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This file or an individual page shall not be considered a certified document.

DDC4

7/2/99

TIP PROJECT: W-5601B

CONTRACT: DD00179

See Sheet 1-A For Index of Sheets

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

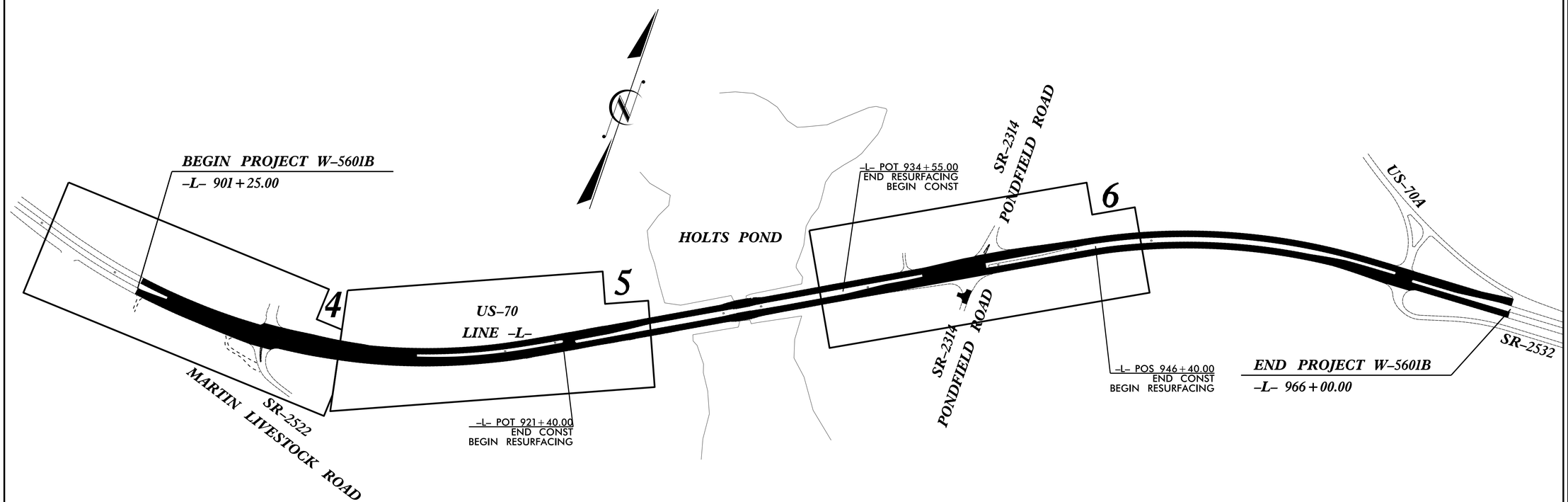
JOHNSTON COUNTY

LOCATION: INTERSECTION IMPROVEMENTS AT US-70 & SR-2522 (MARTIN LIVESTOCK ROAD) AND US-70 & SR-2314 (PONDFIELD ROAD)

TYPE OF WORK: GRADING, DRAINAGE AND PAVING

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W-5601B	1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
50138.1.FS3	HSIP-0070(183)	PE
50138.3.FS3	HSIP-0070(183)	CONST.



GRAPHIC SCALES

50 25 0 50 100
PLANS

50 25 0 50 100
PROFILE (HORIZONTAL)

10 5 0 10 20
PROFILE (VERTICAL)

DESIGN DATA

ADT 2015 = 17800

V = 60 MPH

FUNC CLASS =
PRINCIPAL ARTERIAL

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT W-5601B = 1.226 MILES
TOTAL LENGTH TIP PROJECT W-5601B = 1.226 MILES

Prepared in the Office of:

DIVISION OF HIGHWAYS
Division 4 DDC
509 Ward Blvd., Wilson NC, 27895

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
NA

LETTING DATE:
June 28, 2016

T.M. LITTLE, P.E.
PROJECT ENGINEER

D.R. ETHRIDGE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

5/31/2016

DocuSigned by:
Paul A Jordan
B0DE307A1CC4427...
P.E.
SIGNATURE:

NORTH CAROLINA PROFESSIONAL SEAL 034349 ENGINEER PAUL A. JORDAN

ROADWAY DESIGN ENGINEER

5/31/2016

DocuSigned by:
Jerry P. Page
E7A64DAB1B7240A...
P.E.
SIGNATURE:

NORTH CAROLINA PROFESSIONAL SEAL 018537 ENGINEER JERRY P. PAGE

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

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PROJECT REFERENCE NO.	SHEET NO.
W-5601B	1A

ROADWAY DESIGN ENGINEER
5/31/2018
NORTH CAROLINA PROFESSIONAL SEAL 018537 ENGINEER JERRY P. PAGE
DocuSigned by:
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DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

INDEX OF SHEETS

SHEET NUMBER	SHEET
1	TITLE SHEET
1A	INDEX OF SHEETS, GENERAL NOTES, AND STANDARD DRAWINGS
1B	CONVENTIONAL SYMBOLS
1C-1	SURVEY CONTROL SHEETS
2A-1 THRU 2A-3	PAVEMENT SCHEDULE AND TYPICAL SECTIONS
3B-1	ROADWAY SUMMARIES
3D-1	DRAINAGE SUMMARIES
4 THRU 6	PLAN AND PROFILE SHEET
TMP-1 THRU TMP-2	TRAFFIC MANAGEMENT PLANS
PMP-1 THRU PMP-4	PAVEMENT MARKING PLANS
EC-1 THRU EC-9	EROSION CONTROL PLANS
SIGN-1 THRU SIGN-8	SIGNING PLANS
X-1A	CROSS-SECTION SUMMARY SHEET
X-1 THRU X-23	CROSS-SECTIONS

2012 ROADWAY ENGLISH STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN
"ROADWAY STANDARD DRAWINGS"
HIGHWAY DESIGN BRANCH
N. C. DEPARTMENT OF TRANSPORTATION
RALEIGH, N. C., DATED JANUARY, 2012 ARE APPLICABLE TO THIS PROJECT
AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD.NO.	TITLE
DIVISION 2 - EARTHWORK	
200.03	METHOD OF CLEARING - METHOD III
225.02	GUIDE FOR GRADING SUBGRADE - SECONDARY AND LOCAL
225.05	METHOD OF OBTAINING SUPERELEVATION - DIVIDED HIGHWAYS
225.06	METHOD OF GRADING SIGHT DISTANCE AT INTERSECTIONS
DIVISION 3 - PIPE CULVERTS	
300.01	METHOD OF PIPE INSTALLATION
310.10	DRIVEWAY PIPE CONSTRUCTION
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
840.19	CONCRETE GRATED DROP INLET TYPE 'D' - 12" THRU 36" PIPE
840.22	FRAMES AND WIDE SLOT SAG GRATES
840.27	BRICK GRATED DROP INLET TYPE 'B' - 12" THRU 36" PIPE
840.28	BRICK GRATED DROP INLET TYPE 'D' - 12" THRU 36" PIPE
840.45	PRECAST DRAINAGE STRUCTURE
840.71	CONCRETE AND BRICK PIPE PLUG
840.72	PIPE COLLAR
852.01	CONCRETE ISLANDS
862.01	GUARDRAIL PLACEMENT
862.02	GUARDRAIL INSTALLATION

GENERAL NOTES:
GRADING AND SURFACING OR RESURFACING AND WIDENING:

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

CLEARING:

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

SUPERELEVATION:

ALL CURVES ON THIS PROJECT SHALL BE SUPERELEVATED IN ACCORDANCE WITH STD. NO. 225.05 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

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.

BERM DITCHES:

BERM DITCHES SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 240.01 AT LOCATIONS SHOWN ON THE PLANS OR AS 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 CONTRACTOR SHOULD MAKE HIS OWN INVESTIGATION AS TO THE SUBSURFACE CONDITIONS.

UTILITIES:

UTILITY OWNERS ON THIS PROJECT ARE: BROADPLEX
DUKE POWER
CENTURYLINK
TIME WARNER CABLE
TOWN OF PRINCETON WATER
JOHNSTON COUNTY WATER

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04/06/15

PROJECT REFERENCE NO.	SHEET NO.
W-5601B	1B

STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

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

BOUNDARIES AND PROPERTY:

- State Line
- County Line
- Township Line
- City Line
- Reservation Line
- Property Line
- Existing Iron Pin — EIP
- Property Corner
- Property Monument — ECM
- Parcel/Sequence Number — 123
- Existing Fence Line
- Proposed Woven Wire Fence
- Proposed Chain Link Fence
- Proposed Barbed Wire Fence
- Existing Wetland Boundary — WLB
- Proposed Wetland Boundary — WLB
- Existing Endangered Animal Boundary — EAB
- Existing Endangered Plant Boundary — EPB
- Existing Historic Property Boundary — HPB
- Known Contamination Area: Soil
- 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 — 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 R/W Marker — RW
- Proposed Control of Access Line with Concrete C/A Marker — CA
- 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
- Existing Metal Guardrail
- Proposed Guardrail
- Existing Cable Guiderail
- Proposed Cable Guiderail
- Equality Symbol
- Pavement Removal

VEGETATION:

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

EXISTING STRUCTURES:

MAJOR:

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

MINOR:

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

UTILITIES:

POWER:

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

TELEPHONE:

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

WATER:

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

TV:

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

GAS:

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

SANITARY SEWER:

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

MISCELLANEOUS:

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

PROJECT REFERENCE NO.	SHEET NO.
W-5601B	1C-1
Location and Surveys	

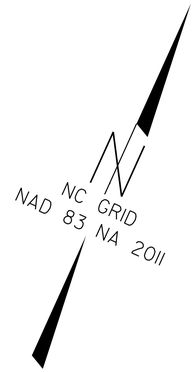
SURVEY CONTROL SHEET W-5601-B

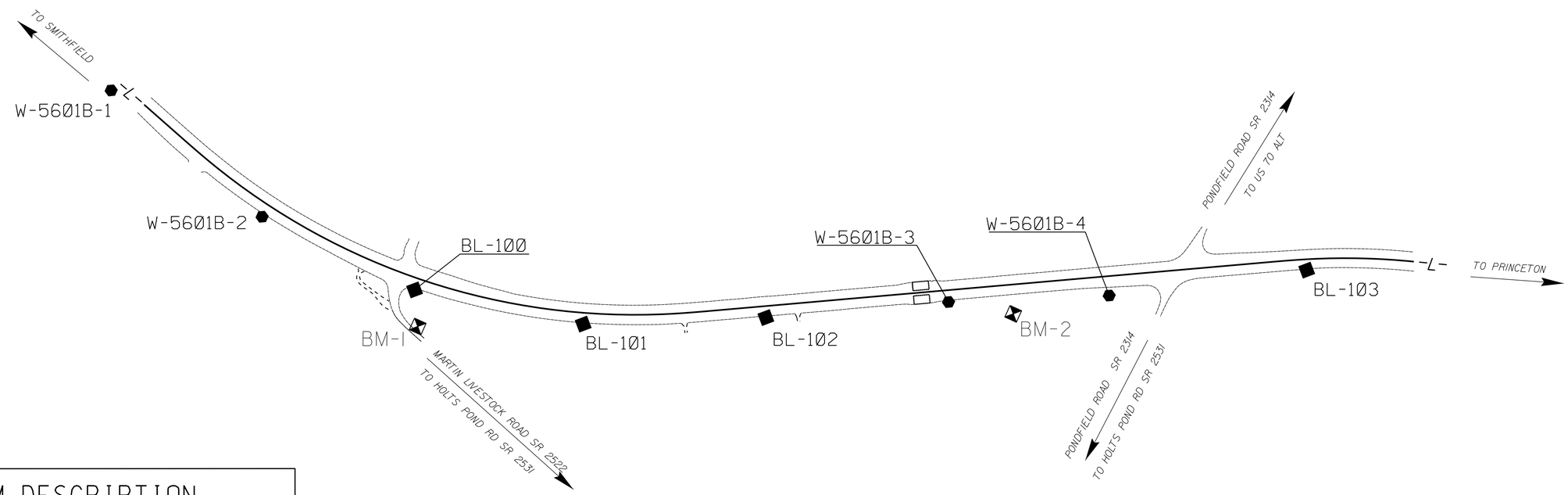
BL

POINT	DESC.	NORTH	EAST	ELEVATION	L STATION	OFFSET
1	W-5601B-1	626483.1780	2238120.5060	155.29	892+95.57	47.22 RT
2	W-5601B-2	626258.7910	2238925.2740	152.68	901+24.18	55.96 RT
100	BL-100	626242.6800	2239642.7970	149.98	908+30.48	50.39 RT
101	BL-101	626405.3290	2240354.9580	142.81	915+50.47	47.91 RT
102	BL-102	626750.0080	2241050.4030	133.56	923+19.89	48.70 RT
3	W-5601B-3	627129.8370	2241730.2570	128.64	930+98.65	50.28 RT
4	W-5601B-4	627435.6880	2242340.5180	135.04	937+80.51	82.31 RT
103	BL-103	627875.7080	2243057.5510	139.01	946+22.53	47.92 RT

BM-1 ELEVATION = 148.91
N 626107 E 2239719
L STATION 908+90.00 194 RIGHT

BM-2 ELEVATION = 124.85
N 627186 E 2242001
L STATION 933+63.00 134 RIGHT





DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCGS FOR MONUMENT "W-5601B-3"
WITH NAD 83/ 2011 STATE PLANE GRID COORDINATES OF
NORTHING: 627129.8370(ft) EASTING: 2241730.2570(ft)
ELEVATION: 128.64(ft)
THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.99987838
THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "W-5601B-3" TO -L- STATION 871+66.00 IS
S86°26'42.78"W 5,716.52'
ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
VERTICAL DATUM USED IS NAVD 88

NOTE: DRAWING NOT TO SCALE

NOTES:

1. *THE CONTROL DATA FOR THIS PROJECT CAN BE FOUND ELECTRONICALLY BY SELECTING PROJECT CONTROL DATA AT:*
   HTTPS://CONNECT.NCDOT.GOV/RESOURCES/LOCATION/

   THE FILES TO BE FOUND ARE AS FOLLOWS:
   W-5601B_LS_CONTROL.TXT

   SITE CALIBRATION INFORMATION HAS NOT BEEN PROVIDED FOR THIS PROJECT. IF FURTHER INFORMATION IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.

⬢ *INDICATES GEODETIC CONTROL MONUMENTS USED OR SET FOR HORIZONTAL PROJECT CONTROL BY THE NCDOT LOCATION AND SURVEYS UNIT.*
PROJECT CONTROL ESTABLISHED USING GLOBAL POSITIONING SYSTEM.

6/2/99
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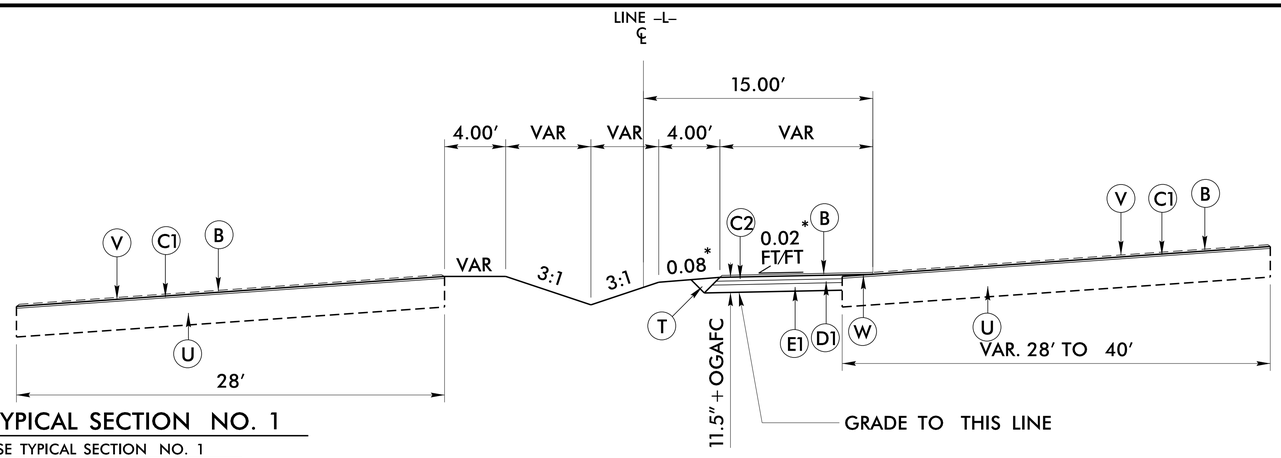
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
W-5601B	2A-1
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER
5/31/2016 NORTH CAROLINA PROFESSIONAL SEAL 018537 ENGINEER JERRY P. PAGE	5/20/2016 NORTH CAROLINA PROFESSIONAL SEAL 022896 ENGINEER CLARK S. MORRISON
DocuSigned by: Jerry Page	DocuSigned by: Clark Morrison

NOTE:
–L– 921+40 TO 934+55
–L– 946+40 TO 966+00 +/–

MILL 2" (OGAFC + 1.5")
RESURFACE 1.5" S9.5C
RESURFACE OGAFC, TYPE FC–2 MODIFIED

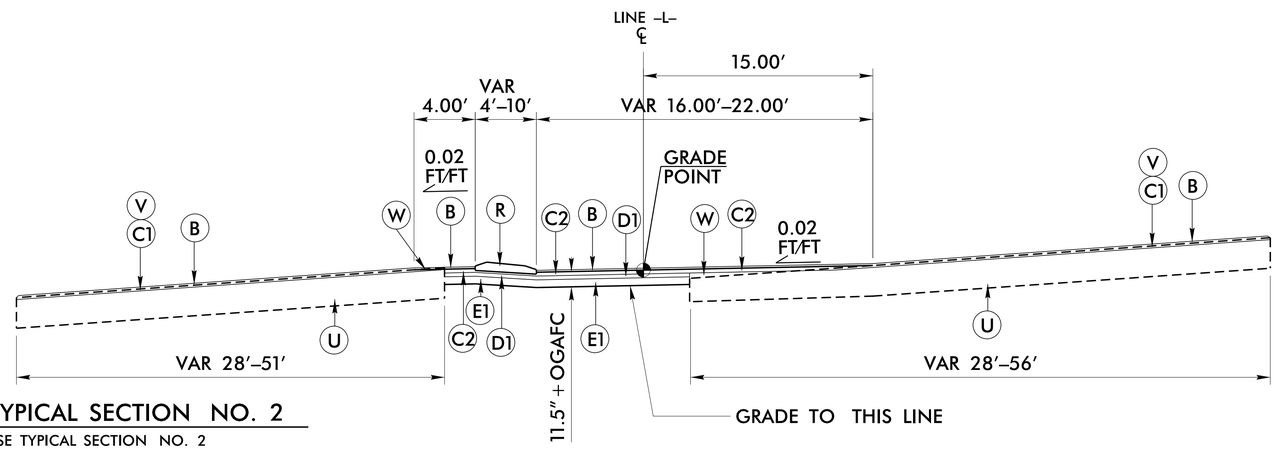


TYPICAL SECTION NO. 1

USE TYPICAL SECTION NO. 1

–L– 901+25 TO 902+66
–L– 914+60 TO 921+40
–L– 934+55 TO 936+50*

* VARIABLE SLOPE

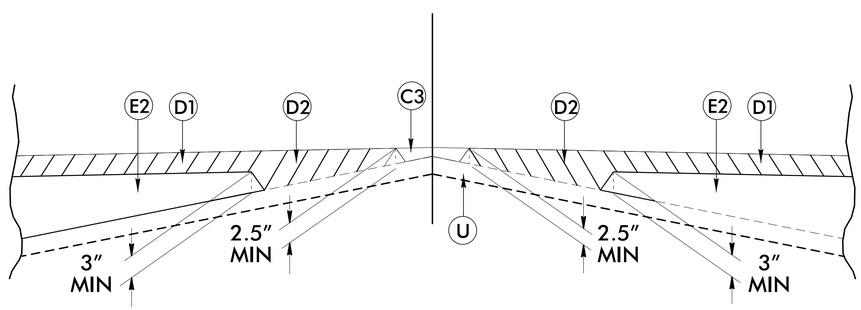


TYPICAL SECTION NO. 2

USE TYPICAL SECTION NO. 2

–L– 902+66 TO 905+50*
–L– 905+50 TO 906+00
–L– 910+00 TO 910+50
–L– 910+50 TO 914+60*

* NO GRADE POINT



Detail Showing Method of Wedging

PAVEMENT SCHEDULE *FINAL PAVEMENT DESIGN*	
B	PROP. OPEN-GRADED ASPHALT FRICTION COURSE, TYPE FC-2 MODIFIED, AT AN AVERAGE RATE OF 90 LBS. PER SQ. YD.
C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YARD.
C2	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YARD IN EACH OF TWO LAYERS.
C3	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE TYPE S9.5C, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YARD PER 1" DEPTH TO BE PLACED IN LAYERS NOT TO EXCEED 2" IN DEPTH.
D1	PROP. APPROX. 3" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 342 LBS. PER SQ. YARD.
D2	PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YARD.
D3	PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE TYPE I19.0C, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YARD PER 1" DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 2.5" OR GREATER THAN 4" IN DEPTH.
E1	PROP. APPROX. 5.5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 627 LBS. PER SQ. YARD.
E2	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE TYPE B25.0C, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YARD PER 1" DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 3" OR GREATER THAN 5.5" IN DEPTH.
R	5" MONOLITHIC CONCRETE ISLAND.
T	EARTH MATERIAL
U	EXISTING PAVEMENT
W	VARIABLE DEPTH ASPHALT PAVEMENT (SEE DETAIL SHOWING METHOD OF WEDGING ON THIS SHEET)
V	MILLING (EXISTING OPEN-GRADED ASPHALT FRICTION COURSE + 1.5")

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

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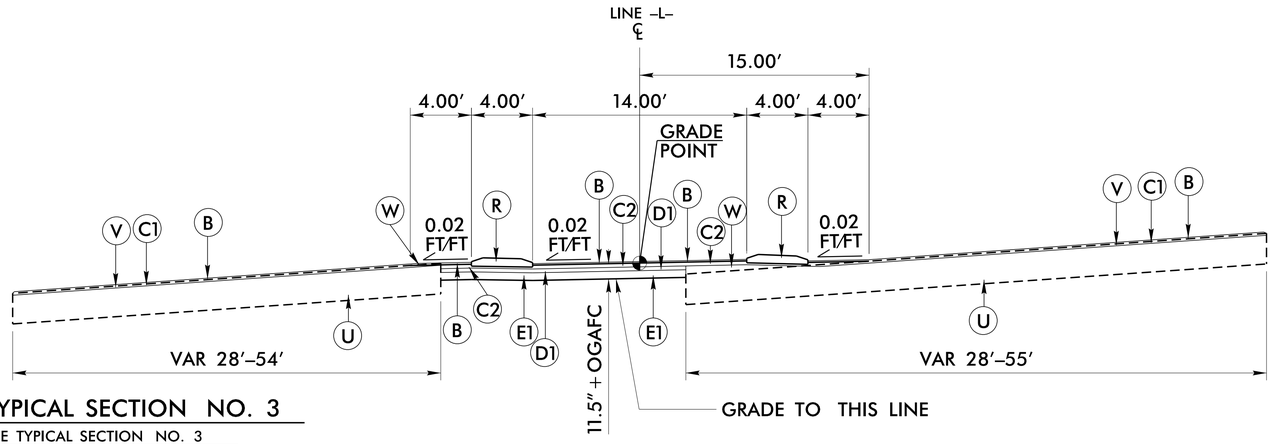
PROJECT REFERENCE NO.	SHEET NO.
W-5601B	2A-2

ROADWAY DESIGN ENGINEER
5/31/2016
NORTH CAROLINA PROFESSIONAL SEAL 018537 ENGINEER JERRY P. PAGE
DocuSigned by: Jerry P. Page

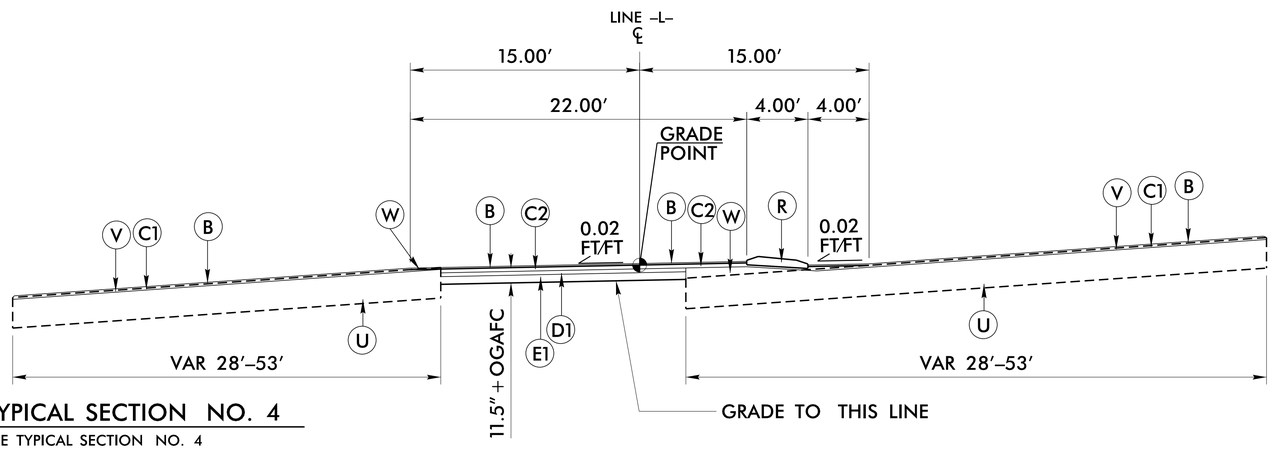
PAVEMENT DESIGN ENGINEER
5/20/2016
NORTH CAROLINA PROFESSIONAL SEAL 022896 ENGINEER CLARK S. MORRISON
DocuSigned by: Clark Morrison



TYPICAL SECTION NO. 3

USE TYPICAL SECTION NO. 3

-L- 906+00 TO 907+00
-L- 909+00 TO 910+00



TYPICAL SECTION NO. 4

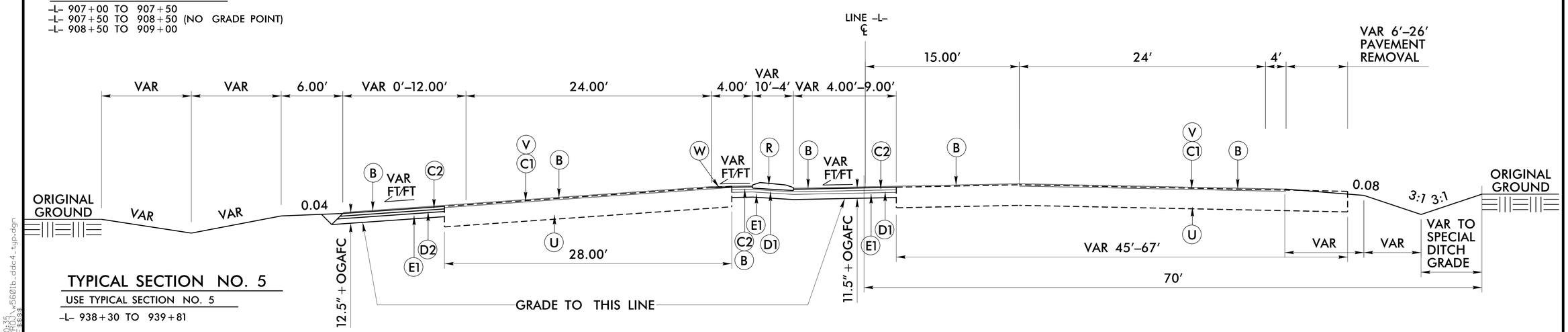
USE TYPICAL SECTION NO. 4

-L- 907+00 TO 907+50
-L- 907+50 TO 908+50 (NO GRADE POINT)
-L- 908+50 TO 909+00

B	OGAFC TYPE 2 MODIFIED	E1	5.5″ B25.0C
C1	1.5″ S9.5C	E2	VAR. B25.0
C2	3″ S9.5C	R	5″ MCI
C3	VAR. S9.5C	T	EARTH MATERIAL
D1	3″ I19.0C	U	EXIST. PAVEMENT
D2	4″ I19.0C	W	WEDGING
C3	VAR. I19.0C	V	MILLING (OGAFC + 1½″)

