THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Luke Sullivan Digitally signed by Luke Sullivan
Date: 2025.04.02 09:22:00 -05'00'

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NEEL-SCHAFFER, INC.
201 EAST MAIN STREET
SUITE 325
MURFREESBORO, TENNESSEE 37130
LUCAS R. SULLIVAN, P.E. NO. 116284

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 SHEETS	ROADWAY-SIGN1
TITLE SHEET	1
ROADWAY INDEX AND STANDARD ROADWAY DRAWINGS	1A
STANDARD ROADWAY DRAWINGS	1A1
STANDARD TRAFFIC OPERATIONS AND STRUCTURE DRAWINGS	1A2
ESTIMATED ROADWAY QUANTITIES	2 – 2-1
TYPICAL SECTIONS AND PAVEMENT SCHEDULE	2B – 2B2
GENERAL NOTES	2C, 2C1
SPECIAL NOTES	2D
ENVIRONMENTAL NOTES	2E
TABULATED QUANTITIES	2F, 2F1
RIGHT-OF-WAY NOTES, UTILITY NOTES, AND UTILITY OWNERS	3
PROPERTY MAP AND RIGHT-OF-WAY ACQUISITION TABLE	3A
PRESENT LAYOUTS	4 – 6
RIGHT-OF-WAY DETAILS	4A – 6A
PROPOSED LAYOUTS	4B – 6B
RAMP PROFILES	7 – 10
SIDE ROADS PROFILES	11 – 12
DRAINAGE MAPS	13
CULVERT SECTIONS	14 – 15
EROSION PREVENTION AND SEDIMENT CONTROL NOTES	16
EROSION PREVENTION AND SEDIMENT CONTROL LEGEND AND TABULATION	17
EROSION PREVENTION AND SEDIMENT CONTROL PLANS	18 – 21B
SIGNING AND PAVEMENT MARKING PLANS	22 – 24
SIGN SCHEDULE SHEETS	25 – 25A
OVERHEAD SIGN STRUCTURE DETAILS	26 – 26B
ROADWAY CROSS SECTIONS	27 – 64
TRAFFIC CONTROL PLANS	T-1 – T4B

YEAR	PROJECT NO.	SHEET NO.
2025	HSIP-I-24-1(118)	ROADWAY-SIGN1

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNATURE SHEET

THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Luke Sullivan Digitally signed by Luke Sullivan
Date: 2025.05.22 19:56:34 -05'00'

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201 EAST MAIN STREET
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LUCAS R. SULLIVAN, P.E. NO. 116284

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 SHEETS	ROADWAY-SIGN2
ROADWAY INDEX AND STANDARD ROADWAY DRAWINGS	1A
ESTIMATED ROADWAY QUANTITIES	2
TRAFFIC CONTROL PHASING NOTES, LEGEND, AND TABULATION	T-2

YEAR	PROJECT NO.	SHEET NO.
2025	HSIP-I-24-1(118)	ROADWAY-SIGN2

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNATURE SHEET

SHEET INDEX
SEE SHEET NO. 1A

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING

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

TENN.	YEAR	SHEET NO.
	2025	1
FED. AID PROJ. NO.	HSIP-I-24-1(118)	
STATE PROJ. NO.	75100-3111-94	

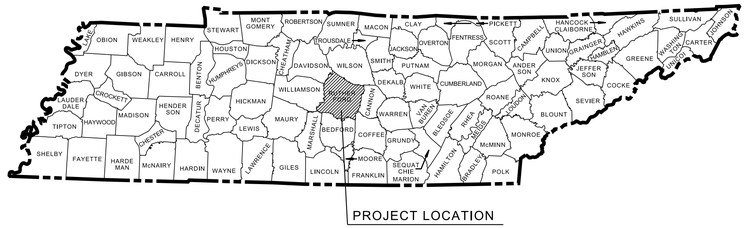
RUTHERFORD COUNTY

INTERSTATE 24
INTERCHANGE AT
MEDICAL CENTER PARKWAY

PLANS, SPECIFICATIONS, AND ESTIMATE (P. S. & E.)

RAMP IMPROVEMENTS (PAVE, DRAIN, LIGHTING, RETAINING WALLS, SIGNALS)

STATE HIGHWAY NO. I-24 F.A.H.S. NO. 24

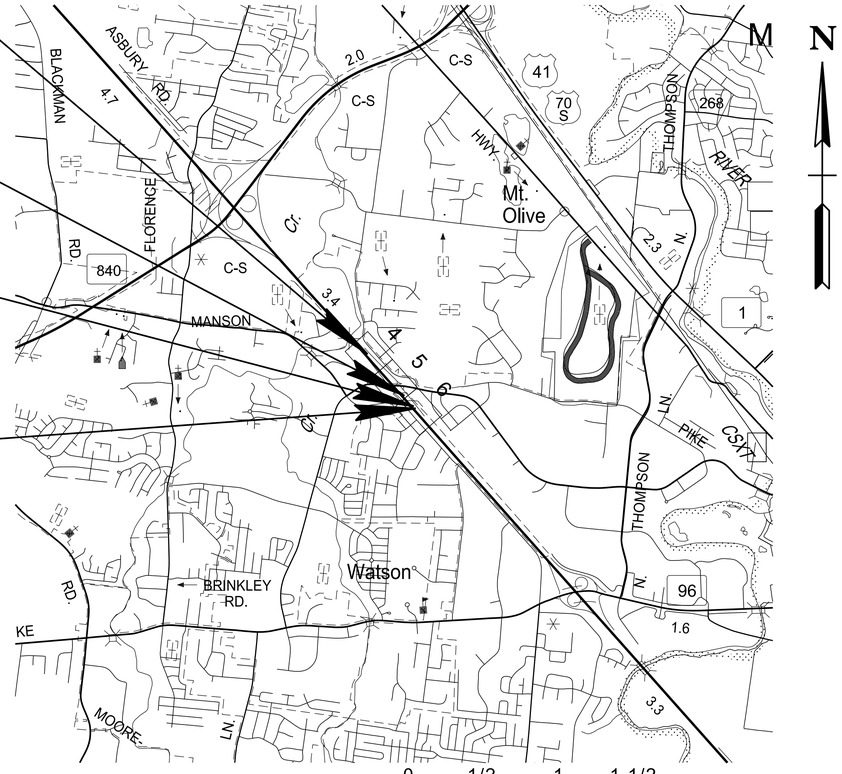


75100-3111-94
BEGIN PROJECT NO. HSIP-I-24-1(118) CONSTRUCTION
STA. 1299+89.00 INTERSTATE 24
N. 559,823.3384 E. 1,832,201.8909

75100-2111-94
BEGIN PROJECT NO. HSIP-I-24-1(118) R.O.W.
STA. 1319+22.00 INTERSTATE 24 L.M. 13.133
N. 558,377.1555 E. 1,833,484.4811

75100-2111-94
END PROJECT NO. HSIP-I-24-1(118) R.O.W.
STA. 1324+14.14 INTERSTATE 24 L.M. 13.245
N 558,008.9627 E 1,833,811.0238

75100-3111-94
END PROJECT NO. HSIP-I-24-1(118) CONSTRUCTION
STA. 1327+10.00 INTERSTATE 24
N 557,787.6077 E 1,834,007.3391



SCALE: 1" = 1/2 MI.

NO EXCLUSIONS

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.

R.O.W. LENGTH	0.093 MILES
ROADWAY LENGTH	0.515 MILES
PROJECT LENGTH	0.515 MILES

DESIGNED BY : NEEL-SCHAFFER, INC.
DESIGNER : LUCAS R. SULLIVAN, P.E. CHECKED BY MICHAEL A. BIGGS, P.E.
P.E. NO. 75100-1111-94 (DESIGN)
PIN NO. 125463.00

SEALED BY
LUCAS R. SULLIVAN
REGISTERED ENGINEER
AGRICULTURE
NOVEMBER 25, 2002
STATE OF TENNESSEE

APPROVED:
WILL REID, DEPUTY COMMISSIONER / CHIEF ENGINEER
DATE:

APPROVED:
HOWARD H. ELEY, DEPUTY GOVERNOR & COMMISSIONER

MEDICAL CENTER PKWY.

SURVEY 2020-06-25	TRAFFIC DATA	
UPDATE 2025-02-10	A.D.T. (2017)	36,730
UPDATE 2025-02-11	A.D.T. (2022)	44,830
	D.H.V. (2022)	4,804
	D	52 - 48
	T (A.D.T.)	1%
	T (D.H.V.)	2%
	V	40 M.P.H.

COORDINATES ARE N.A.D. 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00008 AND TIED TO THE T.G.R.N. ALL ELEVATIONS ARE REFERENCED TO THE N.A.V.D. 1988 WITH GEOID 03.

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED:
DIVISION ADMINISTRATOR DATE

3/31/2025 11:24:00 AM
Y:\Projects\0010000\0014000\14285 TDOT Roadway 2017-2020\WO #19- I-24 Ramp Queue Rutherford Co\01\Dgn\125463-00-PS&E\001.sht

ROADWAY INDEX

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

NO PROJECT COMMITMENTS SHEET INCLUDED IN THIS SET OF PLANS

STANDARD ROADWAY DRAWINGS

10-100.00 STANDARD ROADWAY TITLE SHEET, ABBREVIATIONS, AND LEGENDS

DWG.	REV.	DESCRIPTION
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

10-101.00 ROADWAY DESIGN STANDARDS

DWG.	REV.	DESCRIPTION
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-SE-3		SUPERELEVATION TRANSITION DETAILS FOR DIVIDED ROADWAYS
RD11-SE-3A		SUPERELEVATION TRANSITION SECTIONS FOR DIVIDED ROADWAYS
RD11-TS-3B		DESIGN STANDARDS FOR ARTERIAL HIGHWAYS WITH FLUSH MEDIAN (4 AND 6 LANE)
RD11-TS-4	10-01-24	DESIGN STANDARDS FOR ARTERIAL AND FREEWAY RAMPS (1, 2 AND 3 LANE)
RD11-TS-5B		DESIGN STANDARDS FOR FREEWAYS WITH MEDIAN BARRIER (4 AND 6 LANE)
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-LR-1		MINIMUM RUNOFF LENGTHS (LR) FOR URBAN HIGHWAYS
RD11-S-11		DESIGN AND CONSTRUCTION DETAILS FOR ROADSIDE SLOPE DEVELOPMENT
RD11-S-11A		ROADSIDE DITCH DETAILS FOR DESIGN AND CONSTRUCTION
RD11-SD-1		INTERSECTION SIGHT DISTANCE DESIGN AND GENERAL NOTES
RD11-SD-2		INTERSECTION SIGHT DISTANCE LANDSCAPE AND OBSTRUCTION
RD11-SD-4		INTERSECTION SIGHT DISTANCE 4-LANE AND 5-LANE UNDIVIDED ROADWAYS
RD-UD-3	01-09-24	UNDERDRAIN DETAILS
RD-UD-4	06-28-19	UNDERDRAIN LATERAL DETAILS
RD-UD-9	06-28-19	LATERAL UNDERDRAIN ENDWALL DETAIL FOR 6:1 SLOPES

10-102.00 PIPE CULVERTS AND ENDWALLS

DWG.	REV.	DESCRIPTION
D-PB-1	03-01-23	STANDARD DETAILS FOR CONCRETE PIPE INSTALLATION
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-4	06-28-19	STRAIGHT CONCRETE ENDWALLS (PIPE SIZES 18" TO 30")

10-103.00 CATCH BASINS AND MANHOLES

DWG.	REV.	DESCRIPTION
D-CB-DI		ALTERNATE CATCH BASIN DROP INLET DETAILS
D-CB-12P	02-20-20	STANDARD PRECAST RECTANGULAR CONCRETE NO.12 CATCH BASIN

10-105.00 ROADWAY, PAVEMENT APPURTENANCES, AND FENCES

DWG.	REV.	DESCRIPTION
RP-CS-1	05-01-20	CONCRETE SHOULDER RUMBLE STRIP DETAIL (FOR 4-LANE DIVIDED HIGHWAY)
RP-CS-2	05-01-20	CONCRETE SHOULDER RUMBLE STRIP DETAIL (FOR 6-LANE OR WIDER DIVIDED HIGHWAY)
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-5	05-01-20	TYPICAL ACCELERATION AND DECELERATION LANE JOINT TYPES AND SPACING FOR CONCRETE RAMPS
RP-J-7	05-01-20	CONCRETE RAMP 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	06-15-21	DETAILS OF STANDARD CONCRETE DRIVEWAYS
RP-D-16	10-29-21	DETAILS OF LOWERED STANDARD CONCRETE DRIVEWAYS
RP-VC-11	03-04-21	VERTICAL CONCRETE CURB AND CURB AND GUTTER (FOR 6” & 7” GUTTER DEPTH)
W-MSE-1	05-01-20	ROADWAY FEATURES FOR MSE SEGMENTAL PRECAST FACING RETAINING WALL
S-F-1	03-01-23	HIGH VISIBILITY FENCE
S-F-10B	06-28-19	STANDARD RIGHT-OF-WAY CHAIN LINK FENCE
S-F-10D	06-28-19	RIGHT-OF-WAY FENCE LOCATIONS AT INTERCHANGES
S-RP-2	06-28-19	STANDARD CONCRETE RIGHT-OF-WAY MARKERS

TYPE	YEAR	PROJECT NO.	SHEET NO.
P. S. & E.	2025	HSIP-I-24-1(118)	1A

REV. 2025-05-15: ADDED ROADWAY-SIGN2 TO ROADWAY INDEX.

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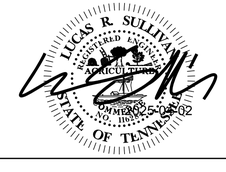

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ROADWAY INDEX AND STANDARD ROADWAY DRAWINGS

5/20/2025 9:03:07 PM
Y:\Projects\001000\001400\114285 TDOT Roadway 2017-2020\WO #19- I-24 Ramp Queue Rutherford Co\01\Dgn\125463-00-PS&E\001A.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
P. S. & E.	2025	HSIP-I-24-1(118)	1A1

10-106.00 MULTIMODAL

MM-CR-1	06-28-19	DETECTABLE WARNING SURFACE PLACEMENT ON CURB RAMPS
MM-CR-2		PERPENDICULAR CURB RAMP
MM-CR-3		PARALLEL CURB RAMP
MM-SW-1	07-07-23	DETAILS FOR CONCRETE SIDEWALKS
MM-SW-2		ALTERNATE DETAILS FOR CONCRETE SIDEWALK (REHABILITATION)

10-107.00 SAFETY DESIGN AND GUARDRAILS

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-3	03-01-23	SAFETY PLAN MINIMUM INSTALLATION AT BRIDGE ENDS
S-PL-6	07-30-24	SAFETY PLAN SAFETY HARDWARE PLACEMENT ON OUTSIDE EDGE
S-GR31-1	06-15-21	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	01-30-25	GUARDRAIL CONNECTION TO BRIDGE RAILING CONCRETE PARAPET
S-GRC-5	02-28-20	GUARDRAIL CONNECTION TO BRIDGE ENDS (TRAILING ENDS)
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-GRA-1A	06-28-19	GUARDRAIL ANCHOR FOR TYPE 12 TERMINAL (ALTERNATIVE)
S-SSMB-6C		SINGLE GUARDRAIL ATTACHMENT TO SINGLE SLOPE 36" BARRIER WALL
S-SSMB-6D		51" CONCRETE SINGLE SLOPE BARRIER WALL FOR ATTACHING GUARDRAIL
S-SSMB-6E		DUAL GUARDRAIL ATTACHMENT TO SINGLE SLOPE 51" BARRIER WALL
S-SSMB-6F		SINGLE GUARDRAIL ATTACHMENT TO SINGLE SLOPE 51" BARRIER WALL
S-SSMB-7	05-01-20	FOOTING DETAILS FOR OVERHEAD SIGN STRUCTURE 32" MEDIAN BARRIER WALL
S-SSMB-8	05-01-20	FOOTING DETAILS FOR OVERHEAD SIGN STRUCTURE 51" MEDIAN BARRIER WALL
S-SSMB-9	10-29-21	SINGLE SLOPE BARRIER WALL FOR GRADE SEPARATED MEDIAN
S-GR28-1M	06-15-21	W-BEAM & THRIE BEAM BARRIER RAIL AND RUB RAIL DETAILS
S-GR28-2M	06-28-19	GUARDRAIL HARDWARE DETAILS
S-GR28-5M	06-28-19	MEDIAN DIVIDER GUARDRAIL
S-GR28-6M	10-29-21	GUARDRAIL ATTACHMENT TO CONCRETE DECKS
S-GRC-1M		GUARDRAIL CONNECTION TO BRIDGE ENDS OR BARRIER WALL
S-GRC-3M		MEDIAN DIVIDER GUARDRAIL TRANSITION TO CONCRETE MEDIAN BARRIER
S-SSMB-6M		GUARDRAIL ATTACHMENT TO EXISTING SINGLE SLOPE CONCRETE BARRIER WALL

10-108.00 DESIGN - TRAFFIC CONTROL

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-5	01-24-25	MARKING DETAIL FOR EXPRESSWAY AND FREEWAYS
T-M-6	01-24-25	MARKING DETAIL FOR EXPRESSWAY AND FREEWAY INTERCHANGES
T-M-7	01-24-25	GORE MARKING DETAILS FOR EXPRESSWAY & FREEWAY INTERCHANGES
T-M-8	01-24-25	MARKING DETAILS FOR EXPRESSWAYS & FREEWAYS
T-M-9	01-24-25	PAVEMENT MARKING AND SIGNING DETAILS FOR RAMP INTERSECTIONS
T-M-15	01-24-25	ASPHALT SHOULDER RUMBLE STRIP INSTALLATION DETAILS FOR INTERSTATE AND ACCESS CONTROLLED ROUTES
T-M-18	01-24-25	FLEXIBLE DELINEATOR DETAILS
T-M-18A	01-24-25	DELINEATOR MOUNTING DETAILS
T-WZ-10	04-02-12	ADVANCE ROAD WORK SIGNING ON HIGHWAYS AND FREEWAYS
T-WZ-14	03-04-21	TWO-OUTSIDE LANE CLOSURE FOR INTERSTATES AND EXPRESSWAYS
T-WZ-16	07-30-24	LANE SHIFT FOR DIVIDED HIGHWAYS AND FREEWAYS
T-WZ-18	07-07-23	SHOULDER CLOSURE DETAIL FOR FREEWAYS AND DIVIDED HIGHWAYS
T-WZ-40	03-05-17	RIGHT LANE CLOSURES AT NEAR SIDE OF INTERSECTIONS
T-WZ-41	03-05-17	LEFT LANE CLOSURES AT NEAR SIDE OF INTERSECTIONS
T-WZ-42	03-05-17	CENTER LANE CLOSURES AT NEAR SIDE OF INTERSECTIONS
T-WZ-55	10-29-21	SIDEWALK TRAFFIC CONTROL
T-WZ-FAB1		FLASHING YELLOW ARROW BOARD
T-WZ-PBR1	12-09-22	INTERCONNECTED PORTABLE BARRIER RAIL
T-WZ-PBR2	02-28-20	DETAILS FOR WORK ZONE CHANNELIZATION DEVICES
T-WZ-PCB1	10-10-24	10 FOOT PORTABLE CONCRETE BARRIER RAIL
T-WZ-PCB2	10-01-24	20 FOOT PORTABLE CONCRETE BARRIER RAIL
T-WZ-PCB2A	10-01-24	20 FOOT PORTABLE CONCRETE BARRIER RAIL STIFFENER TUBE
T-WZ-PCB3	01-28-22	PORTABLE CONCRETE BARRIER RAIL DETAILS
T-WZ-PCB4	12-09-22	PORTABLE CONCRETE BARRIER RAIL ANCHOR PIN DETAILS

10-109.00 EROSION PREVENTION AND SEDIMENT CONTROL

EC-STR-37	06-10-14	SEDIMENT TUBE
EC-STR-6A	05-06-16	ENHANCED ROCK CHECK DAM
EC-STR-11	03-16-17	CULVERT PROTECTION TYPE 1
EC-STR-19	04-01-08	CATCH BASIN PROTECTION
EC-STR-39A	08-01-12	CURB INLET PROTECTION TYPE 3 & 4
EC-STR-46		CATCH BASIN FILTER ASSEMBLY (TYPE 6)
EC-STR-46A		CATCH BASIN FILTER ASSEMBLY (TYPE 6) SLIPCOVER DETAILS
EC-STR-33	08-01-12	SUSPENDED PIPE DIVERSION (DOWNSTREAM)
EC-STR-33A	08-01-12	SUSPENDED PIPE DIVERSION (UPSTREAM)

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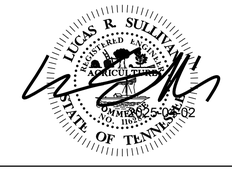

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

STANDARD ROADWAY DRAWINGS

3/31/2025 11:25:38 AM
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TYPE	YEAR	PROJECT NO.	SHEET NO.
P. S. & E.	2025	HSIP-I-24-1(118)	1A2

STANDARD STRUCTURE AND TRAFFIC OPERATIONS DRAWINGS

DWG.	REV.	DESCRIPTION
NEW STRUCTURES		
STD-1-1SS	07-24-24	BRIDGE RAILING SINGLE SLOPE CONCRETE PARAPET
STD-1-2SS	05-31-24	STEEL SLIDER PLATE ASSEMBLIES FOR SINGLE SLOPE CONCRETE PARAPET AND BRIDGE DECK DRAIN DETAILS
STD-8-2SS		SINGLE SLOPE PARAPET STANDARD LIGHT SUPPORT DETAILS
STD-8-4	2-26-25	SIGN, LUMINAIRE, AND TRAFFIC SIGNAL SUPPORTS
SIGNS		
T-S-6	02-12-91	STANDARD MOUNTING DETAILS - BOLTED EXTRUDED PANELS
T-S-7	02-12-91	HIGHWAY SHIELDS USED ON INTERSTATE AND U.S. NUMBERED ROUTES
T-S-9	06-10-14	STANDARD LAYOUT GROUND MOUNTED SIGNS
T-S-10	04-04-12	STANDARD MOUNTING DETAILS FLAT SHEET SIGNS ALUMINUM-STEEL DESIGN
T-S-11	06-06-11	DELINEATOR AND MILEPOST DETAILS
T-S-12	07-10-17	STANDARD STEEL GROUND MOUNTED SIGNS, BREAK-AWAY TYPE POST FOOTING DETAILS, SQUARE TUBES
T-S-13	10-21-19	STANDARD STEEL GROUND MOUNTED SIGNS, BREAK-AWAY TYPE POST FOOTING DETAILS, I-BEAMS
T-S-14	10-21-19	STANDARD STEEL GROUND MOUNTED SIGNS, BREAK-AWAY TYPE POST FOOTING DETAILS, WF-BEAMS
T-S-15	12-07-90	STANDARD CONDUIT & GROUND DETAILS FOR OVERHEAD & CANTILEVER SIGN STRUCTURES
T-S-16	07-02-15	GROUND MOUNTED ROADSIDE SIGN PLACEMENT DETAILS
T-S-16A	07-02-15	GROUND MOUNTED ROADSIDE SIGN PLACEMENT DETAILS
T-S-17	07-11-17	STANDARD GROUND MOUNTED SIGN USING PERFORATED/KNOCKOUT SQUARE TUBE
T-S-19	06-12-20	STANDARD STEEL SIGN SUPPORTS
T-S-20	07-11-17	SIGN DETAILS
T-S-21	04-10-19	DETAILS FOR SIGNS MOUNTS ON CONCRETE MEDIAN BARRIERS
T-S-22	04-10-19	SIGN LAYOUT FOR HOV LANES
T-S-23A	07-11-17	MULTI-DIRECTIONAL SLIP BASE BREAKAWAY P-POST SIGN SUPPORT
T-S-23B	07-19-13	MULTI-DIRECTIONAL SLIP BASE BREAKAWAY STRUCTURAL PIPE SIGN SUPPORT
T-S-23C	07-02-15	BREAKAWAY POST SIGN SUPPORTS

DWG.	REV.	DESCRIPTION
SIGNALS		
T-SG-2	06-27-16	LOOP LEAD-INS, CONDUIT AND PULL BOXES
T-SG-3	07-11-17	STANDARD NOTES AND DETAILS OF INDUCTIVE LOOPS
T-SG-3A	06-27-16	ALTERNATE DETECTION DETAILS
T-SG-4	06-27-16	SPAN WIRE AND MESSENGER CABLE DETAILS
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-7A		TYPICAL SIGNAL HEAD PLACEMENT APPROACHES WITH NO THROUGH MOVEMENTS
T-SG-7B	10-21-19	TYPICAL SIGNAL HEAD PLACEMENT APPROACHES WITH NO THROUGH MOVEMENTS
T-SG-7C		TYPICAL SIGNAL HEAD PLACEMENT ONE-LANE AND TWO-LANE APPROACHES
T-SG-7D	09-12-23	TYPICAL SIGNAL HEAD PLACEMENT TWO-LANE APPROACHES
T-SG-7E		TYPICAL SIGNAL HEAD PLACEMENT THREE-LANE APPROACHES
T-SG-7F	07-13-17	TYPICAL SIGNAL HEAD PLACEMENT THREE-LANE APPROACHES
T-SG-7G		TYPICAL SIGNAL HEAD PLACEMENT THREE-LANE APPROACHES
T-SG-7H	10-21-19	TYPICAL SIGNAL HEAD PLACEMENT THREE-LANE AND FOUR-LANE APPROACHES
T-SG-7HH	07-13-17	TYPICAL SIGNAL HEAD PLACEMENT FOUR-LANE APPROACHES
T-SG-7J		TYPICAL SIGNAL HEAD PLACEMENT FOUR-LANE APPROACHES
T-SG-7K	11-17-20	TYPICAL SIGNAL HEAD PLACEMENT FOUR-LANE APPROACHES
T-SG-7L	10-21-19	TYPICAL SIGNAL HEAD PLACEMENT FOUR-LANE APPROACHES
T-SG-9	07-15-24	DETAILS OF CANTILEVER SIGNAL SUPPORT
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
LIGHTING AND UTILITY POLES		
T-L-1	07-15-24	STANDARD LIGHTING FOUNDATION DETAILS
T-L-1SA	07-15-24	STANDARD LIGHTING DETAILS FOR SINGLE ARM SUPPORTS
T-L-3	07-15-24	STANDARD LIGHTING DETAILS PULL BOXES
T-L-4	07-15-24	STANDARD LIGHTING DETAILS CONDUIT, CABLE INSTALLATION

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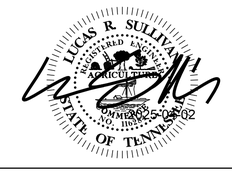

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

STANDARD STRUCTURE AND TRAFFIC OPERATION DRAWINGS

TYPE	YEAR	PROJECT NO.	SHEET NO.
P. S. & E.	2025	HSIP-1-24-1(118)	2

ESTIMATED ROADWAY QUANTITIES

	ITEM NO.	DESCRIPTION	UNIT	QUANTITY 75100-4111-94
	105-01	CONSTRUCTION STAKES, LINES AND GRADES	LS	1
	201-01.03	CLEARING AND GRUBBING	ACRE	3
	202-01.13	REMOVAL OF PIPE (24" AT STA. 321+08)	L.F.	19
	202-01	REMOVAL OF STRUCTURES AND OBSTURCTIONS	L.S.	1
(8)	202-03	REMOVAL OF RIGID PAVEMENT, SIDEWALK, ETC.	S.Y.	647
(1)	203-01	ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED)	C.Y.	3055
(1)	203-03	BORROW EXCAVATION (UNCLASSIFIED)	C.Y.	6571
	203-07	FURNISHING & SPREADING TOPSOIL	C.Y.	767
	209-05	SEDIMENT REMOVAL	C.Y.	35
(2)	209-09.43	CURB INLET PROTECTION (TYPE 4)	EACH	14
(2)	209-40.33	CATCH BASIN PROTECTION (TYPE D)	EACH	8
(2)	209-40.46	CATCH BASIN FILTER ASSEMBLY (TYPE 6)	EACH	4
(2)	303-01	MINERAL AGGREGATE, TYPE A BASE, GRADING D	TON	2667
(2)	303-10.01	MINERAL AGGREGATE (SIZE 57)	TON	22
	313-03	TREATED PERMEABLE BASE	S.Y.	5651
(3)	403-01	BITUMINOUS MATERIAL FOR TACK COAT (TC)	TON	2.6
	411-02.10	ACS MIX(PG70-22) GRADING D	TON	321
	415-01.02	COLD PLANING BITUMINOUS PAVEMENT	S.Y.	6175
	501-01.03	PORTLAND CEMENT CONCRETE PAVEMENT (PLAIN) 10"	S.Y.	5111
	502-04.01	SAWING CONCRETE PAVEMENT (FULL DEPTH)	L.F.	2689
	502-04.02	LOAD TRANSFER DOWELS	EACH	2172
	502-04.03	TRANSVERSE TIE-BARS	EACH	517
	503-01	GRINDING CONCRETE PAVEMENT	S.Y.	350
	604-01.01	CLASS A CONCRETE (ROADWAY)	C.Y.	15
	604-07.01	RETAINING WALL (NO. 1)	S.F.	9541
(4)	607-03.02	18" CONCRETE PIPE CULVERT (CLASS III)	L.F.	10
(4)	607-08.02	42" CONCRETE PIPE CULVERT (CLASS III)	L.F.	38
	611-07.01	CLASS A CONCRETE (PIPE ENDWALLS)	C.Y.	7
	611-07.02	STEEL BAR REINFORCEMENT (PIPE ENDWALLS)	LB.	154
	611-07.55	18IN ENDWALL (CROSS DRAIN) 4:1	EACH	1
	611-12.02	CATCH BASINS, TYPE 12, > 4' - 8' DEPTH	EACH	3
	620-05.01	CONC PARAPET SINGLE SLOPE (STD-1-1SS)	L.F.	821
	701-01.01	CONCRETE SIDEWALK (4 ")	S.F.	1226
	701-02.03	CONCRETE CURB RAMP	S.F.	511
	702-03	CONCRETE COMBINED CURB & GUTTER	C.Y.	54
	705-04.21	GUARDRAIL DELINEATION ENHANCEMENT	L.F.	82
	705-06.01	W BEAM GR (TYPE 2) MASH TL-3	L.F.	314
	705-06.11	GR TERMINAL (IN-LINE) MASH TL-3	EACH	2
	706-01	GUARDRAIL REMOVAL	L.F.	518
	706-06.03	RADIUS RAIL	L.F.	37
	707-01.11	CHAIN LINK FENCE (6 FOOT)	L.F.	495
	707-01.12	END & CORNER POST ASSEMBLY (CHAIN-LINK FENCE 6')	EACH	3
	707-06.05	REMOVAL OF FENCE (REMOVAL OF EXISTING R.O.W. FENCE ALONG TRACT 7)	LS	1
	708-02.01	MARKERS (CONCRETE R.O.W. POSTS)	EACH	3
(2)	709-05.06	MACHINED RIP-RAP (CLASS A-1)	TON	663
	709-05.08	MACHINED RIP-RAP (CLASS B)	TON	327
	710-04	FILTER CLOTH UNDERDRAIN (WITH PIPE)	L.F.	2029
	710-05	LATERAL UNDERDRAIN	L.F.	400
	710-06.12	LATERAL UNDERDRAIN ENDWALL (3:1)	EACH	10
(9)	711-05.01	REMOVAL & DISPOSAL OF CONCRETE MEDIAN BARRIER	L.F.	821
	712-01	TRAFFIC CONTROL	LS	1
	712-02.02	INTERCONNECTED PORTABLE BARRIER RAIL	L.F.	3621

ESTIMATED ROADWAY QUANTITIES

	ITEM NO.	DESCRIPTION	UNIT	QUANTITY 75100-4111-94
(5)	712-02.60	TEMPORARY WORK ZONE CRASH CUSHION (MASH TL-3)	EACH	4
	712-04.01	FLEXIBLE DRUMS (CHANNELIZING)	EACH	100
	712-04.50	BARRIER RAIL DELINEATOR	EACH	91
	712-05.01	WARNING LIGHTS (TYPE A)	EACH	2
	712-06	SIGNS (CONSTRUCTION)	S.F.	648
	712-07.03	TEMPORARY BARRICADES (TYPE III)	L.F.	24
	712-08.03	ARROW BOARD (TYPE C)	EACH	2
	712-09.02	REMOVABLE PAVEMENT MARKING (8" BARRIER LINE)	L.F.	400
	713-09.01	STEEL OVERHEAD SIGN STRUCTURE (SPAN 88'-0")	EACH	1
	713-09.02	STEEL OVERHEAD SIGN STRUCTURE (SPAN 67'-0")	EACH	1
	713-11.02	PERFORATED/KNOCKOUT SQUARE TUBE POST	LB.	2410
	713-13.02	FLAT SHEET ALUMINUM SIGNS (0.080" THICK)	S.F.	128
	713-13.03	FLAT SHEET ALUMINUM SIGNS (0.100" THICK)	S.F.	440
	713-14	EXTRUDED ALUMINUM SIGN PANELS	S.F.	928
	713-15	REMOVAL OF SIGNS, POSTS AND FOOTINGS	LS	1
	713-16.01	CHANGEABLE MESSAGE SIGN UNIT	EACH	2
	716-01.23	SNOWPLOWABLE RAISED PAVEMENT MARKERS (BI-DIR)(2 COLOR)	EACH	78
	716-02.04	PLASTIC PAVEMENT MARKING (CHANNELIZATION STRIPING)	S.Y.	476
	716-02.05	PLASTIC PAVEMENT MARKING (STOP LINE)	L.F.	84
	716-02.06	PLASTIC PAVEMENT MARKING (TURN LANE ARROW)	EACH	26
	716-02.08	PLASTIC PAVEMENT MARKING (8" DOTTED LINE)	L.F.	62
	716-02.09	PLASTIC PAVEMENT MARKING (LONGITUDINAL CROSS-WALK)	L.F.	108
	716-05.01	PAINTED PAVEMENT MARKING (4" LINE)	L.M.	3
	716-08.05	REMOVAL OF PAVEMENT MARKING (STOP LINE)	L.F.	150
	716-08.06	REMOVAL OF PAVEMENT MARKING (TURN LANE ARROW)	EACH	31
	716-08.20	REMOVAL OF PAVEMENT MARKING (LINE)	L.M.	3
	716-12.02	ENHANCED FLATLINE THERMO PVMT MRKNG (6IN LINE)	L.M.	2
	716-12.03	ENHANCED FLATLINE THERMO PVMT MRKNG (8IN LINE)	L.F.	902
	716-12.05	ENHANCED FLATLINE THERMO PVMT MRKNG (6IN DOTTED LINE)	L.F.	882
	717-01	MOBILIZATION	LS	1
(2)	740-10.03	GEOTEXTILE (TYPE III)(EROSION CONTROL)	S.Y.	223
(2)	740-11.02	TEMPORARY SEDIMENT TUBE 12IN	L.F.	3033
(2)	740-11.04	TEMPORARY SEDIMENT TUBE 20IN	L.F.	1389
(2)	801-01	SEEDING (WITH MULCH)	UNIT	112
(2) (6)	801-03	WATER (SEEDING & SODDING)	M.G.	14
(2)	803-01	SODDING (NEW SOD)	S.Y.	901
	805-12.01	EROSION CONTROL BLANKET (TYPE I)	S.Y.	9800
(2) (7)	806-02.03	PROJECT MOWING	CYCLE	4

REV. 2025-05-15: REPLACED PAY ITEM NUMBER 201-01 (CLEARING AND GRUBBING) WITH PAY ITEM NUMBER 201-01.03 (CLEARING AND GRUBBING). REVISED UNIT AND QUANTITY FOR PAY ITEM NUMBERS 712-02.60 (TEMPORARY WORK ZONE CRASH CUSHION, MASH TL-3) AND 716-12.03 (ENHANCED FLATLINE THERMOPLASTIC PAVEMENT MARKING, 8-INCH LINE).

SEALED BY

LUCAS R. SULLIVAN
NO. 116284
2025-04-02

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ESTIMATED ROADWAY QUANTITIES

5/15/2025
Y:\Projects\0010000\0014000\14285 TDOT Roadway 2017-2020\WO #19- I-24 Ramp Queue Rutherford Co\01\Dgn\125463-00-PS&E\002.sht

FOOTNOTES

(1) SEE GRADING SPECIAL NOTES ON SHEET 2C.

(2) SEE SUBSECTION 209.07 OF STANDARD SPECIFICATIONS FOR MAINTENANCE REPLACEMENT. ALL QUANTITIES ARE TO BE USED AS DIRECTED BY ENGINEER.

(3) SEE SUBSECTION 403.05 OF STANDARD SPECIFICATIONS FOR DETERMINING APPLICATION RATE IN FIELD.

(4) CONTRACTOR SHALL INCLUDE COST OF CLASS "B" BEDDING MATERIAL, UNCLASSIFIED BACKFILL TO LIMIT LINE, AND/OR EXCAVATABLE FLOWABLE FILL, IF REQUIRED, IN PRICE BID FOR CONCRETE PIPE. SEE STANDARD DRAWING NO. D-PB-1 FOR ADDITIONAL DETAILS.

(5) THIS ITEM SHALL BE A PORTABLE ENERGY ABSORBING TERMINAL MEETING THE REQUIREMENTS OF AASHTO MASH FOR TEST LEVEL 3. THE PAY ITEM WILL INCLUDE FURNISHING AND INSTALLING ALL COMPONENTS AS SHOWN ON THE MANUFACTURER'S DRAWING.

(6) INCLUDES 14 THOUSAND GALLONS FOR EROSION PREVENTION AND SEDIMENT CONTROL.

(7) 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.

SEE SIGNALIZATION ESTIMATED QUANTITIES AND LIGHTING ESTIMATED QUANTITIES FOR ADDITIONAL ITEMS.

(8) THIS ITEM SHALL INCLUDE BOTH REMOVAL OF EXISTING CONCRETE SIDEWALK AND PORTIONS OF EXISTING CONCRETE ISLANDS.

(9) THIS ITEM SHALL INCLUDE REMOVAL OF EXISTING CONCRETE BARRIER RAIL ON RAMP "C".

TYPE	YEAR	PROJECT NO.	SHEET NO.
P. S. & E.	2025	HSIP-1-24-1(118)	2-1

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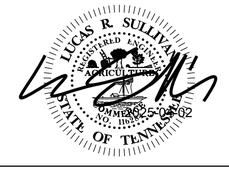


STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ESTIMATED ROADWAY QUANTITIES

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	2B
P. S. & E.	2025	HSIP-I-24-1(118)	2B

(A) THE SLOPE OF THE SHOULDER AND THE ROADWAY PAVEMENT SHALL NOT EXCEED AN ALGEBRAIC DIFFERENCE OF 7%.

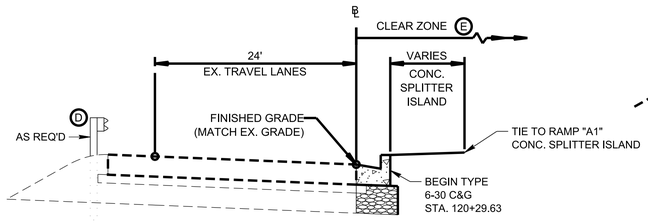
(B) SEE STANDARD DRAWINGS RD11-S-11 AND RD11-S-11B FOR FILL AND CUT SLOPE TABLES, ROUNDING ON TOP OF CUT SLOPES AND TOE OF FILL SLOPES, SPECIAL ROCK TREATMENT AND SUB GRADE ROUNDING IF APPLICABLE.

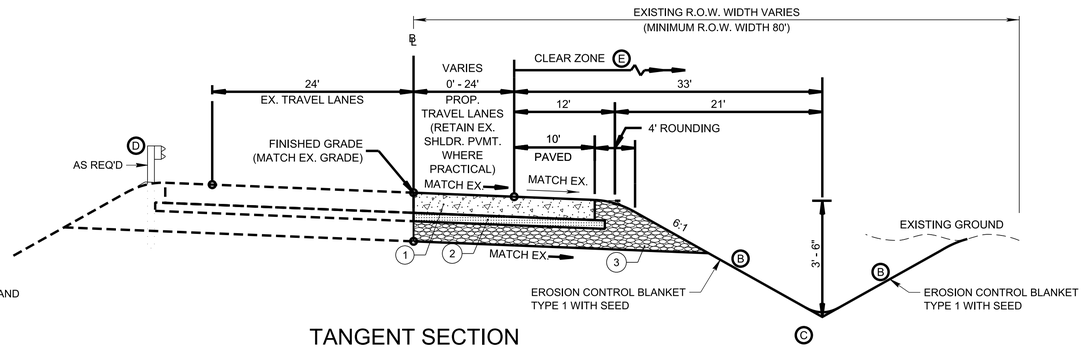
(C) SEE STANDARD DRAWING RD11-S-11A FOR ROUNDING OF ROADSIDE DITCH SLOPES.

(D) SEE STANDARD DRAWING S-PL-6 FOR TYPICAL GUARDRAIL PLACEMENT.

(E) SEE STANDARD DRAWING S-CZ-1 FOR CLEAR ZONE CRITERIA. SEE THE "ROADSIDE DESIGN GUIDE", AASHTO, 2011, FOR FURTHER INFORMATION REGARDING CLEAR ZONES.

NOTE: SEE SHEET 2B1 FOR PROPOSED PAVEMENT SCHEDULE.





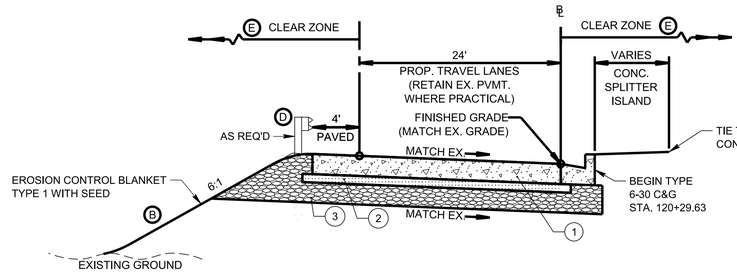
TANGENT SECTION (RAMP "A")

(BASED ON STD. DWG. RD11-TS-4)
FROM STA. 109+89.44 TO STA. 119+85.09

PAVEMENT TRANSITIONS			
RAMP A			
FROM		TO	
STA.	OFFSET	STA.	OFFSET
109+89.44	0.00'	112+89.44	12.00'
113+82.38	12.00'	116+82.38	24.00'

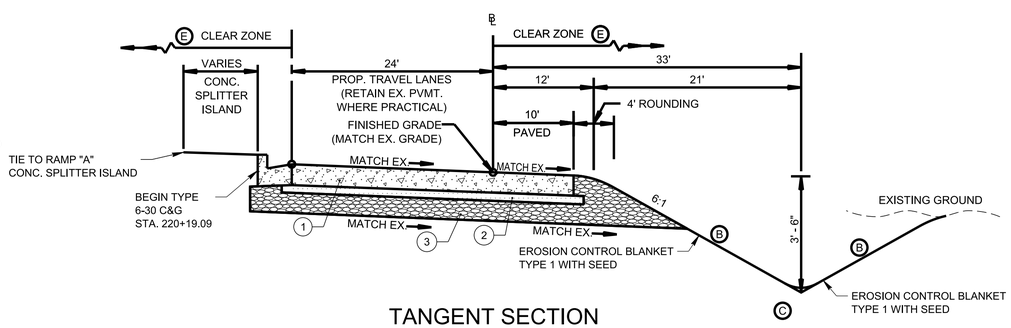
TANGENT SECTION (RAMP "A")

(BASED ON STD. DWG. RD11-TS-4)
FROM STA. 119+85.09 TO STA. 120+74.45



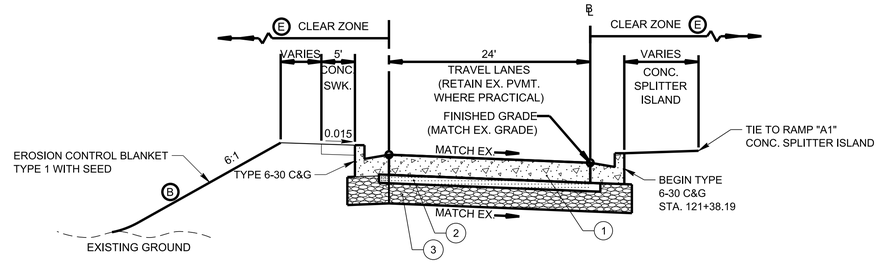
TANGENT SECTION (RAMP "A")

(BASED ON STD. DWG. RD11-TS-4)
FROM STA. 120+74.45 TO STA. 121+38.19



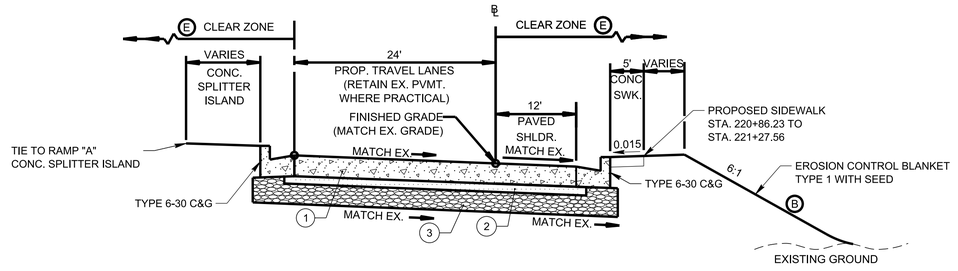
TANGENT SECTION (RAMP "A1")

(BASED ON STD. DWG. RD11-TS-4)
FROM STA. 219+85.09 TO STA. 220+71.01



TANGENT SECTION (RAMP "A")

(BASED ON STD. DWG. RD11-TS-4)
FROM STA. 121+38.19 TO STA. 121+52.80



TANGENT SECTION (RAMP "A1")

(BASED ON STD. DWG. RD11-TS-4)
FROM STA. 220+71.01 TO STA. 221+27.56

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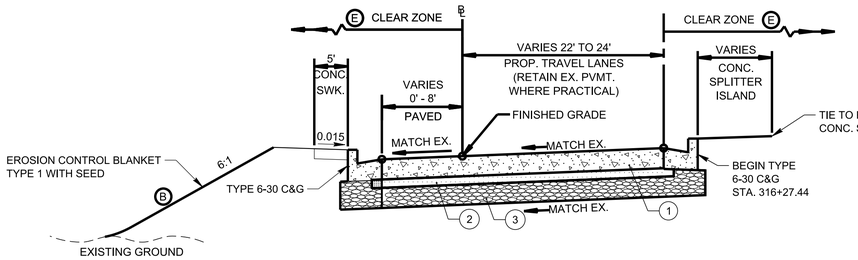
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

SHEET 1 OF 3

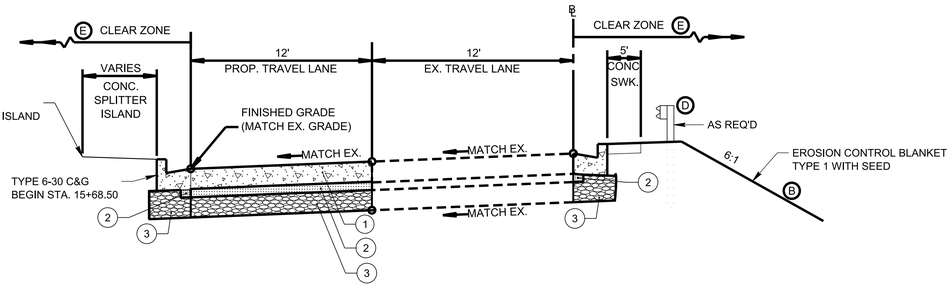
3/31/2025 11:29:03 AM
Y:\Projects\001000\001400\14285 TDOT Roadway 2017-2020\WO #19- I-24 Ramp Queue Rutherford Co\01\Dgn\125463-00-PS&E\002B.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	2B1
PS&E	2025	HSIP-I-24-1(118)	2B1



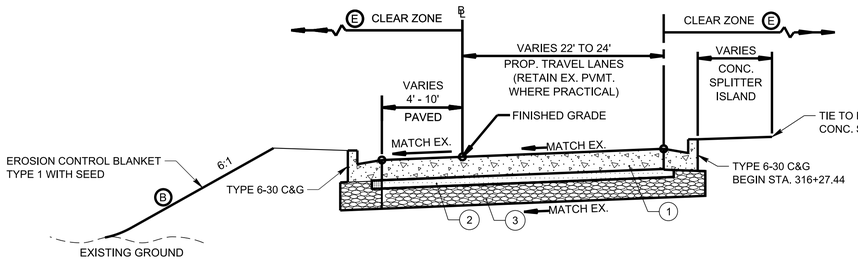
TANGENT SECTION (RAMP "C")

(BASED ON STD. DWG. RD11-TS-4)
FROM STA. 315+70.22 TO STA. 316+40.04



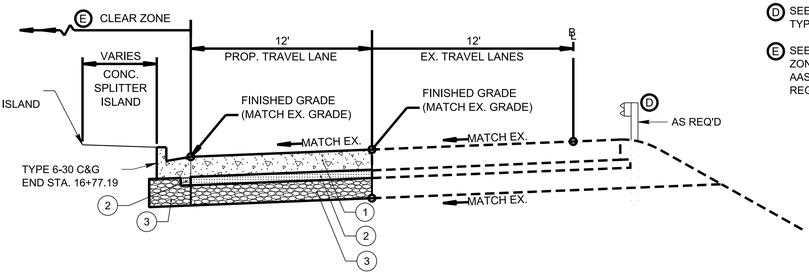
TANGENT SECTION (RAMP "C1")

(BASED ON STD. DWG. RD11-TS-4)
FROM STA. 15+46.95 TO STA. 15+57.85



TANGENT SECTION (RAMP "C")

(BASED ON STD. DWG. RD11-TS-4)
FROM STA. 316+40.04 TO STA. 317+39.45



TANGENT SECTION (RAMP "C1")

(BASED ON STD. DWG. RD11-TS-4)
FROM STA. 15+70.06 TO STA. 17+33.31

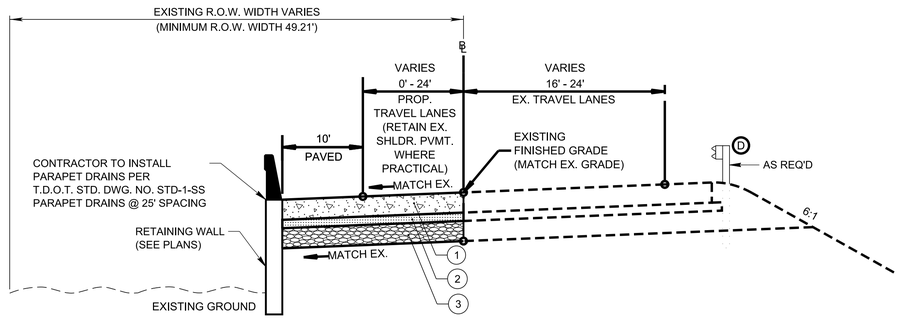
A THE SLOPE OF THE SHOULDER AND THE ROADWAY PAVEMENT SHALL NOT EXCEED AN ALGEBRAIC DIFFERENCE OF 7%.

B SEE STANDARD DRAWINGS RD11-S-11 AND RD11-S-11B FOR FILL AND CUT SLOPE TABLES, ROUNDING ON TOP OF CUT SLOPES AND TOE OF FILL SLOPES, SPECIAL ROCK TREATMENT AND SUB GRADE ROUNDING IF APPLICABLE.

C SEE STANDARD DRAWING RD11-S-11A FOR ROUNDING OF ROADSIDE DITCH SLOPES.

D SEE STANDARD DRAWING S-PL-6 FOR TYPICAL GUARDRAIL PLACEMENT.

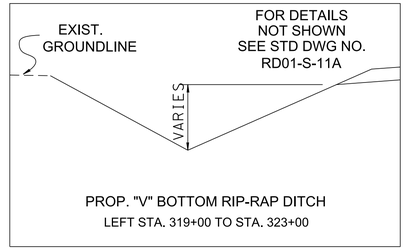
E SEE STANDARD DRAWING S-CZ-1 FOR CLEAR ZONE CRITERIA. SEE THE "ROADSIDE DESIGN GUIDE", AASHTO, 2011, FOR FURTHER INFORMATION REGARDING CLEAR ZONES.



TANGENT SECTION (RAMP "C")

(BASED ON STD. DWG. RD11-TS-4)
FROM STA. 317+39.45 TO STA. 325+59.34

PAVEMENT TRANSITIONS			
RAMP C			
FROM		TO	
STA.	OFFSET	STA.	OFFSET
319+19.45	24.00'	322+01.14	12.00'
322+01.14	12.00'	324+88.60	0.00'



PROP. "V" BOTTOM RIP-RAP DITCH
LEFT STA. 319+00 TO STA. 323+00

PROPOSED PAVEMENT SCHEDULE

(1) CONCRETE PAVEMENT 10" THICK

501-01.03 PORTLAND CEMENT CONCRETE PAVEMENT (PLAIN)

(2) TREATED PERMEABLE BASE 4" THICK

313-03 TREATED PERMEABLE BASE (S.Y.)

(3) MINERAL AGGREGATE 6" THICK

303-01 MINERAL AGGREGATE, TYPE "A" BASE, GRADING "D"

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DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS & PAVEMENT SCHEDULE

SHEET 2 OF 3

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	2B2
PS&E	2025	HSIP-I-24-1(118)	2B2

PROPOSED PAVEMENT SCHEDULE

(1) ASPHALTIC CONCRETE SURFACE (HOT MIX) PG70-22
GRADING "D" SURFACE @ 1.25" THICK (APPROX. 132.5 LB./S.Y.)

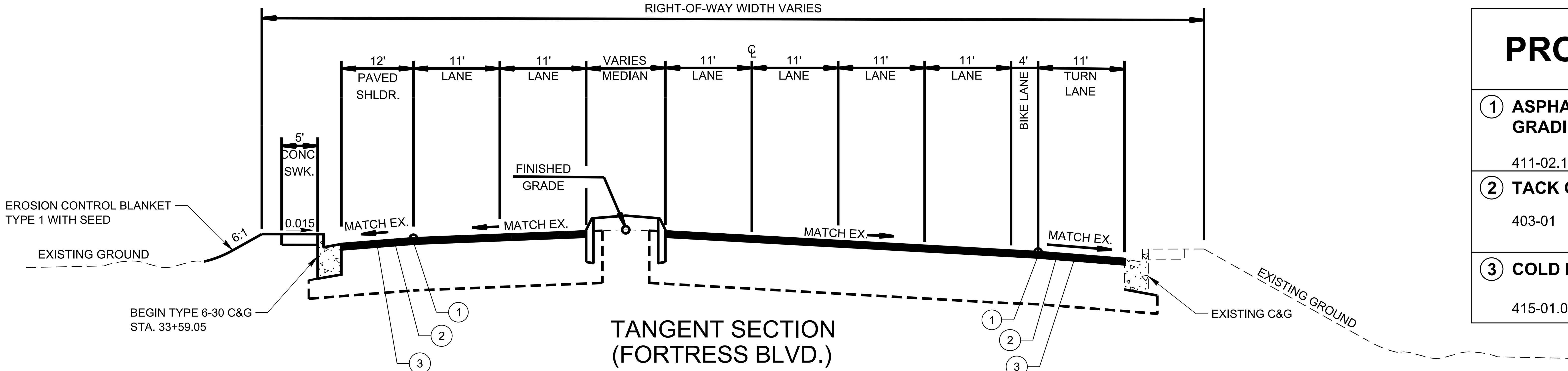
411-02.10 ACS MIX (PG70-22) GRADING "D"

(2) TACK COAT

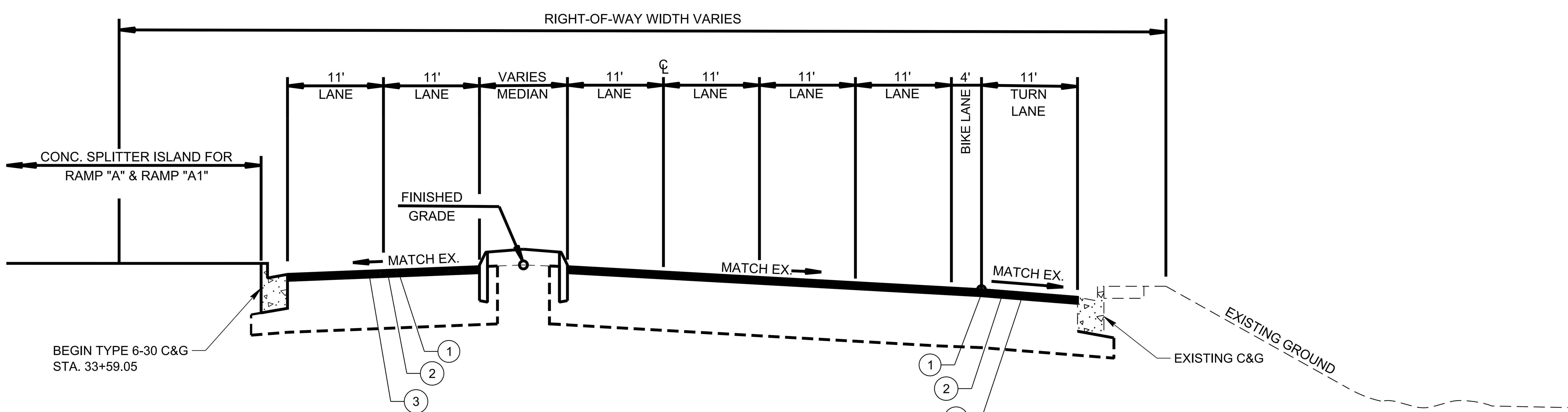
403-01 BITUMINOUS MATERIAL FOR TACK COAT (TC)
SEE 403.05 FOR DETERMINING APPLICATION RATE IN FIELD.

(3) COLD PLANING BITUMINOUS PAVEMENT

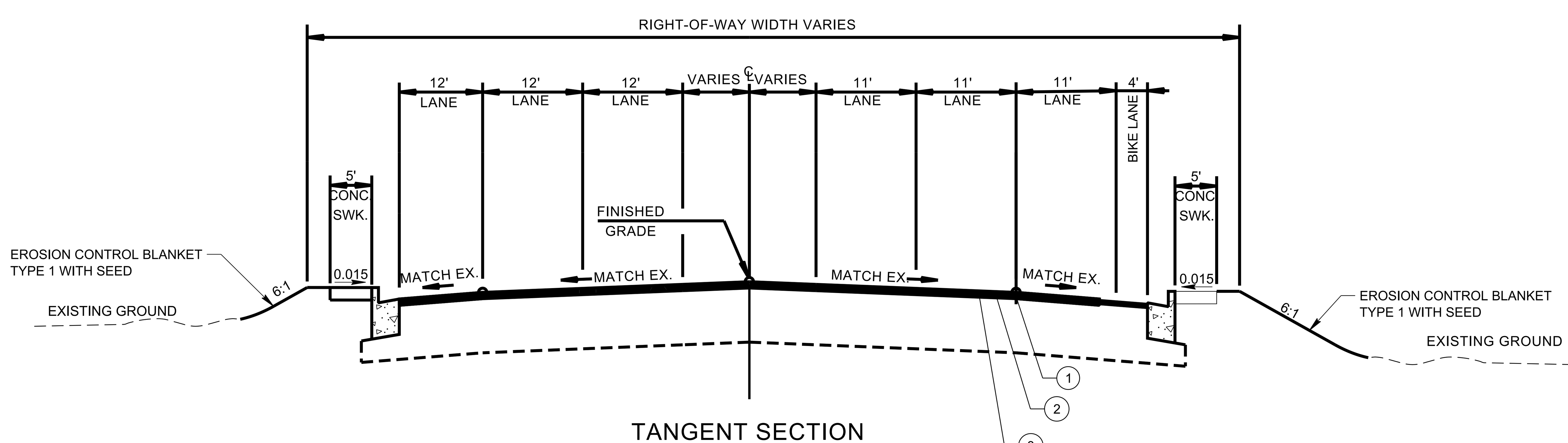
415-01.02 COLD PLANING BITUMINOUS PAVEMENT



TANGENT SECTION
(FORTRESS BLVD.)
(BASED ON STD. DWG. RD11-TS-6B)
FROM STA. 33+17.57 TO STA. 34+51.04



TANGENT SECTION
(FORTRESS BLVD.)
(BASED ON STD. DWG. RD11-TS-6B)
FROM STA. 34+51.04 TO STA. 36+48.97



TANGENT SECTION
(MEDICAL CENTER PKWY.)
(BASED ON STD. DWG. RD11-TS-6B)
FROM STA. 51+34.30 TO STA. 54+28.21

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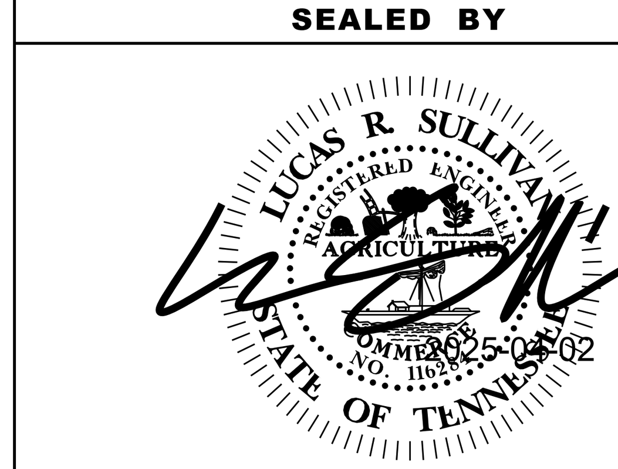

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS & PAVEMENT SCHEDULE

SHEET 3 OF 3

3/31/2025 11:29:05 AM
Y:\Projects\0010000\0014000\14285 TDOT Roadway 2017-2020\WO #19- I-24 Ramp Queue Rutherford Co\01\Dgn\125463-00-PS&E\002B2.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2025	HSIP-I-24-1(118)	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 FLOOD WAY AS DEFINED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) WITHOUT APPROVAL BY FEMA. ALL MATERIAL SHALL BE DISPOSED OF IN UPLAND (NON-WETLAND) AREAS AND ABOVE ORDINARY HIGH WATER OF ANY ADJACENT WATERCOURSE. THIS DOES NOT ELIMINATE THE NEED TO OBTAIN ANY OTHER LICENSES OR PERMITS THAT MAY BE REQUIRED BY ANY OTHER FEDERAL, STATE OR LOCAL AGENCY.

SEEDING AND SODDING

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

(2) ITEM NO. 801-01, SEEDING (WITH MULCH), SHALL BE USED WHERE EROSION CONTROL BLANKET OR SOD ARE NOT APPLIED.

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.

DRAINAGE

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

(2) EXCAVATION FOR PIPE 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.

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

FENCING

(1) LOCATION OF THE FENCE SHALL BE ONE FOOT INSIDE THE RIGHT-OF-WAY EXCEPT WHERE 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.

MISCELLANEOUS

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

PAVEMENT MARKINGS

FINAL PAVEMENT MARKING

(1) 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.

(2) 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. 716-12.03, 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

(3) 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 COLD PLANE AND PAVE IN THE DIRECTION OF TRAFFIC.

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. 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 OPERATIONS 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 OPERATIONS DIVISION, SIGNING SECTION (TDOT.TRAFFICOPS.SIGN-REVIEWS@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 LETTERS, DIGITS, ARROWS, BORDERS, AND ALPHABET ACCESSORIES ON ALL FLAT SHEET SIGNS SHALL BE APPLIED BY SILK SCREENING PROCESS.

(11) ALL SIGNS WHICH INTERFERE WITH CONSTRUCTION WILL BE RELOCATED OUTSIDE LIMITS OF CONSTRUCTION BY THE CONTRACTOR. UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR WILL RESTORE THE SIGNS TO ORIGINAL LOCATION. THE CONTRACTOR SHALL CHECK WITH THE REGIONAL TRAFFIC ENGINEER PRIOR TO MOVING ANY PERMANENT SIGNS.

(12) AFTER THE PERMANENT SIGN LOCATIONS HAVE BEEN STAKED, THERE SHALL BE A FIELD INSPECTION AND APPROVAL BY THE ONSTRUCTION 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.

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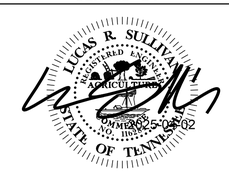

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

TYPE	YEAR	PROJECT NO.	SHEET NO.
P. S. & E.	2025	HSIP-I-24-1(118)	2C1

TRAFFIC CONTROL DIRECTIONAL SIGNING

(1) ON ALL ACCESS CONTROLLED AND INTERSTATE RECONSTRUCTION AND NEW CONSTRUCTION PROJECTS, THE CONTRACTOR SHALL UTILIZE ALL EXISTING DIRECTIONAL SIGNING FOR AS LONG AS POSSIBLE. THESE EXISTING SIGNS CAN BE MOVED USING TEMPORARY SUPPORTS AS NEEDED. AS SOON AS THESE EXISTING DIRECTIONAL SIGNS COME DOWN PERMANENTLY, THE CONTRACTOR SHALL HAVE UP AT LEAST ONE NEW TEMPORARY “ADVANCE GUIDE SIGN” AND ONE NEW TEMPORARY “EXIT DIRECTIONAL SIGN” AT ALL EXIT RAMPS. THESE SIGNS ARE TO BE MAINTAINED WITHIN CLEAR VIEW OF THE PUBLIC ON THE RIGHT SIDE OF THE HIGHWAY AND SHALL BE REPLACED IF DAMAGED, DURING ALL PHASES OF CONSTRUCTION, AS DIRECTED BY THE ENGINEER.

(2) THE SIZE OF THESE NEW TEMPORARY SIGNS WILL BE DETERMINED BY THE MESSAGE. THE MESSAGE SHALL BE THE SAME AS THE EXISTING SIGN THAT THESE NEW TEMPORARY SIGNS WILL BE REPLACING. THE LETTER SIZE SHALL BE A MINIMUM OF 8 INCH, “D” UPPER CASE LETTER. THE DIRECTIONAL ARROW WILL BE A “B” ARROW AT A 45 DEGREE ANGLE (SAME ANGLE AS THE EXISTING ARROW). THE MATERIAL SHALL BE 0.100 INCH SHEET ALUMINUM; THE COLOR SHALL BE A REFLECTIVE GREEN BACKGROUND WITH REFLECTIVE WHITE COPY.

(3) ALL WORK AND MATERIAL TO MAKE THESE NEW TEMPORARY DIRECTIONAL SIGNS ALONG WITH ADEQUATE SUPPORTS AND TO MOVE THEM AS NEEDED DURING EACH PHASE OF CONSTRUCTION WILL BE PAID FOR UNDER ITEM NO. 712-01, TRAFFIC CONTROL, AS DIRECTED BY THE ENGINEER.

(4) SOME OF THESE DIRECTIONAL SIGNS WILL NEED AN INTERSTATE, U.S., OR A STATE HIGHWAY SHIELD, A CARDINAL DIRECTION, AND A DIRECTION ARROW TO ACCOMPANY THE DIRECTIONAL SIGN. THESE SIGNS SHALL BE MOUNTED BELOW THE DIRECTIONAL SIGN.

(5) ALL EXISTING “EMERGENCY REFERENCE MARKERS” AND “HOSPITAL SIGNS” SHALL BE MAINTAINED WITHIN FULL VIEW OF THE MOTORING PUBLIC THROUGHOUT ALL PHASES OF CONSTRUCTION. ALL WORK IN MOVING AND TEMPORARY SUPPORTS SHALL BE PAID FOR UNDER ITEM NO. 712-01, TRAFFIC CONTROL.

(6) WHEN “LOGO” SIGNS ARE ON ACCESS CONTROLLED AND INTERSTATE RECONSTRUCTION AND NEW CONSTRUCTION PROJECTS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING THESE SIGNS IN FULL VIEW TO THE MOTORING PUBLIC DURING ALL PHASES OF CONSTRUCTION. THE CONTRACTOR SHALL BE HELD RESPONSIBLE TO THE DEPARTMENT FOR THE REIMBURSEMENT OF THE SIGN FACE IF IT IS DAMAGED. ALL WORK IN MOVING THESE “LOGO” SIGNS AND THE TEMPORARY SUPPORTS ARE TO BE PAID FOR UNDER ITEM NO. 712-01, TRAFFIC CONTROL, AS DIRECTED BY THE ENGINEER. THE SUPPORTS FOR THE FINAL LOCATION OF THESE SIGNS WILL BE PAID FOR UNDER OTHER ITEMS OF CONSTRUCTION.

SIGNALIZATION

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

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

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

(5) AN ADVANCE FLASH OPERATION PERIOD IS REQUIRED TO MAKE MOTORISTS AWARE OF THE PRESENCE OF NEW SIGNAL HEADS. NEW SIGNAL HEADS SHALL BE PUT IN FLASH OPERATION FOR MINIMUM OF SEVEN (7) CALENDAR DAYS UP TO FOURTEEN (14) CALENDAR DAYS PRIOR TO ACTIVATION OF NORMAL TRAFFIC SIGNAL OPERATION. OTHER FLASH OPERTATION TIME PERIODS MAY BE CONSIDERED UPON WRITTEN APPROVAL FROM THE REGIONAL TRAFFIC ENGINEER.

(6) THE CONTRACTOR SHALL CONTACT CITY OF MURFREESBORO A MINIMUM OF THIRTY (30) DAYS PRIOR TO ACTIVATION OF THE SIGNAL TO OBTAIN THE INITIAL SIGNAL TIMINGS.

(7) THE PROJECT ENGINEER SHALL NOTIFY THE LOCAL GOVERNMENTAL AGENCY RESPONSIBLE FOR TRAFFIC CONTROL MAINTENANCE AT LEAST ONE DAY IN ADVANCE OF THE COLD PLANING ACTIVITY AT SIGNALIZED INTERSECTIONS WHERE DETECTOR LOOPS ARE ON THE PAVEMENT. THE MAINTAINING AGENCY WILL THEN BE RESPONSIBLE FOR DISCONNECTING THE LOOP DETECTORS AND MAKING ANY NECESSARY TIMING ADJUSTMENTS IN THE SIGNAL CONTROLLER PRIOR TO THE CONSTRUCTION.

CONSTRUCTION WORK ZONE & TRAFFIC CONTROL

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

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

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

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

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

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

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

(8) ALL DETOURS SHALL BE PAVED, STRIPED, SIGNED, AND FLEXIBLE DRUMS ARE TO BE IN PLACE BEFORE IT IS OPENED TO TRAFFIC.

(9) THE CONTRACTOR SHALL BE RESPONSIBLE FOR STAKING CONSTRUCTION SIGNS. THE COST OF THIS WORK SHALL BE INCLUDED IN ITEM NO. 712-06, SIGNS (CONSTRUCTION), S.F.

LIGHTING

(1) INSTALLATION AND MATERIALS SHALL COMPLY WITH SECTIONS 714 AND 917 OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION DATED JANUARY 1, 2021 AND WITH THE LATEST REVISIONS TO THE NATIONAL ELECTRIC CODE, NFPA 70.

(2) THE GROUND WIRE SHALL BE RUN INSIDE CONDUIT WITHIN STRUCTURES, SHALL BE COLORED GREEN AND HAVE THW INSULATION.

(3) EXISTING FOUNDATIONS TO BE REMOVED A MINIMUM OF SIX INCHES BELOW GRADE.

(4) ALL INCIDENTAL EQUIPMENT AND MATERIAL REQUIRED FOR THE SUCCESSFUL EXECUTION OF THIS WORK SHALL BE FURNISHED IN 714 ITEMS WHETHER SPECIFICALLY NOTED OR NOT.

(5) STANDARDS SHALL BE DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF THE LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORT FOR HIGHWAY SIGNS, LUMINARIES AND TRAFFIC SIGNALS, 1ST EDITION (2015), PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS.

(6) LIGHT STANDARDS SHALL BE ROUND TAPERED POLES. LENGTH SHALL BE DETERMINED BY REQUIRED MOUNTING HEIGHT.

(7) STANDARDS SHALL BE DESIGNED FOR A BASIC WIND SPEED OF 120-MPH AND SHALL SUPPORT A 62-POUND LUMINAIRE ON A 15-FOOT ARM.

(8) BRACKET ARMS SHALL BE ROUND TAPERED TRUSS TYPE WITH STRAP MOUNTING AND LENGTHS AS SCHEDULED.

(9) BRACKET ARM UPSWEEP SHALL BE THE SAME FOR ALL LIGHT STANDARDS OF THE SAME TYPE.

SEALED BY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

TYPE	YEAR	PROJECT NO.	SHEET NO.
P. S. & E.	2025	HSIP-I-24-1(118)	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.

RETAINING WALLS

(1) THE RIGHT-OF-WAY FROM STATION 317+25.07 TO STATION 324+09.04 SHALL REMAIN CLEAR FOR THE CONSTRUCTION OF THE RETAINING WALL. NO UTILITY LINES MAY BE PLACED THERE WITHOUT APPROVAL FROM STRUCTURES DIVISION.

(2) THE OPTIONS FOR RETAINING WALL TYPES SHALL BE LIMITED TO THE APPROVED ALTERNATIVES AS SPECIFIED ON THE RETAINING WALL SHEETS.

(3) VALUE ENGINEERING CHANGE PROPOSALS WILL NOT BE ACCEPTED FOR PAY ITEM NO. 604-07.01, RETAINING WALL (NO. 1).

(4) ALL COST OF BUILDING, INSTALLING AND BACKFILLING THE RETAINING WALL, INCLUDING GRANULAR BACKFILL, GEOTEXTILE FABRIC (TYPE IV), LEVELING PAD, AMD MOMENT SLAB, SHALL BE INCLUDED IN THE COST OF THE RETAINING WALL. COSTS FOR EXCAVATION OF THE WALL SHALL BE INCLUDED IN ITEM NO. 203-01, ROAD AND DRAINAGE EXCAVATION PER CUBIC YARD. END AREAS FOR EXCAVATION FOR THE WALL SHALL BE INCLUDED IN END AREA TOTALS ON CROSS-SECTIONS.

PAVEMENT

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

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

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

C. THE MILLED SURFACE SHALL BE PAVED WITHIN 72 HOURS IF THE CURRENT ADT IS ≥ 70,000 OR WITHIN 96 HOURS IF THE CURRENT ADT IS < 70,000.

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

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

F. IF MILLED SURFACE BEGINS TO DETERIORATE, PAVING TO COVER UP DETERIORATING MILLED SURFACES SHOULD OCCUR AS DIRECTED BY THE ENGINEER DURING THE NEXT WORKING DAY. IF SEVERE DISTRESS OCCURS, IMMEDIATE RESPONSE WILL BE REQUIRED.

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

MULTIMODAL

(1) DURING CONSTRUCTION, IF THE CONSTRUCTION SUPERVISOR IDENTIFIES CURB RAMP LOCATIONS WITHIN THE PROJECT LIMITS WHERE THE TDOT ROADWAY STANDARDS CANNOT BE USED DUE TO SITE LIMITATIONS, A SKETCH OR PICTURE, SHOWING EXISTING CONDITIONS AS WELL AS PROPOSED MODIFICATIONS SHOULD BE SUBMITTED TO THE REGIONAL PROJECT DEVELOPMENT OFFICE THREE WEEKS PRIOR TO THE BEGINNING OF CURB RAMP CONSTRUCTION. THE OFFICE WILL REVIEW AND EVALUATE THE LOCATIONS TO DEVELOP PROPER CURB RAMP DESIGN THAT WILL MEET REGULATIONS.

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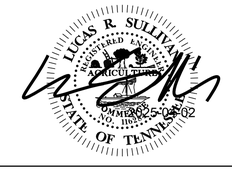

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SPECIAL NOTES

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	2E
PS&E	2025	HSIP-I-24-1(118)	2E

ENVIRONMENTAL NOTES

ENVIRONMENTAL GENERAL NOTES

NATURAL RESOURCES

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

(2) NEW CHANNEL CONSTRUCTION SHALL BE COMPLETED IN THE DRY AND STABILIZED FOR AT LEAST 72 HOURS PRIOR TO DIVERTING WATER FROM THE EXISTING AND/OR TEMPORARY CHANNEL.

(3) INSTREAM EPSC DEVICES REQUIRE THE TDOT ENVIRONMENTAL DIVISION, PERMITS SECTION REVIEW AND MUST BE PROCESSED BY THE PERMITS SECTION TO OBTAIN WATER QUALITY PERMITS.

(4) THE OPERATION OF EQUIPMENT IN WATERS OF THE STATE/U.S., INCLUDING WETLANDS AND EPHEMERAL, INTERMITTENT, AND PERENNIAL STREAMS, IS NOT ALLOWED.

(5) THE WIDTH OF THE FILL ASSOCIATED WITH TEMPORARY CROSSINGS SHALL BE LIMITED TO THE MINIMUM NECESSARY FOR THE ACTUAL CROSSING, NOT TO EXCEED THE WIDTH SPECIFIED IN THE STANDARD DRAWING.

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

(7) HEAVY EQUIPMENT WORKING IN WETLANDS WITH PERMITTED TEMPORARY IMPACTS SHALL BE PLACED ON MATS, OR OTHER MEASURES MUST BE TAKEN TO MINIMIZE SOIL DISTURBANCE AND COMPACTION UNLESS SPECIFICALLY ADDRESSED IN THE CONSTRUCTION PLANS. ANY MATS AND OTHER MEASURES USED FOR HEAVY EQUIPMENT SHALL BE REMOVED IN THEIR ENTIRETY AFTER THE WORK IS COMPLETED. ALL AFFECTED AREAS SHOULD BE RETURNED TO PRE-EXISTING CONDITIONS.

(8) WETLANDS SHALL NOT BE USED AS EQUIPMENT STORAGE, STAGING, OR TRANSPORTATION AREAS, UNLESS SPECIFICALLY PROVIDED FOR IN THE CONSTRUCTION PLANS AND PERMITS.

(9) THE CONTRACTOR SHALL TAKE APPROPRIATE STEPS PRIOR TO ANY CONSTRUCTION AND MAINTENANCE ACTIVITIES TO ENSURE THAT ENVIRONMENTAL FEATURES (E.G., STREAMS, WETLANDS, SPRINGS, ETC.) ARE NOT IMPACTED BEYOND PERMITTED LOCATIONS. IF THE CONTRACTOR OR TDOT INSPECTOR IS UNSURE OF THE IDENTITY OF AN ENVIRONMENTAL FEATURE, THE INSPECTOR SHALL CONTACT THE TDOT REGION ENVIRONMENTAL TECH GROUP IMMEDIATELY.

SPECIES

(10) NO ACTIVITY MAY SUBSTANTIALLY DISRUPT THE MOVEMENT OF THOSE SPECIES OF AQUATIC LIFE INDIGENOUS TO THE WATER BODY, INCLUDING THOSE SPECIES THAT NORMALLY MIGRATE THROUGH THE AREA.

(11) SHOULD CLIFF SWALLOW OR BARN SWALLOW NESTS, EGGS, OR BIRDS (YOUNG AND ADULTS) BE PRESENT, THE CONTRACTOR SHALL CONTACT THE REGIONAL ECOLOGY OFFICE TO DETERMINE IF SEASONAL RESTRICTIONS WILL BE NECESSARY. GENERALLY, BIRDS, NESTS, AND EGGS MAY NOT BE DISTURBED BETWEEN APRIL 15 AND JULY 31. FROM AUGUST 1 TO APRIL 14, NESTS CAN BE REMOVED OR DESTROYED SO LONG AS BIRDS OR EGGS ARE NOT PRESENT, AND MEASURES IMPLEMENTED TO PREVENT FUTURE NEST BUILDING AT THE SITE (I.E., CLOSING OFF AREA USING NETTING).

(12) IF THE REMOVAL OF ANY TREES WITH A DIAMETER AT BREAST HEIGHT (DBH) GREATER THAN 3 INCHES IS DEEMED NECESSARY THE TDOT SUPERVISOR SHALL CONTACT THE TDOT ENVIRONMENTAL DIVISION, ECOLOGY SECTION IMMEDIATELY.

PERMITS, PLANS & RECORDS

(13) THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR AND OBTAIN ANY NECESSARY ENVIRONMENTAL PERMITS OR APPROVALS, INCLUDING BUT NOT LIMITED TO ARCHAEOLOGY, ECOLOGY, HISTORICAL, HAZARDOUS MATERIALS, AIR AND NOISE, TDEC ARAP/401, USACE SECTION 404, TVA SECTION 26A, AND TDEC NPDES PERMITS, FROM FEDERAL, STATE AND/OR LOCAL AGENCIES REGARDING ANY MATERIAL AND STAGING AREAS AND THE OPERATION OF ANY PROJECT-DEDICATED ASPHALT AND/OR CONCRETE PLANTS TO BE USED. ANY SUCH PERMITS SHALL BE SUPPLIED TO THE TDOT PROJECT RESPONSIBLE PARTY PRIOR TO THE USE OF THE PERMITTED AREA(S).

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

(15) IF A CHANGE IN PROJECT SCOPE OCCURS DURING CONSTRUCTION, INCLUDING VALUE ENGINEERING, THE TDOT PERMIT SECTION SHALL BE CONTACTED TO DETERMINE WHETHER PERMIT REVISIONS ARE NEEDED. THE ROADWAY DESIGN DIVISION SHALL BE CONTACTED TO DETERMINE IF ANY PLAN REVISIONS ARE NEEDED.

(16) THE CONTRACTOR SHALL REVIEW ALL EXISTING PERMITS TO ENSURE THAT WORK AT PERMITTED SITES DOES NOT EXCEED EXPIRATION DATE. IF WORK IS GOING TO BE CONTINUED AFTER EXPIRATION DATES, THE CONTRACTOR SHALL CONTACT THE TDOT PROJECT RESPONSIBLE PARTY TO COMMENCE PERMIT RENEWAL PROCESS.

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

SUPPORT ACTIVITIES

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

ENVIRONMENTAL

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

ENVIRONMENTAL SPECIAL NOTES

ENVIRONMENTAL

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

ECOLOGY

(2) STAFF FROM THE TDOT ENVIRONMENTAL DIVISION OR A DESIGNEE SHALL ADVISE THE CONTRACTOR DURING THE PRE-CONSTRUCTION MEETING WHEN ENVIRONMENTAL DIVISION PERSONNEL OR A DESIGNATED CONSULTANT WILL NEED TO BE ONSITE FOR WORK BEING DONE WHICH COULD AFFECT WATERS OF THE STATE/U.S. OR SPECIES.

(3) STAFF FROM THE TDOT ENVIRONMENTAL DIVISION OR A DESIGNEE SHALL ATTEND THE PRE-CONSTRUCTION MEETING FOR ALL PROJECTS WHICH HAVE THREATENED OR ENDANGERED SPECIES OR CRITICAL HABITAT PROXIMAL TO SCHEDULED WORK. THIS WILL PROVIDE THE OPPORTUNITY TO ENSURE THAT PERSONNEL INCLUDING THE CONTRACTOR'S PERSONNEL AND SUBCONTRACTORS ARE MADE AWARE OF THE NECESSARY PRECAUTIONS THAT MUST BE FOLLOWED.

(4) ALL PROJECTS WITH LEGALLY PROTECTED SPECIES OR CRITICAL HABITAT IDENTIFIED SHALL HAVE MEASURES IN PLACE TO CONTAIN CONCRETE DUST, CEMENT DUST AND ALL OTHER MATERIALS. THESE MATERIALS ARE NOT ALLOWED TO ENTER WATERS OF THE STATE/U.S.

PROJECT COMMITMENTS

(5) THERE ARE NO KNOWN SPECIAL ENVIRONMENTAL COMMITMENTS REQUIRED BY THIS PROJECT.

SCOPE OF WORK

(6) SAFETY IMPROVEMENTS.

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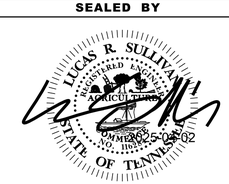

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ENVIRONMENTAL NOTES

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	2F
PS&E	2025	HSIP-I-24-1(118)	2F

STORM DRAIN ENDWALLS

LOCATION \ SHEET NO.	STATION	OFFSET (FT.)	SKEW	CODE	TYPE	STANDARD DRAWING NO.	RIP-RAP CLASS "B" 709-05.08 (TON)	PROTECTED ENDWALLS		SAFETY ENDWALLS (ITEM NO. 611-07.54 THRU 611-07.71 SERIES)																	
								CLASS "A" CONCRETE 611-07.01 (C.Y.)	STEEL BAR REINFORCING 611-07.02 (LB.)	18 IN. 3:1 07.54 (EACH)	18 IN. 4:1 07.55 (EACH)	18 IN. 6:1 07.56 (EACH)	24" IN. 3:1 07.57 (EACH)	24" IN. 4:1 07.58 (EACH)	24" IN. 6:1 07.59 (EACH)	30" IN. 3:1 07.60 (EACH)	30" IN. 4:1 07.61 (EACH)	30" IN. 6:1 07.62 (EACH)	36" IN. 3:1 07.63 (EACH)	36" IN. 4:1 07.64 (EACH)	36" IN. 6:1 07.65 (EACH)	42" IN. 3:1 07.66 (EACH)	42" IN. 4:1 07.67 (EACH)	42" IN. 6:1 07.68 (EACH)	48" IN. 3:1 07.69 (EACH)	48" IN. 4:1 07.70 (EACH)	48" IN. 6:1 07.71 (EACH)
RAMP "A" / 4B	112+99.62	28.32	90°	EW-1	"U"	D-PE-18A	131.6				1																
RAMP "C" / 5B	321+12.00	-33	33°	EW-2	"A"	D-PE-1	194.5	4.9	84																		
RAMP "C" / 5B	321+08.00	-44.54	90°	EW-3	STRAIGHT	D-PE-4		1.5	70																		
TOTALS							326.1	6.4	154		1																

CATCH BASINS

SHEET NO.	LOCATION	STATION	OFFSET (FT.)	DRAINAGE CODE	GRATE ELEV.	INVERT ELEV.	DEPTH (FT.)	INSIDE DIM.	STANDARD DRAWING NO.	PAY ITEMS								
										TYPE 12 611-12.01 0'-4'	TYPE 12 611-12.02 4'-8'	TYPE 12 611-12.03 8'-12'	TYPE 14 611-14.01 0'-4'	TYPE 14 611-14.02 4'-8'	TYPE 14 611-14.03 8'-12'	TYPE 38 611-38.01 0'-4'	TYPE 38 611-38.02 4'-8'	TYPE 38 611-38.03 8'-12'
5B	FORTRESS BLVD.	34+11.46	-63.66	CB-1	600.93	593.58	7.35	4 x 3	D-CB-DI		1							
5B	FORTRESS BLVD.	34+66.98	-48.50	CB-2	602.10	598.10	4.00	4 x 3	D-CB-12P		1							
5B	MEDICAL CENTER PKWY.	53+29.67	43.54	CB-3	604.83	600.42	4.41	4 x 3	D-CB-12P		1							
TOTALS											3							

STORM DRAINAGE PIPES

SHEET NO.	INLET		OUTLET		% GRADE	REINFORCED CONCRETE PIPE - CLASS, ITEM NO., SIZE & LENGTH (FT.)						
	CODE NO.	OUTLET ELEV.	CODE NO.	INLET ELEV.			CLASS III 607-03.02 18"	CLASS III 607-05.02 24"	CLASS III 607-06.02 30"	CLASS III 607-07.02 36"	CLASS III 607-08.02 42"	
4B	EX.	562.70	EW-1	562.57	1.30%		10'					
5B	EW-2	581.63	EX	581.45	0.50%						38'	
TOTALS							10'				38'	

RIGHT OF WAY MARKERS

SHEET NO.	Item #: 708-02.01 QUANTITIES			
	"A"	"B"	"C"	TOTALS
4A				
5A			1	1
6A		1	1	2
TOTALS		1	2	3

ESTIMATED GRADING QUANTITIES

DESCRIPTION	UNADJUSTED VOLUMES (CY) EXC.	UNADJUSTED VOLUMES (CY) EMB.	ADJUSTED VOLUMES (CY) EXC.
MAINLINE			
SIDE ROADS			
PVT. DRIVES, BUSINESS AND FIELD ENTRANCES			
INDEPENDENT DITCHES			
TEMPORARY CONSTRUCTION EXITS			
RAMPS	1473	4979	
PAVEMENT			
TOPSOIL (EMB.)			
TOPSOIL (EXC.)		767	
TOPSOIL (TO REPLACE STRIPPED TOPSOIL)			

ROCK (C.Y.)		TOTALS (C.Y.)				
EXC.	EMB.	EXC. (UNCL.)	EMB. (UNCL.)	EXC (COMMON)	EXC. (AVAIL.)	EXC. (ADJ.)
		1473	5746	1473	1053	1053

BALANCE SUMMARY

SHRINK = 40 % SWELL = 40 %

EMB.		EXC.
5746	VS	-1053
AVAILABLE	=	4693
BORROW MATERIAL	=	6571

PAVEMENT QUANTITIES

LOCATION (ROADWAY)	TYPE - GRADE - PAY ITEM (TON) MINERAL AGG. D 303-01	TACK COAT 403-01	ASPHALTIC CONCRETE SURFACE (HOT MIX) PG 70-22 D 411-02.10	S.Y. COLD PLANING BIT. PVMT. 415-01.02	CONCRETE (S.Y.) TREATED PERMEABLE BASE 313-03	CONCRETE PAVMENT 10" 501-01.03
RAMP "A"	808.6				2628	2125
RAMP "A1"	179.5				547	549
RAMP "C"	1289.0				2287	2260
RAMP "C1"	4.3				189	177
FORTRESS BLVD.		322.4	167.9	3223.6		
MEDICAL CENTER PKWY.		295.1	153.7	2950.8		
TOTALS	2281.4	617.4	321.6	6174.4	5651	5111

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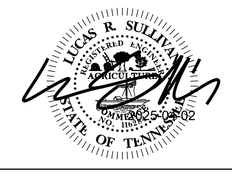

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TABULATED QUANTITIES

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	2F1
PS&E	2025	HSIP-I-24-1(118)	2F1

CURB RAMP TABULATION

ROADWAY		LOCATION									STANDARD	CURB RAMP (NEW)	
MAINLINE	INTERSECTING	STATION or LOG MILE (L.M.)	LEFT	MEDIAN	RIGHT	QUADRANT N.	QUADRANT S.	QUADRANT E.	QUADRANT W.	SIGNALIZED YES / NO	DRAWING NO.	ITEM NO. 701-02.03 S.F.	REMARKS
RAMP "A1"	FORTRESS BLVD.	220+91.45			14.5	X			X	YES	MM-CR-2	67.5	
RAMP "A1"	FORTRESS BLVD.	220+91.45	26.5			X			X	YES	MM-CR-2	75.5	
RAMP "A"	FORTRESS BLVD.	121+39.93			2.5	X			X	YES	MM-CR-2	64.0	
RAMP "A"	FORTRESS BLVD.	121+39.79	30.5			X			X	YES	MM-CR-3	50.2	
RAMP "C1"	MEDICAL CENTER PKWY.	15+67.06			2.5		X	X		YES	MM-CR-3	55.0	
RAMP "C1"	MEDICAL CENTER PKWY.	15+67.06	14.5				X	X		YES	MM-CR-2	62.5	
RAMP "C"	MEDICAL CENTER PKWY.	316+38.16			14.5		X	X		YES	MM-CR-2	75.4	
RAMP "C"	MEDICAL CENTER PKWY.	316+38.21	20.18				X	X		YES	MM-CR-2	61.0	
											TOTAL	511	

RIPRAP DITCHES

ROADWAY	STATION FROM	STATION TO	SIDE	RIPRAP CLASS A1 709-05.06 (C.Y.)	SODDING NEW SOD 803-01 (S.Y.)
RAMP "A"	109+89.44	113+00.00	RT.		901
RAMP "C"	319+00.00	321+08.00	LT.	238.0	
RAMP "C"	321+18.00	323+00.00	LT.	301.0	
TOTALS				539	901

PROPOSED GUARDRAIL

SHEET NO.	LOCATION	SIDE LT	SIDE RT	STATIONS FROM	STATIONS TO	GUARDRAIL RADIUS RAIL 706-06.03 (L.F.)	GUARDRAIL W BEAM GR (TYPE 2) MASH TL3 705-06.01 (L.F.)	REMARKS
5B	RAMP "A" & FORTRESS BLVD.	LT		120+74.45	35+92.27	15	105	TIE TO EX. G.R.
5B	RAMP "C" & FORTRESS BLVD.		RT	35+32.47	15+94.29	22	43	TIE TO EX. G.R.
6B	RAMP "C"		RT	318+50.01	320+14.88		166	TIE TO EX. G.R.
TOTALS						37	314	

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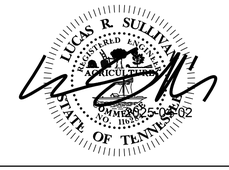

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TABULATED QUANTITIES

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	3
P. S. & E.	2025	HSIP-I-24-1(118)	3

RIGHT-OF-WAY (R.O.W.) NOTES, UTILITY NOTES, AND UTILITY OWNERS

R.O.W. NOTES

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

UTILITY NOTES

(1) THE LOCATIONS OF UTILITIES SHOWN WITHIN THESE PLANS ARE APPROXIMATE ONLY. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. ABOVE GRADE AND UNDERGROUND UTILITIES SHOWN WERE TAKEN FROM VISIBLE APPURTENANCES AT THE SITE, PUBLIC RECORDS, AND/OR MAPS PREPARED BY OTHERS. THEREFORE, RELIANCE UPON THE TYPE, SIZE, AND LOCATION OF UTILITIES SHOWN SHOULD BE DONE SO WITH THIS CIRCUMSTANCE CONSIDERED. DETAILED VERIFICATION OF EXISTENCE, LOCATION, AND DEPTH SHOULD ALSO BE MADE PRIOR TO ANY DECISION RELATIVE THERETO IS MADE. AVAILABILITY AND COST OF SERVICE SHOULD BE CONFIRMED WITH THE APPROPRIATE UTILITY COMPANY. IN TENNESSEE, IT IS A REQUIREMENT, PER "THE UNDERGROUND UTILITY DAMAGE PREVENTION ACT", THAT ANYONE WHO ENGAGES IN EXCAVATION MUST NOTIFY ALL KNOWN UNDERGROUND UTILITY OWNERS, NO LESS THAN THREE (3) OR NOT MORE THAN TEN (10) WORKING DAYS PRIOR TO THE DATE OF THEIR INTENT TO EXCAVATE AND ALSO TO AVOID ANY POSSIBLE HAZARD OR CONFLICT. NOTIFICATION BY CALLING THE TENNESSEE ONE CALL SYSTEM, INC., AT 1-800-351-1111 AS REQUIRED BY TCA 65-31-106 WILL BE REQUIRED.

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

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

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

(5) THE CONTRACTOR SHALL NOTIFY EACH INDIVIDUAL UTILITY OWNER OF HIS PLAN OF OPERATION IN THE AREA OF THE UTILITIES. PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL CONTACT THE UTILITY OWNERS AND REQUEST THEM TO PROPERLY LOCATE THEIR RESPECTIVE UTILITY ON THE GROUND. THIS NOTIFICATION SHALL BE GIVEN AT LEAST THREE (3) BUSINESS DAYS PRIOR TO COMMENCEMENT OF OPERATIONS AROUND THE UTILITY IN ACCORDANCE WITH TCA 65-31-106. NOTIFICATION BY CALLING THE TENNESSEE ONE CALL SYSTEM, INC AT 1-800-351-1111 WILL BE REQUIRED.

