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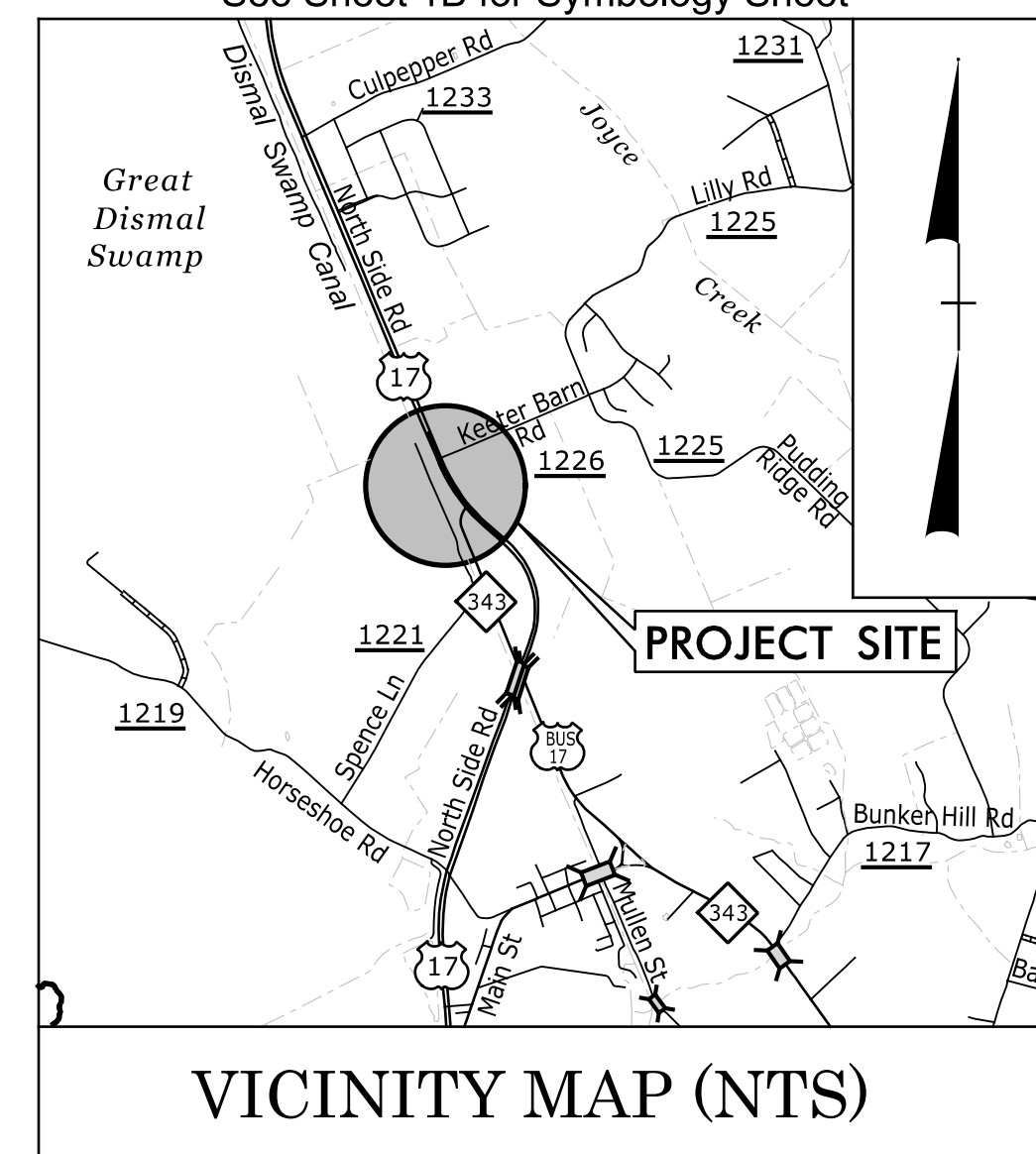
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TIP PROJECT: HS-2401A

CONTRACT: DA00648

See Sheet 1A For Index of Sheets
See Sheet 1B for Symbology Sheet



VICINITY MAP (NTS)

FINAL PLAN SET
1/22/2026

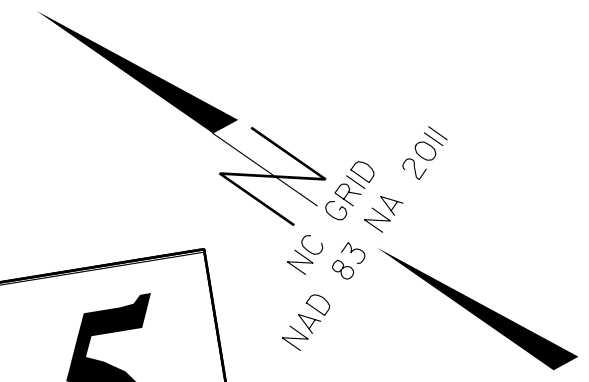
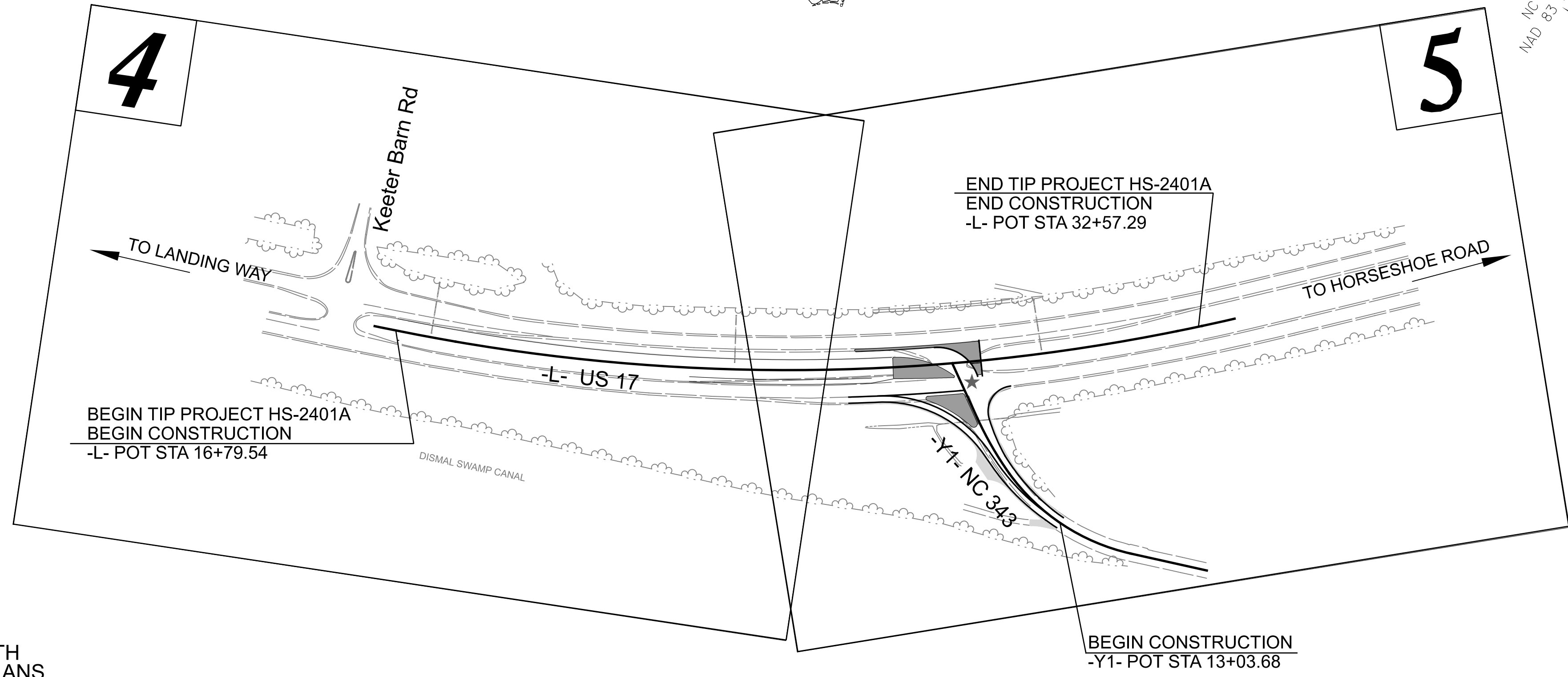
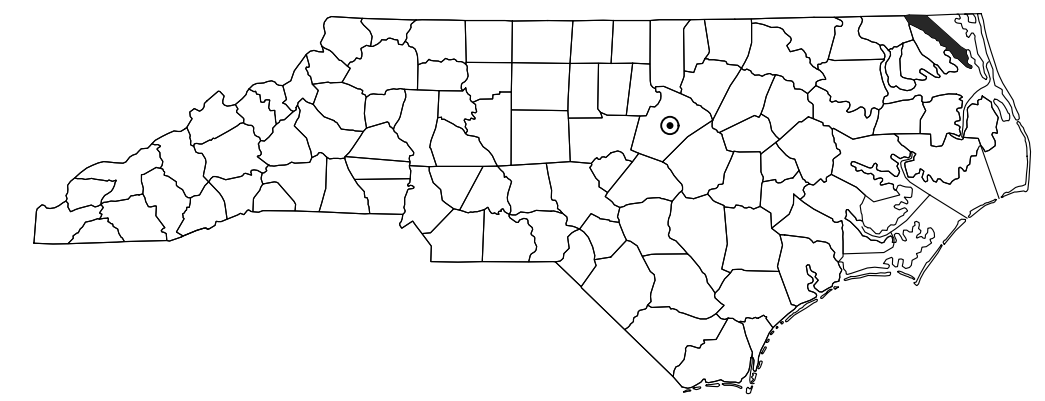
STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

CAMDEN COUNTY

LOCATION: *INTERSECTION OF US 17 & US 17 BUSINESS / NC 343*

TYPE OF WORK: *WIDENING, GRADING, PAVING. DRAINAGE.
SIGNING AND SIGNALS*

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	HS-2401A	11	24
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
50973.1.2	5097313	PE	
50973.3.2	5097313	CONST	

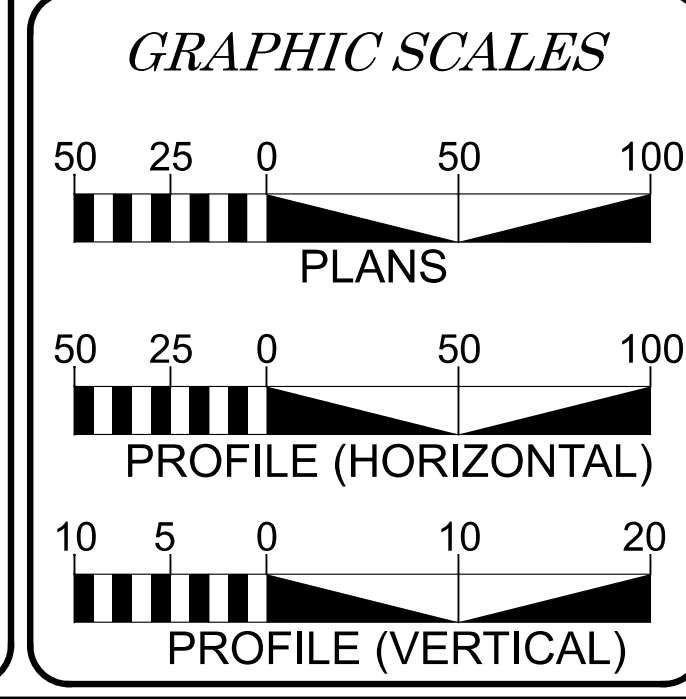


NCDOT CONTACT:
JUSTIN R. SMITH, PE
PROJECT ENGINEER - DIVISION 1
(252) 482-1879

NOTES:
PROJECT IS NOT WITHIN MUNICIPAL LIMITS

THIS IS A PARTIAL CONTROLLED ACCESS PROJECT WITH
ACCESS BEING LIMITED TO POINTS SHOWN ON THE PLANS

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



DESIGN DATA

ADT 2025 = 18500 (LET YEAR)
ADT 2045 = 38500 (DESIGN YEAR)

K = N/A
D = N/A
T = N/A
V = 65 MPH
TTST = N/A

FUNC CLASS = PRINCIPAL ARTERIAL

PROJECT LENGTH

TOTAL LENGTH OF TIP PROJECT HS-2401A = 0.299 MILES

PREPARED IN THE OFFICE OF:

AMERICAN Engineering
11525 N. Community House Road | Suite 325
Charlotte, NC 28277 | 704.375.2438 NC LIC. NO. C-3881

2024 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
N/A

LETTING DATE:
May 20, 2026

ALLISON C. JOHNSON, PE
PROJECT ENGINEER

KRISTOPHER B. ROBERTS, PE
PROJECT DESIGN ENGINEER

JUSTIN R. SMITH, PE
NCDOT CONTACT

HYDRAULICS ENGINEER

4/10/2026

DocuSigned by:
Benjamin C. Pickering
SIGNATURE

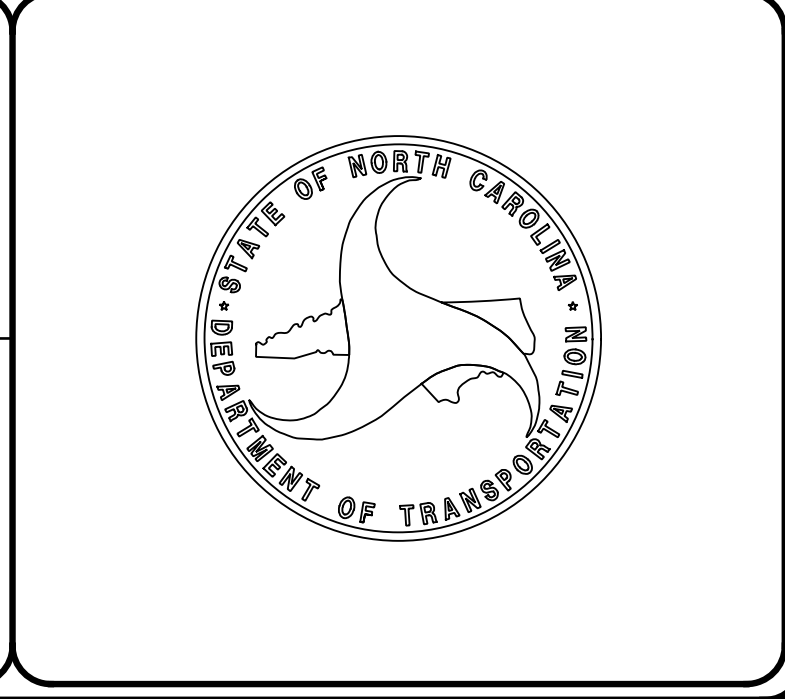
P.E.

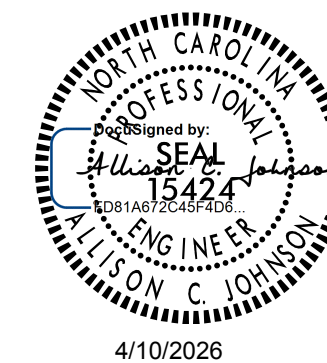
ROADWAY DESIGN ENGINEER

4/10/2026

DocuSigned by:
Allison C. Johnson
SIGNATURE

P.E.





INDEX OF SHEETS

SHEET NUMBER	SHEET
1	TITLE SHEET
1A	INDEX OF SHEETS, GENERAL NOTES, AND STANDARD DRAWINGS
1B	CONVENTIONAL SYMBOLS
2A-1 THRU 2A-2	PAVEMENT SCHEDULE AND TYPICAL SECTIONS
2B-1	ROADWAY DETAILS
2C-1	SPECIAL DETAILS
3B-1	ROADWAY SUMMARIES
3D-1	DRAINAGE SUMMARIES
4 THRU 6	PLAN AND PROFILE SHEET
RW01 THRU RW02D-1	SURVEY CONTROL & RIGHT OF WAY
TMP-1 THRU TMP-6	TRAFFIC MANAGEMENT PLANS
PMP-1 THRU PMP-2	PAVEMENT MARKING PLANS
EC-1 THRU EC-5	EROSION CONTROL PLANS
SIGN-1 THRU SIGN-4	SIGNING PLANS
SIG-1 THRU SIG-1.2	SIGNAL PLANS
X-1A THRU X-1B	CROSS-SECTION SUMMARY SHEET
X-1 THRU X-12	CROSS-SECTIONS

2024 ROADWAY ENGLISH STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" CONTRACTS STANDARDS AND DEVELOPMENT UNIT - N. C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N. C., DATED JANUARY 16, 2024 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD.NO.	TITLE
DIVISION 2 - EARTHWORK	
200.02	METHOD OF CLEARING - METHOD II
225.02	GUIDE FOR GRADING SUBGRADE - SECONDARY AND LOCAL
225.05	METHOD OF OBTAINING SUPERELEVATION - DIVIDED HIGHWAYS
DIVISION 3 - PIPE CULVERTS	
300.01	METHOD OF PIPE INSTALLATION (USE DETAILS IN LIEU OF STANDARDS FOR SHEETS 1 AND 2 OF 2)
DIVISION 5 - SUBGRADE, BASES AND SHOULDERS	
560.01	METHOD OF SHOULDER CONSTRUCTION - HIGH SIDE OF SUPERELEVATED CURVE - METHOD I
DIVISION 6 - ASPHALT BASES AND PAVEMENTS	
654.01	PAVEMENT REPAIRS
DIVISION 8 - INCIDENTALS	
815.02	SUBSURFACE DRAIN
840.00	CONCRETE BASE PAD FOR DRAINAGE STRUCTURES
840.31	CONCRETE JUNCTION BOX - 12" THRU 66" PIPE
840.45	PRECAST DRAINAGE STRUCTURE
840.52	PRECAST MANHOLE - 4', 5' AND 6' DIAMETER 12" THRU 48" PIPE
840.54	MANHOLE FRAME AND COVER
840.66	DRAINAGE STRUCTURE STEPS
840.72	PIPE COLLAR
852.01	CONCRETE ISLANDS

GENERAL NOTES: 2024 SPECIFICATIONS
EFFECTIVE: 01-16-2024
REVISED:

GRADING AND SURFACING OR RESURFACING AND WIDENING:

THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. WHERE NO GRADE LINES ARE SHOWN, THE PROFILES SHOWN DENOTE THE TOP ELEVATION OF THE EXISTING PAVEMENT ALONG THE CENTER LINE OF SURVEY ON WHICH THE PROPOSED RESURFACING WILL BE PLACED. GRADE LINES MAY BE ADJUSTED BY THE ENGINEER IN ORDER TO SECURE A PROPER TIE-IN.

CLEARING:

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II.

SUPERELEVATION:

ALL CURVES ON THIS PROJECT SHALL BE SUPERELEVATED IN ACCORDANCE WITH STD. NO. 225.04 USING THE RATE OF SUPERELEVATION AND RUNOFF SHOWN ON THE PLANS. SUPERELEVATION IS TO BE REVOLVED ABOUT THE GRADE POINTS SHOWN ON THE TYPICAL SECTIONS.

SHOULDER CONSTRUCTION:

ASPHALT, EARTH, AND CONCRETE SHOULDER CONSTRUCTION ON THE HIGH SIDE OF SUPERELEVATED CURVES SHALL BE IN ACCORDANCE WITH STD. NO. 560.01

SIDE ROADS:

THE CONTRACTOR WILL BE REQUIRED TO DO ALL NECESSARY WORK TO PROVIDE SUITABLE CONNECTIONS WITH ALL ROADS, STREETS, AND DRIVES ENTERING THIS PROJECT. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PARTICULAR ITEMS INVOLVED.

TEMPORARY SHORING:

SHORING REQUIRED FOR THE MAINTENANCE OF TRAFFIC WILL BE PAID FOR AS "EXTRA WORK" IN ACCORDANCE WITH SECTION 104-7.

ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS.

Note: Not to Scale

STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS CONVENTIONAL PLAN SHEET SYMBOLS

HS-2401A
4R01 | IB

BOUNDARIES AND PROPERTY:

State Line	_____
County Line	_____
Township Line	_____
City Line	_____
Reservation Line	_____
Property Line	_____
Existing Iron Pin (EIP)	○ EIP
Computed Property Corner	✕
Existing Concrete Monument (ECM)	◻ ECM
Parcel / Sequence Number	⑫③
Existing Fence Line	✕-✕-✕
Proposed Woven Wire Fence	○
Proposed Chain Link Fence	▣
Proposed Barbed Wire Fence	◇
Existing Wetland Boundary	--- WLB ---
Proposed Wetland Boundary	--- WLB ---
Existing Endangered Animal Boundary	--- EAB ---
Existing Endangered Plant Boundary	--- EPB ---
Existing Historic Property Boundary	--- HPB ---
Known Contamination Area: Soil	--- S ---
Potential Contamination Area: Soil	--- S ---
Known Contamination Area: Water	--- W ---
Potential Contamination Area: Water	--- W ---
Contaminated Site: Known or Potential	☠ ?

BUILDINGS AND OTHER CULTURE:

Gas Pump Vent or U/G Tank Cap	○
Sign	○ S
Well	○ W
Small Mine	✕
Foundation	▣
Area Outline	▭
Cemetery	▣ +
Building	▣
School	▣
Church	▣
Dam	▣

HYDROLOGY:

Stream or Body of Water	_____
Hydro, Pool or Reservoir	▭
Jurisdictional Stream	--- JS ---
Buffer Zone 1	--- BZ 1 ---
Buffer Zone 2	--- BZ 2 ---
Flow Arrow	←
Disappearing Stream	→
Spring	○
Wetland	▭
Proposed Lateral, Tail, Head Ditch	→ FLOW
False Sump	▭

RAILROADS:

Standard Gauge	_____
RR Signal Milepost	○ MILEPOST 35
Switch	▣ SWITCH
RR Abandoned	_____
RR Dismantled	_____

RIGHT OF WAY & PROJECT CONTROL:

Primary Horiz Control Point	○
Primary Horiz and Vert Control Point	●
Secondary Horiz and Vert Control Point	◆
Vertical Benchmark	⊠
Existing Right of Way Monument	△
Proposed Right of Way Monument (Rebar and Cap)	▲
Proposed Right of Way Monument (Concrete)	⊕
Existing Permanent Easement Monument	◇
Proposed Permanent Easement Monument (Rebar and Cap)	◆
Existing C/A Monument	△
Proposed C/A Monument (Rebar and Cap)	▲
Proposed C/A Monument (Concrete)	⊕
Existing Right of Way Line	_____
Proposed Right of Way Line	_____
Existing Control of Access Line	_____
Proposed Control of Access Line	_____
Proposed ROW and CA Line	_____
Existing Easement Line	--- E ---
Proposed Temporary Construction Easement	--- E ---
Proposed Temporary Drainage Easement	--- TDE ---
Proposed Permanent Drainage Easement	--- PDE ---
Proposed Permanent Drainage/Utility Easement	--- DUE ---
Proposed Permanent Utility Easement	--- PUE ---
Proposed Temporary Utility Easement	--- TUE ---
Proposed Aerial Utility Easement	--- AUE ---

ROADS AND RELATED FEATURES:

Existing Edge of Pavement	_____
Existing Curb	_____
Proposed Slope Stakes Cut	--- C ---
Proposed Slope Stakes Fill	--- F ---
Proposed Curb Ramp	▣ CR
Existing Metal Guardrail	— T —
Proposed Guardrail	— T —
Existing Cable Guiderail	— P —
Proposed Cable Guiderail	— P —
Equality Symbol	⊕
Pavement Removal	▣
VEGETATION:	
Single Tree	☼
Single Shrub	☼
Hedge	_____

Woods Line	_____
Orchard	☼ ☼ ☼ ☼
Vineyard	▣ Vineyard

EXISTING STRUCTURES:

MAJOR:	
Bridge, Tunnel or Box Culvert	▣ CONC
Bridge Wing Wall, Head Wall and End Wall	▣ CONC WW
MINOR:	
Head and End Wall	▣ CONC HW
Pipe Culvert	_____
Footbridge	_____
Drainage Box: Catch Basin, DI or JB	▣ CB
Paved Ditch Gutter	_____
Storm Sewer Manhole	⊕
Storm Sewer	--- S ---

UTILITIES:

* SUE - Subsurface Utility Engineering
LOS - Level of Service - A, B, C or D (Accuracy)

POWER:	
Existing Power Pole	●
Proposed Power Pole	○
Existing Joint Use Pole	●
Proposed Joint Use Pole	○
Power Manhole	⊕
Power Line Tower	⊠
Power Transformer	⊠
U/G Power Cable Hand Hole	▣
H-Frame Pole	●
U/G Power Line Test Hole (SUE - LOS A)*	⊕
U/G Power Line (SUE - LOS B)*	--- P ---
U/G Power Line (SUE - LOS C)*	--- P ---
U/G Power Line (SUE - LOS D)*	--- P ---

TELEPHONE:

Existing Telephone Pole	●
Proposed Telephone Pole	○
Telephone Manhole	⊕
Telephone Pedestal	⊠
Telephone Cell Tower	⊠
U/G Telephone Cable Hand Hole	▣
U/G Telephone Test Hole (SUE - LOS A)*	⊕
U/G Telephone Cable (SUE - LOS B)*	--- T ---
U/G Telephone Cable (SUE - LOS C)*	--- T ---
U/G Telephone Cable (SUE - LOS D)*	--- T ---
U/G Telephone Conduit (SUE - LOS B)*	--- TC ---
U/G Telephone Conduit (SUE - LOS C)*	--- TC ---
U/G Telephone Conduit (SUE - LOS D)*	--- TC ---
U/G Fiber Optics Cable (SUE - LOS B)*	--- T FO ---
U/G Fiber Optics Cable (SUE - LOS C)*	--- T FO ---
U/G Fiber Optics Cable (SUE - LOS D)*	--- T FO ---

WATER:

Water Manhole	⊕
Water Meter	○
Water Valve	⊗
Water Hydrant	⊕
U/G Water Line Test Hole (SUE - LOS A)*	⊕
U/G Water Line (SUE - LOS B)*	--- W ---
U/G Water Line (SUE - LOS C)*	--- W ---
U/G Water Line (SUE - LOS D)*	--- W ---
Above Ground Water Line	--- A/G Water ---

TV:

TV Pedestal	⊠
TV Tower	⊗
U/G TV Cable Hand Hole	▣
U/G TV Test Hole (SUE - LOS A)*	⊕
U/G TV Cable (SUE - LOS B)*	--- TV ---
U/G TV Cable (SUE - LOS C)*	--- TV ---
U/G TV Cable (SUE - LOS D)*	--- TV ---
U/G Fiber Optic Cable (SUE - LOS B)*	--- TV FO ---
U/G Fiber Optic Cable (SUE - LOS C)*	--- TV FO ---
U/G Fiber Optic Cable (SUE - LOS D)*	--- TV FO ---

GAS:

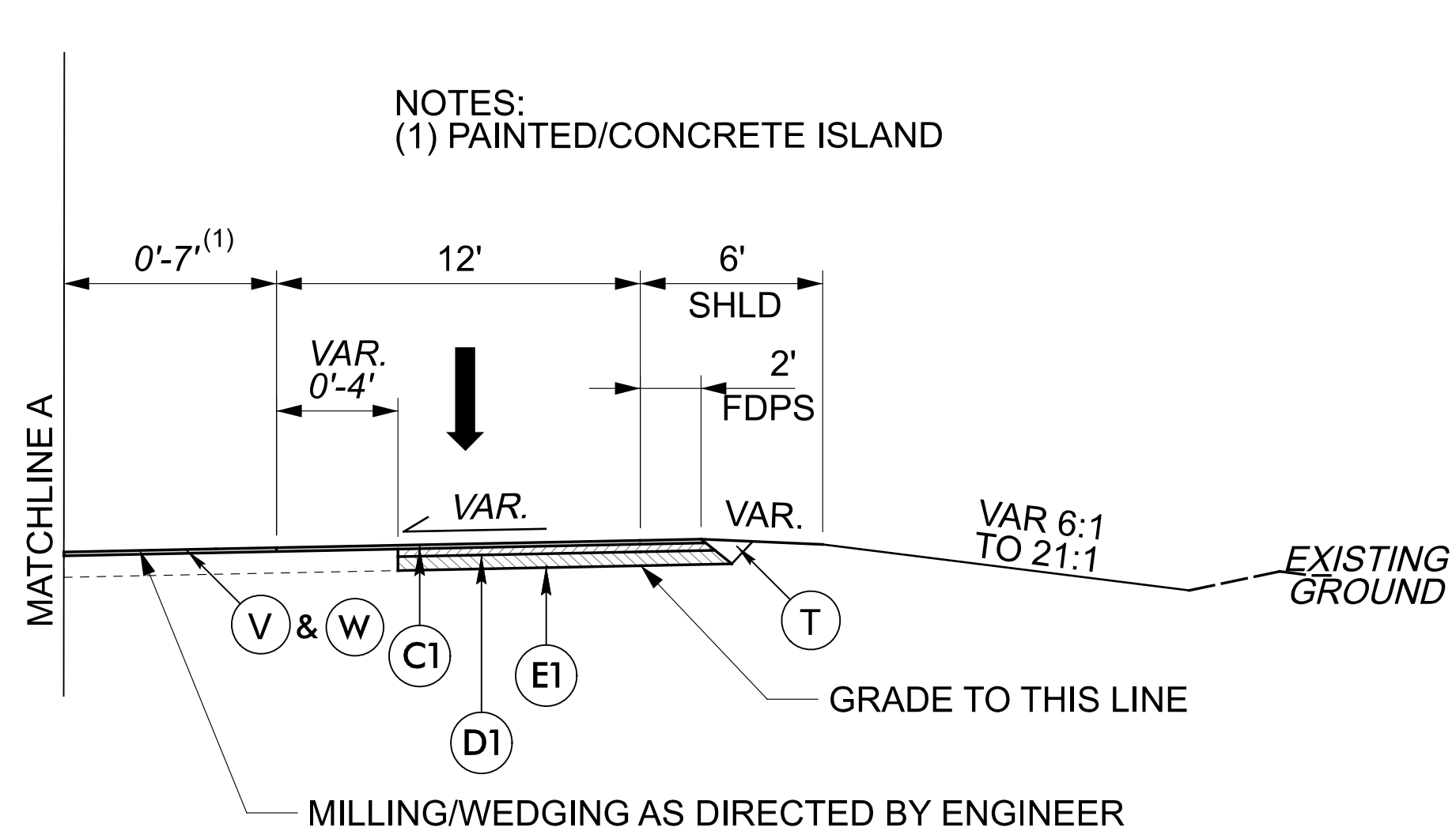
Gas Valve	◇
Gas Meter	◇
U/G Gas Line Test Hole (SUE - LOS A)*	⊕
U/G Gas Line (SUE - LOS B)*	--- G ---
U/G Gas Line (SUE - LOS C)*	--- G ---
U/G Gas Line (SUE - LOS D)*	--- G ---
Above Ground Gas Line	--- A/G Gas ---

SANITARY SEWER:

Sanitary Sewer Manhole	⊕
Sanitary Sewer Cleanout	⊕
U/G Sanitary Sewer Line	--- SS ---
Above Ground Sanitary Sewer	--- A/G Sanitary Sewer ---
SS Force Main Line Test Hole (SUE - LOS A)*	⊕
SS Force Main Line (SUE - LOS B)*	--- FSS ---
SS Force Main Line (SUE - LOS C)*	--- FSS ---
SS Force Main Line (SUE - LOS D)*	--- FSS ---

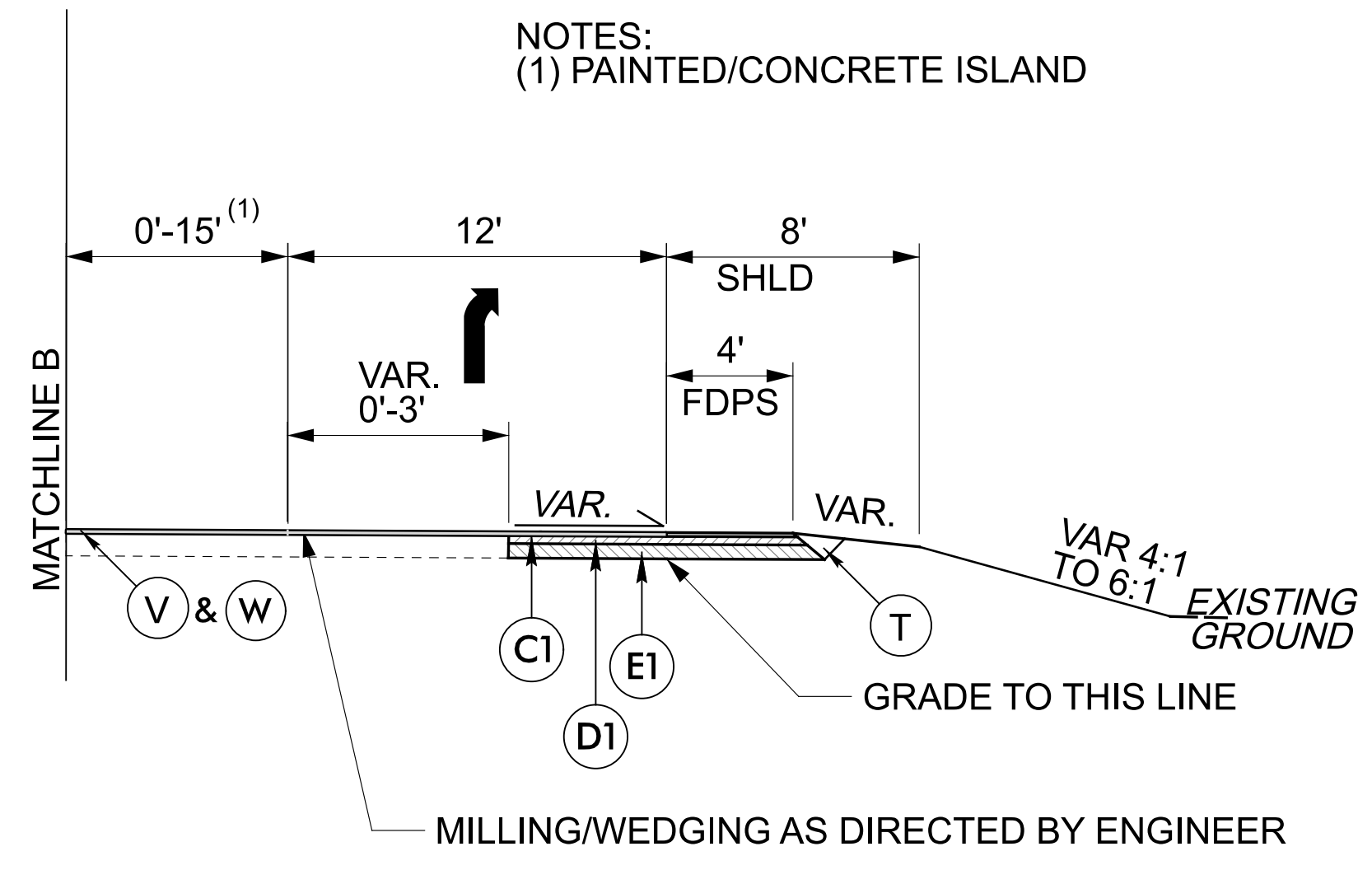
MISCELLANEOUS:

Utility Pole	●
Utility Pole with Base	▣
Utility Located Object	○
Utility Traffic Signal Box	⊠
Utility Unknown U/G Line (SUE - LOS B)*	--- U/L ---
U/G Tank; Water, Gas, Oil	▣
Underground Storage Tank, Approx. Loc.	⊕
A/G Tank; Water, Gas, Oil	▣
Geoenvironmental Boring	⊕
Abandoned According to Utility Records	AATUR
End of Information	E.O.I.



INSET 1
 -L- STA. 16+79.54 TO STA. 26+52.99

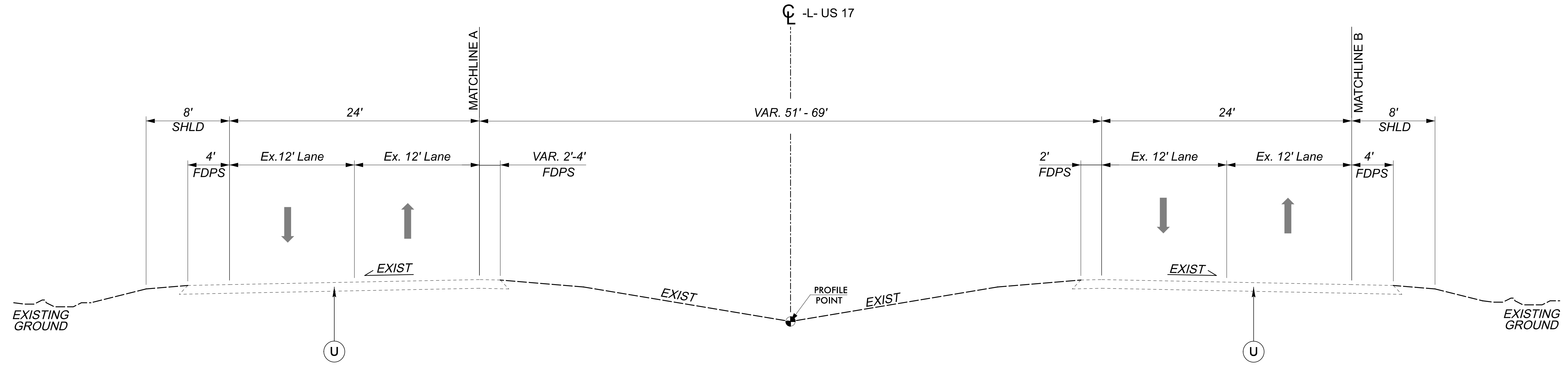
NOTE:
 SEE PLAN FOR SUPERELEVATION RATES AND TRANSITONS



INSET 2
 -L- STA. 25+67.38 TO STA. 27+05.90

NOTE:
 SEE PLAN FOR SUPERELEVATION RATES AND TRANSITONS

PAVEMENT SCHEDULE (FINAL)	
ITEM	DESCRIPTION
C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YARD.
C2	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE OF 112 LBS. PER SQ. YD. PER 1" DEPTH TO BE PLACE IN LAYERS NOT LESS THAN 1" OR GREATER THAN 1.5"
D1	PROP. APPROX. 3" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 342 LBS. PER SQ. YARD.
D2	PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.C AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 2.5" OR GREATER THAN 4" DEPTH.
E1	PROP. APPROX. 5.5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 627LBS. PER SQ. YARD.
E2	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0C AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 3.0" OR GREATER THAN 5.5" DEPTH.
R1	5" MONOLITHIC CONCRETE ISLAND (KEYED IN)
T	EARTH MATERIAL
U	EXISTING PAVEMENT
V	INCIDENTAL MILLING
W	WEDGING



TYPICAL SECTION NO. 1 (-L- US-17)
 -L- STA. 16+79.54 TO STA. 32+57.29

HS-2401A
4R01 | 2A-1

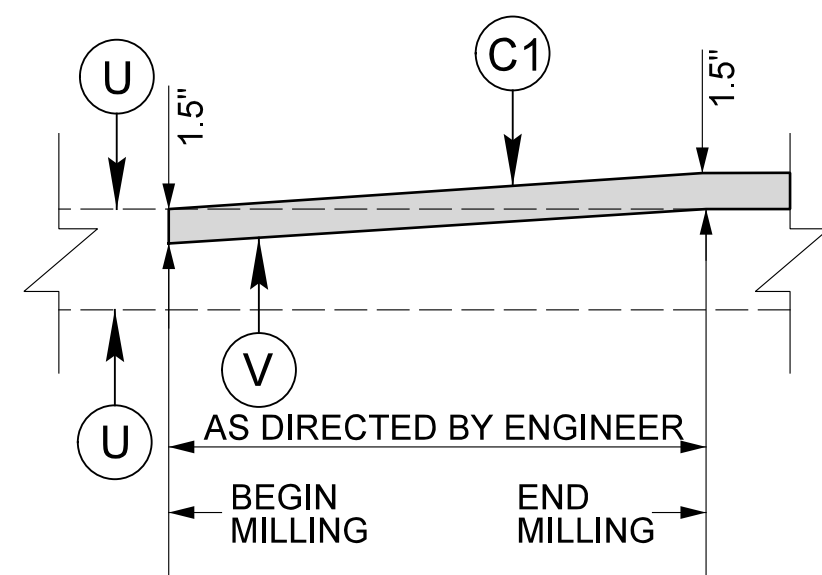
NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 CAMDEN COUNTY

ROADWAY DESIGN UNIT
 ROADWAY DESIGN
 ENGINEER

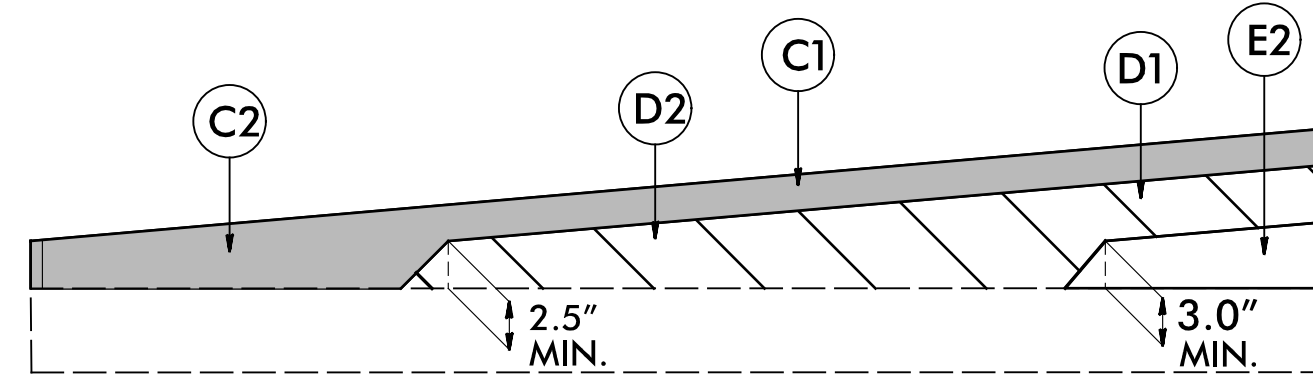
Professional Engineer Seal
 15424
 4/10/2026

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 Engineering
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 Charlotte, NC 28277 | 704.375.2438
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REVISIONS

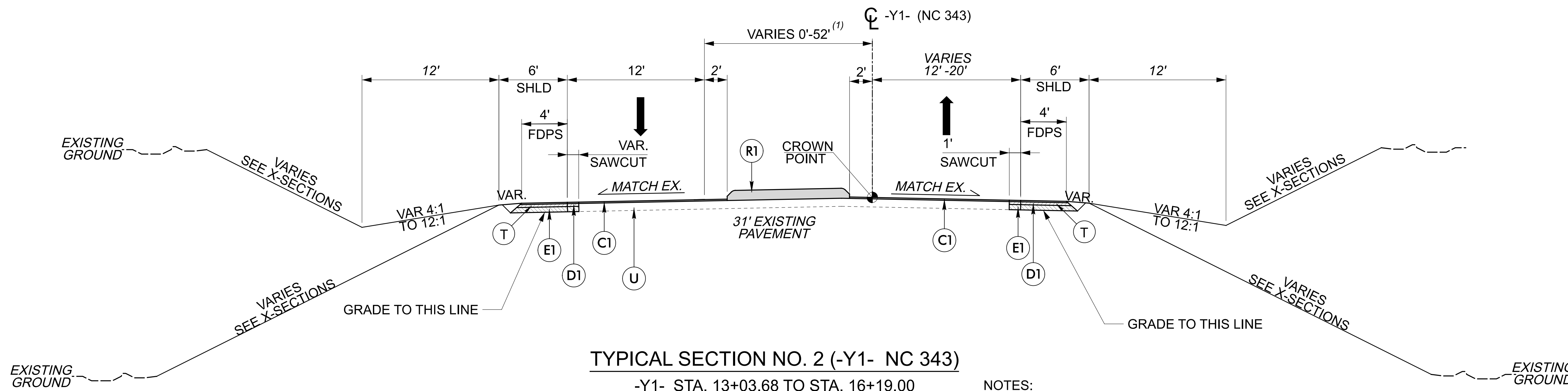


DETAIL SHOWING INCIDENTAL MILLING FOR TIE-INS AT BEGIN/END
 NTS



Wedging Detail For Resurfacing
DETAIL SHOWING METHOD OF WEDGING
 NTS

PAVEMENT SCHEDULE (FINAL)	
ITEM	DESCRIPTION
C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YARD.
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R1	5" MONOLITHIC CONCRETE ISLAND (KEYED IN)
T	EARTH MATERIAL
U	EXISTING PAVEMENT
V	INCIDENTAL MILLING
W	WEDGING



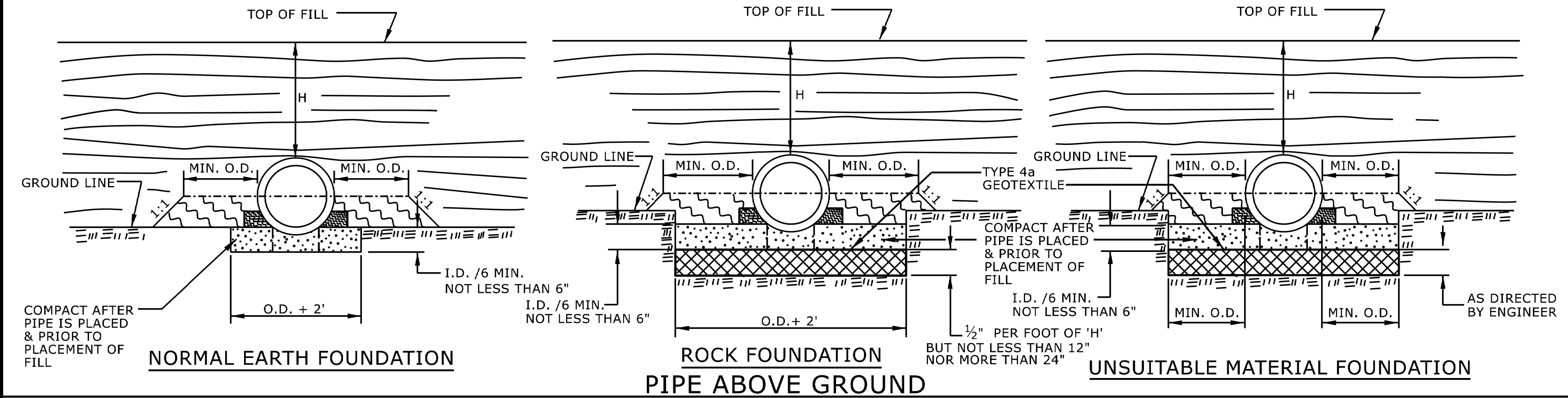
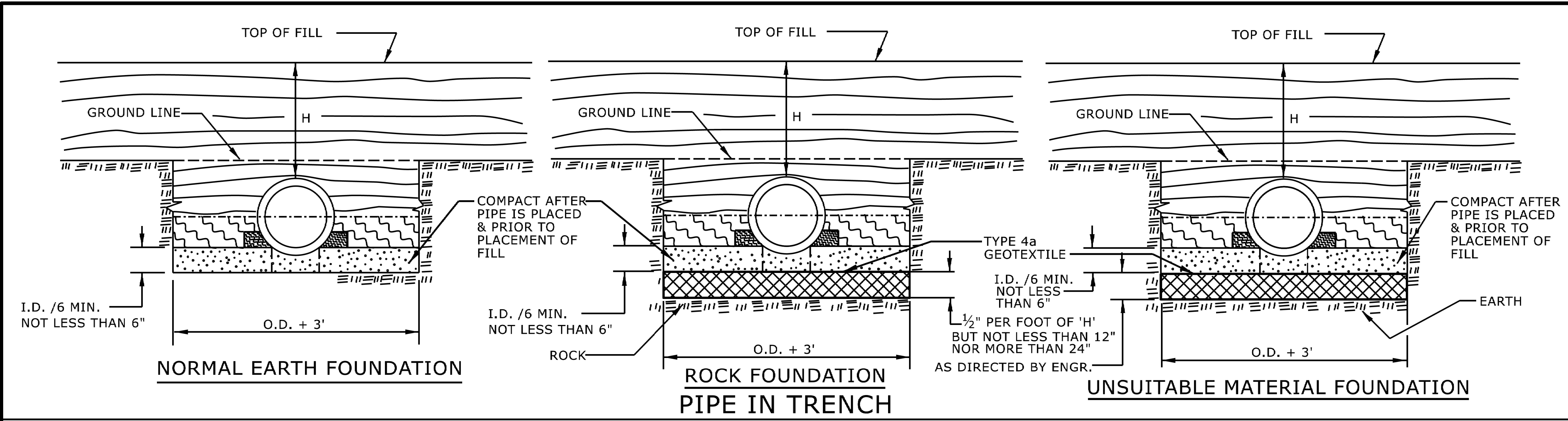
TYPICAL SECTION NO. 2 (-Y1- NC 343)
 -Y1- STA. 13+03.68 TO STA. 16+19.00

NOTES:
 (1) PAINTED ISLAND -Y1- STA. 13+00.00 TO STA. 15+07.00

HS-2401A
4R01 | 2A-2
 NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 CAMDEN COUNTY

NC LIC. NO. C-3881
AMERICAN
 Engineering
 1525 N. Community House Road | Suite 325
 Charlotte, NC 28277 | 704.375.2438
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REVISIONS



GENERAL NOTES:
I.D. = THE MAXIMUM HORIZONTAL INSIDE DIAMETER DIMENSION.
O.D. = THE MAXIMUM HORIZONTAL OUTSIDE DIAMETER DIMENSION.
H = THE FILL HEIGHT MEASURED VERTICALLY AT ANY POINT ALONG THE PIPE FROM THE TOP OF THE PIPE TO THE TOP OF THE EMBANKMENT AT THAT POINT.

