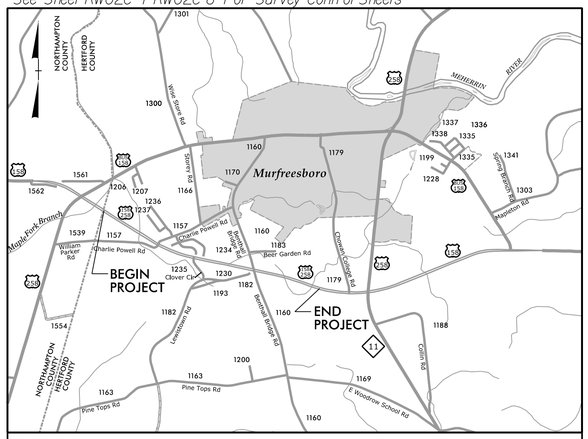
09/08/99

TIP PROJECT: HS-2401P

CONTRACT: C205153

See Sheet 1A For Index of Sheets
See Sheet 1-B For Conventional Symbols
See Sheet RW02C-1-RW02C-6 For Survey Control Sheets



VICINITY MAP (NTS)

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

HERTFORD COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	HS-2401P	1	

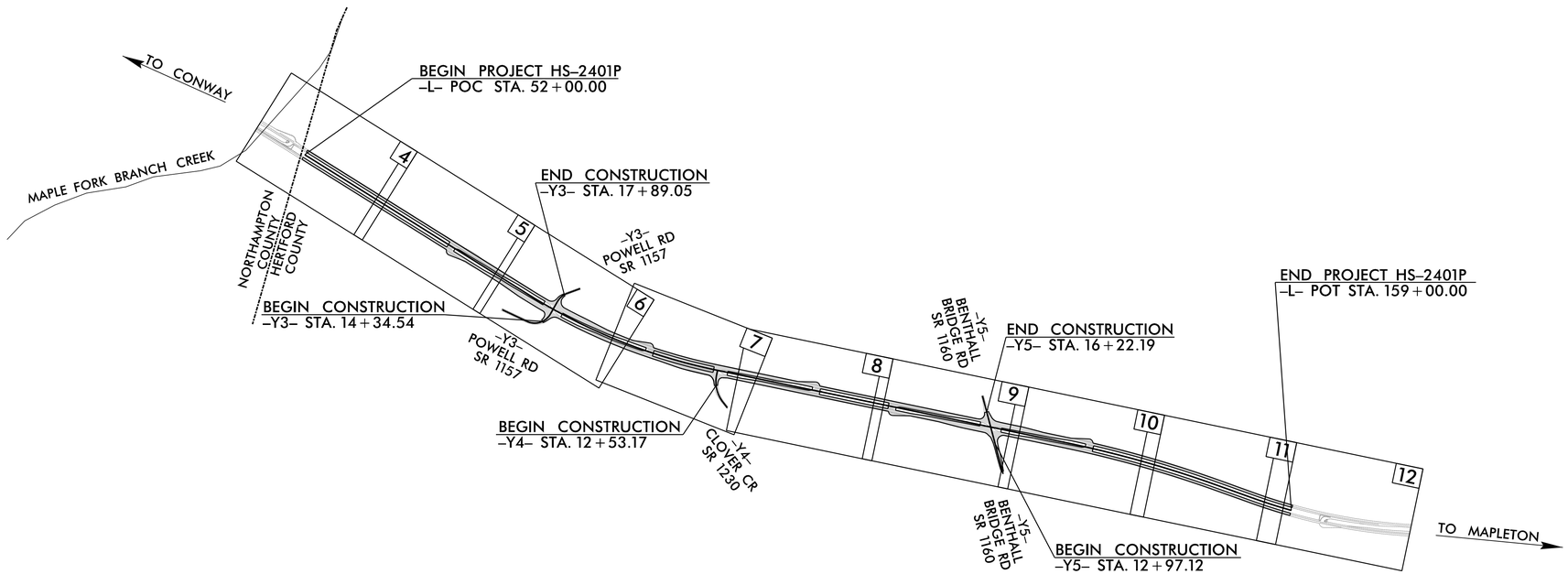
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
50973.1.17	5097316	PE
50973.3.17	5097316	CONST.
84016	N/A	CONST.

LOCATION: US 158 /US 258 FROM 0.56 MILES WEST OF SR 1157 (POWELL RD.) TO 0.60 MILES EAST OF SR 1160 (BENTHALL BRIDGE RD.)

TYPE OF WORK: GRADING, DRAINAGE, AND PAVING

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/NA 2011



This project is not within any municipal boundaries.

GRAPHIC SCALES

PLANS: 50′ 0′ 50′ 100′

PROFILE (HORIZONTAL): 50 0′ 50 100′

PROFILE (VERTICAL): 10′ 0′ 10′ 20′

DESIGN DATA

ADT 2025 = 4,708
ADT 2040 = 5,100
K = 10 %
D = 60 %
T = 19 % *
V = 60 MPH
* TTST = 5% DUAL 14%
FUNC CLASS = PRINCIPAL RURAL ARTERIAL
STATEWIDE TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT HS-2401P..... 2.027 mi
TOTAL LENGTH TIP PROJECT HS-2401P..... 2.027 mi

NCDOT CONTACT

Justin Smith
PROJECT ENGINEER - DIVISION 1

PLANS PREPARED BY:

RK&K
RUMMEL, KLEPPER & KAHL, LLP
8601 Six Forks Road, Forum 1, SUITE 700
RALEIGH, NORTH CAROLINA 27615-3960
NC LICENSE NO. F-0112

FOR NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

2024 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: N/A

LETTING DATE: MAY 19, 2026

Scott D. Blevins, P.E.
PROJECT ENGINEER
RK&K, LLP

Andy Hefler
PROJECT DESIGN ENGINEER
RK&K, LLP

HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 51640 ENGINEER COURTLAND A. HOFFMAN P.E.

Signed by: Courtland Hoffman 2/25/2026
DocuSigned by:
SIGNATURE:

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 16725 ENGINEER SCOTT D. BLEVINS P.E.

Signed by: Scott D. Blevins 2/25/2026
DocuSigned by:
SIGNATURE:

STATE OF NORTH CAROLINA • DEPARTMENT OF TRANSPORTATION •

2/25/2026
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default

5/28/99

INDEX of SHEETS, GENERAL NOTES, and LIST of STANDARDS

PROJECT REFERENCE NO.	SHEET NO.
HS-2401P	1A

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 16725 ENGINEER SCOTT D. BLEVINS
Scott D. Blevins
2/23/2026

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

INDEX OF SHEETS

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 III.

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. 560.02

SIDE ROADS:

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

SUBSURFACE DRAINS:

SUBSURFACE DRAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 815.02 AT LOCATIONS DIRECTED BY THE ENGINEER.

STREET TURNOUT:

STREET RETURNS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 848.04 USING THE RADII NOTED ON PLANS.

GUARDRAIL:

THE GUARDRAIL LOCATIONS SHOWN ON THE PLANS MAY BE ADJUSTED DURING CONSTRUCTION AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHOULD CONSULT WITH THE ENGINEER PRIOR TO ORDERING GUARDRAIL MATERIAL.

TEMPORARY SHORING:

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

SUBSURFACE PLANS:

NO SUBSURFACE PLANS ARE AVAILABLE ON THIS PROJECT. THE CONTRACTOR SHOULD MAKE HIS OWN INVESTIGATION AS TO THE SUBSURFACE CONDITIONS.

RIGHT-OF-WAY MARKERS:

ALL RIGHT-OF-WAY MARKERS ON THIS PROJECT SHALL BE PLACED 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	
200.03	Method of Clearing - Method III
225.01	Guide for Grading Subgrade - Interstate and Freeway
225.04	Method of Obtaining Superelevation - Two Lane Pavement
225.05	Method of Obtaining Superelevation - Divided Highways
DIVISION 3 - PIPE CULVERTS	
300.01	Method of Pipe Installation (Use Details in Lieu of Standards for Sheets 1 and 2 of 2)
DIVISION 5 - SUBGRADE, BASES AND SHOULDERS	
560.02	Method of Shoulder Construction - High Side of Superelevated Curve - Method II
DIVISION 6 - ASPHALT BASES AND PAVEMENTS	
654.01	Pavement Repairs
DIVISION 8 - INCIDENTALS	
815.02	Subsurface Drain
840.00	Concrete Base Pad for Drainage Structures
840.17	Concrete Grated Drop Inlet Type 'A' - 12" thru 72" Pipe
840.18	Concrete Grated Drop Inlet Type 'B' - 12" thru 36" Pipe
840.24	Frames and Narrow Slot Sag Grates
840.25	Anchorage for Frames - Brick or Concrete or Precast
840.26	Brick Grated Drop Inlet Type 'A' - 12" thru 72" Pipe
840.27	Brick Grated Drop Inlet Type 'B' - 12" thru 36" Pipe
840.29	Frames and Narrow Slot Flat Grates
840.31	Concrete Junction Box - 12" thru 66" Pipe
840.32	Brick Junction Box - 12" thru 66" Pipe
840.34	Traffic Bearing Junction Box - for Use with Pipes 42" and Under
840.36	Traffic Bearing Grated Drop Inlet - for Steel (840.37) Double Frame and Grates
840.37	Steel Grate and Frame
840.45	Precast Drainage Structure
840.46	Traffic Bearing Precast Drainage Structure
840.54	Manhole Frame and Cover
840.66	Drainage Structure Steps
840.72	Pipe Collar
846.01	Concrete Curb, Gutter and Curb & Gutter
848.04	Street Turnout
852.01	Concrete Islands
852.06	Method for Placement of Drop Inlets in Concrete Islands
862.01	Guardrail Placement (Use Details in Lieu of Standards for Sheets 4, 6, 12, and 14 of 15)
862.02	Guardrail Installation (Use Details in Lieu of Standard 5 of 9)
876.02	Guide for Rip Rap at Pipe Outlets
876.04	Drainage Ditches with Class 'B' Rip Rap

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Engineers | Construction Managers | Planners | Scientists
www.rkk.com
Responsive People | Creative Solutions

12/2/2016

PROJECT REFERENCE NO.	SHEET NO.
HS-2401P	1-B

STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

Note: Not to Scale **S.U.E. = Subsurface Utility Engineering*

BOUNDARIES AND PROPERTY:

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

BUILDINGS AND OTHER CULTURE:

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

HYDROLOGY:

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

RAILROADS:

- Standard Gauge — CSX TRANSPORTATION
- RR Signal Milepost — MILEPOST 35
- Switch — SWITCH
- RR Abandoned
- RR Dismantled

RIGHT OF WAY & PROJECT CONTROL:

- Secondary Horiz and Vert Control Point
- Primary Horiz Control Point
- Primary Horiz and Vert Control Point
- Exist Permanent Easement Pin and Cap
- New Permanent Easement Pin and Cap
- Vertical Benchmark
- Existing Right of Way Marker
- Existing Right of Way Line
- New Right of Way Line — RW
- New Right of Way Line with Pin and Cap — RW
- New Right of Way Line with Concrete or Granite R/W Marker — RW
- New Control of Access Line with Concrete C/A Marker — CA
- Existing Control of Access — CA
- New Control of Access — CA
- Existing Easement Line — E
- New Temporary Construction Easement — E
- New Temporary Drainage Easement — TDE
- New Permanent Drainage Easement — PDE
- New Permanent Drainage / Utility Easement — DUE
- New Permanent Utility Easement — PUE
- New Temporary Utility Easement — TUE
- New Aerial Utility Easement — AUE

ROADS AND RELATED FEATURES:

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

VEGETATION:

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

EXISTING STRUCTURES:

MAJOR:

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

MINOR:

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

UTILITIES:

POWER:

- Existing Power Pole
- Proposed Power Pole
- Existing Joint Use Pole
- Proposed Joint Use Pole
- Power Manhole — P
- Power Line Tower
- Power Transformer
- U/G Power Cable Hand Hole
- H-Frame Pole
- U/G Power Line LOS B (S.U.E.*) — P
- U/G Power Line LOS C (S.U.E.*) — P
- U/G Power Line LOS D (S.U.E.*) — P

TELEPHONE:

- Existing Telephone Pole
- Proposed Telephone Pole
- Telephone Manhole — T
- Telephone Pedestal — T
- Telephone Cell Tower
- U/G Telephone Cable Hand Hole — HH
- U/G Telephone Cable LOS B (S.U.E.*) — T
- U/G Telephone Cable LOS C (S.U.E.*) — T
- U/G Telephone Cable LOS D (S.U.E.*) — T
- U/G Telephone Conduit LOS B (S.U.E.*) — TC
- U/G Telephone Conduit LOS C (S.U.E.*) — TC
- U/G Telephone Conduit LOS D (S.U.E.*) — TC
- U/G Fiber Optics Cable LOS B (S.U.E.*) — T FO
- U/G Fiber Optics Cable LOS C (S.U.E.*) — T FO
- U/G Fiber Optics Cable LOS D (S.U.E.*) — T FO

WATER:

- Water Manhole — W
- Water Meter
- Water Valve
- Water Hydrant
- U/G Water Line LOS B (S.U.E*) — W
- U/G Water Line LOS C (S.U.E*) — W
- U/G Water Line LOS D (S.U.E*) — W
- Above Ground Water Line — A/G Water

TV:

- TV Pedestal — C
- TV Tower
- U/G TV Cable Hand Hole — HH
- U/G TV Cable LOS B (S.U.E.*) — TV
- U/G TV Cable LOS C (S.U.E.*) — TV
- U/G TV Cable LOS D (S.U.E.*) — TV
- U/G Fiber Optic Cable LOS B (S.U.E.*) — TV FO
- U/G Fiber Optic Cable LOS C (S.U.E.*) — TV FO
- U/G Fiber Optic Cable LOS D (S.U.E.*) — TV FO

GAS:

- Gas Valve
- Gas Meter
- U/G Gas Line LOS B (S.U.E.*) — G
- U/G Gas Line LOS C (S.U.E.*) — G
- U/G Gas Line LOS D (S.U.E.*) — G
- Above Ground Gas Line — A/G Gas

SANITARY SEWER:

- Sanitary Sewer Manhole
- Sanitary Sewer Cleanout
- U/G Sanitary Sewer Line — SS
- Above Ground Sanitary Sewer — A/G Sanitary Sewer
- SS Forced Main Line LOS B (S.U.E.*) — FSS
- SS Forced Main Line LOS C (S.U.E.*) — FSS
- SS Forced Main Line LOS D (S.U.E.*) — FSS

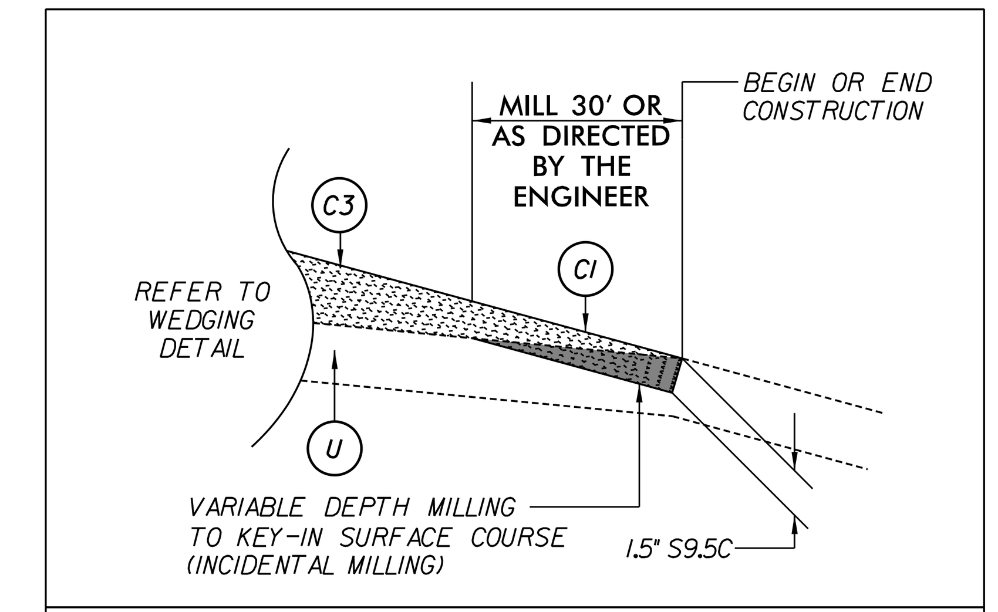
MISCELLANEOUS:

- Utility Pole
- Utility Pole with Base
- Utility Located Object
- Utility Traffic Signal Box — S
- Utility Unknown U/G Line LOS B (S.U.E.*) — ?UTL
- U/G Tank; Water, Gas, Oil
- Underground Storage Tank, Approx. Loc. — UST
- A/G Tank; Water, Gas, Oil
- Geoenvironmental Boring
- U/G Test Hole LOS A (S.U.E.*)
- Abandoned According to Utility Records — AATUR
- End of Information — E.O.I.

5/14/99

FINAL PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS PER SQ.YARD.
C2	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS PER SQ.YARD IN EACH OF TWO LAYERS.
C3	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 112 LBS. PER SQ.YD. PER 1" DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 1.5" OR GREATER THAN 2.0" IN DEPTH.
D1	PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 456 LBS PER SQ.YARD.
E1	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ.YARD.
E2	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 114 LBS. PER SQ.YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 3" IN DEPTH OR GREATER THAN 5.5" IN DEPTH.
K	12" CLASS IV SUBGRADE STABILIZATION
N	GEOTEXTILE FOR SUBGRADE STABILIZATION
R1	SHOULDER BERM GUTTER
T	EARTH MATERIAL
U	EXISTING PAVEMENT
V	MILLING 1.5" DEPTH

NOTES: ALL PAVEMENT EDGE SLOPES ARE 1:1 UNLESS OTHERWISE NOTED.
SEE PLANS FOR LOCATION OF AUXILIARY LANES, CONCRETE ISLANDS, AND TAPERS.



DETAIL SHOWING GRADE TIE-INS
(Blend to Existing)

PROJECT REFERENCE NO.	SHEET NO.
HS-2401P	2A-1

R/W SHEET NO.

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 16725 SCOTT D. BLEVINS 2/24/2026

PAVEMENT ENGINEER — NORTH CAROLINA PROFESSIONAL ENGINEER SEAL ANDREW D. WARGO 2/24/2026

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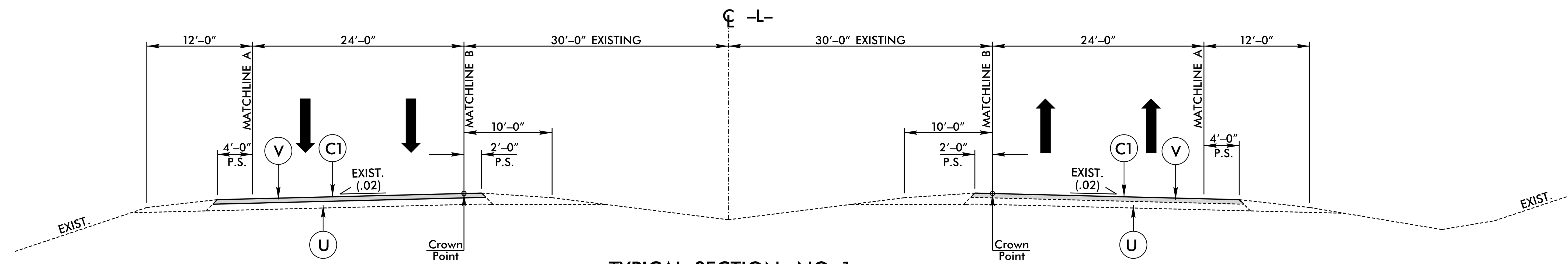
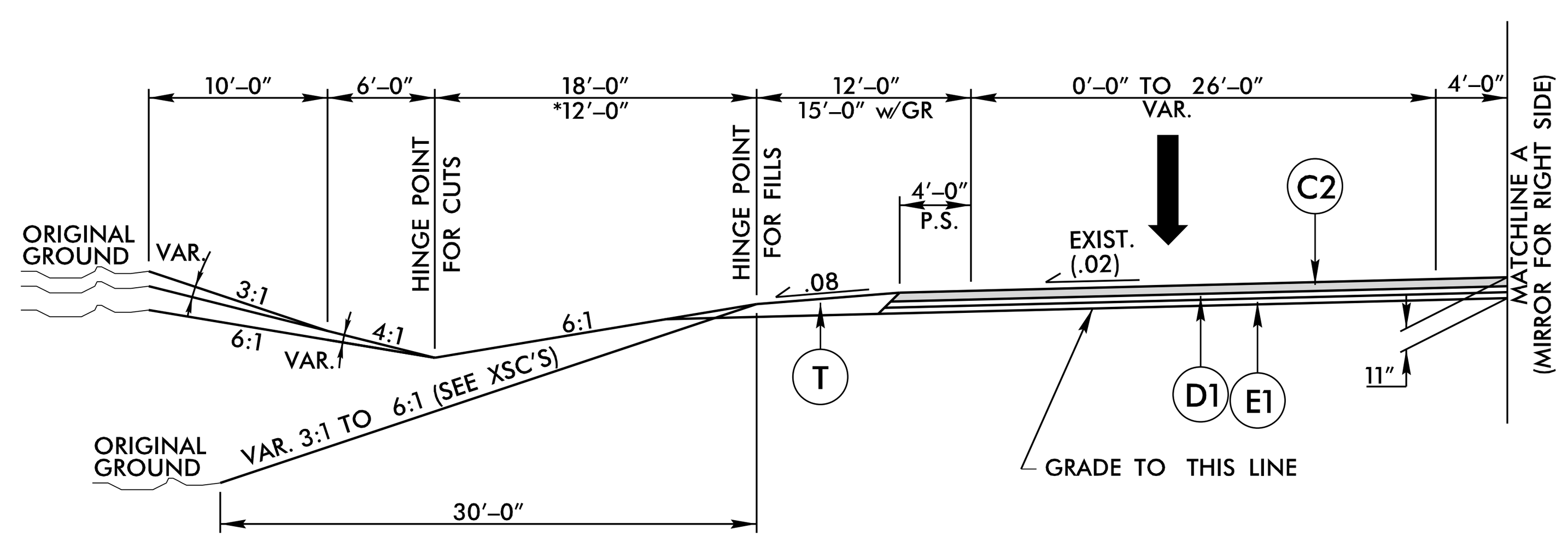


