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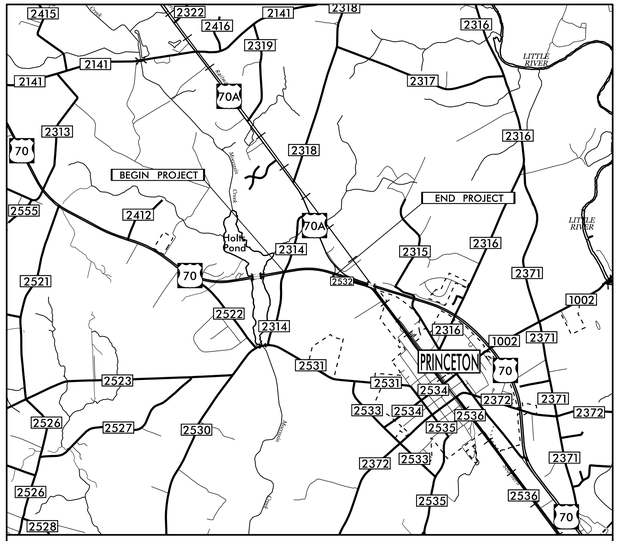
DDC4

TIP PROJECT: HS–2004W

CONTRACT: DD00443

See Sheet 1-A For Index of Sheets



VICINITY MAP

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

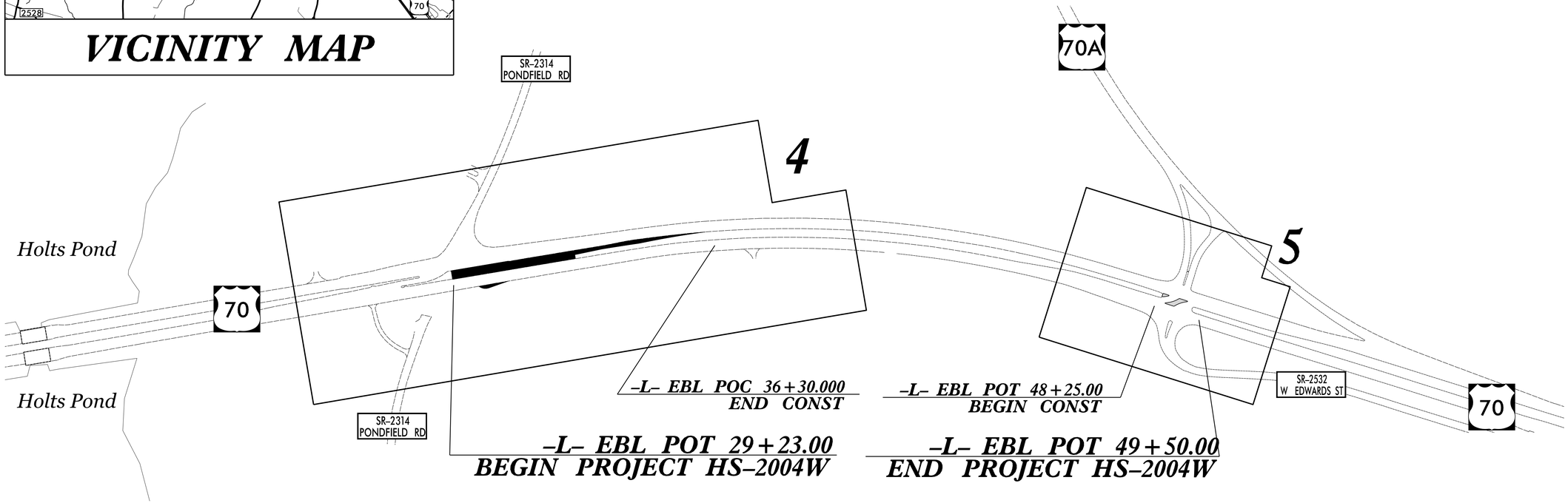
JOHNSTON COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	HS–2004W	1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
49306.1.24	4930614	PE
49306.3.24	4930614	CONST

LOCATION: US 70 AT US 70A/SR 2532 (W. EDWARDS STREET) AND AT SR 2314 (PONDFIELD ROAD).

TYPE OF WORK: GRADING, DRAINAGE AND PAVING



–L– EBL POC 36+30.000
END CONST

–L– EBL POT 48+25.00
BEGIN CONST

–L– EBL POT 29+23.00
BEGIN PROJECT HS–2004W

–L– EBL POT 49+50.00
END PROJECT HS–2004W

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.
THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES.

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES

SEE PLAN SHEETS

50 25 0 50 100
PROFILE (HORIZONTAL)

10 5 0 10 20
PROFILE (VERTICAL)

DESIGN DATA

ADT 2021 = 28500

FUNCTIONAL CLASS
OTHER PRINCIPAL ARTERIAL

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT HS–2004W = 0.158 MILES
TOTAL LENGTH TIP PROJECT HS–2004W = 0.158 MILES

Prepared In the Office of:
DIVISION OF HIGHWAYS
Division 4 DDC
509 Ward Blvd., Wilson NC, 27895

2024 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
NA

LETTING DATE:
FEBRUARY 27, 2024

KEITH EASON, PE
PROJECT ENGINEER

D.R. ETHRIDGE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER
01/08/2024
NORTH CAROLINA PROFESSIONAL SEAL 048034 ENGINEER ERIK PETER SEILER
DocuSigned by: Erik P. Seiler
P.E.
SIGNATURE:

ROADWAY DESIGN ENGINEER
01/05/2024
NORTH CAROLINA PROFESSIONAL SEAL 040774 ENGINEER NORWOOD A. GAINEY III
DocuSigned by: Norwood A Gainey III
P.E.
SIGNATURE:

STATE OF NORTH CAROLINA • DEPARTMENT OF TRANSPORTATION •

05-JAN-2024 08:28
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Division 4 DDC

PROJ. REFERENCE NO.	SHEET NO.
HS-2004W	1-A

ROADWAY DESIGN ENGINEER

01/05/2024

NORTH CAROLINA PROFESSIONAL SEAL 40774 ENGINEER NORWOOD A. GAINEY

DocuSigned by:
Norwood A Gainey III

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

INDEX OF SHEETS

SHEET NUMBER	SHEET
1	TITLE SHEET
1A	INDEX OF SHEETS, GENERAL NOTES, AND LIST OF STANDARD DRAWINGS
1B	CONVENTIONAL SYMBOLS
2A-1 THRU 2A-2	PAVEMENT SCHEDULE AND TYPICAL SECTIONS
2C-1	SPECIAL DETAIL - CONVERT EXISTING DI, CB, OTCB OR GI TO JB
3B-1	ROADWAY SUMMARIES - EARTHWORK & DRAINAGE
4 THRU 5	PLAN & PROFILE SHEETS
PMP-1 THRU PMP-3	PAVEMENT MARKING PLANS
EC-1 THRU EC-7	EROSION CONTROL PLANS
SIGN-1 THRU SIGN-6	SIGNING PLANS
X-1	CROSS-SECTION INDEX & SUMMARY
X-2 THRU X-5	CROSS-SECTIONS

2024 ROADWAY ENGLISH STANDARD DRAWINGS

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

DIVISION 2 - EARTHWORK
200.03 METHOD OF CLEARING - METHOD III
225.01 GUIDE FOR GRADING SUBGRADE - INTERSTATE AND FREEWAY
DIVISION 3 - PIPE CULVERTS
300.01 METHOD OF PIPE INSTALLATION
DIVISION 5 - SUBGRADE, BASES AND SHOULDERS
560.01 METHOD OF SHOULDER CONSTRUCTION - HIGH SIDE OF SUPERELEVATED CURVE - METHOD I
DIVISION 6 - ASPHALT BASES AND PAVEMENTS
654.01 PAVEMENT REPAIRS
DIVISION 8 - INCIDENTALS
840.00 CONCRETE BASE PAD FOR DRAINAGE STRUCTURES
840.14 CONCRETE DROP INLET - 12" THRU 30" PIPE
840.15 BRICK DROP INLET - 12" THRU 30" PIPE
840.16 DROP INLET FRAME AND GRATES - FOR USE WITH STD. DWG 840.14 AND 840.15
840.18 CONCRETE GRATED DROP INLET TYPE 'B' - 12" THRU 36" PIPE
840.24 FRAMES AND NARROW SLOT SAG GRATES
840.25 ANCHORAGE FOR FRAMES - BRICK OR CONCRETE OR PRECAST
840.27 BRICK GRATED DROP INLET TYPE 'B' - 12" THRU 36" PIPE
840.45 PRECAST DRAINAGE STRUCTURE
840.54 MANHOLE FRAME AND COVER
840.66 DRAINAGE STRUCTURE STEPS
840.71 CONCRETE AND BRICK PIPE PLUG
840.72 PIPE COLLAR
852.01 CONCRETE ISLANDS
852.06 METHOD FOR PLACEMENT OF DROP INLETS IN CONCRETE ISLANDS

GENERAL NOTES: 2024 SPECIFICATIONS

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

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

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

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

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

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:
DUKE ENERGY, CHARTER, AT&T, CONTERRA BROADBAND, BRIGHTSPEED, NCDOT AND TOWN OF PRINCETON (WATER & SEWER).

ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS.

Survey Control
Survey Control for this Project is from Project R-5829B

9/10/2021

PROJECT REFERENCE NO.	SHEET NO.
HS-2004W	1B

STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

Note: Not to Scale

BOUNDARIES AND PROPERTY:

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

BUILDINGS AND OTHER CULTURE:

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

HYDROLOGY:

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

RAILROADS:

- Standard Gauge
- RR Signal Milepost
- Switch
- RR Abandoned
- RR Dismantled

RIGHT OF WAY & PROJECT CONTROL:

- Primary Horiz Control Point
- Primary Horiz and Vert Control Point
- Secondary Horiz and Vert Control Point
- Vertical Benchmark
- Existing Right of Way Monument
- Proposed Right of Way Monument (Rebar and Cap)
- Proposed Right of Way Monument (Concrete)
- Existing Permanent Easement Monument
- Proposed Permanent Easement Monument (Rebar and Cap)
- Existing C/A Monument
- Proposed C/A Monument (Rebar and Cap)
- Proposed C/A Monument (Concrete)
- Existing Right of Way Line
- Proposed Right of Way Line
- Existing Control of Access Line
- Proposed Control of Access Line
- Proposed ROW and CA Line
- Existing Easement Line
- Proposed Temporary Construction Easement
- Proposed Temporary Drainage Easement
- Proposed Permanent Drainage Easement
- Proposed Permanent Drainage/Utility Easement
- Proposed Permanent Utility Easement
- Proposed Temporary Utility Easement
- Proposed Aerial Utility Easement

ROADS AND RELATED FEATURES:

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

VEGETATION:

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

EXISTING STRUCTURES:

MAJOR:

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

MINOR:

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

UTILITIES:

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

POWER:

- Existing Power Pole
- Proposed Power Pole
- Existing Joint Use Pole
- Proposed Joint Use Pole
- Power Manhole
- Power Line Tower
- Power Transformer
- U/G Power Cable Hand Hole
- H–Frame Pole
- U/G Power Line Test Hole (SUE – LOS A)*
- U/G Power Line (SUE – LOS B)*
- U/G Power Line (SUE – LOS C)*
- U/G Power Line (SUE – LOS D)*

TELEPHONE:

- Existing Telephone Pole
- Proposed Telephone Pole
- Telephone Manhole
- Telephone Pedestal
- Telephone Cell Tower
- U/G Telephone Cable Hand Hole
- U/G Telephone Test Hole (SUE – LOS A)*
- U/G Telephone Cable (SUE – LOS B)*
- U/G Telephone Cable (SUE – LOS C)*
- U/G Telephone Cable (SUE – LOS D)*
- U/G Telephone Conduit (SUE – LOS B)*
- U/G Telephone Conduit (SUE – LOS C)*
- U/G Telephone Conduit (SUE – LOS D)*
- U/G Fiber Optics Cable (SUE – LOS B)*
- U/G Fiber Optics Cable (SUE – LOS C)*
- U/G Fiber Optics Cable (SUE – LOS D)*

WATER:

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

TV:

- TV Pedestal
- TV Tower
- U/G TV Cable Hand Hole
- U/G TV Test Hole (SUE – LOS A)*
- U/G TV Cable (SUE – LOS B)*
- U/G TV Cable (SUE – LOS C)*
- U/G TV Cable (SUE – LOS D)*
- U/G Fiber Optic Cable (SUE – LOS B)*
- U/G Fiber Optic Cable (SUE – LOS C)*
- U/G Fiber Optic Cable (SUE – LOS D)*

GAS:

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

SANITARY SEWER:

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

MISCELLANEOUS:

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

6299

PAVEMENT SCHEDULE

C1	PROP. APPROX. 1.5″ ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YARD.	E1	PROP. APPROX. 5.5″ ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 627 LBS. PER SQ. YARD.	U	EXISTING PAVEMENT.
C2	PROP. APPROX. 3″ ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YARD. IN EACH OF TWO LAYERS.	R1	5″ MONOLITHIC CONCRETE ISLAND (KEYED IN)	V1	INCIDENTAL MILLING
D1	PROP. APPROX. 3″ ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 342 LBS. PER SQ. YARD.	T	EARTH MATERIAL.	NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.	

