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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING

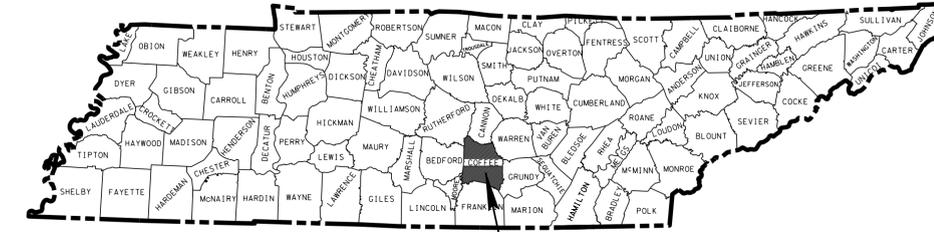
TENN.	YEAR	SHEET NO.
	2015	1
FED. AID PROJ. NO.	NH-I-24-2(146)	
STATE PROJ. NO.	16001-3173-44	

COFFEE COUNTY

I-24 INTERCHANGE AT STATE ROUTE 55

CONSTRUCTION

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

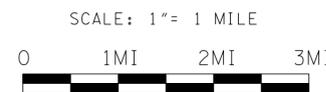
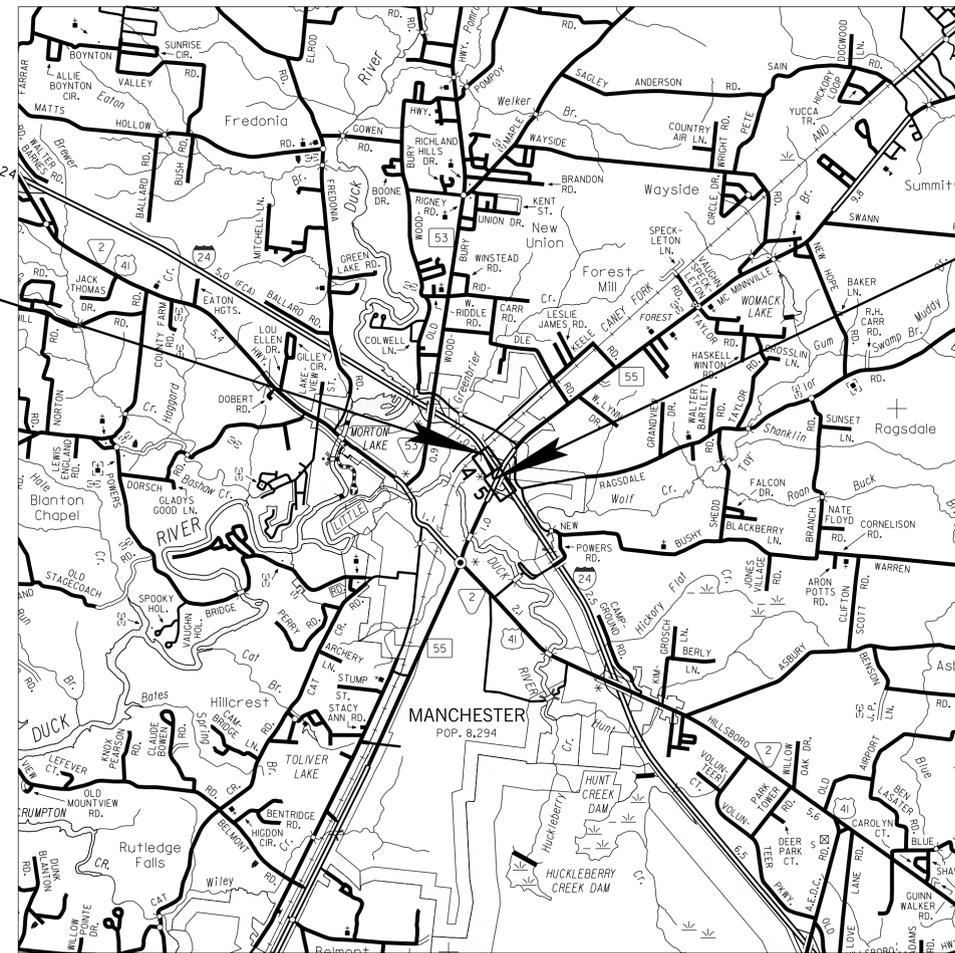


PROJECT NO. NH-I-24-2(146)
COFFEE COUNTY

S.P. # 16001-3173-44
BEGIN PROJECT NO. NH-I-24-2(146) CONST.
STATION 100+00.00
N 422165.3700
E 1945834.2740

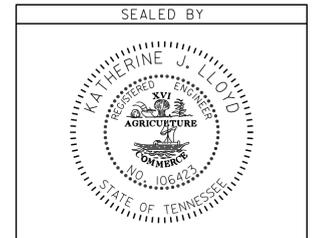
S.P. # 16001-3173-44
END PROJECT NO. NH-I-24-2(146) CONST.
STATION 115+44.52
N 420757.0039
E 1946439.6611

**UNOFFICIAL
SET
NOT FOR
BIDDING**



**NO EXCLUSIONS
NO EQUATIONS**

TRAFFIC DATA	
ADT (2016)	1,120
ADT (2036)	1,230
DHV (2036)	101
D	55 - 45
T (ADT)	6 %
T (DHV)	4 %
V	35 MPH



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

DATE: _____
APPROVED: *John Schroer*
JOHN SCHROER, COMMISSIONER

SPECIAL NOTES

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

THIS PROJECT TO BE CONSTRUCTED UNDER THE STANDARD SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION DATED JANUARY 1, 2015 AND ADDITIONAL SPECIFICATIONS AND SPECIAL PROVISIONS CONTAINED IN THE PLANS AND IN THE PROPOSAL CONTRACT.

TDOT C.E. MANAGER I ROBERT BRAUN, P.E.

DESIGNER DONNIE SIRICHANTO, P.E. CHECKED BY ASO HAWRAMI, P.E.

P.E. NO. 16001-1173-44(DSIGN)

PIN NO. 115358.00

ROADWAY LENGTH 00.293 MILES
BRIDGE LENGTH 00.000 MILES
BOX BRIDGE LENGTH 00.000 MILES
PROJECT LENGTH 00.293 MILES

SURVEY DATE
---NOVEMBER 19, 2012

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED: _____
DIVISION ADMINISTRATOR DATE

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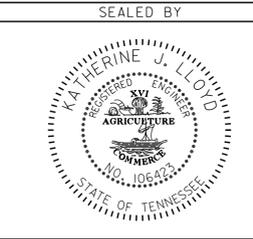
DWG. NO	REV.	DESCRIPTION
ROADWAY DESIGN STANDARDS		
RD-A-1	12-18-99	STANDARD ABBREVIATIONS
RD-L-1	10-26-94	STANDARD LEGEND
RD-L-2	09-05-01	STANDARD LEGEND FOR UTILITY INSTALLATIONS
RD-L-5	05-01-08	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL
RD-L-6	03-30-10	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL
RD-L-7	05-24-12	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL
RD-UD-3	09-05-96	UNDERDRAIN DETAILS
RD-UD-4	05-27-01	UNDERDRAIN LATERAL DETAILS
RD-UD-7	12-18-94	LATERAL UNDERDRAIN ENDWALL DETAIL FOR 3:1 & 4:1 SLOPES
RD01-S-11	04-04-03	DESIGN AND CONSTRUCTION DETAILS FOR ROADSIDE SLOPE DEVELOPMENT
RD01-S-11A	10-15-02	ROADSIDE DITCH DETAILS FOR DESIGN AND CONSTRUCTION
RD01-SD-1		INTERSECTION SIGHT DISTANCE DESIGN AND GENERAL NOTES
RD01-SD-3		INTERSECTION SIGHT DISTANCE 2-LANE ROADWAYS
RD01-SE-3	10-15-02	RURAL SUPERELEVATION DETAILS
RD01-TS-4	07-23-13	DESIGN STANDARDS 1 AND 2 LANE RAMPS

STANDARD ROADWAY DRAWINGS

DWG. NO	REV.	DESCRIPTION	DWG. NO	REV.	DESCRIPTION
DRAINAGE - CULVERTS AND ENDWALL					
D-PB-3		INDUCED TRENCH SOIL EMBANKMENT FOR PIPE CULVERT INSTALLATION	T-M-6	06-22-12	MARKING DETAIL FOR EXPRESSWAYS & FREEWAYS INTERCHANGES
D-PE-4	12-01-14	STRAIGHT CONCRETE ENDWALL	T-M-7	01-12-12	GORE MARKING DETAILS FOR EXPRESSWAY & FREEWAY INTERCHANGES
DRAINAGE-CATCH BASINS AND MANHOLES					
D-CB-41S	03-11-14	STANDARD 4' X 3' RECTANGULAR CONCRETE NO. 41 CATCH BASIN (FOR USE UNDER CONCRETE MEDIAN BARRIER WALL)	T-M-9	11-01-11	MARKING DETAILS FOR RAMP INTERSECTIONS
D-CB-45S	03-11-14	STANDARD 8' X 4' RECTANGULAR CONCRETE NO. 45 CATCH BASIN (FOR USE UNDER CONCRETE MEDIAN BARRIER WALL)	T-PBR-1	06-30-09	INTERCONNECTED PORTABLE BARRIER RAIL
D-CB-99	05-20-14	MISCELLANEOUS DETAILS FOR RECTANGULAR	T-PBR-2	11-01-11	DETAIL FOR VERTICAL PANELS AND FLEXIBLE DELINEATORS
D-CBB-31	05-27-01	TYPE "B" CAST IRON FRAME, GRATE & INLET DETAILS FOR NOS. 31, 41, 45, 46, & 51 TYPE CATCH BASINS	T-S-6	02-12-91	STANDARD MOUNTING DETAILS - BOLTED EXTRUDED PANELS
ROADWAY AND PAVEMENT APPURTENANCES					
RP-H-3	01-30-15	CURB RAMP AND TRUNCATED DOME SURFACE DETAIL	T-S-7	02-12-91	HIGHWAY SHIELDS USED ON INTERSTATE AND U.S. NUMBERED ROUTES
RP-H-7	01-30-15	PERPENDICULAR CURB RAMP IN CURVE	T-S-8	07-15-91	HIGHWAY SHIELDS USED ON STATE NUMBERED ROUTES AND ARROWS
RP-J-1	10-26-00	PORTLAND CEMENT CONCRETE PAVEMENT JOINT TYPES AND SPACING	T-S-9	04-10-14	STANDARD LAYOUT GROUND MOUNTED SIGNS
RP-J-5	07-01-01	TYPICAL ACCELERATION AND DECELERATION LANE JOINT TYPES AND SPACING FOR CONCRETE RAMPS	T-S-10	04-04-12	STANDARD MOUNTING DETAILS FLAT SHEET SIGNS ALUMINUM-STEEL DESIGN
RP-J-7	07-14-14	CONCRETE RAMP JOINT TYPES AND SPACING	T-S-11	06-06-11	DELINEATOR AND MILEPOST DETAILS
RP-J-9	02-02-12	CONTRACTION AND CONSTRUCTION JOINTS FOR CONCRETE PAVEMENT	T-S-12	05-27-03	STANDARD STEEL GROUND MOUNTED SIGNS, BREAK-AWAY TYPE POST FOOTING DETAILS, SQUARE TUBES
RP-J-11	07-29-96	3/4" AND 1-3/4" EXPANSION AND EDGE PAVEMENT JOINTS	T-S-13	07-20-12	STANDARD STEEL GROUND MOUNTED SIGNS, BREAK-AWAY TYPE POST FOOTING DETAILS, I-BEAMS
RP-J-13	03-20-91	3/4" AND 1-3/4" ELASTOMERIC COMPRESSION JOINT SEALS	T-S-14	08-17-12	STANDARD STEEL GROUND MOUNTED SIGNS, BREAK-AWAY TYPE POST FOOTING DETAILS, WF-BEAMS
RP-J-15	01-19-02	LONGITUDINAL CONTRACTION AND CONSTRUCTION JOINTS	T-S-15	12-07-90	STANDARD CONDUIT & GROUND DETAILS FOR OVERHEAD & CANTILEVER SIGN STRUCTURES
RP-J-17	02-02-12	DOWEL ASSEMBLY DEVICES	T-S-17	07-19-13	STANDARD GROUND MOUNTED SIGN USING PERFORATED/KNOCKOUT SQUARE TUBE
RP-J-18	02-02-12	DOWEL ASSEMBLY DEVICES	T-S-19	07-19-13	STANDARD STEEL SIGN SUPPORTS
RP-J-19	02-02-12	DOWEL ASSEMBLY DEVICES	T-S-20	11-01-11	SIGN DETAILS
SAFETY APPURTENANCES AND FENCE					
S-F-1	05-24-12	HIGH VISIBILITY FENCE	T-S-21	02-28-13	DETAILS FOR SIGNS MOUNTS ON CONCRETE MEDIAN BARRIERS
S-F-10	06-01-09	STANDARD RIGHT-OF-WAY STOCK FENCE	T-S-23A	07-19-13	MULTI-DIRECTIONAL SLIP BASE BREAKAWAY SQUARE TUBE SIGN SUPPORT
S-CZ-1		CLEAR ZONE CRITERIA	T-S-23B	07-19-13	MULTI-DIRECTIONAL SLIP BASE BREAKAWAY STRUCTURAL PIPE SIGN SUPPORT
S-PL-1		SAFETY PLAN AT ROADSIDE HAZARDS	T-S-23C	07-19-13	BREAKAWAY U-POST SIGN SUPPORTS
S-CB-1		CABLE BARRIER	T-WZ-10	04-02-12	ADVANCE ROAD WORK SIGNING ON HIGHWAYS AND FREEWAYS
S-GR31-1	12-01-14	W-BEAM GUARDRAIL	T-WZ-18	03-13-09	SHOULDER CLOSURE DETAIL FOR FREEWAYS AND DIVIDED HIGHWAYS
S-GRT-2	11-03-14	TYPE 38 GUARDRAIL TERMINAL	T-WZ-55	06-30-14	SIDEWALK TRAFFIC CONTROL
S-GRT-2P		EARTH PAD FOR TYPE 38 TERMINAL	EROSION PREVENTION AND SEDIMENT CONTROL		
S-GRT-4	11-06-14	TYPE 13 GUARDRAIL TERMINALS (TRAILING END)	EC-STR-3B	08-01-12	SILT FENCE
S-GRA-3		GUARDRAIL ANCHOR FOR TYPE 12, 13 AND IN-LINE TERMINALS	EC-STR-3C	08-01-12	SILT FENCE WITH WIRE BACKING
S-GRC-1		GUARDRAIL CONNECTION TO BRIDGE ENDS OR BARRIER WALL	EC-STR-3E	04-01-08	SILT FENCE FABRIC JOINING DETAILS
S-SSMB-6	10-24-13	GUARDRAIL ATTACHMENT TO SINGLE SLOPE CONCRETE BARRIER WALL	EC-STR-6	08-01-12	ROCK CHECK DAM
TRAFFIC CONTROL APPURTENANCES					
T-FAB-1	05-27-97	FLASHING YELLOW ARROW BOARD	EC-STR-11	08-01-12	CULVERT PROTECTION TYPE 1
			EC-STR-19	04-01-08	CATCH BASIN PROTECTION
			EC-STR-25	08-01-12	TEMPORARY CULVERT CROSSING, CONSTRUCTION EXIT, CONSTRUCTION FORD

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-1-24-2(1 46)	1 A

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**INDEX
AND
STANDARD
DRAWINGS**

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-1-24-2(1.46)	1B

PROJECT COMMITMENTS			
COMMITMENT ID	SOURCE DIVISON	DESCRIPTION	STA. / LOCATION
EDEC001	ENVIRONMENT DIVISION, ECOLOGY	DUE TO CONCERNS FOR THE INDIANA BAT (MYOTIS SODALIS), TREE CUTTING/REMOVAL WILL OCCUR FROM OCTOBER 15 THROUGH MARCH 31.	ENTIRE PROJECT LENGTH

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SEALED BY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**PROJECT
COMMITMENTS**

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-I-24-2(146)	2

REV. 06-26-15: ADD ITEM NOS. 712-01 & 717-01.
DELETE ITEM NO. 715-13

ESTIMATED ROADWAY QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
105-01	CONSTRUCTION STAKES, LINES AND GRADES	LS	1
201-01	CLEARING AND GRUBBING	LS	1
(15) 202-01.56	REMOVAL OF STRUCTURES & OBSTRUCTIONS (EXISTING CABLE BARRIER)	LS	1
202-03	REMOVAL OF RIGID PAVEMENT, SIDEWALK, ETC.	S.Y.	69
(2) 203-01	ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED)	C.Y.	10,788
203-02.01	BORROW EXCAVATION (GRADED SOLID ROCK)	TON	10,691
203-03	BORROW EXCAVATION (UNCLASSIFIED)	C.Y.	5,732
(5) 203-04	PLACING AND SPREADING TOPSOIL	C.Y.	18
203-06	WATER	M.G.	80
(1) 209-05	SEDIMENT REMOVAL	C.Y.	75
(1) 209-08.02	TEMPORARY SILT FENCE (WITH BACKING)	L.F.	172
(1) 209-08.03	TEMPORARY SILT FENCE (WITHOUT BACKING)	L.F.	2,501
(1) 209-08.07	ROCK CHECK DAM	EACH	1
(1) 209-40.33	CATCH BASIN PROTECTION (TYPE D)	EACH	5
(6) 303-01	MINERAL AGGREGATE, TYPE A BASE, GRADING D	TON	10,965
(7)(1) 303-10.01	MINERAL AGGREGATE (SIZE 57)	TON	5
313-03	TREATED PERMEABLE BASE	S.Y.	4,384
402-01	BITUMINOUS MATERIAL FOR PRIME COAT (PC)	TON	7
402-02	AGGREGATE FOR COVER MATERIAL (PC)	TON	22
501-01.03	PORTLAND CEMENT CONCRETE PAVEMENT (PLAIN) 10"	S.Y.	4,788
604-07.01	RETAINING WALL (STA. 106+00 TO STA. 115+10 RT.)	S.F.	16,637
(11) 607-03.02	18" CONCRETE PIPE CULVERT (CLASS III)	L.F.	330
611-07.01	CLASS A CONCRETE (PIPE ENDWALLS)	C.Y.	2
611-07.02	STEEL BAR REINFORCEMENT (PIPE ENDWALLS)	LB.	40
611-41.01	CATCH BASINS, TYPE 41, >0'-4' DEPTH	EACH	2
611-41.02	CATCH BASINS, TYPE 41, >4'-8' DEPTH	EACH	1
611-45.02	CATCH BASINS, TYPE 45, >4'-8' DEPTH	EACH	1
701-01.01	CONCRETE SIDEWALK (4")	S.F.	152
702-01	CONCRETE CURB	C.Y.	14
705-01.01	GUARDRAIL AT BRIDGE ENDS	L.F.	40
(17) 705-02.02	SINGLE GUARDRAIL (TYPE 2)	L.F.	985
(18) 705-04.03	GUARDRAIL TERMINAL (TYPE 13)	EACH	3
(19) 705-04.07	TAN ENERGY ABSORBING TERM (NCHRP 350, TL 3)	EACH	2
705-08.51	PORTABLE IMPACT ATTENUATOR NCHRP350 TL-3	EACH	2
(16) 705-80.18	CABLE BARRIER TERMINAL	EACH	4
706-06.03	RADIUS RAIL	L.F.	30
707-01.12	END & CORNER POST ASSEMBLY (CHAIN-LINK FENCE 6')	EACH	2
707-03.01	STOCK FENCE	L.F.	695
707-03.02	END, BRACED LINE, CORNER POST ASSEMBLY (STOCK FENCE)	EACH	16
707-06.01	REMOVAL OF FENCE (886' STOCK FENCE & 101' CHAINLINK FENCE)	L.F.	987
(1) 707-08.01	HIGH VISIBILITY CONSTRUCTION FENCE	L.F.	149
(8)(1) 709-05.05	MACHINED RIP-RAP (CLASS A-3)	TON	100
(7)(1) 709-05.06	MACHINED RIP-RAP (CLASS A-1)	TON	23
(9)(1) 709-05.08	MACHINED RIP-RAP (CLASS B)	TON	12
710-02	AGGREGATE UNDERDRAINS (WITH PIPE)	L.F.	1,550
710-05	LATERAL UNDERDRAIN	L.F.	125
710-06.13	LATERAL UNDERDRAIN ENDWALL (4:1)	EACH	2
711-05.72	SINGLE SLOPE HALF CONCRETE BARRIER WALL	L.F.	910
712-01	TRAFFIC CONTROL	LS	1
712-02.02	INTERCONNECTED PORTABLE BARRIER RAIL	L.F.	1763
712-04.01	FLEXIBLE DRUMS (CHANNELIZING)	EACH	9
712-04.50	PORTABLE BARRIER DELINEATOR	EACH	73
712-06	SIGNS (CONSTRUCTION)	S.F.	202
713-01.01	CLASS A CONCRETE (FOUNDATION FOR SIGN SUPPORTS)	C.Y.	3
713-01.02	STEEL BAR REINFORCEMENT (FOUNDATION FOR SIGN SUPPORTS)	LB.	722
713-02.14	FLEXIBLE DELINEATOR (WHITE)	EACH	7
713-02.15	FLEXIBLE DELINEATOR (YELLOW)	EACH	3
713-05	STEEL HOLLOW SQUARE POST (BREAKAWAY) SIGN SUPPORTS	LB.	101

ESTIMATED ROADWAY QUANTITIES

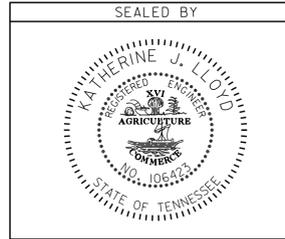
ITEM NO.	DESCRIPTION	UNIT	QUANTITY
713-06	STEEL I-BEAMS & WF-BEAMS(BREAKAWAY) SIGN SUPPORT	LB.	919
713-09.01	STEEL OVERHEAD SIGNS STRUCTURE (SPAN=72'-0")	EACH	1
713-09.02	STEEL OVERHEAD SIGNS STRUCTURE (SPAN=68'-0")	EACH	1
713-11.02	PERFORATED/KNOCKOUT SQUARE TUBE POST	LB.	318
713-13.02	FLAT SHEET ALUMINUM SIGNS (0.080" THICK)	S.Y.	19
713-13.03	FLAT SHEET ALUMINUM SIGNS (0.100" THICK)	S.Y.	147
713-14	EXTRUDED ALUMINUM PANEL SIGNS	S.Y.	946
(12) 713-15	REMOVAL OF SIGNS, POSTS AND FOOTINGS	LS	1
(13) 713-16.41	RELOCATE SIGN	LS	1
713-17.02	INSTALL AUXILIARY SUPPORT FOR EXIT NUMBER PANEL	EACH	8
(14) 713-30.09	BARRIER MOUNTED SIGN SUPPORT		3
712-06.01	VERTICAL PANELS	S.F.	30
712-08.03	ARROW BOARD (TYPE C)	EACH	2
716-01.23	Snwplwble Pvmt Mrks (Bi-Dir)(2 Color)	EACH	31
716-02.03	PLASTIC PAVEMENT MARKING (CROSS-WALK)	L.F.	47
(3) 716-02.04	PLASTIC PAVEMENT MARKING (CHANNELIZATION)	S.Y.	13
(3) 716-05.02	PLASTIC PAVEMENT MARKING (STOP LINE)	L.F.	19
(3) 716-02.07	PLASTIC PAVEMENT MARKING (24" BARRIER LINE)	L.F.	211
716-12.01	ENHANCED FLATLINE THERMO PVMT MRKNG (4IN LINE)	L.M.	0.024
716-12.02	ENHANCED FLATLINE THERMO PVMT MRKNG (6IN LINE)	L.M.	0.5
716-12.04	ENHANCED FLATLINE THERMO PVMT MRKNG (4IN DOTTED LINE)	L.F.	125
716-12.05	ENHANCED FLATLINE THERMO PVMT MRKNG (6IN DOTTED LINE)	L.F.	136
716-12.06	ENHANCED FLATLINE THERMO PVMT MRKNG (8IN LINE)	L.F.	632
717-01	MOBILIZATION	LS	1
(5) 740-06.01	GEOMEMBRANE	S.Y.	180
10)(1) 740-10.03	GEOTEXTILE (TYPE III) (EROSION CONTROL)	S.Y.	226
(4) 740-10.04	GEOTEXTILE (TYPE IV) (STABILIZATION)	S.Y.	19,106
801-03	WATER (SEEDING & SODDING)	M.G.	54
(1) 803-01	SODDING (NEW SOD)	S.Y.	5433

FOOTNOTES:

- (1) SEE SUBSECTION 209.07 OF THE STANDARD SPECIFICATIONS FOR MAINTENANCE AND REPLACEMENT. ALL QUANTITIES ARE TO BE USED AS DIRECTED BY THE ENGINEER.
- (2) INCLUDES 15 C.Y. FOR EROSION CONTROL
- (3) CONTRACTOR MAY ELECT TO SUBSTITUTE PREFORMED PLASTIC FOR THERMOPLASTIC. PREFORMED PLASTIC SHALL BE PAID FOR AT THE SAME UNIT PRICE BID FOR THERMOPLASTIC.
- (4) TO BE USED WITH GRADED SOLID ROCK FOR ROADWAY SUBGRADE.
- (5) TO BE USED ON V-DITCH FROM STA. 103+80 TO STA. 105+60 RT., SEE SOIL SHT. 15.
- (6) INCLUDES 24 TONS TO BE USED ON V-DITCH FROM STA. 103+80 TO STA. 105+60 RT., SEE SOIL SHT. 15.
- (7) FOR CULVERT PROTECTION TYPE 1.
- (8) FOR CONSTRUCTION EXITS.
- (9) INCLUDES 6 TONS FOR OUTLET PROTECTION.
- (10) INCLUDES 54 S.Y. FOR CULVERT PROTECTION TYPE 1 AND 172 S.Y. FOR TEMPORARY CONSTRUCTION EXITS.
- (11) INCLUDES 94 L.F. FOR CROSS DRAIN.
- (12) REMOVE SIGNS, SUPPORTS AND FOOTINGS ON SIGN NO'S. 5, 9A, 11, 34, 35 & 36. REMOVE SUPPORTS AND FOOTINGS ON SIGN NO'S. 9 & 12. REMOVE SIGN AND SUPPORT ON SIGN NO'S. 8, 28 & 29. REMOVE SIGN FACE ONLY ON SIGN NO'S. 7 & 10 OR AS DIRECTED BY THE ENGINEER.
- (13) RELOCATE SIGN FACE ON SIGN NO'S. 1 & 3.
- (14) ITEM TO INCLUDE THE SUPPORT. SUPPORT TO BE 3" X 3" SQUARE TUBE.
- (15) REMOVE APPROXIMATELY 504 FEET OF EXISTING CABLE BARRIER AND ALL HARDWARE AND FOUNDATIONS WHERE THE PROPOSED GUARDRAIL IS TO BE INSTALLED FOR THE PROTECTION OF THE INSIDE SHOULDER SUPPORT OF THE PROPOSED OVERHEAD SIGN STRUCTURES AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER.
- (16) ITEM TO INCLUDE FOUNDATION, ALL MISCELLANEOUS HARDWARE AND RETENTIONING OF THE CABLE BARRIER, AS DIRECTED BY THE ENGINEER.
- (17) INCLUDES 410 FEET FOR PROTECTION OF THE INSIDE SHOULDER SUPPORT OF THE PROPOSED OVERHEAD SIGN STRUCTURES. SEE SHEETS 13 & 13B.
- (18) INCLUDES 2 EACH FOR THE TRAILING END OF PROPOSED GUARDRAIL FOR THE PROTECTION OF THE INSIDE SHOULDER SUPPORT OF THE PROPOSED OVERHEAD SIGN STRUCTURES. SEE SHEETS 13 & 13B.
- (19) TO BE USED WITH PROPOSED GUARDRAIL FOR THE PROTECTION OF THE INSIDE SHOULDER SUPPORT OF THE PROPOSED OVERHEAD SIGN STRUCTURES. SEE SHEETS 13 & 13B.

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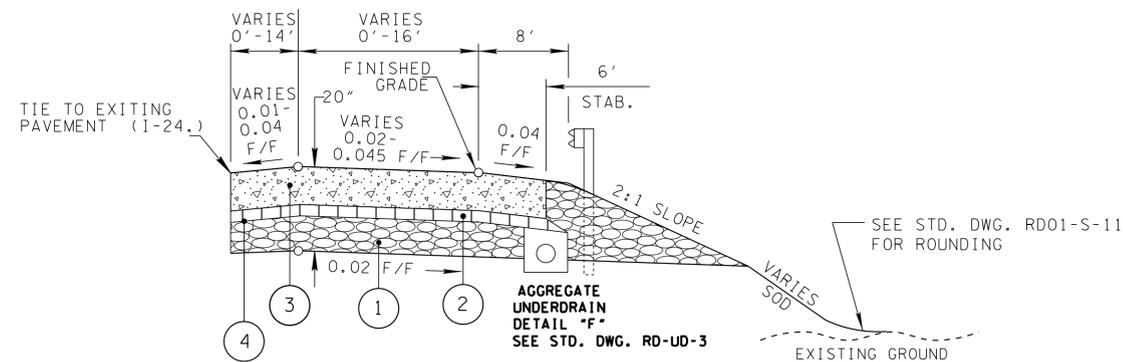
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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**ESTIMATED
ROADWAY
QUANTITIES**

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2015	NH-1-24-2(146)	2
CONST.	2015	NH-1-24-2(146)	2A



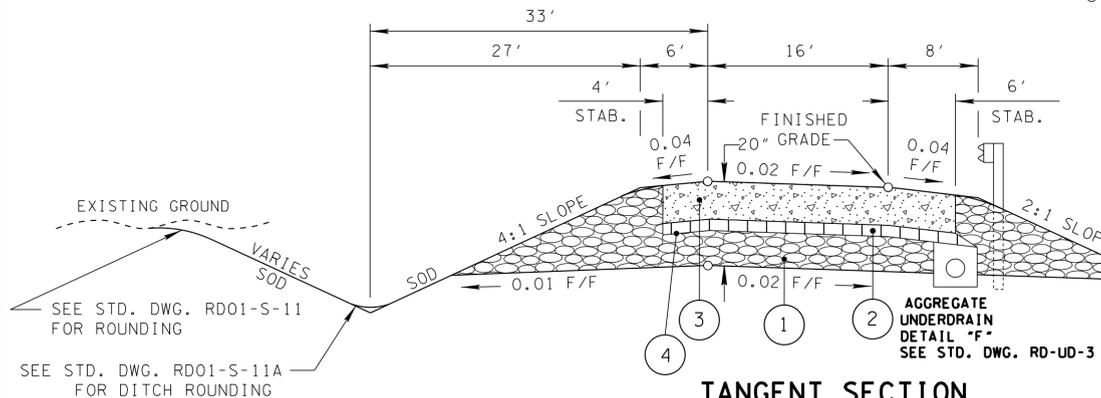
TANGENT SECTION

(BASED ON STD. DWG. RD01-TS-4)

I-24 EASTBOUND OFF RAMP (MANCHESTER/TULLAHOMA)

STA. 100+00.00 ----- STA. 101+40.00

STA. 101+40.00 ----- STA. 104+00.00

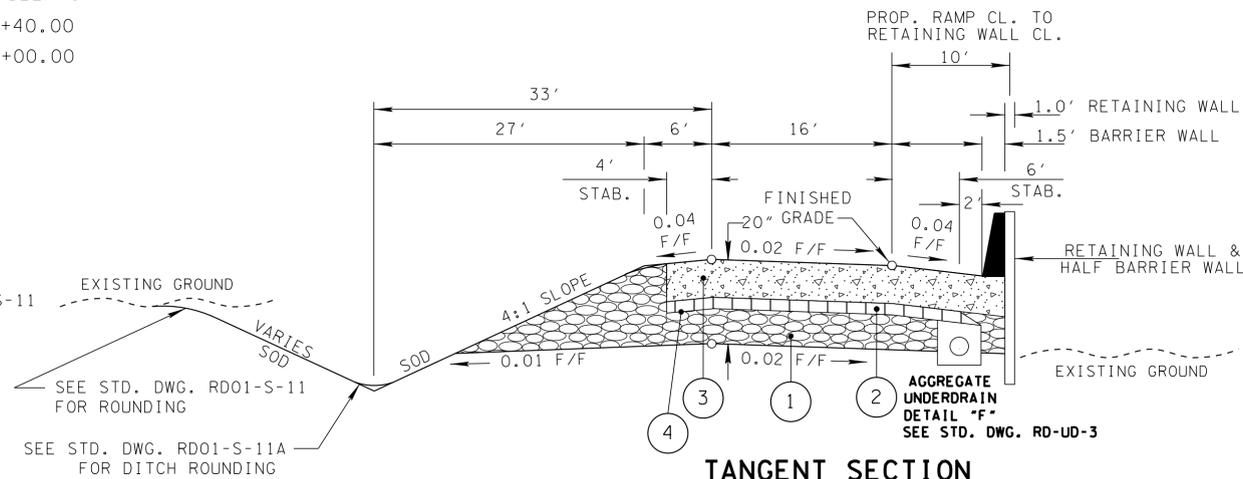


TANGENT SECTION

(BASED ON STD. DWG. RD01-TS-4)

I-24 EASTBOUND OFF RAMP (MANCHESTER/TULLAHOMA)

STA. 104+00.00 ----- STA. 106+00.00

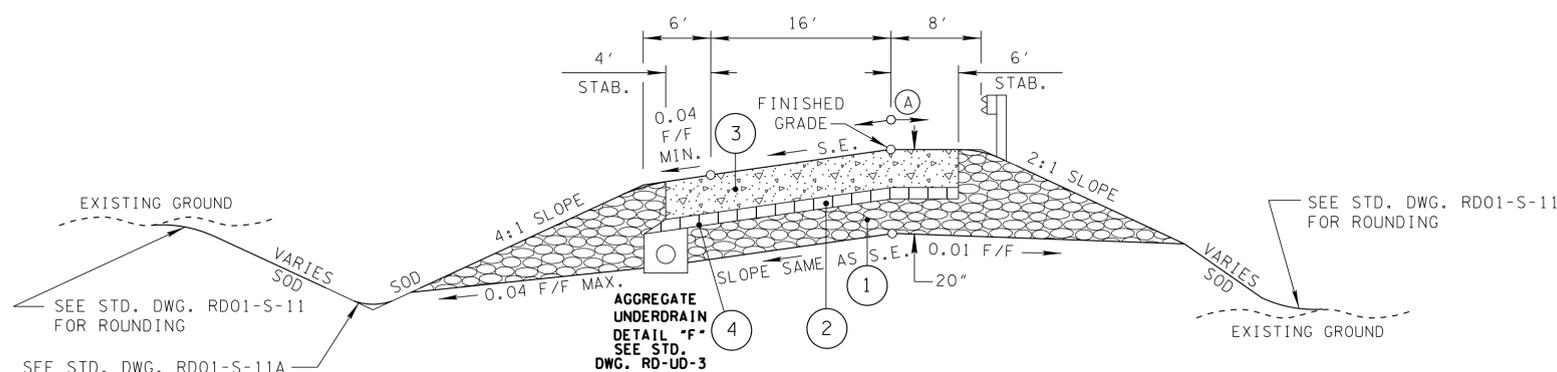


TANGENT SECTION

(BASED ON STD. DWG. RD01-TS-4)

I-24 EASTBOUND OFF RAMP (MANCHESTER/TULLAHOMA)