PAVEMENT SCHEDULE

FINAL PAVEMENT DESIGN



TYPICAL SECTION NO. 5

USE TYPICAL SECTION NO. 5

-L- 938+30 TO 939+81

6/2/99

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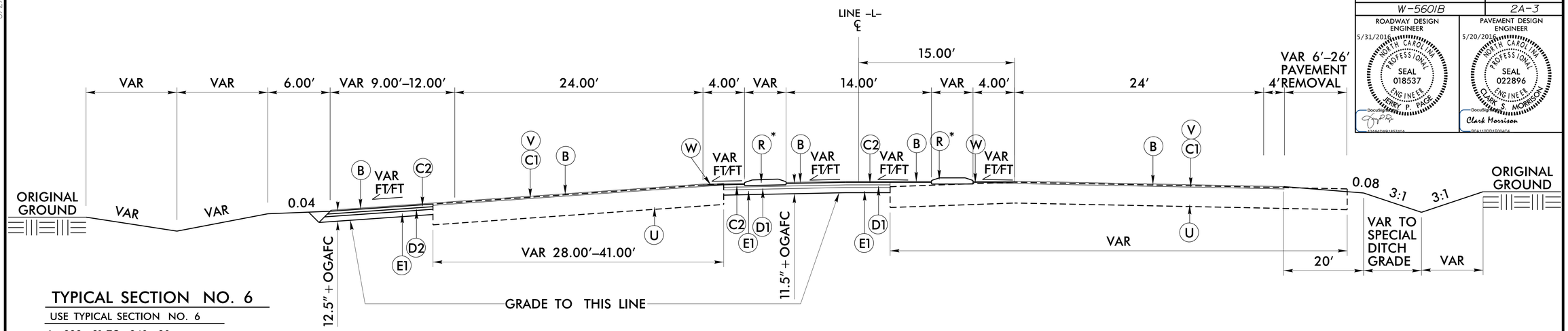
PROJECT REFERENCE NO.	SHEET NO.
W-5601B	2A-3

ROADWAY DESIGN ENGINEER
5/31/2016
NORTH CAROLINA PROFESSIONAL SEAL 018537 ENGINEER JERRY P. PAGE

PAVEMENT DESIGN ENGINEER
5/20/2016
NORTH CAROLINA PROFESSIONAL SEAL 022896 ENGINEER CLARK S. MORRISON
Clark Morrison

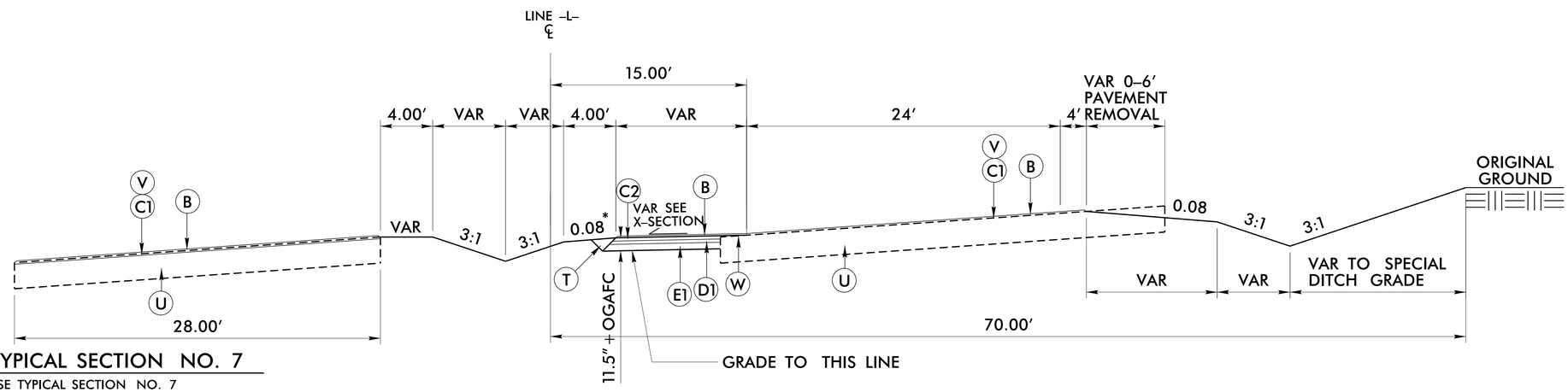


TYPICAL SECTION NO. 6

USE TYPICAL SECTION NO. 6

-L- 939+81 TO 940+30
-L- 940+30 TO 941+16.35*

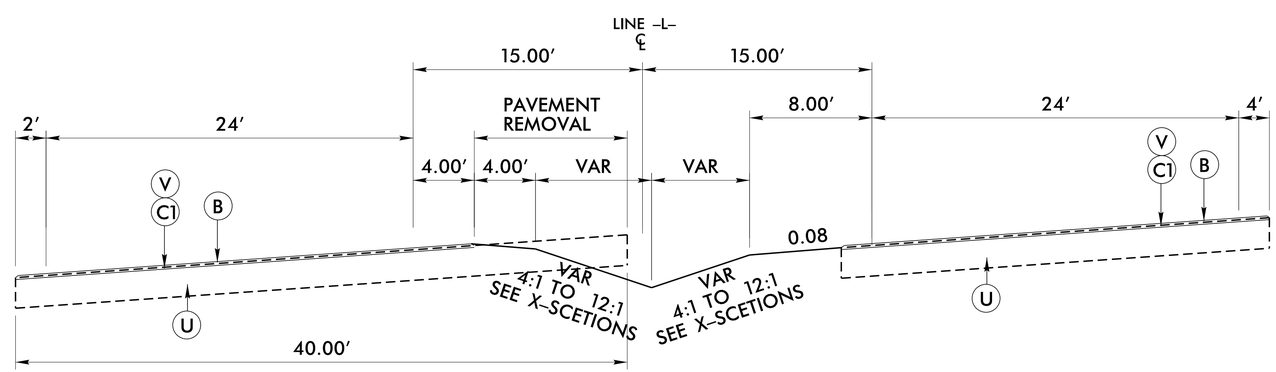
*ONLY 1 ISLAND (LOCATION VARIES).
ADDITIONAL PAVEMENT ON FAR LEFT ENDS AT 940+81.00



TYPICAL SECTION NO. 7

USE TYPICAL SECTION NO. 7

-L- 936+50 TO 938+30



TYPICAL SECTION NO. 8

USE TYPICAL SECTION NO. 8

-L- 941+16.35 TO 946+40

PAVEMENT SCHEDULE

FINAL PAVEMENT DESIGN

B	OGAFC TYPE 2 MODIFIED
C1	1.5" S9.5C
C2	3" S9.5C
C3	VAR. S9.5C
D1	3" I19.0C
D2	4" I19.0C
C3	VAR. I19.0C
E1	5.5" B25.0C
E2	VAR. B25.0
R	5" MCI
T	EARTH MATERIAL
U	EXIST. PAVEMENT
W	WEDGING
V	MILLING (OGAFC + 1½")

6/2/99

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COMPUTED BY:	D.R.E.	DATE:	5/31/2016
CHECKED BY:		DATE:	

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO.	SHEET NO.
W-5601B	3B-1

Quantities are approximate only. The Resident Engineer will recross-section the work accurately when the project is staked out. These cross-section notes will be used in computing the final quantities for which the contractor will be paid.

SUMMARY OF REMOVAL OF EXISTING ASPHALT PAVEMENT

STATION TO STATION			LOC	SQUARE YARDS
-L-	909+50	911+49	LT	140
-L-	936+70	941+50	RT	800
-L-	941+26	945+74	CL	430
TOTAL				1370
SAY				1370

SUMMARY OF EARTHWORK

Volumes in Cubic Yards

STATION TO STATION				Uncl. Excav.		Embank +%	Borrow	Waste
L	900+00	TO	907+10	210		24		186
L	907+10	TO	908+15					
L	908+15	TO	921+40	471		90		381
			SUBTOTAL	681		114		567
L	934+55	TO	946+42	772		550	242	464
			SUBTOTAL	772		550	242	464
TOTAL				1453		664	242	1031
WASTE TO REPLACE BORROW							-158	-158
PROJECT TOTAL				1453		664	84	873
ESTIMATE TO REPLACE TOPSOIL ON BORROW PIT							4	
GRAND TOTAL				1453		664	88	873
SAY				1500			100	900

COMPUTED BY: D.R.ETHRIDGE DATE: 5/2/2016
CHECKED BY: DATE:

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.
W-5601B	3D-1

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 / Size / Thickness or Gauge	Location (LT, RT, or CL)	Structure No. From	To	Top Elevation	Invert Elevation	Invert Elevation	Slope Critical	Drainage Pipe (RCP, CSP, CAAP, HDPE, or PVC) 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 12" .064	15" .064	18" .064	24" .064	30" .079	36" .079	42" .109	48" .109	R.C. Pipe Class III 12"	15"	18"	24"	30"	36"	42"	48"	R.C. Pipe Class IV 12"	15"	18"	24"	30"	36"	42"	48"
-L- 902+00.39	LT	402		150.36'	148.36'																																						
		402	403		148.36'	146.62'																															200'						
-L- 904+00.00	LT	403		150.91'	146.62'																																						
-L- 905+49.81	LT	404		150.28'	147.11'																																						
		404	405		147.11'	144.86'																															128'						
-L- 906+78.33	LT	405		149.75'	144.86'																																						
		405	406		144.86'	146.58'																															20'						
-L- 906+77.51	RT	406		149.75'	146.58'																																						
-L- 908+53.00	RT	407		148.40'	145.23'																																						
		407	408		145.23'	144.14'																															136'						
-L- 909+90.05	RT	408		147.31'	144.14'																																						
		408	409		144.14'	143.93'																															20'						
-L- 909+90.00	LT	409		147.10'	143.93'																																						
		409	501		143.93'	140.25'																															160'						
-L- 911+49.96	LT	501		145.37'	140.25'																																						
		501	502		140.25'	140.30'																															88'						
-L- 912+40.00	LT	502		144.26'	140.30'																																						
		501	520		140.25'	140.00'																															52'						
-L- 911+52.25	LT	520			140.00'																																						
-L- 914+39.64	LT	503		142.10'																																							
-L- 935+71.40	LT	601		129.84'	128.50'																																						
		601	603		128.50'	131.58'																														328'							
-L- 939+00.00	LT	603		134.58'	131.58'																																						
		603	604		131.58'	132.45'																														92'							
-L- 939+90.00	RT	604		135.62'	132.45'																																						
-L- 937+34.84	LT	613			128.68'																																						
		613	612		128.68'	128.81'				48'																																	
-L- 937+84.00	LT	612		130.98'	128.81'																																						
		612	611		128.81'	130.17'			168'																																		
-L- 939+50.00	LT	611		132.34'	130.17'																																						
		611	607		130.17'	131.15'			128'																																		
-L- 940+79.00	LT	607		133.33'	131.15'																																						
		607	610		131.15'	133.00'			48'																																		
-L- 941+20.88	LT	610			133.00'																																						
-L- 941+74.73	CL	606																																									
-L- 939+85.26	RT	608																																									
PROJECT TOTALS									344'	48'																										420'	804'						
SAY																																											

Station	15" Side Drain Pipe	Endwalls Std. 838.01 or Std. 838.11 (Unless Noted Otherwise) Cu. Yards R.C.P.	C.S.P.	Quantities for Drainage Structures (*Total L.F. for Pay Quantity Shall Be Col. 'A' + (1.3 X Col. 'B')) Per Each (0' thru 5.0')	Lin. Ft. A: 5.0' thru 10.0'	B: 10.0' and Above	C.B. Std. 840.01 or Std. 840.02	Frame, Grates, and Hood Standard 840.03 Type of Grate E	F	G	Concrete Transitional Section: 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	Grated D.I. Type "D" Std. 840.19 or 840.28	Frame with Two Wide Slot Sag Grates Std. 840.22	Conc. & Brick Pipe Plug, C.Y. Std. 840.71	Conc. Collars Cl. "B" C.Y. Std. 840.72	Pipe Removal Lin. Ft.	Remarks
-L- 902+00.39				1												1	1				
-L- 904+00.00				1							1		1	1							
-L- 905+49.81				1							1		1	1							
-L- 906+78.33				1							1		1	1							
-L- 906+77.51				1							1		1	1							
-L- 908+53.00				1							1		1	1							
-L- 909+90.05				1							1		1	1							
-L- 909+90.00				1							1		1	1							
-L- 911+49.96				1	0.1'						1		1	1							
-L- 912+40.00				1							1		1	1							
-L- 914+39.64				1							1		1	1							REMOVE DI
-L- 935+71.40				1											1		1				REMOVE DI
-L- 939+00.00				1							1		1	1							
-L- 939+90.00				1							1		1	1							
-L- 937+34.84																				49'	
(613 to 612)																					REMOVE AND REPLACE PIPE
-L- 937+84.00				1											1		1				
-L- 939+50.00				1											1		1				
-L- 940+79.00				1											1		1				
-L- 941+74.73				1											1		1			10'	REMOVE DI
-L- 939+85.26	32'																			64'	
PROJECT TOTALS	32'			18	0.1						12		12	12	5	1	6			123'	
SAY					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

PROJECT REFERENCE NO.	SHEET NO.
W-5601-B	04
R/W SHEET NO.	04

ROADWAY DESIGN ENGINEER
5/31/2016
NORTH CAROLINA PROFESSIONAL SEAL 018537 ENGINEER JERRY P. PAGE
DocuSigned by: Jerry P. Page
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HYDRAULICS ENGINEER
5/31/2016
NORTH CAROLINA PROFESSIONAL SEAL 034349 ENGINEER PAUL A. JORDAN
DocuSigned by: Paul A Jordan
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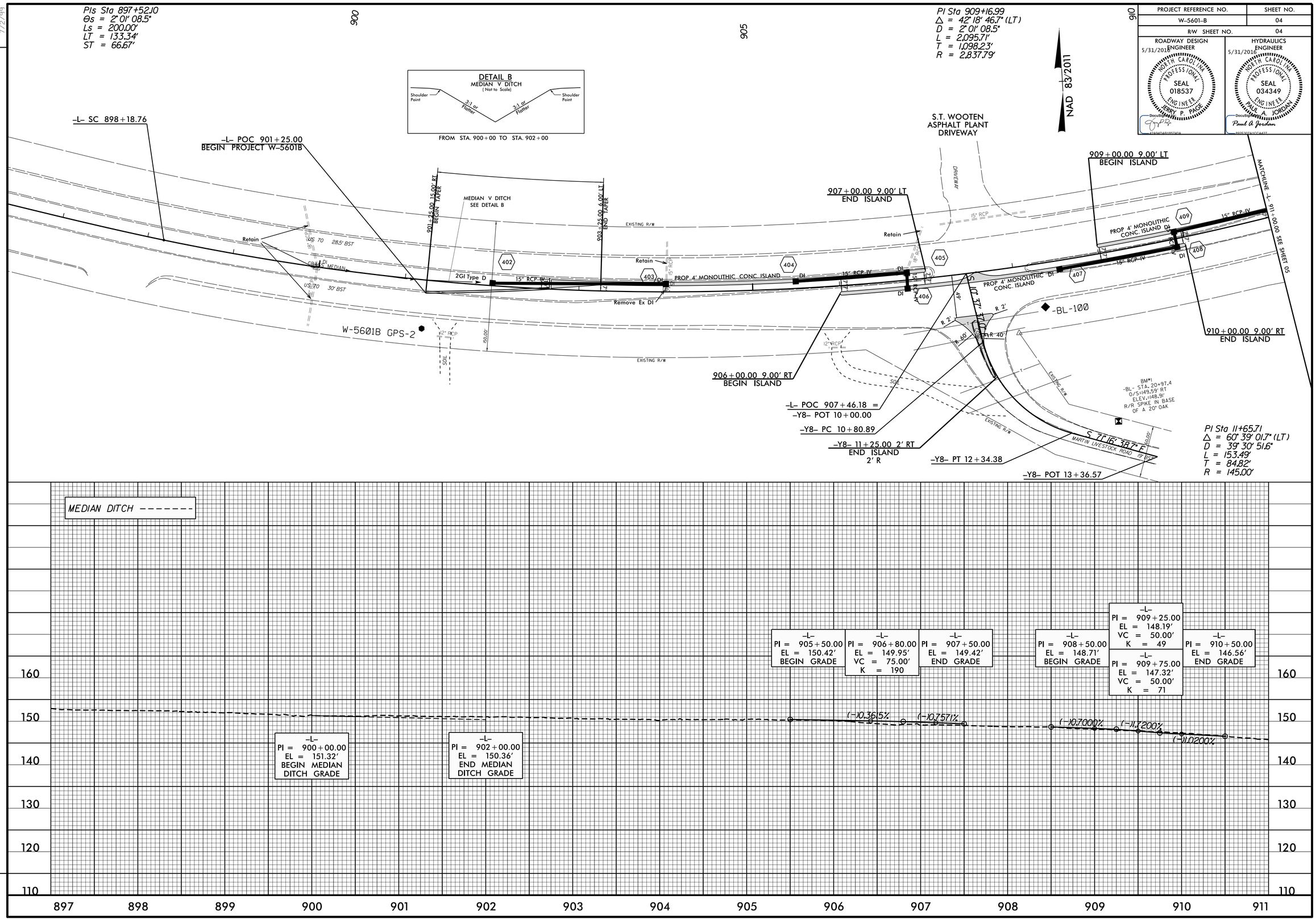

REVISIONS

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7/2/99

REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
W-5601-B	05
R/W SHEET NO.	05

ROADWAY DESIGN ENGINEER
5/31/2016
NORTH CAROLINA PROFESSIONAL SEAL 018537 ENGINEER JEFFREY P. PACK
DocuSigned by: Jeffrey P. Pack
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HYDRAULICS ENGINEER
5/31/2016
NORTH CAROLINA PROFESSIONAL SEAL 034349 ENGINEER PAUL A. JORDAN
DocuSigned by: Paul A Jordan
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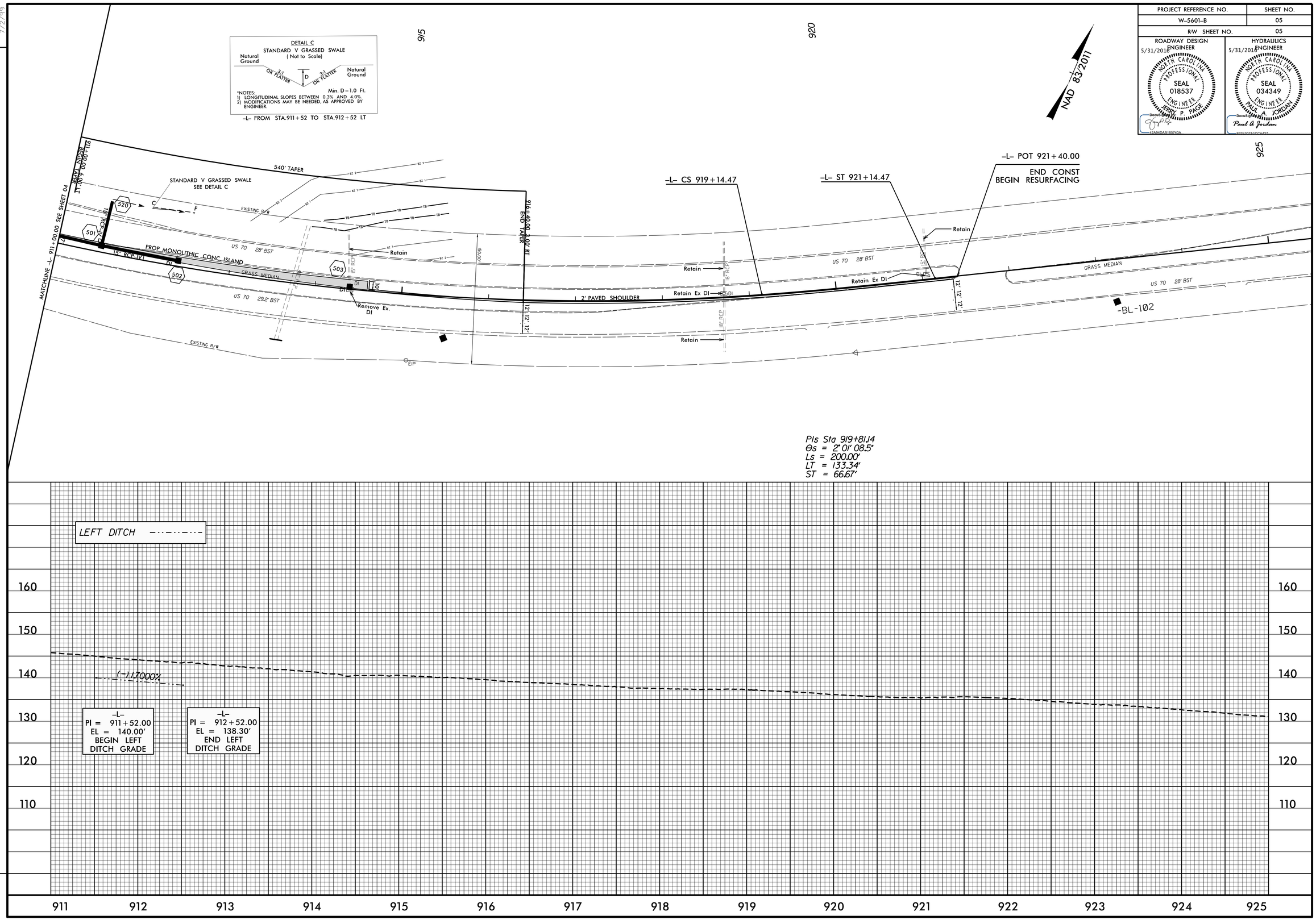

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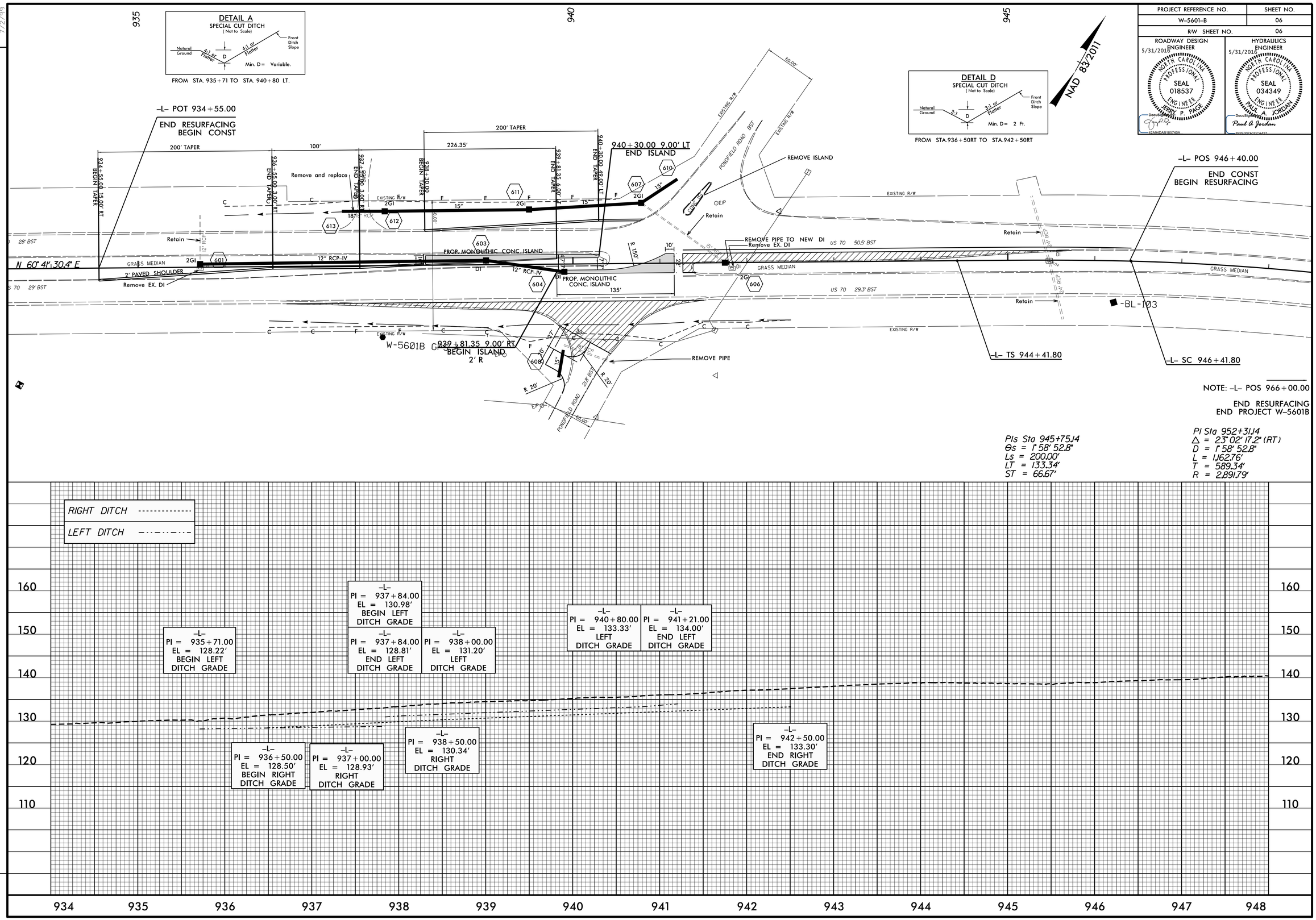
PROJECT REFERENCE NO.	SHEET NO.
W-5601-B	06
R/W SHEET NO.	06

ROADWAY DESIGN ENGINEER
5/31/2016
NORTH CAROLINA PROFESSIONAL SEAL 018537 ENGINEER JERRY P. PACE
DocuSigned by: 4A94DAB185740A...

HYDRAULICS ENGINEER
5/31/2016
NORTH CAROLINA PROFESSIONAL SEAL 034349 ENGINEER PAUL A. JORDAN
DocuSigned by: Paul A Jordan 892E3074ECA437...



REVISIONS

7/2/99

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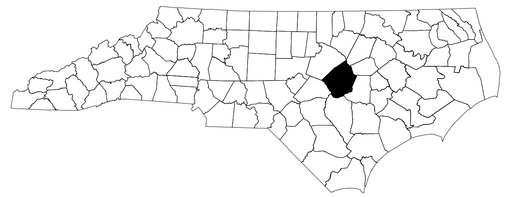
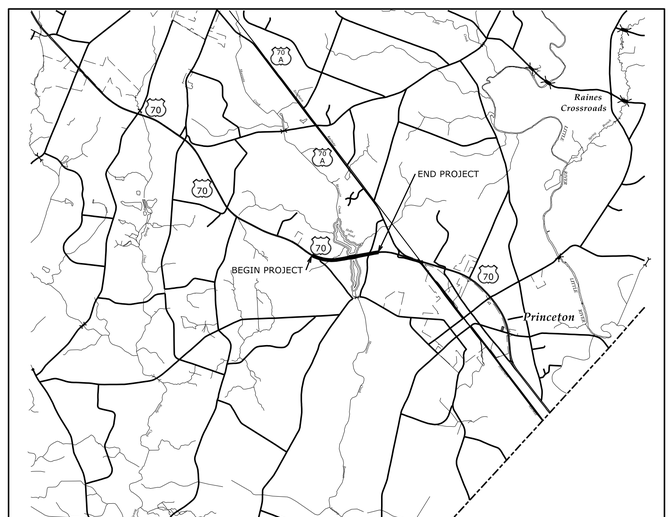
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

JOHNSTON COUNTY





VICINITY MAP

LOCATION: INTERSECTION IMPROVEMENTS AT US–70 & SR 2522 (MARTINE LIVESTOCK ROAD) AND US–70 & SR 2314 (PONDFIELD ROAD)

INDEX OF SHEETS

SHEET NO.	TITLE
TMP-1	TITLE SHEET, VICINITY MAP, AND INDEX OF SHEETS, LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, AND LEGEND
TMP-2	GENERAL NOTES AND PHASING

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 2012 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
1101.01	WORK ZONE ADVANCE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.05	WORK ZONE VEHICLE ACCESSES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1130.01	DRUM
1135.01	CONES
1145.01	BARRICADES
1180.01	SKINNY-DRUM
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO-LANE AND MULTI-LANE ROADWAYS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.06	PAVEMENT MARKINGS - LANE DROPS
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - PERMANENT AND TEMPORARY

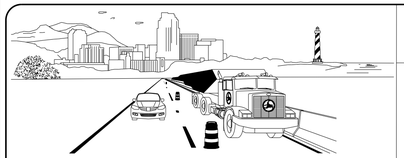
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

APPROVED: DocuSigned by: Don A. Parker 4DD482862618410...

DATE: 4/29/2016

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 043251 ENGINEER DON A. PARKER



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. S. BOURNE, P.E. — STATE TRAFFIC MANAGEMENT ENGINEER
J. S. KITE, P.E. — TRAFFIC CONTROL PROJECT ENGINEER
D. A. PARKER, P.E. — TRAFFIC CONTROL PROJECT DESIGN ENGINEER
S. N. GREEN — TRAFFIC CONTROL DESIGN ENGINEER

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

SHEET NO.
TMP–1

W–5601B

TIP PROJECT:

4/29/2016
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User:sngreen

PROJ. REFERENCE NO.	SHEET NO.
W-5601B	TMP-2

GENERAL NOTES

LANE CLOSURE RESTRICTIONS:

A) DO NOT CLOSE OR NARROW TRAVEL LANES DURING HOLIDAYS AND SPECIAL EVENTS AS FOLLOWS:

ROAD NAME

US-70

HOLIDAY

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

2. FOR NEW YEAR'S, BETWEEN THE HOURS OF 6:30 A.M. DECEMBER 31st TO 6:30 P.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 6:30 P.M. THE FOLLOWING TUESDAY.

3. FOR EASTER, BETWEEN THE HOURS OF 6:30 A.M. THURSDAY AND 6:30 P.M. MONDAY.

4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:30 A.M. FRIDAY TO 6:30 P.M. TUESDAY.