PROJECT REFERENCE NO.	SHEET NO.
HS–2204W	2A–1

ROADWAY DESIGN ENGINEER
01/05/2024
NORTH CAROLINA PROFESSIONAL SEAL 040774 ENGINEER NORWOOD A. GAINEY III
DocuSigned by: Norwood A Gainey III
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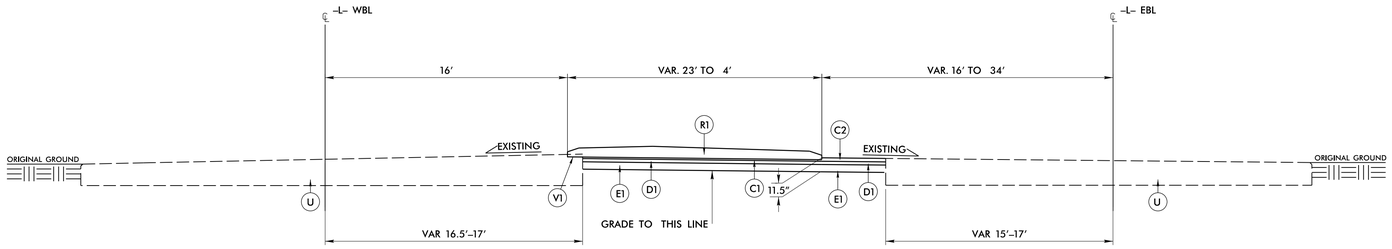
PAVEMENT DESIGN ENGINEER
01/05/2024
NORTH CAROLINA PROFESSIONAL SEAL 040774 ENGINEER NORWOOD A. GAINEY III
DocuSigned by: Norwood A Gainey III
E0D89B50A45044B...

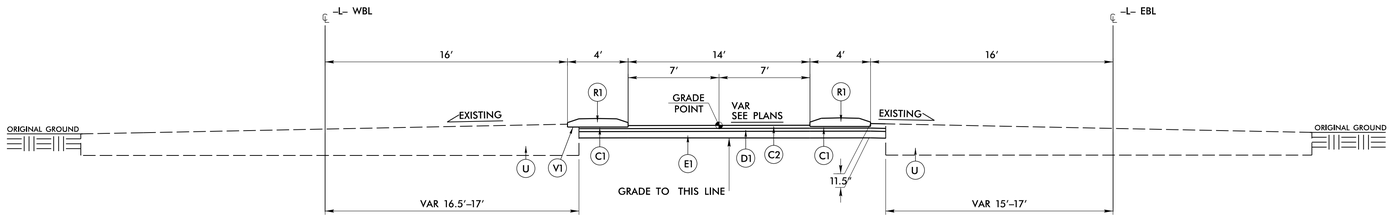
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



USE TYPICAL SECTION NO. 1

–L–EBL 29+23 TO –L–EBL 30+30

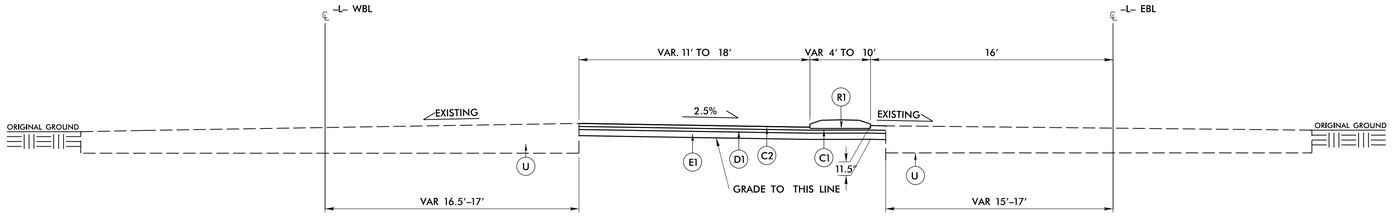
TYPICAL SECTION NO. 1



USE TYPICAL SECTION NO. 2

–L–EBL 30+30 TO –L–EBL 30+80

TYPICAL SECTION NO. 2



USE TYPICAL SECTION NO. 3

–L–EBL 30+80 TO –L–EBL 32+47

TYPICAL SECTION NO. 3

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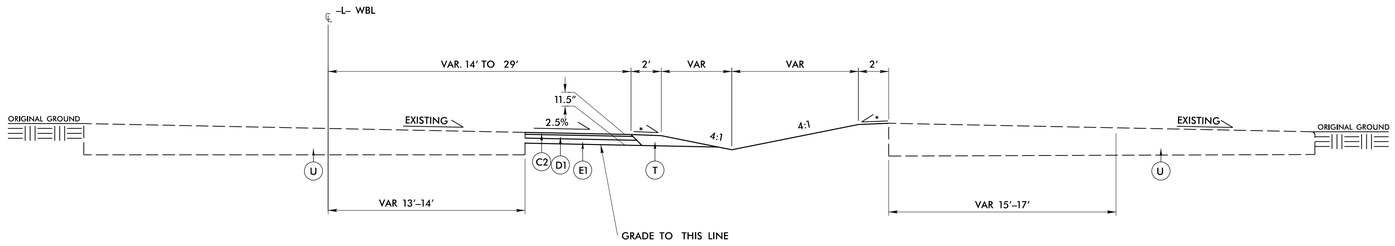
6299

* SEE 2024 STANDARD DRAWINGS 560.02 SHEET 2OF2



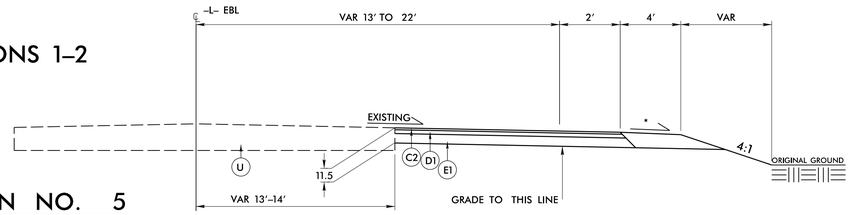
TYPICAL SECTION NO. 4

USE TYPICAL SECTION NO. 4

–L–EBL 32+47 TO –L–EBL 36+30

* SEE 2024 STANDARD DRAWINGS 560.02 SHEET 2OF2

SEE TYPICAL SECTIONS 1–2



TYPICAL SECTION NO. 5

USE TYPICAL SECTION NO. 5

–L–EBL 29+87 TO –L–EBL 30+70(RIGHT)

PROJECT REFERENCE NO.	SHEET NO.
HS–2004W	2A–2

ROADWAY DESIGN ENGINEER

01/05/2024

NORTH CAROLINA PROFESSIONAL SEAL 040774 ENGINEER NORWOOD A. GAINEY III

DocuSigned by: Norwood A Gainey III
E0D69850A45044B

PAVEMENT DESIGN ENGINEER

01/05/2024

NORTH CAROLINA PROFESSIONAL SEAL 040774 ENGINEER NORWOOD A. GAINEY III

DocuSigned by: Norwood A Gainey III
E0D69850A45044B

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PAVEMENT SCHEDULE	
C1	1.5″ S9.5C
C2	3″ S9.5C
D	3″ I19.0C
E1	4″ B25.0C
R1	ISLAND
T	EARTH MATERIAL
U	EXIST. PAVEMENT
V1	INCIDENTAL MILLING

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

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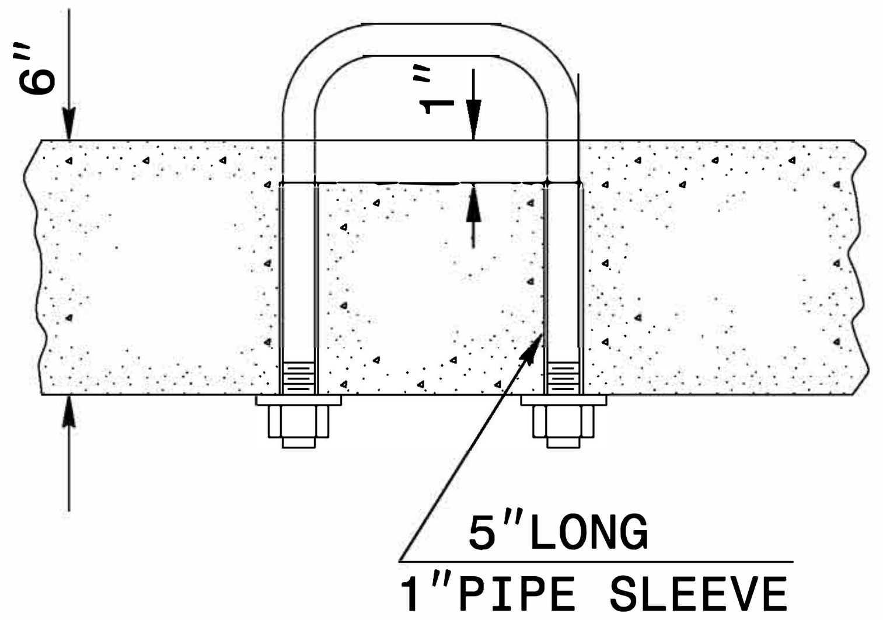
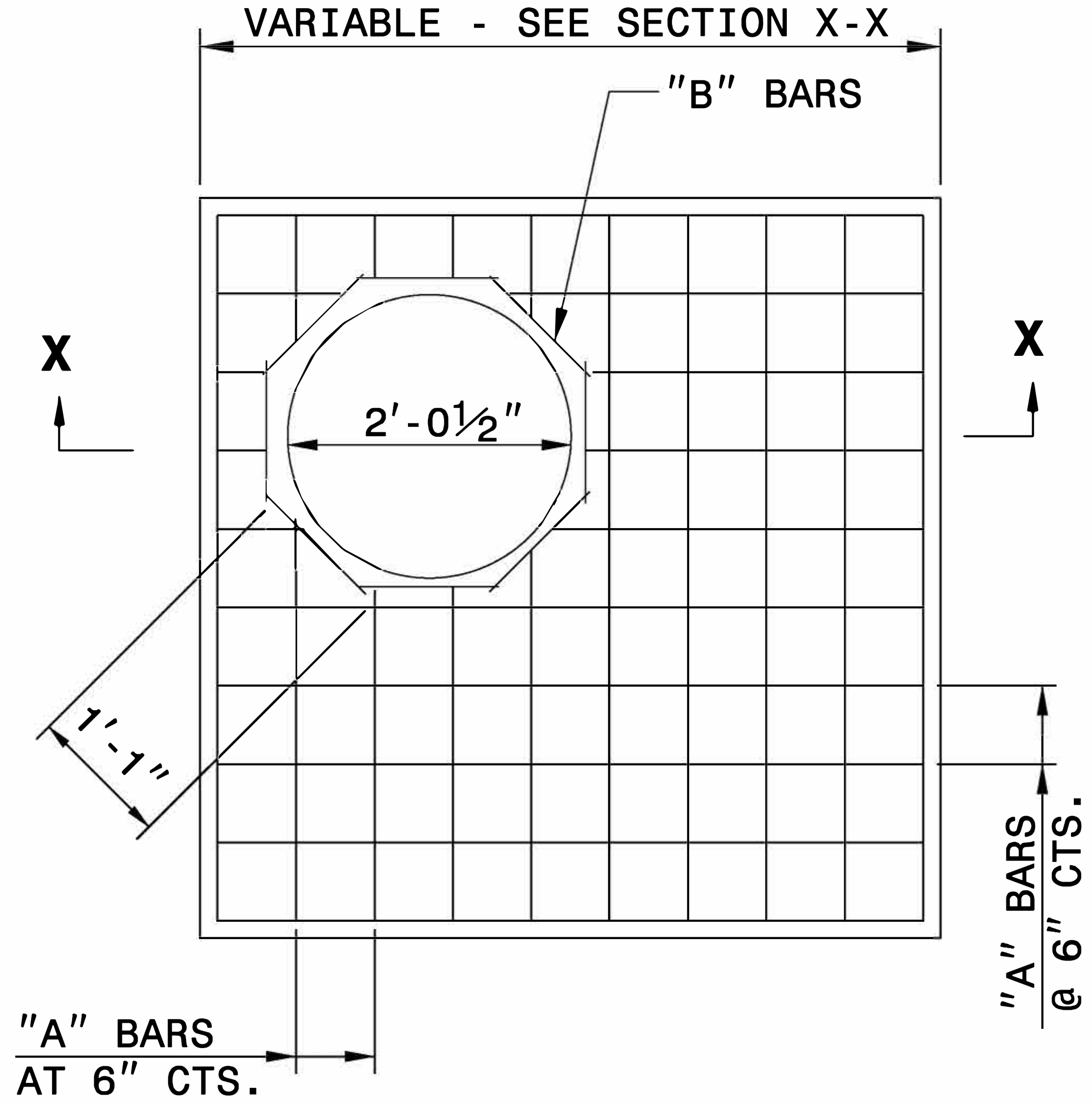
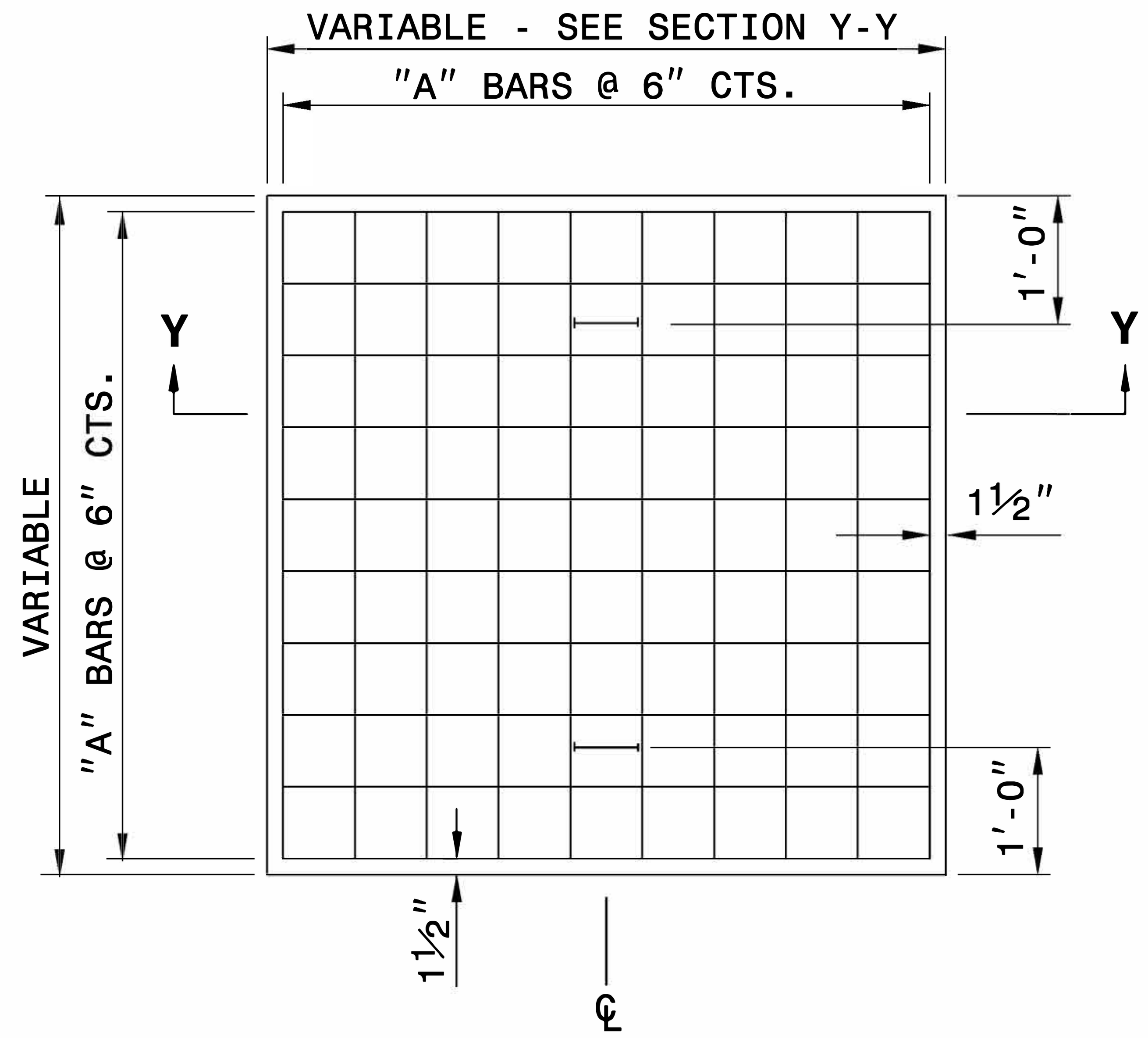