APPROVED SUITABLE LOCAL MATERIAL.
 TAKE CARE TO FULLY COMPACT HAUNCH ZONE OF PIPE BACKFILL.
 LOOSELY PLACED SELECT MATERIAL CLASS III OR CLASS II, TYPE 1 FOR PIPE BEDDING. LEAVE SECTION DIRECTLY BENEATH PIPE UNCOMPACTED AS PIPE SEATING AND BACKFILL WILL ACCOMPLISH COMPACTION.

DO NOT OPERATE HEAVY EQUIPMENT OVER ANY PIPE CULVERT UNTIL THE PIPE CULVERT HAS BEEN PROPERLY BACKFILLED AND COVERED WITH AT LEAST 3 FEET OF APPROVED MATERIAL.

REFER TO NCDOT PIPE MATERIAL SELECTION GUIDE AND STANDARD SPECIFICATIONS FOR ALLOWABLE PIPE FILL HEIGHTS AND PIPE SPECIFICATIONS.

SPRINGLINE OF PIPE
 SELECT BACKFILL MATERIAL CLASS III OR CLASS II, BELOW SPRINGLINE.
 UNDISTURBED EARTH MATERIAL
 SELECT MATERIAL CLASS V OR VI FOR FOUNDATION CONDITIONING. ENCAPSULATE WITH TYPE IV GEOTEXTILE AS DIRECTED BY THE ENGINEER.

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR
METHOD OF PIPE INSTALLATION
RIGID PIPE

SHEET 2 OF 2
300.01



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CONTRACTS STANDARDS AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

SEE TITLE BLOCK

ORIGINAL BY: S.CALHOUN DATE: 7-25-2024
MODIFIED BY: DATE: _____
CHECKED BY: DATE: _____
FILE SPEC.: _____

COMPUTED BY:	KBR	DATE: 11/19/2025
CHECKED BY:	ACJ	DATE: 11/19/2025

SUMMARY OF EARTHWORK (CY)

STATION	STATION	UNCL. EXCAV.	UNSUIT. EXCAV.	UNDERCUT	EMBANK. +30%	BORROW	WASTE
-L- 16+79.54	-L- 32+57.29	316	316		1487	1487	316
-Y1- 13+03.68	-Y1- 16+50.00	396	396		710	710	396
SUBTOTAL		712	712		2197	2197	712
UNDERCUT CONTINGENCY				700			700
PROJECT TOTAL		712	712	700	2197	2197	1412
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT						155	
GRAND TOTAL		712	712	700	2197	2352	1412
SAY		720				2360	

CONTINGENCY ITEMS:
 UNDERCUT EXCAVATION = 700 CY
 GEOTEXTILE FOR SOIL STABILIZATION = 500 SY
 SELECT GRANULAR MATERIAL = 700 CY

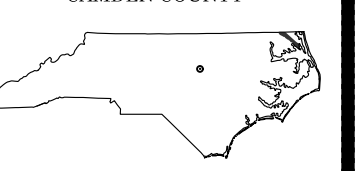
REMOVAL OF EXISTING ASPHALT PAVEMENT SUMMARY IN SQUARE YARDS

SURVEY LINE	BEG. STA.	END STA.	ASPHALT REMOVAL
L	23+32.50	26+52.99	239
L	28+83.04	32+57.29	449
TOTAL			688
SAY			690

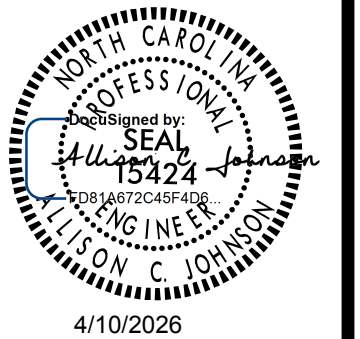
NOTE: Approximate quantities only. Unclassified Excavation, Borrow Excavation, Shoulder Borrow, Fine Grading, Clearing and Grubbing, Breaking of Existing Pavement and Removal of Existing Pavement will be paid for at the lump sum price for "Grading".

HS-2401A
 4R01 | 3B-1

NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 CAMDEN COUNTY




ROADWAY DESIGN UNIT
 ENGINEER



4/10/2026

HYDRAULICS ENGINEER



4/10/2026

NC LIC. NO. C-3881

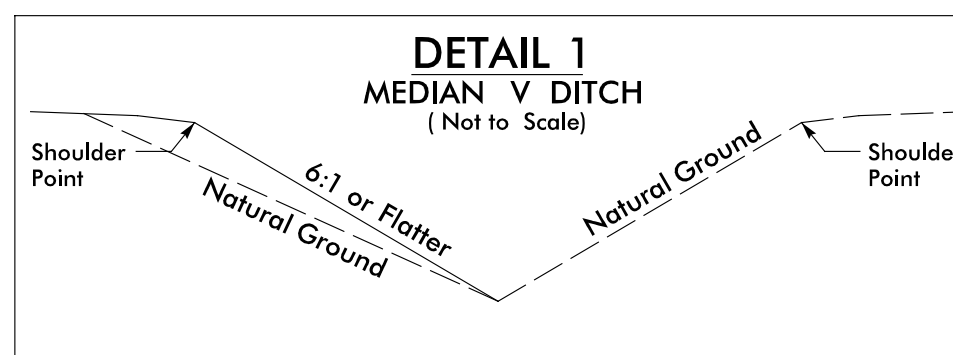
AMERICAN Engineering
 1525 N. Community House Road | Suite 325
 Charlotte, NC 28277 | 704.375.2438

DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED

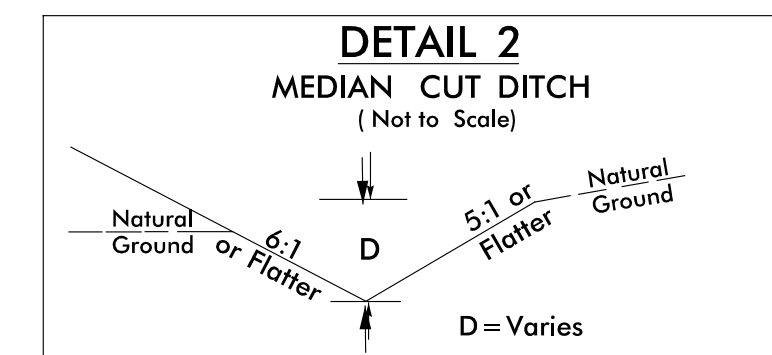
REVISIONS

SPIRAL DATA -L-
PI Sta. 16+97.83
 $\theta = 02^\circ 15' 00.0''$
L = 300'
LT = 200.02
ST = 100.01

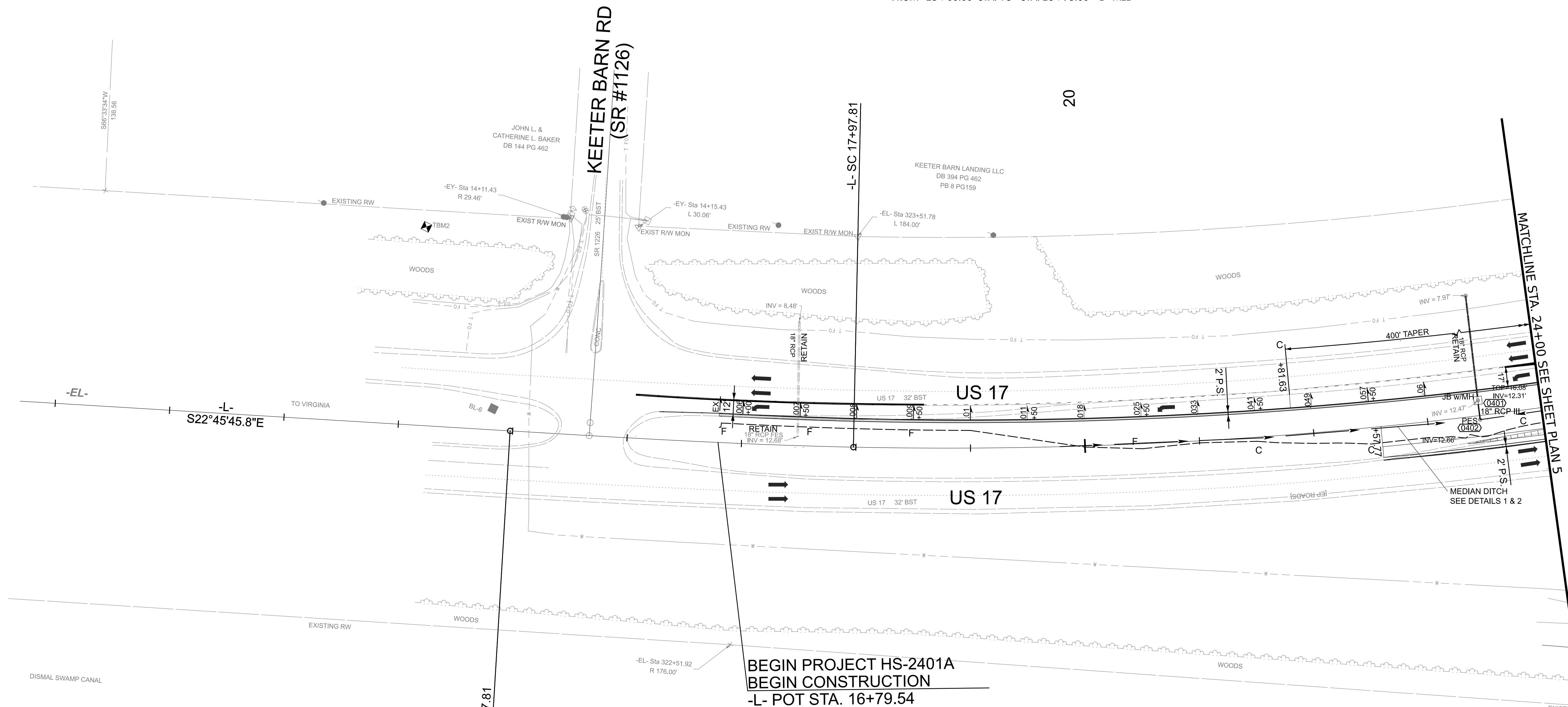
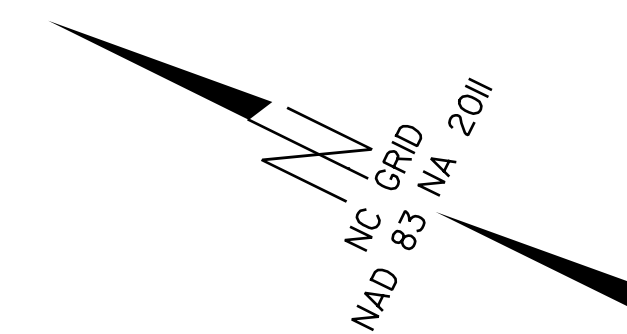
CURVE DATA -L-
PI Sta. 25+14.38
 $\Delta = 21^\circ 15' 00.2''$ (LT)
D = $01^\circ 30' 00.0''$
L = 1,416.67'
T = 716.57'
R = 3,819.72'
SE = EXISTING



FROM 20+00.00 STA. TO STA. 21+50.00 -L- MED
FROM 25+00.00 STA. TO STA. 26+75.00 -L- MED



FROM STA. 21+50.00 TO STA. 25+00.00 -L- MED

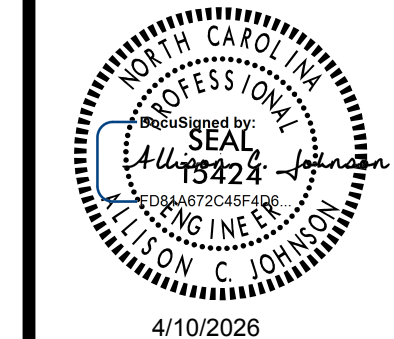


BEGIN PROJECT HS-2401A
BEGIN CONSTRUCTION
-L- POT STA. 16+79.54

HS-2401A
4R01 | 4

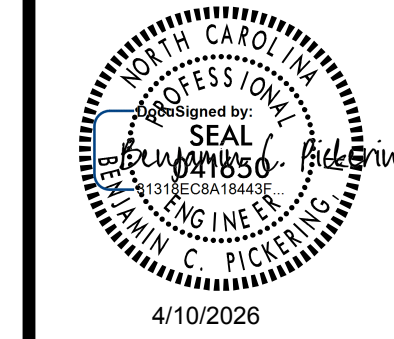
NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
CAMDEN COUNTY

ROADWAY DESIGN UNIT
ROADWAY DESIGN
ENGINEER



4/10/2026

HYDRAULICS
ENGINEER



4/10/2026

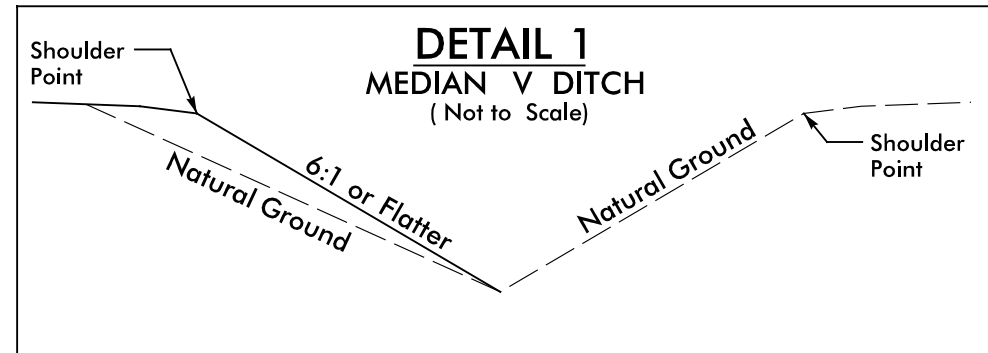
NC LIC. NO. C-3881



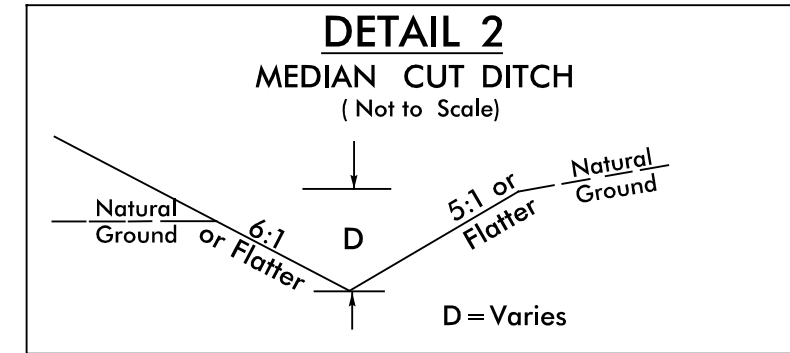
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REVISIONS

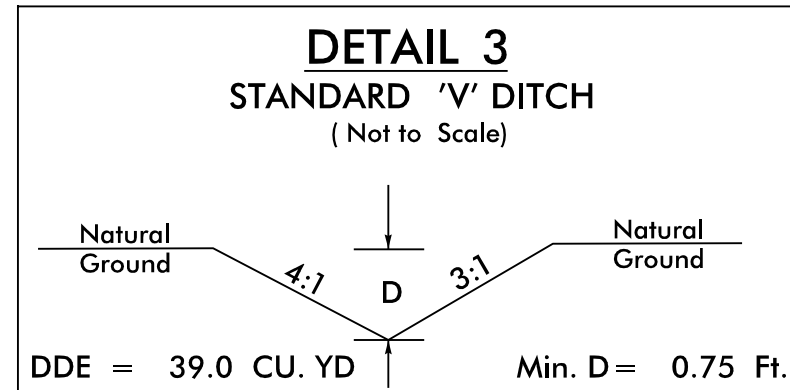
FOR -L- PROFILE SEE SHEET 6



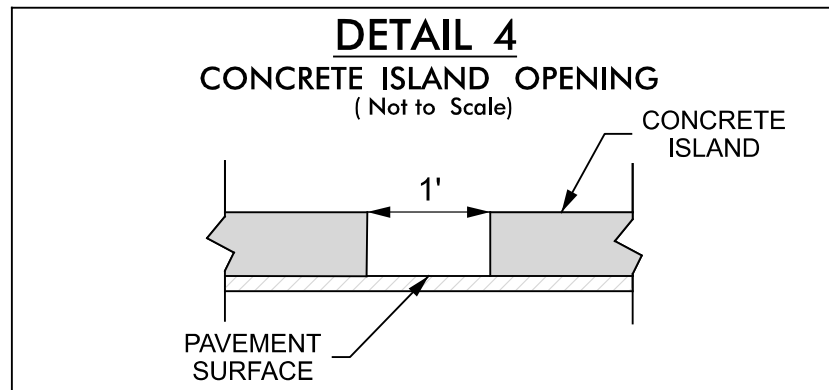
FROM 20+00.00 STA. TO STA. 21+50.00 -L- MED
 FROM 25+00.00 STA. TO STA. 26+75.00 -L- MED



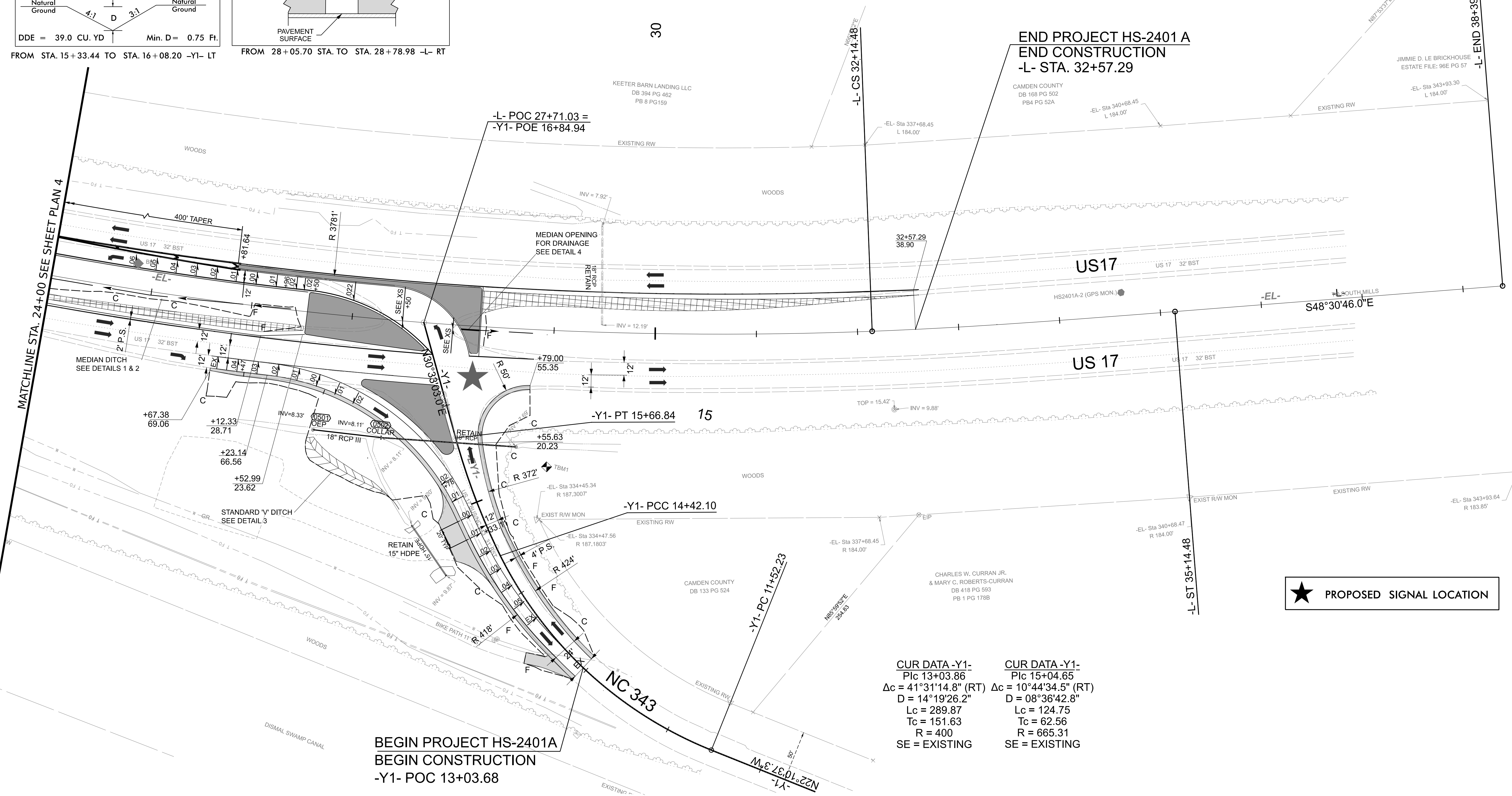
FROM STA. 21+50.00 TO STA. 25+00.00 -L- MED



FROM STA. 15+33.44 TO STA. 16+08.20 -Y1- LT



FROM 28+05.70 STA. TO STA. 28+78.98 -L- RT



CUR DATA -Y1-	CUR DATA -Y1-
Pic 13+03.86	Pic 15+04.65
$\Delta c = 41^{\circ}31'14.8''$ (RT)	$\Delta c = 10^{\circ}44'34.5''$ (RT)
D = 14°19'26.2"	D = 08°36'42.8"
Lc = 289.87	Lc = 124.75
Tc = 151.63	Tc = 62.56
R = 400	R = 665.31
SE = EXISTING	SE = EXISTING

FOR -L- AND -Y1- PROFILE SEE SHEET 6

HS-2401A
 4R01 | 5

NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 CAMDEN COUNTY

ROADWAY DESIGN UNIT
 ROADWAY DESIGN
 ENGINEER

DESIGNED BY
 SEAL
 15224
 ENGINEER
 4/10/2026

HYDRAULICS
 ENGINEER

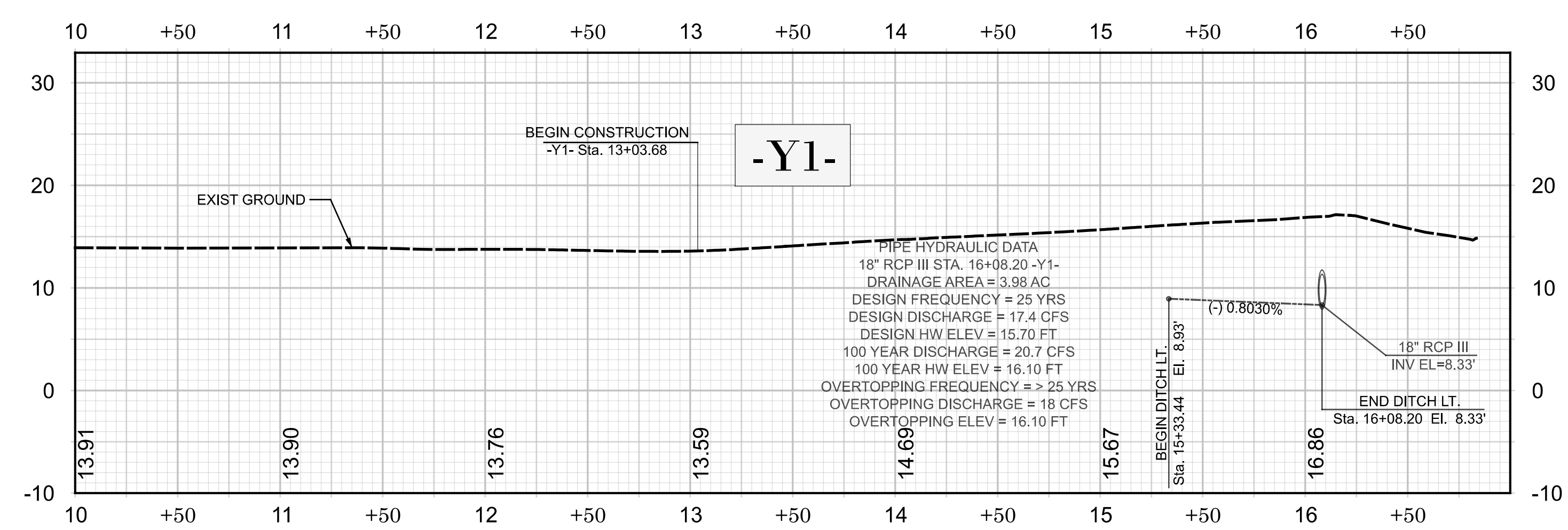
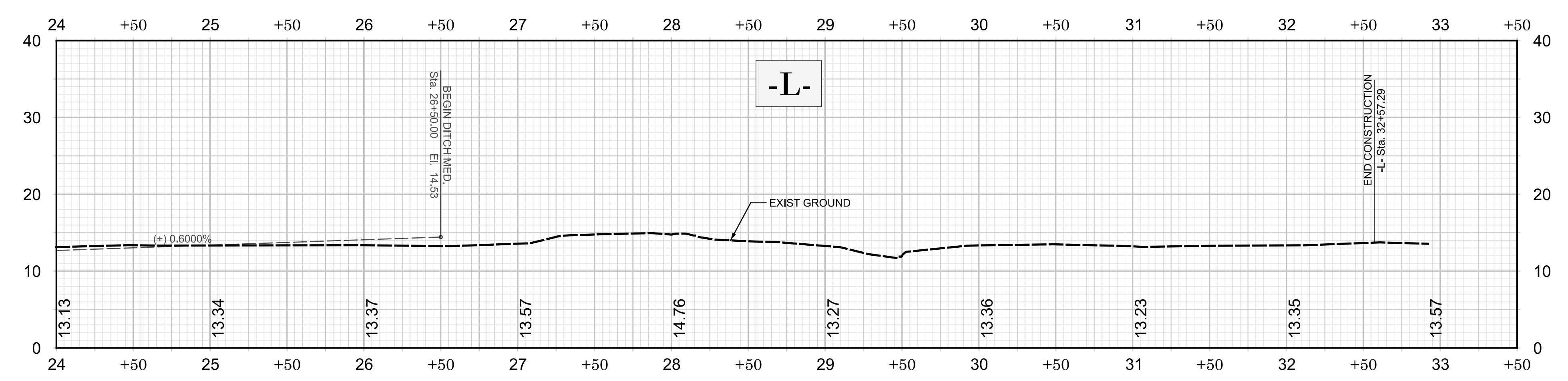
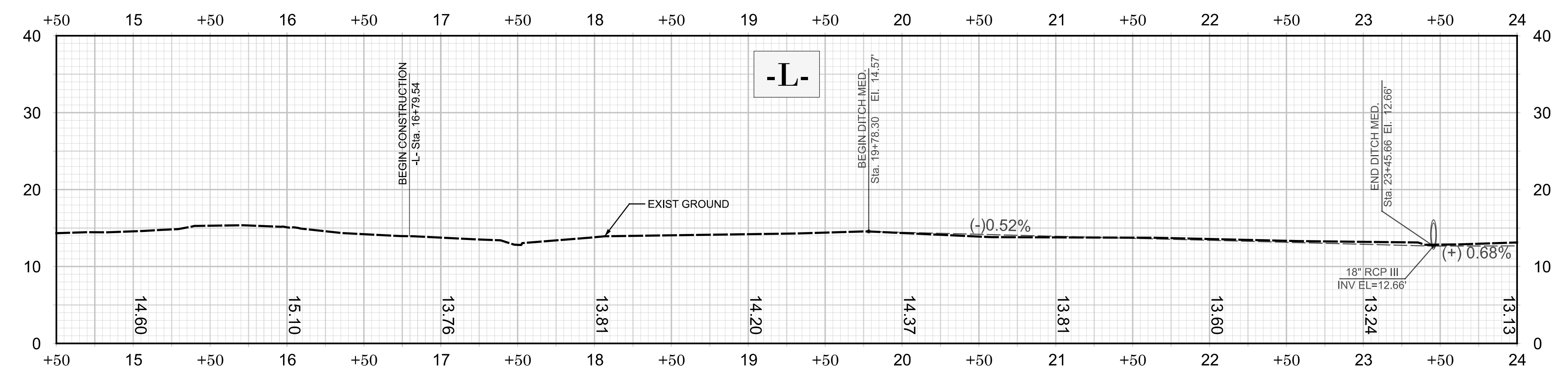
DESIGNED BY
 SEAL
 15224
 ENGINEER
 4/10/2026

NC LIC. NO. C-3881

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 Engineering

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HS-2401A
4R01 | 6

NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 CAMDEN COUNTY

ROADWAY DESIGN UNIT
 ROADWAY DESIGN ENGINEER

Professional Engineer Seal
 William J. Leno
 License No. 141850
 4/10/2026

HYDRAULICS ENGINEER
 Professional Engineer Seal
 William C. Fleming
 License No. 141850
 4/10/2026

NC LIC. NO. C-3881
AMERICAN Engineering
 3525 N. Community House Road | Suite 325
 Charlotte, NC 28277 | 704.375.2438
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REVISIONS

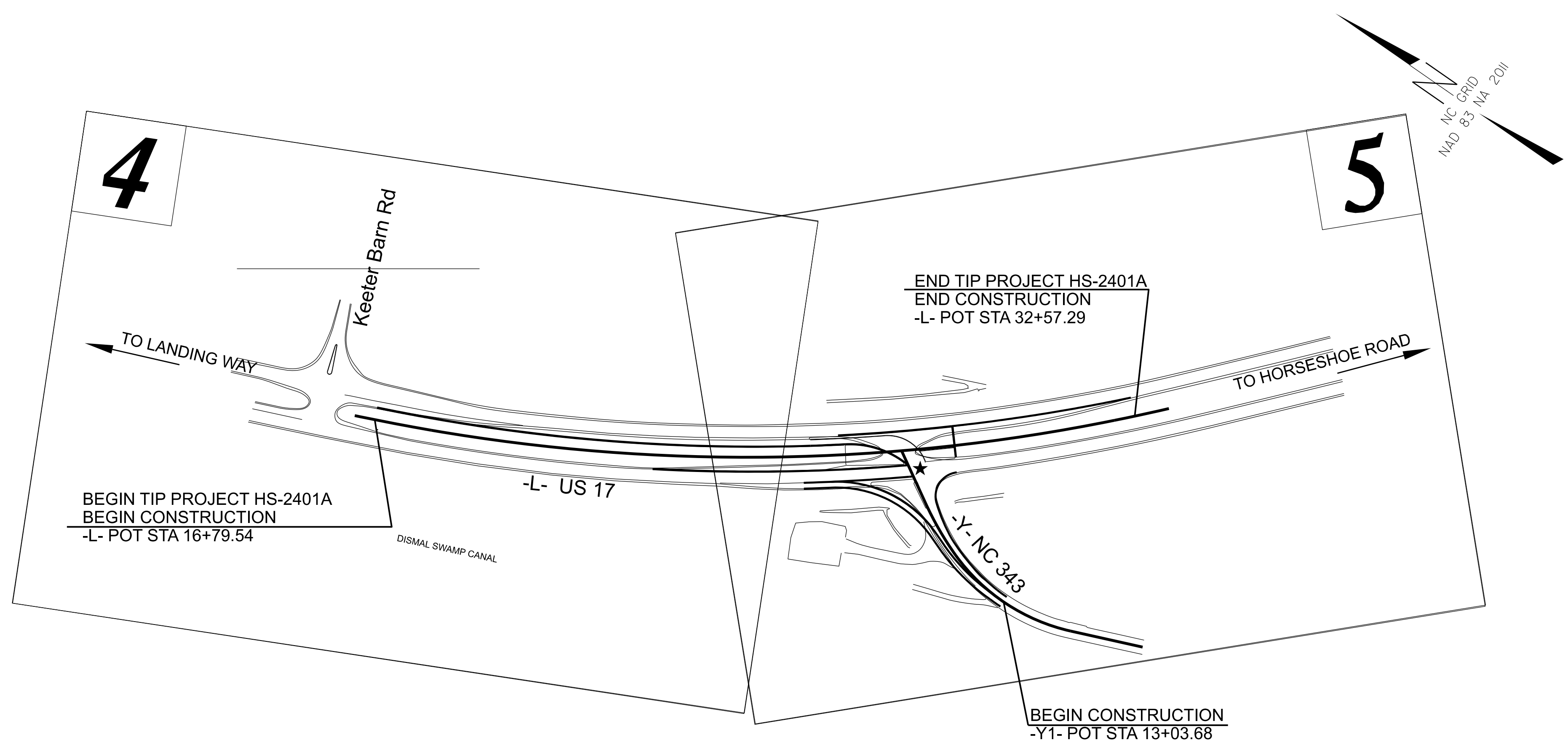
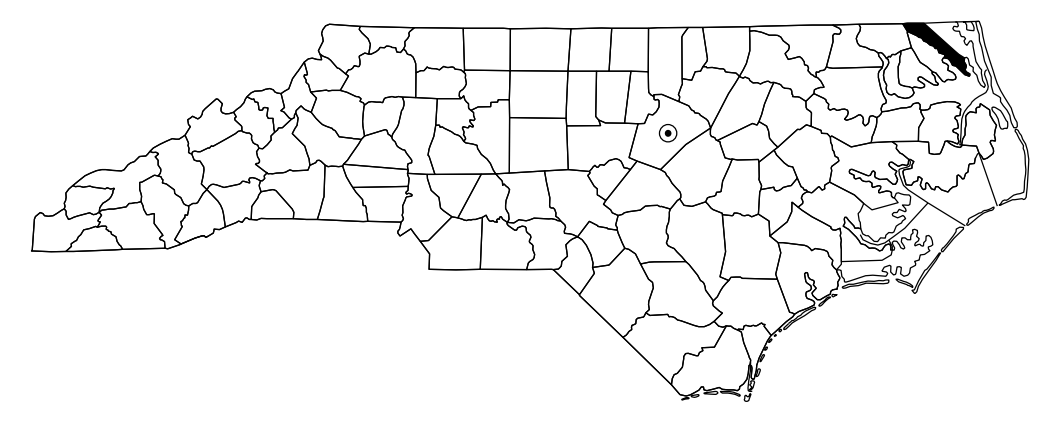
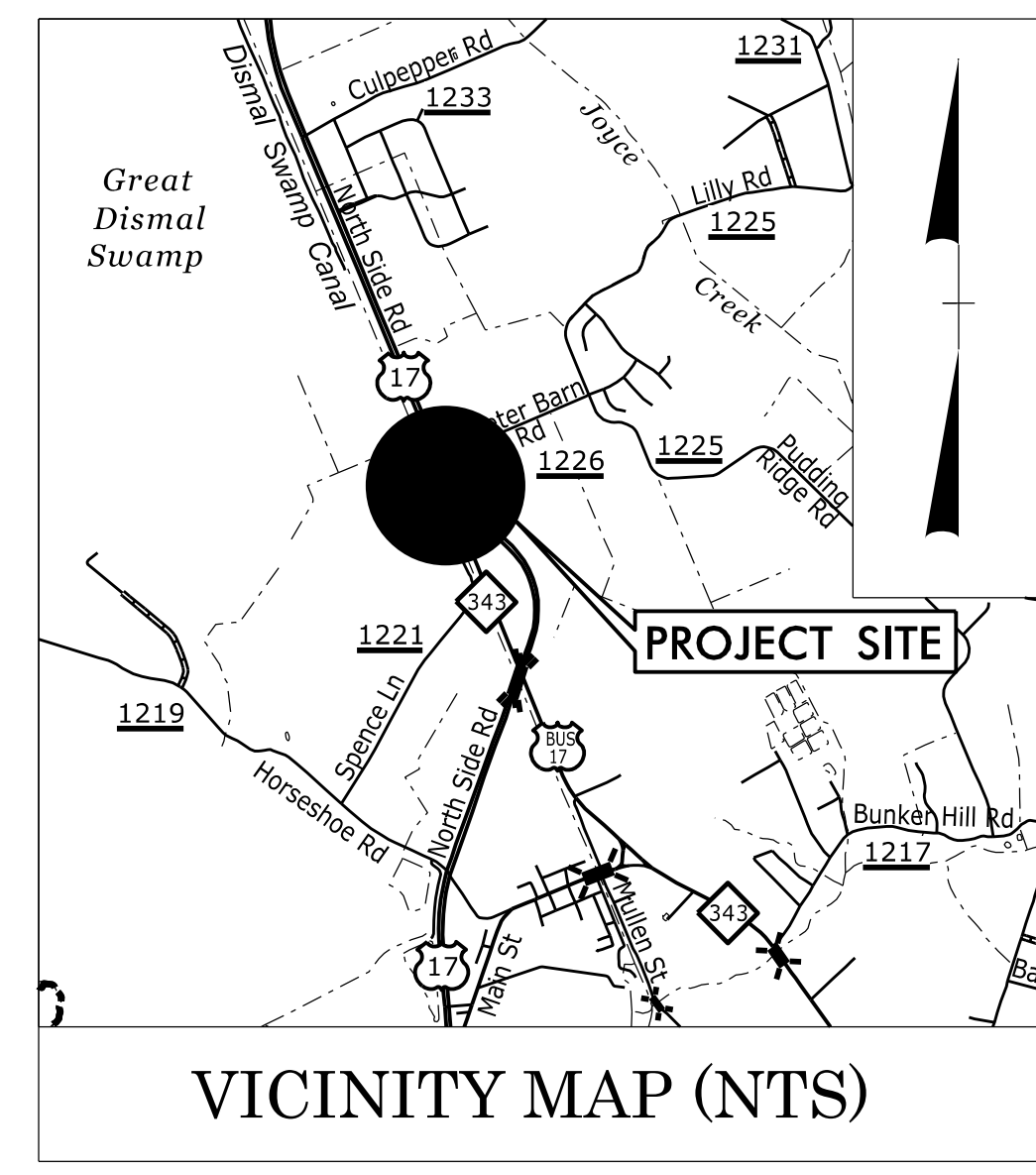
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	HS-2401A	RW01	6

TIP PROJECT: HS-2401A

STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

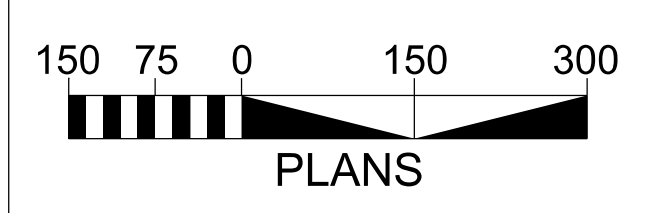
SURVEY CONTROL, EXISTING CENTERLINES, RIGHT OF WAY, EASEMENTS AND PROPERTY TIES

CAMDEN COUNTY



DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES



DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT HS2401A-1 WITH NAD83/2011 STATE PLANE GRID COORDINATES OF
 NORTHING: 998694.0082 EASTING: 2784478.0010
 ELEVATION: 13.37 FT.
 THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 1.000102068
 ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
 VERTICAL DATUM USED IS NAVD 88

Prepared in the Office of:

 LOCATION AND SURVEYS
 DIVISION 1
 1300 US 64 WEST
 PLYMOUTH, NC 27962

PROFESSIONAL LAND SURVEYOR



SIGNATURE: _____ DATE: 09/26/2025

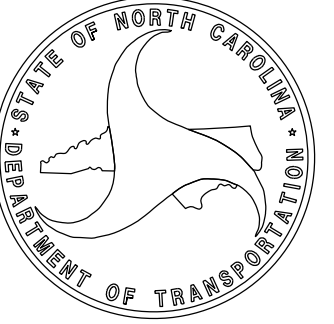
PRIMARY SURVEY CONTROL SHEET

W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

HS-2401A

R/W 02C-1

NORTH CAROLINA
DEPARTMENT
OF TRANSPORTATION



PROFESSIONAL LAND
SURVEYOR



DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL SIGNATURES
ARE COMPLETED

2024 STANDARD
SPECIFICATIONS

I, LINWOOD T. DOWNS III, PLS. CERTIFY THAT THE PROJECT CONTROL WAS PERFORMED UNDER MY SUPERVISION FROM AN ACTUAL GPS SURVEY MADE UNDER MY SUPERVISION AND THE FOLLOWING INFORMATION WAS USED TO PERFORM THE SURVEY:

CLASS OF SURVEY: AA
TYPE OF GPS FIELD PROCEDURE: RTN
DATES OF SURVEY: APRIL 2024
DATUM/EPOCH: NAD83/NA 2011
PUBLISHED/FIXED-CONTROL USE: N/A
LOCALIZED AROUND: HS2401A-1
NORTHING: 998694.0082
EASTING: 2784478.0010
COMBINED GRID FACTOR: 1.000102068
GEOID MODEL: GEOID 18
UNITS: US SURVEY FEET

I ALSO CERTIFY THAT THE BASELINE CONTROL FOR THIS PROJECT WAS COMPLETED UNDER MY DIRECT AND RESPONSIBLE CHARGE FROM AN ACTUAL SURVEY MADE UNDER MY SUPERVISION; THAT ALL HORIZONTAL CLOSURES HAD A MINIMUM RATIO OF PRECISION OF 1:20,000 (CLASS AA) AND VERTICAL ACCURACY TO CLASS A. FIELD WORK WAS PERFORMED IN APRIL 2024, AND ALL COORDINATES ARE BASED ON NAD 83/NA 2011 AND ALL ELEVATIONS ARE BASED ON NAVD 88; THAT THIS SURVEY WAS PERFORMED TO MEET THE REQUIREMENTS OF 21NCAC 56.1600 AS APPLICABLE.

