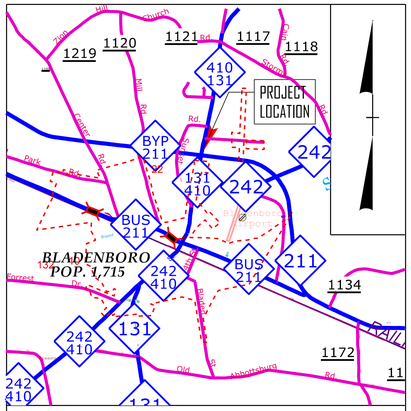
01/16/24

TIP PROJECT: HN-0025

CONTRACT:

See Sheet 1A For Index of Sheets



VICINITY MAP (NTS)

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

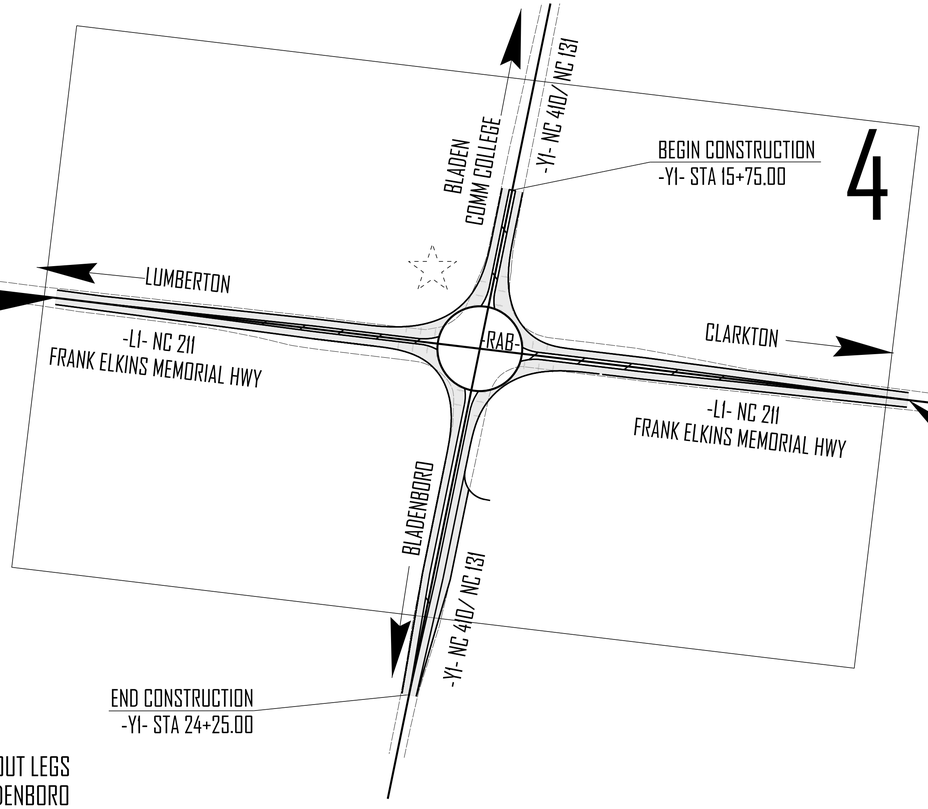
BLADEN COUNTY

LOCATION: *NC 410/ NC 131 AT NC 211 BYPASS IN BLADENBORO*

TYPE OF WORK: *REPLACE EXISTING TRAFFIC SIGNAL WITH ROUNDABOUT*

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	HN-0025	1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
51315.1.1	5131501	PE
51315.2.1		ROW
51315.2.2		UTIL
51315.3.1	5131501	CONST

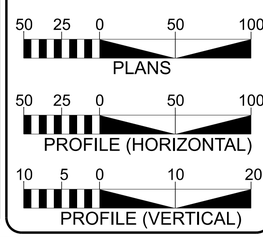


BEGIN TIP PROJECT HN-0025
-LI- STA 11+25.00

END TIP PROJECT HN-0025
-LI- STA 25+40.00

THIS IS A PARTIAL CONTROL ACCESS WITH ACCESS BEING LIMITED TO THE ROUNDABOUT LEGS
THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF THE TOWN OF BLADENBORO

GRAPHIC SCALES



DESIGN DATA

ADT 2024 = 6400
ADT 2046 = 9400
K = 8.5 %
D = 60 %
T = 10 % *
V = 60 MPH
* TTST =5 DUAL 5
FUNC CLASS =
MAJOR COLLECTOR
REGIONAL TIER

PROJECT LENGTH

TOTAL LENGTH OF TIP PROJECT HN-0025 = 0.305 MILES

2024 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: September 30,2024

LETTING DATE: July 16, 2025

JOHN GAUTHIER
PROJECT ENGINEER

JULIO WILLIAMS
PROJECT DESIGN ENGINEER

NCDOT CONTACT

HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 040590 ENGINEER SHRISHANT SHARMA

SIGNATURE: *P.E.*

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 000000 ENGINEER STEVEN D KENDALL

SIGNATURE: *P.E.*

STATE OF NORTH CAROLINA • DEPARTMENT OF TRANSPORTATION •

INDEX OF SHEETS	
SHEET NUMBER	SHEET
1	TITLE SHEET
1A	INDEX OF SHEETS, GENERAL NOTES, AND STANDARD DRAWINGS
1B	CONVENTIONAL SYMBOLS
2A	PAVEMENT SCHEDULE AND TYPICAL SECTIONS
3B-1	ROADWAY SUMMARIES
3D-1	DRAINAGE SUMMARIES
4 THRU 6	PLAN AND PROFILE SHEET
RW-1THRU RW-2D-1	SURVEY CONTROL, EXISTING CENTERLINES, RIGHT OF WAY, EASEMENT AND PROPERTY TIES
TMP-1 THRU TMP- 7	TRAFFIC MANAGEMENT PLANS
PMP-1 THRU PMP- 2	PAVEMENT MARKING PLANS
SIGN-1 THRU SIGN- 5	SIGNING PLANS
EC-1 THRU EC- 5	EROSION CONTROL PLANS
X-1	CROSS-SECTION INDEX
X-1A THRU X-1	CROSS-SECTION SUMMARY SHEET
X-2 THRU X- 25	CROSS-SECTIONS

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

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.

EFF. 01-16-2024
REV.
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
225.04 Method of Obtaining Superelevation - Two Lane Pavement
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 7 - CONCRETE PAVEMENTS AND SHOULDERS
700.01 Concrete Pavement Joints - Construction and Contraction Joints
700.03 Dowel Assembly
700.04 Concrete Pavement Header Board
700.05 Tying Proposed Pavement to Existing Pavement
710.01 Concrete Pavement - Station Marking
DIVISION 8 - INCIDENTALS
840.72 Pipe Collar
846.01 Concrete Curb, Gutter and Curb & Gutter
852.01 Concrete Islands
876.02 Guide for Rip Rap at Pipe Outlets

STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

Note: Not to Scale

BOUNDARIES AND PROPERTY:

- State Line
- County Line
- Township Line
- City Line
- Reservation Line
- Property Line
- Existing Iron Pin (EIP)
- Computed Property Corner
- Existing Concrete Monument (ECM)
- Parcel / Sequence Number
- Existing Fence Line
- Proposed Woven Wire Fence
- Proposed Chain Link Fence
- Proposed Barbed Wire Fence
- Existing Wetland Boundary
- Proposed Wetland Boundary
- Existing Endangered Animal Boundary
- Existing Endangered Plant Boundary
- Existing Historic Property Boundary
- Known Contamination Area: Soil
- Potential Contamination Area: Soil
- Known Contamination Area: Water
- Potential Contamination Area: Water
- Contaminated Site: Known or Potential

BUILDINGS AND OTHER CULTURE:

- Gas Pump Vent or U/G Tank Cap
- Sign
- Well
- Small Mine
- Foundation
- Area Outline
- Cemetery
- Building
- School
- Church
- Dam

HYDROLOGY:

- Stream or Body of Water
- Hydro, Pool or Reservoir
- Jurisdictional Stream
- Buffer Zone 1
- Buffer Zone 2
- Flow Arrow
- Disappearing Stream
- Spring
- Wetland
- Proposed Lateral, Tail, Head Ditch
- False Sump

RAILROADS:

- Standard Gauge
- RR Signal Milepost
- 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
- Proposed Temporary Construction Easement
- Proposed Temporary Drainage Easement
- Proposed Permanent Drainage Easement
- Proposed Permanent Drainage/Utility Easement
- Proposed Permanent Utility Easement
- Proposed Temporary Utility Easement
- Proposed Aerial Utility Easement

ROADS AND RELATED FEATURES:

- Existing Edge of Pavement
- Existing Curb
- Proposed Slope Stakes Cut
- Proposed Slope Stakes Fill
- Proposed Curb Ramp
- Existing Metal Guardrail
- Proposed Guardrail
- Existing Cable Guiderail
- Proposed Cable Guiderail
- Equality Symbol
- Pavement Removal

VEGETATION:

- Single Tree
- Single Shrub
- Hedge
- Woods Line
- Orchard
- Vineyard

EXISTING STRUCTURES:

MAJOR:

- Bridge, Tunnel or Box Culvert
- Bridge Wing Wall, Head Wall and End Wall

MINOR:

- Head and End Wall
- Pipe Culvert
- Footbridge
- Drainage Box: Catch Basin, DI or JB
- Paved Ditch Gutter
- Storm Sewer Manhole
- Storm Sewer

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)*
- U/G Power Line (SUE - LOS C)*
- U/G Power Line (SUE - LOS D)*

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)*
- U/G Telephone Cable (SUE - LOS C)*
- U/G Telephone Cable (SUE - LOS D)*
- U/G Telephone Conduit (SUE - LOS B)*
- U/G Telephone Conduit (SUE - LOS C)*
- U/G Telephone Conduit (SUE - LOS D)*
- U/G Fiber Optics Cable (SUE - LOS B)*
- U/G Fiber Optics Cable (SUE - LOS C)*
- U/G Fiber Optics Cable (SUE - LOS D)*

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)*
- U/G Water Line (SUE - LOS C)*
- U/G Water Line (SUE - LOS D)*
- Above Ground Water Line

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)*
- U/G TV Cable (SUE - LOS C)*
- U/G TV Cable (SUE - LOS D)*
- U/G Fiber Optic Cable (SUE - LOS B)*
- U/G Fiber Optic Cable (SUE - LOS C)*
- U/G Fiber Optic Cable (SUE - LOS D)*

GAS:

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

SANITARY SEWER:

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

MISCELLANEOUS:

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

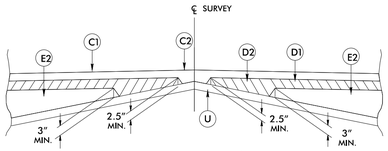
11/14/23

PAVEMENT SCHEDULE

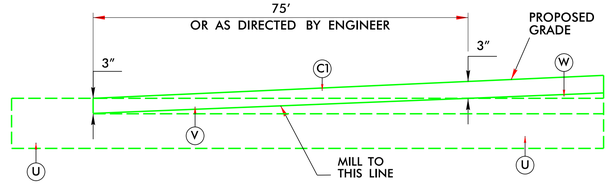
(PRELIMINARY PAVEMENT DESIGN)

A1	12" CONCRETE TRUCK APRON	R2	9"X 18" CURB AND GUTTER
C1	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD. IN EACH OF TWO LAYERS	R3	5" MONOLITHIC CONCRETE ISLAND (SURFACE MOUNTED)
C2	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AN AVERAGE RATE OF 110 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT TO EXCEED 2" IN DEPTH	R4	4" CONCRETE ISLAND COVER
C3	PROP. APPROX. 2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 220 LBS. PER SQ. YD. IN EACH OF TWO LAYERS	T	EARTH MATERIAL
D1	PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.	U	EXISTING PAVEMENT
D2	PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 2½" IN DEPTH OR GREATER THAN 4" IN DEPTH.	W1	WEDGING
E1	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.		
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" IN DEPTH OR GREATER THAN 5½" IN DEPTH.		
R1	4' EXPRESSWAY GUTTER		

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.

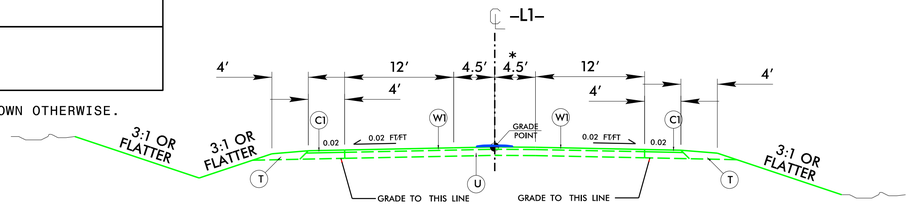


Detail Showing Method of Wedging



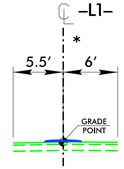
DETAIL FOR INCIDENTAL MILLING

–L1– At tie in to existing at Discretion of Engineer
–Y1– At tie in to existing at Discretion of Engineer

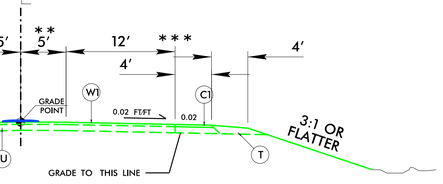


TYPICAL SECTION NO. 1

USE TYPICAL SECTION NO. 1
–L1– STA. 13+75.00 TO –L1– STA. 17+59.11
* –L1– STA. 18+99.07 TO –L1– STA. 23+00.00

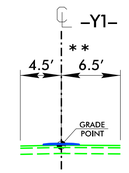


* USE IN CONJUNCTION WITH TYPICAL NO. 1

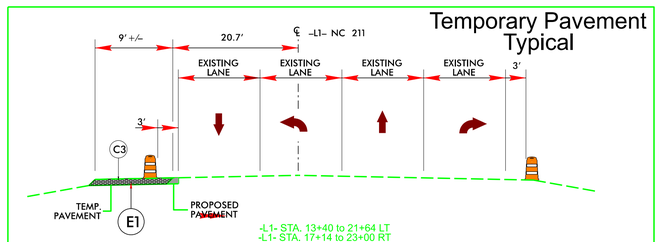


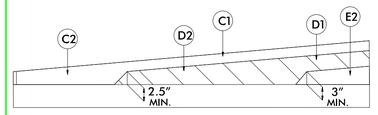
TYPICAL SECTION NO. 2

USE TYPICAL SECTION NO. 2
–Y1– STA. 15+75.00 TO –Y1– 17+71.94
** –Y1– STA. 19+11.92 TO 21+00.00
* *–Y1– STA. 20+72.57 TO 22+25.00 RT 12' AUXILIARY LANE
* *–Y1– STA. 22+25.00 TO 24+25.00 RT TRANSITION
*FROM 12' TO 0' AUXILIARY LANE
*

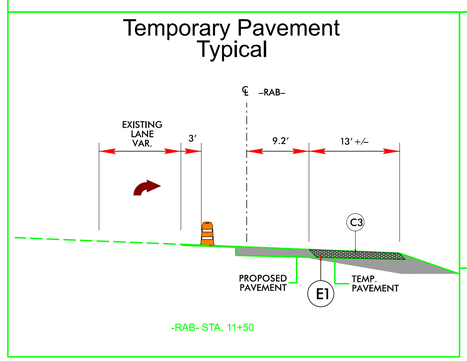


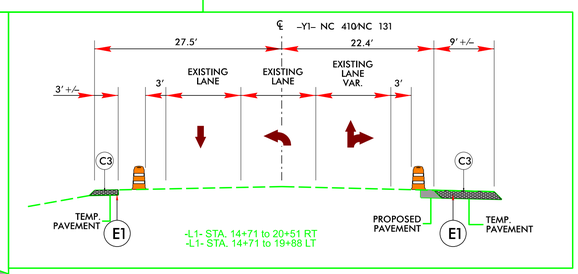
* USE IN CONJUNCTION WITH TYPICAL NO. 2





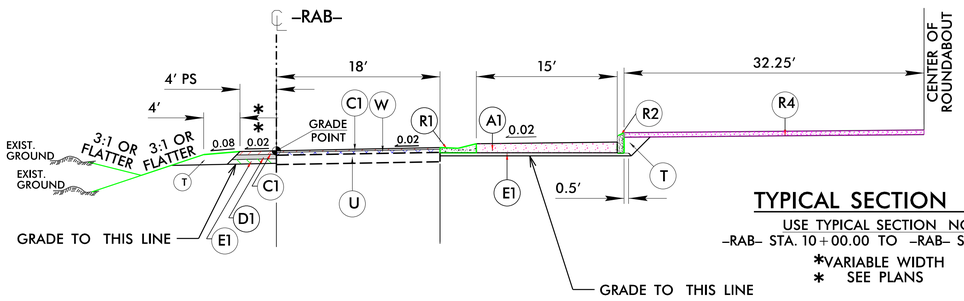
Wedging Detail For Resurfacing





Temporary Pavement Typical

NOTE: Contractor shall mill temporary pavement and deliver to White Lake maintenance yard.
P.O.C. Nickey Garrell, CME



TYPICAL SECTION NO. 3

USE TYPICAL SECTION NO. 3
–RAB– STA. 10+00.00 TO –RAB– STA. 14+39.82
*VARIABLE WIDTH
* SEE PLANS

NOTE: ALL MONOLITHIC ISLANDS 4' WIDE EXCEPT WHERE SHOWN DIFFERENT ON PLANS

REVISIONS

HN–0025
2A

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
BLADEN COUNTY

ROADWAY DESIGN UNIT

ROADWAY DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 000000 ENGINEER STEVEN D KENDALL

HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 040590 ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

COMPUTED BY: _____JBW__ DATE: ___06/16/2025_
CHECKED BY: _____ DATE: _____

PROJECT NO.	SHEET NO.
HN-0025	3B-1

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SUMMARY OF EARTHWORK

Station	Station	Uncl. Excav.	Embank. +%	Borrow	Waste
-L- 13+75.00	-L- 17+59.11	346	220		126
-L- 19+00.00	-L- 23+00.00	28	159	131	
SUBTOTALS:		374	379	131	126
-Y- 15+75.00	-Y- 17+71.94	51	140	89	
-Y- 19+15.00	-Y- 21+00.00	22	144	122	
SUBTOTALS:		73	284	211	
-RAB- 10+00.00	-RAB- 14+39.82		1200	1200	
SUBTOTALS:		447	1863	1542	126
SUBTOTALS:					
PROJECT TOTALS:		447	1863	1542	126
WASTE IN LIEU OF BORROW				-126	-126
est. 5% to replace top soil on borrow pit				71	
PROJECT TOTALS:					
GRAND TOTALS:		447		1487	
SAY:		**460**		**1500**	

PAVEMENT REMOVAL SUMMARY

IN SQUARE YARDS

SURVEY LINE	Station	Station	LOCATION LT/RT/CL	ASPHALT REMOVAL	ASPHALT BREAKUP	CONCRETE REMOVAL	CONCRETE BREAKUP
-L1-	13+75.00	17+42.00	RT	360.1577778			
-L1-	19+10.00	22+60.00	LT	265.6274444			
-Y1-	1924.1	2083.51	RT	191.5122222			
Temp. Pvmt.				1350			

LUS421619

COMPUTED BY:	CLR	DATE:	8/13/2024
CHECKED BY:	SS	DATE:	8/13/2024

PROJECT NO.	SHEET NO.
HN-0025	3D-1

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

Note: Invert Elevations indicated are for Bid Purposes only and shall not be used for project construction stakeout.
See "Standard Specifications For Roads and Structures, Section 300-5".

LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48 INCHES & UNDER)

| LINE & STATION | OFFSET | STRUCTURE NUMBER FROM | STRUCTURE NUMBER TO | TOP ELEVATION FT. | INVERT ELEVATION FT. | INVERT ELEVATION FT. | MINIMUM REQUIRED SLOPE % | R. C. PIPE CLASS III 12 | 15 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 | 72 | 78 | 84 | ENDWALLS STD. 838.11 (UNLESS NOTED OTHERWISE) CY | REINFORCED ENDWALLS CY | DRAINAGE STRUCTURE MASONRY CY | QUANTITIES FOR DRAINAGE STRUCTURES NOTE: TOTAL LIN. FT. FOR PAY QUANTITY SHALL BE A + (1.3 X B) A: 0' THRU 5' EACH | A: 5' THRU 10' LIN. FT. | A: 10' AND ABOVE LIN. FT. | B LIN. FT. | C.B. STD. 840.01 OR STD. 840.02 | FRAME, GRATES, AND HOOD STD. 840.03 GRATE TYPE E | F | G | CONCRETE TRANSITIONAL SECTION D.I. STD. 852.04 OR STD. 852.06 | C.B. STD. 852.05 | OPEN THROAT C.B. STD. 840.04 OR STD. 840.05 | CONCRETE BRIDGE APPROACH D.I. STD. 840.13 | D.I. STD. 840.14 OR STD. 840.15 | D.I. FRAME AND GRATES STD. 840.16 | G.D.I. TYPE "A" STD. 840.17 OR STD. 840.26 | G.D.I. TYPE "B" STD. 840.18 OR STD. 840.27 | G.D.I. TYPE "D" STD. 840.19 OR STD. 840.28 | G.D.I. (W.S. FLAT) FRAME WITH GRATE STD. 840.20 | G.D.I. (W.S. FLAT) FRAME W/ 2 GRATES STD. 840.20 | G.D.I. (W.S. SAG) FRAME W/ GRATE STD. 840.22 | G.D.I. (W.S. SAG) FRAME W/ 2 GRATES STD. 840.22 | G.D.I. (N.S. SAG) FRAME W/ GRATE STD. 840.24 | G.D.I. (N.S. SAG) FRAME W/ 2 GRATES STD. 840.24 | G.D.I. (N.S. FLAT) FRAME W/ GRATE STD. 840.29 | G.D.I. (N.S. FLAT) FRAME W/ 2 GRATES STD. 840.29 | DRIVEWAY D.I. STD. 840.30 | FRAME W/ GRATE FOR DRIVEWAY STD. 840.30 | J.B. STD. 840.31 OR STD. 840.32 | ANGLED VANE GRATES AND FRAMES STD. 840.33 | T.B.J.B. STD. 840.34 | T.B.D.I. STD. 840.35 | T.B.D.I. FOR STEEL GRATES STD. 840.36 | STEEL FRAME WITH TWO GRATES STD. 840.37 | TEMP STEEL PLATE COVER MASONRY DRAINAGE | ##" SPRING BOX PIPE | SPRING BOX STD. 840.41 | M.H. STD. 840.51, STD. 840.52, OR STD. 840.53 | M.H. FRAME AND COVER STD. 840.54 | ##" x ##" x ##" PERF. C.S.P. TEE RISER ###" THICK | ##" x ##" x ##" PERF. C.S.P. TEE RISER ###" THICK | ##" PIPE END SECTION | ##" PIPE END SECTION | ##" PIPE END SECTION | ##" PIPE END SECTION | ##" PIPE END SECTION | BERM DITCH OUTLET STD. 850.10 (PER EACH) | BERM DITCH OUTLET STD. 850.11 (PER EACH) | ##" SLUICE GATE | ##" SLUICE GATE (##" SIZE SLUICE GATE) | MODIFIED CONC. FLUME | PREFORMED SCOUR HOLE (PER EACH) | ENERGY DISSIPATION BASIN | FLOWABLE FILL CY | CONCRETE COLLARS CL. "B" STD. 840.72 CY | CONCRETE AND BRICK PIPE PLUG STD. 840.71 CY | PIPE REMOVAL LIN. FT. | REMARKS |
|---|---|---|---

11/14/23

BEGIN TIP PROJECT HN-0025
BEGIN RESURFACING
-L1- 11+25.00

V = 3.4614R^0.3673
25.36 = 3.4614(226.3463)^0.3673

EQUATION 6-2
NCHRP 672
ROUNDABOUTS
AN INFORMATIONAL
GUIDE

END RESURFACING
BEGIN GRADE
-L1- 13+75.00

END GRADE
-L1- 17+59.11
-RAB- 12+11.57

DO NOT DISTURB

BEGIN CONSTRUCTION
BEGIN GRADE
-Y1- 15+75.00

END GRADE
-Y1- 17+71.94
-RAB- 10+95.84

-RAB- POB 10+00.00
-RAB- POE 14+39.82

END GRADE
BEGIN RESURFACING
-L1- 23+00.00

-L1- S83°10'06.0"E

BEGIN GRADE -L1- 18+99.07
-RAB- 14+31.48

9"X18" CURB

EXPRESSWAY GUTTER

BEGIN CONSTRUCTION
BEGIN GRADE
-Y1- 19+11.92
-RAB- 13+15.75

END GRADE
BEGIN RESURFACING
-Y1- 21+00.00

END RESURFACING
END CONSTRUCTION
-Y1- 24+25.00

END TIP PROJECT HN-0025
END RESURFACING
-L1- 25+40.00

FOR -L1- PROFILES SEE SHEET 05
FOR -Y1- PROFILES SEE SHEET 05
FOR RAB PROFILE SEE SHEET 06

CUR DATA -RAB-
PIc 10+00.00
Δc = 360°00'00.0" (LT)
D = 81°51'04.0"
Lc = 439.82
Tc = 0.00
R = 70
SE = 0.000

TIE TO EXISTING SPECIAL BASE DITCH SEE DETAIL B

EST 2 TONS CL B RIP RAP
EST 7 SY GEOTEXTILE
INV=119.96'
COLLAR & EXTEND
15" CLASS III, 25'

EST 3 TONS CL B RIP RAP
EST 10 SY GEOTEXTILE
INV=120.26'
COLLAR & EXTEND
18" CLASS III, 27'

TIE TO EXISTING SPECIAL BASE DITCH SEE DETAIL D

INV=121.57'
COLLAR & EXTEND
18" CLASS III, 23'

INV=121.15'

TIE TO EXISTING SPECIAL BASE DITCH SEE DETAIL B

TRANSTION TO EXIST

355' TAPER BOTH SIDES

365' TAPER BOTH SIDES

200' TAPER BOTH SIDES

4" Conduit

DETAIL B
SPECIAL BASE DITCH
(Not to Scale)

Natural Ground | 3:1 or flatter | D | 3:1 or flatter | Front Ditch Slope | B

Min. D = 1 Ft.
B = 6 Ft.

FROM –L1– STA. 15+35 TO STA. 17+25 RT
FROM –L1– STA. 19+00 TO STA. 19+54 RT
FROM –L1– STA. 13+75 TO STA. 17+30 LT
FROM –Y1– STA. 19+05 TO STA. 19+45 LT

DETAIL C
SPECIAL BASE DITCH
(Not to Scale)

Natural Ground | 3:1 | D | 3:1 | Front Ditch Slope | B

Min. D = 1 Ft.
B = 2 Ft.

FROM –Y1– STA. 15+75 TO STA. 17+50 RT

DETAIL D
SPECIAL BASE DITCH
(Not to Scale)

Natural Ground | 3:1 | D | 3:1 or Flatter | Front Ditch Slope | B

Min. D = 1 Ft.
B = 4 Ft.

FROM –Y1– STA. 19+25 TO STA. 20+25

INSET

SEE INSET

SEE DETAIL C

SEE DETAIL D

ROBERT HESTER MB 162 PG 1628

SELTA K THOMPSON DB 332 PG 434 MB 12 PG 01

DB 732 PG 487

DB197 PG 805

ROBERT E HESTER DB197 PG 805

TOWN OF BLADENBORO

BM1 Elevation:127.15' RR SPIKE IN A 18' SWEETGUM TREE

NCDOT

WINDSTREAM COMMUNICATIONS INC.

STARR COMMUNICATIONS

AT&T CORP.

SAMPSON-BLADEN OIL CO. INC. DB 264 PG 479 DB 187 PG 524

EDDIE R WALTERS ET ALS DB 777 PG 554

HARDEE'S RESTAURANTS LLC. DB 702 PG 688 DB 341 PG196

PIEDMONT NATURAL GAS COMPANY INC.

DUKE ENERGY PROGRESS

FAMILY DOLLAR STORES INC. DB 692 PG 806

DOUGLAS B, MILLS DB 337 PG 384 PC A-65 PG 654

TOWN OF BLADENBORO DB 337 PG 384

HN-0025
04

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
BLADEN COUNTY

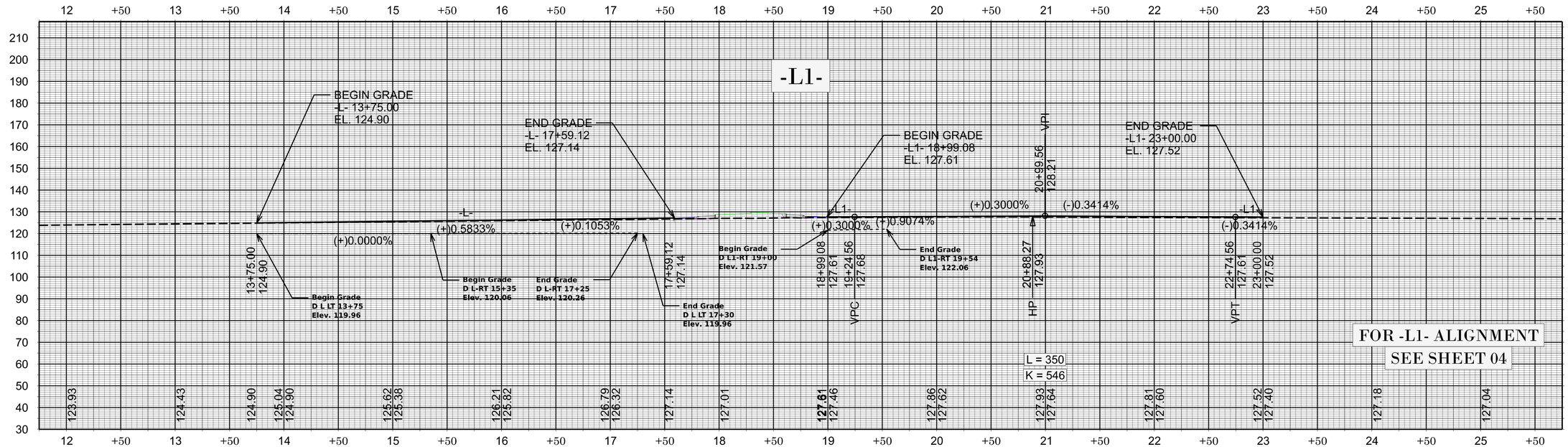
ROADWAY DESIGN UNIT

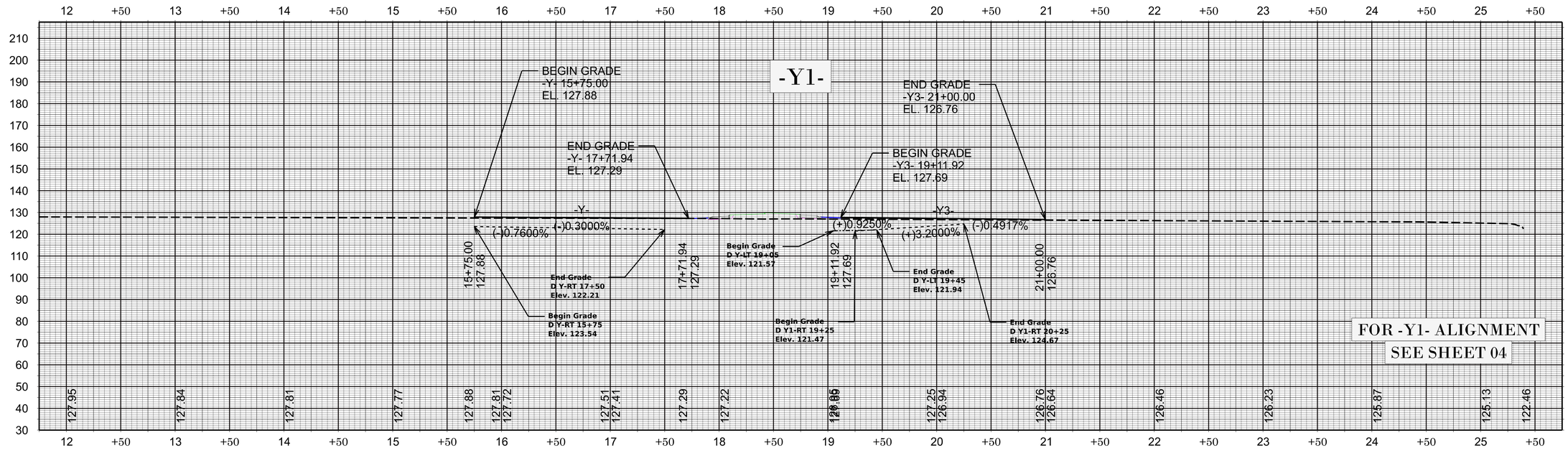
ROADWAY DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 000000 ENGINEER STEVEN D KENDALL

HYDRAULICS ENGINEER
SEAL 040590 ENGINEER EDIT YOUR NAME HERE

REVISIONS

11/14/23





HN-0025

05

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
BLADEN COUNTY

ROADWAY DESIGN UNIT

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 000000 ENGINEER STEVEN D KENDALL