PARTIAL SECTION



PLAN



PLAN

GENERAL NOTES:

CONSTRUCT IN ACCORDANCE WITH SECTION 859 OF THE STANDARD SPECIFICATIONS.

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

DETAIL INTENDED FOR NON-TRAFFIC BEARING DRAINAGE STRUCTURES.

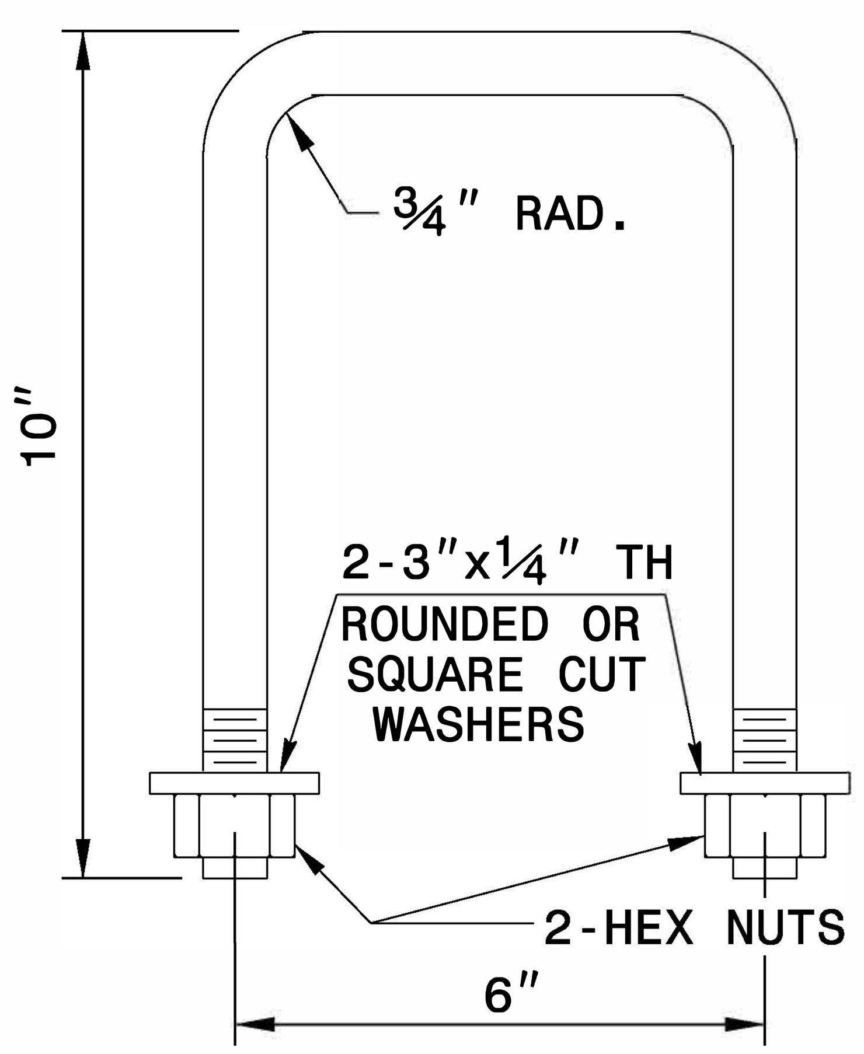
BILL OF MATERIALS

REINFORCING STEEL

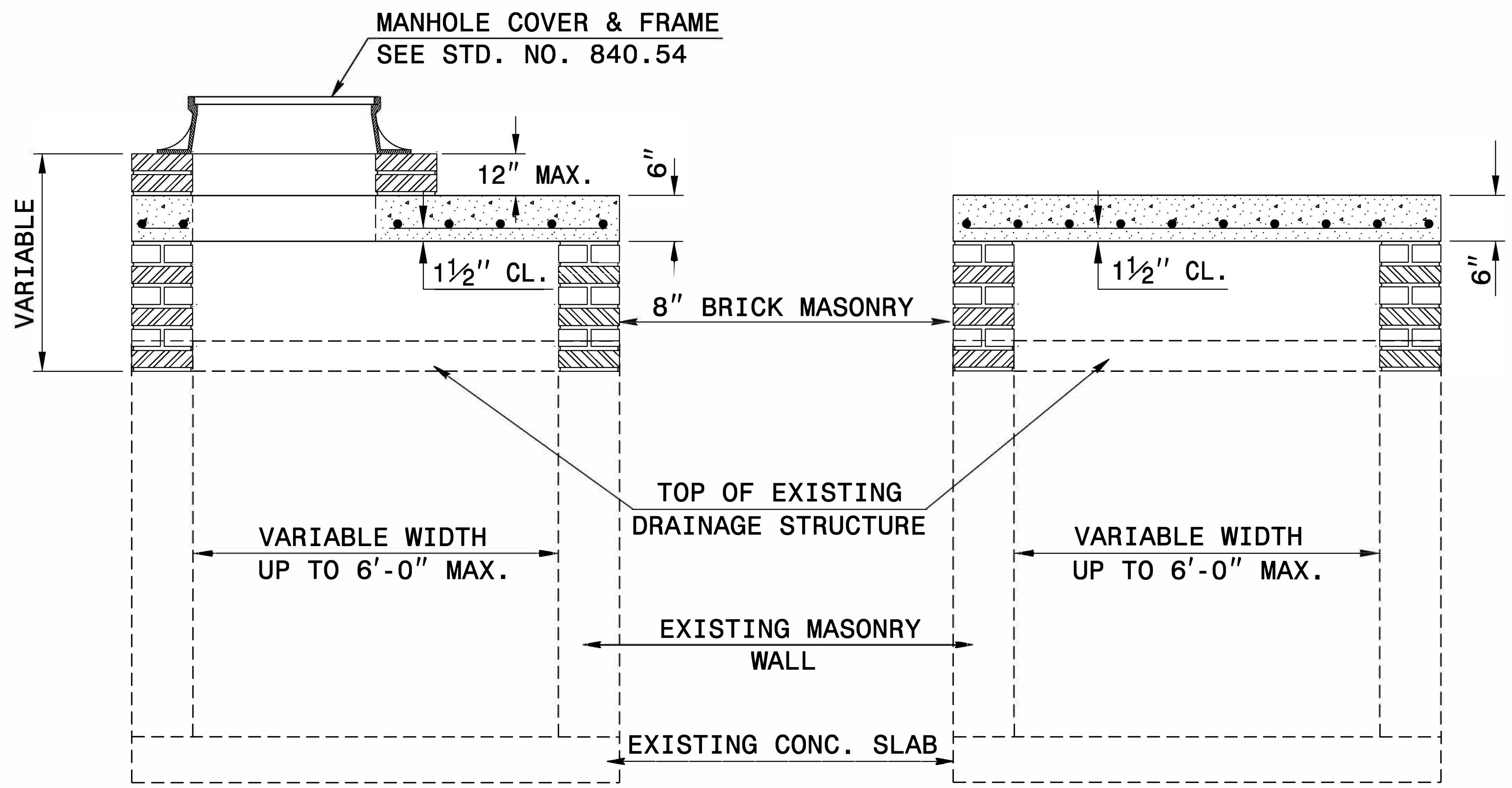
CODE	SIZE	QTY.	LENGTH	REINF. STEEL LBS.
A	#4	20	4'-6"	60.12
B	#4	8	1'-1"	5.79
TOTAL				65.91 *

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

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



DETAIL OF HANDLE



SECTION X-X **SECTION Y-Y**

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 33144 NICOLE M. HACKLER

DocuSigned by: Nicole M. Hackler 5884323D34164C5...

01/05/2024

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

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

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

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

COMPUTED BY:	D.R.Ethridge	DATE:	1/3/2024
CHECKED BY:	D.R.Ethridge	DATE:	1/3/2024

PROJECT NO.	SHEET NO.
HS-2004W	3B-1

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

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

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

STATION	LOCATION (LT, RT, OR CL)	STRUCTURE NO. FROM	STRUCTURE NO. TO	TOP ELEVATION	INVERT ELEVATION	INVERT ELEVATION	SLOPE CRITICAL
-LEBL- 29+83.32	LT	0498		137.70	132.20		
		0498	0401		132.20	134.90	
-LEBL- 30+35.00	LT	0401		137.60	134.90		
		0401	0402		134.90	135.50	
-LEBL- 31+38.80	LT	0402		138.20	135.50		
-LEBL- 32+65.00	LT	0406		138.60	135.80		
		0406	0403		135.80	131.70	
-LEBL- 33+55.14	LT	0403		139.00	131.70		
		0403	0489		131.70		
-LEBL- 33+53.14	LT	0489					
		0403	0404		131.70	137.00	
-LEBL- 35+00.00	LT	0404		139.80	137.00		
-LEBL- 48+85.29	LT	0501		155.40	152.60		
TOTAL							
SAY							

SIDE DRAIN PIPE (RCP, CSP, CAAP, HDPE, or PVC)

SIZE	12"	15"	18"	24"	30"	36"	42"	48"	DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	DO NOT USE HDPE

C.S. PIPE

SIZE	12"	15"	18"	24"	30"	36"	42"	48"
THICKNESS OR GAUGE	0.064	0.064	0.064	0.064	0.079	0.079	0.109	0.109

R.C. PIPE CLASS III

SIZE	12"	15"	18"	24"	30"	36"	42"	48"

R.C. PIPE CLASS IV

STATION / STRUCTURE	12"	15"	18"	24"	30"	36"	42"	48"
0498–0401		52'						
0401–0402		100'						
0406–0403		88'						
0403–0489				8'				
0403–0404		144'						
-LEBL- 48+85.29 (0501)		56'						
TOTAL		440'		8'				

STATION / STRUCTURE	ENDWALLS STD. 838.01 838.11 OR STD. 838.80 (UNLESS NOTED OTHERWISE) CU. YARDS R.C.P.	C.S.P.	QUANTITIES FOR DRAINAGE STRUCTURES PER EACH (0' THRU 5.0')	*TOTAL L.F. FOR PAY QUANTITY SHALL BE COL. 'A' + (1.3 X COL.'B') LIN. FT. A 5.0' THRU 10.0'	B 10.0' AND ABOVE	C.B. STD. 840.01 OR STD. 840.02	FRAME, GRATES, AND HOOD STANDARD 840.03 TYPE OF GRATE E	F	G	CONCRETE TRANSITIONAL SECTION DROP INLET	CATCH BASIN	D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME & GRATE STD. 840.16	GRATED D.I. TYPE "B" STD. 840.18 OR 840.27	FRAME WITH TWO NARROW SLOT SAG GRATES STD. 840.24	M.H. FRAME & COVER STD. 840.54	CONV. EXIST. D.I. TO J.B. WITH M.H. FRAME & COVER	PIPE CLEAN OUT (EA)	FLOWABLE FILL (CY)	CONC. & BRICK PIPE PLUG, C.Y. STD. 840.71	CONC. COLLARS CL. "B" C.Y. STD. 840.72	PIPE REMOVAL LIN. FT.	REMARKS
-LEBL- 29+83.32 (0498)																1	1						
-LEBL- 30+35.00 (0401)			1							1		1	1										
-LEBL- 31+38.80 (0402)			1							1		1	1										
-LEBL- 32+65.00 (0406)			1											1	1								
-LEBL- 33+55.14 (0403)			1	2.3'										1	1							6'	
-LEBL- 33+53.14 (0489)																					0.5526		
-LEBL- 35+00.00 (0404)			1											1	1								
-LEBL- 48+85.29 (0501)			1							1		1	1					1					
TOTAL			6	2.3'						3		3	3	3	3	1	1	1			0.5526	6'	
SAY					3'															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.)	(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

