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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING

LAUDERDALE COUNTY

STATE ROUTE 87
BRIDGE OVER
BRANCH L.M. 5.18

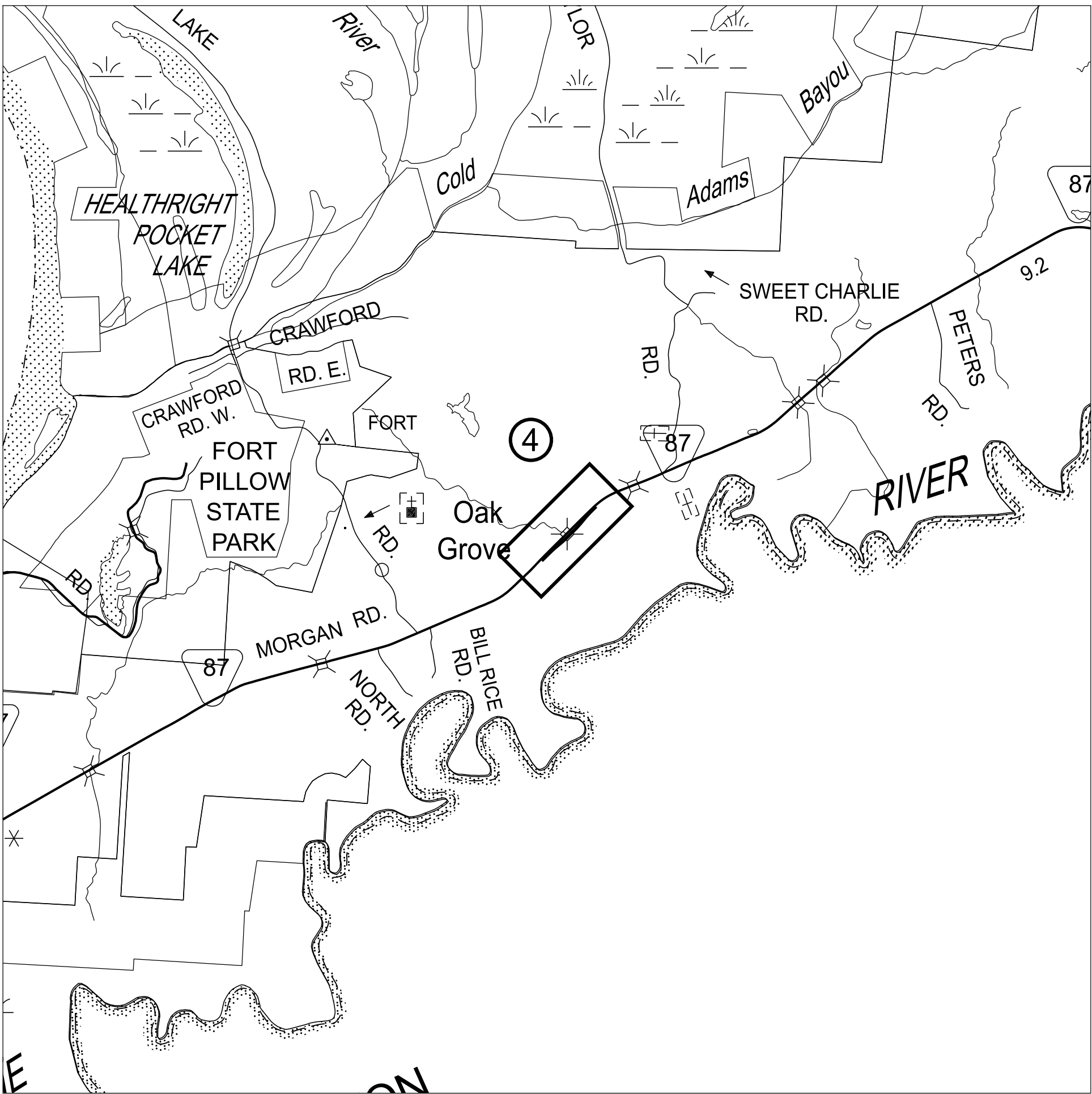
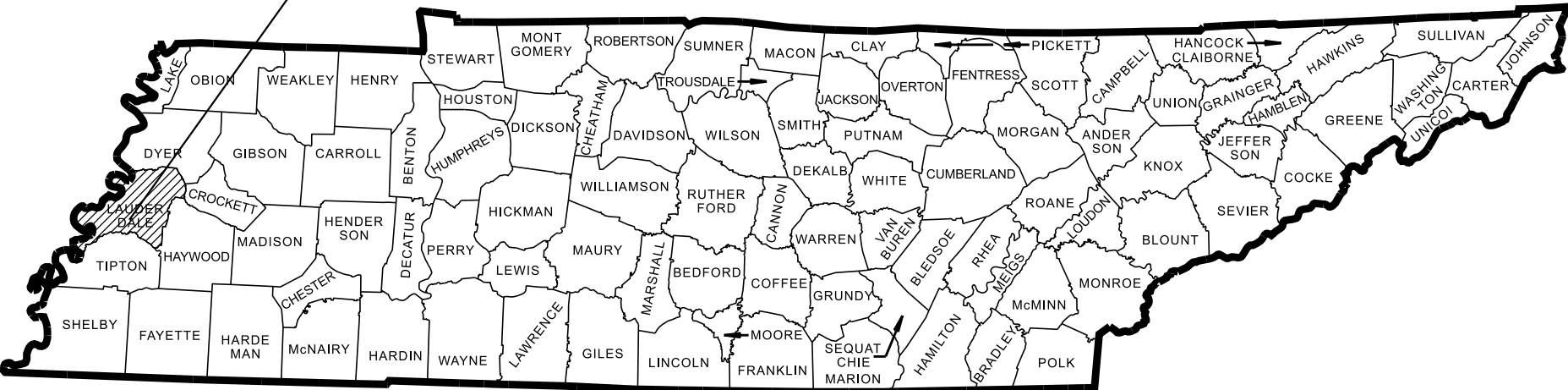
LINE AND GRADE
BRIDGE REPLACEMENT

STATE HIGHWAY NO. 87 F.A.H.S. NO.

DOES THIS PROJECT QUALIFY FOR UTILITY CHAPTER 86	YES	NO
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TENN.	YEAR	SHEET NO.
	2025	1
FED. AID PROJ. NO.		
STATE PROJ. NO.		

PROJECT LOCATION
BRIDGE ID. # 49SR0870013



NO EXCLUSIONS

CAUTION !
PRELIMINARY
PLANS
SUBJECT TO
CHANGE

SEALED BY

APPROVED: _____
DEPUTY COMMISSIONER /
CHIEF ENGINEER

DATE: _____

APPROVED: _____
DEPUTY GOVERNOR &
COMMISSIONER

SPECIAL NOTES

PROPOSALS MAY BE REJECTED BY THE COMMISSIONER IF ANY OF THE UNIT PRICES CONTAINED THEREIN ARE OBVIOUSLY UNBALANCED, EITHER EXCESSIVE OR BELOW THE REASONABLE COST ANALYSIS VALUE.

THIS PROJECT TO BE CONSTRUCTED UNDER THE STANDARD SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION DATED JANUARY 1, 2021 AND ADDITIONAL SPECIFICATIONS AND SPECIAL PROVISIONS CONTAINED IN THE PLANS AND IN THE PROPOSAL CONTRACT.

TDOT PROJECT MANAGER: STEVE SELLERS _____

DESIGN FIRM : AMERICAN STRUCTUREPOINT INC _____

DESIGNER : _____ CHECKED BY _____

P.E. NO. _____

PIN NO. 136185.09 _____

R.O.W. LENGTH	MILES
ROADWAY LENGTH	MILES
BRIDGE LENGTH	MILES
BOX BRIDGE LENGTH	MILES
BOX BRIDGE LENGTH	MILES ▲
PROJECT LENGTH	MILES

Not included in the project length (Non Riding Surface).

SURVEY - -	TRAFFIC DATA
	ADT (2029) 340
	ADT (2049) 370
	DHV (2029) 44
	D -
	T (ADT) 6.0%
	T (DHV) 4.0%
	V 55 MPH

COORDINATES ARE NAD/83(1995) () ADJUSTMENT) ADJUSTED BY THE FACTOR OF _____ AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 USING GEOID ____

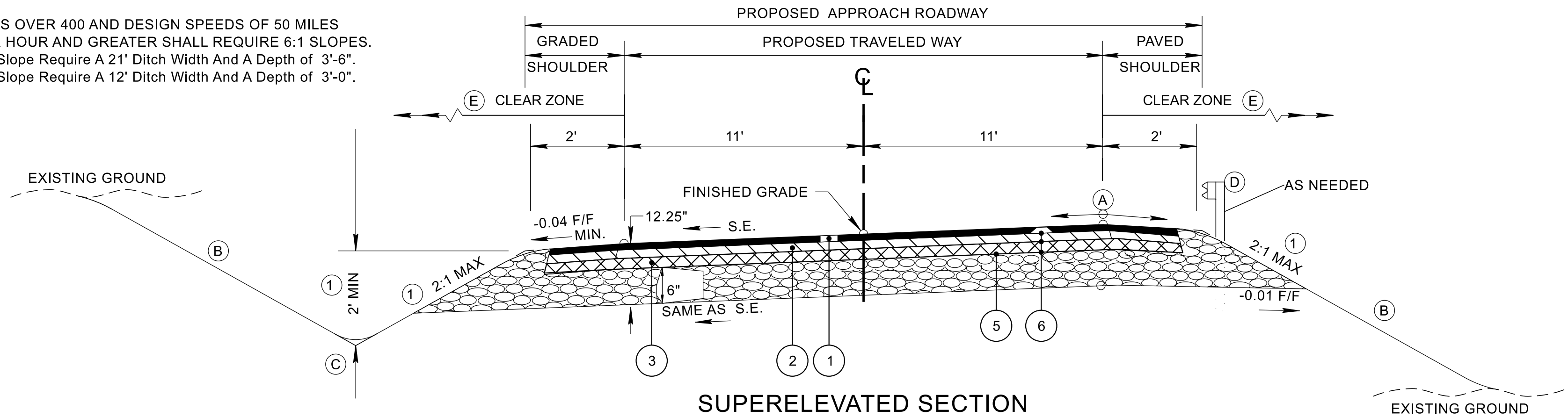
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED: _____
DIVISION ADMINISTRATOR

DATE _____

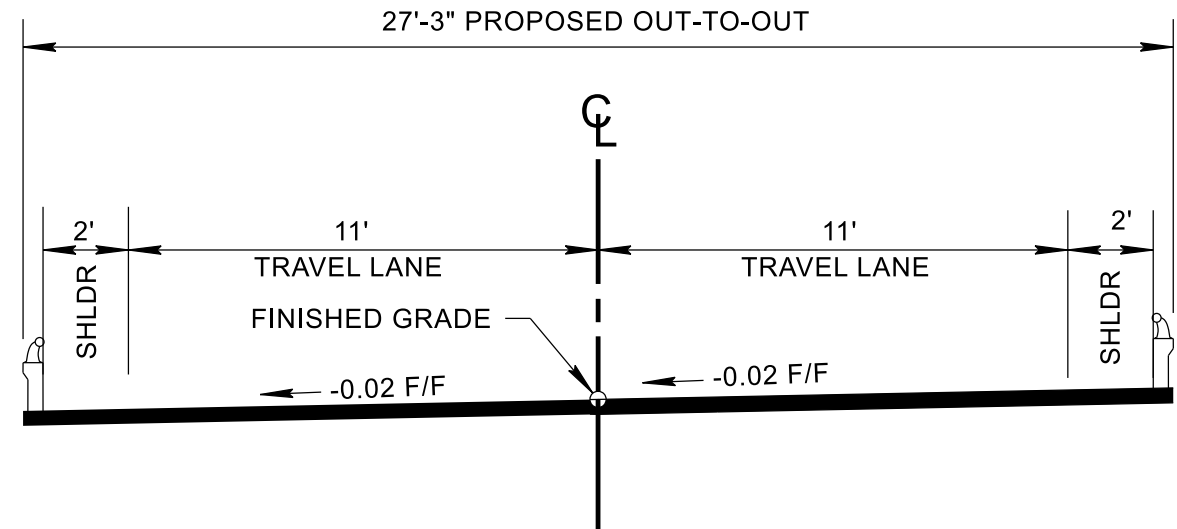
TYPE	YEAR	PROJECT NO.	SHEET NO.
			2

- ① ADTS OVER 400 AND DESIGN SPEEDS OF 50 MILES PER HOUR AND GREATER SHALL REQUIRE 6:1 SLOPES.
6:1 Slope Require A 21' Ditch Width And A Depth of 3'-6".
4:1 Slope Require A 12' Ditch Width And A Depth of 3'-0".