STA. 106+00.00 ----- STA. 115+10.00



SUPERELEVATED SECTION

(BASED ON STD. DWG. RD01-TS-4)

I-24 EASTBOUND OFF RAMP (MANCHESTER/TULLAHOMA)

STA. 115+10.00 ----- STA. 115+44.52

GENERAL NOTES

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

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BIDDING**

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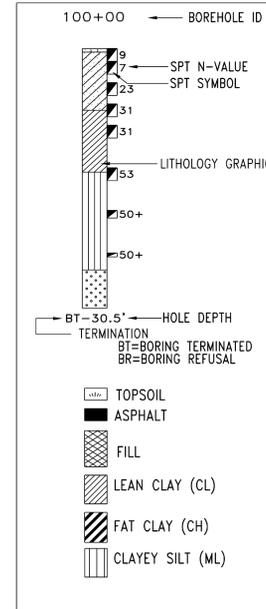
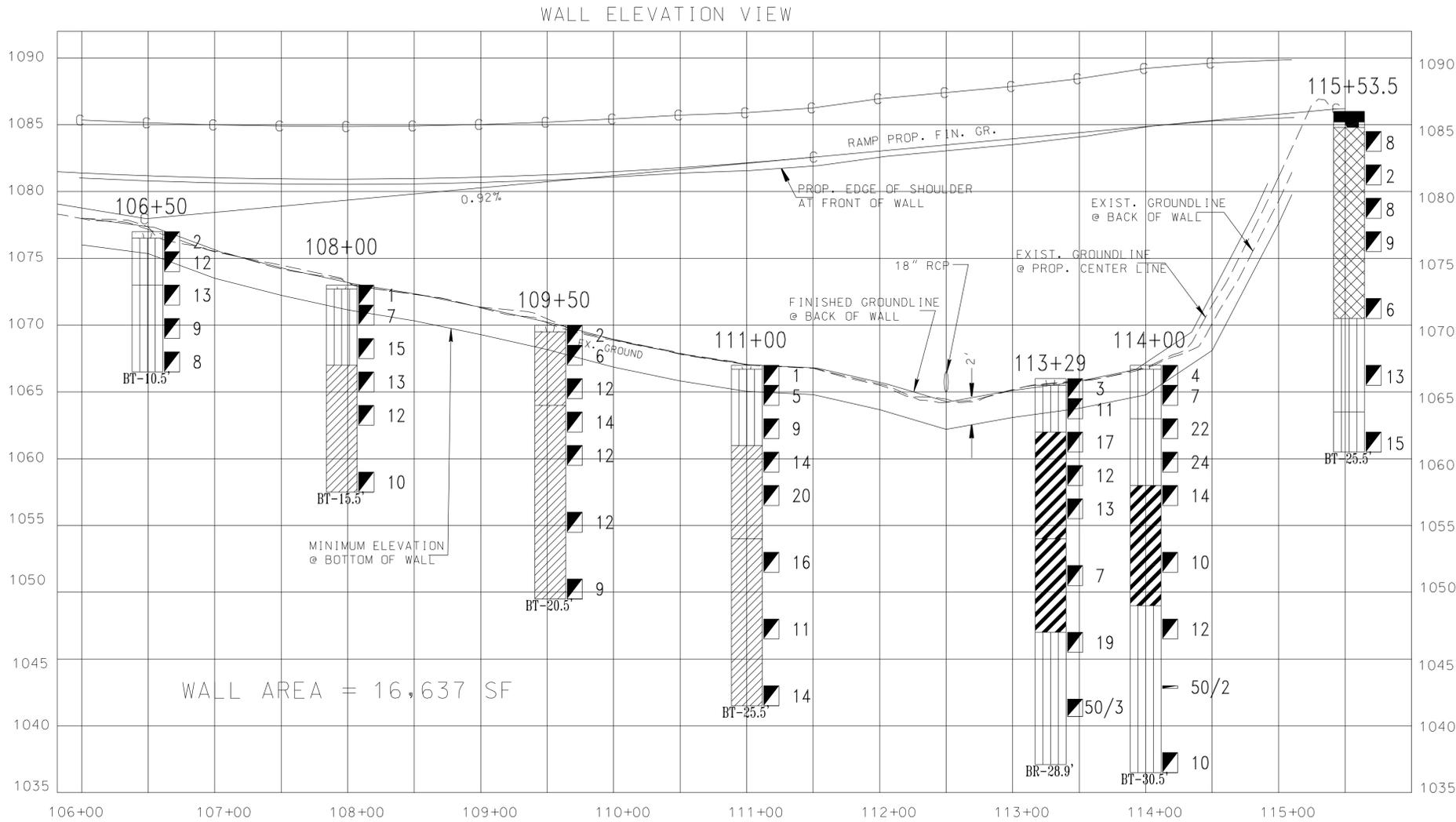
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**TYPICAL
SECTIONS
AND
PAVEMENT
SCHEDULE**

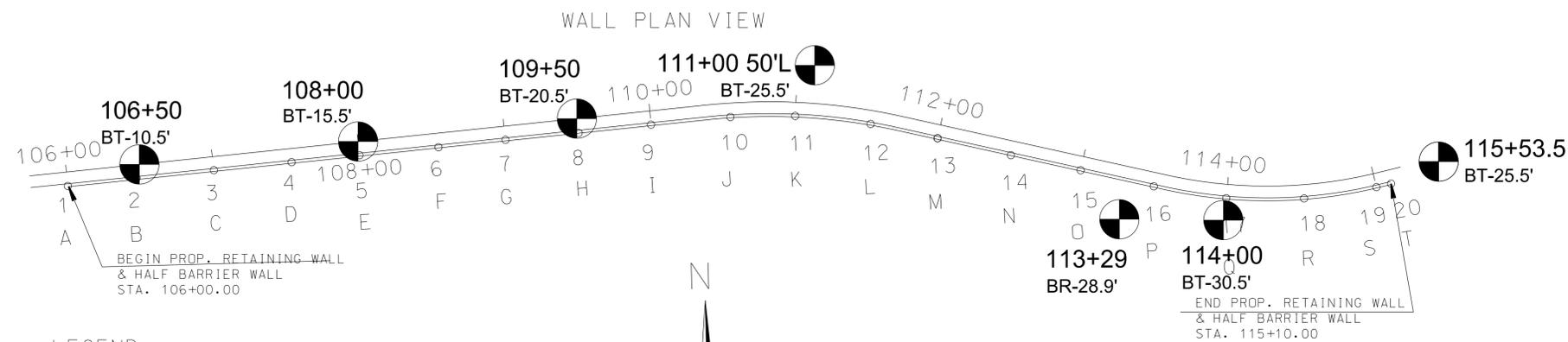
PROPOSED PAVEMENT SCHEDULE

<p>① MINERAL AGGREGATE BASE @ 6" THICK 303-01 MINERAL AGGREGATE, TYPE "A" BASE, GRADING "D"</p>	<p>② TREATED PERMEABLE BASE @ 4" THICK 313-03 TREATED PERMEABLE BASE</p>
<p>③ PORTLAND CEMENT CONCRETE (PLAIN) @ 10" THICK 501-01.03 PORTLAND CEMENT CONCRETE PAVEMENT (PLAIN) 10"</p>	<p>④ PRIME COAT 402-01 BITUMINOUS MATERIAL FOR PRIME COAT (PC) (RATE 0.03-0.35 GAL/YD²) 402-02 AGGREGATE FOR COVER MATERIAL (PC) (RATE 8-12 LB/YD²)</p>

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-1-24-2(146)	2B



WALL AREA = 16,637 SF

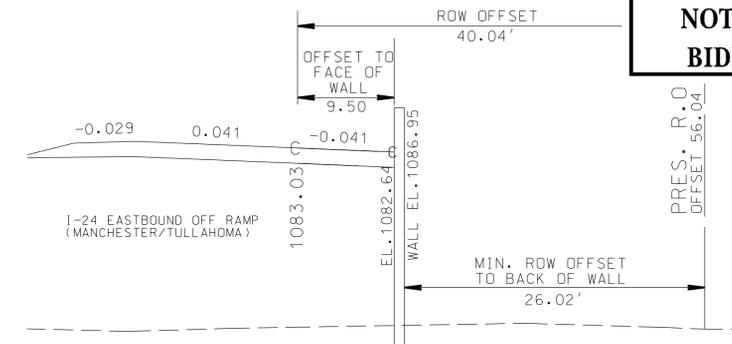


LEGEND

- BORING MARKER
- 106+50** - BORING LABEL AND TERMINATION/REFUSAL DEPTH
- BT-10.5' - BORING TERMINATED
- BR - BORING REFUSAL
- BT - BORING TERMINATED

BORING	OFFSET	GROUND ELEV.
106+50	0	1077
108+00	0	1073
109+50	0	1070
111+00 50'L	26'LT	1067
113+29	7.8'RT	1066
114+00	24.4'RT	1067
115+53.5	---	1086

TYPICAL SECTION STA. 112



**UNOFFICIAL SET
NOT FOR BIDDING**

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
RETAINING WALL
CONCEPTUAL DRAWING
Interstate 24 at State Route 55
Coffee County, Tennessee
STA. 106+00 TO 115+10
VERT. SCALE: 1"=5'
HORZ. SCALE: 1"=50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-1-24-2(146)	2B1

TABLE 1-DESIGN REQUIREMENTS AND PARAMETERS

DESCRIPTION	VALUE-MSE WALLS	VALUE-GRAVITY AND SEMI GRAVITY WALLS	NOTE
DESIGN LIFE	75 YEARS	75 YEARS	
SEISMIC ACCELERATION COEFFICIENT (As)	xx	xx	
EFFECTIVE (DRAINED) FRICTION ANGLE			
RETAINED BACKFILL-UNCLASSIFIED SITE OR BORROW SOIL	28°	28°	
RETAINED BACKFILL-SELECT BACKFILL	34° TO MAX 40°	34° TO MAX 40°	1
REINFORCED BACKFILL	34° TO MAX 40°	NOT APPLICABLE	1
UNIT WEIGHT			
UNCLASSIFIED SITE OR BORROW SOIL	120 POUNDS PER CUBIC FOOT	120 POUNDS PER CUBIC FOOT	
SELECT BACKFILL MATERIAL	VARIES	VARIES	1A
MINIMUM LENGTH OF SOIL REINFORCEMENT, B	GREATER OF 0.7H MIN. OR 8-FT OR AS SPECIFIED ON THE PLANS	NOT APPLICABLE	2,2A
LIMITING ECCENTRICITY	B/4 (SOIL), 3/8B (ROCK)	B/4 (SOIL), 3/8B (ROCK)	
COEFFICIENT OF SLIDING FRICTION	SEE TABLE 2 OR 3	SEE TABLE 2 OR 3	3
NOMINAL BEARING CAPACITY	SEE TABLE 2 OR 3	SEE TABLE 2 OR 3	3
RESISTANCE FACTORS			
SLIDING-STATIC	1.0	1.0	4
SLIDING-COMBINED STATIC-EARTHQUAKE	0.9	0.9	4
BEARING-STATIC	0.65	0.55	5
BEARING-COMBINED STATIC-EARTHQUAKE	0.9	0.8	
PULLOUT RESISTANCE			
STATIC	0.90	NOT APPLICABLE	6
COMBINED STATIC/EARTHQUAKE	1.20	NOT APPLICABLE	6
TENSILE RESISTANCE OF METALLIC REINFORCEMENTS AND CONNECTORS			
STATIC		NOT APPLICABLE	
-STRIP REINFORCEMENT	0.75		7
-GRID REINFORCEMENT	0.65		7,8
COMBINED STATIC/EARTHQUAKE		NOT APPLICABLE	
-STRIP REINFORCEMENT	1.00		7
-GRID REINFORCEMENT	0.85		7,8
TENSILE RESISTANCE OF GEOSYNTHETIC REINFORCEMENTS AND CONNECTORS			
STATIC	0.90	NOT APPLICABLE	
COMBINED STATIC/EARTHQUAKE	1.20	NOT APPLICABLE	
*REFER TO TABLE 1.1 FOR NOTES.			

WALL DESIGN IS TO INCLUDE EXTREME EVENT I STATE LOADS. THE TDOT STRUCTURES DIVISION WILL PROVIDE GROUND MOTION VALUES FOR THE SITE. THIS BOX IS TO BE REMOVED AFTER STRUCTURES DIVISION HAS INSERTED THIS AS VALUE.

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 1) AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 2012 AND INTERIMS AND 2) 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 SPECIAL PROVISION 624, THE WALL DESIGNER SHALL BE RESPONSIBLE FOR PROVIDING WALL DESIGNS INCORPORATING MATERIALS AND COMPONENTS (I.E. REINFORCEMENT CONNECTION DEVICES, SPECIFIC MANUFACTURER AND PROPERTIES OF GEGRID) 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 WALL CONCEPT SHEET AND RELATED RETAINING WALL SHEETS TO PREPARE AND SUBMIT DESIGN CALCULATIONS. LOAD FACTORS AND OTHER PERTINENT DESIGN REQUIREMENTS PROVIDED IN AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 2012 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 (BEARING CAPACITY, SLIDING, SETTLEMENT, ECCENTRICITY) AND EXTERNAL (GLOBAL) STABILITY 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.

- 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 FOR MSE WALLS. LOAD COMBINATIONS FOR OTHER WALL TYPES SHALL BE AS GIVEN IN AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 2012 AND INTERIMS.

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.

ACCEPTABLE WALL TYPES

THE RETAINING WALL SHALL BE ONE OF THE WALL TYPES LISTED BELOW. FOR RETAINING WALL SYSTEMS LISTED AS MSE (EITHER SEGMENTAL PANEL OR MODULAR BLOCK), THE SPECIFIC WALL SYSTEM SUPPLIER/INSTALLER SHALL BE ONE OF THOSE LISTED AS PRE-APPROVED IN THE SPECIAL PROVISION 624.

- CAST-IN-PLACE CONCRETE GRAVITY WALL
- CAST-IN-PLACE CONCRETE CANTILEVER WALL
- CAST-IN-PLACE CONCRETE COUNTERFORT WALL
- MECHANICALLY STABILIZED EARTH (MSE) WALL - SEGMENTAL PRECAST
- MECHANICALLY STABILIZED EARTH (MSE) WALL - MODULAR BLOCK

TABLE 1.1 NOTES FOR TABLE 1	
NO.	NOTE
1	A MINIMUM FRICTION ANGLE OF 34 DEGREES CAN BE ASSUMED FOR MATERIAL MEETING SPECIFICATIONS IN SECTION F, PART I, AND ITEM E OF TENNESSEE DEPARTMENT OF TRANSPORTATION SPECIAL PROVISION 624 REGARDING RETAINING WALLS. A HIGHER FRICTION ANGLE 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.
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, AND ITEM E 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, B, 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 BLOCK FACING UNITS, THE TOTAL LENGTH OF THE REINFORCEMENT, B, AS MEASURED FROM THE FRONT FACE OF THE WALL IS THE LENGTH B 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.
3	THESE VALUES WILL BE PROVIDED IN TABLES 2 AND/OR 3
4	PASSIVE RESISTANCE SHALL <u>NOT</u> BE CONSIDERED IN EVALUATION OF SLIDING RESISTANCE.
5	FOR ALL LIMIT STATES, THE DESIGN LOADING FOR THE MSE RETAINING WALL SYSTEM SHALL NOT EXCEED THE FACTORED GENERAL AND LOCAL BEARING RESISTANCE SPECIFIED IN TABLES 2 OR 3.
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 (2007) 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.

TABLE 2-FOUNDATION PARAMETERS AND REQUIREMENTS FOR MSE WALLS

STATION LIMITS	MINIMUM FOUNDATION EMBEDMENT DEPTH (feet)	FOUNDATION (REINFORCED ZONE) BEARING CONDITION REQUIREMENT *	NOMINAL (ULTIMATE) BEARING PRESSURE (psf)	COEFFICIENT OF SLIDING FRICTION FOR GRADED SOLID ROCK
106+00 TO 109+00	2	3 FT. GRADED SOLID ROCK	4,900	0.5
109+00 TO 110+50	3	3 FT. GRADED SOLID ROCK	7,000	0.5
110+50 TO 114+60	4	3 FT. GRADED SOLID ROCK	8,500	0.5
114+60 TO 115+10	3	3 FT. GRADED SOLID ROCK	7,000	0.5

TABLE 3-FOUNDATION PARAMETERS AND REQUIREMENTS FOR GRAVITY OR SEMI-GRAVITY WALLS

STATION LIMITS	MINIMUM FOUNDATION EMBEDMENT DEPTH (feet)	FOUNDATION BEARING CONDITION REQUIREMENT *	NOMINAL (ULTIMATE) BEARING PRESSURE (psf)	COEFFICIENT OF SLIDING FRICTION FOR GRADED SOLID ROCK
106+00 TO 109+00	2	3 FT. GRADED SOLID ROCK	4,900	0.5
109+00 TO 110+50	3	3 FT. GRADED SOLID ROCK	7,000	0.5
110+50 TO 114+60	4	3 FT. GRADED SOLID ROCK	8,500	0.5
114+60 TO 115+10	3	3 FT. GRADED SOLID ROCK	7,000	0.5

* UNDERCUTTING BELOW THE MINIMUM FOUNDATION EMBEDMENT DEPTHS PROVIDED IN TABLES 2 AND 3 WILL BE REQUIRED. THE MINIMUM UNDERCUT EXCAVATION SHALL BE 3 FEET. THE FOUNDATION UNDERCUT SHALL EXTEND BEYOND EACH SIDE OF THE FOUNDATION FOOTPRINT, OR REINFORCED EARTH ZONE FOR AN MSE WALL, A MINIMUM DISTANCE OF 3 FEET BEFORE SLOPING IN ACCORDANCE WITH OSHA REQUIREMENTS. UNDERCUT EXCAVATIONS SHALL BE BACKFILLED WITH GRADED SOLID ROCK AS SPECIFIED IN SECTION 203 OF TDOT'S STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. WALL COSTS SHALL INCLUDE THE UNDERCUTTING SPECIFIED IN TABLES 2 AND 3. SUBSEQUENT TO BACKFILLING WITH GRADED SOLID ROCK, THE UNDERCUT SUBGRADE SHALL BE EVALUATED AS SPECIFIED IN SECTION 204 OF TDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2006. SEE SHEET 3 FOR TYPICAL FOUNDATION UNDERCUT DETAIL.

OTHER DESIGN REQUIREMENTS

IF PRESENT, EXISTING UNDERGROUND UTILITIES WILL NEED TO BE RELOCATED TO CONSTRUCT THE WALL. ABANDONED UTILITY LINES AND THEIR ASSOCIATED BACKFILL SHALL BE EXCAVATED AND REMOVED FROM THE WALL CONSTRUCTION AREA, AND THE EXCAVATION BACKFILLED WITH COMPACTED SELECT BACKFILL COMPACTED TO 95 PERCENT OF THE STANDARD PROCTOR.

IF A CAST-IN-PLACE CONCRETE CANTILEVER WALL IS USED, THE WALL HEEL LENGTH AS MEASURED FROM BACK OF WALL STEM MUST BE GREATER THAN OR EQUAL TO 0.8 TIMES HEIGHT OF RETAINED MATERIAL.

ESTIMATED TOTAL SETTLEMENT AND CONSOLIDATION SETTLEMENT FOR A RANGE OF APPLIED BEARING PRESSURES ARE SUMMARIZED BELOW.

APPLIED BEARING PRESSURE (psf)	ESTIMATED TOTAL SETTLEMENT (inches)	REMAINING CONSOLIDATION SETTLEMENT AFTER FILL PLACEMENT (inches)
5,000	7	3 1/2
4,500	6 1/2	3 1/4
4,000	6	3
3,500	5 1/2	2 3/4
3,000	5	2 1/2
2,500	4	2
2,000	3 1/4	1 3/4
1,500	2 1/2	1 1/4

THE WALL SHALL HAVE A DRAINAGE GUTTER AT THE TOP DESIGNED TO CARRY SURFACE RUNOFF TO EITHER OR BOTH ENDS OF WALL. DETAILS OF THE DRAINAGE FEATURE SHALL BE PROVIDED IN WALL DESIGNER/CONTRACTOR'S WALL DESIGN PLANS. IF A CONCRETE WALL IS USED, THE WALL DESIGNER MUST PROVIDE FOR A DRAINAGE LAYER BEHIND THE WALL WITH ADEQUATE DRAINAGE PROVIDED VIA WEEP HOLES.

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NOT FOR
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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

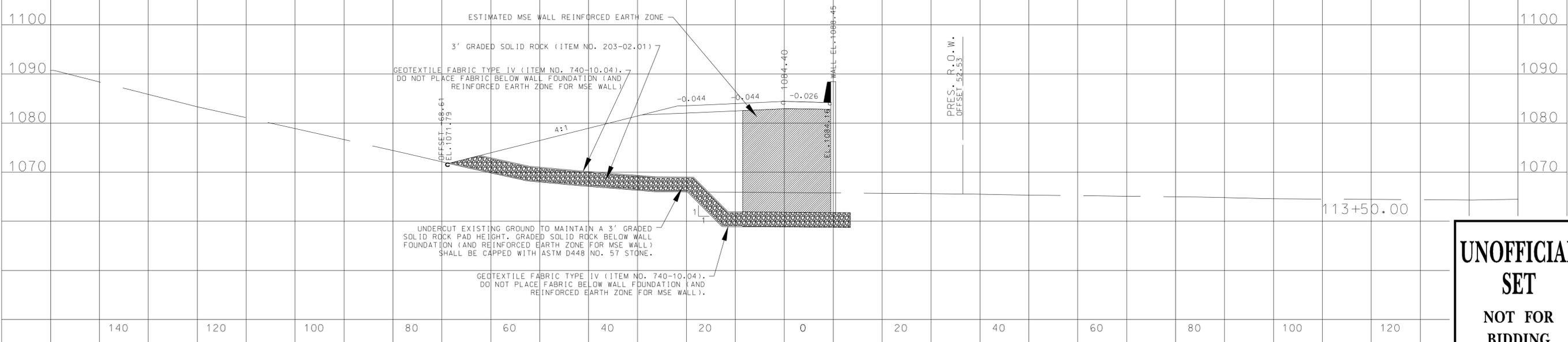
GEOTECHNICAL
DESIGN NOTES
AND REQUIREMENTS
RETAINING WALL
Interstate 24 at State Route 55
Coffee County, Tennessee
STA. 106+00 TO 115+10

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-1-24-2(146)	2B2

SEALED BY



TYPICAL FOUNDATION UNDERCUT DETAIL



**UNOFFICIAL
SET
NOT FOR
BIDDING**

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-1-24-2(1 46)	2C

GENERAL NOTES

GRADING

- ANY AREA THAT IS DISTURBED OUTSIDE LIMITS OF CONSTRUCTION DURING THE LIFE OF THIS PROJECT SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.
- CERTIFICATION FOR ALL BORROW PITS MUST BE OBTAINED IN ACCORDANCE WITH SUBSECTION 107.06 OF THE STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL NOT DISPOSE OF ANY MATERIAL EITHER ON OR OFF STATE-OWNED R.O.W. IN A REGULATORY FLOOD WAY AS DEFINED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY WITHOUT APPROVAL BY SAME. ALL MATERIAL SHALL BE DISPOSED OF IN UPLAND (NON-WETLAND) AREAS AND ABOVE ORDINARY HIGH WATER OF ANY ADJACENT WATERCOURSE. THIS DOES NOT ELIMINATE THE NEED TO OBTAIN ANY OTHER LICENSES OR PERMITS THAT MAY BE REQUIRED BY ANY OTHER FEDERAL, STATE OR LOCAL AGENCY.

SEEDING AND SODDING

- 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.

GUARDRAIL

- 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.
- GUARDRAIL IS TO BE COMPLETE IN PLACE BEFORE THE MAINLINE ROADWAY IS OPENED TO TRAFFIC.

DRAINAGE

- 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.
- EXCAVATION FOR PROPOSED 18" RCP CULVERT WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT WILL BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF PIPE (PIPE CULVERTS, STORM SEWERS, CONDUITS, ALL OTHER CULVERTS AND MINOR STRUCTURES).
- WHERE A CULVERT (PIPE, SLAB OR BOX) IS MOVED TO A NEW LOCATION OTHER THAN THAT SHOWN ON THE PLANS, INCREASING OR DECREASING THE AMOUNT OF CULVERT EXCAVATION, NO INCREASE OR DECREASE IN THE AMOUNT OF PAYMENT WILL BE MADE DUE TO SUCH CHANGE.
- DURING CONSTRUCTION OF DRAINAGE STRUCTURES ALL COST ASSOCIATED WITH MAINTAINING THE FLOW OF WATER AND TRAFFIC, AT THESE STRUCTURES, DURING THE PHASED CONSTRUCTION OF THIS PROJECT ARE TO BE INCLUDED IN THE UNIT PRICE OF THE DRAINAGE STRUCTURES AND TRAFFIC CONTROL ITEMS.

UTILITIES (SEE SHT. 3A)

FENCING

- LOCATION OF THE FENCE SHALL BE ONE FOOT INSIDE THE RIGHT-OF-WAY EXCEPT WHERE SHOWN ON THE PLANS.
- 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.
- THE CONTRACTOR SHALL GIVE THE AFFECTED PROPERTY OWNERS TWO WEEKS NOTICE PRIOR TO CUTTING FENCES.

MISCELLANEOUS

- 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 IF 4" ENHANCED FLATLINE THERMOPLASTIC IS USED

- PERMANENT PAVEMENT LINE MARKINGS SHALL BE 4" ENHANCED FLATLINE THERMOPLASTIC INSTALLED TO PERMANENT STANDARDS AT THE END OF

EACH DAY'S WORK. SHORT UNMARKED SECTIONS SHALL NOT BE ALLOWED. PAVEMENT MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 716-12.01, ENHANCED FLATLINE THERMO PVTM MRKNG (4IN LINE), L.M. THE CONTRACTOR SHALL HAVE THE OPTION OF USING REFLECTORIZED PAINT INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAY'S WORK AND THEN INSTALLING THE PERMANENT MARKINGS AFTER THE PAVING OPERATION IS COMPLETED. THE TEMPORARY MARKINGS FOR THE FINAL SURFACE WILL NOT BE MEASURED AND PAID FOR DIRECTLY. BUT THE COSTS ARE TO BE INCLUDED IN THE PRICE BID FOR THE PERMANENT MARKINGS.

FINAL PAVEMENT MARKING IF 6" ENHANCED FLATLINE THERMOPLASTIC IS USED

- 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 PVTM 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.

FINAL PAVEMENT MARKING IF 8" ENHANCED FLATLINE THERMOPLASTIC IS USED

- PERMANENT PAVEMENT LINE MARKINGS SHALL BE 8" ENHANCED FLATLINE THERMOPLASTIC INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAY'S WORK. SHORT UNMARKED SECTIONS SHALL NOT BE ALLOWED. PAVEMENT MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 716-12.06, ENHANCED FLATLINE THERMO PVTM MRKNG (8IN 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.

PAVEMENT

PAVING

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

GRADED SOLID ROCK

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

SIGNING

- THE LETTERS, DIGITS, ARROWS, BORDERS, AND ALPHABET ACCESSORIES ON ALL FLAT SHEET SIGNS SHALL BE APPLIED BY SILK SCREENING PROCESS, EXCEPT THAT CUTOUT 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 DEMOUNTABLE AND ATTACHED TO THE SIGN FACE, AS OUTLINED IN THE STANDARD SPECIFICATIONS. ALL SHIELDS ON GUIDE SIGNS SHALL BE DEMOUNTABLE AND ATTACHED TO THE SIGN FACE AS OUTLINED IN THE STANDARD SPECIFICATIONS.

- THE TOP OF THE SIGN FOOTINGS SHALL BE PLACED LEVEL WITH THE GROUND LINE.
- 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.
- THE CONTRACTOR SHALL BE REQUIRED TO FURNISH LAYOUT DRAWINGS (3 SETS) OF ALL EXTRUDED PANEL SIGNS WITH SPACING OF ALL LETTERS, NUMERALS, SHIELDS, AND ARROWS. THE LAYOUT DRAWINGS SHALL BE SENT TO THE ROADWAY DESIGN DIVISION, SIGNING AND MARKING SECTION, SUITE 1300, J. K. POLK BUILDING, NASHVILLE, TN 37243-1402.
- ALL SIGNS MARKED "TO BE REMOVED" ARE TO BE REMOVED BY THE CONTRACTOR AND PAID FOR UNDER ITEM 713-15 AND BECOME THE PROPERTY OF THE CONTRACTOR.
- THE EXISTING FOOTINGS ARE TO BE REMOVED 6 INCHES BELOW GROUND LINE.
- THE LENGTHS OF ALL SIGN SUPPORTS SHOWN ON THE SIGN SCHEDULE ARE APPROXIMATE AND ARE FOR ESTIMATING PURPOSES ONLY. THE CONTRACTOR SHALL VERIFY ALL SUPPORT LENGTHS AT THE SITE PRIOR TO ERECTION.

CONSTRUCTION WORK ZONE & TRAFFIC CONTROL

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

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**GENERAL
NOTES**

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-1-24-2(1 46)	2D

GENERAL NOTES (CONTINUED)

CONSTRUCTION WORK ZONE & TRAFFIC CONTROL

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

EROSION PREVENTION AND SEDIMENT CONTROL

DISTURBED AREA

- (1) AREAS TO BE UNDISTURBED SHALL BE CLEARLY MARKED IN THE FIELD BEFORE CONSTRUCTION ACTIVITIES BEGIN.
- (2) PRE-CONSTRUCTION VEGETATIVE GROUND COVER SHALL NOT BE DESTROYED, REMOVED OR DISTURBED (I.E. CLEARING AND GRUBBING INITIATED) MORE THAN 15 CALENDAR DAYS PRIOR TO GRADING OR EARTH MOVING ACTIVITIES UNLESS THE AREA IS MULCHED, SEEDED WITH MULCH, OR OTHER TEMPORARY COVER IS INSTALLED.
- (3) CLEARING, GRUBBING, AND OTHER DISTURBANCE TO RIPARIAN VEGETATION SHALL BE LIMITED TO THE MINIMUM NECESSARY FOR SLOPE CONSTRUCTION AND EQUIPMENT OPERATIONS. EXISTING VEGETATION SHOULD BE PRESERVED TO THE MAXIMUM EXTENT POSSIBLE. UNNECESSARY VEGETATION REMOVAL IS PROHIBITED.
- (4) ALL DISTURBED AREAS SHALL BE PROPERLY STABILIZED AS SOON AS PRACTICABLE. PRIORITY SHALL BE GIVEN TO FINISHING OPERATIONS AND PERMANENT EPSC MEASURES OVER TEMPORARY EPSC MEASURES ON ALL PROJECTS.
- (5) CONSTRUCTION SHALL BE SEQUENCED AND STAGED TO MINIMIZE THE EXPOSURE TIME OF GRADED OR DENUDED SOIL AREAS, PRESERVE TOPSOIL, AND MINIMIZE SOIL COMPACTION.
- (6) NO MORE THAN 50 ACRES OF ACTIVE SOIL DISTURBANCE IS ALLOWED AT ANY TIME DURING THE CONSTRUCTION OF THE PROJECT. OFF-SITE BORROW OR WASTE AREAS ARE TO BE INCLUDED IN THE TOTAL DISTURBED AREA IF THE BORROW OR WASTE AREA IS EXCLUSIVE TO THE PROJECT PER TDOT'S WASTE AND BORROW MANUAL.

SEDIMENT CONTROL

- (7) EPSC MEASURES SHALL BE INSTALLED AND FUNCTIONAL PRIOR TO ANY EARTH MOVING OPERATIONS, AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD.
- (8) THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN A PROACTIVE METHOD TO PREVENT THE OFF-SITE MIGRATION OR DEPOSIT OF SEDIMENT ON ROADWAYS USED BY THE GENERAL PUBLIC. IF SEDIMENT ESCAPES THE CONSTRUCTION SITE, OFF-SITE ACCUMULATIONS OF SEDIMENT THAT HAVE NOT REACHED A STREAM MUST BE REMOVED AT A FREQUENCY SUFFICIENT TO MINIMIZE OFF-SITE IMPACTS (E.G., FUGITIVE SEDIMENT THAT HAS ESCAPED THE CONSTRUCTION SITE AND HAS COLLECTED IN A STREET MUST BE REMOVED SO THAT IT IS NOT SUBSEQUENTLY WASHED INTO STORM SEWERS AND STREAMS BY THE NEXT RAIN AND/OR SO THAT IT DOES NOT POSE A SAFETY HAZARD TO USERS OF PUBLIC STREETS). ARRANGEMENTS CONCERNING REMOVAL OF SEDIMENT ON ADJOINING PROPERTY MUST BE SETTLED WITH THE ADJOINING PROPERTY OWNER BEFORE REMOVAL OF SEDIMENT.
- (9) WATER PUMPED FROM WORK AREAS AND EXCAVATION MUST BE HELD IN SETTLING BASINS OR TREATED BY FILTRATION OR CHEMICAL TREATMENT PRIOR TO ITS DISCHARGE INTO SURFACE WATERS. ALL PHYSICAL AND/OR CHEMICAL TREATMENT WILL BE APPLIED IN ACCORDANCE WITH MANUFACTURER'S GUIDELINES AND FULLY DESCRIBED IN THE EPSC PLANS. WATER MUST BE HELD IN SETTLING BASINS UNTIL AT LEAST AS CLEAR AS THE RECEIVING WATERS. SETTLING BASINS SHALL NOT BE LOCATED CLOSER THAN 20 FEET FROM THE TOP BANK OF A STREAM. SETTLING BASINS AND SEDIMENT TRAPS SHALL BE PROPERLY DESIGNED ACCORDING TO THE SIZE OF THE DRAINAGE AREAS OR VOLUME OF WATER TO BE TREATED. TREATED WATER MUST BE DISCHARGED THROUGH A PIPE OR WELL-VEGETATED OR LINED CHANNEL, SO THAT THE DISCHARGE DOES NOT CAUSE EROSION OR SEDIMENT TRANSPORT. DISCHARGES FROM BASINS AND IMPOUNDMENTS SHALL UTILIZE OUTLET STRUCTURES THAT ONLY WITHDRAW WATER FROM NEAR THE SURFACE OF THE BASIN OR IMPOUNDMENT. DISCHARGES MUST NOT CAUSE AN OBJECTIONABLE COLOR CONTRAST WITH THE RECEIVING STREAM.
- (10) CHECK DAMS SHALL BE USED WHERE RUNOFF IS CONCENTRATED. CLEAN ROCK, BRUSH, GABION, OR SANDBAG CHECK DAMS SHALL BE PROPERLY CONSTRUCTED TO REDUCE VELOCITY AND CONTROL EROSION.
- (11) FOR AN OUTFALL IN A DRAINAGE AREA OF 10 ACRES OR MORE, 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 FINAL STABILIZATION OF THE SITE. THE ENVIRONMENTAL AND ROADWAY DESIGN DIVISIONS MAY BE CONTACTED TO REVIEW AND CONCUR WITH ANY REVISION OF THE SWPPP BEFORE DISTURBANCE OF THE OUTFALL PROCEEDS.