SUMMARY OF EARTHWORK
Volumes in Cubic Yards

STATION TO STATION	Uncl. Excav.	Undercut	Embank +%	Borrow	Waste
-LEBL- 29+23.00 TO 36+30.00	154		94	40	100
SUBTOTAL	154		94	40	100
TOTAL	154		94	40	100
MATERIAL FOR SHOULDER CONSTRUCTION			44	44	
WASTE TO REPLACE BORROW					
PROJECT TOTAL	154		138	84	100
ESTIMATE TO REPLACE TOPSOIL ON BORROW PIT				4	
GRAND TOTAL	154		138	88	100
SAY	200			100	
ESTIMATE UNDERCUT		100			

DDC4

PROJECT REFERENCE NO.	SHEET NO.
HS-2004W	04
RW SHEET NO.	04

ROADWAY DESIGN ENGINEER
01/05/2024
NORTH CAROLINA PROFESSIONAL SEAL 040774 ENGINEER NORWOOD A GAINEY
DocuSigned by: Norwood A Gainey III

HYDRAULICS ENGINEER
01/08/2024
NORTH CAROLINA PROFESSIONAL SEAL 048034 ENGINEER ERIK PETER SUTER
DocuSigned by: Erik P. Suter

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

50' 0' 50' 100'
25'

NAD 83/2011

THE THREE J'S, INC. ET AL
DB 1975 PG 267
PB 53 PG 339

THE THREE J'S, INC. ET AL
DB 1975 PG 267
PB 53 PG 339
PB 76 PG 498

-L- WBL PC 25+95.87
-L- WBL PT 26+29.00
-L- WBL PC 33+24.44
250' TAPER
-L- WBL PCC 34+59.44
100'
200' TAPER
-L- WBL PCC 36+59.44
-L- EBL 30+80.00
-L- EBL 30+30.00
-L- EBL 30+10.00
5.00' LT
-L- EBL 30+70.00
12.00' RT
-L- EBL POT 29+23.00
BEGIN PROJECT HS-2004
-L- EBL PC 33+48.62
-L- EBL POC 36+30.00
END CONST
-L- EBL PCC 36+48.62
-L- EBL PCC 39+18.62

N 60° 48' 36.3" E

230 ELEVATION = 137.86
N 627637 E 2242678
BL STATION 29+54.00 15 RIGHT
TBM-30 FILED "X" IN BONNET BOLT OF FIRE HYDRANT

LINE -L- WBL

PI Sta 26+12.44	PI Sta 33+91.94	PI Sta 35+59.49	PI Sta 38+34.61
Δ = 0° 11' 23.3" (RT)	Δ = 1° 43' 07.9" (RT)	Δ = 4° 35' 01.2" (RT)	Δ = 6° 10' 13.1" (RT)
D = 0° 34' 22.6"	D = 1° 16' 23.7"	D = 2° 17' 30.6"	D = 1° 45' 46.6"
L = 331.13'	L = 135.00'	L = 200.00'	L = 350.00'
T = 165.66'	T = 67.51'	T = 100.05'	T = 175.17'
R = 10,000.00'	R = 4,500.00'	R = 2,500.00'	R = 3,250.00'

LINE -L- EBL

PI Sta 34+98.74	PI Sta 37+83.75	PI Sta 41+44.04
Δ = 5° 32' 41.1" (RT)	Δ = 6° 11' 16.6" (RT)	Δ = 8° 35' 39.7" (RT)
D = 1° 50' 53.7"	D = 2° 17' 30.6"	D = 1° 54' 35.5"
L = 300.00'	L = 270.00'	L = 450.00'
T = 150.12'	T = 135.13'	T = 225.42'
R = 3,100.00'	R = 2,500.00'	R = 3,000.00'

(+)2.32000%

-L- EBL	-L- EBL
PI = 30+30.00	PI = 30+80.00
EL = 137.71	EL = 138.87

REVISIONS

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Division 4 DDC

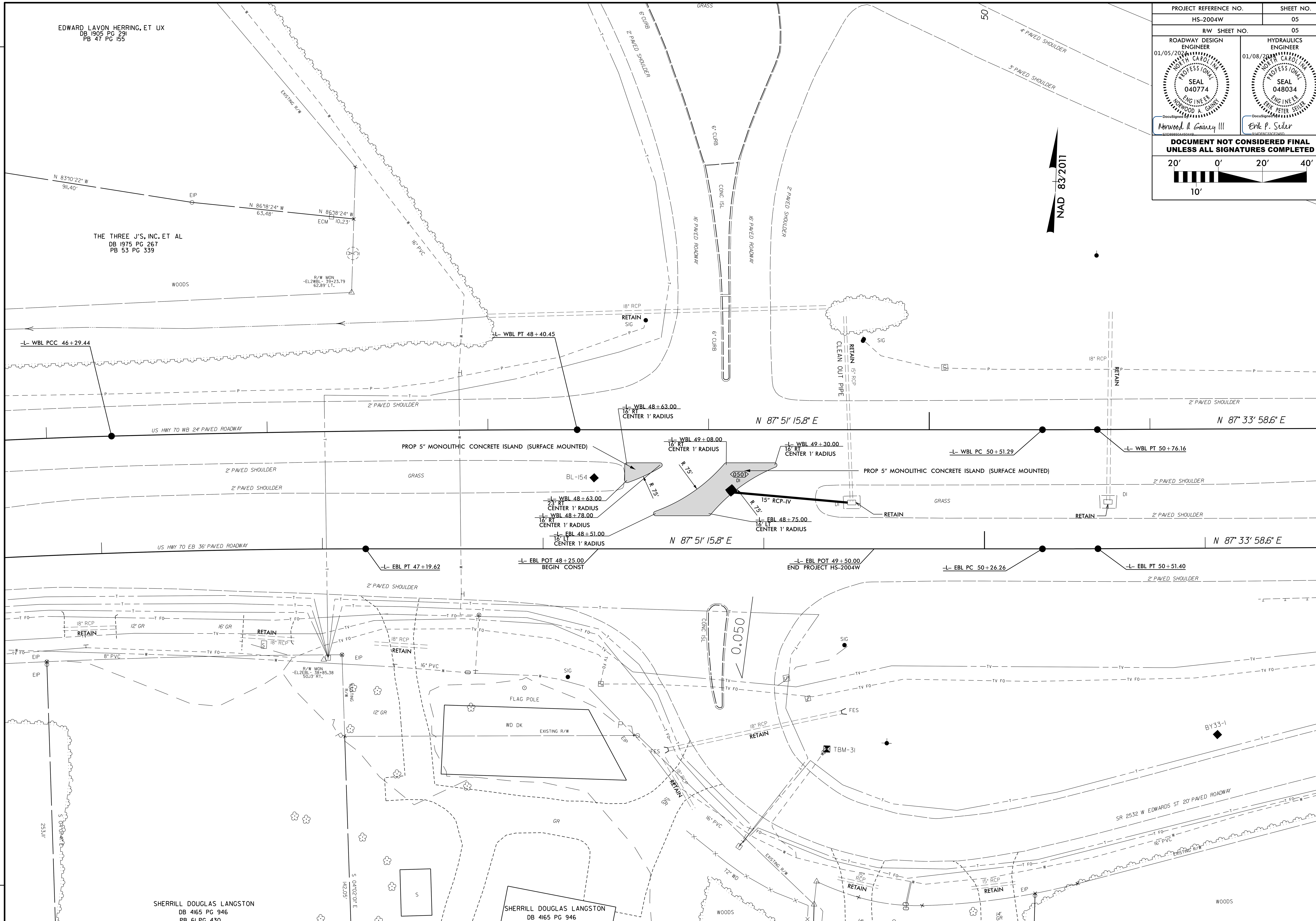
PROJECT REFERENCE NO.	SHEET NO.
HS-2004W	05
RW SHEET NO.	05

ROADWAY DESIGN ENGINEER
01/05/2024
NORTH CAROLINA PROFESSIONAL SEAL 040774 ENGINEER NORWOOD A. GAINEY
Norwood A. Gainey III

HYDRAULICS ENGINEER
01/08/2024
NORTH CAROLINA PROFESSIONAL SEAL 048034 ENGINEER ERIK PETER SEILER
Erik P. Seiler

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

20' 0' 20' 40'
10'



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Division 4 DDC

DDC4

T.I.P.: HS-2004W

TIP NO.	SHEET NO.
HS-2004W	PMP-1

APPROVED: DocuSigned by: Don A. Parker 75DB9E90ADEF440... 12/13/2023 | 4:14 PM EST

DATE:

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 043251 ENGINEER DON A. PARKER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING PLAN
JOHNSTON COUNTY
LOCATION: US 70 AT US 70/SR 2532 (W. EDWARDS STREET) AND SR 2314 (PONDFIELD ROAD)

INDEX

GENERAL NOTES

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

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

ROAD NAME	MARKING	MARKER
US 70	THERMOPLASTIC	NON-CAST IRON SNOWPLOWABLE (AT PONDFIELD ROAD LOCATION ONLY)

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

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

D) STOP BAR LOCATION AT NON-SIGNALIZED INTERSECTIONS MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER.

E) UNLESS OTHERWISE SPECIFIED, HEATED-IN-PLACE THERMOPLASTIC MAY BE USED IN LIEU OF EXTRUDED THERMOPLASTIC FOR STOP BARS, SYMBOLS, CHARACTERS AND DIAGONALS. IF HEATED-IN-PLACE IS USED, IT SHALL BE PAID FOR USING THE EXTRUDED THERMOPLASTIC PAY ITEM.

FINAL PAVEMENT MARKING SCHEDULE

SYMBOL	DESCRIPTION
PAVEMENT MARKINGS	
THERMOPLASTIC (6″,90 MILS)	
T20	(6″) WHITE EDGELINE
T21	(6″) WHITE SOLID LANE LINE
T23	(6″) 3 FT.-9 FT./SP WHITE MINISKIP
T24	(6″) 2 FT.-6 FT./SP WHITE MINISKIP
T30	(6″) YELLOW EDGELINE
T34	(6″) 2 FT.-6 FT./SP YELLOW MINISKIP
THERMOPLASTIC (12″, 90 MILS)	
T50	(12″) WHITE GORELINE
T51	(12″) WHITE DIAGONAL
PAVEMENT MARKING SYMBOLS (90 MILS)	
T71	RIGHT TURN ARROW
T77	U-TURN ARROW

ROADWAY STANDARD DRAWING

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

STD. NO.	TITLE
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1205.15	PAVEMENT MARKINGS - REDUCED CONFLICT INTERSECTIONS
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING

PLAN SUBMITTED TO: NCDOT DIVISION 4

ADDISON GAINEY, P.E. DIVISION PROJECT DEVELOPMENT ENGINEER

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

PLAN PREPARED BY: TGS ENGINEERS

DON A. PARKER, P.E. PROJECT ENGINEER

CODA BRANNAN, E.I. DESIGN ENGINEER

TGS ENGINEERS
706 HILLSBOROUGH ST. SUITE 200
RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275

12/04/23
\\NCDOT\Division 4 GESC 2022\HS-2004W\PMP\HS-2004W_Sgn_PMP_01.dgn
User:cdbrannon