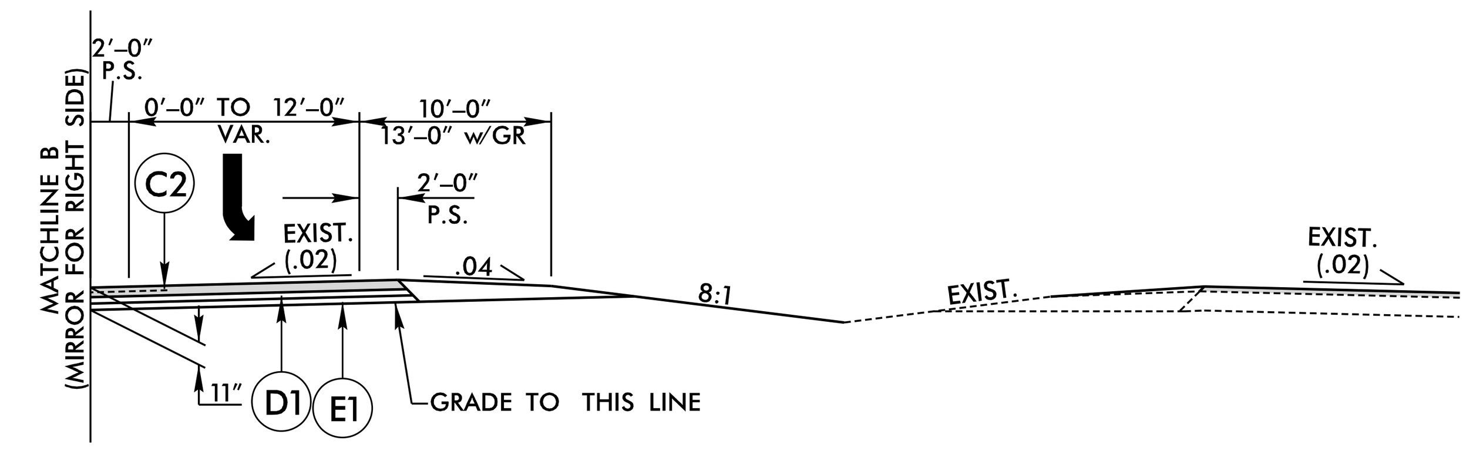
TYPICAL SECTION NO. 1
-L- STA. 52+00.00 TO STA. 159+00.00



TYPICAL SECTION NO. 1-A (U-Turn Bulb)

USE IN CONJUCTION WITH TYPICAL SECTION NO. 1

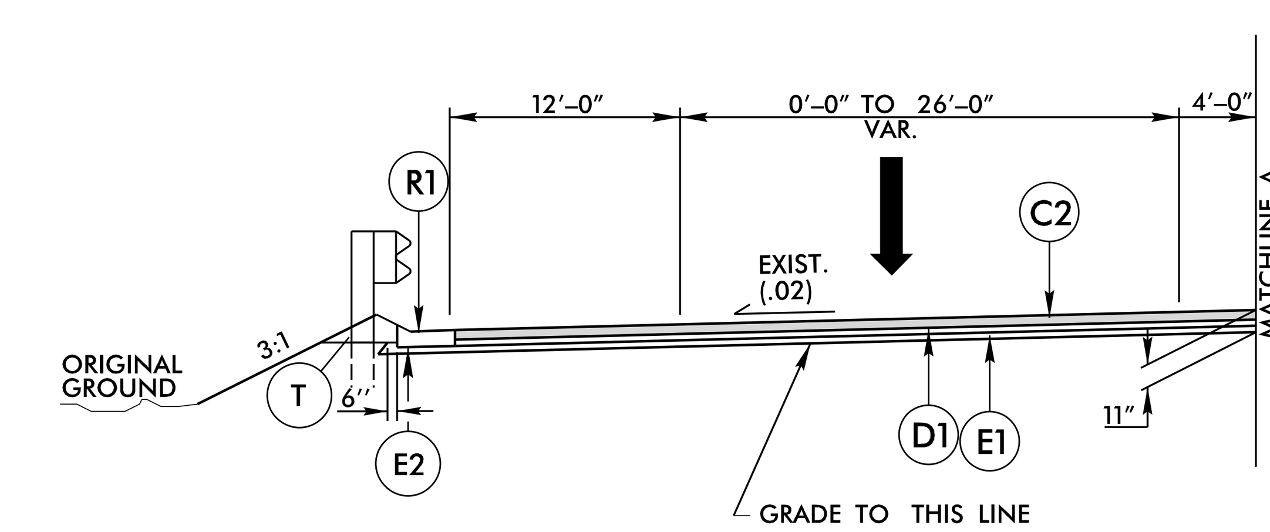
-L- STA. 69+21.63 TO 71+45.00 RT.
*-L- STA. 90+20.00 TO 92+43.74 LT.
*-L- STA. 107+03.78 TO 109+73.94 LT.
-L- STA. 117+06.19 TO 119+27.15 RT.
*-L- STA. 135+67.15 TO 137+90.34 LT.



TYPICAL SECTION NO. 1-B (Median Widening)

USE IN CONJUCTION WITH TYPICAL SECTION NO. 1

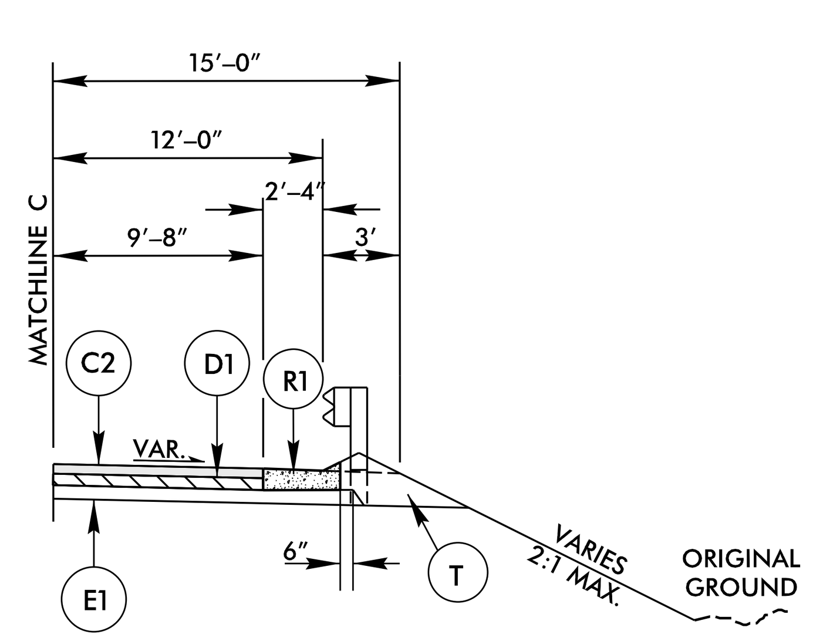
-L- STA. 70+15.00 TO 77+15.00 LT.
-L- STA. 73+42.42 TO 80+42.42 RT.
-L- STA. 82+57.42 TO 89+57.42 LT.
-L- STA. 84+50.00 TO 91+50.00 RT.
-L- STA. 100+35.57 TO 107+35.57 LT.
-L- STA. 101+80.57 TO 108+80.57 RT.
-L- STA. 117+97.15 TO 124+97.15 LT.
-L- STA. 119+37.15 TO 126+37.15 RT.
-L- STA. 128+57.15 TO 135+57.15 LT.
-L- STA. 129+97.19 TO 136+97.19 RT.



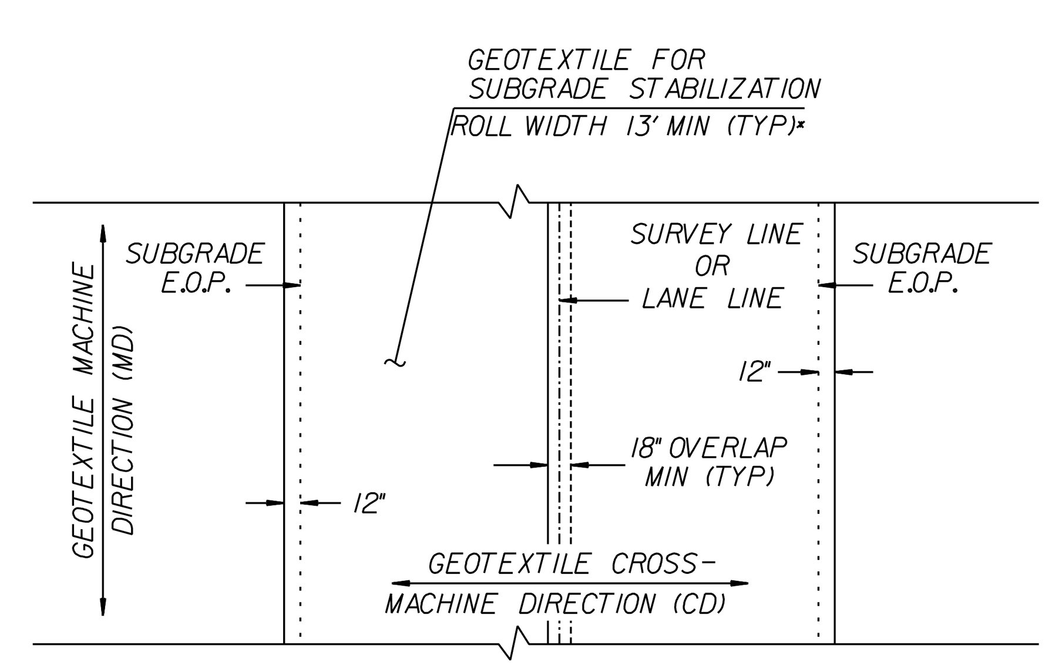
TYPICAL SECTION NO. 1-C (U-Turn Bulb with Guardrail)

USE IN CONJUCTION WITH TYPICAL SECTION NO. 1

-L- STA. 69+01.80 TO 71+45.43 RT.

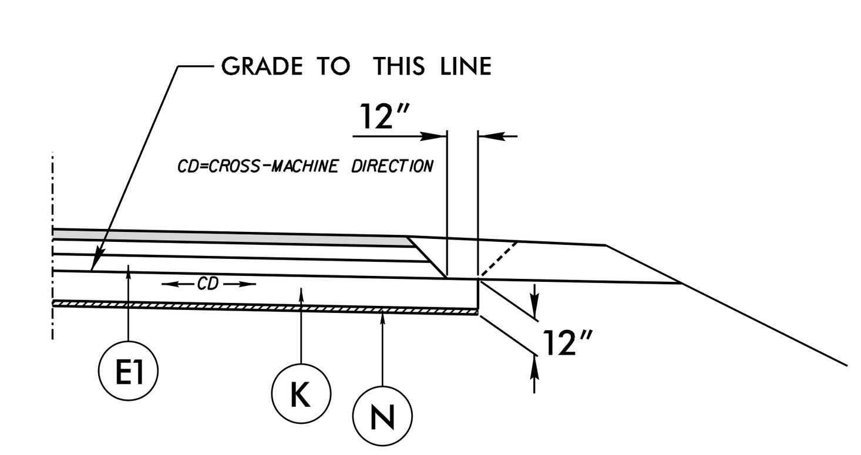


SHOULDER BERM GUTTER DETAIL
-L- STA. 69+01.80 TO 71+45.43 (RT)



GEOTEXTILE FOR SUBGRADE STABILIZATION PLACEMENT
(PLAN VIEW)
(100% COVERAGE REQUIRED)

*INSTALL GEOTEXTILE FOR SUBGRADE STABILIZATION WITH MINIMUM ROLL WIDTH UNDER ROADWAY EDGES AND SHOULDERS ADJACENT TO FILL SLOPES



AGGREGATE SUBGRADE FOR SHOULDER WITH ASPHALT BASE
-L- STA. 79+25.00 TO 84+25.00 CL
-L- STA. 90+25.00 TO 92+25.00 LT
-L- STA. 119+25.00 TO 124+25.00 CL
-L- STA. 126+25.00 TO 126+75.00 CL

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2/23/2026
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8/17/99

PROJECT REFERENCE NO.	SHEET NO.
HS-2401P	2B-1
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 16773 ENGINEER SCOTT D. BLEVINS
2/23/2026

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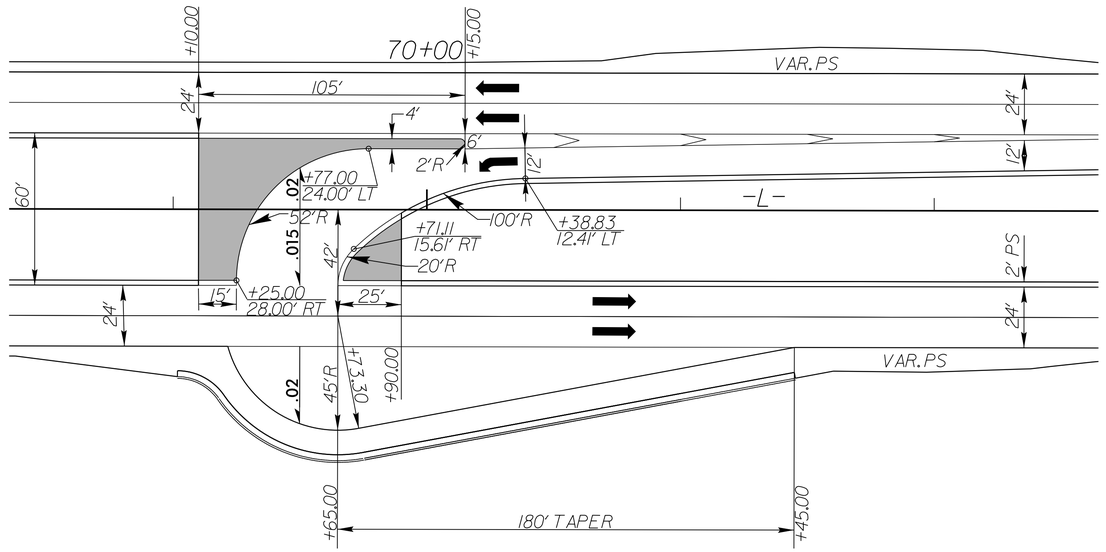
NAD 83/NA 2011



DETAIL SHOWING

INTERSECTION OF –L– US 158 AT U–TURN BULB

30′ 0′ 30′ 60′

15′

SEE SHEET 5 FOR ROADWAY PLAN VIEW

5" CONC. MONOLITHIC ISLAND KEYED–IN

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1/8/2026
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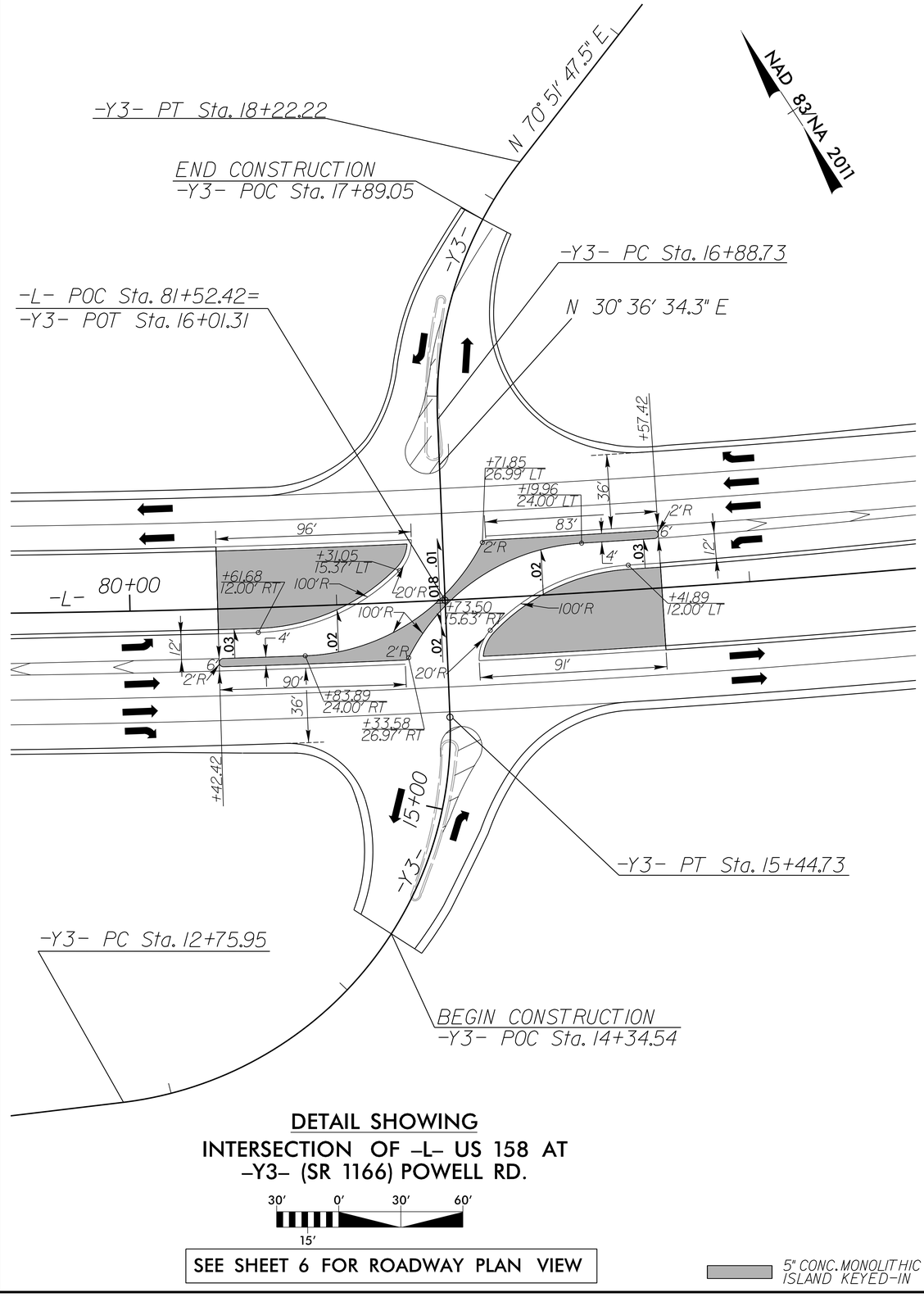
sheetlgr

8/17/99

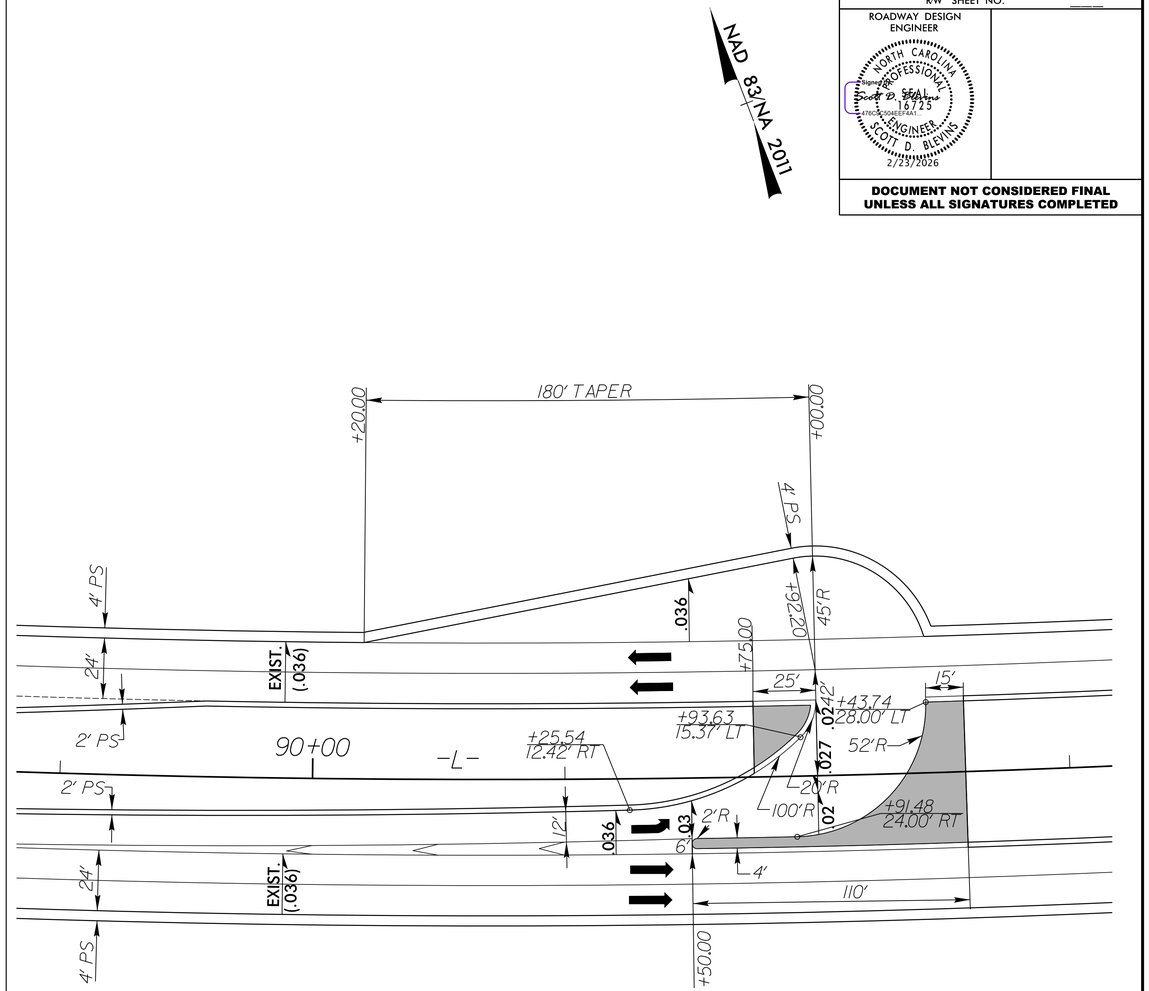


DETAIL SHOWING
INTERSECTION OF –L– US 158 AT –Y3– (SR 1166) POWELL RD.