- (12) IF PERMANENT OR TEMPORARY VEGETATION IS TO BE USED AS AN EPSC MEASURE, THEN THE TIMING OF PLANTING OF VEGETATION SHALL BE SHOWN IN THE SWPPP. DELAYING PLANTING OF COVER VEGETATION UNTIL WINTER MONTHS OR DRY MONTHS SHOULD BE AVOIDED, IF POSSIBLE.
- (13) OFFSITE VEHICLE TRACKING OF SEDIMENTS AND THE GENERATION OF DUST SHALL BE MINIMIZED. A STABILIZED CONSTRUCTION ACCESS (A POINT OF ENTRANCE/EXIT TO THE CONSTRUCTION PROJECT) SHALL BE PROVIDED, AS NEEDED, TO REDUCE THE TRACKING OF MUD AND DIRT ONTO PUBLIC ROADS BY CONSTRUCTION VEHICLES.
- (14) TEMPORARY EPSC MEASURES MAY BE REMOVED AT THE BEGINNING OF THE WORKDAY, BUT MUST BE REPLACED AT THE END OF THE WORKDAY.

STREAM/WETLAND

- (15) SOIL MATERIALS MUST BE PREVENTED FROM ENTERING WATERS OF THE STATE/U.S. EPSC MEASURES TO PROTECT WATER QUALITY MUST BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. APPROPRIATE EPSC MEASURES MUST BE INSTALLED ALONG THE BASE OF ALL FILLS AND CUTS, ON THE DOWNHILL SIDE OF STOCKPILED SOIL, AND ALONG STREAM BANKS IN CLEARED AREAS TO PREVENT SEDIMENT MIGRATION INTO STREAMS IN ACCORDANCE WITH TDOT STANDARDS. THEY MUST BE INSTALLED ON THE CONTOUR, ENTRENCHED AND STAKED, AND EXTEND THE WIDTH OF THE AREA TO BE CLEARED.
- (16) 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.
- (17) INSTREAM EPSC DEVICES REQUIRE THE ENVIRONMENTAL DIVISION'S PERMITS SECTION REVIEW AND MUST BE PROCESSED BY THE PERMITS SECTION TO OBTAIN TDEC, USACE, AND TVA PERMITS.
- (18) THE OPERATION OF EQUIPMENT IN WATERS OF THE STATE/U.S., INCLUDING WETLANDS, SHALL BE ONLY AS SHOWN ON THE PROJECT PLANS AND/OR AS SO SPECIFIED IN THE ARAP/401, SECTION 404 PERMIT(S) AND/OR TVA26(A), IF APPLICABLE. ANY ADDITIONAL PERMITS REQUIRED BY THE CONTRACTOR'S METHOD OF OPERATION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN, AFTER RECEIVING THE APPROVAL OF TDOT ENVIRONMENTAL DIVISION.
- (19) THE WIDTH OF THE FILL ASSOCIATED WITH TEMPORARY CROSSINGS SHALL BE LIMITED TO THE MINIMUM NECESSARY FOR THE ACTUAL CROSSING.
- (20) STREAM BEDS SHALL NOT BE USED AS TRANSPORTATION ROUTES FOR CONSTRUCTION EQUIPMENT. TEMPORARY CROSSINGS MUST BE LIMITED TO ONE POINT PER STREAM AND EPSC MEASURES MUST BE USED WHERE THE STREAM BANKS ARE DISTURBED. WHERE THE STREAMBED IS NOT COMPOSED OF BEDROCK, A PAD OF CLEAN ROCK MUST BE USED AT THE CROSSING POINT AND CULVERTED TO PREVENT THE IMPOUNDMENT OF WATER FLOW. CLEAN ROCK IS ROCK OF VARIOUS TYPE AND SIZE, DEPENDING UPON APPLICATION, WHICH CONTAINS NO FINES, SOILS, OR OTHER WASTES OR CONTAMINANTS. OTHER MATERIALS USED FOR ALL TEMPORARY FILLS MUST BE COMPLETELY REMOVED IN THEIR ENTIRETY AFTER THE WORK IS COMPLETED AND THE AFFECTED AREAS RETURNED TO THEIR PREEXISTING ELEVATION. ALL TEMPORARY CROSSINGS MUST BE CONSTRUCTED IN ACCORDANCE WITH STD. DWG. EC-STR-25 UNLESS SPECIFICALLY ADDRESSED IN THE EPSC PLANS. ALTERNATIVELY, PLACING A TEMPORARY BRIDGE (BAILEY BRIDGE OR EQUIVALENT, TIMBERS, ETC.) FROM TOP OF BANK TO TOP OF BANK OR THE APPROPRIATE USE OF BARGES AT THE CROSSING TO AVOID DISTURBANCE OF THE STREAMBED IS AN ACCEPTABLE OPTION.
- (21) HEAVY EQUIPMENT WORKING IN WETLANDS MUST BE PLACED ON MATS, OR OTHER MEASURES MUST BE TAKEN TO MINIMIZE SOIL DISTURBANCE UNLESS SPECIFICALLY ADDRESSED IN THE EPSC PLANS. ANY MATS AND OTHER MEASURES USED FOR HEAVY EQUIPMENT MUST BE REMOVED IN THEIR ENTIRETY AFTER THE WORK IS COMPLETED.
- (22) WETLANDS SHALL NOT BE USED AS EQUIPMENT STORAGE, STAGING, OR TRANSPORTATION AREAS, UNLESS PROVIDED FOR IN THE PLANS.

SPECIES

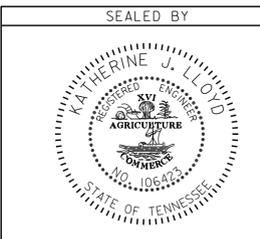
- (23) NO ACTIVITY MAY SUBSTANTIALLY DISRUPT THE MOVEMENT OF THOSE SPECIES OF AQUATIC LIFE INDIGENOUS TO THE WATER BODY, INCLUDING

THOSE SPECIES THAT NORMALLY MIGRATE THROUGH THE AREA. THE SWPPP SHALL BE MODIFIED TO INCLUDE EPSC MEASURES TO PREVENT NEGATIVE IMPACTS TO LEGALLY PROTECTED STATE OR FEDERAL FAUNA OR FLORA OR AS INDICATED IN THE ECOLOGICAL STUDIES OR ON THE PERMIT(S).

INSPECTION, MAINTENANCE, REPAIR

- (24) EPSC CONTROLS WILL BE MAINTAINED IN ACCORDANCE WITH TDOT STANDARD DRAWINGS AND GOOD ENGINEERING PRACTICES.
- (25) INSPECTION, REPAIR, AND MAINTENANCE OF EPSC MEASURES/STRUCTURES IS TO BE PERFORMED ON A REGULAR BASIS. SEDIMENT SHALL BE REMOVED FROM SEDIMENT CONTROL STRUCTURES WHEN THE DESIGN CAPACITY HAS BEEN REDUCED BY FIFTY PERCENT (50%). DURING SEDIMENT REMOVAL, THE CONTRACTOR SHALL TAKE CARE TO ENSURE THAT STRUCTURAL COMPONENTS OF EPSC MEASURES ARE NOT DAMAGED AND THUS MADE INEFFECTIVE. IF DAMAGE DOES OCCUR, THE CONTRACTOR SHALL REPAIR THE STRUCTURES AT THE CONTRACTOR'S OWN EXPENSE.
- (26) SEDIMENT REMOVED FROM SEDIMENT CONTROL STRUCTURES SHALL BE PLACED AND BE TREATED IN A MANNER SO THAT THE SEDIMENT IS CONTAINED WITHIN THE PROJECT LIMITS AND DOES NOT MIGRATE INTO WATERS OF THE STATE/U.S. COST FOR THIS TREATMENT IS TO BE INCLUDED IN PRICE BID FOR ITEM NO. 209-05 SEDIMENT REMOVAL, C.Y.
- (27) THE CONTRACTOR SHALL INSTALL A RAIN GAUGE EVERY LINEAR MILE AT ALL SITES WHERE CLEARING, GRUBBING, EXCAVATION, GRADING CUTTING OR FILLING IS BEING ACTIVELY PERFORMED, OR EXPOSED SOIL HAS NOT YET BEEN PERMANENTLY STABILIZED. IF THE PROJECT LENGTH IS LESS THAN ONE LINEAR MILE, ONE RAIN GAUGE SHALL BE INSTALLED AT THE CENTER OF THE PROJECT OR AS INDICATED BY THE TDOT EPSC INSPECTOR. THE CONTRACTOR SHALL ENSURE THAT EACH GAUGE IS MAINTAINED IN GOOD WORKING CONDITION. TDOT AND/OR THE CONTRACTOR SHALL RECORD DAILY PRECIPITATION AND FORECASTED PERCENTAGE OF PRECIPITATION IN DETAILED RECORDS OF RAINFALL EVENTS INCLUDING DATES, AMOUNTS OF RAINFALL PER GAUGE, THE ESTIMATED DURATION (OR STARTING AND ENDING TIMES), AND FORECASTED PERCENTAGE OF PRECIPITATION FOR THE PROJECT. THIS INFORMATION SHALL BE PROVIDED TO THE ENGINEER ON A MONTHLY BASIS. THE COST FOR THE RAIN GAUGES IS TO BE INCLUDED IN THE UNIT BID PRICES FOR OTHER ITEMS. RAIN GAUGES SHALL BE AS SPECIFIED IN THE APPROVED TDOT RAINFALL MONITORING PLAN.
- (28) INSPECTION OF EPSC MEASURES SHALL BE DONE AT LEAST TWICE PER CALENDAR WEEK AT LEAST 72 HOURS APART. A CALENDAR WEEK IS DEFINED AS SUNDAY THROUGH SATURDAY. QUALITY ASSURANCE/QUALITY CONTROL SITE ASSESSMENT OF EPSC SHALL BE PERFORMED PER THE TDOT ENVIRONMENTAL DIVISION'S COMPREHENSIVE INSPECTION OFFICE GUIDELINES.
- (29) OUTFALL POINTS SHALL BE INSPECTED TO ASCERTAIN WHETHER EPSC MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO SURROUNDING WATERS. WHERE DISCHARGE LOCATIONS ARE INACCESSIBLE, NEARBY DOWNSTREAM LOCATIONS SHALL BE INSPECTED. LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFF-SITE ROADWAY SEDIMENT TRACKING.
- (30) UPON CONCLUSION OF THE INSPECTIONS, EPSC MEASURES FOUND TO BE INEFFECTIVE SHALL BE REPAIRED, REPLACED, OR MODIFIED BEFORE THE NEXT RAIN EVENT, IF POSSIBLE, BUT IN NO CASE MORE THAN 24 HOURS AFTER THE INSPECTION OR WHEN THE CONDITION IS IDENTIFIED. IF THE REPAIR, REPLACEMENT OR MODIFICATION IS NOT PRACTICAL WITHIN THE TIMEFRAME, WRITTEN DOCUMENTATION MUST BE PROVIDED IN THE FIELD BOOK AND AN ESTIMATED REPAIR, REPLACEMENT OR MODIFICATION SCHEDULE SHALL BE DOCUMENTED WITHIN 24 HOURS AFTER IDENTIFICATION.
- (31) THE TDOT PROJECT SUPERVISOR (OR THEIR DESIGNEE) AND THE CONTRACTOR'S SITE SUPERINTENDENT ARE RESPONSIBLE FOR INSPECTIONS. MAINTENANCE AND REPAIR ACTIVITIES ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE TDOT PROJECT SUPERVISOR OR THEIR DESIGNEE WILL COMPLETE THE INSPECTION REPORTS AND DISTRIBUTE COPIES PER THE CONTRACT.

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**GENERAL
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GENERAL NOTES (CONTINUED)

MATERIALS

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

SWPPP, PERMITS, PLANS, RECORDS

- (33) THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR AND OBTAIN ANY NECESSARY ENVIRONMENTAL PERMITS OR APPROVALS, INCLUDING BUT NOT LIMITED TO TDEC ARAP/401, USACE SECTION 404, TVA SECTION 26A, AND TDEC NPDES PERMITS, FROM FEDERAL, STATE AND/OR LOCAL AGENCIES REGARDING THE OPERATION OF ANY PROJECT-DEDICATED ASPHALT AND/OR CONCRETE PLANTS.
- (34) ANY DISAGREEMENT BETWEEN THE PROJECT PLANS, THE PROJECT AS CONSTRUCTED, AND THE PERMIT(S) ISSUED FOR THE PROJECT, SHALL BE BROUGHT TO THE ATTENTION OF THE TDOT PROJECT ENGINEER. THE ENVIRONMENTAL DIVISION, ROADWAY 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.
- (35) THE FOLLOWING INFORMATION SHALL BE MAINTAINED ON OR NEAR THE SITE: DATES THAT MAJOR GRADING ACTIVITIES OCCUR, DATES WHERE CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE, DATES WHEN STABILIZATION MEASURES ARE INITIATED, EPSC INSPECTION RECORDS, QUALITY ASSURANCE SITE ASSESSMENT RECORDS, PRECIPITATION RECORDS, SWPPP, PROJECT ENVIRONMENTAL PERMITS, AND A COPY OF THE PROJECT EPSC INSPECTOR'S TDEC LEVEL 1 CERTIFICATION.
- (36) ALL WATER QUALITY AND STORM WATER PERMITS, INCLUDING A COPY OF THE NOC WITH NPDES PERMIT TRACKING NUMBER AND THE LOCATION OF THE SWPPP, SHALL BE POSTED NEAR THE MAIN ENTRANCE OF THE CONSTRUCTION SITE ACCESSIBLE TO THE PUBLIC. THE NAME, COMPANY NAME, EMAIL ADDRESS, TELEPHONE NUMBER AND ADDRESS OF THE PROJECT SITE OWNER, OPERATOR, OR A LOCAL CONTACT PERSON WITH A 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.
- (37) IF A CHANGE IN PROJECT SCOPE OCCURS DURING CONSTRUCTION, INCLUDING VALUE ENGINEERING, THE ENVIRONMENTAL DIVISION SHALL BE CONTACTED TO DETERMINE WHETHER PERMIT REVISIONS OR MODIFICATIONS OF THE SWPPP ARE NEEDED. THE ROADWAY DESIGN DIVISION SHALL BE CONTACTED TO DETERMINE IF ANY PLAN REVISIONS ARE NEEDED.
- (38) THE SWPPP SHALL BE UPDATED BY CONSTRUCTION WHENEVER EPSC INSPECTIONS INDICATE, OR WHERE STATE OR FEDERAL OFFICIALS DETERMINE EPSC MEASURES ARE PROVING INEFFECTIVE IN ELIMINATING OR SIGNIFICANTLY MINIMIZING POLLUTANT SOURCES OR ARE OTHERWISE NOT ACHIEVING THE GENERAL OBJECTIVES OF CONTROLLING POLLUTANTS IN STORM WATER DISCHARGES ASSOCIATED WITH THE CONSTRUCTION ACTIVITY. THE ENVIRONMENTAL DIVISION SHALL BE CONTACTED WHEN MAJOR DESIGN REVISIONS ARE REQUESTED BY CONSTRUCTION. THE ENVIRONMENTAL DIVISION MAY BE CONTACTED FOR GUIDANCE ON SPECIFIC SWPPP NEEDS. A COPY OF ANY CORRESPONDENCE REGARDING THE EFFECTIVENESS OF THE SWPPP OR EPSC CONTROLS SHALL BE RETAINED IN THE SWPPP.
- (39) THE SWPPP SHALL BE UPDATED BY CONSTRUCTION WHENEVER A CHANGE IN CHEMICAL TREATMENT METHODS IS MADE INCLUDING USE OF A DIFFERENT CHEMICAL, DIFFERENT DOSAGE OR APPLICATION RATE, OR A DIFFERENT AREA OF APPLICATION.
- (40) IF A TMDL IS DEVELOPED FOR THE RECEIVING WATERS FOR A POLLUTANT OF CONCERN (SILTATION AND/OR HABITAT ALTERATION) THE SWPPP SHALL BE MODIFIED OR UPDATED.
- (41) PROJECT INSPECTORS AND SUPERVISORS (INCLUDING TDOT STAFF, CONSULTANTS AND CONTRACTOR STAFF) RESPONSIBLE FOR THE IMPLEMENTATION AND MAINTENANCE OF EPSC PLANS SHALL SUCCESSFULLY COMPLETE THE TDEC "LEVEL 1 - FUNDAMENTALS OF EROSION PREVENTION AND SEDIMENT CONTROL FOR CONSTRUCTION

SITES' COURSE AND ANY REFRESHER COURSES AS REQUIRED TO MAINTAIN CERTIFICATION. A COPY OF CERTIFICATION RECORDS FOR THE COURSES SHALL BE KEPT ON SITE AND AVAILABLE UPON REQUEST.

LITTER, DEBRIS, WASTE, PETROLEUM

- (42) THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN A PROACTIVE METHOD TO PREVENT LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION WASTES FROM ENTERING WATERS OF THE STATE/U.S. THESE MATERIALS WILL BE PICKED UP AND REMOVED FROM STORMWATER EXPOSURE PRIOR TO ANTICIPATED STORM EVENTS. AFTER USE, MATERIALS USED FOR EPSC WILL BE REMOVED FROM THE SITE.
- (43) THE CONTRACTOR SHALL TAKE APPROPRIATE STEPS TO ENSURE THAT PETROLEUM PRODUCTS OR OTHER CHEMICAL POLLUTANTS ARE PREVENTED FROM ENTERING WATERS OF THE STATE/U.S. ALL EQUIPMENT REFUELING, SERVICING, AND STAGING AREAS SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL LAWS, RULES, REGULATIONS, AND ORDINANCES, INCLUDING THOSE OF THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA). APPROPRIATE CONTAINMENT MEASURES FOR THESE AREAS SHALL BE USED. ALL SPILLS MUST BE REPORTED TO THE APPROPRIATE AGENCY, AND MEASURES SHALL BE TAKEN IMMEDIATELY TO PREVENT THE POLLUTION OF WATERS OF THE STATE/U.S., INCLUDING GROUNDWATER, SHOULD A SPILL OCCUR.

SPECIAL NOTES

GRADING

- (1) THE GRADING TABULATIONS AND RESULTING EARTHWORK ASSOCIATED BID QUANTITIES WERE PREPARED UTILIZING AVAILABLE GEOTECHNICAL INFORMATION AND/OR REPORTS PREPARED FOR THIS PROJECT. THIS INFORMATION IS PROVIDED FOR GENERAL INFORMATION AND ESTIMATION GUIDANCE ONLY.
- (2) BORING DEPICTIONS SHOWN ON THE FOUNDATION DATA SHEETS, SOILS SHEETS, PLANS, AND CROSS-SECTIONS INDICATE SOIL AND ROCK CONDITIONS AT THE SPECIFIC BORING LOCATIONS. ANY SOIL PROFILE AND/OR ROCK LINE IS INTERPRETIVE BASED ON THE JUDGMENT OF THE GEOTECHNICAL ENGINEER/GEOLOGIST. THE TRANSITION BETWEEN BORINGS AND LAYERS MAY VARY SIGNIFICANTLY DEPENDING ON THE GEOLOGIC FORMATIONS ENCOUNTERED.
- (3) TO ASSIST IN BID PREPARATION FOR EARTHWORK AND FOUNDATION CONSTRUCTION, DETAIL ROCK AND SOIL DESCRIPTION AND ON SOME PROJECTS, ROCK CORE SAMPLES ARE AVAILABLE FOR INSPECTION AT THE MATERIALS AND TESTS HEADQUARTERS AT 6601 CENTENNIAL BOULEVARD, NASHVILLE, TN OR AT THE TDOT REGION 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 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 OPTIONS FOR RETAINING WALL TYPES SHALL BE LIMITED TO THE APPROVED ALTERNATIVES AS SPECIFIED ON THE RETAINING WALL SHEET(S).
- (2) ALL COST OF BUILDING, INSTALLING AND BACKFILLING THE RETAINING WALL SHALL BE INCLUDED IN THE COST OF THE RETAINING WALL.

EROSION PREVENTION AND SEDIMENT CONTROL

NPDES

- (1) REFER TO THE EROSION PREVENTION AND SEDIMENT CONTROL PLAN, SHEET 8, FOR NOTES REGARDING SEASONAL WORK LIMITATION OR LIMITATION ON THE TOTAL AREA OF EXPOSED SOIL.

ENVIRONMENTAL

- (1) STAFF FROM THE TDOT ENVIRONMENTAL DIVISION COMPREHENSIVE INSPECTION OFFICE SHALL BE INVITED TO ALL PRE-CONSTRUCTION MEETINGS.

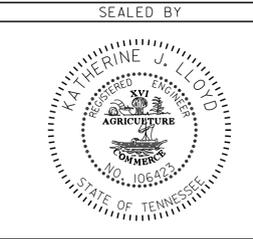
ECOLOGY

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

PROJECT COMMITMENTS

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

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NOT FOR
BIDDING**



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**GENERAL NOTES
AND
SPECIAL NOTES**

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-1-24-2(146)	2F

CATCH BASINS													
SHEET NO.	LOCATION	STATION	OFFSET (FT.)	DRAINAGE CODE	GRATE/TOP ELEV.	STRUCTURE TYPE	INSIDE DIMENSION	DEPTH (FT.)	STANDARD DRAWINGS	TYPE 41	TYPE 41	TYPE 45	REMARKS
										C.B. 611-41.01 0' - 4'	C.B. 611-41.02 4' - 8'	C.B. 611-45.02 4' - 8'	
4A	I 24 OFF RAMP @ SR-55	107+50.00	6.5	CB-4	1080.69	#41	4X3	3.89		1			
4A	I 24 OFF RAMP @ SR-55	108+00.00	6.5	CB-3	1080.67	#45	8X4	7.52				1	
4A	I 24 OFF RAMP @ SR-55	108+50.00	6.5	CB-2	1080.71	#41	4X3	4.29			1		
4A	I 24 OFF RAMP @ SR-55	110+00.00	6.5	CB-1	1081.23	#41	4X3	3.89		1			
TOTALS										2	1	1	

ESTIMATED GRADING QUANTITIES							
STATION TO STATION	ROAD & DRAINAGE EXC. (UNCL.)		BORROW EXCAVATION		CHANNEL EXC. C.Y.	EXCESS EXC. WASTE C.Y.	EMB. C.Y.
	COMMON - C.Y.	S. ROCK - C.Y.	UNCL. - C.Y.	S. ROCK - C.Y.			
100+00 TO 115+44.52	10,788		5,732	10,691			23,175
TOTALS	10,788	0	5,732	10,691	0	0	23,175

CROSS DRAIN ENDWALLS									
LOCATION	CROSS DRAIN STATION	OFFSET (FT.)	STRUCTURE TYPE	STANDARD DRAWING	SKEW	CLASS B RIP-RAP 709-05.08 (TON)	CLASS A CONC. 611-07.01 (C.Y.)	REINF. STEEL 611-07.02 (LB.)	REMARKS
I 24 OFF RAMP @ SR-55	112+50.00	82	ST	D-PE-4	90	6	1.16	40	ENDWALL FOR INLET
TOTALS						6	1.16	40	

PROPOSED GUARDRAIL										
SHEET NO.	LOCATION	SIDE		STATION		GUARDRAIL AT BRIDGE END 705-01.01 (L.F.)	SINGLE TYPE 2 GUARDRAIL 705-02.02 (L.F.)	TYPE 13 TERMINAL 705-04.03 (EACH)	RADIUS RAIL 706-06.03 (L.F.)	REMARKS
		LT	RT	FROM	TO					
4A	I 24 OFF RAMP @ SR-55		12.57	100+00.00	100+37.77		37.77			
4A	I 24 OFF RAMP @ SR-55		8.00	100+37.77	105+74.60		536.83			
4A	I 24 OFF RAMP @ SR-55		8.00	105+74.60	106+01.50	26.90				
5A	I 24 OFF RAMP @ SR-55		8.00	115+08.70	115+21.20	12.50				
5A	I 24 OFF RAMP @ SR-55		8.00	115+21.20	115+37.64				29.95	
5A	I 24 OFF RAMP @ SR-55		15.71	115+37.64	115+37.64			1		
TOTALS						39.40	574.60	1	29.95	

STORM DRAINAGE PIPES						
SHEET NO.	FROM		TO		% GRADE	RCP CLASS III
	CODE	OUTLET ELEV.	CODE	INLET ELEV.		607-03.02 18" (L.F.)
4A	CB-1	1077.34	CB-2	1076.61	0.50	146
4A	CB-2	1076.42	CB-3	1076.20	0.50	44
4A	CB-4	1076.80	CB-3	1076.58	0.50	44
4A	CB-3	1073.15	EW-1	1073.14	1.00	1.37
TOTALS						235.37

PAVEMENT QUANTITIES					
LOCATION	PAY ITEMS				
	303-01 (TON)	313-03 (S.Y.)	402-01 (TON)	402-02 (TON)	501-01.03 (S.Y.)
	10,941	4,384	7	22	4,788
TOTALS	10,941	4,384	7	22	4,788

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**TABULATED
QUANTITIES**

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2015	NH-I-24-2(146)	3
CONST.	2015	NH-I-24-2(146)	3

BEGIN PROJ. NO. NH-I-24-2(146) CONST.
 STA. 100+00.00
 N 422165.3700
 E 1945834.2740
 R.O.W.

END PROJ. NO. NH-I-24-2(146) CONST.
 STA. 115+44.52
 N 420757.0039
 E 1946439.6611
 R.O.W.

UTILITY OWNERS

ELECTRIC: DUCK RIVER ELECTRIC MEMBERSHIP CORP.
 MR. BLAKE BUTLER
 P.O. BOX 89
 SHELBYVILLE, TN. 37160
 PHONE (615)-684-4621
 FAX (615)-685-0013

TULLAHOMA UTILITIES BOARD
 MR. LARRY OSTERMAN
 P.O. BOX 788
 TULLAHOMA, TN 37388
 PHONE (931)-455-7157
 FAX (931)-454-2231

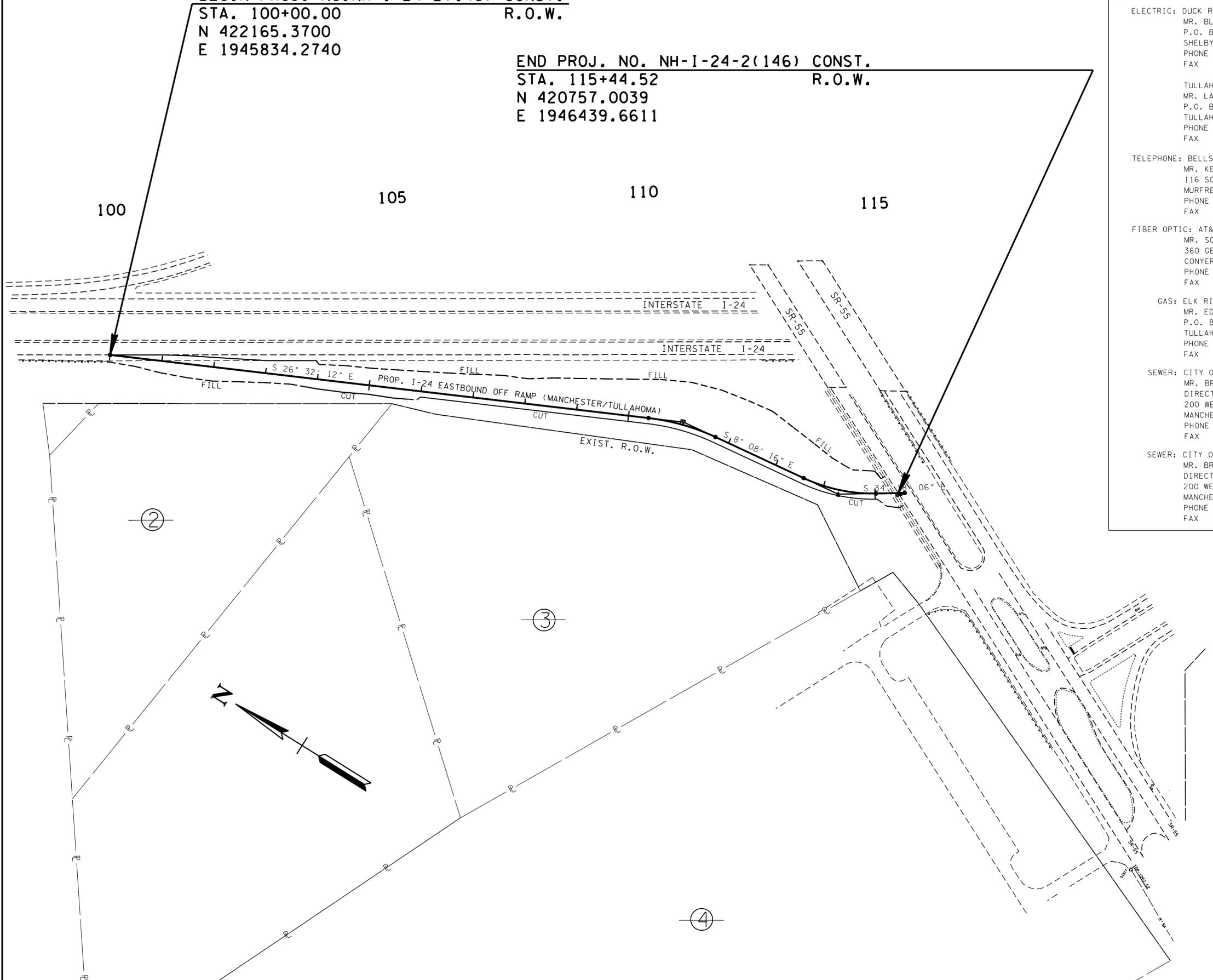
TELEPHONE: BELLSOUTH BDA. AT&T
 MR. KENNETH LEE KORNEGAY
 116 SOUTH CANNON AVENUE
 MURFREESBORO, TN. 37129
 PHONE (615)-848-2082
 FAX (615)-214-8805

FIBER OPTIC: AT&T
 MR. SCOTT LOGEMAN
 360 GEES MILL BUSINESS PARKWAY
 CONYERS, GA 30013
 PHONE (770)-335-8255
 FAX (214)-446-8981

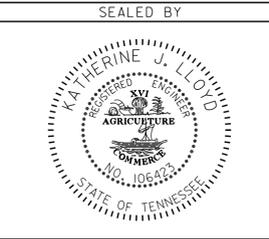
GAS: ELK RIVER PUBLIC UTILITY DISTRICT
 MR. EDDIE MOFFITT
 P.O. BOX 970
 TULLAHOMA, TN. 37388
 PHONE (931)-455-9311
 FAX (931)-455-8911

SEWER: CITY OF MANCHESTER
 MR. BRYAN PENNINGTON,
 DIRECTOR OF PUBLIC WORKS
 200 WEST FORT STREET
 MANCHESTER, TN. 37355
 PHONE (931)-728-1273
 FAX (931)-728-1563

SEWER: CITY OF MANCHESTER
 MR. BRYAN PENNINGTON,
 DIRECTOR OF PUBLIC WORKS
 200 WEST FORT STREET
 MANCHESTER, TN. 37355
 PHONE (931)-728-1273
 FAX (931)-728-1563



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STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

**PROPERTY MAP
 AND UTILITY
 OWNERS**

SCALE: 1"=100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2015	NH-I-24-2(146)	3A
CONST.	2015	NH-I-24-2(146)	3A

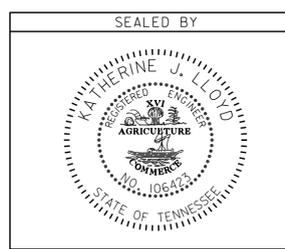
R.O.W. ACQUISITION TABLE																
TRACT NO.	PROPERTY OWNERS	COUNTY RECORDS				TOTAL AREA ACRES			AREA TO BE ACQUIRED ACRES			AREA REMAINING ACRES		EASEMENT (SQUARE FEET)		
		TAX MAP NO.	PARCEL NO.	DEED DOCUMENT REFERENCE		LEFT	RIGHT	TOTAL	LEFT	RIGHT	TOTAL	LEFT	RIGHT	PERM. DRAINAGE	SLOPE	CONST.
				BK.	PAGE											
2	TAGNER H. BAILEY AND WIFE, BRENDA BAILEY	067	140.00	325	271		5.677	5.677				5.677				
3	COFFEE COUNTY, TENNESSEE BOARD OF EDUCATION	076	004.01	346	233		10.362	10.362				10.362				
4	COFFEE COUNTY, TENNESSEE BOARD OF EDUCATION	076	004.00		32	30.167		30.167			30.167					

DISTURBED AREA	
IN BETWEEN SLOPE LINES	2.206 (AC)
15 FOOT WIDE STRIP (OUTSIDE SLOPE LINES)	0.932 (AC)
TOTAL DISTURBED AREA	3.138 (AC)

UTILITY NOTES

- (1) THE LOCATIONS OF UTILITIES SHOWN WITHIN THESE PLANS ARE APPROXIMATE ONLY. EXACT LOCATIONS SHALL BE DETERMINED IN THE FIELD BY CONTACTING THE UTILITY COMPANIES INVOLVED. NOTIFICATION BY CALLING THE TENNESSEE ONE CALL SYSTEM, INC., AT 1-800-351-1111 AS REQUIRED BY TCA 65-31-106 WILL BE REQUIRED.
- (2) UNLESS OTHERWISE NOTED, ALL UTILITY ADJUSTMENTS WILL BE PERFORMED BY THE UTILITY OR IT'S REPRESENTATIVE. THE CONTRACTOR AND UTILITY OWNERS WILL BE REQUIRED TO COOPERATE WITH EACH OTHER IN ORDER TO EXPEDITE THE WORK REQUIRED BY THIS CONTRACT. ON CONTRACTS WHERE CONSTRUCTION STAKES, LINES, AND GRADES ARE CONTRACT ITEMS, THE CONTRACTOR WILL BE REQUIRED TO PROVIDE RIGHT-OF-WAY OR SLOPE STAKES, DITCH OR STREAM BED GRADES, OR OTHER ESSENTIAL SURVEY STAKING TO PREVENT CONFLICTS WITH THE HIGHWAY CONSTRUCTION. FREQUENTLY, THIS WILL BE REQUIRED AS THE FIRST ITEM OF WORK AND AT ANY LOCATION ON THE PROJECT DIRECTED BY THE ENGINEER.
- (3) THE CONTRACTOR WILL PROVIDE ALL NECESSARY PROTECTIVE MEASURES TO SAFEGUARD EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION OF THIS PROJECT. IN THE EVENT THAT SPECIAL EQUIPMENT IS REQUIRED TO WORK OVER AND AROUND THE UTILITIES, THE CONTRACTOR WILL BE REQUIRED TO FURNISH SUCH EQUIPMENT. THE COST OF PROTECTING UTILITIES FROM DAMAGE AND FURNISHING SPECIAL EQUIPMENT WILL BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS OF CONSTRUCTION.
- (4) PRIOR TO SUBMITTING HIS BID, THE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR CONTACTING OWNERS OF ALL AFFECTED UTILITIES IN ORDER TO DETERMINE THE EXTENT TO WHICH UTILITY RELOCATIONS AND/OR ADJUSTMENTS WILL HAVE UPON THE SCHEDULE OF WORK FOR THE PROJECT. WHILE SOME WORK MAY BE REQUIRED 'AROUND' UTILITY FACILITIES THAT WILL REMAIN IN PLACE, OTHER UTILITY FACILITIES MAY NEED TO BE ADJUSTED CONCURRENTLY WITH THE CONTRACTOR'S OPERATIONS. ADVANCE CLEAR CUTTING MAY BE REQUIRED BY THE ENGINEER AT ANY LOCATION WHERE CLEARING IS CALLED FOR IN THE SPECIFICATIONS AND CLEAR CUTTING IS NECESSARY FOR A UTILITY RELOCATION. ANY ADDITIONAL COST WILL BE INCLUDED IN THE UNIT PRICE BID FOR THE CLEARING ITEM SPECIFIED IN THE PLANS.
- (5) THE CONTRACTOR SHALL NOTIFY EACH INDIVIDUAL UTILITY OWNER OF HIS PLAN OF OPERATION IN THE AREA OF THE UTILITIES. PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL CONTACT THE UTILITY OWNERS AND REQUEST THEM TO PROPERLY LOCATE THEIR RESPECTIVE UTILITY ON THE GROUND. THIS NOTIFICATION SHALL BE GIVEN AT LEAST THREE (3) BUSINESS DAYS PRIOR TO COMMENCEMENT OF OPERATIONS AROUND THE UTILITY IN ACCORDANCE WITH TCA 65-31-106.