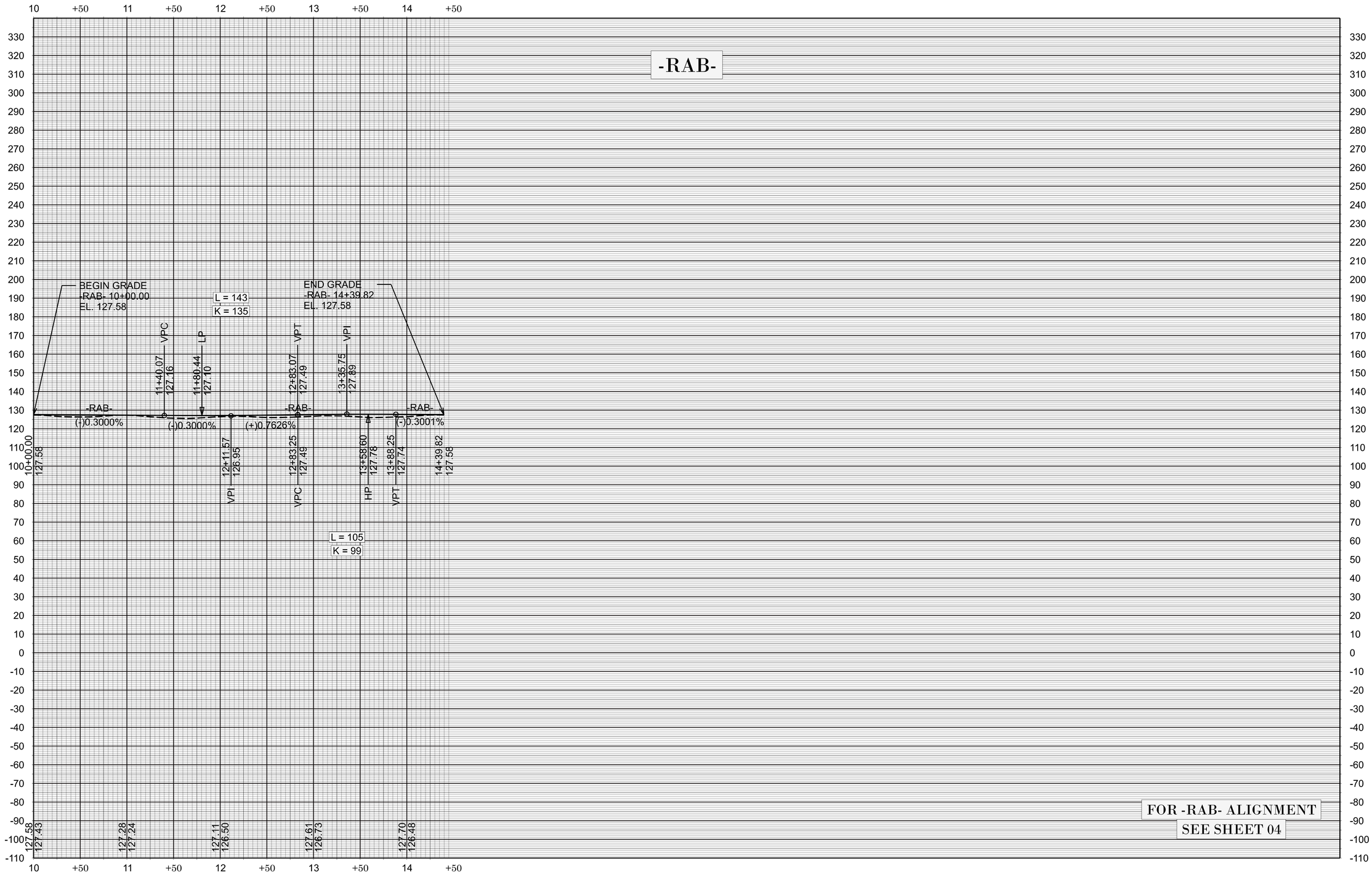
HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 040590 ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS

DOT/jbwilliams7 - 5/29/2025



HN-0025

06

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
BLADEN COUNTY

ROADWAY DESIGN UNIT

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 000000 ENGINEER STEVEN D KENDALL

HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 040590 ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS

09/08/99

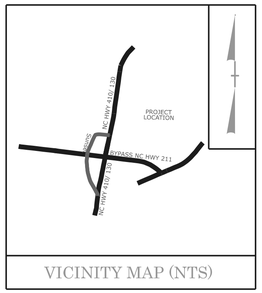
TIP PROJECT: *HN-0025*

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	HN-0025	RW01	12

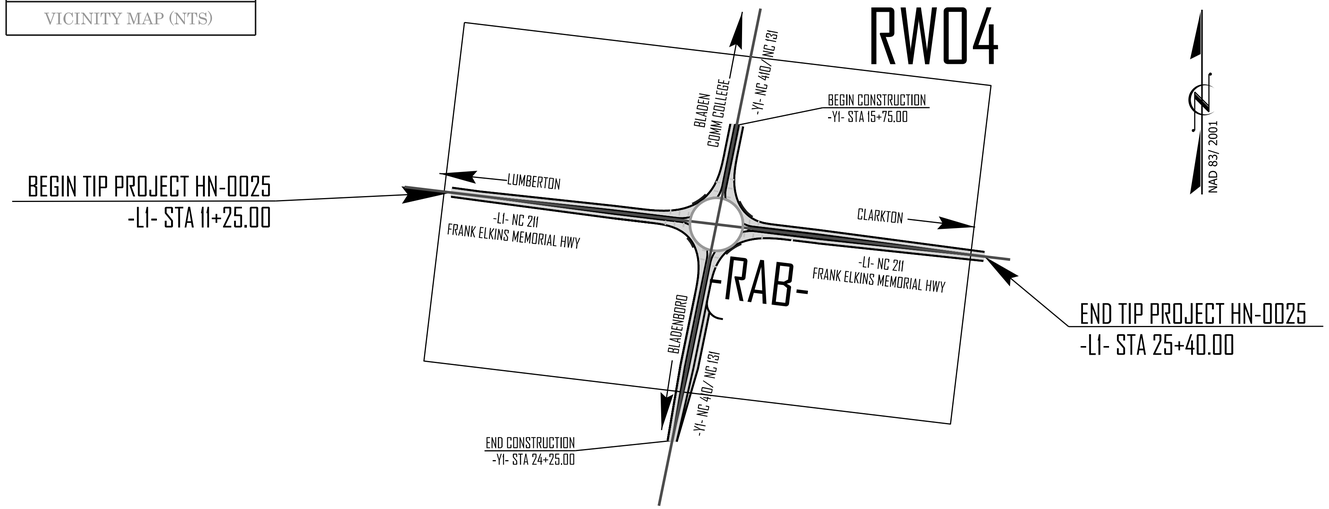
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

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

BLADEN COUNTY



VICINITY MAP (NTS)



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES

50' 25' 0' 50' 100'

NOT TO SCALE

DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT HN-0025 102
WITH NAD 83/ 2011 NASTATE PLANE GRID COORDINATES OF
NORTHING: 292705.8288 EASTING: 2066254.9462
ELEVATION: 127.24
THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.9999455030
ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
VERTICAL DATUM USED IS NAVD 88

Prepared in the Office of:

GEL Engineering of NC, Inc. DBA
GEL SOLUTIONS
an Affiliate of THE GEL GROUP, INC.
2700 SUMNER BLVD.
SUITE 106
RALEIGH,NC 27616
(919) 544-1100
WWW.GEL-SOLUTIONS.COM

2024 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: *SEPTEMBER 30 2024*

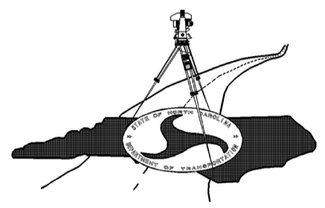
LETTING DATE: *JULY 16 2025*

PROFESSIONAL LAND SURVEYOR

NORTH CAROLINA MOLLY LEONARD — GEL ENGINEERING OF NC, INC. NO.C-1938 — CERTIFICATE OF AUTHORIZATION

NORTH CAROLINA PROFESSIONAL SEAL L-3996 LAND SURVEYOR PAMELA H. CENHOUR, PLS

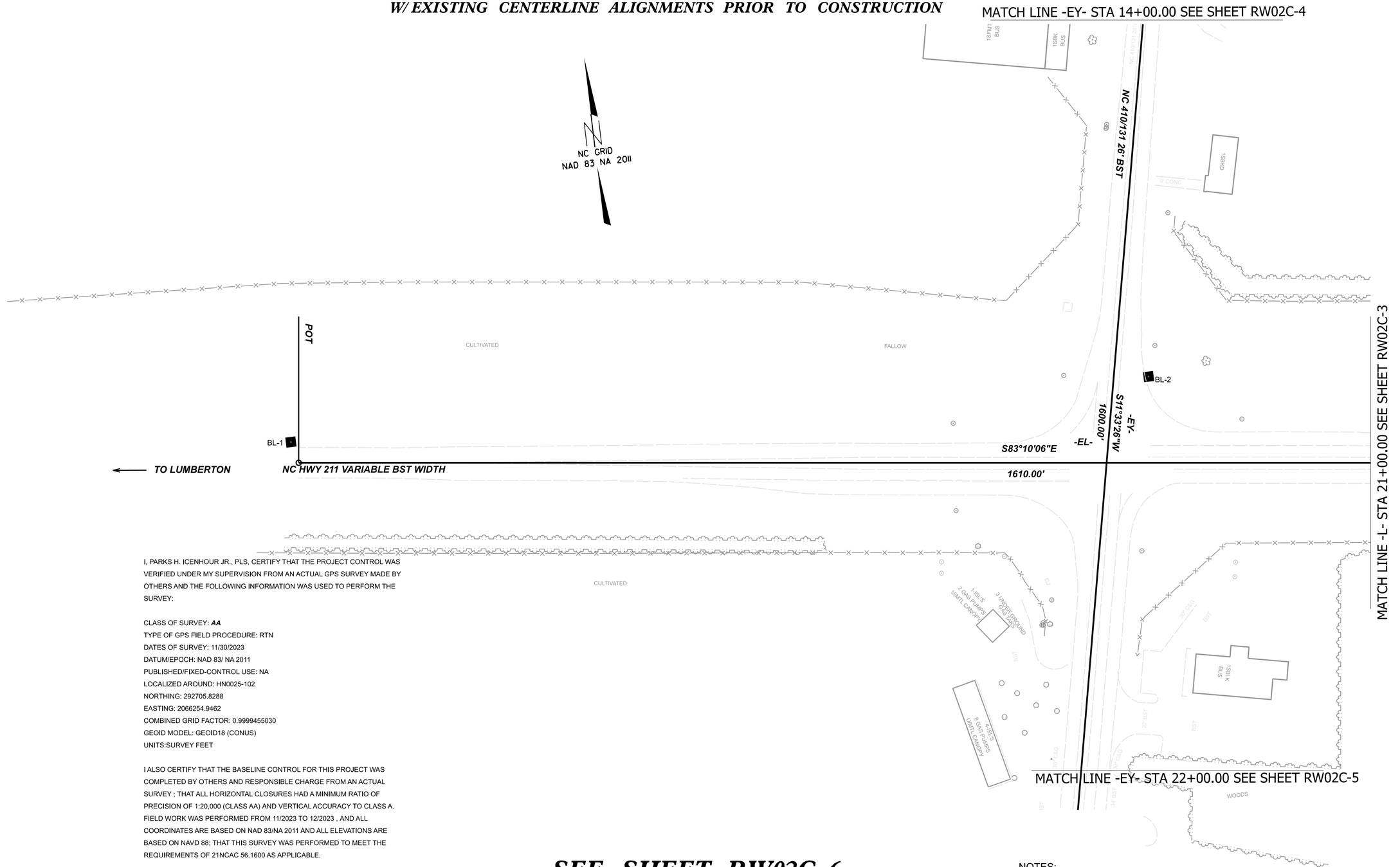
SIGNATURE: *DATE:*



5/26/20

SURVEY CONTROL SHEET

W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION



I, PARKS H. ICENHOUR JR., PLS, CERTIFY THAT THE PROJECT CONTROL WAS VERIFIED UNDER MY SUPERVISION FROM AN ACTUAL GPS SURVEY MADE BY OTHERS AND THE FOLLOWING INFORMATION WAS USED TO PERFORM THE SURVEY:

CLASS OF SURVEY: ***AA***
TYPE OF GPS FIELD PROCEDURE: RTN
DATES OF SURVEY: 11/30/2023
DATUM/EPOCH: NAD 83/ NA 2011
PUBLISHED/FIXED-CONTROL USE: NA
LOCALIZED AROUND: HN0025-102
NORTHING: 292705.8288
EASTING: 2066254.9462
COMBINED GRID FACTOR: 0.9999455030
GEOID MODEL: GEOID18 (CONUS)
UNITS:SURVEY FEET

I ALSO CERTIFY THAT THE BASELINE CONTROL FOR THIS PROJECT WAS COMPLETED BY OTHERS AND RESPONSIBLE CHARGE FROM AN ACTUAL SURVEY ; 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 FROM 11/2023 TO 12/2023 , 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 2nd DAY OF JUNE, 2025.

NORTH CAROLINA FIRM
GEL ENGINEERING OF NC, INC.
NO.C-1938
CERTIFICATE OF AUTHORIZATION

PROFESSIONAL LAND SURVEYOR L-3996

SEE SHEET RW02C–6 FOR FURTHER ALIGNMENT DETAILS

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.

HN-0025
R/W | D2C-2

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

PROFESSIONAL LAND SURVEYOR
NORTH CAROLINA PROFESSIONAL SEAL L-3996 LAND SURVEYOR PARKS H. ICENHOUR JR.

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES ARE COMPLETED

2024 STANDARD SPECIFICATIONS

TIP PROJECT: HN-0025
County: BLADEN

PREPARED FOR

LOCATION AND SURVEYS UNIT

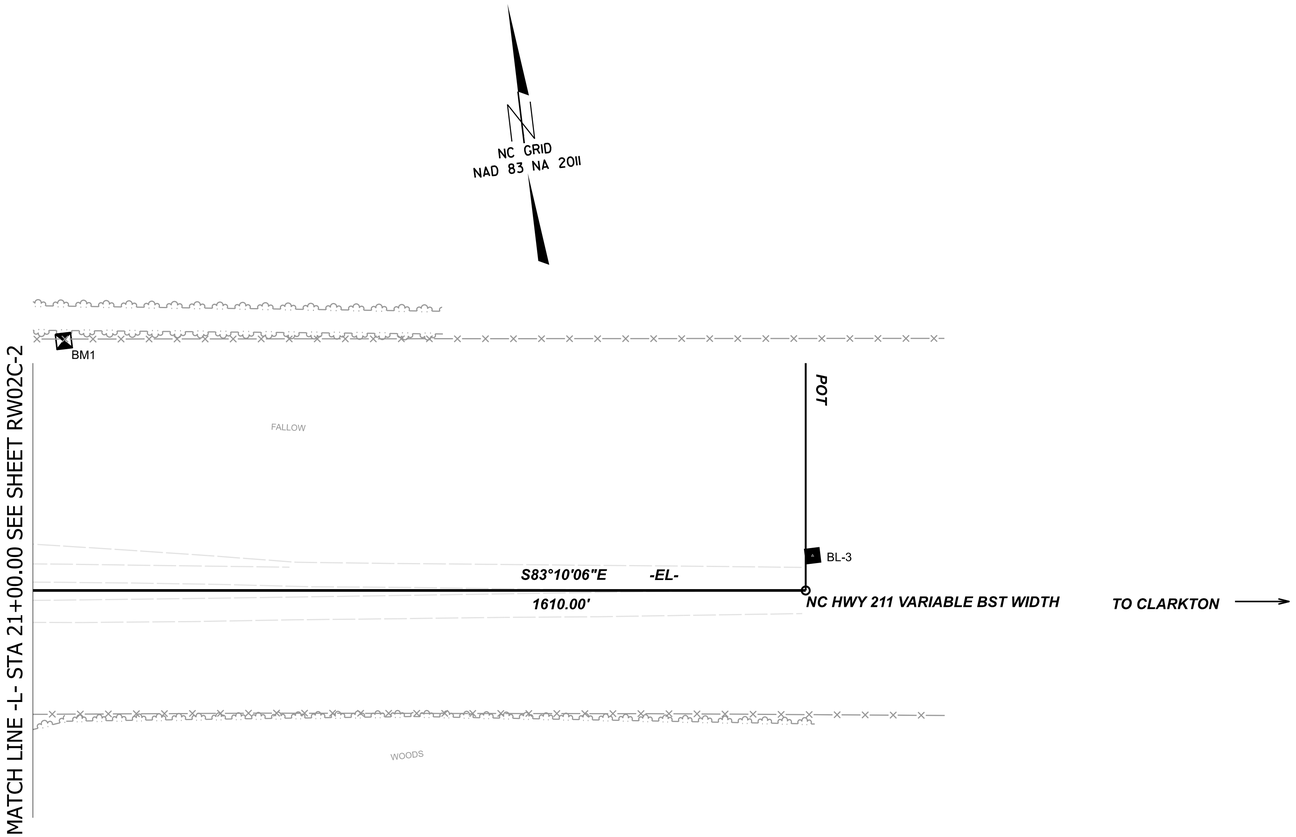
PREPARED BY

GEL SOLUTIONS
an Affiliate of THE GEL GROUP, INC.
2700 SUMNER BLVD,
SUITE 106
RALEIGH,NC 27616
(919) 544-1100
WWW.GEL-SOLUTIONS.COM

5/26/20

SURVEY CONTROL SHEET

W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION



SEE SHEET RW02C–6 FOR FURTHER ALIGNMENT DETAILS

I, PARKS H. ICENHOUR JR., PLS, CERTIFY THAT THE PROJECT CONTROL WAS VERIFIED UNDER MY SUPERVISION FROM AN ACTUAL GPS SURVEY MADE BY OTHERS AND THE FOLLOWING INFORMATION WAS USED TO PERFORM THE SURVEY:

CLASS OF SURVEY: ***AA***
TYPE OF GPS FIELD PROCEDURE: RTN
DATES OF SURVEY: 11/30/2023
DATUM/EPOCH: NAD 83/ NA 2011
PUBLISHED/FIXED-CONTROL USE: NA
LOCALIZED AROUND: HN0025-102
NORTHING: 292705.8288
EASTING: 2066254.9462
COMBINED GRID FACTOR: 0.9999455030
GEOID MODEL: GEOID18 (CONUS)
UNITS:SURVEY FEET

GEL ENGINEERING OF NC, INC. NO.C-1938
CERTIFICATE OF AUTHORIZATION
NORTH CAROLINA PROFESSIONAL SEAL L-3996 LAND SURVEYOR PARKS H. ICENHOUR JR.

I ALSO CERTIFY THAT THE BASELINE CONTROL FOR THIS PROJECT WAS COMPLETED BY OTHERS AND RESPONSIBLE CHARGE FROM AN ACTUAL SURVEY ; 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 FROM 11/2023 TO 12/2023 , 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 2nd DAY OF JUNE, 2025.

_____
PROFESSIONAL LAND SURVEYOR L-3996

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.

HN-0025
R/W | 02C-3

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

PROFESSIONAL LAND SURVEYOR

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES ARE COMPLETED

2024 STANDARD SPECIFICATIONS

TIP PROJECT: HN-0025
County: BLADEN

PREPARED FOR

LOCATION AND SURVEYS UNIT

PREPARED BY

GEL SOLUTIONS
an Affiliate of THE GEL GROUP, INC.
2700 SUMNER BLVD.
SUITE 106
RALEIGH,NC 27616
(919) 544-1100
WWW.GEL-SOLUTIONS.COM

5/26/20

SURVEY CONTROL SHEET

W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

MATCH LINE -EY- STA 22+00.00 SEE SHEET RW02C-3

NC GRID
NAD 83 NA 2011

POT

GPS-101
(BY-4)

TO DUBLIN NC
NC 410/131 26' BST

NC 410/131 26' BST

-EY-
S11°33'26"W
1600.00'

-EL-
S83°10'06"E
1610.00'

BM1

BL-2

1SBKD

1SBKD

1SBLK
BUS

1SBK
BUS

1SFMTL
BUS

4-ISLS
8 GAS PUMPS
UMTL CANOPY

1-ISLS
2 GAS PUMPS
UMTL CANOPY

3 UNDERGROUND

MATCH LINE -EY- STA 22+00.00 SEE SHEET RW02C-5

MATCH LINE -EY- STA 14+00.00 SEE SHEET RW02C-2

I, PARKS H. ICENHOUR JR., PLS, CERTIFY THAT THE PROJECT CONTROL WAS VERIFIED UNDER MY SUPERVISION FROM AN ACTUAL GPS SURVEY MADE BY OTHERS AND THE FOLLOWING INFORMATION WAS USED TO PERFORM THE SURVEY:

CLASS OF SURVEY: ***AA***
TYPE OF GPS FIELD PROCEDURE: RTN
DATES OF SURVEY: 11/30/2023
DATUM/EPOCH: NAD 83/ NA 2011
PUBLISHED/FIXED-CONTROL USE: NA
LOCALIZED AROUND: HN0025-102
NORTHING: 292705.8288
EASTING: 2066254.9462
COMBINED GRID FACTOR: 0.9999455030
GEOID MODEL: GEOID18 (CONUS)
UNITS:SURVEY FEET

I ALSO CERTIFY THAT THE BASELINE CONTROL FOR THIS PROJECT WAS COMPLETED BY OTHERS AND RESPONSIBLE CHARGE FROM AN ACTUAL SURVEY ; 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 FROM 11/2023 TO 12/2023 , 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 2nd DAY OF JUNE, 2025.

PROFESSIONAL LAND SURVEYOR L-3996

SEE SHEET RW02C–6 FOR FURTHER ALIGNMENT DETAILS

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.

GEL ENGINEERING OF NC, INC. NO.C-1938
CERTIFICATE OF AUTHORIZATION

HN-0025
R/W | 02C-4

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

PROFESSIONAL LAND SURVEYOR
NORTH CAROLINA PROFESSIONAL SEAL L-3996 LAND SURVEYOR PARKS H. ICENHOUR JR.

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES ARE COMPLETED

2024 STANDARD SPECIFICATIONS

TIP PROJECT: HN-0025
County: BLADEN

PREPARED FOR

LOCATION AND SURVEYS UNIT

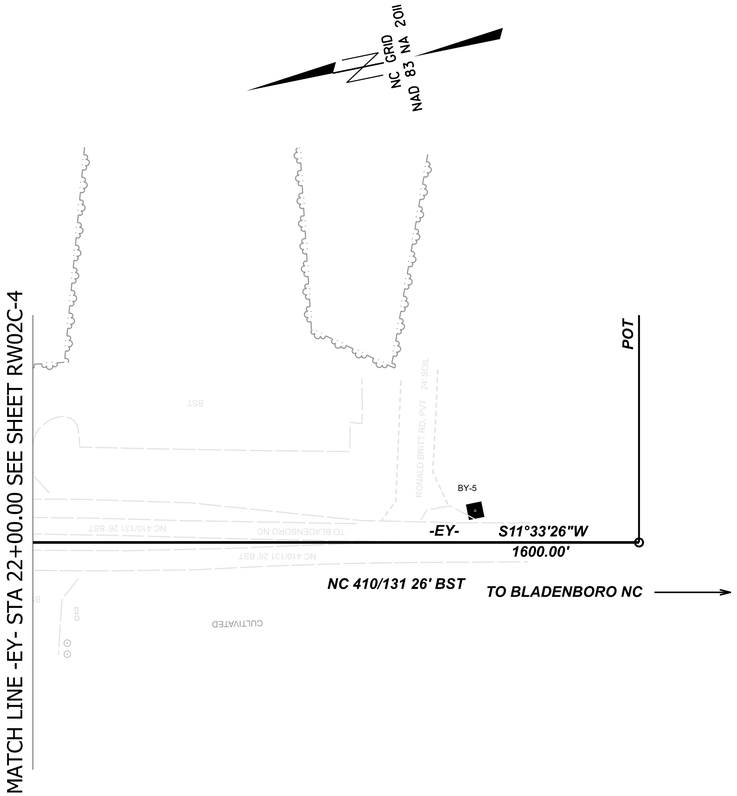
PREPARED BY

GEL SOLUTIONS
an Affiliate of THE GEL GROUP, INC.
2700 SUMNER BLVD.
SUITE 106
RALEIGH,NC 27616
(919) 544-1100
WWW.GEL-SOLUTIONS.COM

5/26/20

SURVEY CONTROL SHEET

W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION



SEE SHEET RW02C–6 FOR FURTHER ALIGNMENT DETAILS

I, PARKS H. ICENHOUR JR., PLS, CERTIFY THAT THE PROJECT CONTROL WAS VERIFIED UNDER MY SUPERVISION FROM AN ACTUAL GPS SURVEY MADE BY OTHERS AND THE FOLLOWING INFORMATION WAS USED TO PERFORM THE SURVEY:

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COMBINED GRID FACTOR: 0.9999455030
GEOID MODEL: GEOID18 (CONUS)
UNITS:SURVEY FEET

NORTH CAROLINA PROFESSIONAL SEAL L-3996 LAND SURVEYOR PARKS H. ICENHOUR JR.
GEL ENGINEERING OF NC, INC. NO.C-1938
CERTIFICATE OF AUTHORIZATION

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THIS 2nd DAY OF JUNE, 2025.

_____
PROFESSIONAL LAND SURVEYOR L-3996

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.

HN-0025
R/W | 02C-5

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

PROFESSIONAL LAND SURVEYOR

NORTH CAROLINA PROFESSIONAL SEAL L-3996 LAND SURVEYOR PARKS H. ICENHOUR JR.

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES ARE COMPLETED

2024 STANDARD SPECIFICATIONS

TIP PROJECT: HN-0025
County: BLADEN

PREPARED FOR

LOCATION AND SURVEYS UNIT

PREPARED BY

GEL SOLUTIONS
an Affiliate of THE GEL GROUP, INC.
2700 SUMNER BLVD.
SUITE 106
RALEIGH,NC 27616
(919) 544-1100
WWW.GEL-SOLUTIONS.COM

5/26/20

SURVEY CONTROL SHEET

W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

BASELINE POINTS TABLE				
Benchmark	Description	Northing	Easting	Elevation
101	HN-2005 101	292737.0373	2065169.0028	126.43
102	HN-2005 102	292705.8288	2066254.9462	127.24
1	HN-2005 BL-1	292031.9841	2064138.2392	121.92
2	HN-2005 BL-2	291993.9755	2065020.1089	126.26
3	HN-2005 BL-3	291840.6574	2065749.5012	125.63
5	HN-2005 BY-5	291270.363	2064857.2045	124.39

BENCH MARK TABLE				
Benchmark	Northing	Easting	Elevation	Description
BM1	292040.1375	2065275.7248	127.12	RR SPIKE IN BASE OF 18" SWEETGUM

EL TABLE									
EXISTING ALIGNMENT NAME:EL									
POINT	NORTHING	EASTING	BEARING	DIST	DELTA	D	L	T	R
POT	292009.9148	2064143.715							
LINE			S83°10'06.000""E	1610					
POT	291818.4008	2065742.284							

EY TABLE									
EXISTING ALIGNMENT NAME:EY									
POINT	NORTHING	EASTING	BEARING	DIST	DELTA	D	L	T	R
POT	292736.1471	2065135.597							
LINE			S11°33'26.000""W	1600					
POT	291168.5869	2064815.042							

I, PARKS H. ICENHOUR JR., PLS, CERTIFY THAT THE PROJECT CONTROL WAS VERIFIED UNDER MY SUPERVISION FROM AN ACTUAL GPS SURVEY MADE BY OTHERS AND THE FOLLOWING INFORMATION WAS USED TO PERFORM THE SURVEY:

CLASS OF SURVEY: ***AA***
TYPE OF GPS FIELD PROCEDURE: RTN
DATES OF SURVEY: 11/30/2023
DATUM/EPOCH: NAD 83/ NA 2011
PUBLISHED/FIXED-CONTROL USE: NA
LOCALIZED AROUND: HN0025-102
NORTHING: 292705.8288
EASTING: 2066254.9462
COMBINED GRID FACTOR: 0.9999455030
GEOID MODEL: GEOID18 (CONUS)
UNITS:SURVEY FEET

NORTH CAROLINA CERTIFICATE OF AUTHORIZATION
GEL ENGINEERING OF NC, INC. NO.C-1938

I ALSO CERTIFY THAT THE BASELINE CONTROL FOR THIS PROJECT WAS COMPLETED BY OTHERS AND RESPONSIBLE CHARGE FROM AN ACTUAL SURVEY ; 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 FROM 11/2023 TO 12/2023 , 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 3rd DAY OF JUNE, 2025.

_____
PROFESSIONAL LAND SURVEYOR L-3996

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.

HN-0025
R/W | 02C-6

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION

PROFESSIONAL LAND SURVEYOR

NORTH CAROLINA PROFESSIONAL SEAL L-3996 LAND SURVEYOR PARKS H. ICENHOUR JR

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES ARE COMPLETED

2024 STANDARD SPECIFICATIONS

TIP PROJECT: HN-0025
County: BLADEN

PREPARED FOR

LOCATION AND SURVEYS UNIT

PREPARED BY

GEL SOLUTIONS
an Affiliate of THE GEL GROUP, INC.
2700 SUMNER BLVD.
SUITE 106
RALEIGH,NC 27616
(919) 544-1102
WWW.GEL-SOLUTIONS.COM

5/26/20

PROPOSED ALIGNMENT CONTROL SHEET

I, PARKS H. ICENHOUR JR., 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 2nd DAY OF JUNE, 2025.

_____
PROFESSIONAL LAND SURVEYOR L-3996

GEL ENGINEERING OF NC, INC. NO.C-1938
NORTH CAROLINA BOARD OF CERTIFICATE OF AUTHORIZATION

PROPOSED ALIGNMENT: L1												
POINT	STATION	NORTHING	EASTING	BEARING	DIST	DELTA	D	L	T	R	LT	ST
POT	10+00.00	292009.9148	2064143.715	S83°10'06.0""E	1610							
POT	26+10.00	291818.4008	2065742.284									

PROPOSED ALIGNMENT: Y1												
POINT	STATION	NORTHING	EASTING	BEARING	DIST	DELTA	D	L	T	R	LT	ST
POT	10+00.00	292736.1471	2065135.5966	S11°33'26.0"W	1600.00							
POT	26+00.00	291168.5869	2064815.0422									

PROPOSED ALIGNMENT: RAB												
POINT	STATION	NORTHING	EASTING	BEARING	DIST	DELTA	D	L	T	R	LT	ST
PC	10+00.00	291911.2920	2065036.9199	N00°00'00.0"W	0.00	00°00'00.0"	81°51'04.0"	439.82	0.00	70.00		

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.

HN-0025
R/W | 020-1

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

PROFESSIONAL LAND SURVEYOR

NORTH CAROLINA PROFESSIONAL SEAL L-3996 LAND SURVEYOR PARKS H. ICENHOUR JR.

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES ARE COMPLETED

2024 STANDARD SPECIFICATIONS

TIP PROJECT: HN-0025
County: BLADEN

PREPARED FOR

LOCATION AND SURVEYS UNIT

PREPARED BY

GEL SOLUTIONS
an Affiliate of THE GEL GROUP, INC.
2700 SUMNER BLVD.
SUITE 106
RALEIGH,NC 27616
(919) 544-1100
WWW.GEL-SOLUTIONS.COM

5/26/20

RIGHT OF WAY CONTROL SHEET

I , PARKS H. ICENHOUR JR. , PLS, CERTIFY THAT THERE WAS NO RIGHT OF WAY OR PERMANENT EASEMENT ACQUISITION FOR THIS PROJECT.
THIS 2nd DAY OF JUNE, 2025.

_____
PROFESSIONAL LAND SURVEYOR L-3996

GEL ENGINEERING OF NC, INC. NO.C-1938 — NORTH CAROLINA — CERTIFICATE OF AUTHORIZATION

NO RIGHT OF WAY ACQUISITION

NOTES:

1. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.

HN-0025
R/W | 03E-1

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

STATE OF NORTH CAROLINA • DEPARTMENT OF TRANSPORTATION •

PROFESSIONAL LAND SURVEYOR

NORTH CAROLINA PROFESSIONAL SEAL L-3996 LAND SURVEYOR PARKS H. ICENHOUR JR.

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES ARE COMPLETED

2024 STANDARD SPECIFICATIONS

TIP PROJECT: HN-0025
County: BLADEN

PREPARED FOR

LOCATION AND SURVEYS UNIT

PREPARED BY

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an Affiliate of THE GEL GROUP, INC.
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SUITE 106
RALEIGH,NC 27616
(919) 544-1100
WWW.GEL-SOLUTIONS.COM

5/26/20

MATCH LINE -Y1- STA 14+00.00 SEE SHEET RW06

-L1- START 10+00.00

SELTA K THOMPSON
DB 332 PG 434
MB 12 PG 01

N67°55'47"E 79.00'
S22°04'13"E 110.00'
S67°55'47"W 79.00'
N22°04'13"W 110.00'

SELTA K THOMPSON
DB 332 PG 434
MB 12 PG 01

332.81'
Plan Annotation Line Direction
S58°58'14"E 103.31'
S13°00'27"W 67.74'
S56°46'19"E 30.45'
EIP
S28°43'09"W 105.72'

ROBERT HESTER
MB 162 PG 1628

251.79'
N78°26'14"W

RW MON
15+00.10
50.07'

NC 410/131 26' BST

EXISTING R/W

ROBERT E HESTER
DB 218 PG 407

150.00'
N78°20'02"W

Plan Annotation Line Direction

ERIC R HESTER
DB 732 PG 487

N11°39'58"E 100.00'

R/W-MON 0.19'
S78°20'02"E 149.81'

15+80.68
50.17'
15+99.90
50.17'
16+00.10
50.17'

ROBERT E HESTER
DB197 PG 805

RW MON 10+00.94 186.19'
EXISTING R/W
RW MON EIP 14+62.05 201,05'
15+35.58 186.57'
EXISTING R/W
RW MON 17+25.41 166,85'
16+84.18 117.08'
RW MON 19+52.71 166.81'
19+71.19 166,65'
EXISTING R/W

280' R/W

-RAB- START 10+00.00
-RAB- END 14+39.82

20
10 -L1- S83°10'06.0"E

TO LUMBERTON
NC HWY 211 BY-PASS 30' BST
NC HWY 211 BY-PASS 30' BST

MATCH LINE -L1- STA 22+00.00 SEE SHEET RW05

17+25.19
93,45'
EXISTING R/W
RW MON
S11°33'26.0"W -Y1-
NC 410/131 26' BST

N89°15'10"E 17.75'
120.87'
N68°29'41"W

18+66.11
161,58'
RW MON
19+86.91
50.21'

HARDEE'S RESTAURANTS LLC.
DB 702 PG 688
DB 341 PG196

N11°31'02"E 242.13'

SAMPSON-BLADEN OIL CO. INC.
DB 264 PG 479
DB 187 PG 524

N13°03'05"W 239.38'

EXISTING R/W

EDDIE R WALTERS ET ALS
DB 777 PG 554

210.02'
N78°26'31"W

TOWN OF BLADENBORO
DB 337 PG 384

N11°31'02"E 59.73'

210.07'
N78°30'13"W

138.63'
N68°31'05"W

15

CUR DATA -RAB-
PIc 10+00.00
Δc = 360°00'00.0" (LT)
D = 81°51'04.0"
Lc = 439.82
Tc = 0.00
R = 70
SE = 0.000

I , PARKS H. ICENHOUR JR. , PLS, CERTIFY THAT THERE WAS NO RIGHT OF WAY OR PERMANENT EASEMENT MONUMENTATION FOR THIS PROJECT.