UTILITY OWNERS

CABLE:
COMCAST / XFINITY
660 MAINSTREAM DRIVE
NASHVILLE, TENNESSEE 37228
CONTACT: KATELYN GROSS
OFFICE PHONE:
CELL PHONE: (615) 961 2453
EMAIL: KATELYN_GROSS@COMCAST.COM

ELECTRIC:
MIDDLE TENNESSEE ELECTRIC
555 NEW SALEM ROAD
MURFREESBORO, TENNESSEE 37129
CONTACT: CHRISTOPHER WEAVER
OFFICE PHONE: (615) 494 1068
CELL PHONE: (615) 566 8035
EMAIL: CHRISWEAVER@MTE.COM

ELECTRIC:
MURFREESBORO ELECTRIC DEPARTMEN
205 NORTH WALNUT STREET
MURFREESBORO, TENNESSEE 37130
CONTACT: CHRIS BARNS
OFFICE PHONE: (615) 494 0428
CELL PHONE:
EMAIL: CBARNS@MEDTN.COM

FIBER OPTIC (T.D.O.T.):
UNITED COMMUNICATIONS
120 TAYLOR STREET
CHAPEL HILL, TN 37034
CONTACT: JON KNIGHT
OFFICE PHONE:
CELL PHONE: (704) 242 4172
EMAIL: JON.KNIGHT@GOUNITED.NET

WATER:
CONSOLIDATED UTILITY DISTRICT
709 NEW SALEM HWY.
MURFREESBORO, TN 37129
CONTACT: JASON LAXSON
OFFICE PHONE: (615) 867 7327
CELL PHONE:
EMAIL: JLAXSON@CUDRC.COM

GAS:
ATMOS ENERGY CORPORATION
810 CRESCENT CENTRE DRIVE, SUITE 600
FRANKLIN, TENNESSEE 37067
CONTACT: TAYLOR SANDERS
OFFICE PHONE: (615) 927 1596
CELL PHONE:
EMAIL: TAYLOR.SANDERS@ATMOSENERGY.COM

TELEPHONE:
AT&T CORPORATION
116 SOUTH CANNONS AVENUE
MURFREESBORO, TENNESSEE 37129
CONTACT: KENNETH KORNEGAY
OFFICE PHONE: (615) 848 2082
CELL PHONE: (615) 631 7221
EMAIL: KK4096@ATT.COM

FIBER OPTIC (VERIZON):
XO COMMUNICATIONS
101 MOLLOY ST. SUITE 300
NASHVILLE TN, 37201
CONTACT DEREK DEE
OFFICE PHONE: (615) 777 7727
CELL PHONE: (615) 207 1297
EMAIL: DEREK.R.DEE@VERIZON.COM

WATER/SEWER:
MURFREESBORO WATER & SEWER DEPT.
220 NORTH WEST BROAD STREET
MURFREESBORO, TENNESSEE 37130
CONTACT: VALERIE SMITH
OFFICE PHONE: (615) 848 3200
CELL PHONE:
EMAIL: VSMITH@MURFREESBOROTN.GOV

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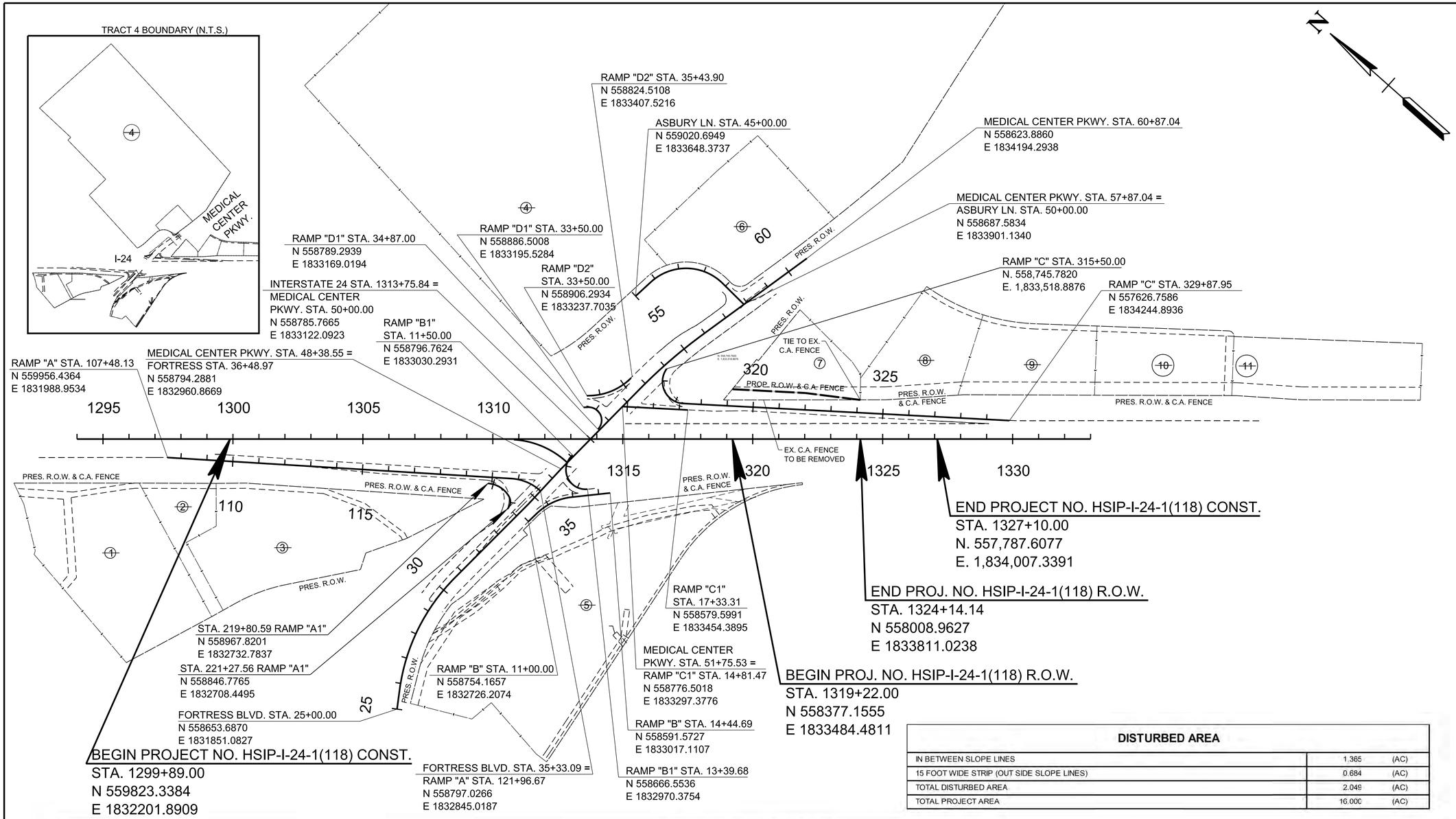
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-21-1(118)	3A
PS&E	2025	HSIP-I-24-1(118)	3A



END PROJECT NO. HSIP-I-24-1(118) CONST.
STA. 1327+10.00
N. 557,787.6077
E. 1,834,007.3391

END PROJ. NO. HSIP-I-24-1(118) R.O.W.
STA. 1324+14.14
N 558008.9627
E 1833811.0238

BEGIN PROJ. NO. HSIP-I-24-1(118) R.O.W.
STA. 1319+22.00
N 558377.1555
E 1833484.4811

BEGIN PROJECT NO. HSIP-I-24-1(118) CONST.
STA. 1299+89.00
N 559823.3384
E 1832201.8909

DISTURBED AREA		
IN BETWEEN SLOPE LINES	1.365	(AC)
15 FOOT WIDE STRIP (OUT SIDE SLOPE LINES)	0.684	(AC)
TOTAL DISTURBED AREA	2.049	(AC)
TOTAL PROJECT AREA	16.000	(AC)

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 BOOK	PAGE	LEFT	RIGHT	TOTAL	LEFT	RIGHT	TOTAL	LEFT	RIGHT	PERMANENT DRAINAGE	SLOPE	CONSTRUCTION	AIR RIGHTS
1	GEORGE & JACKIE LAW AND E. RAY & MARSHA EARNEST	79	058.03-000	96	857		7.007	7.007					7.007				
2	MURFREESBORO ELECTRIC DEPARTMENT	79	058.02-000	20	1453		1.497	1.497					1.497				
3	TT OF TOY MURFREESBORO PROPERTY, LLC	79	058.01-000	1183	3647		6.720	6.720					6.720				
4	WILLIAMSON FAMILY FARM, LP	79	062.00-000	667	805	165.938		165.938				165.938					
5	TT OF GM MURFREESBORO PROPERTY, LLC	79	097.01-000	1231	2743		14.297						14.297				
				1231	2748												
				1465	1595												
				1489	3750												
				1543	1939												
6	WILLIAMSON FAMILY FARM, LP	79	062.01-000	1162	2343	4.969		4.969				4.969					
7	NORTH CHURCH DRAINAGE ASSOCIATION	79	095.23-000	813	1014	2.392		2.392	0.303		0.303	2.089					
8	AGNI GROUP LLC	79	095.24-000	1776	2727	2.941		2.941				2.941					
9	PLATINUM GATEWAY II, LLC	79	095.25-000	811	1206	3.100		3.100				3.100					
10	PLATINUM GATEWAY I, LLC	79	095.26-000	811	1208	3.115		3.115				3.115					
11	VISION MURFREESBORO II, LLC	92	094.03-000	1366	3056	3.787		3.787				3.787					
ACQUISITION TOTALS (ACRES)									0.303								

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COORDINATES ARE N.A.D. 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00008 AND TIED TO THE T.G.R.N. ALL ELEVATIONS ARE REFERENCED TO THE N.A.V.D. 1988 WITH GEOID 03.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPERTY MAP AND RIGHT-OF-WAY (R.O.W.) ACQUISITION TABLE

SCALE: 1" = 200'

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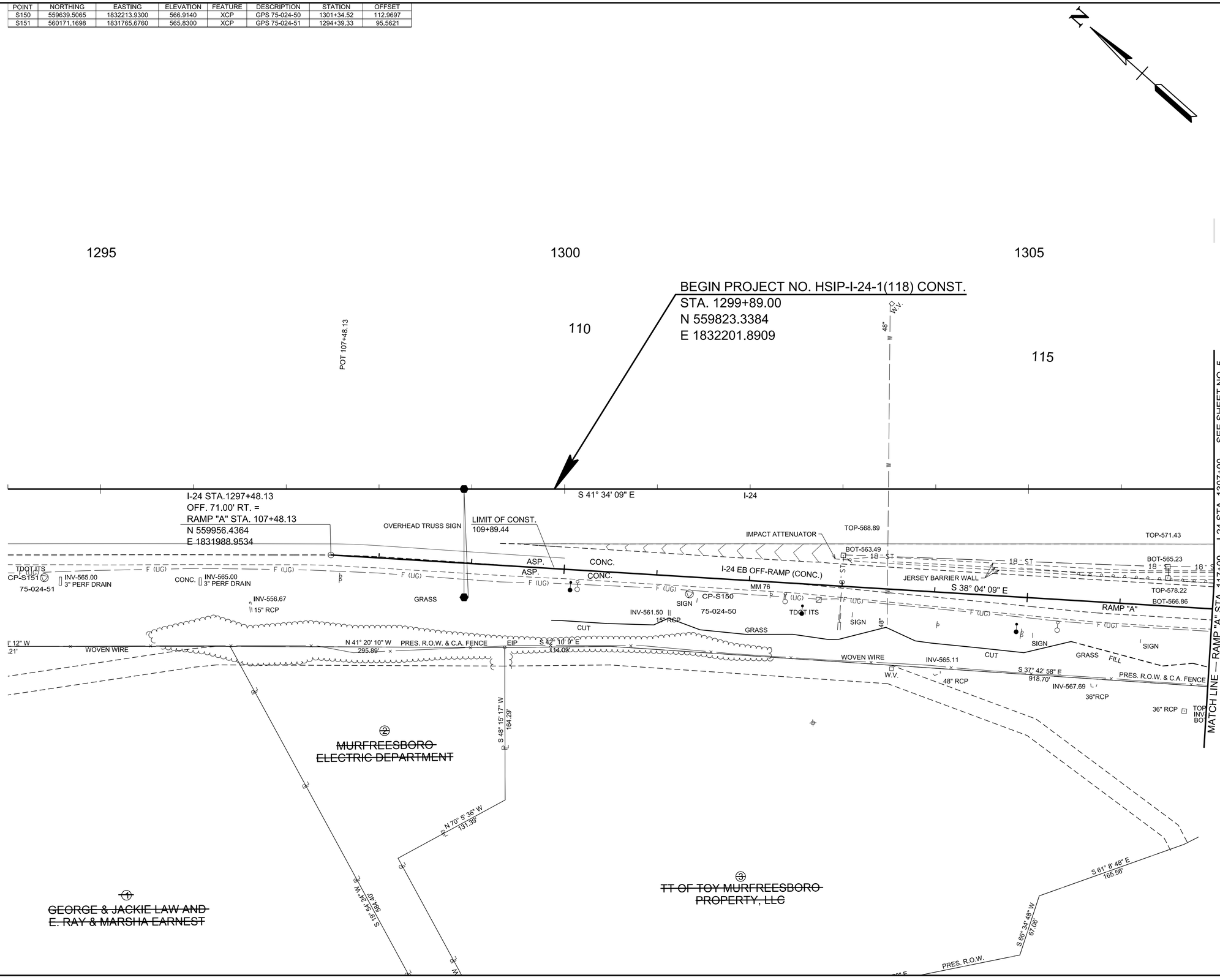
POINT	NORTHING	EASTING	ELEVATION	FEATURE	DESCRIPTION	STATION	OFFSET
S150	559639.5065	1832213.9300	566.9140	XCP	GPS 75-024-50	1301+34.52	112.9697
S151	560171.1698	1831765.6760	565.8300	XCP	GPS 75-024-51	1294+39.33	95.5621

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	4
PS&E	2025	HSIP-I-24-1(118)	4

GENERAL CONTRACTOR TO COORDINATE RETAINAING WALL DESIGN AND DEPTH WITH ATMOS ENERGY.



SEALED BY

LUCAS R. SULLIVAN
REGISTERED ENGINEER
AGRICULTURE
No. 140001
STATE OF TENNESSEE
2025-04-02

COORDINATES ARE N.A.D. 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00008 AND TIED TO THE T.G.R.N. ALL ELEVATIONS ARE REFERENCED TO THE N.A.V.D. 1988 WITH GEOID 03.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

STA. 1294+00 TO STA. 1307+00
SCALE: 1" = 50'

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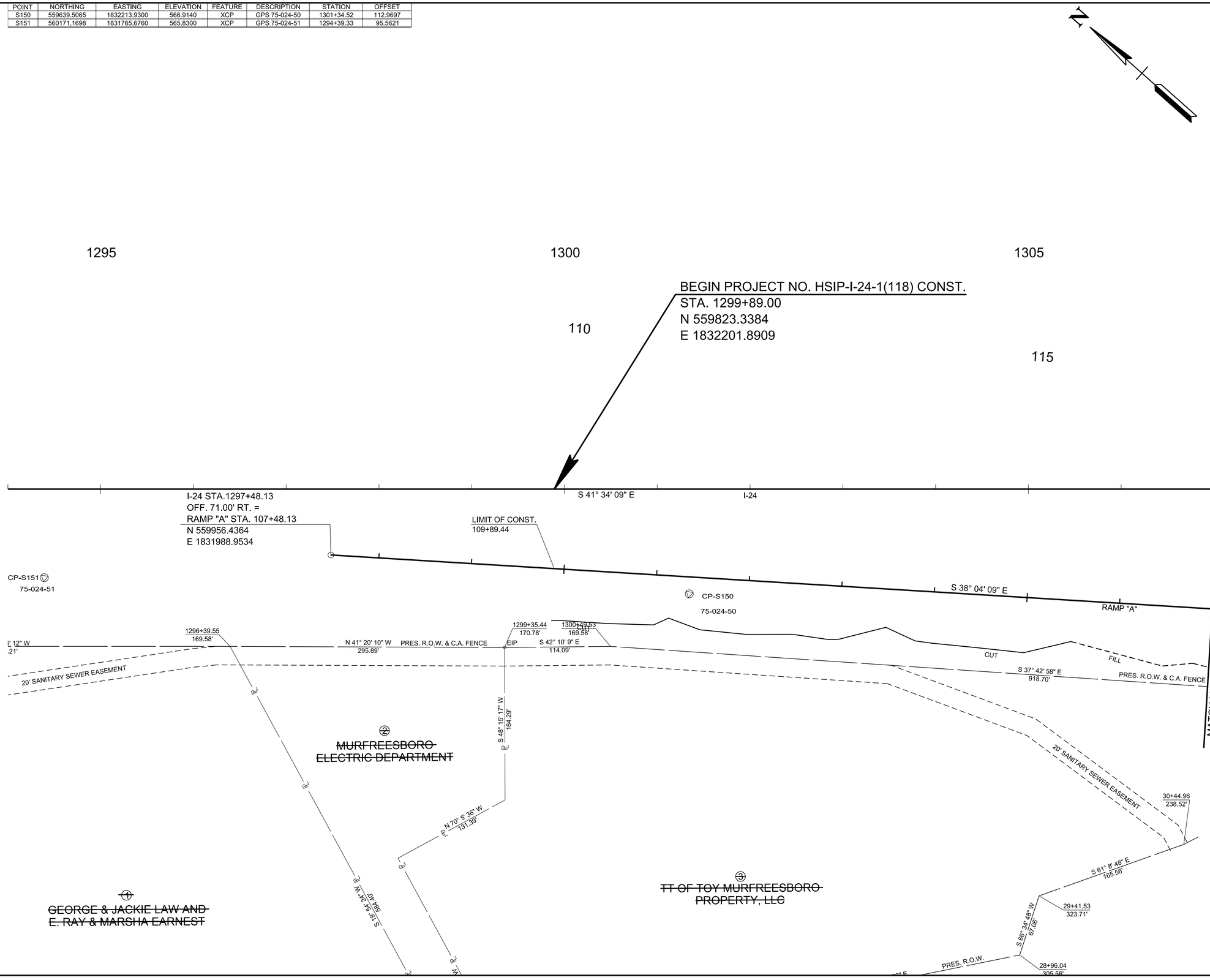
POINT	NORTHING	EASTING	ELEVATION	FEATURE	DESCRIPTION	STATION	OFFSET
S150	559639.5065	1832213.9300	566.9140	XCP	GPS 75-024-50	1301+34.52	112.9697
S151	560171.1698	1831765.6760	565.8300	XCP	GPS 75-024-51	1294+39.33	95.5621

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	4A
PS&E	2025	HSIP-I-24-1(118)	4A



SEALED BY

COORDINATES ARE N.A.D. 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00008 AND TIED TO THE T.G.R.N. ALL ELEVATIONS ARE REFERENCED TO THE N.A.V.D. 1988 WITH GEOID 03.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RIGHT-OF-WAY (R.O.W.) DETAILS

STA. 1294+00 TO STA. 1307+00
SCALE: 1" = 50'

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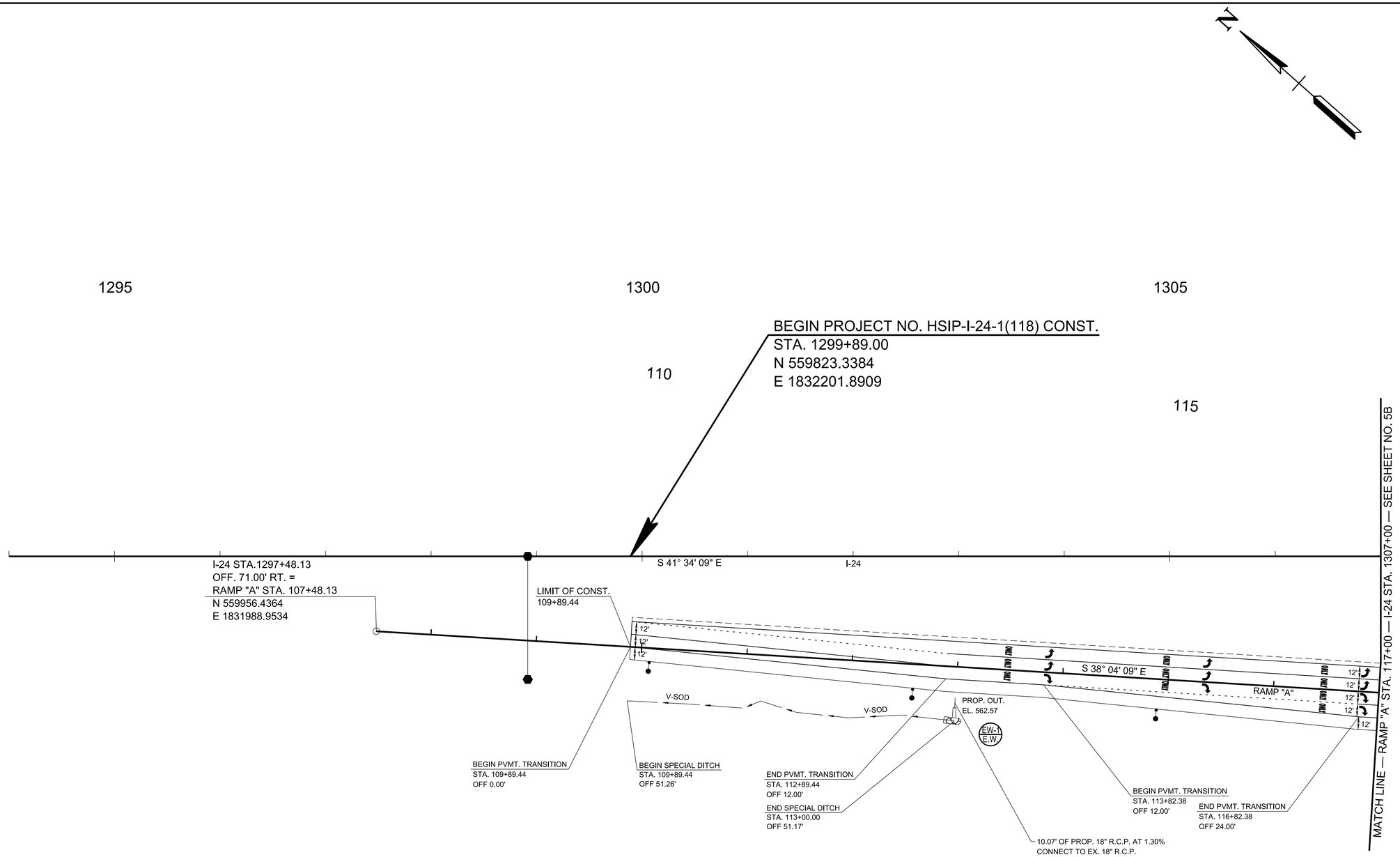
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	4B
PS&E	2025	HSIP-I-24-1(118)	4B

GENERAL CONTRACTOR TO COORDINATE RETAINAING WALL DESIGN AND DEPTH WITH ATMOS ENERGY.



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

STA. 1294+00 TO STA. 1307+00
SCALE: 1" = 50'

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	5
P. S. & E.	2025	HSIP-I-24-1(118)	5

REV. 2022-07-29: REVISED AND ADDED PRESENT R.O.W. BEARINGS AND DISTANCES.

CURVE RAMPD1-1
PI 34+94.35
N 558,782.5964
E 1,833,295.7334
Δ 136° 59' 14" (RT)
D 114° 35' 30"
R 50.00
L 119.54
T 126.89
SE N.C.
DESIGN SPEED 20 M.P.H.
TRANS. LENGTH N/A

CURVE RAMPD2-1
PI 34+56.81
N 558,829.8723
E 1,833,312.3230
Δ 42° 27' 36" (LT)
D 24° 54' 40"
R 230.00
L 170.44
T 89.35
SE N.C.
DESIGN SPEED 20 M.P.H.
TRANS. LENGTH N/A

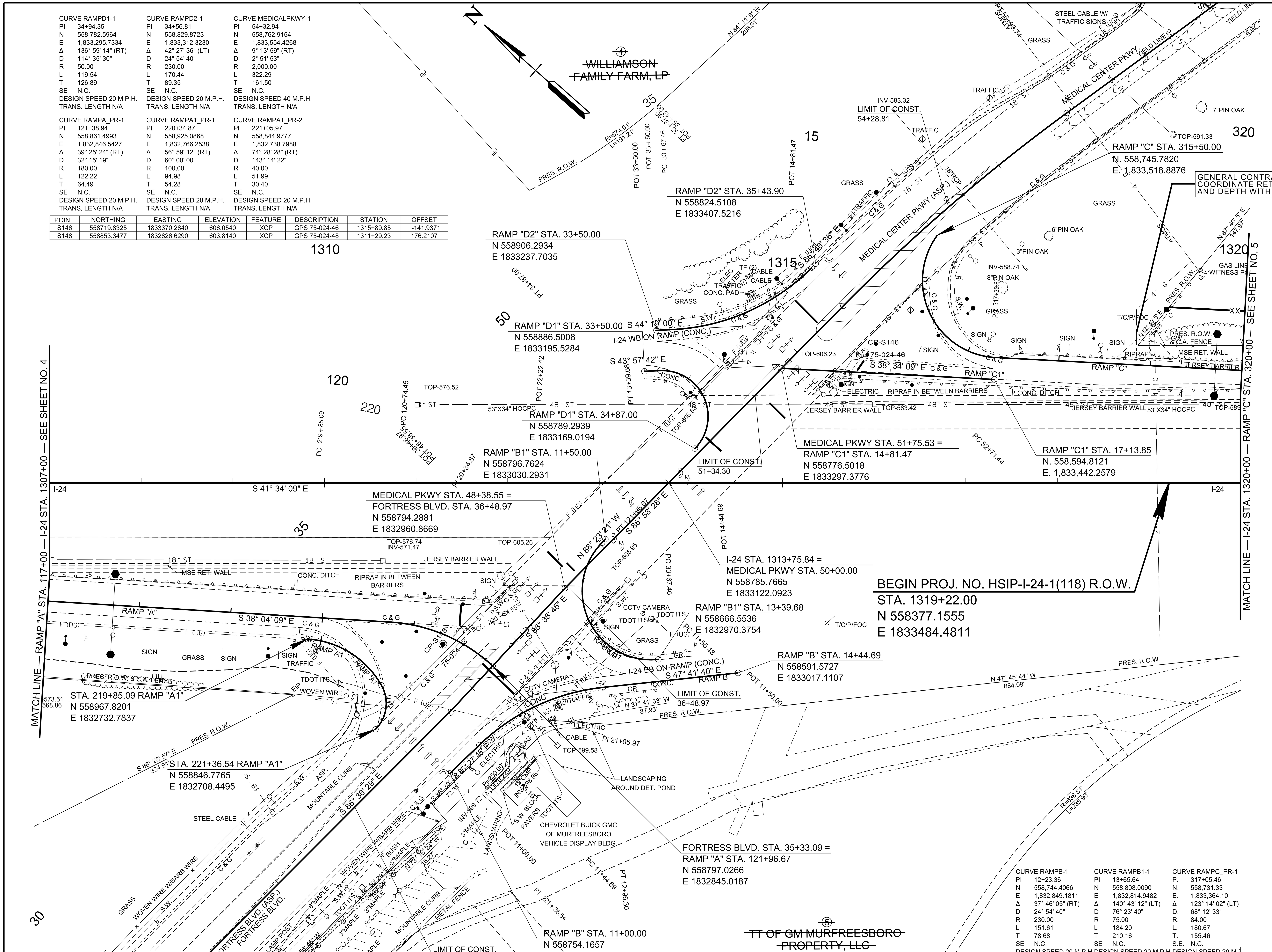
CURVE MEDICALPKWY-1
PI 54+32.94
N 558,762.9154
E 1,833,554.4268
Δ 9° 13' 59" (RT)
D 2° 51' 53"
R 2,000.00
L 322.29
T 161.50
SE N.C.
DESIGN SPEED 40 M.P.H.
TRANS. LENGTH N/A

CURVE RAMPA_PR-1
PI 121+38.94
N 558,861.4993
E 1,832,846.5427
Δ 39° 25' 24" (RT)
D 32° 15' 19"
R 180.00
L 122.22
T 64.49
SE N.C.
DESIGN SPEED 20 M.P.H.
TRANS. LENGTH N/A

CURVE RAMPA1_PR-1
PI 220+34.87
N 558,925.0868
E 1,832,766.2538
Δ 56° 59' 12" (RT)
D 60° 00' 00"
R 100.00
L 94.98
T 54.28
SE N.C.
DESIGN SPEED 20 M.P.H.
TRANS. LENGTH N/A

CURVE RAMPA1_PR-2
PI 221+05.97
N 558,844.9777
E 1,832,738.7988
Δ 74° 28' 28" (RT)
D 143° 14' 22"
R 40.00
L 51.99
T 30.40
SE N.C.
DESIGN SPEED 20 M.P.H.
TRANS. LENGTH N/A

POINT	NORTHING	EASTING	ELEVATION	FEATURE	DESCRIPTION	STATION	OFFSET
S146	558719.8325	1833370.2840	606.0540	XCP	GPS 75-024-46	1315+89.85	-141.9371
S148	558853.3477	1832826.6290	603.8140	XCP	GPS 75-024-48	1311+29.23	176.2107



CURVE RAMPB-1
PI 12+23.36
N 558,744.4066
E 1,832,849.1811
Δ 37° 46' 05" (RT)
D 24° 54' 40"
R 230.00
L 151.61
T 78.68
SE N.C.
DESIGN SPEED 20 M.P.H.
TRANS. LENGTH N/A

CURVE RAMPB1-1
PI 13+65.64
N 558,808.0090
E 1,832,814.9482
Δ 140° 43' 12" (LT)
D 76° 23' 40"
R 75.00
L 184.20
T 210.16
SE N.C.
DESIGN SPEED 20 M.P.H.
TRANS. LENGTH N/A

CURVE RAMPC_PR-1
P. 317+05.46
N. 558,731.33
E. 1,833,364.10
Δ 123° 14' 02" (LT)
D. 68° 12' 33"
R. 84.00
L. 180.67
T. 155.46
S.E. N.C.
DESIGN SPEED 20 M.P.H.
TRANS. LENGTH N/A

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COORDINATES ARE N.A.D. 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00008 AND TIED TO THE T.G.R.N. ALL ELEVATIONS ARE REFERENCED TO THE N.A.V.D. 1988 WITH GEOID 03.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

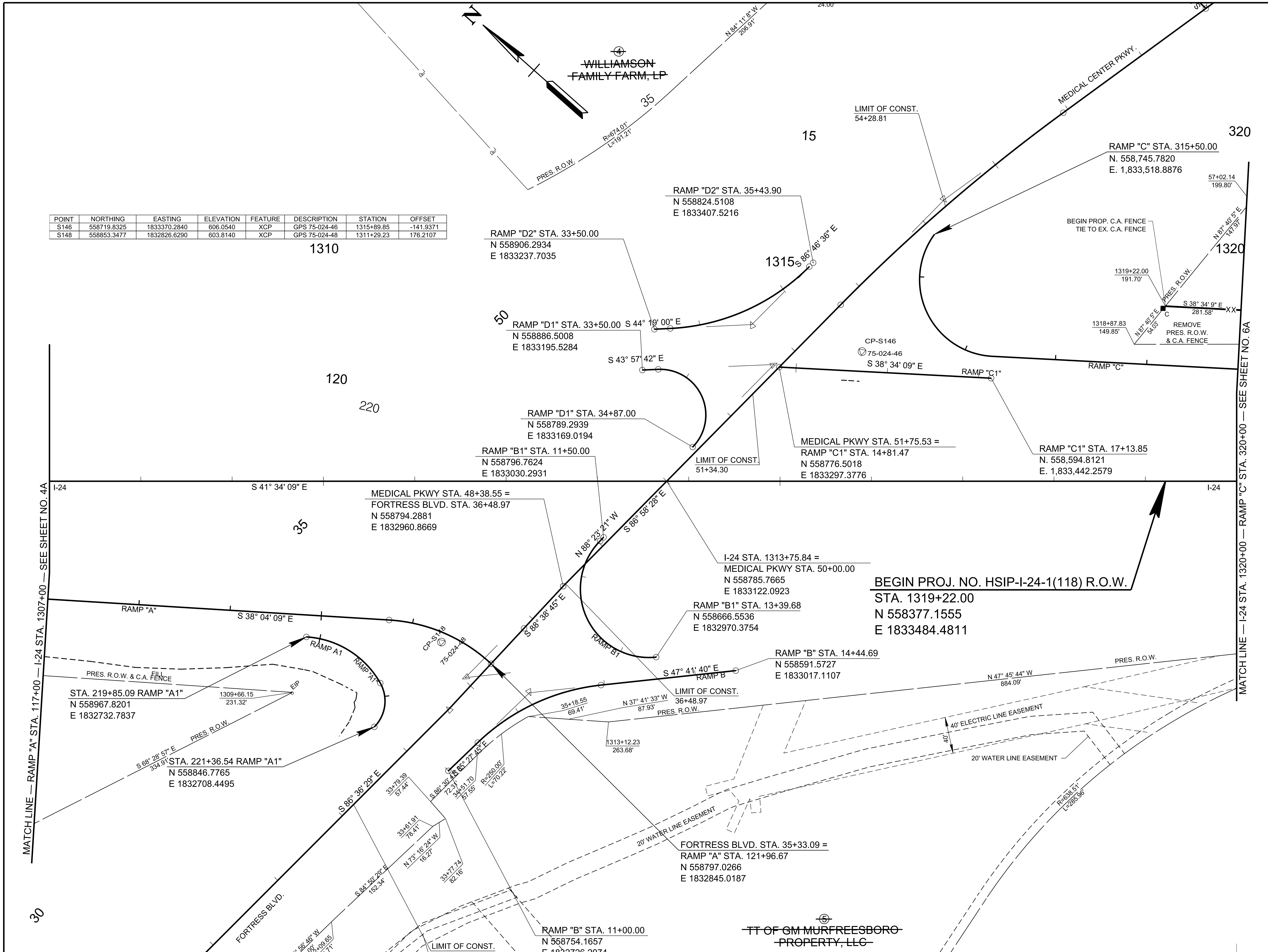
PRESENT LAYOUT

STA. 1307+00 TO STA. 1320+00
SCALE: 1" = 50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	5A
P. S. & E.	2025	HSIP-I-24-1(118)	5A

REV. 2022-07-29: REVISED AND ADDED PRESENT R.O.W. BEARINGS AND DISTANCES.

POINT	NORTHING	EASTING	ELEVATION	FEATURE	DESCRIPTION	STATION	OFFSET
S146	558719.8325	1833370.2840	606.0540	XCP	GPS 75-024-46	1315+89.85	-141.9371
S148	558853.3477	1832826.6290	603.8140	XCP	GPS 75-024-48	1311+29.23	176.2107



N
WILLIAMSON FAMILY FARM, LP
N 84° 11' 8" W
206.91'
R=674.01'
L=191.21'
PRES. R.O.W.
MEDICAL CENTER PKWY.
LIMIT OF CONST.
54+28.81
RAMP "C" STA. 315+50.00
N. 558,745.7820
E. 1,833,518.8876
RAMP "D2" STA. 35+43.90
N 558824.5108
E 1833407.5216
RAMP "D2" STA. 33+50.00
N 558906.2934
E 1833237.7035
S 86° 46' 36" E
RAMP "D1" STA. 33+50.00
N 558886.5008
E 1833195.5284
S 44° 19' 00" E
S 43° 57' 42" E
57+02.14
199.80'
BEGIN PROP. C.A. FENCE
TIE TO EX. C.A. FENCE
N 87° 40' 5" E
147.97'
1319+22.00
191.70'
S 38° 34' 9" E
281.58'
1318+87.83
149.85'
N 87° 40' 5" E
54.03'
REMOVE
PRES. R.O.W.
& C.A. FENCE
CP-S146
75-024-46
S 38° 34' 09" E
RAMP "C1"
RAMP "C"
RAMP "D1" STA. 34+87.00
N 558789.2939
E 1833169.0194
RAMP "B1" STA. 11+50.00
N 558796.7624
E 1833030.2931
LIMIT OF CONST.
51+34.30
MEDICAL PKWY STA. 51+75.53 =
RAMP "C1" STA. 14+81.47
N 558776.5018
E 1833297.3776
RAMP "C1" STA. 17+13.85
N. 558,594.8121
E. 1,833,442.2579
I-24
S 41° 34' 09" E
MEDICAL PKWY STA. 48+38.55 =
FORTRESS BLVD. STA. 36+48.97
N 558794.2881
E 1832960.8669
N 88° 23' 21" W
S 86° 58' 28" E
I-24 STA. 1313+75.84 =
MEDICAL PKWY STA. 50+00.00
N 558785.7665
E 1833122.0923
BEGIN PROJ. NO. HSIP-I-24-1(118) R.O.W.
STA. 1319+22.00
N 558377.1555
E 1833484.4811
MATCH LINE — RAMP "A" STA. 117+00 — I-24 STA. 1307+00 — SEE SHEET NO. 4A
MATCH LINE — I-24 STA. 1320+00 — RAMP "C" STA. 320+00 — SEE SHEET NO. 6A
RAMP "A"
S 38° 04' 09" E
S 88° 38' 45" E
RAMP "B1" STA. 13+39.68
N 558666.5536
E 1832970.3754
RAMP B1
RAMP "B" STA. 14+44.69
N 558591.5727
E 1833017.1107
S 47° 41' 40" E
RAMP B
CP-S148
75-024-48
RAMP A1
RAMP "A1"
PRES. R.O.W. & C.A. FENCE
FILL
EIP
1309+66.15
231.32'
STA. 219+85.09 RAMP "A1"
N 558967.8201
E 1832732.7837
LIMIT OF CONST.
36+48.97
PRES. R.O.W.
N 47° 45' 44" W
884.09'
35+18.55
69.41'
N 37° 41' 33" W
87.93'
1313+12.23
263.68'
40' ELECTRIC LINE EASEMENT
20' WATER LINE EASEMENT
S 68° 28' 57" E
334.91'
STA. 221+36.54 RAMP "A1"
N 558846.7765
E 1832708.4495
S 86° 36' 29" E
33+79.39
57.44'
S 86° 30' 1" E
72.34'
S 85° 27' 45" E
34+51.70
57.55'
R=250.00'
L=70.22'
33+61.91
78.41'
N 73° 16' 24" W
16.27'
33+77.74
82.16'
S 84° 50' 29" E
152.34'
20' WATER LINE EASEMENT
R=638.51'
L=285.96'
FORTRESS BLVD. STA. 35+33.09 =
RAMP "A" STA. 121+96.67
N 558797.0266
E 1832845.0187
FORTRESS BLVD.
N 85° 56' 46" W
89.00'
32+09.65
73.71'
LIMIT OF CONST.
33+17.57
RAMP "B" STA. 11+00.00
N 558754.1657
E 1832726.2074
TT OF GM MURFREESBORO PROPERTY, LLC
1310
1315
1320
320
50
35
15
120
220
30

SEALED BY

LUCAS R. SULLIVAN
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
STATE OF TENNESSEE
2025-04-02

COORDINATES ARE N.A.D. 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00008 AND TIED TO THE T.G.R.N. ALL ELEVATIONS ARE REFERENCED TO THE N.A.V.D. 1988 WITH GEOID 03.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RIGHT-OF-WAY (R.O.W.) DETAILS

STA. 1307+00 TO STA. 1320+00
SCALE: 1" = 50'

3/31/2025 11:37:26 AM
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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	5B
PS&E	2025	HSIP-I-24-1(118)	5B

CB-1 #12 GT. EL. 600.93 IN. EL. 594.20 OUT. EL. 593.58

CB-2 #12 GT. EL. 602.10 IN. EL. 598.21 OUT. EL. 598.10

CB-3 #12 GT. EL. 604.83 IN. EL. 600.44 OUT. EL. 600.42

N

MATCH LINE — RAMP "A" STA. 117+00 — I-24 STA. 1307+00 — SEE SHEET NO. 4B

MATCH LINE — I-24 STA. 1320+00 — RAMP "C" STA. 320+00 — SEE SHEET NO. 6B

35 15 320 1310 1315 1320 50 120 220 30

MEDICAL CENTER PKWY.

LIMIT OF CONST. 54+28.81

EXISTING CONCRETE ISLAND TO REMAIN AS NECESSARY FOR WIDENING.

RAMP "C" STA. 315+50.00
N. 558,745.7820
E. 1,833,518.8876

GENERAL CONTRACTOR TO COORDINATE RETAINING WALL DESIGN AND DEPTH WITH ATMOS ENERGY.

BEGIN SPECIAL DITCH STA. 319+00.00 OFF. 44.50'

PROP. RETAINING WALL STA. 319+19.78 OFF 35.21'

RAMP "D2" STA. 35+43.90
N 558824.5108
E 1833407.5216

RAMP "D2" STA. 33+50.00
N 558906.2934
E 1833237.7035

S 86° 46' 36" E

BEGIN C & G STA. 54+28.81 OFF 44.00'

PROP. PERP. CURB RAMP (T.D.O.T. STD. DWG. MM-CR-2)

BEGIN RETAINING WALL STA. 317+39.45 OFF 35.21'

END C & G STA. 317+39.45 OFF 34.00'

BEGIN C & G STA. 15+68.50 OFF 26.00'

END C & G STA. 15+70.06 OFF 2.00'

PVMT. TRANSITION STA. 319+19.45 OFF.24.000'

RAMP "D1" STA. 33+50.00 S 44° 19' 00" E
N 558886.5008
E 1833195.5284

S 43° 57' 42" E

V-RIP-RAP

RETAINING WALL

MM-CR-2

S 38° 34' 09" E

RAMP "C"

RAMP "C1"

BEGIN G.R. (TIE TO EX.) STA. 15+94.29 OFF 7.40'

END C & G STA. 16+77.19 OFF 26.00'

BEGIN C & G STA. 51+95.70 OFF 44.00'

END G.R. (TIE TO EX.) STA. 35+32.47 OFF 16.19'

PROP. PARALLEL CURB RAMP (T.D.O.T. STD. DWG. MM-CR-3)

BEGIN PVMT. TRANSITION STA. 319+05.53 OFF. 24.00'

END G.R. (TIE TO EX.) STA. 318+50.01 OFF 29.60'

EXISTING GUARDRAIL TO BE REMOVED AT NEW RETAINING WALL

RAMP "D1" STA. 34+87.00
N 558789.2939
E 1833169.0194

RAMP "B1" STA. 11+50.00
N 558796.7624
E 1833030.2931

LIMIT OF CONST. 51+34.30

MEDICAL PKWY STA. 51+75.53 =
RAMP "C1" STA. 14+81.47
N 558776.5018
E 1833297.3776

RAMP "C1" STA. 17+13.85
N. 558,594.8121
E. 1,833,442.2579

I-24 S 41° 34' 09" E I-24

MEDICAL PKWY STA. 48+38.55 =
FORTRESS BLVD. STA. 36+48.97
N 558794.2881
E 1832960.8669

BEGIN G.R. (TIE TO EX.) STA. 120+74.45 OFF 29.00'

PROP. PARALLEL CURB RAMP (T.D.O.T. STD. DWG. MM-CR-3)

END G.R. (TIE TO EX.) STA. 35+92.27 OFF 51.50'

END C & G STA. 35+92.27 OFF 46.00'

BEGIN C & G STA. 120+29.63 OFF 2.00'

BEGIN C & G STA. 121+38.19 OFF 30.50'

END C & G STA. 121+47.60 OFF 2.00'

N 86° 23' 21" W

S 86° 58' 28" E

I-24 STA. 1313+75.84 =
MEDICAL PKWY STA. 50+00.00
N 558785.7665
E 1833122.0923

END G.R. DELINEATION STA. 36+48.97 OFF 50.28'

BEGIN G.R. DELINEATION STA. 12+69.50 OFF 3.69'

RAMP "B1" STA. 13+39.68
N 558666.5536
E 1832970.3754

BEGIN PROJ. NO. HSIP-I-24-1(118) R.O.W.
STA. 1319+22.00
N 558377.1555
E 1833484.4811

RAMP "A"

S 38° 04' 09" E

MM-CR-2

S 88° 36' 45" E

RAMP B1

RAMP A1

RAMP A2

CB-1 #12

CB-2 #12

BEGIN C & G STA. 220+20.63 OFF 26.00'

RAMP "B" STA. 14+44.69
N 558591.5727
E 1833017.1107

S 47° 41' 40" E RAMP B

STA. 219+85.09 RAMP "A1"
N 558967.8201
E 1832732.7837

BEGIN C & G STA. 220+71.01 OFF 14.00'

PROP. PERP. CURB RAMP (T.D.O.T. STD. DWG. MM-CR-2)

END C & G STA. 220+96.03 OFF 26.00'

END C & G STA. 33+59.05 OFF 58.00'

LIMIT OF CONST. 36+48.97

END C & G STA. 35+22.41 OFF 46.00'

STA. 221+36.54 RAMP "A1"
N 558846.7765
E 1832708.4495

S 85° 27' 45" E

S 86° 36' 29" E

EXISTING CONCRETE ISLAND TO REMAIN AS NECESSARY FOR WIDENING.

BEGIN C & G STA. 34+51.46 OFF 46.00'

FORTRESS BLVD. STA. 35+33.09 =
RAMP "A" STA. 121+96.67
N 558797.0266
E 1832845.0187

FORTRESS BLVD.

RAMP "B" STA. 11+00.00
N 558754.1657
E 1832726.2074

LIMIT OF CONST. 33+17.57

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

STA. 1307+00 TO STA. 1320+00
SCALE: 1" = 50'

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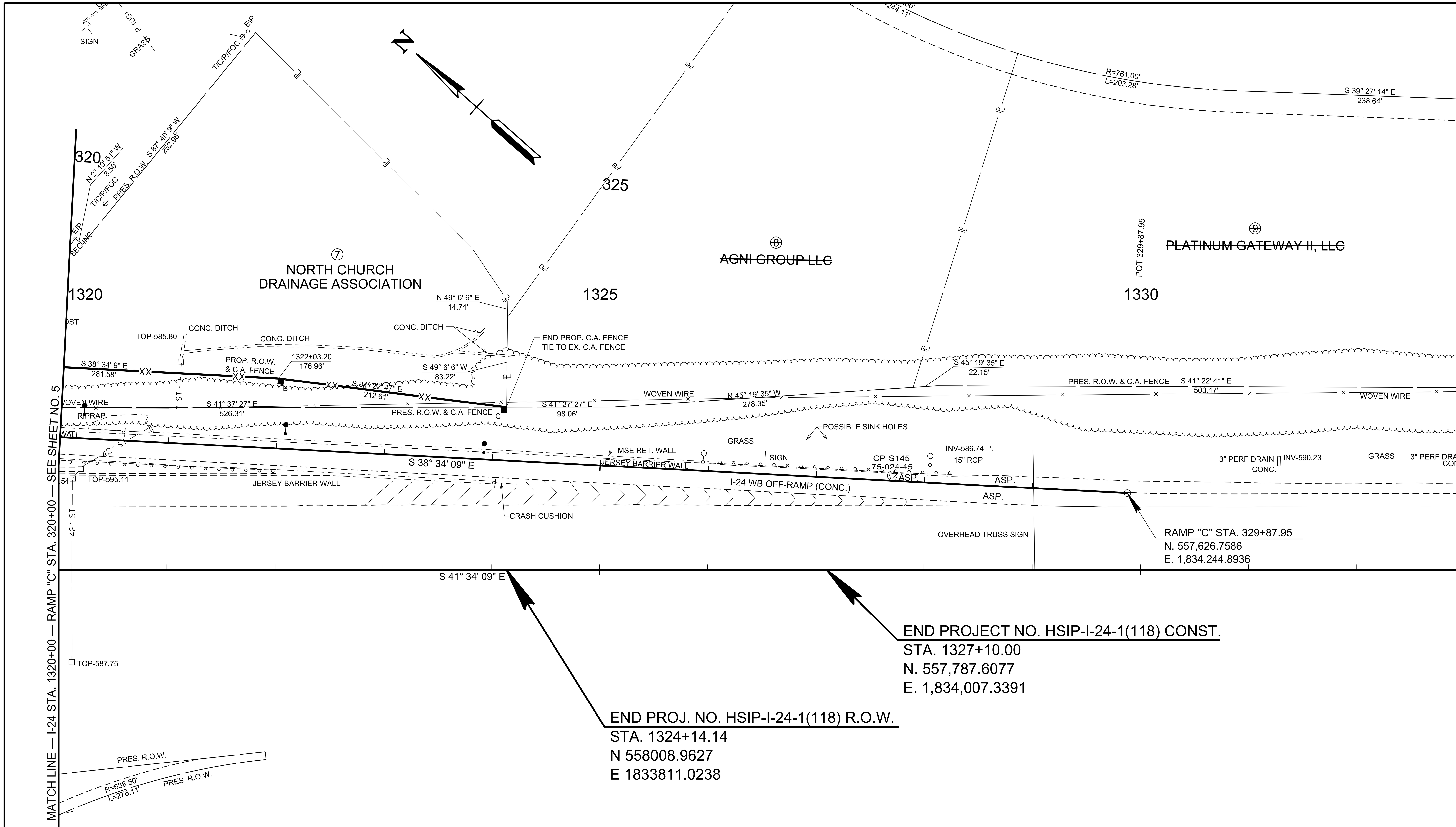
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	6
PS&E	2025	HSIP-I-24-1(118)	6

GENERAL CONTRACTOR TO COORDINATE RETAINAING WALL DESIGN AND DEPTH WITH ATMOS ENERGY.



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2025-04-02

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

STA. 1320+00 TO STA. 1333+00
SCALE: 1" = 50'

P.I. POINT	NORTHING	EASTING	ELEVATION	FEATURE	DESCRIPTION	STATION	OFFSET
S145	557799.9353	1834112.5580	593.7030	XCP	GPS 75-024-45	1327+70.59	-86.8998

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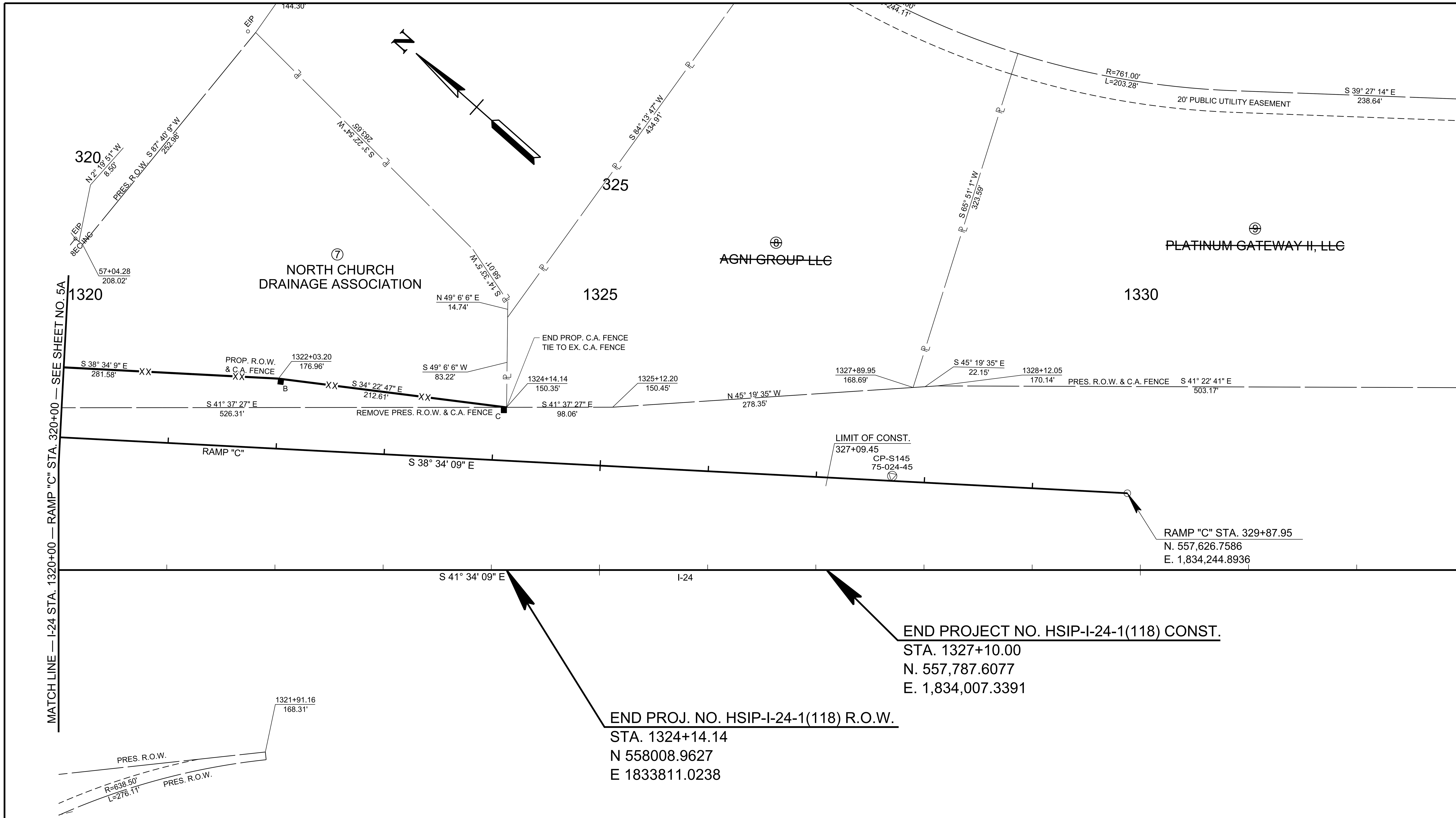
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	6A
PS&E	2025	HSIP-I-24-1(118)	6A



N
320
N 2° 19' 51" W
8.50'
PRES. R.O.W. S 87° 40' 9" W
252.96'
EIP
BEGIN
57+04.28
208.02'
S 3° 22' 54" W
283.85'
S 14° 33' 5" W
58.07'
S 84° 13' 47" W
434.91'
325
7
NORTH CHURCH
DRAINAGE ASSOCIATION
8
AGNI GROUP LLC
9
PLATINUM GATEWAY II, LLC
1320
1325
1330
R=761.00'
L=203.28'
20' PUBLIC UTILITY EASEMENT
S 39° 27' 14" E
238.64'
S 65° 51' 1" W
323.59'
N 49° 6' 6" E
14.74'
END PROP. C.A. FENCE
TIE TO EX. C.A. FENCE
S 38° 34' 9" E
281.58'
PROP. R.O.W.
& C.A. FENCE
1322+03.20
176.96'
B
S 34° 22' 47" E
212.61'
S 49° 6' 6" W
83.22'
1324+14.14
150.35'
1325+12.20
150.45'
1327+89.95
168.69'
S 45° 19' 35" E
22.15'
1328+12.05
170.14'
PRES. R.O.W. & C.A. FENCE
S 41° 22' 41" E
503.17'
S 41° 37' 27" E
526.31'
REMOVE PRES. R.O.W. & C.A. FENCE
C
S 41° 37' 27" E
98.06'
N 45° 19' 35" W
278.35'
MATCH LINE — I-24 STA. 1320+00 — RAMP "C" STA. 320+00 — SEE SHEET NO. 5A
RAMP "C"
S 38° 34' 09" E
LIMIT OF CONST.
327+09.45
CP-S145
75-024-45
RAMP "C" STA. 329+87.95
N. 557,626.7586
E. 1,834,244.8936
S 41° 34' 09" E
I-24
END PROJECT NO. HSIP-I-24-1(118) CONST.
STA. 1327+10.00
N. 557,787.6077
E. 1,834,007.3391
END PROJ. NO. HSIP-I-24-1(118) R.O.W.
STA. 1324+14.14
N 558008.9627
E 1833811.0238
1321+91.16
168.31'
PRES. R.O.W.
R=638.50'
L=276.11'
PRES. R.O.W.

POINT	NORTHING	EASTING	ELEVATION	FEATURE	DESCRIPTION	STATION	OFFSET
S145	557799.9353	1834112.5580	593.7030	XCP	GPS 75-024-45	1327+70.59	-86.8998

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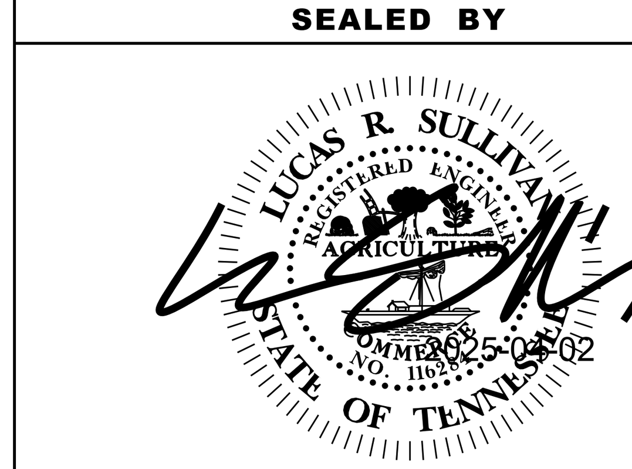

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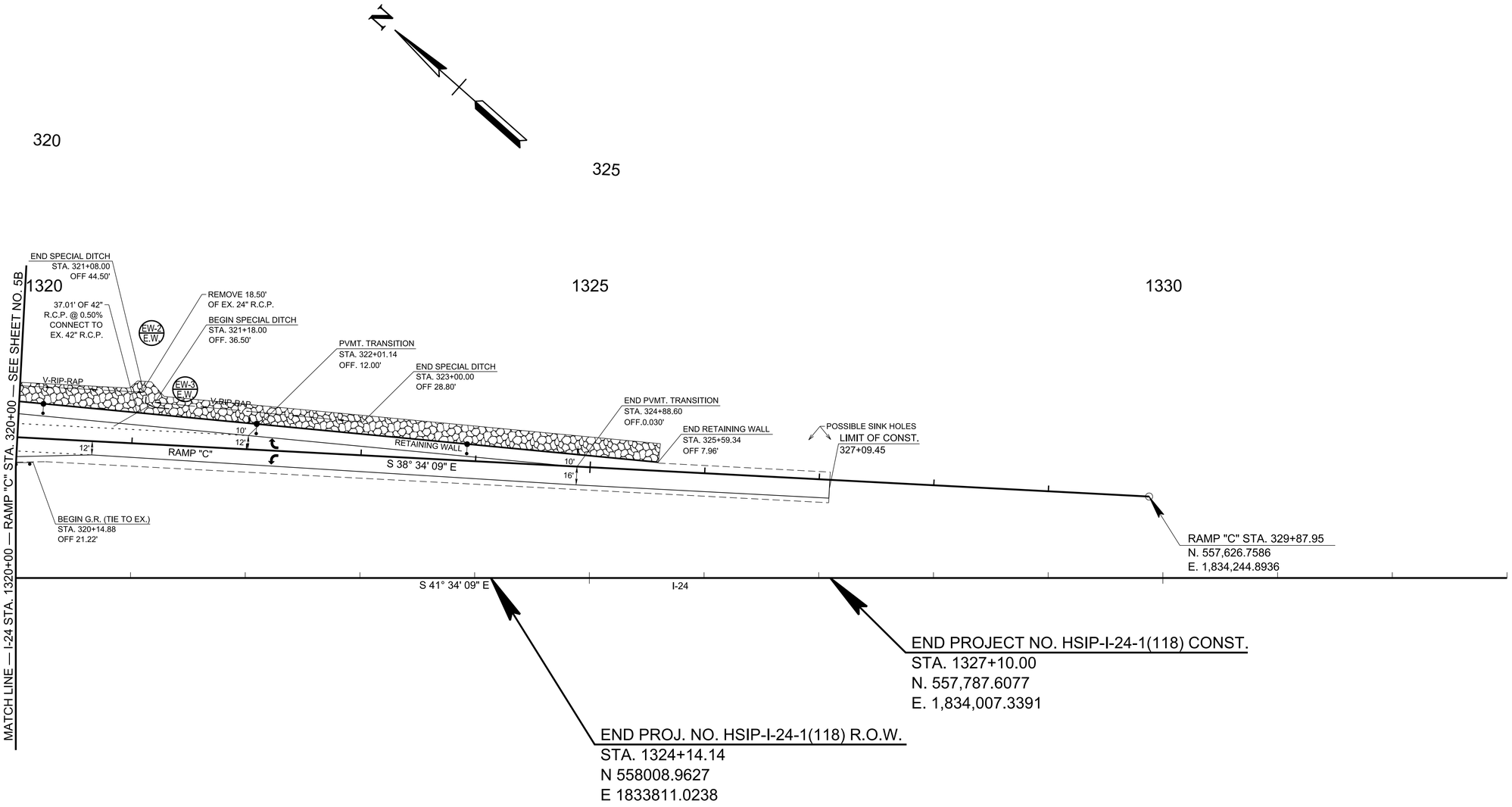
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RIGHT-OF-WAY (R.O.W.) DETAILS

STA. 1320+00 TO STA. 1333+00
SCALE: 1" = 50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	6B
PS&E	2025	HSIP-I-24-1(118)	6B

GENERAL CONTRACTOR TO COORDINATE RETAINAING WALL DESIGN AND DEPTH WITH ATMOS ENERGY.



EW-2 E.W. IN. EL. 581.64

EW-3 E.W. IN. EL. 581.64

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AGRICULTURE
STATE OF TENNESSEE
2025-04-02

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

STA. 1320+00 TO STA. 1333+00
SCALE: 1" = 50'

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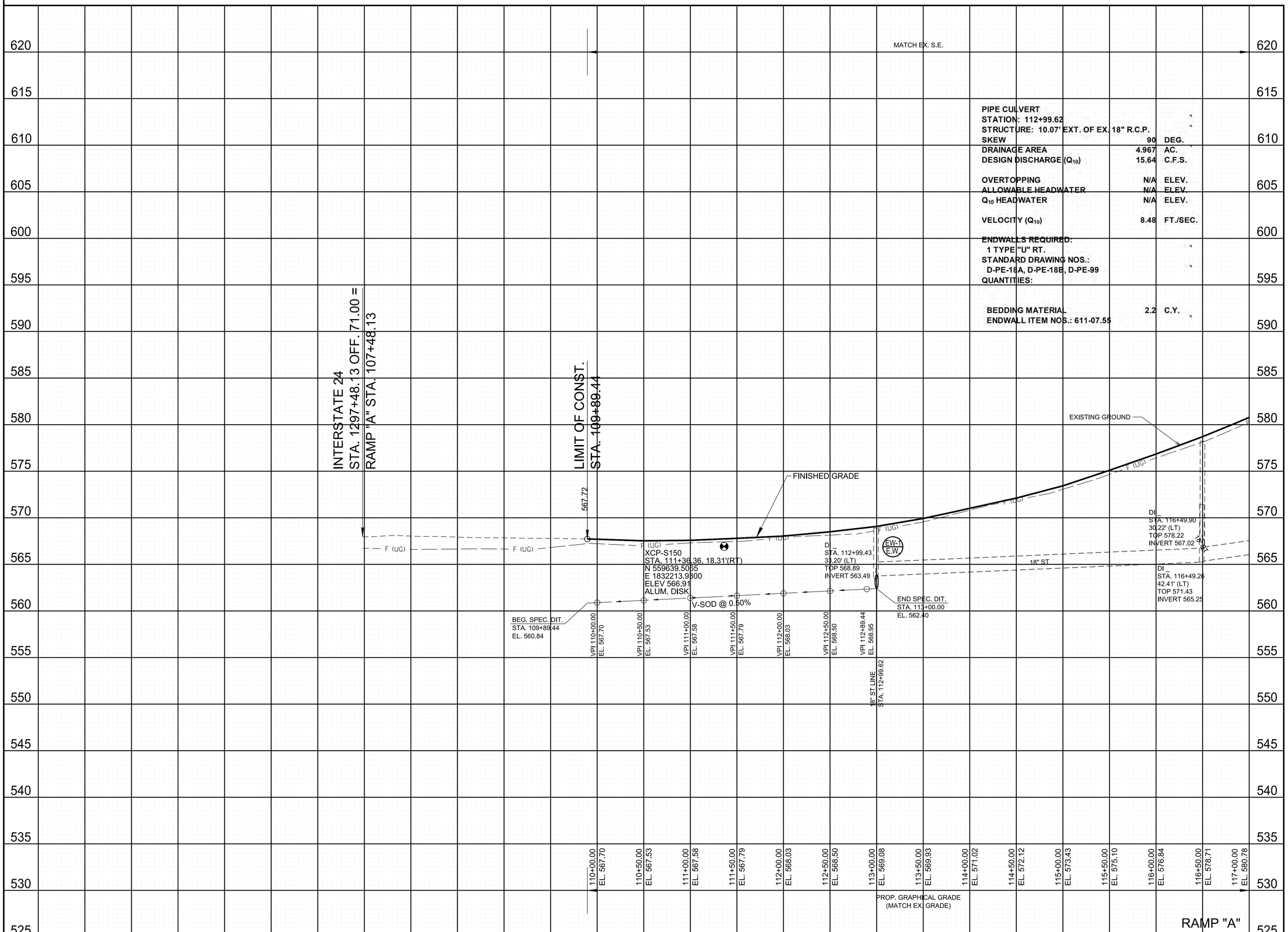
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-1-24-1(118)	7
PS&E	2025	HSIP-I-24-1(118)	7



PIPE CULVERT
STATION: 112+99.62
STRUCTURE: 10.07' EXT. OF EX. 18" R.C.P.

SKEW	90	DEG.
DRAINAGE AREA	4.967	AC.
DESIGN DISCHARGE (Q_{10})	15.64	C.F.S.
OVERTOPPING	N/A	ELEV.
ALLOWABLE HEADWATER	N/A	ELEV.
Q_{10} HEADWATER	N/A	ELEV.
VELOCITY (Q_{10})	8.48	FT./SEC.

ENDWALLS REQUIRED:
1 TYPE "U" RT.
STANDARD DRAWING NOS.:
D-PE-18A, D-PE-18E, D-PE-99
QUANTITIES:

BEDDING MATERIAL	2.2	C.Y.

ENDWALL ITEM NOS.: 611-07.55

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STATE OF TENNESSEE
2025-04-02

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RAMP PROFILE

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

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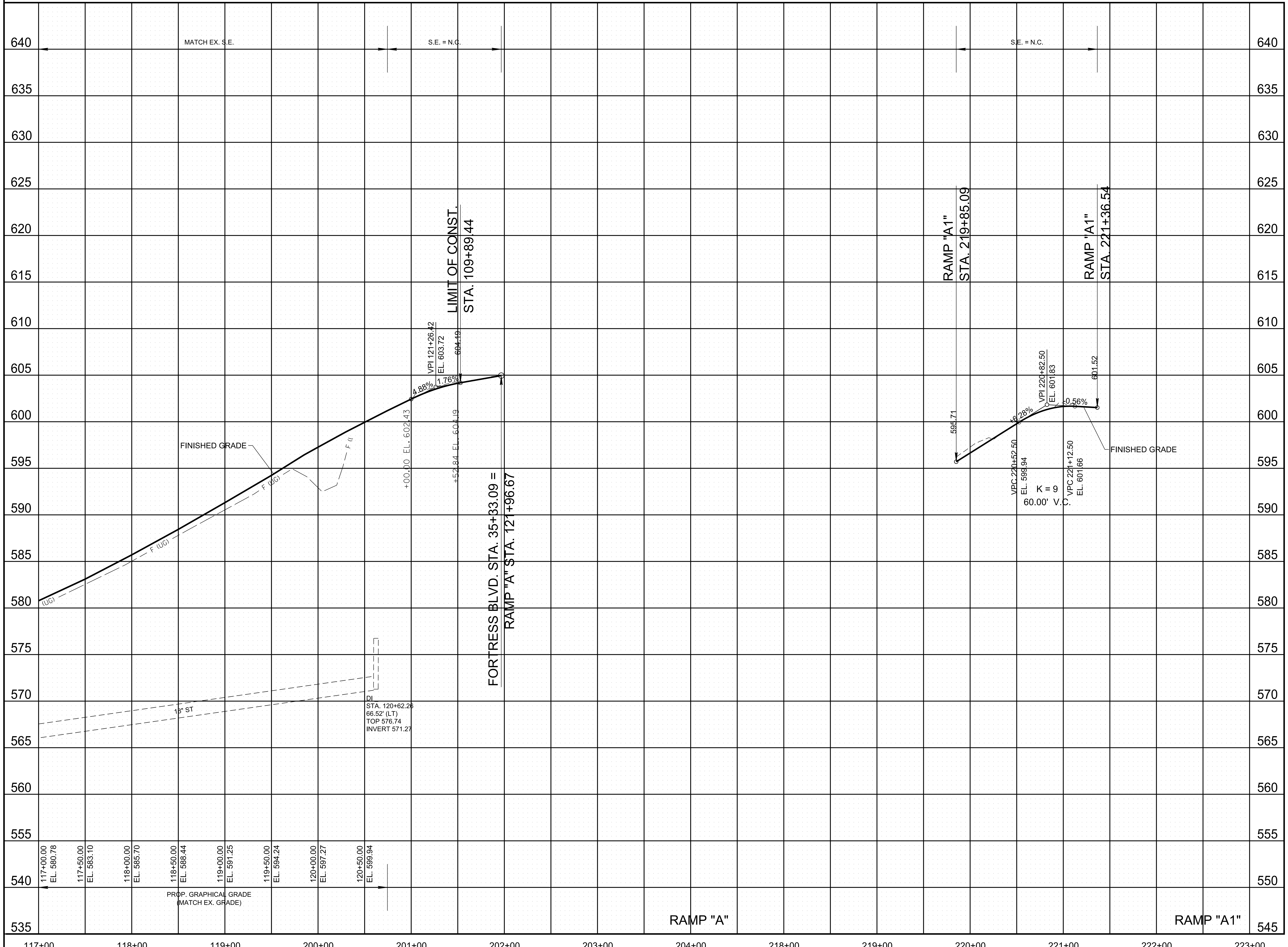
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-1-24-1(118)	8
PS&E	2025	HSIP-I-24-1(118)	8



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RAMP PROFILE

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-1-24-1(118)	9
PS&E	2025	HSIP-I-24-1(118)	9

HORIZONTAL LOCATION OF POTENTIAL GAS LINE CONFLICT.

GENERAL CONTRACTOR TO COORDINATE RETAINAING WALL DESIGN AND DEPTH WITH ATMOS ENERGY.

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TO THE N.A.V.D. 1988 WITH GEOID 03.

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DEPARTMENT OF TRANSPORTATION

RAMP PROFILE

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

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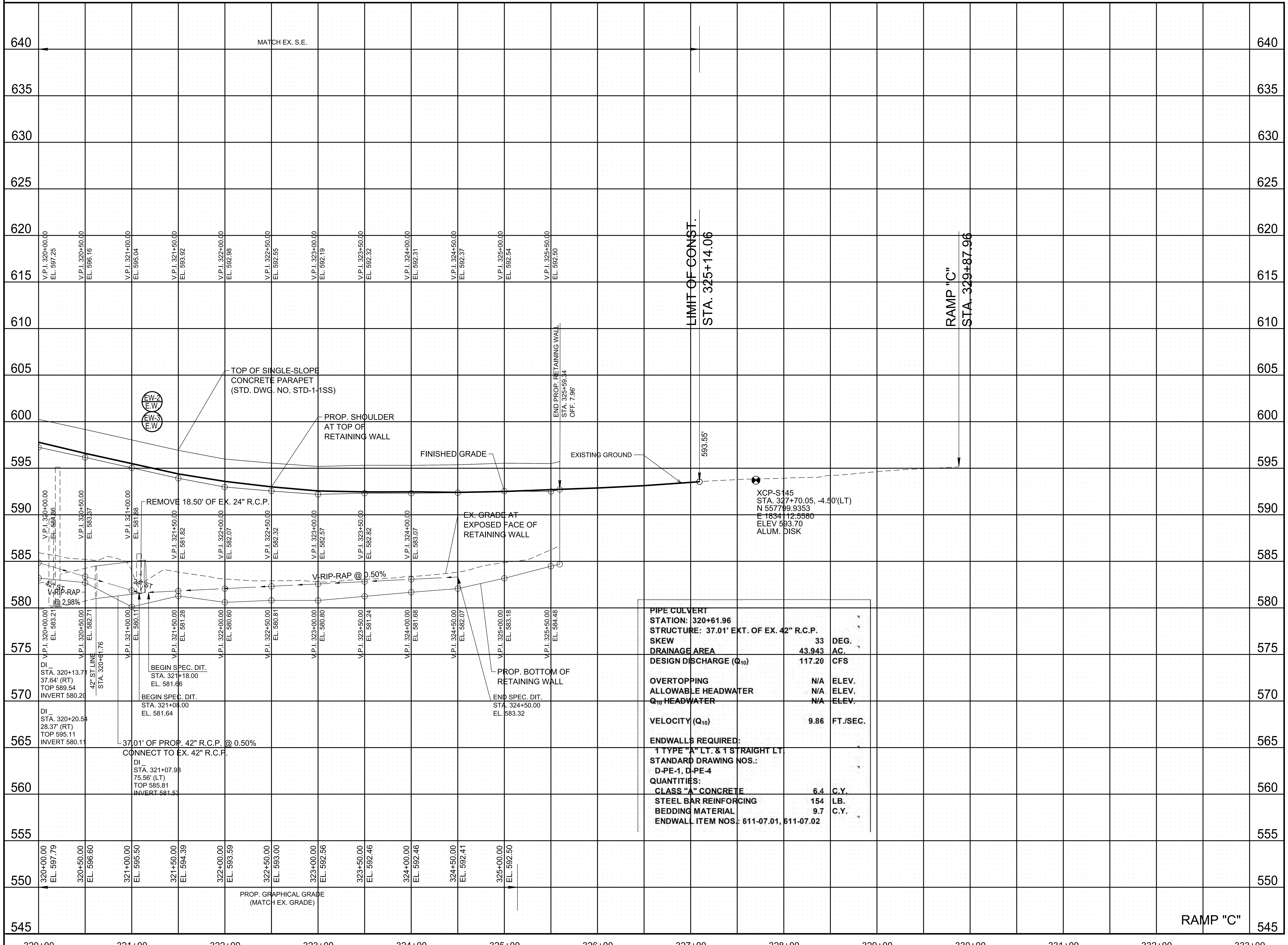
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-1-24-1(118)	10
PS&E	2025	HSIP-I-24-1(118)	10



PIPE CULVERT		
STATION: 320+61.96		
STRUCTURE: 37.01' EXT. OF EX. 42" R.C.P.		
SKEW	33	DEG.
DRAINAGE AREA	43.943	AC.
DESIGN DISCHARGE (Q_{10})	117.20	CFS
OVERTOPPING	N/A	ELEV.
ALLOWABLE HEADWATER	N/A	ELEV.
Q_{10} HEADWATER	N/A	ELEV.
VELOCITY (Q_{10})	9.86	FT./SEC.
ENDWALLS REQUIRED: 1 TYPE "A" LT. & 1 STRAIGHT LT.		
STANDARD DRAWING NOS.: D-PE-1, D-PE-4		
QUANTITIES:		
CLASS "A" CONCRETE	6.4	C.Y.
STEEL BAR REINFORCING	154	LB.
BEDDING MATERIAL	9.7	C.Y.
ENDWALL ITEM NOS.: 611-07.01, 611-07.02		

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STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

RAMP PROFILE

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

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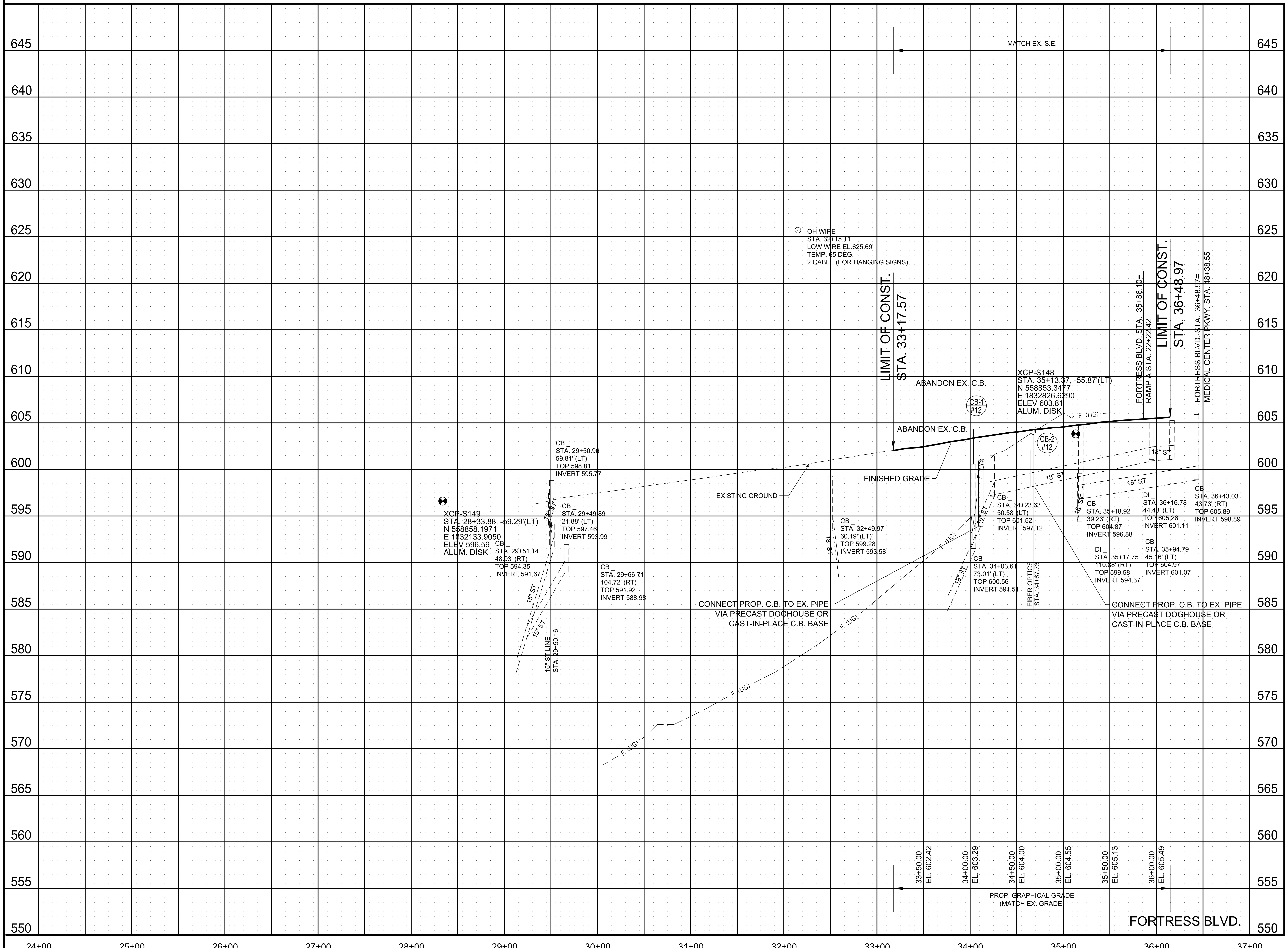
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-1-24-1(118)	11
PS&E	2025	HSIP-I-24-1(118)	11



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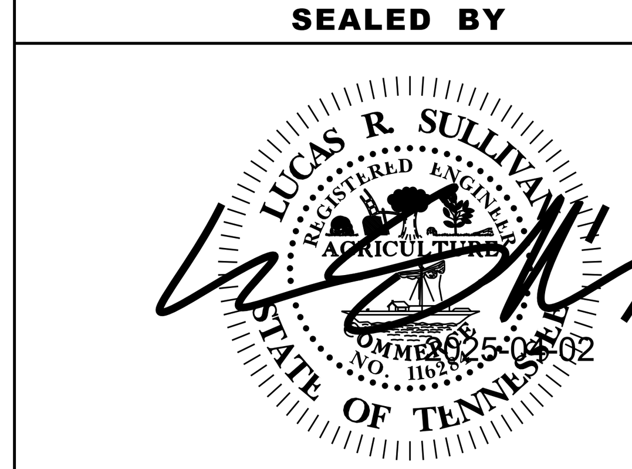

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIDE ROAD PROFILE

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-1-24-1(118)	12
PS&E	2025	HSIP-I-24-1(118)	12

MATCH EX. S.E.

MEDICAL CENTER PKWY. STA. 46+38.55=
FORTRESS BLVD. STA. 36+48.97

MEDICAL CENTER PKWY. STA. 50+00.00=
I-24 STA. 131+75.84

LIMIT OF CONST.
STA. 51+34.30

MEDICAL CENTER PKWY. STA. 51+75.53=
RAMP C1 STA. 14+81.47

LIMIT OF CONST.
STA. 54+28.81

FINISHED GRADE
XCP-S146
STA. 52+51.33, 52.74'(RT)
N 558719.8325
E 1833370.2840
ELEV 606.05
ALUM. DISK

CB-3
#12

ABANDON
EX. C.B.

EXISTING GROUND

OH WIRE
STA. 56+99.78
LOW WIRE EL.624.75'
TEMP. 65 DEG.
2 CABLE (FOR HANGING SIGNS)

OH WIRE
STA. 58+12.15'
LOW WIRE EL.615.91'
TEMP. 65 DEG.
1 POWER
1 CABLE

MEDICAL CENTER PKWY. STA. 57+87.04=
ASBURY LN. STA. 50+10.00

CB
OFF CHAIN
OFF CHAIN
TOP 605.8920
INVERT 598.89

DI
STA. 48+92.80
42.42' (RT)
TOP 605.95
INVERT 601.31

DI
STA. 50+96.40
44.17' (LT)
TOP 606.83
INVERT 602.38

CB
STA. 51+84.96
43.21' (LT)
TOP 605.99
INVERT 601.10

DI
STA. 51+93.07
43.28' (RT)
TOP 606.23
INVERT 601.42

CB
STA. 52+53.41
55.97' (LT)
TOP 606.03
INVERT 600.90

CB
STA. 53+44.81
43.08' (RT)
TOP 604.68
INVERT 600.28

CB
STA. 54+74.70
43.16' (RT)
TOP 602.54
INVERT 598.14

CB
STA. 56+01.19
43.80' (LT)
TOP 601.93
INVERT 598.28

CB
STA. 56+01.04
43.15' (RT)
TOP 600.96
INVERT 596.66

CB
STA. 57+25.13
45.25' (LT)
TOP 598.60
INVERT 592.90

CB
STA. 57+49.41
43.01' (RT)
TOP 598.09
INVERT 594.60

CB
STA. 57+45.67
63.95' (LT)
TOP 597.17
INVERT 592.42

CB
STA. 57+91.10
65.14' (LT)
TOP 597.46
INVERT 593.95

XCP-S147
STA. 58+06.76, -73.09'(LT)
N 558754.8199
E 1833935.9320
ELEV 597.74
ALUM. DISK

18" ST
24" ST

CONNECT PROP. C.B. TO EX. PIPE
VIA PRECAST DOGHOUSE OR
CAST-IN-PLACE C.B. BASE

GAS LINES CROSSING NOT MARKED BY UTILITY(ATMOS ENERGY) AT STA. 56+04. LOCATION DETERMINED FROM PROVIDED GIS MAP.

STA 54+50.22
EXISTING 18" RCP
SKEW 90°
FLOWS LEFT (NORTH)
INLET 588.74
OUTLET 583.32

8" PE GAS LINE
STA. 56+04.00

8" SA LINE
STA. 56+54.79

24" ST LINE
STA. 57+37.49

MH
STA. 56+17.74
179.26' (LT)
TOP 588.23
INVERT 571.54

MH
STA. 56+73.81
87.57' (RT)
TOP 591.33
INVERT 573.73

52+00.00
EL. 606.47

52+50.00
EL. 606.85

53+00.00
EL. 606.48

53+50.00
EL. 605.98

54+00.00
EL. 605.39

PROP. GRAPHICAL GRADE
(MATCH EX. GRADE)

MEDICAL CENTER PKWY.

645 640 635 630 625 620 615 610 605 600 595 590 585 580 575 570 565 560 555 550

48+00 49+00 50+00 51+00 52+00 53+00 54+00 55+00 56+00 57+00 58+00 59+00 60+00 61+00

SEALED BY

LUCAS R. SULLIVAN
REGISTERED ENGINEER
AGRICULTURE
STATE OF TENNESSEE
2025-04-02

COORDINATES ARE N.A.D. 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00008 AND TIED TO THE T.G.R.N. ALL ELEVATIONS ARE REFERENCED TO THE N.A.V.D. 1988 WITH GEOID 03.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIDE ROAD PROFILE

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

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	13
PS&E	2025	HSIP-I-24-1(118)	13

DRAINAGE DATA FOR PIPE
STATION: 112+99.62 (RAMP "A")
EXISTING STRUCTURE:
61.29' OF 18" R.C.P.

INLET ELEVATION	563.49
OUTLET ELEVATION	562.70
SKEW	90 DEG.
FLOW	LEFT TO RIGHT
DRAINAGE AREA	4.967 AC.
TERRAIN	ROLLING
IMPERVIOUS AREA	60 %
DISCHARGE (Q_{10})	15.64 C.F.S.

DRAINAGE DATA FOR PIPE
STATION: 29+50.17 (FORTRESS BLVD.)
EXISTING STRUCTURE:
36.48' OF 15" R.C.P.

INLET ELEVATION	595.77
OUTLET ELEVATION	593.82
SKEW	90 DEG.
FLOW	LEFT TO RIGHT
DRAINAGE AREA	0.33 AC.
TERRAIN	ROLLING
IMPERVIOUS AREA	90 %
DISCHARGE (Q_{10})	2.14 C.F.S.

DRAINAGE DATA FOR PIPE
STATION: 220+98.69 (RAMP "A1")
EXISTING STRUCTURE:
28.70' OF 18" R.C.P.

INLET ELEVATION	597.11
OUTLET ELEVATION	591.47
SKEW	90 DEG.
FLOW	LEFT TO RIGHT
DRAINAGE AREA	0.515 AC.
TERRAIN	ROLLING
IMPERVIOUS AREA	60 %
DISCHARGE (Q_{10})	3.53 C.F.S.

DRAINAGE DATA FOR PIPE
STATION: 12+04.81 (RAMP "B")
EXISTING STRUCTURE:
69.57' OF 18" R.C.P.

INLET ELEVATION	596.79
OUTLET ELEVATION	594.37
SKEW	73 DEG.
FLOW	LEFT TO RIGHT
DRAINAGE AREA	0.276 AC.
TERRAIN	ROLLING
IMPERVIOUS AREA	60 %
DISCHARGE (Q_{10})	1.47 C.F.S.

DRAINAGE DATA FOR PIPE
STATION: 221+62.39 (RAMP "A")
EXISTING STRUCTURE:
166.86' OF 18" R.C.P.

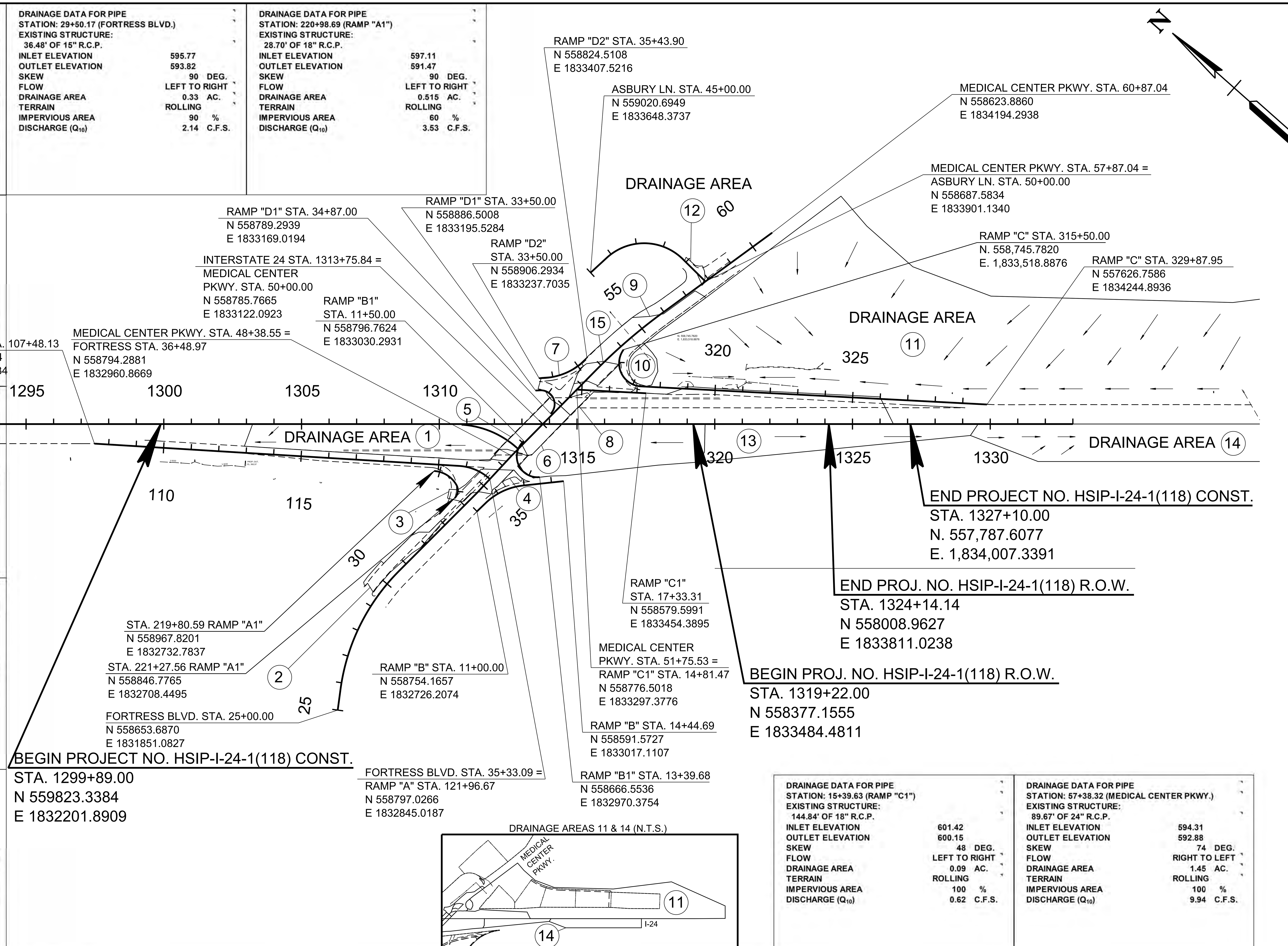
INLET ELEVATION	601.08
OUTLET ELEVATION	597.11
SKEW	72 DEG.
FLOW	LEFT TO RIGHT
DRAINAGE AREA	0.327 AC.
TERRAIN	ROLLING
IMPERVIOUS AREA	100 %
DISCHARGE (Q_{10})	2.24 C.F.S.

DRAINAGE DATA FOR PIPE
STATION: 12+47.58 (RAMP "B1")
EXISTING STRUCTURE:
121.78' OF 18" R.C.P.

INLET ELEVATION	598.84
OUTLET ELEVATION	596.79
SKEW	68 DEG.
FLOW	LEFT TO RIGHT
DRAINAGE AREA	0.233 AC.
TERRAIN	ROLLING
IMPERVIOUS AREA	100 %
DISCHARGE (Q_{10})	1.60 C.F.S.

DRAINAGE DATA FOR PIPE
STATION: 35+09.23 (RAMP "D2")
EXISTING STRUCTURE:
66.69' OF 18" R.C.P.

INLET ELEVATION	601.01
OUTLET ELEVATION	600.90
SKEW	19 DEG.
FLOW	LEFT TO RIGHT
DRAINAGE AREA	0.258 AC.
TERRAIN	ROLLING
IMPERVIOUS AREA	100 %
DISCHARGE (Q_{10})	1.77 C.F.S.



DRAINAGE DATA FOR PIPE
STATION: 15+39.63 (RAMP "C1")
EXISTING STRUCTURE:
144.84' OF 18" R.C.P.

INLET ELEVATION	601.42
OUTLET ELEVATION	600.15
SKEW	48 DEG.
FLOW	LEFT TO RIGHT
DRAINAGE AREA	0.09 AC.
TERRAIN	ROLLING
IMPERVIOUS AREA	100 %
DISCHARGE (Q_{10})	0.62 C.F.S.

DRAINAGE DATA FOR PIPE
STATION: 57+38.32 (MEDICAL CENTER PKWY.)
EXISTING STRUCTURE:
89.67' OF 24" R.C.P.

INLET ELEVATION	594.31
OUTLET ELEVATION	592.88
SKEW	74 DEG.
FLOW	RIGHT TO LEFT
DRAINAGE AREA	1.45 AC.
TERRAIN	ROLLING
IMPERVIOUS AREA	100 %
DISCHARGE (Q_{10})	9.94 C.F.S.

DRAINAGE DATA FOR PIPE
STATION: 54+50.14 (MEDICAL CENTER PKWY.)
EXISTING STRUCTURE:
89.67' OF 18" R.C.P.

INLET ELEVATION	588.74
OUTLET ELEVATION	583.32
SKEW	89 DEG.
FLOW	RIGHT TO LEFT
DRAINAGE AREA	0.266 AC.
TERRAIN	ROLLING
IMPERVIOUS AREA	10 %
DISCHARGE (Q_{50})	1.04 C.F.S.
DISCHARGE (Q_{100})	1.17 C.F.S.
VELOCITY (Q_{50})	0.59 FT./SEC.
VELOCITY (Q_{100})	0.66 FT./SEC.

DRAINAGE DATA FOR PIPE
STATION: 320+61.96 (RAMP "C")
EXISTING STRUCTURE:
75.11' OF 42" R.C.P.

INLET ELEVATION	581.45
OUTLET ELEVATION	580.11
SKEW	33 DEG.
FLOW	LEFT TO RIGHT
DRAINAGE AREA	43.943 AC.
TERRAIN	ROLLING
IMPERVIOUS AREA	60 %
DISCHARGE (Q_{10})	117.20 C.F.S.

DRAINAGE DATA FOR PIPE
STATION: 49+34.26 (ASBURY LN.)
EXISTING STRUCTURE:
44.45' OF 18" R.C.P.

INLET ELEVATION	593.95
OUTLET ELEVATION	592.32
SKEW	83 DEG.
FLOW	RIGHT TO LEFT
DRAINAGE AREA	0.051 AC.
TERRAIN	ROLLING
IMPERVIOUS AREA	100 %
DISCHARGE (Q_{10})	0.35 C.F.S.

DRAINAGE DATA FOR PIPE
STATION: 1320+13.21 (INTERSTATE 65)
EXISTING STRUCTURE:
166.33' OF 42" R.C.P.

INLET ELEVATION	583.52
OUTLET ELEVATION	580.10
SKEW	90 DEG.
FLOW	RIGHT TO LEFT
DRAINAGE AREA	1.989 AC.
TERRAIN	ROLLING
IMPERVIOUS AREA	70 %
DISCHARGE (Q_{10})	11.37 C.F.S.

DRAINAGE DATA FOR PIPE
STATION: 1339+86.95 (INTERSTATE 65)
EXISTING STRUCTURE:
166.33' OF 24" R.C.P.

INLET ELEVATION	592.49
OUTLET ELEVATION	589.28
SKEW	60 DEG.
FLOW	RIGHT TO LEFT
DRAINAGE AREA	4.006 AC.
TERRAIN	ROLLING
IMPERVIOUS AREA	50 %
DISCHARGE (Q_{50})	17.58 C.F.S.
DISCHARGE (Q_{100})	18.88 C.F.S.
VELOCITY (Q_{50})	5.60 FT./SEC.
VELOCITY (Q_{100})	6.01 FT./SEC.

DRAINAGE DATA FOR PIPE
STATION: 315+91.72 (RAMP "C")
EXISTING STRUCTURE:
124.21' OF 18" R.C.P.

INLET ELEVATION	600.15
OUTLET ELEVATION	598.13
SKEW	35 DEG.
FLOW	LEFT TO RIGHT
DRAINAGE AREA	0.283 AC.
TERRAIN	ROLLING
IMPERVIOUS AREA	100 %
DISCHARGE (Q_{10})	1.94 C.F.S.

