISTING 96F TO REMAIN
EXISTING 96F TO BE RETIRED
PROPOSED 96F
EXISTING 48F TO REMAIN
EXISTING 48F TO BE RETIRED
PROPOSED 48F
EXISTING 24F TO REMAIN
EXISTING 24F TO BE RETIRED
PROPOSED 24F
EXISTING DROPS TO REMAIN
EXISTING DROPS TO BE RETIRED
PROPOSED DROPS
EXISTING NODE TO REMAIN
EXISTING NODE TO BE RETIRED
PROPOSED NODE
EXISTING HAND HOLE TO REMAIN
EXISTING HAND HOLE TO BE RETIRED
PROPOSED HAND HOLE
EXISTING VAULT TO REMAIN
EXISTING VAULT TO BE RETIRED
PROPOSED VAULT
EXISTING HEADGUY(S) TO REMAIN
EXISTING HEADGUY(S) TO BE REMOVED
PROPOSED HEADGUY(S) TO BE INSTALLED
EXISTING POWER UTILITY POLE TO REMAIN
EXISTING POWER UTILITY POLE TO BE REMOVED
PROPOSED POWER UTILITY POLE TO BE INSTALLED
EXISTING COMMUNICATIONS UTILITY POLE TO REMAIN
EXISTING COMMUNICATIONS UTILITY POLE TO BE REMOVED
PROPOSED COMMUNICATIONS UTILITY POLE
PROPOSED COMMUNICATIONS UTILITY POLE TO BE REPLACED
EXISTING POWER UTILITY ANCHOR & DOWNGUY(S) TO REMAIN
EXISTING POWER UTILITY ANCHOR & DOWNGUY(S) TO BE REMOVED
PROPOSED POWER UTILITY ANCHOR & DOWNGUY(S) TO BE INSTALLED

EXISTING OVERHEAD TRANSFORMER(S) TO REMAIN OR TO BE TRANSFERRED TO NEW POLE
EXISTING OVERHEAD TRANSFORMER(S) TO BE REMOVED
PROPOSED OVERHEAD TRANSFORMER(S) TO BE INSTALLED
WORK OFF OF TDOT ROW
110 — PROPOSED ROADWAY CENTERLINE & STATION IDENTIFICATION
15° — PROPOSED LINE ANGLE

AA	ALL ALUMINUM CONDUCTOR
ACSR	ALUMINUM CONDUCTOR STEEL REINFORCED
CU	COPPER
DI	DUCTILE IRON
DX	DUPLEX CABLE
EXST.	EXISTING
NEU	NEUTRAL
OWS	OPEN WIRE SECONDARY
PRI	PRIMARY
PVT LT	PRIVATE LIGHT (OWNED BY MUS FIBER)
QX	QUADRUPLEX CABLE
RR	RAILROAD
SEC	SECONDARY
STLT	STREET LIGHT (OWNED BY OTHERS)
TX	TRIPLEX CABLE
TYP.	TYPICAL
UG	UNDERGROUND
WP	WOOD POLE

SEALED BY



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

CONSTRUCTION NOTES & LEGEND

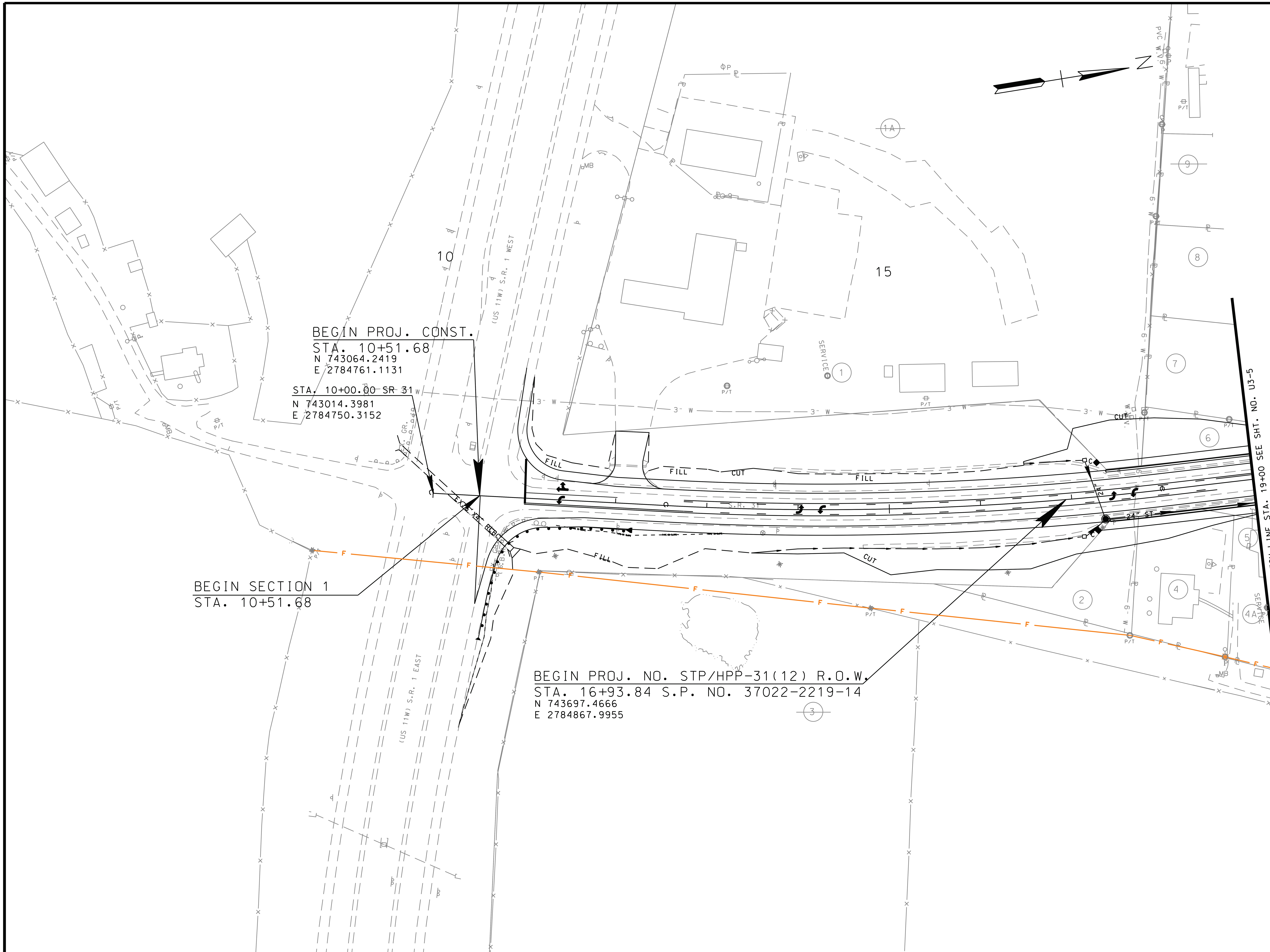
SCALE: N.T.S.

$$$$SYTIME$$$$$
$$$$DGNSPEC$$$$

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U3-4

S.R. 31
32022-3219-14
PIN #101394.00

HAMBLEN CO.



SEALED BY

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No. 124059
STATE OF TENNESSEE
Derick Williams
2/24/2026

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

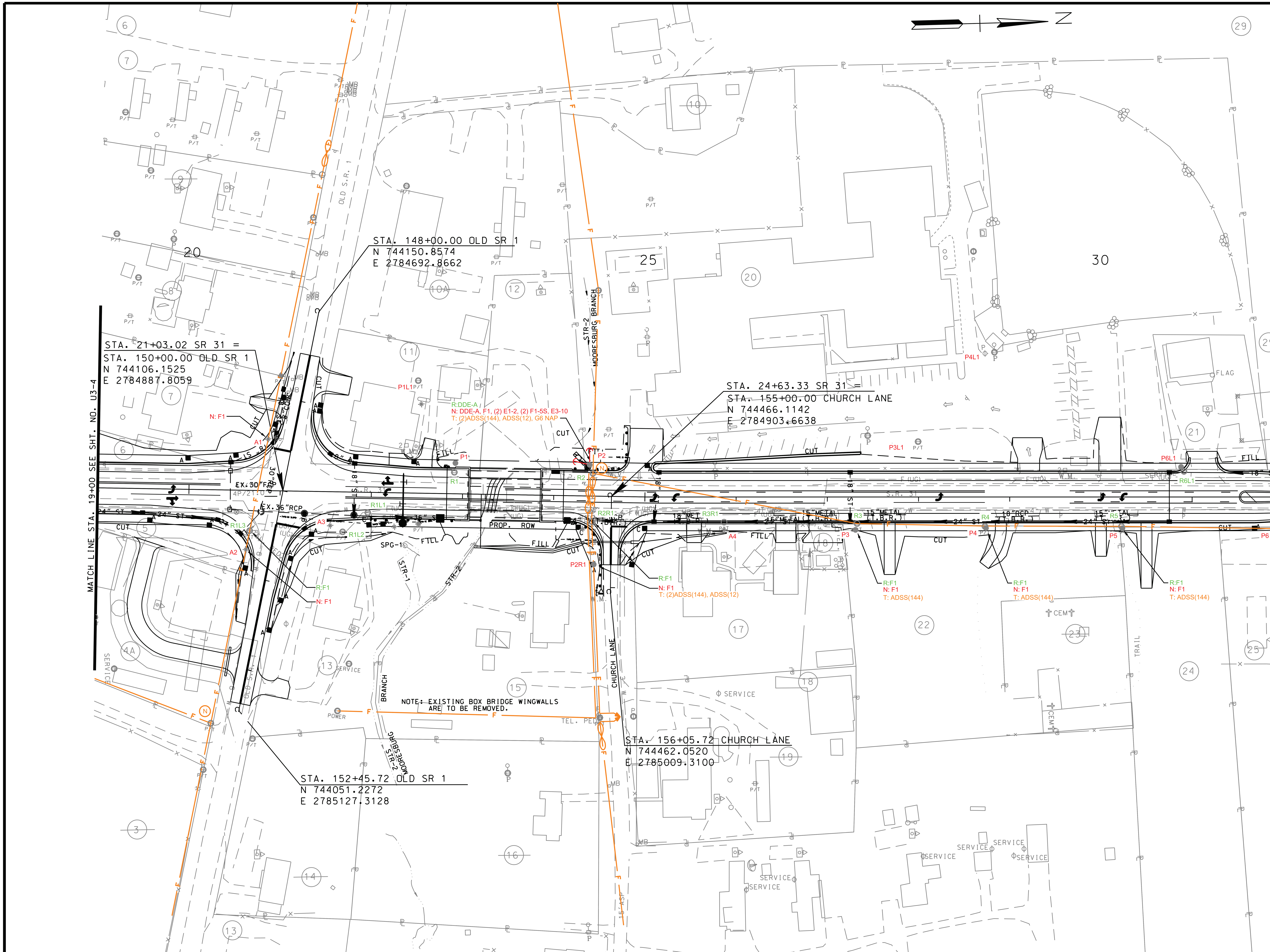
STA. 10+00 TO STA. 19+00

SCALE: 1"= 50'

$$$$SYTIME$$$$$$
$$$$DGNSPEC$$

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U3-5

S.R. 31
32022-3219-14
PIN #101394.00
HAMBLEN CO.



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

STA. 19+00 TO STA. 32+00

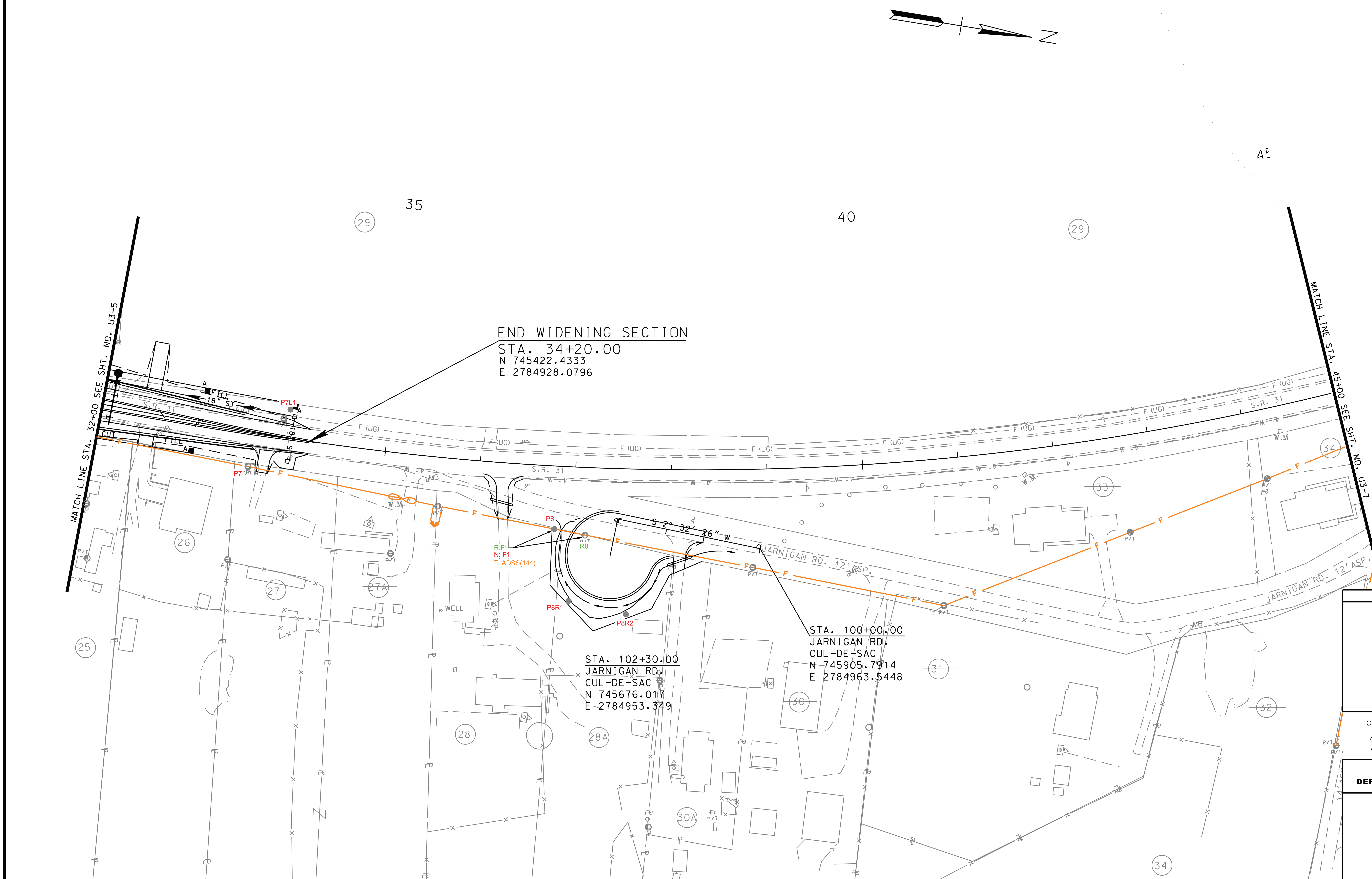
SCALE: 1"= 50'

$$$$SYTIME$$$$$
$$$$DGNSPEC$$$

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U3-6

S.R. 31
32022-3219-14
PIN #101394.00

HAMBLEN CO.



SEALED BY

DERICK WILLIAMS
REGISTERED ENGINEER
No. 124059
STATE OF TENNESSEE
2/24/2026

COORDINATES ARE NAD 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00006 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WITH GEOID 99 .

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

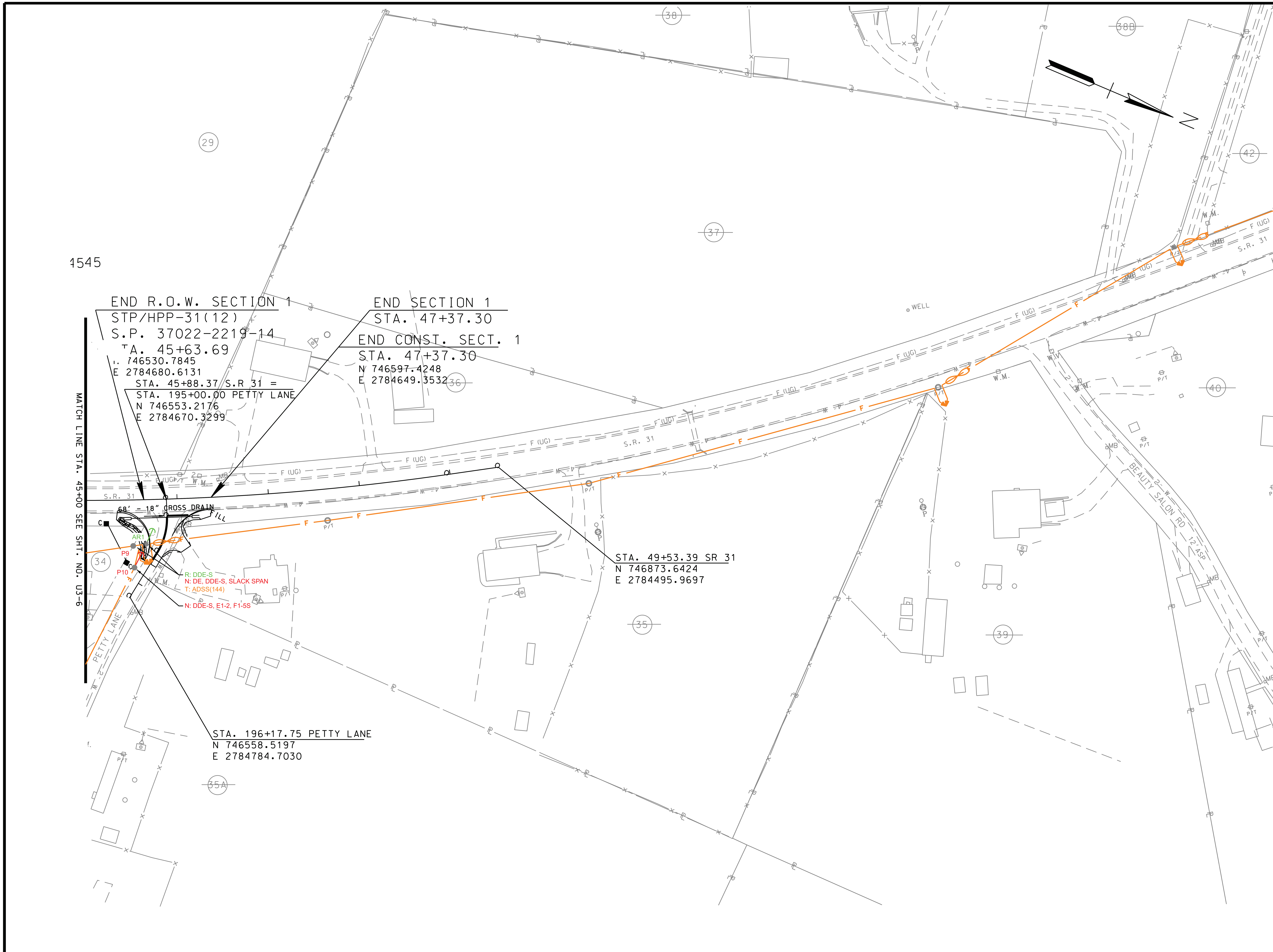
STA. 32+00 TO STA. 45+00

SCALE: 1"= 50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U3-7

S.R. 31
32022-3219-14
PIN #101394.00

HAMBLEN CO.



SEALED BY

Derick Williams
2/24/2026

COORDINATES ARE NAD 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00006 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WITH GEOID 99 .

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

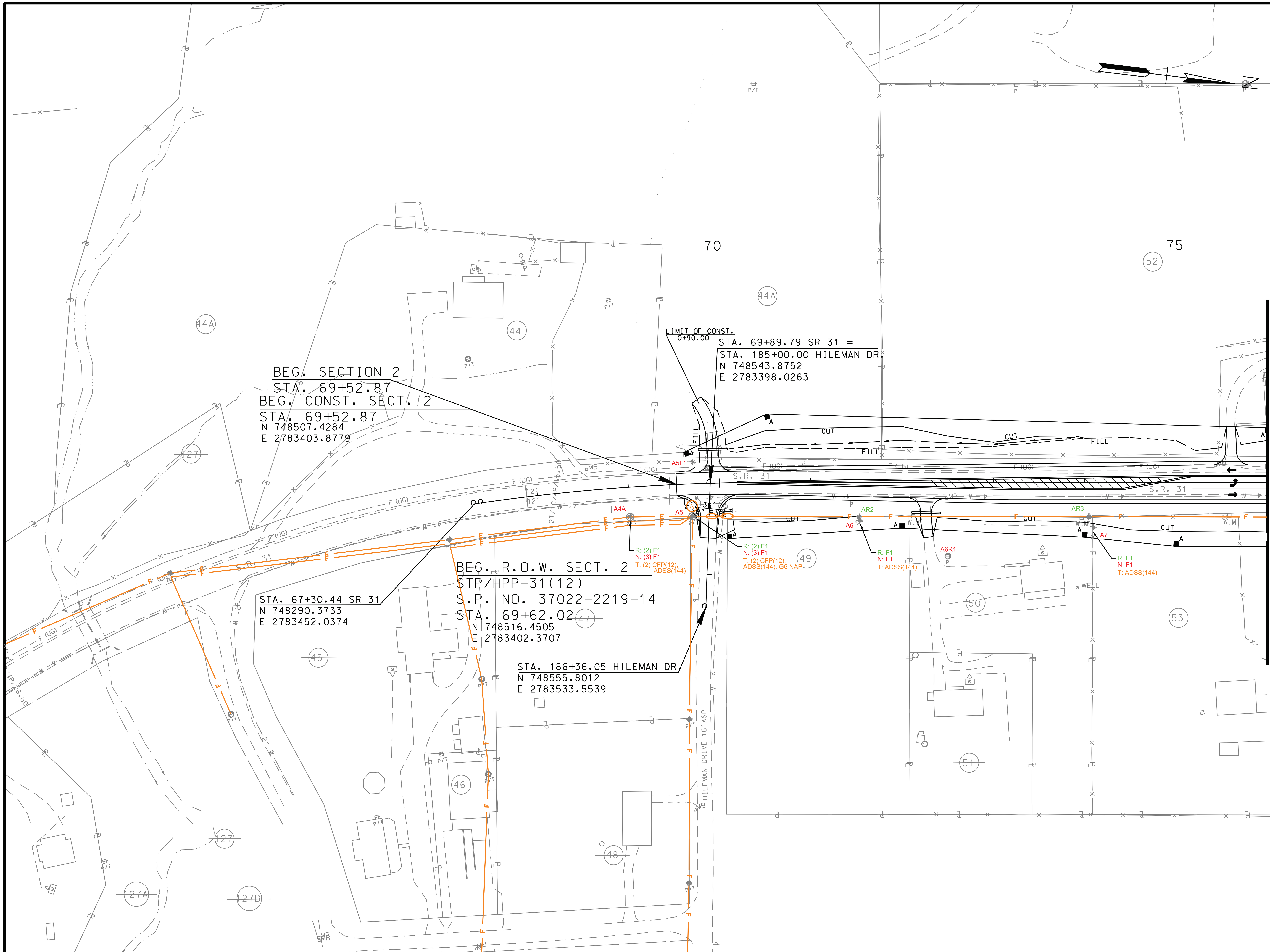
PROPOSED LAYOUT

STA. 45+00 TO STA. 49+53

SCALE: 1"= 50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U3-8

S.R. 31
32022-3219-14
PIN #101394.00
HAMBLEN CO.



SEALED BY

DERICK WILLIAMS
REGISTERED ENGINEER
AGRICULTURE COMMERCE
No. 124059
STATE OF TENNESSEE
Derick Williams
2/24/2026

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

STA. 67+30 TO STA. 76+00

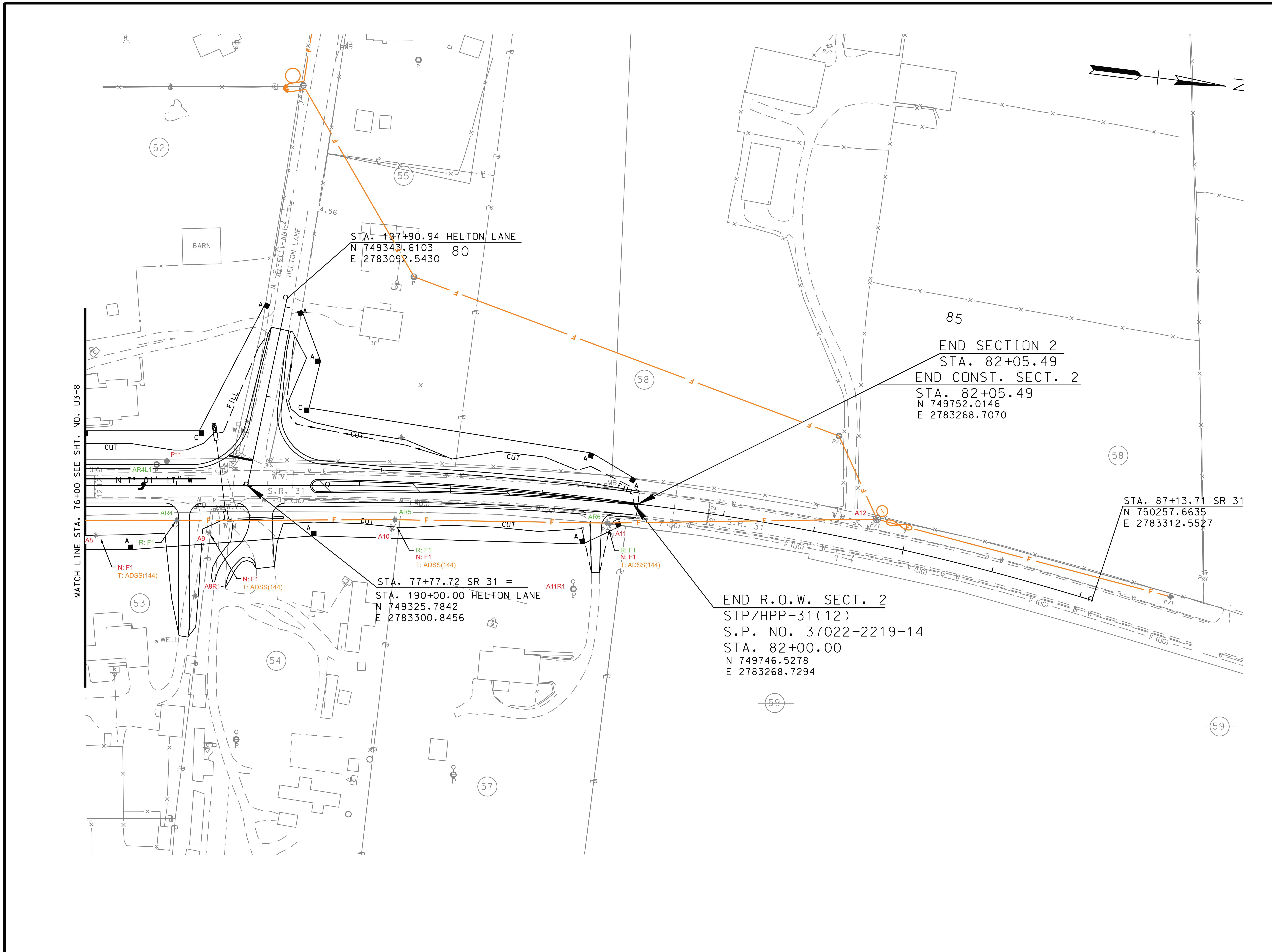
SCALE: 1"= 50'

$$$$SYTIME$$$$$$
$$$$DGNSPEC$$

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U3-9

S.R. 31
32022-3219-14
PIN #101394.00

HAMBLEN CO.



SEALED BY

DERICK WILLIAMS
REGISTERED ENGINEER
STATE OF TENNESSEE
No. 124059
Derick Williams
4/24/2026

COORDINATES ARE NAD 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00006 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WITH GEOID 99 .

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

STA. 76+00 TO STA. 87+14

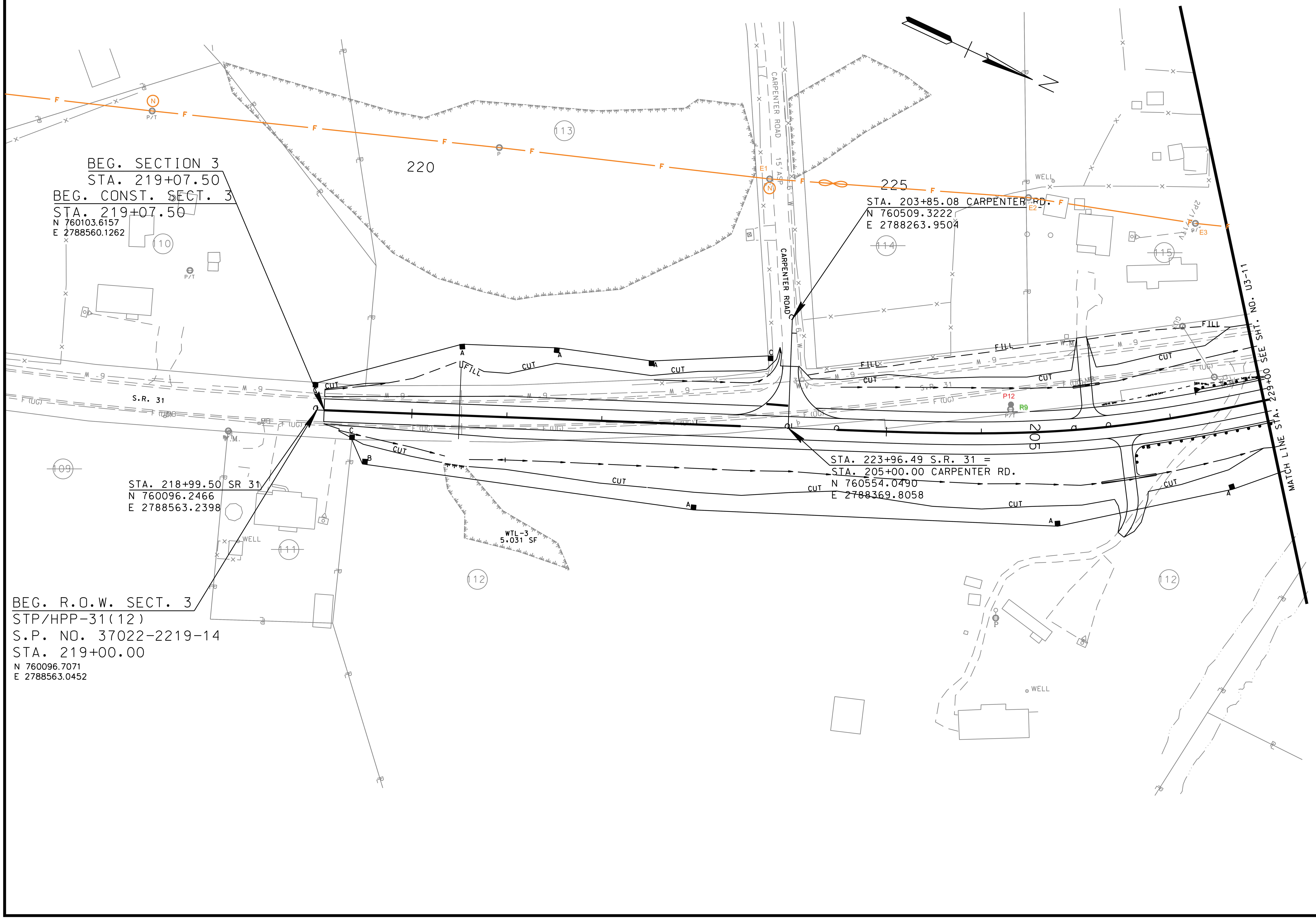
SCALE: 1"= 50'

$$$$SYTIME$$$$$
$$$$DGNSPEC$$$

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U3-10

S.R. 31
32022-3219-14
PIN #101394.00

HAMBLEN CO.



SEALED BY

DERICK WILLIAMS
REGISTERED ENGINEER
STATE OF TENNESSEE
Derick Williams
2/24/2026

COORDINATES ARE NAD 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00006 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WITH GEOID 99 .

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

STA. 218+99 TO STA. 229+00

SCALE: 1"= 50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U3-11

S.R. 31
32022-3219-14
PIN #101394.00

HAMBLEN CO.

SEALED BY

DERICK WILLIAMS
REGISTERED ENGINEER
No. 124059
STATE OF TENNESSEE
Derick Williams
2/24/2026

COORDINATES ARE NAD 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00006 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WITH GEOID 99 .

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

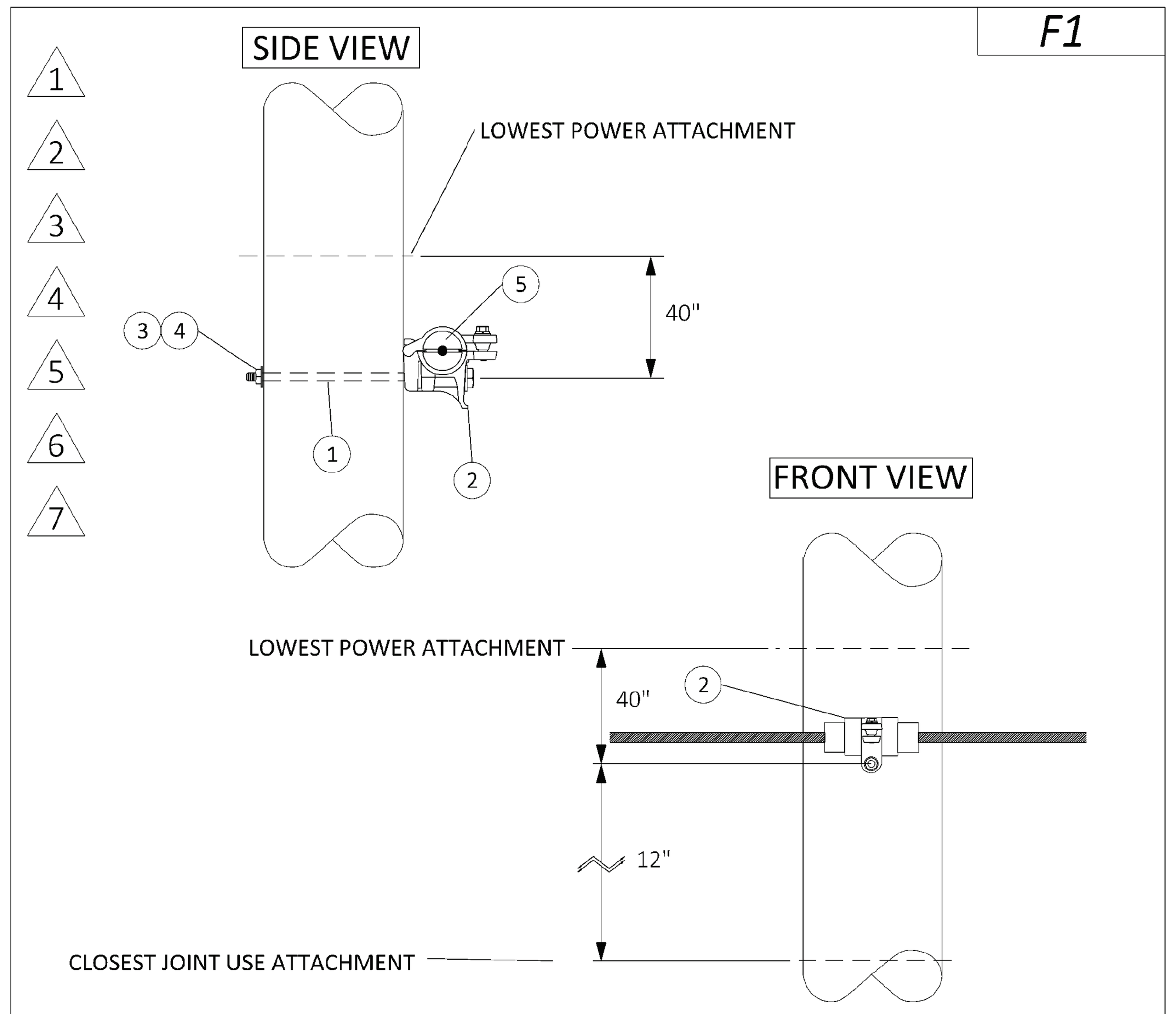
STA. 229+00 TO STA. 239+98

SCALE: 1"= 50'

$$$$SYTIME$$$$$
$$$$DGNSPEC$$$$

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U3-12

S.R. 31
32022-3219-14
PIN #101394.00
HAMBLEN CO.



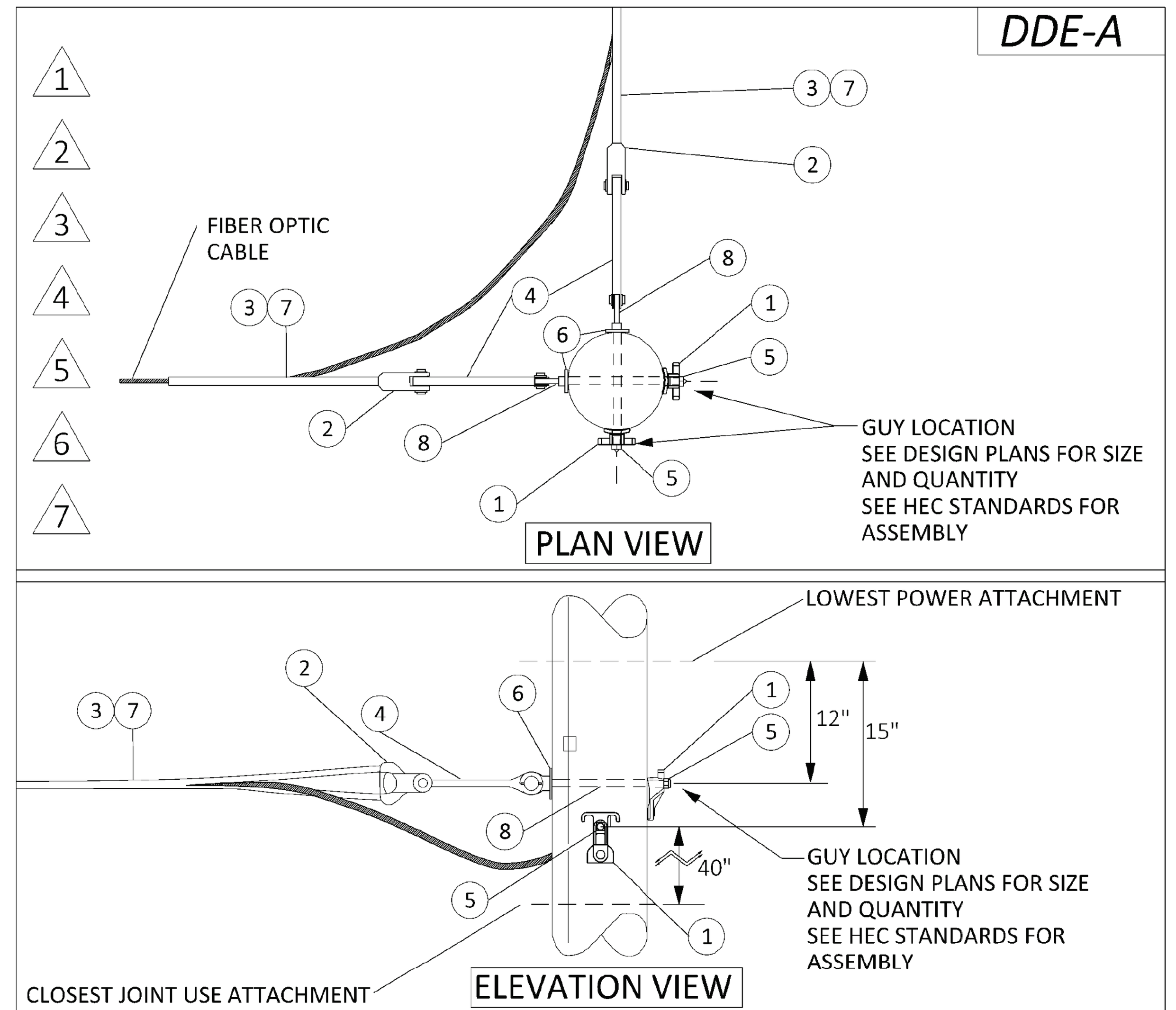
MATERIAL LIST

◯	QTY.	NAME/DESCRIPTION	STOCK NO.	◯	QTY.	NAME/DESCRIPTION	STOCK NO.
1	1	5/8" MACHINE BOLT (SIZE AS REQ'D)	VARIES				
2	1	FIBERLIGN DIELECTRIC SUPPORT	0000				
3	1	5/8" SQUARE NUT	J8563				
4	1	11/16" SQUARE WASHER	0000				
5	2	CUSHION INSERT HALF, (2) PER O.D.	VARIES				
6							
7							
8							

GENERAL NOTES

1. APPLICABLE FOR LOCATION ON 15KV POLES
2. ONLY QUALIFIED PERSONNEL SHALL PERFORM WORK IN THE POWER SUPPLY ZONE. SEE NESC FOR POWER SUPPLY ZONE DEFINITION.
3. GROUNDING IN COMPLIANCE WITH NESC/HEC STANDARDS
4. DO NOT EXCEED O.D. BEND RADIUS OF FIBER OPTIC CABLE
5. CORONA COILS TO BE USED WHERE INDICATED ON DESIGN
6. STAINLESS STEEL BANDS TO BE USED ON DUCTILE IRON, STEEL AND CONCRETE POLES
7. DESIGN DRAWINGS TAKE PRECEDENCE OVER STANDARD CONCERNING ATTACHMENT LOCATION ON THE POLE.