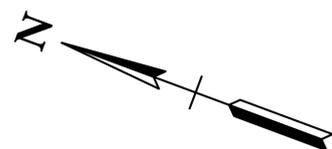
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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**RIGHT-OF-WAY
ACQUISITION
TABLE AND
NOTES**

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2015	NH-I-24-2(146)	4A
CONST.	2015	NH-I-24-2(146)	4A

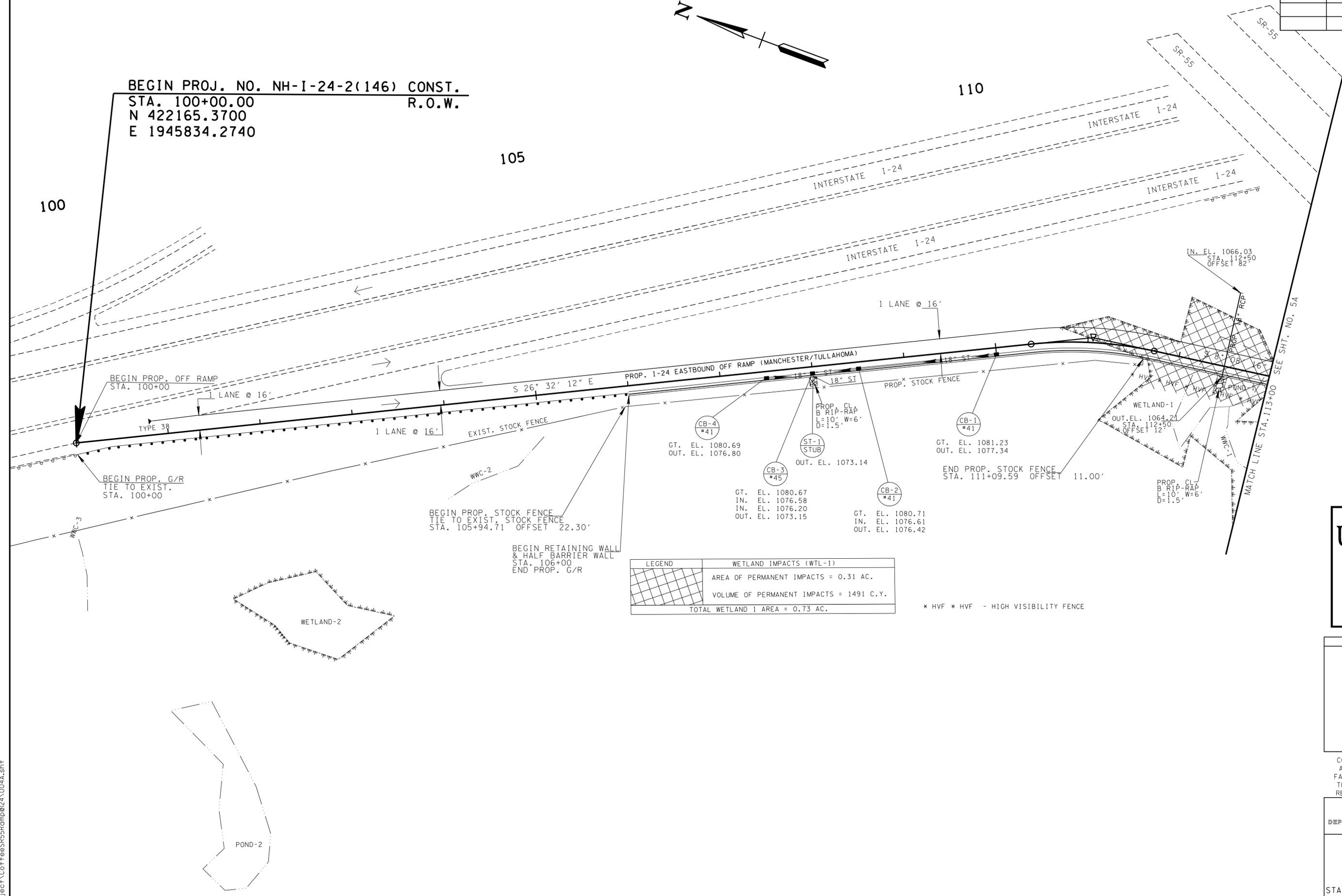


BEGIN PROJ. NO. NH-I-24-2(146) CONST.
 STA. 100+00.00
 N 422165.3700
 E 1945834.2740
 R.O.W.

110

105

100



LEGEND	WETLAND IMPACTS (WTL-1)
	AREA OF PERMANENT IMPACTS = 0.31 AC.
	VOLUME OF PERMANENT IMPACTS = 1491 C.Y.
	TOTAL WETLAND 1 AREA = 0.73 AC.

* HVF * HVF - HIGH VISIBILITY FENCE

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STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

**PROPOSED
 LAYOUT**

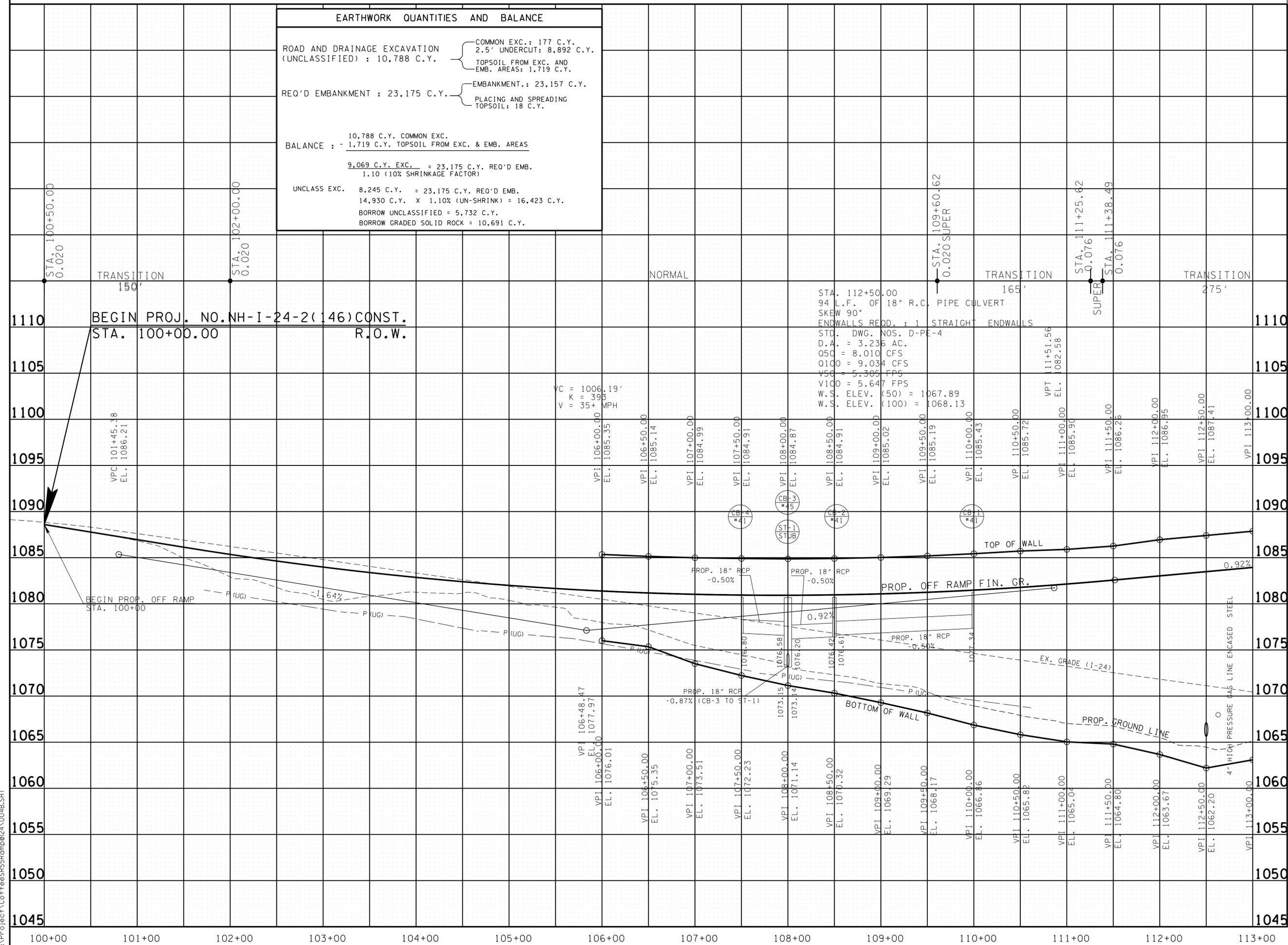
STA. 100+00 TO STA. 113+00

SCALE: 1" = 50'

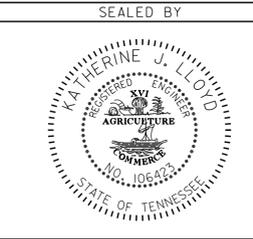
17-JUN-2015 10:11
 C:\Project\CorffeeSR5Ramp\24\004A.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2015	NH-1-24-2(146)	4B
CONST.	2015	NH-1-24-2(146)	4B

EARTHWORK QUANTITIES AND BALANCE	
ROAD AND DRAINAGE EXCAVATION (UNCLASSIFIED) : 10,788 C.Y.	COMMON EXC.: 177 C.Y. 2.5' UNDERCUT: 8,892 C.Y. TOPSOIL FROM EXC. AND EMB. AREAS: 1,719 C.Y.
REQ'D EMBANKMENT : 23,175 C.Y.	EMBANKMENT.: 23,157 C.Y. PLACING AND SPREADING TOPSOIL: 18 C.Y.
10,788 C.Y. COMMON EXC. BALANCE : - 1,719 C.Y. TOPSOIL FROM EXC. & EMB. AREAS	
$\frac{9,069 \text{ C.Y. EXC.}}{1.10 \text{ (10\% SHRINKAGE FACTOR)}} = 23,175 \text{ C.Y. REQ'D EMB.}$	
UNCLASS EXC. 8,245 C.Y. = 23,175 C.Y. REQ'D EMB. 14,930 C.Y. X 1.10% (UN-SHRINK) = 16,423 C.Y. BORROW UNCLASSIFIED = 5,732 C.Y. BORROW GRADED SOLID ROCK = 10,691 C.Y.	



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE

STA. 100+00 TO STA. 113+00
SCALE: 1" = 50' HORIZ.
1" = 5' VERT.

7-JUN-2015 14:22
C:\Project\CoffeesR5Ramp\24\004B.SHT

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2015	NH-I-24-2(146)	5
CONST.	2015	NH-I-24-2(146)	5

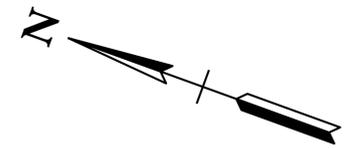
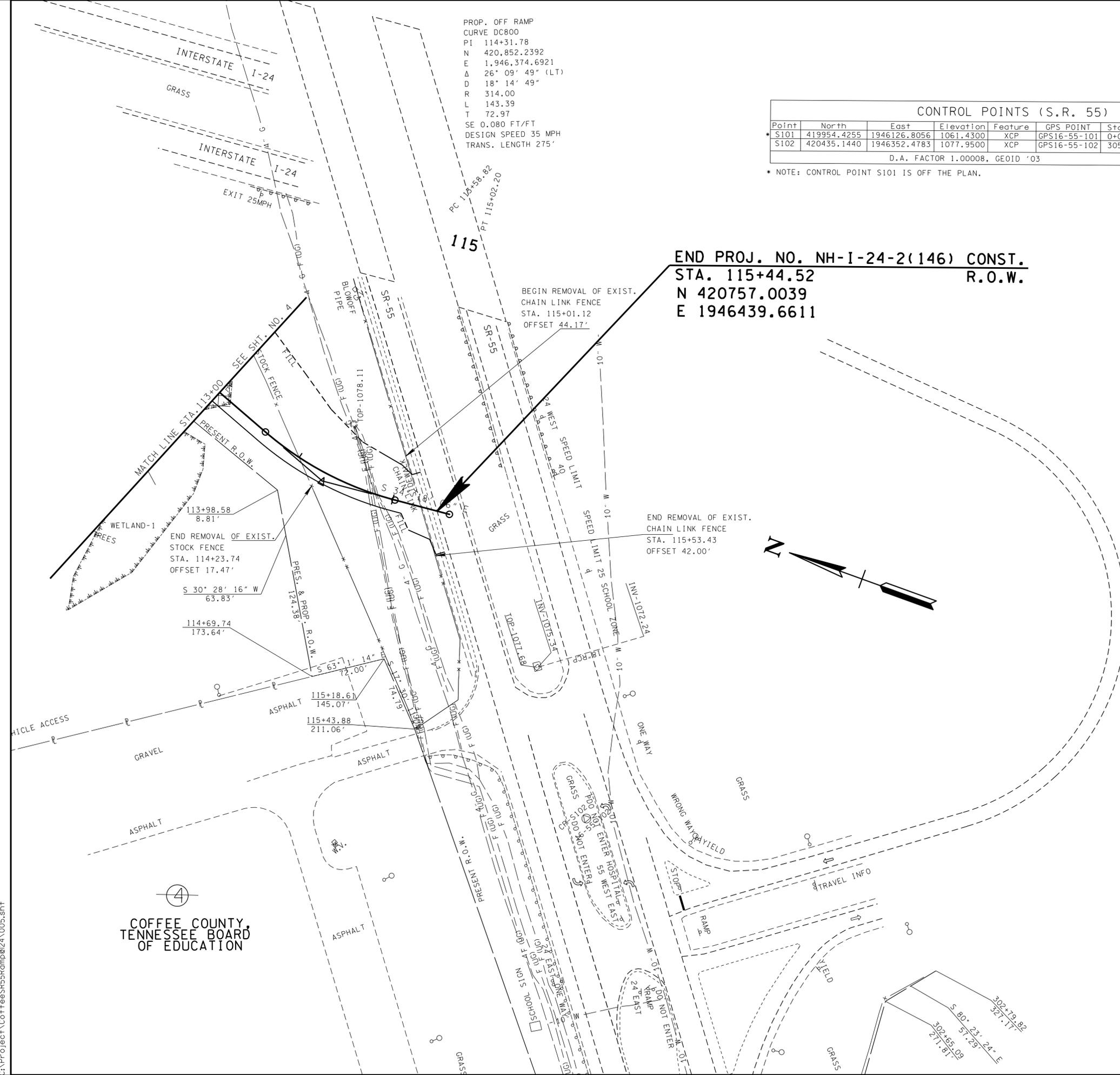
PROP. OFF RAMP
 CURVE DC800
 PI 114+31.78
 N 420,852.2392
 E 1,946,374.6921
 Δ 26° 09' 49" (LT)
 D 18' 14' 49"
 R 314.00
 L 143.39
 T 72.97
 SE 0.080 FT/FT
 DESIGN SPEED 35 MPH
 TRANS. LENGTH 275'

CONTROL POINTS (S.R. 55)							
Point	North	East	Elevation	Feature	GPS POINT	Station	Offset
S101	419954.4255	1946126.8056	1061.4300	XCP	GPS16-55-101	0+00.00	
S102	420435.1440	1946352.4783	1077.9500	XCP	GPS16-55-102	305+18.20	43.7027

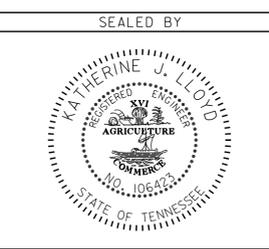
D.A. FACTOR 1.00008, GEOID '03

NOTE: CONTROL POINT S101 IS OFF THE PLAN.

END PROJ. NO. NH-I-24-2(146) CONST.
STA. 115+44.52
N 420757.0039
E 1946439.6611
R.O.W.



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STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

**PRESENT
 LAYOUT**

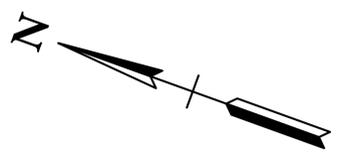
STA. 113+00 TO STA. 115+44

SCALE: 1" = 50'

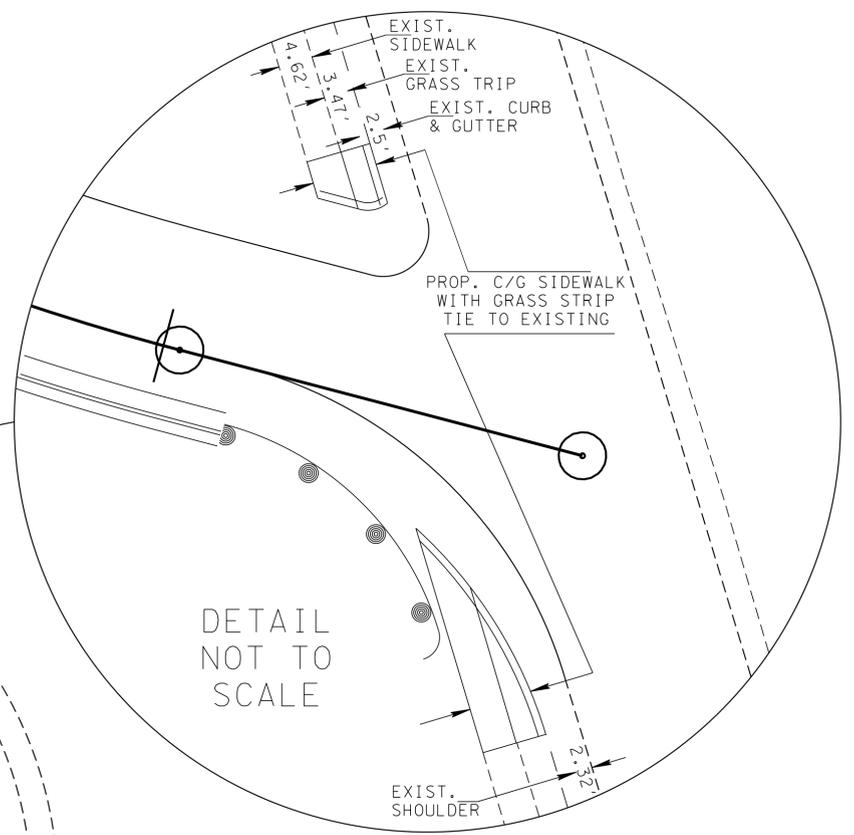
4
**COFFEE COUNTY,
 TENNESSEE BOARD
 OF EDUCATION**

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2015	NH-I-24-2(146)	5A
CONST.	2015	NH-I-24-2(146)	5A

PROP. OFF RAMP
 CURVE DC800
 PI 114+31.78
 N 420,852.2392
 E 1,946,374.6921
 Δ 26° 09' 49" (LT)
 D 18' 14' 49"
 R 314.00
 L 143.39
 T 72.97
 SE 0.080 FT/FT
 DESIGN SPEED 35 MPH
 TRANS. LENGTH 275'

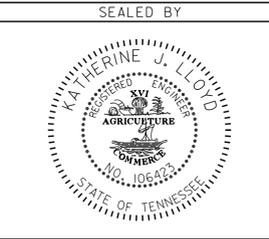


END PROJ. NO. NH-I-24-2(146) CONST.
STA. 115+44.52
N 420757.0039
E 1946439.6611
R.O.W.



DETAIL
 NOT TO
 SCALE

**UNOFFICIAL
 SET
 NOT FOR
 BIDDING**



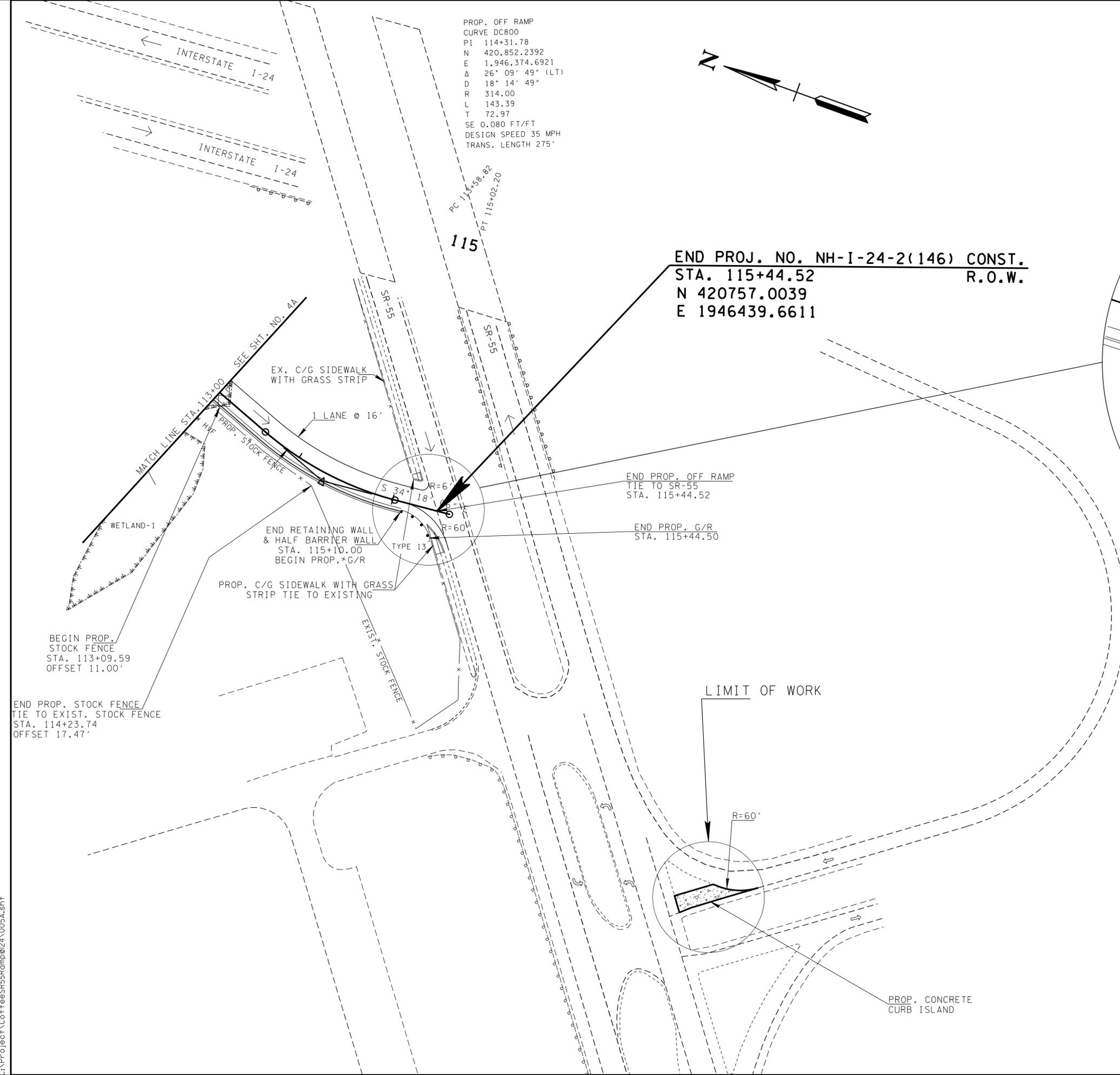
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 ARE DATUM ADJUSTED BY THE
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 THE TGRN. ALL ELEVATIONS ARE
 REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

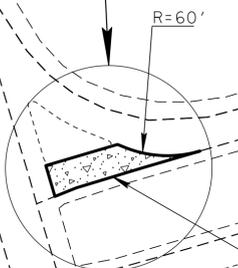
**PROPOSED
 LAYOUT**

STA. 113+00 TO STA. 116+00

SCALE: 1" = 50'



LIMIT OF WORK



PROP. CONCRETE
 CURB ISLAND

BEGIN PROP.
 STOCK FENCE
 STA. 113+09.59
 OFFSET 11.00'

END PROP. STOCK FENCE
 TIE TO EXIST. STOCK FENCE
 STA. 114+23.74
 OFFSET 17.47'

END RETAINING WALL
 & HALF BARRIER WALL
 STA. 115+10.00
 BEGIN PROP. *G/R

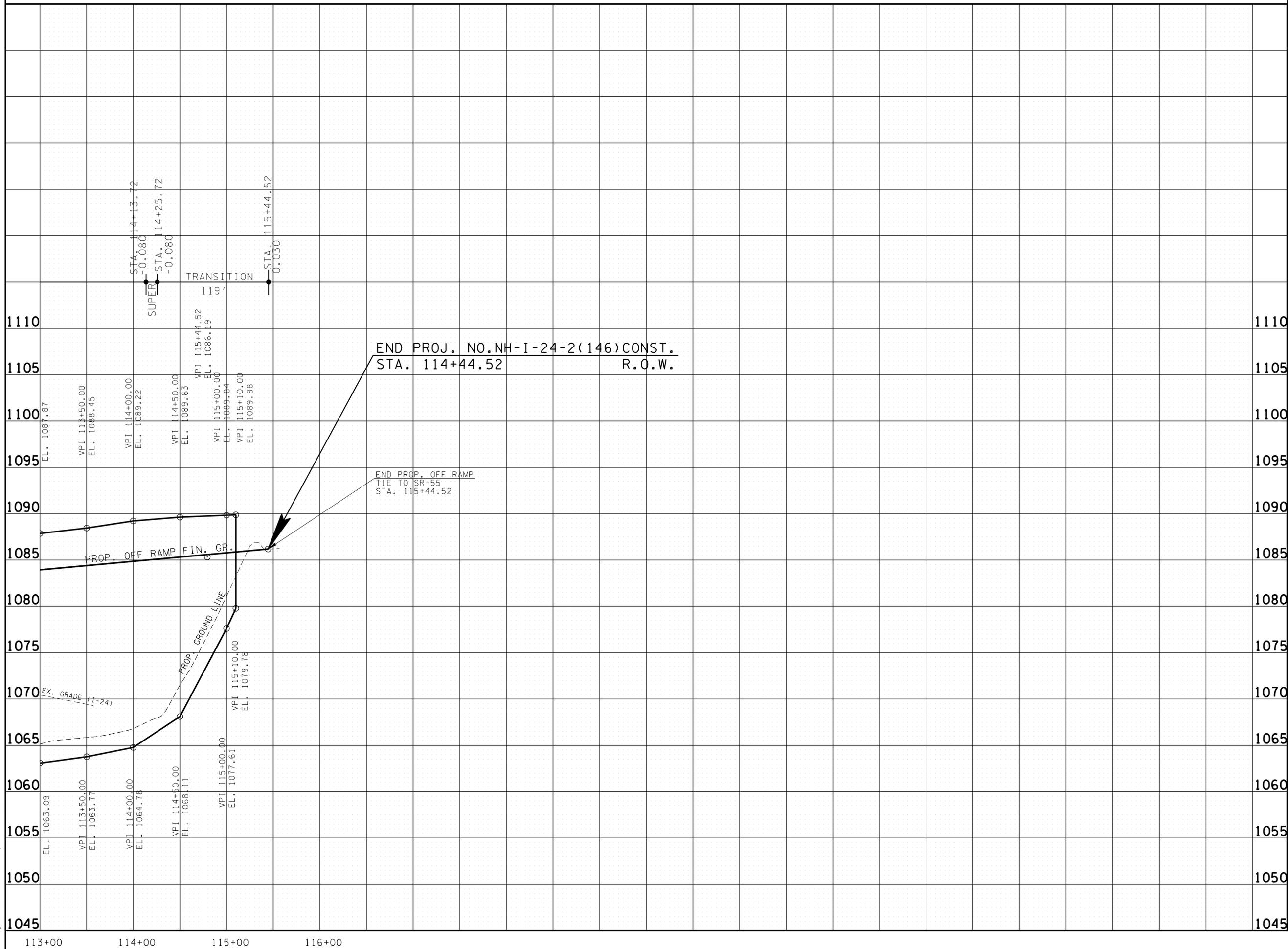
PROP. C/G SIDEWALK WITH GRASS
 STRIP TIE TO EXISTING

END PROP. OFF RAMP
 TIE TO SR-55
 STA. 115+44.52

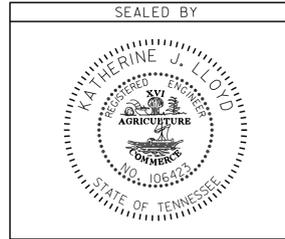
END PROP. G/R
 STA. 115+44.50

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2015	NH-I-24-2(146)	58
CONST.	2015	NH-I-24-2(146)	58



**UNOFFICIAL
SET
NOT FOR
BIDDING**



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

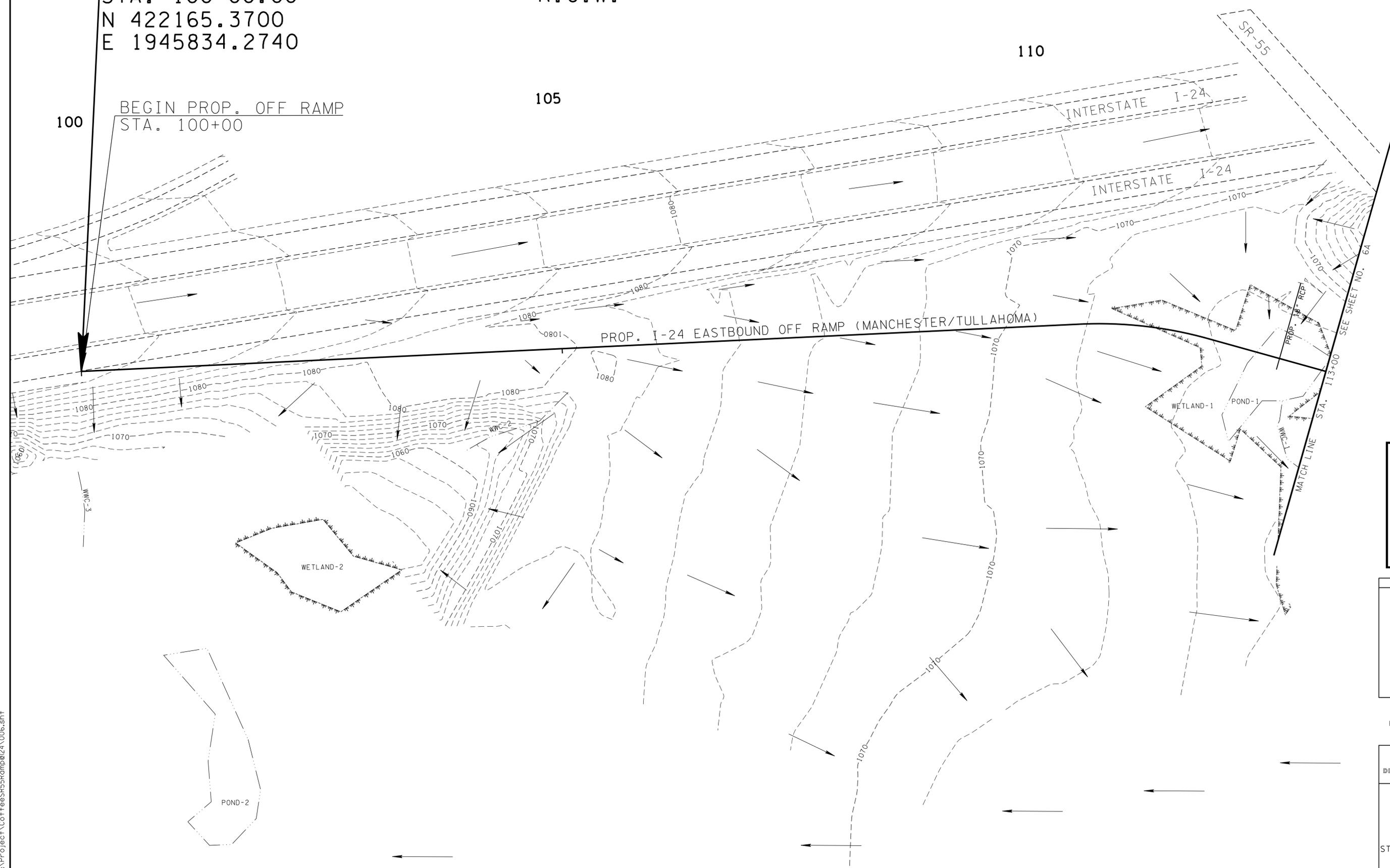
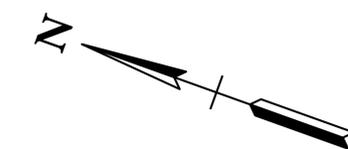
PROFILE

STA. 1113+00 TO STA. 115+53
SCALE: 1" = 50' HORIZ.
1" = 5' VERT.