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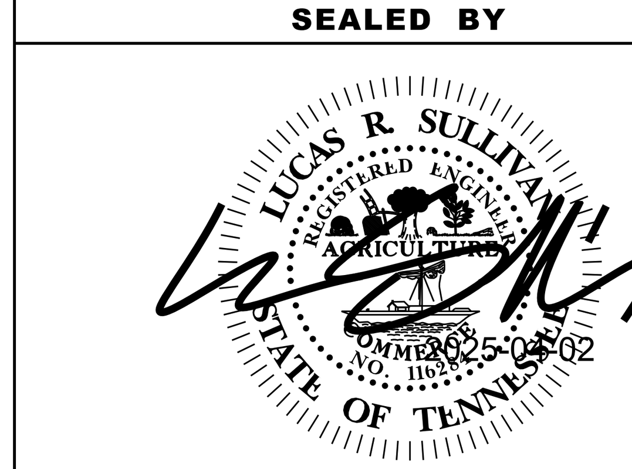

COORDINATES ARE N.A.D. 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00008 AND TIED TO THE T.G.R.N. ALL ELEVATIONS ARE REFERENCED TO THE N.A.V.D. 1988 WITH GEOID 03.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

DRAINAGE MAP

SCALE: 1" = 200'

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	14
PS&E	2025	HSIP-I-24-1(118)	14

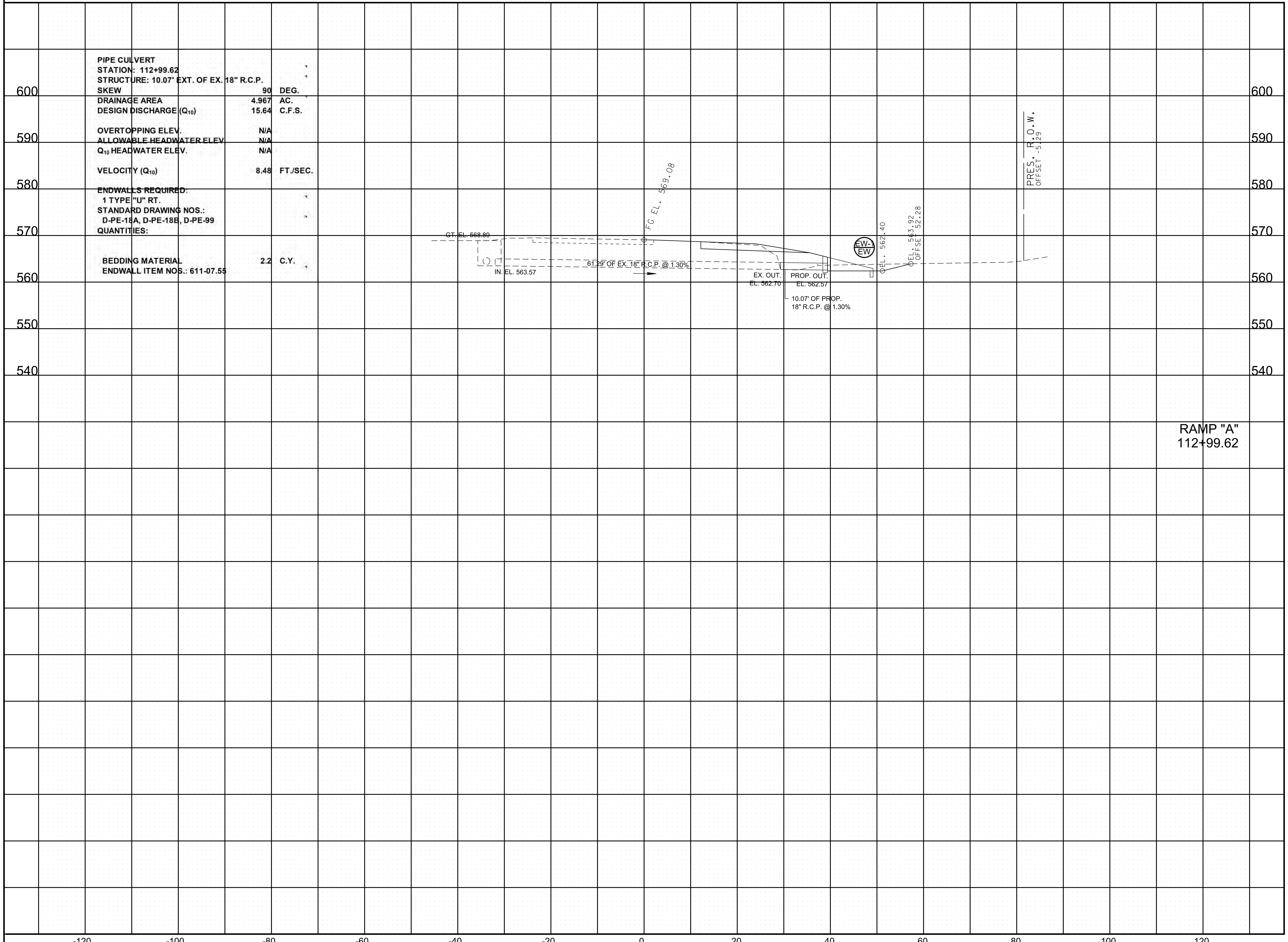
PIPE CULVERT
STATION: 112+99.62
STRUCTURE: 10.07' EXT. OF EX. 18" R.C.P.

SKEW	90	DEG.
DRAINAGE AREA	4.967	AC.
DESIGN DISCHARGE (Q_{10})	15.64	C.F.S.
OVERTOPPING ELEV.	N/A	
ALLOWABLE HEADWATER ELEV.	N/A	
Q_{10} HEADWATER ELEV.	N/A	
VELOCITY (Q_{10})	8.48	FT./SEC.

ENDWALLS REQUIRED:
1 TYPE "U" RT.
STANDARD DRAWING NOS.:
D-PE-18A, D-PE-18B, D-PE-99
QUANTITIES:

BEDDING MATERIAL	2.2	C.Y.

ENDWALL ITEM NOS.: 611-07.55



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STATE OF TENNESSEE
2025-04-02

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

CULVERT CROSS-SECTIONS

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

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	15
PS&E	2025	HSIP-I-24-1(118)	15

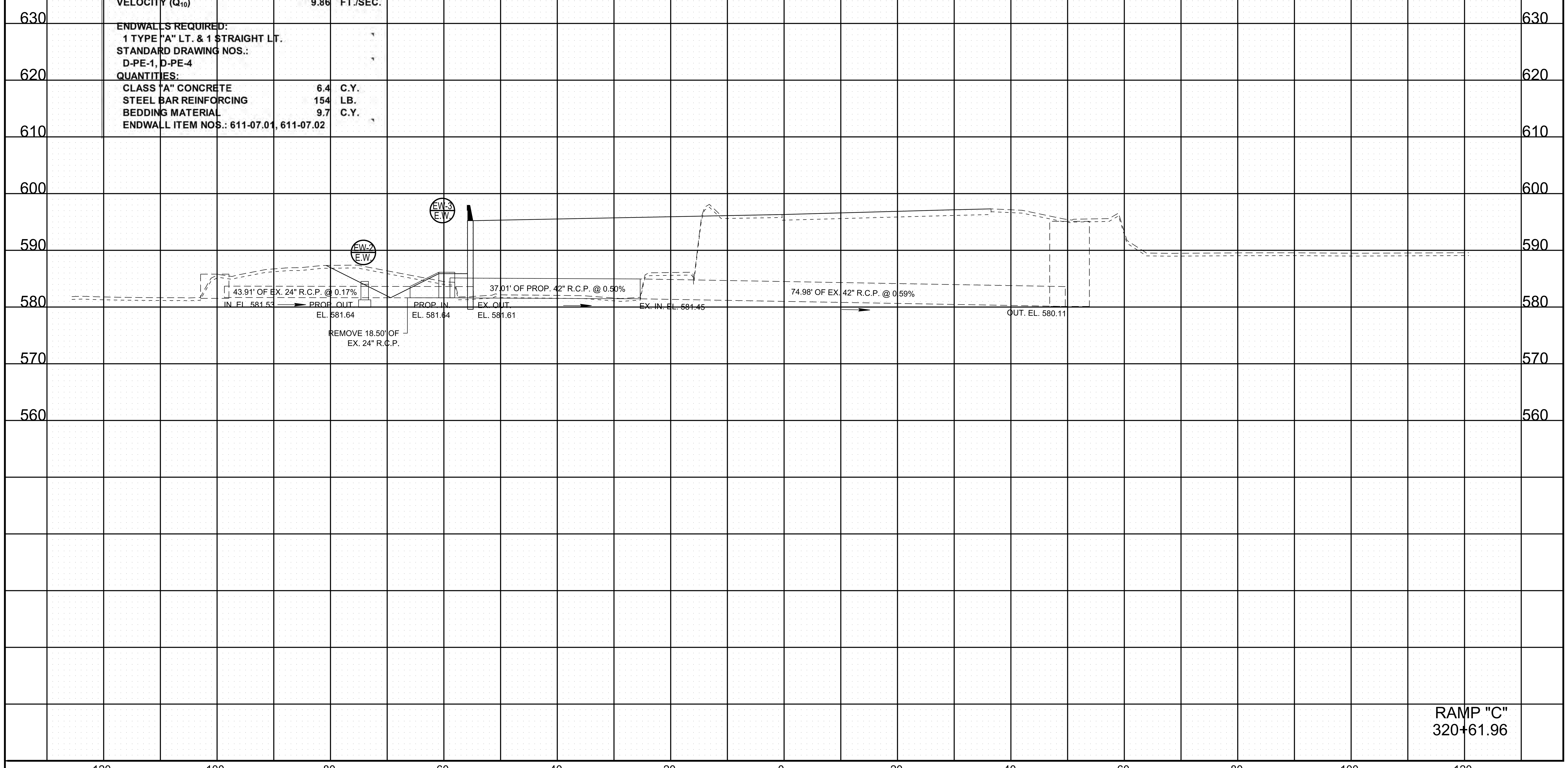
PIPE CULVERT
STATION: 320+61.96
STRUCTURE: 37.01' EXT. OF EX. 42" R.C.P.

SKEW	33	DEG.
DRAINAGE AREA	43.943	AC.
DESIGN DISCHARGE (Q_{10})	117.20	C.F.S.
OVERTOPPING ELEV.	N/A	
ALLOWABLE HEADWATER ELEV.	N/A	
Q_{10} HEADWATER ELEV.	N/A	
VELOCITY (Q_{10})	9.86	FT./SEC.

ENDWALLS REQUIRED:
1 TYPE "A" LT. & 1 STRAIGHT LT.
STANDARD DRAWING NOS.:
D-PE-1, D-PE-4
QUANTITIES:

CLASS "A" CONCRETE	6.4	C.Y.
STEEL BAR REINFORCING	154	LB.
BEDDING MATERIAL	9.7	C.Y.

ENDWALL ITEM NOS.: 611-07.01, 611-07.02



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

CULVERT CROSS-SECTIONS

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

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EROSION PREVENTION AND SEDIMENT CONTROL (E.P.S.C.) NOTES

E.P.S.C. INDEX OF SHEETS

E.P.S.C. GENERAL NOTES

INSPECTION, MAINTENANCE, AND REPAIR

(1) REFER TO STORMWATER POLLUTION PREVENTION PLAN (SHEET S-1 ET SEQ.) FOR S.W.P.P.P., PERMITS, AND RECORDS NOTES.

GOOD HOUSEKEEPING MEASURES AND WASTE DISPOSAL

(1) CONTRACTOR SHALL ESTABLISH AND MAINTAIN PROACTIVE METHOD TO PREVENT LITTER AND CONSTRUCTION WASTE FROM ENTERING WATERS OF STATE OR WATERS OF UNITED STATES (W.O.T.U.S.). CONTRACTOR SHALL REMOVE MATERIALS FROM STORMWATER EXPOSURE OR OTHERWISE PREVENT MATERIALS FROM BECOMING POLLUTANT SOURCE PRIOR TO ANTICIPATED STORM EVENTS OR BEFORE BEING CARRIED OFF-SITE BY WIND. AFTER USE, CONTRACTOR SHALL REMOVE MATERIALS USED FOR E.P.S.C. FROM SITE.

(2) CONTRACTOR SHALL TAKE APPROPRIATE STEPS TO PREVENT PETROLEUM PRODUCTS OR OTHER CHEMICAL POLLUTANTS FROM ENTERING WATERS OF STATE OR W.O.T.U.S. CONTRACTOR SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL LAWS, RULES, REGULATIONS, AND ORDINANCES REGARDING EQUIPMENT REFUELING, SERVICING, AND STAGING, INCLUDING THOSE OF NATIONAL FIRE PROTECTION ASSOCIATION (N.F.P.A.). CONTRACTOR SHALL USE APPROPRIATE CONTAINMENT MEASURES FOR THESE AREAS.

(3) CONTRACTOR SHALL PROVIDE DESIGNATED TRUCK WASHOUT AREAS ON-SITE. CONTRACTOR SHALL ENSURE AREAS ARE SELF-CONTAINED, NOT CONNECTED TO ANY STORMWATER DISCHARGE OUTFALL POINT, AND PROPERLY SIGNED. CONTRACTOR SHALL NOT PERMIT WASH-DOWN OR WASTE DISCHARGE OF CONCRETE TRUCKS ON-SITE UNLESS CONTRACTOR HAS PROVIDED PROPER SETTLEMENT AREAS IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS.

(4) CONTRACTOR SHALL COLLECT WHEEL WASH AND ALLOW SUSPENDED SOLIDS TO SETTLE OUT PRIOR TO DISCHARGE. CONTRACTOR SHALL NOT DISCHARGE WHEEL WASH DIRECTLY INTO ANY STORMWATER SYSTEM OR STORMWATER TREATMENT SYSTEM.

(5) CONTRACTOR SHALL COLLECT SANITARY WASTE FROM PORTABLE SANITARY FACILITIES IN A TIMELY MANNER BY LICENSED WASTE MANAGEMENT CONTRACTOR OR AS REQUIRED BY LOCAL, STATE, AND FEDERAL REGULATIONS. CONTRACTOR SHALL OBTAIN ANY AND ALL NECESSARY PERMITS TO DISPOSE OF SANITARY WASTE.

(6) CONTRACTOR SHALL ONLY STORE NEEDED CONSTRUCTION MATERIALS ON-SITE. CONTRACTOR SHALL STORE ALL MATERIALS UNDER COVER AND IN APPROPRIATE CONTAINERS. CONTRACTOR SHALL STORE ALL MATERIALS IN ORIGINAL CONTAINERS WITH LABELS. CONTRACTOR SHALL CONDUCT ALL MATERIAL MIXING IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR SHALL INSPECT MATERIAL STORAGE AREAS REGULARLY TO ENSURE PROPER USE AND DISPOSAL.

(7) CONTRACTOR SHALL USE ALL PRODUCTS COMPLETELY BEFORE PROPERLY DISPOSING OF CONTAINERS OFF-SITE, WHERE POSSIBLE. CONTRACTOR SHALL FOLLOW MANUFACTURER'S DIRECTIONS FOR DISPOSAL OF MATERIALS AND CONTAINERS.

(8) CONTRACTOR SHALL TIGHTLY SEAL AND STORE ALL PAINT CONTAINERS WHEN NOT REQUIRED FOR USE. CONTRACTOR SHALL DISPOSE OF EXCESS PAINT IN ACCORDANCE WITH MANUFACTURER'S DIRECTIONS AS WELL AS LOCAL, STATE, AND FEDERAL REGULATIONS.

(9) CONTRACTOR SHALL DISPOSE OF ALL HAZARDOUS WASTE MATERIALS IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS. CONTRACTOR SHALL ENSURE ALL ON-SITE PERSONNEL ARE INSTRUCTED IN THESE PRACTICES AND THAT PRACTICES ARE FOLLOWED. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS TO DISPOSE OF HAZARDOUS MATERIAL.

(10) CONTRACTOR SHALL NOT DISPOSE OF MATERIALS VIA OPEN BURNING UNLESS SPECIFICALLY ALLOWED BY LAW. IF ALLOWED, CONTRACTOR SHALL ONLY BURN NATURAL VEGETATION, TREES, AND UNTREATED LUMBER. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS TO DISPOSE OF MATERIALS VIA OPEN BURNING. DISPOSAL OF NATURAL VEGETATION AND TREES VIA MULCHING IS PREFERRED TO OPEN BURNING; CONTRACTOR MAY USE MULCH PRODUCT AS ON-SITE GROUND STABILIZATION MEASURE WHERE APPROPRIATE.

(11) CONTRACTOR SHALL DISPOSE OF ALL WASTE MATERIAL (E.G., EARTH, ROCK, ASPHALT, CONCRETE, ETC.) NOT REQUIRED FOR CONSTRUCTION. CONTRACTOR SHALL AVOID IMPACTS TO WATERS OF STATE OR W.O.T.U.S. WHERE POSSIBLE. IF UNAVOIDABLE, CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS TO DISPOSE OF WASTE MATERIALS.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	16
P.I.H.	2025	HSIP-I-24-1(118)	16
P.S. & E.	2025	HSIP-I-24-1(118)	16

REV. 2025-02-04: ADDED EROSION PREVENTION AND SEDIMENT CONTROL INDEX OF SHEETS.

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DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL (E.P.S.C.) NOTES

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	17
P.I.H.	2025	HSIP-I-24-1(118)	17
P. S. & E.	2025	HSIP-I-24-1(118)	17

TABULATED E.P.S.C. QUANTITIES

	ITEM NO.	DESCRIPTION	UNIT	QUANTITY 75100-2111-94
(1)	203-01	ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED)	C.Y.	1582
(1)	203-03	BORROW EXCAVATION (UNCLASSIFIED)	C.Y.	3155
(1)	209-05	SEDIMENT REMOVAL	C.Y.	35
(1)	209-09.43	CURB INLET PROTECTION (TYPE 4)	EA.	14
(1)	209-40.33	CATCH BASIN PROTECTION (TYPE D)	EA.	8
(1)	209-40.46	CATCH BASIN FILTER ASSEMBLY (TYPE 6)	EA.	4
(1)	303-01	MINERAL AGGREGATE, TYPE A BASE, GRADING D	TON	846
(1)	303-10.01	MINERAL AGGREGATE (SIZE 57)	TON	13
(1)	709-05.06	MACHINED RIP-RAP (CLASS A-1)	TON	124
(1)	740-10.03	GEOTEXTILE (TYPE III)(EROSION CONTROL)	S.Y.	223
(1)	740-11.02	TEMPORARY SEDIMENT TUBE 12IN	L.F.	3033
(1)	740-11.04	TEMPORARY SEDIMENT TUBE 20IN	L.F.	1389
(1)	801-01	SEEDING (WITH MULCH)	UNIT	112
(1) (2)	801-03	WATER (SEEDING & SODDING)	M.G.	14
(1)	803-01	SODDING (NEW SOD)	S.Y.	468
	805-12.01	EROSION CONTROL BLANKET (TYPE I)	S.Y.	9800
(1) (3)	806-02.03	PROJECT MOWING	CYCLE	4

STORMWATER DISCHARGE OUTFALL POINTS

NO.	SUB-OUTFALLS	DESCRIPTION	IMPACTED DRAINAGE FEATURE	STAGE 1 TOTAL DRAINAGE AREA (AC.)	STAGE 2 TOTAL DRAINAGE AREA (AC.)	STAGE 3 TOTAL DRAINAGE AREA (AC.)	STAGE 4 TOTAL DRAINAGE AREA (AC.)	ESTIMATED PERCENT SLOPE WITHIN R.O.W.
1	N/A	DITCH	DITCH	3.242	3.242	3.242	3.242	1.00%
2	N/A	CATCH BASIN	SEWER	0.176	0.176	0.176	0.176	1.25%
3	N/A	CATCH BASIN	SEWER	0.094	0.094	0.094	0.094	1.00%
4	N/A	CATCH BASIN	SEWER	0.233	0.233	0.233	0.233	0.75%
5	N/A	CATCH BASIN	SEWER	0.327	0.327	0.327	0.327	0.75%
6	N/A	CATCH BASIN	SEWER	0.041	0.041	0.041	0.041	1.00%
7	N/A	CATCH BASIN	SEWER	0.258	0.258	0.258	0.258	1.00%
8	N/A	CATCH BASIN	SEWER	0.090	0.090	0.090	0.090	0.75%
9	N/A	CATCH BASIN	SEWER	N/A	0.192	0.192	0.192	1.00%
10	N/A	CATCH BASIN	SEWER	0.188	0.188	N/A	N/A	1.00%
11	N/A	CATCH BASIN	SEWER	0.310	0.310	0.310	0.310	2.50%
12	N/A	ENDWALL	SEWER	0.029	0.029	0.029	0.029	0.50%
TOTAL		12						

FOOTNOTES

(1) SEE SUBSECTION 209.07 OF STANDARD SPECIFICATIONS FOR MAINTENANCE REPLACEMENT. ALL QUANTITIES ARE TO BE USED AS DIRECTED BY ENGINEER.

(2) INCLUDES 14 THOUSAND GALLONS FOR EROSION PREVENTION AND SEDIMENT CONTROL.

(3) 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.

REV. 2025-02-04: ADDED PAY ITEM NUMBER 209-40.46 (CATCH BASIN FILTER ASSEMBLY, TYPE 6) TO TABULATED EROSION PREVENTION AND SEDIMENT CONTROL QUANTITIES. MODIFIED QUANTITY FOR PAY ITEM NUMBER 203-01 (ROAD AND DRAINAGE EXCAVATION, UNCLASSIFIED). MODIFIED TOTAL DRAINAGE AREA OF OUTFALL 1 AT ALL STAGES. ADDED STAGE 2 TOTAL DRAINAGE AREA TO OUTFALL 9. ADDED TEMPORARY BERM TO EROSION PREVENTION AND SEDIMENT CONTROL LEGEND.

REV. 2025-04-01: ADDED PAY ITEM NUMBER 805-12.01 (EROSION CONTROL BLANKET, TYPE 1) TO TABULATED EROSION PREVENTION AND SEDIMENT CONTROL QUANTITIES. ADDED EROSION CONTROL BLANKET TO EROSION PREVENTION AND SEDIMENT CONTROL LEGEND.

EROSION PREVENTION AND SEDIMENT CONTROL LEGEND

SYMBOL	ITEM	STD. DWG.
	ENHANCED ROCK CHECK DAM (V-DITCH)	EC-STR-6A
	CULVERT PROTECTION (TYPE 1)	EC-STR-11
D	CATCH BASIN PROTECTION (TYPE D)	EC-STR-19
	TEMPORARY BERM	EC-STR-27
	SAND BAG BERM	EC-STR-33
TUBE 12" TUBE 12"	12 INCH SEDIMENT TUBE	EC-STR-37
TUBE 20" TUBE 20"	20 INCH SEDIMENT TUBE	EC-STR-37
4	CURB INLET PROTECTION (TYPE 4)	EC-STR-39A
6	CATCH BASIN FILTER ASSEMBLY (TYPE 6)	EC-STR-46
	EROSION CONTROL BLANKET	EC-STR-34

SEALED BY

LUCAS R. SULLIVAN
REGISTERED ENGINEER
AGRICULTURE COMMERCE
NO. 116284
STATE OF TENNESSEE
2025-04-02

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION & SEDIMENT CONTROL (E.P.S.C.) LEGEND & TABULATION

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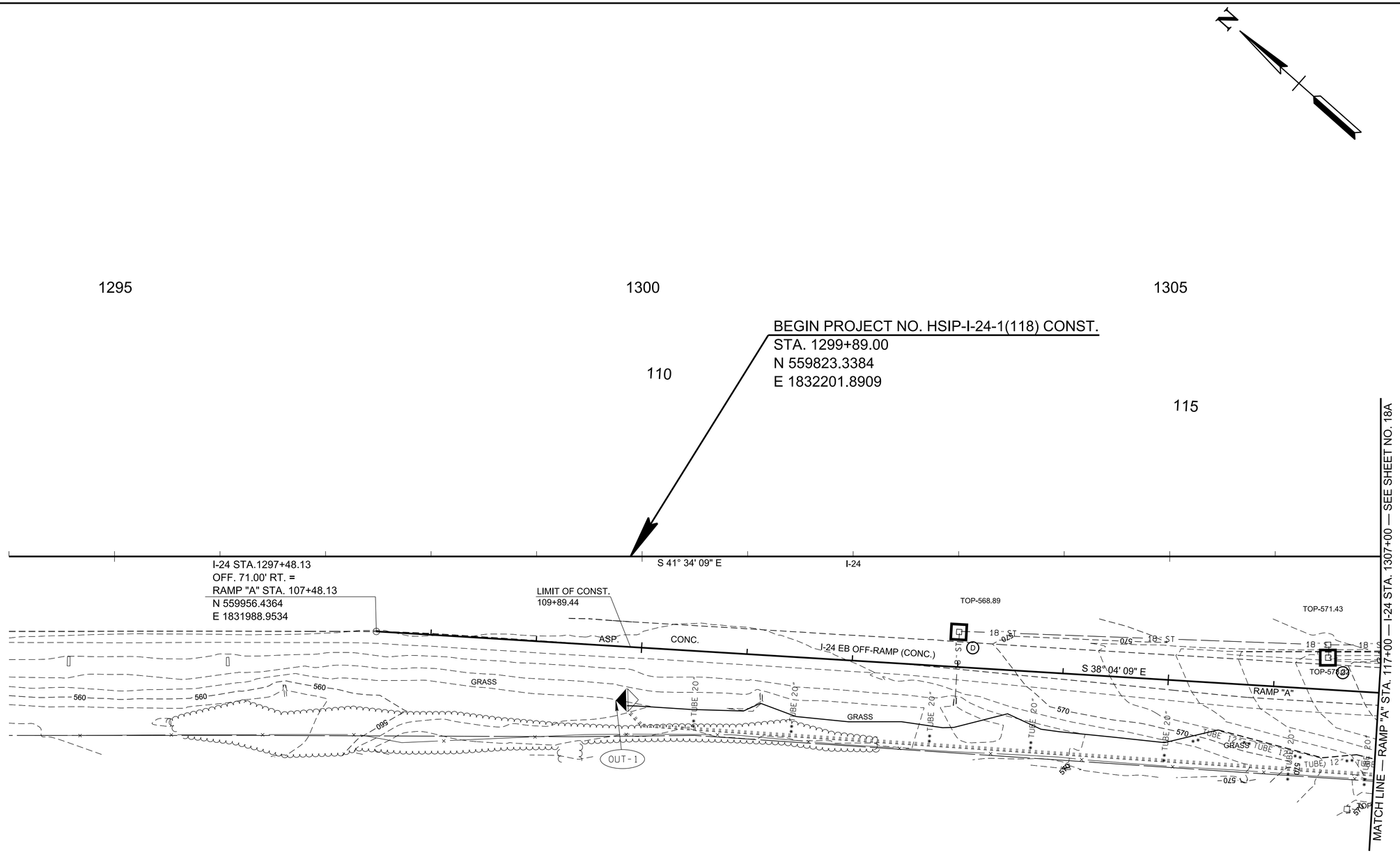
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	18
P.I.H.	2025	HSIP-I-24-1(118)	18
P.S. & E.	2025	HSIP-I-24-1(118)	18

REV. 2025-02-04: ADDED TEMPORARY BERM AT RAMP "A".



NOTE: EXISTING CONTOURS SHOWN

STAGE I

SEALED BY

LUCAS R. SULLIVAN — REGISTERED ENGINEER — AGRICULTURAL ENGINEER — DATE: 2025-04-02 — STATE OF TENNESSEE

COORDINATES ARE N.A.D. 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00008 AND TIED TO THE T.G.R.N. ALL ELEVATIONS ARE REFERENCED TO THE N.A.V.D. 1988 WITH GEOID 03.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION & SEDIMENT CONTROL (E.P.S.C.) PLANS

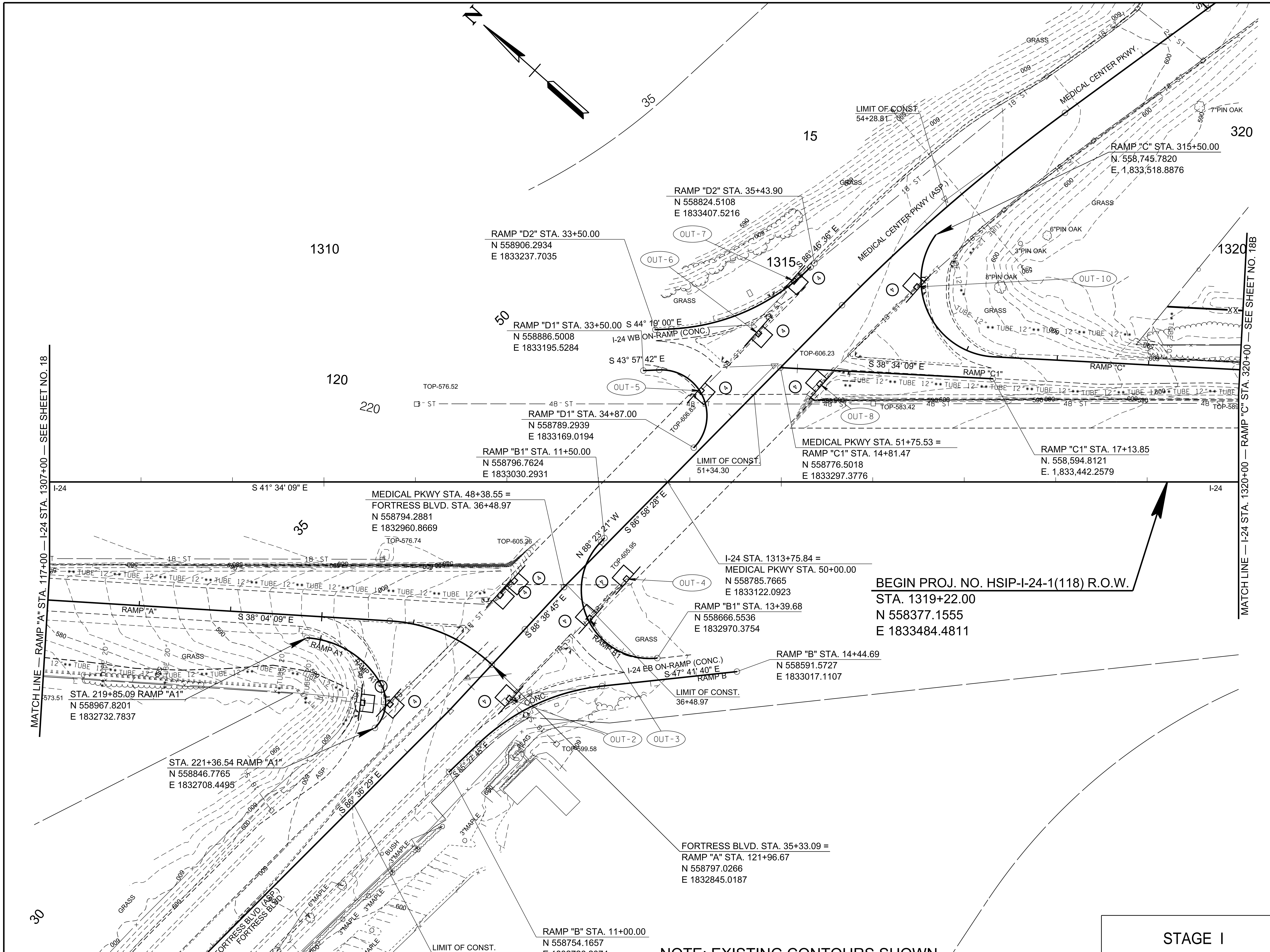
STA. 1294+00 TO STA. 1307+00

SCALE: 1" = 50'

3/31/2025 11:39:48 AM
Y:\Projects\0010000\0014000\14285 TDOT Roadway 2017-2020\WO #19- I-24 Ramp Queue Rutherford Co\01\Dgn\125463-00-PS&E\018.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	18A
P.I.H.	2025	HSIP-I-24-1(118)	18A
P.S. & E.	2025	HSIP-I-24-1(118)	18A

REV. 2025-02-04: ADDED TEMPORARY BERM AT RAMP "A".



N
RAMP "D2" STA. 35+43.90
N 558824.5108
E 1833407.5216
RAMP "D2" STA. 33+50.00
N 558906.2934
E 1833237.7035
RAMP "C" STA. 315+50.00
N. 558,745.7820
E. 1,833,518.8876
LIMIT OF CONST.
54+28.81
MEDICAL CENTER PKWY.
MEDICAL CENTER PKWY (ASP.)
RAMP "D1" STA. 33+50.00
N 558886.5008
E 1833195.5284
S 44° 19' 00" E
I-24 WB ON-RAMP (CONC.)
S 43° 57' 42" E
S 86° 46' 36" E
RAMP "D1" STA. 34+87.00
N 558789.2939
E 1833169.0194
RAMP "B1" STA. 11+50.00
N 558796.7624
E 1833030.2931
LIMIT OF CONST.
51+34.30
S 38° 34' 09" E
RAMP "C1"
RAMP "C"
MEDICAL PKWY STA. 51+75.53 =
RAMP "C1" STA. 14+81.47
N 558776.5018
E 1833297.3776
RAMP "C1" STA. 17+13.85
N. 558,594.8121
E. 1,833,442.2579
MATCH LINE — RAMP "A" STA. 117+00 — I-24 STA. 1307+00 — SEE SHEET NO. 18
MATCH LINE — I-24 STA. 1320+00 — RAMP "C" STA. 320+00 — SEE SHEET NO. 18B
I-24
S 41° 34' 09" E
MEDICAL PKWY STA. 48+38.55 =
FORTRESS BLVD. STA. 36+48.97
N 558794.2881
E 1832960.8669
N 88° 23' 21" W
S 86° 58' 28" E
S 88° 38' 45" E
I-24 STA. 1313+75.84 =
MEDICAL PKWY STA. 50+00.00
N 558785.7665
E 1833122.0923
BEGIN PROJ. NO. HSIP-I-24-1(118) R.O.W.
STA. 1319+22.00
N 558377.1555
E 1833484.4811
RAMP "B1" STA. 13+39.68
N 558666.5536
E 1832970.3754
RAMP "A"
S 38° 04' 09" E
RAMP "B" STA. 14+44.69
N 558591.5727
E 1833017.1107
I-24 EB ON-RAMP (CONC.)
S 47° 41' 40" E
RAMP B
LIMIT OF CONST.
36+48.97
STA. 219+85.09 RAMP "A1"
N 558967.8201
E 1832732.7837
STA. 221+36.54 RAMP "A1"
N 558846.7765
E 1832708.4495
FORTRESS BLVD. STA. 35+33.09 =
RAMP "A" STA. 121+96.67
N 558797.0266
E 1832845.0187
FORTRESS BLVD (ASP.)
RAMP "B" STA. 11+00.00
N 558754.1657
E 1832726.2074
LIMIT OF CONST.
33+17.57
OUT-2
OUT-3
OUT-4
OUT-5
OUT-6
OUT-7
OUT-8
OUT-10

NOTE: EXISTING CONTOURS SHOWN

SEALED BY

LUCAS R. SULLIVAN — STATE OF TENNESSEE — 2025-04-02

COORDINATES ARE N.A.D. 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00008 AND TIED TO THE T.G.R.N. ALL ELEVATIONS ARE REFERENCED TO THE N.A.V.D. 1988 WITH GEOID 03.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION & SEDIMENT CONTROL (E.P.S.C.) PLANS

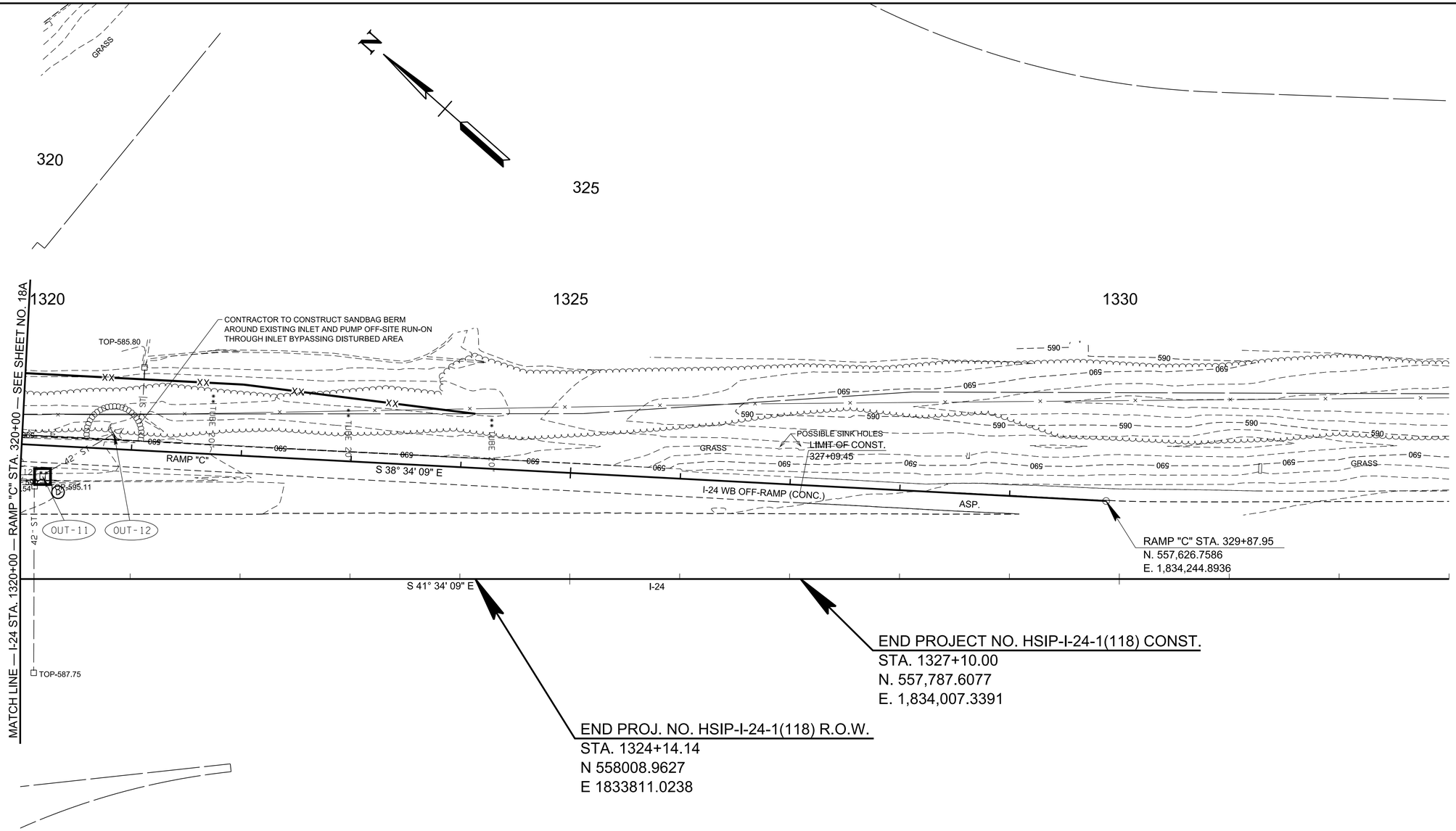
STA. 1307+00 TO STA. 1320+00

SCALE: 1" = 50'

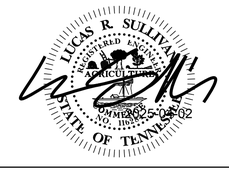
STAGE I

3/31/2025 11:39:49 AM
Y:\Projects\0010000\0014000\14285 TDOT Roadway 2017-2020\WO #19- I-24 Ramp Queue Rutherford Co\01\Dgn\125463-00-PS&E\018A.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	18B
P.I.H.	2025	HSIP-I-24-1(118)	18B
P.S. & E.	2025	HSIP-I-24-1(118)	18B



SEALED BY



COORDINATES ARE N.A.D. 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00008 AND TIED TO THE T.G.R.N. ALL ELEVATIONS ARE REFERENCED TO THE N.A.V.D. 1988 WITH GEOID 03.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION & SEDIMENT CONTROL (E.P.S.C.) PLANS

STA. 1320+00 TO STA. 1333+00

SCALE: 1" = 50'

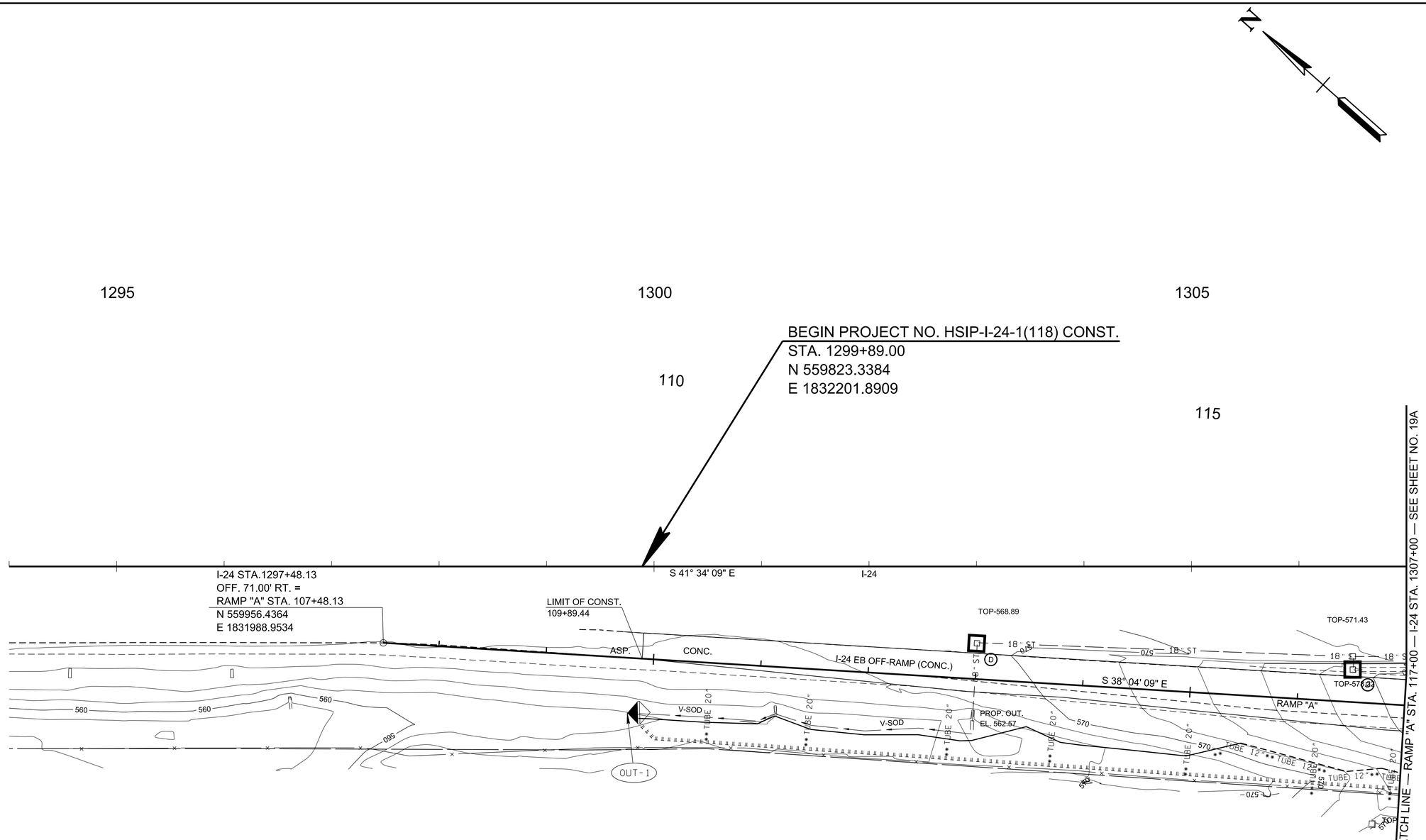
STAGE I

NOTE: EXISTING CONTOURS SHOWN

3/31/2025 11:39:50 AM
Y:\Projects\001000010014000\14285 TDOT Roadway 2017-2020\WO #19- I-24 Ramp Queue Rutherford Co\01\Dgn\125463-00-PS&E\018B.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	19
P.I.H.	2025	HSIP-I-24-1(118)	19
P.S. & E.	2025	HSIP-I-24-1(118)	19

REV. 2025-02-04: ADDED TEMPORARY BERM AT RAMP "A".



SEALED BY

LUCAS R. SULLIVAN
REGISTERED ENGINEER
AGRICULTURAL
DATE: 2025-04-02
STATE OF TENNESSEE

COORDINATES ARE N.A.D. 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00008 AND TIED TO THE T.G.R.N. ALL ELEVATIONS ARE REFERENCED TO THE N.A.V.D. 1988 WITH GEOID 03.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION & SEDIMENT CONTROL (E.P.S.C.) PLANS

STA. 1294+00 TO STA. 1307+00

SCALE: 1" = 50'

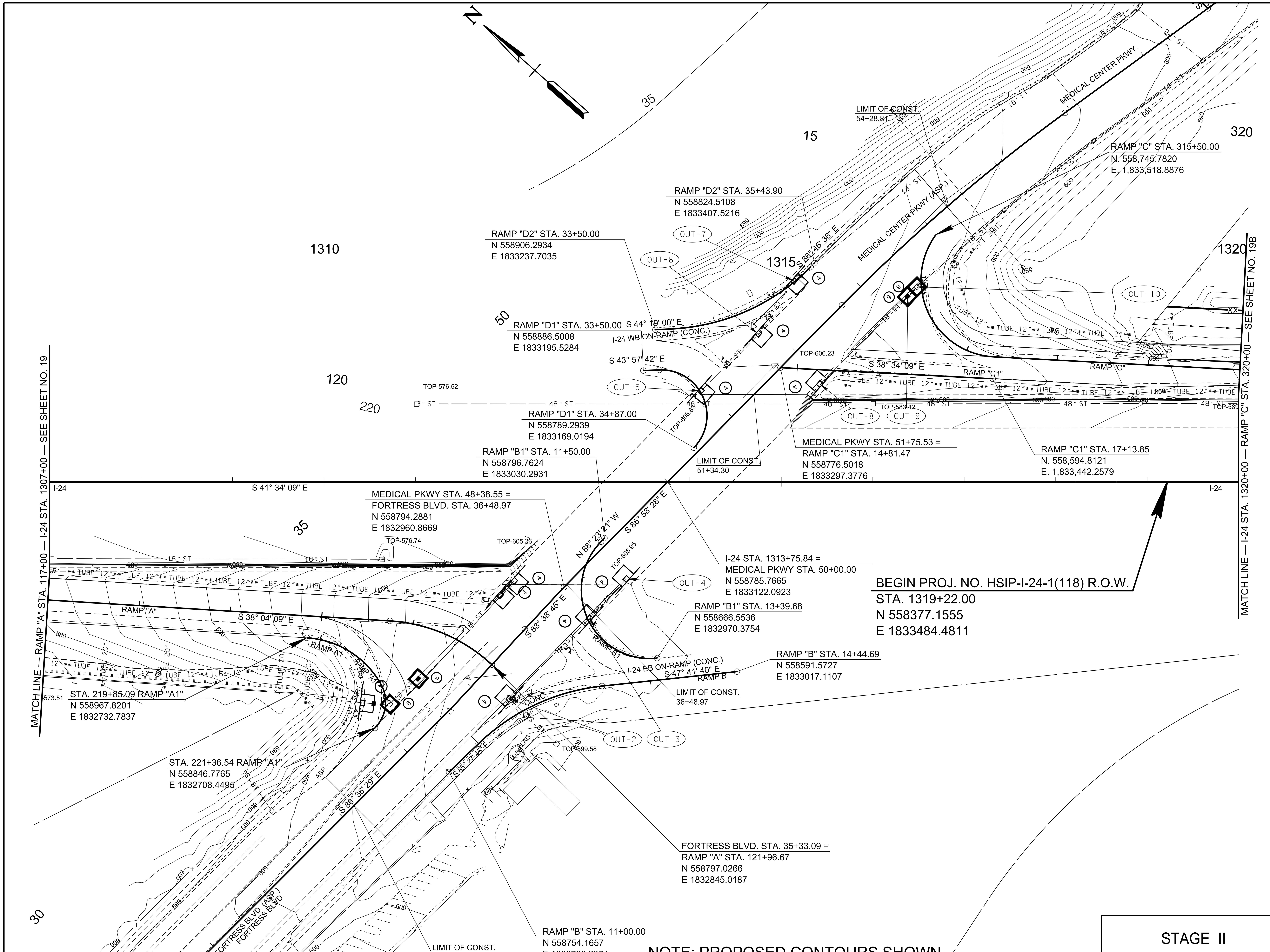
STAGE II

NOTE: PROPOSED CONTOURS SHOWN

3/31/2025 11:39:50 AM
Y:\Projects\001000\001400\14285 TDOT Roadway 2017-2020\WO #19- I-24 Ramp Queue Rutherford Co\01\Dgn\125463-00-PS&E\019.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	19A
P.I.H.	2025	HSIP-I-24-1(118)	19A
P.S. & E.	2025	HSIP-I-24-1(118)	19A

REV. 2025-02-04: ADDED TEMPORARY BERM AT RAMP "A".



RAMP "D2" STA. 35+43.90
N 558824.5108
E 1833407.5216
RAMP "D2" STA. 33+50.00
N 558906.2934
E 1833237.7035
RAMP "D1" STA. 33+50.00
N 558886.5008
E 1833195.5284
RAMP "D1" STA. 34+87.00
N 558789.2939
E 1833169.0194
RAMP "B1" STA. 11+50.00
N 558796.7624
E 1833030.2931
LIMIT OF CONST.
54+28.81
RAMP "C" STA. 315+50.00
N. 558,745.7820
E. 1,833,518.8876
MEDICAL PKWY STA. 51+75.53 =
RAMP "C1" STA. 14+81.47
N 558776.5018
E 1833297.3776
RAMP "C1" STA. 17+13.85
N. 558,594.8121
E. 1,833,442.2579
LIMIT OF CONST.
51+34.30
MEDICAL PKWY STA. 48+38.55 =
FORTRESS BLVD. STA. 36+48.97
N 558794.2881
E 1832960.8669
I-24 STA. 1313+75.84 =
MEDICAL PKWY STA. 50+00.00
N 558785.7665
E 1833122.0923
BEGIN PROJ. NO. HSIP-I-24-1(118) R.O.W.
STA. 1319+22.00
N 558377.1555
E 1833484.4811
RAMP "B1" STA. 13+39.68
N 558666.5536
E 1832970.3754
RAMP "B" STA. 14+44.69
N 558591.5727
E 1833017.1107
LIMIT OF CONST.
36+48.97
STA. 219+85.09 RAMP "A1"
N 558967.8201
E 1832732.7837
STA. 221+36.54 RAMP "A1"
N 558846.7765
E 1832708.4495
FORTRESS BLVD. STA. 35+33.09 =
RAMP "A" STA. 121+96.67
N 558797.0266
E 1832845.0187
RAMP "B" STA. 11+00.00
N 558754.1657
E 1832726.2074
LIMIT OF CONST.
33+17.57
MEDICAL CENTER PKWY.
MEDICAL CENTER PKWY (ASP.)
I-24 WB ON-RAMP (CONC.)
I-24 EB ON-RAMP (CONC.)
FORTRESS BLVD (ASP.)
I-24
S 41° 34' 09" E
S 38° 04' 09" E
S 38° 34' 09" E
S 44° 19' 00" E
S 43° 57' 42" E
S 47° 41' 40" E
S 86° 46' 36" E
S 86° 58' 28" E
S 88° 38' 45" E
N 88° 23' 21" W
S 86° 36' 29" E
RAMP "A"
RAMP A1
RAMP "C1"
RAMP "C"
RAMP B
RAMP B1
OUT-2
OUT-3
OUT-4
OUT-5
OUT-6
OUT-7
OUT-8
OUT-9
OUT-10
TOP-576.52
TOP-576.74
TOP-605.26
TOP-605.95
TOP-606.23
TOP-606.83
TOP-583.42
TOP-599.58
1310
1315
1320
MATCH LINE — RAMP "A" STA. 117+00 — I-24 STA. 1307+00 — SEE SHEET NO. 19
MATCH LINE — I-24 STA. 1320+00 — RAMP "C" STA. 320+00 — SEE SHEET NO. 19B
NOTE: PROPOSED CONTOURS SHOWN

SEALED BY

LUCAS R. SULLIVAN — STATE OF TENNESSEE — 2025-04-02

COORDINATES ARE N.A.D. 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00008 AND TIED TO THE T.G.R.N. ALL ELEVATIONS ARE REFERENCED TO THE N.A.V.D. 1988 WITH GEOID 03.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION & SEDIMENT CONTROL (E.P.S.C.) PLANS

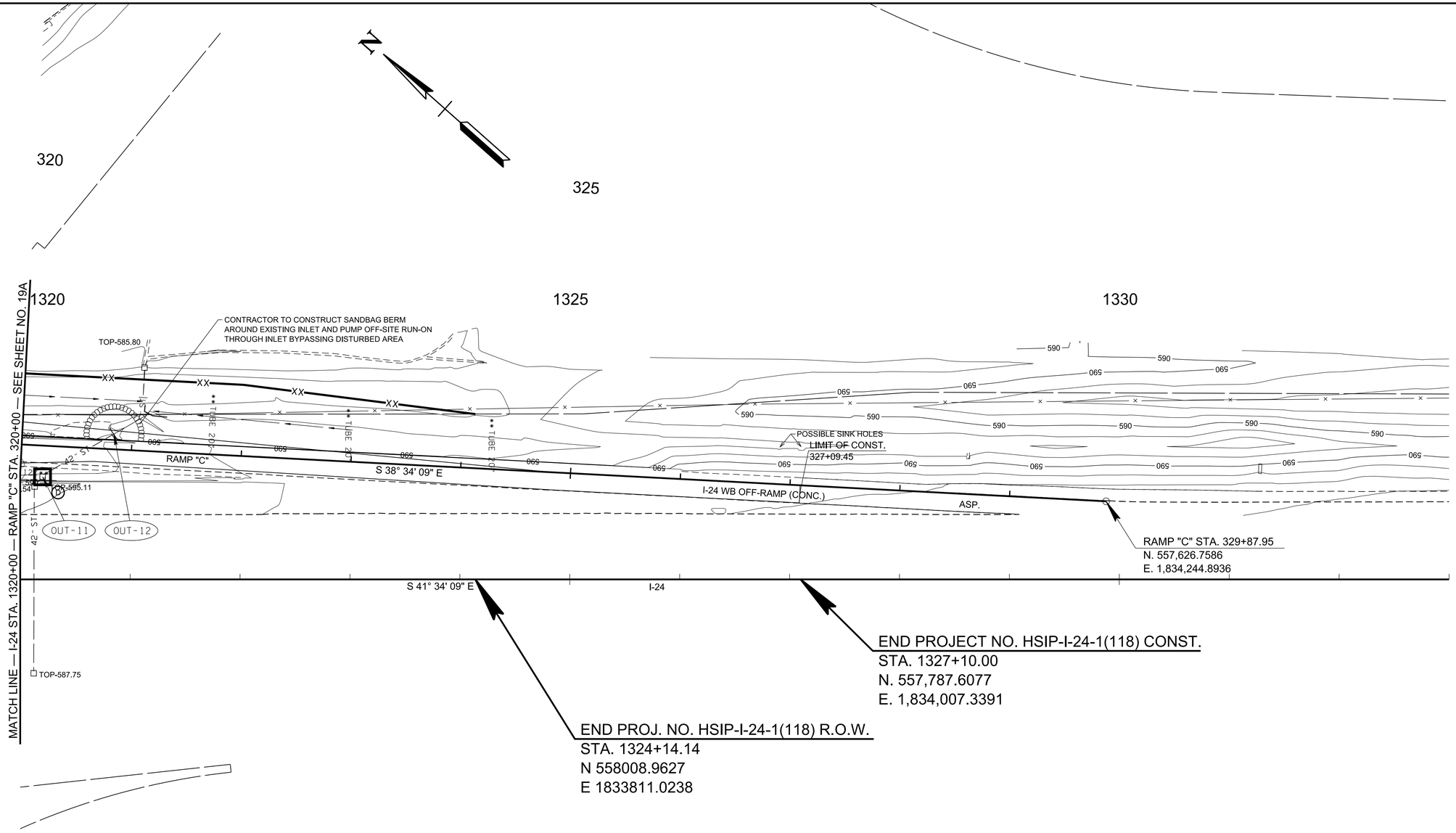
STA. 1307+00 TO STA. 1320+00

SCALE: 1" = 50'

STAGE II

3/31/2025 11:39:51 AM
Y:\Projects\0010000\0014000\14285 TDOT Roadway 2017-2020\WO #19- I-24 Ramp Queue Rutherford Co\01\Dgn\125463-00-PS&E\019A.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	19B
P.I.H.	2025	HSIP-I-24-1(118)	19B
P.S. & E.	2025	HSIP-I-24-1(118)	19B



NOTE: PROPOSED CONTOURS SHOWN

SEALED BY

LUCAS R SULLIVAN
REGISTERED PROFESSIONAL ENGINEER
AGRICULTURE
COMMISSION NO. 125463
2-25-25
STATE OF TENNESSEE

COORDINATES ARE N.A.D. 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00008 AND TIED TO THE T.G.R.N. ALL ELEVATIONS ARE REFERENCED TO THE N.A.V.D. 1988 WITH GEOID 03.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION & SEDIMENT CONTROL (E.P.S.C.) PLANS

STA. 1320+00 TO STA. 1333+00

SCALE: 1" = 50'

STAGE II

3/31/2025 11:39:52 AM
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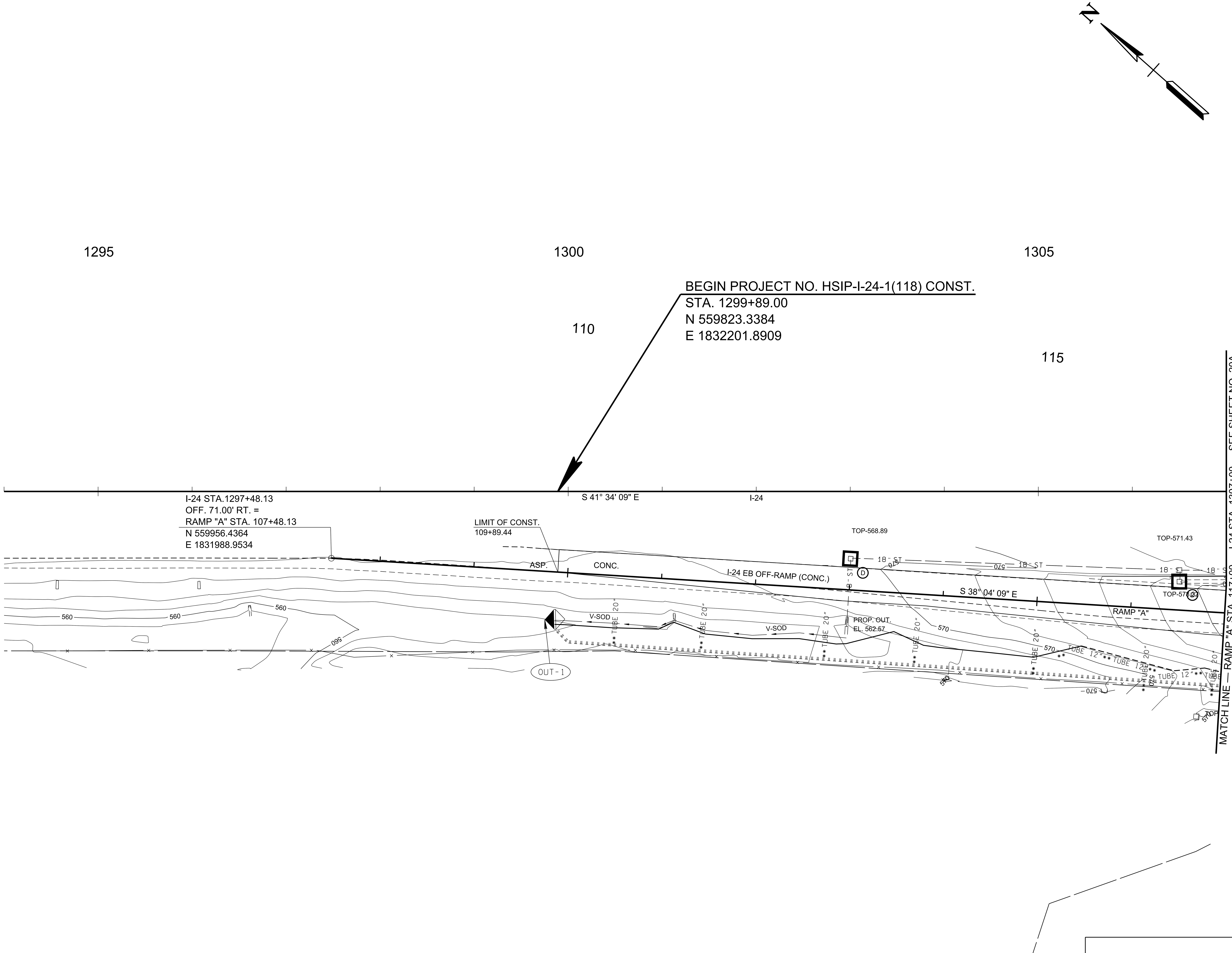
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	20
P.I.H.	2025	HSIP-I-24-1(118)	20
P.S. & E.	2025	HSIP-I-24-1(118)	20

REV. 2025-02-04: ADDED TEMPORARY BERM AT RAMP "A".



NOTE: PROPOSED CONTOURS SHOWN

STAGE III

SEALED BY

COORDINATES ARE N.A.D. 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00008 AND TIED TO THE T.G.R.N. ALL ELEVATIONS ARE REFERENCED TO THE N.A.V.D. 1988 WITH GEOID 03.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

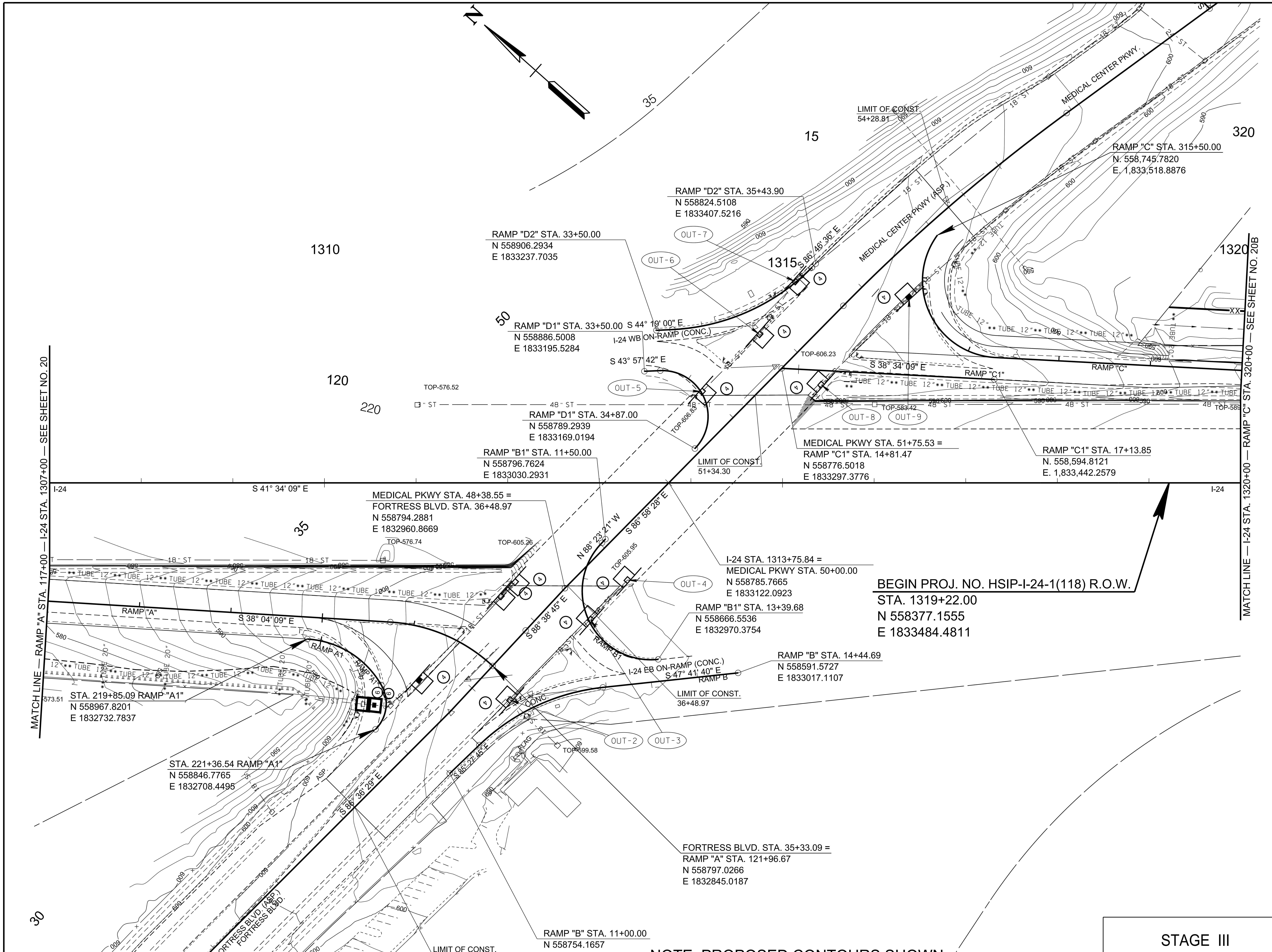
EROSION PREVENTION & SEDIMENT CONTROL (E.P.S.C.) PLANS

STA. 1294+00 TO STA. 1307+00

SCALE: 1" = 50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	20A
P.I.H.	2025	HSIP-I-24-1(118)	20A
P.S. & E.	2025	HSIP-I-24-1(118)	20A

REV. 2025-02-04: ADDED TEMPORARY BERM AT RAMP "A".



MATCH LINE — RAMP "A" STA. 117+00 — I-24 STA. 1307+00 — SEE SHEET NO. 20
MATCH LINE — I-24 STA. 1320+00 — RAMP "C" STA. 320+00 — SEE SHEET NO. 20B
LIMIT OF CONST. 54+28.81
RAMP "C" STA. 315+50.00
N. 558,745.7820
E. 1,833,518.8876
RAMP "D2" STA. 35+43.90
N 558824.5108
E 1833407.5216
RAMP "D2" STA. 33+50.00
N 558906.2934
E 1833237.7035
RAMP "D1" STA. 33+50.00
N 558886.5008
E 1833195.5284
S 44° 19' 00" E
I-24 WB ON-RAMP (CONC.)
S 43° 57' 42" E
MEDICAL CENTER PKWY.
MEDICAL CENTER PKWY (ASP.)
S 86° 46' 36" E
S 38° 34' 09" E
RAMP "C1"
RAMP "C"
RAMP "D1" STA. 34+87.00
N 558789.2939
E 1833169.0194
RAMP "B1" STA. 11+50.00
N 558796.7624
E 1833030.2931
LIMIT OF CONST. 51+34.30
MEDICAL PKWY STA. 51+75.53 =
RAMP "C1" STA. 14+81.47
N 558776.5018
E 1833297.3776
RAMP "C1" STA. 17+13.85
N. 558,594.8121
E. 1,833,442.2579
I-24
S 41° 34' 09" E
MEDICAL PKWY STA. 48+38.55 =
FORTRESS BLVD. STA. 36+48.97
N 558794.2881
E 1832960.8669
N 88° 23' 21" W
S 86° 58' 28" E
I-24 STA. 1313+75.84 =
MEDICAL PKWY STA. 50+00.00
N 558785.7665
E 1833122.0923
BEGIN PROJ. NO. HSIP-I-24-1(118) R.O.W.
STA. 1319+22.00
N 558377.1555
E 1833484.4811
RAMP "B1" STA. 13+39.68
N 558666.5536
E 1832970.3754
RAMP "A"
S 38° 04' 09" E
RAMP A1
S 88° 38' 45" E
RAMP B1
I-24 EB ON-RAMP (CONC.)
S 47° 41' 40" E
RAMP B
RAMP "B" STA. 14+44.69
N 558591.5727
E 1833017.1107
LIMIT OF CONST. 36+48.97
STA. 219+85.09 RAMP "A1"
N 558967.8201
E 1832732.7837
STA. 221+36.54 RAMP "A1"
N 558846.7765
E 1832708.4495
S 86° 36' 29" E
S 86° 27' 45" E
FORTRESS BLVD. STA. 35+33.09 =
RAMP "A" STA. 121+96.67
N 558797.0266
E 1832845.0187
FORTRESS BLVD (ASP.)
FORTRESS BLVD.
RAMP "B" STA. 11+00.00
N 558754.1657
E 1832726.2074
LIMIT OF CONST. 33+17.57
OUT-2
OUT-3
OUT-4
OUT-5
OUT-6
OUT-7
OUT-8
OUT-9
TOP-576.52
TOP-606.23
TOP-576.74
TOP-605.26
TOP-605.95
TOP-599.58
TOP-583.42
TOP-573.51
TUBE 12"
48" ST
18" ST
1310
1315
1320
120
220

NOTE: PROPOSED CONTOURS SHOWN

SEALED BY

LUCAS R. SULLIVAN
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
STATE OF TENNESSEE
2025-04-02

COORDINATES ARE N.A.D. 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00008 AND TIED TO THE T.G.R.N. ALL ELEVATIONS ARE REFERENCED TO THE N.A.V.D. 1988 WITH GEOID 03.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION & SEDIMENT CONTROL (E.P.S.C.) PLANS

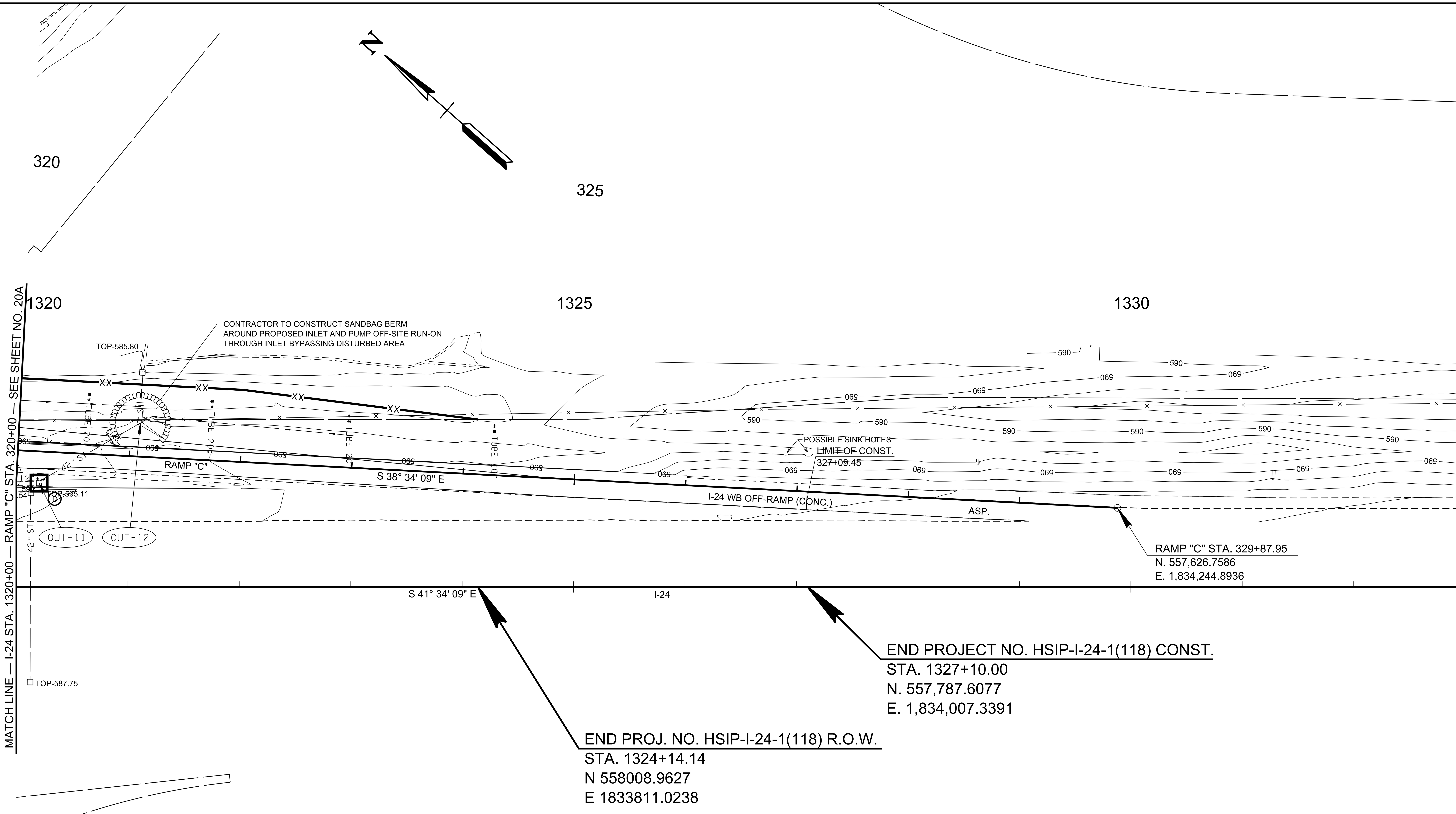
STA. 1307+00 TO STA. 1320+00

SCALE: 1" = 50'

STAGE III

3/31/2025 11:39:53 AM
Y:\Projects\0010000\0014000\14285 TDOT Roadway 2017-2020\WO #19- I-24 Ramp Queue Rutherford Co\01\Dgn\125463-00-PS&E\020A.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	20B
P.I.H.	2025	HSIP-I-24-1(118)	20B
P. S. & E.	2025	HSIP-I-24-1(118)	20B



NOTE: PROPOSED CONTOURS SHOWN

STAGE III

SEALED BY

LUCAS R. SULLIVAN
STATE OF TENNESSEE
2025-04-02

COORDINATES ARE N.A.D. 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00008 AND TIED TO THE T.G.R.N. ALL ELEVATIONS ARE REFERENCED TO THE N.A.V.D. 1988 WITH GEOID 03.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION & SEDIMENT CONTROL (E.P.S.C.) PLANS

STA. 1320+00 TO STA. 1333+00

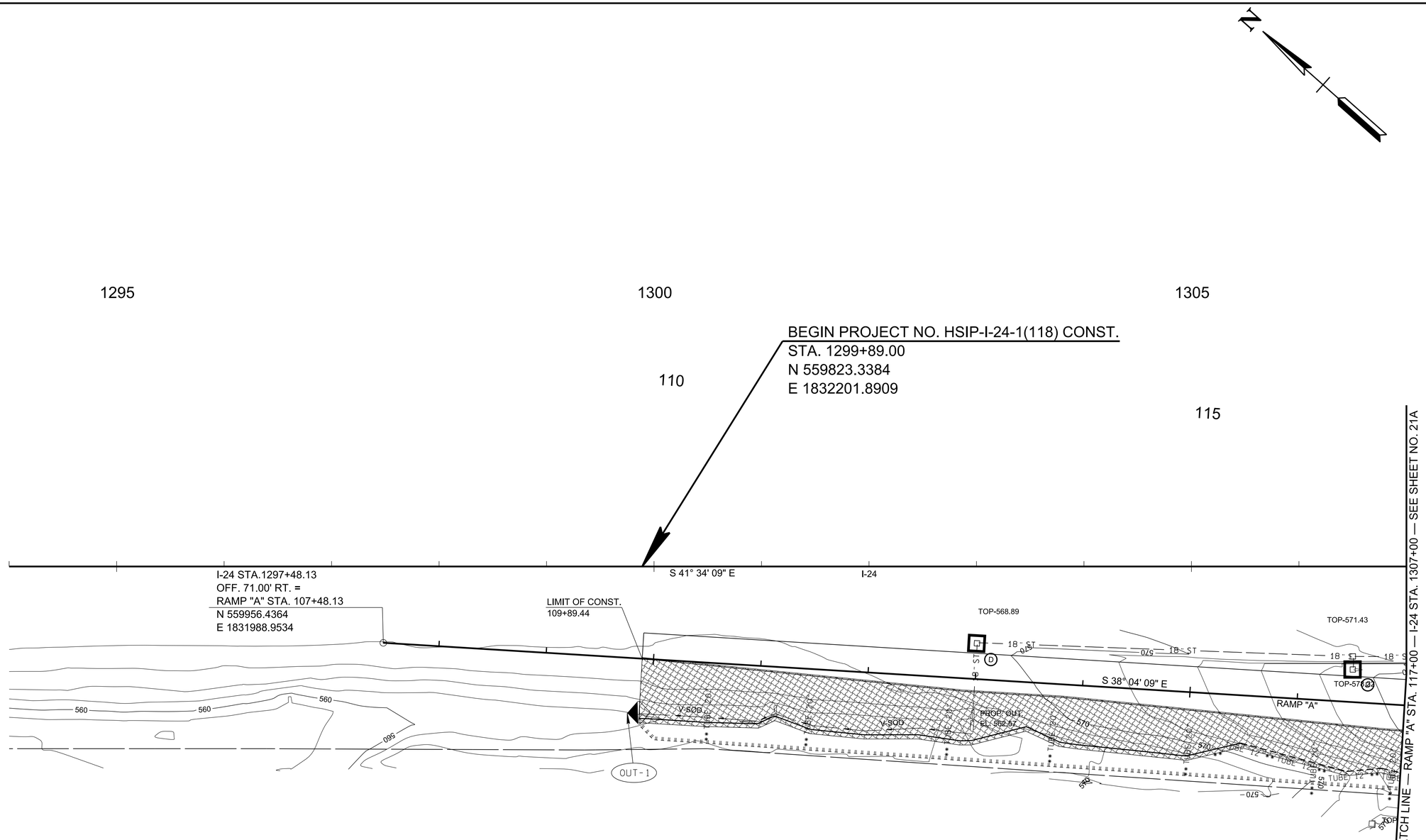
SCALE: 1" = 50'

3/31/2025 11:39:53 AM
Y:\Projects\0010000\0014000\14285 TDOT Roadway 2017-2020\WO #19- I-24 Ramp Queue Rutherford Co\01\Dgn\125463-00-PS&E\020B.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	21
P.I.H.	2025	HSIP-I-24-1(118)	21
P. S. & E.	2025	HSIP-I-24-1(118)	21

REV. 2025-02-04: ADDED TEMPORARY BERM AT RAMP "A".

REV. 2025-04-01: ADDED EROSION CONTROL BLANKET AT RAMP "A".



NOTE: PROPOSED CONTOURS SHOWN

SEALED BY

LUCAS R. SULLIVAN
REGISTERED ENGINEER
AGRICULTURAL
DATE 2025-04-02
STATE OF TENNESSEE

COORDINATES ARE N.A.D. 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00008 AND TIED TO THE T.G.R.N. ALL ELEVATIONS ARE REFERENCED TO THE N.A.V.D. 1988 WITH GEOID 03.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION & SEDIMENT CONTROL (E.P.S.C.) PLANS

STA. 1294+00 TO STA. 1307+00

SCALE: 1" = 50'

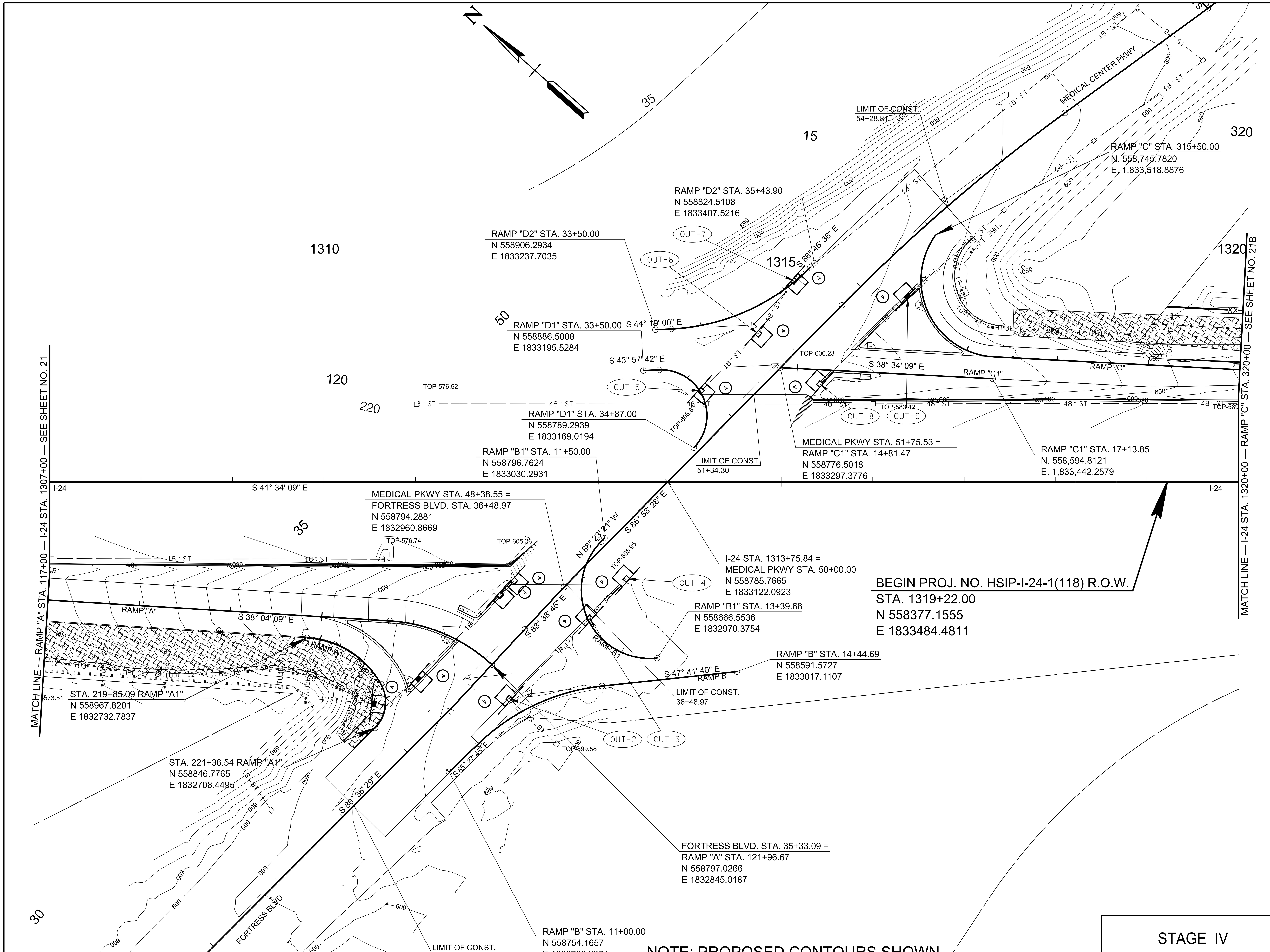
STAGE IV

3/31/2025 11:39:55 AM
Y:\Projects\001000\001400\114285 TDOT Roadway 2017-2020\WO #19- I-24 Ramp Queue Rutherford Co\01\Dgn\125463-00-PS&E\021.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	21A
P.I.H.	2025	HSIP-I-24-1(118)	21A
P. S. & E.	2025	HSIP-I-24-1(118)	21A

REV. 2025-02-04: ADDED TEMPORARY BERM AT RAMP "A".

REV. 2025-04-01: ADDED EROSION CONTROL BLANKET AT RAMPS "A" AND "C".



N
MEDICAL CENTER PKWY.
LIMIT OF CONST.
54+28.81
RAMP "C" STA. 315+50.00
N. 558,745.7820
E. 1,833,518.8876
RAMP "D2" STA. 35+43.90
N 558824.5108
E 1833407.5216
RAMP "D2" STA. 33+50.00
N 558906.2934
E 1833237.7035
OUT-7
OUT-6
RAMP "D1" STA. 33+50.00
N 558886.5008
E 1833195.5284
S 44° 19' 00" E
S 43° 57' 42" E
S 86° 46' 36" E
OUT-5
TOP-576.52
TOP-606.23
S 38° 34' 09" E
RAMP "C1"
RAMP "C"
OUT-8
OUT-9
RAMP "D1" STA. 34+87.00
N 558789.2939
E 1833169.0194
MEDICAL PKWY STA. 51+75.53 =
RAMP "C1" STA. 14+81.47
N 558776.5018
E 1833297.3776
RAMP "C1" STA. 17+13.85
N. 558,594.8121
E. 1,833,442.2579
RAMP "B1" STA. 11+50.00
N 558796.7624
E 1833030.2931
LIMIT OF CONST.
51+34.30
I-24
S 41° 34' 09" E
MEDICAL PKWY STA. 48+38.55 =
FORTRESS BLVD. STA. 36+48.97
N 558794.2881
E 1832960.8669
N 88° 23' 21" W
S 86° 58' 28" E
I-24 STA. 1313+75.84 =
MEDICAL PKWY STA. 50+00.00
N 558785.7665
E 1833122.0923
OUT-4
BEGIN PROJ. NO. HSIP-I-24-1(118) R.O.W.
STA. 1319+22.00
N 558377.1555
E 1833484.4811
RAMP "B1" STA. 13+39.68
N 558666.5536
E 1832970.3754
RAMP "A"
S 38° 04' 09" E
S 88° 38' 45" E
RAMP "B" STA. 14+44.69
N 558591.5727
E 1833017.1107
S 47° 41' 40" E
RAMP B
LIMIT OF CONST.
36+48.97
STA. 219+85.09 RAMP "A1"
N 558967.8201
E 1832732.7837
OUT-2
OUT-3
STA. 221+36.54 RAMP "A1"
N 558846.7765
E 1832708.4495
S 86° 36' 29" E
S 85° 27' 45" E
FORTRESS BLVD. STA. 35+33.09 =
RAMP "A" STA. 121+96.67
N 558797.0266
E 1832845.0187
FORTRESS BLVD.
LIMIT OF CONST.
33+17.57
RAMP "B" STA. 11+00.00
N 558754.1657
E 1832726.2074
MATCH LINE — RAMP "A" STA. 117+00 — I-24 STA. 1307+00 — SEE SHEET NO. 21
MATCH LINE — I-24 STA. 1320+00 — RAMP "C" STA. 320+00 — SEE SHEET NO. 21B

NOTE: PROPOSED CONTOURS SHOWN

STAGE IV

SEALED BY

LUCAS R. SULLIVAN
STATE OF TENNESSEE
2025-04-02

COORDINATES ARE N.A.D. 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00008 AND TIED TO THE T.G.R.N. ALL ELEVATIONS ARE REFERENCED TO THE N.A.V.D. 1988 WITH GEOID 03.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION & SEDIMENT CONTROL (E.P.S.C.) PLANS

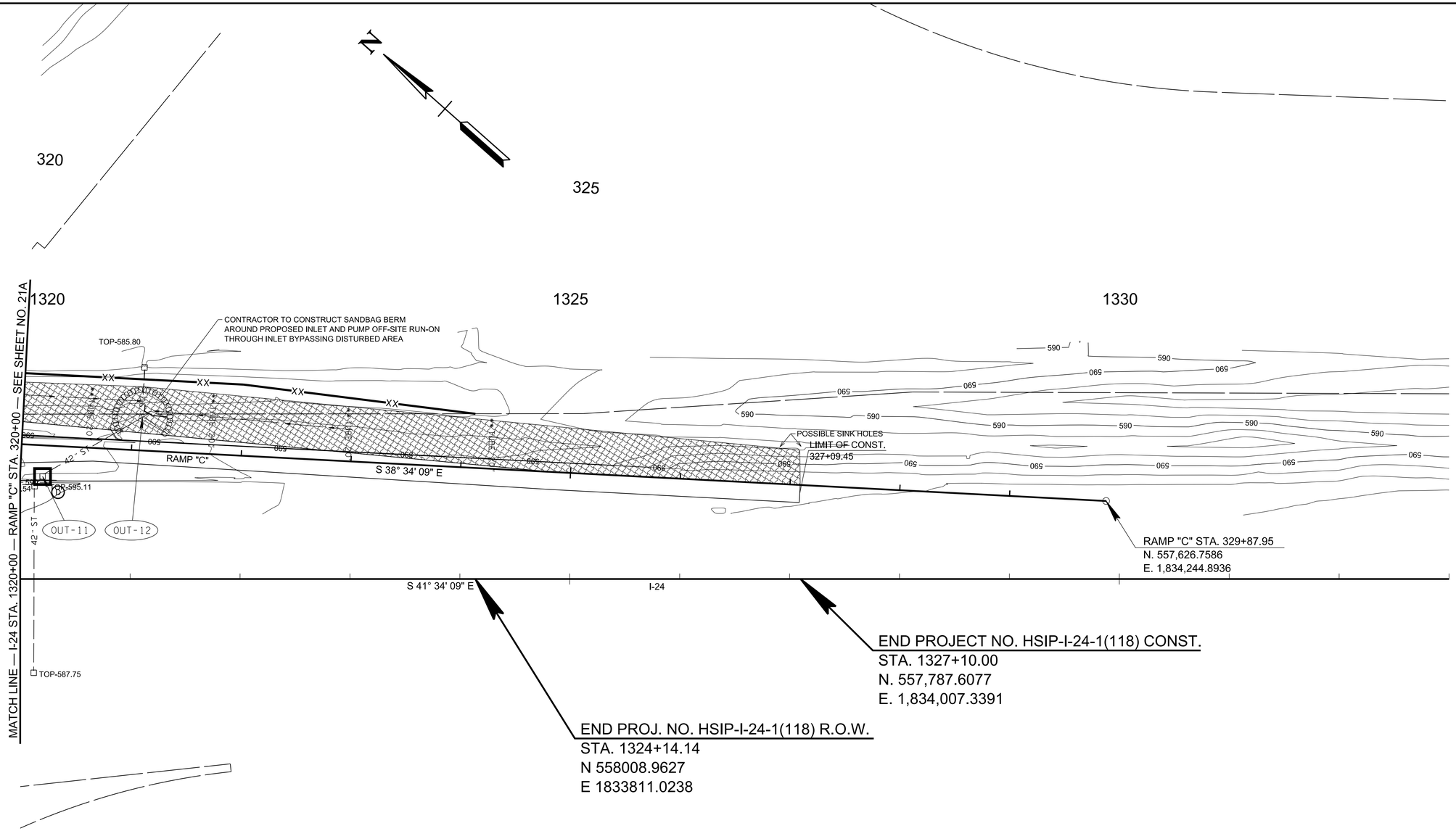
STA. 1307+00 TO STA. 1320+00

SCALE: 1" = 50'

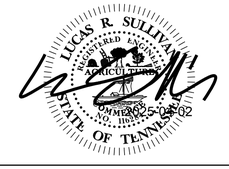
3/31/2025 11:39:55 AM
Y:\Projects\0010000\0014000\14285 TDOT Roadway 2017-2020\WO #19- I-24 Ramp Queue Rutherford Co\01\Dgn\125463-00-PS&E\021A.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	21B
P.I.H.	2025	HSIP-I-24-1(118)	21B
P.S. & E.	2025	HSIP-I-24-1(118)	21B

REV. 2025-04-01: ADDED EROSION CONTROL BLANKET AT RAMP "C".



SEALED BY



COORDINATES ARE N.A.D. 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00008 AND TIED TO THE T.G.R.N. ALL ELEVATIONS ARE REFERENCED TO THE N.A.V.D. 1988 WITH GEOID 03.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION & SEDIMENT CONTROL (E.P.S.C.) PLANS

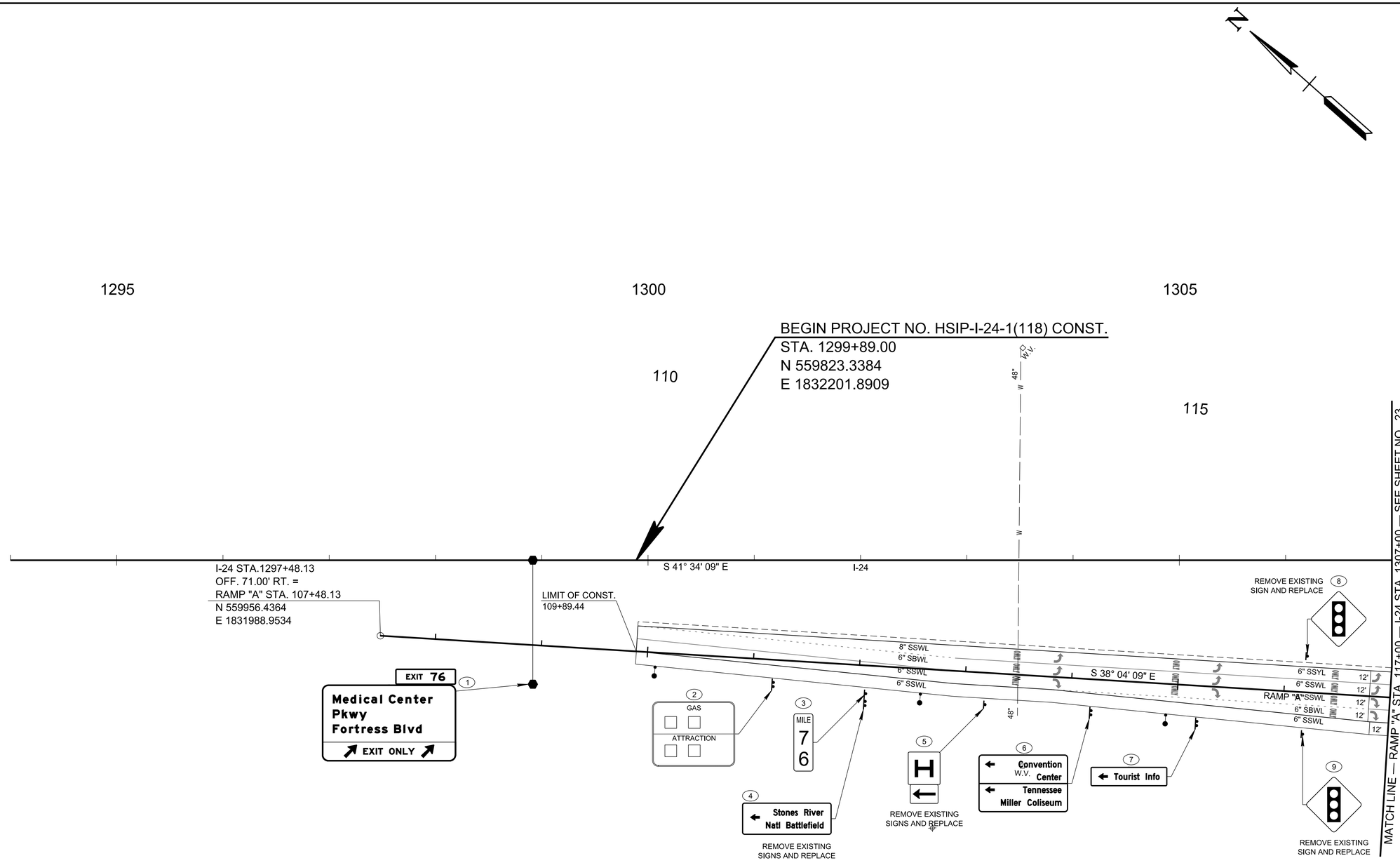
STA. 1320+00 TO STA. 1333+00

SCALE: 1" = 50'

STAGE IV

NOTE: PROPOSED CONTOURS SHOWN

TYPE	YEAR	PROJECT NO.	SHEET NO.
P. S. & E.	2025	HSIP-I-24-1(118)	22



MARKING ABBREVIATIONS			
SSWL -	SINGLE SOLID WHITE LINE	DBYL -	DOUBLE BROKEN YELLOW LINE
SSYL -	SINGLE SOLID YELLOW LINE	DWL -	DOTTED WHITE LINE
SBWL -	SINGLE BROKEN WHITE LINE	DYL -	DOTTED YELLOW LINE
SBYL -	SINGLE BROKEN YELLOW LINE	HWL -	HASHED WHITE LINE
DSYL -	DOUBLE SOLID YELLOW LINE	HYL -	HASHED YELLOW LINE

NOTES:

1. CONTRACTOR SHALL INSTALL ALL SIGNS WITH 10' HORIZONTAL SEPARATION FROM EXISTING WATER INFRASTRUCTURE.
2. CONTRACTOR SHALL PERFORM UTILITY LOCATION PRIOR TO INSTALLING SIGNS.