HOLSTON ELECTRIC COOPERATIVE FRAMING SPECIFICATIONS
DRAWN BY: D.S.W
REV BY: K.C.B.
FILE: F1.DGN
APPROVED:
ADSS FIBER ALUMINUM SUPPORT 0-20°
REVISED: 12/01/2023 SHEET 1 OF 1 STD. NO: F1



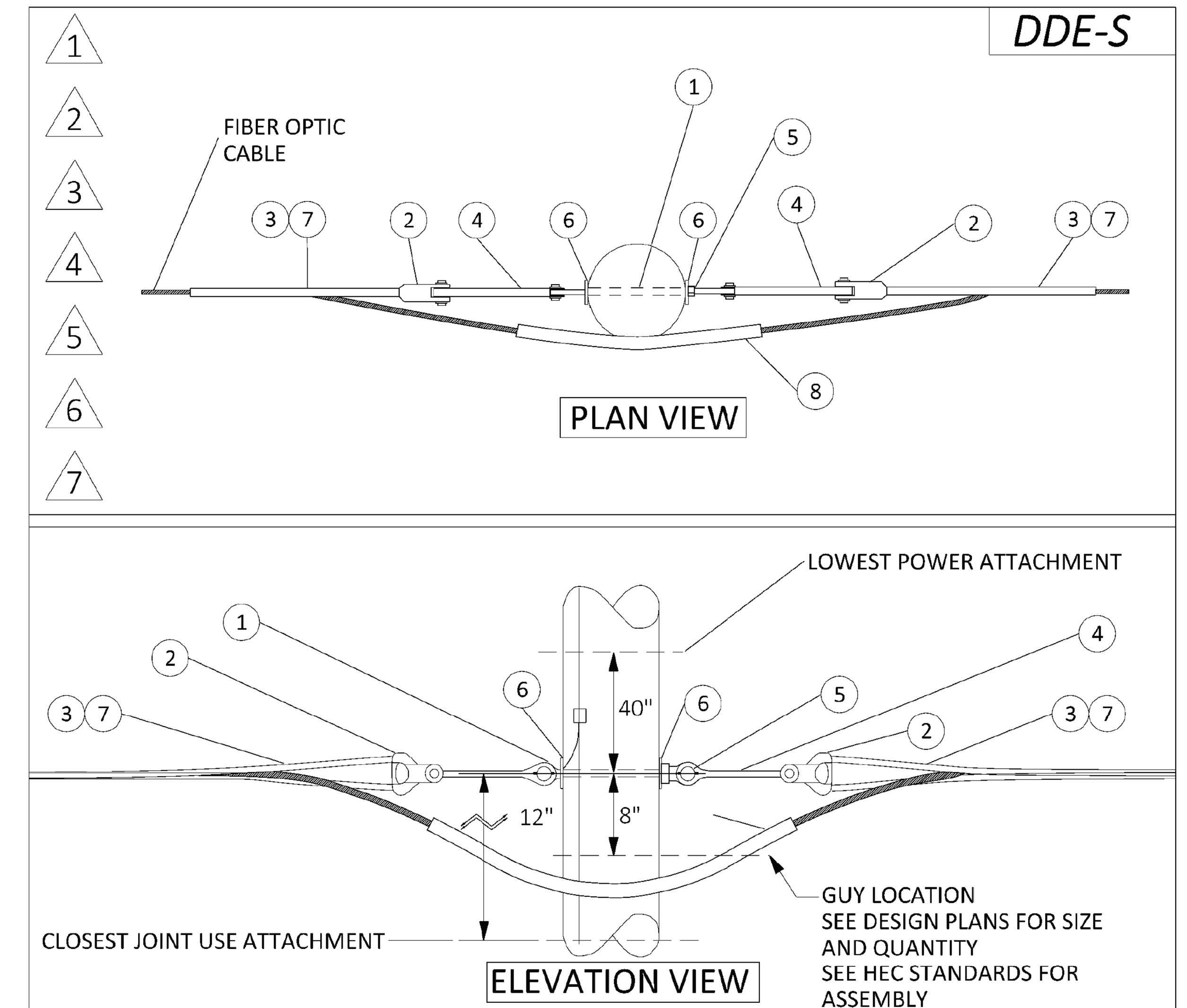
MATERIAL LIST

◯	QTY.	NAME/DESCRIPTION	STOCK NO.	◯	QTY.	NAME/DESCRIPTION	STOCK NO.
1	2	GUY HOOK (GOAT HEADS)	GH5				
2	2	CLEVIS, THIMBLE	0000				
3	2	DEAD END,PREFORMED FOR ADSS	VARIES				
4	2	EXTENSION LINK	0000				
5	2	5/8" SQUARE NUT	J8563				
6	4	11/16" SQUARE WASHER	0000				
7	2	STRUCTURAL REINFORCEMENT RODS	VARIES				
8	2	5/8" EYE BOLT	0000				

GENERAL NOTES

1. APPLICABLE FOR LOCATION ON 15KV POLES
2. ONLY QUALIFIED PERSONNEL SHALL PERFORM WORK IN THE POWER SUPPLY ZONE. SEE NESC FOR POWER SUPPLY ZONE DEFINITION.
3. GROUNDING IN COMPLIANCE WITH NESC/HEC STANDARDS
4. DO NOT EXCEED O.D. BEND RADIUS OF FIBER OPTIC CABLE
5. CORONA COILS TO BE USED WHERE INDICATED ON DESIGN
6. STAINLESS STEEL BANDS TO BE USED ON DUCTILE IRON, STEEL AND CONCRETE POLES
7. DESIGN DRAWINGS TAKE PRECEDENCE OVER STANDARD CONCERNING ATTACHMENT LOCATION ON THE POLE.

HOLSTON ELECTRIC COOPERATIVE FRAMING SPECIFICATIONS
DRAWN BY: D.S.W
REV BY: K.C.B.
FILE: DDE-A.DGN
APPROVED:
ADSS FIBER ANGLED DOUBLE DEAD-ENDS 21°-90°
REVISED: 12/01/2023 SHEET 1 OF 1 STD. NO: DDE-A



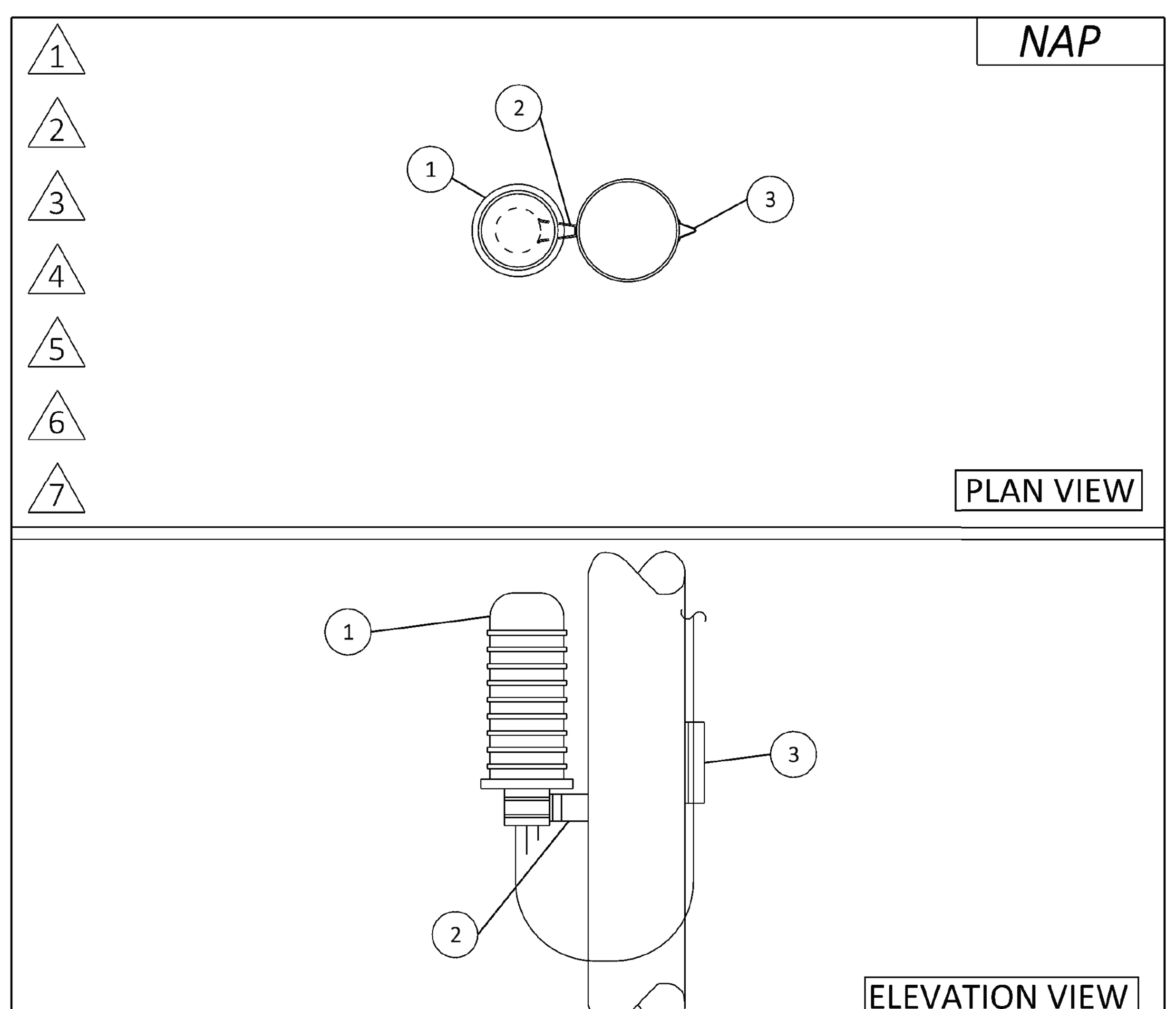
MATERIAL LIST

◯	QTY.	NAME/DESCRIPTION	STOCK NO.	◯	QTY.	NAME/DESCRIPTION	STOCK NO.
1	1	5/8" EYE BOLT, (SIZE AS REQ'D)	VARIES				
2	2	CLEVIS, THIMBLE	0000				
3	2	DEAD END,PREFORMED FOR ADSS	VARIES				
4	2	EXTENSION LINK	0000				
5	1	5/8" EYE NUT	0000				
6	2	11/16" SQUARE WASHER	0000				
7	2	STRUCTURAL REINFORCEMENT RODS	VARIES				
8	1	ABRASION PROTECTION DEVICE	0000				

GENERAL NOTES

1. APPLICABLE FOR LOCATION ON 15KV POLES
2. ONLY QUALIFIED PERSONNEL SHALL PERFORM WORK IN THE POWER SUPPLY ZONE. SEE NESC FOR POWER SUPPLY ZONE DEFINITION.
3. GROUNDING IN COMPLIANCE WITH NESC/HEC STANDARDS
4. DO NOT EXCEED O.D. BEND RADIUS OF FIBER OPTIC CABLE
5. CORONA COILS TO BE USED WHERE INDICATED ON DESIGN
6. STAINLESS STEEL BANDS TO BE USED ON DUCTILE IRON, STEEL AND CONCRETE POLES
7. DESIGN DRAWINGS TAKE PRECEDENCE OVER STANDARD CONCERNING ATTACHMENT LOCATION ON THE POLE.

HOLSTON ELECTRIC COOPERATIVE FRAMING SPECIFICATIONS
DRAWN BY: D.S.W
REV BY: K.C.B.
FILE: DDE-S.DGN
APPROVED:
ADSS FIBER STRAIGHT DOUBLE DEAD-ENDS 0°-20°
REVISED: 12/01/2023 SHEET 1 OF 1 STD. NO: DDE-S



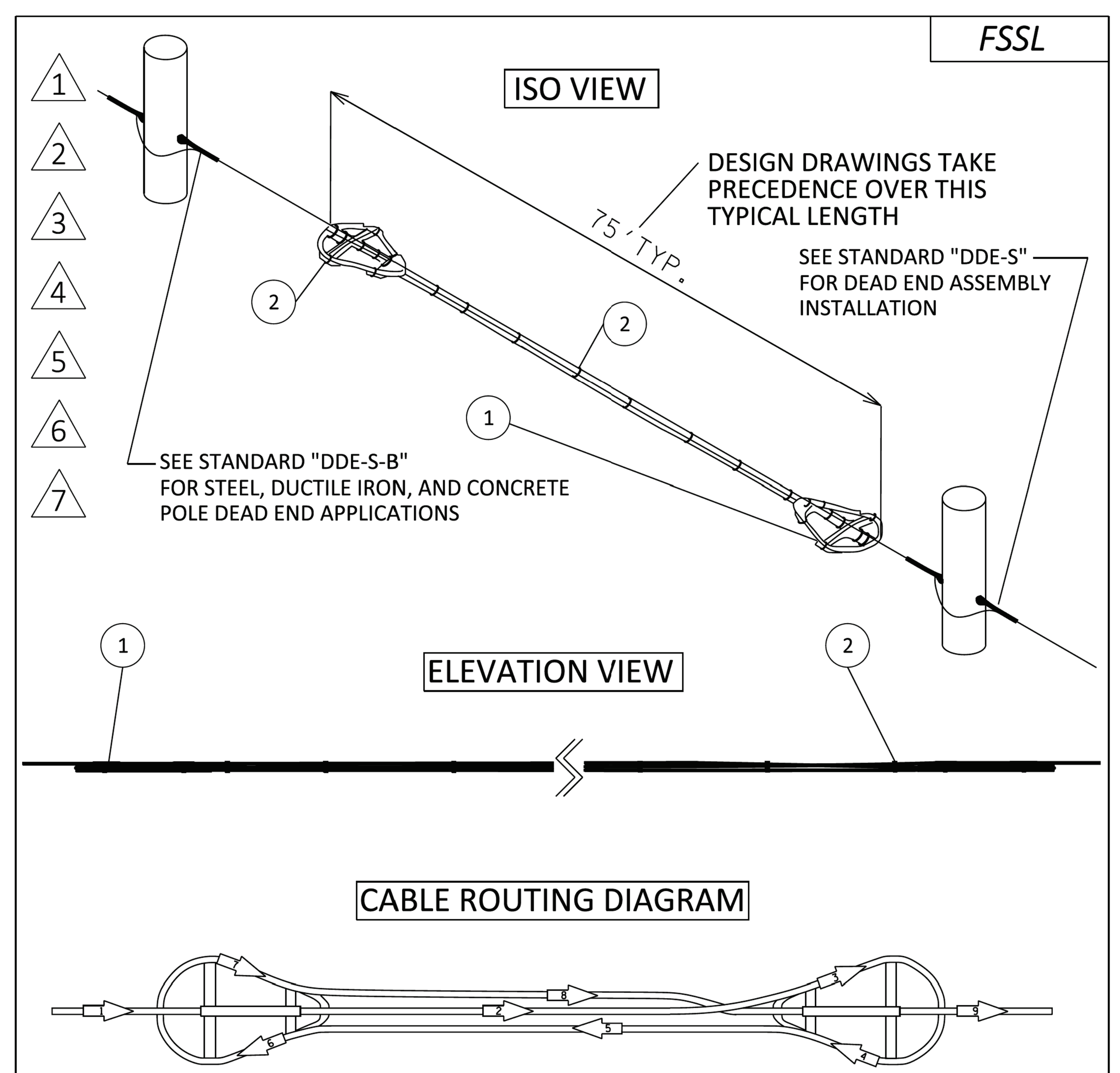
MATERIAL LIST

◯	QTY.	NAME/DESCRIPTION	STOCK NO.
1	1	CHANNELL G6NX	G6NSBA1DA0NN0NNN
2	1	GREEN HORNET G6 POLE MOUNT BRACKET	BR06018090 (12 PER PACK)
3	1	VARIABLE LENGTH U-GUARD POLY	#####
4	1	MAINLINE CABLE GROMMET DROP GROMMET	GR03106407-49
5	4	DROP GROMMET	GR160001596
	1	GREEN HORNET G6 CABLE SLACK STORAGE BRACKET	BR02474PK (12 PER PACK)

GENERAL NOTES

1. APPLICABLE FOR 15KV POWER SPACE OR LESS
2. ONLY QUALIFIED PERSONNEL SHALL PERFORM WORK IN THE POWER SUPPLY ZONE. SEE FIBER GENERAL NOTES (xxxxxxxx) FOR POWER SUPPLY ZONE DEFINITION.
3. GROUNDING IN COMPLIANCE WITH NESC/HEC FIBER STANDARDS
4. DO NOT EXCEED O.D. BEND RADIUS OF FIBER OPTIC CABLE
5. CORONA COILS TO BE USED WHERE INDICATED ON DESIGN
6. ABRASION PROTECTION DEVICES TO BE USED WHERE DESIGN CALLS FOR THEM
7. DESIGN DRAWINGS TAKE PRECEDENCE OVER STANDARD CONCERNING ATTACHMENT LOCATION ON THE POLE.

HOLSTON ELECTRIC COOPERATIVE FRAMING SPECIFICATIONS
DRAWN BY: K.C.B.
REV BY:
FILE: G6 NAP.DGN
APPROVED:
ADSS FIBER NAP
REVISED: 11/17/2023 SHEET 1 OF 1 STD. NO: G6 NAP



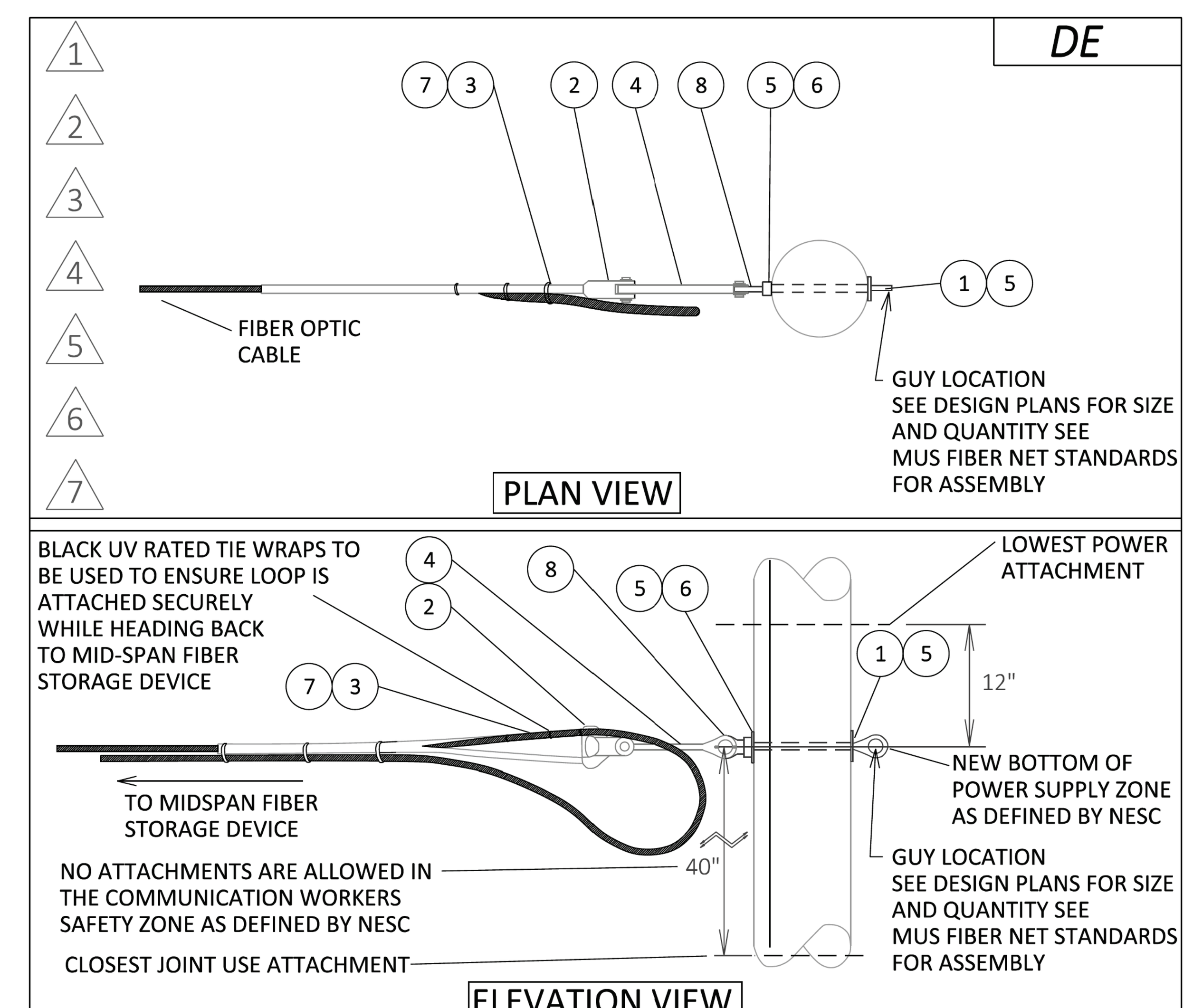
MATERIAL LIST

◯	QTY.	NAME/DESCRIPTION	STOCK NO.	◯	QTY.	NAME/DESCRIPTION	STOCK NO.
1	2	AERIAL SLACK STORAGE DEVICE	F1150				
2	∞	CABLE TIES (AMOUNT VARIES)	0000				

GENERAL NOTES

1. APPLICABLE FOR 15KV POWER SPACE OR LESS
2. ONLY QUALIFIED PERSONNEL SHALL PERFORM WORK IN THE POWER SUPPLY ZONE. SEE FIBER GENERAL NOTES (xxxxxxxx) FOR POWER SUPPLY ZONE DEFINITION
3. GROUNDING IN COMPLIANCE WITH NESC/MUS FIBER NET STANDARDS
4. DO NOT EXCEED O.D. BEND RADIUS OF FIBER OPTIC CABLE
5. THIS IS THE PREFERRED CONFIGURATION FOR THIS ASSEMBLY
6. CABLE TIES TO BE APPLIED ACROSS FIBER SHOES AND FIBER RUNNING BETWEEN SHOES
7. DESIGN DRAWINGS TAKE PRECEDENCE OVER STANDARD CONCERNING ATTACHMENT LOCATION ON THE POLE

HOLSTON ELECTRIC COOPERATIVE FRAMING SPECIFICATIONS
DRAWN BY: K.C.B.
REV BY:
FILE: FSSL.DGN
APPROVED:
MID-SPAN AERIAL SLACK STORAGE FOR ADSS FIBER
REVISED: 3/26/2024 SHEET 1 OF 1 STD. NO: FSSL



MATERIAL LIST

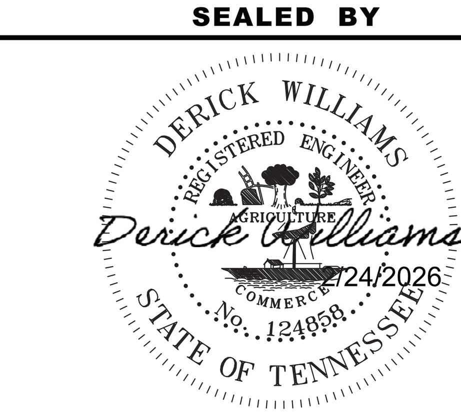
◯	QTY.	NAME/DESCRIPTION	STOCK NO.	◯	QTY.	NAME/DESCRIPTION	STOCK NO.
1	1	5/8" EYE BOLT, (SIZE AS REQ'D)	VARIES				
2	1	CLEVIS, THIMBLE	0000				
3	1	FIBER DEAD END	F1070				
4	1	EXTENSION LINK	0000				
5	2	SQUARE WASHER 11/16x2"	F0412				
6	1	5/8" NUT	0936				
7	1	STRUCTURAL REINFORCEMENT RODS	VARIES				
8	1	EYENUT 5/8"	F0410				

GENERAL NOTES

1. APPLICABLE FOR 15KV POWER SPACE OR LESS
2. ONLY QUALIFIED PERSONNEL SHALL PERFORM WORK IN THE POWER SUPPLY ZONE. SEE FIBER GENERAL NOTES (xxxxxxxx) FOR POWER SUPPLY ZONE DEFINITION.
3. GROUNDING IN COMPLIANCE WITH NESC/MUS FIBER NET STANDARDS
4. DO NOT EXCEED O.D. BEND RADIUS OF FIBER OPTIC CABLE
5. CORONA COILS TO BE USED WHERE INDICATED ON DESIGN
6. ABRASION PROTECTION DEVICES TO BE USED WHERE DESIGN CALLS FOR THEM
7. DESIGN DRAWINGS TAKE PRECEDENCE OVER STANDARD CONCERNING ATTACHMENT LOCATION ON THE POLE.

MUS FIBER NET FRAMING SPECIFICATIONS
DRAWN BY: D.S.W
REV BY:
FILE: DE.DGN
APPROVED:
ADSS FIBER DEAD-END
REVISED: XX/XX/XXXX SHEET 1 OF 1 STD. NO: DE

SEALED BY



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

DETAILS

SCALE: N.T.S.

$$$$SYTIME$$$$$
$$$DGNSPEC$$$

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U4-1

S.R. 31 HAWKINS
PIN # 101394.00

UTILITIES INDEX

SHEET NAME	SHEET NUMBER
ESTIMATED UTILITY QUANTITIES	U4-1
SPECIAL CONDITIONS	U4-2
TDOT STANDARD UTILITY NOTES	U4-3
UTILITY RELOCATION STA. 10+00 TO STA. 19+00	U4-4
UTILITY RELOCATION STA. 19+00 TO STA. 32+00	U4-5
UTILITY RELOCATION STA. 32+00 TO STA. 45+00	U4-6
UTILITY RELOCATION STA. 45+00 TO STA. 49+53	U4-7
UTILITY RELOCATION STA. 67+30 TO STA. 76+00	U4-8
UTILITY RELOCATION STA. 76+00 TO STA. 87+14	U4-9
UTILITY RELOCATION STA. 218+99 TO STA. 229+00	U4-10
UTILITY RELOCATION STA. 229+00 TO STA. 239+98	U4-11
UTILITY RELOCATION DETAILS	U4-12

LEGEND:

	TEMPORARY LOCATION (BLUE)
	EXISTING TO REMAIN (ORANGE)
	EXISTING TO BE REMOVED OR RETIRED (GREEN)
	NEW INSTALLATION (RED)
T (UG)	NEW AT&T UNDERGROUND CABLE (DIRECT BURIED)
T	NEW AT&T OVERHEAD LINE
T	NEW AT&T SERVICE DROP
OHG	NEW OVERHEAD GUY
T (UG)	EXISTING AT&T UNDERGROUND CABLE TO REMAIN
T	EXISTING AT&T OVERHEAD LINE TO REMAIN
T	EXISTING AT&T SERVICE DROP TO REMAIN
OHG	EXISTING OVERHEAD GUY TO REMAIN
T (UG)	EXISTING AT&T UNDERGROUND CABLE TO BE REMOVED OR RETIRED
T	EXISTING AT&T OVERHEAD LINE TO BE REMOVED OR RETIRED
T	EXISTING AT&T SERVICE DROP TO BE REMOVED OR RETIRED
OHG	EXISTING OVERHEAD GUY TO BE REMOVED/RETIRED
	EXISTING AT&T POLE TO REMAIN
	EXISTING AT&T POLE TO BE REMOVED OR RETIRED
	NEW INSTALLATION OF AT&T POLE
	NEW INSTALLATION OF AT&T POLE WITH GUY WIRE
	EXISTING AT&T GUY WIRE TO REMAIN
	EXISTING AT&T GUY WIRE TO BE REMOVED
	NEW INSTALLATION OF AT&T GUY WIRE
	EXISTING ELECTRIC UTILITY POLE TO REMAIN
	EXISTING ELECTRIC UTILITY POLE TO BE REMOVED OR RETIRED
	NEW INSTALLATION OF ELECTRIC UTILITY POLE
	EXISTING AT&T PUSH BRACING TO REMAIN
	EXISTING AT&T PUSH BRACING TO BE REMOVED
	NEW AT&T PUSH BRACING
TELE	EXISTING AT&T PULL BOX TO REMAIN
TELE	EXISTING AT&T PULL BOX TO BE REMOVED OR RETIRED
TELE	NEW INSTALLATION OF AT&T PULL BOX
	NEW INSTALLATION OF AT&T MANHOLE
	NEW INSTALLATION OF AT&T HANDHOLE

UTILITY COMPANY CONTACT

AT&T TENNESSEE
9733 PARKSIDE DRIVE
KNOXVILLE, TN 37922
JAY FRAZIER
825-387-2685
EMAIL: jf092g@att.com

ESTIMATED UTILITY QUANTITIES

Note	ITEM NO.	DESCRIPTION	UNIT	QUANTITY (Project No. 1: 37022-3219-14)
1	793-01.08	POLE 35FT CLASS 5 WOOD	EACH	4
1	793-01.12	POLE 40FT CLASS 4 WOOD	EACH	1
1	793-01.16	POLE 45FT CLASS 2 WOOD	EACH	3
1	793-01.17	POLE 45FT CLASS 3 WOOD	EACH	7
1	793-01.20	POLE 50FT CLASS 2 WOOD	EACH	1
1	793-01.24	POLE 55FT CLASS 2 WOOD	EACH	4
9	793-01.37	PUSH BRACE	EACH	1
2	793-01.42	ANCHOR 1 1/4IN	EACH	21
3	793-10.20	EXPOSE EXISTING CABLE/CONDUIT ALL DEPTHS	L.F.	80
4	793-11.20	HANDHOLE 30INX48IN	EACH	1
4	793-11.25	CONCRETE HANDHOLE 4FTX4FTX4XT	EACH	1
5	793-11.58	REMOVE HANDHOLE	EACH	1
6	793-13.12	1 DUCT FORMATION @ 36IN DEPTH	L.F.	350
6	793-13.17	2 DUCT FORMATION @ 36IN DEPTH	L.F.	20
6	793-13.27	4 DUCT FORMATION @ 36IN DEPTH	L.F.	150
7	793-14.02	CONCRETE ENCASEMENT PER DUCT	L.F.	640
8	793-14.14	MULTI DUCT	L.F.	520
5	793-98.04	REMOVE POLES ALL SIZES	EACH	16

1 INCLUDES ALL MATERIALS, LABOR, EQUIPMENT FOR COMPLETE INSTALLATION INCLUDING BUT NOT LIMITED TO BUTT WRAP, MGNV, GROUND ROD, DIG HOLE, TAMP, BLASTING, AND NUMBER POLE.

2 INCLUDES ALL MATERIALS, LABOR, EQUIPMENT FOR COMPLETE INSTALLATION INCLUDING BUT NOT LIMITED TO DIGGING HOLE, BLASTING OR MECHANICALLY INSERTING INTO GROUND, BONDING/GROUNDING.

3 INCLUDES SETUP, BACKFILL, FACILITY LOCATE

4 INCLUDES ALL MATERIALS, LABOR, EQUIPMENT FOR COMPLETE INSTALLATION INCLUDING BUT NOT LIMITED TO DIGGING HOLE, PLACING HANDHOLE, TERMINATING CONDUIT, RESTORING SURFACE TO TDOT STANDARDS, TRAFFIC CONTROL AND SETUP.

5 INCLUDES TRAFFIC CONTROL, LABOR AND EQUIPMENT

6 INCLUDES ALL MATERIALS, LABOR AND EQUIPMENT INCLUDING BUT NOT LIMITED TO SPACERS, COUPLINGS, BENDS, OPENING TRENCH, BACKFILL PER SPECS AND DETAILS, SURFACE RESTORATION OF ALL CROSSINGS TO TDOT STANDARDS, SETUP, TRAFFIC CONTROL.

7 ALL DUCT FORMATIONS FOR MULTIPLE DUCT RUNS.

8 INCLUDES ALL MATERIALS, LABOR AND EQUIPMENT INCLUDING BUT NOT LIMITED TO SETUP, TRAFFIC CONTROL, RODDING DUCT AND PULLING IN INNERDUCT.

9 INCLUDES PROPER CLASS POLE, BUTT PLATE, BONDING/GROUNDING, GROUND ROD, DIG HOLE, TAMP, BLASTING, AND EXTRA DEPTH PLACEMENT.

GENERAL NOTES:

1. ALL PLACEMENT OF DUCT BANKS TO BE AT 36" DEPTH TO FINAL GRADE IN CUTS, 36" DEPTH TO CURRENT GRADE IN FILLS.
2. PROVIDE CABLE MARKERS EVERY 500' AND IN-LINE OF SIGHT FROM EACH MARKER. ADD MARKERS AT ALL ROAD CROSSINGS.
3. SEE DETAIL SHEETS FOR MANHOLE SPECIFICATIONS.
4. RETURN TO AT&T EXISTING MANHOLE FRAME/COVERS REMOVED. BACKFILL MANHOLES ACCORDING TO T.D.O.T. REQUIREMENTS.
5. COORDINATE CROSSINGS WITH EXISTING AND PROPOSED UTILITIES TO SET FINAL GRADE FOR DUCT BANKS.
6. GROUND BED LOCATIONS AS SPECIFIED.
7. SURVEY INFORMATION IN THESE DRAWINGS ARE FROM OTHERS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES. ANY UTILITIES NOT SHOWN ON THESE DRAWINGS ARE ALSO THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGES TO, AND FOR PROTECTION OF ALL EXISTING UTILITIES.

SEALED BY

Andrew J. Clark
10-10-2025

BARGE DESIGN SOLUTIONS
520 West Summit Hill Drive // Suite 1202 // Knoxville, Tennessee 37902
PHONE (865) 637-2810 // FAX (865) 673-6554
BARGE DESIGN PROJECT NO. 32119-81

AT&T TENNESSEE

ESTIMATED UTILITY QUANTITIES

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U4-2

S.R. 31 HAWKINS
PIN # 101394.00

AT&T SPECIAL CONDITIONS AND ADDITIONAL BREAKDOWN OF TIME

1. IF ALL OTHER SECTIONS OF AT&T'S WORK IS READY AT THE SAME TIME, THEN 449 DAYS IS NEEDED TO COMPLETE THE PROJECT. TO HELP KEEP THE PROJECT MOVING FORWARD, AT&T AGREES TO WORK SECTIONS OF PLACEMENT AND CUTOVER AS THEY BECOME AVAILABLE AS LONG AS THEY CAN LOGISTICALLY BE WORKED, AND DO NOT PLACE ADDITIONAL COSTS ON AT&T OR CAUSE ANY SAFETY CONCERNS. AT&T ALSO AGREES TO EVALUATE AND WORK WITH THE STATE CONTRACTOR IF THERE ARE TEMPORARY RELOCATIONS THAT ARE NEEDED. THESE TEMPORARY RELOCATIONS WILL HAVE THEIR OWN SCHEDULE OF CALENDAR DAYS AND MAY BE 100% REIMBURSABLE IN ADDITION TO ANY CHAPTER 85 REIMBURSEMENTS.

2. BY BREAKING IT DOWN INTO SECTIONS, EACH SECTION HAS ITS OWN MOBILIZATION AND MATERIAL ORDERING TIME. THE SPECIAL CONDITIONS APPLY TO EACH SECTION INDIVIDUALLY; HOWEVER, ADDITIONAL CLARIFICATION WILL BE INCLUDED IN EACH SECTION.

3. AT&T FORCES PLACE ALL CABLE AND DOWN GUYS. THE CONSTRUCTION SCHEDULE LISTED INCLUDES STANDARD MATERIAL ORDERING INTERVALS, PROJECTED WORKLOADS AT THE TIME OF CONSTRUCTION, ESTIMATED WORK CONTENT, AND LIMITED DELAYS DUE TO WEATHER OR CUSTOMER RELEASES FOR SCHEDULED SERVICE INTERRUPTIONS. COMPLETION OF WORK IS ALSO CONTINGENT ON NATIONAL OR STATE EMERGENCY ORDERS WHICH CAN RESTRICT TELECOMMUNICATIONS WORK.

4. THE CONSTRUCTION SCHEDULE LISTED CANNOT BE IMPLEMENTED UNTIL AT&T HAS BEEN NOTIFIED IN WRITING BY TDOT AND/OR THE STATE CONTRACTOR THAT ALL AT&T ITEMS INCLUDED IN THE STATE CONTRACT HAVE BEEN PLACED, ALL POWER COMPANY POLES HAVE BEEN SET, AND ALL OTHER OVERHEAD UTILITIES HAVE BEEN TRANSFERRED DUE TO SAFETY REGULATIONS AND POTENTIAL CONSTRUCTION CONFLICTS.

5. ALL SCHEDULES/SECTIONS ARE BASED ON AT&T BEING ABLE TO GET APPROVAL FROM TDOT FOR USE OF THE DIMINIMIS FOR THOSE ITEMS THAT CANNOT BE OBTAINED USING FHWA/BUY AMERICA APPROVED STEEL. ANY DELAYS ON APPROVAL OF THESE ITEMS WILL CAUSE AN EQUAL DELAY ON AT&T'S SCHEDULE.

6. ANY CHANGES THAT THE STATE'S CONTRACTOR MAKES TO THE PLANS PROVIDED TO THEM BY TDOT MAY CAUSE A REDESIGN TO AT&T'S PLANS. AT&T WILL REQUIRE TIME TO EVALUATE AND MAKE CHANGES IF NECESSARY. THESE CHANGES WILL HAVE TO BE APPROVED BY TDOT THROUGH A FORMAL STAMPED REDESIGN AND WILL REQUIRE ADDITIONAL TIME ON THE SCHEDULE. AT&T'S TIME WILL NOT START UNTIL AFTER THE DESIGN CHANGES AND ALL OTHER SPECIAL CONDITIONS HAVE BEEN APPROVED/COMPLETED.

7. AT&T CAN MOVE OVERHEAD LINES IN SOME INSTANCES BEFORE OTHER COMMUNICATION COMPANIES; HOWEVER, THIS COULD CAUSE ADDITIONAL TIME DELAYS AND COSTS TO AT&T AND TO THOSE OTHER COMPANIES. THESE COSTS MAY BE SUBJECT TO THE PARAGRAPH ABOVE.

8. WHEN REFERRING TO "ALL"POWER COMPANY POLES OR "ALL" OTHER OVERHEAD UTILITIES, IT IS ONLY REFERRING TO THOSE POLES THAT HAVE AN IMPACT ON AT&T'S RELOCATION.

9. THIS SCHEDULE IS ALSO DEPENDENT ON AT&T HAVING ACCESS TO ALL OF ITS EXISTING FACILITIES UNTIL SUCH TIME AS THEY ARE NO LONGER IN SERVICE AND ARE READY TO BE RETIRED. EXISTING MANHOLE LIDS MAY REQUIRE RAISING TO MAINTAIN ACCESSIBILITY UNTIL IT CAN BE RETIRED.

10. AT&T MUST BE CONSULTED PRIOR TO CONTRACTOR REVISING SUGGESTED TDOT TRAFFIC CONTROL PHASING.

POSSIBLE PHASING

SECTION 1: STATION 11+50 TO APP STATION 46. THIS SECTION INCLUDES PLACEMENT OF FIBER STUB OFF SITE NEAR THE INTERSECTION OF SR-31 AND MOORESBURG SPRINGS RD. AT P 55 SR-31, THEN RELOCATION OF FACILITIES IN THIS SECTION CAN OCCUR, WITH THE ADDED BENEFIT OF RETIRING THE UNDERGROUND FIBER CABLE SHOWN ON MOST OF THE PLANS BEING RETIRED UP TO STATION 87+13.71, WHICH IS THE END OF SECTION 2 OF THE PROJECT. NOTE THAT ALL LATERAL RELOCATIONS SHOWN ON SUBMITTAL DRAWINGS IN THIS SECTION MUST BE WORKED IN CONJUNCTION WITH THIS SECTION. ALL REQUIRED STRUCTURE MUST BE IN PLACE TO WORK THIS SECTION. THIS SECTION WILL REQUIRE 240 DAYS.

SECTION 2: STATION 67+30.44 TO STATION 82+05.49. THIS SECTION INCLUDES RELOCATION OF FACILITIES IN SECTION 2. PLACEMENT MUST BEGIN OFF SITE FROM THE INTERSECTION OF SR-31 AND BROOKS RD (FIBER ACCESS POINT), AND PROGRESS THRU THE END OF SECTION 2 AT STATION 82. THIS SECTION RELOCATES BOTH FIBER AND COPPER FACILITIES IN CONFLICT. NOTE THAT ALL LATERAL RELOCATIONS SHOWN ON THE SUBMITTAL DRAWINGS IN THIS SECTION MUST BE WORKED IN THIS SECTION AS WELL. ALL REQUIRED STRUCTURE MUST BE IN PLACE TO WORK THIS SECTION. THIS SECTION WILL REQUIRE 150 DAYS.

SECTION 3: STATION 219+07.50 TO END OF PROJECT STATION 239. THIS SECTION INCLUDES RELOCATION OF CONFLICTED FACILITIES FROM CARPENTER RD TO THE END OF THE PROJECT AT MIDWAY CHURCH RD. NOTE THAT OFF SITE SPLICE WORK MUST TAKE PLACE AT THE INTERSECTION OF SR-31 AND MOORESBURG SPRINGS RD TO FACILITATE UNDERGROUND FIBER CABLE RETIREMENT IN CONFLICT IN THIS SECTION. ALL REQUIRED STRUCTURE MUST BE IN PLACE TO WORK THIS SECTION. NOTE THAT ALL LATERAL RELOCATIONS IN THIS SECTION SHOWN ON THE SUBMITTAL DRAWINGS MUST BE WORKED IN THIS SECTION AS WELL. THIS SECTION WILL REQUIRE 150 DAYS.

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BARGE DESIGN PROJECT NO. 32119-81

AT&T
TENNESSEE

SPECIAL
CONDITIONS

10/9/2025
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TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U4-3

S.R. 31 HAWKINS
PIN # 101394.00

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

TDOT STANDARD GENERAL NOTES:

1. EXCEPT FOR EROSION SEDIMENT CONTROL ITEMS, NO ROADWAY OR BRIDGE ITEMS SHALL BE UTILIZED TO COMPENSATE FOR WORK METHODS OR MATERIALS ASSOCIATED WITH AND/OR SPECIFIED FOR THE UTILITY INSTALLATION, EVEN THOUGH THE SAME OR SIMILAR ROADWAY OR BRIDGE MATERIALS MAY HAVE BEEN CALLED FOR IN THE UTILITY SPECIFICATIONS OR DRAWINGS.

2. ALL MATERIALS, METHODS, AND/OR INTEGRAL MATERIALS OUTLINED IN THE UTILITY SPECIFICATIONS OR DRAWINGS NECESSARY TO PROVIDE A COMPLETE AND FUNCTIONAL INSTALLATION MUST BE INCLUDED IN THE UNIT PRICE FOR THE ASSOCIATED UTILITY WORK ITEM.

3. THE CONTRACTOR MUST MAINTAIN ALL SERVICES DURING THE CONSTRUCTION OF THE RELOCATED FACILITY. ANY COSTS ASSOCIATED WITH INSTALLATION OF REQUIRED TEMPORARY SERVICE LINES DUE TO THE ROADWAY CONSTRUCTION SEQUENCE OF WORK (I.E., CUTS, FILLS, PHASING, ETC.) SHALL BE INCLUDED IN THE COST OF THE PERMANENT UTILITY ITEMS.