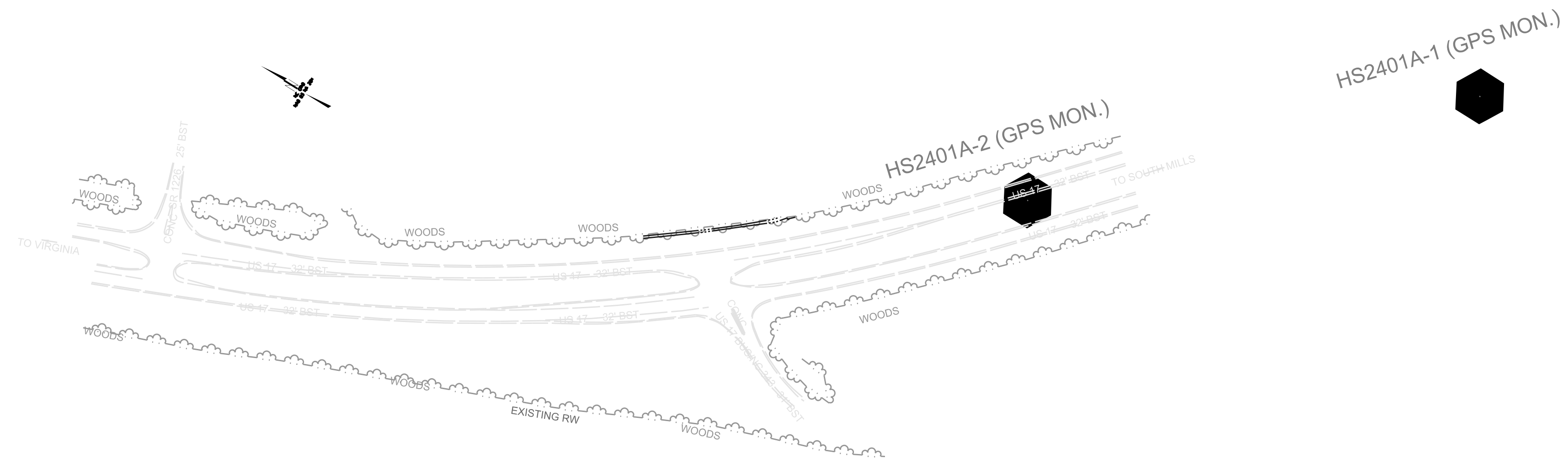
THIS 24TH DAY OF JULY, 2024.

DocuSigned by:
Linwood T. Downs III
PROFESSIONAL LAND SURVEYOR L-5327

PRIMARY CONTROL TABLE				
POINT	DESC	NORTH	EAST	ELEVATION
HS2401A-1	GPS MON	998694.0080	2784478.0010	13.37
HS2401A-2	GPS MON	999400.4150	2783772.0570	14.24
HS2401A-3	GPS MON	1001956.7660	2782247.3260	13.33
HS2401A-4	GPS MON	1002912.0050	2781841.3020	13.48

401A-4 (GPS MON.)

HS2401A-3 (GPS MON.)



NOTES:

1. THE PROPOSED ALIGNMENT CONTROL DATA FOR THIS PROJECT HAS BEEN COMPILED FROM VARIOUS SOURCES. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.

TIP PROJECT: HS-2401A
County: CAMDEN

PREPARED FOR

LOCATION AND
SURVEYS UNIT

PREPARED BY

LOCATION & SURVEYS
DIVISION 1
1300 US 64W
PLYMOUTH, NC 27962

SEE SHEET RW02C-4
FOR FURTHER ALIGNMENT
AND CONTROL DETAILS

SECONDARY SURVEY CONTROL SHEET

W/EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

I, LINWOOD T. DOWNS III, PLS. CERTIFY THAT THE SECONDARY BASELINE CONTROL FOR THIS PROJECT WAS COMPLETED UNDER MY DIRECT AND RESPONSIBLE CHARGE FROM AN ACTUAL SURVEY MADE UNDER MY SUPERVISION UTILIZING PRIMARY GPS CONTROL SET BY OTHERS; THAT ALL HORIZONTAL CLOSURES HAD A MINIMUM RATIO OF PRECISION OF 1:20,000 (CLASS AA) AND VERTICAL ACCURACY TO 1:10,000 (CLASS A). FIELD WORK WAS PERFORMED IN APRIL 2024, AND ALL COORDINATES ARE BASED ON NAD 83/NA 2011 AND ALL ELEVATIONS ARE BASED ON NAVD 88; THAT THIS SURVEY WAS PERFORMED TO MEET THE REQUIREMENTS OF 21NCAC 56.1600 AS APPLICABLE.

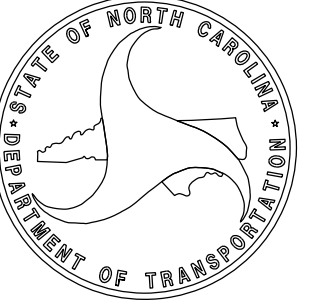
THIS 24TH DAY OF JULY, 2024.

DocuSigned by:
Linwood T. Downs III
PROFESSIONAL LAND SURVEYOR L-5327

HS-2401A

R/W 02C-2

NORTH CAROLINA
DEPARTMENT
OF TRANSPORTATION



PROFESSIONAL LAND
SURVEYOR

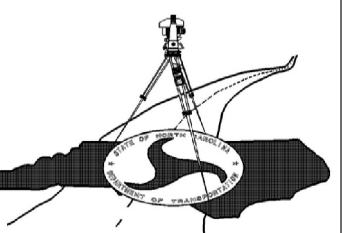


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FINAL UNLESS ALL SIGNATURES
ARE COMPLETED

2024 STANDARD
SPECIFICATIONS

TIP PROJECT: HS-2401A
County: CAMDEN

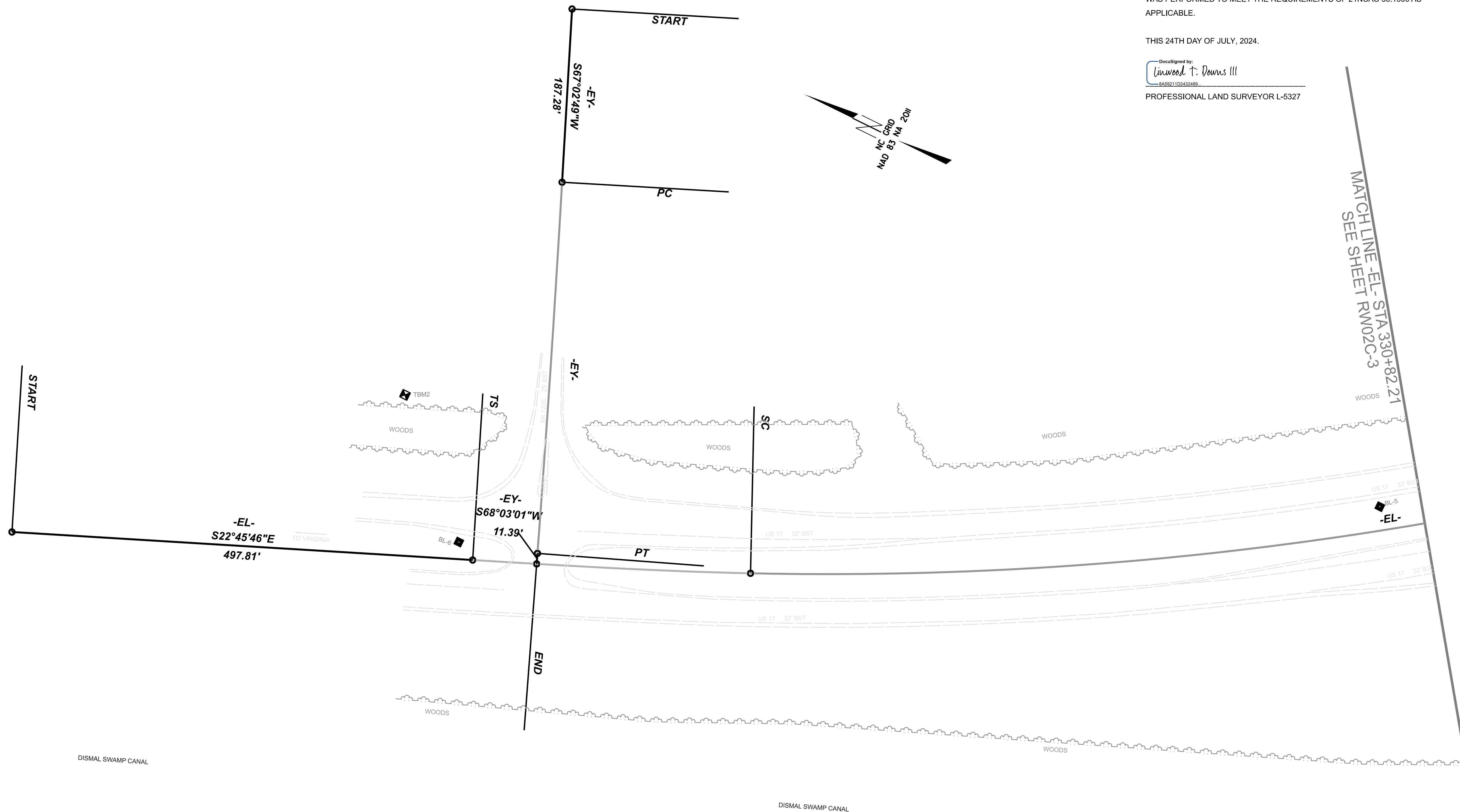
PREPARED FOR



LOCATION AND
SURVEYS UNIT

PREPARED BY

LOCATION & SURVEYS
DIVISION 1
1300 US 64W
PLYMOUTH, NC 27962



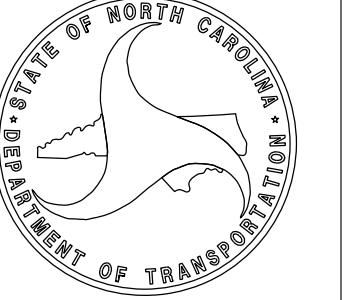
NOTES:

- 1. THE PROPOSED ALIGNMENT CONTROL DATA FOR THIS PROJECT HAS BEEN COMPILED FROM VARIOUS SOURCES. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.

SEE SHEET RW02C-4
FOR FURTHER ALIGNMENT
AND CONTROL DETAILS

SECONDARY SURVEY CONTROL SHEET

W/EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

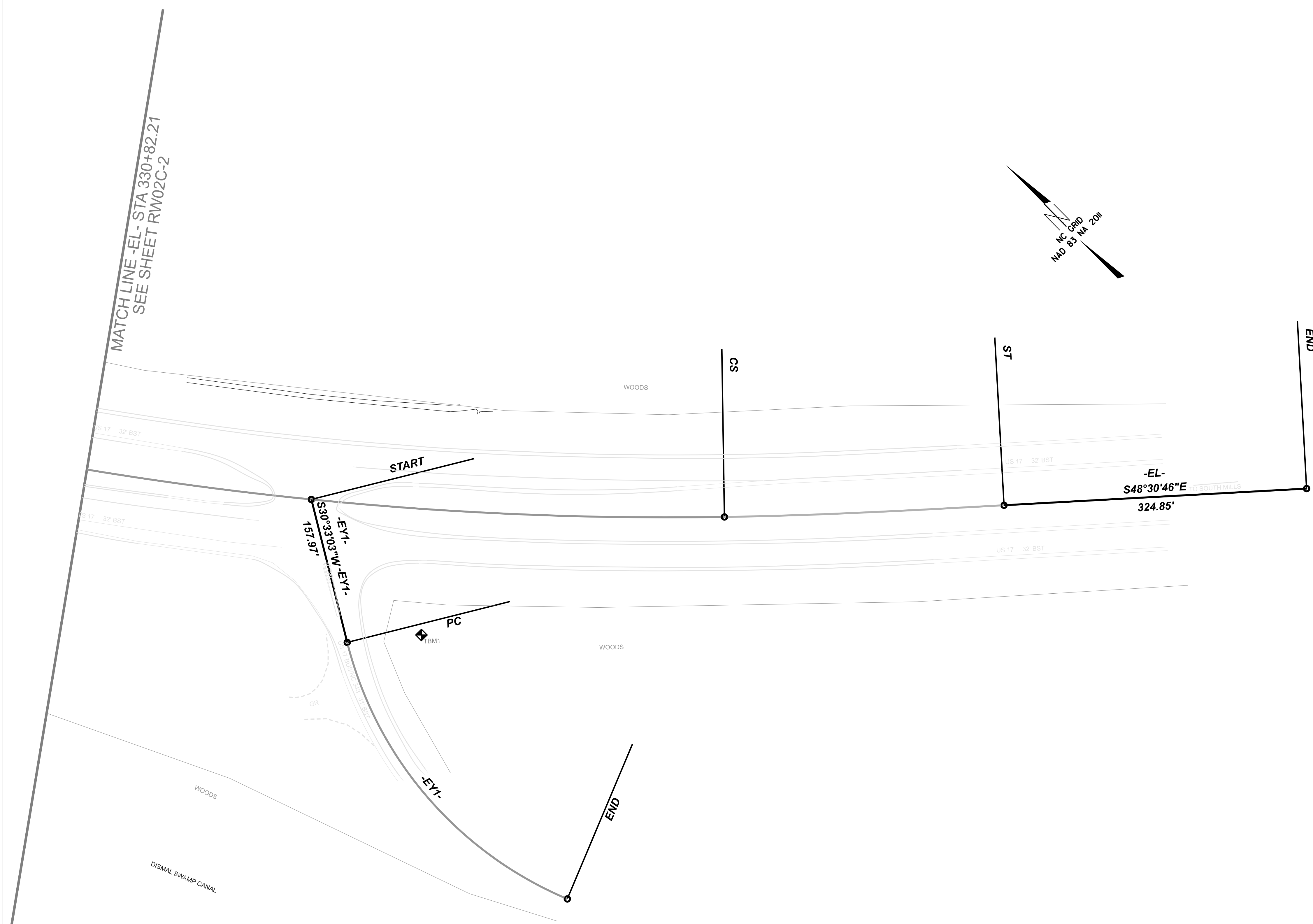
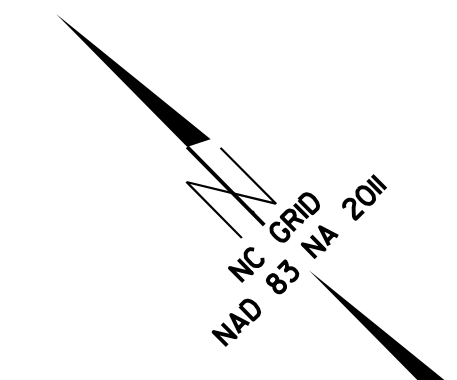


I, LINWOOD T. DOWNS III, PLS, CERTIFY THAT THE SECONDARY BASELINE CONTROL FOR THIS PROJECT WAS COMPLETED UNDER MY DIRECT AND RESPONSIBLE CHARGE FROM AN ACTUAL SURVEY MADE UNDER MY SUPERVISION UTILIZING PRIMARY GPS CONTROL SET BY OTHERS; THAT ALL HORIZONTAL CLOSURES HAD A MINIMUM RATIO OF PRECISION OF 1:20,000 (CLASS AA) AND VERTICAL ACCURACY TO 1:10,000 (CLASS A). FIELD WORK WAS PERFORMED IN APRIL 2024, AND ALL COORDINATES ARE BASED ON NAD 83/NA 2011 AND ALL ELEVATIONS ARE BASED ON NAVD 88; THAT THIS SURVEY WAS PERFORMED TO MEET THE REQUIREMENTS OF 21NCAC 56.1600 AS APPLICABLE.

THIS 24TH DAY OF JULY, 2024.

DocuSigned by:
Linwood T. Downs III

PROFESSIONAL LAND SURVEYOR L-5327

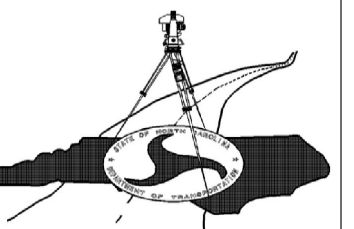


NOTES:

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TIP PROJECT: HS-2401A
County: CAMDEN

PREPARED FOR



LOCATION AND
SURVEYS UNIT

PREPARED BY

LOCATION & SURVEYS
DIVISION 1
1300 US 64W
PLYMOUTH, NC 27962

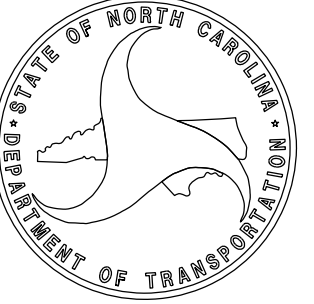
SECONDARY SURVEY CONTROL SHEET

W/EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

HS-2401A

R/W 02C-4

NORTH CAROLINA
DEPARTMENT
OF TRANSPORTATION



PROFESSIONAL LAND
SURVEYOR



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FINAL UNLESS ALL SIGNATURES
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2024 STANDARD
SPECIFICATIONS

I, LINWOOD T. DOWNS III, PLS, CERTIFY THAT THE SECONDARY BASELINE CONTROL FOR THIS PROJECT WAS COMPLETED UNDER MY DIRECT AND RESPONSIBLE CHARGE FROM AN ACTUAL SURVEY MADE UNDER MY SUPERVISION UTILIZING PRIMARY GPS CONTROL SET BY OTHERS; THAT ALL HORIZONTAL CLOSURES HAD A MINIMUM RATIO OF PRECISION OF 1:20,000 (CLASS AA) AND VERTICAL ACCURACY TO 1:10,000 (CLASS A). FIELD WORK WAS PERFORMED IN APRIL 2024, AND ALL COORDINATES ARE BASED ON NAD 83/NA 2011 AND ALL ELEVATIONS ARE BASED ON NAVD 88; THAT THIS SURVEY WAS PERFORMED TO MEET THE REQUIREMENTS OF 21NCAC 56.1600 AS APPLICABLE.

THIS 24TH DAY OF JULY, 2024.

DocuSigned by:
Linwood T. Downs III
6A99211D2422489
PROFESSIONAL LAND SURVEYOR L-5327

BASELINE POINT TABLE				
POINT	DESC	NORTH	EAST	ELEVATION
BL5	BL-5	1000118.4580	2783117.5140	15.24
BL6	BL-6	1000992.4470	2782643.9440	14.37

BENCHMARK POINT TABLE				
BENCHMARK	DESC	NORTH	EAST	ELEVATION
TBM1	R/R SPIKE IN PINE TREE	999688.833	2783253.558	12.74
TBM2	R/R SPIKE 36° PINE	1001114.769	2782760.732	14.17

EXISTING ALIGNMENT NAME:EL									
POINT	NORTHING	EASTING	BEARING	DIST	DELTA	D	L	T	R
START	1001428.4970	2782440.5820							
LINE			S22°45'45.77"E	497.81					
SC	1000695.3870	2782752.8700							
CURVE					21.250" Left	1.500"	1416.67	716.568	3819.719
ST	999348.9760	2783795.8770							
LINE			S48°30'45.95"E	324.85					
END	999133.7780	2784039.0230							

EXISTING ALIGNMENT NAME:EY									
POINT	NORTHING	EASTING	BEARING	DIST	DELTA	D	L	T	R
START	1001137.306	2783213.892							
LINE			S67°02'49.03"W	187.28					
PC	1001064.271	2783041.44							
CURVE					1.003" Right	0.250"	401.33	200.67	22918.312
PT	1000911.005	2782670.534							
LINE			S68°03'01.00"W	11.39					
END	1000906.748	2782659.969							

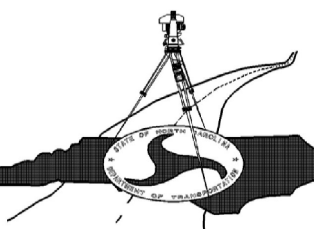
EXISTING ALIGNMENT NAME:EY1									
POINT	NORTHING	EASTING	BEARING	DIST	DELTA	D	L	T	R
START	999875.092	2783271.877							
LINE			S30°33'03.00"W	157.97					
PC	999739.051	2783191.38							
CURVE					53.101" Left	14.138"	375.583	202.497	405.256

NOTES:

1. THE PROPOSED ALIGNMENT CONTROL DATA FOR THIS PROJECT HAS BEEN COMPILED FROM VARIOUS SOURCES. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.

TIP PROJECT: HS-2401A
County: CAMDEN

PREPARED FOR



LOCATION AND
SURVEYS UNIT

PREPARED BY

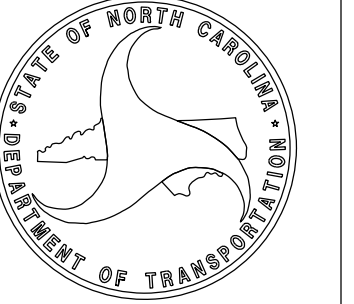
LOCATION & SURVEYS
DIVISION 1
1300 US 64W
PLYMOUTH, NC 27962

PROPOSED ALIGNMENT CONTROL SHEET

HS-2401A

R/W 020-1

NORTH CAROLINA
DEPARTMENT
OF TRANSPORTATION



I, LINWOOD T. DOWNS III, PLS, CERTIFY THAT THE DATA COMPILED CAME FROM AVAILABLE SURVEYS/MAPPING PERFORMED BY OTHERS AND PROVIDED TO ME BY NCDOT AND DO NOT CERTIFY TO THE ACCURACY OR QUALITY OF THE INDIVIDUAL DATA SOURCES.

THIS 7TH DAY OF SEPTEMBER, 2025.

DocuSigned by:
Linwood T. Downs III

PROFESSIONAL LAND SURVEYOR L-5327

PROFESSIONAL LAND SURVEYOR



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2024 STANDARD SPECIFICATIONS

TIP PROJECT: HS-2401-A
County: CAMDEN

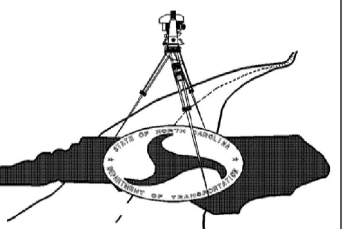
PROPOSED ALIGNMENT: L												
POINT	STATION	NORTHING	EASTING	BEARING	DIST	DELTA	D	L	T	R	LT	ST
START	10+00.00	1001429.4975	2782440.5821	S22°45'45.8"E	497.8100							
TS	14+97.81	1000970.4593	2782633.1925			02°15'00.0"		300.0000			200.0162	100.0147
SC	17+97.81	1000695.3867	2782752.8701	S35°38'15.9"E	1408.5644	21°15'00.2"	01°30'00.0"	1416.6700	716.5678	3819.7186		
CS	32+14.48	999550.6222	2783573.5819			02°15'00.0"		300.0000			200.0162	100.0147
ST	35+14.48	999348.9755	2783795.6771	S48°30'46.0"E	324.8500							
END	38+39.33	999133.7776	2784039.0233									

PROPOSED ALIGNMENT: Y1												
POINT	STATION	NORTHING	EASTING	BEARING	DIST	DELTA	D	L	T	R	LT	ST
START	10+00.00	999236.2277	2783223.0889	N22°10'37.3"W	152.2288							
PC	11+52.23	999377.1949	2783165.6272	N01°24'59.9"W	283.5685	41°31'14.8"	14°19'26.2"	289.8697	151.6294	400.0000		
PCC	14+42.10	999660.6767	2783158.6167	N25°11'48.4"E	124.5626	10°44'34.5"	08°36'42.8"	124.7453	62.5560	665.3099		
PT	15+66.84	999773.3873	2783211.6466	N30°33'03.0"E	118.0992							
END	16+84.94	999875.0918	2783271.6767									

NOTES:

1. THE PROPOSED ALIGNMENT CONTROL DATA FOR THIS PROJECT HAS BEEN COMPILED FROM VARIOUS SOURCES. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.

PREPARED FOR



LOCATION AND SURVEYS UNIT

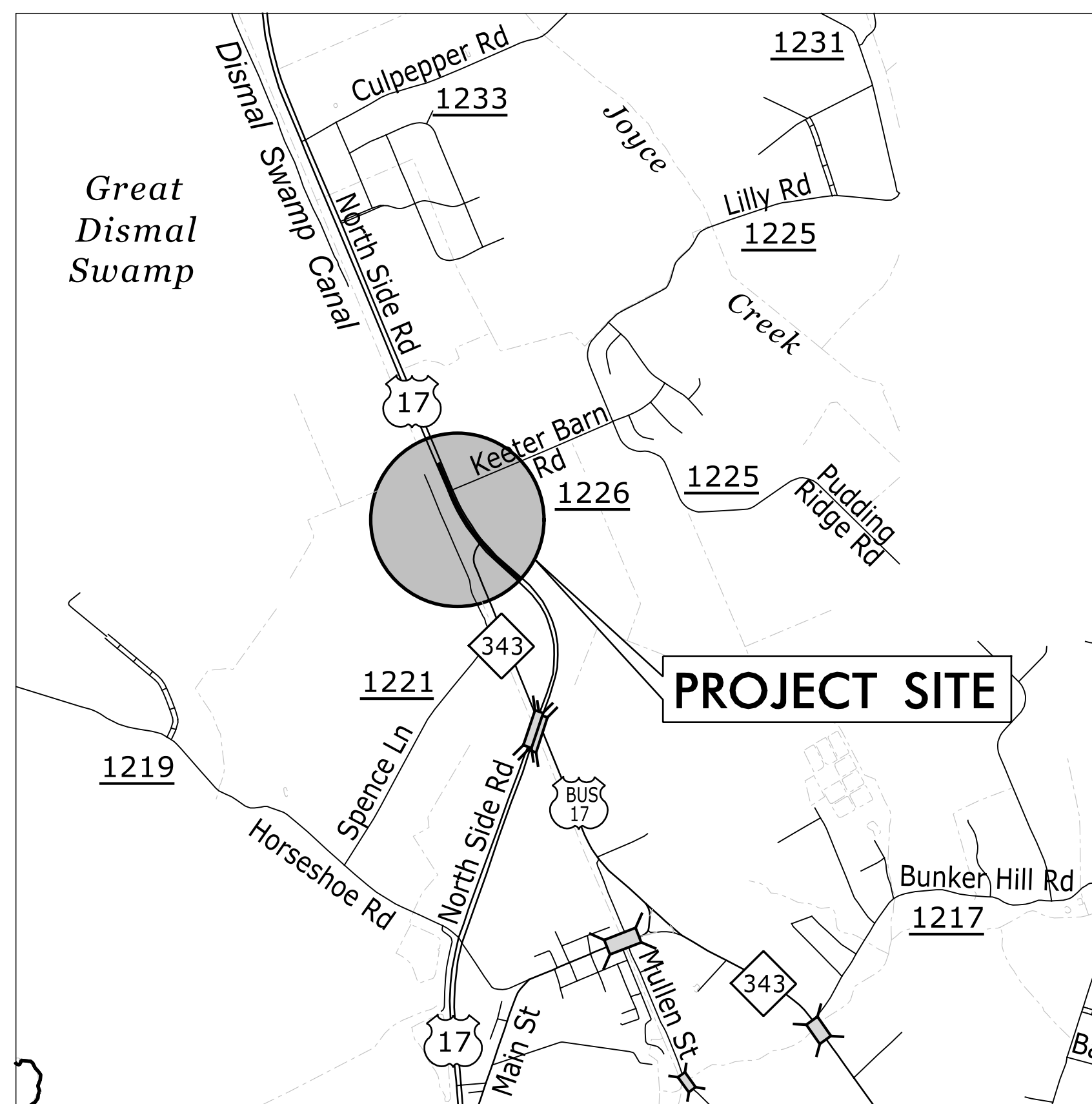
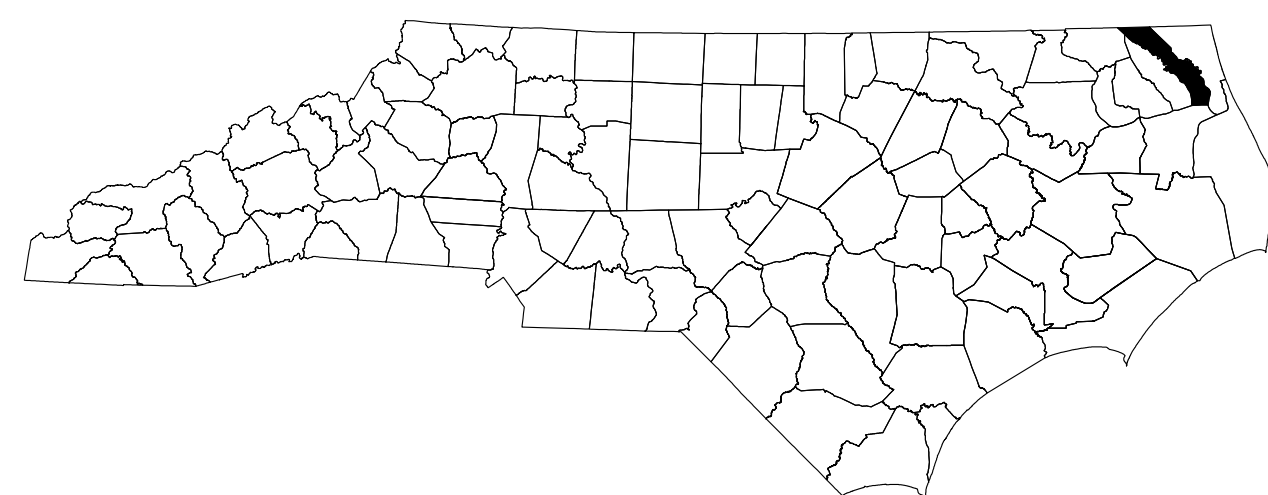
PREPARED BY
LOCATION AND SURVEYS
DIVISION 1
1300 US 64 WEST
PLYMOUTH, NC 27962

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

CAMDEN COUNTY

TYPE OF WORK: *WIDENING, GRADING, PAVING, DRAINAGE,
SIGNING AND SIGNALS*



VICINITY MAP (NTS)



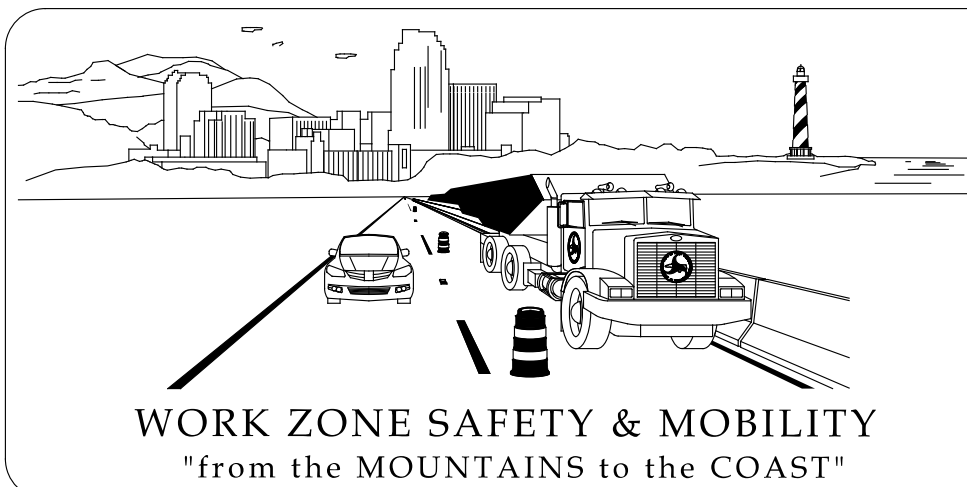
INDEX OF SHEETS

SHEET NO.	TITLE
TMP-1	TITLE SHEET, VICINITY MAP, AND INDEX OF SHEETS
TMP-1A	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, AND LEGEND
TMP - 2	GENERAL NOTES
TMP - 3	PHASING NOTES
TMP - 4	TEMPORARY TRAFFIC CONTROL PHASE I DETAIL
TMP - 5	TEMPORARY TRAFFIC CONTROL PHASE II DETAIL
TMP - 6	TEMPORARY TRAFFIC CONTROL PHASE III DETAIL

SHEET NO.

TMP-1

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PLANS PREPARED BY:

ALLISON C. JOHNSON, P.E.
TRAFFIC CONTROL PROJECT ENGINEER

KRISTOPHER B. ROBERTS, P.E.
TRAFFIC CONTROL PROJECT DESIGN ENGINEER

NCDOT CONTACT:

JUSTIN R SMITH, P.E.
NCDOT CONTACT

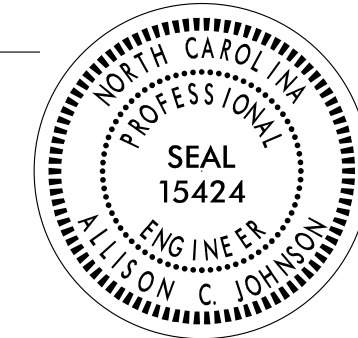


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APPROVED: Allison C. Johnson
DocuSigned by: Allison C. Johnson
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DATE: 2/12/2026

SEAL




TIP PROJECT: HS-2401A

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2024 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

<u>STD. NO.</u>	<u>TITLE</u>
1101.01	WORK ZONE ADVANCE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.05	WORK ZONE VEHICLE ACCESS
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1115.01	FLASHING ARROW BOARDS
1130.01	DRUM
1145.01	BARRICADES
1150.01	FLAGGERS
1165.01	WORK VEHICLE LIGHTING SYSTEMS AND TMA DELINEATION
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO-LANE AND MULTI-LANE ROADWAYS
1250.01	RAISED PAVEMENT MARKERS - INSTALLTION SPACING
1251.01	RAISED PAVEMENT MARKERS - PERMANENT AND TEMPORARY

THE FOLLOWING LISTED WORK ZONE STRATEGIES ARE RECOMMENDED FOR INCLUSION WITHIN THIS TRANSPORTATION MANAGEMENT PLAN (TMP).

RECOMMENDED STRATEGIES:

- TRAFFIC MANAGEMENT STRATEGIES:**
 LANE SHIFTS OR CLOSURES
 SHOULDER CLOSURES
 WORK HOUR RESTRICTIONS FOR PEAK TRAVEL
 PEDESTRIAN / BICYCLE ACCOMMODATIONS
- CORRIDOR / NETWORK MANAGEMENT STRATEGIES:**
 SIGNAL TIMING / COORDINATION IMPROVEMENTS
 STREET / INTERSECTION IMPROVEMENTS

LEGEND

GENERAL

- DIRECTION OF TRAFFIC FLOW
- DIRECTION OF PEDESTRIAN TRAFFIC FLOW
- EXIST. PVMT.
- NORTH ARROW
- PROPOSED PVMT.
- TEMP. SHORING (LOCATION PURPOSES ONLY)

- WORK AREA
- REMOVAL
- USER DEFINED (IF NEEDED)
- USER DEFINED (IF NEEDED)

SIGNALS

- EXISTING
- PROPOSED
- TEMPORARY
- PORTABLE
- DRIVEWAY SIGNAL

PAVEMENT MARKINGS

- EXISTING LINES
- TEMPORARY LINES

TEMPORARY PAVEMENT MARKING (PAINT)

- P1 WHITE EDGELINE (4")
- P2 WHITE SOLID LANE LINE (4")
- P3 10 FT. WHITE SKIP (4")
- P4 3 FT. -9 FT./SP WHITE MINISKIP (4")
- P10 YELLOW EDGELINE (4")
- P11 YELLOW SINGLE CENTER (4")
- P13 YELLOW DOUBLE CENTER (4")
- P40 WHITE GORE LINE (4")
- P43 WHITE SOLID LANE LINE (8")
- P44 3 FT. - 9 FT./SP WHITE MINISKIP (8")
- P61 WHITE SIOPBAR (24")
- P70 LEFT TURN ARROW
- P71 RIGHT TURN ARROW
- P77 U-TURN ARROW
- P100 ALPHANUMERIC CHARACTER

TRAFFIC CONTROL DEVICES

- BARRICADE (TYPE III)
- CONE
- DRUM SKINNY DRUM TUBULAR MARKER
- TEMPORARY CRASH CUSHION
- FLASHING ARROW BOARD
- FLAGGER
- LAW ENFORCEMENT
- TRUCK MOUNTED ATTENUATOR (TMA)
- CHANGEABLE MESSAGE SIGN

TEMPORARY SIGNING

- PORTABLE SIGN
- STATIONARY SIGN
- STATIONARY OR PORTABLE SIGN

PAVEMENT MARKERS

- CRYSTAL/CRYSTAL
- CRYSTAL/RED
- YELLOW/YELLOW

PAVEMENT MARKING SYMBOLS

- PAVEMENT MARKING SYMBOLS

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APPROVED: DATE: 2/12/2026 SEAL			<h2 style="margin: 0;">ROADWAY STANDARD DRAWINGS & LEGEND</h2>
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PROJ. REFERENCE NO.	SHEET NO.
HS-2401A	TMP-2

TRANSPORTATION MANAGEMENT GENERAL NOTES

CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE DETAIL DRAWINGS, STANDARD DETAILS, AND ROADWAY DETAILS ARE NOT ATTAINABLE TO MEET FIELD CONDITIONS OR RESULT IN DUPLICATE OR UNDESIRE OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING, OR REMOVAL OF DEVICES AS DIRECTED BY THE ENGINEER.

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT EXCEPT WHEN OTHERWISE NOTED IN THE PLAN OR DIRECTED BY THE ENGINEER.

TIME RESTRICTIONS

A) DO NOT CLOSE OR NARROW TRAVEL LANES AS FOLLOWS:

ROAD NAME
US 17 & NC 343

DAY AND TIME RESTRICTIONS

MONDAY-FRIDAY FROM THIRTY (30) MINUTES BEFORE SUNSET TO THIRTY (30) MINUTES AFTER SUNRISE THE FOLLOWING DAY.

SATURDAY FROM THIRTY (30) MINUTES BEFORE SUNSET TO THIRTY (30) MINUTES AFTER SUNRISE THE FOLLOWING MONDAY.

B) DO NOT CLOSE OR NARROW TRAVEL LANES DURING HOLIDAYS AND SPECIAL EVENTS AS FOLLOWS:

ROAD NAME
US 17 & NC 343

HOLIDAYS

- FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
- FOR NEW YEAR'S BETWEEN THE HOURS OF 30 MINUTES BEFORE SUNSET DECEMBER 31ST UNTIL 30 MINUTES AFTER SUNRISE JANUARY 2ND. IF NEW YEAR'S DAY IS ON A SATURDAY OR SUNDAY, THEN UNTIL 30 MINUTES AFTER SUNRISE THE FOLLOWING TUESDAY.
- FOR EASTER, BETWEEN THE HOURS OF 30 MINUTES BEFORE SUNSET THURSDAY AND 30 MINUTES AFTER SUNRISE MONDAY.
- FOR MEMORIAL DAY, BETWEEN THE HOURS OF 30 MINUTES BEFORE SUNSET FRIDAY AND 30 MINUTES AFTER SUNRISE TUESDAY.
- FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 30 MINUTES BEFORE SUNSET THE DAY BEFORE INDEPENDENCE DAY AND 30 MINUTES AFTER SUNRISE THE DAY AFTER INDEPENDENCE DAY. IF INDEPENDENCE DAY IS ON A SATURDAY OR SUNDAY, THEN BETWEEN THE HOURS OF 30 MINUTES BEFORE SUNSET THE THURSDAY BEFORE INDEPENDENCE DAY AND 30 MINUTES AFTER SUNRISE THE TUESDAY AFTER INDEPENDENCE DAY.
- FOR LABOR DAY, BETWEEN THE HOURS OF 30 MINUTES BEFORE SUNSET FRIDAY AND 30 MINUTES AFTER SUNRISE TUESDAY.
- FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 30 MINUTES BEFORE SUNSET TUESDAY AND 30 MINUTES AFTER SUNRISE MONDAY.
- FOR CHRISTMAS, BETWEEN THE HOURS OF 30 MINUTES BEFORE SUNSET THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 30 MINUTES AFTER SUNRISE THE FOLLOWING MONDAY AFTER THE WEEK OF CHRISTMAS DAY.

LANE AND SHOULDER CLOSURE REQUIREMENTS

- C) REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED OR AS DIRECTED BY THE ENGINEER.
- D) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO. 1101.04 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR A LANE CLOSURE IS INSTALLED.

E) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 5 FT OF AN OPEN TRAVEL LANE ON AN UNDIVIDED FACILITY, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02

UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL. WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 10 FT OF AN OPEN TRAVEL LANE ON A DIVIDED FACILITY, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

F) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE TRAFFIC CONTROL PLANS, ROADWAY STANDARD DRAWINGS, OR AS DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.

