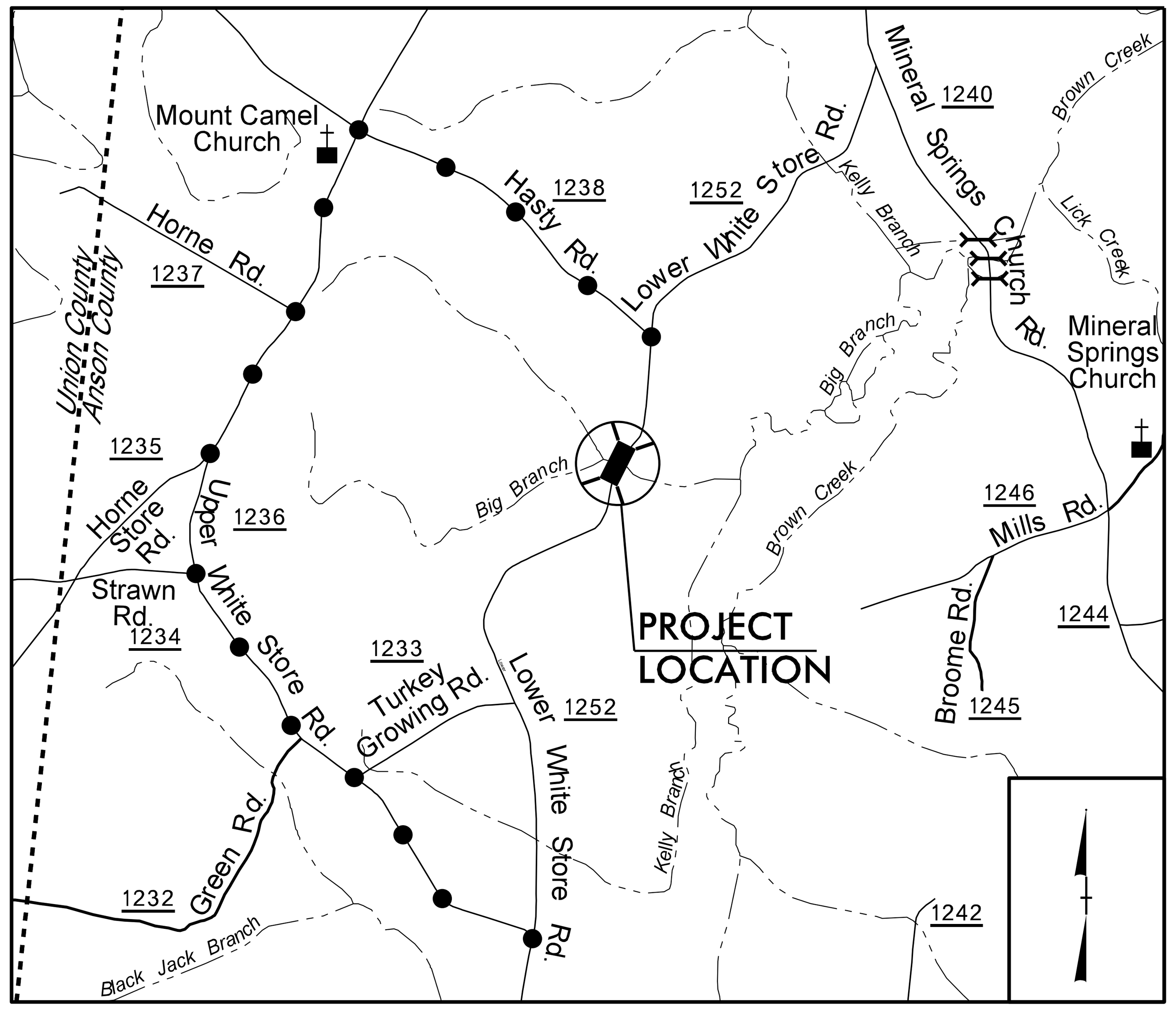
09/08/99

CONTRACT: DJ00541

T.I.P PROJECT: BP10-R052

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



DETOUR ROUTE

VICINITY MAP (NOT TO SCALE)

FINAL PLANS

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

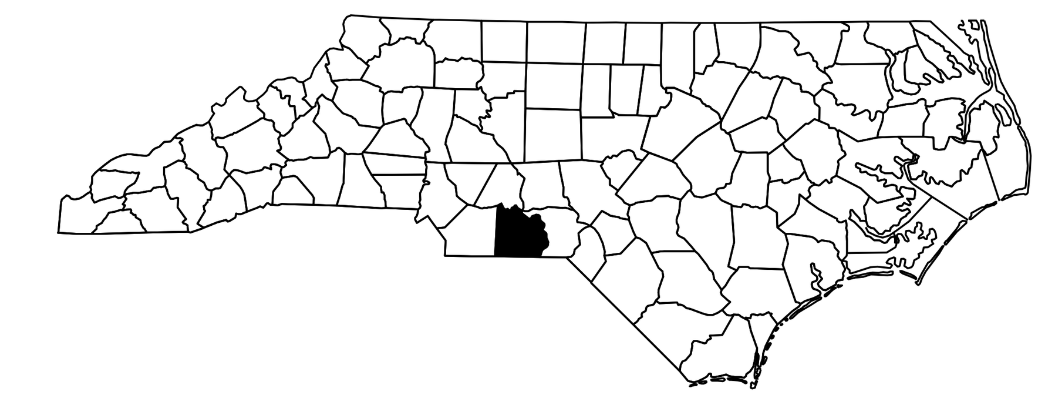
ANSON COUNTY

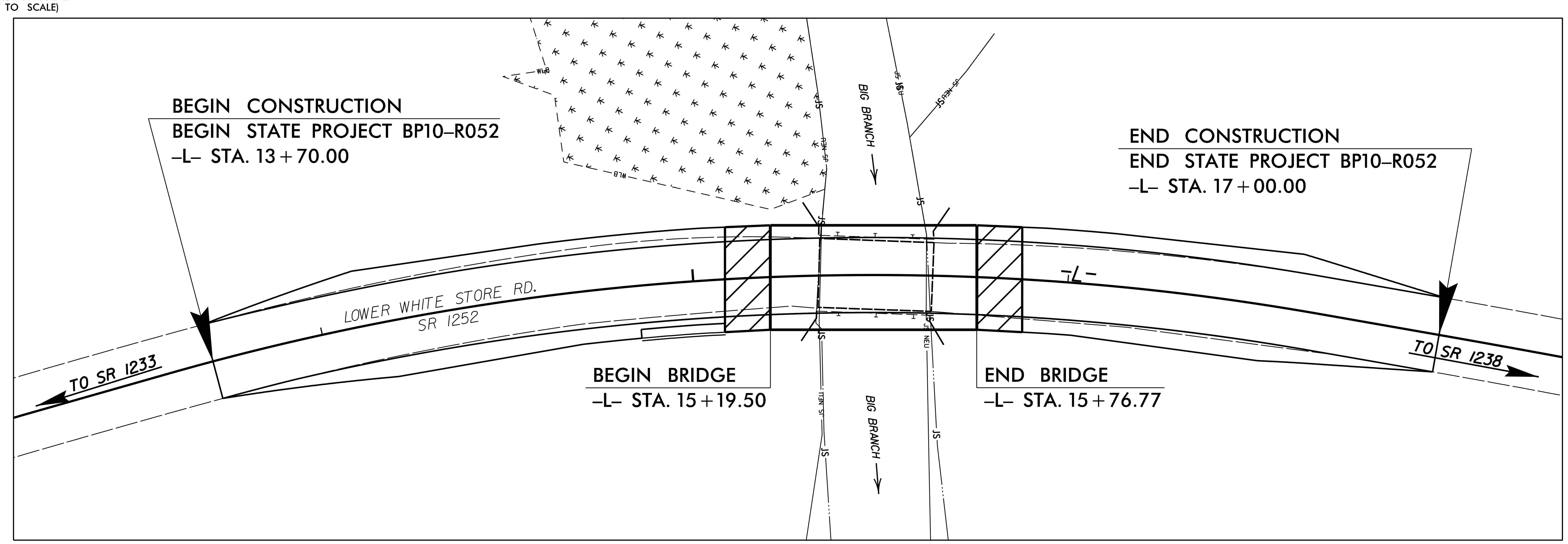
LOCATION: BRIDGE NO. 130 ON SR 1252 OVER BIG BRANCH BETWEEN SR 1233 AND SR 1238

TYPE OF WORK: GRADING, DRAINAGE, PAVING, AND STRUCTURE

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	BP10-R052	1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
BP10.R052.1		P.E.
BP10.R052.2		R/W
BP10.R052.3		CONSTRUCTION





LOCATION SKETCH

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES

20 10 0 20 40
PLANS

20 10 0 20 40
PROFILE (HORIZONTAL)

4 2 0 4 8
PROFILE (VERTICAL)

DESIGN DATA

ADT 2022 = 250
ADT =
DHV = %
D = %
T = 6 %
V = 55 MPH

FUNC CLASS =
LOCAL RURAL
SUB REGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY STATE PROJECT BP10-R052 = 0.052 MILES
LENGTH STRUCTURES STATE PROJECT BP10-R052 = 0.011 MILES
TOTAL LENGTH STATE PROJECT BP10-R052 = 0.063 MILES

NCDOT CONTACT: YANWEI MA, P.E.
DIVISION BRIDGE PROGRAM MANAGER

Prepared for the North Carolina Department of Transportation In the office of:

HDR Engineering, Inc. of the Carolinas
555 Fayetteville St, Suite 900 Raleigh, N.C. 27601
N.C.B.E.L.S. License Number: F-0116

2024 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
FEBRUARY 1, 2023

LETTING DATE:
DECEMBER 12, 2024

CHARLES A. ABERNATHY, P.E.
PROJECT ENGINEER

T. NATHAN BEDENBAUGH, P.E.
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 049135 ENGINEER TAYLOR M. CARTER

Taylor Carter 10/29/2024 P.E.
SIGNATURE:

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 041473 ENGINEER ALEXANDER D. SNIDER

Alexander D. Snider 10/29/2024 P.E.
SIGNATURE:

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

BRETT D. CANIPE, P.E.
DIVISION ENGINEER

10/24/2024
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8/17/99

PROJECT REFERENCE NO.	SHEET NO.
BP10-R052	1A

ROADWAY DESIGN ENGINEER

SEAL 041473 NORTH CAROLINA PROFESSIONAL ENGINEER ALEXANDER D. SNIDER

Alexander D. Snider 10/29/2024

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HDR Engineering, Inc. of the Carolinas
555 Fayetteville St, Suite 900 Raleigh, N.C. 27601
N.C.B.E.L.S. License Number: F-0116

INDEX OF SHEETS

EFF. 01-16-2024
REV.

2024 ROADWAY ENGLISH STANDARD DRAWINGS

The following Roadway Standards as appear in "Roadway Standard Drawings" Contracts Standards and Development Unit-N. C. Department of Transportation - Raleigh, N. C., Dated January 16, 2024 are applicable to this project and by reference hereby are considered a part of these plans:

STD.NO.	TITLE
DIVISION 2 - EARTHWORK	
200.02	Method of Clearing - Method II
225.02	Guide for Grading Subgrade - Secondary and Local
225.04	Method of Obtaining Superelevation - Two Lane Pavement
275.01	Rock Plating
DIVISION 3 - PIPE CULVERTS	
300.01	Method of Pipe Installation
DIVISION 4 - MAJOR STRUCTURES	
423.01	Bridge Approach Fills- Type 1 Approach for Bridge Abutment
DIVISION 5 - SUBGRADE, BASES AND SHOULDERS	
560.01	Method of Shoulder Construction - High Side of Superelevated Curve - Method I
DIVISION 8 - INCIDENTALS	
815.02	Subsurface Drain
840.25	Anchorage for Frames - Brick or Concrete or Precast
840.29	Frames and Narrow Slot Flat Grates
840.35	Traffic Bearing Grated Drop Inlet - for Cast Iron Double Frame and Grates
846.01	Concrete Curb, Gutter and Curb & Gutter
846.04	Drop Inlet Installation in Shoulder Berm Gutter
862.01	Guardrail Placement
862.02	Guardrail Installation
862.03	Structure Anchor Units
876.04	Drainage Ditches with Class 'B' Rip Rap

GENERAL NOTES:

2024 SPECIFICATIONS
EFFECTIVE: 01-16-2024
REVISED:

GRADE LINE:
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 II.

SUPERELEVATION:

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

SHOULDER CONSTRUCTION:

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

SUBSURFACE DRAINS:

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

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 CONTRACTORS SHOULD MAKE THEIR OWN INVESTIGATION AS TO THE SUBSURFACE CONDITIONS.

END BENTS:

THE ENGINEER SHALL CHECK THE STRUCTURE END BENT PLANS, DETAILS, AND CROSS-SECTION PRIOR TO SETTING OF THE SLOPE STAKES FOR THE EMBANKMENT OR EXCAVATION APPROACHING A BRIDGE.

RIGHT-OF-WAY MARKERS:

ALL RIGHT-OF-WAY MARKERS ON THIS PROJECT SHALL BE PLACED BY OTHERS.

04/16/11

PROJECT REFERENCE NO.	SHEET NO.
BP10-R052	1B

Note: Not to Scale

****S.U.E. = Subsurface Utility Engineering***

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

BOUNDARIES AND PROPERTY:

- State Line
- County Line
- Township Line
- City Line
- Reservation Line
- Property Line
- Existing Iron Pin — EIP
- 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
- Known Soil Contamination: Boundary or Site
- Potential Soil Contamination: Boundary or Site

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:

- Baseline Control Point
- Existing Right of Way Marker
- Existing Right of Way Line
- Proposed Right of Way Line — RW
- Proposed Right of Way Line with Iron Pin and Cap Marker — RW
- Proposed Right of Way Line with Concrete or Granite Marker — RW
- Existing Control of Access — CA
- Proposed Control of Access — CA
- Existing Easement Line — E
- Proposed Temporary Construction Easement — E
- Proposed Temporary Drainage Easement — TDE
- Proposed Permanent Drainage Easement — PDE
- Proposed Permanent Drainage / Utility Easement — DUE
- Proposed Permanent Utility Easement — PUE
- Proposed Temporary Utility Easement — TUE
- Proposed Aerial Utility Easement — AUE
- Proposed Permanent Easement with Iron Pin and Cap Marker

ROADS AND RELATED FEATURES:

- Existing Edge of Pavement
- Existing Curb
- Proposed Slope Stakes Cut — C
- Proposed Slope Stakes Fill — F
- Proposed Curb Ramp — CR
- Curb Cut Future Ramp — CCFR
- 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
- Recorded U/G Power Line — P
- Designated U/G Power Line (S.U.E.*) — P

TELEPHONE:

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

WATER:

- Water Manhole — W
- Water Meter
- Water Valve
- Water Hydrant
- Recorded U/G Water Line
- Designated U/G Water Line (S.U.E.*) — W
- Above Ground Water Line — A/G Water

TV:

- TV Satellite Dish
- TV Pedestal — C
- TV Tower
- U/G TV Cable Hand Hole — HH
- Recorded U/G TV Cable — TV
- Designated U/G TV Cable (S.U.E.*) — TV
- Recorded U/G Fiber Optic Cable — TV FO
- Designated U/G Fiber Optic Cable (S.U.E.*) — TV FO

GAS:

- Gas Valve
- Gas Meter
- Recorded U/G Gas Line — G
- Designated U/G Gas Line (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
- Recorded SS Forced Main Line — FSS
- Designated SS Forced Main Line (S.U.E.*) — FSS

MISCELLANEOUS:

- Utility Pole
- Utility Pole with Base
- Utility Located Object
- Utility Traffic Signal Box — S
- Utility Unknown U/G Line — ?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 (S.U.E.*)
- Abandoned According to Utility Records — AATUR
- End of Information — E.O.I.

