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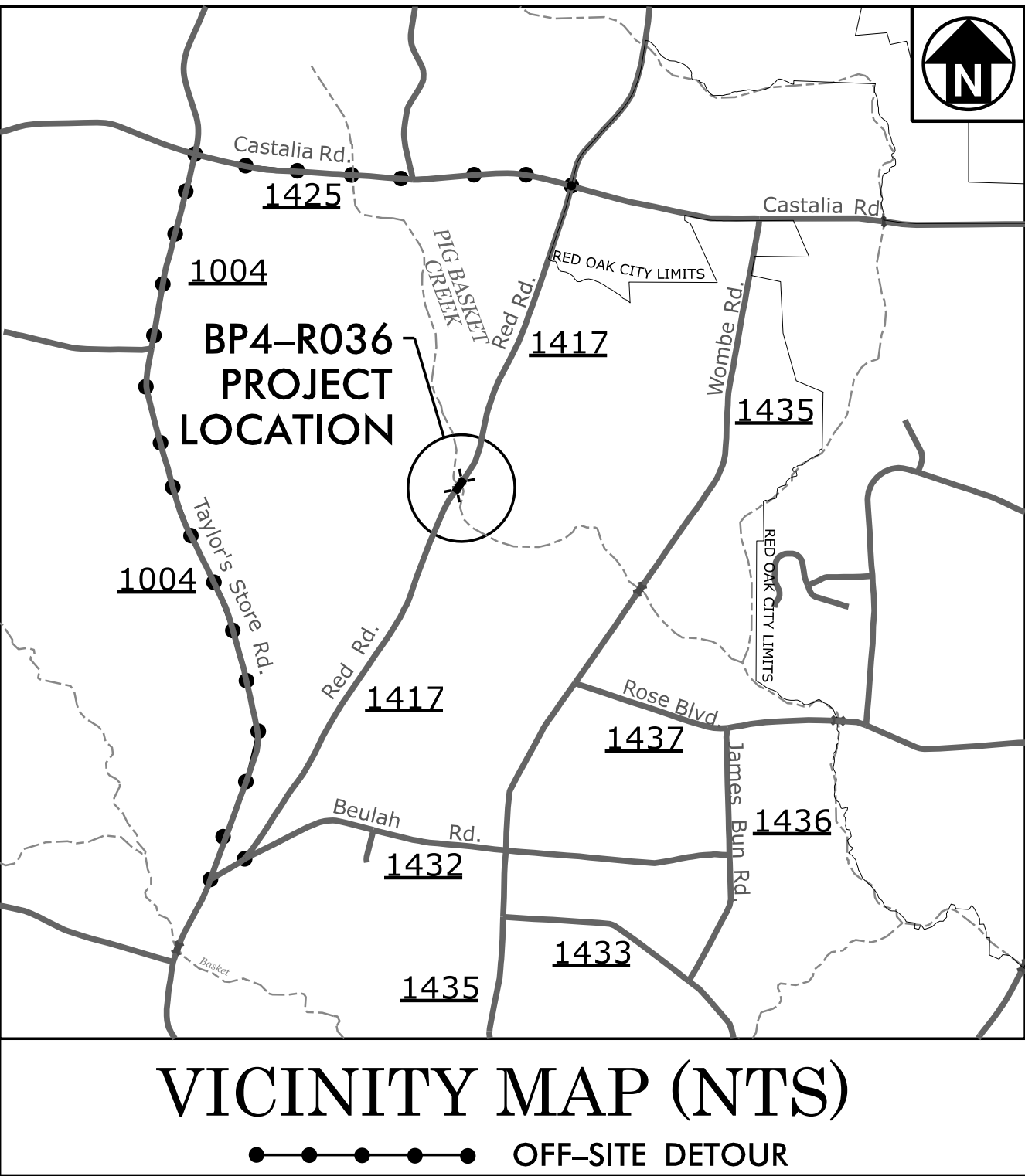
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09/08/99

PROJECT: BP4-R036

CONTRACT: DD00533

See Sheet 1A For Index of Sheets



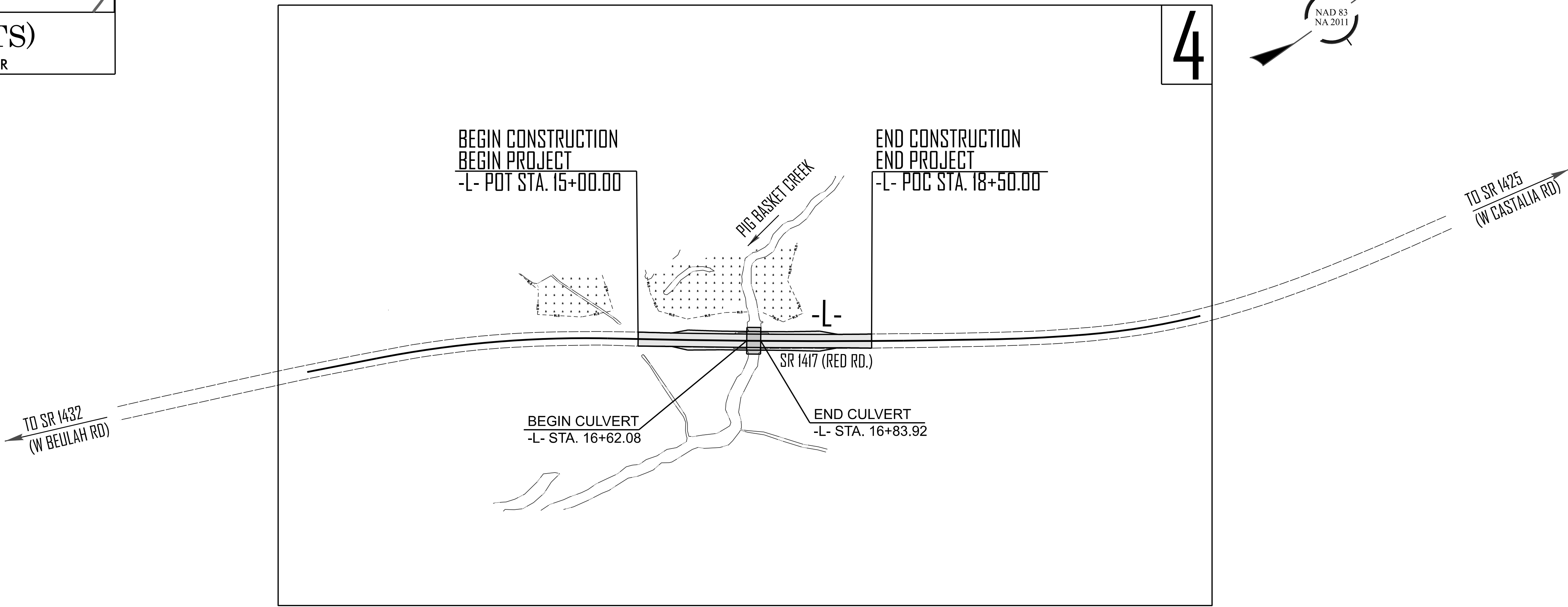
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

NASH COUNTY

LOCATION: *BRIDGE NO. 155 OVER TRIBUTARY OF
PIG BASKET CREEK ON SR 1417 (RED ROAD)*

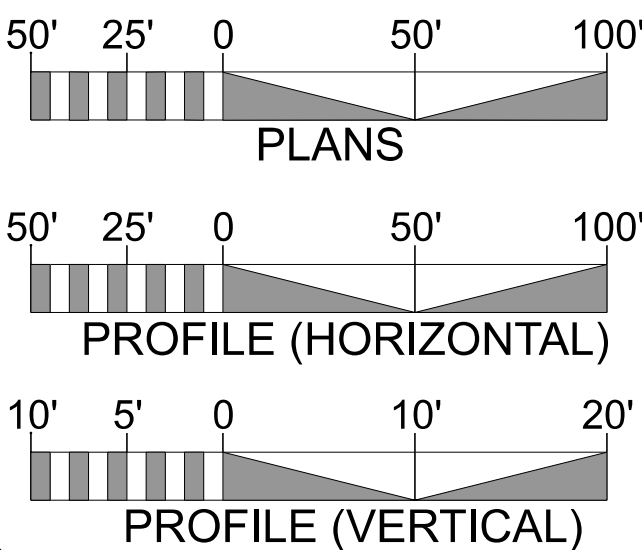
TYPE OF WORK: *GRADING, DRAINAGE, PAVING AND CULVERT*

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	BP4-R036	1	
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
BP4.R036.1	N/A	PE	
BP4.R036.2	N/A	ROW/UTIL	
BP4.R036.3	N/A	CONST.	



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UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES



DESIGN DATA

ADT 2026 = 800
ADT 2040 = 1300
V = 55 MPH
FUNC CLASS = RURAL LOCAL
SUB REGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY PROJECT = 0.062 MILES
LENGTH CULVERT PROJECT = 0.004 MILES
TOTAL LENGTH PROJECT = 0.066 MILES

Prepared in the Office of Mott MacDonald for:

DIVISION 4

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

2024 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
NOVEMBER 28, 2025

LETTING DATE:
AUGUST 25, 2026

TIM JORDAN, PE
PROJECT ENGINEER

PADDY JORDAN
PROJECT DESIGN ENGINEER

RUSSELL BROADWELL
NCDOT CONTACT

ROADWAY DESIGN ENGINEER

Signed by: James Timothy Jordan
PROFESSIONAL ENGINEER
SEAL 21102
16-Jul-2026
P.E.

HYDRAULICS ENGINEER

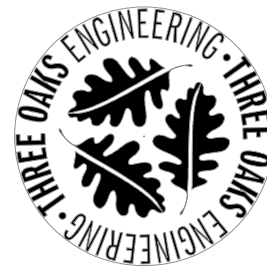
Signed by: Paddy Jordan
PROFESSIONAL ENGINEER
SEAL 34364
16-Jul-2026
P.E.

PLANS PREPARED BY:

M
MOTT
MACDONALD

930 Main Campus Drive, Suite 200
Raleigh, NC 27606
(919) 552-2253

License No. F-0669
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NC Firm License No: F-1334
324 Blackwell Street
Suite 1200
Durham, NC 27701
919.732.1300

GENERAL NOTES

GENERAL NOTES: 2024 SPECIFICATIONS EFFECTIVE: 01-16-24

GRADING AND SURFACING:

THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. GRADE LINES MAY BE ADJUSTED AT THEIR BEGINNING AND ENDING AND AT STRUCTURES AS DIRECTED 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. 560.01.

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.

SUBSURFACE PLANS:

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

UTILITIES:

UTILITY OWNERS ON THIS PROJECT ARE BRIGHTSPEED, NASH COUNTY, DUKE ENERGY, SPECTRUM, AND OPTIMUM.
ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS.

LIST OF ROADWAY STANDARD DRAWINGS

2024 ROADWAY ENGLISH STANDARD DRAWINGS EFF. 01-16-2024
REV. 11-26-2025

The following Roadway Standards as appear in "Roadway Standard Drawings" Highway Design Branch – 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
DIVISION 2 – EARTHWORK	
200.03	Method of Clearing – Method III
225.02	Guide for Grading Subgrade – Secondary and Local
225.04	Method of Obtaining Superelevation – Two Lane Pavement

DIVISION 5 – SUBGRADE, BASES AND SHOULDERS	
560.01	Method of Shoulder Construction – High Side of Superelevated Curve – Method I

DIVISION 8 – INCIDENTALS	
862.01	Guardrail Placement
862.02	Guardrail Installation
876.01	Rip Rap in Channels and Ditches

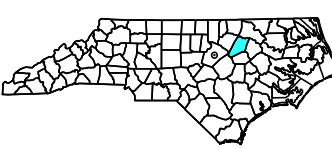
INDEX OF SHEETS

SHEET NUMBER	DESCRIPTION
1	TITLE SHEET
1A	INDEX OF SHEETS, GENERAL NOTES, AND LIST OF STANDARD DRAWINGS
1B	CONVENTIONAL SYMBOLS
2A-1	PAVEMENT SCHEDULE AND TYPICAL SECTIONS
2C-1	GUARDRAIL PLACEMENT DETAILS
2C-2	GUARDRAIL PLACEMENT DETAIL – 25’-0” CLEAR SPAN
3B-1	GUARDRAIL, EARTHWORK AND PAVEMENT REMOVAL
4	PLAN SHEET
5	PROFILE SHEET
RW-01 THRU RW-04	SURVEY CONTROL SHEETS
TMP-1 THRU TMP-3	TRAFFIC MANAGEMENT PLANS
EC-1 THRU EC-5	EROSION CONTROL PLANS
RF-1	REFORESTATION DETAIL SHEET
UO-1 THRU UO-2	UTILITIES BY OTHERS PLANS
X-1	CROSS-SECTION SUMMARY SHEET
X-2 THRU X-7	CROSS-SECTIONS
C-1 THRU C-2	CULVERT PLANS
SN	STRUCTURE NOTES

BP4-R036

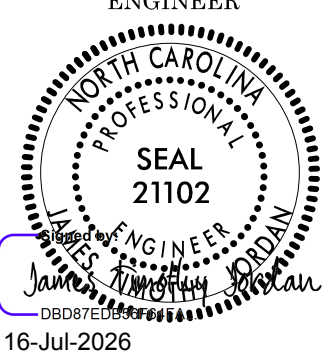
SHEET NO. 1A

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
NASH COUNTY



ROADWAY DESIGN UNIT

ROADWAY DESIGN
ENGINEER



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UNLESS ALL SIGNATURES COMPLETED

PREPARED BY

M M
MOTT
MACDONALD

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REVISIONS

STANDARD DRAWING

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	

STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

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:

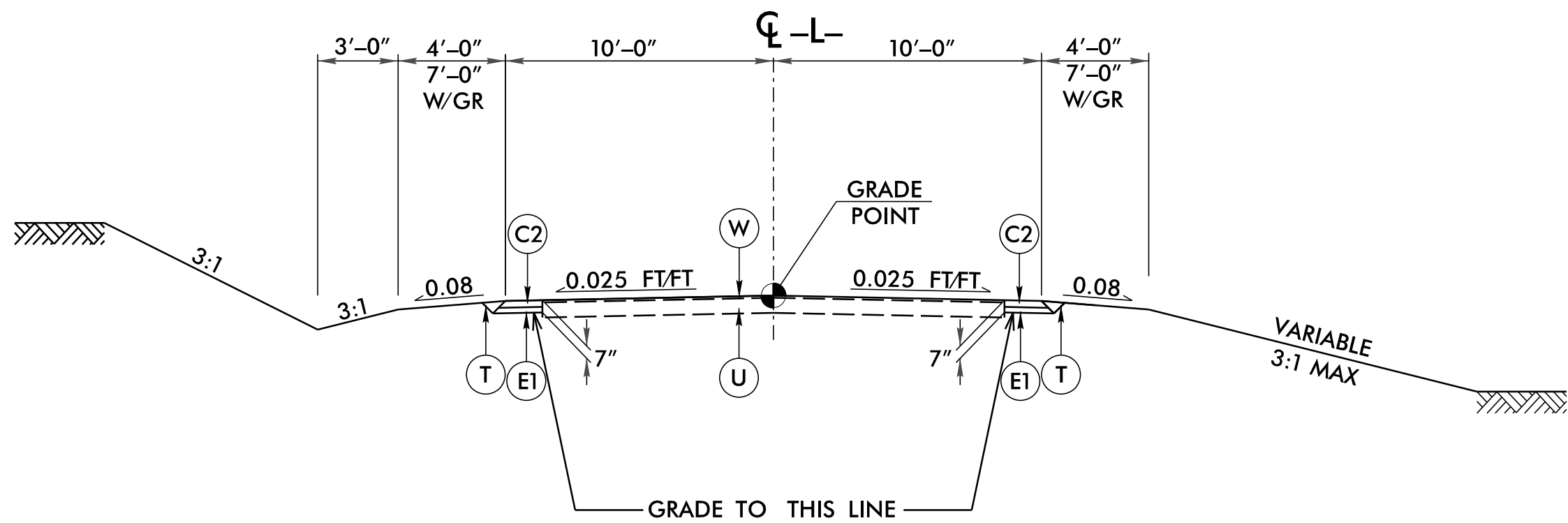
Gas Valve	
Gas Meter	
U/G Gas Line Test Hole (SUE - LOS A)*	
U/G Gas Line (SUE - LOS B)*	
U/G Gas Line (SUE - LOS C)*	
U/G Gas Line (SUE - LOS D)*	
Above Ground Gas Line	

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	
Geoenviromental Boring	
Abandoned According to Utility Records	
End of Information	

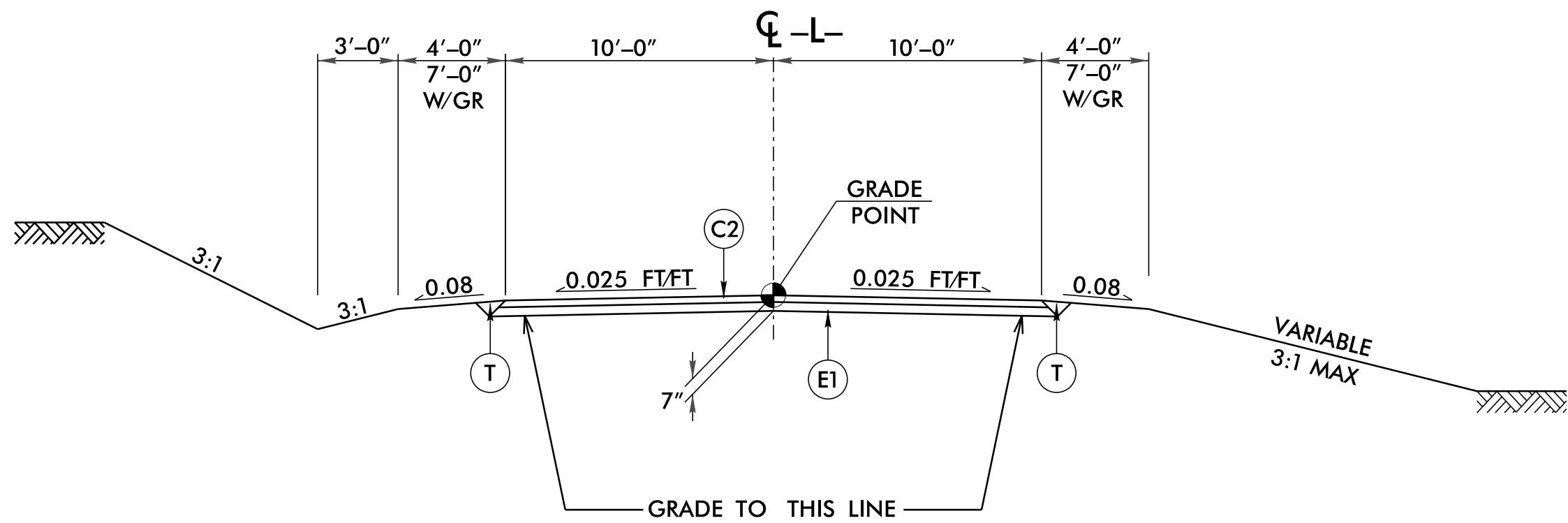


TYPICAL SECTION NO. 1

TRANSITION FROM EXISTING TO TYPICAL SECTION NO. 1:
-L- STA 15+00.00 TO 15+50.00

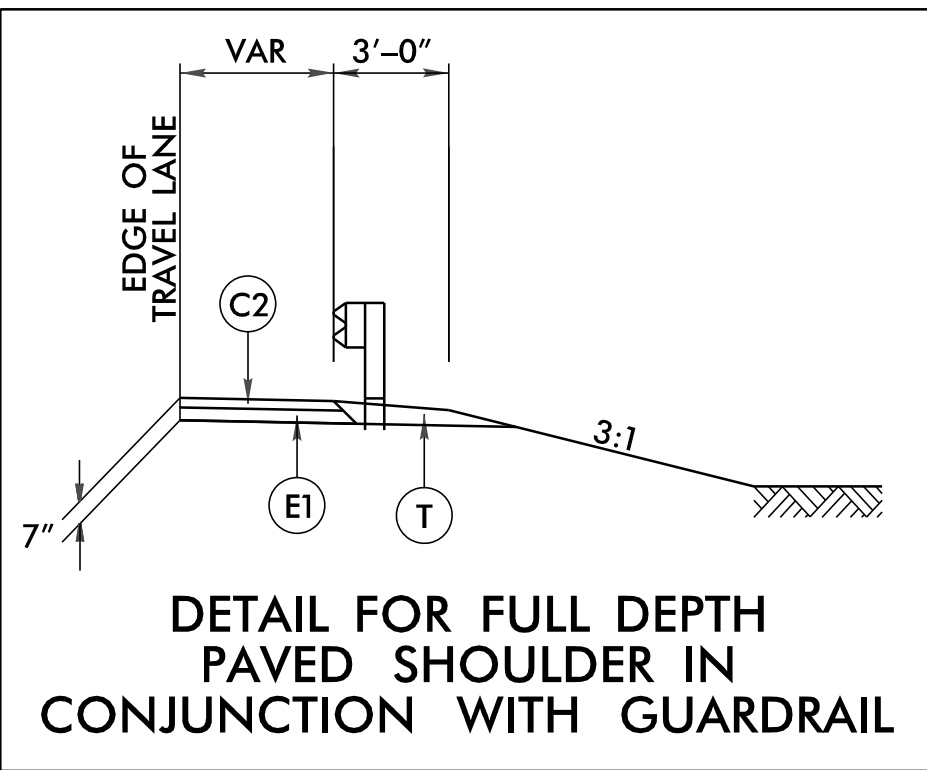
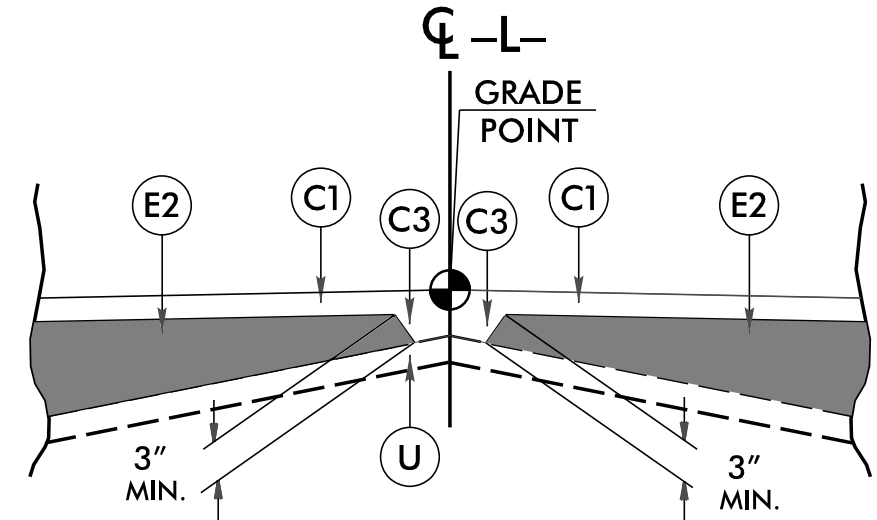
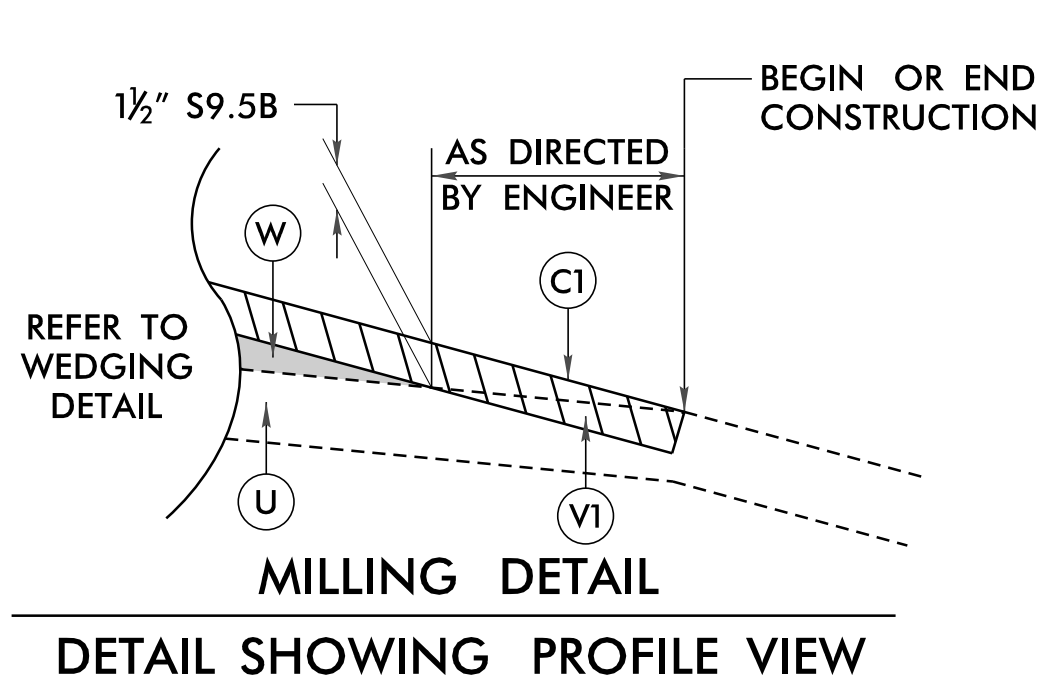
USE TYPICAL SECTION NO. 1:
-L- STA 15+50.00 TO 16+40.00
-L- STA 17+10.00 TO 18+00.00

TRANSITION FROM TYPICAL SECTION NO. 1 TO EXISTING:
-L- STA 18+00.00 TO 18+50.00



TYPICAL SECTION NO. 2

USE TYPICAL SECTION NO. 2:
-L- STA 16+40.00 TO 17+10.00



PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
C2	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.
C3	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 1" IN DEPTH OR GREATER THAN 1 1/2" IN DEPTH.
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 5 1/2" IN DEPTH.
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.
V1	INCIDENTAL MILLING.
W	WEDGING (SEE DETAIL SHOWING METHOD OF WEDGING).