G) DO NOT WORK SIMULTANEOUSLY WITHIN 15 FT ON BOTH SIDES OF AN OPEN TRAVELWAY, RAMP, OR LOOP WITHIN THE SAME LOCATION UNLESS PROTECTED WITH GUARDRAIL OR BARRIER.

H) PROVIDE TRAFFIC CONTROL FOR APPROPRIATE LANE CLOSURES FOR SURVEYING DONE BY THE DEPARTMENT.

PAVEMENT EDGE DROP OFF REQUIREMENTS

I) BACKFILL AT A 6:1 SLOPE UP TO THE EDGE AND ELEVATION OF EXISTING PAVEMENT IN AREAS ADJACENT TO AN OPENED TRAVEL LANE THAT HAS AN EDGE OF PAVEMENT DROP-OFF AS FOLLOWS.

BACKFILL DROP-OFFS THAT EXCEED 2 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS OF 45 MPH OR GREATER.

BACKFILL DROP-OFFS THAT EXCEED 3 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS LESS THAN 45 MPH.

BACKFILL WITH SUITABLE COMPACTED MATERIAL, AS APPROVED BY THE ENGINEER, AT NO EXPENSE TO THE DEPARTMENT.

J) DO NOT EXCEED A DIFFERENCE OF 2 INCHES IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC FOR NOMINAL LIFTS OF 1.5 INCHES. INSTALL ADVANCE WARNING "UNEVEN LANES" SIGNS (W8-11) 500 IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

TRAFFIC PATTERN ALTERATIONS

K) NOTIFY THE ENGINEER THIRTY (30) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

L) INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 40 FT FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.

M) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

N) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS (W8-1) 500 IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.

I) DO NOT EXCEED A DIFFERENCE OF 2 INCHES IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC FOR NOMINAL LIFTS OF 1.5 INCHES. INSTALL ADVANCE WARNING "UNEVEN LANES" SIGNS (W8-11) 500 IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

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M) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS (W8-1) 500 IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.

TRAFFIC CONTROL DEVICES

P) WHEN LANE CLOSURES ARE NOT IN EFFECT SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER IN FEET THAN TWICE THE POSTED SPEED LIMIT (MPH) EXCEPT, 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY. REFER TO STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES SECTIONS 1130 (DRUMS), 1135 (CONES) AND 1180 (SKINNY DRUMS) FOR ADDITIONAL REQUIREMENTS.

Q) PLACE ADDITIONAL SETS OF THREE CHANNELIZING DEVICES DRUMS PERPENDICULAR TO THE EDGE OF TRAVELWAY ON 500 FT CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC.

PAVEMENT MARKINGS AND MARKERS

R) PLACE ONE APPLICATION OF PAINT FOR TEMPORARY TRAFFIC PATTERNS. PLACE A SECOND APPLICATION OF PAINT SIX (6) MONTHS AFTER THE INITIAL APPLICATION AND EVERY SIX MONTHS AS DIRECTED BY THE ENGINEER.

S) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.

T) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.

U) INSTALL TEMPORARY PAVEMENT MARKINGS AND TEMPORARY PAVEMENT MARKERS ON INTERIM LAYERS OF PAVEMENT AS FOLLOWS:

ROAD NAME	MARKING	MARKER
US 17	PAINT	N/A
NC 343	PAINT	N/A

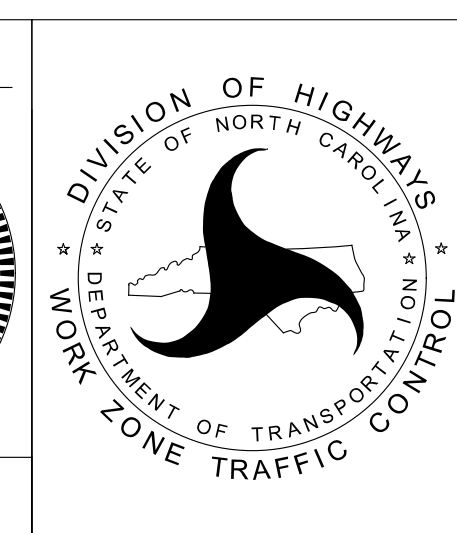
MISCELLANEOUS

V) LAW ENFORCEMENT MAY BE USED TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AND/OR INTERSECTIONS AS DIRECTED BY THE ENGINEER.



DESIGNED BY: *Allison C. Johnson*
 APPROVED: *Allison C. Johnson*
 DATE: 2/12/2026
 SEAL: [Professional Engineer Seal for Allison C. Johnson, License No. 15424]

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TRAFFIC MANAGEMENT PLAN GENERAL NOTES

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TRANSPORTATION PHASING NOTES

PHASE 1

- 1) THE CONTRACTOR SHALL PLACE ALL WORK ZONE ADVANCE WARNING SIGNS THROUGHOUT THE PROJECT (IN ACCORDANCE WITH THE TRAFFIC CONTROL PLANS AND ROADWAY STANDARD DRAWING 1101.01) PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITIES.
- 2) USING ROADWAY STANDARD DRAWING 1101.02 FOR TEMPORARY LANES CLOSURES, CONTRACTOR SHALL CONSTRUCT THE LEFT TURN/MERGE LANE EXTENSION ALONG NORTHBOUND US17 (SEE TCP - 4) :

-L- STA. 16+00+/- TO -L- STA. 27+28+/-

AT THE NC 343 INTERSECTION, PERMANENTLY CLOSE THE NORTHBOUND LEFT TURN LANE ON US17 AND DETOUR TRAFFIC TO THE KEETER BARN INTERSECTION. OPEN ALL OTHER LANES TO TRAFFIC AT THE END OF EACH WORKDAY (SEE TCP - 4) :

-L- STA. 29+00+/- TO -L- STA. 32+57+/-

CONTRACTOR SHALL CONSTRUCT THE WIDENING ALONG THE EASTBOUND LANE OF NC 343. OPEN ALL LANES TO TRAFFIC AT THE END OF EACH WORKDAY (SEE TCP - 4) :

-Y1 STA. 13+00+/- TO -Y1- STA. 16+20+/-

- 3) INSTALL TEMPORARY MARKINGS ALONG US17 AND NC 343 AT THE FOLLOWING LOCATIONS (SEE TMP- 5) :

-L- STA. 16+00+/- TO -L- STA. 28+00+/-
 -Y1- STA. 13+00+/- TO -Y1- STA. 16+28+/-

INSTALL PERMANENT SIGNS ALONG NORTHBOUND US 17, REMOVE CONFLICTING SIGNS (SEE SIGNING PLANS) :

-L- STA. 16+00+/- TO -L- STA. 28+00+/-

IMPLEMENT A PARTIAL OPENING OF THE NEWLY CONSTRUCTED LEFT TURN/MERGE LANE ALONG NORTHBOUND US 17 (SEE TCP - 5) :

-L- STA. 16+00+/- TO -L- STA. 25+81+/-

PHASE 2

- 1) USING ROADWAY STANDARD DRAWING 1101.02 FOR TEMPORARY LANES CLOSURES AND TEMPORARY PAVEMENT, CONTRACTOR SHALL COMPLETE THE REMOVAL OF THE LEFT TURN LANE ALONG SOUTHBOUND US17 AND CONSTRUCT THE ISLAND AT THE MEDIAN CROSSOVER. OPEN ALL LANES TO TRAFFIC AT THE END OF EACH WORKDAY (SEE TCP - 5) :

-L- STA. 22+57+/- TO -L- STA. 28+00+/-

- 2) USING ROADWAY STANDARD DRAWING 1101.04 FOR TEMPORARY SHOULDER CLOSURES, CONTRACTOR SHALL CONSTRUCT THE FREE-FLOW RIGHT TURN LANE FROM SOUTHBOUND US17 (SEE TCP - 5) :

-L- STA. 25+67+/- TO -L- STA. 27+00+/-
 -Y1- STA. 13+00+/- TO -Y1- STA. 16+20+/- LT

- 3) USING ROADWAY STANDARD DRAWING 1101.02 FOR TEMPORARY LANE CLOSURES CONTRACTOR SHALL CONSTRUCT THE PROPOSED ISLAND AT THE SOUTHBOUND US 17/NC 343 INTERSECTION. OPEN ALL LANES TO TRAFFIC AT THE END OF EACH WORKDAY (SEE TCP - 5) :

-L- STA. 26+23+/- TO -L- STA. 28+00+/- RT
 -Y1- STA. 15+00+/- TO -Y1- STA. 16+25+/- LT

PHASE 3

- 1) USING ROADWAY STANDARD DRAWING 1101.02 FOR TEMPORARY LANES CLOSURES, CONTRACTOR SHALL CONSTRUCT REMAINDER OF THE ISLAND AND COMPLETE THE PAVEMENT REMOVAL ALONG NORTHBOUND US 17, SOUTH OF THE NC 343 INTERSECTION. OPEN ALL LANES ON US 17 TO TRAFFIC AT THE END OF EACH WORKDAY (SEE TCP - 6) :

-L- STA. 27+30+/- TO -L- STA. 32+57+/-

PHASE 4

- 1) USING ROADWAY STANDARD DRAWING 1101.02 FOR TEMPORARY LANES CLOSURES, CONTRACTOR SHALL CONSTRUCT THE FINAL SURFACE COURSE, PLACE FINAL MARKINGS/SIGNS AND INSTALL THE PROPOSED SIGNAL. REMOVE ALL TRAFFIC CONTROL DEVICES AND OPEN US 17 AND NC 343 TO FINAL TRAFFIC PATTERN.

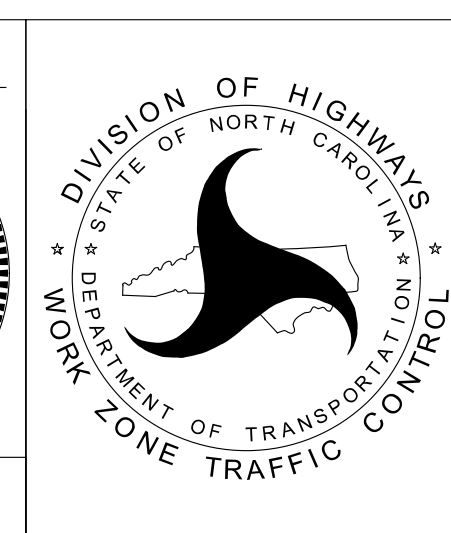
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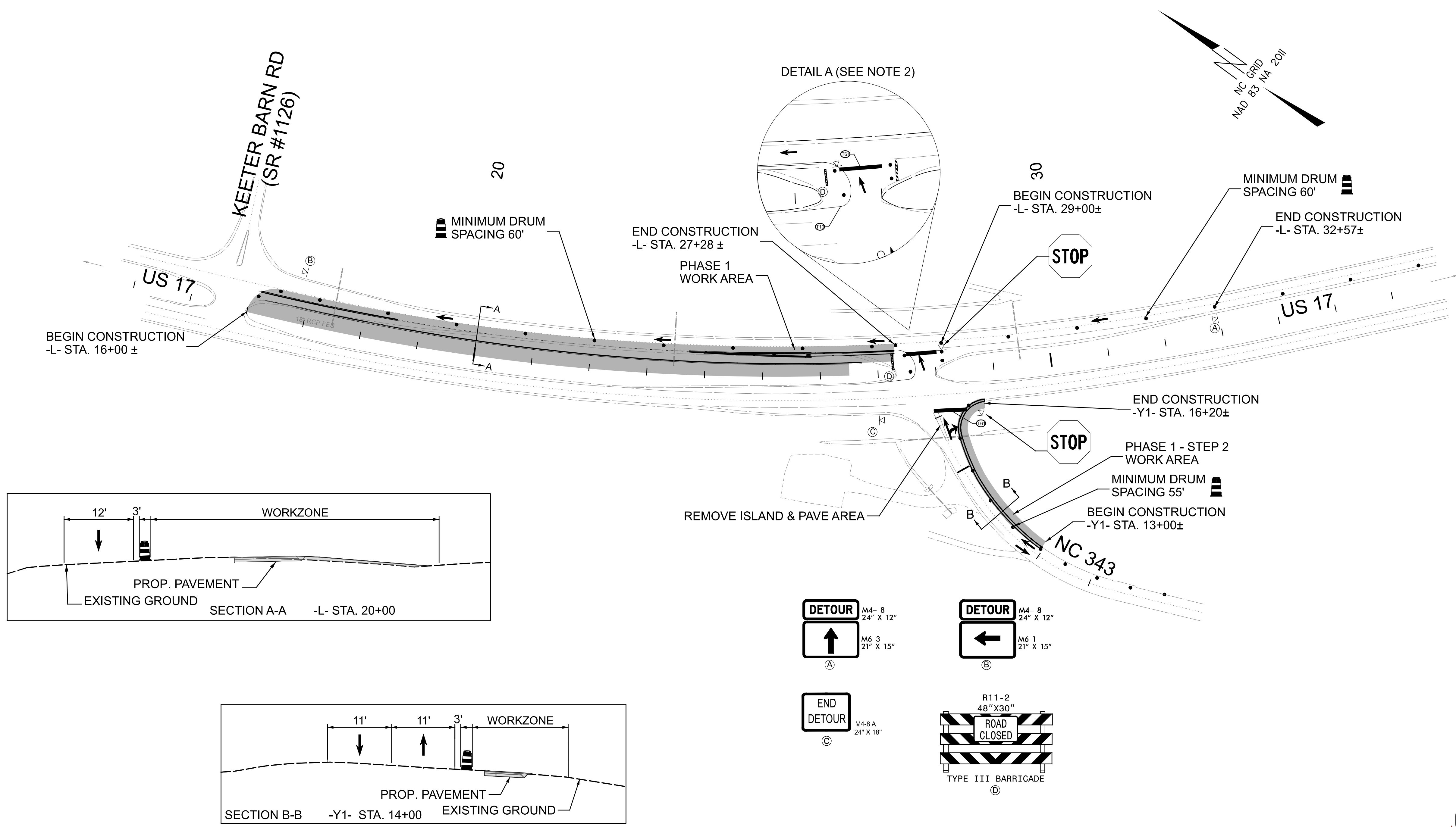
DocuSigned by:
 APPROVED: *Allison C. Johnson*
 DATE: 2/12/2026

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**TRAFFIC MANAGEMENT PLAN
 PHASING NOTES**



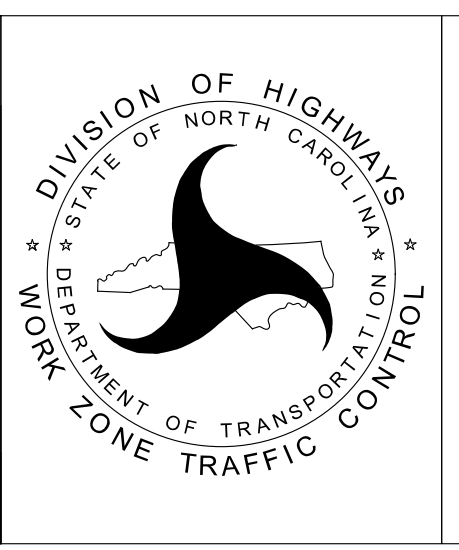
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 DATE: 2/12/2026

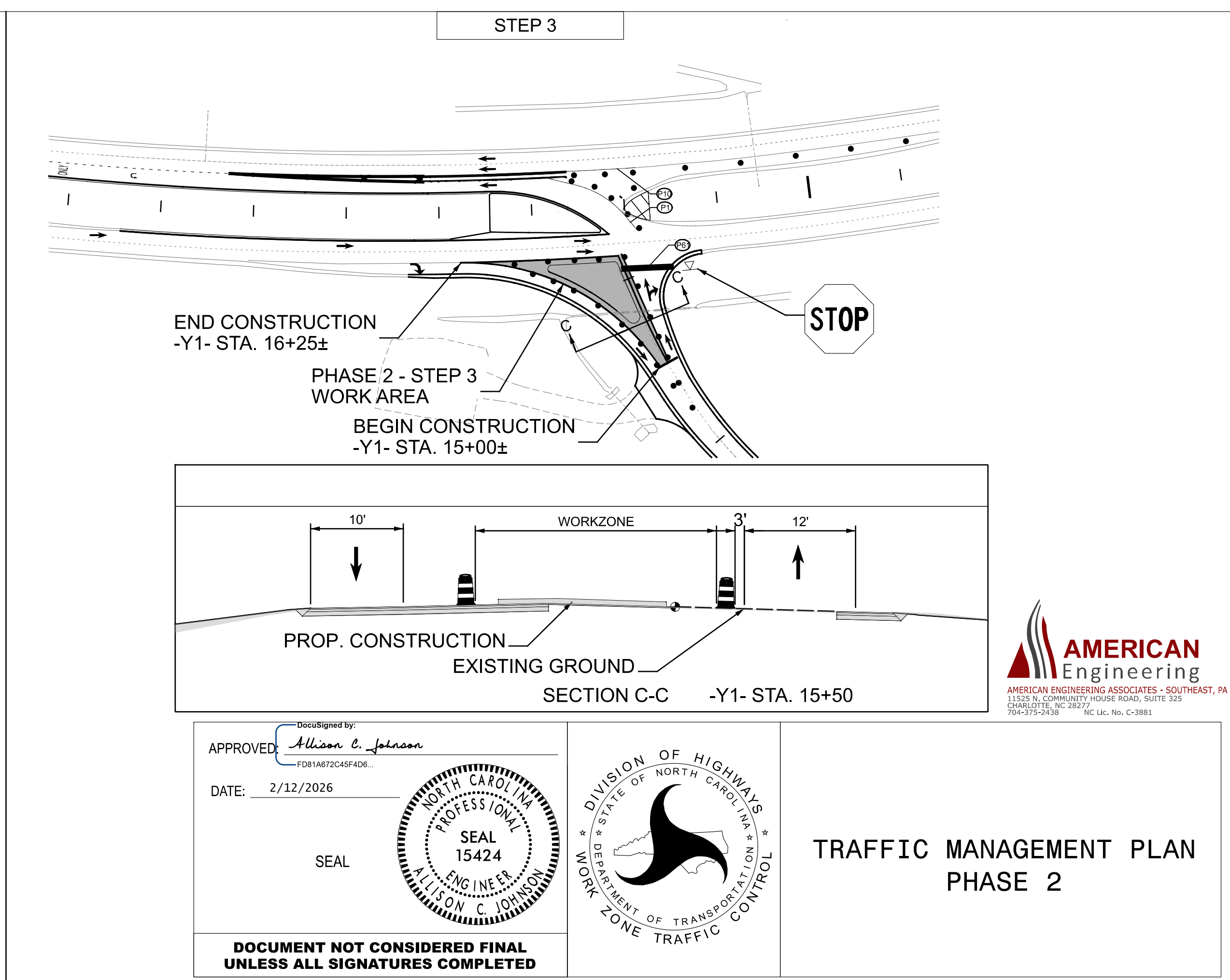
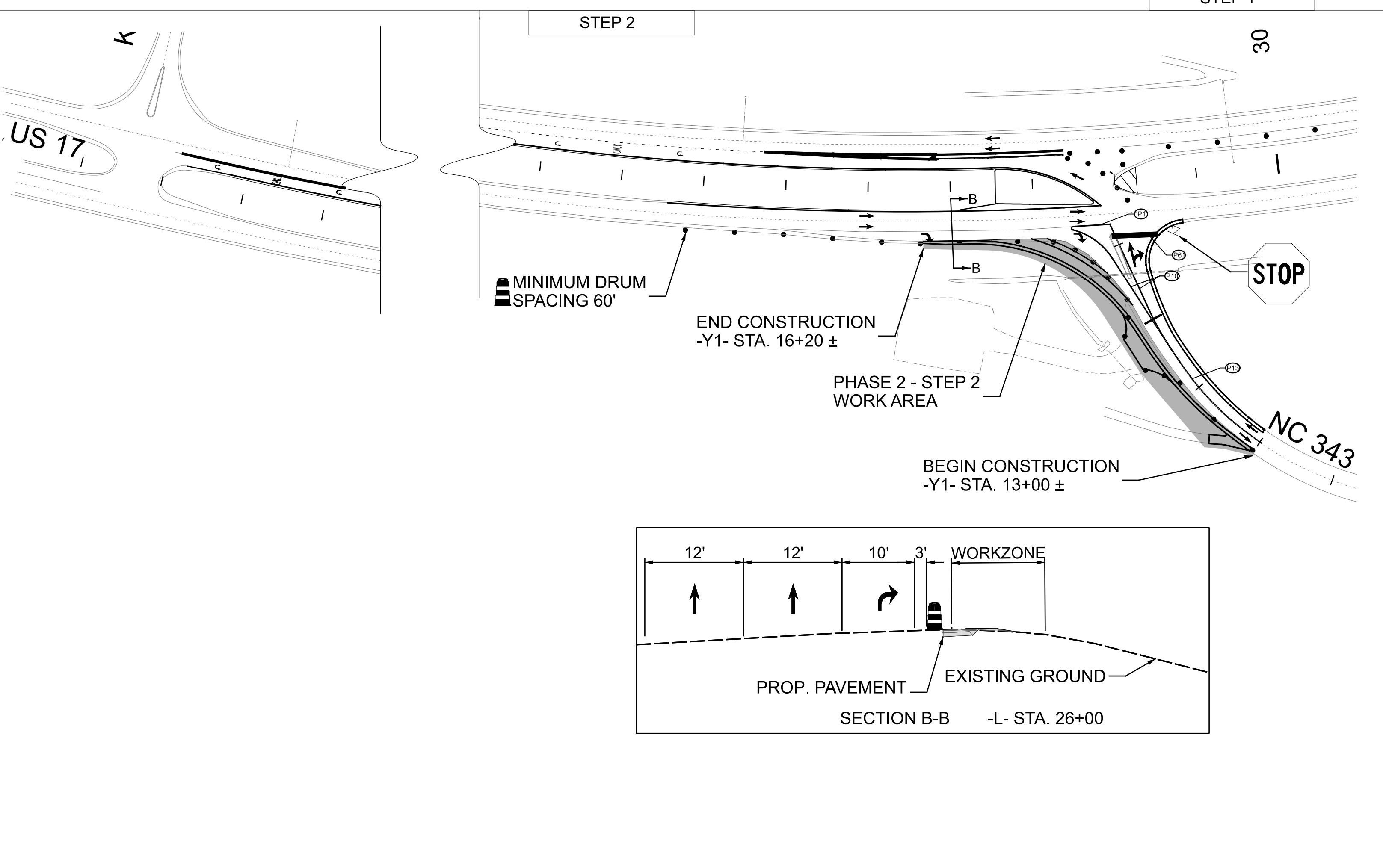
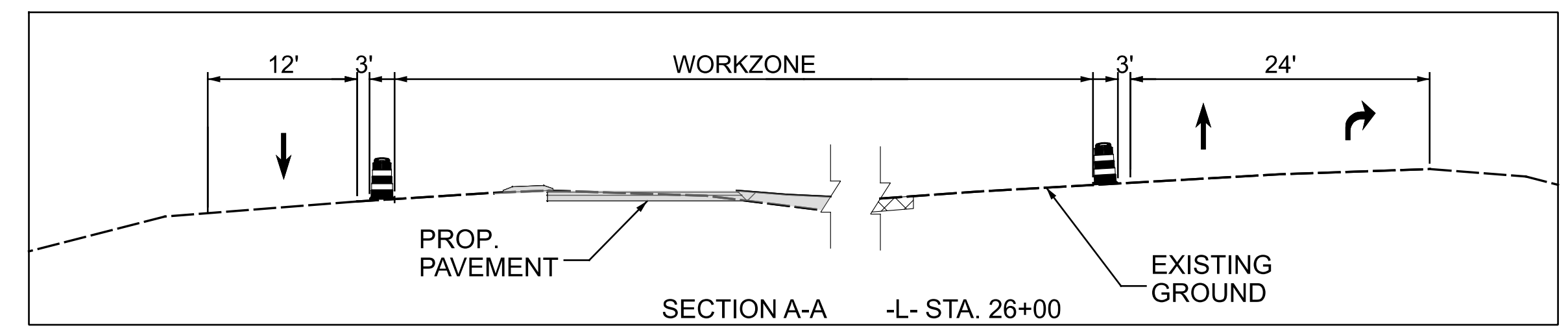
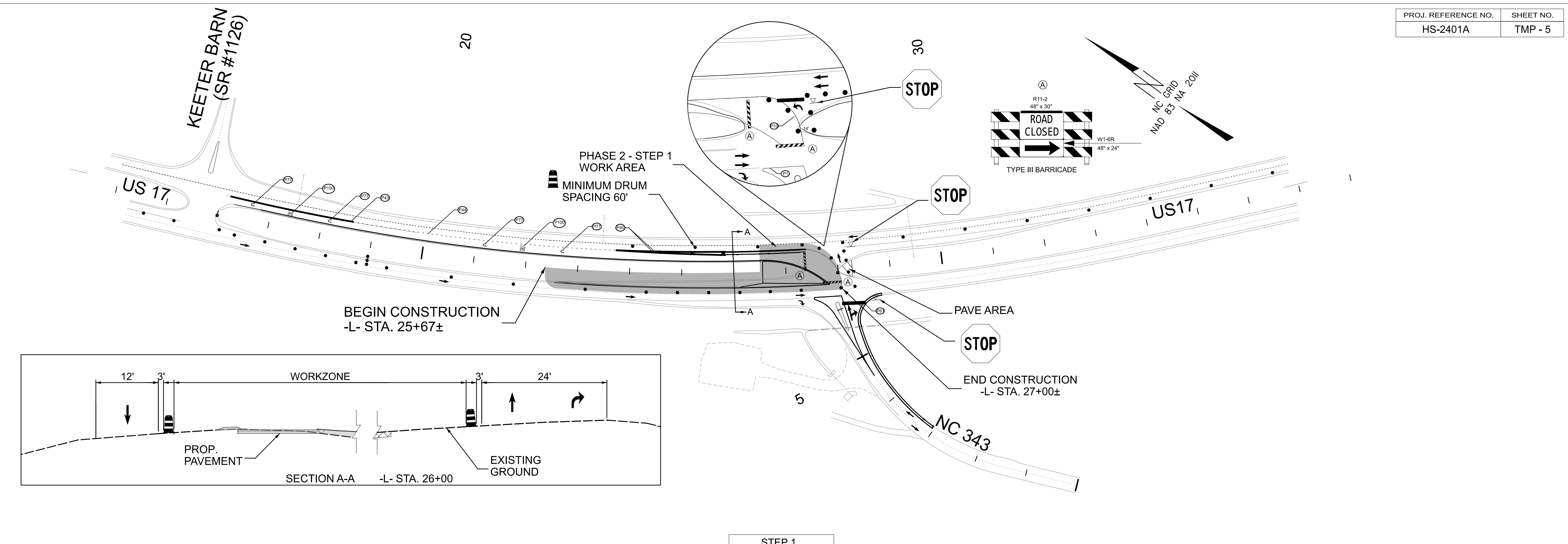
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TRAFFIC MANAGEMENT PLAN
 PHASE 1

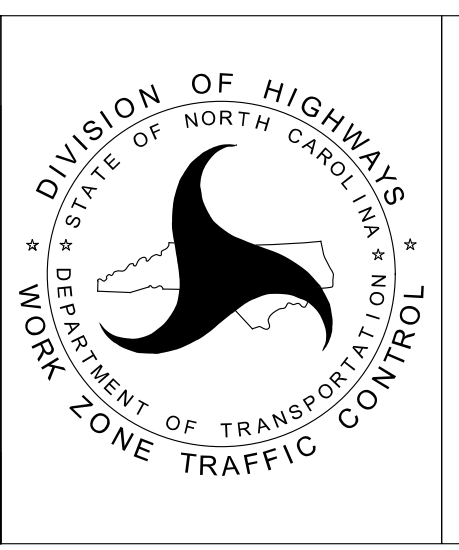
DIVISION OF HIGHWAYS
 STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 WORK ZONE TRAFFIC CONTROL



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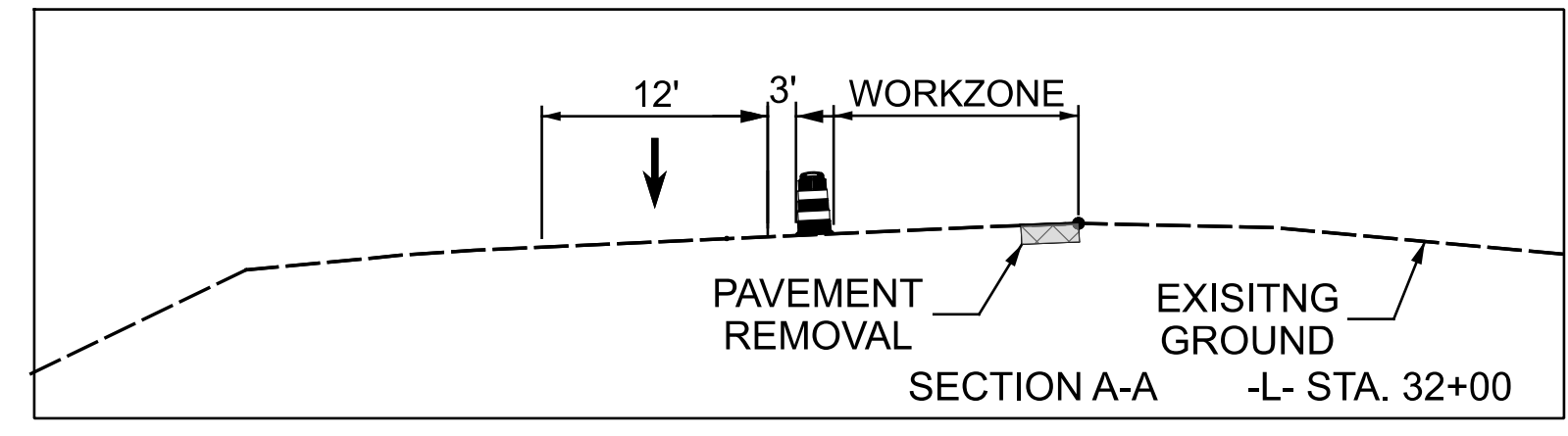
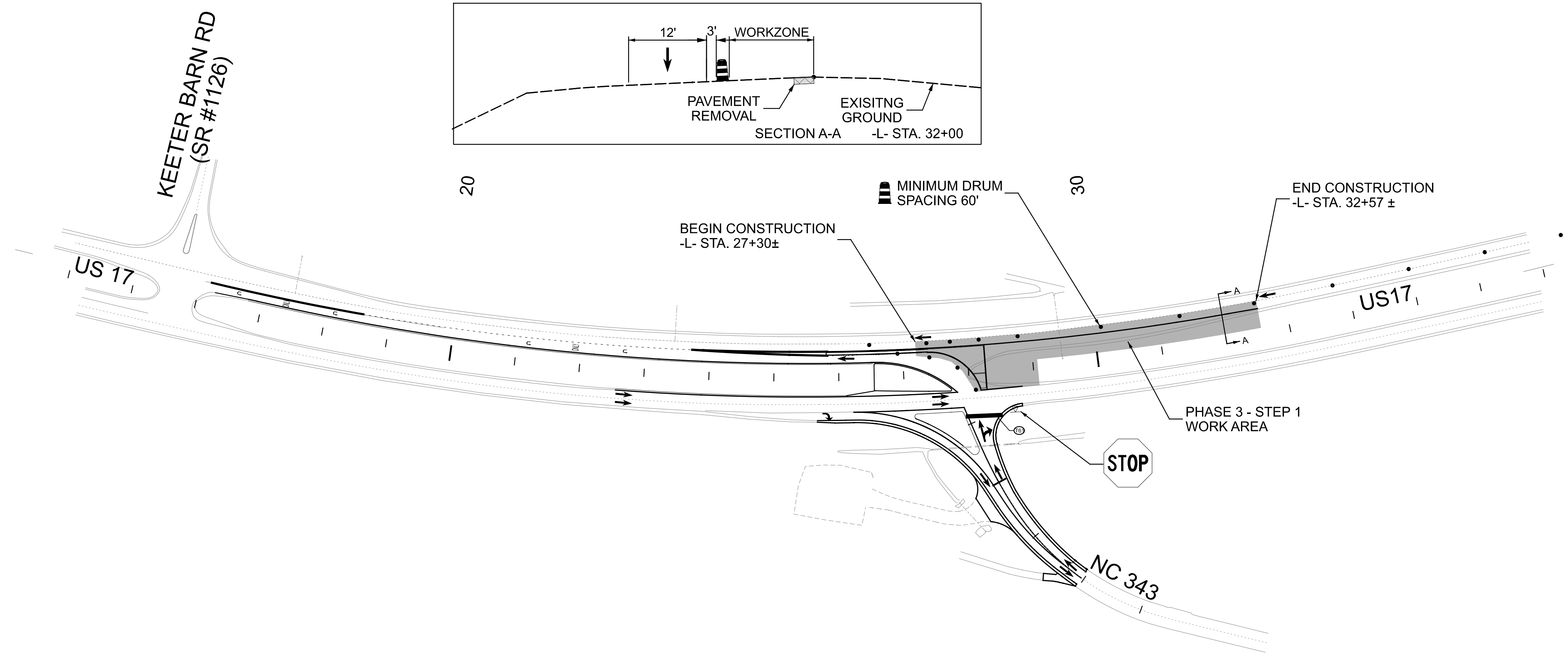
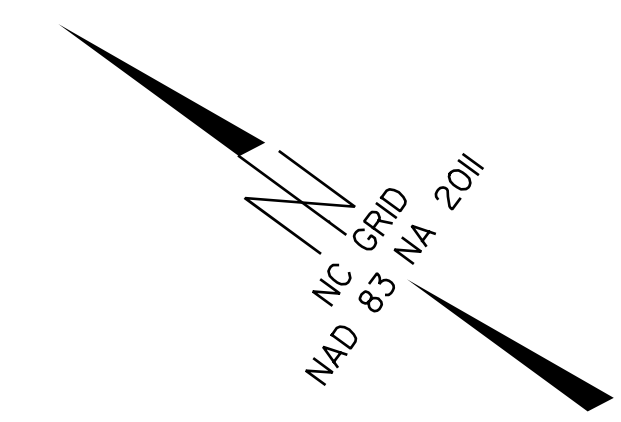


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 DATE: 2/12/2026
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TRAFFIC MANAGEMENT PLAN
 PHASE 2

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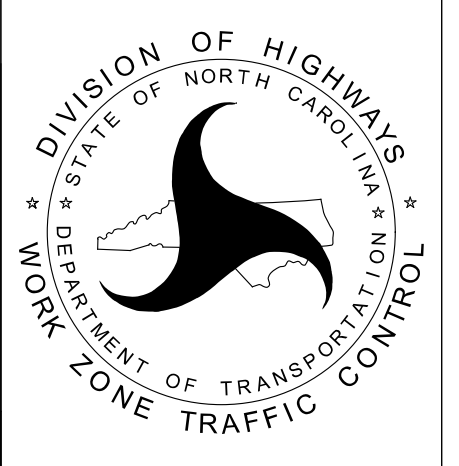
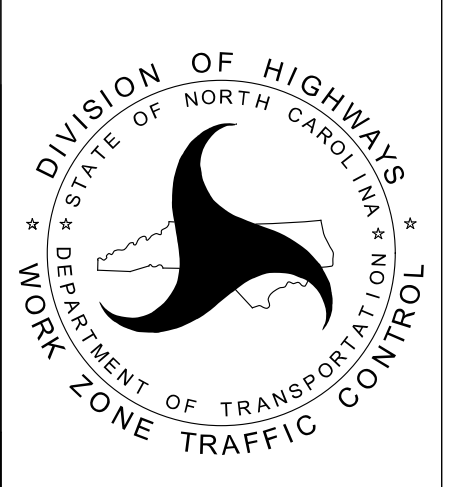
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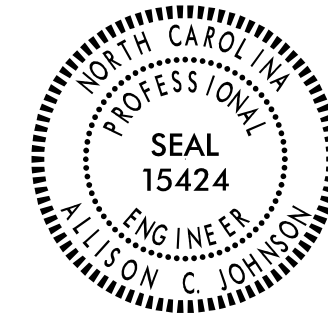
DocuSigned by:
 APPROVED: *Allison C. Johnson*
 DATE: 2/12/2026

SEAL

**DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED**



**TRAFFIC MANAGEMENT PLAN
 PHASE 3**

TIP NO.	SHEET NO.
HS-2401A	PMP-1
APPROVED: <i>Allison C. Johnson</i> <small>DESIGNED BY: F081667C48F40E</small>	
DATE: 2/16/2026	
SEAL	
	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

**STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING PLAN
CAMDEN COUNTY**

T.I.P.: HS-2401A

CONTRACT: DA00648

ROADWAY STANDARD DRAWING

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2024 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO-LANE AND MULTILANE ROADWAYS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - PERMANENT AND TEMPORARY

GENERAL NOTES

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT, EXCEPT WHEN OTHERWISE NOTED IN THE PLAN, OR DIRECTED BY THE ENGINEER.

- A) INSTALL PAVEMENT MARKINGS AND PAVEMENT MARKERS ON THE FINAL SURFACE AS FOLLOWS:

ROAD NAME	MARKING	MARKER
US 17	THERMOPLASTIC	SNOWPLOWABLE H-SHAPED POLYCARBONATE MARKERS
NC 343	THERMOPLASTIC	SNOWPLOWABLE H-SHAPED POLYCARBONATE MARKERS

- B) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- C) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS.
- D) STOP BAR LOCATION AT NON-SIGNALIZED INTERSECTIONS MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER.
- E) REMOVE ALL RESIDUE AND SURFACE LAITANCE BY ACCEPTABLE METHODS ON CONCRETE BRIDGE DECKS PRIOR TO PLACING (insert marking material) PAVEMENT MARKING MATERIAL.
- F) UNLESS OTHERWISE SPECIFIED, HEATED-IN-PLACE THERMOPLASTIC MAY BE USED IN LIEU OF EXTRUDED THERMOPLASTIC FOR STOP BARS, SYMBOLS, CHARACTERS AND DIAGONALS. IF HEATED-IN-PLACE IS USED, IT SHALL BE PAID FOR USING THE EXTRUDED THERMOPLASTIC PAY ITEM.
- G) UNLESS OTHERWISE SPECIFIED, HEATED-IN-PLACE THERMOPLASTIC MAY BE USED IN LIEU OF COLD APPLIED PLASTIC FOR STOP BARS, SYMBOLS, CHARACTERS AND DIAGONALS ON ASPHALT OR CONCRETE ROADWAYS. IF HEATED-IN-PLACE IS USED, IT SHALL BE PAID FOR USING THE COLD APPLIED PAY ITEM.
- H) TYPE III COLD APPLIED PLASTIC MAY BE USED IN LIEU OF TYPE II COLD APPLIED PLASTIC. IF TYPE III COLD APPLIED PLASTIC IS USED, IT SHALL BE PAID FOR USING THE TYPE II COLD APPLIED PLASTIC PAY ITEM.