SEALED BY

LUCAS R. SULLIVAN
REGISTERED ENGINEER
AGRICULTURE
No. 140285
STATE OF TENNESSEE
2025-04-02

COORDINATES ARE N.A.D. 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00008 AND TIED TO THE T.G.R.N. ALL ELEVATIONS ARE REFERENCED TO THE N.A.V.D. 1988 WITH GEOID 03.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

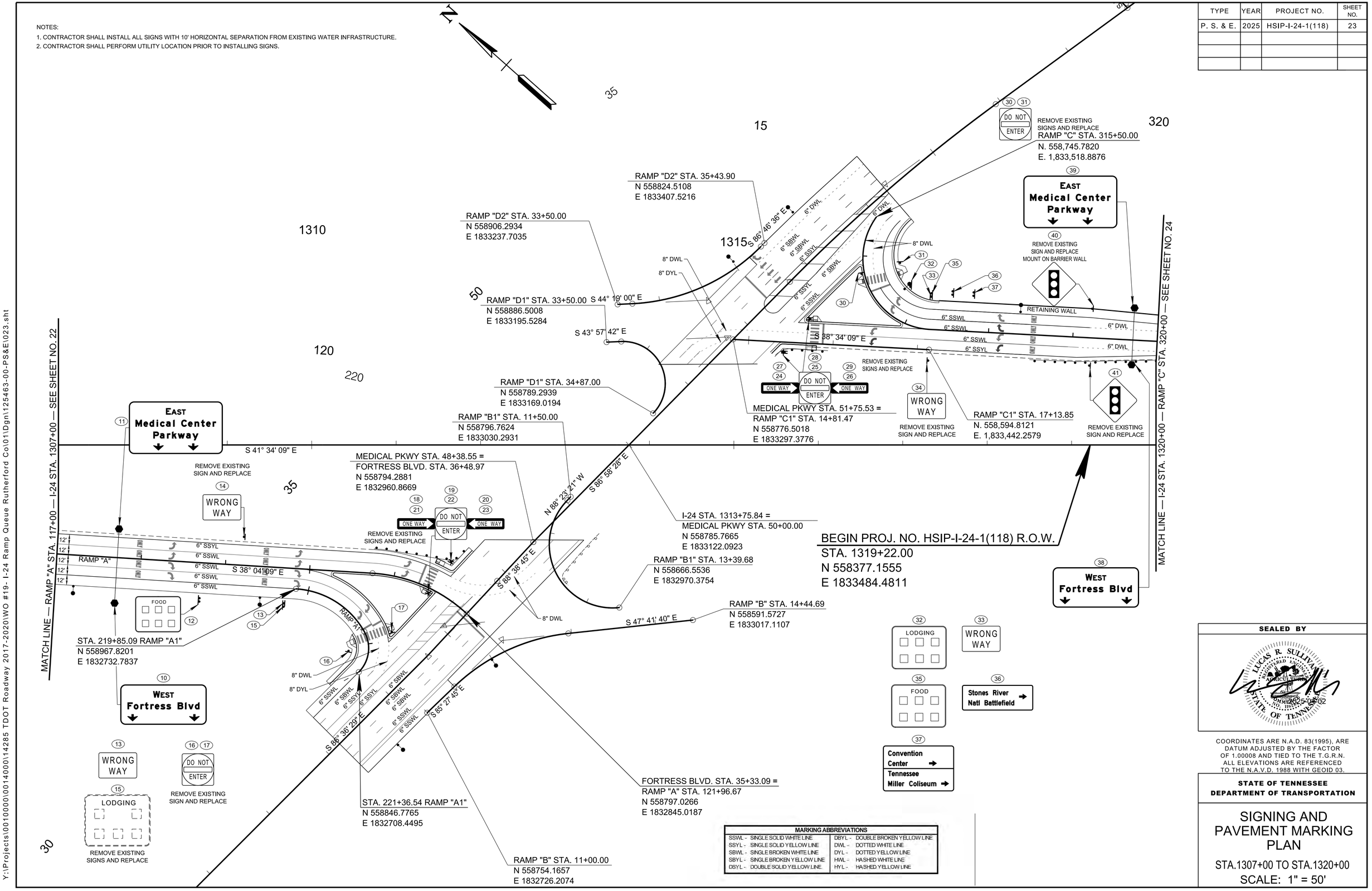
SIGNING AND PAVEMENT MARKING PLAN

STA.1294+00 TO STA.1307+00

SCALE: 1" = 50'

NOTES:
1. CONTRACTOR SHALL INSTALL ALL SIGNS WITH 10' HORIZONTAL SEPARATION FROM EXISTING WATER INFRASTRUCTURE.
2. CONTRACTOR SHALL PERFORM UTILITY LOCATION PRIOR TO INSTALLING SIGNS.

TYPE	YEAR	PROJECT NO.	SHEET NO.
P. S. & E.	2025	HSIP-I-24-1(118)	23



MARKING ABBREVIATIONS			
SSWL -	SINGLE SOLID WHITE LINE	DBYL -	DOUBLE BROKEN YELLOW LINE
SSYL -	SINGLE SOLID YELLOW LINE	DWL -	DOTTED WHITE LINE
SBWL -	SINGLE BROKEN WHITE LINE	DYL -	DOTTED YELLOW LINE
SBYL -	SINGLE BROKEN YELLOW LINE	HWL -	HASHED WHITE LINE
DSYL -	DOUBLE SOLID YELLOW LINE	HYL -	HASHED YELLOW LINE

SEALED BY

COORDINATES ARE N.A.D. 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00008 AND TIED TO THE T.G.R.N. ALL ELEVATIONS ARE REFERENCED TO THE N.A.V.D. 1988 WITH GEOID 03.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNING AND PAVEMENT MARKING PLAN

STA.1307+00 TO STA.1320+00
SCALE: 1" = 50'

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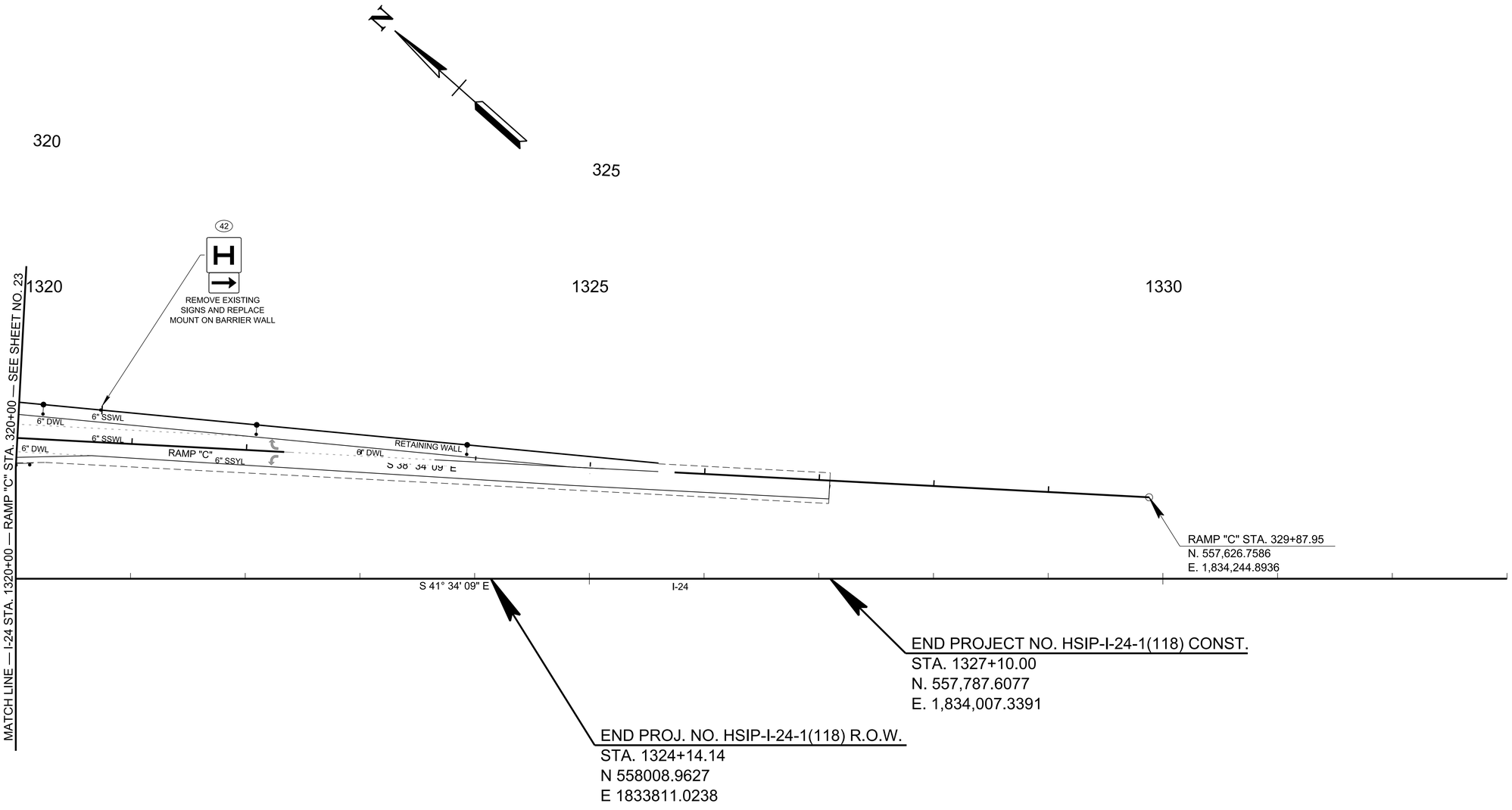
TYPE	YEAR	PROJECT NO.	SHEET NO.
P. S. & E.	2025	HSIP-I-24-1(118)	24



MARKING ABBREVIATIONS			
SSWL -	SINGLE SOLID WHITE LINE	DBYL -	DOUBLE BROKEN YELLOW LINE
SSYL -	SINGLE SOLID YELLOW LINE	DWL -	DOTTED WHITE LINE
SBWL -	SINGLE BROKEN WHITE LINE	DYL -	DOTTED YELLOW LINE
SBYL -	SINGLE BROKEN YELLOW LINE	HWL -	HASHED WHITE LINE
DSYL -	DOUBLE SOLID YELLOW LINE	HYL -	HASHED YELLOW LINE

NOTES:

1. CONTRACTOR SHALL INSTALL ALL SIGNS WITH 10' HORIZONTAL SEPARATION FROM EXISTING WATER INFRASTRUCTURE.
2. CONTRACTOR SHALL PERFORM UTILITY LOCATION PRIOR TO INSTALLING SIGNS.

SEALED BY

LUCAS R SULLIVAN
REGISTERED ENGINEER
AGRICULTURE
STATE OF TENNESSEE
2025-04-02

COORDINATES ARE N.A.D. 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00008 AND TIED TO THE T.G.R.N. ALL ELEVATIONS ARE REFERENCED TO THE N.A.V.D. 1988 WITH GEOID 03.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNING AND PAVEMENT MARKING PLAN

STA.1320+00 TO STA.1333+00

SCALE: 1" = 50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2025	HSIP-I-24-1(118)	25

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

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

SIGN NO	LEGEND	SHEET NO	SIZE				COPY				SHIELD	ARROW	SIGN FACE			STEEL DESIGN (BREAK-AWAY)					MINIMUM VERTICAL CLEARANCE	REMARKS
			LENGTH	HEIGHT	RADIUS	BORDER WIDTH	CAPITAL	LOWER CASE	NUMERAL	SERIES			COPY	BACKGROUND	MATERIAL	SUPPORT TYPE	SUPPORT LENGTH	FOOTING	CONC. CU. YD.	REIN STEEL LBS.		
1	EXIT 76 Medical Center Pkwy Fortress Blvd EXIT ONLY	22	9'-6" 21'-0"	2'-6" 12'-0"	3.25" 12"	2" 2"	10" 16" 12"	12"	15"	EMOD		TYPE H 2 @ 45°	WHITE (REF)	GREEN (REF)	2.5-12" & 12-12" ALUM. EXTRUSIONS		OVERHEAD SIGN					SEE SHEET 26.
2	GAS	22	8'-0"	7'-0"										EXISTING SIGN FACE		S5 x 10	L = 17'-8" L = 17'-6"	TYPE 5 DEPTH = 4'-0"	0.18		7'-0"	THESE SUPPORTS ARE FOR FINAL LOCATION.
3	MILE 7 6 D10-2	22	12"	36"			(SEE STD. DRAWING T-S-11)						WHITE (REF)	GREEN (REF)	0.080" SHEET ALUM.						4'-0"	
4	← Stones River Natl Battlefield	22	7'-0"	2'-6"	2.25"	0.75"	8"	6"		EMOD			WHITE (REF)	BROWN (REF)	0.080" SHEET ALUM.	P3	L = 14'-6" L = 12'-6"	TYPE 5 DEPTH = 4'-0"	0.18		7'-0"	
5	H D9-2 ← M6-1	22	2'-6" 2'-6"	2'-6" 1'-9"									WHITE (REF)	BLUE (REF)	0.080" SHEET ALUM.	P8	L = 12'-6"				7'-0"	
6	← Convention Center ← Tennessee Miller Coliseum	22	7'-0"	4'-6"	3"	0.75"	8"	6"		EMOD			WHITE (REF)	GREEN (REF)	0.080" SHEET ALUM.	P8	L = 14'-8" L = 14'-6"	TYPE 5 DEPTH = 4'-0"	0.18		7'-0"	
7	← Tourist Info	22	6'-0"	1'-6"	1.5"	0.75"	8"	6"		EMOD			WHITE (REF)	BLUE (REF)	0.080" SHEET ALUM.	P2	L = 12'-6" L = 12'-0"	TYPE 5 DEPTH = 4'-0"	0.18		7'-0"	
8 9 40 41	W3-3	22 22 23 23	36"	36"									BLACK	YELLOW (REF)	0.080" SHEET ALUM.	P5	h = 14'-3" h = 11'-0"				7'-0"	SIGN # 40 SHALL BE MOUNTED ON TOP OF RETAING WALL (COST SHALL BE INCLUDED IN OTHER PAY ITEMS)
10 38	WEST Fortress Blvd ↓ ↓	23	17'-0"	7'-11"	12"	2"	16"	12"		EMOD			WHITE (REF)	GREEN (REF)	8-12" ALUM. EXTRUSIONS		OVERHEAD SIGN					SEE SHEET 26A. SEE SHEET 26B.
11 39	EAST Medical Center Parkway ↓ ↓	23	18'-6"	10'-4"	12"	2"	16"	12"		EMOD			WHITE (REF)	GREEN (REF)	10.5-12" ALUM. EXTRUSIONS		OVERHEAD SIGN					SEE SHEET 26A. SEE SHEET 26B.
12	FOOD	23	8'-0"	7'-0"										EXISTING SIGN FACE		S5 x 10	L = 19'-3" L = 18'-0"	TYPE 5 DEPTH = 4'-0"	0.18		7'-0"	THESE SUPPORTS ARE FOR FINAL LOCATION.
13 14 33 34	WRONG WAY R5-1a	23 23 23 23	36"	24"									WHITE (REF)	RED (REF)	0.080" SHEET ALUM.	P2	h = 12'-6"	TYPE 4 DEPTH = 4'-0"	0.12		7'-0"	
15	LODGING	23	8'-0"	7'-0"										EXISTING SIGN FACE		S5 x 10	L = 19'-3" L = 18'-0"	TYPE 5 DEPTH = 4'-0"	0.18		7'-0"	THESE SUPPORTS ARE FOR FINAL LOCATION.
16 17 30 31	DO NOT ENTER R5-1	23 23 23 23	36"	36"									WHITE (REF)	RED (REF)	0.100" SHEET ALUM.	P5	h = 13'-0"				7'-0"	

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

LUCAS R. SULLIVAN, REGISTERED ENGINEER, AGRICULTURE, COMMERCE, STATE OF TENNESSEE, 2025-04-02

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

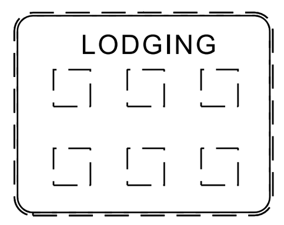
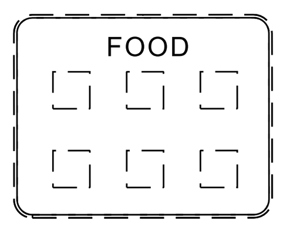
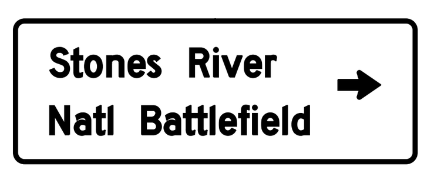
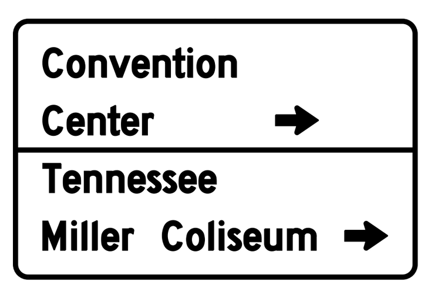
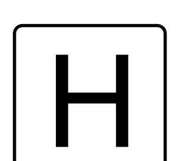
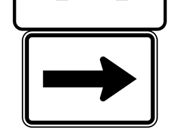
SIGN SCHEDULE

3/31/2025 11:40:06 AM
Y:\Projects\0010000\0014000\14285 TDOT Roadway 2017-2020\WO #19- I-24 Ramp Queue Rutherford Co\01\Dgn\125463-00-PS&E\025.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2025	HSIP-I-24-1(118)	25A

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

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

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	STEEL DESIGN (BREAK-AWAY): SUPPORT LENGTH	STEEL DESIGN (BREAK-AWAY): FOOTING	STEEL DESIGN (BREAK-AWAY): CONC. CU. YD.	STEEL DESIGN (BREAK-AWAY): REIN STEEL LBS.	MINIMUM VERTICAL CLEARANCE	REMARKS
18 19 20 21 22 23 24 25 26 27 28 29	 R6-1L  R6-1R  R5-1	23 23 23 23	36" 36" 36"	12" 12" 36"									BLACK BLACK WHITE (REF)	WHITE (REF) WHITE (REF) RED (REF)	0.080" SHEET ALUM. 0.100" SHEET ALUM.	P5	h = 15'-0"				7'-0"	R6-1 SIGNS TO BE MOUNTED BACK TO BACK. SEE NOTE 1.
32		23	8'-0"	7'-0"									EXISTING SIGN FACE			S5 x 10	L = 18'-0" L = 17'-6"	TYPE 5 DEPTH = 4'-0"	0.18		7'-0"	THESE SUPPORTS ARE FOR FINAL LOCATION.
35		23	8'-0"	7'-0"									EXISTING SIGN FACE			S5 x 10	L = 18'-0" L = 17'-6"	TYPE 5 DEPTH = 4'-0"	0.18		7'-0"	THESE SUPPORTS ARE FOR FINAL LOCATION.
36		23	7'-0"	2'-6"	2.25"	0.75"	8"	6"		EMOD			WHITE (REF)	BROWN (REF)	0.080" SHEET ALUM.	P3	L = 13'-0" L = 12'-6"	TYPE 5 DEPTH = 4'-0"	0.18		7'-0"	
37		23	7'-0"	4'-6"	3"	0.75"	8"	6"		EMOD			WHITE (REF)	GREEN (REF)	0.080" SHEET ALUM.	P8	L = 15'-0" L = 14'-6"	TYPE 5 DEPTH = 4'-0"	0.18		7'-0"	
42	 D9-2  M6-1	24	2'-6" 2'-6"	2'-6" 1'-9"									WHITE (REF)	BLUE (REF)	0.080" SHEET ALUM.	P5	L = 15'-6" L = 15'-0"	TYPE 5 DEPTH = 4'-0"	0.18		7'-0"	

U-POST SUBSTITUTION TABLE

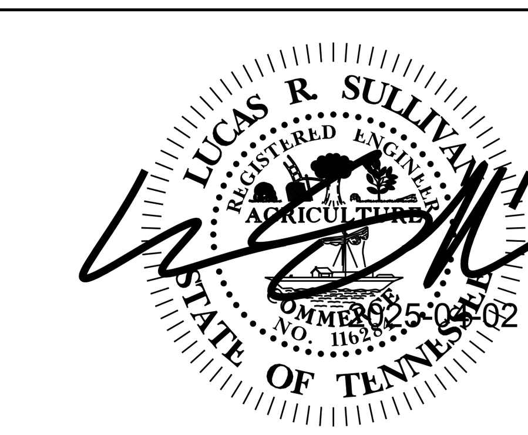
BID ITEM 713-11.01	SUBSTITUTION ALLOWED
2#/FT. U1	2#/FT. MUI OR 2#/FT. R1
2.5#/FT. U3	2.5#/FT. MU3 OR 3#/FT. R2*
3#/FT. U6	
4#/FT. U7	NO SUBSTITUTES

* PAID AT A RATE OF 2.5#/FT.

NOTE:

1. R5-1 SIGNS TO BE AT AN ANGLE AS DESCRIBED IN THE M.U.T.C.D. SECTION 2B-41 "WRONG-WAY TRAFFIC CONTROL AT INTERCHANGE RAMPS" OR AS DIRECTED BY THE ENGINEER.

SEALED BY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGN SCHEDULE

3/31/2025 11:40:06 AM
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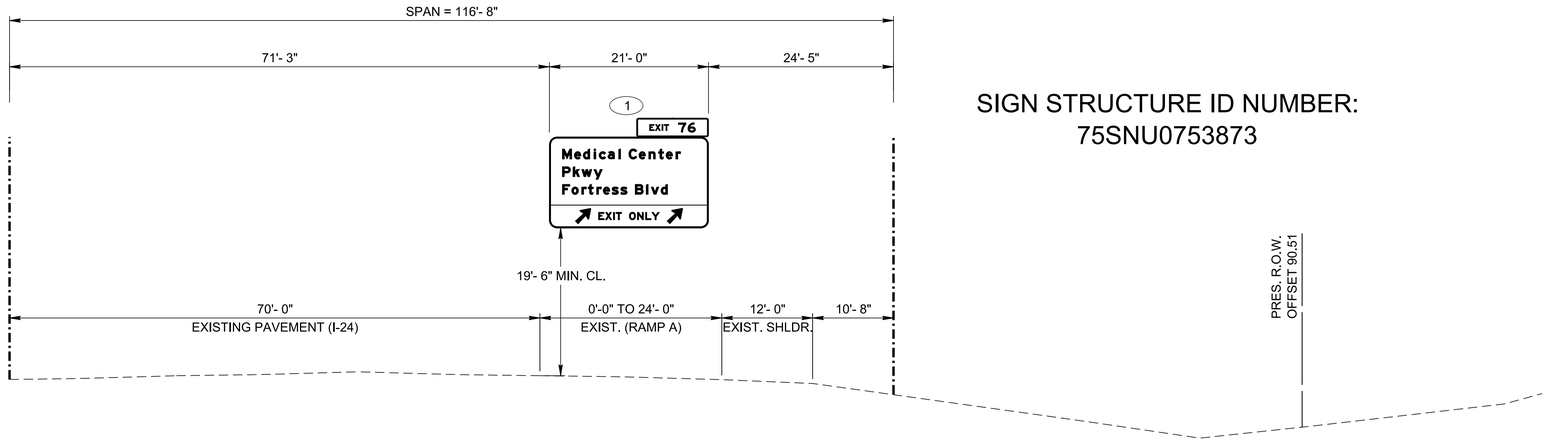
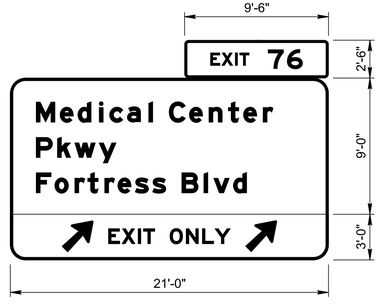
TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2025	HSIP-I-24-1(118)	26



SIGN STRUCTURE ID NUMBER:
75SNU0753873

OVERHEAD SIGN STRUCTURE
SIGN NO. 1
STA. 108+87.00 (RAMP A)

DESIGN DATA
SIGN DESIGN AREA = 1008 SQ-FT
WIND VELOCITY = 120 MPH



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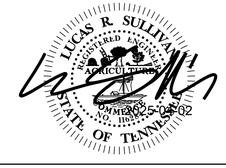
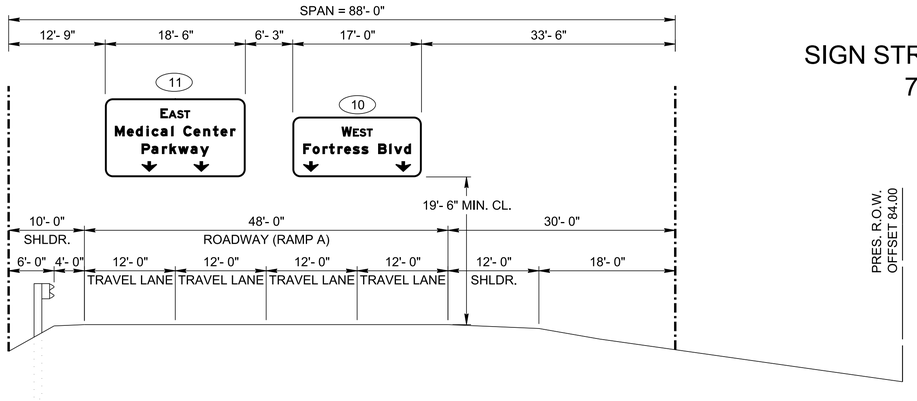


STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURE DETAILS

U-75-387

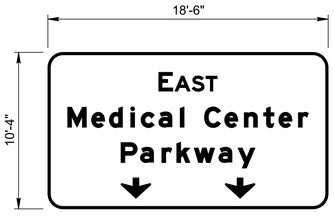
TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2025	HSIP-I-24-1(118)	26A

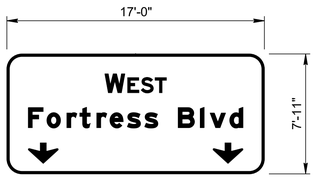


SIGN STRUCTURE ID NUMBER:
75SNU0753883

OVERHEAD SIGN STRUCTURE
SIGN NO. 10 & 11
STA. 117+70.00 (RAMP A)

DESIGN DATA
SIGN DESIGN AREA = 672 SQ-FT
WIND VELOCITY = 120 MPH





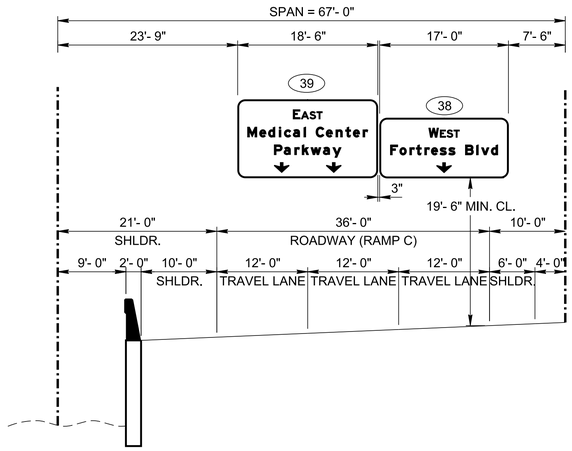
SEALED BY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURE DETAILS

U-75-388

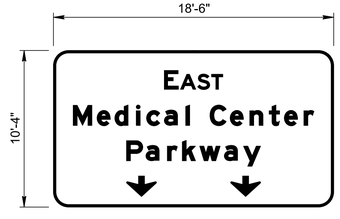
TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2025	HSIP-I-24-1(118)	26B

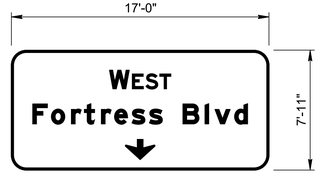


SIGN STRUCTURE ID NUMBER:
75SNU0753893

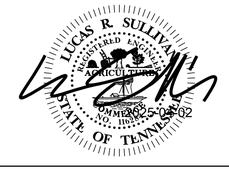
OVERHEAD SIGN STRUCTURE
SIGN NO. 38 & 39
STA. 319+70.00 (RAMP C)

DESIGN DATA
SIGN DESIGN AREA = 574 SQ-FT
WIND VELOCITY = 120 MPH





SEALED BY

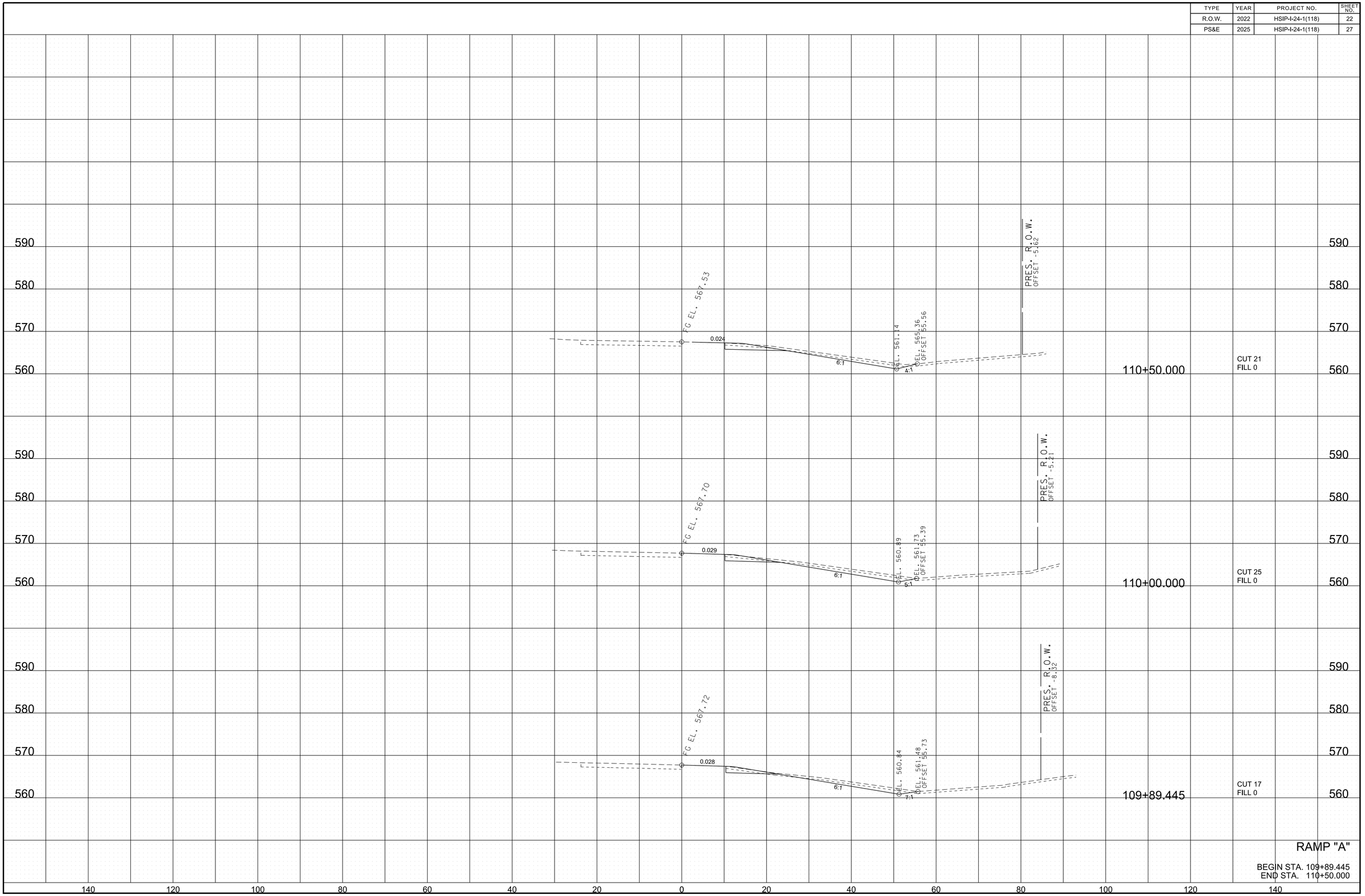


STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURE DETAILS

U-75-389

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	22
PS&E	2025	HSIP-I-24-1(118)	27



RAMP "A"

BEGIN STA. 109+89.445
END STA. 110+50.000

3/31/2025 11:40:08 AM
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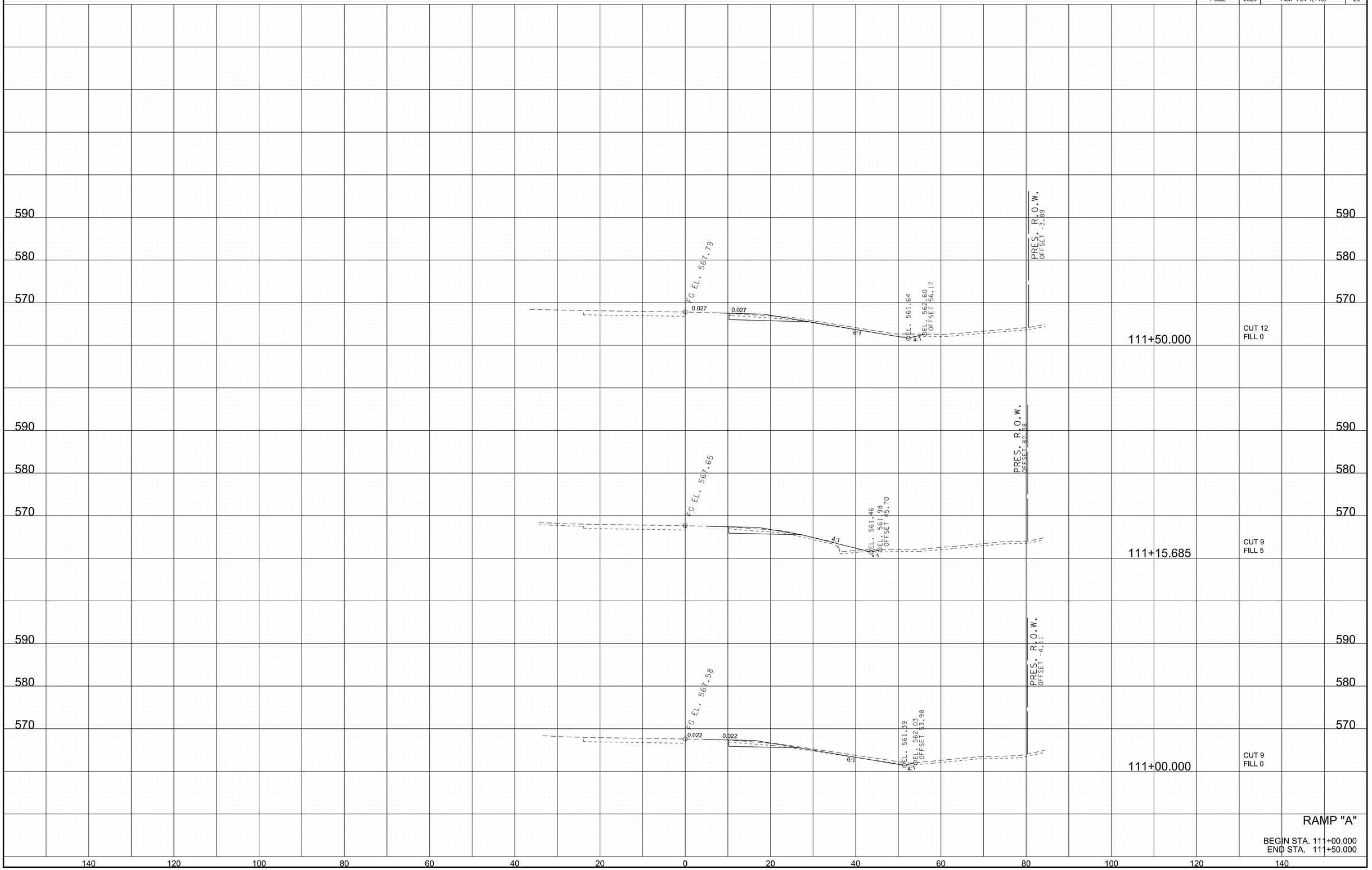
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	23
PS&E	2025	HSIP-I-24-1(118)	28



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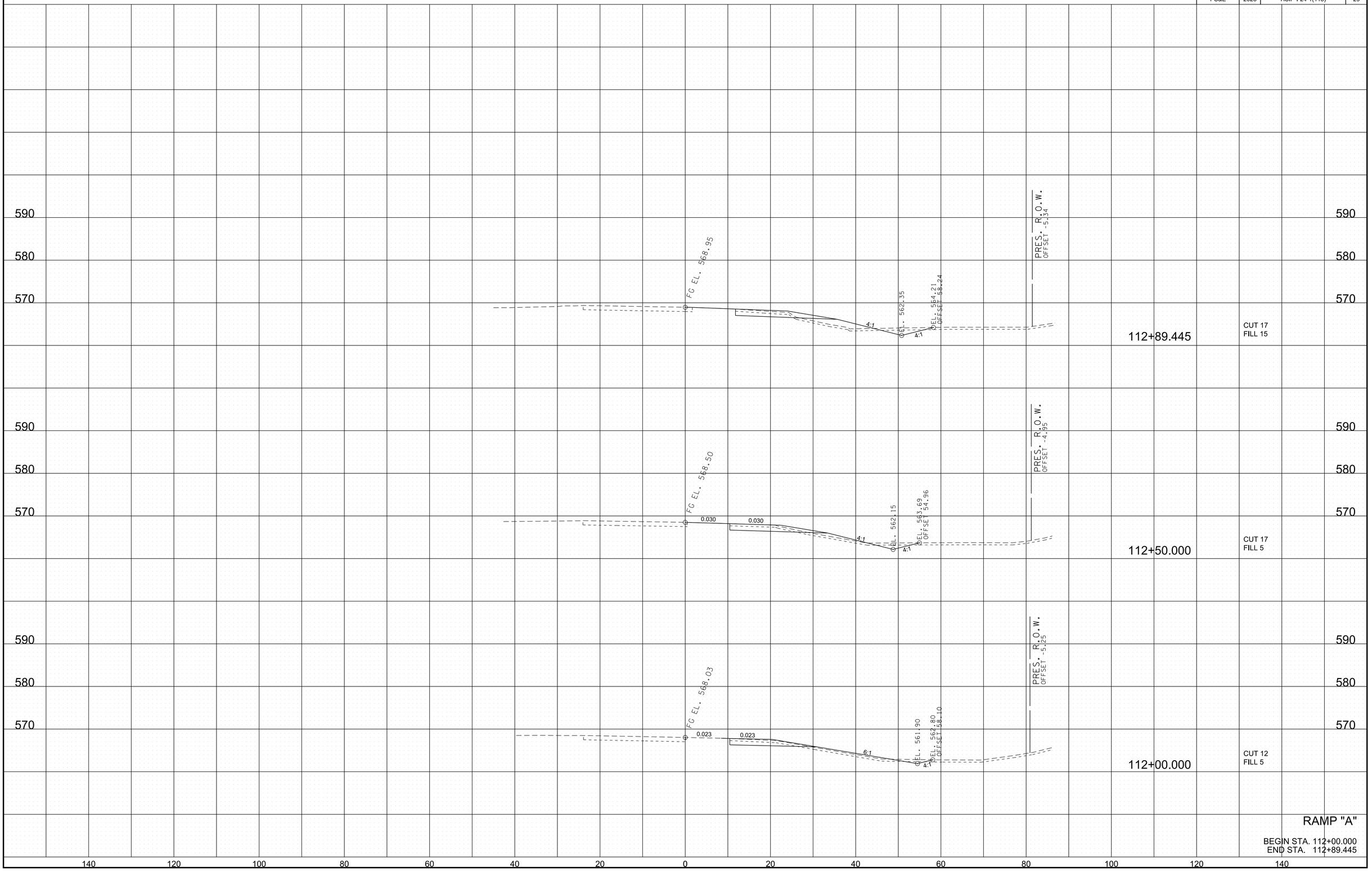
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	24
PS&E	2025	HSIP-I-24-1(118)	29



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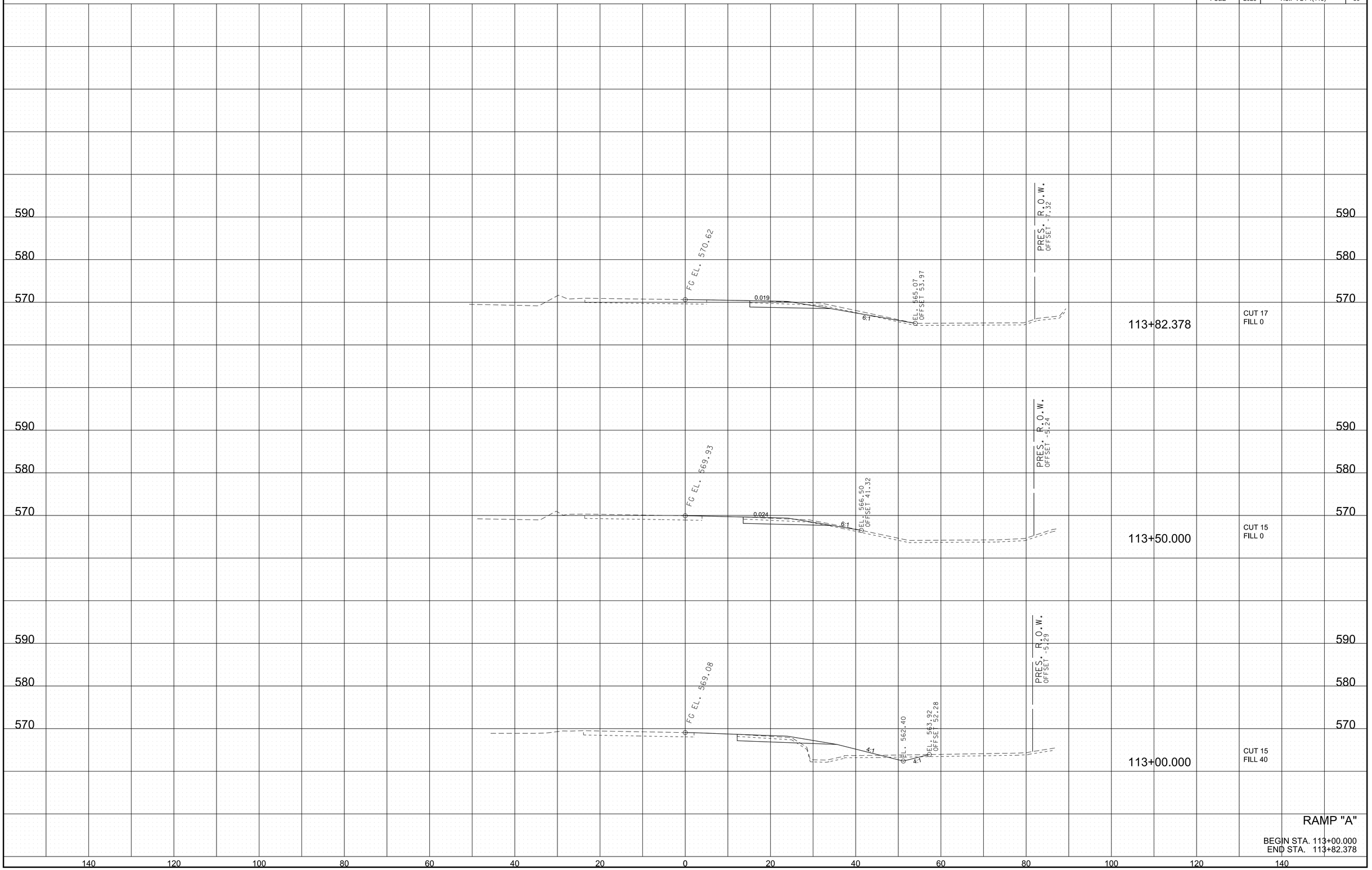
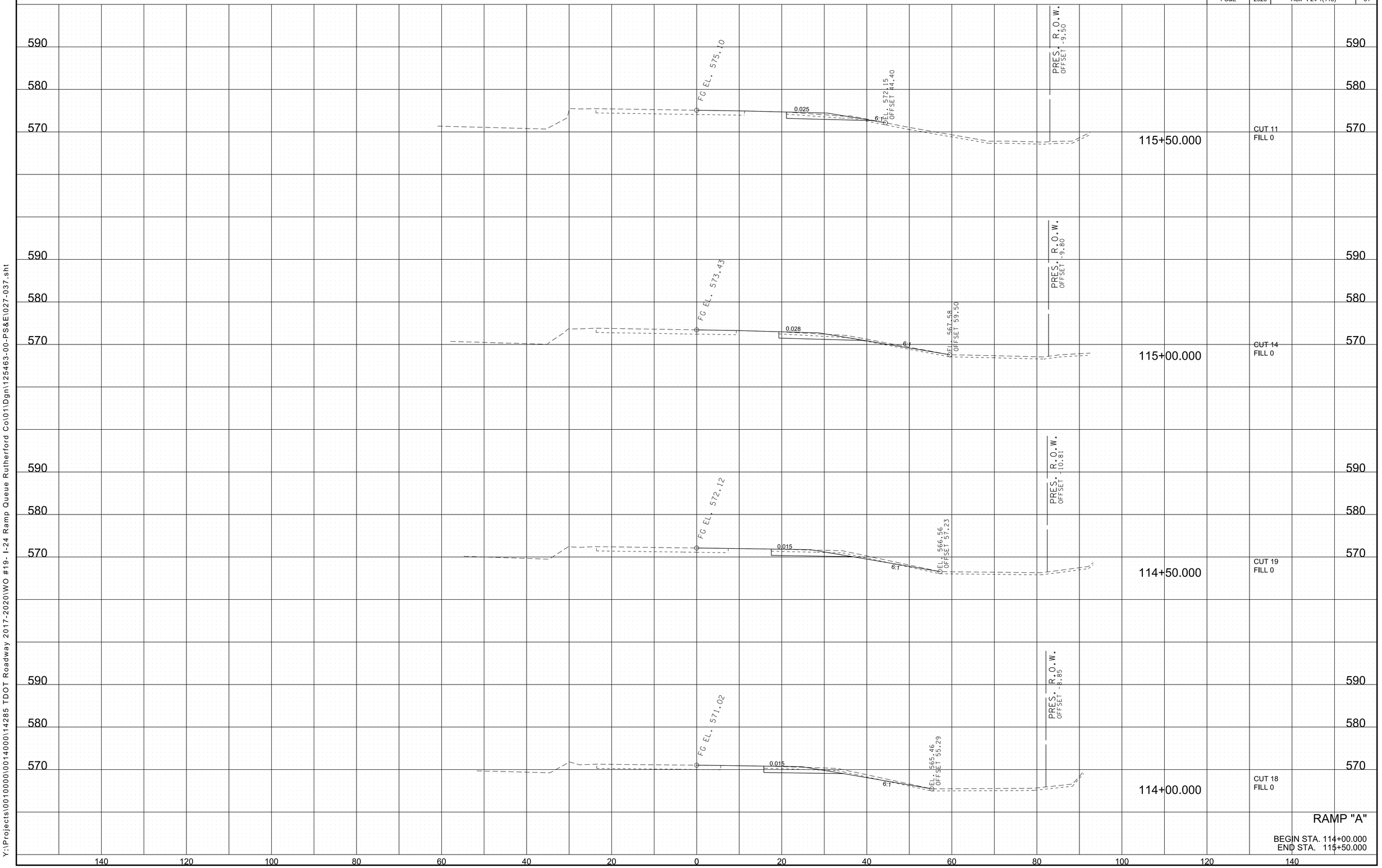
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	25
PS&E	2025	HSIP-I-24-1(118)	30



RAMP "A"

BEGIN STA. 113+00.000
END STA. 113+82.378

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	26
PS&E	2025	HSIP-I-24-1(118)	31



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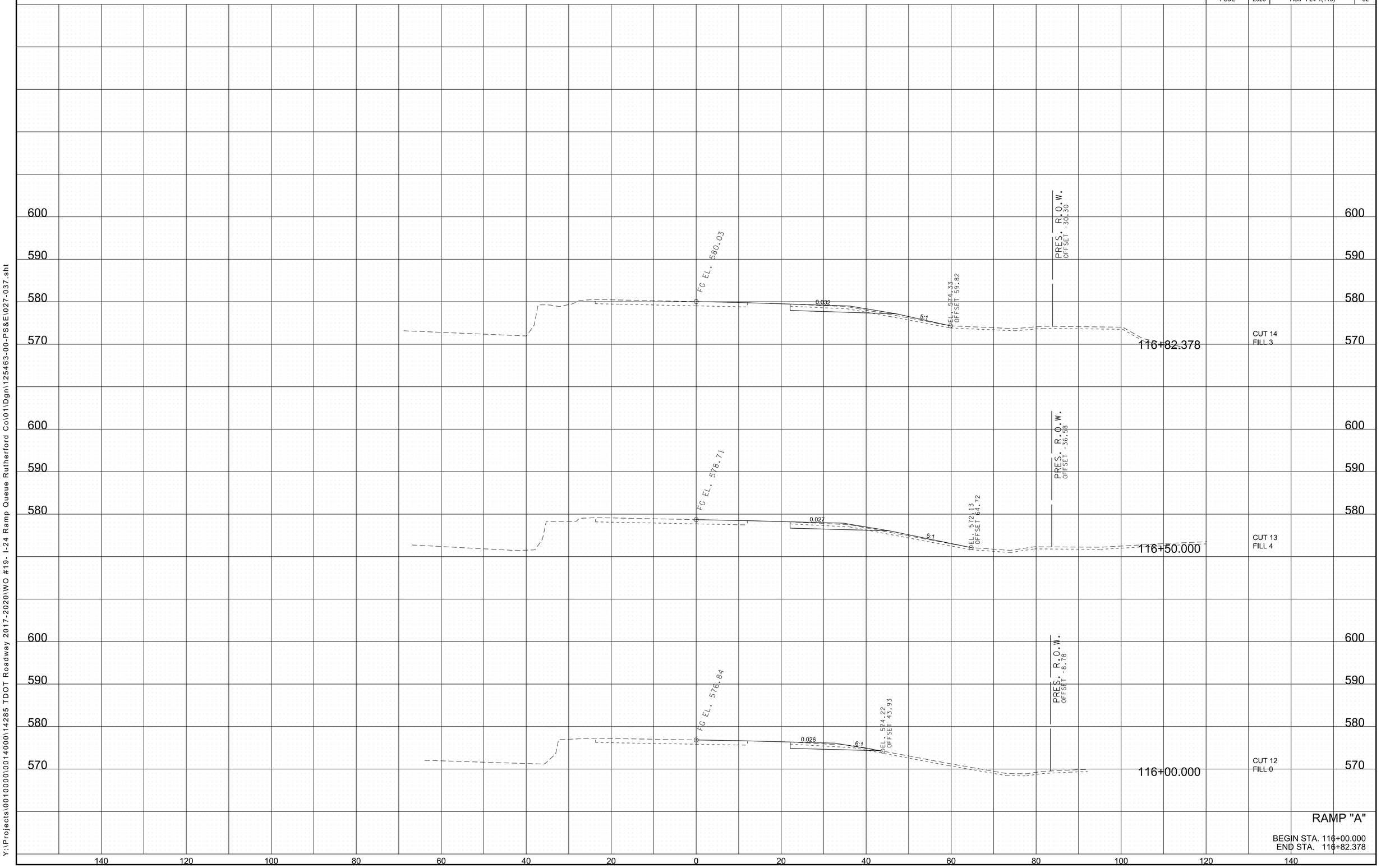
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	27
PS&E	2025	HSIP-I-24-1(118)	32



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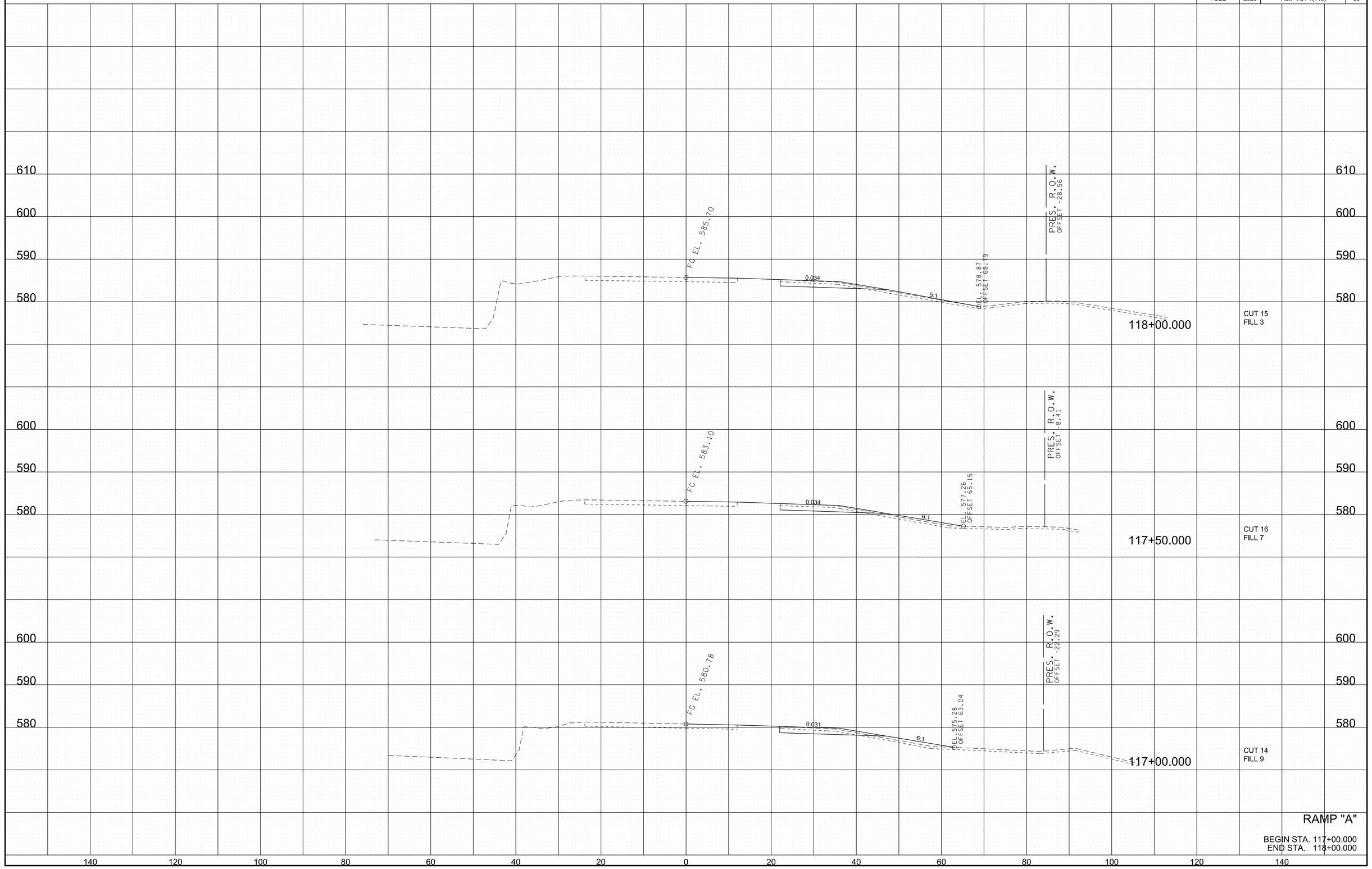
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	28
PS&E	2025	HSIP-I-24-1(118)	33



RAMP "A"

BEGIN STA. 117+00.000
END STA. 118+00.000

3/31/2025 11:40:13 AM
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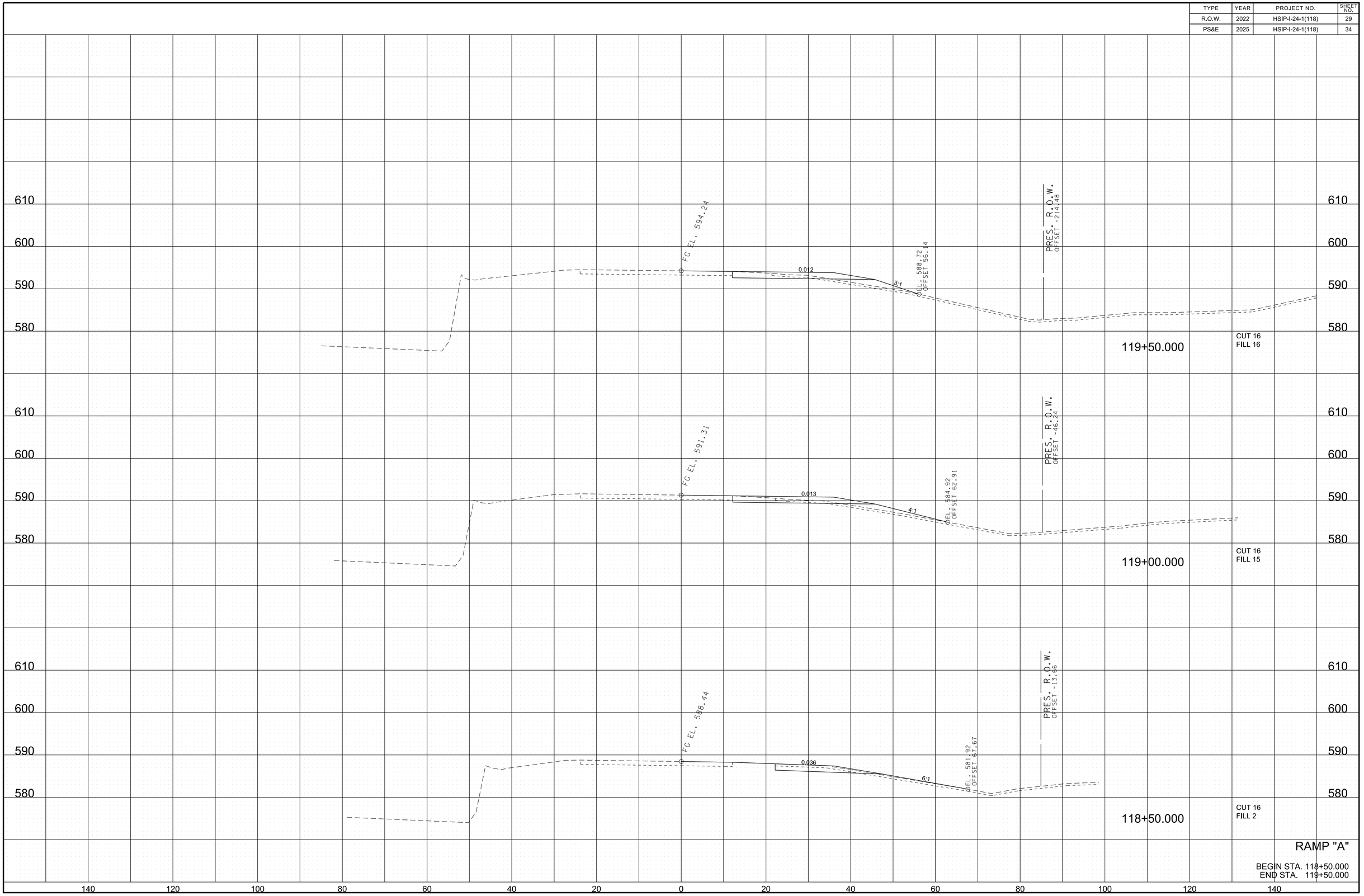
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	29
PS&E	2025	HSIP-I-24-1(118)	34



RAMP "A"

BEGIN STA. 118+50.000
END STA. 119+50.000

3/31/2025 11:40:14 AM
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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	30
PS&E	2025	HSIP-I-24-1(118)	35

610
600
590
580

FG EL. 598.83
RAMP "A1" ••• OFFSET 4.00

120+29.632

~~CUT 6~~
FILL 0

610
600
590
580

FG EL. 597.21
RAMP "A1" ••• OFFSET 0.48

120+00.000

610
600
590
580

FG EL. 596.44

0.025

3:1

CEL. 580.19
OFFSET 59.97

119+85.090

CUT 30
FILL 15

RAMP "A"

BEGIN STA. 119+85.090
END STA. 120+29.632

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

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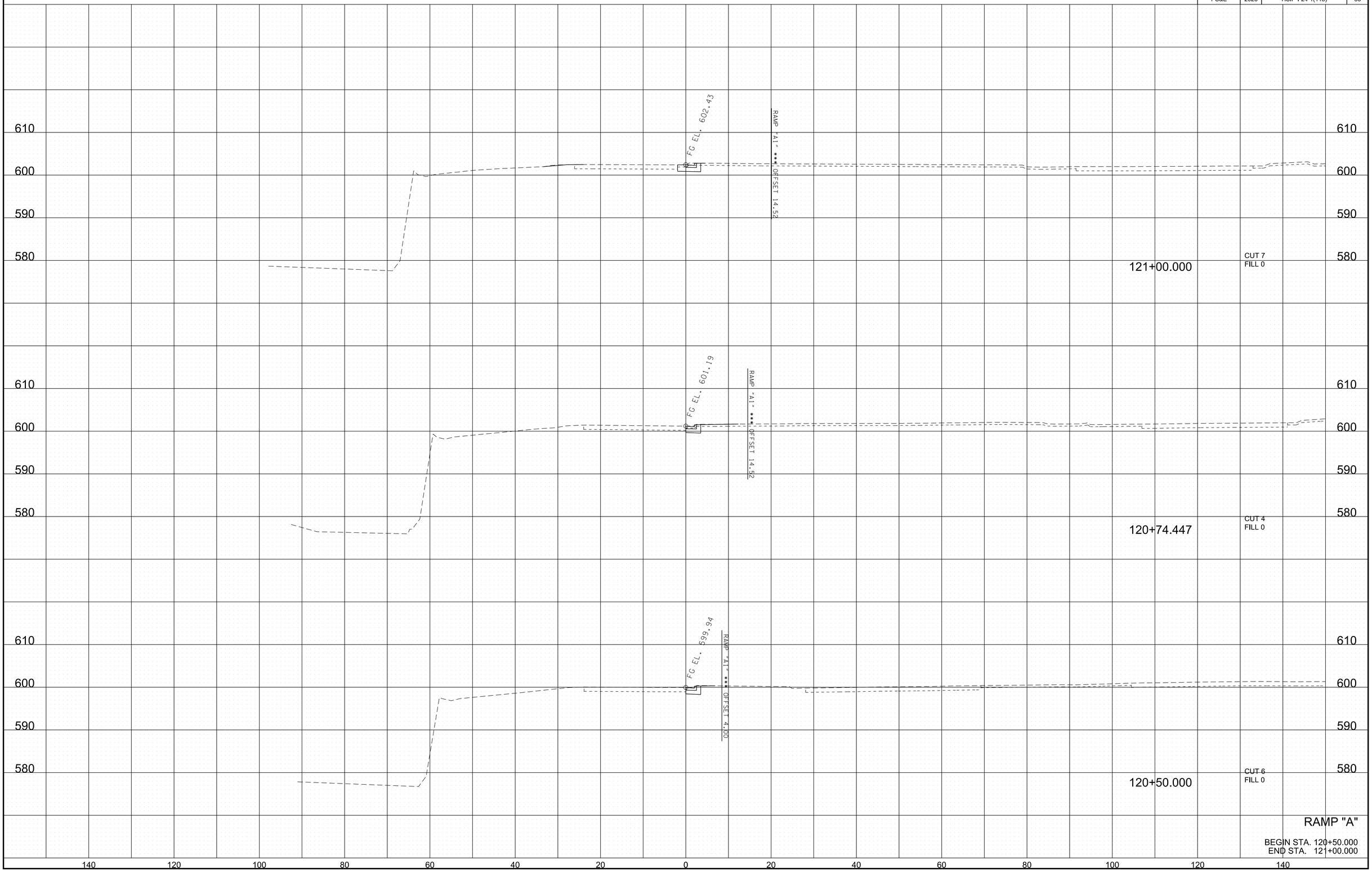
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	31
PS&E	2025	HSIP-I-24-1(118)	36



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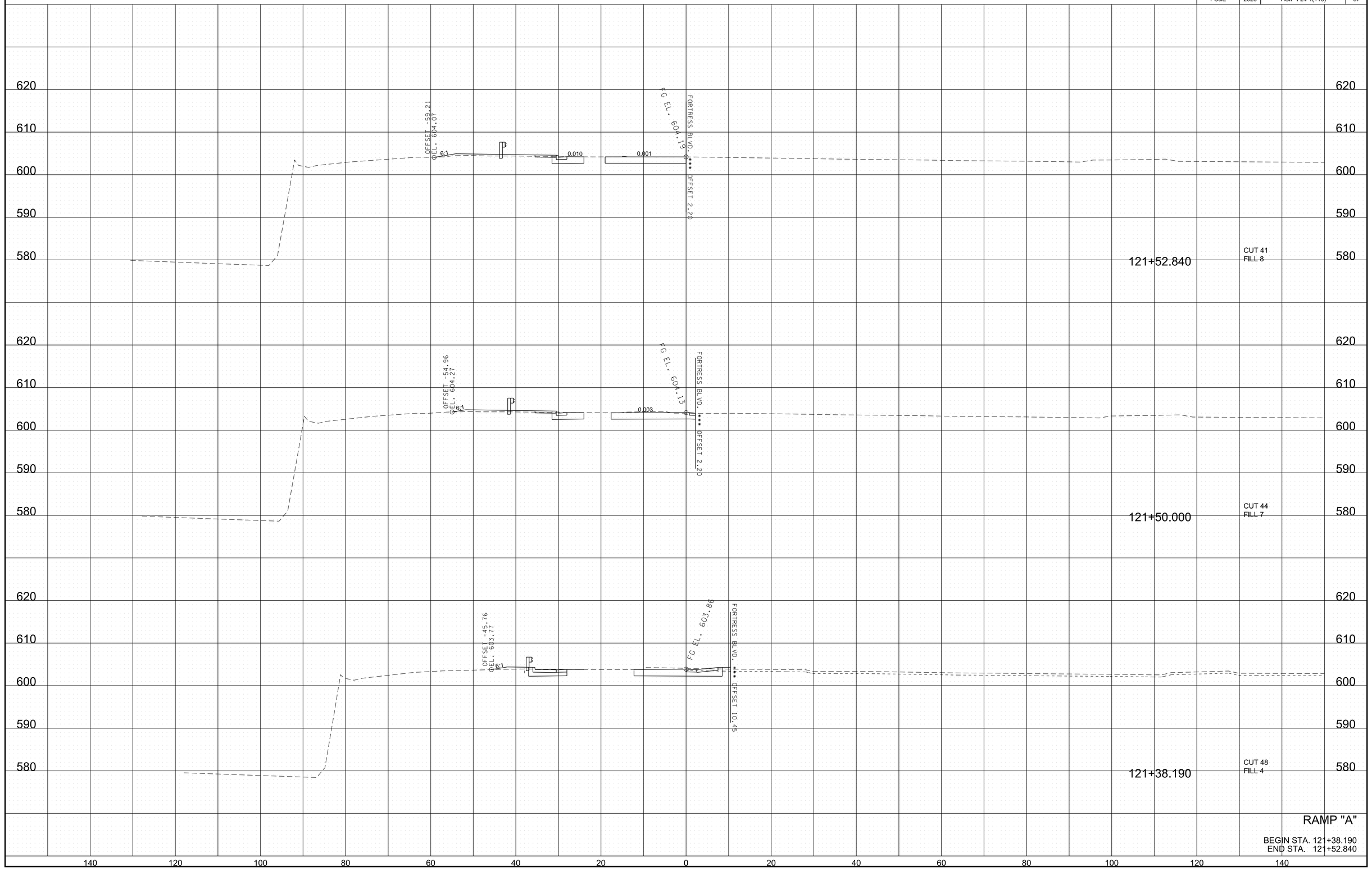
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	32
PS&E	2025	HSIP-I-24-1(118)	37



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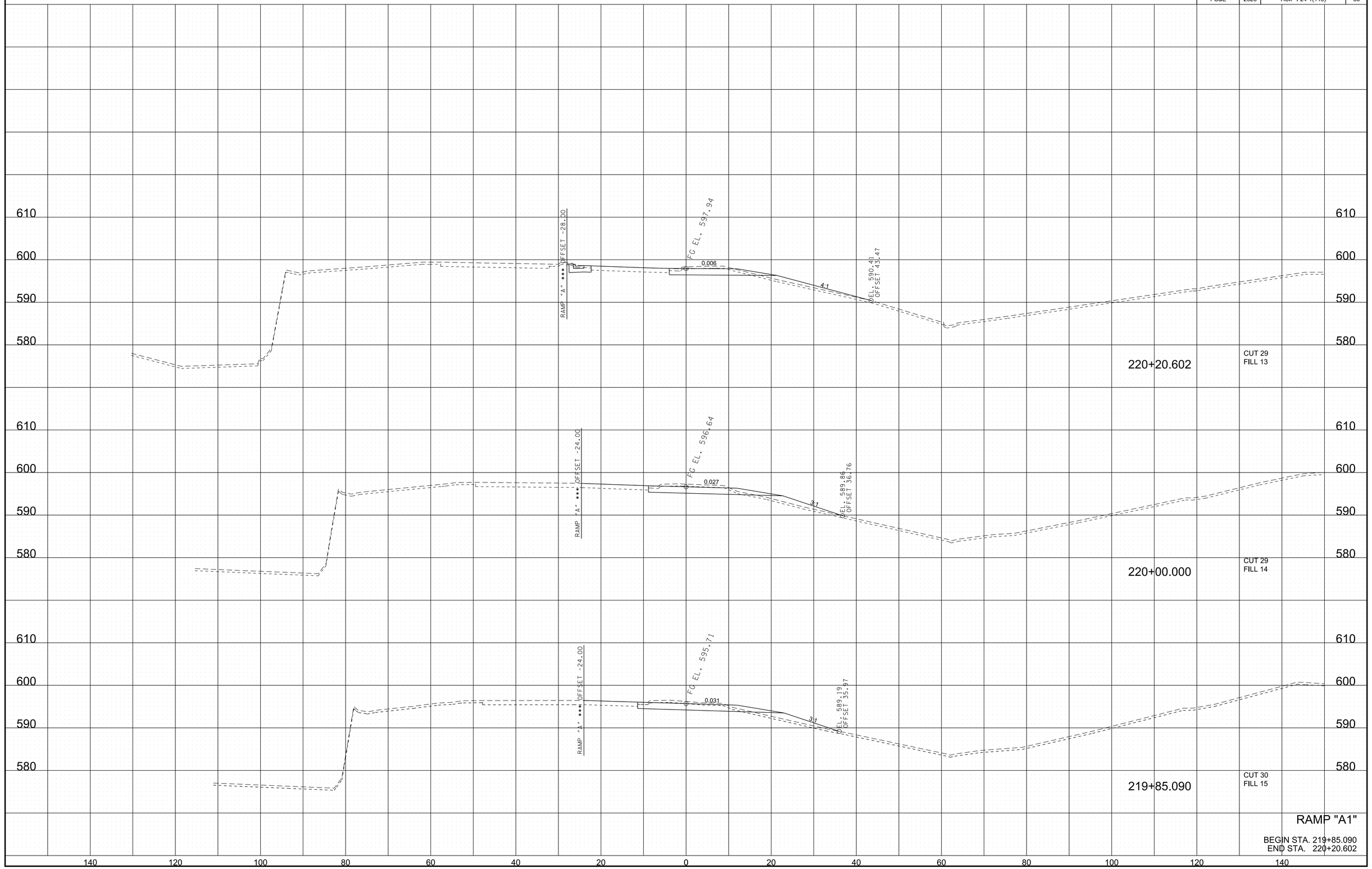
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	33
PS&E	2025	HSIP-I-24-1(118)	38



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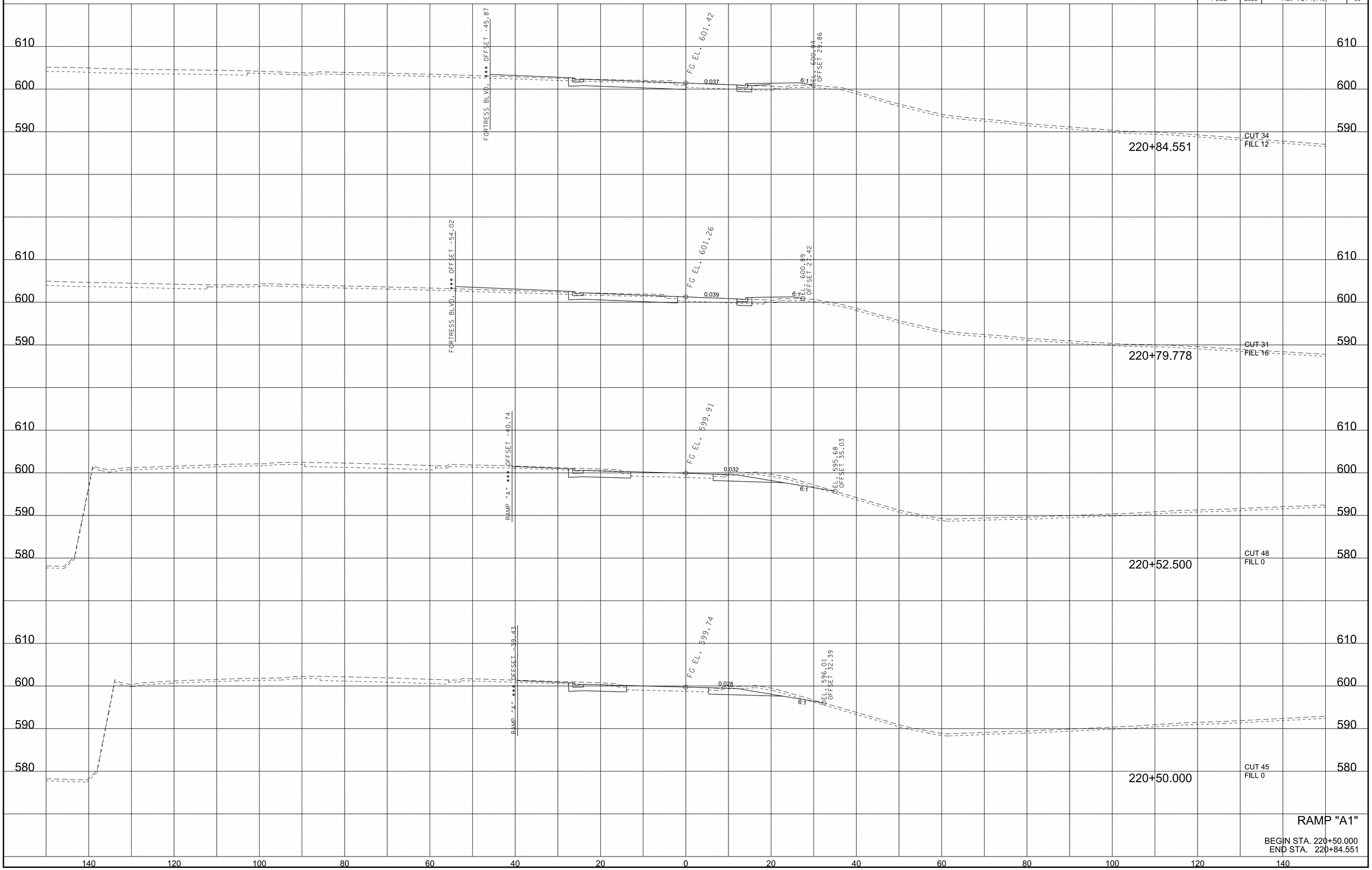
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	34
PS&E	2025	HSIP-I-24-1(118)	39



RAMP "A1"

BEGIN STA. 220+50.000
END STA. 220+84.551

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	35
PS&E	2025	HSIP-I-24-1(118)	40

PRES. R.O.W.
OFFSET -101.46

FG EL. 601.52
0.026
6.1
DEL. 600.90
OFFSET 23.85

221+36.540
CUT 8
FILL 8

PRES. R.O.W.
OFFSET -135.95

SIDEROAD *** OFFSET -8.50

FG EL. 601.66
0.027
6.1
DEL. 600.91
OFFSET 33.73

221+12.500
CUT 2
FILL 13

FORTRESS BLVD. *** OFFSET -24.54

FG EL. 601.64
0.042
6.1
DEL. 600.95
OFFSET 31.98

PRES. R.O.W.
OFFSET 148.05

221+00.000
CUT 34
FILL 9

RAMP "A1"

BEGIN STA. 221+00.000
END STA. 221+36.540

630 620 610 600 590 580

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	36
P. S. & E.	2025	HSIP-I-24-1(118)	41

620
610
600
590

OFF. 55.86'
EL. 603.22'

F.G. EL. 604.69'

OFF. 5.01'
EL. 605.12'

MEDICAL CTR. PKWY. *** OFFSET 27.52

316+24.412

CUT 24
FILL 3

620
610
600
590

OFF. 55.24'
EL. 603.56'

6:1

F.G. EL. 604.66'

MEDICAL CTR. PKWY. *** OFFSET 4.00

316+05.060

CUT 2
FILL 3

620
610
600
590

OFF. 54.23'
EL. 603.67'

6:1

F.G. EL. 604.89'

MEDICAL CTR. PKWY. *** OFFSET 0

316+00.000

CUT 2
FILL 2

620
610
600
590

OFF. 49.64'
EL. 603.56'

6:1

F.G. EL. 604.97'

MEDICAL CTR. PKWY. *** OFFSET 0.00

315+70.220

CUT 4
FILL 0

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

RAMP "C"

BEGIN STA. 315+70.220
END STA. 316+24.412

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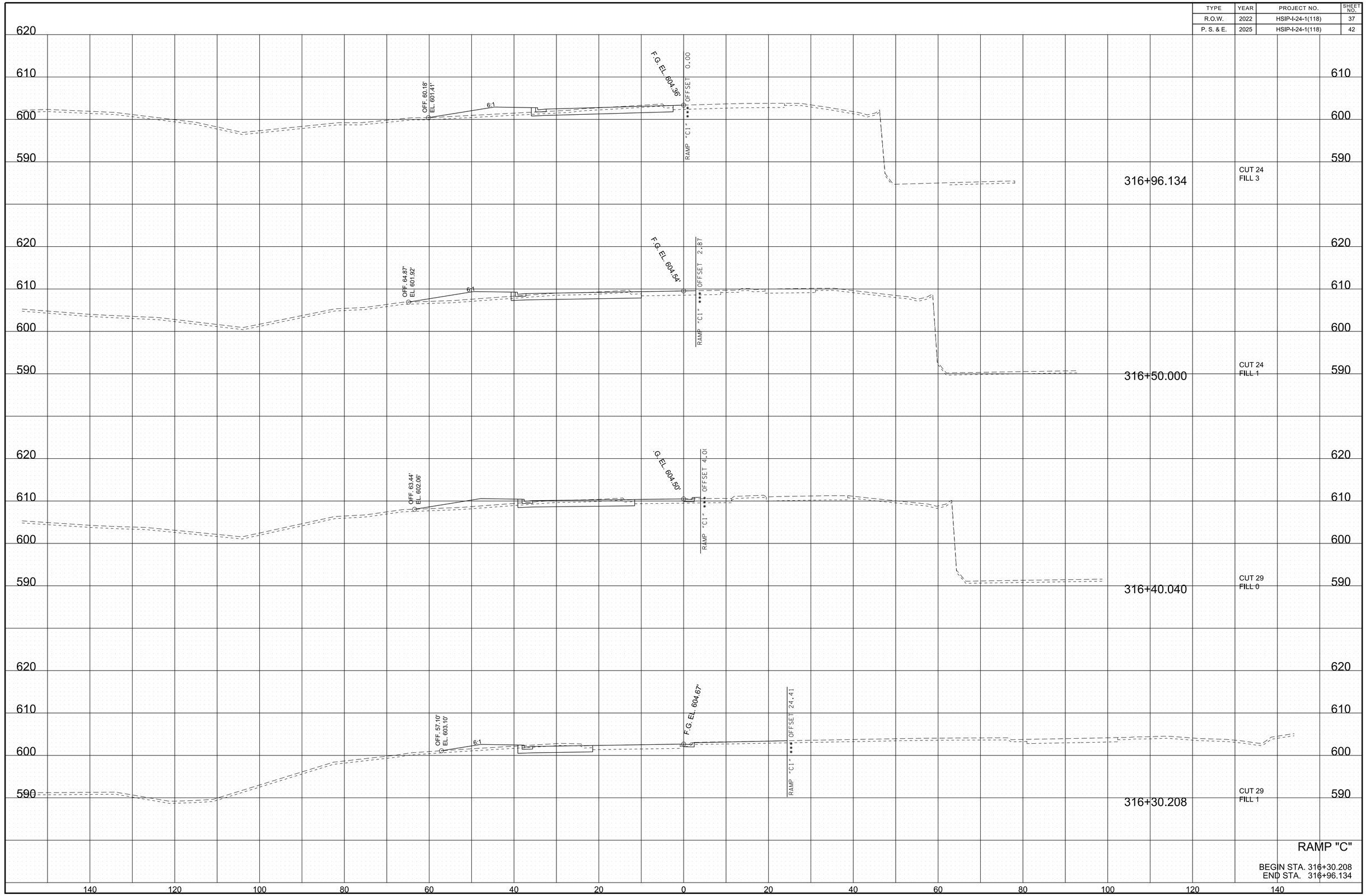
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	37
P. S. & E.	2025	HSIP-I-24-1(118)	42



RAMP "C"

BEGIN STA. 316+30.208
END STA. 316+96.134

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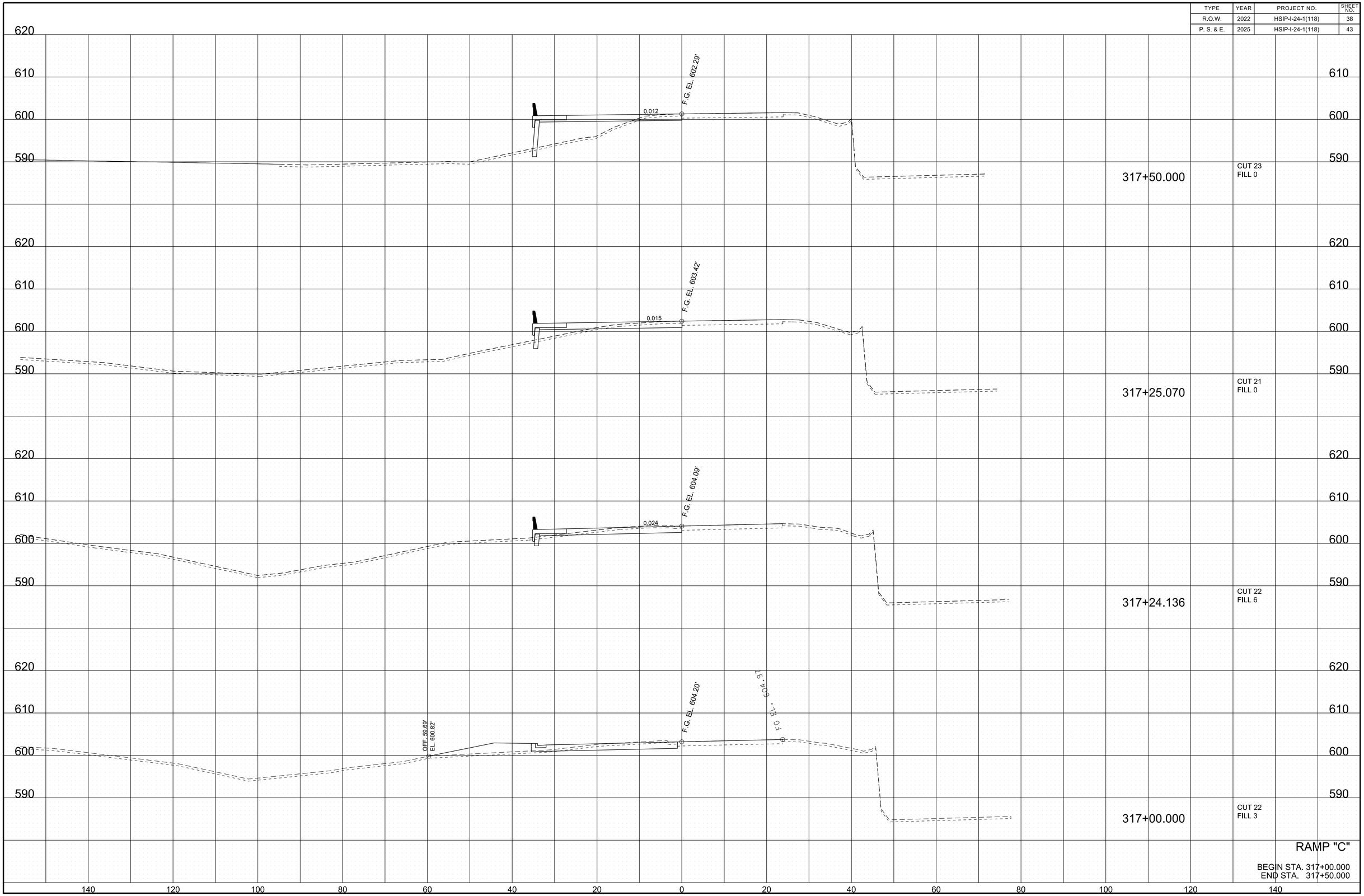
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	38
P. S. & E.	2025	HSIP-I-24-1(118)	43



RAMP "C"

BEGIN STA. 317+00.000
END STA. 317+50.000

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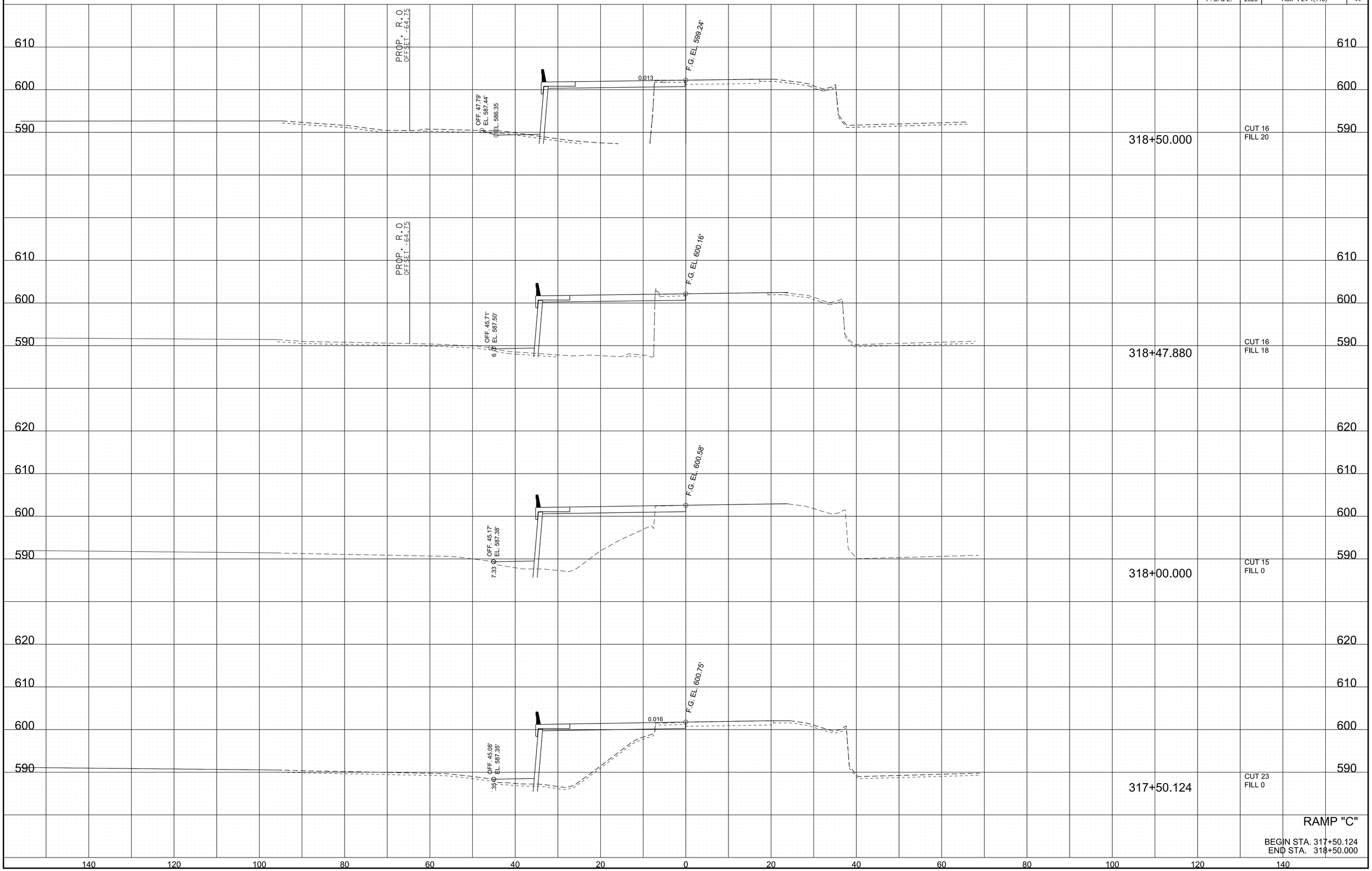
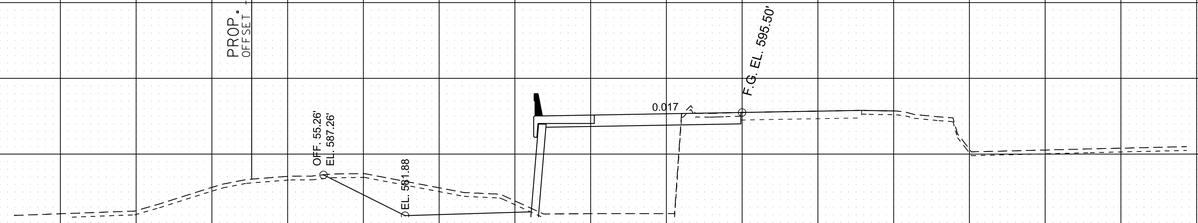
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	39
P. S. & E.	2025	HSIP-I-24-1(118)	44



RAMP "C"

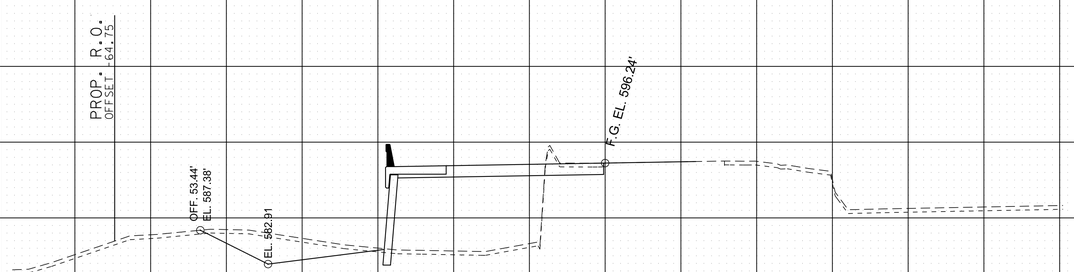
BEGIN STA. 317+50.124
END STA. 318+50.000

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	40
P. S. & E.	2025	HSIP-I-24-1(118)	45



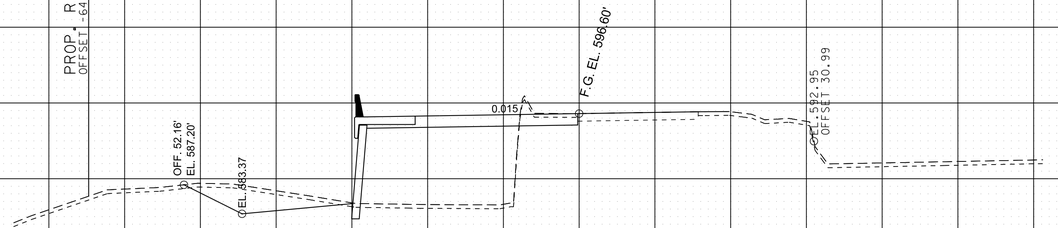
320+00.000

CUT 10
FILL 164



319+67.880

CUT 9
FILL 181



319+50.000

CUT 9
FILL 187

319+00.000

CUT 13
FILL 71

RAMP "C"

BEGIN STA. 319+00.000
END STA. 320+00.000

610 600 590

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	41
P. S. & E.	2025	HSIP-I-24-1(118)	46

RAMP "C"

BEGIN STA. 320+50.000
END STA. 321+50.000

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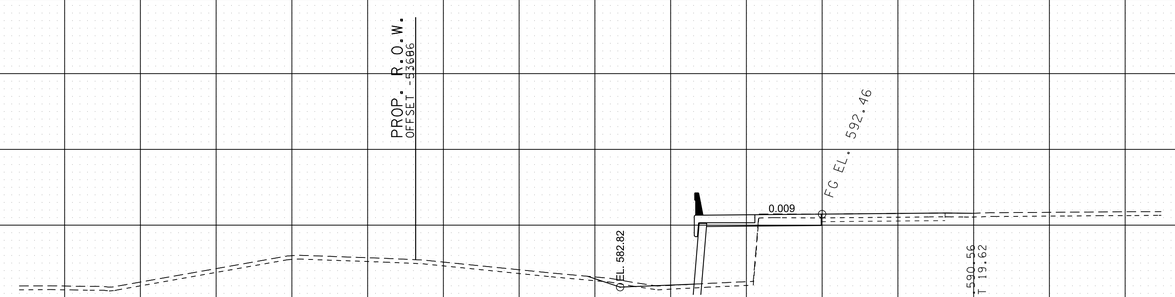
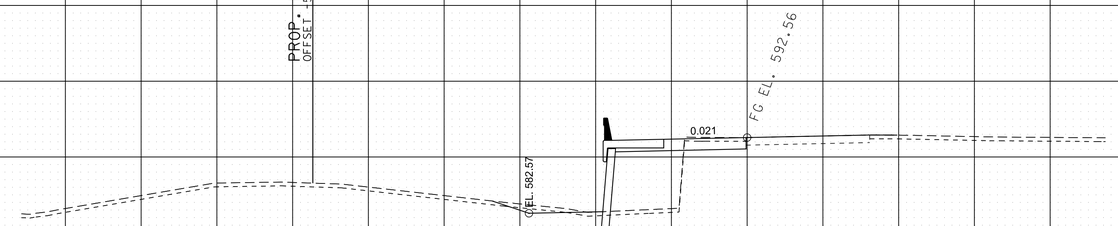
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	42
P. S. & E.	2025	HSIP-I-24-1(118)	47



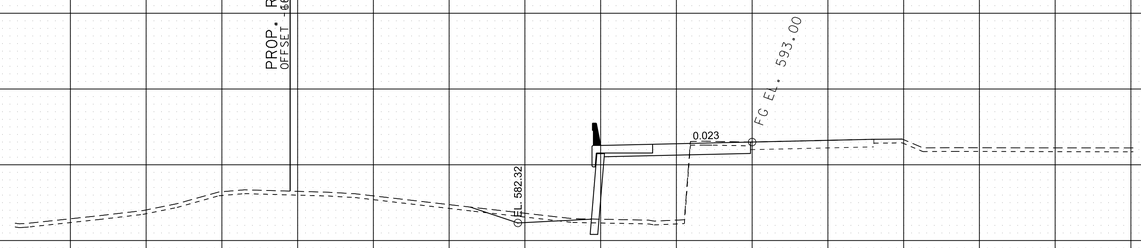
322+50.000

CUT 11
FILL 83



322+00.240

CUT 10
FILL 122



322+00.000

CUT 10
FILL 122

RAMP "C"

BEGIN STA. 322+00.000
END STA. 322+50.000

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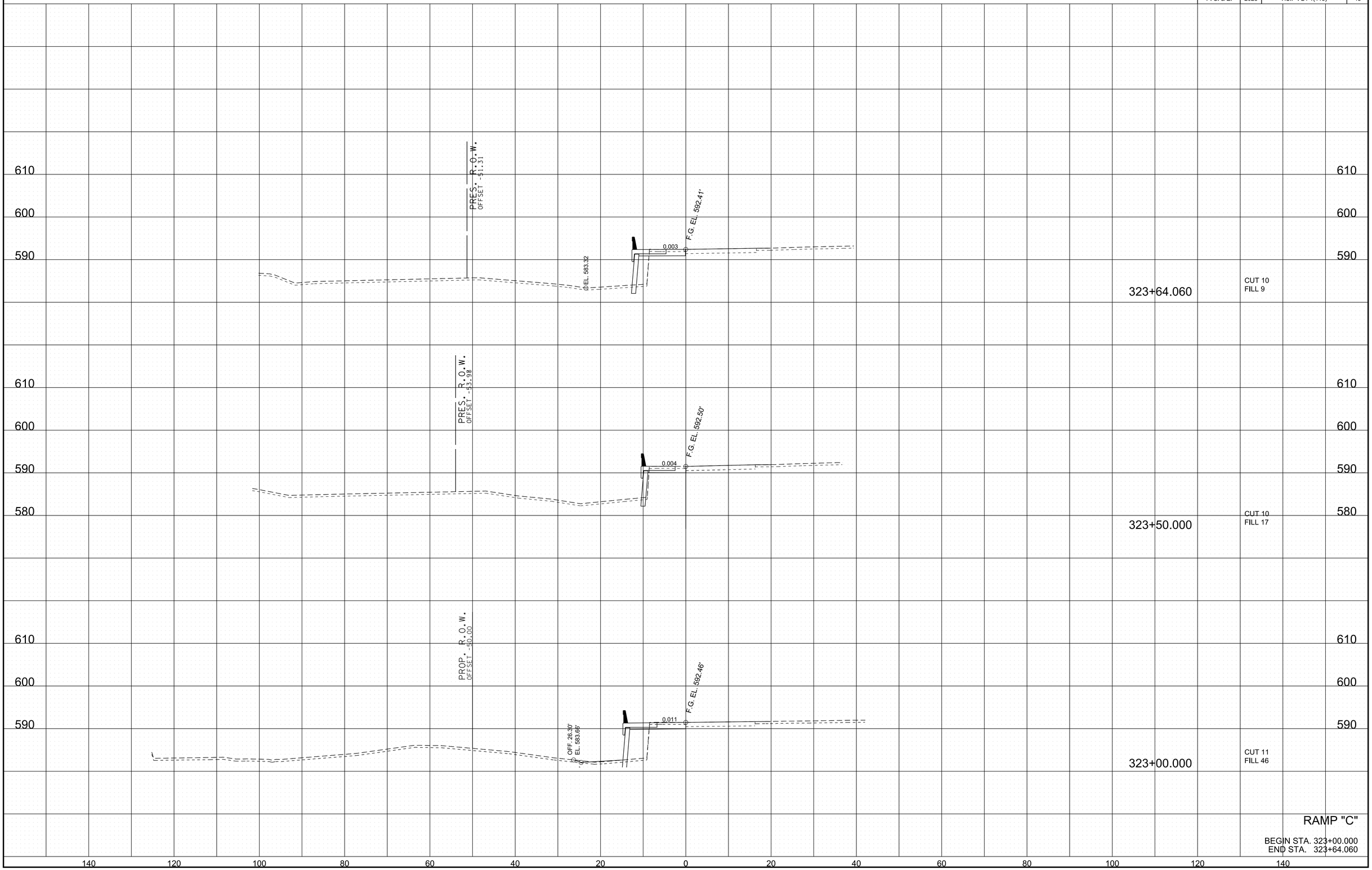
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	43
P. S. & E.	2025	HSIP-I-24-1(118)	48