5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:30 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 6:30 P.M. THE DAY AFTER INDEPENDENCE DAY.

   IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN BETWEEN THE HOURS OF 6:30 A.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 6:30 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.

6. FOR LABOR DAY, BETWEEN THE HOURS OF 6:30 A.M. FRIDAY AND 6:30 P.M. TUESDAY.

7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:30 A.M. TUESDAY TO 6:30 P.M. MONDAY.

8. FOR CHRISTMAS, BETWEEN THE HOURS OF 6:30 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 6:30 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

B) DO NOT CONDUCT ANY HAULING OPERATIONS AGAINST THE FLOW OF TRAFFIC OF AN OPEN TRAVELWAY UNLESS THE HAULING OPERATION IS PROTECTED BY BARRIER OR GUARDRAIL OR AS DIRECTED BY THE ENGINEER.

~~LANE AND SHOULDER CLOSURE REQUIREMENTS~~

C) REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED OR AS DIRECTED BY THE ENGINEER.

D) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO. 1101.04 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR A LANE CLOSURE IS INSTALLED.

E) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO AN UNDIVIDED FACILITY AND WITHIN 5 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

   WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO A DIVIDED FACILITY AND WITHIN 10 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

F) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE TRAFFIC CONTROL PLANS, ROADWAY STANDARD DRAWINGS, OR AS DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.

G) DO NOT WORK SIMULTANEOUSLY WITHIN 15 FT ON BOTH SIDES OF AN OPEN TRAVELWAY, RAMP, OR LOOP WITHIN THE SAME LOCATION UNLESS PROTECTED WITH GUARDRAIL OR BARRIER.

H) DO NOT INSTALL MORE THAN ONE SIMULTANEOUS LANE CLOSURES IN ANY ONE DIRECTION ON US 70.

PAVEMENT EDGE DROP OFF REQUIREMENTS

I) BACKFILL AT A 6:1 SLOPE UP TO THE EDGE AND ELEVATION OF EXISTING PAVEMENT IN AREAS ADJACENT TO AN OPENED TRAVEL LANE THAT HAS AN EDGE OF PAVEMENT DROP-OFF AS FOLLOWS:

   BACKFILL DROP-OFFS THAT EXCEED 2 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS OF 45 MPH OR GREATER.

   BACKFILL DROP-OFFS THAT EXCEED 3 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS LESS THAN 45 MPH.

   BACKFILL WITH SUITABLE COMPACTED MATERIAL, AS APPROVED BY THE ENGINEER, AT NO EXPENSE TO THE DEPARTMENT.

J) DO NOT EXCEED A DIFFERENCE OF 2 INCHES IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC FOR NOMINAL LIFTS OF 1.5 INCHES. INSTALL ADVANCE WARNING "UNEVEN LANES" SIGNS (W8-11) 500 IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

TRAFFIC PATTERN ALTERATIONS

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

SIGNING

L) 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.

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

TRAFFIC CONTROL DEVICES

N) WHEN LANE CLOSURES ARE NOT IN EFFECT SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER IN FEET THAN TWICE THE POSTED SPEED LIMIT (MPH) EXCEPT, 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY. REFER TO STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES SECTIONS 1130 (DRUMS), 1135 (CONES) AND 1180 (SKINNY DRUMS) FOR ADDITIONAL REQUIREMENTS.

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

PAVEMENT MARKINGS AND MARKERS

P) INSTALL TEMPORARY PAVEMENT MARKINGS ON INTERIM LAYERS OF PAVEMENT AS FOLLOWS:

ROAD NAME	MARKING
US-70	PAINT

Q) PLACE ONE APPLICATION OF PAINT FOR TEMPORARY TRAFFIC PATTERNS. PLACE A SECOND APPLICATION OF PAINT SIX (6) MONTHS AFTER THE INITIAL APPLICATION AND EVERY SIX MONTHS AS DIRECTED BY THE ENGINEER.

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

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

CONSTRUCTION SEQUENCE:

NOTE: CONTRACTOR MAY SUBMIT AN ALTERNATE CONSTRUCTION SEQUENCE FOR DEPARTMENT CONSIDERATION AT THE PRE-CONSTRUCTION MEETING.

1. INSTALL WORK ZONE ADVANCE WARNING SIGNS. (SEE ROADWAY STANDARD DRAWING NO. 1101.01, SHEET 2 OF 3).

2. CLOSE THE INSIDE TRAVEL LANES OF US 70 IN BOTH DIRECTIONS AND CONSTRUCT THE MEDIAN UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE AND CONSTRUCT THE MEDIAN ISLANDS. (SEE ROADWAY STANDARD DRAWING NO. 1101.02, SHEET 3 OF 15).

   NOTE: USE TRENCHLESS INSTALLATION FOR THE RCP AT STATION 911+50 +/- -L-.

3. CLOSE THE OUTSIDE TRAVEL LANE OF US 70 EB AND CONSTRUCT THE CONCRETE ISLAND AT MARTIN LIVESTOCK RD. (SEE ROADWAY STANDARD DRAWING NO. 1101.02, SHEET 3 OF 15).

4. CLOSE THE OUTSIDE TRAVEL LANES OF US 70 IN BOTH DIRECTIONS AND CONSTRUCT THE OUTSIDE PAVING UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE. (SEE ROADWAY STANDARD DRAWING NO. 1101.02, SHEET 3 OF 15).

5. USING ALTERNATE LANE CLOSURES, MILL EXISTING ROADWAY, AND PLACE FINAL LAYER OF SURFACE COURSE, OGFC AND FINAL PAVEMENT MARKINGS AND MARKERS WITHIN THE PROJECT LIMITS. (SEE ROADWAY STANDARD DRAWING NO. 1101.02).

   A. CONTRACTOR SHALL MILL AND PAVE LANES IN AN ORDER SUCH THAT WATER SHALL NOT ACCUMULATE.

   B. CONTRACTOR SHALL MILL AND PAVE BACK ASPHALT SURFACE COURSE AND PLACE TEMPORARY PAVEMENT MARKINGS PRIOR TO RE-OPENING A LANE TO TRAFFIC.

6. REMOVE ALL TRAFFIC CONTROL DEVICES.

APPROVED: DocuSigned by: Don A. Parker 4DD482862618410...

DATE: 5/3/2016

NORTH CAROLINA PROFESSIONAL SEAL 043251 ENGINEER DON A. PARKER

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

GENERAL NOTES AND PHASING

5/2/2016
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T.I.P.: W-5601B

CONTRACT: 50138.1.FS3

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING PLAN
JOHNSTON COUNTY

TIP NO.	SHEET NO.
W-5601B	PMP-1

APPROVED: DocuSigned by: Michael T. Rzepka 018C3480C26049D...

DATE: 4/1/2016

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 15876 ENGINEER MICHAEL T. RZEPKA

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INDEX

SHEET NO.	DESCRIPTION
PMP-1	PAVEMENT MARKING PLAN TITLE AND SCHEDULE SHEET
PMP-2-4	PAVEMENT MARKING DETAILS

FINAL PAVEMENT MARKING SCHEDULE

SYMBOL DESCRIPTION

(FINAL PAVEMENT MARKINGS)

THERMOPLASTIC (4", 90 MILS)
- TA WHITE EDGELINE
- TB YELLOW EDGELINE

THERMOPLASTIC (4", 120 MILS)
- TI YELLOW DOUBLE CENTER

THERMOPLASTIC (6", 90 MILS)
- T6 WHITE EDGELINE
- T7 YELLOW EDGELINE

THERMOPLASTIC (6", 120 MILS)
- T11 2 FT.-6 FT./SP WHITE MINISKIP
- T12 2 FT.-6 FT./SP YELLOW MINISKIP
- TJ 10 FT. WHITE SKIP
- TK 3 FT.-9 FT./SP WHITE MINISKIP
- TL WHITE SOLID LANE LINE

THERMOPLASTIC (12", 90 MILS)
- TS WHITE GORELINE
- TU WHITE DIAGONAL

THERMOPLASTIC PAVEMENT MARKING SYMBOLS (90 MILS)
- UA LEFT TURN ARROW
- UB RIGHT TURN ARROW

(MARKERS)

PERMANENT RAISED PAVEMENT MARKERS (RAISED)
- MA YELLOW/YELLOW

PERMANENT RAISED PAVEMENT MARKERS (SNOWPLOWABLE)
- ME YELLOW/YELLOW

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	SNOWPLOWABLE
PONDFIELD RD	THERMOPLASTIC	PERMANENT RAISED

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.

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 2012 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO-LANE AND MULTILANE ROADWAYS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - PERMANENT AND TEMPORARY
1253.01	RAISED PAVEMENT MARKERS - SNOWPLOWABLE

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

A. ALQUDWAH, P.E. SIGNING & DELINEATION STANDARDS ENGINEER

B. RASHID SIGNING & DELINEATION PROJECT DESIGN ENGINEER

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

PLAN PREPARED BY: HDR/ICA

M. T. RZEPKA, P.E. PROJECT ENGINEER

A. C. PILZ, P.E. DESIGN ENGINEER

HDR | ICA

5121 Kingdom Way, Suite 100
Raleigh, NC 27607
NC License No: F-0258

4/1/2016
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TEA Engineering

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TIP NO.	SHEET NO.
W-5601B	PMP-2

APPROVED: DocuSigned by: Michael T. Rzepka 01BC3480C26049D...

DATE: 4/1/2016

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 15876 ENGINEER MICHAEL T. RZEPKA

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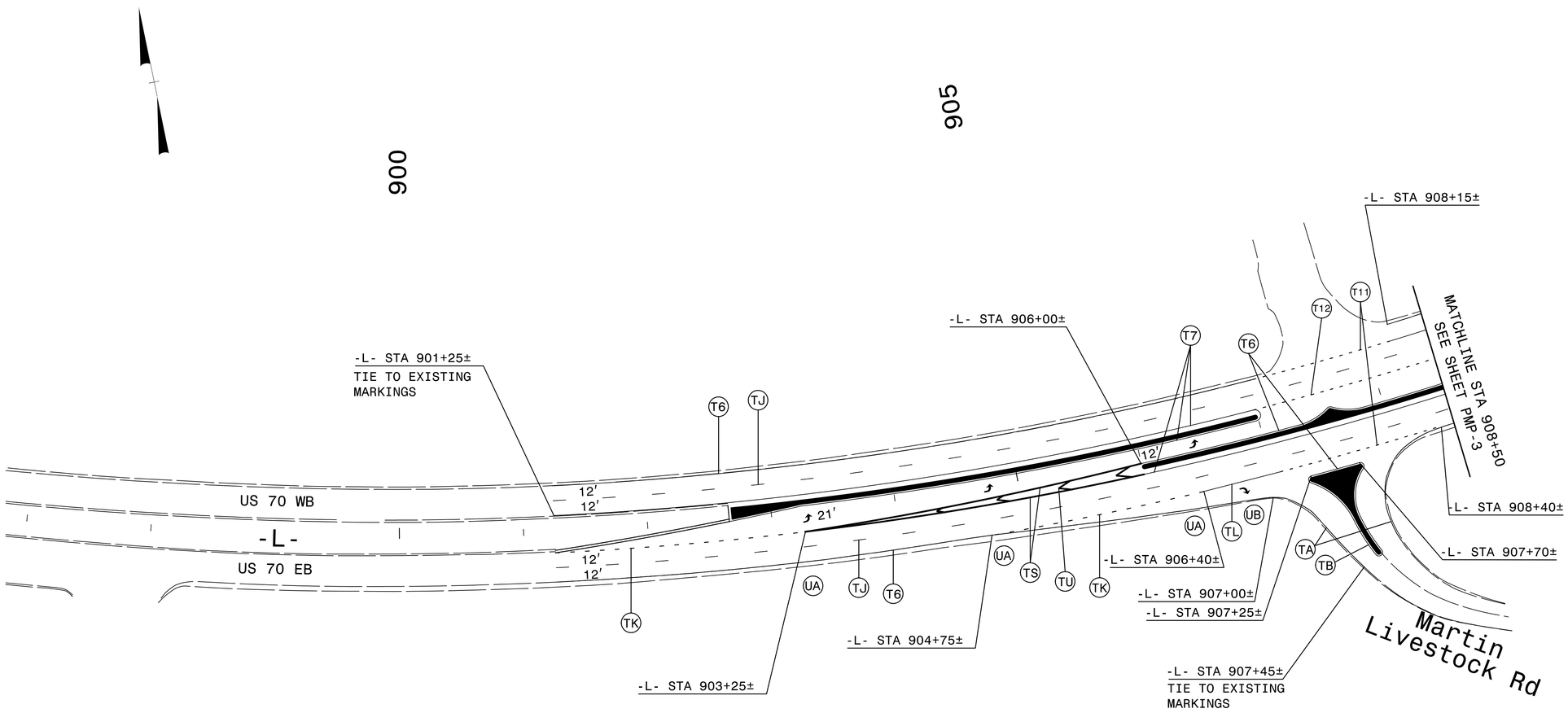

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Suite 100
Raleigh, NC 27607
NC License No: F-0258

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ICA Engineering

PAVEMENT MARKING DETAIL

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TIP NO.	SHEET NO.
W-5601B	PMP-3

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NORTH CAROLINA PROFESSIONAL SEAL 15876 ENGINEER MICHAEL T. RZEPKA

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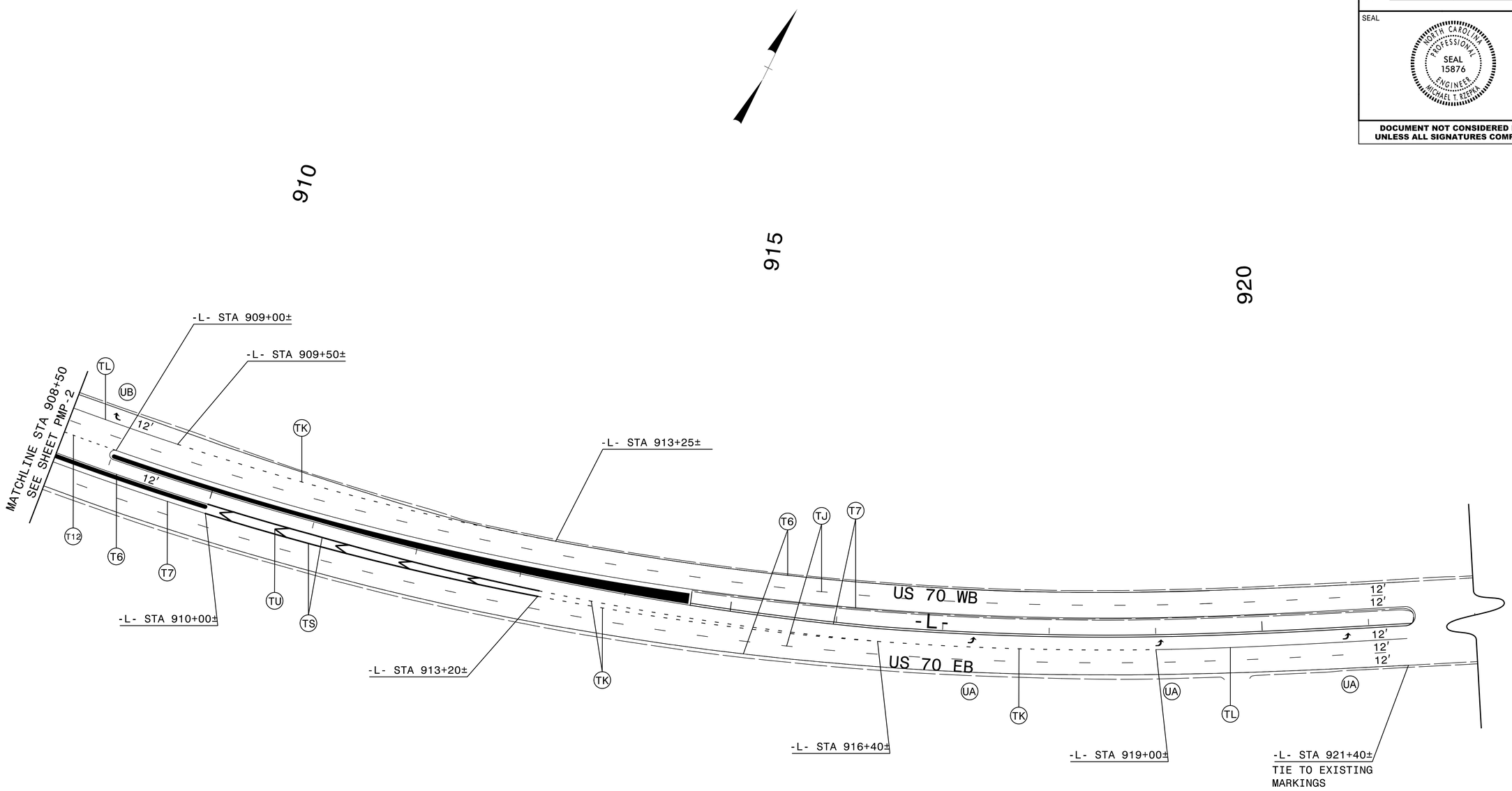

HDR | ICA

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Suite 100
Raleigh, NC 27607
NC License No: F-0258

4/1/2016
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ICA Engineering

PAVEMENT MARKING DETAIL

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TIP NO.	SHEET NO.
W-5601B	PMP-4

APPROVED: DocuSigned by: Michael T. Rzepka 01BC3480C260490...

DATE: 4/1/2016

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 15876 ENGINEER MICHAEL T. RZEPKA

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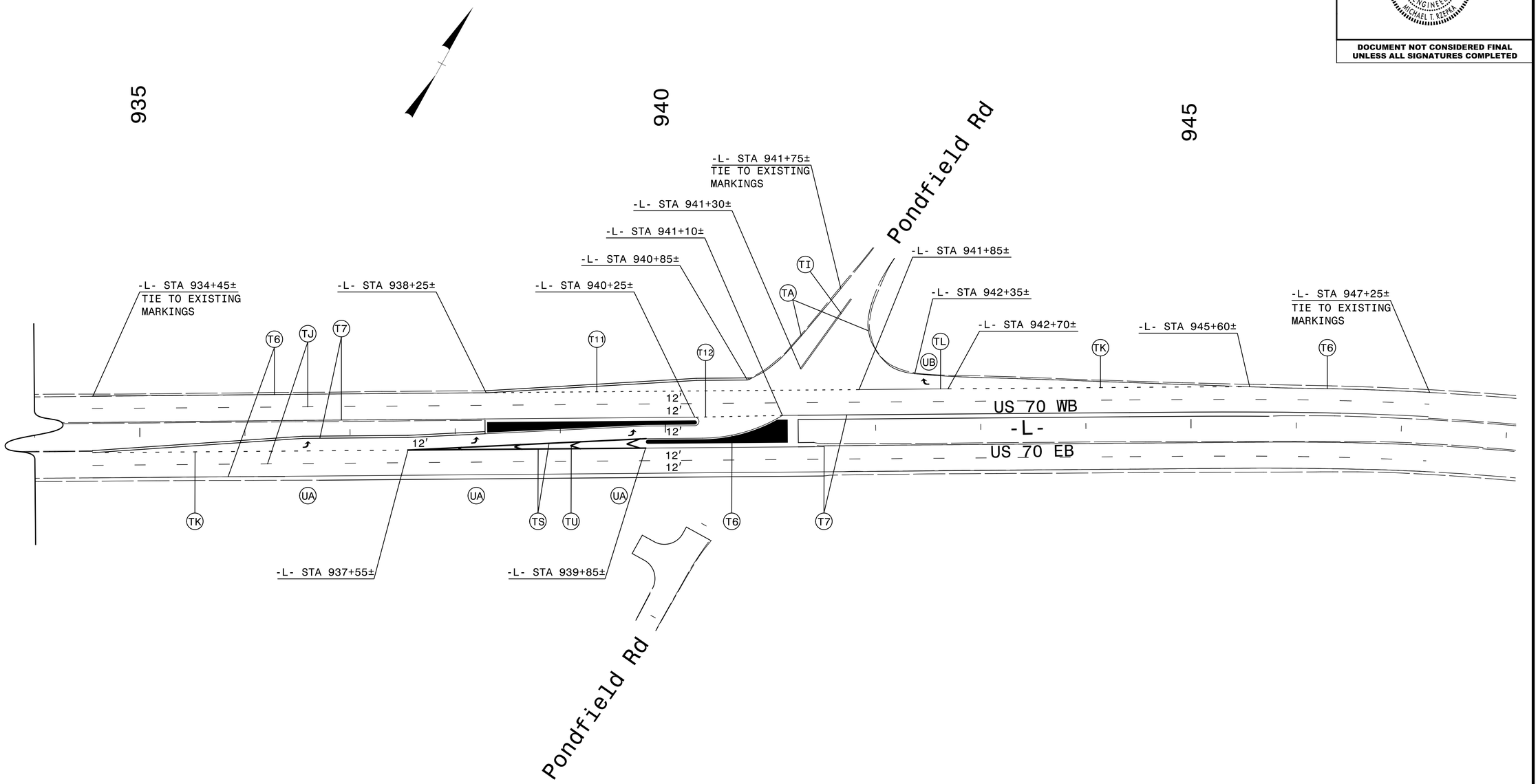

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Suite 100
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NC License No: F-0258

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ICA Engineering

PAVEMENT MARKING DETAIL

TIP PROJECT: W-5601B

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W-5601B	EC-1	

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

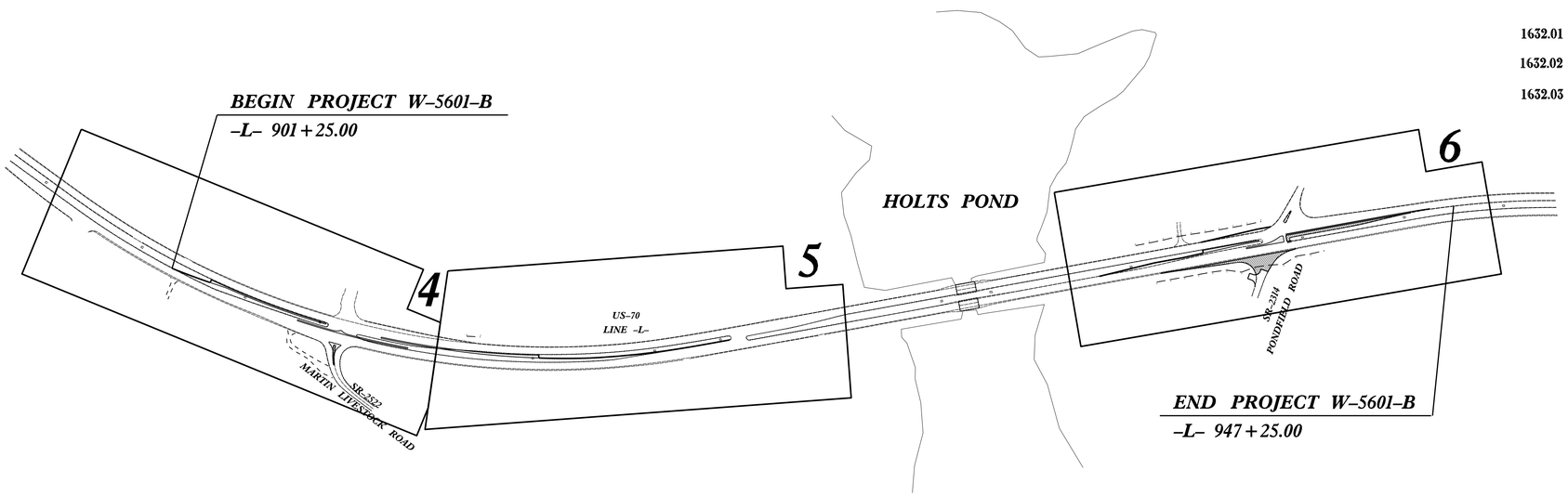
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

JOHNSTON COUNTY

LOCATION: INTERSECTION IMPROVEMENTS AT US–70 & SR–2522 (MARTIN LIVESTOCK ROAD) AND US–70 & SR–2314 (PONDFIELD ROAD)

TYPE OF WORK: GRADING, DRAINAGE AND PAVING



EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	TSD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
1622.01	Temporary Berms and Slope Drains	
1630.02	Silt Basin Type B	
1633.01	Temporary Rock Silt Check Type-A	
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	
1633.02	Temporary Rock Silt Check Type-B	
	Wattle / Coir Fiber Wattle	SW CFW
	Wattle / Coir Fiber Wattle with Polyacrylamide (PAM)	
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	
1635.02	Rock Pipe Inlet Sediment Trap Type-B	
1630.04	Stilling Basin	
1630.06	Special Stilling Basin	
	Rock Inlet Sediment Trap:	
1632.01	Type A	A
1632.02	Type B	B
1632.03	Type C	C
	Skimmer Basin	
	Tiered Skimmer Basin	
	Infiltration Basin	

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

THIS PROJECT HAS BEEN DESIGNED TO SENSITIVE WATERSHED STANDARDS.

ENVIRONMENTALLY SENSITIVE AREA(S) EXIST ON THIS PROJECT

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

GRAPHIC SCALE

0
PLANS

0
PROFILE (HORIZONTAL)

0
PROFILE (VERTICAL)

ROADSIDE ENVIRONMENTAL UNIT
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE REGULATIONS SET FORTH BY THE NCG–010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE AUGUST 3, 2011 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

2012 STANDARD SPECIFICATIONS

Designed by:

Wes Chandler — *NAME*
3374 — *LEVEL III CERTIFICATION NO.*

Roadway Standard Drawings

The following roadway english standards as appear in "Roadway Standard Drawings"– Roadway Design Unit – N. C. Department of Transportation – Raleigh, N. C., dated January 2012 and the latest revison thereto are applicable to this project and by reference hereby are considered a part of these plans.

1604.01	Railroad Erosion Control Detail	1632.01	Rock Inlet Sediment Trap Type A
1605.01	Temporary Silt Fence	1632.02	Rock Inlet Sediment Trap Type B
1606.01	Special Sediment Control Fence	1632.03	Rock Inlet Sediment Trap Type C
1607.01	Gravel Construction Entrance	1633.01	Temporary Rock Silt Check Type A
1622.01	Temporary Berms and Slope Drains	1633.02	Temporary Rock Silt Check Type B
1630.01	Riser Basin	1634.01	Temporary Rock Sediment Dam Type A
1630.02	Silt Basin Type B	1634.02	Temporary Rock Sediment Dam Type B
1630.03	Temporary Silt Ditch	1635.01	Rock Pipe Inlet Sediment Trap Type A
1630.04	Stilling Basin	1635.02	Rock Pipe Inlet Sediment Trap Type B
1630.05	Temporary Diversion	1640.01	Coir Fiber Baffle
1630.06	Special Stilling Basin	1645.01	Temporary Stream Crossing
1631.01	Matting Installation		

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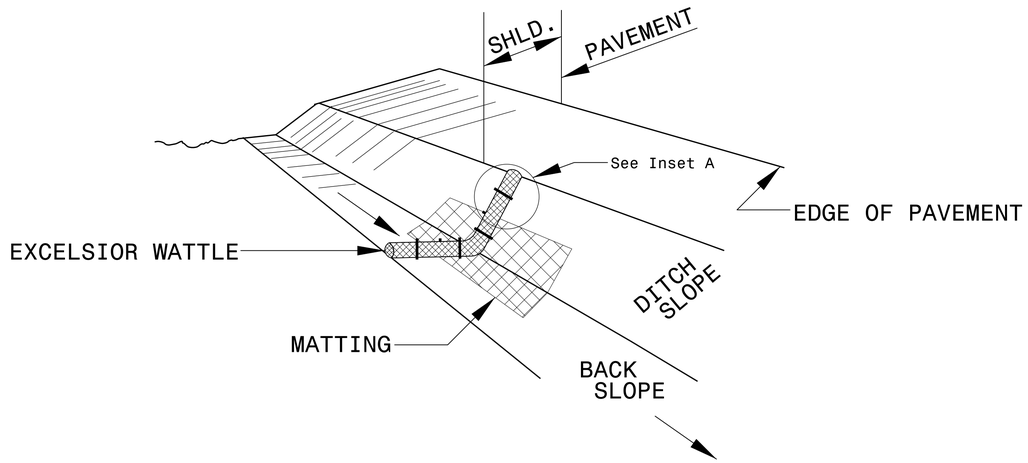
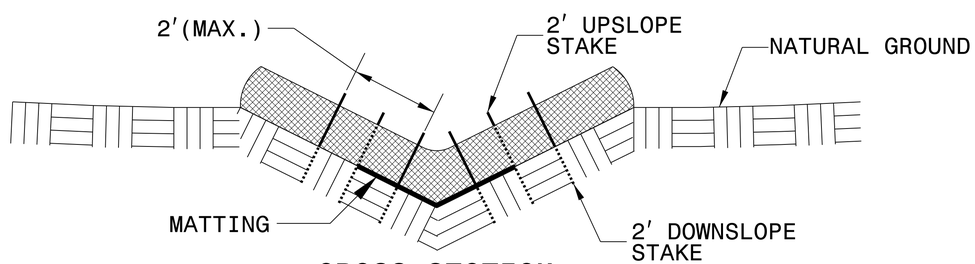
PROJECT REFERENCE NO.	SHEET NO.
W-5106B	EC-2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

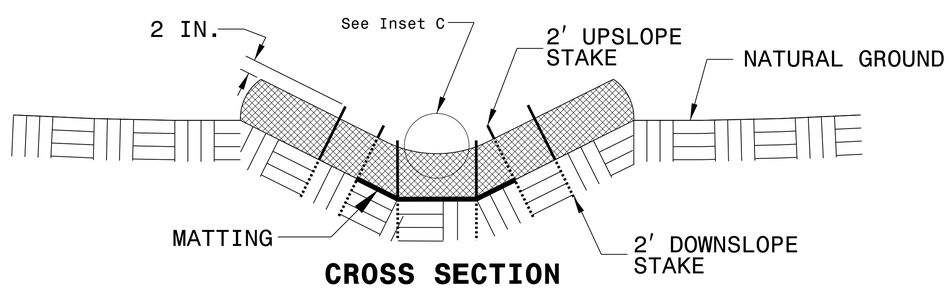
WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL



ISOMETRIC VIEW



CROSS SECTION VEE DITCH



CROSS SECTION TRAPEZOIDAL DITCH

NOTES:

USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.