4. IT SHALL BE THE RESPONSIBILITY OF THE PRIME CONTRACTOR'S SURVEYOR TO LAY OUT ALL THE FACILITIES BEING RELOCATED WITHIN THE CONTRACT.

5. FOR BURIED UTILITIES, THE PRIME CONTRACTOR OR SUBCONTRACTOR SHALL BE REQUIRED TO PROVIDE TO THE UTILITY UPON COMPLETION OF THE UTILITY'S RELOCATION WORK A SET OF AS-BUILT DRAWINGS FOR THEIR RECORDS. THESE AS-BUILT DRAWINGS SHOULD BE PREPARED AS THE JOB PROGRESSES TO ENSURE THEIR ACCURACY.

6. WHERE EROSION CONTROL MEASURES ARE NEEDED FOR THE UTILITY RELOCATION WORK OCCURRING INSIDE OR OUTSIDE STATE RIGHT-OF-WAY, THE CONTRACTOR SHALL SUBMIT TO THE TDOT PROJECT SUPERVISOR FOR APPROVAL A PROPOSED EROSION AND SEDIMENT CONTROL PLAN PRIOR TO BEGINNING THE WORK. TDOT APPROVAL MUST BE RECEIVED BEFORE THE EROSION CONTROL PAY ITEMS FOR ROADWAY CONSTRUCTION CAN BE USED FOR ANY ADDITIONAL EROSION CONTROL MEASURES REQUIRED FOR THE UTILITY RELOCATION WORK.

7. DRIVEWAY, SIDEWALK AND ROADWAY TEMPORARY RESTORATION SHALL BE PART OF THE IN-PLACE COST OF PLACING THE UTILITY ITEM WITHIN THE ROW.

8. ANY EXCAVATION OF THE STREAM CHANNEL AREA SHALL BE SEPARATED FROM FLOWING WATER AND ACCOMPLISHED DURING LOW FLOW CONDITIONS. THIS SHALL BE ACCOMPLISHED BY THE USE OF FLUMES, LINED DIVERSION CHANNEL WITH SANDBAG BERM, DIVERSION PIPE WITH SANDBAG DAM AT PIPE INLET, OR IN SOME CASES COFFERDAMS. ALTERNATIVELY, BASED ON FIELD CONDITIONS AND CONTRACTOR SELECTION, THE UTILITY RELOCATION MAY BE ACCOMPLISHED USING BORE TECHNOLOGY WITH NO STREAM CHANNEL IMPACTS.

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AT&T
TENNESSEE

TDOT STANDARD
UTILITY NOTES

10/9/2025
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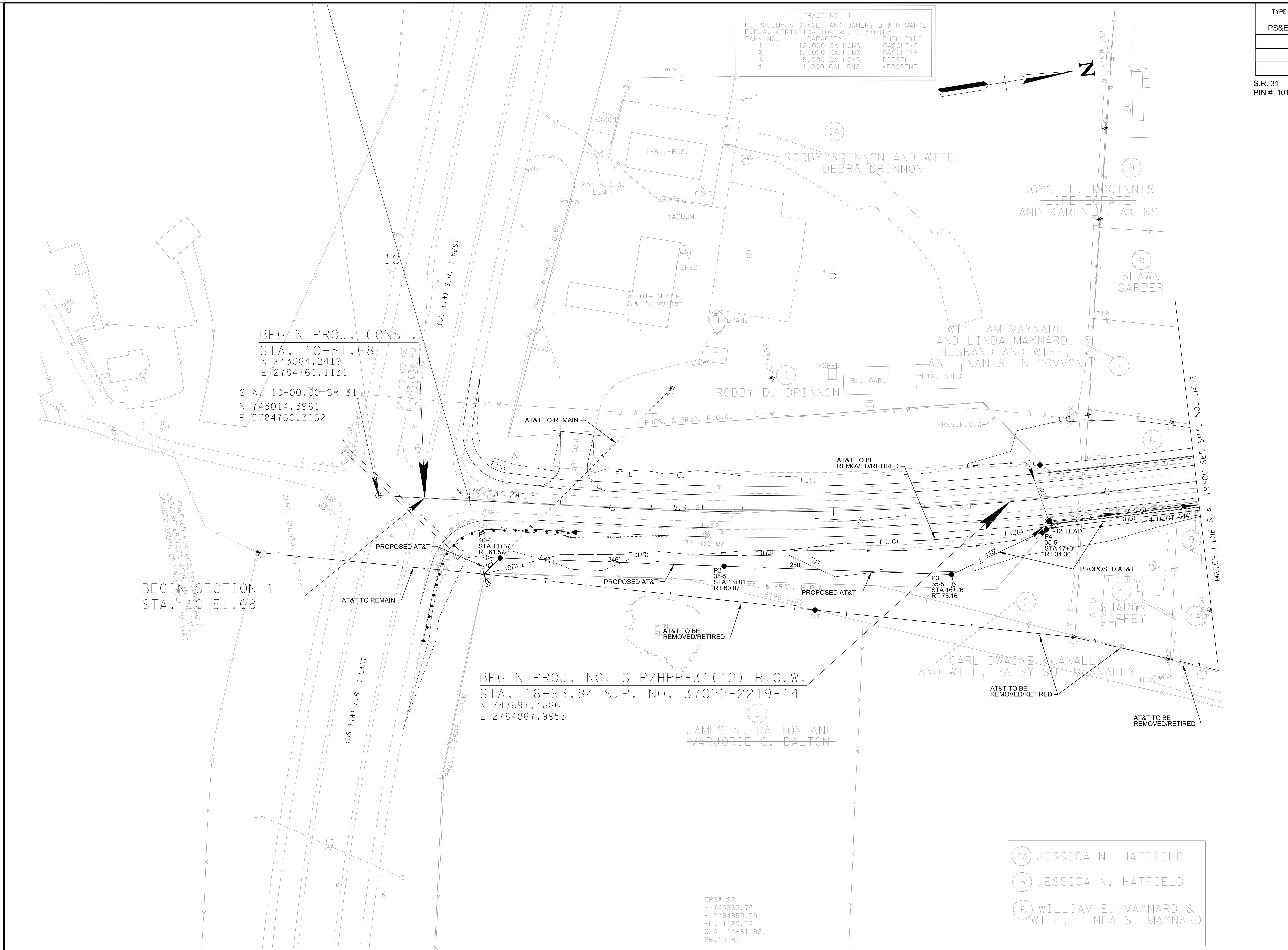
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U4-4

S.R. 31 HAWKINS
PIN # 101394.00



4A	JESSICA N. HATFIELD
5	JESSICA N. HATFIELD
6	WILLIAM E. MAYNARD & WIFE, LINDA S. MAYNARD

SEALED BY

Andrew J. Clark
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AT&T
TENNESSEE

UTILITY
RELOCATION

STA.10+00 TO STA.19+00

SCALE: 1"= 50'

10/9/2025
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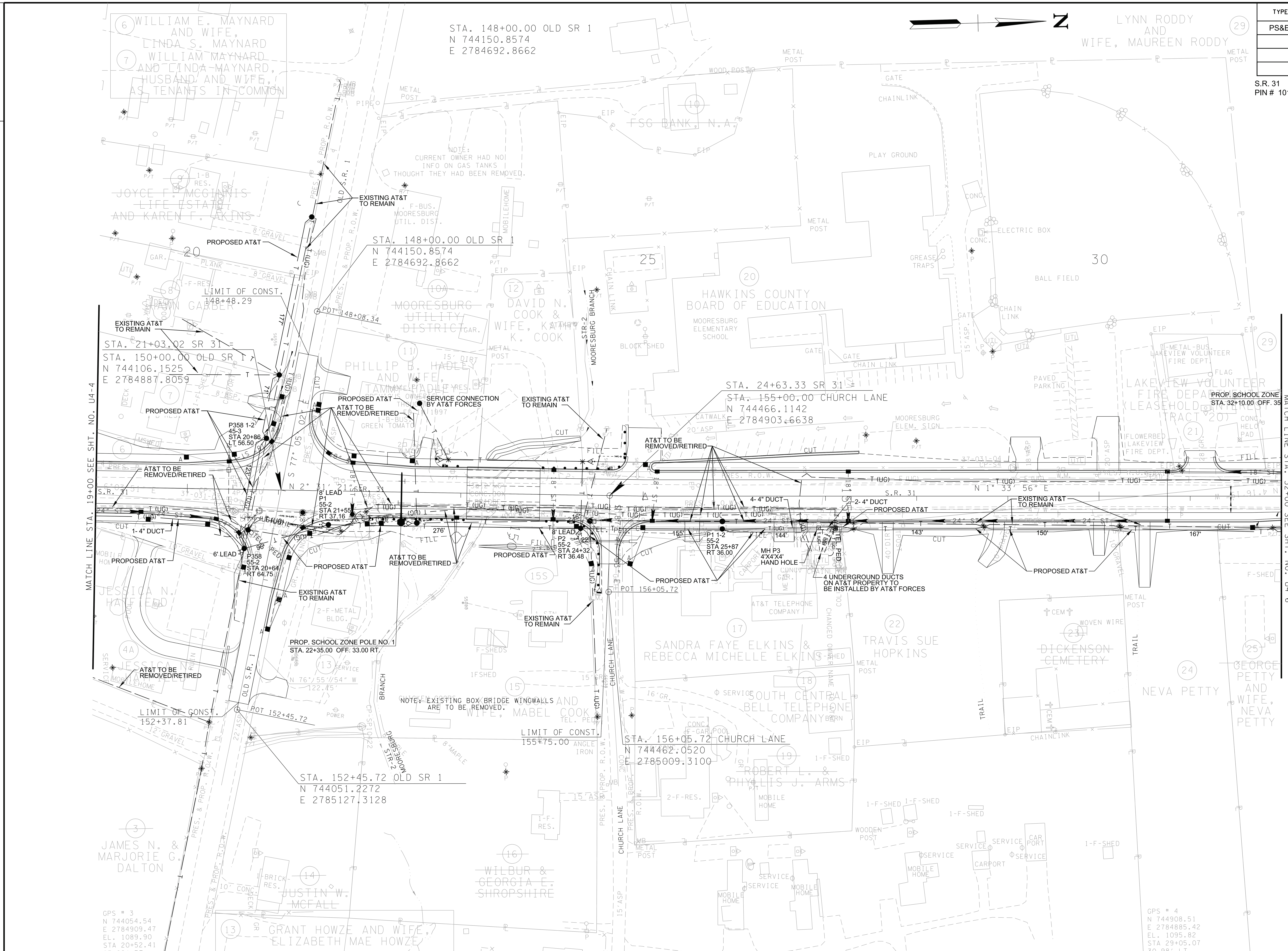
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U4-5

S.R. 31 HAWKINS
PIN # 101394.00



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AT&T
TENNESSEE

UTILITY RELOCATION

STA.19+00 TO STA.32+00

SCALE: 1"= 50'

10/9/2025
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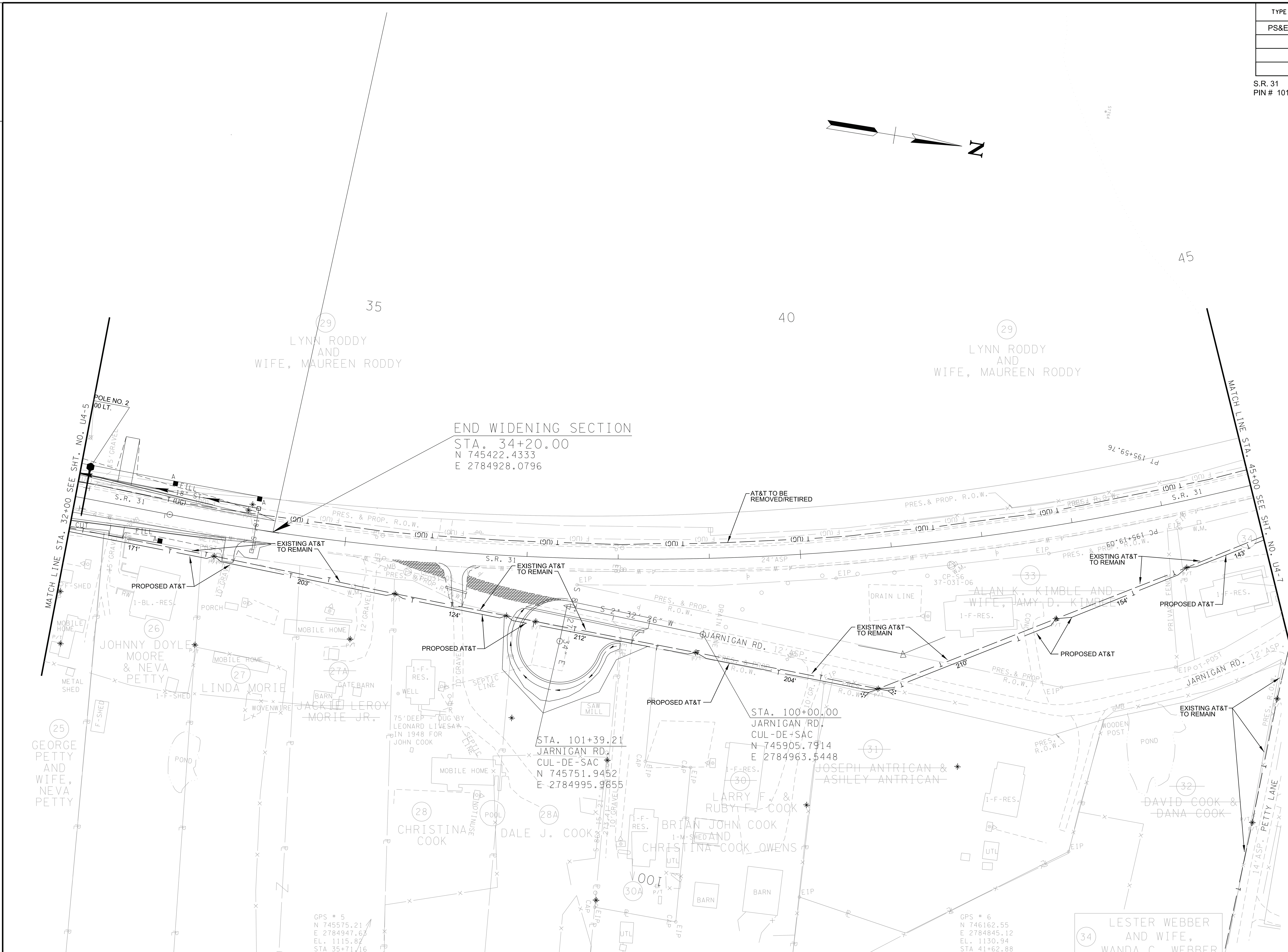
TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U4-6

S.R. 31 HAWKINS
PIN # 101394.00

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



10/9/2025
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AT&T TENNESSEE

UTILITY RELOCATION

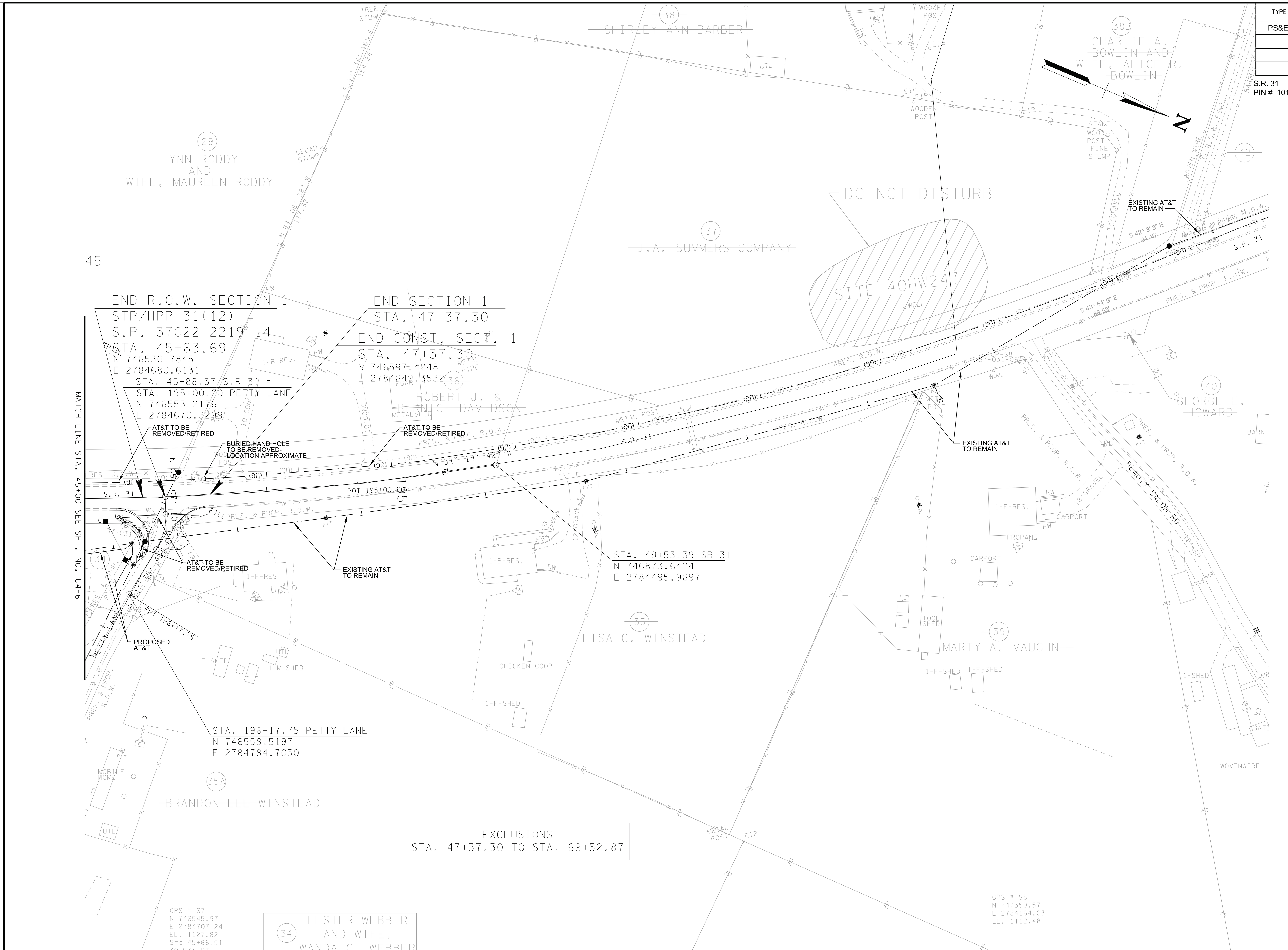
STA.32+00 TO STA.45+00

SCALE: 1"= 50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U4-7

S.R. 31 HAWKINS
PIN # 101394.00

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



10/9/2025
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AT&T
TENNESSEE

UTILITY
RELOCATION

STA.45+00 TO STA.49+53

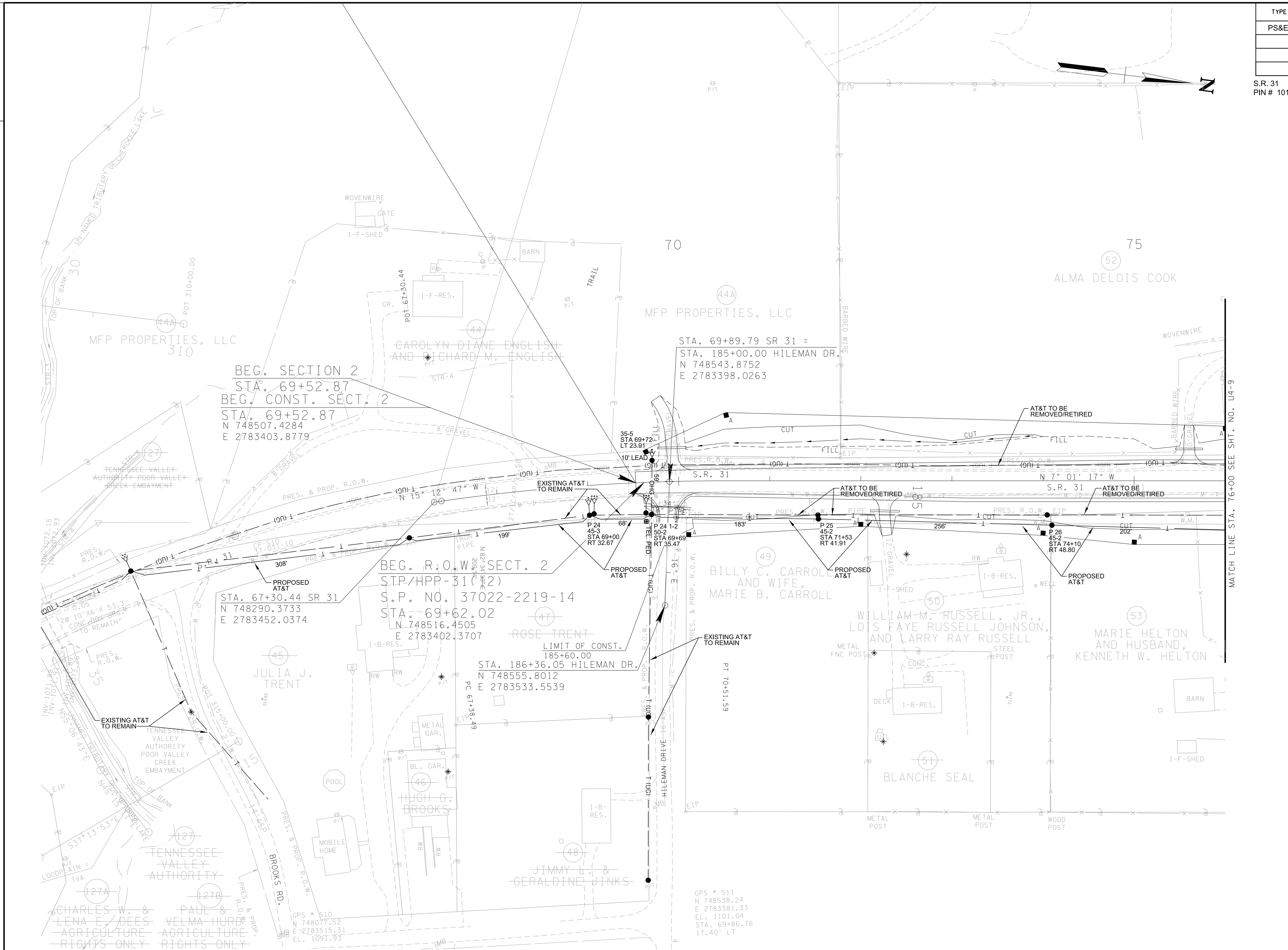
SCALE: 1"= 50'

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U4-8

S.R. 31
PIN # 101394.00

HAWKINS



10/9/2025
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BARGE DESIGN PROJECT NO. 32119-81

AT&T
TENNESSEE

UTILITY
RELOCATION

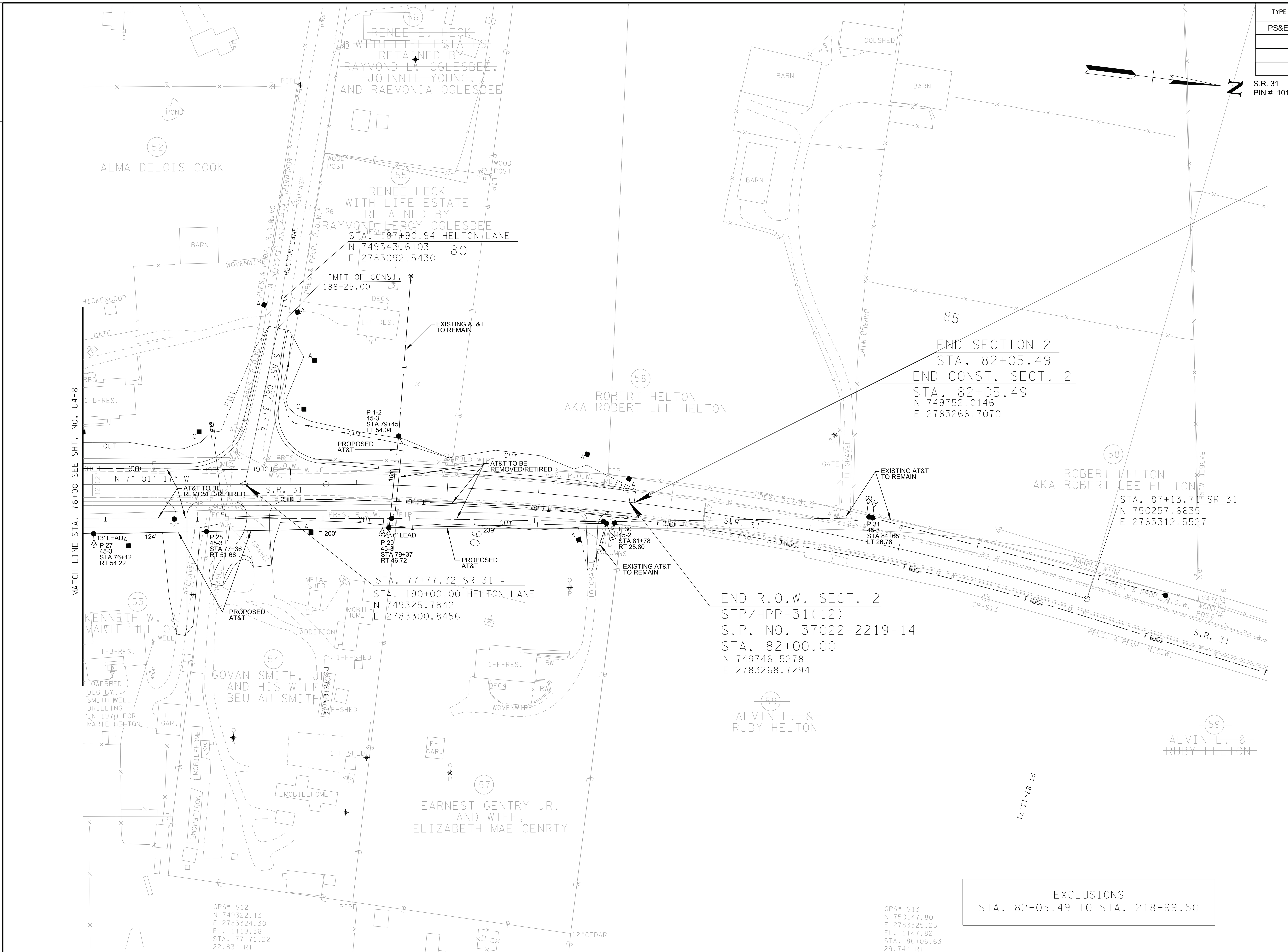
STA.67+30 TO STA.76+00

SCALE: 1"= 50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U4-9

S.R. 31 HAWKINS
PIN # 101394.00

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



EXCLUSIONS
STA. 82+05.49 TO STA. 218+99.50

SEALED BY
Andrew J. Clark
10-10-2025
STATE OF TENNESSEE

BARGE DESIGN SOLUTIONS
BARGE DESIGN PROJECT NO. 32119-81

AT&T
TENNESSEE

UTILITY RELOCATION

STA.76+00 TO STA.87+14

SCALE: 1"= 50'

10/9/2025
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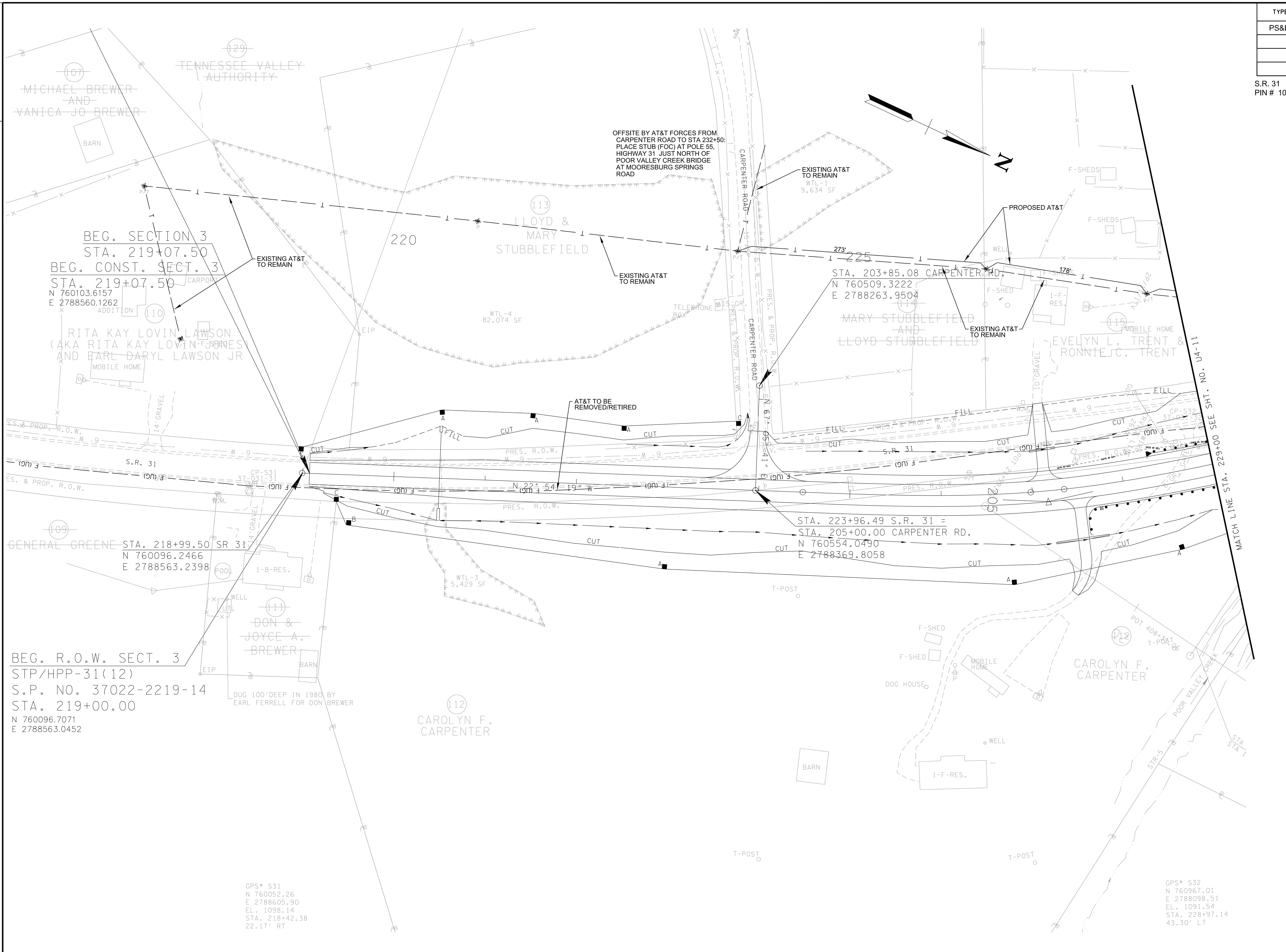
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U4-10

S.R. 31 HAWKINS
PIN # 101394.00



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BARGE DESIGN SOLUTIONS
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BARGE DESIGN PROJECT NO. 32119-81

AT&T TENNESSEE

UTILITY RELOCATION

STA.218+99 TO STA.229+00

SCALE: 1"= 50'

10/9/2025
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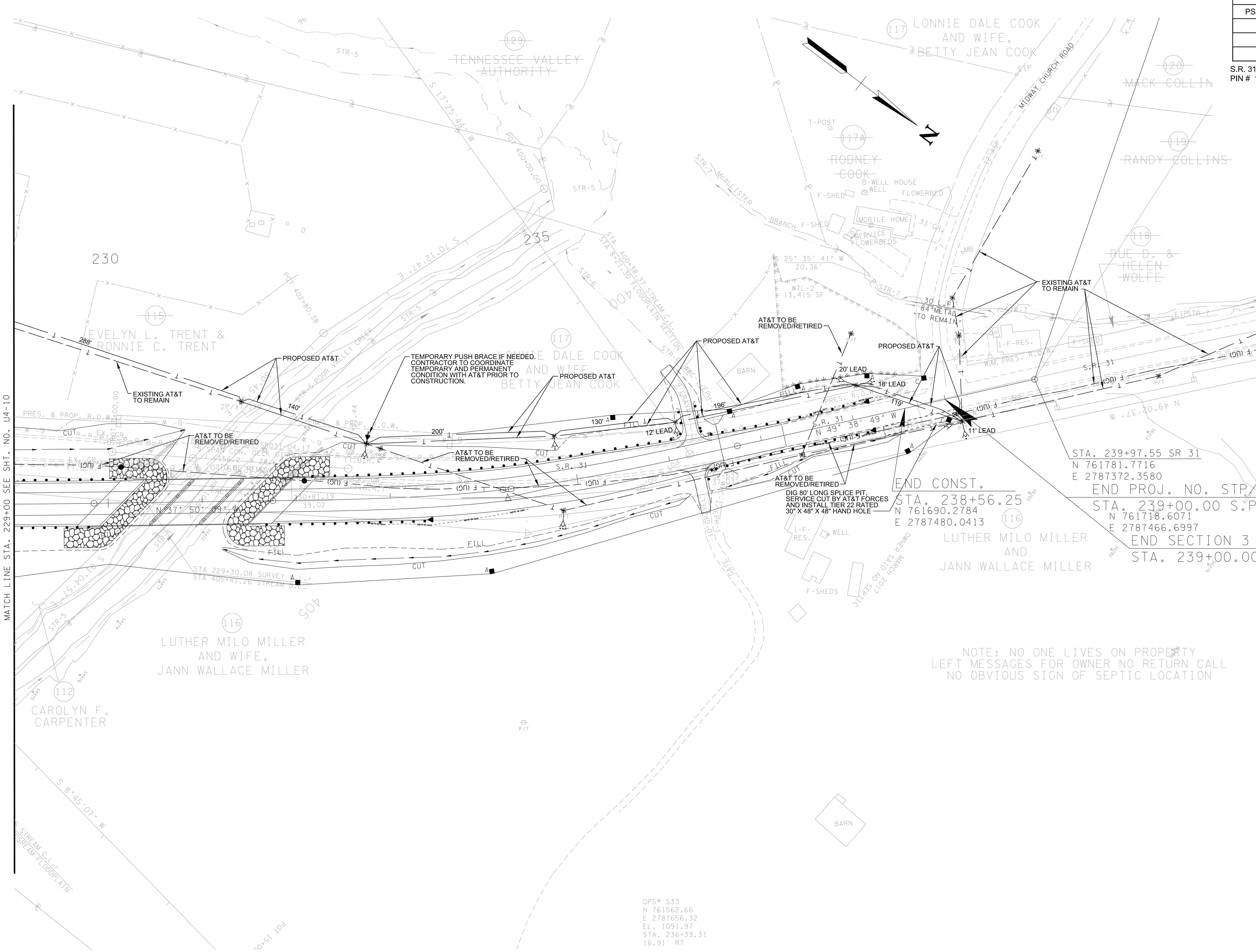
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U4-11

S.R. 31 HAWKINS
PIN # 101394.00



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AT&T
TENNESSEE

UTILITY
RELOCATION

STA.229+00 TO STA.239+98

SCALE: 1"= 50'

10/9/2025
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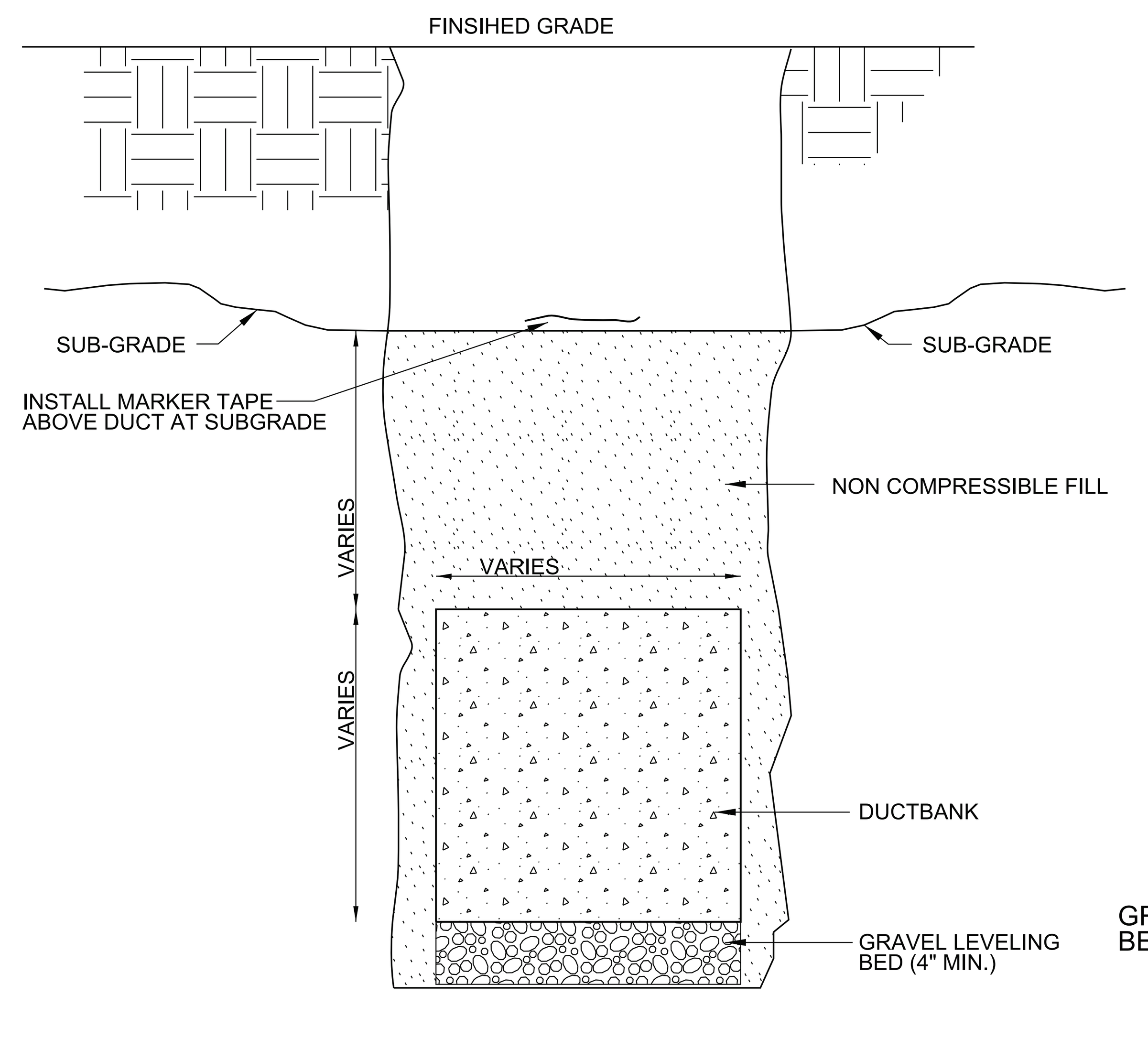
TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U4-12

S.R. 31
PIN # 101394.00

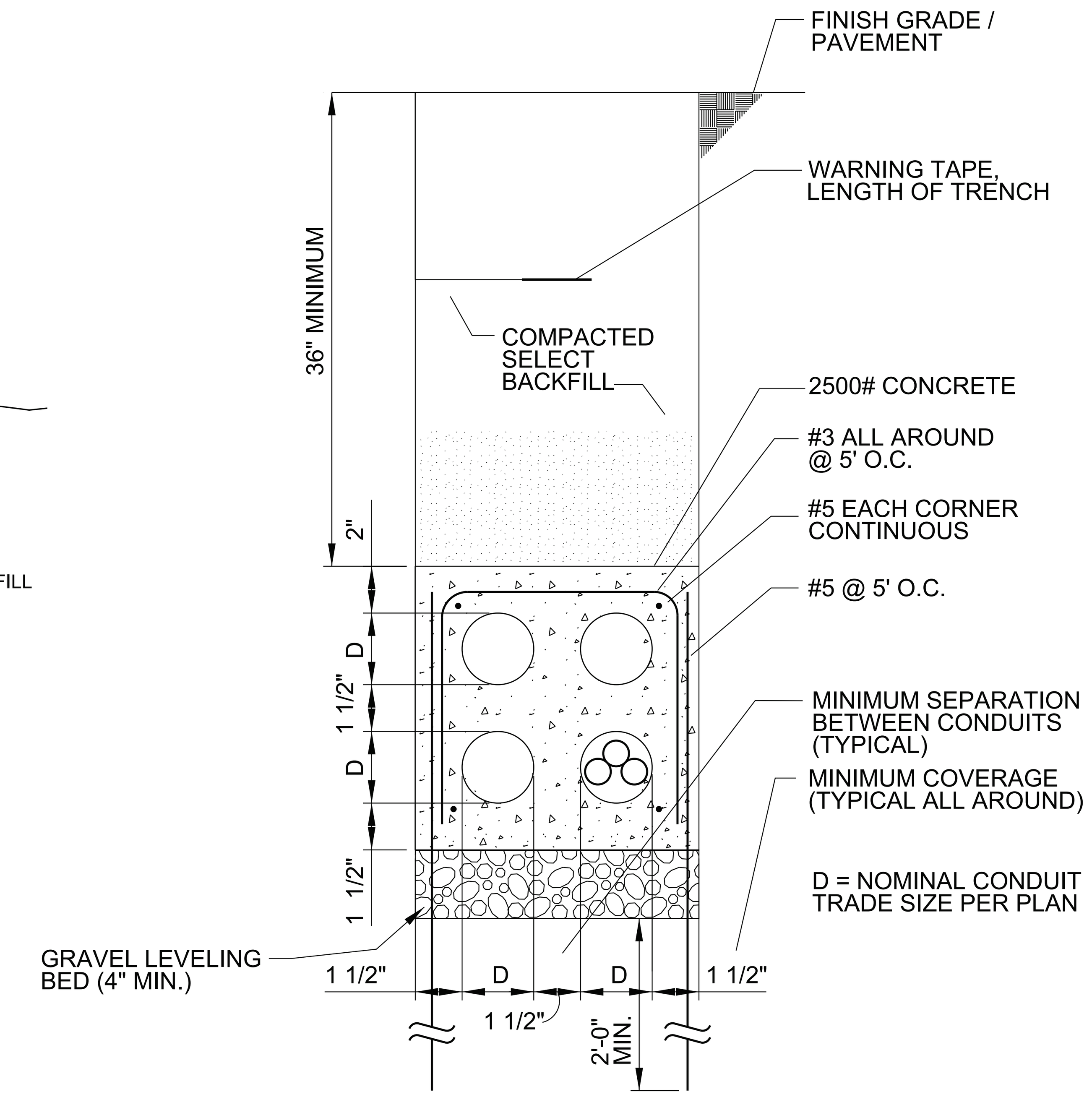
HAWKINS

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.