THIS 3rd DAY OF JUNE, 2025.

PROFESSIONAL LAND SURVEYOR L-3996

GEL ENGINEERING OF NC, INC. NO.C-1938
NORTH CAROLINA CERTIFICATE OF AUTHORIZATION

NOTES:

1. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.

MATCH LINE -Y1- STA 23+00.00 SEE SHEET RW07

HN-0025
R/W 04

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

PROFESSIONAL LAND SURVEYOR
NORTH CAROLINA PROFESSIONAL SEAL L-3996 LAND SURVEYOR PARKS H. ICENHOUR JR.

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES ARE COMPLETED

2024 STANDARD SPECIFICATIONS

TIP PROJECT: *HN-0025*
County:BLADEN

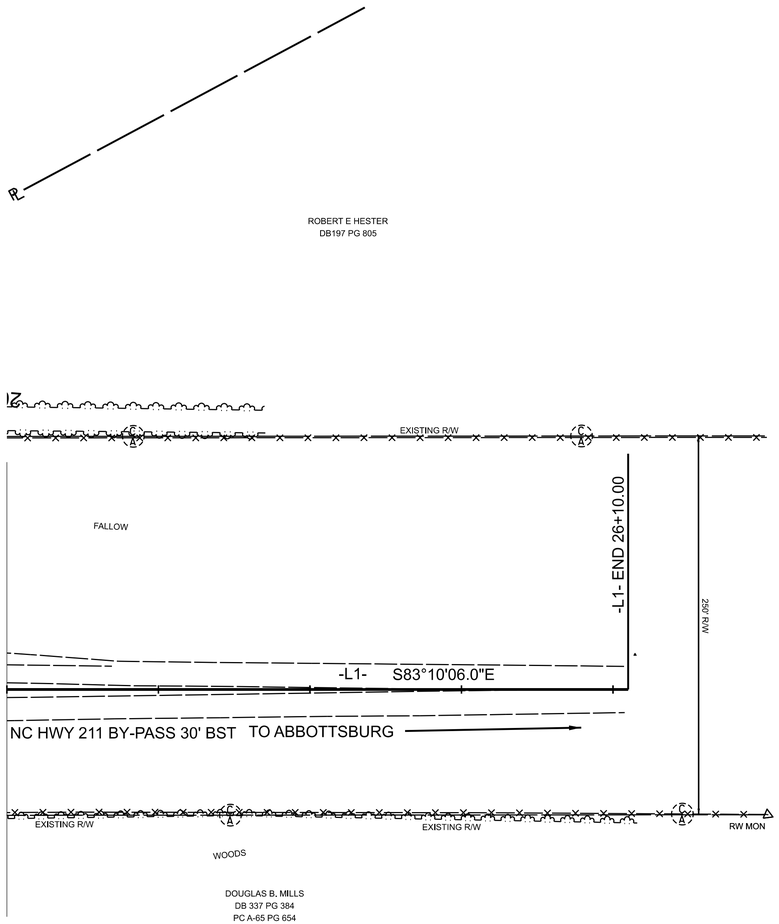
PREPARED FOR

LOCATION AND SURVEYS UNIT

PREPARED BY

GEL SOLUTIONS
an Affiliate of THE GEL GROUP, INC.
2700 SUMNER BLVD.
SUITE 106
RALEIGH,NC 27616
(919) 544-1105
WWW.GEL-SOLUTIONS.COM

5/26/20



I , PARKS H. ICENHOUR JR. , PLS, CERTIFY THAT THERE WAS NO RIGHT OF WAY OR PERMANENT EASEMENT MONUMENTATION FOR THIS PROJECT.

THIS 3rd DAY OF JUNE, 2025.

_____

PROFESSIONAL LAND SURVEYOR L-3996

GEL ENGINEERING OF NC, INC. NO.C-1938 CERTIFICATE OF AUTHORIZATION

NOTES:

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HN-0025

R/W 05

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

PROFESSIONAL LAND SURVEYOR

NORTH CAROLINA PROFESSIONAL SEAL L-3996 LAND SURVEYOR PARKS H. ICENHOUR JR.

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES ARE COMPLETED

2024 STANDARD SPECIFICATIONS

TIP PROJECT: HN-0025

County:BLADEN

PREPARED FOR

LOCATION AND SURVEYS UNIT

PREPARED BY

GEL SOLUTIONS
an Affiliate of THE GEL GROUP, INC.
2700 SUMNER BLVD.
SUITE 106
RALEIGH,NC 27616
(919) 544-1100
WWW.GEL-SOLUTIONS.COM

5/26/20

MATCH LINE -L1- STA 22+00.00 SEE SHEET RW04

NC GRID
NAD 83 NA 2011

I , PARKS H. ICENHOUR JR. , PLS, CERTIFY THAT THERE WAS NO RIGHT OF WAY OR PERMANENT EASEMENT MONUMENTATION FOR THIS PROJECT.

THIS 3rd DAY OF JUNE, 2025.

PROFESSIONAL LAND SURVEYOR L-3996

GEL ENGINEERING OF NC, INC. N.C.-1938 CERTIFICATE OF AUTHORIZATION

NORTH CAROLINA PROFESSIONAL SEAL L-3996 LAND SURVEYOR PARKS H. ICENHOUR JR.

-RAB- START 10+00.00
-RAB- END 14+39.82

NC HWY 211 BY-PASS 30' BST

ERIC R HESTER
DB 380 PG 538
MB 162 PG 1628

ROBERT E HESTER
DB 218 PG 407

ERIC R HESTER
DB 732 PG 487

ROBERT E HESTER
DB197 PG 305

HARDEE'S RESTAURANTS LLC.
DB 702 PG 688
DB 341 PG196

TOWN OF BLADENI
DB 337 PG 38

1SBLK
BUS

1SBKD

-Y1-
TO DUBLIN
NC 410/131 26' BST
S11°33'26.0"W

-Y1- START 10+00.00

MATCH LINE -Y1- STA 22+00.00 SEE SHEET RW07

ROBERT E HESTER JR.
DB 698 PG 911
MB 162 PG 1628

CHARLES K EDWARDS
DB 518 PG 851

1SBK
BUS

1SFMTL
BUS

ROBERT HESTER
MB 162 PG 1628

1-SLS
2 GAS PUMPS
UMTL CANOPY

4-ISLS
8 GAS PUMPS
UMTL CANOPY

SAMPSON-BLADEN OIL CO. INC.
DB 264 PG 479
DB 187 PG 524

EDDIE R WALTERS ET ALS
DB 777 PG 554

MATCH LINE -L1- STA 14+00.00 SEE SHEET RW05

NOTES:

1. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.

TIP PROJECT: HN-0025
County: BLADEN

HN-0025	
R/W	06

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

PROFESSIONAL LAND SURVEYOR

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES ARE COMPLETED

2024 STANDARD SPECIFICATIONS

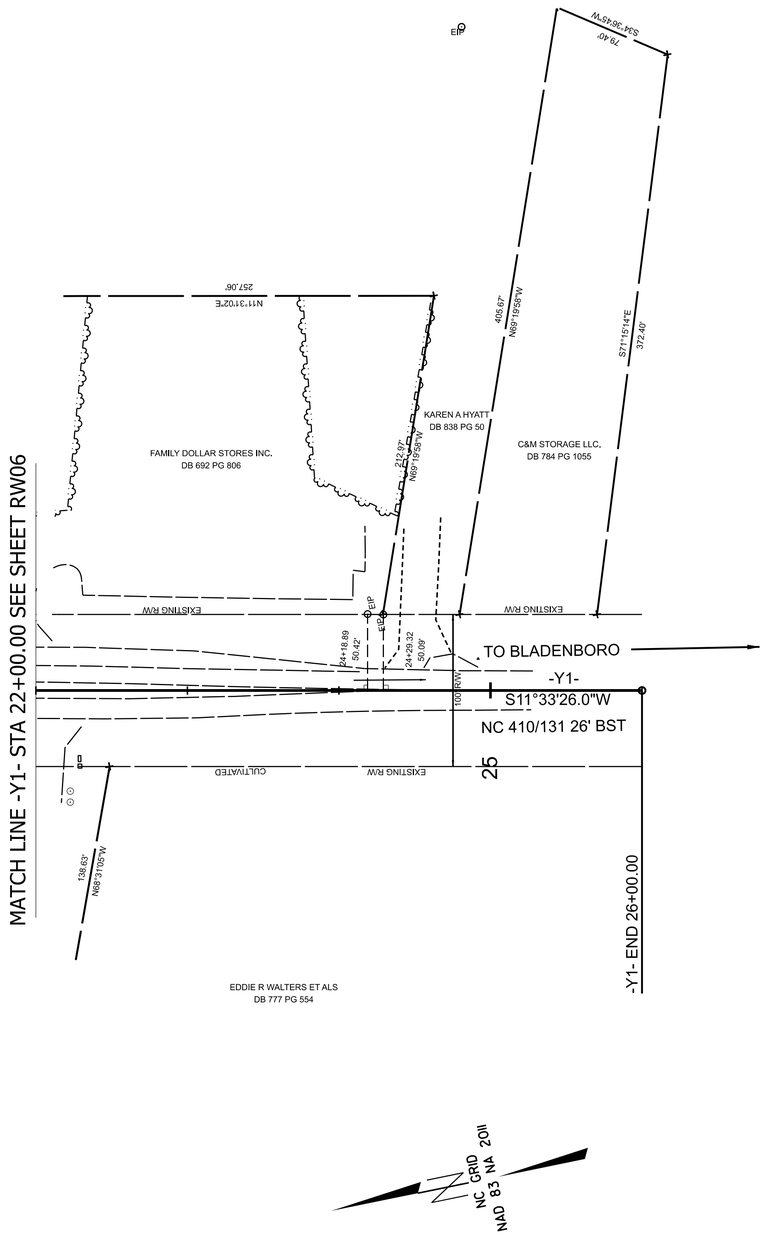
PREPARED FOR

LOCATION AND SURVEYS UNIT

PREPARED BY

GEL SOLUTIONS
an Affiliate of THE GEL GROUP, INC.
2700 SUMNER BLVD.
SUITE 106
RALEIGH,NC 27616
(919) 544-1100
WWW.GEL-SOLUTIONS.COM

5/26/20



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THIS 3rd DAY OF JUNE, 2025.

_____

PROFESSIONAL LAND SURVEYOR L-3996

NOTES:

1. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.

HN-0025

R/W 07

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

PROFESSIONAL LAND SURVEYOR

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES ARE COMPLETED

2024 STANDARD SPECIFICATIONS

TIP PROJECT: *HN-0025*

County: BLADEN

PREPARED FOR

LOCATION AND SURVEYS UNIT

PREPARED BY

GEL Engineering of NC, Inc. 2966

GEL SOLUTIONS

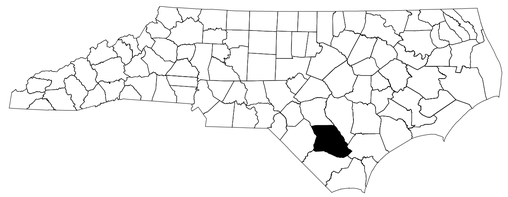
an Affiliate of THE GEL GROUP, INC.

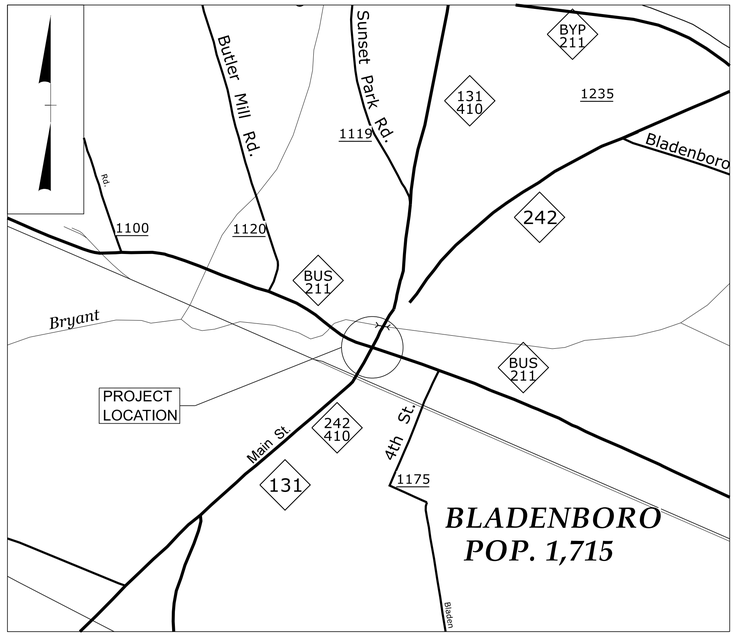
2700 SUMNER BLVD.
SUITE 106
RALEIGH,NC 27616
(919) 544-1100
WWW.GEL-SOLUTIONS.COM

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

BLADEN COUNTY





LOCATION: REPLACE EXISTING TRAFFIC SIGNAL WITH ROUNDABOUT AT NC 211 BYP IN BLADENBORO

TYPE OF WORK: GRADING, DRAINAGE, PAVING

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-1B	TRANSPORTATION OPERATIONS PLAN: (GENERAL NOTES AND LOCAL NOTES)
TMP-2	TRANSPORTATION OPERATIONS PLAN: (MANAGEMENT STRATEGIES, TEMPORARY TRAFFIC CONTROL PHASING)
TMP-3	TEMPORARY TRAFFIC CONTROL PHASE I DETAIL
TMP-4	TEMPORARY TRAFFIC CONTROL PHASE II DETAIL
TMP-5	TEMPORARY TRAFFIC CONTROL PHASE III, STEPS 1 & 2 DETAIL
TMP-6	TEMPORARY TRAFFIC CONTROL PHASE III, STEP 3 DETAIL
TMP-7	TEMPORARY TRAFFIC CONTROL PHASE IV DETAIL

SHEET NO.
TMP-1

HN-0025

TIP PROJECT:

04 / 25 / 25 DATE SUBMITTED
SUBMITTAL:
- [ ] STAGING CONCEPT
- [ ] MIDPOINT
- [ ] PRE-FINAL
- [x] FINAL

DO NOT USE FOR CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

WORK ZONE SAFETY & MOBILITY
"from the MOUNTAINS to the COAST"

PLANS PREPARED BY:

REED DUDLEY, E.I.
DESIGN ENGINEER

NCDOT CONTACTS:

KARMEN E. MILLER, P.E.
PROJECT MANAGER

CHRIS B. HOWARD
PROJECT DESIGN ENGINEER

APPROVED: _____

DATE: _____

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 046203 ENGINEER KARMEN E MILLER

4/21/2025
pw://ncdot-pw.bentley.com:ncdot-pw-01/Documents/Division_06/HN-0025/Work Zone Traffic Control/HN-0025-TC-TMP-1
User:drdudley

HN-0025-TC-TMP-Title Sheet.dgn 4/21/2025 12:29:23 PM

PROJ. REFERENCE NO.	SHEET NO.
HN-0025	TMP-1A

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:

STD. NO.	TITLE
1101.01	WORK ZONE ADVANCE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.03	TEMPORARY ROAD CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.05	WORK ZONE VEHICLE ACCESSES
1101.06	WARNING SIGNS FOR BLASTING ZONES
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
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGING DEVICES
1160.01	TEMPORARY CRASH CUSHION
1165.01	WORK VEHICLE LIGHTING SYSTEMS AND TMA DELINEATION
1170.01	POSITIVE PROTECTION
1180.01	SKINNY-DRUM
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO-LANE AND MULTI-LANE ROADWAYS
1205.03	PAVEMENT MARKINGS - EXITS AND ENTRANCE RAMPS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.06	PAVEMENT MARKINGS - LANE DROPS
1205.07	PAVEMENT MARKINGS - PEDESTRIAN CROSSWALKS
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1205.10	PAVEMENT MARKINGS - SCHOOL AREAS
1205.11	PAVEMENT MARKINGS - RAILROAD CROSSINGS
1205.12	PAVEMENT MARKINGS - BRIDGES
1205.13	PAVEMENT MARKINGS - LANE REDUCTIONS
1205.14	PAVEMENT MARKINGS - ROUNDABOUTS
1205.15	PAVEMENT MARKINGS - REDUCED CONFLICT INTERSECTIONS
1205.16	BICYCLE FACILITIES
1205.17	PAVEMENT MARKINGS - SIDE-BY-SIDE/ADJACENT ON/OFF RAMPS
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - PERMANENT AND TEMPORARY
1261.01	GUARDRAIL AND BARRIER DELINEATORS - INSTALLATION SPACING
1261.02	GUARDRAIL AND BARRIER DELINEATORS - TYPES AND MOUNTING
1262.01	GUARDRAIL END DELINEATION
1264.01	OBJECT MARKERS - TYPES
1264.02	OBJECT MARKERS - INSTALLATION
1266.01	RAISED PAVEMENT MARKERS - TUBULAR MARKERS
1267.01	FLEXIBLE DELINEATORS - INSTALLATION
1267.02	FLEXIBLE DELINEATORS - SPACING TABLES
1267.03	FLEXIBLE DELINEATORS - INTERCHANGE PLACEMENT

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
- TEMPORARY PAVEMENT

SIGNALS

EXIST EXISTING | PROP PROPOSED | TEMP TEMPORARY | PORT PORTABLE

DS DRIVEWAY SIGNAL

PAVEMENT MARKINGS

- EXISTING LINES
- TEMPORARY LINES

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

TEMPORARY PAVEMENT MARKING

PAINT PAVEMENT MARKING LINES

P1 - WHITE EDGELINE (4")
P4 - 3FT.-9FT./SP WHITE MINISKIP (4")
P10 - YELLOW EDGELINE (4")
P13 - YELLOW DOUBLE CENTER (4")
P40 - WHITE GORELINE (8")
P55 - 3FT.-3FT./SP WHITE MINISKIP (12")

PAINT PAVEMENT MARKING SYMBOLS

P71 - RIGHT TURN ARROW
P103 - 24" YIELD LINE TRIANGLE

APPROVED: _____

DATE: _____

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 046203 ENGINEER KARMEN E. MILLER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

ROADWAY STANDARD DRAWINGS & LEGEND

4/24/2025
pw://ncdot-pw.bentley.com:ncdot-pw-01/Documents/Division_06/HN-0025/Work Zone Traffic Control/HN-0025-TC-TMP-1A
User:drdudley

PROJ. REFERENCE NO.	SHEET NO.
HN-0025	TMP-1B

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 UNDESIRED 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 DURING HOLIDAYS AND SPECIAL EVENTS AS FOLLOWS:

ROAD NAME

NC 410/NC 131
NC 211 BYP

HOLIDAY

1. FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.

2. FOR NEW YEAR'S, BETWEEN THE HOURS OF 9:00 A.M. DECEMBER 31st TO 7:00 P.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 7:00 P.M. THE FOLLOWING TUESDAY.

3. FOR EASTER, BETWEEN THE HOURS OF 9:00 A.M. THURSDAY AND 7:00 P.M. MONDAY.

4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 9:00 A.M. FRIDAY TO 7:00 P.M. TUESDAY.

5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 9:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 7:00 P.M. THE DAY AFTER INDEPENDENCE DAY.

   IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN BETWEEN THE HOURS OF 9:00 A.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 7:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.

6. FOR LABOR DAY, BETWEEN THE HOURS OF 9:00 A.M. FRIDAY AND 7:00 P.M. TUESDAY.

7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 9:00 A.M. TUESDAY TO 7:00 P.M. MONDAY.

8. FOR CHRISTMAS, BETWEEN THE HOURS OF 9:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 7:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

9. FOR BEAST FEST, BETWEEN 24 HOURS BEFORE THE START OF THE EVENT AND 24 HOURS AFTER THE END OF THE EVENT.

LANE AND SHOULDER CLOSURE REQUIREMENTS

B) 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.
ENGINEER.

C) 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.

D) 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.

E) 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.

F) 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.

PAVEMENT EDGE DROP OFF REQUIREMENTS

G) 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.

H) 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

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

SIGNING

J) 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.

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

TRAFFIC CONTROL DEVICES

L) 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.

M) PLACE TYPE III BARRICADES, WITH "ROAD CLOSED" SIGN R11-2 ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.

N) 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

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

ROAD NAME	MARKING	MARKER
NC 211 BYP	PAINT	TEMPORARY RAISED
NC 410/NC 131	PAINT	TEMPORARY RAISED

P) 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.

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

R) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.

MISCELLANEOUS

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

T) TRACE THE PROPOSED MONOLITHIC ISLAND LOCATIONS WITH PROPER COLOR PRIOR TO INSTALLATION. PLACE SKINNY DRUMS TO DELINEATE ANY PROPOSED MONOLITHIC ISLANDS BEFORE INSTALLATION.

APPROVED: _____

DATE: _____

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 046203 ENGINEER KARMEN E. MILLER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

GENERAL NOTES

4/25/2025
pw://ncdot-pw.bentley.com:ncdot-pw-01/Documents/Division_06/HN-0025/Work Zone Traffic Control/HN-0025-TC-TMP-1B
User:dnudley

HN-0025-TC-TMP-1B.dgn 4/25/2025 9:13:43 AM

PROJ. REFERENCE NO.	SHEET NO.
HN-0025	TMP-2

MANAGEMENT STRATEGIES

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

- LANE SHIFTS/CLOSURES
- ONE-LANE, TWO WAY OPERATION (FLAGGING)

PHASING

PHASE I

STEP 1:
USING RSD 1101.01 SHEET 3, INSTALL WORK ZONE ADVANCE WARNING SIGNS.

STEP 2:
USING RSD 1101.02 SHEET 1 AS NEEDED, CONSTRUCT OUTER LIMITS OF PROPOSED ROUNDABOUT AND THE FOLLOWING UP TO EDGE AND ELEVATION OF EXISTING AS SHOWN ON TMP-3:

-L- STA. 13+40 +/- LT TO -Y1- STA. 14+71 +/- RT (TEMPORARY PAVEMENT)
-L- STA. 17+14 +/- RT TO -Y1- STA. 21+50 +/- RT (TEMPORARY PAVEMENT)
-Y1- STA. 14+71 +/- LT TO -L- STA. 21+64 +/- LT (TEMPORARY PAVEMENT)
-Y1- STA. 19+88 +/- LT TO -L- STA. 23+00 +/- RT (TEMPORARY PAVEMENT)

STEP 3:
INSTALL AND COVER PROPOSED ROUNDABOUT SIGNS.

PHASE II

STEP 1:
USING RSD 1101.02 SHEET 1 AND FLAGGERS IN ALL FOUR QUADRANTS, IN A CONTINUOUS MANNER, REMOVE TRAFFIC SIGNAL AND REMOVE EXISTING PAVEMENT MARKINGS. INSTALL TEMPORARY PAVEMENT MARKINGS AND TRAFFIC CONTROL DEVICES AS SHOWN ON TMP-4.

UNCOVER PREVIOUSLY COVERED ROUNDABOUT SIGNS AND OPEN TRAFFIC TO THE TEMPORARY ROUNDABOUT PATTERN SHOWN ON TMP-4.

STEP 2:
CONSTRUCT CENTER ISLAND AS SHOWN ON TMP-4.

PHASE III

STEP 1:
USING RSD 1101.02 SHEETS 1 AND 18 AS NEEDED, ADJUST THE TEMPORARY PAVEMENT MARKINGS AND TRAFFIC CONTROL DEVICES AS SHOWN ON TMP-5 AND SHIFT TRAFFIC TO TEMPORARY PATTERN.

STEP 2:
USING RSD 1101.02 SHEETS 1 AND 18 AS NEEDED, CONSTRUCT THE FOLLOWING UP TO, BUT NOT INCLUDING THE FINAL SURFACE COURSE PER ROADWAY PLANS:

-L- STA. 11+25 +/- TO -L- STA 13+75 +/- (RESURFACING)
-L- STA. 13+75 +/- TO -L- STA. 23+00 +/-
-L- STA. 23+00 +/- TO -L- STA. 25+40 +/- (RESURFACING)
-Y1- STA. 15+75 +/- TO -Y1- STA. 21+00 +/-
-Y1- STA. 21+00 +/- TO -Y1- STA. 24+25 +/- (RESURFACING)
-RAB- STA. 10+00 +/- TO -RAB- STA. 14+40 +/-

USING RSD 1101.02 SHEET 1 AND 18 AS NEEDED, BRING TEMPORARY PAVEMENT INSTALLED IN PHASE I TO THE ELEVATION OF THE PROPOSED PAVEMENT INSTALLED IN PHASE III.

STEP 3:
CONSTRUCT SURFACE MOUNT CONCRETE ISLANDS AS SHOWN ON TMP-6. USE SKINNY DRUMS TO DELINEATE CONCRETE ISLANDS AS SHOWN ON TMP-6.

PHASE IV

STEP 1:
USING RSD 1101.02 SHEETS 1 AND 18 AS NEEDED, INSTALL TEMPORARY PAVEMENT MARKINGS IN THE FINAL PATTERN AS SHOWN ON THE PAVEMENT MARKING PLANS AND SHIFT TRAFFIC TO THE FINAL ROUNDABOUT PATTERN AS SHOWN IN THE ROADWAY PLANS.

STEP 2:
USING RSD 1101.02 SHEETS 1 AND 18 AS NEEDED, REMOVE TEMPORARY PAVEMENT AS SHOWN ON TMP-7.

STEP 3:
USING RSD 1101.02 SHEETS 1 AND 18 AS NEEDED, INSTALL THE FINAL LAYER OF SURFACE COURSE ON -L-, -Y1-, AND -RAB-.

STEP 4:
USING RSD 1101.02 SHEETS 1 AND 18 AS NEEDED, INSTALL THE FINAL PAVEMENT MARKINGS PER PAVEMENT MARKING PLANS.

STEP 5:
REMOVE ALL TRAFFIC CONTROL DEVICES. OPEN TRAFFIC TO FINAL PATTERN.

APPROVED: _____

DATE: _____

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 046203 ENGINEER KARMEN E. MILLER

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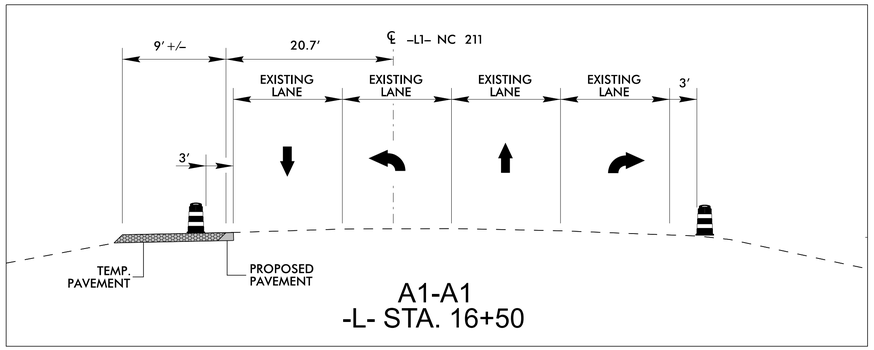
DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

TEMPORARY TRAFFIC CONTROL PHASING

4/25/2025
pw://ncdot-pw.bentley.com:ncdot-pw-01/Documents/Division_06/HN-0025/Work Zone Traffic Control/HN-0025-TC-TMP-2
User:drdudley

HN-0025-TC-TMP-2.dgn 4/25/2025 9:26:50 AM

PROJ. REFERENCE NO.	SHEET NO.
HN-0025	TMP-3



A1-A1
-L- STA. 16+50

END TEMP. PAVEMENT
-Y1- STA. 14+71 +/-

BEGIN TEMP. PAVEMENT
-Y1- STA. 14+71 +/-

15

-Y1- NC 410/NC 131

20

15

-L- STA. 17+31 +/-

B1

B1

BEGIN TEMP. PAVEMENT
-L- STA. 13+40 +/-

-L- NC 211

C1

A1

15′

END TEMP. PAVEMENT
-L- STA. 21+64 +/-

15′

-L- NC 211

C1

A1

BEGIN TEMP. PAVEMENT
-L- STA. 17+14 +/-

9.5′

15′

-L- STA. 19+03 +/-

35′ TYP.

END TEMP. PAVEMENT
-L- STA. 23+00 +/-

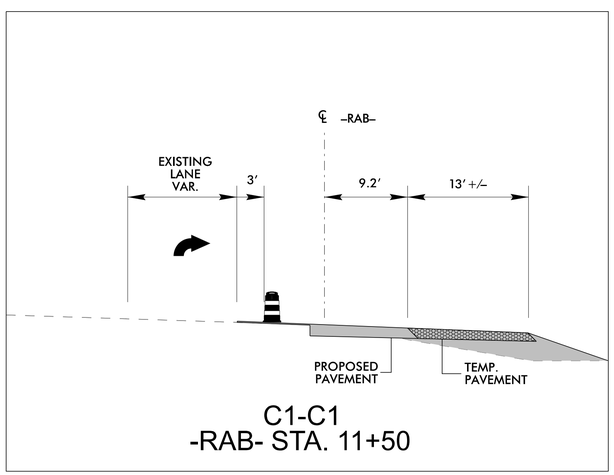
-L- STA. 17+38 +/-

20

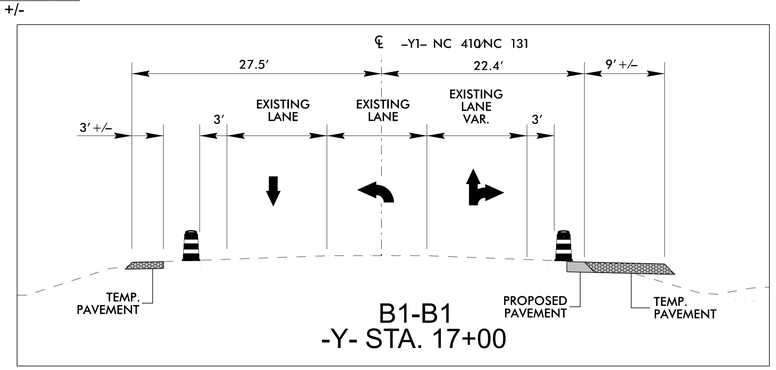
-Y1- NC 410/NC 131

BEGIN TEMP. PAVEMENT
-Y1- STA. 19+88 +/-

END TEMP. PAVEMENT
-Y1- STA. 20+51 +/-



C1-C1
-RAB- STA. 11+50



B1-B1
-Y- STA. 17+00

1" = 50'

APPROVED: _____

DATE: _____

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 046203 ENGINEER KARMEN E. MILLER

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

PHASE I DETAIL

4/23/2025
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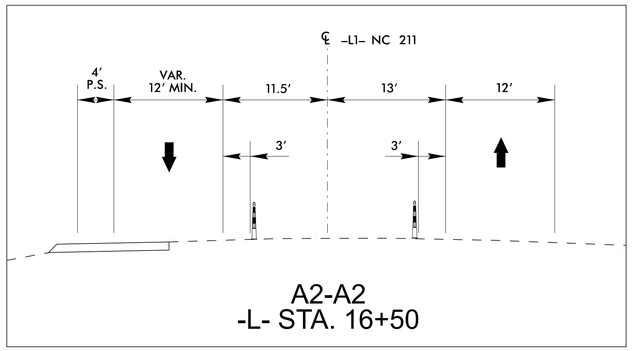
User:drdudley

PROJ. REFERENCE NO.	SHEET NO.
HN-0025	TMP-4



A2-A2
-L- STA. 16+50

NEW TRAFFIC PATTERN AHEAD W23-2 48" X 48"

500′

-Y1- STA. 14+72 +/-
BEGIN TRAFFIC SHIFT
TIE TO EXIST.
PAVEMENT MARKINGS

-Y1- NC 410/NC 131

-Y1- STA. 16+97 +/-
END TRAFFIC SHIFT

-Y1- STA. 17+44 +/-

-Y1- STA. 17+59 +/-

-Y1- STA. 17+85 +/-

-L- STA. 18+87 +/-

-L- STA. 13+56 +/-
BEGIN TRAFFIC SHIFT
TIE TO EXIST.
PAVEMENT MARKINGS

-L- NC 211

-L- STA. 19+12 +/-

-L- STA. 19+34 +/-

-L- STA. 20+95 +/-
BEGIN TRAFFIC SHIFT

350′

-L- NC 211

-L- STA. 15+82 +/-
END TRAFFIC SHIFT

-L- STA. 17+32 +/-

-L- STA. 17+45 +/-

-Y1- STA. 18+94 +/-

-Y1- STA. 19+25 +/-

-L- STA. 17+67 +/-

-Y1- STA. 19+39 +/-

-Y1- STA. 20+15 +/-
BEGIN TRAFFIC SHIFT

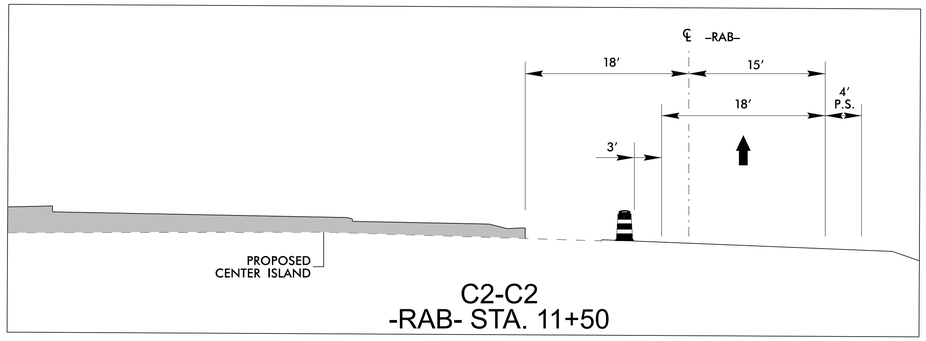
-L- STA. 22+70 +/-
END TRAFFIC SHIFT
TIE TO EXIST.
PAVEMENT MARKINGS