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
BP10-R052	2A-1

R/W SHEET NO.

ROADWAY DESIGN ENGINEER — SEAL 041473, NORTH CAROLINA PROFESSIONAL ENGINEER, ALEXANDER D. SNIDER — Alexander D. Snider 10/23/2024

PAVEMENT ENGINEER — PAVEMENT DESIGN PROVIDED BY NCDOT

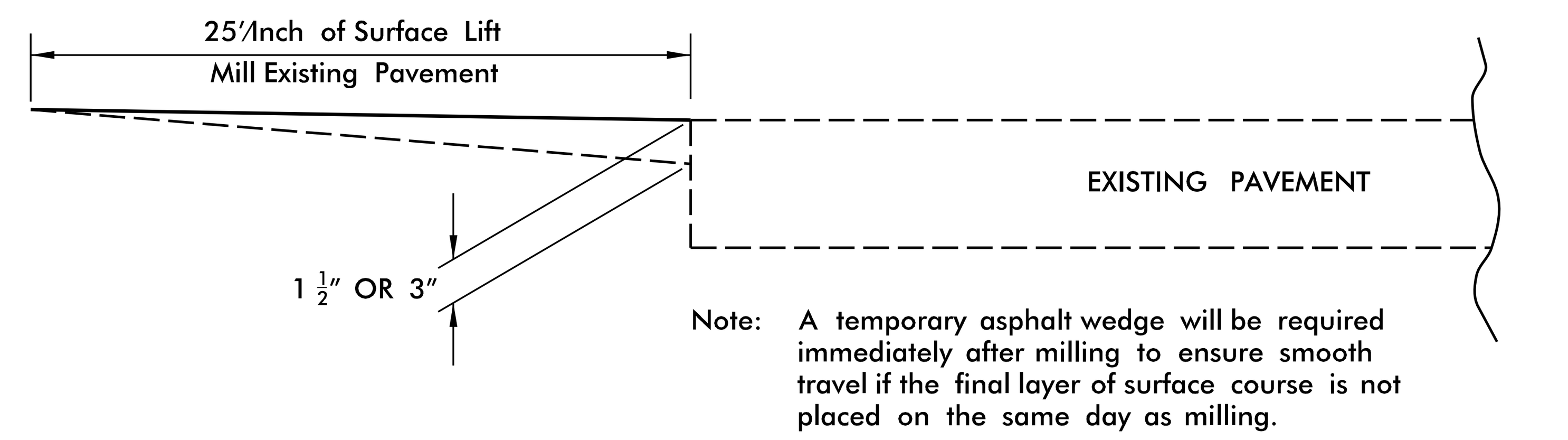
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

HDR Engineering, Inc. of the Carolinas
555 Fayetteville St, Suite 900 Raleigh, N.C. 27601
N.C.B.E.L.S. License Number: F-0116

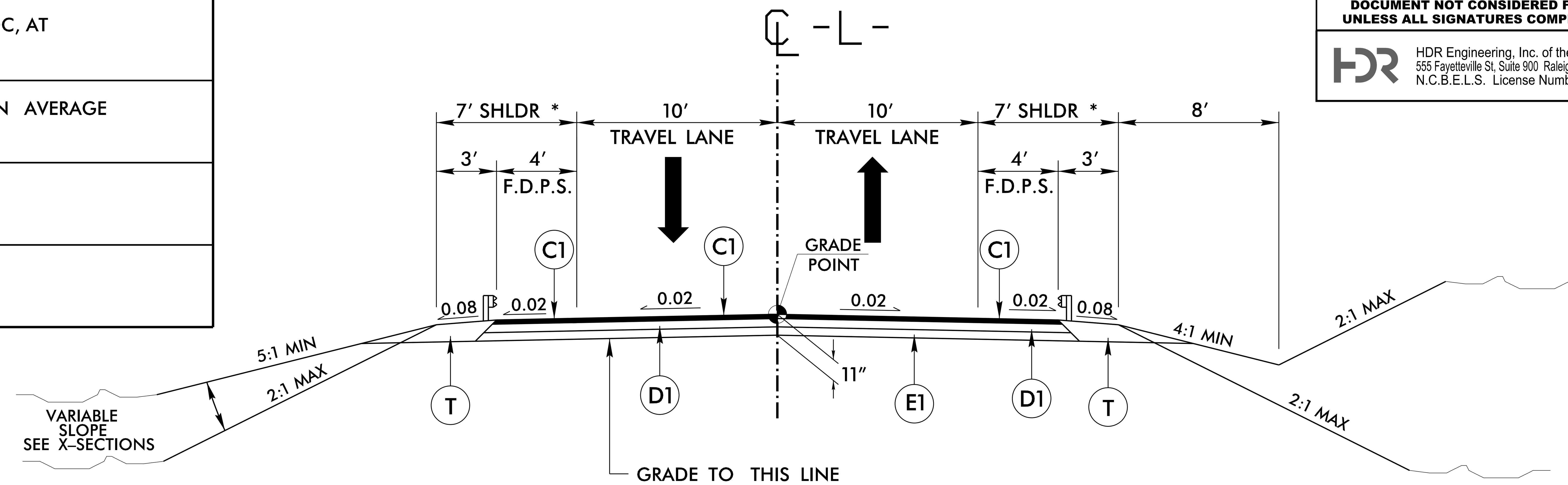
PAVEMENT SCHEDULE

C1	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQUARE YARD IN EACH OF TWO LAYERS.
C2	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 TO EXCEED 1.5" IN DEPTH.
D1	PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQUARE YARD.
E1	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQUARE YARD.
R	SHOULDER BERM GUTTER
T	EARTH MATERIAL

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



Incidental Milling Pavement Key-In Detail (Tie-In)

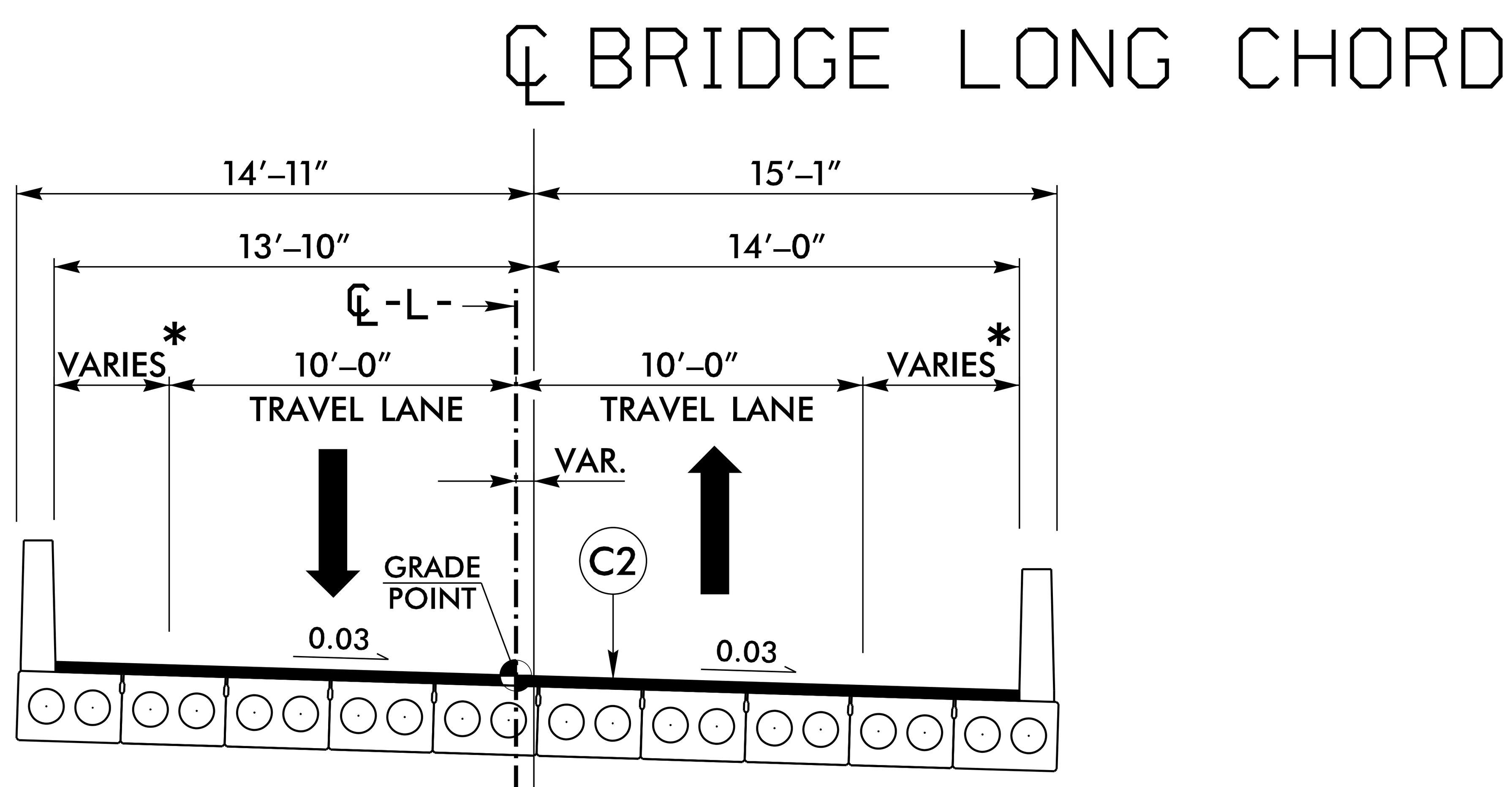


F.D.P.S. = FULL DEPTH PAVED SHOULDER

* USE 4' TOTAL TURF SHOULDER WIDTH WITHOUT GUARDRAIL

TYPICAL SECTION NO. 1

LINE	FROM STATION	TO STATION
-L-	13+70.00	15+08.61 (BEGIN APPROACH SLAB)
-L-	15+87.66 (END APPROACH SLAB)	17+00.00



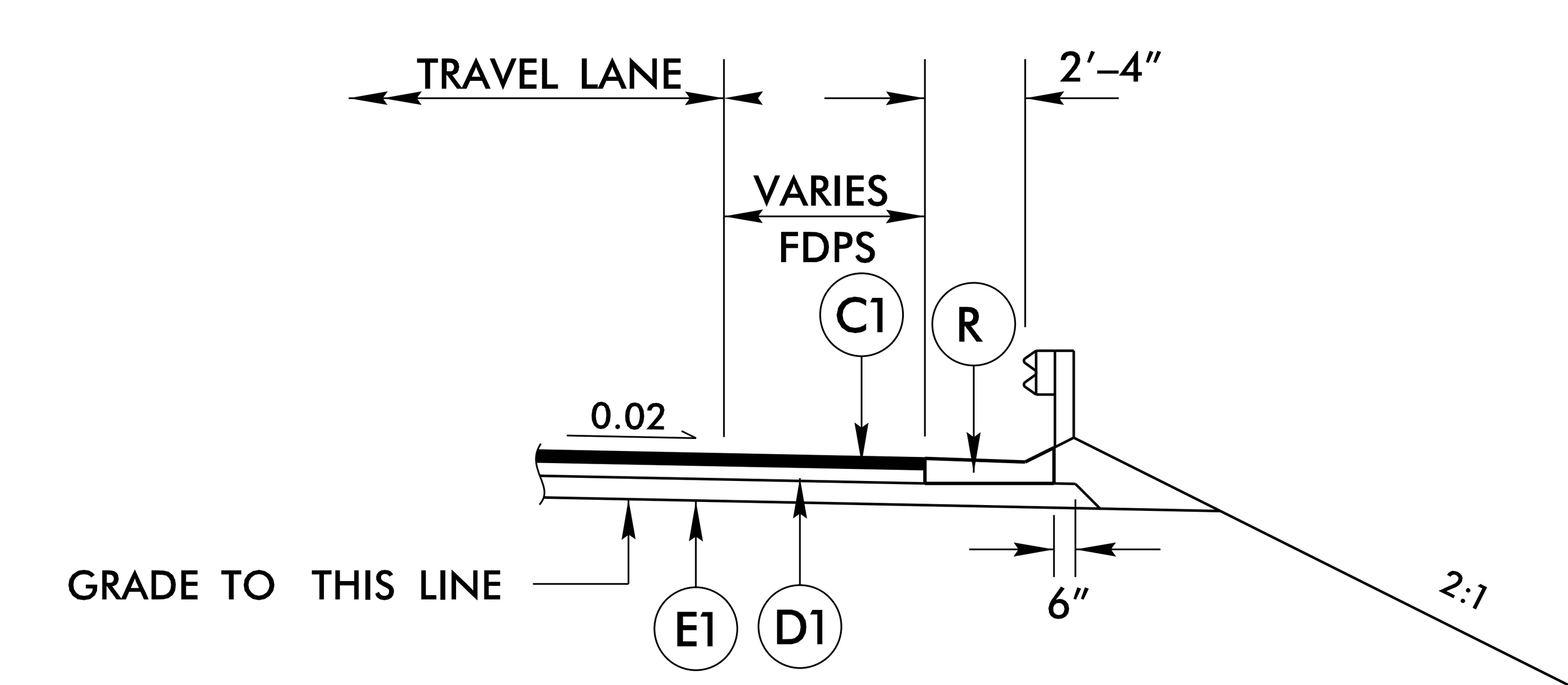
TYPICAL SECTION NO. 2

21" CORED SLAB BRIDGE

LINE	FROM STATION	TO STATION
-L-	15+19.50 (BEGIN BRIDGE)	15+76.77 (END BRIDGE)

* NOTE:
LEFT SHOULDER WIDTH ON BRIDGE VARIES FROM 3'-3" +/- TO 3'-9" +/-
RIGHT SHOULDER WIDTH ON BRIDGE VARIES FROM 4'-0" +/- TO 4'-7" +/-

SBG DETAIL



-L- STA. 14+85 RT TO 15+08 RT.