30′ 0′ 30′ 60′
15′

SEE SHEET 6 FOR ROADWAY PLAN VIEW

5" CONC. MONOLITHIC ISLAND KEYED-IN



DETAIL SHOWING
INTERSECTION OF –L– US 158 AT U–TURN BULB

30′ 0′ 30′ 60′
15′

SEE SHEET 7 FOR ROADWAY PLAN VIEW

5" CONC. MONOLITHIC ISLAND KEYED-IN

PROJECT REFERENCE NO.	SHEET NO.
HS-2401P	2B-2
R/W SHEET NO.	___

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 16725 ENGINEER SCOTT D. BLEVINS
Signed by: Scott D. Blevins
2/23/2026

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RK&K
P: (919) 878-9560
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Raleigh, North Carolina 27615-3960
NC License No. F-0112
Engineers | Construction Managers | Planners | Scientists
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default

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
HS-2401P	2B-3
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 16775 ENGINEER SCOTT D. BLEVINS
2/23/2026

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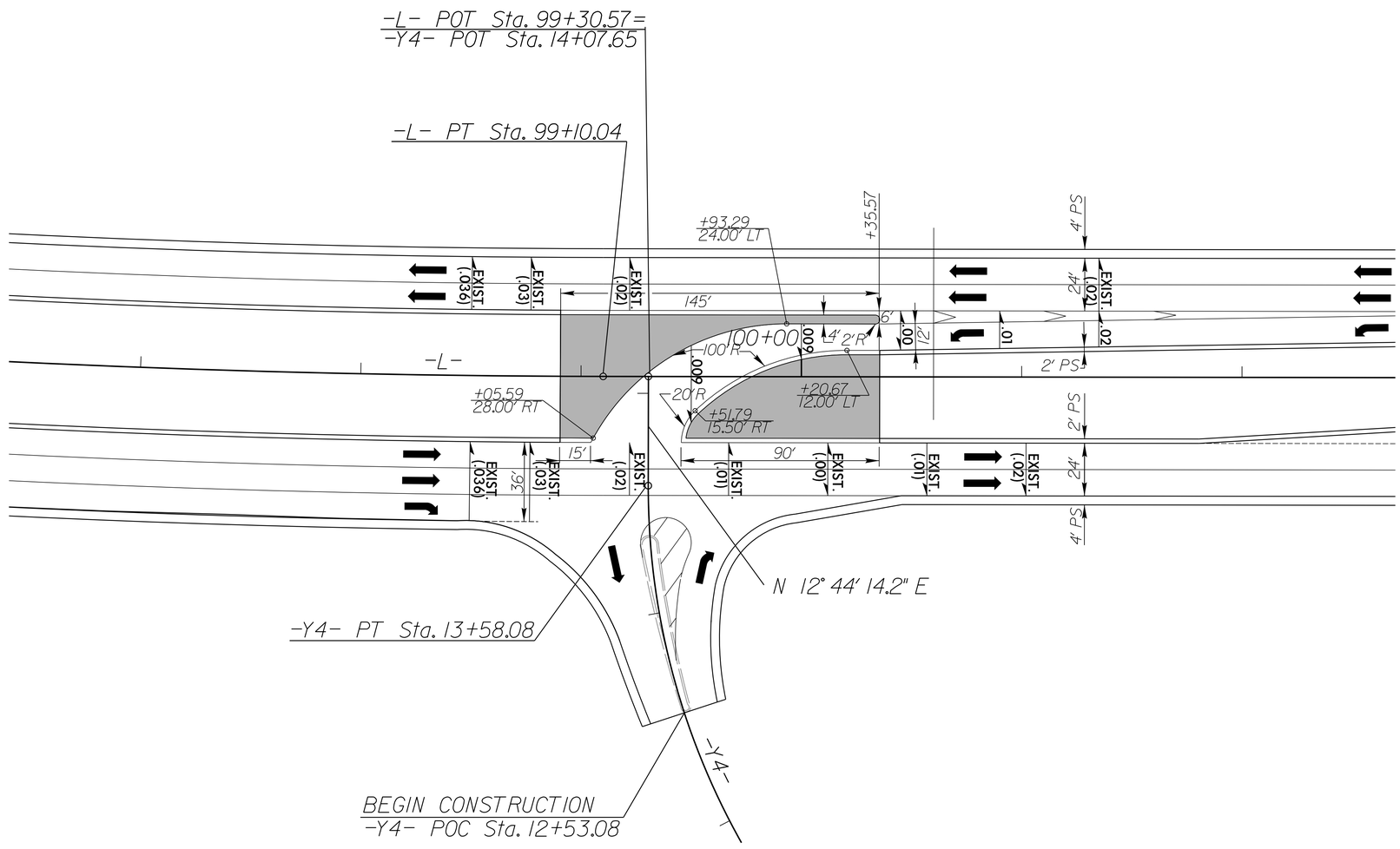
NAD 83/NA 2011



DETAIL SHOWING
INTERSECTION OF -L- US 158 AT -Y4- (SR 1230) CLOVER CR.

30' 0' 30' 60'
15'

SEE SHEET 7 FOR ROADWAY PLAN VIEW

5" CONC. MONOLITHIC ISLAND KEYED-IN

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shelter

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PROJECT REFERENCE NO.	SHEET NO.
HS-2401P	2B-4
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 16723 ENGINEER SCOTT D. BLEVINS

2/23/2026

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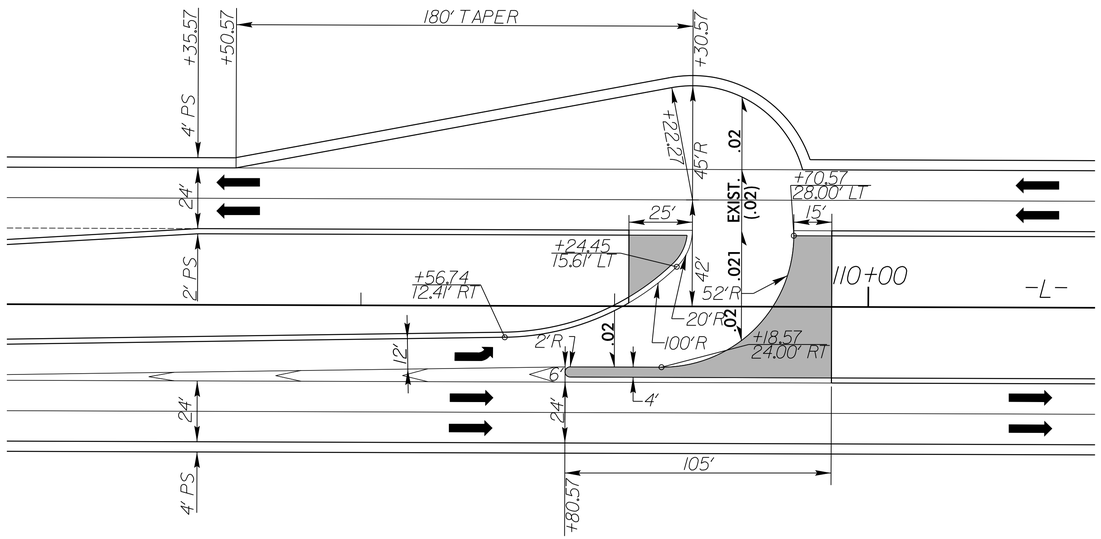


DETAIL SHOWING
INTERSECTION OF –L– US 158 AT U–TURN BULB

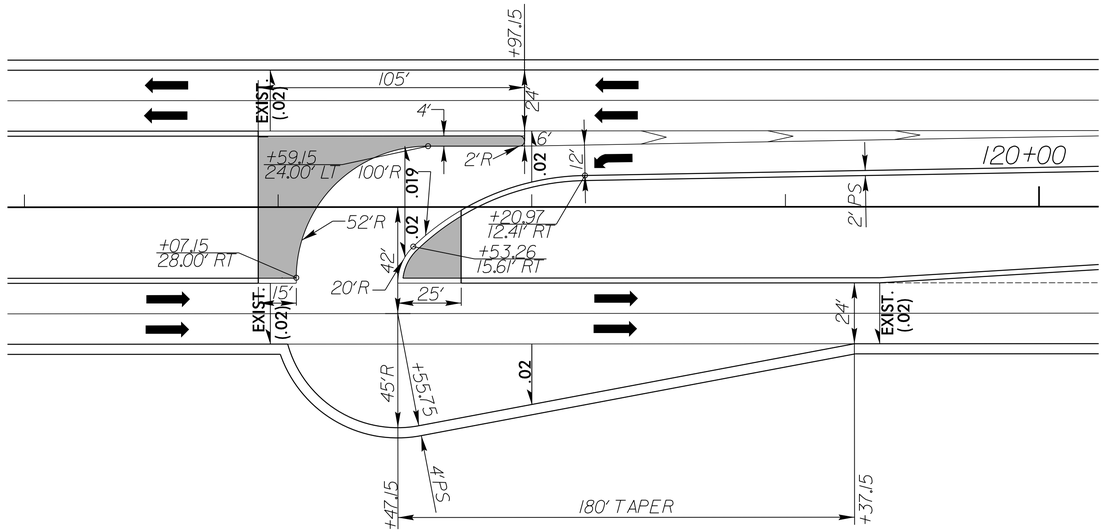
30' 0' 30' 60'

15'

SEE SHEET 8 FOR ROADWAY PLAN VIEW

5" CONC. MONOLITHIC ISLAND KEYED-IN

NAD 83/NA 2011



DETAIL SHOWING
INTERSECTION OF –L– US 158 AT U–TURN BULB

30' 0' 30' 60'

15'

SEE SHEET 9 FOR ROADWAY PLAN VIEW

5" CONC. MONOLITHIC ISLAND KEYED-IN

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shetler

PROJECT REFERENCE NO.	SHEET NO.
HS-2401P	2B-5
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 16723 ENGINEER SCOTT D. BLEVINS

2/23/2026

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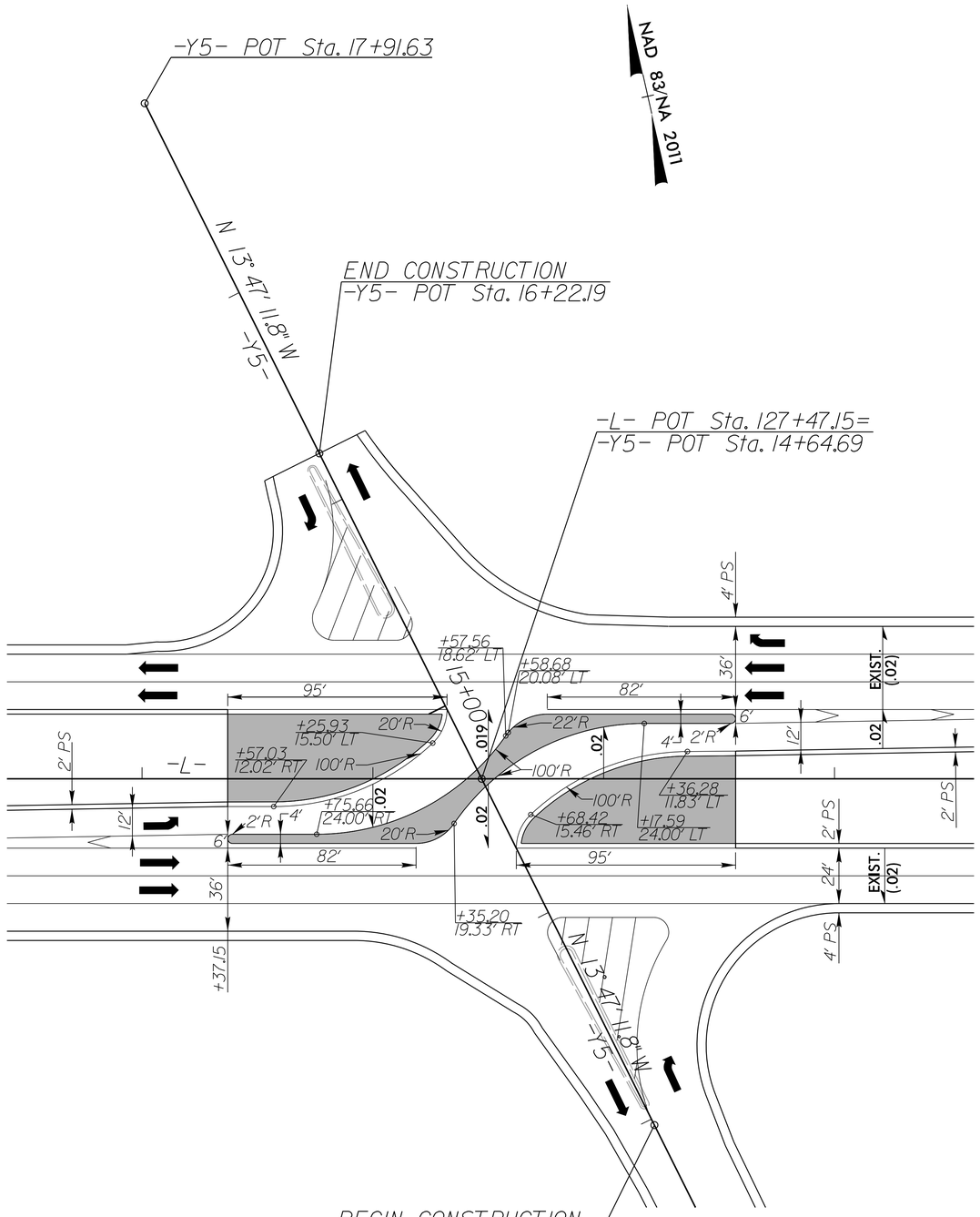
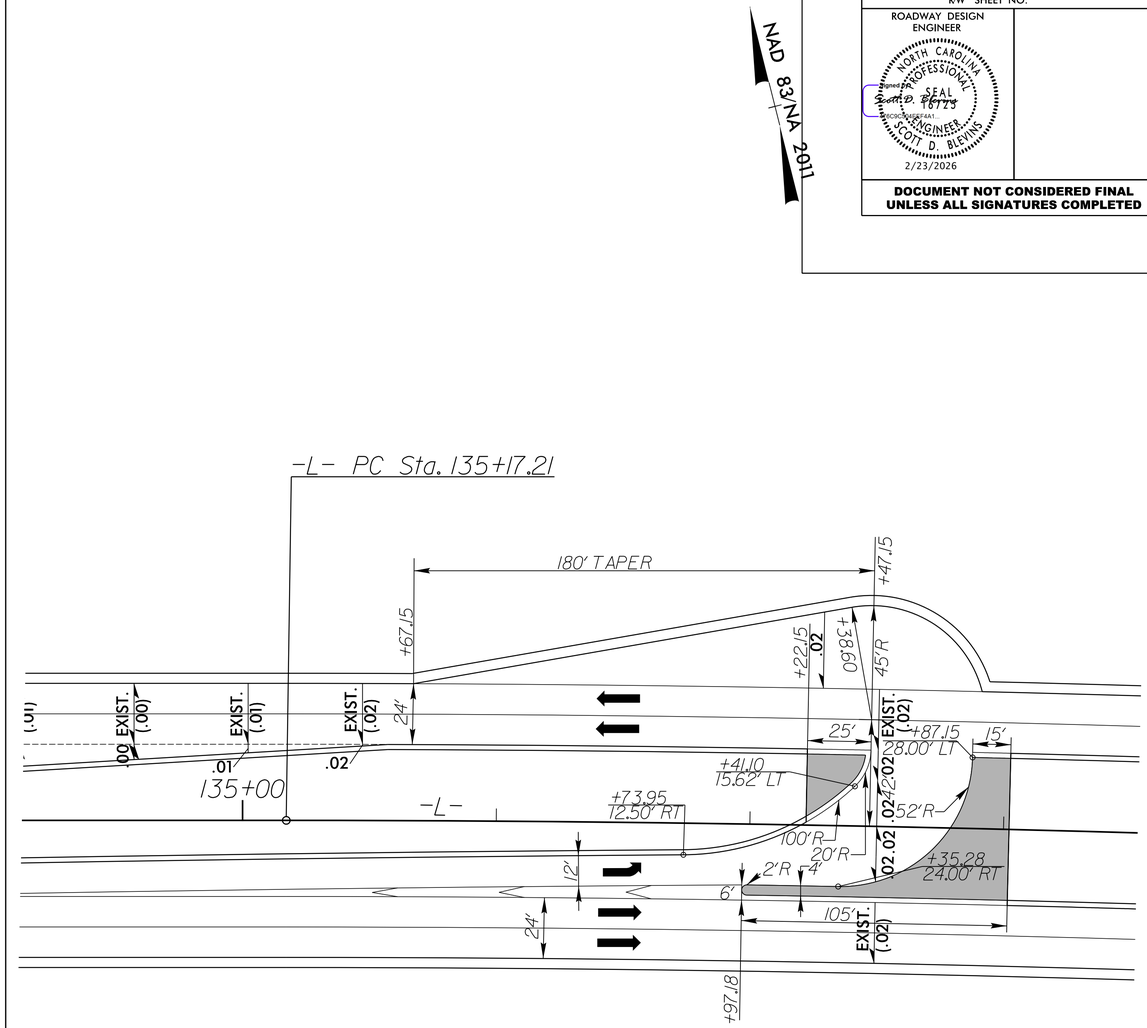


DETAIL SHOWING
INTERSECTION OF –L– US 158 AT –Y5– (SR 1160) BENTHALL BRIDGE RD.

SEE SHEET 9 FOR ROADWAY PLAN VIEW

30′ 0′ 30′ 60′
15′

5" CONC. MONOLITHIC ISLAND KEYED-IN



DETAIL SHOWING
INTERSECTION OF –L– US 158 AT U-TURN BULB

30′ 0′ 30′ 60′
15′

SEE SHEET 10 FOR ROADWAY PLAN VIEW

5" CONC. MONOLITHIC ISLAND KEYED-IN

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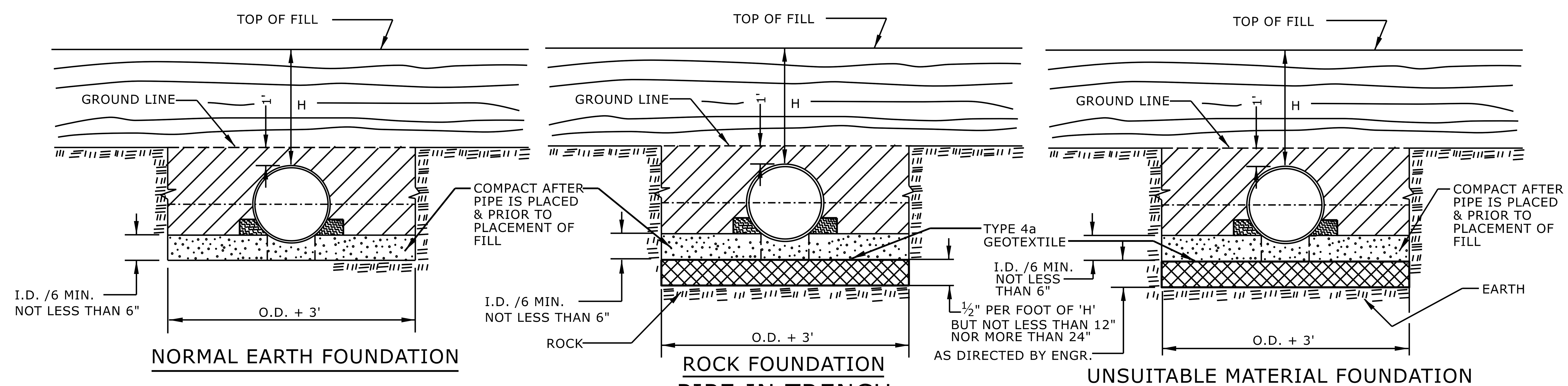
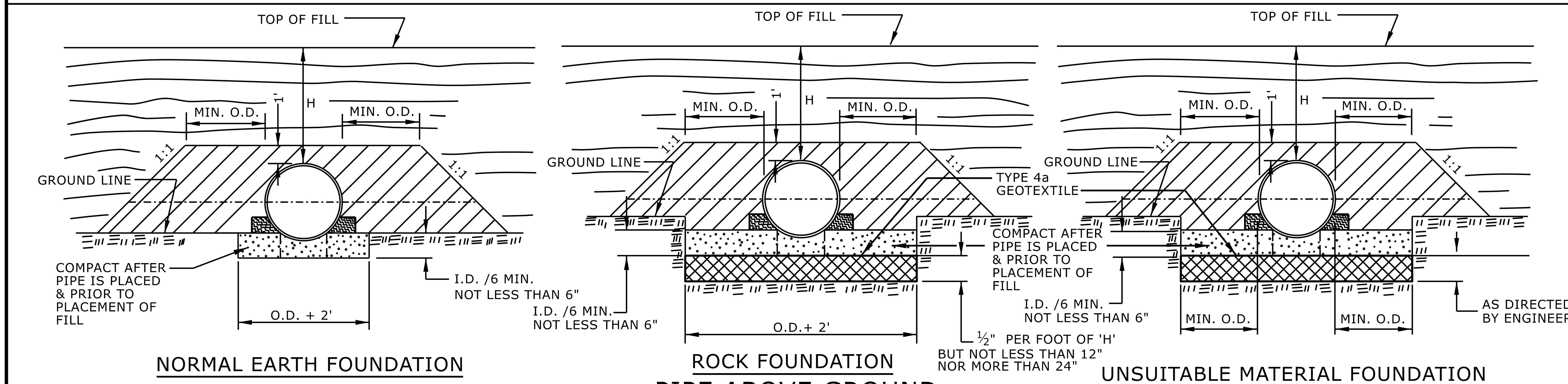


PIPE IN TRENCH



PIPE ABOVE GROUND

GENERAL NOTES:

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

APPROVED SUITABLE LOCAL MATERIAL.

TAKE CARE TO FULLY COMPACT HAUNCH ZONE OF PIPE BACKFILL.

LOOSELY PLACED SELECT MATERIAL CLASS III OR CLASS II, TYPE 1 FOR PIPE BEDDING. LEAVE SECTION DIRECTLY BENEATH PIPE UNCOMPACTED AS PIPE SEATING AND BACKFILL WILL ACCOMPLISH COMPACTION.

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

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

SPRINGLINE OF PIPE

SELECT BACKFILL MATERIAL CLASS III OR CLASS II, TYPE 1 ABOVE AND BELOW SPRINGLINE.

UNDISTURBED EARTH MATERIAL

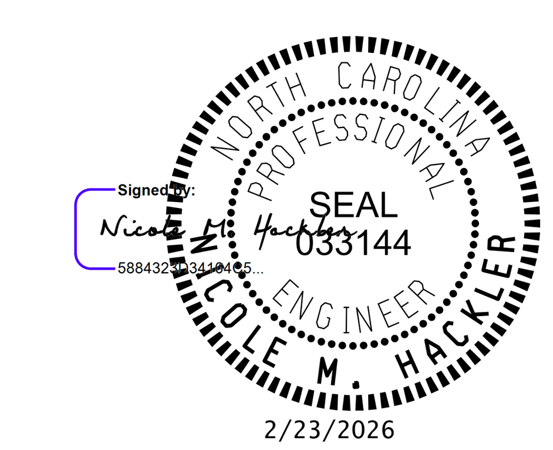
SELECT MATERIAL CLASS V OR VI FOR FOUNDATION CONDITIONING. ENCAPSULATE WITH TYPE IV GEOTEXTILE AS DIRECTED BY THE ENGINEER.

