

PCC PAVEMENT - GRADE AND NEW
HSIPX-030-6(268)--3L-06

BENTON COUNTY

LETTING DATE
May 21, 2024



PLANS OF PROPOSED IMPROVEMENT ON THE
**PRIMARY ROAD SYSTEM
BENTON COUNTY**
PCC PAVEMENT - GRADE AND NEW
At County Road W26 and County Road W28

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

Value Engineering Saves. Refer to Article 1105.14 of the Specifications.



REVISIONS

TOTAL

22

PROJECT IDENTIFICATION NUMBER

22-06-030-010

PROJECT NUMBER

HSIPX-030-6(268)--3L-06

R.O.W. PROJECT NUMBER

NHSN-030-6(269)--2R-06

INDEX OF SHEETS

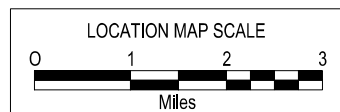
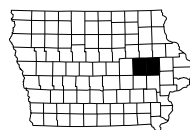
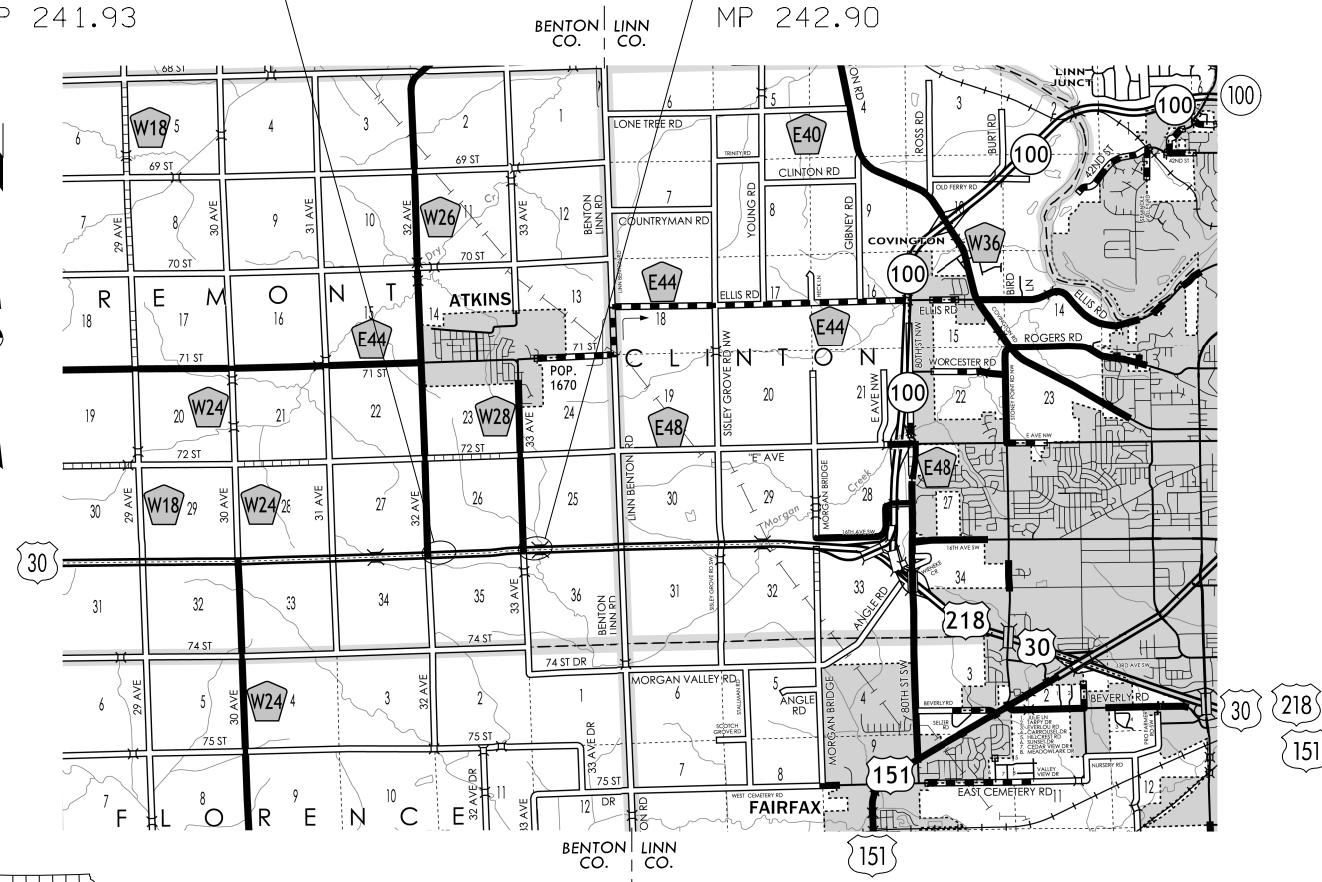
No.	DESCRIPTION
A Sheets	Title Sheets
A.1	Title Sheet
B Sheets	Typical Cross Sections and Details
B.1	Typical Cross Sections and Details
D Sheets	Mainline Plan Sheets
D.1 - 2	Mainline Plan Sheets at Co. Rd. W26
D.3 - 4	Mainline Plan Sheets at Co. Rd. W28
G Sheets	Survey Sheets
G.1	Survey Index
* G.2	Control Point Vicinity Map
G.3	Project Control Coordinate Datum
W Sheets	Mainline Cross Sections <--- H Sheets
* W.1 - 6	Turn Lane Cross Sections for W26 Intersection
* W.7 - 13	Turn Lane Cross Sections for W28 Intersection

Project Location

MP 241.75 to
MP 241.93

Project Location

MP 242.72 to
MP 242.90



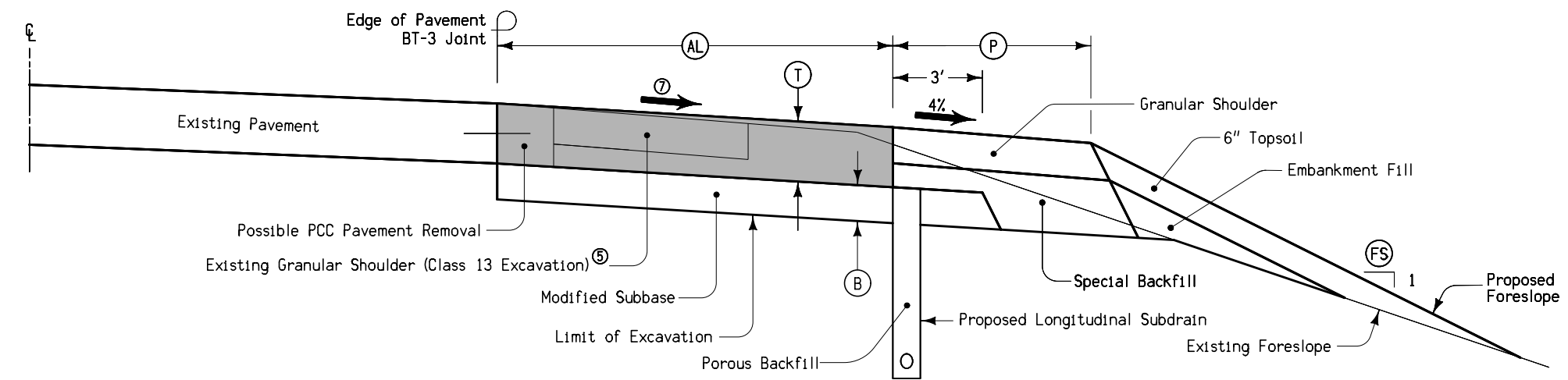
DESIGN DATA RURAL			
2023	AADT	15,600	V.P.D.
20 --	AADT	--	V.P.D.
20 --	DHV	--	V.P.H.
	TRUCKS	16 %	
	Total		
	Design ESALs	--	

PRELIMINARY PLANS

Subject to change by final design.

D5 PLAN - Date: 12/11/2023

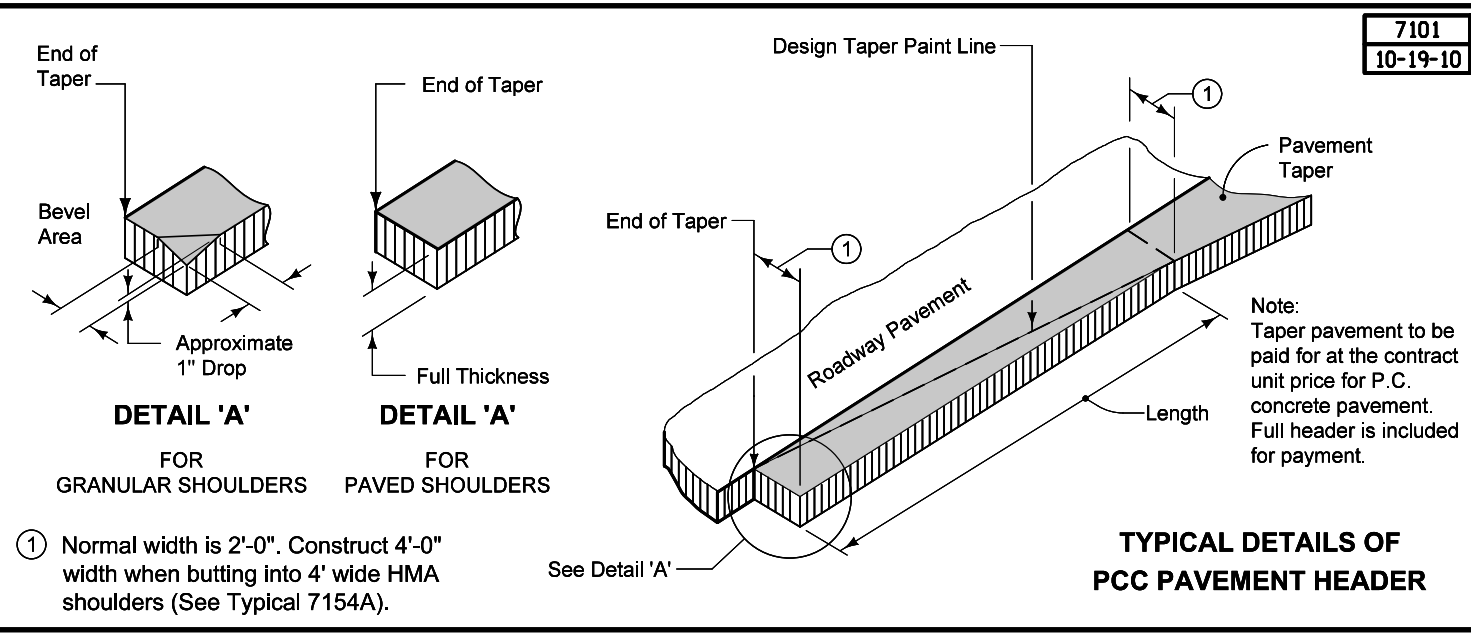
█ = Proposed PCC Pavement



- Notes:**
- ① Embankment (Fill) quantity does not include shrink. Not a bid item.
 - ② Excavation (Waste) quantity is (Cut) - (Fill). Not a bid item.
 - ③ Existing topsoil may be stripped and salvaged for use as topsoil.
 - ④ Includes tapers. Refer to L sheets.
 - ⑤ Removal is included in the Excavation (Cut) quantity.
 - ⑥ Width varies from 2' to 30'. Refer to L sheets.
 - ⑦ Slope at 3% for normal section. Slope at 4% through return. Refer to L sheets.