REVISIONS

10/23/2024 ...0130_RDY_TYP.DGN

6/21/00

REVISIONS

COMPUTED BY: TNB DATE: 8/15/2024
CHECKED BY: DATE:

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PROJECT REFERENCE NO.	SHEET NO.
BP10-R052	3B-1

SUMMARY OF PAVEMENT REMOVAL

IN SQUARE YARDS

LOCATION	ASPHALT REMOVAL	ASHPALT BREAK UP	CONCRETE REMOVAL	CONCRETE BREAK UP
–L– STA. 13+70.00 TO 15+33.54 (EXIST. BRIDGE)	365			
15+63.89 (EXIST. BRIDGE) TO –L– STA. 17+00.00	303			
PROJECT TOTALS	668			
SAY	670			

SUMMARY OF SHOULDER BERM GUTTER

IN LINEAR FEET

LOCATION	SIDE	LENGTH
–L– STA. 14+85.00 TO 15+08.61 (BEGIN APPROACH SLAB)	RT	22.5
PROJECT TOTALS		22.5
SAY		23

SUMMARY OF EARTHWORK

IN CUBIC YARDS

LOCATION	UNCLASSIFIED EXCAVATION	UNDERCUT	EMBT+%	BORROW	WASTE
–L– STA. 13+70.00 TO 15+19.50 (BEGIN BRIDGE)	51		65	14	
15+76.77 (END BRIDGE) TO –L– STA. 17+00.00	9		86	77	
SUBTOTAL	60		151	91	
MATERIAL FOR SHOULDER CONSTRUCTION			61	61	
EARTH WASTE IN LIEU OF BORROW					
PROJECT TOTALS	60		212	152	
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT				8	
GRAND TOTALS	60		212	160	
SAY					

EST. DDE=280 CUBIC YARDS
EST. SHALLOW UNDERCUT=100 CUBIC YARDS
CLASS IV SUBGRADE STABILIZATION=200 TONS
PER GEOTECH RECOMMENDATION, ESTIMATED 450 CUBIC YARDS OF UNDERCUT TO BE USED IN THE DISCRETION OF THE RESIDENT ENGINEER

NOTE: APPROXIMATE QUANTITIES ONLY. UNCLASSIFIED EXCAVATION, BORROW EXCAVATION, FINE GRADING, CLEARNING AND GRUBBING, AND REMOVAL OF EXISTING PAVEMENT WILL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE FOR "GRADING".

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

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

STATION / SIZE / THICKNESS OR GAUGE	LOCATION (LT,RT, OR CL)	STRUCTURE NO. FROM	STRUCTURE NO. TO	TOP ELEVATION	INVERT ELEVATION	INVERT ELEVATION	SLOPE CRITICAL	CLASS IV R.C. PIPE (UNLESS OTHERWISE NOTED) 12″	15″	18″	24″	30″	36″	42″	48″	C.S. PIPE (UNLESS NOTED OTHRWISE) 12″ .064	15″ .064	18″ .064	24″ .064	24″	30″ .079	30″	36″ .079	36″	42″ .109	42″	48″ .109	48″	CLASS III R.C. PIPE (UNLESS OTHERWISE NOTED) 12″	15″	18″	24″	30″	36″	42″	48″	15″ SIDE DRAIN PIPE	18″ SIDE DRAIN PIPE	24″ SIDE DRAIN PIPE	ENDWALLS STD. 838.01, STD. 838.11 OR STD. 838.80 (UNLESS NOTED OTHERWISE) CU. YDS. 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		D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME & 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 GRATE STD. 840.22	G.D.I. FRAME WITH TWO GRATES STD. 840.22	G.D.I. (N.S.) FRAME WITH GRATE STD. 840.24	G.D.I. (N.S.) FRAME WITH TWO GRATES STD. 840.24	J.B. STD. 840.31 OR 840.32	G.D.I. (N.S.) FRAME WITH TWO GRATES STD. 840.29	T.B.D.I. STD. 840.35						CORR. STEEL ELBOWS NO. & SIZE	CONC. COLLARS CL. "B" C.Y. STD 840.72	CONC. & BRICK PIPE PLUG, C.Y. STD. 840.71	PIPE REMOVAL LIN.FT.	REMARKS
14+87.5 RT	RT	0401		287.49																																						1																		1	1										TBDI W/NARROW SLOTS & FLAT GRATE
		0401	0402		283.49	281.8																									20																																								
TOTALS																															20											1																		1	1										

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.)	GRATED DROP INLET (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

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

"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 SHOUL. WIDTH	FLARE LENGTH		W		ANCHORS									IMPACT ATTENUATOR TYPE 350			SINGLE FACED GUARDRAIL	REMOVE EXISTING GUARDRAIL	REMOVE AND STOCKPILE EXISTING GUARDRAIL	REMARKS
				STRAIGHT	SHOP CURVED	DOUBLE FACED	APPROACH END	TRAILING END			APPROACH END	TRAILING END	APPROACH END	TRAILING END	XI MOD	XI	GREU, TL–3	M–350	XIII	CAT–1	VI MOD	TYPE III	AT–1	EA	G	NG				
–L–	14+11	15+21	LT	112.5			15+21		4	7		50		1.0			1					1								
–L–	14+18	15+20	RT	100				15+20	4	7	50		1.0				1					1								
–L–	15+75	16+61	LT	87.5				15+75	4	7	50		1.0				1					1								
–L–	15+76	16+53	RT	75			15+76		4	7		50		1.0			1					1								
		SUBTOTAL		375																										
		GREU, TL–3 @ 50'X4		–200																										
		TYPE III @ 18.75'X4		–75																										
		TOTAL		100															4					4								

10/24/2024
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COMPUTED BY: Kevin B. Miller, PG DATE: May 23, 2019
CHECKED BY: S. C. Clark, PE DATE: May 23, 2019

(5-15-18)

PROJECT NO.	SHEET NO.
BP10.R052 (SF-030130)	3G-1

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SUMMARY OF SUBSURFACE DRAINAGE

LINE	Station	Station	Location LT/RT/CL	Drain Type* UD/BD/SD	LF
CONTINGENCY				SD	200
				TOTAL LF:	200

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

SUMMARY OF GEOTEXTILE FOR PAVEMENT STABILIZATION

LINE	Station	Station	Geotextile for Pavement Stabilization SY	Class IV Subgrade Stabilization TONS
CONTINGENCY				
		TOTAL SY/TONS:	0	0*

*Total tons of "Class IV Subgrade Stabilization" is only the estimated quantity for pavement stabilization and may only represent a portion of the subgrade stabilization quantity shown in the Item Sheets of the Proposal.

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 Soil Stabilization SY	Stabilizer Aggregate TONS	Class IV Aggregate Stabilization TONS
CONTINGENCY			ASU	18	100	200	200		
				TOTAL CY/TONS/SY:	100	200**	200**	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 Soil 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 ROCK PLATING

LINE	Beginning Slope (H:V)	Approx. Station	Ending Slope (H:V)	Approx. Station	Location LT/RT	Rock Plating Detail No. 1/2/3/4	Riprap Class* 1/2/B	Rock Plating SY
							TOTAL SY:	0

*Use Class 1, 2 or B riprap if riprap class is not shown for rock plating location.

SUMMARY OF REINFORCED SOIL SLOPES AND SLOPE EROSION CONTROL

LINE	Beginning Slope/ RSS (H:V)	Approx. Station	Ending Slope/ RSS (H:V)	Approx. Station	Location LT/RT	Reinforced Soil Slope (RSS) SY	Geocells SY	Coir Fiber Mat SY	Matting for Erosion Control SY
					TOTAL SY:	0	0	0*	0**

*Total square yards of "Coir Fiber Mat" is only the estimated quantity for slopes steeper than 2:1 (H:V) and may only represent a portion of the coir fiber mat quantity shown in the Item Sheets of the Proposal.
**Total square yards of "Matting for Erosion Control" is only the estimated quantity for RSS and may only represent a portion of the matting quantity shown in the Item Sheets of the Proposal.

SUMMARY OF PRE-SPLITTING OF ROCK

LINE	Beginning Rock Cut Slope (H:V)	Approx. Station	Ending Rock Cut Slope (H:V)	Approx. Station	Location LT/RT	Pre-splitting of Rock SY
					TOTAL SY:	0

SUMMARY OF SURCHARGES AND SURCHARGE WAITING PERIODS

LINE	Station	Station	Surcharge Height FT	MONTHS

SUMMARY OF SETTLEMENT GAUGES

Gauge No.	LINE and Station	Offset	
		Distance FT	Direction LT/RT
	TOTAL GAUGES (EACH):		

SUMMARY OF EMBANKMENT WAITING PERIODS

LINE	Station	Station	MONTHS

SUMMARY OF BRIDGE WAITING PERIODS

Bridge Description	End Bent/ Bent No.	MONTHS

PROJECT REFERENCE NO.	SHEET NO.
BP10-R052	4
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER — SEAL 041473 — Alexander D. Snider — 10/29/2024

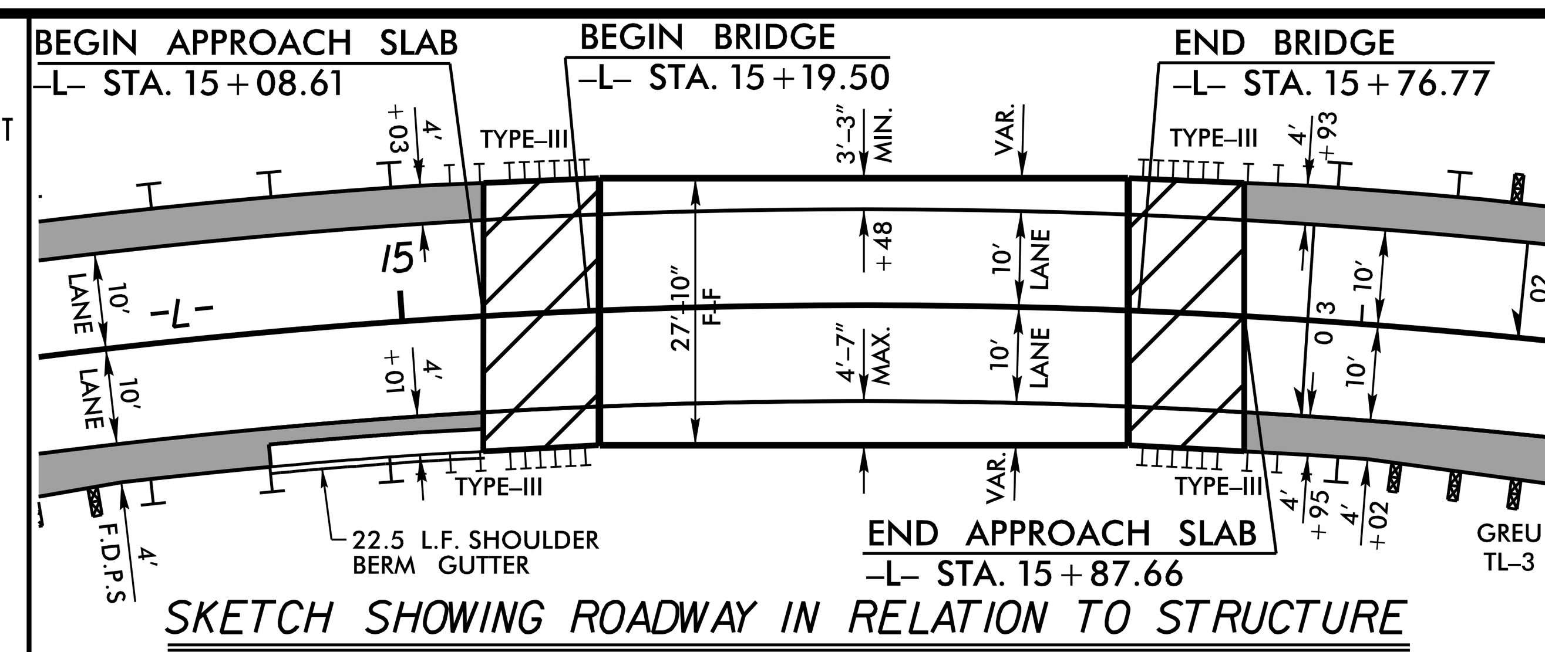
HYDRAULICS ENGINEER — SEAL 049135 — Taylor M. Carter — 10/29/2024

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

HDR Engineering, Inc. of the Carolinas
555 Fayetteville St, Suite 900 Raleigh, N.C. 27601
N.C.B.E.L.S. License Number: F-0116

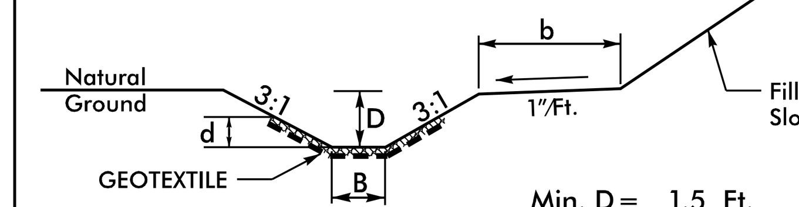
DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY OTHERS FOR MONUMENT "030130-2"
WITH NAD 83/NA 2011 STATE PLANE GRID COORDINATES OF
NORTHING: 436958.600(ft) EASTING: 1618744.900(ft)
ELEVATION: 323.08(ft)
THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: .99988333
THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "030130-2" TO -L- 13+70.00 STATION IS
N 10° 4' 8.60" E 662.63'
ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
VERTICAL DATUM USED IS NAVD 88



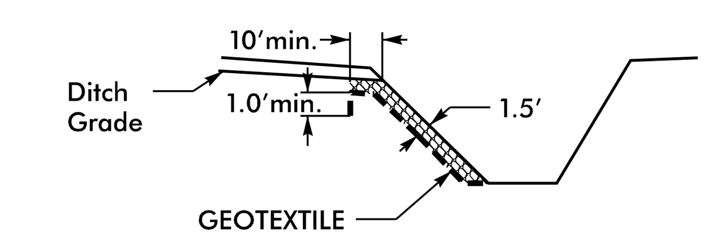
SKETCH SHOWING ROADWAY IN RELATION TO STRUCTURE