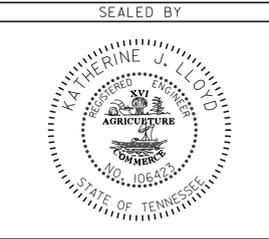
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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2015	NH-I-24-2(146)	6
CONST.	2015	NH-I-24-2(146)	6

BEGIN PROJ. NO. NH-I-24-2(146) CONST.
 STA. 100+00.00 R.O.W.
 N 422165.3700
 E 1945834.2740



**UNOFFICIAL
 SET
 NOT FOR
 BIDDING**



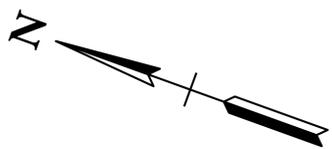
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 ARE DATUM ADJUSTED BY THE
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 REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

**DRAINAGE
 MAP**
 STA. 100+00 TO STA. 113+00
 SCALE: 1" = 50'

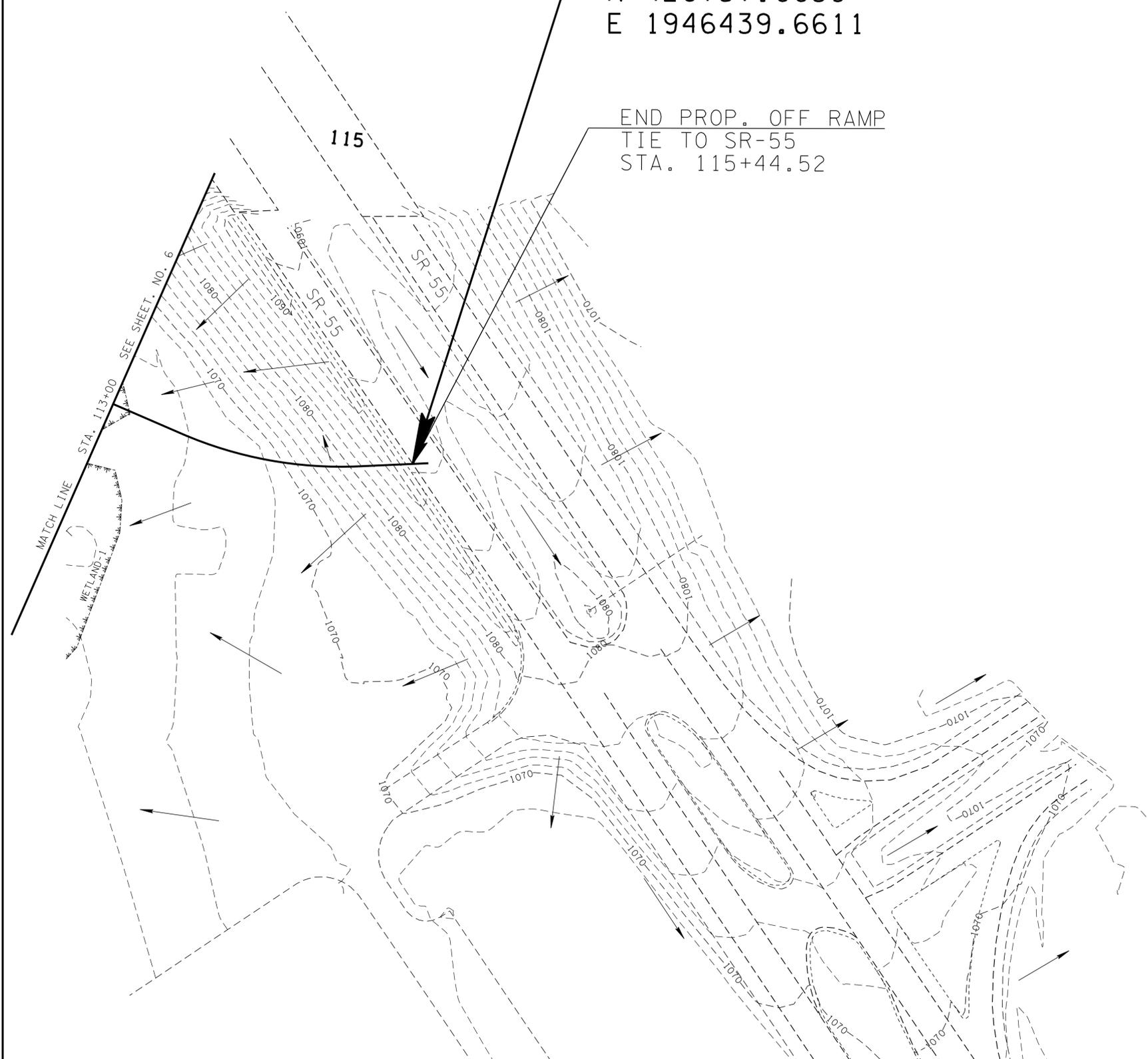
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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2015	NH-I-24-2(146)	6A
CONST.	2015	NH-I-24-2(146)	6A



END PROJ. NO. NH-I-24-2(146) CONST.
 STA. 115+44.52 R.O.W.
 N 420757.0039
 E 1946439.6611

END PROP. OFF RAMP
 TIE TO SR-55
 STA. 115+44.52



**UNOFFICIAL
 SET
 NOT FOR
 BIDDING**

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.

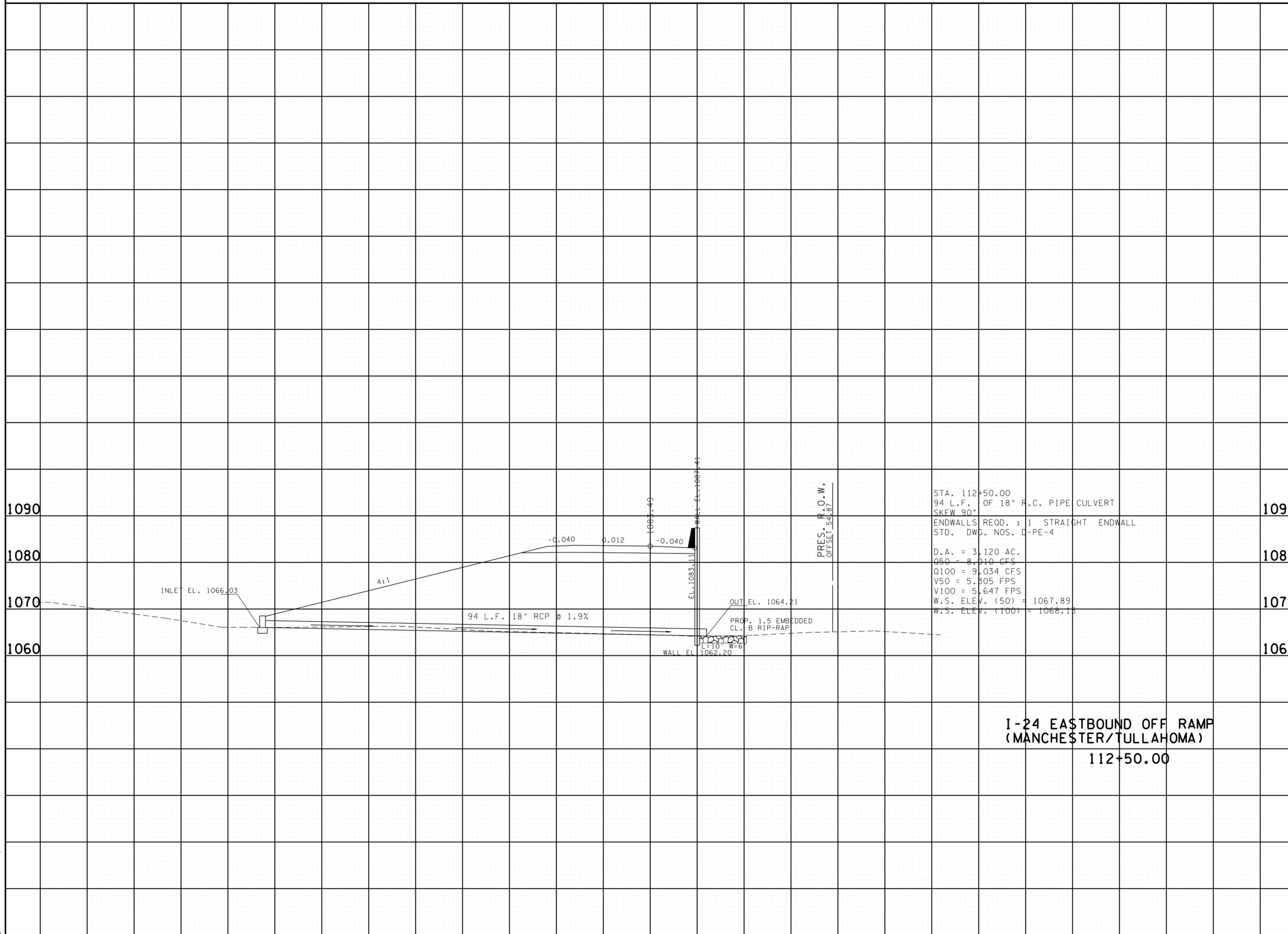
STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

**DRAINAGE
 MAP**

STA. 113+00 TO STA. 115+44
 SCALE: 1" = 50'

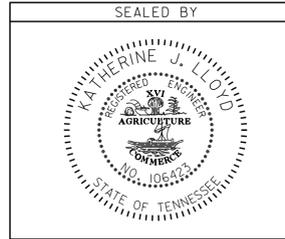
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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2015	NH-1-24-2(146)	7
CONST.	2015	NH-1-24-2(146)	7



STA. 112+50.00
 94 L.F. OF 18" R.C. PIPE CULVERT
 SKEW 90°
 ENDWALLS REOD. : 1 STRAIGHT ENDWALL
 STD. DWG. NOS. D-PE-4
 D.A. = 3.120 AC.
 Q50 = 8.010 CFS
 Q100 = 9.034 CFS
 V50 = 5.805 FPS
 V100 = 5.647 FPS
 W.S. ELEV. (50) = 1067.89
 W.S. ELEV. (100) = 1068.15

**UNOFFICIAL
 SET
 NOT FOR
 BIDDING**



**I-24 EASTBOUND OFF RAMP
 (MANCHESTER/TULLAHOMA)
 112+50.00**

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

**CULVERT
 CROSS-
 SECTIONS**
 SCALE: 1"=10' HORIZ.
 1"=10' VERT.

17-JUN-2015 10:11
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EROSION PREVENTION AND SEDIMENT CONTROL

STREAM/WETLAND

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

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

NPDES

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

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

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

- A. INITIAL CLEARING AND GRUBBING SHALL BE LIMITED TO THAT NECESSARY FOR THE INSTALLATION OF APPLICABLE EPSC MEASURES IN ACCORDANCE WITH THE ACCEPTED EPSC PLAN INCORPORATED INTO THE SWPPP.
- B. NO OTHER CLEARING AND GRUBBING OPERATIONS SHALL BE STARTED BEFORE APPLICABLE EPSC MEASURES ARE IN PLACE IN ACCORDANCE WITH THE ACCEPTED EPSC PLAN INCORPORATED INTO THE SWPPP.
- C. NO CULVERT OR BRIDGE CONSTRUCTION SHALL BE STARTED BEFORE APPLICABLE EPSC MEASURES ARE IN PLACE IN ACCORDANCE WITH THE ACCEPTED EPSC PLAN INCORPORATED INTO THE SWPPP.
- D. NO GRADING, EXCAVATION, CUTTING, FILLING, OR OTHER EARTHWORK SHALL BE STARTED BEFORE EPSC MEASURES ARE IN PLACE IN ACCORDANCE WITH THE ACCEPTED EPSC PLAN INCORPORATED INTO THE SWPPP.

(6) PERMANENT EPSC MEASURES SHALL BE INITIATED WITHIN 14 CALENDAR DAYS AFTER FINAL GRADING OF ANY SEQUENCE OR PHASE. TEMPORARY OR PERMANENT STABILIZATION SHALL BE INITIATED WITHIN 14 CALENDAR DAYS AFTER FINAL GRADING OR WHEN CONSTRUCTION ACTIVITIES ON A PORTION OF THE SITE ARE TEMPORARILY CEASED AND EARTH DISTURBING ACTIVITIES WILL NOT RESUME UNTIL AFTER 14 CALENDAR DAYS. PERMANENT STABILIZATION WITH PERENNIAL VEGETATION OR OTHER PERMANENTLY STABLE NON-ERODING SURFACE

SHALL REPLACE ANY TEMPORARY MEASURES AS SOON AS PRACTICABLE. UNPACKED GRAVEL CONTAINING FINES (SILT AND CLAY SIZED PARTICLES) OR CRUSHER-RUN WILL NOT BE CONSIDERED A NON-ERODIBLE SURFACE.

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

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

UTILITY RELOCATION

(9) RAIN WATER WHICH COLLECTS IN THE UTILITY TRENCH SHALL BE PUMPED INTO A DEWATERING STRUCTURE OR SEDIMENT FILTER BAG AND MAINTAINED.

(10) SILT FENCE SHALL BE INSTALLED ON THE DOWNSTREAM SIDE OF STOCKPILED SOIL. TRENCHING ACROSS WET WEATHER CONVEYANCES SHALL BE DONE DURING NO FLOW CONDITIONS AND STABILIZED BY THE END OF THE WORK DAY.

(11) UTILITY CROSSINGS FOR PERENNIAL STREAMS SHALL BE CONSTRUCTED IN ACCORDANCE WITH TDOT STANDARDS AND NO WORK SHALL BE CONDUCTED IN FLOWING WATERS. TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION (TDEC) REGULATIONS APPLY TO UTILITIES IN THIS PROJECT IN REGARD TO EROSION PREVENTION AND SEDIMENT CONTROL (EPSC). THE STATE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF THE STORM WATER POLLUTION PREVENTION PLANS (SWPPP).

(12) IT IS THE RESPONSIBILITY OF THE STATE UTILITY CONTRACTOR INSTALLER TO PROTECT FROM EROSION EXPOSED EARTH RESULTING FROM THEIR OPERATIONS AND TO PROVIDE FOR CONTAINMENT OF SEDIMENT THAT MAY RESULT FROM THEIR WORK. PRIOR TO BEGINNING WORK, ADEQUATE MEASURES MUST BE IN PLACE TO TRAP ANY SEDIMENT THAT MAY TRAVEL 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.

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

(14) IN REGARD TO EROSION PREVENTION AND SEDIMENT CONTROL (EPSC), TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION (TDEC) REGULATIONS APPLY TO THE STATE UTILITY CONTRACTORS IN THIS PROJECT. THEREFORE, THE STATE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF THE STORM WATER POLLUTIONS PREVENTION PLANS (SWPPP). THE STATE CONTRACTOR IS RESPONSIBLE FOR EPSC MEASURES RELATED TO UTILITY CONSTRUCTION INCLUDED IN THE STATE CONTRACT WORK.

(15) TRENCHES FORMED FOR THE INSTALLATION OF BURIED UTILITIES MAY CAUSE STORM WATER RUNOFF TO CONCENTRATE AT THE TRENCH LINE. ADDITIONAL EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) MEASURES MAY BE REQUIRED TO BE INSTALLED AS APPROVED BY THE TDOT PROJECT ENGINEER.

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

(17) THE UTILITY CONTRACTOR SHALL RESTORE ALL AFFECTED WET WEATHER CONVEYANCES TO THE EXISTING TOPOGRAPHIC CONDITIONS (AS APPROVED BY THE TDOT PROJECT ENGINEER).

(18) THE UTILITY CONTRACTOR WILL PROVIDE APPROPRIATE EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) MEASURES TO REPLACE IN-PLACE EPSC MEASURES REMOVED TO FACILITATE THE INSTALLATION OF UTILITIES. REPLACEMENT OF EPSC MEASURES WILL BE COORDINATED WITH THE TDOT PROJECT ENGINEER BEFORE COMMENCING WORK.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2015	NH-1-24-2(1 46)	8
CONST.	2015	NH-1-24-2(1 46)	8

EROSION PREVENTION AND SEDIMENT CONTROL QUANTITIES			
ITEM NO.	DESCRIPTION	UNIT	TOTAL
(1) 203-01	ROAD AND DRAINAGE EXCAVATION (UNCLASSIFIED)	C.Y.	15
209-05	SEDIMENT REMOVAL	C.Y.	75
209-08.02	TEMPORARY SILT FENCE (WITH BACKING)	L.F.	172
209-08.03	TEMPORARY SILT FENCE (WITHOUT BACKING)	L.F.	2501
209-08.07	ROCK CHECK DAM	EACH	1
209-40.33	CATCH BASIN PROTECTION (TYPE D)	EACH	5
(2) 303-10.01	MINERAL AGGREGATE (SIZE 57)	TON	5
707-08.11	HIGH-VISIBILITY CONSTRUCTION FENCE	L.F.	149
(1) 709-05.05	MACHINED RIPRAP (CLASS A-3)	TON	100
(2) 709-05.06	MACHINED RIPRAP (CLASS A-1)	TON	23
(3) 709-05.08	MACHINED RIP-RAP (CLASS B)	TON	6
(4) 740-10.03	GEOTEXTILE (TYPE III) (EROSION CONTROL)	S.Y.	226
801-03	WATER (SEEDING AND SODDING)	M.G.	54
803-01	SODDING (NEW SOD)	S.Y.	5433

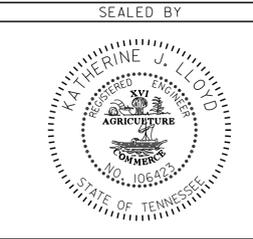
NOTES:

- (1) FOR CONSTRUCTION EXITS.
- (2) FOR CULVERT PROTECTION TYPE I.
- (3) FOR OUTLET PROTECTION.
- (4) INCLUDES 54 S.Y. FOR CULVERT PROTECTION TYPE I AND 172 S.Y. FOR TEMPORARY CONSTRUCTION EXITS.

EROSION PREVENTION AND SEDIMENT CONTROL LEGEND		
SYMBOL	ITEM	STD. DWG.
* SF * SF * SF *	SILT FENCE	EC-STR-3B
* SFB * SFB * SFB *	SILT FENCE WITH WIRE BACKING	EC-STR-3C
	ROCK CHECK DAM (V-DITCH)	EC-STR-6
	CULVERT PROTECTION (TYPE 1)	EC-STR-11
	CATCH BASIN PROTECTION (TYPE D)	EC-STR-19
	TEMPORARY CONSTRUCTION EXIT	EC-STR-25
* HVF * HVF	HIGH VISIBILITY FENCE	S-F-1

NOTES FOR ALL EPSC PHASES:
 1. ALL SILT FENCES AND SILT FENCE W/ BACKING SHALL BE J-HOOKED ACROSS CONTOURS AS DIRECTED BY THE ENGINEER.
 2. TEMPORARY CONSTRUCTION EXITS TO BE LOCATED BY THE ENGINEER.

**UNOFFICIAL
SET
NOT FOR
BIDDING**

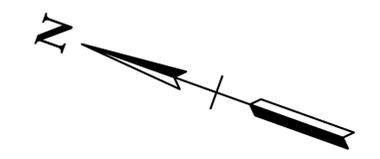


STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**EROSION
PREVENTION
AND SEDIMENT
CONTROL NOTES**

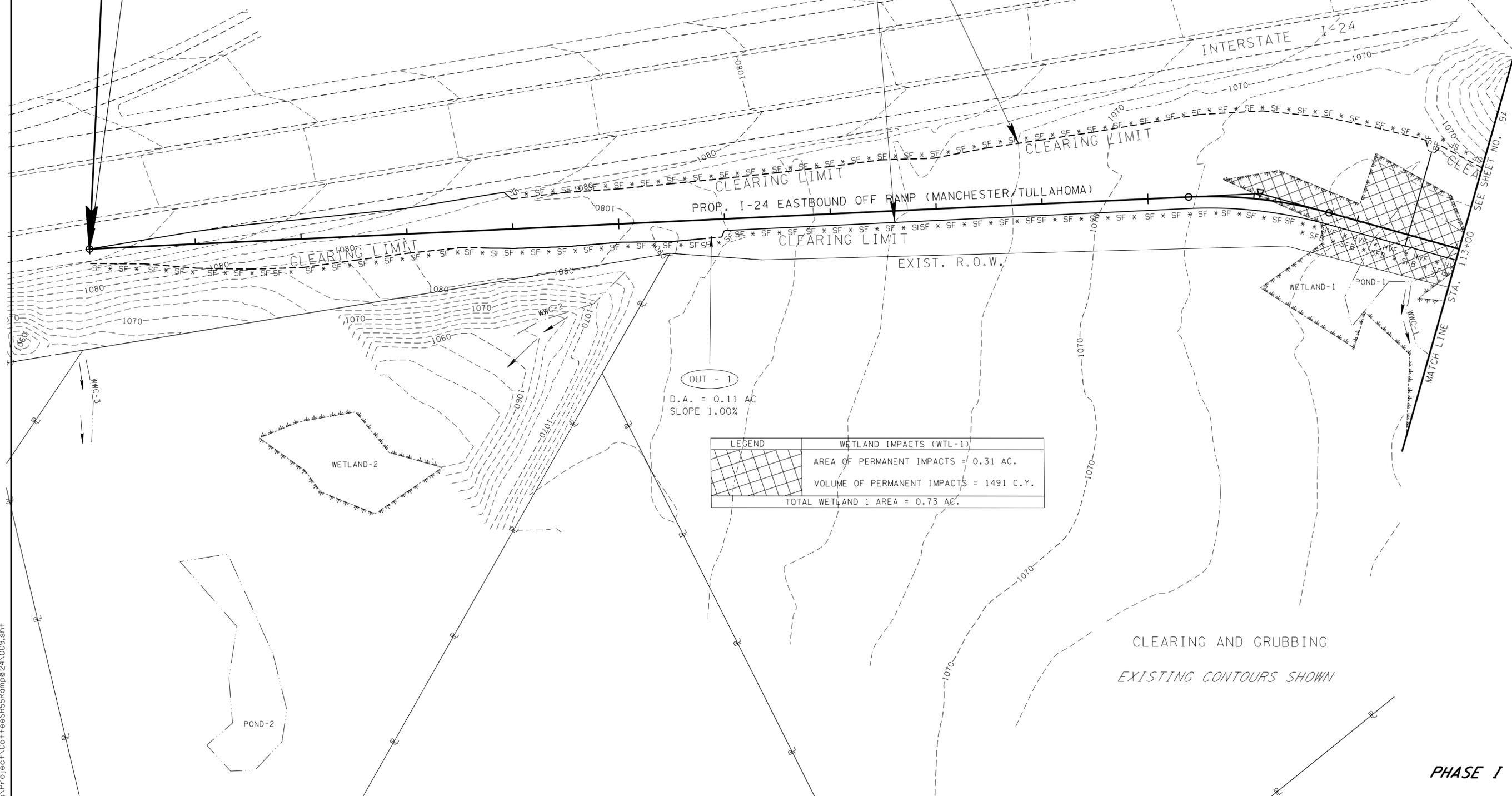
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2015	NH-I-24-2(146)	9
CONST.	2015	NH-I-24-2(146)	9

BEGIN PROJ. NO. NH-I-24-2(146) CONST.
 STA. 100+00.00 R.O.W.
 N 422165.3700
 E 1945834.2740



BEGIN PROP. OFF RAMP
 STA. 100+00

NOTE:
 FORM "J" HOOKS ACROSS
 CONTOURS TO BOTH SIDES.



OUT - 1
 D.A. = 0.11 AC
 SLOPE 1.00%

LEGEND	WETLAND IMPACTS (WTL-1)
	AREA OF PERMANENT IMPACTS = 0.31 AC.
	VOLUME OF PERMANENT IMPACTS = 1491 C.Y.
	TOTAL WETLAND 1 AREA = 0.73 AC.

**UNOFFICIAL
 SET
 NOT FOR
 BIDDING**

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.

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

**EROSION
 PREVENTION
 AND SEDIMENT
 CONTROL PLAN**

PHASE 1

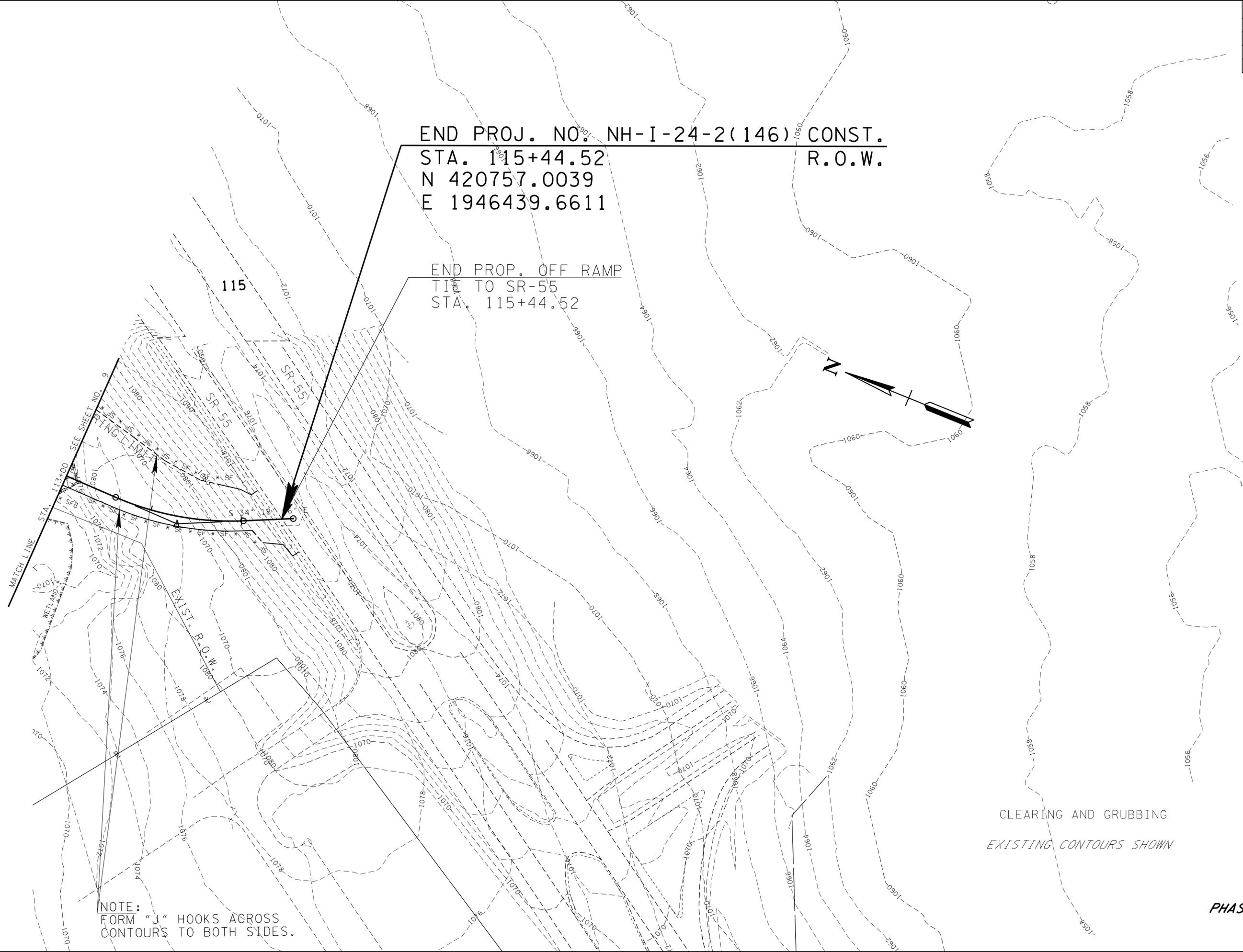
STA. 110+00 TO STA. 113+00
 SCALE: 1" = 50'

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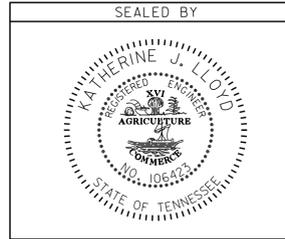
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2015	NH-I-24-2(146)	9A
CONST.	2015	NH-I-24-2(146)	9A

END PROJ. NO. NH-I-24-2(146) CONST.
 STA. 115+44.52
 N 420757.0039
 E 1946439.6611
 R.O.W.

END PROP. OFF RAMP
 TIE TO SR-55
 STA. 115+44.52



**UNOFFICIAL
 SET
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STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

**EROSION
 PREVENTION
 AND SEDIMENT
 CONTROL PLAN**

STA. 113+00 TO STA. 115+44
 SCALE: 1" = 50'

CLEARING AND GRUBBING
 EXISTING CONTOURS SHOWN

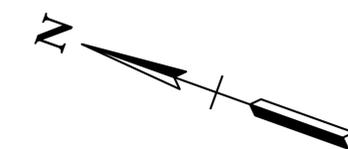
PHASE I

NOTE:
 FORM "J" HOOKS ACROSS
 CONTOURS TO BOTH SIDES.

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2015	NH-I-24-2(146)	10
CONST.	2015	NH-I-24-2(146)	10

BEGIN PROJ. NO. NH-I-24-2(146) CONST.
 STA. 100+00.00 R.O.W.
 N 422165.3700
 E 1945834.2740



100 BEGIN PROP. OFF RAMP
 STA. 100+00

105

110

INTERSTATE I-24

INTERSTATE I-24

SR-55

SR-55

PROP. I-24 EASTBOUND OFF RAMP (MANCHESTER/TULLAHOMA)

EXIST. R.O.W.

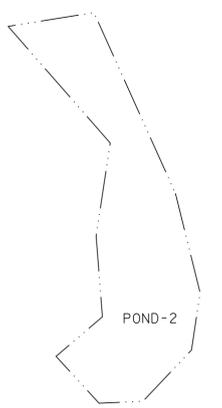
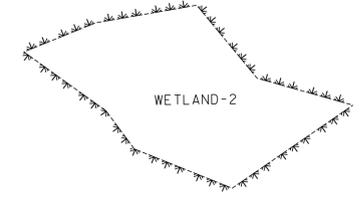
SOD

SOD

OUT - 1
 D.A. = 0.11 AC
 SLOPE 1.00%

OUT - 2
 D.A. = 3.24 AC
 SLOPE 1.90%

LEGEND	WETLAND IMPACTS (WTL-1)
	AREA OF PERMANENT IMPACTS = 0.31 AC.
	VOLUME OF PERMANENT IMPACTS = 1491 C.Y.
	TOTAL WETLAND 1 AREA = 0.73 AC.



MATCH LINE STA. 113+00 SEE SHEET NO. 10A

UNOFFICIAL SET
NOT FOR BIDDING

SEALED BY

 KATHERINE J. LLOYD
 REGISTERED PROFESSIONAL ENGINEER
 AGRICULTURE
 NUMBER
 NO. 106423
 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.

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN

PHASE II

PROPOSED CONTOURS SHOWN

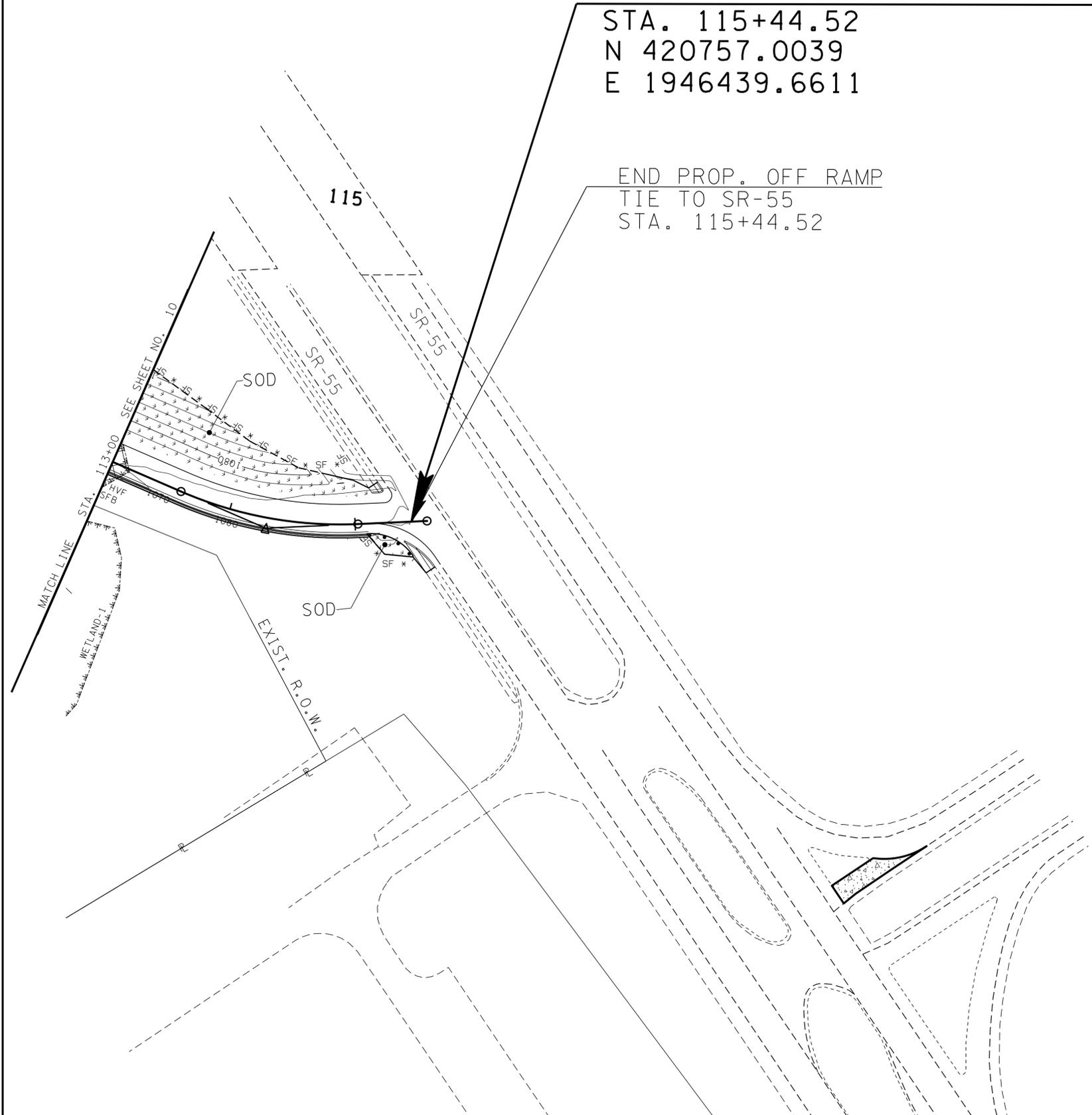
STA. 110+00 TO STA. 113+00
 SCALE: 1" = 50'

7-JUN-2015 10:42
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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2015	NH-I-24-2(146)	10A
CONST.	2015	NH-I-24-2(146)	10A

END PROJ. NO. NH-I-24-2(146) CONST.
 STA. 115+44.52 R.O.W.
 N 420757.0039
 E 1946439.6611

END PROP. OFF RAMP
 TIE TO SR-55
 STA. 115+44.52



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 NOT FOR
 BIDDING**

SEALED BY

KATHERINE J. LLOYD
 REGISTERED PROFESSIONAL ENGINEER
 AGRICULTURE
 NO. 106423
 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.