PAVEMENT MARKING SCHEDULE

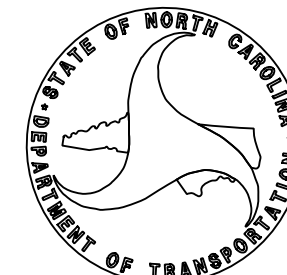
<u>THERMOPLASTIC (6", 90 MIL)</u>	<u>THERMOPLASTIC (24", 90 MIL)</u>
T20 WHITE EDGELINE	T61 WHITE STOP BAR
T21 WHITE SOLID LANE LINE	T62 WHITE CROSSWALK LINE
T22 10 FT. WHITE SKIP	<u>THERMOPLASTIC (90 MIL)</u>
T23 3 FT. - 9 FT.SP WHITE MINISKIP	T70 LEFT TURN ARROW
T24 2 FT. - 6 FT.SP WHITE MINISKIP	T71 RIGHT TURN ARROW
T30 YELLOW EDGELINE	T77 U TURN ARROW
T33 YELLOW DOUBLE CENTER	ONLY T100 ALPHANUMERIC CHAR.
<u>THERMOPLASTIC (12", 90 MIL)</u>	<u>SNOWPLOWABLE PAVEMENT MARKERS</u>
T50 WHITE GORE LINE	ME YELLOW/YELLOW
T51 WHITE DIAGONAL	MF CRYSTAL/RED
T52 YELLOW DIAGONAL	
T53 WHITE SOLID LANE LINE	
T54 3 FT. -9 FT. MINI SKIP	

INDEX

SHEET NO.	DESCRIPTION
PMP-1	PAVEMENT MARKING PLAN TITLE AND SCHEDULE SHEET
PMP-2	PAVEMENT MARKING PLAN

PLAN SUBMITTED TO: NCDOT

JUSTIN R. SMITH, PE
NCDOT CONTACT

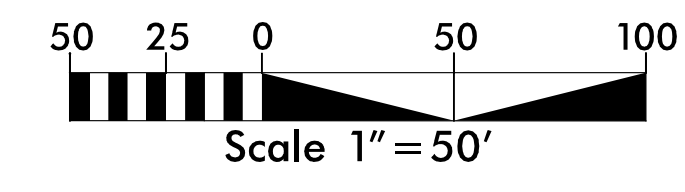
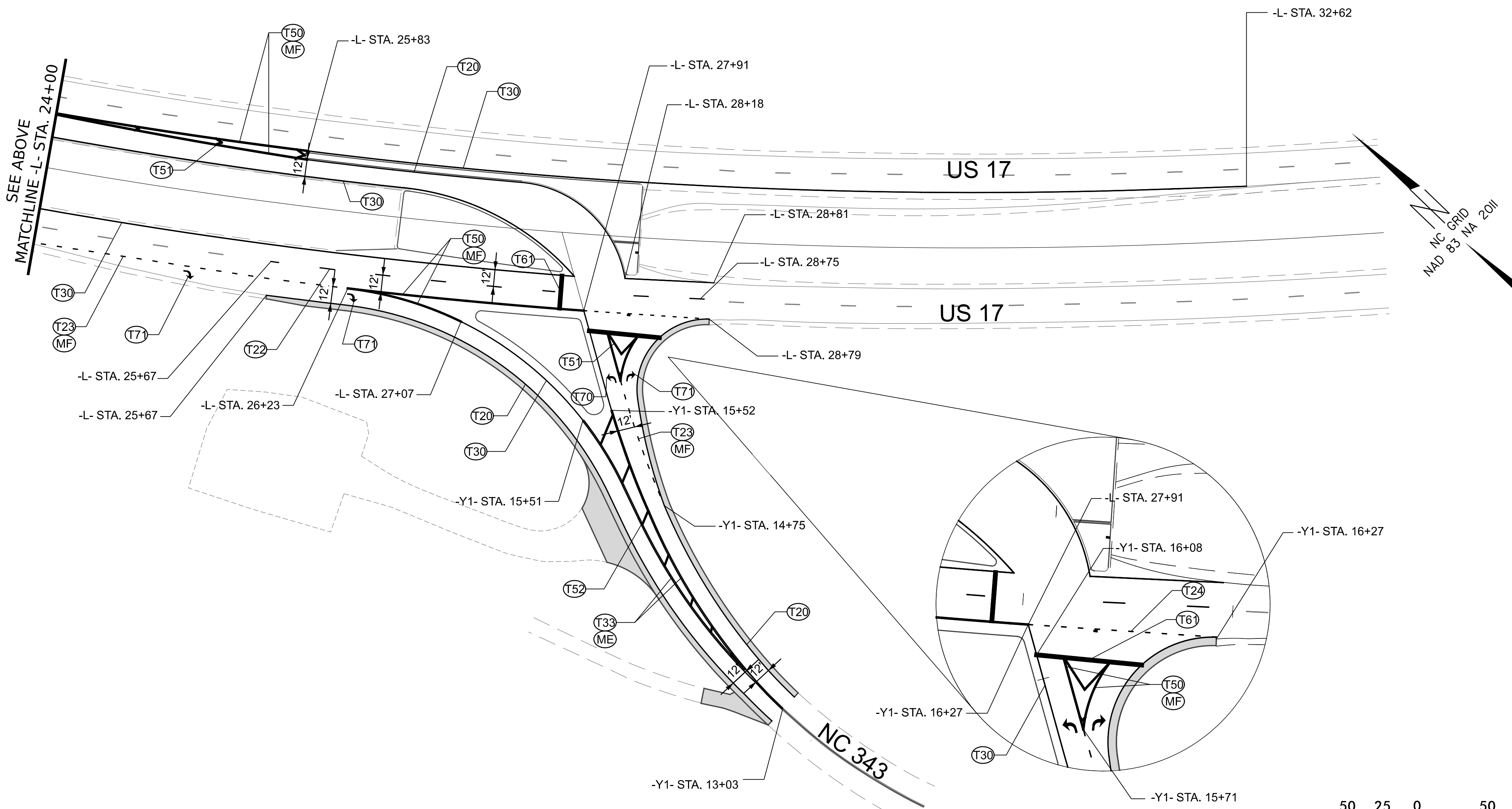
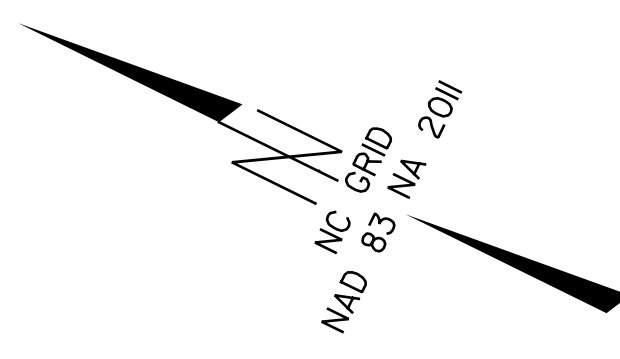
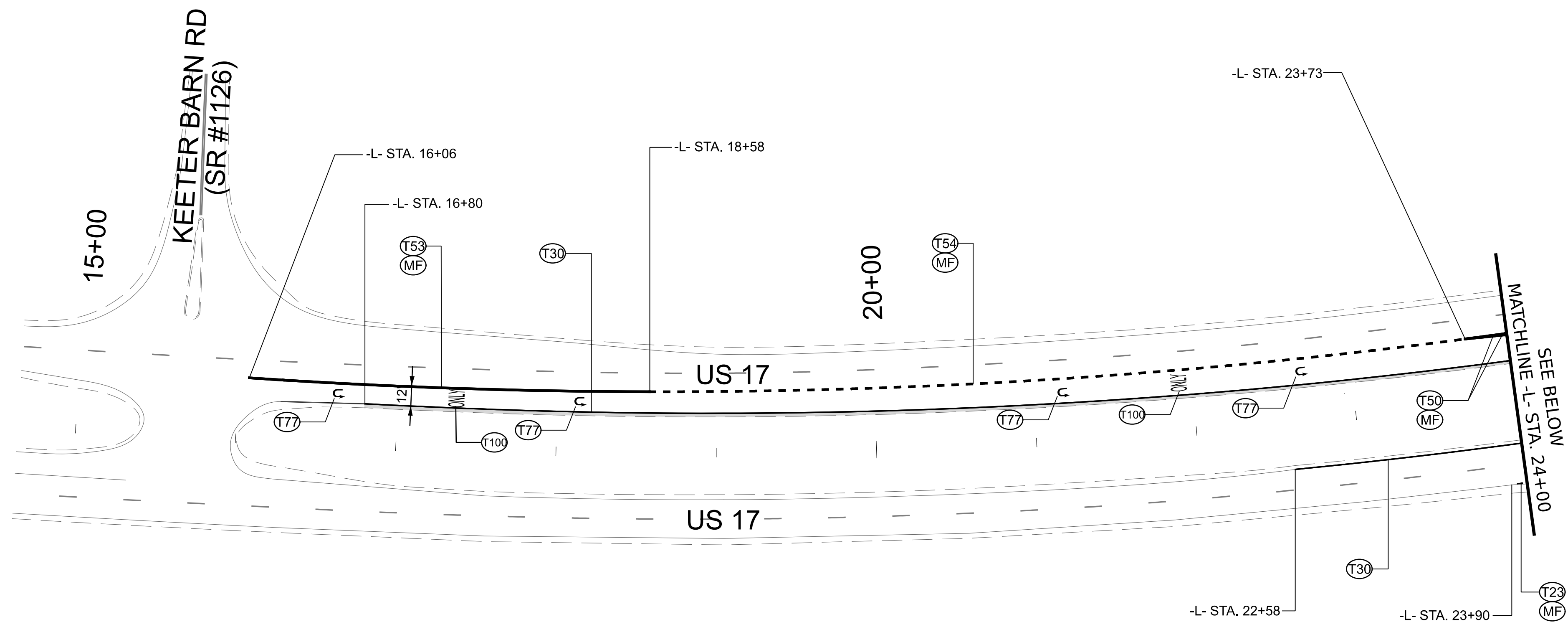


PLAN PREPARED BY: AMERICAN ENGINEERING

ALLISON C. JOHNSON, PE PROJECT ENGINEER
KRISTOPHER B. ROBERTS, PE PROJECT DESIGN ENGINEER



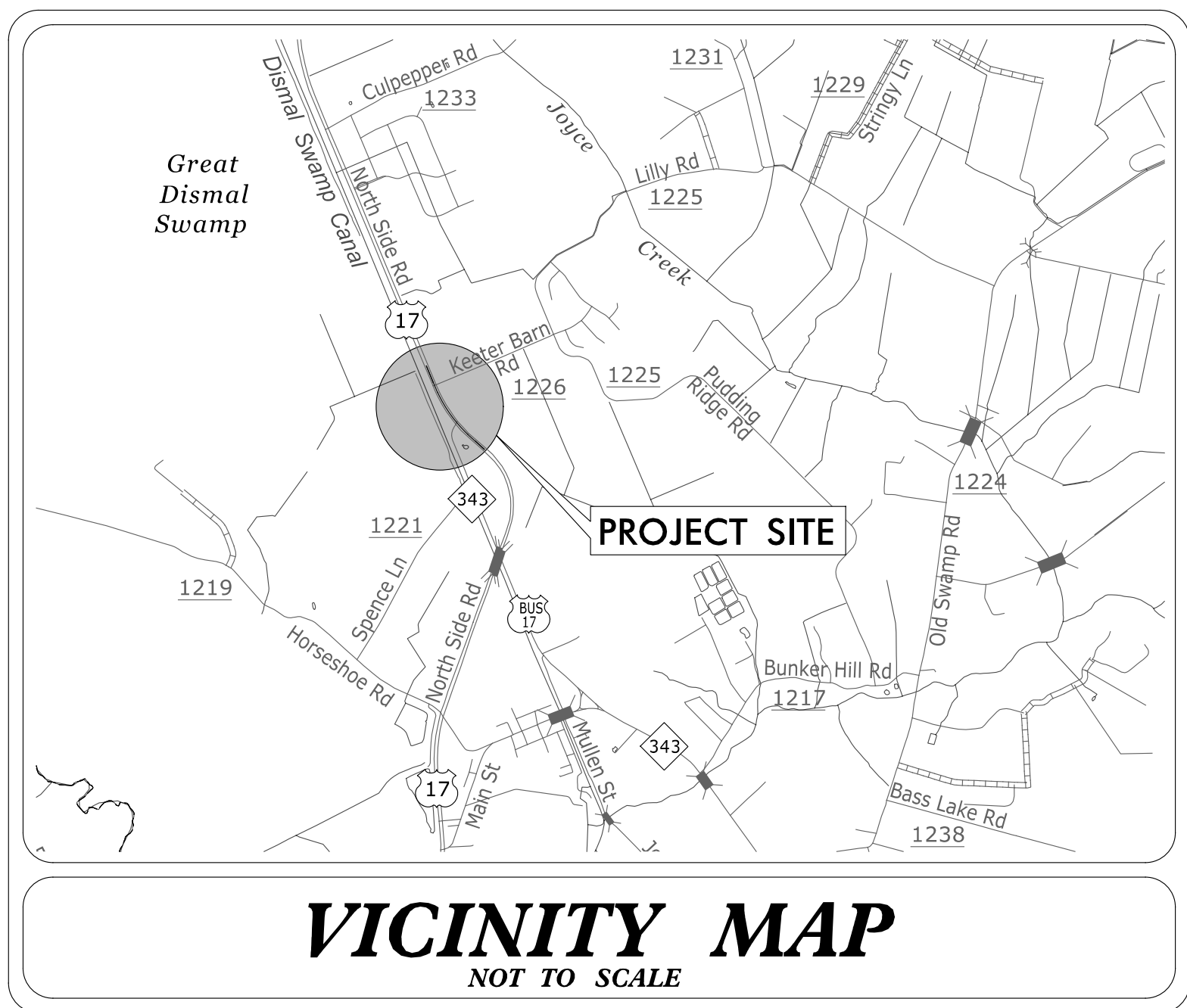
TIP NO.	SHEET NO.
HS-2401A	PMP-2
APPROVED: _____	
DATE: _____	
SEAL	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



PAVEMENT MARKING PLAN

2/12/2026 W:\Transportation\NCDDT\HS-2401A\Signing and Delineation\Pavement Marking\Sheets\HS-2401A-TC-PMP.dgn

TIP PROJECT: HS-2401A



STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS
 PLAN FOR PROPOSED
 HIGHWAY EROSION CONTROL
 CAMDEN COUNTY

LOCATION: *INTERSECTION OF US 17 & US 17 BUSINESS / NC 343*

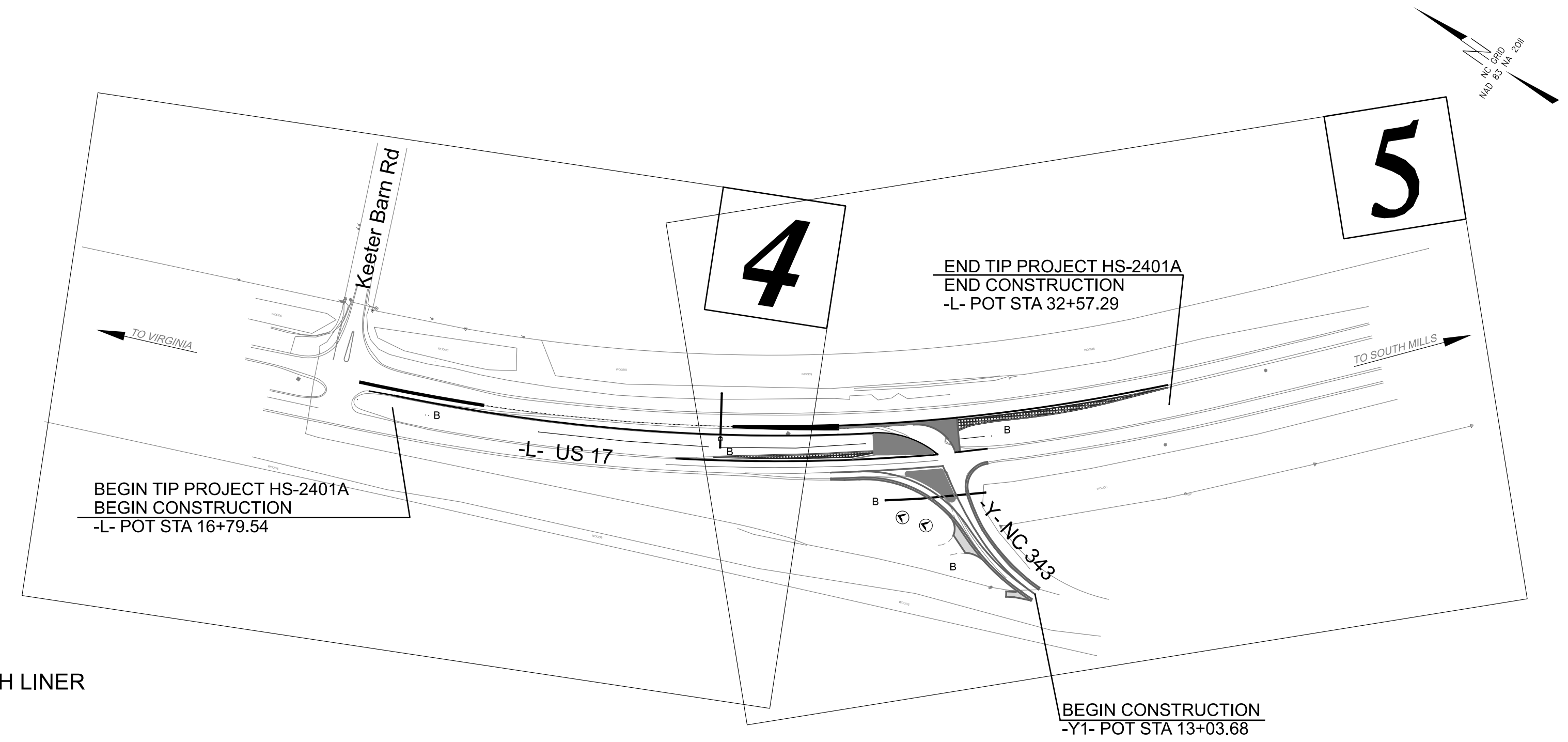
TYPE OF WORK: *WIDENING, GRADING, PAVING, DRAINAGE,
 SIGNING AND SIGNALS*

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	HS-2401A	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	

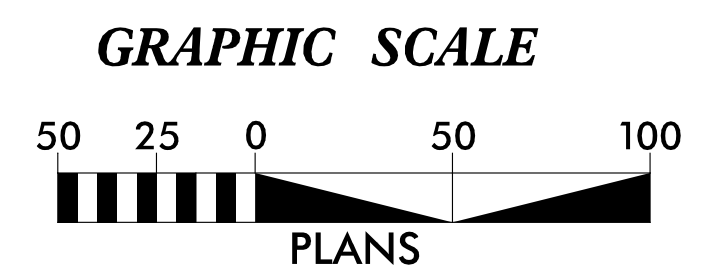
EROSION CONTROL DRAWINGS

INDEX OF SHEETS

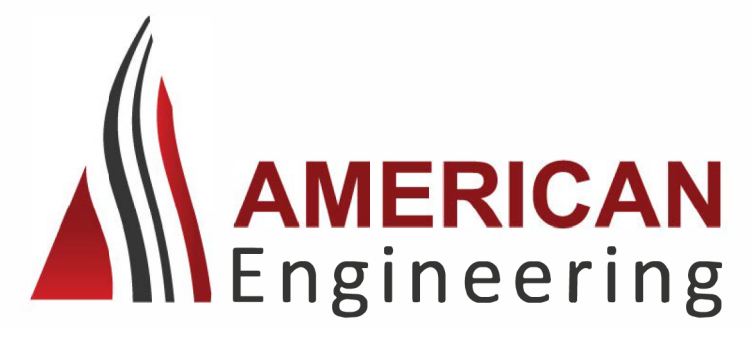
- EC-1..... TITLE SHEET/LEGEND
- EC-2..... EROSION & SEDIMENT CONTROL LEGEND
- EC-2A..... DETAIL: ONSITE CONCRETE WASHOUT WITH LINER
- EC-3..... SOIL STABILIZATION SUMMARY SHEET
- EC-3A..... SOIL STABILIZATION TIMEFRAMES
- EC-4 - EC-5..... PLAN SHEETS



THIS PROJECT CONTAINS
 EROSION CONTROL PLANS
 FOR CLEARING AND
 GRUBBING PHASE OF
 CONSTRUCTION.



THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE REGULATIONS SET FORTH BY THE NCG-010000 GENERAL STORMWATER CONSTRUCTION PERMIT ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY DIVISION OF ENERGY, MINERAL, AND LAND RESOURCES.



Prepared in the Office of:



Designed by:

BENJAMIN C. PICKERING II, PE 4564
NAME LEVEL III CERTIFICATION NO.

Roadway Standard Drawings

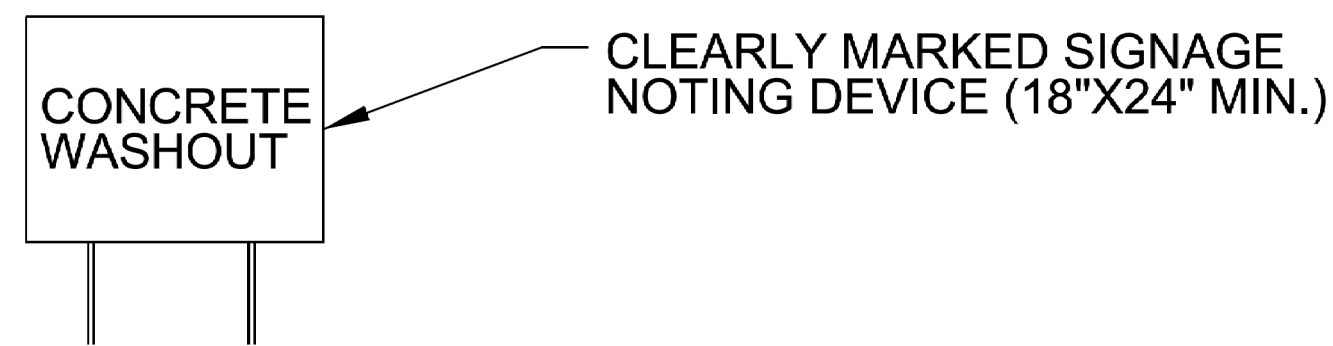
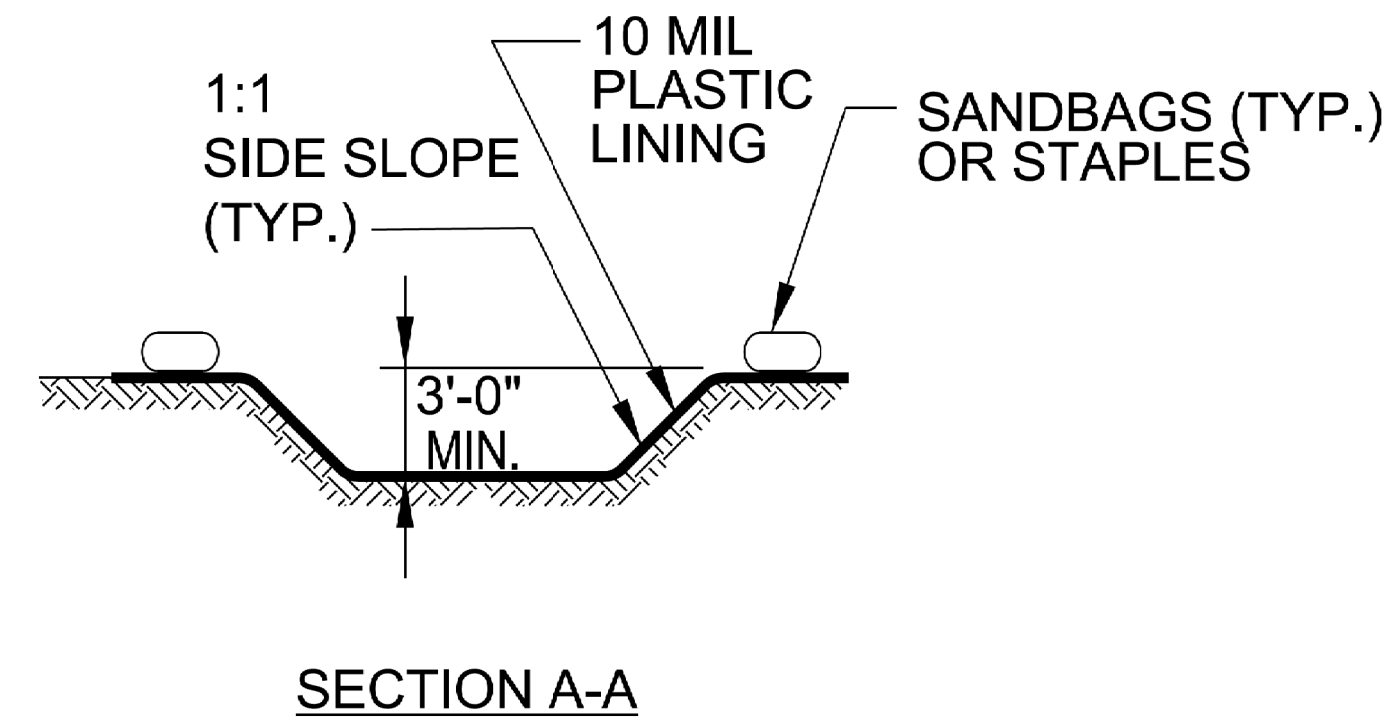
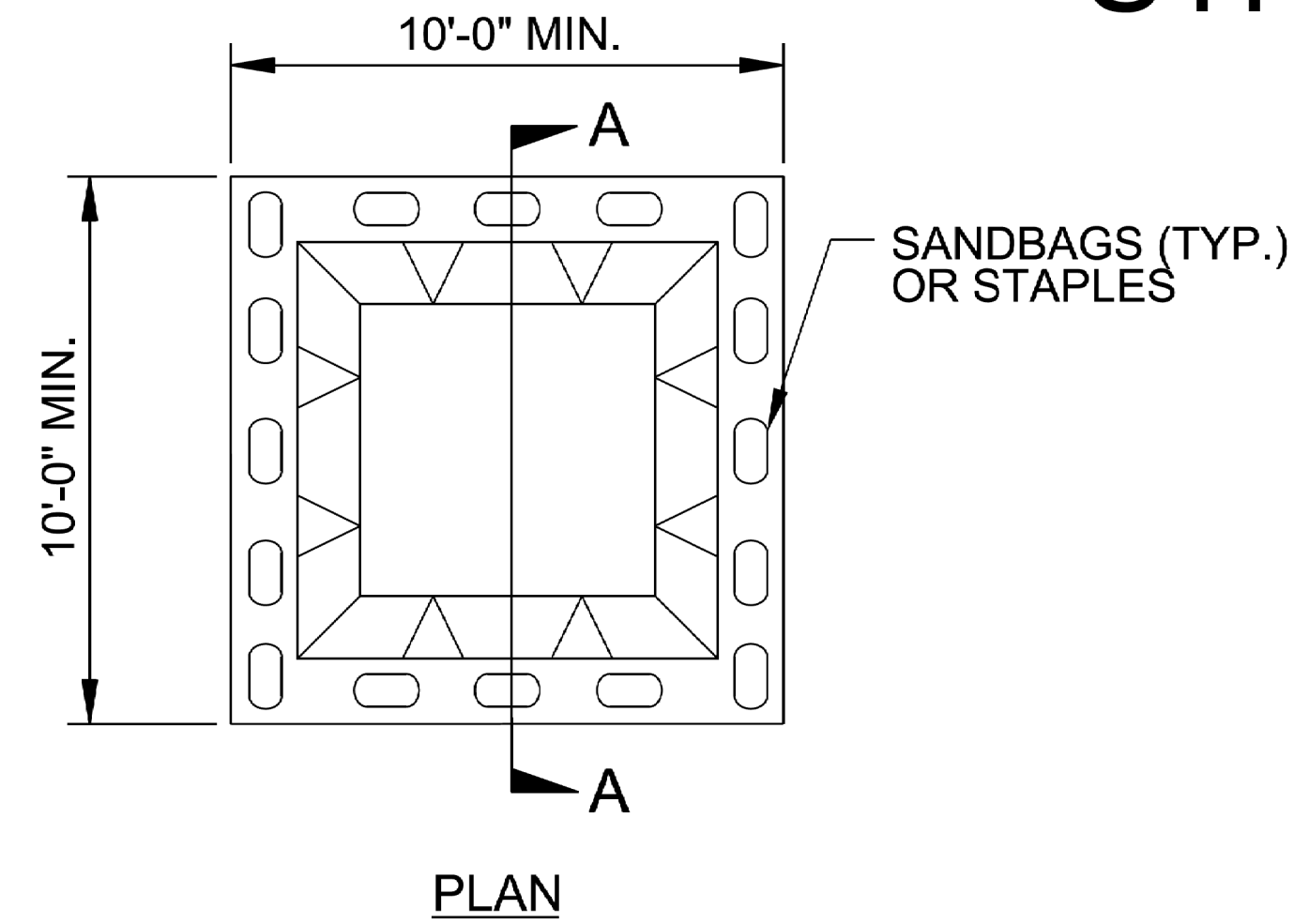
The "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2024 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA

EROSION & SEDIMENT CONTROL LEGEND

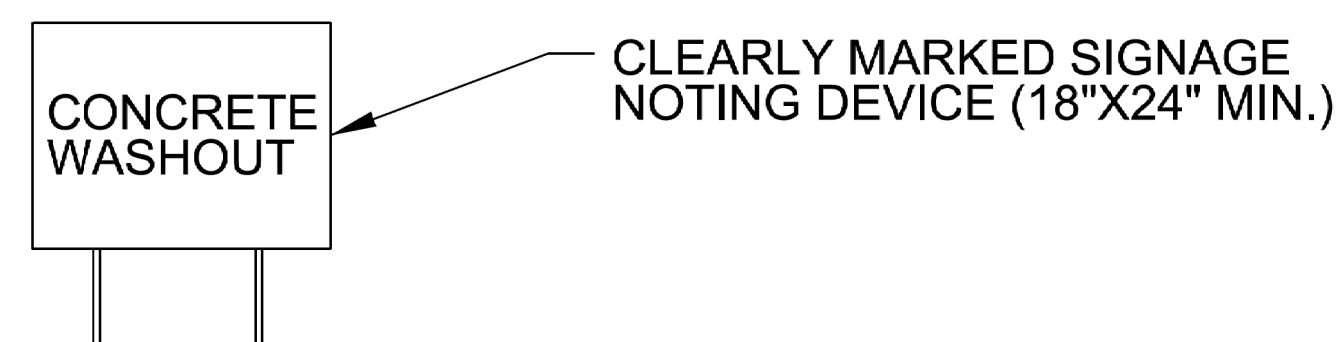
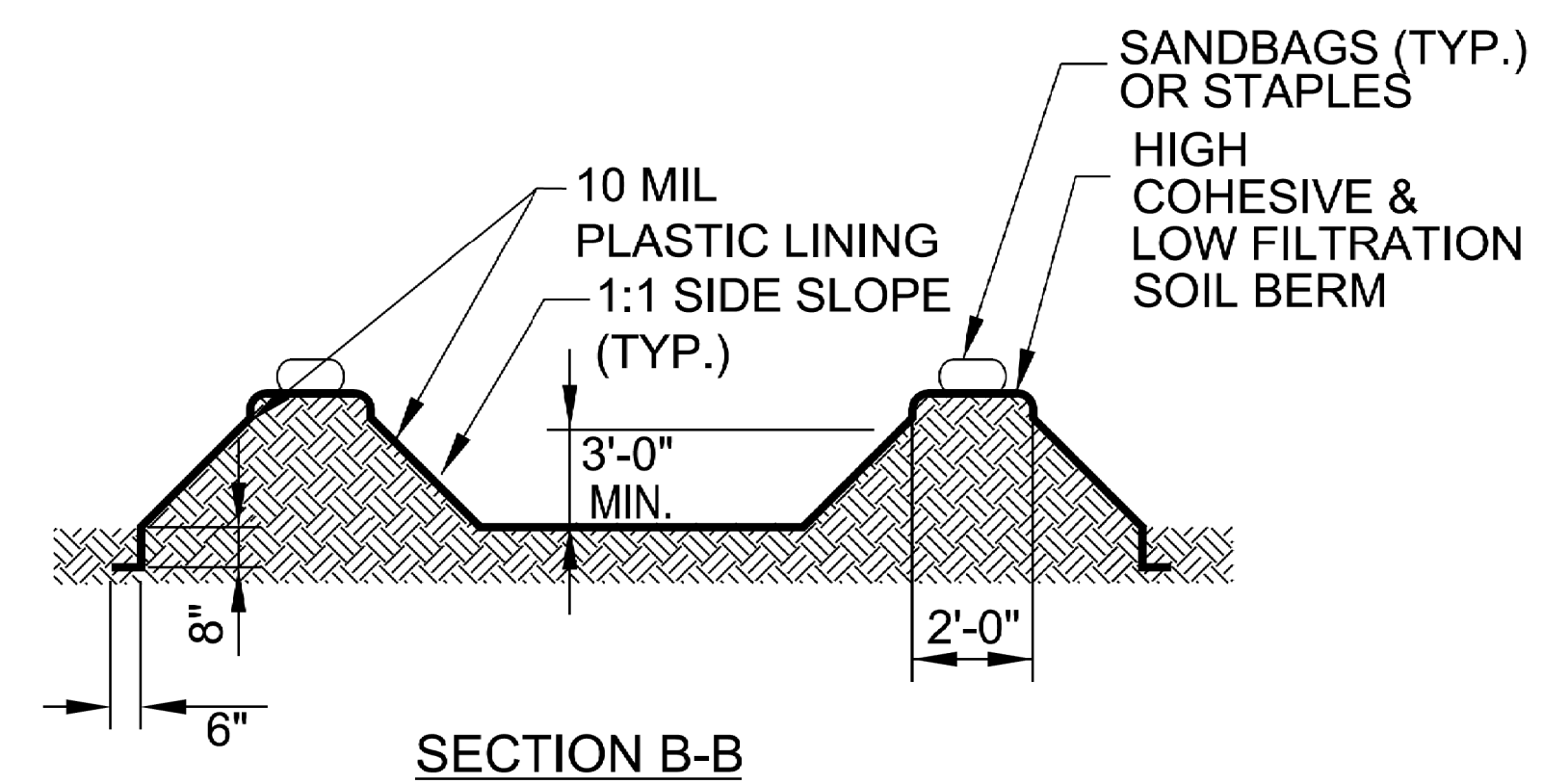
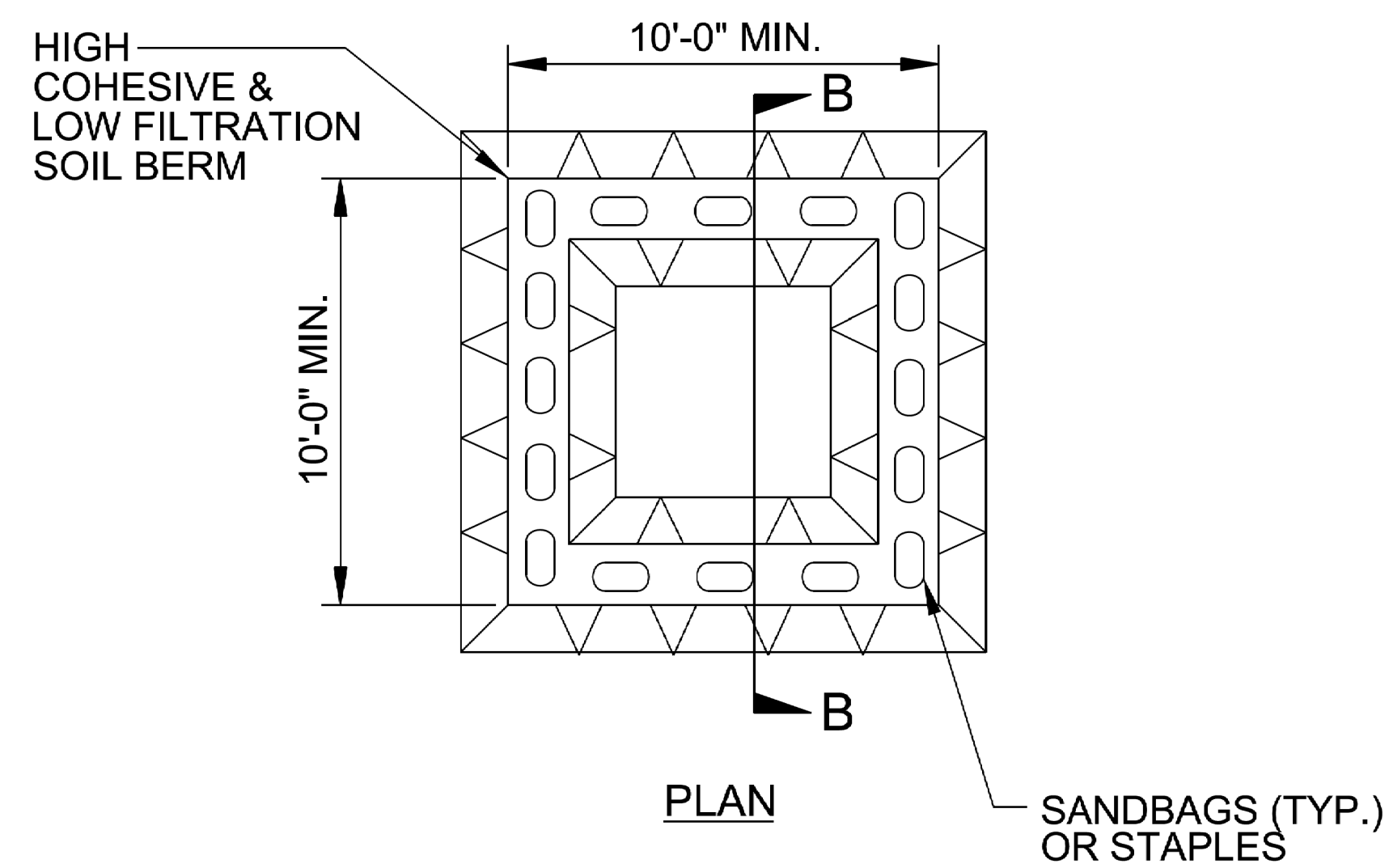
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1605.01	Temporary Silt Fence		1633.01	Temporary Rock Silt Check Type A	
1606.01	Special Sediment Control Fence		1633.02	Temporary Rock Silt Check Type B	
1622.01	Temporary Berms and Slope Drains		1633.03	Temporary Rock Silt Check Type A with Excelsior Matting and Flocculant	
1630.02	Silt Basin Type B		1634.01	Temporary Rock Sediment Dam Type A	
1630.03	Temporary Silt Ditch		1634.02	Temporary Rock Sediment Dam Type B	
1630.04	Stilling Basin		1635.01	Rock Pipe Inlet Sediment Trap Type A	
1630.05	Temporary Diversion		1635.02	Rock Pipe Inlet Sediment Trap Type B	
1630.06	Special Stilling Basin		1636.01	Excelsior Wattle Check	
1630.07	Skimmer Basin		1636.01	Excelsior Wattle Check with Flocculant	
1630.08	Tiered Skimmer Basin		1636.01	Coir Fiber Wattle Check	
1630.09	Earthen Dam with Skimmer		1636.01	Coir Fiber Wattle Check with Flocculant	
	Infiltration Basin		1636.02	Silt Fence Excelsior Wattle Break	
	Rock Inlet Sediment Trap:			Silt Fence Coir Fiber Wattle Break	
1632.01	Type A	A	1636.03	Excelsior Wattle Barrier	
1632.02	Type B	B	1636.03	Coir Fiber Wattle Barrier	
1632.03	Type C	C			

ONSITE CONCRETE WASHOUT STRUCTURE WITH LINER



BELOW GRADE WASHOUT STRUCTURE
NOT TO SCALE

- NOTES:**
1. ACTUAL LOCATION DETERMINED IN FIELD
 2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD.
 3. CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARLY MARKED WITH SIGNAGE NOTING DEVICE.



ABOVE GRADE WASHOUT STRUCTURE
NOT TO SCALE

- NOTES:**
1. ACTUAL LOCATION DETERMINED IN FIELD
 2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD.
 3. CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARLY MARKED WITH SIGNAGE NOTING DEVICE.

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

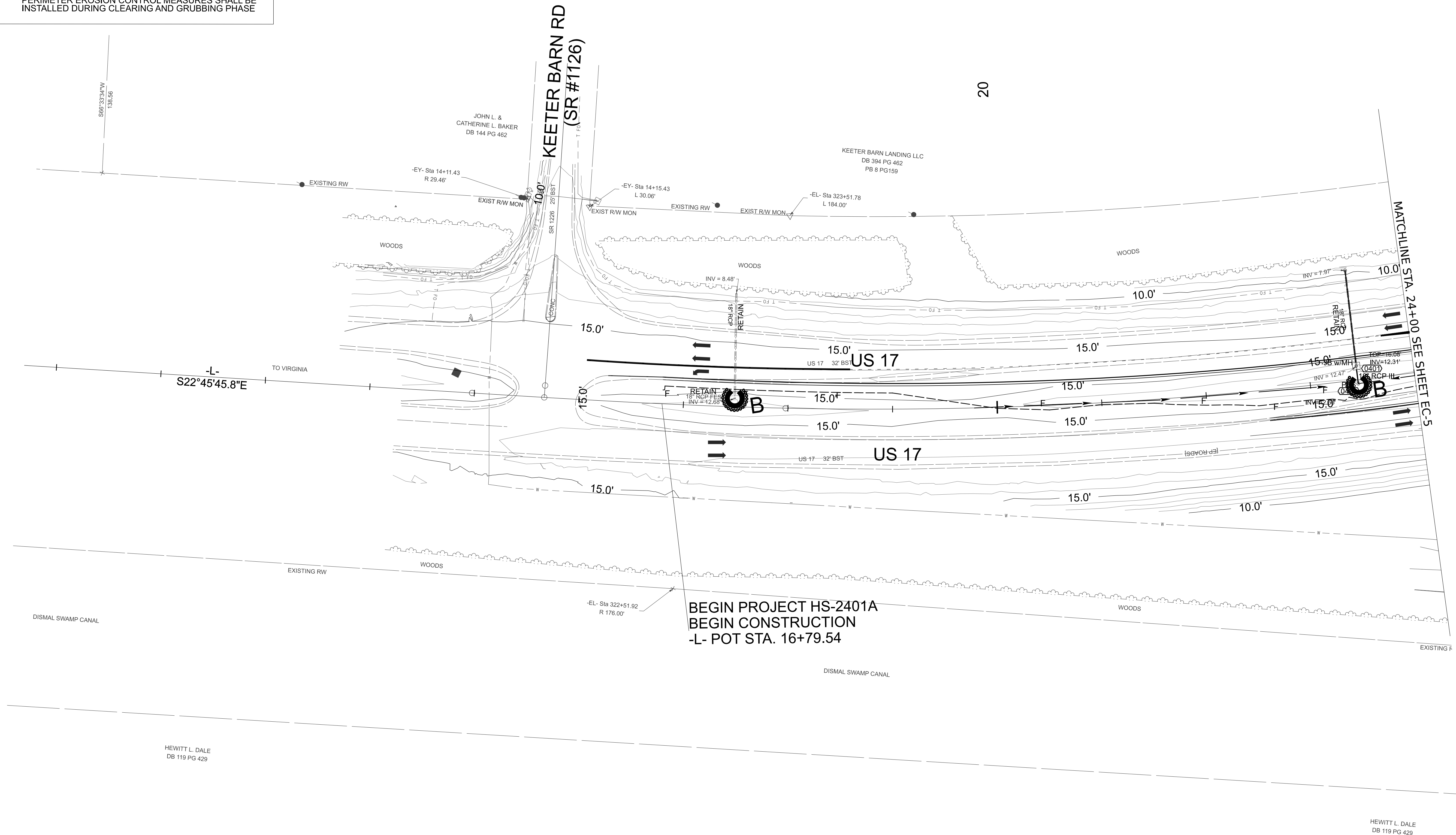
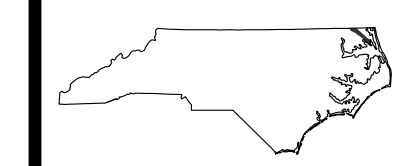
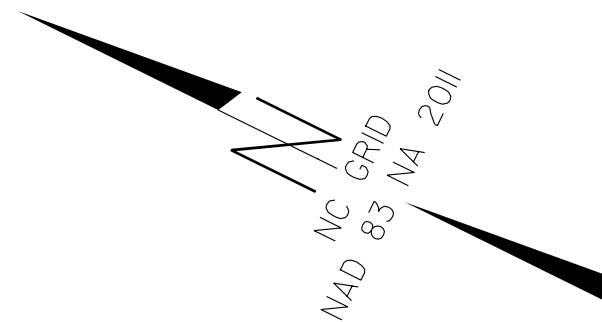
SOIL STABILIZATION TIMEFRAMES

<i>SITE DESCRIPTION</i>	<i>STABILIZATION TIME</i>	<i>TIMEFRAME EXCEPTIONS</i>
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 TO 4:1	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH WITH SLOPES STEEPER THAN 4:1. 7 DAYS FOR PERIMETER DIKES, SWALES, DITCHES PERIMETER SLOPES, AND HQW ZONES
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	7 DAYS FOR PERIMETER DIKES, SWALES, DITCHES PERIMETER SLOPES, AND HQW ZONES

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 4

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

NOTE:
PERIMETER EROSION CONTROL MEASURES SHALL BE
INSTALLED DURING CLEARING AND GRUBBING PHASE



BEGIN PROJECT HS-2401A
BEGIN CONSTRUCTION
-L- POT STA. 16+79.54

MATCHLINE STA. 24+00 SEE SHEET EC-5

REVISIONS

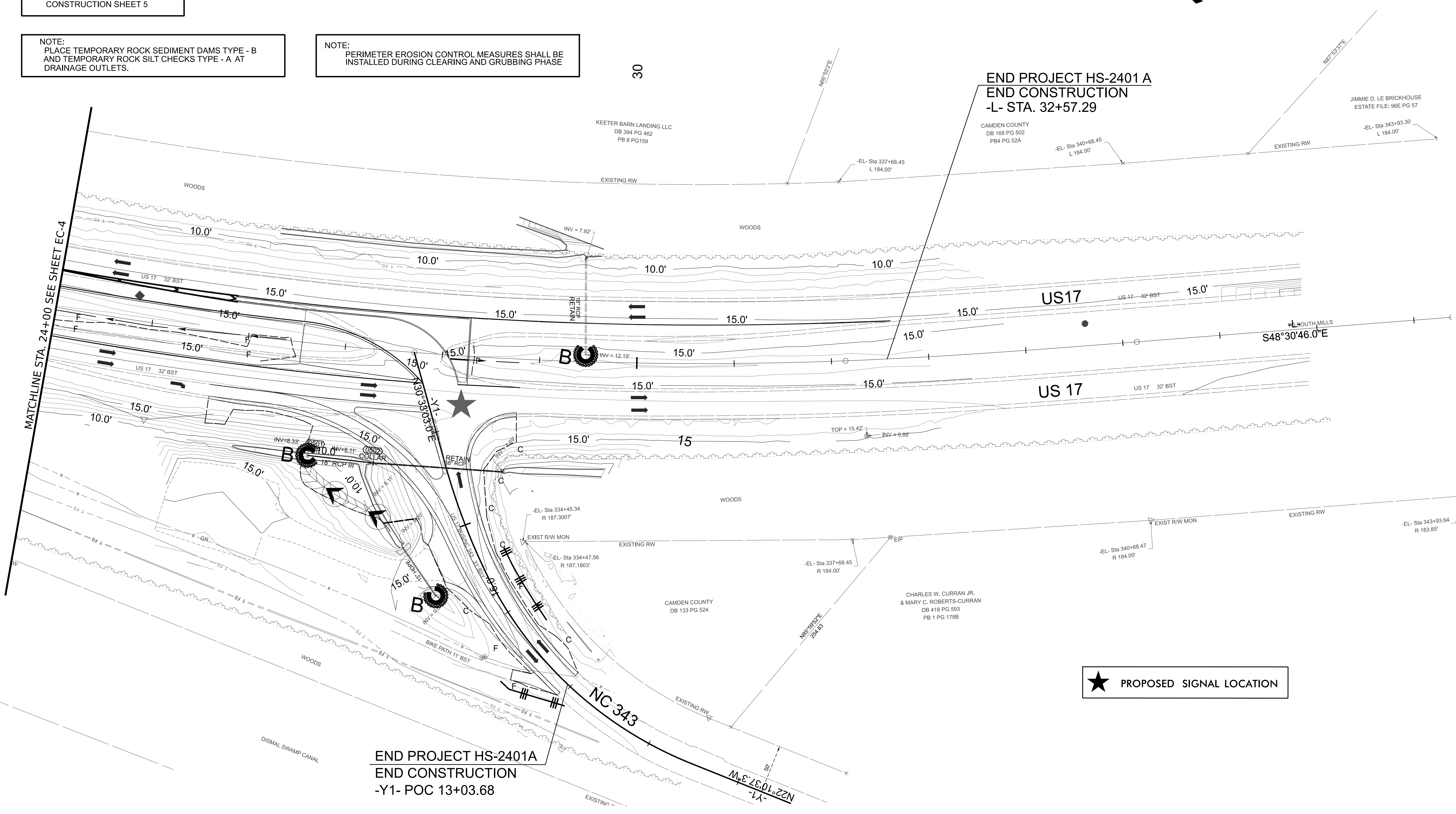
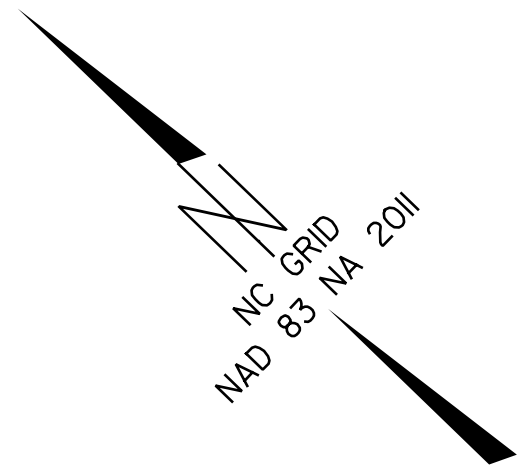
HEWITT L. DALE
DB 119 PG 429

HEWITT L. DALE
DB 119 PG 429

CLEARING AND GRUBBING
 EROSION CONTROL FOR
 CONSTRUCTION SHEET 5

NOTE:
 PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
 AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
 DRAINAGE OUTLETS.

