



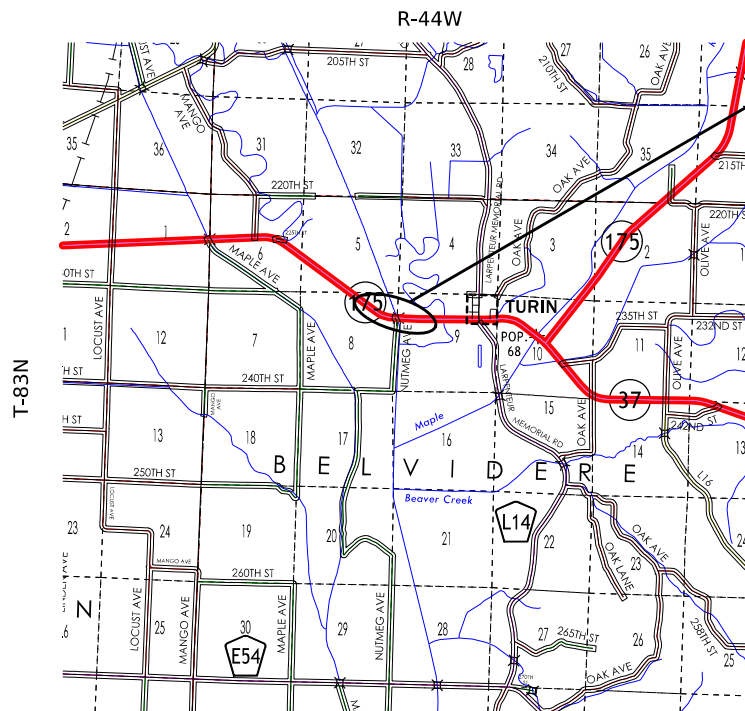
PLANS OF PROPOSED IMPROVEMENT ON THE

PRIMARY ROAD SYSTEM
MONONA COUNTYBridge Replacement
IA175 Bridge over Little Sioux River,
1.5 mi W of IA 37

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

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

PROJECT LOCATION
(REFER TO A.2 FOR DETAIL)

DESIGN DATA RURAL

2026	AADT	2000	V.P.D.
2046	AADT	2200	V.P.D.
2046	DHV	220	V.P.H.
	TRUCKS	13%	%
	Total		
	Design ESALs	--	

INDEX OF SEALS

SHEET NO.	NAME	TYPE
A.1	Zach M. Wheat	Primary Signature Block
V.1	Jonathan E. Peterson	Hydraulic Design

REVISIONS

TOTAL	165
PROJECT IDENTIFICATION NUMBER	20-67-175-020
PROJECT NUMBER	BRF-175-1(88)--38-67
R.O.W. PROJECT NUMBER	STPN-175-1(89)--2J-67

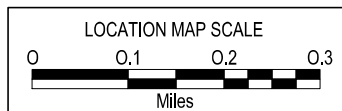
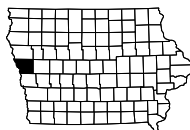
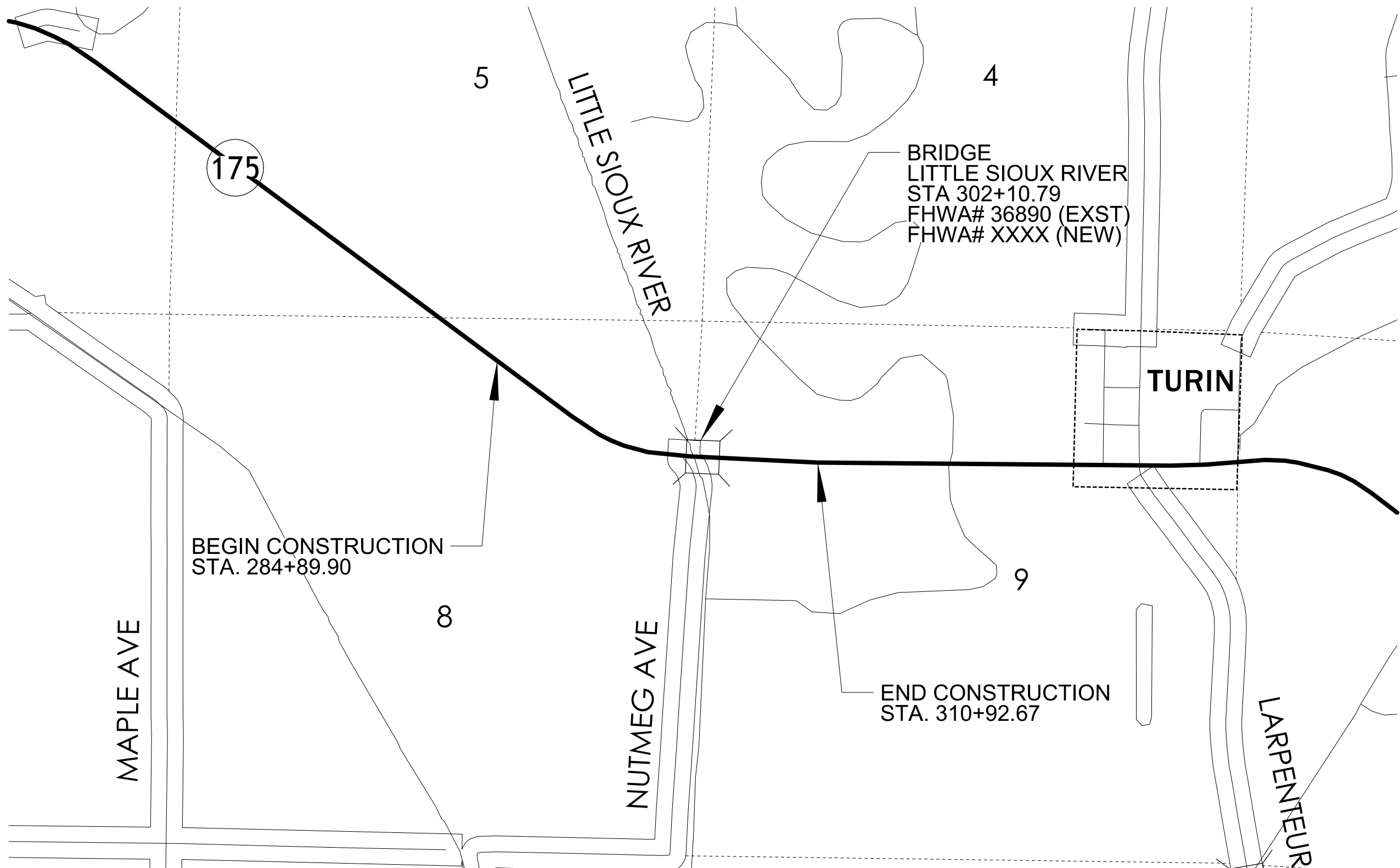
INDEX OF SHEETS

No.	DESCRIPTION
A Sheets	Title Sheets
A.1	Title Sheet
A.2	Location Map
B Sheets	Typical Cross Sections and Details
B.1 - 5	Typical Cross Sections and Details
C Sheets	Quantities and General Information
C.1	Project Description
D Sheets	Mainline Plan and Profile Sheets
* D.1	Plan & Profile Legend & Symbol Information Sheet
* D.2 - 3	IA 175
E Sheets	Side Road Plan and Profile Sheets
* E.1 - 8	Levee Entrances
G Sheets	Survey Sheets
G.1 - 3	Reference Ties and Bench Marks
G.4 - 6	Horizontal Control Tab. & Super for all Alignments
H Sheets	Right-of-Way Sheets
H.1 - 2	IA 175
J Sheets	Traffic Control and Staging Sheets
* J.1	Traffic Control Plan
* J.2	Staging Notes
* J.3	Traffic Control & Staging Legend & Symbol Info. Sheet
* J.4 - 5	Staging Typical
* J.6 - 37	Staging and Traffic Control Sheets
* J.38 - 40	Paddling Route Signs & Details
R Sheets	Erosion Control Sheets
* RR.1	Erosion Control Legend and Symbol Information Sheet
* RR.2 - 5	Drainage Basin and Erosion Control Device Maps
U Sheets	500 Series, Mod.Stds. and Detail Sheets
U.1	500 Series, Modified Standards and Detail Sheets
V Sheets	Bridge and Culvert Situation Plans
V.1 - 2	Bridge and Culvert Situation Plans
W Sheets	Mainline Cross Sections
W.1	Cross Sections Legend & Symbol Information Sheet
W.2 - 35	Mainline Cross Sections
X Sheets	Side Road Cross Sections
X.1 - 37	Levee Road Cross Sections
X.38 - 54	Staging Cross Sections
	* Color Plan Sheets

PRELIMINARY PLANS

Subject to change by final design.

D5 PLAN-Date: 09/24/25



Combination Shoulder

Shoulder Jointing:
Longitudinal joint: B

2_C_ MODIFIED			
STATION TO STATION		(P) Feet	(G) Feet
287+39.88	287+64.88	2	8-6
287+64.88	298+89.99	2	6
305+32.81	310+17.63	2	6
310+17.63	310+42.63	2	6-8

Paved Shoulder at Guardrail

PCC Shoulder Jointing:
Longitudinal joint: BT-1 or BT-5
Transverse joints: C at mainline spacing
HMA Shoulder Jointing:
Longitudinal joint: B

2_P_Guard_ 04-21-20		
STATION TO STATION		(P) Feet
298+89.99	299+30.19	11.2
299+30.19	299+79.29	11.2 - 9.6
299+79.29	299+82.77	9.6
304+38.87	304+44.13	9.6
304+44.13	304+92.93	9.6 - 11.2
304+92.93	305+32.81	11.2

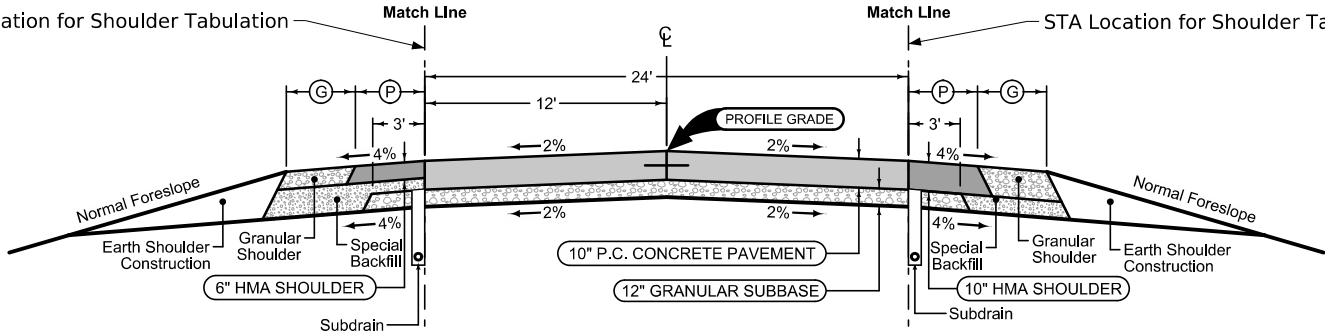
- ① Refer to cross sections for tansition from 4% to 2% at bridge approach
- ② Refer to Detail 7157

Full Depth HMA
Shoulder Strengthening

Shoulder Jointing:
Longitudinal joint: B

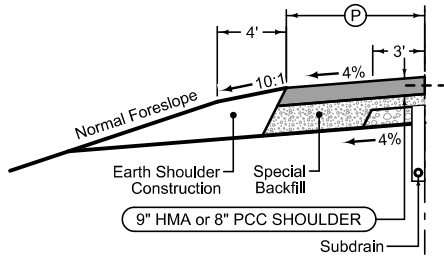
2_P_FullHMA_ MODIFIED		
STATION TO STATION * Existing ML Alignment		(P) Feet
284+89,9	286+54,8	2.0 - 8.0
286+54,8	289+40	8.0
289+40,0	291+40,0	8.0 - 11.2
291,40,0	293+75,2	11.2 - 10.0
293+75,2	295+75,0	10.0 - 6.6
295+75,0	296+75,0	6.6 - 4.0
296+75,0	297+75,0	4.0
297+75,0	300+39,3	4.0
303+47,6	306+60,0	4.0
306+60,0	308+30,0	4.0 - 8.0
308+30,0	311+27,0	8.0
311+27,0	312+92,0	8.0 - 2.0

STA Location for Shoulder Tabulation

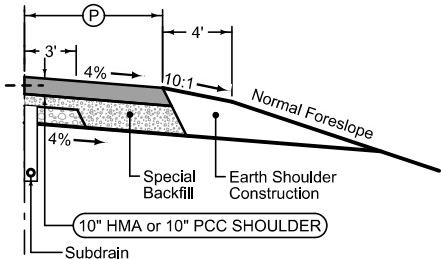


Mainline Jointing:
Transverse joints: CD at 17' spacing
Longitudinal joint: L-2

2P_ 04-21-20	
STATION TO STATION	
287+39.88	299+82.77
304+38.82	310+42.63



STA Location for Shoulder Tabulation



- ① Refer to cross sections for tansition from 4% to 2% at bridge approach
- ② Refer to Detail 7157

Full Depth HMA
Shoulder Strengthening

Shoulder Jointing:
Longitudinal joint: B

2_P_FullHMA_ MODIFIED		
STATION TO STATION * Existing ML Alignment		(P) Feet
284+89,9	286+54,9	2.0 - 6.0
286+54,9	287+39,88	6.0
310+42,63	311+27,0	6.0
311+27,0	312+91,8	6.0 - 2.0

IA 175

Full Depth PCC Shoulder

Shoulder Jointing:
Longitudinal joint: BT-2, L-2 or KT-2
Transverse joints: C at 20' spacing

2_P_FullPCC_MODIFIED		
STATION TO STATION		(P) Feet
299+82.77	300+32.77	8
303+88.82	304+38.82	8

Full Depth PCC Shoulder

Shoulder Jointing:
Longitudinal joint: BT-2, L-2 or KT-2
Transverse joints: C at 20' spacing

2_P_FullPCC_MODIFIED		
STATION TO STATION		(P) Feet
300+32.77	300+48.23	8
303+55.48	303+88.82	8

Full Depth PCC Shoulder

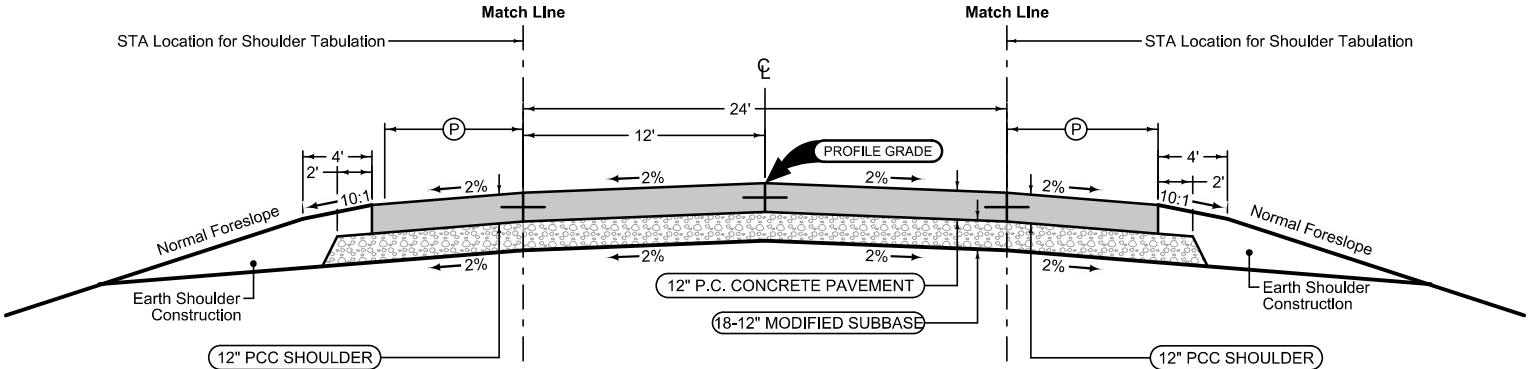
Shoulder Jointing:
Longitudinal joint: BT-2, L-2 or KT-2
Transverse joints: C at 20' spacing

2_P_FullPCC_MODIFIED		
STATION TO STATION		(P) Feet
299+82.77	300+32.77	8
303+88.82	304+38.82	8

Full Depth PCC Shoulder

Shoulder Jointing:
Longitudinal joint: BT-2, L-2 or KT-2
Transverse joints: C at 20' spacing

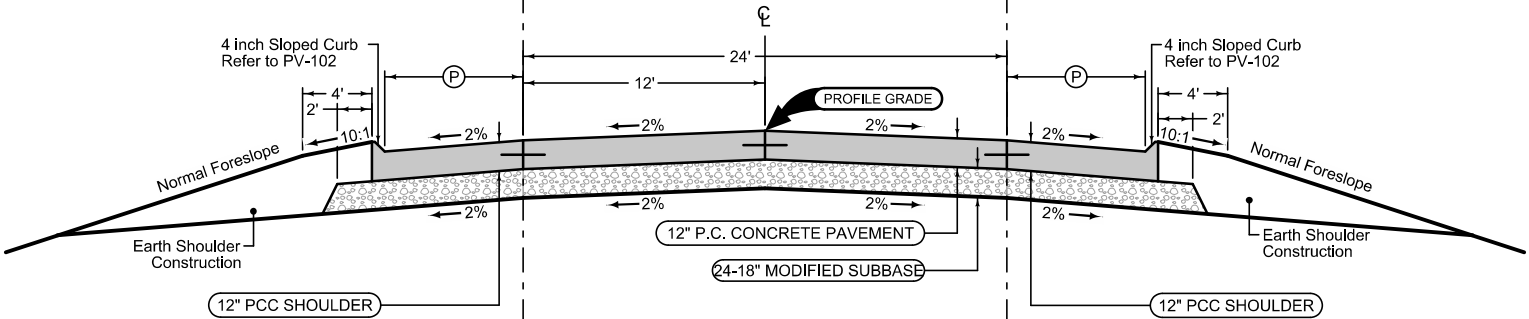
2_P_FullPCC_MODIFIED		
STATION TO STATION		(P) Feet
300+32.77	300+66.11	8
303+73.36	303+88.82	8



Refer to BR-203
(Unreinforced and Single Reinforced Section)

Mainline Jointing:
Transverse joints: CD at 20' spacing
Longitudinal joint: L-2

2P_MODIFIED	
STATION TO STATION	
299+82.77	300+32.77
303+88.82	304+38.82

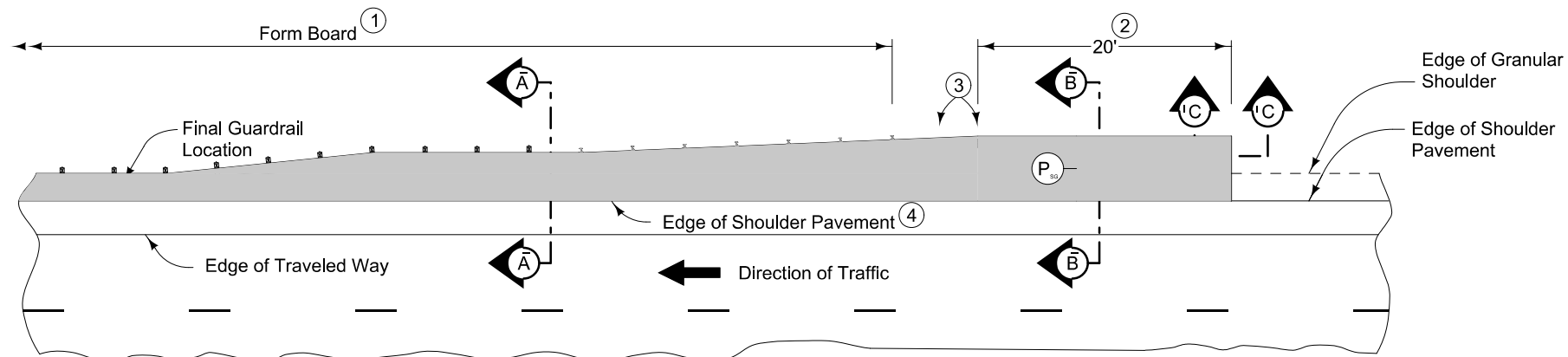


Refer to BR-203
(Double Reinforced Section)

Mainline Jointing:
Transverse joints: CD at 20' spacing
Longitudinal joint: L-2

2P_MODIFIED	
STATION TO STATION	
300+32.77	300+57.17
303+64.41	303+88.82

IA 175



PLAN VIEW

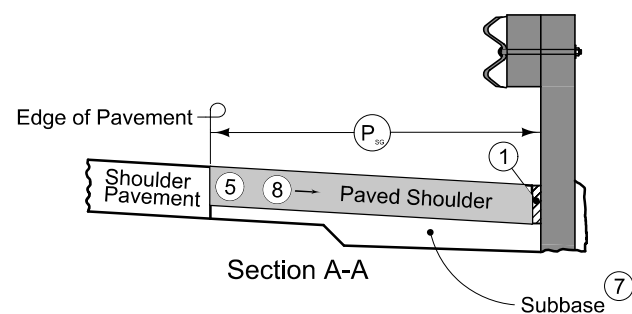
9" HMA Paved Shoulder at guardrail. 8" PCC may be substituted with the following jointing layout:

Match mainline pavement joint spacing. When mainline pavement is 8" or greater in thickness, place additional transverse 'C' joints in shoulder at mid-panel of the mainline pavement. Place longitudinal 'C' joint at P/2 from edge of mainline pavement when P is greater than 10' wide. Terminate longitudinal joint at transverse joint less than 10' in length.

Compaction of HMA is required to face of guardrail post. Hand compaction will be allowed under guardrail. Removal and reinstallation of guardrail will be allowed with no additional payment.

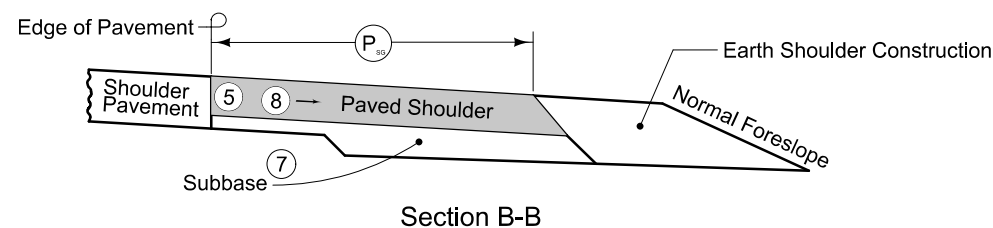
Refer to Tabulation 112-9 for shoulder quantities.

- ① PCC option only: When guardrail posts are installed prior to construction of PCC paved shoulder, fasten form board to the face of guardrail posts for the length shown.
- ② Continue paved shoulder 20 feet beyond the center of the first post.
- ③ Shoulder may be notched for first 2 posts or post sleeves may be installed through pavement. Do not drive posts through pavement.
- ④ 'KT' (per PV-101) joint for PCC shoulder. 'B' (per PV-101) joint for HMA shoulder.
- ⑤ Match shoulder slope.
- ⑥ The Contractor has the option to pave the paved shoulder at guardrail and the partial width paved shoulder as one operation.
- ⑦ Refer to other details in the plan.
- ⑧ The right paved guardrail shoulder shall be paved at full-depth (10" PCC or 10" HMA) to accommodate staged traffic. There shall be no additional payment for the added thickness of paved guardrail shoulder. It will be paid for at the contract unit price per square yard.

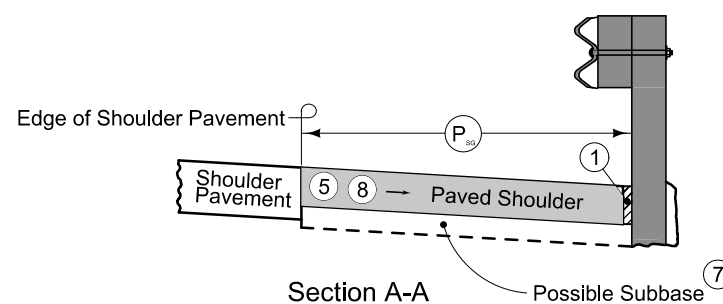


Section A-A

NEW CONSTRUCTION

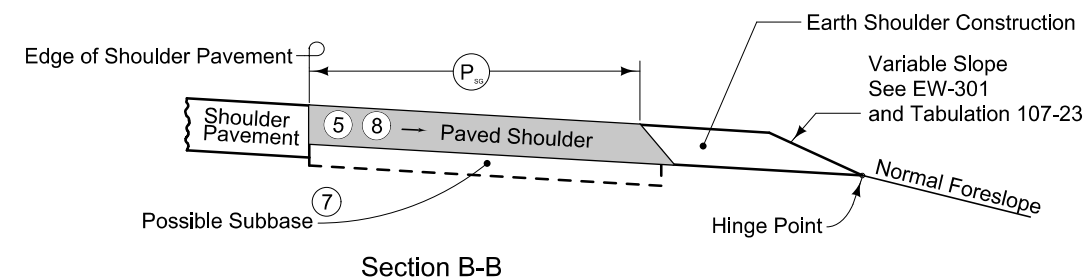


Section B-B

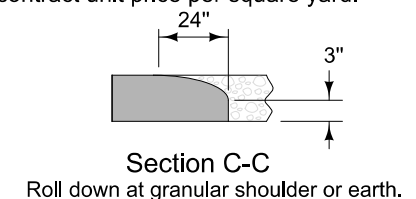


Section A-A

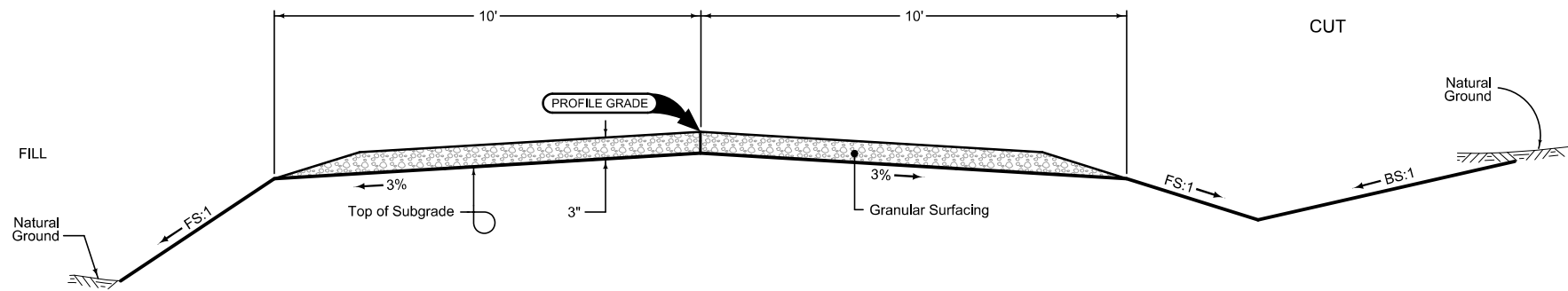
EXISTING SHOULDER



Section B-B



PAVED SHOULDER AT GUARDRAIL
(ADJACENT TO PARTIAL WIDTH PAVED SHOULDER)

[illegible]

Construct roadway cross-slopes away from Little Sioux River, unless cross-sections indicate otherwise.

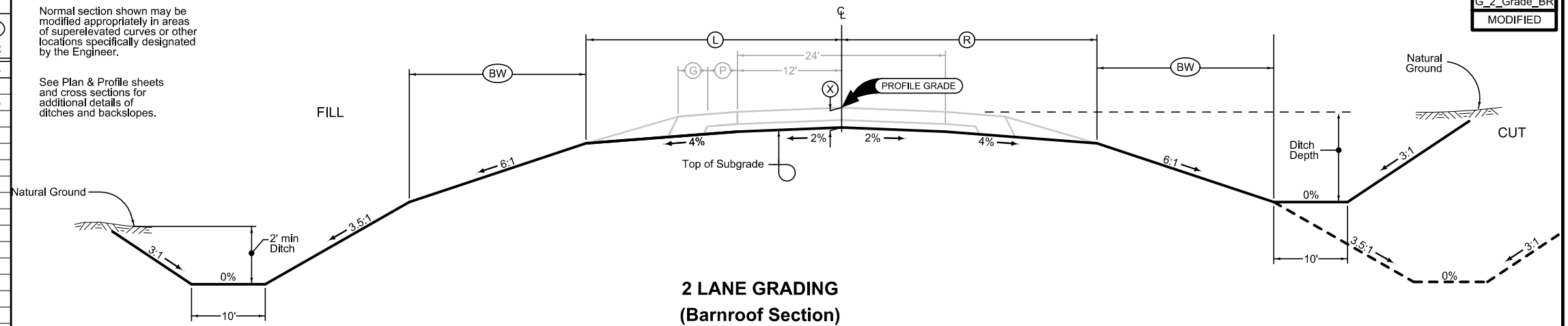
See plan & profile sheets and cross-sections for additional details of ditches and backslopes.

GRADING AND GRANULAR SURFACING

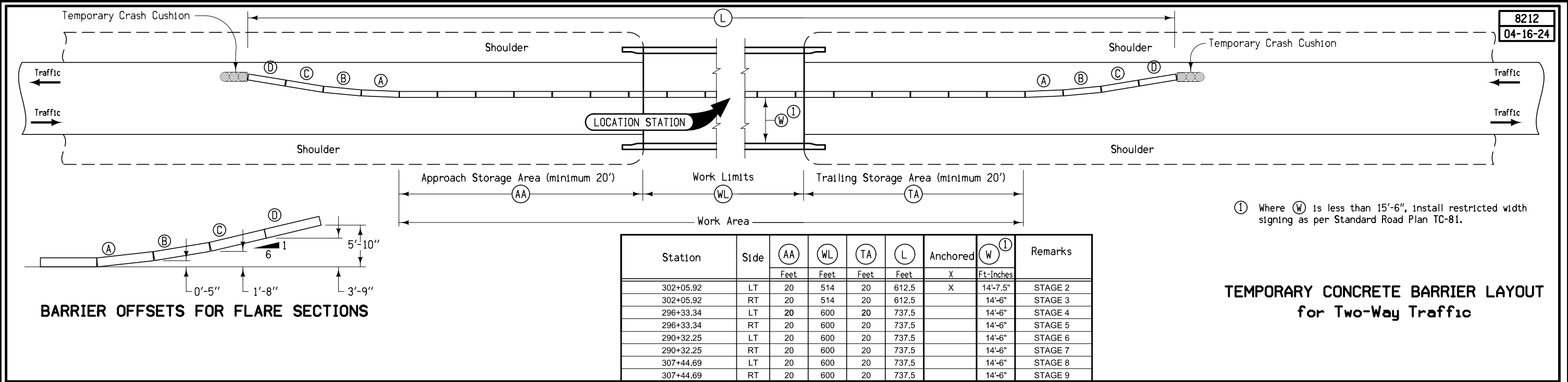
[illegible]

Normal section shown may be modified appropriately in areas of superelevated curves or other locations specifically designated by the Engineer.

See Plan & Profile sheets
and cross sections for
additional details of
ditches and backslopes.



2 LANE GRADING (Barnroof Section)



100_01D
8/15/22

PROJECT DESCRIPTION

This project involves the bridge replacement of the IA 175 bridge over Little Sioux River, 1.5 miles west of IA 37. The existing bridge will be replaced with a 304'-0" x 40'-0" Pretensioned Prestressed Concrete Beam Bridge.