-Y1- STA. 19+30 +/-
END TRAFFIC SHIFT

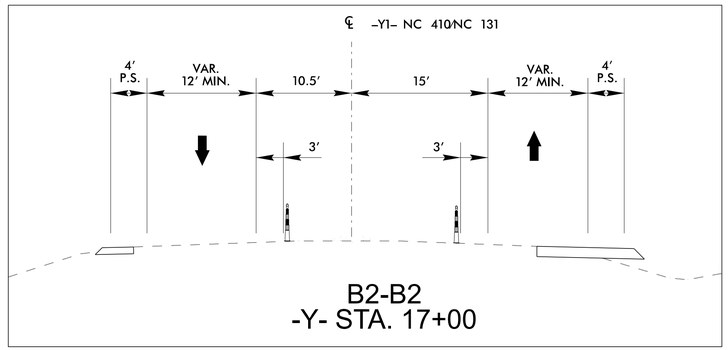
-Y1- STA. 20+59 +/-

-Y1- NC 410/NC 131

-Y1- STA. 24+25 +/-
TIE TO EXIST.
PAVEMENT MARKINGS



C2-C2
-RAB- STA. 11+50



B2-B2
-Y- STA. 17+00

1" = 50'

APPROVED: _____

DATE: _____

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 046203 ENGINEER KARMEN E. MILLER

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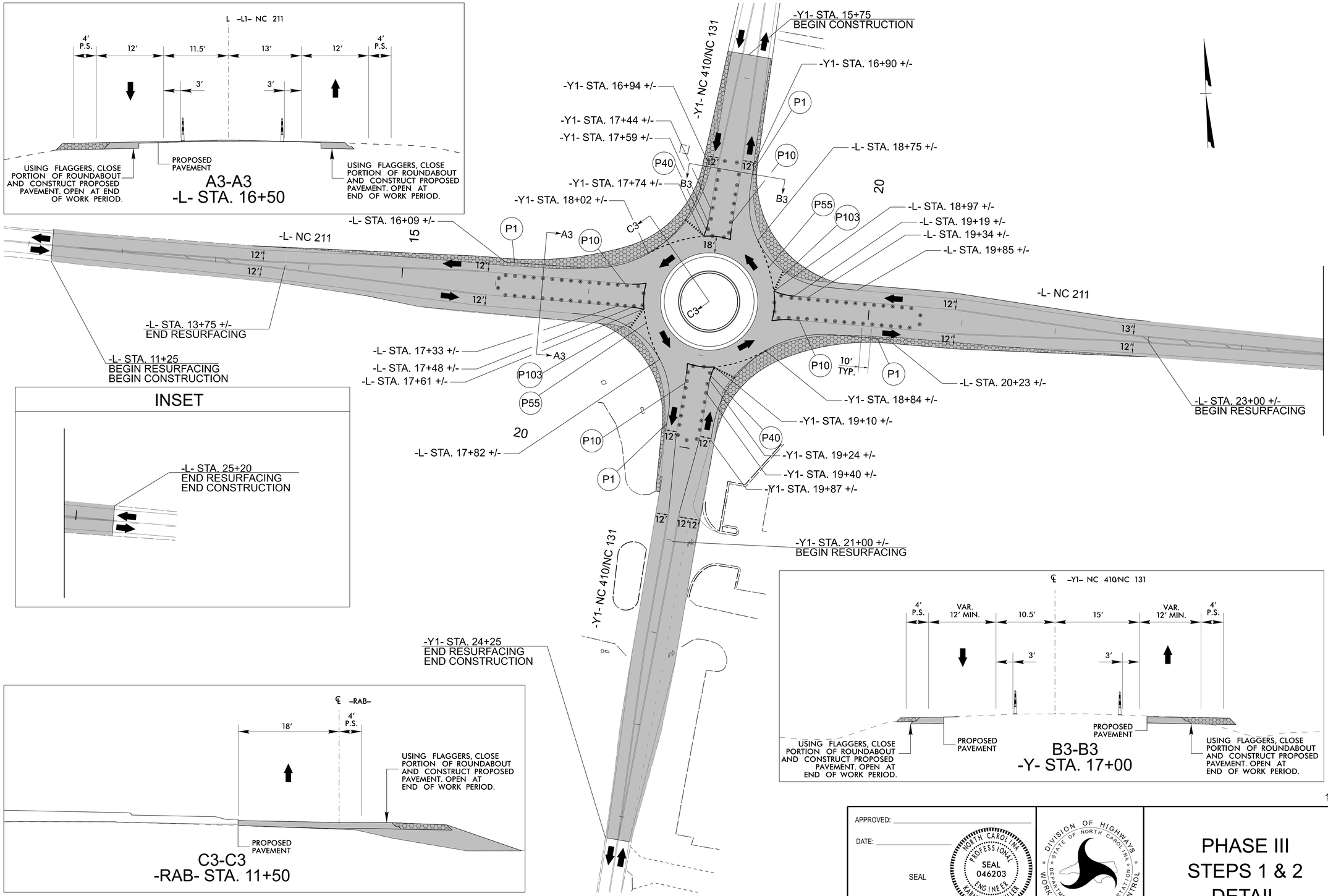
PHASE II DETAIL

4/24/2025
pw://ncdot-pw.bentley.com:ncdot-pw-01/Documents/Division_06/HN-0025/Work Zone Traffic Control/HN-0025-TC-TMP-4_new
User:drdudley

HN-0025-TC-TMP-4_new.dgn 4/24/2025 11:17:07 AM

PROJ. REFERENCE NO.	SHEET NO.
HN-0025	TMP-5

A3-A3
-L- STA. 16+50



INSET

C3-C3
-RAB- STA. 11+50

B3-B3
-Y- STA. 17+00

1" = 50'

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DATE: _____

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 046203 ENGINEER KIRMEN E. MILLER

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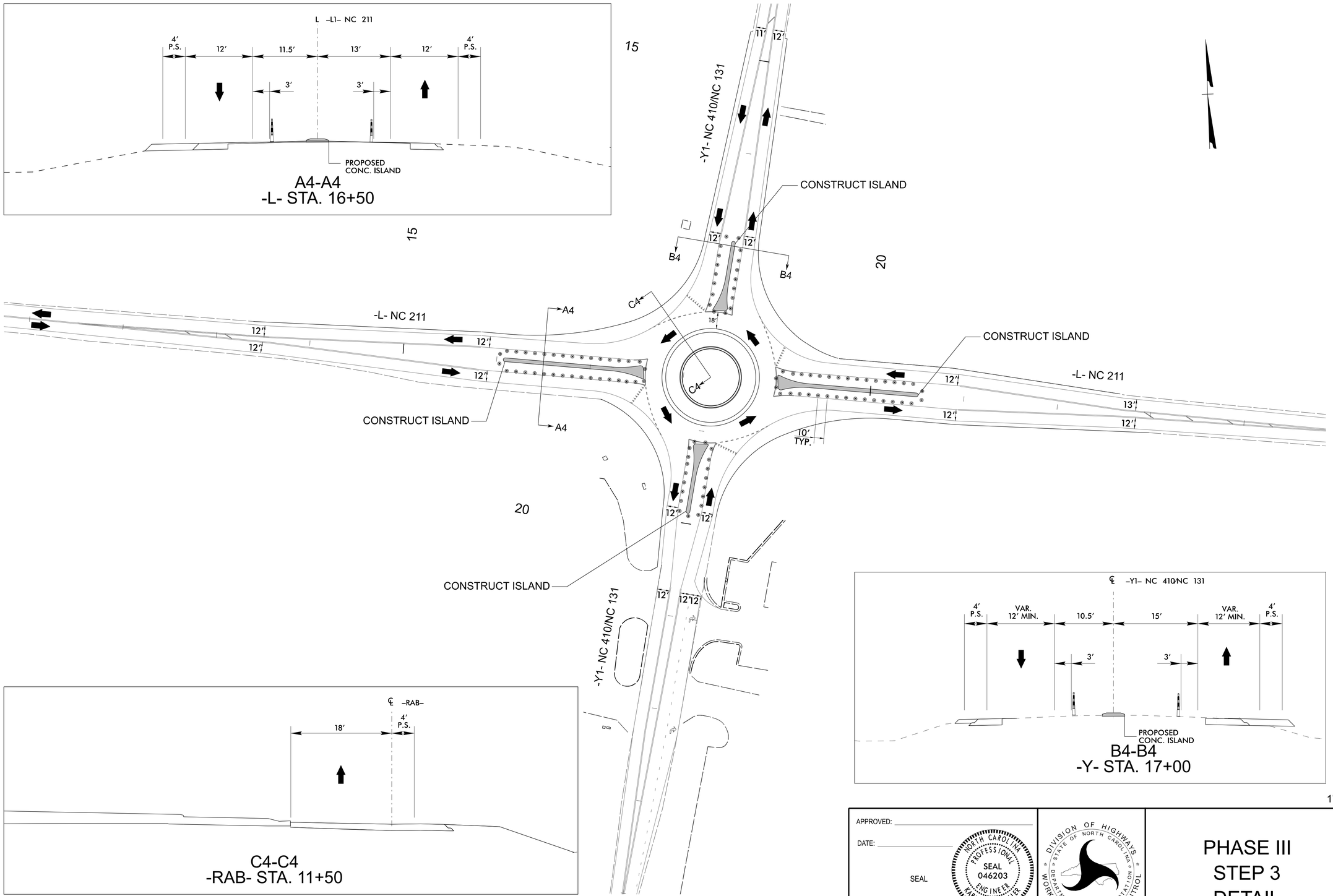
PHASE III
STEPS 1 & 2
DETAIL

4/24/2025
pw://ncdot-pw.bentley.com:ncdot-pw-01/Documents/Division_06/HN-0025/Work Zone Traffic Control/HN-0025-TC-TMP-5_new
User:drudley

HN-0025-TC-TMP-5_new.dgn 4/24/2025 11:19:14 AM

PROJ. REFERENCE NO.	SHEET NO.
HN-0025	TMP-6

A4-A4
-L- STA. 16+50



C4-C4
-RAB- STA. 11+50

B4-B4
-Y- STA. 17+00

1" = 50'

APPROVED: _____

DATE: _____

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 046203 ENGINEER KARMEN E. MILLER

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

PHASE III
STEP 3
DETAIL

4/23/2025
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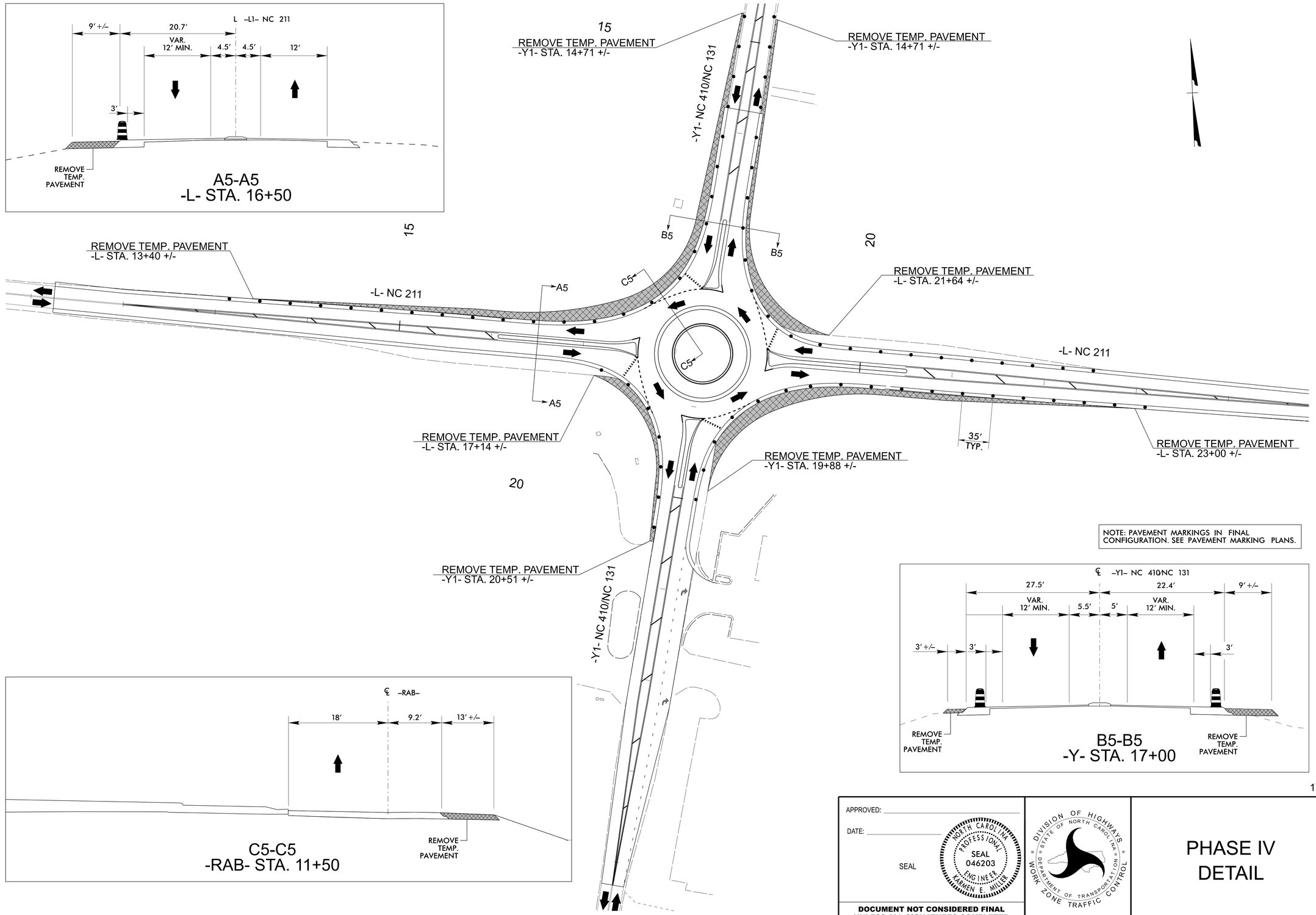
User:drdudley

PROJ. REFERENCE NO.	SHEET NO.
HN-0025	TMP-7

A5-A5
-L- STA. 16+50



C5-C5
-RAB- STA. 11+50

NOTE: PAVEMENT MARKINGS IN FINAL CONFIGURATION. SEE PAVEMENT MARKING PLANS.

B5-B5
-Y- STA. 17+00

1" = 50'

APPROVED: _____

DATE: _____

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 046203 ENGINEER KARMEN E. MILLER

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

PHASE IV DETAIL

4/24/2025
pw://ncdot-pw.bentley.com:ncdot-pw-01/Documents/Division_06/HN-0025/Work Zone Traffic Control/HN-0025-TC-TMP-7
User:dradley

5/26/20

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING PLAN
BLADEN COUNTY
LOCATION: NC 410 / NC 131 AT NC 211 BYPASS IN BLADENBORO

HN-0025
PMP | 001

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

APPROVED: DocuSigned by: David M. Eaton — D0A1C5F247484F7...
DATE: 04/09/2025

SEAL:

NORTH CAROLINA PROFESSIONAL SEAL 043780 ENGINEER DAVID M. EATON

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION

T.I.P.: HN-0025

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
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1205.14	PAVEMENT MARKINGS - ROUNDABOUTS
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - PERMANENT AND TEMPORARY

PAVEMENT MARKING SCHEDULE

SYMBOL	DESCRIPTION
THERMOPLASTIC (4″, 90 MILS)	
T1	WHITE EDGELINE
T2	WHITE SOLID LANE LINE
T4	3FT.-9FT./SP WHITE MINISKIP
T10	YELLOW EDGELINE
T11	YELLOW SINGLE CENTER
T12	10 FT. YELLOW SKIP
T13	YELLOW DOUBLE CENTER
THERMOPLASTIC (8″, 90 MILS)	
T40	WHITE GORELINE
T45	3FT.-3FT./SP WHITE MINISKIP
THERMOPLASTIC (12″, 90 MIL)	
T52	YELLOW DIAGONAL
THERMOPLASTIC (24″, 90 MIL)	
T103	24″ YIELD LINE TRIANGLE
THERMOPLASTIC PAVEMENT MARKING SYMBOLS (90 MIL)	
T70	LEFT TURN ARROW
T71	RIGHT TURN ARROW
PERMANENT RAISED MARKERS	
MA	YELLOW & YELLOW
MB	CRYSTAL & RED

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
ALL ROADS	THERMOPLASTIC	RAISED

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

C) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS.

D) PASSING ZONES WILL BE DETERMINED IN THE FIELD AND MUST BE APPROVED BY THE ENGINEER.

E) 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.

SUMMARY OF QUANTITIES

ITEM NO.		ITEM DESCRIPTION	QUANTITY	UNIT
DESC. NO.	SECT. NO.			
4685000000	1205	THERMOPLASTIC PAVEMENT MARKING LINES (4", 90 MILS)	9106	L.F.
4695000000	1205	THERMOPLASTIC PAVEMENT MARKING LINES (8", 90 MILS)	332	L.F.
4700000000	1205	THERMOPLASTIC PAVEMENT MARKING LINES (12", 90 MILS)	139	L.F.
4725000000	1205	THERMOPLASTIC PAVEMENT MARKING SYMBOLS (90 MILS)	5	EA.
4900000000	1251	RAISED PAVEMENT MARKERS	53	EA.
4890000000	SP	24" YIELD LINE TRIANGLE (90 MILS)	102	L.F.

INDEX

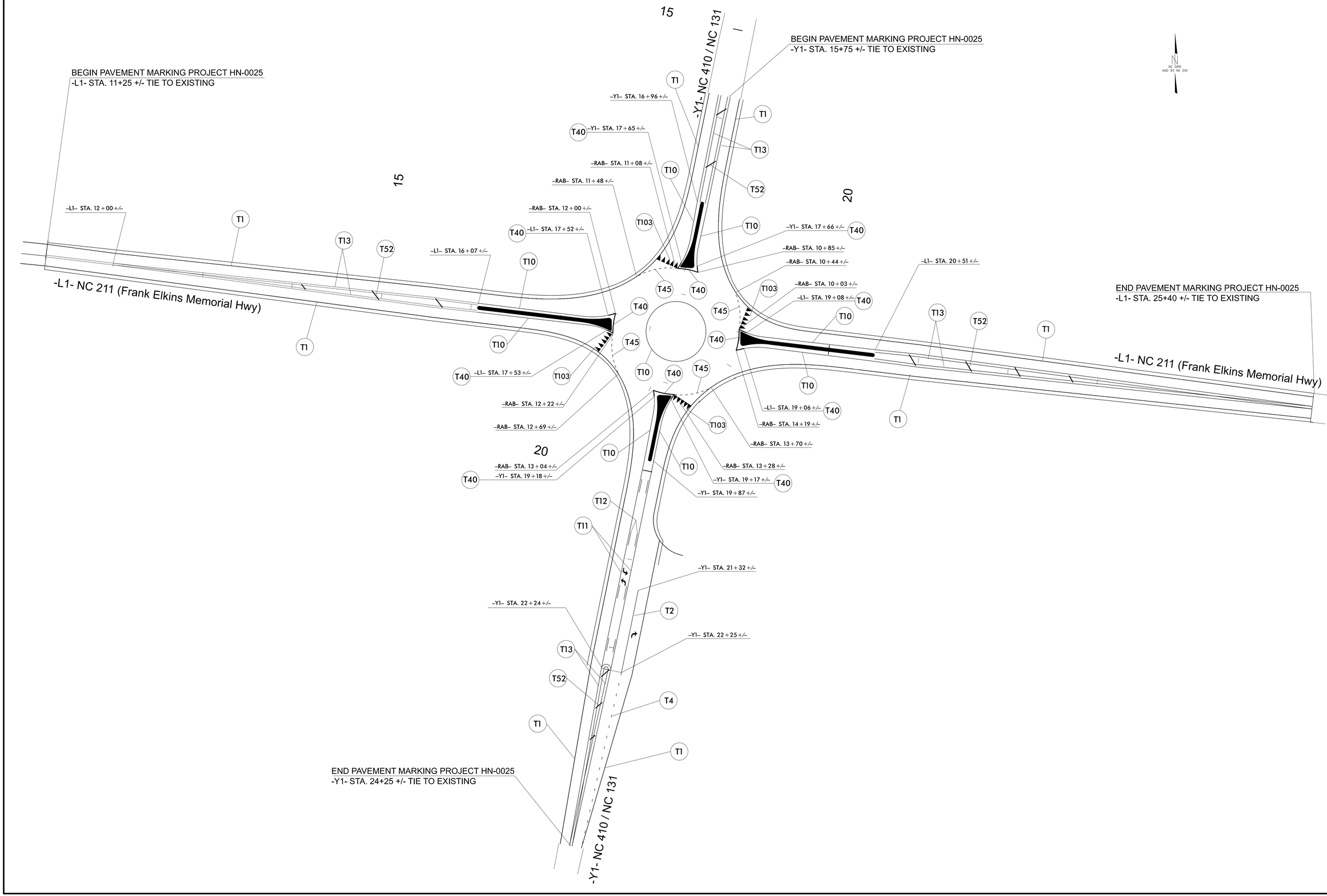
SHEET NO.	DESCRIPTION
PMP-1	PAVEMENT MARKING PLAN TITLE AND SCHEDULE SHEET
PMP-2	PAVEMENT MARKING DETAIL

PLAN PREPARED BY: N.C.D.O.T. SIGNING AND DELINEATION UNIT

D. M. EATON, P.E. — SIGNING & DELINEATION REGIONAL ENGINEER

S. W. JOHNS — SIGNING & DELINEATION PROJECT DESIGN ENGINEER

5/26/20



HN-0025

PMP	002

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

APPROVED: DocuSigned by: David M. Exton — 0DA1C5F2474B4F7...

DATE: 04/09/2025

SEAL:

NORTH CAROLINA PROFESSIONAL SEAL 043780 ENGINEER DAVID M. EXTON

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STATE OF NORTH CAROLINA • DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING DETAIL

5/26/20

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

SIGNING PLAN
BLADEN COUNTY

LOCATION: NC 410 / NC 131 AT NC 211 BYPASS IN BLADENBORO

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
901.50	ARROWS AND SHIELDS
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 CONTRACTOR.

. CONFIRM IN WRITING AT LEAST 4 MONTHS IN ADVANCE, THE ACTUAL DATE THE DEPARTMENT FURNISHED SIGNS WILL BE REQUIRED.

. ALL TYPE 'D' SIGNS SHALL BE MOUNTED ON TW0 U-CHANNEL POSTS UNLESS OTHERWISE INDICATED ON THE PLANS.

. 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.

. THE BACKGROUND FOR TYPE E & F SIGNS SHALL BE TYPE C REFLECTIVE SHEETING.

SUMMARY OF QUANTITIES

ITEM NO.		ITEM DESCRIPTION	QUANTITY	UNIT
DESC. NO.	SECT. NO.			
4025000000	901	CONTRACTOR FURNISHED, TYPE D SIGN	111	S.F.
4025000000	901	CONTRACTOR FURNISHED, TYPE E SIGN	172	S.F.
4025000000	901	CONTRACTOR FURNISHED, TYPE F SIGN	109.88	S.F.
4072000000	903	SUPPORTS, 3 LB STEEL U-CHANNEL	736	L.F.
4096000000	904	SIGN ERECTION, TYPE D	8	EA.
4102000000	904	SIGN ERECTION, TYPE E	35	EA.
4108000000	904	SIGN ERECTION, TYPE F	6	EA.
4116100000	904	SIGN ERECTION, RELOCATE TYPE E	1	EA.
4155000000	907	DISPOSAL OF SIGN SYSTEM, U-CHANNEL	20	EA.
4192000000	907	DISPOSAL OF SUPPORT, U-CHANNEL	1	EA.

INDEX

SHEET NO.	DESCRIPTION
SIGN-1	TITLE SHEET
SIGN-1A	DETAIL TO USE IN LIEU OF 2024 STANDARD DETAILS
SIGN-2	E AND F SHEET
SIGN-3 & 3A	SIGN DESIGNS
SIGN-4 & 5	SIGNING PLAN SHEETS

PLAN PREPARED BY: N.C.D.O.T. SIGNING AND DELINEATION UNIT

D. M. EATON, P.E. — SIGNING & DELINEATION REGIONAL ENGINEER

S. W. JOHNS — SIGNING & DELINEATION PROJECT DESIGN ENGINEER

HN-0025
SIGN | 001

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

APPROVED: DocuSigned by: David M. Eaton DDA1C5F247454F7...

DATE: 07/02/2025

SEAL:

NORTH CAROLINA PROFESSIONAL SEAL 043780 ENGINEER DAVID M. EATON

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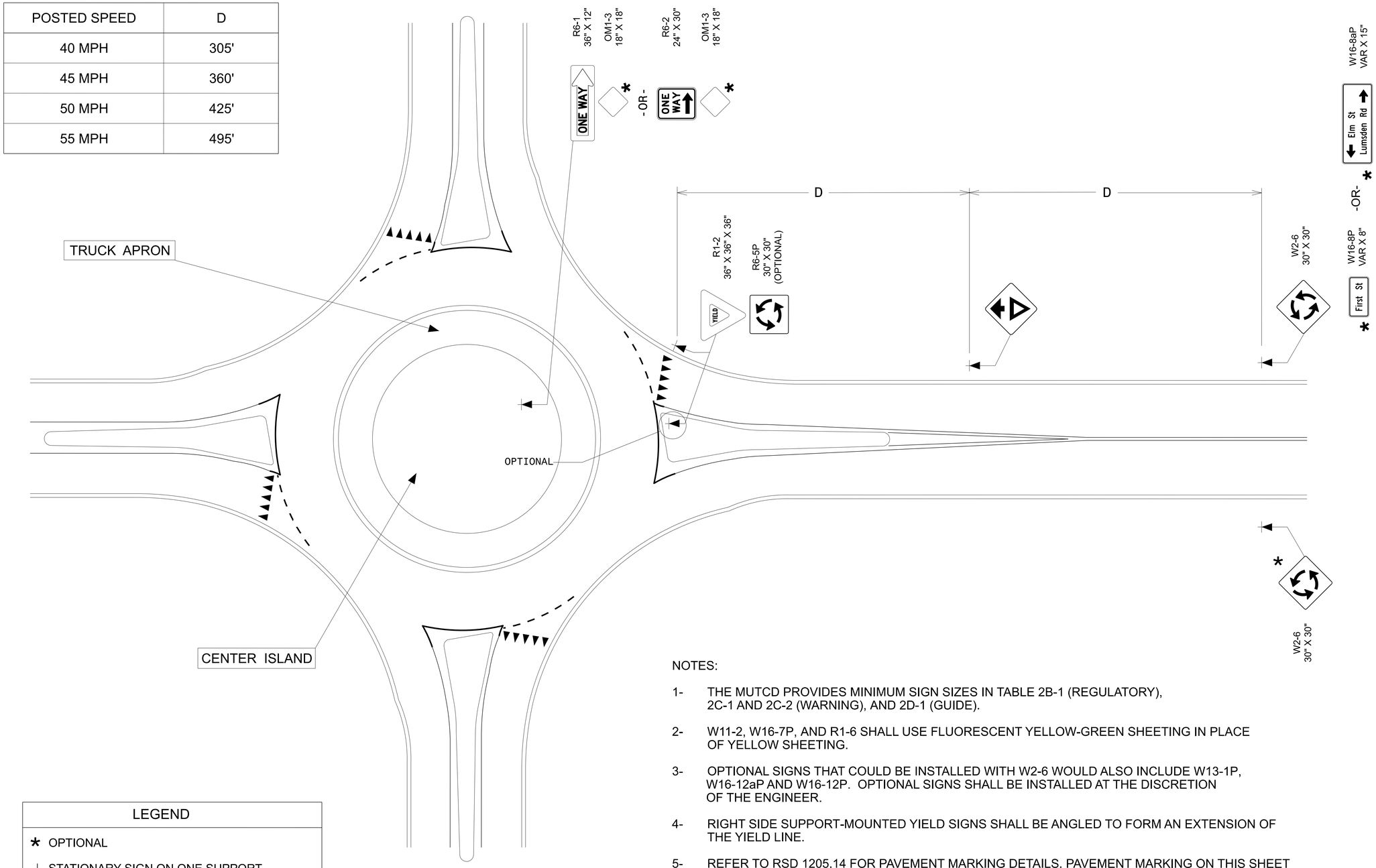
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

T.I.P.: HN-0025

5/26/20

POSTED SPEED	D
40 MPH	305'
45 MPH	360'
50 MPH	425'
55 MPH	495'



LEGEND
* OPTIONAL
⊣ STATIONARY SIGN ON ONE SUPPORT
⊣⊢ STATIONARY SIGN ON TW0 SUPPORTS

NOTES:

1- THE MUTCD PROVIDES MINIMUM SIGN SIZES IN TABLE 2B-1 (REGULATORY), 2C-1 AND 2C-2 (WARNING), AND 2D-1 (GUIDE).

2- W11-2, W16-7P, AND R1-6 SHALL USE FLUORESCENT YELLOW-GREEN SHEETING IN PLACE OF YELLOW SHEETING.

3- OPTIONAL SIGNS THAT COULD BE INSTALLED WITH W2-6 WOULD ALSO INCLUDE W13-1P, W16-12aP AND W16-12P. OPTIONAL SIGNS SHALL BE INSTALLED AT THE DISCRETION OF THE ENGINEER.

4- RIGHT SIDE SUPPORT-MOUNTED YIELD SIGNS SHALL BE ANGLED TO FORM AN EXTENSION OF THE YIELD LINE.

5- REFER TO RSD 1205.14 FOR PAVEMENT MARKING DETAILS. PAVEMENT MARKING ON THIS SHEET IS SHOWN FOR REFERENCE ONLY.

6- REFER TO MUTCD FIGURES 2A-4, 2B-22, AND 2D-12 FOR ADDITIONAL SIGNING GUIDANCE.

7- THE MUTCD PROVIDES GUIDANCE FOR DIMENSION "D" IN TABLE 2C-3 AND SHOULD BE APPLIED WITH ENGINEERING JUDGEMENT.

HN-0025
SIGN | 01A

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

APPROVED: DocuSigned by: Matthew V. Springer 9C807FE8B8B8403...
DATE: 04/09/2025

SEAL:

NORTH CAROLINA PROFESSIONAL SEAL 042546 ENGINEER MATTHEW V. SPRINGER

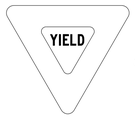
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

910D40
SHEET 1A OF 2

ROADWAY DETAIL DRAWING FOR
SINGLE LANE RURAL ROUNDABOUT SIGNING

5/26/20

(401) QUANTITY REQ'D 8



36 X 36 X 36
R1-2

ONE "U" POST PER SIGN

(406) QUANTITY REQ'D 1

24 X 30
R2-1

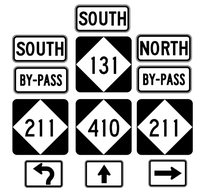
ONE "U" POST PER SIGN

(501)

1 - 24 X 12
2 - 24 X 12
1 - 24 X 24
2 - 24 X 12
3 - 24 X 24
3 - 21 X 15

THREE "U" POSTS PER SIGN

(506)



1 - 24 X 12
2 - 24 X 12
1 - 24 X 24
2 - 24 X 12
3 - 24 X 24
3 - 21 X 15

THREE "U" POSTS PER SIGN

(402) QUANTITY REQ'D 8

30 X 30
R6-5P

MOUNT BELOW SIGN 401
IN 8 INSTALLATIONS

(407) QUANTITY REQ'D 1

24 X 30
R2-1

ONE "U" POST PER SIGN

(502)

1 - 24 X 12
1 - 24 X 12
1 - 24 X 24
1 - 21 X 15

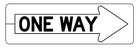
ONE "U" POST PER SIGN

(403) QUANTITY REQ'D 4

30 X 30
W3-2

ONE "U" POST PER SIGN

(408) QUANTITY REQ'D 4



36 X 12
R6-1

ONE "U" POST PER SIGN

(503)

1 - 24 X 12
1 - 24 X 24
1 - 24 X 24
1 - 21 X 15

ONE "U" POST PER SIGN

(404) QUANTITY REQ'D 4

30 X 30
W2-6

ONE "U" POST PER SIGN

(409) QUANTITY REQ'D 4

18 X 18
OM1-3

MOUNT BELOW SIGN 408
IN 4 INSTALLATIONS

(504)

1 - 24 X 12
1 - 24 X 12
1 - 24 X 24
1 - 21 X 15

ONE "U" POST PER SIGN

(405) QUANTITY REQ'D 1

24 X 30
R2-1

ONE "U" POST PER SIGN

(505)

1 - 24 X 12
1 - 24 X 24
1 - 24 X 24
1 - 21 X 15

ONE "U" POST PER SIGN

HN-0025
SIGN 002

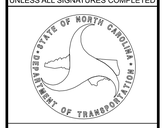
NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

APPROVED: DocuSigned by: David M. Eaton 7DDA15F24748467...

DATE: 04/09/2025

SEAL:

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



"E" AND "F" SIGNS

5/26/20

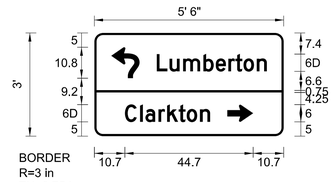
SIGN NUMBER: 301
TYPE: D
QUANTITY: 1
SIGN WIDTH: 5'-6"
HEIGHT: 3'-0"
TOTAL AREA: 16.5 Sq.Ft.
BORDER TYPE: FLUSH
RECESS: 0"
WIDTH: 0-3/4"
RADII: 3"
NO. Z BARS:
LENGTH:

BACKG COLOR: Green
COPY COLOR: White

SYMBOL	X	Y	WID	HT
AR_FISHOOK	5.9	20.2	10	10.8
AR_Type D	46.4	5	6	9

MAT'L: 0.125" (3.2 mm) ALUMINUM

DESIGN BY: SWJ
PROJECT ID: HN-0025
CHECKED BY: DME
LOCATION:
Apr 01, 2025
DIV: 6



Spacing Factor is 1 unless specified otherwise

USE NOTES:

1. Legend and border(except those that are colored black) shall be direct applied Grade C sheeting.
2. Background shall be Grade C reflective sheeting.