NOTE:
 PERIMETER EROSION CONTROL MEASURES SHALL BE
 INSTALLED DURING CLEARING AND GRUBBING PHASE



★ PROPOSED SIGNAL LOCATION


END PROJECT HS-2401A
 END CONSTRUCTION
 -Y1- POC 13+03.68

REVISIONS

**STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION**

**SIGNING PLAN
CAMDEN COUNTY**

LOCATION: INTERSECTION OF US 17 & US 17 BUSINESS / NC 343

TIP NO. HS-2401A	SHEET NO. SIGN-1
<small>DocuSigned by:</small> APPROVED: <u>Allison C. Johnson</u> <small>F081A872C45F4D8</small>	
DATE: 3/9/2026	
SEAL	
	

ROADWAY STANDARD DRAWING

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2024 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
904.10	ORIENTATION OF GROUND MOUNTED SIGNS
904.50	MOUNTING OF TYPE 'D', 'E' AND 'F' SIGNS ON 'U' CHANNEL POSTS

GENERAL NOTES

- . SIGNS FURNISHED BY STATE
- . CONFIRM IN WRITING AT LEAST 4 MONTHS IN ADVANCE, THE ACTUAL DATE THE DEPARTMENT FURNISHED SIGNS WILL BE REQUIRED.
- . IF REMOVAL OR RELOCATION OF SIGNS ON PRIVATE STREET (NON-STATE MAINTAINED) IS REQUIRED DUE TO CONSTRUCTION, THE CONTRACTOR SHALL INFORM THE ENGINEER. THE WORK WILL BE COMPLETED BY OTHERS.
- . WHEN NOT STATIONED OR DIMENSIONED ON PLANS, ALL 'E' AND 'F' SIGNS SHALL BE FIELD LOCATED BY THE ENGINEER
- . ALL EXISTING SIGNS ON "U" CHANNEL POST WITHIN THE PROJECT LIMITS SHALL BE REMOVED AND DISPOSED OF UNLESS OTHERWISE NOTED ON PLANS.
- . WHEN EXISTING SIGNS ARE REMOVED AND INSTALLED ON NEW SUPPORTS, THE RE-ERECTION SHALL IMMEDIATELY FOLLOW THE REMOVAL.
- . THE BACKGROUND FOR TYPE E & F SIGNS SHALL BE TYPE C REFLECTIVE SHEETING.
- . DO NOT BEGIN FABRICATION FOR TYPES A & B SIGNS MOUNTED ON OVERHEAD STRUCTURES OR STEEL SUPPORTS UNTIL "S" DIMENSIONS HAVE BEEN FIELD VERIFIED.
- . SEE ROADWAY PLANS FOR GUARD/GUIDE RAIL DETAILS.
- . ALL TYPE 'D' SIGNS SHALL BE MOUNTED ON TWO U-CHANNEL POSTS UNLESS OTHERWISE INDICATED ON THE PLANS.

SUMMARY OF QUANTITIES

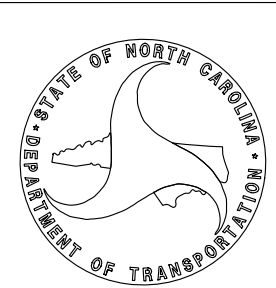
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DESC. NO.	SECT. NO.			
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4102000000	904	SIGN ERECTION, TYPE E	14	EA.
4108000000	904	SIGN ERECTION, TYPE F	5	EA.
4158000000	907	DISPOSAL OF SIGN SYSTEM, WOOD	15	EA.

INDEX

SHEET NO.	DESCRIPTION
SIGN-1	TITLE SHEET (NOTES, STANDARDS & QUANTITIES)
SIGN-2	D SHEET
SIGN-2A	E SHEET
SIGN-2B	F SHEET
SIGN-3-4	SIGNING PLAN SHEETS

PLAN SUBMITTED TO: NCDOT

JUSTIN R. SMITH, PE
NCDOT CONTACT



PLAN PREPARED BY: AMERICAN ENGINEERING

ALLISON C. JOHNSON, PE PROJECT ENGINEER
KRISTOPHER B. ROBERTS, PE PROJECT DESIGN ENGINEER



301

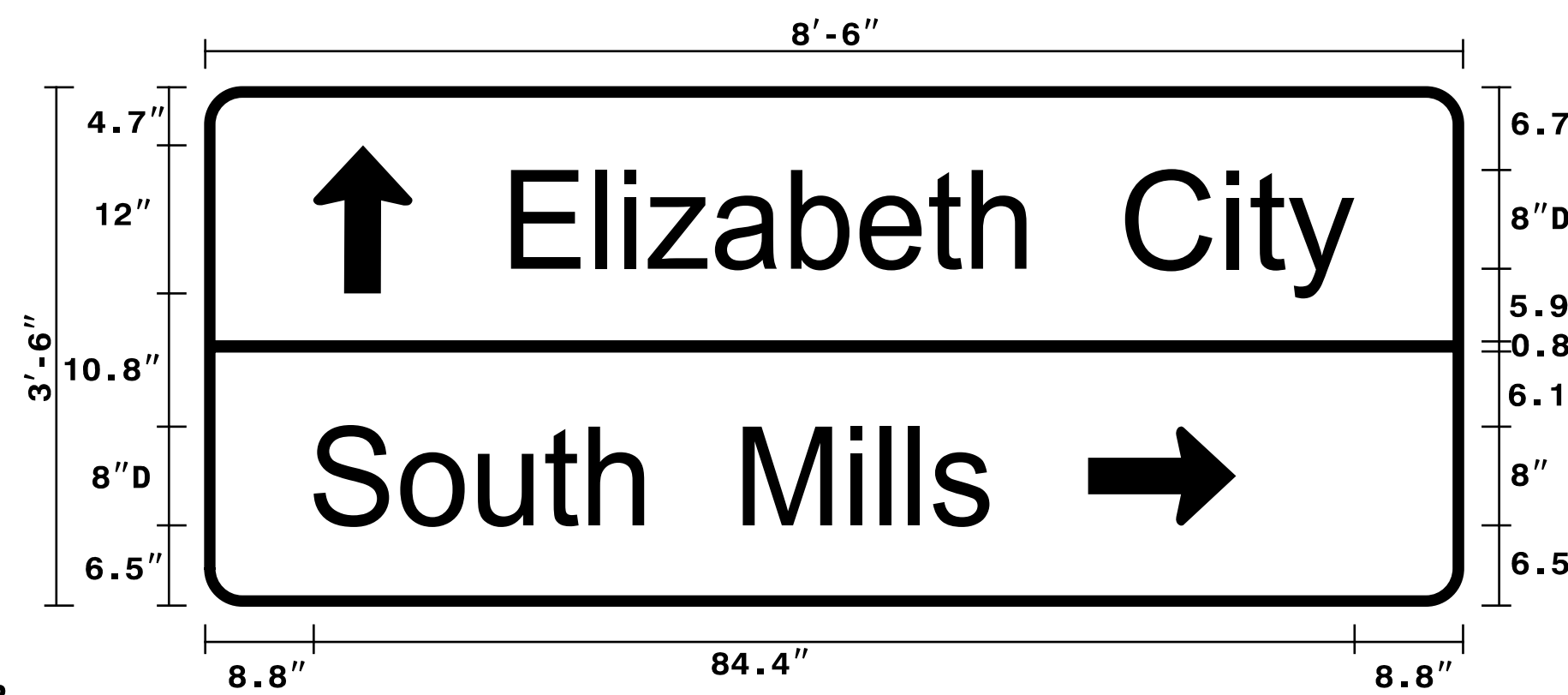


D1-2

TWO U-CHANNEL POSTS PER INSTALLATION

SIGN NUMBER:	301	BACKG COLOR:	Green			
TYPE:	D	COPY COLOR:	White			
QUANTITY:	1	SYMBOL	X	Y	WID	HT
SIGN WIDTH:	8'-6"	AS_TYPE D	8.8	25.3	8	12
HEIGHT:	3'-6"	AR_TYPE D	71.5	6.5	8	12
TOTAL AREA:	29.75 Sq.Ft.					
BORDER TYPE:	FLUSH					
RECESS:	0"					
WIDTH:	0.75"					
RADII:	3"					
NO. Z BARS:		MAT'L:	0.125" (3.2 mm) ALUMINUM			
LENGTH:						

DESIGN BY: KBR ACJ DATE:
PROJECT ID: DIV:



BORDER
R=3.00"
TH=0.75"

Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter spacings are to start of next letter														Series/Size Text Length		
	E	L	I	Z	A	B	E	T	H	C	I	T	Y		D / 8"	
24.8	6.2	2.9	2.3	4.6	6.1	5.8	5.1	4.1	4.7	8	7	2.2	3.4	6	8.8	68.4
	S	O	U	T	H		M	I	L	L	S					D / 8"
8.8	6.3	6.1	5.6	4.1	4.7	8	8	2.9	2.9	2.4	3.8	38.5				54.7

FILE NAME: NORTH CAROLINA D.O.T. SIGN DETAIL

302

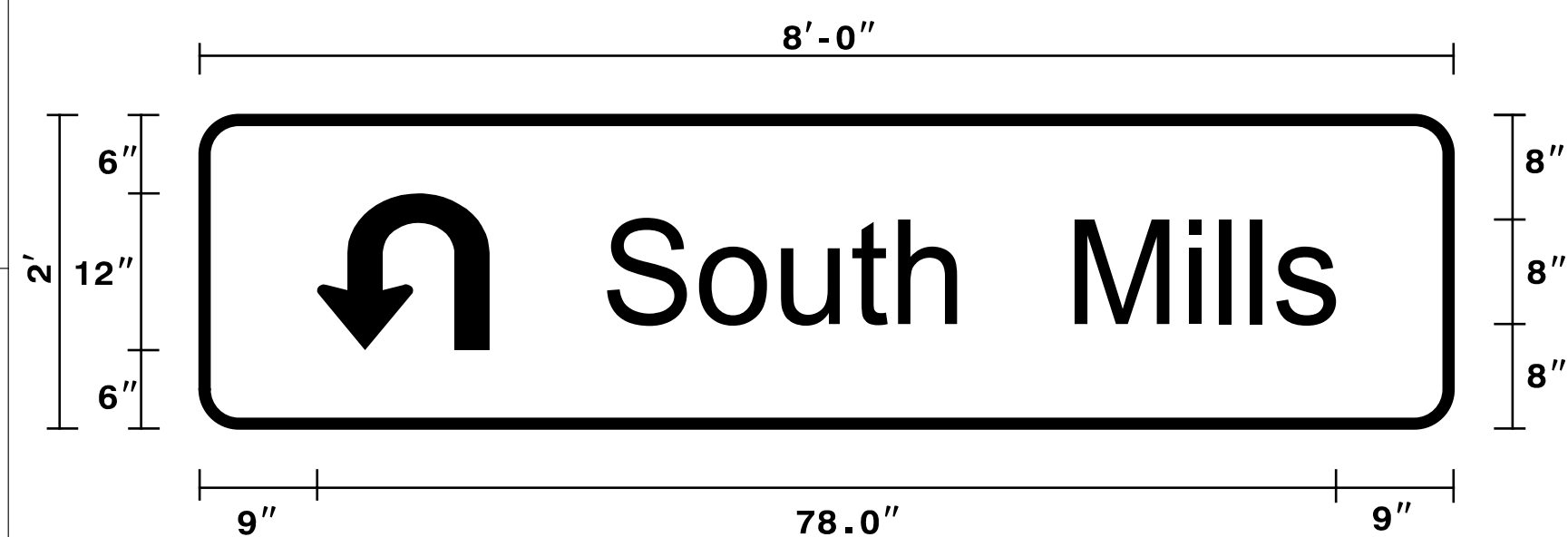


D1-1

TWO U-CHANNEL POSTS PER INSTALLATION

SIGN NUMBER:	302	BACKG COLOR:	Green			
TYPE:	D	COPY COLOR:	White			
QUANTITY:	1	SYMBOL	X	Y	WID	HT
SIGN WIDTH:	8'-0"	AR_UTURN	9	6	13.2	12
HEIGHT:	2'-0"					
TOTAL AREA:	16 Sq.Ft.					
BORDER TYPE:	FLUSH					
RECESS:	0"					
WIDTH:	0.75"					
RADII:	3"					
NO. Z BARS:		MAT'L:	0.125" (3.2 mm) ALUMINUM			
LENGTH:						

DESIGN BY: KBR ACJ DATE:
PROJECT ID: DIV:



BORDER
R=3.00"
TH=0.75"

Spacing Factor is 1 unless specified otherwise


LETTER POSITIONS

Letter spacings are to start of next letter											Series/Size Text Length		
	S	O	U	T	H		M	I	L	L	S		D / 8"
31.3	6.3	6.1	5.6	4.1	4.7	9	8	2.9	2.9	2.4	3.8	9	55.7

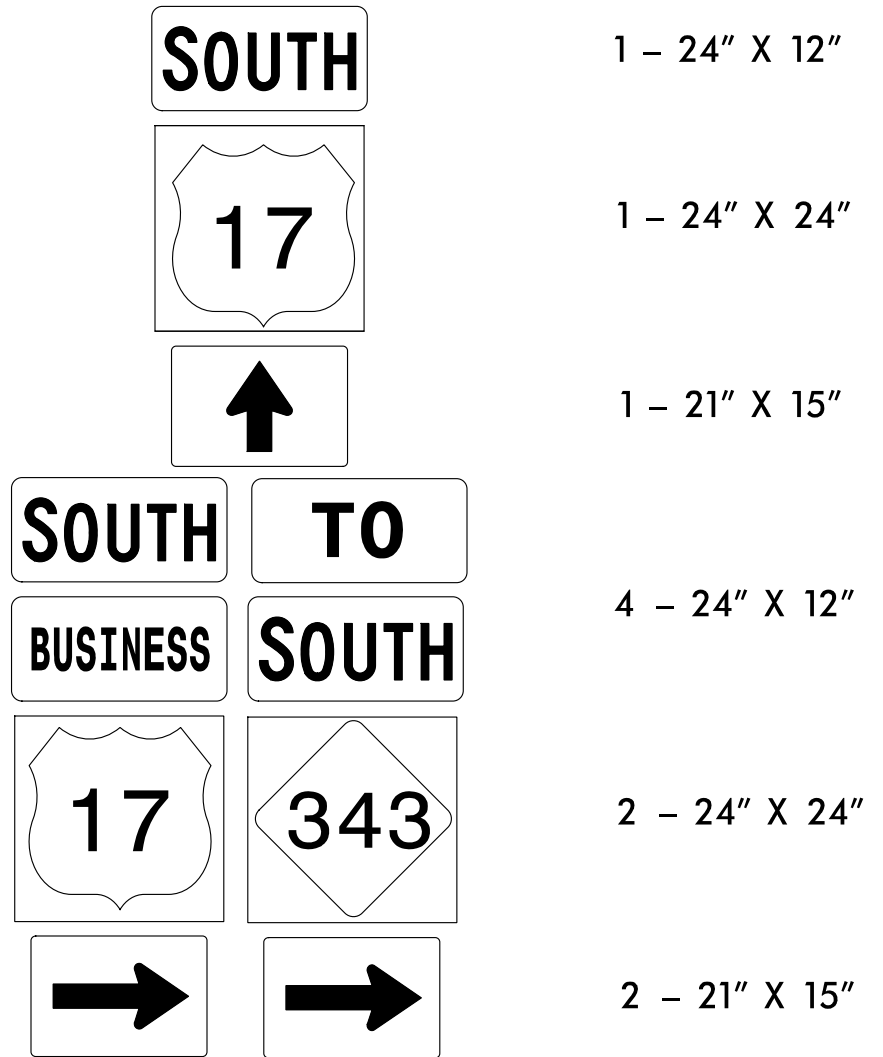
FILE NAME: NORTH CAROLINA D.O.T. SIGN DETAIL

TIP NO. HS-2401A	SHEET NO. SIGN-2
APPROVED: <i>Allison C. Johnson</i> F081A67C48F4D6	
DATE: 2/12/2026	
SEAL 	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

TYPE "D" SIGNS

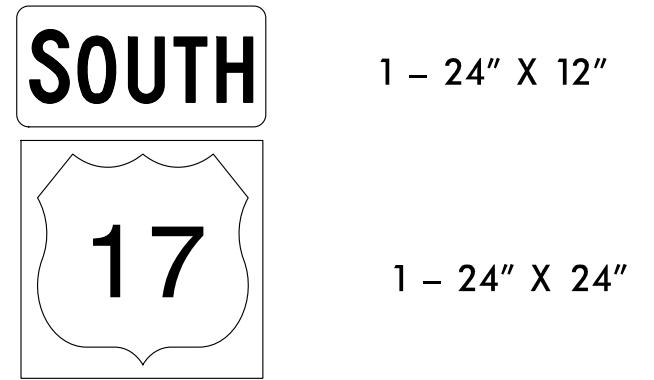
TIP NO. HS-2401A	SHEET NO. SIGN-2B
DocuSigned by: <i>Allison C. Johnson</i> F081A872C45F4D6...	
APPROVED:	
DATE: 2/12/2026	
SEAL	
	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

501



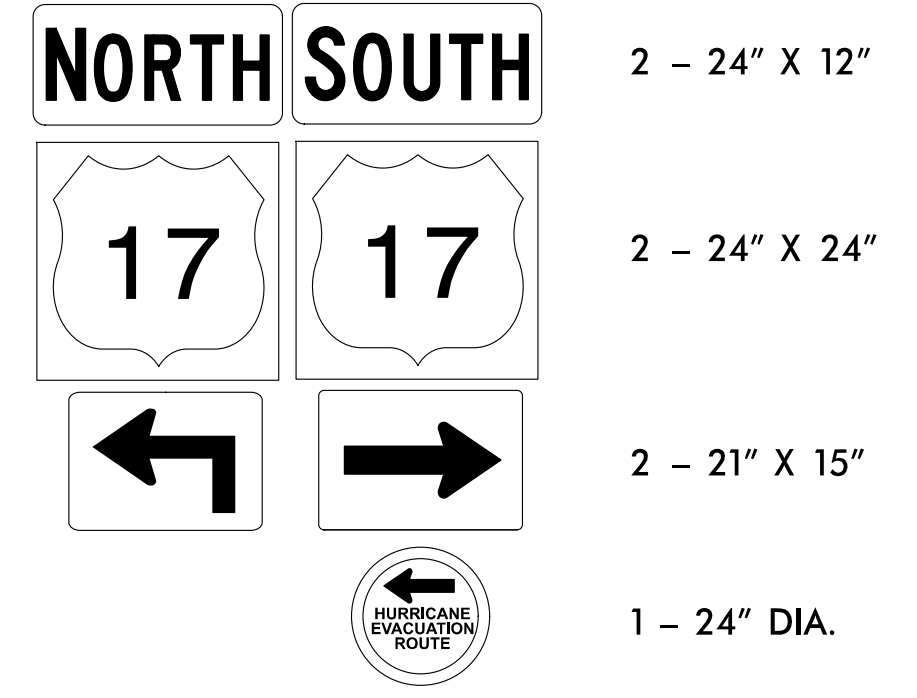
THREE U-CHANNEL POSTS PER INSTALLATION

504



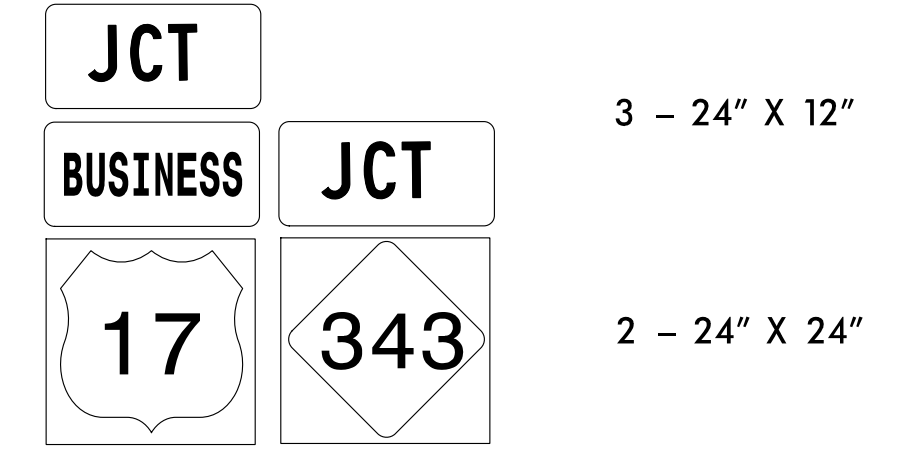
ONE U-CHANNEL POSTS PER INSTALLATION

502



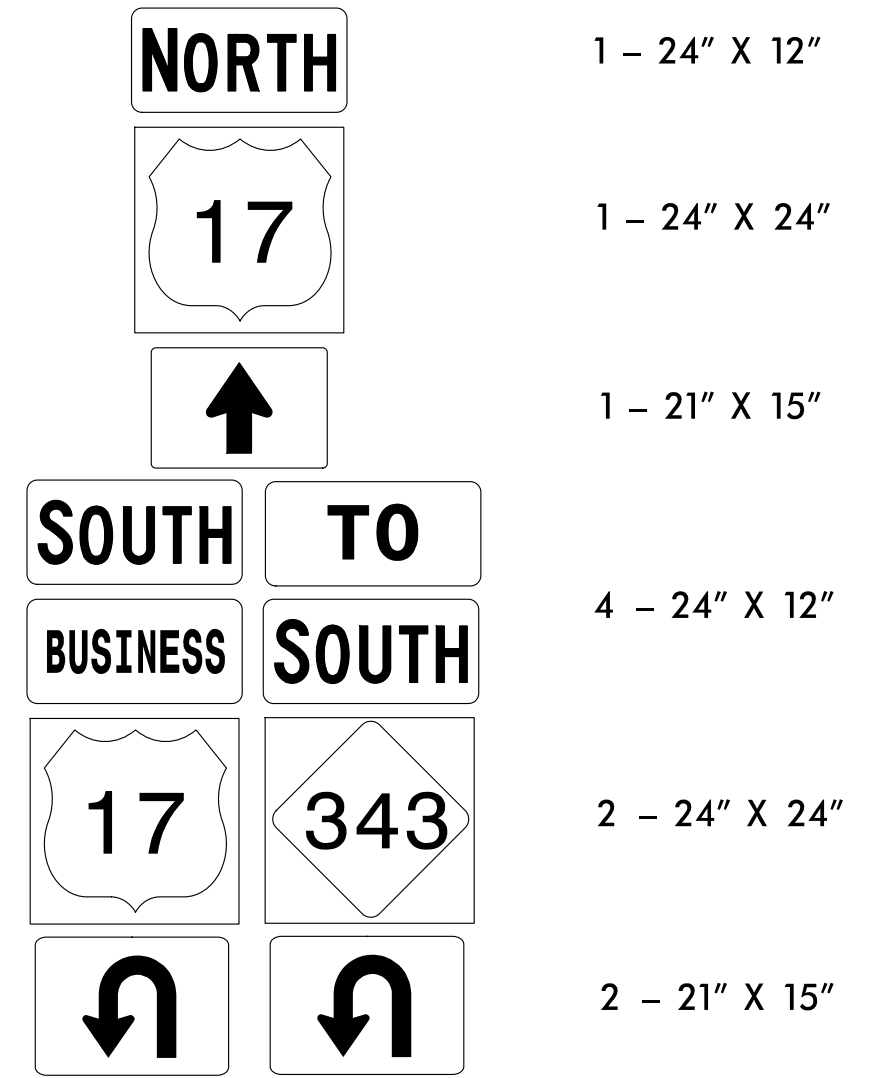
TWO U-CHANNEL POSTS PER INSTALLATION

505



TWO U-CHANNEL POSTS PER INSTALLATION


503

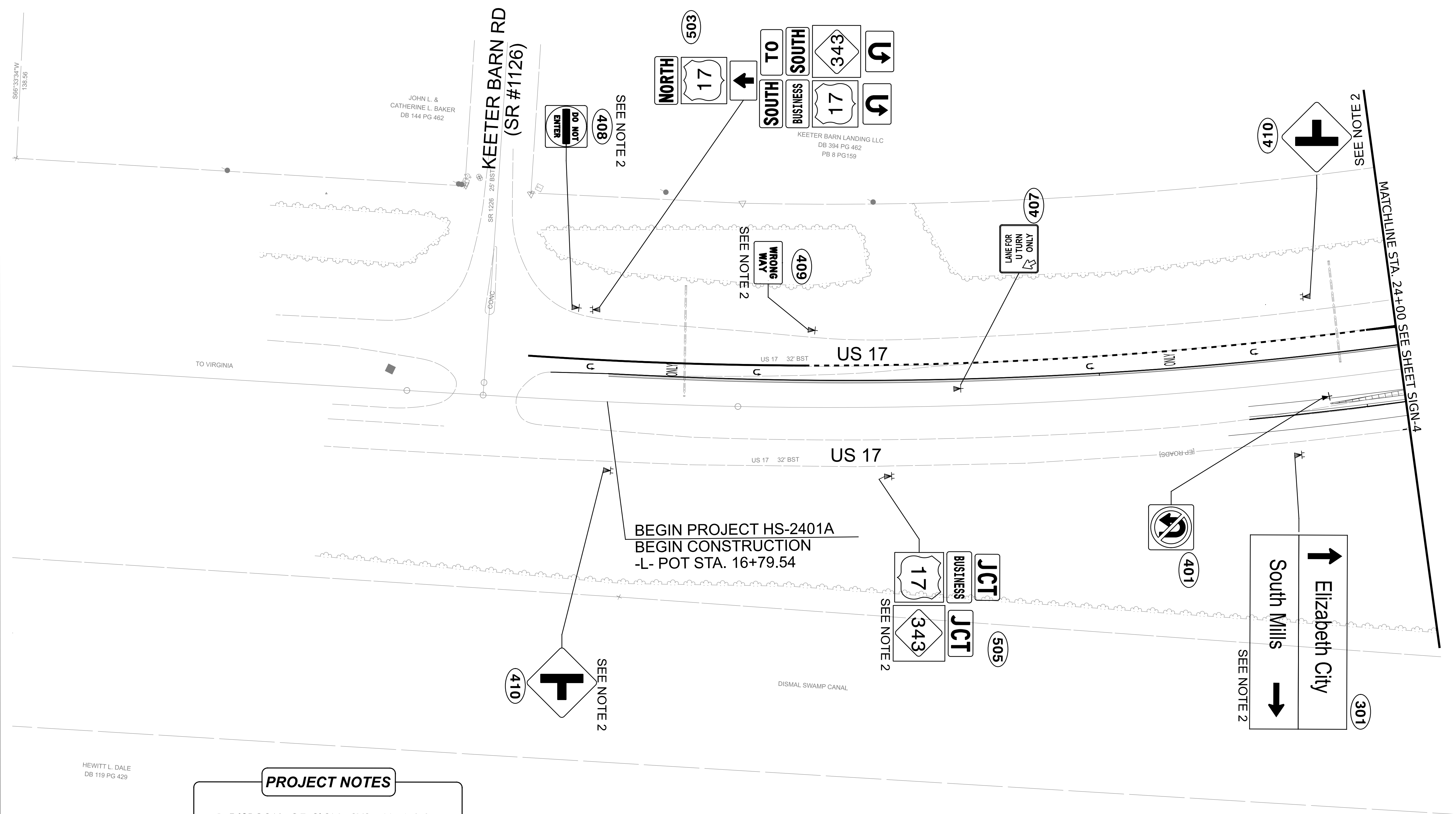
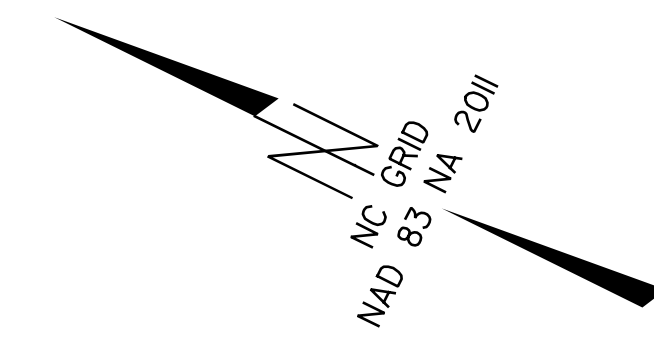


THREE U-CHANNEL POSTS PER INSTALLATION

2/12/2026 W:\transportation\NCDOT\HS-2401A\Signing and Delineation\Signing\HS-2401A_SIGN_DTL.dgn

TYPE "F" SIGNS

TIP NO. HS-2401A	SHEET NO. SIGN-3
APPROVED: <i>Allison C. Johnson</i> FDB18B72C45F4DB	
DATE: 2/12/2026	
SEAL	
	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



PROJECT NOTES

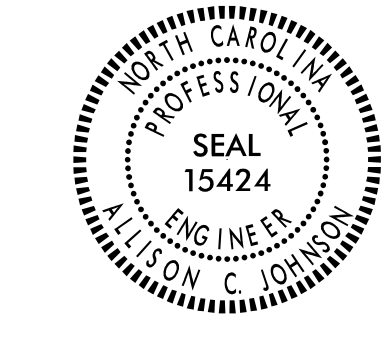
- DISPOSAL OF SIGN SYSTEM, WOOD POST
- REMOVE AND REPLACE EXISTING SIGN SYSTEM

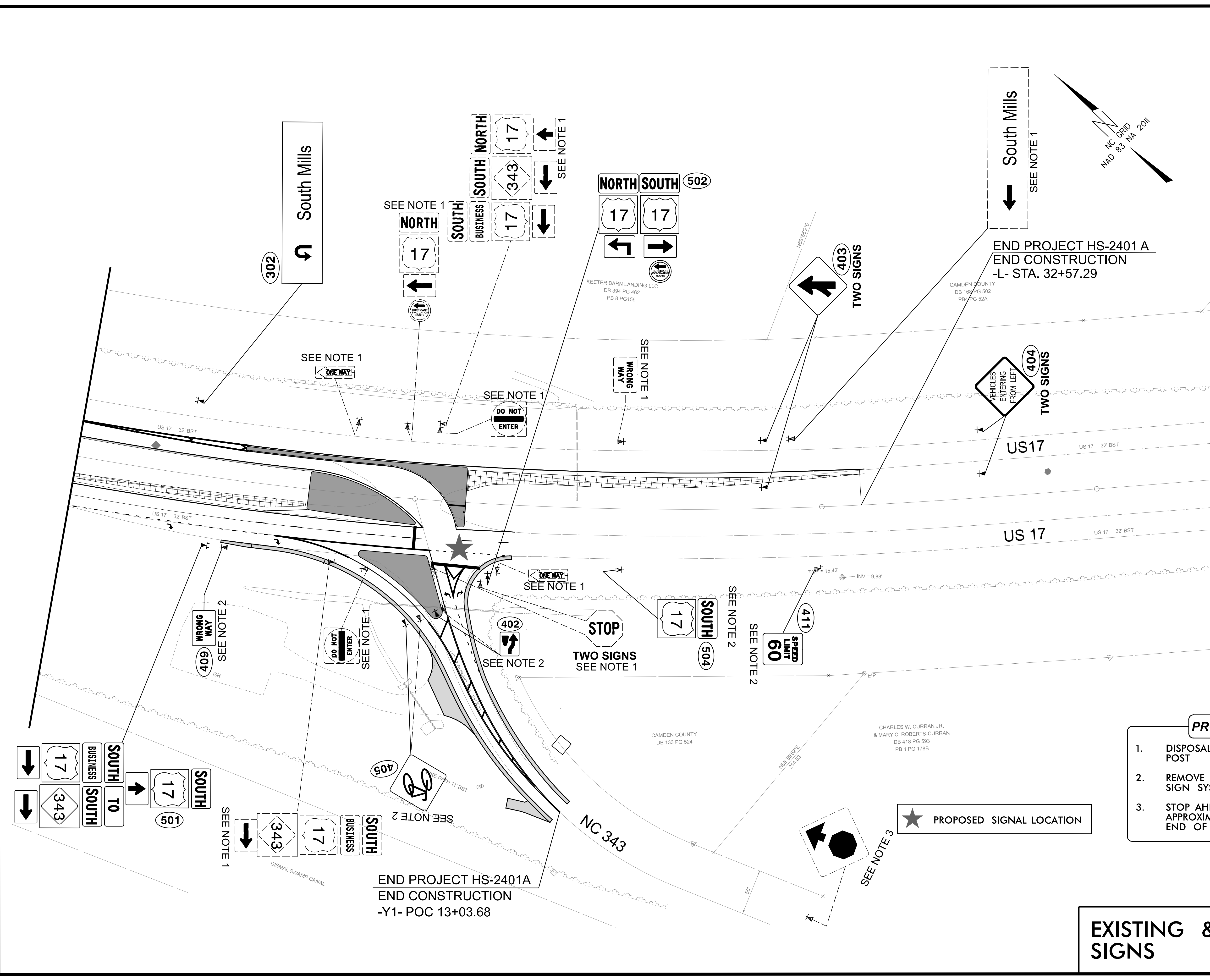
EXISTING & PROPOSED SIGNS

2/11/2026 W:\transportation\NCDOT\HS-2401A\Signing pure Delin\station\Signing\HS-2401A_SIGN_PPL.dgn

HEWITT L. DALE
DB 119 PG 429

HEWITT L. DALE
DB 119 PG 429

TIP NO. HS-2401A	SHEET NO. SIGN-4
APPROVED: <i>Allison C. Johnson</i> FDR18672CAF4D6...	
DATE: 2/12/2026	
SEAL 	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



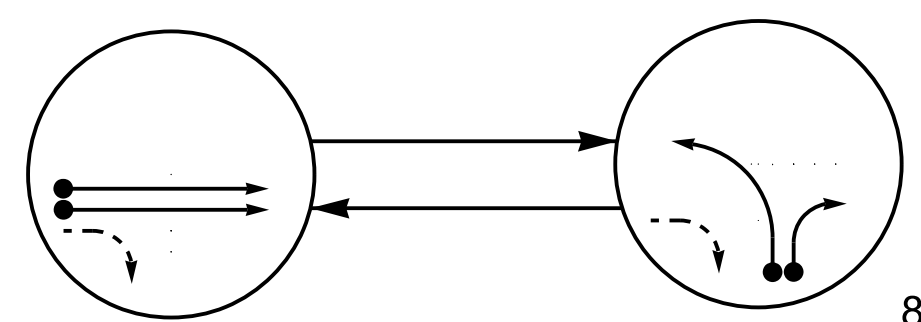
- PROJECT NOTES**
- DISPOSAL OF SIGN SYSTEM, WOOD POST
 - REMOVE AND REPLACE EXISTING SIGN SYSTEM
 - STOP AHEAD SIGN TO BE REMOVED APPROXIMATELY 250' AWAY FROM END OF PROJECT

★ PROPOSED SIGNAL LOCATION

EXISTING & PROPOSED SIGNS

2/11/2026 W:\Transportation\NCDOT\HS-2401A\Signing and Delineation\Signing\HS-2401A_SIGN_PPL.dgn

PHASING DIAGRAM



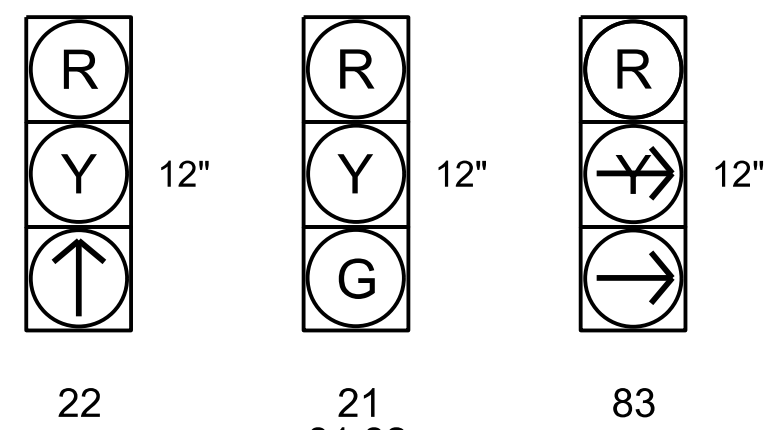
PHASING DIAGRAM DETECTION LEGEND

- ←●→ DETECTED MOVEMENT
- ←→ UNDETECTED MOVEMENT (OVERLAP)
- ←- - - UNSIGNALIZED MOVEMENT
- ←- - -> PEDESTRIAN MOVEMENT

SIGNAL FACE	PHASE		
	2	8	FAST
21	G	R	R
22	↑	R	R
81,82	R	G	R
83	R	→	R

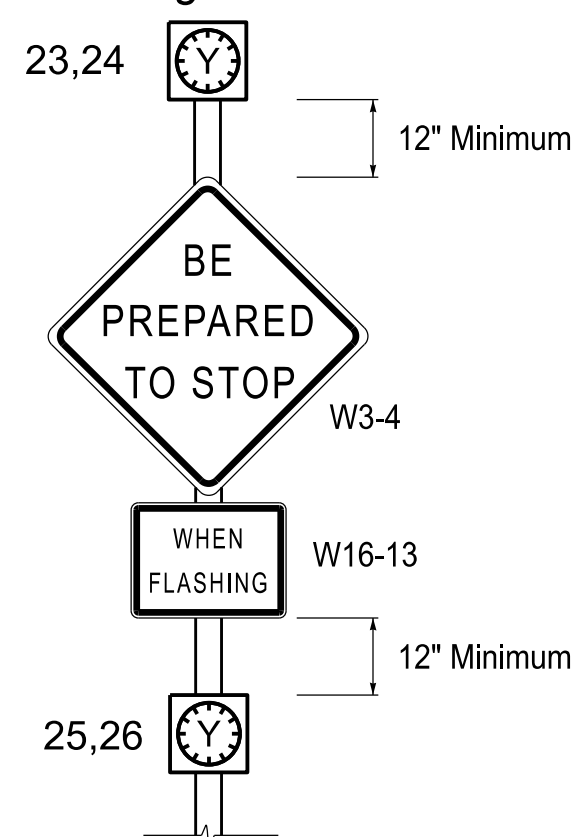
SIGNAL FACE I.D.

All Heads L.E.D.



SIGNAL FACE	INTERVAL	
	1	2
23,24	ON	OFF
25,26	OFF	ON

Figure 1



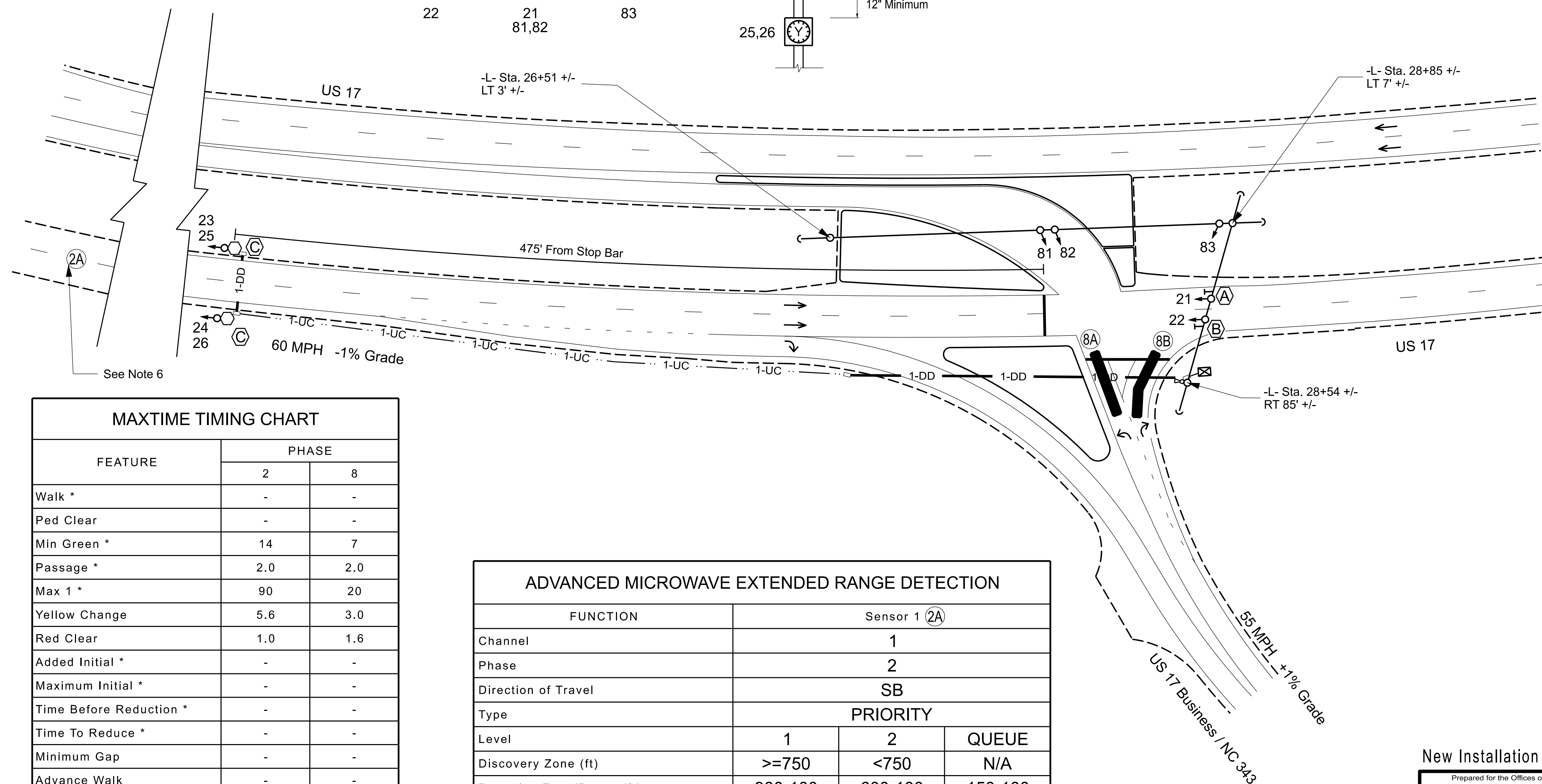
MAXTIME DETECTOR INSTALLATION CHART											
DETECTOR					PROGRAMMING						
ZONE	SIZE (FT)	DISTANCE FROM STOP LINE (FT)	TURNS	NEW LOOP	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL DELAY DURING GREEN	NEW CARD
8A	*	+5	*	X	8	-	-	X	-	X	*
8B	*	+5	*	X	8	15.0	-	X	-	X	*

* Multizone Microwave Detection

2 Phase
Fully Actuated
Isolated

NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specifications for Roads and Structures" dated January 2024.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Set all detector units to presence mode.
- Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
- The cabinet should be designed to include an Auxiliary Output File for future use.
- This intersection uses multi-zone microwave detection. Install detectors according to the manufacturer's instructions to achieve the desired detection.