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

ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

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

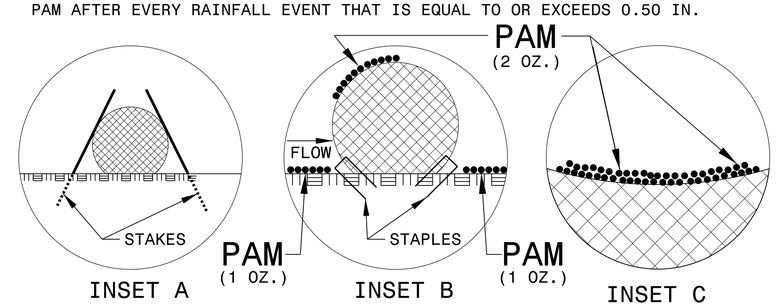
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12″ IN LENGTH.

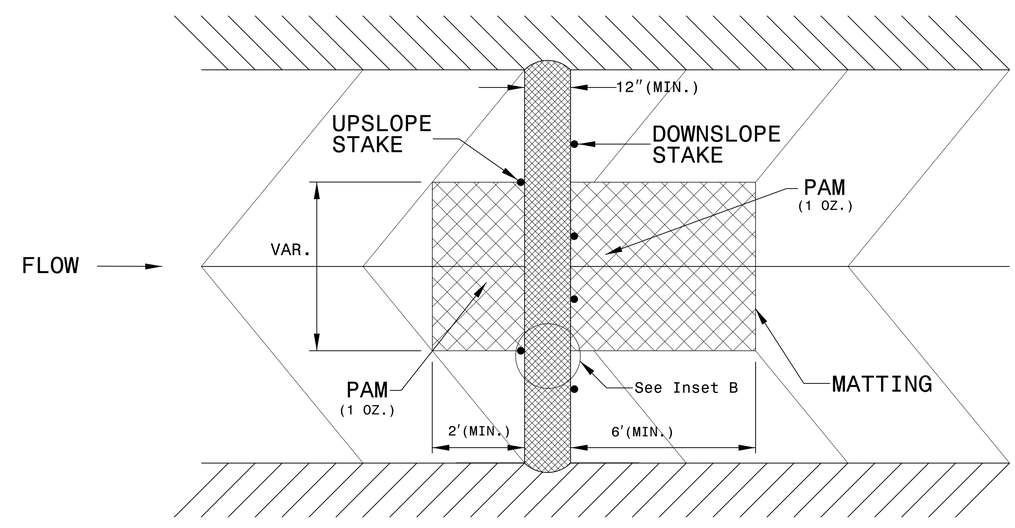
INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.

PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH WATTLE.

INITIALLY APPLY 2 OUNCES OF ANIONIC OR NEUTRALLY CHARGED PAM OVER WATTLE WHERE WATER WILL FLOW AND 1 OUNCE OF PAM ON MATTING ON EACH SIDE OF WATTLE. REAPPLY PAM AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 0.50 IN.





TOP VIEW

PROJECT REFERENCE NO.	SHEET NO.
W-5601B	EC-3
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
4	-L-	902+00	902+50	MED	20
6	-L-	935+50	938+00	LT	90
			SUBTOTAL		110
MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER					1,250
			TOTAL		1,360
			SAY		1,400

MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)

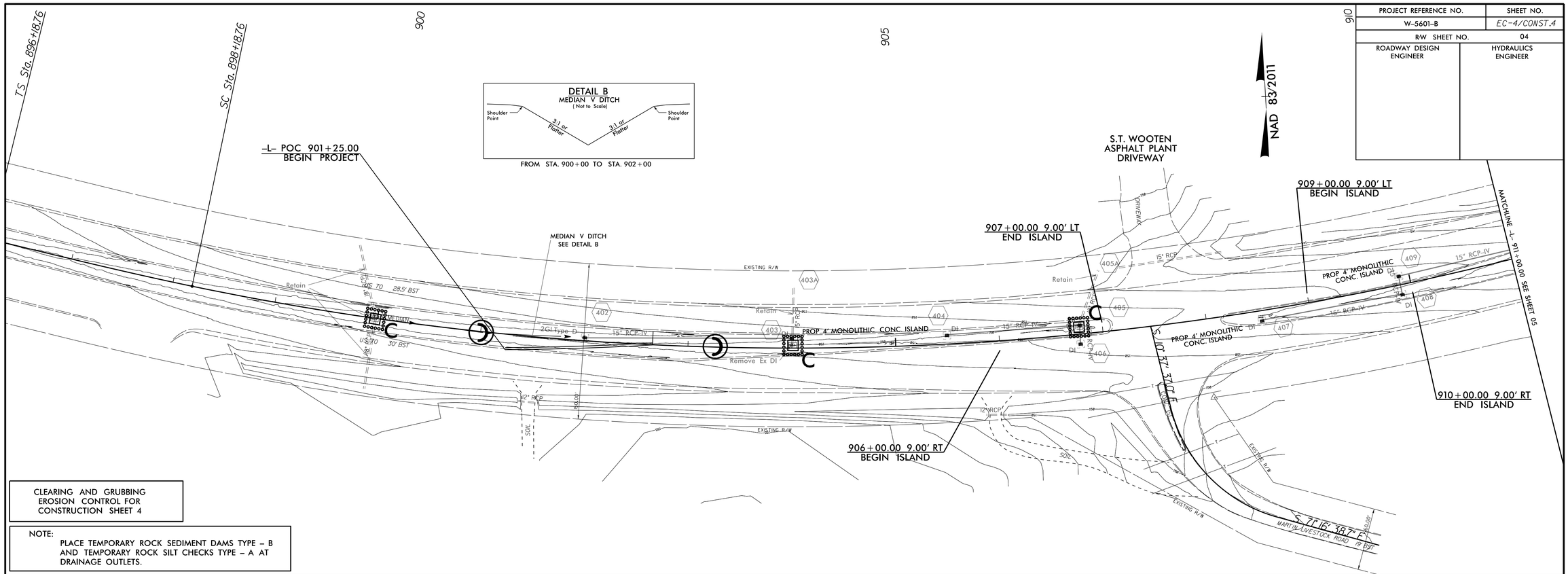
PROJECT REFERENCE NO.	SHEET NO.
W-5106B	EC-3A
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION TIMEFRAMES

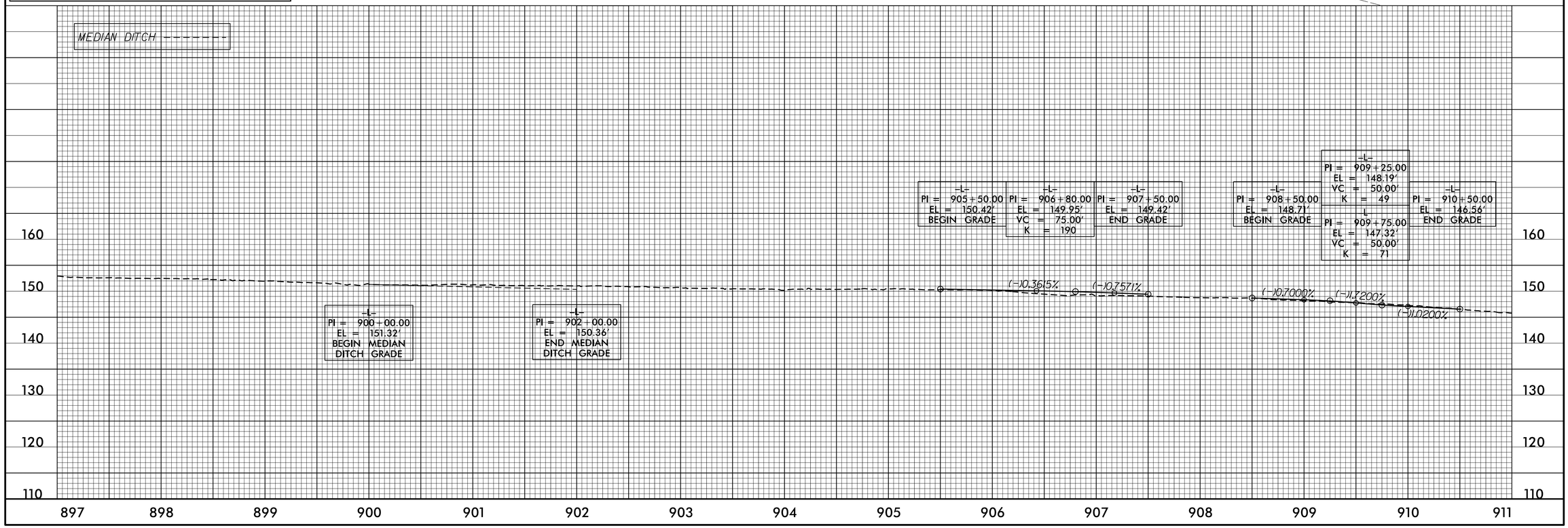
SITE DESCRIPTION	STABILIZATION TIME	TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS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

PROJECT REFERENCE NO.	SHEET NO.
W-5601-B	EC-4/CONST.4
R/W SHEET NO.	04
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 4

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



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vjchandler AT REN72/116

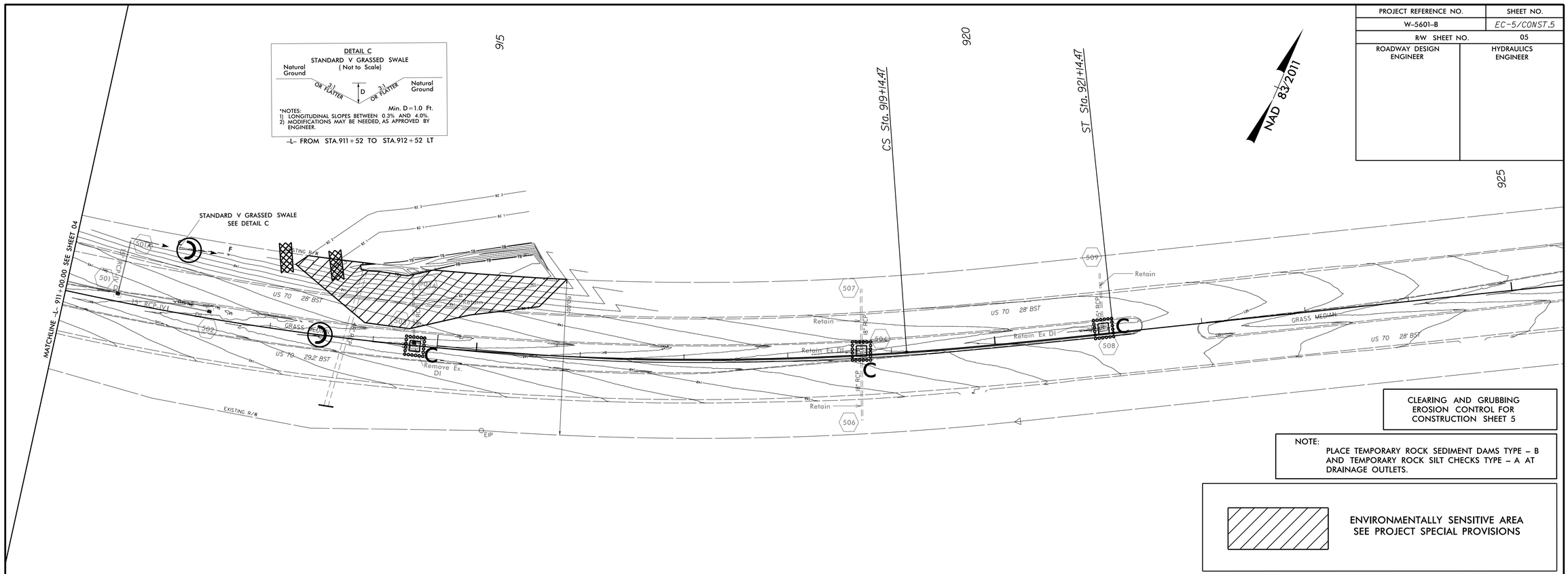
PROJECT REFERENCE NO.	SHEET NO.
W-5601-B	EC-5/CONST.5
R/W SHEET NO.	05
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DETAIL C
STANDARD V GRASSED SWALE
(Not to Scale)

Min. D=1.0 Ft.

*NOTES:
1) LONGITUDINAL SLOPES BETWEEN 0.3% AND 4.0%.
2) MODIFICATIONS MAY BE NEEDED, AS APPROVED BY ENGINEER.

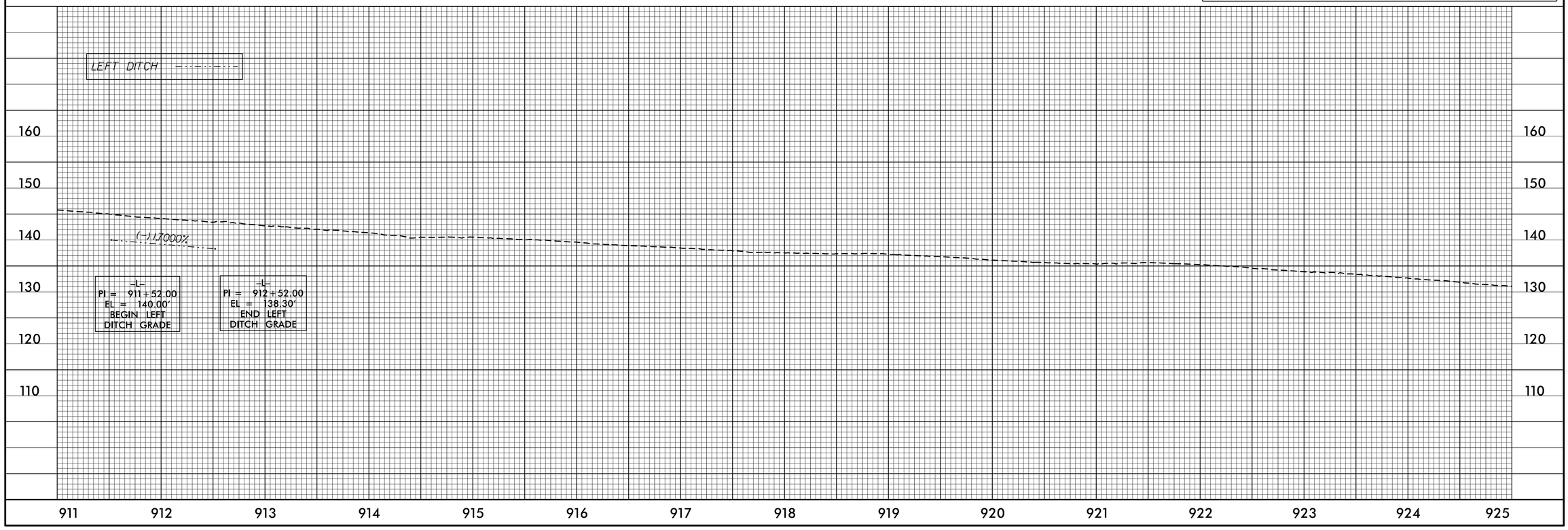
-L- FROM STA.911+52 TO STA.912+52 LT



CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 5

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

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS



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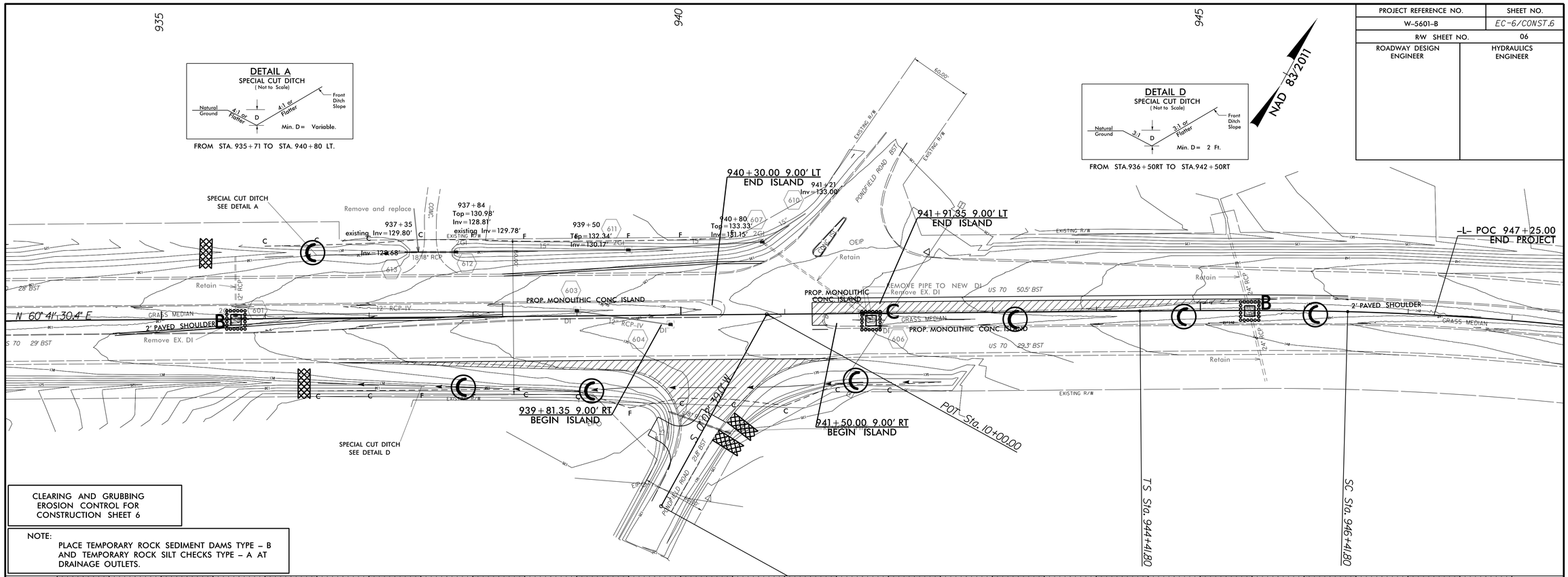
PROJECT REFERENCE NO.	SHEET NO.
W-5601-B	EC-6/CONST.6
R/W SHEET NO.	06
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



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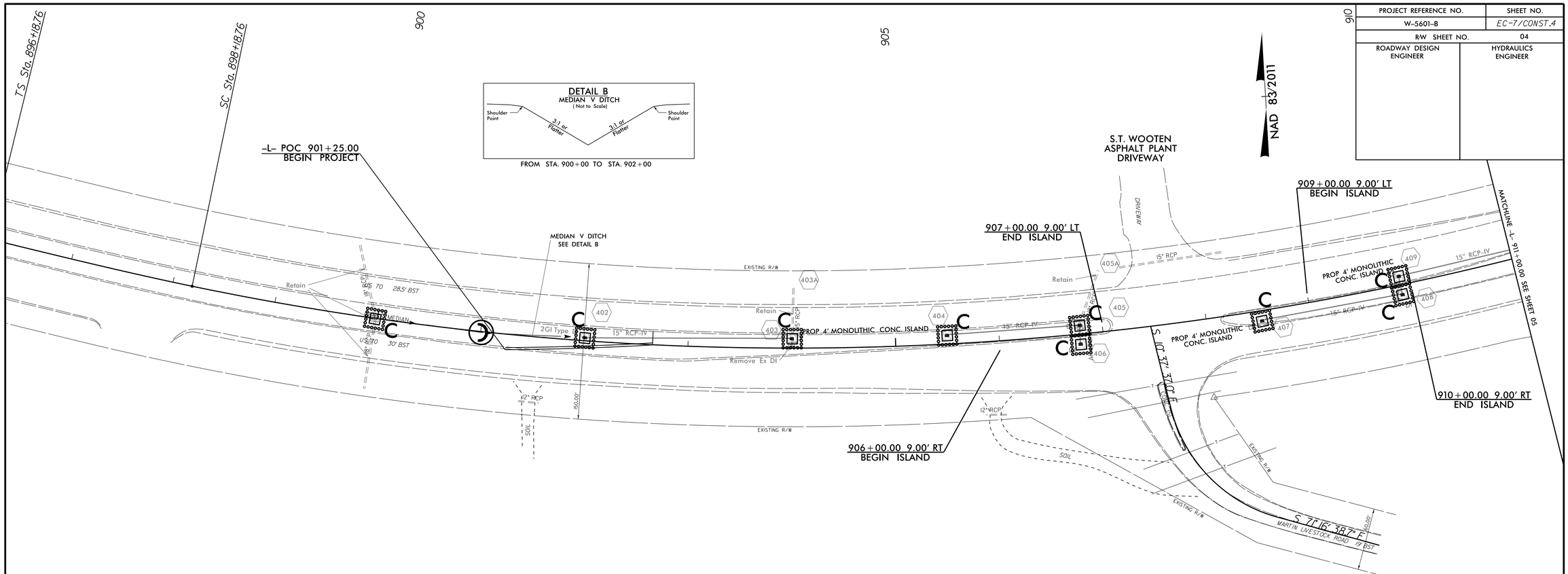
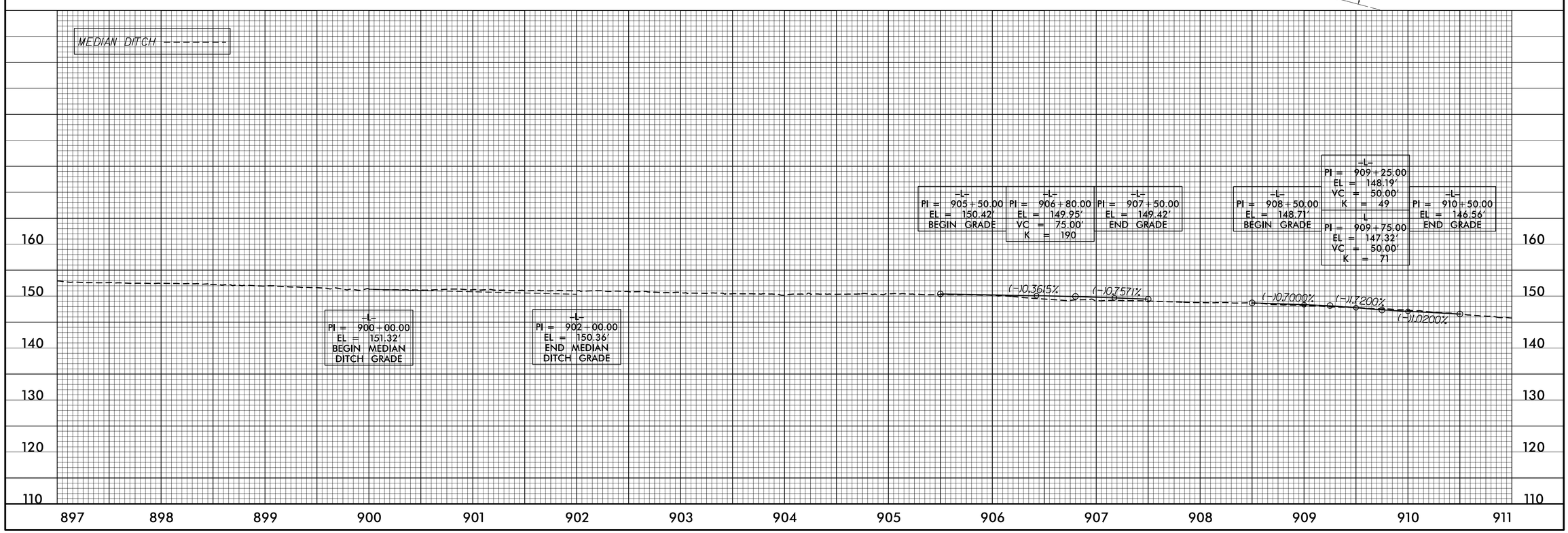
PROJECT REFERENCE NO.	SHEET NO.
W-5601-B	EC-7/CONST.4
R/W SHEET NO.	04
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER





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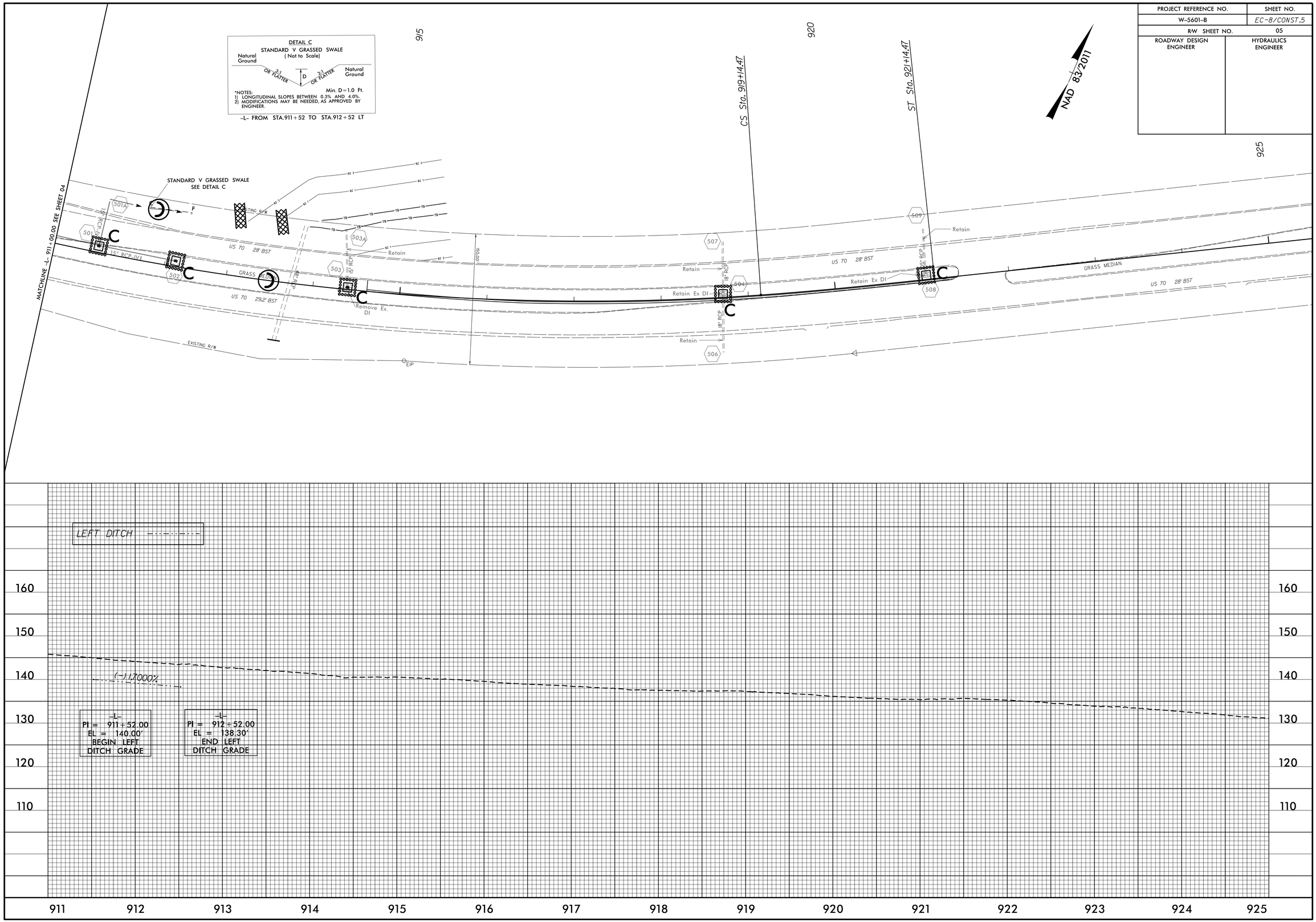
vjchandler1 AT REN72/116

PROJECT REFERENCE NO.	SHEET NO.
W-5601-B	EC-8/CONST.5
R/W SHEET NO.	05
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



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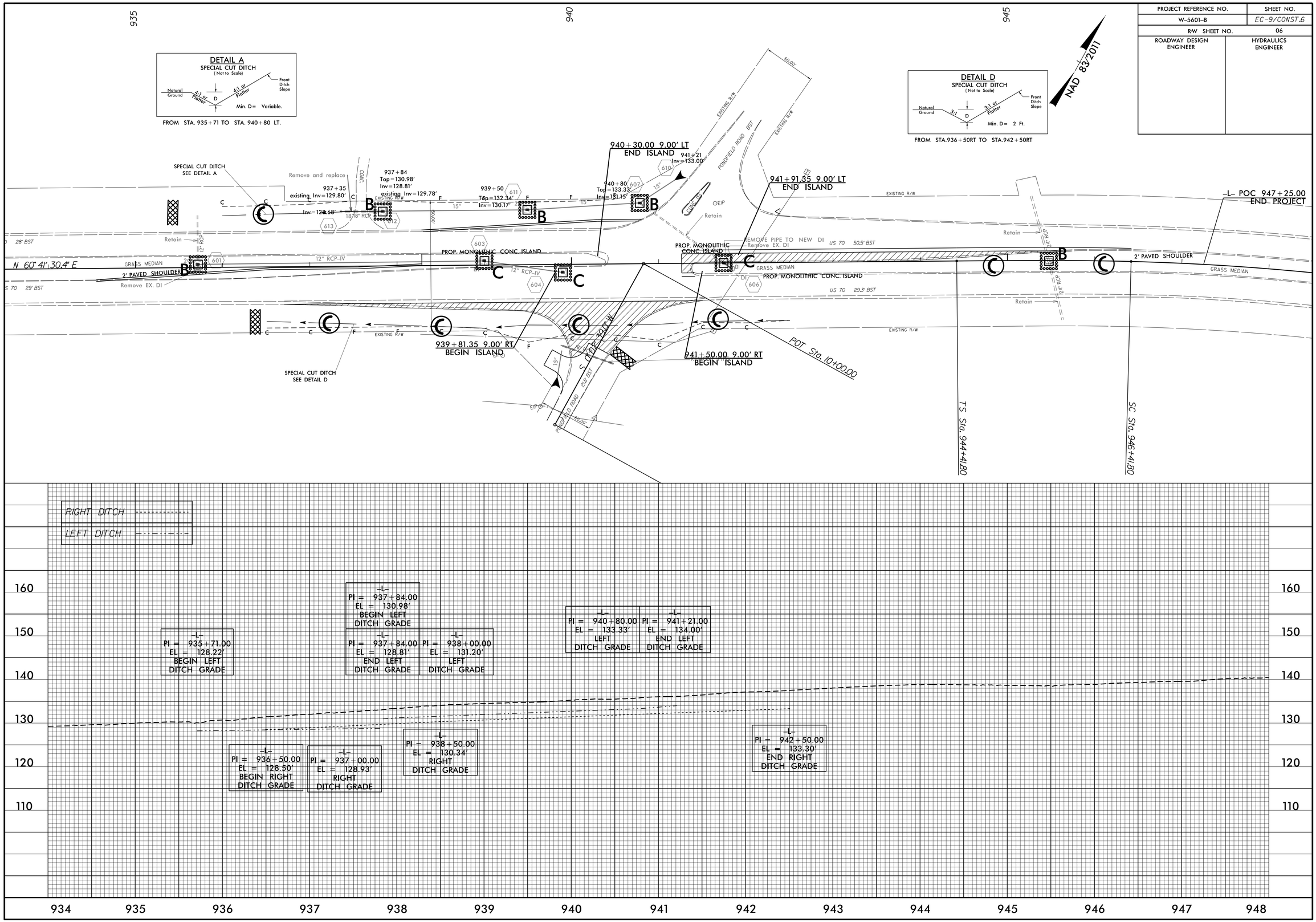
wjchandler1 AT REN\271416

PROJECT REFERENCE NO.	SHEET NO.
W-5601-B	EC-9/CONST.6
R/W SHEET NO.	06
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



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wphandler1 AT REV27.416

DocuSign Envelope ID: 22FCDB92-11C6-42BF-9D84-EFC9352375A4

T.I.P.: W-5601B

CONTRACT:50138.1.FS3

TIP NO.	SHEET NO.
W-5601B	SIGN-1

APPROVED: DocuSigned by: Michael T. Rzepka 01BC3480C260490...