SURVEY SYMBOLS

	Interstate Highway Symbol		Septic Tank
	U.S. Highway Symbol		Cistern
	Iowa Highway Symbol		L.P. Gas Tank (No Footing)
	County Road Highway Symbol		Underground Storage Tank
	Evergreen Tree		Latrine
	Deciduous Tree		Satellite TV Dish
	Fruit Tree		Water Hook Up
	Shrub (Bushes)		Radio Tower
	Timber		Tower Anchor
	Hedge		Guardrail (Beam or Cable)
	Stump		Guard Post (one or two)
	Swamp		Guard Post (over two)
	Rock Outcrop		Filler Pipe
	Broken Concrete		Gas Valve
	Revetment (Rip Rap)		Water Valve
	Cemetery		Speed Limit Sign
	Grave		Mile Marker Post
	Cave		SIGN Sign
	Sink Hole		TCB Traffic Signal Control Box
	Board Fence		RRB Rail Road Signal Control Box
	Chain Link or Security Fence		TSB Telephone Switch Box
	Wire Fence		Electric Box
	Terrace		
	Earth Dam or Dike (Existing)		
	Tile Outlet		
	Edge of Water		
	Existing Drainage		
	Right of Way Rail or Lot Corner		
	Concrete Monument		
	Well		
	Windmill		
	Beehive Intake		
	Existing Intake		
	Existing Utility Access (Manhole)		
	Fire Hydrant		
	Water Hydrant (Rural)		

UTILITY LEGEND

F0	FO1D, Fiber Optic Long Lines Broadband Quality D
F02	FO2D, Fiber Optic Windsteam - Quality D
T1(C)	TL1C, Lumin - Quality C

PLAN VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

LINEWORK		Design Color No.
Green	(2)	 Existing Topographic Features and Labels
Blue	(1)	 Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation
Magenta	(5)	 Existing Utilities
SHADING		Design Color No.
Lavender	(9)	 Temporary Pavement Shading
Yellow	(4)	 Proposed Pavement Shading
Orange	(6)	 Proposed Granular Shading
Orange	(70)	 Proposed Shoulder Granular Shading
Yellow	(68)	 Proposed Shoulder Paved Full Depth Shading
Yellow	(132)	 Proposed Shoulder Paved Partial Depth Shading
Gray, Dark	(112)	 Proposed Grade and Pave Shading "In conjunction with a paving project"
Brown, Light	(236)	 Grading Shading
Orange, Light	(134)	 Proposed Granular Entrance Shading
Yellow	(220)	 Proposed Paved Entrance Shading
Tan	(8)	 Proposed Sidewalk Shading
Blue, Light	(230)	 Proposed Sidewalk Landing Shading
Pink	(11)	 Proposed Sidewalk Ramp Shading
Green, Light	(225)	 Existing Pavement Shading
Red	(3)	 Proposed Structure Shading
Red	(3)	 Delineates Restricted Areas

PROFILE VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

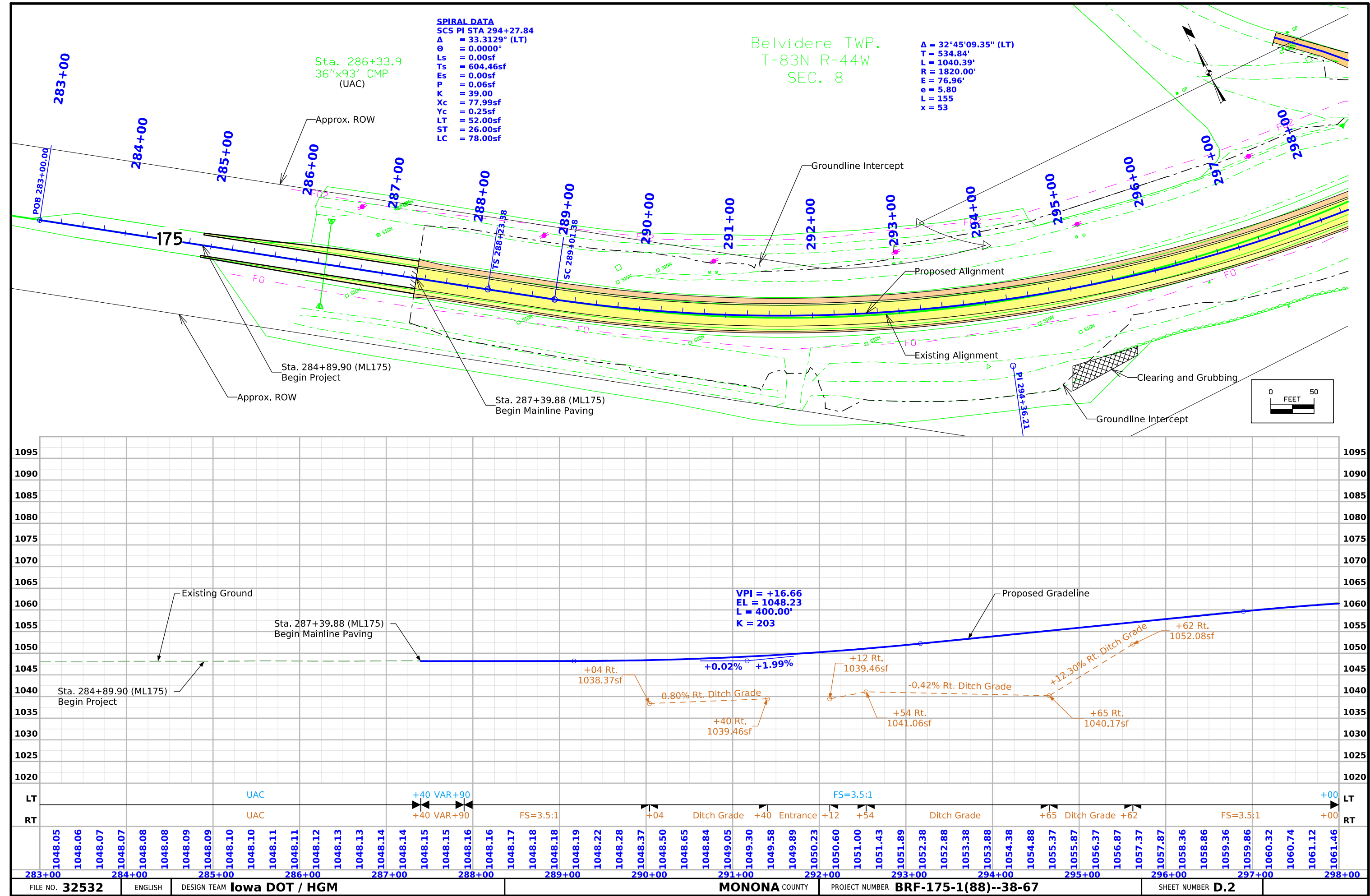
LINEWORK	Design Color No.	
Green	(10)	 Existing Ground Line Profile
Blue	(1)	 Proposed Profile and Annotation
Magenta	(5)	 Existing Utilities
Blue, Light	(230)	 Proposed Ditch Grades, Left
Black	(0)	 Proposed Ditch Grades, Median
Rust	(14)	 Proposed Ditch Grades, Right

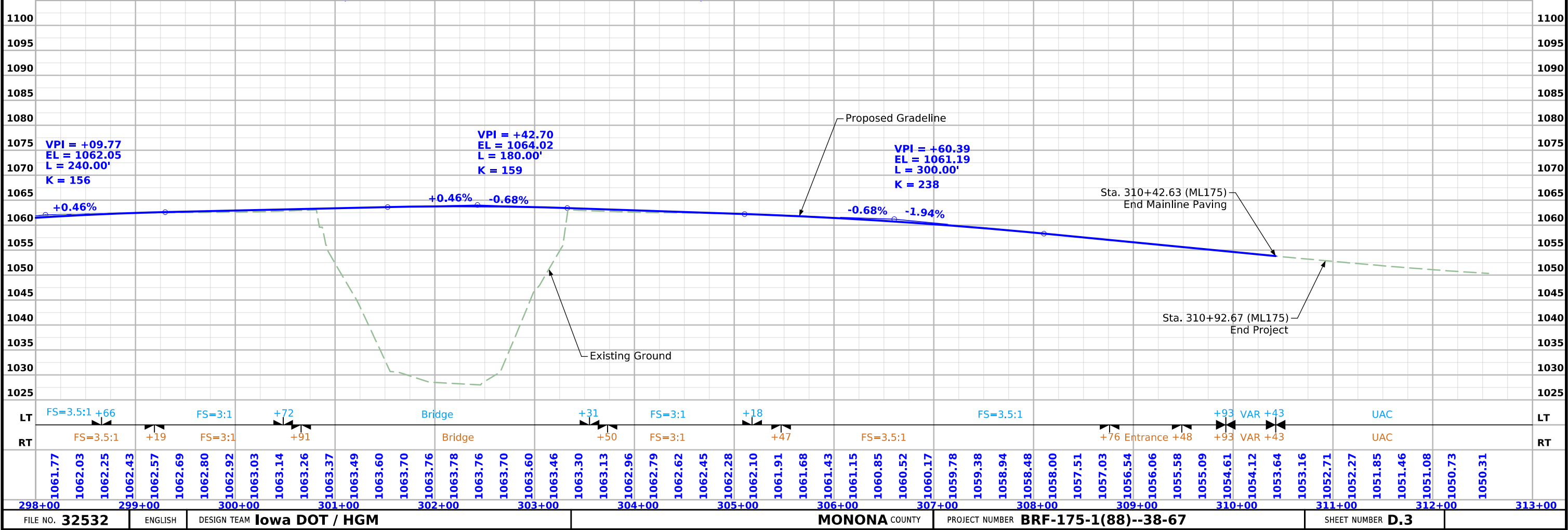
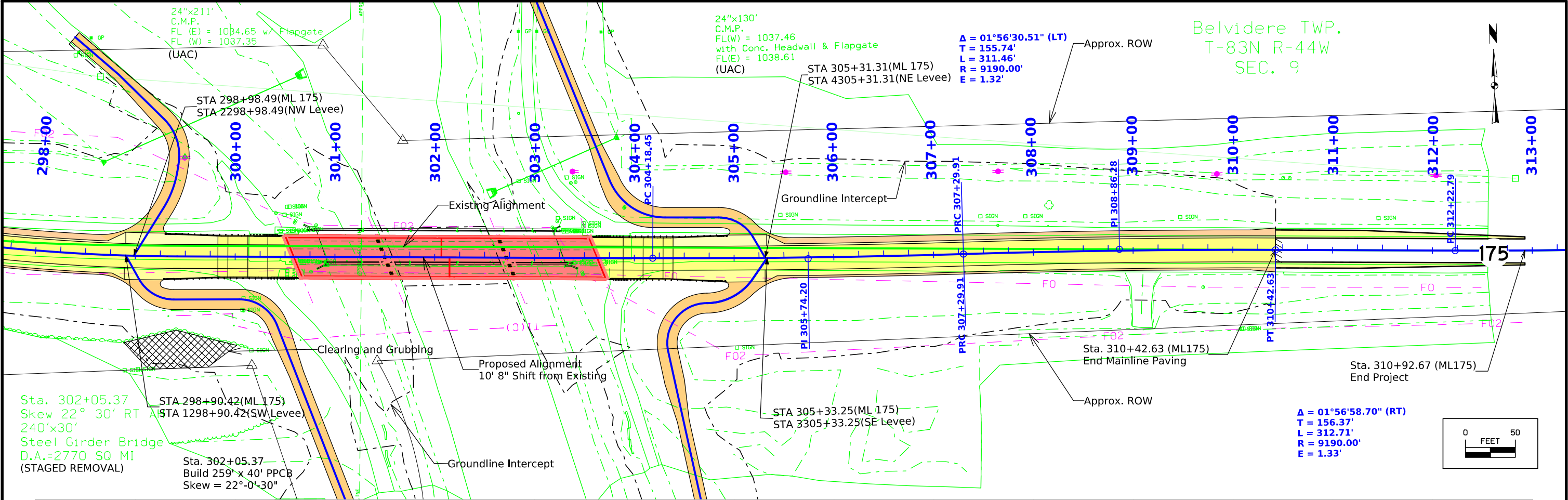
RIGHT-OF-WAY LEGEND

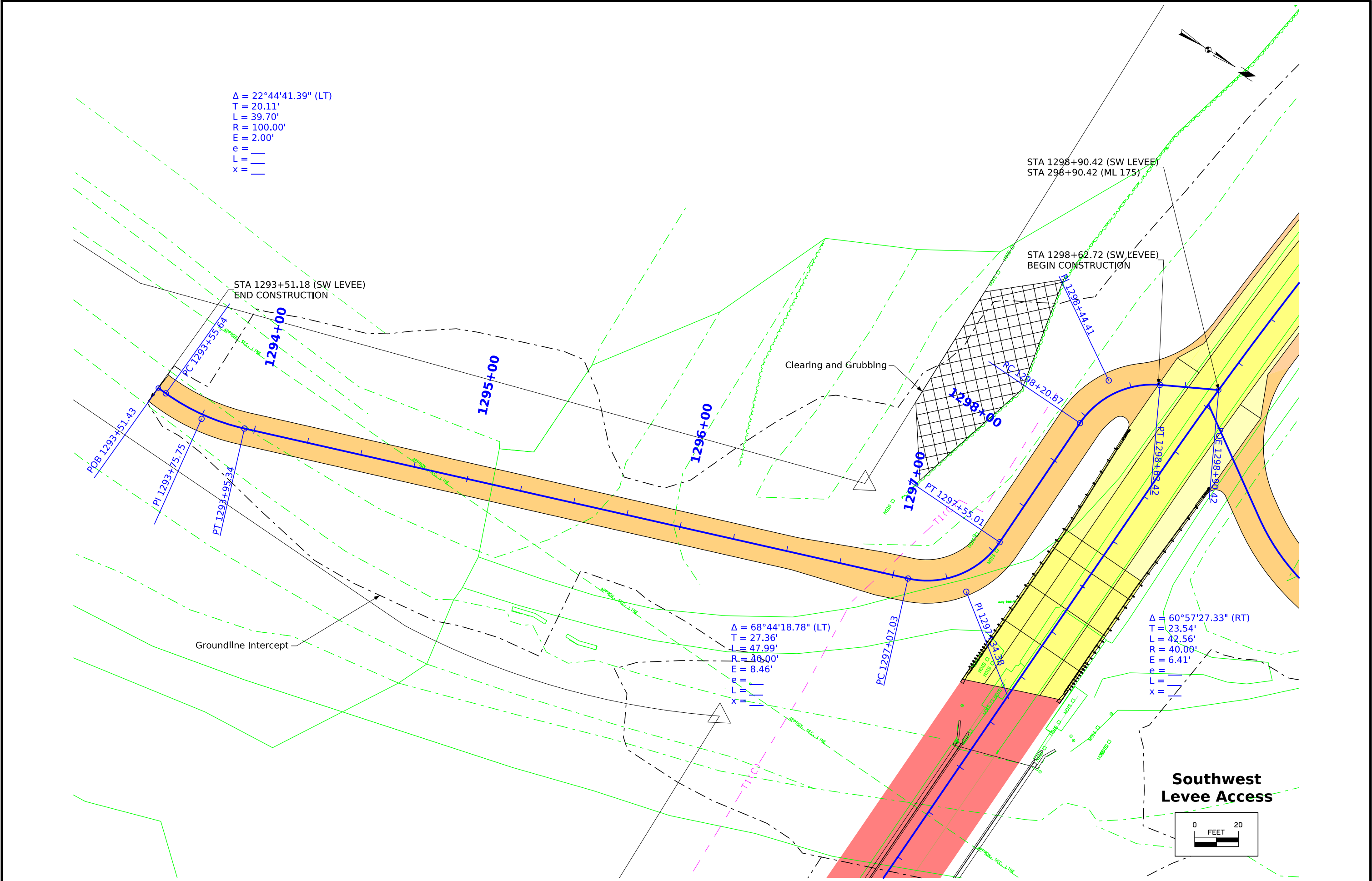
	Station		Proposed Right-of-Way
	Reference Point		Existing Right of Way
	Survey Line		Existing and Proposed Right-of-Way
	Section Corner		Easement and Existing Right-of-Way
	Ground Line Intercept		Easement (Temporary)
	Saw Cut		Easement
	Guardrail		Access Control
	Trench Drain		Property Line
	HighTension Cable Guardrail		
	Sheet Pile		
	Pavement Removal		
	Clearing & Grubbing Area		

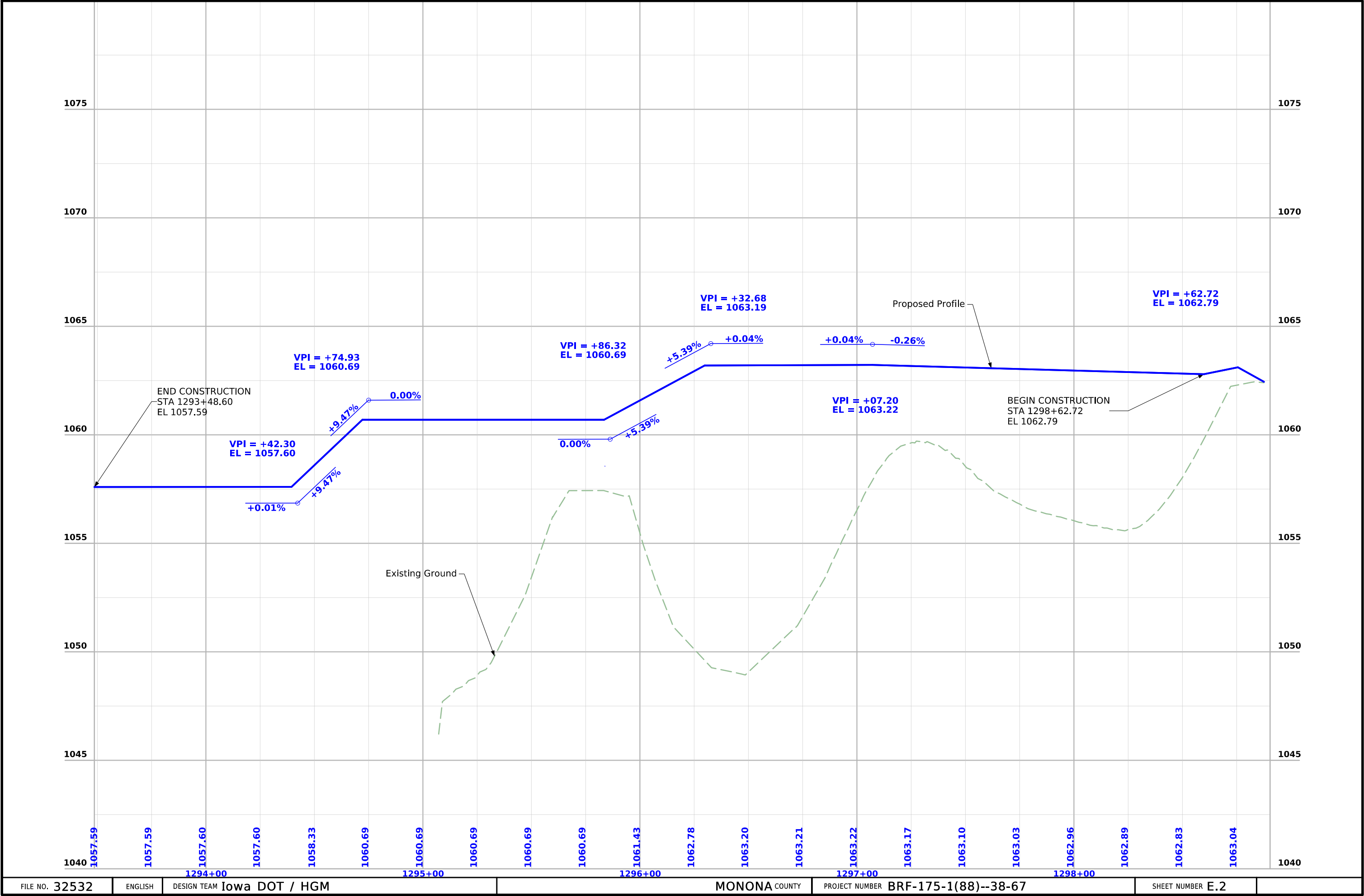
PLAN AND PROFILE LEGEND AND SYMBOL INFORMATION SHEET

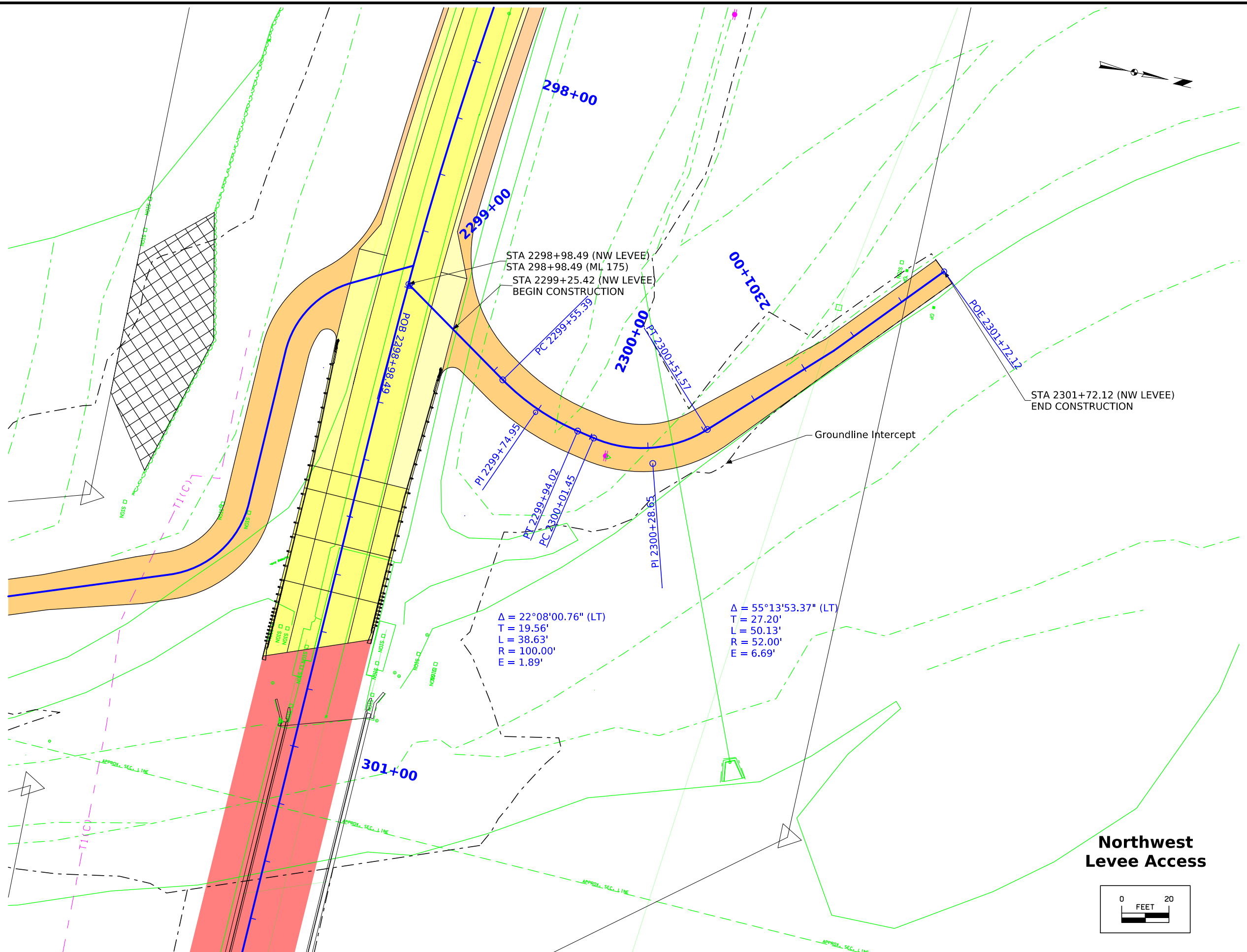
(COVERS SHEET SERIES D, E, F, & K)