MAXTIME TIMING CHART

FEATURE	PHASE	
	2	8
Walk *	-	-
Ped Clear	-	-
Min Green *	14	7
Passage *	2.0	2.0
Max 1 *	90	20
Yellow Change	5.6	3.0
Red Clear	1.0	1.6
Added Initial *	-	-
Maximum Initial *	-	-
Time Before Reduction *	-	-
Time To Reduce *	-	-
Minimum Gap	-	-
Advance Walk	-	-
Pre Clearance	3.0	-
Non Lock Detector	-	X
Vehicle Recall	MIN RECALL	-
Dual Entry	-	-

* These values may be field adjusted. Do not adjust Min Green and Passage times for phase 2 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

ADVANCED MICROWAVE EXTENDED RANGE DETECTION

FUNCTION	Sensor 1 (2A)		
	1	2	QUEUE
Channel	1		
Phase	2		
Direction of Travel	SB		
Type	PRIORITY		
Level	1	2	QUEUE
Discovery Zone (ft)	>=750	<750	N/A
Detection Zone/Range (ft)	900-100	600-100	150-100
Enable Speed	Y	Y	Y
Speed Range (mph)	35-100	35-100	1-35
Enable Estimated Time of Arrival	Y	Y	N
Estimated time of Arrival (sec)	2.5-10.0	2.5-6.5	-

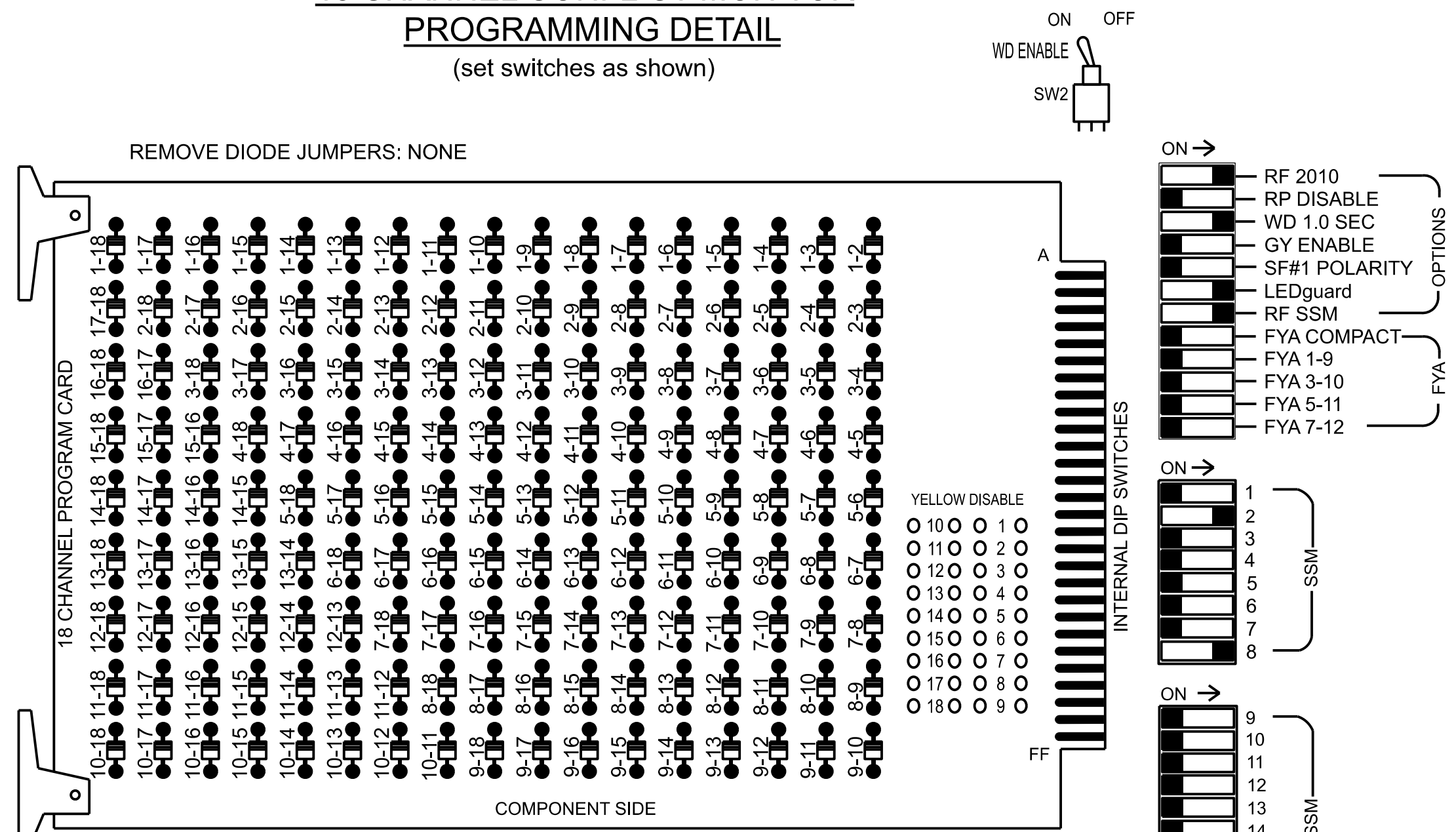
LEGEND

- | | | | |
|--|--|--|------------|
| | Traffic Signal Head | | EXISTING |
| | Modified Signal Head | | N/A |
| | Sign | | ↑ |
| | Pedestrian Signal Head | | ↑ |
| | Signal Pole with Guy | | ● |
| | Signal Pole with Sidewalk Guy | | ● |
| | Inductive Loop Detector | | □ |
| | Controller & Cabinet | | □ |
| | Oversized Junction Box | | □ |
| | 2-in Underground Conduit | | --- UC --- |
| | Right of Way | | --- |
| | Directional Arrow | | → |
| | Directional Drill | | --- DD --- |
| | Type III Signal Pedestal | | ● |
| | Out of Pavement Detector | | ● |
| | Non-Intrusive Detection Zone | | ■ |
| | No Left Turn Sign (R3-2) | | (A) |
| | No Right Turn Sign (R3-1) | | (B) |
| | "BE PREPARED TO STOP" sign (W3-4) w/ "WHEN FLASHING" Placaque (W16-13P) See Figure 1 | | (C) |

New Installation

 P: (919) 878-8560 8501 Six Forks Road Suite 700 Raleigh, North Carolina 27615-2965 NC License No. F-0112 www.rk.com Responsive People Creative Solutions	Prepared for the Offices of: NORTH CAROLINA DEPARTMENT OF TRANSPORTATION Signal Design Section	US 17 at US Business 17 / NC 343 Division 1 Camden County Near South Mills PLAN DATE: September 2025 REVIEWED BY: W.P. Erickson-Jones PREPARED BY: J. Osipovitch REVIEWED BY: D.T. Sears	DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED SEAL David T. Sears 9/15/2025 SIG. INVENTORY NO. 01-0767
	SCALE 0 40 1" = 40'	REVISIONS INIT. DATE	DATE

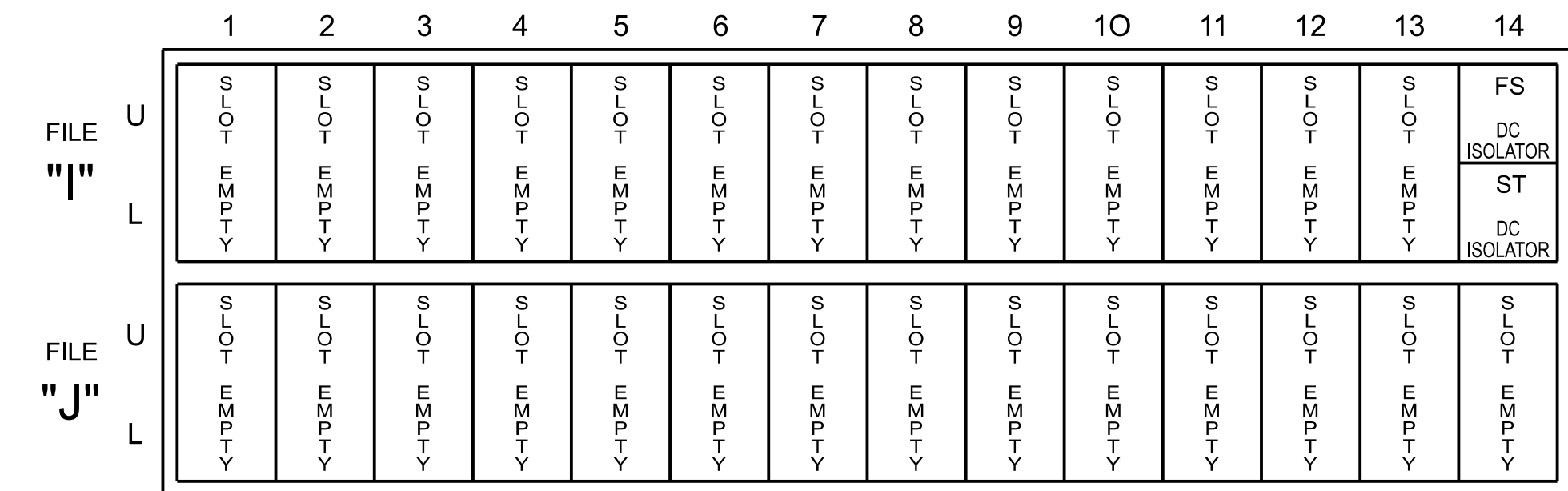
18 CHANNEL CONFLICT MONITOR PROGRAMMING DETAIL
(set switches as shown)



NOTES:

1. Card is provided with all diode jumpers in place. Removal of any jumper allows its channels to run concurrently.
2. Ensure jumpers SEL2-SEL5 and SEL9 are present on the monitor board.
3. Ensure that the Red Enable is active at all times during normal operation.
4. Connect serial cable from conflict monitor to comm. port 1 of 2070 controller. Ensure conflict monitor communicates with 2070.

INPUT FILE POSITION LAYOUT
(front view)



EX. : 1A, 2A, ETC. = LOOP NO.'S

FS = FLASH SENSE
ST = STOP TIME

SPECIAL DETECTOR NOTE

Install a multizone microwave detection system for vehicle detection for zones 2A, 8A, and 8B. Perform installation according to manufacturer's directions and NCDOT engineer-approved mounting locations to accomplish the detection schemes shown on the Signal Design Plans.

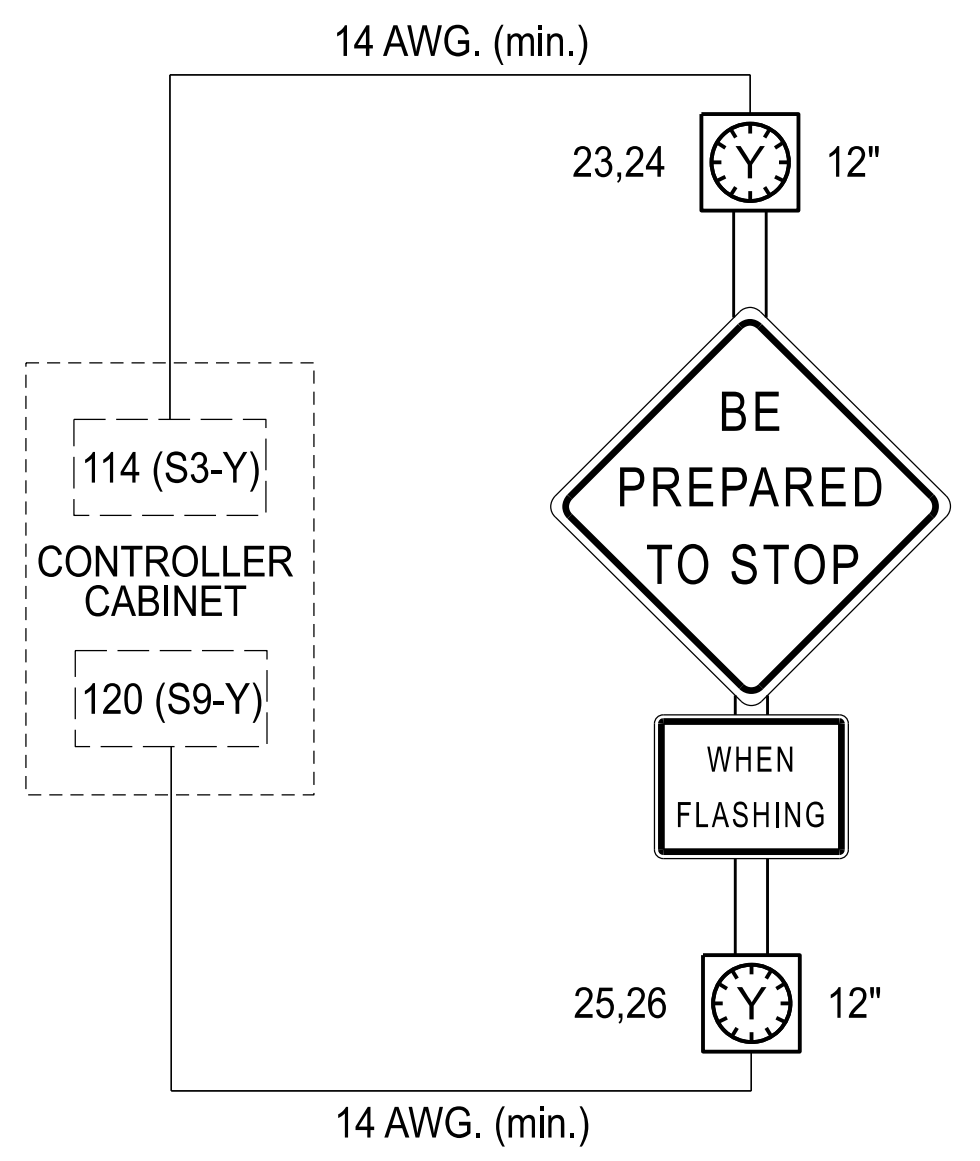
NOTES

1. To prevent "flash-conflict" problems, insert red flash program blocks for all unused vehicle load switches in the output file. The installer shall verify that signal heads flash in accordance with the signal plan.
2. Program controller to start up in phase 2 Green No Walk.
3. Program Phase 2 for Advanced Warning.
4. Program Phase 2 for 3.0 seconds of Pre-Clearance.
5. If this signal will be managed by an ATMS software, enable controller and detector logging for all detectors used at this location.

EQUIPMENT INFORMATION

Controller.....2070LX
Cabinet.....332 w/ Aux
Software.....Q-Free MAXTIME
Cabinet Mount.....Base
Output File Positions.....18 With Aux. Output File
Load Switches Used.....S2,S3, S9, S11
Phases Used.....2, 8
Overlap "1".....NOT USED
Overlap "2".....NOT USED
Overlap "3".....NOT USED
Overlap "4".....NOT USED

ADVANCE BEACON WIRING DETAIL
(wire flashers as shown below)



IMPORTANT

1. REMOVE, TAPE, AND LABEL CONFLICT MONITOR WIRE ATTACHED TO THE REAR OF TERMINAL 114 (S3-Y) AND TERMINAL 120 (S9-Y).
2. INSERT LOAD SWITCH FOR S3 AND S9
3. MAKE SURE LOAD RESISTORS ARE IN PLACE AS SHOWN IN LOAD RESISTOR INSTALLATION DETAIL ON THIS SHEET.

SIGNAL HEAD HOOK-UP CHART

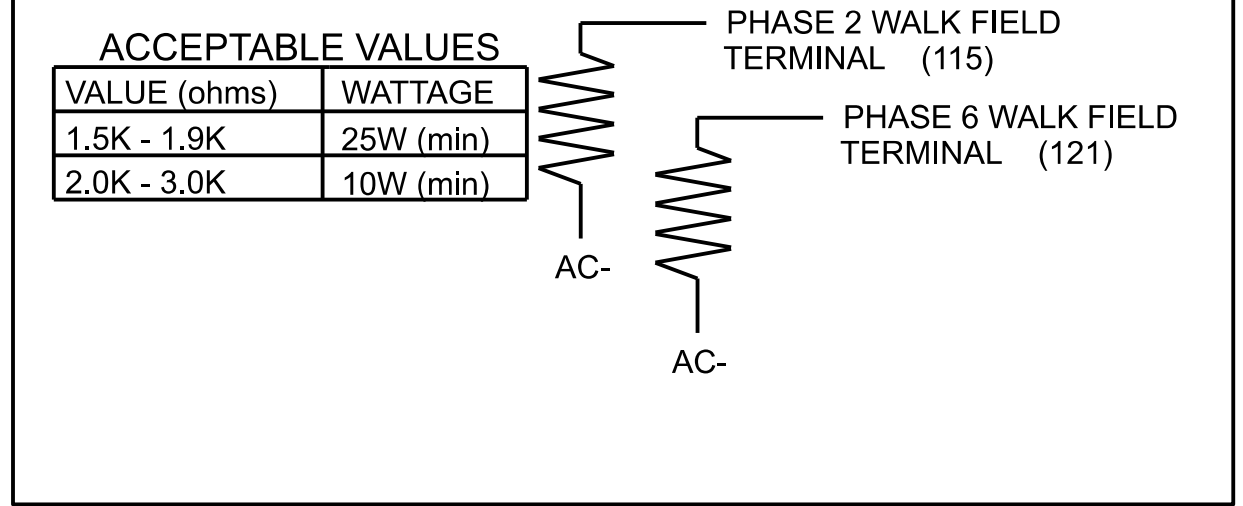
LOAD SWITCH NO.	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	AUX S1	AUX S2	AUX S3	AUX S4	AUX S5	AUX S6
CMU CHANNEL NO.	1	2	13	3	4	14	5	6	15	7	8	16	9	10	17	11	12	18
PHASE	1	2	2 PED	3	4	4 PED	5	6	6 PED	7	8	8 PED	OL1	OL2	SPARE	OL3	OL4	SPARE
SIGNAL HEAD NO.	NU	21	22	NU	23,24	NU	NU	NU	NU	NU	25,26	NU	81,82	83	NU	NU	NU	NU
RED		128	128															
YELLOW		129	129															
GREEN		130																
RED ARROW																		
YELLOW ARROW														108				
FLASHING YELLOW ARROW																		
GREEN ARROW																		
PED YELLOW																		

NU = Not Used

* Denotes install load resistor. See load resistor installation detail this sheet.

** Special Advanced Beacons will be wired to S3-Y and S9-Y. See wiring and programming details on sheet 1 and sheet 2.

LOAD RESISTOR INSTALLATION DETAIL



New Installation - Electrical Detail (Sheet 1 of 2)

9/15/2025 R:\TSM\045\proj\010767...sig_dsm_2025XXXX.dgn

THIS ELECTRICAL DETAIL IS FOR THE SIGNAL DESIGN: 01-0767
DESIGNED: September 2025
SEALED: 9/15/2025
REVISED: _____

US 17 at US Business 17 / NC 343	
Division 1	Camden County Near South Mills
PLAN DATE: September 2025	REVIEWED BY: W.P. Erickson-Jones
PREPARED BY: J. Osipovitch	REVIEWED BY: D.T. Sears
REVISIONS	INIT. DATE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SIG. INVENTORY NO. 01-0767

OUTPUT POINTS CONFIGURATION

Front Panel
Main Menu >Controller >More >Advanced IO >Output Points

Web Interface
Home >Controller >Advanced IO >Cabinet Configuration >Output Points

I/O Module 1

NOTICE
OUTPUT
REMAPMING

Output Point	Description	Output Control Type	Index
33	C1-35	Channel Green Walk Driver	20
34	C1-36	Channel Red Do Not Walk Driver	20
35	C1-37	Not Active	14
36	C1-38	Not Active	16

OUTPUT CHANNEL CONFIGURATION

Front Panel
Main Menu >Controller >More>Channels>Channels Config

Web Interface
Home >Controller >Advanced IO>Channels>Channels Configuration

Channel Configuration

Channel	Control Type	Control Source	Flash Yellow	Flash Red	Flash Alt	MMU Channel
1	Phase Vehicle	1	-	X	X	1
2	Phase Vehicle	2	-	X	-	2
3	Phase Vehicle	3	-	X	X	3
4	Phase Vehicle	4	-	X	-	4
5	Phase Vehicle	5	-	X	-	5
6	Phase Vehicle	6	-	X	X	6
7	Phase Vehicle	7	-	X	-	7
8	Phase Vehicle	8	-	X	X	8
9	Overlap	1	-	X	X	9
10	Overlap	2	-	X	X	10
11	Overlap	3	-	X	-	11
12	Overlap	4	-	X	-	12
13	Phase Ped	2	-	-	-	13
14	Phase Ped	4	-	-	-	14
15	Phase Ped	6	-	-	-	15
16	Phase Ped	8	-	-	-	16
17	Overlap	5	-	X	X	17
18	Overlap	6	-	X	-	18
19	None	-	-	-	-	19
20	Adv. Warning Flasher	2	-	-	-	20
21	None	-	-	-	-	21

NOTE CHANNEL 20 ASSIGNED TO
FLASHER WITH CONTROL SOURCE 2

ENABLE ADVANCE FLASHER WARNING PROGRAMMING

Front Panel
Main Menu >Controller >Phase >Phase Options
Select Plan 1

Web Interface
Home >Controller> Phase Configuration > Phase Option Plans
Select Phase Option Plan 1
Phase Option Plan 1

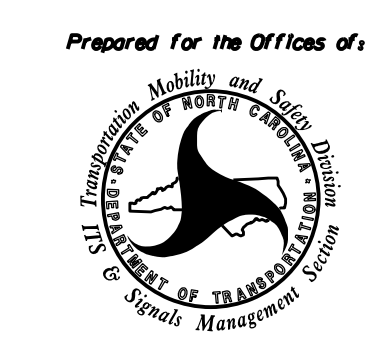
Phase	1	2	3	4	5	6	7	8
Advanced Warning	-	Y	-	-	-	-	-	-

New Installation - Electrical Detail (Sheet 2 of 2)

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

ELECTRICAL AND PROGRAMMING
DETAILS FOR:

Prepared for the Offices of:



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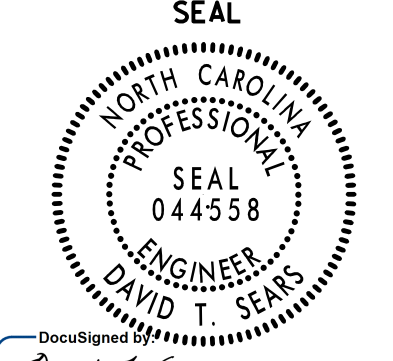
Division 1 Camden County Near South Mills

PLAN DATE: September 2025 REVIEWED BY: W.P. Erickson-Jones

PREPARED BY: J. Osipovitch REVIEWED BY: D.T. Sears

REVISIONS	INIT.	DATE

SEAL



David T. Sears
9/15/2025
SIGNATURE DATE
SIG. INVENTORY NO. 01-0767

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 01-0767
DESIGNED: September 2025
SEALED: 9/15/2025
REVISED: _____

9/15/2025 R:\TSM\045\p001\Des\gn\010767_sig_dsm_2025XXXX.dgn

STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

CROSS SECTION INDEX SHEET

Chain	Beg Sta	End Sta	LOC	Sheet No.	Comments / Log File
-L-	16+50	31+50		X-1 TO X-10	
-Y1-	13+00	15+50		X-11 TO X-12	

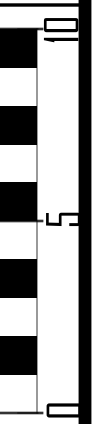
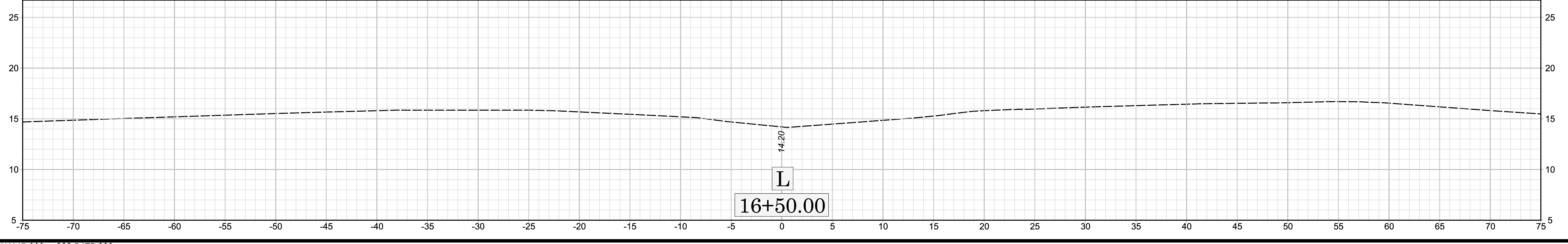
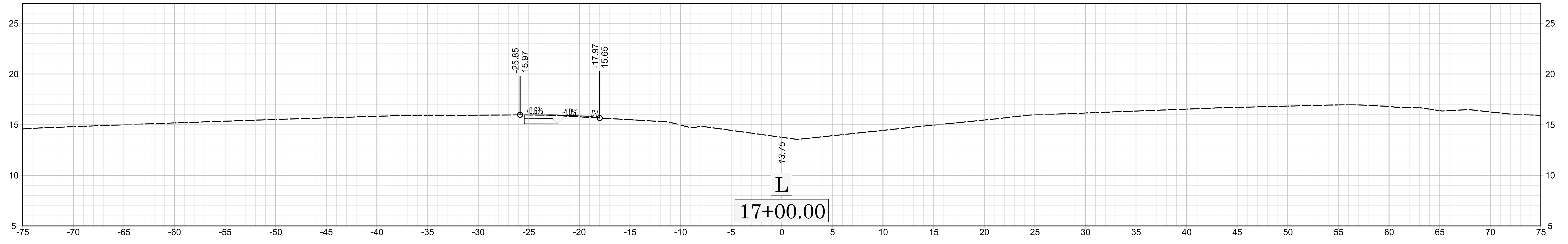
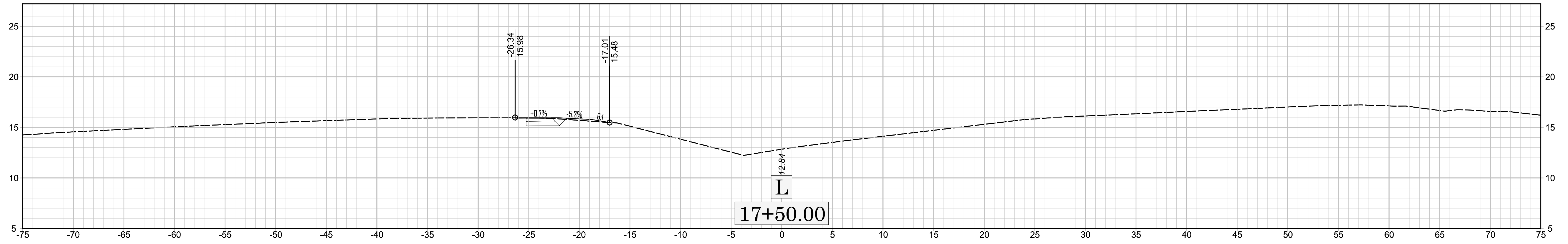
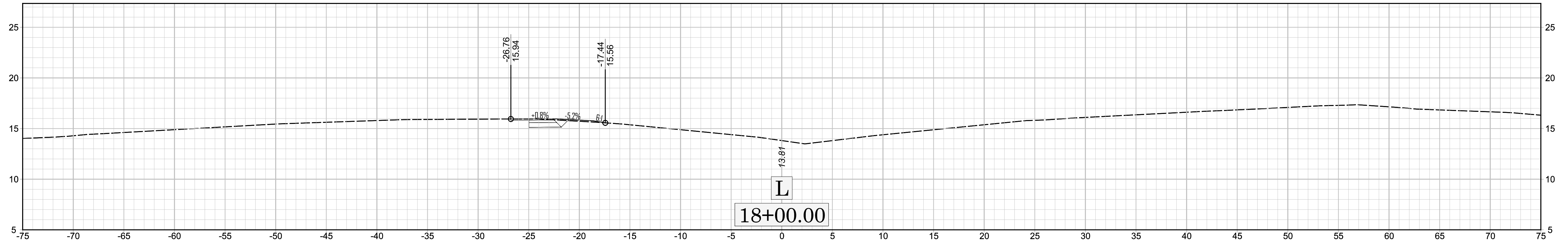
X 1A

HS-2401A

NOTE:
EMBANKMENT
COLUMN
INCLUDES
BACKFILL FOR
UNDERCUT

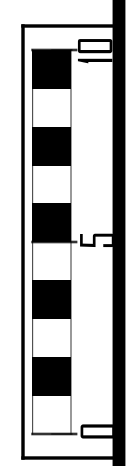
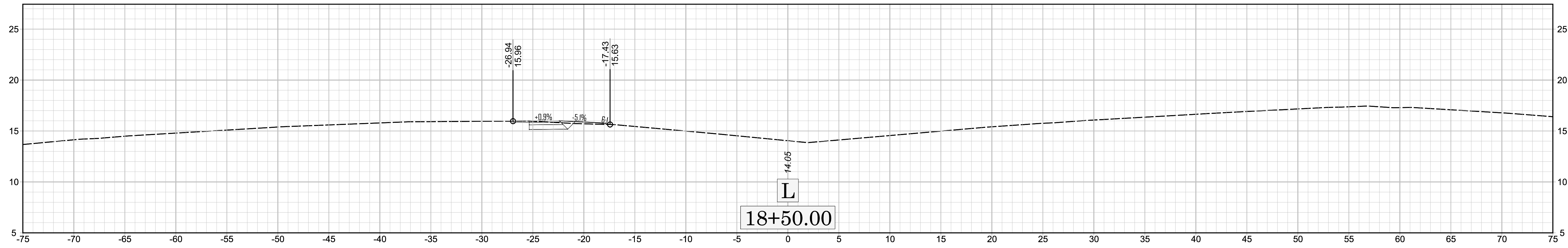
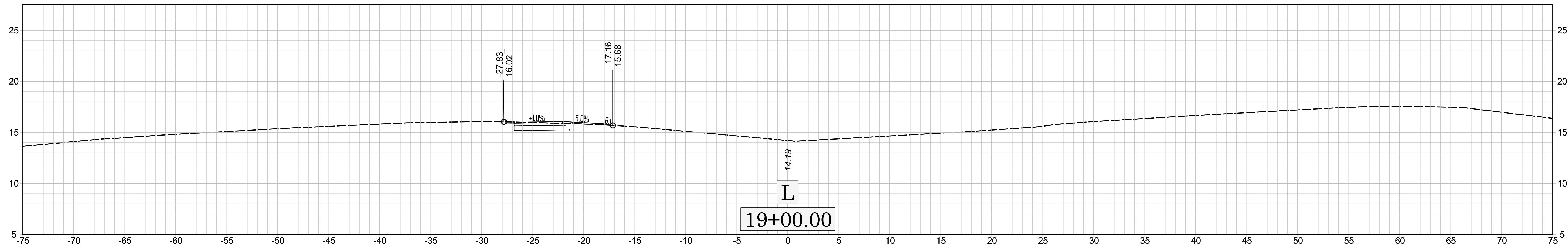
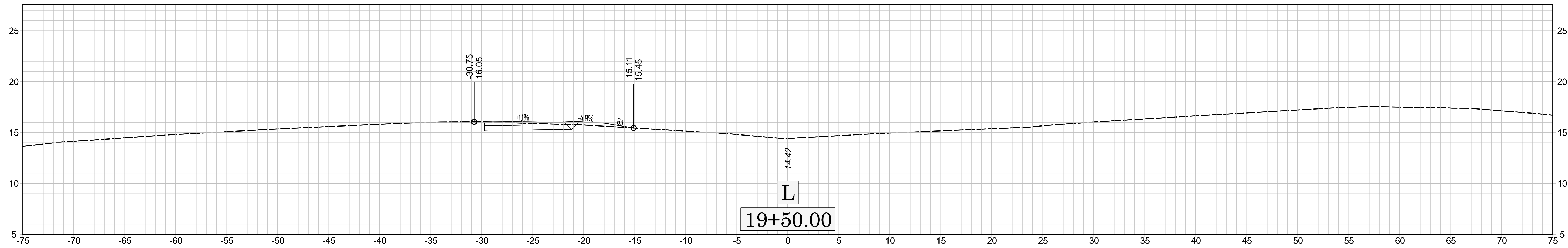
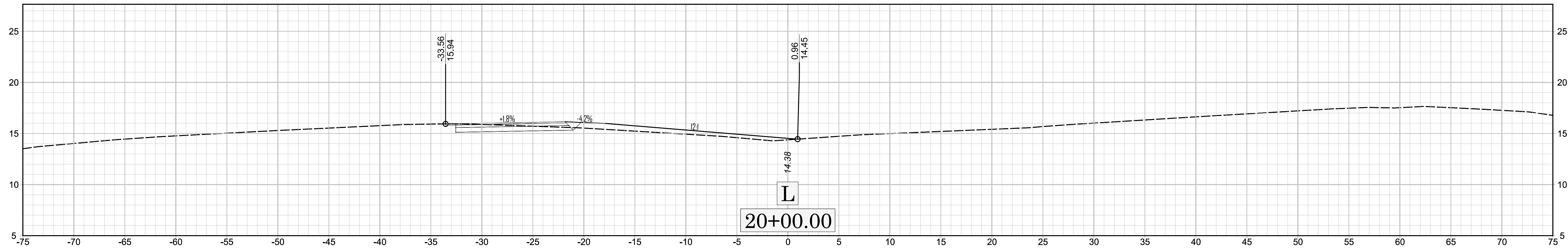
CROSS-SECTION SUMMARY

STATION -L-	Cut Yd	(Cu.	Fill (Cu. Yd)	STATION Y1-	- Cut Yd	(Cu.	Fill (Cu. Yd)
16+50	2.0		0.3	13+00	15.8		0.1
17+00	5.3		0.7	13+50	40.4		1.1
17+50	5.4		0.8	14+00	43.5		0.2
18+00	5.4		0.9	14+50	48.3		0.0
18+50	6.4		0.5	15+00	70.9		16.8
19+00	9.4		1.5	15+50	126.2		337.0
19+50	11.8		3.5	16+00	42.9		190.1
20+00	10.6		26.6	16+50	7.2		0.3
20+50	9.0		39.3				
21+00	9.0		35.5				
21+50	12.2		40.9				
22+00	15.7		54.3				
22+50	18.0		64.8				
23+00	19.4		92.2				
23+50	16.4		113.1				
24+00	12.3		104.8				
24+50	8.7		94.7				
25+00	9.9		92.4				
25+50	26.8		82.1				
26+00	26.2		31.0				
26+50	19.5		30.4				
27+00	9.1		55.2				
27+50	11.1		24.2				
28+00	19.4		0.9				
28+50	14.2		18.5				
29+00	0.9		23.4				
29+50	0.6		20.6				
30+00	0.5		21.8				
30+50	0.4		21.7				
31+00	0.2		19.3				
31+50	0.1		14.8				
32+00	0.0		8.9				
32+50	0.0		3.4				
33+00	0.0		0.1				



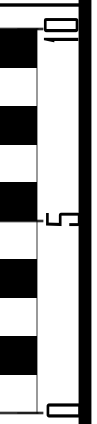
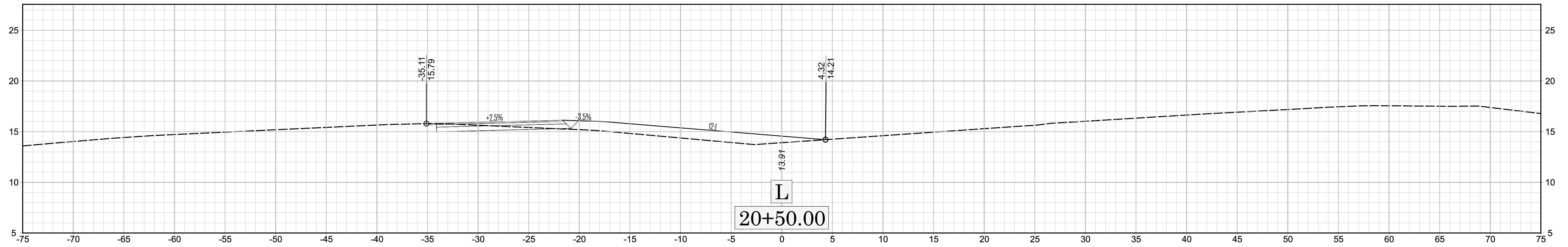
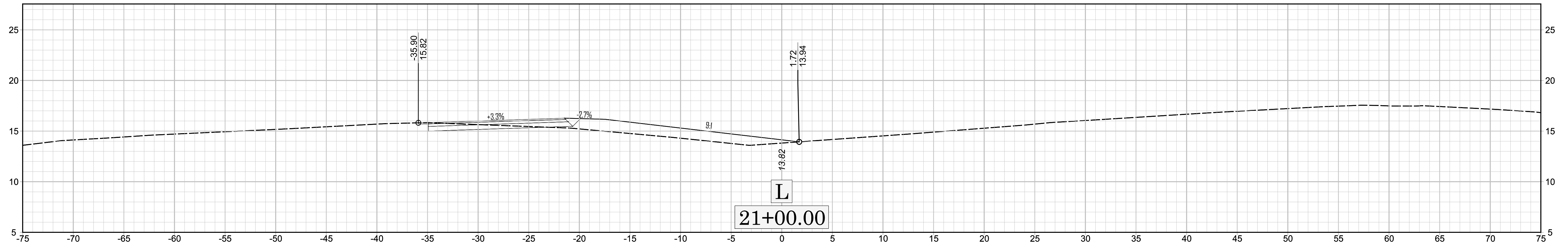
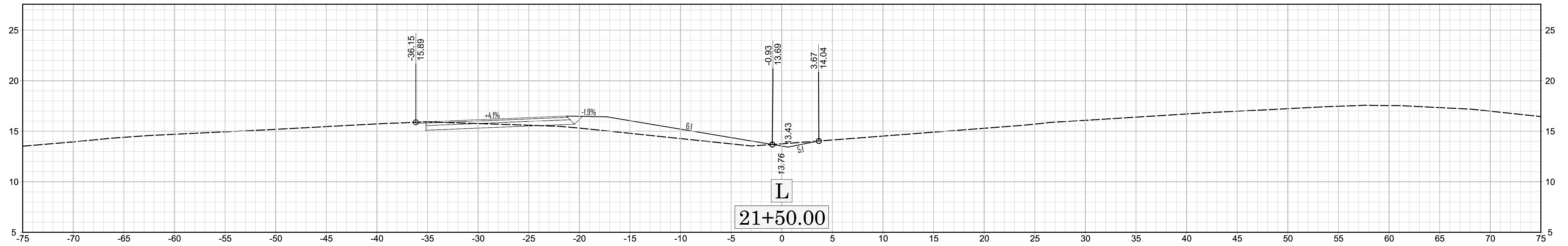
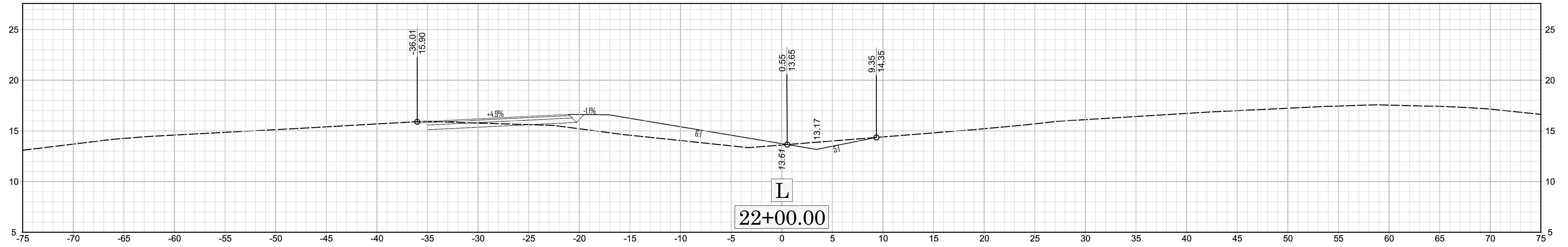
X
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HS-240A



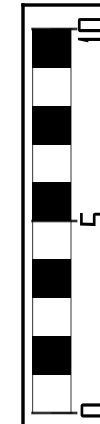
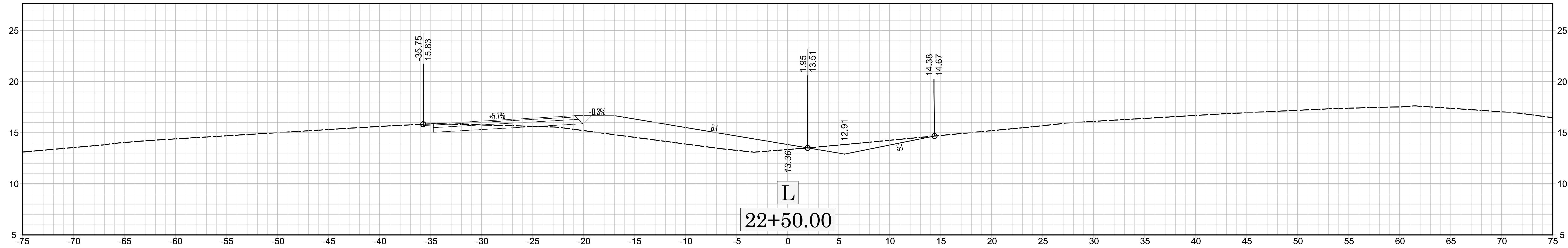
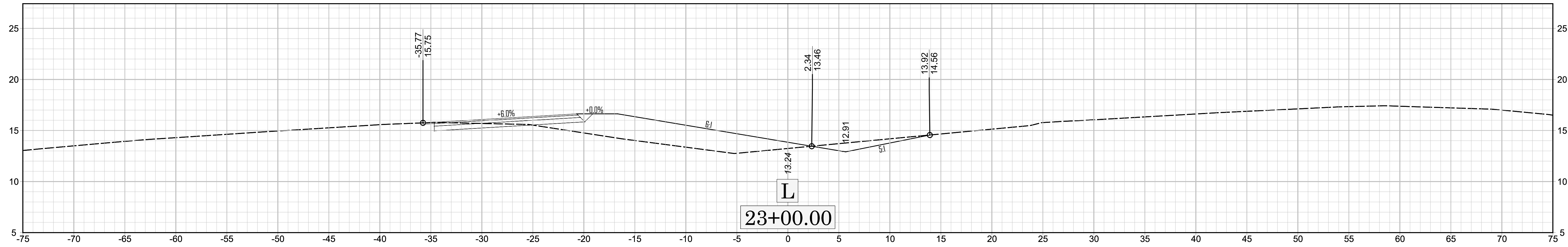
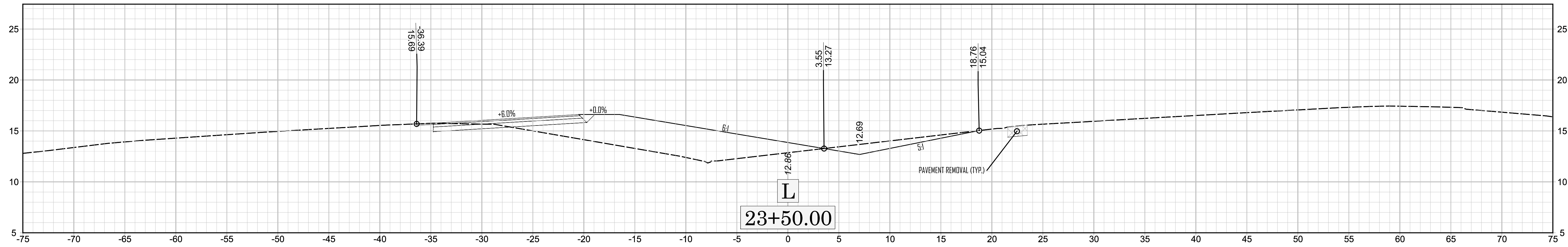
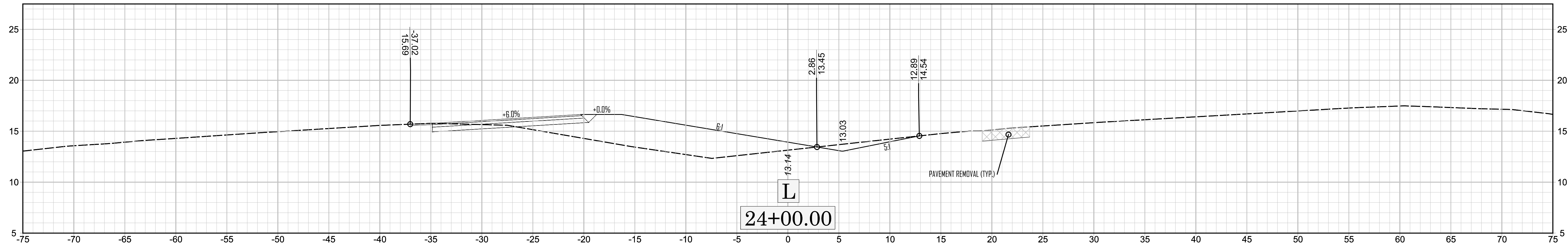
X Z