DATE: 4/1/2016

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

SIGNING PLAN
JOHNSTON COUNTY

LOCATION: US 70 AT SR 2522 (MARTIN LIVESTOCK ROAD) AND US 70 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 2012 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
904.10	ORIENTATION OF GROUND MOUNTED SIGNS
904.50	MOUNTING OF TYPE 'D', 'E' AND 'F' SIGNS ON 'U' CHANNEL POSTS
1264.01	OBJECT MARKERS, TYPES
1264.02	OBJECT MARKERS, INSTALLATION

GENERAL NOTES

- SIGNS FURNISHED BY STATE
- CONFIRM IN WRITING AT LEAST 4 MONTH IN ADVANCE, THE ACTUAL DATE THE DEPARTMENT FURNISHED SIGNS WILL BE REQUIRED.
- 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	246	L.F.
4102000000	904	SIGN ERECTION, TYPE E	20	EA.
4108000000	904	SIGN ERECTION, TYPE F	4	EA.
4155000000	907	DISPOSAL OF SIGN SYSTEM, U-CHANNEL	26	EA.

INDEX

SHEET NO.	DESCRIPTION
SIGN-1	TITLE SHEET
SIGN-2	E SHEET
SIGN-3	F SHEET
SIGN-4	SIGN DESIGN
SIGN-5-6	PROPOSED SIGN DETAIL SHEETS
SIGN-7-8	EXISTING SIGN DETAIL SHEETS

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

A. ALQUDWAH, P.E. SIGNING & DELINEATION REGIONAL ENGINEER

B. RASHID SIGNING & DELINEATION PROJECT DESIGN ENGINEER

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

PLAN PREPARED BY: HDR/ICA

M. T. RZEPKA, P.E. PROJECT ENGINEER

A. C. PILZ, P.E. DESIGN ENGINEER

HDR | ICA
5121 Kingdom Way,
Suite 100
Raleigh, NC 27607
NC License No: F-0258

4/1/2016
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ICA Engineering

DocuSign Envelope ID: 22FCDB92-11C6-42BF-9D84-EFC9352375A4

TIP NO.	SHEET NO.
W-5601B	SIGN-2

APPROVED: DocuSigned by: Michael T. Rzepka 018C3480C26049D...

DATE: 4/1/2016

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 15876 ENGINEER MICHAEL T. RZEPKA

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

(401) QUANTITY REQ'D 2__

36 X 36
W12-1

ONE "U" POST PER SIGN

(402) QUANTITY REQ'D 3__

36 X 36
R1-1

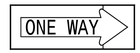
ONE "U" POST PER SIGN

(403) QUANTITY REQ'D 1__

24 X 24
R3-2

MOUNT BELOW SIGN 402
IN 1 INSTALLATION

(404) QUANTITY REQ'D 2__



36 X 12
R6-1 (R)

MOUNT ABOVE SIGN 402
IN 2 INSTALLATION

(405) QUANTITY REQ'D 2__

24 X 24
SEE SIGN DESIGN

MOUNT BELOW SIGNS 501 & 502
IN 2 INSTALLATIONS

(406) QUANTITY REQ'D 2__

30 X 30
W2-2

ONE "U" POST PER SIGN

(407) QUANTITY REQ'D 1__

30 X 30
W14-2

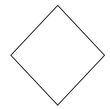
ONE "U" POST PER SIGN

(408) QUANTITY REQ'D 1__

30 X 30
W14-1

ONE "U" POST PER SIGN

(409) QUANTITY REQ'D 3__



18 X 18
OM4-3

ONE "U" POST PER SIGN

(410) QUANTITY REQ'D 2__

30 X 30
W2-2

ONE "U" POST PER SIGN

(411) QUANTITY REQ'D 1__

24 X 12
W16-9p

MOUNT BELOW SIGN 405
IN 1 INSTALLATION

TYPE "E" SIGNS

4/1/2016
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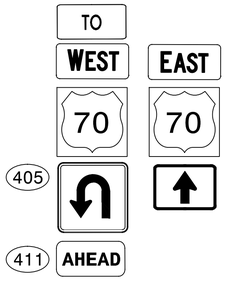
501



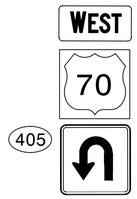
1-24 X 12

2-24 X 12

2-24 X 24

1-21 X 15

502



1-24 X 12

1-24 X 24

503

1-24 X 12

1-24 X 24

504

1-24 X 12

1-24 X 24

TIP NO.	SHEET NO.
W-5601B	SIGN-3

APPROVED: DocuSigned by: Michael T. Rzepka 01BC3480C26049D...

DATE: 4/4/2016

SEAL

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TYPE "F" SIGNS

4/4/2016
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TIP NO.	SHEET NO.
W-5601B	SIGN-4

APPROVED: DocuSigned by: Michael T. Rzepka 01BC3480C260490...

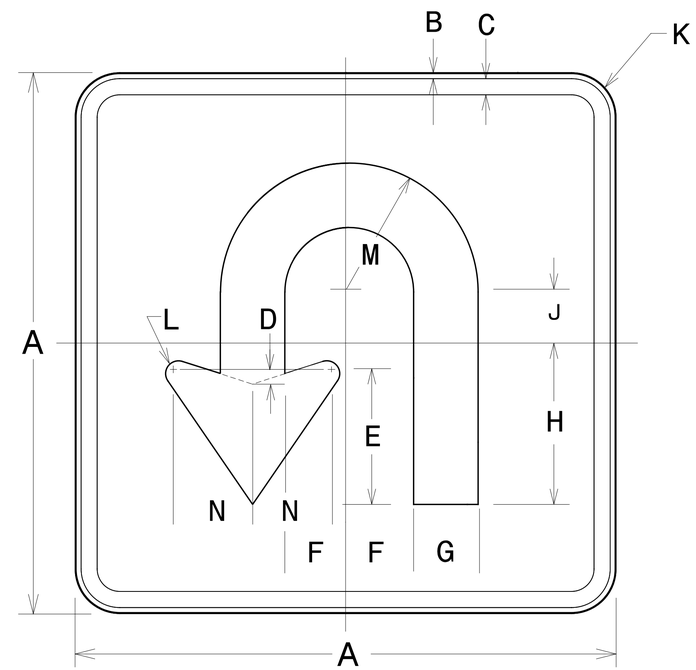
DATE: 4/1/2016

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 15876 ENGINEER MICHAEL T. RZEPKA

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SIGN NUMBER: 405
TYPE: E
QUANTITY: 2



SIGN	DIMENSIONS (INCHES)												
	A	B	C	D	E	F	G	H	J	K	L	M	N
SPECIAL	24	1/2	3/4	1/2	6-3/8	3-1/8	3-1/8	7-1/2	$2\frac{13}{16}$	1-7/8	5/8	6-1/4	3-5/8

COLORS
ARROW AND BORDER - BLACK
BACKGROUND - WHITE

SIGN DESIGN

4/1/2016
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DocuSign Envelope ID: 22FCDB92-11C6-42BF-9D84-EFC9352375A4

TIP NO.	SHEET NO.
W-5601B	SIGN-5

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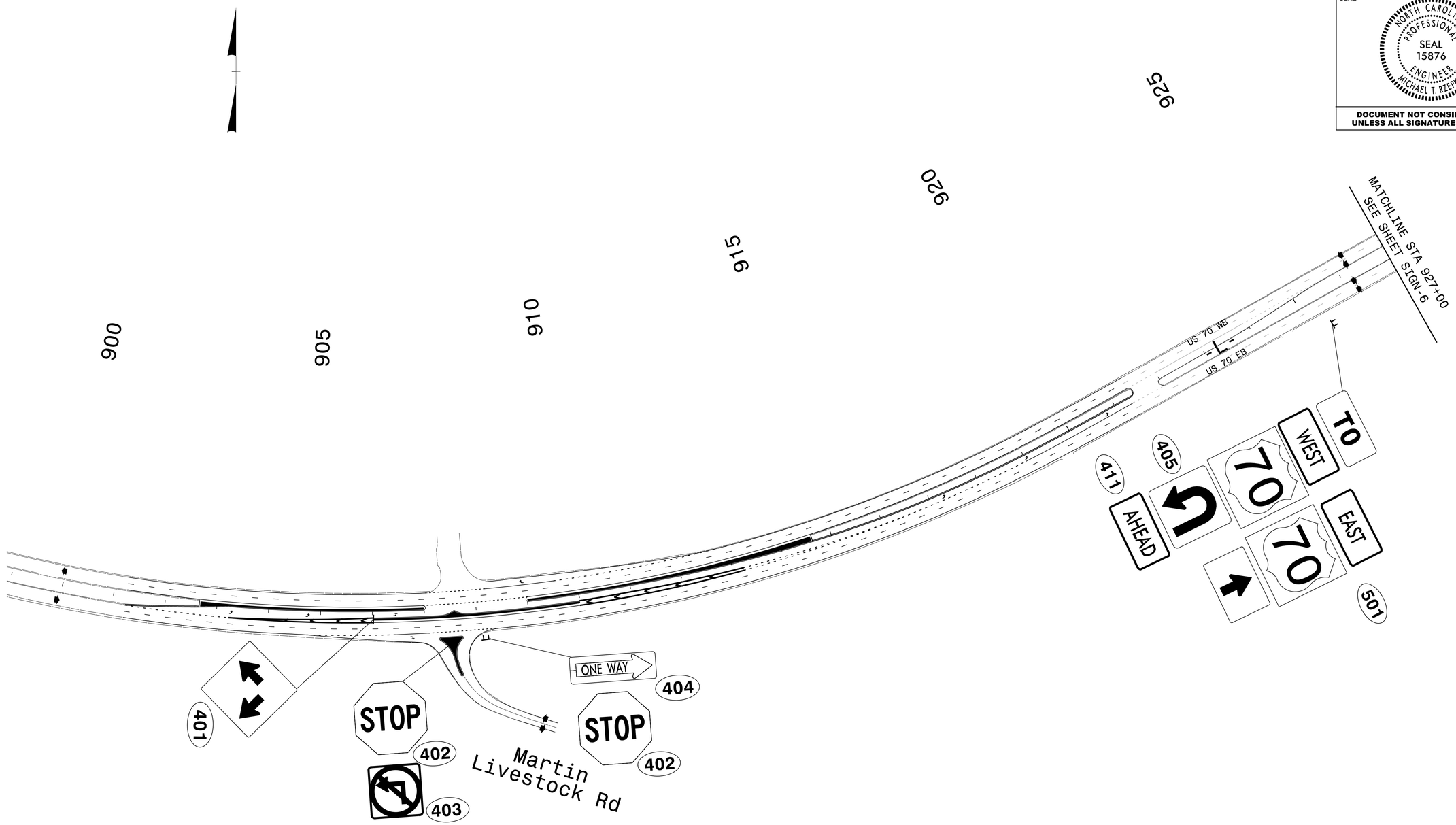
DATE: 4/1/2016

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 15876 ENGINEER MICHAEL T. RZEPKA

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



PROPOSED SIGNS

4/1/2016
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TIP NO.	SHEET NO.
W-5601B	SIGN-6

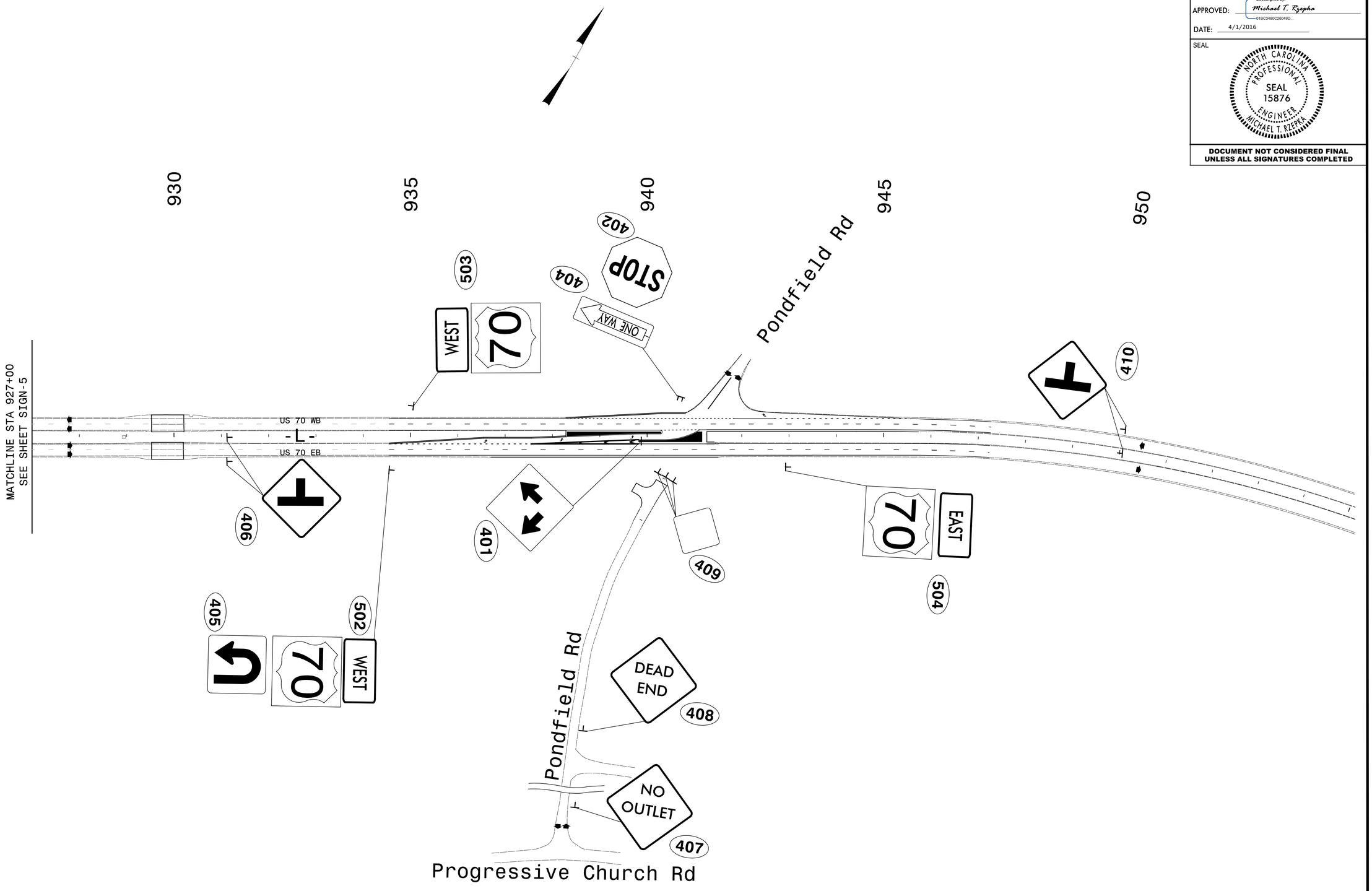
APPROVED: DocuSigned by: Michael T. Rzepka 01BC3480C260490...

DATE: 4/1/2016

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 15876 ENGINEER MICHAEL T. RZEPKA

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



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TIP NO.	SHEET NO.
W-5601B	SIGN-7

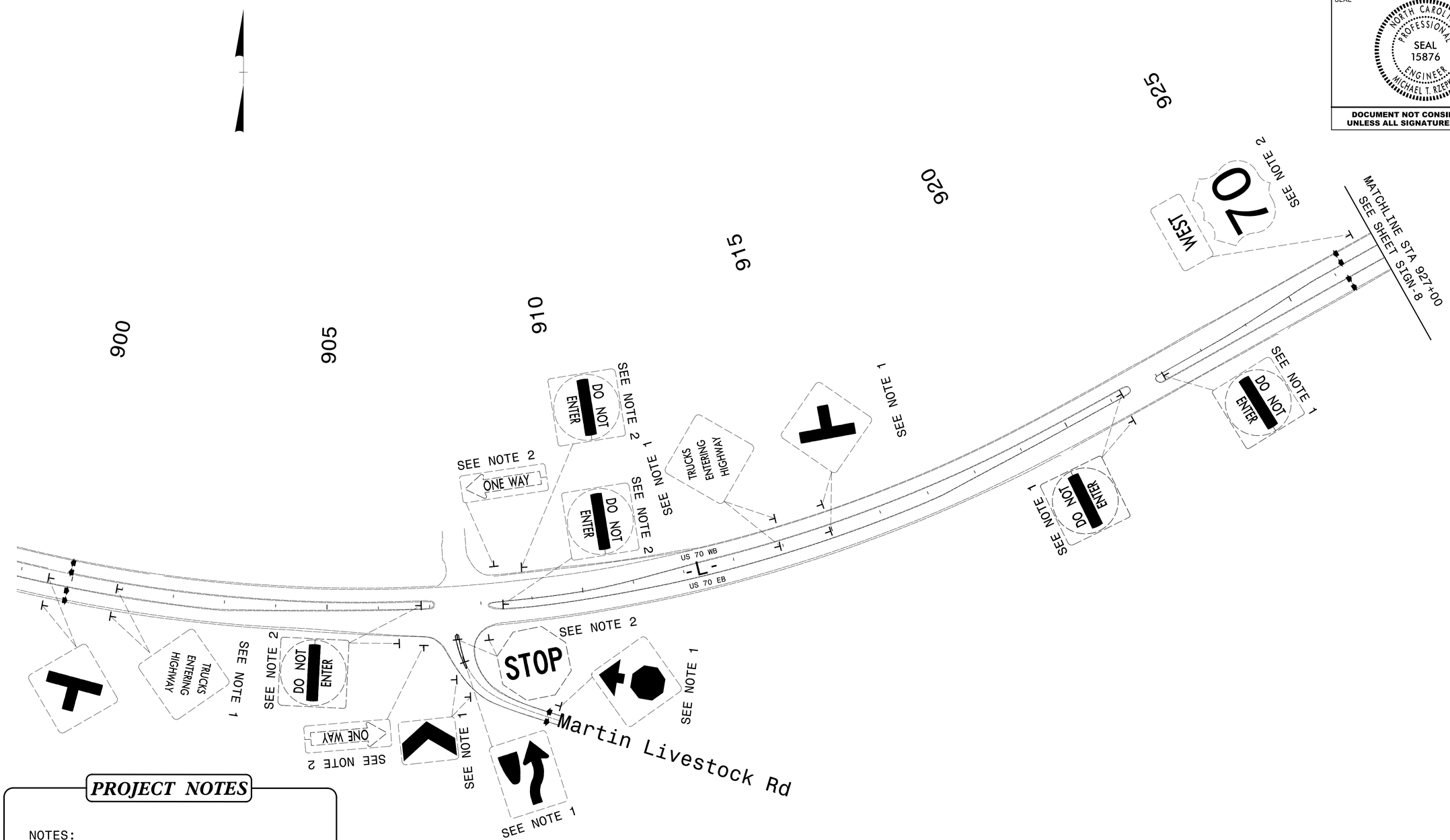
APPROVED: DocuSigned by: Michael T. Rzepka 01BC3480C26049D...

DATE: 4/1/2016

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 15876 ENGINEER MICHAEL T. RZEPKA

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



PROJECT NOTES

NOTES:

1 EXISTING SIGN TO REMAIN

2 DISPOSE OF SIGN SYSTEM, U CHANNEL

EXISTING SIGNS

4/1/2016
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TIP NO.	SHEET NO.
W-5601B	SIGN-8

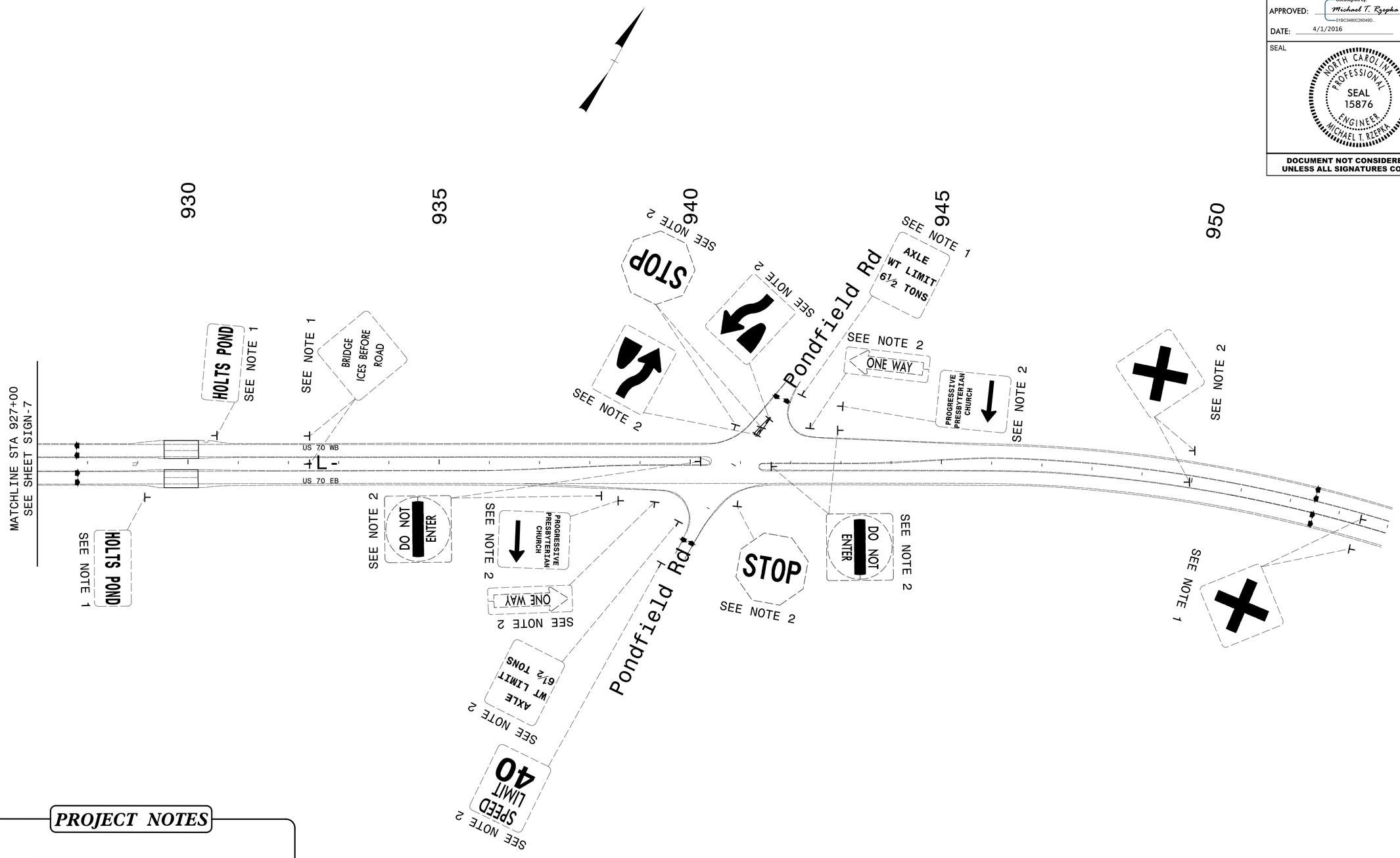
APPROVED: DocuSigned by: Michael T. Rzepka 01BC3480C260490...

DATE: 4/1/2016

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 15876 ENGINEER MICHAEL T. RZEPKA

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



PROJECT NOTES

NOTES:

1 EXISTING SIGN TO REMAIN

2 DISPOSE OF SIGN SYSTEM, U CHANNEL

EXISTING SIGNS

4/1/2016
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PROJ. REFERENCE NO.	SHEET NO.
W-5601B	X-1A

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
CROSS-SECTION SUMMARY

Quantities are approximate only. The Resident Engineer will recross-section the work accurately when the project is staked out. These cross-section notes will be used in computing the final quantities for which the contractor will be paid.