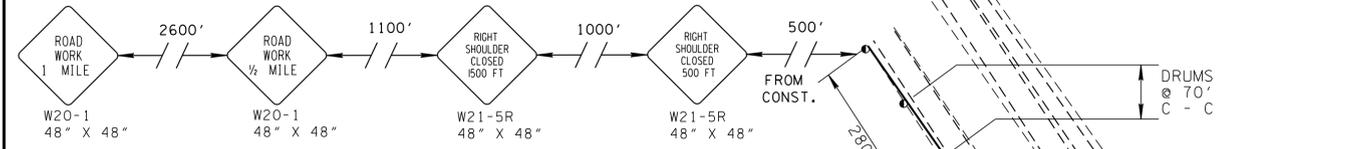
STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

**EROSION
 PREVENTION
 AND SEDIMENT
 CONTROL PLAN**
 STA. 113+00 TO STA. 115+44
 SCALE: 1" = 50'

PROPOSED CONTOURS SHOWN

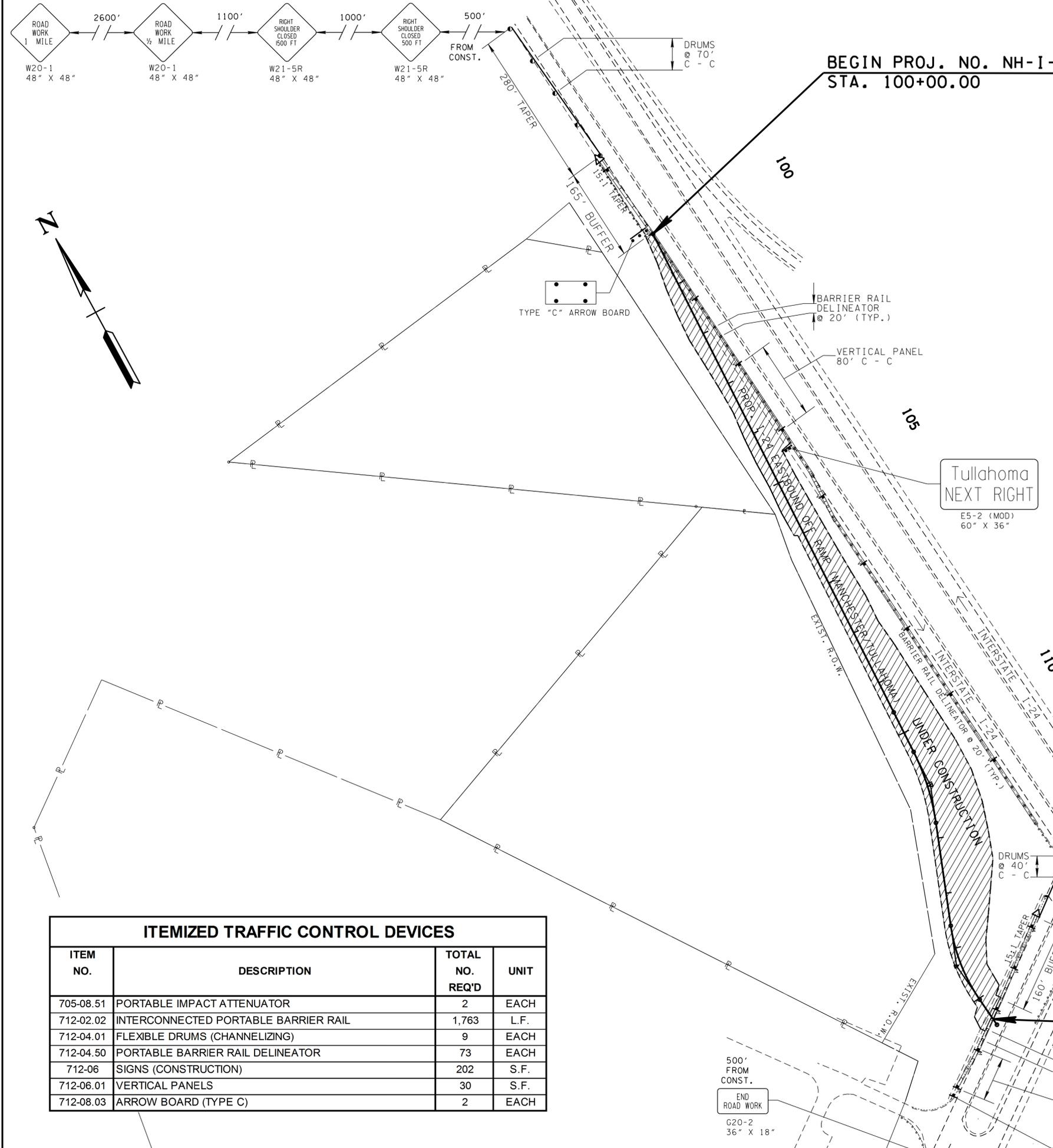
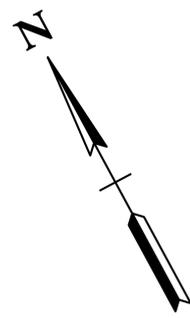
PHASE 11

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-I-24-2(146)	11



BEGIN PROJ. NO. NH-I-24-2(146) CONST.
STA. 100+00.00

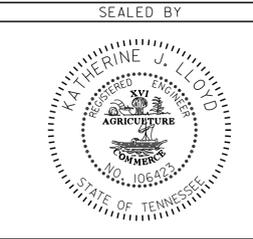
CONSTRUCTION SIGNS					
DESCRIPTION	NO. REQ'D	SIZE	M.U.T.C.D. NO.	QUANTITY (SQ. FT.)	REMARKS
TULLAHOMA NEXT RIGHT	1	60" X 36"	E5-2 (MOD)	15.00	
ROAD WORK AHEAD	4	36" X 36"	W20-1	36.00	
ROAD WORK 500 FT	4	36" X 36"	W20-1	36.00	
ROAD WORK NEXT 1 MILE	1	36" X 36"	W20-1	9.00	
ROAD WORK NEXT 1 MILE	1	48" X 48"	W20-1	16.00	
ROAD WORK NEXT 1/2 MILE	1	36" X 36"	W20-1	9.00	
ROAD WORK NEXT 1/2 MILE	1	48" X 48"	W20-1	16.00	
RIGHT SHOULDER CLOSED 1500 FT	1	36" X 36"	W21-5R	9.00	
RIGHT SHOULDER CLOSED 1500 FT	1	48" X 48"	W21-5R	16.00	
RIGHT SHOULDER CLOSED 500 FT	1	36" X 36"	W21-5R	9.00	
RIGHT SHOULDER CLOSED 500 FT	1	48" X 48"	W21-5R	16.00	
END ROAD WORK	2	36" X 18"	G20-2	4.50	
END ROAD WORK	1	48" X 24"	G20-2	8.00	
SIWALK CLOSED	1	24" X 12"	G9-9	2.00	
PROJECT TOTAL : ITEM NO. 712-06, SIGNS (CONSTRUCTION)				202	



TRAFFIC CONTROL LEGEND	
SYMBOL	ITEM
	WORK ZONE
	FLEXIBLE DRUMS (CHANNELIZING)
	SIGN (CONSTRUCTION)
	SIGN (CONSTRUCTION) (2-POST)
	VERTICAL PANELS (1 FACE)
	TRAFFIC FLOW
	PORTABLE BARRIER RAIL (WITH BARRIER RAIL DELINEATORS)
	TEMPORARY ATTENUATOR
	ARROW BOARD TYPE C

TRAFFIC CONTROL ADVANCE WARNING SIGNS AND DEVICES TO BE ERECTED PRIOR TO THE COMMENCEMENT OF WORK AND ARE TO REMAIN IN PLACE THROUGH THE LIFE OF THE PROJECT. ADDITIONAL OR ALTERNATE SIGNING MAY BE REQUIRED DURING VARIOUS PHASES OF CONSTRUCTION.

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ITEMIZED TRAFFIC CONTROL DEVICES			
ITEM NO.	DESCRIPTION	TOTAL NO. REQ'D	UNIT
705-08.51	PORTABLE IMPACT ATTENUATOR	2	EACH
712-02.02	INTERCONNECTED PORTABLE BARRIER RAIL	1,763	L.F.
712-04.01	FLEXIBLE DRUMS (CHANNELIZING)	9	EACH
712-04.50	PORTABLE BARRIER RAIL DELINEATOR	73	EACH
712-06	SIGNS (CONSTRUCTION)	202	S.F.
712-06.01	VERTICAL PANELS	30	S.F.
712-08.03	ARROW BOARD (TYPE C)	2	EACH

END PROJ. NO. NH-I-24-2(146) CONST.
STA. 115+44.52

PHASE 1:
*CONSTRUCT THE PROPOSED OFF RAMP.

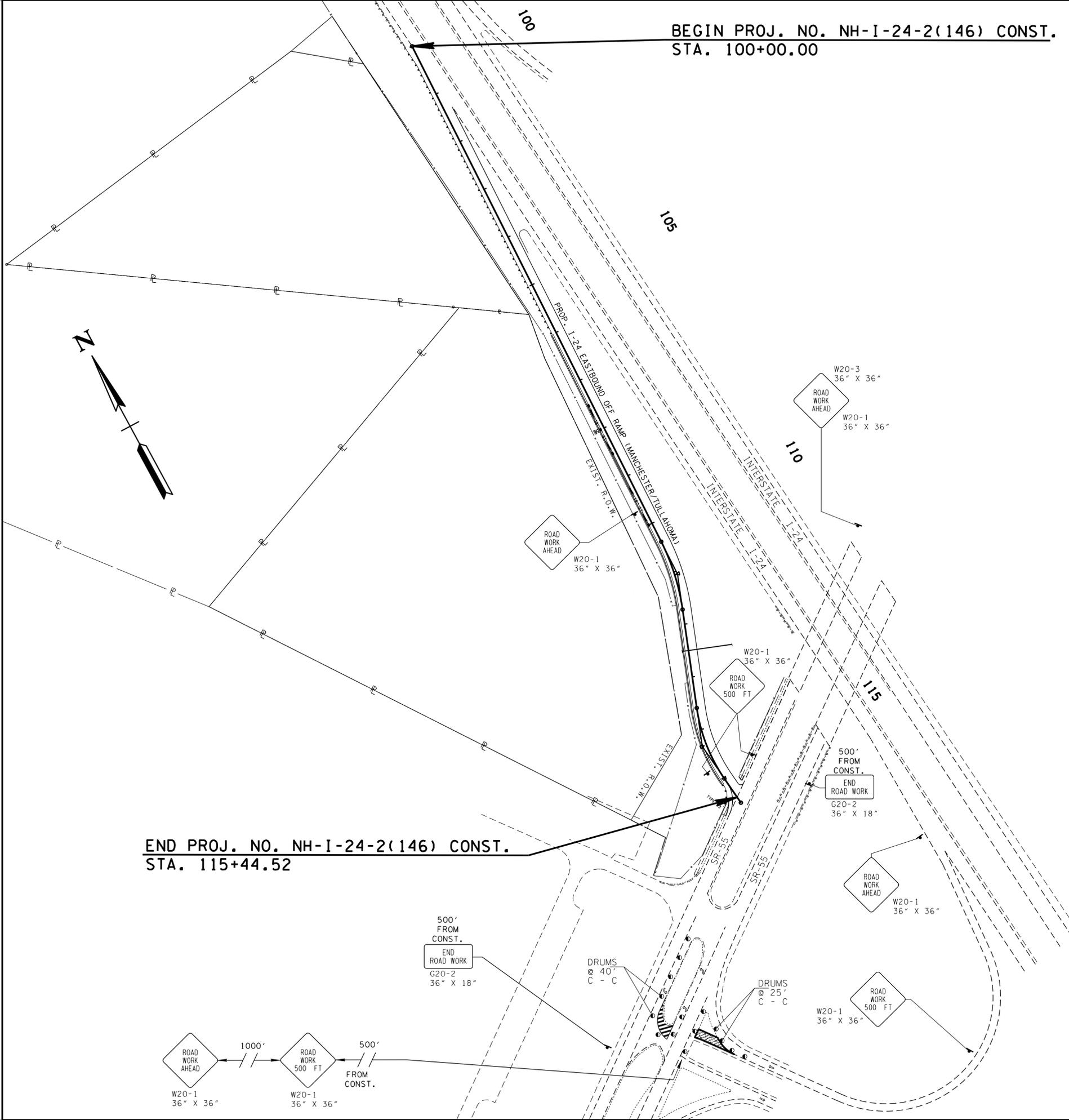
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
TRAFFIC CONTROL PLAN
STA. 100+00 TO STA. 115+44
SCALE: 1"=100'

7-JUN-2015 10:42 C:\Project\CorffeesSR55Ramp\24\011.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-I-24-2(146)	11A

BEGIN PROJ. NO. NH-I-24-2(146) CONST.
STA. 100+00.00

END PROJ. NO. NH-I-24-2(146) CONST.
STA. 115+44.52

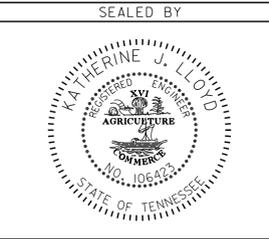


TRAFFIC CONTROL LEGEND	
SYMBOL	ITEM
	WORK ZONE
	FLEXIBLE DRUMS (CHANNELIZING)
	SIGN (CONSTRUCTION)

PHASE 2:

*CONSTRUCT CURB ISLAND AND COMPLETE PAVEMENT STRIPING ON S.R. 55 WHEN THE PROPOSED OFF RAMP IS COMPLETED AND OPEN TO TRAFFIC.

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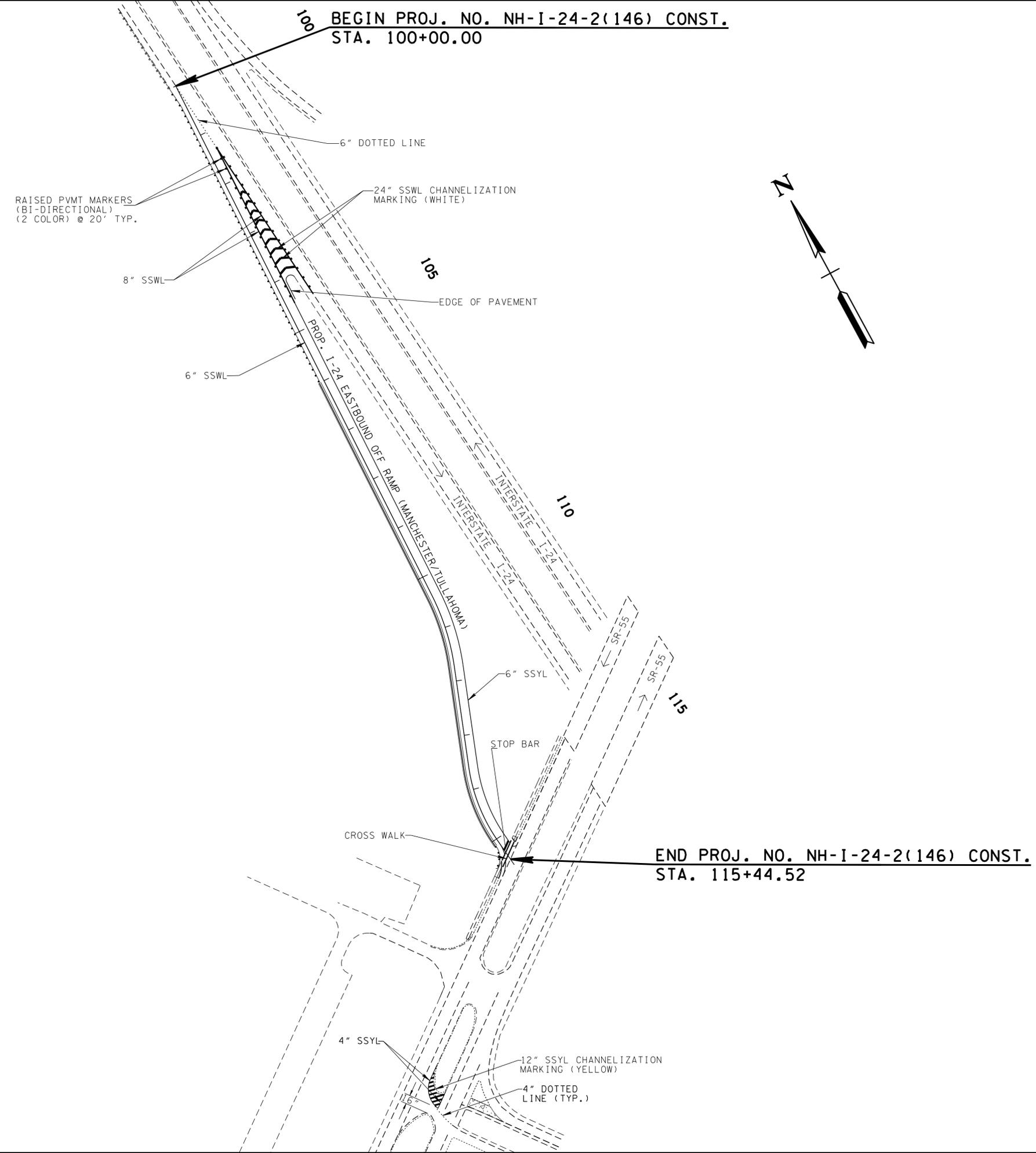


STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN
STA. 100+00 TO STA. 115+44
SCALE: 1"=100'

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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-I-24-2(146)	12



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

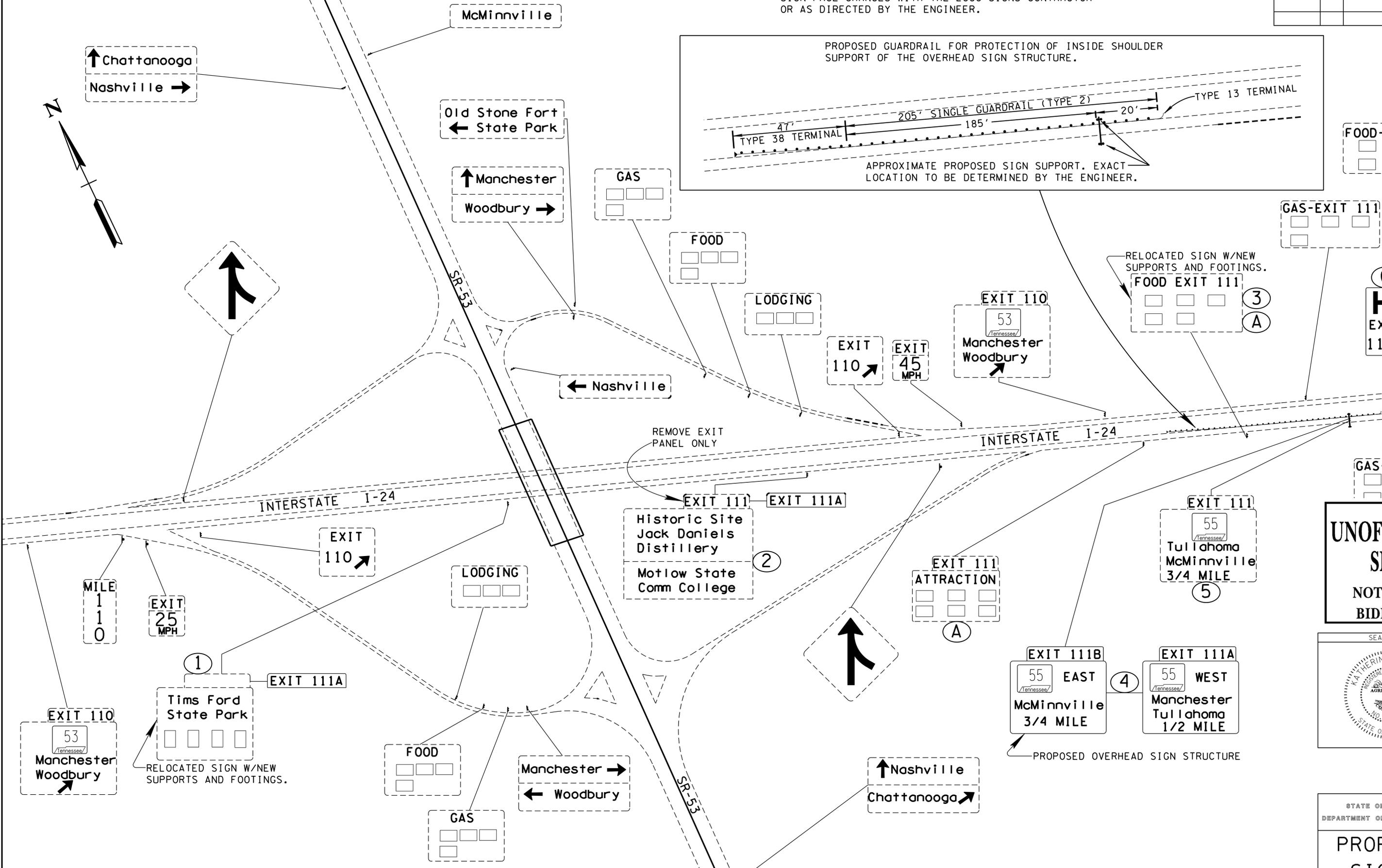
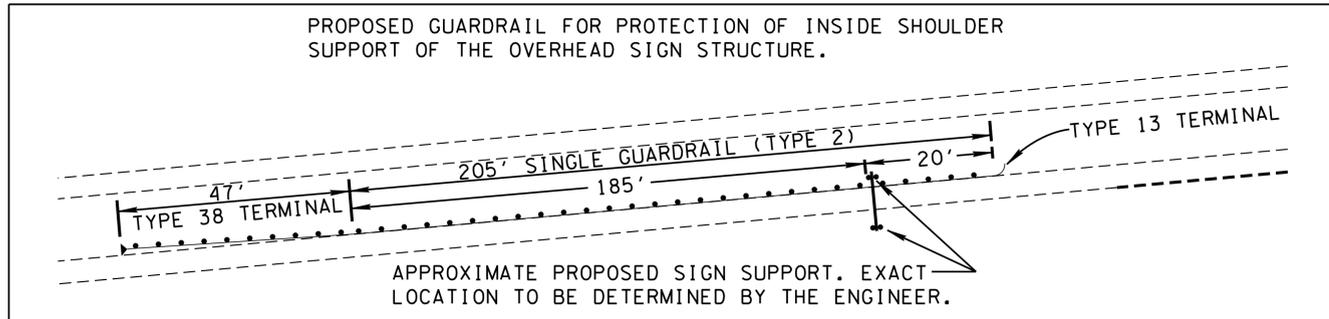
**PAVEMENT
MARKING DETAILS**

STA. 100 +00 TO STA. 115 +44

SCALE: 1"=100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-1-24-2(146)	13

(A) THE CONTRACTOR SHALL CONTACT ERIC JACKSON WITH T.D.O.T. (615-741-0802) TO COORDINATE THE LOGO SIGN FACE CHANGES WITH THE LOGO SIGNS CONTRACTOR OR AS DIRECTED BY THE ENGINEER.



FOOD-EXIT 110

GAS-EXIT 111

(6)
H
 EXIT 111A

RELOCATED SIGN W/NEW SUPPORTS AND FOOTINGS.
 FOOD EXIT 111
 (3)
 (A)

(A)
 GAS-EXIT 111

UNOFFICIAL SET
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SEALED BY

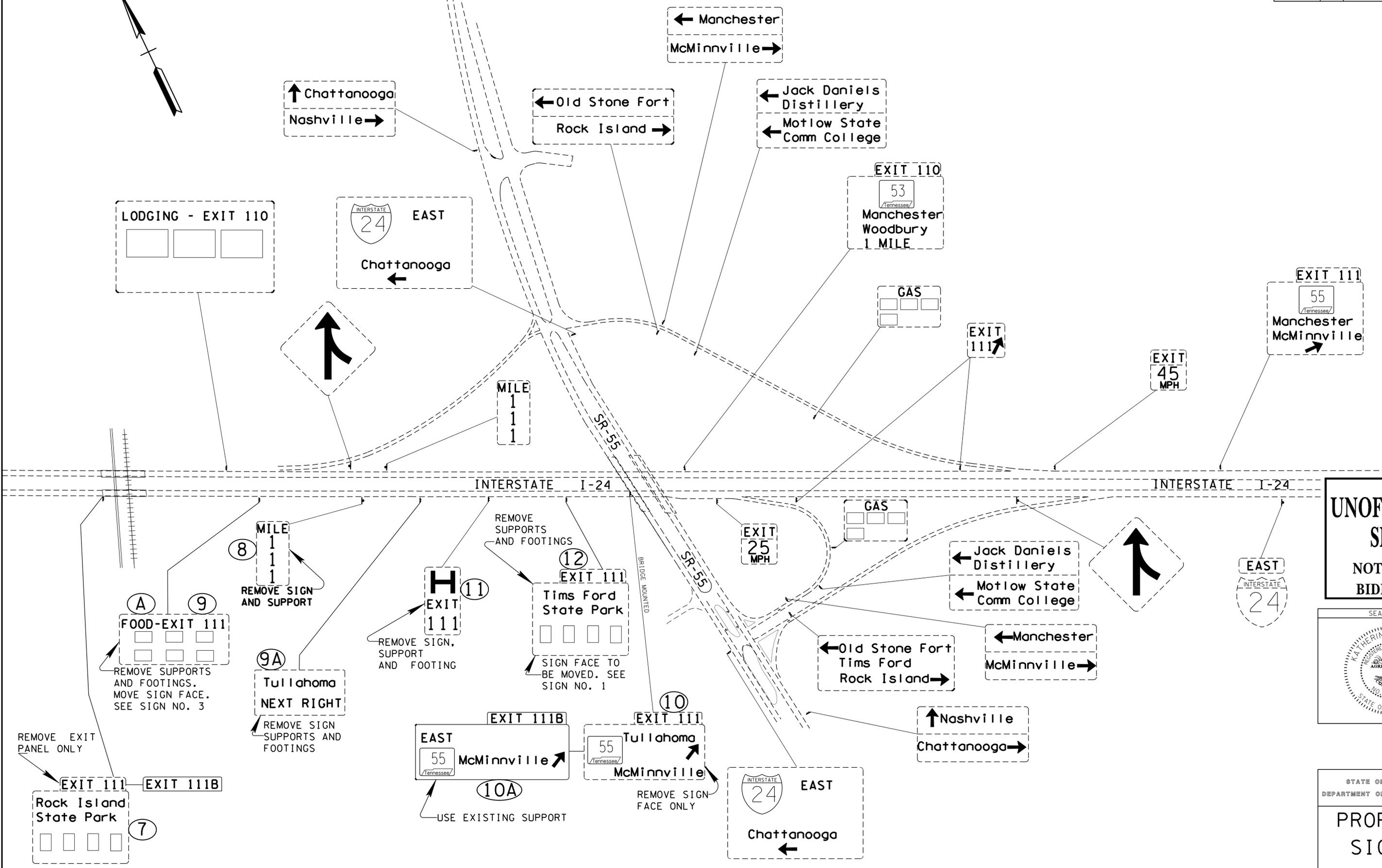
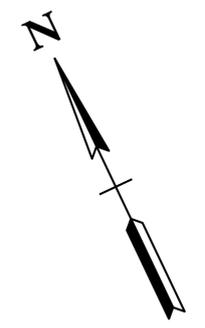
 KATHERINE J. LLOYD
 REGISTERED PROFESSIONAL ENGINEER
 AGRICULTURE
 NO. 106423
 STATE OF TENNESSEE

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
PROPOSED SIGNING
 N.T.S.

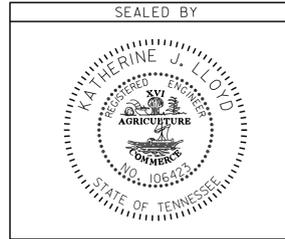
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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-1-24-2(146)	13A

(A) SEE SHEET 13



**UNOFFICIAL SET
NOT FOR BIDDING**



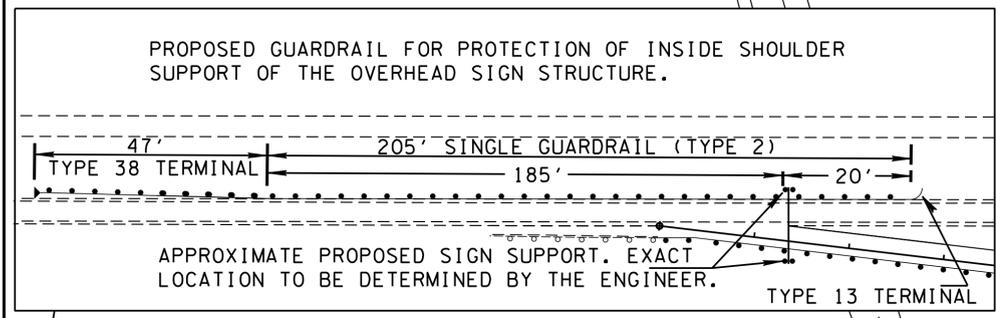
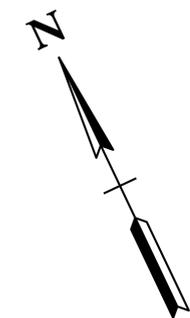
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**PROPOSED SIGNING
N.T.S.**

17-JUN-2015 10:43
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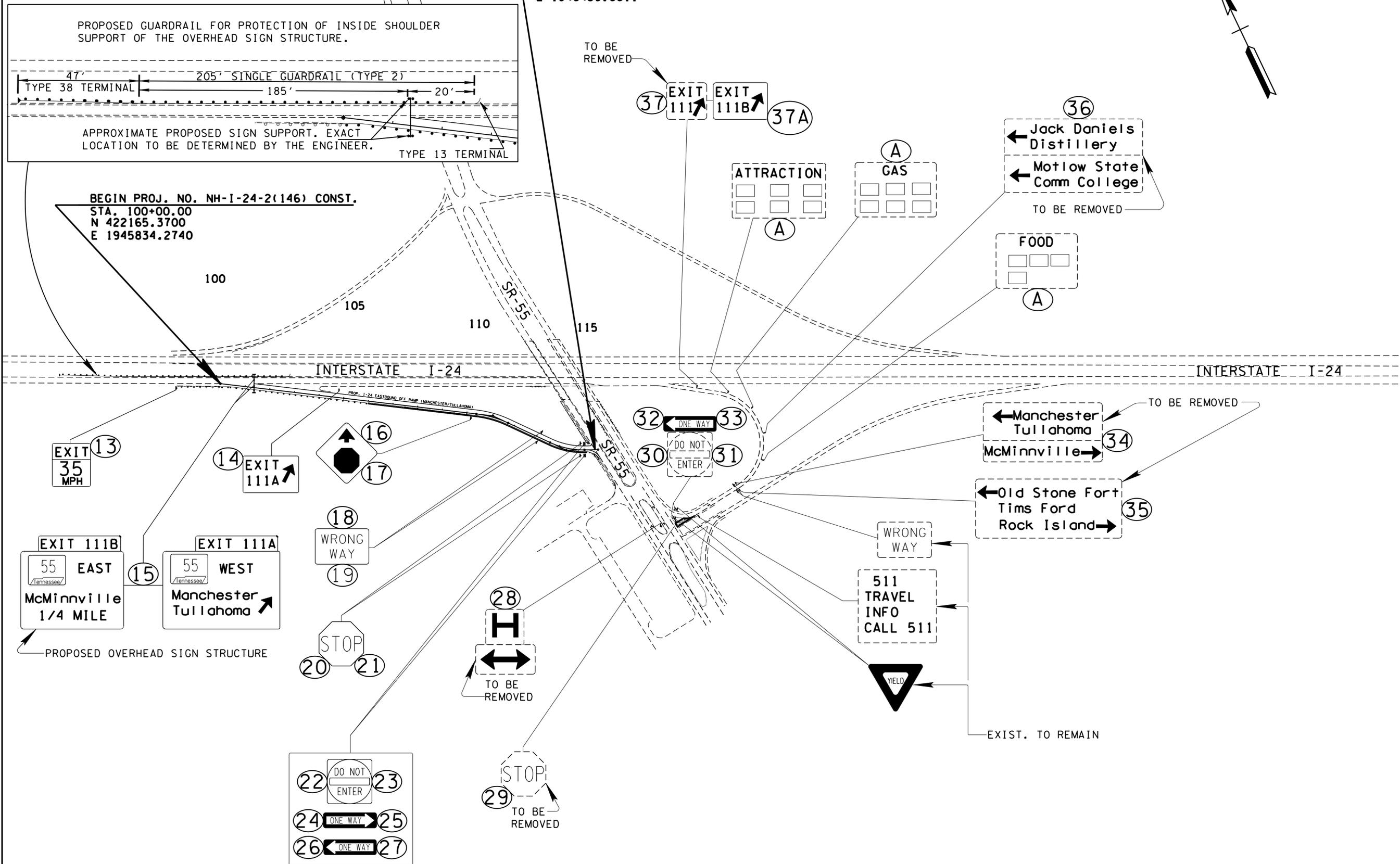
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-1-24-2(146)	138

(A) SEE SHEET 13

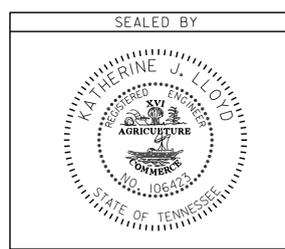


BEGIN PROJ. NO. NH-1-24-2(146) CONST.
 STA. 115+44.52
 N 420757.0039
 E 1946439.6611

BEGIN PROJ. NO. NH-1-24-2(146) CONST.
 STA. 100+00.00
 N 422165.3700
 E 1945834.2740



UNOFFICIAL SET
 NOT FOR BIDDING



STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

PROPOSED SIGNING
 N.T.S.