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

ROADWAY DETAIL DRAWING FOR
METHOD OF PIPE INSTALLATION
FLEXIBLE PIPE

SHEET 1 OF 2

300.01



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Office 919-707-6950 FAX 919-250-4119

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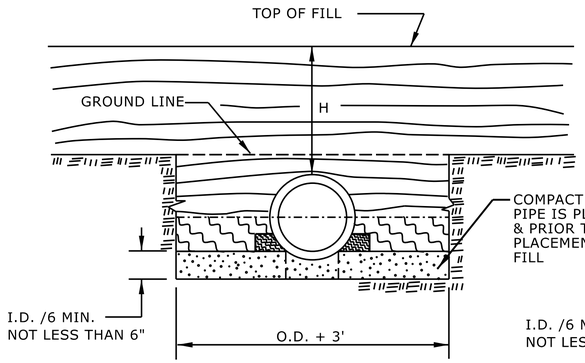
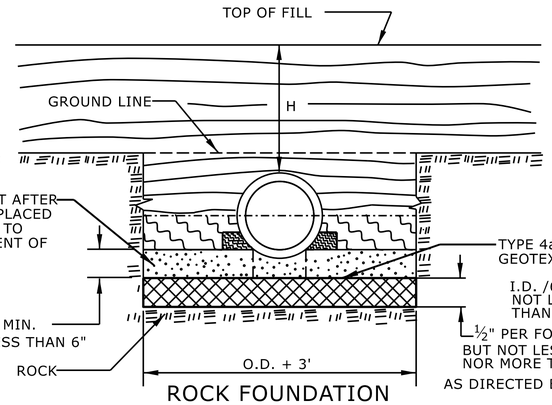
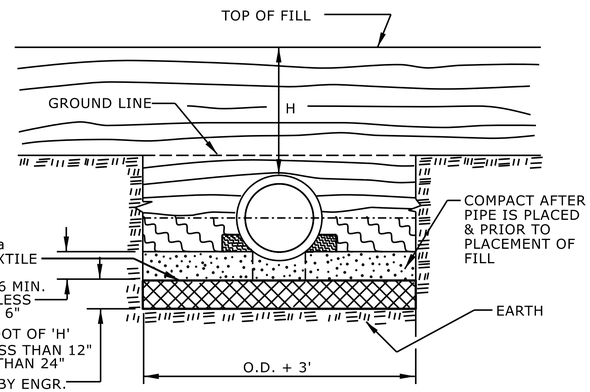
HS-2401P	2C-2



NORMAL EARTH FOUNDATION

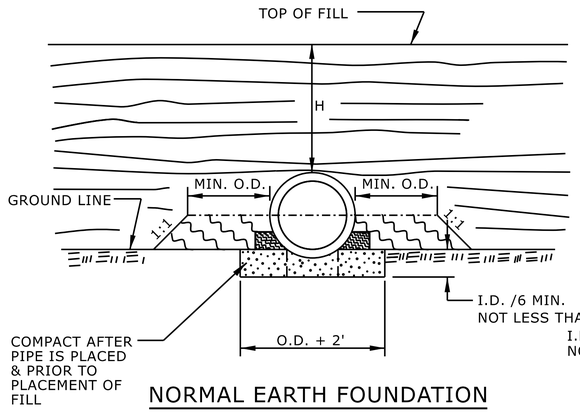


ROCK FOUNDATION

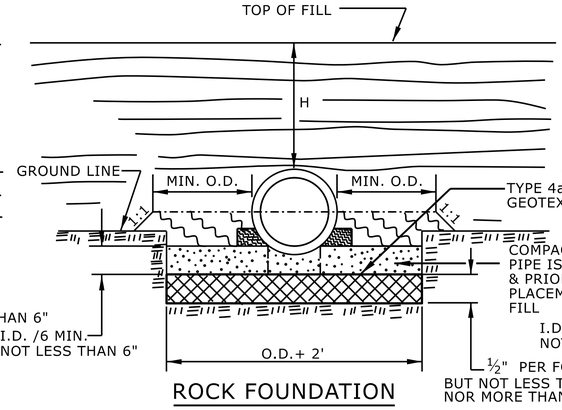


UNSUITABLE MATERIAL FOUNDATION

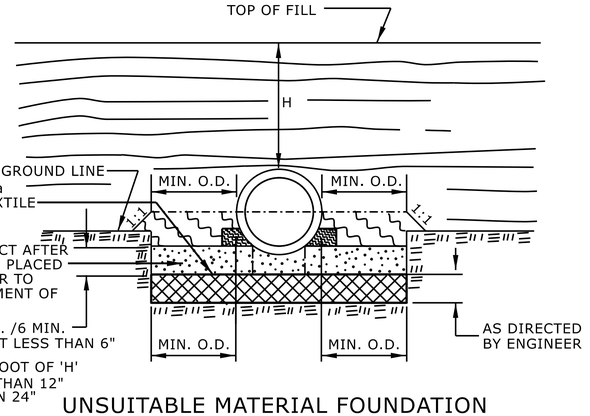
PIPE IN TRENCH



NORMAL EARTH FOUNDATION



ROCK FOUNDATION



UNSUITABLE MATERIAL FOUNDATION

PIPE ABOVE GROUND

GENERAL NOTES:

I.D. = THE MAXIMUM HORIZONTAL INSIDE DIAMETER DIMENSION.

O.D. = THE MAXIMUM HORIZONTAL OUTSIDE DIAMETER DIMENSION.

H = THE FILL HEIGHT MEASURED VERTICALLY AT ANY POINT ALONG THE PIPE FROM THE TOP OF THE PIPE TO THE TOP OF THE EMBANKMENT AT THAT POINT.

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LOOSELY PLACED SELECT MATERIAL CLASS III OR CLASS II, TYPE 1 FOR PIPE BEDDING. LEAVE SECTION DIRECTLY BENEATH PIPE UNCOMPACTED AS PIPE SEATING AND BACKFILL WILL ACCOMPLISH COMPACTION.

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

SPRINGLINE OF PIPE

SELECT BACKFILL MATERIAL CLASS III OR CLASS II, BELOW SPRINGLINE.

UNDISTURBED EARTH MATERIAL

SELECT MATERIAL CLASS V OR VI FOR FOUNDATION CONDITIONING. ENCAPSULATE WITH TYPE IV GEOTEXTILE AS DIRECTED BY THE ENGINEER.

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

ROADWAY DETAIL DRAWING FOR

METHOD OF PIPE INSTALLATION

RIGID PIPE

SHEET 2 OF 2

300.01

Signed by: Nicole M. Hackler
SEAL
033144
NORTH CAROLINA PROFESSIONAL ENGINEER
NICOLE M. HACKLER
2/23/2026

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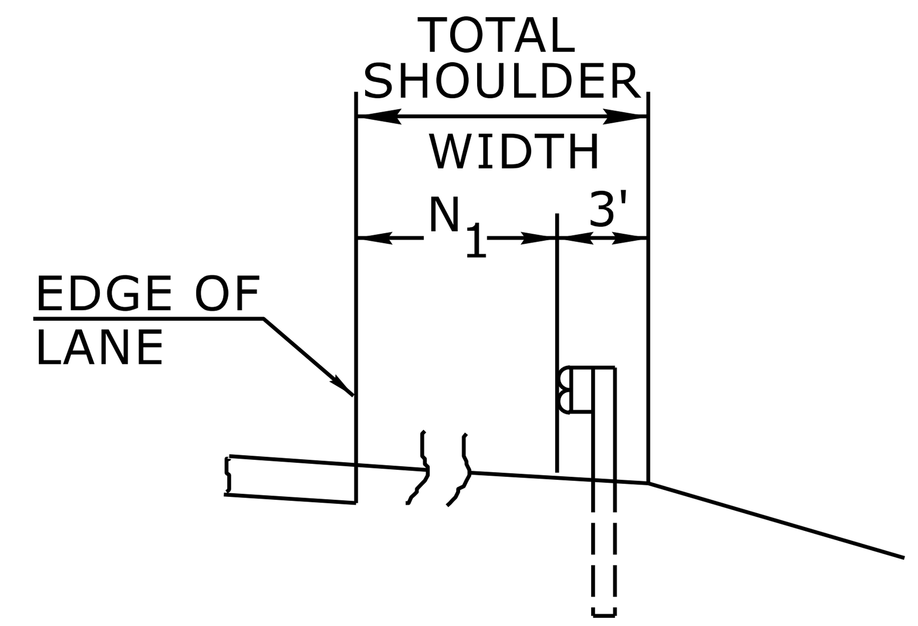
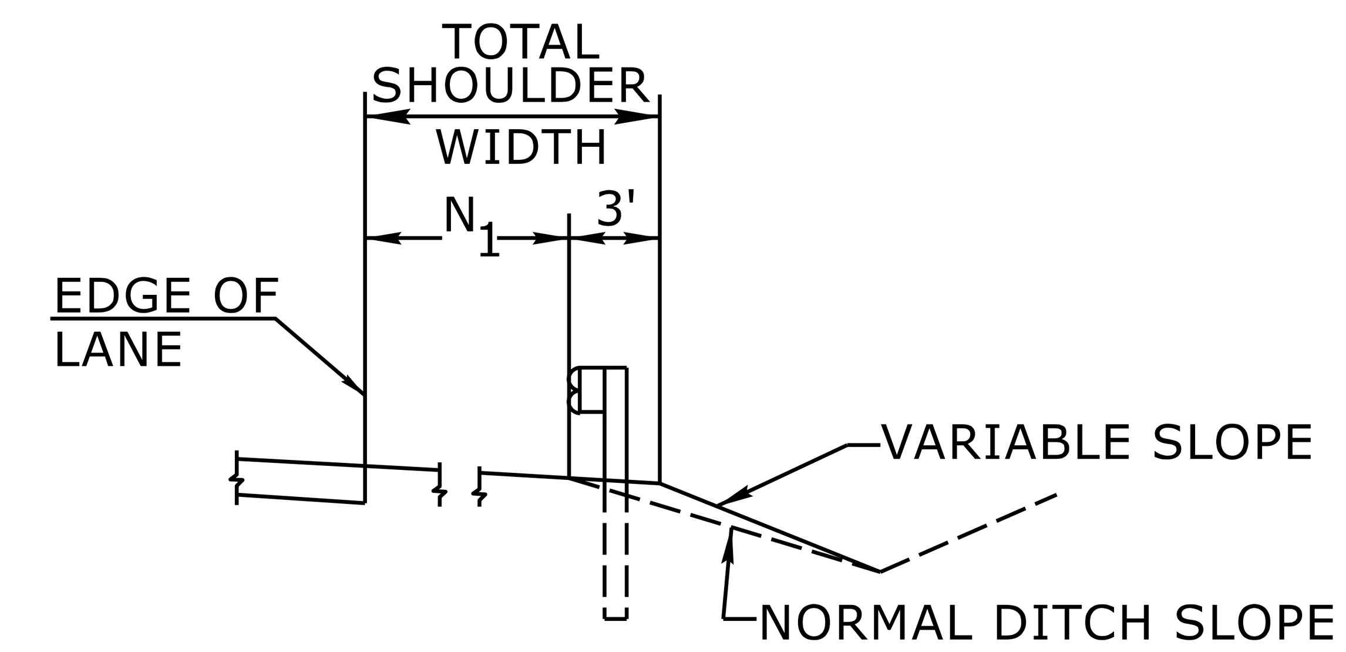
FILE SPEC.: _____

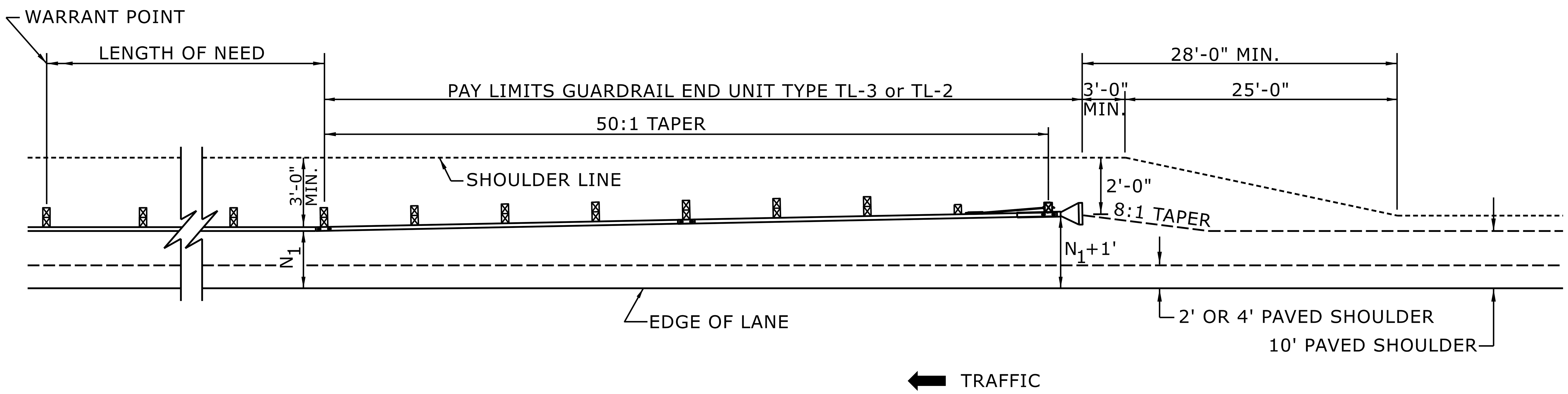


FILL SECTION



CUT SECTION

"N_1"= DISTANCE FROM EDGE OF LANE TO FACE OF GUARDRAIL WHERE GUARDRAIL IS PARALLEL TO LANE.



FOR POSTED SPEEDS ≥ 45mph USE GREU TYPE TL-3
FOR POSTED SPEEDS < 45mph USE GREU TYPE TL-2

DETAIL OF BEGINNING OF GUARDRAIL IN CUT OR FILL SECTION

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RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR
GUARDRAIL PLACEMENT

SHEET 6 OF 15
862D01

NORTH CAROLINA PROFESSIONAL SEAL 033144 ENGINEER NICOLE M. HACKLER
2/23/2026

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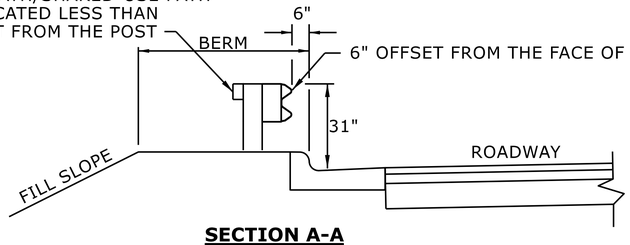
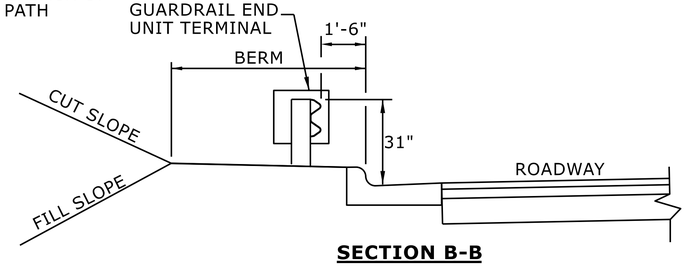
HS-2401P	2C-4

PLACE APPROVED BICYCLE FRIENDLY RAILINGS, FENCE, OR RUB RAILS IF SIDEPATH/SHARED-USE PATH IS LOCATED LESS THAN 4 FEET FROM THE POST

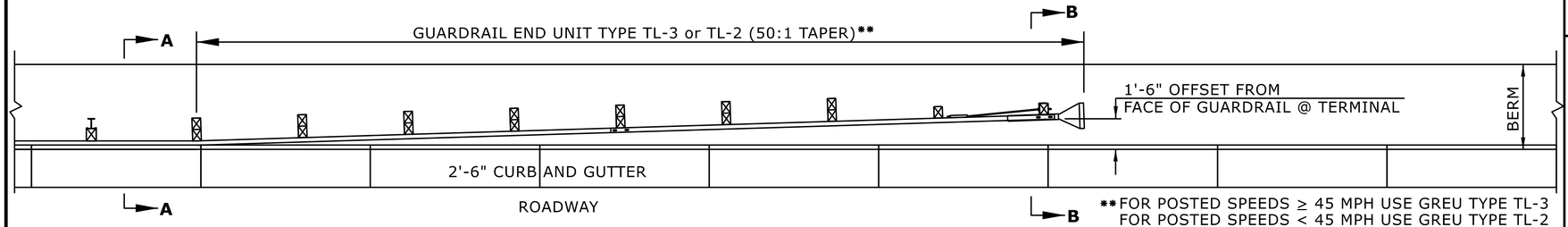
SEE THE ROADWAY DESIGN MANUAL (PART I CHAPTER 4 SECTION 4.14) FOR OFFSET DISTANCES FROM FACE OF GUARDRAIL AND BACK OF GUARDRAIL TO SIDEWALK OR SIDEPATH/SHARED-USE PATH



SECTION A-A



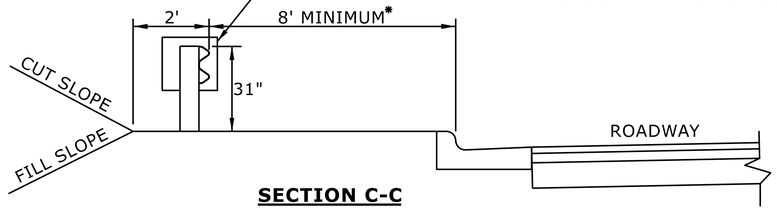
SECTION B-B



**FOR POSTED SPEEDS ≥ 45 MPH USE GREU TYPE TL-3
FOR POSTED SPEEDS < 45 MPH USE GREU TYPE TL-2

BICYCLE FRIENDLY RAILINGS, FENCE OR RUB RAIL SHOULD NOT BE PLACED WITHIN THE LIMITS OF THE STRUCTURAL ANCHOR OR END UNITS

GUARDRAIL 6" FROM THE FACE OF CURB



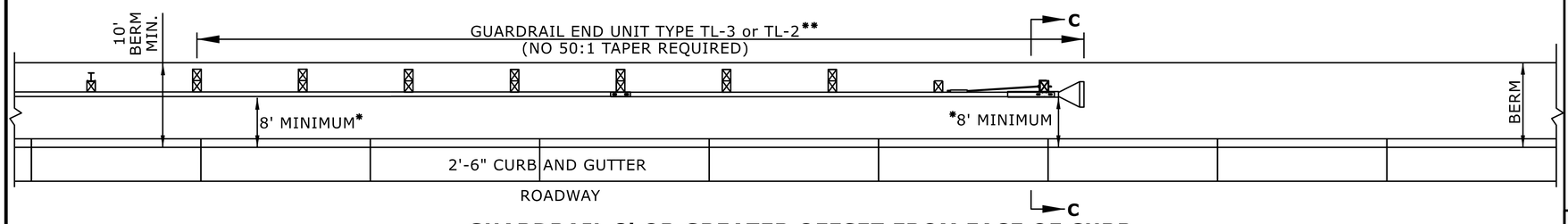
SECTION C-C

*FOR POSTED SPEED ≥ 40 MPH USE 13' MINIMUM OFFSET

SEE THE ROADWAY DESIGN MANUAL (PART I CHAPTER 4 SECTION 4.14) FOR OFFSET DISTANCES FROM FACE OF GUARDRAIL AND BACK OF GUARDRAIL TO SIDEWALK OR SIDEPATH/SHARED-USE PATH

**FOR POSTED SPEEDS ≥ 45 MPH USE GREU TYPE TL-3
FOR POSTED SPEEDS < 45 MPH USE GREU TYPE TL-2

BICYCLE FRIENDLY RAILINGS, FENCE OR RUB RAIL SHOULD NOT BE PLACED WITHIN THE LIMITS OF THE STRUCTURAL ANCHOR OR END UNITS



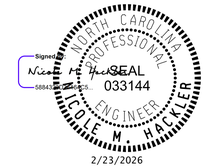
GUARDRAIL 8' OR GREATER OFFSET FROM FACE OF CURB

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

ROADWAY DETAIL DRAWING FOR

GUARDRAIL PLACEMENT

GUARDRAIL TREATMENT AT CURB AND GUTTER



SHEET 12 OF 15

862D01

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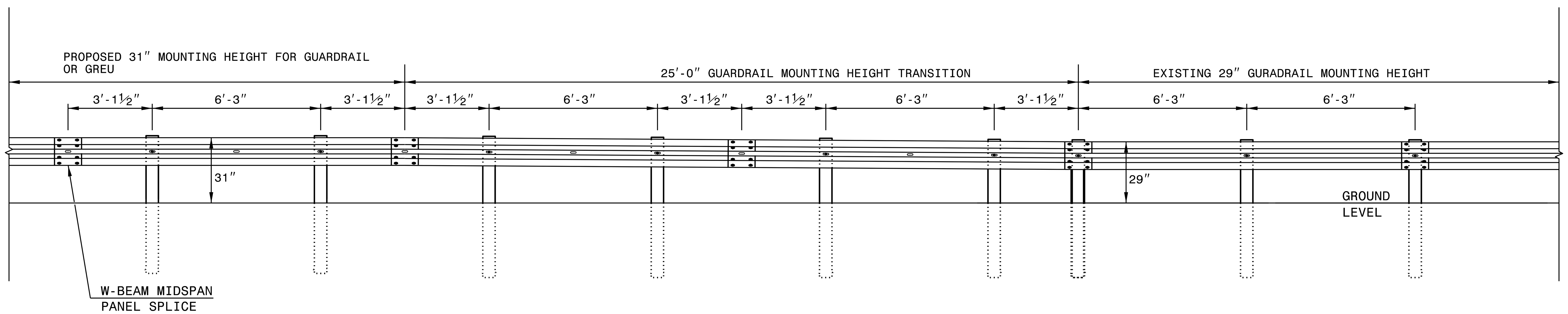
FILE SPEC.: _____

PROJECT REFERENCE NO.	SHEET NO.
HS-2401P	2C-5

NOTE: IF EXISTING GUARDRAIL IS LOWER THAN 29″, USE AN ADDITIONAL 12′-6″ LONG SECTION OF GUARDRAIL, FOR EVERY 1″ OF HEIGHT DIFFERENCE, TO TRANSITION FROM EXISTING GUARDRAIL TO PROPOSED 31″ GUARDRAIL.