NOTE: EMBANKMENT COLUMN DOES NOT INCLUDES BACKFILL FOR UNDERCUT

STATION L	UNCLASSIFIED EXCAVATION (CU YD)	EMBANKMENT (CU YD)		STATION L	UNCLASSIFIED EXCAVATION (CU YD)	EMBANKMENT (CU YD)		STATION	UNCLASSIFIED EXCAVATION (CU YD)	EMBANKMENT (CU YD)		STATION	UNCLASSIFIED EXCAVATION (CU YD)	EMBANKMENT (CU YD)	
900+00				926+00											
900+50	1	4		926+50											
901+00	3	3		927+00											
901+50	8	2		927+50											
902+00	13	5		928+00											
902+50	14	4		928+50											
903+00	19	1		929+00											
903+50	26			929+50											
904+00	23			930+00											
904+50	20			930+50											
905+00	21			931+00											
905+50	19			931+50											
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906+50	13			932+50											
907+00	12			933+00											
907+50				933+50											
908+00				934+00											
908+50	5			934+50											
909+00	13			935+00	2	3									
909+50	22			935+50	12	7									
910+00	38			936+00	26	12									
910+50	43			936+50	41	14									
911+00	41			937+00	43	15									
911+50	33			937+50	74	12									
912+00	30			938+00	63	21									
912+50	31	1		938+50	21	39									
913+00	28	1		939+00	32	43									
913+50	27	1		939+50	46	65									
914+00	25	1		940+00	79	68									
914+50	22	3		940+50	110	50									
915+00	16	5		941+00	85	30									
915+50	10	4		941+50	33	9									
916+00	11	3		942+00	16	5									
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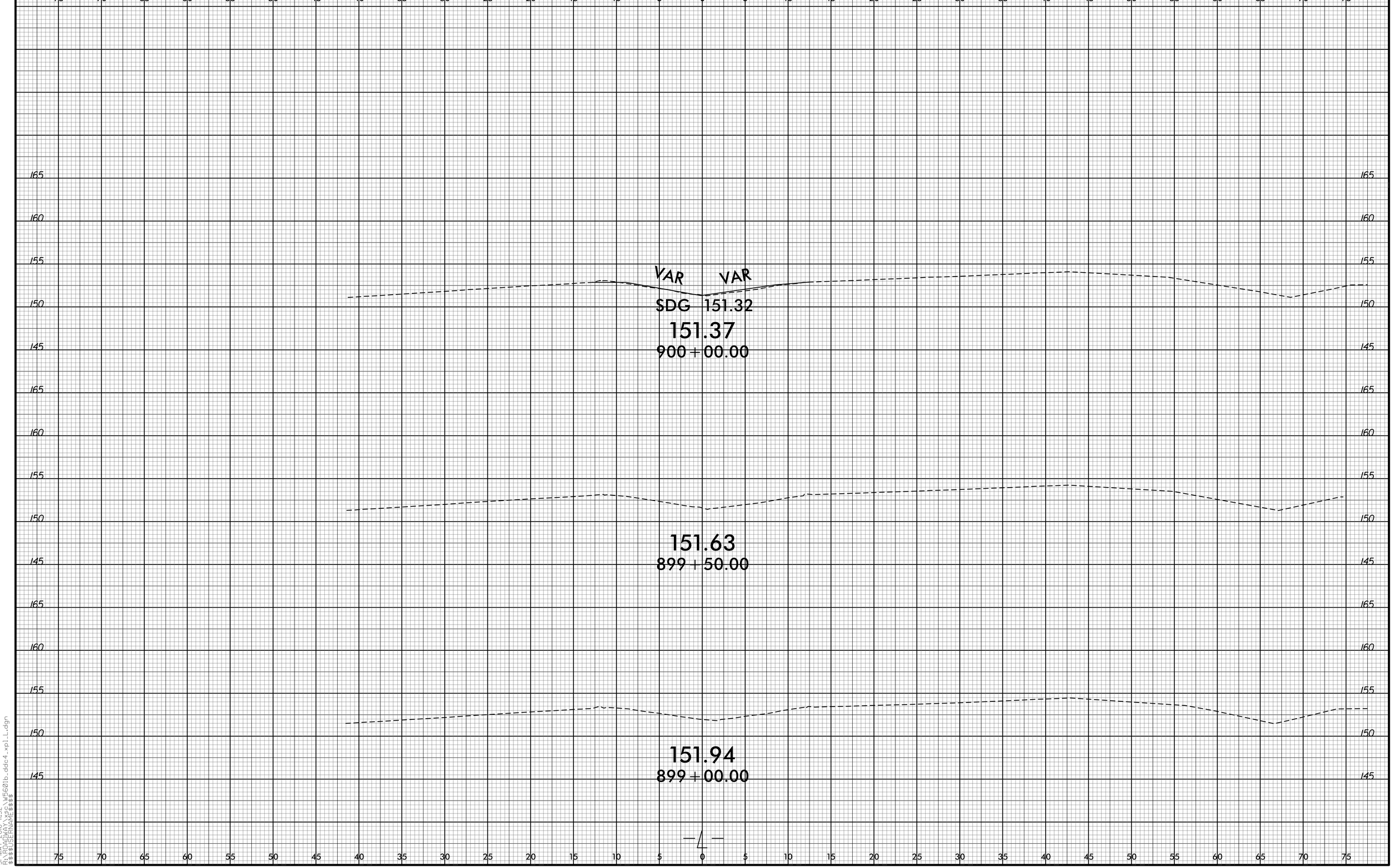
917+00	12	4		943+00	16	3									
917+50	11	4		943+50	16	5									
918+00	8	6		944+00	15	6									
918+50	7	6		944+50	12	7									
919+00	7	4		945+00	9	9									
919+50	6	3		945+50	4	9									
920+00	4	5		946+00		5									
920+50	3	7													
921+00	4	7													
921+50															
922+00															
922+50															
923+00															
923+50															
924+00															
924+50															
925+00															
925+50															

8/23/99

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	W-5601B	X-1



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8/23/99

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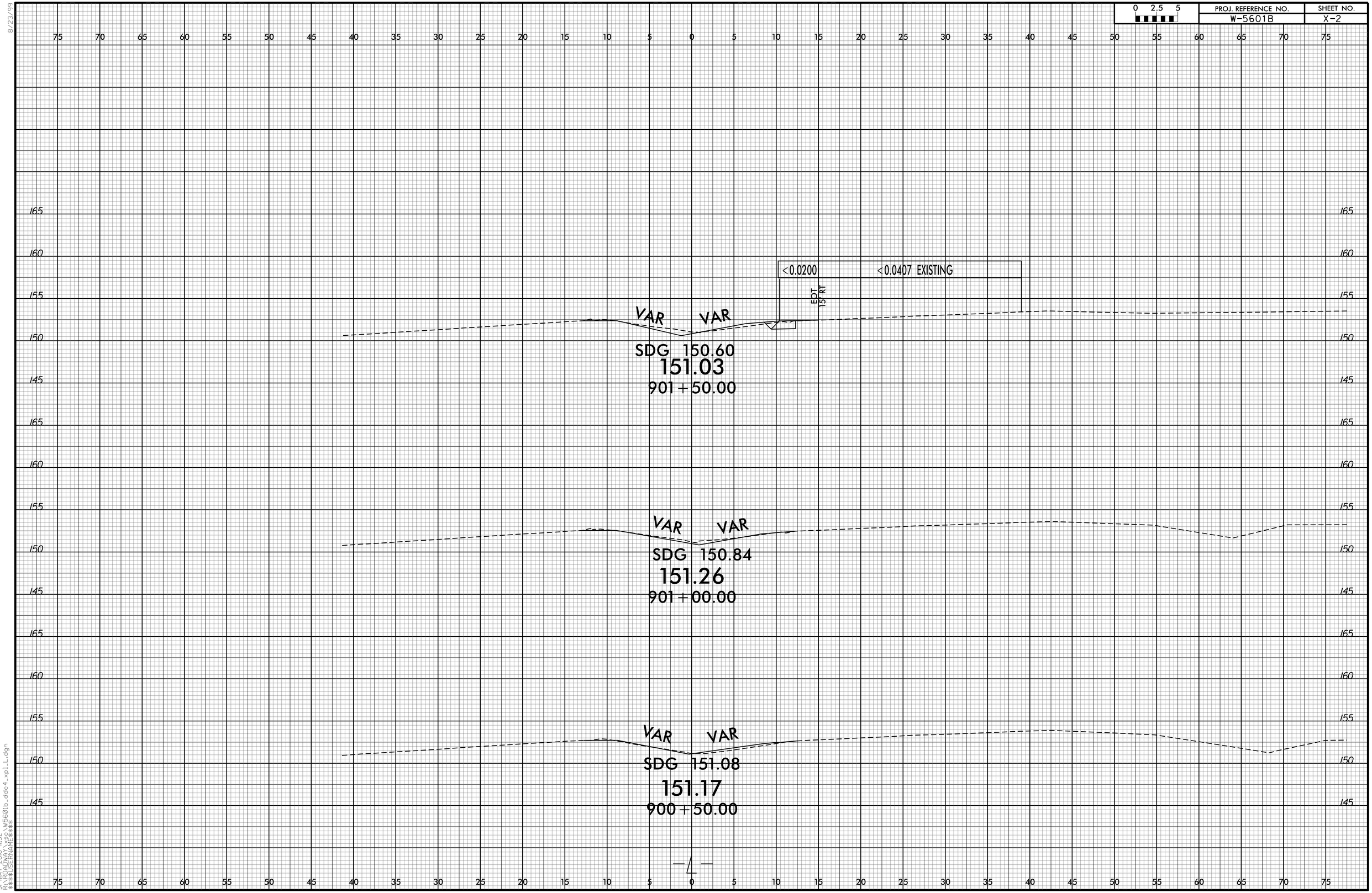

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8/23/99

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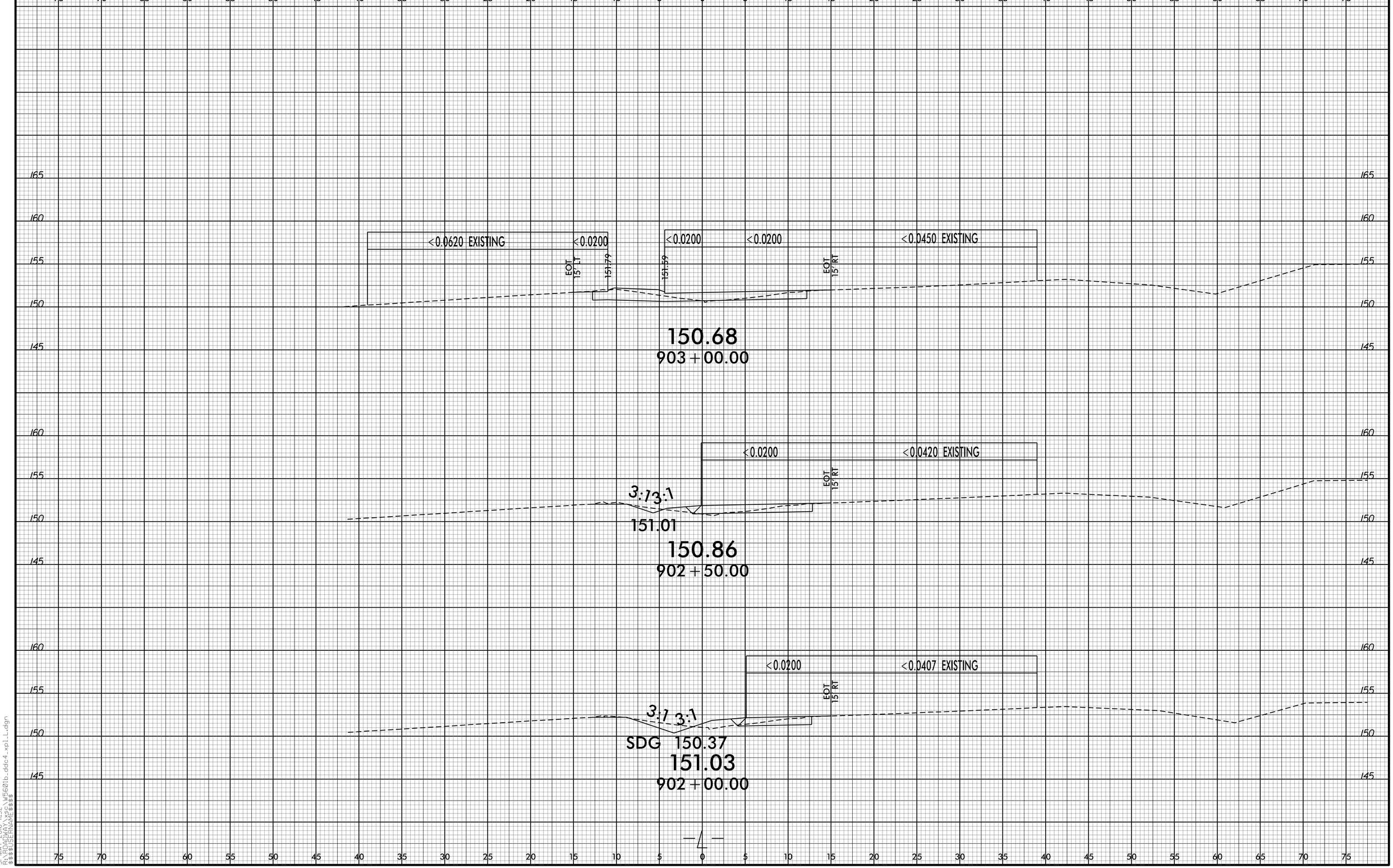

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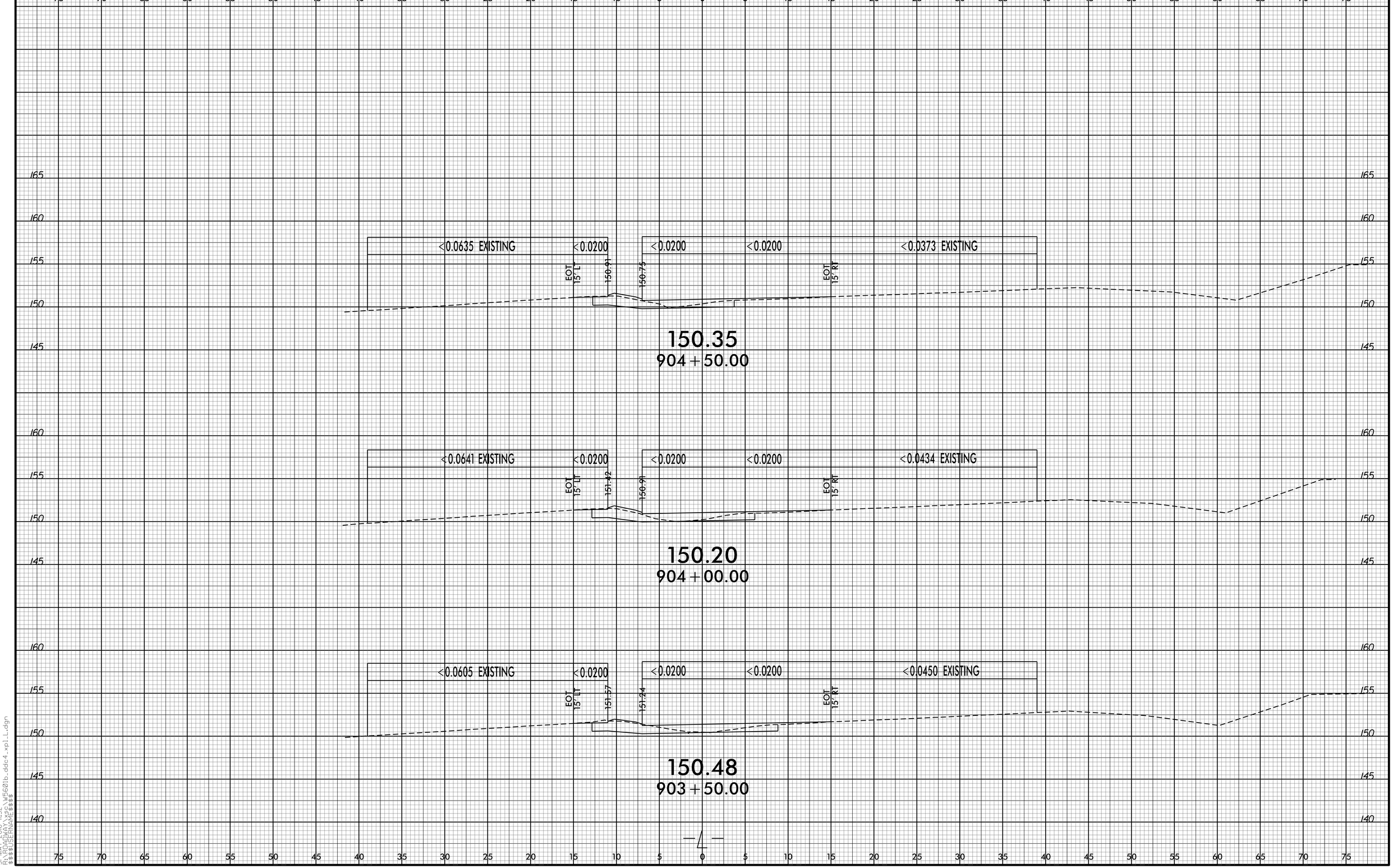

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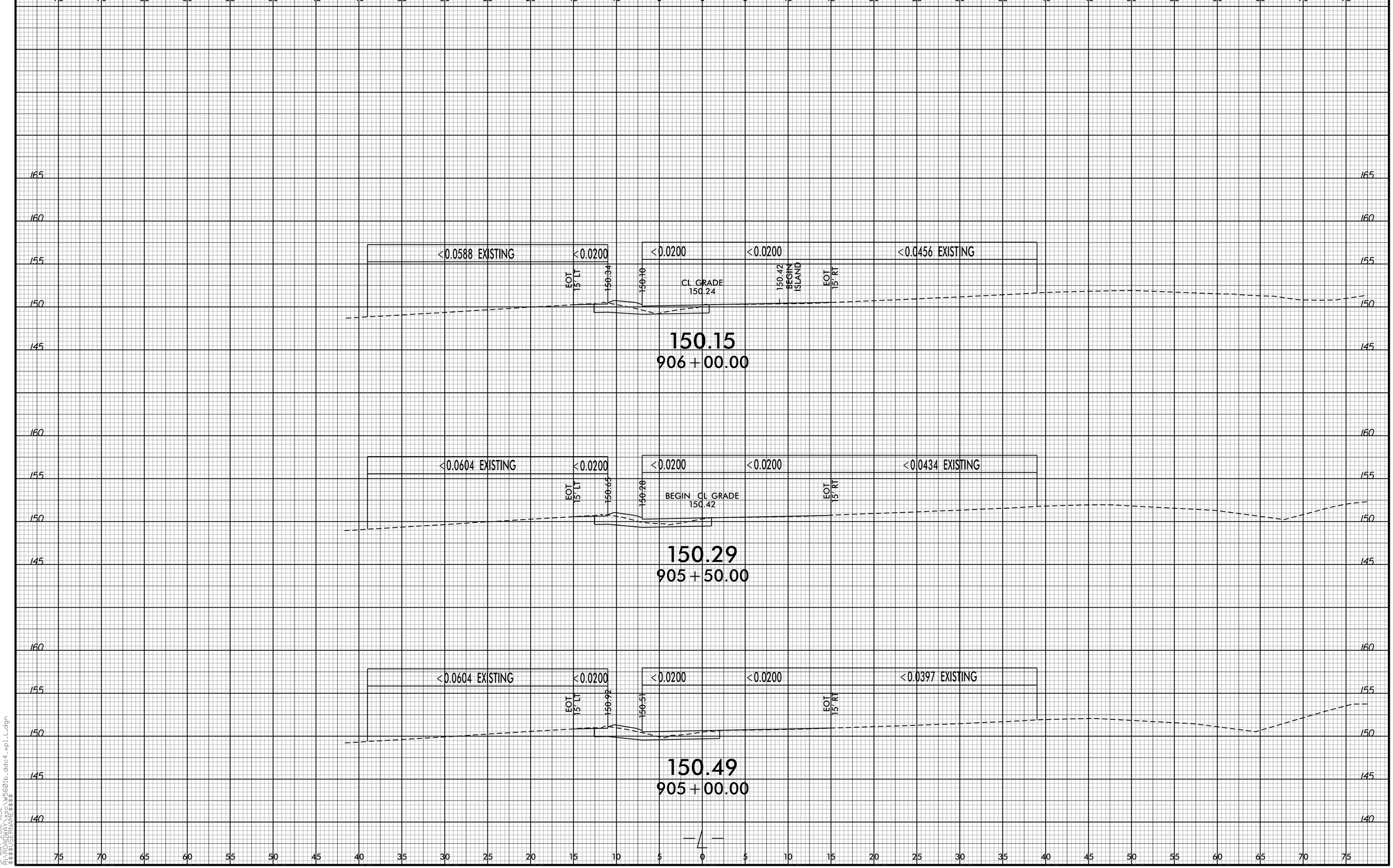

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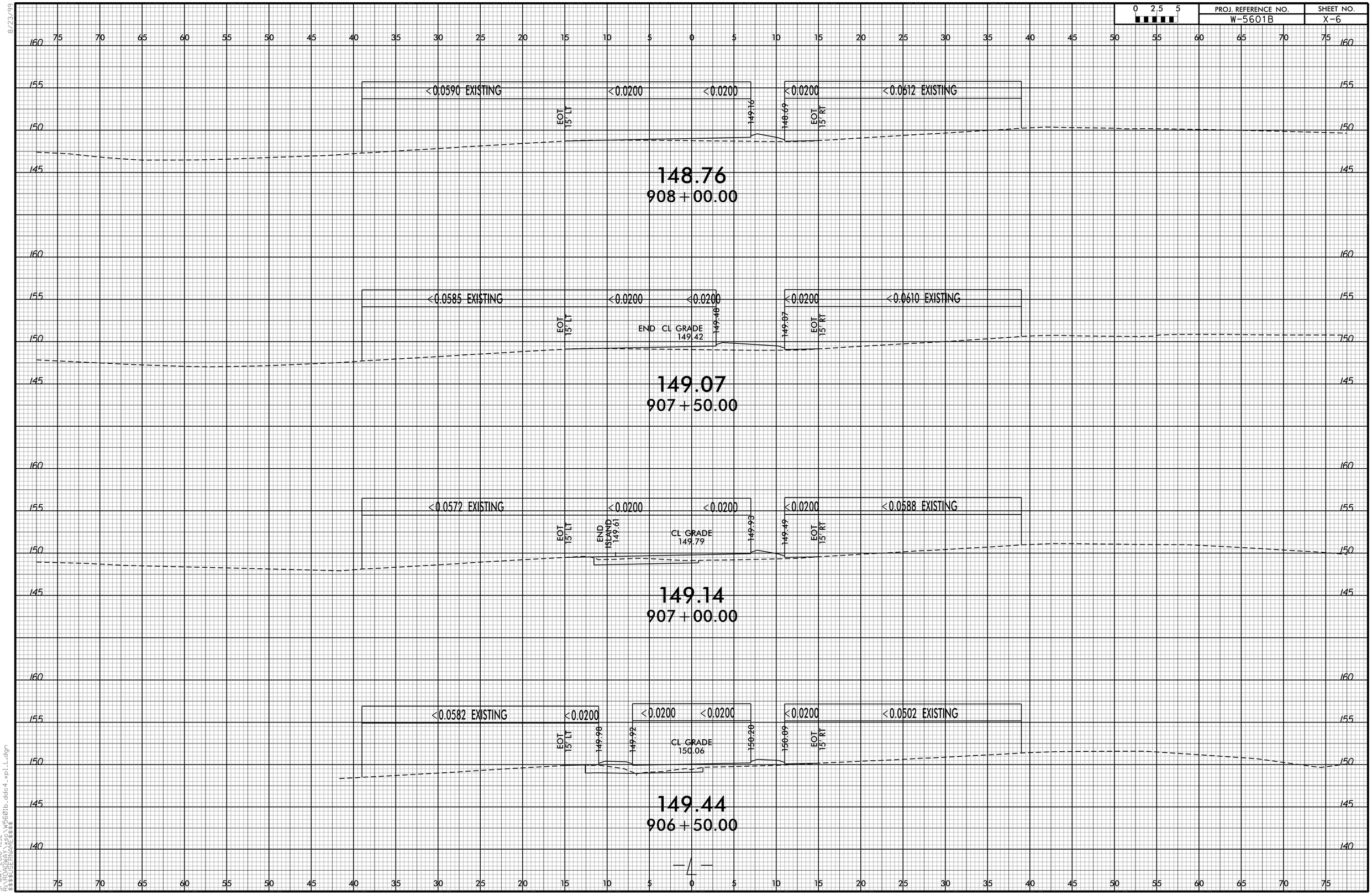
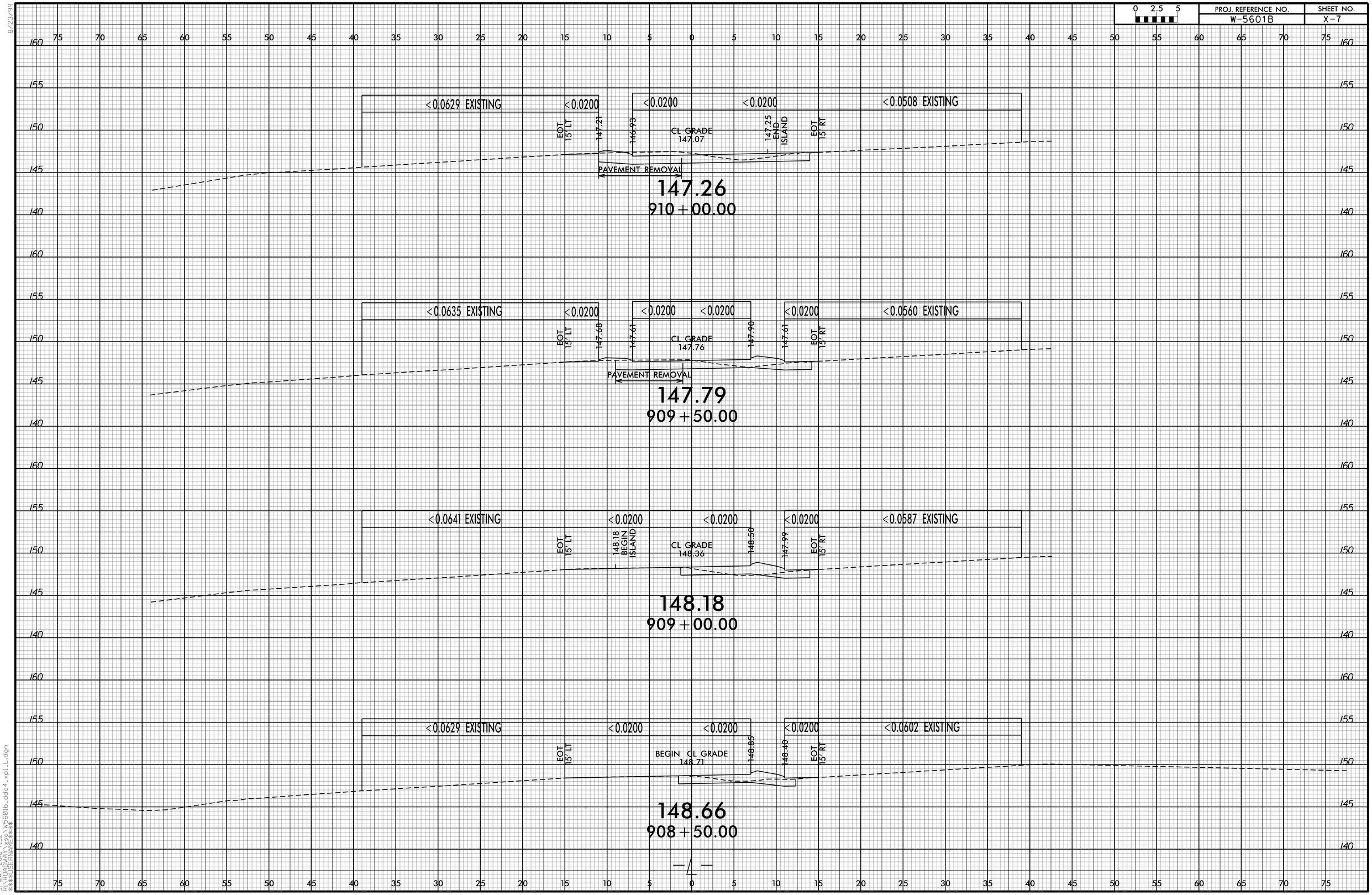
0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	W-5601B	X-6





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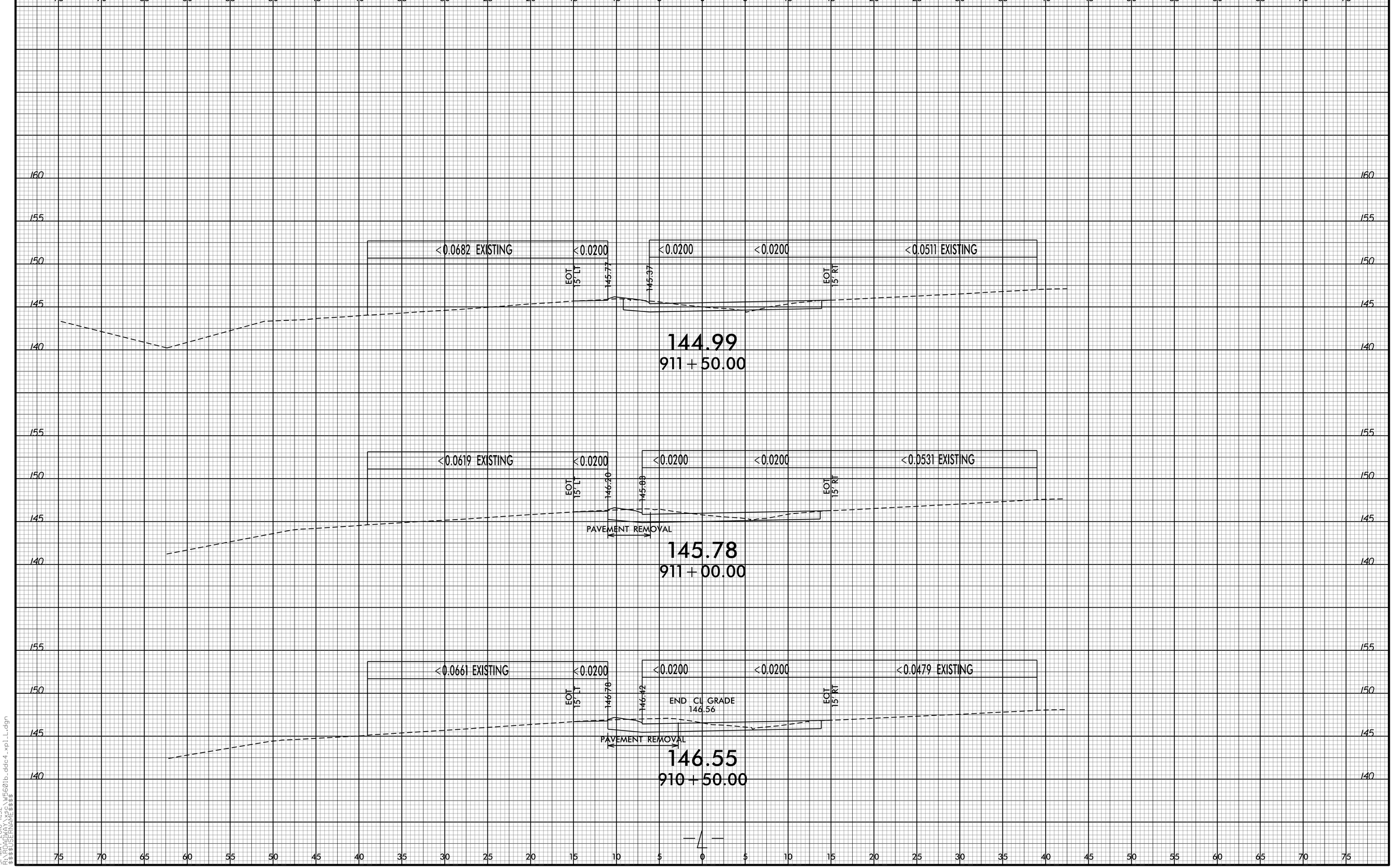