TABLE OF DESIGN QUANTITIES Per Location																		
LOCATION			AL	T	P	B	G	FS	PCC PAVEMENT SY	HMA PAVED SHOULDER SY	MODIFIED SUBBASE CY	SPECIAL BACKFILL CY	GRANULAR SHOULDER Tons	EARTH SHOULDER FINISHING STA	EXCAVATION (CUT) CY	EMBANKMENT (FILL) ① CY	EXCAVATION (WASTE) ② CY	TOPSOIL CY ③
STATION TO STATION ④	SIDE	DIRECTION	Feet	Inches	Feet	Inches	Feet											
1131+66.69 (W26 Intersection)	Out	WB	⑥	10.0	6.0	6.0	2.0	6										
1184+34.65 (W28 Intersection)	Out	WB	⑥	10.0	6.0	6.0	2.0	6										

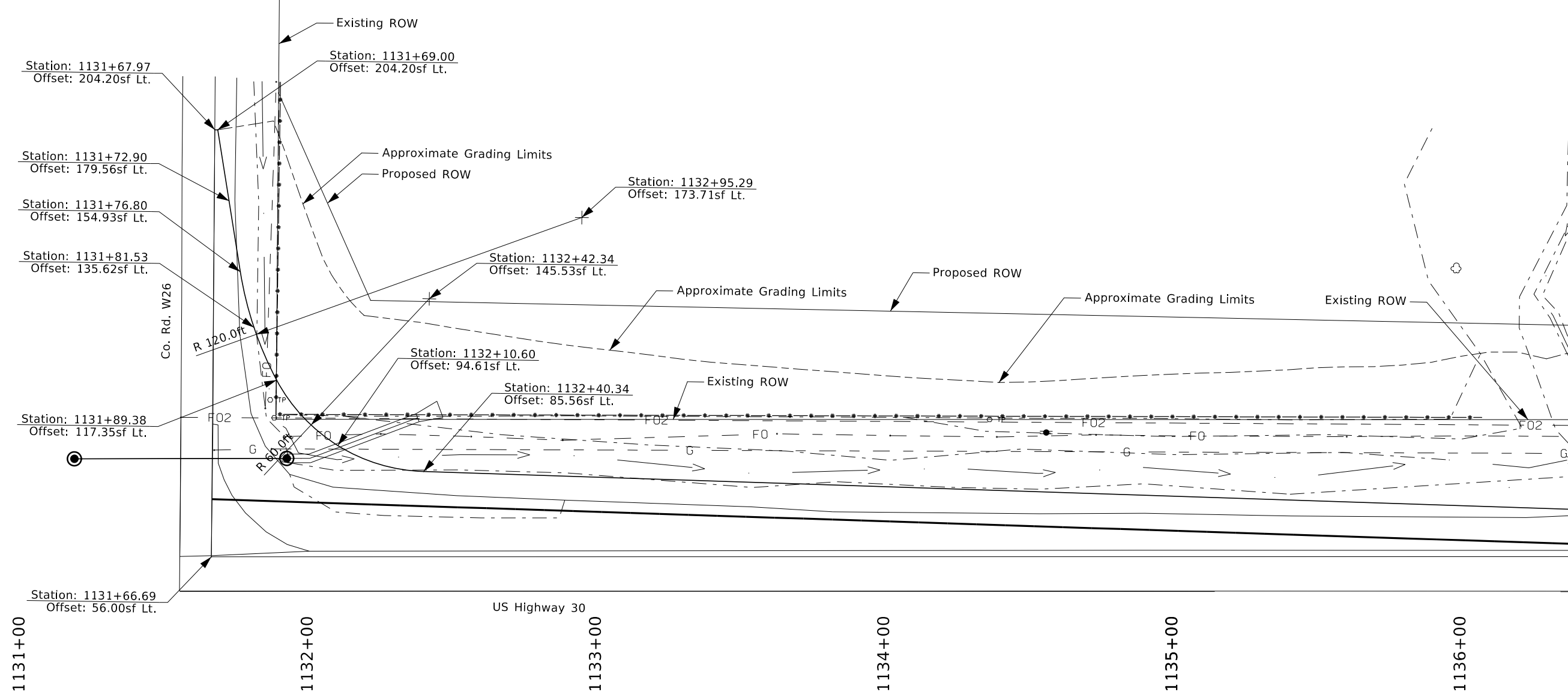
**TYPICAL CROSS SECTION
PCC AUXILIARY LANE**



7101
10-19-10

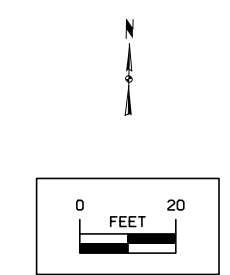
① Normal width is 2'-0". Construct 4'-0" width when butting into 4' wide HMA shoulders (See Typical 7154A).

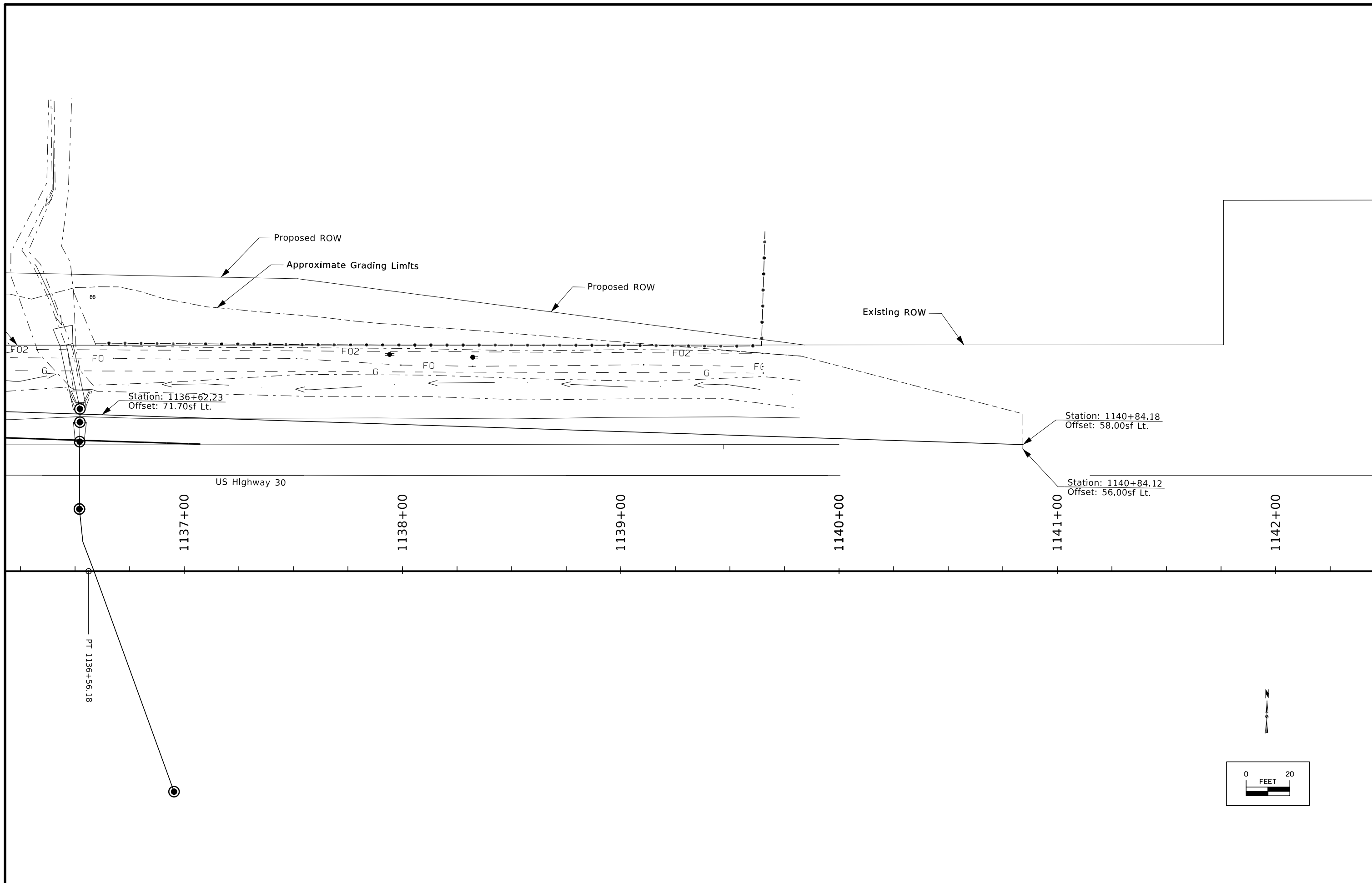
**TYPICAL DETAILS OF
PCC PAVEMENT HEADER**