TIP NO.	SHEET NO.
HS-2004W	PMP-2

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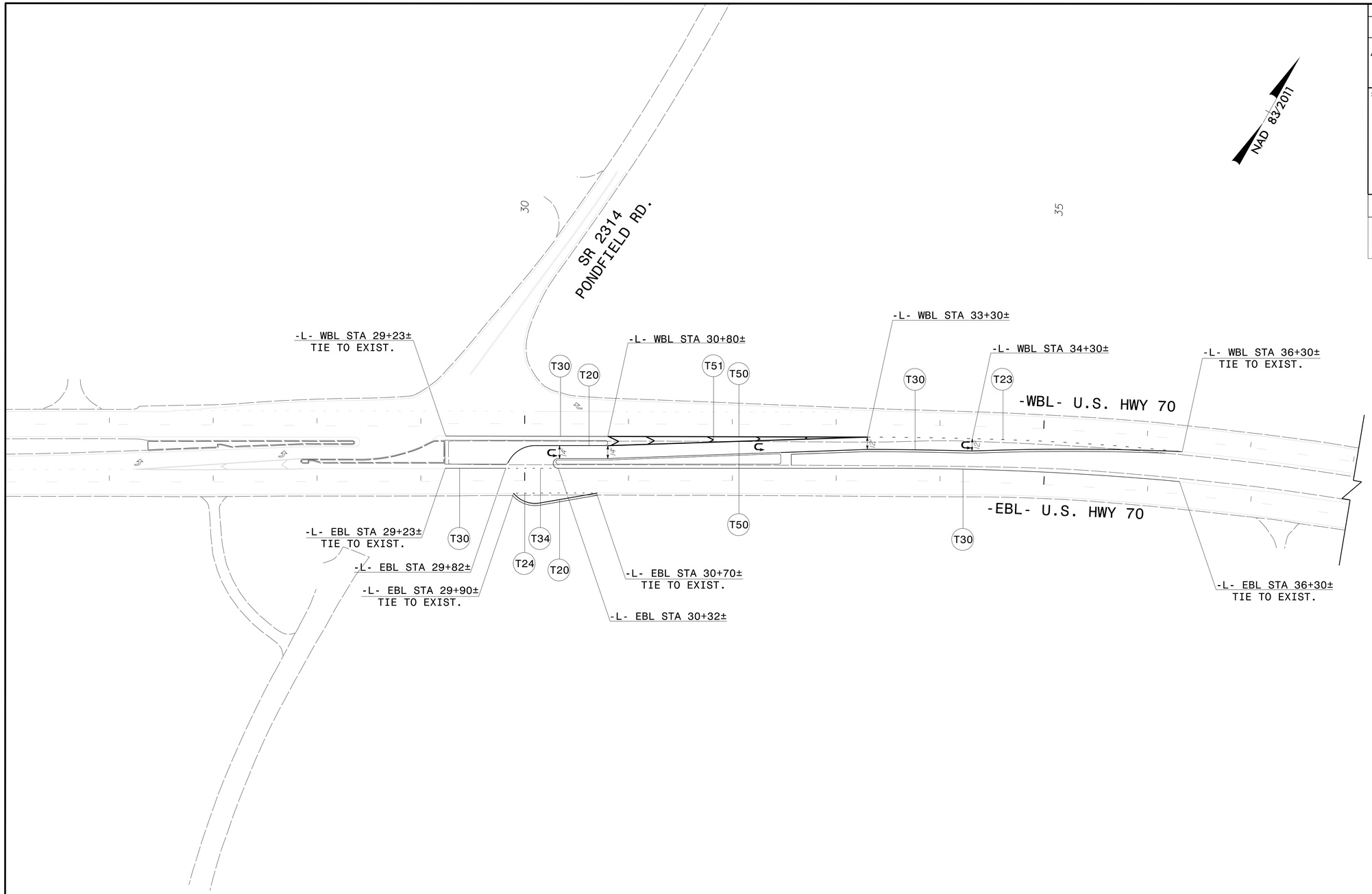
SEAL

NORTH CAROLINA PROFESSIONAL SEAL 043251 ENGINEER DON A. PARKER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

TGS ENGINEERS
706 HILLSBOROUGH STREET (SUITE 200)
RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275

T77



NOTE:
INSTALL CRYSTAL/RED NON-CAST IRON SNOWPLOWABLE PAVEMENT MARKERS ALONG PROPOSED PAINTED ISLAND AND WHITE MINISKIP T23. SEE RSD 1250.01 FOR SPACING.

PAVEMENT MARKING DETAIL

12/4/2023
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User:cbrannan

TIP NO.	SHEET NO.
HS-2004W	PMP-3

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DATE: 12/13/2023 | 4:14 PM EST

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 043251 ENGINEER DON A. PARKER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

TGS ENGINEERS
706 HILLSBOROUGH STREET
(SUITE 200)
RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275

NAD 83/2011

T71

U.S. HWY 70 ALT

45

45

50

50

-L- WBL STA 48+84±

-L- WBL STA 48+47±
TIE TO EXIST.

-L- WBL STA 49+09±

-L- WBL STA 49+45±

-L- WBL STA 49+66±
TIE TO EXIST.

T30 T34 T30 T21

-WBL- U.S. HWY 70

-EBL- U.S. HWY 70

-L- EBL STA 48+11±
TIE TO EXIST.

T21 T30

-L- EBL STA 48+31±

-L- EBL STA 48+74±

T30 T34

-L- EBL STA 49+41±
TIE TO EXIST.

-L- EBL STA 49+33±

SR 2532
W. EDWARDS ST.

PAVEMENT MARKING DETAIL

12/4/2023
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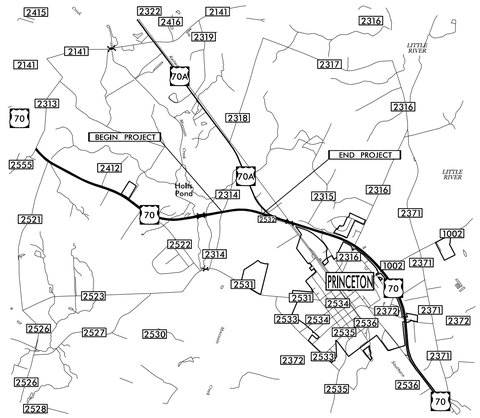
User:cbrannan

TIP PROJECT: HS-2004W



VICINITY MAP
NOT TO SCALE

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

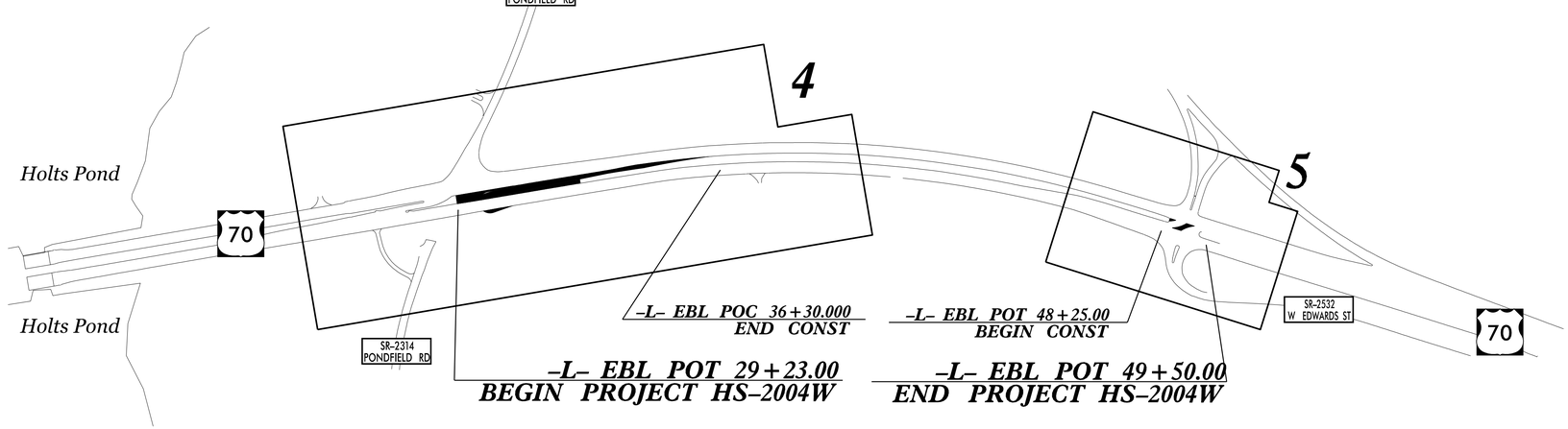
JOHNSTON COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	HS-2004W	EC-1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION

LOCATION: US 70 AT US 70A/SR 2532 (W. EDWARDS STREET) AND AT SR 2314 (PONDFIELD ROAD).

TYPE OF WORK: GRADING, DRAINAGE AND PAVING



–L– EBL POC 36+30.000
END CONST

–L– EBL POT 29+23.00
BEGIN PROJECT HS–2004W

–L– EBL POT 48+25.00
BEGIN CONST

–L– EBL POT 49+50.00
END PROJECT HS–2004W

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

THIS PROJECT HAS BEEN DESIGNED TO SENSITIVE WATERSHED STANDARDS.

GRAPHIC SCALE

50 25 0 50 100
PLANS

THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE REGULATIONS SET FORTH BY THE NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE APRIL 1, 2019 ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES DIVISION OF WATER QUALITY.

Prepared in the Office of:

ROADSIDE ENVIRONMENTAL UNIT
1 South Wilmington St.
Raleigh, NC 27611

2024 STANDARD SPECIFICATIONS

Designed by:

Meghan Quick — *4457*
NAME — *LEVEL III CERTIFICATION NO.*

Roadway Standard Drawings

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

21-DEC-2023 13:28
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$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
HS-2004W	EC-02
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

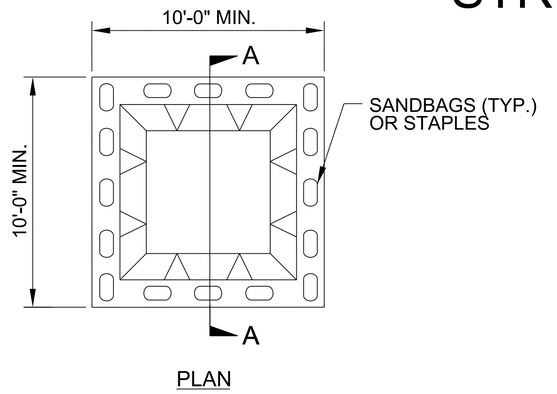
EROSION & SEDIMENT CONTROL LEGEND

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

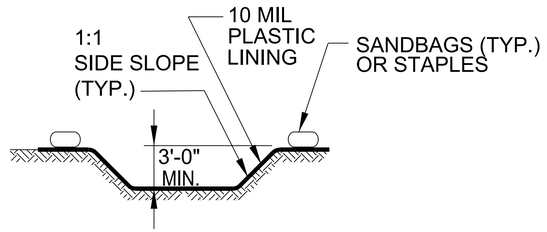
Std. #	Description	Symbol
1633.01	Temporary Rock Silt Check Type A	
1633.02	Temporary Rock Silt Check Type B	
1633.03	Temporary Rock Silt Check Type A with Excelsior Matting and Flocculant	
1634.01	Temporary Rock Sediment Dam Type A	
1634.02	Temporary Rock Sediment Dam Type B	
1635.01	Rock Pipe Inlet 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.
HS-2004W	EC-2A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

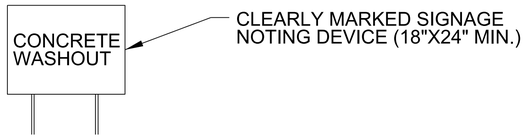
ONSITE CONCRETE WASHOUT STRUCTURE WITH LINER



PLAN



SECTION A-A



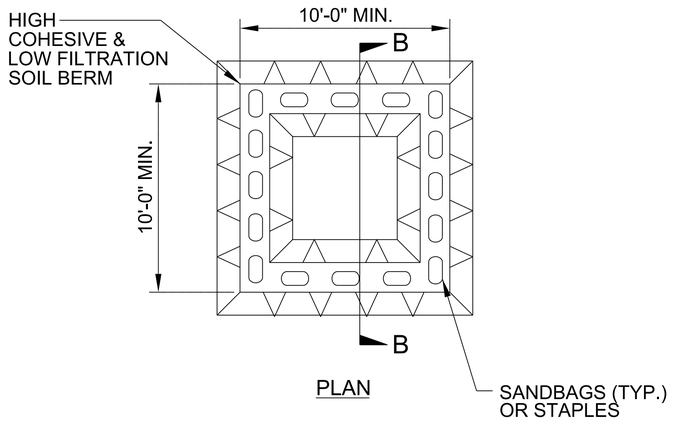
NOTES:
1. ACTUAL LOCATION DETERMINED IN FIELD

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.

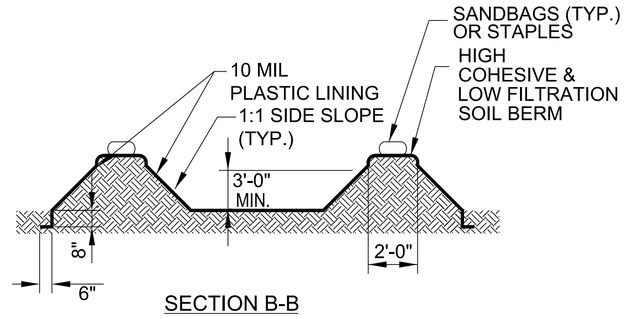
3.CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARY MARKED WITH SIGNAGE NOTING DEVICE.