ELEVATION VIEW

TRANSITION FROM 29″ TO 31″ W-BEAM GUARDRAIL MOUNTING HEIGHT

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

ROADWAY DETAIL DRAWING FOR
GUARDRAIL INSTALLATION

SHEET 5 OF 9
862D02

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 033144 NICOLE M. HACKLER
2/23/2026

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Office 919-707-8950 FAX 919-250-4119

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MODIFIED BY: DATE:
CHECKED BY: DATE:
FILE SPEC.:

05-FEB-2025 07:53
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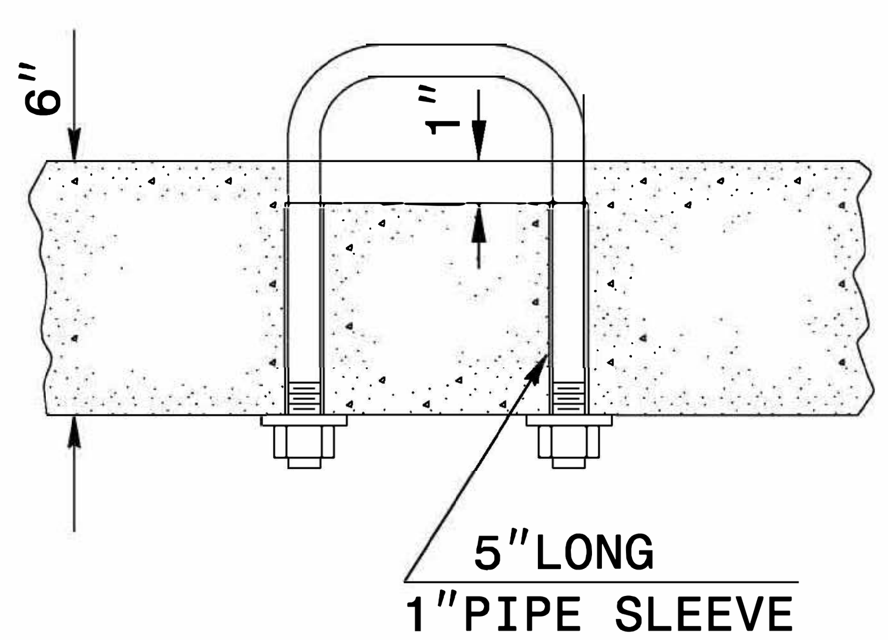
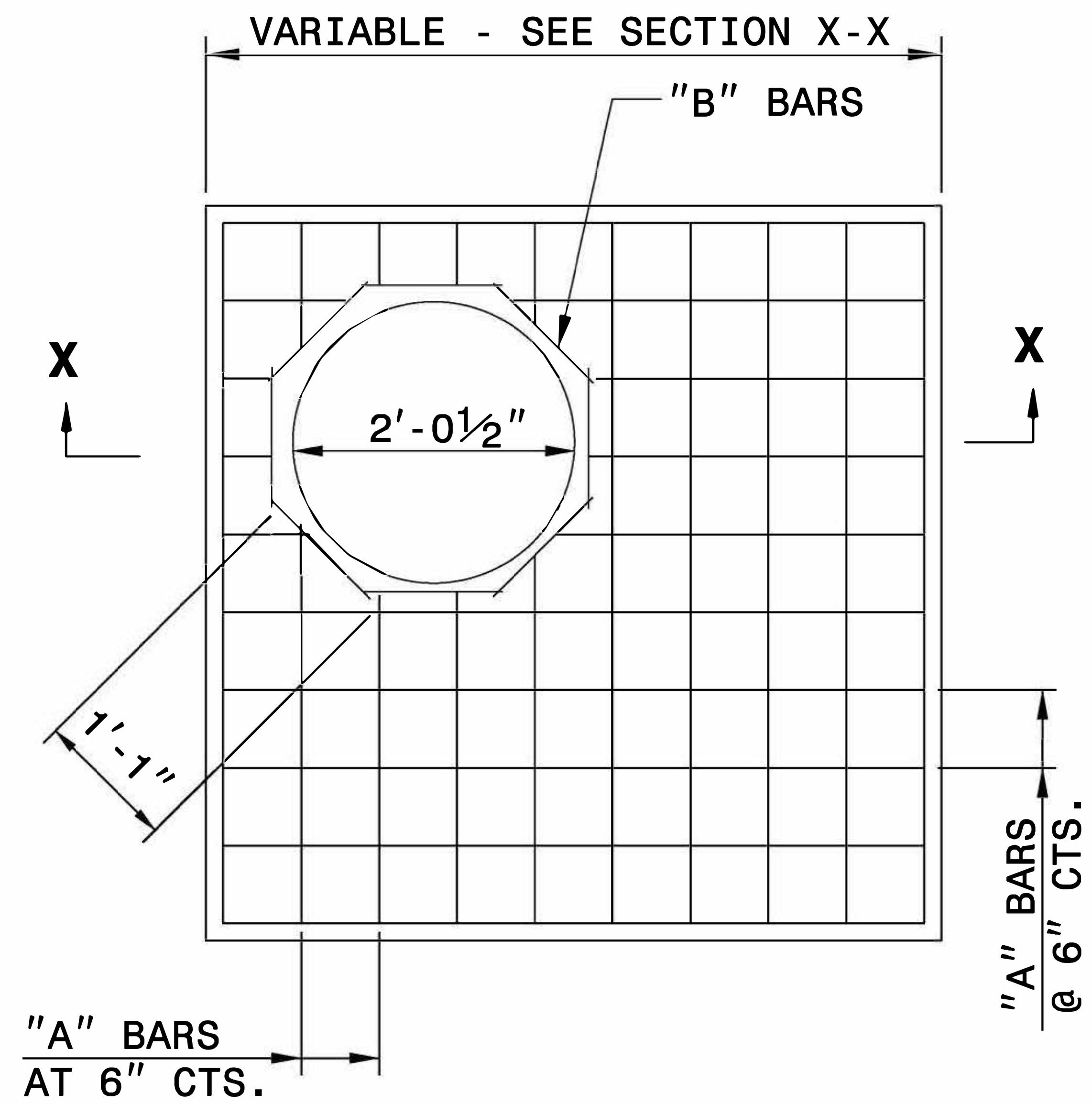
$$$$USERNAME$$$$

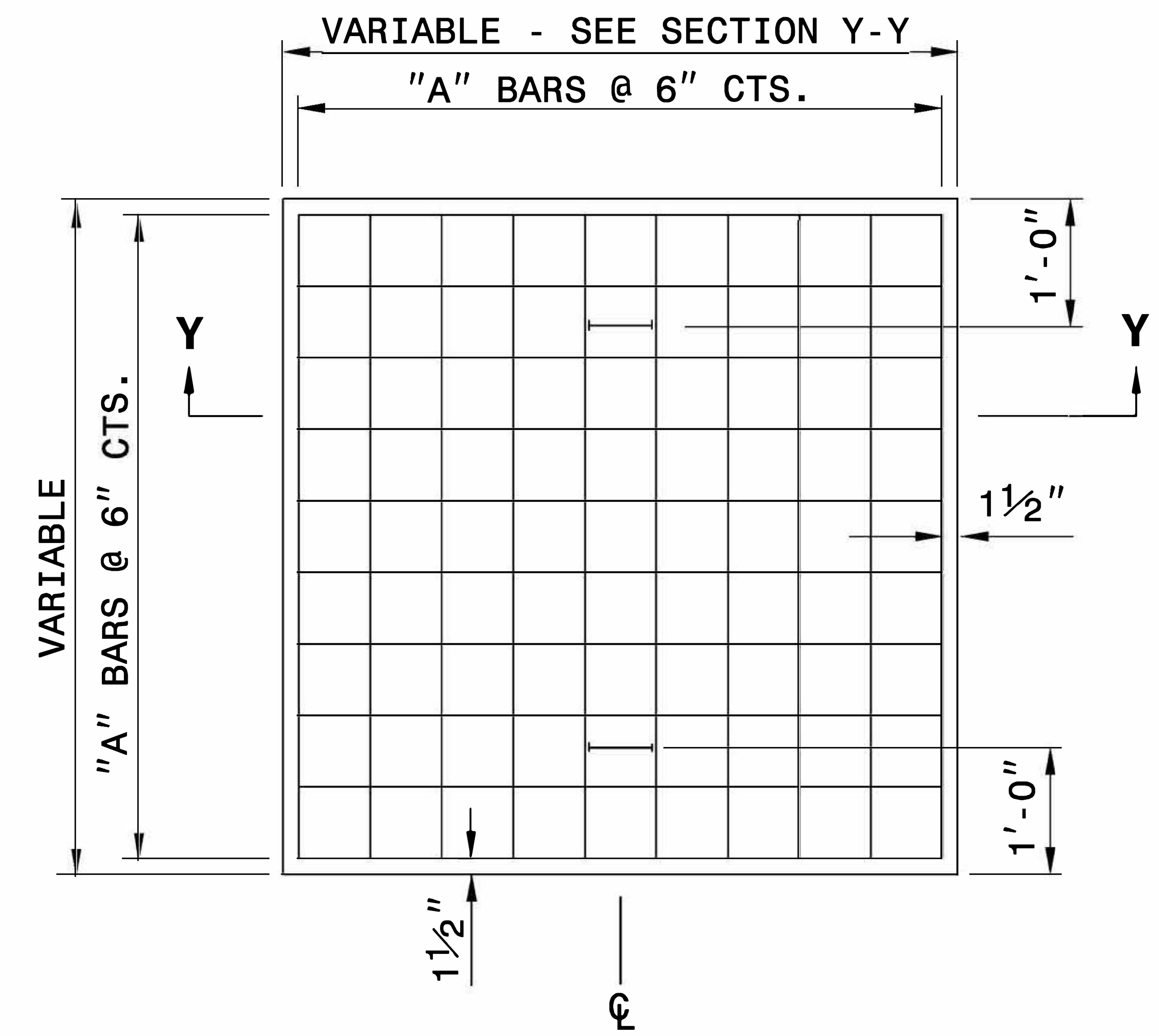
PROJECT REFERENCE NO.	SHEET NO.
HS-2401P	2C-7



PARTIAL SECTION



PLAN



PLAN

GENERAL NOTES:

CONSTRUCT IN ACCORDANCE WITH SECTION 859 OF THE STANDARD SPECIFICATIONS.

THE DIMENSIONS FOR THE EXISTING BOXES ARE APPROXIMATE AND MAY VARY SLIGHTLY.

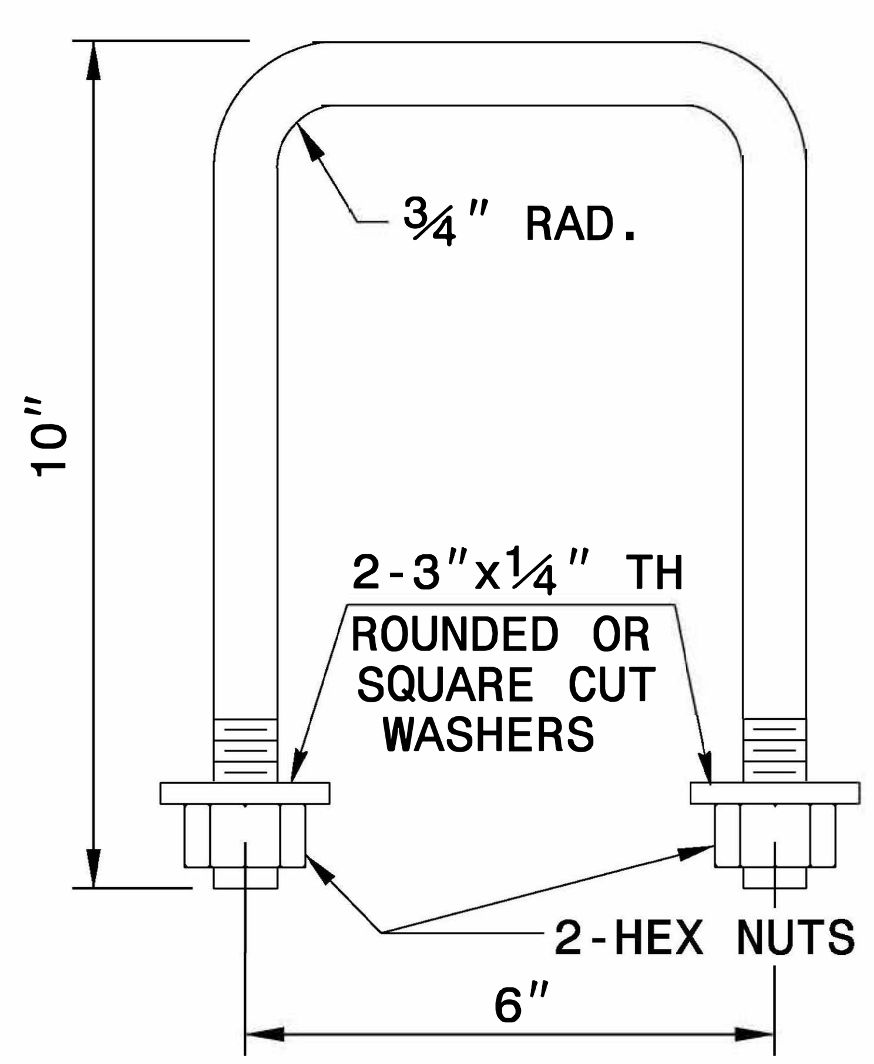
DETAIL INTENDED FOR NON-TRAFFIC BEARING DRAINAGE STRUCTURES.

BILL OF MATERIALS

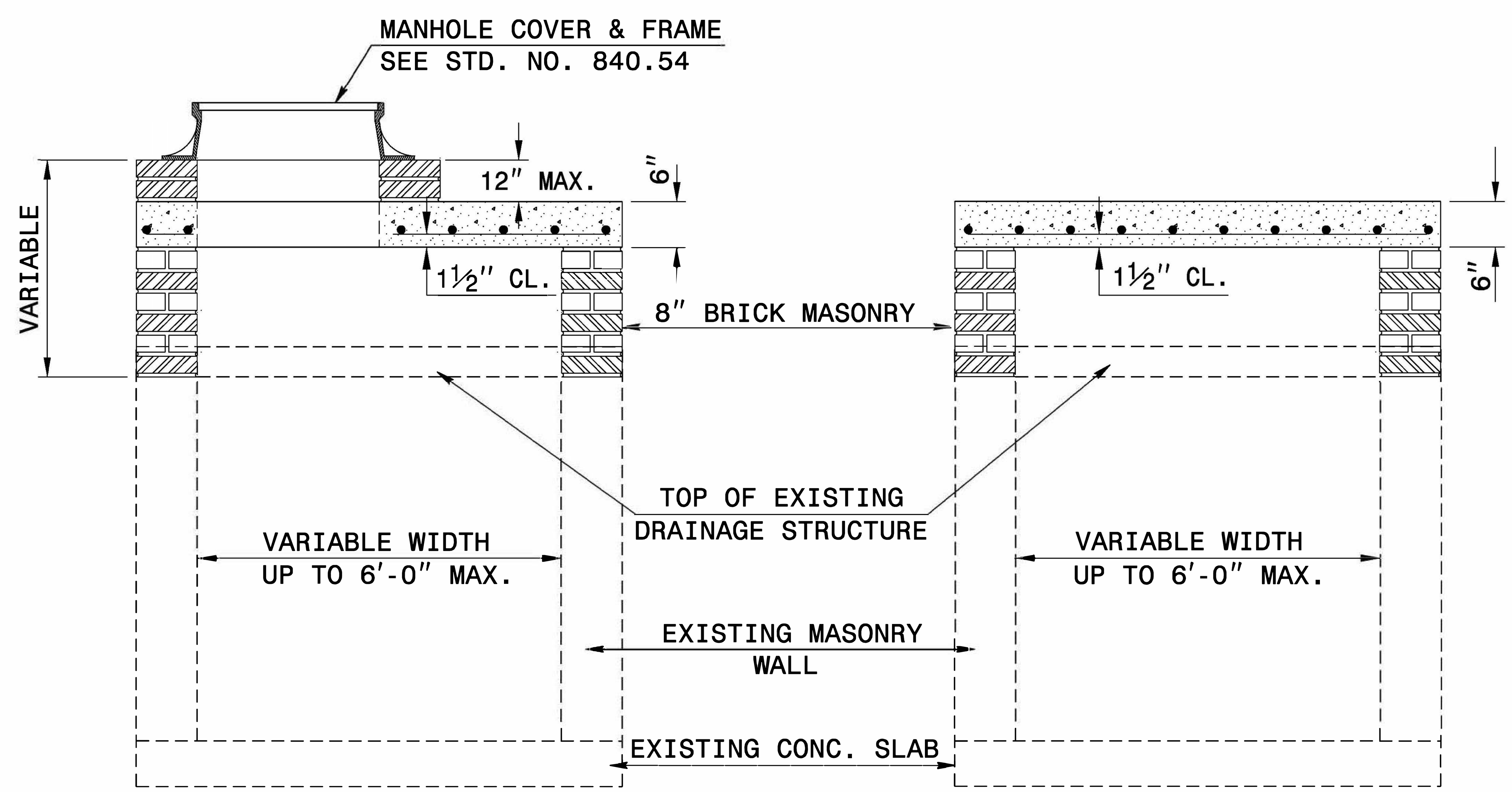
REINFORCING STEEL				
CODE	SIZE	QTY.	LENGTH	REINF. STEEL LBS.
A	#4	20	4'-6"	60.12
B	#4	8	1'-1"	5.79
TOTAL				65.91 *

MASONRY	CU YDS
TOP SLAB CONCRETE CLASS "B"	.4326 *
BRICK MASONRY PER FT HT (MIN)	.4111

* NOTE:
QUANTITIES BASED ON 3'-6" X 3'-6" DRAINAGE STRUCTURE. ADJUST QUANTITIES FOR LARGER STRUCTURES AND MANHOLE CONSTRUCTION.

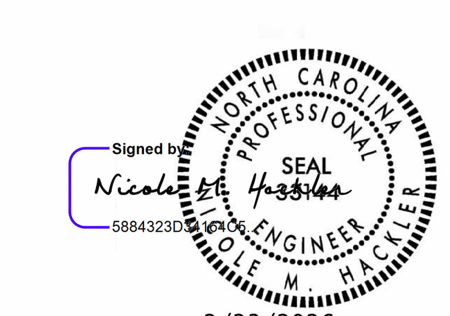


DETAIL OF HANDLE



SECTION X-X

SECTION Y-Y



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

DETAIL TO CONVERT EXISTING DI, CB, OTCB or GI TO JUNCTION BOX (MANHOLE OPTIONAL)

ORIGINAL BY: T.S.S. DATE: NOV.1997
MODIFIED BY: T.S.S. DATE: FEB.2000
CHECKED BY: DATE:
FILE SPEC.: ds174:/usr/details/stand/boxtojbe.dgn

PROJECT REFERENCE NO.	SHEET NO.
HS-2401P	2D-1

HYDRAULIC DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 16640 ENGINEER PORTLAND A. HOFFMAN
Signed by:
2/23/2026

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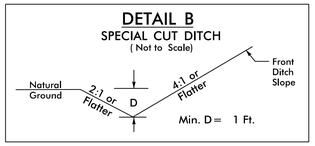
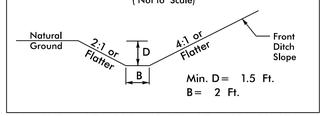
DETAIL B
SPECIAL CUT DITCH
(Not to Scale)



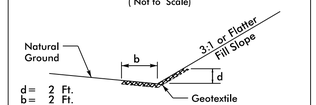
–L– FROM STA. 90+00 TO STA. 92+50 LT,
BEG. EL=72.44', END EL=74.85', S=1.0%
–L– FROM STA. 137+50 TO STA. 138+00 LT,
BEG. EL=84.10', END EL=80.24', S=7.7%

DETAIL C
SPECIAL CUT BASE DITCH
(Not to Scale)



–L– FROM STA. 107+50 TO STA. 110+00 LT,
BEG. EL=91.66', END EL=91.73', S=0.1%

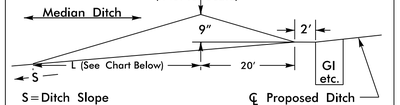
DETAIL D
TOE PROTECTION
(Not to Scale)



Type of Liner = CL B Rip-Rap

–L– FROM STA. 68+50 TO STA. 70+30 RT
(CL B RIPRAP=73 TONS; GEOTEXTILE=206 SY)
–L– FROM STA. 117+00 TO STA. 119+40 RT
(CL B RIPRAP=98 TONS; GEOTEXTILE=275 SY)
–L– FROM STA. 135+80 TO STA. 136+75 LT
(CL B RIPRAP=39 TONS; GEOTEXTILE=110 SY)

DETAIL E
FALSE SUMP
(Not to Scale)



Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

–L– STA. 74+39 CT
–L– STA. 86+84 RT
–L– STA. 102+44 RT
–L– STA. 105+44 CT
–L– STA. 108+54 LT

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5/28/99

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PROJECT REFERENCE NO.	SHEET NO.
HS-2401P	3B-1

SUMMARY OF EARTHWORK

CHAIN	BEGINNING STATION	ENDING STATION	UNCL. EXCA. C.Y.	UNDERCUT C.Y.	EMBANK. +% C.Y.	BORROW C.Y.	WASTE C.Y.
SUMMARY 1							
-L-	68+50.00	92+50.00	1,449	170	4,746	3,297	170
-L-	99+00.00	109+50.00	623		1,555	932	
-L-	117+00.00	138+00.00	1,061		3,681	2,620	
SUBTOTAL			3,133	170	9,982	6,849	
SHEET TOTALS			3,133		9,982	6,849	
MATERIAL FOR SHOULDER CONSTRUCTION					4,175	4,175	
GRADE POINT UNDERCUT CONTINGENCY				100			100
CONTINGENCY UNDERCUT FOR SUBGRADE				100			
ADDITIONAL UNDERCUT CONTINGENCY				100			
PROJECT TOTAL			3,133	470	14,157	11,024	270
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT						551	
GRAND TOTAL			3,133			11,575	270
SAY			3,150			11,590	

NOTE: EARTHWORK QUANTITIES ARE CALCULATED BY THE ROADWAY DESIGN UNIT. THESE EARTHWORK QUANTITIES ARE BASED IN PART ON SUBSURFACE DATA PROVIDED BY THE GEOTECHNICAL ENGINEERING UNIT.

EST. SHALLOW UNDERCUT = 100 CUBIC YARDS
EST. SHALLOW UNDERCUT BY STATIONS = 1,500 CUBIC YARDS
TOTAL SHALLOW UNDERCUT = 1,600 CUBIC YARDS
CLASS IV SUBGRADE STABILIZATION = 3,480 TONS

ASPHALT PAVEMENT REMOVAL

LINE	STATION	STATION	LOCATION	LENGTH OR AREA	WIDTH	SQUARE YARDS
-L-	69+10	77+15	LT	2263.02		251.45
-L-	69+10	72+99	RT	1958.27		217.59
-L-	73+42	89+57	MED	17909.24		1989.92
-L-	84+50	92+59	RT	1486.06		165.12
-L-	90+20	92+59	LT	1042.01		115.78
-L-	93+70	107+36	MED	15945.97		1771.77
-L-	101+84	109+86	RT	1648.06		183.12
-L-	107+51	109+86	LT	1100.72		122.30
-L-	116+92	138+02	LT/RT	22964.07		2551.56
					TOTAL	7,368.60
					SAY	7,380

GUARDRAIL SUMMARY

SURVEY LINE	BEG. STA.	END STA.	LOCATION	LENGTH			WARRANT POINT		"N" DIST. FROM E.O.L.	TOTAL SHOUL WIDTH	FLARE LENGTH		W		ANCHORS									IMPACT ATTENUATOR TYPE 350		REMOVE EXISTING GUARDRAIL	REMARKS
				STRAIGHT	SHOP CURVED	DOUBLE FACED	APPROACH END	TRAILING END			APPROACH END	TRAILING END	OACH END	TRAILING END	XI MOD	XI	GREU TL-3	GREU TL-2	TYPE III	CAT-1	AT-1	B-77	TES	G	NG		
-L-	69+01.74	69+18.13	RT		19.25				12																		
-L-	69+18.13	69+75.52	RT		65.61				12																		
-L-	69+75.52	71+47.07	RT	200.00					12																		
L	69+01.81	71+47.06																								245.25	
SHEET 1 TOTALS				200.00	84.86																						
LESS ANCHOR DEDUCTIONS																											
		QUANTITY	LF PER EA	TOTAL LF																							
	GREU TL-3		50																								
	CAT-1		6.25																								
	AT-1		6.25																								
	GREU TL-2		25																								
	B-77		22.875																								
TOTAL GUARDRAIL (LF)				200.00	84.86																						
SAY (LF)				200.00	87.50		5 ADDITIONAL POSTS																				

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8/17/99

PROJECT REFERENCE NO.	SHEET NO.
HS-2401P	3D-1
R/W SHEET NO.	