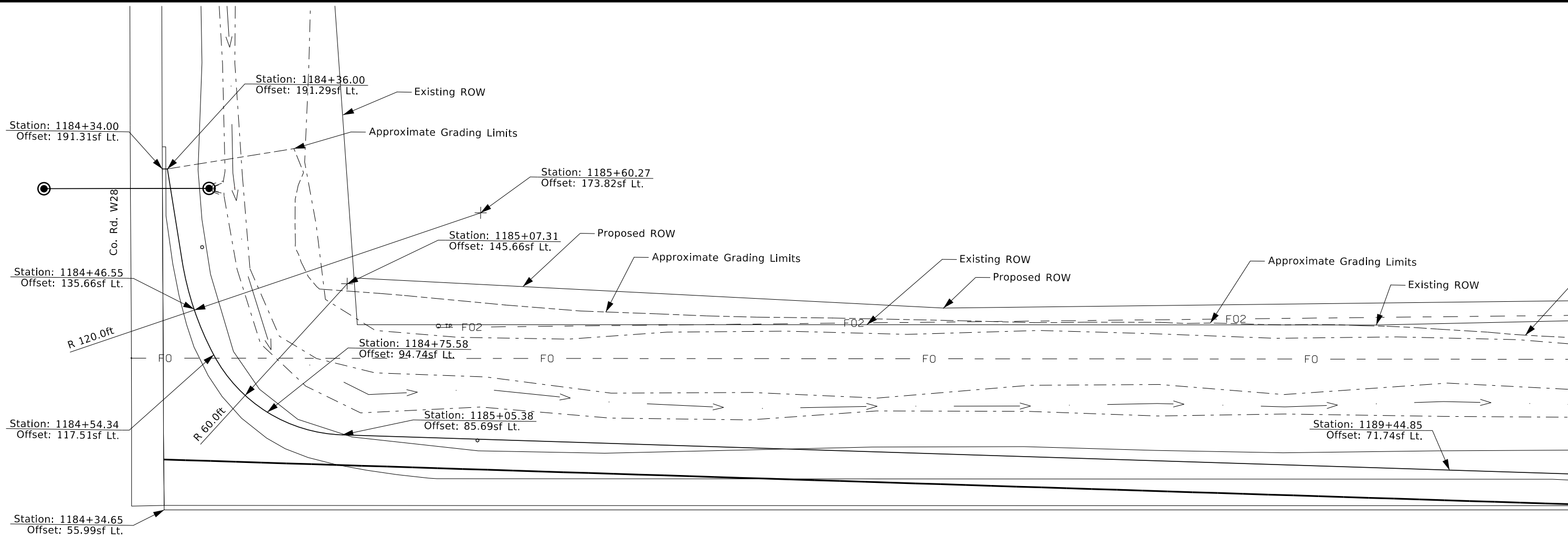


$\Delta = 00^{\circ}06'10.95''$ (RT)
 T = 500.00
 L = 1000.00
 R = 556043.74
 E = 0.22
 e = |
 L = |
 x = |

PI 1131+56.18
81.96+56.18





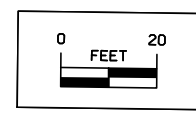


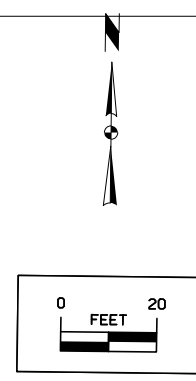
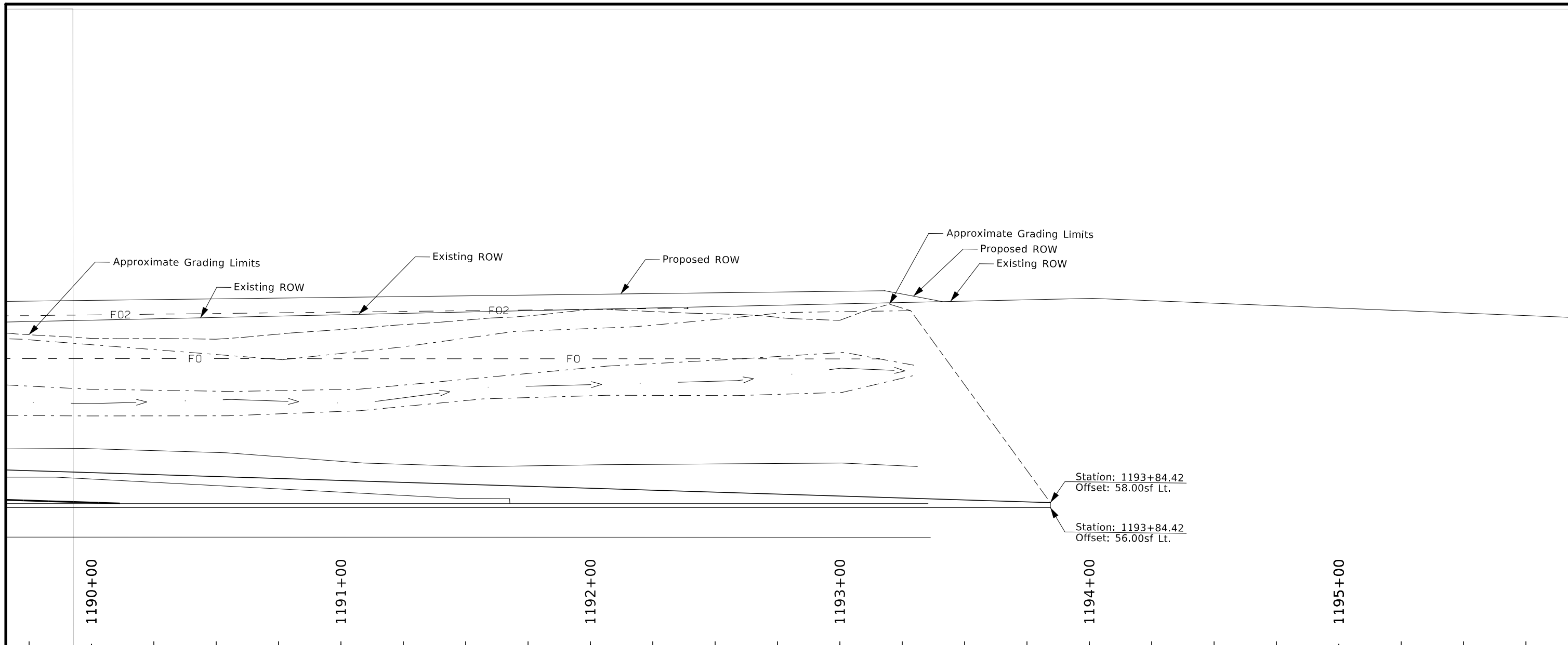
1184+00 1185+00 US Highway 30 1186+00 1187+00 1188+00 1189+00

$\Delta = 00^\circ 08' 19.53''$ (RT)
 T = 493.98
 L = 987.96
 R = 407943.23
 E = 0.30
 e =
 f =
 x =

PI 1184+21.76

PT 1189+15.74





Survey Information

SURVEY INDEX

County: Benton

PIN: 22-06-030-010

Project Number: HSIPX-030-6(268)--3L-06

Location: Co Rd W26 and Co Rd W28 Intersections

Type of Work: PCC Pavement – Grade and New

Project Directory: 0603001022

Survey Personnel

Clayton Henningsen – Survey Party Chief

Robert Fredrickson – Assistant Survey Party Chief

Date(s) of Survey

Begin Date 08/04/2022

End Date 08/10/2022

General Information

Project datum and control information is provided by the Design Survey Office.

Measurement units for this survey are US survey feet. This survey is for 2 US Hwy 30 intersections for turning lanes on westbound US 30. This survey request was for the US Hwy 30 corridor only. This project is a Full Field DTM survey.

Project Control

Nearby Iowa Real Time Network reference stations were utilized to obtain horizontal and vertical control on primary project control points. Three five-minute observations were taken with appropriate time spans between and used in a weighted average to obtain final coordinate values. For additional details of the control survey, contact the Preliminary Survey department.

PROJECT DATUM: NAD83(2011) for EPOCH 2010.00 (IaRTN 2019 Adjustment)

COORDINATE SYSTEM: IOWA REGIONAL COORDINATE SYSTEM ZONE 10

(U.S. Survey Foot)