DETAIL B
LATERAL BASE DITCH (Not to Scale)



*When B is < 6.0'
Type of Liner = Class "B" Rip-Rap
Min. D = 1.5 Ft.
Max. d = 1.5 Ft.
B = 4 Ft.
b = 5 Ft.
FROM STA. 15+62 LT -L- TO STA. 16+75 LT -L-

DETAIL D
RIP RAP AT EMBANKMENT (Not to Scale)

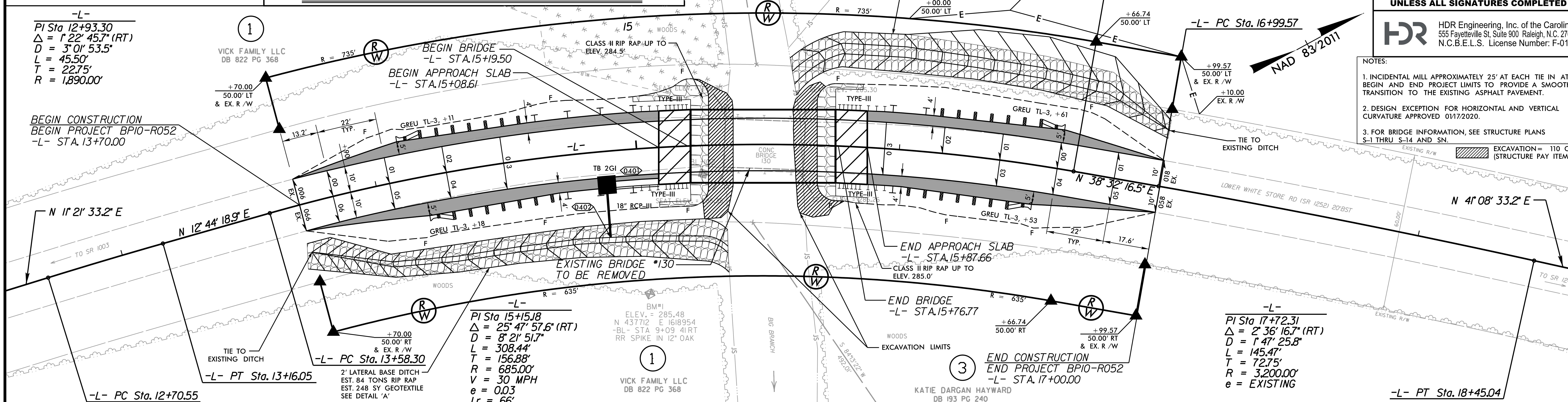


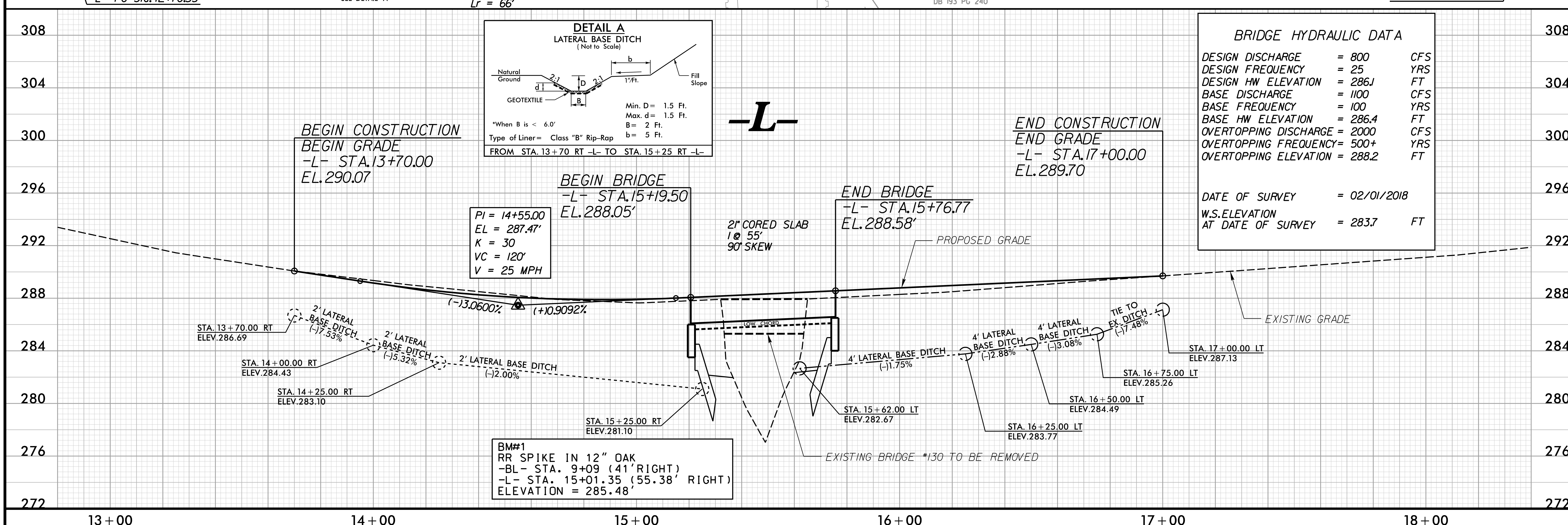
Type of Liner = Class I Rip-Rap
FROM STA. 15+25 RT TO STA. 15+35 RT
FROM STA. 15+60 LT TO STA. 15+70 LT

NOTES:

1. INCIDENTAL MILL APPROXIMATELY 25' AT EACH TIE IN AT BEGIN AND END PROJECT LIMITS TO PROVIDE A SMOOTH TRANSITION TO THE EXISTING ASPHALT PAVEMENT.
2. DESIGN EXCEPTION FOR HORIZONTAL AND VERTICAL CURVATURE APPROVED 01/17/2020.
3. FOR BRIDGE INFORMATION, SEE STRUCTURE PLANS S-1 THRU S-14 AND SN.

EXCAVATION = 110 CY (STRUCTURE PAY ITEM)





DETAIL A
LATERAL BASE DITCH (Not to Scale)

*When B is < 6.0'
Type of Liner = Class "B" Rip-Rap
Min. D = 1.5 Ft.
Max. d = 1.5 Ft.
B = 2 Ft.
b = 5 Ft.
FROM STA. 13+70 RT -L- TO STA. 15+25 RT -L-

BRIDGE HYDRAULIC DATA

DESIGN DISCHARGE	= 800	CFS
DESIGN FREQUENCY	= 25	YRS
DESIGN HW ELEVATION	= 286.1	FT
BASE DISCHARGE	= 1100	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 286.4	FT
OVERTOPPING DISCHARGE	= 2000	CFS
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING ELEVATION	= 288.2	FT
DATE OF SURVEY	= 02/01/2018	
W.S.ELEVATION AT DATE OF SURVEY	= 283.7	FT

BM#1
RR SPIKE IN 12" OAK
-BL- STA. 9+09 (41'RIGHT)
-L- STA. 15+01.35 (55.38' RIGHT)
ELEVATION = 285.48'

REVISIONS

8/17/99

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: KBRINKLEY DATE: 10/23/2024 TIME: 4:23:29 PM
FILE: \

09/08/59

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	03-0130	RW01	6

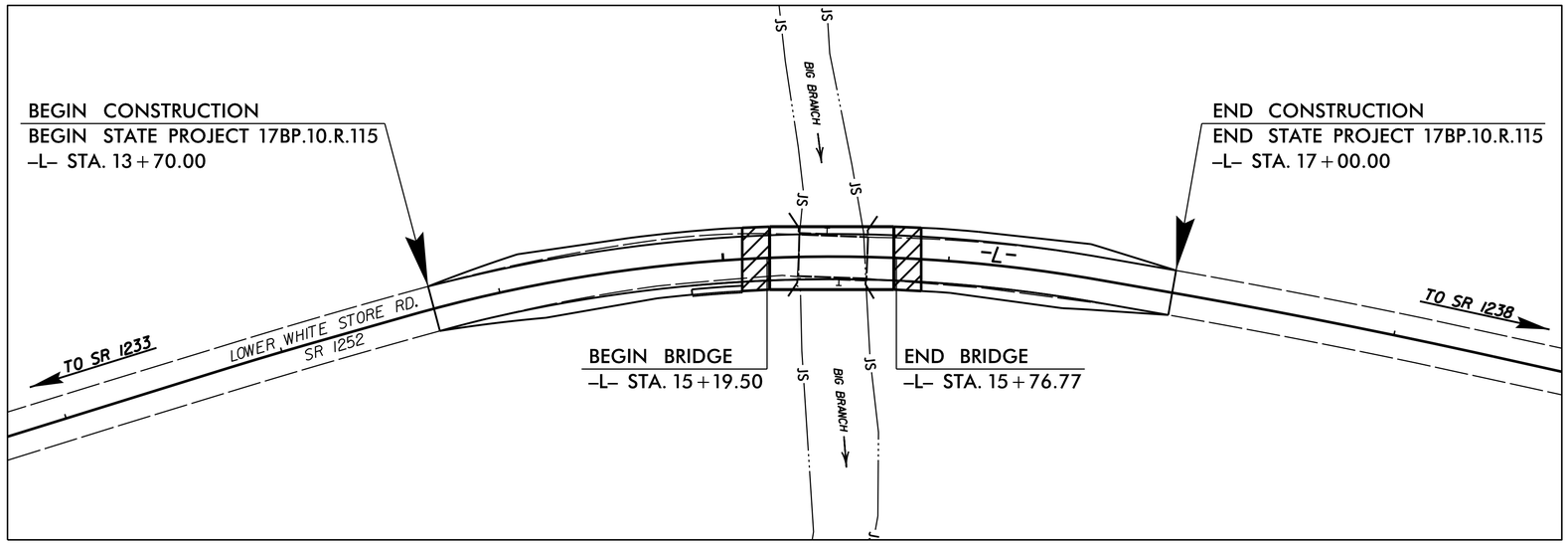
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

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

ANSON COUNTY

TIP PROJECT: 03-0130

NAD 83/
NA 2011



GRAPHIC SCALE

50 25 0 50 100
PLANS

DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT
IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY
NCDOT FOR MONUMENT "030130-2"
WITH NAD 83/NSRS XXXX STATE PLANE GRID COORDINATES OF
NORTHING: 436,958.600(ft) EASTING: 1,618,744.900(ft)
ELEVATION: 323.08(ft)
THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT
(GROUND TO GRID) IS: 0.99988333
THE N.C. LAMBERT GRID BEARING AND
LOCALIZED HORIZONTAL GROUND DISTANCE FROM
"030130-2" TO -L- STATION 13+70.00 IS
N 10-04'8.60" E 662.63(ft)
ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
VERTICAL DATUM USED IS NAVD 88

Prepared In the Office of:

STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:	*LETTING DATE:*
APRIL 4, 2019	OCTOBER 9, 2019

PROFESSIONAL LAND SURVEYOR

NORTH CAROLINA PROFESSIONAL SEAL L-3255 LAND SURVEYOR DENNIS W. STAPLES

DocuSigned by:
Dennis W. Stapler, PE, PLS 7/29/2019
SIGNATURE: *Date:*

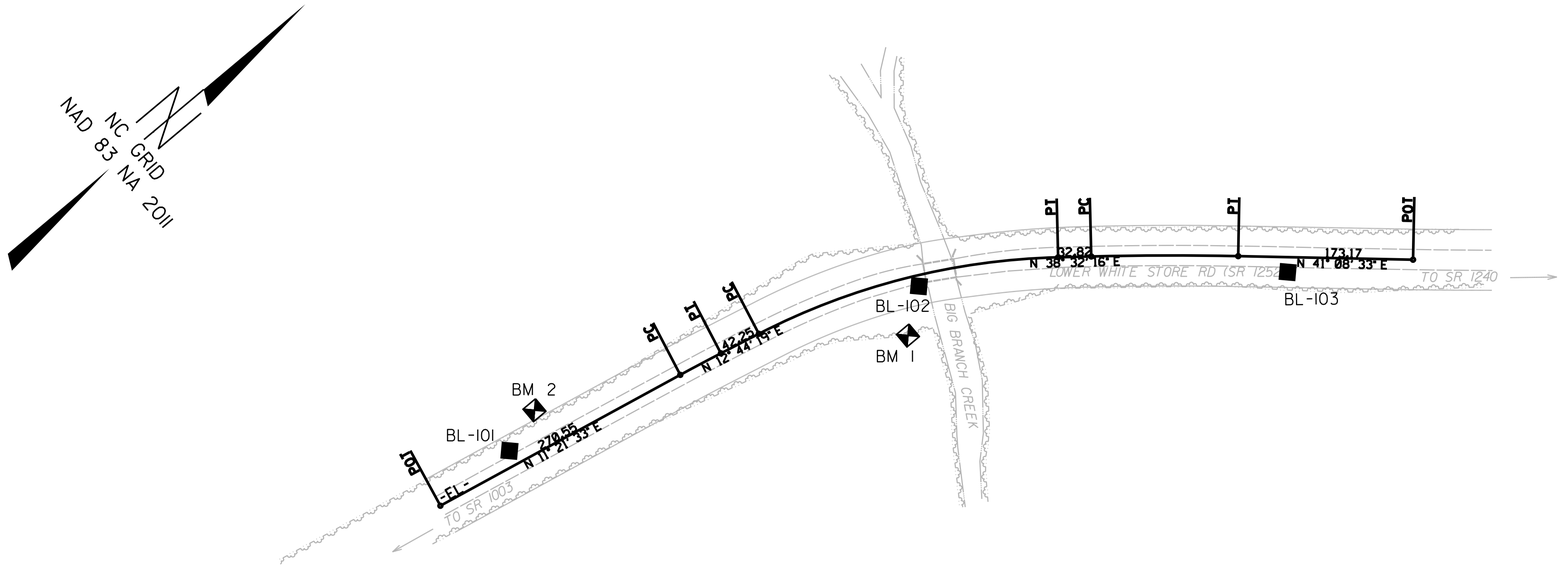
STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION

$$$$SYSTIME$$$$
$$$$USERNAME$$$$
$$$$DGN$$$$

PROJECT REFERENCE NO.	SHEET NO.
03-0130	RW02C-1
Location and Surveys	

SURVEY CONTROL SHEET

W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION



030130-2

030130-1

NOTES:

1. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
2. THE SURVEY 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.