COMPUTED BY:	Chris Piper	DATE:	2/16/2026
CHECKED BY:	Courtland Hoffman	DATE:	2/16/2026

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 NO.		TOP ELEVATION	INVERT ELEVATION	INVERT ELEVATION	% MINIMUM REQUIRED SLOPE	SIDE DRAIN PIPE (RCP, CSP, CAAP, HDPE, PP or PVC)							C.S. PIPE		R.C. PIPE CLASS III						ENDWALLS STD. 838.01 OR STD. 838.11 (UNLESS NOTED OTHERWISE)	
SIZE									15"	18"	24"	DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	DO NOT USE HDPE, PP, OR PVC	15"	18"	15"	18"	24"	30"	36"	48"	CU. YARDS	
THICKNESS OR GAUGE			FROM	TO												0.064	0.064							R.C.P.	C.S.P.
SHEET 5																									
- L- 68+75.00	0	CL	506		62.6																				
- L- 68+75.00		CL	506	504		59.9	59.0	0.5%										288							
- L- 71+65.00	12	RT	504		63.2																				
- L- 71+65.00		RT	504	503		54.1	53.0	0.6%	12																
- L- 71+65.00	0	CL	503		64.6																				
- L- 71+35.20	67	RT	509		64.0																				
- L- 71+35.20		RT	509	507		59.9	59.9	0.5%										8							
- L- 71+43.25	65	RT	507		64.0																				
- L- 71+43.25		RT	507	508		59.9	50.5	1.9%	52																
- L- 74+50.00	3	RT	501		65.9																				
- L- 74+50.00		RT	501	502		60.3	58.8	0.6%	12																
- L- 74+35.00	0	CL	502		65.1																				
- L- 71+35.20		RT	510								272														
SHEET 6																									
- L- 80+51.50	10	RT	609		72.6																				
- L- 80+51.50		RT	609	603		68.4	68.3	0.4%										16							
- L- 80+51.50	28	RT	603		73.1																				
- L- 80+51.50		RT	603	602		68.3	68.1	0.5%										92							
- L- 81+42.00	11	RT	602		73.3																				
- L- 81+42.00		RT	602	601		68.1	68.0	0.5%										32							
- L- 81+72.50	27	RT	601		73.8																				
- L- 81+72.50		RT	601	608		68.0	61.8	0.5%	116																
- L- 86+95.00	6	RT	606		75.1																				
- L- 86+95.00		RT	606	608		71.5	61.5	0.7%		404															
- L- 82+94.20		LT	607	608		59.0	59.0	0.9%															16		
- L- 82+89.00	12	RT	608		72.7																				
5-6 SHEET TOTALS									192	404	272					0	0	436	0	0	0	0	16	0	0

LINE & STATION	STRUCTURE NO. FROM	STRUCTURE NO. TO	QUANTITIES FOR DRAINAGE STRUCTURES PER EACH (0' THRU 5.0')	*TOTAL L.F. FOR PAY QUANTITY SHALL BE COL. 'A' + (1.3 X COL.'B') LIN. FT. A 5.0' THRU 10.0'	LIN. FT. B 10.0' AND ABOVE	C.B. STD. 840.01 OR STD. 840.02	FRAME, GRATES, AND HOOD STANDARD 840.03 TYPE OF GRATE E	F	G	CONCRETE TRANSITIONAL SECTION T.B.D.I. STD. 852.04 OR 852.06	T.B.D.I. STD. 852.07	D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME AND GRATE STD. 840.16	G.D.I. TYPE "A" STD. 840.17 OR 840.26	G.D.I. TYPE "B" STD. 840.18 OR 840.27	G.D.I. TYPE "D" STD. 840.19 OR 840.28	G.D.I. FRAME WITH TWO FLAT GRATES STD. 840.20	G.D.I. FRAME WITH TWO GRATES STD. 840.22	G.D.I. (N.S.) FRAME WITH TWO GRATES STD. 840.24	G.D.I. (N.S.) FR. WITH TWO FLAT GRATES. STD. 840.29	J.B. STD. 840.31 OR 840.32	TBJB STD. 840.34	T.B.D.I. STD. 840.35	STEEL GRATE AND FRAME STD. 840.37	M.H. FRAME AND COVER STD. 840.54	ADJUST MH	ADJUST CB	ADJUST DI	CONV DI TO JBMH	FLOWABLE FILL (CY)	C.S. PIPE ELBOWS NO. & SIZE	CONC. & BRICK PIPE PLUG, C.Y. STD. 840.71	CONC. COLLARS CL. "B" C.Y. STD. 840.72	PIPE REMOVAL LIN. FT.	REMARKS
SHEET 5																																			
- L- 68+75.00	506		1												1				1																
- L- 68+75.00	506	504																																	
- L- 71+65.00	504		1	4.1											1				1																
- L- 71+65.00	504	503																																	
- L- 71+65.00	503		1	5.0	1.9																				1				1						
- L- 71+35.20	509		1												1					1															
- L- 71+35.20	509	507																																	
- L- 71+43.25	507		1												1					1															
- L- 71+43.25	507	508																																	
- L- 74+50.00	501		1	0.6											1				1																
- L- 74+50.00	501	502																																	
- L- 74+35.00	502		1	1.4																					1				1						
- L- 71+35.20	510																																		
SHEET 6																																			
- L- 80+51.50	609		1							1										1			1												
- L- 80+51.50	609	603																																	
- L- 80+51.50	603		1							1										1			1												
- L- 80+51.50	603	602																																	
- L- 81+42.00	602		1	0.2						1										1			1												
- L- 81+42.00	602	601																																	
- L- 81+72.50	601		1	0.9						1										1			1												
- L- 81+72.50	601	608																																	
- L- 86+95.00	606		1												1				1																
- L- 86+95.00	606	608																																396	
- L- 82+94.20	607	608																															1.0126		
- L- 82+89.00	608		1	5.0	3.7									1					1																SPECIAL DETAIL-EXTRA DEPTH 2GI
5-6 SHEET TOTALS			13	17.2	5.6	0	0	0	0	4	0	0	0	1	6	0	0	0	5	6	0	0	4	0	2	0	0	0	2	0		0	1.013	396	

ABBREVIATIONS

C.B.	CATCH BASIN
N.D.I.	NARROW DROP INLET
D.I.	DROP INLET
G.D.I.	GRATED DROP INLET
G.D.I.(N.S.)	(NARROW SLOT)
J.B.	JUNCTION BOX
M.H.	MANHOLE
T.B.D.I.	TRAFFIC BEARING DROP INLET
T.B.J.B.	TRAFFIC BEARING JUNCTION BOX

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8/17/99

PROJECT REFERENCE NO.	SHEET NO.
HS-2401P	3D-2
R/W SHEET NO.	

COMPUTED BY: Chris Piper DATE: 2/16/2026

CHECKED BY: Courtland Hoffman DATE: 2/16/2026

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 NO. FROM	STRUCTURE NO. TO	TOP ELEVATION	INVERT ELEVATION	INVERT ELEVATION	% MINIMUM REQUIRED SLOPE	SIDE DRAIN PIPE (RCP, CSP, CAAP, HDPE, PP or PVC) SIZE 15"	18"	24"	DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	DO NOT USE HDPE, PP, OR PVC	C.S. PIPE 0.064	0.064	R.C. PIPE CLASS III 15"	18"	24"	30"	36"	48"	ENDWALLS STD. 838.01 OR STD. 838.11 (UNLESS NOTED OTHERWISE) CU. YARDS R.C.P.	C.S.P.	QUANTITIES FOR DRAINAGE STRUCTURES *TOTAL L.F. FOR PAY QUANTITY SHALL BE COL. "A" + (1.3 X COL."B") PER EACH (0' THRU 5.0')	LIN. FT. A 5.0' THRU 10.0'	B 10.0' AND ABOVE	C.B. STD. 840.01 OR STD. 840.02	FRAME, GRATES, AND HOOD STANDARD 840.03 TYPE OF GRATE E	F	G	CONCRETE TRANSITIONAL SECTION T.B.D.I. STD. 852.04 OR 852.06	T.B.D.I. STD. 852.07	D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME AND GRATE STD. 840.16	G.D.I. TYPE "A" STD. 840.17 OR 840.26	G.D.I. TYPE "B" STD. 840.18 OR 840.27	G.D.I. TYPE "D" STD. 840.19 OR 840.28	G.D.I. FRAME WITH TWO FLAT GRATES STD. 840.20	G.D.I. FRAME WITH TWO GRATES STD. 840.22	G.D.I. (N.S.) FRAME WITH TWO GRATES STD. 840.24	G.D.I. (N.S.) FR. WITH TWO FLAT GRATES. STD. 840.29	J.B. STD. 840.31 OR 840.32	TBJB STD. 840.34	T.B.D.I. STD. 840.35	STEEL GRATE AND FRAME STD. 840.37	M.H. FRAME AND COVER STD. 840.54	ADJUST MH	ADJUST CB	ADJUST DI	CONV DI TO JBMH	FLOWABLE FILL (CY)	C.S. PIPE ELBOWS NO. & SIZE	CONC. & BRICK PIPE PLUG, C.Y. STD. 840.71	CONC. COLLARS CL. "B" C.Y. STD. 840.72	PIPE REMOVAL LIN. FT.	REMARKS
SHEET 7																																																				
- L- 93+00.00	1	RT	701		77.8																				1																											
- L- 93+00.00		RT	701	704		74.8	74.4	0.5%											136																																			
- L- 91+54.00	28	RT	703		79.6																				1	0.2																											
- L- 91+54.00		RT	703	704		74.4	73.9	0.4%											24																																			
- L- 91+60.70	6	RT	704		79.0																				1	0.4																											
- L- 91+60.70		RT	704	705		73.6	72.5	0.5%											232																																			
- L- 89+25.00	-3	LT	705		75.5																				1																											
- L- 89+25.00		LT	705	606		72.5	71.5	0.6%		228																																											
- L- 100+50.00	10	RT	706		88.6																				1																											
- L- 100+50.00		RT	706	707		85.8	85.8	0.5%	16																																												
- L- 100+34.81	0	LT	707		90.9																				1	1.9																											
- L- 99+50.00	28	RT	708		89.1																				1																											
- L- 99+50.00		RT	708	710		84.9	84.3	0.4%											44																																			
- L- 99+04.63	25	RT	710		88.5																				1																											
- L- 99+04.63		RT	710	709		84.3	84.3	0.5%	24																																												
- L- 99+05.45	-1	LT	709		88.8																				1	1.6																											
SHEET 8																																																				
- L- 102+55.10	6	RT	803		91.6																				1																											
- L- 102+55.10		RT	803	802		88.9	88.5	0.5%	4																																												
- L- 102+55.10	0	CL	802		92.2																				1	1.3																											
- L- 110+05.00	0	CL	804		93.6																				1																											
- L- 110+05.00		CL	804	805		90.8	90.5	0.5%											116																																			
- L- 108+89.50	26	RT	805		96.2																				1	0.7																											
- L- 108+89.50		RT	805	806		90.5	90.3	0.5%											44																																			
- L- 108+65.00	-12	LT	806		94.3																				1																											
- L- 108+65.00		LT	806	801		90.3	89.4	0.5%	308																																												
- L- 105+54.40	0	CL	801		93.8																				1	0.5																											
SHEET 9																																																				
- L- 116+70.00	0	CL	901		93.6																				1																											
- L- 116+70.00		CL	901	903		90.9	90.5	0.5%											120																																			
- L- 117+93.00	-24	LT	902		96.1																				1																											
- L- 117+93.00		LT	902	903		91.9	91.8	0.5%											24																																			
- L- 117+93.00	0	CL	903		96.0																				1	0.5																											
- L- 117+93.00		CL	903	904		90.5	89.9	0.5%	200																																												
- L- 119+95.00	6	RT	904		93.8																				1																											
- L- 119+95.00		RT	904	905		89.1	89.1	0.5%	8																																												
- L- 125+29.49		RT	912	911		87.2	87.1	0.5%		12																																											
- L- 125+25.44	-10	LT	911		91.7																				1																											
-L- 117+00.00	93	RT	913								252																																									
- L- 125+29.49	0	RT	912		93.1																				1	0.9																											
7-9 SHEET TOTALS									**560**	**240**	**252**					**0**	**0**	**372**	**368**	**0**	**0**	**0**	**0**	**0**	**0**	**21**	**8.0**	**0.0**	**0**	**0**	**0**	**0**	**6**	**0**	**0**	**0**	**0**	**10**	**0**	**0**	**0**	**10**	**6**	**4**	**0**	**6**	**0**	**5**	**0**	**0**	**0**	**1**	**0**		**0**	**0.399**	**353**	

ABBREVIATIONS

C.B.	CATCH BASIN
N.D.I.	NARROW DROP INLET
D.I.	DROP INLET
G.D.I.	GRATED DROP INLET
G.D.I.(N.S.)	(NARROW SLOT)
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2/17/2026
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Detail Plan

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
HS-2401P	3D-3
R/W SHEET NO.	

COMPUTED BY: Chris Piper DATE: 2/16/2026

CHECKED BY: Courtland Hoffman DATE: 2/16/2026

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
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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	SIZE	THICKNESS OR GAUGE	OFFSET		STRUCTURE NO. FROM	STRUCTURE NO. TO	TOP ELEVATION	INVERT ELEVATION	INVERT ELEVATION	% MINIMUM REQUIRED SLOPE	SIDE DRAIN PIPE (RCP, CSP, CAAP, HDPE, PP or PVC) 15"	18"	24"	DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	DO NOT USE HDPE, PP, OR PVC	C.S. PIPE 0.064 15"	0.064 18"	R.C. PIPE CLASS III 15"	18"	24"	30"	36"	48"	ENDWALLS STD. 838.01 OR STD. 838.11 (UNLESS NOTED OTHERWISE) CU. YARDS R.C.P.	C.S.P.
SHEET 9																											
- L- 127+08.24	21	RT			907		93.1																				
- L- 127+08.24		RT			907	912		89.0	87.9	0.5%																	
- L- 128+53.00	-24	LT			908		92.1																				
- L- 128+53.00		LT			908	909		87.9	87.8	0.6%																	
- L- 128+53.00	12	RT			909		92.8																				
- L- 128+53.00		RT			909	910		87.8	86.4	0.6%	96																
- L- 129+50.00	12	RT			910		89.1																				
- L- 129+50.00		RT			910	1001		86.4	83.0	0.4%	532																
SHEET 10																											
- L- 134+85.00	-8	LT			1001		85.8																				
- L- 134+85.00		LT			1001	1002		81.4	81.3	0.5%	8																
- L- 136+95.00	-13	LT			1005		84.5																				
- L- 136+95.00		LT			1005	1004		81.2	81.0	0.5%											92						
- L- 137+54.32	23	RT			1003		85.8																				
- L- 137+54.32		RT			1003	1004		81.6	81.5	0.2%											52						
- L- 137+88.37	-18	LT			1004		85.1																				
- L- 137+88.37		LT			1004	1006		81.0	77.5	0.5%	200																
- L- 139+85.54	0	CL			1006		80.2																				
- L- 136+87.11		LT			1007																228						
9-10 SHEET TOTALS											836	0	0					0	0	360	228	0	0	0	0	0	0
PROJECT TOTALS											1588	644	524					0	0	1168	596	0	0	0	16	0	0

LINE & STATION	QUANTITIES FOR DRAINAGE STRUCTURES PER EACH (0' THRU 5.0')	LIN. FT. A 5.0' THRU 10.0'	LIN. FT. B 10.0' AND ABOVE	C.B. STD. 840.01 OR STD. 840.02	FRAME, GRATES, AND HOOD STANDARD 840.03 TYPE OF GRATE E	F	G	CONCRETE TRANSITIONAL SECTION T.B.D.I. STD. 852.04 OR 852.06	T.B.D.I. STD. 852.07	D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME AND GRATE STD. 840.16	G.D.I. TYPE "A" STD. 840.17 OR 840.26	G.D.I. TYPE "B" STD. 840.18 OR 840.27	G.D.I. TYPE "D" STD. 840.19 OR 840.28	G.D.I. FRAME WITH TWO FLAT GRATES STD. 840.20	G.D.I. FRAME WITH TWO GRATES STD. 840.22	G.D.I. (N.S.) FRAME WITH TWO GRATES STD. 840.24	G.D.I. (N.S.) FR. WITH TWO FLAT GRATES. STD. 840.29	J.B. STD. 840.31 OR 840.32	TBJB STD. 840.34	T.B.D.I. STD. 840.35	STEEL GRATE AND FRAME STD. 840.37	M.H. FRAME AND COVER STD. 840.54	ADJUST MH	ADJUST CB	ADJUST DI	CONV DI TO JBMH	FLOWABLE FILL (CY)	C.S. PIPE ELBOWS NO. & SIZE	CONC. & BRICK PIPE PLUG, C.Y. STD. 840.71	CONC. COLLARS CL. "B" C.Y. STD. 840.72	PIPE REMOVAL LIN. FT.	REMARKS
SHEET 9																																
- L- 127+08.24	1							1																								
- L- 127+08.24																																
- L- 128+53.00	1							1																								
- L- 128+53.00																																
- L- 128+53.00	1	0.0																						1								
- L- 128+53.00																																
- L- 129+50.00	1												1				1															
- L- 129+50.00																																
SHEET 10																																
- L- 134+85.00	1												1				1															
- L- 134+85.00																															0.399	
- L- 136+95.00	1												1				1															
- L- 136+95.00																																
- L- 137+54.32	1							1																								
- L- 137+54.32																																
- L- 137+88.37	1							1																								
- L- 137+88.37																																
- L- 139+85.54	1												1				1															
- L- 136+87.11																																
9-10 SHEET TOTALS	9	0.0	0	0	0	0	0	4	0	0	0	0	4	0	0	0	4	4	1	0	4	0	1	0	0	0	0	0	0	0.399	0	
PROJECT TOTALS	43	25.2	5.6	0	0	0	0	14	0	0	0	1	20	0	0	0	19	16	5	0	14	0	8	0	0	0	3	0	0	1.811	749	
	SAY	32.5																														

ABBREVIATIONS

C.B.	CATCH BASIN
N.D.I.	NARROW DROP INLET
D.I.	DROP INLET
G.D.I.	GRATED DROP INLET
G.D.I.(N.S.)	(NARROW SLOT)
J.B.	JUNCTION BOX
M.H.	MANHOLE
T.B.D.I.	TRAFFIC BEARING DROP INLET
T.B.J.B.	TRAFFIC BEARING JUNCTION BOX

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dtl Plan

8/17/99

COMPUTED BY: ___MLL__ DATE: _01/19/2026_
CHECKED BY: ___MMS__ DATE: _01/20/2026_

PROJECT REFERENCE NO.	SHEET NO.
HS-2401P	3G-1

(12-17-19)

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SUMMARY OF AGGREGATE SUBGRADE/STABILIZATION

LINE	Station	Station	Aggregate Type* ASU(1/2)/ AST	Aggregate Thickness INCHES [8" for ASU(2)]	Shallow Undercut CY	Class IV Subgrade Stabilization TONS	Geotextile for Subgrade Stabilization SY	Stabilizer Aggregate TONS	Class IV Aggregate Stabilization TONS
-L-	7925	8425	ASU(1)	12	780	1640	2460		
-L-	9025	9225	ASU(1)	12	140	480	720		
-L-	11925	12425	ASU(1)	12	580	1160	1740		
CONTINGENCY			ASU(1)	12	100	200	300		
			TOTAL CY/TONS/SY:		1600	3480**	5220**	0	0

***ASU(1/2) = Aggregate Subgrade (Type 1 or 2)**
***AST = Aggregate Stabilization**
****Total tons of "Class IV Subgrade Stabilization" and total square yards of "Geotextile for Subgrade Stabilization" are only the estimated quantities for ASU(1/2)/AST and may only represent a portion of the subgrade stabilization and geotextile quantities shown in the Item Sheets of the Proposal.**

SUMMARY OF SUBSURFACE DRAINAGE

LINE	Station	Station	Location LT/RT/CL	Drain Type* UD/BD/SD	LF
-L-	77+25	81+75	CL	SD	475
-L-	88+25	92+25	CL	SD	425
-L-	134+00	136+00	CL	SD	225
CONTINGENCY					100
				TOTAL LF:	1225

***UD = Underdrain**
***BD = Blind Drain**
***SD = Subsurface Drain**

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PROJECT REFERENCE NO.	SHEET NO.
HS-2401P	4
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 18725 SCOTT D. BLEVINS 2/23/2026

HYDRAULICS ENGINEER — NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 31640 COURTLAND A. HOFFMAN 2/23/2026

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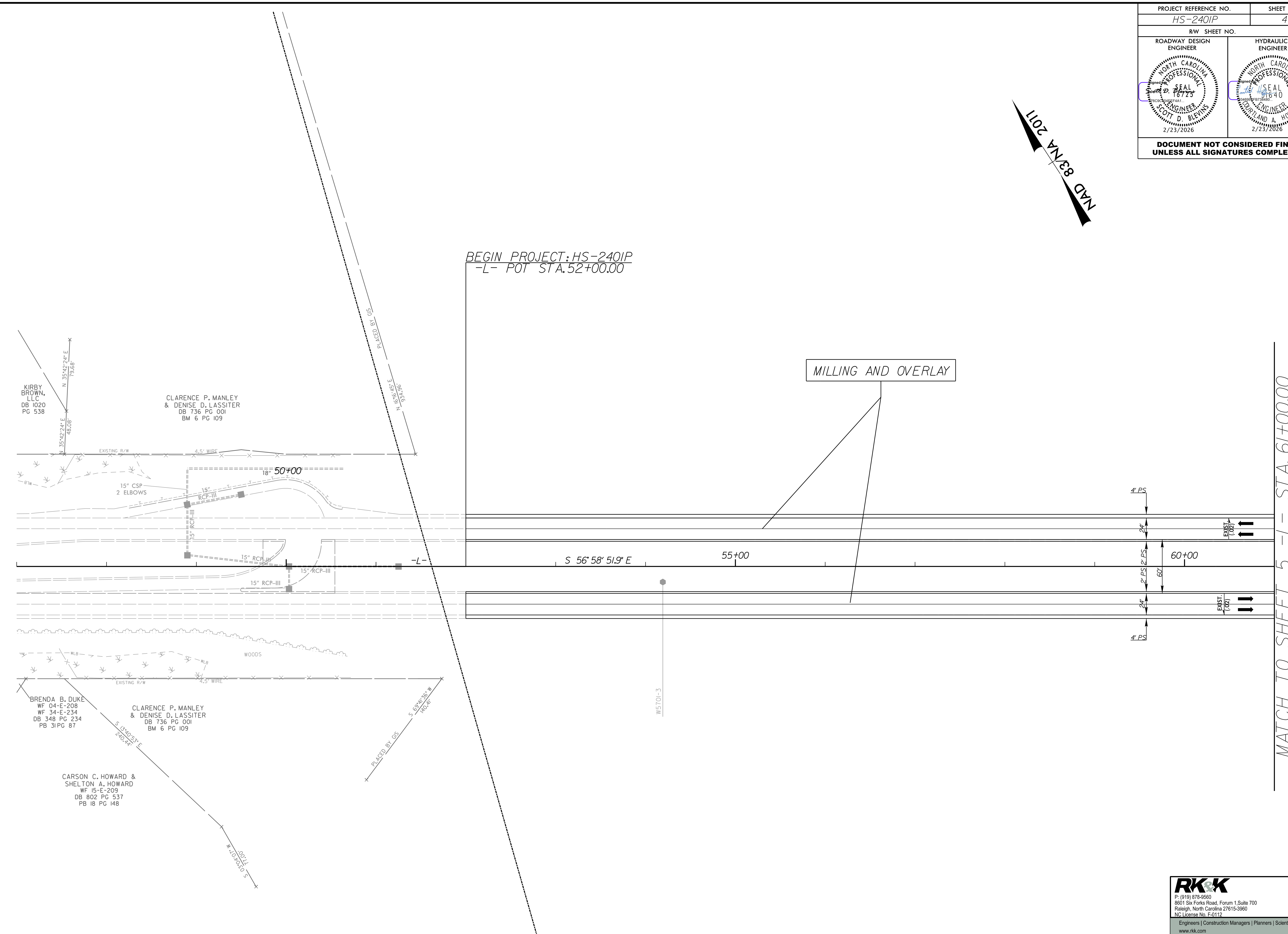