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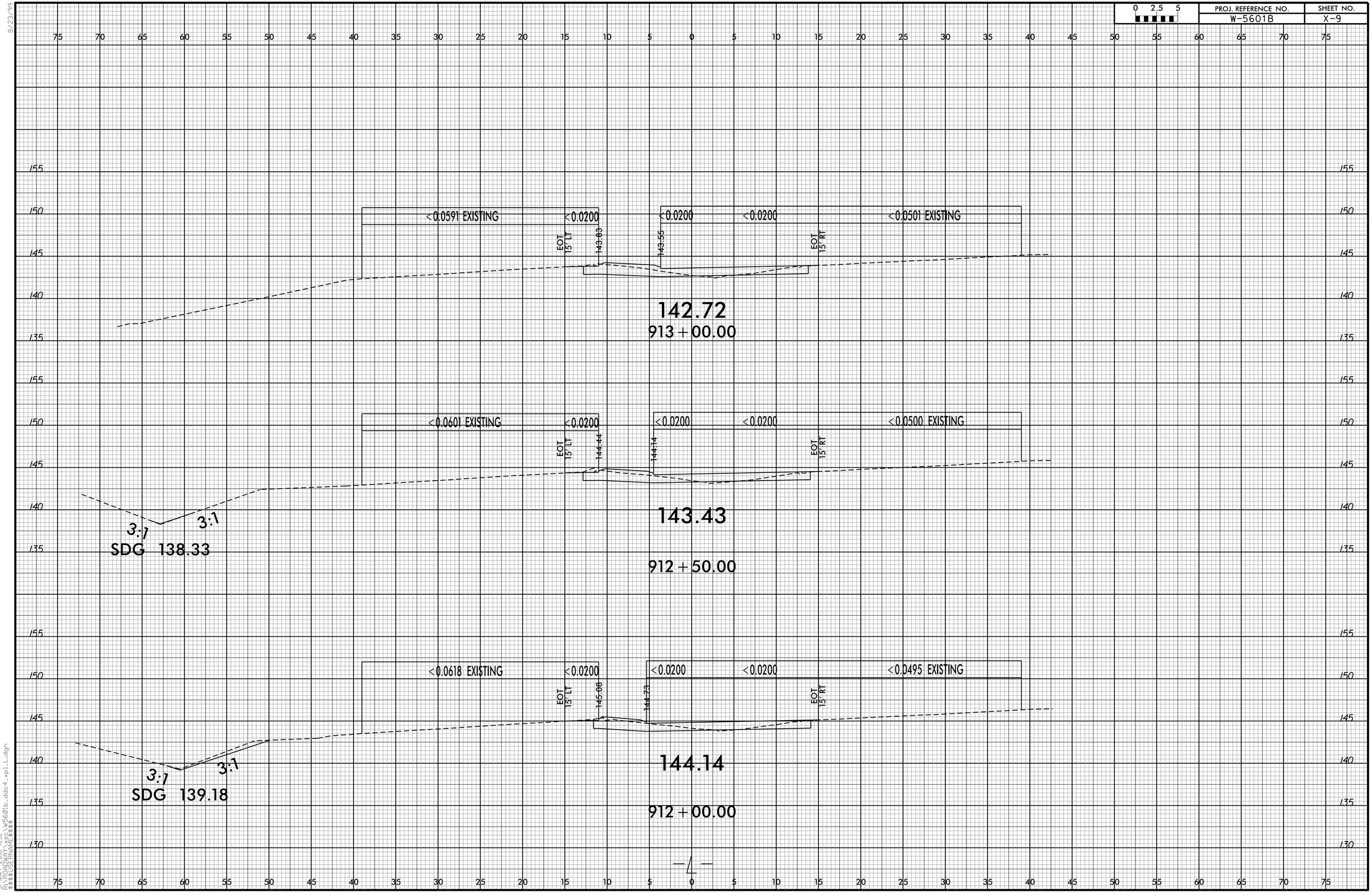

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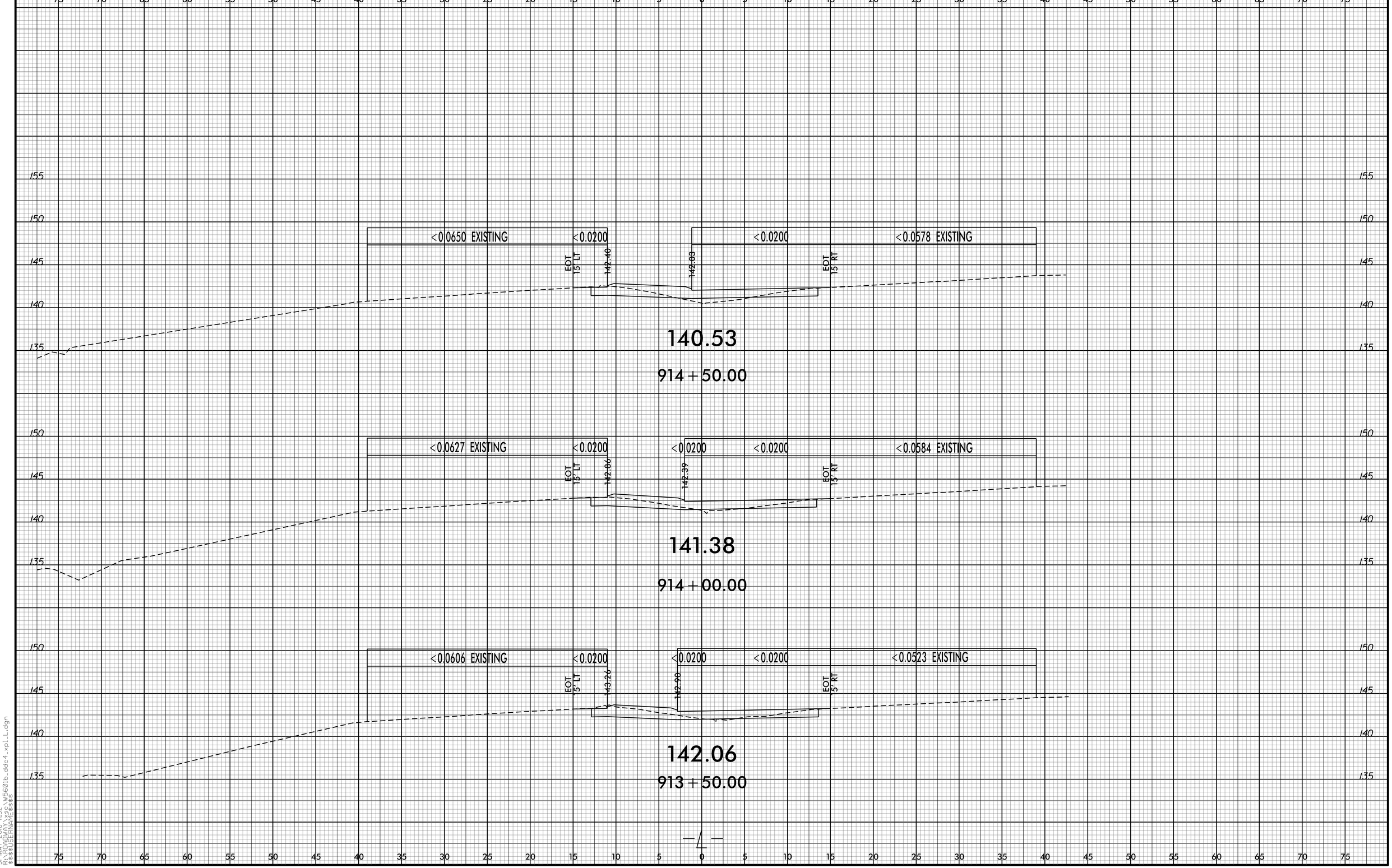

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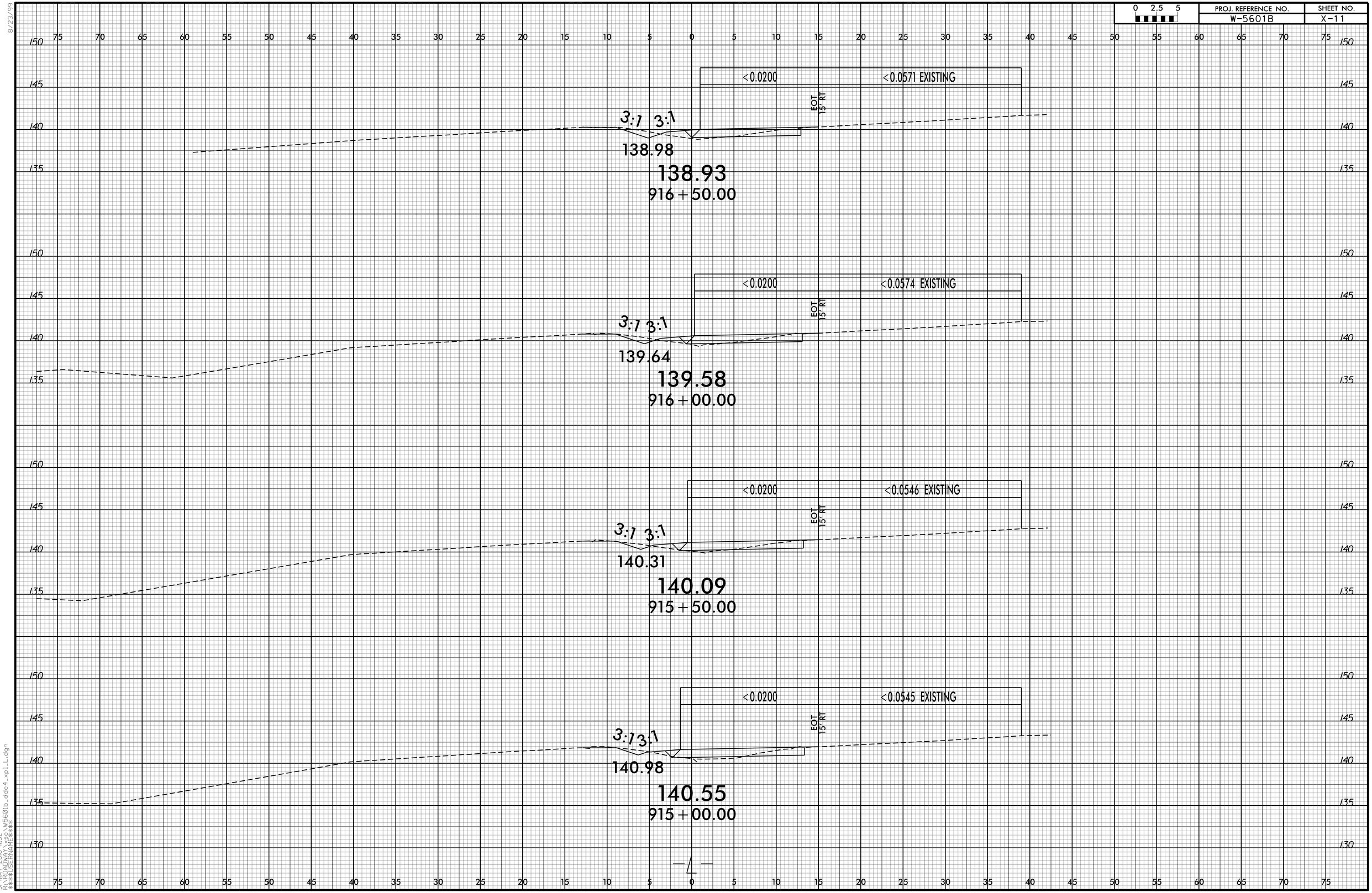

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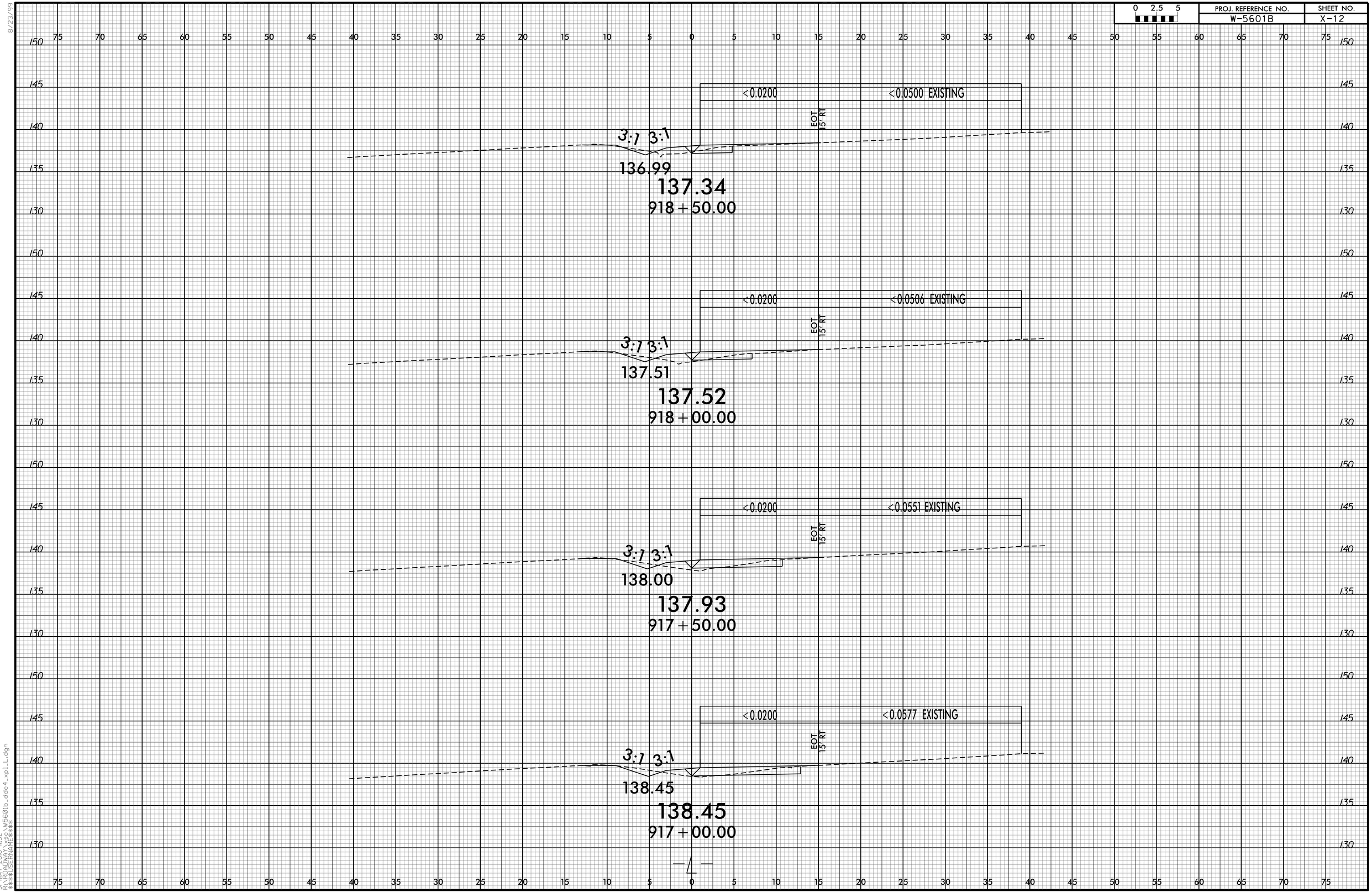

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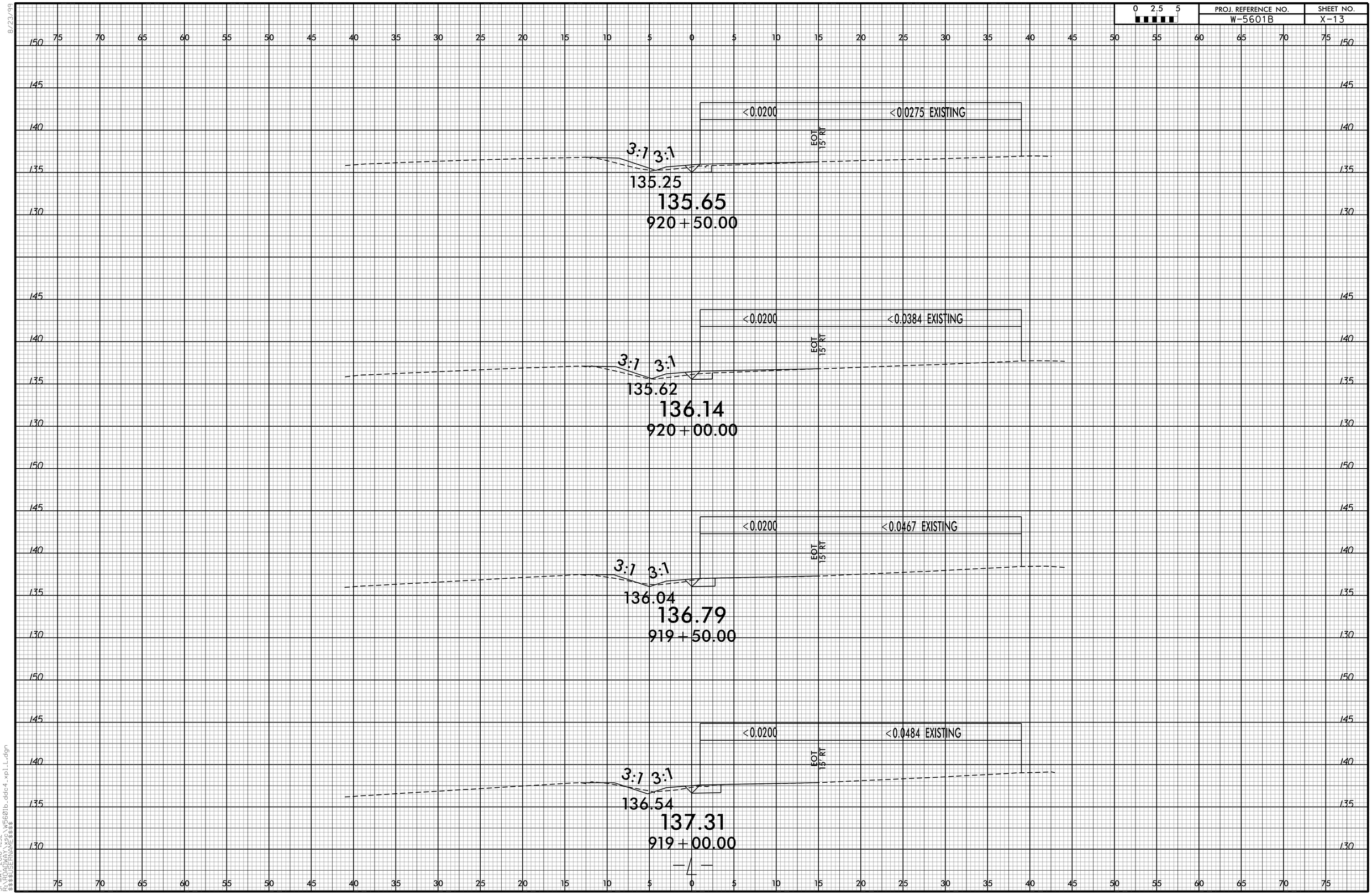

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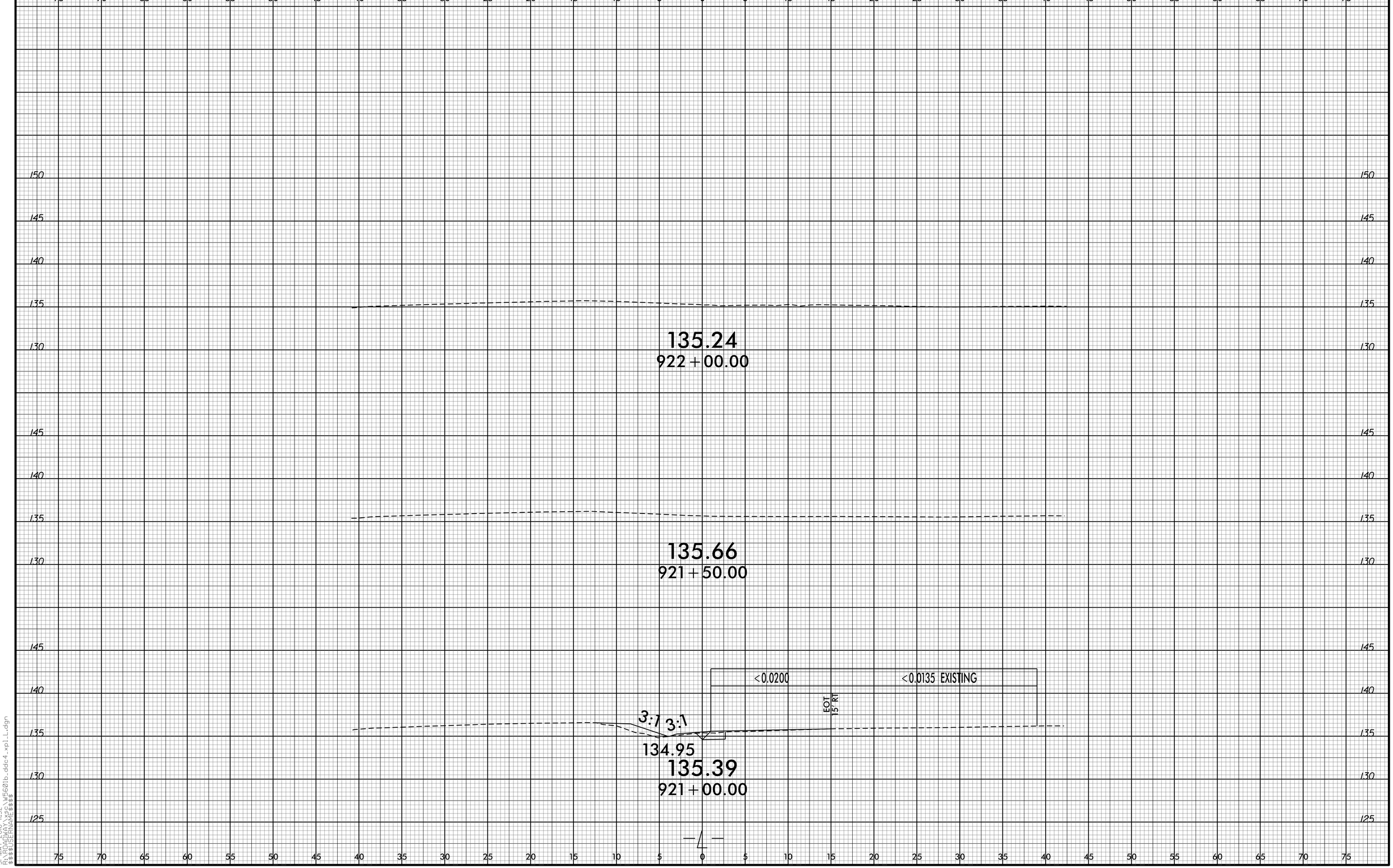

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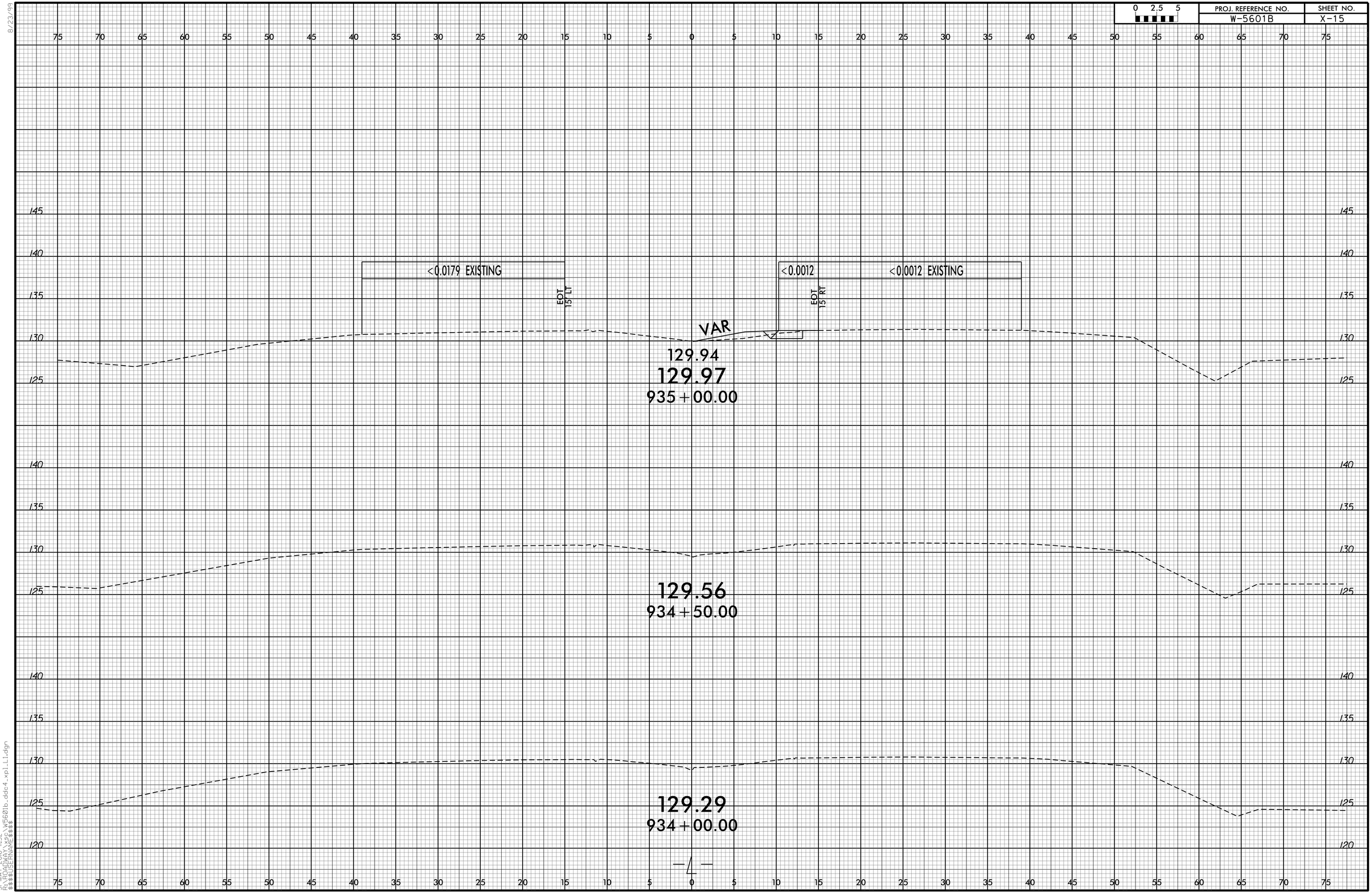