**SUPERELEVATED SECTION
(ROADWAY NAME)**

(BASED ON STD. DWG. RD11-TS-2)
FROM STA. 102+00.00 TO STA. 109+30.00
FROM STA. 110+20.00 TO STA. 118+10.00



**BRIDGE SECTION
(S.R.87)**

BRIDGE 47: FROM STA. 109+30.00 TO STA. 110+20.00

- (A) THE SLOPE OF THE SHOULDER AND THE ROADWAY PAVEMENT SHALL NOT EXCEED AN ALGEBRAIC DIFFERENCE OF 7%.
- (B) SEE STANDARD DRAWINGS RD11-S-11 AND RD11-S-11B FOR FILL AND CUT SLOPE TABLES, ROUNDING ON TOP OF CUT SLOPES AND TOE OF FILL SLOPES, SPECIAL ROCK TREATMENT AND SUB GRADE ROUNDING IF APPLICABLE.
- (C) SEE STANDARD DRAWING RD11-S-11A FOR ROUNDING OF ROADSIDE DITCH SLOPES.
- (D) SEE STANDARD DRAWING S-PL-6 FOR TYPICAL GUARDRAIL PLACEMENT.
- (E) SEE STANDARD DRAWING S-CZ-1 FOR CLEAR ZONE CRITERIA. SEE THE "ROADSIDE DESIGN GUIDE", AASHTO, 2011, FOR FURTHER INFORMATION REGARDING CLEAR ZONES.

PROPOSED PAVEMENT SCHEDULE

① ASPHALTIC CONCRETE SURFACE (HOT MIX) PG64-22 GRADING "D" SURFACE @ 1.25" THICK (APPROX. 132.5 LB./S.Y.) 411-01.10 ACS MIX (PG64-22) GRADING "D"	④ MINERAL AGGREGATE 6.00" THICK 303-01 MINERAL AGGREGATE, TYPE "A" BASE, GRADING "D"
② BITUMINOUS PLANT MIX BASE (HOT MIX) PG64-22 GRADING "B-M2" @ 2.00" THICK (APPROX. 226 LB./S.Y.) 307-01.08 ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING "B-M2"	⑤ PRIME COAT 402-01 BITUMINOUS MATERIAL FOR PRIME COAT (PC) AT 0.30-0.35 GALLONS/S.Y. 402-02 AGGREGATE FOR COVER MATERIAL (PC) AT 8-12 LB./S.Y.
③ BITUMINOUS PLANT MIX BASE (HOT MIX) PG64-22 GRADING "A" @ 3.00" THICK (APPROX. 345 LB./S.Y.) 307-01.01 ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING "A"	⑥ TACK COAT 403-01 BITUMINOUS MATERIAL FOR TACK COAT (TC) AT 0.07 GALLONS/S.Y. SEE 403.05 FOR DETERMINING APPLICATION RATE IN THE FIELD

SEALED BY

COORDINATES ARE NAD 83(), ARE DATUM ADJUSTED BY THE FACTOR OF AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WITH GEOID .

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL
SECTIONS

TYPE	YEAR	PROJECT NO.	SHEET NO.
			3A

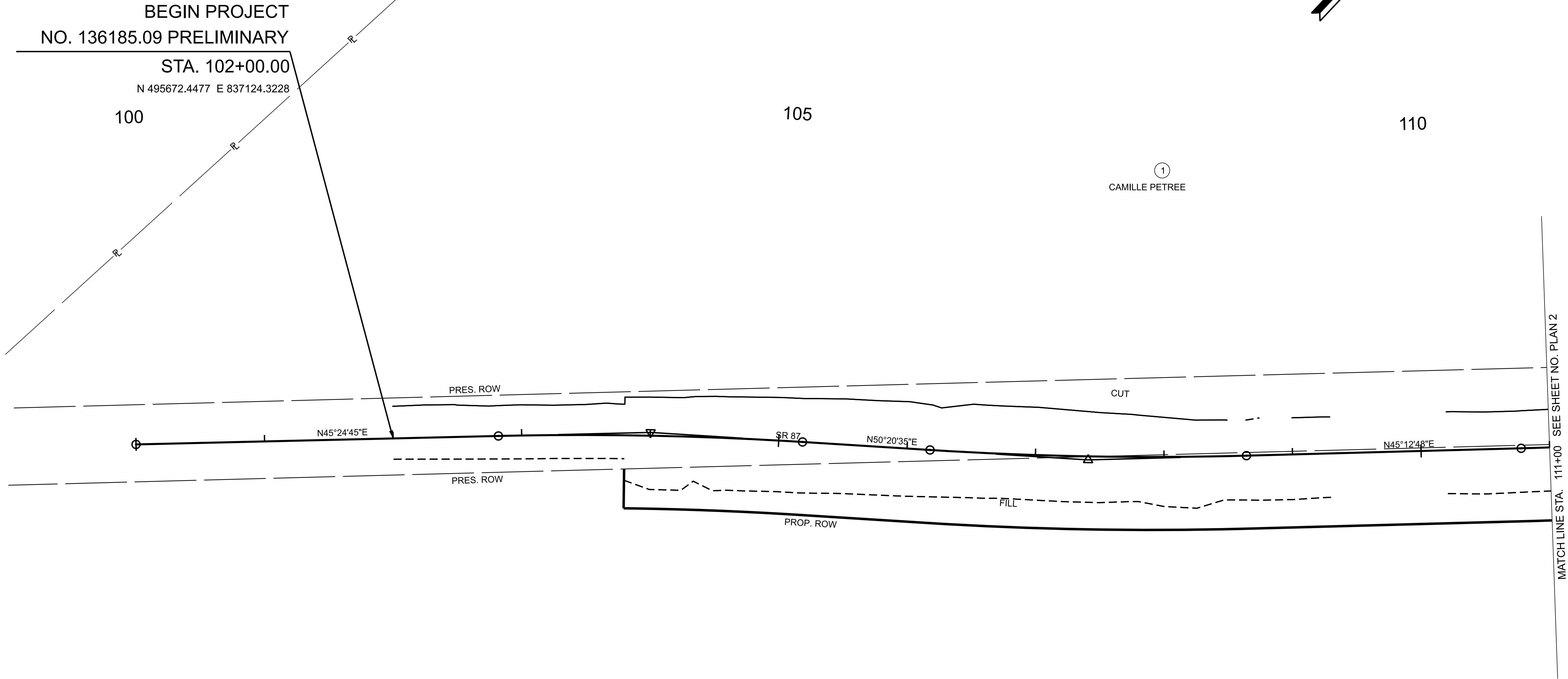
R.O.W. ACQUISITION TABLE						R.O.W. ACQUISITION TABLE													
TRACT NO.	PROPERTY OWNERS	COUNTY RECORDS				TOTAL AREA (ACRES)			AREA TO BE ACQUIRED (ACRES)			AREA REMAINING (ACRES)		EASEMENT (SQUARE FEET)					
		TAX MAP NO.	PARCEL NO.	DEED DOCUMENT REFERENCE		LEFT	RIGHT	TOTAL	LEFT	RIGHT	TOTAL	LEFT	RIGHT	PERM DRAINAGE	SLOPE	CONST	AIR RIGHTS	PERM RAILROAD	
				BOOK	PAGE														
1	CAMILLE PETREE	134	015.00	RB 519	715	75.240		75.240				75.240							
2	CAMILLE PETREE	134	015.00	RB 519	715		134.600	134.600		1.404	1.404		133.196						
ACQUISITION TOTALS (ACRES)									1.404										

DISTURBED AREA	
IN BETWEEN SLOPE LINES	2.339 (AC)
15 FOOT WIDE STRIP (OUT SIDE SLOPE LINES)	0.617 (AC)
TOTAL DISTURBED AREA	2.956 (AC)
TOTAL PROJECT AREA	3.157 (AC)

SEALED BY

STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION
RIGHT-OF-WAY ACQUISITION TABLE

TYPE	YEAR	PROJECT NO.	SHEET NO.
L&G	2025		3A



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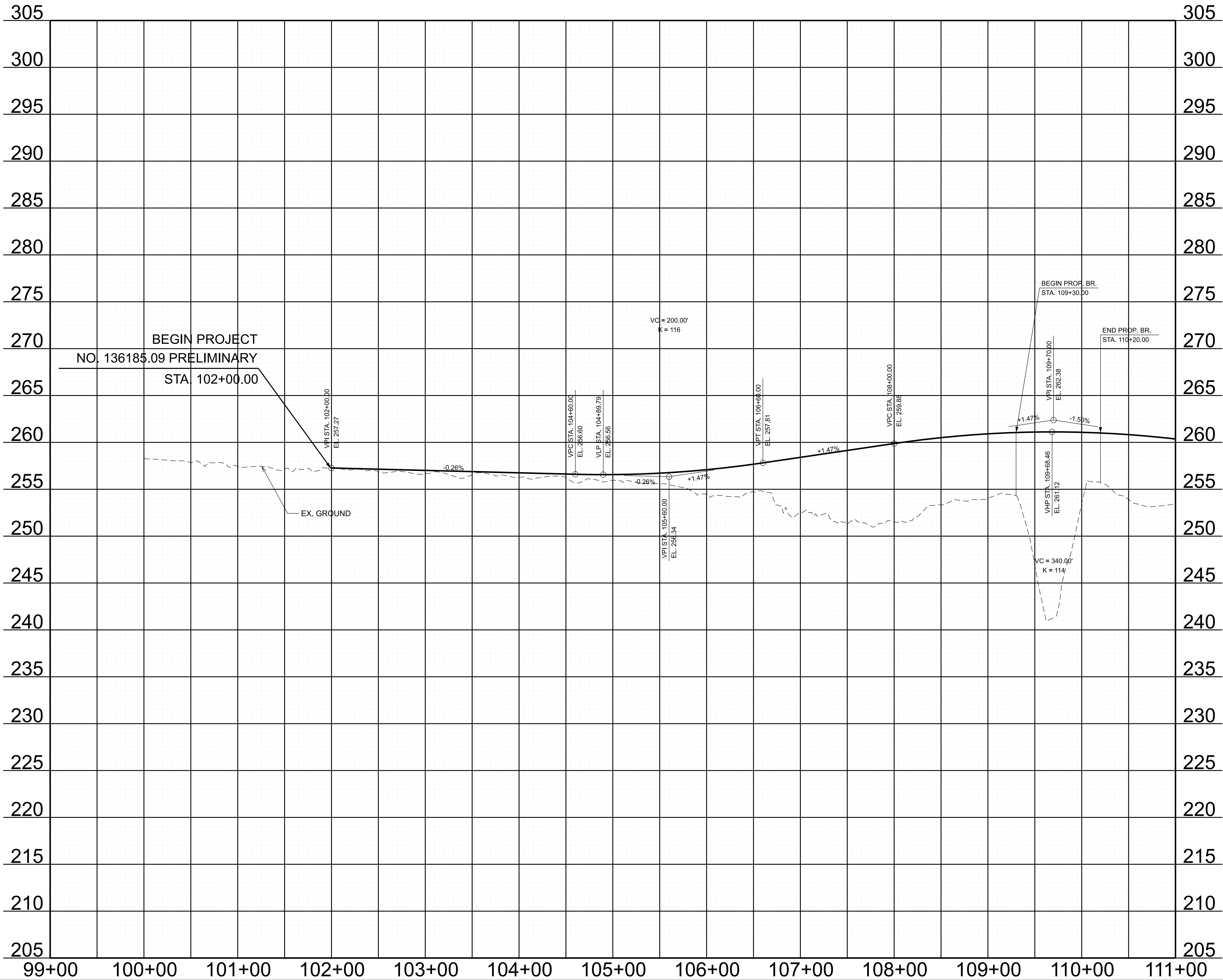
COORDINATES ARE NAD 83(), ARE DATUM ADJUSTED BY THE FACTOR OF AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WITH GEOID .

**STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION**

**PROPERTY
MAP**

STA. 99+00.00 TO STA. 111+00.00
SCALE: 1" = 50'

9/30/2025 2:10:00 PM C:\TMP\PIW\ED\NAILLON@STRUCTUREPOINT.COM\0160763\49S087-SHT- PROPOSED PROFILE.DGN



TYPE	YEAR	PROJECT NO.	SHEET NO.
			3B

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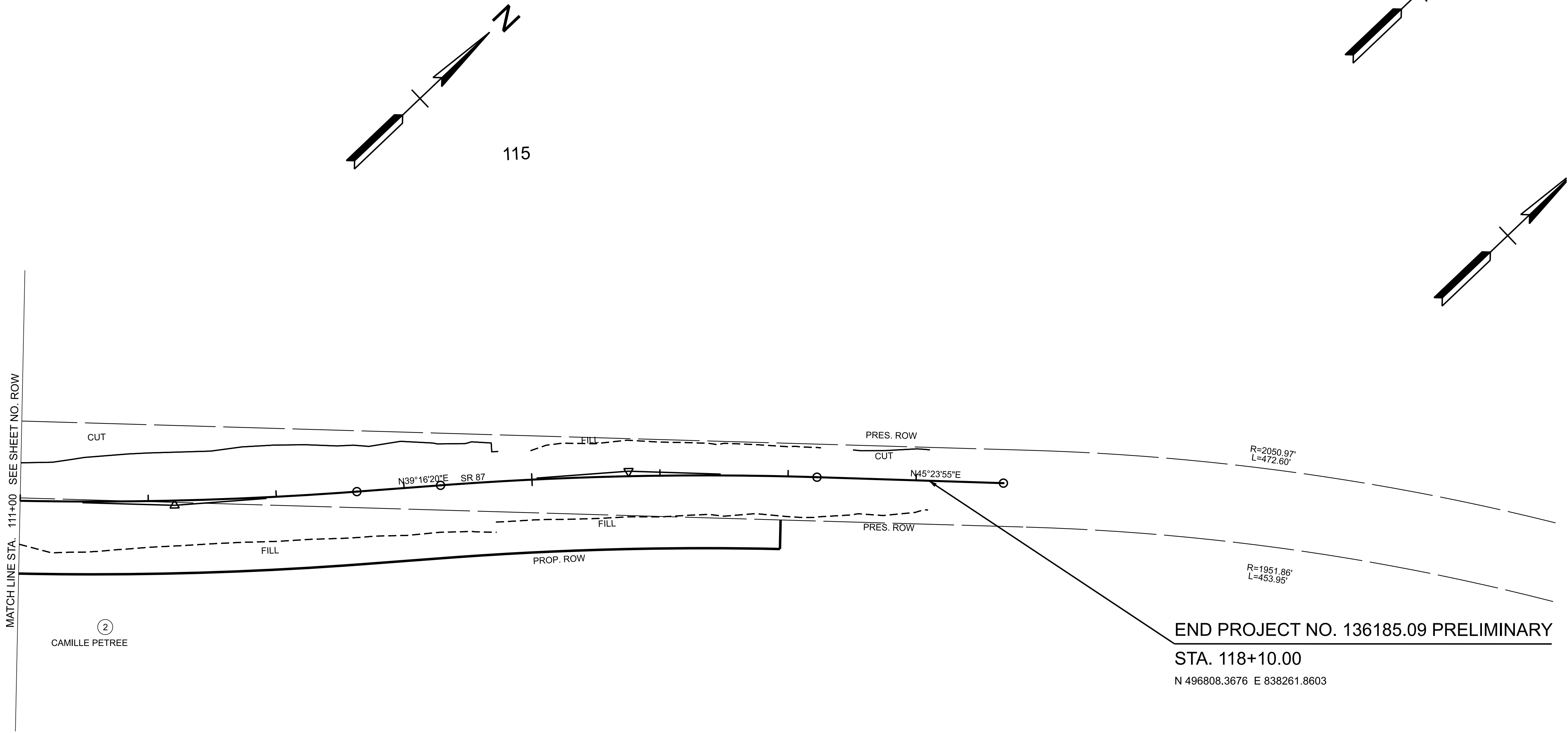
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

BRIDGE 47
LAYOUT

STA. 99+00.00 TO STA. 111+00.00

SCALE: 1" = 50' HORIZ.
1" = 5' VERT.

TYPE	YEAR	PROJECT NO.	SHEET NO.



②
CAMILLE PETREE

END PROJECT NO. 136185.09 PRELIMINARY
STA. 118+10.00
N 496808.3676 E 838261.8603

SEALED BY

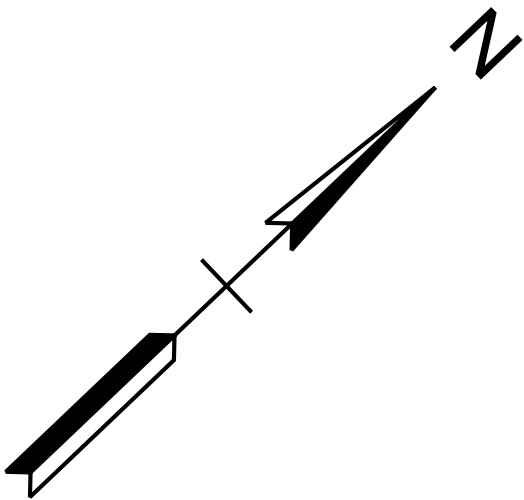
COORDINATES ARE NAD 83(), ARE DATUM ADJUSTED BY THE FACTOR OF AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WITH GEOID .

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ROW
DETAILS

STA. 111+00.00 TO STA. 123+00.00
SCALE: 1" = 50'

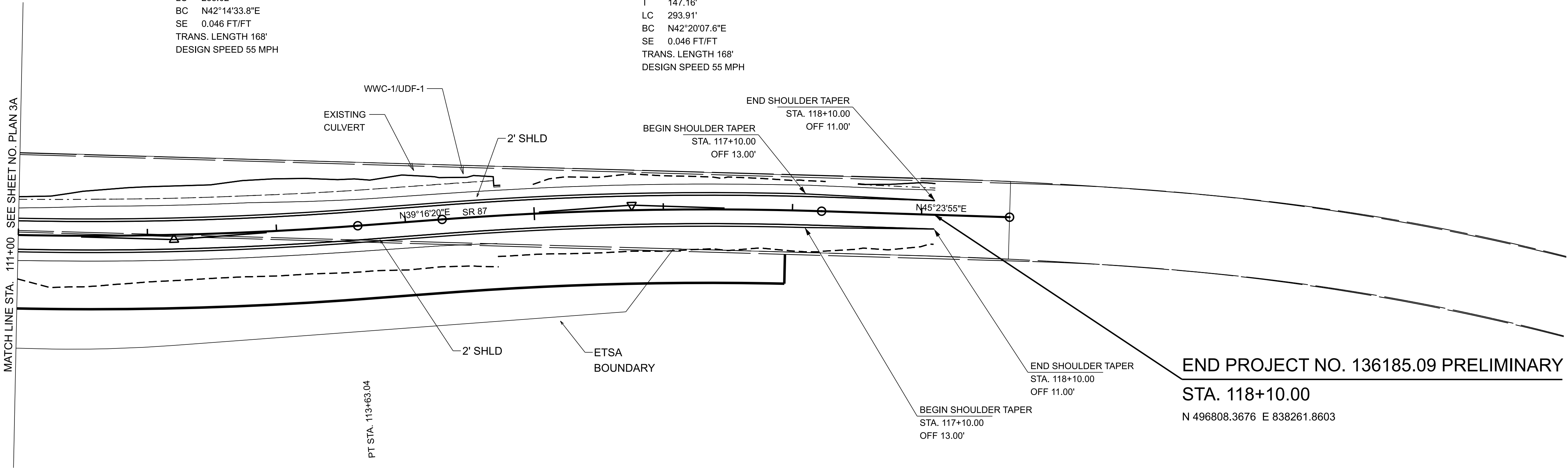
TYPE	YEAR	PROJECT NO.	SHEET NO.
			4A



Bridge 47
CURVE 03
PI 112+20.59
N 496368.5488
E 837869.8894
Δ 05°56'28" LT.
D 02°05'01"
R 2750.00'
L 285.15'
T 142.70'
LC 285.02'
BC N42°14'33.8"E
SE 0.046 FT/FT
TRANS. LENGTH 168'
DESIGN SPEED 55 MPH

115

Bridge 47
CURVE 04
PI 115+75.70
N 496643.6514
E 838094.8356
Δ 06°07'35" RT.
D 02°05'01"
R 2750.00'
L 294.05'
T 147.16'
LC 293.91'
BC N42°20'07.6"E
SE 0.046 FT/FT
TRANS. LENGTH 168'
DESIGN SPEED 55 MPH



END PROJECT NO. 136185.09 PRELIMINARY
STA. 118+10.00
N 496808.3676 E 838261.8603

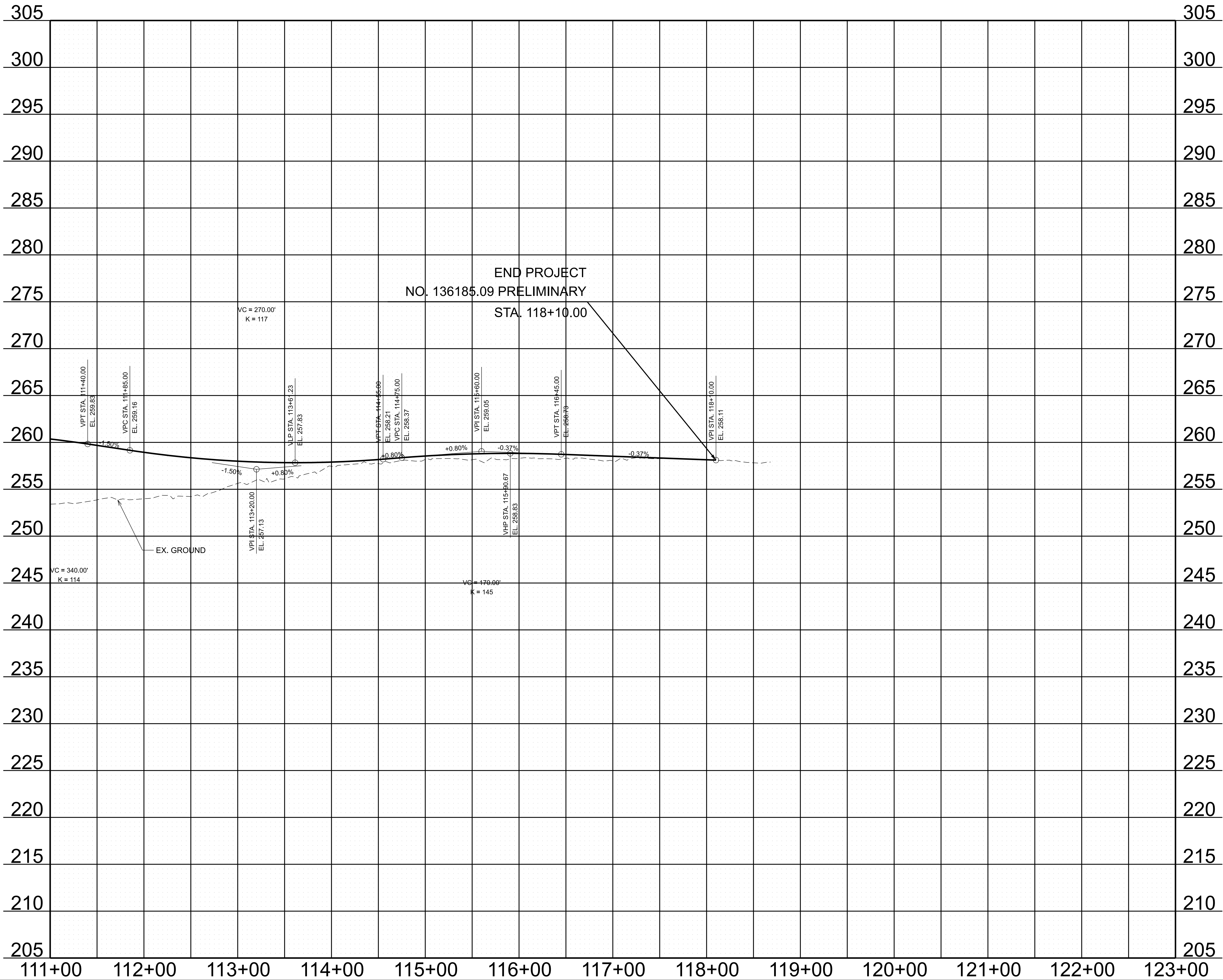
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COORDINATES ARE NAD 83(), ARE DATUM ADJUSTED BY THE FACTOR OF AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988 WITH GEOID .

**STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION**

**PROPOSED
LAYOUT**

STA. 111+00.00 TO STA. 123+00.00
SCALE: 1" = 50'



TYPE	YEAR	PROJECT NO.	SHEET NO.
			4B

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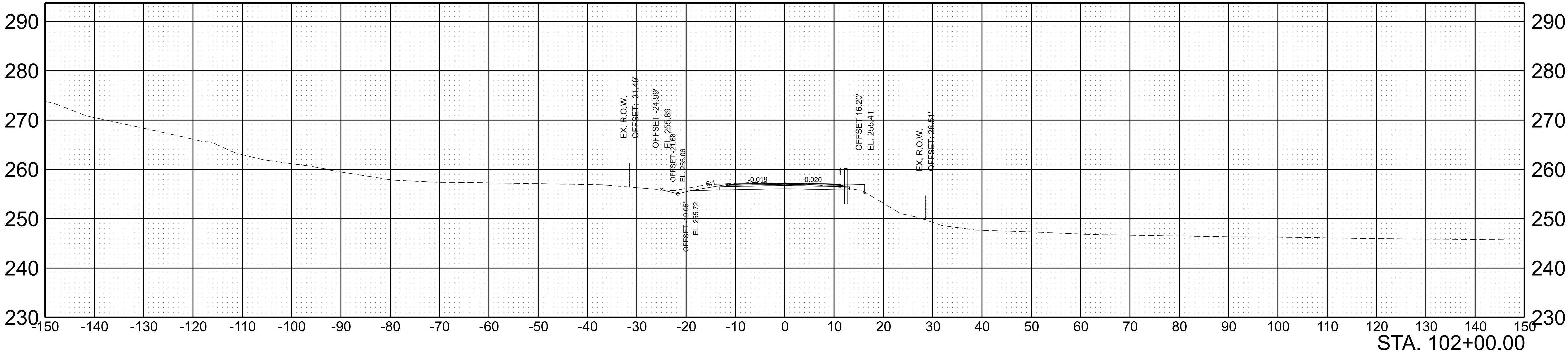
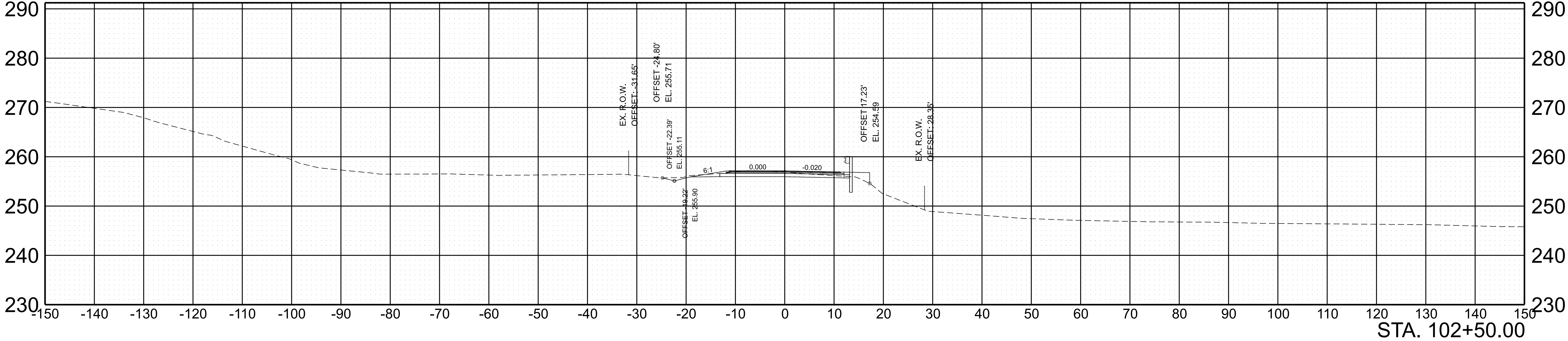
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED
PROFILE

STA. 111+00.00 TO STA. 123+00.00

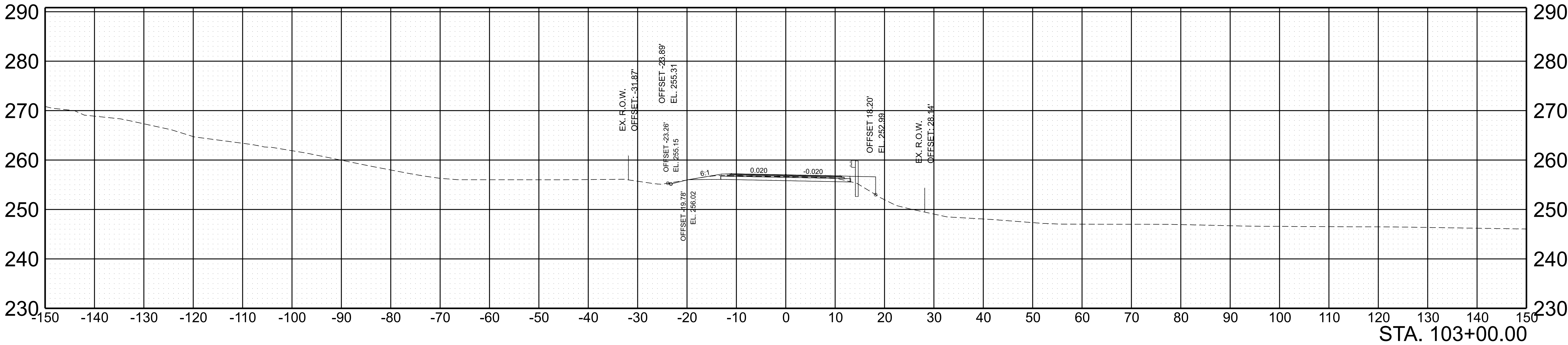
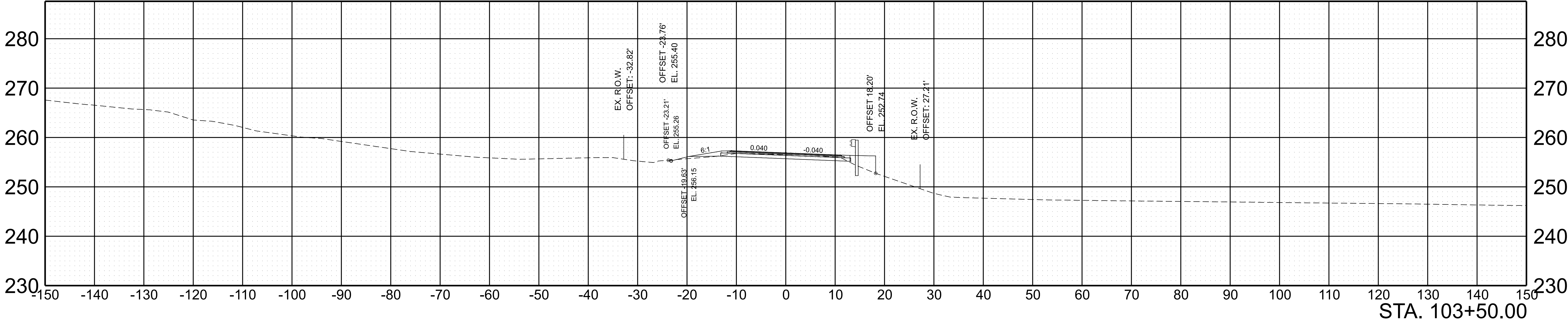
SCALE: 1" = 50' HORIZ.
1" = 5' VERT.

TYPE	YEAR	PROJECT NO.	SHEET NO.
L&G	2025		6



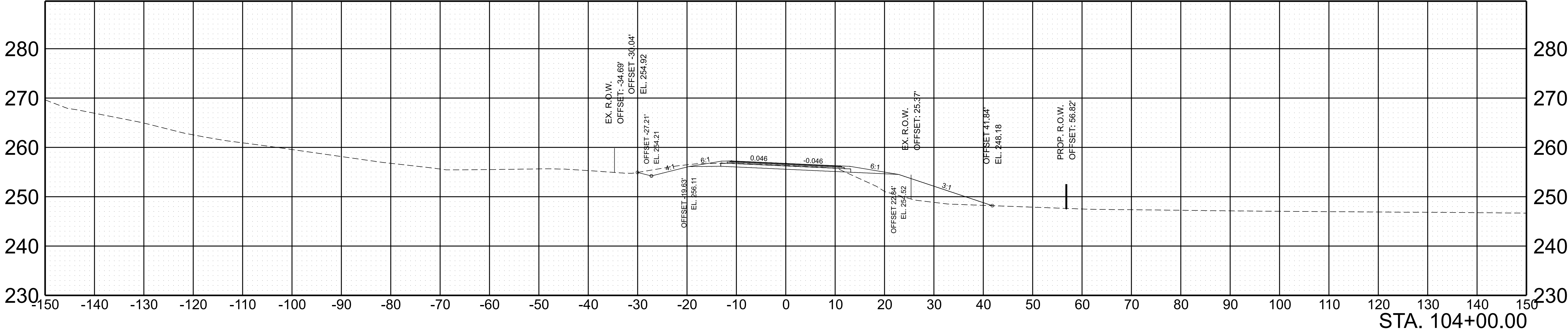
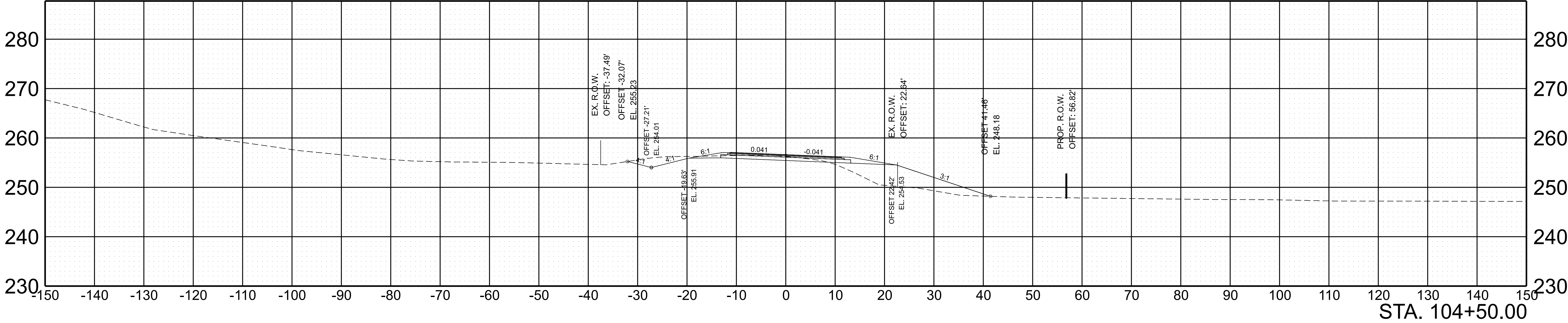
SCALE: 1"=10' HORIZ.	BEGIN STA. 102+00.00
1"=10' VERT.	END STA. 102+50.00

TYPE	YEAR	PROJECT NO.	SHEET NO.
L&G	2025		7



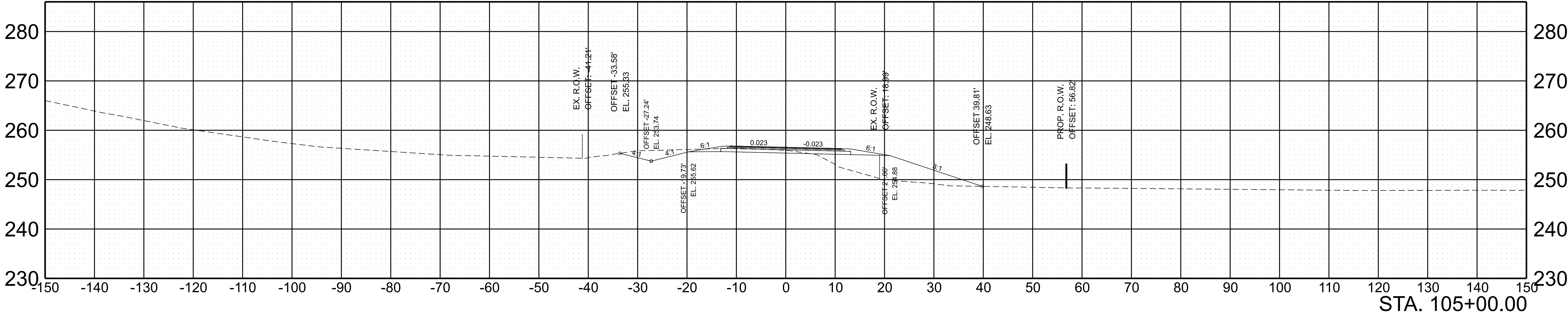
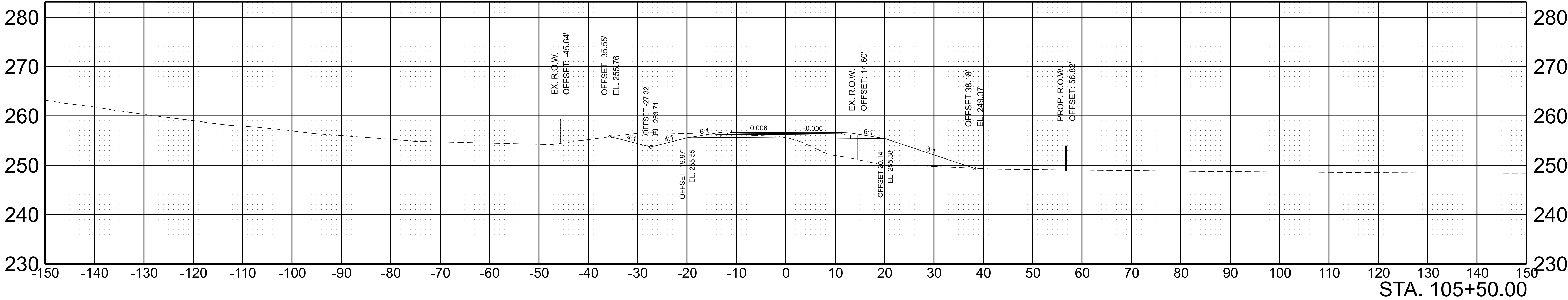
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1"=10' VERT.	END STA. 103+50.00