VERTICAL DATUM: NAVD88

GEOID MODEL: 2012bu3

Alignment Information

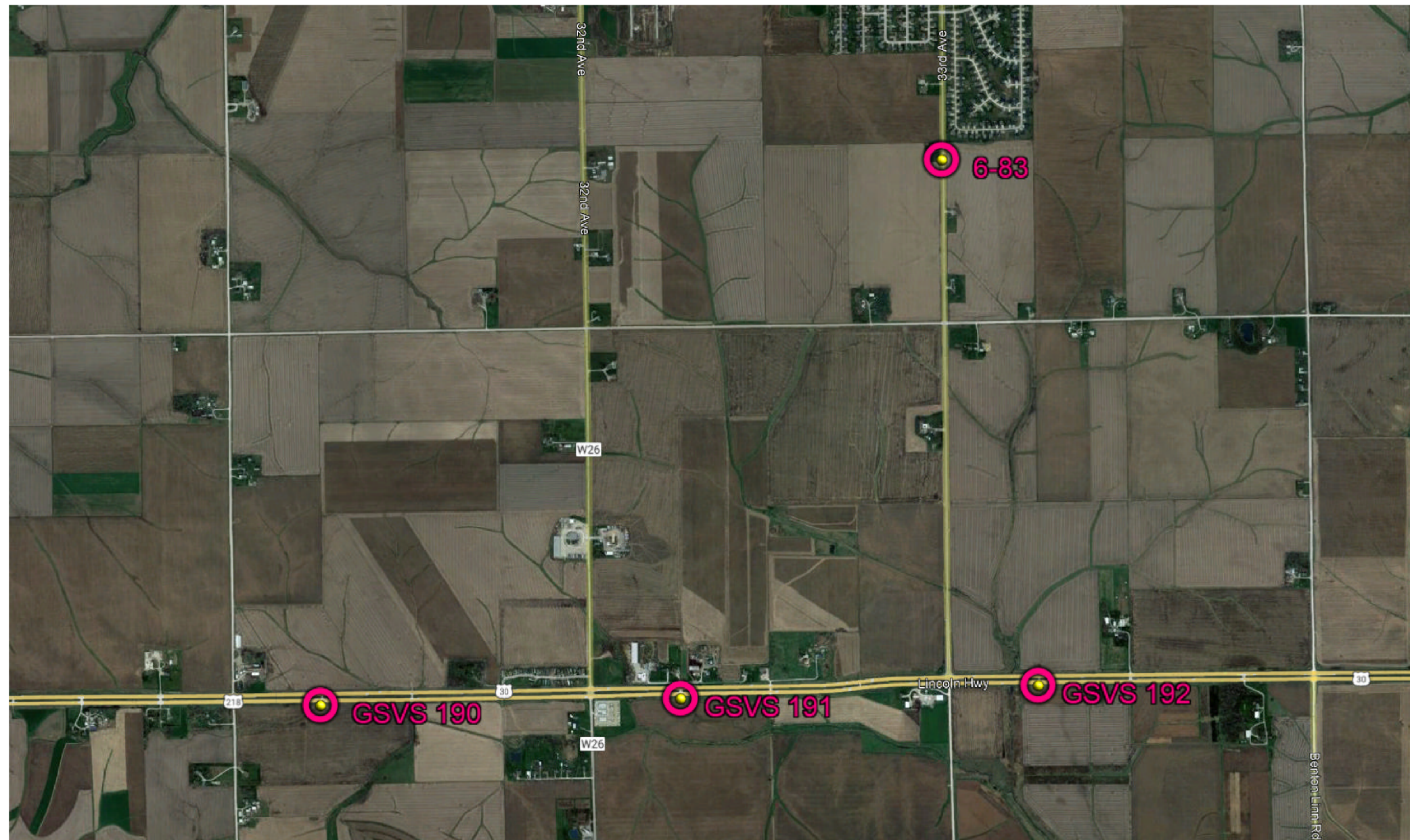
The horizontal alignment for U.S. Hwy. 30 this survey was provided by the District 6 Land Survey Office.

Utility Information

For logging data and other utility details see Utility Survey and Ownership Report in the Utility folder of the PrelimSurvey project directory.

CONTROL POINT VICINITY MAP

This map is a guide to the vicinity of the primary project control points. Primary control is for use with RTK base stations and for RTN validation. Future surveys will use primary project control to establish temporary control as needed for construction or other surveying applications.



HORIZ. DATUM: NAD83(2011) EPOCH 2010.00 - Ia. RCS Zone 10
VERT. DATUM: NAVD88 - Geoid Model 2012bu3

Coordinate listing from next sheet will be used with IaRTN for monument recovery. No other reference ties are given.

HORIZONTAL AND VERTICAL PROJECT CONTROL COORDINATE LISTING

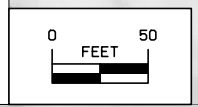
HORIZ. DATUM: NAD83(2011) EPOCH 2010.00
 1a. Regional Coordinate System Zone 10

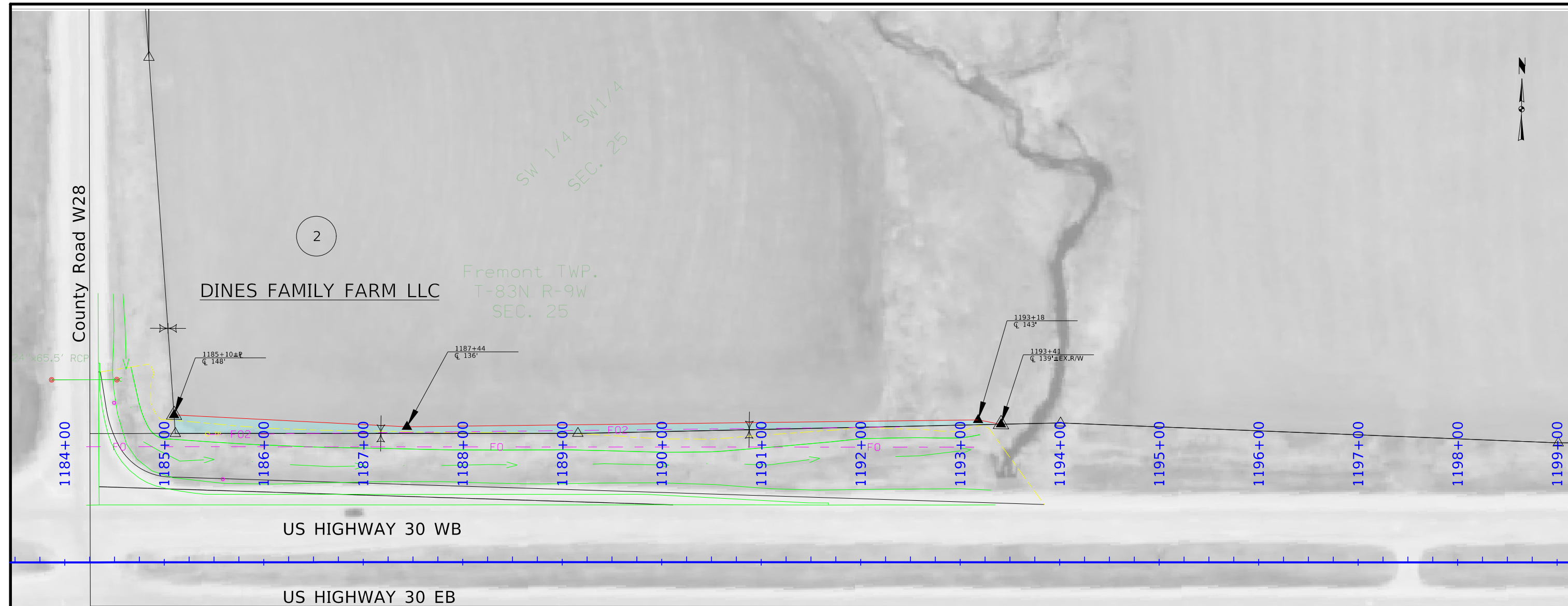
VERT. DATUM: NAVD88
 Geoid Model 2012bu3
 Project Control Marks are Bench Marks

<u>Point Number</u>	<u>Northing</u>	<u>Easting</u>	<u>Elevation</u>	<u>Point Description</u>
GSVS_191	8047388.616	20445292.955	851.471	CP FOUND NGS GSVS 191 CONCRETE MONUMENT AS DESCRIBED IN GOOD CONDITION
GSVS_192	8047564.205	20450551.584	827.186	CP FOUND NGS GSVS 192 CONCRETE MONUMENT AS DESCRIBED IN GOOD CONDITION
6_83	8055258.186	20449136.613	904.766	CP FOUND NGS 6-83 CONCRETE MONUMENT AS DESCRIBED IN GOOD CONDITION
GSVS_190	8047308.320	20440005.507	878.173	CP FOUND NGS GSVS 190 CONCRETE MONUMENT AS DESCRIBED IN GOOD CONDITION

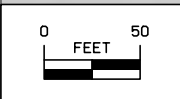


Right of Way Design Information	
THIS SHEET INCLUDED FOR INFORMATION ONLY	
ROW Team: Larson / Hughes	
ROW #: NHSN-030-6(269)--2R-06	
Plan Date: 12-7-2023	
Color Legend:	
	Property Lines
	Temporary Easement
	Permanent Acquisition

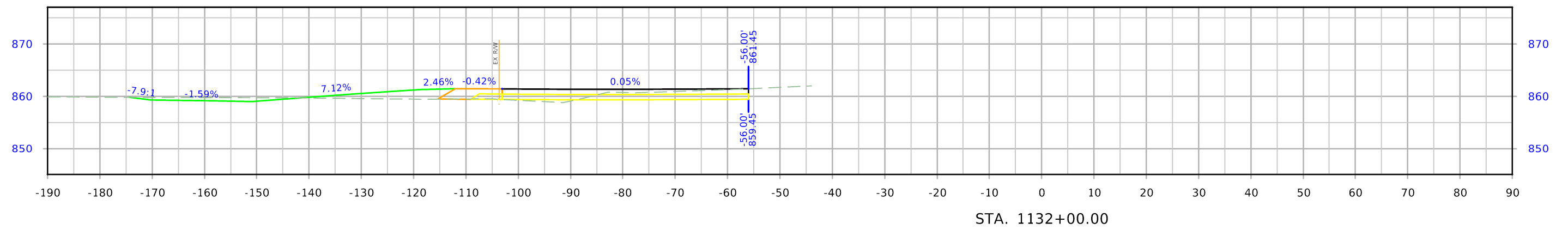
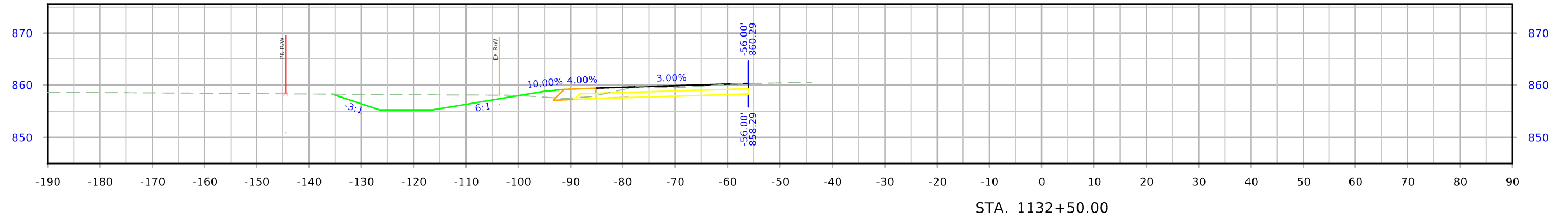