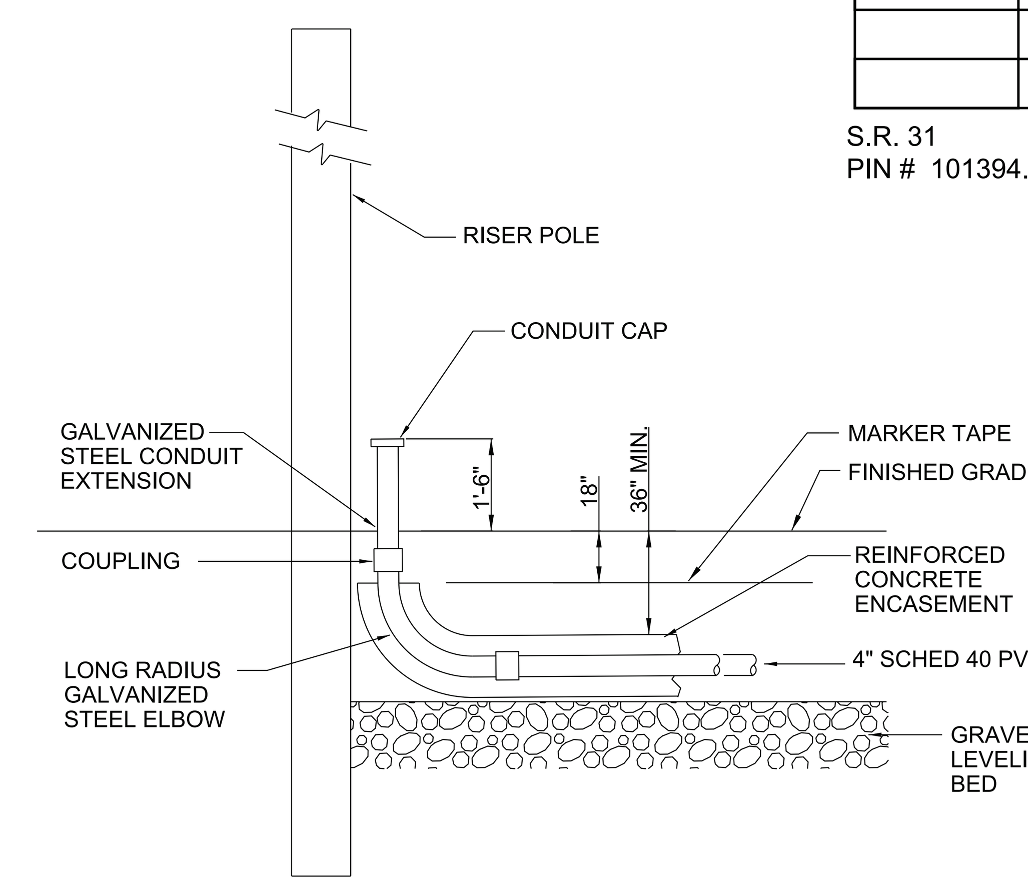
1 U4-12 TYPICAL DUCTBANK TRENCH
SCALE: N.T.S.



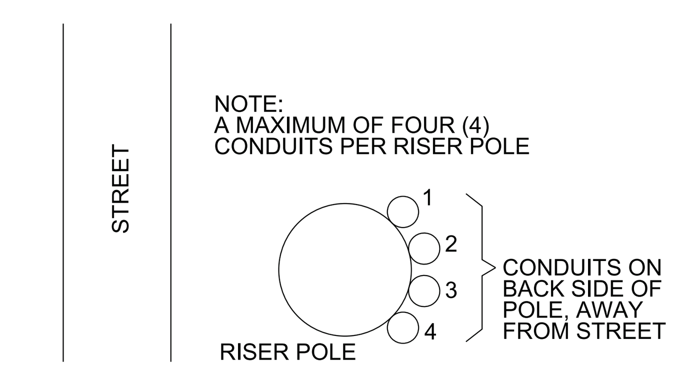
2 U4-12 TYPICAL DUCTBANK SECTION
SCALE: N.T.S.

TYPICAL DUCTBANK NOTES:

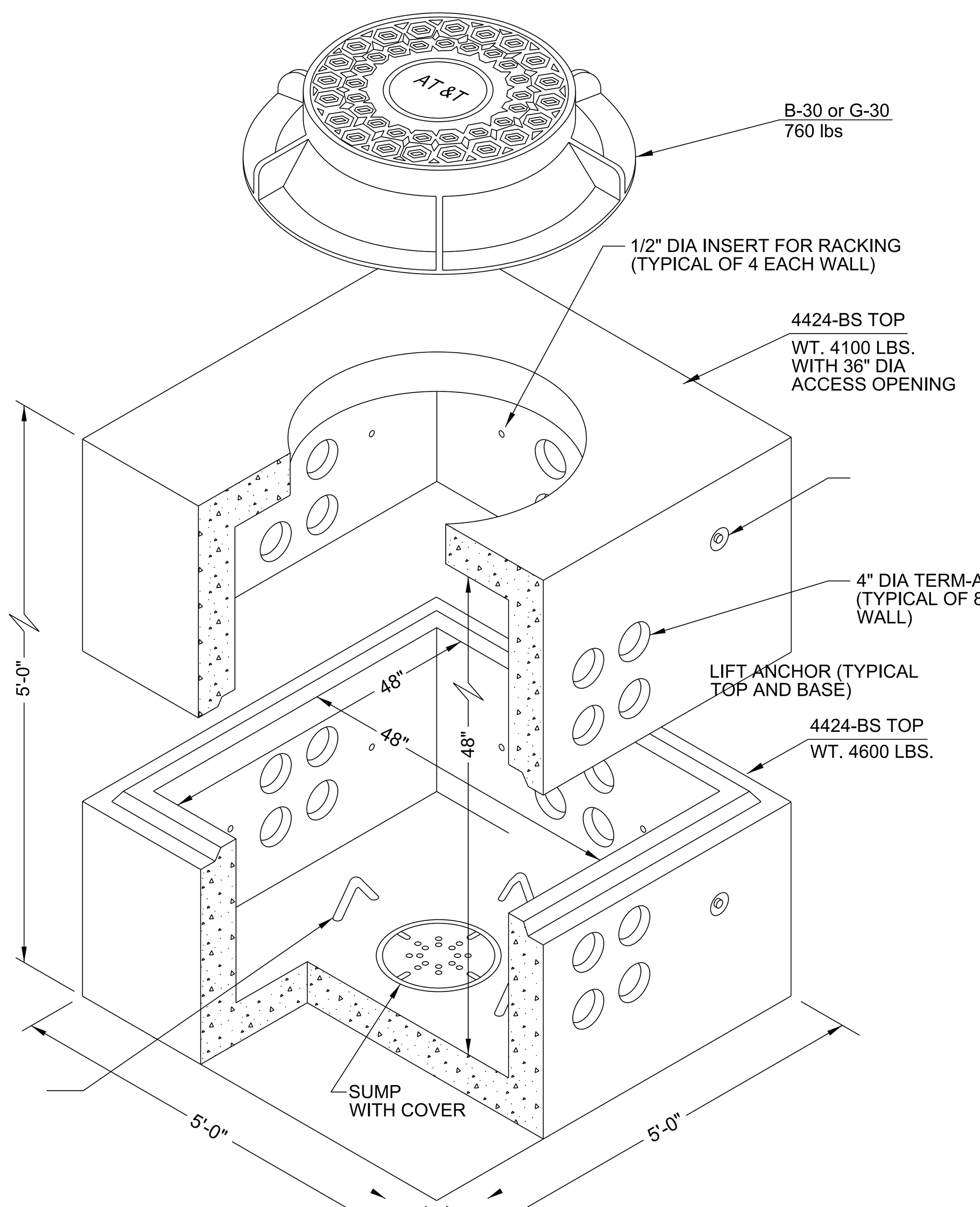
1. CONTRACTOR SHALL FURNISH AND INSTALL STEEL REINFORCED CONCRETE ENCASED DUCTBANK AS PER DETAILS.
2. DUCTBANK REINFORCING SHALL BE (4) - #5 REINFORCING STEEL EXTENDING THE ENTIRE LENGTH OF DUCTLINE AND SHALL BE INSTALLED USING BASE & INTERMEDIATE SPACERS THAT PROVIDE SEPARATION SHOWN IN SECTIONS WITH (2) - #5 REINFORCING STEEL TIE-DOWNS & (1) #3 REINFORCING STEEL STIRRUP AT 5'-0" INTERVALS. THE DUCTLINE SHALL BE INSTALLED ON A LEVEL BED OF GRAVEL 4" MIN. DEPTH.
3. CONCRETE DUCTBANK MUST BE VIBRATED TO ELIMINATE AIR POCKETS AS PER AT&T. CONCRETE TO BE 2500 PSI CONCRETE.
4. THE LOCATIONS OF THE EXISTING UTILITIES SHOWN ON THESE DRAWINGS ARE APPROXIMATE. THE EXACT LOCATIONS SHALL BE DETERMINED IN THE FIELD BY CONTACTING THE UTILITY COMPANIES INVOLVED.
5. PROVIDE ALL NECESSARY PROTECTIVE MEASURES TO SAFEGUARD THE EXISTING UTILITIES FROM DAMAGE DURING THE CONSTRUCTION OF THIS PROJECT. FURNISH ANY SPECIAL EQUIPMENT REQUIRED TO WORK OVER AND AROUND THE UTILITIES.
6. PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL CONTACT THE UTILITY OWNERS TO NOTIFY THEM OF WORK IN THE AREA AND REQUEST THEM TO PROPERLY LOCATE THEIR RESPECTIVE UTILITY. NOTIFICATION SHALL BE GIVEN AT LEAST THREE BUSINESS DAYS PRIOR TO COMMENCEMENT OF OPERATIONS AROUND THE UTILITY.
7. UTILITIES CAN BE LOCATED BY CALLING THE TENNESSEE ONE CALL SYSTEM, AT 811.
8. DUCTBANK DESIGN AND SAFETY FOR DUCTBANK CONSTRUCTION IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL CONFORM WITH ALL APPLICABLE LOCAL, STATE, NATIONAL CODES, OSHA REGULATIONS, AND AUTHORITIES HAVING JURISDICTION.
9. THE STONE BEDDING AND BACKFILL SHALL BE DONE IN STRICT COMPLIANCE WITH TENNESSEE DEPT. OF TRANSPORTATION STANDARDS, AND THE PROJECT SPECIFICATIONS.
10. CONDUIT SHALL BE SCHEDULE 40 PVC. FURNISH AND INSTALL 1 1/4" MULTI CELL INNER DUCT AS INDICATED.



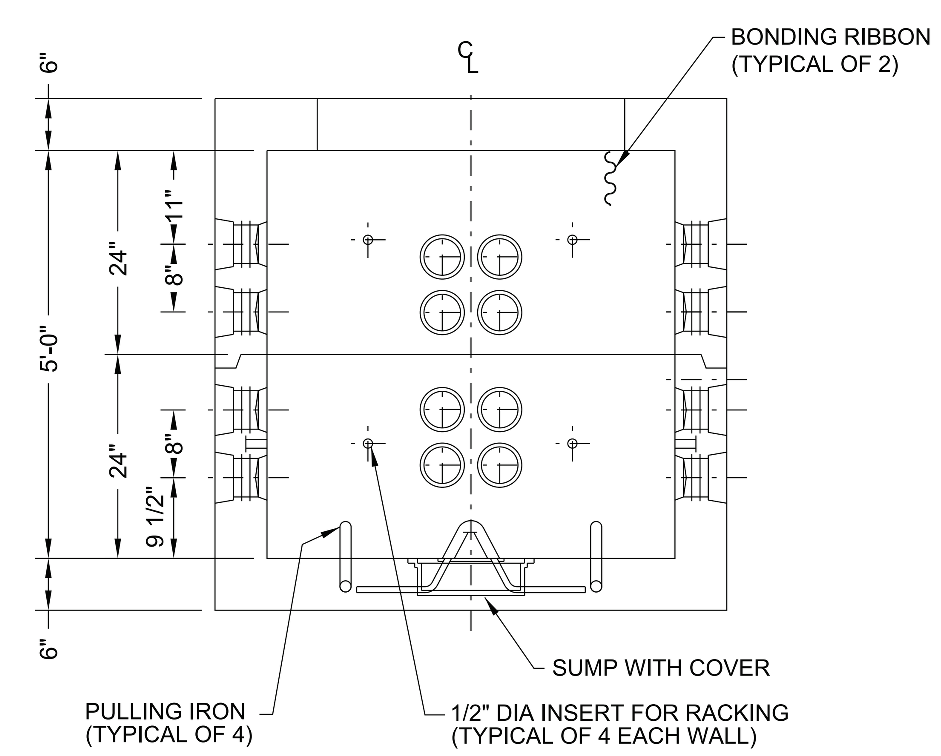
3 U4-12 RISER POLE
SCALE: N.T.S.



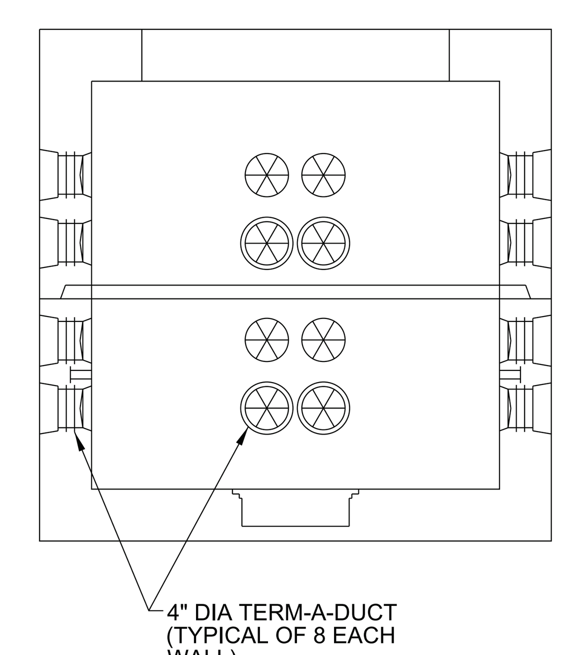
4 U4-12 CONDUIT ARRANGEMENT
SCALE: N.T.S.



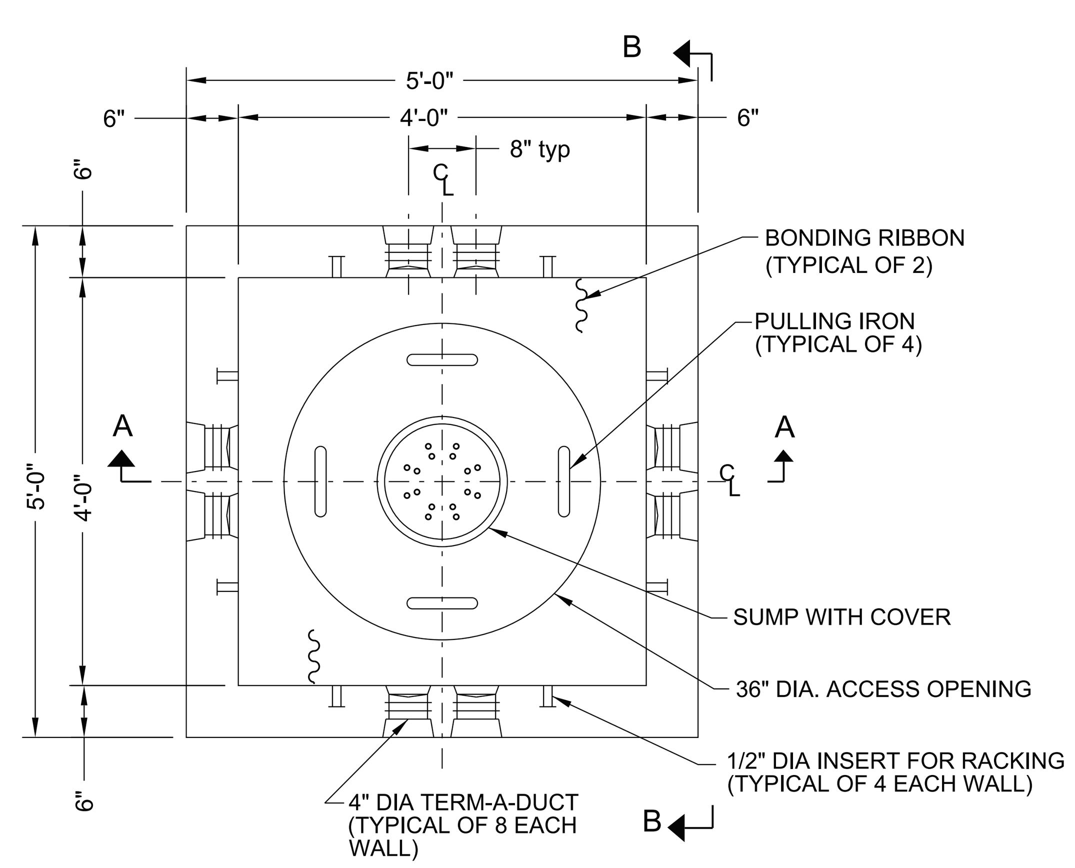
5 U4-12 TYPICAL 4'x4'x4' HANDHOLE
SCALE: N.T.S.



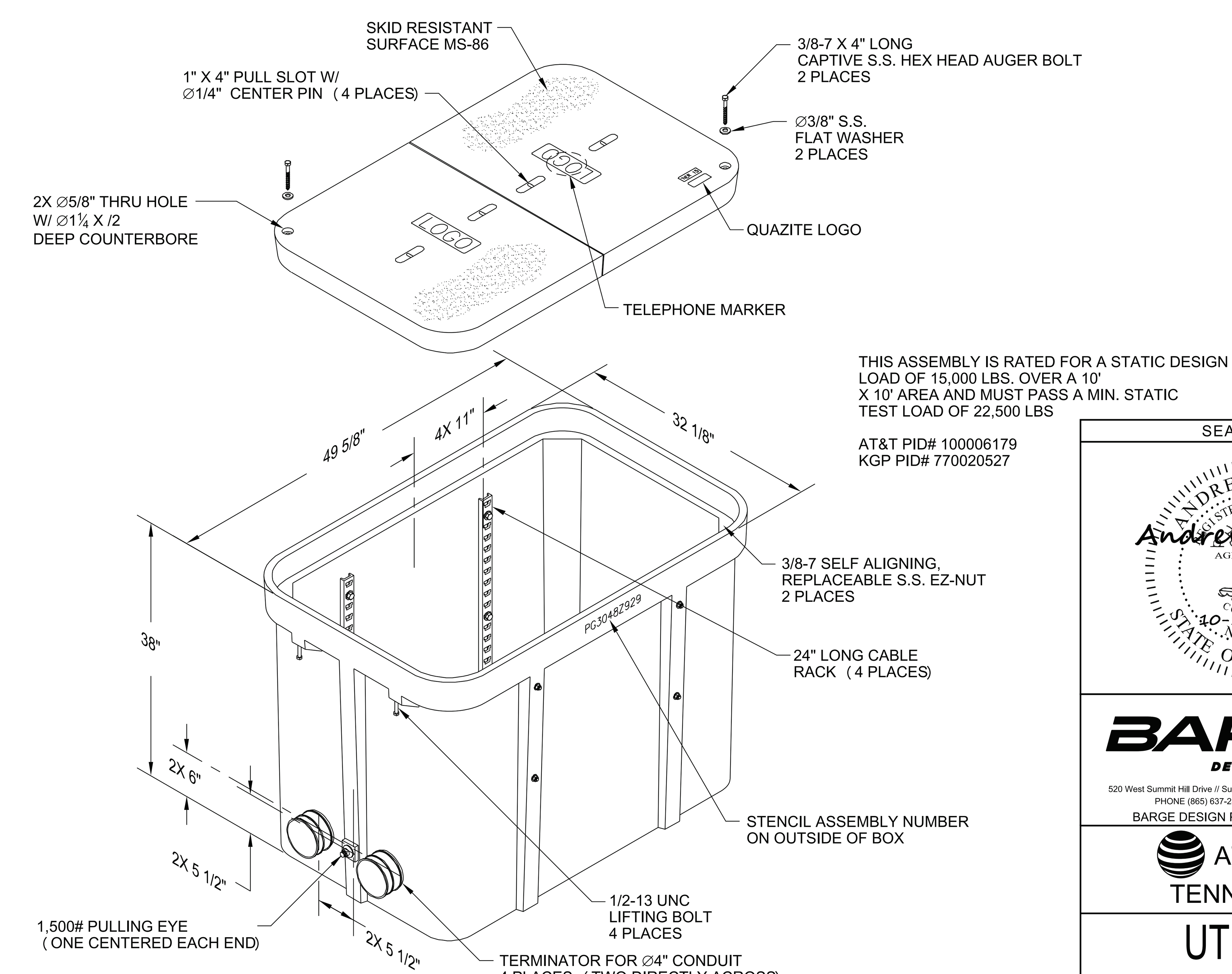
SECTION A-A



SECTION B-B



PLAN VIEW



THIS ASSEMBLY IS RATED FOR A STATIC DESIGN LOAD OF 15,000 LBS. OVER A 10' X 10' AREA AND MUST PASS A MIN. STATIC TEST LOAD OF 22,500 LBS

AT&T PID# 100006179
KGP PID# 770020527

6 U4-12 TYPICAL 30"x48"x36" HANDHOLE
SCALE: N.T.S.

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BARGE DESIGN PROJECT NO. 32119-81

AT&T
TENNESSEE

UTILITY RELOCATION

DETAILS

SCALE: NONE

10/9/2025
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Index to Drawings

SHEET No.	SHEET TITLE
U5-1	COVER SHEET, ESTIMATED QUANTITIES & DRAWING INDEX
U5-2	WATER MAIN RELOCATION PLAN STATION 10+51.68 TO STATION 19+00
U5-3	WATER MAIN RELOCATION PLAN STATION 19+00 TO STATION 32+00
U5-4	WATER MAIN RELOCATION PLAN STATION 32+00 TO STATION 34+20 AND STATION 45+00 TO STATION 47+37.30
U5-5	WATER MAIN RELOCATION PLAN STATION 69+52.87 TO STATION 82+05.49
U5-6	WATER MAIN RELOCATION PLAN STATION 219+00 TO STATION 229+00
U5-7	WATER MAIN RELOCATION PLAN STATION 229+00 TO STATION 238+56.25
U5-8	WATER MAIN RELOCATION DETAILS

S.R. 31 FROM U.S. 11W, S.R. 1 WEST IN HAWKINS COUNTY TO MIDWAY CHURCH ROAD WATER UTILITY RELOCATION

ESTIMATED QUANTITIES

ITEM	DESCRIPTION	UNIT	TOTAL QUANTITY	PERCENT UTILITY	PERCENT PROJECT	FOOTNOTES TO THE ITEM TO BE SHOWN ON PLANS/SPECS (NUMBERED FOOTNOTES LOCATED AT BOTTOM OF THIS ITEM LIST)
795-03.03	3IN POLYVINYL CHLORIDE WATER LINE	L.F.	686	0%	100%	
795-03.05	6IN POLYVINYL CHLORIDE WATER LINE	L.F.	3869	0%	100%	1
795-05.03	HDD 6IN HDPE CASING PIPE-UNCON	L.F.	52	0%	100%	2
795-05.06	HDD 12IN HDPE CASING PIPE-UNCON	L.F.	145	0%	100%	2
795-06.01	CONNECT TO 2IN WATER LINE	EACH	2	0%	100%	3
795-06.02	CONNECT TO 3IN WATER LINE	EACH	3	0%	100%	3
795-06.03	CONNECT TO 4IN WATER LINE	EACH	2	0%	100%	3
795-06.04	CONNECT TO 6IN WATER LINE	EACH	6	0%	100%	3
795-08.01	2IN GATE VALVE ASSEMBLY	EACH	2	0%	100%	5
795-08.02	3IN GATE VALVE ASSEMBLY	EACH	6	0%	100%	5
795-08.04	6IN GATE VALVE ASSEMBLY	EACH	18	0%	100%	5
795-11.02	FIRE HYDRANT ASSEMBLY	EACH	1	0%	100%	6
795-11.12	RETIRE IN PLACE EXISTING WATER MAIN	L.F.	4355	0%	100%	
795-30.05	OPEN CUT 12IN HDPE CASING PIPE	L.F.	44	0%	100%	
795-09.09	RELOCATE/RECONNECT WATER SERVICE METER ASSEMBLY	EACH	16	0%	100%	INCLUDES ALL MATERIALS, LABOR AND EQUIPMENT FOR REMOVAL OF EXISTING WATER SERVICE METER ASSEMBLY AND INSTALLING AT NEWLY IDENTIFIED LOCATION
795-09.14	3/4IN HIGH-DENSITY POLYETHYLENE SERVICE PIPE	L.F.	616	0%	100%	7
795-09.10	SAMPLE TAP	EACH	3	0%	100%	INCLUDES ALL MATERIALS, LABOR AND EQUIPMENT FOR INSTALLATION OF TAP ON WATER LINE FOR WATER SAMPLING PURPOSES. COST OF ACTUALLY SAMPLING IS INCLUDED IN COST OF PIPE

FOOTNOTE 1: INCLUDES ALL MATERIALS, LABOR, EQUIPMENT FOR COMPLETE INSTALLATION OF PIPE INCLUDING BUT NOT LIMITED TO TRAFFIC CONTROL, MATERIALS, EQUIPMENT, EXCAVATION IN BOTH UNCONSOLIDATED AND ROCK, REMOVAL AND REPLACEMENT OF UNSUITABLE SOIL, ENVELOPE/BEDDING MATERIAL, BACKFILLING, FLOWABLE FILL, THRUST BLOCKING, CONCRETE DEADMAN, PIPE FUSION, TRACER WIRE, WARNING TAPE, APPURTENANCES, TEMPORARY/PERMANENT SHORING, MAINTAINING THE TRENCH, TESTING, FLUSHING, DISINFECTION, BACTERIOLOGICAL SAMPLING, TEMPORARY/PERMANENT SURFACE RESTORATION, AND ANY OTHER LABOR OR MATERIAL REQUIRED TO COMPLETE THE WORK AS SPECIFIED ON THE PLANS.

FOOTNOTE 2: INCLUDES ALL MATERIALS, LABOR, EQUIPMENT, AND TRAFFIC CONTROL, INCLUDING BUT NOT LIMITED TO FLUID CONTAINMENT FOR COMPLETE HORIZONTAL DIRECTIONAL DRILLING INSTALLATION OF CASING PIPE OR UNCASED CARRIER PIPE IN BOTH UNCONSOLIDATED SOIL OR ROCK. IF CASING PIPE HAS CARRIER PIPE, THE CARRIER PIPE SHALL BE PAID AT THE OPEN CUT ITEM.

FOOTNOTE 3: INCLUDES ALL MATERIALS, LABOR, AND EQUIPMENT NECESSARY FOR CONNECTING TO AN EXISTING WATER LINE INCLUDING TRAFFIC CONTROL.

FOOTNOTE 4: INCLUDES ALL MATERIALS, LABOR AND EQUIPMENT INCLUDING BUT NOT LIMITED TO TAPPING SLEEVE, VALVE, VALVE BOX, BOX ADJUSTMENT, VALVE BOX COLLAR, VALVE MARKER, EXCAVATION, BEDDING, BACKFILL, BLOCKING AND RESTRAINT, TAP OF EXISTING LINE, AND TRAFFIC CONTROL.

FOOTNOTE 5: INCLUDES ALL MATERIALS, LABOR AND EQUIPMENT INCLUDING BUT NOT LIMITED TO FITTINGS, VALVE, VALVE STEM EXTENSIONS, VALVE BOX AND COVER, BOX ADJUSTMENT, VALVE BOX COLLAR, VALVE MARKER, EXCAVATION, BEDDING, BACKFILL, BLOCKING, AND TRAFFIC CONTROL.

FOOTNOTE 6: INCLUDES ALL MATERIALS, LABOR AND EQUIPMENT INCLUDING BUT NOT LIMITED TO MACHINERY, TOOLS OR APPARATUS NECESSARY FOR INSTALLATION OF ASSEMBLIES AS DESCRIBED IN THE PLANS AND SPECS EXCEPT FOR SERVICE LINE WHICH IS PAID SEPARATELY FOR EACH FOOT INSTALLED.

FOOTNOTE 7: INCLUDES ALL MATERIALS, LABOR AND EQUIPMENT FOR COMPLETE INSTALLATION OF SERVICE LINE OR CASING FOR SERVICE LINE ON LONG SIDE AND SHORT SIDE OF MAIN.

RELEASED "B-DATE" PLAN SET MARCH 28, 2024

TENNESSEE DEPARTMENT OF TRANSPORTATION UTILITY GENERAL NOTES FOR UTILITY RELOCATION

1. Except for erosion sediment control items, no Roadway or Bridge Items shall be utilized to compensate for work methods or materials associated with and/or specified for the utility installation, even though the same or similar roadway or bridge materials may have been called for in the Utility Specifications or drawings.
2. All materials, methods, and/or integral materials outlined in the utility specifications or drawings necessary to provide a complete and functional installation must be included in the Unit Price for the associated Utility Work Item.
3. The contractor must maintain all services during the construction of the relocated facility. Any costs associated with installation of required temporary service lines due to the roadway construction sequence of work (i.e., cuts, fi lls, phasing, etc.) shall be included in the cost of the permanent utility items. (Note to Utility: The utility relocation plans shall provide to the contractor the Utility's requirements for temporary tie–ins (including necessary testing and sterilization to accomplish the tie–in) and also any restrictions for taking lines out of service. If a temporary line will be a major item of work, a specific temporization plan and item must be included in the Utility's plans.)
4. It shall be the responsibility of the Prime Contractor's surveyor to lay out all the facilities being relocated within the contract.
5. For buried utilities, the Prime contractor or subcontractor shall be required to provide to the Utility upon completion of the Utility's relocation work a set of as–built drawings for their records. These as–built drawings should be prepared as the job progresses to ensure their accuracy.
6. Where erosion control measures are needed for the utility relocation work occurring inside or outside State right–of–way, the contractor shall submit to the TDOT Project Supervisor for approval a proposed erosion and sediment control plan prior to beginning the work. TDOT approval must be received before the erosion control pay items for roadway construction can be used for any additional erosion control measures required for the utility relocation work.
7. Driveway, sidewalk and roadway temporary restoration shall be part of the in–place cost of placing the utility item within the ROW.

When applicable, the utility relocation plans will show any stream crossings and cross–sections of the streams crossings with the following note:

8. Any excavation of the stream channel area shall be separated from flowing water and accomplished during low fl ow conditions. This shall be accomplished by the use of flumes, lined diversion channel with sandbag berm, diversion pipe with sandbag dam at pipe inlet, or in some cases cofferdams. Alternatively, based on fi eld conditions and contractor selection, the utility relocation may be accomplished using bore technology with no stream channel impacts.

LEGEND

PROPOSED PAVED OR CONCRETE SURFACES	
EXISTING UTILITIES TO REMAIN	EXIST TO REMAIN
EXISTING UTILITIES TO BE REMOVED OR RETIRED	EXIST. TO BE RETIRED
WATER SERVICE LINE	WATER SERVICE
PROPOSED UTILITIES	NEW UTILITY

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U5-1

STATE PROJECT NO. 37022-3219-14

REVISION HISTORY

- 11/19/2024 REVISED PER TDOT COMMENTS
- 01/29/2025 REVISED PER TDOT COMMENTS
- 03/25/2025 REVISED PER TDOT COMMENTS
- 06/22/2025 REVISED PER TDOT COMMENTS
- 07/11/2025 REVISED BY COORDINATES FINALLY PROVIDED BY THE CONSULTANT
- 10/25/2025 PROVIDED ADDITIONAL NORTH ARROWS

PROJ NO. • 25-133
DWG FILE • U5-1
ISSUE DATE • 02/04/2022

MOORESBURG UTILITY DISTRICT
(423) 272-9810
CONTACT: EDDIE DOUGLAS
P.O. BOX 2
MOORESBURS TN, 37811

HAWKINS COUNTY
S.R. 31 WATER LINE RELOCATION
STATE PROJECT NO. STP / HPP -31 (12)

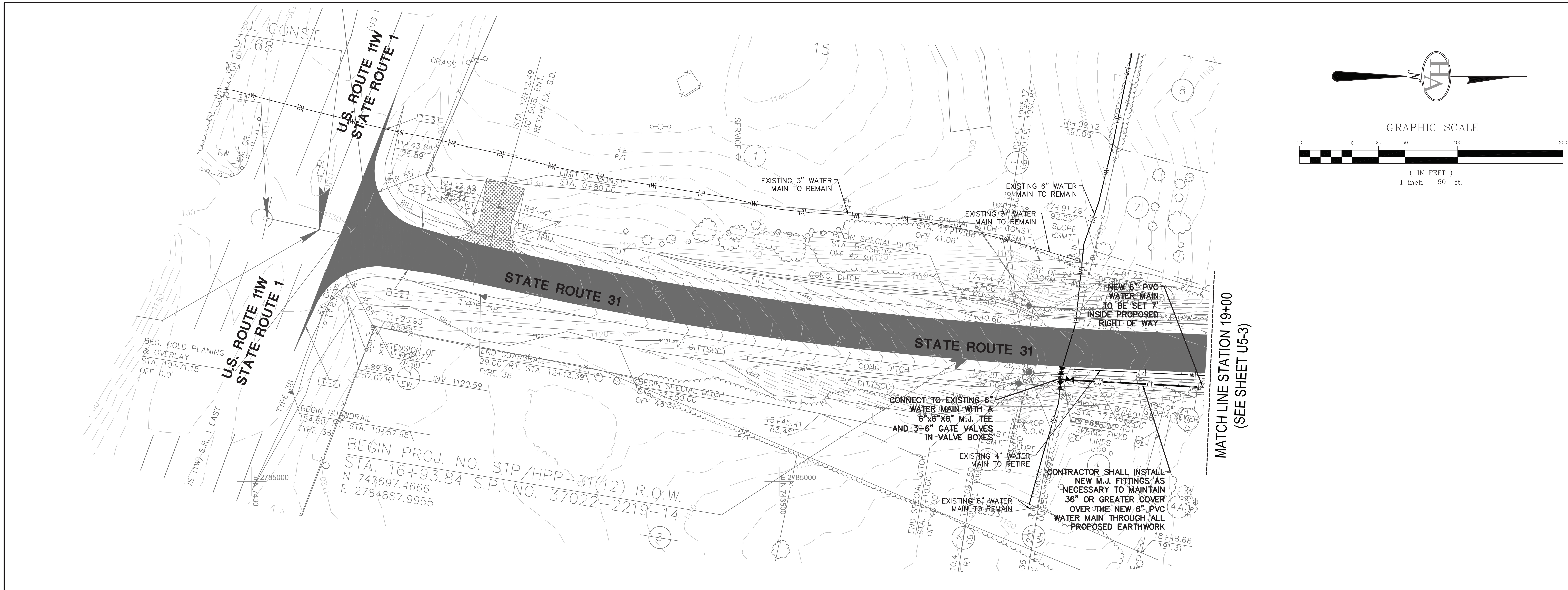
HATFIELD & ALLEN ASSOCIATES
ENGINEERING & PLANNING
775 RANDLES ROAD
STRAWBERRY PLAINS, TN 37871
PHONE: (865) 388-5031

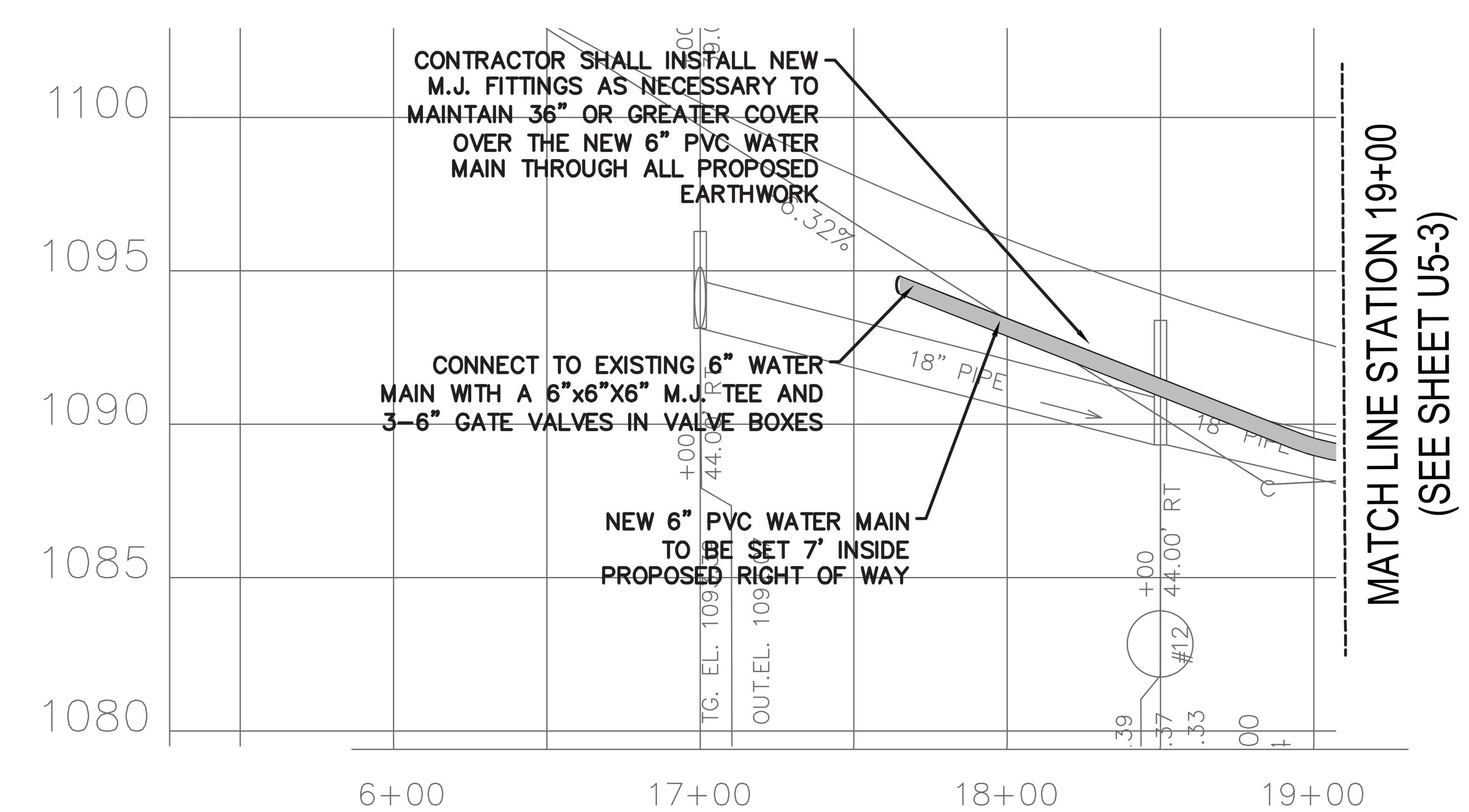
S.R. 31 WATER LINE RELOCATION

COVER SHEET
SCALE 1" = 50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U5-2

STATE PROJECT NO.
37022-3219-14





NOTE:

1. WATER SERVICE LINES WILL BE EXTENDED TO A POINT WITHIN 2' OF THE RIGHT OF WAY LINE FRONTING THE SUBJECT PARCEL.
2. RELOCATED WATER METERS WILL BE SET WITHIN THE RIGHT OF WAY AND 1' TO 2' FROM THE RIGHT OF WAY LINE FRONTING THE SUBJECT PARCEL.
3. ALL WATER SERVICE LINES WILL MAINTAIN A MINIMUM OF 30" OF COVER OVER THE SERVICE PIPE. SEE "TYPICAL METER SETTING DETAIL" ON SHEET U5-8.