TYPE	YEAR	PROJECT NO.	SHEET NO.
L&G	2025		8



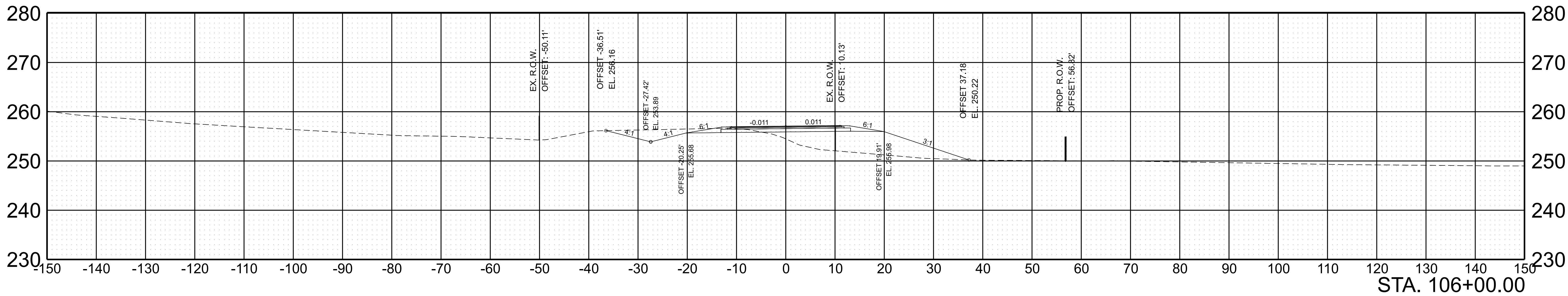
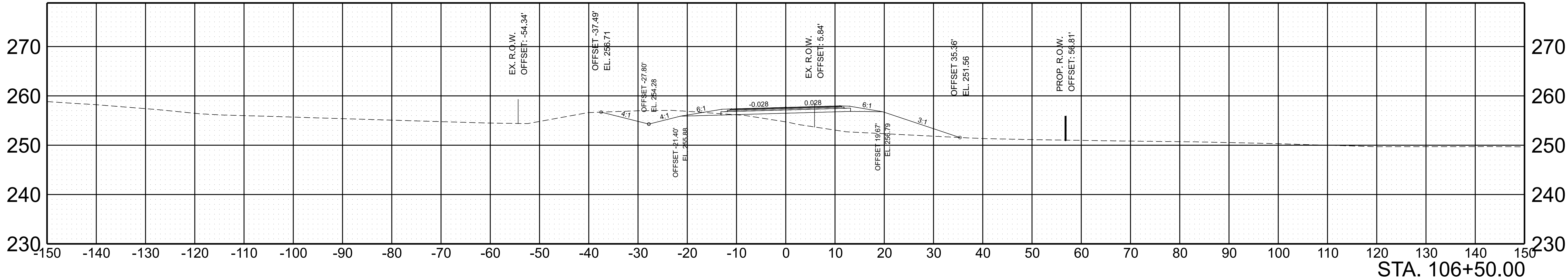
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1"=10' VERT.	END STA. 104+50.00

TYPE	YEAR	PROJECT NO.	SHEET NO.
L&G	2025		9



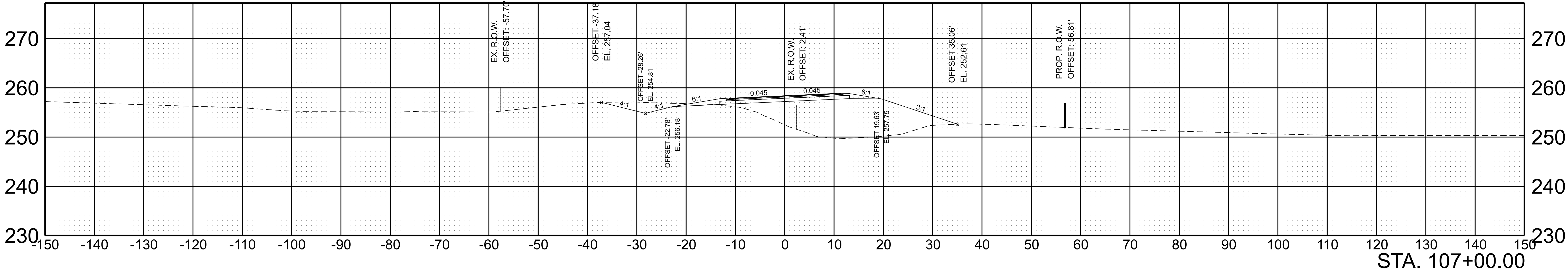
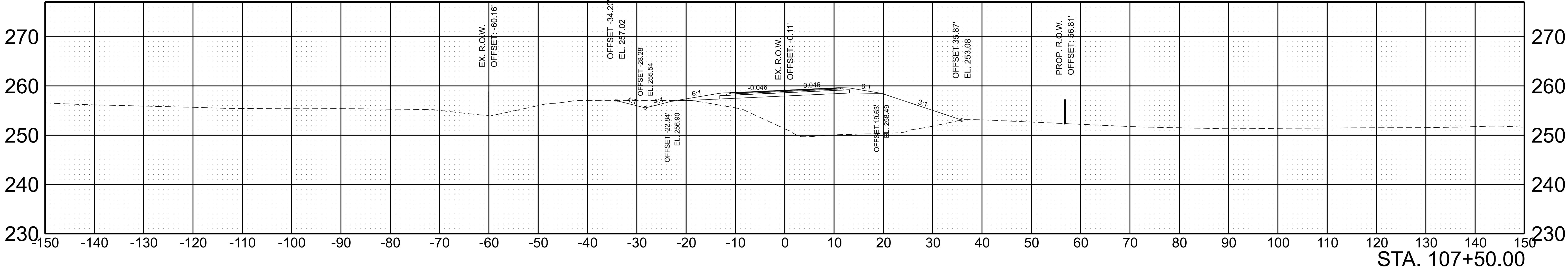
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	1"=10' VERT.	END STA. 105+50.00

TYPE	YEAR	PROJECT NO.	SHEET NO.
L&G	2025		10



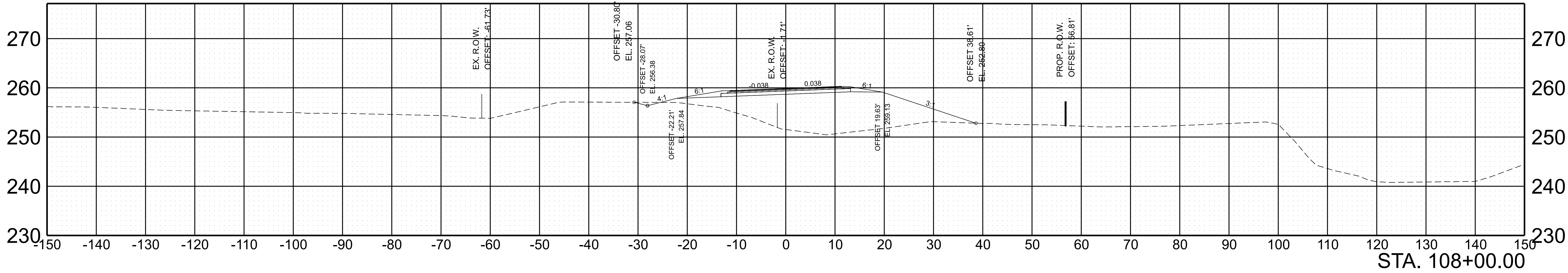
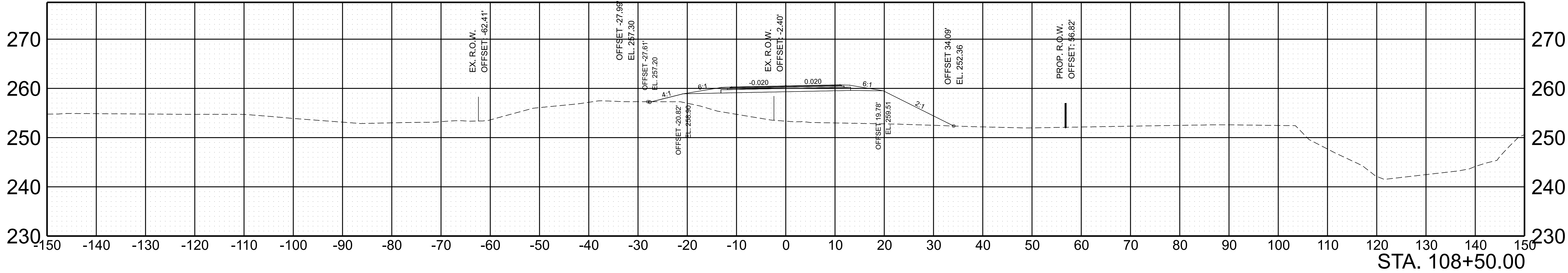
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TYPE	YEAR	PROJECT NO.	SHEET NO.
L&G	2025		11



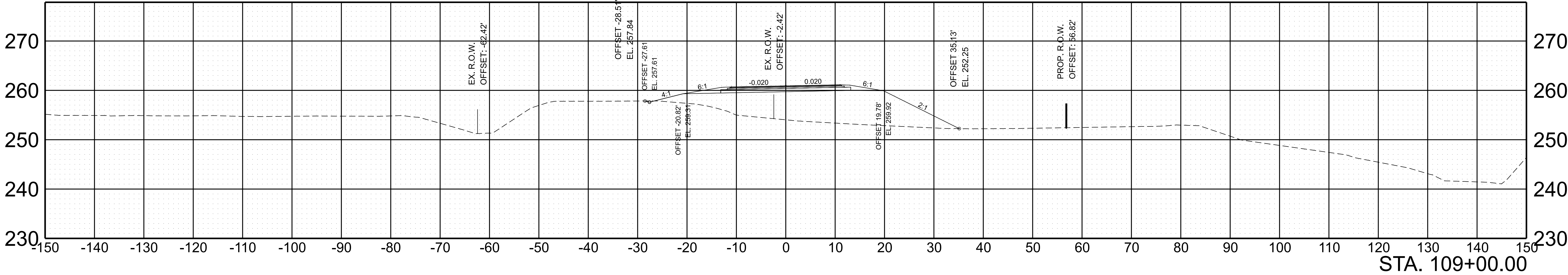
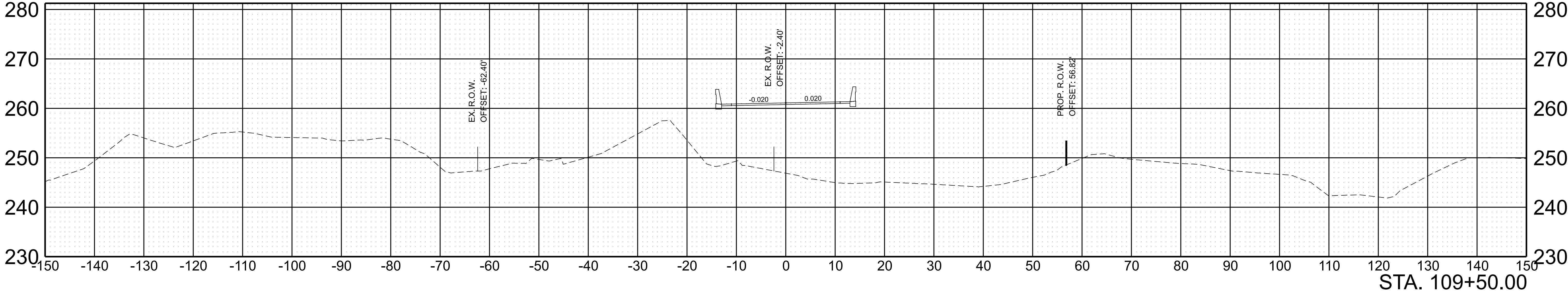
SCALE:	1"=10' HORIZ.	BEGIN STA. 107+00.00
	1"=10' VERT.	END STA. 107+50.00