REVISIONS 6/2/99

27-JUN-2019 10:26
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aedwards
AT_LSD10-299080

PROJECT REFERENCE NO.	SHEET NO.
03-0130	RW02C-2
Location and Surveys	

SURVEY CONTROL SHEET

W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

BL

POINT	DESC.	NORTH	EAST	ELEVATION
101	BL-101	437335.9710	1618788.1390	301.56
102	BL-102	437751.3610	1618923.7040	286.75
103	BL-103	438040.0870	1619147.5390	291.99

****
BM1 ELEVATION = 285.48
N 437712 E 1618954
RR SPIKE IN 12" OAK
****
BM2 ELEVATION = 302.19
N 437381 E 1618773
RR SPIKE IN 8" OAK
****

EL

POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	437248.682	1618785.973							
LINE			N 11°21'33.2" E	270.55					
PC	437513.928	1618839.260							
CURVE			N 12°02'56.0" E	45.50	01°22'45.7"(RT)	03°01'53.5"	45.50	22.75	1890.00
PT	437558.425	1618848.757							
LINE			N 12°44'18.9" E	42.25					
PC	437599.639	1618858.074							
CURVE			N 25°38'17.7" E	305.84	25°47'57.6"(RT)	08°21'51.7"	308.44	156.88	685.00
PT	437875.371	1618990.410							
LINE			N 38°32'16.5" E	32.82					
PC	437901.044	1619010.858							
CURVE			N 39°50'24.8" E	145.46	02°36'16.7"(RT)	01°47'25.8"	145.47	72.75	3200.00
PT	438012.731	1619104.046							
LINE			N 41°08'33.2" E	173.17					
POT	438143.142	1619217.981							

NOTES:

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

2. THE SURVEY 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.

REVISIONS

6/2/99

02-JUL-2019 10:23
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aaedwards AT LS010_299080

PROPOSED ALIGNMENT CONTROL SHEET

L

TYPE	STATION	NORTH	EAST
POT	10+00.00	437248.6820	1618785.9730
PC	12+70.55	437513.9280	1618839.2595
PT	13+16.05	437558.4254	1618848.7574
PC	13+58.30	437599.6386	1618858.0744
PT	16+66.74	437875.3711	1618990.4097
PC	16+99.57	437901.0439	1619010.8585
PT	18+45.04	438012.7313	1619104.0458
POT	20+18.21	438143.1417	1619217.9807

NOTES:

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

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

REVISIONS

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aaedwards AT LS010-299080

6/2/99

6/2/99

PROJECT REFERENCE NO.	SHEET NO.
03-0130	RW03E-1
Location and Surveys	

RIGHT OF WAY CONTROL SHEET

REVISIONS

ROW MARKER IRON PIN AND CAP

ALIGN	STATION	OFFSET	NORTH	EAST
L	13+70.00	50.00	437599.1719	1618909.3256
L	13+70.00	30.18	437603.8716	1618890.0719
L	13+70.00	-50.00	437622.8849	1618812.1778
L	13+70.00	-29.83	437618.1009	1618831.7769
L	16+66.74	50.00	437844.2195	1619029.5195
L	16+66.74	-50.00	437906.5227	1618951.2999
L	16+99.57	50.00	437869.8923	1619049.9683
L	16+99.57	30.26	437882.1937	1619034.5243
L	16+99.57	-29.74	437919.5756	1618987.5925
L	16+99.57	-50.00	437932.1955	1618971.7487

I, Dennis W. Staples, a Professional Land Surveyor in the state of North Carolina hereby certify to the best of my knowledge and belief that the following work item(s) (R/W Staking) performed under my responsible charge meets NCDOT Survey Standards as directed in the NCDOT Location & Surveys guidelines and procedures.

I further certify that the right of way and permanent easement points shown herein and outlined in the tables shown hereon (localized coordinates, station/offset) have been checked and are accurate representations of the right of way and permanent easement points depicted on the corresponding highway plans. I also certify that the right of way and permanent easement points shown herein have been field monumented under my supervision from existing survey control provided by others; that the depicted property data shown herein were surveyed by others; and these monuments denote the right of way and easement boundaries at the time of staking which may be subject to change due to right of way revisions (See deeds for final determination).

Witness my original signature, registration number and seal this 29th day of July, 2019.

DocuSigned by:
Dennis W. Staples, PE, PLS
Professional Land Surveyor — L-3255 PLS #

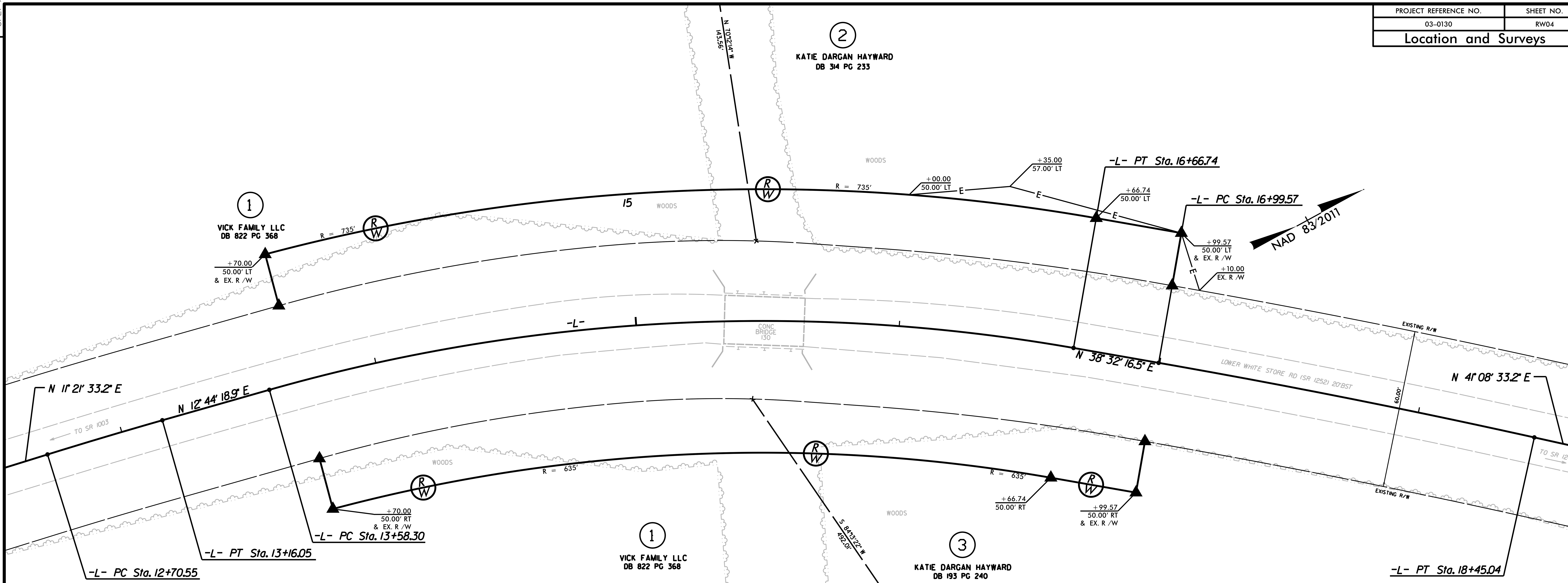
NORTH CAROLINA PROFESSIONAL SEAL L-3255 LAND SURVEYOR DENNIS W. STAPLES

NOTES:

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

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

PROJECT REFERENCE NO.	SHEET NO.
03-0130	RW04
Location and Surveys	



REVISIONS

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Witness my original signature, registration number and seal this 29th day of July, 2019.

DocuSigned by: Dennis W. Staples, PE, PLS
Professional Land Surveyor — L-3255 PLS #

NORTH CAROLINA PROFESSIONAL SEAL L-3255 LAND SURVEYOR DENNIS W. STAPLES

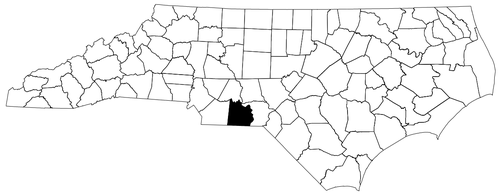
NOTES:

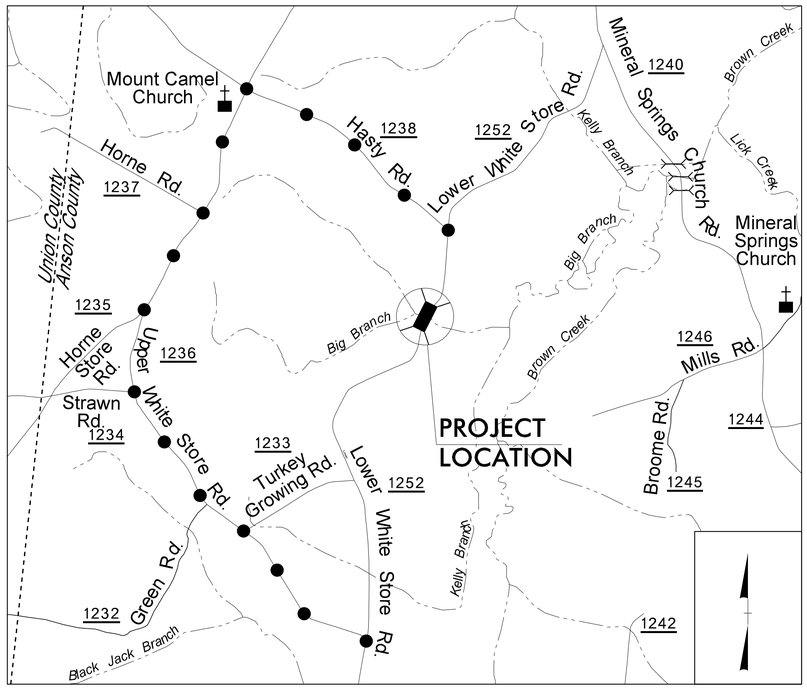
1. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.
2. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

ANSON COUNTY





DETOUR ROUTE

VICINITY MAP
(NOT TO SCALE)

INDEX OF SHEETS

SHEET NO.
TMP-1

BP10–R052

TIP PROJECT:

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

N.C.D.O.T. WORK ZONE TRAFFIC CONTROL
1561 MAIL SERVICE CENTER (MSC) RALEIGH, NC 27699-1561
750 N. GREENFIELD PARKWAY, GARNER, NC 27529 (DELIVERY)
PHONE: (919) 773-2800 FAX: (919) 771-2745

J. HUMMER, P.E. — STATE TRAFFIC MANAGEMENT ENGINEER
ZACHARY CLARK, P.E. — TRAFFIC CONTROL PROJECT ENGINEER
_____ — TRAFFIC CONTROL PROJECT DESIGN ENGINEER
_____ — TRAFFIC CONTROL DESIGN ENGINEER

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

PLAN PREPARED BY:
HDR Engineering, Inc. of the Carolinas
555 Fayetteville St, Suite 900 Raleigh, N.C. 27601
N.C.B.E.L.S. License Number: F-0116

MICHELLE WARD, P.E. — TRAFFIC CONTROL PROJECT ENGINEER
_____ — TRAFFIC CONTROL PROJECT DESIGN ENGINEER
T. NATHAN BEDENBAUGH, P.E. — TRAFFIC CONTROL DESIGN ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

APPROVED: Ben Schoenbauer

DATE: 10/29/2024

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 035496 ENGINEER BENJAMIN SCHOENBAUER

PLOT DRIVER: $PLTDRVS$ PENTABLE: $PENTBLS$
USER: $USER$ DATE: $DATE$ TIME: $TIME$
FILE: $PWVARVAULTPATHDESC$

PROJ. REFERENCE NO.	SHEET NO.
BP10-R052	TMP-1A

HDR Engineering, Inc. of the Carolinas
555 Fayetteville St, Suite 900 Raleigh, N.C. 27601
N.C.B.E.L.S. License Number: F-0116

ROADWAY STANDARD DRAWINGS

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

STD. NO.	TITLE
1101.01	WORK ZONE ADVANCE WARNING SIGNS
1101.03	TEMPORARY ROAD CLOSURES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1145.01	BARRICADES

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

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

SIGNALS

EXISTING PROPOSED TEMPORARY (TEMP)

PAVEMENT MARKINGS

- EXISTING LINES
- TEMPORARY LINES

PAVEMENT MARKERS

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

PAVEMENT MARKING SYMBOLS

PAVEMENT MARKING SYMBOLS

APPROVED: Ben Schoenbauer

DATE: 10/29/2024

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 035496 ENGINEER BENJAMIN SCHOENBAUER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

ROADWAY STANDARD DRAWINGS & LEGEND

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PROJ. REFERENCE NO.	SHEET NO.
BP10-R052	TMP-1B

HDR Engineering, Inc. of the Carolinas
555 Fayetteville St, Suite 900 Raleigh, N.C. 27601
N.C.B.E.L.S. License Number: F-0116

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 OR 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.

TRAFFIC PATTERN ALTERATIONS

A) NOTIFY THE ENGINEER FOURTEEN (14) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

SIGNING

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

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 OFFSITE DETOUR ROUTE AS SHOWN IN THE TRAFFIC CONTROL PLANS.

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

COVER OR REMOVE ALL SIGNS REQUIRED FOR THE OFFSITE 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.

PHASING NOTES

TRAFFIC CONTROL PHASING

NOTE: COORDINATE WITH THE ENGINEER FOR INSTALLATION AND REMOVAL OF ALL SIGNING AND TRAFFIC CONTROL DEVICES.

NOTE: MAINTAIN ACCESS TO DRIVEWAYS WITHIN PROJECT LIMITS AT ALL TIMES.

STEP 1: USING RSD 1101.01, SHEET 3 OF 3, INSTALL ADVANCE WORK ZONE WARNING SIGNS ON LOWER WHITE STORE RD. (SR 1252).

STEP 2: USING RSD 1101.03, SHEET 1 OF 9 AND SHEET TMP-2, INSTALL DETOUR SIGNS AND BARRICADES AND CLOSE LOWER WHITE STORE RD. (SR 1252).

STEP 3: REMOVE EXISTING BRIDGE NO. 130 AND THEN CONSTRUCT PROPOSED BRIDGE AND ROADWAY, UP TO AND INCLUDING THE FINAL LAYER OF SURFACE COURSE. UPON COMPLETION OF PROPOSED BRIDGE AND ROADWAY, INSTALL FINAL PAVEMENT MARKINGS AND MARKERS. (SEE FINAL PAVEMENT MARKING PLANS).

STEP 4: REMOVE ALL WORK ZONE TRAFFIC CONTROL DEVICES AND OPEN LOWER WHITE STORE RD. (SR 1252) TO TRAFFIC.