LEGEND

PROPOSED PAVED OR CONCRETE SURFACES	
EXISTING UTILITIES TO REMAIN	EXIST TO REMAIN
EXISTING UTILITIES TO BE REMOVED OR RETIRED	EXIST. TO BE RETIRED
WATER SERVICE LINE	WATER SERVICE
PROPOSED UTILITIES	NEW UTILITY

REVISION HISTORY

11/19/2024
REVISED PER TDOT COMMENTS
01/29/2025
REVISED PER TDOT COMMENTS
03/25/2025
REVISED PER TDOT COMMENTS
06/22/2025
REVISED PER TDOT COMMENTS
07/11/2025
REVISED BY COORDINATES FINALLY PROVIDED BY THE CONSULTANT
10/25/2025
PROVIDED ADDITIONAL NORTH ARROWS

PROJ NO. • 25-133
DWG FILE • U5-2
ISSUE DATE • 02/04/2022

MOORESBURG UTILITY DISTRICT
(423) 272-9810
CONTACT: EDDIE DOUGLAS
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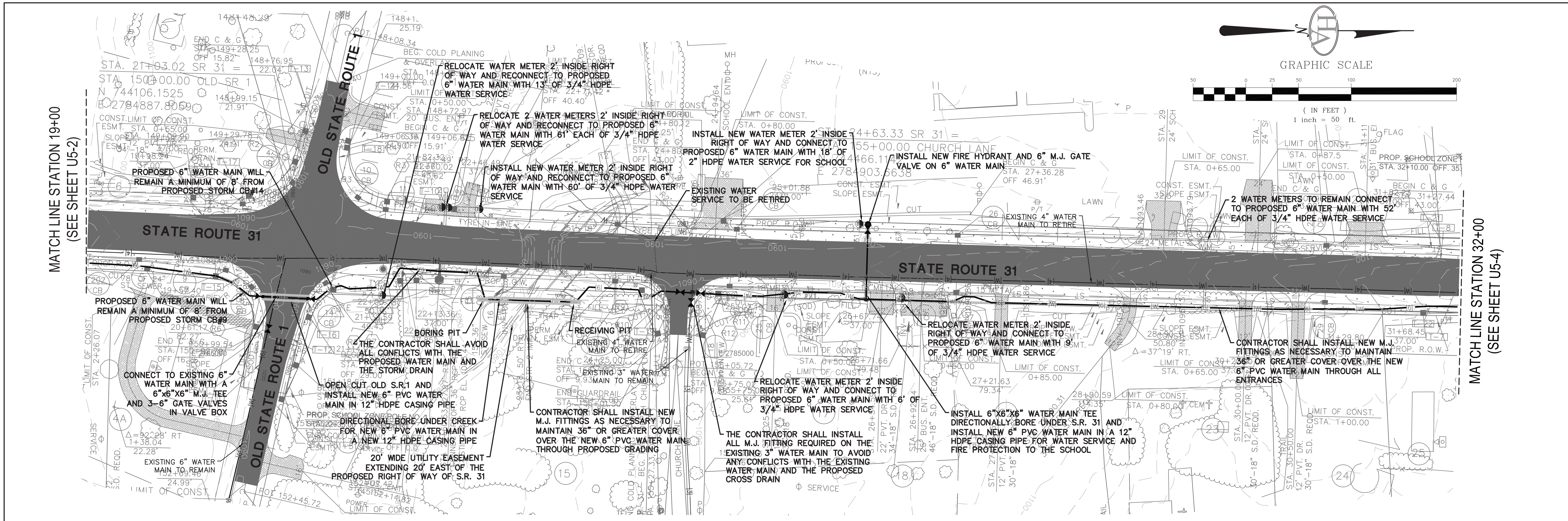
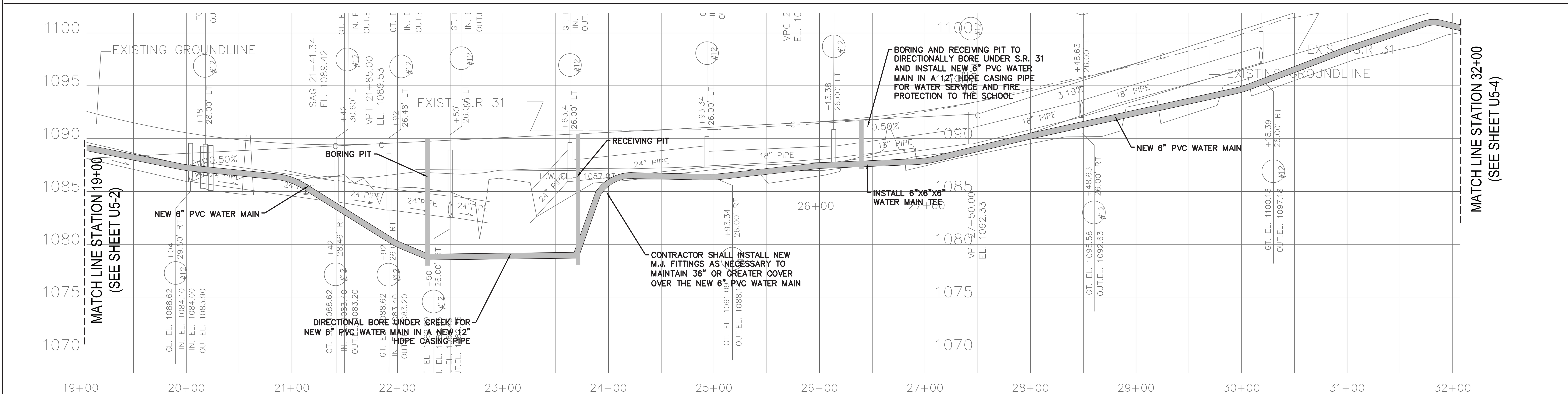
HAWKINS COUNTY
S.R.31 WATER LINE RELOCATION
STATE PROJECT NO. STP / HPP -31 (12)

HATFIELD & ALLEN ASSOCIATES
ENGINEERING & PLANNING
775 RANDLES ROAD
STRAWBERRY PLAINS, TN 37871
PHONE: (865) 388-5031

S.R. 31
WATER LINE
RELOCATION

SCALE 1" = 50'





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LEGEND

PROPOSED PAVED OR CONCRETE SURFACES	
EXISTING UTILITIES TO REMAIN	EXIST. TO REMAIN
EXISTING UTILITIES TO BE REMOVED OR RETIRED	EXIST. TO BE RETIRED
WATER SERVICE LINE	WATER SERVICE
PROPOSED UTILITIES	NEW UTILITY

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U5-3

STATE PROJECT NO.
37022-3219-14

REVISION HISTORY

11/19/2024 REVISED PER TDOT COMMENTS
01/29/2025 REVISED PER TDOT COMMENTS
03/25/2025 REVISED PER TDOT COMMENTS
06/22/2025 REVISED PER TDOT COMMENTS
07/11/2025 REVISED BY COORDINATES FINALLY PROVIDED BY THE CONSULTANT
10/25/2025 PROVIDED ADDITIONAL NORTH ARROWS

PROJ NO. • 25-133
DWG FILE • U5-3
ISSUE DATE • 02/04/2022

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MOORESBURS TN, 37811

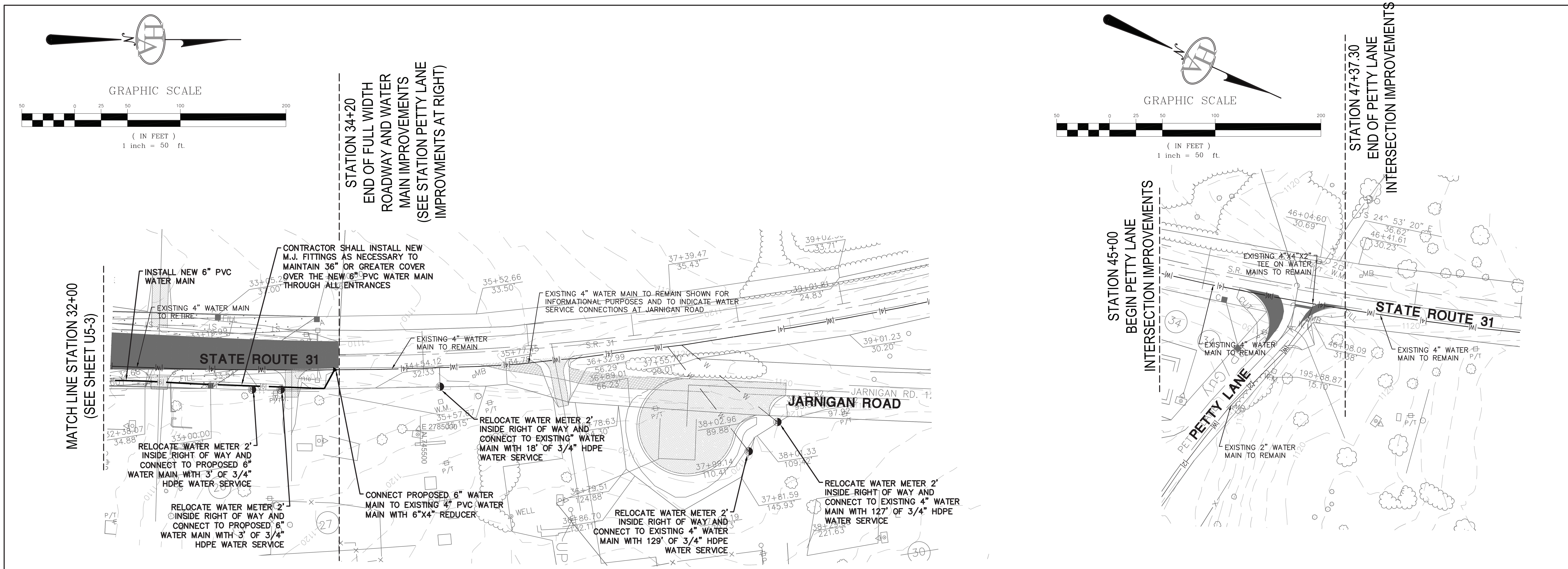
HAWKINS COUNTY
S.R.31 WATER LINE RELOCATION
STATE PROJECT NO. STP / HPP -31 (12)

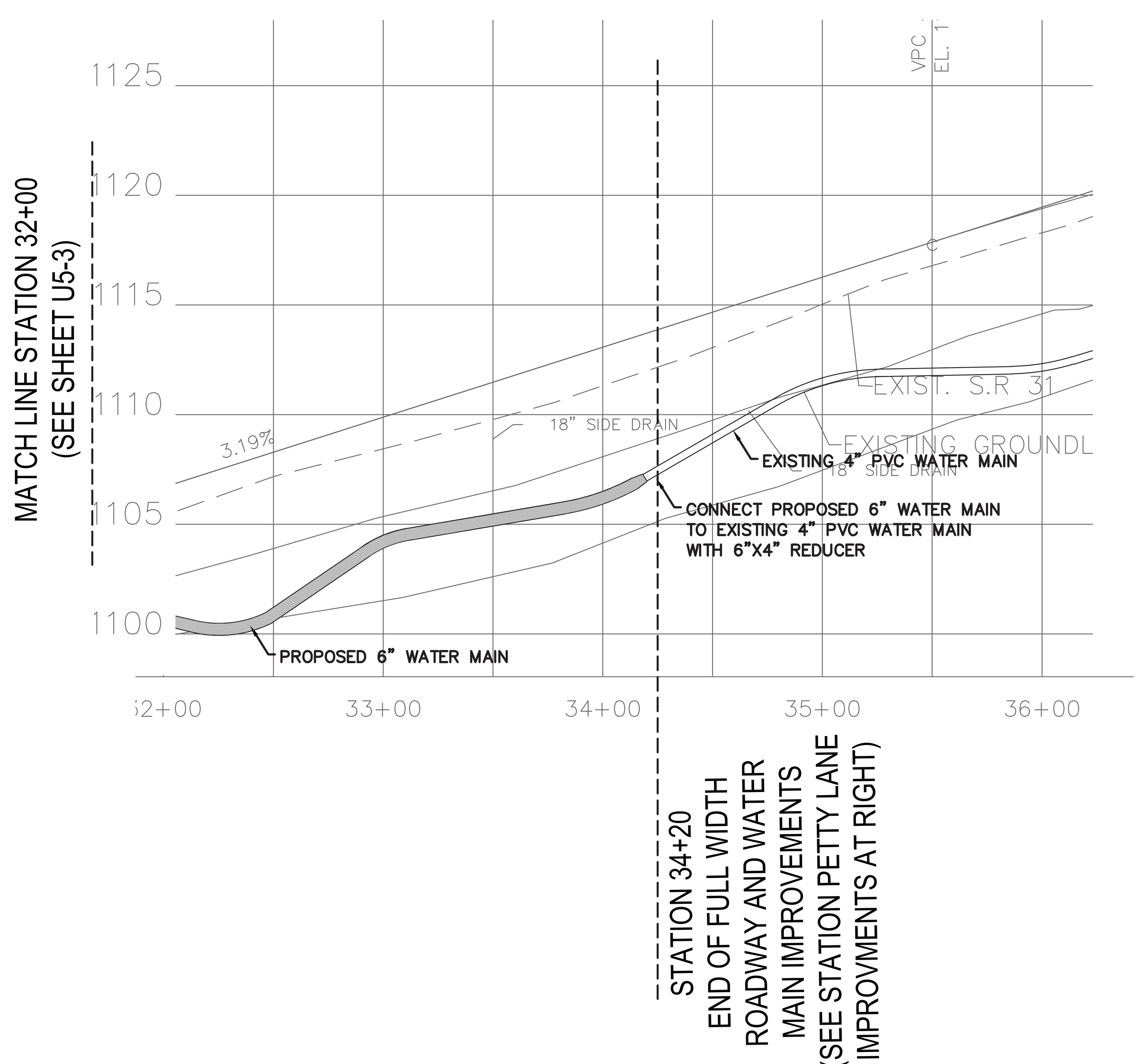
MATTHEW W. HATFIELD
AGRICULTURE
STATE OF TENNESSEE

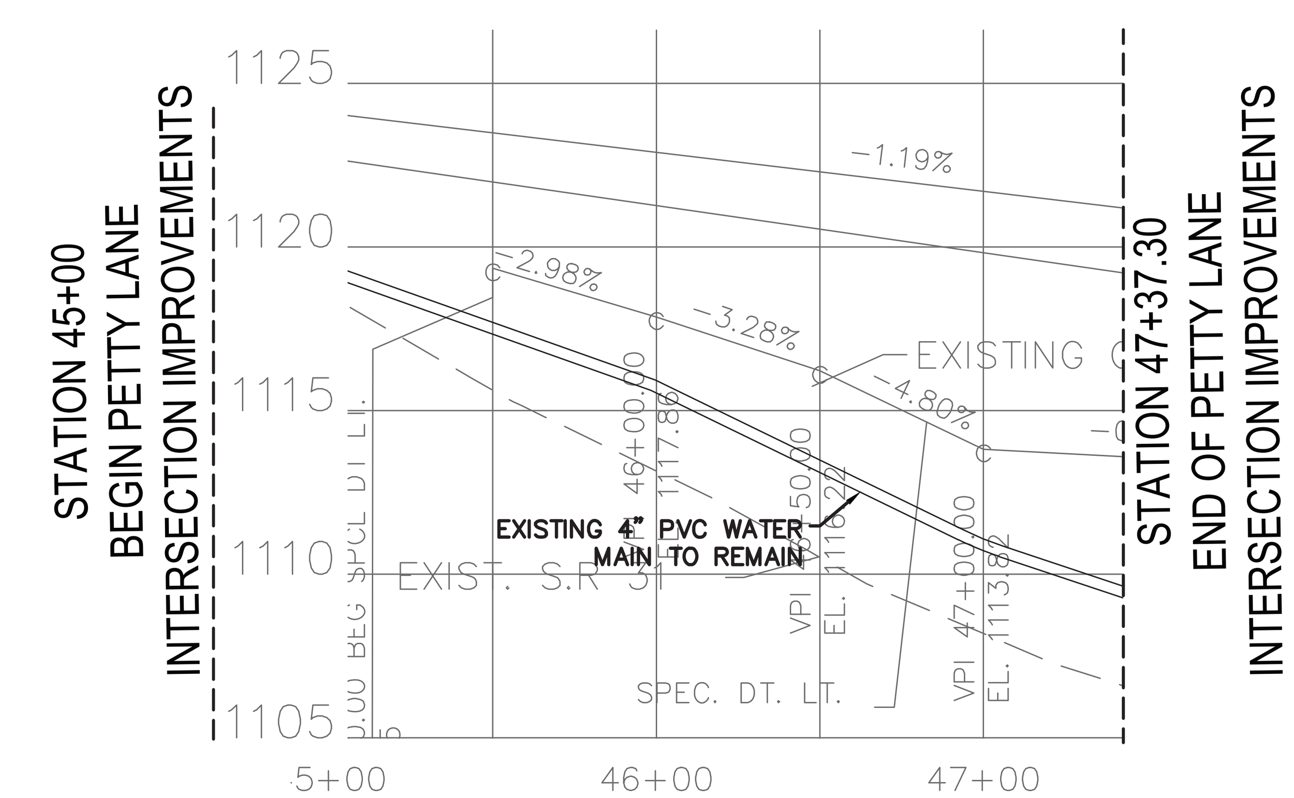
HATFIELD & ALLEN ASSOCIATES
ENGINEERING & PLANNING
775 RANDLES ROAD
STRAWBERRY PLAINS, TN 37871
PHONE: (865) 388-5031

S.R. 31
WATER LINE
RELOCATION

SCALE 1" = 50'







NOTE:

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2. RELOCATED WATER METERS WILL BE SET WITHIN THE RIGHT OF WAY AND 1' TO 2' FROM THE RIGHT OF WAY LINE FRONTING THE SUBJECT PARCEL.
3. ALL WATER SERVICE LINES WILL MAINTAIN A MINIMUM OF 30" OF COVER OVER THE SERVICE PIPE. SEE "TYPICAL METER SETTING DETAIL" ON SHEET U5-8.

LEGEND

PROPOSED PAVED OR CONCRETE SURFACES	
EXISTING UTILITIES TO REMAIN	EXIST TO REMAIN
EXISTING UTILITIES TO BE REMOVED OR RETIRED	EXIST. TO BE RETIRED
WATER SERVICE LINE	W — W — WATER SERVICE — W — W
PROPOSED UTILITIES	NEW UTILITY

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U5-4

STATE PROJECT NO.
37022-3219-14

REVISION HISTORY

11/19/2024
REVISED PER TDOT COMMENTS
01/29/2025
REVISED PER TDOT COMMENTS
03/25/2025
REVISED PER TDOT COMMENTS
06/22/2025
REVISED PER TDOT COMMENTS
07/11/2025
REVISED BY COORDINATES FINALLY PROVIDED BY THE CONSULTANT
10/25/2025
PROVIDED ADDITIONAL NORTH ARROWS

PROJ NO. • 25-133
DWG FILE • U5-4
ISSUE DATE • 02/04/2022

MOORESBURG UTILITY DISTRICT
(423) 272-9810
CONTACT: EDDIE DOUGLAS
P.O. BOX 2
MOORESBURS TN, 37811

HAWKINS COUNTY
S.R.31 WATER LINE RELOCATION

STATE PROJECT NO. STP / HPP -31 (12)

MATTHEW W. HATFIELD
AGRICULTURE
STATE OF TENNESSEE

HATFIELD & ALLEN ASSOCIATES
ENGINEERING & PLANNING
775 RANDLES ROAD
STRAWBERRY PLAINS, TN 37871
PHONE: (865) 388-5031

S.R. 31
WATER LINE
RELOCATION

SCALE 1" = 50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U5-5

STATE PROJECT NO.
37022-3219-14

REVISION HISTORY

11/19/2024 REVISED PER TDOT COMMENTS
01/29/2025 REVISED PER TDOT COMMENTS
03/25/2025 REVISED PER TDOT COMMENTS
06/22/2025 REVISED PER TDOT COMMENTS
07/11/2025 REVISED BY COORDINATES FINALLY PROVIDED BY THE CONSULTANT
10/25/2025 PROVIDED ADDITIONAL NORTH ARROWS

PROJ NO. • 25-133
DWG FILE • U5-5
ISSUE DATE • 02/04/2022

MOORESBURG UTILITY DISTRICT
(423) 272-9810
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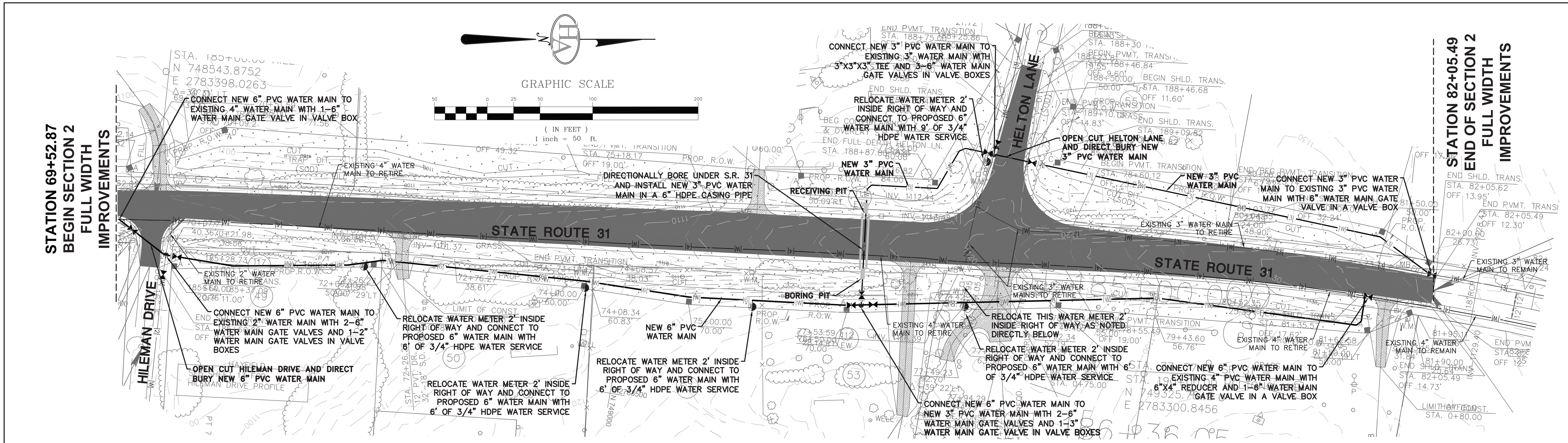
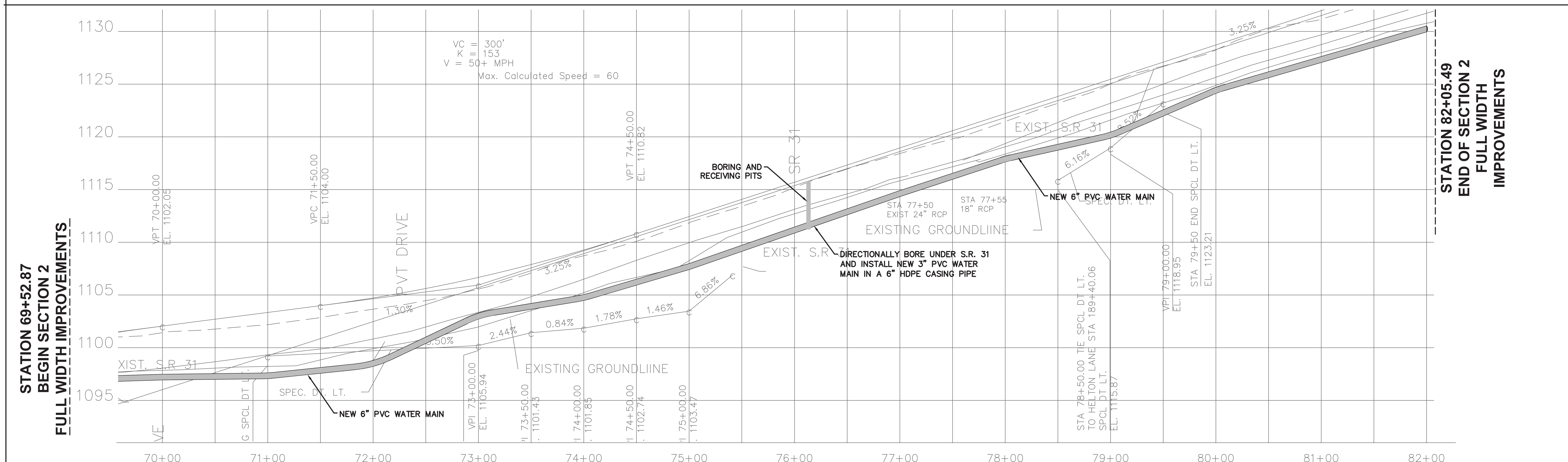
P.O. BOX 2
MOORESBURG TN, 37811

HAWKINS COUNTY
S.R.31 WATER LINE RELOCATION

STATE PROJECT NO. STP / HPP -31 (12)





NOTE:

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LEGEND

PROPOSED PAVED OR CONCRETE SURFACES	
EXISTING UTILITIES TO REMAIN	EXIST TO REMAIN
EXISTING UTILITIES TO BE REMOVED OR RETIRED	EXIST. TO BE RETIRED
WATER SERVICE LINE	WATER SERVICE
PROPOSED UTILITIES	NEW UTILITY

HATFIELD & ALLEN
ASSOCIATES
ENGINEERING & PLANNING
775 RANDLES ROAD
STRAWBERRY PLAINS, TN 37871
PHONE: (865) 388-5031

S.R. 31
WATER LINE
RELOCATION

SCALE 1" = 50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U5-6

STATE PROJECT NO. 37022-3219-14

REVISION HISTORY

11/19/2024 REVISED PER TDOT COMMENTS

01/29/2025 REVISED PER TDOT COMMENTS

03/25/2025 REVISED PER TDOT COMMENTS

06/22/2025 REVISED PER TDOT COMMENTS

07/11/2025 REVISED BY COORDINATES FINALLY PROVIDED BY THE CONSULTANT

10/25/2025 PROVIDED ADDITIONAL NORTH ARROWS

PROJ NO. • 25-133
DWG FILE • U5-6
ISSUE DATE • 02/04/2022

MOORESBURG UTILITY DISTRICT
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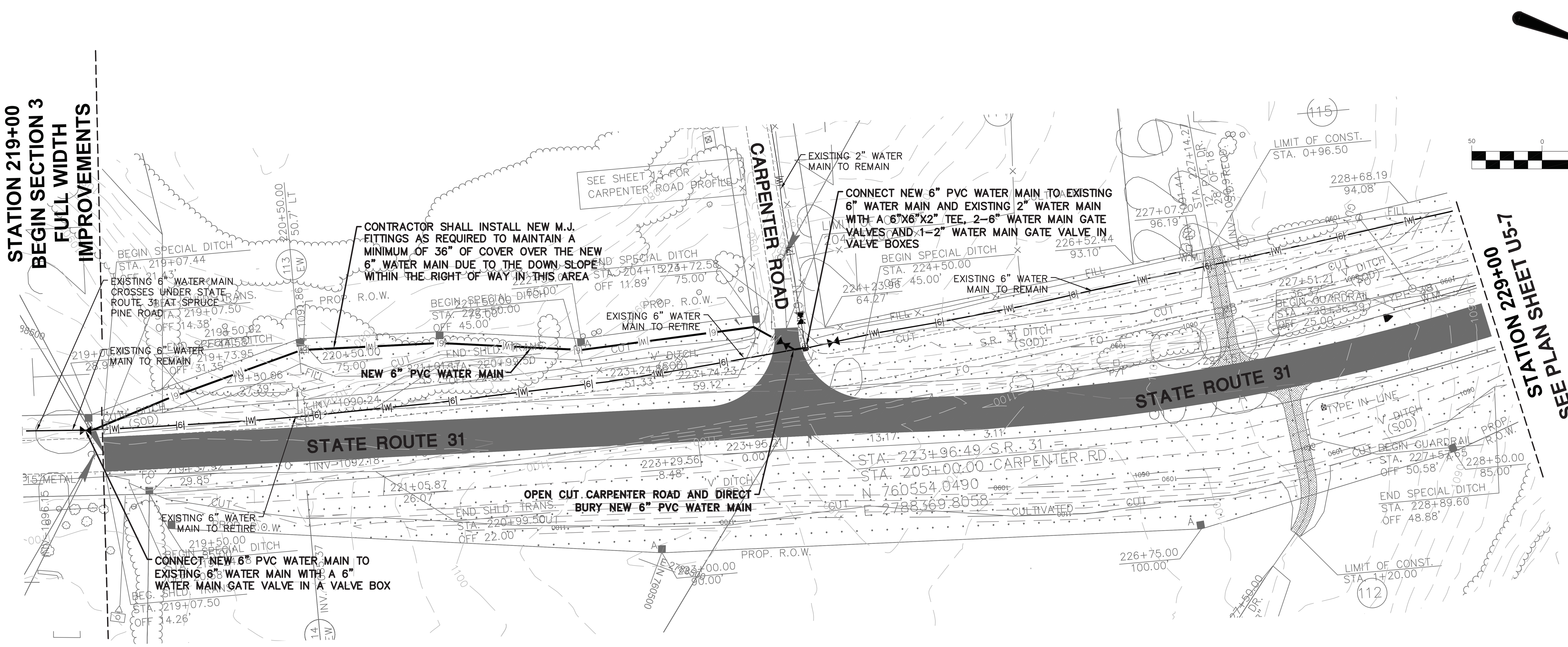
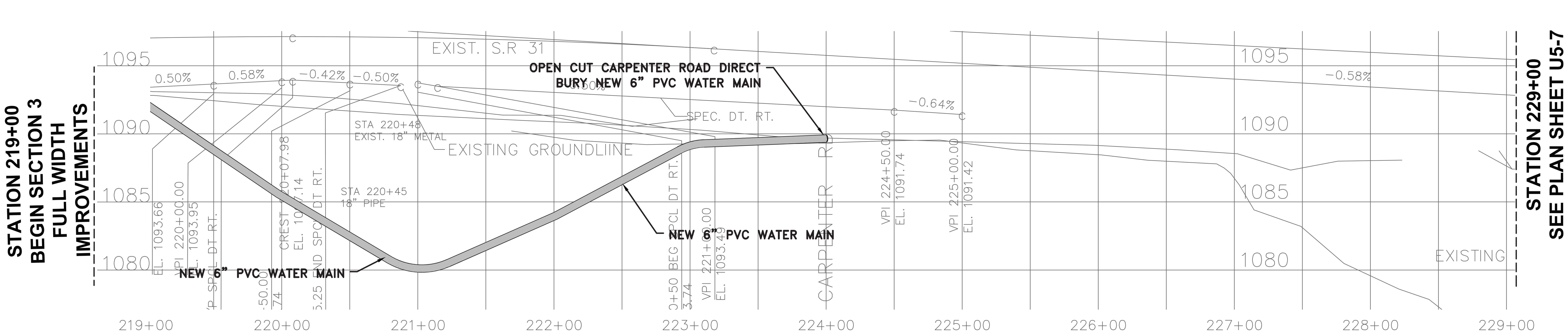
MOORESBURS TN, 37811





NOTE:

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LEGEND

PROPOSED PAVED OR CONCRETE SURFACES	
EXISTING UTILITIES TO REMAIN	EXIST TO REMAIN
EXISTING UTILITIES TO BE REMOVED OR RETIRED	EXIST. TO BE RETIRED
WATER SERVICE LINE	WATER SERVICE
PROPOSED UTILITIES	NEW UTILITY

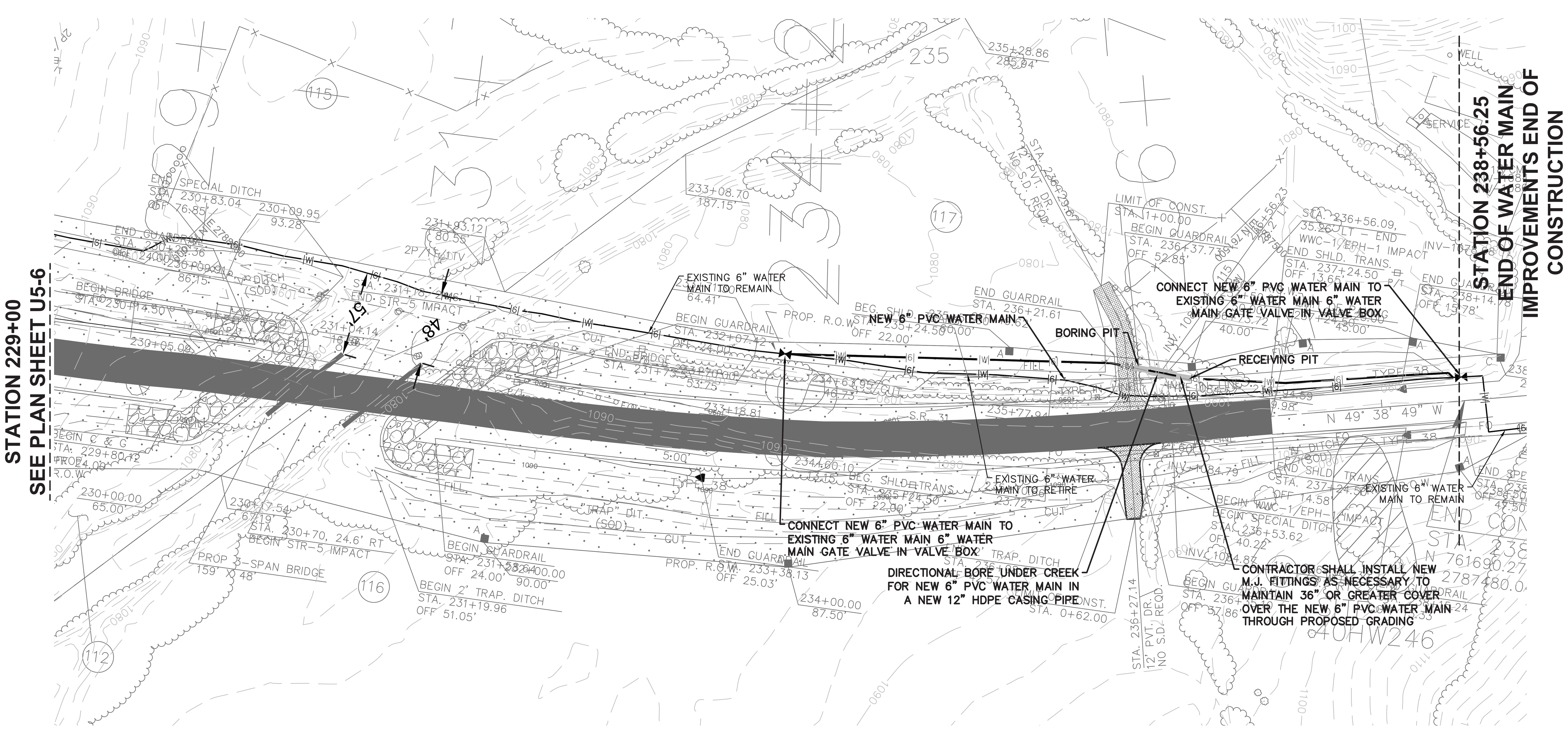
HAWKINS COUNTY
S.R.31 WATER LINE RELOCATION

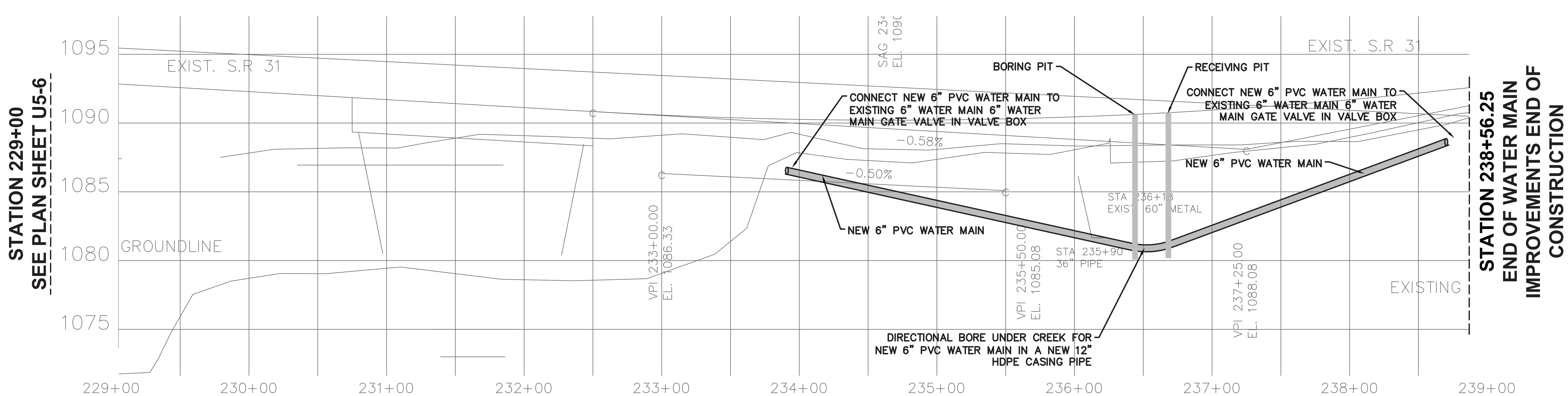
STATE PROJECT NO. STP / HPP -31 (12)

HATFIELD & ALLEN ASSOCIATES
ENGINEERING & PLANNING
775 RANDLES ROAD
STRAWBERRY PLAINS, TN 37871
PHONE: (865) 388-5031

S.R. 31 WATER LINE RELOCATION

SCALE 1" = 50'





NOTE:

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LEGEND

PROPOSED PAVED OR CONCRETE SURFACES	
EXISTING UTILITIES TO REMAIN	EXIST TO REMAIN
EXISTING UTILITIES TO BE REMOVED OR RETIRED	EXIST. TO BE RETIRED
WATER SERVICE LINE	WATER SERVICE
PROPOSED UTILITIES	NEW UTILITY

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U5-7

STATE PROJECT NO.
37022-3219-14

REVISION HISTORY

11/19/2024	REVISED PER TDOT COMMENTS
01/29/2025	REVISED PER TDOT COMMENTS
03/25/2025	REVISED PER TDOT COMMENTS
06/22/2025	REVISED PER TDOT COMMENTS
07/11/2025	REVISED BY COORDINATES FINALLY PROVIDED BY THE CONSULTANT
10/25/2025	PROVIDED ADDITIONAL NORTH ARROWS

PROJ NO. • 25-133
DWG FILE • U5-7
ISSUE DATE • 02/04/2022

MOORESBURG UTILITY DISTRICT
(423) 272-9810
CONTACT: EDDIE DOUGLAS
P.O. BOX 2
MOORESBURS TN, 37811

HAWKINS COUNTY
S.R.31 WATER LINE RELOCATION

STATE PROJECT NO. STP / HPP -31 (12)

HATFIELD & ALLEN
ASSOCIATES
ENGINEERING & PLANNING
775 RANDLES ROAD
STRAWBERRY PLAINS, TN 37871
PHONE: (865) 388-5031

S.R. 31
WATER LINE
RELOCATION

SCALE 1" = 50'

WATER LINE GENERAL NOTES:

THE LOCATION OF UTILITIES SHOWN ON THESE PLANS IS APPROXIMATE ONLY. EXACT LOCATIONS SHALL BE DETERMINED IN THE FIELD BY CONTACTING MOORSEBURG UTILITY DISTRICT (423) 272-9810.

THE CONTRACTOR WILL PROVIDE ALL NECESSARY PROTECTIVE MEASURES TO SAFEGUARD EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION OF THIS PROJECT.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INSTALL THE WATER LINES AND RELATED ACCESSORIES IN ACCORDANCE WITH THE CURRENT STATE OF TENNESSEE AND MOORSEBURG UTILITY DISTRICT REGULATIONS AND SPECIFICATIONS.

ALL WATER MAINS SHALL BE DISINFECTED, AND TESTED FOR LEAKAGE BY THE CONTRACTOR. ALL LABOR, MATERIALS, AND EQUIPMENT FOR TESTING SHALL BE FURNISHED BY THE CONTRACTOR.

ALL TESTING SHALL BE PERFORMED IN THE PRESENCE OF A MOORSEBURG UTILITY DISTRICT REPRESENTATIVE (423) 272-9810.

THE MEANS AND METHODS OF CONSTRUCTION IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ADHERENCE TO ALL LOCAL, STATE, AND FEDERAL SAFETY STANDARDS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ENSURING EMPLOYEE AND PUBLIC SAFETY THROUGHOUT ALL PHASES OF CONSTRUCTION. HATFIELD & ALLEN, ASSOCIATES ASSUMES NO RESPONSIBILITY FOR CONSTRUCTION SITE SAFETY OR FOR IMPLEMENTATION OF CONSTRUCTION SAFETY.

WATER LINE DISINFECTION:

CHLORINE DISINFECTION MUST CONFORM TO AWWA C651 SECTION 2.3, CALCIUM HYPOCHLORITE, FOR FORM OF CHLORINE. DISINFECTION TO COMPLY WITH AWWA C651 USING THE TABLET METHOD.

SAMPLE AT END OF ALL LINES.

COLLECT SAMPLES IN ACCORDANCE WITH AWWA C651, SUBMIT TO TENNESSEE DEPARTMENT OF HEALTH – LABORATORY SERVICES FOR WATER BACTERIOLOGICAL ANALYSIS AND SUBMIT ORIGINAL COPY OF THE TEST RESULTS TO THE OWNER AND MOORSEBURG UTILITY DISTRICT (423) 272-9810.

TENNESSEE DEPARTMENT OF TRANSPORTATION UTILITY GENERAL NOTES FOR UTILITY RELOCATION

1. Except for erosion sediment control items, no Roadway or Bridge Items shall be utilized to compensate for work methods or materials associated with and/or specified for the utility installation, even though the same or similar roadway or bridge materials may have been called for in the Utility Specifications or drawings.
2. All materials, methods, and/or integral materials outlined in the utility specifications or drawings necessary to provide a complete and functional installation must be included in the Unit Price for the associated Utility Work Item.
3. The contractor must maintain all services during the construction of the relocated facility. Any costs associated with installation of required temporary service lines due to the roadway construction sequence of work (i.e., cuts, fi lls, phasing, etc.) shall be included in the cost of the permanent utility items. (Note to Utility: The utility relocation plans shall provide to the contractor the Utility's requirements for temporary tie-ins (including necessary testing and sterilization to accomplish the tie-in) and also any restrictions for taking lines out of service. If a temporary line will be a major item of work, a specific temporization plan and item must be included in the Utility's plans.)
4. It shall be the responsibility of the Prime Contractor's surveyor to lay out all the facilities being relocated within the contract.
5. For buried utilities, the Prime contractor or subcontractor shall be required to provide to the Utility upon completion of the Utility's relocation work a set of as-built drawings for their records. These as-built drawings should be prepared as the job progresses to ensure their accuracy.
6. Where erosion control measures are needed for the utility relocation work occurring inside or outside State right-of-way, the contractor shall submit to the TDOT Project Supervisor for approval a proposed erosion and sediment control plan prior to beginning the work. TDOT approval must be received before the erosion control pay items for roadway construction can be used for any additional erosion control measures required for the utility relocation work.
7. Driveway, sidewalk and roadway temporary restoration shall be part of the in-place cost of placing the utility item within the ROW.

When applicable, the utility relocation plans will show any stream crossings and cross-sections of the streams crossings with the following note:

8. Any excavation of the stream channel area shall be separated from flowing water and accomplished during low fl ow conditions. This shall be accomplished by the use of flumes, lined diversion channel with sandbag berm, diversion pipe with sandbag dam at pipe inlet, or in some cases cofferdams. Alternatively, based on fi eld conditions and contractor selection, the utility relocation may be accomplished using bore technology with no stream channel impacts.

TECHNICAL SPECIFICATIONS:

PVC PIPE SHALL BE SDR-17 AS INDICATED ON DRAWINGS CONFORMING TO ASTM D2241 WITH BELL-END ELASTOMETRIC GASKET PUSH ON JOINTS.

PVC GASKETS SHALL COMPLY WITH ASTM F477 AND BE FACTORY INSTALLED.