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

PROJECT REFERENCE NO.	SHEET NO.
BP4-R036	2C-1

BP4-R036

SHEET NO. 2C-1

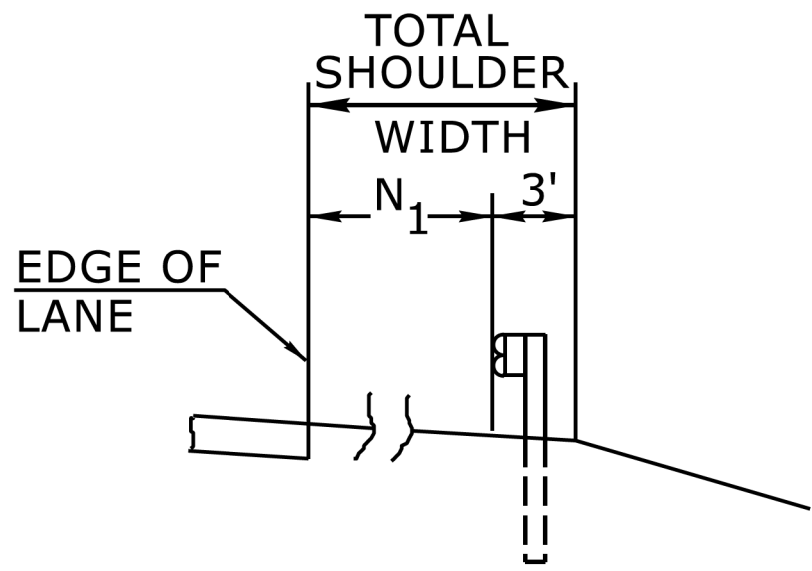
NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
NASH COUNTY



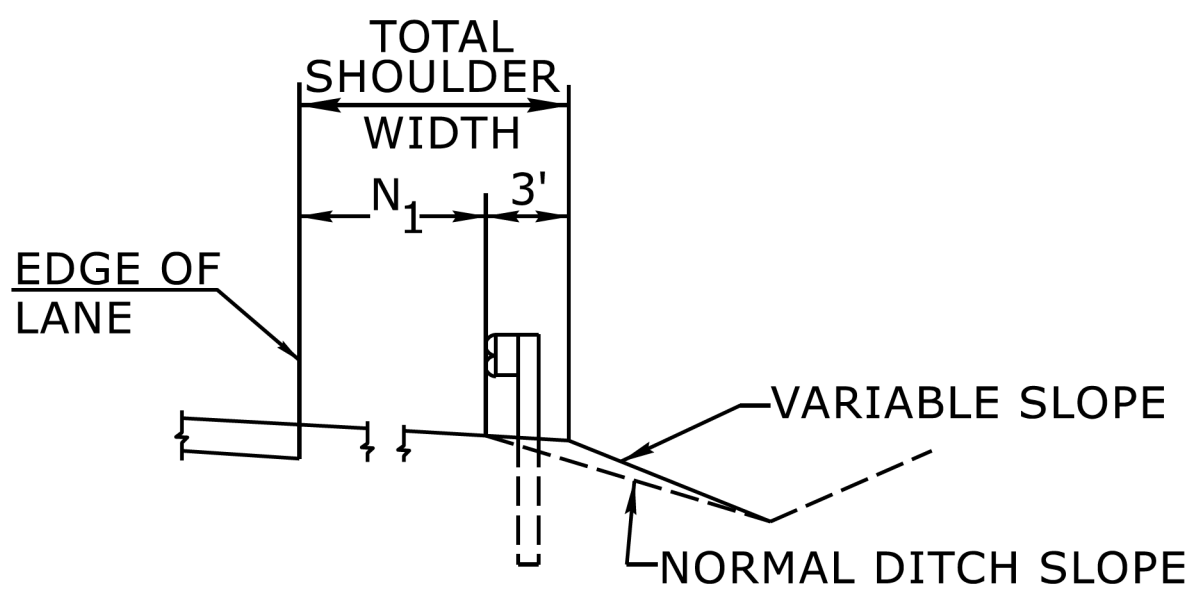
ROADWAY DESIGN UNIT
ROADWAY DESIGN
ENGINEER

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REVISIONS

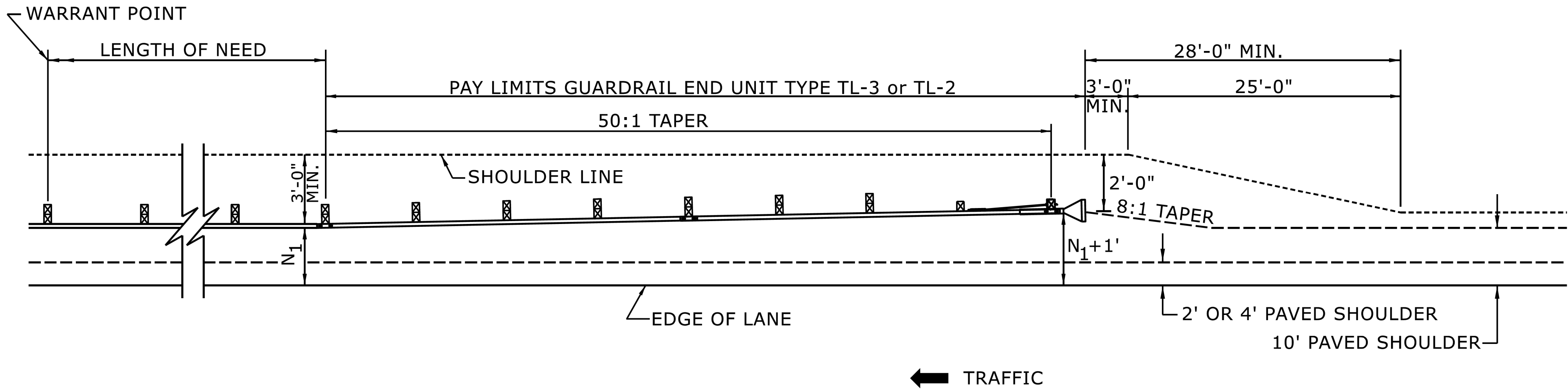


FILL SECTION



CUT SECTION

"N₁" = DISTANCE FROM EDGE OF LANE TO FACE OF GUARDRAIL WHERE GUARDRAIL IS PARALLEL TO LANE.

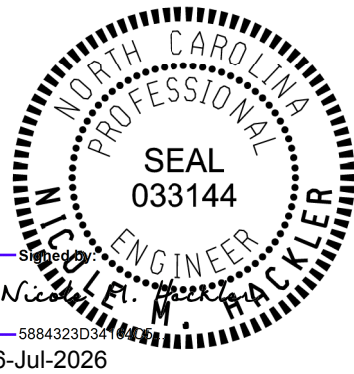


FOR POSTED SPEEDS ≥ 45mph USE GREU TYPE TL-3
FOR POSTED SPEEDS < 45mph USE GREU TYPE TL-2

DETAIL OF BEGINNING OF GUARDRAIL IN CUT OR FILL SECTION

ROADWAY DETAIL DRAWING FOR
GUARDRAIL PLACEMENT

SHEET 6 OF 15
862D01

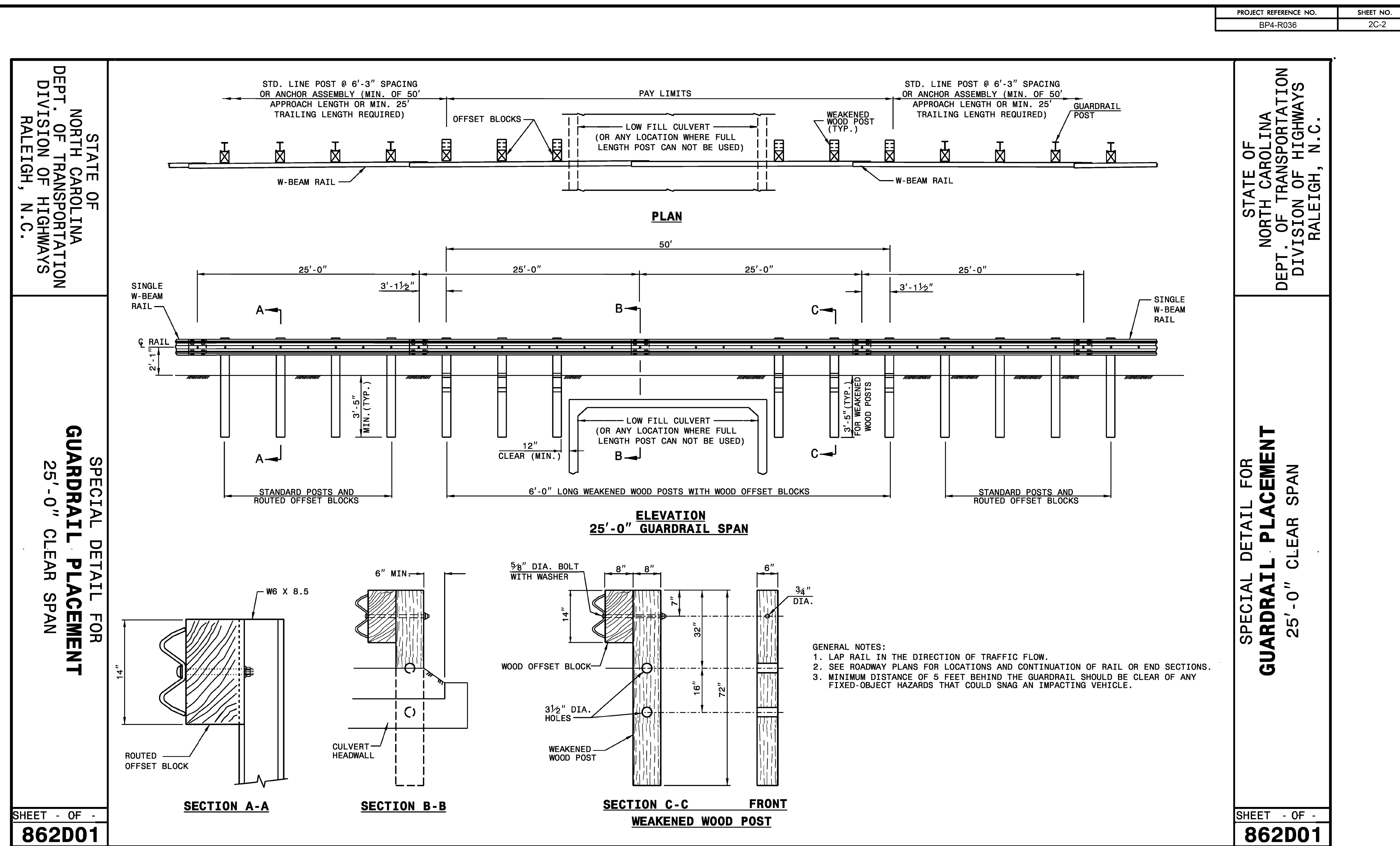


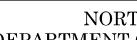
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CONTRACTS STANDARDS
AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

SEE TITLE BLOCK

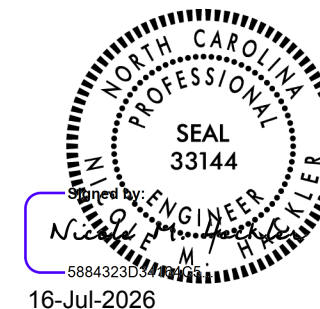
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MODIFIED BY: DATE:
CHECKED BY: DATE:
FILE SPEC.: DATE:



BP4-R036	
SHEET NO.	2C-2
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION NASH COUNTY	
	
ROADWAY DESIGN UNIT	
ROADWAY DESIGN ENGINEER	

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REVISIONS



CONTRACTS STANDARDS AND DEVELOPMENT UNIT		
Office 919-707-6950		FAX 919-250-4119
25'-0" CLEAR SPAN GUARDRAIL PLACEMENT		
ORIGINAL BY: _____ DATE: _____ MODIFIED BY: _____ DATE: _____ CHECKED BY: _____ DATE: _____ FILE SPEC.: _____		

COMPUTED BY:	PADDY JORDAN	DATE:	9/23/2025
CHECKED BY:	TIM JORDAN	DATE:	9/23/2025

"N" = DISTANCE FROM EDGE OF LANE TO FACE OF GUARDRAIL.
TOTAL SHOULDER WIDTH = DISTANCE FROM EDGE OF TRAVEL LANE TO SHOULDER BREAK POINT.
FLARE LENGTH = DISTANCE FROM LAST SECTION OF PARALLEL GUARDRAIL TO END OF GUARDRAIL.
W = TOTAL WIDTH OF FLARE FROM BEGINNING OF TAPER TO END OF GUARDRAIL.
G = GATING IMPACT ATTENUATOR TYPE 350
NG = NON-GATING IMPACT ATTENUATOR TYPE 350

GUARDRAIL SUMMARY

SURVEY LINE	BEG. STA.	END STA.	LOCATION	LENGTH			WARRANT POINT		"N" DIST. FROM E.O.L.	TOTAL SHOULDER WIDTH	FLARE LENGTH		W		ANCHORS												IMPACT ATTENUATOR TYPE 350			REMARKS			
				STRAIGHT	SHOP CURVED	DOUBLE FACED	APPROACH END	TRAILING END			APPROACH END	TRAILING END	APPROACH END	TRAILING END	AT-1	GREU TL-3	TYPE III	25' CLEAR SPAN									NO.	PERMITTED					
																												G	NG				
-L-	15 + 73.00	17 + 73.00	RT	200.00'			16 + 73.00 (CULVERT)		4'	7'	50'		1'			2		1															
-L-	15 + 73.00	17 + 73.00	LT	200.00'				16 + 73.00 (CULVERT)	4'	7'		50'		1'		2		1															
		SUBTOTAL		400.00'																													
		LESS ANCHOR DEDUCTIONS																															
		GREU TL-3	4 x 50.00'	=	-200.00'																												
		25' CLEAR SPAN	2 x 50.00'	=	-100.00'																												
		TOTAL		100.00'												4		2															5 ADDITIONAL GUARDRAIL POSTS

SUMMARY OF EARTHWORK ***IN CUBIC YARDS***

LOCATION	UNCLASSIFIED EXCAVATION	UNDERCUT	EMBT + %	BORROW	WASTE
-L- 15 + 00.00 TO 18 + 50.00	93		424	331	
SUBTOTAL	93		424	331	
WASTE IN LIEU OF BORROW					
PROJECT TOTAL	93		424	331	
5% TO REPLACE BORROW				17	
GRAND TOTAL	93		2024	348	
SAY	100			370	

EST. DDE = 99 CY

NOTE: Approximate quantities only. Unclassified Excavation, Borrow, Fine Grading, Clearing and Grubbing and Removal of Existing Asphalt Pavement will be paid for at the contract Lump Sum price for "Grading".

SUMMARY OF EXISTING ASPHALT PAVEMENT REMOVAL

SURVEY LINE	STATION	STATION	LOCATION LT/RT/CL	SY
-L-	15 + 00.00	16 + 40.00	LT	1.32
-L-	15 + 00.00	16 + 40.00	RT	7.02
-L-	16 + 40.00	16 + 64.00	CL	60.12
-L-	16 + 82.00	17 + 10.00	CL	69.27
-L-	17 + 10.00	18 + 50.00	LT	2.73
-L-	17 + 10.00	18 + 50.00	RT	11.68
TOTAL:				152.14
SAY:				160

BP4-R036

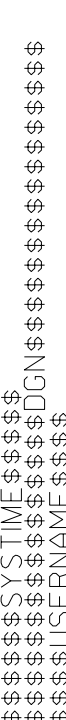
SHEET NO.	3B-1
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NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
NASH COUNTY



ROADWAY DESIGN UNIT

REVISIONS

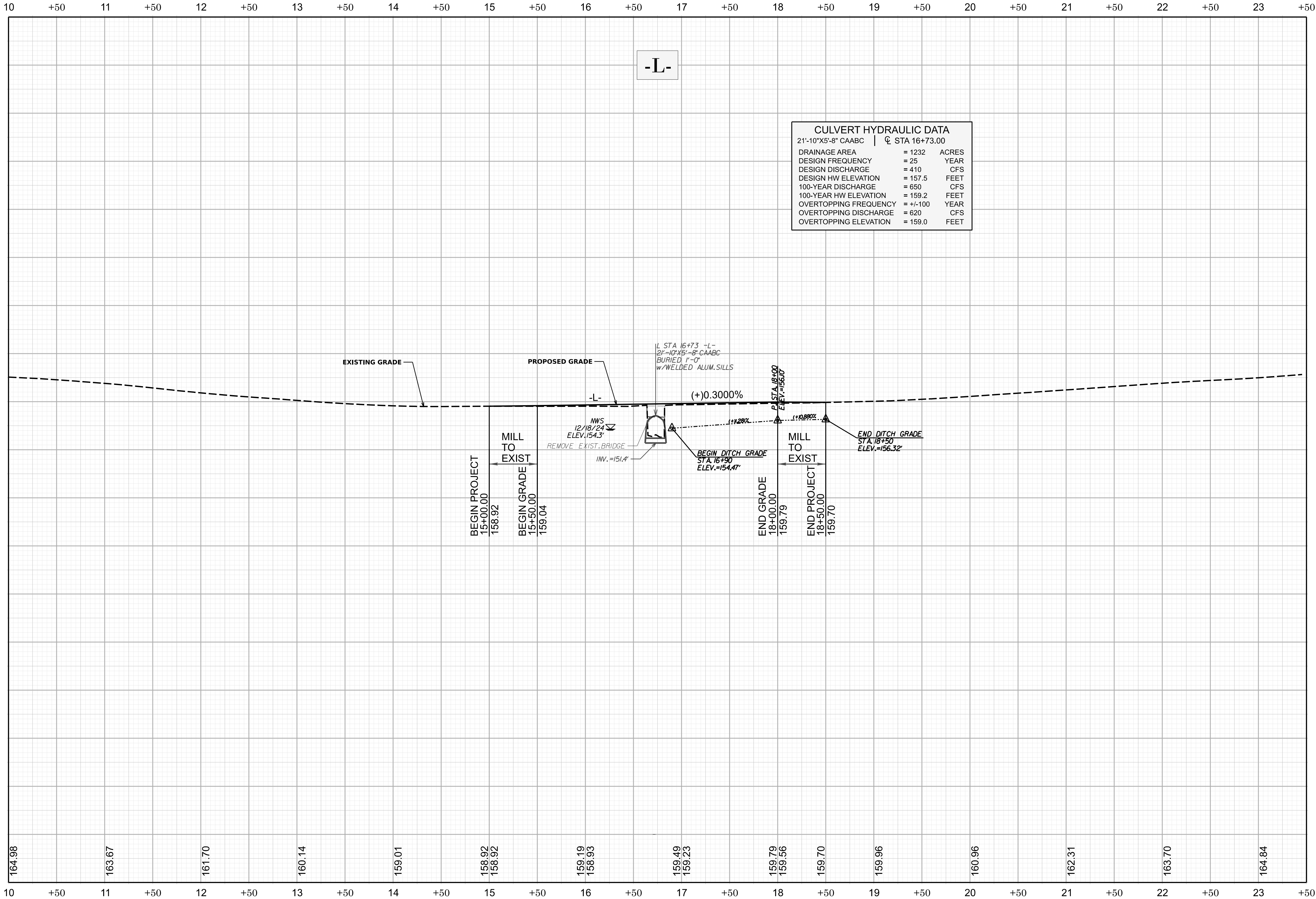
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FOR -L- PROFILE, SEE SHEET 5

NC Firm License No: F-133
324 Blackwell Street
Suite 1200
Durham, NC 27701
919.732.1300

11/14/23
5/26/20

\$\$\$-USER NAME-\$\$\$ - \$\$\$-DATE-\$\$\$

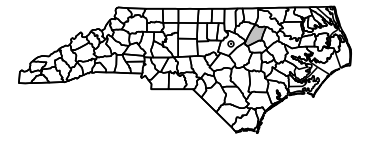


FOR -L- PLAN, SEE SHEET 4

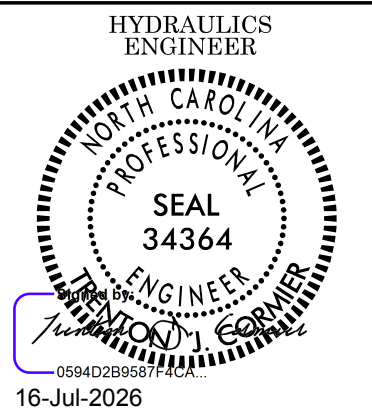
BP4-R036

SHEET NO. 5

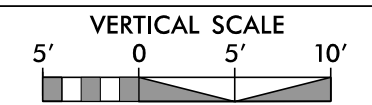
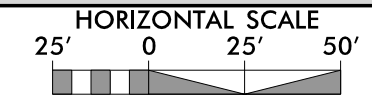
NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
NASH COUNTY



ROADWAY DESIGN UNIT
ROADWAY DESIGN ENGINEER



DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



PREPARED BY
M M
MOTT
MACDONALD
930 Main Campus Dr., Suite 200
Raleigh, NC 27606
www.mottmac.com
License No. F-0669



NC Firm License No: F-1334
324 Blackwell Street
Suite 1200
Durham, NC 27701
919.732.1300

REVISIONS

09/08/09

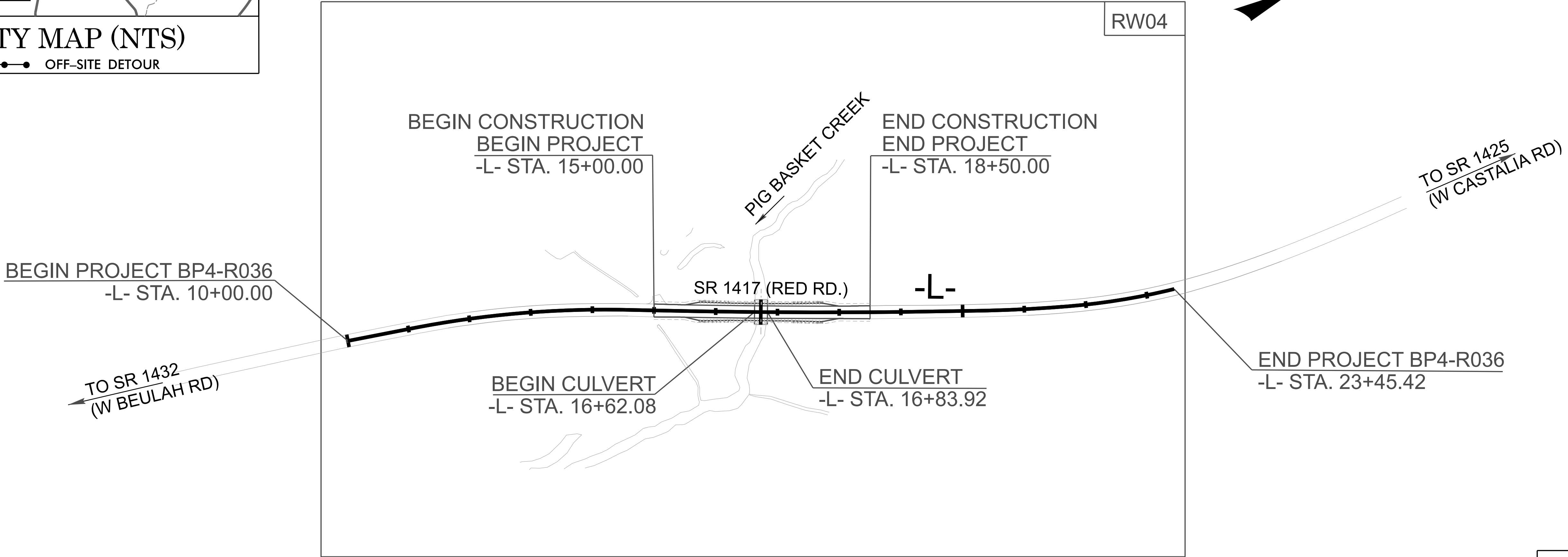
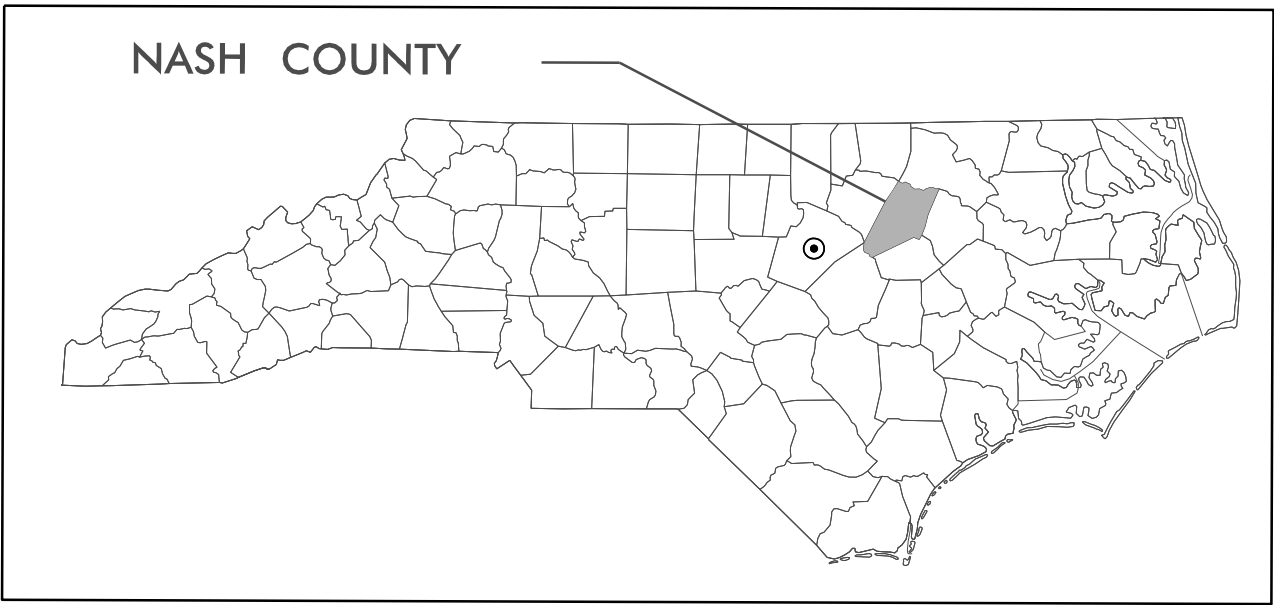
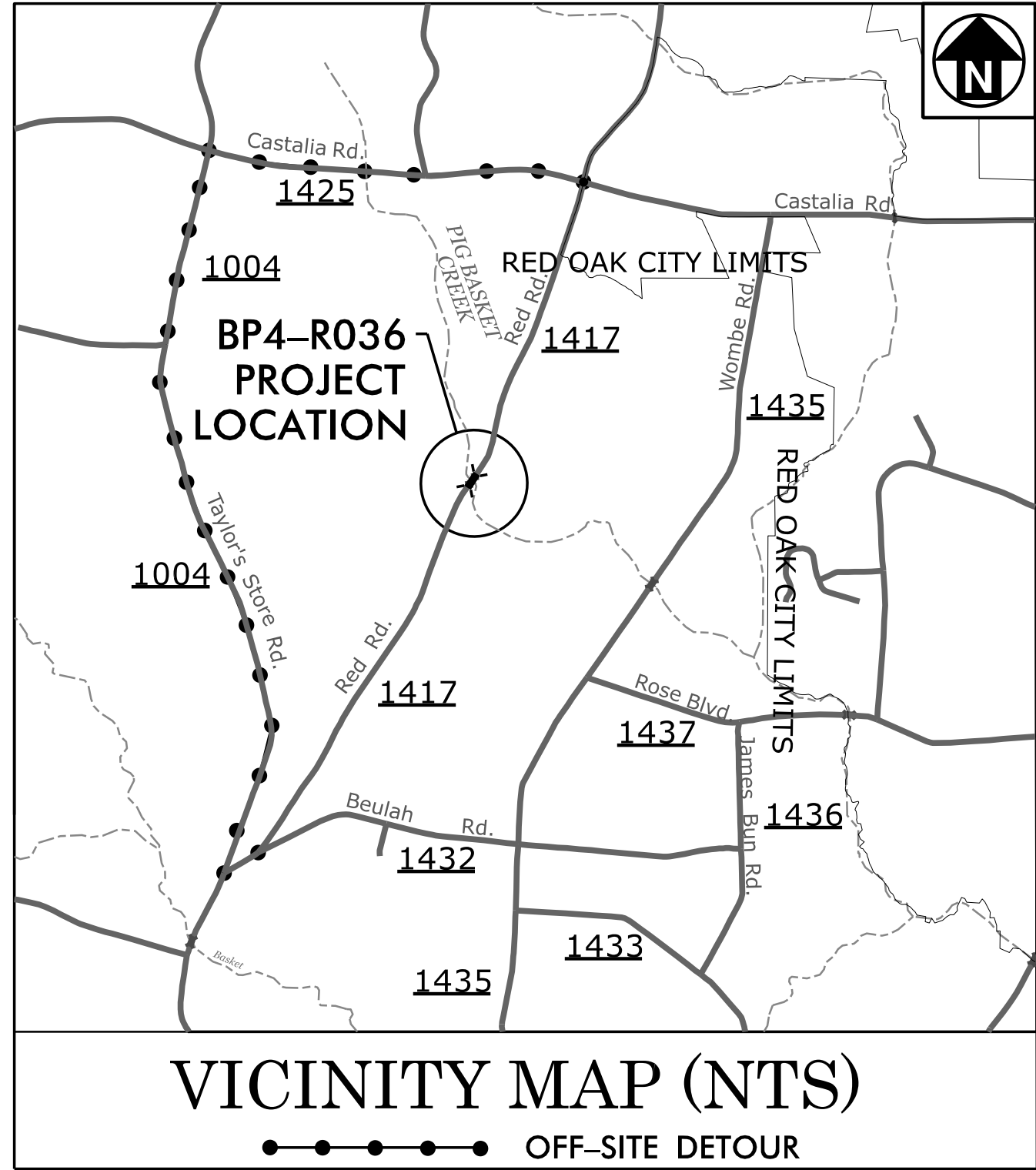
TIP PROJECT: BP4-R036

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

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

NASH COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	BP4-R036	RW01	6



DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES



DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT BP4R036-1 WITH NAD83/NSRS 2011 STATE PLANE GRID COORDINATES OF NORTHING: 831915.017' EASTING: 2307150.482' ELEVATION: 162.67'

THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.999962673

ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES

VERTICAL DATUM USED IS NAVD 88

Prepared in the Office of:
DEWBERRY ENGINEERS INC.