TYPE	YEAR	PROJECT NO.	SHEET NO.
L&G	2025		12



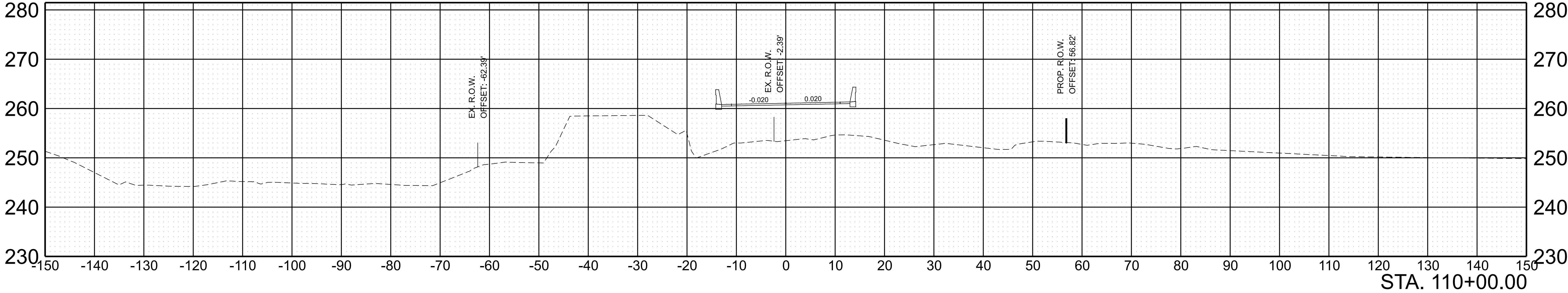
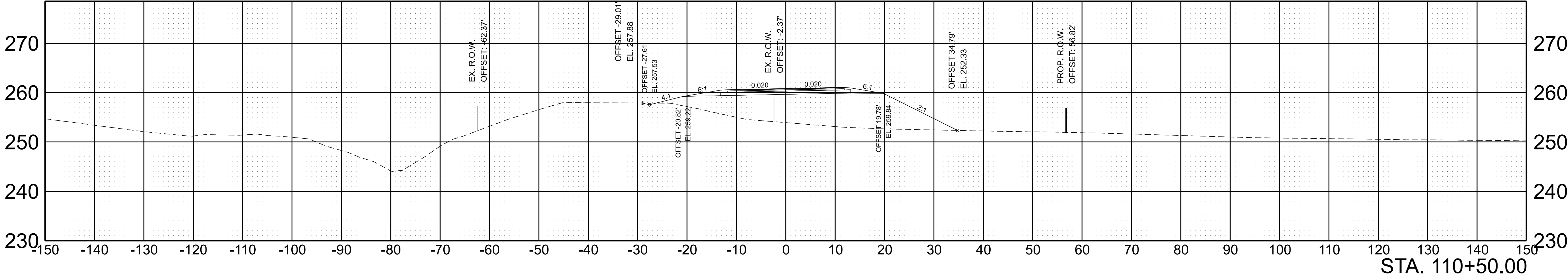
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1"=10' VERT.	END STA. 108+50.00

TYPE	YEAR	PROJECT NO.	SHEET NO.
L&G	2025		13



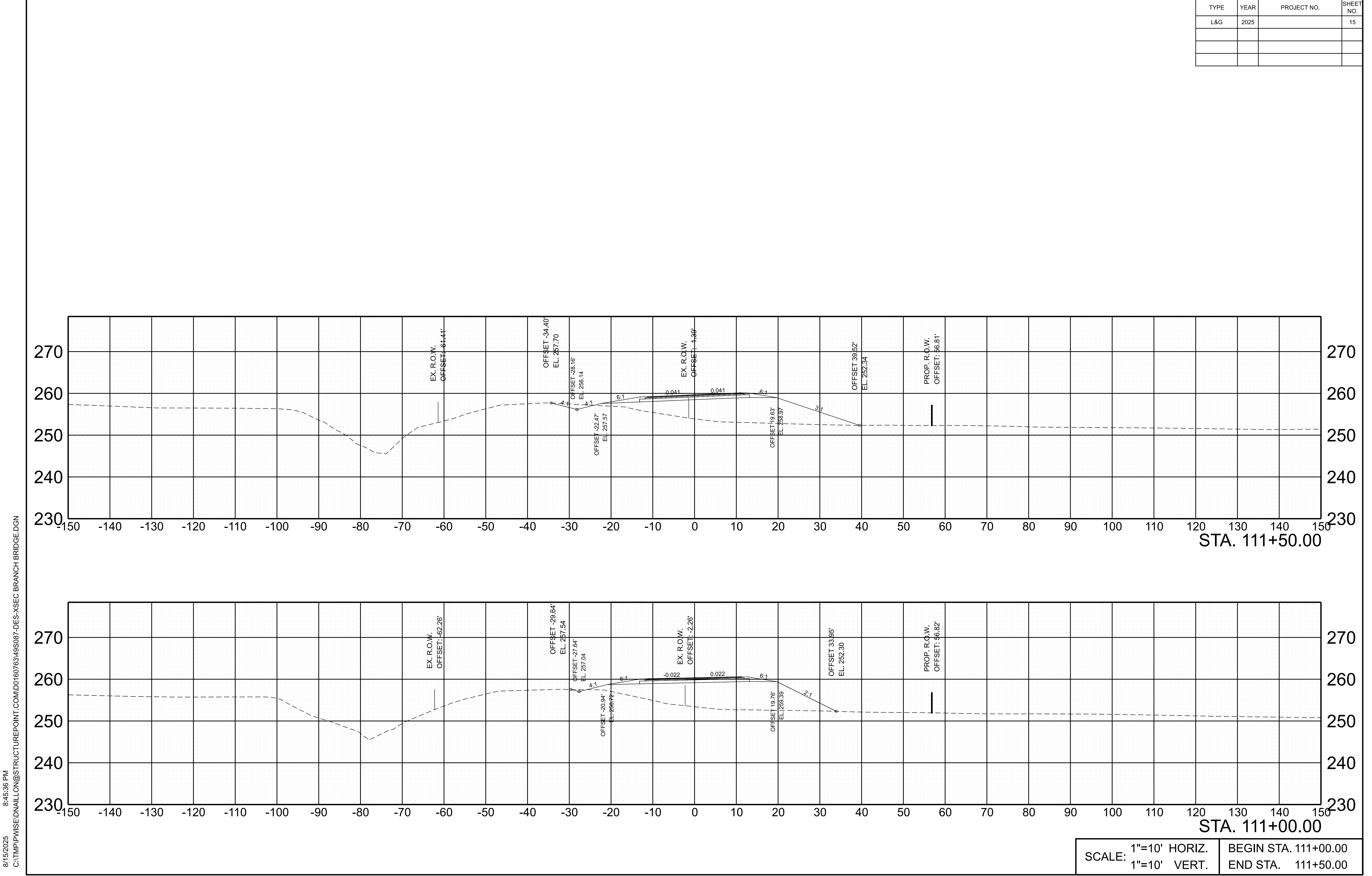
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TYPE	YEAR	PROJECT NO.	SHEET NO.
L&G	2025		14

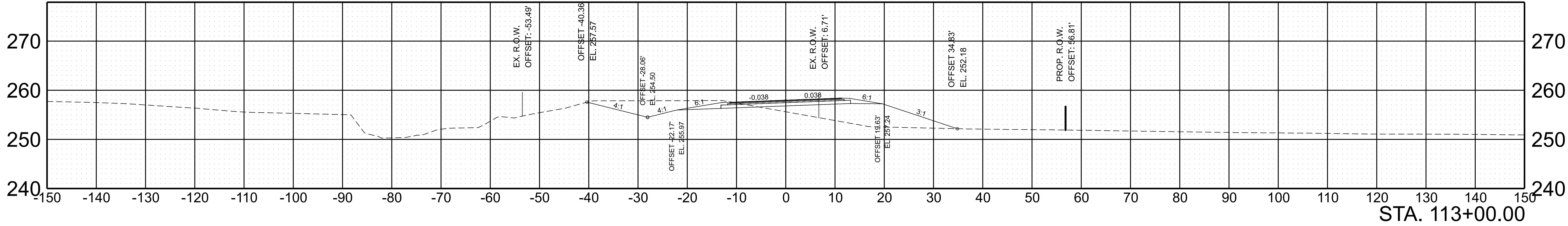
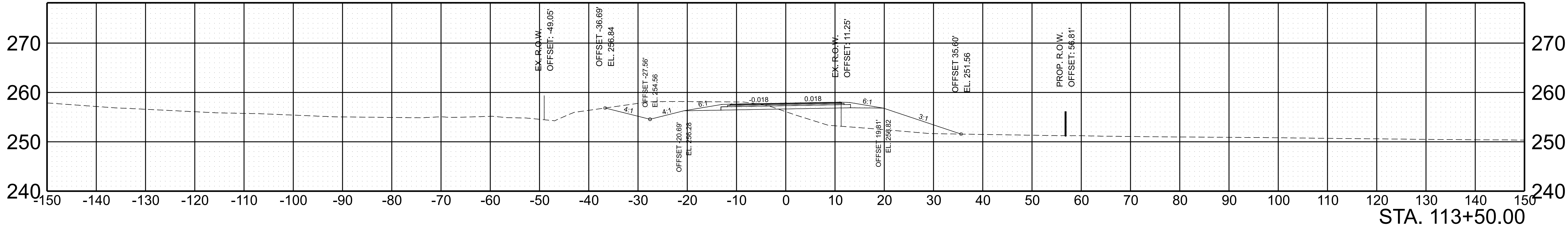
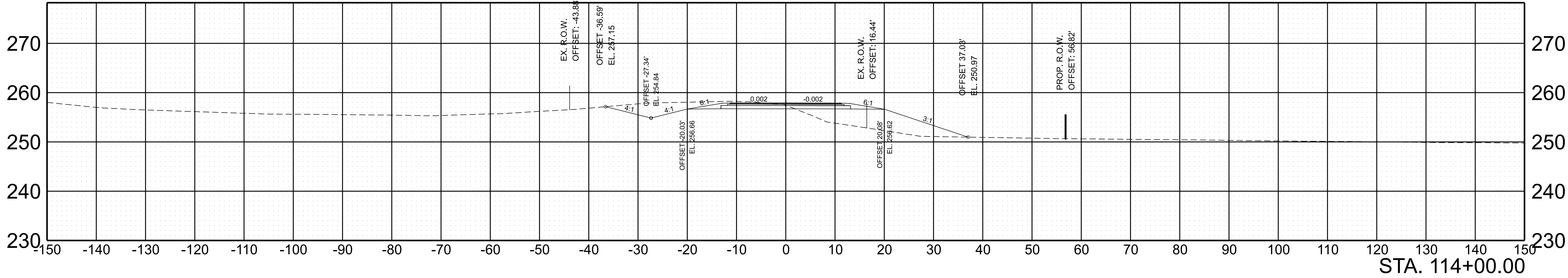


SCALE: 1"=10' HORIZ.
1"=10' VERT.