APPROVED: Ben Schoenbauer

DATE: 10/29/2024

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 035496 ENGINEER BENJAMIN SCHOENBAUER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

GENERAL NOTES AND PHASING

REVISIONS

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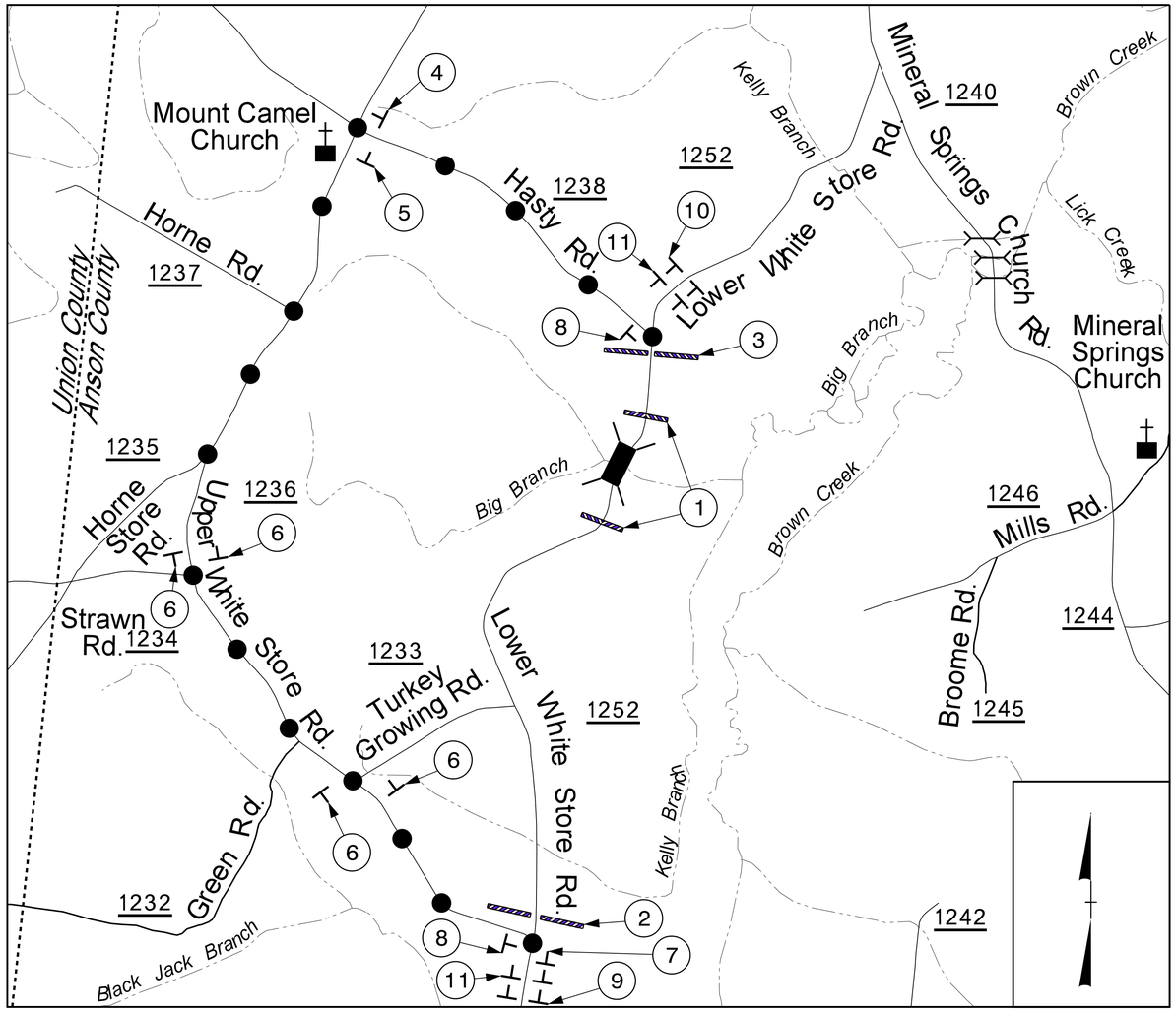
PROJ. REFERENCE NO.	SHEET NO.
BP10-R052	TMP-2

HDR Engineering, Inc. of the Carolinas
555 Fayetteville St, Suite 900 Raleigh, N.C. 27601
N.C.B.E.L.S. License Number: F-0116



DETOUR ROUTE

REFER TO RSD 1101.03 SHEET 1 OF 9 FOR
ADDITIONAL SIGN AND BARRICADE PLACEMENT DETAILS

SEE SHEET SD-01 FOR SPECIAL SIGN DESIGN DETAIL

1 — R11-2, 48″ x 30″, ROAD CLOSED — TYPE III BARRICADE(S)

2 — R11-3, 60″ x 30″, ROAD CLOSED 2 MILES AHEAD LOCAL TRAFFIC ONLY, DETOUR — M4-10L, 48″ x 18″ — TYPE III BARRICADE

3 — R11-4, 60″ x 30″, ROAD CLOSED TO THRU TRAFFIC, DETOUR — M4-10R, 48″ x 18″ — TYPE III BARRICADE

4 — LOWER WHITE STORE ROAD, SD-01, 54″ x 36″; DETOUR, M4-8, 24″ x 12″; M6-1, 21″ x 15″

5 — LOWER WHITE STORE ROAD, SD-01, 54″ x 36″; DETOUR, M4-8, 24″ x 12″; M6-1, 21″ x 15″

6 — LOWER WHITE STORE ROAD, SD-01, 54″ x 36″; DETOUR, M4-8, 24″ x 12″; M6-3, 21″ x 15″

7 — LOWER WHITE STORE ROAD, SD-01, 54″ x 36″; DETOUR, M4-8, 24″ x 12″; M6-2 L, 21″ x 15″

8 — LOWER WHITE STORE ROAD, SD-01, 54″ x 36″; END DETOUR, M4-8 A, 24″ x 18″

9 — ROAD CLOSED AHEAD, W20-3, 48″ x 48″; 2.3 MILES, W16-3P, 24″ x 24″

10 — ROAD CLOSED AHEAD, W20-3, 48″ x 48″; 0.8 MILES, W16-3P, 24″ x 24″

11 — DETOUR AHEAD, W20-2, 48″ x 48″

APPROVED: Ben Schoenbauer

DATE: 10/29/2024

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 035496 ENGINEER BENJAMIN SCHOENBAUER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

OFF-SITE DETOUR ROUTE DETAILS

REVISIONS

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PROJ. REFERENCE NO.	SHEET NO.
BP10-R052	TMP-3

HDR Engineering, Inc. of the Carolinas
555 Fayetteville St, Suite 900 Raleigh, N.C. 27601
N.C.B.E.L.S. License Number: F-0116

SIGN NUMBER: SP-03
TYPE: STATIONARY
QUANTITY: SEE PLANS

SIGN WIDTH: 4′-6″
HEIGHT: 3′-0″
TOTAL AREA: 13.5 Sq.Ft.

BORDER TYPE: INSET
RECESS: 0.63″
WIDTH: 0.88″
RADII: 2.25″

BACKG COLOR: Fluorescent Orange
COPY COLOR: Black

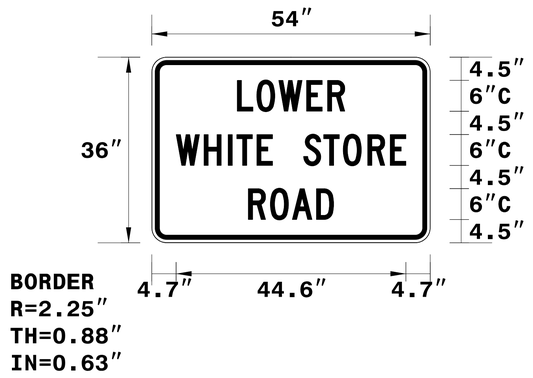
SYMBOL	X	Y	WID	HT

MAT′L: 0.080″ (2.0 mm) ALUMINUM

USE NOTES: 1,2

1. Legend and border shall be direct applied black non-reflective sheeting.
2. Background shall be NC GRADE B fluorescent orange retroreflective sheeting.

DESIGN BY: R Drayton
PROJECT ID: BP10-R052
CHECKED BY: M RZEPKA
Nov 21, 2018
DIV: 10



Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter spacings are to start of next letter

																										Series/Size Text Length
		L	O	W	E	R																				C 2000
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		W	H	I	T	E		S	T	O	R	E														C 2000
	4.7	5.4	4.7	1.7	3.9	3.1	6	3.9	3.8	4.7	4.4	3.1	4.7													44.6
		R	O	A	D																					C 2000
	18.7	4.3	4.3	4.7	3.4	18.7																				16.6

FILENAME: Guidsign_Division10

NORTH CAROLINA D.O.T. SIGN DETAIL

APPROVED BY: Mike Rzepka
DATE: 10/29/2024
SEAL

NORTH CAROLINA PROFESSIONAL SEAL 15876 ENGINEER MICHAEL T RZEPKA

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

SPECIAL SIGN DESIGN

REVISIONS

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DATE: $DATE$ TIME: $TIME$ PENTABLE: $PENTBLS$

TIP PROJECT NO.: BP10-R052

PROJECT NO.	SHEET NO.
BP10-R052	PMP-1

APPROVED: Mike Rzepka

DATE: 10/29/2024

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 15876 ENGINEER MICHAEL T. RZEPKA

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING PLAN

ANSON COUNTY

LOCATION: BRIDGE NO. 130 ON SR 1252 OVER BIG BRANCH BETWEEN SR 1233 AND SR 1238

INDEX

ROADWAY STANDARD DRAWING

THE FOLLOWING ROADWAY STANDARDS AS APPEAR 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
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO-LANE AND MULTI-LANE ROADWAYS
1205.12	PAVEMENT MARKINGS - BRIDGES
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - PERMANENT AND TEMPORARY
1261.01	GUARDRAIL AND BARRIER DELINEATORS - INSTALLATION SPACING
1261.02	GUARDRAIL AND BARRIER DELINEATORS - TYPES AND MOUNTING
1262.01	GUARDRAIL END DELINEATION

GENERAL NOTES

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

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

ROAD NAME	MARKING	MARKER
-L- SR 1252	THERMOPLASTIC	PERMANENT RAISED

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

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

PLAN SUBMITTED TO: N.C.D.O.T. SIGNING AND DELINEATION UNIT

_____ SIGNING & DELINEATION STANDARDS ENGINEER

_____ SIGNING & DELINEATION PROJECT DESIGN ENGINEER

STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION ·

PLAN PREPARED BY: HDR ENGINEERING, INC. OF THE CAROLINAS

MIKE RZEPKA, P.E. SIGNING & DELINEATION PROJECT DESIGN ENGINEER

CHRIS HARNDEN SIGNING & DELINEATION PROJECT DESIGN TECHNICIAN

HDR Engineering, Inc. of the Carolinas
555 Fayetteville St, Suite 900 Raleigh, N.C. 27601
N.C.B.E.L.S. License Number: F-0116

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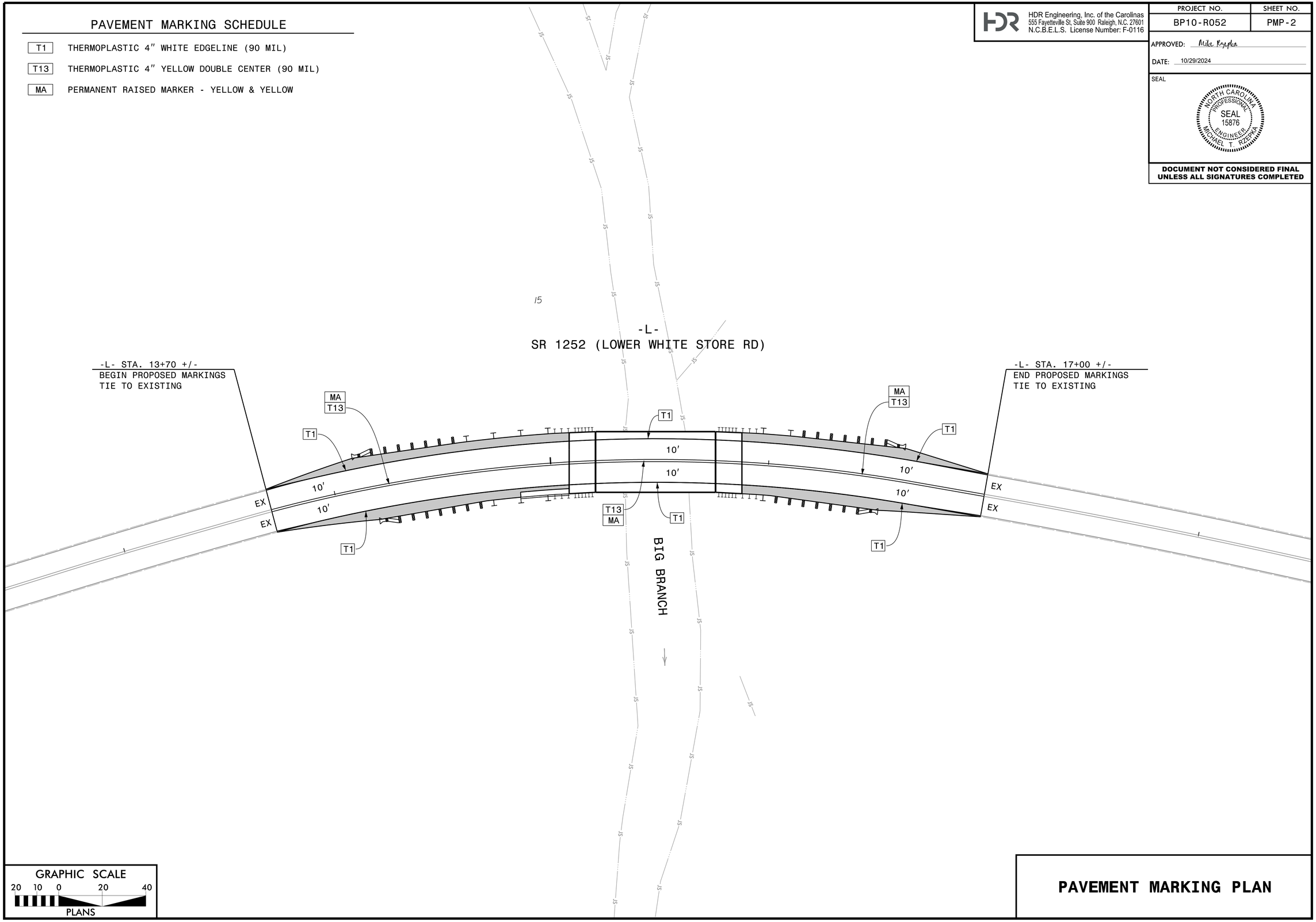
PAVEMENT MARKING SCHEDULE