BELOW GRADE WASHOUT STRUCTURE

NOT TO SCALE



PLAN



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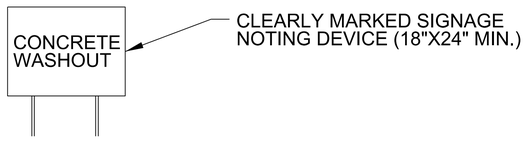

NOTES:
1. ACTUAL LOCATION DETERMINED IN FIELD

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.
HS-2004W	EC-3
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

PROJECT REFERENCE NO.	SHEET NO.
HS-2004W	EC-04
R/W SHEET NO.	04
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

REVISIONS

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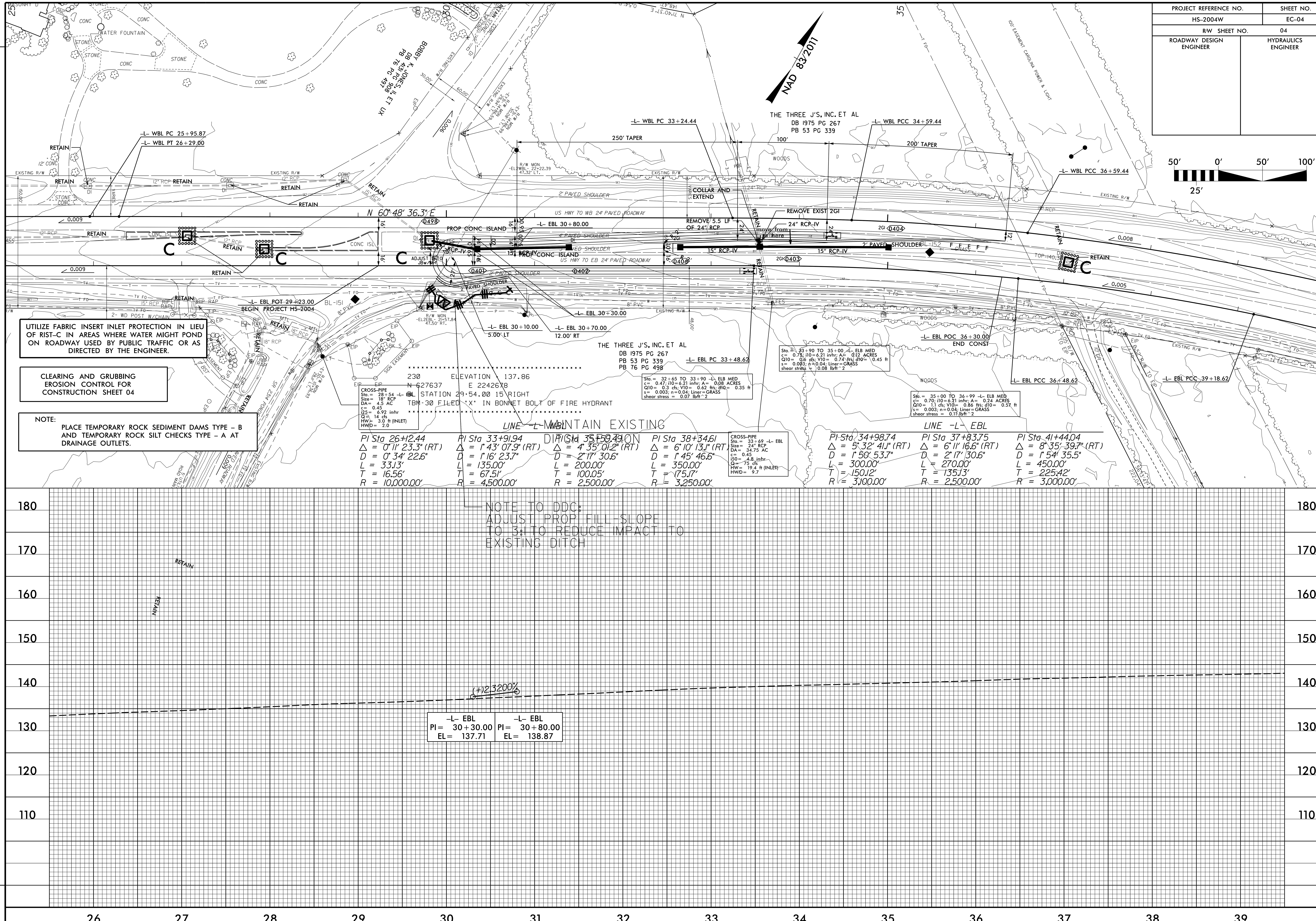
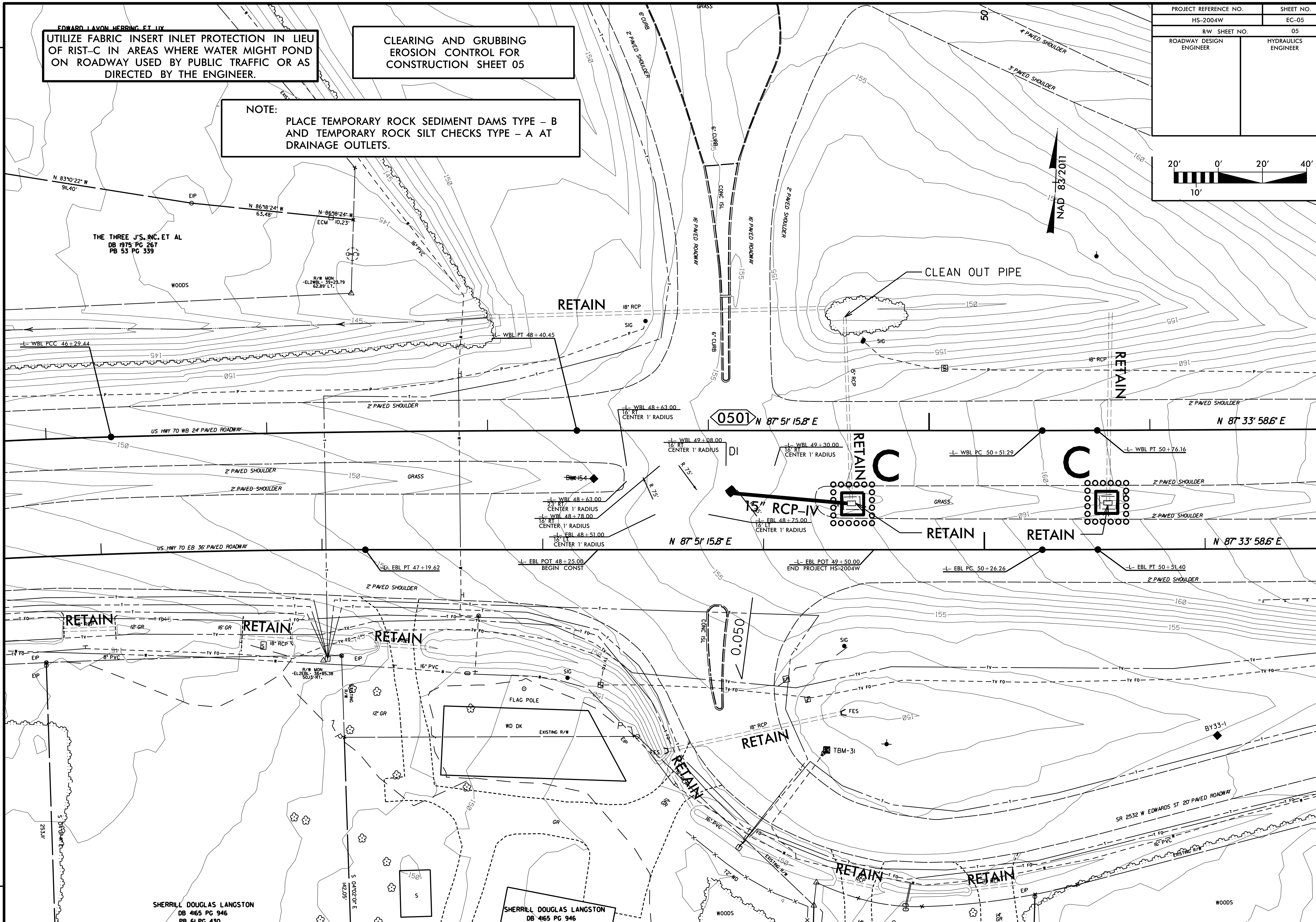


PROJECT REFERENCE NO.	SHEET NO.
HS-2004W	EC-05
R/W SHEET NO.	05
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

UTILIZE FABRIC INSERT INLET PROTECTION IN LIEU OF RIST–C IN AREAS WHERE WATER MIGHT POND ON ROADWAY USED BY PUBLIC TRAFFIC OR AS DIRECTED BY THE ENGINEER.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 05

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



REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
HS-2004W	EC-06
RW SHEET NO.	04
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

21-DEC-2023 15:02
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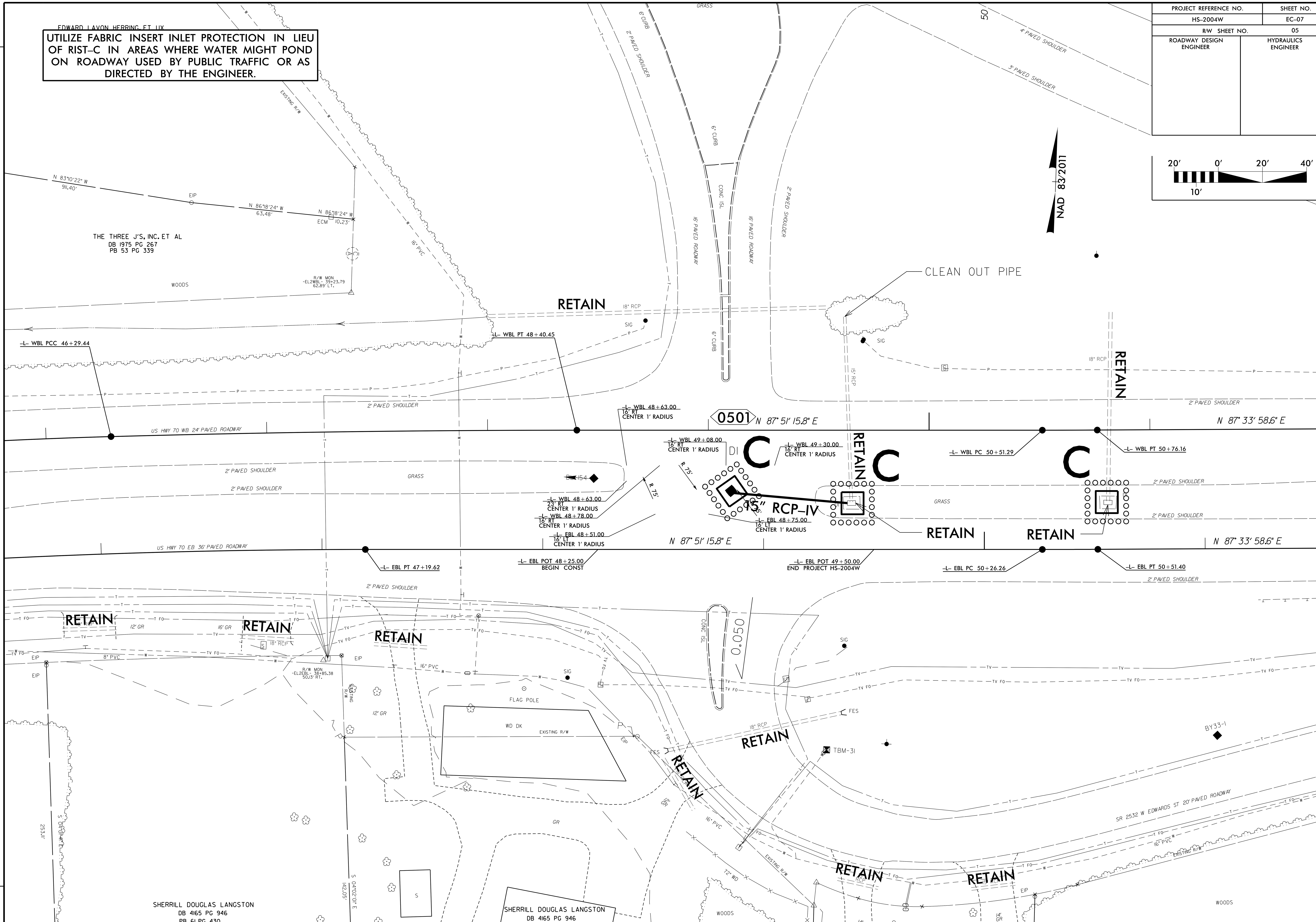
$$$USERNAME$$$

PROJECT REFERENCE NO.	SHEET NO.
HS-2004W	EC-07
RW SHEET NO.	05
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

UTILIZE FABRIC INSERT INLET PROTECTION IN LIEU OF RIST-C IN AREAS WHERE WATER MIGHT POND ON ROADWAY USED BY PUBLIC TRAFFIC OR AS DIRECTED BY THE ENGINEER.



REVISIONS

21-DEC-2023 15:30
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T.I.P.: HS-2004W

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

TIP NO.	SHEET NO.
HS-2004W	SIGN-1

APPROVED: DocuSigned by: Don A. Parker 75DB9E90ADEF440...

DATE: 1/3/2024 | 8:18 AM EST

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 043251 ENGINEER DON A. PARKER

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SIGNING PLAN
JOHNSTON COUNTY

LOCATION: US 70 AT US 70/SR 2532 (W. EDWARDS STREET) AND AT SR 2314 (PONDFIELD ROAD.)

ROADWAY STANDARD DRAWING

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

STD. NO.	TITLE
901.50	ARROWS AND SHIELDS
903.10	GROUND MOUNTED SIGN SUPPORTS
904.10	ORIENTATION OF GROUND MOUNTED SIGNS
904.20	SECONDARY SIGN MOUNTING
904.30	SUPPLEMENTAL SIGN MOUNTING
904.50	MOUNTING OF TYPE 'D', 'E' AND 'F' SIGNS ON 'U' CHANNEL POSTS
910.30	SIGNING SIGNALIZED AND UNSIGNALIZED SUPERSTREET

GENERAL NOTES

. SIGNS FURNISHED BY CONTRACTOR

. IF REMOVAL OR RELOCATION OF SIGNS ON PRIVATE STREET (NON-STATE MAINTAINED) IS REQUIRED DUE TO CONSTRUCTION, THE CONTRACTOR SHALL INFORM THE ENGINEER. THE WORK WILL BE COMPLETED BY OTHERS.

. WHEN NOT STATIONED OR DIMENSIONED ON PLANS, ALL 'E' AND 'F' SIGNS SHALL BE FIELD LOCATED BY THE ENGINEER

. ALL EXISTING SIGNS ON "U" CHANNEL POST WITHIN THE PROJECT LIMITS SHALL BE REMOVED AND DISPOSED OF UNLESS OTHERWISE NOTED ON PLANS.

. WHEN EXISTING SIGNS ARE REMOVED AND INSTALLED ON NEW SUPPORTS, THE RE-ERECTION SHALL IMMEDIATELY FOLLOW THE REMOVAL.