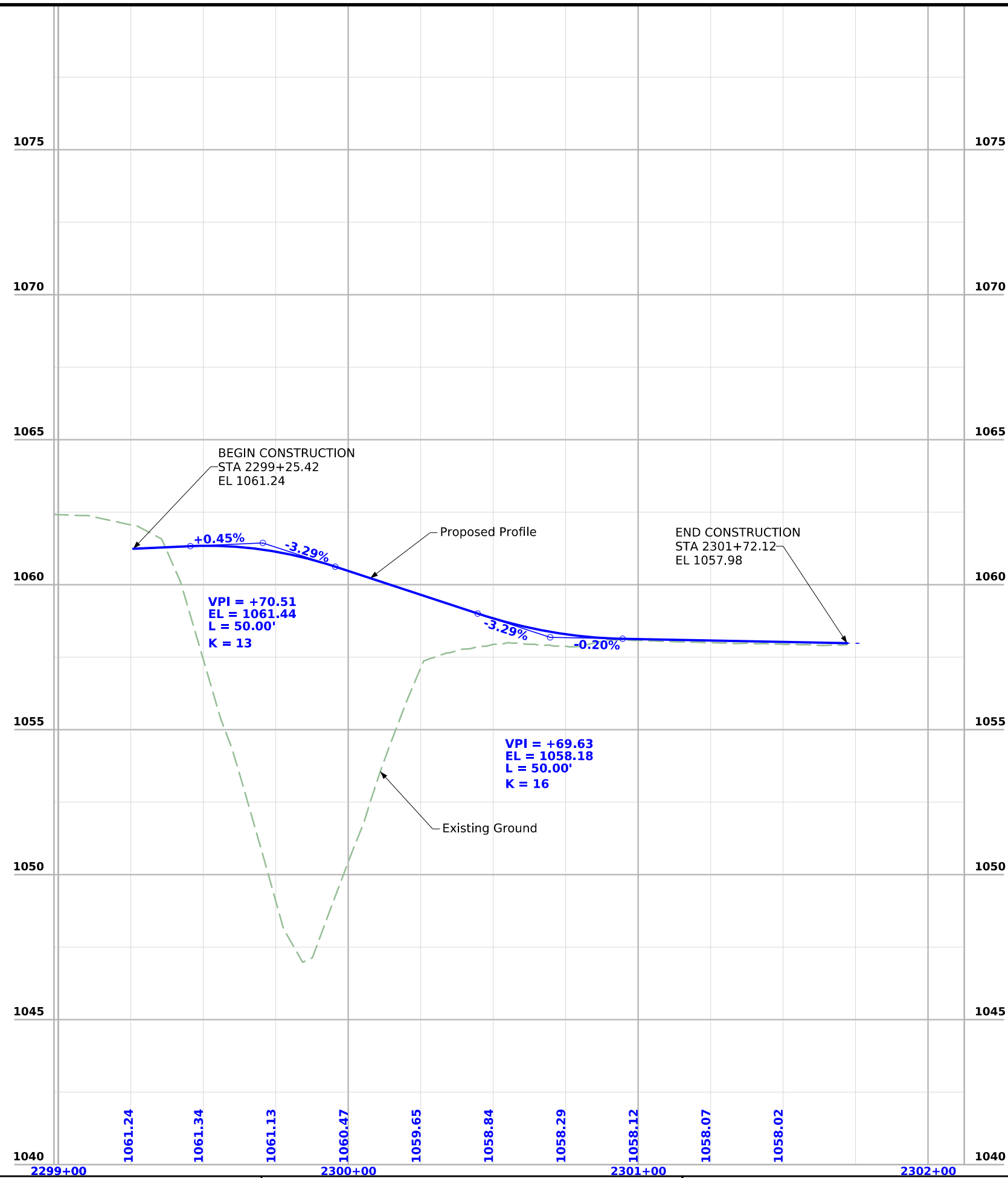


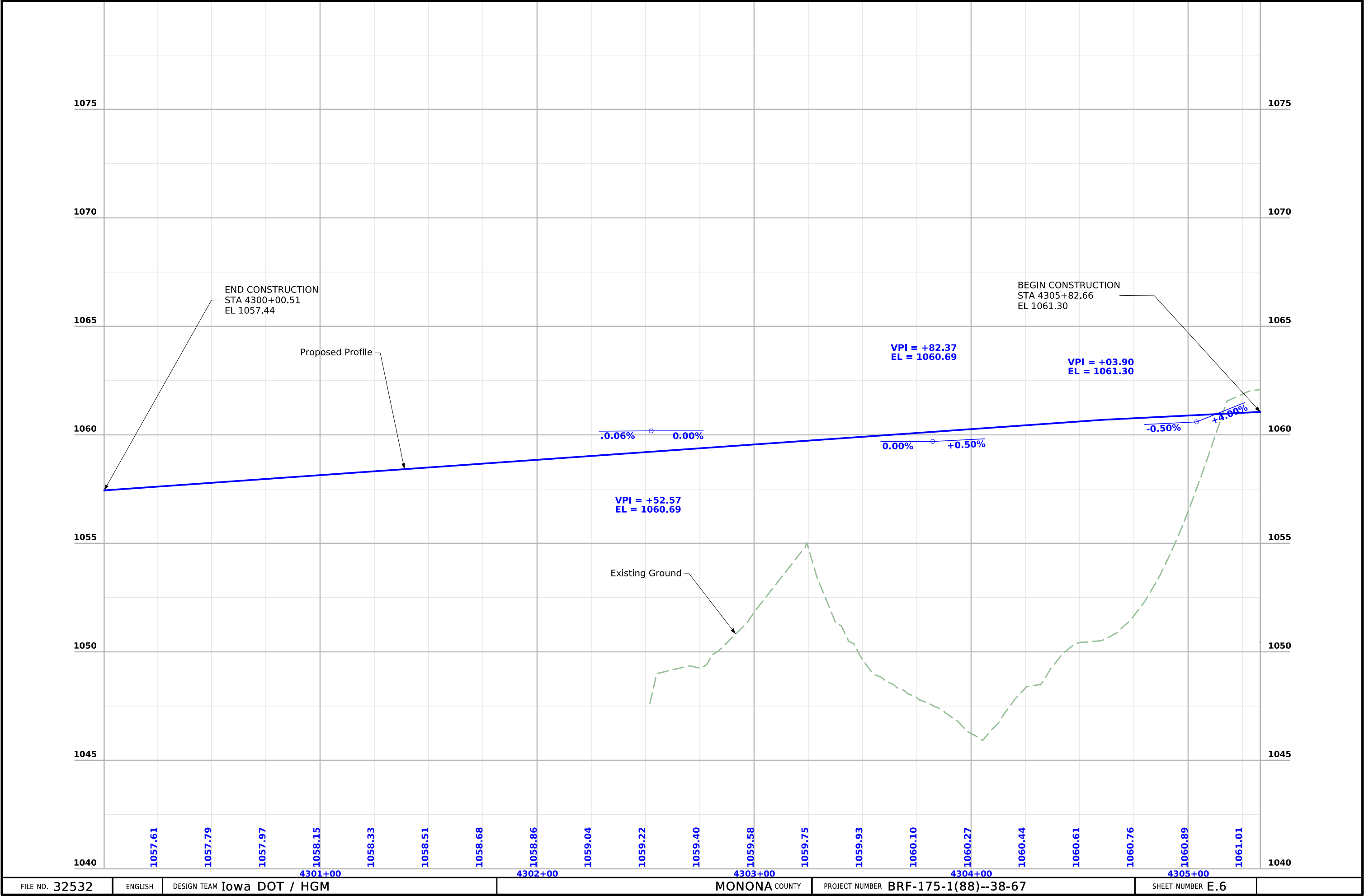


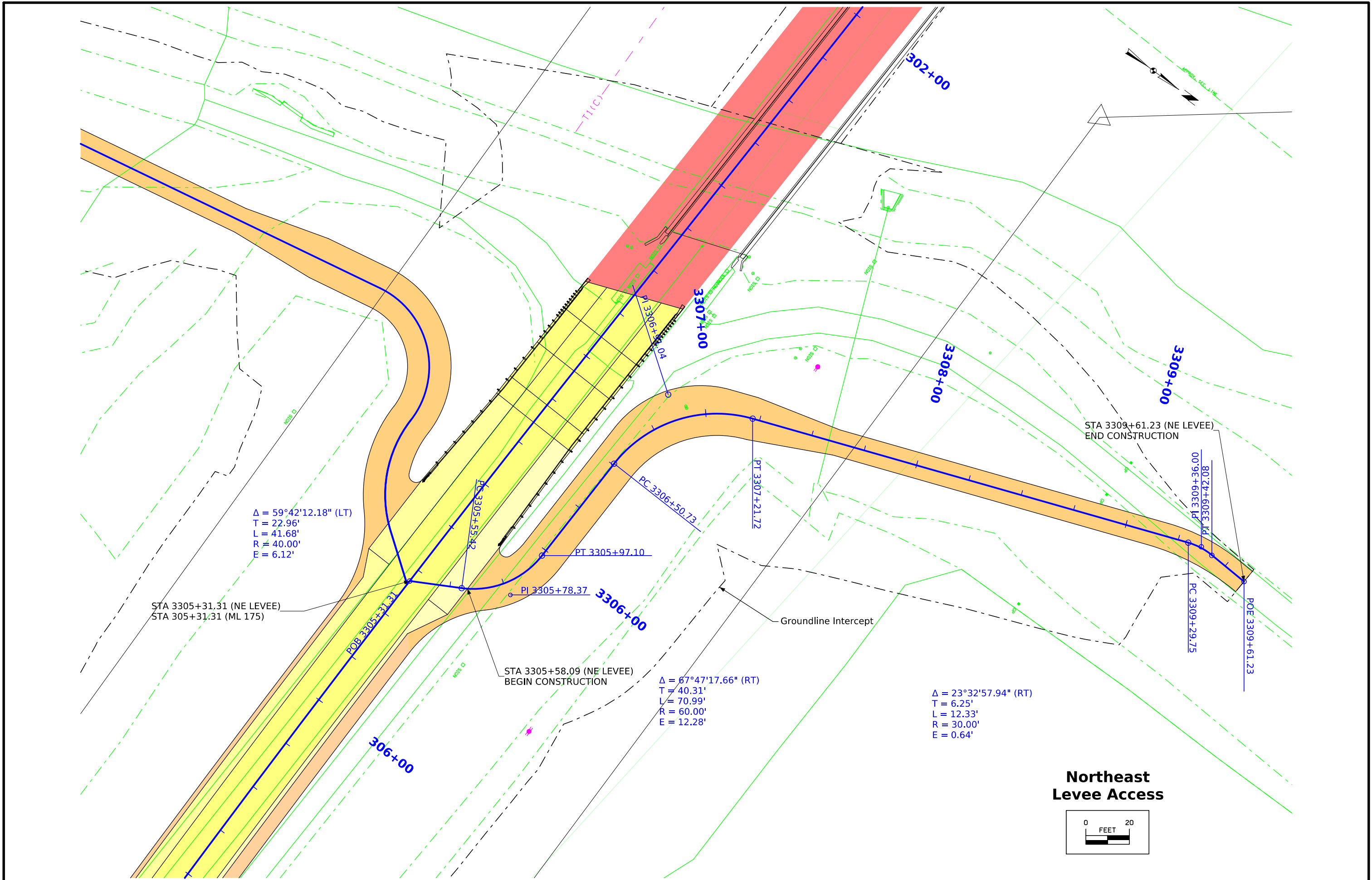


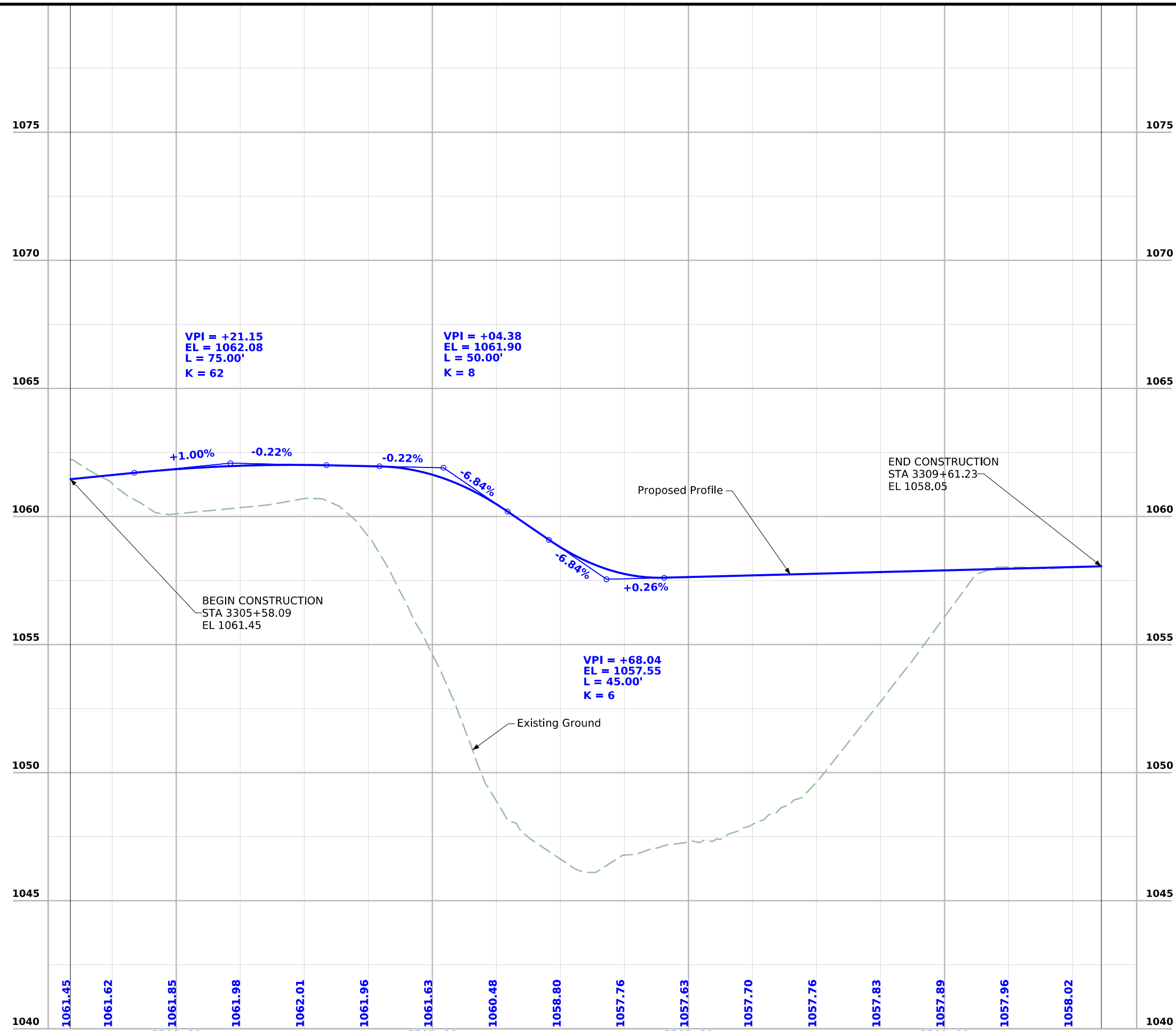












Survey Information

SURVEY INDEX

County: Monona
PIN: 20-67-175-020
Project Number: BRF-175-1(88)- -38-67
Location: Bridge over the Little Sioux River
1.5 Miles West of IA 37
Type of Work: Bridge Replacement
Project Directory: 6717502020

PROJECT DATUM: NAD83(2011) for EPOCH 2010.00 (IaRTN 2019 ADJUSTMENT)
COORDINATE SYSTEM: IOWA REGIONAL COORDINATE SYSTEM ZONE 6
(U.S. SURVEY FOOT)
VERTICAL DATUM: NAVD88
GEOID MODEL: G12AUS

Alignment Information

The horizontal alignment for IA Hwy 175 in this survey is a retrace of As-built Plans No. FN-426. The alignment was developed from the found PI at Sta. 294+08.42. Tnagents were constructed from the PI To the last surveyed centerline point in each direction. The deflection angle at the PI was adjusted to match the deflection listed in the plans curve notes. The adjustment was made to the ahead tangent. Both tangents, after adjustment, fit the surveyed centerline points remarkably well. The spiral curve was reconstruct in ORD using 190’ long spirals and based on the 1,637.0’ radius of the circular curve. The circular curve on the ahead tangent, with a radius of 5730 feet was consructed based on the plan distance from the ahead spiral curve. The ahead tangent of the circular curve was extended 120’ through the end of the plan superelevation of the curve. The overall alignment was stationned in ORD, equaaating the center point of the existing bridge to Sta. 302.05.37. An equation was also placed at the PT of the 1-degree curve on the east side of the bridge. General deviations in the alignment stationing at curve points were generally within approximately 0.05’, with the exception of the PI Station of the central curve.

Survey stationing relates to as built plan stationing as follows:

- POT Sta. 279+20.58
- TS 288+23.467 - As-built Plans Project No. FN-426 PI 288+23.44 (VAR. – 0.02)
- PI Sta. 294+01.32 - As-built Plans Project No. FN-426 PI 294+08.42 (VAR. – 7.1’)
- ST Sta. 299+65.121 As-built Plans Project No. FN-426 PI 299+65.14 (VAR. – 0.02’)
- POT Sta.302+05.37 As-built Plans Project No. FN-426 POT Sta. 302+05.37 (VAR 0.00’)
- PI Sta. 313+72.32 As-built Plans Project No. FN-426 PI Sta. 313+72.32 (VAR 0.00’)
- POT Sta. 316+70.05

Survey Personnel

Cory Welsh – Survey Party Chief
Nate Myers – Assistant Survey Party Chief

Date(s) of Survey

Original	
Begin Date	08/23/2022
End Date	08/26/2022
Supplemental	
Begin Date	08/29/2023
End Date	08/29/2023

General Information

Project datum and control information is provided by HGM Associates Inc.
Measurement units for this survey are in US survey feet. This survey is for IA 175 Bridge Replacement, 1.5 miles west of IA 37 in Monona County. This project is a Full Field DTM survey.

Utility Information

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

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 a minimum two-hour time span between and used in a weighted average to obtain final coordinate values. For additional details of the control survey, contact the Preliminary Survey Department.

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) for EPOCH 2010.00 - Iowa RCS Zone 6 (U.S. Survey Foot)

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) for EPOCH 2010.00
1a. Regional Coordinate System Zone 06 (U.S. Survey Foot)
VERT. DATUM: NAVD88
Geoid Model: G12AUS

Point Name	Northing	Easting	Elevation	Code - Description
497	7245092.70	16431079.67	1040.76	FENO Monument Set
498	7244954.56	16431900.75	1056.60	FENO Monument Set
499	7244813.59	16433315.33	1044.13	FENO Monument Set
1	7244906.37	16432318.54	1058.41	CP 5/8 INCH REBAR ON LEVEE N OF NE CORN BRIDGE
2	7244796.20	16431618.75	1058.03	CP 5/8" REBAR
3	7244666.32	16432150.04	1058.64	CP 5/8 INCH REBAR ON LEVEE S OF SW CORN OF BRIDGE
4	7244780.81	16432795.51	1058.54	CP 5/8 INCH REBAR
500	7244759.97	16432121.08	1063.90	BM M158 RESET SW BRIDGE ABUTMENT
4000	7246122.64	16432204.40	1042.07	SCR SECTION CORNER - SW CORN. SEC. 4 T-83N R-44W (For Information Only - Not shown on Control Map)
4631	7244872.23	16431983.11	1056.76	BM RR SPIKE IN PP 1ST POLE WEST SIDE LITTLE SIOUX RIVER, N-SIDE IA 175
10049	7244760.04	16432121.79	1063.85	BM FOUND BUTTON

ALIGNMENT COORDINATES																					101.16 10/25/24
Line No.	Name	Location	Point on Tangent Station	Point on Tangent Y Northing	Point on Tangent X Easting	Begin Spiral Station	Begin Spiral Y Northing	Begin Spiral X Easting	Begin Curve Station	Begin Curve Y Northing	Begin Curve X Easting	Simple Curve PI or Master PI Station	Simple Curve PI or Master PI Y Northing	Simple Curve PI or Master PI X Easting	End Curve Station	End Curve Y Northing	End Curve X Easting	End Spiral Station	End Spiral Y Northing	End Spiral X Easting	
1.0	10001_E	ML175_E	275+00.00	7245898.316	16429850.71																
2.0	10002_E	ML175_E	286+00.00	7245265.682	16430750.59																
3.0	10003_E	ML175_E				288+23.38	7245137.21	16430933.33				289+50.07	7245064.348	16431036.97				290+13.38	7245030.98	16431090.82	
4.0	10004_E	ML175_E							290+13.38	7245030.98	16431090.82	294+01.31	7244826.657	16431420.57	297+75.18	7244792.036	16431806.95				
5.0	10005_E	ML175_E				297+75.18	7244792.036	16431806.95				298+38.53	7244786.382	16431870.05				299+65.18	7244782.413	16431996.68	
6.0	10007_E	ML175_E	302+05.35	7244774.889	16432236.73																
7.0	10008_E	ML175_E							312+22.10	7244742.898	16433252.98	313+72.30	7244738.172	16433403.1	315+22.43	7244741.318	16433553.27				
8.0	10010_E	ML175_E	316+70.06	7244744.41	16433700.87																
9.0	10010_E	ML175_E	324+99.10	7244761.775	16434529.73																
10.0																					
11.0	10001	ML175	283+00.00	7245438.218	16430505.16																
12.0	10002	ML175				288+23.38	7245137.21	16430933.33				288+75.38	7245107.306	16430975.86				289+01.38	7245092.562	16430997.28	
13.0	10003	ML175							289+01.38	7245092.562	16430997.28	294+36.21	7244789.259	16431437.8	299+41.76	7244772.504	16431972.37				
14.0	10005	ML175							304+18.45	7244757.57	16432448.83	305+74.20	7244752.691	16432604.5	307+29.91	7244753.089	16432760.24				
15.0	10006	ML175							307+29.91	7244753.087	16432760.24	308+86.28	7244753.487	16432916.61	310+42.63	7244748.567	16433072.91				
16.0	10008	ML175							312+22.79	7244742.898	16433252.98	313+72.99	7244738.172	16433403.1	315+23.11	7244741.318	16433553.27				
17.0	10009	ML175	316+70.75	7244744.41	16433700.87																
18.0																					
19.0	20001	SW LEVEE RD							1293+48.60	7244364.255	16432187.49	1293+71.69	7244387.246	16432189.62	1293+93.98	7244408.844	16432181.46				
20.0	20003	SW LEVEE RD							1297+07.20	7244701.888	16432070.7	1297+34.09	7244727.043	16432061.19	1297+54.55	7244727.733	16432034.3				
21.0	20005	SW LEVEE RD							1298+20.87	7244729.434	16431968.01	1298+44.41	7244730.038	16431944.47	1298+63.42	7244750.906	16431933.58				
22.0	20006	SW LEVEE RD	1298+90.42	7244774.836	16431921.08																
23.0																					
24.0	30001	NW LEVEE RD	2298+98.49	7244774.373	16431929.14																
25.0	30002	NW LEVEE RD							2299+55.39	7244821.896	16431960.44	2299+74.95	7244838.232	16431971.19	2299+94.02	7244857.416	16431975				
26.0	30004	NW LEVEE RD							2300+01.45	7244864.698	16431976.45	2300+28.65	7244891.38	16431981.75	2300+51.57	7244910.949	16431962.85				
27.0	30006	NW LEVEE RD	2301+14.59	7244956.278	16431919.08																
28.0	30006	NW LEVEE RD	2301+72.12	7244994.967	16431876.5																
29.0																					
30.0	40001	SE LEVEE RD							4300+00.51	7244288.799	16432533.99	4300+09.44	7244297.148	16432530.81	4300+18.33	7244305.929	16432529.15				
31.0	40003	SE LEVEE RD	4303+50.99	7244632.816	16432467.44																
32.0	40004	SE LEVEE RD							4303+82.37	7244663.649	16432461.62	4304+31.41	7244711.832	16432452.52	4304+53.29	7244711.064	16432501.55				
33.0	40006	SE LEVEE RD							4304+54.14	7244711.051	16432502.4	4304+84.30	7244710.579	16432532.56	4305+09.48	7244735.504	16432549.55				
34.0	40007	SE LEVEE RD	4305+33.25	7244754.69	16432563.59																
35.0																					
36.0	50001	NE LEVEE RD	3305+31.31	7244754.727	16432561.65																
37.0	50002	NE LEVEE RD							3305+55.42	7244775.855	16432550.04	3305+78.37	7244795.973	16432538.98	3305+97.10	7244796.577	16432516.04				
38.0	50004	NE LEVEE RD							3306+50.73	7244797.988	16432462.42	3306+91.04	7244799.048	16432422.13	3307+21.72	7244836.754	16432407.87				
39.0	50006	NE LEVEE RD							3309+29.75	7245031.346	16432334.33	3309+36.00	7245037.195	16432332.12	3309+42.08	7245043.441	16432332.43				
40.0	50007	NE LEVEE RD	3309+61.23	7245062.572	16432333.38																

101_17 1/17/24																	
SPIRAL OR CIRCULAR CURVE DATA																	
Line No.	Name	Location	SCS	S	Ls	Ts	Es	Xc	Yc	L.T.	S.T.	C	T	L	R	E	Remarks
1.0	C1_E	ML175_E	33.313	3.325	190	585.039	72.656	189.936	3.674	126.689	63.354	26.663	387.925	761.798	1637.022	45.335	
2.0	C2_E	ML175_E										3.003	150.197	300.324	5729.578	1.968	
3.0																	
4.0	C1	ML 175	33.313	0.56	77.995	604.46	79.798	77.994	0.254	51.997	25.999	32.753	534.837	1040.386	1820	76.958	
5.0	C2	ML 175										1.942	155.744	311.458	9190	1.32	
6.0	C3	ML 175										1.95	156.372	312.714	9190	1.33	
7.0	C4	ML 175										3.003	150.197	300.324	5729.578	1968	
8.0																	
9.0	C1	SW LEVEE RD										42.745	7.827	14.921	20	1.477	
10.0	C2	SW LEVEE RD										90.313	20.11	31.525	20	8.362	
11.0																	
12.0	C1	NW LEVEE RD										90	20	31.416	20	8.284	
13.0	C2	NW LEVEE RD										130.621	43.504	45.595	20	27.881	
14.0																	
15.0	C1	SE LEVEE RD										107.475	27.264	37.516	20	13.813	
16.0	C2	SE LEVEE RD										91.31	20.463	31.873	20	8.613	
17.0																	
18.0	C1	NE LEVEE RD										89.846	19.946	31.362	20	8.246	
19.0	C2	NE LEVEE RD										37.738	6.835	13.173	20	1.136	
20.0	C3	NE LEVEE RD										27.594	22.85	44.813	93.051	2.765	

101_18
6/17/24

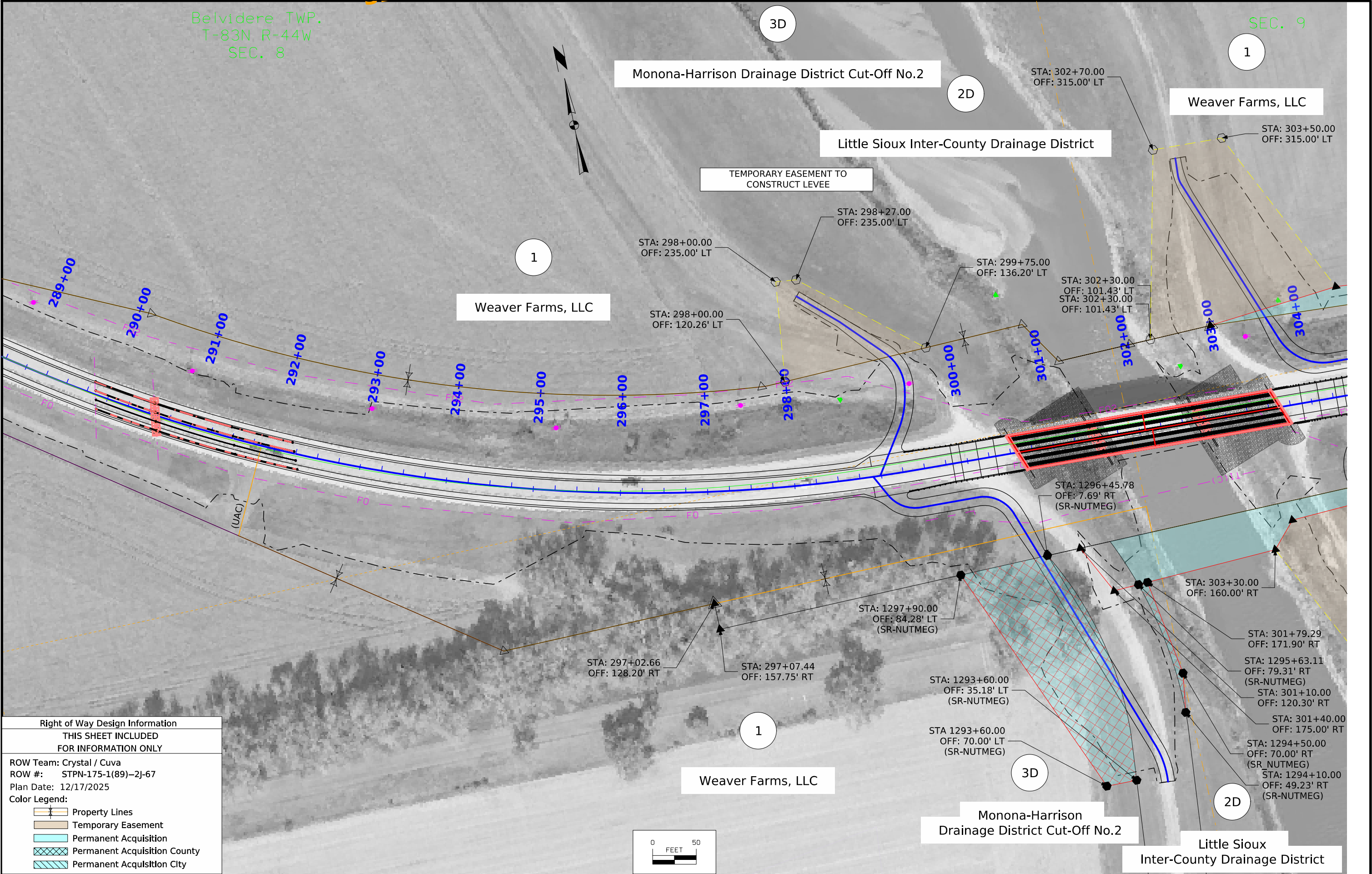
SUPERELEVATION DATA
See PV-300 Series

Line No.	Road Identification	Circular Curve or Spiral Curve Name	Radius (FT)	e (%)	L (FT)	x (FT)	Standard Road Plan	Section A-A	Section A'-A'	Section B-B	Section C'-C'	Section C-C	Section D-D	Case A	Case B	Case C	Case S	Case T	Case U	Remarks
1.0	ML 175	C1	1820.0	5.8	155.0	53.00	PV-301	287+39.88		287+92.88	288+45.88		289+47.88	289+01.38			288+99.78	288+99.78		
2.0								301+03.26		300+50.26	299+97.26		298+95.26	299+41.76			299+43.36	299+43.36		

--

NO ACCESS RIGHTS ARE TO BE ACQUIRED ON THIS PROJECT.

ACCESS CONTROL PREVIOUSLY ACQUIRED.



Right of Way Design Information

THIS SHEET INCLUDED
FOR INFORMATION ONLY

ROW Team: Crystal / Cuva
ROW #: STPN-175-1(89)-2J-67
Plan Date: 12/17/2025
Color Legend:

Property Lines

Temporary Easement

Permanent Acquisition

Permanent Acquisition County

Permanent Acquisition City

Belvidere TWP.
T-83N R-44W
SEC. 9



1

Weaver Farms, LLC

STA: 303+50.00
OFF: 315.00' LT

TEMPORARY EASEMENT TO
CONSTRUCT LEVEE

STA: 303+00.58
OFF: 105.65' LT

STA: 304+50.00
OFF: 125.00' LT

STA: 307+50.00
OFF: 105.00' LT

STA: 310+15.00
OFF: 80.25' LT

303+00

304+00

305+00

306+00

307+00

308+00

309+00

310+00

311+00

312+00

313+00

314+00

315+00

316+00

175

F0

F0

F02

STA: 307+10.00
OFF: 105.00' RT

STA: 307+25.00
OFF: 94.61' RT

CENTERLINE OF RAILROAD (REMOVED)

STA: 305+25.00
OFF: 116.43' RT

1

Weaver Farms, LLC

STA: 303+30.00
OFF: 160.00' RT

TEMPORARY EASEMENT TO
CONSTRUCT LEVEE

STA: 303+50.00
OFF: 136.00' RT

2D

Little Sioux Inter-County Drainage District

STA: 303+55.00
OFF: 130.00' RT

STA: 305+00.00
OFF: 485.00' RT

STA: 305+65.00
OFF: 460.00' RT

3D

Monona-Harrison Drainage District Cut-Off No.2



Right of Way Design Information

THIS SHEET INCLUDED
FOR INFORMATION ONLY

ROW Team: Crystal / Cuva
ROW #: STPN-175-1(89)--2J-67
Plan Date: 12/17/2025

Color Legend:

- Property Lines
- Temporary Easement
- Permanent Acquisition
- Permanent Acquisition County
- Permanent Acquisition City

FILE NO. 98765

ENGLISH

DESIGN TEAM Iowa DOT

County COUNTY

PROJECT NUMBER 12345

SHEET NUMBER H.2

TRAFFIC CONTROL PLAN

Traffic on IA 175 will remain open at all times.

There will be no off-site detour for IA 175.

One lane of traffic will be maintained utilizing flaggers, pilot cars, traffic signals, and TBR.

Paddling Route Notifications and Signage;
Notifications:
The contractor supplies, installs, maintains, and removes all paddle route signs.

Notify John Wenck via email @ John.Wenck@dnr.iowa.gov when temporary channel obstruction is placed and removed so that hazard symbols can be added to the DNR's interactive river mapping system and removed once project is completed.

Notify Conservation Officer Gary Sisco at gary.sisco@dnr.iowa.gov or 712-420-1486

The contractor is to contact the Iowa DNR no latter than 72 hours in advance of the beginning or ending of construction activities.

Refer to J.38 - J.40 for signage locations and details.

Maintenance of paddle route signage is the same as the roadway traffic control following Articles 2518.01C, 2528.02, and 2528.03A of the Standard Specifications.

STAGING NOTES

The bridge will be constructed in nine stages, maintaining one lane of traffic.

Stage 1 - Construction of Temporary Shoulder Strengthening
Stage 2 - Construction of South Segment of Bridge and Bridge Approach
Stage 3 - Construction of North Segment of Bridge and Bridge Approach
Stage 4 - Construct Approximately 600' of Westbound Roadway Adjacent to West Bridge Approach
Stage 5 - Construct Approximately 600' of Eastbound Roadway Adjacent to West Bridge Approach
Stage 6 - Construct Approximately 600' of Westbound Roadway to Westerly Project Limits
Stage 7 - Construct Approximately 600' of Eastbound Roadway to Westerly Project Limits
Stage 8 - Construct Approximately 600' of Westbound Roadway Adjacent to East Bridge Approach
Stage 9 - Construct Approximately 600' of Eastbound Roadway Adjacent to East Bridge Approach

Stage 1A (Close Westbound Lane)
- Shift Traffic to EB lane.
- Close the westbound lane of IA 175 for temporary shoulder strengthening. Lane closure utilizes Standard Road Plan TC-213.
- Construct temporary shoulder strengthening along westbound shoulder.

Stage 1B (Close Eastbound Lane)
- Shift traffic to WB lane.
- Close the eastbound lane of IA 175 for temporary shoulder strengthening. Lane closure utilizes Standard Road Plan TC-213.
- Construct temporary shoulder strengthening along eastbound shoulder.

Stage 2 (Close Eastbound Lane)
- Close the eastbound lane of IA 175 for bridge removal. Lane closure utilizes Standard Road Plan TC-217.
- Temporary Barrier Rail (TBR) will be placed 13'-6" from the eastbound edge of shoulder.
- One 14'-7 1/2" traffic lane will be utilized on the remainder of the existing bridge.
- Remove a portion of eastbound lane, a total of 9'-9" of the existing bridge. (sawcut the existing bridge 5'-3" south of the existing centerline.)
- Construct 21'-5" of the south bridge segment and approach pavement.

Stage 3 (Close Westbound Lane)
- Shift traffic to the new EB lane pavement.
- Close the westbound lane of IA 175 for bridge removal. Lane closure utilizes Standard Road Plan TC-217.
- Temporary Barrier Rail (TBR) will be placed 5'-1/2" from the edge of new pavement.
- One 14'-6" traffic lane will be utilized on the new pavement.
- Remove the remaining portion of the existing bridge.
- Construct the remaining portion of the proposed bridge and approach pavement.

Stage 4 (Close Eastbound Lane)
- Close the eastbound lane of IA 175 for Roadway Construction. Lane closure utilizes Standard Road Plan TC-217.
- TBR will be placed 3'-6" from the proposed centerline.
- One 14'-6" traffic lane will be utilized on the existing pavement and temporary shoulder strengthening.
- Remove approximately 600' of existing roadway, construct eastbound roadway adjacent to the west bridge approach.
- Construct southwest levee entrance.

Stage 5 (Close Westbound Lane)
- Close the westbound lane of IA 175 for Roadway Construction. Lane closure utilizes Standard Road Plan TC-217.
- TBR will be placed 6" from the edge of new pavement.
- One 14'-6" traffic lane will be utilized on the new pavement.
- Remove approximately 600' of existing roadway, construct westbound roadway adjacent to the west bridge approach.
- Construct northwest levee entrance.

STAGING NOTES

Stage 6 (Close Eastbound Lane)
- Close the eastbound lane of IA 175 for Roadway Construction. Lane closure utilizes Standard Road Plan TC-217.
- TBR will be placed 3'-6" from the proposed centerline.
- One 14'-6" traffic lane will be utilized on the existing pavement and temporary shoulder strengthening.
- Remove remainder of roadway to westerly project limits and construct eastbound roadway.

Stage 7 (Close Westbound Lane)
- Close the westbound lane of IA 175 for Roadway Construction. Lane closure utilizes Standard Road Plan TC-217.
- TBR will be placed 6" from the edge of new pavement.
- One 14'-6" traffic lane will be utilized on the new pavement.
- Remove remainder of roadway to westerly project limits and construct westbound roadway.

Stage 8 (Close Eastbound Lane)
- Close the eastbound lane of IA 175 for Roadway Construction. Lane closure utilizes Standard Road Plan TC-217.
- TBR will be placed 3'-6" from the proposed centerline.
- One 14'-6" traffic lane will be utilized on the existing pavement and temporary shoulder strengthening.
- Remove approximately 600' of existing roadway, construct eastbound roadway adjacent to the east bridge approach.
- Construct southeast levee entrance.

Stage 9 (Close Westbound Lane)
- Close the westbound lane of IA 175 for Roadway Construction. Lane closure utilizes Standard Road Plan TC-217.
- TBR will be placed 6" from the edge of new pavement.
- One 14'-6" traffic lane will be utilized on the new pavement.
- Remove approximately 600' of existing roadway, construct westbound roadway adjacent to the east bridge approach.
- Construct northeast levee entrance.

CROSS SECTION VIEW COLOR LEGEND OF TRAFFIC CONTROL AND STAGING SHEETS		
SHADING	Design Color No.	
Green, Light	(225)	Existing Pavement Shading
Gray, Light	(48)	Previously Constructed Pavement Shading
Gray, Med	(80)	Previously Constructed Granular Surface Shading
Blue, Light	(230)	Proposed Pavement Shading
Lavender	(9)	Temporary Pavement Shading
Brown, Med	(237)	Future Proposed Pavement Shading

CROSS SECTION VIEW PATTERN AND SYMBOL LEGEND OF TRAFFIC CONTROL AND STAGING SHEETS			
	Pavement Removal		Proposed Granular Shoulder
	Proposed Granular Subbase		Temporary Shoulder
	Proposed Special Backfill		Existing Shoulder Strengthening
	Temporary Barrier Rail		Permanent Barrier Rail
			Channelizing Device

PLAN VIEW COLOR LEGEND OF TRAFFIC CONTROL AND STAGING SHEETS		
LINEWORK	Design Color No.	
Green	(2)	Existing Topographic Features and Labels
Magenta	(5)	Pavement Marking Call Outs
Blue	(1)	Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation
Yellow	(4)	Pavement Markings, Yellow
Off White	(254)	Pavement Markings, White
Violet	(15)	Temporary barrier rail, Unpinned
Flush Orange	(228)	Temporary barrier rail, Pinned

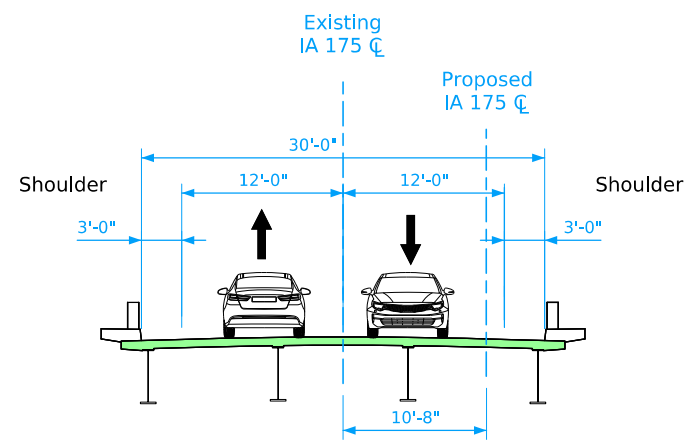
SHADING	Design Color No.	
Green, Light	(225)	Existing Pavement Shading
Gray, Light	(48)	Previously Constructed Pavement Shading
Gray, Med	(80)	Proposed Granular Surface Shading
Gray, Med	(80)	Previously Constructed Granular Surface Shading
Blue, Light	(230)	Proposed Pavement Shading
Lavender	(9)	Temporary Pavement Shading
Brown, Light	(236)	Proposed Grading Limits Shading
Pink, Dark	(13)	Proposed MSE or CIP Wall Shading
Red	(3)	Proposed Bridge Shading and Sign Trusses
Black w/Gray, Light Fill	(0,48)	Previously Constructed Structure

PLAN VIEW PATTERN AND SYMBOL LEGEND OF TRAFFIC CONTROL AND STAGING SHEETS			
	Channelizing Device		Crash Cushion (Temp or Perm)
	Drum		Traffic Signal
	Temporary Lane Separator		Flagger
	Tubular Marker		Temporary Floodlighting
	Channelizer Marker		Traffic Sign
	Concrete Barrier Marker		Type III Barricade
	Delineator		Type A Warning Light
	Temporary Barrier Rail		Direction of Traffic
	Pavement Removal		Safety Closure
	Sand Barrel Layout		Lane Identification

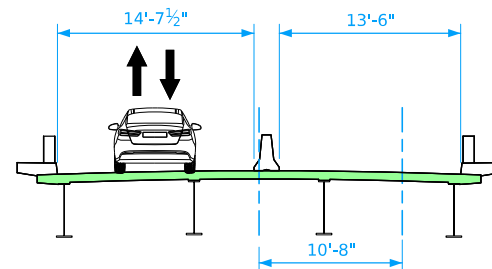
NOTE: Device spacing according to Standard Road Plans unless specifically dimensioned.