LETTER POSITIONS

Letter spacings are to start of next letter

												Series/Size Text Length
	L	u	m	b	e	r	t	o	n			D 2000
21.75	4.4	4.75	7.1	4.3	4.375	2.5	2.8	4.625	3.5	5.9		38.4
	C	l	a	r	k	t	o	n				D 2000
10.7	5.3	1.9	4.6	3	4	2.8	4.625	3.5	25.7			29.7

HN-0025_SGN_BPMP

NORTH CAROLINA D.O.T. SIGN DETAIL

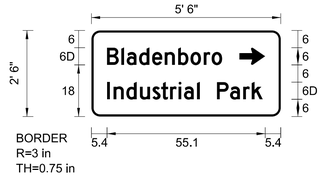
SIGN NUMBER: 303
TYPE: D
QUANTITY: 1
SIGN WIDTH: 5'-6"
HEIGHT: 2'-6"
TOTAL AREA: 13.75 Sq.Ft.
BORDER TYPE: FLUSH
RECESS: 0"
WIDTH: 0-3/4"
RADII: 3"
NO. Z BARS:
LENGTH:

BACKG COLOR: Green
COPY COLOR: White

SYMBOL	X	Y	WID	HT
AR_Type D	51.6	18	6	9

MAT'L: 0.125" (3.2 mm) ALUMINUM

DESIGN BY: SWJ
PROJECT ID: HN-0025
CHECKED BY: DME
LOCATION:
Apr 01, 2025
DIV: 6



Spacing Factor is 1 unless specified otherwise

USE NOTES:

1. Legend and border(except those that are colored black) shall be direct applied Grade C sheeting.
2. Background shall be Grade C reflective sheeting.

LETTER POSITIONS

Letter spacings are to start of next letter

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Series/Size Text Length |
|---|---|---|---|---|---|---|---|---|---|---|---|---

5/26/20

SIGN NUMBER: 305
TYPE: D
QUANTITY: 1
SIGN WIDTH: 5'-6"
HEIGHT: 3'-0"
TOTAL AREA: 16.5 Sq.Ft.
BORDER TYPE: FLUSH
RECESS: 0"
WIDTH: 0-3/4"
RADII: 3"
NO. Z BARS:
LENGTH:

BACKG COLOR: Green / Green
COPY COLOR: White

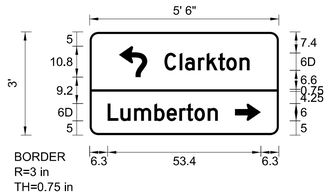
SYMBOL	X	Y	WID	HT
AR_FISH00K	10.2	20.2	10	10.8
AR_Type D	50.7	5	6	9

MAT'L: 0.125" (3.2 mm) ALUMINUM

USE NOTES:

1. Legend and border(except those that are colored black) shall be direct applied Grade C sheeting.
2. Background shall be Grade C reflective sheeting.

DESIGN BY: SWJ CHECKED BY: DME Apr 01, 2025
PROJECT ID: HN-0025 LOCATION: DIV: 6



Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter spacings are to start of next letter

																																Series/Size Text Length
		C	l	a	r	k	t	o	n																							D 2000
	26.1	5.3	1.9	4.6	3	4	2.8	4.625	3.5	10.2																						29.7
		L	u	m	b	e	r	t	o	n																						D 2000
	6.3	4.4	4.75	7.1	4.3	4.375	2.5	2.8	4.625	3.5	21.3																					38.4

HN-0025_SGN_BPMP NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 307
TYPE: D
QUANTITY: 1
SIGN WIDTH: 7'-0"
HEIGHT: 2'-6"
TOTAL AREA: 17.5 Sq.Ft.
BORDER TYPE: FLUSH
RECESS: 0"
WIDTH: 0-3/4"
RADII: 3"
NO. Z BARS:
LENGTH:

BACKG COLOR: Green
COPY COLOR: White

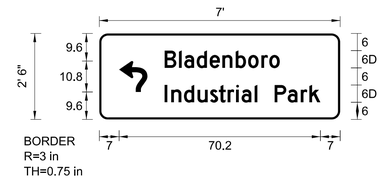
SYMBOL	X	Y	WID	HT
AR_FISH00K	7	9.6	10	10.8

MAT'L: 0.125" (3.2 mm) ALUMINUM

USE NOTES:

1. Legend and border(except those that are colored black) shall be direct applied Grade C sheeting.
2. Background shall be Grade C reflective sheeting.

DESIGN BY: SWJ CHECKED BY: DME Apr 01, 2025
PROJECT ID: HN-0025 LOCATION: DIV: 6



Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter spacings are to start of next letter

																																Series/Size Text Length
		B	l	a	d	e	n	b	o	r	o																					D 2000
	22.8	5	1.9	4.3	4.6	4.375	4.7	4.3	4.625	2.8	3.7	21.1																				40.1
		I	n	d	u	s	t	r	i	a	l		P	a	r	k																D 2000
	22.8	2.3	4.4	4.75	4.375	3.1	3.1	3	1.9	4.6	1	6	4.6	4.6	3	3.8	7																54.3

HN-0025_SGN_BPMP NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 306
TYPE: D
QUANTITY: 1
SIGN WIDTH: 6'-0"
HEIGHT: 2'-6"
TOTAL AREA: 15 Sq.Ft.
BORDER TYPE: FLUSH
RECESS: 0"
WIDTH: 0-3/4"
RADII: 3"
NO. Z BARS:
LENGTH:

BACKG COLOR: Green
COPY COLOR: White

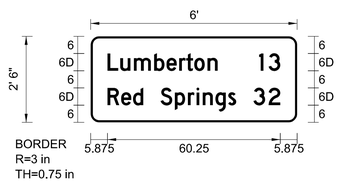
SYMBOL	X	Y	WID	HT

MAT'L: 0.125" (3.2 mm) ALUMINUM

USE NOTES:

1. Legend and border(except those that are colored black) shall be direct applied Grade C sheeting.
2. Background shall be Grade C reflective sheeting.

DESIGN BY: SWJ CHECKED BY: DME Apr 01, 2025
PROJECT ID: HN-0025 LOCATION: DIV: 6



Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter spacings are to start of next letter

																																Series/Size Text Length
		L	u	m	b	e	r	t	o	n																						D 2000
	5.875	4.4	4.75	7.1	4.3	4.375	2.5	2.8	4.625	3.5	27.7																					38.4
		1	3																													D 2000
	58.75	3.3	4.1	5.875																												7.375
		R	e	d		S	p	r	i	n	g	s																					D 2000
	5.875	4.75	4.1	3.6	6	5	4.6	3	2.2	4.4	4.4	2.8	21.25																			44.875
		3	2																													D 2000
	56.75	5.3	4.1	5.875																												9.4

HN-0025_SGN_BPMP NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 308
TYPE: D
QUANTITY: 1
SIGN WIDTH: 4'-0"
HEIGHT: 2'-0"
TOTAL AREA: 8 Sq.Ft.
BORDER TYPE: FLUSH
RECESS: 0"
WIDTH: 0-3/4"
RADII: 3"
NO. Z BARS:
LENGTH:

BACKG COLOR: Green
COPY COLOR: White

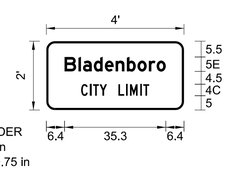
SYMBOL	X	Y	WID	HT

MAT'L: 0.125" (3.2 mm) ALUMINUM

USE NOTES:

1. Legend and border(except those that are colored black) shall be direct applied Grade C sheeting.
2. Background shall be Grade C reflective sheeting.

DESIGN BY: SWJ CHECKED BY: DME Apr 01, 2025
PROJECT ID: HN-0025 LOCATION: DIV: 6



Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter spacings are to start of next letter

																																Series/Size Text Length
		B	l	a	d	e	n	b	o	r	o																					E 2000
	6.4	4.9	1.6	3.75	3.9	3.75	4	3.7	4	2.7	3.2	6.4																				35.3
		C	I	T	Y		L	I	M	I	T																					C 2000
	12.1	3	1.125	2.3	2.6	4	2.6	1.4	3.5	1.125	2	12.1																				23.7

HN-0025_SGN_BPMP NORTH CAROLINA D.O.T. SIGN DETAIL

HN-0025
SIGN 03A

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

APPROVED: DocuSigned by: David M. Exton DDA1C6F24748AF7...
DATE: 04/09/2025

SEAL:

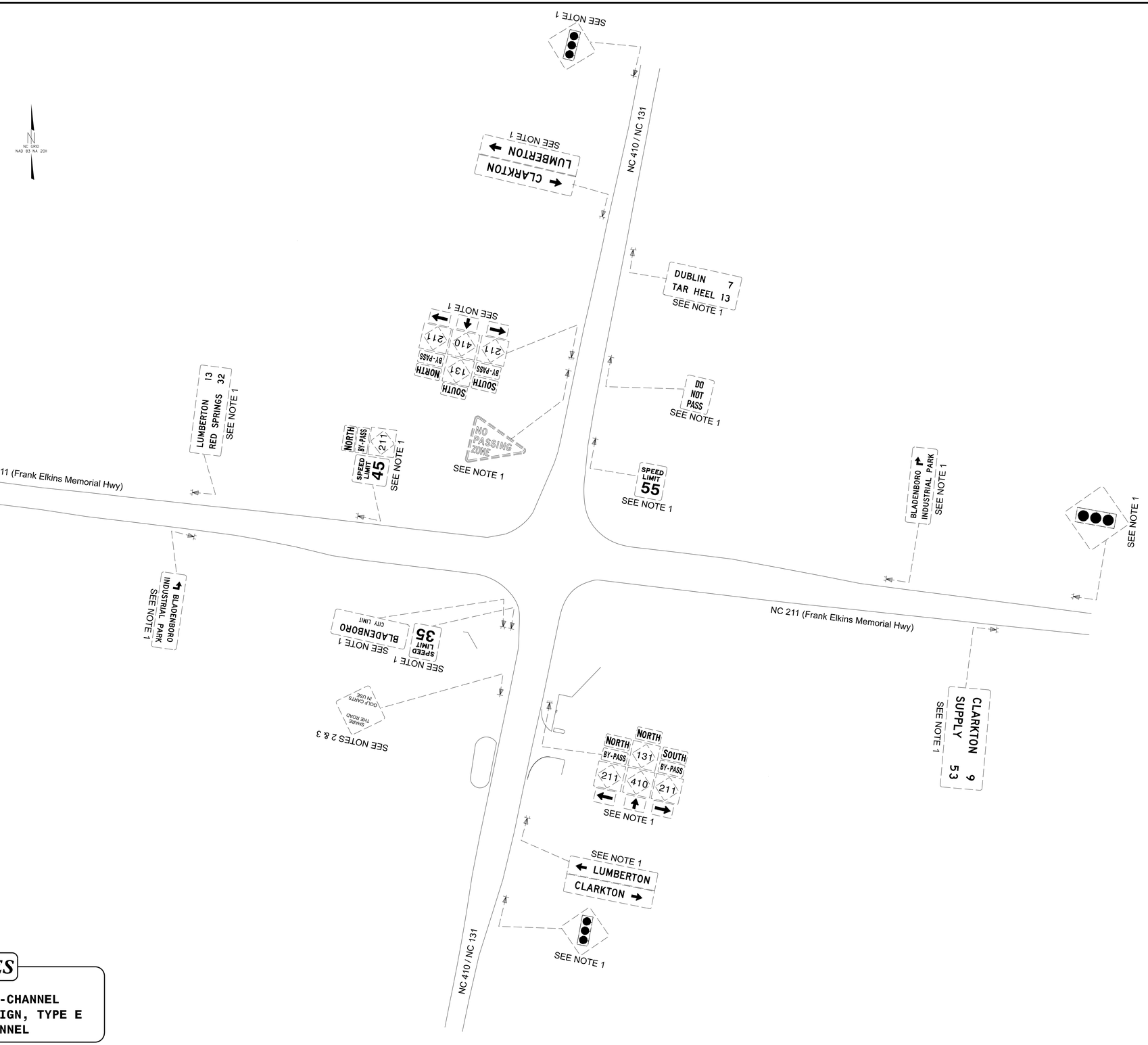
NORTH CAROLINA PROFESSIONAL SEAL 043780 ENGINEER DAVID M. EXTON

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

STATE OF NORTH CAROLINA • DEPARTMENT OF TRANSPORTATION

SIGN DESIGNS

5/26/20



PROJECT NOTES

1. DISPOSAL OF SIGN SYSTEM, U-CHANNEL
2. SIGN ERCECTION, RELOCATE SIGN, TYPE E
3. DISPOSAL OF SUPPORT, U-CHANNEL

EXISTING SIGNS

HN-0025

SIGN 004

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

APPROVED: DocuSigned by: David M. Exton DDA1C5F24748F7...

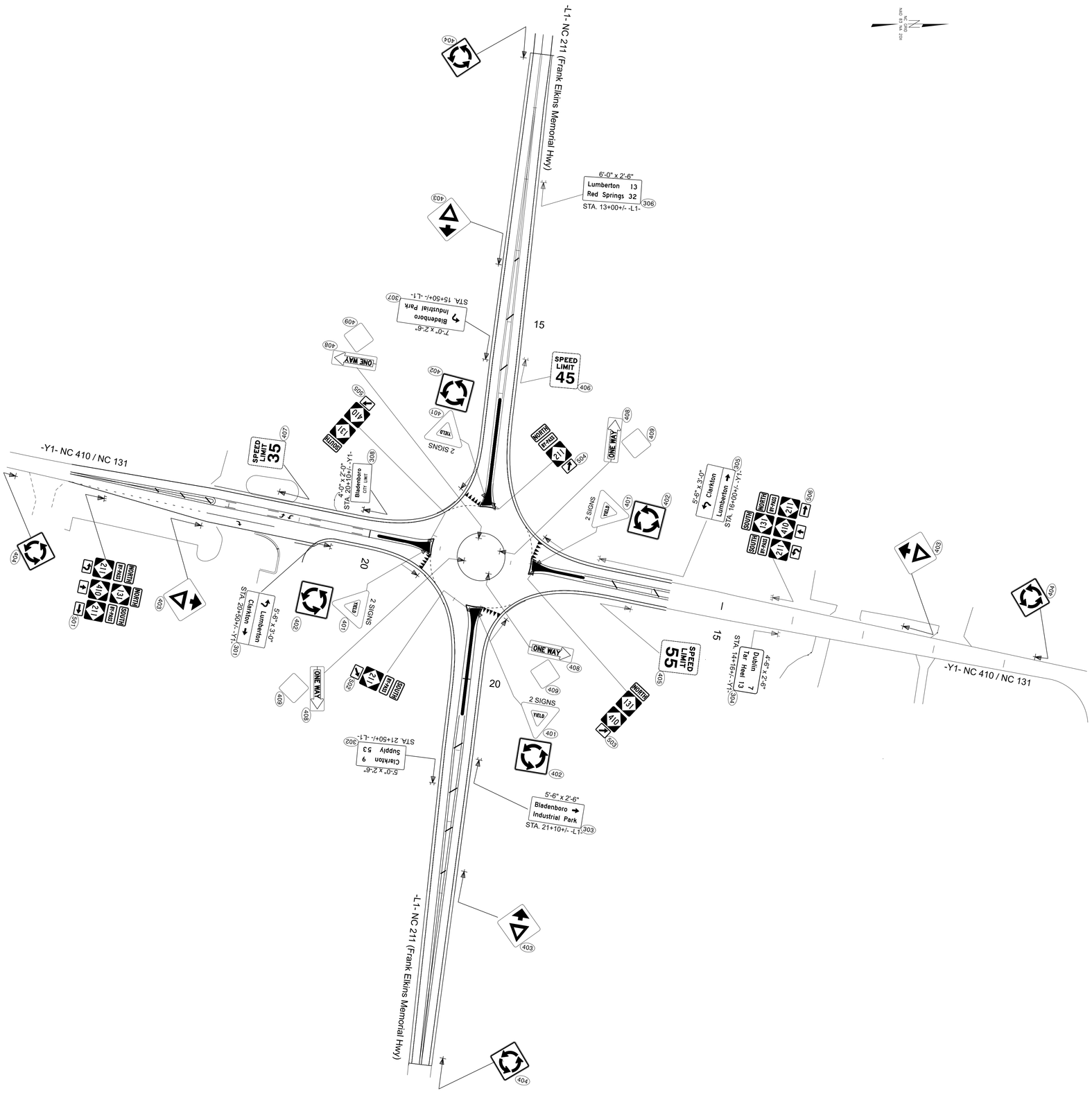
DATE: 07/02/2025

SEAL:

NORTH CAROLINA PROFESSIONAL SEAL 043780 ENGINEER DAVID M. EXTON

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

STATE OF NORTH CAROLINA • DEPARTMENT OF TRANSPORTATION



PROPOSED SIGNS

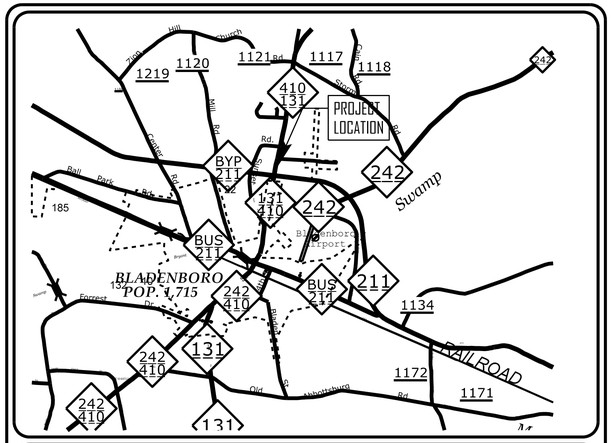
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NORTH CAROLINA PROFESSIONAL SEAL 043780 ENGINEER DAVID M. ESTES

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DEPARTMENT OF TRANSPORTATION
Signed/Approved by:
David M. Estes
DocuSigned by:
2D3A7CDF2F7E4FF...
APPROVED:
DATE: 07/01/2025
SEAL:

HN-0025
SIGN 005

TIP PROJECT: HN-0025



VICINITY MAP
NOT TO SCALE

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

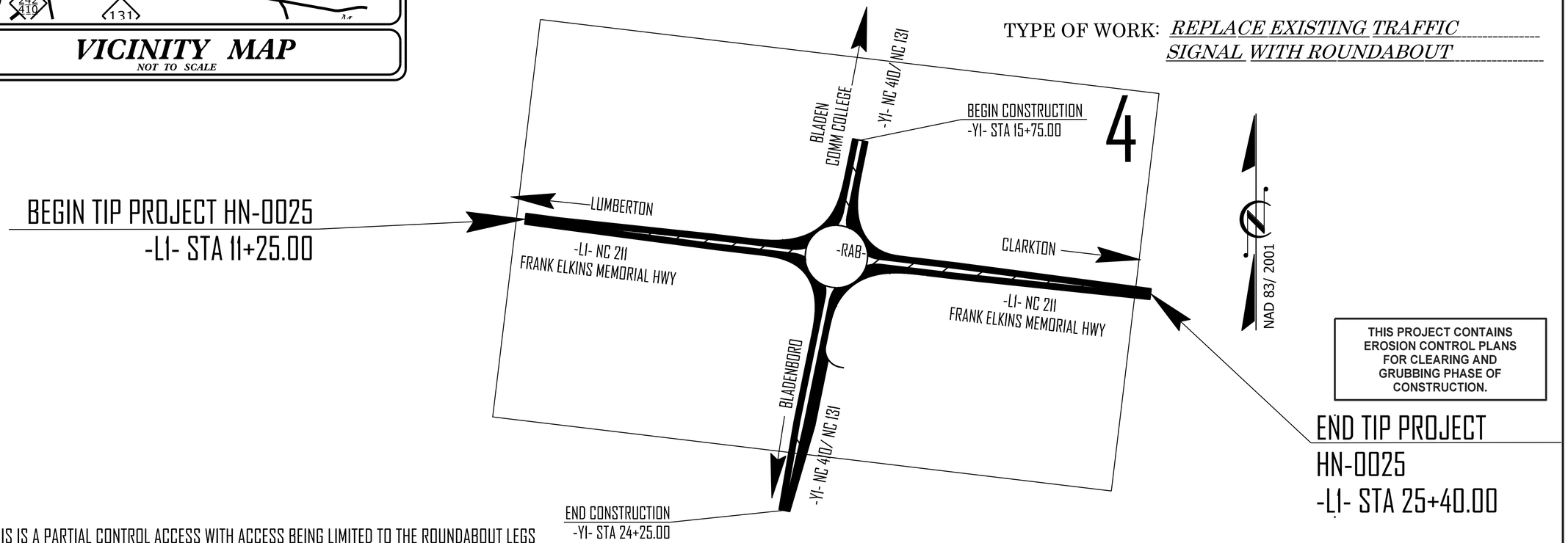
BLADEN COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	HN-0025	EC-1	8

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
51315.1.1		PE
51315.2.1		ROW
51315.2.2		UTIL
51315.3.1		CONST

LOCATION: *NC 410/NC 131 AT NC 211 BYPASS IN BLADENBORO*

TYPE OF WORK: *REPLACE EXISTING TRAFFIC SIGNAL WITH ROUNDABOUT*



BEGIN TIP PROJECT HN-0025
-LI- STA 11+25.00

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

END TIP PROJECT
HN-0025
-LI- STA 25+40.00

THIS IS A PARTIAL CONTROL ACCESS WITH ACCESS BEING LIMITED TO THE ROUNDABOUT LEGS
THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF THE TOWN OF BLADENBORO
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II

GRAPHIC SCALE

125 0 125 250
PLANS

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.

AtkinsRéalis

Prepared in the Office of:
ATKINSREALIS
5600 77 CENTER DRIVE, SUITE 340
CHARLOTTE, NC 28217

2024 STANDARD SPECIFICATIONS

Designed by:

MARIE HAUSER — NAME
4761 — 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.

SYSTIMESSS
USERNAMESS

PROJECT REFERENCE NO.	SHEET NO.
HN-0025	EC-02
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

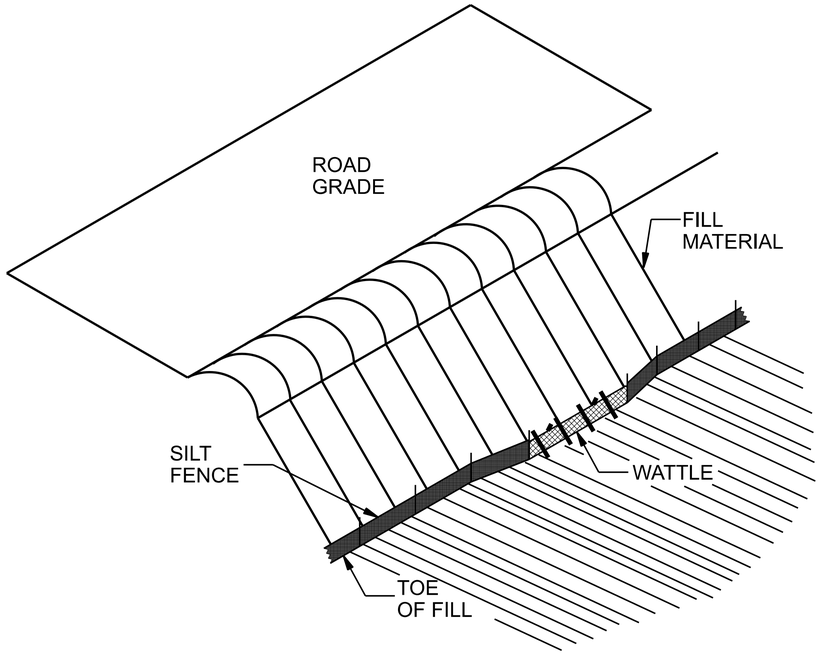
EROSION & SEDIMENT CONTROL LEGEND

Std. #	Description	Symbol
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
1622.01	Temporary Berms and Slope Drains	
1630.02	Silt Basin Type B	
1630.03	Temporary Silt Ditch	TSD
1630.04	Stilling Basin	
1630.05	Temporary Diversion	TD
1630.06	Special Stilling Basin	
1630.07	Skimmer Basin	
1630.08	Tiered Skimmer Basin	
1630.09	Earthen Dam with Skimmer	
	Infiltration Basin	
	Rock Inlet Sediment Trap:	
1632.01	Type A	A
1632.02	Type B	B
1632.03	Type C	C

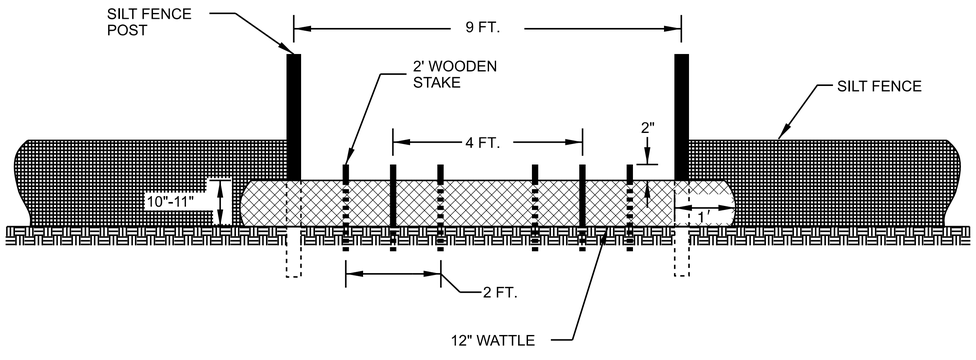
Std. #	Description	Symbol
1633.01	Temporary Rock Silt Check Type A	
1633.02	Temporary Rock Silt Check Type B	
1633.03	Temporary Rock Silt Check Type A with Excelsior Matting and Flocculant	
1634.01	Temporary Rock Sediment Dam Type A	
1634.02	Temporary Rock Sediment Dam Type B	
1635.01	Rock Pipe Inlet Sediment Trap Type A	A
1635.02	Rock Pipe Inlet Sediment Trap Type B	B
1636.01	Excelsior Wattle Check	
1636.01	Excelsior Wattle Check with Flocculant	
1636.01	Coir Fiber Wattle Check	
1636.01	Coir Fiber Wattle Check with Flocculant	
1636.02	Silt Fence Excelsior Wattle Break	EW
	Silt Fence Coir Fiber Wattle Break	CFW
1636.03	Excelsior Wattle Barrier	—EW—EW—EW—
1636.03	Coir Fiber Wattle Barrier	—CFW—CFW—CFW—

PROJECT REFERENCE NO.	SHEET NO.
HN-0025	EC-2A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SILT FENCE COIR FIBER WATTLE BREAK DETAIL



ISOMETRIC VIEW



VIEW FROM SLOPE

NOTES:

USE MINIMUM 12 IN. DIAMETER COIR FIBER (COCONUT FIBER) WATTLE AND LENGTH OF 10 FT.

EXCAVATE A 1 TO 2 INCH TRENCH FOR WATTLE TO BE PLACED.

DO NOT PLACE WATTLE ON TOE OF SLOPE.

USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.

INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO GROUND.

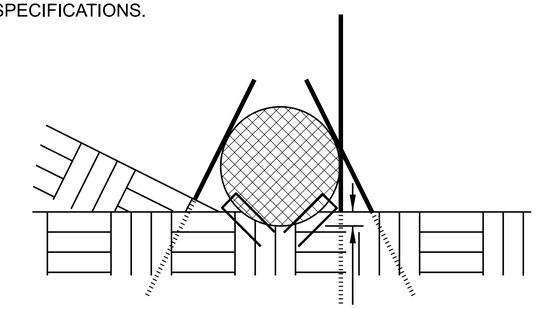
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

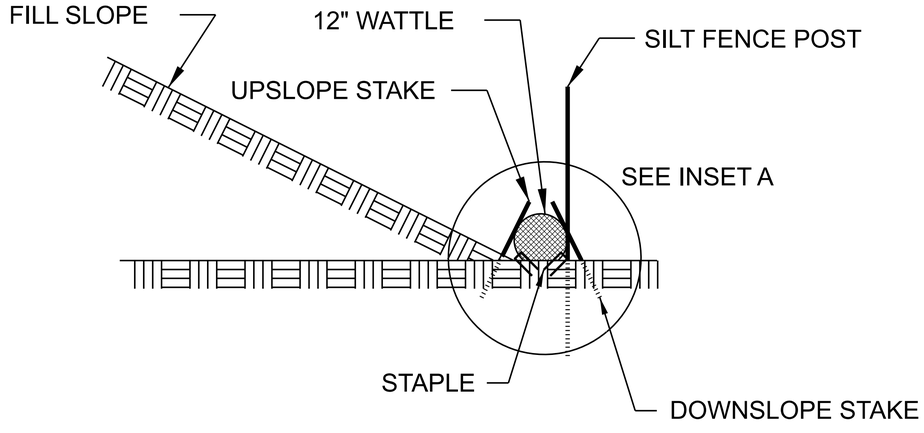
INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

WATTLE INSTALLATION CAN BE ON OUTSIDE OF THE SILT FENCE AS DIRECTED.

INSTALL TEMPORARY SILT FENCE IN ACCORDANCE WITH SECTION 1605 OF THE STANDARD SPECIFICATIONS.

INSET A

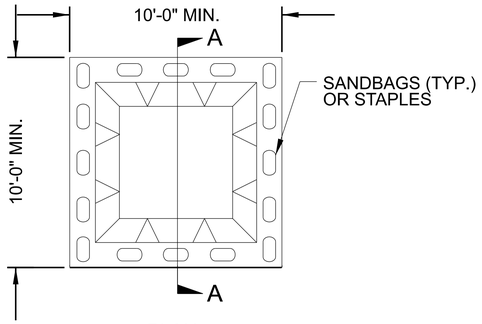




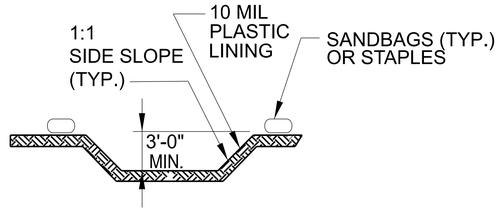
SIDE VIEW

PROJECT REFERENCE NO.	SHEET NO.
HN-0025	EC-2B
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

ONSITE CONCRETE WASHOUT STRUCTURE WITH LINER



PLAN



SECTION A-A

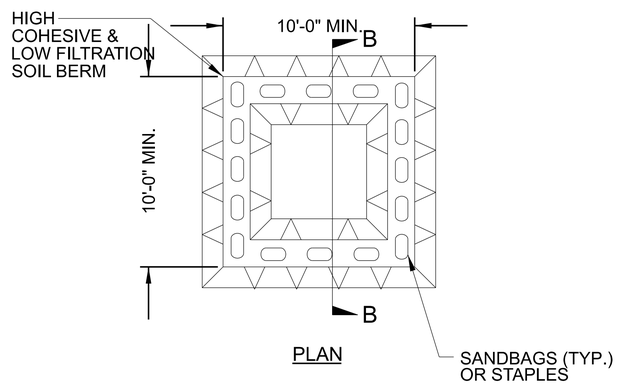
NOTES:
1. ACTUAL LOCATION DETERMINED IN FIELD

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.

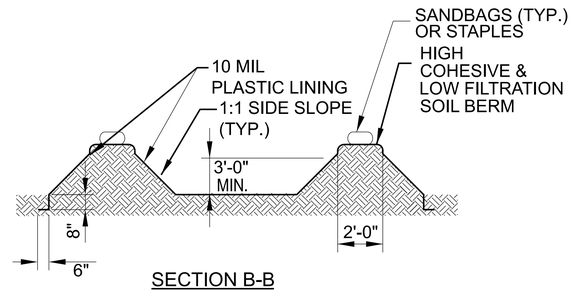
3.CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARY MARKED WITH SIGNAGE NOTING DEVICE.

BELOW GRADE WASHOUT STRUCTURE

NOT TO SCALE



PLAN



SECTION B-B

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 CLEARY MARKED WITH SIGNAGE NOTING DEVICE.