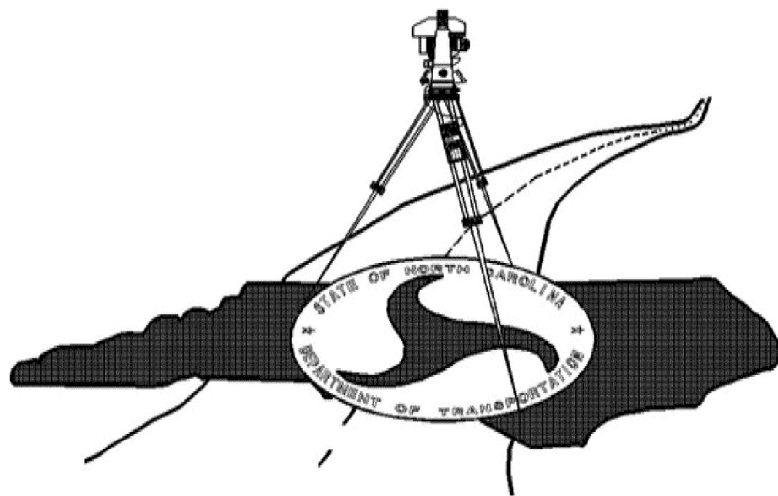
2610 WYCLIFF ROAD
SUITE 410
RALEIGH, NC 27607

919-881-9939
NCBELS #F-0929

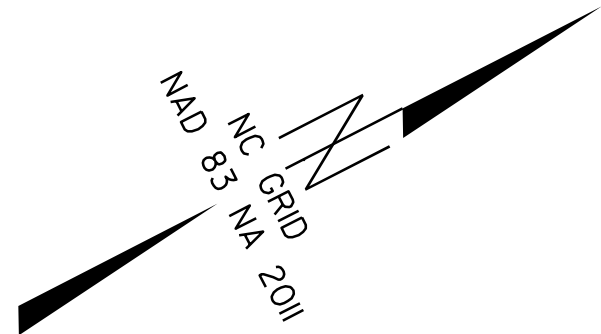
PROFESSIONAL LAND
SURVEYOR



DocuSigned by:
Adam Hales
E910DEC1193E43D
SIGNATURE: DATE: 7/15/2026



PRIMARY SURVEY CONTROL SHEET



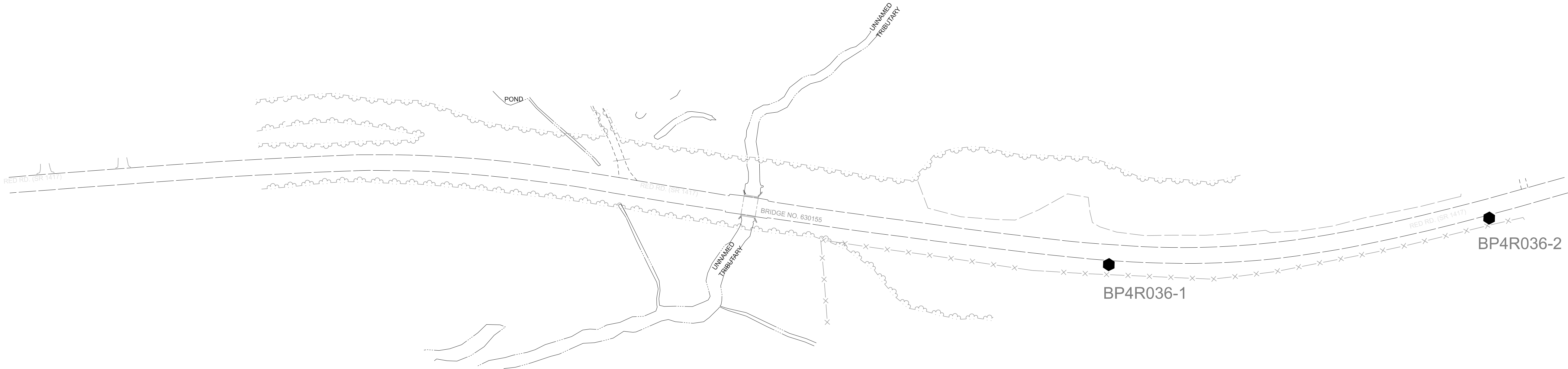
I, ADAM C. HALES, PLS, CERTIFY THAT THE PROJECT CONTROL WAS PERFORMED UNDER MY SUPERVISION FROM AN ACTUAL GPS SURVEY MADE UNDER MY SUPERVISION AND THE FOLLOWING INFORMATION WAS USED TO PERFORM THE SURVEY:

CLASS OF SURVEY: **AA**
TYPE OF GPS FIELD PROCEDURE: RTN
DATES OF SURVEY: 1/10/25
DATUM: NAD83 (2011)
PUBLISHED/FIXED-CONTROL USE: N/A
LOCALIZED AROUND: BP4R036-1
NORTHING: 831915.017'
EASTING: 2307150.482'
COMBINED GRID FACTOR: 0.999962673
GEOID MODEL: GEOID18
UNITS: US SURVEY FOOT

THIS 15TH DAY OF JULY, 2026.

DocuSigned by:
Adam Hales
E91DD8C1163E43D...

PROFESSIONAL LAND SURVEYOR L-4980



Primary Control Table				
Point	Description	Northing	Easting	Elevation
BPR4036-1	REBAR & CAP	831915.0165	2307150.4815	162.67
BP4R036-2	REBAR & CAP	832380.1205	2307321.6615	168.41

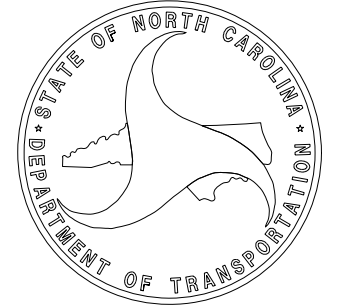
NOTES:

- PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
- 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.

BP4-R036

R/W 02C-1

NORTH CAROLINA
DEPARTMENT
OF TRANSPORTATION



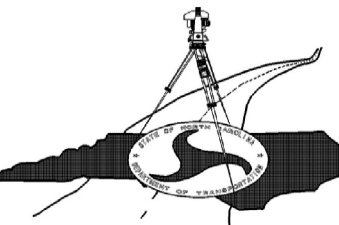
PROFESSIONAL LAND
SURVEYOR



DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL SIGNATURES
ARE COMPLETED

TIP PROJECT: BP4-R036
County: Nash

PREPARED FOR

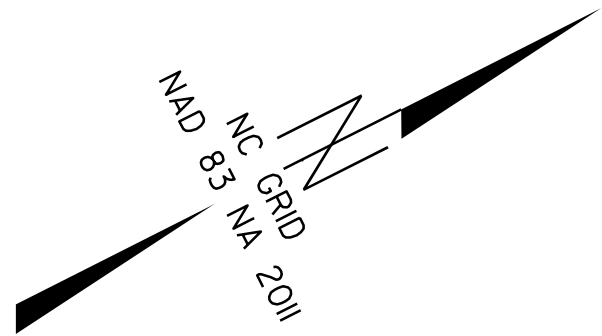


LOCATION AND
SURVEYS UNIT

PREPARED BY
DEWBERRY ENGINEERS
INC.

2610 WYCLIFF ROAD
SUITE 410
RALEIGH, NC 27607
919-881-9939
NCBELS #F-0929

SECONDARY SURVEY CONTROL SHEET



I, ADAM C. HALES, CERTIFY THAT THE BASELINE CONTROL FOR THIS PROJECT WAS COMPLETED UNDER MY DIRECT AND RESPONSIBLE CHARGE FROM AN ACTUAL SURVEY MADE UNDER MY SUPERVISION; THAT ALL HORIZONTAL CLOSURES HAD A MINIMUM RATIO OF PRECISION OF 1:20,000 (CLASS AA) AND VERTICAL ACCURACY TO CLASS A; FIELD WORK WAS PERFORMED ON 1/10/25 , AND ALL COORDINATES ARE BASED ON NAD 83/2011 AND ALL ELEVATIONS ARE BASED ON NAVD 88; THAT THIS SURVEY WAS PERFORMED TO MEET THE REQUIREMENTS OF 21NCAC 56.1600 AS APPLICABLE.

THIS 15TH DAY OF JULY, 2026.

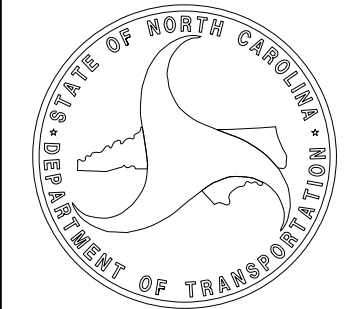
DocuSigned by:
Adam Hales

PROFESSIONAL LAND SURVEYOR L-4980

BP4-R036

R/W 02C-2

NORTH CAROLINA
DEPARTMENT
OF TRANSPORTATION



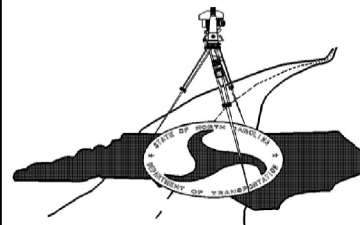
PROFESSIONAL LAND
SURVEYOR



DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL SIGNATURES
ARE COMPLETED

TIP PROJECT: BP4-R036
County: Nash

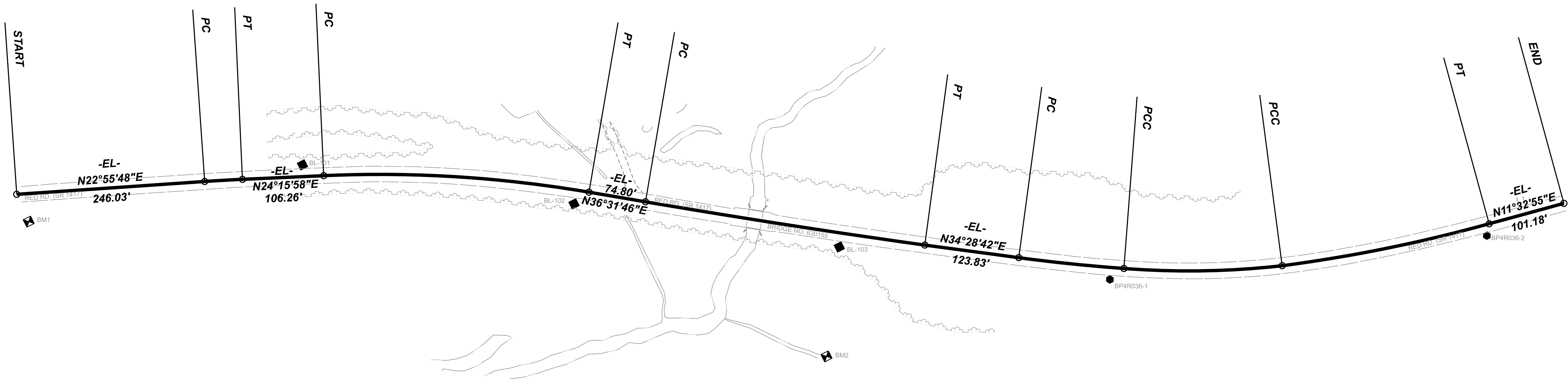
PREPARED FOR



LOCATION AND
SURVEYS UNIT

PREPARED BY
DEWBERRY ENGINEERS
INC.

2610 WYCLIFF ROAD
SUITE 410
RALEIGH, NC 27607
919-881-9939
NCBELS #P-0929



EXISTING ALIGNMENT NAME:EL									
POINT	NORTHING	EASTING	BEARING	DIST	DELTA	D	L	T	R
START	830691.4689	2306406.6527							
LINE			N22°55'47.5"E	246.0312					
PC	830918.0594	2306502.5075							
CURVE					01°24'52.8" Right	02°51'53.2"	49.3814	24.6919	2000.0000
PT	830963.3236	2306522.2443							
LINE			N24°15'58.5"E	106.2574					
PC	831060.1928	2306565.9137							
CURVE					12°15'47.1" Right	03°31'33.2"	347.8007	174.5673	1625.0000
PT	831359.6102	2306741.5653							
LINE			N36°31'45.6"E	74.7988					
PC	831419.7149	2306786.0881							
CURVE					01°45'44.9" Left	00°28'38.9"	369.1333	184.5812	12000.0000
PT	831719.6652	2307001.2124							
LINE			N34°28'42.0"E	123.8261					
PC	831821.7401	2307071.3097							
CURVE					03°35'39.0" Left	02°36'15.7"	138.0062	69.0258	2200.0000
PCC	831937.8456	2307145.8683							
CURVE					10°47'01.7" Left	05°12'31.3"	207.0343	103.8238	1100.0000
PCC	832123.8994	2307235.9839							
CURVE					07°59'13.4" Left	02°53'37.4"	276.0125	138.2302	1980.0000
PT	832389.8151	2307309.1170							
LINE			N11°32'55.1"E	101.1791					
END	832488.9458	2307329.3730							

BASELINE POINT TABLE				
POINT	DESCRIPTION	NORTHING	EASTING	ELEVATION
BL-101	REBAR & CAP	831041.8663	2306540.7270	164.20
BL-102	REBAR & CAP	831335.1994	2306746.3247	157.16
BL-103	REBAR & CAP	831618.9354	2306952.9609	158.63

BENCHMARK POINT TABLE				
BENCHMARK	NORTHING	EASTING	ELEVATION	DESCRIPTION
BM2	831539.4030	2307073.1105	157.14	BENCHTIE IN 18" OAK
BM1	830689.3277	2306445.5864	168.42	BENCHTIE IN 22" SYCAMORE

NOTES:

- PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
- 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.

PROPOSED ALIGNMENT CONTROL SHEET

I, ADAM C. HALES, 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 15TH DAY OF JULY, 2026.

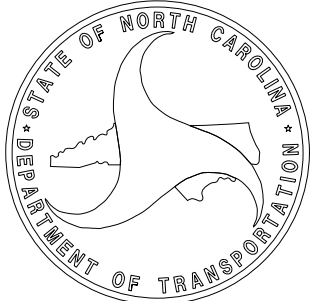
DocuSigned by:
Adam Hales
E91DD8C1163E43D...

PROFESSIONAL LAND SURVEYOR L-4980

BP4-R036

R/W 02D-1

NORTH CAROLINA
DEPARTMENT
OF TRANSPORTATION



PROFESSIONAL LAND
SURVEYOR



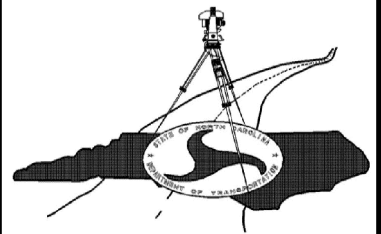
DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL SIGNATURES
ARE COMPLETED

PROPOSED ALIGNMENT: L												
POINT	STATION	NORTHING	EASTING	BEARING	DIST	DELTA	D	L	T	R	LT	ST
START	10+00.00	830963.3236	2306522.2443	N24°15'58.5"E	106.2574							
PC	11+06.26	831060.1928	2306565.9137	N30°23'52.0"E	347.1372	12°15'47.1"	03°31'33.2"	347.8007	174.5673	1625.0000		
PT	14+54.06	831359.6102	2306741.5653	N36°31'45.6"E	74.7988							
PC	15+28.86	831419.7149	2306786.0881	N35°38'53.1"E	369.1187	01°45'44.9"	00°28'38.9"	369.1333	184.5812	12000.0000		
PT	18+97.99	831719.6652	2307001.2124	N34°28'42.0"E	123.8261							
PC	20+21.82	831821.7401	2307071.3097	N32°42'25.4"E	137.9836	03°35'39.0"	02°36'15.7"	138.0062	69.0258	2200.0000		
PCC	21+59.82	831937.8456	2307145.8683	N26°24'05.7"E	185.3787	09°40'02.3"	05°12'31.3"	185.5987	93.0202	1100.0000		
END	23+45.42	832103.8891	2307228.2443									

TIP PROJECT: BP4-R036

County: Nash

PREPARED FOR



LOCATION AND
SURVEYS UNIT

PREPARED BY
DEWBERRY ENGINEERS
INC.
2610 WYCLIFF ROAD
SUITE 410
RALEIGH, NC 27607
919-881-9939
NCBELS #F-0929

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.

RIGHT OF WAY CONTROL SHEET

I, ADAM C. HALES, PLS, CERTIFY THAT THE RIGHT OF WAY AND PERMANENT EASEMENT MONUMENTATION FOR THIS PROJECT SHOWN HEREIN WAS COMPLETED UNDER MY DIRECT AND RESPONSIBLE CHARGE FROM AN ACTUAL SURVEY MADE UNDER MY SUPERVISION; THAT ALL HORIZONTAL CLOSURES HAD A MINIMUM RATIO OF PRECISION OF 1:10,000 (CLASS A). FIELD WORK WAS PERFORMED ON 24 JUNE 2026, AND ALL COORDINATES ARE BASED ON NAD83/NA 2011; THAT THIS SURVEY WAS PERFORMED TO MEET THE REQUIREMENTS OF 21NCAC 56.1600 AS APPLICABLE.

THIS 15TH DAY OF JULY, 2026.

DocuSigned by:
Adam Hales
E91DD8C1163E43D...

PROFESSIONAL LAND SURVEYOR L-4980

PERMANENT ROW MARKER IRON PIN AND CAP: L			
STATION	OFFSET	NORTH	EAST
16+25.00	-30.00	831514.8626	2306818.7568
16+25.00	-55.00	831529.5821	2306798.5494
16+25.00	30.00	831479.5360	2306867.2545
16+25.00	55.00	831464.8166	2306887.4619
17+15.00	30.00	831552.6630	2306920.1029
17+15.00	55.00	831538.0955	2306940.4201
18+00.00	-55.00	831671.1283	2306900.0828
18+00.00	-30.00	831656.7051	2306920.5027

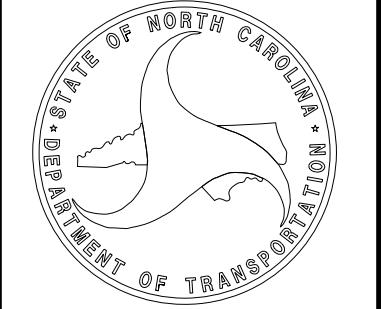
NOTES:

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

BP4-R036

R/W03E-1

NORTH CAROLINA
DEPARTMENT
OF TRANSPORTATION



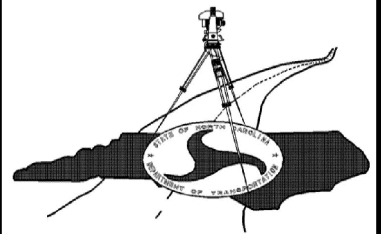
PROFESSIONAL LAND
SURVEYOR



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FINAL UNLESS ALL SIGNATURES
ARE COMPLETED

TIP PROJECT: BP4-R036
County: Nash

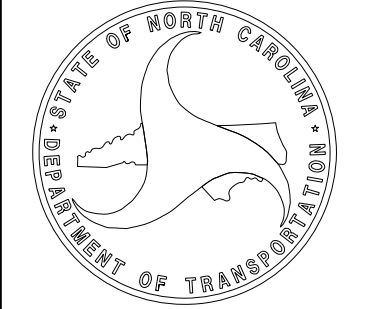
PREPARED FOR



LOCATION AND
SURVEYS UNIT

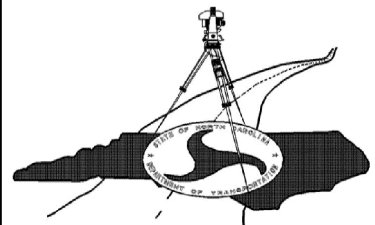
PREPARED BY
DEWBERRY ENGINEERS
INC.

2610 WYCLIFF ROAD
SUITE 410
RALEIGH, NC 27607
919-881-9939
NCBELS #F-0929



TIP PROJECT: BP4-R036
County: Nash

PREPARED FOR



LOCATION AND
SURVEYS UNIT

PREPARED BY
DEWBERRY ENGINEERS
INC.

2610 WYCLIFF ROAD
SUITE 410
RALEIGH, NC 27607
919-881-9939
NCBELS #F-0929

I, ADAM C. HALES, PLS, CERTIFY THAT THE RIGHT OF WAY AND PERMANENT EASEMENT MONUMENTATION FOR THIS PROJECT SHOWN HEREIN WAS COMPLETED UNDER MY DIRECT AND RESPONSIBLE CHARGE FROM AN ACTUAL SURVEY MADE UNDER MY SUPERVISION; THAT ALL HORIZONTAL CLOSURES HAD A MINIMUM RATIO OF PRECISION OF 1:10,000 (CLASS A). FIELD WORK WAS PERFORMED ON JUNE 24th, 2026, AND ALL COORDINATES ARE BASED ON NAD83/NA 2011; THAT THIS SURVEY WAS PERFORMED TO MEET THE REQUIREMENTS OF 21NCAC 56.1600 AS APPLICABLE.

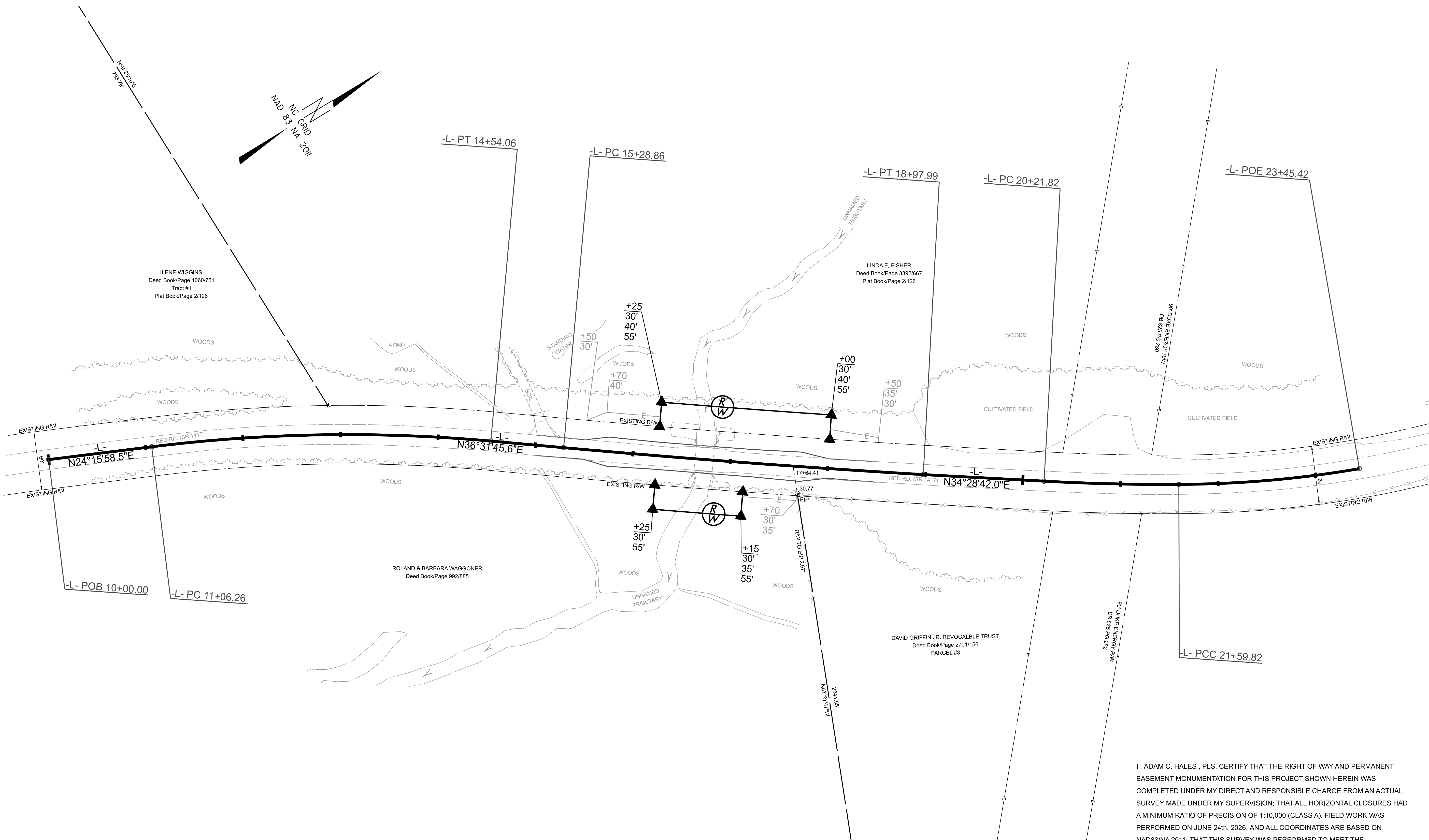
THIS 15th DAY OF JULY, 2026.

DocuSigned by:
Adam Hales
E910DB0C1163E43D...