RAMP "C"

BEGIN STA. 323+00.000
END STA. 323+64.060

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	44
P. S. & E.	2025	HSIP-I-24-1(118)	49

610
600
590

PRES. R.O.W
OFFSET 65.26

324+50.000

CUT 0
FILL 0

610
600
590

PRES. R.O.W.
OFFSET -60.45

F.G. EL. 592.72'

324+09.040

CUT 11
FILL 0

610
600
590

PRES. R.O.W.
OFFSET -59.33

F.G. EL. 592.70'

324+00.000

CUT 11
FILL 0

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

RAMP "C"

BEGIN STA. 324+00.000
END STA. 324+50.000

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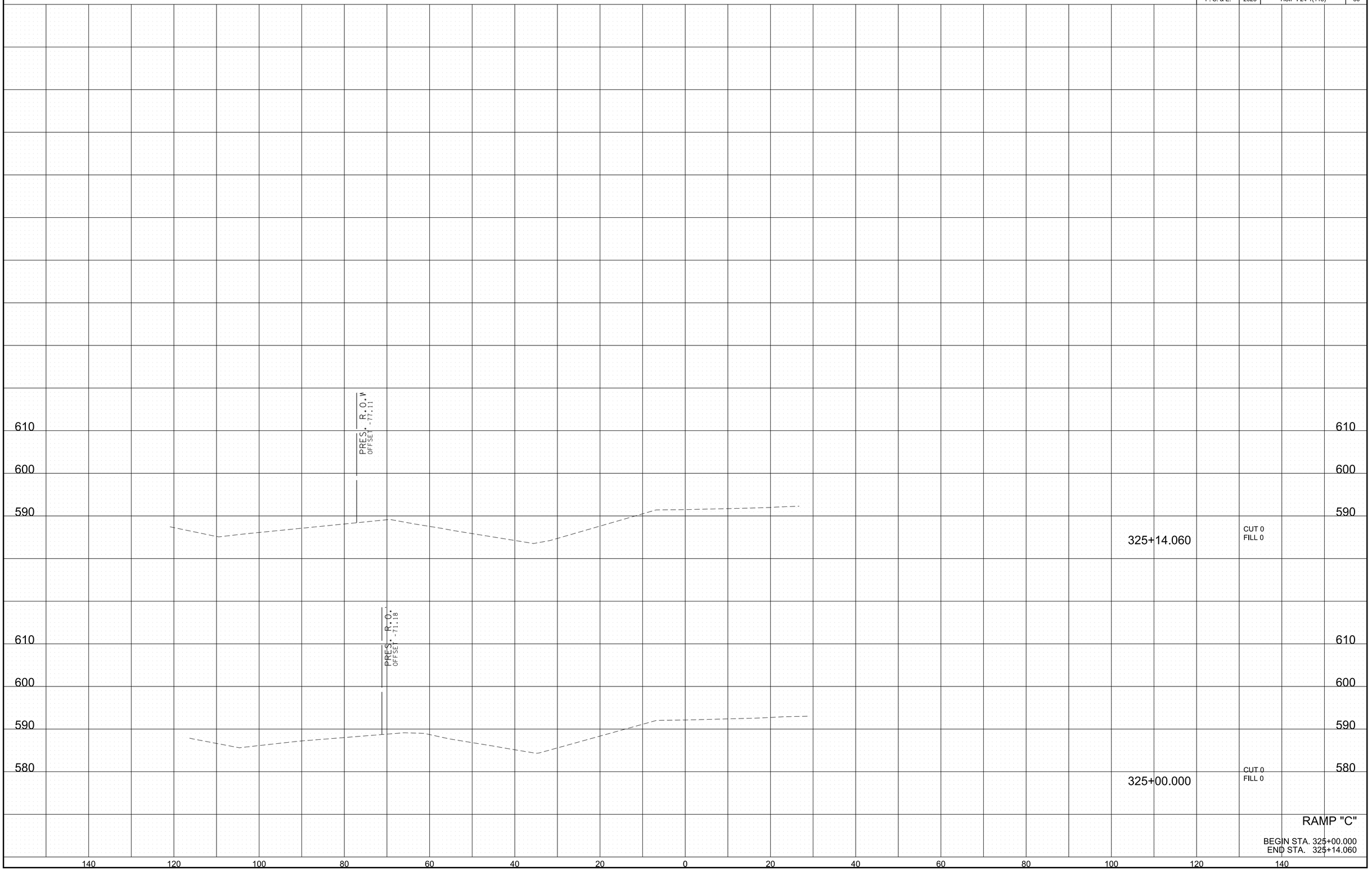
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	45
P. S. & E.	2025	HSIP-I-24-1(118)	50



325+14.060

CUT 0
FILL 0

325+00.000

CUT 0
FILL 0

RAMP "C"

BEGIN STA. 325+00.000
END STA. 325+14.060

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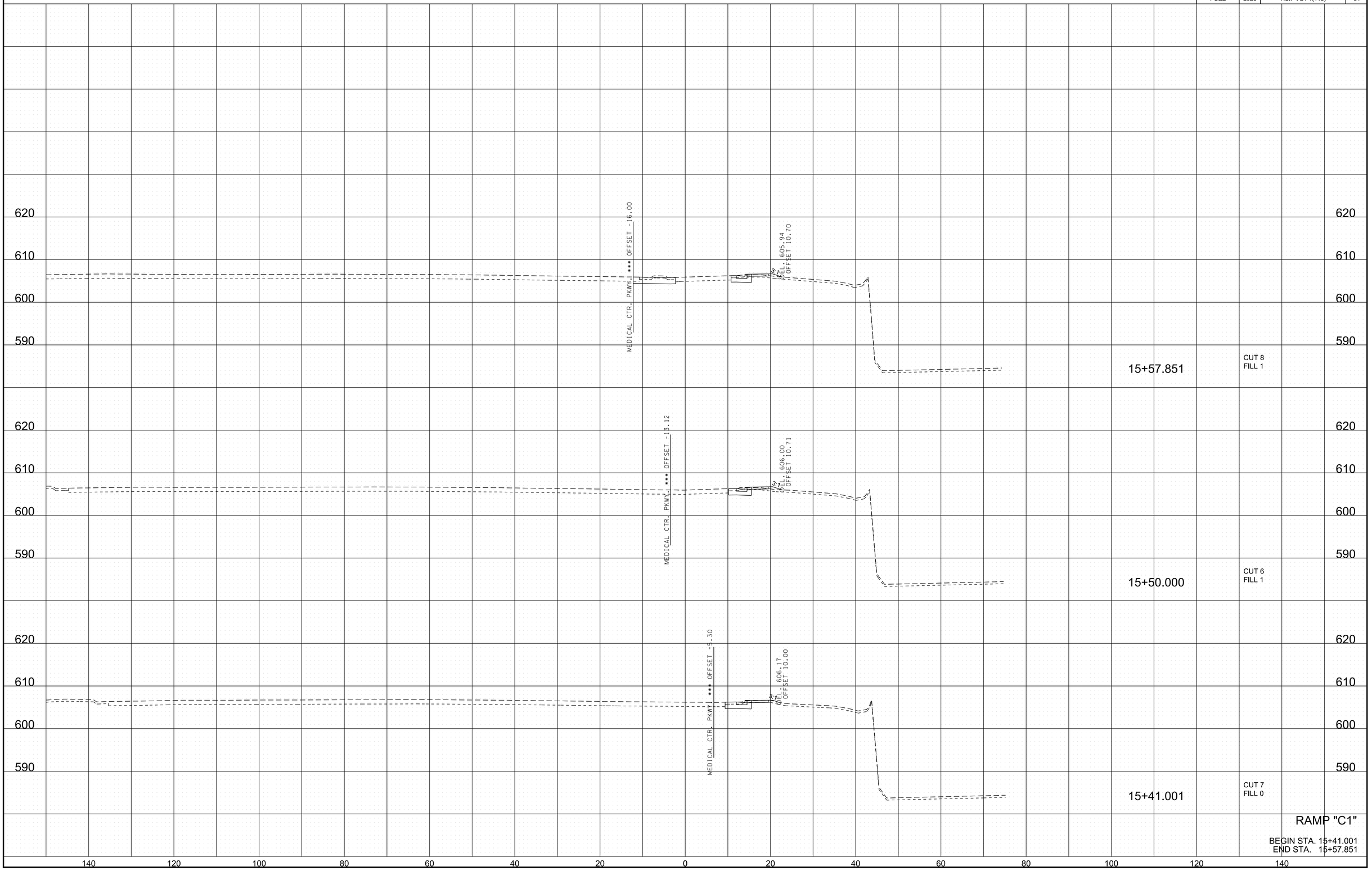
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	46
PS&E	2025	HSIP-I-24-1(118)	51



RAMP "C1"

BEGIN STA. 15+41.001
END STA. 15+57.851

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	47
PS&E	2025	HSIP-I-24-1(118)	52

RAMP "C" OFFSET -16.00

16+70.663 — CUT 4 FILL 0

RAMP "C" OFFSET -16.00

16+50.000 — CUT 4 FILL 0

MEDICAL CTR. PKWY. OFFSET 31.46

16+00.000 — CUT 3 FILL 0

MEDICAL CTR. PKWY. OFFSET -20.48

PROFILE GRADE EL.: 605.73
OFFSET 10.96

15+70.060 — CUT 8 FILL 2

RAMP "C1"

BEGIN STA. 15+70.060
END STA. 16+70.663

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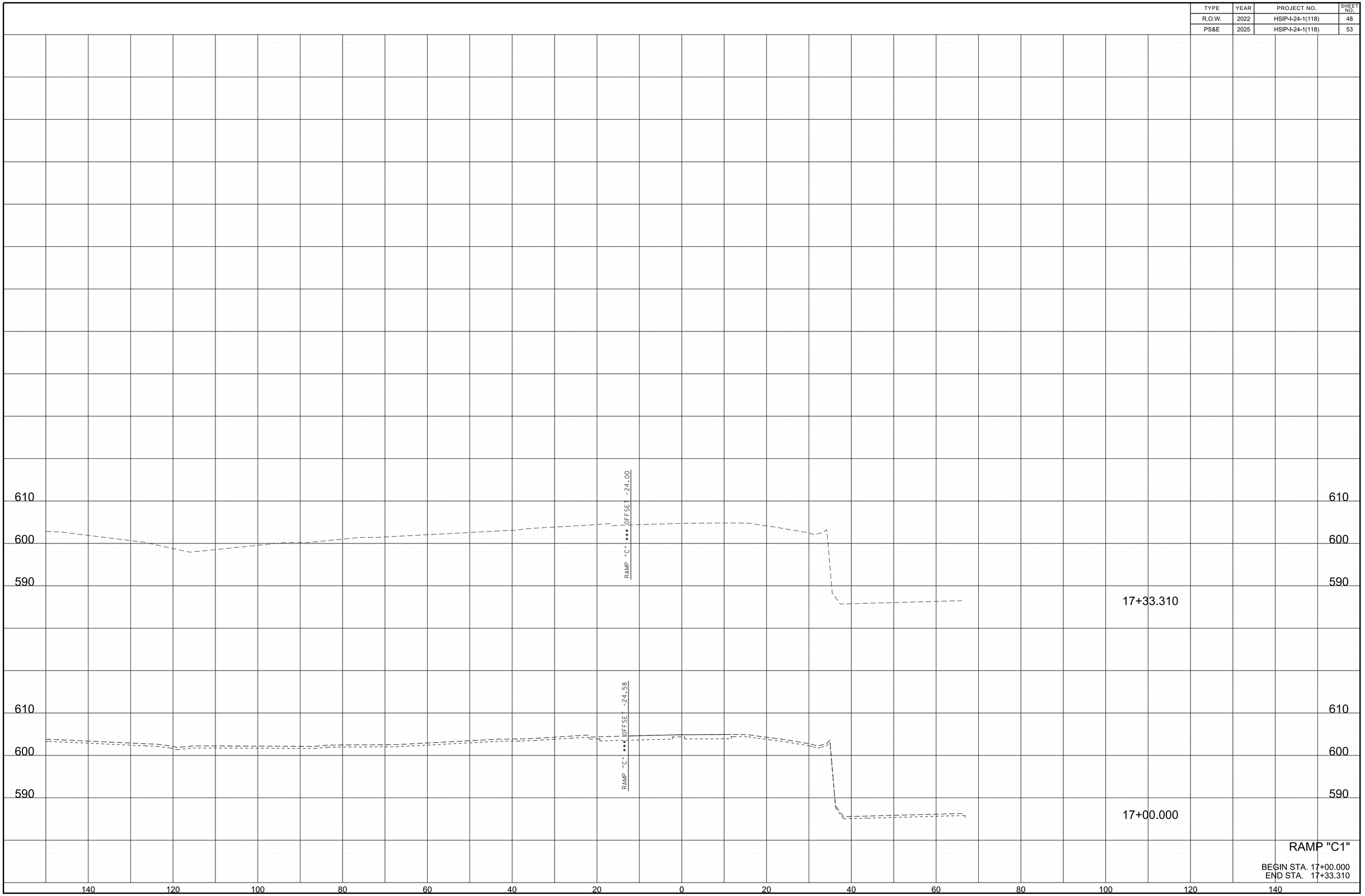
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	48
PS&E	2025	HSIP-I-24-1(118)	53



RAMP "C1"

BEGIN STA. 17+00.000
END STA. 17+33.310

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	75100-1111-94	49
PS&E	2025	HSIP-I-24-1(118)	54

620
610
600
590

EX. EOP EL.599.88
EX. EOP EL.598.79
EX. EOP EL.598.17
EX. EOP EL.596.76
PRES. R.O.W. OFFSET 73.06
30+50.000

620
610
600
590

EX. EOP EL.599.81
EX. EOP EL.598.36
EX. EOP EL.597.46
EX. EOP EL.595.60
PRES. R.O.W. OFFSET 64.32
30+00.000

620
610
600
590

EX. EOP EL.598.86
EX. EOP EL.597.54
EX. EOP EL.596.78
EX. EOP EL.594.61
PRES. R.O.W. OFFSET 58.50
29+50.000

FORTRESS BLVD.

BEGIN STA. 29+50.000
END STA. 30+50.000

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

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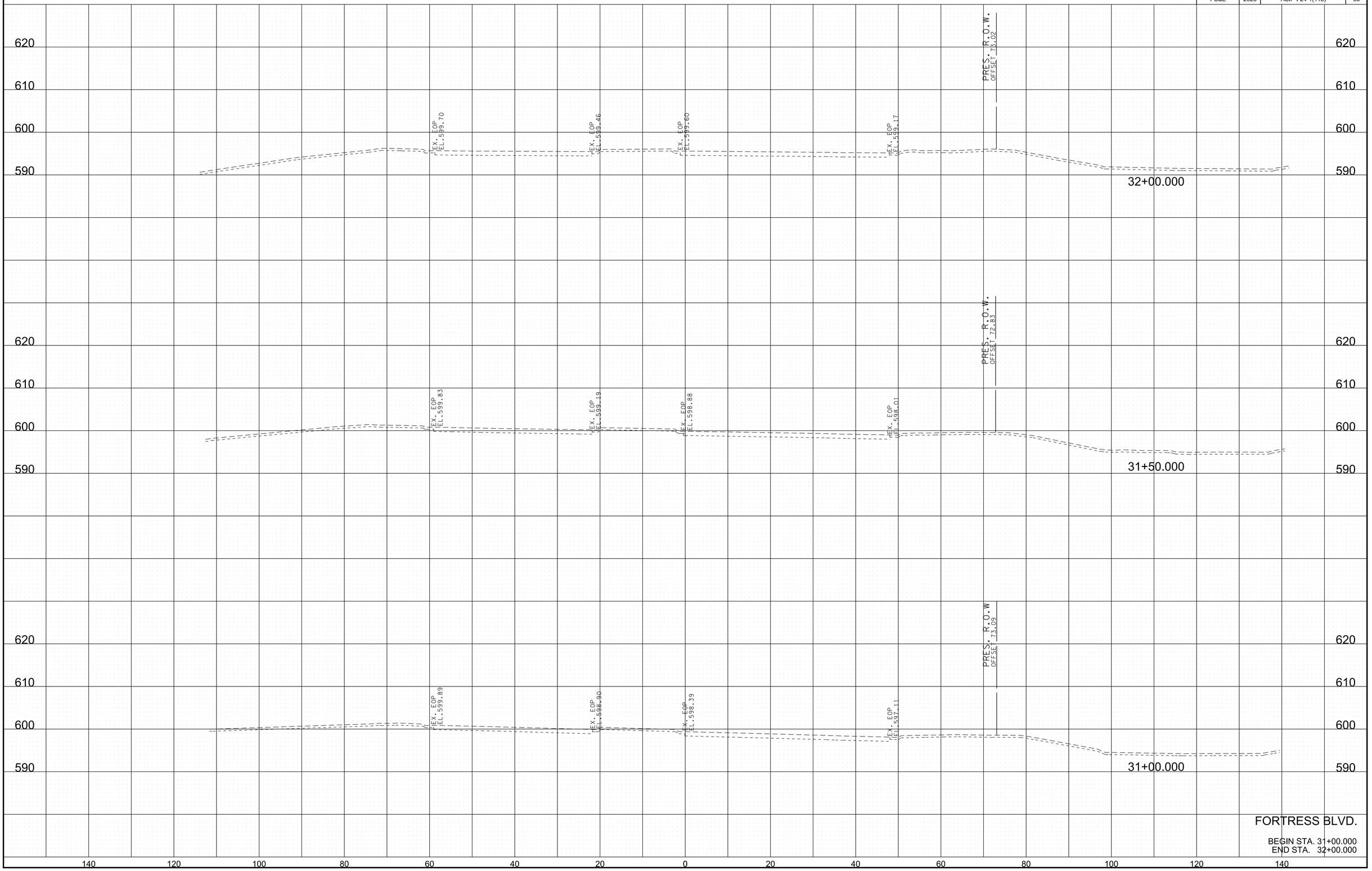
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	75100-1111-94	50
PS&E	2025	HSIP-I-24-1(118)	55



FORTRESS BLVD.

BEGIN STA. 31+00.000
END STA. 32+00.000

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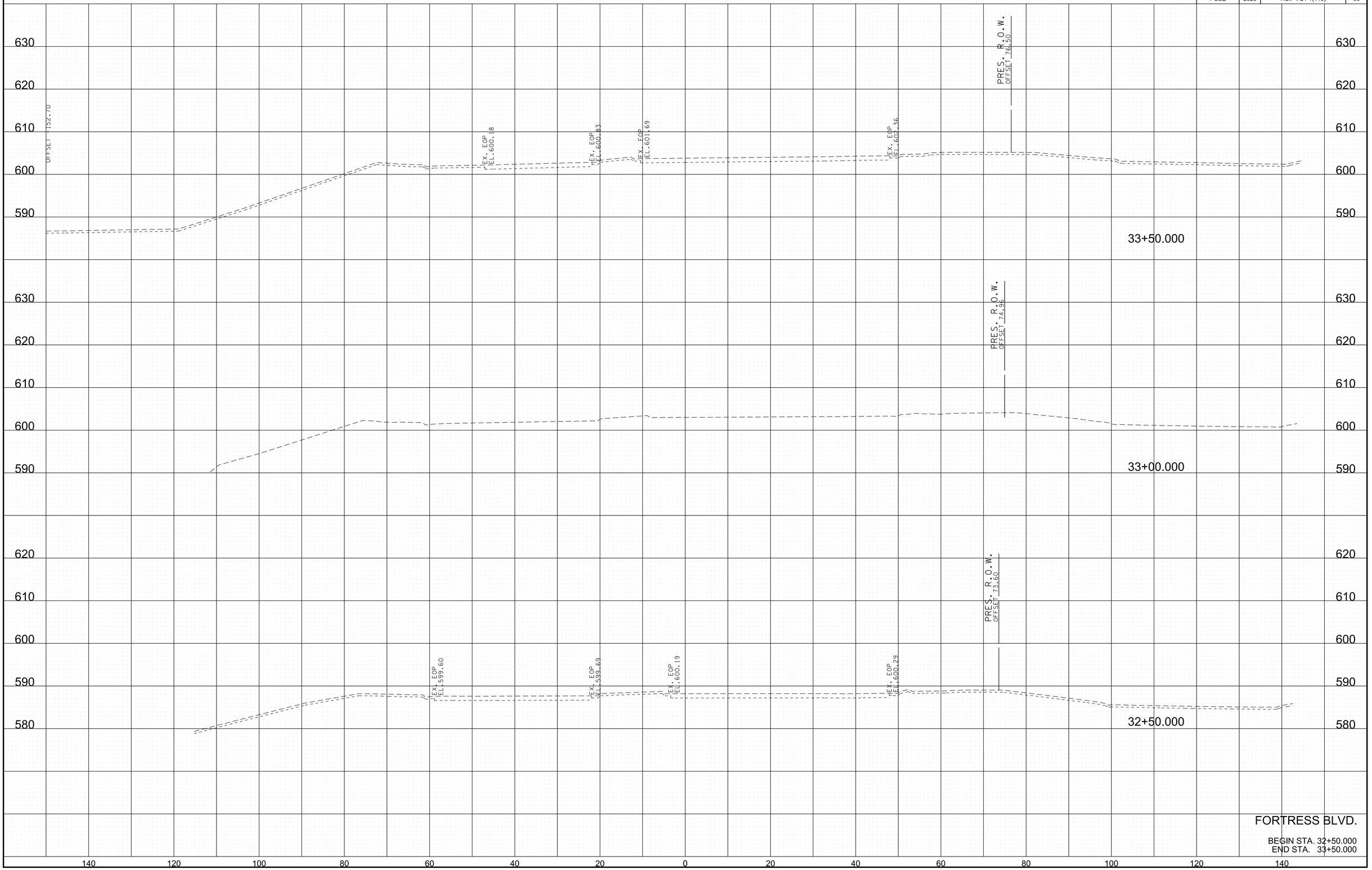
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	75100-1111-94	51
PS&E	2025	HSIP-I-24-1(118)	56



FORTRESS BLVD.

BEGIN STA. 32+50.000
END STA. 33+50.000

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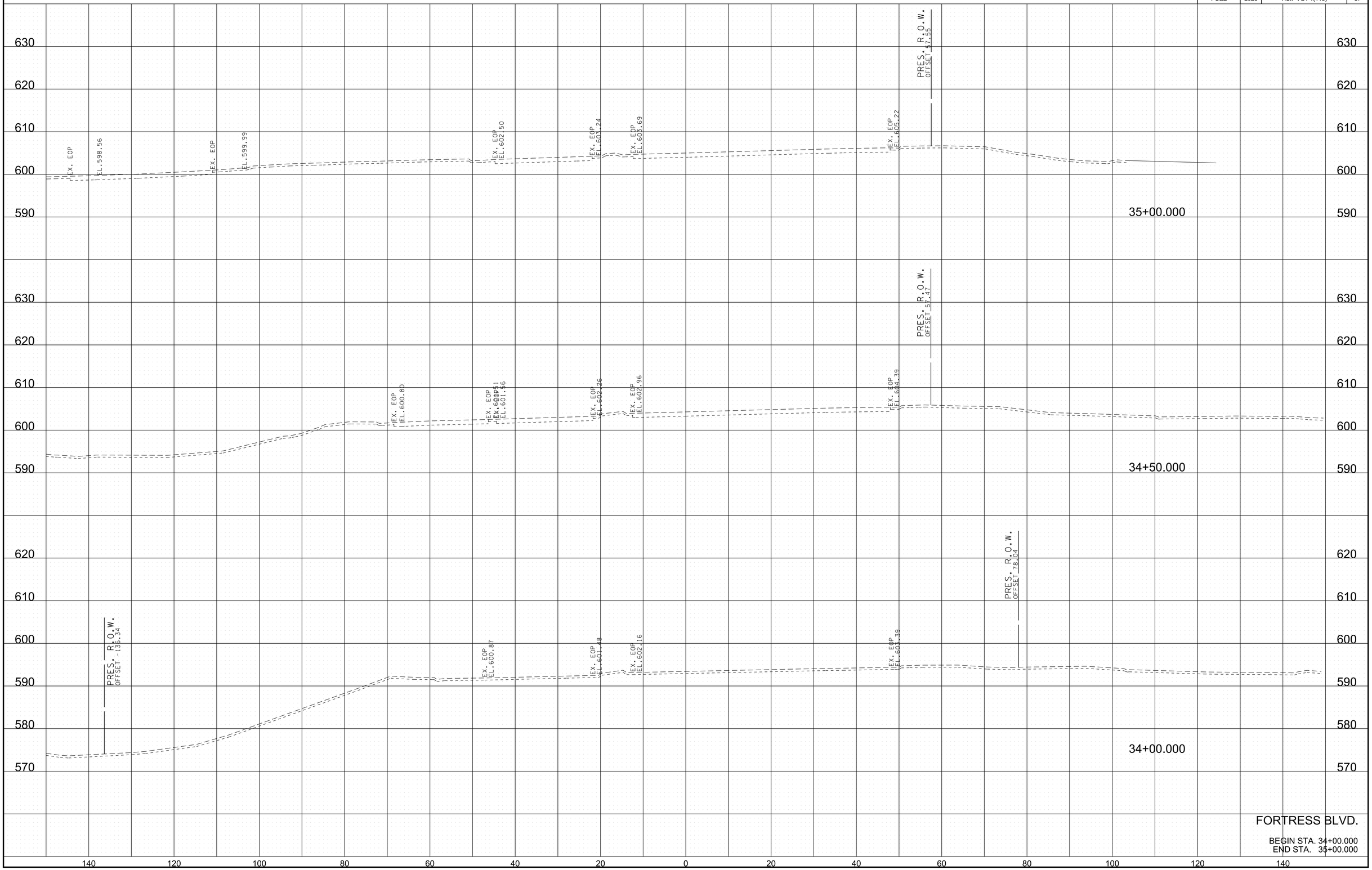
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	75100-1111-94	52
PS&E	2025	HSIP-I-24-1(118)	57



FORTRESS BLVD.

BEGIN STA. 34+00.000
END STA. 35+00.000

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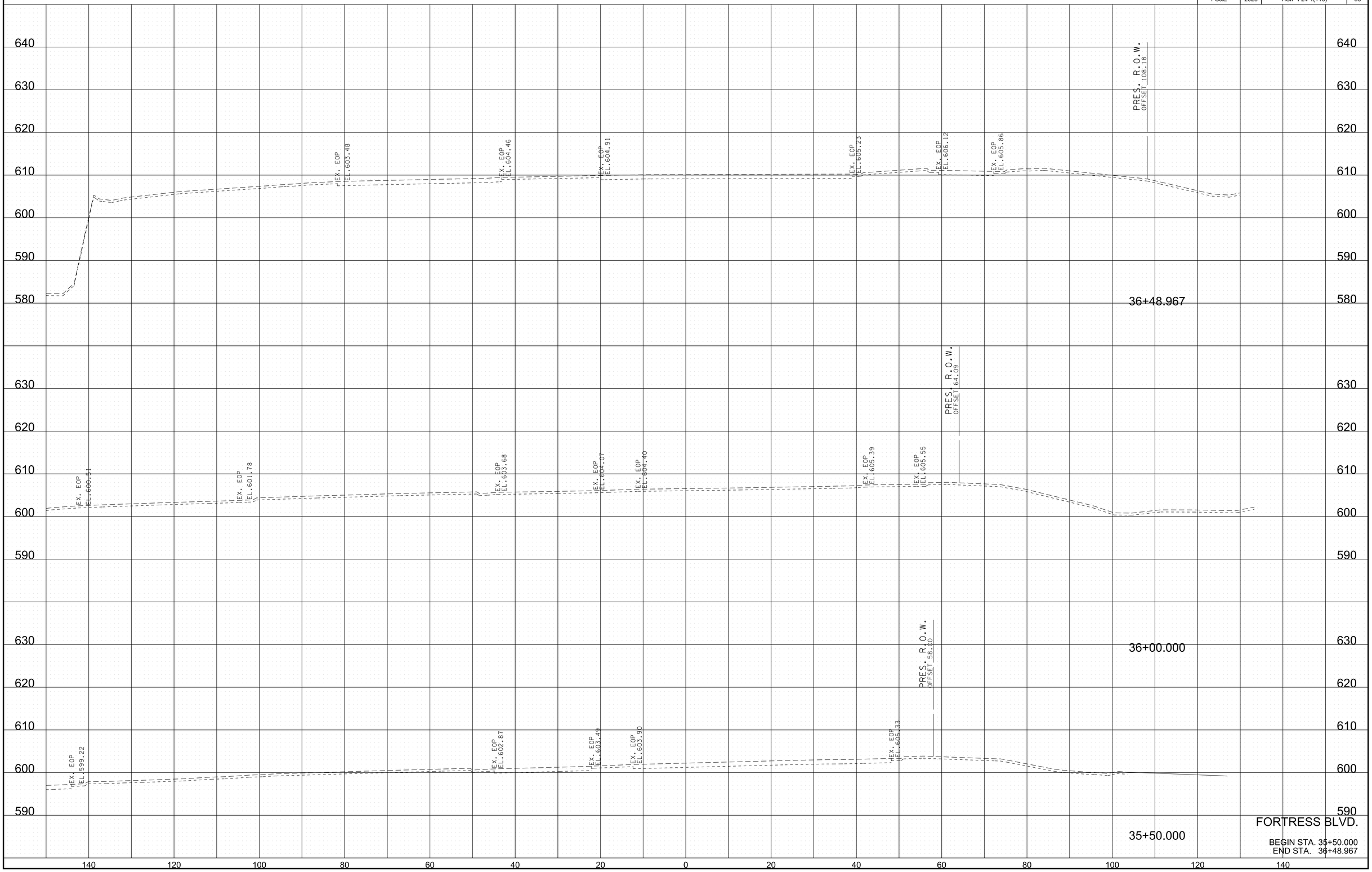
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	75100-1111-94	53
PS&E	2025	HSIP-I-24-1(118)	58



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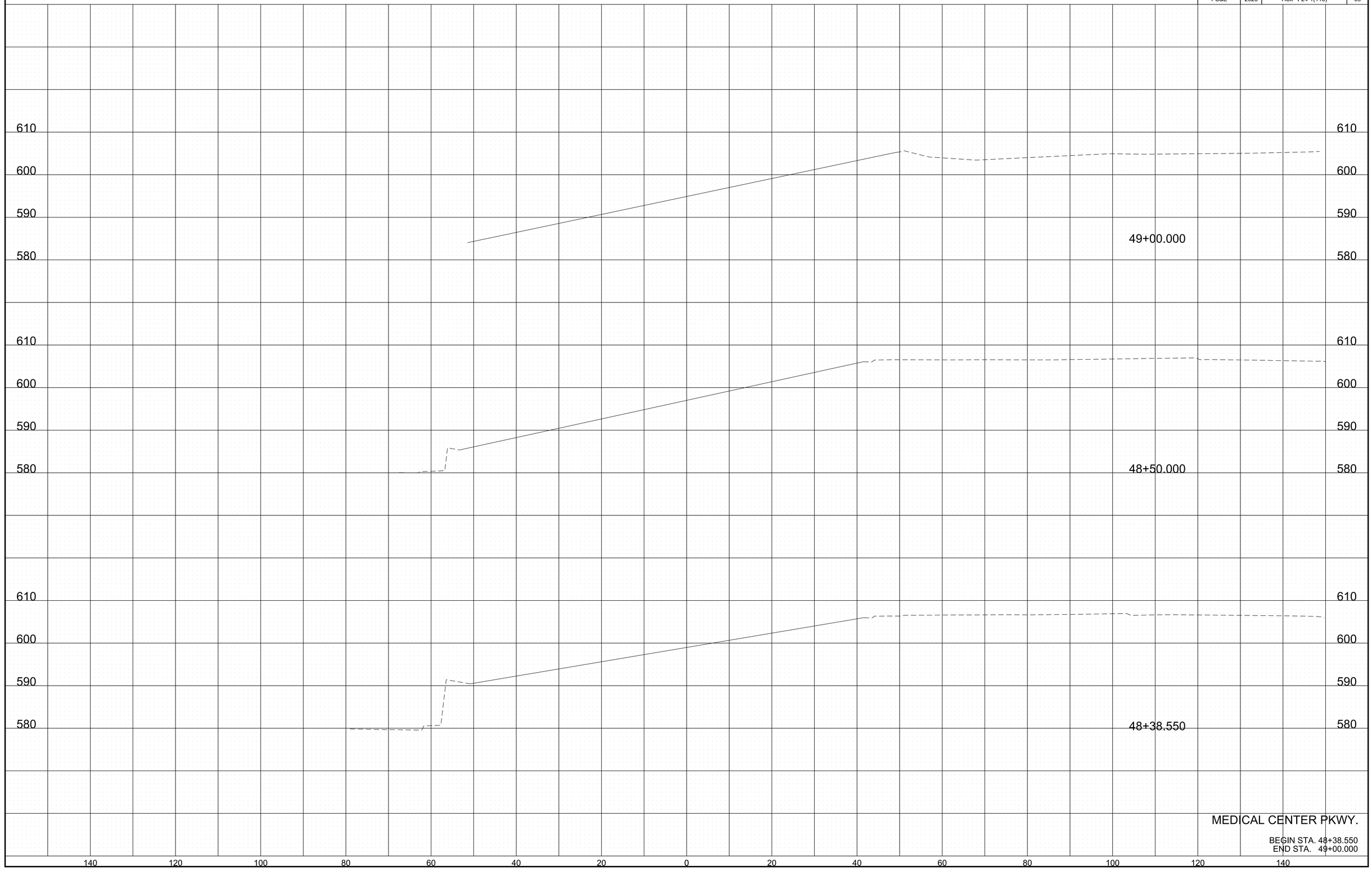
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	75100-1111-94	54
PS&E	2025	HSIP-I-24-1(118)	59



MEDICAL CENTER PKWY.

BEGIN STA. 48+38.550
END STA. 49+00.000

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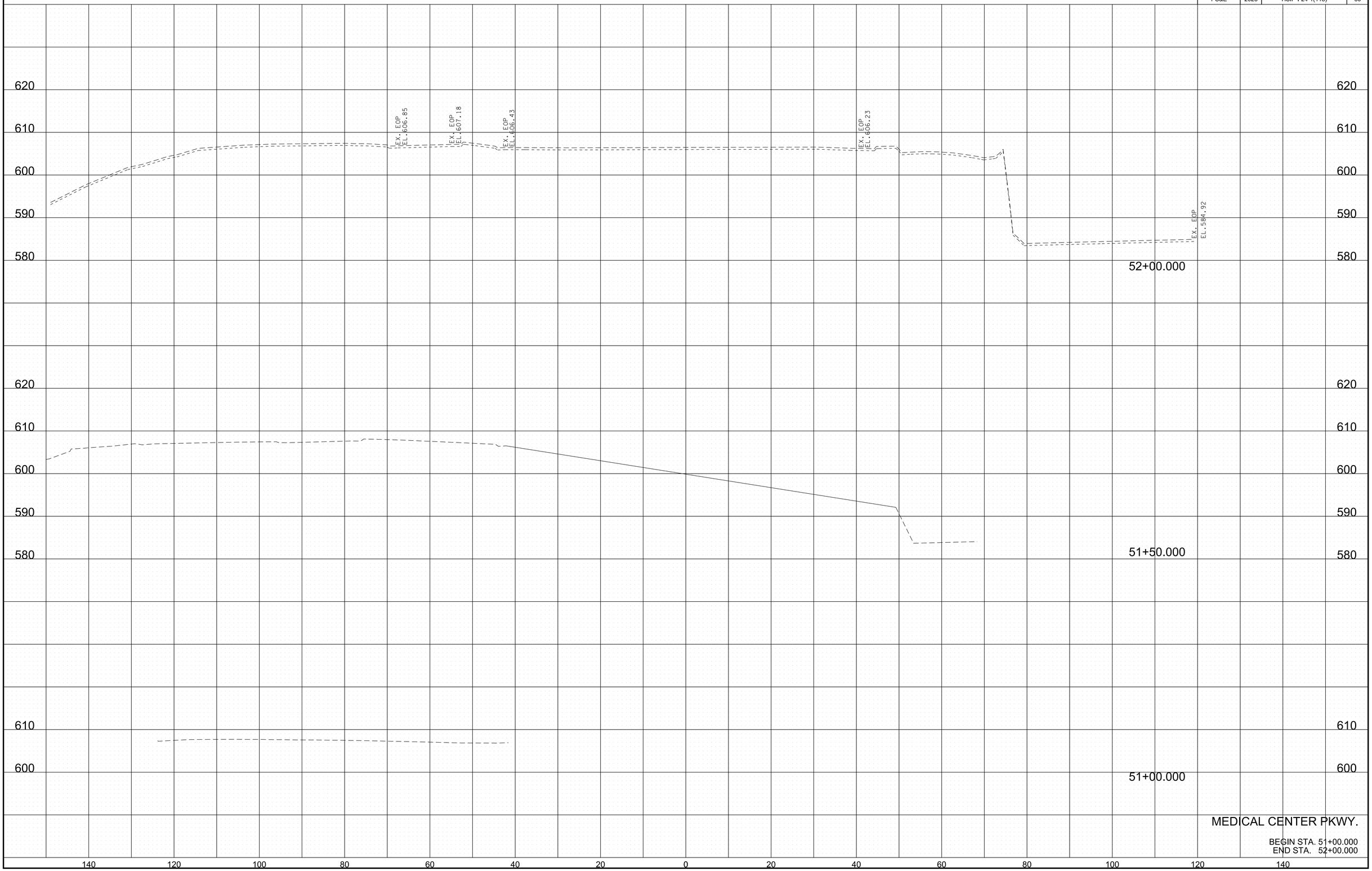
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	75100-1111-94	55
PS&E	2025	HSIP-I-24-1(118)	60



MEDICAL CENTER PKWY.

BEGIN STA. 51+00.000
END STA. 52+00.000

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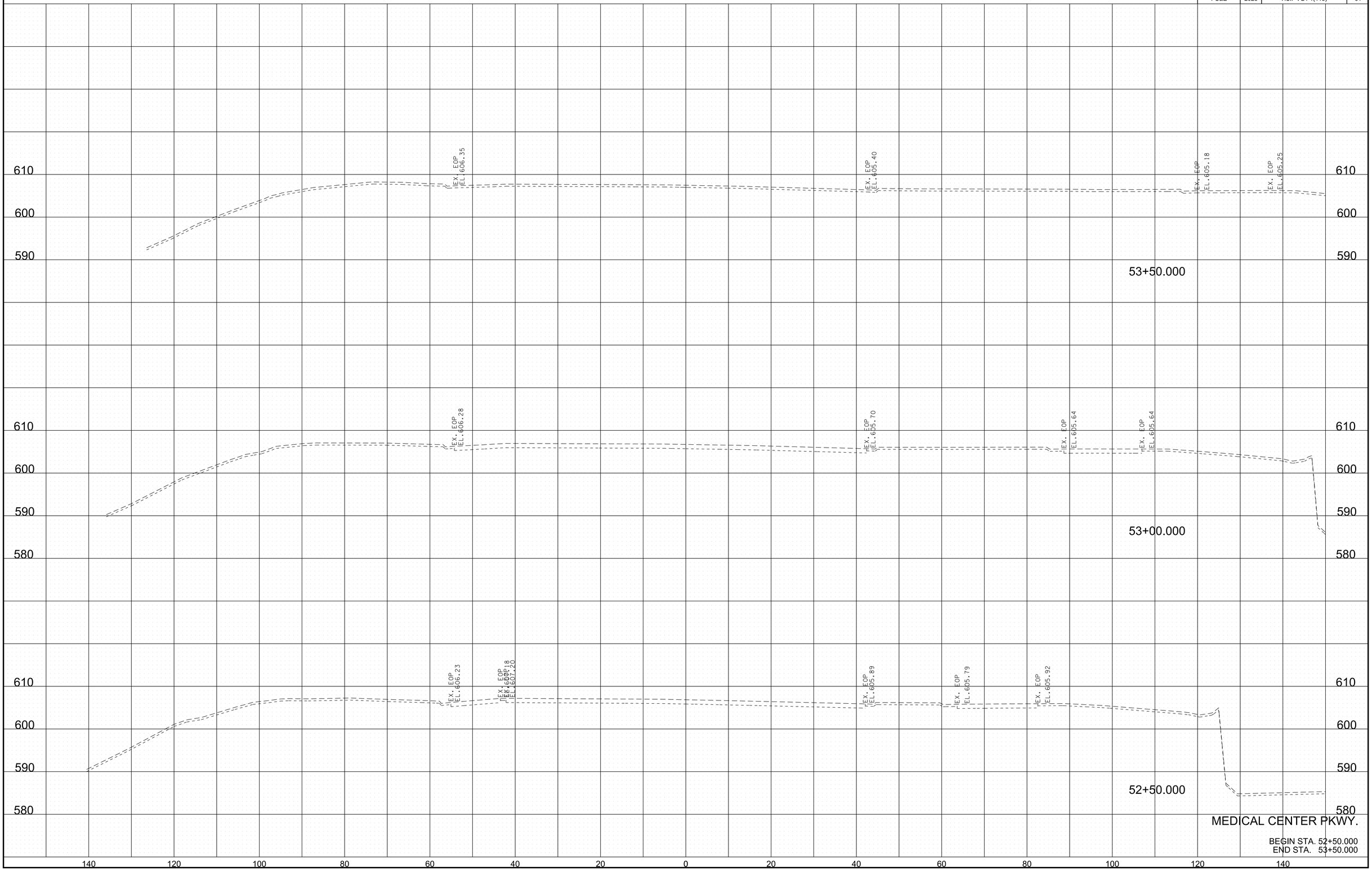
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	75100-1111-94	56
PS&E	2025	HSIP-I-24-1(118)	61



MEDICAL CENTER PKWY.

BEGIN STA. 52+50.000
END STA. 53+50.000

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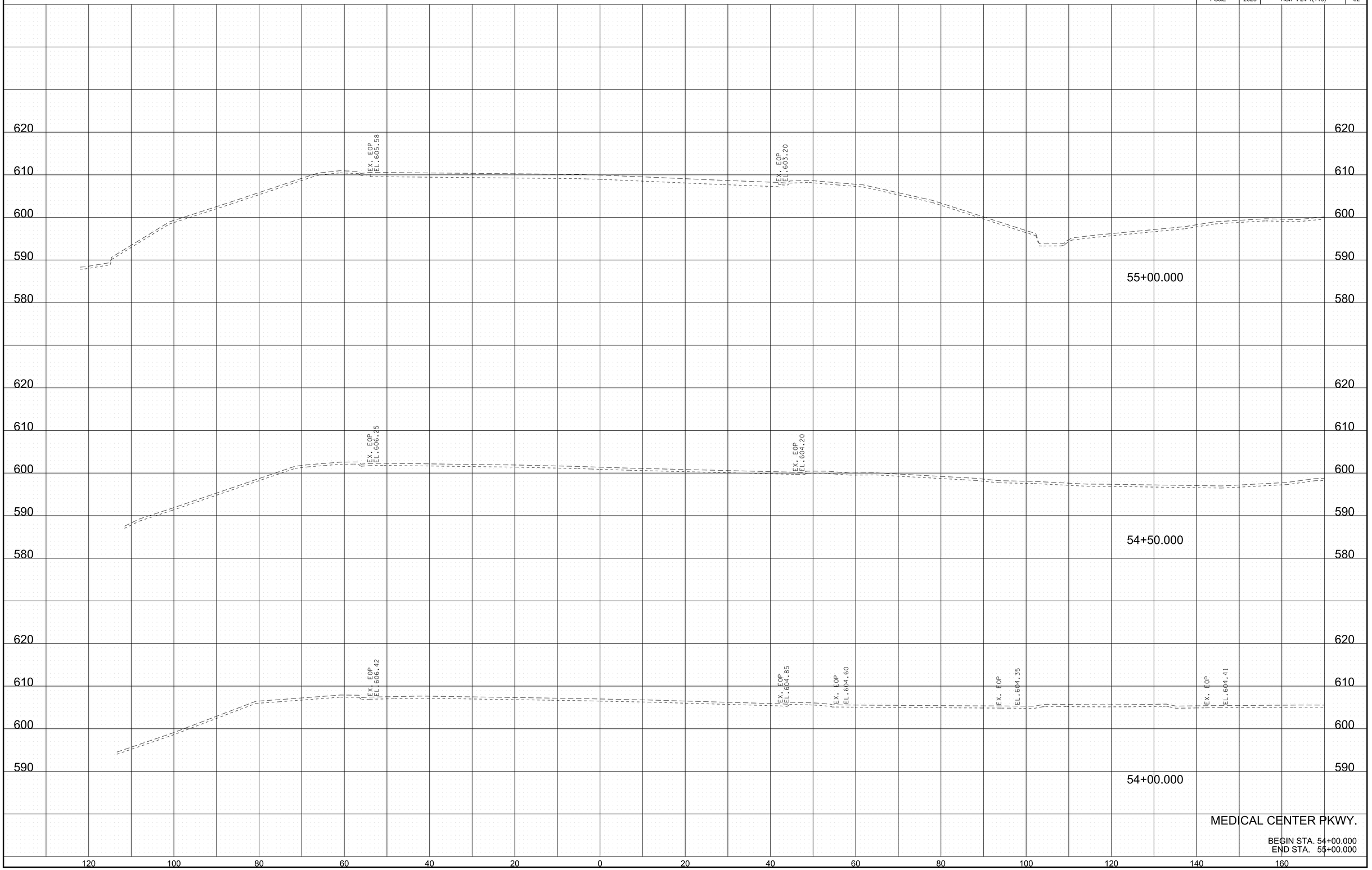
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	75100-1111-94	57
PS&E	2025	HSIP-I-24-1(118)	62



MEDICAL CENTER PKWY.

BEGIN STA. 54+00.000
END STA. 55+00.000

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	75100-1111-94	58
PS&E	2025	HSIP-I-24-1(118)	63

620
610
600
590

EX. EOP EL. 602.18

EX. EOP EL. 601.14

57+00.000

620
610
600
590

EX. EOP EL. 602.36

EX. EOP EL. 601.23

56+50.000

620
610
600
590

EX. EOP EL. 603.85

EX. EOP EL. 601.73

56+00.000

600
590
580

EX. EOP EL. 605.12

EX. EOP EL. 602.38

55+50.000

MEDICAL CENTER PKWY.

BEGIN STA. 55+50.000
END STA. 57+00.000

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

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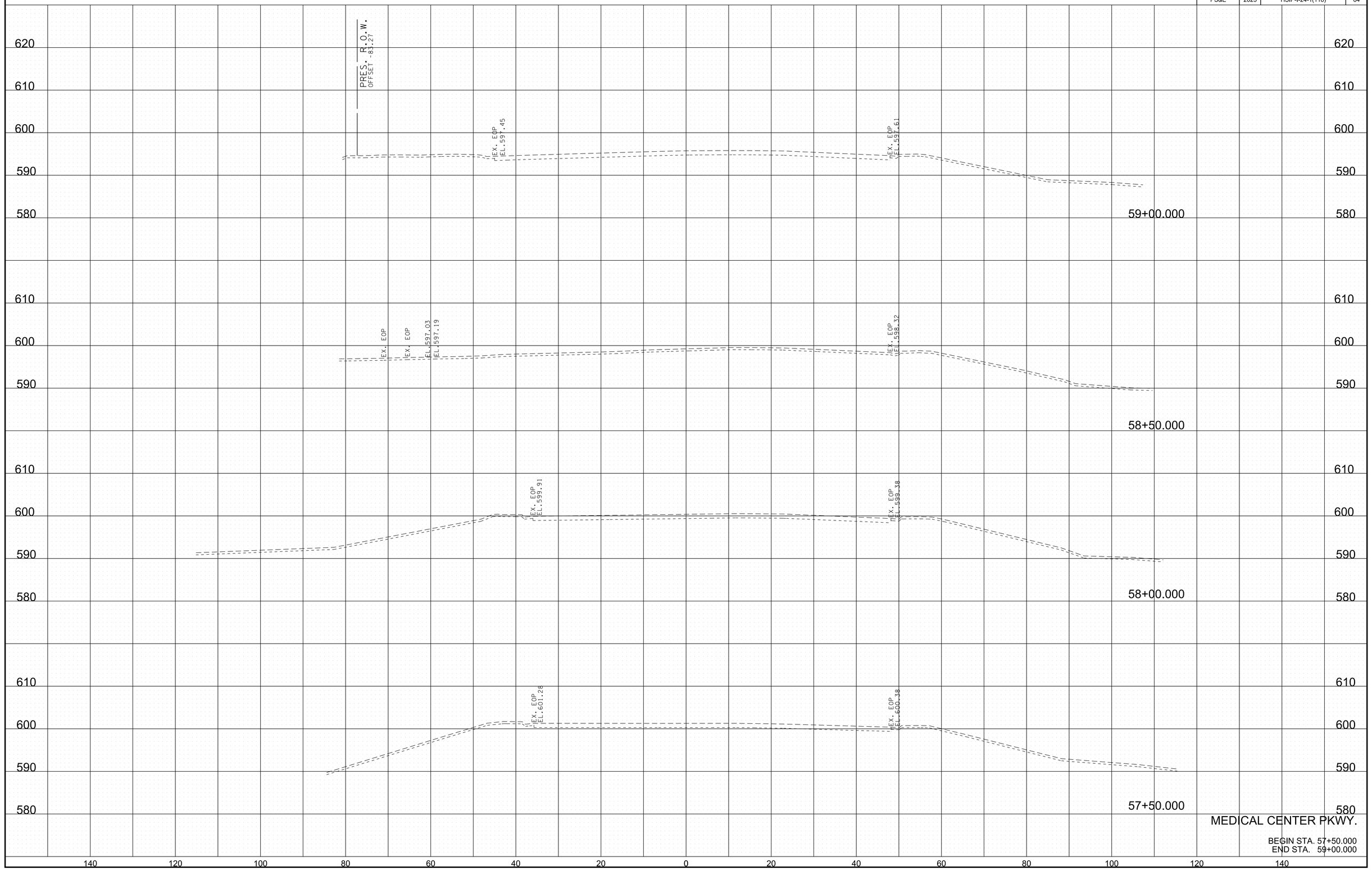
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	75100-1111-94	59
PS&E	2025	HSIP-I-24-1(118)	64



MEDICAL CENTER PKWY.

BEGIN STA. 57+50.000
END STA. 59+00.000

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TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2025	HSIP-I-24-1(118)	T-1

PAVEMENT EDGE DROP-OFF TRAFFIC CONTROL NOTES

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

1. DIFFERENCES IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 0.75 INCH AND NOT EXCEEDING 1.75 INCHES:

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

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

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

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

2. DIFFERENCES IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 1.75 INCHES AND NOT EXCEEDING 6 INCHES, TRAFFIC IS NOT TO BE ALLOWED TO TRAVERSE THIS DIFFERENCE IN ELEVATION.

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

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

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

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

   c. WHEN THE DIFFERENCE IN ELEVATION IS BETWEEN THE THROUGH TRAFFIC LANE AND THE SHOULDER AND THE ELEVATION DIFFERENCE IS LESS THAN 3 INCHES, THE CONTRACTOR MAY USE WARNING SIGNS AND/OR PROTECTIVE DEVICES AS APPLICABLE AND APPROVED BY THE REGIONAL TRAFFIC ENGINEER. SEE PARAGRAPH a REGARDING USE OF DRUMS, BARRICADES OR OTHER APPROVED PROTECTIVE DEVICES. WARNING SIGNS (UNEVEN LANES AND/OR SHOULDER DROP-OFF) WILL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. WHERE UNEVEN PAVEMENT IS ENCOUNTERED, SIGNS SHALL BE PLACED ON EACH SIDE OF THE ROADWAY.

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

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

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

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

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

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

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

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

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

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

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

   SEPARATION WILL BE PROVIDED BY USE OF PORTABLE BARRIER RAIL.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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LUCAS R SULLIVAN REGISTERED ENGINEER AGRICULTURE 2025-04-02 STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PAVEMENT EDGE DROP-OFF NOTES FOR TRAFFIC CONTROL

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TRAFFIC CONTROL PHASING NOTES

GENERAL PHASING NOTES

(1) PRIOR TO BEGINNING OF PHASE I, CONTRACTOR SHALL INSTALL ALL ADVANCE WARNING SIGN ASSEMBLIES AS SHOWN ON PLANS AND PER T.D.O.T. STANDARD SPECIFICATIONS AND STANDARD DRAWINGS. CONTRACTOR SHALL REMOVE OR COVER EXISTING CONFLICTING SIGNS.

(2) BETWEEN OR WITHIN PHASES, CONTRACTOR SHALL ADJUST ALL PREVIOUSLY INSTALLED CONSTRUCTION SIGNS AS NEEDED TO MAINTAIN VISIBILITY WITH SHIFTING TRAFFIC PATTERNS.

(3) CONTRACTOR SHALL PLACE ALL SIGNS A MINIMUM OF 165 FEET APART. IN CERTAIN SPECIAL CASE AREAS WHERE MINIMUM CANNOT BE MET, MINIMUM DISTANCE BETWEEN SIGNS SHALL BE 100 FEET.

(4) CHANGEABLE MESSAGE SIGNS SHALL BE USED IN ADVANCE OF CHANGED ROADWAY CONDITIONS SUCH AS LANE CLOSURES, ROAD CLOSURES, LANE SHIFTS, OR DETOUR ROUTES. THE LOCATIONS OF THESE CHANGEABLE MESSAGE SIGNS SHALL BE REVIEWED BY THE DEPARTMENT PRIOR TO IMPLEMENTATION.

PHASE I TRAFFIC CONTROL

(1) PHASE I WORK CONSISTS OF CONSTRUCTION OF CONCRETE PAVEMENT, CURB, GUTTER, CATCH BASINS, AND OTHER ROADWAY ELEMENTS ALONG INSIDES OF ISLANDS AT RAMP “A”/”A1” AND “C”/”C1” TERMINALS.

(2) CONTRACTOR SHALL MAINTAIN TRAFFIC FOR BOTH LEFT- AND RIGHT-TURNING VEHICLES AT RAMP TERMINALS THROUGHOUT PHASE I WORK EXCEPT FOR SHORT-TERM NIGHT OR WEEKEND CLOSURES AS NEEDED.

(3) CONTRACTOR SHALL ERADICATE EXISTING PAVEMENT MARKINGS THAT CONFLICT WITH TEMPORARY PAVEMENT MARKINGS.

(4) CONTRACTOR SHALL REMOVE EXISTING RAISED PAVEMENT MARKER (R.P.M.) LENSES THAT CONFLICT WITH TEMPORARY PAVEMENT MARKINGS.

PHASE II TRAFFIC CONTROL

(1) PHASE II WORK CONSISTS OF CONSTRUCTION OF REMAINDER OF CONCRETE PAVEMENT, CURB, GUTTER, CATCH BASINS, RETAINING WALL, AND OTHER ROADWAY ELEMENTS ALONG OUTSIDES OF RAMPS “A”/”A1” AND “C”/”C1”.

(2) CONTRACTOR SHALL MAINTAIN TRAFFIC FOR BOTH LEFT- AND RIGHT-TURNING VEHICLES AT RAMP TERMINALS THROUGHOUT PHASE II WORK EXCEPT FOR SHORT-TERM NIGHT OR WEEKEND CLOSURES AS NEEDED.

(3) CONTRACTOR SHALL ERADICATE EXISTING PAVEMENT MARKINGS THAT CONFLICT WITH TEMPORARY PAVEMENT MARKINGS.

(4) CONTRACTOR SHALL REMOVE EXISTING RAISED PAVEMENT MARKER (R.P.M.) LENSES THAT CONFLICT WITH TEMPORARY PAVEMENT MARKINGS.

TABULATED TRAFFIC CONTROL QUANTITIES

	ITEM NO.	DESCRIPTION	UNIT	QUANTITY 75100-4111-94
(1)	712-02.60	TEMPORARY WORK ZONE CRASH CUSHION (MASH TL-3)	EACH	4
	712-01	TRAFFIC CONTROL	L.S.	1
(1)	712-02.02	INTERCONNECTED PORTABLE BARRIER RAIL	L.F.	3621
	712-04.01	FLEXIBLE DRUMS (CHANNELIZING)	EA.	100
	712-04.50	BARRIER RAIL DELINEATOR	EACH	91
	712-05.01	WARNING LIGHTS (TYPE A)	EA.	2
	712-06	SIGNS (CONSTRUCTION)	S.F.	648
	712-07.03	TEMPORARY BARRICADES (TYPE III)	L.F.	24
	712-08.03	ARROW BOARD (TYPE C)	EA.	2
	712-09.02	REMOVABLE PAVEMENT MARKING (8" BARRIER LINE)	L.F.	400
	713-16.01	CHANGEABLE MESSAGE SIGN UNIT	EA.	2
	716-05.01	PAINTED PAVEMENT MARKING (4" LINE)	L.M.	3
	716-08.05	REMOVAL OF PAVEMENT MARKING (STOP LINE)	L.F.	150
	716-08.06	REMOVAL OF PAVEMENT MARKING (TURN LANE ARROW)	EA.	31
	716-08.20	REMOVAL OF PAVEMENT MARKING (LINE)	L.M.	3

FOOTNOTES

(1) THIS ITEM SHALL BE A PORTABLE ENERGY ABSORBING TERMINAL MEETING THE REQUIREMENTS OF AASHTO MASH FOR TEST LEVEL 3. THE PAY ITEM WILL INCLUDE FURNISHING AND INSTALLING ALL COMPONENTS AS SHOWN ON THE MANUFACTURER'S DRAWING.

TRAFFIC CONTROL SIGN TABULATION

M.U.T.C.D. SIGN NO.	LEGEND	SIZE IN INCHES L	X	W	S.F.	NO. REQUIRED PHASE I	NO. REQUIRED PHASE II	TOTAL NO. REQUIRED	ITEM NO. 712-06 S.F.	REMARKS
D12-5	TRAVEL INFO CALL 511	42"	x	60"	18	2	2	2	35.00	
G20-2	END ROAD WORK	48"	x	24"	8	6	6	6	48.00	
W20-1	ROAD WORK 1/2 MILE	48"	x	48"	16	6	6	6	96.00	
W20-1	ROAD WORK 1 MILE	48"	x	48"	16	4	4	4	64.00	
W21-5R	RIGHT SHOULDER CLOSED 1500 FT	48"	x	48"	16	4	2	4	64.00	
W21-5a	RIGHT SHOULDER CLOSED	48"	x	48"	16	4	2	4	64.00	
W8-23a	NO SHOULDER	48"	x	48"	16	2		2	32.00	
R9-9	SIDEWALK CLOSED	24"	x	12"	2	4	4	4	8.00	
W21-5a	LEFT SHOULDER CLOSED	48"	x	48"	16		2	2	32.00	
W21-5L	LEFT SHOULDER CLOSED 1500 FT	48"	x	48"	16		2	2	32.00	
W20-1	ROAD WORK 1000 FT	48"	x	48"	16	2		2	32.00	
W20-1	ROAD WORK 500 FT	48"	x	48"	16	2		2	32.00	
W13-4P	ON RAMP	36"	x	36"	9	16	16	16	144.00	
								TOTAL	648	S.F.

TYPE	YEAR	PROJECT NO.	SHEET NO.
P. S. & E.	2025	HSIP-I-24-1(118)	T-2

REV. 2025-05-15: REVISED UNIT AND QUANTITY FOR PAY ITEM NUMBER 712-02.60 (TEMPORARY WORK ZONE CRASH CUSHION, MASH TL-3).

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DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PHASING NOTES, LEGEND AND TABULATION

5/15/2025
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TYPE	YEAR	PROJECT NO.	SHEET NO.
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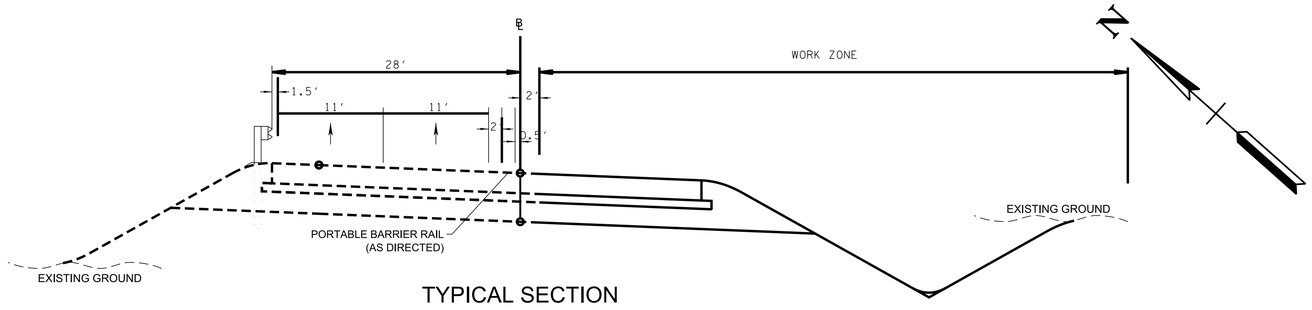
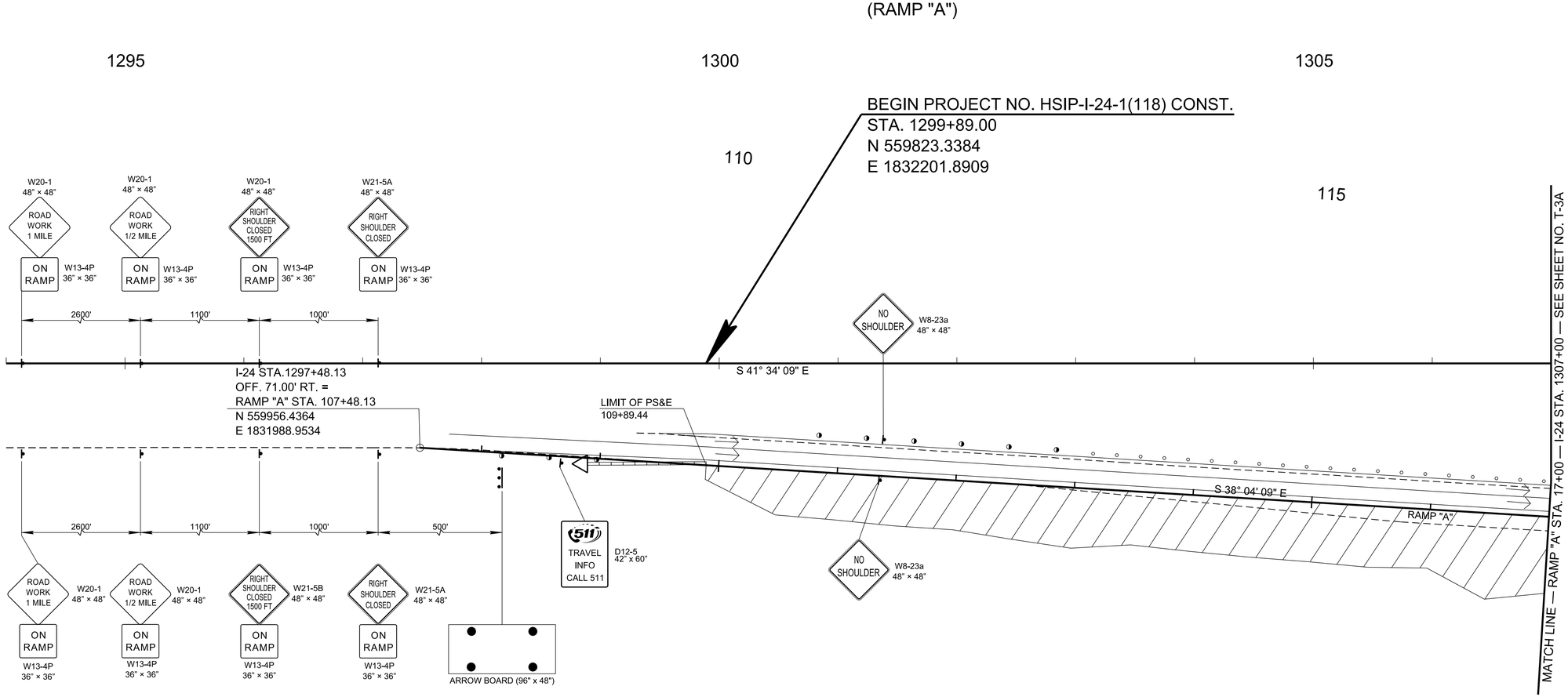


TYPICAL SECTION

(RAMP "A")



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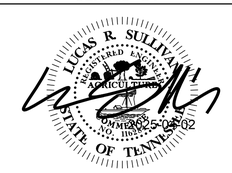

COORDINATES ARE N.A.D. 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00008 AND TIED TO THE T.G.R.N. ALL ELEVATIONS ARE REFERENCED TO THE N.A.V.D. 1988 WITH GEOID 03.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLANS

STA. 1294+00 TO STA. 1307+00

SCALE: 1" = 50'

PHASE I

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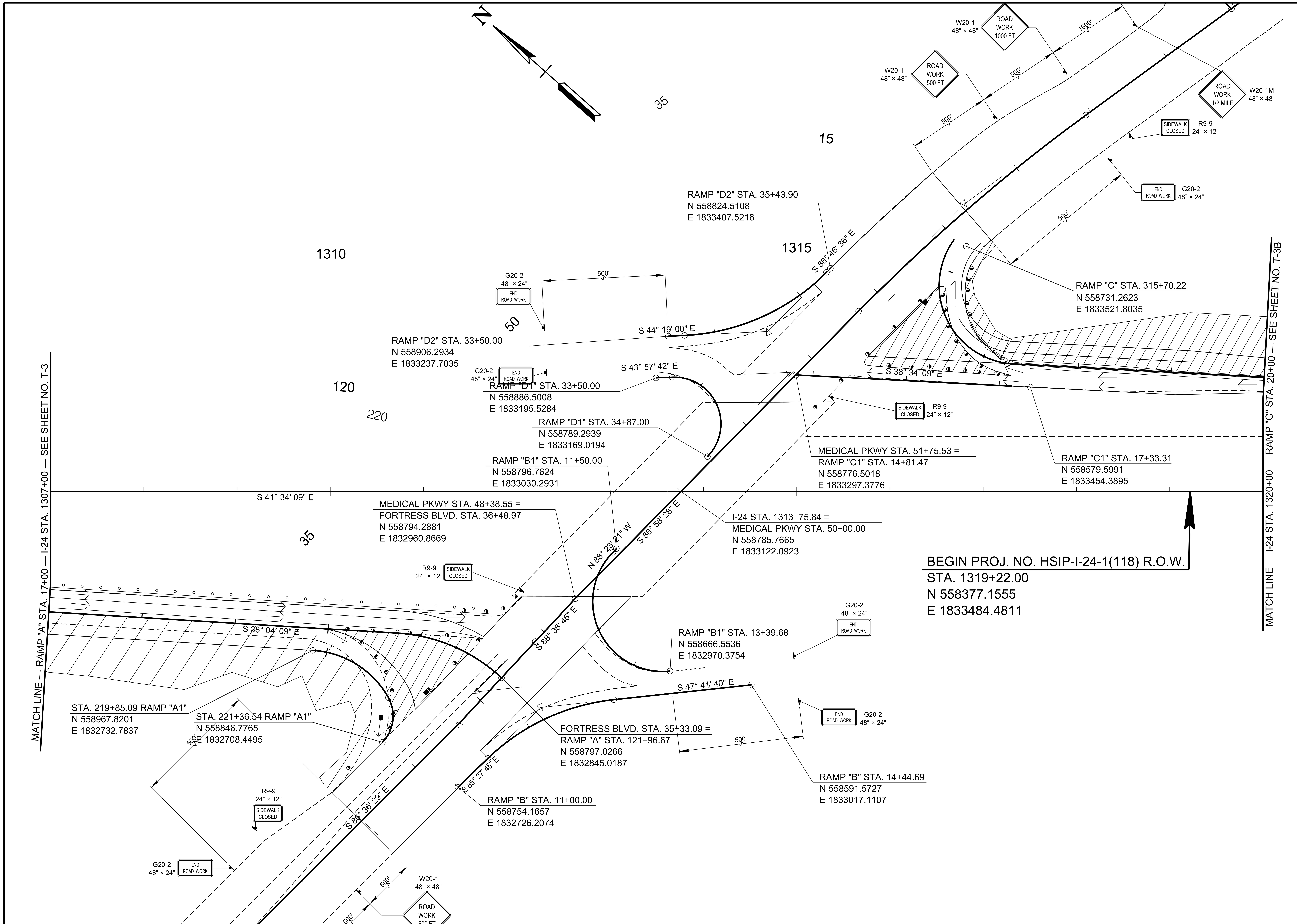
TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2025	HSIP-I-24-1(118)	T-3A



N
35
15
1310
1315
120
220
50
35
W20-1
48" × 48"
ROAD WORK 1000 FT
1600'
W20-1
48" × 48"
ROAD WORK 500 FT
500'
500'
ROAD WORK 1/2 MILE
W20-1M
48" × 48"
SIDEWALK CLOSED
R9-9
24" × 12"
END ROAD WORK
G20-2
48" × 24"
500'
RAMP "D2" STA. 35+43.90
N 558824.5108
E 1833407.5216
S 86° 46' 36" E
RAMP "C" STA. 315+70.22
N 558731.2623
E 1833521.8035
G20-2
48" × 24"
END ROAD WORK
500'
S 44° 19' 00" E
RAMP "D2" STA. 33+50.00
N 558906.2934
E 1833237.7035
G20-2
48" × 24"
END ROAD WORK
S 43° 57' 42" E
RAMP "D1" STA. 33+50.00
N 558886.5008
E 1833195.5284
S 38° 34' 09" E
SIDEWALK CLOSED
R9-9
24" × 12"
RAMP "D1" STA. 34+87.00
N 558789.2939
E 1833169.0194
MEDICAL PKWY STA. 51+75.53 =
RAMP "C1" STA. 14+81.47
N 558776.5018
E 1833297.3776
RAMP "C1" STA. 17+33.31
N 558579.5991
E 1833454.3895
RAMP "B1" STA. 11+50.00
N 558796.7624
E 1833030.2931
S 41° 34' 09" E
MEDICAL PKWY STA. 48+38.55 =
FORTRESS BLVD. STA. 36+48.97
N 558794.2881
E 1832960.8669
S 86° 58' 28" E
N 88° 23' 21" W
I-24 STA. 1313+75.84 =
MEDICAL PKWY STA. 50+00.00
N 558785.7665
E 1833122.0923
BEGIN PROJ. NO. HSIP-I-24-1(118) R.O.W.
STA. 1319+22.00
N 558377.1555
E 1833484.4811
R9-9
24" × 12"
SIDEWALK CLOSED
S 88° 38' 45" E
G20-2
48" × 24"
END ROAD WORK
S 38° 04' 09" E
RAMP "B1" STA. 13+39.68
N 558666.5536
E 1832970.3754
S 47° 41' 40" E
STA. 219+85.09 RAMP "A1"
N 558967.8201
E 1832732.7837
STA. 221+36.54 RAMP "A1"
N 558846.7765
E 1832708.4495
500'
FORTRESS BLVD. STA. 35+33.09 =
RAMP "A" STA. 121+96.67
N 558797.0266
E 1832845.0187
END ROAD WORK
G20-2
48" × 24"
500'
RAMP "B" STA. 14+44.69
N 558591.5727
E 1833017.1107
S 85° 27' 45" E
RAMP "B" STA. 11+00.00
N 558754.1657
E 1832726.2074
S 86° 36' 29" E
R9-9
24" × 12"
SIDEWALK CLOSED
G20-2
48" × 24"
END ROAD WORK
500'
W20-1
48" × 48"
ROAD WORK 500 FT
500'
1600'
ROAD WORK 1000 FT
W20-1
48" × 48"
ROAD WORK 1/2 MILE
W20-1M
48" × 48"
MATCH LINE — RAMP "A" STA. 17+00 — I-24 STA. 1307+00 — SEE SHEET NO. T-3
MATCH LINE — I-24 STA. 1320+00 — RAMP "C" STA. 20+00 — SEE SHEET NO. T-3B

PHASE I

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LUCAS R. SULLIVAN
REGISTERED PROFESSIONAL AGRICULTURE ENGINEER
STATE OF TENNESSEE
2025-04-02

COORDINATES ARE N.A.D. 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00008 AND TIED TO THE T.G.R.N. ALL ELEVATIONS ARE REFERENCED TO THE N.A.V.D. 1988 WITH GEOID 03.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLANS

STA. 1307+00 TO STA. 1320+00

SCALE: 1" = 50'

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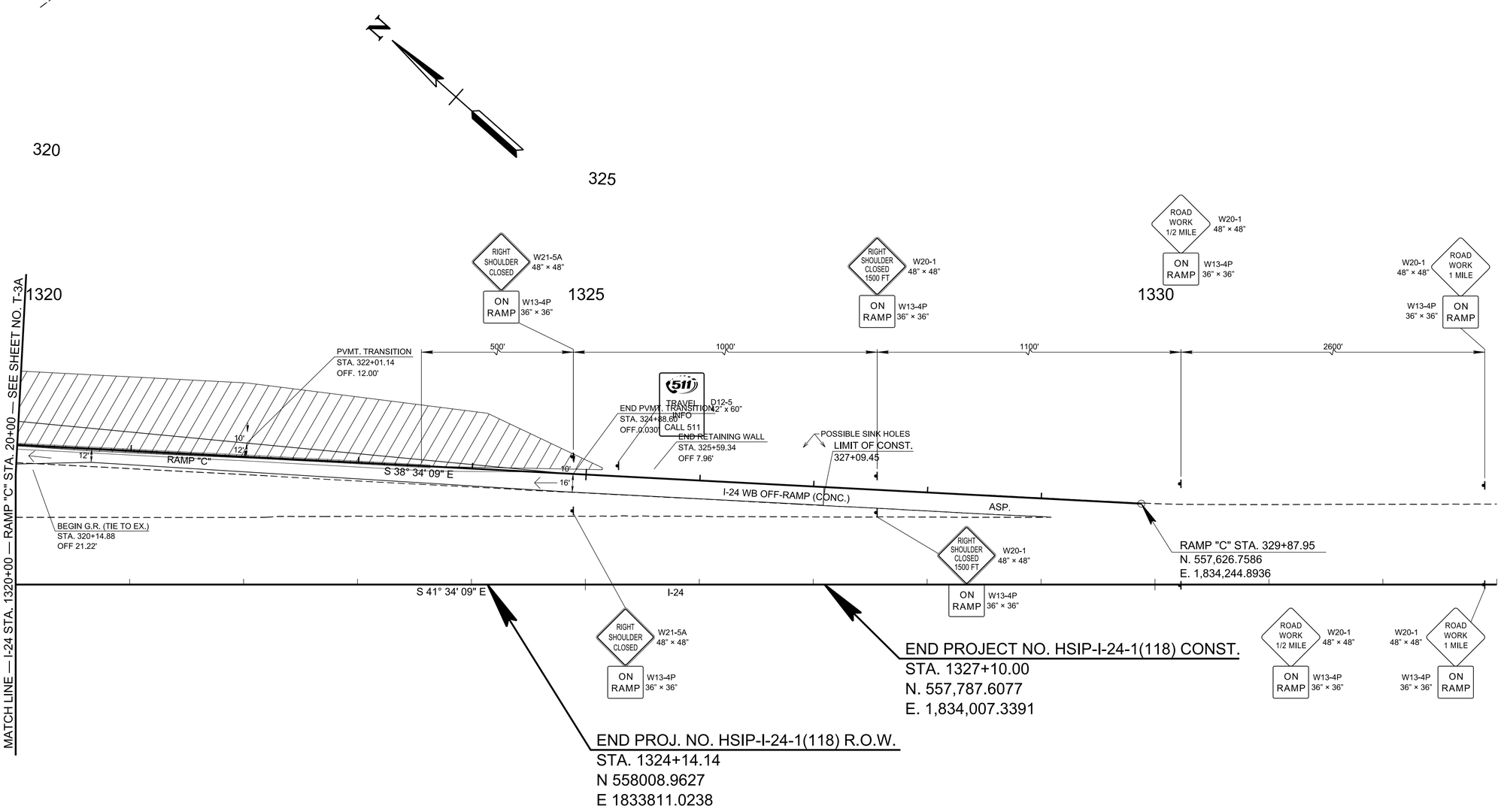

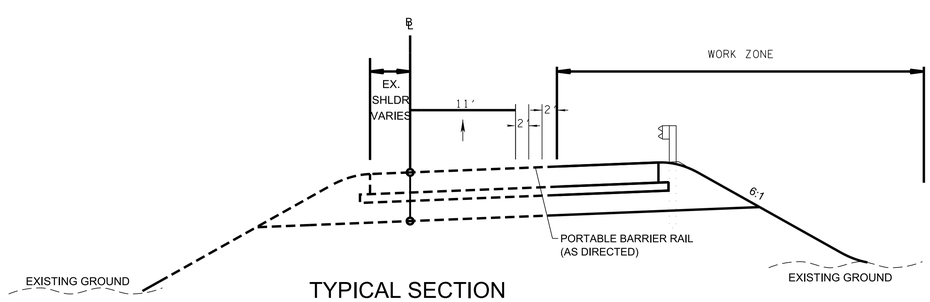

TYPICAL SECTION

(RAMP "C")

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LUCAS R SULLIVAN — REGISTERED AGRICULTURAL ENGINEER — STATE OF TENNESSEE — 12-5-25

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLANS

STA. 1320+00 TO STA. 1333+00

SCALE: 1" = 50'

PHASE I

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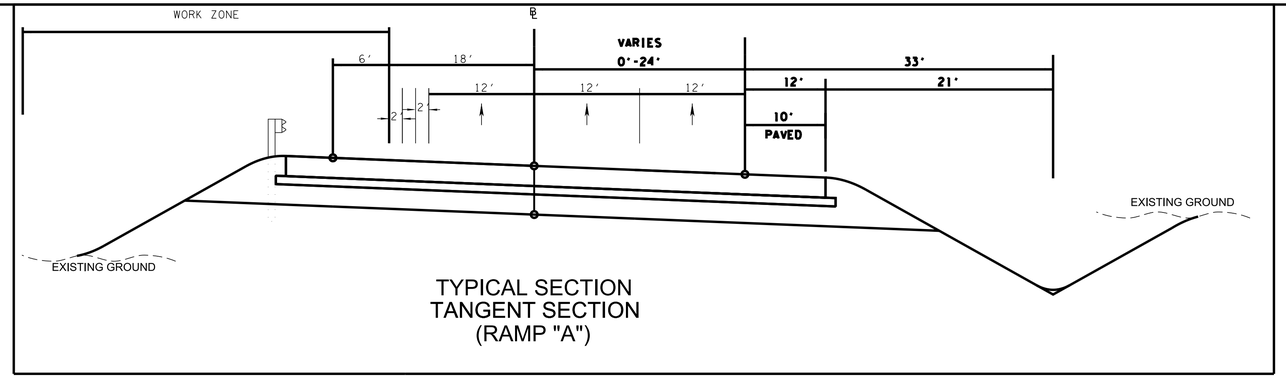

TYPICAL SECTION
TANGENT SECTION
(RAMP "A")

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2025	HSIP-I-24-1(118)	T-4

1295 1300 1305

110 115

BEGIN PROJECT NO. HSIP-I-24-1(118) CONST.
STA. 1299+89.00
N 559823.3384
E 1832201.8909

ROAD WORK 1 MILE W20-1 48" × 48"
ON RAMP W13-4P 36" × 36"
ROAD WORK 1/2 MILE W20-1 48" × 48"
ON RAMP W13-4P 36" × 36"
LEFT SHOULDER CLOSED 1500 FT W20-1 48" × 48"
ON RAMP W13-4P 36" × 36"
LEFT SHOULDER CLOSED W21-5A 48" × 48"
ON RAMP W13-4P 36" × 36"

2,600' 1,100' 1,000' 500'

S 41° 34' 09" E

I-24 STA.1297+48.13
OFF. 71.00' RT. =
RAMP "A" STA. 107+48.13
N 559956.4364
E 1831988.9534

S 38° 04' 09" E

RAMP "A"

MATCH LINE — RAMP "A" STA. 17+00 — I-24 STA. 1307+00 — SEE SHEET NO. T-4A

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AGRICULTURAL
DATE 2025-04-02
STATE OF TENNESSEE

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLANS

STA. 1294+00 TO STA. 1307+00
SCALE: 1" = 50'

PHASE II

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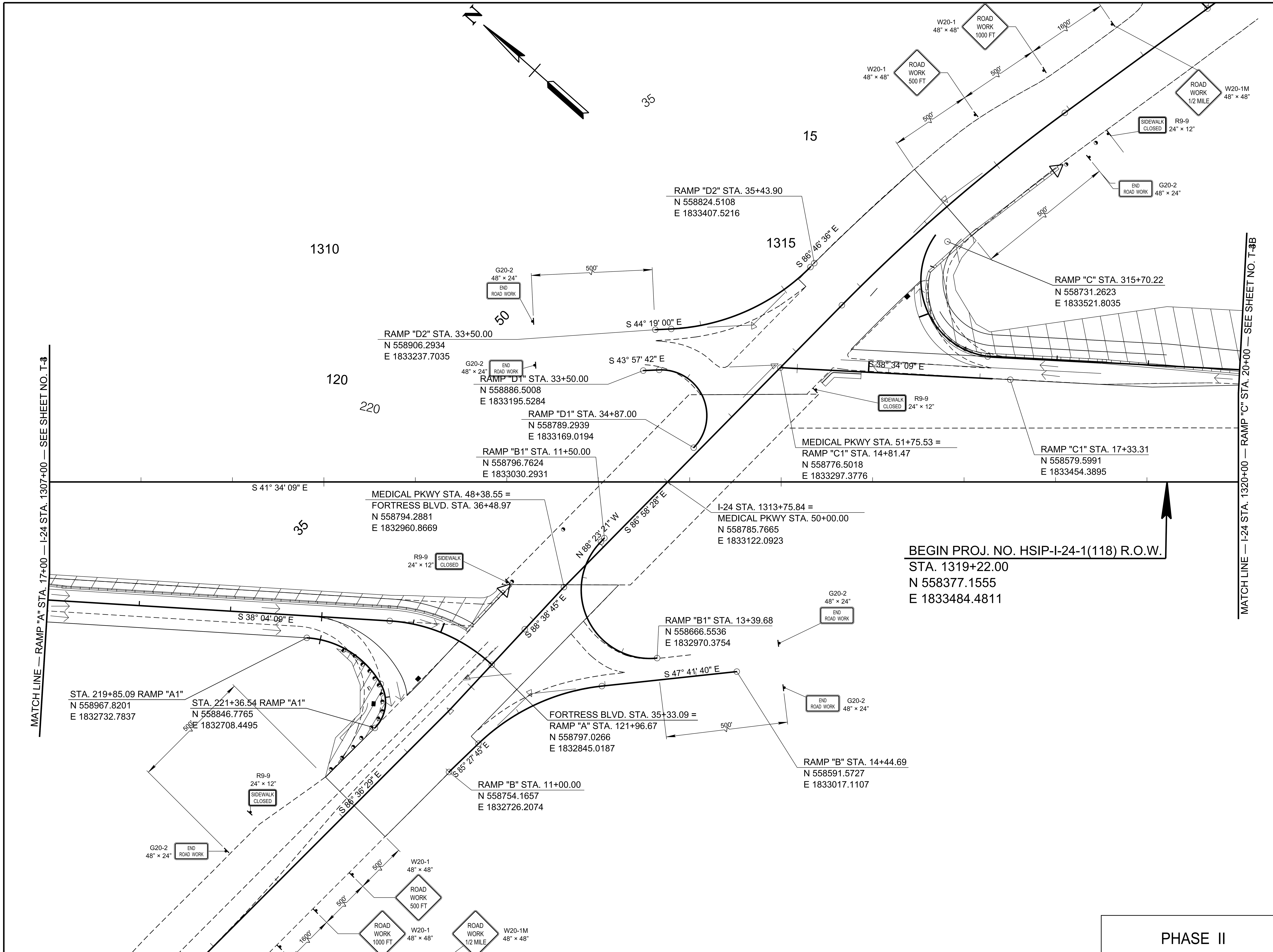
PS&E	2025	HSIP-I-24-1(118)	T-4A



N
W20-1
48" × 48"
ROAD WORK 1000 FT
W20-1
48" × 48"
ROAD WORK 500 FT
1600'
500'
500'
ROAD WORK 1/2 MILE
W20-1M
48" × 48"
SIDEWALK CLOSED
R9-9
24" × 12"
END ROAD WORK
G20-2
48" × 24"
35
15
RAMP "D2" STA. 35+43.90
N 558824.5108
E 1833407.5216
1310
1315
S 86° 46' 36" E
G20-2
48" × 24"
END ROAD WORK
50
S 44° 19' 00" E
RAMP "D2" STA. 33+50.00
N 558906.2934
E 1833237.7035
RAMP "C" STA. 315+70.22
N 558731.2623
E 1833521.8035
G20-2
48" × 24"
END ROAD WORK
S 43° 57' 42" E
S 38° 34' 09" E
120
RAMP "D1" STA. 33+50.00
N 558886.5008
E 1833195.5284
SIDEWALK CLOSED
R9-9
24" × 12"
220
RAMP "D1" STA. 34+87.00
N 558789.2939
E 1833169.0194
MEDICAL PKWY STA. 51+75.53 =
RAMP "C1" STA. 14+81.47
N 558776.5018
E 1833297.3776
RAMP "C1" STA. 17+33.31
N 558579.5991
E 1833454.3895
RAMP "B1" STA. 11+50.00
N 558796.7624
E 1833030.2931
S 41° 34' 09" E
MEDICAL PKWY STA. 48+38.55 =
FORTRESS BLVD. STA. 36+48.97
N 558794.2881
E 1832960.8669
N 88° 23' 21" W
S 86° 58' 28" E
I-24 STA. 1313+75.84 =
MEDICAL PKWY STA. 50+00.00
N 558785.7665
E 1833122.0923
35
BEGIN PROJ. NO. HSIP-I-24-1(118) R.O.W.
STA. 1319+22.00
N 558377.1555
E 1833484.4811
R9-9
24" × 12"
SIDEWALK CLOSED
S 88° 38' 45" E
S 38° 04' 09" E
G20-2
48" × 24"
END ROAD WORK
RAMP "B1" STA. 13+39.68
N 558666.5536
E 1832970.3754
S 47° 41' 40" E
STA. 219+85.09 RAMP "A1"
N 558967.8201
E 1832732.7837
STA. 221+36.54 RAMP "A1"
N 558846.7765
E 1832708.4495
FORTRESS BLVD. STA. 35+33.09 =
RAMP "A" STA. 121+96.67
N 558797.0266
E 1832845.0187
END ROAD WORK
G20-2
48" × 24"
500'
RAMP "B" STA. 14+44.69
N 558591.5727
E 1833017.1107
S 85° 27' 45" E
RAMP "B" STA. 11+00.00
N 558754.1657
E 1832726.2074
S 86° 36' 29" E
R9-9
24" × 12"
SIDEWALK CLOSED
G20-2
48" × 24"
END ROAD WORK
W20-1
48" × 48"
ROAD WORK 500 FT
ROAD WORK 1000 FT
W20-1
48" × 48"
ROAD WORK 1/2 MILE
W20-1M
48" × 48"
MATCH LINE — RAMP "A" STA. 17+00 — I-24 STA. 1307+00 — SEE SHEET NO. T-3
MATCH LINE — I-24 STA. 1320+00 — RAMP "C" STA. 20+00 — SEE SHEET NO. T-3B

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REGISTERED AGRICULTURE ENGINEER
STATE OF TENNESSEE
2025-04-02

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLANS

STA. 1307+00 TO STA. 1320+00

SCALE: 1" = 50'

PHASE II

3/31/2025 11:43:23 AM
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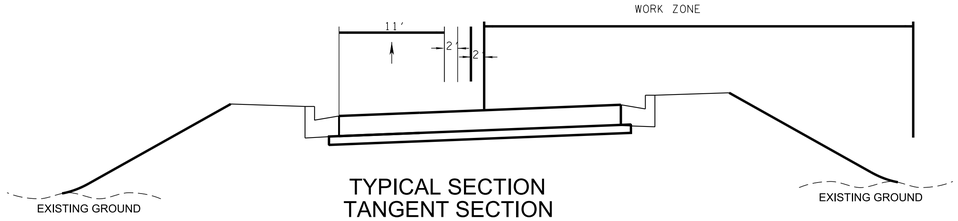
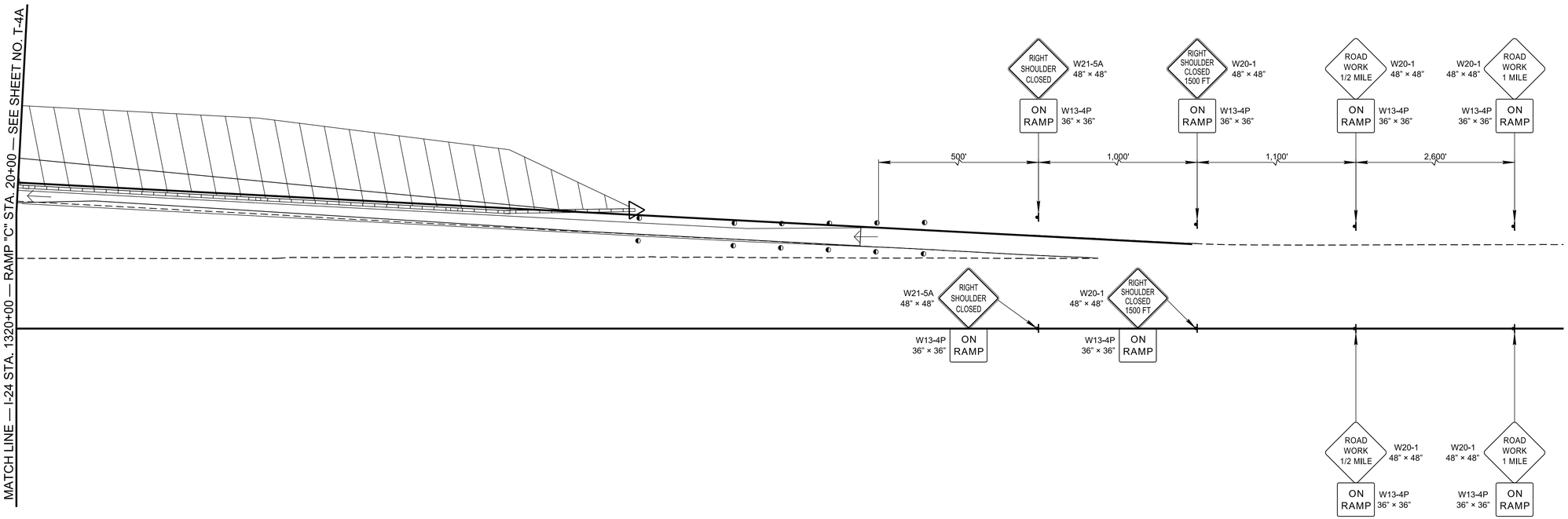
TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2025	HSIP-I-24-1(118)	T-4B

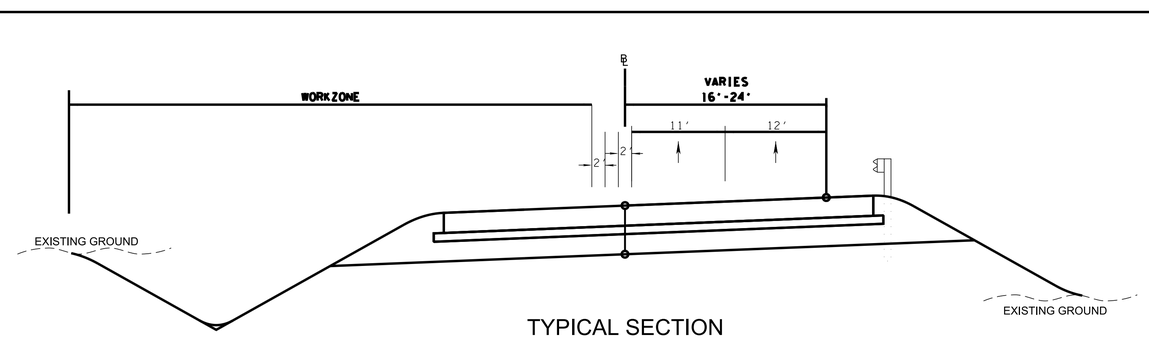


TYPICAL SECTION
TANGENT SECTION
(RAMP "C")

(BASED ON STD. DWG. RD11-TS-4)
FROM STA. 317+25.07 TO STA. 325+14.06

MATCH LINE — I-24 STA. 1320+00 — RAMP "C" STA. 20+00 — SEE SHEET NO. T-4A





TYPICAL SECTION
TANGENT SECTION
(RAMP "C")

FROM STA. 317+25.07 TO STA. 325+14.06

PHASE II

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LUCAS R SULLIVAN — REGISTERED ENGINEER — AGRICULTURE — 2025.04.02 — STATE OF TENNESSEE

COORDINATES ARE N.A.D. 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00008 AND TIED TO THE T.G.R.N. ALL ELEVATIONS ARE REFERENCED TO THE N.A.V.D. 1988 WITH GEOID 03.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLANS

STA. 1320+00 TO STA. 1333+00

SCALE: 1" = 50'

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Y:\Projects\001000\0014000\14285 TDOT Roadway 2017-2020\WO #19- I-24 Ramp Queue Rutherford Co\01\Dgn\125463-00-PS&EIT-4B.sht

04/11/25

THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

John Morris
2025.04.11 07:23:07 -05'00'

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED. THE SIGNATURE MUST BE VERIFIED ON THE ELECTRONIC DOCUMENTS.

TDOT- TRAFFIC DESIGN DIVISION
JAMES K. POLK BUILDING, SUITE 1800
505 DEADERICK STREET
NASHVILLE, TN 37243 -1402
John C. Morris, P.E. NO. 122152

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.
2025	HSIP-I-24-1(118)	ITS-SIGN1

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNATURE SHEET

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	ITS1
PS&E	2025	HSIP-I-24-1(118)	ITS1

SCOPE OF WORK

THIS PROJECT IS FOR THE MODIFICATION OF THE EXISTING TENNESSEE DEPARTMENT OF TRANSPORTATION REGION 3 SMARTWAY INTELLIGENT TRANSPORTATION SYSTEM (ITS) INFRASTRUCTURE WITHIN THE PROJECT LIMITS. THE CONTRACTOR SHALL INSTALL NEW CONDUIT AND PULL-BOXES AS SHOWN IN THE ITS LAYOUT SHEETS AND CONNECT TO THE EXISTING CONDUIT ALONG I-24. FIBER OPTIC CABLES SHALL BE INSTALLED IN THE NEW CONDUIT AND SHALL BE SPLICED TO THE EXISTING FIBER CABLES AT THE DESIGNATED PULL-BOXES.

THE CONTRACTOR SHALL INSTALL THE NEW CONDUIT BANK AND RUN FIBER CABLE AND POWER PRIOR TO THE DISTURBANCE OF THE EXISTING CONDUIT, PULL-BOXES, AND FIBER CABLE. ANY DOWNTIME SHALL BE COORDINATED AND APPROVED BY THE TDOT REGION 3 TMC AND TDOT REGION 3 IT DEPARTMENT.

THE CONTRACTOR IS RESPONSIBLE FOR RECONNECTING AND INTEGRATING THE ITS EQUIPMENT BACK TO THE TDOT SMARTWAY SYSTEM. THE CONTRACTOR IS RESPONSIBLE FOR ALL TESTING PER THE SPECIAL PROVISION 725 BEFORE RECEIVING FINAL ACCEPTANCE FROM TDOT. TESTING SHALL BE PERFORMED IN THE PRESENCE OF THE ENGINEER.