NON-METALLIC PIPE DETECTION TAPE SHALL BE PLACED IN ALL TRENCHES A VERTICAL DISTANCE OF 15 INCHES BETWEEN THE TOP OF THE PIPE AND THE TAPE.

GATE VALVES SHALL MEET AWWA C509 NON-RISING STEM (NRS), O-RING STEM SEAL, COUNTER-CLOCKWISE OPENING AS VIEWED FROM THE TOP.

FLUSH ENTIRE MAIN AND BRANCH LINE UPON COMPLETION OF LINE INSTALLATION. USE A MINIMUM OF 2.5 FEET PER SECOND FLUSHING VELOCITY TO FLUSH FOREIGN MATERIALS OUT OF VALVES.

WATER LINE TESTING:

PERFORM TESTING IN THE PRESENCE OF THE OWNER AND A MOORSEBURG UTILITY DISTRICT REPRESENTATIVE (423) 272-9810.

TEST PRESSURE SHALL NOT BE LESS THAN 1.5 TIMES OR A MAXIMUM OF 200 PSI WORKING PRESSURE OF THE TEST SECTION.

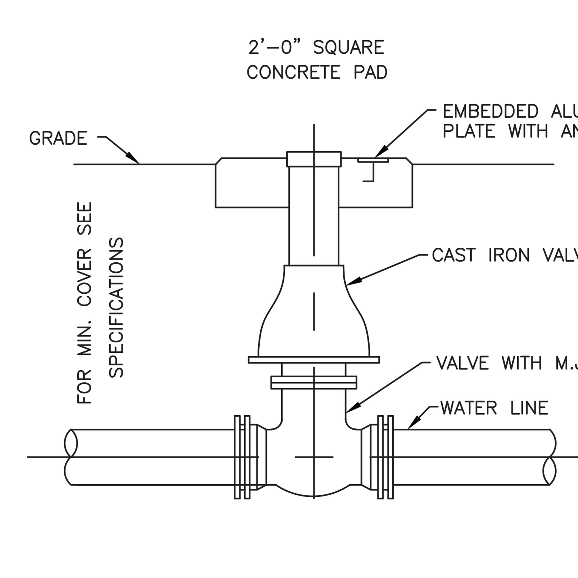
THE PRESSURE TEST SHALL BE A MINIMUM TWO HOUR TEST DURATION WITH A MAXIMUM PLUS/MINUS 5 PSI TEST PRESSURE DEVIATION FOR THE TEST DURATION.

SITE UTILITY DETAIL REFERENCE SCHEDULE

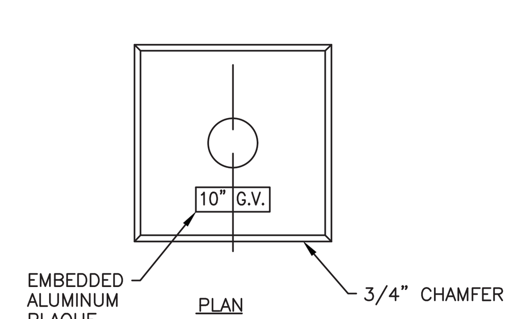
MARK	REFERENCED ITEM	COMMENT
FH	FIRE HYDRANT	
WM	WATER METER	
TB	THRUST BLOCK	
--	HOUSE SEWER CONNECTION	
MH	MANHOLE	
DMH	DROP MANHOLE	
CO	SEWER CLEANOUT	
SO	SEWER STUB-OUT	
LS	LIFT STATION	
CV	CHECK VALVE	
BOV	BLOW OFF VALVE	

UTILITY PLAN LEGEND

EXISTING	PROPOSED	DESCRIPTION
GE	G	GAS
WE	W	WATER
SE	S	SANITARY SEWER
OEE	OE	O/H ELECTRIC
EE	E	U/G ELECTRIC
OTE	OT	O/H TELEPHONE
TE	T	U/G TELEPHONE
FHE	FH	FIRE HYDRANT
WME	WM	WATER METER
GME	GM	GAS METER
GVE	GV	GAS VALVE
WVE	WV	WATER VALVE
MHE	MH	MANHOLE
PPE	PP	POWER POLE
PL		PROPERTY LINE



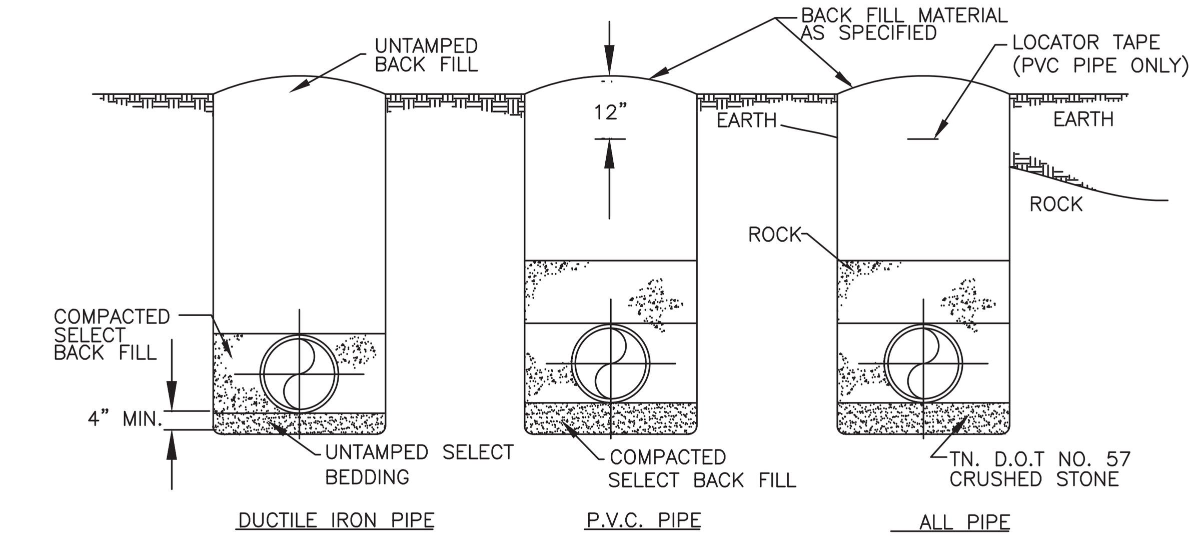
SECTION



PLAN

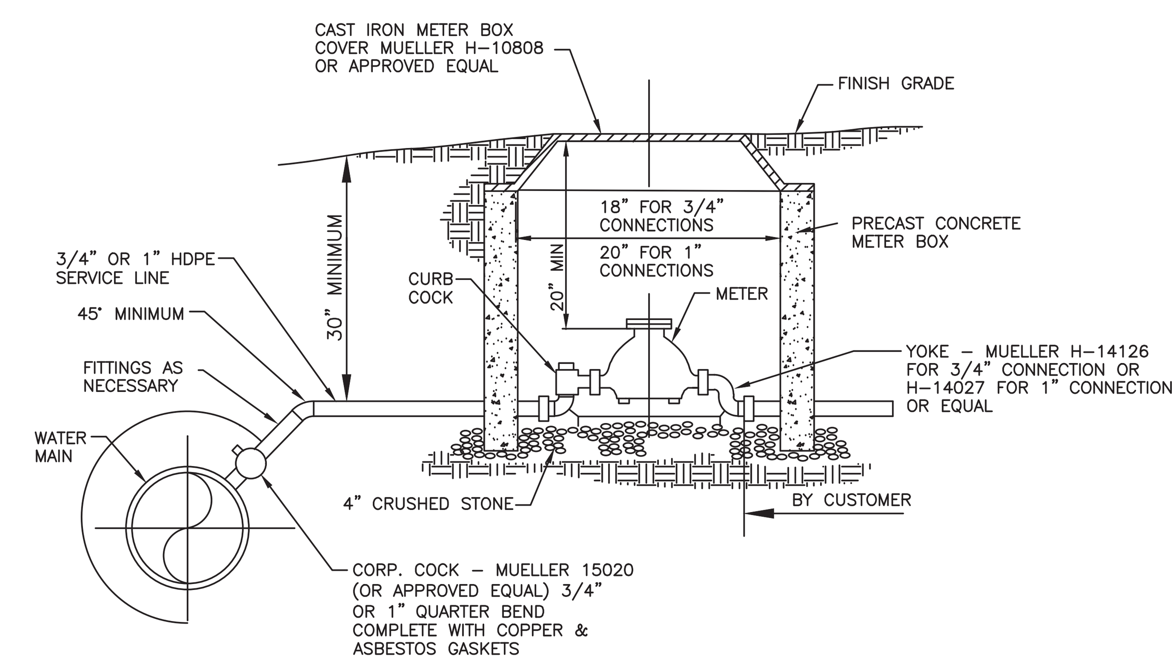
TYPICAL LINE VALVE DETAIL

NOT TO SCALE



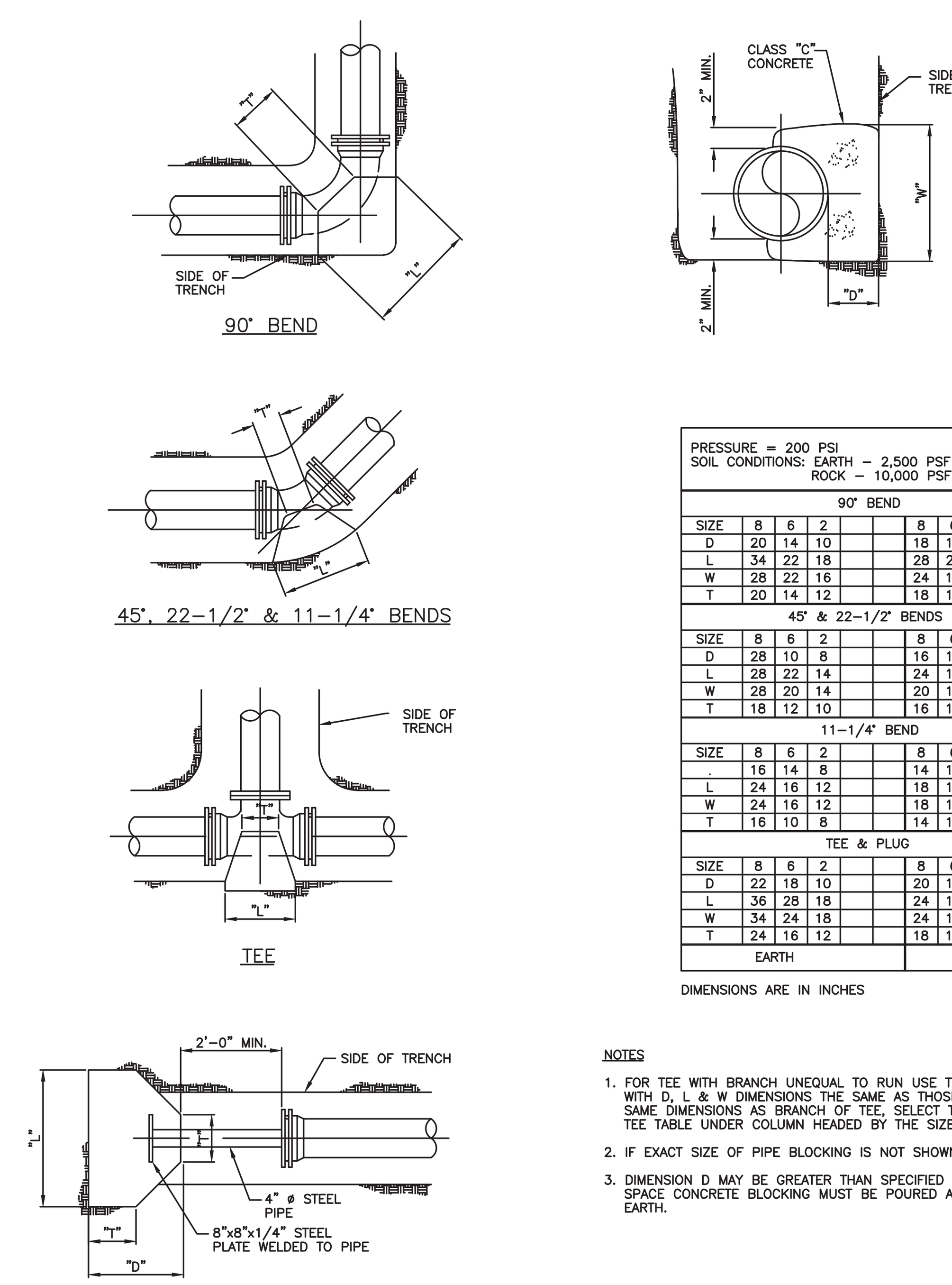
STANDARD WATER LINE BEDDING DETAIL

NOT TO SCALE



TYPICAL METER SETTING DETAIL (FOR 3/4" & 1" SERVICES)

NOT TO SCALE



90° BEND

45°, 22-1/2° & 11-1/4° BENDS

TEE

PLUG

PRESSURE = 200 PSI
SOIL CONDITIONS: EARTH – 2,500 PSF
ROCK – 10,000 PSF

90° BEND										
SIZE	8	6	2			8	6	2		
D	20	14	10			18	10	10		
L	34	22	18			28	20	16		
W	28	22	16			24	14	12		
T	20	14	12			18	10	10		
45° & 22-1/2° BENDS										
SIZE	8	6	2			8	6	2		
D	28	10	8			16	10	10		
L	28	22	14			24	12	10		
W	28	20	14			20	12	10		
T	18	12	10			16	10	10		
11-1/4° BEND										
SIZE	8	6	2			8	6	2		
.	16	14	8			14	10	8		
L	24	16	12			18	12	10		
W	24	16	12			18	12	10		
T	16	10	8			14	10	8		
TEE & PLUG										
SIZE	8	6	2			8	6	2		
D	22	18	10			20	18	12		
L	36	28	18			24	18	12		
W	34	24	18			24	18	12		
T	24	16	12			18	14	12		
	EARTH					ROCK				

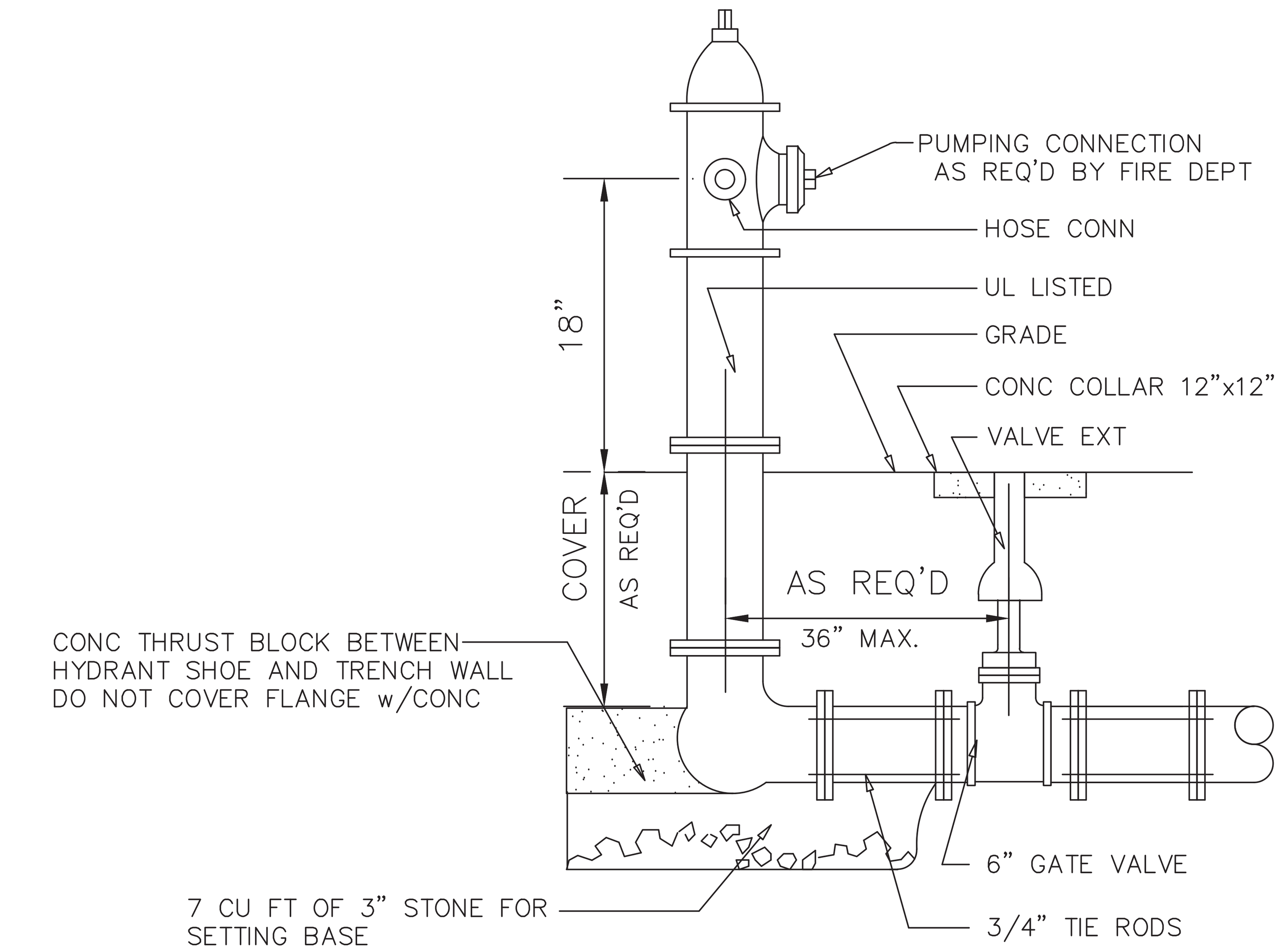
DIMENSIONS ARE IN INCHES

NOTES

1. FOR TEE WITH BRANCH UNEQUAL TO RUN USE TEE TYPE KICKER WITH D, L & W DIMENSIONS THE SAME AS THOSE FOR PLUG WITH SAME DIMENSIONS AS BRANCH OF TEE, SELECT T DIMENSION FROM TEE TABLE UNDER COLUMN HEADED BY THE SIZE OF THE BRANCH.
2. IF EXACT SIZE OF PIPE BLOCKING IS NOT SHOWN, USE NEXT LARGER SIZE.
3. DIMENSION D MAY BE GREATER THAN SPECIFIED TO ALLOW WORKING SPACE CONCRETE BLOCKING MUST BE POURED AGAINST UNDISTURBED EARTH.

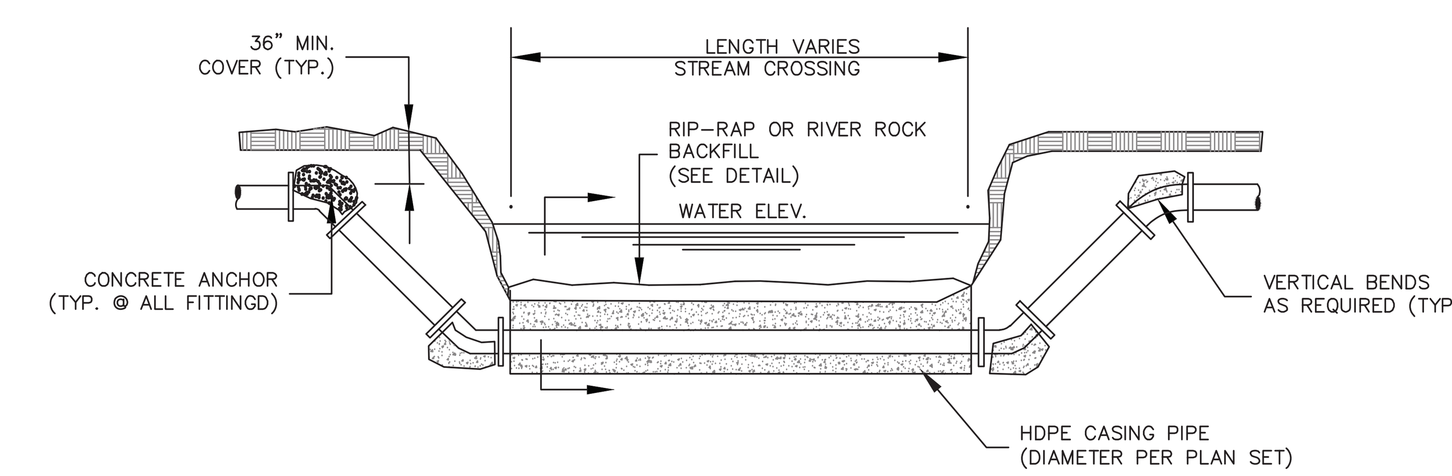
TYPICAL CONCRETE BLOCKING DETAIL

NOT TO SCALE



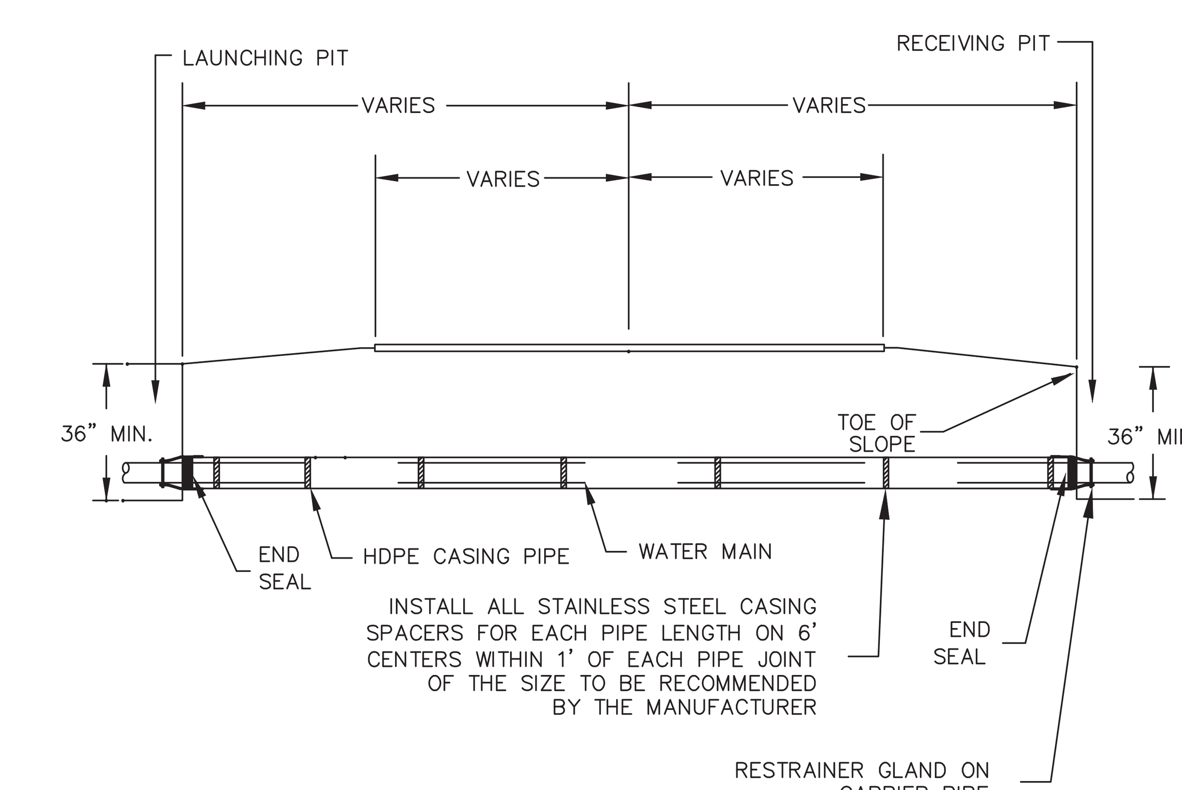
FIRE HYDRANT SETTING DETAIL

NOT TO SCALE



STREAM CROSSING DETAIL

NOT TO SCALE



ROAD BORING FOR PIPE DETAIL

NOT TO SCALE

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U5-8

STATE PROJECT NO. 37022-3219-14

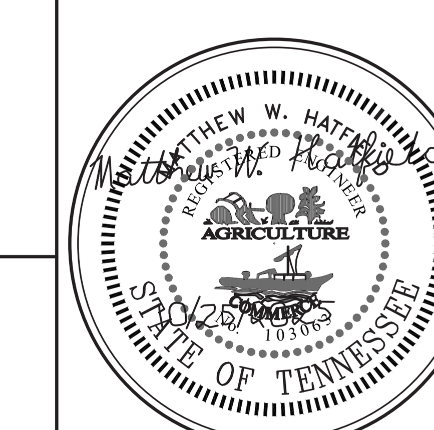
REVISION HISTORY

11/19/2024 REVISED PER TDOT COMMENTS
01/29/2025 REVISED PER TDOT COMMENTS
03/25/2025 REVISED PER TDOT COMMENTS
06/22/2025 REVISED PER TDOT COMMENTS
07/11/2025 REVISED BY COORDINATES FINALLY PROVIDED BY THE CONSULTANT
10/25/2025 PROVIDED ADDITIONAL NORTH ARROWS

PROJ NO. • 25-133
DWG FILE • U5-8
ISSUE DATE • 02/04/2022

MOORSEBURG UTILITY DISTRICT
(423) 272-9810
CONTACT: EDDIE DOUGLAS
P.O. BOX 2
MOORESBURS TN, 37811

HAWKINS COUNTY
S.R.31 WATER LINE RELOCATION
STATE PROJECT NO. STP / HPP -31 (12)



HATFIELD & ALLEN ASSOCIATES
ENGINEERING & PLANNING
775 RANDLES ROAD
STRAWBERRY PLAINS, TN 37871
PHONE: (865) 388-5031

S.R. 31 WATER LINE RELOCATION

CONSTRUCTION DETAILS

SCALE 1" = 50'

INDEX OF DRAWINGS

ESTIMATED QUANTITIES

	ITEM NO.	TDOT DESCRIPTION	UTILITY UNIT DESCRIPTION	UNIT	QUANTITY	PERCENT UTILITY	PERCENT PROJECT
8	798-05.02	FIBER OPTIC CABLE ENCLOSURE	ENC	EACH	4	0%	100%
9	798-05.03	FIBER OPTIC CABLE SPLICE	FIBER SPLICE	EACH	48	0%	100%
	798-05.07	3/8 IN HIGH STRENGTH STEEL STRAND		L.F.	3056	0%	100%
	798-05.13	TRUNK/FEEDER CABLE .750		L.F.	2442	0%	100%
	798-05.16	TRUNK/FEEDER CABLE .875		L.F.	696	0%	100%
6	798-05.52	COMMUNICATIONS ASSEMBLY (LOOP)	LOOP	EACH	4	0%	100%
	798-05.53	COMMUNICATIONS ASSEMBLY (SPLICE)	COAX SPLICE	EACH	4	0%	100%
	798-05.57	TRUNK/FEEDER CABLE .500		L.F.	1389	0%	100%
	798-06.20	FIBER OPTIC CABLE (144F)	144F	L.F.	2331	0%	100%
	798-06.55	LINE EXTENDER	LX	EACH	1	0%	100%
10	793-04.08	TRANSFER AERIAL CABLE		EACH	2	0%	100%
	798-09.01	REMOVE STEEL STRAND		L.F.	3062	0%	100%
	798-09.02	REMOVE AERIAL CABLE / TERMINALS		L.F.	4475	0%	100%
	798-09.03	REMOVE POLES, GUYS, ANCHORS		EACH	10	0%	100%
	798-09.08	REMOVE STRAND POLE FRAMING		EACH	23	0%	100%
	798-09.09	REMOVE FIBER OPTIC CABLE		L.F.	2189	0%	100%
	798-10.10	POWER SUPPLY	POWER SUPPLY	EACH	1	0%	100%
	798-10.12	AMPLIFIER WITH SERVICE TAP	AMPTAP-2,4,8	EACH	1	0%	100%
	798-10.15	AMPLIFIER	AMP	EACH	1	0%	100%
	798-10.16	SERVICE TAP ASSEMBLY	TAP-2,4,8	EACH	3	0%	100%
6	798-05.37	COMMUNICATION ASSEMBLY (F2&F3)	F2 & F3	EACH	10	0%	100%
	798-11.41	DOWNGUY - WRAP TYPE	E1-2	EACH	10	0%	100%
	798-12.21	LINE EXTENDER WITH SERVICE TAP	LXTAP-2,4,8	EACH	2	0%	100%
	798-12.24	SPLITTER	SPLIT-2,3	EACH	1	0%	100%
	798-13.01	STRAND BOND ASSEMBLY	BOND	EACH	9	0%	100%
	798-13.04	STRAND ANGLE ASSEMBLY	CSC	EACH	3	0%	100%
	798-13.05	DIRECTIONAL COUPLER	DC	EACH	2	0%	100%
	798-13.07	STRAND DOUBLE DEADEND ASSEMBLY	DDE	EACH	10	0%	100%
	798-13.08	STRAND DEADEND ASSEMBLY	DE	EACH	3	0%	100%
	790-32.23	GUY GUARD	E3-10	EACH	10	0%	100%

FOOTNOTES:

6. INCLUDES ALL MATERIALS, LABOR AND EQUIPMENT INCLUDING BUT NOT LIMITED TO SETUP, TRAFFIC CONTROL, AND BONDING/GROUNDING.

8. INCLUDES ALL MATERIAL NECESSARY TO PLACE THE CABLE CLOSURE.

9. INCLUDES SETUP, TRAFFIC CONTROL AND ALL MATERIALS NECESSARY TO SPLICE 12 FIBER RIBBON.

10. INCLUDES MOUNTING HARDWARE, BONDING/ GROUNDING, STRAND

UTILITY INFORMATION

CHARTER COMMUNICATIONS, LLC
2491 OLD HWY 25 E
MORRISTOWN, TN 37813
CONTACT: ROBERT WALKER
PHONE: (423)736-3244
EMAIL: robert.walker@charter.com

10/31/2025

GREGORY K. POSTON
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 100945
STATE OF TENNESSEE

Charter COMMUNICATIONS

JOB NUMBER:	29088.16
DESIGNED:	BBG
DRAWN:	MAV
CHECKED:	JEB
SCALE	DATE
NONE	10.31.25

Gresham Smith
2095 LAKESIDE CENTRE WAY
SUITE 210
KNOXVILLE, TENNESSEE 37922
(865) 521-6777 (866) 539-7192

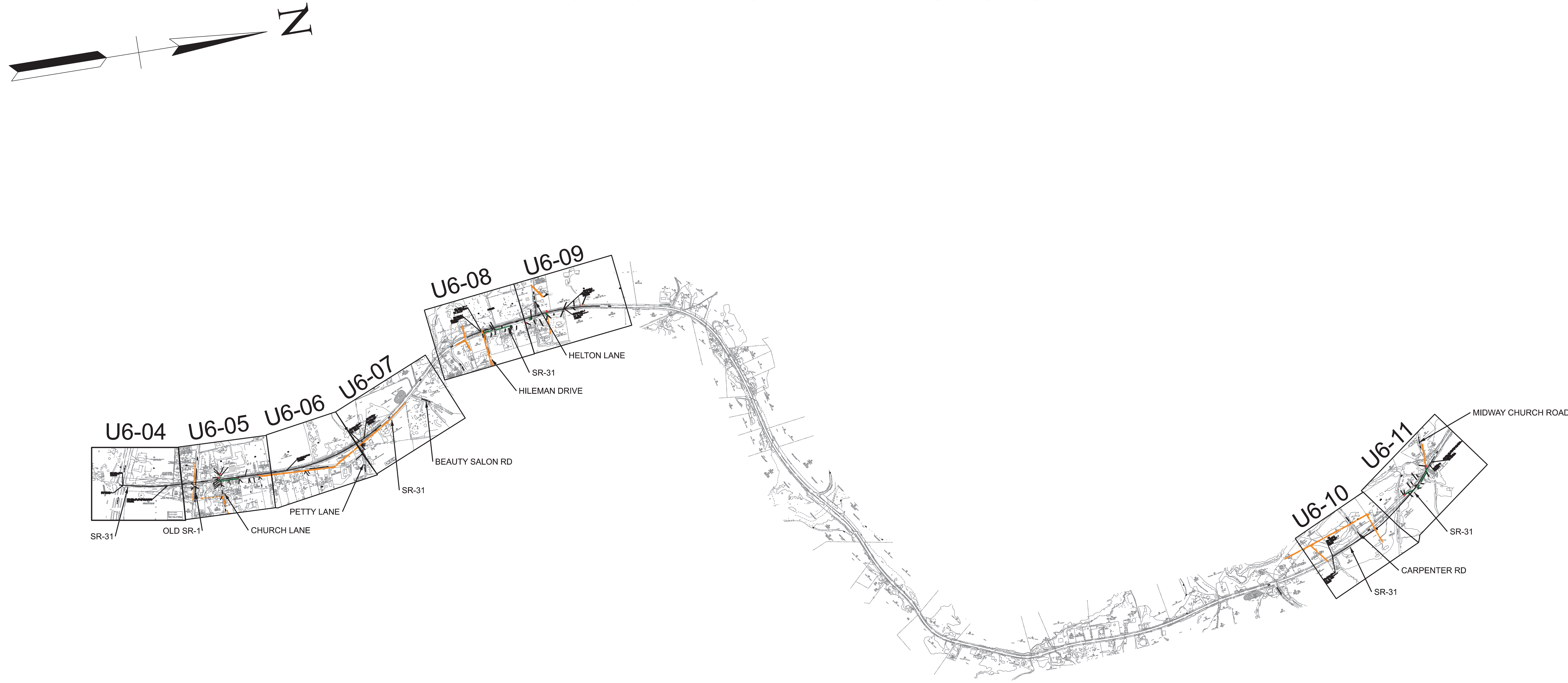
COMMUNICATION RELOCATION
ESTIMATED QUANTITIES AND DRAWING INDEX

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U6-02
		37022-3219-14	

HAWKINS COUNTY
PIN# 101394.00

Hawkins County

SR-31
FROM SR-1 TO MIDWAY CHURCH RD



LEGEND

144F EXISTING FIBEROPTIC CABLE	EXISTING 875 TRUNK CABLE	EXISTING 2 PORT TAP	EXISTING LINE EXTENDER
144F REMOVAL FIBEROPTIC CABLE	REMOVAL 875 TRUNK CABLE	REMOVAL 2 PORT TAP	REMOVAL LINE EXTENDER
144F PROPOSED FIBEROPTIC CABLE	PROPOSED 875 TRUNK CABLE	PROPOSED 2 PORT TAP	PROPOSED LINE EXTENDER
EXISTING OVERHEAD GUY	EXISTING POLE/ POLE PLACED BY OTHERS	EXISTING 4 PORT TAP	EXISTING DIRECTIONAL COUPLER
EXISTING 500 TRUNK CABLE	REMOVAL POLE	REMOVAL 4 PORT TAP	REMOVAL DIRECTIONAL COUPLER
REMOVAL 500 TRUNK CABLE	EXISTING ANCHOR	PROPOSED 4 PORT TAP	PROPOSED DIRECTIONAL COUPLER
PROPOSED 500 TRUNK CABLE	REMOVAL ANCHOR	EXISTING AMPLIFIER	EXISTING TERMINATOR
EXISTING 700 TRUNK CABLE	PROPOSED ANCHOR	REMOVAL AMPLIFIER	REMOVAL TERMINATOR
REMOVAL 700 TRUNK CABLE	REMOVAL POWER SUPPLY	PROPOSED AMPLIER	PROPOSED TERMINATOR
PROPOSED 700 TRUNK CABLE	PROPOSED POWER SUPPLY	EXISTING SPLICE	EXISTING 2 WAY SPLIT
EXISTING 750 TRUNK CABLE	EXISTING FO SPLICE	REMOVAL SPLICE	REMOVAL 2 WAY SPLIT
REMOVAL 750 TRUNK CABLE	REMOVAL FO SPLICE	PROPOSED SPLICE	PROPOSED 2 WAY SPLIT
PROPOSED 750 TRUNK CABLE	PROPOSED FO SPLICE		

10/31/2025

GREGORY K. POSTON
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 100945
STATE OF TENNESSEE

Charter
COMMUNICATIONS.

JOB NUMBER:	29088.16
DESIGNED:	BBG
DRAWN:	MAV
CHECKED:	JEB
SCALE	DATE
NONE	10.31.25

Gresham Smith
2095 LAKESIDE CENTRE WAY
SUITE 210
KNOXVILLE, TENNESSEE 37922
(865) 521-6777 (866) 539-7192

COMMUNICATION RELOCATION
VICINITY MAP AND LEGEND

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U6-03
		37022-3219-14	

HAWKINS COUNTY
PIN# 101394.00

GENERAL CONSTRUCTION NOTES

1. THE FOLLOWING INFORMATION APPLIES TO THE UTILITY CONTRACTOR RESPONSIBLE FOR THE RELOCATION OF THE COMMUNICATION FACILITIES ALONG THIS PROJECT.

2. ANY DEVIATION OF THE CONDITIONS LISTED MUST BE APPROVED BY THE UTILITY PRIOR TO THE DEVIATION TAKING PLACE ON THE PROJECT. FAILURE BY THE UTILITY CONTRACTOR OR SUBCONTRACTORS TO FOLLOW THESE CONDITIONS AS LISTED WILL RESULT IN REFUSAL OF ACCEPTANCE BY THE UTILITY OWNER TO ACCEPT THE PROJECT AT IT'S COMPLETION UNTIL SUCH TIME AS ANY DEFICIENCIES ARE CORRECTED TO THE SATISFACTION OF THE UTILITY.

3. ALL WORK SHALL BE DONE IN A SAFE, THOROUGH AND WORKMAN-LIKE MANNER IN ACCORDANCE WITH THE PLAN SHEETS, CONSTRUCTION DETAILS AND TECHNICAL SPECIFICATIONS AS WELL AS ANY AND ALL APPLICABLE SAFETY CODES, INCLUDING, BUT NOT LIMITED TO, THE NATIONAL ELECTRICAL SAFETY CODE (NESC), AND ANY OTHER STATE AND LOCAL CODES THAT ARE REQUIRED FOR THE TYPE OF UTILITY RELOCATION THAT IS BEING PERFORMED AS PART OF THIS CONTRACT.

4. THE UTILITY CONTRACTOR SHALL EXERCISE ALL STANDARD SAFETY PRACTICES WHEN WORKING AROUND ENERGIZED ELECTRICAL LINES (e.g. RUBBER GOODS INSPECTIONS, GROUNDING OF LINES AND VEHICLES / EQUIPMENT, TOOL INSPECTIONS, ADEQUATE SUPERVISION, ETC.).

5. THE UTILITY CONTRACTOR SHALL BEAR THE RESPONSIBILITY FOR THE SAFETY OF ITS EMPLOYEES AND SHALL ENSURE THAT THEY ABIDE BY ALL STATE, FEDERAL AND LOCAL REGULATIONS REGARDING SAFE WORK PRACTICES. IF SUCH REGULATIONS ARE VIOLATED, THE UTILITY OWNER SHALL MAINTAIN THE RIGHT TO STOP WORK ON THEIR FACILITIES UNTIL SUCH CONDITIONS ARE CORRECTED.

6. IN GENERAL, THE UTILITY CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MATERIALS, METHODS, AND/OR INTEGRAL MATERIALS OUTLINED IN THE UTILITY CONSTRUCTION DRAWINGS AND THE TECHNICAL SPECIFICATIONS THAT ARE NECESSARY TO PROVIDE A COMPLETE AND FUNCTIONAL INSTALLATION OF THE UTILITY FACILITIES BEING RELOCATED.

7. UTILITY CONSTRUCTION DRAWINGS ARE INCLUDED AS PART OF THE DRAWING PACKET AND MUST BE ADHERED TO DURING ALL PHASES OF CONSTRUCTION.

8. ALL MATERIALS TO BE USED BY THE UTILITY CONTRACTOR ON THE PROJECT MUST BE NEW MATERIALS AND MUST BE APPROVED BY THE UTILITY OWNER PRIOR TO PURCHASE OR USE. A PROPOSED LIST OF MATERIALS SHALL BE SUBMITTED TO THE UTILITY OWNER AS NOTED IN THE TECHNICAL SPECIFICATIONS FOR THE PROJECT. NO MATERIAL SUBSTITUTIONS ARE ALLOWED WITHOUT THE PRIOR CONSENT OF THE UTILITY OWNER. STORAGE LOCATION OF MATERIALS ON THE PROJECT SITE MUST BE A SECURE ENVIRONMENT. THE UTILITY CONTRACTOR IS RESPONSIBLE FOR ANY LOST, STOLEN OR DAMAGED MATERIALS ON THE PROJECT.

9. THE UTILITY CONTRACTOR IS REQUIRED TO MAINTAIN COMMUNICATION WITH THE UTILITY OWNER'S PROJECT REPRESENTATIVE USING TELEPHONE COMMUNICATIONS.

10. THE UTILITY CONTRACTOR IS TO PERFORM ALL REQUIRED WORK IN SUCH A MANNER AS TO NOT CAUSE UNINTENTIONAL OUTAGES TO THE CUSTOMERS ALONG THE PROJECT. ALL PLANNED OUTAGES MUST BE HANDLED IN ACCORDANCE WITH SECTION 01 1113 "SUMMARY OF WORK" IN THE CONSTRUCTION TECHNICAL SPECIFICATIONS. LARGE SCALE OUTAGES ARE NOT ALLOWED.

11. IF FIELD CONDITIONS ARISE WHICH PREVENT THE CONSTRUCTION ON THE PROJECT FROM PROCEEDING AS DESIGNED, THE UTILITY CONTRACTOR WILL COORDINATE WITH THE UTILITY OWNER / ENGINEER TO RESOLVE THE ISSUES SO THAT CONSTRUCTION CAN CONTINUE.

12. THE UTILITY CONTRACTOR SHALL COMPLY WITH ALL TDOT REGULATIONS, PERMITS AND TRAFFIC CONTROL GUIDELINES AS REQUIRED.

13. THE LOCATIONS OF EXISTING UTILITIES SHOWN WITHIN THESE DRAWINGS ARE BASED ON INFORMATION PROVIDED BY TDOT, AND SHALL BE VERIFIED BY THE UTILITY CONTRACTOR PRIOR TO CONSTRUCTION. THE UTILITY CONTRACTOR SHALL NOTIFY EACH UTILITY OWNER OF HIS PLAN OF OPERATION IN THE AREA OF THE UTILITIES AND REQUEST THAT THE UTILITY OWNERS PROPERLY LOCATE AND MARK THEIR PERSPECTIVE UTILITY ON THE GROUND.