PROFESSIONAL LAND SURVEYOR L-4980

NOTES:

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



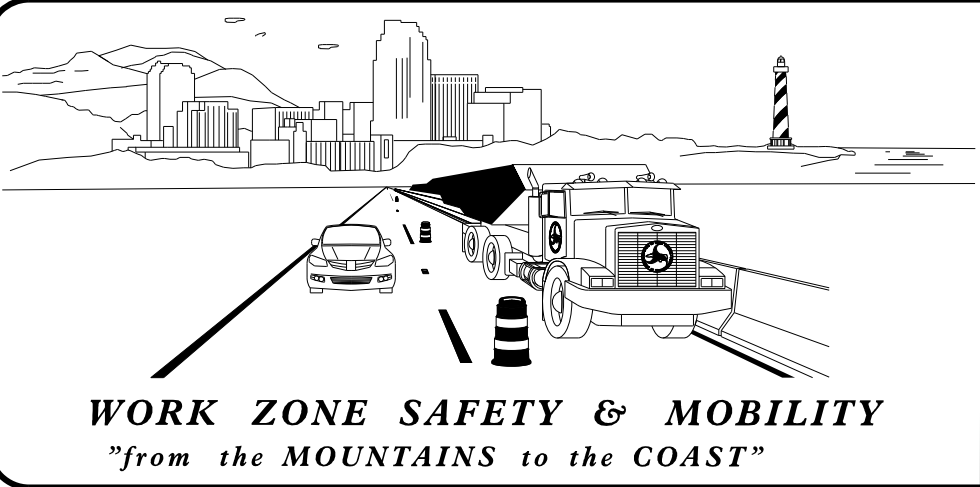
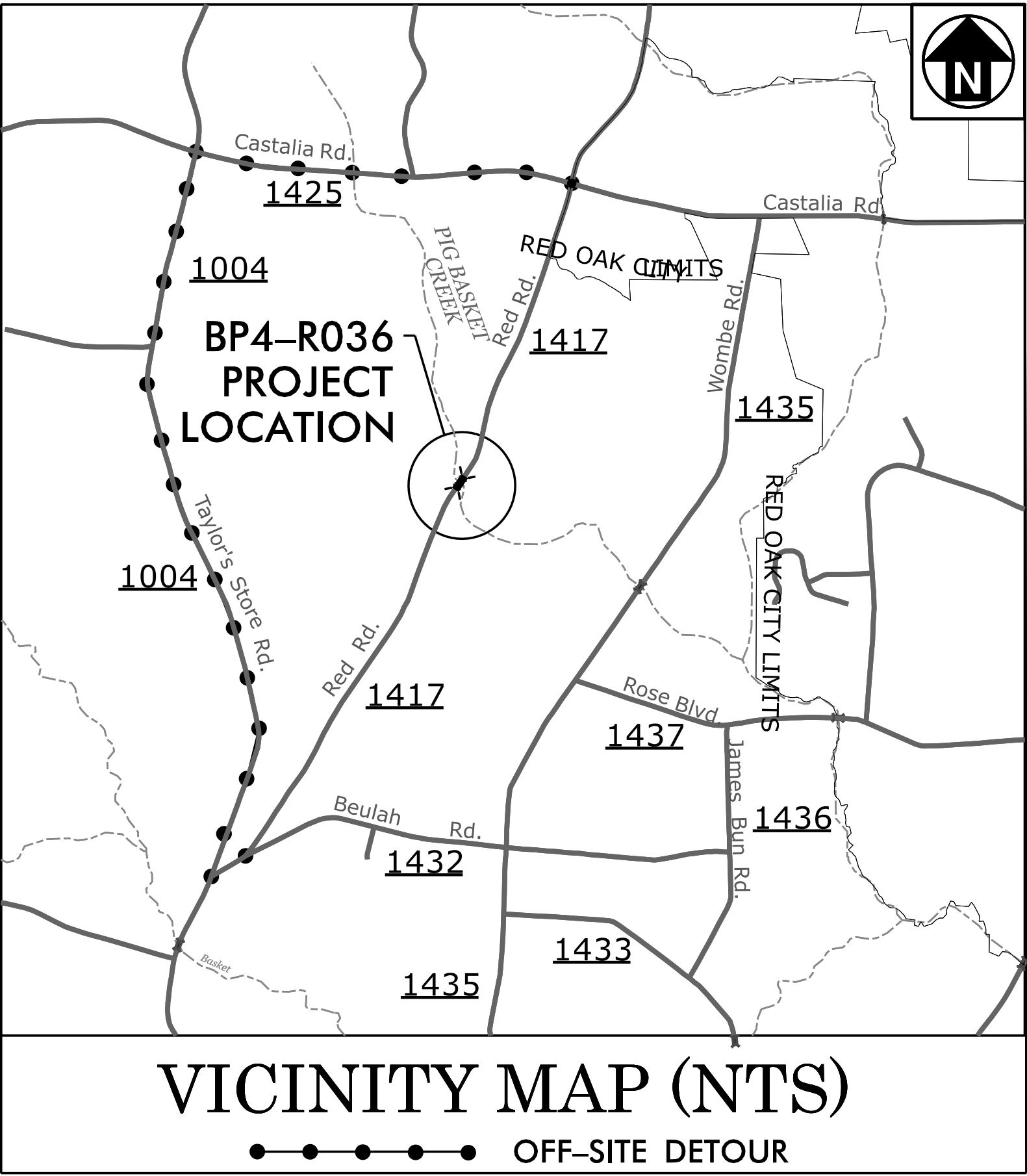
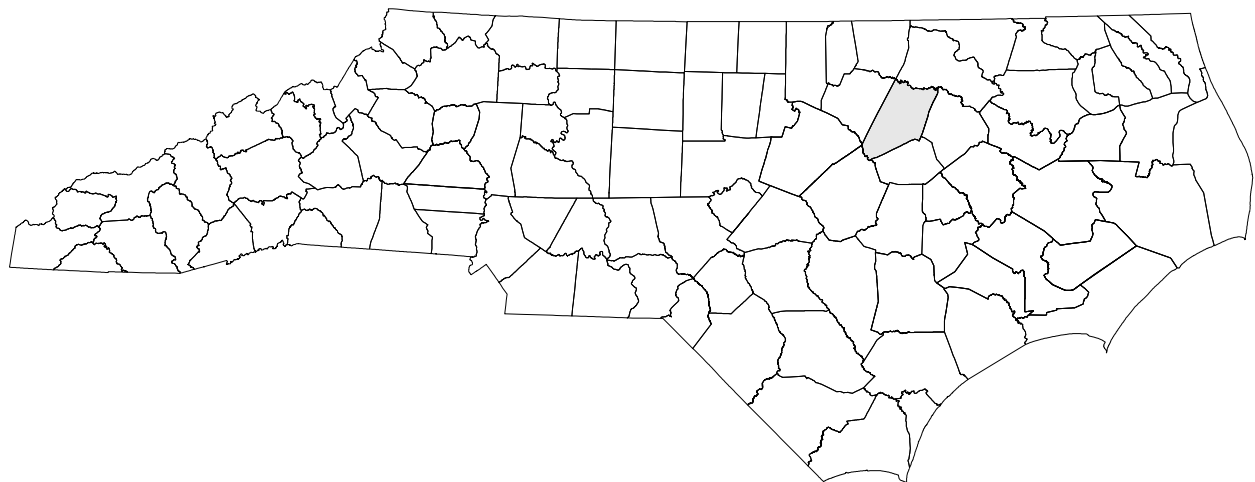
CUR DATA -L- Plc 12+80.82 $\Delta c = 12^\circ 15' 47.1''$ (RT) D = $03^\circ 31' 33.2''$ Lc = 347.80 Tc = 174.57 R = 1,625 SE = 0.000	CUR DATA -L- Plc 17+13.44 $\Delta c = 01^\circ 45' 44.9''$ (LT) D = $00^\circ 28' 38.9''$ Lc = 369.13 Tc = 184.58 R = 12,000 SE = 0.000	CUR DATA -L- Plc 20+90.84 $\Delta c = 03^\circ 35' 39.0''$ (LT) D = $02^\circ 36' 15.7''$ Lc = 138.01 Tc = 69.03 R = 2,200 SE = 0.000	CUR DATA -L- Plc 22+52.84 $\Delta c = 09^\circ 40' 02.3''$ (LT) D = $05^\circ 12' 31.3''$ Lc = 185.60 Tc = 93.02 R = 1,100 SE = 0.000
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STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

NASH COUNTY



PLANS PREPARED BY:

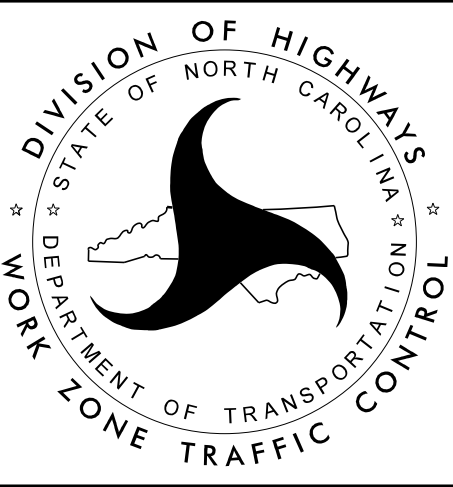
MOTT MACDONALD

Mott MacDonald I & E, LLC
930 Main Campus Dr, Suite 200
Raleigh, NC 27606
www.mottmac.com
NC License No. F-0669

TIM JORDAN, PE
PROJECT ENGINEER

NCDOT CONTACTS:

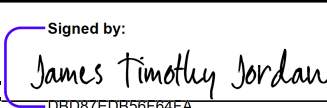
RUSSELL BROADWELL
DIVISION BRIDGE
PROGRAM MANAGER



INDEX OF SHEETS

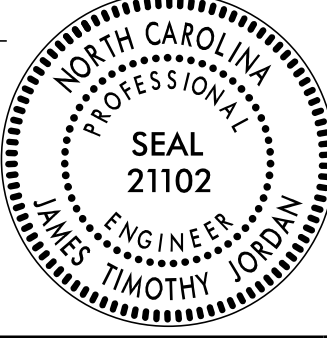
SHEET NO.	TITLE
TMP-1	TITLE SHEET, VICINITY MAP, AND INDEX OF SHEETS
TMP-1A	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, AND LEGEND
TMP-1B	TRANSPORTATION OPERATIONS PLAN: GENERAL NOTES AND TEMPORARY TRAFFIC CONTROL PHASING
TMP-2	SPECIAL SIGN DESIGN
TMP-3	TEMPORARY TRAFFIC CONTROL - DETOUR

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

APPROVED: 

DATE: 16-Jul-2026

SEAL



SHEET NO.

TMP-01

BP4-R036

TIP PROJECT:

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
1101.03	TEMPORARY ROAD CLOSURES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1130.01	DRUM
1145.01	BARRICADES
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO-LANE AND MULTI-LANE ROADWAYS

LEGEND

GENERAL

 DIRECTION OF TRAFFIC FLOW

 DIRECTION OF PEDESTRIAN TRAFFIC FLOW

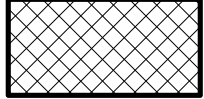
 EXIST. PVMT.

 NORTH ARROW

 PROPOSED PVMT.

 TEMP. SHORING (LOCATION PURPOSES ONLY)

 WORK AREA

 REMOVAL

SIGNALS

 EXISTING

 PROPOSED

 TEMPORARY

PAVEMENT MARKINGS

 EXISTING LINES

 TEMPORARY LINES

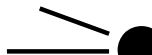
TRAFFIC CONTROL DEVICES

 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

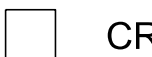
TEMPORARY SIGNING

 PORTABLE SIGN

 STATIONARY SIGN

 STATIONARY OR PORTABLE SIGN

PAVEMENT MARKERS

 CRYSTAL/CRYSTAL

 CRYSTAL/RED

 YELLOW/YELLOW

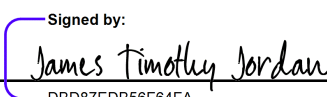
PAVEMENT MARKING SYMBOLS

 PAVEMENT MARKING SYMBOLS

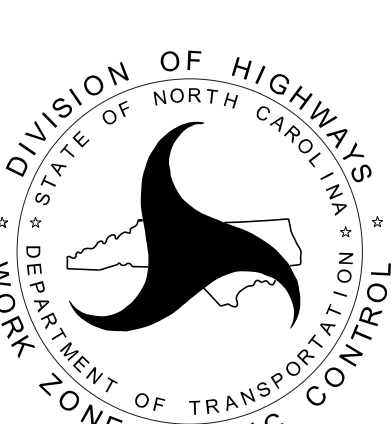
PAVEMENT MARKING

THERMOPLASTIC PAVEMENT MARKING LINE (4", 90 MILS) 1,400 LF

APPROVED: 
DATE: 16-Jul-2026

SEAL





ROADWAY STANDARD
DRAWINGS & LEGEND

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.

- A) NOTIFY THE ENGINEER TWENTY ONE (21) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

SIGNING

- B) PROVIDE PERMANENT SIGNING.
- C) PROVIDE SIGNING AND DEVICES REQUIRED TO CLOSE THE ROAD ACCORDING TO THE ROADWAY STANDARD DRAWINGS AND TRAFFIC CONTROL PLANS.

PROVIDE SIGNING REQUIRED FOR THE OFF-SITE DETOUR ROUTE AS SHOWN IN THE TRAFFIC CONTROL PLANS.

- D) COVER OR REMOVE ALL SIGNS AND DEVICES REQUIRED TO CLOSE THE ROAD WHEN ROAD CLOSURE IS NOT IN OPERATION.

COVER OR REMOVE ALL SIGNS REQUIRED FOR THE OFF-SITE DETOUR WHEN THE DETOUR IS NOT IN OPERATION.

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

TRAFFIC CONTROL DEVICES

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

PAVEMENT MARKINGS AND MARKERS

- G) INSTALL PAVEMENT MARKINGS ON THE FINAL SURFACE.

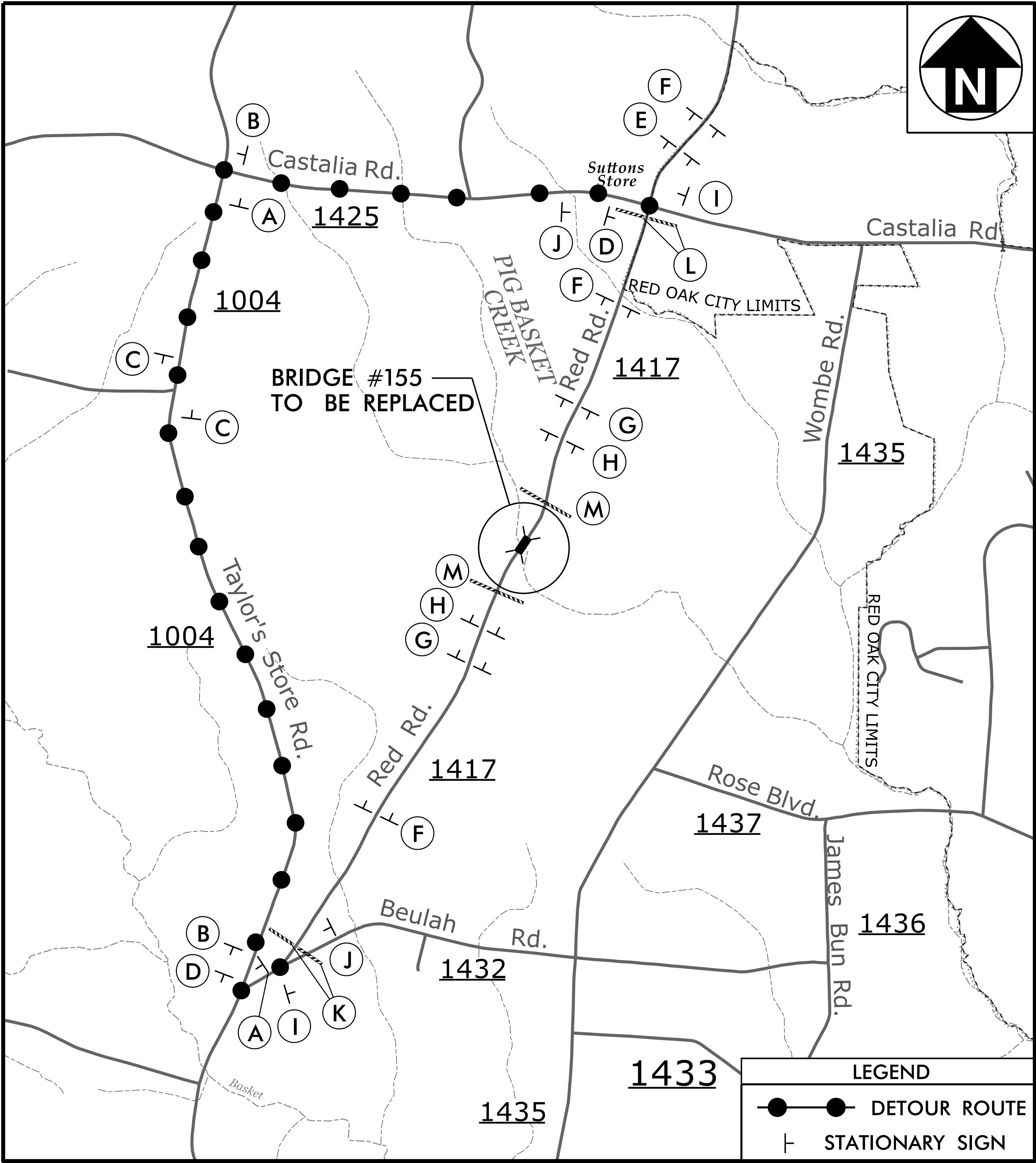
PHASING

- STEP 1: USING ROADWAY STANDARD DRAWING NUMBER 1101.03, SHEET 1 OF 9, AND SHEET TMP-3, PERFORM THE FOLLOWING:
- INSTALL ALL ROAD CLOSURE AND DETOUR SIGNING INCLUDING BARRICADES
 - CLOSE SR 1417 (RED ROAD)
 - PLACE TRAFFIC ONTO OFF-SITE DETOUR
- STEP 2: REMOVE EXISTING BRIDGE #155 AND CONSTRUCT THE PROPOSED CULVERT AND APPROACHES AS SHOWN IN THE CONSTRUCTION PLANS.
- STEP 3: INSTALL FINAL PAVEMENT MARKINGS.
- STEP 4: REMOVE ALL TRAFFIC CONTROL SIGNING AND DEVICES AND RE-OPEN SR 1417 (RED ROAD) TO THE FINAL TRAFFIC PATTERN.

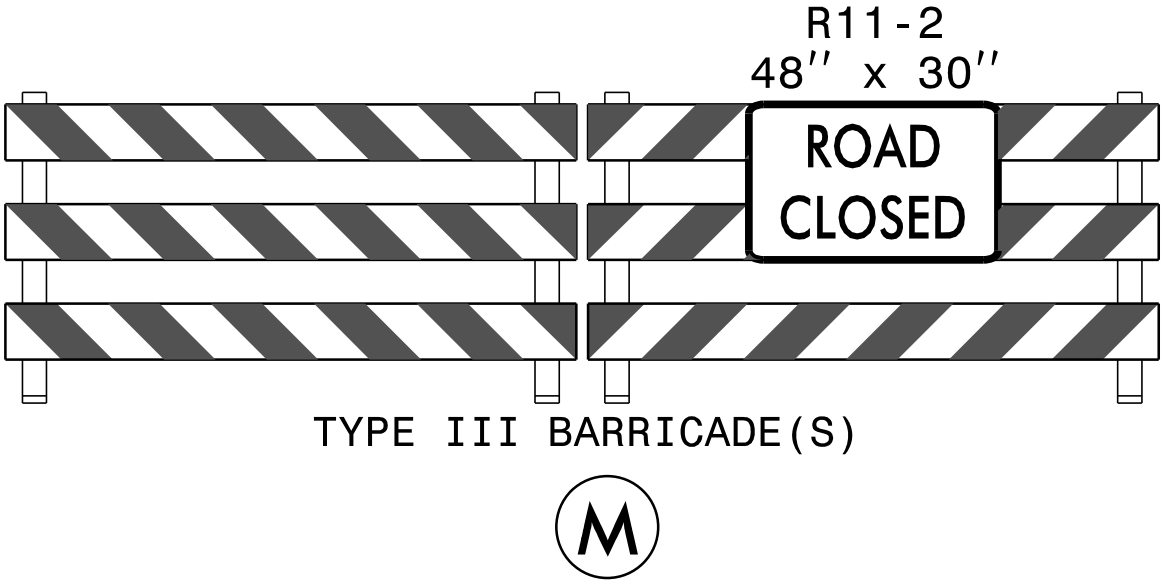
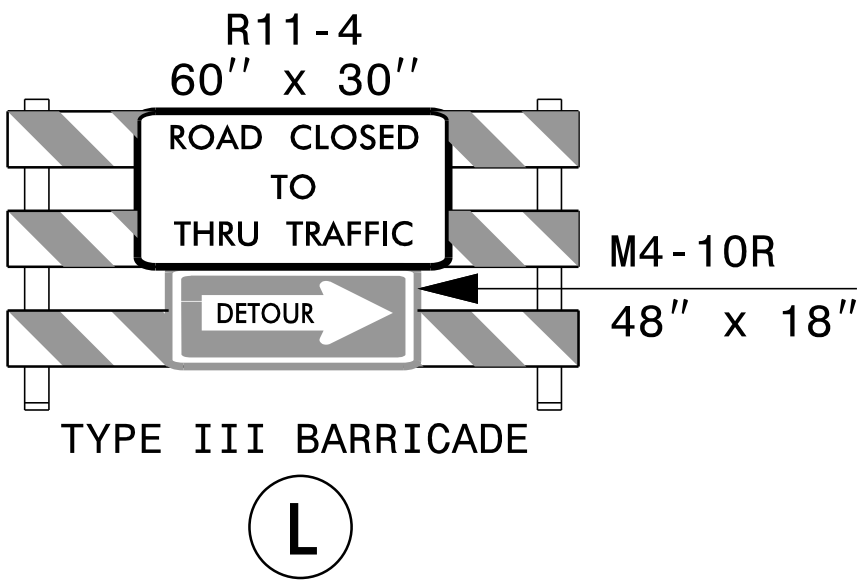
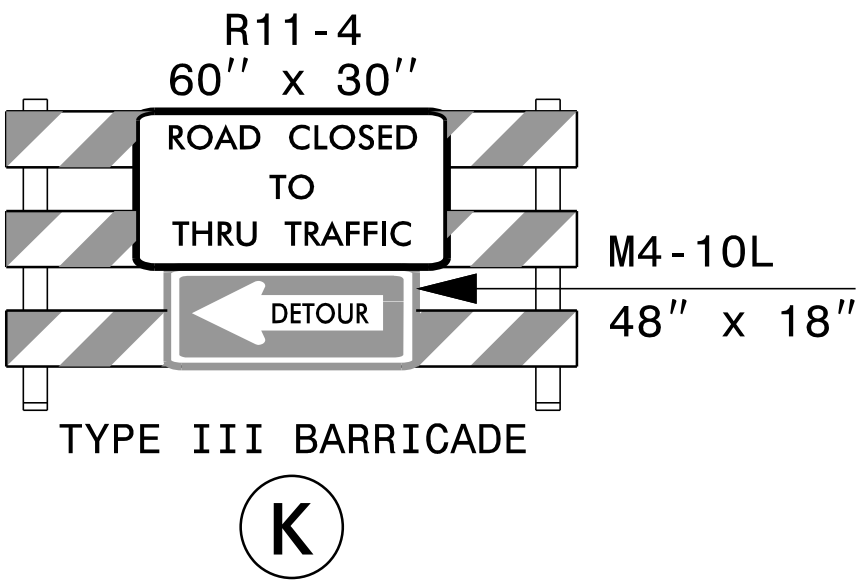
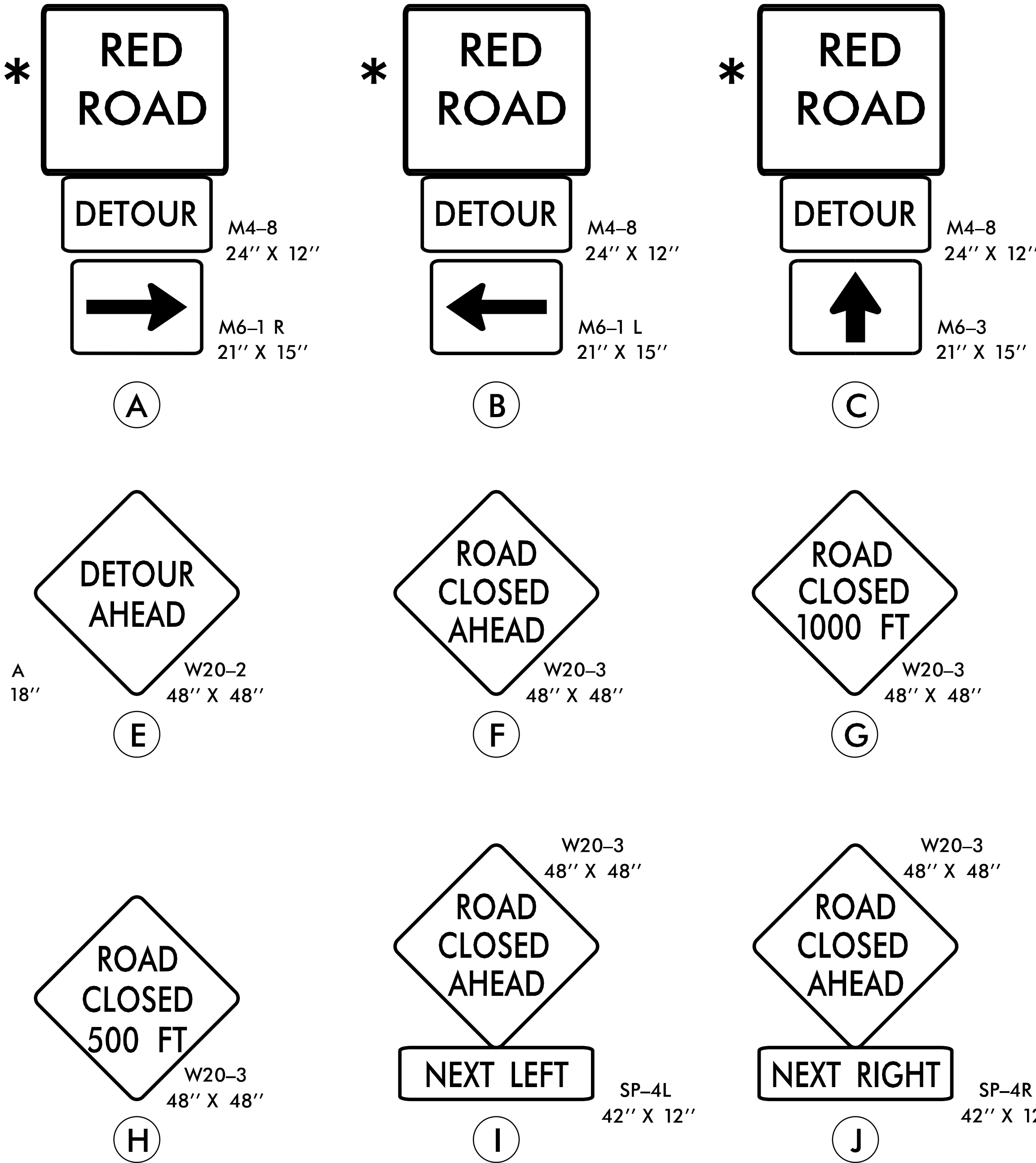
APPROVED: Signed by: James Timothy Jordan DATE: 16-Jul-2026 SEAL DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL	TRANSPORTATION OPERATIONS PLAN
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\$\$\$\$\$SYTIME\$\$\$\$\$
\$\$\$\$\$CLOSURE\$\$\$\$\$
\$\$\$\$\$SEAL\$\$\$\$\$
\$\$\$\$\$SERIAL\$\$\$\$\$

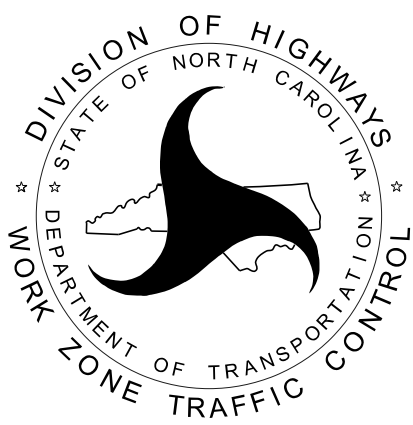
DocuSigned by: APPROVED: Samuel Coleman 99375AB1AF3C490. DATE: 16-Jul-2026		 SPECIAL SIGN DESIGN
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* SEE SHEET TMP-2 FOR SPECIAL SIGN DESIGNS