TRAFFIC CONTROL
AND
STAGING
LEGEND AND SYMBOL
INFORMATION SHEET

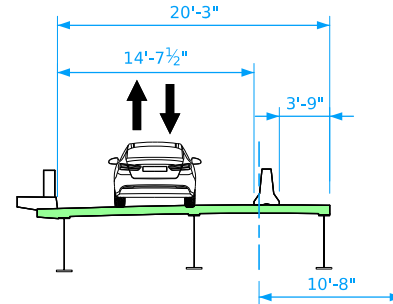
(COVERS SHEET SERIES J)



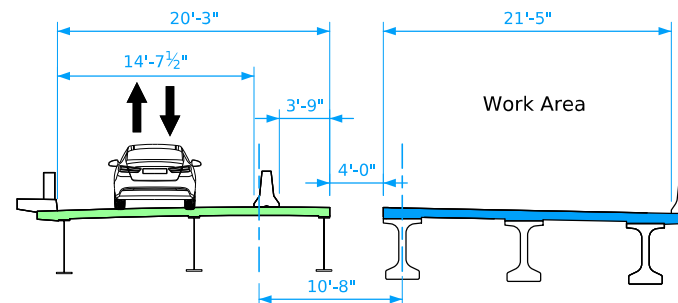
**IA 175
Existing Condition**



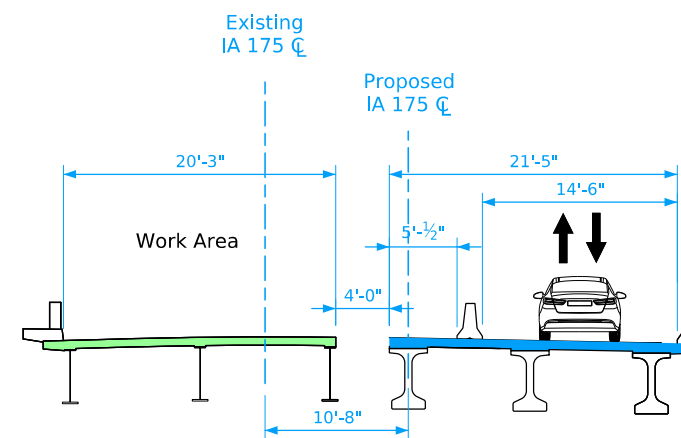
**IA 175
Stage 1
Traffic Shift to North Bridge Segment**



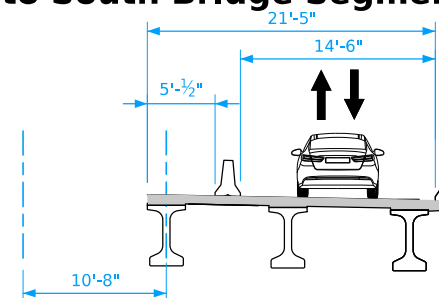
**IA 175
Stage 2
Remove South Bridge Segment**



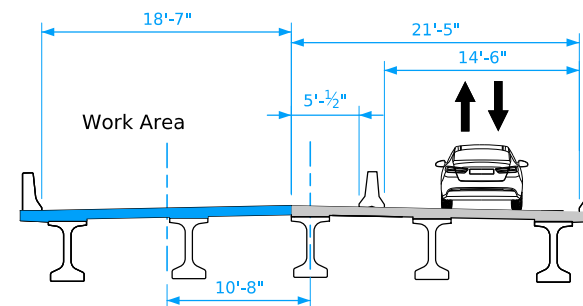
**IA 175
Stage 3
Construct South Bridge Segment**



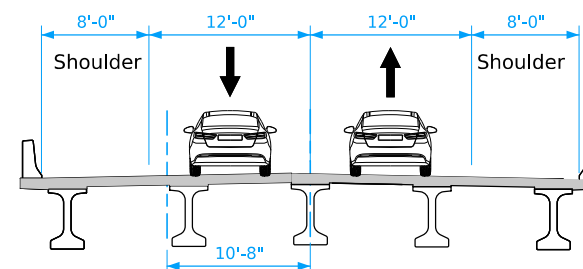
**IA 175
Stage 4
Shift Traffic to South Bridge Segment**



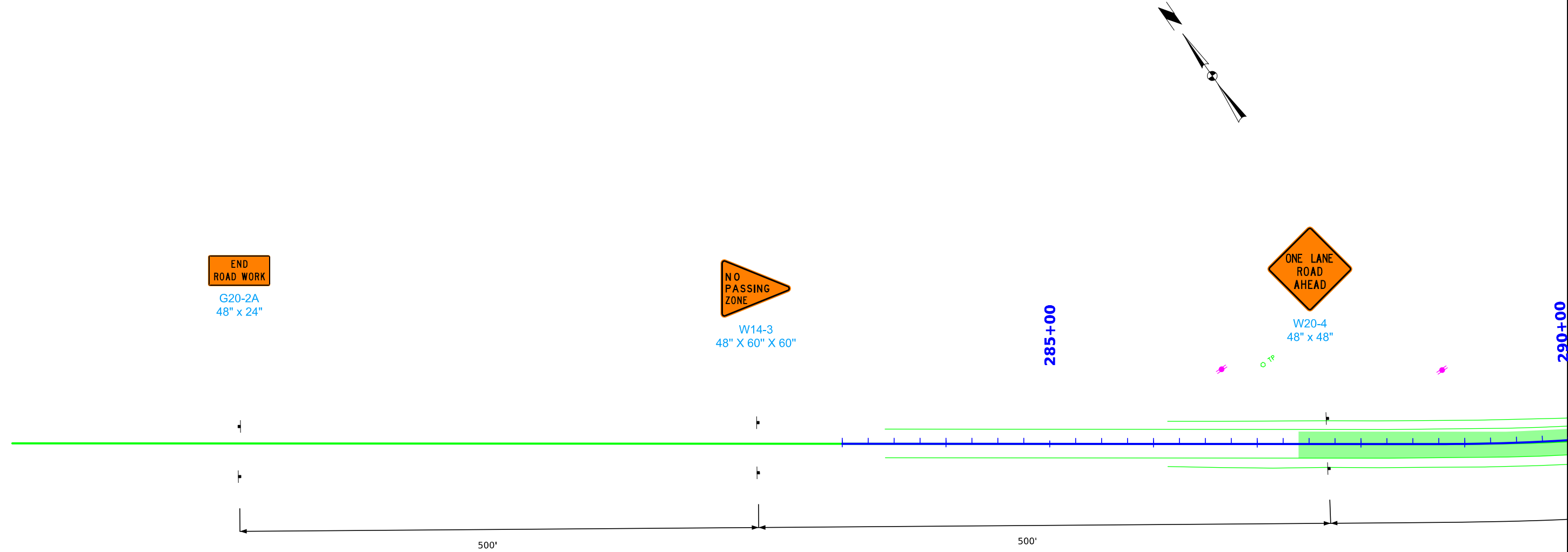
**IA 175
Stage 5
Remove North Bridge Segment**



**IA 175
Stage 6
Construct North Bridge Segment**



**IA 175
Final**



END
ROAD WORK
G20-2A
48" x 24"

NO
PASSING
ZONE
W14-3
48" X 60" X 60"

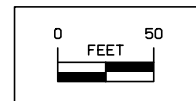
ONE LANE
ROAD
AHEAD
W20-4
48" x 48"

ROAD
WORK
AHEAD
W20-1
48" x 48"
35
M.P.H.
W13-1
24" x 24"

DO
NOT
PASS
R4-1
36" x 48"

ONE LANE
ROAD
AHEAD
W20-4
48" x 48"

Stage 2



Belvidere TWP.
T-83N R-44W
SEC. 8

290+00



W3-3
48" x 48"

295+00

300+00

500'

500'

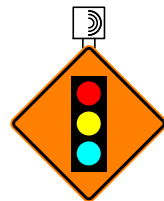
70 -100'

165'

85'

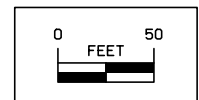


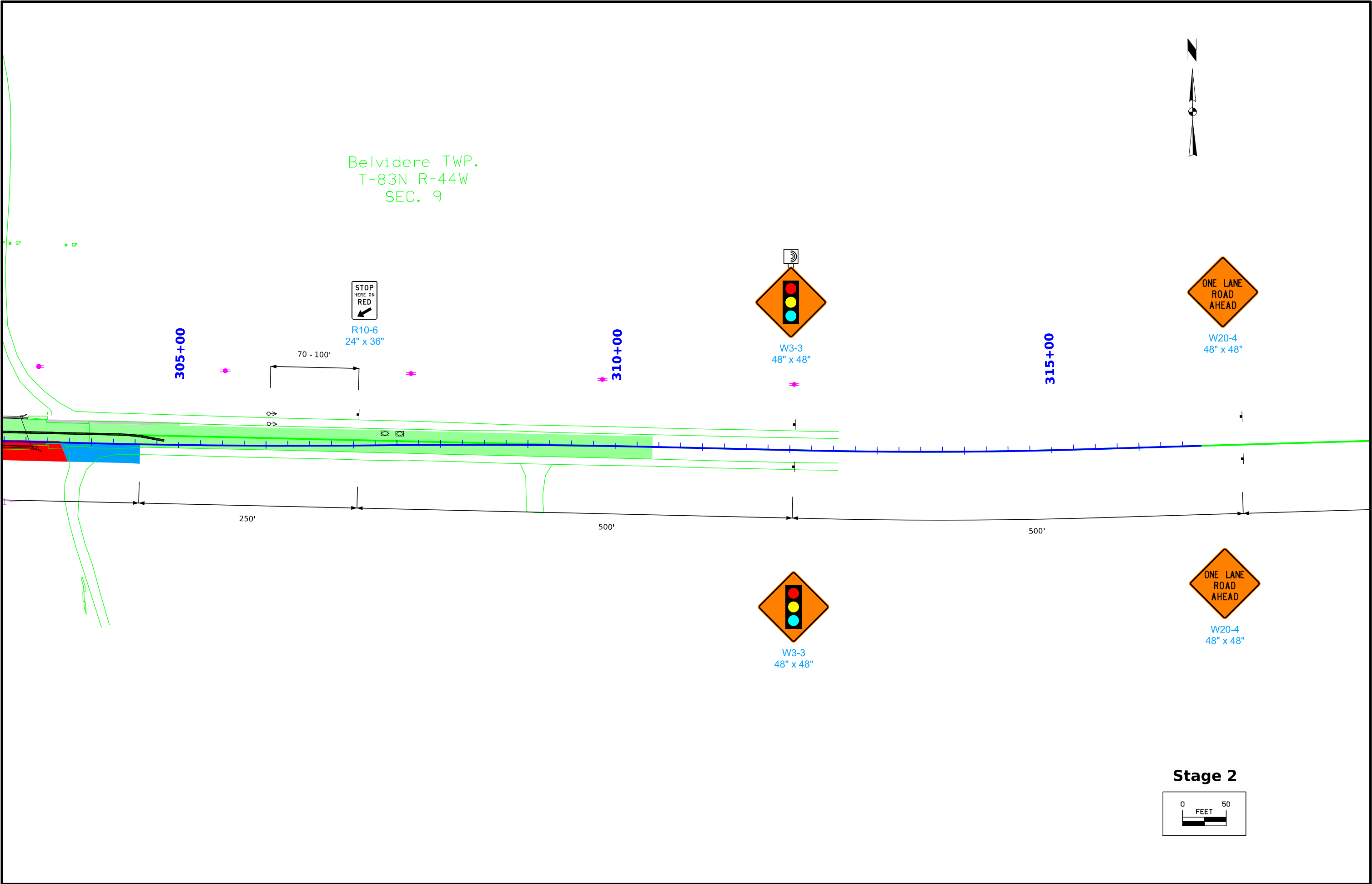
R10-6
24" x 36"



W3-3
48" x 48"

Stage 2







R4-1
36" x 48"



W20-1
48" x 48"



W13-1
24" x 24"

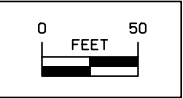


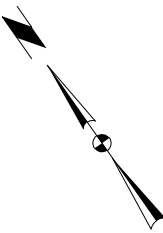
W14-3
48" X 60" X 60"



G20-2A
48" x 24"

Stage 2





G20-2A
48" x 24"



W14-3
48" X 60" X 60"



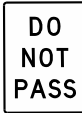
W20-4
48" x 48"



W20-1
48" x 48"



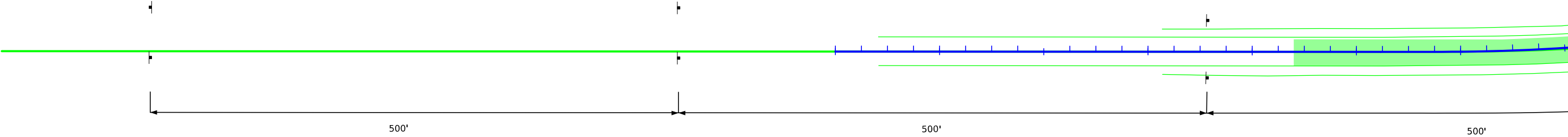
W13-1
24" x 24"



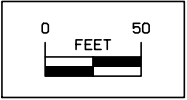
R4-1
36" x 48"



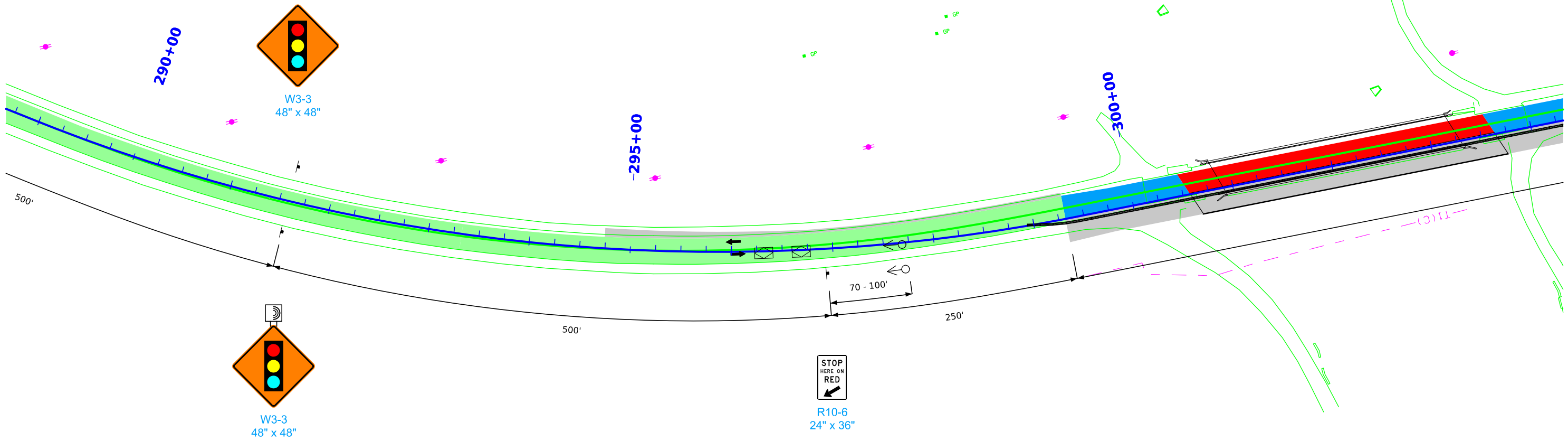
W20-4
48" x 48"



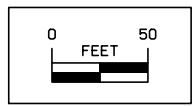
Stage 3

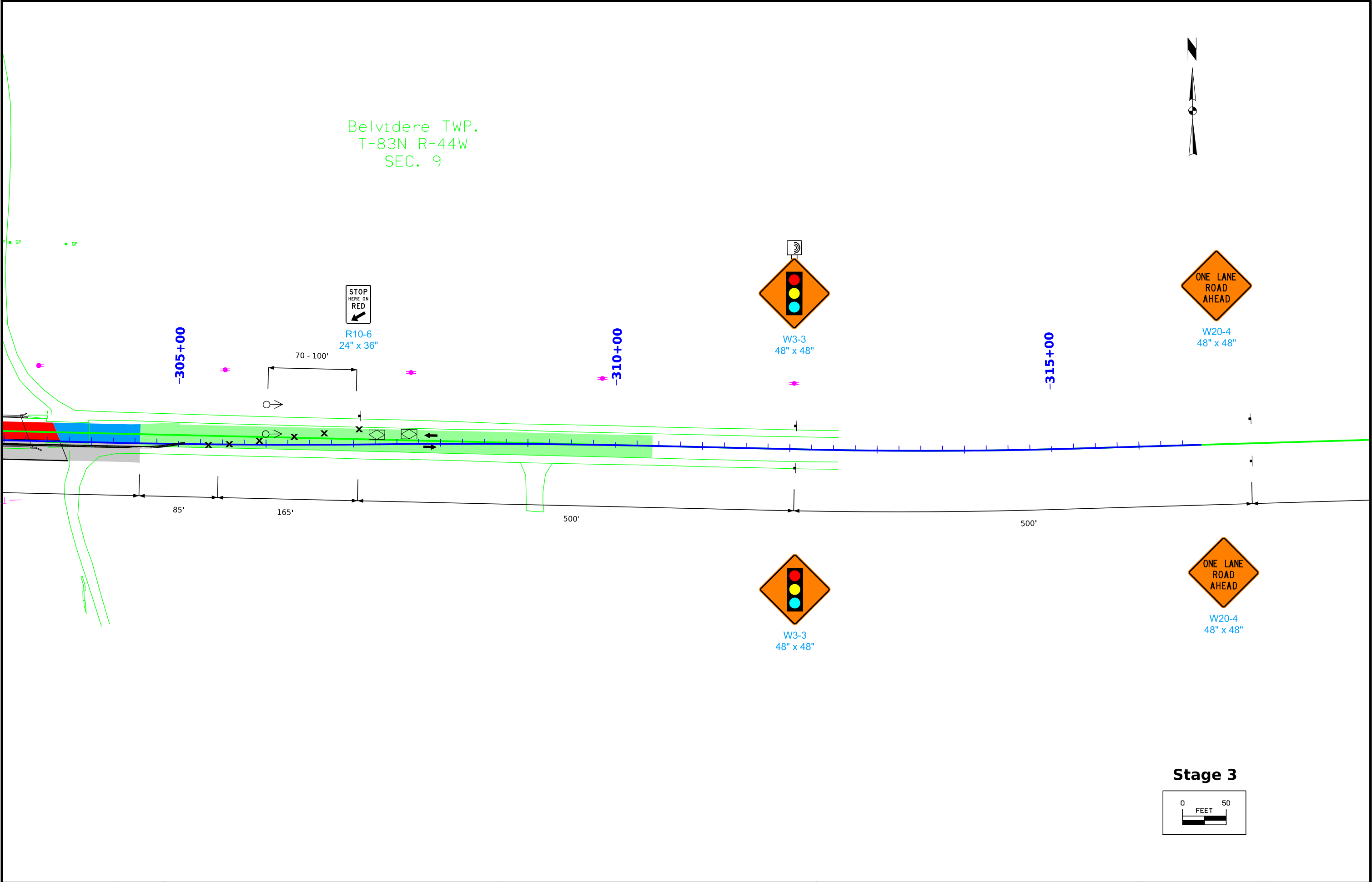


Belvidere TWP.
T-83N R-44W
SEC. 8



Stage 3





Belvidere TWP.
T-83N R-44W
SEC. 9

-305+00

STOP
HERE ON
RED
R10-6
24" x 36"

70 - 100'

-310+00

W3-3
48" x 48"

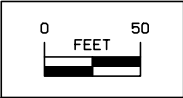
-315+00

W20-4
48" x 48"

ONE LANE
ROAD
AHEAD
W20-4
48" x 48"

W3-3
48" x 48"

Stage 3





R4-1
36" x 48"



W20-1
48" x 48"



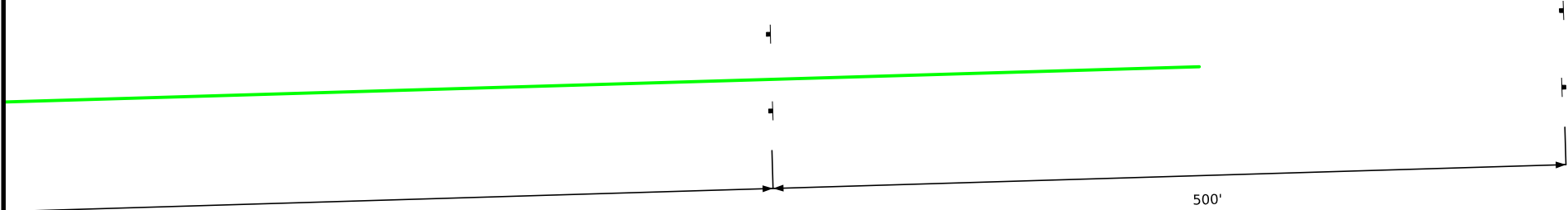
W13-1
24" x 24"



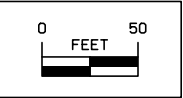
W14-3
48" X 60" X 60"



G20-2A
48" x 24"



Stage 3



END
ROAD WORK
G20-2A
48" x 24"

NO
PASSING
ZONE
W14-3
48" X 60" X 60"

ONE LANE
ROAD
AHEAD
W20-4
48" x 48"

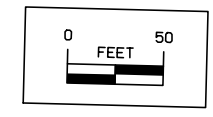
285+00

ROAD
WORK
AHEAD
W20-1
48" x 48"
35
M.P.H.
W13-1
24" x 24"

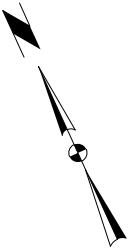
DO
NOT
PASS
R4-1
36" x 48"

ONE LANE
ROAD
AHEAD
W20-4
48" x 48"

Stage 4



Belvidere TWP.
T-83N R-44W
SEC. 8



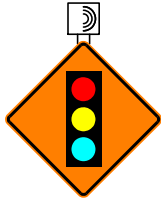
285+00



W3-3
48" x 48"

290+00

295+00



W3-3
48" x 48"



R10-6
24" x 36"

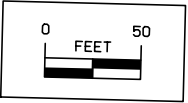
500'

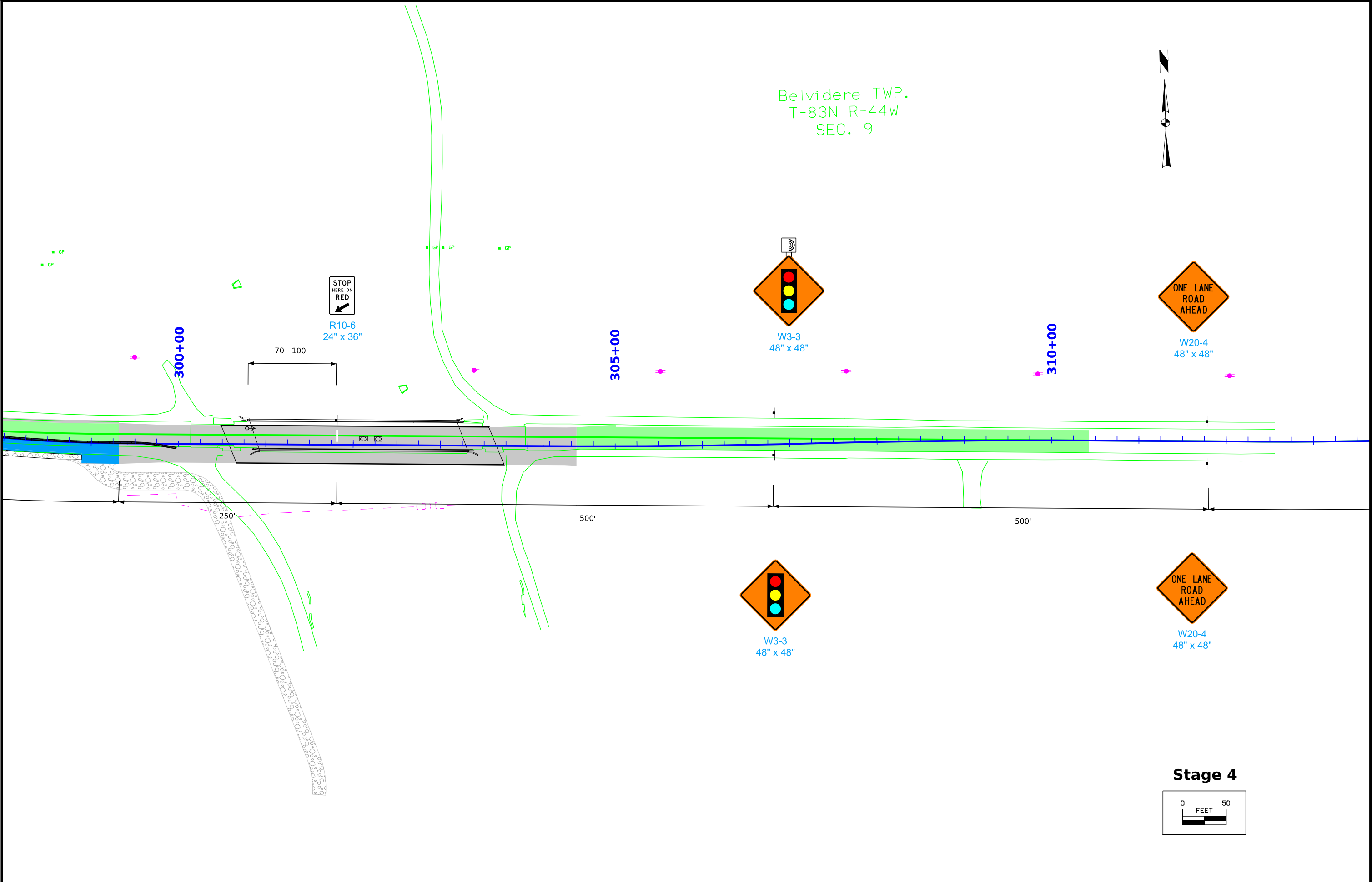
70 -100'

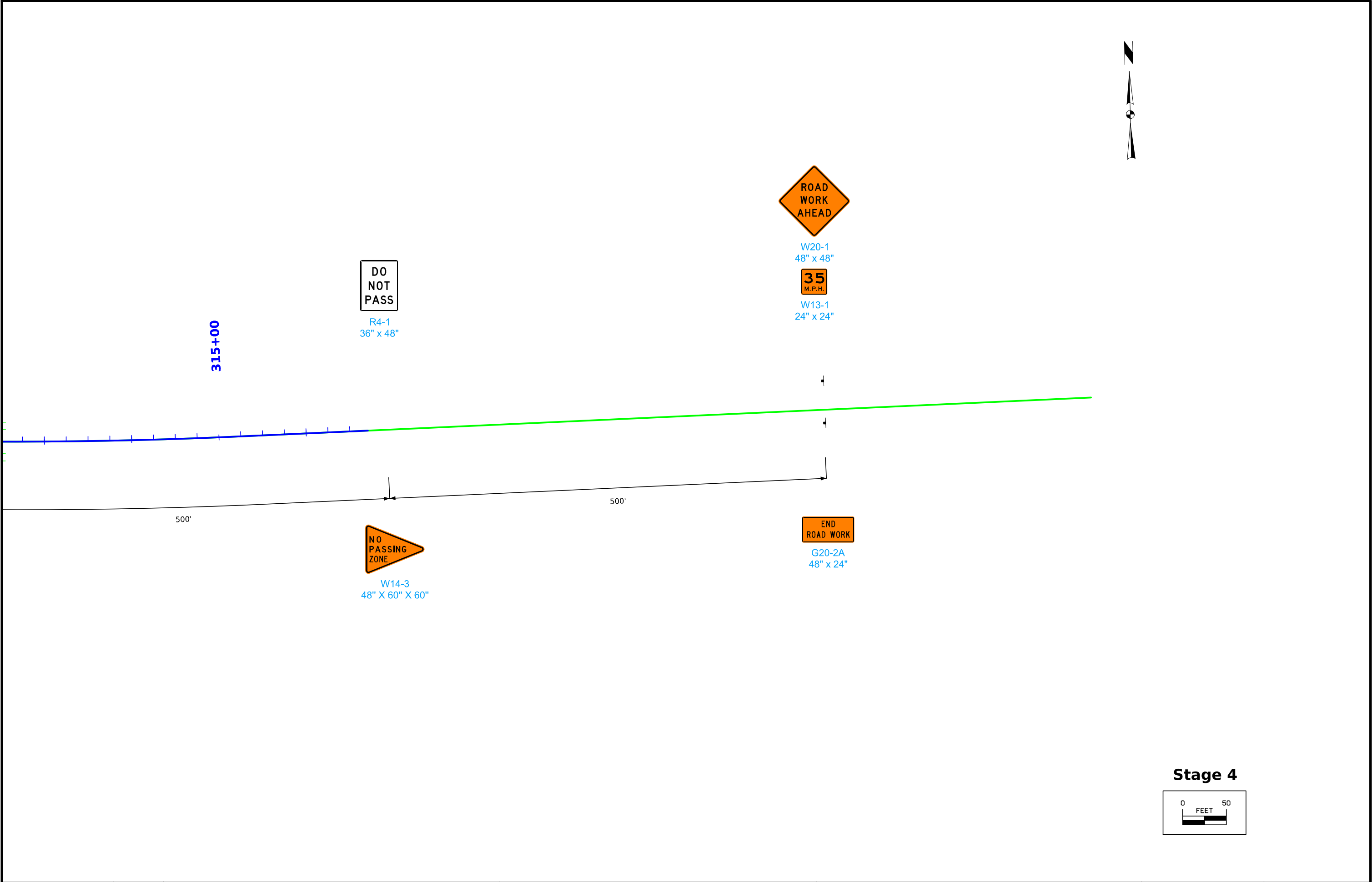
165'

85'

Stage 4







END
ROAD WORK
G20-2A
48" x 24"

NO
PASSING
ZONE
W14-3
48" X 60" X 60"

ONE LANE
ROAD
AHEAD
W20-4
48" x 48"

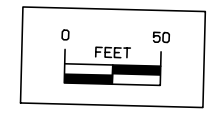
285+00

ROAD
WORK
AHEAD
W20-1
48" x 48"
35
M.P.H.
W13-1
24" x 24"

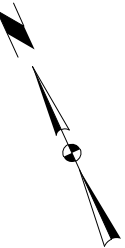
DO
NOT
PASS
R4-1
36" x 48"

ONE LANE
ROAD
AHEAD
W20-4
48" x 48"

Stage 5



Belvidere TWP.
T-83N R-44W
SEC. 8



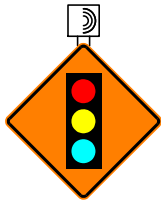
285+00



W3-3
48" x 48"

290+00

295+00



W3-3
48" x 48"

500'

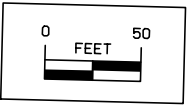
70 -100'