BEGIN STA. 110+00.00
END STA. 110+50.00

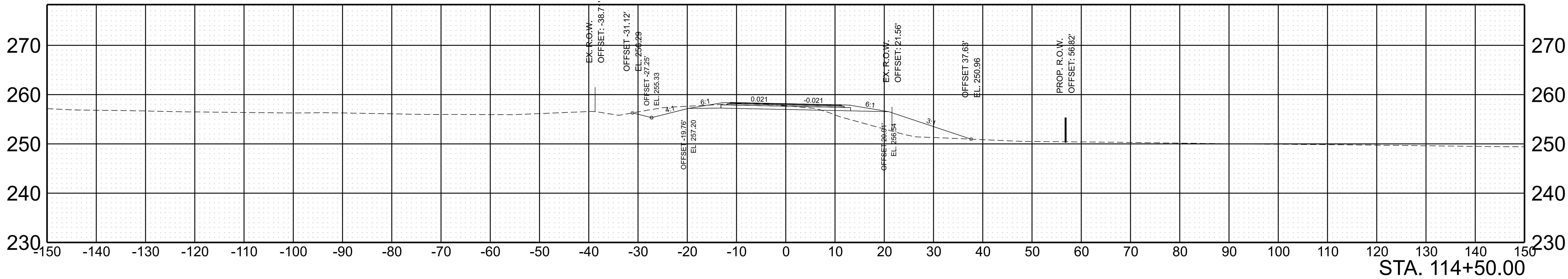
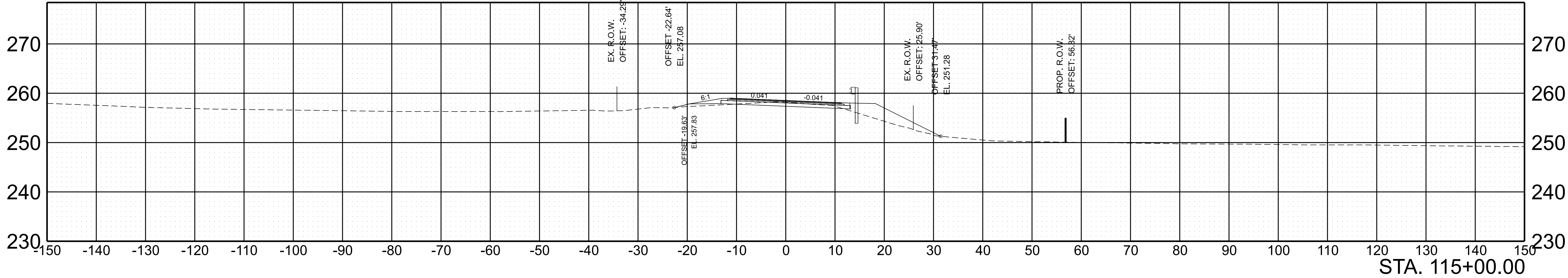


TYPE	YEAR	PROJECT NO.	SHEET NO.
L&G	2025		17



SCALE: 1"=10' HORIZ.	BEGIN STA. 113+00.00
1"=10' VERT.	END STA. 114+00.00

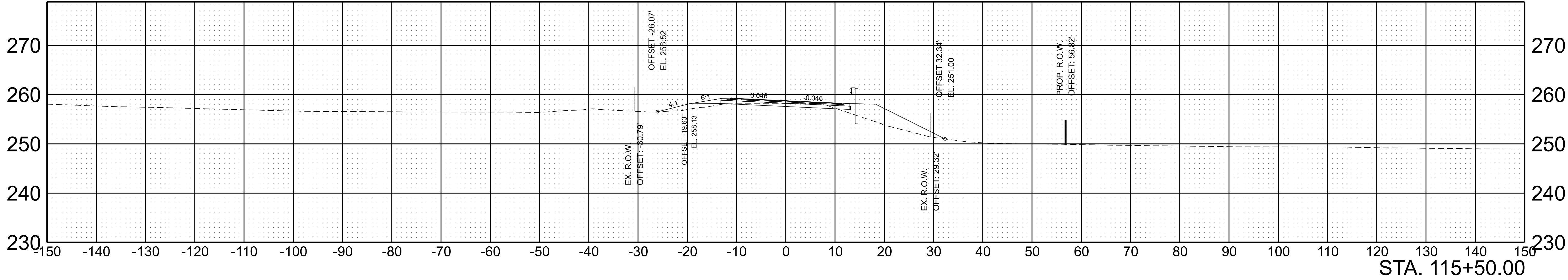
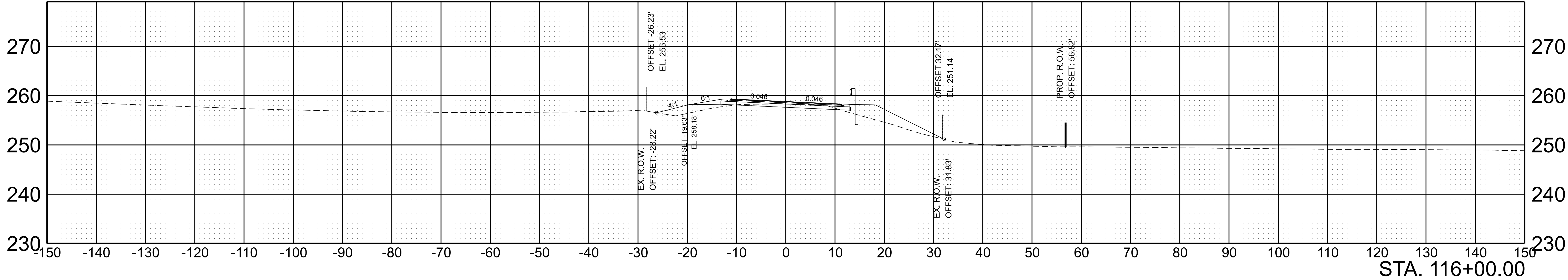
TYPE	YEAR	PROJECT NO.	SHEET NO.
L&G	2025		18



SCALE: 1"=10' HORIZ.
1"=10' VERT.

BEGIN STA. 114+50.00
END STA. 115+00.00

TYPE	YEAR	PROJECT NO.	SHEET NO.
L&G	2025		19

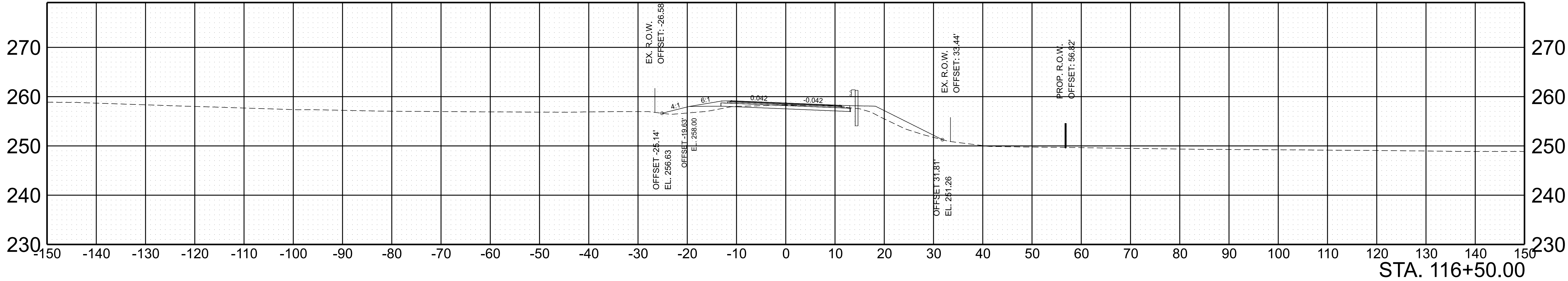
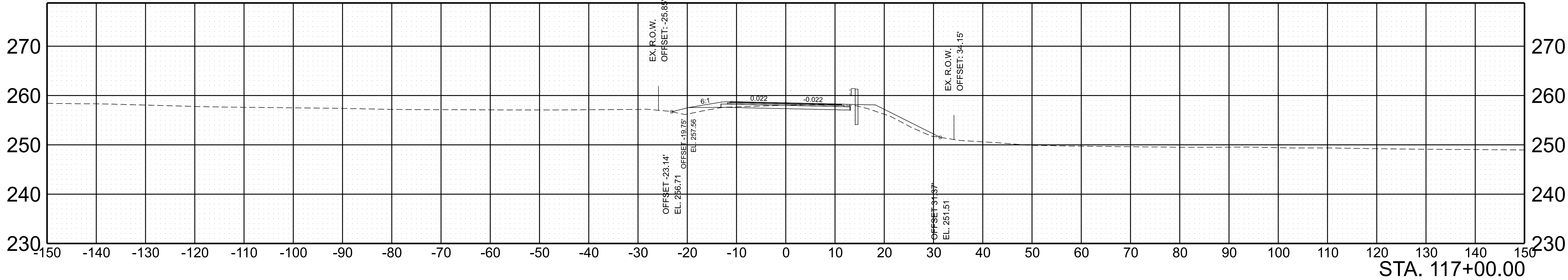


SCALE: 1"=10' HORIZ.
1"=10' VERT.

BEGIN STA. 115+50.00
END STA. 116+00.00

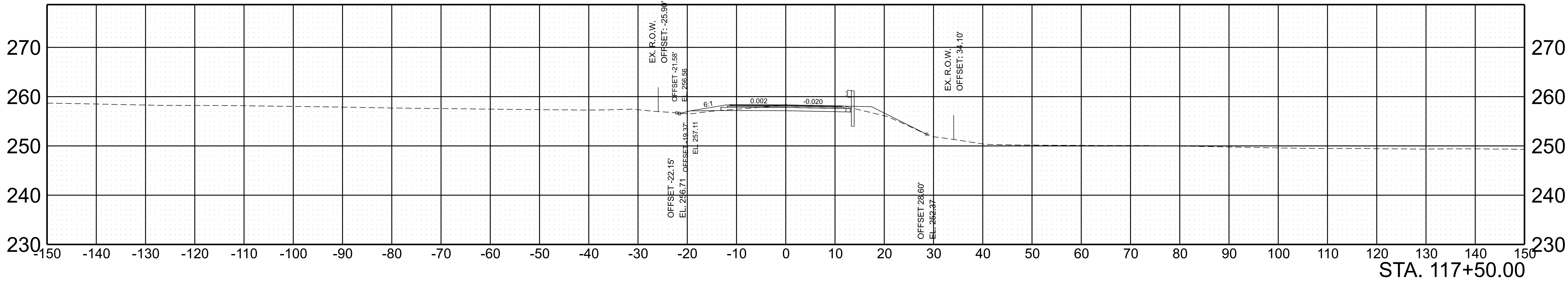
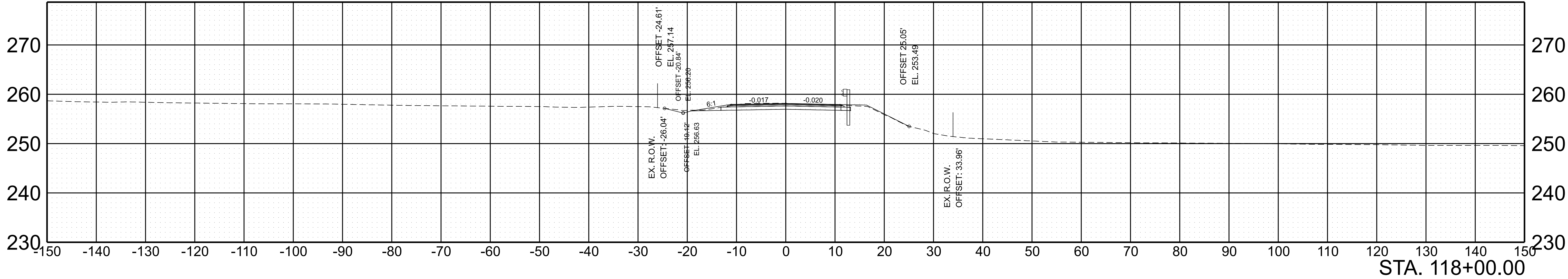
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TYPE	YEAR	PROJECT NO.	SHEET NO.
L&G	2025		20



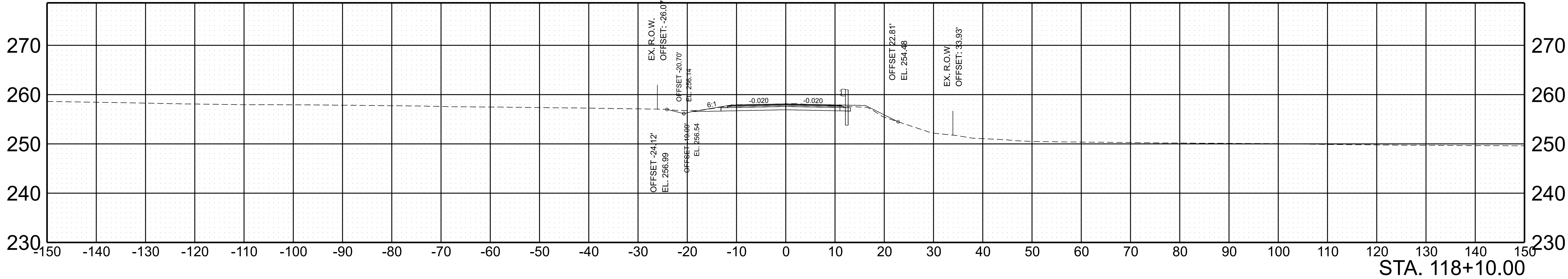
SCALE: 1"=10' HORIZ.	BEGIN STA. 116+50.00
1"=10' VERT.	END STA. 117+00.00