THE CONTRACTOR SHALL ENSURE CONTINUOUS OPERATION OF THE FIBER OPTIC LINES AFFECTED BY THE WORK ACTIVITIES. TEMPORARY DISCONNECT OF THE COMMUNICATION SHALL NOT EXCEED 48 HRS. FAILURE TO RESTORE COMMUNICATION BEYOND 48 HRS WILL RESULT IN LIQUIDATED DAMAGES IN ACCORDANCE WITH RATES ESTABLISHED IN SPECIAL PROVISION 108B UNTIL COMMUNICATION IS RESTORED.

SPECIAL NOTES

MISCELLANEOUS

(1) THE LOCATION OF ALL PROPOSED EQUIPMENT TO BE INSTALLED SHALL BE CONSIDERED TO BE APPROXIMATE. ADJUSTMENTS MAY BECOME NECESSARY. VARIATIONS FROM PROPOSED LOCATIONS MUST BE APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL STAKE ALL POLE LOCATIONS AND RECEIVE APPROVAL FROM THE ENGINEER PRIOR TO INSTALLATION OR CONSTRUCTION.

(2) THE CONTRACTOR SHALL COORDINATE HIS ACTIVITIES WITH OTHER CONTRACTORS IN THE WORK AREA. CONFLICTS WILL BE HANDLED AT THE DISCRETION OF THE ENGINEER.

(3) THE CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS OF ALL CONDUITS AND EQUIPMENT PLACED AS PART OF THE CONTRACT.

(4) ALL REMOVED EQUIPMENT OR MATERIALS SHALL BE DISPOSED OF BY THE CONTRACTOR. THE COST OF DISPOSAL SHALL BE INCLUDED IN THE COST OF OTHER ITEMS.

(5) ALL ITS WORK MUST BE PERFORMED BY A QUALIFIED ITS CONTRACTOR. SEE SP725 SECTION 1.1.4 FOR ITS CONTRACTOR AND SUBCONTRACTOR QUALIFICATIONS.

CONDUIT / TRENCHING

(1) WHEN/IF HAND DIGGING (OR OTHER CAREFUL TRENCHING METHOD) OF A NEW TRENCH IS REQUIRED DUE TO CONSTRAINTS IN THE FIELD, SUCH AS CROSSING UNDER PAVED DRAINAGE FLUMES OR AVOIDING EXISTING UTILITIES, SUCH EFFORTS SHALL BE CONDUCTED BY THE CONTRACTOR AS NEEDED AND/OR DIRECTED BY THE ENGINEER. NO SEPARATE MEASUREMENT OR PAYMENT SHALL BE MADE FOR HAND DIGGING OR REPAIR OF PAVEMENT DAMAGED BY THE CONTRACTOR.

(2) CONDUITS SHALL BE INSTALLED A MINIMUM OF FOUR (4) FEET BEHIND EXISTING AND PROPOSED GUARDRAIL POSTS. WHEN NO GUARDRAIL IS INSTALLED, CONDUITS SHALL BE INSTALLED A MINIMUM OF EIGHT (8) FEET CLEAR OF THE EDGE OF THE PAVED SHOULDER. HOWEVER, THERE MAY BE AREAS, AS IDENTIFIED IN THE ITS LAYOUT SHEETS VIA CONSTRUCTION NOTES, THAT WILL REQUIRE THESE OFFSETS TO BE VIOLATED. THESE INSTALLATIONS SHALL BE APPROVED BY THE ENGINEER PRIOR TO THE CONSTRUCTION.

(3) CONDUITS SHALL BE INSTALLED ONE (1) FOOT IN FRONT OF CONCRETE BARRIERS, SOUND WALLS, OR RETAINING WALLS UNDER THE SHOULDER WHERE THE SHOULDER PAVEMENT IS AGAINST THE BARRIER WALLS.

(4) CONDUCTORS IN PULL BOXES AND EQUIPMENT ENCLOSURES SHALL BE NEATLY ARRANGED AND LACED WITH APPROVED CABLE TIES, IN ACCORDANCE WITH INDUSTRY STANDARD PRACTICE AND AS NOTED ON THE PLANS.

(5) THE CONTRACTOR SHALL COIL ADDITIONAL CABLE IN THE BOTTOMS OF CABINETS AND WITHIN PULL BOXES AS SPECIFIED ON THE DETAIL SHEETS.

(6) CONDUIT AND PULL BOXES SHOWN ON THESE PLANS ARE DIAGRAMMATIC. ACTUAL ROUTING OR CONDUIT RUNS SHALL CONFORM TO FIELD CONDITIONS. HOWEVER, GUIDANCE HAS BEEN PROVIDED VIA CONSTRUCTION NOTES ON THE ITS LAYOUT SHEETS. THE CONTRACTOR SHALL MARK CONDUIT ROUTES FOR APPROVAL BY THE ENGINEER PRIOR TO CONSTRUCTION.

(7) THE CONTRACTOR SHALL INSTALL A DETECTOR METALIZED “BURIED CABLE” WARNING TAPE CONTINUOUSLY RUN THE TRENCH TWELVE (12) INCHES ABOVE THE CONDUIT. THE COST OF THE TAPE IS TO BE INCLUDED IN OTHER CONDUIT-RELATED ITEM NUMBERS AND WILL NOT BE PAID FOR SEPARATELY.

(8) MULTIPLE RUNS OF CONDUIT / INNERDUCT SHALL BE PLACED IN THE SAME TRENCH AS SHOWN ON DETAIL SHEETS.

(9) CONDUITS PROVIDING ELECTRICAL SERVICE CONDUCTORS SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST EDITIONS OF THE “NATIONAL ELECTIRC CODE”, THE “NATIONAL ELECTRIC SAFETY CODE”, LOCAL BUILDING CODES, AND TO THE REQUIREMENTS OF TDOT AND ALL UTILITIES INVOLVED.

(10) ALL CONDUIT ROUTES UNDERNEATH ASPHALT AND/OR CONCRETE ROADWAYS SHALL BE BORED, DIRECTIONALLY DRILLED, OR VIA OTHER METHODS NOT REQUIRING OPEN TRENCHING. NO OPEN TRENCHING WILL BE ALLOWED IN ASPHALT OR CONCRETE UNLESS SPECIFICALLY STATED AS SO ON THE PLANS. BORES / DIRECTIONAL DRILLS SHOULD BE AS CLOSE AS PRACTICAL TO PERPENDICULAR TO THE ROADWAY CENTERLINE.

(11) WHEN/IF REMOVAL AND REPLACEMENT OF FENCING IS NECESSARY FOR TRENCHING OR BORING OPERATIONS, SUCH EFFORTS SHALL BE CONDUCTED BY THE CONTRACTOR AS NEEDED AND/OR DIRECTED BY THE ENGINEER. NO SEPARATE MEASUREMENT OR PAYMENT SHALL BE MADE.

(12) FOR INSTANCES WHEN THE CONDUIT BANK MUST CROSS UNDERNEATH EXISTING GUARDRAIL PRIOR TO CONSTRUCTION IN AN ASPHALT OR CONCRETE SHOULDER, THE TRENCH BACK FILL MATERIAL SHALL CONSIST ENTIRELY OF FLOWABLE FILL AS IT CROSSES UNDERNEATH THE GUARDRAIL.

(13) PROPOSED CONDUIT SHALL BE INSTALLED OVER EXISTING STRUCTURES OR ATTACHED TO EXISTING BRIDGES. NO TRENCHING OR PROPOSED CONDUIT SHALL CROSS ANY PROPOSED DRAINAGE FEATURES OR WETLAND AREAS. IF CONTRACTOR OR TDOT INSPECTOR IS UNSURE WHETHER DRAINAGE FEATURES ARE STREAMS OR WETLANDS, CONTRACTOR OR INSPECTOR SHALL CONTACT TDOT ENVIRONMENTAL DIVISION, PERMITS SECTION TO OBTAIN APPROPRIATE PERMITS.

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ITS
SCOPE OF WORK
AND
SPECIAL NOTES

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	ITS2
PS&E	2025	HSIP-I-24-1(118)	ITS2

ESTIMATED ITS QUANTITIES

FOOTNOTE	ITEM NO.	DESCRIPTION	UNIT	SHEET NO.			TOTAL QUANTITY
				ITS4	ITS5	ITS6	
1,3,7	725-20.44	PULL BOX (TYPE D)	EACH	1			1
1,3,7,8	725-20.45	PULL BOX (TYPE E)	EACH	1	2		3
1,2	725-22.24	CONDUIT BANK (TYPE 4)	L.F.	1465	325		1790
1,2,9	725-22.34	CONDUIT BANK BORED (TYPE 4)	L.F.				400
1	725-23.01	ITS CABLE MARKER	EACH	2	2		4
1	725-23.10	FIBER OPTIC CABLE (72 F)	L.F.	1715	525		2240
1	725-23.16	FIBER OPTIC CABLE (144 F)	L.F.	1715	525		2240
1	725-23.25	FIBER OPTIC CLOSURE (72 F)	EACH	1	1		2
1	725-23.27	FIBER OPTIC CLOSURE (144 F)	EACH	1	1		2
1	725-23.28	FIBER OPTIC SPLICE FUSION	EACH	216	216		432
1	725-24.55	AS-BUILT PLANS	LS				1
4,5,6	740-11.02	TEMPORARY SEDIMENT TUBE 12IN	L.F.	1500	450		1950
4,5	801-01	SEEDING (WITH MULCH)	UNIT	8.0	3.0		11
5	801-03	WATER (SEEDING AND SODDING)	M.G.	0.7	0.2		1

1. SEE SPECIAL PROVISIONS 725 FOR DESCRIPTION AND SPECIFICATIONS FOR THESE ITEMS.
2. ROCK WILL BE CONSIDERED INCIDENTAL TO ALL TRENCHING AND BORING RELATED PAY ITEMS. NO SEPARATE PAY ITEMS OR ROCK ADDED PAY ITMS WILL BE APPLIED WHERE ROCK IS ENCOUNTERED.
3. PAY ITEM SHALL INCLUDE GPS COORDINATE DATA FOR EACH PULL BOX INSTALLATION FOR INCLUSION IN THE AS-BUILT PLANS.
4. SEE SUBSECTION 209.07 OF THE STANDARD SPECIFICATIONS FOR MAINTENANCE REPLACEMENT.
5. REFER TO SHEET NO. ITS15 FOR EROSION PREVENTION AND SEDIMENT CONTROL.
6. CONTRACTOR IS RESPONSIBLE FOR DETERMINING QUANTITIES BASED ON FIELD PLACEMENT OF CONDUIT AND PULLBOXES.
7. REMOVAL OF EXISTING PULL BOXES WILL NOT BE MEASURED AND PAID FOR SEPERATELY, BUT THE COST SHALL BE INCLUDED IN THE COST OF OTHER ITEMS.
8. AN ADDITIONAL TYPE E PULL BOX CAN BE USED AT EACH SPLICE LOCATION, AS DIRECTED BY THE ENGINEER, TO SPLICE 72F IN ONE PULL BOX AND SPLICE 144F IN ANOTHER, IF REQUIRED.
9. TO BE USED WHERE NEEDED OR AS DIRECTED BY THE ENGINEER.

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ITS
ESTIMATED
QUANTITIES

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	ITS3
PS&E	2025	HSIP-I-24-1(118)	ITS3

INTELLIGENT TRANSPORTATION SYSTEM (ITS) LEGEND

SYMBOL	ITEM
F (UG)	EXISTING FIBER LINE CONDUIT
P (UG)	EXISTING ELECTRICAL CONDUIT
C (UG)	EXISTING 5KV ELECTRICAL CABLE
F (UG)	PROPOSED FIBER LINE CONDUIT
P (UG)	PROPOSED ELECTRICAL CONDUIT
C (UG)	PROPOSED 5KV ELECTRICAL CABLE
	EXISTING PULL BOX
PB	PROPOSED PULL BOX, TYPE "C"
	PROPOSED PULL BOX, TYPE "D"
	PROPOSED PULL BOX, TYPE "E"
	EXISTING ELECTRICAL DEMARCATION POINT
RDS	EXISTING RADAR DETECTION SYSTEM (R.D.S.)
CCTV	EXISTING CLOSED-CIRCUIT TELEVISION (C.C.T.V.) CAMERA (ARROW DENOTES ORIENTATION OF PIPE ARM)
	EXISTING CABINET

ITS LEGEND NOTE

ALL DEVICE SYMBOLS ARE FOR GRAPHICAL REPRESENTATION ONLY AND ARE NOT TO SCALE. CENTER OF DEVICE IS INDICATED ON PLANS BY STATION AND OFFSET.

ABBREVIATIONS

LIST OF ABBREVIATIONS

AQ.	AQUA
ASSY(S).	ASSEMBLY(IES)
A.W.G.	AMERICAN WIRE GAUGE
BK. *	BLACK
BL. *	BLUE
BR.	BROWN
C.C.T.V.	CLOSED-CIRCUIT TELEVISION
COAX.	COAXIAL
COMM.	COMMUNICATIONS
DET.	DETECTOR
D.M.S.	DYNAMIC MESSAGE SIGN
D.O.T.	DEPARTMENT OF TRANSPORTATION
E.O.P.	END OF PROJECT
E.O.T.L.	EDGE OF TRAVEL LANE
F *	FIBER(S)
F.C.C.	FEDERAL COMMUNICATIONS COMMISSION
F.O.	FIBER OPTIC
G.M.	GROUND-MOUNTED
GR. *	GREEN
H.A.R.	HIGHWAY ADVISORY RADIO
H.D.P.E.	HIGH-DENSITY POLYETHYLENE
HEX.	HEXAGONAL
INFO.	INFORMATION
I.P. *	INTERNET PROTOCOL
ITS	INTELLIGENT TRANSPORTATION SYSTEM
KVA	KILOVOLT-AMPERE
L.D.	LOWERING DEVICE
N.E.M.A.	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
N.T.S.	NOT TO SCALE
OR.	ORANGE
P.	POWER
P.B. *	PULL BOX
P.T.Z.	PAN, TILT AND ZOOM
RCV.	RECEIVE
RD. *	RED, ROAD
R.D.S.	RADAR DETECTION SYSTEM
R.G.S.	RIGID GALVANIZED STEEL
REFL.	REFLECTIVE
SCH.	SCHEDULE
SL.	SLATE
S.M.	SINGLE MODE
T.M.C.	TRANSPORTATION MANAGEMENT CENTER
S.P.	SPECIAL PROVISIONS
U.L.	UNITED LABORATORIES
V	VOLTS
V.D.S.	VIDEO DETECTION SYSTEM
VI.	VIOLET
W	WATTS
WH.	WHITE
YL.	YELLOW

CABLE/CONDUIT LABELS

EXAMPLE	DESCRIPTION
COMM. CONDUIT BANK, TYPE 4 (290 L.F.)	INDICATES TYPE 4 COMMUNICATIONS CONDUIT BANK TO CONTAIN FOUR (4) HIGH-DENSITY POLYETHYLENE CONDUITS. LENGTH OF EACH CONDUIT IS 290 LINEAR FEET.
1 - 2" CONDUIT W/ BANK (290 L.F.)	INDICATES ONE (1) 2" CONDUIT TO BE INSTALLED IN SAME TRENCH AS COMMUNICATIONS CONDUIT BANK. LENGTH OF CONDUIT IS 290 LINEAR FEET.
F.O. CABLE, 72 F (490 L.F.)	INDICATES FIBER OPTIC CABLE WITH 72 FIBERS TO BE INSTALLED IN COMMUNICATIONS CONDUIT. LENGTH OF FIBER OPTIC CABLE (INCLUDING COILS INSIDE PULL BOXES) IS 490 LINEAR FEET.
3 - #4 A.W.G. POWER (365 L.F.)	INDICATES THREE (3) #4 AMERICAN WIRE GAUGE POWER CABLES TO BE INSTALLED IN CONDUIT. LENGTH OF EACH POWER CABLE (INCLUDING COILS INSIDE PULL BOXES) IS 365 LINEAR FEET.

CONDUIT/CABLE LABEL NOTES:

(1) NEW CABLE/CONDUIT LABELS ARE LISTED ONLY WHEN TYPE OR COMBINATION OF CABLE/CONDUIT CHANGES OR WHEN CABLE/CONDUIT SPANS MULTIPLE SHEETS. IF TYPE DOES NOT CHANGE, A SINGLE LABEL MAY REFER TO CABLE/CONDUIT SPANNING MULTIPLE PULL BOXES AND DEVICES.

(2) CABLE/CONDUIT LENGTHS ARE APPROXIMATE ONLY. PAYMENT BASED ON ACTUAL LENGTHS OF CABLE/CONDUIT INSTALLED.

ITS INDEX SHEETS

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JOHN C. MORRIS
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
STATE OF TENNESSEE

04/11/25

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ITS PLANS LEGEND

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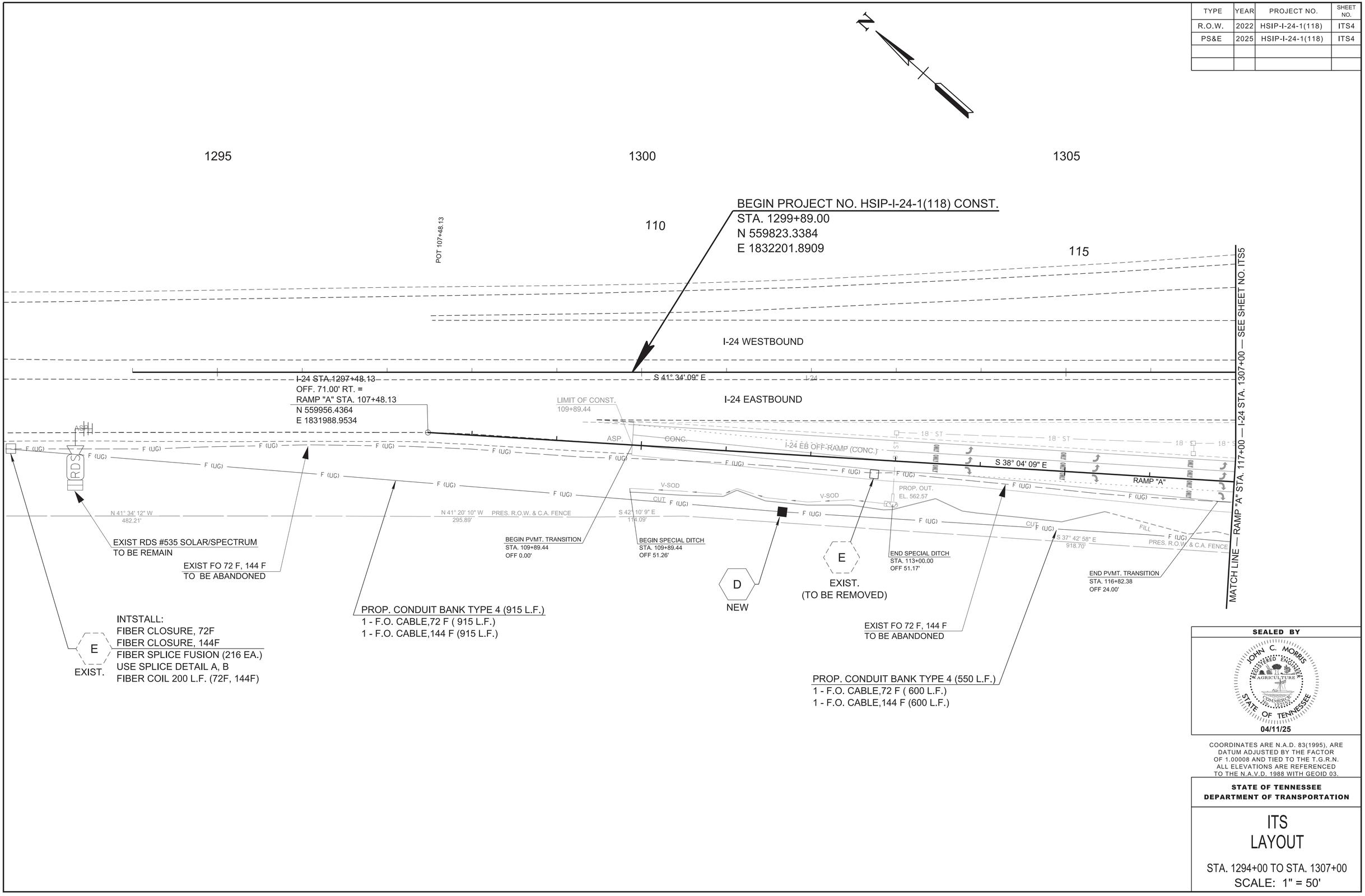
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	ITS4
PS&E	2025	HSIP-I-24-1(118)	ITS4



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ITS LAYOUT

STA. 1294+00 TO STA. 1307+00
SCALE: 1" = 50'

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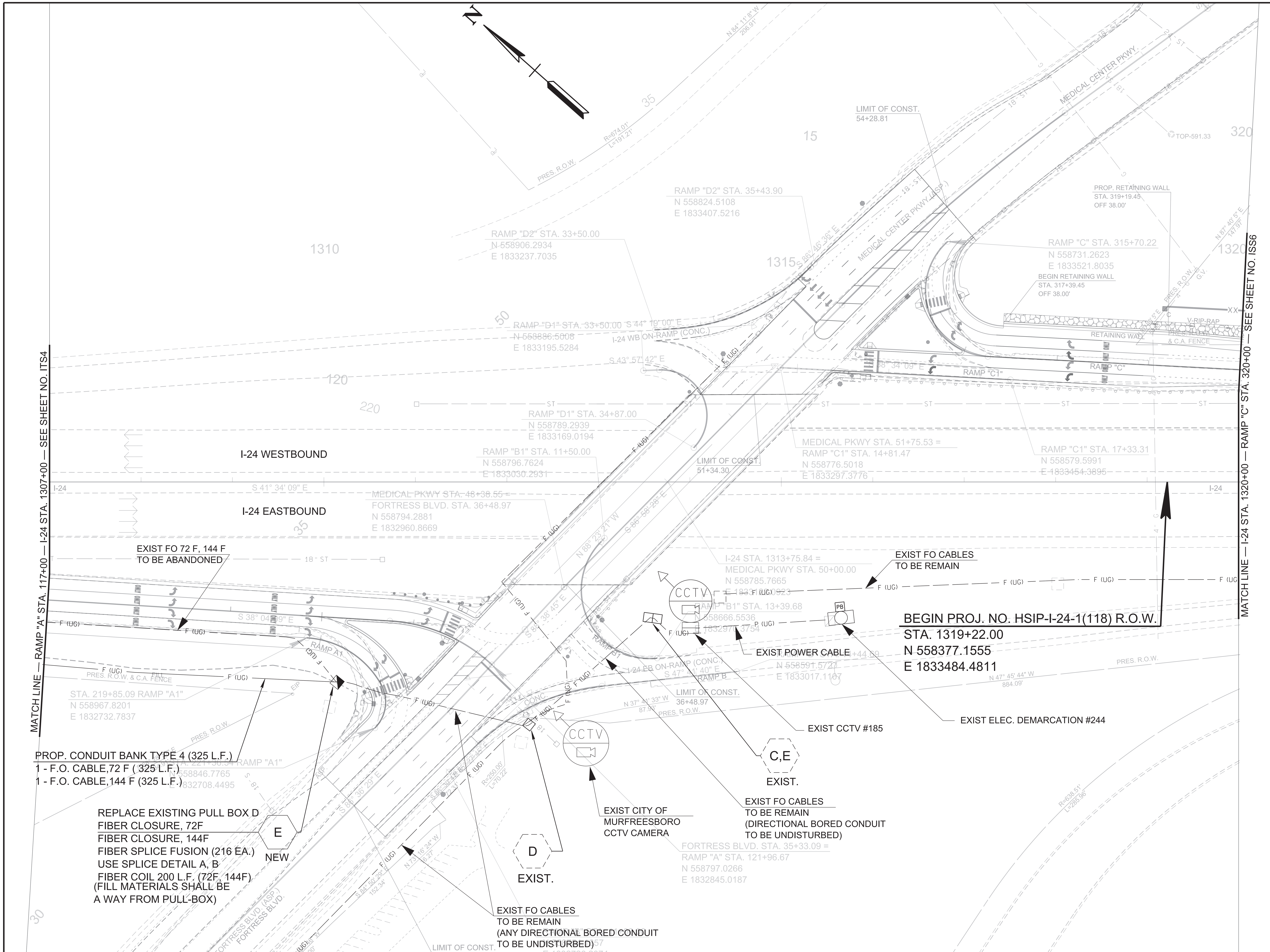
N
RAMP "D2" STA. 35+43.90
N 558824.5108
E 1833407.5216
RAMP "D2" STA. 33+50.00
N 558906.2934
E 1833237.7035
LIMIT OF CONST.
54+28.81
MEDICAL CENTER PKWY
PROP. RETAINING WALL
STA. 319+19.45
OFF 38.00'
RAMP "C" STA. 315+70.22
N 558731.2623
E 1833521.8035
BEGIN RETAINING WALL
STA. 317+39.45
OFF 38.00'
V-RIP-RAP
RETAINING WALL
RAMP "C1"
RAMP "C"
I-24 WB ON-RAMP (CONC.)
RAMP "D1" STA. 34+87.00
N 558789.2939
E 1833169.0194
I-24 WESTBOUND
RAMP "B1" STA. 11+50.00
N 558796.7624
E 1833030.2931
LIMIT OF CONST.
51+34.30
MEDICAL PKWY STA. 51+75.53 =
RAMP "C1" STA. 14+81.47
N 558776.5018
E 1833297.3776
RAMP "C1" STA. 17+33.31
N 558579.5991
E 1833454.3895
I-24
S 41° 34' 09" E
I-24 EASTBOUND
MEDICAL PKWY STA. 48+38.55 =
FORTRESS BLVD. STA. 36+48.97
N 558794.2881
E 1832960.8669
EXIST FO 72 F, 144 F
TO BE ABANDONED
I-24 STA. 1313+75.84 =
MEDICAL PKWY STA. 50+00.00
N 558785.7665
EXIST FO CABLES
TO BE REMAIN
CCTV
PB
BEGIN PROJ. NO. HSIP-I-24-1(118) R.O.W.
STA. 1319+22.00
N 558377.1555
E 1833484.4811
EXIST POWER CABLE
RAMP A1
I-24 EB ON-RAMP (CONC.)
RAMP B
LIMIT OF CONST.
36+48.97
PRES. R.O.W.
STA. 219+85.09 RAMP "A1"
N 558967.8201
E 1832732.7837
EXIST CCTV #185
EXIST ELEC. DEMARCATION #244
PROP. CONDUIT BANK TYPE 4 (325 L.F.)
1 - F.O. CABLE,72 F (325 L.F.)
1 - F.O. CABLE,144 F (325 L.F.)
C,E
EXIST.
REPLACE EXISTING PULL BOX D
FIBER CLOSURE, 72F
FIBER CLOSURE, 144F
FIBER SPLICE FUSION (216 EA.)
USE SPLICE DETAIL A, B
FIBER COIL 200 L.F. (72F, 144F)
(FILL MATERIALS SHALL BE
A WAY FROM PULL-BOX)
E
NEW
D
EXIST.
EXIST CITY OF
MURFREESBORO
CCTV CAMERA
EXIST FO CABLES
TO BE REMAIN
(DIRECTIONAL BORED CONDUIT
TO BE UNDISTURBED)
FORTRESS BLVD. STA. 35+33.09 =
RAMP "A" STA. 121+96.67
N 558797.0266
E 1832845.0187
EXIST FO CABLES
TO BE REMAIN
(ANY DIRECTIONAL BORED CONDUIT
TO BE UNDISTURBED)
LIMIT OF CONST.
33+17.57
FORTRESS BLVD. (ASP.)
MATCH LINE — RAMP "A" STA. 117+00 — I-24 STA. 1307+00 — SEE SHEET NO. ITS4
MATCH LINE — I-24 STA. 1320+00 — RAMP "C" STA. 320+00 — SEE SHEET NO. ITS6

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	ITS5
PS&E	2025	HSIP-I-24-1(118)	ITS5

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ITS LAYOUT

STA. 1307+00 TO STA. 1320+00

SCALE: 1" = 50'

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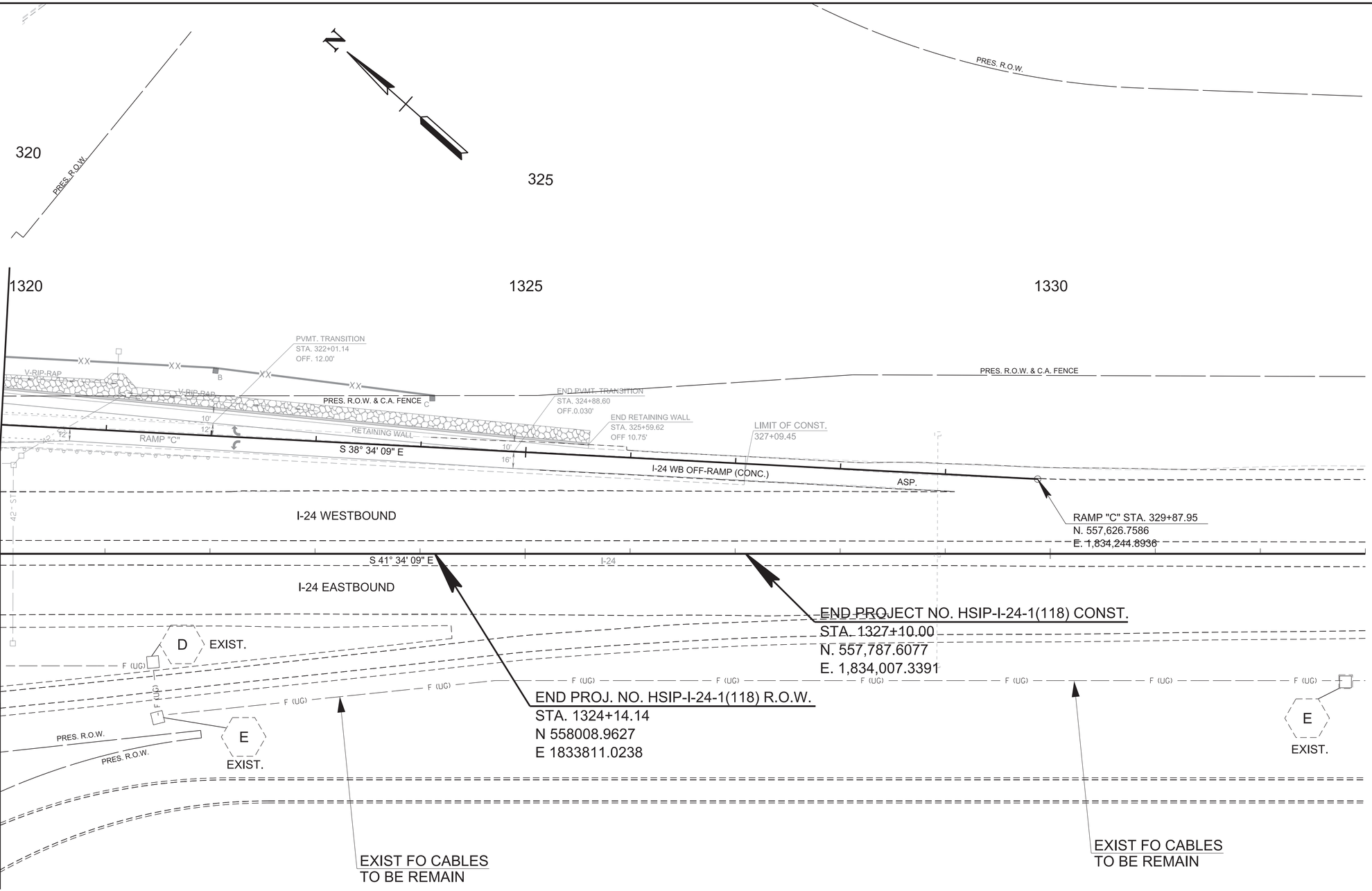
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	ITS6
PS&E	2025	HSIP-I-24-1(118)	ITS6



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ITS LAYOUT

STA. 1320+00 TO STA. 1333+00
SCALE: 1" = 50'

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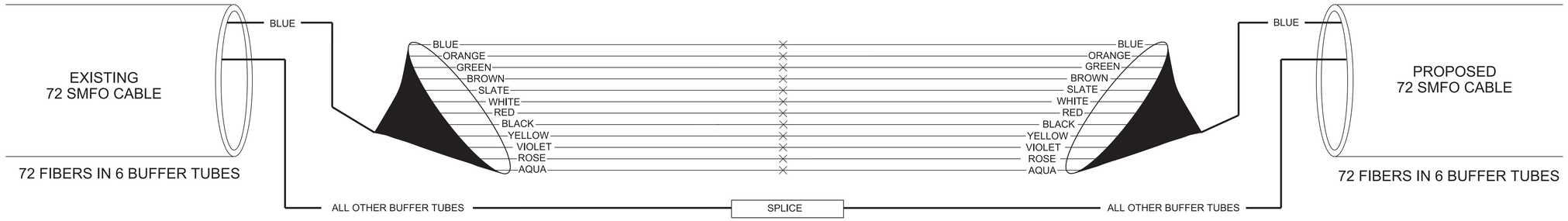
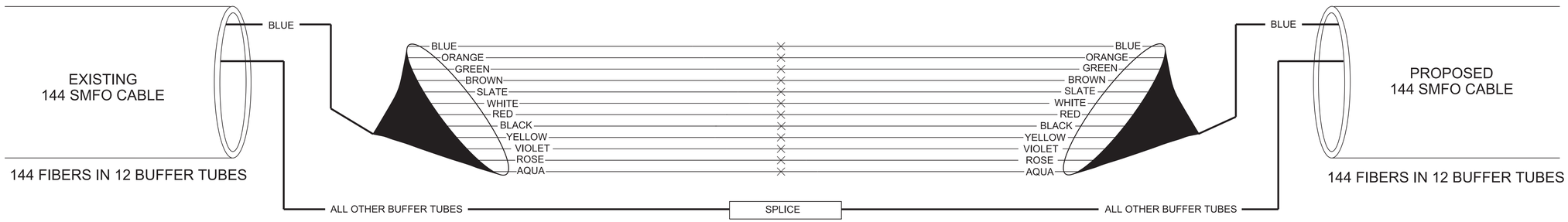
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	ITS7
PS&E	2025	HSIP-I-24-1(118)	ITS7



SPLICE DETAIL A



SPLICE DETAIL B

SPLICE LEGEND

×	FUSION SPLICE INDIVIDUAL FIBER
BUFFER TUBE	SPLICE OR EXPRESS ENTIRE BUFFER TUBE AS NOTED

COLOR CODE
TIA/EIA 598-A

(1) BLUE	(7) RED
(2) ORANGE	(8) BLACK
(3) GREEN	(9) YELLOW
(4) BROWN	(10) VIOLET
(5) SLATE	(11) ROSE
(6) WHITE	(12) AQUA

SPLICE DETAIL NOTES:

1. CONTRACTOR SHALL CAP AND SEAL ANY UNUSED, NON-TERMINATED FIBERS AFTER COMPLETION OF PROPOSED NETWORK DEPLOYMENT.
2. CONTRACTOR SHALL BE CONSISTENT WITH REGION 3 SMARTWAY ITS CONSTRUCTION AS-BUILT SPLICING.

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STATE OF TENNESSEE

04/11/25

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DEPARTMENT OF TRANSPORTATION

ITS SPLICE DETAIL

TYPE A, B

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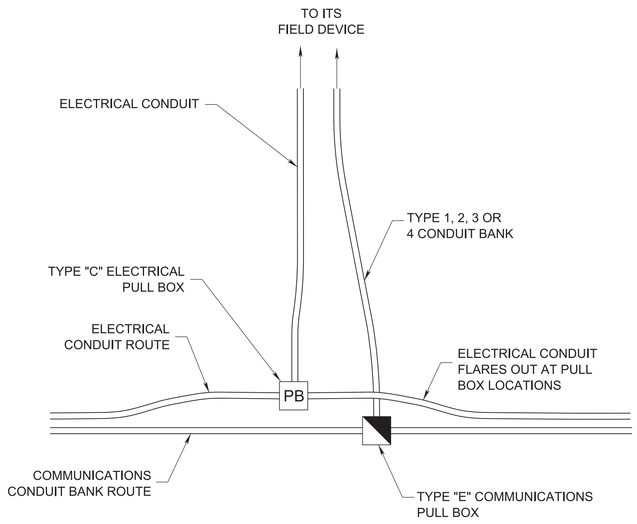
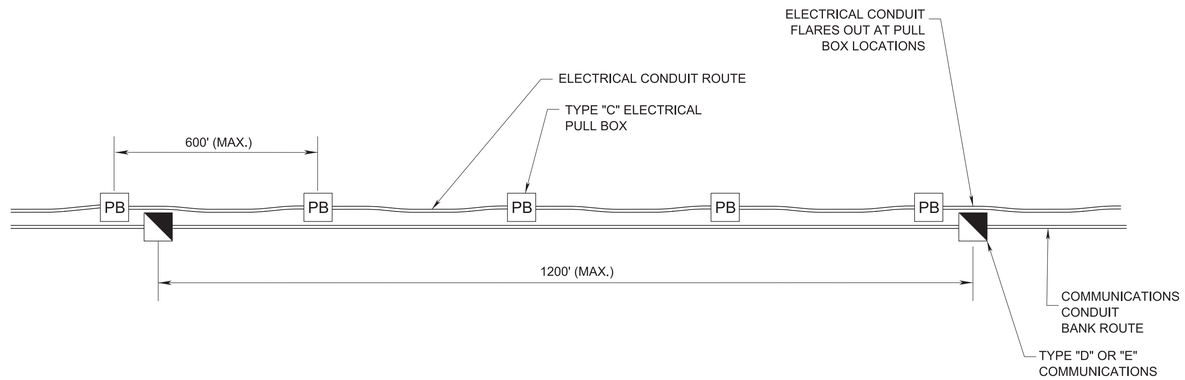
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	ITS8
PS&E	2025	HSIP-I-24-1(118)	ITS8



TYPICAL CONDUIT/PULL BOX PLACEMENT AT ITS FIELD DEVICE

N.T.S.



TYPICAL CONDUIT/PULL BOX PLACEMENT ALONG

FIBER OPTIC COMMUNICATIONS TRUNKLINE

N.T.S.

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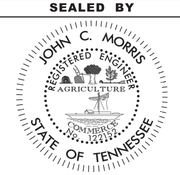


04/11/25

CONDUIT ROUTING NOTES:

1. COMMUNICATIONS AND ELECTRICAL CONDUIT MAY SHARE THE SAME TRENCH. HOWEVER THEY SHALL NEVER SHARE THE SAME PULL BOXES. SEPARATE PULL BOXES ARE REQUIRED FOR EACH CONDUIT SYSTEM.

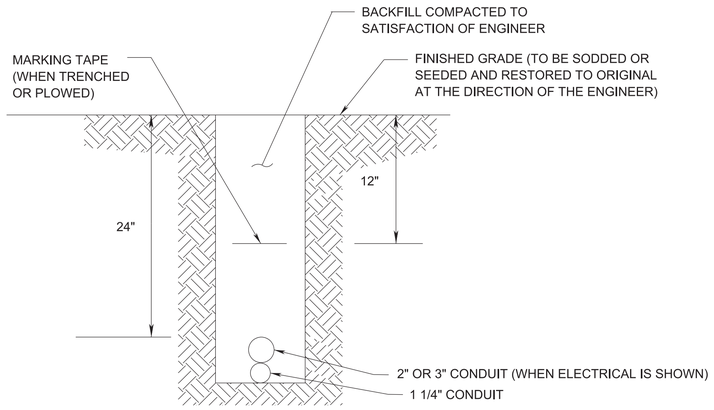
2. COMMUNICATIONS AND ELECTRICAL CONDUIT ROUTES MUST FLARE OUT AS SHOWN IN DETAILS ABOVE AT LOCATIONS WHERE PULL BOXES ARE TO BE INSTALLED TO PROVIDE SUFFICIENT ROOM FOR PULL BOX CONSTRUCTION.

3. THE SPACING BETWEEN PULL BOXES SHALL BE 600 FT MAXIMUM FOR ELECTRICAL CONDUIT ROUTES AND 1200' MAXIMUM FOR THE COMMUNICATIONS TRUNKLINE (AS DEPICTED ON THE ITS LAYOUT SHEETS).

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ITS TYPICAL CONDUIT AND TRENCHING DETAILS

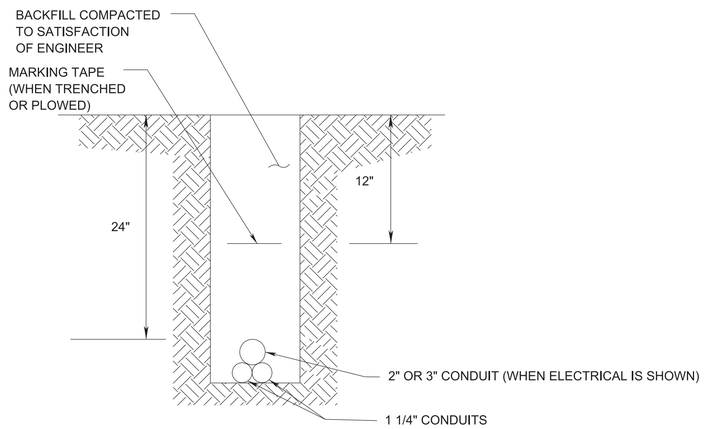
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	ITS9
PS&E	2025	HSIP-I-24-1(118)	ITS9



CONDUIT BANK TYPE 1

N.T.S.

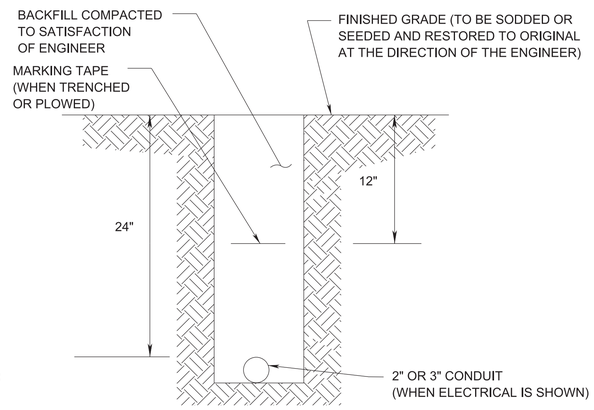
ONE 1 1/4" COMMUNICATIONS CONDUIT WITH OR WITHOUT ONE 2" OR 3" ELECTRICAL CONDUIT WHICH IS PAID SEPARATELY



CONDUIT BANK TYPE 2

N.T.S.

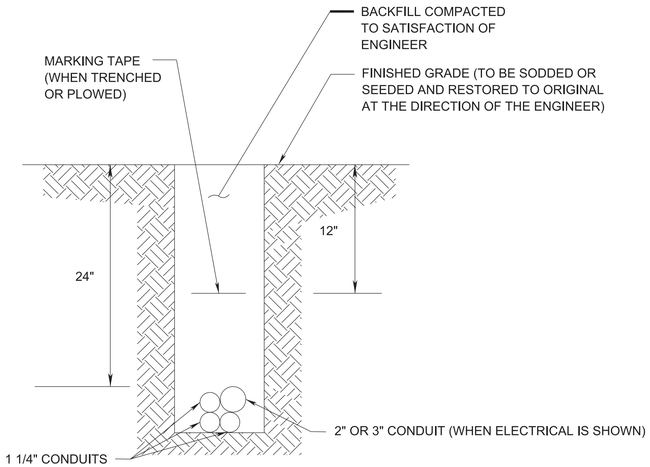
TWO 1 1/4" COMMUNICATIONS CONDUITS WITH OR WITHOUT ONE 2" OR 3" ELECTRICAL CONDUIT WHICH IS PAID SEPARATELY



2" OR 3" CONDUIT

N.T.S.

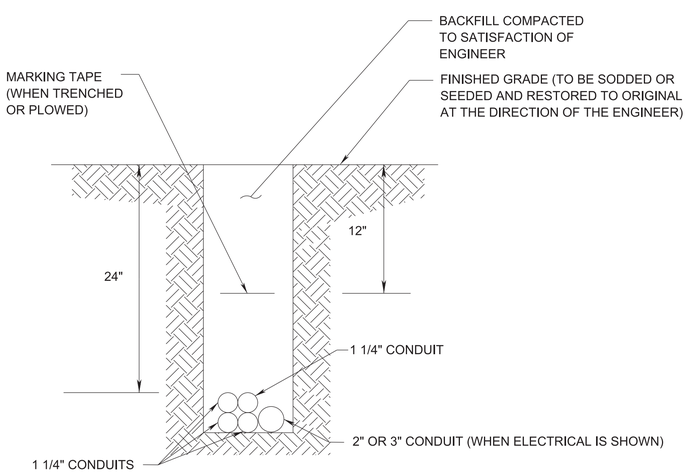
ONE 2" OR 3" CONDUIT



CONDUIT BANK TYPE 3

N.T.S.

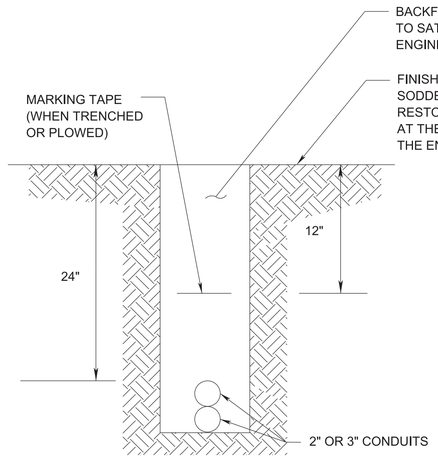
THREE 1 1/4" COMMUNICATIONS CONDUITS WITH OR WITHOUT ONE 2" OR 3" ELECTRICAL CONDUIT WHICH IS PAID SEPARATELY



CONDUIT BANK TYPE 4

N.T.S.

FOUR 1 1/4" COMMUNICATIONS CONDUITS WITH OR WITHOUT ONE 2" OR 3" ELECTRICAL CONDUIT WHICH IS PAID SEPARATELY



MULTIPLE 2" OR 3" CONDUITS

N.T.S.

TWO 2" OR 3" CONDUITS

NOTES:

1. DETAILS FOR CONDUIT BANKS APPEAR AS TRENCHED INSTALLATION FOR GRAPHICAL PURPOSES ONLY. AS DESCRIBED IN SP 725, CONDUIT BANKS IN EARTH MAY BE TRENCHED, PLOWED, BORED, OR DRILLED.
2. ELECTRICAL AND COMMUNICATIONS CONDUIT SIZES VARY THROUGHOUT THE PROJECT. REFER TO THE CONDUIT AND CABLE SCHEDULES SHOWN ON EACH ITS LAYOUT SHEET FOR INDIVIDUAL CONDUIT SIZES.
3. WARNING TAPE SHALL BE LABELED "WARNING - ELECTRICAL/FIBER OPTIC CABLE BELOW."
4. IF A DRAINAGE OR UTILITY CONFLICT ARISES THE CONTRACTOR SHALL SUBMIT A PLAN FOR RESOLVING THE CONFLICT TO THE ENGINEER FOR REVIEW AND APPROVAL.
5. ALL CONDUIT USED ON THIS PROJECT SHALL CONFORM TO THE COLOR SCHEME AND USE IN ACCORDANCE WITH THE SP 725.

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DEPARTMENT OF TRANSPORTATION

ITS TYPICAL CONDUIT AND TRENCHING DETAILS

FIBER COMMUNICATIONS

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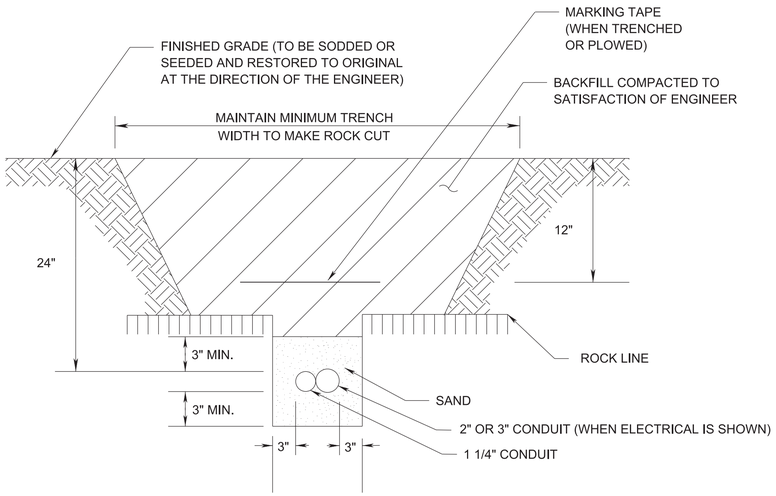
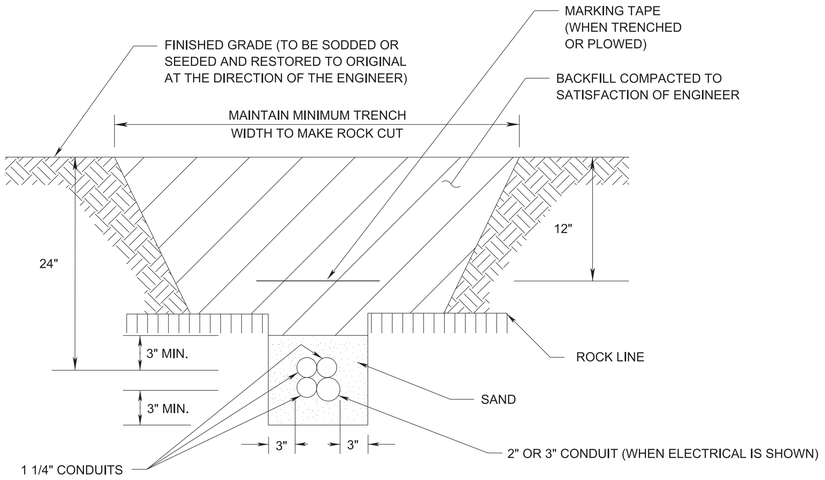
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	ITS10
PS&E	2025	HSIP-I-24-1(118)	ITS10



CONDUIT BANK TYPE 1 IN ROCK

N.T.S.

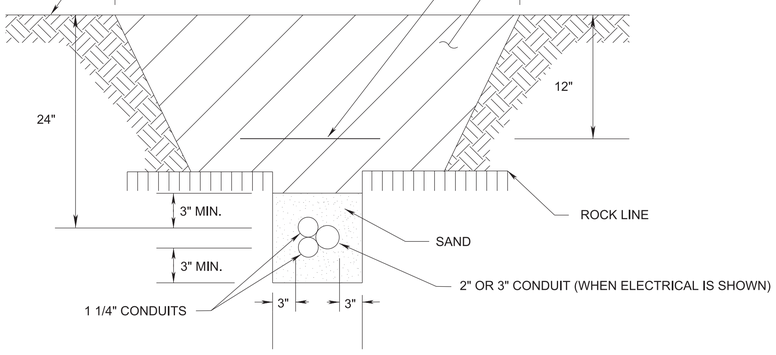
ONE 1 1/4" COMMUNICATIONS CONDUITS WITH
OR WITHOUT ONE 2" OR 3" ELECTRICAL CONDUIT
WHICH IS PAID SEPARATELY



CONDUIT BANK TYPE 3 IN ROCK

N.T.S.

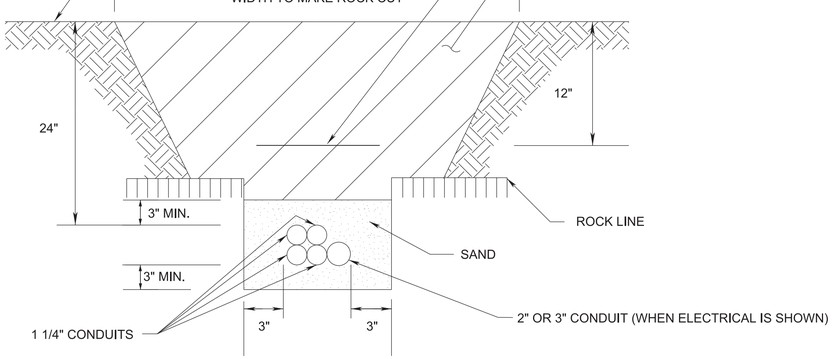
THREE 1 1/4" COMMUNICATIONS CONDUITS WITH
OR WITHOUT ONE 2" OR 3" ELECTRICAL CONDUIT
WHICH IS PAID SEPARATELY



CONDUIT BANK TYPE 2 IN ROCK

N.T.S.

TWO 1 1/4" COMMUNICATIONS CONDUITS WITH
OR WITHOUT ONE 2" OR 3" ELECTRICAL CONDUIT
WHICH IS PAID SEPARATELY



CONDUIT BANK TYPE 4 IN ROCK

N.T.S.

FOUR 1 1/4" COMMUNICATIONS CONDUITS WITH
OR WITHOUT ONE 2" OR 3" ELECTRICAL CONDUIT
WHICH IS PAID SEPARATELY

NOTES:

1. ROCK LINE WILL VARY. ROCK EXCAVATION TO BE INCLUDED IN CONDUIT BANK.
2. WHERE ROCK IS FOUND TRENCH MUST CONTAIN MINIMUM 3" SAND COVER OVER CONDUIT THEN 9" BACK FILL WITH SOIL FREE OF ROCKS OR OTHER FOREIGN MATTER. THE REMAINDER OF THE TRENCH MAY BE BACK-FILLED WITH EXISTING MATERIAL REMOVED FROM THE TRENCH PROVIDED NO STONES ARE GREATER THAN #2 STONE.
3. ELECTRICAL AND COMMUNICATIONS CONDUIT SIZES VARY THROUGHOUT THE PROJECT. REFER TO THE CONDUIT AND CABLE SCHEDULES SHOWN ON EACH ITS LAYOUT SHEET FOR INDIVIDUAL CONDUIT SIZES.
4. WARNING TAPE SHALL BE LABELED "WARNING - ELECTRICAL/FIBER OPTIC CABLE BELOW."
5. IF A DRAINAGE OR UTILITY CONFLICT ARISES THE CONTRACTOR SHALL SUBMIT A PLAN FOR RESOLVING THE CONFLICT TO THE ENGINEER FOR REVIEW AND APPROVAL.
6. ALL CONDUIT USED ON THIS PROJECT SHALL CONFORM TO THE COLOR SCHEME AND USE IN ACCORDANCE WITH THE SP 725.

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DEPARTMENT OF TRANSPORTATION

ITS TYPICAL CONDUIT AND TRENCHING DETAILS IN ROCK

FIBER COMMUNICATIONS

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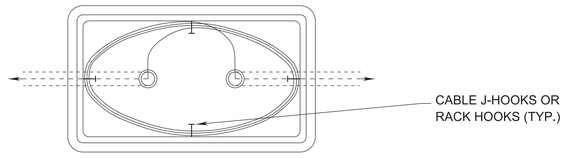
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W	2022	HSIP-I-24-1(118)	ITS11
PS&E	2025	HSIP-I-24-1(118)	ITS11

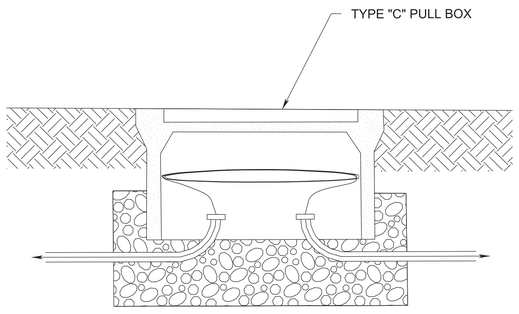
CABLE TYPE	TYPE "C" PULL BOX	TYPE "D" PULL BOX	TYPE "E" PULL BOX	PAD-MOUNTED CABINET BASE
FIBER OPTIC CABLES (TRUNK)	- -	50	200	25
FIBER OPTIC CABLES (BRANCH)	- -	25	100	25
ELECTRICAL SERVICE CONDUCTORS	10	- -	- -	- -
RDS CABLE	20	20	20	- -
DMS COMM CABLE	10	10	- -	10
DMS PWR CABLE	10	10	- -	10

NOTE: SEE SP 725 FOR ADDITIONAL INFORMATION

TYPICAL CABLE COIL INSTALLATION GUIDE

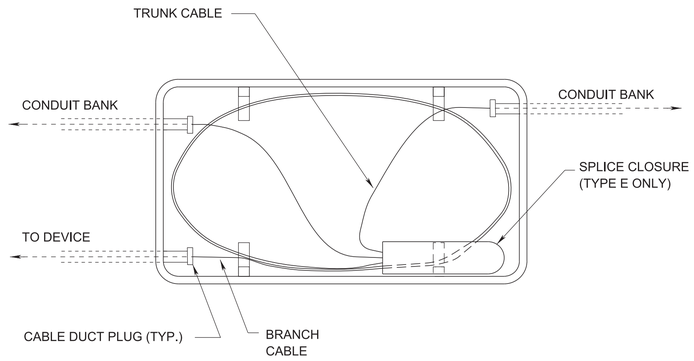
(FEET OF COIL LENGTH PER ENTERING CABLE)

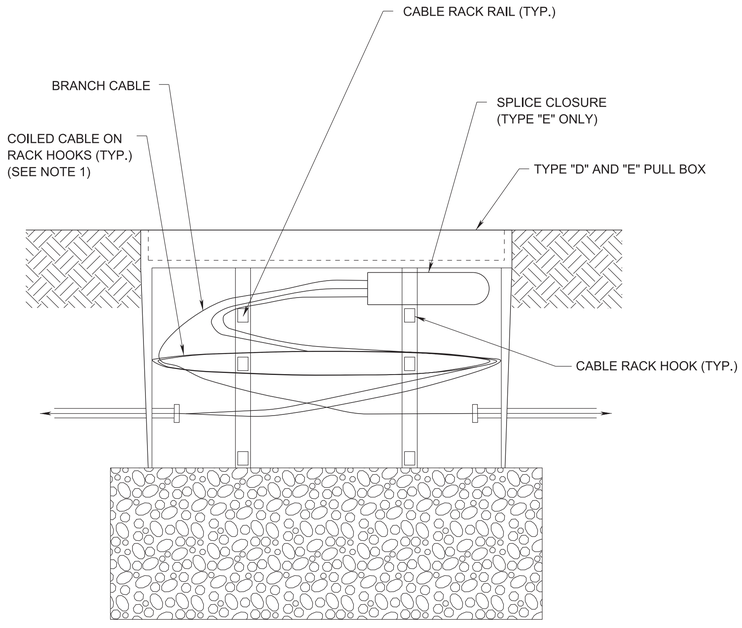




CABLE MANAGEMENT IN TYPE "C" PULL BOX

N.T.S.





CABLE MANAGEMENT IN TYPE "D" AND "E" PULL BOX

N.T.S.

NOTES:

1. FIBER TRUNK AND BRANCH CABLES SHALL BE COILED TOGETHER. OTHER DEVICE CABLES SHALL BE COILED SEPARATELY AND SUPPORTED ON J-HOOKS OR RACK HOOKS.
2. CONDUIT MAY ENTER THE LONG SIDE OF THE PULL BOX WHEN FIELD CONDITIONS WARRANT.

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DEPARTMENT OF TRANSPORTATION

ITS
TYPICAL CABLE
MANAGEMENT
DETAILS

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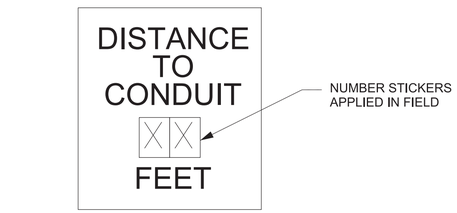
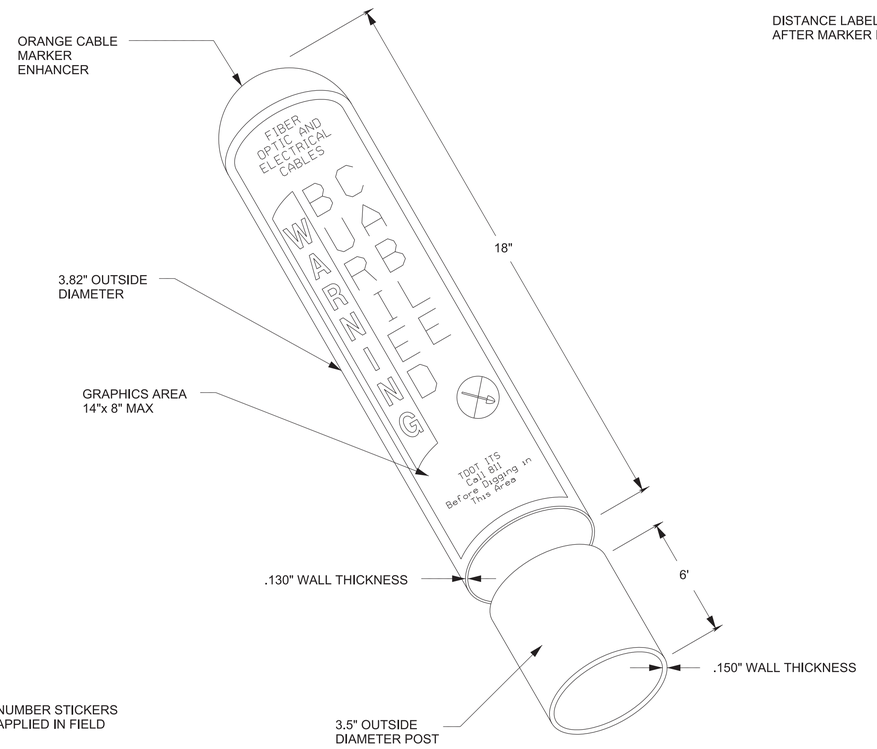
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	ITS12
PS&E	2025	HSIP-I-24-1(118)	ITS12



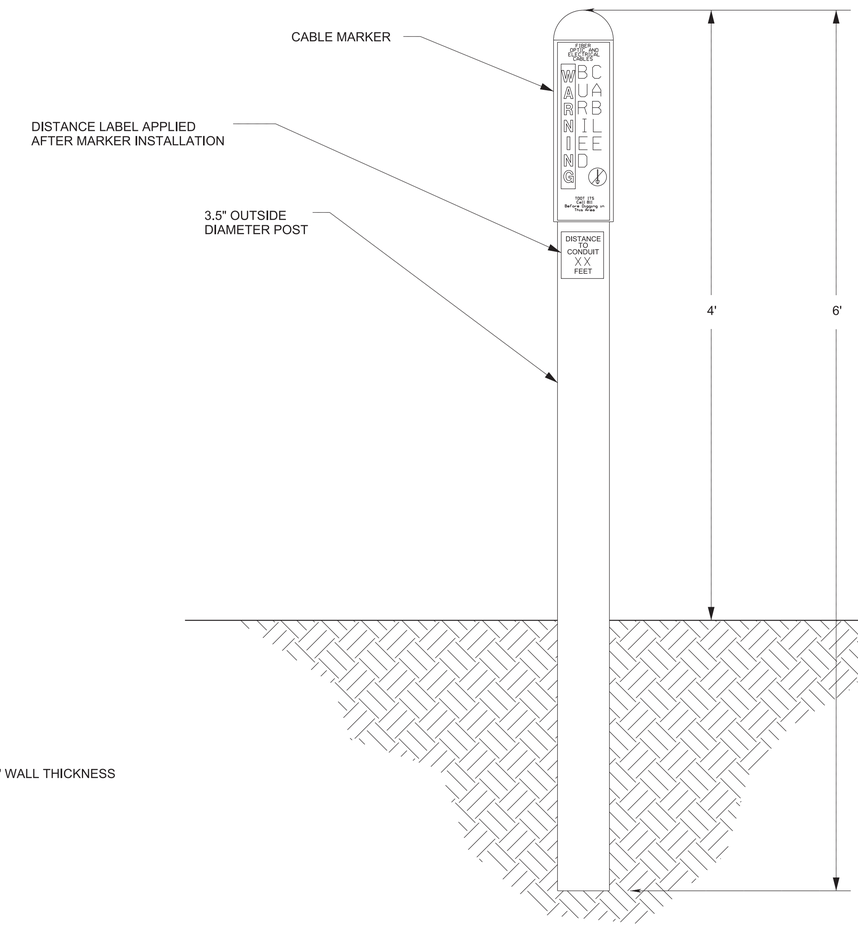
PRE PRINTED DISTANCE LABEL

N.T.S.



DETAIL VIEW OF CABLE MARKER

N.T.S.



TYPICAL INSTALLATION OF CABLE MARKER

N.T.S.

NOTES:

1. THE CONTRACTOR SHALL USE 811 FOR THE NUMBER TO INCLUDE ON THE CABLE MARKER LABEL PRIOR TO FABRICATION.
2. ALL CABLE MARKER LOCATIONS SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION. THE PROPOSED SCHEDULE FOR INSTALLING THE CABLE MARKERS SHALL ALSO BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.
3. AFTER THE CABLE MARKERS ARE INSTALLED, THE DISTANCE TO CONDUIT LABELS SHALL BE APPLIED.
4. INSTALL CABLE MARKERS AT THE FOLLOWING LOCATIONS:
   A. WITHIN 30 FEET LATERALLY EVEN WITH EACH PULL BOX, OR ADJACENT PULL BOXES, ON CONDUIT RUNS PARALLEL TO THE ROADWAY. IF DISTANCE BETWEEN PULL BOXES IS GREATER THAN 650 FEET, ONE ADDITIONAL CABLE MARKER SHALL BE PLACED AT THE MIDPOINT BETWEEN THE ADJACENT PULL BOXES, WITH 30 FEET LATERALLY OF THE CONDUIT ROUTE. ADDITIONAL CABLE MARKERS SHALL BE PLACED SUCH THAT NO DISTANCE BETWEEN CABLE MARKERS SHALL BE GREATER THAN 650 FEET.
   B. DIRECTLY BESIDE ANY PULL BOX THAT IS ON THE INTERIOR OF AN INTERCHANGE.
   C. AT EACH END OF ANY BORE UNDER A ROADWAY, DIRECTLY BESIDE THE PULL BOXES.
   D. ANY ADDITIONAL LOCATIONS DIRECTED BY THE ENGINEER.

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STATE OF TENNESSEE
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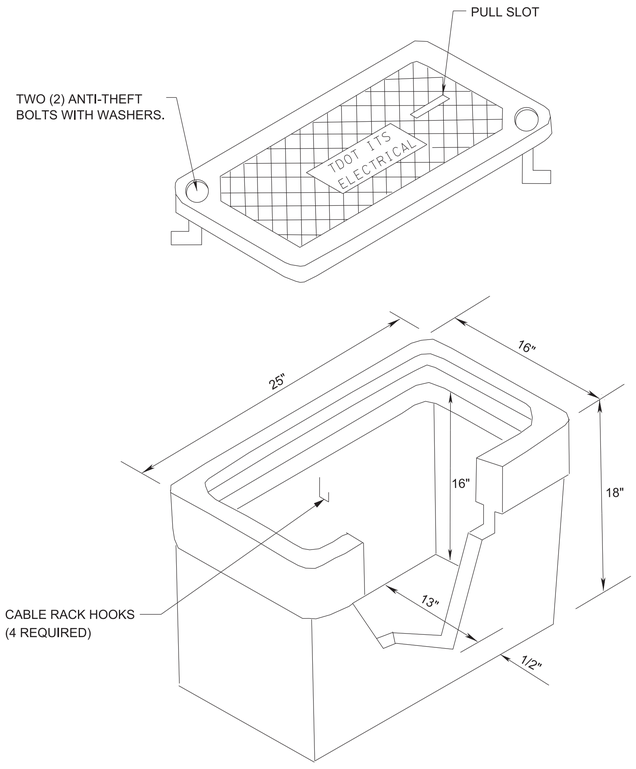
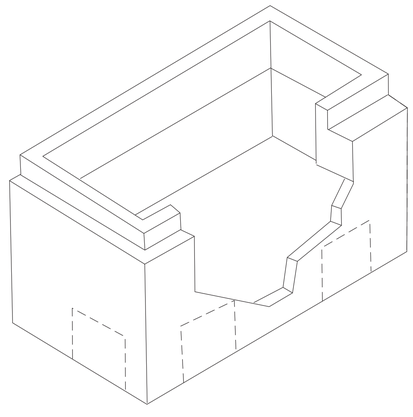
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ITS TYPICAL CABLE MARKER DETAILS

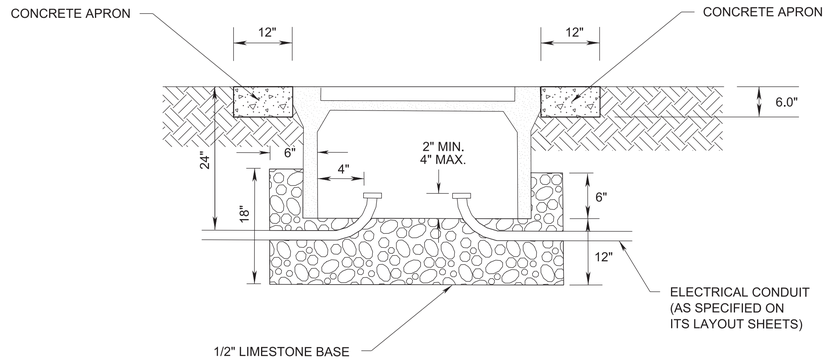
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	ITS13
PS&E	2025	HSIP-I-24-1(118)	ITS13





TYPICAL TYPE "C" PULL BOX ASSEMBLY

N.T.S.



TYPICAL TYPE "C" PULL BOX INSTALLATION

N.T.S.

NOTES:

TYPE "C" PULL BOX WITH COVER

THE PULL BOX SHALL MEET THE FOLLOWING REQUIREMENTS:

1. MINIMUM DIMENSIONS: 25"W X 16"L X 18"D EXTERIOR, 24"W X 13"L X 16"D INTERIOR.
2. PULL BOX COVER SHALL BE PRECAST COMPOSITE POLYMER CONCRETE PRODUCT.
3. PULL BOXES AND COVERS SHALL BE SINGLE-STACK OPEN-BOTTOM ASSEMBLIES CONFIGURED AS SHOWN IN THE PLANS.
4. SHALL MEET OR EXCEED CURRENT ANSI/SCTE 77 TIER 22 LOADING REQUIREMENTS.
5. PULL BOX SHALL MEET CURRENT NEC STANDARDS FOR HANDHOLD ENCLOSURES.
6. PULL BOX COVER SHALL BE LABELED (TDOT ITS ELECTRICAL).
7. TYPE "C" PULL BOXES SHALL ONLY BE USED FOR ELECTRICAL POWER CONDUIT/WIRING.
8. UNUSED CONDUIT SHALL BE STUBBED OUT AND CAPPED TO PRESERVE FOR FUTURE USE.
9. GPS COORDINATES OF EACH PULLBOX WILL BE RECORDED IN THE AS-BUILT PLANS TO BE TURNED IN WITH THIS PROJECT.
10. TYPE "C" PULL BOXES SHALL HAVE 12" WIDE (MIN.) X 6" DEEP CONCRETE APRON SLOPED AWAY FROM BOX. APRON IS TO BE INCLUDED IN THE COST OF EACH BOX.

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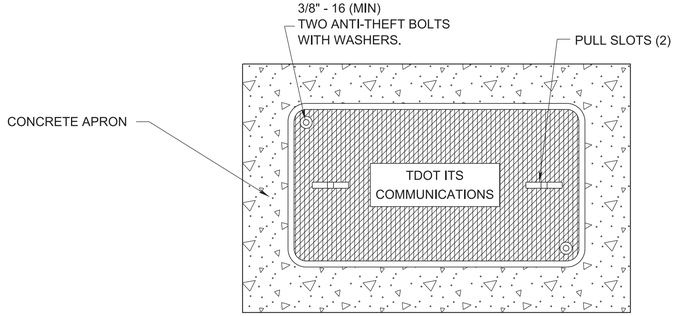
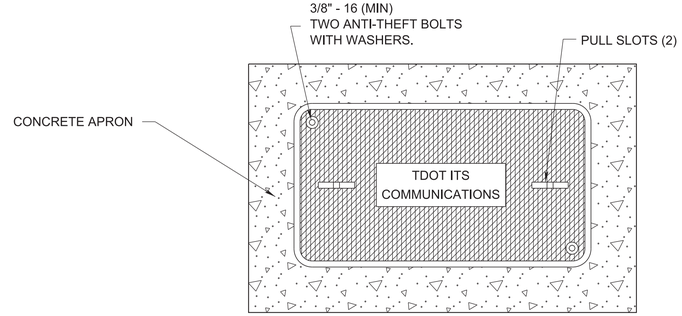
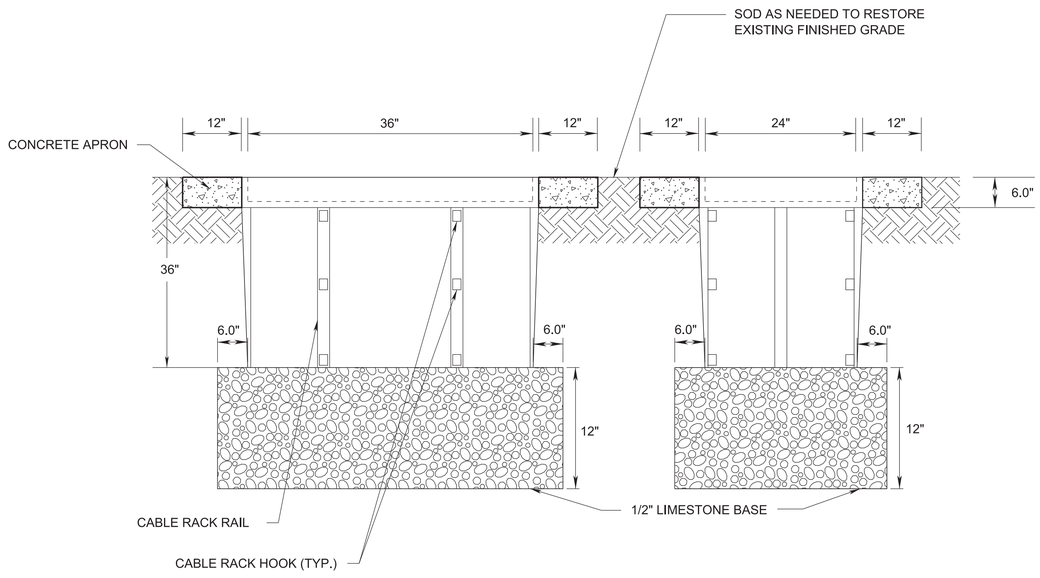
DEPARTMENT OF TRANSPORTATION

ITS TYPICAL TYPE "C" PULL BOX DETAILS

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	ITS14
PS&E	2025	HSIP-I-24-1(118)	ITS14

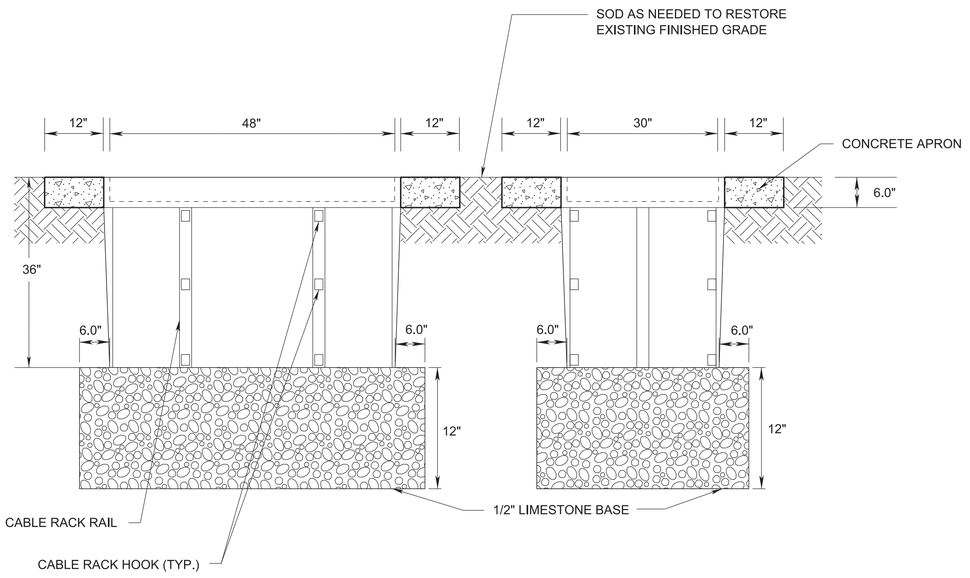






TYPE "D" PULL BOX ASSEMBLY

N.T.S.



TYPE "E" PULL BOX ASSEMBLY

N.T.S.

NOTES:

TYPE "D" & "E" PULL BOX WITH COVER SHALL MEET THE FOLLOWING REQUIREMENTS:

1. PULL BOX COVER SHALL BE PRECAST COMPOSITE POLYMER CONCRETE PRODUCT.
2. PULL BOXES & COVERS SHALL BE SINGLE-STACK OPEN-BOTTOM ASSEMBLIES CONFIGURED AS SHOWN IN PLANS.
3. SHALL MEET OR EXCEED CURRENT ANSI/SCTE 77 TIER 22 LOADING REQUIREMENTS.
4. PULL BOX SHALL MEET CURRENT NEC STANDARDS FOR HANDHOLE ENCLOSURES.
5. PULL BOX COVER SHALL BE LABELED (TDOT ITS COMMUNICATIONS).
6. EACH PULL BOX SHALL COME EQUIPPED WITH 4 CABLE RACKS & 12 RACK HOOKS. THE CABLE RACKS SHALL BE A MIN. OF 24" & RACK HOOKS SHALL BE A MIN. OF 7" IN LENGTH. THE CABLE RACKS AND RACK HOOKS SHALL BE HOT-DIPPED GALVANIZED STEEL.
7. TYPE "D" AND "E" PULL BOXES SHALL ONLY BE USED FOR COMMUNICATIONS CONDUIT/CABLING.
8. GPS COORDINATES OF EACH PULL BOX WILL BE RECORDED IN THE AS-BUILT PLANS TO BE TURNED IN WITH THIS PROJECT.
9. UNUSED CONDUIT SHALL BE STUBBED OUT AND CAPPED TO PRESERVE FOR FUTURE USE.
10. CONDUIT SHALL ENTER TYPE "D" AND "E" PULL BOXES THROUGH THE SIDEWALL.
11. HOLES ALONG THE SIDEWALLS SHALL BE CUT BY THE CONTRACTOR.
12. ALL TYPE "D" AND "E" PULL BOXES SHALL HAVE 12" WIDE (MIN.) X 6" DEEP CONCRETE APRONS SLOPED AWAY FROM BOX. APRON IS TO BE INCLUDED IN THE COST OF EACH BOX.

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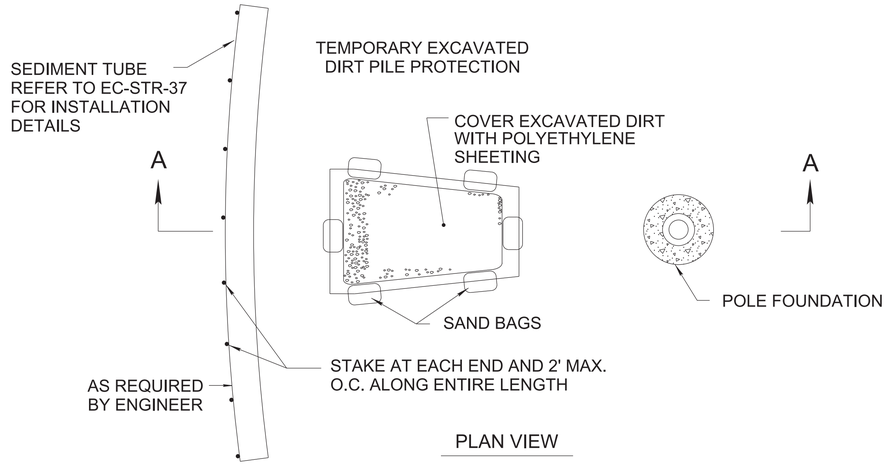
DEPARTMENT OF TRANSPORTATION

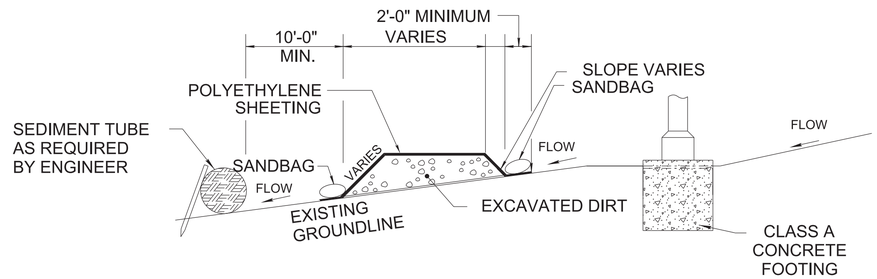
ITS TYPICAL
TYPE "D" & "E"
PULL BOX
DETAILS

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	ITS15
PS&E	2025	HSIP-I-24-1(118)	ITS15

POLE OR SIGN FOUNDATION EROSION CONTROL



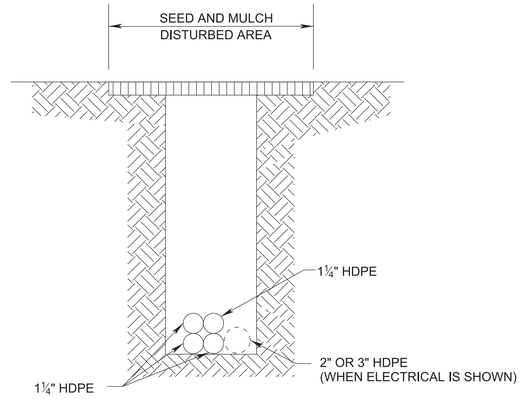
PLAN VIEW



SECTION A-A

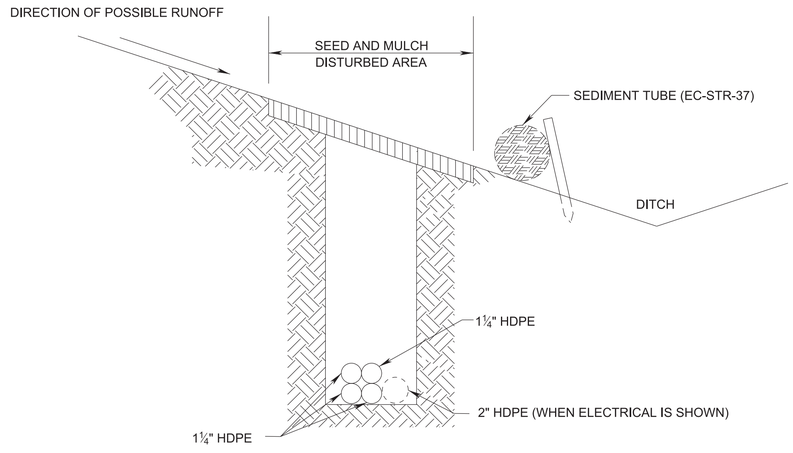
APPROXIMATE QUANTITIES (PER EACH POLE)			
ITEM NO.	DESCRIPTION	UNIT	QUANTITY
209-09.01	SANDBAGS	BAG	6
209-20.03	POLYETHYLENE SHEETING (6 MIL MINIMUM)	S.Y.	25
740-11.02	TEMPORARY SEDIMENT TUBE (12 INCH)	L.F.	30

APPROXIMATE QUANTITIES (PER EACH DMS SIGN FOUNDATION)			
ITEM NO.	DESCRIPTION	UNIT	QUANTITY
209-09.01	SANDBAGS	BAG	6
209-20.03	POLYETHYLENE SHEETING (6 MIL MINIMUM)	S.Y.	89
740-11.02	TEMPORARY SEDIMENT TUBE (12 INCH)	L.F.	30



EROSION CONTROL FOR
TYPICAL TRENCH CONFIGURATION
FOR COMMUNICATION AND POWER
CONDUITS IN EARTH

N.T.S.



EROSION CONTROL FOR
TYPICAL TRENCH CONFIGURATION NEAR
STREAMS FOR COMMUNICATION AND POWER
CONDUITS IN EARTH

N.T.S.

NOTES:

1. EROSION CONTROL DEVICES SHALL BE PLACED IMMEDIATELY AFTER AREA IS DISTURBED AND SHALL REMAIN IN PLACE UNTIL LOCATION IS COVERED WITH SEED AND MULCH.
2. THESE TYPICAL DETAILS WILL BE USED AT THE DISCRETION OF THE ENGINEER BASED ON THE LOCATION AND DURATION OF THE DISTURBED AREAS. IF THE FOUNDATION IS IN A LOCATION WHERE RUNOFF IS NOT AN ISSUE, THE LOCATION MAY NOT REQUIRE THE USE OF THESE TEMPORARY EROSION CONTROL MEASURES, BUT WILL STILL REQUIRE PERMANENT SEED AND MULCH.
3. EXCAVATED DIRT THAT IS NOT NEEDED FOR BACKFILL SHALL BE REMOVED IMMEDIATELY AFTER EXCAVATION.
4. ALL OPEN TRENCHES TO BE BACKFILLED IMMEDIATELY AFTER CONDUIT INSTALLATION AND SEED AND MULCH PLACED DOWN OVER THE TRENCHED AREA.
5. IF CONDUIT IS PLOWED, THE NEED FOR PERMANENT SEED AND MULCH WILL BE DETERMINED BY THE ENGINEER BASED ON THE AMOUNT OF DISTURBED SOIL.

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04/11/25

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ITS TYPICAL EROSION PREVENTION & SEDIMENT CONTROL DETAILS

THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Brenda Booker Digitally signed by Brenda Booker
Date: 2025.02.27 09:25:23 -05'00'

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED. THE SIGNATURE MUST BE VERIFIED ON THE ELECTRONIC DOCUMENTS.

BOOKER ENGINEERING, INC.
1706 JOE POPE ROAD
THOMPSON'S STATION, TN 37179
BRENDA K. BOOKER, P.E. NO. 104943

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	LIGHTING-SIGN1
STANDARD STRUCTURE AND TRAFFIC OPERATIONS DRAWINGS	1A2
LIGHTING INDEX	L-1
ESTIMATED LIGHTING QUANTITIES	L-2
SPECIAL LIGHTING NOTES	L-3
LIGHTING POWER SUPPLY DETAIL	L-4
LIGHTING DETAILS (POLE DATA)	L-5 – L-6
LIGHTING DETAILS (WIRING DATA)	L-7
PROPOSED LIGHTING LAYOUTS	L-8 – L-10
BARRIER WALL LIGHTING DETAIL	L-11

YEAR	PROJECT NO.	SHEET NO.
PS&E	HSIP-I-24-1(118)	LIGHTING-SIGN1

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNATURE SHEET

TYPE	YEAR	PROJECT NO.	SHEET NO.
P.I.H.	2025	HSIP-I-24-1(118)	L- 1
PS&E	2025	HSIP-I-24-1(118)	L- 1

PS&E LIGHTING INDEX

SHEET NAME **SHEET NO.**

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

LIGHTING
INDEX

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TYPE	YEAR	PROJECT NO.	SHEET NO.
P.I.H.	2025	HSIP-I-24-1(118)	L-2
PS&E	2025	HSIP-I-24-1(118)	L-2

ESTIMATED LIGHTING QUANTITIES

	ITEM NO.	DESCRIPTION	UNIT	QUANTITY 75100-3111-94
(13)	714-03	JACKED OR BORED CONDUIT	L.F.	310
	714-03.01	DIRECT BURIAL CONDUIT (2" PVC, SCHEDULE 40)	L.F.	2590
	714-05.04	PULL BOXES (TYPE C)	EACH	4
(11)	714-06.05	CABLE (1/C # 6 AWG)	L.F.	11000
(11)	714-06.08	CABLE (#6 SOLID COPPER SOFT DRAWN) (GROUND)	L.F.	965
(11)	714-06.09	CABLE (#6 COPPER SOFT DRAWN BARE) (GROUND)	L.F.	2850
(1)	714-08.09	LIGHT STANDARDS (45' M.H., ALUMINIUM)	EACH	11
(2)	714-08.10	LIGHT STANDARDS (45' M.H., ALUMINIUM) (RETAINING WALL)	EACH	4
(3)	714-08.20	FOUNDATION (ONLY) FOR LIGHT STANDARD	EACH	11
(4)	714-08.32	REMOVAL OF LIGHT STANDARD & FOUNDATION	EACH	9
(5)	714-08.33	REMOVAL OF EXISTING COBRA HEAD LUMINAIRE	EACH	57
(6, 11)	714-09.09	LUMINAIRES (72W LED)	EACH	6
(7, 11)	714-09.10	LUMINAIRES (175W LED)	EACH	72
(8)	714-12.11	MODIFY EXIST CONTROL CENTER (CC1 AND CC2)	EACH	2
(9)	714-25.01	ELECTRICAL CONNECTION	LS	1
(10)	714-25.02	ELECTRICAL CONNECTION (AND RECONNECTION)	LS	1
(12)	714-40	LOCATING UTILITIES	LS	1

FOOTNOTES

(1) SHALL BE ROUND TAPERED ALUMINUM POLE WITH 45 FOOT MOUNTING HEIGHT. INCLUDES THE COST OF 1-15 FOOT TRUSS TYPE ARMS AND THE TRANSFORMER BASE.

(2) SHALL BE ROUND TAPERED ALUMINUM POLE WITH 45 FOOT MOUNTING HEIGHT. INCLUDES THE COST OF 4-15 FOOT TRUSS TYPE ARMS (LP 11 THRU LP 14).

(3) SHALL BE CLASS 'A' CONCRETE FOUNDATION, SEE TDOT STD. DWG. T-L-1 AND STD-8-4. COSTS ASSOCIATED WITH THE FOUNDATION SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE.

(4) INCLUDED FOR REMOVAL OF LIGHT STANDARD, LUMINAIRE AND TRUSS ARM. ALSO, INCLUDES THE COST OF DISCONNECTING, PLUGGING AND ABANDONING CONDUIT AND WIRE BETWEEN REMOVED POLES.

(5) INCLUDED FOR REMOVAL OF EXISTING HPS LUMINAIRE. FOR EXISTING POLES TO REMAIN, THE TRUSS ARM(S) SHALL BE RE-USED.

(6) WALLPACK IV GLASS LED SHALL BE HOLOPHANE W4GLED 20 LED, 72W WITH TYPE III MEDIUM DISTRIBUTION, CRI 4000K. HOLOPHANE LIGHTING WALLPACK CATALOGUE NUMBER W4GLED-20C1000-40K-T3M-MVOLT-SPD-PR73-GYSDP. USE HOLOPHANE LIGHTING PHOTOMETRIC DATA FILE, W4GLED_20C1000_40K_T3M.IES; TOTAL LUMENS = 6982. LUMINAIRE SHALL BE BALLASTED FOR 240 VOLT OPERATION. LUMINAIRE FINISH SHALL BE GREY SUPER DURABLE PAINT.

(7) ROADWAY LUMINAIRE SHALL BE AUTOBAHN ATB2 LED, 175W WITH TYPE IV DISTRIBUTION, CRI 4000K, AMERICAN ELECTRIC CATALOGUE NUMBER AEL-ATB2-P601-MVOLT-R42-P7. USE AMERICAN ELECTRIC PHOTOMETRIC DATA FILE, ATB2_P601_R4_4K.IES; TOTAL LUMENS = 26,192. LUMINAIRE SHALL BE BALLASTED FOR 240 VOLT OPERATION. LUMINAIRE FINISH SHALL BE GRAY PAINT. INCLUDES THE COST OF THE FIELD ADJUSTABLE OUTPUT (FAO) MODULE. THE FAO MODULE SHALL BE FACTORY SET TO 7: 95% LUMENS, 94% WATTAGE.

(8) INCLUDED FOR INSPECTON AND NECESSARY UPDATES TO CC1 AND CC2.

(9) INCLUDED FOR CONNECTION OF PROPOSED LIGHT STANDARDS LP 1 THRU LP 7, LP 15 AND RECONNECTION OF EXISTING LIGHT STANDARDS TO REMAIN XLP 3 TO THE EXISTING LIGHTING CIRCUITRY AS SHOWN IN THE PLANS. ALSO INCLUDES THE COST OF ALL APPURTENANCES AND ANY ADJUSTMENTS AND/OR ADDITIONS TO CONDUIT AND WIRING QUANTITIES DUE TO FIELD IDENTIFICATION OF EXISTING CONDUIT ROUTING ASSOCIATED WITH WORK AT RAMP 'A'.

(10) INCLUDED FOR CONNECTION OF PROPOSED LIGHT STANDARDS LP 8 THRU LP 15 AND RECONNECTION OF EXISTING LIGHT STANDARDS TO REMAIN XLP 36 THRU XLP 38, AND XLP 41 TO THE EXISTING LIGHTING CIRCUITRY AS SHOWN IN THE PLANS. ALSO INCLUDES THE COST OF ALL APPURTENANCES AND ANY ADJUSTMENTS AND/OR ADDITIONS TO CONDUIT AND WIRING QUANTITIES DUE TO FIELD IDENTIFICATION OF EXISTING CONDUIT ROUTING ASSOCIATED WITH WORK AT RAMP 'C'.

(11) INCLUDES THE COST FOR FIELD ADJUSTMENTS.

(12) INCLUDED FOR PAYMENT OF IDENTIFICATION OF EXISTING ELECTRICAL CIRCUITRY ROUTING INCLUDING PULL BOXES, CONDUITS AND CABLES.

(13) INCLUDED FOR ROADWAY CROSSING AT RAMP “A” (STA. 119+49) AND RAMP “C” (STA. 317+24). SHALL BE SCHEDULE 80, DIRECTIONAL BORING ONLY.

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ESTIMATED LIGHTING QUANTITIES

SPECIAL LIGHTING NOTES

(1) ALL EXISTING LIGHT STANDARDS HAVE TRANSFORMER BASES. TYPICALLY, THE TRANSFORMER BASES SERVE AS PULL BOXES TO DO WIRING, CONNECTING AND SPLICING WHEN NEEDED.

(2) ALL PROPOSED LIGHT STANDARDS SHALL HAVE TRANSFORMER BASES.

(3) ALL WIRING SHALL BE CONCEALED UNDERGROUND IN 2-INCH SCHEDULE 40 PVC CONDUIT, UNLESS OTHERWISE NOTED IN THE PLANS.

A. LIGHTING CONDUIT FOR ROADWAY CROSSINGS AND DRIVEWAY CROSSINGS SHALL BE OPEN CUT FOR ASPHALT OR ENCASED FOR CONCRETE, 2-INCH PVC SCHEDULE 80, UNLESS OTHERWISE NOTED IN THE PLANS.

B. CONDUIT AND PULL BOXES SHOWN ON THESE PLANS ARE DIAGRAMMATIC. ACTUAL ROUTING OR CONDUIT RUNS SHALL CONFORM TO FIELD CONDITIONS AND SHALL BE INSTALLED WITIHIN THE R.O.W. LIMITS. THE CONTRACTOR SHALL MARK CONDUIT ROUTES FOR APPROVAL BY THE ENGINEER PRIOR TO CONSTRUCTION.

C. CONDUITS PROVIDING ELECTRICAL SERVICE CONDUCTORS SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST EDITIONS OF THE “NATIONAL ELECTRIC CODE”, THE “NATIONAL SAFETY CODE”, LOCAL BUILDING CODES, AND TO THE REQUIREMENTS OF TDOT AND ALL UTILITIES INVOLVED.

(4) DURING THE INSTALLATION OF ANY CABLE, THE CONTRACTOR SHALL TAKE CARE NOT TO DAMAGE CONDUCTORS, INSULATION, OR OUTER COVERING. THE LENGTH OF CABLE INSTALLED SHALL NOT CAUSE EXCESSIVE STRESS ON THE CONDUCTORS OR ANY PART OF THE CABLE. AN INSERT LUBRICANT SHALL BE USED WHEN PLACING CABLE IN CONDUIT.

(5) WHERE NEW CONDUIT IS PLACED UNDER EXISTING CONCRETE SIDEWALKS OR ASPHALT PAVEMENT, THE CONDUIT SHALL BE JACK AND BORE, 2-INCH PVC SCHEDULE 80. OPEN CUTS SHALL BE ALLOWED ONLY WITH THE APPROVAL OF THE ENGINEER.

A. WHEN JACK AND BORE CONDUIT FOR ROADWAY LIGHTING IS INSTALLED IN THE TRENCH WITH THE DIRECTIONAL BORE FOR SIGNAL CONDUIT. ROADWAY LIGHTING CONDUIT IS PAID UNDER THE LIGHTING PAY ITEM 714-03.

(6) WHERE POSSIBLE, EXISTING LUMINAIRES TO BE REMOVED SHALL REMAIN IN PLACE UNTIL THE PROPOSED LIGHTING SYSTEM IS OPERATIONAL. LUMINAIRE REMOVAL SHALL BE COORDINATED WITH THE ELECTRICAL RELOCATION.