ABOVE GRADE WASHOUT STRUCTURE

PROJECT REFERENCE NO.	SHEET NO.
HN-0025	EC-3
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
4	Y1	15+75	17+50	RT	180
4	Y1	19+25	20+25	RT	125
4	Y1	15+75	17+50	LT	130
			SUBTOTAL		435
MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER					500
				TOTAL	935
				SAY	1000

PERMANENT SOIL REINFORCEMENT MAT

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
4					
			SUBTOTAL		
		ADDITIONAL PSRM TO BE INSTALLED			
				TOTAL	
				SAY	

PROJECT REFERENCE NO.	SHEET NO.
HN-0025	EC-3A
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION TIMEFRAMES

SITE DESCRIPTION	*STABILIZATION TIME*	*TIMEFRAME EXCEPTIONS*
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

HN-0025

EC-04

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
BLADEN COUNTY

ROADWAY DESIGN UNIT

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

Sta. = –L1– 11+25 LT
Q = 20.1 cfs
V = 1.7 ft/s
tb = 0.17 lb/ft^2
Stable condition
Vegetated

BEGIN TIP PROJECT HN-0025
BEGIN RESURFACING
-L1- 11+25.00

HEAVY OVERGROWTH
SUBMERGED
UNKNOWN CONDITION

STANDING WATER

END GRADE
-L1- 17+59.11
-RAB- 12+11.57

BEGIN CONSTRUCTION
BEGIN GRADE
-Y1- 15+75.00

END GRADE
-Y1- 17+71.94
-RAB- 10+95.84

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 04

MILD OVERGROWTH
GOOD CONDITION
HEADWALL

BM1
Elevation = 126.0'
RR SPIKE IN A 18" SWEETGUM TREE

END GRADE
BEGIN RESURFACING
-L1- 23+00.00

-RAB- POB 10+00.00
-RAB- POE 14+39.82

-L1- S83°10'06.0"E

BEGIN GRADE -L1- 18+99.07
-RAB- 14+31.48

SEE INSET

Sta. = –L1– 11+25 RT
Q = 17.0 cfs
V = 1.6 ft/s
tb = 0.15 lb/ft^2
Stable condition
Vegetated

110 x 55 x 2
2 inch Skimmer
with 1.625 inch
Orifice Diameter
23 ft. weir
ID SB-1

120 x 25 x 2
1.5 inch Skimmer
with 1.125 inch
Orifice Diameter
11 ft. weir
ID SB-2

OUTLET PERCHED
1FT ABOVE DITCH
STANDING WATER

BEGIN CONSTRUCTION
BEGIN GRADE
-Y1- 19+11.92
-RAB- 13+15.75

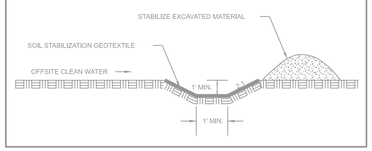
HEAVY OVERGROWTH
PARTIAL BURY

END RESURFACING
END CONSTRUCTION
-Y1- 24+25.00

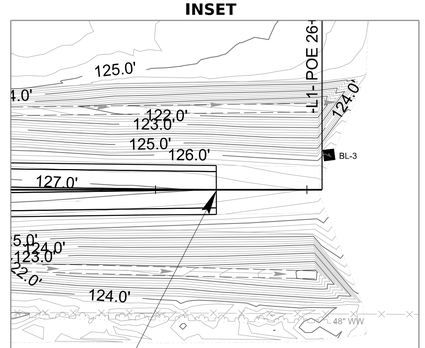
CLEAN WATER DIVERSION

CWD ← CWD ← CWD ← CWD

(Not to Scale)



INSET



Sta. = –L1– 25+40 LT
Q = 1.8 cfs
V = 1.2 ft/s
tb = 0.10 lb/ft^2
Stable condition
Vegetated

Sta. = –L1– 25+40 RT
Q = 1.4 cfs
V = 0.9 ft/s
tb = 0.06 lb/ft^2
Stable condition
Vegetated

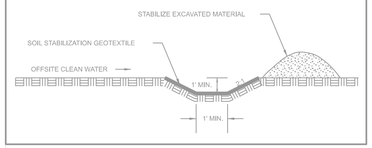
END TIP PROJECT
HN-0025
END RESURFACING
-L1- 25+40.00

FOR -L1- PROFILES SEE SHEET 05
FOR -Y1- PROFILES SEE SHEET 05
FOR RAB PROFILE SEE SHEET 06

CLEAN WATER DIVERSION

CWD — CWD — CWD — CWD

(Not to Scale)



110 x 55 x 2
2 inch Skimmer
with 1.625 inch
Orifice Diameter
23 ft. weir
ID SB-1

BEGIN TIP PROJECT HN-0025
BEGIN RESURFACING
-L1- 11+25.00

TIE TO EXISTING
SPECIAL BASE
DITCH
SEE DETAIL B

EST 2 TONS CL B RIP RAP
EST 7 SY GEOTEXTILE
INV=119.96'
COLLAR & EXTEND
15" CLASS III, 25'

END GRADE
-L1- 17+59.11
-RAB- 12+11.57

SPECIAL BASE
DITCH
SEE DETAIL C

BEGIN CONSTRUCTION
BEGIN GRADE
-Y1- 15+75.00
INV=121.15'

END GRADE
-Y1- 17+71.94
-RAB- 10+95.84

END GRADE
BEGIN RESURFACING
-L1- 23+00.00

-RAB- POB 10+00.00
-RAB- POE 14+39.82

-L1- S83°10'06.0"E

-Y1- S11°33'26.0"W

RETAIN

TIE TO EXISTING
SPECIAL BASE
DITCH
SEE DETAIL B

BEGIN GRADE -L1- 18+99.07
-RAB- 14+31.48

INV=121.57'
COLLAR & EXTEND
18" CLASS III, 23'

TIE TO EXISTING
SPECIAL BASE
DITCH
SEE DETAIL B

EST 3 TONS CL B RIP RAP
EST 10 SY GEOTEXTILE
INV=120.26'
COLLAR & EXTEND
18" CLASS III, 27'

120 x 25 x 2
1.5 inch Skimmer
with 1.125 inch
Orifice Diameter
11 ft. weir
ID SB-2

TIE TO EXISTING
SPECIAL BASE
DITCH
SEE DETAIL D

BEGIN CONSTRUCTION
BEGIN GRADE
-Y1- 19+11.92
-RAB- 13+15.75

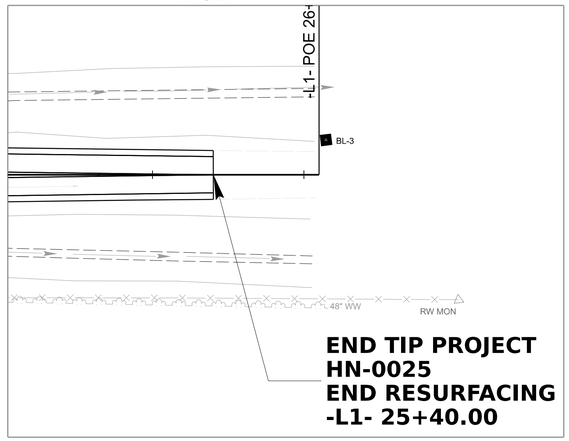
TIE TO EXISTING
SPECIAL BASE
DITCH
SEE DETAIL B

RETAIN

END RESURFACING
END CONSTRUCTION
-Y1- 24+25.00

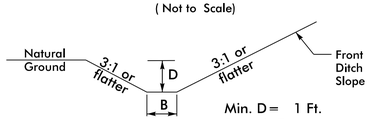
SEE INSET

INSET



END TIP PROJECT
HN-0025
END RESURFACING
-L1- 25+40.00

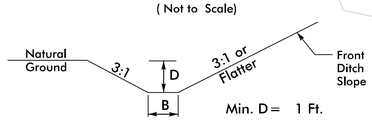
DETAIL B
SPECIAL BASE DITCH
(Not to Scale)



Min. D= 1 Ft.
B= 6 Ft.

FROM –L1– STA. 15+35 TO STA. 17+25 RT
FROM –L1– STA. 19+00 TO STA. 19+54 RT
FROM –L1– STA. 13+75 TO STA. 17+30 LT
FROM –Y1– STA. 19+05 TO STA. 19+45 LT

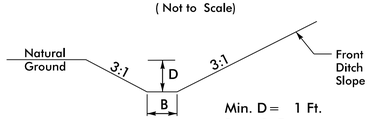
DETAIL D
SPECIAL BASE DITCH
(Not to Scale)



Min. D= 1 Ft.
B= 4 Ft.

FROM –Y1– STA. 19+25 TO STA. 20+25 RT

DETAIL C
SPECIAL BASE DITCH
(Not to Scale)



Min. D= 1 Ft.
B= 2 Ft.

FROM –Y1– STA. 15+75 TO STA. 17+50 RT

FOR -L1- PROFILES SEE SHEET 05
FOR -Y1- PROFILES SEE SHEET 05
FOR RAB PROFILE SEE SHEET 06

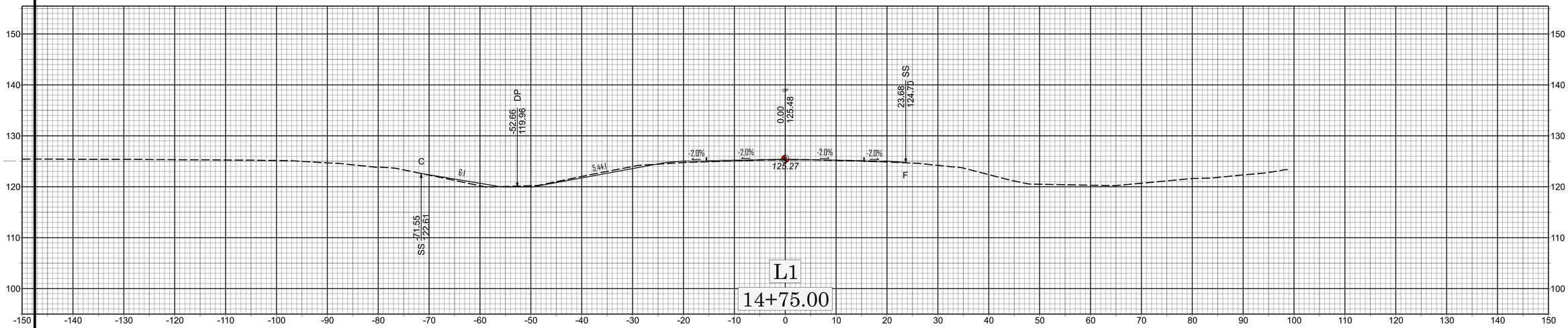
HN-0025
EC-05
NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
BLADEN COUNTY

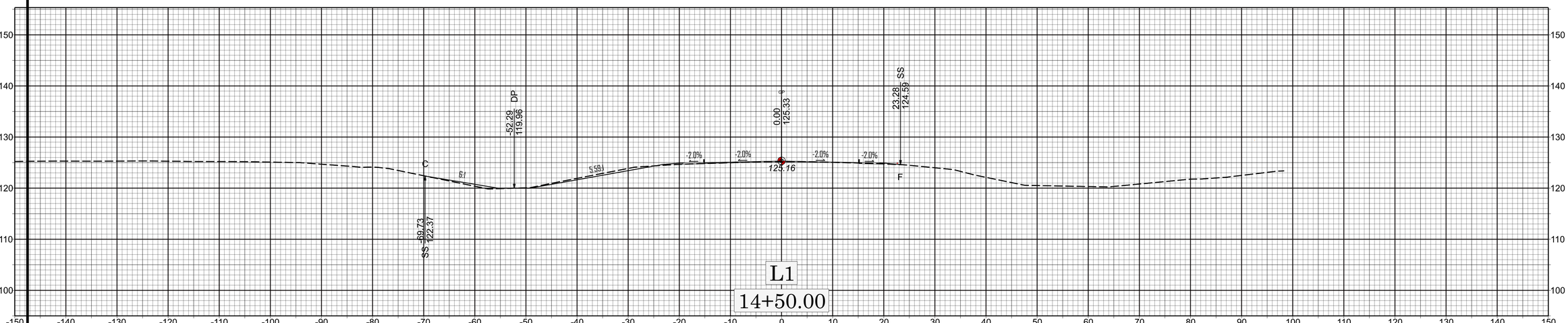
ROADWAY DESIGN UNIT
ROADWAY DESIGN ENGINEER

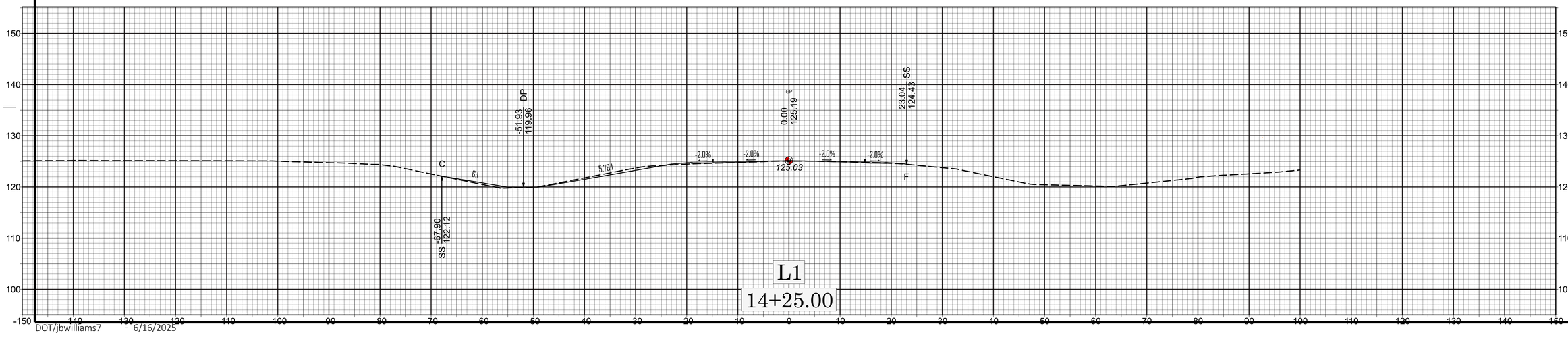
HYDRAULICS ENGINEER

11/14/23

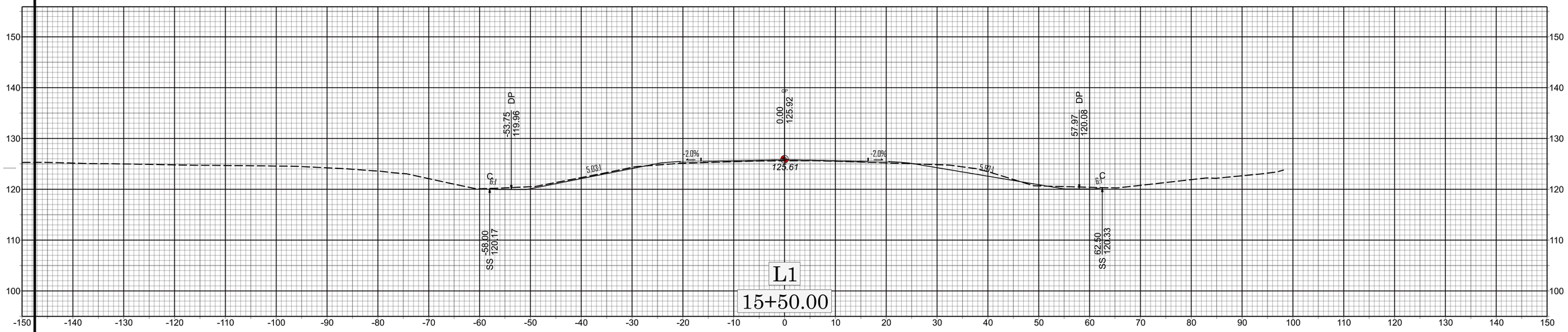
DOT/jbwilliams7 - 6/16/2025

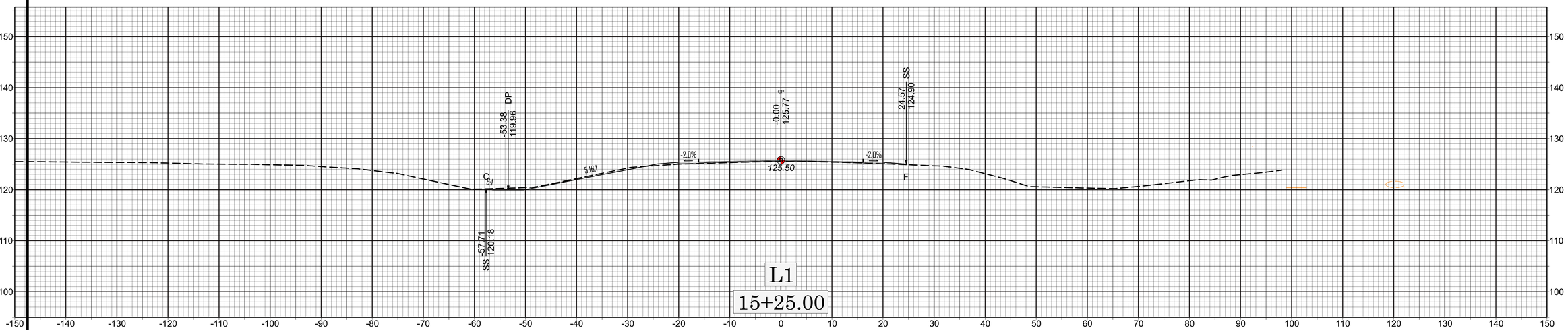

-52.66
119.96
DP
0.00
125.48
23.68
124.70
SS
-71.55
122.61
SS
C
B:1
5.44:1
-2.0%
-2.0%
-2.0%
-2.0%
125.27
F
L1
14+75.00

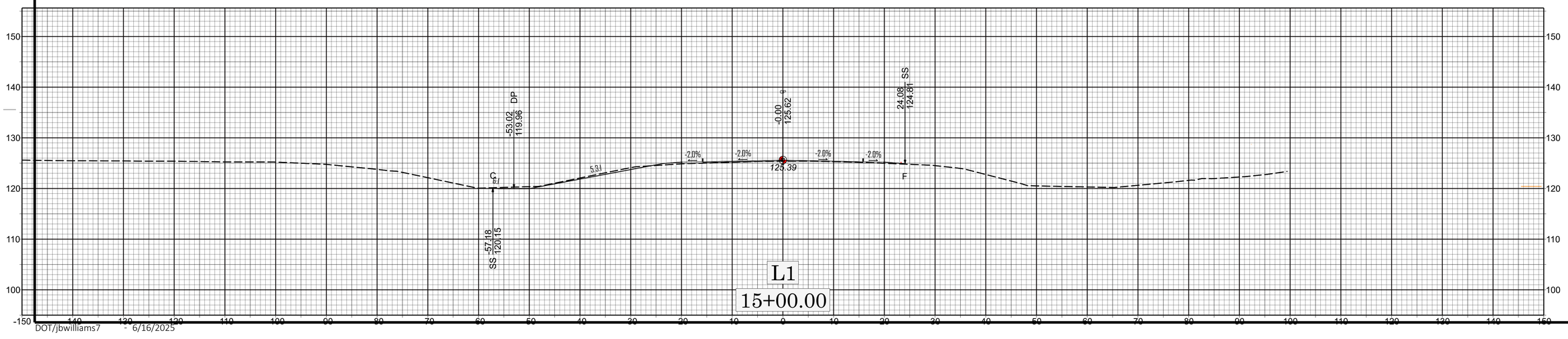

-52.29
119.96
DP
0.00
125.33
23.28
124.59
SS
-69.73
122.37
SS
C
B:1
5.59:1
-2.0%
-2.0%
-2.0%
-2.0%
123.16
F
L1
14+50.00


-51.93
119.96
DP
0.00
125.19
23.04
124.43
SS
-67.90
122.12
SS
C
B:1
5.76:1
-2.0%
-2.0%
-2.0%
-2.0%
123.03
F
L1
14+25.00

11/14/23



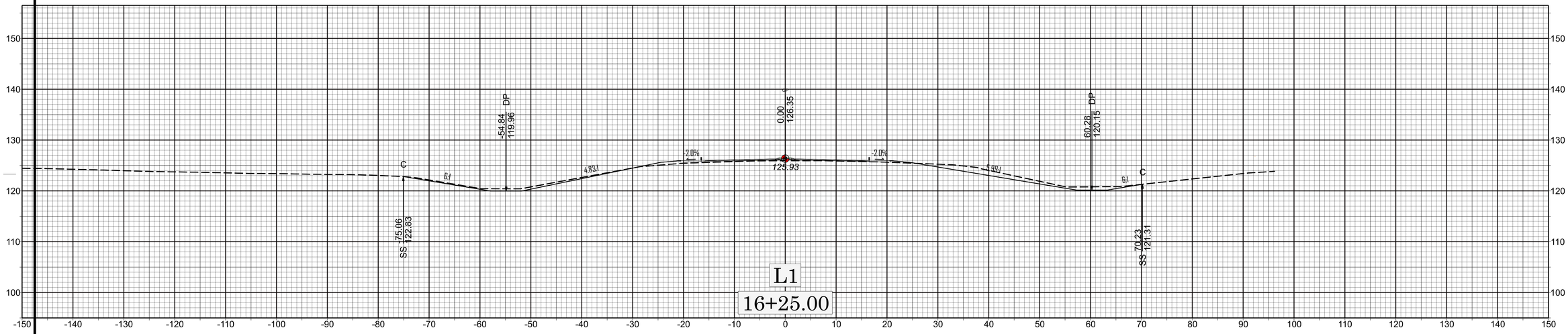


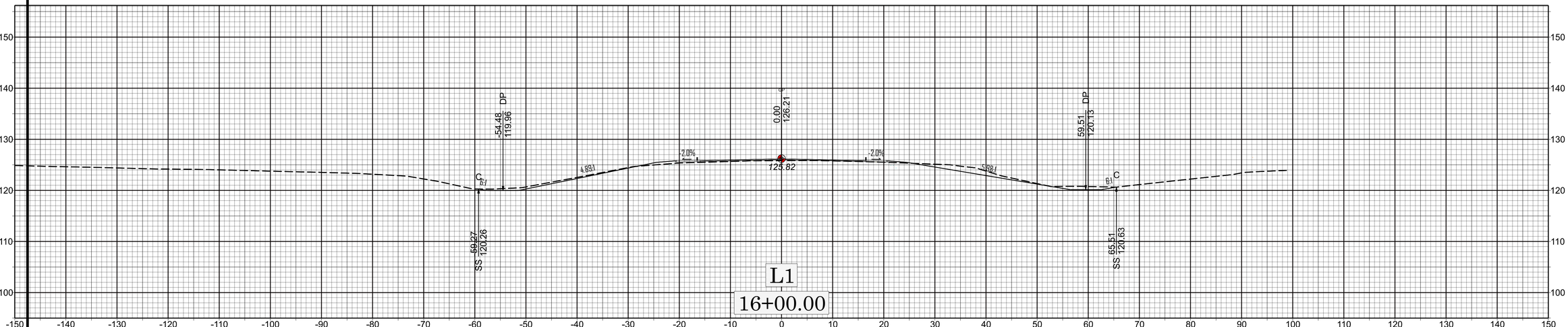


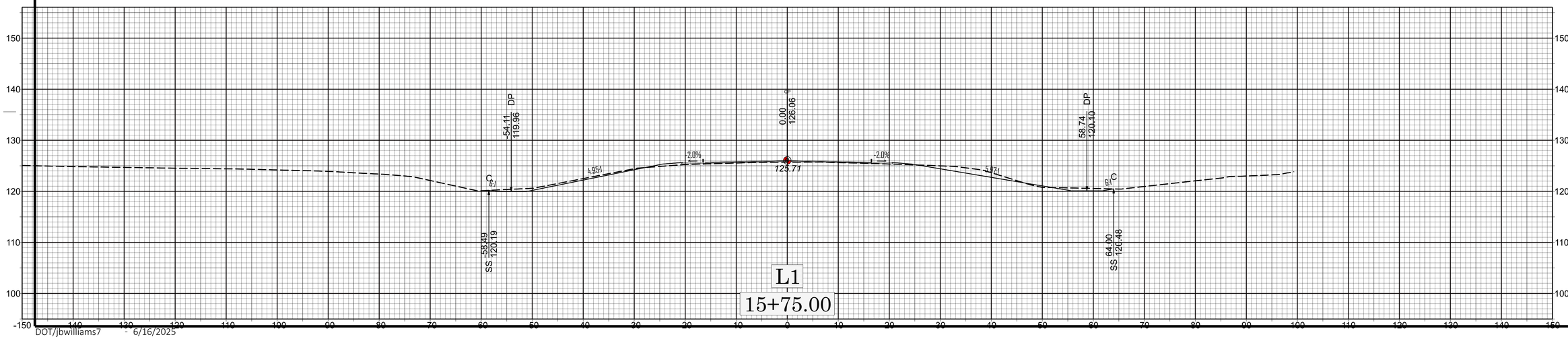
X 15+00.00

HN-0025

11/14/23







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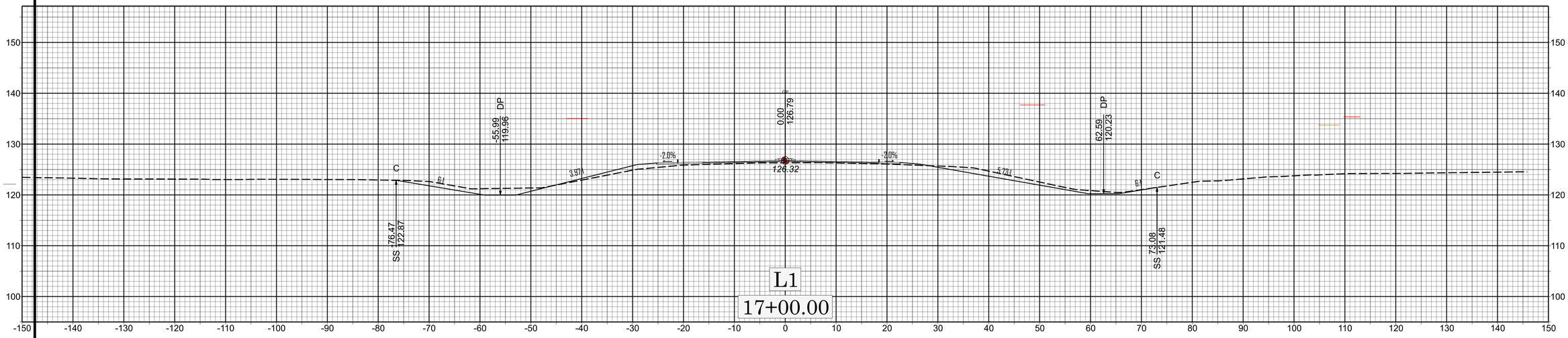
20