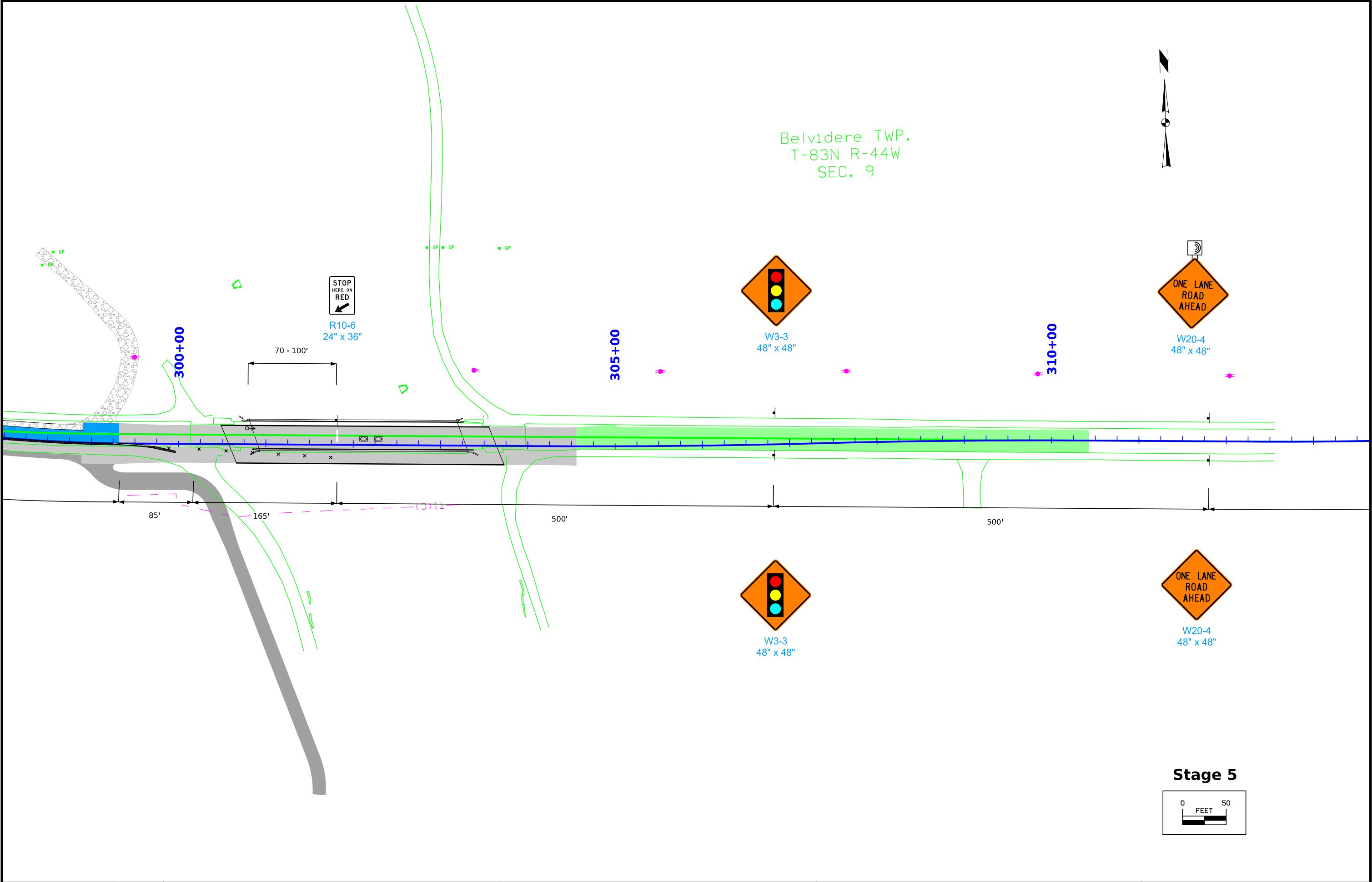
250'

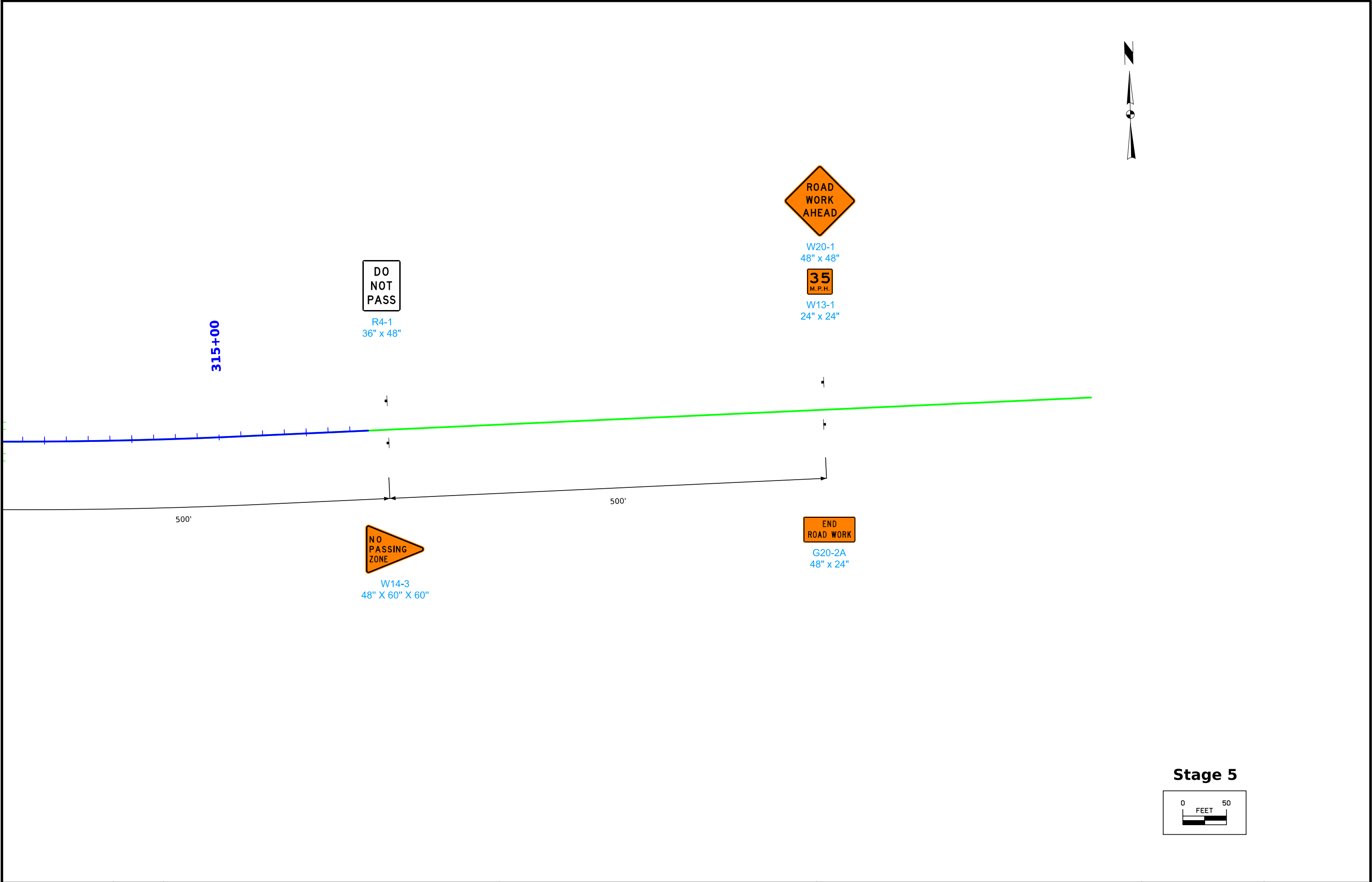


R10-6
24" x 36"

Stage 5







END
ROAD WORK

G20-2A
48" x 24"

NO
PASSING
ZONE

W14-3
48" X 60" X 60"

ONE LANE
ROAD
AHEAD

W20-4
48" x 48"

ROAD
WORK
AHEAD

W20-1
48" x 48"

35
M.P.H.

W13-1
24" x 24"

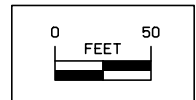
DO
NOT
PASS

R4-1
36" x 48"

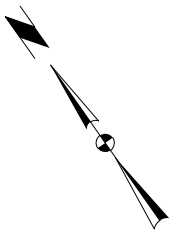
ONE LANE
ROAD
AHEAD

W20-4
48" x 48"

Stage 6



Belvidere TWP.
T-83N R-44W
SEC. 8



W3-3
48" x 48"

285+00

290+00

O'P

70 -100'

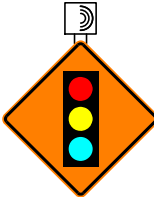
165'

85'

500'

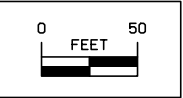


R10-6
24" x 36"



W3-3
48" x 48"

Stage 6



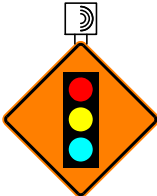
Belvidere TWP.
T-83N R-44W
SEC. 8



R10-6
24" x 36"

295+00

300+00

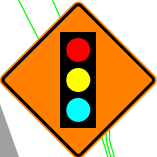


W3-3
48" x 48"

305+00



W20-4
48" x 48"

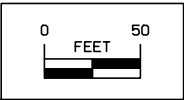


W3-3
48" x 48"



W20-4
48" x 48"

Stage 6





Belvidere TWP.
T-83N R-44W
SEC. 9



W20-4
48" x 48"



R4-1
36" x 48"



W20-1
48" x 48"



W13-1
24" x 24"



W20-4
48" x 48"



W14-3
48" X 60" X 60"



G20-2A
48" x 24"

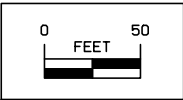
310+00

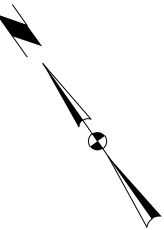
315+00

500'

500'

Stage 6





END
ROAD WORK

G20-2A
48" x 24"

NO
PASSING
ZONE

W14-3
48" X 60" X 60"

ONE LANE
ROAD
AHEAD

W20-4
48" x 48"

ROAD
WORK
AHEAD

W20-1
48" x 48"

35
M.P.H.

W13-1
24" x 24"

DO
NOT
PASS

R4-1
36" x 48"

ONE LANE
ROAD
AHEAD

W20-4
48" x 48"



500'



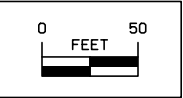
500'



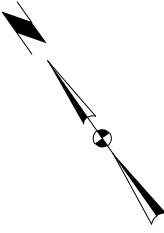
500'



Stage 7



Belvidere TWP.
T-83N R-44W
SEC. 8



W3-3
48" x 48"

285+00

290+00

O.P.

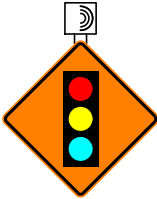
70 -100'

250'

500'

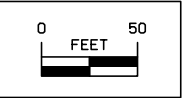


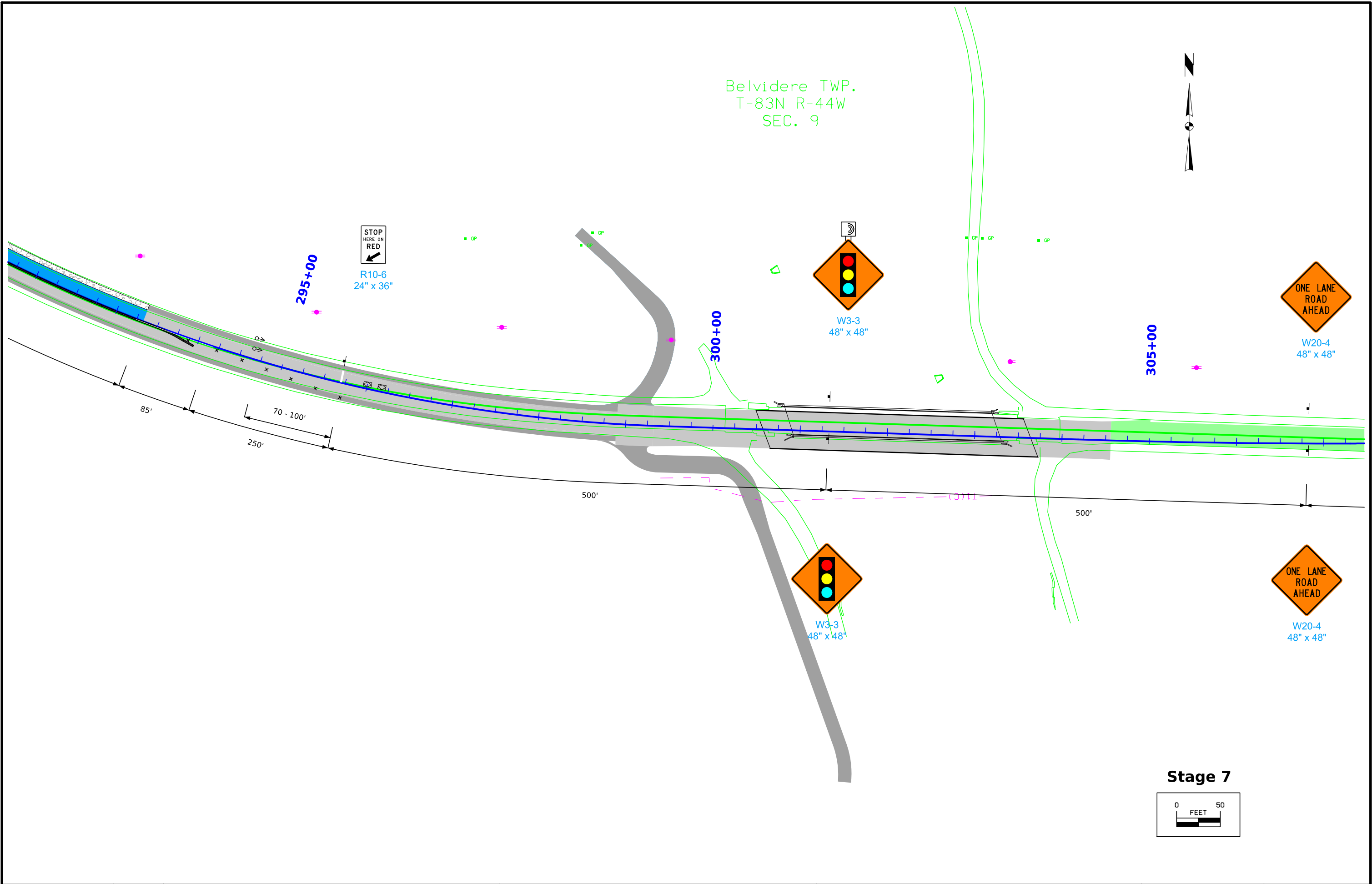
R10-6
24" x 36"



W3-3
48" x 48"

Stage 7







W20-4
48" x 48"



R4-1
36" x 48"



W20-1
48" x 48"



W13-1
24" x 24"



W20-4
48" x 48"



W14-3
48" X 60" X 60"



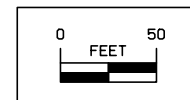
G20-2A
48" x 24"

Belvidere TWP.
T-83N R-44W
SEC. 9

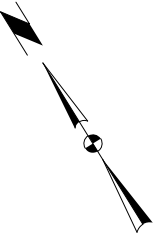
500'

500'

Stage 7



Belvidere TWP.
T-83N R-44W
SEC. 8



END
ROAD WORK

G20-2A
48" x 24"

285+00

NO
PASSING
ZONE

W14-3
48" X 60" X 60"

O.T.P.

290+00

ONE LANE
ROAD
AHEAD

W20-4
48" x 48"

295+00

ROAD
WORK
AHEAD

W20-1
48" x 48"

35
M.P.H.

W13-1
24" x 24"

500'

DO
NOT
PASS

R4-1
36" x 48"

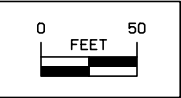
500'

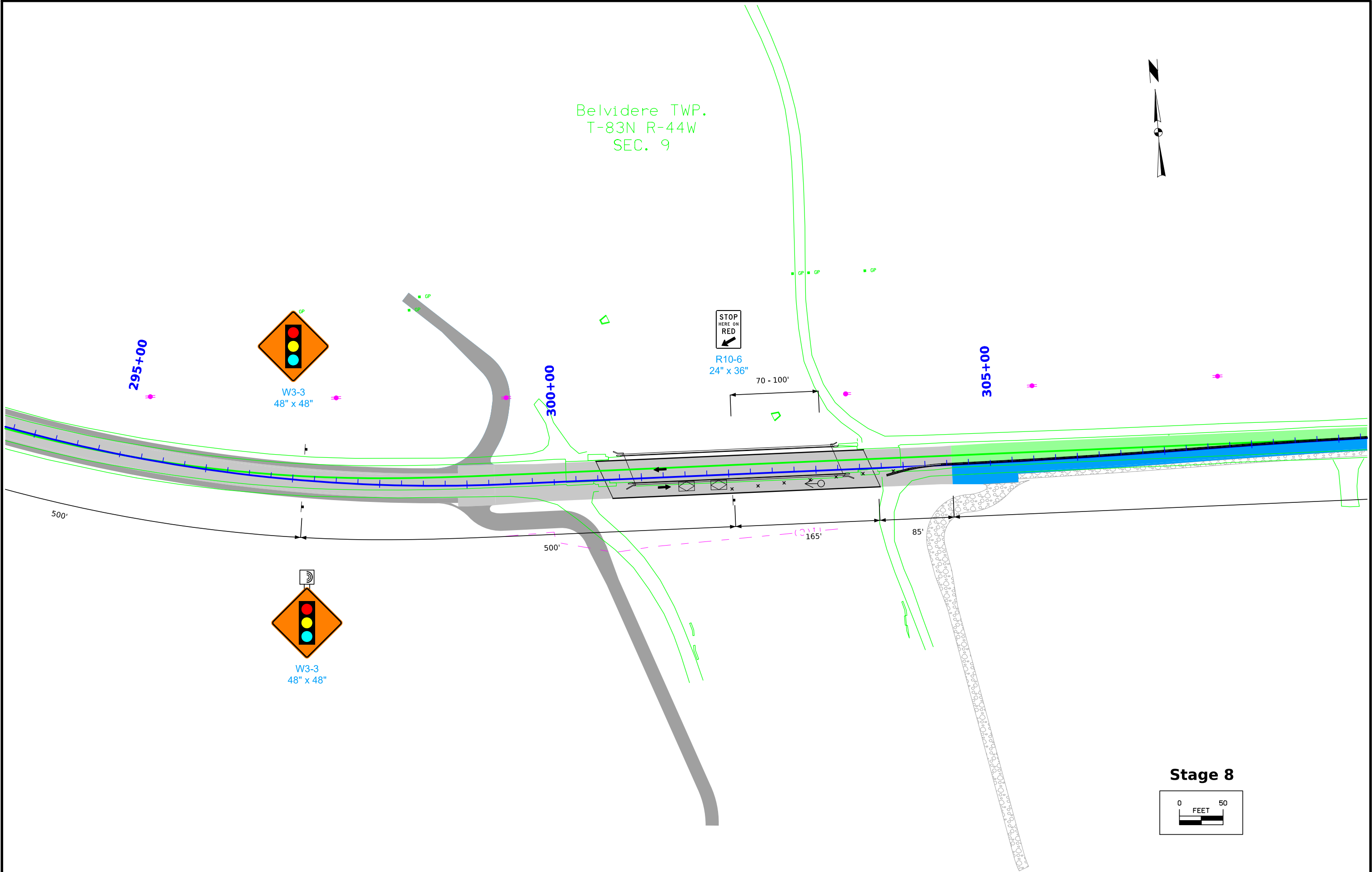
ONE LANE
ROAD
AHEAD

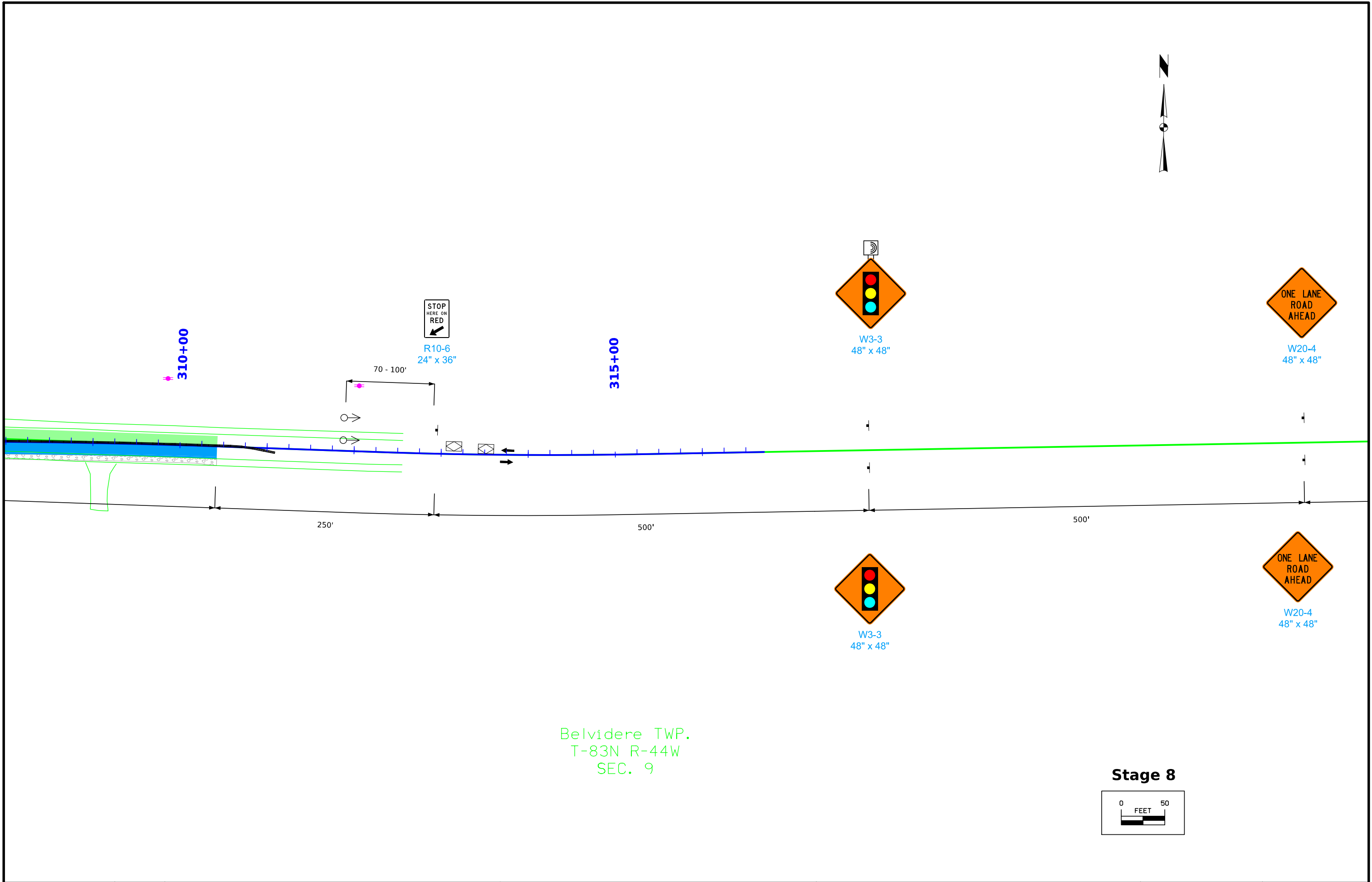
W20-4
48" x 48"

500'

Stage 8









W20-4
48" x 48"



R4-1
36" x 48"



W20-1
48" x 48"



W13-1
24" x 24"



W20-4
48" x 48"



W14-3
48" X 60" X 60"

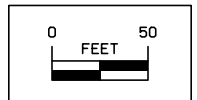


G20-2A
48" x 24"

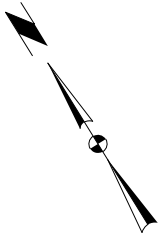
500'

500'

Stage 8



Belvidere TWP.
T-83N R-44W
SEC. 8



END
ROAD WORK

G20-2A
48" x 24"

285+00

NO
PASSING
ZONE

W14-3
48" X 60" X 60"

O.T.P.

290+00

ONE LANE
ROAD
AHEAD

W20-4
48" x 48"

295+00

ROAD
WORK
AHEAD

W20-1
48" x 48"

35
M.P.H.

W13-1
24" x 24"

500'

DO
NOT
PASS

R4-1
36" x 48"

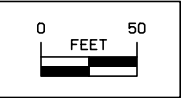
500'

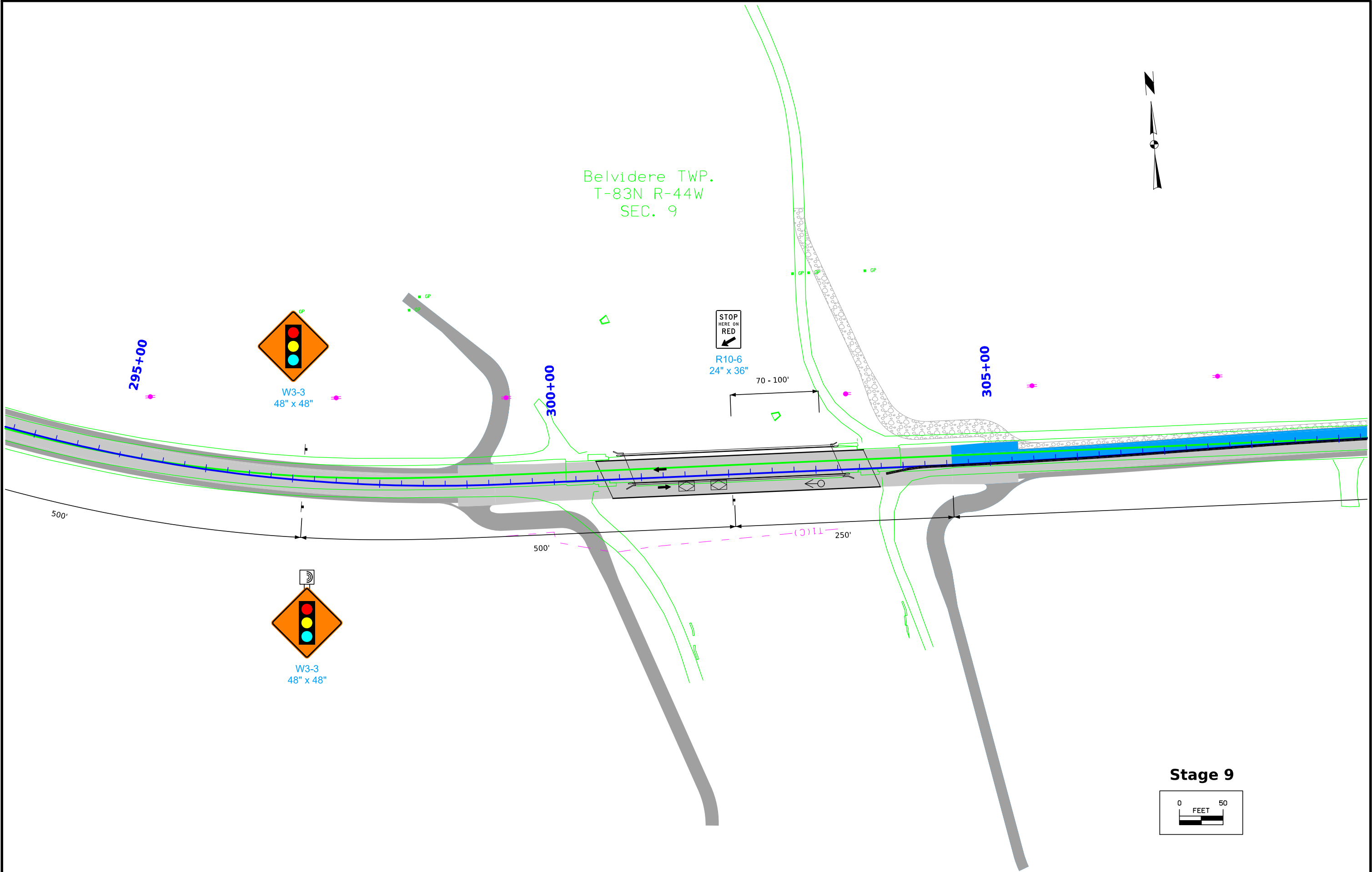
ONE LANE
ROAD
AHEAD

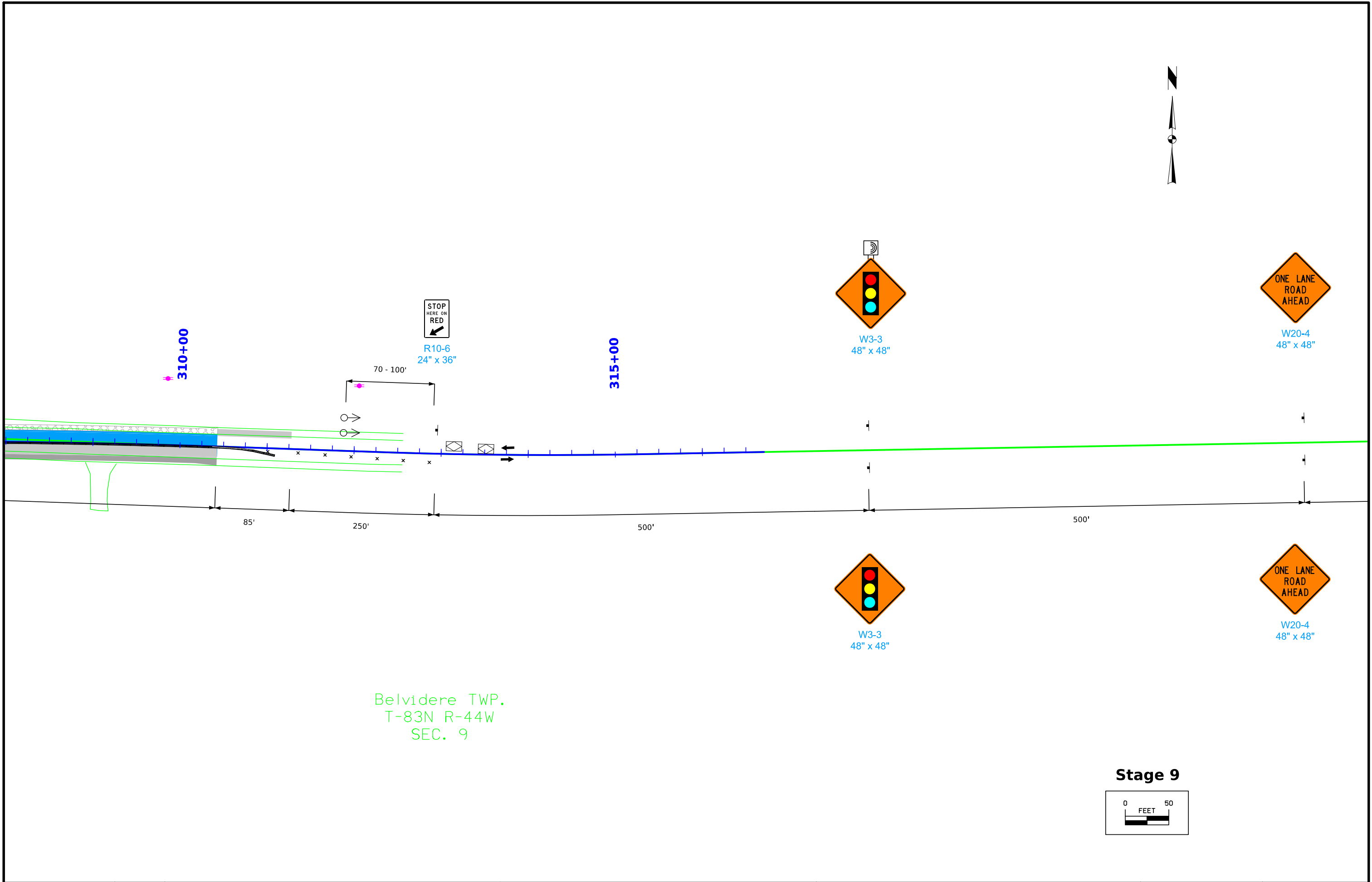
W20-4
48" x 48"

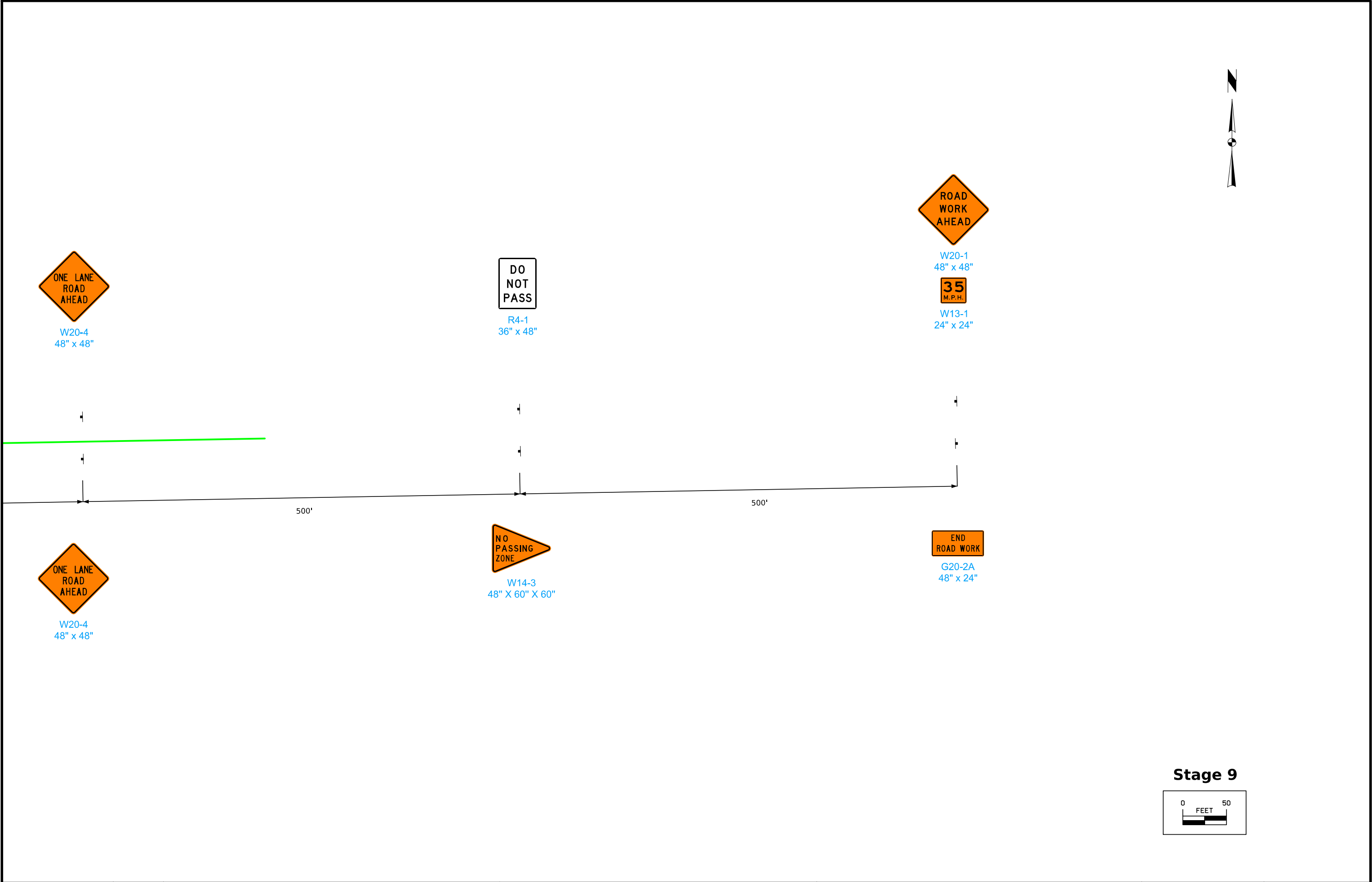
500'

Stage 9









Little Sioux River Paddling Route Sign Summary
(Refer to Sheet J.15 for Sign Location Map)

Specialty Sign #	QTY	Syle of Sign	Legend W/ 7.5" Letters	Legend W/ 5" Letters	Location / Orientation
1	2	Danger No Thru Traffic	Danger	No Thru Traffic	Center of westbound bridge facing upstream and downstream until westbound bridge is removed, then move to similar position on eastbound bridge when westbound project commences.