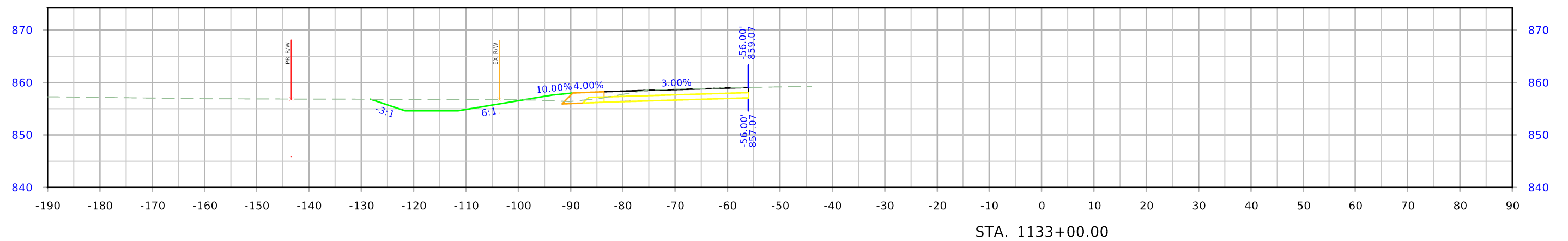
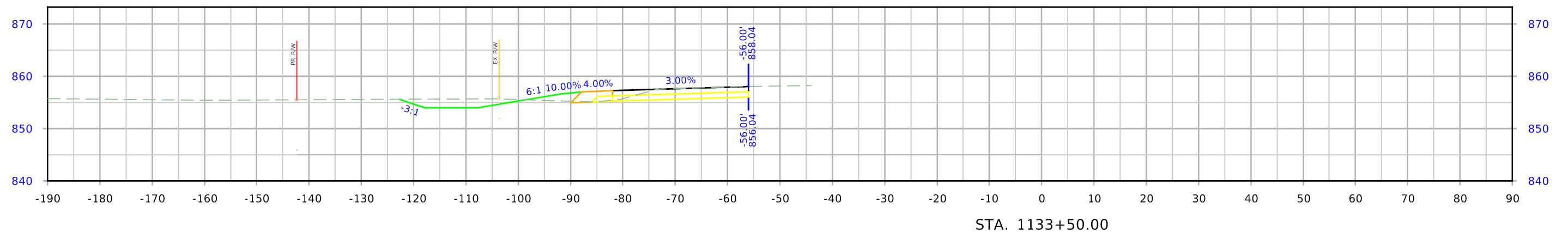
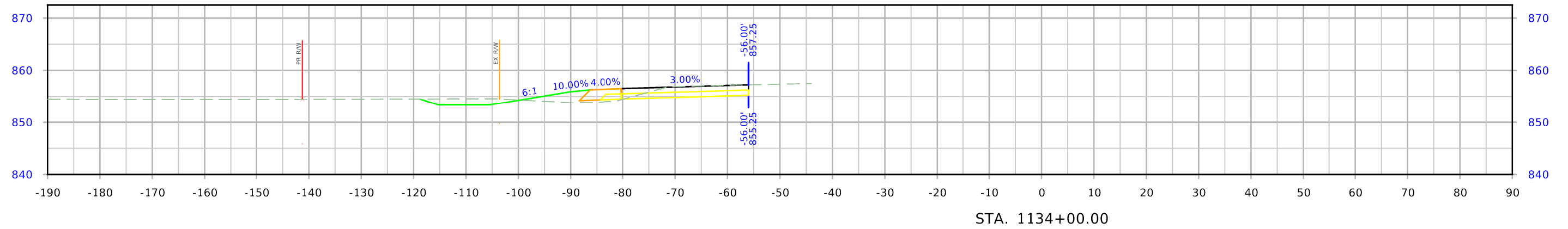


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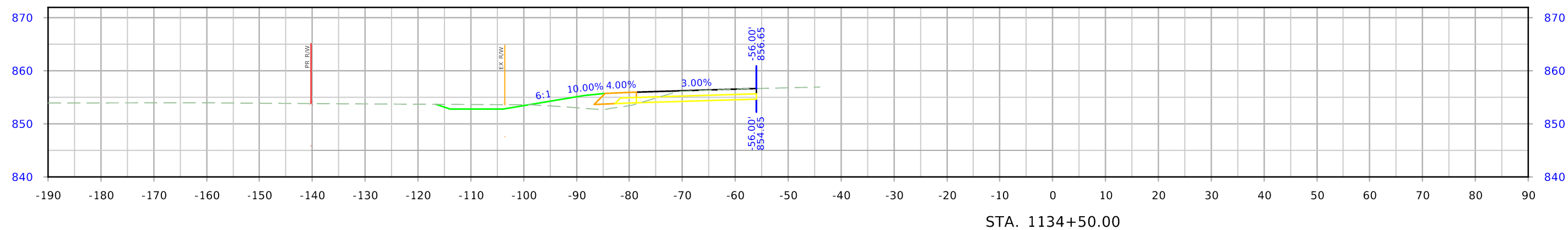
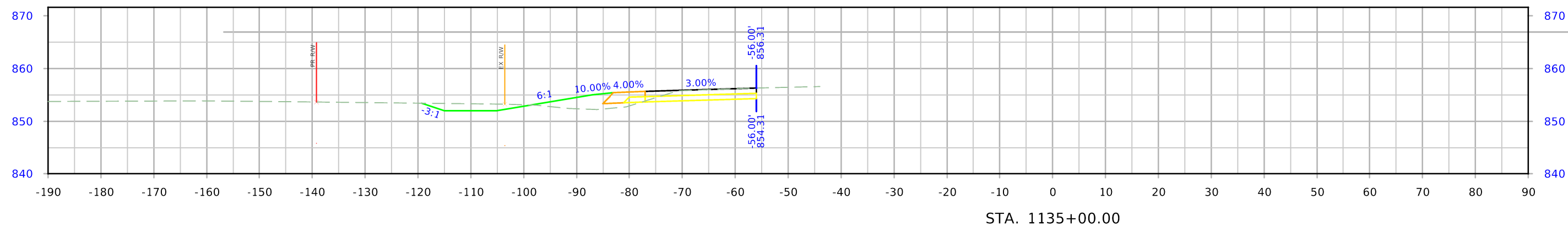
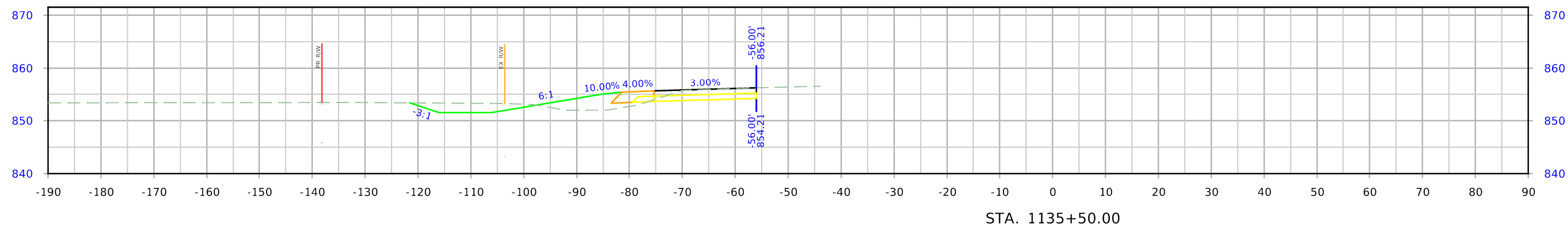


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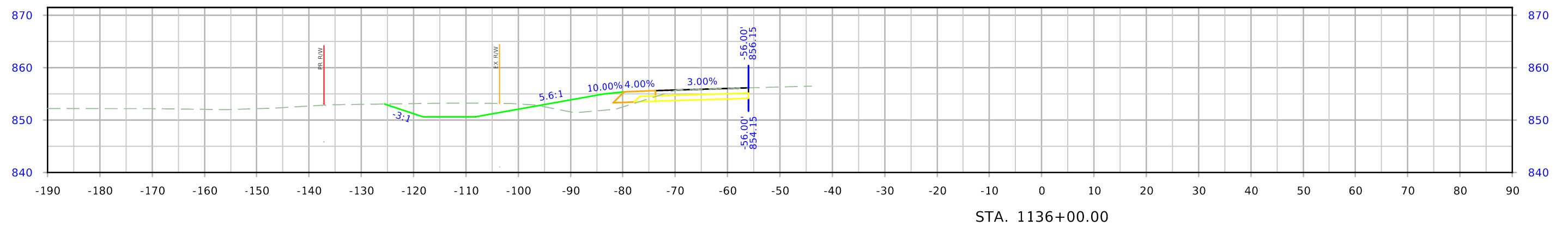
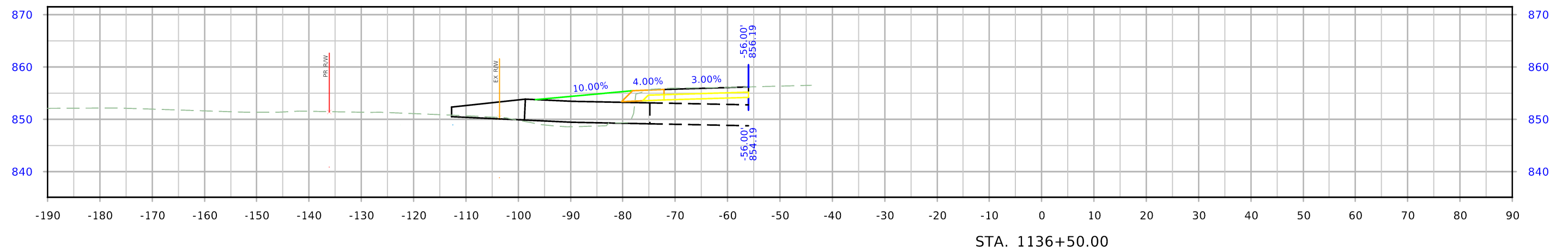
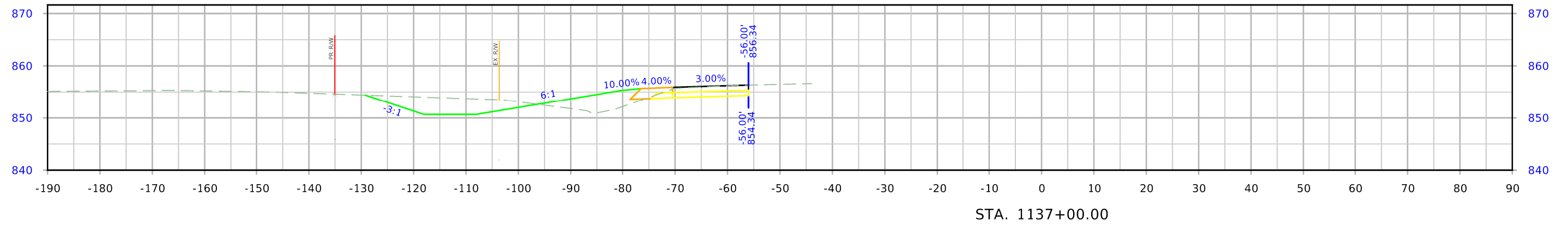