NAD 83/NA 2011
BEGIN PROJECT: HS-2401P
-L- POT STA. 52+00.00
MILLING AND OVERLAY
KIRBY BROWN, LLC
DB 1020
PG 538
CLARENCE P. MANLEY
& DENISE D. LASSITER
DB 736 PG 001
BM 6 PG 109
EXISTING R/W
4.5' WIRE
50+00
18"
15" CSP
2 ELBOWS
15" RCP-III
-L-
S 56° 58' 51.9" E
55+00
60+00
4' PS
2'
2' PS
60'
EXIST. (.02)
WOODS
W5701-3
BRENDA B. DUKE
WF 04-E-208
WF 34-E-234
DB 348 PG 234
PB 31 PG 87
CARSON C. HOWARD &
SHELTON A. HOWARD
WF 15-E-209
DB 802 PG 537
PB 18 PG 148
PLACED BY GIS
MATCH TO SHEET 5 -L- STA. 61+00.00

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PROJECT REFERENCE NO.	SHEET NO.
HS-2401P	5
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 26725 SCOTT D. BLEVINS — 2/23/2026

HYDRAULICS ENGINEER — NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 35640 KURTLAND A. HOFMAN — 2/23/2026

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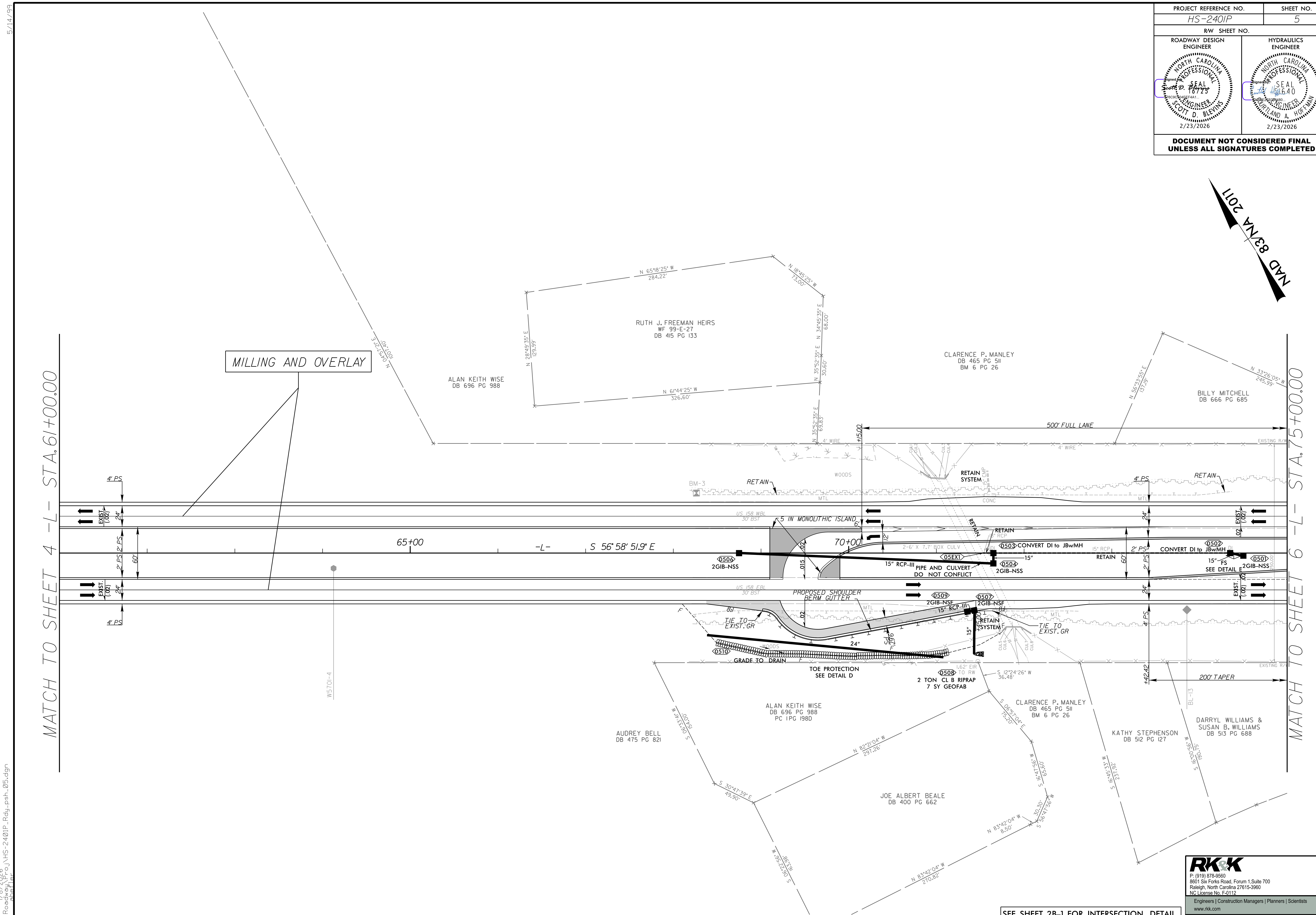

NAD 83/NA 2011
MATCH TO SHEET 4 -L- STA.61+00.00
MATCH TO SHEET 6 -L- STA.75+00.00
MILLING AND OVERLAY
ALAN KEITH WISE
DB 696 PG 988
RUTH J. FREEMAN HEIRS
WF 99-E-27
DB 415 PG 133
CLARENCE P. MANLEY
DB 465 PG 511
BM 6 PG 26
BILLY MITCHELL
DB 666 PG 685
500' FULL LANE
RETAIN
RETAIN SYSTEM
5 IN MONOLITHIC ISLAND
65+00
-L-
S 56° 58' 51.9" E
70+00
US 158 WBL
30' BST
US 158 EBL
30' BST
2GIB-NSS
CONVERT DI to JBwMH
PIPE AND CULVERT DO NOT CONFLICT
15" RCP-III
PROPOSED SHOULDER BERM GUTTER
2GIB-NSF
TIE TO EXIST. GR
GRADE TO DRAIN
TOE PROTECTION SEE DETAIL D
2 TON CL B RIPRAP
7 SY GEOFAB
15" FS SEE DETAIL E
200' TAPER
ALAN KEITH WISE
DB 696 PG 988
PC 1 PG 198D
AUDREY BELL
DB 475 PG 821
CLARENCE P. MANLEY
DB 465 PG 511
BM 6 PG 26
KATHY STEPHENSON
DB 512 PG 127
DARRYL WILLIAMS &
SUSAN B. WILLIAMS
DB 513 PG 688
JOE ALBERT BEALE
DB 400 PG 662

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SEE SHEET 2B-1 FOR INTERSECTION DETAIL

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PROJECT REFERENCE NO.	SHEET NO.
HS-2401P	6
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 16775 ENGINEER SCOTT D. BLEVINS

Signed by: Scott D. Blevins
3/27/2026

HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 41640 ENGINEER COURTLAND A. HOFMANN

Signed by: Courtland Hofmann
3/27/2026

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-L-
PI Sta 89+03.11
Δ = 20° 16' 53.9" (LT)
D = 0° 59' 47.2"
L = 2,035.39'
T = 1,028.46'
R = 5,750.00'
SE = EXIST.

-Y3-
PI Sta 14+42.50
Δ = 85° 33' 17.0" (LT)
D = 31° 49' 51.6"
L = 268.78'
T = 166.55'
R = 180.00'
SE = EXIST.

-Y3-
PI Sta 17+58.36
Δ = 40° 15' 13.1" (RT)
D = 30° 09' 20.4"
L = 133.49'
T = 69.63'
R = 190.00'
SE = EXIST.

NAD 83/NA 2011

MATCH TO SHEET 5 -L- STA. 75+00.00

MATCH TO SHEET 7 -L- STA. 89+00.00

RONNIE A. HOLLEY & CAROL S. HOLLEY DB 428 PG 322

NORFLEET FENNELL, JR. & KATIE F. FENNELL DB 425 PG 610

RICKY B. TANN DB 428 PG 549

LLOYD THOMAS & FRANCIS V. THOMAS DB 466 PG 313

LLOYD THOMAS & FRANCIS V. THOMAS DB 467 PG 161

CLARENCE P. MANLEY DB 465 PG 511 BM 6 PG 26

HELEN S. ANTHONY DB 487 PG 369

BILLY MITCHELL DB 666 PG 685

CLARENCE P. MANLEY DB 465 PG 511 BM 6 PG 26

JULIA ELIZABETH EATON DB 786 PG 807

DARRYL WILLIAMS & SUSAN B. WILLIAMS DB 513 PG 688

E. R. EVANS & SONS, INC. DB 510 PG 135

KURT KELLUM DB 410 PG 87

ALEXANDER ALSTON, III & REBECCA ALSTON DB 398 PG 444

DEPARTMENT OF TRANSPORTATION DB 668 PG 433

ASBURY FLOOD & ANNIE DICKENS FLOOD DB 500 PG 88 PC 1 PG 53F

SAUNDRA L. DELOATCH DB 508 PG 692 PC 1 PG 55C

ELBERT DICKENS DB 513 PG 601 PC 1 PG 58D

DEPARTMENT OF TRANSPORTATION DB 484 PG 190

-Y3- POT Sta. 19+61.48

-Y3- PT Sta. 18+22.22

N 70° 51' 47.5" E

END CONSTRUCTION
-Y3- POC Sta. 17+89.05

-L- PC Sta. 78+74.65
-Y3- PC Sta. 16+88.73

-L- POC Sta. 81+52.42=
-Y3- POT Sta. 16+01.31

-Y3- PT Sta. 15+44.73

-Y3- PC Sta. 12+75.95

-Y3- POT Sta. 10+00.00

BEGIN CONSTRUCTION
-Y3- POC Sta. 14+34.54

S 63° 50' 08.7" E

N 30° 36' 34.3" E

S 56° 58' 51.9" E

500' FULL LANE

200' TAPER

RETAIN 24" RCP

REMOVE DI

REMOVE 15" RCP

48" RCP-III

SP. DET. 2GIA-NSS

SEE DETAIL E

COLLAR

5 IN MONOLITHIC ISLAND

WOODS

EXISTING R/W

SEE SHEET 2B-2 FOR INTERSECTION DETAIL

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PROJECT REFERENCE NO.	SHEET NO.
HS-240IP	7

R/W SHEET NO.

ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 18125 ENGINEER SCOTT D. BLEVINS 2/23/2026	NORTH CAROLINA PROFESSIONAL SEAL 51640 ENGINEER HARTLAND A. HOFFMAN 2/23/2026

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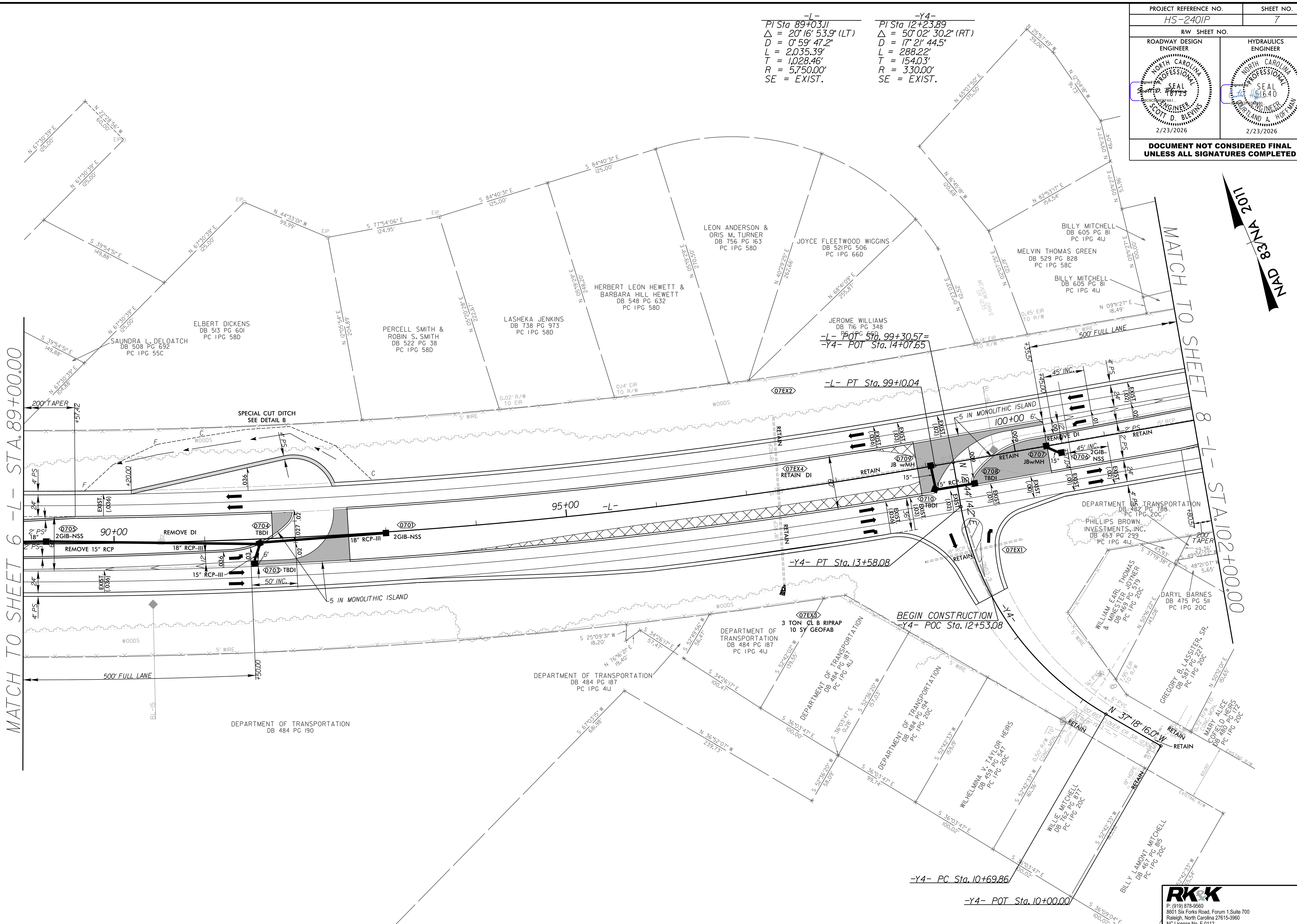

-L-
PI Sta 89+03.11
Δ = 20° 16' 53.9" (LT)
D = 0° 59' 47.2"
L = 2,035.39'
T = 1,028.46'
R = 5,750.00'
SE = EXIST.
-Y4-
PI Sta 12+23.89
Δ = 50° 02' 30.2" (RT)
D = 17° 21' 44.5"
L = 288.22'
T = 154.03'
R = 330.00'
SE = EXIST.
NAD 83/NA 2011
MATCH TO SHEET 6 -L- STA. 89+00.00
MATCH TO SHEET 8 -L- STA. 102+00.00
ELBERT DICKENS DB 513 PG 601 PC 1PG 58D
SAUNDRA L. DELOATCH DB 508 PG 692 PC 1PG 55C
PERCELL SMITH & ROBIN S. SMITH DB 522 PG 38 PC 1PG 58D
LASHEKA JENKINS DB 738 PG 973 PC 1PG 58D
HERBERT LEON HEWETT & BARBARA HILL HEWETT DB 548 PG 632 PC 1PG 58D
LEON ANDERSON & ORIS M. TURNER DB 756 PG 163 PC 1PG 58D
JOYCE FLEETWOOD WIGGINS DB 521 PG 506 PC 1PG 66D
JEROME WILLIAMS DB 716 PG 348
BILLY MITCHELL DB 605 PG 81 PC 1PG 41J
MELVIN THOMAS GREEN DB 529 PG 828 PC 1PG 58C
BILLY MITCHELL DB 605 PG 81 PC 1PG 41J
-L- POT Sta. 99+30.57= -Y4- POT Sta. 14+07.65
-L- PT Sta. 99+10.04
500' FULL LANE
200' TAPER
SPECIAL CUT DITCH SEE DETAIL B
5 IN MONOLITHIC ISLAND
REMOVE DI
REMOVE 15" RCP
18" RCP-III
15" RCP-III
2GIB-NSS
TBDI
50' INC.
45' INC.
JB w/MH
RETAIN DI
RETAIN
WOODS
5' WIRE
95+00
90+00
100+00
-Y4- PT Sta. 13+58.08
BEGIN CONSTRUCTION -Y4- POC Sta. 12+53.08
3 TON CL B RIPRAP 10 SY GEOFAB
DEPARTMENT OF TRANSPORTATION DB 484 PG 187 PC 1PG 41J
DEPARTMENT OF TRANSPORTATION DB 484 PG 190
DEPARTMENT OF TRANSPORTATION DB 482 PG 788 PC 1PG 20C
PHILLIPS BROWN INVESTMENTS, INC. DB 453 PG 299 PC 1PG 41J
DARYL BARNES DB 475 PG 511 PC 1PG 20C
WILHELMINA V. TAYLOR HEIRS DB 459 PG 547 PC 1PG 20C
WILLIE MITCHELL DB 762 PG 877 PC 1PG 20C
BILLY LAMONT MITCHELL DB 467 PG 815 PC 1PG 20C
N 37° 18' 16.0" W
-Y4- PC Sta. 10+69.86
-Y4- POT Sta. 10+00.00

REMOVAL OF EXISTING ASPHALT PAVEMENT

SEE SHEET 2D-1 FOR DITCH DETAILS AND DITCH GRADES
SEE SHEET 2B-2 & 2B-3 FOR INTERSECTION DETAIL

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PROJECT REFERENCE NO.	SHEET NO.
HS-2401P	8

R/W SHEET NO.

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 18723 SCOTT D. BLEVINS — 2/23/2026

HYDRAULICS ENGINEER — NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 51640 CURTLAND A. HOFFMAN — 2/23/2026

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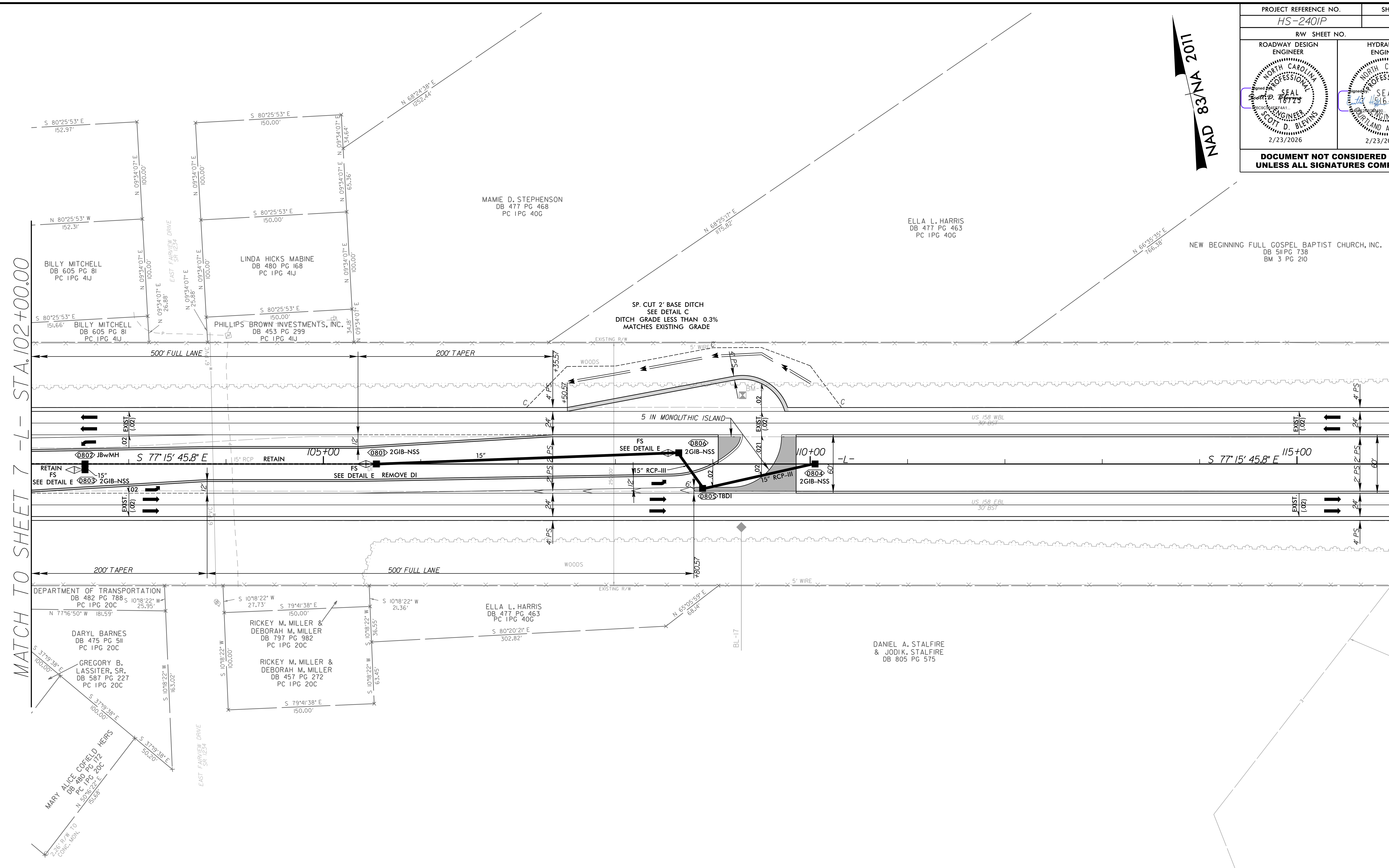
NAD 83/NA 2011



MATCH TO SHEET 7 -L- STA. 102+00.00
MATCH TO SHEET 9 -L- STA. 116+00.00
MAMIE D. STEPHENSON
DB 477 PG 468
PC 1PG 40G
ELLA L. HARRIS
DB 477 PG 463
PC 1PG 40G
NEW BEGINNING FULL GOSPEL BAPTIST CHURCH, INC.
DB 511 PG 738
BM 3 PG 210
BILLY MITCHELL
DB 605 PG 81
PC 1PG 41J
LINDA HICKS MABINE
DB 480 PG 168
PC 1PG 41J
PHILLIPS BROWN INVESTMENTS, INC.
DB 453 PG 299
PC 1PG 41J
SP. CUT 2' BASE DITCH
SEE DETAIL C
DITCH GRADE LESS THAN 0.3%
MATCHES EXISTING GRADE
500' FULL LANE
200' TAPER
5 IN MONOLITHIC ISLAND
S 77° 15' 45.8" E
105+00
110+00
115+00
-L-
US 158 WBL
US 158 EBL
FS
SEE DETAIL E
RETAIN
REMOVE DI
2GIB-NSS
JBwMH
TBDI
15" RCP-III
DEPARTMENT OF TRANSPORTATION
DB 482 PG 788
PC 1PG 20C
DARYL BARNES
DB 475 PG 511
PC 1PG 20C
GREGORY B. LASSITER, SR.
DB 587 PG 227
PC 1PG 20C
RICKEY M. MILLER &
DEBORAH M. MILLER
DB 797 PG 982
PC 1PG 20C
RICKEY M. MILLER &
DEBORAH M. MILLER
DB 457 PG 272
PC 1PG 20C
ELLA L. HARRIS
DB 477 PG 463
PC 1PG 40G
DANIEL A. STALFIRE
& JODI K. STALFIRE
DB 805 PG 575
MARY ALICE COFIELD HEIRS
DB 480 PG 172
PC 1PG 20C
WOODS
EXISTING R/W
5' WIRE
EAST FAIRVIEW DRIVE
SR 1234

SEE SHEET 2D-1 FOR DITCH DETAILS AND DITCH GRADES
SEE SHEET 2B-4 FOR INTERSECTION DETAIL

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PROJECT REFERENCE NO.	SHEET NO.
HS-2401P	9

R/W SHEET NO.