Note:
Refer to the Iowa DNR Water Trail Development Manual for paddling route temporary signs color coding and style (<https://www.iowadnr.gov/Things-to-Do/Canoeing-Kayaking/Water-Trail-Development>)

Refer to Sheet J.16 for additional special signing details.

The Engineer will notify John Wenck via email at John.Wenck@dnr.iowa.gov when temporary channel obstruction is placed and removed so that hazard symbol can be added to the DNR's Intective river mapping syystem and removed once the project is complete.

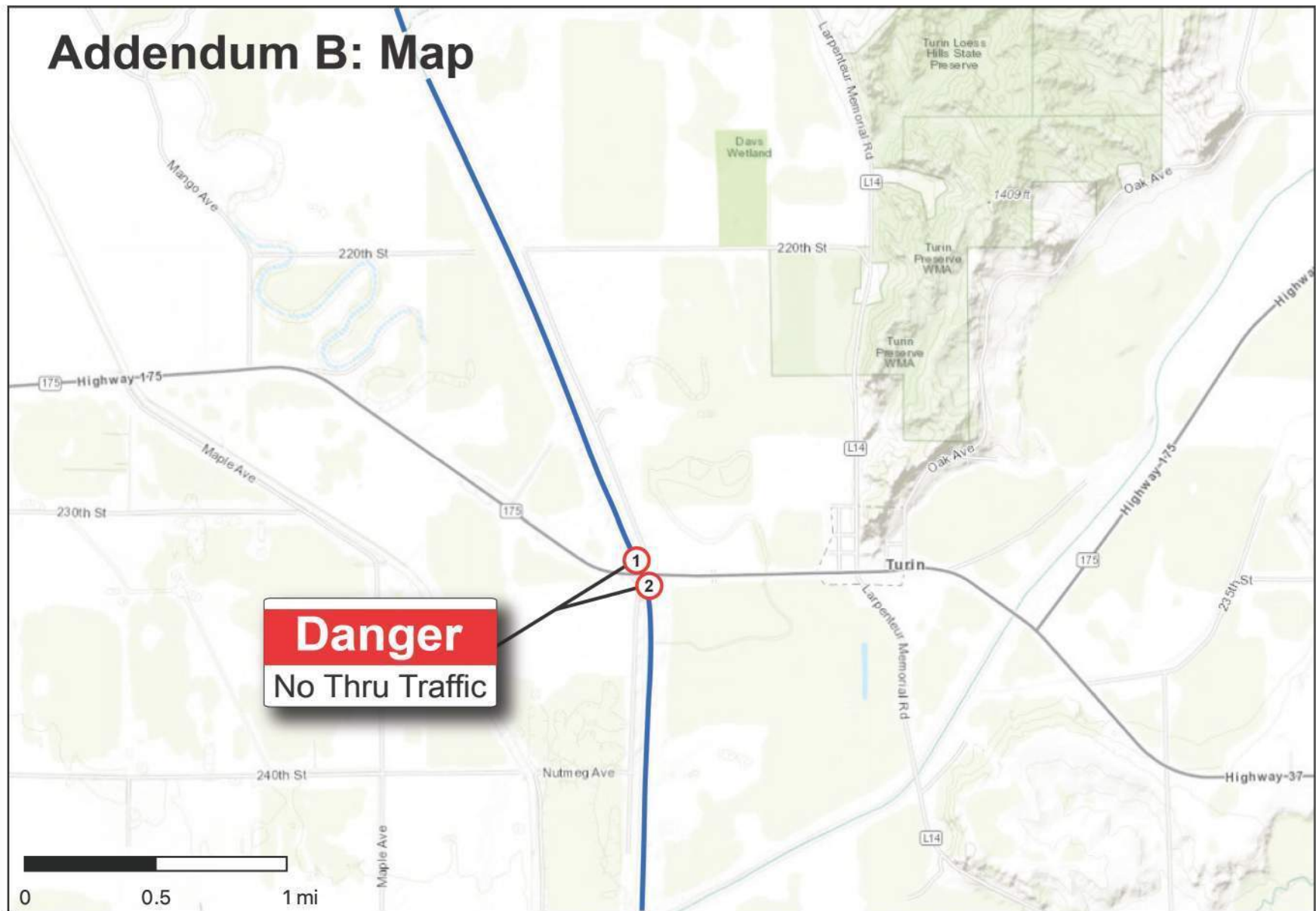
Install signs on land and over water per guidance in the Iowa DNR Water Trail Development Manual Chapter 6.

Some signs may be available for purchase through Iowa Prision Industries. <https://www.iaprisonind.com/store/c/36-signs.aspx>

The Contractor shal provide all temporary signs, posts and hardware necessary for instalation and maintenace of the temporary paddling route signage. Upon completion of the project, the Contractor shall remove all padddling route signage, posts, and hardware. All removed materials will become the property of the Contractor. All materials and operations necessary for providing, installing, maintaining, and removing paddling route temporary signage is considered incidental to 'TRAFFIC CONTROL' and will not be measured or paid separately.

Little Sioux River Paddling
Route Temporary Signage

Addendum B: Map

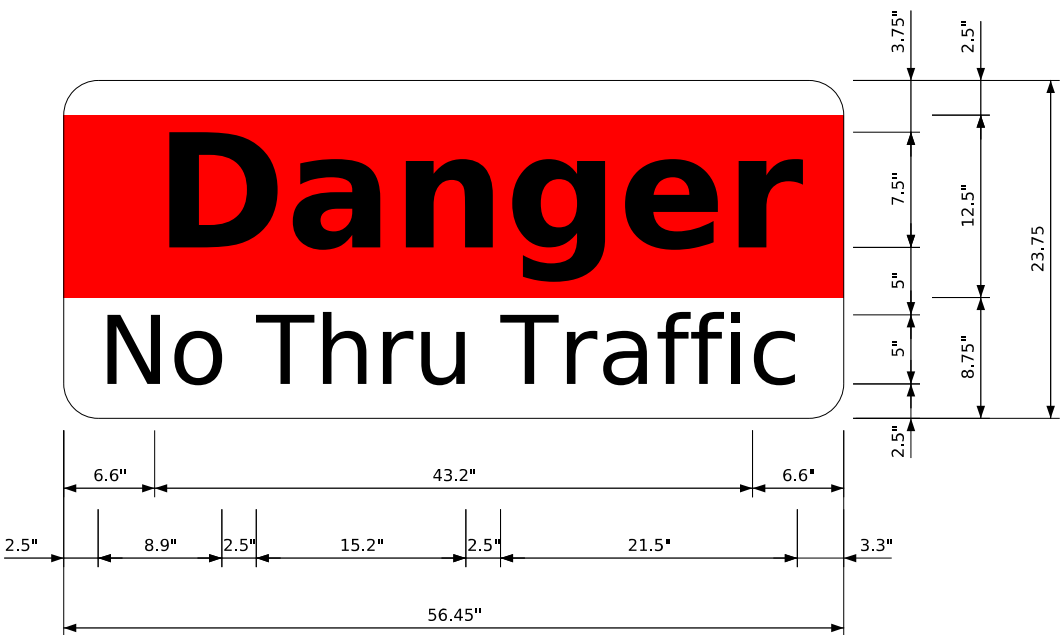


Note:
- Temporary sign placement locations depicted in these key maps are approximate. The Contractor shall coordinate per notes on Sheet J.1 to confirm locations prior to installation at each river access point and bridge over the Boyer River.



IA-175 Crossing the Little Sioux River

Little Sioux River Paddling Route
Speciality Sign Locations and Key Map



No border, White on White;
No border, White on Red;
[Danger] Arial
No border, Black on White
[No Thru Traffic] Arial;

SPECIALTY SIGN 1

Note:
Refer to Iowa DNR's "Developing Water Trails in Iowa - Signage Manual."
The contractor may be able to purchase signs through the Iowa Prison Industries. Go to www.iaprisonind.com/ to check availability.

LINE STYLE LEGEND OF LANDSCAPE SHEETS	
LINESTYLE	Design Element
-----	Living Snow Fence Single Row
-----	Living Snow Fence Double Row
-----	Mechanical Edge

CELL LEGEND OF LANDSCAPE SHEETS		
CELL	Design Element	Plant Diameter
	Clearing	
	Proposed Shrub	6 FT
	Proposed Understory Tree	12 FT
	Proposed Conifer Tree	18 FT
	Proposed Overstory Tree	30 FT

PATTERN LEGEND OF LANDSCAPE SHEETS	
	Brush Clearing
	Clearing & Grubbing
	Spray Area

LINE STYLE LEGEND OF EROSION CONTROL SHEETS	
LINESTYLE	Design Element
	Silt Fence
	Perimeter and Slope Sediment Control Device (9")
	Perimeter and Slope Sediment Control Device (12")
	Perimeter and Slope Sediment Control Device (20")
	Open-Throat Curb Intake Sediment Filter
	Concentrated Flow
	Rock Check and Rock Check Dam
	Sheet Flow

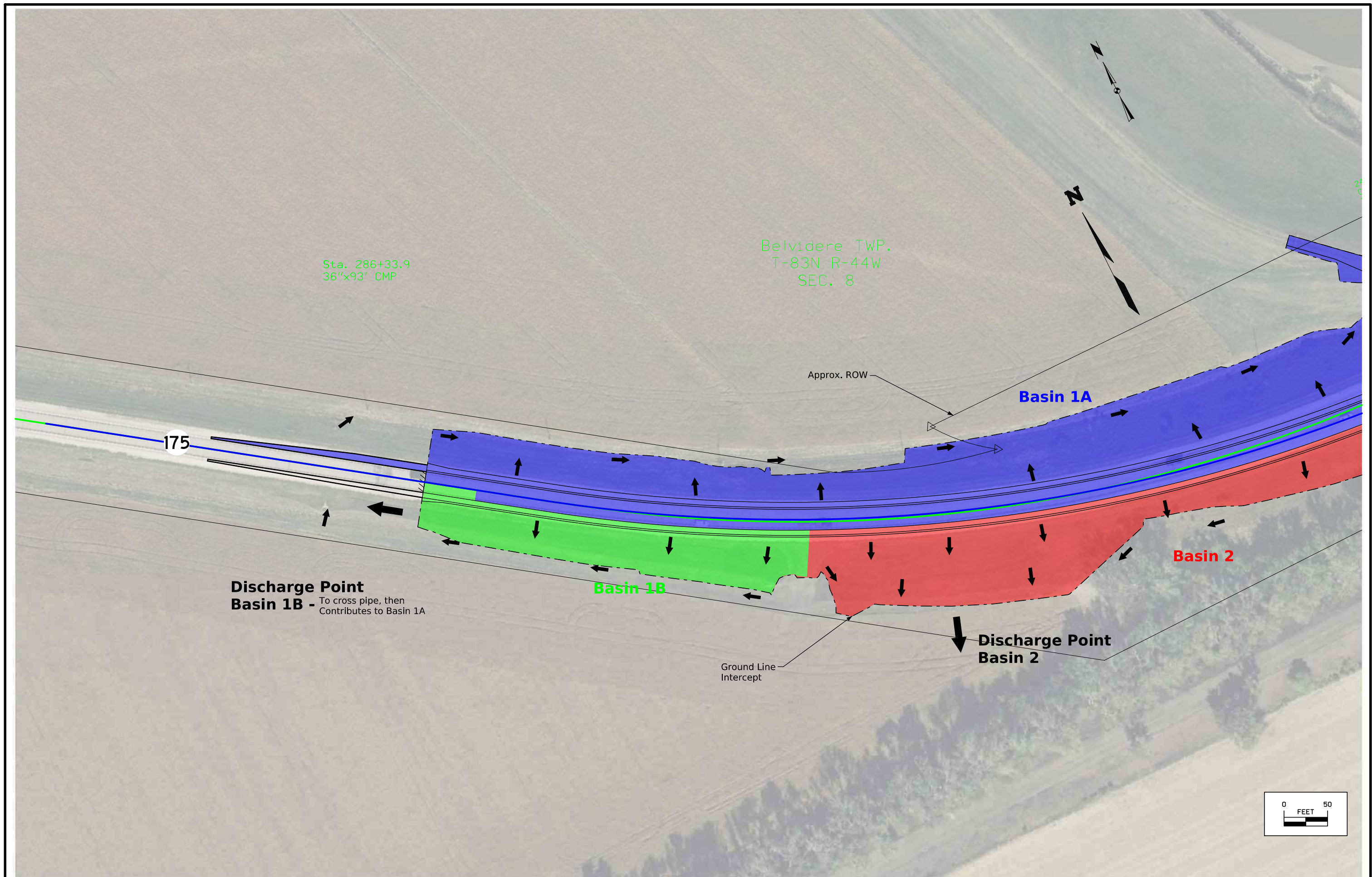
CELL LEGEND OF EROSION CONTROL SHEETS	
CELL	Design Element
	Temporary Sediment Control basin
	Erosion Control for Circular Intake or Manhole Well
	Erosion Control for Rectangular Intake or Manhole Well
	Grate Intake Sediment Filter Bag
	Silt Basin
	Silt Fence Tail
	Stormwater Drainage Basin Discharge Point

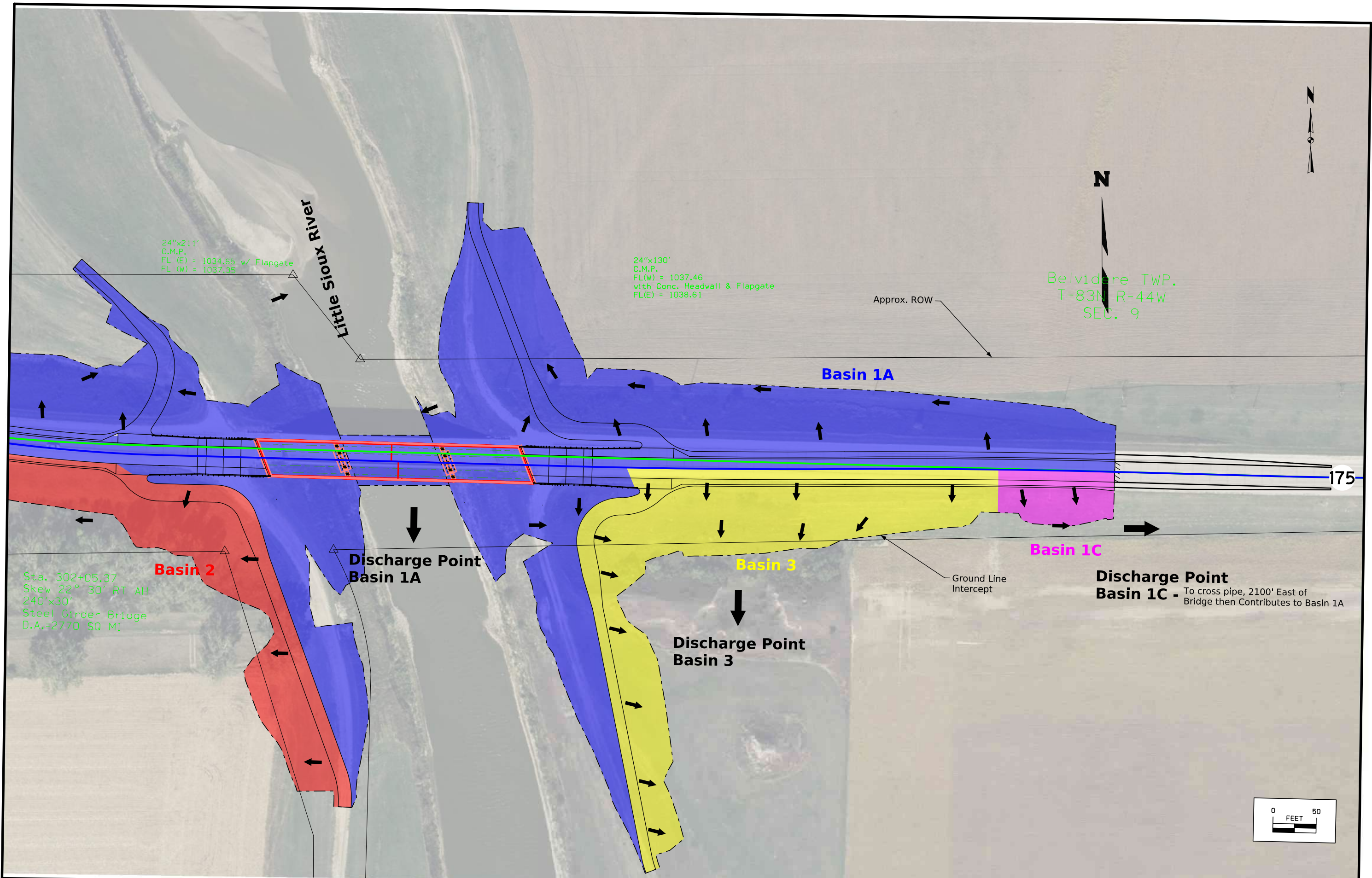
PLAN VIEW COLOR LEGEND OF EROSION CONTROL SHEETS				
LINEWORK	Design Color No.			
Green	(2)		Existing Topographic Features and Labels	
Blue	(1)		Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation	
Magenta	(5)		Existing Utilities	
Black	(0)		Permanent Erosion Control Features	
Blaze Orange	(222)		Temporary Erosion Control Features	
SHADING	Design Color No.		Transparency	
Citron	(234)		Mulching, All Types	50%
Light Brown	(238)		Special Ditch Control, Wood Excelsior Mat	0%
Grass Green	(233)		8FT Mow Strip	50%
Red	(3)		Delineates Restricted Areas	0%

PATTERN LEGEND OF EROSION CONTROL SHEETS	
	Seeding and Fertilizing
	Seeding and Fertilizing (Rural)
	Seeding and Fertilizing (Urban)
	Native Grass Seeding
	Salt Tolerant Seeding
	Wetland Grass Seeding
	Wildflower Seeding
	Sodding
	Turf Reinforcement Mat Type 1
	Turf Reinforcement Mat Type 2
	Turf Reinforcement Mat Type 3
	Turf Reinforcement Mat Type 4
	Slope Protection, Wood Excelsior Mat
	Transition Mat
	Rock Features, Permanent
	Rock Features, Temporary

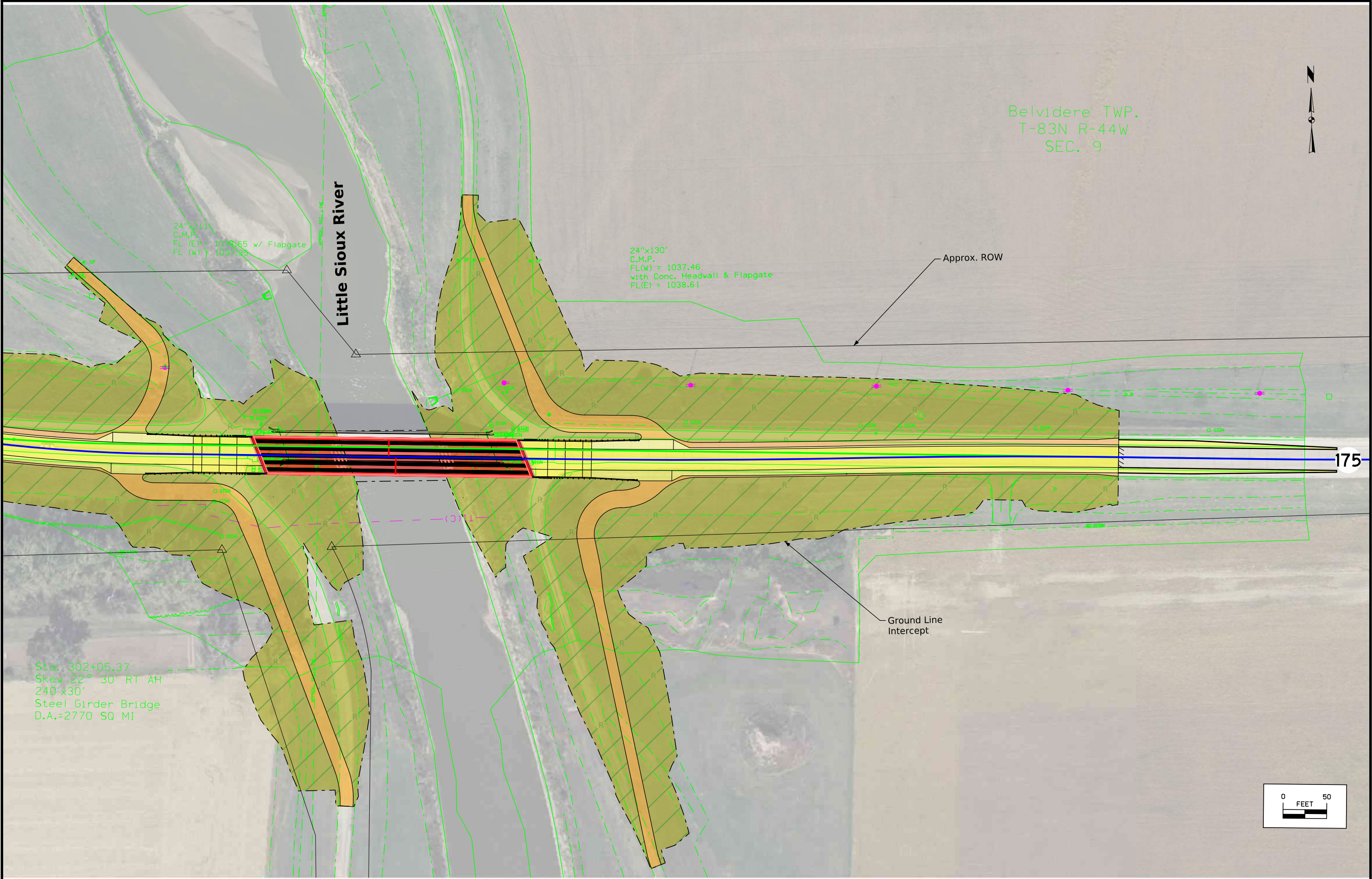
EROSION CONTROL LEGEND AND SYMBOL INFORMATION SHEET

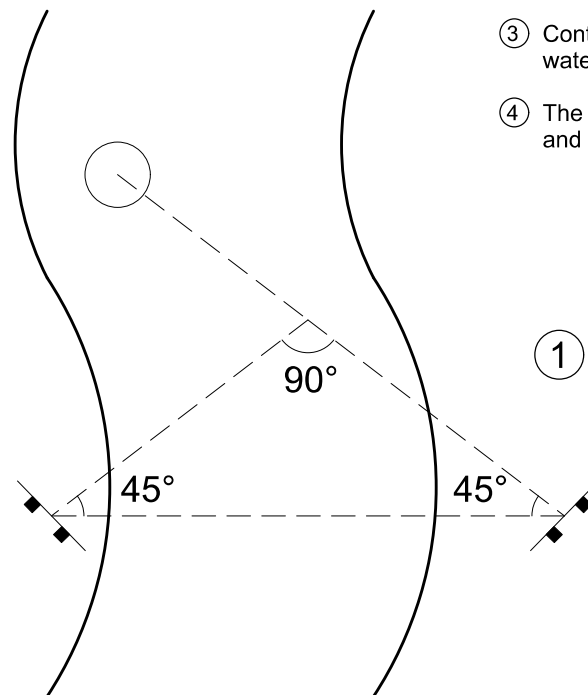
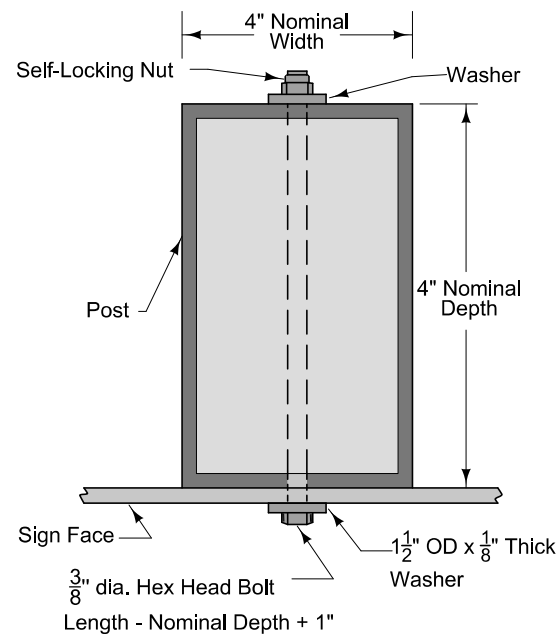
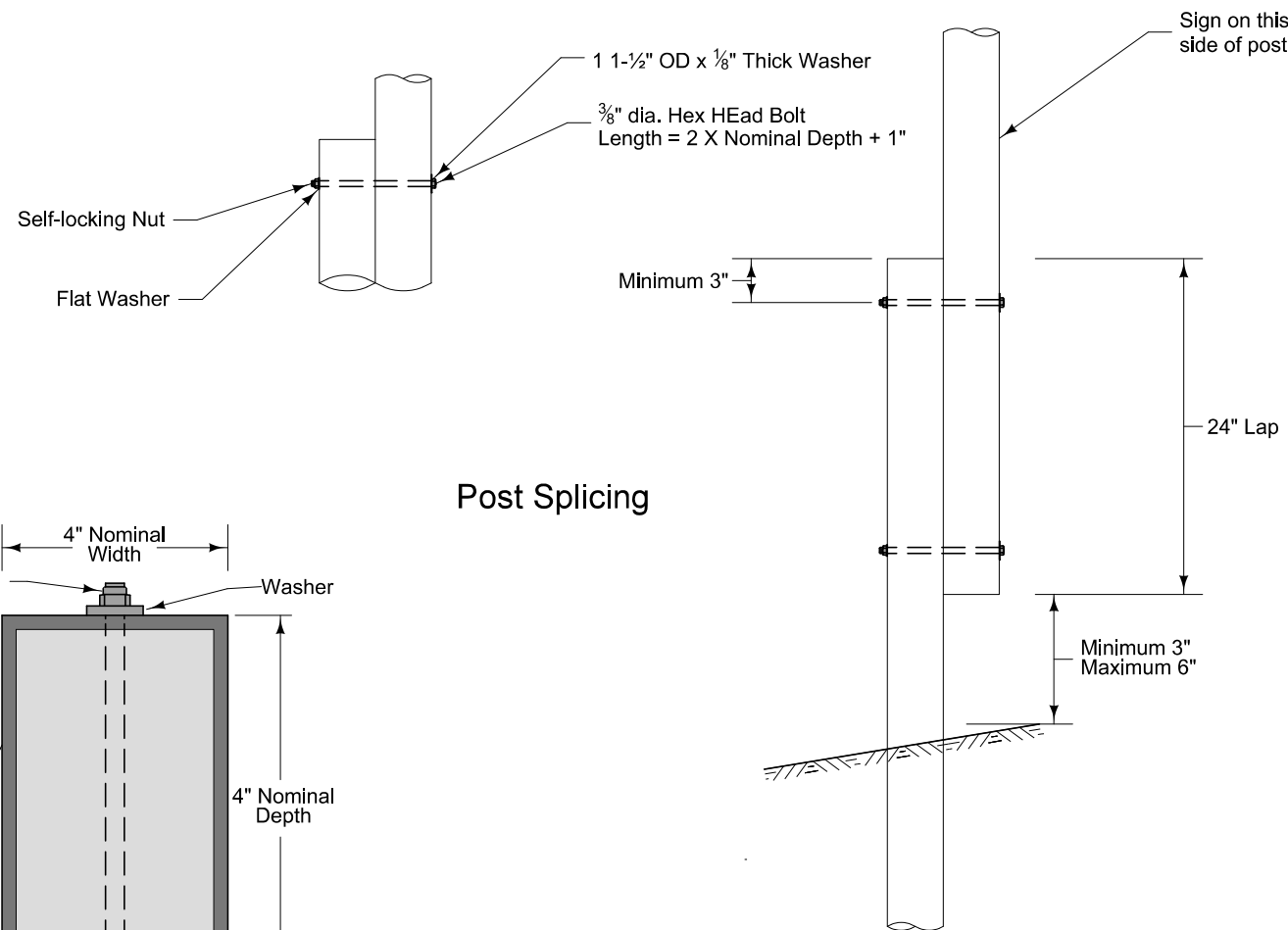
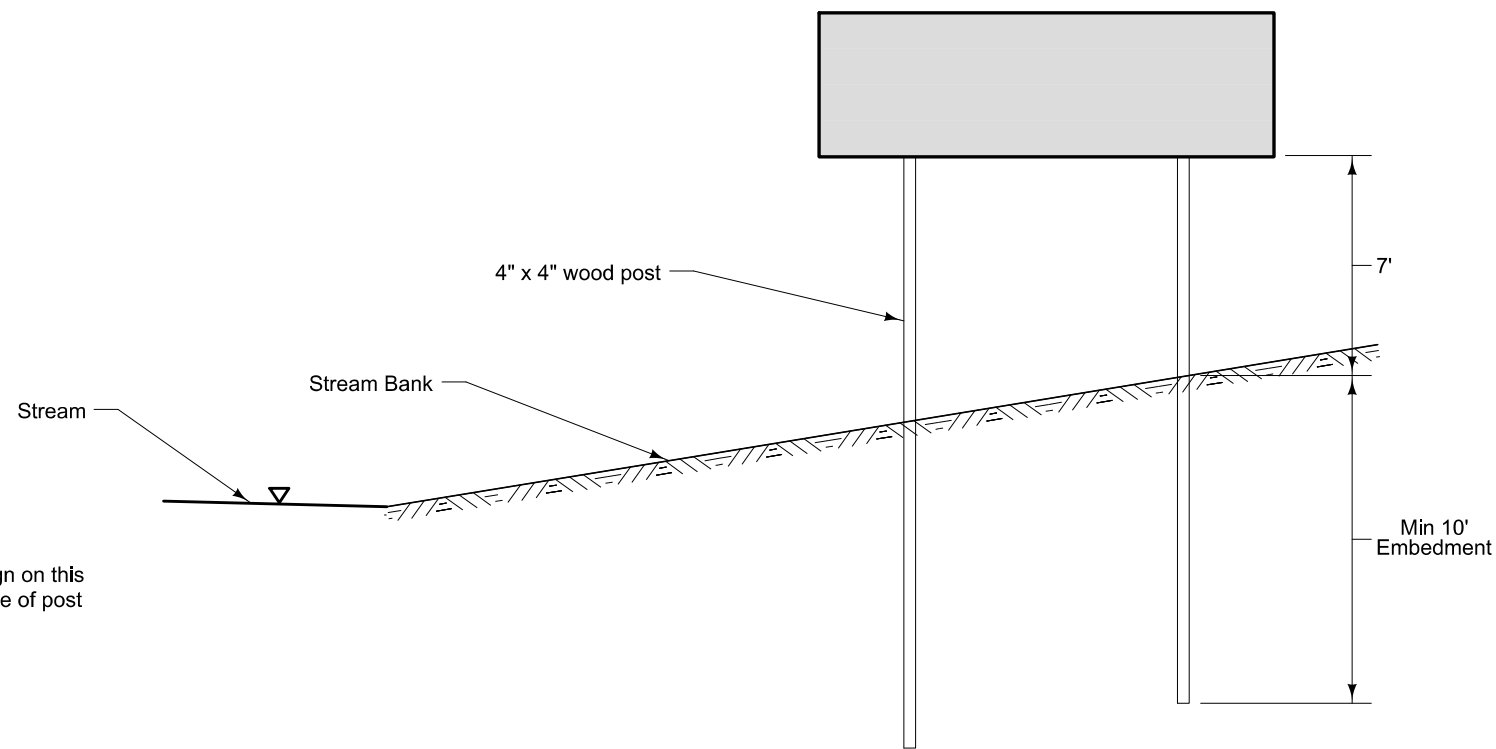
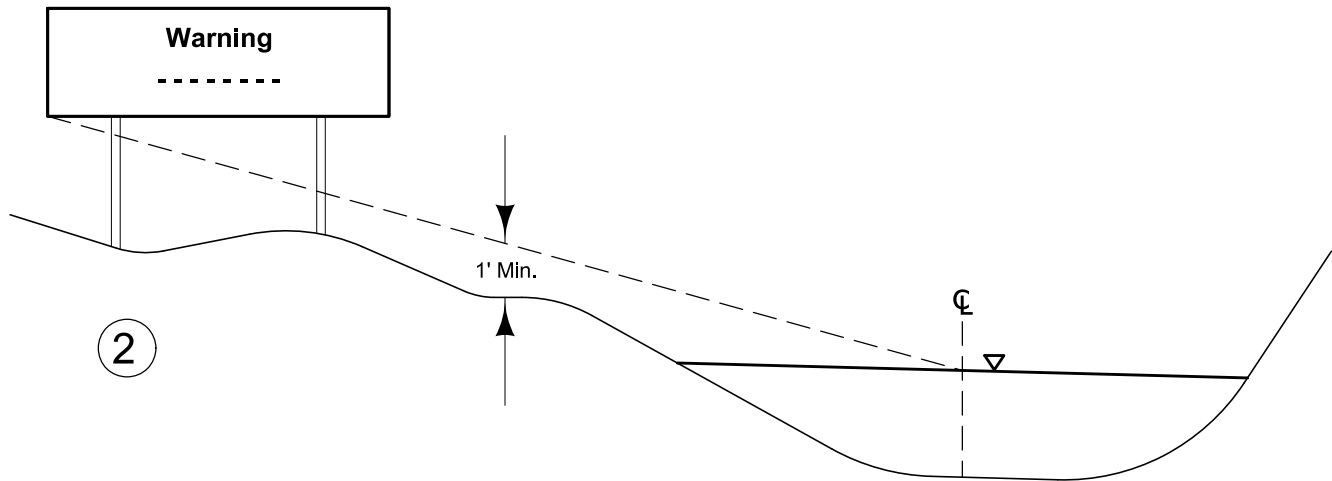
(COVERS SHEET SERIES R)