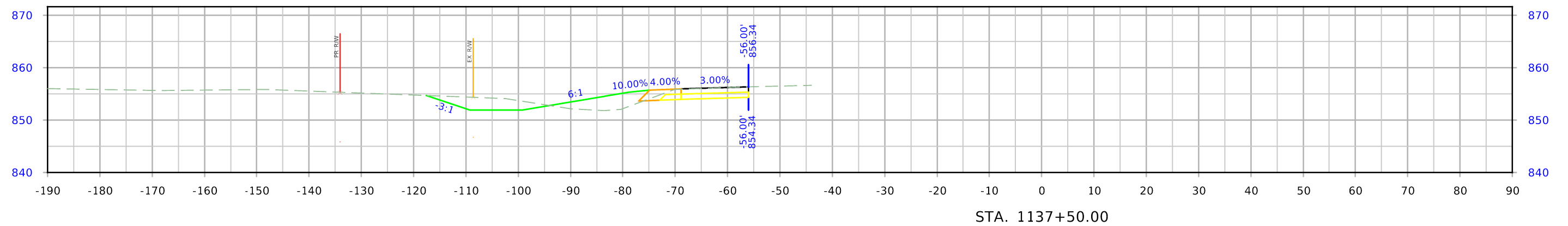
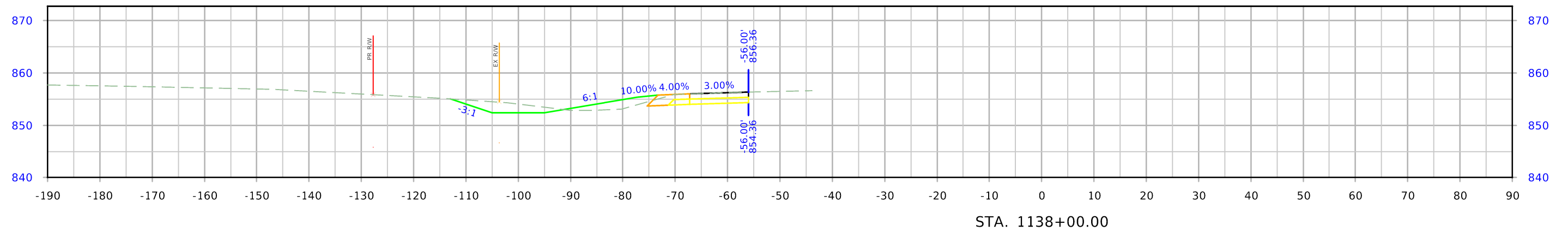
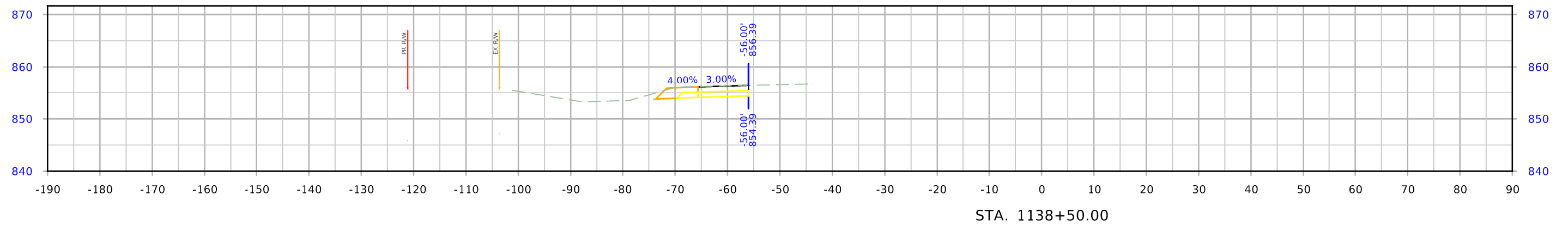


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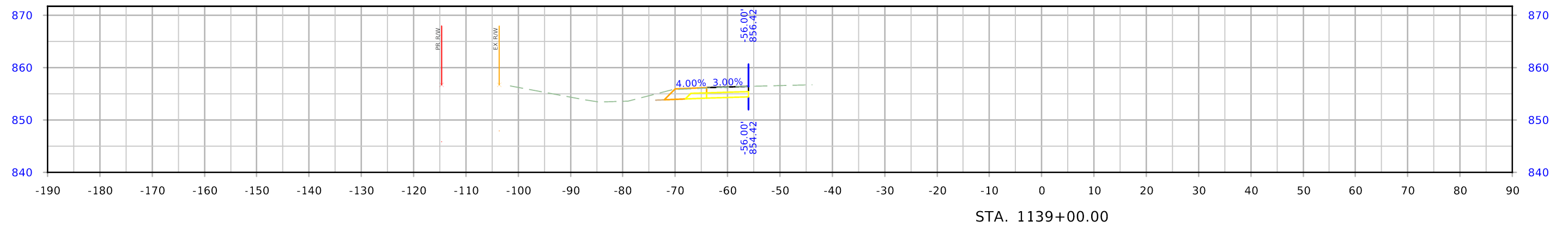
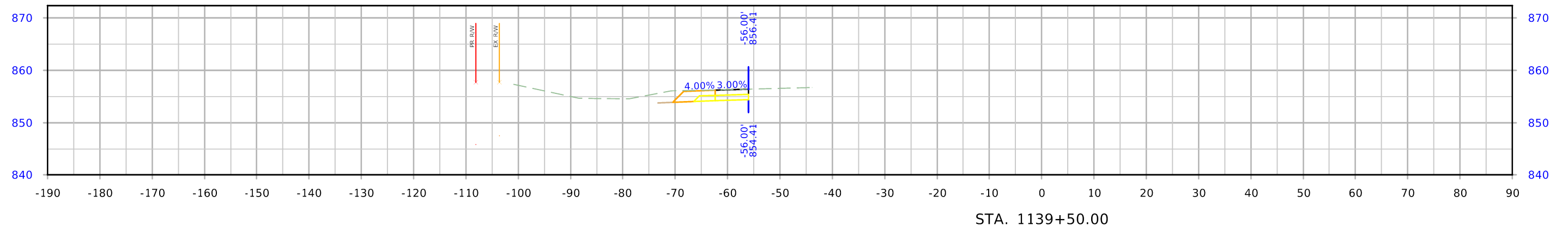


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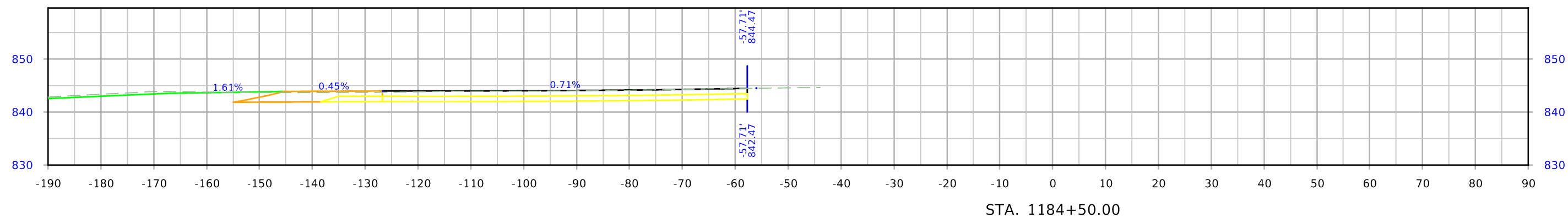
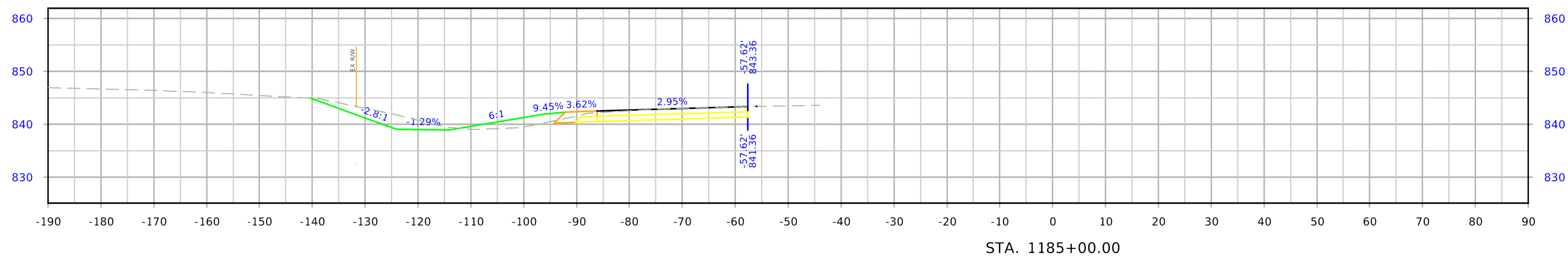
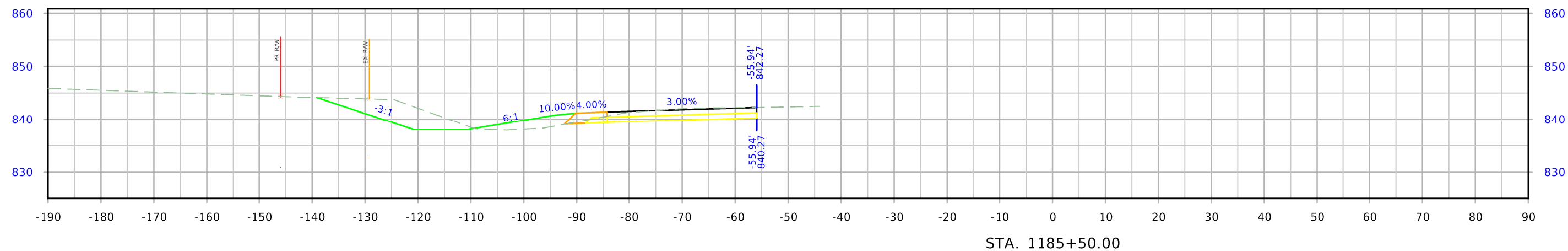