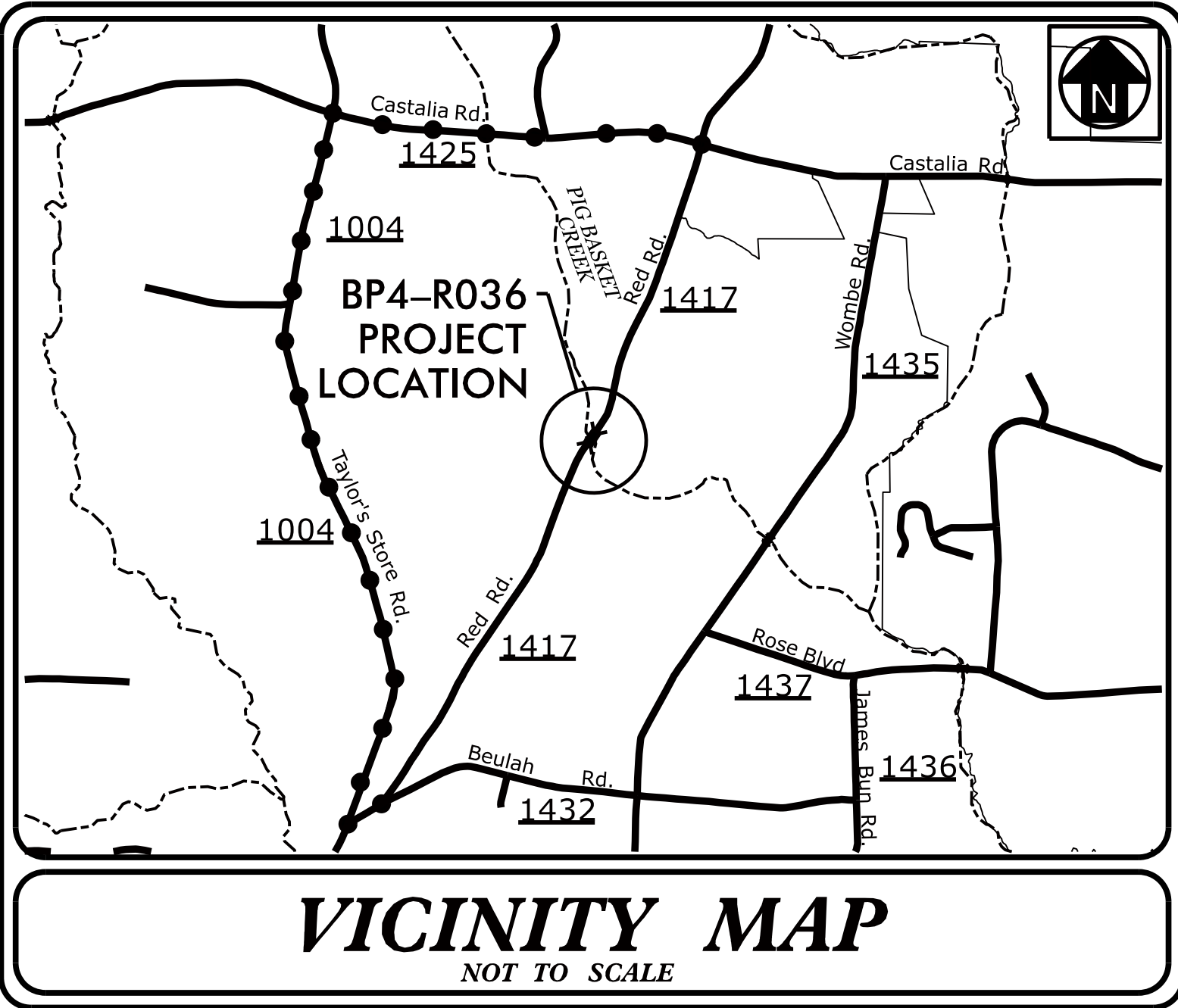


APPROVED: *James Timothy Jordan*
DATE: 16-Jul-2026
SEAL
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



TEMPORARY TRAFFIC
CONTROL DETOUR

TIP PROJECT: BP4-R036



VICINITY MAP
NOT TO SCALE

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

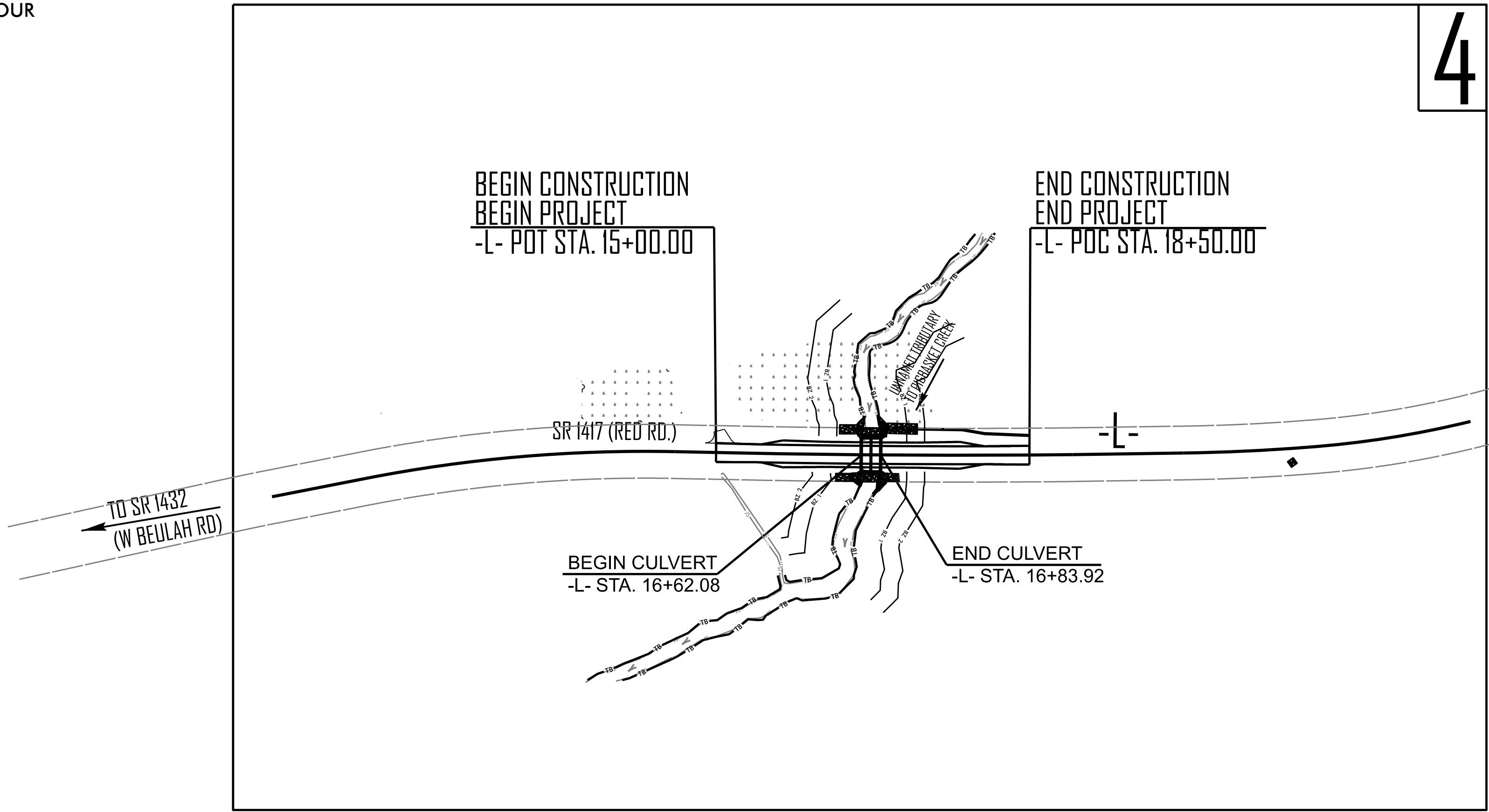
NASH COUNTY

LOCATION: *BRIDGE NO. 155 OVER TRIBUTARY OF
PIGBASKET CREEK ON SR 1417 (RED ROAD)*

TYPE OF WORK: *GRADING, DRAINAGE, PAVING, AND CULVERT*

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	BP4-R036	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
BP4.R036	N/A	PE	

●●●●● OFF-SITE DETOUR

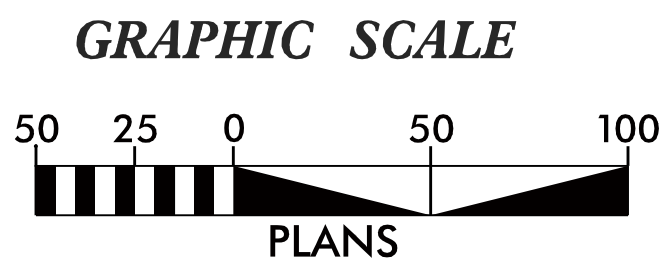


THIS PROJECT HAS
BEEN DESIGNED TO
SENSITIVE WATERSHED
STANDARDS.

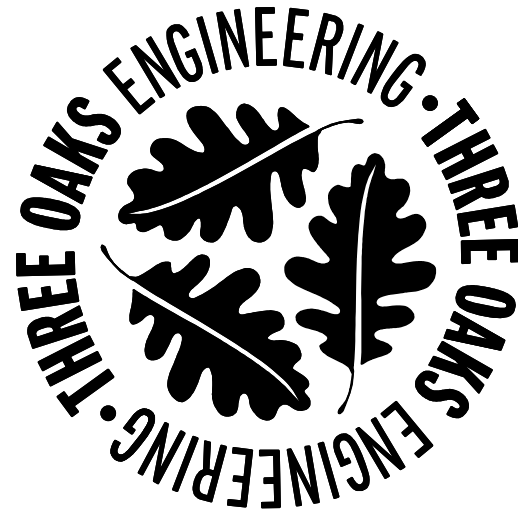
THIS PROJECT CONTAINS
EROSION CONTROL PLANS
FOR CLEARING AND
GRUBBING PHASE OF
CONSTRUCTION.

ENVIRONMENTALLY
SENSITIVE AREA(S) EXIST
ON THIS PROJECT

Refer To E. C. Special Provisions
for Special Considerations.



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



Prepared In the Office of:
Three Oaks Engineering
324 Blackwell St - Suite 1200
Durham, NC 27701

Designed by:

TYLER OVERBY
NAME

4140
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.

PROJECT REFERENCE NO.
BP4-R036

SHEET NO.
EC-2

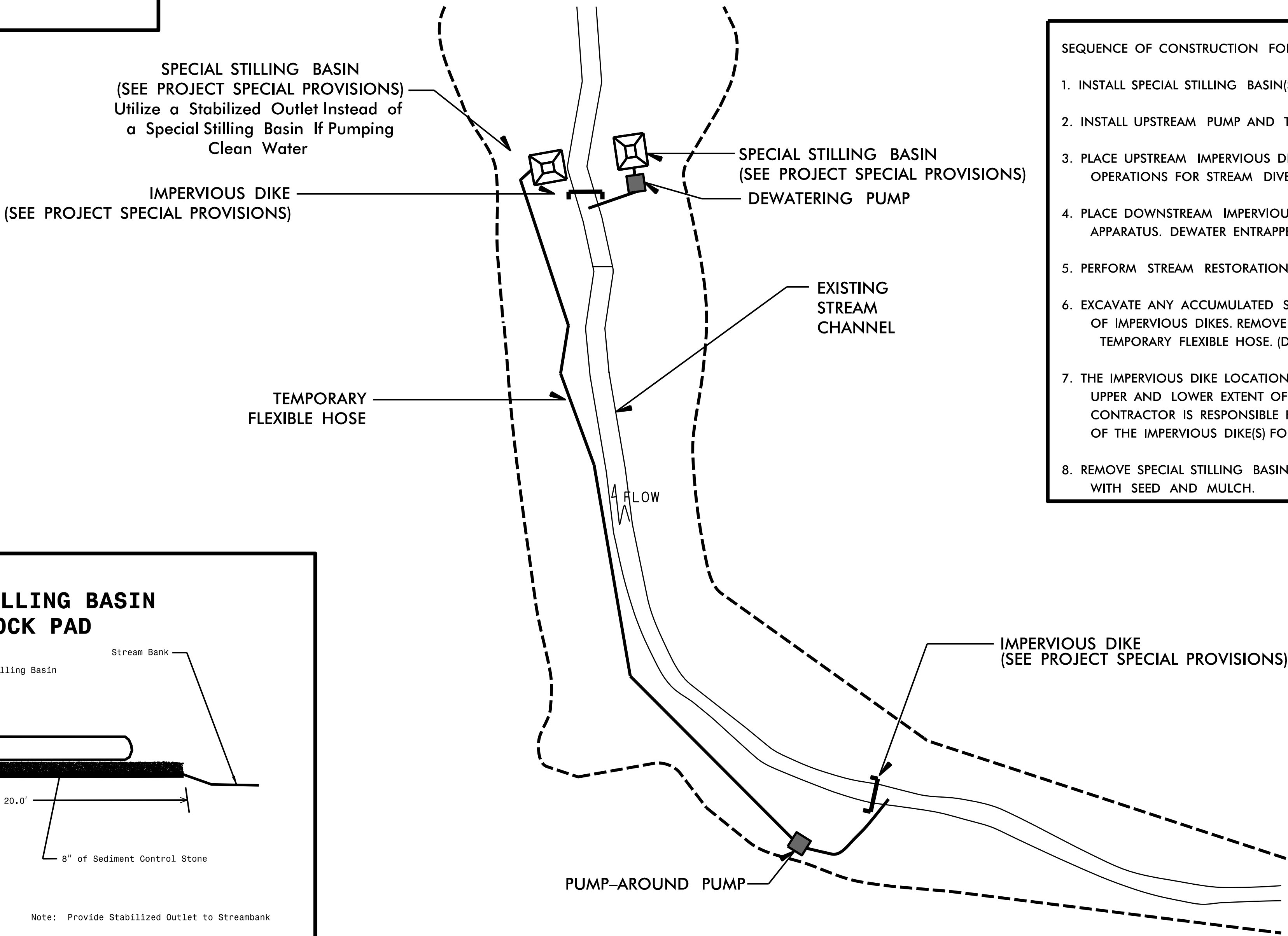
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

EROSION & SEDIMENT CONTROL LEGEND

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

TEMPORARY STREAM DIVERSION PUMP-AROUND OPERATION

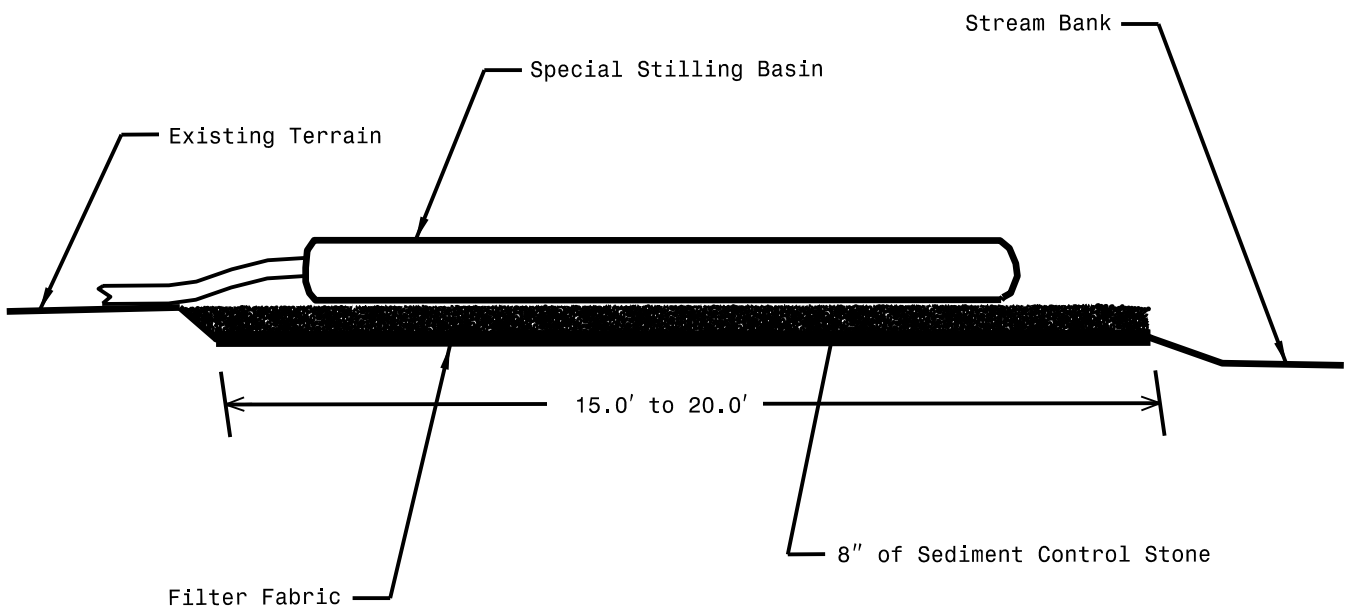
- NOTES:
- 1) All excavation shall be performed in only dry or isolated sections of channel.
 - 2) Impervious dikes are to be used to isolate work from stream flow when necessary.
 - 3) All graded areas shall be stabilized within 24 hours.
 - 4) Maintenance of stream flow operations shall be incidental to the work. This includes polyethylene sheeting, diversion pipes, pumps and hoses.
 - 5) Pumps and hoses shall be of sufficient size to dewater the work area.



SEQUENCE OF CONSTRUCTION FOR TYPICAL WORK AREA

1. INSTALL SPECIAL STILLING BASIN(S).
2. INSTALL UPSTREAM PUMP AND TEMPORARY FLEXIBLE HOSE.
3. PLACE UPSTREAM IMPERVIOUS DIKE AND BEGIN PUMPING OPERATIONS FOR STREAM DIVERSION.
4. PLACE DOWNSTREAM IMPERVIOUS DIKE AND PUMPING APPARATUS. DEWATER ENTRAPPED AREA.
5. PERFORM STREAM RESTORATION WORK IN ACCORDANCE WITH THE PLANS.
6. EXCAVATE ANY ACCUMULATED SILT AND DEWATER BEFORE REMOVAL OF IMPERVIOUS DIKES. REMOVE IMPERVIOUS DIKES, PUMPS, AND TEMPORARY FLEXIBLE HOSE. (DOWNSTREAM IMPERVIOUS DIKES FIRST).
7. THE IMPERVIOUS DIKE LOCATIONS AS SHOWN ON THIS SHEET ONLY SHOW THE UPPER AND LOWER EXTENT OF WORK FOR EACH STREAM SEGMENT. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE LOCATION OF THE IMPERVIOUS DIKE(S) FOR EACH DAY'S WORK.
8. REMOVE SPECIAL STILLING BASIN(S) AND BACKFILL. STABILIZE DISTURBED AREA WITH SEED AND MULCH.

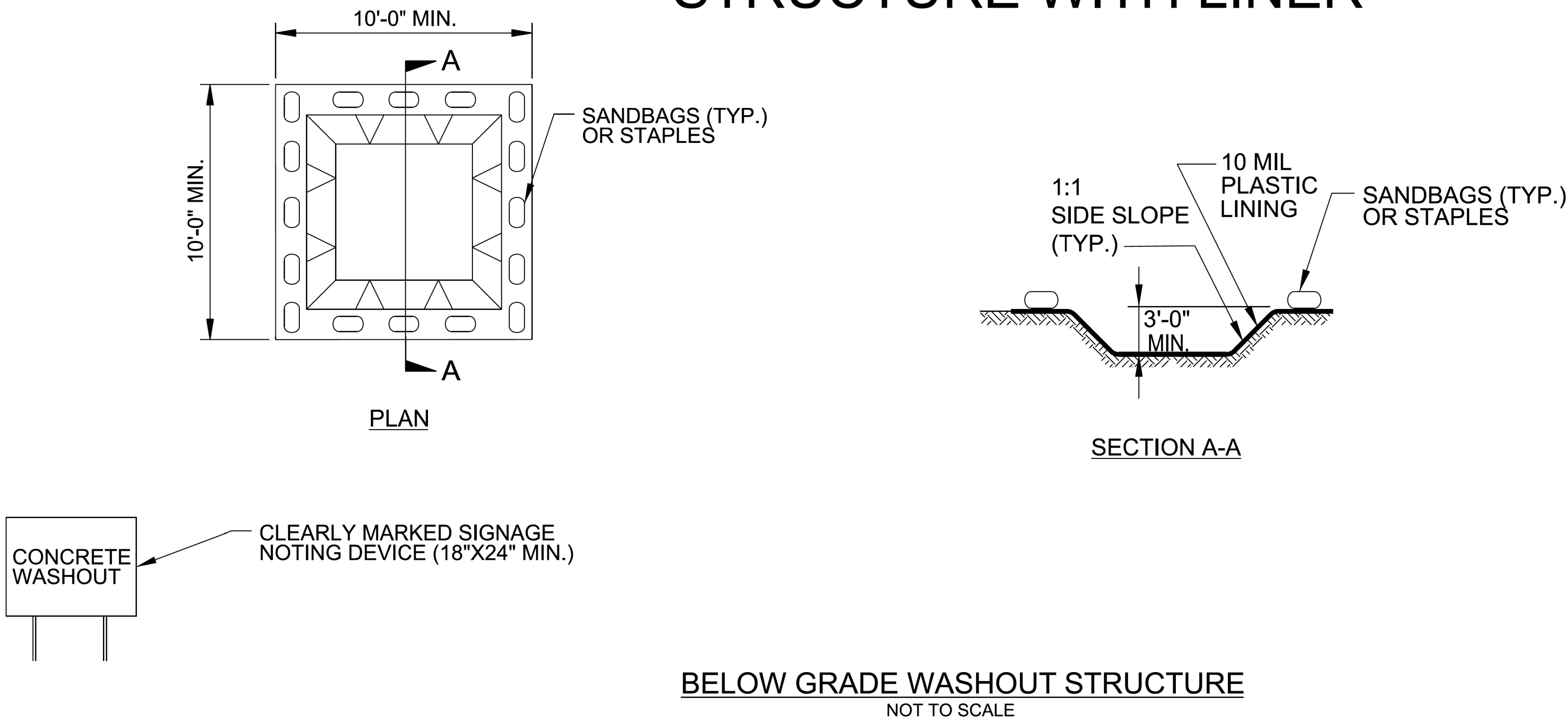
SPECIAL STILLING BASIN WITH ROCK PAD



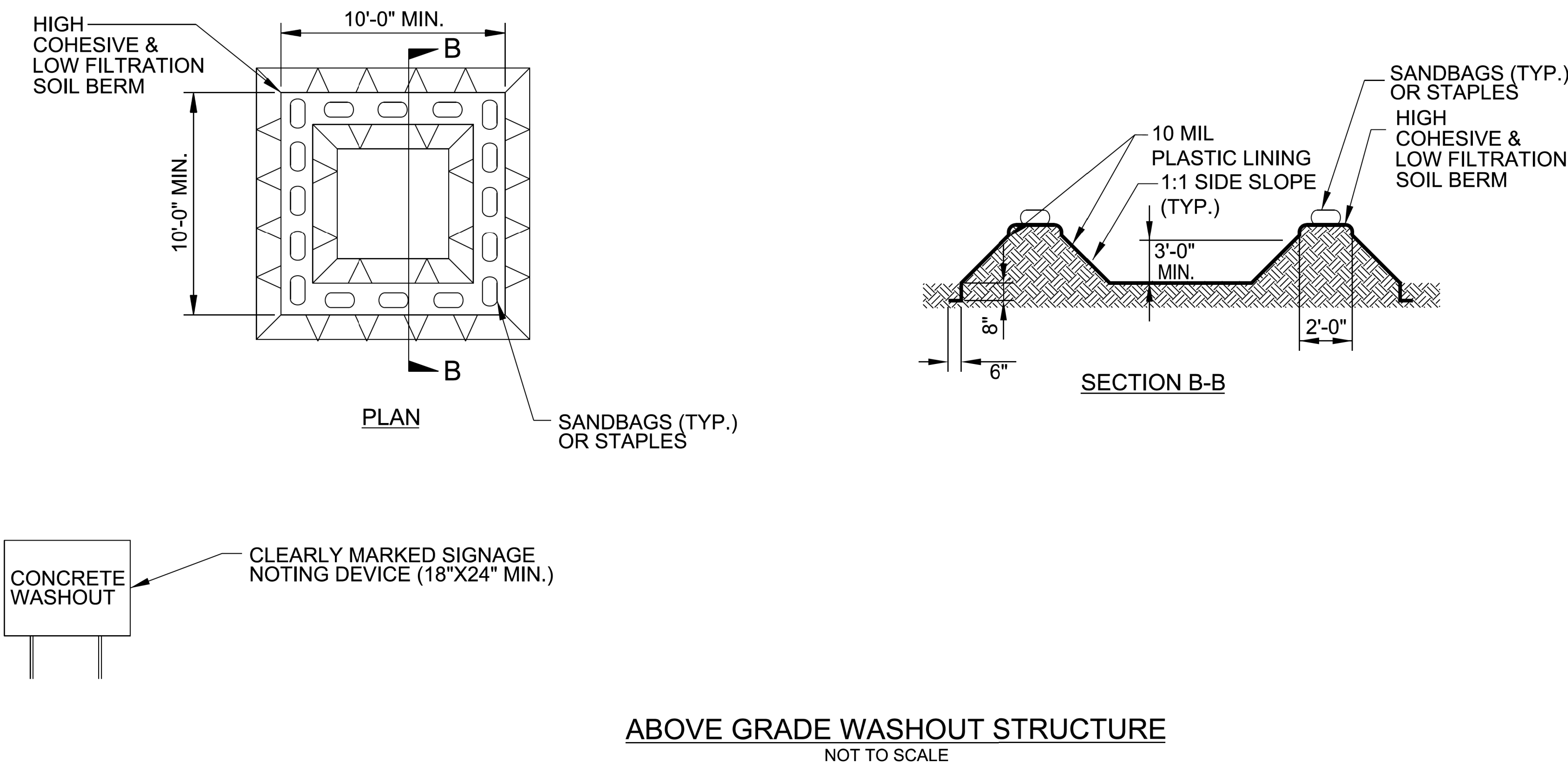
Not To Scale

Note: Provide Stabilized Outlet to Streambank

ONSITE CONCRETE WASHOUT STRUCTURE WITH LINER



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



- NOTES:
1. ACTUAL LOCATION DETERMINED IN FIELD
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 3. CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARLY MARKED WITH SIGNAGE NOTING DEVICE.