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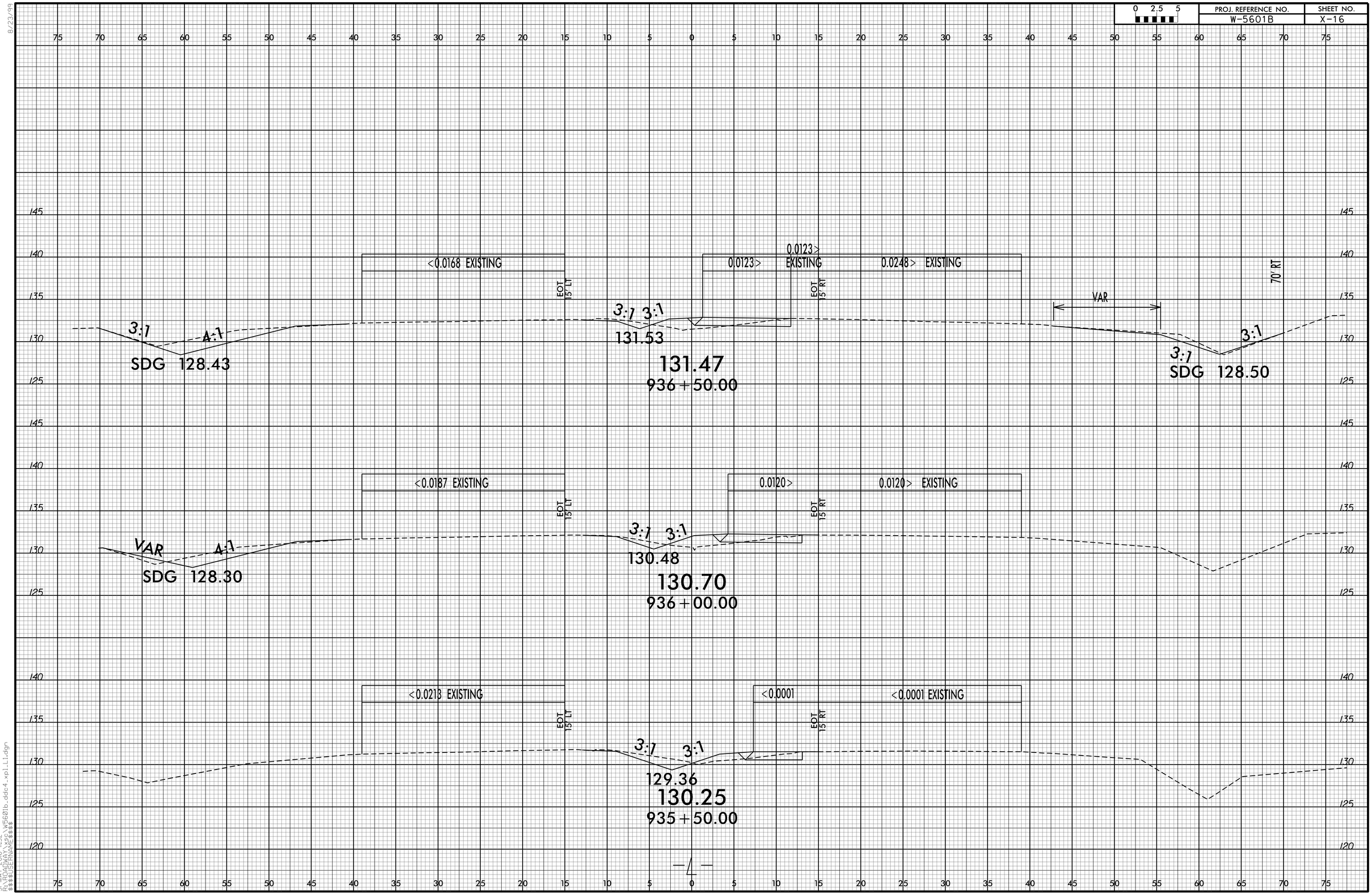

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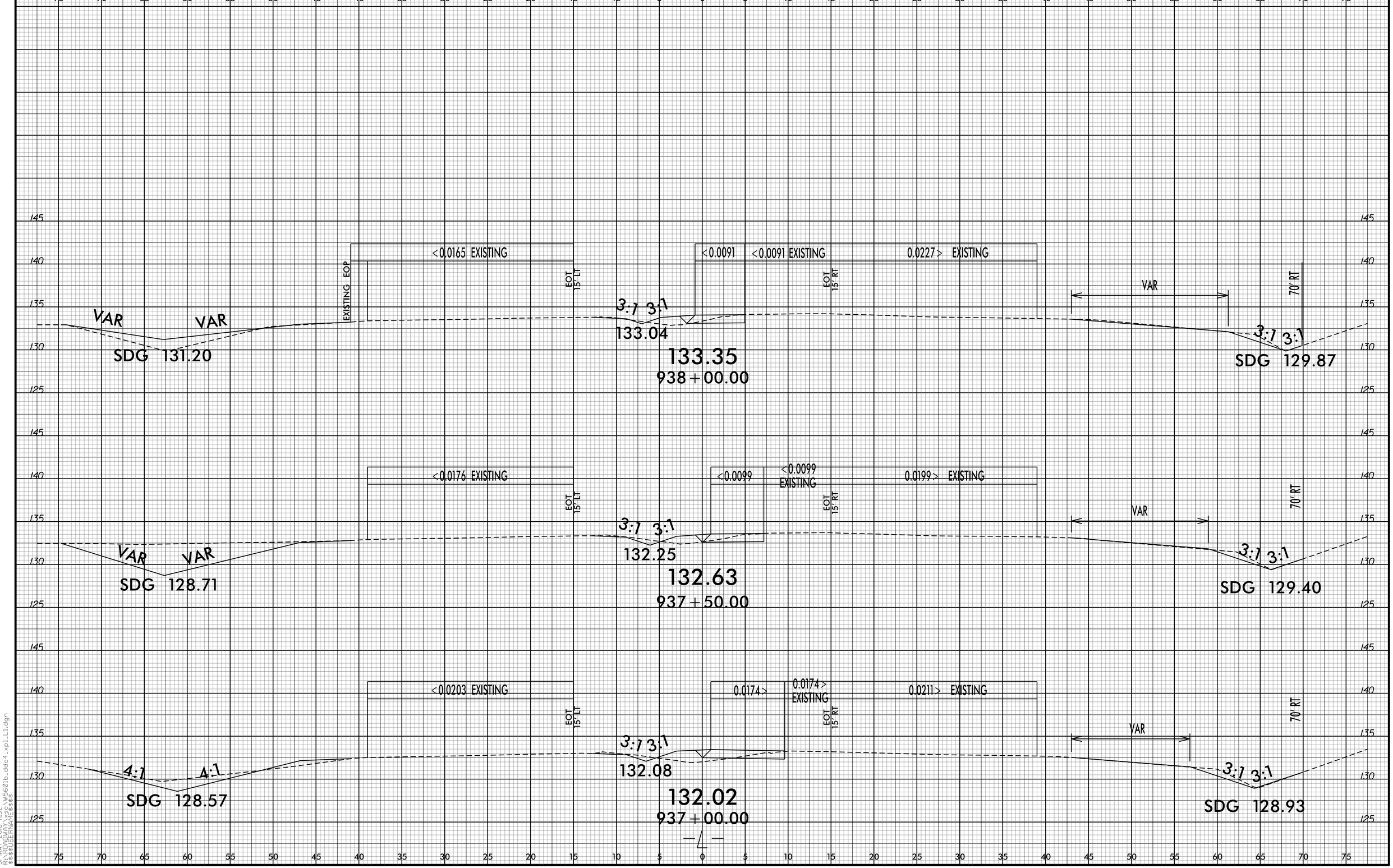

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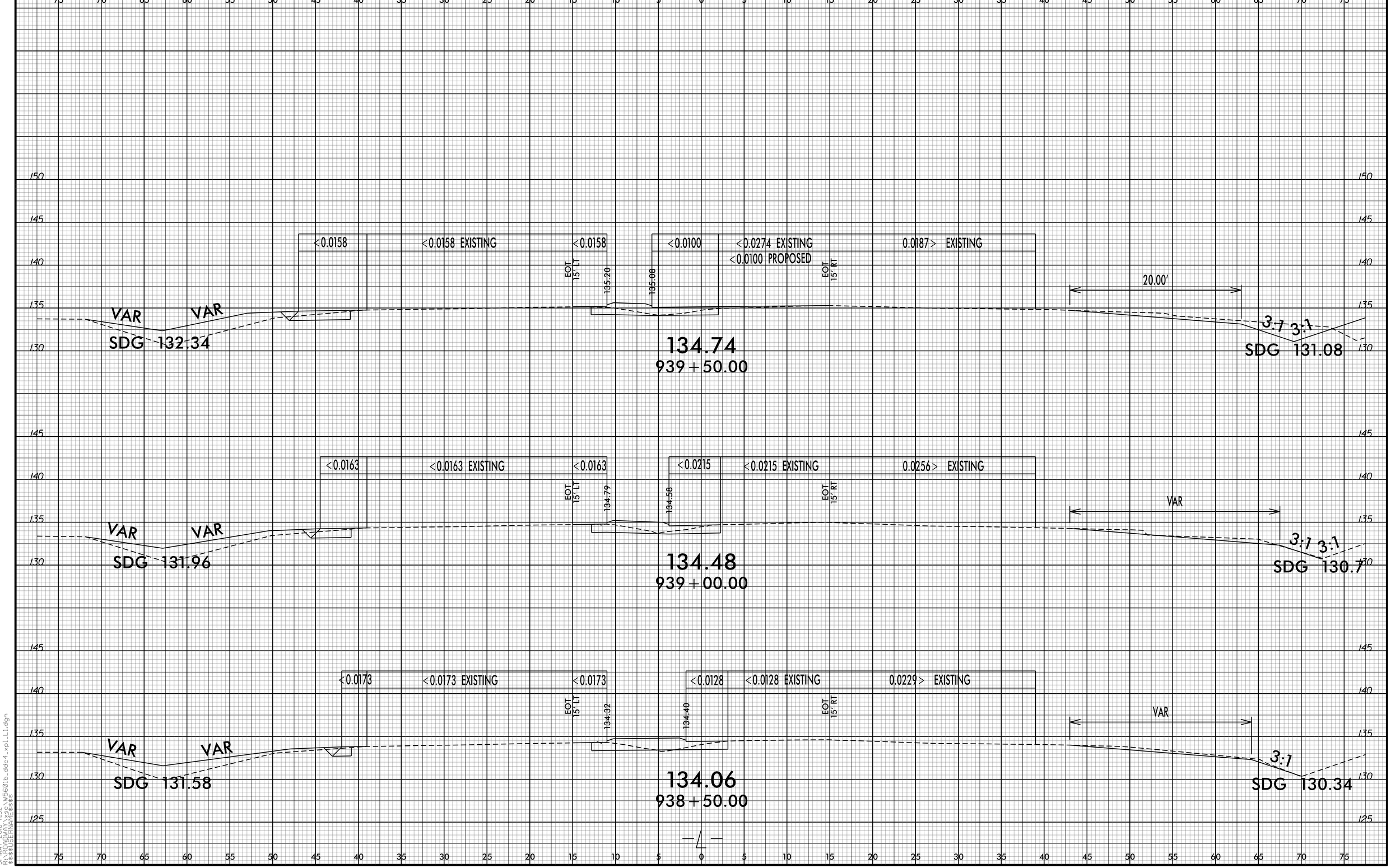

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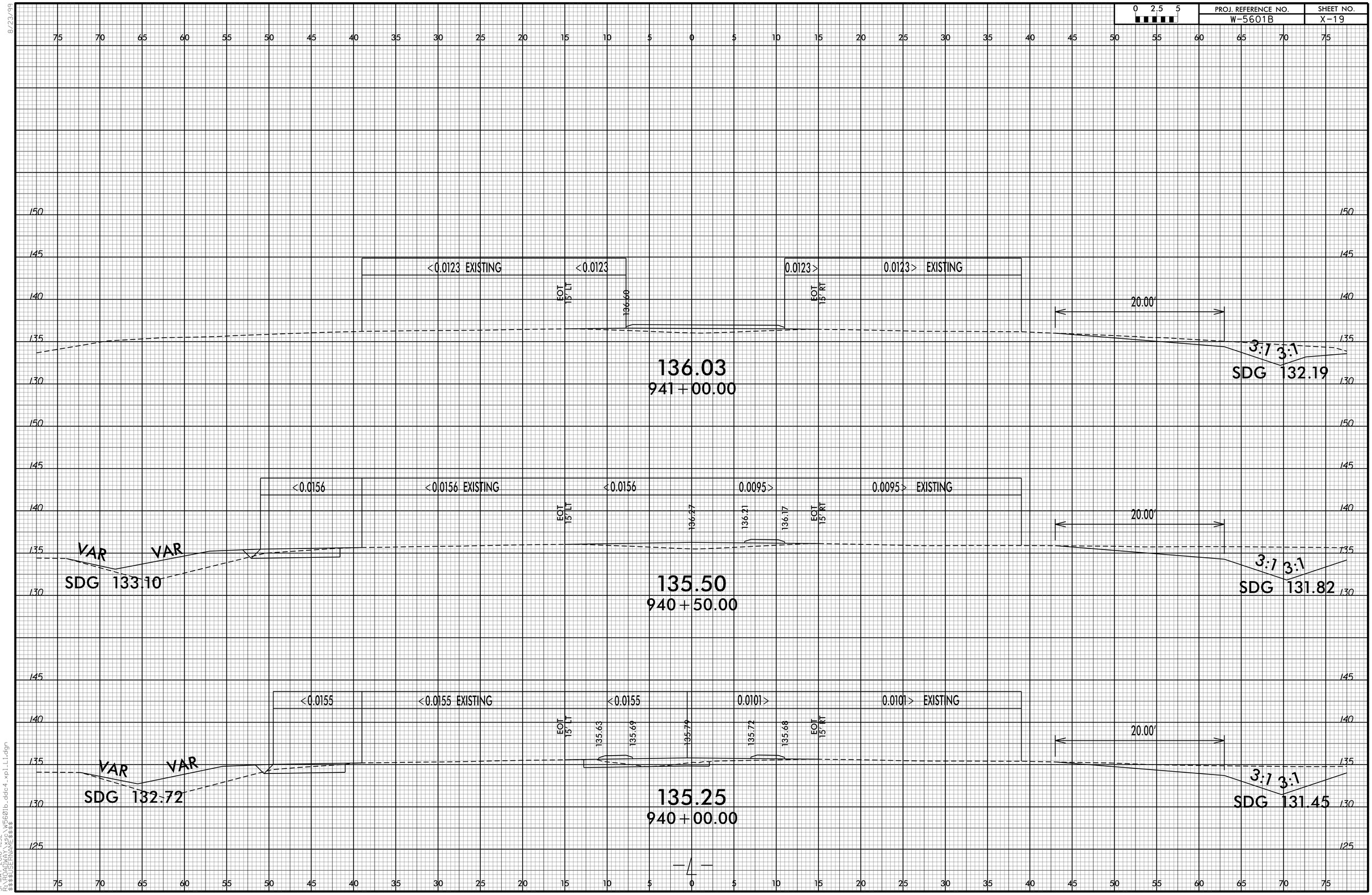

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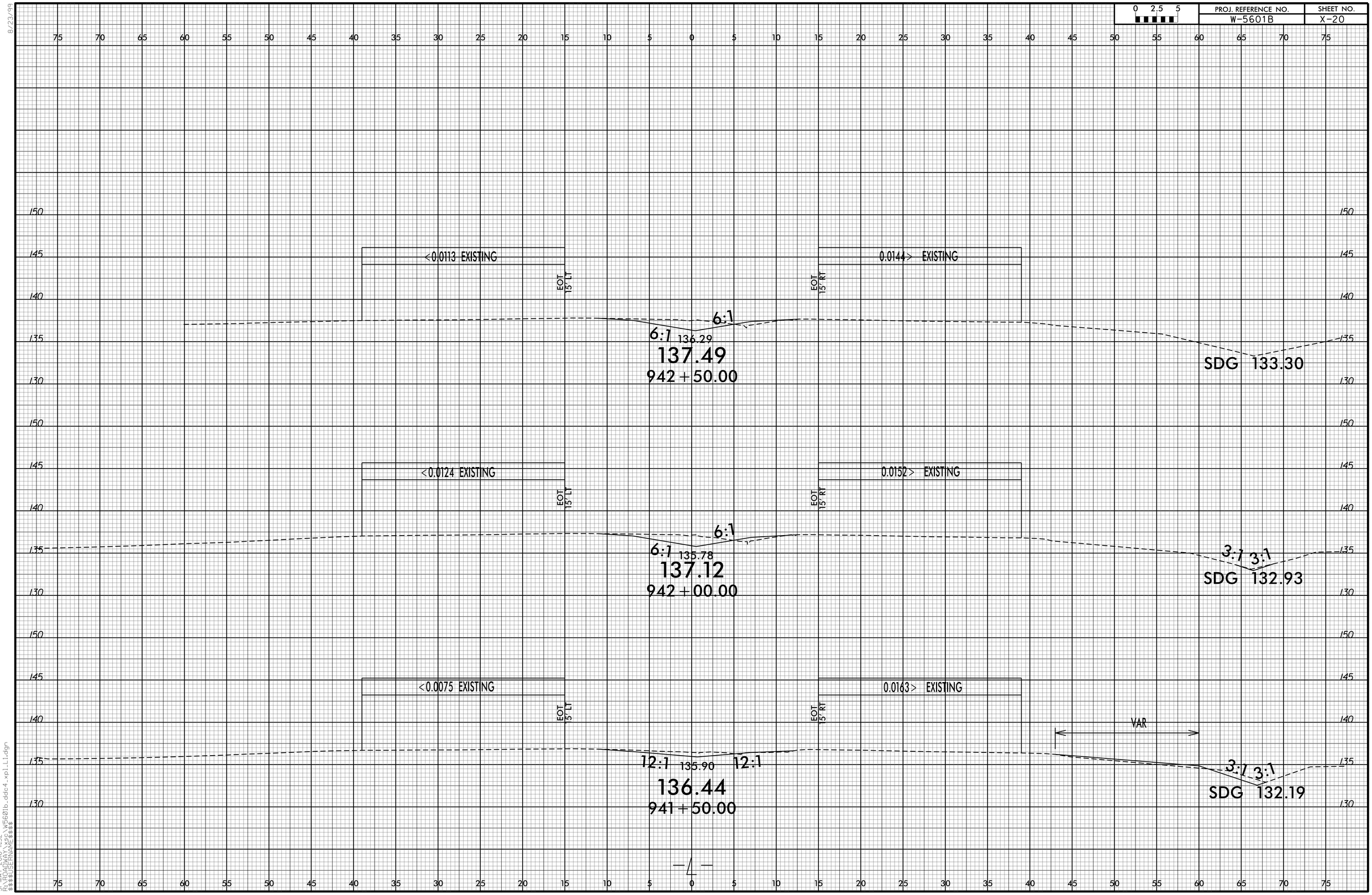

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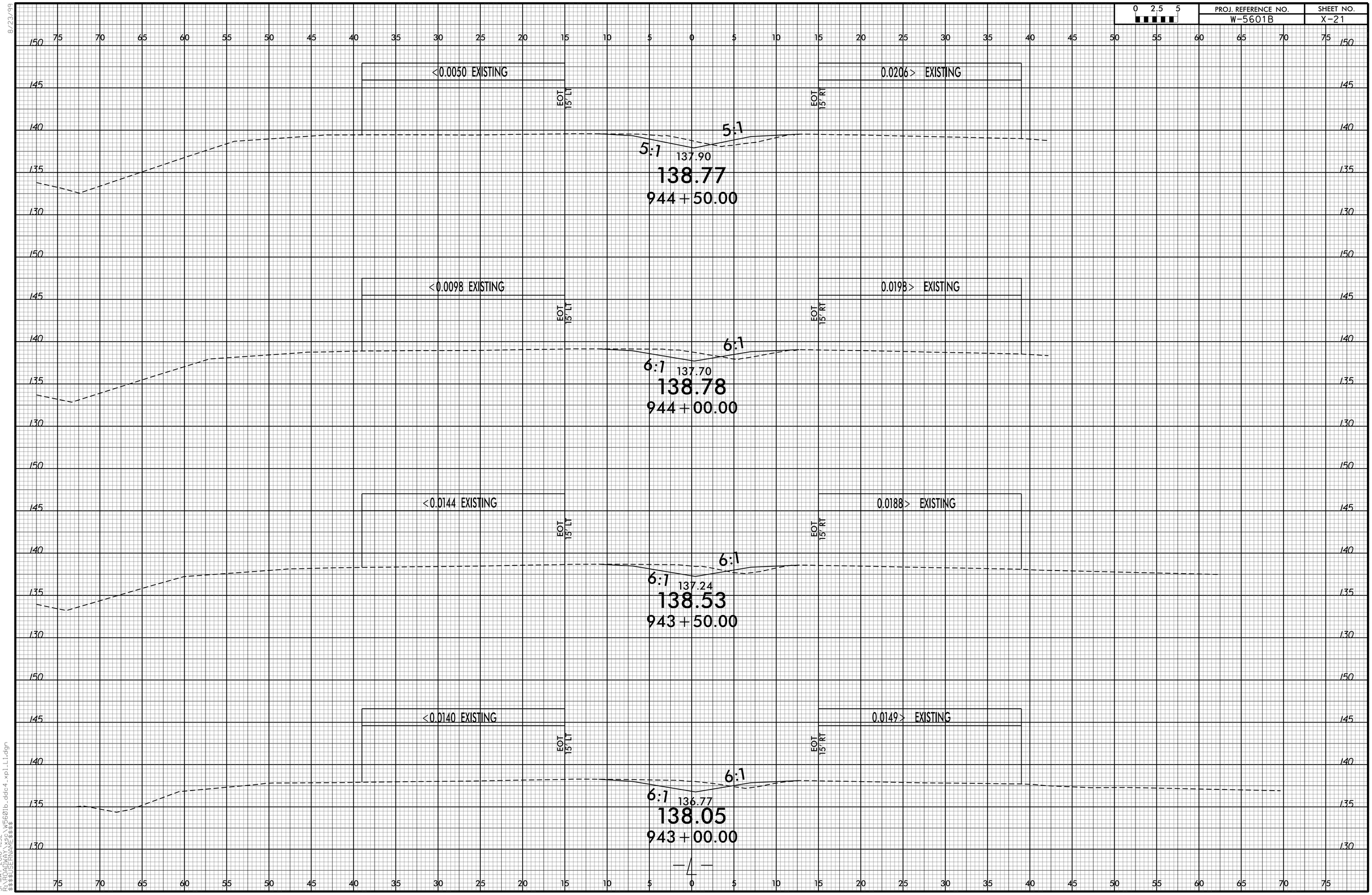

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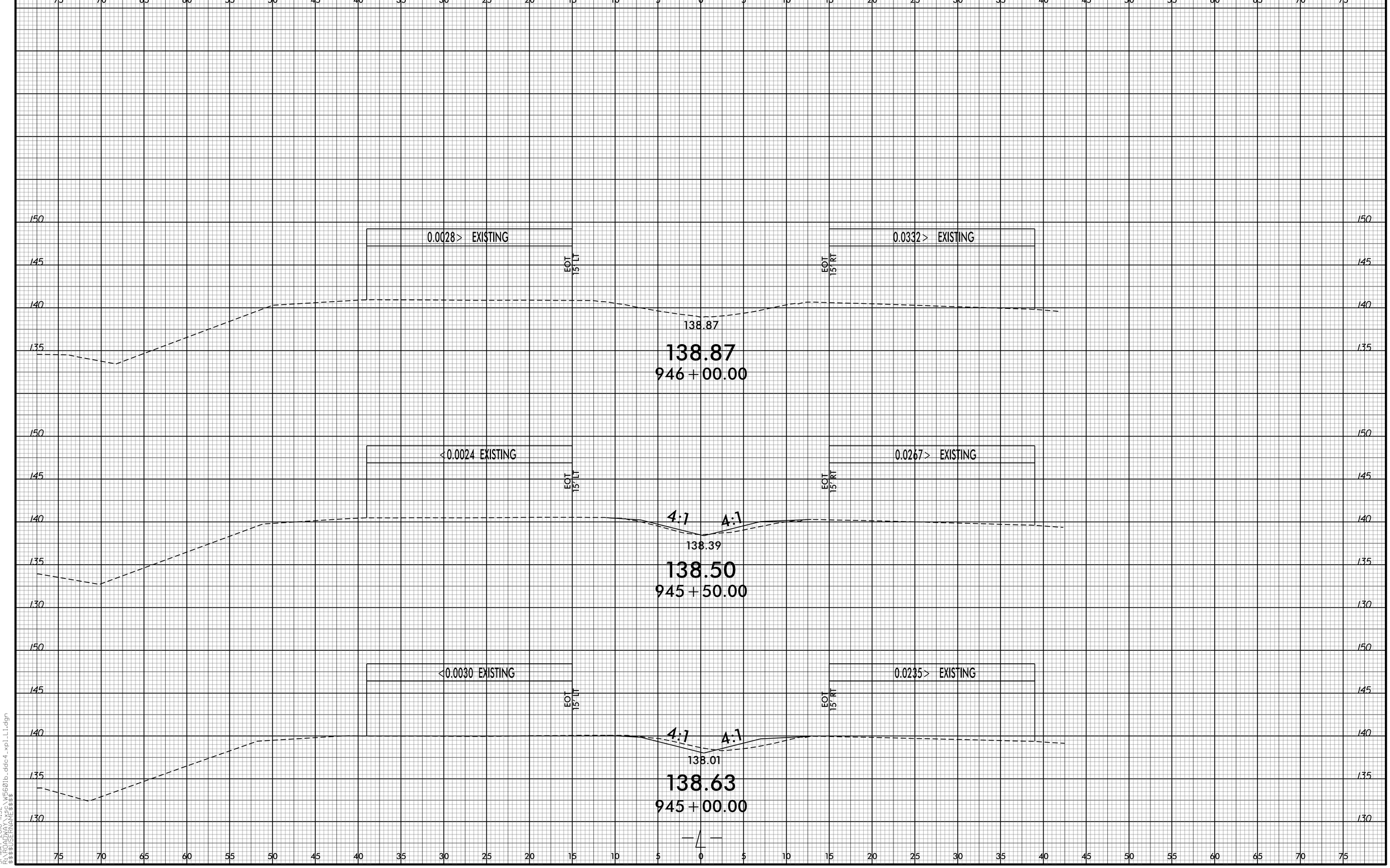

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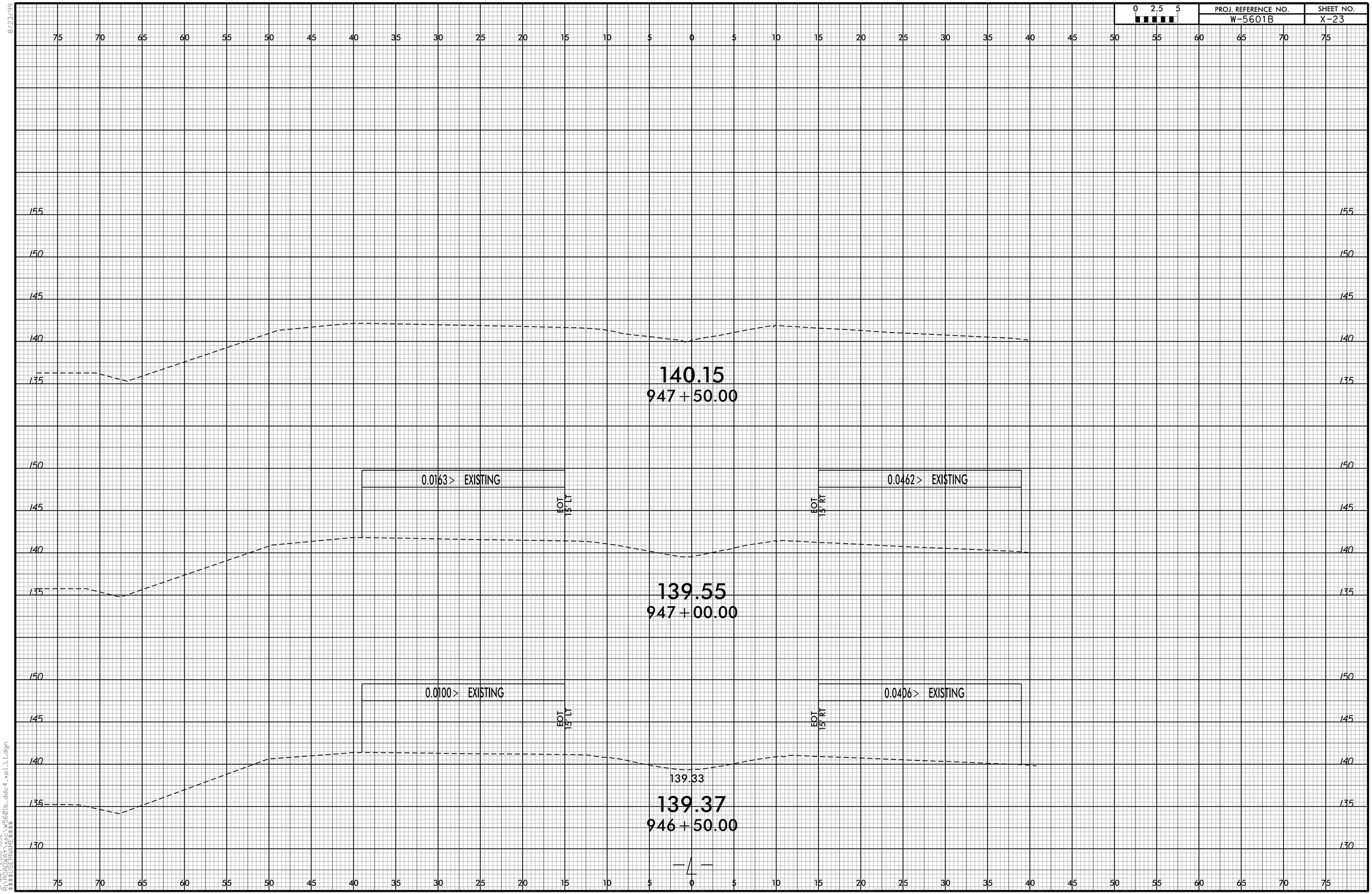

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