Sign Embedment

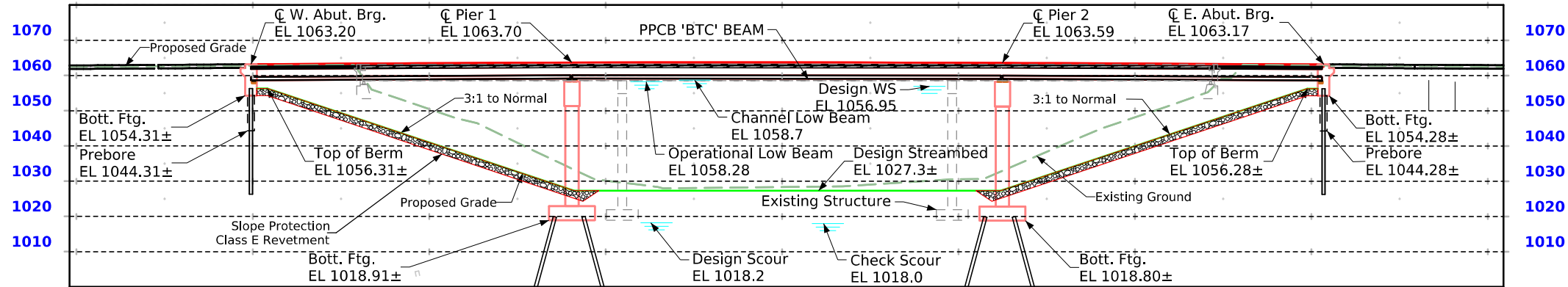
- ① Sign placement shall be placed at a 45° angle to a line perpendicular to the centerline of the stream, facing upstream on the upstream side of the bridge site and facing downstream on the downstream side of the bridge site.
- ② Contractor shall maintain vegetation a minimum of 1' below the line of site from the bottom of the sign to the center of the stream.
- ③ Contractor shall reset or replace any sign and post if high-water/flood water damages or loosens the posts or damages the sign.
- ④ The contractor shall check daily that the sign face is clear and visible, and if not shall take appropriate measure to clean and make visible.

Post Attachment

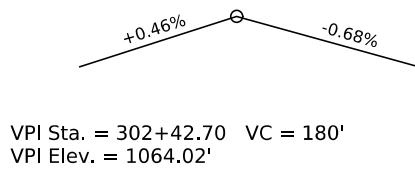
Post Splicing

Sign Embedment

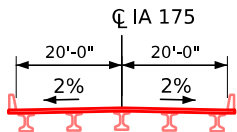
HGM		NEW	01-18-2
		HGM-1	
ROAD DESIGN DETAIL		SHEET 1 of 1	
REVISIONS: New.			
WOOD POST SIGN INSTALLATION			



BRG TSL Longitudinal Section Along CL Approach Roadway



Proposed Profile Grade IA 175



Section A-A

Hydraulic Data

RIDB: "StreamID_Rivermile"
Drainage Area = 2768.6 Sq. Mi.
Stream Slope (HGL) = 2.85 ft./Mi.
Avg. Low Water Stage = 1030.55'

Operational Low Beam = 1058.28
Channel Low Beam = 1058.70

Q₂₅ = 30,600 cfs
Stage = 1,053.38

Q₅₀ = 37,100 cfs
Stage = 1,055.26
Operational Freeboard = 3.02 ft.
Avg. Bridge Velocity = 6.7 fps

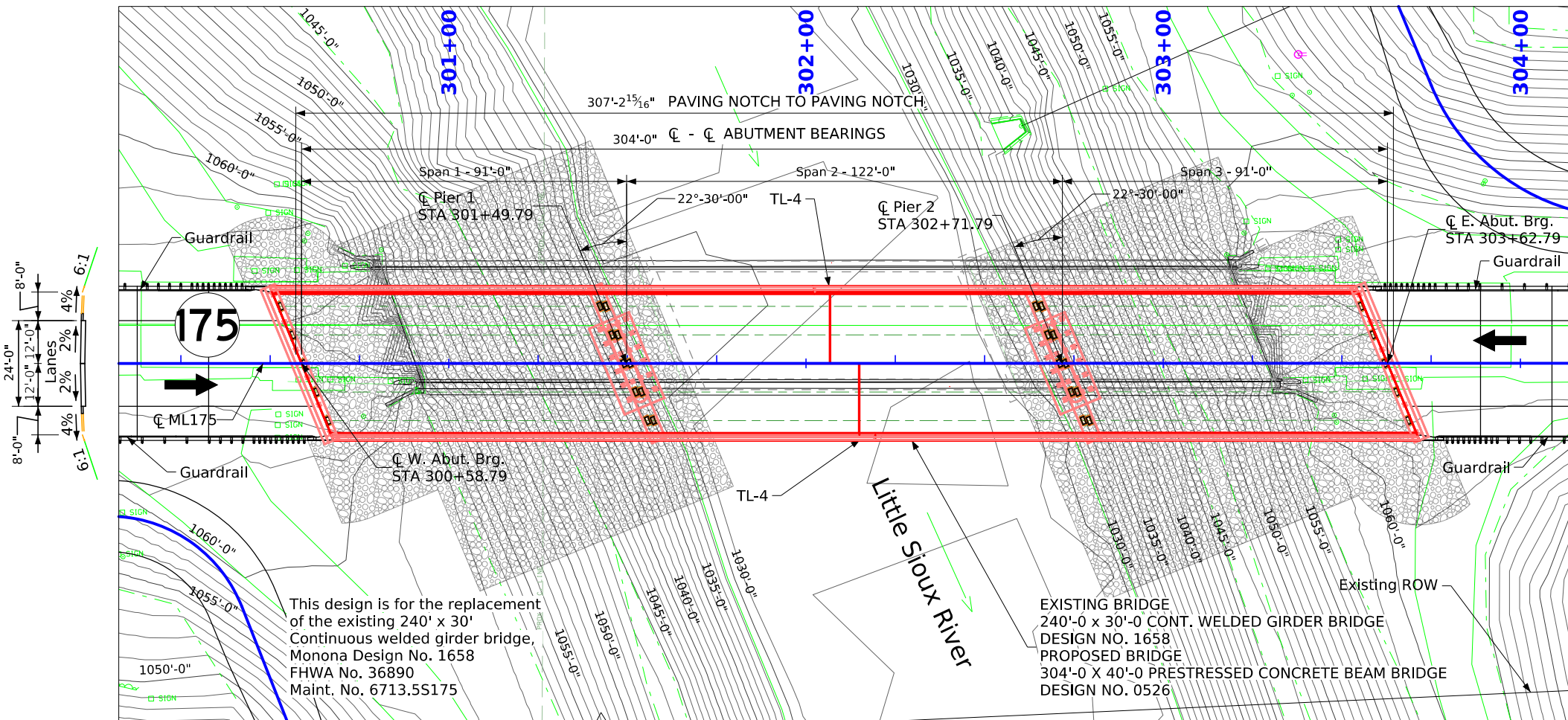
Q₁₀₀ = 43,500 cfs
Stage = 1,056.95
Operational Freeboard = 1.33 ft.
Backwater = 0.06 ft.
Avg. Bridge Velocity = 7.2 fps

Q₂₀₀ = 52,000 cfs
Stage = 1,059.00
Calculated Design Scour = 1,018.2

Q₅₀₀ = 59,300 cfs
Stage = 1,060.49
Channel Freeboard = -2.21 ft.
Avg. Bridge Velocity = 9.3 fps
Calculated Check Scour = 1,018.0

Location

IA 175 over Little Sioux River
T-83N R-44W
Section 09
Belvidere Township
Monona County
FHWA No. 36890
Bridge Maint. No. 6713.5S175
Latitude 42.019289°
Longitude -95.982700°



This design is for the replacement of the existing 240' x 30' Continuous welded girder bridge, Monona Design No. 1658 FHWA No. 36890 Maint. No. 6713.5S175

EXISTING BRIDGE
240'-0 x 30'-0 CONT. WELDED GIRDER BRIDGE
DESIGN NO. 1658
PROPOSED BRIDGE
304'-0 x 40'-0 PRESTRESSED CONCRETE BEAM BRIDGE
DESIGN NO. 0526

Hydraulic Design

I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

Signature: *Jonathan E. Peterson* Date: 08-29-2025
Printed or Typed Name: Jonathan E. Peterson
My license renewal date is December 31, 2026

Pages or sheets covered by this seal:

V.1 - 2

BENCHMARK NO. 500
NORTHING: 7244759.966
EASTING: 16432121.080
ELEV. 1063.900

BENCHMARK NO. 4631
NORTHING: 7244875.225
EASTING: 16431983.110
ELEV. 1056.755

BENCHMARK NO. 10049
NORTHING: 7244760.042
EASTING: 16432121.790
ELEV. 1063.847

An Iowa DNR Flood Plain Permit is required. Preliminary Design will submit the application and place the permit in the PW Regulatory_Permits subdirectory folder upon receipt.

Class E revetment stone is embedded.

Traffic Estimate

2026 AADT 2000 V.P.D.
2046 AADT 2200 V.P.D.
2046 DHV 220 V.P.H.
TRUCKS 13 %
Total Design ESALs --

Situation Plan

Requirements for a state water trail or paddling route are applicable. Signage, plan notes, and bid items shall be addressed by the Design Bureau and included in the road plans.

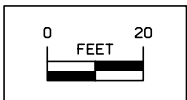
Pier Type - T Pier

Utilities Note:

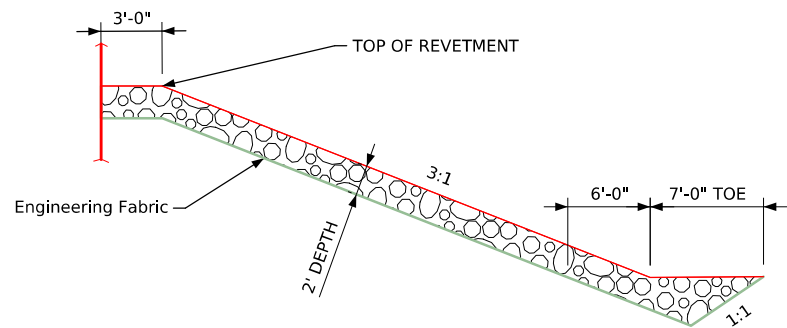
Utilities shown on this sheet are for information only. See Road Design sheets for utility information.

Utilities Legend:

— T1(C) — - Windstream Communications
● - MidAmerican - Elec



Design For 22'-30'-00" (RA)
**304'-0 x 40'-0 PRETENSIONED
PRESTRESSED CONCRETE BEAM BRIDGE**
91'-0 End Spans 122'-0 Center Span
SITUATION PLAN
STA. 302+10.79 IA 175 August 2025
Monona County
IOWA DEPARTMENT OF TRANSPORTATION
Design No. 0526 Design Sheet No. 1 of 2 FHWA No. 36891



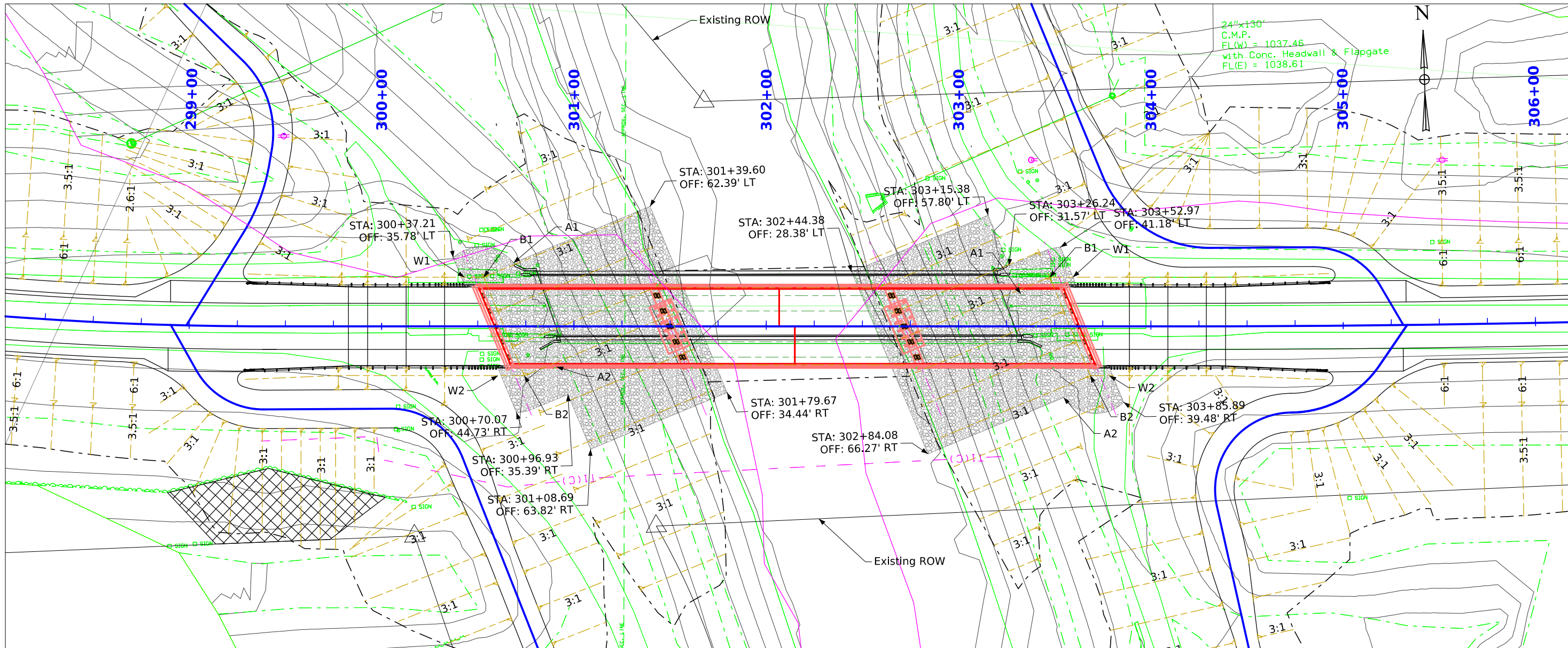
SECTION THU EMBEDDED REVETMENT BERM

Bridge Coordinates				
Location	CL W. ABUT BRG.	CL PIER 1	CL PIER 2	CL E. ABUT BRG.
NORTH SLAB EDGE	X=16432081.082 Y=7244790.690	X=16432172.037 Y=7244787.839	X=16432293.978 Y=7244784.017	X=16432384.933 Y=7244781.166
CL IA 175	X=16432089.342 Y=7244768.837	X=16432180.297 Y=7244765.986	X=16432302.237 Y=7244762.164	X=16432393.192 Y=7244759.314
SOUTH SLAB EDGE	X=16432097.601 Y=7244746.984	X=16432188.557 Y=7244744.134	X=16432310.497 Y=7244740.312	X=16432401.452 Y=7244737.461

NOTE: AN ELECTRONIC FILE CONTAINING THE BRIDGE COORDINATE DATA IS AVAILABLE AS PART OF THE E-FILES SUPPLIED WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL VERIFY THESE COORDINATES WITH THE PROJECT HORIZONTAL CONTROL INFORMATION IN THE ROAD PLANS.

Berm Slope Location Table						
Points	West Abutment			East Abutment		
	Station	Offset	Elev.	Station	Offset	Elev.
A1	300+68.60	33.00' LT	1050.02	303+32.28	17.00' LT	1050.00
A2	300+90.97	21.00' RT	1050.02	302+88.58	37.00' RT	1050.00
B1	300+52.59	26.73' LT	1056.31	303+47.80	24.43' LT	1056.28
B2	300+73.78	24.43' RT	1056.31	303+68.99	26.73' RT	1056.28
W1	300+43.10	25.58' LT	1062.74	303+61.10	28.58' LT	1062.72
W2	300+60.48	25.58' RT	1062.90	303+78.48	28.58' RT	1062.61

Berm slope elevations reflect the grading surface.

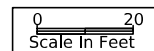


Estimated Berm Armoring Quantities

Location	Revetment CL E (Ton)	Erosion Stone (Ton)	Engineering Fabric (SY)	CL 10 Channel Excavation (CY)
Berm Lining - West Abutment	1112.6	0.0	1123.8	749.2
Berm Lining - East Abutment	1092.6	0.0	1103.6	735.7
Totals	2205.2	0.0	2227.4	1484.9

Excavation quantity calculated from grading surface. Excavation quantity if for embedded revetment core out only, and does not include excavation to the grading surface. Excavation quantity to the grading surface is determined by Road Design and included in the Road Plans.

Site Plan



Design For 22'-30'-00" (RA)

**304'-0 x 40'-0 PRETENSIONED
PRESTRESSED CONCRETE BEAM BRIDGE**

91' End Spans 122' Interior Span

Bridge Preliminary Grading Plan

STA. 302+10.79 IA 175 Turn-in Date: August 2025

Monona County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. 0526 Design Sheet No. V.2 of 2 FHWA No. 36891

CROSS SECTION VIEW COLOR LEGEND			
Design Color No.	Feature	Design Color No.	Feature
Aggregate		Structural	
(64)	Choke Stone	(112)	Noise Wall
(42)	Engineering Fabric	(112)	Noise Wall Footing
(8)	Flooded Backfill	(112)	Retaining Wall Back
(92)	Macadam Stone	(112)	Retaining Wall Back Excavate
(20)	Modified	(112)	Retaining Wall Face
(12)	Plowing Shaping	(112)	Retaining Wall Front Excavate
(14)	Porous Backfill	(112)	Retaining Wall Front Footing
(8)	Revetment Class A	(112)	Retaining Wall MSE Gutter
(6)	Revetment Class B	(112)	Retaining Wall Reinforced Earth
(62)	Revetment Class C	Grading	
(188)	Revetment Class D	(8)	Behind Curb Cut
(28)	Revetment Class E	(6)	Granular
(12)	Shoulder Special Backfill	(13)	Granular Back Fill
(12)	Special Backfill	(48)	Rock Undercut
(20)	Subbase	(8)	Shoulder Earth Fill
(20)	Subbase Lower	(2)	Side Slopes
(20)	Subbase Upper	(226)	Side Slopes Dressing
(118)	Subgrade Treatment	Substrata	
Asphalt		(128)	Boulder Substrata
(207)	HMA Base Course	(48)	Broken Weathered Substrata
(207)	HMA Interim Course	(3)	Core Out Substrata
(207)	HMA Surface Course	(203)	Existing Pavement Substrata
Concrete		(6)	Loam Substrata
(0)	Barrier Concrete	(80)	Rock Substrata
(0)	Barrier Concrete Footing	(4)	Select Sand Substrata
(0)	Curb Gutter	(3)	Shale Substrata
(48)	Flowable Mortar	(10)	Topsoil Substrata
(0)	Median Concrete	Unsuitable / Waste	
(0)	PCC Pavement	(3)	Unsuitable Type A
(0)	Sidewalk	(13)	Unsuitable Type B
Shoulder		(11)	Unsuitable Type C
(209)	Shoulder HMA	(3)	Waste
(0)	Shoulder PCC		
(6)	Shoulder Granular		
Existing			
(0)	Existing Pavement		

NOTES:

Text

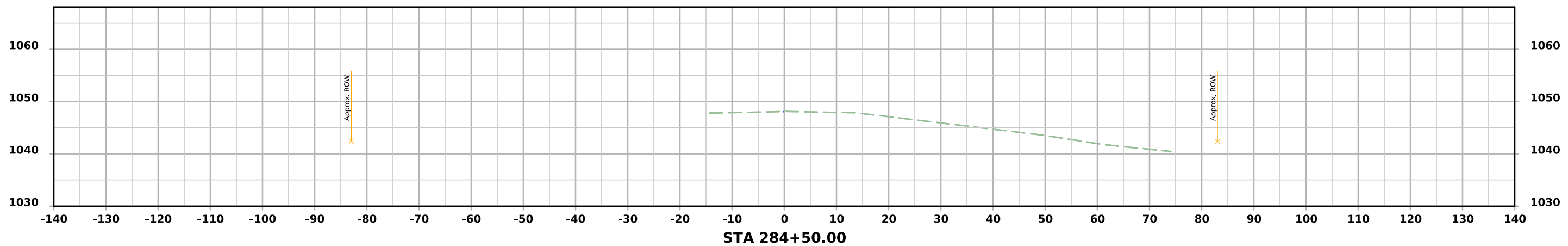
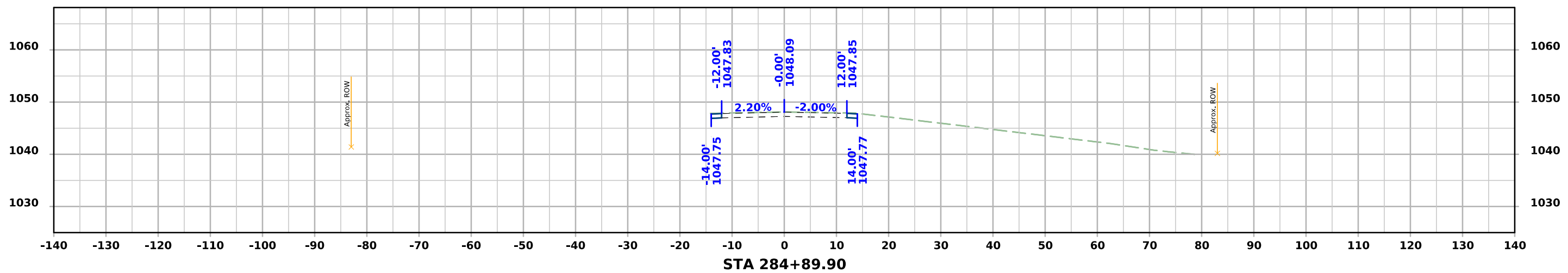
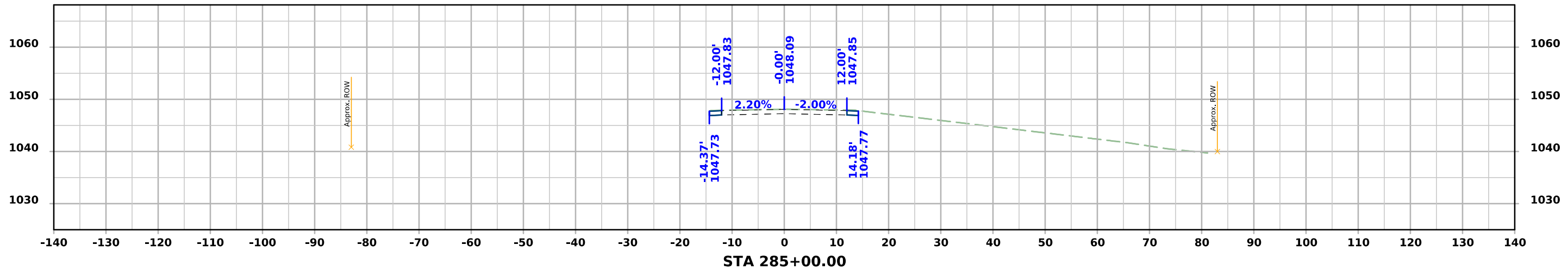
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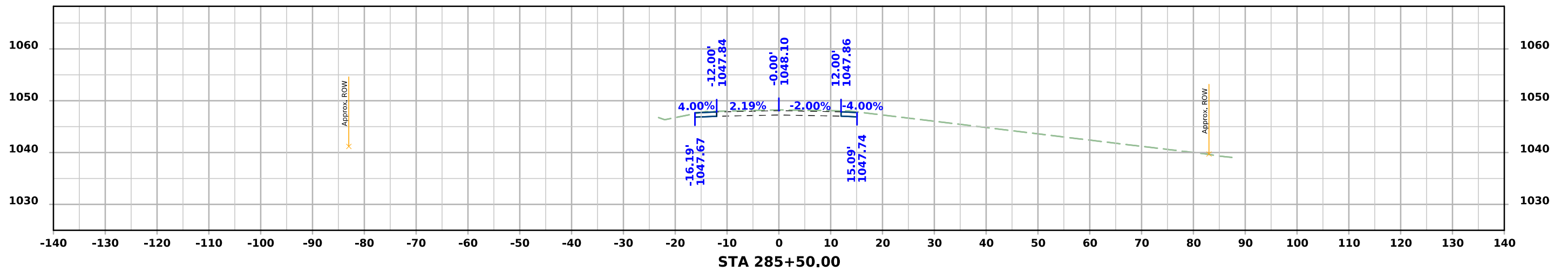
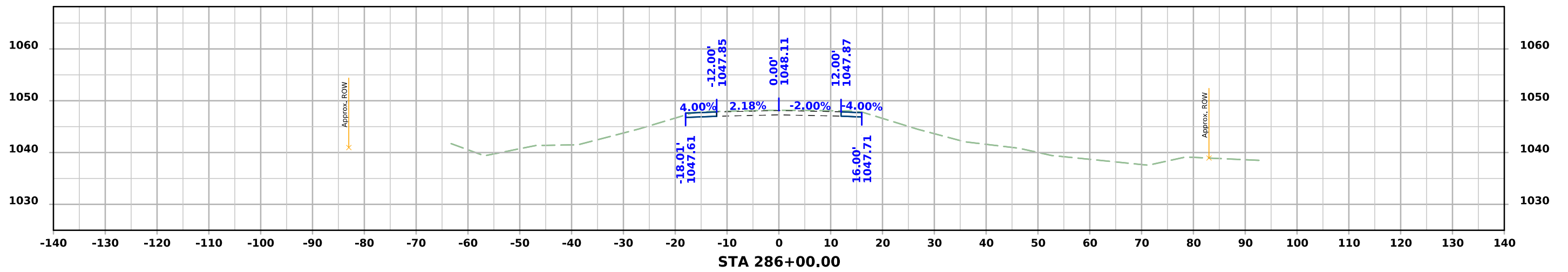
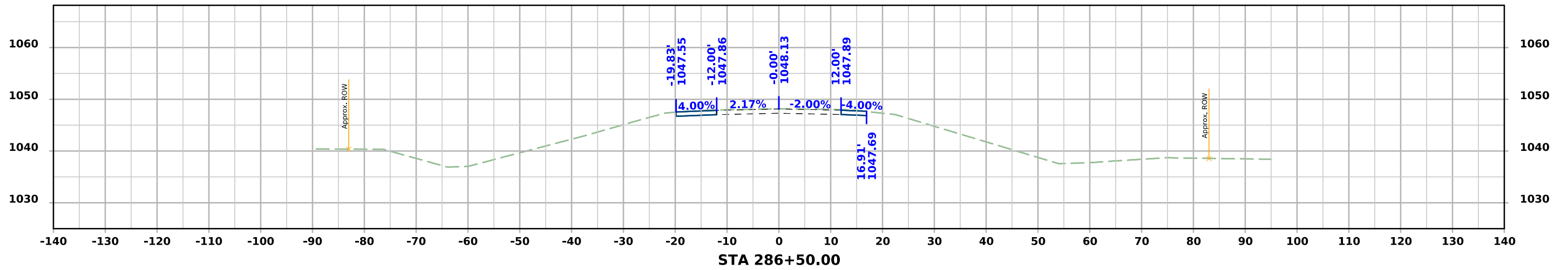
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LEGEND AND INFORMATION SHEET

(COVERS SHEET SERIES W, X, Y, & Z)