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONSI...	2015	NH-1-24-2(146)	14

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.																												
8A	D10-3		12"	48"									WHITE (REF.)	GREEN (REF.)	0.080" SHEET ALUMINUM	P2	h=11'-0"					4'-0"																										
20	R1-1		36"	36"									WHITE (REF.)	RED (REF.)	0.080" SHEET ALUMINUM	P5	h=13'-0"					7'-0"																										
21																						7'-0"	MOUNT ON RETAINING WALL ITEM NO. 713-30.09 (3"x3")																									
22	R5-1		36"	36"									WHITE (REF.)	RED (REF.)	0.100" SHEET ALUMINUM	P5	h=14'-0"						7'-0"																									
23		h=14'-0"																																														
30		h=14'-0"																																														
31		h=14'-0"																																														
18	R5-1a		42"	30"									WHITE (REF.)	RED (REF.)	0.100" SHEET ALUMINUM	2 1/2" @ 3.98#/FT.	h=9'-0"	TYPE 4	D=1'-0"	0.12	26.4	4'-0"																										
19																			4'-0"	MOUNT ON RETAINING WALL ITEM NO. 713-30.09 (3"x3")																												
26	R6-1L		54"	18"									BLACK	WHITE (REF.)	BLACK	0.100" SHEET ALUMINUM																																
27																																														MOUNT ABOVE SIGN NO.22		
32																																																MOUNT ABOVE SIGN NO.23
33																																																MOUNT ABOVE SIGN NO.30
24	R6-1R		54"	18"									BLACK	WHITE (REF.)	BLACK	0.100" SHEET ALUMINUM																																
25																																															MOUNT ABOVE SIGN NO.22	
6	TN-33		36"	60"									WHITE (REF.)	BLUE (REF.)	0.100" SHEET ALUMINUM	S3x5.7	h1=15'-3"	h2=15'-9"	TYPE 5	D=1'-3"	0.18	50.1	7'-0"																									
16	W3-1		36"	36"									BLACK	RED (REF.)	YELLOW (REF.)	0.100" SHEET ALUMINUM	2 1/2" @ 3.98#/FT.	h=13'-6"	TYPE 4	D=1'-0"	0.12	26.4	7'-0"																									
17																																								MOUNT ON RETAINING WALL ITEM NO. 713-30.09 (3"x3")								
13	W13-2		48"	60"									BLACK	YELLOW (REF.)	0.100" SHEET ALUMINUM	S3x5.7	h1=15'-3"	h2=15'-9"	TYPE 5	D=1'-3"	0.18	50.1	7'-0"																									
14	E5-1a		9'-0"	5'-0"									WHITE (REF.)	GREEN (REF.)	5-12" ALUMINUM EXTRUSION PANELS	S5x10	h1=15'-3"	h2=15'-3"	TYPE 5	D=1'-3"	0.18	50.1	7'-0"																									
37A	E5-1a		9'-0"	5'-0"									WHITE (REF.)	GREEN (REF.)	5-12" ALUMINUM EXTRUSION PANELS	S5x10	h1=15'-3"	h2=15'-3"	TYPE 5	D=1'-3"	0.18	50.1	7'-0"																									
1	Tims Ford State Park		11'-0"	2'-0"	6" TOP ONLY	2"	10"/15"									2-12" ALUMINUM EXTRUSION PANELS									USE AUXILIARY SUPPORTS ITEM NO. 713-17.02																							
			13'-0"	11'-0"																					USE EXISTING SIGN FACE																							
																										USE EXISTING SUPPORTS																						
7	Rock Island State Park		11'-0"	2'-0"	6" TOP ONLY	2"	10"/15"	15"	EMOD				WHITE (REF.)	GREEN (REF.)	2-12" ALUMINUM EXTRUSION PANELS	W6x15	h1=18'-6"	h2=19'-0"	TYPE 6	E=5'-0"	0.23	63.4	7'-0"																									
			13'-0"	8'-0"																						USE AUXILIARY SUPPORTS ITEM NO. 713-17.02																						

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SIGN SCHEDULE

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONSI...	2015	NH-1-24-2(146)...	14A

SIGN NO	LEGEND	SHEET NO	SIZE				COPY				SHIELD	ARROW	SIGN FACE			STEEL DESIGN (BREAK-AWAY)					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.		MINIMUM VERTICAL CLEARANCE
2			11'-0"	2'-0"	6" TOP ONLY	2"	10"/15"		15"	EMOD		WHITE (REF.)	GREEN (REF.)	2-12" ALUMINUM EXTRUSION PANELS							USE AUXILIARY SUPPORTS ITEM NO. 713-17.02	
			14'-0"	15'-0"																	USE EXISTING SIGN FACE	USE EXISTING SUPPORTS
3			15'-0"	10'-0"																		
10A			11'-0"	2'-0"	6" TOP ONLY	2"	10"/15"		15"			WHITE (REF.)	GREEN (REF.)	2-12" 6-12" ALUMINUM EXTRUSION PANELS								USE AUXILIARY SUPPORTS ITEM NO. 713-17.02
			23'-0"	6'-0"	12"	2"	16"	12"		EMOD	45"x36"	TYPE "C" @ 45°										USE EXISTING BRIDGE MOUNT STRUCTURE
4			11'-0"	2'-0"	6" TOP ONLY	2"	10"/15"		15"			WHITE (REF.)	GREEN (REF.)	2-12" 10-12" ALUMINUM EXTRUSION PANELS								PROPOSED OVERHEAD SIGN STRUCTURE
			16'-0"	10'-0"	12"	2"	16"	12"		EMOD	45"x36"											USE AUXILIARY SUPPORTS ITEM NO. 713-17.02
			11'-0"	2'-0"	6" TOP ONLY	2"	10"/15"		15"			WHITE (REF.)	GREEN (REF.)	2-12" 12-12" ALUMINUM EXTRUSION PANELS								
			15'-0"	12'-0"	12"	2"	16"	12"		EMOD	45"x36"											
15			11'-0"	2'-0"	6" TOP ONLY	2"	10"/15"		15"			WHITE (REF.)	GREEN (REF.)	2-12" 10-12" ALUMINUM EXTRUSION PANELS								PROPOSED OVERHEAD SIGN STRUCTURE
			16'-0"	10'-0"	12"	2"	16"	12"		EMOD	45"x36"											USE AUXILIARY SUPPORTS ITEM NO. 713-17.02
			11'-0"	2'-0"	6" TOP ONLY	2"	10"/15"		15"			WHITE (REF.)	GREEN (REF.)	2-12" 10-12" ALUMINUM EXTRUSION PANELS								
			18'-0"	10'-0"	12"	2"	16"	12"		EMOD	45"x36"	TYPE "C" @ 45°										

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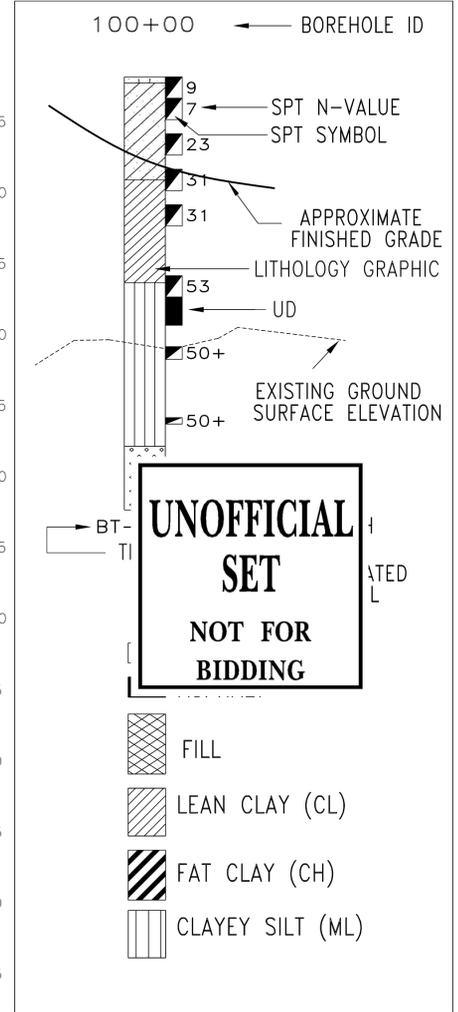
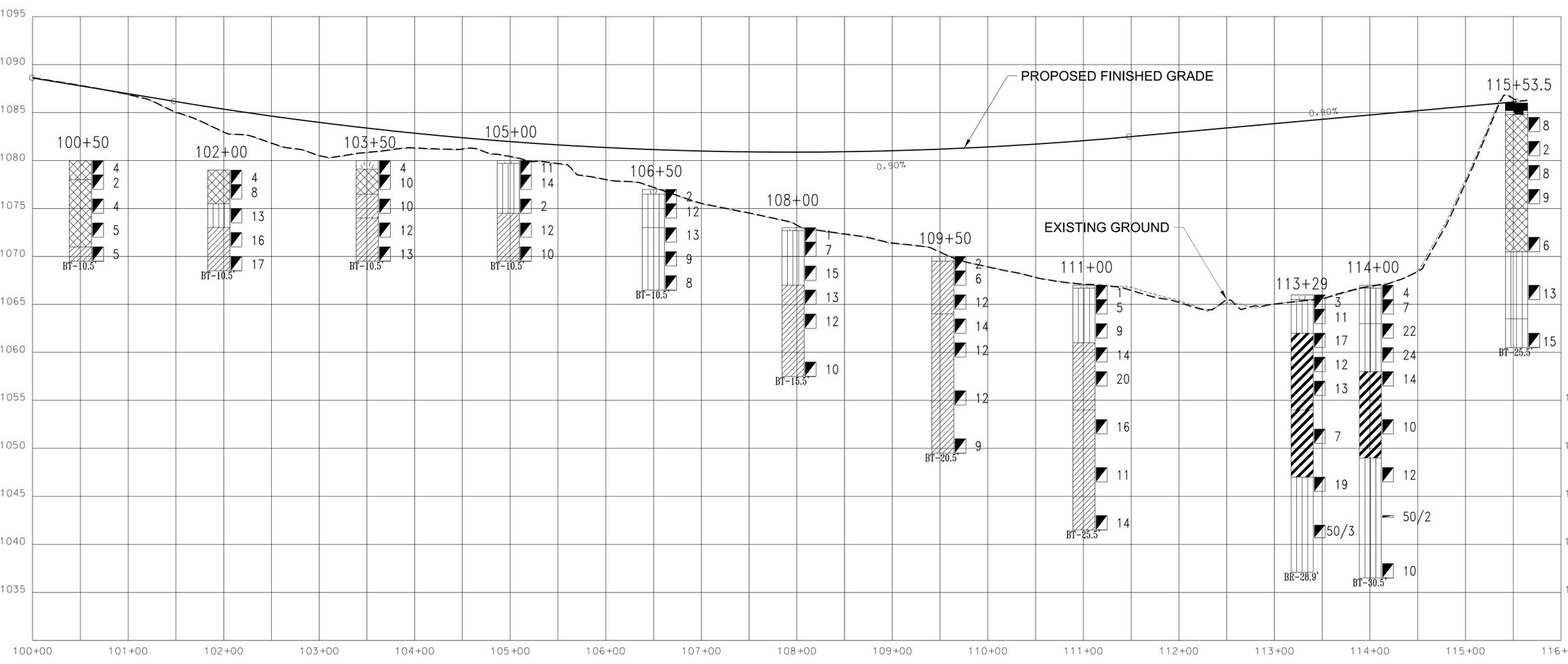
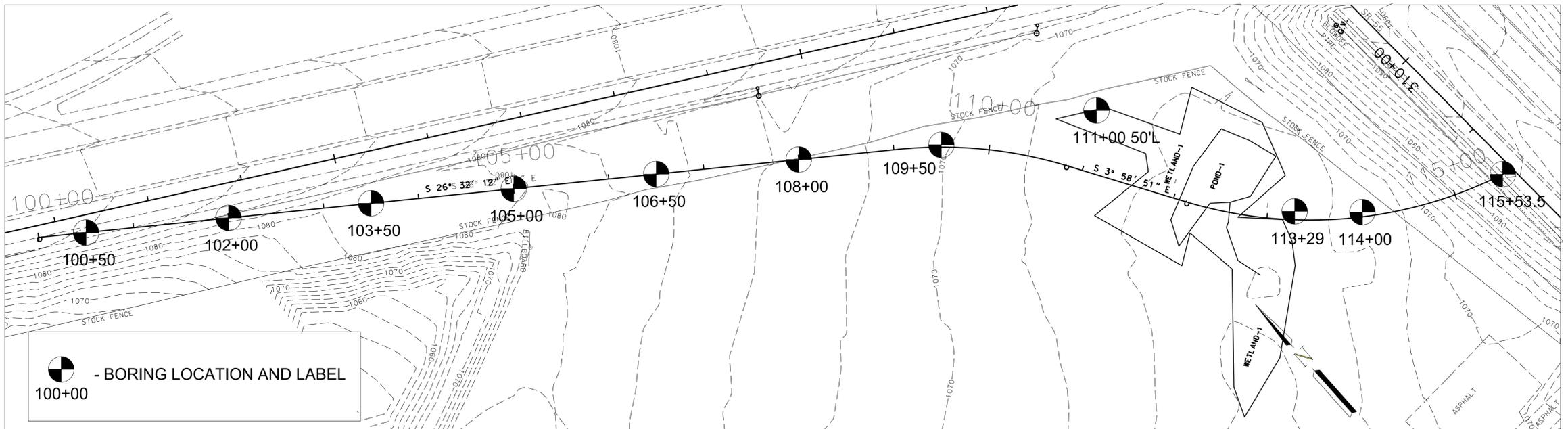
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STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

SIGN SCHEDULE

6/6/2015 11:37:15 AM C:\AD Drive\J005910\Drive1\2\J005910\Drive\Coffee Co\1-24 sr-55 ramp sign schedules.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-I-24-2(146)	15



**UNOFFICIAL SET
NOT FOR BIDDING**

REV	NO.	DATE	BY	CHECKED BY
1	1	5/19/2013	JMH	JMH
2	1	10/9/2013	JMH	JMH
3	1	10/9/2013	JMH	JMH

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

**BORING LOCATION PLAN
AND SOIL PROFILE**
Proposed Ramp
Interstate 24 at State Route 55
Coffee County, Tennessee

STA. 100+00 TO 155+53
VERT SCALE: 1"=6'
HORIZ SCALE: 1"=60'

Soil Descriptions

Spoons/Tubes Data

Sample No.	Station No.	Depth (feet)	Description	In-Situ Moisture (%)	LL	PI	AASHTO Class	USCS Class
1	100+50	0 - 1.5	Brown and yellow-brown silty clay with chert fragments and fine roots (FILL)	15.6				
2		1.5 - 3		26.9				
3		4 - 5.5	Yellow-brown, gray and red-brown silty clay with chert fragments, fine roots to about 4 feet (FILL)	30.3	40	18	A-6	CL
4		6.5 - 8		29.0				
5		9 - 10.5	Brown and gray silty clay with occasional chert fragments, organic odor, water softened	23.2				
1	102+00	0 - 1.5	Yellow-brown and red-brown silty clay with rock fragments (FILL)	26.4				
2		1.5 - 3		27.7				
3		4 - 5.5	Gray and brown clayey silt with fine roots, organic odor, water softened	14.9				
4		6.5 - 8		21.5	45	20	A-7-6	CL
5		9 - 10.5	Red-brown, brown and yellow-brown silty clay	23.3				
UD Tube	102+05	7 - 9	Red-brown, brown and yellow-brown silty clay	21.9				
1	103+50	0 - 1.5	Topsoil (11 inches), underlain by brown and gray clayey silt with fine roots	19.7				
2		1.5 - 3		20.5				
3		4 - 5.5	Brown, red-brown and gray silty clay	24.1				
4		6.5 - 8		25.5				
5		9 - 10.5	Red-brown, yellow-brown and gray silty clay	25.5				
1	105+00	0 - 1.5	Topsoil (4 inches), underlain by brown and gray clayey silt with fine roots	19.0				
2		1.5 - 3		15.5				
3		4 - 5.5		22.5				
4		6.5 - 8	Red-brown, yellow-brown and gray silty clay with occasional chert fragments	24.6				
5		9 - 10.5		25.3				
1	106+50	0 - 1.5	Topsoil (6 inches), underlain by brown and yellow-brown clayey silt, fine roots and organic odor to about 2 feet	30.4				
2		1.5 - 3		16.1				
3		4 - 5.5		22.2				
4		6.5 - 8	Orange-brown, yellow-brown and gray clayey silt	26.1				
5		9 - 10.5		33.6				
1	108+00	0 - 1.5	Topsoil (4 inches), underlain by light brown and gray clayey silt, fine roots and organic odor to about 2 feet	25.7				
2		1.5 - 3		20.0				
3		4 - 5.5	Red-brown, yellow-brown and gray clayey silt with chert sand and chert fragments	22.9				
4		6.5 - 8		32.6				
5		9 - 10.5	Red-brown, gray and yellow-brown silty clay with pockets of clayey silt and occasional chert fragments	35.3				
6		14 - 15.5		36.4				
1	109+50	0 - 1.5	Topsoil (6 inches), underlain by light brown, gray and red-brown clayey silt with occasional chert fragments, fine roots to about 3 feet	26.0				
2		1.5 - 3		20.3	32	13	A-6	CL
3		4 - 5.5		20.9				
4		6.5 - 8		27.6				
5		9 - 10.5	Yellow-brown, red-brown and gray silty clay, chert fragments to about 12 feet	26.4				
6		14 - 15.5		35.7				
7		19 - 20.5		35.7				
UD Tube		2 - 4	Light brown, gray and red-brown silty clay with occasional chert fragments	21.4				
1	111+00	0 - 1.5	Topsoil (4 inches), underlain by gray and brown clayey silt	23.0				
2		1.5 - 3		22.7				
3		4 - 5.5		21.1				
4		6.5 - 8	Red-brown, yellow-brown and gray silty clay with chert	27.0				
5		9 - 10.5		27.3				
6		14 - 15.5	Red-brown, yellow-brown and gray silty clay with chert fragments	28.0				
7		19 - 20.5		30.7				
8		24 - 25.5		34.0				
1	113+29	0 - 1.5	Topsoil (6 inches), underlain by brown and gray clayey silt with fine roots, chert fragments in 4 to 6.5 foot sample	21.6				
2		1.5 - 3		19.2				
3		4 - 5.5		21.4				
4		6.5 - 8	Yellow-brown, red-brown and gray silty clay with occasional chert fragments	26.2	57	31	A-7-6	CH
5		9 - 10.5		29.2				
6		14 - 15.5	Red-brown and yellow-brown clayey silt with chert sand and fragments	27.2	61	36	A-7-6	CH
7		19 - 20.5		9.0				
8		24 - 25.5	Yellow-brown clayey silt with occasional chert fragments	19.3				
UD Tube	113+34	6 - 8	Yellow-brown, red-brown and gray silty clay with occasional chert fragments	32.4				
UD Tube		13 - 15	Red-brown and yellow-brown silty clay	24.8				
1	114+00	0 - 1.5	Topsoil (4 inches), underlain by brown and gray clayey silt with roots and occasional rock fragments, organic odor	21.1				
2		1.5 - 3		20.5				
3		4 - 5.5	Yellow-brown and gray clayey silt with chert fragments	16.7				
4		6.5 - 8		26.6				
5		9 - 10.5	Red-brown and yellow-brown silty clay with chert fragments	28.6				
6		14 - 15.5		31.0	81	50	A-7-5	CH
7		19 - 20.5		21.6				
8		24 - 25.5	Yellow-brown clayey silt, chert fragments and chert sand in 29-30.5 foot sample	13.1				
9		29 - 30.5		21.0				
UD Tube	114+02	10 - 12	Red-brown and yellow-brown silty clay with chert fragments	29.2				
UD Tube		12 - 14		23.1				
1	115+53.5	1.5 - 3		21.1				
2		4 - 5.5	Red-brown and yellow-brown silty clay with chert fragments (FILL)	28.8				
3		6.5 - 8		25.1				
4		9 - 10.5		21.4				
5		14 - 15.5		17.1				
6		19 - 20.5	Brown and yellow-brown clayey silt with occasional chert fragments	22.7				
7		24 - 25.5						

Bulk Sample Data

Sample No.	Description	In Situ Moisture (%)	Maximum Dry Density (pcf)	Optimum Moisture Content (%)	Moisture Range	PL	LL	AASHTO Class	USCS Class
100+50, 0' - 10'	Brown and yellow-brown silty clay with chert fragments		106.2	17.3	15.6 - 30.3	20	38	A-6	CL

CBR Data

CBR No.	Description	In Situ Moisture (%)	Maximum Dry Density (pcf)	Optimum Moisture Content (%)	Moisture Range	PL	LL	AASHTO Class	USCS Class	CBR
100+50, 0' - 10'	Brown and yellow-brown silty clay with chert fragments		106.2	17.3	15.6 - 30.3	20	38	A-6	CL	6.5

SPECIAL NOTES AND SPECIFICATIONS

Site Preparation

1. The existing light pole foundations along the south side of Interstate 24 and the existing sidewalk along the west side of State Route 55 shall be removed or broken up in accordance with Section 202.06 of TDOT Standard Specifications for Road and Bridge Construction, 2006.

2. A wetland and pond area extends from about Station 111+55 to about Station 113+20 along the ramp centerline. The Boring Location Plan on Sheet No. 1 shows the wetland and pond area. Additionally, soft and firm consistency soils were encountered in each of the borings at the ground surface and at various depths below the ground surface. Therefore, subgrade stabilization will be required. The subgrade shall be stabilized prior to fill placement and after completion of stripping and grubbing by constructing a rock pad consisting of a minimum of three feet of graded solid rock. In areas where less than 3 feet of fill placement is required, undercutting will be required to maintain 3 foot rock pad height. Graded solid rock placed below the roadway embankment shall be overlain and underlain by Type IV geotextile (TDOT Item No. 740-10.04). Details showing typical rock pads are shown on Sheets No. 3 and 4. See the Retaining Wall Sheets for subgrade stabilization requirements below the retaining wall.

3. The graded solid rock shall consist of sound, non-degradable rock with a maximum size of 3 feet. At least 50 percent of the rock shall be uniformly distributed between 1 foot and 3 feet in diameter and no greater than 10 percent shall be less than 2 inches in diameter. The material shall be roughly equi-dimensional in shape. Thin, slabby material will not be accepted. The contractor shall be required to process the material with an acceptable mechanical screening process that produces the required gradation, or purchase the material from a TDOT approved quarry. When the material is subjected to five alterations of the sodium sulfate soundness test (AASHTO T 104), the weighted percentage of loss shall be not more than 12. The material shall be approved by the engineer before use.

Groundwater

4. During periods of heavy rain, perched groundwater conditions may occur at this site. If groundwater is encountered, the contractor shall provide adequate dewatering to maintain the groundwater level below the bottom of excavations, except when the excavation is in rock. Pumping from sumps constructed outside the excavation should be effective in dewatering the soils encountered in our exploration. Water from the pumps shall be discharged beyond the construction boundaries to limit its effect on construction activities.

Slopes

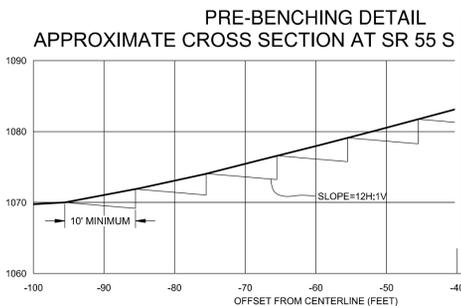
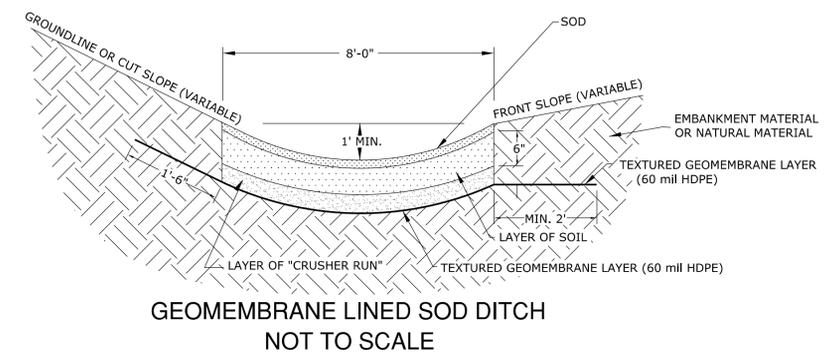
5. Compacted fill slopes shall have a maximum slope inclination of 2 horizontal to 1 vertical (2H:1V).

6. A geomembrane (60 MIL) lined sod ditch (TDOT Item No. 740-06.01) as depicted on this sheet shall be constructed at the top of each slope a maximum of 10 feet away from the slope crest. The ditch shall be sloped to allow gravity drainage.

7. As specified in Section 205.03, paragraph 6 of TDOT Standard Specifications for Road and Bridge Construction, 2006, benches shall be cut into the sides of existing hillsides and slopes inclined at 4H:1V or steeper where fills are to be constructed. These benches shall be at least 10 feet wide and shall be sloped down toward the existing slope face. A typical benching detail is depicted on this sheet.

8. Vegetation shall be established as quickly as possible on slopes to prevent erosion. Erosion control measures shall be constructed in accordance with TDOT Guidelines.

9. Should shallow slides or slumps occur, they shall be repaired promptly to prevent further slope erosion. Repair can typically be accomplished by removing the slide material, excavating a bench within the failure zone, and backfilling the failure zone with Class A-3 machined rip-rap.



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SET
NOT FOR
BIDDING

SAME PROJECT NO. BASE INFO BY:	DRAWN BY:
1811-13-074	JLN
REVISION NO. DATE:	CHECKED BY:
INITIAL	JMH
10/9/2013	
REVISION NO. DATE:	CHECKED BY:
REVISION NO. DATE:	CHECKED BY:

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

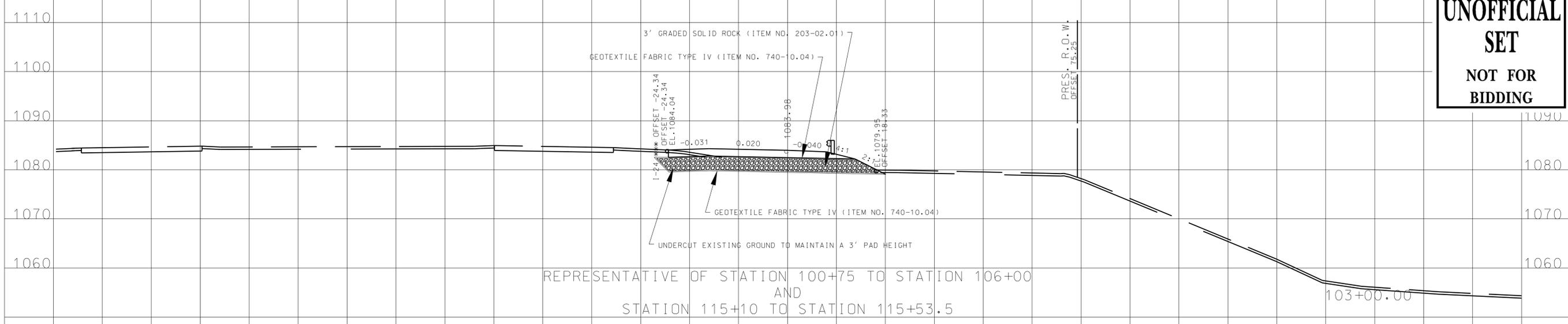
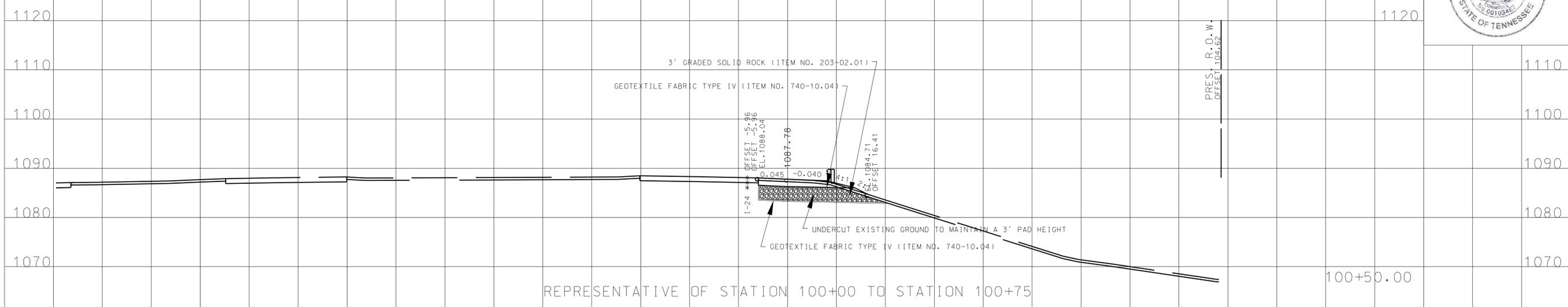
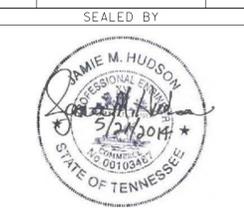
SOIL DESCRIPTIONS

Proposed Ramp
Interstate 24 at State Route 55
Coffee County, Tennessee



TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-I-24-2(146)	15A

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-1-24-2(146)	15B

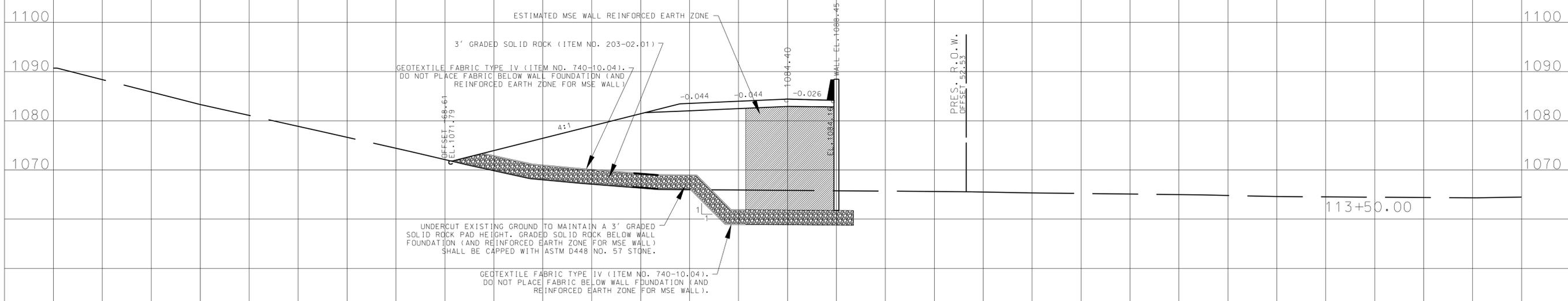


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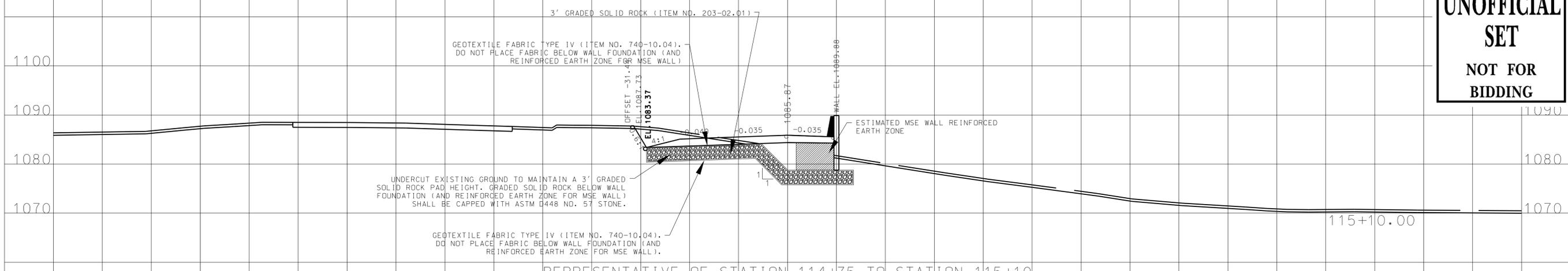
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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	NH-1-24-2(146)	15C

NOTE: SEE THE RETAINING WALL SHEETS FOR DETAILS REGARDING FOUNDATION EMBEDMENT AND SUBGRADE STABILIZATION REQUIREMENTS BELOW THE RETAINING WALL.



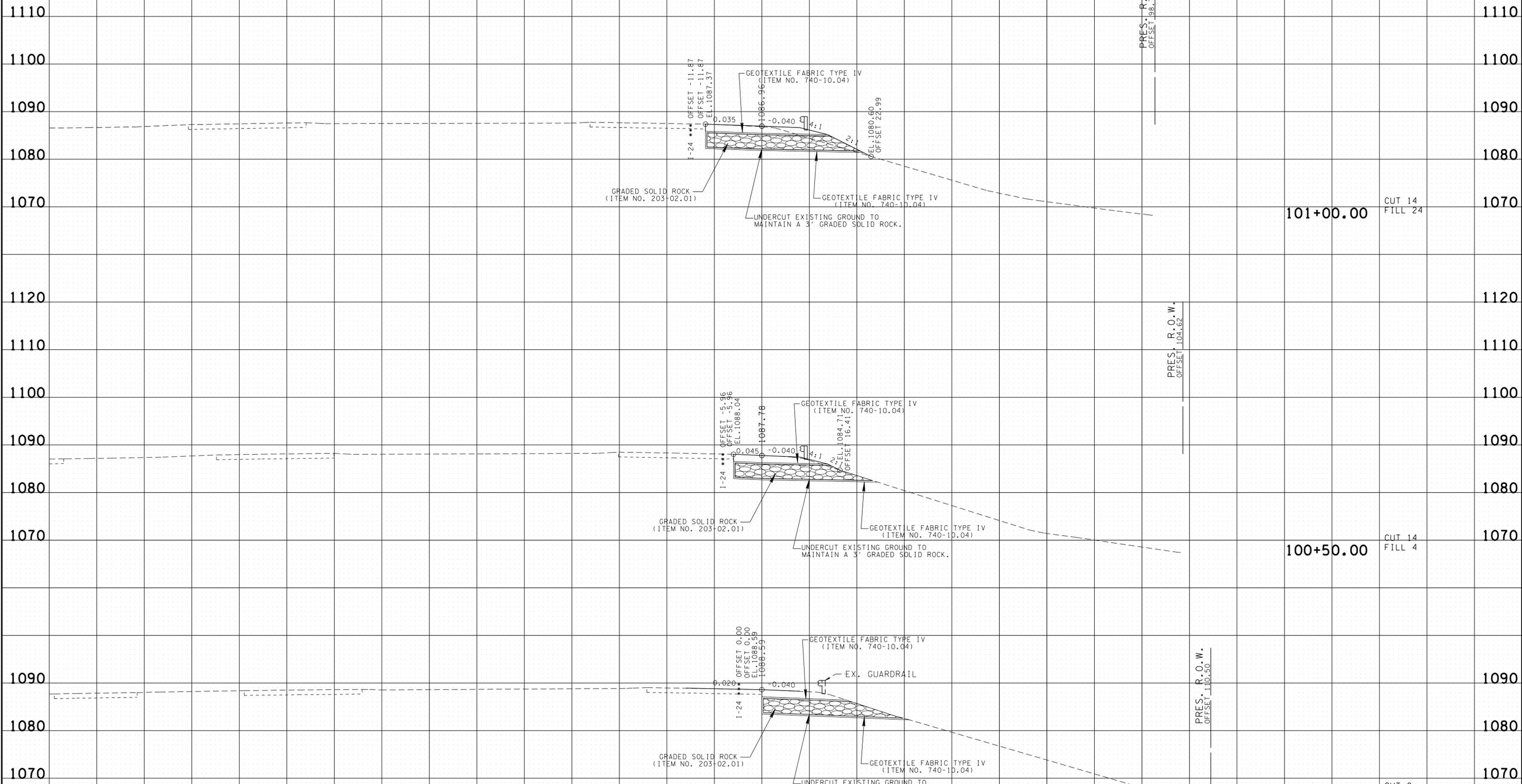
REPRESENTATIVE OF STATION 106+00 TO STATION 114+75



REPRESENTATIVE OF STATION 114+75 TO STATION 115+10

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NOT FOR
BIDDING**

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



PRES. R.O.W.
OFFSET 198.19

PRES. R.O.W.
OFFSET 104.62

PRES. R.O.W.
OFFSET 110.50

101+00.00
CUT 14
FILL 24

100+50.00
CUT 14
FILL 4

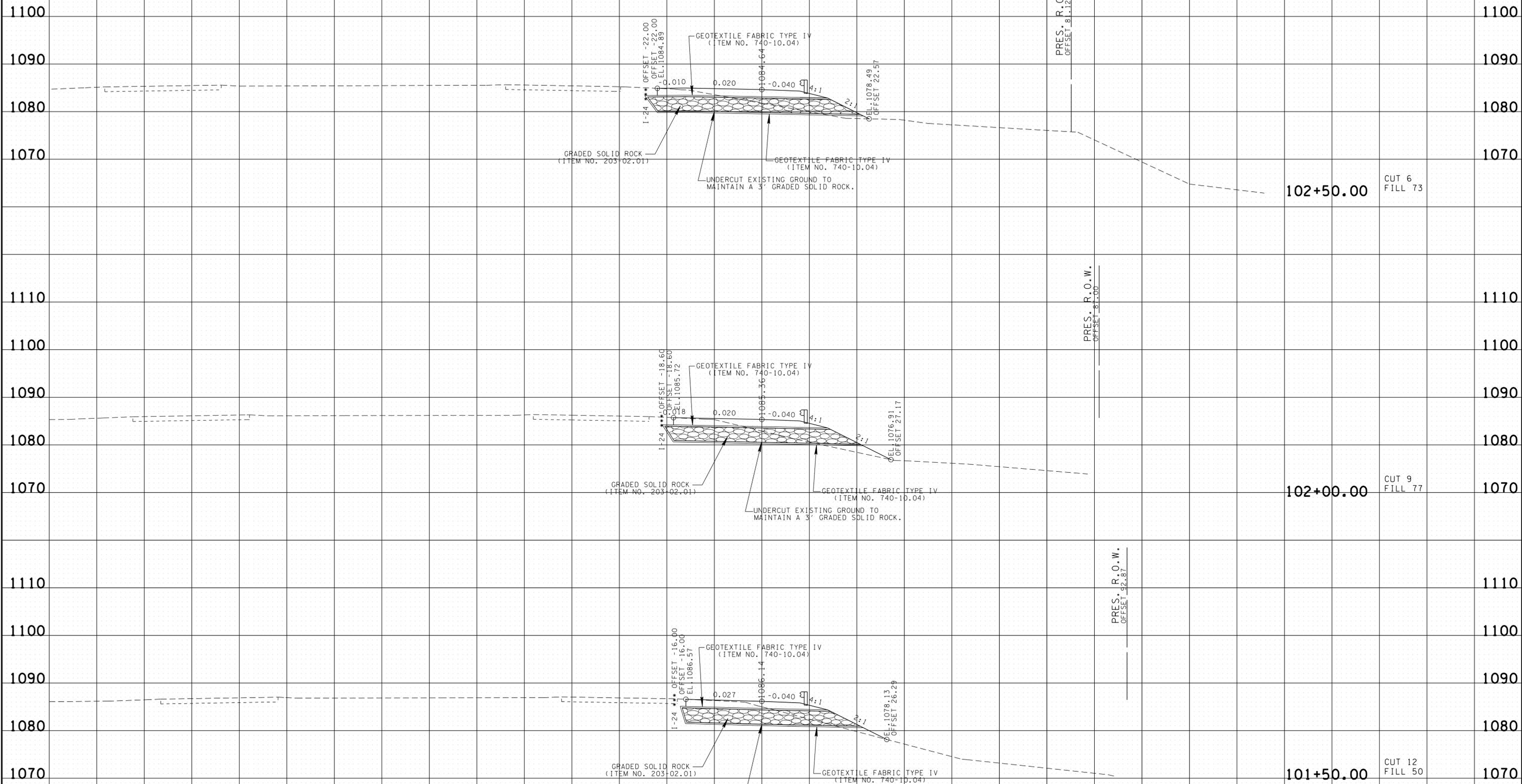
100+00.00
CUT 0
FILL 0

I-24 EASTBOUND OFF RAMP (MANCHESTER/TULLAHOMA)