14. THE UTILITY CONTRACTOR SHALL REQUEST UTILITY LOCATIONS A MINIMUM OF THREE (3) BUSINESS DAYS PRIOR TO BEGINNING ANY CONSTRUCTION IN THE AREA OF THE UTILITIES IN QUESTION.

15. THE TDOT PRIME CONTRACTOR WILL BE RESPONSIBLE FOR ANY EXCAVATION WORK REQUIRED TO LOCATE EXISTING UNDERGROUND UTILITIES. THE PRIME CONTRACTOR IS ALSO REQUIRED TO NOTIFY ANY EXISTING UTILITY OWNER PRIOR TO DIGGING. IN THE EVENT THAT THERE IS ANY DAMAGE TO OR INTERRUPTION OF EXISTING FACILITIES, THE PRIME CONTRACTOR WILL BE RESPONSIBLE FOR ANY COST INCURRED FROM THE EVENT.

16. SOME EXISTING UTILITIES CAN BE LOCATED BY CALLING TENNESSEE ONE-CALL SYSTEMS, INC. AT "811".

17. THE UTILITY CONTRACTOR SHALL PROVIDE ALL NECESSARY PROTECTIVE MEASURES TO SAFEGUARD EXISTING UTILITIES FROM DAMAGE DURING THE CONSTRUCTION OF THE PROJECT. IN THE EVENT THAT SPECIAL EQUIPMENT IS REQUIRED TO WORK OVER AND AROUND EXISTING UTILITIES, THE UTILITY CONTRACTOR SHALL BE REQUIRED TO FURNISH THE EQUIPMENT NECESSARY TO COMPLETE THE WORK.

18. THE UTILITY CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY DAMAGE CAUSED BY ITS EMPLOYEES IN AREAS OUTSIDE OF TDOT ROW ALONG THE LENGTH OF THE PROJECT. THE UTILITY CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR RESOLVING ALL COMPLAINTS THAT MAY ARISE FROM ITS ACTIVITIES, AND SHALL PROMPTLY REPORT SUCH COMPLAINTS TO THE UTILITY OWNER AS TO WHETHER OR NOT IT HAS BEEN RESOLVED.

19. GROUND AND AERIAL INSPECTION OF INSTALLED FACILITIES ONCE COMPLETED SHALL BE THE RESPONSIBILITY OF THE UTILITY CONTRACTOR. ANY CORRECTIONS THAT ARE REQUIRED SHALL BE DONE DURING THE CONSTRUCTION OF THE PROJECT AND VERIFIED BY THE UTILITY OWNER / ENGINEER. THE UTILITY OWNER WILL HAVE INSPECTORS ON-SITE TO VERIFY SAFETY AND QUALITY OF WORK IS CONSISTENT WITH UTILITY OWNER'S STANDARDS.

20. WHILE SOME WORK MAY ONLY BE REQUIRED "AROUND" OTHER UTILITY FACILITIES, SOME WORK MAY NEED TO BE DONE CONCURRENTLY WITH THE OPERATIONS OF OTHER UTILITY CONTRACTORS. IT IS THE RESPONSIBILITY OF THE TDOT PRIME CONTRACTOR TO ENSURE THAT ALL UTILITY COORDINATION BE ADDRESSED DURING THE CONSTRUCTION OF THE PROJECT.

21. THE UTILITY CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL FACILITIES INDICATED WITHIN THESE DRAWINGS AT "FINAL GRADE" AS SHOWN. ANY TEMPORARY INSTALLATIONS THAT ARE NOT SPECIFICALLY NOTED WITHIN THESE DRAWINGS AND THAT ARE NOT ADDRESSED AND COORDINATED PRIOR TO CONSTRUCTION OF THE PROJECT WILL BE THE RESPONSIBILITY OF THE TDOT PRIME CONTRACTOR.

22. CONSTRUCTION OF RELOCATED FACILITIES IS NOT CONSIDERED TO BE COMPLETE UNTIL THE UTILITY CONTRACTOR HAS ENERGIZED THE FACILITIES IN ACCORDANCE WITH EPB SPECIFICATIONS.

23. PERSONNEL CHANGES ARE TO BE KEPT TO A MINIMUM DURING THE CONSTRUCTION OF THE PROJECT AS TO REDUCE UNFAMILIAR PERSONNEL TO BE WORKING ON THE FACILITIES OF THE UTILITY OWNER.

24. THE TDOT PRIME CONTRACTOR IS RESPONSIBLE FOR THE LAYOUT OF ALL UTILITY FACILITIES THAT ARE TO BE RELOCATED WITHIN THE PROJECT.

25. WHERE EROSION CONTROL MEASURES ARE NEEDED FOR THE UTILITY WORK OCCURING OUTSIDE THE STATE RIGHT-OF-WAY, THE UTILITY CONTRACTOR SHALL SUBMIT A PROPOSED EROSION AND SEDIMENT CONTROL PLAN TO THE TDOT PROJECT SUPERVISOR FOR APPROVAL PRIOR TO BEGINNING WORK.

26. THE DISTANCES THAT ARE SHOWN ON THE DRAWINGS ARE HORIZONTAL DISTANCES ONLY, AND DO NOT ALLOW FOR ANY CHANGES IN ELEVATION THAT EXIST ALONG THE PROJECT.

27. ALL ACTIVE AND PASSIVE EQUIPMENT SHALL BE PROVIDED BY THE UTILITY OWNER. THE LABOR COST, AND MINOR MATERIALS REQUIRED TO INSTALL THESE UNITS SHALL BE INCLUDED IN THE BID FROM THE UTILITY CONTRACTOR.

28. LOCKNUTS SHALL BACK UP ALL NUTS ON THREADED BOLTS SUCH AS MACHINE BOLTS, ETC. EXISTENCE OF LOCKNUTS WILL BE CLOSELY EXAMINED BY THE UTILITY OWNER DURING CONSTRUCTION. BOLTS SHALL NOT EXTEND MORE THAN TWO (2) INCHES FROM NUTS.

29. THE UTILITY CONTRACTOR SHALL INSTALL FIBERGLASS INSULATOR GUYLINKS ON ALL DOWNGUYS WITHIN TWO (2) FEET OF PRIMARY CONDUCTORS.

30. ANCHORS THAT ARE TO BE RETIRED SHALL HAVE THE ROD UNSCREWED AND REMOVED, OR BE CUT OFF AT LEAST EIGHTEEN (18) INCHES BELOW FINAL GRADE.

31. THE UTILITY CONTRACTOR SHALL PROVIDE THE UTILTY OWNER WITH ONE (1) SET OF CLEAN, CLEARLY MARKED "AS-BUILT" DRAWINGS AT THE COMPLETION OF THE PROJECT. THESE DRAWINGS SHALL REFLECT ANY AND ALL CHANGES THAT WERE MADE TO THE FACILITIES DURING CONSTRUCTION.

32. THE UTILITY CONTRACTOR IS RESPONSIBLE FOR REVIEWING ALL CONSTRUCTION DRAWINGS AND TECHNICAL SPECIFICATIONS FOR THE RELOCATION OF FACILITIES PRIOR TO BIDDING THE PROJECT. ANY QUESTIONS CONCERNING INFORMATION SHOWN IN THE CONTRACT DOCUMENTS SHALL BE ADDRESSED TO THE UTILITY OWNER / ENGINEER PRIOR TO BIDDING ON THE PROJECT.

33. UTILITY CONTRACTOR WILL BE RESPONSIBLE FOR INSPECTING EACH REEL OF CABLE FOR THE PROJECT. ANY DAMAGE TO THE CABLE SHALL BE REMOVED AND SPLICED AS REQUIRED. ALL CABLES SHALL BE PROTECTED FROM EQUIPMENT OR VEHICLE TRAFFIC WHILE BEING INSTALLED.

10/31/2025

GREGORY K. POSTON
REGISTERED ENGINEER
AGRICULTURE COMMERCE
No. 100945
STATE OF TENNESSEE

Charter COMMUNICATIONS

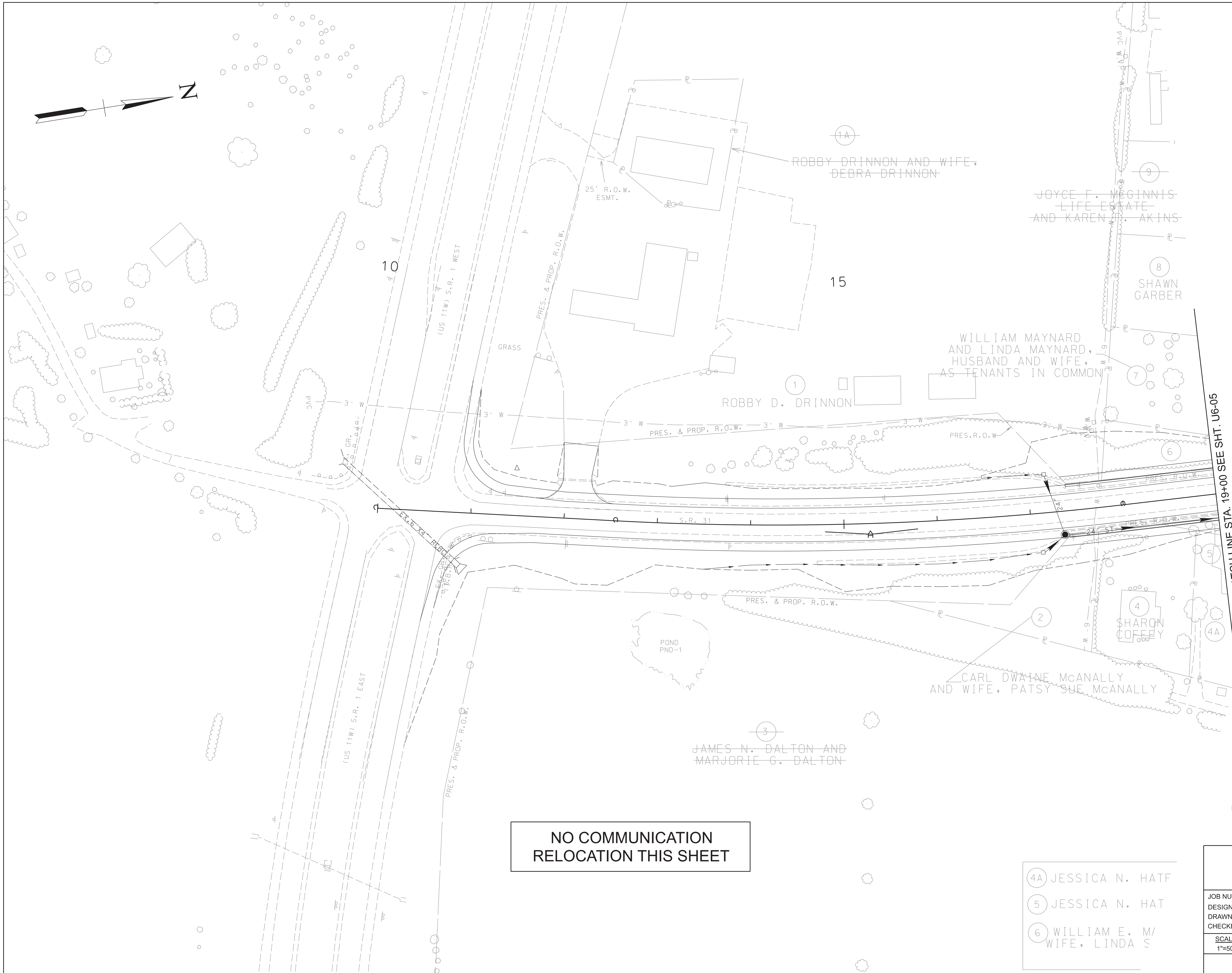
JOB NUMBER:	29088.16
DESIGNED:	BBG
DRAWN:	MAV
CHECKED:	JEB
SCALE	DATE
NONE	10.31.25

Gresham Smith
2095 LAKESIDE CENTRE WAY
SUITE 210
KNOXVILLE, TENNESSEE 37922
(865) 521-6777 (866) 539-7192

COMMUNICATION RELOCATION
GENERAL NOTES

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U6-04
		37022-3219-14	

HAWKINS COUNTY
PIN# 101394.00



NO COMMUNICATION RELOCATION THIS SHEET

811 Know what's below. Call 811 before you dig.

10/31/2025
GREGORY K. POSTON REGISTERED ENGINEER AGRICULTURE COMMERCE No. 100945 STATE OF TENNESSEE

Charter COMMUNICATIONS

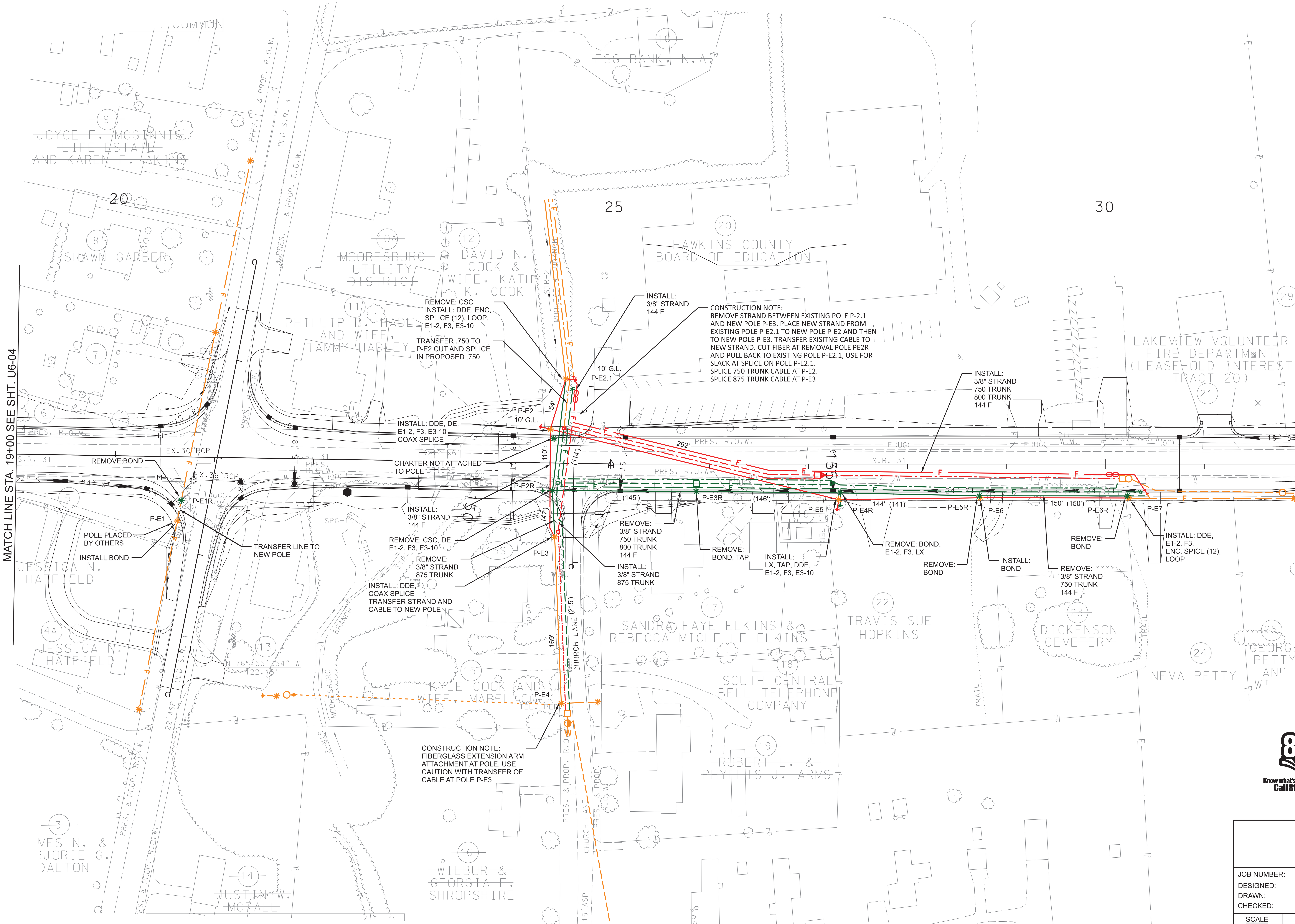
JOB NUMBER:	29088.16
DESIGNED:	BBG
DRAWN:	MAV
CHECKED:	JEB
SCALE	DATE
1"=50'	10.31.25

Gresham Smith
2095 LAKESIDE CENTRE WAY
SUITE 210
KNOXVILLE, TENNESSEE 37922
(865) 521-6777 (866) 539-7192

COMMUNICATION RELOCATION
BEGIN OF PROJECT TO STA. 19+00

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U6-05
		37022-3219-14	

HAWKINS COUNTY
PIN# 101394.00



10/31/2025

GREGORY K. POSTON
REGISTERED ENGINEER
No. 100945
STATE OF TENNESSEE

Charter COMMUNICATIONS

JOB NUMBER:	29088.16
DESIGNED:	BBG
DRAWN:	MAV
CHECKED:	JEB
SCALE	DATE
1"=50'	10.31.25

Gresham Smith
2095 LAKESIDE CENTRE WAY
SUITE 210
KNOXVILLE, TENNESSEE 37922
(865) 521-6777 (866) 539-7192

COMMUNICATION RELOCATION
STA. 19+00 TO STA. 32+00

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U6-06
		37022-3219-14	

HAWKINS COUNTY
PIN# 101394.00

811
Know what's below.
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10/31/2025
GREGORY K. POSTON
REGISTERED ENGINEER
AGRICULTURE COMMERCE
No. 100945
STATE OF TENNESSEE

Charter
COMMUNICATIONS

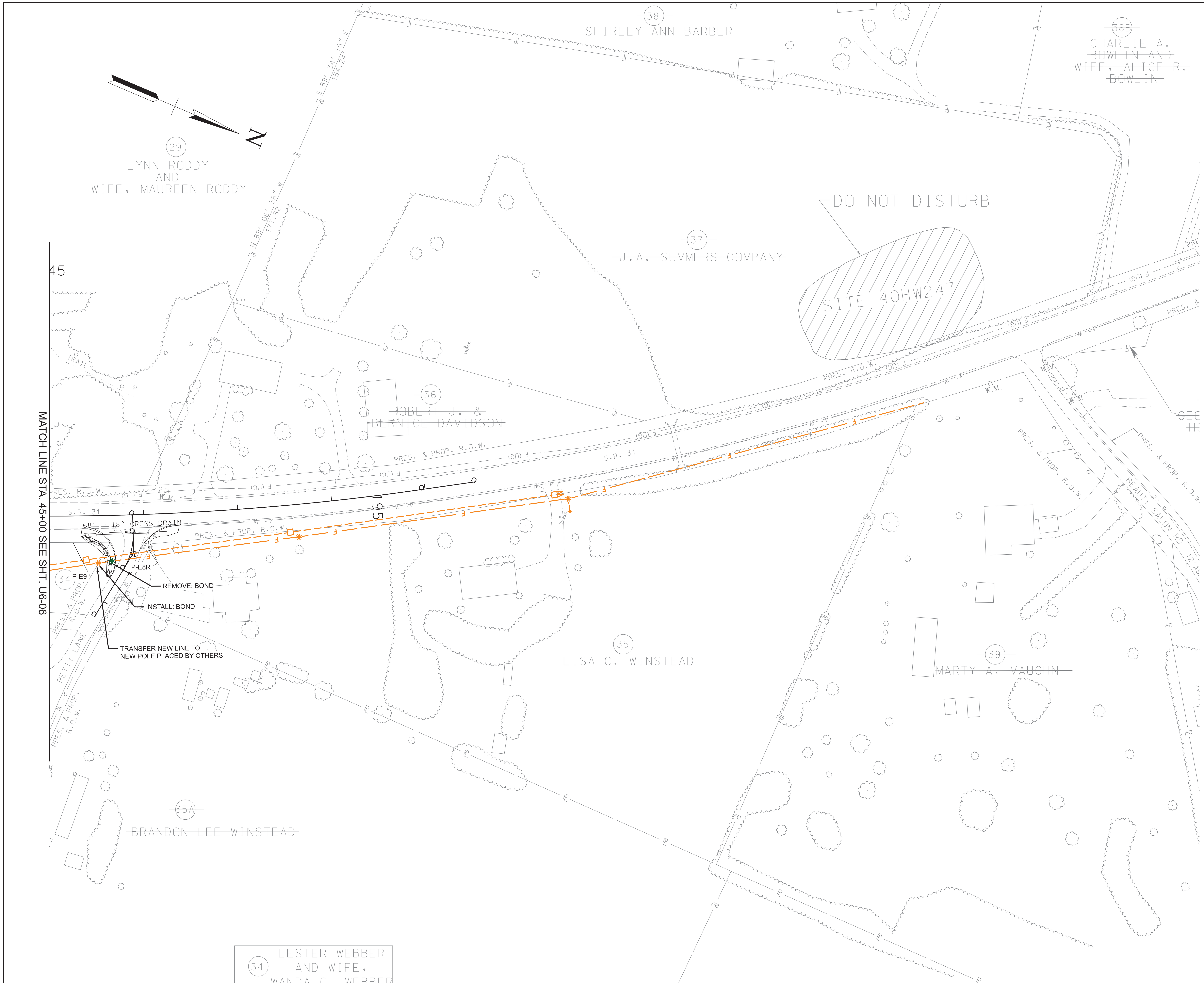
JOB NUMBER:	29088.16
DESIGNED:	BBG
DRAWN:	MAV
CHECKED:	JEB
SCALE	DATE
1"=50'	10.31.25

Gresham Smith
2095 LAKESIDE CENTRE WAY
SUITE 210
KNOXVILLE, TENNESSEE 37922
(865) 521-6777 (866) 539-7192

COMMUNICATION RELOCATION
STA. 32+00 TO STA. 45+00

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U6-07
		37022-3219-14	

HAWKINS COUNTY
PIN# 101394.00



811
Know what's below. Call 811 before you dig.

10/31/2025

GREGORY K. POSTON
REGISTERED ENGINEER
No. 100945
STATE OF TENNESSEE

Charter COMMUNICATIONS

JOB NUMBER:	29088.16
DESIGNED:	BBG
DRAWN:	MAV
CHECKED:	JEB
SCALE	DATE
1"=50'	10.31.25

Gresham Smith
2095 LAKESIDE CENTRE WAY
SUITE 210
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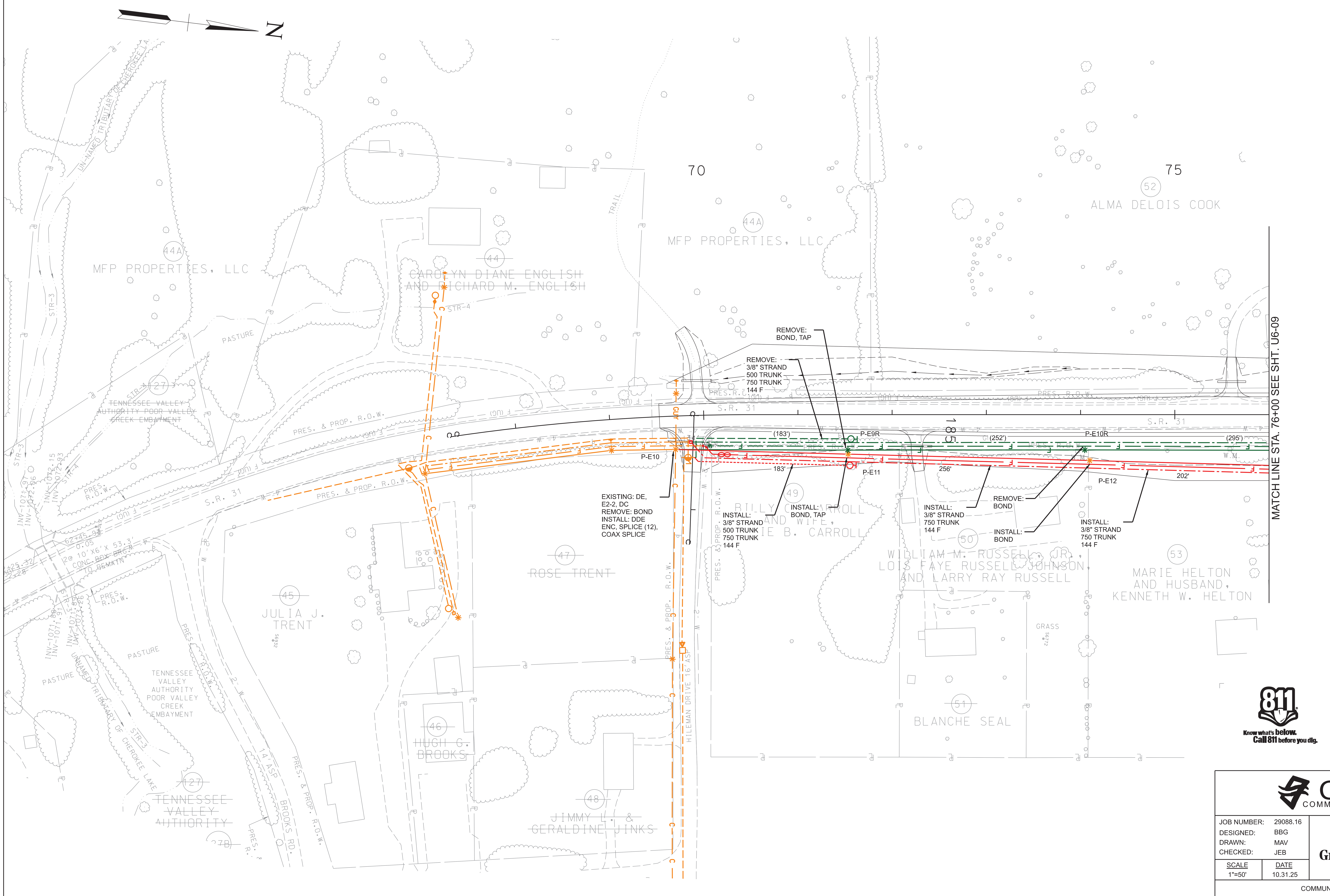
(865) 521-6777 (866) 539-7192

COMMUNICATION RELOCATION
STA. 45+00 TO STA. 49+53

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U6-08
		37022-3219-14	

HAWKINS COUNTY
PIN# 101394.00



811
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10/31/2025
GREGORY K. POSTON
REGISTERED ENGINEER
No. 100945
STATE OF TENNESSEE

Charter COMMUNICATIONS.

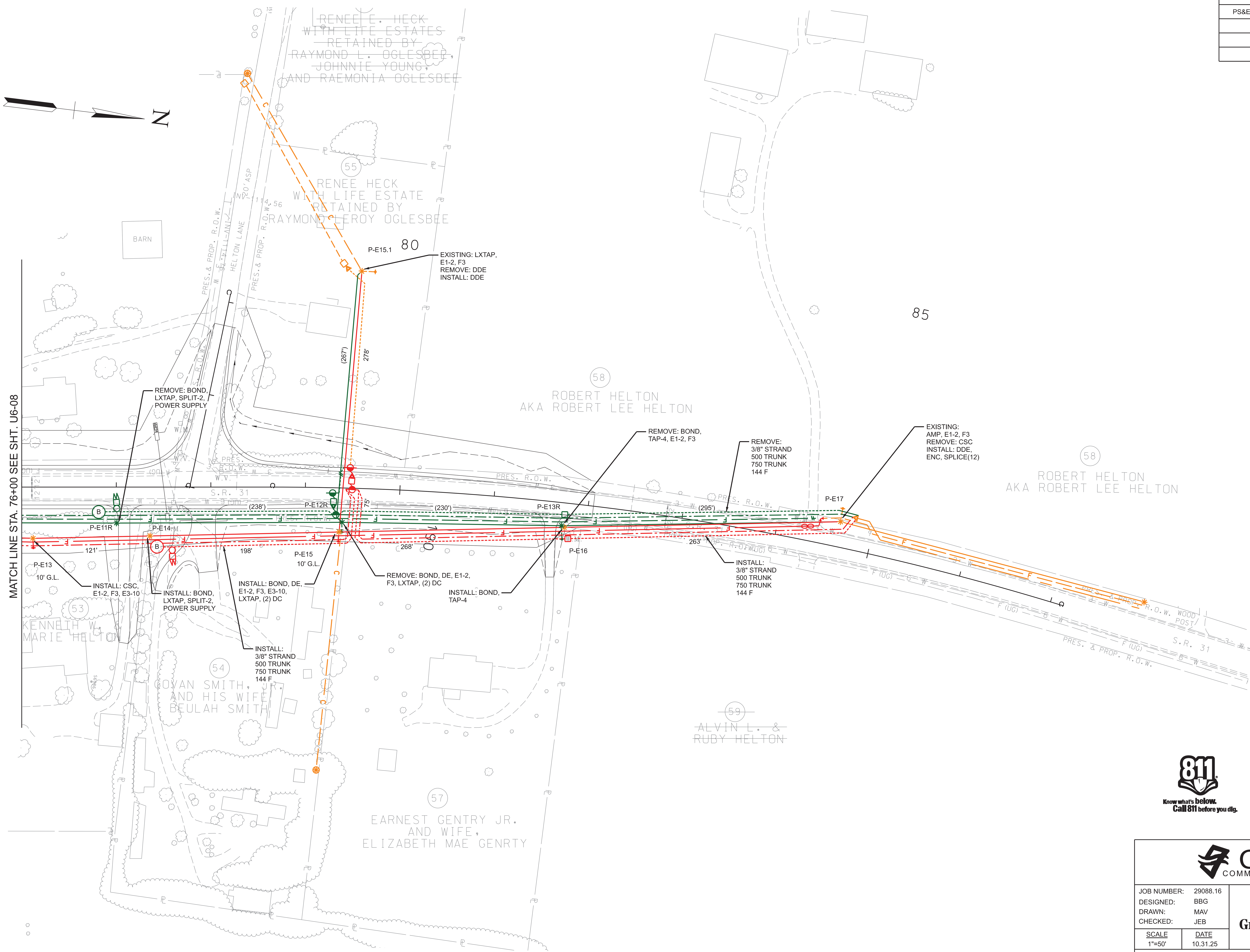
JOB NUMBER:	29088.16
DESIGNED:	BBG
DRAWN:	MAV
CHECKED:	JEB
SCALE 1"=50'	DATE 10.31.25

Gresham Smith
2095 LAKESIDE CENTRE WAY
SUITE 210
KNOXVILLE, TENNESSEE 37922
(865) 521-6777 (866) 539-7192

COMMUNICATION RELOCATION
STA. 67+30 TO STA. 76+00

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U6-09
		37022-3219-14	

HAWKINS COUNTY
PIN# 101394.00



811
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10/31/2025
GREGORY K. POSTON
REGISTERED ENGINEER
No. 100945
STATE OF TENNESSEE

Charter COMMUNICATIONS.

JOB NUMBER:	29088.16
DESIGNED:	BBG
DRAWN:	MAV
CHECKED:	JEB

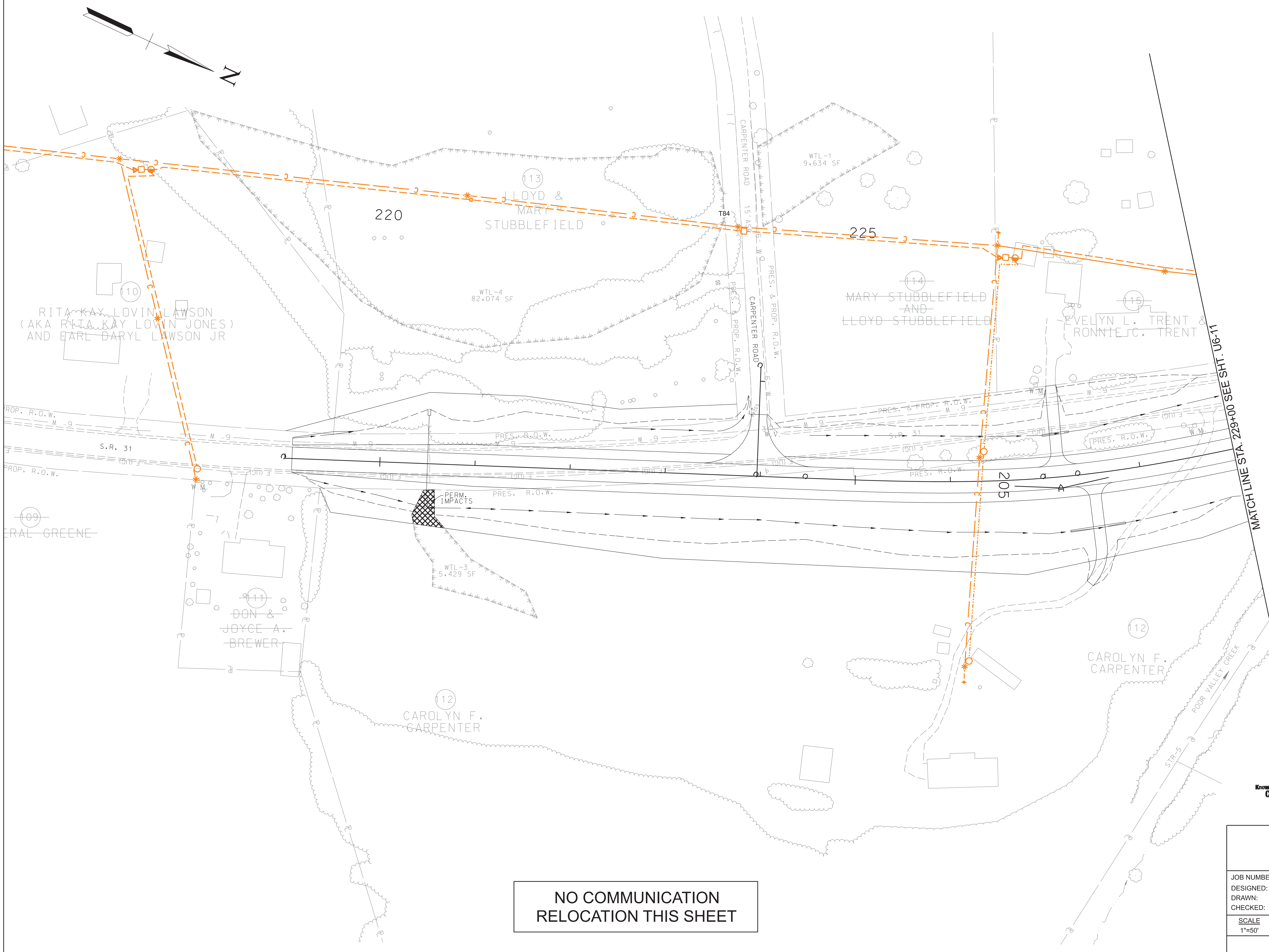
SCALE	DATE
1"=50'	10.31.25

Gresham Smith
2095 LAKESIDE CENTRE WAY
SUITE 210
KNOXVILLE, TENNESSEE 37922
(865) 521-6777 (866) 539-7192

COMMUNICATION RELOCATION
STA. 76+00 TO STA. 87+14

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U6-10
		37022-3219-14	

HAWKINS COUNTY
PIN# 101394.00



NO COMMUNICATION RELOCATION THIS SHEET

10/31/2025

GREGORY K. POSTON REGISTERED ENGINEER AGRICULTURE COMMERCE No. 100945 STATE OF TENNESSEE

811 Know what's below. Call 811 before you dig.

Charter COMMUNICATIONS

JOB NUMBER: 29088.16
DESIGNED: BBG
DRAWN: MAV
CHECKED: JEB

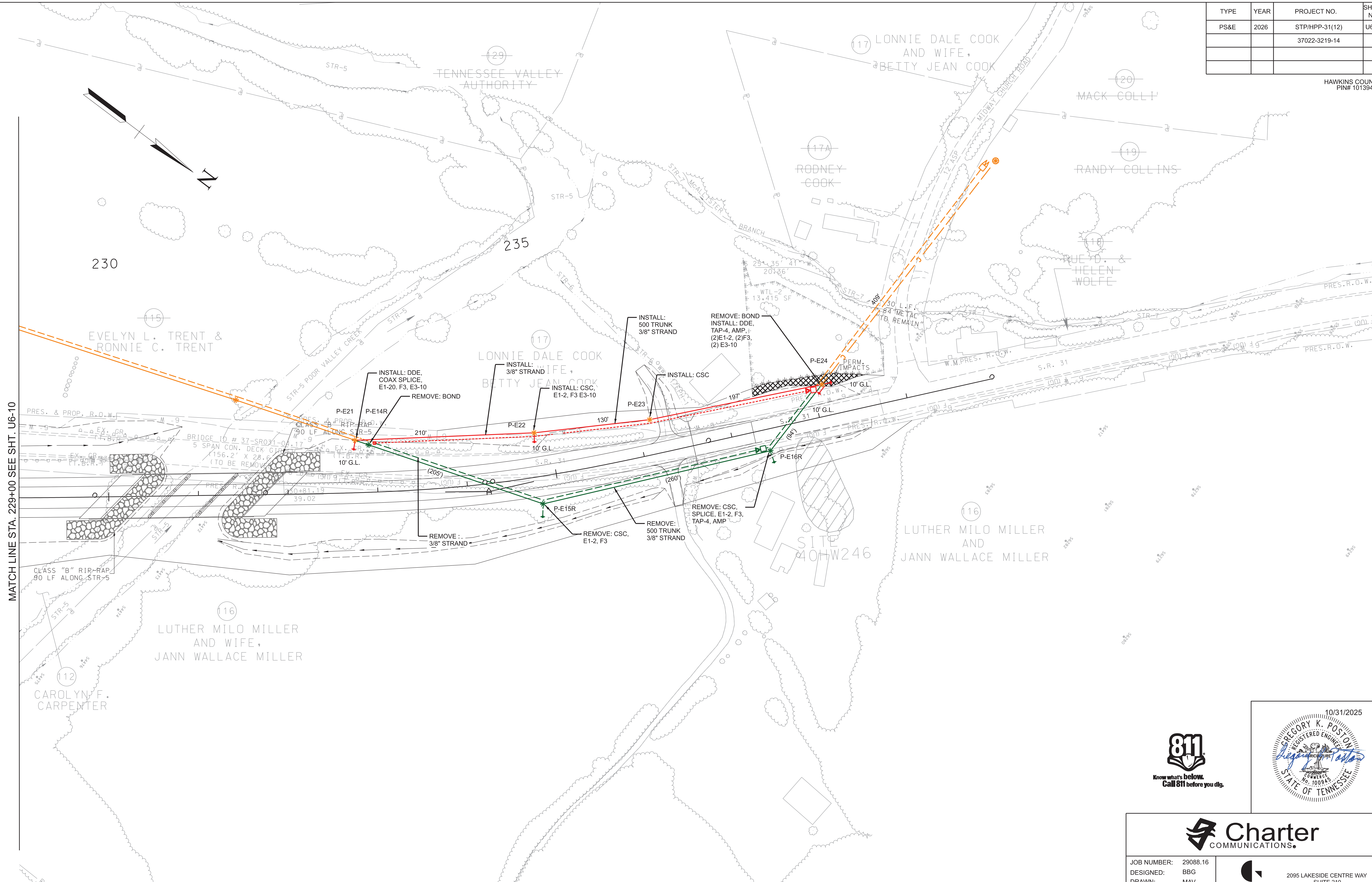
SCALE	DATE
1"=50'	10.31.25

Gresham Smith
2095 LAKESIDE CENTRE WAY
SUITE 210
KNOXVILLE, TENNESSEE 37922
(865) 521-6777 (866) 539-7192

COMMUNICATION RELOCATION
STA. 218+99 TO STA. 229+00

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U6-11
		37022-3219-14	

HAWKINS COUNTY
PIN# 101394.00



811
Know what's below. Call 811 before you dig.

10/31/2025
GREGORY K. POSTON
REGISTERED ENGINEER
No. 100945
STATE OF TENNESSEE

Charter COMMUNICATIONS

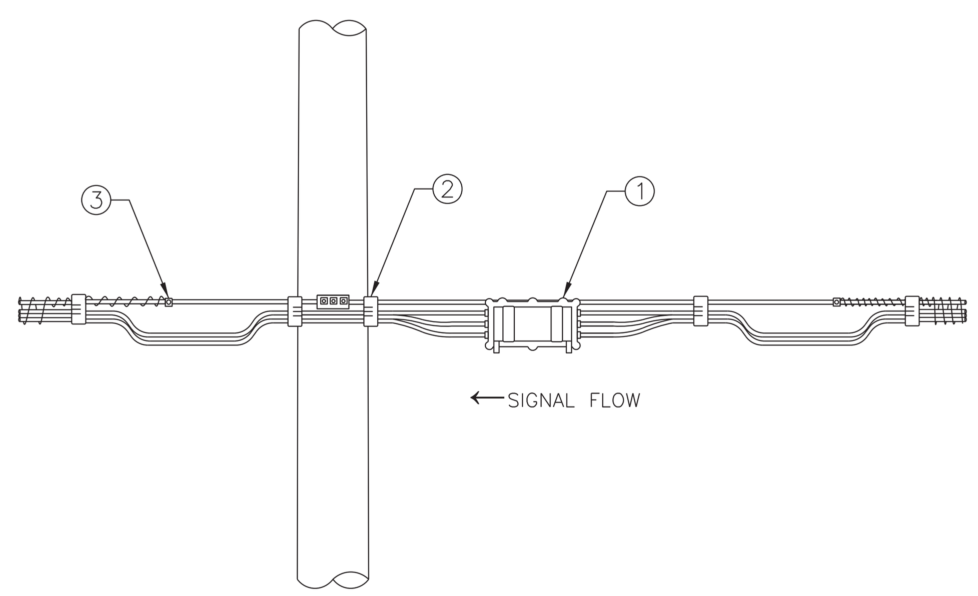
JOB NUMBER:	29088.16
DESIGNED:	BBG
DRAWN:	MAV
CHECKED:	JEB
SCALE	DATE
1"=50'	10.31.25

Gresham Smith
2095 LAKESIDE CENTRE WAY
SUITE 210
KNOXVILLE, TENNESSEE 37922
(865) 521-6777 (866) 539-7192

COMMUNICATION RELOCATION
STA. 229+00 TO STA. 239+98

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U6-12
		37022-3219-14	

HAWKINS COUNTY
PIN# 101394.00



NOTE:

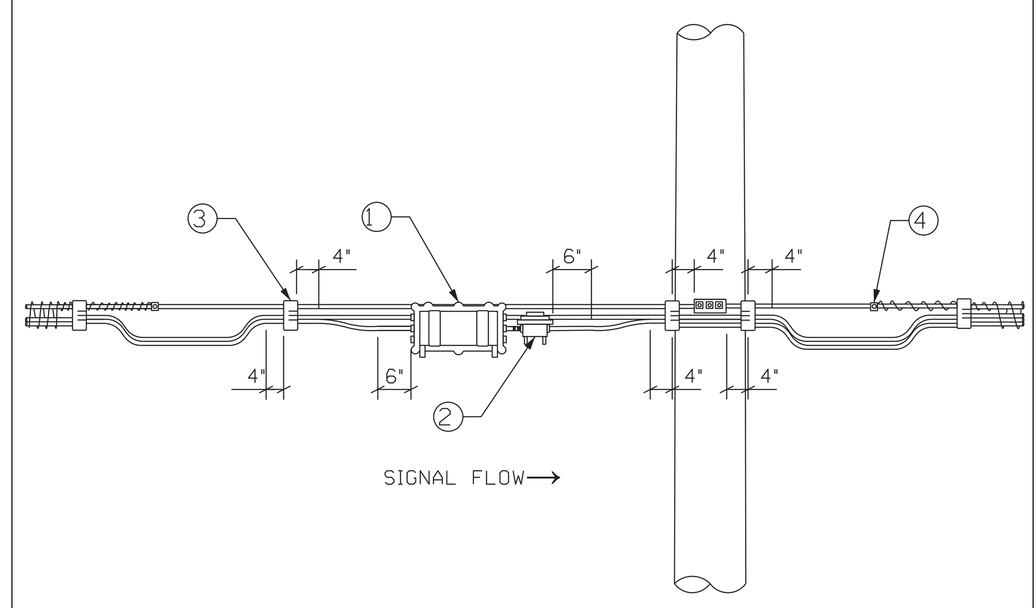
1. ALL MEASUREMENTS ARE MINIMUM REQUIRED.