X | 15+75.00

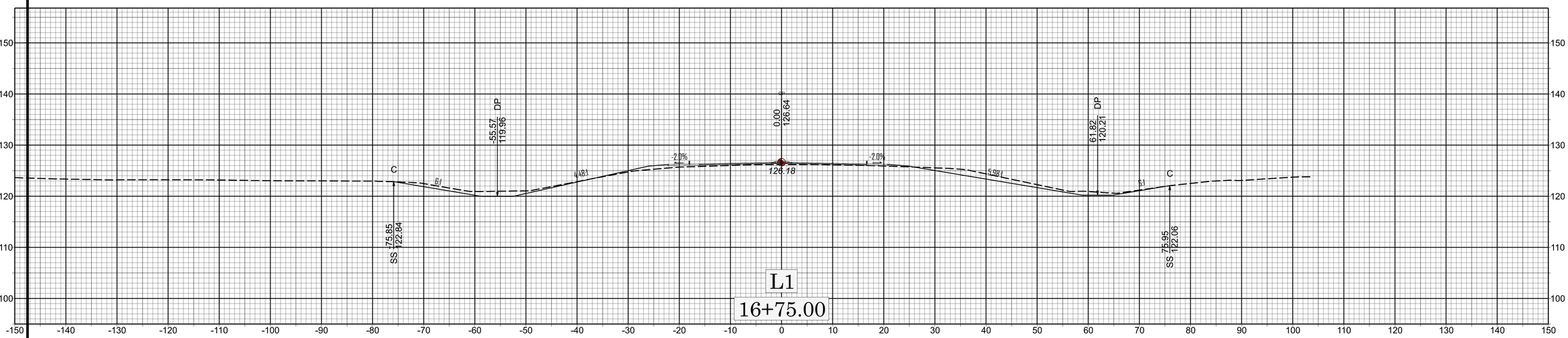
HN-0025

DOT/jbwilliams7 - 6/16/2025



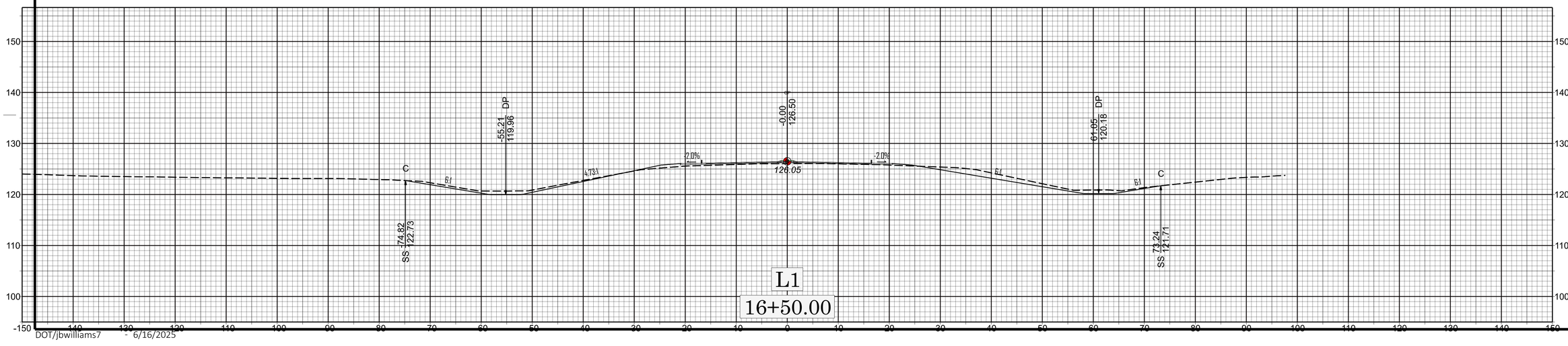
L1

17+00.00



L1

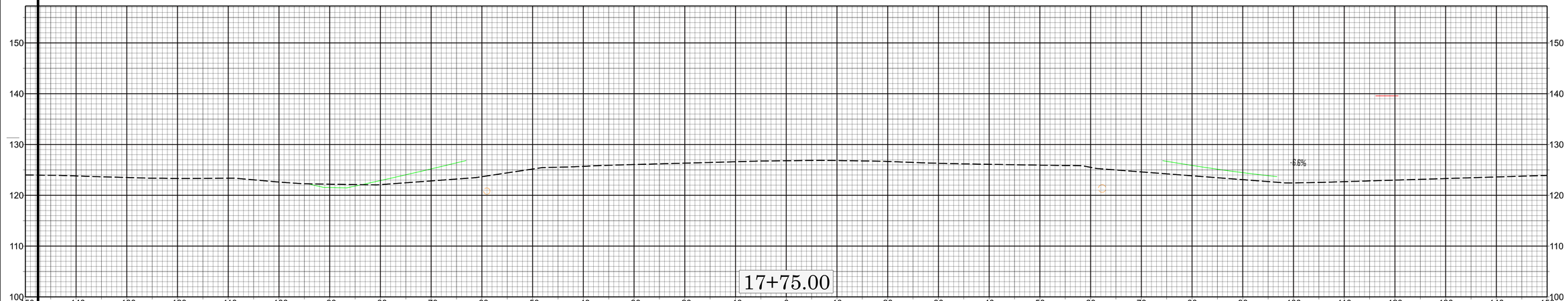
16+75.00

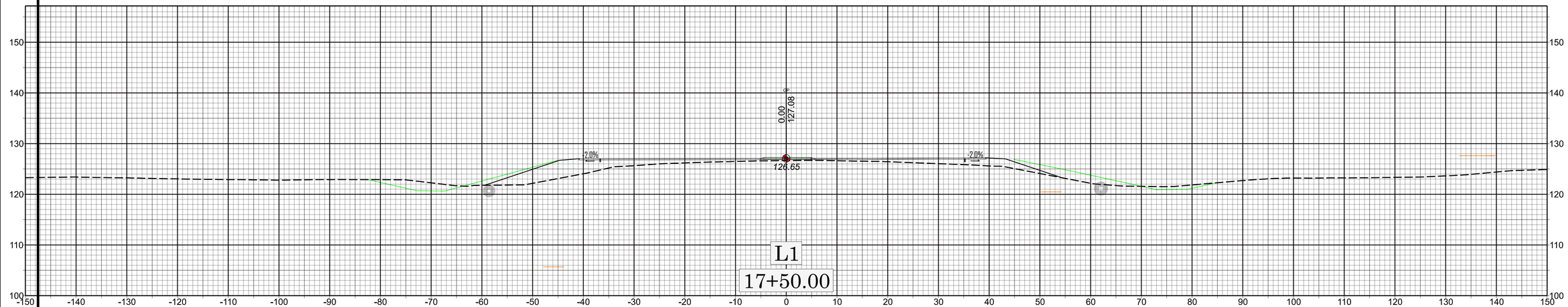


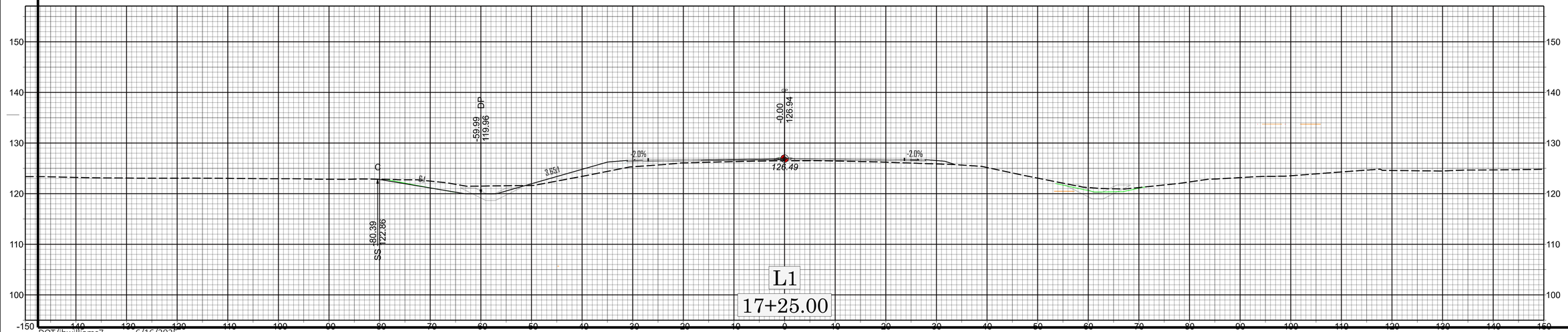
L1

16+50.00

11/14/23







X | 17+25.00

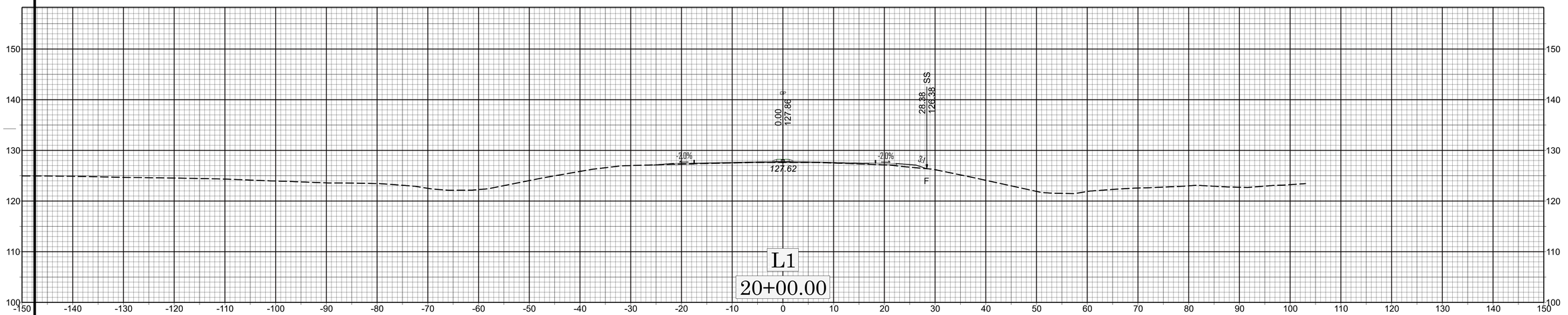
HN-0025

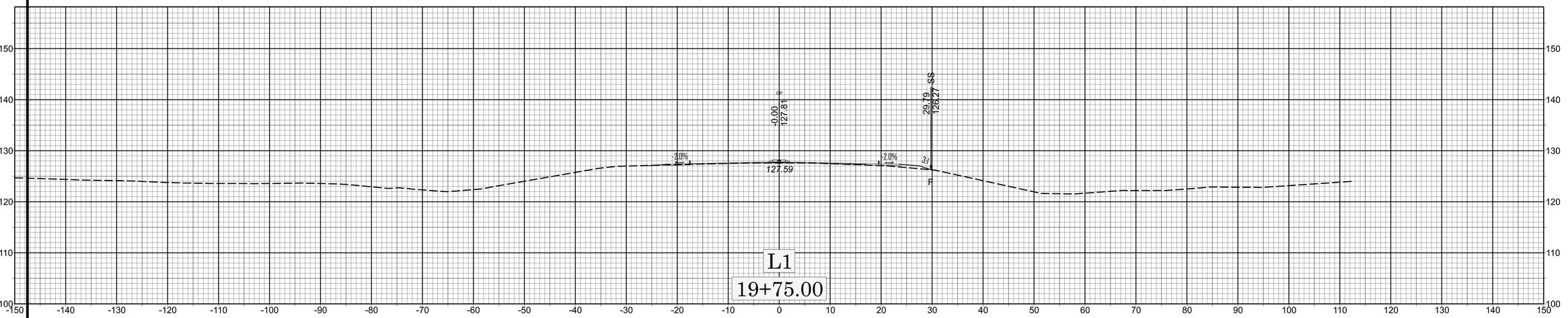
DOT/jbwilliams7 - 6/16/2025

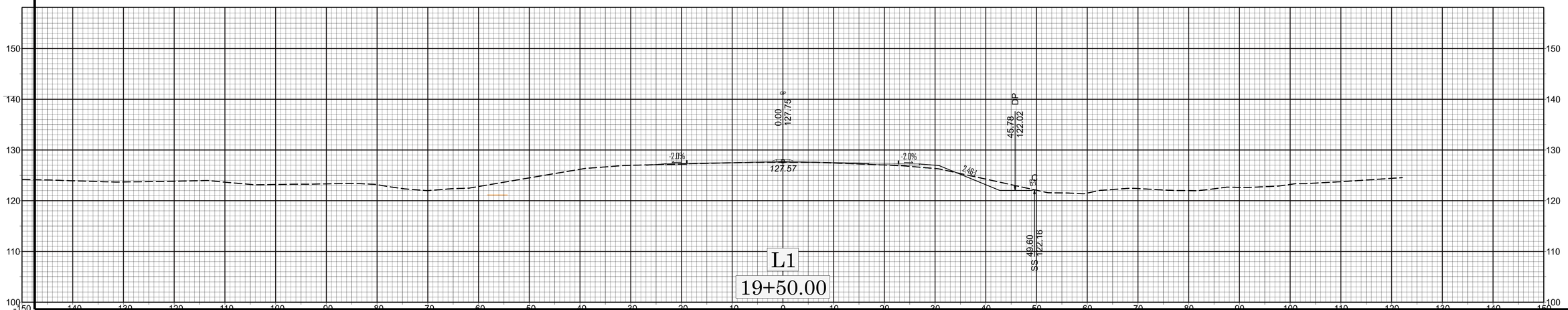
11/14/23

18+50.00
18+25.00
18+00.00
115.63 SS
125.97
9.41
+1.8%
139.53 DP
122.55
9.68
+1.2%
X 18+00.00
HN-0025
0
10
20

-33.43 SS
126.73
0.00
127.68
51.35 SS
121.91
-2.0%
-2.0%
127.54
F
F
L1
19+25.00
-50.84 SS
125.83
0.00
127.61
-2.0%
-2.0%
127.46
F
L1
19+00.00
-126.06 SS
124.72
-113.48 SS
125.32
-7.7%
-0.2%
88.06 SS
121.91
F
F
F
18+75.00
0
10
20
X
HN-0025







X 19+50.00

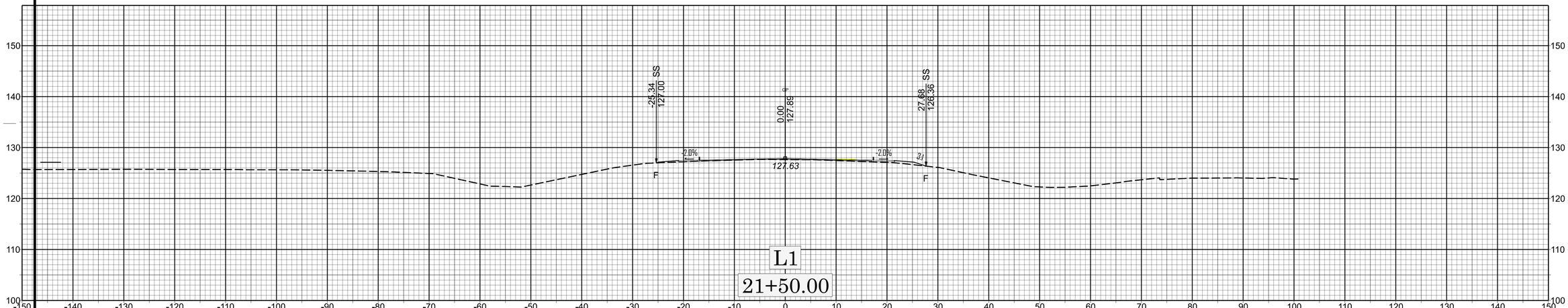
HN-0025

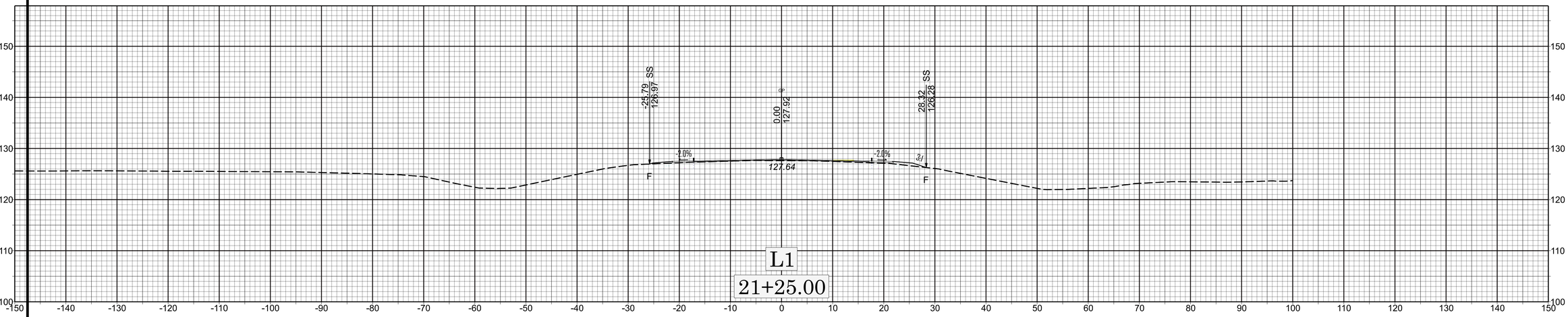
0 10 20

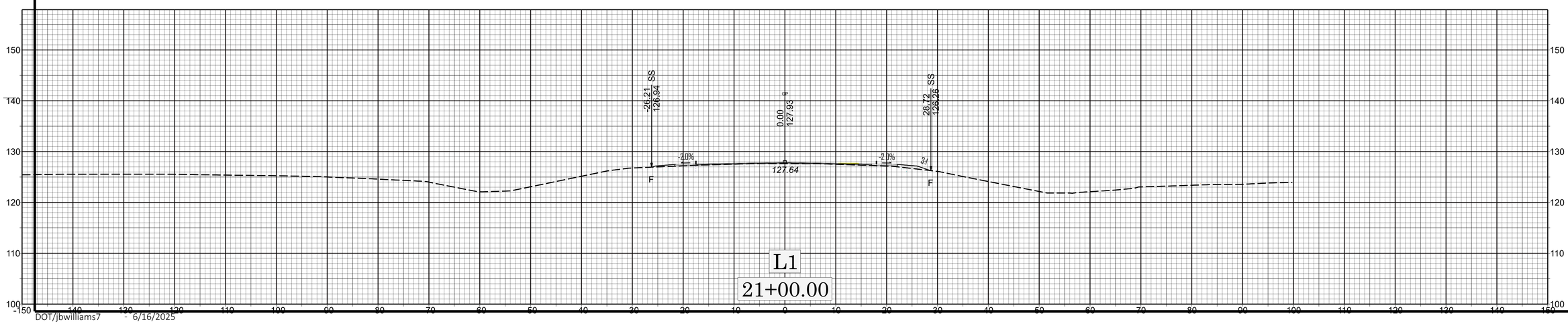
X 20+75.00

HN-0025

11/14/23







X | 21+00.00

HN-0025

DOT/jbwilliams7 - 6/16/2025

0 10 20

X 21+75.00

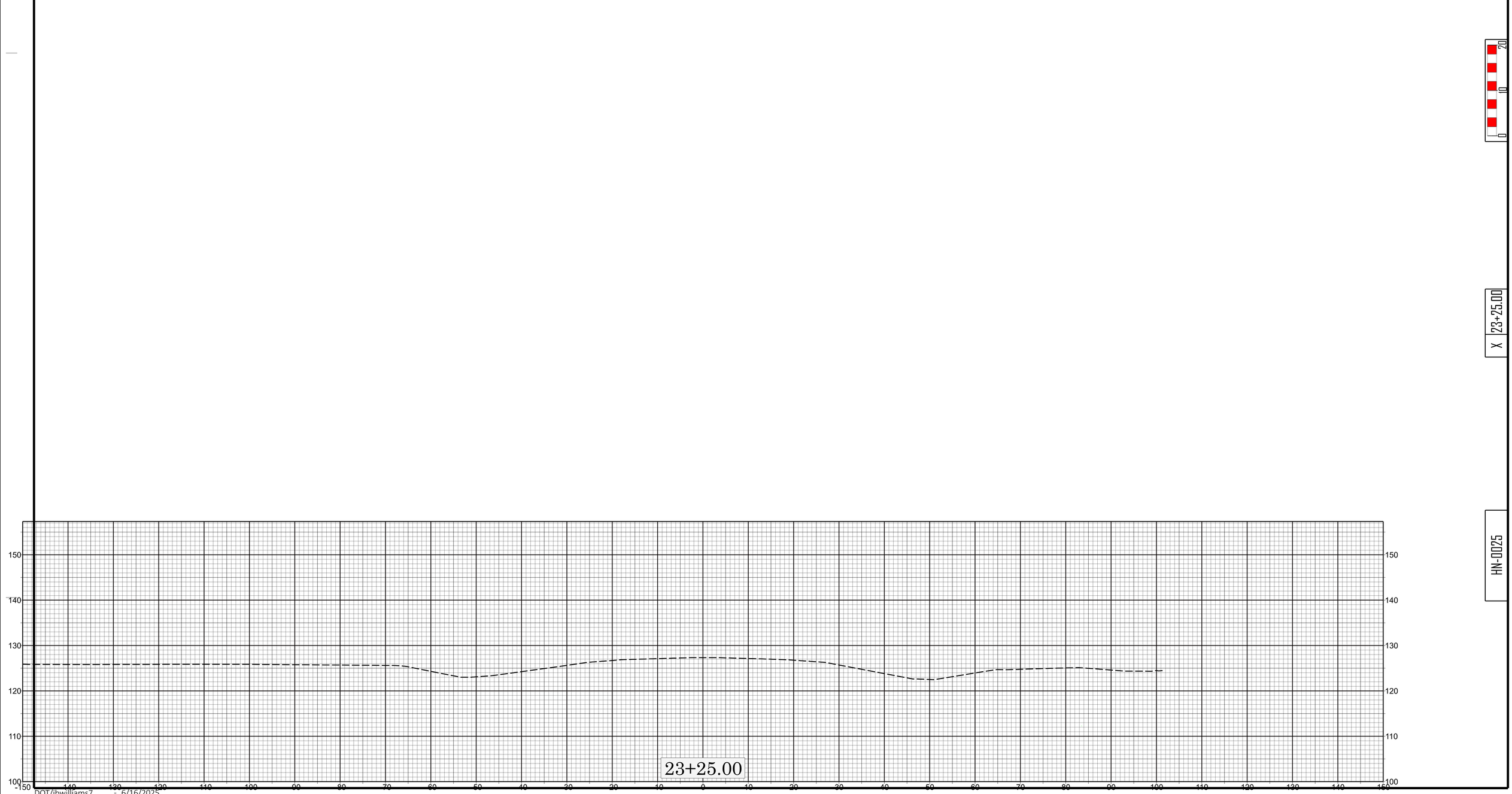
HN-0025

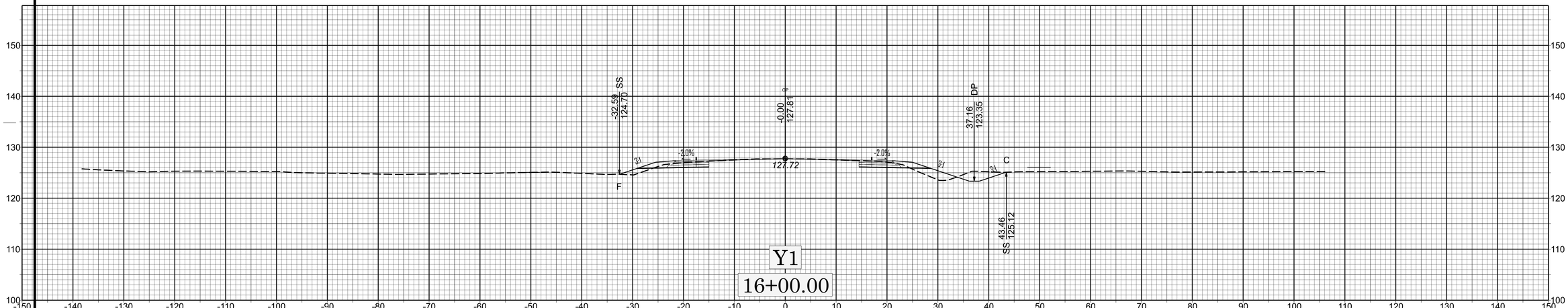
-24.11
126.45
SS
-0.00
127.52
24.19
126.51
SS
-2.0%
-2.0%
-2.0%
-2.0%
127.40
L1
23+00.00
-24.42
126.53
SS
0.00
127.61
25.05
126.42
SS
127.46
L1
22+75.00
-24.76
126.60
SS
0.00
127.69
25.77
126.36
SS
127.50
L1
22+50.00
0
10
20
X 22+50.00
HN-0025