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

SUMMARY OF QUANTITIES

ITEM NO. DESC. NO.	ITEM NO. SECT. NO.	ITEM DESCRIPTION	QUANTITY	UNIT
4072000000	903	SUPPORTS, 3 LB STEEL U-CHANNEL	374	L.F.
4102000000	904	SIGN ERECTION, TYPE E	20	EA.
4108000000	904	SIGN ERECTION, TYPE F	3	EA.
4155000000	907	DISPOSAL OF SIGN SYSTEM, U-CHANNEL	15	EA.
4025000000	901	CONTRACTOR FURNISHED, TYPE E SIGN	177.75	S.F.
4025000000	901	CONTRACTOR FURNISHED, TYPE F SIGN	34.38	S.F.

INDEX

PLAN SUBMITTED TO: NCDOT DIVISION 4

ADDISON GAINEY, P.E. DIVISION PROJECT DEVELOPMENT ENGINEER

STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION

PLAN PREPARED BY: TGS ENGINEERS

DON A. PARKER, P.E. PROJECT ENGINEER

CODA BRANNAN, E.I. DESIGN ENGINEER

TGS ENGINEERS
706 HILLSBOROUGH ST. SUITE 200
RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275

TIP NO.	SHEET NO.
HS-2004W	SIGN-2

APPROVED: DocuSigned by: Don A. Parker 75DB9E90ADEF440...

DATE: 12/14/2023 | 10:23 AM EST

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 043251 ENGINEER DON A. PARKER

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TGS ENGINEERS
706 HILLSBOROUGH STREET
(SUITE 200)
RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275

401 QUANTITY REQ'D 3

54 x 18
R6-1 (L)

TWO "U" POSTS PER SIGN

406 QUANTITY REQ'D 2

54 X 18
R6-1 (R)

MOUNT ABOVE SIGN 407 IN 2 APPLICATIONS

501

M3-2 1 - 24X12

M1-4 1 - 24X24

ONE "U" POST PER SIGN

402 QUANTITY REQ'D 2

36 x 36
W2-2R

ONE "U" POST PER SIGN

407 QUANTITY REQ'D 2

36 X 36
R1-1

TWO "U" POSTS PER SIGN

502

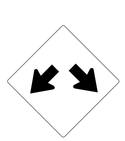
M3-2 1 - 24X12

M1-4 1 - 24X24

RNC3-26 1 - 24X24

ONE "U" POST PER SIGN

403 QUANTITY REQ'D 3



36 X 36
W12-1

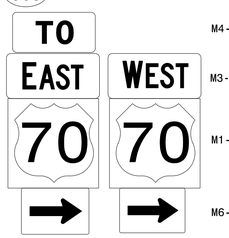
ONE "U" POST PER SIGN

408 QUANTITY REQ'D 4

36 X 36
R5-1

ONE "U" POST PER SIGN

503



M4-5 1 - 24X12

M3-2 1 - 24X12 M3-4 1 - 24X12

M1-4 1 - 24X24 M1-4 1 - 24X24

M6-1 1 - 21x15 M6-1 1 - 21x15

TWO "U" POSTS PER SIGN

404 QUANTITY REQ'D 1

36 X 36
W2-1

ONE "U" POSTS PER SIGN

405 QUANTITY REQ'D 3

36 X 48
R4-7

ONE "U" POST PER SIGN

TYPE "E" AND "F" SIGNS

TIP NO.	SHEET NO.
HS-2004W	SIGN-3

APPROVED: DocuSigned by: Don A. Parker 75DB9E90ADEF440...

DATE: 12/13/2023 | 4:21 PM EST

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 043251 ENGINEER DON A. PARKER

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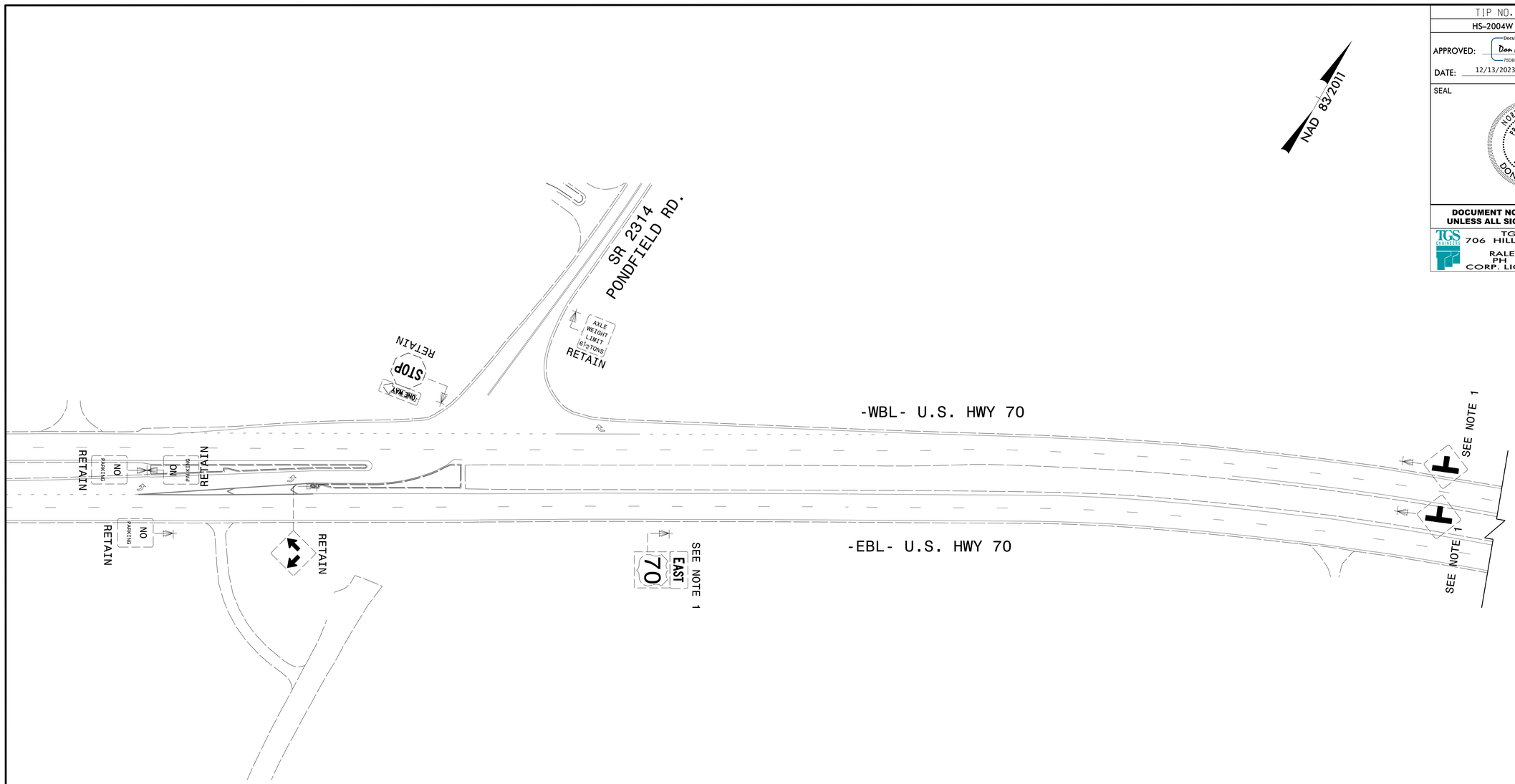
TGS ENGINEERS
706 HILLSBOROUGH STREET
(SUITE 200)
RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275



PROJECT NOTES

1. DISPOSAL OF SIGN SYSTEM, U-CHANNEL

EXISTING SIGNS

12/4/2023
X:\NCDOT\Division 4 GESC 2022\HS-2004W\Signing\HS-2004W_Sgn_SGN_03.dgn
User:cbrannan

TIP NO.	SHEET NO.
HS-2004W	SIGN-4

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DATE: 12/13/2023 | 4:21 PM EST

SEAL

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 043251 DON A. PARKER

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TGS ENGINEERS
706 HILLSBOROUGH STREET
(SUITE 200)
RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275

NAD 83/2011

RETAIN

RETAIN ONE WAY

RETAIN STOP

SEE NOTE 1

SEE NOTE 1 ONE WAY

SEE NOTE 1 DO NOT ENTER

EXIST. FLASHING BEACON SIGN ASSEMBLY (DAMAGED)

VEHICLE EXITING WHEN FLASHING

EXIST. FLASHING BEACON SIGN ASSEMBLY (DAMAGED) SEE NOTE 1

EXIST. FLASHING BEACON SIGN ASSEMBLY

STOP SEE NOTE 1

SEE NOTE 1

RETAIN FLASHING BEACON SIGN ASSEMBLY

PROJECT NOTES

1. DISPOSAL OF SIGN SYSTEM, U-CHANNEL

EXISTING SIGNS

12/4/2023
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User:cbrannan

TIP NO.	SHEET NO.
HS-2004W	SIGN-5

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DATE: 12/13/2023 | 4:21 PM EST

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 043251 ENGINEER DON A. PARKER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

TGS ENGINEERS
706 HILLSBOROUGH STREET
(SUITE 200)
RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275

NAD 83/2011

25 30 35

SR 2314
PONDFIELD RD.

-WBL- U.S. HWY 70

-EBL- U.S. HWY 70

403

EAST 70 502

402

401 ONE WAY

EAST 70 501

402

PROPOSED SIGNS

12/4/2023
X:\NCDOT\Division 4 GESC 2022\HS-2004W\Signing\HS-2004W_Sgn_SGN_05.dgn
User:tbrannan

TIP NO.	SHEET NO.
HS-2004W	SIGN-6

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SEAL

NORTH CAROLINA PROFESSIONAL SEAL 043251 ENGINEER DON A. PARKER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

TGS ENGINEERS
706 HILLSBOROUGH STREET
(SUITE 200)
RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275

NAD 83/2011

U.S. HWY 70 ALT

-WBL- U.S. HWY 70

-EBL- U.S. HWY 70

SR 2532
W. EDWARDS ST.

503 TO 70 EAST 70 WEST

407 STOP 406 ONE WAY

405

401 ONE WAY

408 DO NOT ENTER

403

404

PROPOSED SIGNS

12/14/23
X:\NCDOT\Division 4 GESC 2022\HS-2004W\Signing\HS-2004W_Sgn_SGN_06.dgn
User:cbrannon

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PROJ. REFERENCE NO.	SHEET NO.
HS-2004W	X-1

Approximate quantities only. Unclassified excavation, shoulder borrow, fine grading, clearing and grubbing, breaking of existing pavement and removal of existing pavement will be paid for at the contract lump sum price

CROSS-SECTION INDEX

NOTE: EMBANKMENT COLUMN DOES NOT INCLUDE BACKFILL FOR UNDERCUT

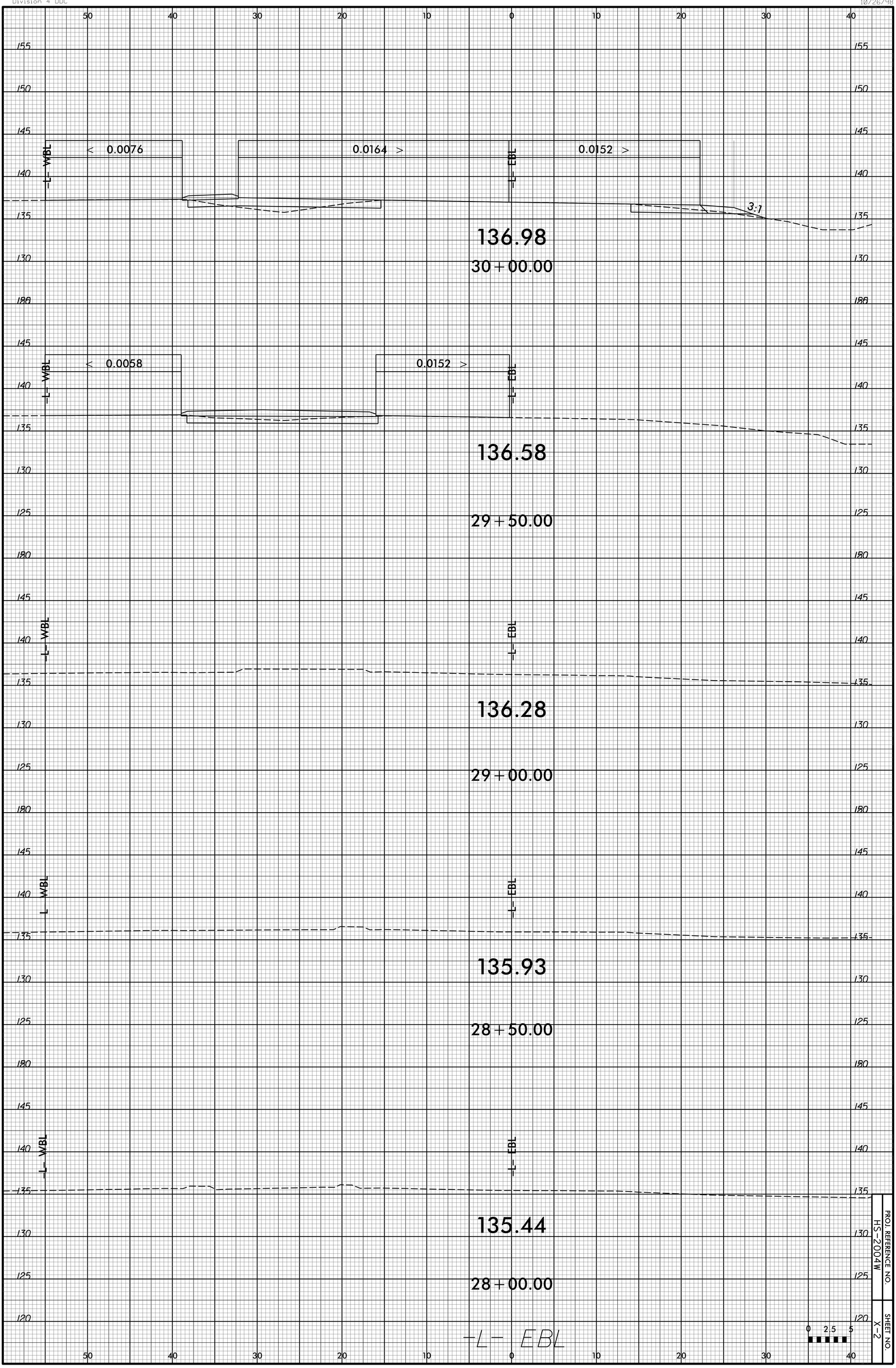
CROSS-SECTION SUMMARY

STATION LEBL	UNCLASSIFIED EXCAVATION (CU YD)	EMBANKMENT (CU YD)	
29+23.00			
29+50.00	7		
30+00.00	24	4	
30+50.00	22	7	
31+00.00	18	5	
31+50.00	13	3	
32+00.00	12	3	
32+50.00	13	3	
33+00.00	10	3	
33+50.00	6	8	
34+00.00	5	10	
34+50.00	6	9	
35+00.00	5	9	
35+50.00	5	7	
36+00.00	5	3	
36+30.00	3	1	