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

STRAW MATTING FOR EROSION CONTROL

[illegible]

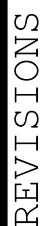
MATting FOR EROSION CONTROL

[illegible]

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

[illegible]

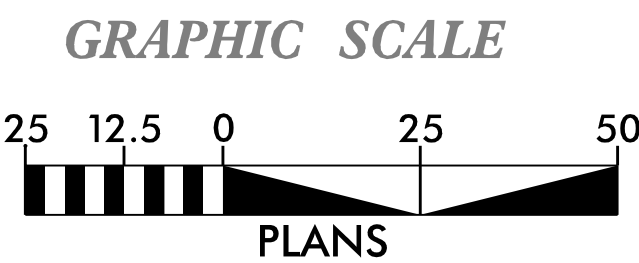
ENGINEERING-TIME

 NC Firm License
 No: F-1334
 324 Blackwell Street
 Suite 1200
 Durham, NC 27701
 919.732.1300

FOR -L- PROFILE, SEE SHEET 5

CULVERT CONSTRUCTION SEQUENCE

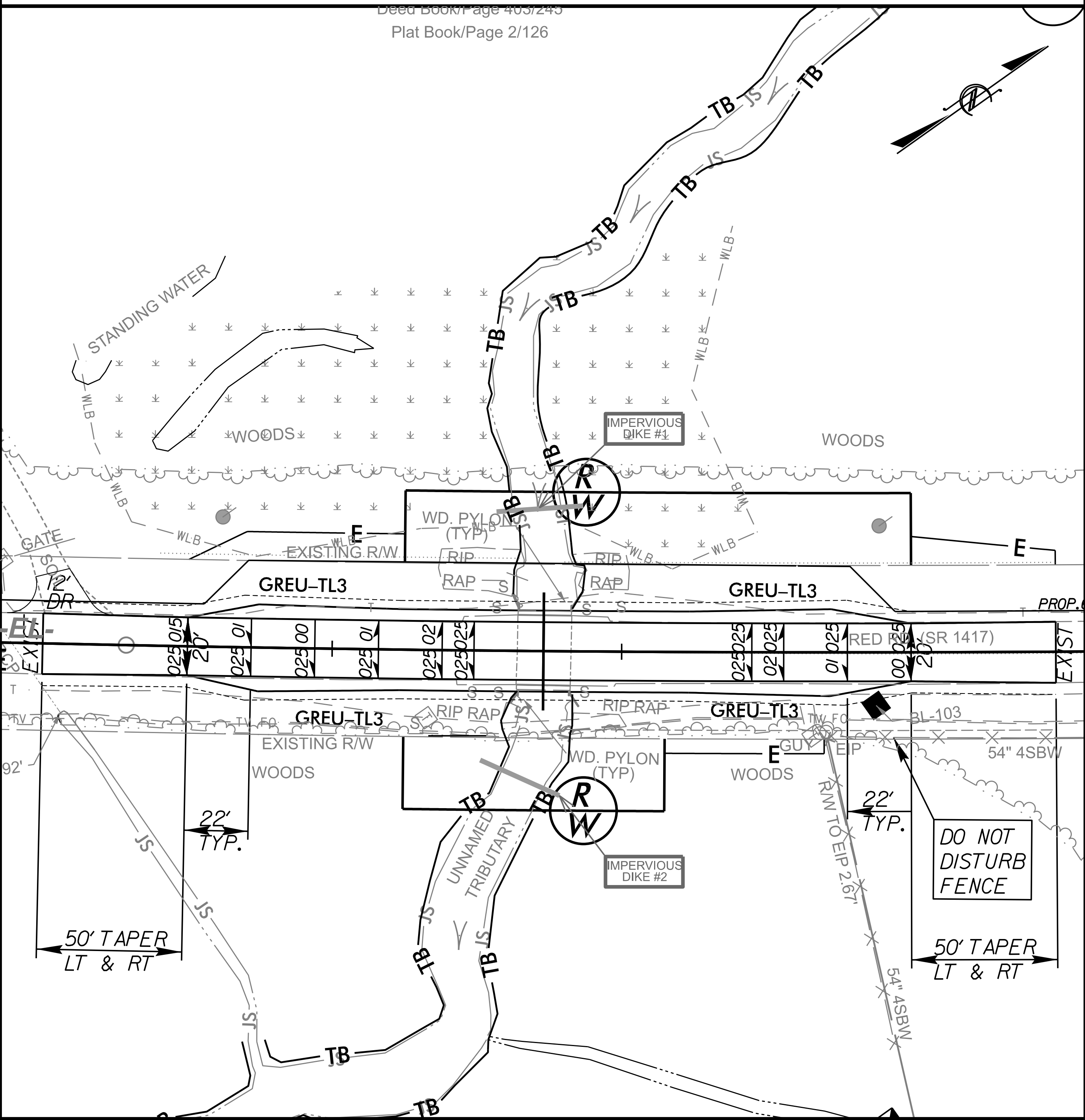
STA. 16+62.88 TO STA. 16+83.80 -L-



PROJECT REFERENCE NO.	SHEET NO.
BP4-R036	EC-4A/CONST.4
NC Firm License No: F-1334 324 Blackwell Street Suite 1200 Durham, NC 27701 919.732.1300	

PHASE I

1. UTILIZE SPECIAL STILLING BASINS DURING 21'-10"x5'-8" CAABC CONSTRUCTION AS DIRECTED BY THE ENGINEER.
2. DIVERT TRAFFIC TO OFFSITE DETOUR AND CLOSE SR-1417 (RED RD.) FOR CONSTRUCTION.
3. INSTALL IMPERVIOUS DIKES FOR PUMP AROUND OPERATION AND DEWATER FOR CULVERT INSTALLATION.
4. BEGIN BRIDGE DEMOLITION AND MINIMIZE DEBRIS AND SEDIMENT LOSS.
5. CONSTRUCT 21'-10"x5'-8" CAABC AND CHANNEL IMPROVEMENTS IN THE DRY.
6. REMOVE DIKES AND DIRECT FLOW THROUGH CULVERT TO COMPLETE ROADWAY CONSTRUCTION.





PREPARED BY

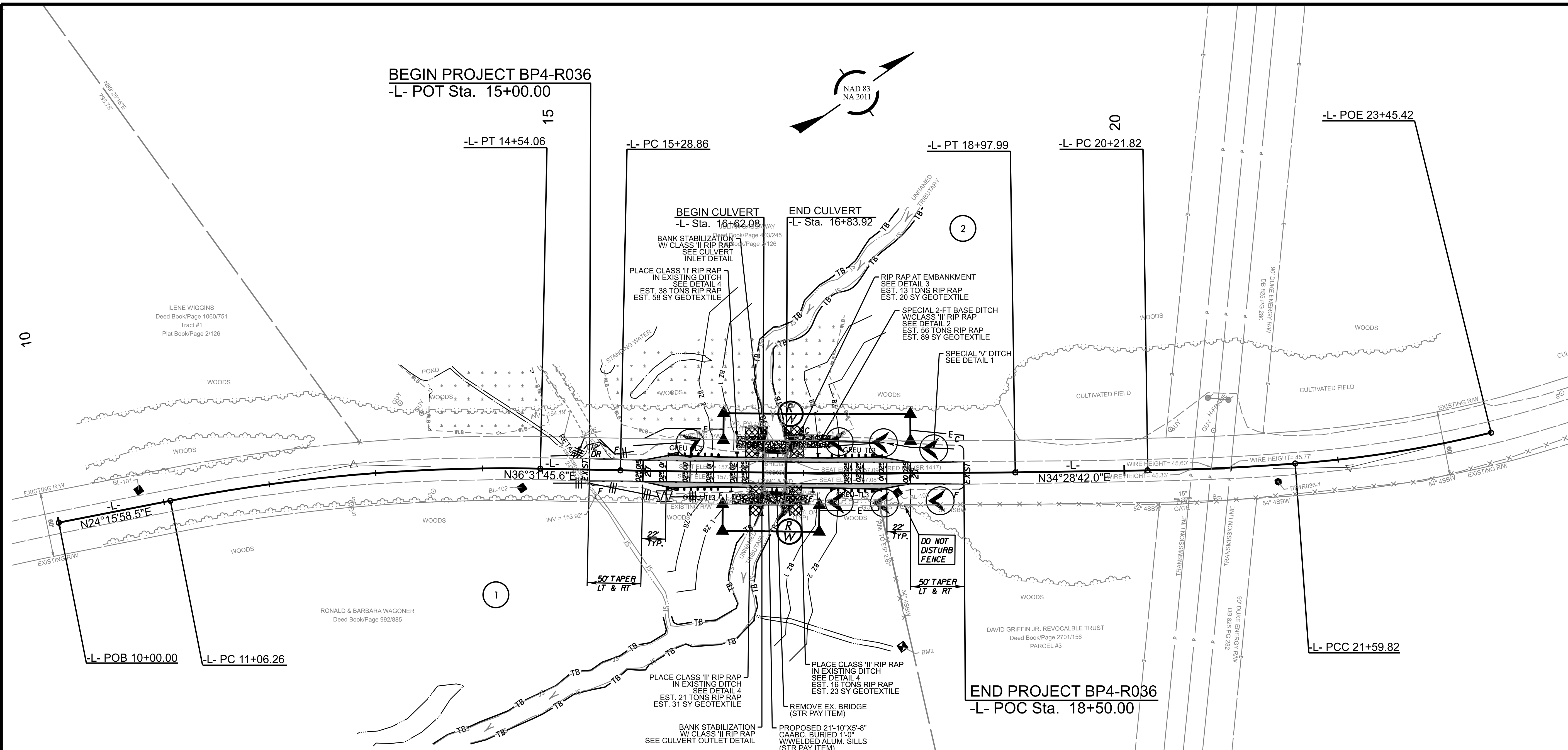
M M

MOTT
MACDONALD

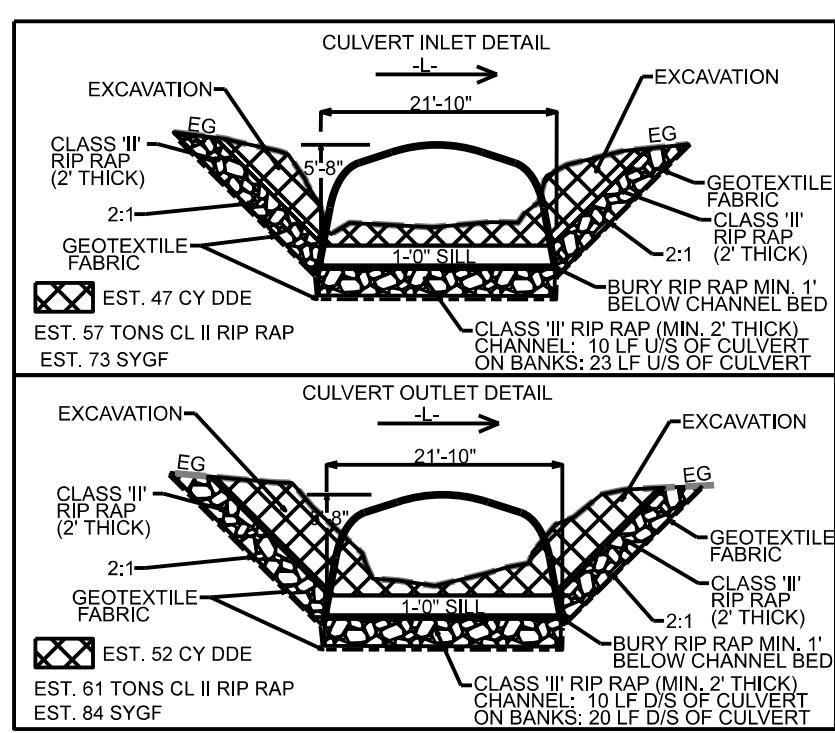
930 Main Campus Dr., Suite 200
Raleigh, NC 27606
www.mottmac.com
License No. F-0669



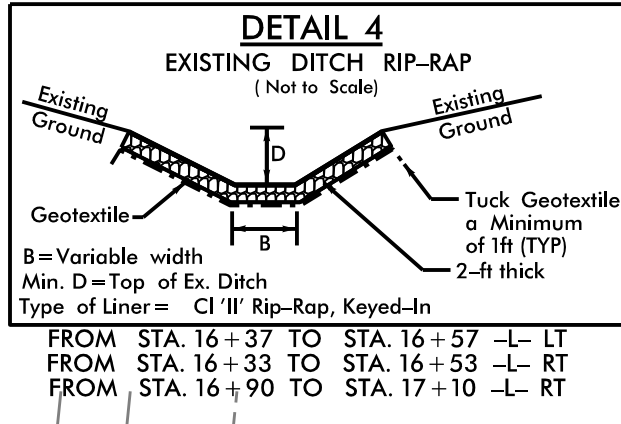
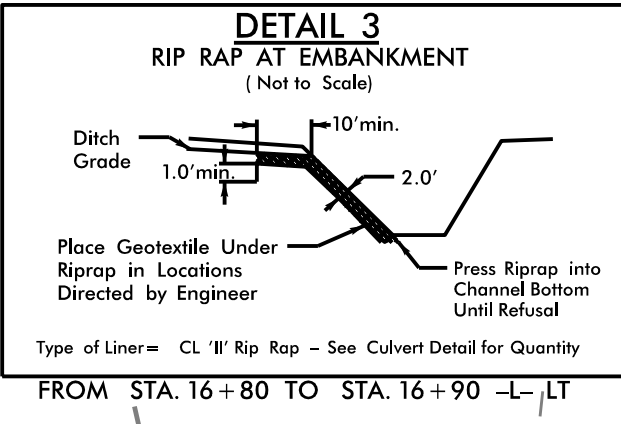
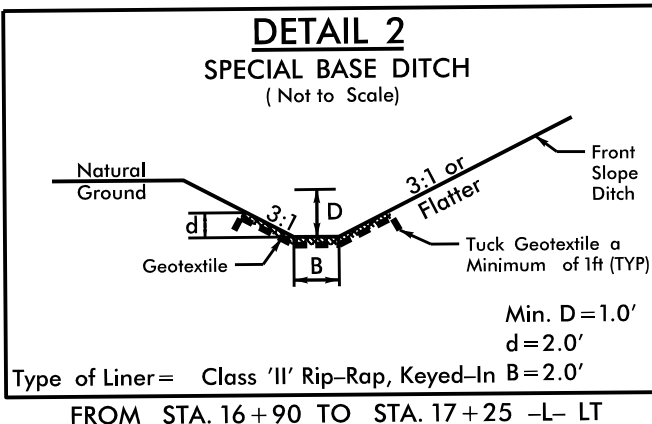
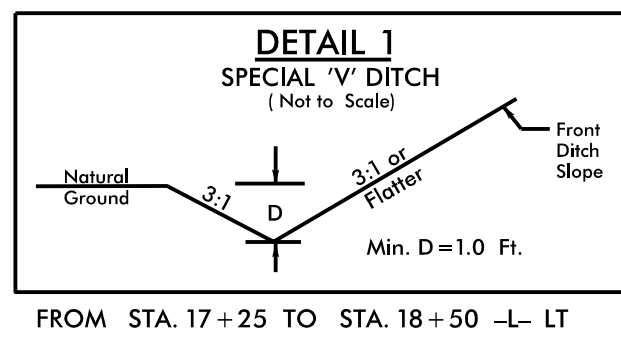
REVISIONS



FINAL GRADE
EROSION CONTROL FOR
CONSTRUCTION SHEET 4



<u>CUR DATA -L-</u>	<u>CUR DATA -L-</u>	<u>CUR DATA -L-</u>	<u>CUR DATA -L-</u>
Plc 12+80.82	Plc 17+13.44	Plc 20+90.84	Plc 22+52.84
$\Delta c = 12^{\circ}15'47.1"$ (RT)	$\Delta c = 01^{\circ}45'44.9"$ (LT)	$\Delta c = 03^{\circ}35'39.0"$ (LT)	$\Delta c = 09^{\circ}40'02.3"$ (LT)
D = 03°31'33.2"	D = 00°28'38.9"	D = 02°36'15.7"	D = 05°12'31.3"
Lc = 347.80	Lc = 369.13	Lc = 138.01	Lc = 185.60
Tc = 174.57	Tc = 184.58	Tc = 69.03	Tc = 93.02
R = 1,625	RE = 12,000	R = 2,200	R = 1,100
SE = 0.000	SE = 0.000	SE = 0.000	SE = 0.000



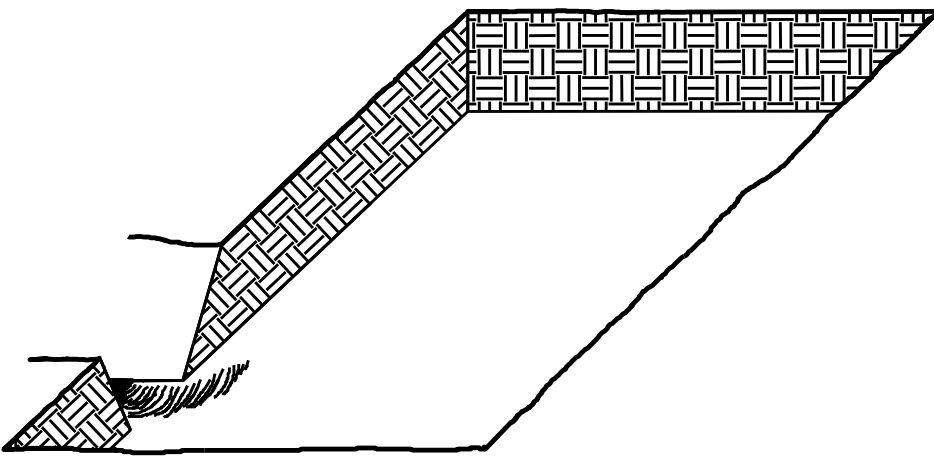
ALL DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED ON PLANS

FOR -L- PROFILE, SEE SHEET 5

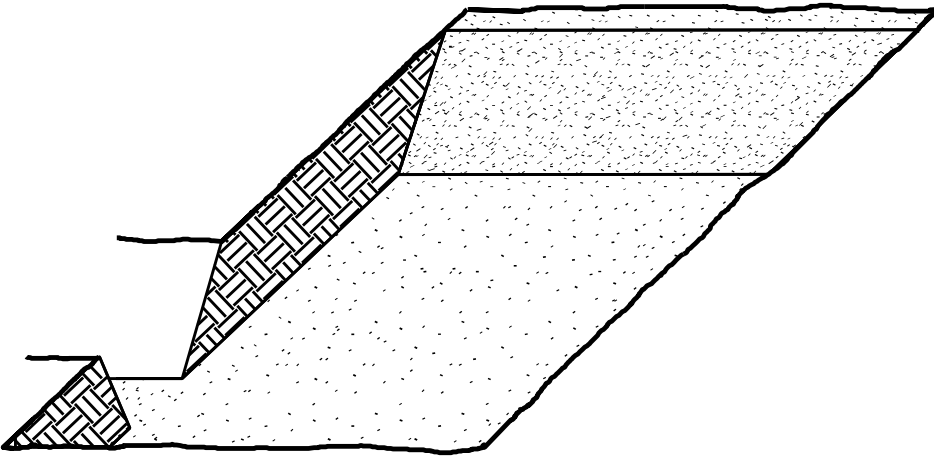
PLANTING DETAILS
SEEDLING / LINER BAREROOT PLANTING DETAIL

HEALING IN

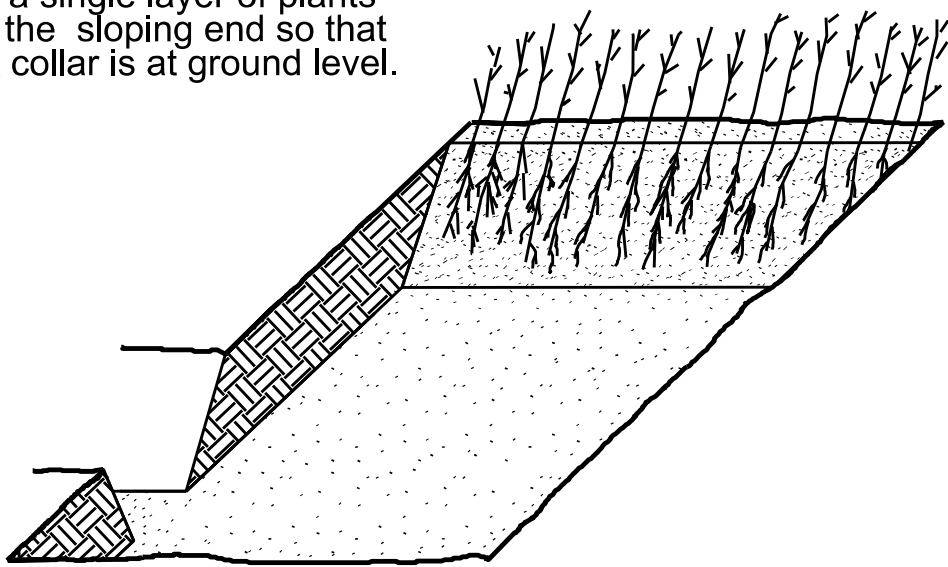
1. Locate a healing-in site in a shady, well protected area.
2. Excavate a flat bottom trench 12 inches deep and provide drainage.



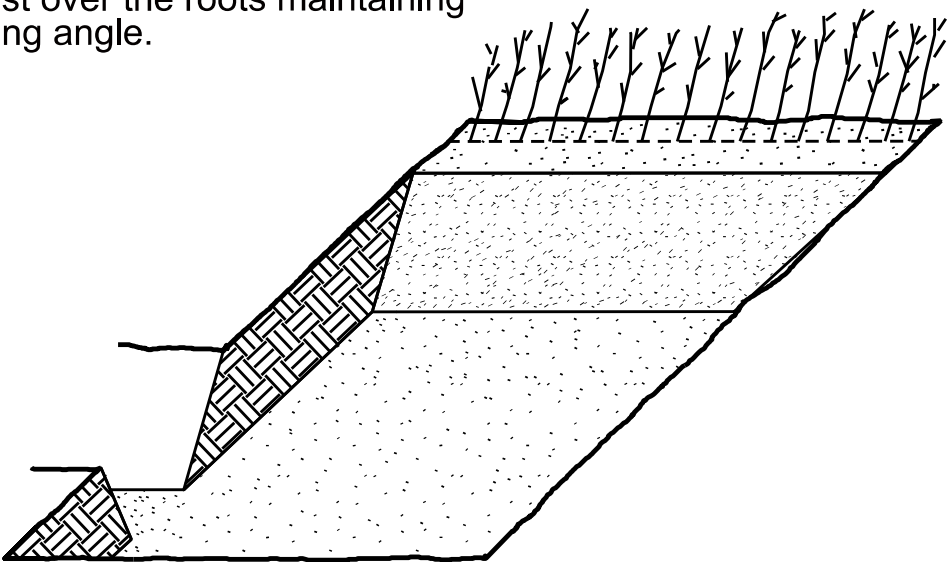
3. Backfill the trench with 2 inches well rotted sawdust. Place a 2 inch layer of well rotted sawdust at a sloping angle at one end of the trench.



4. Place a single layer of plants against the sloping end so that the root collar is at ground level.

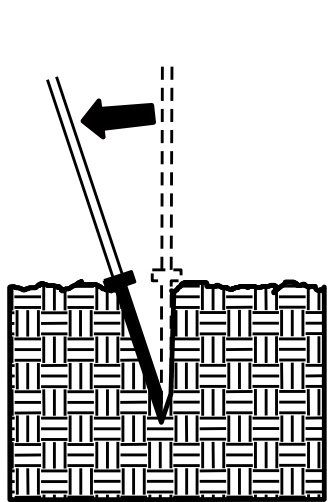


5. Place a 2 inch layer of well rotted sawdust over the roots maintaining a sloping angle.

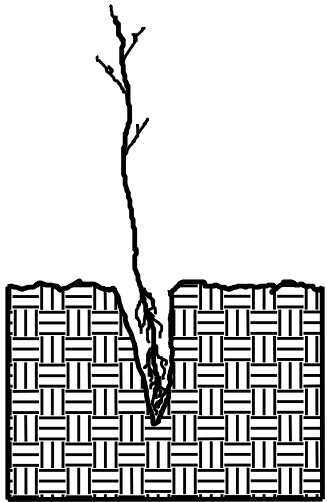


6. Repeat layers of plants and sawdust as necessary and water thoroughly.

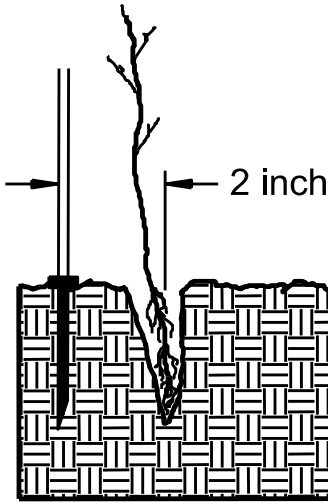
DIBBLE PLANTING METHOD
USING THE KBC PLANTING BAR



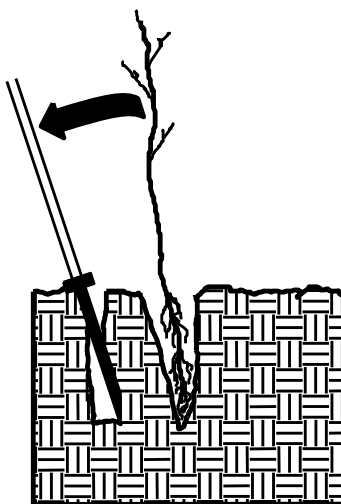
1. Insert planting bar as shown and pull handle toward planter.



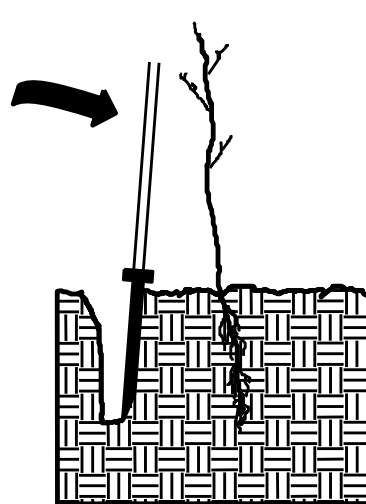
2. Remove planting bar and place seedling at correct depth.



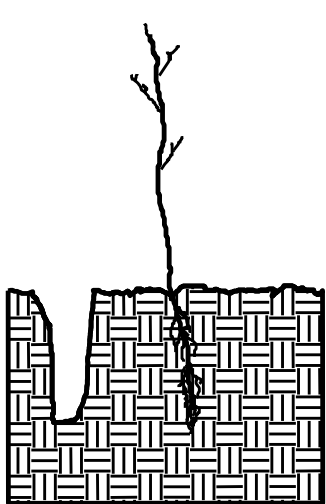
3. Insert planting bar 2 inches toward planter from seedling.



4. Pull handle of bar toward planter, firming soil at bottom.



5. Push handle forward firming soil at top.



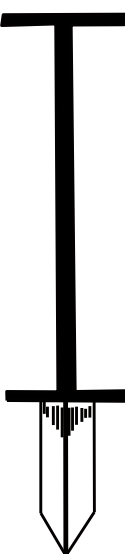
6. Leave compaction hole open. Water thoroughly.

PLANTING NOTES:

PLANTING BAG
During planting, seedlings shall be kept in a moist canvas bag or similar container to prevent the root systems from drying.



KBC PLANTING BAR
Planting bar shall have a blade with a triangular cross section, and shall be 12 inches long, 4 inches wide and 1 inch thick at center.



ROOT PRUNING
All seedlings shall be root pruned, if necessary, so that no roots extend more than 10 inches below the root collar.

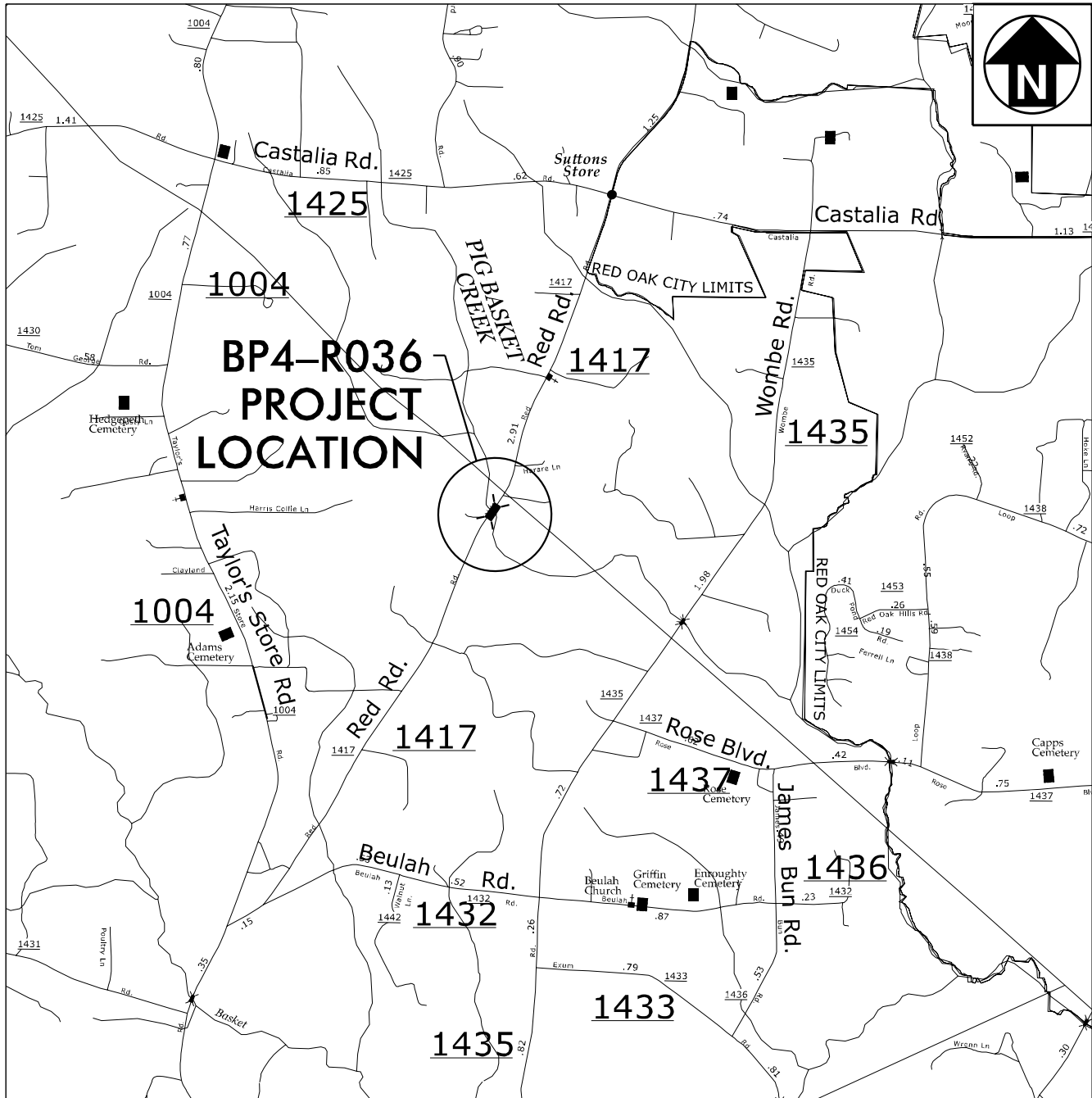
REFORESTATION

- ☐ TREE REFORESTATION SHALL BE PLANTED 6 FT. TO 10 FT. ON CENTER, RANDOM SPACING, AVERAGING 8 FT. ON CENTER, APPROXIMATELY 680 PLANTS PER ACRE.