HS-240IA



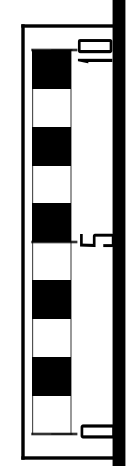
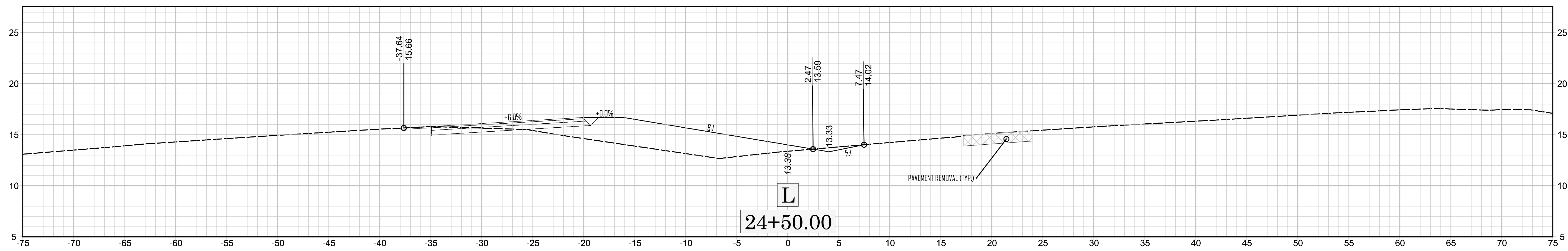
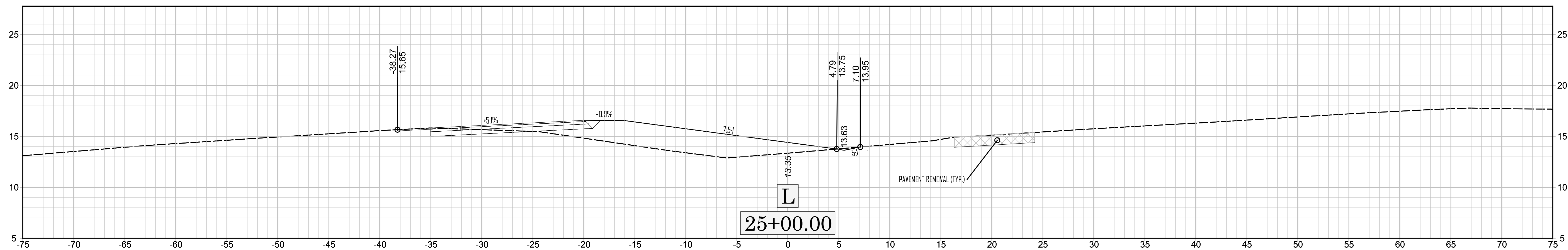
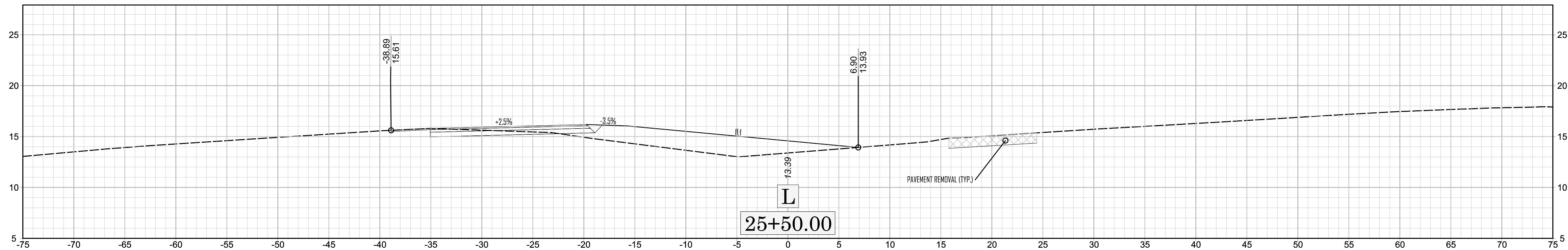
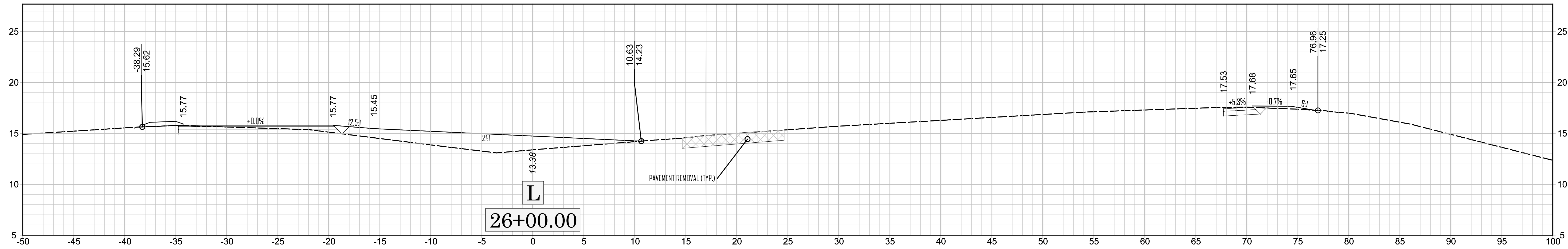
X 3

HS-240A



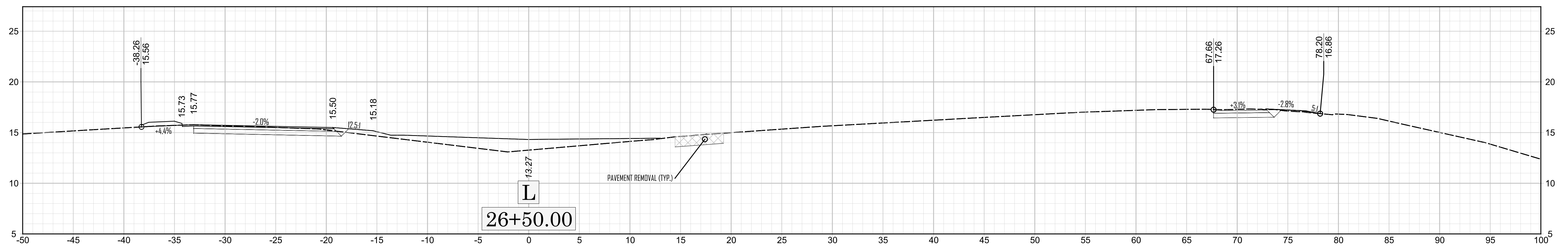
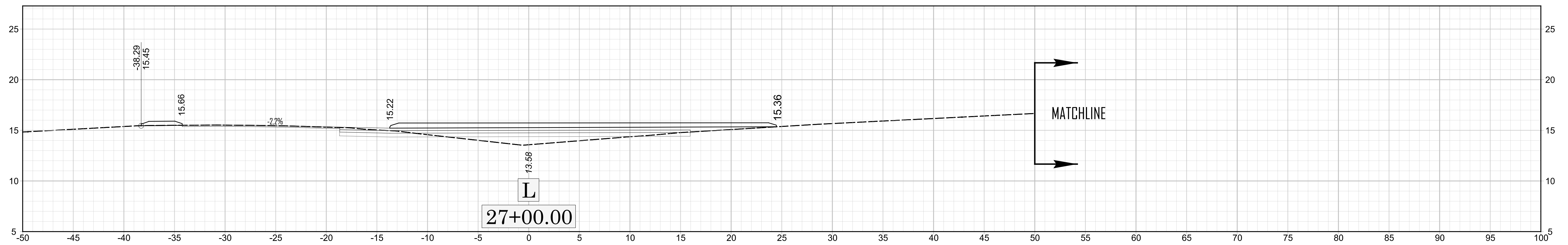
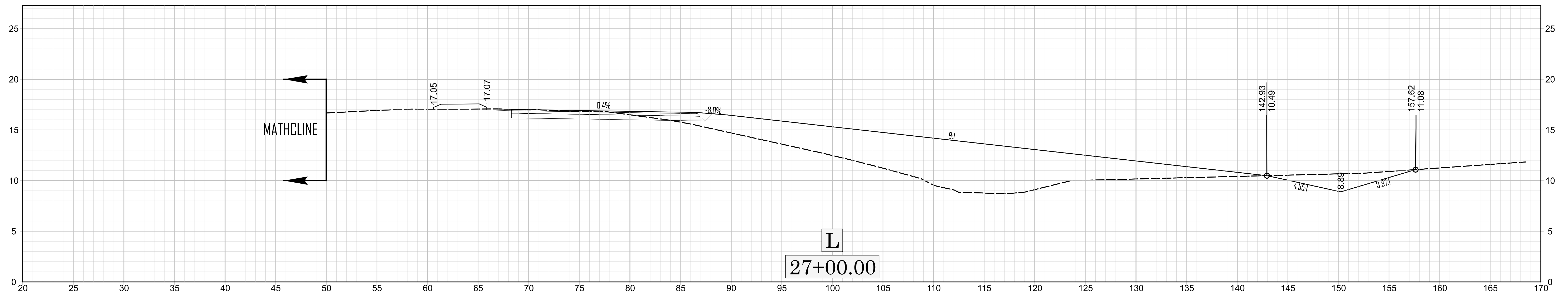
X 4

HS-2401A



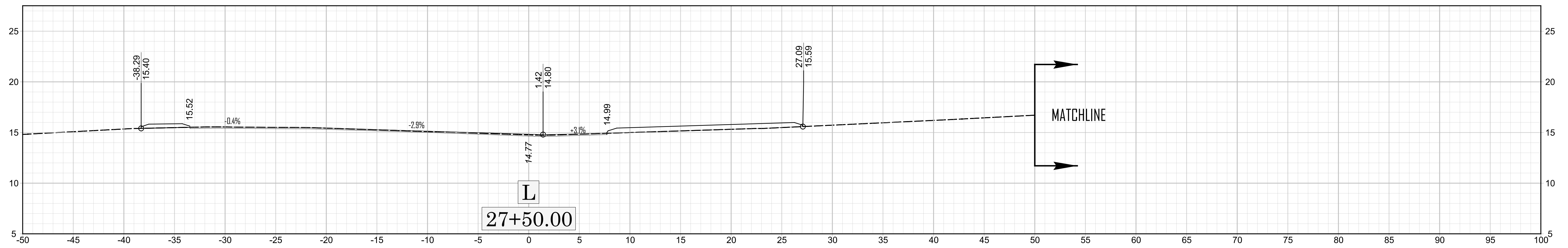
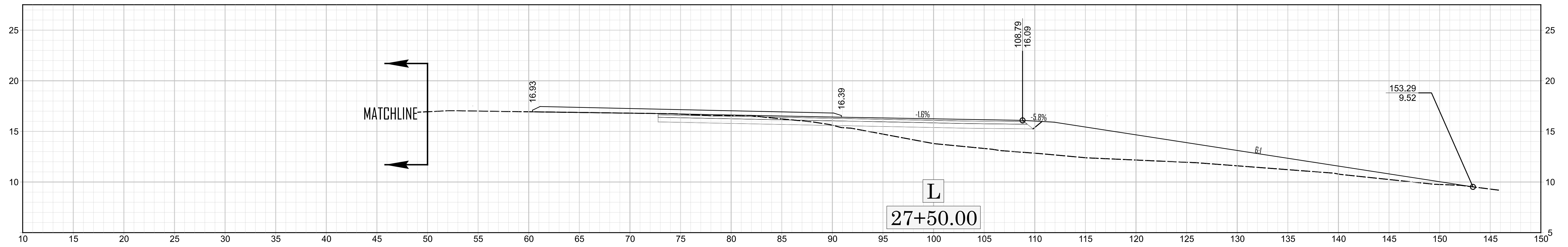
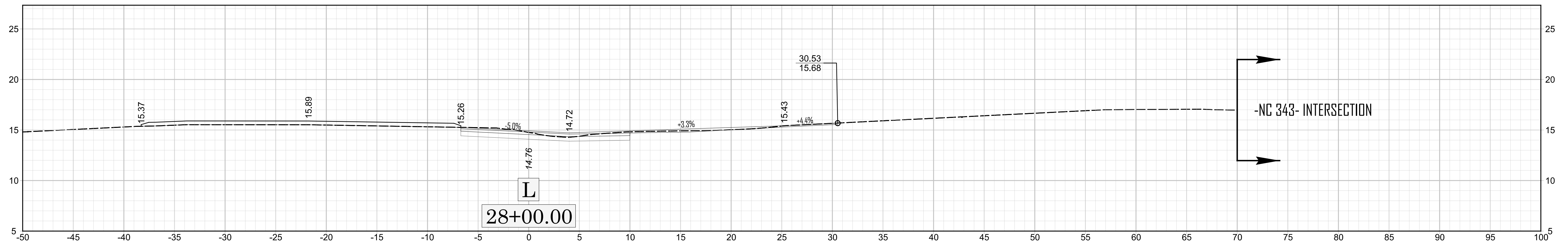
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HS-240A



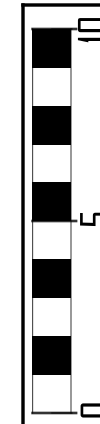
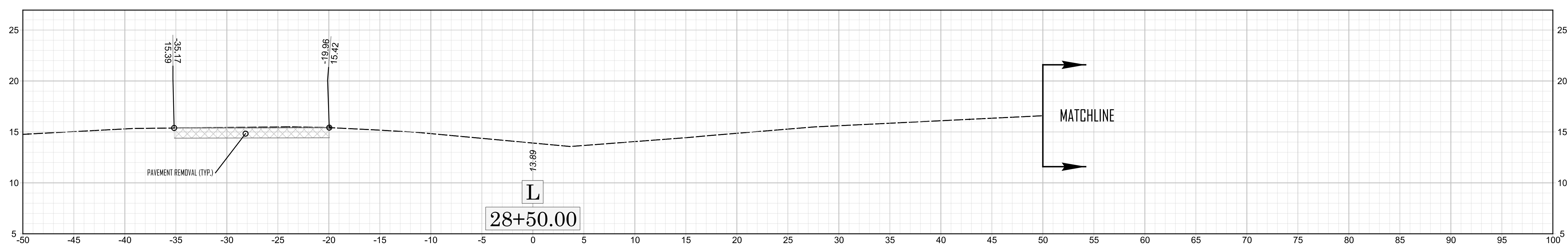
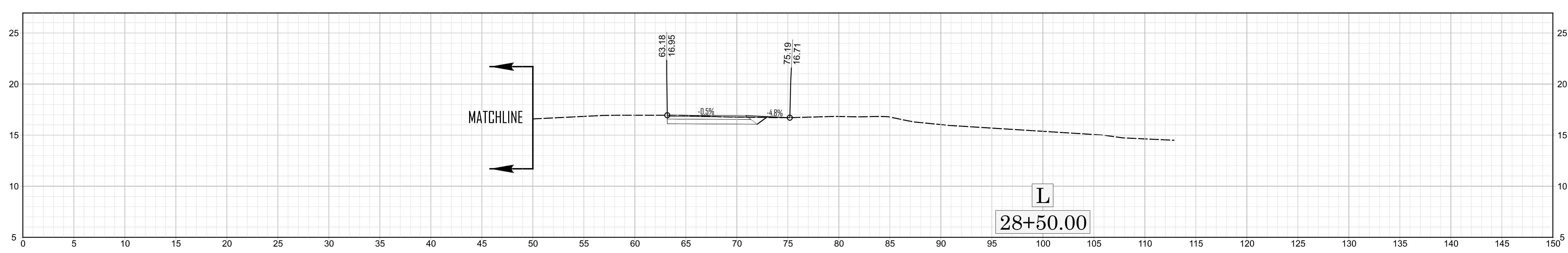
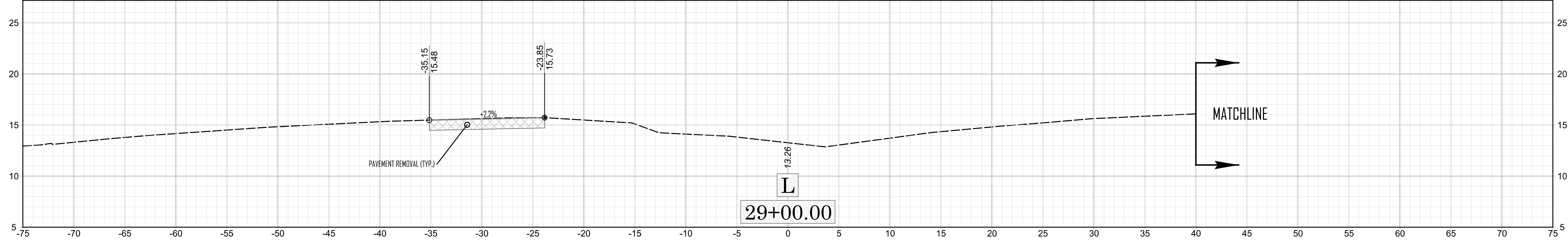
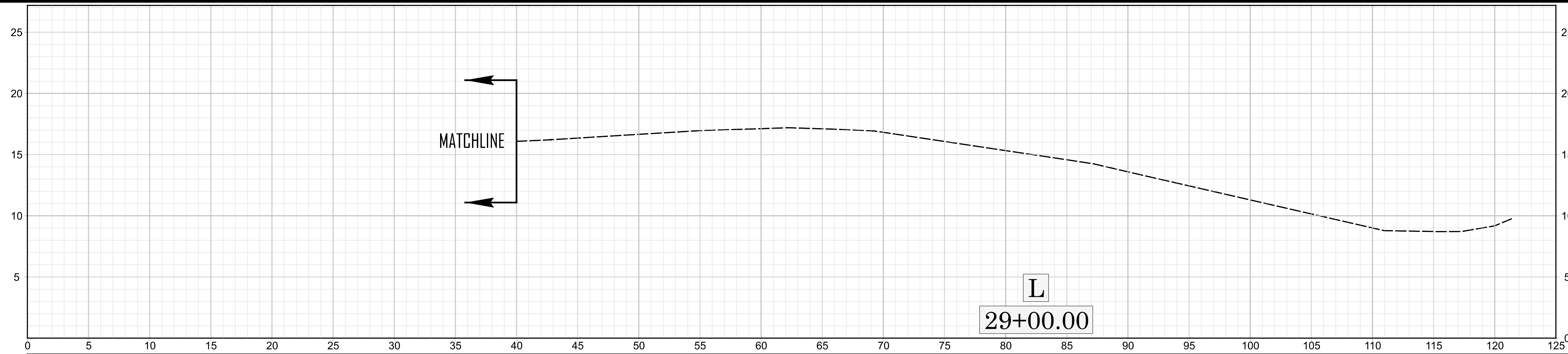
X B

HS-2401A



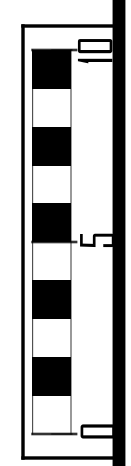
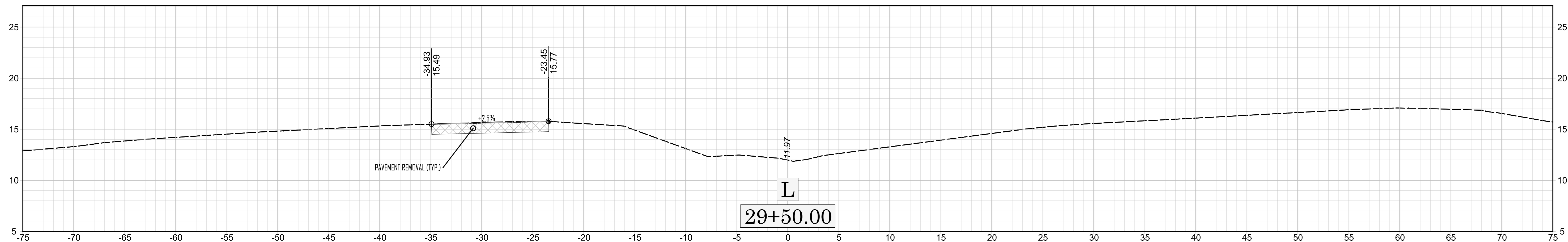
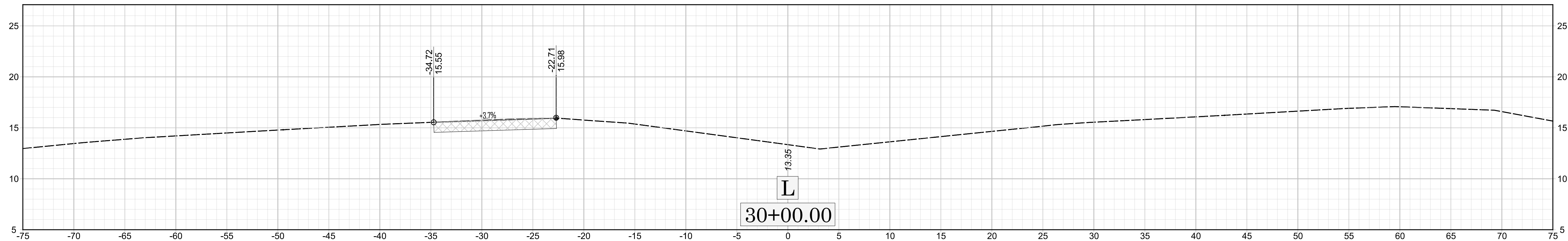
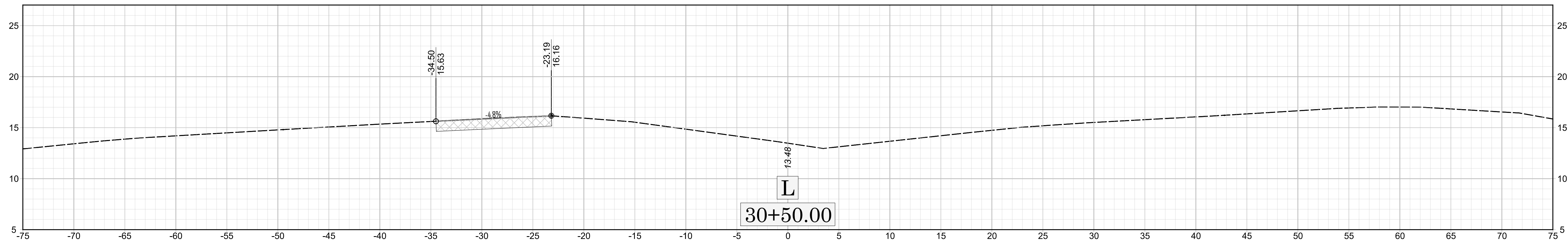
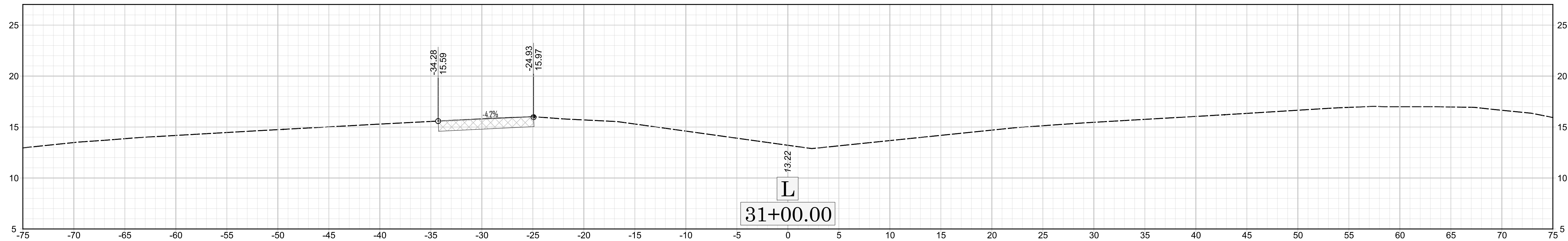
X 7

HS-240A



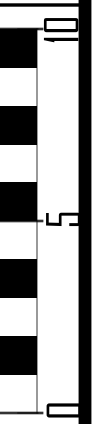
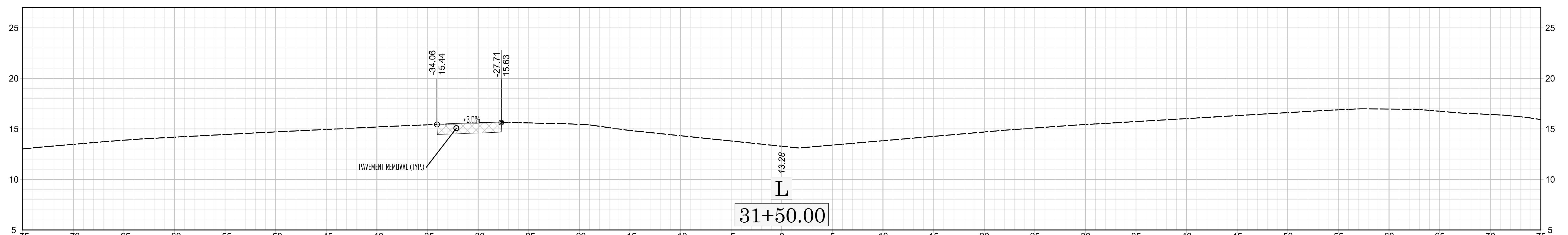
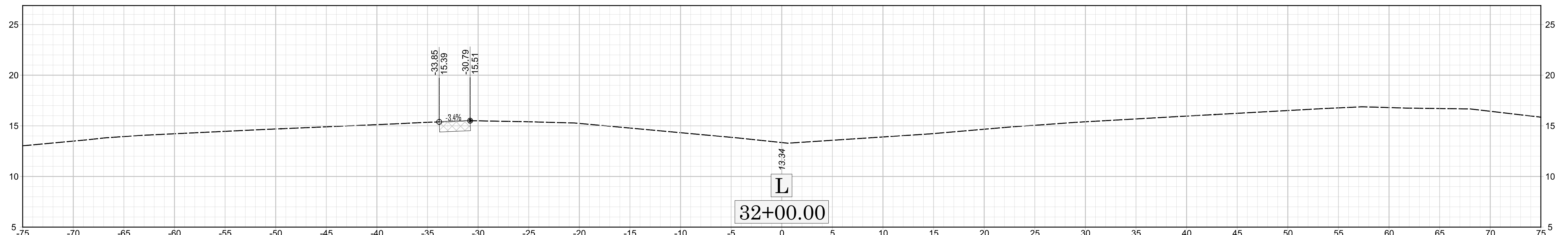
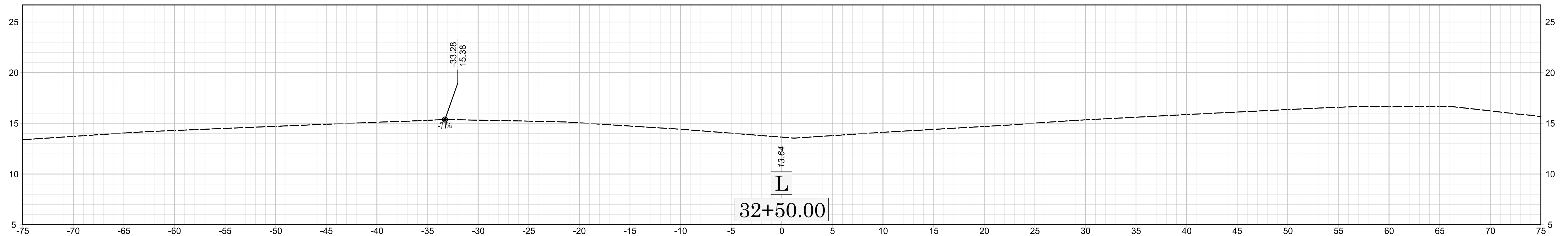
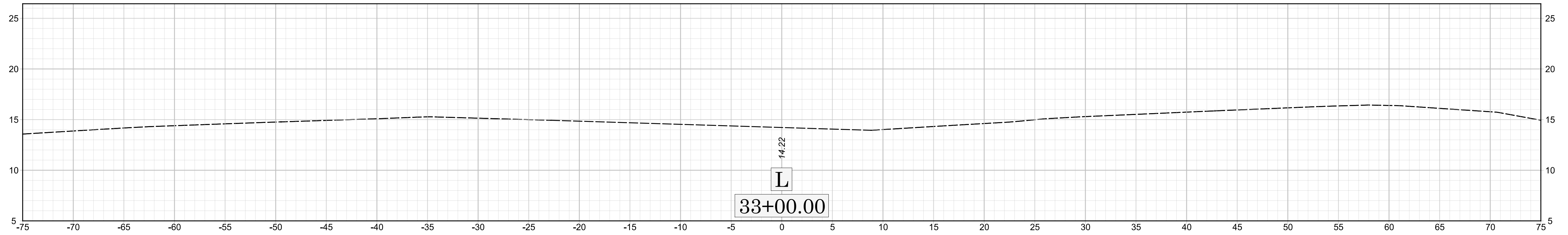
X 8

HS-240A



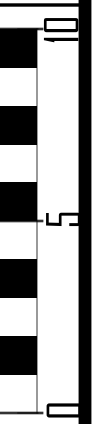
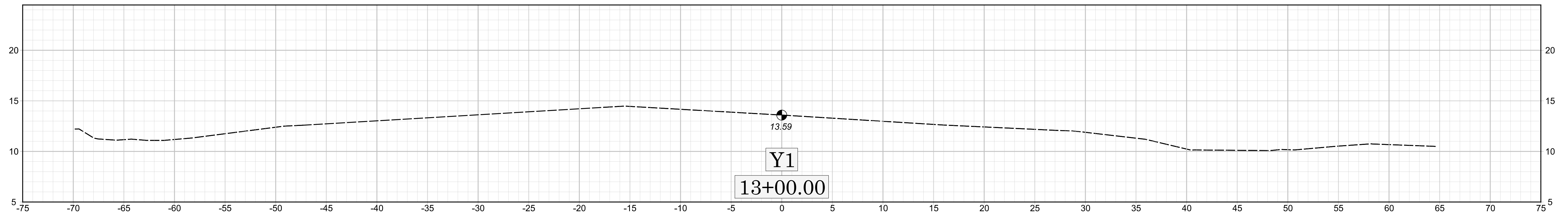
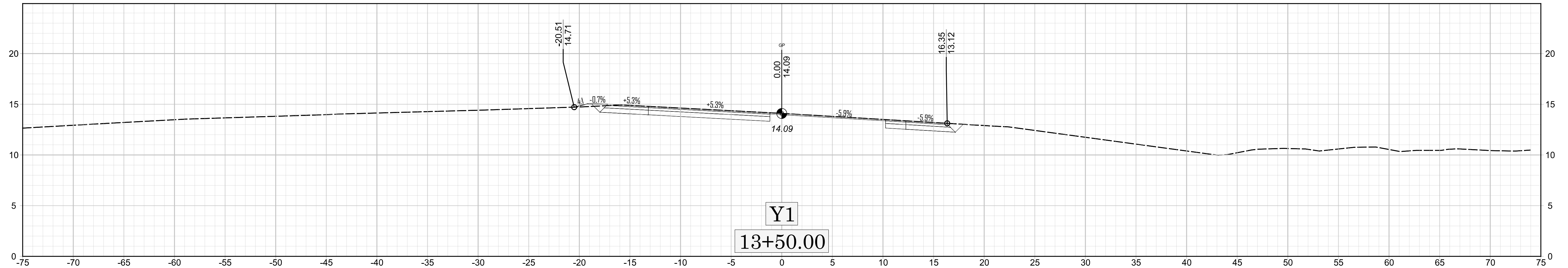
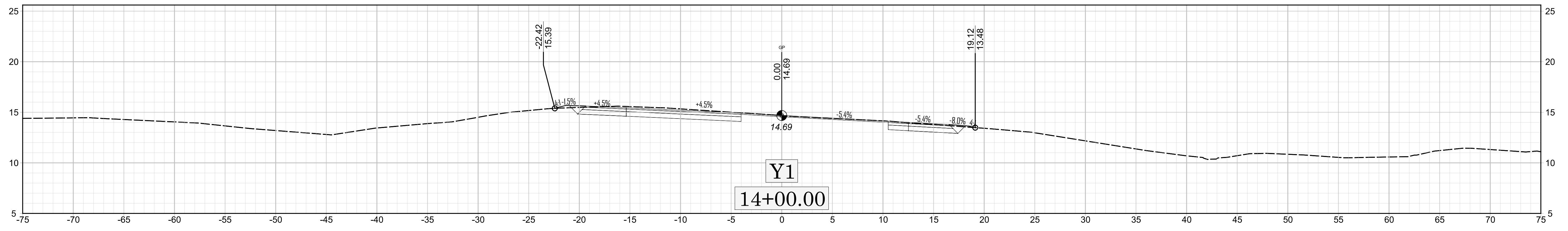
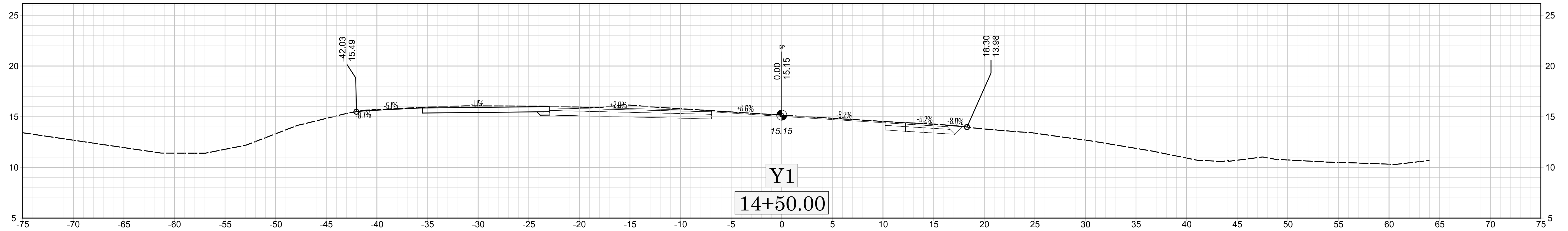
X
g

HS-2401A



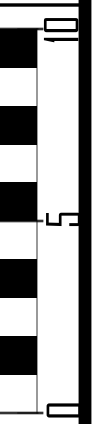
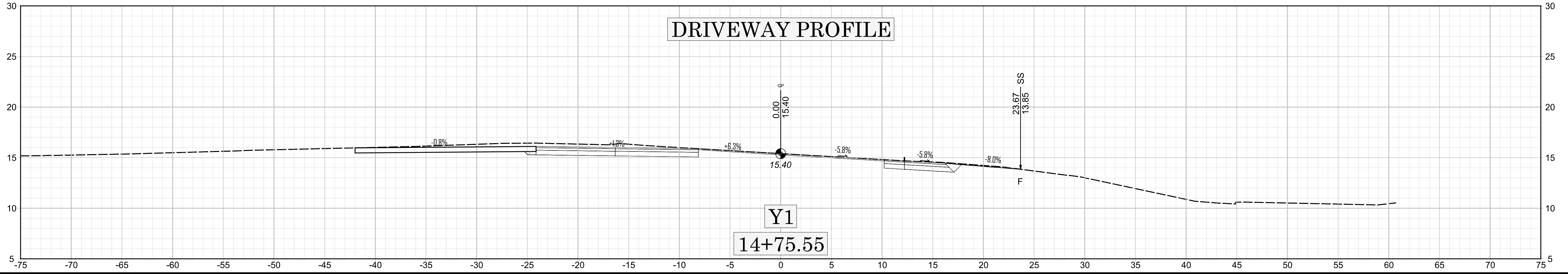
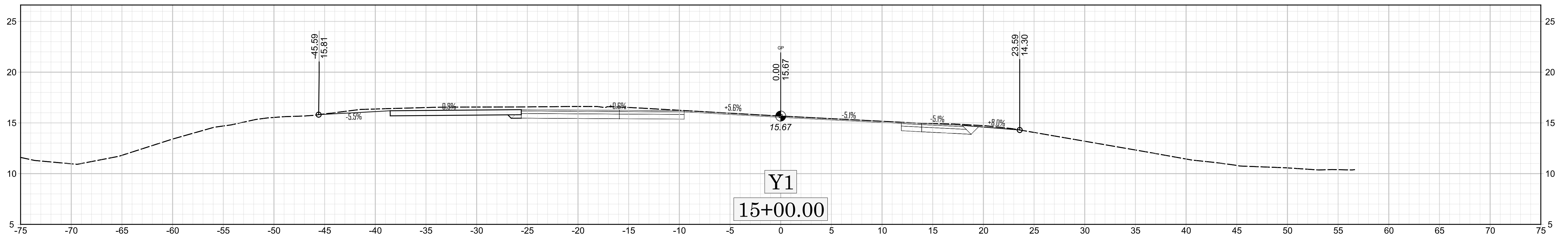
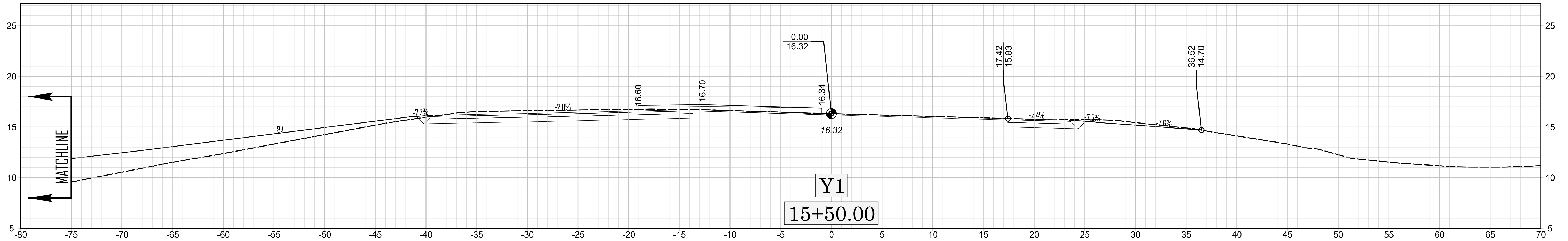
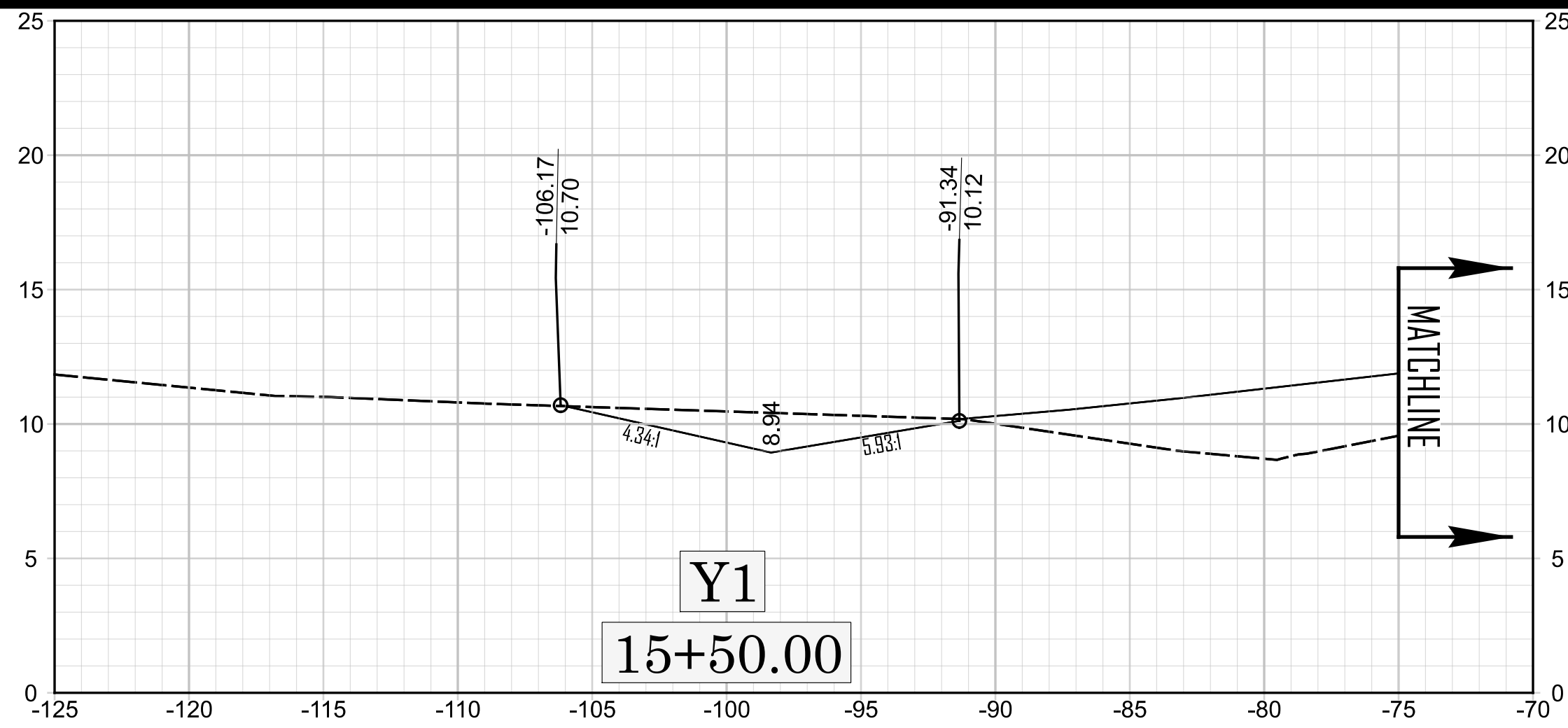
X 10

HS-2401A



X II

HS-2401A



X 12

HS-240A