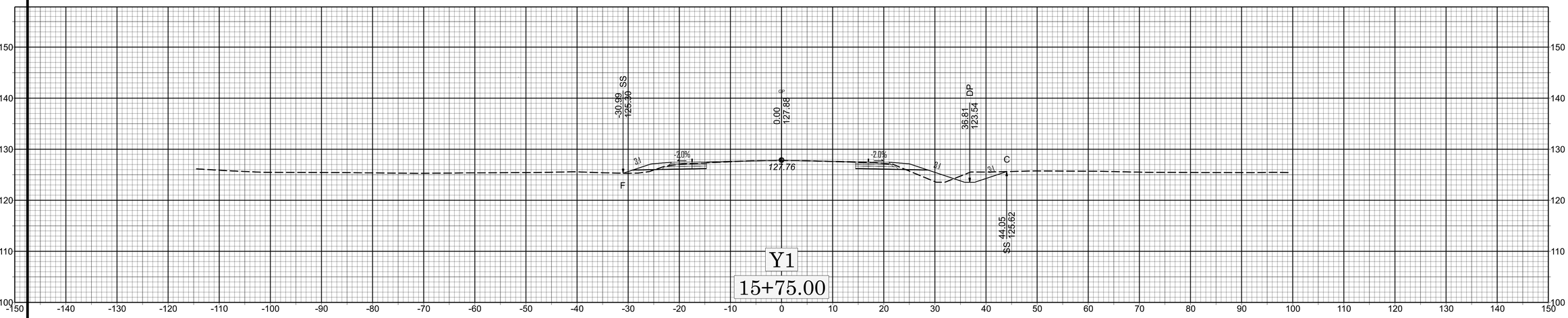
0 10 20

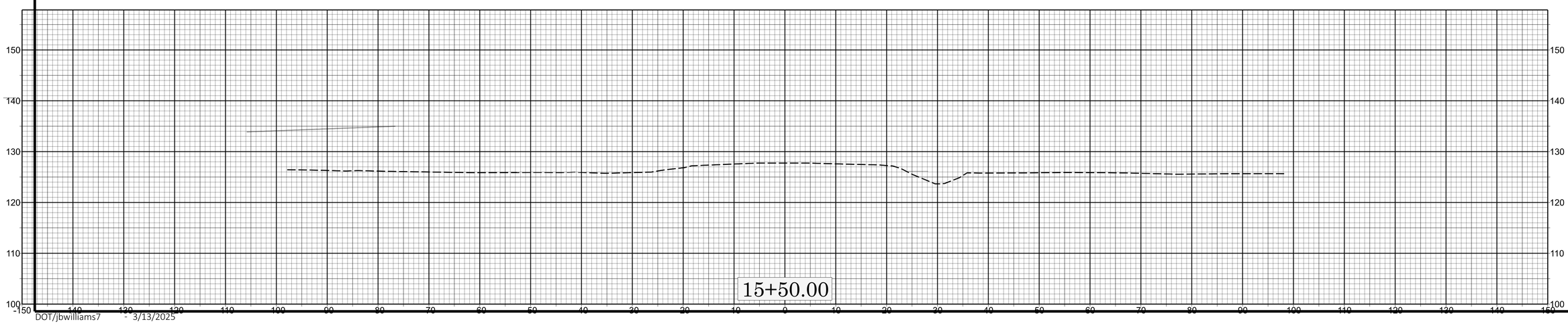
X 23+25.00

HN-0025







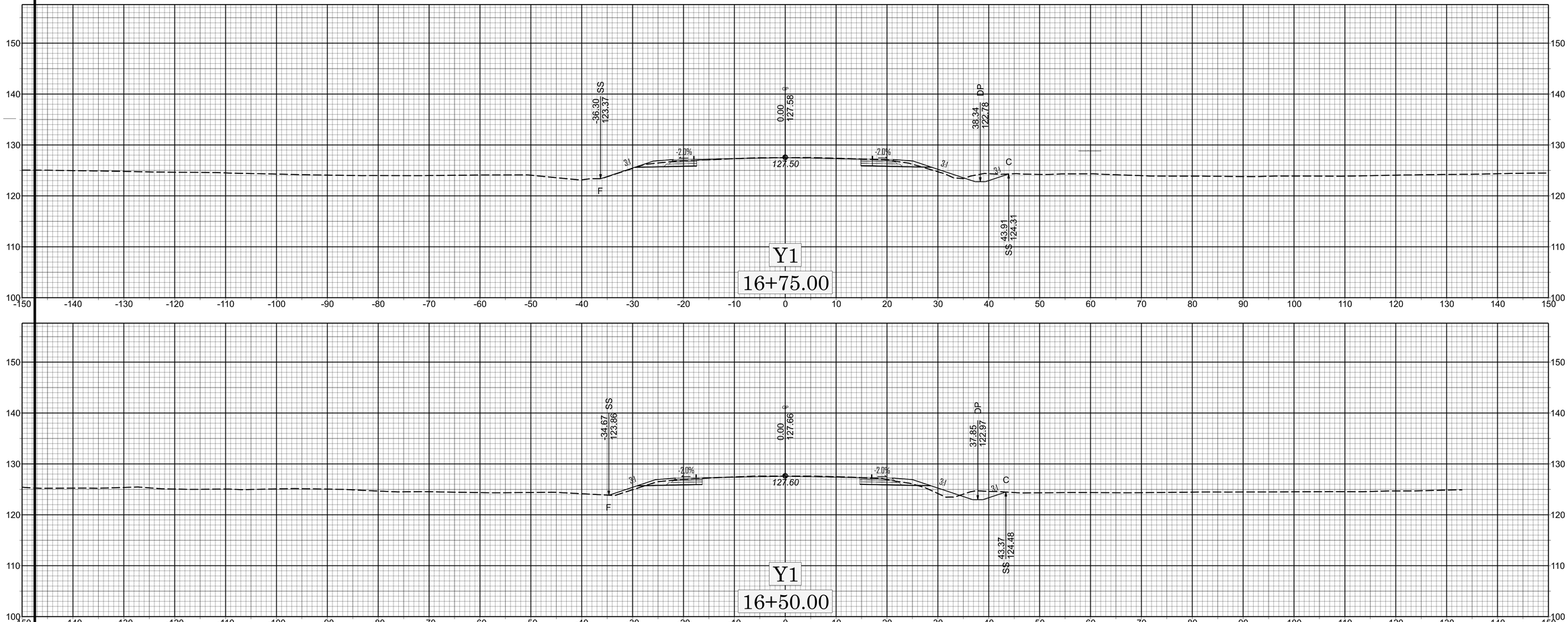


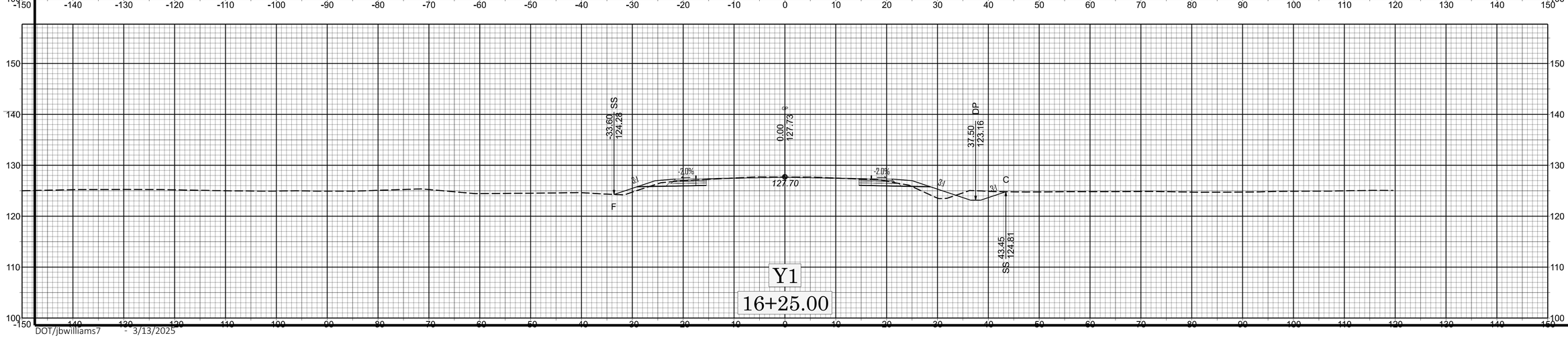
0 10 20

X 15+50.00

HN-0025

11/14/23



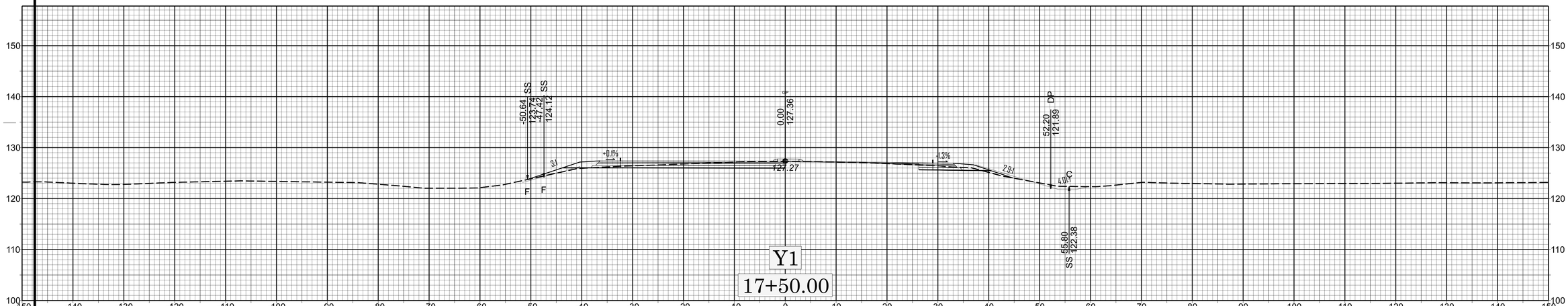


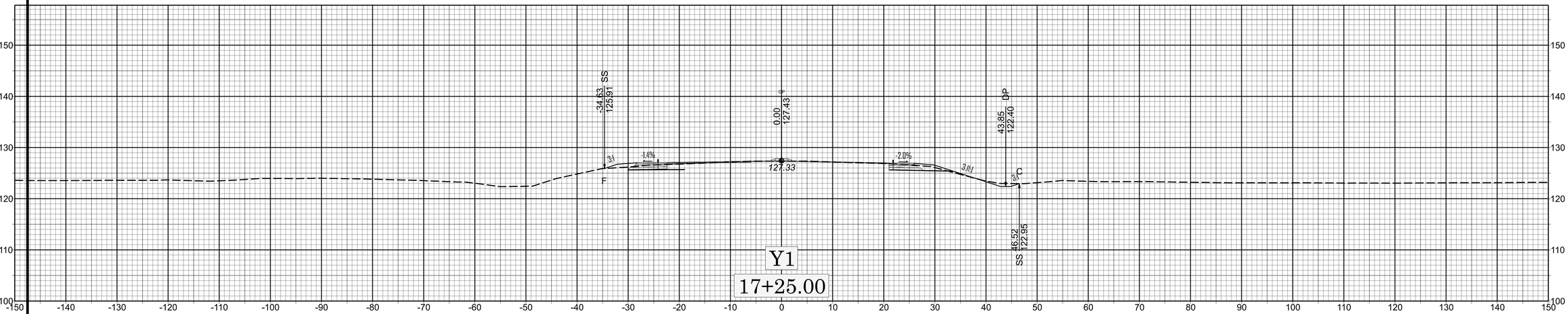
X | 16+25.00

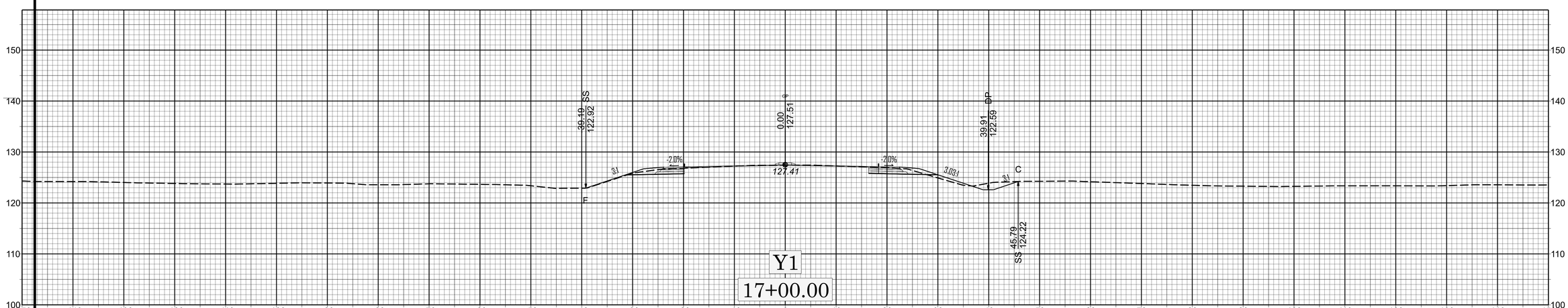
HN-0025

DOT/jbwilliams7 - 3/13/2025

11/14/23







X | 17+00.00

HN-0025

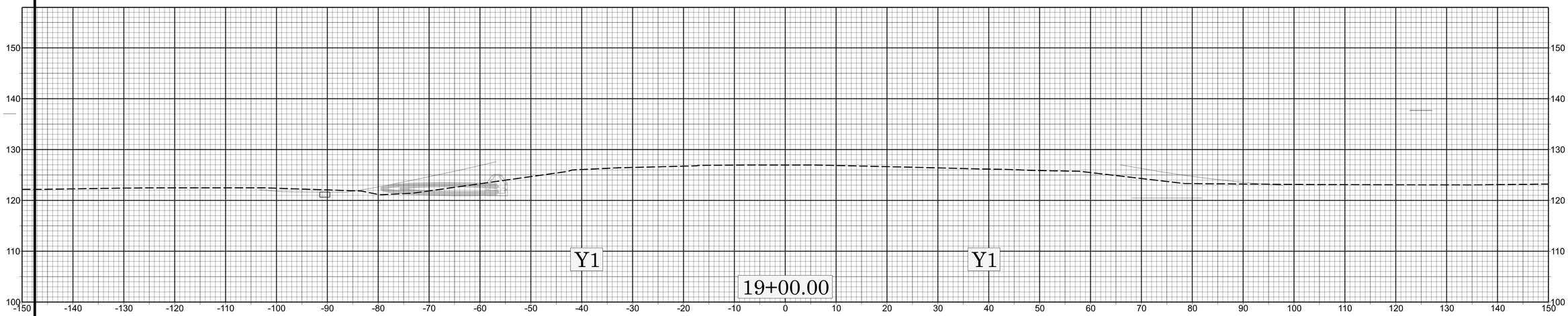
DOT/jbwilliams7 - 3/13/2025

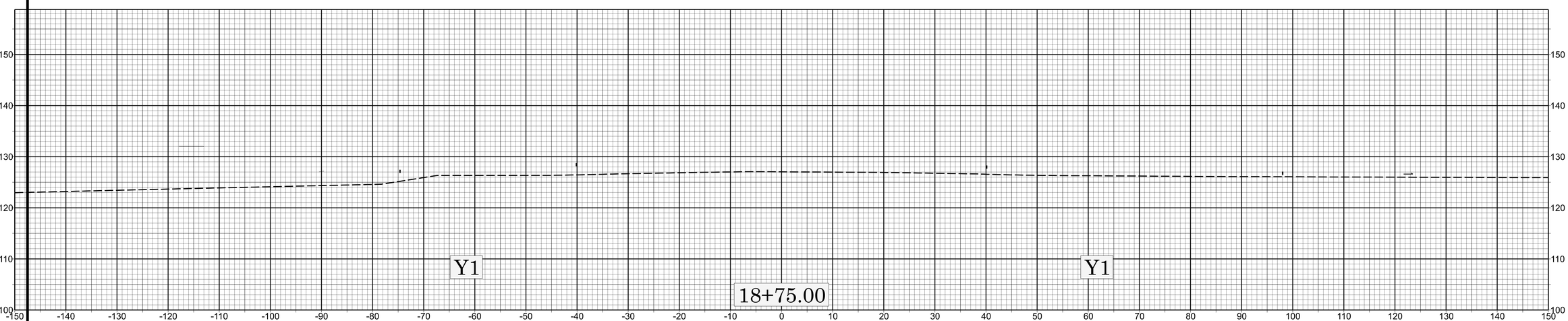
0 10 20

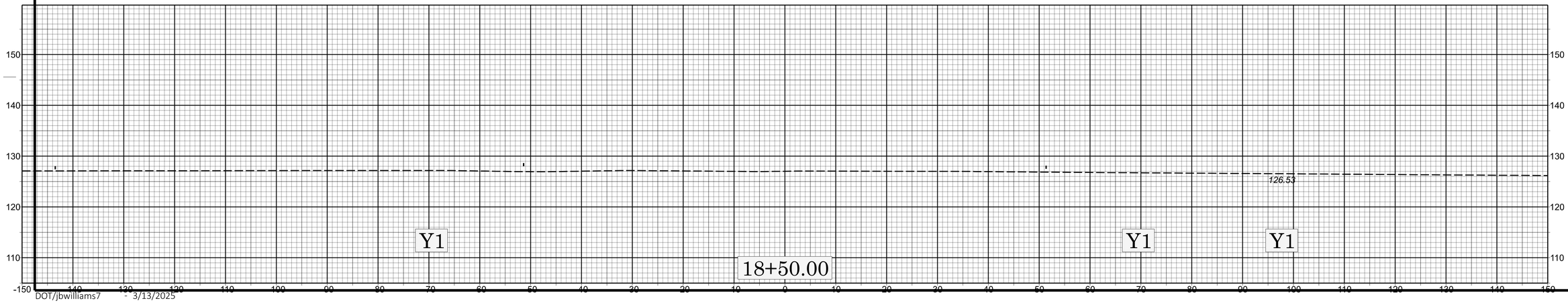
X 17+75.00

HN-0025

11/14/23





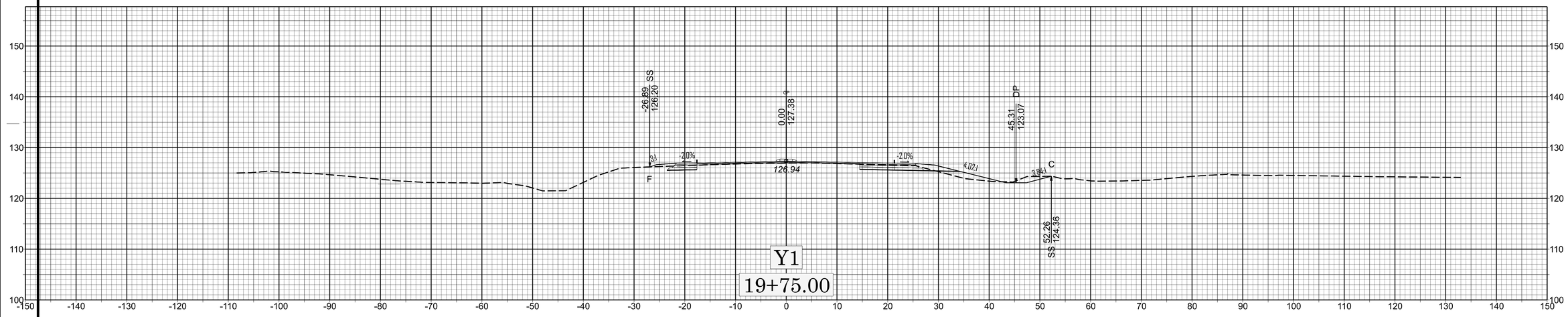


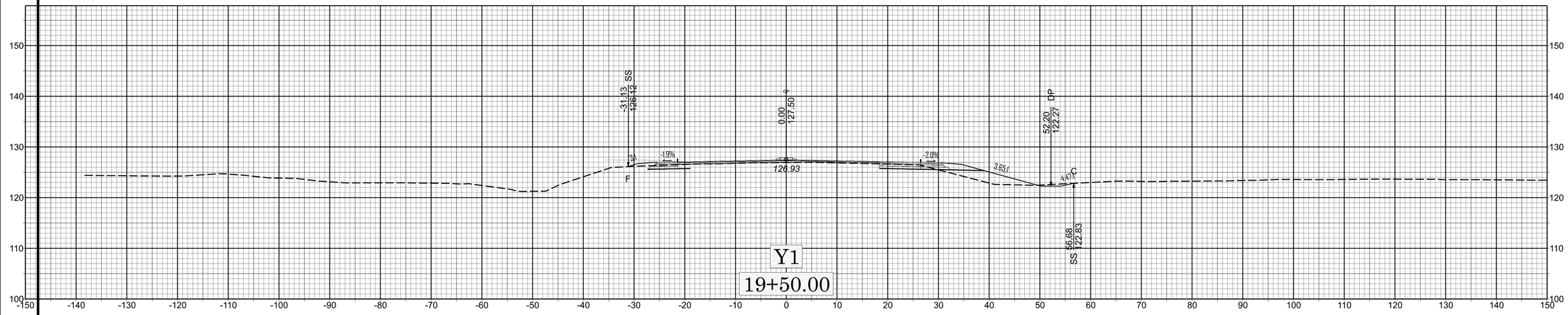
0 10 20

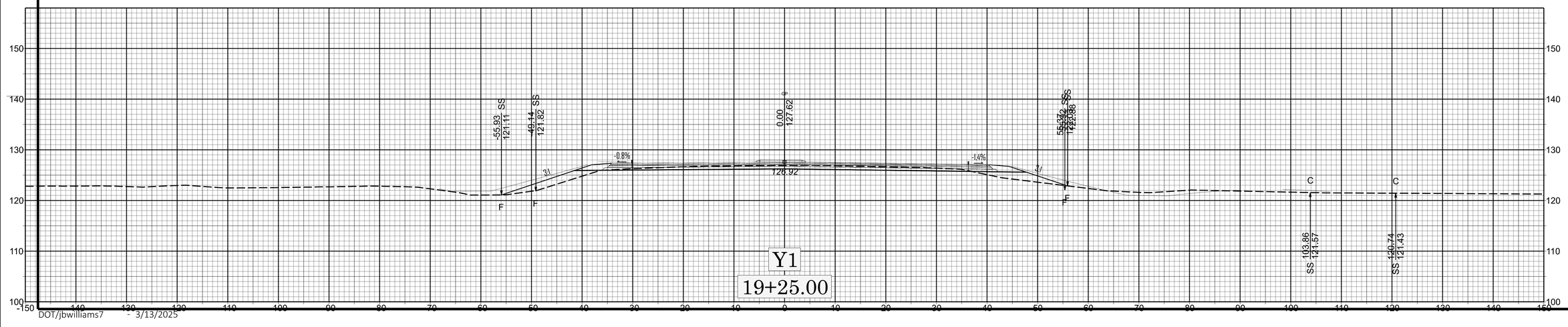
X 18+50.00

HN-0025

DOT/jbwilliams7 - 3/13/2025



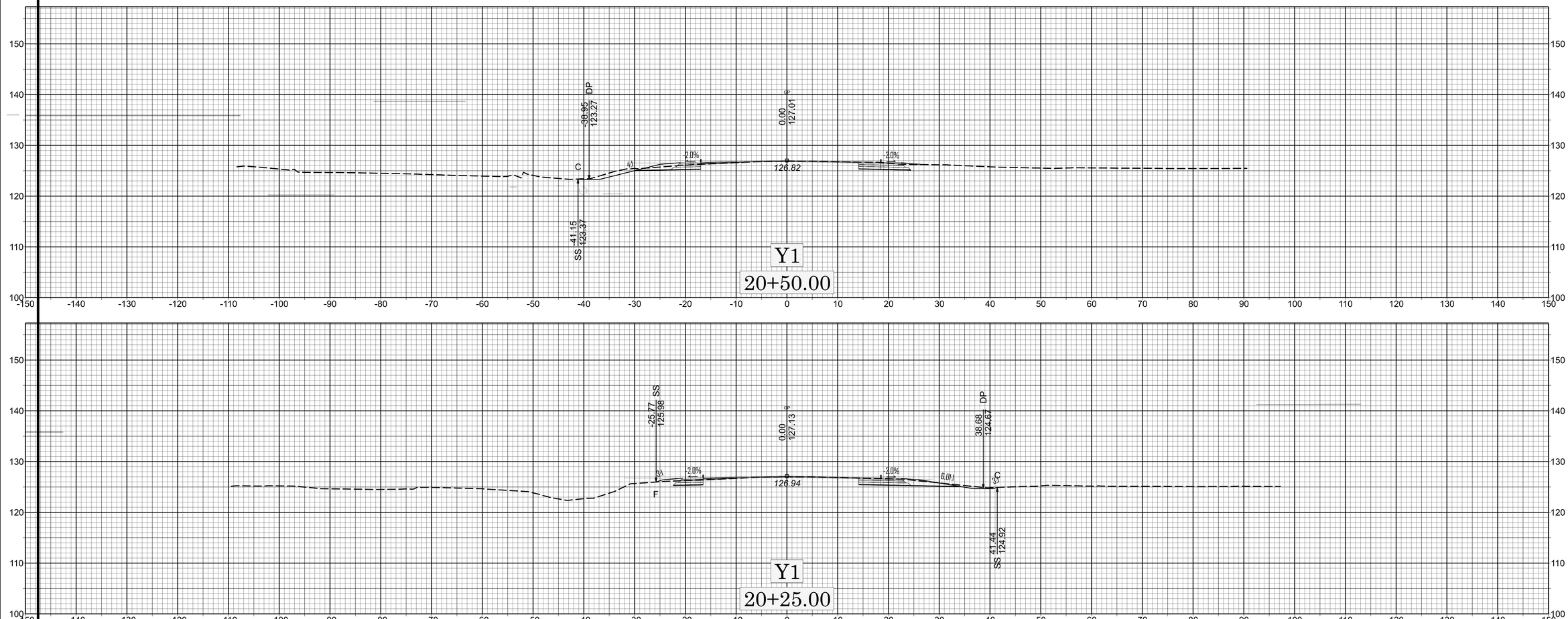


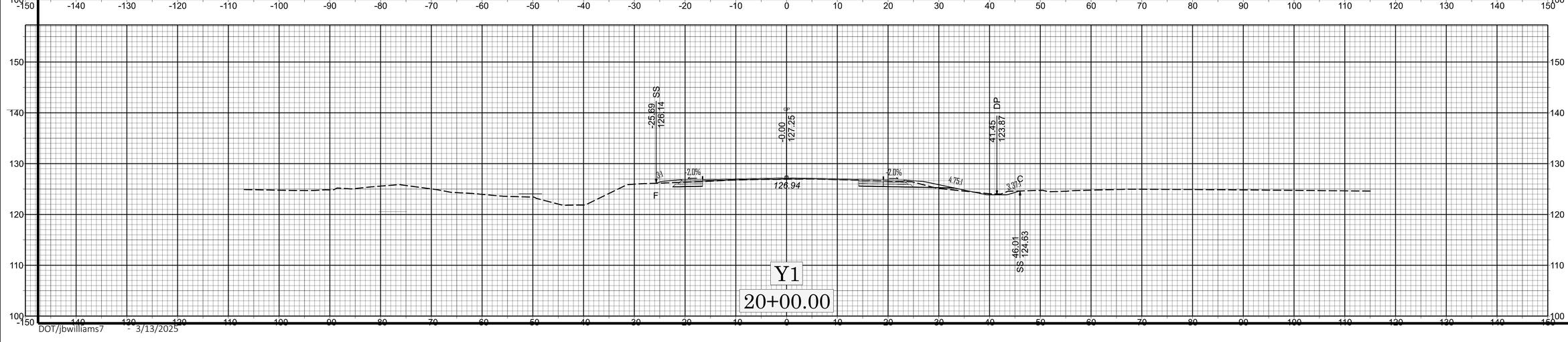


X | 19+25.00

HN-0025

11/14/23





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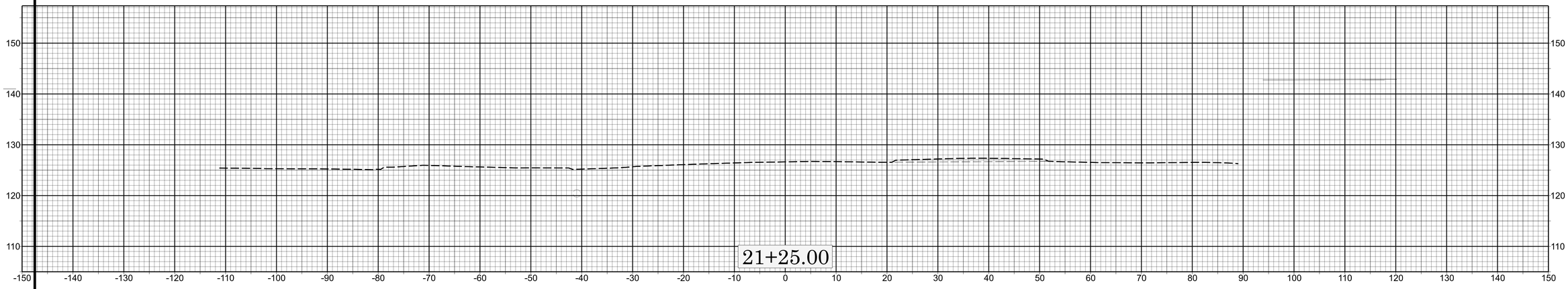
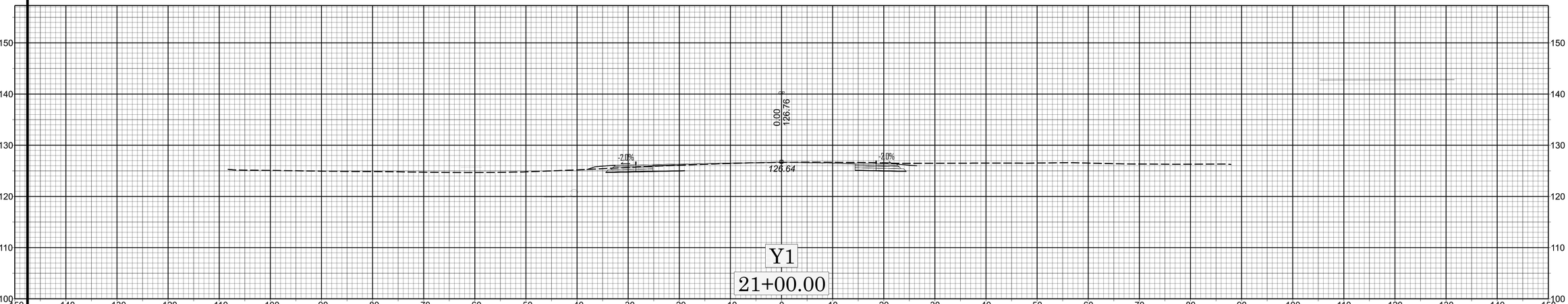
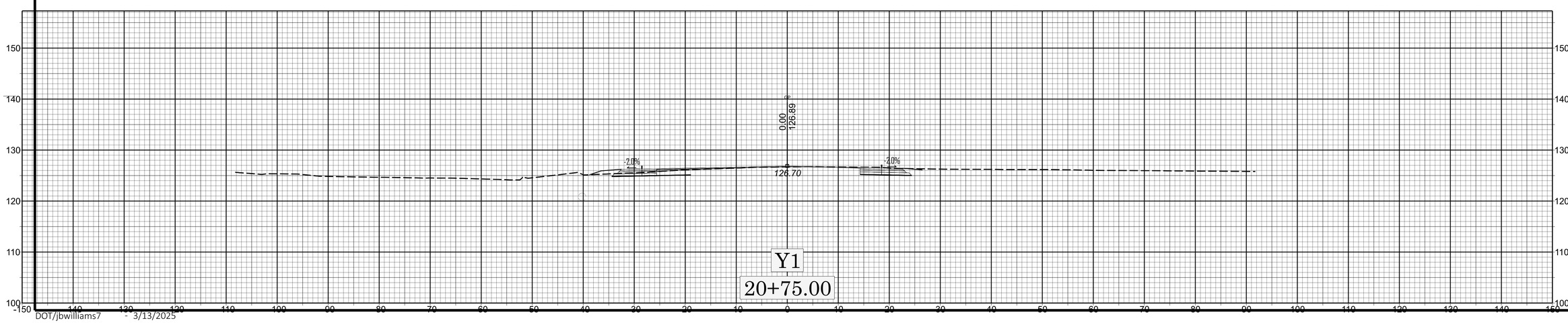
HN-0025

DOT/jbwilliams7 - 3/13/2025

11/14/23







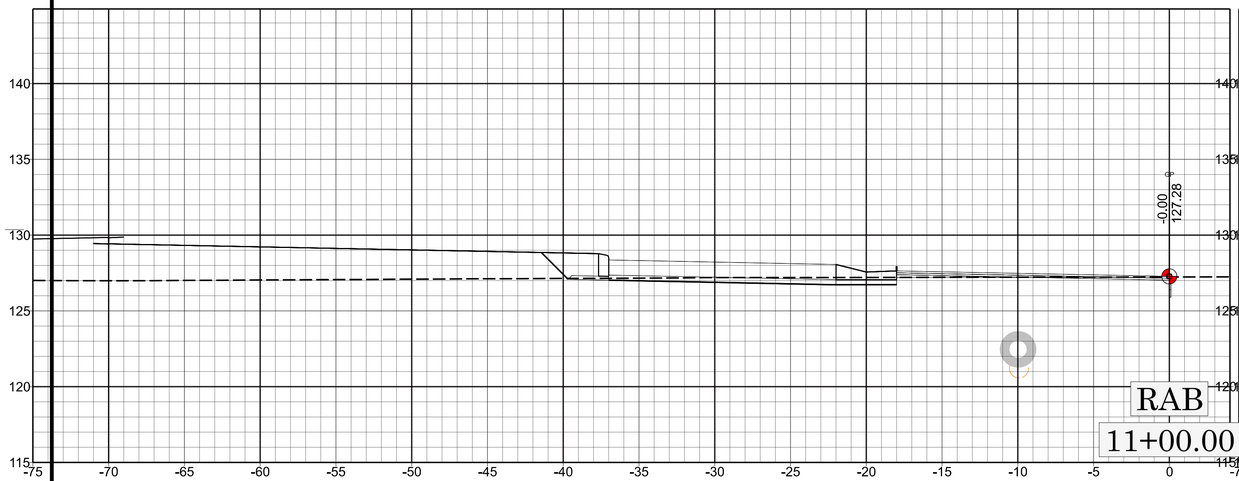
0
10
20

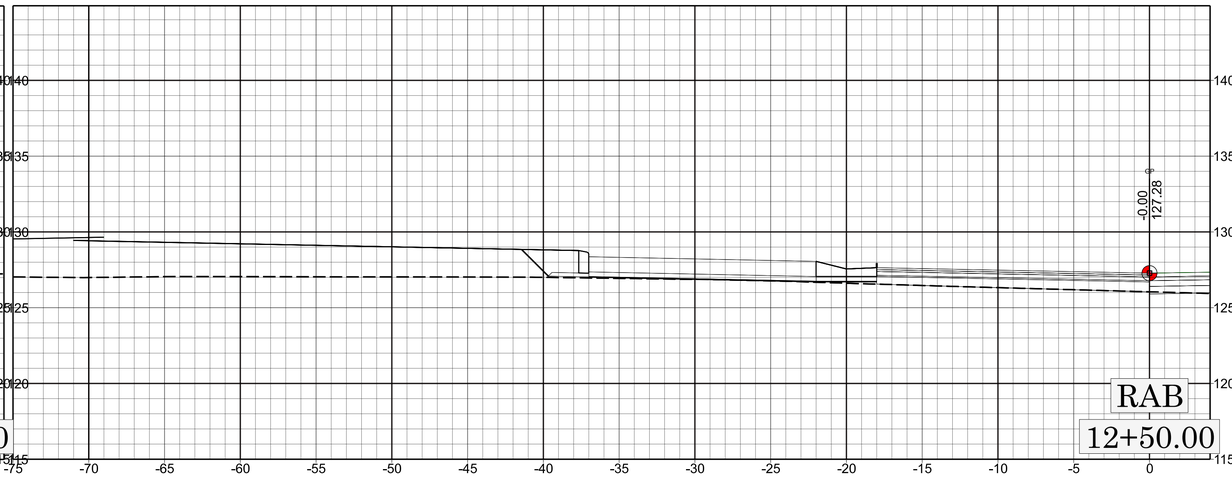
X 20+75.00

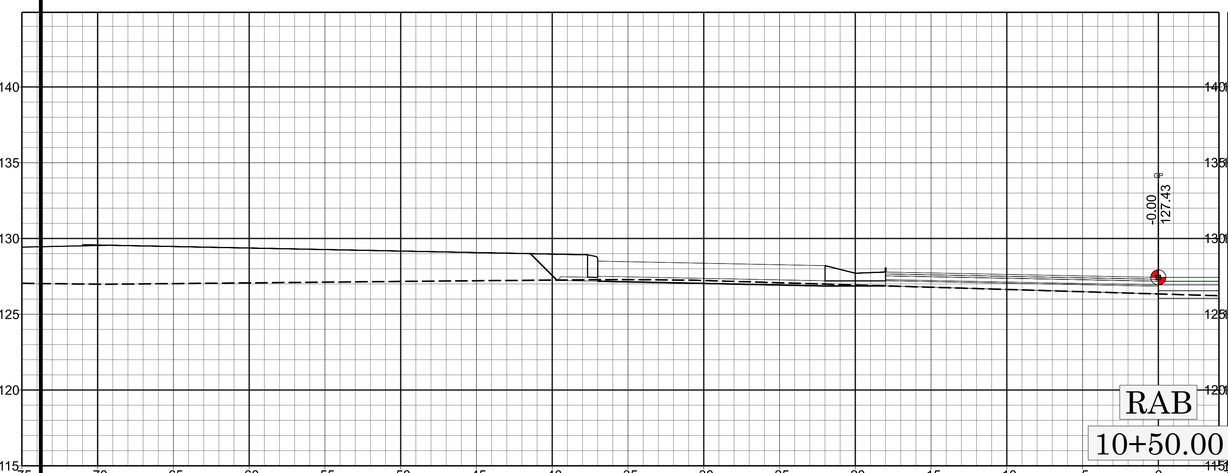
HN-0025

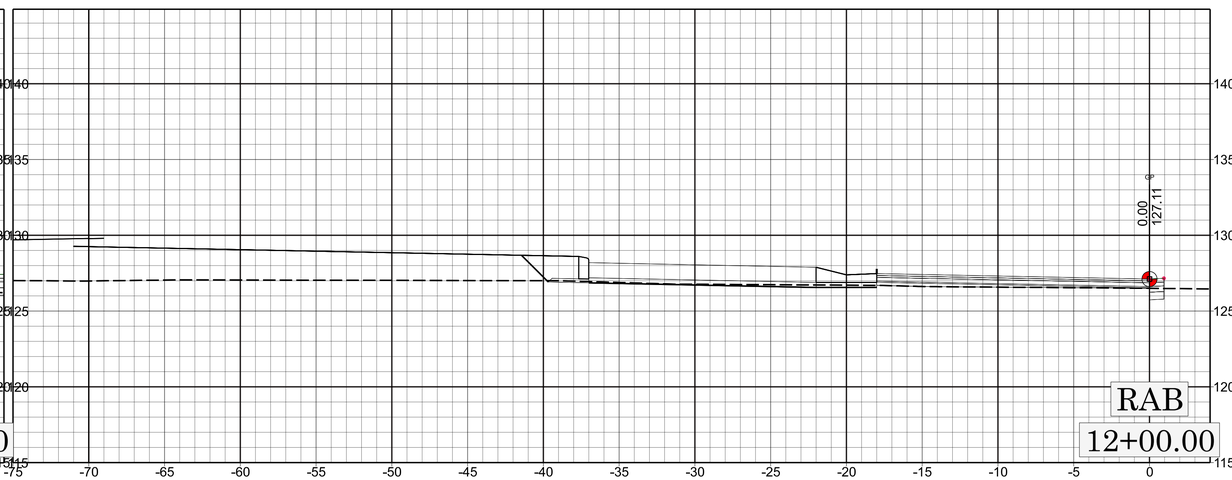
DOT/jbwilliams7 - 3/13/2025

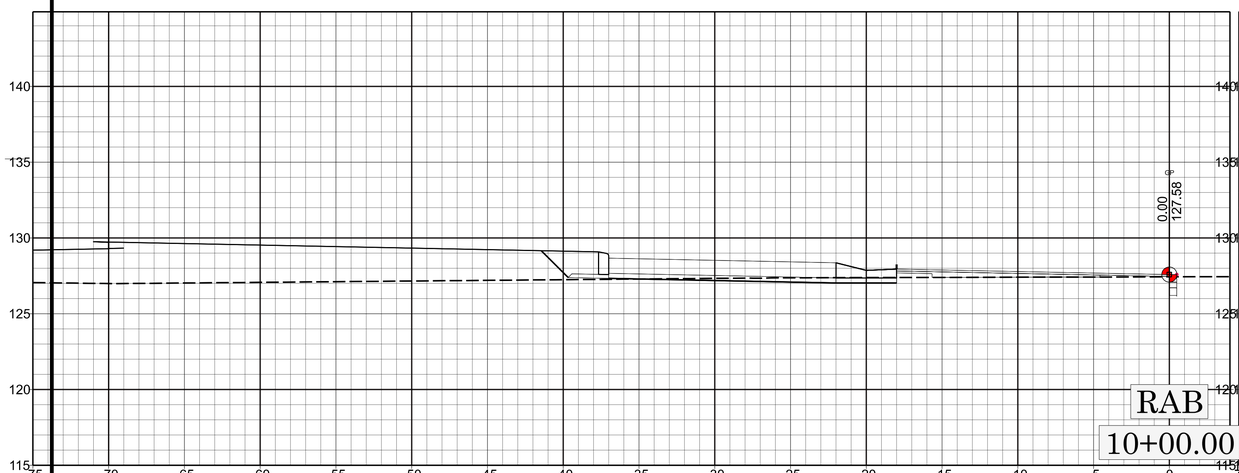
11/14/23

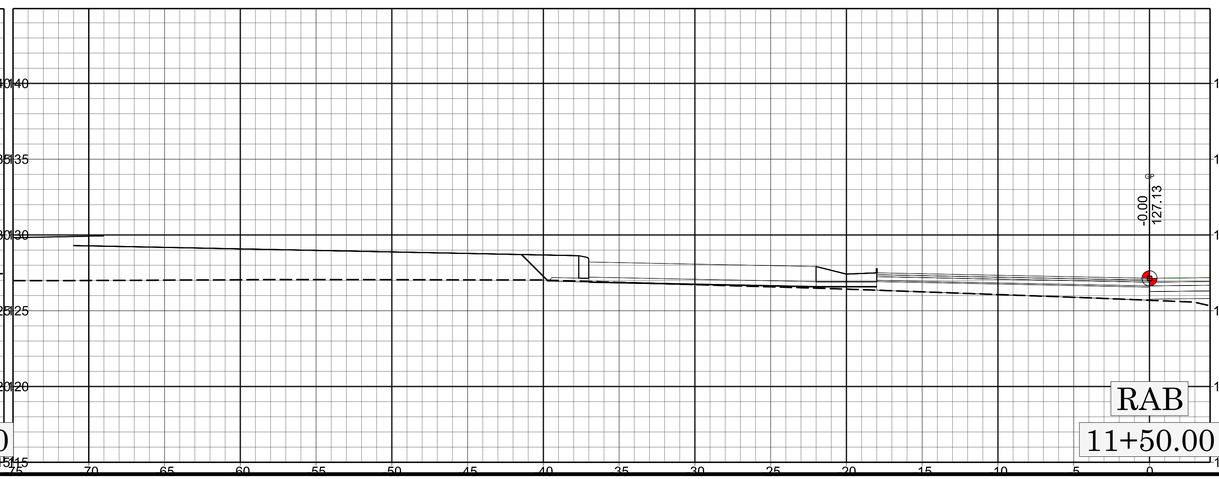












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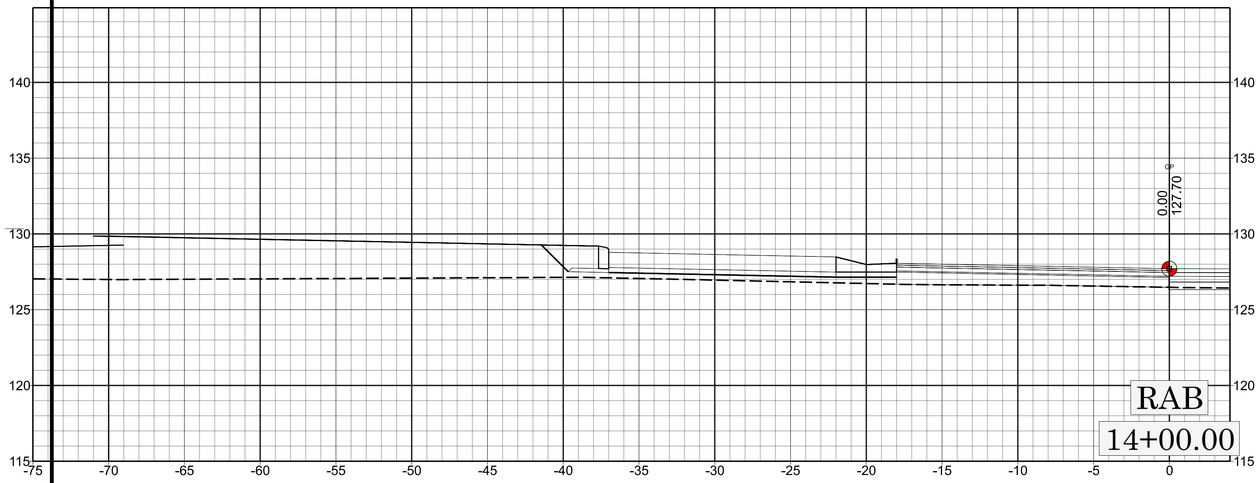
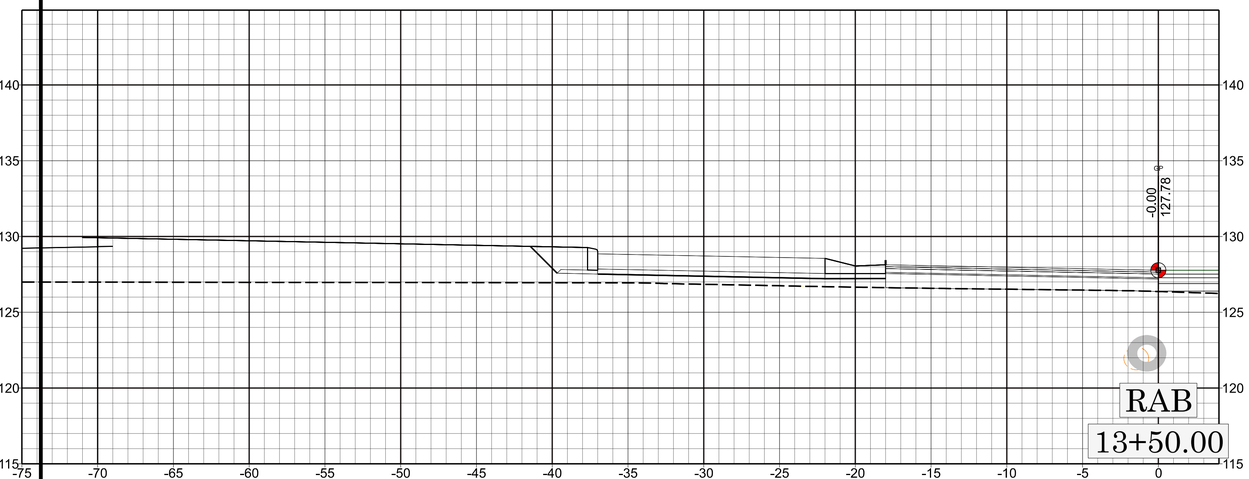
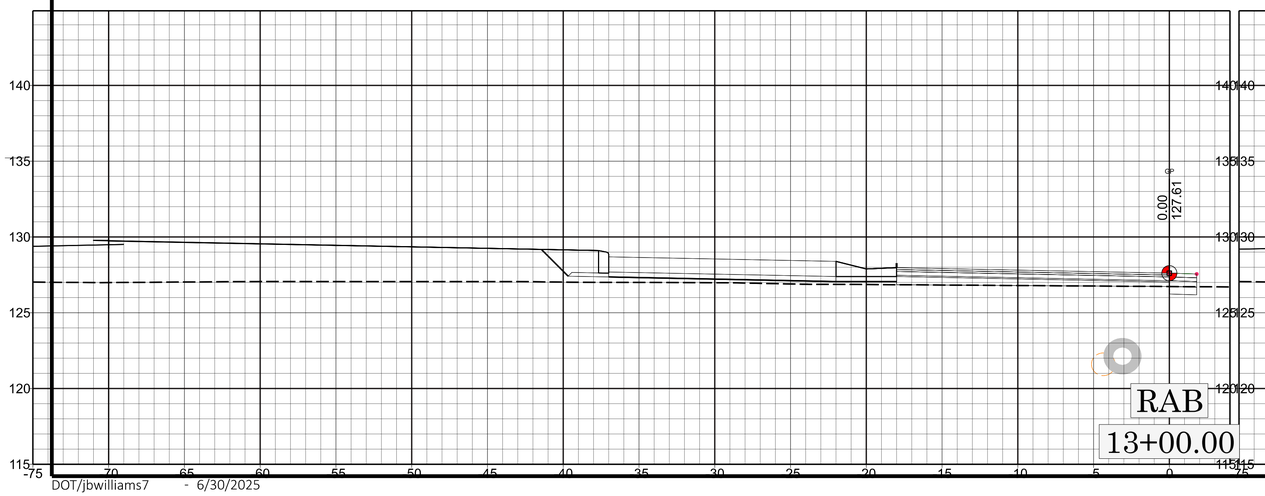
HN-0025

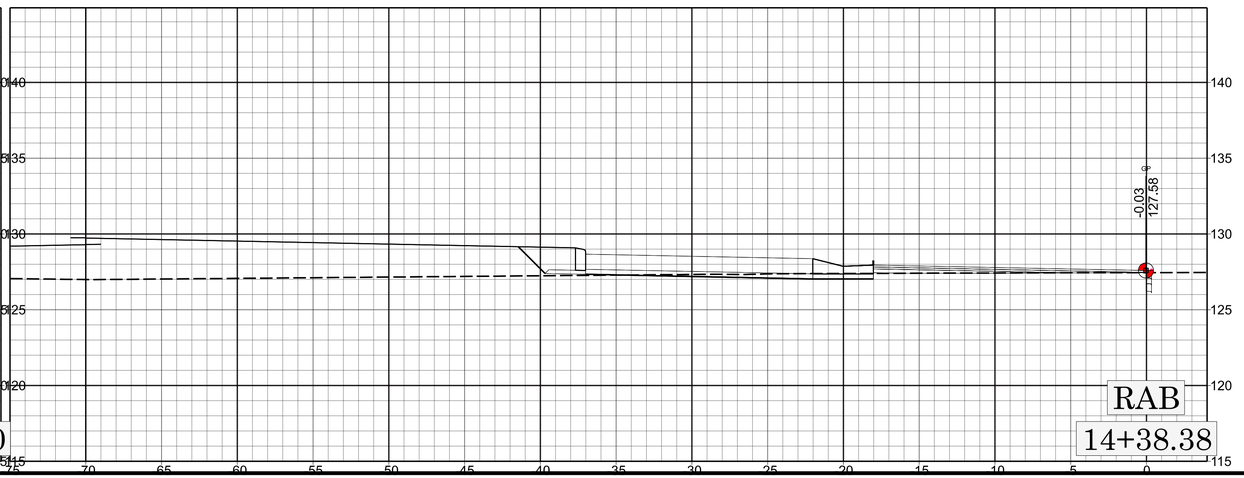
DOT/jbwilliams7 - 6/30/2025

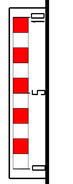
11/14/23











X 13+00.00

HN-0025

DOT/jbwilliams7 - 6/30/2025