TYPE	YEAR	PROJECT NO.	SHEET NO.
L&G	2025		21



SCALE: 1"=10' HORIZ.	BEGIN STA. 117+50.00
1"=10' VERT.	END STA. 118+00.00

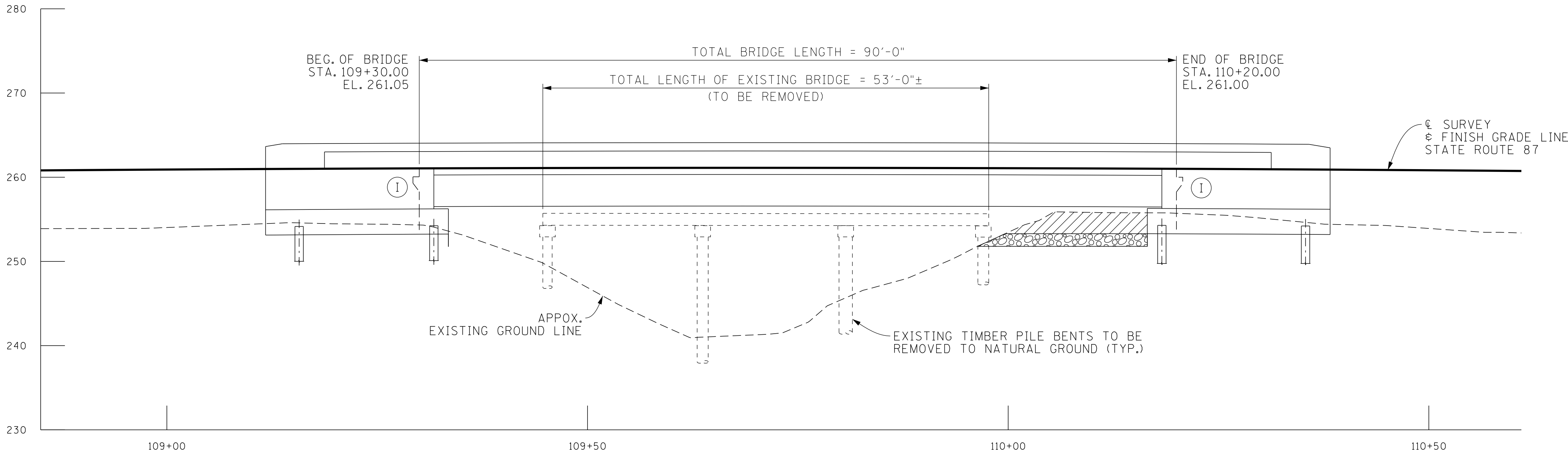
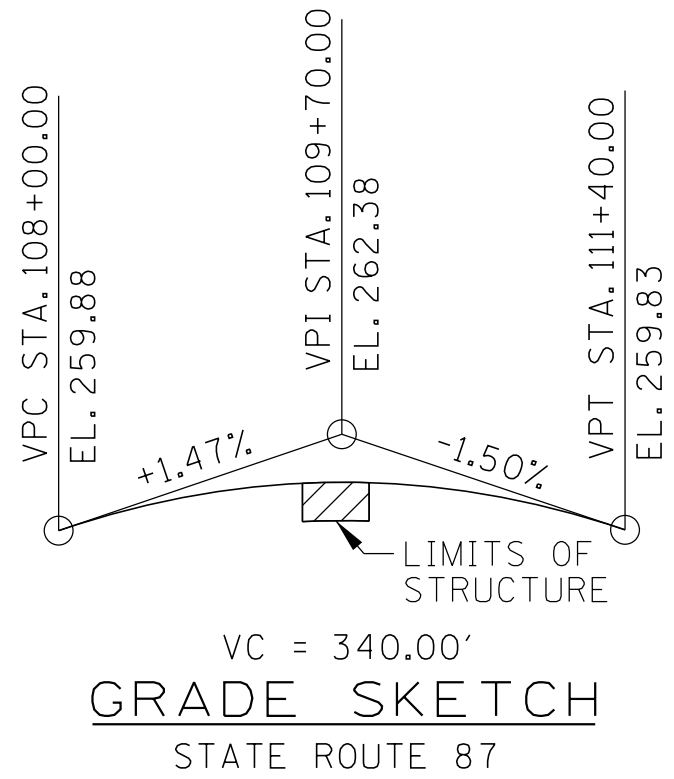
TYPE	YEAR	PROJECT NO.	SHEET NO.
L&G	2025		22



SCALE:	1"=10' HORIZ.	BEGIN STA. 118+10.00
	1"=10' VERT.	END STA. 118+10.00

CONST. NO.:

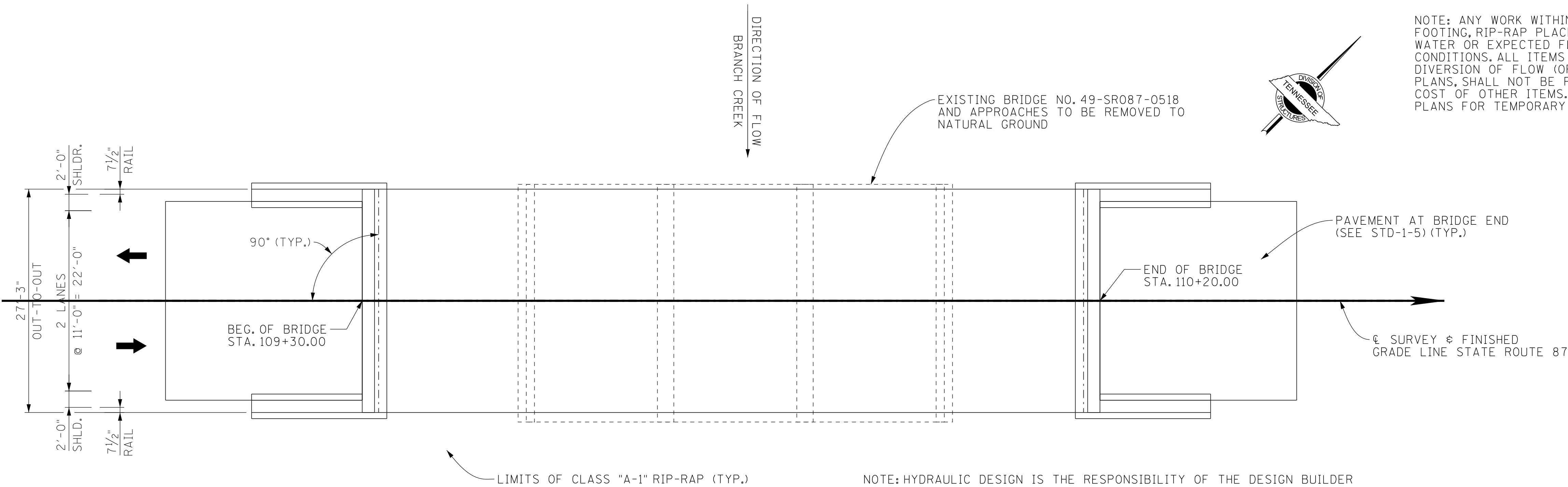
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ELEVATION

Denotes: AREA TO BE EXCAVATED AND
PAID FOR AS A ROADWAY ITEM

I Denotes: INTEGRAL ABUTMENT



PLAN

NOTE: ANY WORK WITHIN THE STREAM CHANNEL AREA (E.G. PIER/BENT FOOTING, RIP-RAP PLACEMENT, ETC.) SHALL BE SEPARATED FROM FLOWING WATER OR EXPECTED FLOW PATH AND PERFORMED DURING LOW FLOW CONDITIONS. ALL ITEMS USED WITHIN THE STREAM CHANNEL AREA FOR DIVERSION OF FLOW (OR EXPECTED FLOW), UNLESS SPECIFIED IN THE PLANS, SHALL NOT BE PAID FOR DIRECTLY BUT SHALL BE INCLUDED IN THE COST OF OTHER ITEMS. THIS NOTE EXCLUDES ANY ITEMS SPECIFIED IN THE PLANS FOR TEMPORARY DIVERSION CHANNELS (EC-STR-31).

2049 ADTT = 14
22'-0" ROADWAY,
2'-0" SHOULDER EACH SIDE,
AND STD-1-ISS PARAPET
DESIGN SPEED = 55 MPH

SEALED BY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
CONCEPTUAL LAYOUT
OF BRIDGE
S.R. 87 OVER BRANCH CREEK
BRIDGE I.D. NO. 49SR0870013
STATION 109+65.00
LOG MILE 5.18
LAUDERDALE COUNTY
2025

PIN NO.:
DESIGN BY: DATE:
DRAWN BY: DATE:
SUPERVISED BY: DATE:
CHECKED BY: DATE:

CONST. NO.:

PROJECT NO.	YEAR	SHEET NO.
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38SRO870001	2025	
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REVISIONS

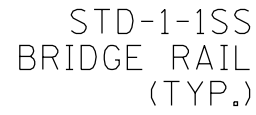
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1. CONSTRUCTION SPECIFICATIONS: TENNESSEE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (JANUARY 1, 2021 EDITION.)
2. DESIGN SPECIFICATIONS: 9TH EDITION (2021) AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS AND THE 2ND EDITION (2011) AASHTO GUIDE SPECIFICATIONS FOR LRFD SEISMIC BRIDGE DESIGN WITH INTERIMS.
3. LOADING: HL-93 LIVE LOAD INCREASED BY 10% IN ADDITION TO ALL LOAD FACTORS SPECIFIED BY AASHTO FOR ALL APPLICABLE LOAD COMBINATIONS; SEISMIC CATEGORY "---" WITH AS = ---, SDS = ---, SD1 = --- (1000 YEAR RETURN PERIOD); DEAD LOADS SHALL INCLUDE 35 LB/SQ.FT. FOR FUTURE WEARING SURFACE.
4. SUPERSTRUCTURE: TO CONSIST OF ONE SINGLE SPAN OF SIMPLY SUPPORTED 24"x36" PRESTRESSED BOX BEAMS WITH COMPOSITE CONCRETE SLAB.
5. CONCRETE: CLASS A F'C=3000, CLASS D F'C=4000 PSI FOR BRIDGE DECK
6. BEAM CONCRETE: CLASS A F'CI=7000 PSI, CLASS A F'C=8000 PSI FOR PROPOSED PRESTRESSED BOX BEAMS
7. REINFORCING STEEL: TO BE ASTM A615 GRADE 60 UNLESS NOTED OTHERWISE. EPOXY COAT ALL SLAB STEEL.
8. BRIDGE DECK SURFACE FINISH: TO BE IN ACCORDANCE WITH METHOD 3 IN ARTICLE 604.22 OF THE STANDARD SPECIFICATIONS.
9. USE STD-1-ISS PARAPETS
10. TEXTURE COATING: TO BE GRAY (36440) EXCEPT ENTIRE PARAPET TO BE WHITE (37886).
11. EXCAVATION: TO BE BASED ON EXISTING GROUND AT ABUTMENTS
12. FLUMES AT BRIDGE TO BE DETERMINED BY THE DESIGN BUILD TEAM.
13. BRIDGE DECK DRAINS TO BE DETERMINED BY THE DESIGN BUILD TEAM.
14. EXISTING BRIDGE DESCRIPTION: SINGLE SPAN AT 29'-0" SIMPLY SUPPORTED CONCRETE CHANNEL BRIDGE WITH A 29'-0" OUT-TO-OUT WIDTH.



TYPICAL SECTION - PROPOSED



TYPICAL SECTION - EXISTING

SEALED BY _____

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
CONCEPTUAL TYPICAL CROSS-SECTION
S.R. 87 OVER BRANCH CREEK
BRIDGE I.D. NO. 49SR0870013
STATION 109+65.00
LOG MILE 5.18
LAUDERDALE COUNTY
2025

PIN NO.: 134848.00

DESIGN BY: _____ DATE: _____

DRAWN BY: _____ DATE: _____

SUPERVISED BY: _____ DATE: _____

CHECKED BY: _____ DATE: _____

U-97-970