REFORESTATION

MIXTURE, TYPE, SIZE, AND FURNISH SHALL CONFORM TO THE FOLLOWING:

34% LIRIODENDRON TULIPIFERA	TULIP POPLAR	12 in - 18 in BR
33% PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	12 in - 18 in BR
33% BETULA NIGRA	RIVER BIRCH	12 in - 18 in BR



VICINITY MAP (NTS)

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

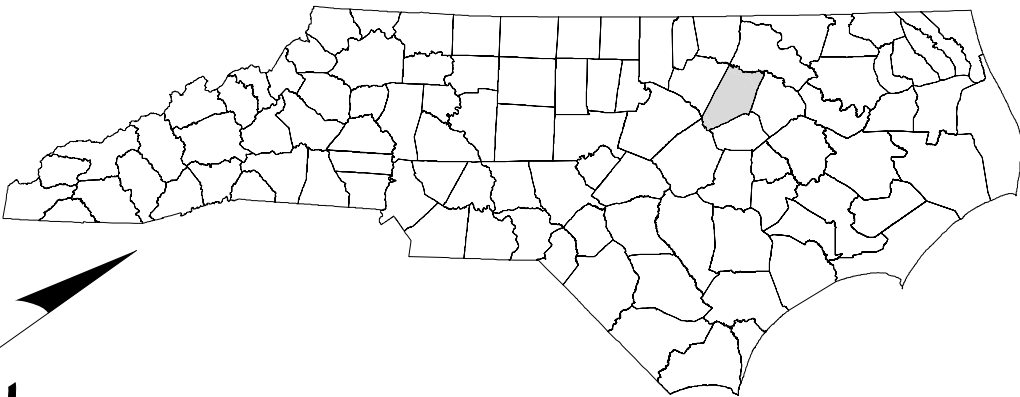
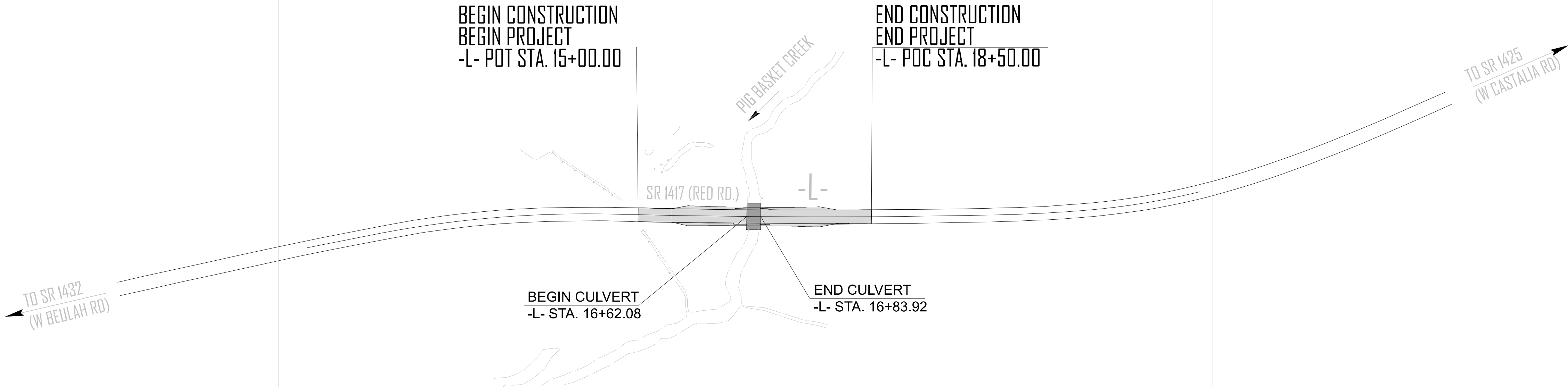
NASH COUNTY

LOCATION: *BRIDGE NO. 155 OVER TRIBUTARY OF
PIG BASKET CREEK ON SR 1417 (RED ROAD)*

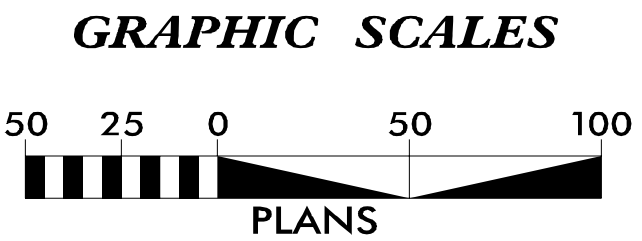
TYPE OF WORK: *RELOCATION OF COMMUNICATIONS,*

UTILITIES BY OTHERS PLANS

U0-02



NOTE:
ALL UTILITY WORK SHOWN ON THIS
SHEET WILL BE DONE BY OTHERS.
NO PAYMENT WILL BE MADE TO
THE CONTRACTOR FOR UTILITY WORK
SHOWN ON THIS SHEET.



INDEX OF SHEETS	
SHEET NO.:	DESCRIPTION:
UO-01	TITLE SHEET
UO-02	UBO PLAN SHEET

UTILITY OWNERS WITH CONFLICTS

(A) – COMMUNICATIONS – BRIGHTSPEED

PREPARED IN THE OFFICE OF

M

MOTT
MACDONALD

930 Main Campus Dr., Suite 200
Raleigh, NC 27606
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CONSULTANT CONTACT #2

PREPARED IN THE OFFICE OF MOTT MACDONALD FOR:

DIVISION 4

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

LONNY SLEEPER

KENNETH STUTTS

UTILITIES DIVISION ENGINEER

DIVISION UTILITIES COORDINATOR

NAD 83
NA 2011

-L- POE 23+45.42

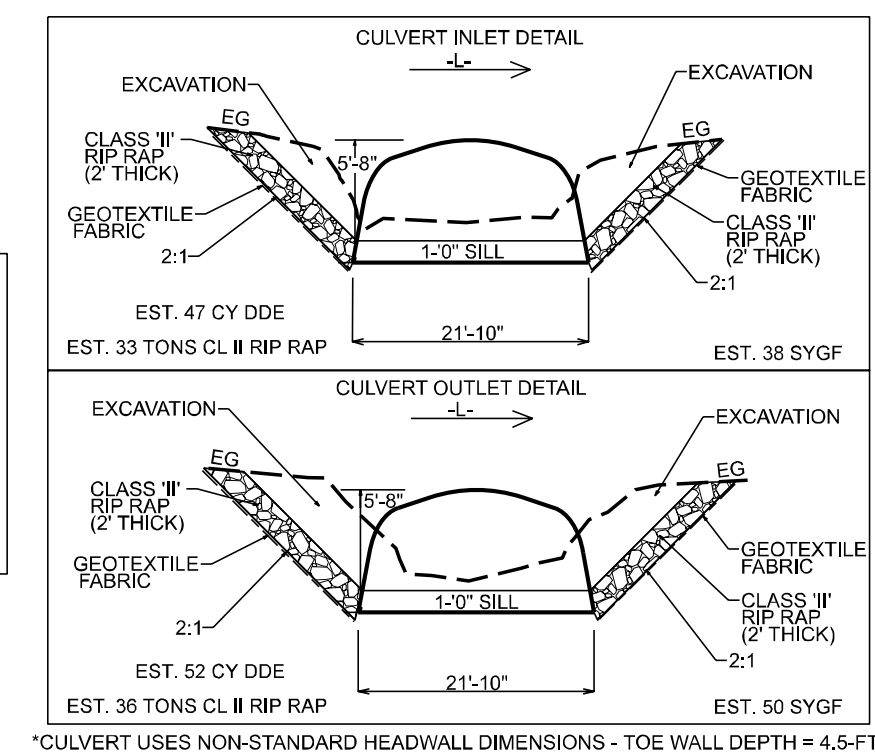
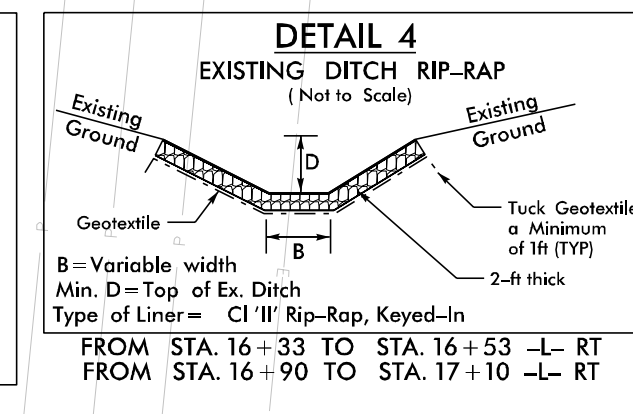
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LINDA E. FISHER
Deed Book/Page 3392/667
Plat Book/Page 2/126

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REVISIONS

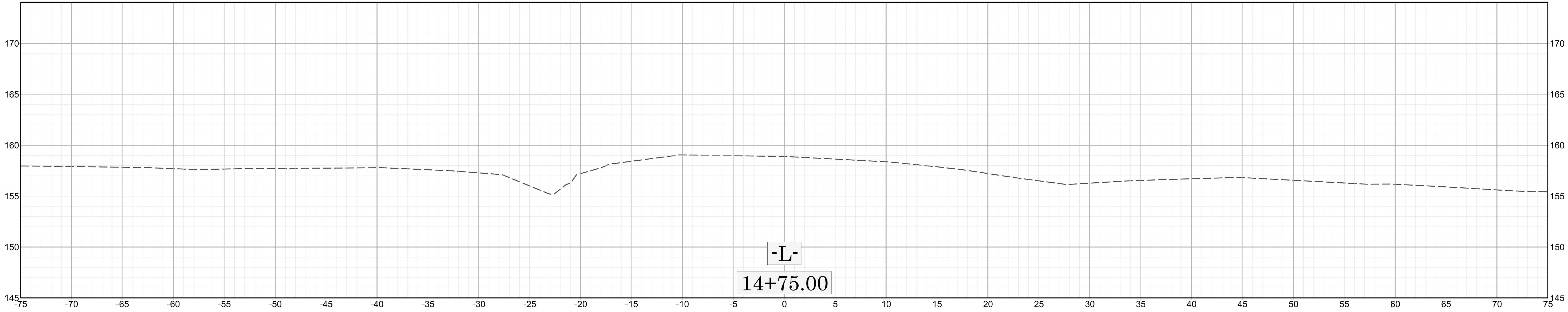
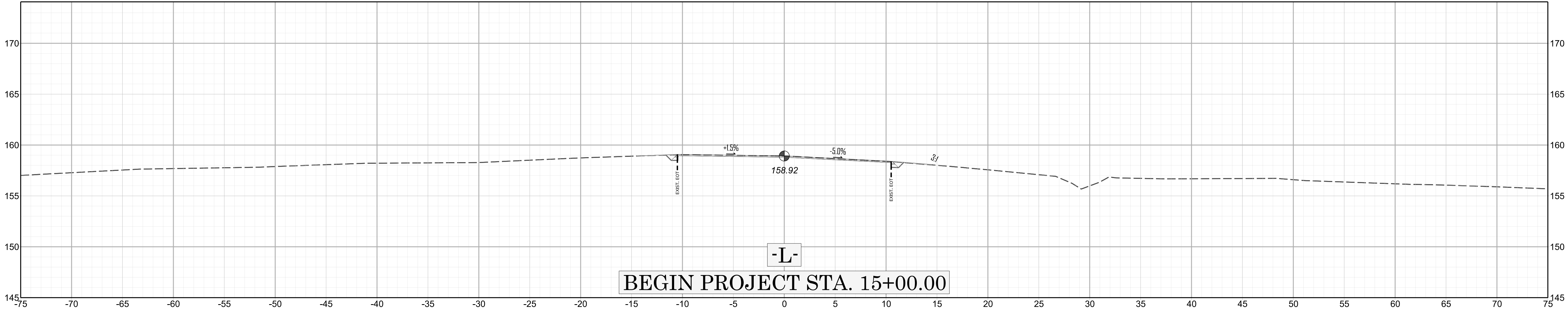
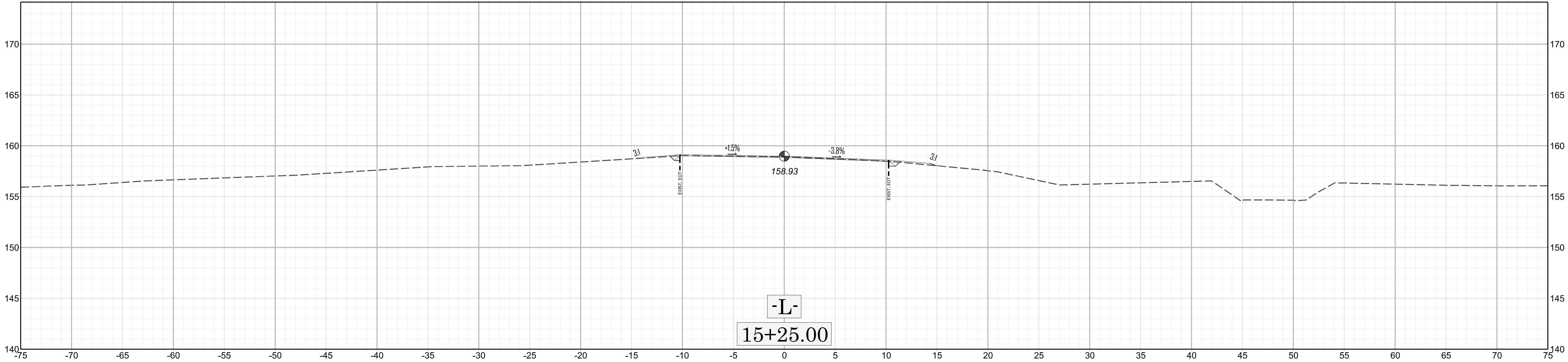


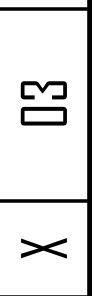
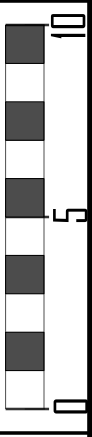
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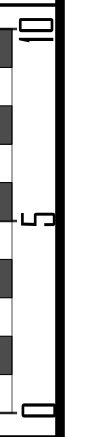
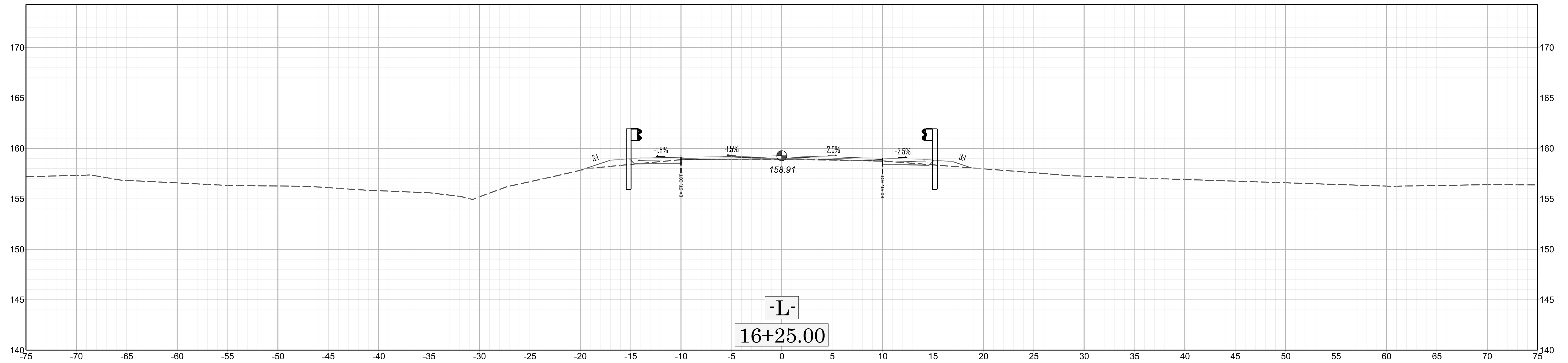
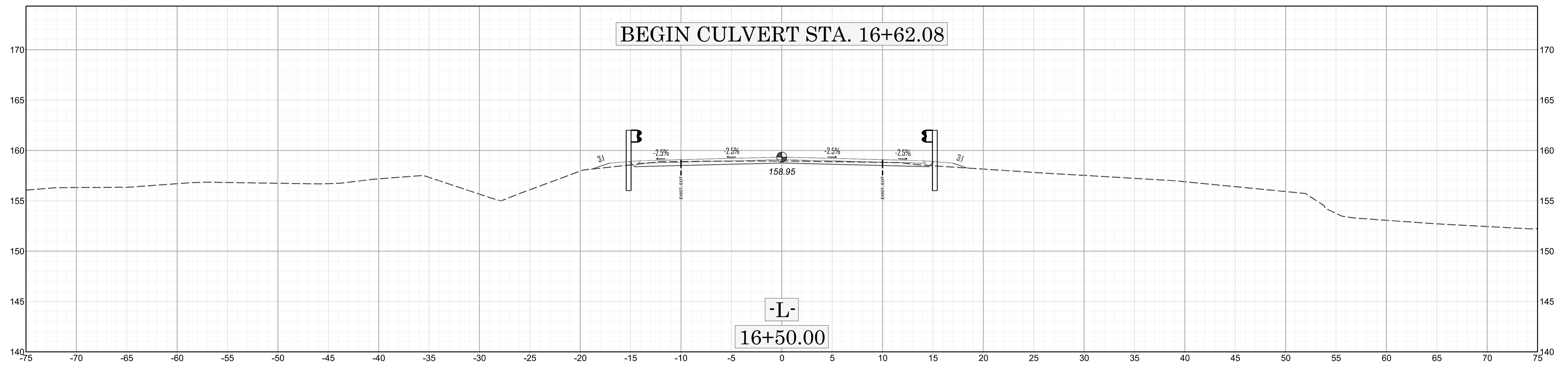
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BP4-R036

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

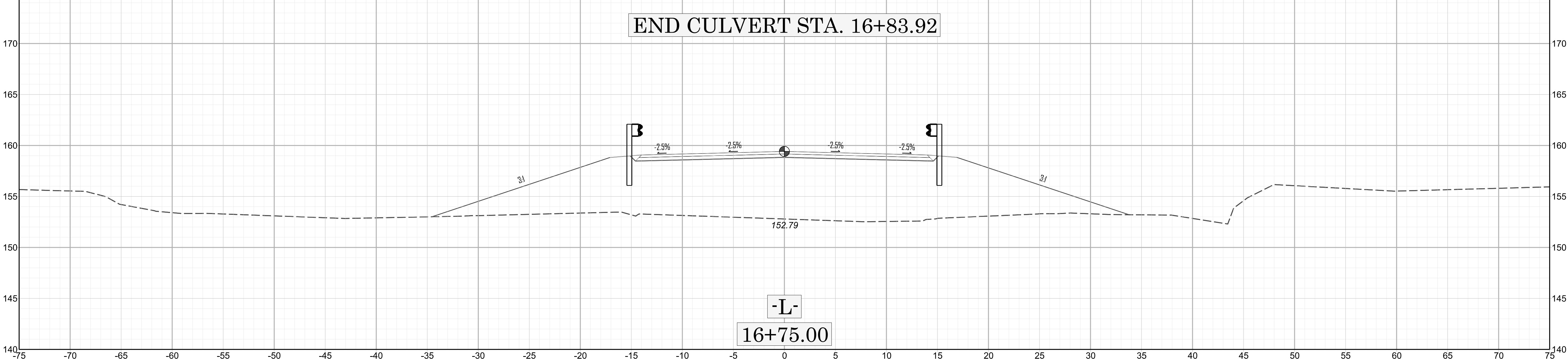
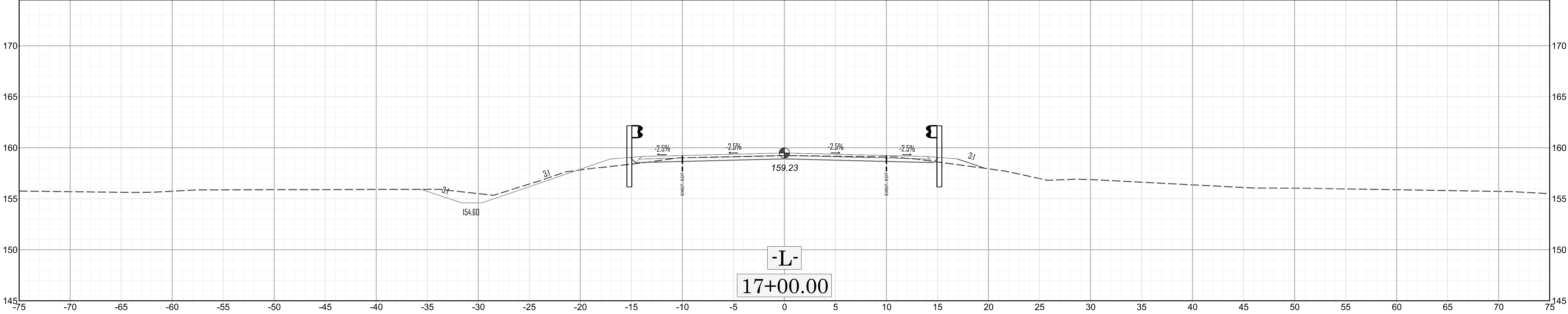
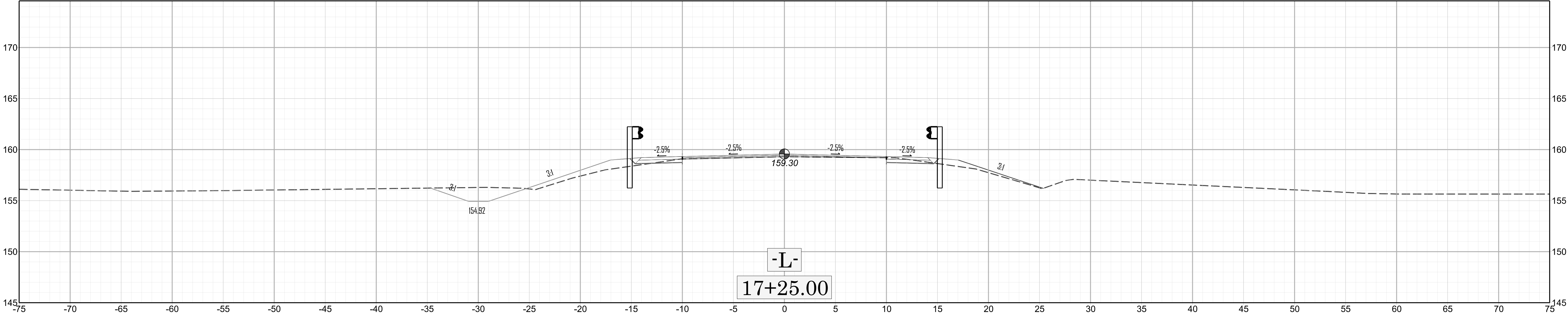


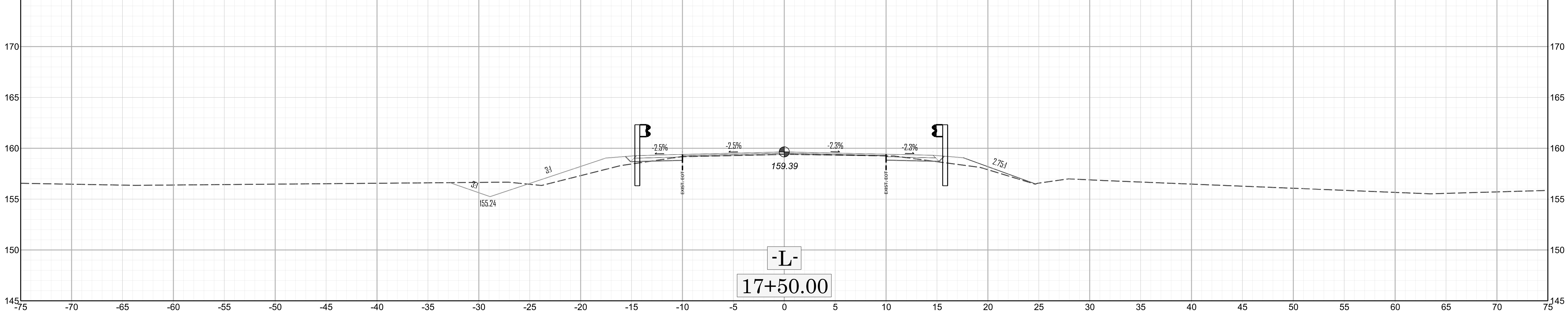
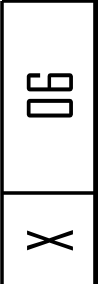
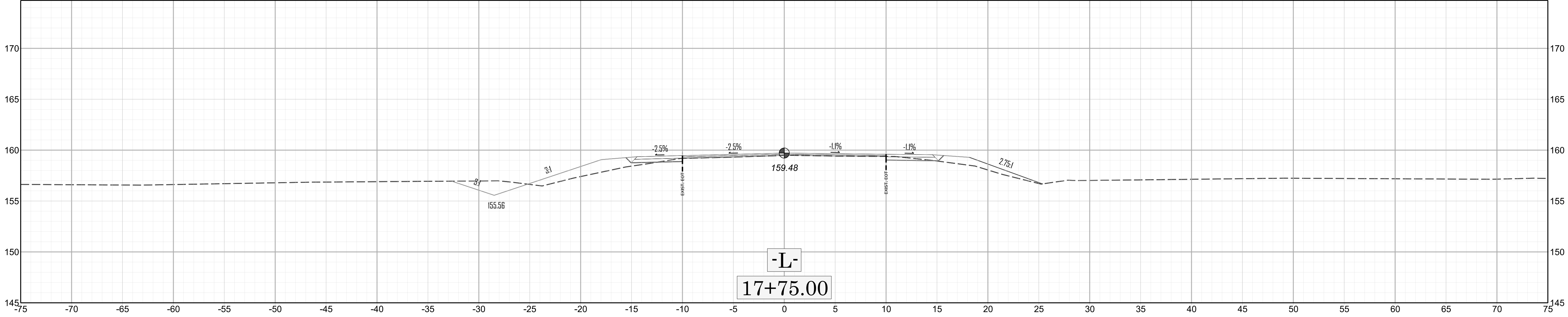
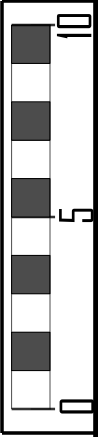
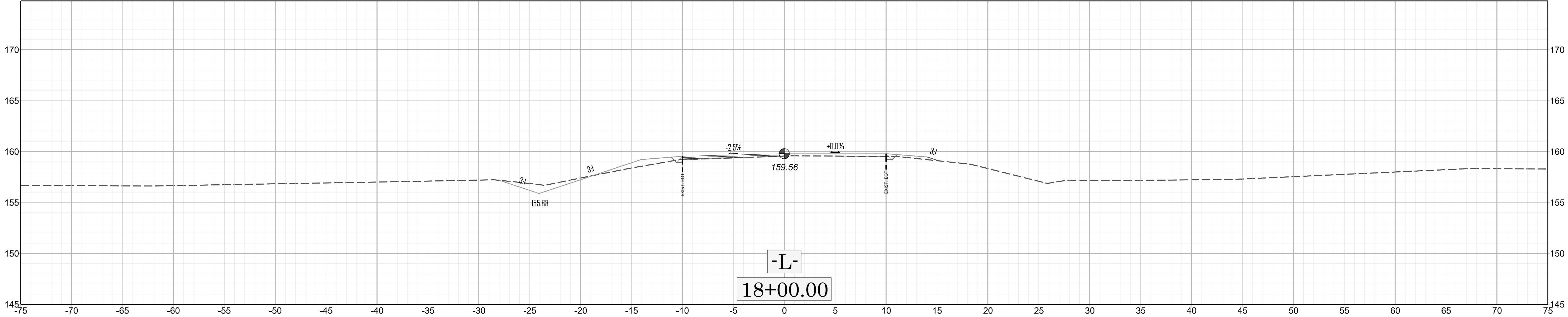