ROADWAY DESIGN ENGINEER — SEAL 040225 — SCOTT D. BLEVINS — 2/23/2026

HYDRAULICS ENGINEER — SEAL 051640 — PORTLAND A. HOFFMAN — 2/23/2026

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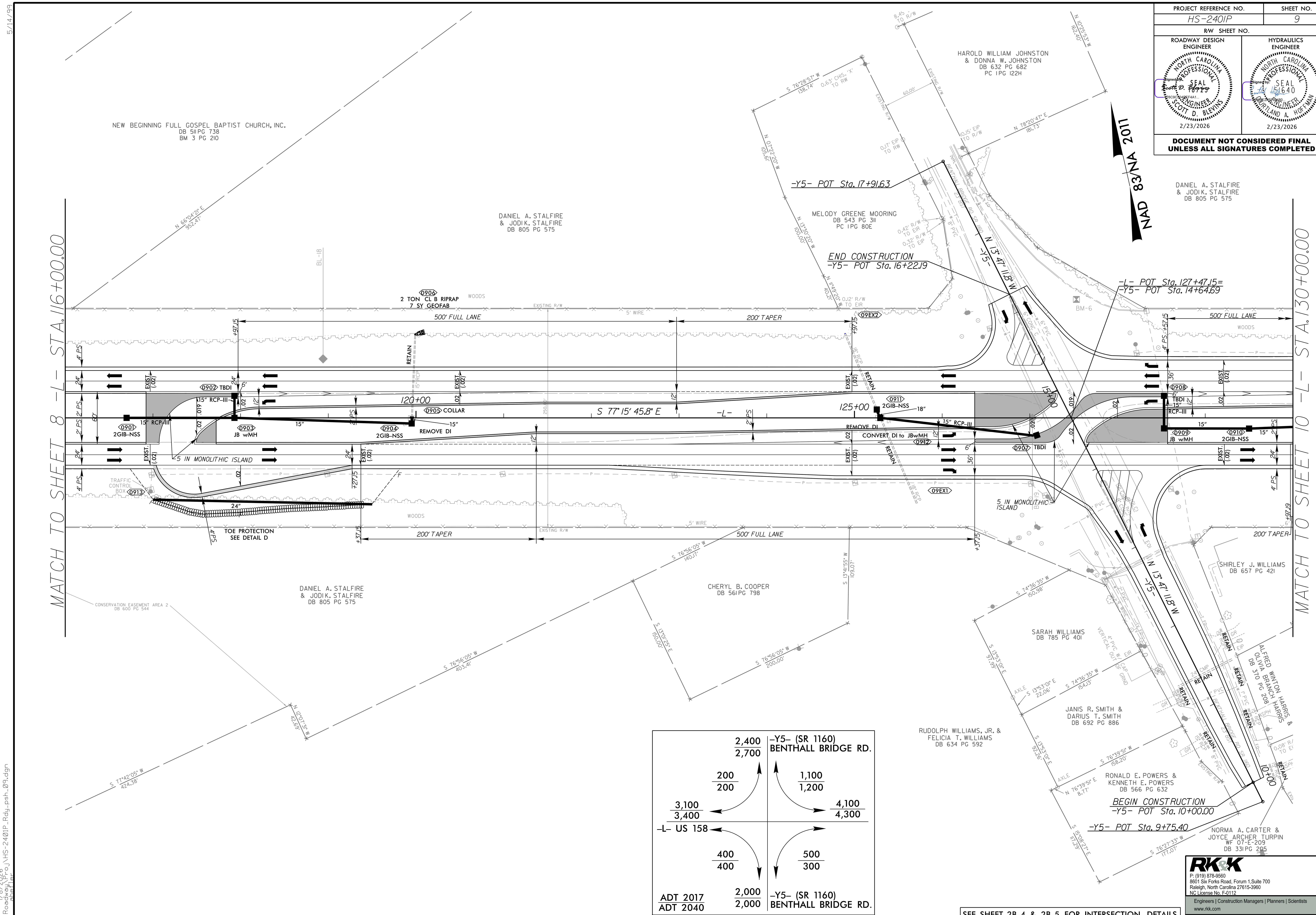

NAD 83/NA 2011
MATCH TO SHEET 8 -L- STA. 116+00.00
MATCH TO SHEET 10 -L- STA. 130+00.00
NEW BEGINNING FULL GOSPEL BAPTIST CHURCH, INC.
DB 511 PG 738
BM 3 PG 210
DANIEL A. STALFIRE
& JODIK. STALFIRE
DB 805 PG 575
HAROLD WILLIAM JOHNSTON
& DONNA W. JOHNSTON
DB 632 PG 682
PC 1 PG 122H
MELODY GREENE MOORING
DB 543 PG 311
PC 1 PG 80E
-Y5- POT Sta. 17+91.63
END CONSTRUCTION
-Y5- POT Sta. 16+22.19
-L- POT Sta. 127+47.15=
-Y5- POT Sta. 14+64.69
2 TON CL B RIPRAP
7 SY GEOFAB
500' FULL LANE
200' TAPER
120+00
125+00
S 77° 15' 45.8" E
-L-
N 13° 47' 11.8" W
-Y5-
5 IN MONOLITHIC ISLAND
TOE PROTECTION
SEE DETAIL D
TRAFFIC CONTROL BOX
CONVERT DI to JBwMH
REMOVE DI
JB wMH
2GIB-NSS
TBDI
15" RCP-III
RETAIN
CHERYL B. COOPER
DB 561 PG 798
SHIRLEY J. WILLIAMS
DB 657 PG 421
SARAH WILLIAMS
DB 785 PG 401
JANIS R. SMITH &
DARIUS T. SMITH
DB 692 PG 886
RUDOLPH WILLIAMS, JR. &
FELICIA T. WILLIAMS
DB 634 PG 592
RONALD E. POWERS &
KENNETH E. POWERS
DB 566 PG 632
ALFRED WINTON HARRIS &
OLIVIA BRANCH HARRIS
DB 370 PG 208
BEGIN CONSTRUCTION
-Y5- POT Sta. 10+00.00
-Y5- POT Sta. 9+75.40
NORMA A. CARTER &
JOYCE ARCHER TURPIN
WF 07-E-209
DB 331 PG 205
CONSERVATION EASEMENT AREA 2
DB 600 PG 544
-Y5- (SR 1160) BENTHALL BRIDGE RD.
-L- US 158
2,400 / 2,700
200 / 200
1,100 / 1,200
3,100 / 3,400
4,100 / 4,300
400 / 400
500 / 300
2,000 / 2,000
ADT 2017
ADT 2040

SEE SHEET 2B-4 & 2B-5 FOR INTERSECTION DETAILS

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5/14/99

1/8/2026
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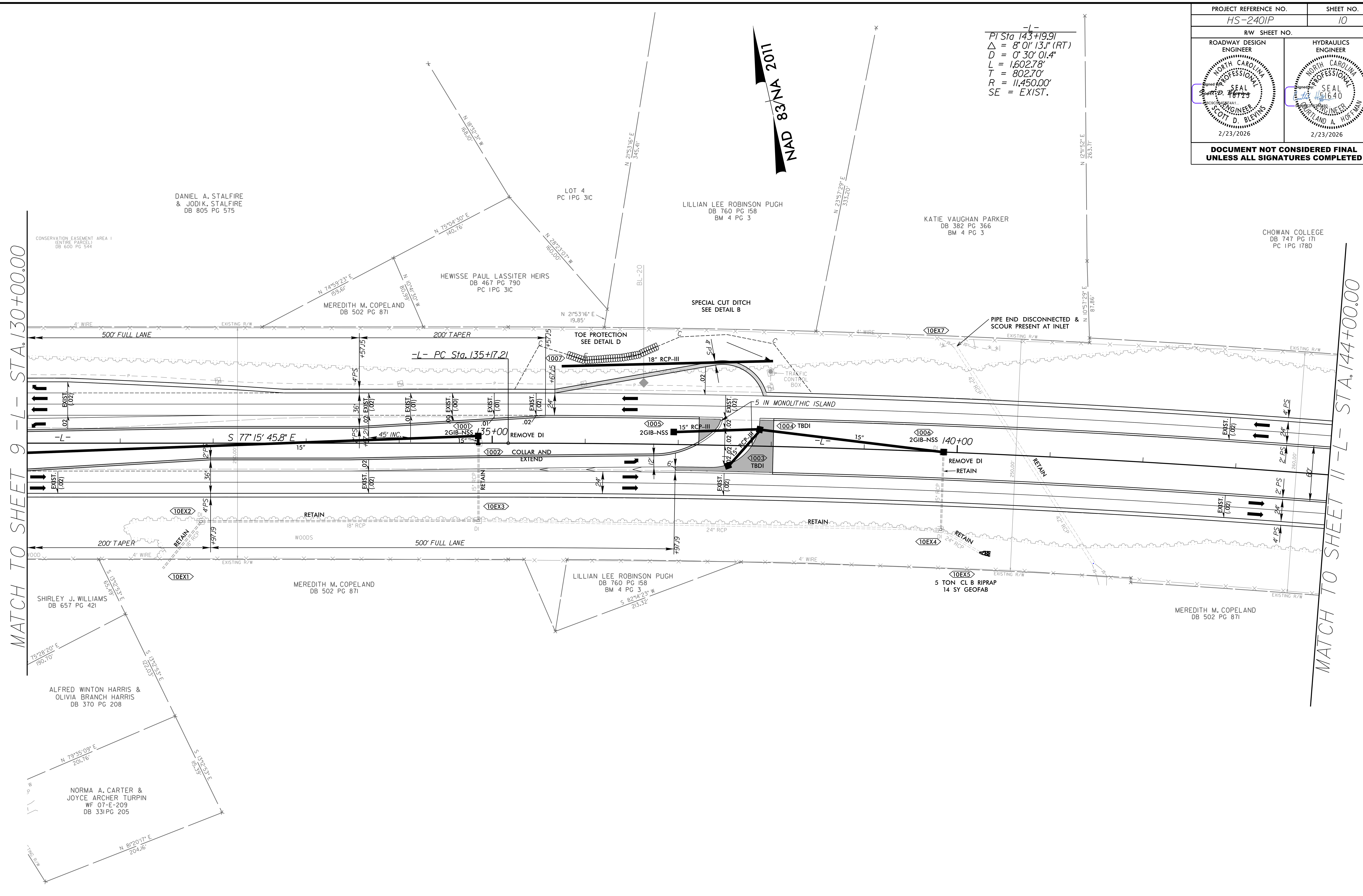
PROJECT REFERENCE NO.	SHEET NO.
HS-2401P	10
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 16723 SCOTT D. BLEVINS — 2/23/2026

HYDRAULICS ENGINEER — NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 51640 CORTLAND A. HOFFMAN — 2/23/2026

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



NAD 83/NA 2011
-L-
PI Sta 143+19.91
△ = 8° 01' 13.1" (RT)
D = 0° 30' 01.4"
L = 1,602.78'
T = 802.70'
R = 11,450.00'
SE = EXIST.
MATCH TO SHEET 9 -L- STA. 130+00.00
MATCH TO SHEET 11 -L- STA. 144+00.00
DANIEL A. STALFIRE & JODI K. STALFIRE DB 805 PG 575
CONSERVATION EASEMENT AREA 1 (ENTIRE PARCEL) DB 600 PG 544
LOT 4 PC 1PG 31C
LILLIAN LEE ROBINSON PUGH DB 760 PG 158 BM 4 PG 3
KATIE VAUGHAN PARKER DB 382 PG 366 BM 4 PG 3
CHOWAN COLLEGE DB 747 PG 171 PC 1PG 178D
HEWISSE PAUL LASSITER HEIRS DB 467 PG 790 PC 1PG 31C
MEREDITH M. COPELAND DB 502 PG 871
SPECIAL CUT DITCH SEE DETAIL B
TOE PROTECTION SEE DETAIL D
PIPE END DISCONNECTED & SCOUR PRESENT AT INLET
500' FULL LANE
200' TAPER
-L- PC Sta. 135+17.21
18" RCP-III
TRAFFIC CONTROL BOX
5 IN MONOLITHIC ISLAND
S 77° 15' 45.8" E
45' INC.
2GIB-NSS
135+00
REMOVE DI
COLLAR AND EXTEND
15" RCP-III
TBDI
140+00
RETAIN
WOODS
5 TON CL B RIPRAP 14 SY GEOFAB
SHIRLEY J. WILLIAMS DB 657 PG 421
ALFRED WINTON HARRIS & OLIVIA BRANCH HARRIS DB 370 PG 208
NORMA A. CARTER & JOYCE ARCHER TURPIN WF 07-E-209 DB 331 PG 205

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SEE SHEET 2D-1 FOR DITCH DETAILS AND DITCH GRADES
SEE SHEET 2B-5 FOR INTERSECTION DETAIL

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1/8/2026
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PROJECT REFERENCE NO.	SHEET NO.
HS-2401P	11

R/W SHEET NO.

ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 18723 ENGINEER SCOTT D. BLEVINS 2/23/2026	NORTH CAROLINA PROFESSIONAL SEAL 51640 ENGINEER COURTLAND A. HOFFMAN 2/23/2026

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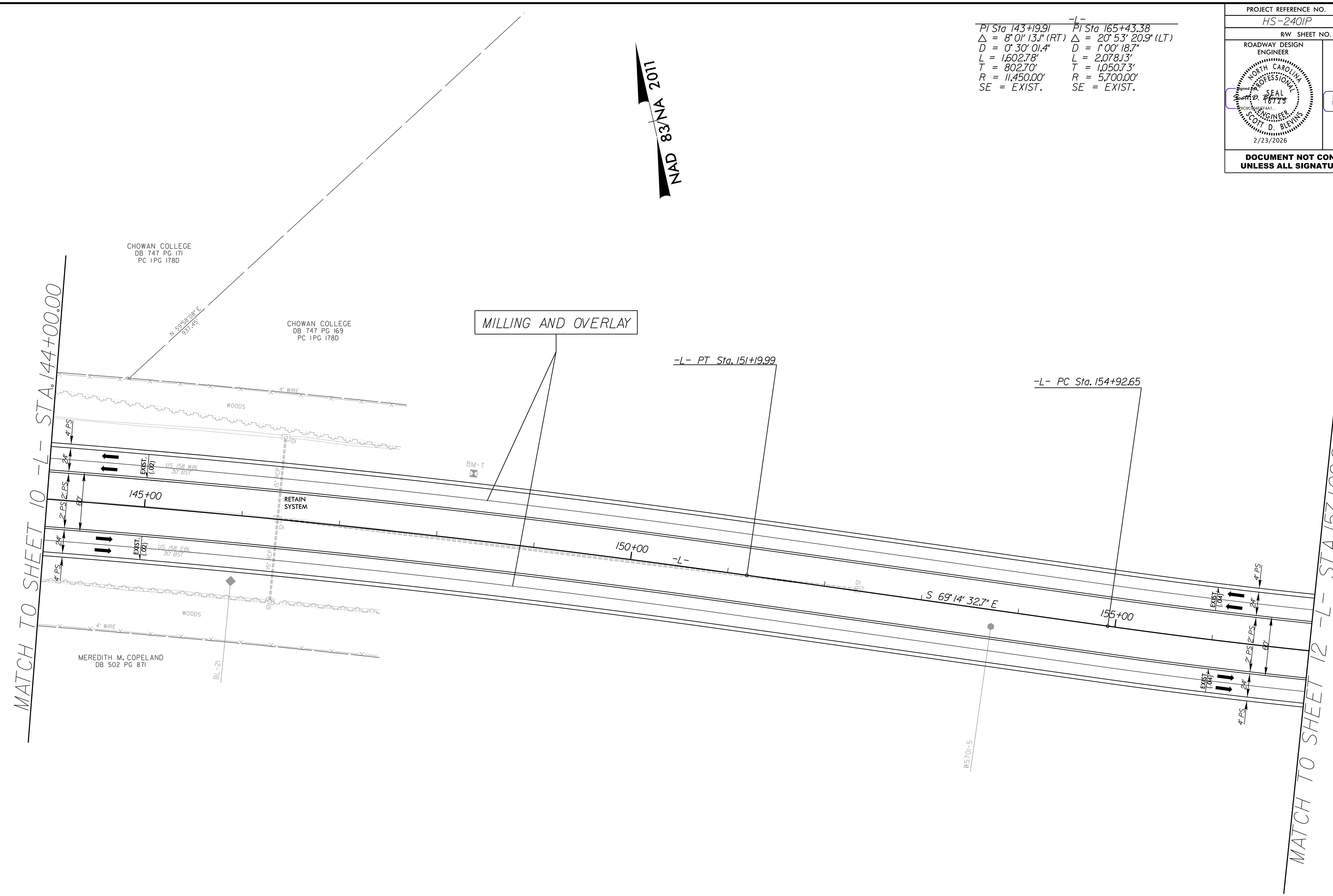

-L-
PI Sta 143+19.91
△ = 8° 01' 13.1" (RT)
D = 0° 30' 01.4"
L = 1,602.78'
T = 802.70'
R = 11,450.00'
SE = EXIST.
PI Sta 165+43.38
△ = 20° 53' 20.9" (LT)
D = 1° 00' 18.7"
L = 2,078.13'
T = 1,050.73'
R = 5,700.00'
SE = EXIST.
NAD 83/NA 2011
CHOWAN COLLEGE
DB 747 PG 171
PC 1 PG 178D
CHOWAN COLLEGE
DB 747 PG 169
PC 1 PG 178D
MILLING AND OVERLAY
-L- PT Sta. 151+19.99
-L- PC Sta. 154+92.65
MATCH TO SHEET 10 -L- STA. 144+00.00
MATCH TO SHEET 12 -L- STA. 157+00.00
4' WIRE
WOODS
BM-7
US 158 WBL
30' BST
US 158 EBL
30' BST
EXIST. (.02)
EXIST. (.04)
145+00
150+00
155+00
-L-
RETAIN SYSTEM
S 69° 14' 32.7" E
4' PS
2' PS
24'
60'
MEREDITH M. COPELAND
DB 502 PG 871
BL-21
W5701-5

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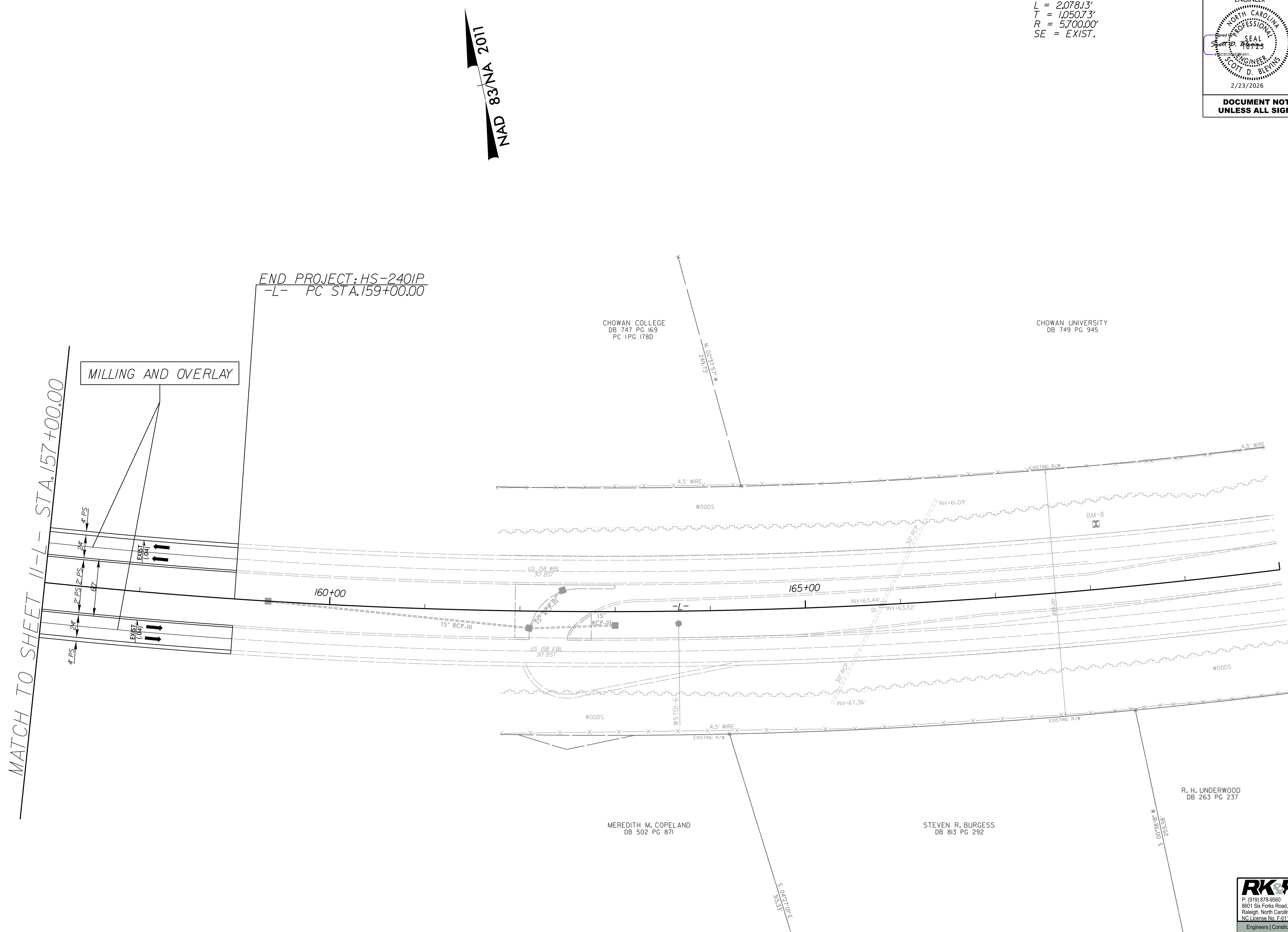
PROJECT REFERENCE NO.	SHEET NO.
HS-2401P	12

R/W SHEET NO.

ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 16725 ENGINEER SCOTT D. BLEVINS Signed by: Scott D. Blevins 476C9C504EEF4A1... 2/23/2026	NORTH CAROLINA PROFESSIONAL SEAL 51640 ENGINEER CURTLAND A. HOFFMAN Signed by: Curtland Hoffman 93469B2FB738480... 2/23/2026

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-L-
PI Sta 165+43.38
Δ = 20° 53' 20.9" (LT)
D = 1° 00' 18.7"
L = 2,078.13'
T = 1,050.73'
R = 5,700.00'
SE = EXIST.



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1/8/2026
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gbeller