(7) ALL LIGHTING STANDARDS SHALL BE INSTALLED WITH THE HAND HOLE ON THE DOWNSTREAM SIDE OF TRAFFIC SO THAT WORKERS ARE FACING ONCOMING TRAFFIC.

(8) NEW LIGHT STANDARDS SHALL BE DESIGNED FOR 120-MPH WIND SPEED AND SHALL SUPPORT THE LED LUMINAIRE.

(9) SOME UTILITIES MAY REQUIRE LOCATION BY HAND DIGGING PRIOR TO PROPOSED LIGHT STANDARD INSTALLATION.

(10) PULL BOXES ARE REQUIRED TO BE INSTALLED IN ANY CONDUIT RUN THAT EXCEEDS 250 FT. THE LOCATION OF THE PULL BOX SHOULD BE SUCH THAT THE PULL LENGTH BETWEEN PULLING POINTS DOES NOT EXCEED 250 FT.

(11) THERE ARE 2-TYPE ‘C’ PULL BOXES. LIGHTING PULL BOXES SHALL BE AS NOTED BELOW:

A. ALL PULL BOXES ASSOCIATED WITH THE LIGHTING SHALL BE TYPE ‘C’, UNLESS OTHERWISE NOTED.

B. THERE ARE 2-TYPE ‘C’ PULL BOXES FOR LIGHTING. LIGHTING PULL BOXES SHALL BE LABELED ‘STREET LIGHTING’.

(12) PRIOR TO COMMENCEMENT OF WORK ON THE LIGHTING SYSTEM, THE CONTRACTOR SHALL CONTACT ADAM LONGSTRETH, MIDDLE TENNESSEE ELECTRIC (MTE), (615) 580-6238.

TYPE	YEAR	PROJECT NO.	SHEET NO.
P.I.H.	2025	HSIP-I-24-1(118)	L-3
PS&E	2025	HSIP-I-24-1(118)	L-3

SEALED BY

BRENDA K. BOOKER
REGISTERED ENGINEER
AGRICULTURE
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SPECIAL LIGHTING NOTES

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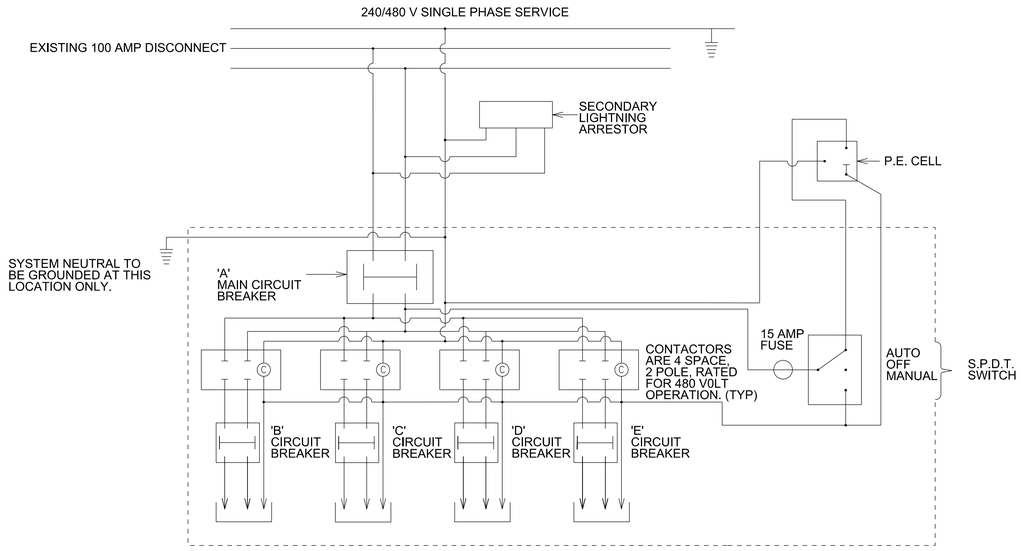
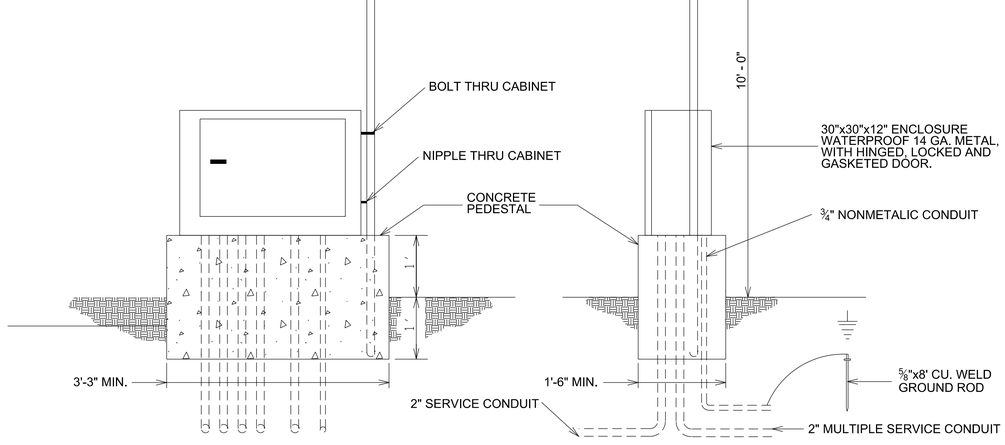


WIRING SCHEMATIC
EXISTING LIGHTING CONTROL CENTERS CC1 AND CC2
(FOR CIRCUIT BREAKER SIZE REFER TO CONTROL CENTER SCHEDULE)



EXISTING PAD MOUNTED CONTROLLER DETAIL

EXISTING CONTROL CENTER SCHEDULE

EXISTING CONTROL CENTER NO.	MAIN CIRCUIT BREAKER (AMPS) 'A'	BRANCH CIRCUIT BREAKERS (AMPS)				BASELINE	STATION	OFFSET (FT)	SIDE	SHEET NO.
		CIR. 1 'B'	CIR. 2 'C'	CIR. 3 'D'	CIR. 4 'E'					
EX. CC1	100	20	20	20	20	FORTRESS BLVD	35+53	101.4	RT	L-9
EX. CC2	100	20	20	20 (SPARE)	20 (SPARE)	MEDICAL CENTER PKWY	52+11	100.8	LT	L-9

(A) UNDERBRIDGE LIGHTING IS CONNECTED TO CC1.
(B) CONTRACTOR SHALL VERIFY THAT ALL CIRCUIT BREAKER SIZES ARE ADEQUATE.

ELECTRICAL RETROFIT WIRING NOTES

1. INFORMATION FOR THE EXISTING CONTROL CENTERS CC1 AND CC2, CONDUIT ROUTING AND ROADWAY CROSSINGS SHOWN IN THE LIGHTING PLAN WAS OBTAINED FROM TDOT PROJECT NO. 75001-1183-04.
2. PRIOR TO COMMENCEMENT OF WORK ON THE LIGHTING SYSTEM, CONTRACTOR SHALL FIELD VERIFY THE EXISTING ELECTRICAL CIRCUITRY.
3. THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING IN AREAS WHERE STANDARD AND CONDUIT INSTALLATION IS NEAR OR CROSSES OVERHEAD OR UNDERGROUND UTILITIES.
4. CONTRACTOR SHALL COORDINATE WORK WITH MIDDLE TENNESSEE ELECTRIC MEMBERSHIP COPORATION (MTEMC). CONTACT, ADAM LONGSTRETH, (615) 580-6238, FOR APPROVAL AND INSPECTION OF ELECTRICAL MODIFICATIONS.
5. CONTRACTOR SHALL OBTAIN APPROVAL FROM MTEMC AND THE ENGINEER PRIOR TO ANY CHANGE IN ELECTRICAL CONNECTIONS DIFFERENT FROM THOSE SHOWN IN THE LIGHTING PLAN.
6. THE EXISTING LIGHTING CIRCUITRY FOR THE LIGHT STANDARDS THAT ARE TO REMAIN ON RAMPS 'A' THRU 'D' SHALL REMAIN CONNECTED TO THE EXISTING CIRCUITS, UNLESS OTHERWISE NOTED.
7. CONTRACTOR SHALL ENSURE ALL LIGHTS THAT ARE SLATED TO REMAIN CONTINUE TO BE ENERGIZED. CONTRACTOR SHALL ALSO ENSURE THE LIGHTING SYSTEM IS COMPLETELY FUNCTIONAL AT COMPLETION OF WORK.
8. LIGHTING SYSTEM IS 240/480 VOLT SINGLE PHASE SERVICE. LUMINAIRES SHALL HAVE 240 VOLT OPERATION.
9. EXISTING LIGHTING CONTROL CENTERS CC1 AND CC2 SHALL REMAIN IN PLACE AND SHALL BE MODIFIED AS SHOWN IN THE PLANS.

EXISTING CONTROL CENTER CC1

10. 5-EXISTING LIGHT STANDARDS BETWEEN STA. 110+08 AND STA. 117+73 (BASELINE RAMP 'A') SHALL BE REMOVED. CONDUIT AND WIRING BETWEEN EXISTING LIGHT STANDARDS TO BE REMOVED SHALL BE DISCONNECTED, PLUGGED AND ABANDONED.
11. INSTALL PROPOSED LIGHT STANDARDS LP 1 THRU LP 5 WITH NEW CONDUIT AND WIRE BETWEEN LP 1 THRU LP 5 AND EXISTING LIGHT STANDARD TO REMAIN XLP 1. CONNECT LP 1 THRU LP 5 TO EXISTING LIGHTING CIRCUITRY AT XLP 1.
12. INSTALL NEW TYPE C PULL BOX PBA AT RAMP 'A', STA. 119+49. INSTALL NEW 2 INCH SCHEDULE 80 PVC CONDUIT AND WIRE FROM LP 5 TO PROPOSED LIGHTING PULL BOX PBA FOR RECONNECTION TO EXISTING LIGHTING CIRCUITRY.
13. INSTALL NEW CONDUIT FROM PBA TO PROPOSED LIGHT STANDARD LP 15 AND EXISTING LIGHT STANDARD TO REMAIN XLP 41. CONNECT LP 15 AND XLP 41 TO EXISTING LIGHTING CIRCUITRY AT XLP 1. EXISTING CONDUIT AND WIRING TO XLP 41 SHALL BE DISCONNECTED, PLUGGED AND ABANDONED.
14. INSTALL PROPOSED LIGHT STANDARDS LP 6 AND LP 7 WITH NEW CONDUIT AND WIRE BETWEEN EXISTING LIGHT STANDARDS TO REMAIN XLP 3 AND XLP 4. CONNECT LP 6, LP 7 AND XLP 3 TO EXISTING LIGHTING CIRCUITRY AT XLP 4. EXISTING CONDUIT AND WIRING BETWEEN XLP 3 AND XLP 4 SHALL BE DISCONNECTED, PLUGGED AND ABANDONED.
15. THE EXISTING HIGH PRESSURE SODIUM (HPS) UNDER BRIDGE WALLPACKS SHALL BE REMOVED AND REPLACED WITH NEW 72W LIGHT EMITTING DIODE (LED) WALLPACKS.

EXISTING CONTROL CENTER CC2

16. INSTALL PROPOSED LIGHT STANDARDS LP 8 AND LP 9 WITH NEW CONDUIT AND WIRE BETWEEN EXISTING LIGHT STANDARDS TO REMAIN XLP 35 AND XLP 36. CONNECT LP 8, LP 9 AND XLP 36 TO EXISTING LIGHTING CIRCUITRY AT XLP 35. EXISTING CONDUIT AND WIRING BETWEEN XLP 35 AND XLP 36 SHALL BE DISCONNECTED, PLUGGED AND ABANDONED.
17. 4-EXISTING LIGHT STANDARDS BETWEEN (BASELINE RAMP 'C') STA. 317+27 AND STA. 322+43, LT SHALL BE REMOVED. CONDUIT AND WIRING SHALL BE DISCONNECTED, PLUGGED AND ABANDONED.
18. INSTALL NEW TYPE C PULL BOX PBB AT RAMP 'C', STA. 317+26 AND NEW TYPE C PULL BOX PBC AT THE END OF THE RETAINING WALL AT RAMP 'C' STA. 317+24. INSTALL NEW 2 INCH SCHEDULE 80 PVC CONDUIT FROM PROPOSED LIGHTING PULL BOX PBB TO PROPOSED LIGHTING PULL BOX PBC.
19. INSTALL NEW CONDUIT AND WIRE TO CONNECT PROPOSED LIGHT STANDARD LP 10 AND EXISTING LIGHTING STANDARD TO REMAIN XLP 37 AT PBC. EXISTING CONDUIT AND WIRING FROM EXISTING LIGHTING STANDARD TO BE REMOVED AT STA. 317+27 TO XLP 37 SHALL BE DISCONNECTED, PLUGGED AND ABANDONED.
20. INSTALL NEW CONDUIT AND WIRE FROM EXISTING LIGHTING PULL BOX EX. PB1 TO PROPOSED TYPE C LIGHTING PULL BOX PBB TO CONNECT PROPOSED LIGHT STANDARDS LP 10 THRU LP 14 AND EXISTING LIGHT STANDARDS TO REMAIN XLP 37 THRU XLP 39 TO THE EXISTING LIGHTING CIRCUITRY AT PB1.
21. INSTALL NEW WIRE TO CONNECT PROPOSED RETAINING WALL MOUNTED LIGHT STANDARDS LP 11 THRU LP 14 AT PBC AND THE 6" X 6" RETAINING WALL MOUNTED JUNCTION BOXES JB1 AND JB2 TO EXISTING LIGHTING CIRCUITRY. THE COST OF THE JUNCTION BOXES IS INCLUDED IN STRUCTURAL PAY ITEM 714-01.20, SEE SHEET L-11 FOR DETAILS.
22. INSTALL NEW CONDUIT AND WIRE TO RECONNECT EXISTING LIGHT STANDARDS TO REMAIN XLP 38 AND XLP 39 TO EXISTING LIGHTING CIRCUITRY AT PROPOSED TYPE C LIGHTING PULL BOX PBD AND JB2 ON THE RETAINING WALL.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	L-1
P.I.H.	2025	HSIP-I-24-1(118)	L-4
PS&E	2025	HSIP-I-24-1(118)	L-4

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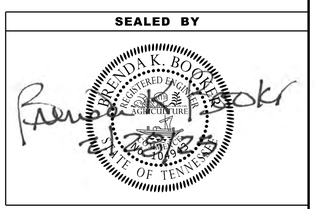

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

LIGHTING POWER SUPPLY DETAIL

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	L-2
P.I.H.	2025	HSIP-I-24-1(118)	L-5
PS&E	2025	HSIP-I-24-1(118)	L-5

PROPOSED ROADWAY LIGHT POLE SCHEDULE

	LIGHT POLE NO.	SHEET NO.	VOLTAGE	MOUNTING HEIGHT (FT)	LAMP WATTAGE (LED)	LUMINAIRE TYPE	NO. OF LAMPS	EXISTING CONTROL CENTER NO.	EXISTING CIRCUIT NO.	BASELINE	STATION	OFFSET (FT)	SIDE	NORTHING	EASTING
(1)	LP 1	L-8	240/480	45	175	A	1	CC1	CIR1	RAMP 'A'	110+09	22.0	RT	559738.5737	1832131.6524
(1)	LP 2	L-8	240/480	45	175	A	1	CC1	CIR1	RAMP 'A'	112+58	32.0	RT	559534.9049	1832278.4271
(1)	LP 3	L-8	240/480	45	175	A	1	CC1	CIR1	RAMP 'A'	114+90	37.6	RT	559348.9879	1832416.9873
(1)	LP 4	L-9	240/480	45	175	A	1	CC1	CIR1	RAMP 'A'	117+22	45.2	RT	559162.0509	1832553.6639
(1)	LP 5	L-9	240/480	45	175	A	1	CC1	CIR1	RAMP 'A'	119+43	45.2	RT	558987.5450	1832690.3424
(2)	LP 6	L-9	240/480	45	175	A	1	CC1	CIR1	FORTRESS BLVD	33+66	56.9	RT	558747.7531	1832674.4051
(2)	LP 7	L-9	240/480	45	175	A	1	CC1	CIR1	RAMP 'B'	12+00	8.5	RT	558731.5437	1832822.3292
(2)	LP 8	L-9	240/480	45	175	A	1	CC2	CIR1	MEDICAL CENTER PKWY	52+41	71.5	LT	558844.4439	1833367.0082
(3)	LP 9	L-9	240/480	45	175	A	1	CC2	CIR1	MEDICAL CENTER PKWY	53+31	62.1	LT	558829.2845	1833457.4129
(1)	LP 10	L-9	240/480	45	175	A	1	CC2	CIR2	RAMP 'C'	317+71	33.3	LT	558663.8089	1833485.0957
	LP 11	L-9	240/480	45	175	A	1	CC2	CIR2	RAMP 'C'	318+37	26.0	LT	BARRIER WALL	
	LP 12	L-10	240/480	45	175	A	1	CC2	CIR2	RAMP 'C'	320+22	26.0	LT	BARRIER WALL	
	LP 13	L-10	240/480	45	175	A	1	CC2	CIR2	RAMP 'C'	322+08	25.5	LT	BARRIER WALL	
	LP 14	L-10	240/480	45	175	A	1	CC2	CIR2	RAMP 'C'	323+95	12.0	LT	BARRIER WALL	
(3)	LP 15	L-9	240/480	45	175	A	1	CC1	CIR1	RAMP 'A'	121+48	45.1	LT	558856.6100	1832883.3081

EXISTING ROADWAY LIGHT POLE SCHEDULE

LIGHT POLE NO.	SHEET NO.	VOLTAGE	MOUNTING HEIGHT (FT)	LAMP WATTAGE (LED)	LUMINAIRE TYPE	NO. OF LAMPS	EXISTING CONTROL CENTER NO.	EXISTING CIRCUIT NO.	BASELINE	STATION	OFFSET (FT)	SIDE	NORTHING	EASTING
XLP 1	L-9	240/480	45	175	A	1	CC1	CIR1	RAMP 'A1'	20+90	19.4	RT	558894.7518	1832714.6136
XLP 2	L-9	240/480	45	175	A	1	CC1	CIR1	FORTRESS BLVD	32+60	73.9	LT	558884.5714	1832576.8270
XLP 3	L-9	240/480	45	175	A	1	CC1	CIR1	FORTRESS BLVD	32+50	62.9	RT	558748.5827	1832559.0882
XLP 4	L-9	240/480	45	175	A	1	CC1	CIR1	RAMP 'B'	11+23	20.1	RT	558732.3724	1832747.1798
XLP 5	L-9	240/480	45	175	A	1	CC1	CIR1	RAMP 'B'	13+09	19.6	RT	558668.1195	1832903.9085
XLP 6	L-9	240/480	45	175	A	1	CC1	CIR1	I-24	1315+33	229.5	RT	558515.7250	1833054.8119
XLP 7	L-9	240/480	45	175	A	1	CC1	CIR1	I-24	1317+88	202.2	RT	558343.3696	1833244.1576
XLP 8	L-10	240/480	45	175	A	1	CC1	CIR1	I-24	1320+43	174.8	RT	558170.7359	1833433.8433
XLP 9	L-10	240/480	45	175	A	1	CC1	CIR1	I-24	1322+95	147.5	RT	558000.0553	1833621.7219
XLP 10	L-10	240/480	45	175	A	1	CC1	CIR1	I-24	1325+54	121.3	RT	557823.6586	1833813.1995
XLP 11	L-10	240/480	45	175	A	1	CC1	CIR1	I-24	1328+10	109.4	RT	557639.9488	1833992.0422
XLP 12	L-8	240/480	45	175	B	2	CC1	CIR2	I-24	1297+93	11.4	RT	MEDIAN WALL	
XLP 13	L-8	240/480	45	175	B	2	CC1	CIR2	I-24	1300+35	11.4	RT	MEDIAN WALL	
XLP 14	L-8	240/480	45	175	B	2	CC1	CIR2	I-24	1302+74	11.4	RT	MEDIAN WALL	
XLP 15	L-8	240/480	45	175	B	2	CC1	CIR2	I-24	1305+13	11.4	RT	MEDIAN WALL	
XLP 16	L-9	240/480	45	175	B	2	CC1	CIR2	I-24	1307+55	11.4	RT	MEDIAN WALL	
XLP 17	L-9	240/480	45	175	B	2	CC1	CIR2	I-24	1309+94	11.4	RT	MEDIAN WALL	
XLP 18	L-9	240/480	45	175	B	2	CC1	CIR2	I-24	1312+33	11.4	RT	MEDIAN WALL	
XLP 19	L-9	240/480	45	175	B	2	CC1	CIR3	I-24	1315+15	11.4	RT	MEDIAN WALL	
XLP 20	L-9	240/480	45	175	B	2	CC1	CIR3	I-24	1317+56	11.4	RT	MEDIAN WALL	
XLP 21	L-9	240/480	45	175	B	2	CC1	CIR3	I-24	1319+93	11.4	RT	MEDIAN WALL	
XLP 22	L-10	240/480	45	175	B	2	CC1	CIR3	I-24	1322+43	11.4	RT	MEDIAN WALL	
XLP 23	L-10	240/480	45	175	B	2	CC1	CIR3	I-24	1324+99	11.4	RT	MEDIAN WALL	
XLP 24	L-10	240/480	45	175	B	2	CC1	CIR3	I-24	1327+54	11.4	RT	MEDIAN WALL	
XLP 25	L-10	240/480	45	175	B	2	CC1	CIR3	I-24	1330+17	11.4	RT	MEDIAN WALL	
XLP 26	L-8	240/480	45	175	A	1	CC2	CIR1	I-24	1292+88	88.2	LT	560406.4879	1831802.6382
XLP 27	L-8	240/480	45	175	A	1	CC2	CIR1	I-24	1295+28	92.2	LT	560229.5463	1831964.9119
XLP 28	L-8	240/480	45	175	A	1	CC2	CIR1	I-24	1297+66	96.2	LT	560053.9226	1832126.0056

A = SINGLE LED OFFSET LUMINAIRE WITH 15' ARM
B = DOUBLE LED OFFSET LUMINAIRES WITH 15' ARM
C = UNDERPASS LUMINAIRE

(1) FRONT FACE OF POLE TO BE INSTALLED 20FT FROM EDGE OF TRAVEL PAVEMENT.
(2) FRONT FACE OF POLE TO BE INSTALLED AT THE BACK FACE OF THE SIDEWALK.
(3) FRONT FACE OF POLE TO BE INSTALLED 4FT BEHIND GUARDRAIL.

SEALED BY

BRENDA K. BOOKER
REGISTERED ENGINEER
AGRICULTURE
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

LIGHTING DETAILS

(POLE DATA)

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	L-3
P.I.H.	2025	HSIP-I-24-1(118)	L-6
PS&E	2025	HSIP-I-24-1(118)	L-6

EXISTING ROADWAY LIGHT POLE SCHEDULE

LIGHT POLE NO.	SHEET NO.	VOLTAGE	MOUNTING HEIGHT (FT)	LAMP WATTAGE (LED)	LUMINAIRE TYPE	NO. OF LAMPS	EXISTING CONTROL CENTER NO.	EXISTING CIRCUIT NO.	BASELINE	STATION	OFFSET (FT)	SIDE	NORTHING	EASTING
XLP 29	L-8	240/480	45	175	A	1	CC2	CIR1	I-24	1300+24	100.8	LT	559864.3570	1832300.3093
XLP 30	L-8	240/480	45	175	A	1	CC2	CIR1	I-24	1302+74	109.8	LT	559682.8014	1832473.2849
XLP 31	L-8	240/480	45	175	A	1	CC2	CIR1	I-24	1305+17	117.8	LT	559506.6137	1832640.1766
XLP 32	L-9	240/480	45	175	A	1	CC2	CIR1	I-24	1307+69	136.0	LT	559330.1991	1832821.0032
XLP 33	L-9	240/480	45	175	A	1	CC2	CIR1	I-24	1309+99	154.4	LT	559170.0795	1832987.5754
XLP 34	L-9	240/480	45	175	A	1	CC2	CIR1	I-24	1312+30	171.4	LT	559008.7588	1833153.4372
XLP 35	L-9	240/480	45	175	A	1	CC2	CIR1	RAMP 'D2'	34+26	18.2	LT	558873.2277	1833304.8808
XLP 36	L-9	240/480	45	175	A	1	CC2	CIR1	MEDICAL CENTER PKWY	54+01	64.8	LT	558824.7336	1833529.7183
XLP 37	L-9	240/480	45	175	A	1	CC2	CIR2	MEDICAL CENTER PKWY	54+12	63.8	RT	558695.7763	1833525.4550
XLP 38	L-10	240/480	45	175	A	1	CC2	CIR2	RAMP 'C'	325+95	16.1	LT	557943.9291	1834012.6130
XLP 39	L-10	240/480	45	175	A	1	CC2	CIR2	RAMP 'C'	328+04	24.7	LT	557785.6828	1834149.7131
XLP 40	L-9	240/480	45	175	A	1	CC2	CIR2	MEDICAL CENTER PKWY	50+80	57.7	LT	558839.1992	1833204.8213
XLP 41	L-9	240/480	45	175	A	1	CC1	CIR1	MEDICAL CENTER PKWY	48+39	53.0	LT	558848.8073	1832933.7147
XLP 42	L-9	240/480	45	175	A	1	CC1	CIR1	MEDICAL CENTER PKWY	51+87	52.9	RT	558723.0865	1832933.7147
XLP 43	L-9	240/480	45	175	A	1	CC1	CIR1	MEDICAL CENTER PKWY	49+08	53.0	RT	558737.6893	1833027.6944

EXISTING UNDERPASS LUMINAIRE SCHEDULE

UNDERPASS LUMINAIRE NO.	SHEET NO.	VOLTAGE	MOUNTING HEIGHT (FT)	LAMP WATTAGE (LED)	LUMINAIRE TYPE	NO. OF LAMPS	EXISTING CONTROL CENTER NO.	EXISTING CIRCUIT NO.	BASELINE	STATION	OFFSET (FT)	SIDE	NORTHING	EASTING
XUPL 1	L-9	240/480	17	72	C	1	CC1	CIR4	I-24	1313+04	16.7	RT	ON BRIDGE WALL	
XUPL 2	L-9	240/480	17	72	C	1	CC1	CIR4	I-24	1313+37	16.7	RT	ON BRIDGE WALL	
XUPL 3	L-9	240/480	17	72	C	1	CC1	CIR4	I-24	1314+02	16.7	RT	ON BRIDGE WALL	
XUPL 4	L-9	240/480	17	72	C	1	CC1	CIR4	I-24	1313+37	6.7	RT	ON BRIDGE WALL	
XUPL 5	L-9	240/480	17	72	C	1	CC1	CIR4	I-24	1314+02	6.7	LT	ON BRIDGE WALL	
XUPL 6	L-9	240/480	17	72	C	1	CC1	CIR4	I-24	1314+35	6.7	LT	ON BRIDGE WALL	

A = SINGLE LED OFFSET LUMINAIRE WITH 15' ARM
B = DOUBLE LED OFFSET LUMINAIRES WITH 15' ARM
C = UNDERPASS LUMINAIRE

(1) FRONT FACE OF POLE TO BE INSTALLED 20FT FROM EDGE OF TRAVEL PAVEMENT.
(2) FRONT FACE OF POLE TO BE INSTALLED AT THE BACK FACE OF THE SIDEWALK.
(3) FRONT FACE OF POLE TO BE INSTALLED 4FT BEHIND GUARDRAIL.

SEALED BY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

LIGHTING DETAILS

(POLE DATA)

TYPE	YEAR	PROJECT NO.	SHEET NO.
P.I.H.	2025	HSIP-I-24-1(118)	L-7
PS&E	2025	HSIP-I-24-1(118)	L-7

WIRING AND CONDUIT SCHEDULE

RUN NO.	POLE NO. TO POLE NO.			TRENCHED CONDUIT LENGTH (SCHEDULE 40) (FT)	JACK AND BORE ROADWAY CROSSING LENGTH (SCHEDULE 80) (FT)	CONDUIT IN BARRIER WALL (SCHEDULE 80) (FT)	CABLE LENGTH (FT)	SPECIAL NOTES	EXISTING CONTROL CENTER NO.	EXISTING CIRCUIT NO.	NO. OF 2" CONDUIT (1)	NO. & SIZE OF WIRE
1	XLP 1	TO	LP 5	125			125		CC1	CIR1	1	3 @ #6 AWG 1 @ #6 GROUND
	LP 5	TO	LP 4 THUR LP 2	700			700		CC1	CIR1		
	LP 5	TO	PBA AND LP 15	235	80		315	(A)	CC1	CIR1		
	XLP 4	TO	LP 6	85			85		CC1	CIR1		
	XLP 35	TO	LP 8 AND LP 9	165			165	(B)	CC2	CIR1		
	EX. PB1	TO	PBB AND PBC	195	75		270	(A)	CC2	CIR2		
	PBC	TO	LP 10	40			40		CC2	CIR2		
	PBC	TO	LP 11 THRU LP 14 AND XLP 38, PBD	185		875	1060		CC2	CIR2		
2	LP 2	TO	LP 1	250			250		CC1	CIR1	1	2 @ #6 AWG 1 @ #6 GROUND
	LP 15	TO	XLP 41	55			55		CC1	CIR1		
	XLP 4	TO	LP 7	85			85		CC1	CIR1		
	LP 6	TO	XLP 3	120			120		CC1	CIR1		
	LP 9	TO	XLP 36	80			80	(B)	CC2	CIR1		
	LP 10	TO	XLP 37	55			55		CC2	CIR2		
	XLP 38	TO	XLP 39	215			215	(B)	CC2	CIR2		

(1) MAX ALLOWABLE FILL = 40%

CC1 AND CC2 = CONTROL CENTER '1' AND CONTROL CENTER '2'
LP = LIGHT POLE
XLP = EXISTING LIGHT POLE
EX. PB1 = EXISTING PULL BOX 1
PBA THRU PBD = PULL BOX A THRU PULL BOX D (LABELED "LIGHTING")

(A) CONDUIT AT ROADWAY CROSSING SHALL BE SCHEDULE 80 PVC. INCLUDES TWO (2) CONDUITS PER RUN (1-LIGHTING; 1-SPARE). INCLUDES PULL WIRE FOR SPARE CONDUIT AT ROADWAY CROSSING.

(B) CONTRACTOR SHALL FIELD LOCATE UNDERGROUND PRIMARY POWER LINE LOCATED PARALLEL TO MEDICAL CENTER PKWY NEAR XLP 35, XLP 36, LP 8 AND LP 9. CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING IN AREAS NEAR THIS UTILITY.

SEALED BY

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

LIGHTING DETAILS

(WIRING DATA)

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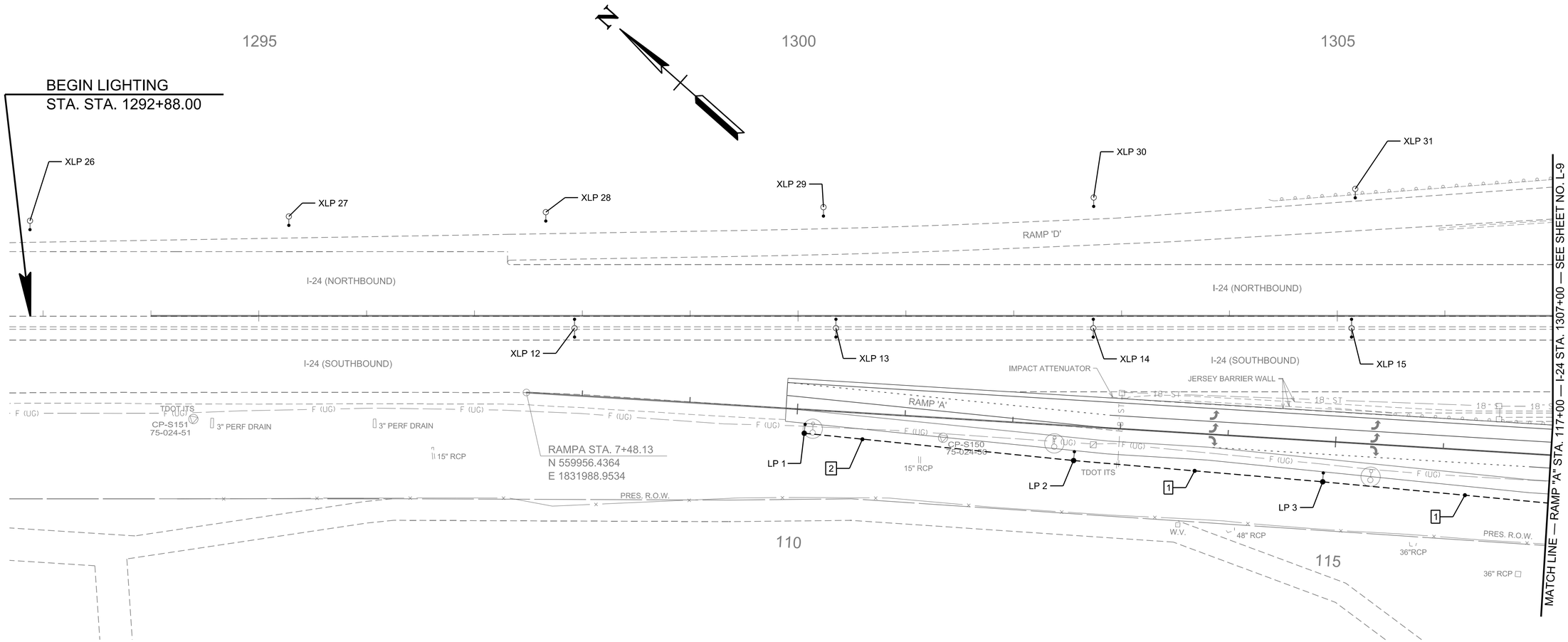
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	L-4
P.I.H.	2025	HSIP-I-24-1(118)	L-8
PS&E	2025	HSIP-I-24-1(118)	L-8



LEGEND

- PROPOSED ROADWAY LED LUMINAIRE WITH 15' ARM ON NEW LIGHT STANDARD (175W, 45' MH, WIRED FOR 240V/480V OPERATION)
- PROPOSED ROADWAY LED LUMINAIRE ON EXISTING LIGHT STANDARD (EXISTING ARM TO BE RE-USED) (175W, 45' MH, WIRED FOR 240V/480V OPERATION)
- PROPOSED DOUBLE ROADWAY LED LUMINAIRES ON EXISTING LIGHT STANDARD (EXISTING ARMS TO BE RE-USED) (175W, 45' MH, WIRED FOR 240V/480V OPERATION)
- PROPOSED WALL PACK LED LUMINAIRE (REPLACE EXISTING) (72W, WIRED FOR 240V/480V OPERATION)
- EXISTING ROADWAY LUMINAIRE WITH ARM ON EXISTING POLE TO REMAIN
- EXISTING ROADWAY LUMINAIRE, ARM AND LIGHT STANDARD TO BE REMOVED
- [1] AND [2] PROPOSED CONDUIT RUN (SEE SHEET L-7)

SEALED BY

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STATE OF TENNESSEE

COORDINATES ARE NAD 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00008 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WITH GEOID 03.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LIGHTING LAYOUT

BOP TO STA.1307+00

SCALE: 1"= 50'

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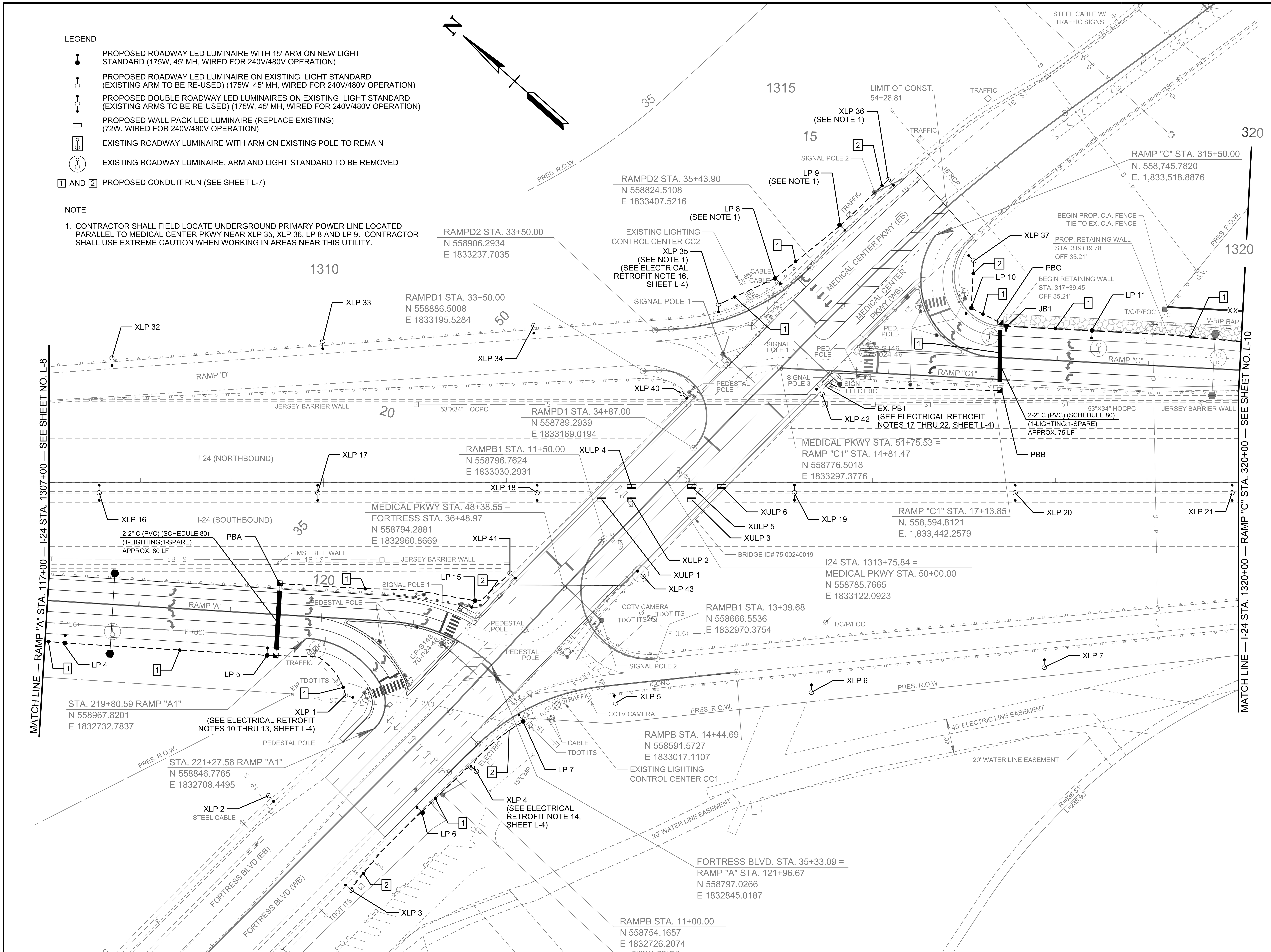
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	L-5
P.I.H.	2025	HSIP-I-24-1(118)	L-9
PS&E	2025	HSIP-I-24-1(118)	L-9

LEGEND

- PROPOSED ROADWAY LED LUMINAIRE WITH 15' ARM ON NEW LIGHT STANDARD (175W, 45' MH, WIRED FOR 240V/480V OPERATION)
- PROPOSED ROADWAY LED LUMINAIRE ON EXISTING LIGHT STANDARD (EXISTING ARM TO BE RE-USED) (175W, 45' MH, WIRED FOR 240V/480V OPERATION)
- PROPOSED DOUBLE ROADWAY LED LUMINAIRES ON EXISTING LIGHT STANDARD (EXISTING ARMS TO BE RE-USED) (175W, 45' MH, WIRED FOR 240V/480V OPERATION)
- PROPOSED WALL PACK LED LUMINAIRE (REPLACE EXISTING) (72W, WIRED FOR 240V/480V OPERATION)
- EXISTING ROADWAY LUMINAIRE WITH ARM ON EXISTING POLE TO REMAIN
- EXISTING ROADWAY LUMINAIRE, ARM AND LIGHT STANDARD TO BE REMOVED
- 1 AND 2 PROPOSED CONDUIT RUN (SEE SHEET L-7)

NOTE

1. CONTRACTOR SHALL FIELD LOCATE UNDERGROUND PRIMARY POWER LINE LOCATED PARALLEL TO MEDICAL CENTER PKWY NEAR XLP 35, XLP 36, LP 8 AND LP 9. CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING IN AREAS NEAR THIS UTILITY.



MATCH LINE — RAMP "A" STA. 117+00 — I-24 STA. 1307+00 — SEE SHEET NO. L-8
MATCH LINE — I-24 STA. 1320+00 — RAMP "C" STA. 320+00 — SEE SHEET NO. L-10
1310
1315
1320
RAMPD2 STA. 35+43.90
N 558824.5108
E 1833407.5216
RAMPD2 STA. 33+50.00
N 558906.2934
E 1833237.7035
RAMPD1 STA. 33+50.00
N 558886.5008
E 1833195.5284
RAMPD1 STA. 34+87.00
N 558789.2939
E 1833169.0194
RAMPB1 STA. 11+50.00
N 558796.7624
E 1833030.2931
MEDICAL PKWY STA. 48+38.55 =
FORTRESS STA. 36+48.97
N 558794.2881
E 1832960.8669
MEDICAL PKWY STA. 51+75.53 =
RAMP "C1" STA. 14+81.47
N 558776.5018
E 1833297.3776
RAMP "C" STA. 315+50.00
N. 558,745.7820
E. 1,833,518.8876
RAMP "C1" STA. 17+13.85
N. 558,594.8121
E. 1,833,442.2579
I24 STA. 1313+75.84 =
MEDICAL PKWY STA. 50+00.00
N 558785.7665
E 1833122.0923
RAMPB1 STA. 13+39.68
N 558666.5536
E 1832970.3754
RAMPB STA. 14+44.69
N 558591.5727
E 1833017.1107
STA. 219+80.59 RAMP "A1"
N 558967.8201
E 1832732.7837
STA. 221+27.56 RAMP "A1"
N 558846.7765
E 1832708.4495
FORTRESS BLVD. STA. 35+33.09 =
RAMP "A" STA. 121+96.67
N 558797.0266
E 1832845.0187
RAMPB STA. 11+00.00
N 558754.1657
E 1832726.2074
LIMIT OF CONST.
54+28.81
XLP 36 (SEE NOTE 1)
LP 9 (SEE NOTE 1)
LP 8 (SEE NOTE 1)
XLP 35 (SEE NOTE 1) (SEE ELECTRICAL RETROFIT NOTE 16, SHEET L-4)
EXISTING LIGHTING CONTROL CENTER CC2
XLP 37
PBC
LP 10
LP 11
JB1
PBB
2-2" C (PVC) (SCHEDULE 80) (1-LIGHTING;1-SPARE) APPROX. 75 LF
EX. PB1 (SEE ELECTRICAL RETROFIT NOTES 17 THRU 22, SHEET L-4)
XLP 42
XLP 40
XLP 32
XLP 33
XLP 34
XLP 17
XLP 16
XLP 18
XULP 4
XULP 6
XULP 5
XULP 3
XULP 2
XULP 1
XLP 19
XLP 20
XLP 21
XLP 41
XLP 43
LP 15
PBA
2-2" C (PVC) (SCHEDULE 80) (1-LIGHTING;1-SPARE) APPROX. 80 LF
LP 4
LP 5
XLP 1 (SEE ELECTRICAL RETROFIT NOTES 10 THRU 13, SHEET L-4)
XLP 2
XLP 3
LP 6
LP 7
XLP 4 (SEE ELECTRICAL RETROFIT NOTE 14, SHEET L-4)
XLP 5
XLP 6
XLP 7
EXISTING LIGHTING CONTROL CENTER CC1
I-24 (NORTHBOUND)
I-24 (SOUTHBOUND)
RAMP 'D'
RAMP 'A'
RAMP "C"
RAMP "C1"
MEDICAL CENTER PKWY (EB)
MEDICAL CENTER PKWY (WB)
FORTRESS BLVD (EB)
FORTRESS BLVD (WB)
JERSEY BARRIER WALL
53"X34" HOCPC
MSE RET. WALL
BRIDGE ID# 75I00240019
PRES. R.O.W.
40' ELECTRIC LINE EASEMENT
20' WATER LINE EASEMENT
BEGIN PROP. C.A. FENCE TIE TO EX. C.A. FENCE
PROP. RETAINING WALL STA. 319+19.78 OFF 35.21'
BEGIN RETAINING WALL STA. 317+39.45 OFF 35.21'
SIGNAL POLE 1
SIGNAL POLE 2
SIGNAL POLE 3
PEDESTAL POLE
CCTV CAMERA
TDOT ITS
STEEL CABLE W/ TRAFFIC SIGNS

SEALED BY

COORDINATES ARE NAD 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00008 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WITH GEOID 03.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LIGHTING LAYOUT

STA. 1307+00 TO STA. 1320+00

SCALE: 1" = 50'

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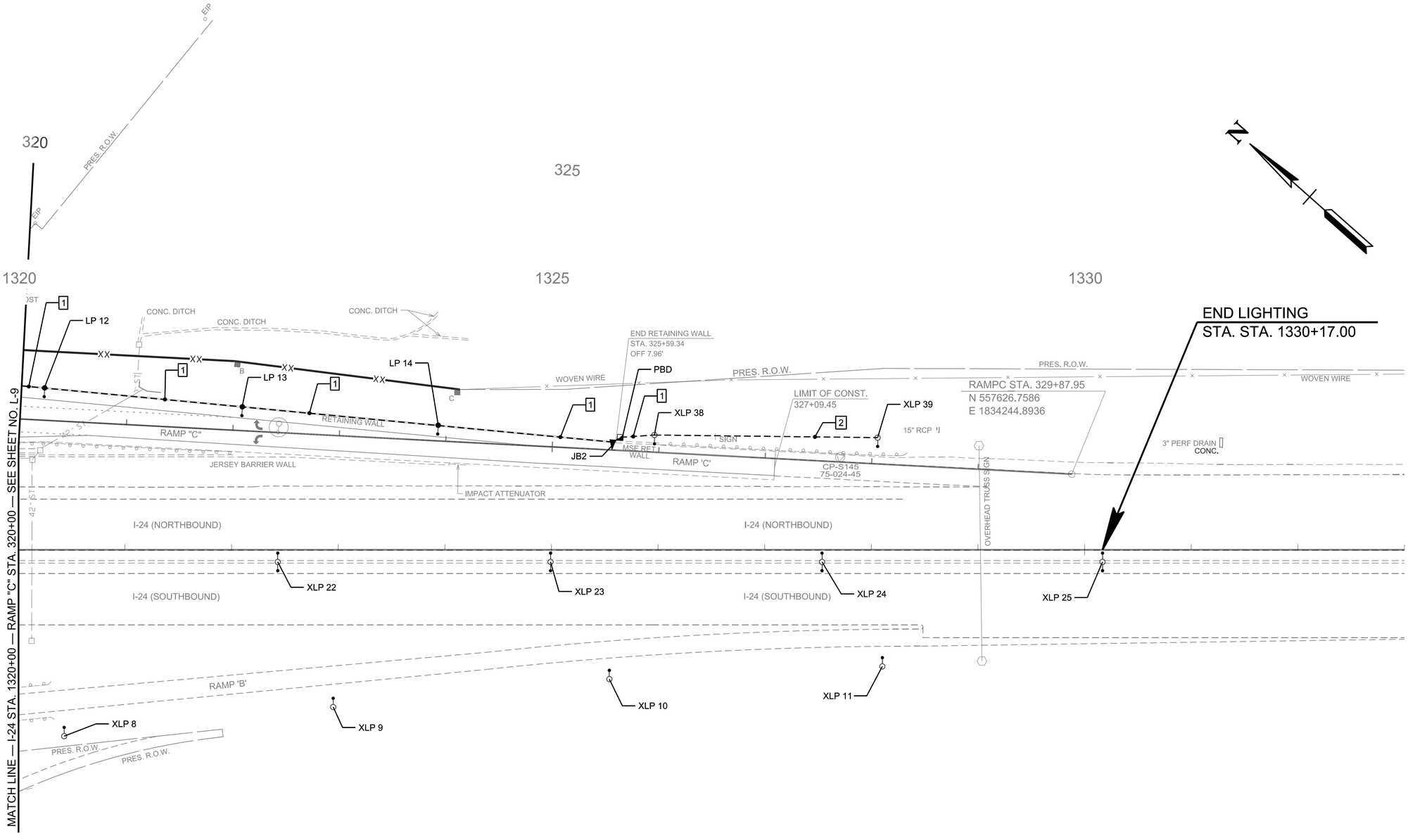
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	L-6
P.I.H.	2025	HSIP-I-24-1(118)	L-10
PS&E	2025	HSIP-I-24-1(118)	L-10



LEGEND

- PROPOSED ROADWAY LED LUMINAIRE WITH 15' ARM ON NEW LIGHT STANDARD (175W, 45' MH, WIRED FOR 240V/480V OPERATION)
- PROPOSED ROADWAY LED LUMINAIRE ON EXISTING LIGHT STANDARD (EXISTING ARM TO BE RE-USED) (175W, 45' MH, WIRED FOR 240V/480V OPERATION)
- PROPOSED DOUBLE ROADWAY LED LUMINAIRES ON EXISTING LIGHT STANDARD (EXISTING ARMS TO BE RE-USED) (175W, 45' MH, WIRED FOR 240V/480V OPERATION)
- PROPOSED WALL PACK LED LUMINAIRE (REPLACE EXISTING) (72W, WIRED FOR 240V/480V OPERATION)
- EXISTING ROADWAY LUMINAIRE WITH ARM ON EXISTING POLE TO REMAIN
- EXISTING ROADWAY LUMINAIRE, ARM AND LIGHT STANDARD TO BE REMOVED
- [1] AND [2] PROPOSED CONDUIT RUN (SEE SHEET L-7)

SEALED BY

BRENDA K. BOOKER — REGISTERED ENGINEER — STATE OF TENNESSEE

COORDINATES ARE NAD 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00008 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WITH GEOID 03.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LIGHTING LAYOUT

STA.1320+00 TO EOP

SCALE: 1"= 50'

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C:\Booker\01_ACTIVE\TDOT\E2029\RUTHERFORD\01_I-24 AT MEDICAL PKWY LIGHTING\06A_PS&E CADD FILES - 022825\L-10.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	L-7
P.I.H.	2025	HSIP-I-24-1(118)	L-11
PS&E	2025	HSIP-I-24-1(118)	L-11

(1-4)

ROADWAY LIGHT POLE SCHEDULE ON BARRIER WALL

RETAINING WALL NO. 1
BEGIN RETAINING WALL RAMP 'C' C_L STA 317+39.45 LT
END RETAINING WALL RAMP 'C' C_L STA 325+59.34 LT

LIGHT POLE NO.	MT. HEIGHT FT	BASELINE	STATION	OFFSET (FT)	SIDE
LP 11	45	RAMP 'C'	318+37	BARRIER WALL	LT
LP 12	45	RAMP 'C'	320+22	BARRIER WALL	LT
LP 13	45	RAMP 'C'	322+08	BARRIER WALL	LT
LP 14	45	RAMP 'C'	323+95	BARRIER WALL	LT

ITEMS 714-01.20 L.S. - STRUCTURAL LIGHTING (RETAINING WALL NO. 1) INCLUDES:
A) 875 L.F. OF 2" C (SCHEDULE 80 PVC)
B) 16 - ANCHOR BOLTS (4 PER POLE)
C) 6 - JUNCTION BOXES (6" x 6") (FOOTNOTE 5)
D) 2 - LIGHTING PULL BOXES (TYPE C)

FOOTNOTES:

(1) CONDUIT SHALL BE RUN THE ENTIRE LENGTH OF THE RETAINING WALL.
(2) WIRE BETWEEN POLES TO BE AS SHOWN IN WIRING AND CONDUIT SCHEDULE, SHT L-7.
(3) SEAL AND COVER OPEN CONDUIT IN FOOTINGS WITH TAPE.
(4) INCLUDES THE COST OF THE PULL WIRE.

NOTES:

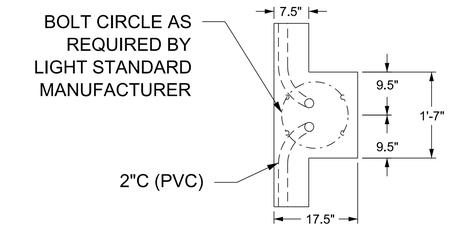
1. LIGHT STANDARD FOUNDATIONS FOR POLES ON THE RETAINING WALL SHALL BE INSTALLED AS AN INTEGRAL PART OF THE RETAINING WALL. PAYMENT SHALL BE INCLUDED IN PAY ITEM 714-01.20. THE LIGHTING CONTRACTOR SHALL COORDINATE LIGHT POLE FOUNDATIONS WITH THE ENGINEER.

2. ANY CONDUIT, ANCHOR BOLTS, AND PULL BOXES INTEGRAL TO THE RETAINING WALL SHALL BE INSTALLED DURING ITS CONSTRUCTION. THE COST FOR THESE ITEMS SHALL BE INCLUDED IN LUMP SUM STRUCTURAL LIGHTING PAY ITEM NUMBER 714-01.20.

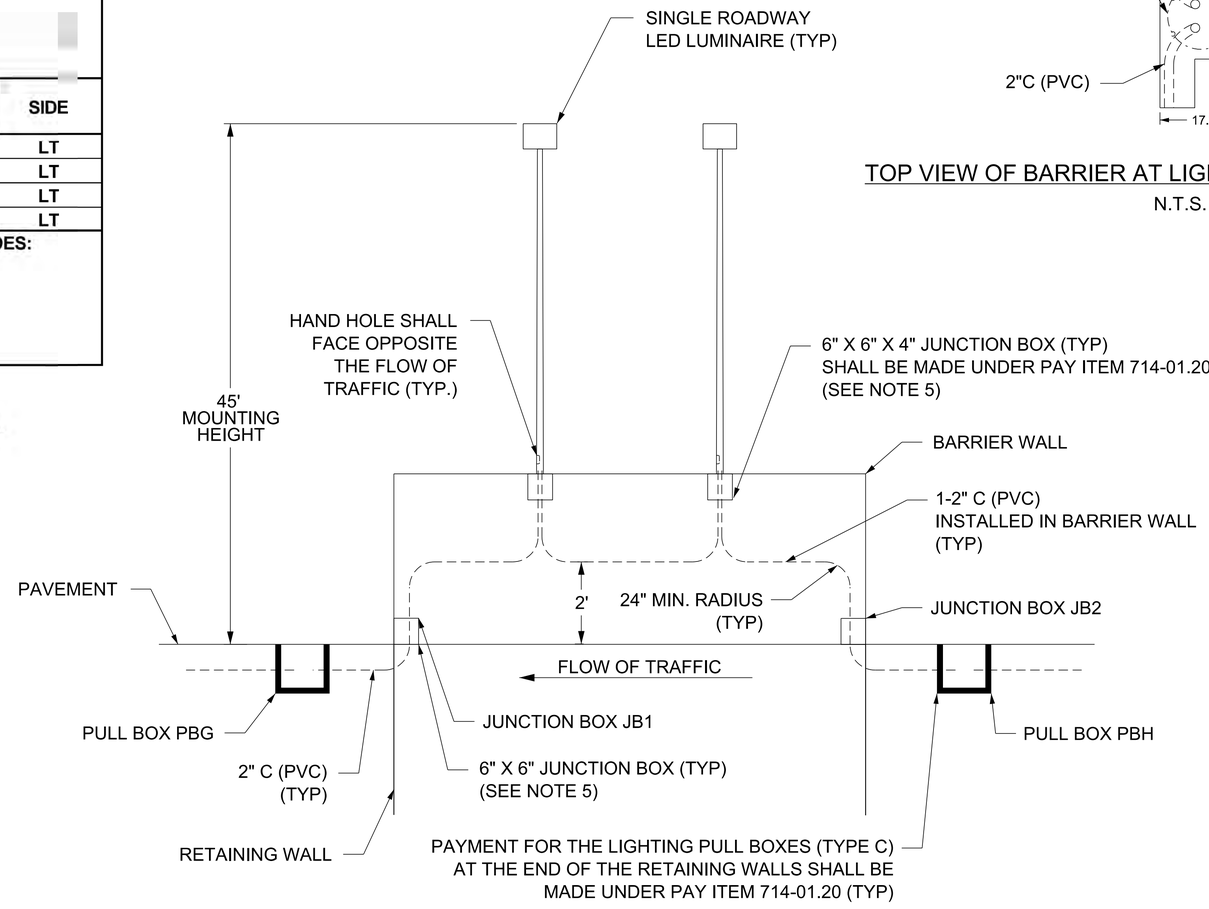
3. THE STRUCTURES (WALL) CONTRACTOR SHALL COORDINATE THE BOLT CIRCLE DESIGN WITH THE ALUMINUM POLE MANUFACTURER.

4. LIGHT STANDARD FOUNDATIONS ON THE RETAINING WALL MAY BE AS SHOWN IN TDOT STD. DWG STD-8-2SS.

5. A JUNCTION BOX SHALL BE LOCATED AT EACH POLE LOCATION AND AT EACH END OF THE RETAINING WALL.



TOP VIEW OF BARRIER AT LIGHT POLE FOUNDATION
N.T.S.



CONDUIT ROUTING FOR BARRIER WALL MOUNTED LIGHT POLES
N.T.S.

SEALED BY

BRENDA K. BOOKER
REGISTERED PROFESSIONAL ENGINEER
AGRICULTURE
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

BARRIER WALL LIGHTING DETAIL

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CONST. NO. 75100-3111-94

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2025	HSIP-I-24-1(118)	R-1

RETAINING WALL INDEX

SHEET NAME **SHEET NO.**

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RETAINING WALL INDEX

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2025	HSIP-I-24-1(118)	R-2

CONST. NO. 75100-3111-94

ACCEPTABLE WALL TYPES

CAST-IN-PLACE CANTILEVER WALL
MECHANICALLY STABILIZED EARTH (MSE) WALL - SEGMENTAL PRECAST
MECHANICALLY STABILIZED EARTH (MSE) WALL - MODULAR BLOCK

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

RETAINING WALL DESIGN NOTES

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

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

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

- AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 2020
- PUBLICATION FHWA-NHI-10-024/FHWA GEC 011, DESIGN AND CONSTRUCTION OF MECHANICALLY STABILIZED EARTH WALLS AND REINFORCED SOIL SLOPES, NOVEMBER 2009 FOR MSE WALLS

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

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

- THE WALL DESIGNER SHALL UTILIZE THE GEOTECHNICAL PARAMETERS AND RESISTANCE FACTORS AS PROVIDED FOR EACH PROJECT RETAINING WALL ON THE "RETAINING WALL DETAIL" SHEET(S) TO PREPARE AND SUBMIT DESIGN CALCULATIONS. LOAD FACTORS AND OTHER PERTINENT DESIGN REQUIREMENTS PROVIDED IN AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 2020 AND INTERIMS SHALL BE USED FOR NON-MSE WALLS AND PUBLICATION FHWA-NHI-10-024/FHWA GEC 011, DESIGN AND CONSTRUCTION OF MECHANICALLY STABILIZED EARTH WALLS AND REINFORCED SOIL SLOPES, NOVEMBER 2009 FOR MSE WALLS.

- CALCULATIONS FOR BOTH INTERNAL AND EXTERNAL STABILITY (SLIDING, ECCENTRICITY, AND BEARING CAPACITY-GLOBAL STABILITY AND SETTLEMENT BEING THE EXCEPTIONS) SHALL BE PROVIDED FOR EACH CRITICAL WALL SECTION WHICH DEMONSTRATES THE REQUIRED CAPACITY TO DEMAND RATIO OF 1.0 IS MET UTILIZING THE DESIGN PARAMETERS PROVIDED. FOR MSE WALLS, THE WALL DESIGNER MUST ADJUST THE REINFORCEMENT LENGTHS BEYOND THOSE MINIMUM REQUIRED LENGTHS, IF REQUIRED, TO MEET BOTH INTERNAL AND EXTERNAL REQUIREMENTS. THE WALL DESIGNER/CONTRACTOR PLANS MUST INCLUDE ANY FOUNDATION IMPROVEMENTS AS REQUIRED HEREIN ON THE WALL DESIGNER/CONTRACTOR'S WALL ELEVATION VIEWS AND ANY CROSS-SECTIONAL DETAIL DRAWINGS.

- UNLESS OTHERWISE STATED, THE WALL DESIGNER CAN ASSUME THAT MINIMUM GLOBAL STABILITY AND SETTLEMENT CRITERIA IS ACHIEVED WITH A WALL DESIGN MEETING OTHER MINIMUM EXTERNAL STABILITY REQUIREMENTS AND ASSUMING WALL FOUNDATION BEARING IMPROVEMENTS ARE MET. WHILE THE WALL DESIGNER'S DESIGN MUST DEMONSTRATE COMPLIANCE WITH EXTERNAL STABILITY REQUIREMENTS AS DISCUSSED ABOVE, THE WALL DESIGNER PROVIDES CERTIFICATION (BY SIGNING AND STAMPING BY PROFESSIONAL ENGINEER REGISTERED IN STATE OF TENNESSEE) OF THE WALLS, PLANS, AND CALCULATIONS "FOR INTERNAL STABILITY ONLY".

- LOAD COMBINATIONS STRENGTH I, EXTREME EVENT I, AND EXTREME EVENT II SHALL BE EVALUATED AS GIVEN IN AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 2020 AND INTERIMS. FOR MSE WALLS, LOAD COMBINATIONS STRENGTH I, EXTREME EVENT I, AND EXTREME EVENT II AS GIVEN IN TABLE 4-1 OF PUBLICATION FHWA-NHI-10-024/FHWA GEC 011, DESIGN AND CONSTRUCTION OF MECHANICALLY STABILIZED EARTH WALLS AND REINFORCED SOIL SLOPES, NOVEMBER 2009 FOR MSE WALLS SHALL BE EVALUATED.

NOTE REGARDING CONSTRUCTION SLOPES

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

GES No. 7519919
VERSION 11/04/2020

TABLE 1 - DESIGN REQUIREMENTS AND PARAMETERS

DESCRIPTION	MSE WALLS	CIP WALLS
DESIGN LIFE	75 YEARS	75 YEARS
SEISMIC ACCELERATION COEFFICIENTS		
As	0.078	0.078
S_{DS}	0.188	0.188
S_{D1}	0.072	0.072
EFFECTIVE (DRAINED) FRICTION ANGLE		
RETAINED BACKFILL-UNCLASSIFIED SITE OR BORROW SOIL	24 °	24 °
RETAINED BACKFILL-SELECT BACKFILL	34 ° TO MAX 40 °	34 ° TO MAX 40 °
REINFORCED BACKFILL	34 ° TO MAX 40 °	NOT APPLICABLE
UNIT WEIGHT		
UNCLASSIFIED SITE OR BORROW SOIL	120 POUNDS PER CUBIC FOOT	120 POUNDS PER CUBIC FOOT
SELECT BACKFILL MATERIAL	VARIES	VARIES
DESIGN BASIS		
COEFFICIENT OF SLIDING FRICTION	SEE TABLE 2	SEE TABLE 3
NOMINAL BEARING RESISTANCE	SEE TABLE 2	SEE TABLE 3
MINIMUM LENGTH OF SOIL REINFORCEMENT, L	GREATER OF 8-FT OR 0.7H OR AS SPECIFIED ON THE PLANS	NOT APPLICABLE
LIMITING ECCENTRICITY	L/4 (SOIL), 3L/8 (ROCK)	B/3 (SOIL), 9B/20 (ROCK)
RESISTANCE FACTORS		
SLIDING-STATIC	1.0	1.0
SLIDING-COMBINED STATIC+EARTHQUAKE	1.0	1.0
BEARING-STATIC	0.65	0.55
BEARING-COMBINED STATIC+EARTHQUAKE	0.9	0.8
PULLOUT RESISTANCE OF METALLIC REINFORCEMENT		
STATIC -STEEL STRIP REINFORCEMENTS -STEEL GRID REINFORCEMENTS	 0.90 0.90	NOT APPLICABLE
COMBINED STATIC/EARTHQUAKE -STEEL STRIP REINFORCEMENTS -STEEL GRID REINFORCEMENTS	 1.20 1.20	NOT APPLICABLE
TENSILE RESISTANCE OF METALLIC REINFORCEMENTS AND CONNECTORS		
STATIC -STRIP REINFORCEMENT -GRID REINFORCEMENT	 0.75 0.65	NOT APPLICABLE
COMBINED STATIC/EARTHQUAKE -STRIP REINFORCEMENT -GRID REINFORCEMENT	 1.00 0.85	NOT APPLICABLE
TENSILE RESISTANCE OF GEOSYNTHETIC REINFORCEMENTS AND CONNECTORS		
STATIC -GEOTEXTILE AND GEOGRID REINFORCEMENTS -GEOSTRIP REINFORCEMENTS	 0.80 0.55	NOT APPLICABLE
COMBINED STATIC/EARTHQUAKE -GEOTEXTILE AND GEOGRID REINFORCEMENTS -GEOSTRIP REINFORCEMENTS	 1.00 1.00	NOT APPLICABLE

NOTES FOR TABLE 1

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

GENERAL NOTES FOR ALL RETAINING WALLS

1. CONTRACTOR TO VERIFY WALL LOCATION COORDINATES PRIOR TO CONSTRUCTION.

2. CONTRACTOR IS RESPONSIBLE FOR CHANGES TO DRAINAGE DUE TO WALL TYPE.

3. ASHLAR STONE FINISH TO BE ON ALL EXPOSED WALL FACES. COST OF ASHLAR STONE FINISH TO BE INCLUDED IN THE UNIT PRICE BID FOR THE RETAINING WALL. THIS DOES NOT APPLY WHEN MODULAR BLOCK WALLS ARE USED.

4. ALL EXPOSED SURFACES OF RETAINING WALLS SHALL BE STAINED SO THAT ALL SURFACES APPEAR UNIFORM IN COLOR. THE COLOR SHALL BE MOUNTAIN GRAY, AMS-STD-595A, COLOR NO. 36440. COST TO BE INCLUDED IN THE UNIT PRICE BID FOR THE RETAINING WALL.

5. THE DESIGN LIFE OF THE RETAINING WALLS SHALL BE A MINIMUM OF 75 YEARS.

6. PAYMENT FOR THE PROPOSED RETAINING WALL WILL BE BASED ON ACTUAL CONSTRUCTED WALL FACE.

7. ALL WALLS MUST FOLLOW THE GUIDELINES ESTABLISHED IN SPECIAL PROVISION 624 (REV. 5-14-18).

8. DEPENDING ON THE WALL TO BE USED, A TEMPORARY RETAINING WALL STRUCTURE MAY BE REQUIRED. COSTS FOR DESIGNING AND INSTALLING THE TEMPORARY STRUCTURE SHALL BE INCLUDED IN THE COST OF THE RETAINING WALL. THE TEMPORARY RETAINING STRUCTURE PLANS WILL BE SUBMITTED FOR REVIEW AT THE SAME TIME THE PERMANENT RETAINING WALL SHOP DRAWINGS ARE SUBMITTED.

9. THE RETAINING WALL SHALL BE CONSTRUCTED INSIDE PROPOSED RIGHT-OF-WAY. IF SHEET PILING WILL BE REQUIRED, COST OF THE SHEET PILING TO BE INCLUDED IN THE UNIT PRICE BID FOR THE RETAINING WALL.

GENERAL NOTES FOR CAST-IN-PLACE (CIP) RETAINING WALLS

1. USE EPOXY COATED REINFORCING STEEL FOR THE FOOTING DOWEL BARS IN THE BACK FACE OF THE RETAINING WALL. COST TO BE INCLUDED IN THE UNIT PRICE BID FOR THE RETAINING WALL.

2. THE UNIT PRICE BID FOR THE RETAINING WALLS SHALL INCLUDE THE COST OF GRANULAR BACKFILL AND DRAINAGE SYSTEM PER STANDARD DRAWING, STD-10-1. THIS UNIT PRICE SHALL INCLUDE THE COST OF ITEMS 303-01.01, 303-01.02, 303-01.03, 710-09.01 AND 710-09.02 AS SHOWN ON STD-10-1. THIS DRAINAGE SYSTEM MAY NOT BE REQUIRED FOR SOME MSE WALLS.

GENERAL NOTES FOR MSE RETAINING WALLS

1. WHEN PARAPET ON TOP OF RETAINING WALL IS REQUIRED AND MSE WALL SYSTEM IS SELECTED, A MOMENT SLAB WILL BE REQUIRED AND PAID FOR IN THE UNIT PRICE BID OF THE RETAINING WALL. DESIGN OF THE MOMENT SLAB IS THE RESPONSIBILITY OF THE WALL SYSTEM COMPANY. MOMENT SLAB IS TO BE DESIGNED BY A TENNESSEE LICENSED ENGINEER.

2. IN THE CONSTRUCTION OF MODULAR BLOCK MSE WALLS, HARD PLASTIC SHIMS ARE PERMITTED AS AN OCCASIONAL HORIZONTAL AND VERTICAL ALIGNMENT TOOL.

OTHER DESIGN REQUIREMENTS

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

IF A CONCRETE CANTILEVER WALL IS USED, THE WALL DESIGNER MUST PROVIDE FOR A DRAINAGE LAYER BEHIND THE WALL STEM WITH ADEQUATE DRAINAGE PROVIDED VIA WEEP HOLES.

ALL WALL ELEMENTS SHALL BE WITHIN TDOT ROW.

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

THE HEEL LENGTH, MEASURED FROM THE FRONT OF THE STEM TO THE BACK OF THE BASE, SHOULD EQUAL OR BE GREATER THAN 0.80 TIMES THE WALL HEIGHT.

IF A STEEPER THAN 1:1 BACK SLOPE IS REQUIRED BEHIND RETAINING WALL OR TEMPORARY SHORING, THE EFFECTIVE FRICTION ANGLE FOR SELECT BACKFILL WILL NOT BE ALLOWABLE FOR DESIGN AND THE EFFECTIVE FRICTION ANGLE FOR UNCLASSIFIED SITE OR BORROW SITE SHALL BE REQUIRED.

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

FOR FOUNDATION IMPROVEMENT AND EXCAVATION ZONE DETAILS, SEE TYPICAL DETAIL FOR UNDERCUTTING AND BACKFILLING DETAIL ON ACCOMPANYING SHEET.

WHERE A PROPOSED RETAINING WALL MEETS AN EXISTING RETAINING WALL OR ANOTHER STRUCTURE, THE INTERFACE SHOULD BE ONE VERTICAL JOINT. THIS INTERFACE SHOULD BE DESIGNED TO PREVENT LOSS OF FINES AND ALLOW FOR DIFFERENTIAL SETTLEMENT. DETAILS OF THIS JOINT SHALL BE PROVIDED IN WALL DESIGNER/CONTRACTOR'S WALL DESIGN PLANS AND COSTS SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE WALL.

FOR MSE WALLS, A MINIMUM HORIZONTAL BENCH 4 FEET WIDE AS MEASURED FROM THE FACE SHALL BE PROVIDED IN FRONT OF WALLS FOUNDED ON SLOPES. THE BENCH MAY BE FORMED OR THE SLOPE CONTINUED ABOVE THAT LEVEL. SEE ARTICLE 11.10.2.2, AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 2020 AND INTERIMS. ALTERNATIVELY, THE EMBEDMENT DEPTH MAY BE INCREASED TO SATISFY THE REQUIREMENTS.

TEMPORARY SHORING SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER.

THE LATERAL DEFLECTION AT THE TOP OF THE WALL SHALL BE LIMITED TO 1/8" PER FOOT OF HEIGHT.

TABLE 2 - FOUNDATION PARAMETERS AND REQUIREMENTS FOR MSE WALLS. SEE "RETAINING WALL GEOMETRIC LAYOUT" SHEET.

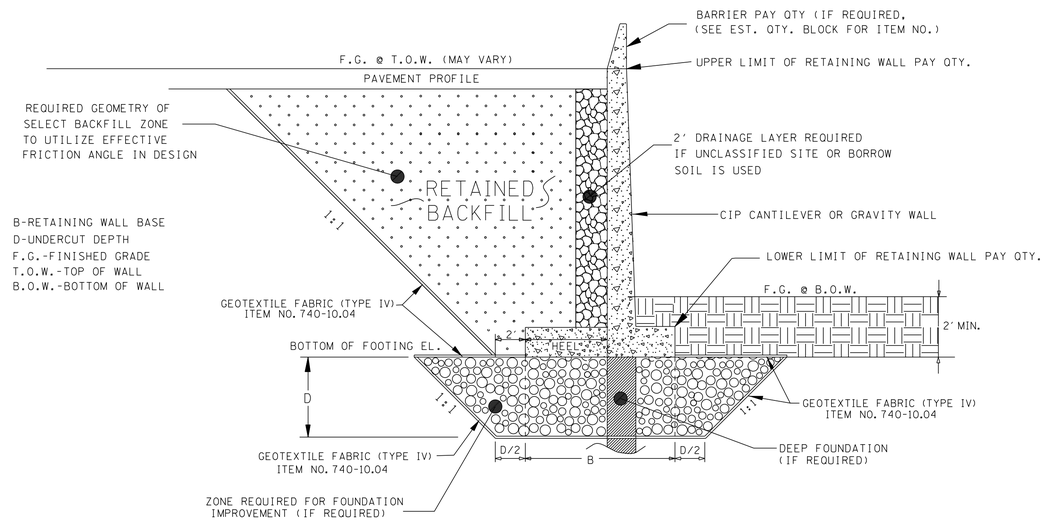
TABLE 3 - FOUNDATION PARAMETERS AND REQUIREMENTS FOR OTHER GRAVITY OR SEMI-GRAVITY WALLS. SEE "RETAINING WALL GEOMETRIC LAYOUT" SHEET.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

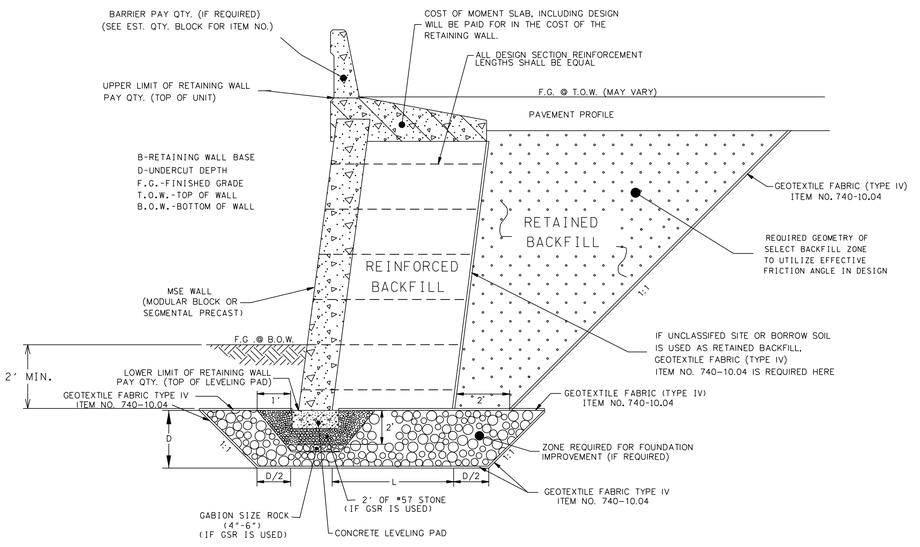
RETAINING WALL GEOTECHNICAL DESIGN NOTES & REQUIREMENTS

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2025	HSIP-I-24-1(118)	R-3

CONST. NO. 75100-3111-94



TYPICAL DETAIL
CIP CONCRETE CANTILEVER OR GRAVITY WALL
BARRIER REQUIRED



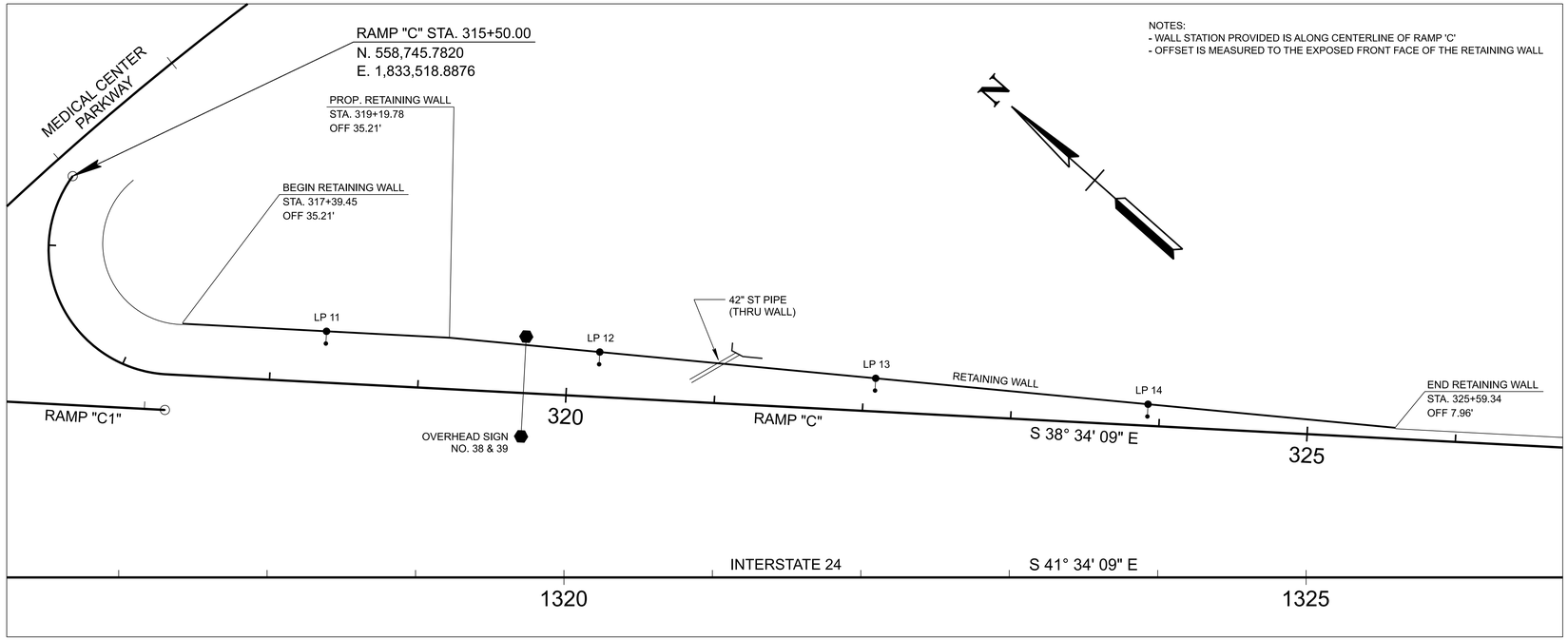
TYPICAL DETAIL
MSE WALL – MODULAR BLOCK/SEGMENTAL PRECAST
BARRIER REQUIRED

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RETAINING WALL TYPICAL DETAILS

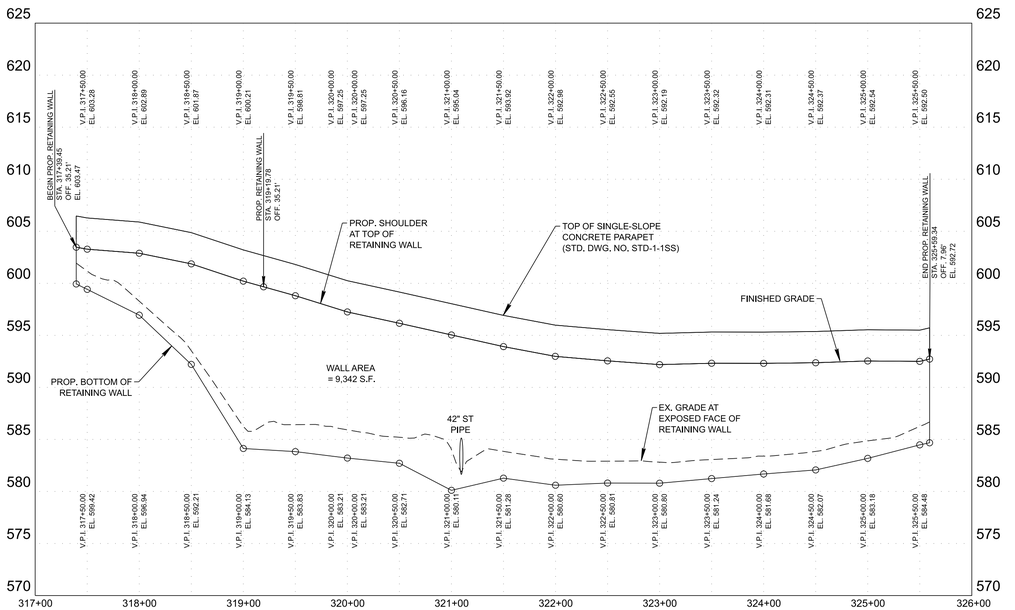
TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2025	HSIP-I-24-1(118)	R-4

CONST. NO. 75100-3111-94



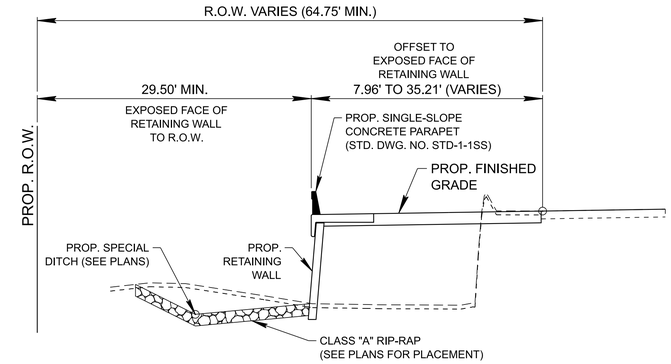
PROFILE VIEW OF RETAINING WALL

SCALE: 1" = 50'



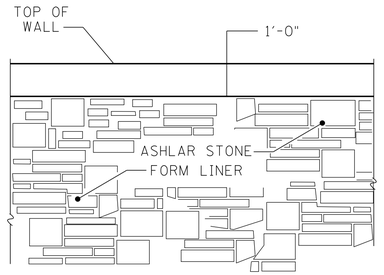
PROFILE VIEW OF RETAINING WALL

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



RAMP 'C' TYPICAL SECTION

NOT TO SCALE



DETAIL AT TOP OF WALLS

(WHEN CAST-IN-PLACE WALL IS USED)

ESTIMATED QUANTITIES

ITEM NO.	604-07.01	620-05.01
DESCRIPTION	RETAINING WALL (NO. 1)	CONCRETE PARAPET SINGLE SLOPE (STD-1-1SS)
UNIT	S.F.	L.F.
QUANTITY	9,342	821

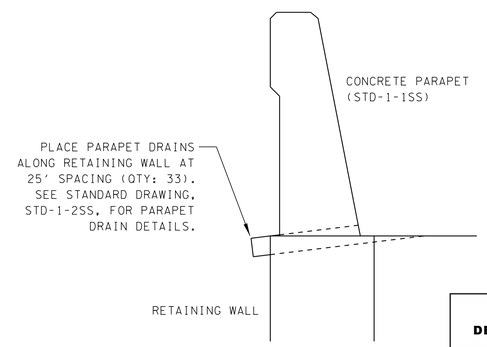
NOTES:
- THE RETAINING WALL ESTIMATED QUANTITY IS BASED ON THE SURFACE AREA BETWEEN THE TOP OF WALL AND TWO FEET BELOW THE GROUND LINE.
- RETAINING WALL ITEM AND CONCRETE PARAPET ITEM ARE INCLUDED IN THE ESTIMATED QUANTITIES FOR THE ROADWAY CONSTRUCTION PLANS.
- COST OF PARAPET DRAINS TO BE INCLUDED IN THE UNIT PRICE BID FOR THE CONCRETE PARAPET.

TABLE 2-FOUNDATION PARAMETERS AND REQUIREMENTS FOR MSE WALLS

STATION LIMITS	FOUNDATION (REINFORCED ZONE) BEARING CONDITION REQUIREMENT	NOMINAL BEARING RESISTANCE (psf)	COEFFICIENT OF SLIDING FRICTION
317+25.07 TO 324+09.04	UNDERCUT 3 FEET BELOW PROPOSED FOOTING ELEVATION AND REPLACE WITH GRADED SOLID ROCK	6200	0.55

TABLE 3-FOUNDATION PARAMETERS AND REQUIREMENTS FOR GRAVITY OR SEMI-GRAVITY WALLS

STATION LIMITS	FOUNDATION BEARING CONDITION REQUIREMENT	NOMINAL BEARING RESISTANCE (psf)	COEFFICIENT OF SLIDING FRICTION
317+25.07 TO 324+09.04	UNDERCUT 3 FEET BELOW PROPOSED FOOTING ELEVATION AND REPLACE WITH GRADED SOLID ROCK	6200	0.55



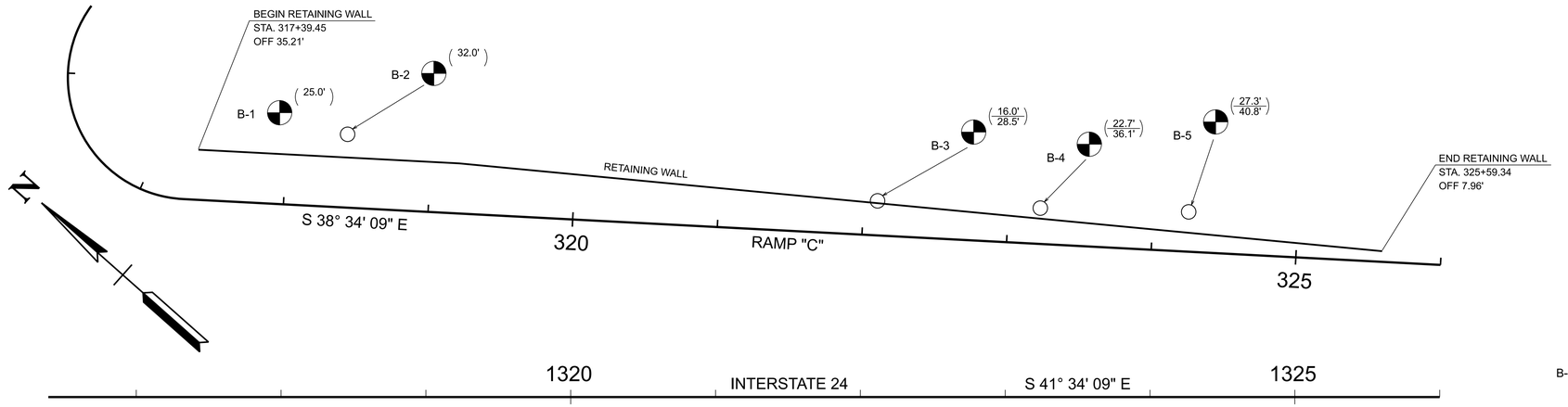
PARAPET DETAILS

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RETAINING WALL GEOMETRIC LAYOUT

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2025	HSIP-I-24-1(118)	R-5

CONST. NO. 75100-3111-94



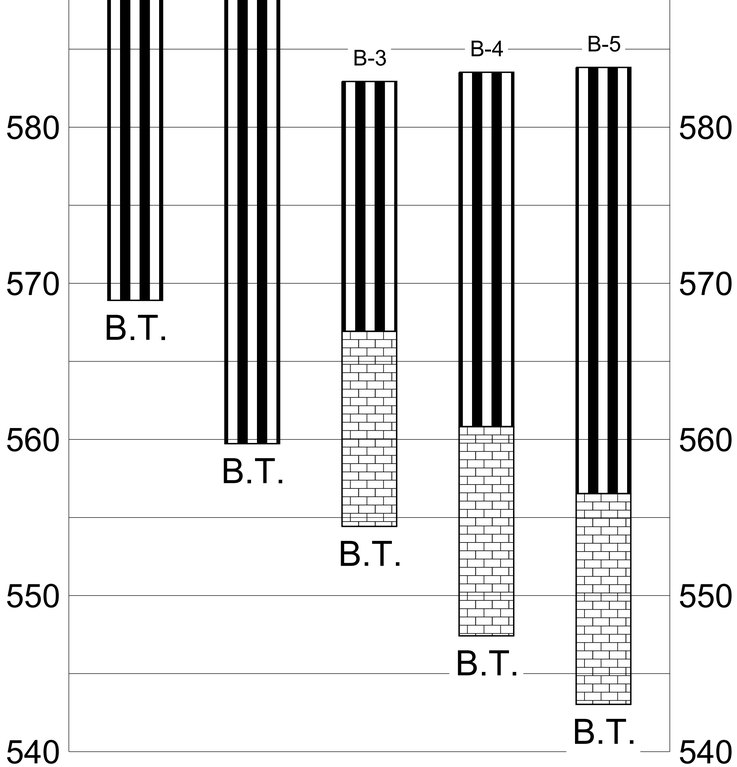
PLAN VIEW OF BORING LOCATIONS

SCALE: 1" = 50'

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 TERMINATION DEPTH (NO REFUSAL)



BORING PROFILES

NOT TO SCALE

LEGEND

ELASTIC SILT

LIMESTONE

TYPE MATERIAL-SEE DEFINITION OF EARTHWORK TERMS ON GEOTECHNICAL NOTES AND EST. QTYS. SHEET.

B.T.= BORING TERMINATED

BORING NO.	STATION	OFFSET	GROUND ELEVATION	ROCK ELEVATION	TOTAL DEPTH
1	317+94.11	LT. 63.06'	593.91	N/A	25.0'
2	318+41.72	LT. 50.63'	591.73	N/A	32.0'
3	322+09.56	LT. 23.85'	582.93	566.93	28.5'
4	323+22.03	LT. 24.74'	583.52	560.82	36.1'
5	324+24.47	LT. 27.49'	583.83	556.53	40.8'

NOTE:
BORING DEPICTIONS SHOWN ON FOUNDATION DATA SHEET INDICATE GENERAL SOIL AND ROCK TYPES AT THE SPECIFIC BORING LOCATIONS.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RETAINING WALL SOIL PROFILES

THIS DOCUMENT HAS BEGUN DIGITALLY SIGNED AND SEALED BY:

WILLIAM EDWARD TODD III
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 122054
STATE OF TENNESSEE

Trey Todd 2025.04.02 11:41:47 -05'00'

04/02/2025

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED. THE SIGNATURE MUST BE VERIFIED ON THE ELECTRONIC DOCUMENTS.

NEEL-SCHAFFER, INC.
201 EAST MAIN STREET
SUITE 325
MURFREESBORO, TENNESSEE 37130
WILLIAM EDWARD TODD, III, P.E. NO. 122054

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.
SIGNAL INDEX OF SHEETS AND SPECIAL NOTES	SIG-1
ESTIMATED SIGNAL QUANTITIES	SIG-1A
SIGNAL PLANS	SIG-2 — SIG-3
SIGNAL DETAILS	SIG-2A — SIG-3A

YEAR	PROJECT NO.	SHEET NO.
2025	HSIP-I-24-1(118)	SIGNAL-SIGN1

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNATURE SHEET

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	SIG-1
PS&E	2025	HSIP-I-24-1(118)	SIG-1

SIGNAL INDEX OF SHEETS AND SPECIAL NOTES

SIGNAL INDEX OF SHEETS

MISCELLANEOUS

(1) ALL CONSTRUCTION, EQUIPMENT, AND INSTALLATION PROCEDURES SHALL COMPLY WITH THE CURRENT EDITION OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION (TDOT) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND WITH THE CURRENT STANDARDS AND SPECIFICATIONS OF THE CITY OF MURFREESBORO. SIGNAL INSTALLATION AND EQUIPMENT SHALL COMPLY WITH SECTION 730R-TRAFFIC SIGNALS.

(2) ALL TRAFFIC SIGNAL AND SIGN INSTALLATION PROCEDURES AND EQUIPMENT SHALL CONFORM TO THE STANDARDS SET FORTH IN THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

(3) THE CONTRACTOR SHALL HAVE RESPONSIBILITY TOWARD THE SAFETY AND CONVENIENCE OF THE GENERAL PUBLIC AND RESIDENTS ALONG THE PROPOSED CONSTRUCTION AREA. NOTHING CONTAINED IN THE GENERAL NOTES OR SPECIAL PROVISIONS SHALL RELIEVE THE CONTRACTOR FROM THESE RESPONSIBILITIES.

UTILITIES

(1) IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY EACH INDIVIDUAL UTILITY OWNER OF HIS PLAN OF OPERATION IN THE AREA OF UTILITIES. PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL CONTACT THE RESPECTIVE UTILITY ON THE GROUND. THIS NOTIFICATION SHALL BE GIVEN AT LEAST THREE (3) BUSINESS DAYS PRIOR TO COMMENCEMENT OF OPERATIONS AROUND THE UTILITY. SOME UTILITIES CAN BE LOCATED BY CALLING THE TENNESSEE ONE CALL SYSTEM INC., AT 1-800-351-1111.

(2) THE SIGNAL INSTALLATION SHALL MEET THE NATIONAL ELECTRICAL SAFETY CODE AND LOCAL UTILITY REQUIREMENTS FOR CLEARANCES AND ATTACHMENT HEIGHTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE LOCAL UTILITIES FOR ANY ADJUSTMENT OF RELOCATION WORK REQUIRED.

(3) THE CONTRACTOR WILL PROVIDE ALL NECESSARY 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 AN INCIDENTAL COST TO BE INCLUDED IN THE PRICE BID OR THE OVERALL PROJECT.

(4) PRIOR TO SUBMITTING THEIR BID, THE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR CONTACTING OWNERS OF ALL AFFECTED UTILITIES IN ORDER TO DETERMINE THE EXTENT TO WHICH UTILITY LOCATIONS AND/OR ADJUSTMENTS WILL HAVE UPON THE SCHEDULE OF WORK FOR THE PROJECT. THE CONTRACTOR SHALL COORDINATE WITH AFFECTED UTILITY OWNERS DURING CONSTRUCTION AS SOME WORK MAY BE REQUIRED NEAR UTILITY FACILITIES THAT WILL REMAIN IN PLACE, WHILE OTHER UTILITY FACILITIES MAY NEED TO BE ADJUSTED CONCURRENTLY WITH THE CONTRACTOR'S OPERATIONS.

(5) THE CONTRACTOR IS RESPONSIBLE FOR SECURING ALL NECESSARY PERMITS. ELECTRICAL CONNECTIONS SHALL BE COORDINATED WITH THE APPROPRIATE LOCAL UTILITY.

(6) CONTRACTOR SHALL COORDINATE WITH LOCAL UTILITY TO ARRANGE POWER SERVICE. POWER SERVICE SHALL INCLUDE METER AND/OR DISCONNECT, IF REQUIRED, WITH COST INCLUDED IN PAY ITEM FOR POWER SERVICE.

SIGNALIZATION

(1) THE DESIGN OF TRAFFIC SIGNAL SUPPORT POLES, MAST ARMS, STRAIN POLES, ETC. SHALL BE IN CONFORMANCE WITH THE AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, CURRENT EDITION. OVERHEAD CANTILEVERED TRAFFIC SIGNAL STRUCTURES SHALL BE DESIGNED FOR FATIGUE CATEGORY 1.

(2) NEW TRAFFIC SIGNAL SUPPORT POLE(S) SHALL BE SMOOTH, ROUND, TAPERED. MULTI-SIDED POLES SHALL NOT BE ACCEPTED. POLE SUPPORT MATERIAL SHALL INCLUDE BLACK POWDER COAT FINISH PER CITY SPECIFICATIONS.

(3) POLE SCHEDULE INFORMATION PROVIDED FOR ESTIMATION AND DESIGN PURPOSES BY MANUFACTURER ONLY. ADJUSTMENTS TO POLE POSITIONS SHALL BE COORDINATED WITH CITY OF MURFREESBORO AND ENGINEER PRIOR TO CONSTRUCTION AND MAY PROCEED ONLY WITH PRIOR APPROVAL. FINAL POLE DESIGN CRITERIA SHALL REFLECT ANY ADJUSTMENT OF POSITION, INCLUDING ADDITIONAL MAST ARM LENGTH.

(4) THE CONTRACTOR SHALL BE RESPONSIBLE FOR STAKING POLE LOCATIONS PER PLANS. IF A CONFLICT IS PRESENT THE CONTRACTOR SHALL DETERMINE AN ALTERNATIVE LOCATION. CONTRACTOR TO VERIFY WITH ALL UTILITIES THAT POLE FOUNDATION LOCATIONS AS STAKED ARE NOT IN CONFLICT WITH EXISTING UTILITIES OR PLANNED FUTURE IMPROVEMENTS. PRIOR TO INSTALLATION APPROVAL MUST BE RECEIVED FROM THE CITY OF MURFREESBORO AND THE ENGINEER. COST FOR STAKING TRAFFIC SIGNAL POLE POSITIONS, OR ANY OTHER FEATURES, SHALL BE PAID UNDER ITEM NO. 105-01.