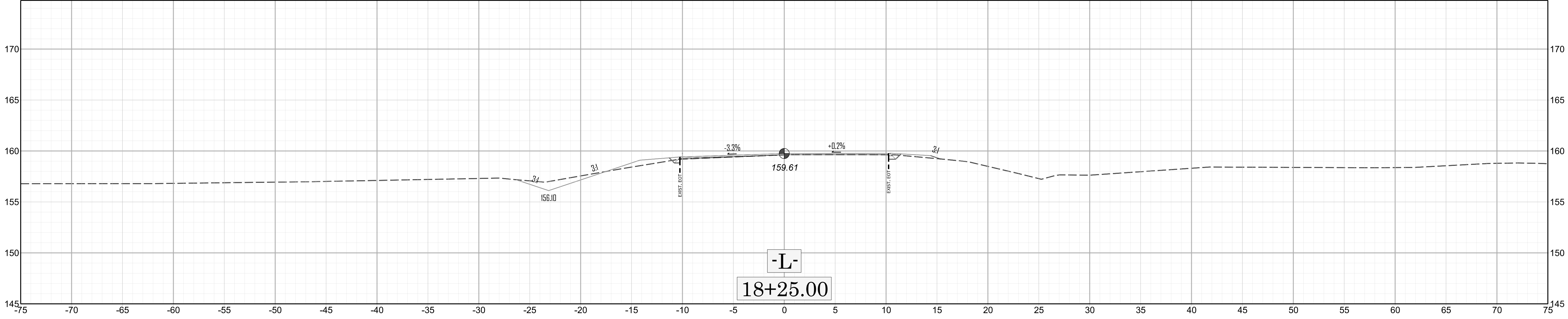
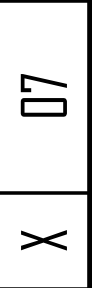
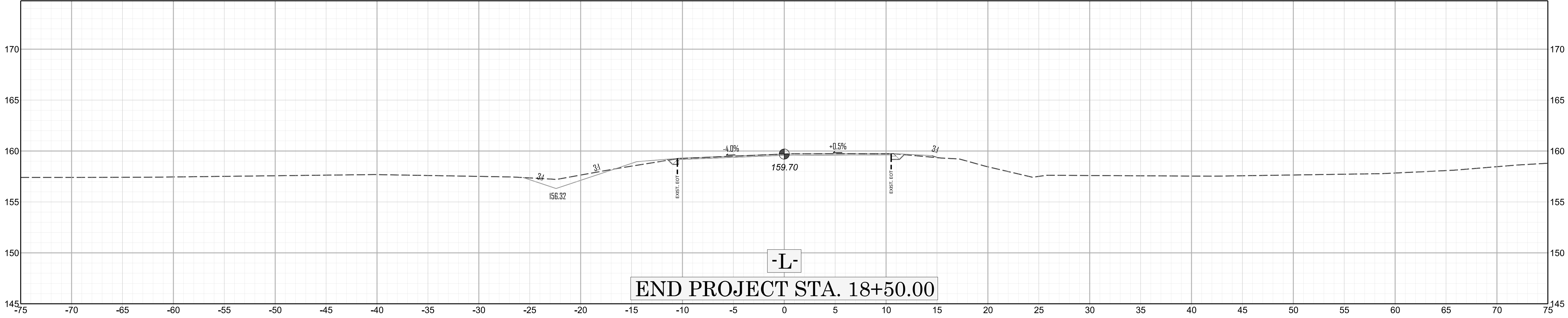
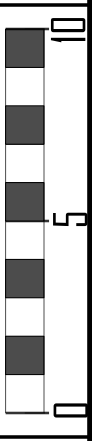
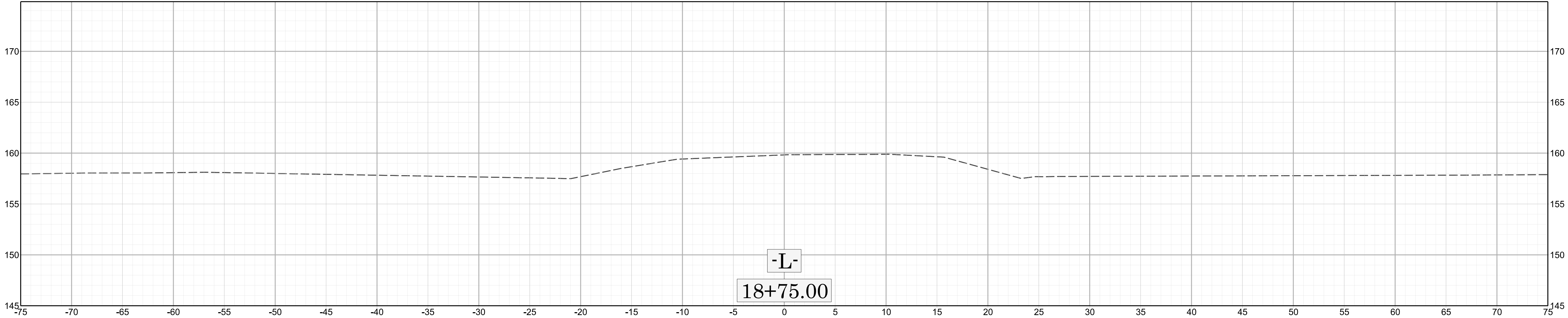


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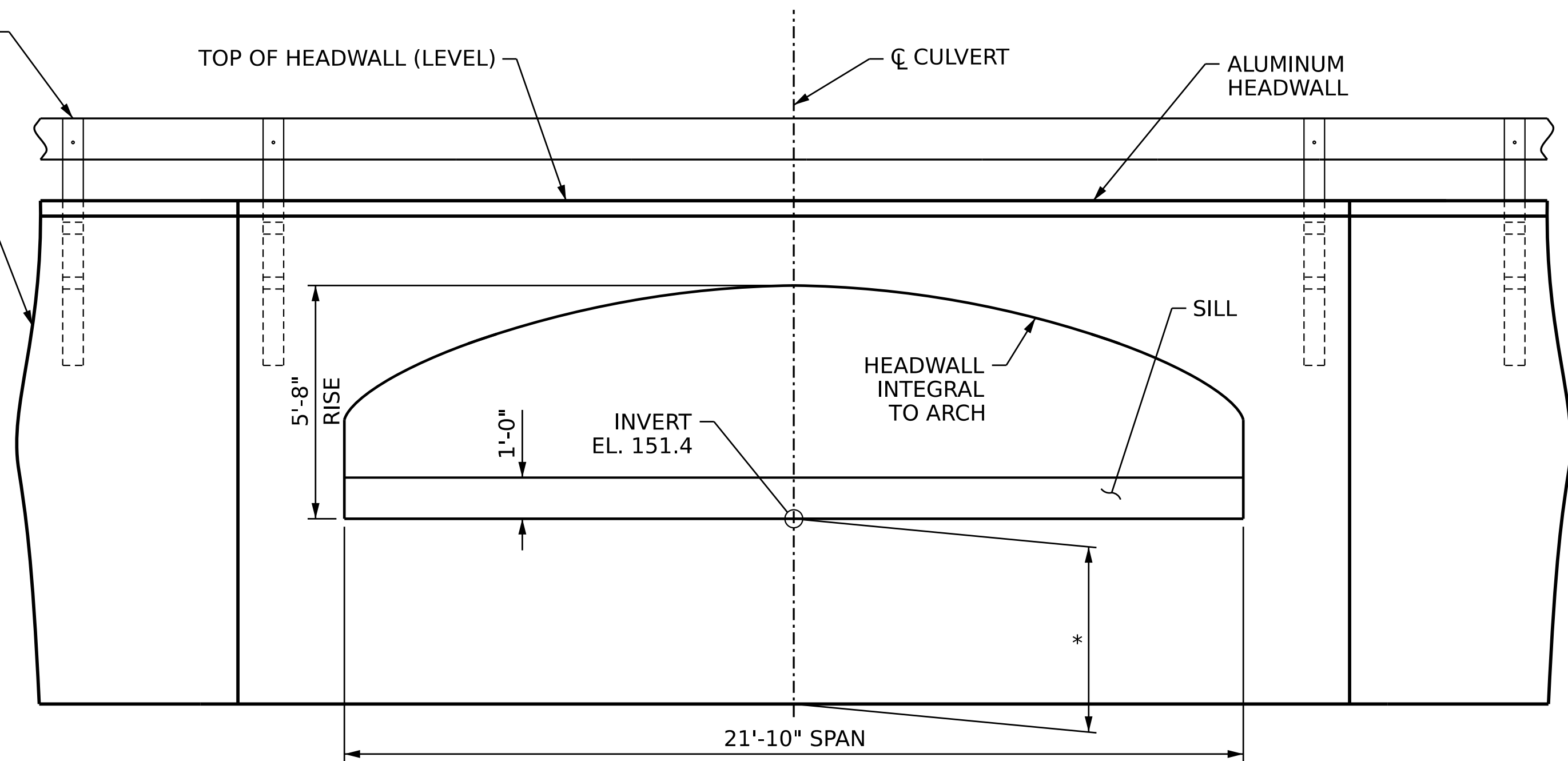
FOR CRANE SAFETY, SEE SPECIAL PROVISIONS. FOR ASBESTOS ASSESSMENT, SEE SPECIAL PROVISIONS. THE MANUFACTURER OF THE 21'-10" X 5'-8" ALUMINUM CULVERT SHALL PROVIDE LOAD AND RESISTANCE FACTOR RATINGS.	PROJECT NO. <u>BP4-R036</u> <u>NASH</u> COUNTY STATION: <u>16+73.00 -L-</u> SHEET 1 OF 2 REPLACE BRIDGE #630155 STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH 21'-10" X 5'-8" ALUMINUM BOX CULVERT 90° SKEW <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <tr> <th colspan="6">REVISIONS</th><th>SHEET NO.</th></tr> <tr> <th>NO.</th><th>BY:</th><th>DATE:</th><th>NO.</th><th>BY:</th><th>DATE:</th><th>C-1</th></tr> <tr> <td>1</td><td></td><td></td><td>3</td><td></td><td></td><td>TOTAL SHEETS</td></tr> <tr> <td>2</td><td></td><td></td><td>4</td><td></td><td></td><td>2</td></tr> </table>	REVISIONS						SHEET NO.	NO.	BY:	DATE:	NO.	BY:	DATE:	C-1	1			3			TOTAL SHEETS	2			4			2
REVISIONS						SHEET NO.																							
NO.	BY:	DATE:	NO.	BY:	DATE:	C-1																							
1			3			TOTAL SHEETS																							
2			4			2																							

E QUANTITIES	
ALUMINUM BOX CULVERT W/ HEADWALLS	= LUMP SUM
TURE @ STA. 16+73.00	= LUMP SUM
	= LUMP SUM
A. 16+73.00	= LUMP SUM
MATERIAL, BOX CULVERT	= 74 TONS
GEOTEXTILE	= 233 SY
	= 496 TONS


 Signed by:

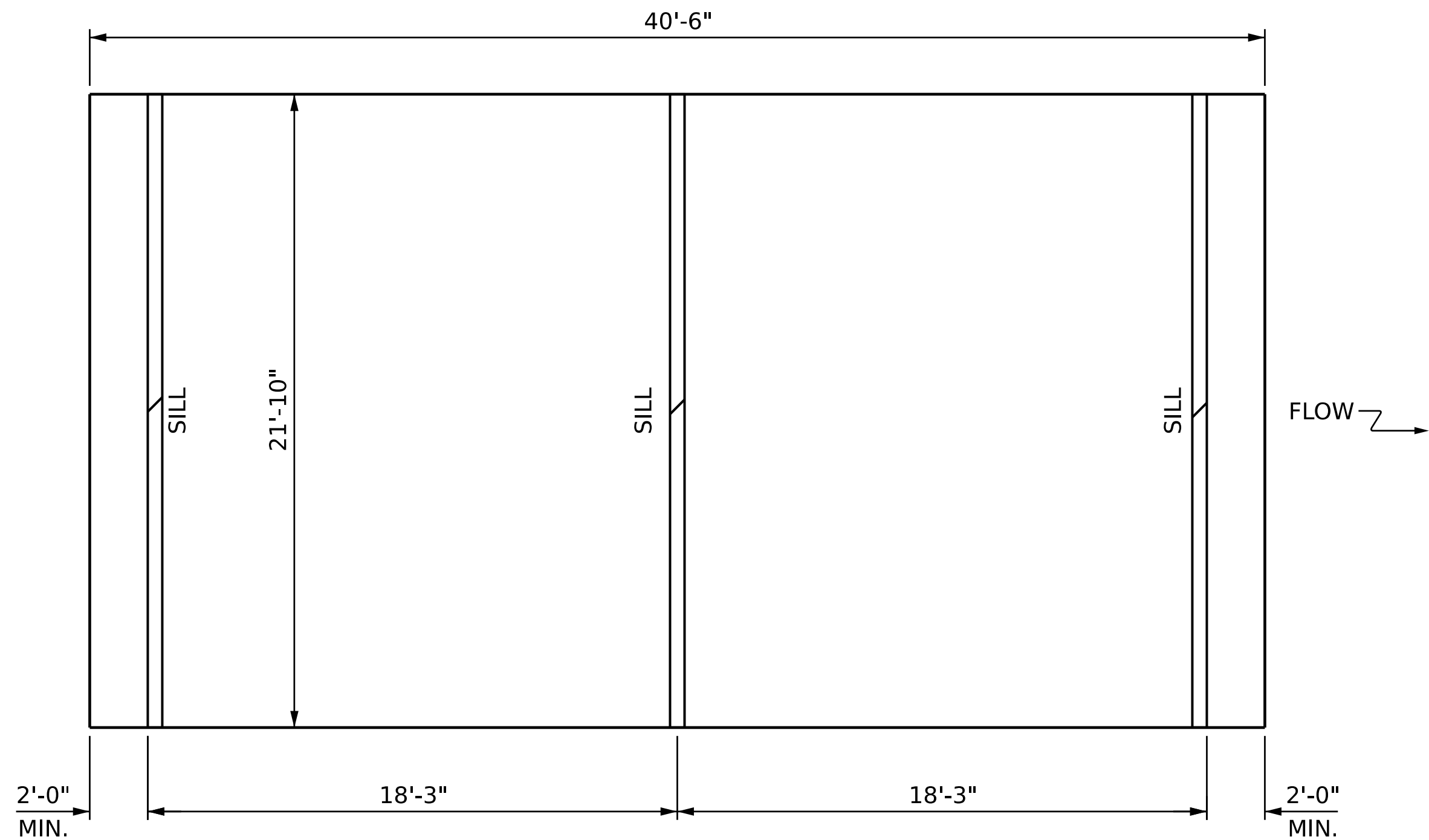
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DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED



END ELEVATION

* PROVIDE 4.5' MIN. TOEWALL. TO ACCOMODATE DEEPER TOEWALL, HEADWALL DIMENSIONS MAY VARY FROM STANDARD. THE SUPPLIER SHALL DETERMINE FINAL HEADWALL DIMENSIONS.



FLOW

PROJECT NO. BP4-R036
NASH COUNTY
 STATION: 16+73.00 -L-

SHEET 2 OF 2

M M
MOTT
MACDONALD



Signed by:
Jonathan T. Williams
CF8834B85D82449...

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

21'-10" X 5'-8"
ALUMINUM
BOX CULVERT
90° SKEW

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	C-2
1			3			TOTAL SHEETS
2			4			2

DRAWN BY : P. MORALES MENDOZA DATE : 7-2026
 CHECKED BY : J. T. WILLIAMS DATE : 7-2026
 DESIGN ENGINEER OF RECORD: J. T. WILLIAMS DATE : 7-2026

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

STANDARD NOTES

DESIGN DATA:

SPECIFICATIONS	AASHTO (CURRENT)
LIVE LOAD	SEE PLANS
IMPACT ALLOWANCE	SEE AASHTO
STRESS IN EXTREME FIBER OF STRUCTURAL STEEL - AASHTO M270 GRADE 36	20,000 LBS. PER SQ. IN.
- AASHTO M270 GRADE 50W	27,000 LBS. PER SQ. IN.
- AASHTO M270 GRADE 50	27,000 LBS. PER SQ. IN.
REINFORCING STEEL IN TENSION - GRADE 60	24,000 LBS. PER SQ. IN.
CONCRETE IN COMPRESSION	1,200 LBS. PER SQ. IN.
CONCRETE IN SHEAR	SEE AASHTO
STRUCTURAL TIMBER - TREATED OR UNTREATED EXTREME FIBER STRESS	1,800 LBS. PER SQ. IN.
COMPRESSION PERPENDICULAR TO GRAIN OF TIMBER	375 LBS. PER SQ. IN.
EQUIVALENT FLUID PRESSURE OF EARTH	30 LBS. PER CU. FT. (MINIMUM)

MATERIAL AND WORKMANSHIP:

EXCEPT AS MAY OTHERWISE BE SPECIFIED ON PLANS OR IN THE SPECIAL PROVISIONS, ALL MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE 2024 "STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES" OF THE N. C. DEPARTMENT OF TRANSPORTATION.

STEEL SHEET PILING FOR PERMANENT OR TEMPORARY APPLICATIONS SHALL BE HOT ROLLED.

CONCRETE:

UNLESS OTHERWISE REQUIRED ON PLANS, CLASS A CONCRETE SHALL BE USED FOR ALL PORTIONS OF ALL STRUCTURES WITH THE EXCEPTION THAT: CLASS AA CONCRETE SHALL BE USED IN BRIDGE SUPERSTRUCTURES, ABUTMENT BACKWALLS, AND APPROACH SLABS; AND CLASS B CONCRETE SHALL BE USED FOR SLOPE PROTECTION AND RIP RAP.

CONCRETE CHAMFERS:

UNLESS OTHERWISE NOTED ON THE PLANS, ALL EXPOSED CORNERS ON STRUCTURES SHALL BE CHAMFERED ¾" WITH THE FOLLOWING EXCEPTIONS: TOP CORNERS OF CURBS MAY BE ROUNDED TO 1½" RADIUS WHICH IS BUILT INTO CURB FORMS; CORNERS OF TRANSVERSE FLOOR EXPANSION JOINTS SHALL BE ROUNDED WITH A ¼" FINISHING TOOL UNLESS OTHERWISE REQUIRED ON PLANS; AND CORNERS OF EXPANSION JOINTS IN THE ROADWAY FACES AND TOPS OF CURBS AND SIDEWALKS SHALL BE ROUNDED TO A ¼" RADIUS WITH A FINISHING STONE OR TOOL UNLESS OTHERWISE REQUIRED ON PLANS.

DOWELS:

DOWELS WHEN INDICATED ON PLANS AS FOR CULVERT EXTENSIONS, SHALL BE EMBEDDED AT LEAST 12" INTO THE OLD CONCRETE AND GROUTED INTO PLACE WITH 1:2 CEMENT MORTAR.

ALLOWANCE FOR DEAD LOAD DEFLECTION, SETTLEMENT, ETC. IN CASTING SUPERSTRUCTURES:

BRIDGES SHALL BE BUILT ON THE GRADE OR VERTICAL CURVE SHOWN ON PLANS. SLABS, CURBS AND PARAPETS SHALL CONFORM TO THE GRADE OR CURVE.

ALL DIMENSIONS WHICH ARE GIVEN IN SECTION AND ARE AFFECTED BY DEAD LOAD DEFLECTIONS ARE DIMENSIONS AT CENTER LINE OF BEARING UNLESS OTHERWISE NOTED ON PLANS. IN SETTING FORMS FOR STEEL BEAM BRIDGES AND PRESTRESSED CONCRETE GIRDER BRIDGES, ADJUSTMENTS SHALL BE MADE DUE TO THE DEAD LOAD DEFLECTIONS FOR THE ELEVATIONS SHOWN. WHERE BLOCKS ARE SHOWN OVER BEAMS FOR BUILDING UP TO THE SLAB, THE VERTICAL DIMENSIONS OF THE BLOCKS SHALL BE ADJUSTED BETWEEN BEARINGS TO COMPENSATE FOR DEAD LOAD DEFLECTIONS, VERTICAL CURVE ORDINATE, AND ACTUAL BEAM CAMBER. WHERE BOTTOM OF SLAB IS IN LINE WITH BOTTOM OF TOP FLANGES, DEPTH OF SLAB BETWEEN BEARINGS SHALL BE ADJUSTED TO COMPENSATE FOR DEAD LOAD DEFLECTION, VERTICAL CURVE ORDINATE, AND ACTUAL BEAM CAMBER.

IN SETTING FALSEWORK AND FORMS FOR REINFORCED CONCRETE SPANS, AN ALLOWANCE SHALL BE MADE FOR DEAD LOAD DEFLECTIONS, SETTLEMENT OF FALSEWORK, AND PERMANENT CAMBER WHICH SHALL BE PROVIDED FOR IN ADDITION TO THE ELEVATIONS SHOWN. AFTER REMOVAL OF THE FALSEWORK, THE FINISHED STRUCTURES SHALL CONFORM TO THE PROFILE AND ELEVATIONS SHOWN ON THE PLANS AND CONSTRUCTION ELEVATIONS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR FALSEWORK OR FORMS FOR BRIDGE SUPERSTRUCTURE AND ANY STRUCTURE OR PARTS OF A STRUCTURE AS NOTED ON THE PLANS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL BEFORE CONSTRUCTION OF THE FALSEWORK OR FORMS IS STARTED.

REINFORCING STEEL:

ALL REINFORCING STEEL SHALL BE DEFORMED. DIMENSIONS RELATIVE TO PLACEMENT OF REINFORCING ARE TO CENTERS OF BARS UNLESS OTHERWISE INDICATED IN THE PLANS. DIMENSIONS ON BAR DETAILS ARE TO CENTERS OF BARS OR ARE OUT TO OUT AS INDICATED ON PLANS.

WIRE BAR SUPPORTS SHALL BE PROVIDED FOR REINFORCING STEEL WHERE INDICATED ON THE PLANS. WHEN BAR SUPPORT PIECES ARE PLACED IN CONTINUOUS LINES, THEY SHALL BE SO PLACED THAT THE ENDS OF THE SUPPORTING WIRES SHALL BE LAPPED TO LOCK LEGS ON ADJOINING PIECES.

STRUCTURAL STEEL:

AT THE CONTRACTOR'S OPTION, HE MAY SUBSTITUTE 7⁄8" Ø SHEAR STUDS FOR THE ¾" Ø STUDS SPECIFIED ON THE PLANS. THIS SUBSTITUTION SHALL BE MADE AT THE RATE OF 3 - 7⁄8" Ø STUDS FOR 4 - ¾" Ø STUDS, AND STUD SPACING CHANGES SHALL BE MADE AS NECESSARY TO PROVIDE THE SAME EQUIVALENT NUMBER OF 7⁄8" Ø STUDS ALONG THE BEAM AS SHOWN FOR ¾" Ø STUDS BASED ON THE RATIO OF 3 - 7⁄8"Ø STUDS FOR 4 - ¾" Ø STUDS. STUDS OF THE LENGTH SPECIFIED ON THE PLANS MUST BE PROVIDED. THE MAXIMUM SPACING SHALL BE 2'-0".

EXCEPT AT THE INTERIOR SUPPORTS OF CONTINUOUS BEAMS WHERE THE COVER PLATE IS IN CONTACT WITH BEARING PLATE, THE CONTRACTOR MAY, AT HIS OPTION, SUBSTITUTE FOR THE COVER PLATES DESIGNATED ON THE PLANS COVER PLATES OF THE EQUIVALENT AREA PROVIDED THESE PLATES ARE AT LEAST 5⁄16" IN THICKNESS AND DO NOT EXCEED A WIDTH EQUAL TO THE FLANGE WIDTH LESS 2" OR A THICKNESS EQUAL TO 2 TIMES THE FLANGE THICKNESS. THE SIZE OF FILLET WELDS SHALL CONFORM TO THE REQUIREMENTS OF THE CURRENT ANSI/AASHTO/AWS "BRIDGE WELDING CODE". ELECTROSLAG WELDING WILL NOT BE PERMITTED.

WITH THE SOLE EXCEPTION OF EDGES AT SURFACES WHICH BEAR ON OTHER SURFACES, ALL SHARP EDGES AND ENDS OF SHAPES AND PLATES SHALL BE SLIGHTLY ROUNDED BY SUITABLE MEANS TO A RADIUS OF APPROXIMATELY 1⁄16" OR EQUIVALENT FLAT SURFACE AT A SUITABLE ANGLE PRIOR TO PAINTING, GALVANIZING, OR METALLIZING.

HANDRAILS AND POSTS:

METAL STANDARDS AND FACES OF THE CONCRETE END POSTS FOR THE METAL RAIL SHALL BE SET NORMAL TO THE GRADE OF THE CURB, UNLESS OTHERWISE SHOWN ON PLANS. THE METAL RAIL AND TOPS OF CONCRETE POSTS USED WITH THE ALUMINUM RAIL SHALL BE BUILT PARALLEL TO THE GRADE OF THE CURB.

METAL HANDRAILS SHALL BE IN ACCORDANCE WITH THE PLANS. RAILS SHALL BE AS MANUFACTURED FOR BRIDGE RAILING. CASTINGS SHALL BE OF A UNIFORM APPEARANCE. FINIS AND OTHER DEFORMATIONS RESULTING FROM CASTING OR OTHERWISE SHALL BE REMOVED IN A MANNER SO THAT A UNIFORM COLORING OF THE COMPLETED CASTING SHALL BE OBTAINED. CASTINGS WITH DISCOLORATIONS OR OF NON-UNIFORM COLORING WILL NOT BE ACCEPTED. CERTIFIED MILL REPORTS ARE REQUIRED FOR METAL RAILS AND POSTS.

SPECIAL NOTES:

GENERALLY, IN CASE OF DISCREPANCY, THIS STANDARD SHEET OF NOTES SHALL GOVERN OVER THE SPECIFICATIONS, BUT THE REMAINDER OF THE PLANS SHALL GOVERN OVER NOTES HEREON, AND SPECIAL PROVISIONS SHALL GOVERN OVER ALL. SEE SPECIFICATIONS ARTICLE 105-4.