BEGIN STA. 100+00.00
END STA. 101+00.00

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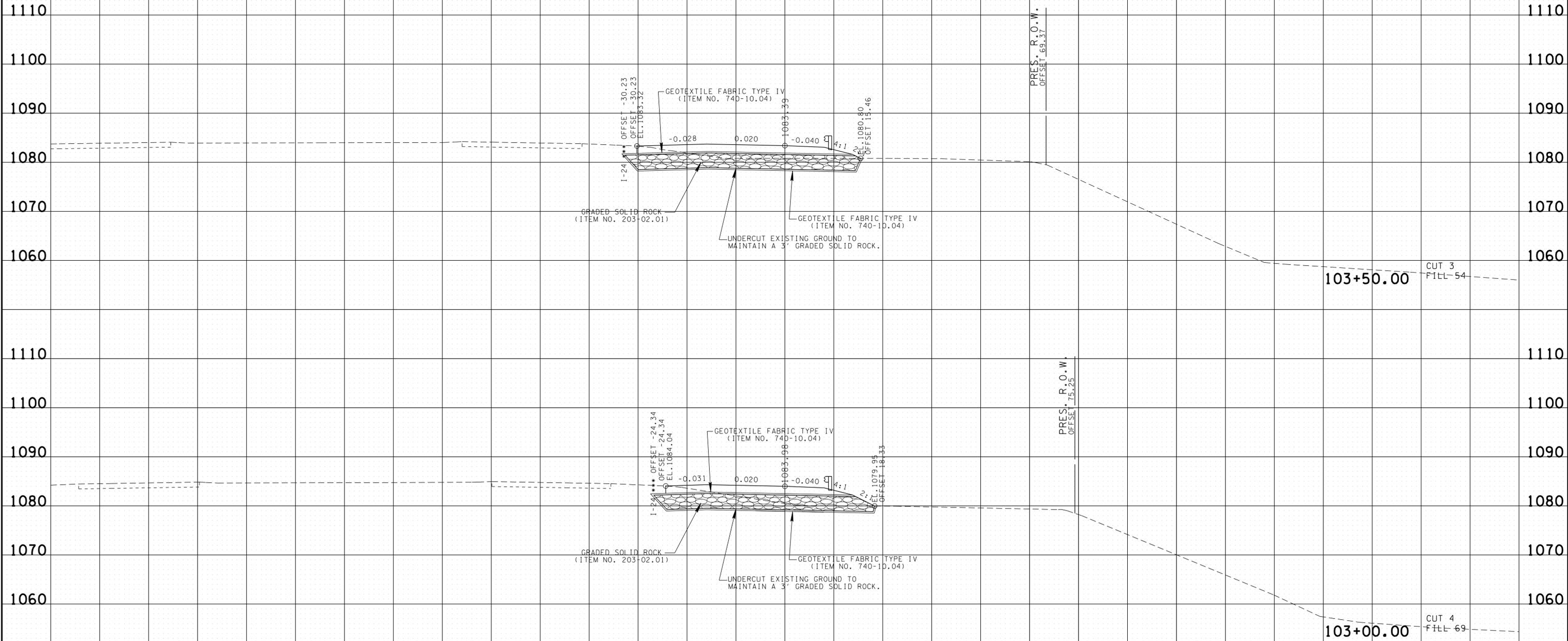
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BEGIN STA. 101+50.00
END STA. 102+50.00

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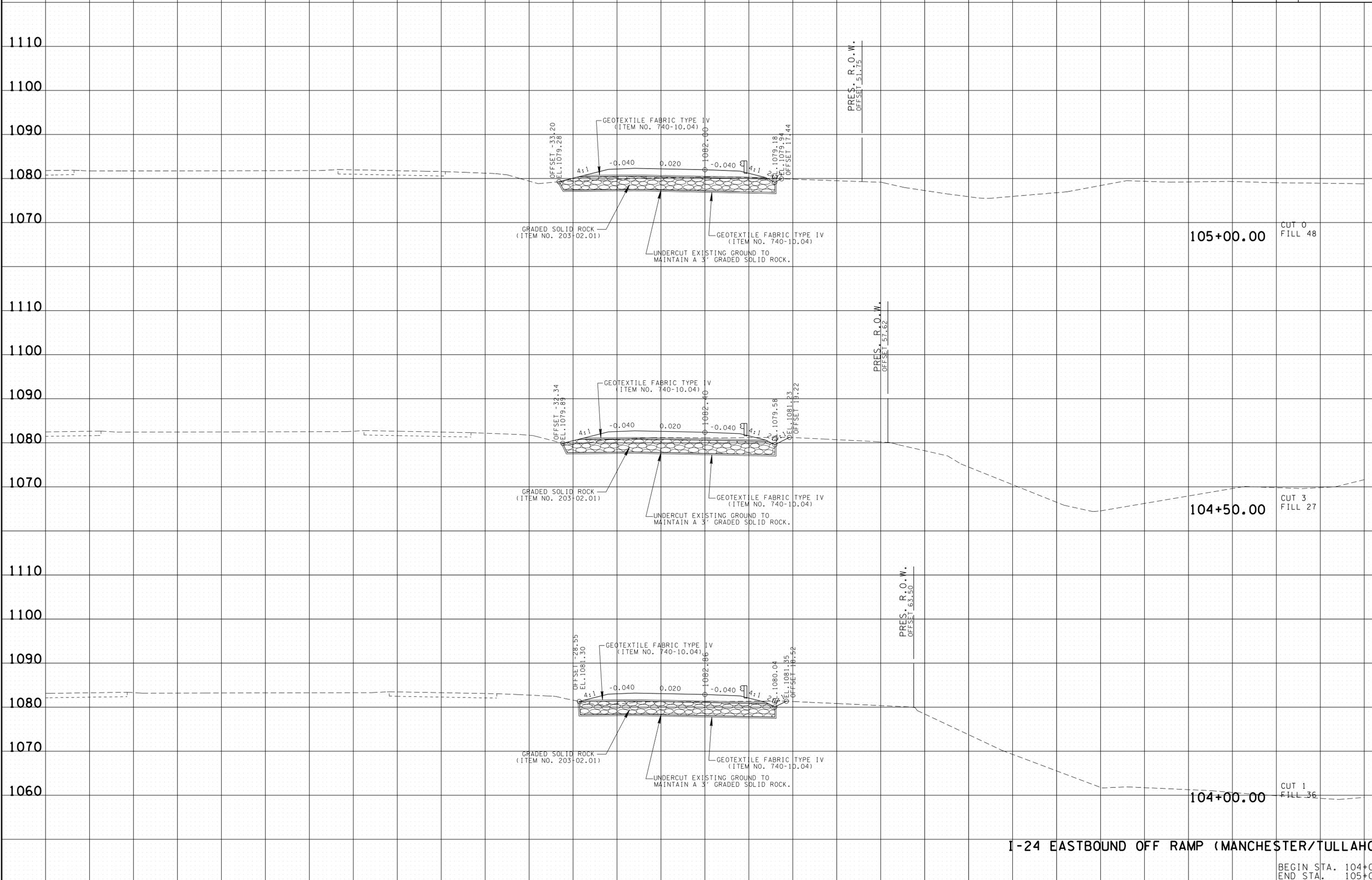


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I-24 EASTBOUND OFF RAMP (MANCHESTER/TULLAHOMA)

BEGIN STA. 103+00.00
 END STA. 103+50.00

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



CUT 0
FILL 48

CUT 3
FILL 27

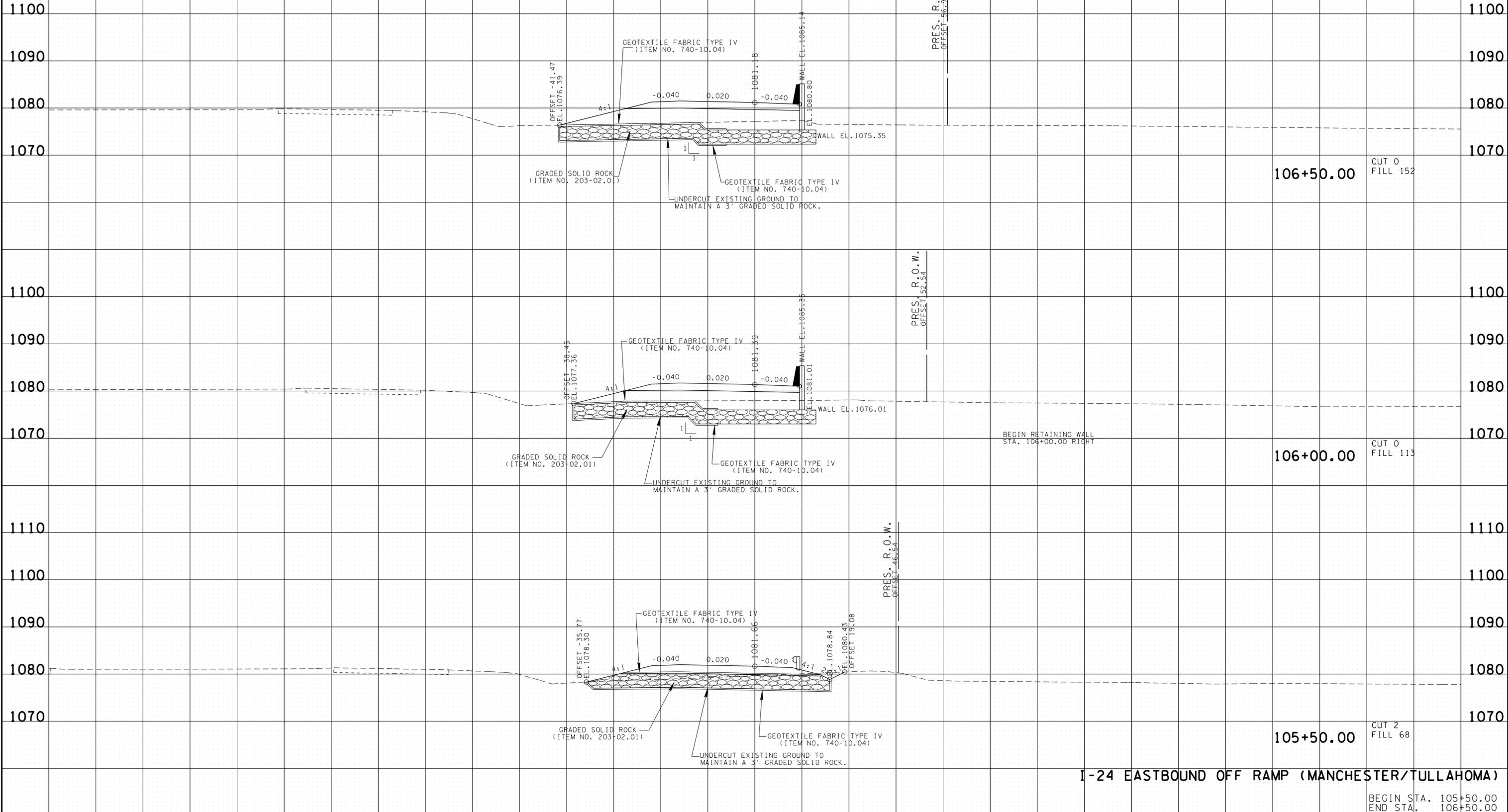
CUT 1
FILL 36

I-24 EASTBOUND OFF RAMP (MANCHESTER/TULLAHOMA)

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END STA. 105+00.00

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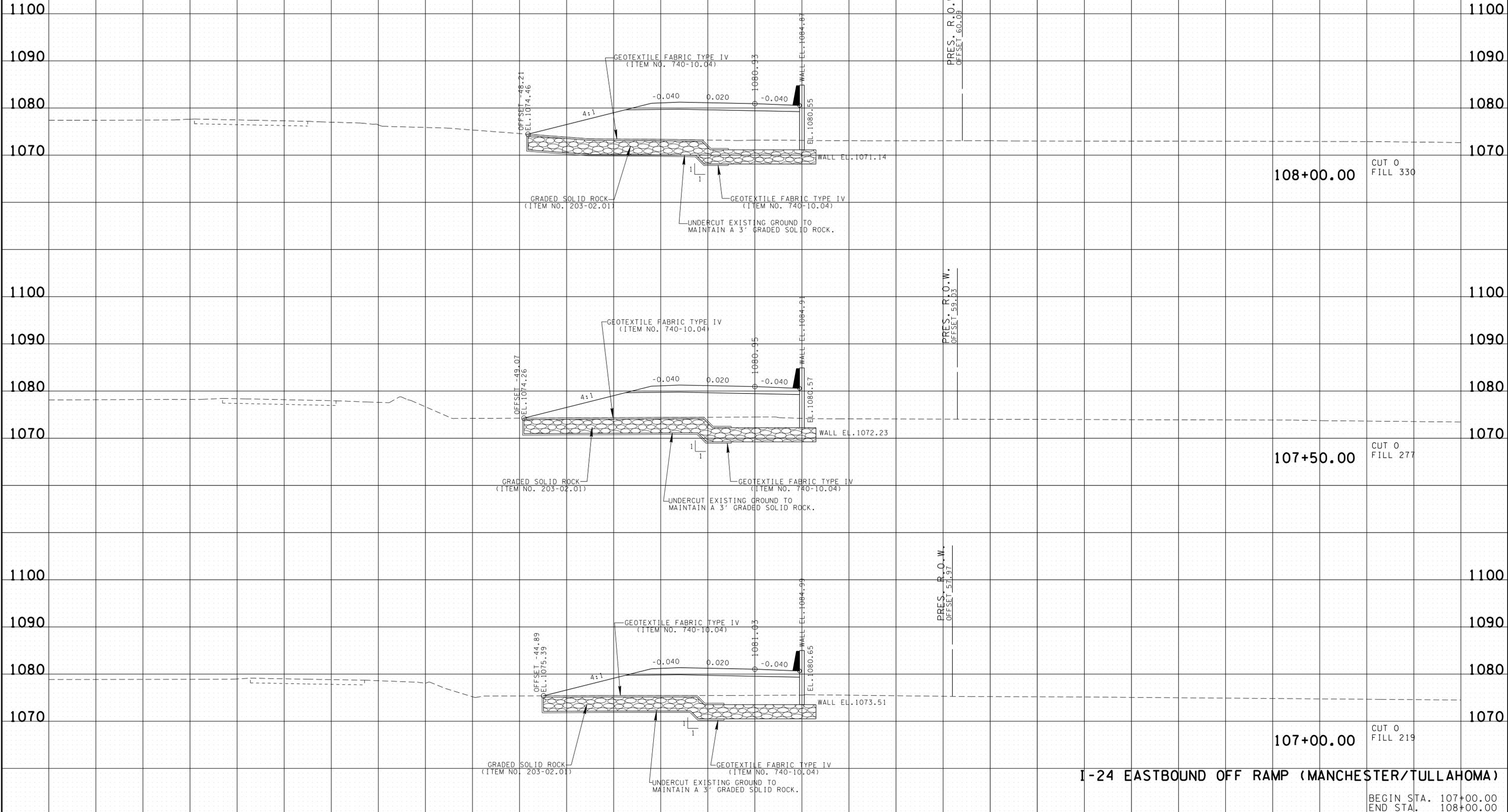
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R.O.W.	2015	NH-I-24-2(146)	20



I-24 EASTBOUND OFF RAMP (MANCHESTER/TULLAHOMA)

BEGIN STA. 105+50.00
END STA. 106+50.00

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108+00.00 CUT 0 FILL 330

107+50.00 CUT 0 FILL 277

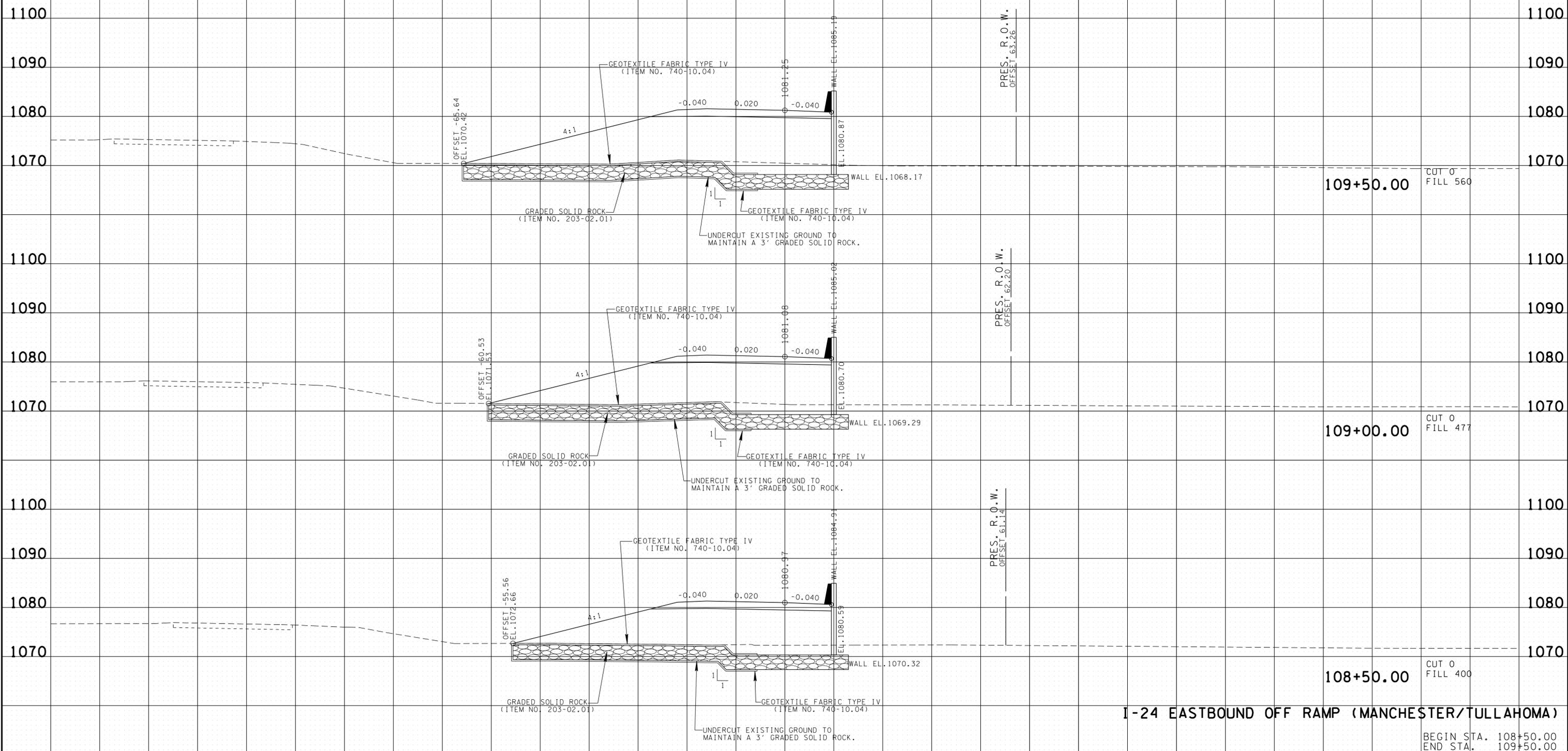
107+00.00 CUT 0 FILL 219

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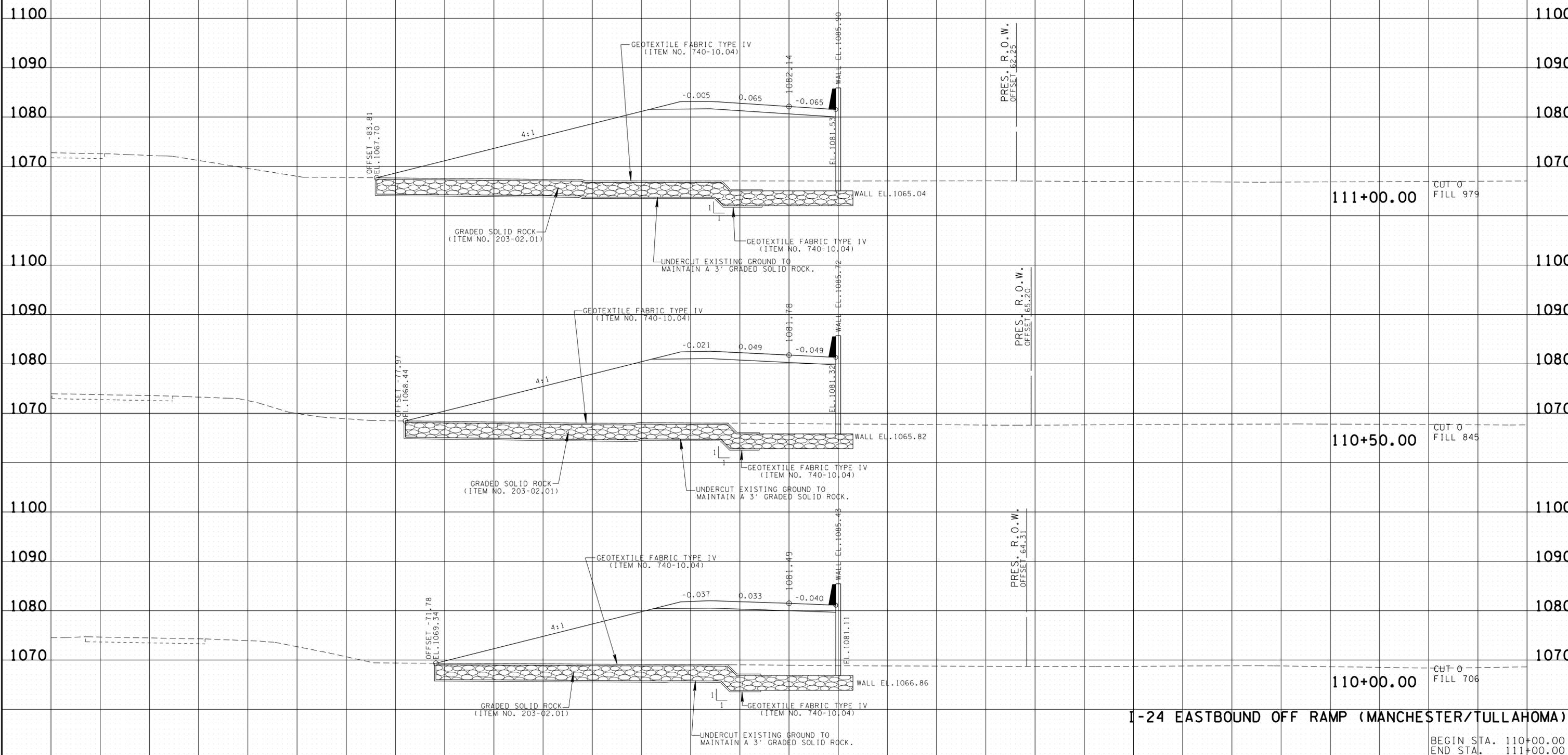
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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2015	NH-I-24-2(146)	23



I-24 EASTBOUND OFF RAMP (MANCHESTER/TULLAHOMA)

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END STA. 111+00.00

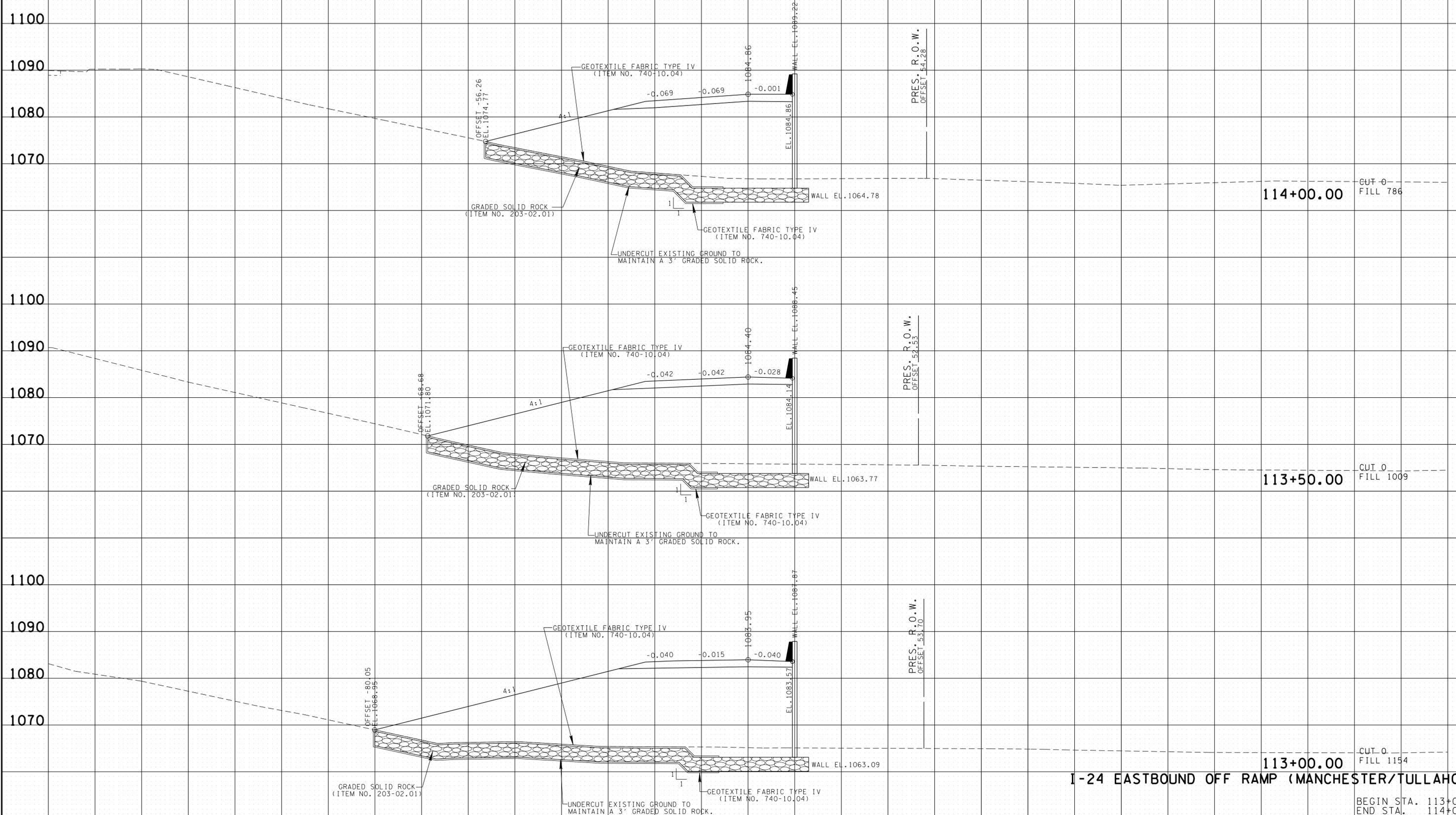
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BEGIN STA. 111+50.00
END STA. 112+50.00

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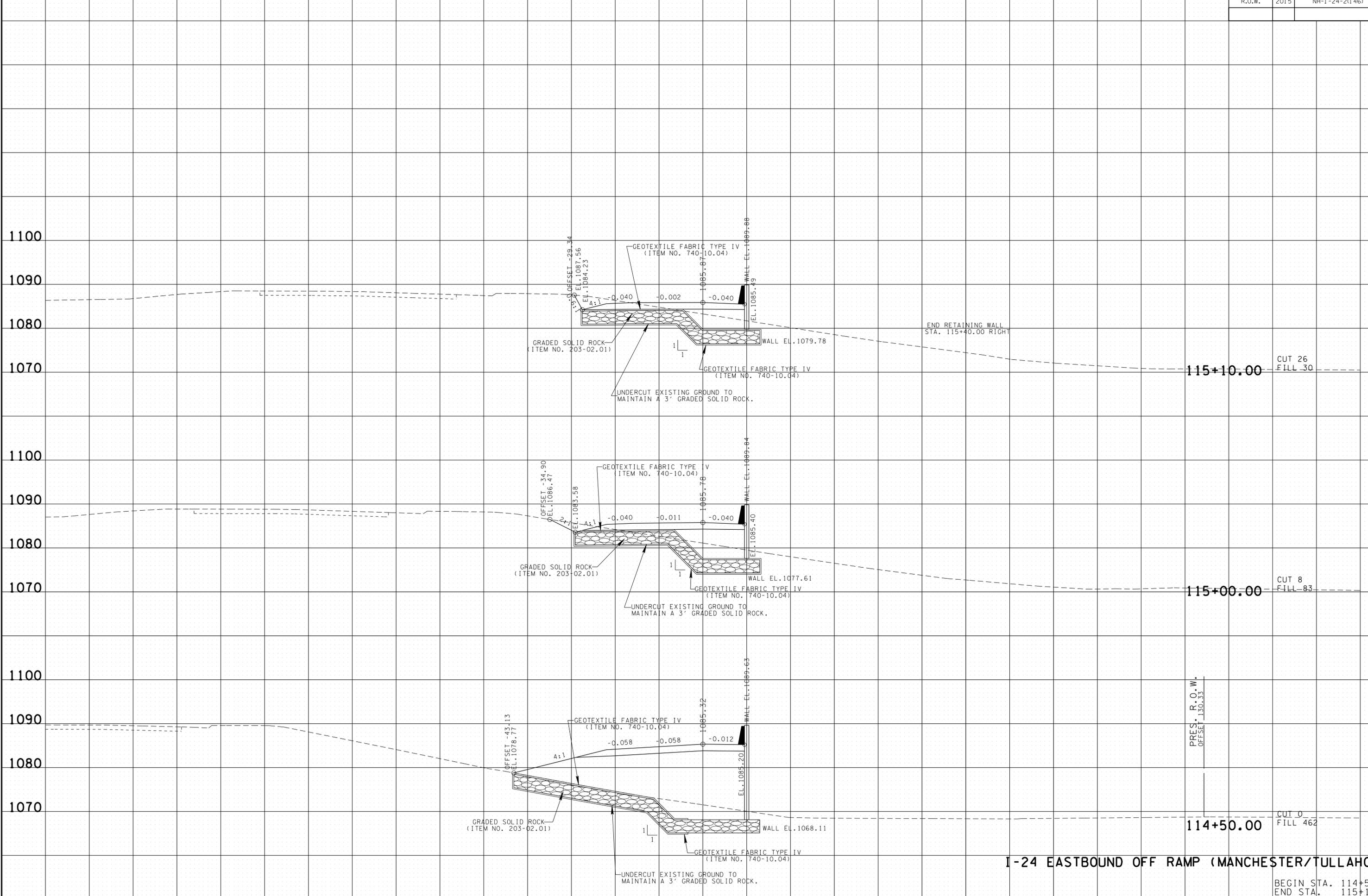


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BEGIN STA. 113+00.00
END STA. 114+00.00

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2015	NH-1-24-2(146)	26



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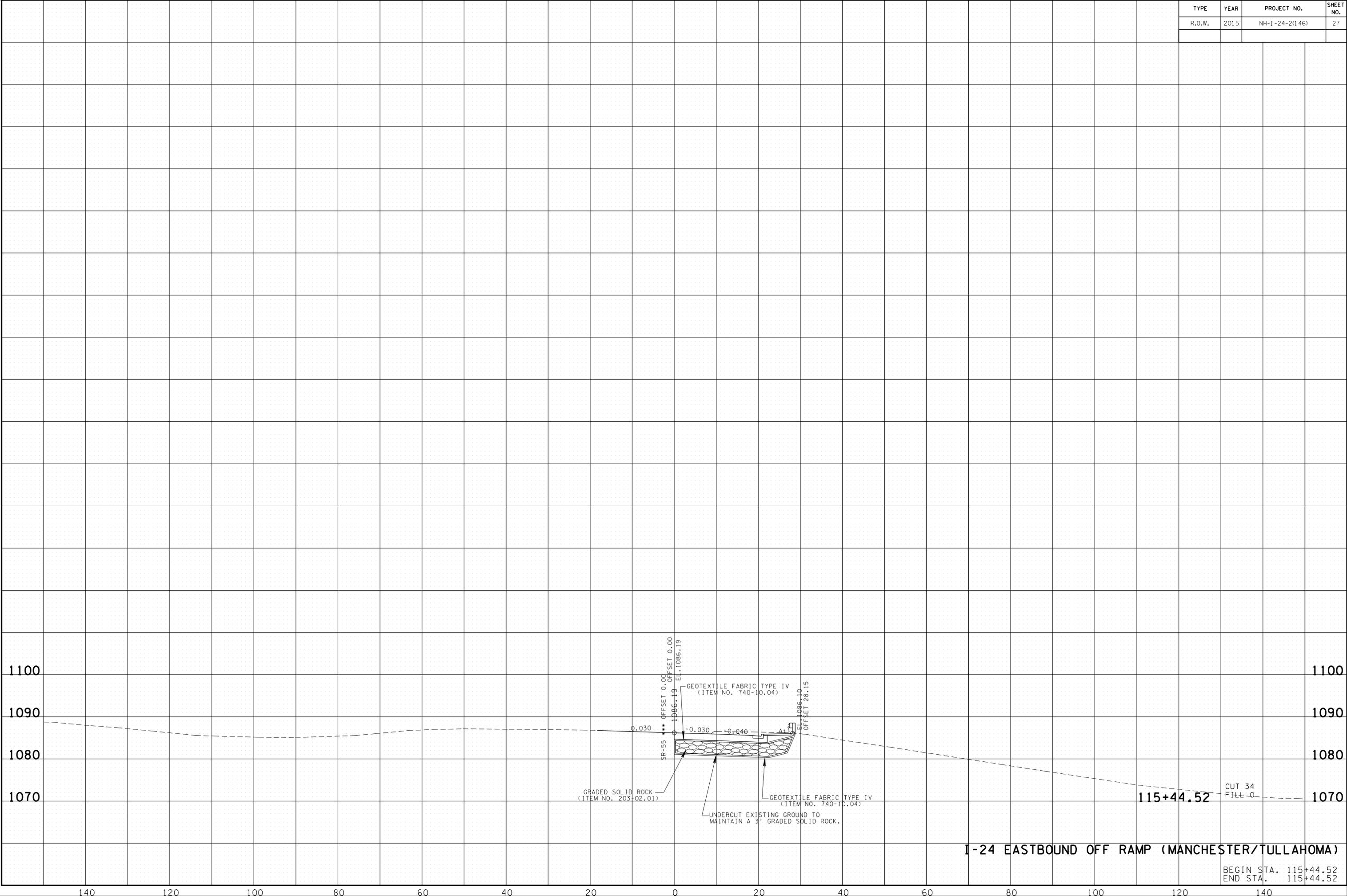
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END STA. 115+10.00

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TYPE	YEAR	PROJECT NO.	SHEET NO.
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0.030
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 1086.19
 EL. 1086.19
 GEOTEXTILE FABRIC TYPE IV
 (ITEM NO. 740-10.04)
 0.030
 0.040
 4:1
 1086.10
 OFFSET 28.15
 SR-55
 GRADED SOLID ROCK
 (ITEM NO. 203-02.01)
 UNDERCUT EXISTING GROUND TO
 MAINTAIN A 3' GRADED SOLID ROCK.
 GEOTEXTILE FABRIC TYPE IV
 (ITEM NO. 740-10.04)

I-24 EASTBOUND OFF RAMP (MANCHESTER/TULLAHOMA)

BEGIN STA. 115+44.52
 END STA. 115+44.52

115+44.52

CUT 34
FILL 0

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