STATION	UNCLASSIFIED EXCAVATION (CU YD)	EMBANKMENT (CU YD)	

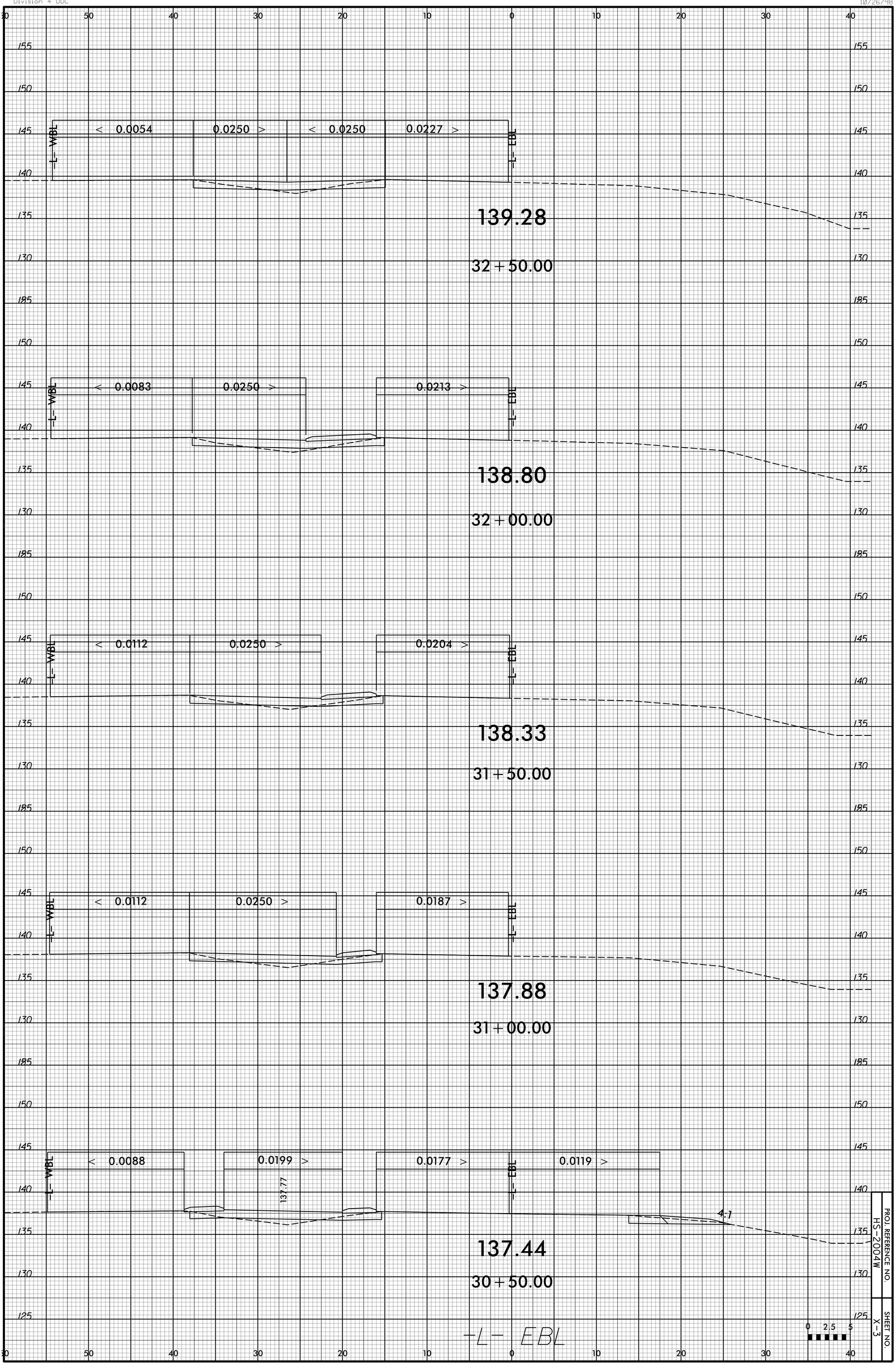
STATION	UNCLASSIFIED EXCAVATION (CU YD)	EMBANKMENT (CU YD)	

STATION	UNCLASSIFIED EXCAVATION (CU YD)	EMBANKMENT (CU YD)	



PROJ. REFERENCE NO. HS-2004W

SHEET NO. X-2



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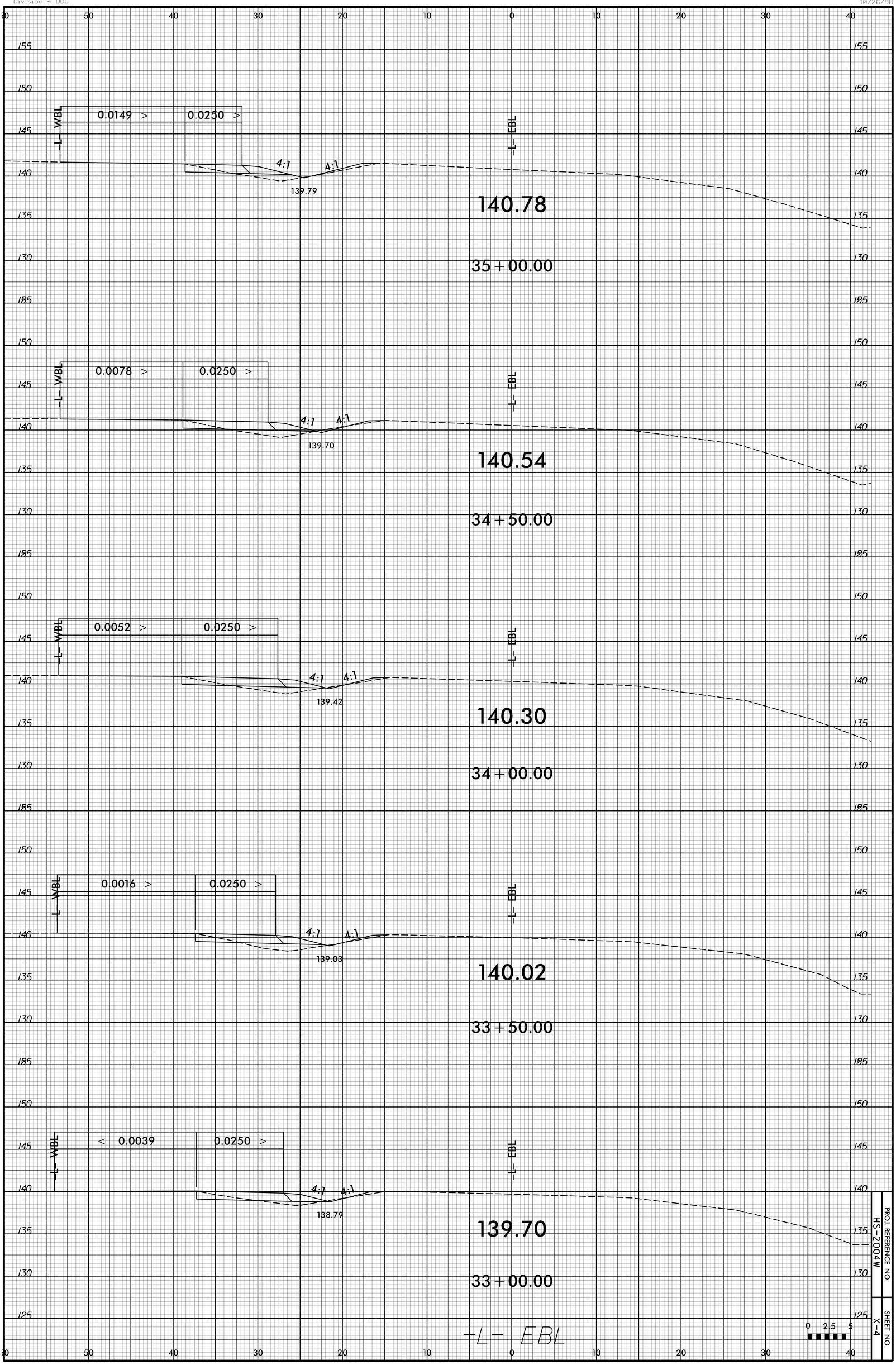

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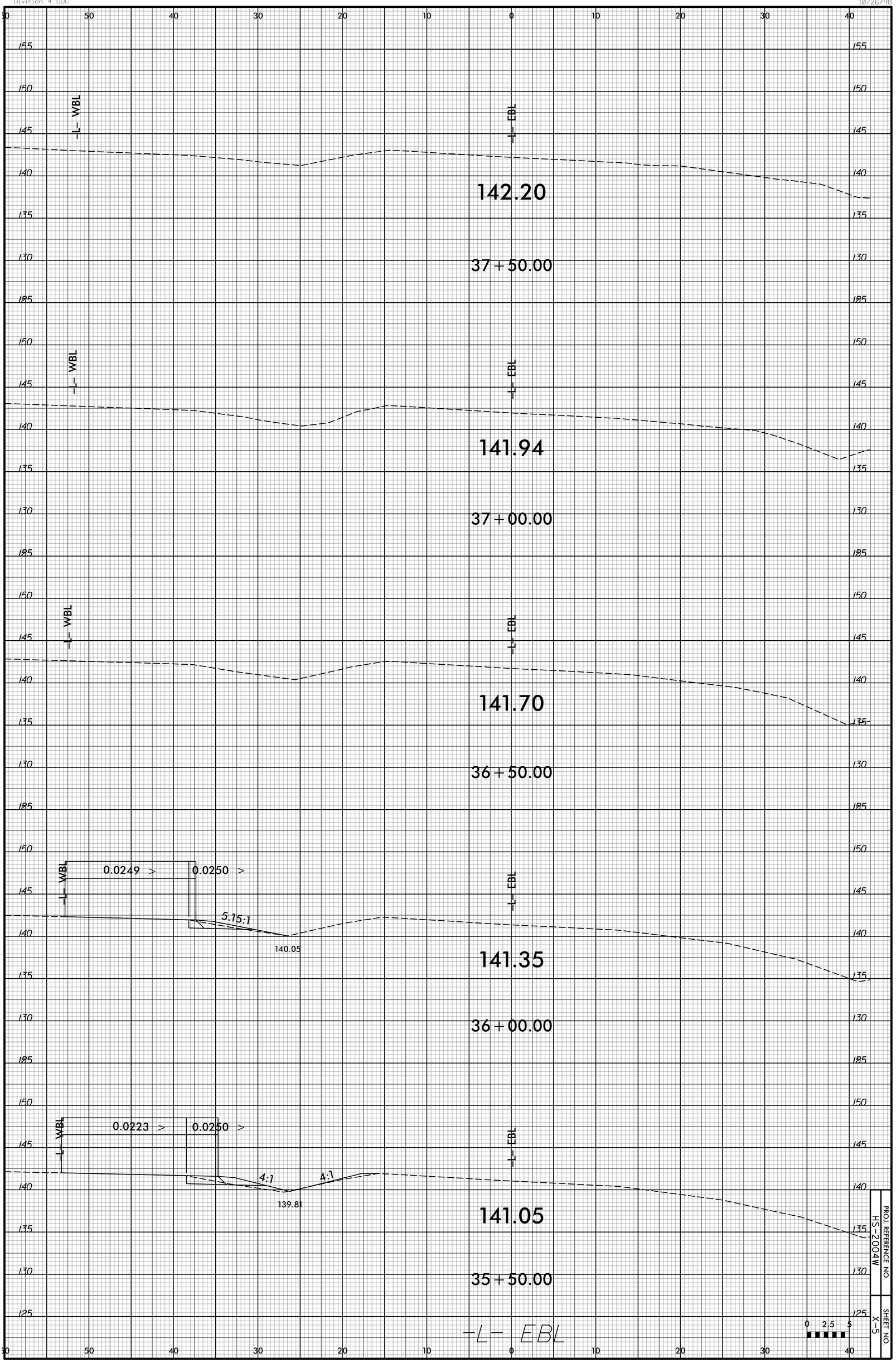
SHEET NO. X-4



PROJ. REFERENCE NO. HS-2004W

SHEET NO. X-5