T1	THERMOPLASTIC 4″ WHITE EDGELINE (90 MIL)
T13	THERMOPLASTIC 4″ YELLOW DOUBLE CENTER (90 MIL)
MA	PERMANENT RAISED MARKER - YELLOW & YELLOW



GRAPHIC SCALE
20 10 0 20 40
PLANS

PAVEMENT MARKING PLAN

HDR Engineering, Inc. of the Carolinas
555 Fayetteville St, Suite 900 Raleigh, N.C. 27601
N.C.B.E.L.S. License Number: F-0116

PROJECT NO.	SHEET NO.
BP10-R052	PMP-2

APPROVED: Mike Rzepka
DATE: 10/29/2024

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 15876 ENGINEER MICHAEL T. RZEPKA

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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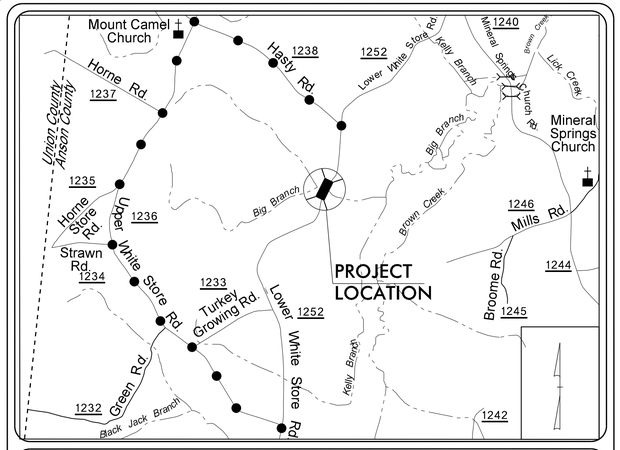
TIP PROJECT: BP10–R052



VICINITY MAP
NOT TO SCALE
DETOUR ROUTE

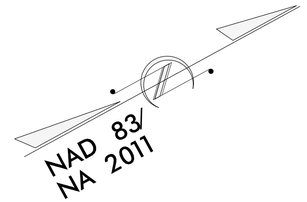
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	BP10-R052	EC-1	

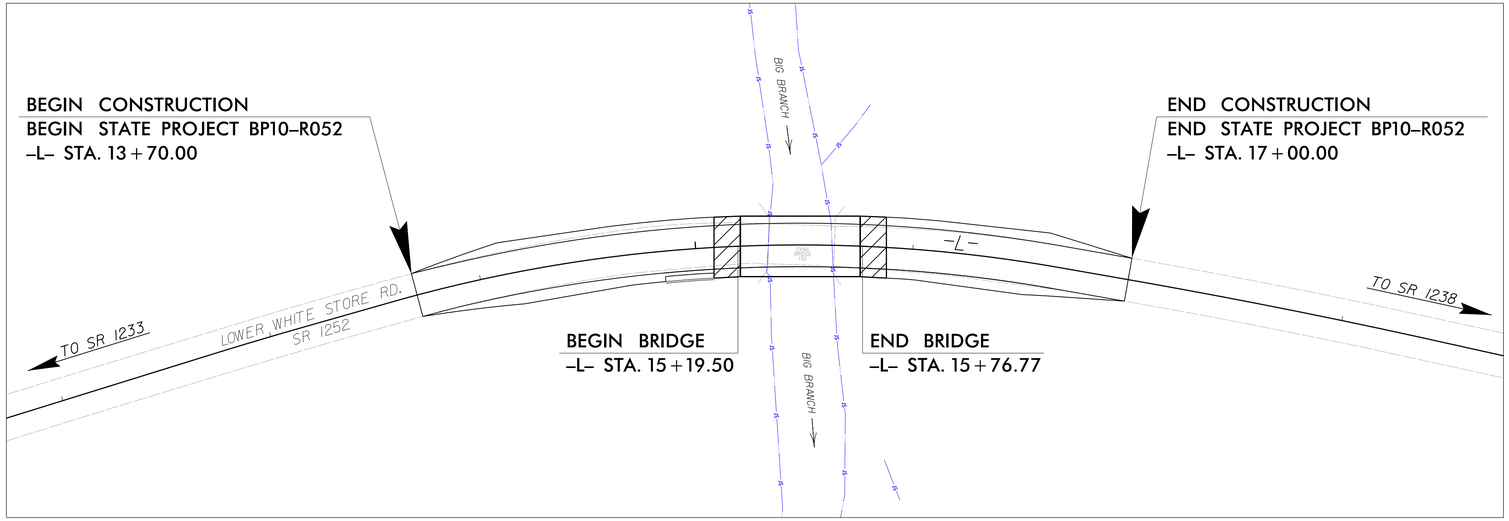
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
BP10–R052		

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

ANSON COUNTY

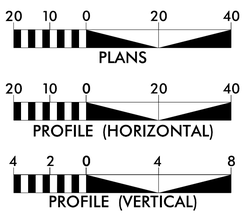
LOCATION: BRIDGE NO.130 ON ST 1252 OVER BIG BRANCH BETWEEN SR 1233 AND SR 1238





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

GRAPHIC SCALES



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

Prepared in the Office of:
HDR Engineering, Inc. of the Carolinas
555 Fayetteville St, Suite 900 Raleigh, N.C. 27601
N.C.B.E.L.S. License Number: F-0116

2024 STANDARD SPECIFICATIONS

Designed by:

David R. Wagner II, PE — *4286*
NAME — *LEVEL III CERTIFICATION NO.*

Roadway Standard Drawings

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

9/9/2024
3:27:46 PM
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PROJECT REFERENCE NO.	SHEET NO.
BP10-R052	EC-02
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

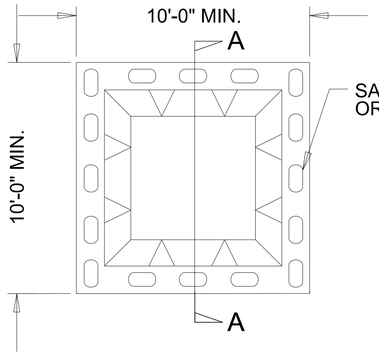
EROSION & SEDIMENT CONTROL LEGEND

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

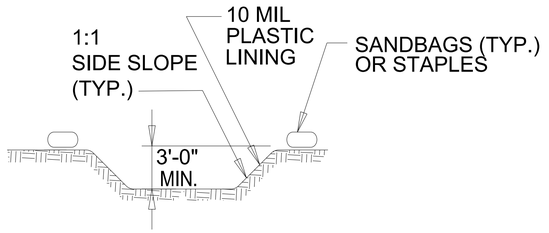
Std. #	Description	Symbol
1633.01	Temporary Rock Silt Check Type A	
1633.02	Temporary Rock Silt Check Type B	
1633.03	Temporary Rock Silt Check Type A with Excelsior Matting and Flocculant	
1634.01	Temporary Rock Sediment Dam Type A	
1634.02	Temporary Rock Sediment Dam Type B	
1635.01	Rock Pipe Inlet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

PROJECT REFERENCE NO.	SHEET NO.
BP10-R052	EC-2A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

ONSITE CONCRETE WASHOUT STRUCTURE WITH LINER



PLAN



SECTION A-A

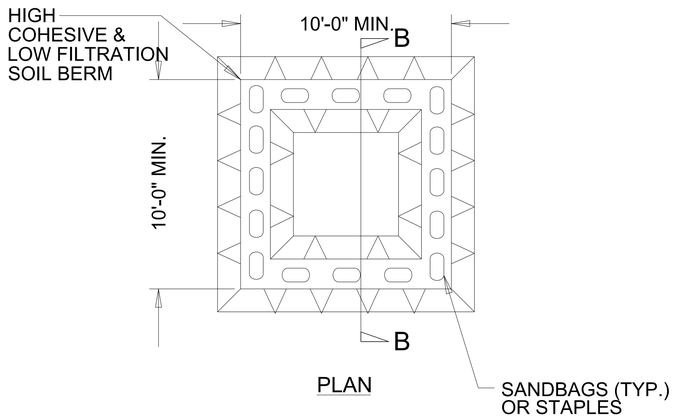
NOTES:
1. ACTUAL LOCATION DETERMINED IN FIELD

2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD.

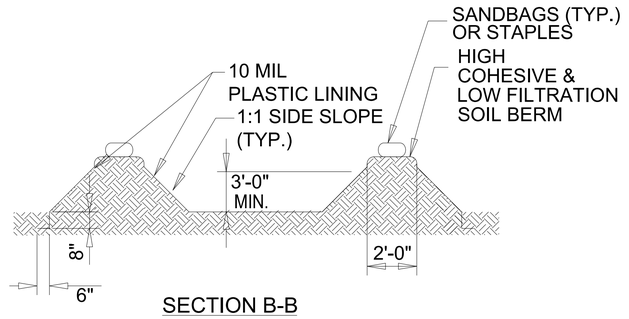
3.CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARY MARKED WITH SIGNAGE NOTING DEVICE.

BELOW GRADE WASHOUT STRUCTURE

NOT TO SCALE



PLAN



SECTION B-B

NOTES:
1. ACTUAL LOCATION DETERMINED IN FIELD

2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD.

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

ABOVE GRADE WASHOUT STRUCTURE

NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
BP10-R052	EC-3A
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

MATTING FOR SLOPES

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
4	-L-	14+00	15+20	RT	100
4	-L-	14+00	15+20	LT	85
4	-L-	15+75	16+75	RT	75
4	-L-	15+75	17+00	LT	125
			SUBTOTAL		385
		TOTAL FOR SLOPES			385
MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER					1000
				TOTAL	1385

COIR FIBER MATTING

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
4	-L-	15+25	15+37	LT/RT	50
4	-L-	15+60	15+80	LT/RT	55
				TOTAL	105
				SAY	150

PROJECT REFERENCE NO.	SHEET NO.
BP10-R052	EC-3B
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

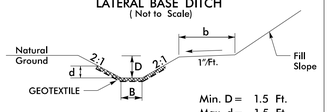
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION TIMEFRAMES

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

8/17/99

DETAIL A
LATERAL BASE DITCH
(Not to Scale)



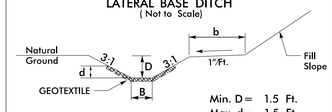
Min. D = 1.5 Ft.
Max. d = 1.5 Ft.
B = 2 Ft.
b = 5 Ft.

*When B is < 6.0'

Type of Liner = Class "B" Rip-Rap

FROM STA. 13+70 RT –L– TO STA. 15+25 RT –L–

DETAIL B
LATERAL BASE DITCH
(Not to Scale)



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b = 5 Ft.

*When B is < 6.0'

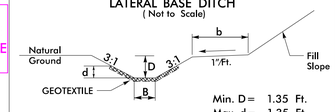
Type of Liner = Class "B" Rip-Rap

FROM STA. 15+62 LT –L– TO STA. 16+75 LT –L–

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

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 4

DETAIL C
LATERAL BASE DITCH
(Not to Scale)



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Max. d = 1.35 Ft.
B = 2 Ft.
b = 5 Ft.

*When B is < 6.0'

Type of Liner = Class "B" Rip-Rap

FROM STA. 15+00 LT –L– TO STA. 15+25 LT –L–

PROJECT REFERENCE NO.	SHEET NO.
BP10–R052	EC–4/CONST. 4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

HDR Engineering, Inc. of the Carolinas
555 Fayetteville St. Suite 900 Raleigh, N.C. 27601
N.C.B.E.L.S. License Number: F-0116

NOTES:

1. INCIDENTAL MILL APPROXIMATELY 25' AT EACH TIE IN AT BEGIN AND END PROJECT LIMITS TO PROVIDE A SMOOTH TRANSITION TO THE EXISTING ASPHALT PAVEMENT.

2. THIS PROJECT REQUIRES A DESIGN EXCEPTION FOR HORIZONTAL AND VERTICAL CURVATURE.

EXCAVATION= 110 CY (STRUCTURE PAY ITEM)

–L–
PI Sta 12+93.30
△ = 1° 22' 45.7" (RT)
D = 3° 01' 53.5"
L = 45.50'
T = 22.75'
R = 1,890.00'

–L–
PI Sta 15+15.18
△ = 25° 47' 57.6" (RT)
D = 8° 21' 51.7"
L = 308.44'
T = 156.88'
R = 685.00'
V = 30 MPH
e = 0.03
Lr = 66'

–L–
PI Sta 17+72.31
△ = 2° 36' 16.7" (RT)
D = 1° 47' 25.8"
L = 145.47'
T = 72.75'
R = 3,200.00'
e = EXISTING

–L– PC Sta. 12+70.55
–L– PT Sta. 13+16.05
–L– PC Sta. 13+58.30
–L– PT Sta. 16+66.74
–L– PC Sta. 16+99.57
–L– PT Sta. 18+45.04

N 11° 21' 33.2" E
N 12° 44' 18.9" E
N 11° 08' 33.2" E
N 38° 32' 16.5" E

CLASS II RIP RAP UP TO ELEV. 284.5'
CLASS II RIP RAP UP TO ELEV. 285.0'
4' LATERAL BASE DITCH EST. 100 TONS RIP RAP EST. 290 SY GEOETXTILE SEE DETAIL 'B'
2' LATERAL BASE DITCH EST. 84 TONS RIP RAP EST. 248 SY GEOTEXTILE SEE DETAIL 'A'
TIE TO EXISTING DITCH
TIE TO EXISTING DITCH
EXCAVATION LIMITS
IMPERVIOUS DIKE