ID	QTY.	DESCRIPTION
1	1	TRUNK/DISTRIBUTION AMPLIFIER
2	5	AERIAL SUPPORT TIES (SIZE AS REQUIRED)
3	2	CABLE LASHING CLAMPS

INSTALLATION OF TRUNK AND DISTRIBUTION AMP

ASSEMBLY

AMP



NOTES:

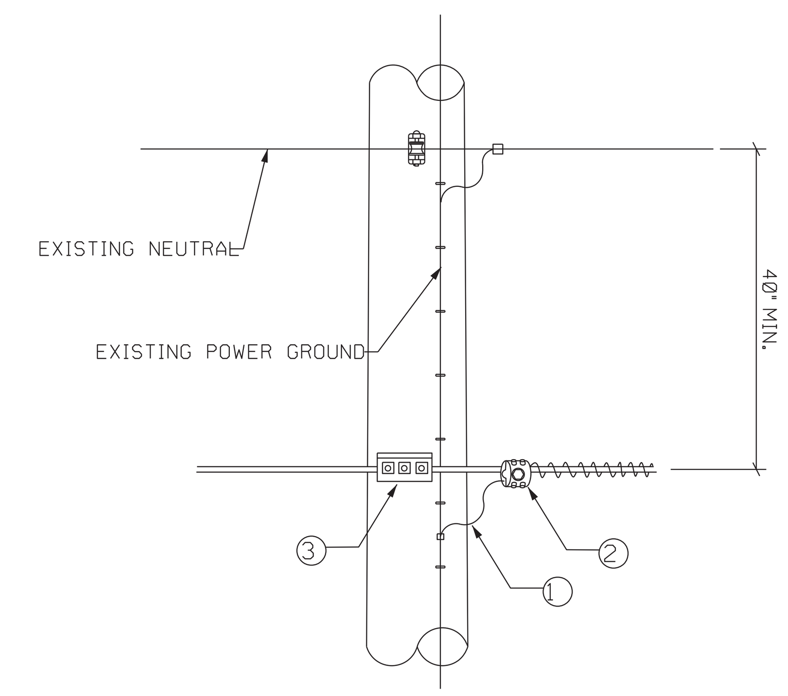
1. FEEDER CABLE MUST FOLLOW TRUNK LOOP PLACEMENT WHEN BOTH ARE IN THE SAME RUN.
2. LASHING WIRE AROUND STRAND ONLY; ALL STRAPS MUST BE LOOSELY PLACED AROUND CABLE.

ID	QTY.	DESCRIPTION
1	1	TRUNK / DISTRIBUTION AMPLIFIER
2	1	2, 4, OR 8-WAY BODY TAP
3	5	AERIAL SUPPORT TIES (SIZE AS REQUIRED)
4	2	CABLE LASHING CLAMPS

AMP AND TAP INSTALLATION

ASSEMBLY

AMPTAP



NOTES:

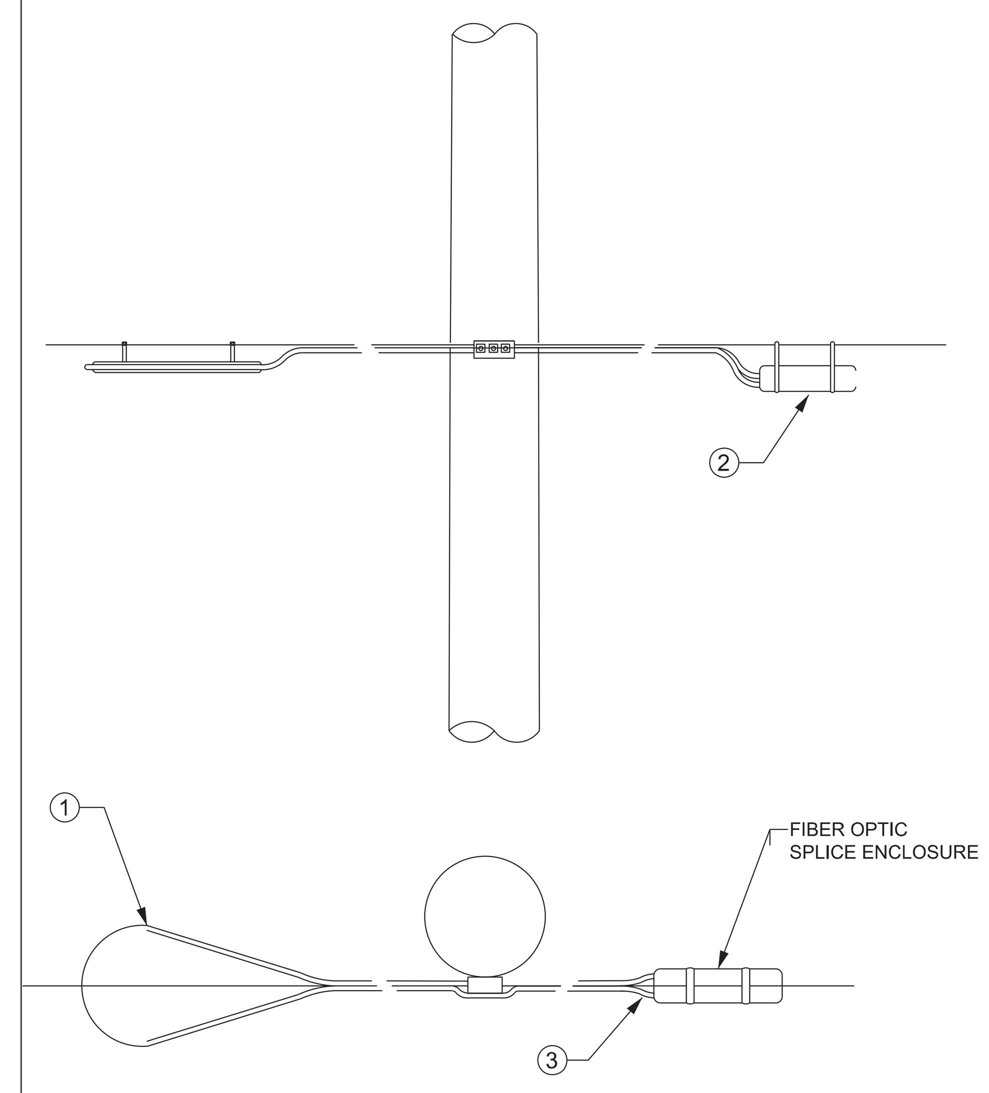
1. BOND AT EVERY GROUND, EXCEPT FOR AMPLIFIER AND LINE EXTENDER LOCATIONS.
2. GROUND WIRE MUST NOT EXTEND OUT OF THE END OF THE K-1 BONDING CLAMP.

ID	QTY.	DESCRIPTION
1	AS REQ'D	#6 GROUND WIRE (LENGTH AS REQUIRED)
2	1	K-1 BONDING CLAMP
3	1	3-BOLT SUSPENSION CLAMP ASSEMBLY

STRAIGHT LINE CONSTRUCTION WITH BOND

ASSEMBLY

BOND



NOTES:

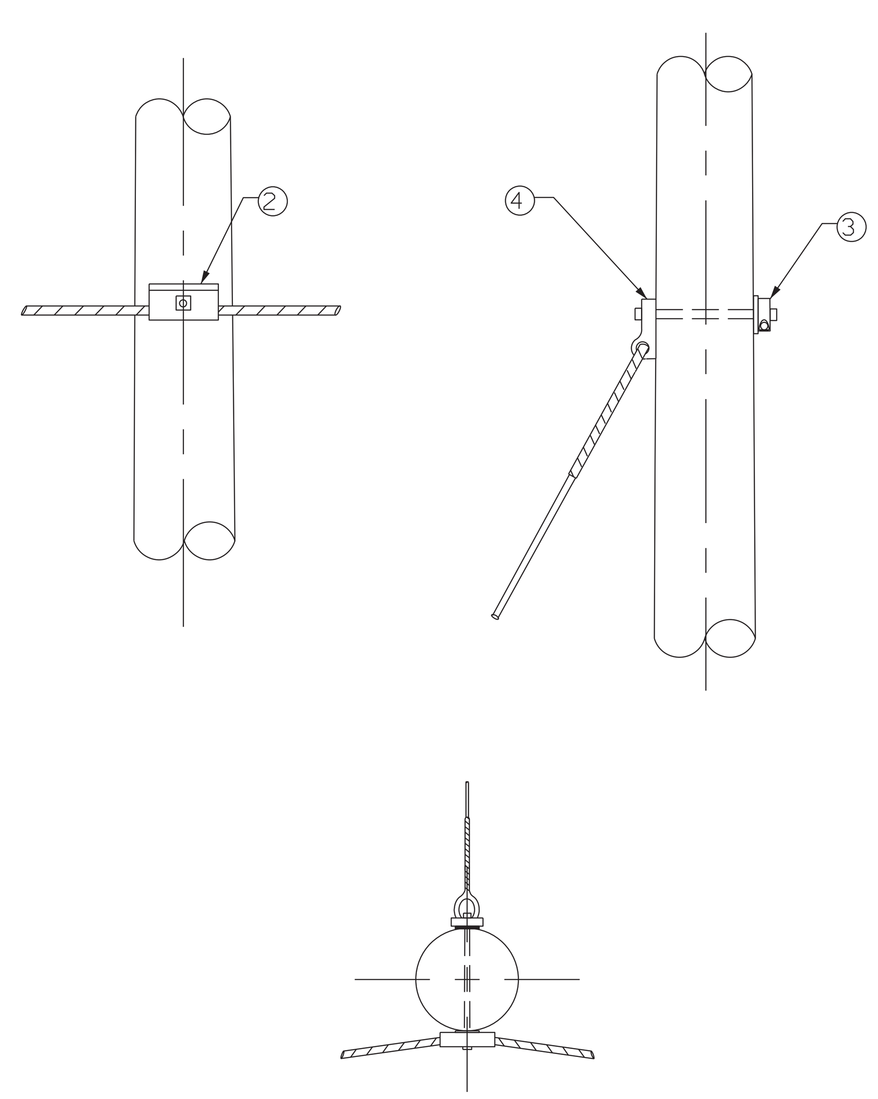
1. FIBEROPTIC STRAND STORAGE IS ANTEC* FIBERLOOP* MODEL FOSS-2.
2. STRAND STORAGE IS TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.

ID	QTY.	DESCRIPTION
1	1	ANTEC FIBERLOOP MODEL FOSS-2
2	1	FIBEROPTIC SPLICE ENCLOSURE
3	1	FIBER (LENGTH AND SIZE AS REQUIRED)

FIBEROPTIC STRAND STORAGE

ASSEMBLY

FOSS

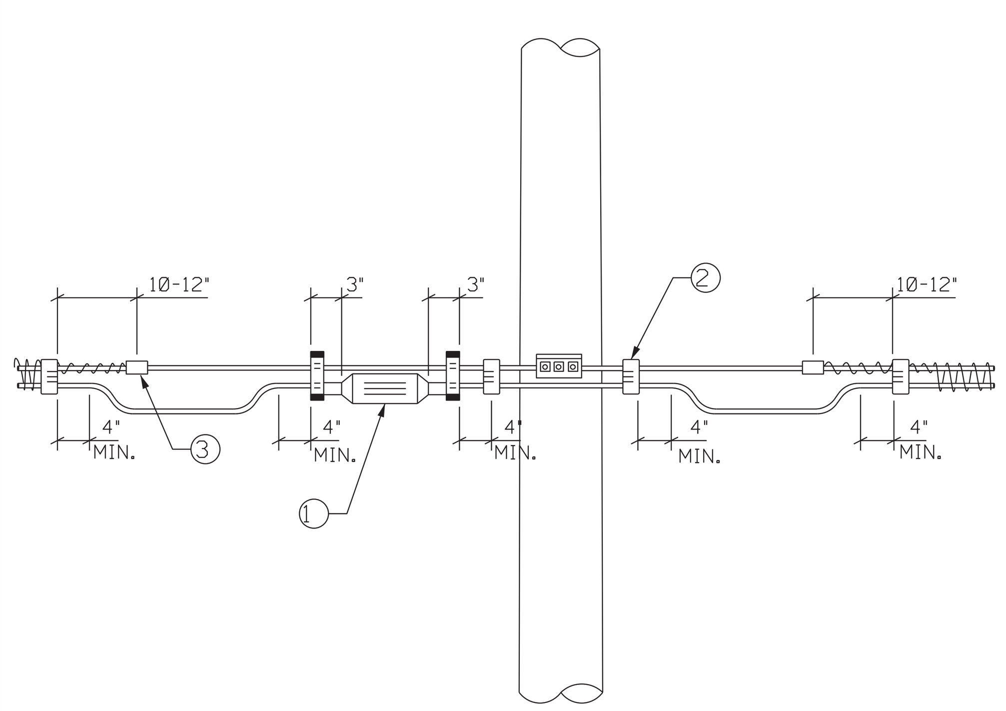


ID	QTY.	DESCRIPTION
1	2	2-1/4" SQUARE FLAT WASHER
2	1	CURVED SUSPENSION CLAMP
3	1	5/8" X REQ'D LENGTH MACHINE BOLT W/ LOCKNUT
4	1	GUYING BRACKET

CURVED CABLE SUSPENSION CLAMP

ASSEMBLY

CSC



NOTE:

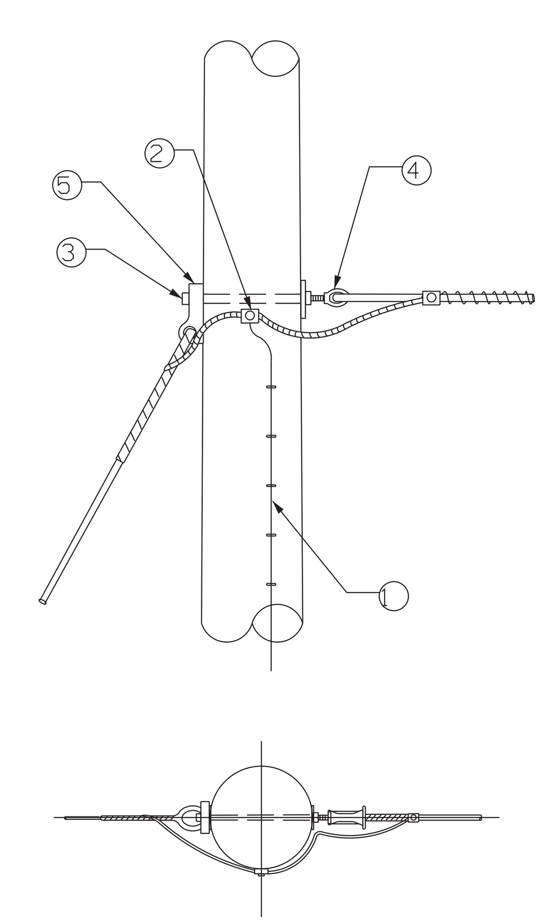
1. DIRECTIONAL COUPLER TO BE SUSPENDED BY TAP BRACKET IF ON STRAND THAT HAS FIBER OR ANOTHER CABLE LASHED TO STRAND AT THE SAME LOCATION.

ID	QTY.	DESCRIPTION
1	1	DIRECTIONAL COUPLER
2	4	AERIAL SUPPORT TIES (SIZE AS REQUIRED)
3	2	CABLE LASHING CLAMPS

DIRECTIONAL COUPLER

ASSEMBLY

DC



NOTES:

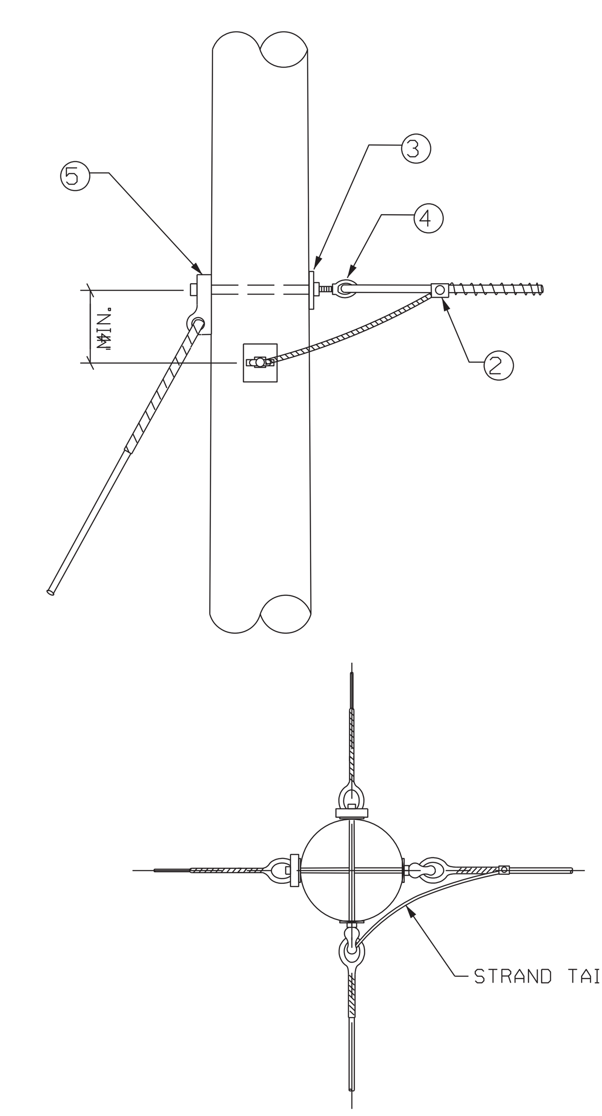
1. BOND NEW #4 CU. GROUND TO EXISTING GROUND. IF NO GROUND EXISTS, INSTALL #4 CU. GROUND WITH 5/8" X 8' GROUND ROD AND 5/8" GROUND ROD CLAMP.
2. PREFORMED DEADEND MUST BE PROPER OVAL SHAPE AND FIT COMPLETELY INTO GUY STRAP.
3. GROUND WIRE MUST NOT EXTEND OUT OF THE END OF THE K-1 BONDING CLAMP.
4. IF BOND BETWEEN STRAND AND DOWN GUY IS REQUIRED BY SPECIFIC LOCAL INTERPRETATION, USE GUY TAIL AND K-2 BONDING CLAMP.

ID	QTY.	DESCRIPTION
1	AS REQ'D	#4 CU. GROUND WIRE (LENGTH AS REQUIRED)
2	3	K-1 BONDING CLAMP
3	1	5/8" x REQUIRED LENGTH MACHINE BOLT W/ LOCKNUT
4	1	THIMBLEYE NUT
5	1	GUYING BRACKET

STRAND DEADEND

ASSEMBLY

DE



NOTES:

1. PREFORMED DEADEND MUST BE PROPER OVAL SHAPE AND FIT COMPLETELY INTO GUY STRAP.
2. IF BOND BETWEEN STRAND AND DOWN GUY IS REQUIRED BY SPECIFIC LOCAL INTERPRETATION, USE GUY TAIL AND K-2 BONDING CLAMP.

ID	QTY.	DESCRIPTION
1	AS REQ'D	#4 CU. GROUND WIRE (LENGTH AS REQUIRED)
2	1	K-2 BONDING CLAMP
3	2	5/8" x REQUIRED LENGTH MACHINE BOLT W/ LOCKNUT
4	2	THIMBLEYE NUT
5	2	GUYING BRACKET

DOUBLE DEADEND

ASSEMBLY

DDE

10/31/2025

GREGORY K. POSTON
REGISTERED ENGINEER
AGRICULTURE COMMERCE
No. 100945
STATE OF TENNESSEE

Charter
COMMUNICATIONS.

JOB NUMBER:	29088.16
DESIGNED:	BBG
DRAWN:	MAV
CHECKED:	JEB

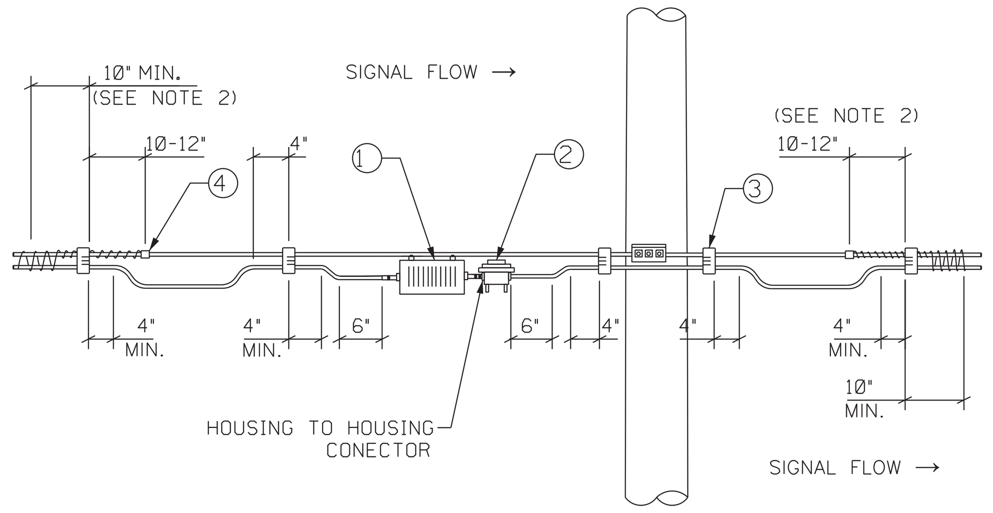
SCALE	DATE
NONE	10.31.25

Gresham Smith
2095 LAKESIDE CENTRE WAY
SUITE 210
KNOXVILLE, TENNESSEE 37922
(865) 521-6777 (866) 539-7192

COMMUNICATION RELOCATION
CONSTRUCTION DETAILS

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2026	STP/HPP-31(12)	U6-13
		37022-3219-14	

HAWKINS COUNTY
PIN# 101394.00

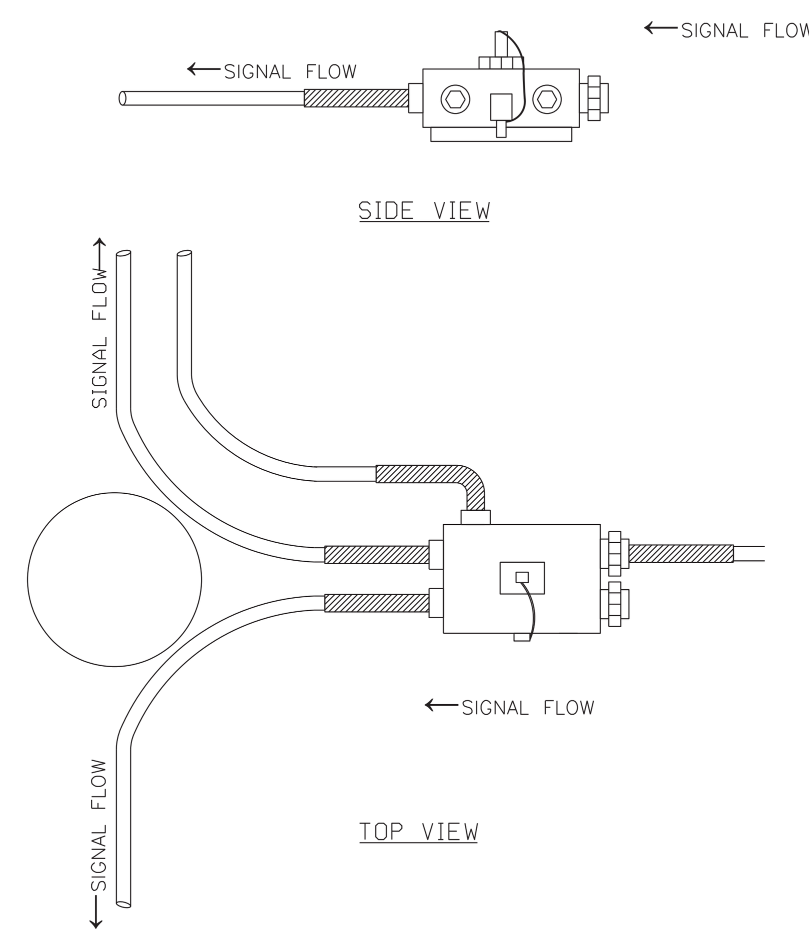


NOTES:

1. FEEDER CABLE MUST FOLLOW TRUNK LOOP PLACEMENT WHEN BOTH ARE IN THE SAME RUN.
2. LASHING WIRE AROUND STRAND ONLY: ALL STRAPS MUST BE LOOSELY PLACED AROUND CABLE.

ID	QTY.	DESCRIPTION
1	1	LINE EXTENDER (SIZE AS REQUIRED)
2	1	2, 4, OR 8-WAY BODY TAP
3	5	AERIAL SUPPORT STRAPS (SIZE AS REQUIRED)
4	2	CABLE LASHING CLAMPS

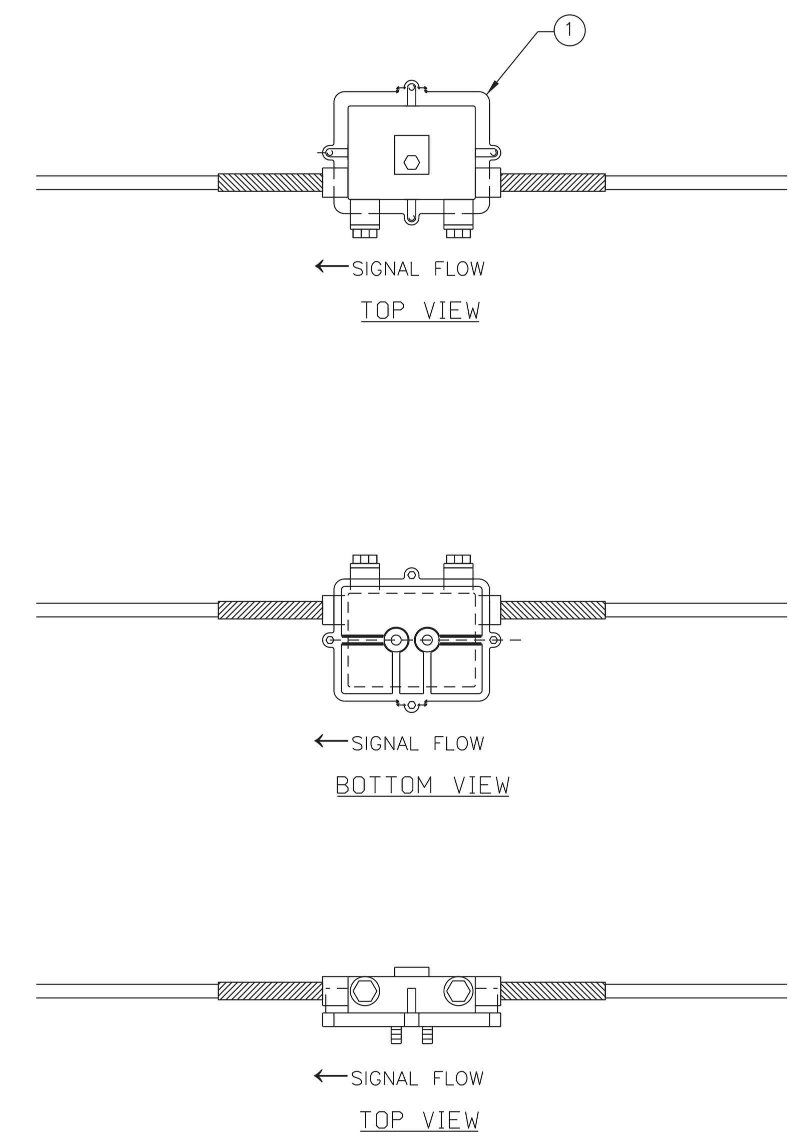
LINE EXTENDER AND TAP INSTALLATION — ASSEMBLY: LXTAP



NOTE:

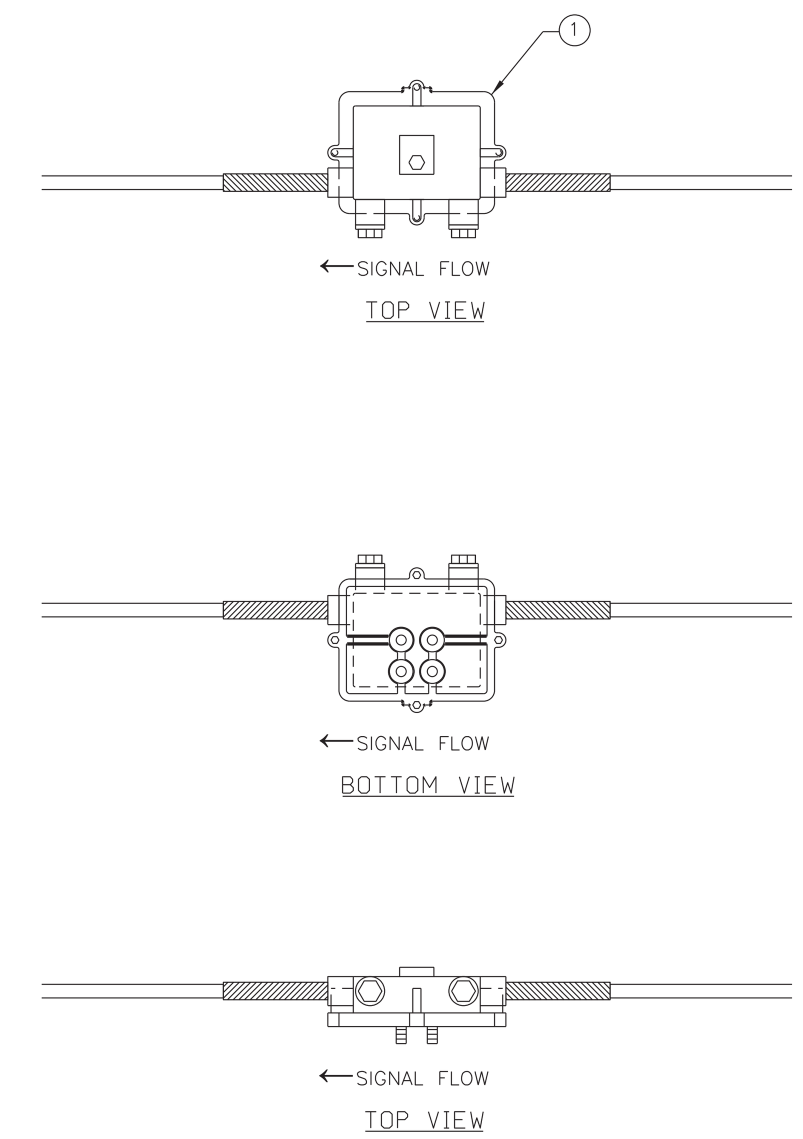
1. CABLE AND STRAND WILL FOLLOW SUCH A ROUTE AS TO NOT BOX IN THE POLE.

3-WAY SPLITTER — ASSEMBLY: SPLIT-3



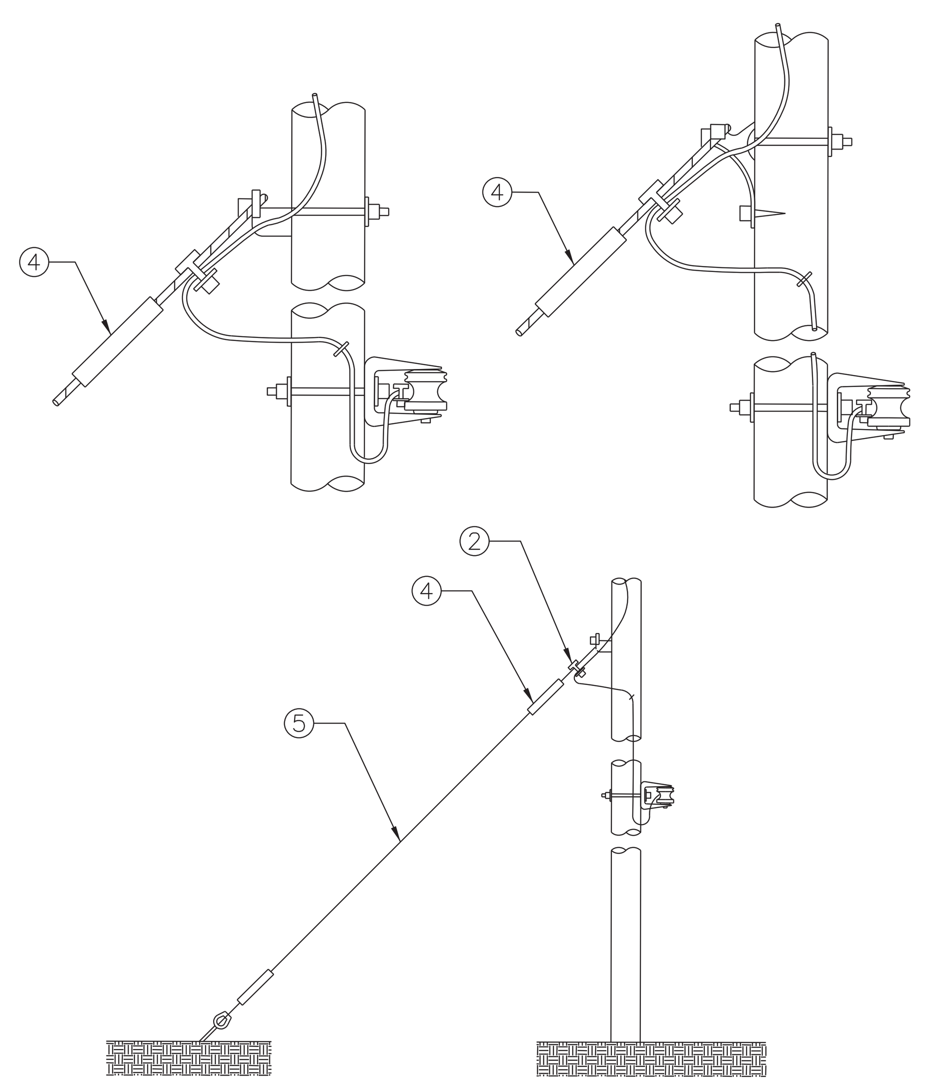
ID	QTY.	DESCRIPTION
1	1	2-WAY BODY TAP

2-WAY TAP — ASSEMBLY: TAP-2



ID	QTY.	DESCRIPTION
1	1	4-WAY BODY TAP

4-WAY TAP — ASSEMBLY: TAP-4

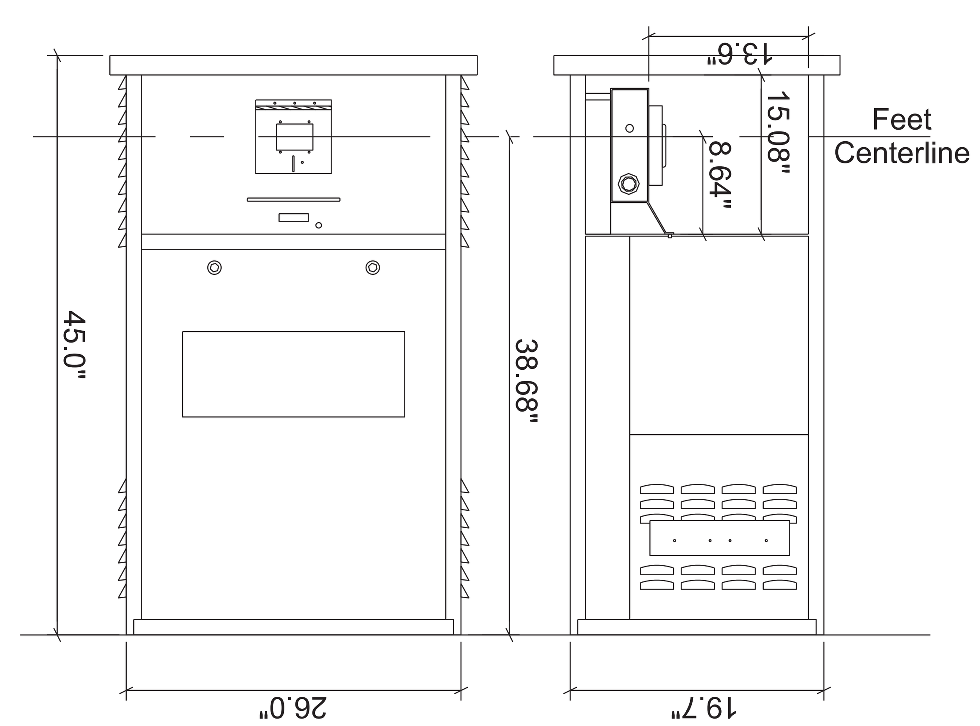


NOTES:

1. GCC15-S4R GUY INSULATOR INCLUDED FOR STEEL POLE ASSEMBLIES.
2. ALL GUY LEAD LENGTHS SHALL BE SET USING A 2:1 RATIO TO THE HEIGHT OF THE POLE UNLESS NOTED OTHERWISE.

ID	QTY.	DESCRIPTION
1	1	POLE EYE ATTACHMENT #MGA-345N
2	1	GUY CLAMPS 3 BOLT
3	1	DEAD END GUY GRIP 3/8"
4	1	GUY FIBERGLASS STRAIN INSULATOR
5	1	GUY WIRE (LENGTH AS REQUIRED)

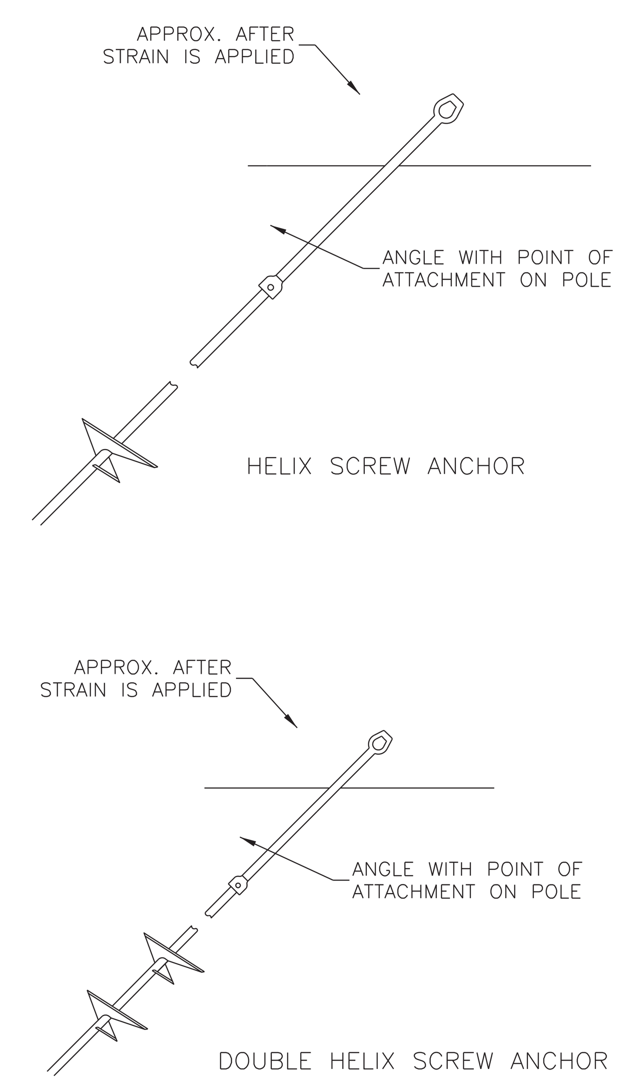
DOWN GUY 3/8"
THRU BOLT TYPE — ASSEMBLY: E1-2



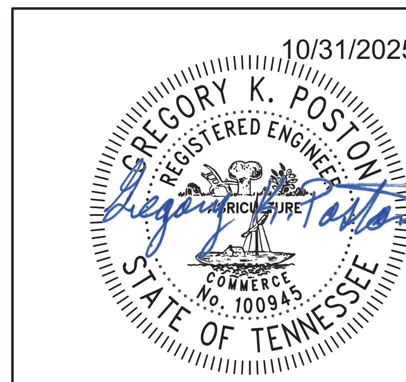
NOTES:

1. POWER SUPPLY IS ALPHA TECHNOLOGIES MODEL UPE-M3 ENCLOSURE.
2. POWER SUPPLY IS TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.

POWER SUPPLY — ASSEMBLY: POWER SUPPLY



POWER INSTALLED 8"
HELIX SCREW ANCHORS — ASSEMBLY: F2 & F3



Charter
COMMUNICATIONS.

JOB NUMBER:	29088.16
DESIGNED:	BBG
DRAWN:	MAV
CHECKED:	JEB

SCALE	DATE
NONE	10.31.25

Gresham Smith
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COMMUNICATION RELOCATION
CONSTRUCTION DETAILS