(5) FOUNDATIONS ARE TO CONFORM TO TDOT STANDARD DRAWINGS. POLE FABRICATION AND DESIGN CRITERIA SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF TENNESSEE.

(6) SHAFTS FOR FOOTINGS SHALL BE DRILLED THROUGH FIRM, UNDISTURBED, UNSATURATED SOIL AND SHALL BE VISUALLY INSPECTED BY THE ENGINEER OR ENGINEERING REPRESENTATIVE PRIOR TO PLACEMENT OF REINFORCEMENT. THE ENGINEER OR ENGINEERING REPRESENTATIVE SHALL BE ADVISED BY THE CONTRACTOR OF ANY GROUND WATER OR LOOSE SOIL ENCOUNTERED DURING DRILLING. FOOTINGS SHALL COMPLY WITH TDOT STANDARD DRAWING T-SG-10.

(7) ALL FOUNDATIONS FOR SIGNAL POLES AND THE CONTROLLER CABINET SHALL HAVE ONE SPARE TWO INCH CONDUIT STUB-OUT INSTALLED PARALLEL TO THE ROADWAY. NO GROUT SHALL BE PLACED AT THE BASE OF THE STEEL POLE BETWEEN THE POLE BASE AND FOUNDATION. BASE OF POLE SHALL REMAIN OPEN TO PERMIT DRAINAGE AND AIR CIRCULATION.

TRAFFIC SIGNAL HEADS

(1) ALL NEW TRAFFIC SIGNAL HEADS SHALL BE FABRICATED FROM ALUMINUM AND SHALL HAVE 12" LED TRAFFIC SIGNAL HEAD. PLACEMENT SHALL BE IN ACCORDANCE WITH TDOT STANDARD DRAWINGS T-SG-7A, T-SG-7B, T-SG-7F, AND T-SG-7K. THE ENGINEER SHALL BE NOTIFIED BY THE CONTRACTOR OF ANY PROPOSED FIELD ADJUSTMENTS TO THE SIGNAL HEADS REGARDING THEIR ALIGNMENT, PLACEMENT, OR ATTACHMENT HEIGHT SUCH THAT THE ENGINEER MAY EVALUATE WHETHER THE PROPOSED CHANGES ARE ADVISABLE.

(2) CIRCULAR INDICATIONS SHALL MEET "ITE VTCSH-LED CIRCULAR SIGNAL SUPPLEMENT" FOR EXPANDED/EXTENDED VIEW. CIRCULAR INDICATIONS SHALL BE DURALIGHT MODEL JXC300-07 SERIES 12-INCH LED.

(3) ARROW INDICATIONS SHALL MEET "ITE VTCSH-3 LED ARROW SPECIFICATION" FOR EXPANDED/EXTENDED VIEW. ARROW INDICATIONS SHALL BE DURALIGHT MODEL JXJ300-07 SERIES 12-INCH LED.

(4) MANUFACTURER SHALL PROVIDE A MINIMUM FIVE-YEAR WARRANTY FOR OPERATION OF THE UNIT.

(5) THE ENTIRE SIGNAL HEAD DISPLAYS SHALL BE BLACK IN COLOR. ALL SIGNAL HEAD EQUIPMENT INCLUDING, BUT NOT LIMITED TO, FRAME, HOUSING, VISORS, BACKPLATES, AND ILLUMINATION TYPE SHALL BE APPROVED BY THE CITY OF MURFREESBORO PRIOR TO INSTALLATION.

(6) ALL TRAFFIC SIGNAL HEADS SHALL INCLUDE YELLOW RETROREFLECTIVE STRIP PER TDOT STANDARD DRAWING T-SG-9A.

.

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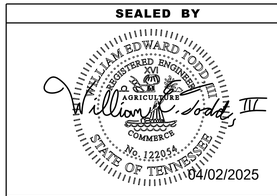


04/02/2025

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNAL INDEX OF SHEETS AND SPECIAL NOTES

TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2025	HSIP-I-24-1(118)	SIG-1A

ESTIMATED SIGNAL QUANTITIES

	ITEM NO.	DESCRIPTION	UNIT	QUANTITY 75100-2111-94
(10)	713-15.07	SUSPENDED FLAT SHEET ALUMINUM SIGN (0.080" THICK)	EACH	7
(8)	730-01.01	REMOVE & RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	2
(1)	730-01.02	REMOVAL OF SIGNAL EQUIPMENT	EACH	2
	730-02.09	SIGNAL HEAD ASSEMBLY (130 WITH BACKPLATE)	EACH	11
	730-02.03	SIGNAL HEAD ASSEMBLY (130 A3 WITH BACKPLATE)	EACH	10
	730-02.30	SIGNAL HEAD ASSEMBLY (130 A3 POLE MOUNTED)	EACH	5
	730-02.59	SIGNAL HEAD ASSEMBLY (140 A4F WITH BACKPLATE)	EACH	1
	730-03.21	INSTALL PULL BOX (TYPE B)	EACH	20
(2)	730-08.02	SIGNAL CABLE - 5 CONDUCTOR	L.F.	10830
	730-08.03	SIGNAL CABLE - 7 CONDUCTOR	L.F.	2855
	730-12.02	CONDUIT 2" DIAMETER (PVC SCHEDULE 40)	L.F.	1160
(3)	730-12.24	CONDUIT 3" DIAMETER (DIRECTIONAL BORE)	L.F.	2310
(4)	730-13.08	VEHICLE DETECTOR (NO TRAFFIC DETECTION)	EACH	8
	730-15.40	CABINET (EIGHT PHASE BASE MOUNTED)	EACH	2
(9)	730-23.28	PEDESTAL POLE (TYPE A)	EACH	9
	730-23.29	PEDESTAL POLE (TYPE B)	EACH	5
(5)	730-23.55	CANTILEVER SIGNAL SUPPORT (2 @ 20' & 45')	EACH	1
(5)	730-23.72	CANTILEVER SIGNAL SUPPORT (1 ARM @ 35')	EACH	1
(5)	730-25.01	CANTILEVER SIGNAL SUPPORT (1 ARM @ 50')	EACH	1
(5)	730-25.07	CANTILEVER SIGNAL SUPPORT (1 ARM @ 55')	EACH	1
(5)	730-25.04	CANTILEVER SIGNAL SUPPORT (2 @ 50' & 60')	EACH	1
(5)	730-25.07	CANTILEVER SIGNAL SUPPORT (1 ARM @ 55')	EACH	1
(5)	730-25.14	CANTILEVER SIGNAL SUPPORT (1 ARM @ 70')	EACH	1
	730-26.05	COUNTDOWN PEDESTRIAN SIGNAL	EACH	2
	730-26.06	PEDESTRIAN PUSHBUTTON POST	EACH	1
(6)	730-26.09	PEDESTRIAN PUSHBUTTON WITH 15IN SIGN	EACH	2
	730-26.11	COUNTDOWN PED SGNL HEAD W/AUDIBLE PUSH BUTTON & 15IN SIGN	EACH	10
(7)	730-35.50	ROAD SIDE UNIT (RSU)	EACH	2

FOOTNOTES

(1) ITEM TO BE MEASURED BY INTERSECTION. ITEM TO BE USED FOR THE REMOVAL OF EXISTING SIGNAL EQUIPMENT WHICH INCLUDES CANTILEVER SIGNAL POLES, CANTILEVER ARMS, SIGNAL HEADS, SIGNS, AND DETECTION EQUIPMENT. ALL SALVAGEABLE EQUIPMENT SHALL BE RETURNED TO THE CITY OF MURFREESBORO.

(2) ITEM TO BE USED FOR SIGNAL CABLE TO COUNTDOWN SIGNAL HEADS, APS PUSHBUTTONS, AND SUPPLEMENTAL SIGNAL HEADS.

(3) CONDUIT SHALL BE SCHEDULE 80 PVC.

(4) ITEM SHALL INCLUDE RADAR DETECTOR, MOUNTING HARDWARE, AND ALL CABINET COMPONENTS. ITEM TO BE NO TRAFFIC TYPE PER CITY OF MURFREESBORO 730R SPECIFICATIONS AND APPROVED PROPRIETARY LIST.

(5) SEE SPECIAL PROVISION 700SIG FOR POLE DESIGN REQUIREMENT. 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 STANDARD DRAWING T-SG-10.

(6) PEDESTRIAN PUSHBUTTON SHALL BE APS TYPE.

(7) ITEM MUST BE EQUIPPED WITH DUAL-MODE RADIOS CAPABLE OF COMMUNICATIONS WITH BOTH DSRC AND C-V2X.

(8) CONTRACTOR SHALL MOVE & RELOCATE EXISTING SMARTWAY EQUIPMENT TO NEW SIGNAL POLES AS DIRECTED BY THE PROJECT ENGINEER. ITEM SHALL INCLUDE ALL REQUIRED MOUNTING HARDWARE AND CABLING REQUIRED FOR DEVICE OPERATION.

(9) ITEM SHALL BE 10' POLE

(10) ITEM TO INCLUDE SIX (6) R10-11A SIGNS AND ONE (1) R10-12A SIGN.

SEALED BY

WILLIAM EDWARD TODD III REGISTERED ENGINEER XVI AGRICULTURE COMMERCE No. 122054 STATE OF TENNESSEE

William E. Todd III

04/02/2025

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

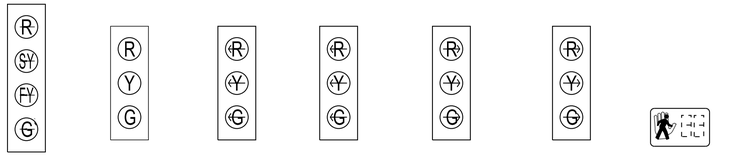
ESTIMATED SIGNAL QUANTITIES

SIGNAL PHASING DIAGRAM

Ø1	Ø2	NOT USED Ø3	Ø4
Ø5	Ø6	NOT USED Ø7	NOT USED Ø8

-MIN RECALL: Ø2,Ø6
-PROT/PERM PHASING: Ø1
-PROT-ONLY PHASING: Ø5
-OLA = Ø4
-FLASHING OPERATION: YELLOW - Ø2,Ø6; RED - Ø4,Ø5

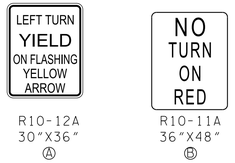
SIGNAL HEADS



TYPE 140A4F W/ BACKPLATE 12" L.E.D. — 1
TYPE 130 W/ BACKPLATE 12" L.E.D. — 2,6
TYPE 130A3L W/ BACKPLATE 12" L.E.D. — 4
TYPE 130A3L 12" L.E.D. POLE MOUNT — 4P
TYPE 130A3R W/ BACKPLATE 12" L.E.D. LOUVERED — 5
TYPE 130A3R 12" L.E.D. POLE MOUNT — 5P
COUNTDOWN PEDESTRIAN SIGNAL — P2,P6

*NOTE: ALL BACKPLATES SHALL INCLUDE YELLOW REFLECTIVE STRIP (1" MIN 3"MAX WIDTH)

SIGNS



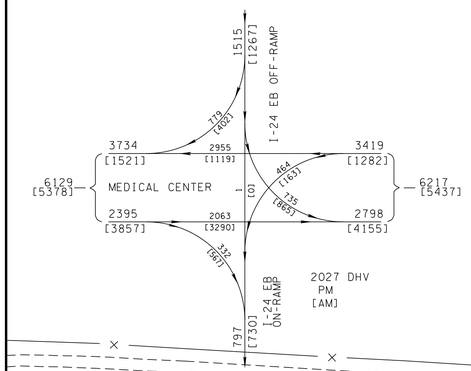
R10-12A 30"X36" (A)
R10-11A 36"X48" (B)

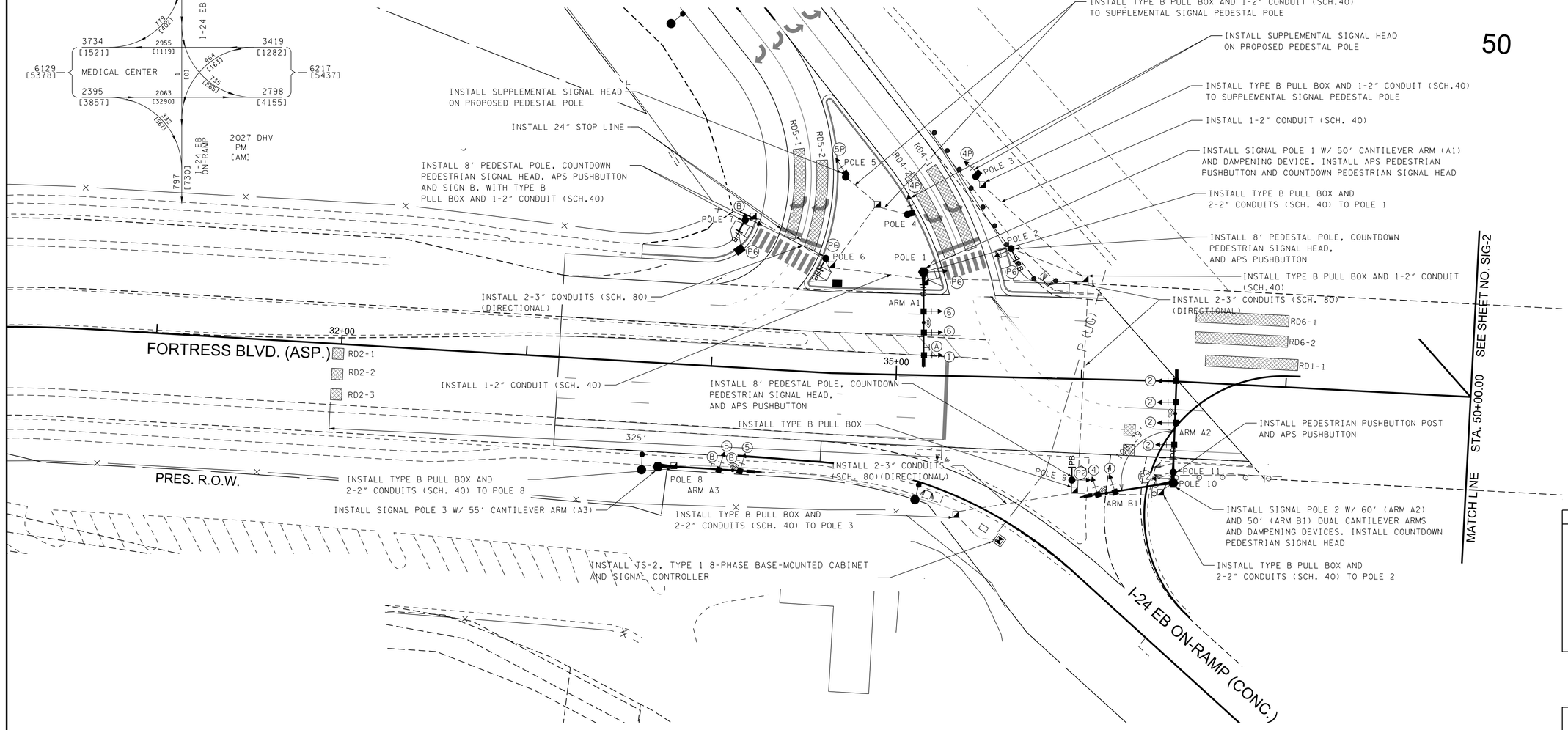
N

LEGEND

DAMPENING DEVICE | NO TRAFFIC DETECTOR | RADAR DETECTION ZONE

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	SIG-2
PS&E	2025	HSIP-I-24-1(118)	SIG-2





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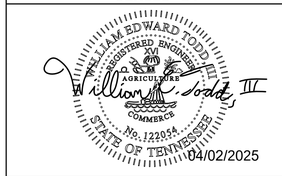


04/02/2025

COORDINATES ARE NAD 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00008 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WITH GEOID 03.

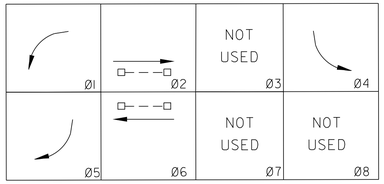
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNAL PLANS

SCALE: 1"=30'

4/2/2025 10:22:15 AM
Y:\Projects\0010000\0014000\14285 TDOT Roadway 2017-2020\WO #19- I-24 Ramp Queue Rutherford Co\01\Dgn\125463-00-PS&ESIG-2.sht

SIGNAL PHASING DIAGRAM



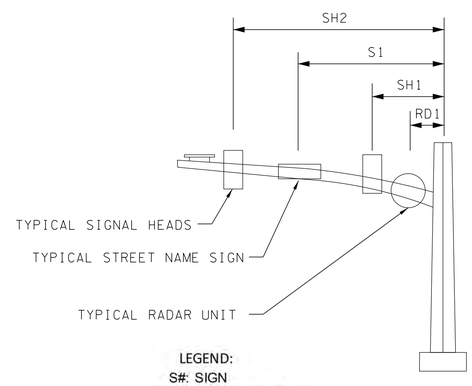
-MIN RECALL: Ø2,Ø6
-PROT/PERM PHASING: Ø1
-PROT-ONLY PHASING: Ø5
-OLA = Ø4
-FLASHING OPERATION: YELLOW - Ø2,Ø6; RED - Ø4,Ø5

SIGNAL SUPPORT POLE DATA AND MAST ARM DETAILS

POLE NO.	STATION	OFFSET	NORTHING	EASTING	ARM	ARM LENGTH	RD-1	SH-1	SH-2	SH-3	SH-4	S-1	S-2	GROUND EL. @ POLE
P1	35+13.38	55.9' LT	558853.3744	1832826.6357	A1	50'	26'	20'	31'	43'		39'		603.86
P2**	35+60.35	69.6' LT	558865.9594	1832873.9191										603.97
P3**	35+40.41	108.1' LT	558904.9303	1832854.8984										603.02
P4**	3503.93	86.7' LT	558884.4269	1832817.9174										602.50
P5**	34+67.61	106.2' LT	558904.6363	1832784.5480										600.50
P6**	34+58.30	61.8' LT	558860.6848	1832773.8814										602.49
P7**	34+13.60	79.8' LT	558881.3725	1832730.3673										600.50
P8	33+74.37	56.0' RT	558748.1229	1832683.1714	A3	55'	39'	32'	43'			27'	37'	604.42
P9**	35+96.14	54.7' RT	558740.9047	1832906.7668										606.03
P10	48+42.09	54.9' RT	558739.3141	1832961.5071	A2 (N)	60'	36'	19'	31'	42'	54'			606.51
					B1 (W)	50'	36'	30'	40'					
P11***	48+40.36	49.1' RT	558745.1233	1832961.5148										606.48

* FINAL POLE POSITIONS SHALL BE STAKED AND FIELD APPROVED BY ENGINEER PRIOR TO CONSTRUCTION.
** PEDESTAL POLE (8')
*** PPB POST

MAST ARM DETAIL



LEGEND:
S#: SIGN
SH-#: SIGNAL HEAD
RD-#: VEHICLE DETECTOR (RADAR)

N

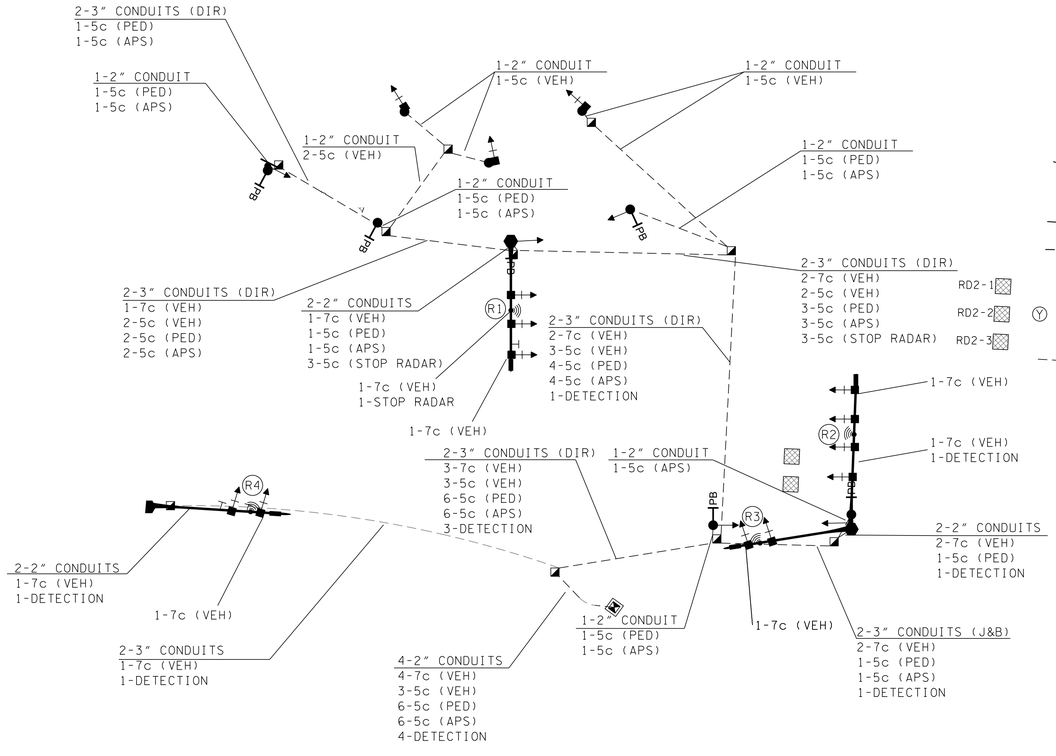
TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2025	HSIP-I-24-1(118)	SIG-2A

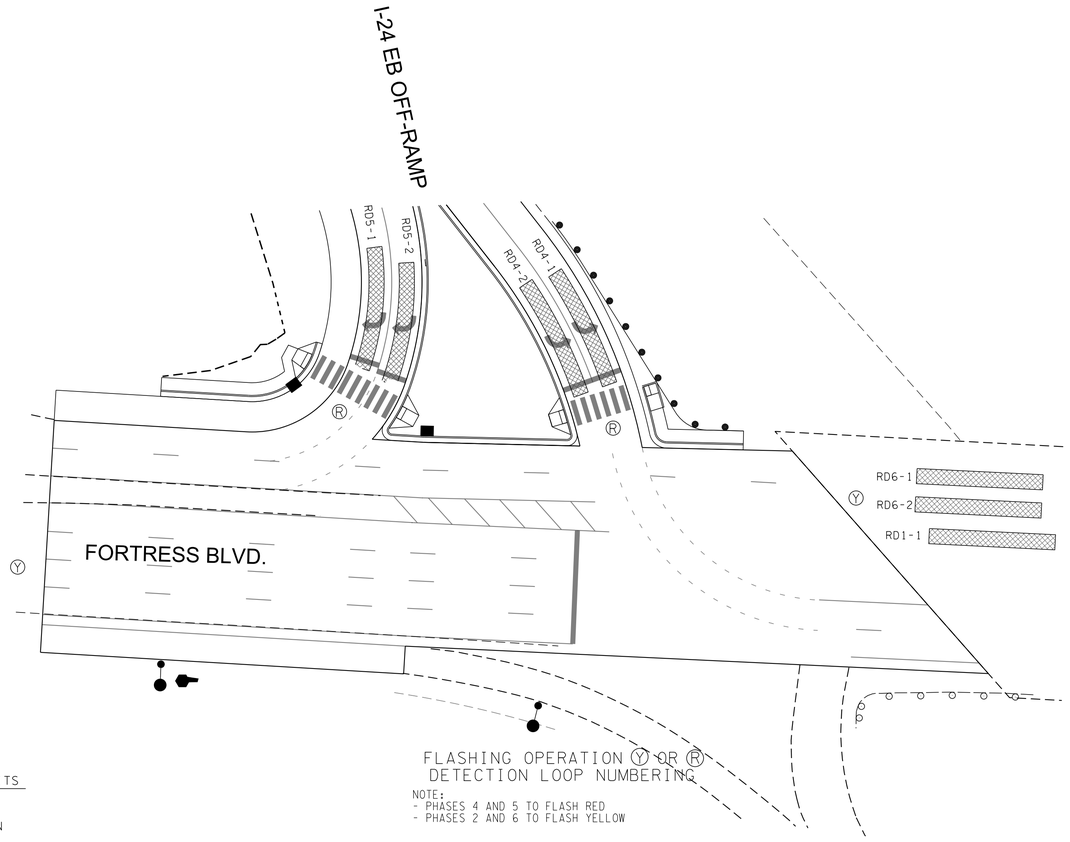
DETECTOR ASSIGNMENTS

DETECTOR TYPE	ASSOCIATED PHASE	MODE	DETECTOR ASSIGNMENT	TIMING		DELAY INHIBIT ON GREEN	ZONE NO.	SIZE	COMMENTS
				EXTEND	DELAY				
STOP LINE	1	PRES	R3				RD1-1	6' x 50'	
ADVANCE	2	PULSE	R4				RD2-1	6' x 6'	
ADVANCE	2	PULSE	R4				RD2-2	6' x 6'	
ADVANCE	2	PULSE	R4				RD2-3	6' x 6'	
STOP LINE	4	PRES	R2				RD4-1	6' x 50'	
STOP LINE	4	PRES	R2				RD4-2	6' x 50'	
STOP LINE	5	PRES	R1				RD5-1	6' x 50'	
STOP LINE	5	PRES	R1				RD5-2	6' x 50'	
STOP LINE	6	PRES	R3				RD6-1	6' x 50'	
STOP LINE	6	PRES	R3				RD6-2	6' x 50'	

-OBTAIN FINAL SIGNAL TIMINGS FROM CITY TRAFFIC ENGINEER (615) 893-6441

WIRING DIAGRAM

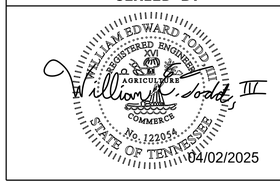




FLASHING OPERATION Ⓨ OR Ⓡ
DETECTION LOOP NUMBERING

NOTE:
- PHASES 4 AND 5 TO FLASH RED
- PHASES 2 AND 6 TO FLASH YELLOW

SEALED BY



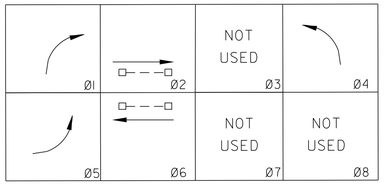
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNAL DETAILS

SCALE: N.T.S.

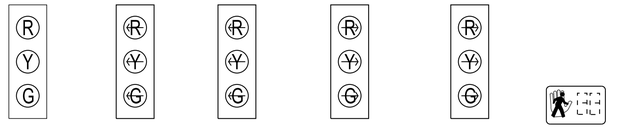
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2022	HSIP-I-24-1(118)	SIG-3
PS&E	2025	HSIP-I-24-1(118)	SIG-3

SIGNAL PHASING DIAGRAM



-MIN RECALL: Ø2,Ø6
-PROT-ONLY PHASING: Ø1,Ø5
-OLA = Ø4
-FLASHING OPERATION: YELLOW - Ø2,Ø6; RED - Ø4,Ø5

SIGNAL HEADS



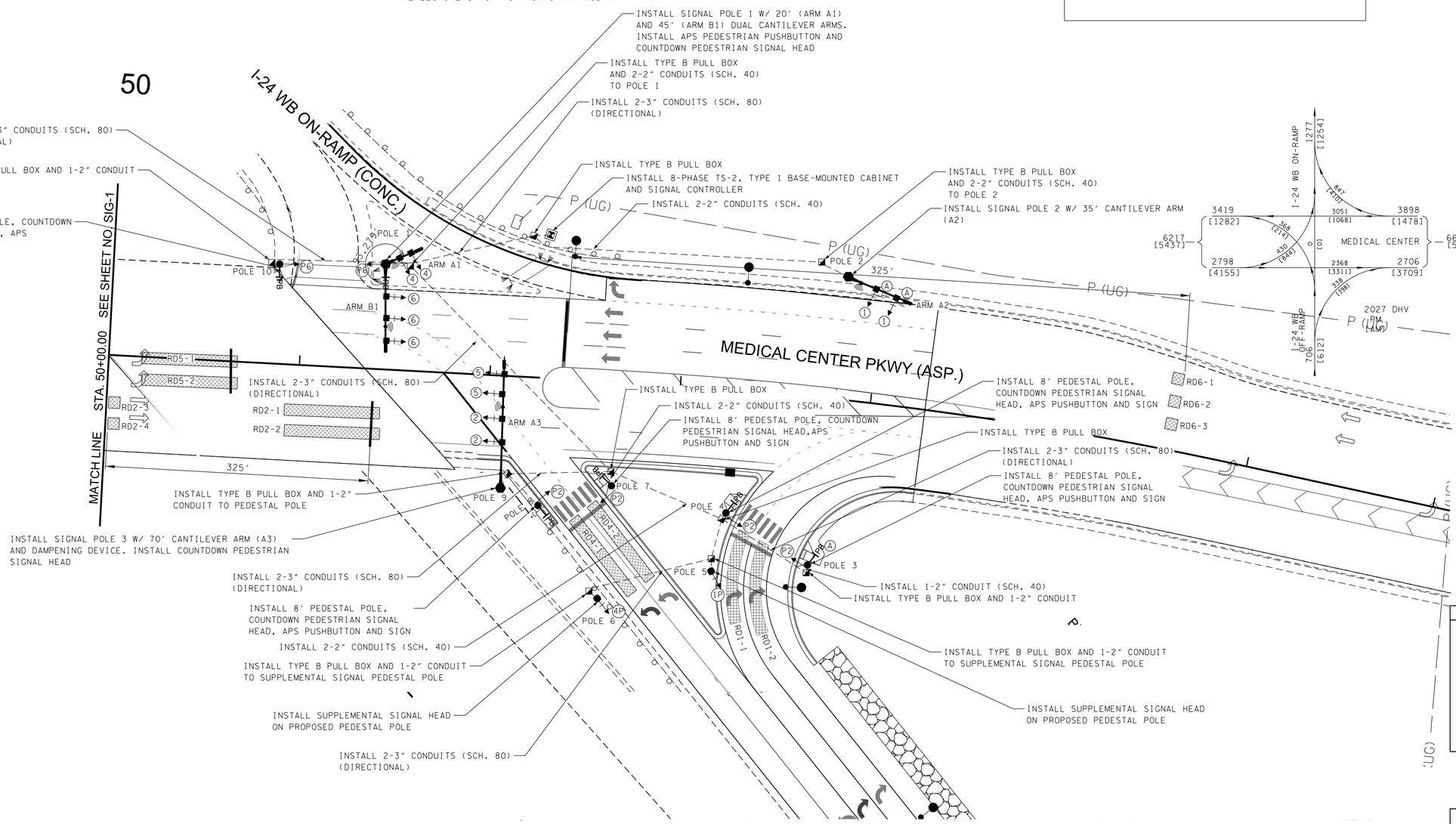
TYPE 130 W/ BACKPLATE 12" L.E.D.	TYPE 130A3L W/ BACKPLATE 12" L.E.D.	TYPE 130A3L 12" L.E.D. POLE MOUNT	TYPE 130A3R W/ BACKPLATE 12" L.E.D.	TYPE 130A3R 12" L.E.D. POLE MOUNT	COUNTDOWN PEDESTRIAN SIGNAL
2,6	4,5	4P	1	1P	P2,P6

*NOTE: ALL BACKPLATES SHALL INCLUDE YELLOW REFLECTIVE STRIP (1" MIN 3"MAX WIDTH)

SIGNS

R10-11A
36"X48"
Ⓐ

LEGEND



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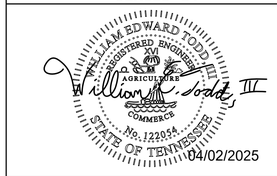


04/02/2025

COORDINATES ARE NAD 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00008 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WITH GEOID 03.

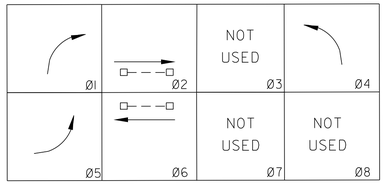
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNAL PLANS

SCALE: 1"=30'

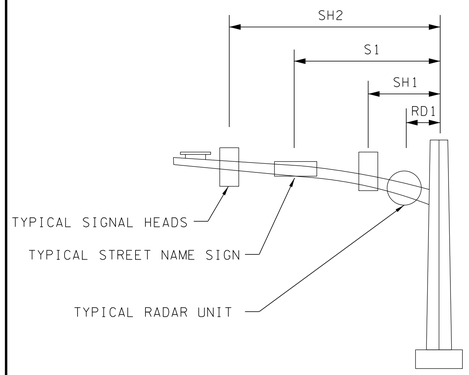
TYPE	YEAR	PROJECT NO.	SHEET NO.
PS&E	2025	HSIP-I-24-1(118)	SIG-3A

SIGNAL PHASING DIAGRAM



-MIN RECALL: Ø2,Ø6
-PROT-ONLY PHASING: Ø1,Ø5
-OLA = Ø4
-FLASHING OPERATION: YELLOW - Ø2,Ø6; RED - Ø4,Ø5

MAST ARM DETAIL



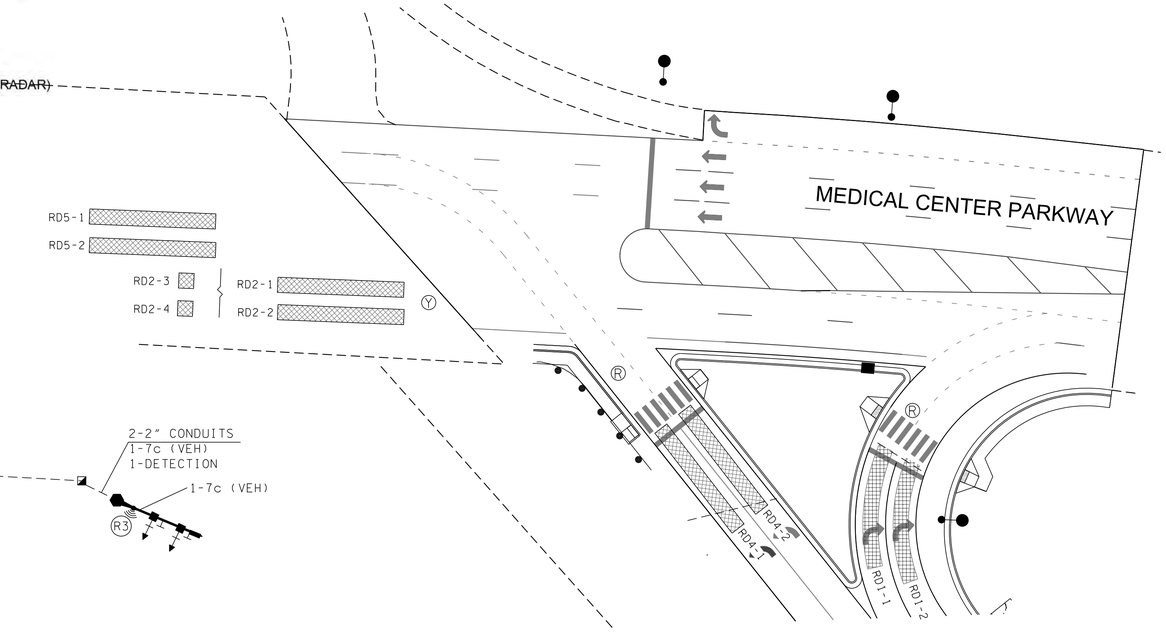
SIGNAL SUPPORT POLE DATA AND MAST ARM DETAILS

POLE NO.	STATION	OFFSET	NORTHING	EASTING	ARM	ARM LENGTH	RD-1	SH-1	SH-2	SH-3	SH-4	S-1	S-2	GROUND EL. @ POLE
P1	51+42.39	55.2' LT.	558833.3767	1833267.1934	A1 (E)	20'	3'	7'	13'					607.36
					B1 (S)	45'	31'	15'	27'	38'				
P2	53+81.37	64.5' LT	558826.7401	1833509.6531	A2	35'	6'	14'	26'			18'	30'	606.63
P3**	53+76.08	88.1' RT	558675.5975	1833488.2137										604.00
P4**	53+29.20	64.8' RT	558702.9216	1833445.4876										605.06
P5**	53+23.69	95.9' RT	558672.3575	1833437.7260										605.10
P6**	52+62.29	114.1' RT	558658.0238	1833377.9978										604.19
P7**	52+66.62	54.6' RT	558717.1304	1833385.4554										606.05
P8**	52+28.69	66.9' RT	558706.8221	1833346.9330										606.12
P9	52+08.58	58.9' RT	558715.9749	1833327.2814	A3	70'	42'	25'	37	50'	61'	45'	57'	605.80
P10**	50+86.84	52.3' LT	558833.4006	1833211.5717										606.03

* FINAL POLE POSITIONS SHALL BE STAKED AND FIELD APPROVED BY ENGINEER PRIOR TO CONSTRUCTION.
** PEDESTAL POLE (8')

N

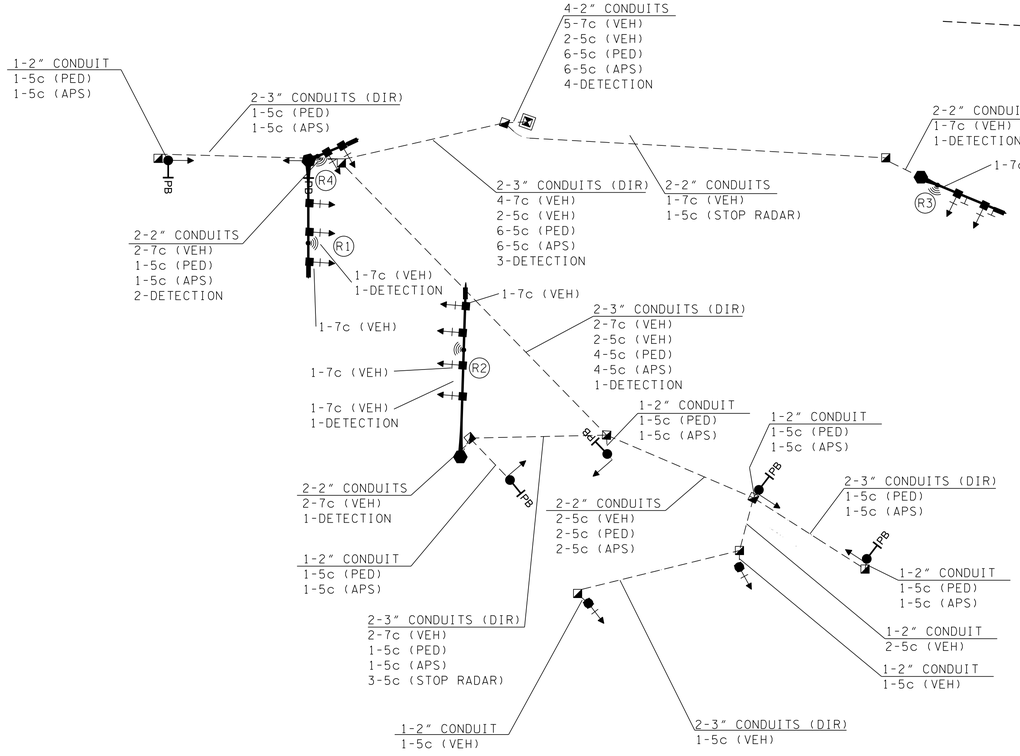
LEGEND:
S#: SIGN
SH-#: SIGNAL HEAD
RD-#: VEHICLE DETECTOR ~~(RADAR)~~



FLASHING OPERATION Ⓨ OR Ⓡ
DETECTION LOOP NUMBERING

NOTE:
- PHASES 1 AND 4 TO FLASH RED
- PHASES 2 AND 6 TO FLASH YELLOW

WIRING DIAGRAM

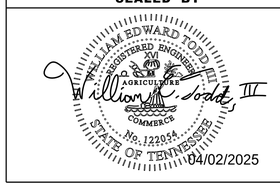


DETECTOR ASSIGNMENTS

DETECTOR TYPE	ASSOCIATED PHASE	MODE	DETECTOR ASSIGNMENT	TIMING		DELAY INHIBIT ON GREEN	ZONE NO.	SIZE	COMMENTS
				EXTEND	DELAY				
STOP LINE	1	PRES	R3				RD1-1	6' x 50'	
STOP LINE	1	PRES	R3				RD1-2	6' x 50'	
STOP LINE	2	PRES	R2				RD2-1	6' x 50'	
STOP LINE	2	PRES	R2				RD2-2	6' x 50'	
ADVANCE	2	PULSE	R2				RD2-3	6' x 6'	
ADVANCE	2	PULSE	R2				RD2-4	6' x 6'	
STOP LINE	4	PRES	R4				RD4-1	6' x 50'	
STOP LINE	4	PRES	R4				RD4-2	6' x 50'	
STOP LINE	5	PRES	R2				RD5-1	6' x 50'	
STOP LINE	5	PRES	R2				RD5-2	6' x 50'	
ADVANCE	6	PULSE	R1				RD6-1	6' x 6'	
ADVANCE	6	PULSE	R1				RD6-2	6' x 6'	
ADVANCE	6	PULSE	R1				RD6-3	6' x 6'	

-OBTAIN FINAL SIGNAL TIMINGS FROM CITY TRAFFIC ENGINEER (615) 893-6441

SEALED BY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNAL DETAILS

SCALE: N.T.S.

4/2/2025 10:22:37 AM
Y:\Projects\0010000\0014000\14285 TDOT Roadway 2017-2020\WO #19- I-24 Ramp Queue Rutherford Co\01\Dgn\125463-00-PS&E\SIG-3A.sht

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
PIH	2025	75100-1111-94	
PS&E	2025	HSIP-I-24-1(118)	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): 16.000 ACRES

2.3. TOTAL AREA TO BE DISTURBED (5.5.1.b): 2.049 ACRES

2.4. PROJECT DESCRIPTION (5.5.1.a):

TITLE: INTERSTATE 24, INTERCHANGE AT MEDICAL CENTER PARKWAY
COUNTY: RUTHERFORD
PIN: 125463.00

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) 18, 18A, & 18B, DRAINAGE MAP SHEET(S) 13, USGS QUAD MAP, AND THE OUTFALL TABLE IN SECTION 4.2.

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

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

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

2.9. ARE THERE ANY SEASONAL LIMITATIONS ON WORK? ☐ YES ☒ NO

IF YES, LIST THE CORRESPONDING PLAN SHEET: _____

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

☐ YES _____ (DATE) ☒ NO

IF ROW WAS FINALIZED PRIOR TO FEBRUARY 1, 2010, THIS PROJECT IS CONSIDERED A PRE-APPROVED SITE (4.1.2.2)

2.11. SOIL PROPERTIES (5.5.1.d, 5.5.3.3.d, 5.5.3.6.b).

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

SOIL PROPERTIES			
PRIMARY SOIL NAME	**HSG**	**% OF SITE**	**ERODIBILITY (k value)**
Ar - Arrington silt loam, 0 to 2 percent slopes, occasionally flooded	B	0.2	0.37
BrB - Bradyville silt loam, 2 to 5 percent slopes	C	35.5	0.43
BrC2 - Bradyville silt loam, 5 to 12 percent slopes	C	9.3	0.43
CuB - Cumberland silt loam, 2 to 5 percent slopes	B	0.2	0.37
HcA - Harpeth silt loam, 0 to 2 percent slopes	B	20.8	0.43
LoA - Lomond silt loam, 0 to 2 percent slopes	B	8.2	0.37
LoB - Lomond silt loam 2 to 5 percent slopes	B	25.8	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).

RUNOFF COEFFICIENTS FOR EXISTING CONDITIONS				
AREA TYPE	**AREA(AC)**	**PERCENTAGE OF TOTAL AREA (%)**	**RUNOFF CN**	**C FACTOR**
IMPERVIOUS	3.565	22.3		0.90
PERVIOUS	12.435	77.7		0.25
WEIGHTED CURVE NUMBER OR C-FACTOR =				0.39

RUNOFF COEFFICIENTS FOR POST-CONSTRUCTION CONDITIONS				
AREA TYPE	**AREA(AC)**	**PERCENTAGE OF TOTAL AREA (%)**	**RUNOFF CN**	**C FACTOR**
IMPERVIOUS	4.252	26.8		0.90
PERVIOUS	11.452	71.6		0.25
RIP RAP	0.296	1.4		0.60
WEIGHTED CURVE NUMBER OR C-FACTOR =				0.43

3. ORDER OF CONSTRUCTION ACTIVITIES (5.5.1.a)

CONSTRUCTION SHALL BE SEQUENCED AND STAGED TO: MINIMIZE THE EXPOSURE TIME OF GRADED OR DENUDED SOIL AREAS, PRESERVE TOPSOIL, AND MINIMIZE SOIL COMPACTION. NO WORK SHALL BE STARTED UNTIL THE CONTRACTOR'S PLAN FOR THE STAGING OF THEIR OPERATIONS, INCLUDING THE PLAN FOR STAGING OF TEMPORARY AND PERMANENT EPSC MEASURES, HAS BEEN ACCEPTED BY THE ENGINEER. THE CONTRACTOR'S EPSC PLAN SHALL INCORPORATE AND SUPPLEMENT, AS ACCEPTABLE, THE ORDER OF CONSTRUCTION ACTIVITIES AND THE BASIC EPSC DEVICES DEPICTED ON THE EPSC PLAN CONTAINED WITHIN THE APPROVED SWPPP.

3.1. SPECIAL SEQUENCING REQUIREMENTS (SEE SHEETS 18B, 19B, 20B, & 21B)

3.2. INSTALL STABILIZED CONSTRUCTION EXITS.

3.3. INSTALL PERIMETER PROTECTION WHERE RUNOFF SHEET FLOWS FROM THE SITE.

3.4. INSTALL INITIAL EPSC MEASURES BEFORE CLEARING, GRUBBING, EXCAVATION, GRADING, CULVERT OR BRIDGE CONSTRUCTION, CUTTING, FILLING, OR ANY OTHER EARTHWORK OCCURS, EXCEPT AS SUCH WORK MAY BE NECESSARY TO INSTALL EPSC MEASURES.

3.5. PERFORM CLEARING AND GRUBBING (NOT MORE THAN TWO WEEKS PRIOR TO GRADING OR EARTH-MOVING. REFER TO THE STABILIZATION PRACTICES BELOW.).

3.6. REMOVE AND STORE TOPSOIL.

3.7. STABILIZE DISTURBED AREAS WITHIN 2 WEEKS OF COMPLETING ANY STAGE AND/OR PHASE OF ACTIVITY (STEEP SLOPES SHALL BE STABILIZED WITHIN 1 WEEK AFTER CONSTRUCTION ACTIVITY HAS TEMPORARY OR PERMANENTLY CEASED).

3.8. INSTALL UTILITIES, STORM SEWERS, CULVERTS AND BRIDGE STRUCTURES.

3.9. INSTALL INLET AND CULVERT PROTECTION ONCE STRUCTURES ARE IN PLACE AND CAPABLE OF INTERCEPTING FLOW.

3.10. PERFORM FINAL GRADING AND INSTALL BASE STONE.

3.11. COMPLETE FINAL PAVING AND SEALING OF CONCRETE.

3.12. INSTALL TRAFFIC CONTROL AND PROTECTION DEVICES.

3.13. COMPLETE PERMANENT STABILIZATION (TOPSOIL, SEEDING, MULCH, EROSION CONTROL BLANKET, SOD, ETC.)

3.14. REMOVE TEMPORARY EROSION CONTROLS AND ACCUMULATED SEDIMENT FROM AREAS THAT HAVE ESTABLISHED AT LEAST 70 PERCENT UNIFORM PERMANENT VEGETATIVE COVER.

3.15. RE-STABILIZE AREAS DISTURBED BY REMOVAL ACTIVITIES.

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

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

4.1.1. WILL CONSTRUCTION AND/OR EROSION PREVENTION AND SEDIMENT CONTROLS IMPACT ANY STREAMS WITHIN THE PROJECT LIMITS? ☐ YES ☒ NO

IF YES, THE IMPACT(S) HAVE BEEN INCLUDED IN THE TOTAL PROJECT IMPACTS AND HAVE BEEN INCLUDED IN THE WATER QUALITY PERMITS.

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

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

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

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

4.1.4. RECEIVING WATERS OF THE US (NON STATE WATERS) (4.1.2). LIST ANY FEATURE THAT IS IDENTIFIED AS A WET WEATHER CONVEYANCE (TDEC) AND IDENTIFIED AS WATERS OF THE US BY THE ARMY CORPS OF ENGINEERS.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

STORMWATER POLLUTION PREVENTION PLAN

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
PIH	2025	75100-1111-94	
PS&E	2025	HSIP-I-24-1(118)	S-2

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)

4.1.5. ARE THERE ANY WATER QUALITY RIPARIAN BUFFER ZONES REQUIRED FOR WATERS OF THE STATE? (5.5.1.l, 6.4.2.)

☐ YES ☒ NO

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

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

IF YES, CHECK THE APPROPRIATE BOX BELOW FOR SIZE OF BUFFER.

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

A 60 FOOT NATURAL WATER QUALITY RIPARIAN BUFFER ZONE ADJACENT TO AND ON BOTH SIDES OF THE RECEIVING STATE STREAM WITH THIS DESIGNATION SHALL BE PRESERVED TO THE MAXIMUM EXTENT PRACTICABLE DURING CONSTRUCTION ACTIVITIES AT THE SITE. THE 60 FOOT CRITERION FOR THE WIDTH OF THE BUFFER ZONE CAN BE ESTABLISHED ON AN AVERAGE WIDTH BASIS AT A PROJECT, AS LONG AS THE MINIMUM WIDTH OF THE BUFFER ZONE IS MORE THAN 30 FEET AT ANY MEASURED LOCATION. IF THE CONSTRUCTION SITE ENCOMPASSES BOTH SIDES OF A STREAM, BUFFER AVERAGING CAN BE APPLIED TO BOTH SIDES, BUT MUST BE APPLIED INDEPENDENTLY.

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

A 30 FOOT NATURAL WATER QUALITY RIPARIAN BUFFER ZONE ADJACENT TO AND ON BOTH SIDES OF THE RECEIVING STATE STREAM SHALL BE PRESERVED TO THE MAXIMUM EXTENT PRACTICABLE DURING CONSTRUCTION ACTIVITIES AT THE SITE. THE 30 FOOT CRITERION FOR THE WIDTH OF THE BUFFER ZONE CAN BE ESTABLISHED ON AN AVERAGE WIDTH BASIS AT A PROJECT, AS LONG AS THE MINIMUM WIDTH OF THE BUFFER ZONE IS MORE THAN 15 FEET AT ANY MEASURED LOCATION. IF THE CONSTRUCTION SITE ENCOMPASSES BOTH SIDES OF A STREAM, BUFFER AVERAGING CAN BE APPLIED TO BOTH SIDES, BUT MUST BE APPLIED INDEPENDENTLY.

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

4.1.6. ARE THERE ANY WATER QUALITY RIPARIAN BUFFER ZONES NOT REQUIRED FOR STATE WATERS DUE TO A TDEC ARAP? (1.5.2.)

☐ YES ☒ NO

4.1.7. ARE THERE WATER QUALITY RIPARIAN BUFFER ZONE EXEMPTIONS? (4.1.2.1.) ☐ YES ☒ NO

IF YES, EXISTING CONDITIONS DESCRIPTION:_____

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

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

4.1.10. WHERE IT IS NOT PRACTICABLE TO MAINTAIN A FULL WATER QUALITY RIPARIAN BUFFER, BEST MANAGEMENT PRACTICES (BMPS) PROVIDING EQUIVALENT PROTECTION AS THE NATURAL RIPARIAN ZONE MUST BE USED. A JUSTIFICATION FOR USE AND DESIGN EQUIVALENCY SHALL BE DOCUMENTED WITHIN THE SWPPP. THE ENVIRONMENTAL AND ROADWAY DESIGN DIVISIONS SHALL REVIEW AND APPROVE THIS REVISION OF THE SWPPP BEFORE DISTURBANCE OF THE SITE PROCEEDS, UNLESS PREVIOUSLY EXEMPT IN THE NPDES CGP. WHERE ISSUED, ARAP/401 REQUIREMENTS WILL PREVAIL IF IN CONFLICT WITH THESE BUFFER ZONE REQUIREMENTS.

4.2. OUTFALL INFORMATION

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

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

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

4.2.4. WHERE POSSIBLE, HAS NON-PROJECT RUN-ON BEEN DIVERTED AROUND OR THROUGH THE PROJECT TO ELIMINATE CONTACT WITH DISTURBED AREAS OF THE PROJECT AND SEPARATE IT FROM PROJECT RUN-OFF THEREBY REDUCING THE DRAINAGE AREA OF TO THE OUTFALLS IN THIS AREA?

☒ YES ☐ NO ☐ N/A

4.2.5. ARE EQUIVALENT MEASURES BEING SUBSTITUTED FOR A SEDIMENT BASIN(S) OR SEDIMENT TRAP(S)? (5.5.3.5.)

☐ YES ☐ NO ☒ N/A

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

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

OR

OF FIVE ACRES OR MORE FOR AN OUTFALL(S) THAT DISCHARGES TO A STATE STREAM WITH UNAVAILABLE PARAMETERS OR EXCEPTIONAL TENNESSEE WATERS (ETW). A TEMPORARY (OR PERMANENT) SEDIMENT BASIN THAT PROVIDES STORAGE FOR A CALCULATED VOLUME OF RUNOFF FROM A 5-YEAR/ 24-HOUR STORM EVENT AND RUNOFF FROM EACH ACRE DRAINED, OR EQUIVALENT CONTROL MEASURES, SHALL BE PROVIDED UNTIL PERMANENT STABILIZATION OF THE SITE. (6.4.1.e).

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

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

OF 3.5 - 4.9 ACRES FOR AN OUTFALL(S) THAT DISCHARGES TO A STATE STREAM WITH UNAVAILABLE PARAMETERS (303d SILTATION) OR EXCEPTIONAL TENNESSEE WATERS (ETW). A SEDIMENT TRAP THAT PROVIDES STORAGE FOR A CALCULATED VOLUME OF RUNOFF FROM A 5-YEAR/24-HOUR STORM EVENT AND RUNOFF FROM EACH ACRE DRAINED, OR EQUIVALENT CONTROL MEASURES, SHALL BE PROVIDED UNTIL PERMANENT STABILIZATION OF THE SITE. (6.4.1.f).

IN BOTH INSTANCES, THE ENVIRONMENTAL AND ROADWAY DESIGN DIVISIONS MAY BE CONTACTED TO REVIEW AND CONCUR WITH ANY REVISION OF THE SWPPP BEFORE DISTURBANCE OF THE OUTFALL PROCEEDS.

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

4.3. WETLAND INFORMATION

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

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

WETLAND INFORMATION				
TDOT WETLAND LABEL	FROM STATION LT OR RT	TO STATION LT OR RT	TEMPORARY IMPACTS (AC)	PERMANENT IMPACTS (AC)

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

4.4.1. IS THIS PROJECT LOCATED IN A HUC-8 WATERSHED THAT MAINTAINS AN EPA APPROVED TMDL FOR SILTATION AND HABITAT ALTERATION?

☒YES ☐ NO

4.4.2. IF YES, IS THIS PROJECT LOCATED WITHIN A HUC-12 SUBWATERSHED WITH A WASTE LOAD ALLOCATION (WLA)?

☒ YES ☐ NO

4.4.3. IF YES, DOES THE PROJECT HAVE A DIRECT DISCHARGE TO A 303(d) LISTED STREAM FOR SILTATION?

☐ YES ☒ NO

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

4.5. ECOLOGY INFORMATION (3.5.5.e)

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

☐ YES ☒ NO

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

4.6. ENVIRONMENTAL COMMITMENTS

ARE THERE ANY NOTES ON THE ENVIRONMENTAL COMMITMENT SHEET?

☐ YES ☒ NO

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

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

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

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

5.3. HAVE THE CONTROL MEASURES BEEN DESIGNED PER THE SIZE AND SLOPE OF THE DISTURBED DRAINAGE AREA (5.5.3.5.)?

☒YES ☐ NO

5.4. THE CONTROL MEASURES HAVE, AT A MINIMUM, BEEN DESIGNED FOR THE 5-YEAR, 24 HOUR STORM EVENT (5.5.3.5., 6.4.1.b).

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

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

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

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

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DEPARTMENT OF TRANSPORTATION

STORMWATER POLLUTION PREVENTION PLAN

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
PIH	2025	75100-1111-94	
PS&E	2025	HSIP-I-24-1(118)	S-3

5.9. HAS A THREE STAGED EPSC PLAN BEEN PREPARED FOR THE PROJECT (5.5.2.)?

YES ☒ NO ☐

PLEASE NOTE THAT A THREE STAGED EPSC PLAN IS REQUIRED FOR ALL TDOT PROJECTS FOR WHICH AN NPDES PERMIT IS REQUIRED.

5.10. STEEP SLOPES ARE DEFINED AS A NATURAL OR CREATED SLOPE OF 35% GRADE OR GREATER REGARDLESS OF HEIGHT. HAVE STEEP SLOPES BEEN MINIMALLY DISTURBED AND/OR PROTECTED BY CONVEYING RUNOFF NON-EROSIVELY AROUND OR OVER THE SLOPE (5.5.3.4.) (10. "STEEP SLOPE")? ☒ YES ☐ NO ☐ N/A

5.11. THE STRUCTURAL EPSC MEASURES HAVE BEEN INCLUDED IN THE TOTAL PROJECT IMPACTS AND HAVE BEEN INCLUDED IN THE AQUATIC RESOURCE ALTERATION (ARAP) PERMIT OR SECTION 401 CERTIFICATION (5.5.1.h). REFER TO THE LIST OF APPLICABLE ENVIRONMENTAL PERMITS LOCATED ON SWPPP SHEET S-7. ALL PERMITS WILL BE MAINTAINED ON SITE WITHIN THE "DOCUMENTATION AND PERMITS" BINDER.

5.12. THE EPSC CONTROL MEASURES LISTED IN THE QUANTITIES TABLE ON SHEET 2, 2-1, & 17 HAVE BEEN SELECTED IN ACCORDANCE WITH TDOT STANDARD DRAWINGS AND GOOD ENGINEERING PRACTICES (5.1., 5.5.3.1.b, 5.5.3.5.).

5.13. EPSC MEASURES SHALL BE INSTALLED PER TDOT STANDARDS (i.e. STANDARD DRAWINGS) AND SHALL BE FUNCTIONAL PRIOR TO ANY EARTH MOVING OPERATIONS.

5.14. EPSC MEASURES WILL NOT BE INSTALLED WITHIN A STREAM WITHOUT FIRST OBTAINING APPROVAL FROM THE PERMITS SECTION.

5.15. TEMPORARY EPSC MEASURES MAY BE REMOVED AT THE BEGINNING OF THE WORKDAY, BUT MUST BE REINSTALLED AT THE END OF THE WORKDAY OR BEFORE A PRECIPITATION EVENT.

5.16. EPSC MEASURES LOCATED IN WOTUS (EPHEMERAL STREAMS) MUST BE CONSIDERED TEMPORARY AND SHALL BE REMOVED AT THE END OF CONSTRUCTION.

5.17. THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN A PROACTIVE METHOD TO PREVENT THE OFF-SITE MIGRATION OR DEPOSIT OF SEDIMENT OFF THE PROJECT LIMITS (E.G. R.O.W., EASEMENTS, ETC.), INTO WATERS OF THE STATE/U.S., OR ONTO ROADWAYS USED BY THE PUBLIC. IF SEDIMENT ESCAPES THE CONSTRUCTION SITE, OFF-SITE ACCUMULATIONS OF SEDIMENT THAT HAVE NOT REACHED A STREAM MUST BE REMOVED TO A LEVEL SUFFICIENT TO MINIMIZE OFF-SITE IMPACTS (E.G., FUGITIVE SEDIMENT THAT HAS ESCAPED THE CONSTRUCTION SITE AND HAS COLLECTED IN A STREET MUST BE REMOVED SO THAT IT IS NOT SUBSEQUENTLY WASHED INTO STORM SEWERS AND STREAMS BY THE NEXT RAIN AND/OR SO THAT IT DOES NOT POSE A SAFETY HAZARD TO USERS OF PUBLIC STREETS). ARRANGEMENTS CONCERNING REMOVAL OF SEDIMENT ON ADJOINING PROPERTY MUST BE SETTLED WITH THE ADJOINING PROPERTY OWNER BEFORE REMOVAL OF SEDIMENT. SEDIMENT THAT MIGRATES INTO WATERS OF THE STATE/US SHALL NOT BE REMOVED WITHOUT GUIDANCE FROM TDOT ENVIRONMENTAL PERSONNEL.

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

5.19. THE QUANTITIES REQUIRED FOR STABILIZED CONSTRUCTION EXITS PER TDOT STANDARDS HAVE BEEN SPECIFIED ON SHEET 2, 2-1, & 17 (5.5.3.1.j).

5.20. DISCHARGES FROM DEWATERING ACTIVITIES ARE PROHIBITED UNLESS MANAGED BY APPROPRIATE CONTROLS THAT PROVIDE THE LEVEL OF TREATMENT (FILTRATION) NECESSARY TO COMPLY WITH PERMIT REQUIREMENTS. (4.1.3.).

5.21. SETTLING BASINS AND SEDIMENT TRAPS SHALL BE PROPERLY DESIGNED PER THE SIZE OF THE DRAINAGE AREAS OR VOLUME OF WATER TO BE TREATED. TREATED WATER MUST BE DISCHARGED THROUGH A PIPE OR WELL VEGETATED OR LINED CHANNEL, SO THAT THE DISCHARGE DOES NOT CAUSE EROSION OR SEDIMENT TRANSPORT.

5.22. DISCHARGES FROM SEDIMENT BASINS AND IMPOUNDMENTS SHALL UTILIZE OUTLET STRUCTURES THAT ONLY WITHDRAW WATER FROM NEAR THE SURFACE OF THE BASIN OR IMPOUNDMENT. TREATED WATER MUST BE DISCHARGED THROUGH A PIPE, WELL- VEGETATED AND/OR LINED CHANNEL, SO THAT THE DISCHARGE DOES NOT CAUSE EROSION OR SEDIMENT TRANSPORT. (5.5.3.5.).

5.23. THE DEWATERING OF WORK AREAS, TRENCHES, FOUNDATIONS, EXCAVATIONS, ETC. THAT HAVE COLLECTED STORMWATER, WATER FROM VEHICLE WASH AREAS, OR GROUNDWATER SHALL BE EITHER HELD IN SETTLING BASINS OR TREATED BY FILTRATION AND/OR CHEMICAL TREATMENT PRIOR TO ITS DISCHARGE. ALL CHEMICAL TREATMENTS MUST BE APPLIED PER SECTION 6 FLOCCULANTS.

5.24. WATER DISCHARGED FROM DEWATERING ACTIVITIES SHALL NOT CAUSE AN OBJECTIONABLE COLOR CONTRAST WITHIN THE RECEIVING NATURAL RESOURCE. WATER MUST BE HELD WITHIN SETTLING BASINS UNTIL IT IS AT LEAST AS CLEAR AS THE RECEIVING WATERS.

5.25. DEWATERING STRUCTURES, SEDIMENT FILTER BAGS, SEDIMENT BASINS AND TRAPS SHALL NOT BE LOCATED CLOSER THAN 30 FEET (60 FEET DESIRABLE VEGETATIVE BUFFER) FOR WATERS WITH UNAVAILABLE PARAMETERS AND EXCEPTIONAL TENNESSEE WATERS (ETW) AND 15 FEET (30 FEET DESIRABLE VEGETATIVE BUFFER) FOR ALL OTHER FEATURES FROM THE TOP BANK OF A STREAM, WOTUS (EPHEMERAL), WETLAND OR OTHER NATURAL RESOURCE AND SHALL BE PROPERLY DESIGNED PER THE SIZE OF THE DRAINAGE AREAS OR VOLUME OF WATER TO BE TREATED.

5.26. STABILIZATION PRACTICES: PRE-CONSTRUCTION VEGETATIVE COVER WILL NOT BE DESTROYED, REMOVED OR DISTURBED MORE THAN 2 WEEKS PRIOR TO GRADING OR EARTH MOVING UNLESS THE AREA WILL BE SEEDED AND/OR MULCHED OR OTHER TEMPORARY COVER IS INSTALLED (5.5.3.5.f).

5.27. STABILIZATION MEASURES WILL BE INITIATED AS SOON AS POSSIBLE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. TEMPORARY OR PERMANENT STABILIZATION WILL BE COMPLETED WITHIN 2 WEEKS AFTER ACTIVITY HAS TEMPORARILY OR PERMANENTLY CEASED IN THAT AREA. PERMANENT STABILIZATION WILL REPLACE TEMPORARY MEASURES AS SOON AS PRACTICABLE (5.5.3.4.).

5.28. PRIORITY SHALL BE GIVEN TO FINISHING OPERATIONS AND PERMANENT EPSC MEASURES OVER TEMPORARY EPSC MEASURES ON ALL PROJECTS. UNPACKED GRAVEL CONTAINING FINES (SILT AND CLAY SIZED PARTICLES) OR CRUSHER-RUN WILL NOT BE CONSIDERED A NON-ERODIBLE SURFACE

5.29. DELAYING THE PLANTING OF COVER VEGETATION UNTIL WINTER MONTHS OR DRY MONTHS SHOULD BE AVOIDED, IF POSSIBLE.

5.30. STEEP SLOPES SHALL BE TEMPORARILY STABILIZED NOT LATER THAN 1 WEEK AFTER CONSTRUCTION ACTIVITY ON THE SLOPE HAS TEMPORARILY OR PERMANENTLY CEASED. (5.5.3.4.).

6. FLOCCULANTS (3.5.3.1.b)

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

IF YES, THE FOLLOWING NOTES APPLY:

6.1. ENSURE THE FLOCCULANT EMULSIONS AND POWDERS ARE OF THE ANIONIC TYPE (5.5.3.5.). AND MEET THE FOLLOWING REQUIREMENTS:

6.1.1. MEETS THE EPA AND FDA ACRYLAMIDE MONOMER LIMITS OF EQUAL TO OR GREATER THAN 0.005% ACRYLAMIDE MONOMER.

6.1.2. HAS A DENSITY OF 10% TO 55% BY WEIGHT AND A MOLECULAR WEIGHT OF 16 TO 24 MG/MOLE (MILLIGRAM PER MOLE).

6.1.3. MIXTURE IS NON-COMBUSTIBLE.

6.1.4. CONTAINS ONLY MANUFACTURER'S RECOMMENDED ADDITIVES.

6.2. FLOCCULANT SHALL BE MIXED AND APPLIED IN ACCORDANCE WITH ALL OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) MATERIAL SAFETY DATA SHEET REQUIREMENTS AND THE MANUFACTURER'S RECOMMENDATIONS FOR THE SPECIFIED USES CONFORMING TO ALL FEDERAL, STATE, AND LOCAL LAWS, RULES, AND REGULATIONS.

6.3. ALL VENDORS AND SUPPLIERS OF FLOCCULANT BLENDS SHALL PRESENT OR SUPPLY A WRITTEN TOXICITY REPORT WHICH VERIFIES ACCEPTABLE TOXICITY PARAMETERS WHICH MEET OR EXCEED THE EPS REQUIREMENTS FOR THE STATE AND FEDERAL WATER QUALITY STANDARDS. WHOLE EFFLUENT TESTING DOES NOT MEET THIS REQUIREMENT AS PRIMARY REACTIONS HAVE OCCURRED AND TOXIC POTENTIALS HAVE BEEN REDUCED. CATIONIC FORMS OF FLOCCULANTS ARE NOT ALLOWED UNDER THIS SECTION DUE TO HIGH LEVELS OF TOXICITY TO AQUATIC ORGANISMS. FLOCCULANT EMULSIONS SHALL NEVER BE APPLIED DIRECTLY TO STORMWATER RUNOFF OR RIPARIAN WATERS DUE TO SURFACTANT TOXICITY. THE CONTRACTOR MUST SEEK THE APPROVAL OF THE EPSC DESIGN ENGINEER AND TDOT IF CHITOSAN IS PROPOSED FOR THIS PROJECT.

6.4. ALL VENDORS AND SUPPLIERS OF FLOCCULANT BLENDS SHALL SUPPLY WRITTEN "SITE SPECIFIC" TESTING RESULTS DEMONSTRATING A PERFORMANCE OF 95% OR GREATER REDUCTION OF NTU OR TSS FROM STORMWATER DISCHARGES.

6.5. EMULSION BATCHES SHALL BE MIXED FOLLOWING RECOMMENDATIONS OF THE TESTING LABORATORY THAT DETERMINES THE PROPER PRODUCT AND RATE TO MEET SITE REQUIREMENTS. APPLICATION METHODS SHALL ENSURE UNIFORM COVERAGE TO THE TARGET AREA. EMULSIONS SHALL NEVER BE APPLIED DIRECTLY TO STORMWATER RUNOFF OR RIPARIAN BUFFERS.

6.6. FLOCCULANT POWDER MAY BE APPLIED BY A HAND OR MECHANICAL SPREADER. MIXING OF THE FLOCCULANT POWDER WITH DRY SILICA SAND WILL AID IN SPREADING.

6.7. PREMIXING OF FLOCCULANT POWDER INTO FERTILIZER, SEED, OR OTHER SOIL AMENDMENTS IS ALLOWED WHEN SPECIFIED IN THE DESIGN PLAN. APPLICATION METHOD SHALL ENSURE UNIFORM COVERAGE TO THE TARGET AREA.

6.8. FLOCCULANT LOGS OR BLOCKS SHALL BE APPLIED FOLLOWING SITE TESTING RESULTS TO ENSURE PROPER PLACEMENT AND PERFORMANCE AND SHALL MEET OR EXCEED STATE AND FEDERAL WATER QUALITY REQUIREMENTS.

6.9. DO NOT APPLY FLOCCULANTS DIRECTLY TO, OR WITHIN 60 FEET, OF ANY STREAMS, WETLANDS, OR OTHER NATURAL WATER RESOURCE LOCATED ON OR ADJACENT TO THE CONSTRUCTION SITE. DO NOT APPLY FLOCCULANTS DIRECTLY INTO WATERS CONTAINED WITHIN SEDIMENT PONDS OR TO SLOPES THAT PRODUCE RUNOFF DIRECTLY INTO A STREAM, WETLAND, OR OTHER NATURAL WATER RESOURCE. DO NOT APPLY FLOCCULANTS IMMEDIATELY AT A STORMWATER OUTFALL WHERE RUNOFF LEAVES THE PROJECT LIMITS.

7. UTILITY RELOCATION

ARE UTILITIES INCLUDED IN THE CONTRACT? ☐ YES ☒ NO

IF YES, THE FOLLOWING APPLY:

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

7.2. SILT FENCE SHALL BE INSTALLED ON THE 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.

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

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

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

7.6. IN REGARDS TO EPSC, TDEC REGULATIONS APPLY TO THE STATE UTILITY CONTRACTORS ON THIS PROJECT. THE STATE CONTRACTOR IS RESPONSIBLE FOR EPSC MEASURES RELATED TO UTILITY CONSTRUCTION INCLUDED IN THE STATE CONTRACT.

7.7. TRENCHES FORMED FOR THE INSTALLATION OF BURIED UTILITIES MAY CAUSE STORMWATER RUNOFF TO CONCENTRATE AT THE TRENCH LINE. ADDITIONAL EPSC MEASURES MAY BE REQUIRED TO BE INSTALLED AS APPROVED BY THE TDOT PROJECT ENGINEER.

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

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

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

7.11. FOR UTILITY CROSSINGS THAT UTILIZE HORIZONTAL DIRECTIONAL DRILLING THE FOLLOWING SHALL APPLY:

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

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

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

8. MAINTENANCE AND INSPECTION

8.1. INSPECTION PRACTICES (5.5.3.9.)

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

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

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

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

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

8.1.1.5. SUCCESSFULLY COMPLETED TDEC “LEVEL II – DESIGN PRINCIPLES FOR EROSION PREVENTION AND SEDIMENT CONTROL FOR CONSTRUCTION SITES” COURSE AND ANY RECERTIFICATION COURSE AS REQUIRED.

8.1.2. THE TDOT CONSTRUCTION ENGINEER (OR THEIR DULY AUTHORIZED REPRESENTATIVE) AND THE CONTRACTOR’S SITE SUPERINTENDENT ARE RESPONSIBLE FOR INSPECTIONS. MAINTENANCE AND REPAIR ACTIVITIES ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE TDOT CONSTRUCTION ENGINEER OR THEIR DULY AUTHORIZED REPRESENTATIVE SHALL COMPLETE THE EPSC INSPECTION REPORTS AND DISTRIBUTE COPIES PER THE CONTRACT.

8.1.3. THE INSPECTOR SHALL CONDUCT PRE-CONSTRUCTION INSPECTIONS TO VERIFY AREAS THAT ARE NOT TO BE DISTURBED HAVE BEEN MARKED IN THE SWPPP AND IN THE FIELD BEFORE LAND DISTURBANCE ACTIVITIES BEGIN AND INITIAL MEASURES HAVE BEEN INSTALLED (10 “INSPECTOR”) (5.5.1.f).

8.1.4. EPSC CONTROLS SHALL BE INSPECTED TO VERIFY MEASURES HAVE BEEN INSTALLED AND MAINTAINED IN ACCORDANCE WITH TDOT STANDARD DRAWINGS, SPECIFICATIONS, AND GOOD ENGINEERING PRACTICES. EPSC INSPECTIONS SHALL BE DOCUMENTED ON THE TDOT EPSC INSPECTION REPORT FORM AND THE TDEC CONSTRUCTION STORMWATER INSPECTION CERTIFICATION (TWICE-WEEKLY INSPECTIONS) FORM.

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

8.1.6. INSPECTIONS WILL BE CONDUCTED AT LEAST TWICE EVERY CALENDAR WEEK AND AT LEAST 72 HOURS APART (5.5.3.11.a). A CALENDAR WEEK IS DEFINED AS SUNDAY THROUGH SATURDAY. QUALITY ASSURANCE INSPECTIONS OF TDOT EPSC, NPDES AND WATER QUALITY PERMIT REQUIREMENTS SHALL BE PERFORMED PER THE TDOT ENVIRONMENTAL DIVISION COMPLIANCE AND FIELD SERVICES OFFICE.

8.1.7. THE FREQUENCY OF EPSC INSPECTIONS MAY BE REDUCED TO ONCE A MONTH WHERE SITES OR PORTIONS OF SITES HAVE BEEN TEMPORARILY STABILIZED UNTIL CONSTRUCTION ACTIVITIES RESUME WITH WRITTEN NOTIFICATION BY THE TDOT REGIONAL ENGINEER TO TDEC NASHVILLE CENTRAL OFFICE AND SUBSEQUENT TDEC APPROVAL. WRITTEN NOTIFICATION MUST INCLUDE THE INTENT TO CHANGE FREQUENCY AND JUSTIFICATION (5.5.3.11.a).

8.1.8. ALL DISTURBED AREAS OF THE SITE THAT HAVE NOT BEEN PERMANENTLY STABILIZED, AREAS USED FOR MATERIAL STORAGE THAT ARE EXPOSED TO PRECIPITATION, STRUCTURAL CONTROL MEASURES, AND LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE, AND EACH OUTFALL WILL BE INSPECTED (5.5.3.11.b).

8.1.9. THE INSPECTOR WILL OVERSEE THE REQUIREMENTS OF OTHER CONSTRUCTION-RELATED WATER QUALITY PERMITS (I.E. TDEC ARAP, USACE SECTION 404, AND TVA SECTION 26a PERMITS) FOR CONSTRUCTION ACTIVITIES AROUND WATERS OF THE STATE (10 “INSPECTOR”).

8.1.10. THE SWPPP WILL BE REVISED AS NECESSARY BASED ON THE RESULTS OF THE INSPECTION. REVISION(S) WILL BE RECORDED WITHIN 1 WEEK OF THE INSPECTION. REVISION(S) WILL BE IMPLEMENTED WITHIN 2 WEEKS OF THE INSPECTION (5.5.3.11.e AND 5.5.3.11.f).

8.1.11. DOCUMENTATION OF INSPECTIONS WILL BE MAINTAINED ON SITE IN THE “DOCUMENTATION AND PERMITS” BINDER. REPORTS WILL BE SUBMITTED TO THE TDOT PROJECT ENGINEER PER THE CONTRACT.

8.1.12. THESE INSPECTION REQUIREMENTS DO NOT APPLY TO DEFINABLE AREAS OF THE SITE THAT HAVE MET PERMANENT STABILIZATION REQUIREMENTS AND HAVE BEEN NOTED IN THE SWPPP.

8.1.13. TRAINED CERTIFIED INSPECTORS SHALL COMPLETE INSPECTION TO THE BEST OF THEIR ABILITY. FALSIFYING INSPECTION RECORDS OR OTHER DOCUMENTATION OR FAILURE TO COMPLETE INSPECTION DOCUMENTATION SHALL RESULT IN A VIOLATION OF THIS PERMIT AND ANY OTHER APPLICABLE ACTS OR RULES (5.5.3.11.h).

8.2. DULY AUTHORIZED REPRESENTATIVE (8.7.3.)

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

8.3. MAINTENANCE PRACTICES (5.1 AND 8.13.)

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

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

8.3.3. UPON CONCLUSION OF THE INSPECTIONS, EPSC MEASURES FOUND TO BE INEFFECTIVE SHALL BE REPAIRED, REPLACED, OR MODIFIED BEFORE THE NEXT RAIN EVENT, IF POSSIBLE, BUT IN NO CASE, MORE THAN 24 HOURS AFTER THE INSPECTION OR WHEN THE CONDITION IS IDENTIFIED. IF THE REPAIR, REPLACEMENT OR MODIFICATION IS NOT PRACTICAL WITHIN THE 24-HOUR TIMEFRAME, WRITTEN DOCUMENTATION PROVIDED BY THE CONTRACTOR SHALL BE PLACED IN THE FIELD DIARY AND EPSC INSPECTION REPORT. AN ESTIMATED REPAIR, REPLACEMENT OR MODIFICATION SCHEDULE SHALL BE DOCUMENTED WITHIN 24 HOURS AFTER IDENTIFICATION. (5.5.3.11.e).

8.3.4. SEDIMENT SHALL BE REMOVED FROM SEDIMENT CONTROL STRUCTURES (SEDIMENT TRAPS, SILT FENCE, SEDIMENT BASINS, OTHER CONTROLS, ETC.) WHEN THE DESIGN CAPACITY HAS BEEN REDUCED BY FIFTY PERCENT (50%). (5.5.3.1.d).

8.3.5. DURING SEDIMENT REMOVAL, THE CONTRACTOR SHALL TAKE STEPS TO ENSURE THAT STRUCTURAL COMPONENTS OF EPSC MEASURES ARE NOT DAMAGED AND THUS MADE INEFFECTIVE. IF DAMAGE DOES OCCUR, THE CONTRACTOR SHALL REPAIR THE EPSC MEASURES AT THE CONTRACTOR'S OWN EXPENSE.

8.3.6. CHECK DAMS WILL BE INSPECTED FOR STABILITY. SEDIMENT WILL BE REMOVED WHEN DEPTH REACHES ONE-HALF (½) THE HEIGHT OF THE DAM.

8.3.7. SEDIMENT REMOVED FROM SEDIMENT CONTROL STRUCTURES SHALL BE PLACED AND TREATED IN A MANNER SO THAT THE SEDIMENT IS CONTAINED WITHIN THE PROJECT LIMITS, DOES NOT MIGRATE INTO FEATURES REMOVED FROM, AND DOES NOT MIGRATE ONTO ADJACENT PROPERTIES AND/OR INTO WATERS OF THE STATE/U.S.

8.3.8. LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS EXPOSED TO STORMWATER WILL BE PICKED UP AND REMOVED FROM STORMWATER EXPOSURE PRIOR TO ANTICIPATED STORM EVENTS OR BEFORE BEING CARRIED OFF THE SITE BY WIND, OR OTHERWISE PREVENTED FROM BECOMING A POLLUTANT SOURCE FOR STORMWATER DISCHARGES. AFTER USE, MATERIALS USED FOR EROSION CONTROL WILL BE REMOVED (5.5.3.7.a).

8.3.9. ALL SEEDED AREAS WILL BE CHECKED FOR BARE SPOTS, EROSION WASHOUTS, AND VIGOROUS GROWTH FREE OF SIGNIFICANT WEED INFESTATIONS.

9. SITE ASSESSMENTS (5.5.3.8.)

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

10. STORMWATER MANAGEMENT (5.5.3.11.h)

10.1. STORMWATER MANAGEMENT WILL BE HANDLED BY TEMPORARY CONTROLS OUTLINED IN THIS SWPPP AND ANY PERMANENT CONTROLS NEEDED TO MEET PERMANENT STORMWATER MANAGEMENT NEEDS IN THE POST CONSTRUCTION PERIOD. PERMANENT CONTROLS WILL BE DEPICTED ON THE PLANS AND NOTED AS PERMANENT.

10.2. DESCRIBE ANY SPECIFIC POST-CONSTRUCTION MEASURES THAT WILL CONTROL VELOCITY, POLLUTANTS, AND/OR EROSION (5.5.3.6.c): _____

10.3. OTHER ITEMS NEEDING CONTROL (5.5.3.7.)

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

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

THESE MATERIALS WILL BE HANDLED AS NOTED IN THIS SWPPP.

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10.4. WASTE MATERIALS (5.5.3.7.c)

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

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

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

10.6. SANITARY WASTE (5.5.3.7.b)

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

10.7. OTHER MATERIALS

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

☐ FERTILIZERS AND LIME

☐ PESTICIDES AND/OR HERBICIDES

☒ DIESEL AND GASOLINE

☒ MACHINERY LUBRICANTS (OIL AND GREASE)

THESE MATERIALS WILL BE HANDLED AS NOTED IN THIS SWPPP.

11. NON-STORMWATER DISCHARGES (5.5.3.12.)

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

☒ DEWATERING OF WORK AREAS OF COLLECTED STORMWATER AND GROUND WATER.

☒ WATERS USED TO WASH VEHICLES (OF DUST AND SOIL) WHERE DETERGENTS ARE NOT USED AND DETENTION AND/OR FILTERING IS PROVIDED BEFORE THE WATER LEAVES THE SITE.

☒ WATER USED TO CONTROL DUST. (3.5.3.1.n)

☒ POTABLE WATER SOURCES INCLUDING WATERLINE FLUSHING FROM WHICH CHLORINE HAS BEEN REMOVED TO THE MAXIMUM EXTENT PRACTICABLE.

☒ UNCONTAMINATED GROUNDWATER OR SPRING WATER.

☒ FOUNDATION OR FOOTING DRAINS WHERE FLOWS ARE NOT CONTAMINATED WITH POLLUTANTS.

☐ OTHER: _____

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

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

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

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

☐ YES ☒ NO

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

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

12.1. SPILL PREVENTION (5.5.3.7.c)

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

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

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

12.2. MATERIAL MANAGEMENT

12.2.1. HOUSEKEEPING

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

12.2.2. HAZARDOUS MATERIALS

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

12.3. PRODUCT SPECIFIC PRACTICES

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

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

12.3.3. PAINTS: ALL CONTAINERS WILL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. THE EXCESS WILL BE DISPOSED OF PER THE MANUFACTURER'S INSTRUCTIONS AND APPLICABLE STATE AND LOCAL REGULATIONS.

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

12.4. SPILL MANAGEMENT

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

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

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

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

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

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

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

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

12.4.8. IF A SPILL OCCURS THE CONTRACTOR'S RESPONSIBLE PARTY SHALL BE RESPONSIBLE FOR COMPLETING THE SPILL REPORTING FORM AND FOR REPORTING THE SPILL TO THE TDOT PROJECT RESPONSIBLE PARTY. ALL SPILLS MUST BE REPORTED TO THE APPROPRIATE AGENCY, AND MEASURES SHALL BE TAKEN IMMEDIATELY TO PREVENT THE POLLUTION OF WATERS OF THE STATE/U.S., INCLUDING GROUNDWATER, SHOULD A SPILL OCCUR.

12.5. SPILL NOTIFICATION (6.1)

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

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

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

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12.5.3. IN ADDITION TO ANY FOLLOW UP NOTIFICATIONS REQUIRED BY FEDERAL LAW, A WRITTEN DESCRIPTION OF THE RELEASE, DATE OF RELEASE AND CIRCUMSTANCES LEADING TO THE RELEASE, WHAT ACTIONS WERE TAKEN TO MITIGATE EFFECTS OF THE RELEASE, AND STEPS TAKEN TO MINIMIZE THE CHANCE OF FUTURE OCCURRENCES WILL BE SUBMITTED TO THE APPROPRIATE TDEC ENVIRONMENTAL FIELD OFFICE WITHIN 2 WEEKS OF KNOWLEDGE OF THE RELEASE.

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

13. RECORD-KEEPING

13.1. REQUIRED RECORDS

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

13.1.1. THE DATES WHEN MAJOR GRADING ACTIVITIES OCCUR.

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

13.1.3. THE DATES WHEN STABILIZATION MEASURES ARE INITIATED.

13.1.4. RECORDS EPSC INSPECTION REPORTS AND CORRECTIVE MEASURES.

13.1.5. RECORDS OF QUALITY ASSURANCE SITE ASSESSMENTS.

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

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

13.2. RAINFALL MONITORING PLAN (7.2.1.):

13.2.1. EQUIPMENT

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

13.2.2. LOCATION

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

13.2.3. METHODS

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

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

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

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

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

13.3. KEEPING PLANS CURRENT (5.4.)

13.3.1. THE EPSC PLAN IS TO SERVE AS AN INITIAL GUIDE FOR SITE PERSONNEL AS THE CONSTRUCTION PROCESS DEVELOPS. IT MUST BE AMENDED, MODIFIED, AND UPDATED WHENEVER EPSC INSPECTIONS INDICATE, OR WHERE STATE OR FEDERAL REGULATORY OFFICIALS DETERMINE EPSC MEASURES ARE PROVING INEFFECTIVE IN ELIMINATING OR SIGNIFICANTLY MINIMIZING POLLUTANT SOURCES OR ARE OTHERWISE NOT ACHIEVING THE GENERAL OBJECTIVES OF CONTROLLING POLLUTANTS IN STORMWATER DISCHARGES ASSOCIATED WITH THE CONSTRUCTION ACTIVITY.

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

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

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

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

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

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

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

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

13.3.3.7. WHEN A TMDL IS DEVELOPED FOR THE RECEIVING WATERS FOR A POLLUTANT OF CONCERN (SILTATION AND/OR HABITAT ALTERATION), CONSTRUCTION SHALL NOTIFY THE PERMITS SECTION FOR PROPER COORDINATION.

13.4. MAKING PLANS ACCESSIBLE

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

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

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

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

13.4.2.3. A BRIEF DESCRIPTION OF THE PROJECT; AND

13.4.2.4. THE LOCATION OF THE SWPPP.

13.4.3. ALL INFORMATION DESCRIBED IN SECTION 13.4.2 MUST BE MAINTAINED IN LEGIBLE CONDITION. IF POSTING THIS INFORMATION NEAR A MAIN ENTRANCE IS 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.

13.5. NOTICE OF TERMINATION (9.0.)

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

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

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

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

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

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

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

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

13.5.2.7. ALL STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES FROM THE IDENTIFIED SITE THAT ARE AUTHORIZED BY A NPDES GENERAL PERMIT HAVE OTHERWISE BEEN ELIMINATED FROM THE PORTION OF THE CONSTRUCTION SITE WHERE THE OPERATOR HAD CONTROL.

13.6. RETENTION OF RECORDS (7.1.)

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

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

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

AShlie Farmer

AUTHORIZED TDOT PERSONNEL SIGNATURE (5.3.3.)

ASHLIE FARMER

PRINTED NAME

TDOT TEAM LEAD

TITLE

3/10/25

DATE

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

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

AUTHORIZED CONTRACTOR PERSONNEL SIGNATURE (5.3.3.)

PRINTED NAME

TITLE

DATE

16. ENVIRONMENTAL PERMITS (**1.5.2.**)

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

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

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

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STORMWATER POLLUTION PREVENTION PLAN

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
PIH	2025	75100-1111-94	
PS&E	2025	HSIP-I-24-1(118)	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)	STAGE 4 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
OUT-1		109+90 RT RAMP “A”	1.00	3.242	3.242	3.242	3.242	N/A	N/A	OVERALL CREEK	
OUT-2		12+00 LT RAMP “B”	1.25	0.176	0.176	0.176	0.179	N/A	N/A	PUCKETT CREEK	
OUT-3		36+45 RT MEDICAL PKWY	1.00	0.094	0.094	0.094	0.094	N/A	N/A	PUCKETT CREEK	
OUT-4		11+00 RT RAMP “B1”	0.75	0.233	0.233	0.233	0.233	N/A	N/A	PUCKETT CREEK	
OUT-5		34+30 CL RAMP “D1”	0.75	0.327	0.327	0.327	0.327	N/A	N/A	PUCKETT CREEK	
OUT-6		51+90 LT MEDICAL PKWY	1.00	0.041	0.041	0.041	0.041	N/A	N/A	PUCKETT CREEK	
OUT-7		52+60 LT MEDICAL PKWY	1.00	0.258	0.258	0.258	0.258	N/A	N/A	PUCKETT CREEK	
OUT-8		51+85 RT MEDICAL PKWY	0.75	0.090	0.090	0.090	0.090	N/A	N/A	PUCKETT CREEK	
OUT-9		530+35 RT MEDICAL PKWY	1.00		0.192	0.192	0.192	N/A	N/A	PUCKETT CREEK	
OUT-10		53+40 RT MEDICAL PKWY	1.00	0.188	0.188			N/A	N/A	PUCKETT CREEK	
OUT-11		320+25 RT RAMP “C”	2.50	0.310	0.310	0.310	0.310	N/A	N/A	PUCKETT CREEK	
OUT-12		320+80 LT RAMP “C”	0.50	0.029	0.029	0.029	0.029	N/A	N/A	PUCKETT CREEK	

ALL UNUSED FIELDS WITHIN THE OUTFALL TABLE ARE TO BE SHADED, HATCHED, OR REMOVED TO INDICATE THEIR NON-USAGE.

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STORMWATER POLLUTION PREVENTION PLAN

TENN.	YEAR	SHEET NO.
	2025	U1-1
STATE PROJ. NO.	75100-3111-94	
FED. PROJ. NO.	HSIP-I-24-1(118)	

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BUREAU OF ENGINEERING

RUTHERFORD COUNTY

INTERCHANGE AT MEDICAL CENTER PARKWAY

STATE HIGHWAY I-24/ F.A.H.S 24

Index Of Sheets	
SHEET NAME	SHEET NUMBER
UTILITIES INDEX, UTILITIES OWNERS AND UTILITY SHEETS	U1-1 THRU U1-2

WITH THE EXCEPTION OF ATMOS ENERGY & AT&T,
THERE ARE NO UTILITIES IN CONFLICT WITH THIS PROJECT

STANDARD LEGEND

EXISTING UTILITES

POWER P
TELEPHONE T
WATER W
CABLE TV C
SANITARY SEWER SA
UNDERGROUND TELEPHONE T (UG)
GAS G
FORCE MAIN SEWER FMS
UNDERGROUND POWER P (UG)
UNDERGROUND FIBER OPTIC F (UG)

POWER POLE
TELEPHONE POLE
POWER/TELEPHONE POLE
MANHOLE
WATER METER W.M.
WATER VALVE W.V.
LIGHT POLE

PROPOSED UTILITIES & MODIFICATIONS

POWER P
UNDERGROUND POWER P (UG)
TELEPHONE T
WATER W
CABLE TV C
SANITARY SEWER SA
UNDERGROUND TELEPHONE T (UG)
GAS G
FORCE MAIN SEWER FMS
UNDERGROUND FIBER OPTIC F (UG)

POWER POLE P
TELEPHONE POLE T
WATER METER W.M.

R REMOVE

RIP RETIRE IN PLACE

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:

GAS: ATMOS
810 CRESCENT CENTER DR. S-600
FRANKLIN, TN 37067
TAYLOR SANDERS
TAYLOR.SANDERS@ATMOSENERGY.COM
O: 615-771-8311

PHONE: AT&T
116 SOUTH CANNON AVENUE
MURFREESBORO, TN 37129
KENNETH LEE KORNEGAY
KK4096@ATT.COM
O: 615-848-2082

CABLE: COMCAST
660 MAINSTREAM DRIVE
NASHVILLE, TN 37228
KATELYN GROSS
KATELYN_GROSS@COMCAST.COM
C: 615-961-2453

FIBER: UNITED COMMUNICATIONS
120 TAYLOR STREET
CHAPEL HILL, TN 37034
JONATHAN KNIGHT
JON.KNIGHT@GOUNITED.NET
C: 704-242-4172

WATER: CONSOLIDATED UTILITY DIST.
709 NEW SALEM HWY
MURFREESBORO, TN 37133
JASON LAXSON
JLAXSON@CUDRC.COM
O: 615-867-7327

ELECTRIC: MIDDLE TENNESSEE ELECTRIC
555 NEW SALEM ROAD
MURFREESBORO, TN 37129
CHRIS WEAVER
CHRISWEAVER@MTE.COM
O: 615-494-1068

WATER MURFREESBORO WATER & SEWER
SEWER: 220 NW BROAD ST.
MURFREESBORO, TN 37130
VALERIE SMITH
VSMITH@MURFREESBOROTN.GOV
O: 615-848-3200

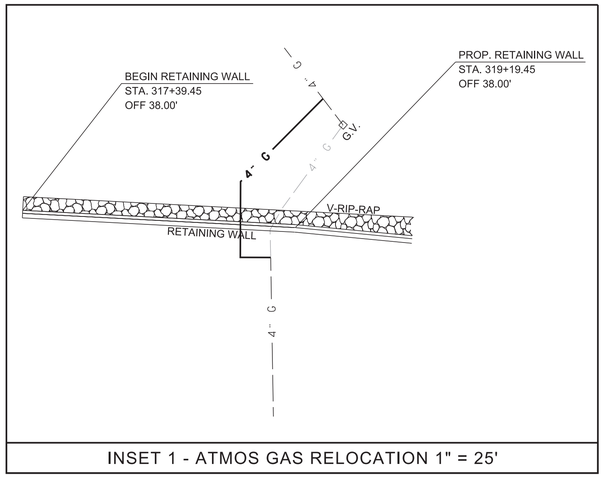
FIBER: XO COMMUNICATIONS
101 MOLLOY ST SUITE 300
NASHVILLE, TN 37201
DEREK DEE
DEREK.R.DEE@VERIZON.COM
C: 615-207-1297

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 SIDEWALKS	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	2025	HSIP-I-24-1(118)	U1-2



INSET 1 - ATMOS GAS RELOCATION 1" = 25'

SEE INSET 1 & GAS NOTE BELOW

GENERAL CONTRACTOR TO COORDINATE RETAINING WALL DESIGN AND DEPTH WITH ATMOS ENERGY.

EXISTING GUYWIRES OF AT&T POLE TO BE RELOCATED PRIOR TO CONSTRUCTION. CONDUIT LOCATED UNDER PROPOSED RETAINING SHALL BE POTHOLED TO VERIFY LOCATION AND DEPTH. IF EXISTING CONDUIT IS FOUND TO BE IN CONFLICT WITH PROPOSED RETAINING WALL, IT SHALL BE LOWERED IN PLACE. GENERAL CONTRACTOR SHALL COORDINATE RETAINING WALL DESIGN AND DEPTH WITH AT&T.

BEGIN PROJ. NO. HSIP-I-24-1(118) R.O.W.
STA. 1319+22.00
N 558377.1555
E 1833484.4811

T/C/P/FOC

SEALED BY

COORDINATES ARE N.A.D. 83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00008 AND TIED TO THE T.G.R.N. ALL ELEVATIONS ARE REFERENCED TO THE N.A.V.D. 1988 WITH GEOID 03.

STATE OF TENNESSEE
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UTILITY SHEETS

STA. 1307+00 TO STA. 1320+00
SCALE: 1" = 50'

MATCH LINE — RAMP "A" STA. 117+00 — I-24 STA. 1307+00

MATCH LINE — I-24 STA. 1320+00 — RAMP "C" STA. 320+00

4/11/2025 3:25:16 PM
\\tdot03nas002.tdot.state.tn.us\03Shared\ROW\Utility Section\Utility Master Files\Rutherford\125463.00 Interchange at Medical Center\ Parkway\125463-00-PIH\005.sht