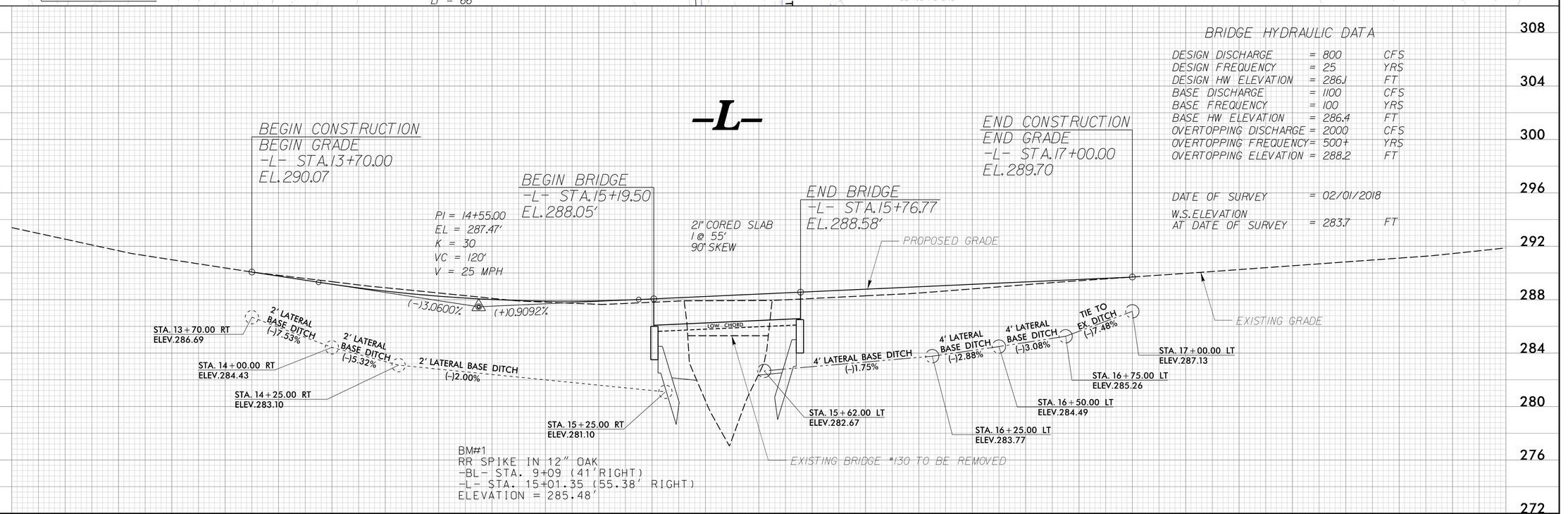
TB 2GI <0401>
<0402>
18" RCP III
TOP=287.49
INV=283.49

GREU TL-3, +11
GREU TL-3, +18
GREU TL-3, +61
GREU TL-3, +53
TYPE-III

BM#1
ELEV.= 285.48
N 437712 E 1618954
-BL- STA 9+09 41RT
RR SPIKE IN 12" OAK

VICK FAMILY LLC DB 822 PG 368
KATIE DARGAN HAYWARD DB 314 PG 233
KATIE DARGAN HAYWARD DB 193 PG 240
LONG BRIDGE NO. 130
BIG BRANCH
WOODS
TO SR 1003
TO SR 1240
LOWER WHITE STORE RD (SR 1250) 20'BST
EXISTING R/W

NAD 83/2011



BRIDGE HYDRAULIC DATA

DESIGN DISCHARGE	= 800	CFS
DESIGN FREQUENCY	= 25	YRS
DESIGN HW ELEVATION	= 286.1	FT
BASE DISCHARGE	= 1100	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 286.4	FT
OVERTOPPING DISCHARGE	= 2000	CFS
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING ELEVATION	= 288.2	FT
DATE OF SURVEY	= 02/01/2018	
W.S.ELEVATION AT DATE OF SURVEY	= 283.7	FT

REVISIONS

8/17/99

DETAIL A
LATERAL BASE DITCH
(Not to Scale)

Min. D = 1.5 Ft.
Max. d = 1.5 Ft.
B = 2 Ft.
b = 5 Ft.

*When B is < 6.0'

Type of Liner = Class "B" Rip-Rap

FROM STA. 13+70 RT –L– TO STA. 15+25 RT –L–

DETAIL B
LATERAL BASE DITCH
(Not to Scale)

Min. D = 1.5 Ft.
Max. d = 1.5 Ft.
B = 4 Ft.
b = 5 Ft.

*When B is < 6.0'

Type of Liner = Class "B" Rip-Rap

FROM STA. 15+62 LT –L– TO STA. 16+75 LT –L–

Place Matting for Erosion Control on Slope as Work Allows.
Sta. 14+00 Rt to Sta. 15+20 Rt
Sta. 14+00 Lt to Sta. 15+20 Lt
Sta. 15+75 Rt to Sta. 16+75 Rt
Sta. 15+75 Lt to Sta. 16+75 Rt

UTILIZE FABRIC INSERT INLET PROTECTION DEVICE AS DIRECTED BY ENGINEER IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE C TO PREVENT IMPOUNDING RUNOFF ON ROADWAYS OPEN TO THE PUBLIC.

INSTALL COIR FIBER MATTING FOR STABILITY ON FLOODPLAIN BENCH AND ANY DISTURBED CHANNEL BANKS UNDER PROPOSED BRIDGE

DETAIL C
LATERAL BASE DITCH
(Not to Scale)

Min. D = 1.35 Ft.
Max. d = 1.35 Ft.
B = 2 Ft.
b = 5 Ft.

*When B is < 6.0'

Type of Liner = Class "B" Rip-Rap

FROM STA. 15+00 LT –L– TO STA. 15+25 LT –L–

PROJECT REFERENCE NO.	SHEET NO.
BP10–R052	EC–5/CONST. 4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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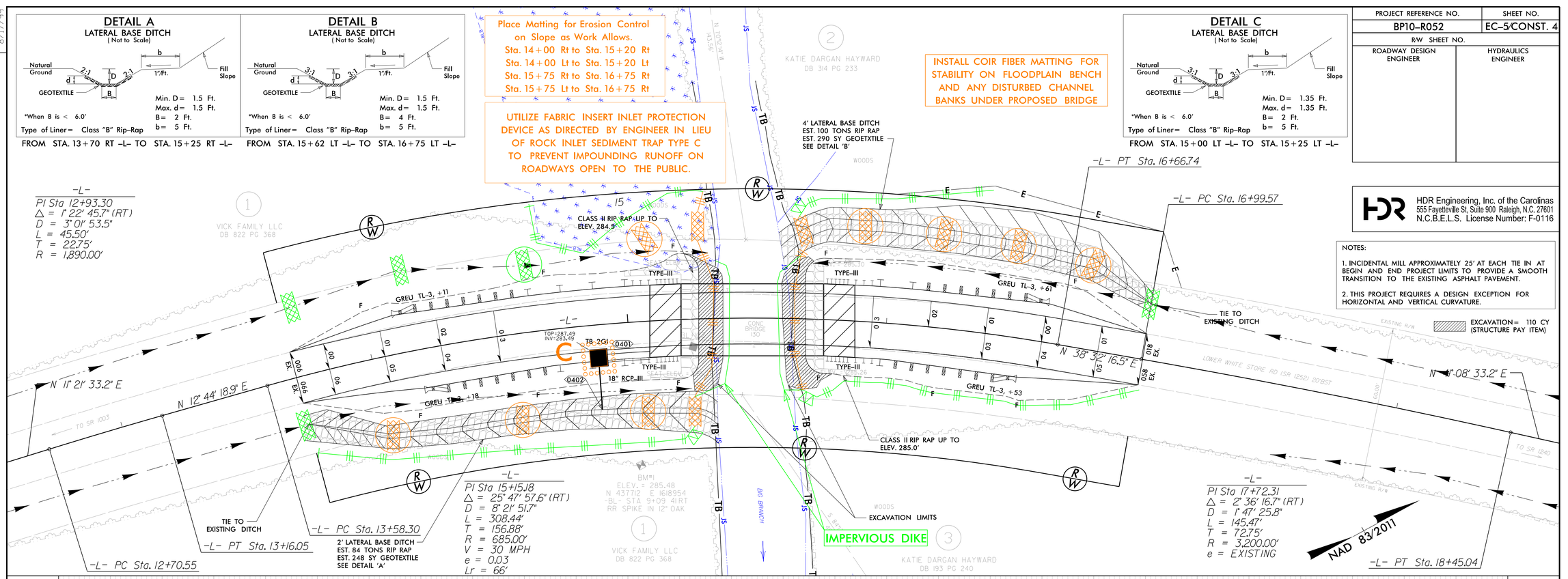
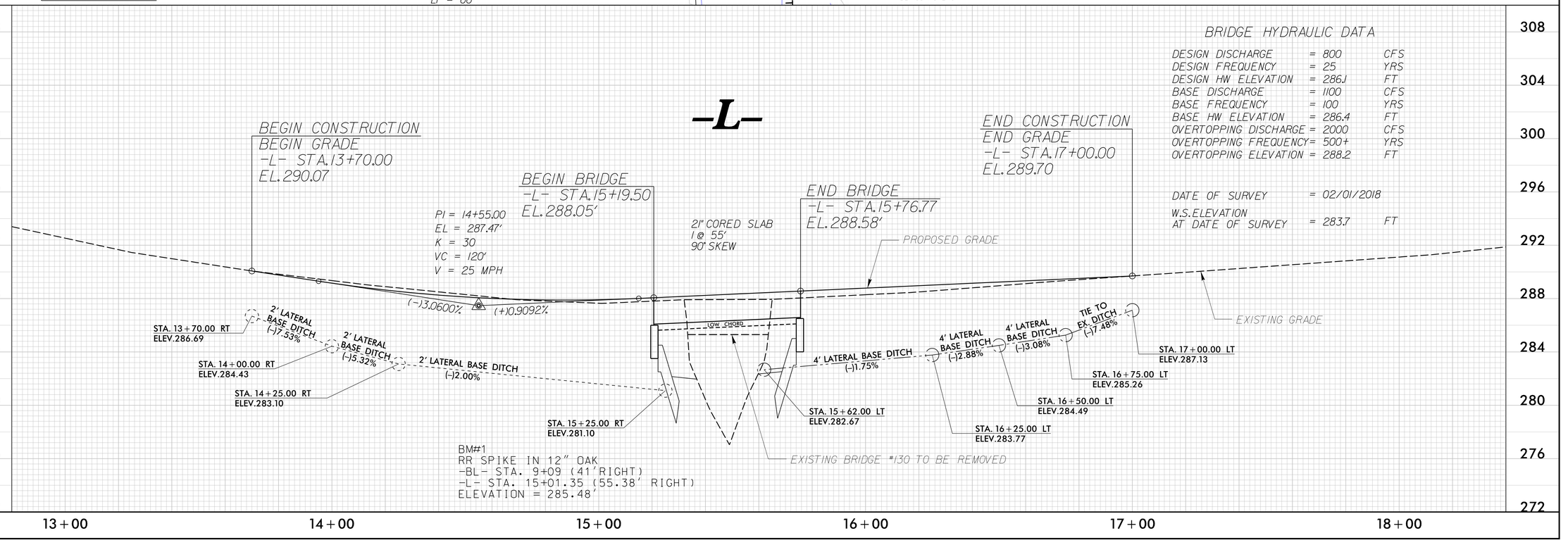
NAD 83/2011





REVISIONS

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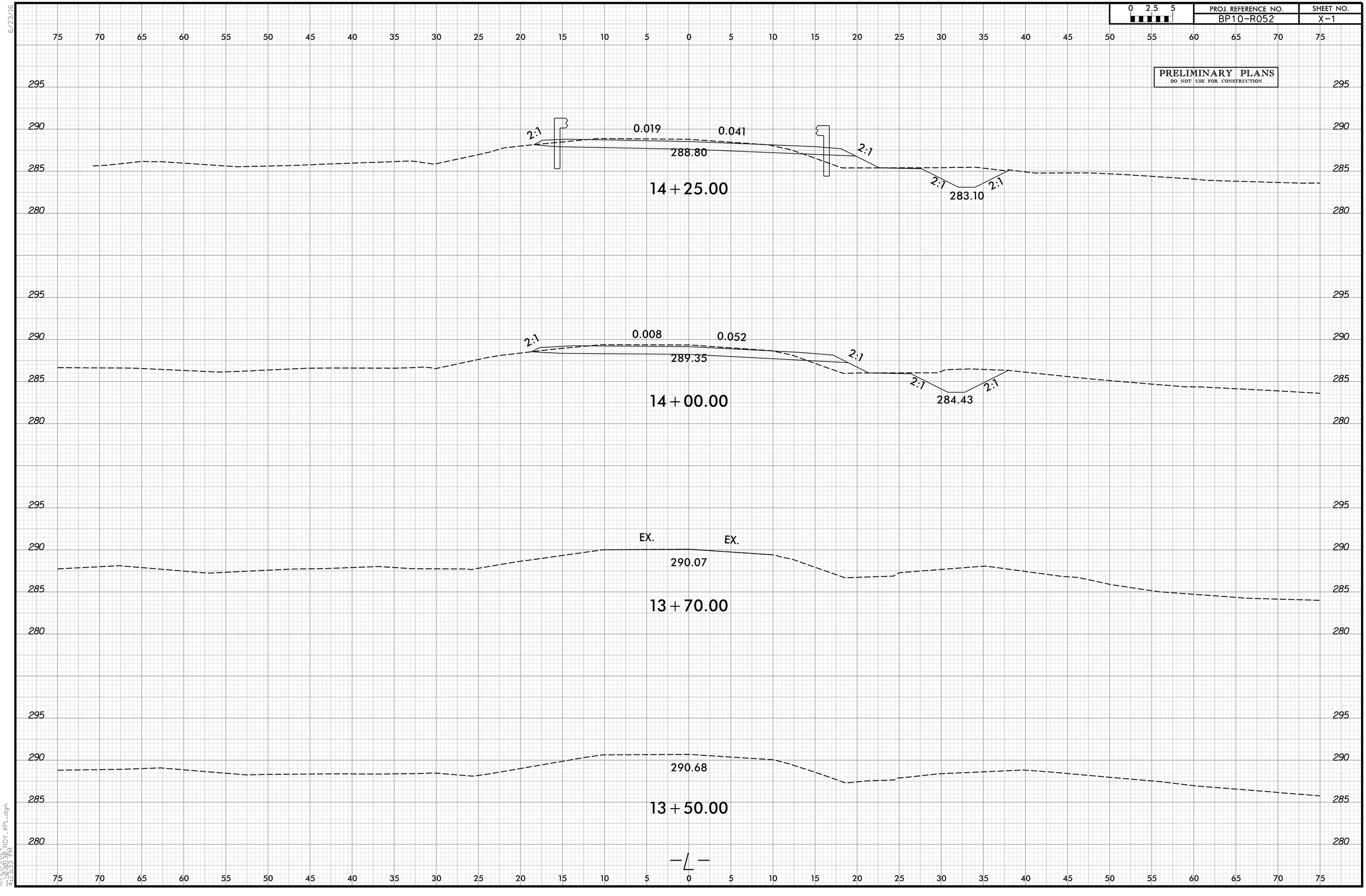
6/23/16

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	BP10-R052	X-1

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



PROJ. REFERENCE NO.	SHEET NO.
BP10-R052	X-2

PROJ. REFERENCE NO.	SHEET NO.
BP10-R052	X-3

PROJ. REFERENCE NO.	SHEET NO.
BP10-R052	X-4

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	BP10-R052	X-5

6/23/16
10/23/2024
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