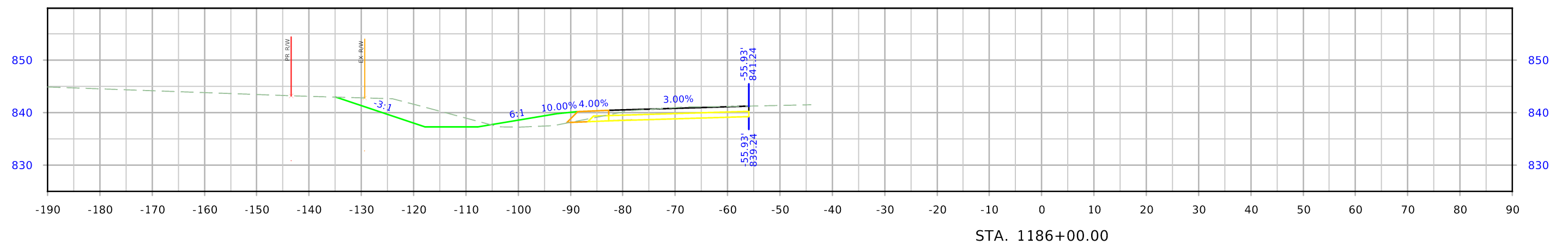
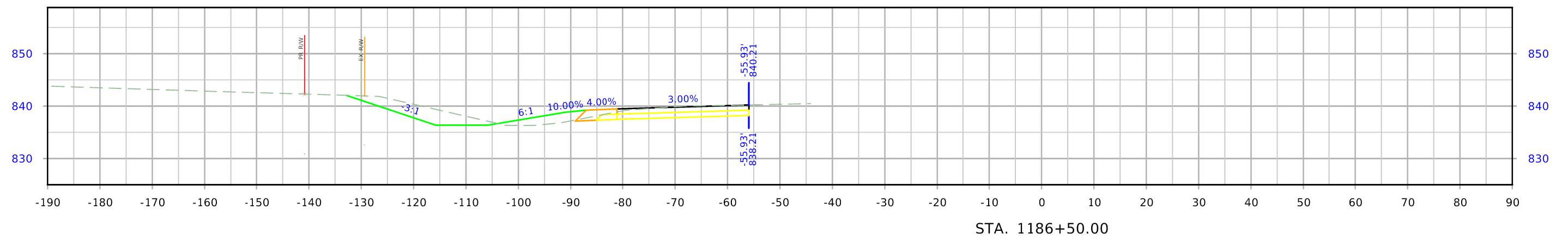
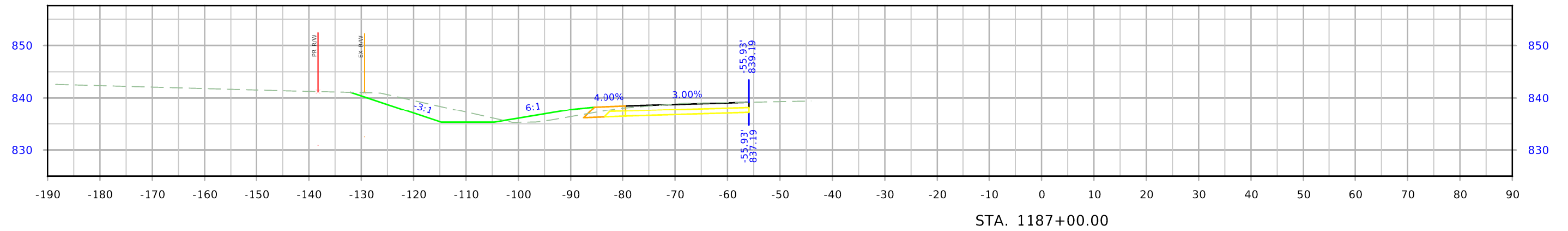
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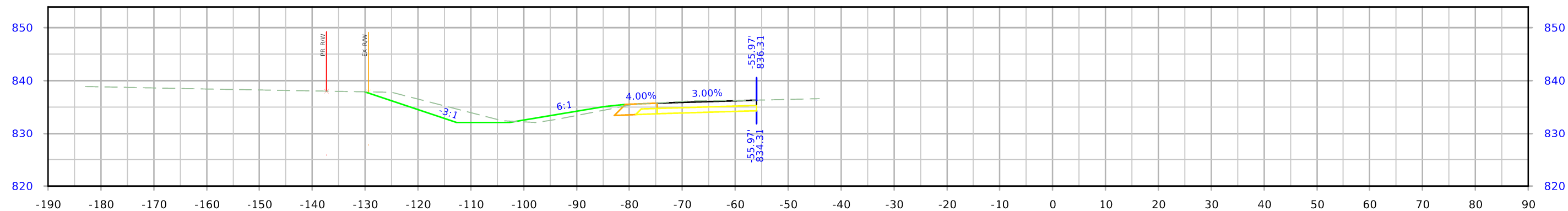
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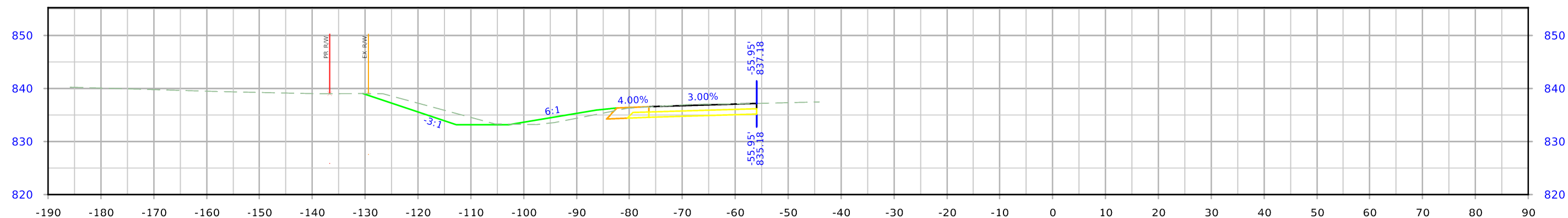
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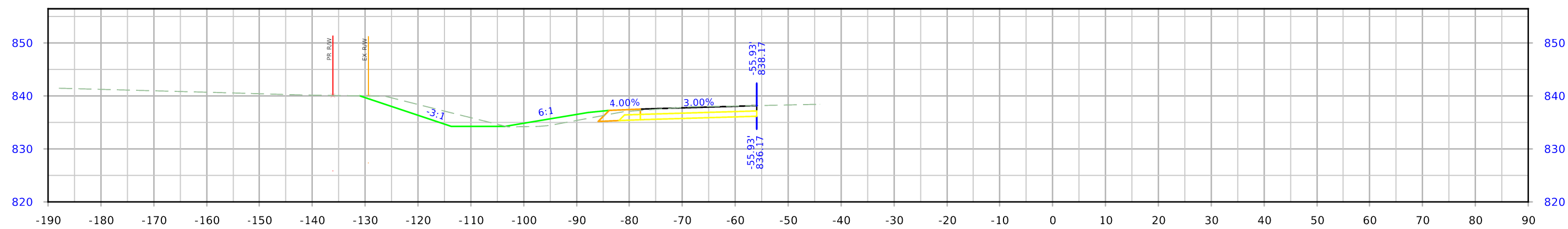
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STA. 1188+50.00

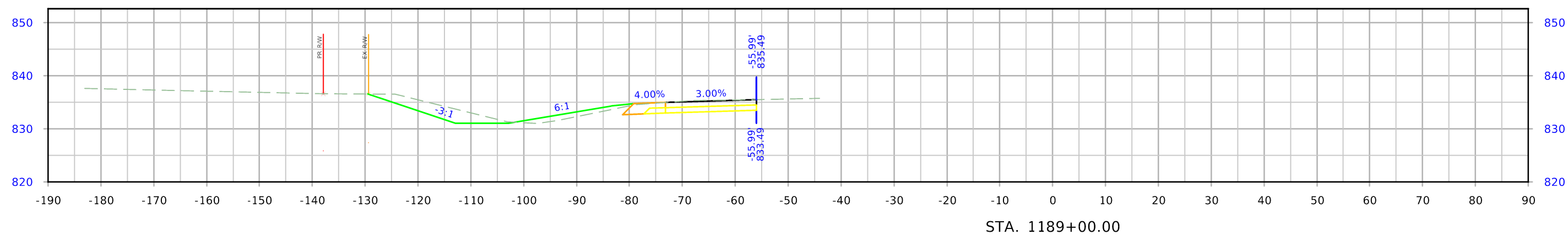
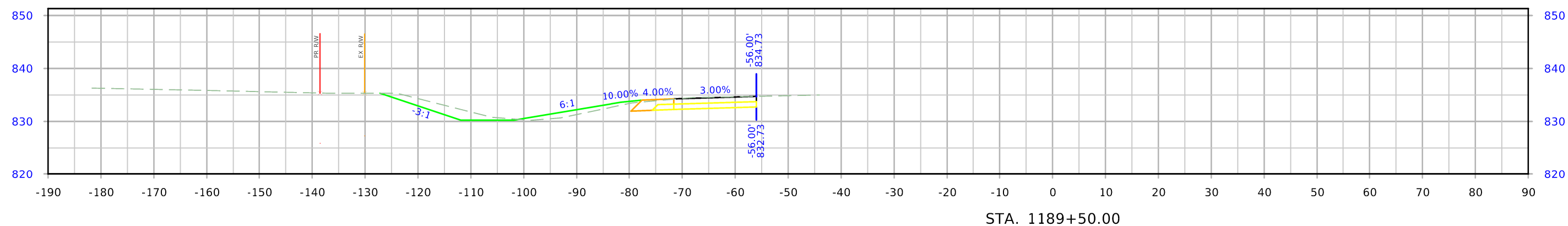
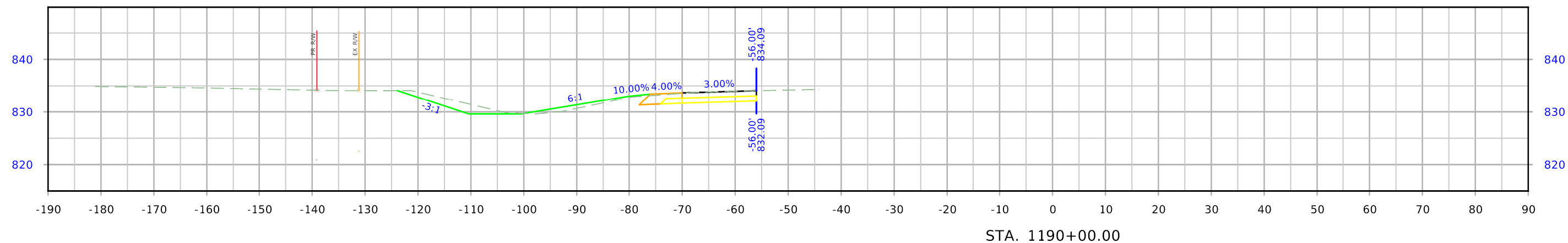


STA. 1188+00.00

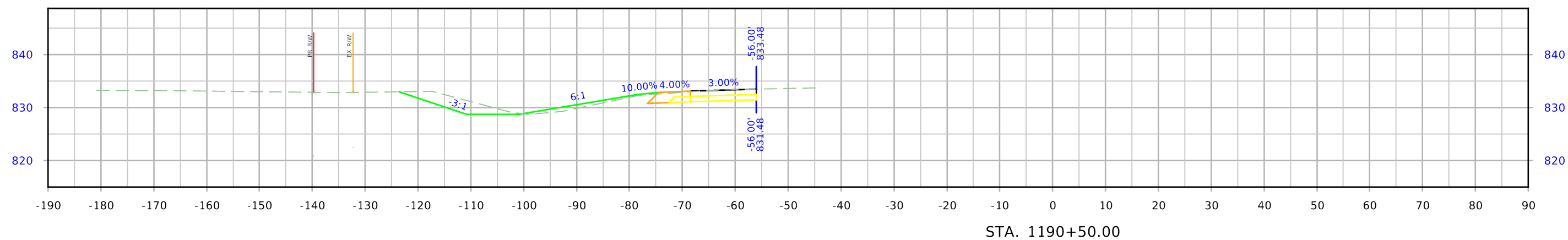
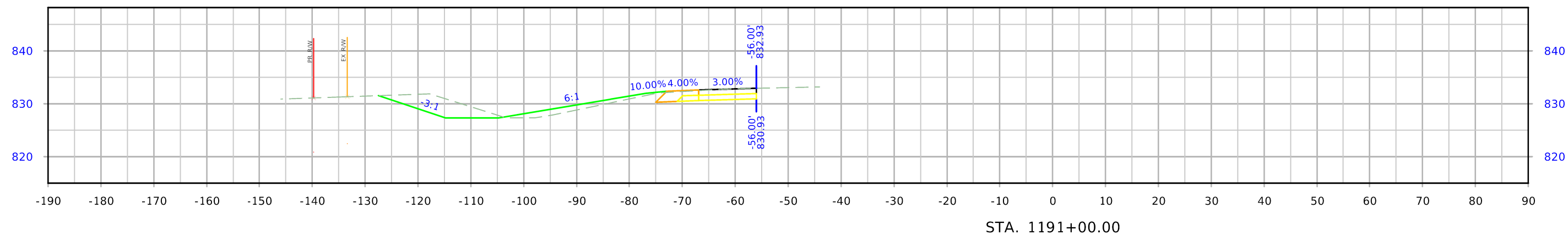
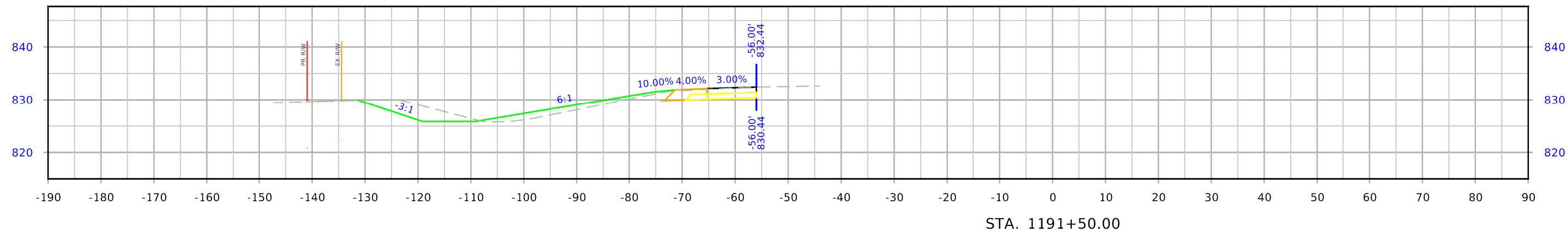


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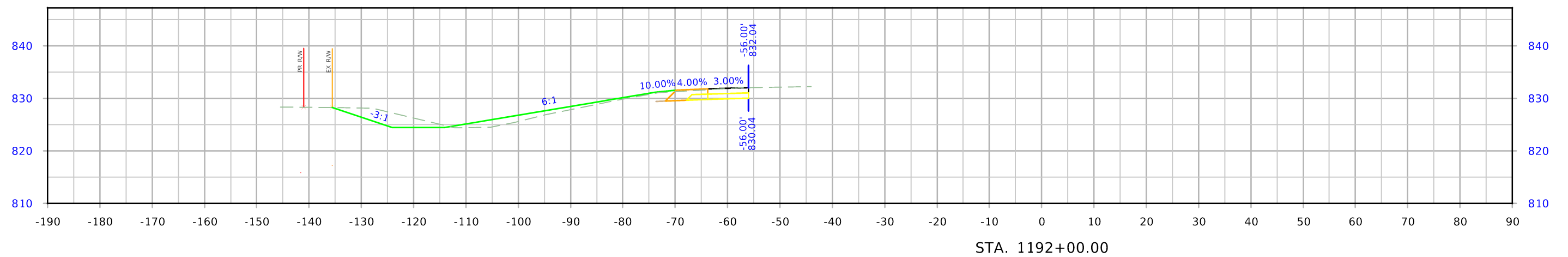
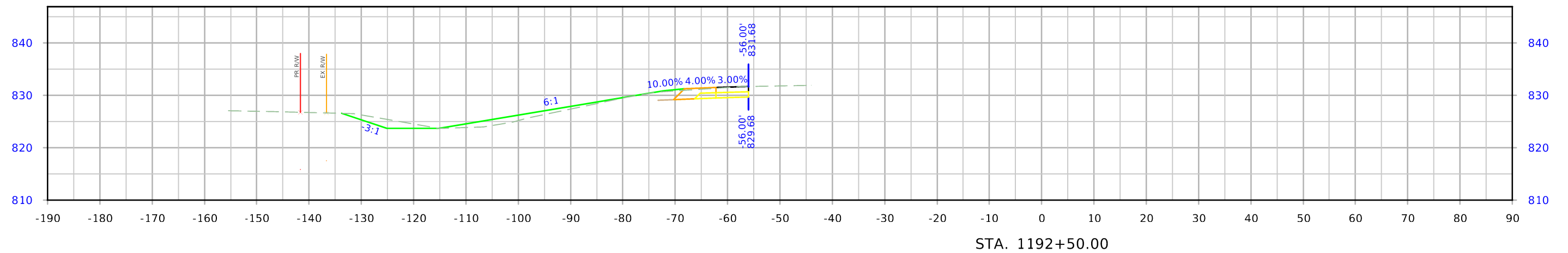
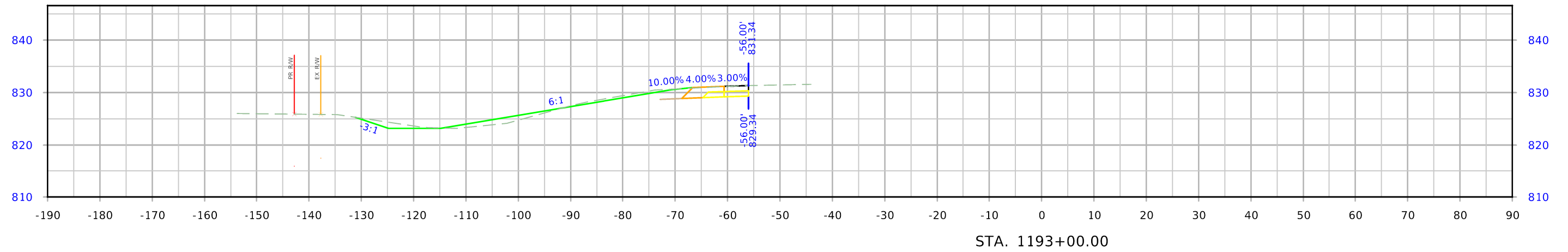
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