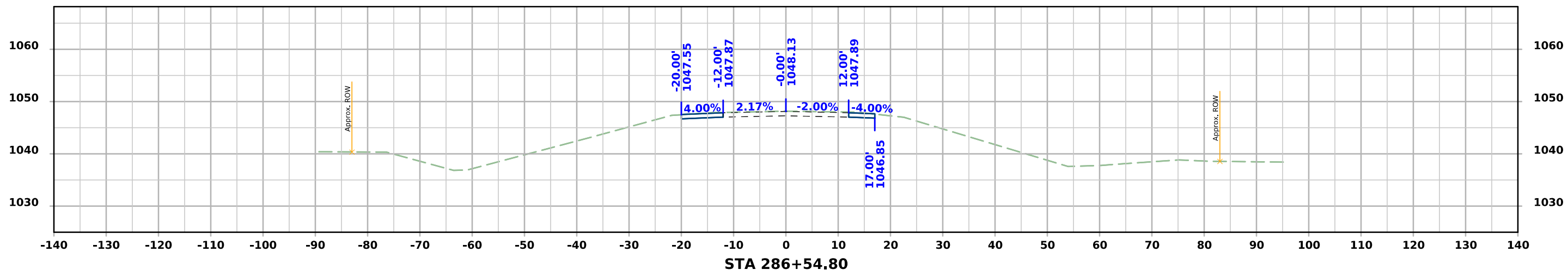
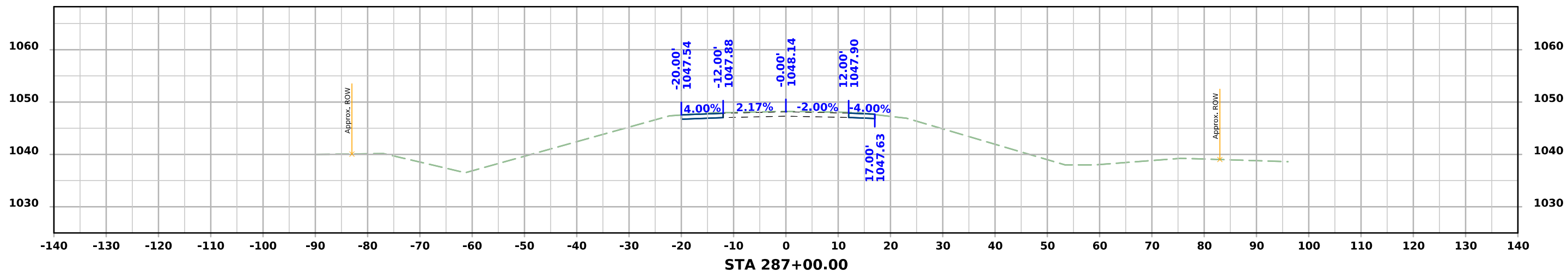
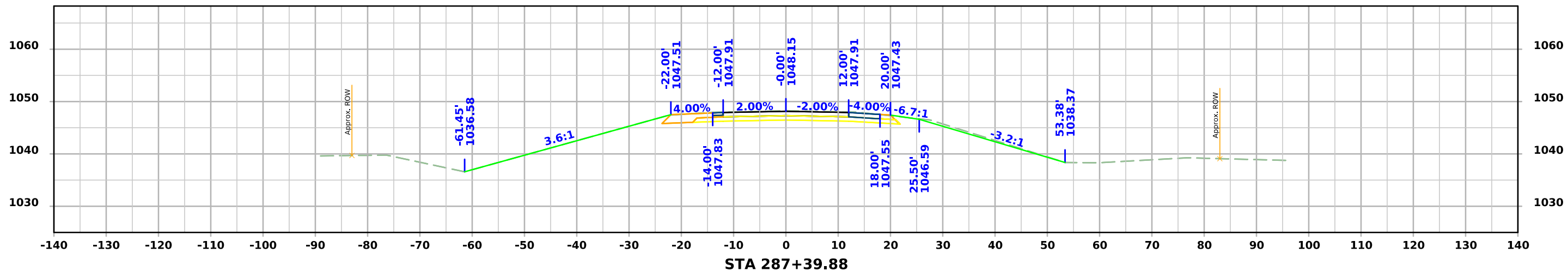
IA 175



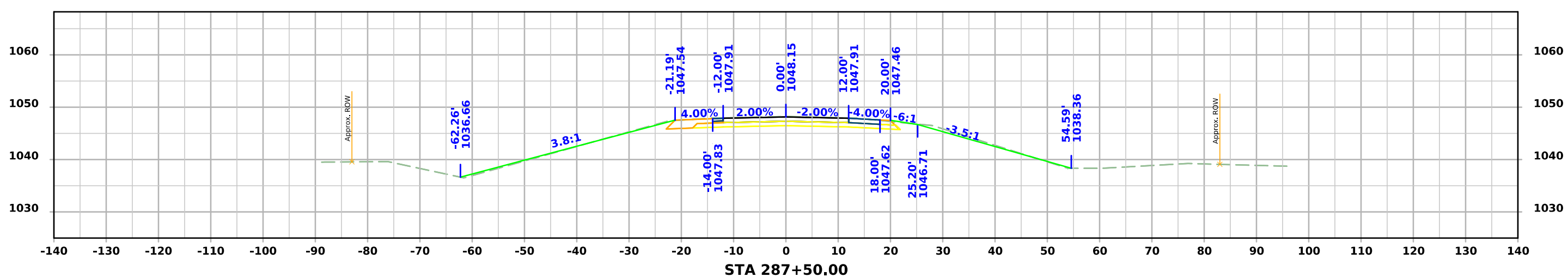
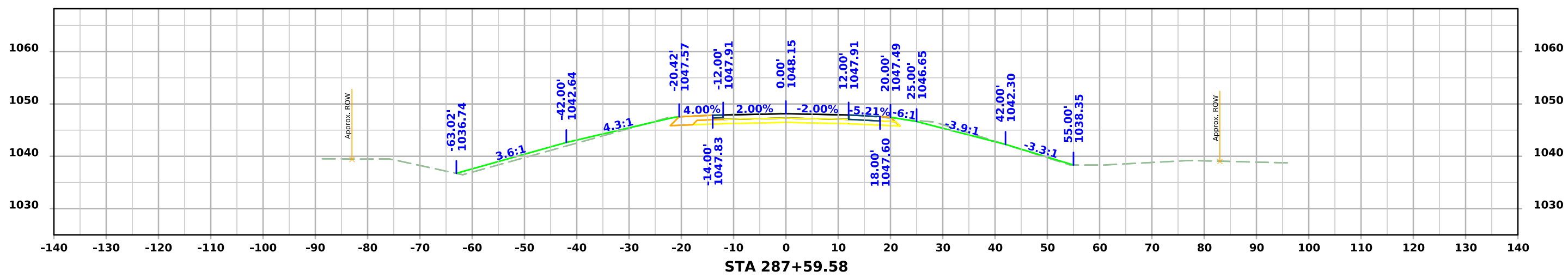
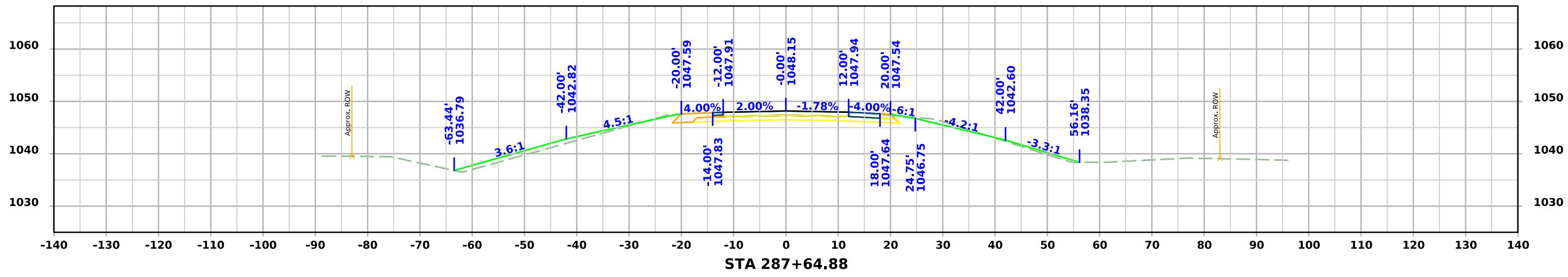
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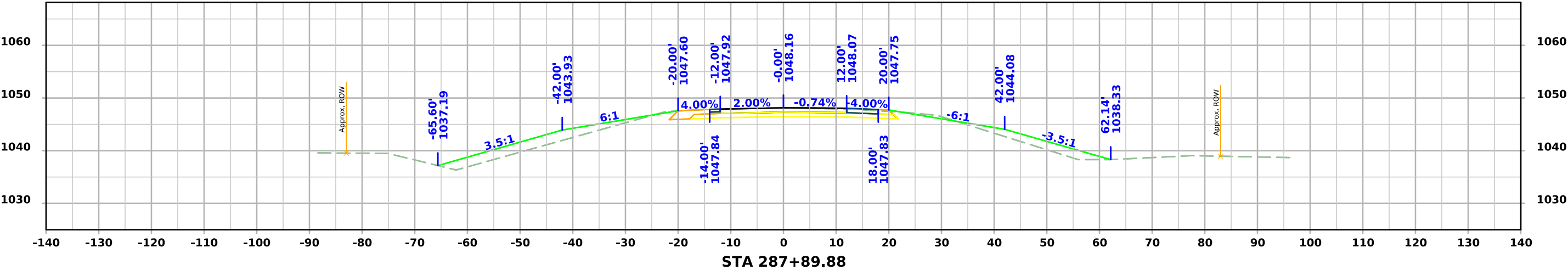
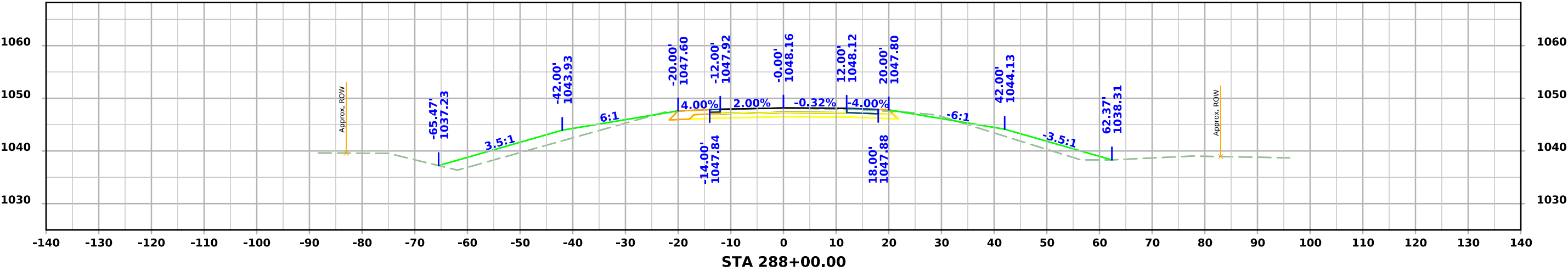
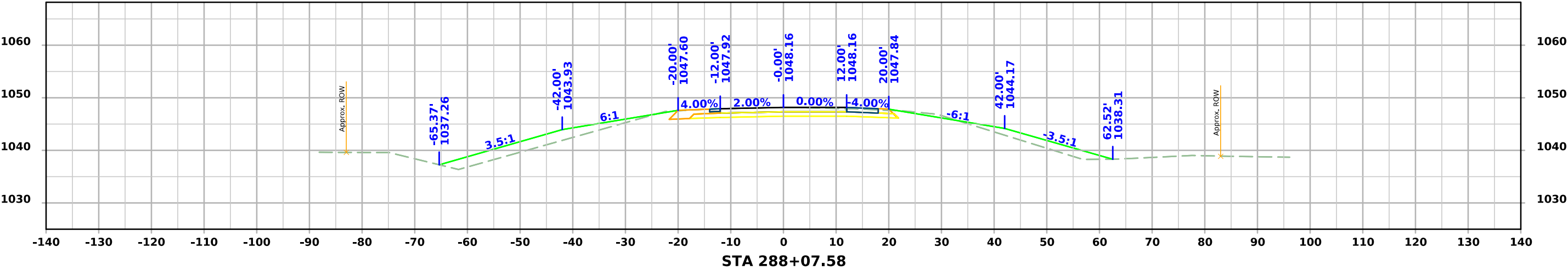
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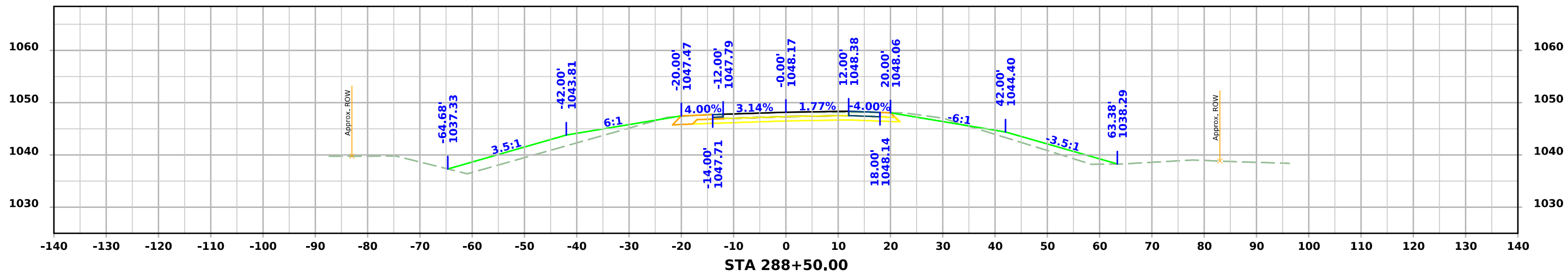
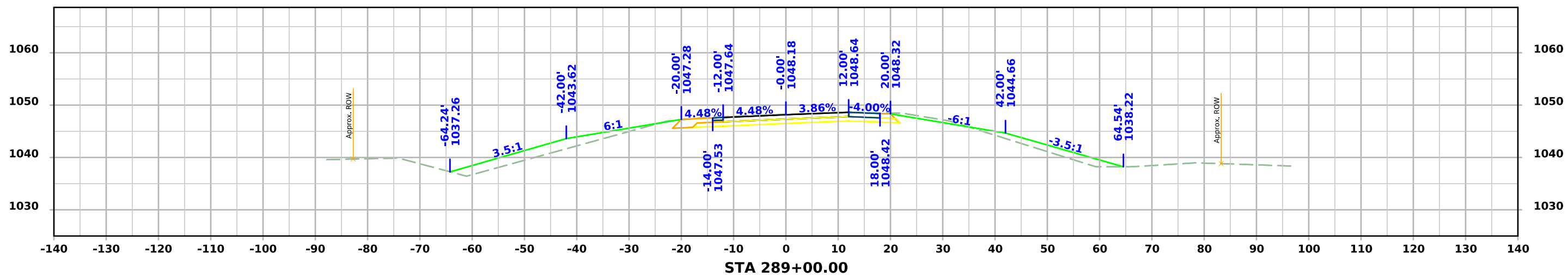
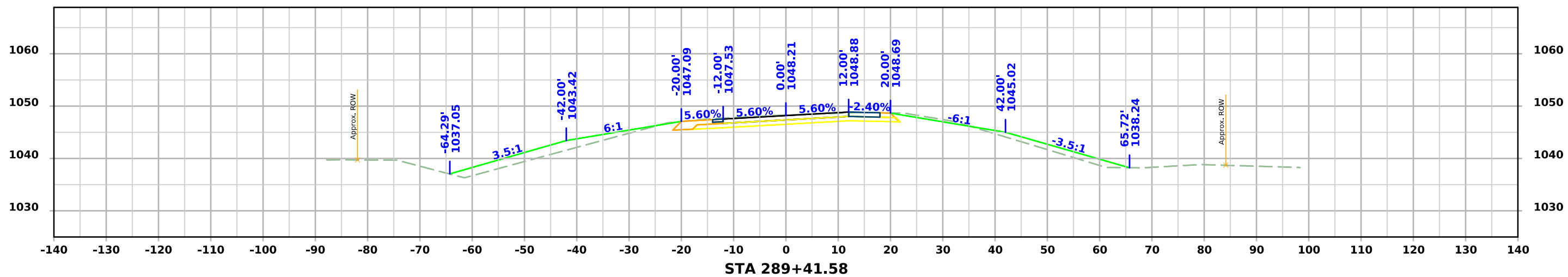
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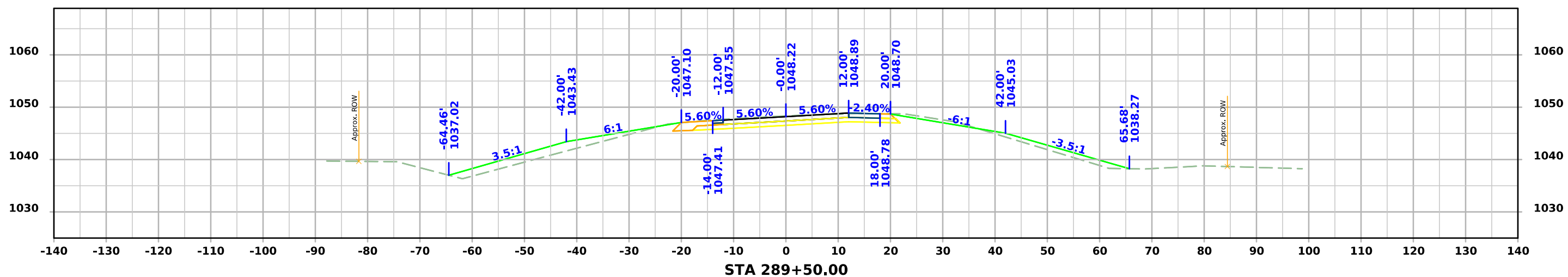
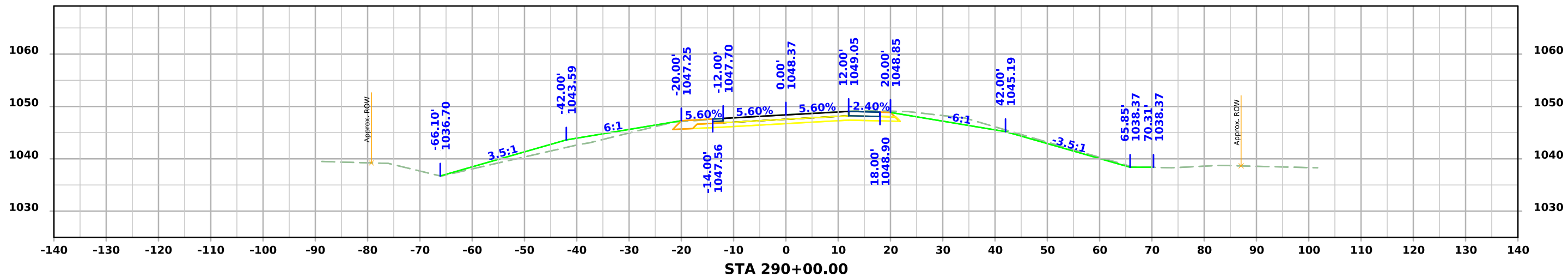
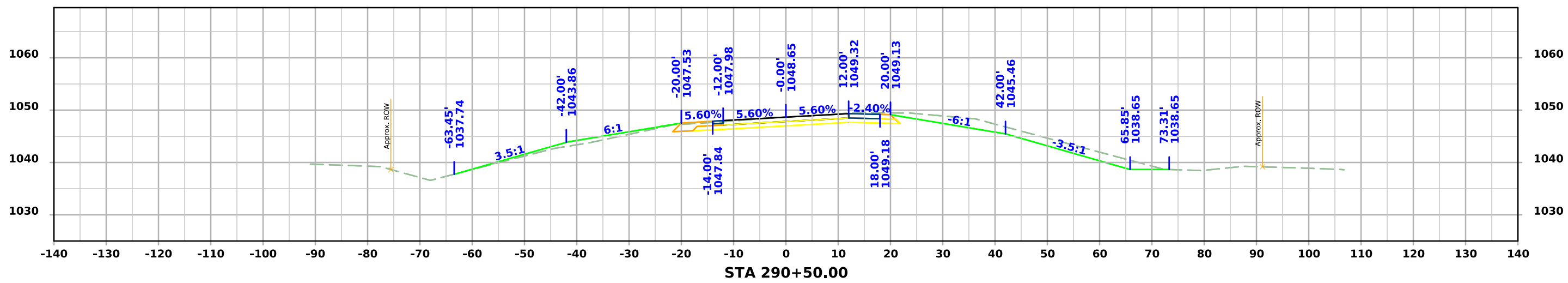
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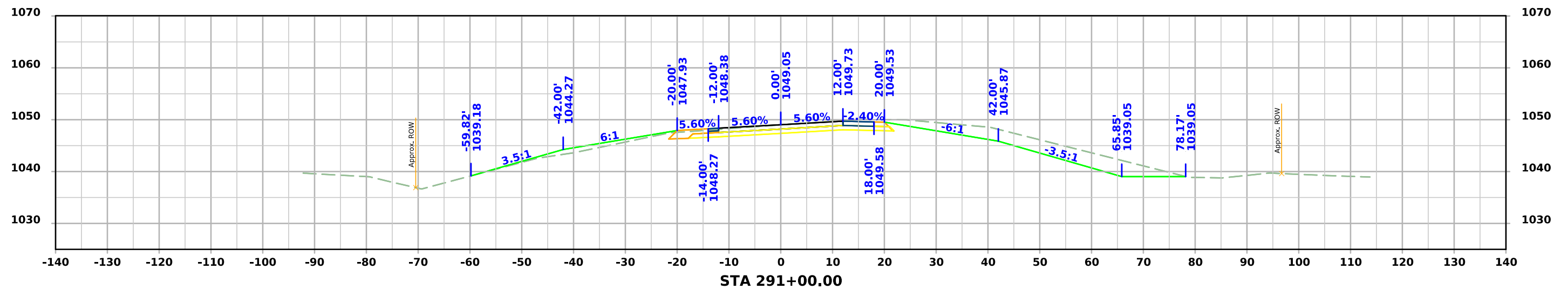
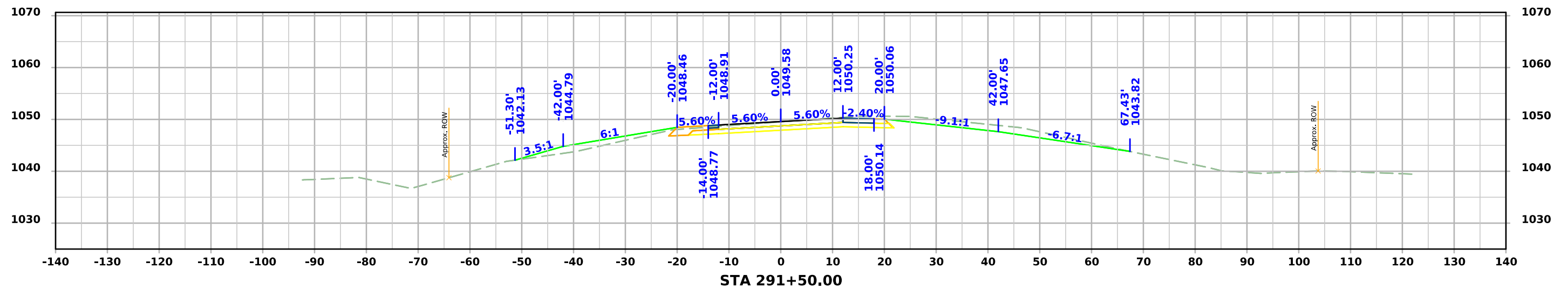
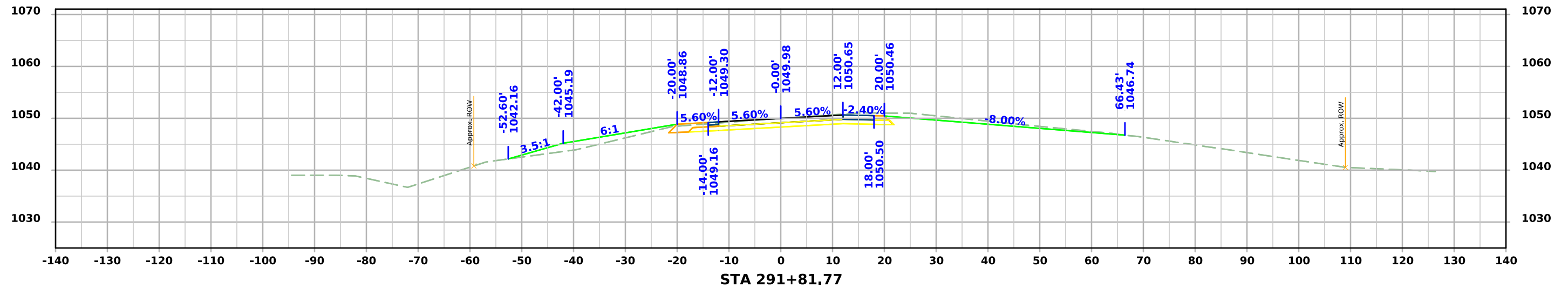
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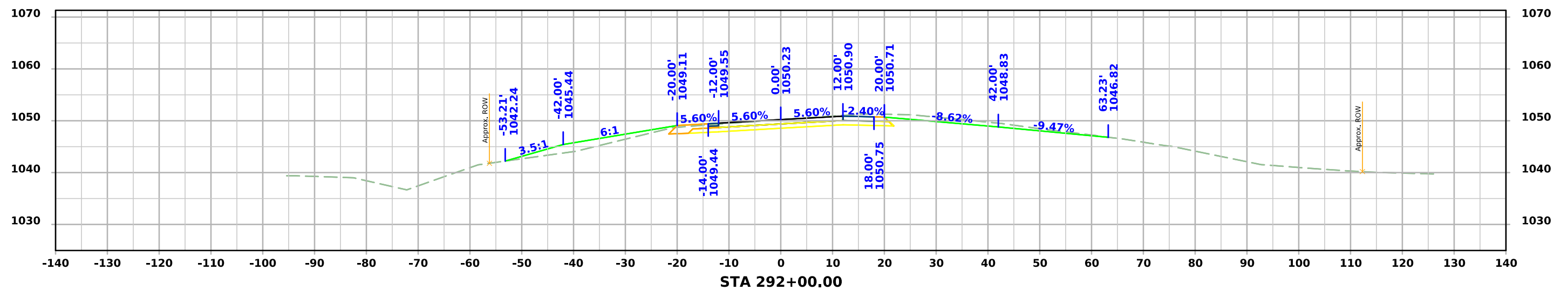
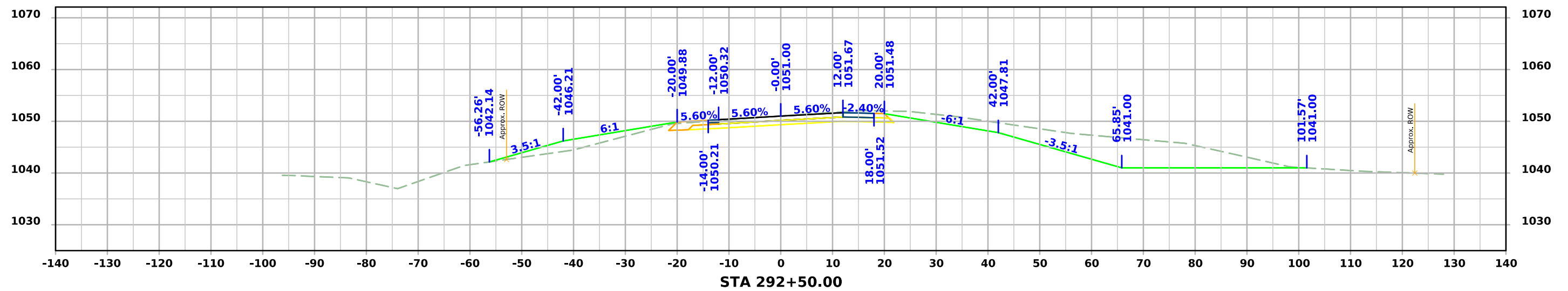
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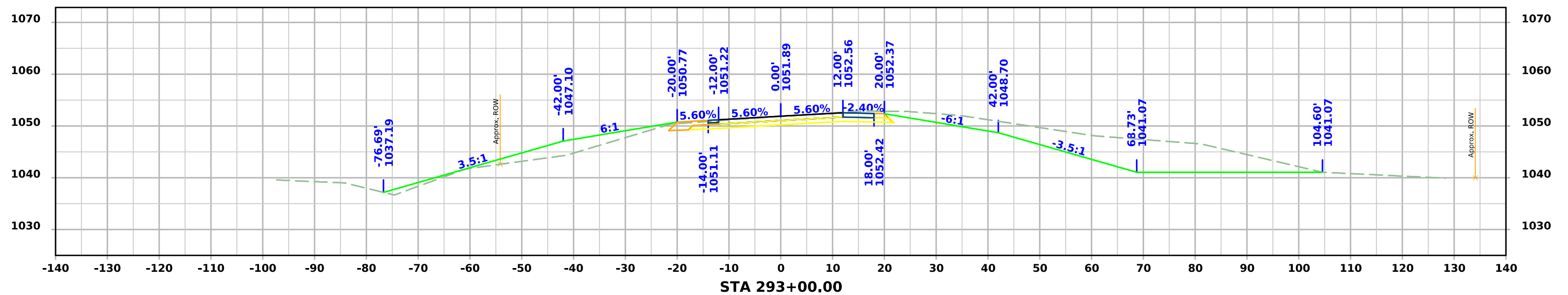
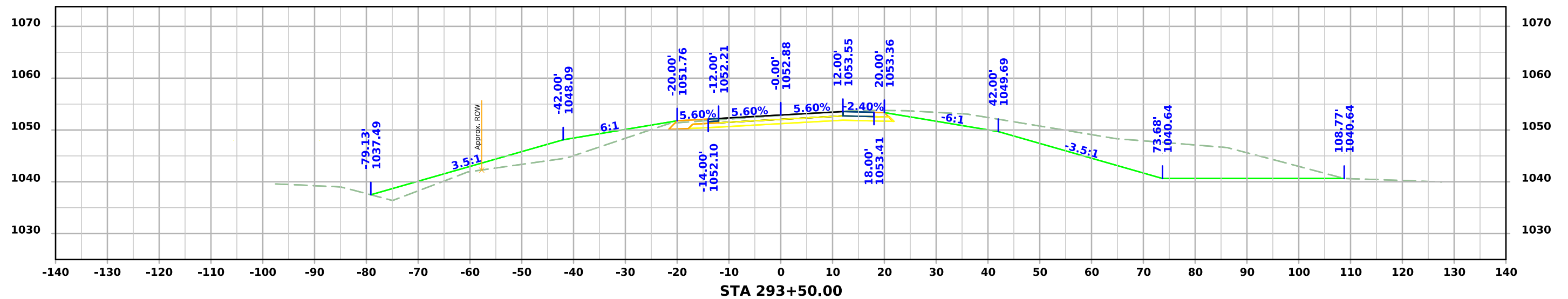


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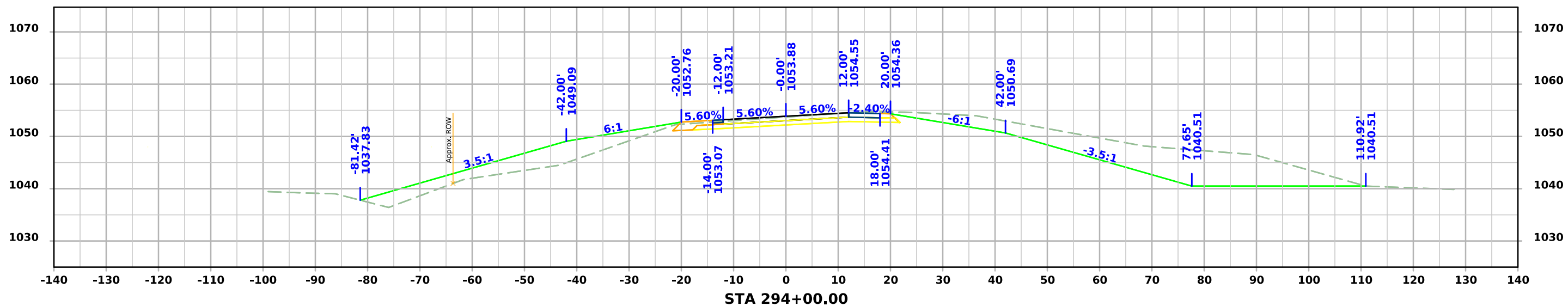
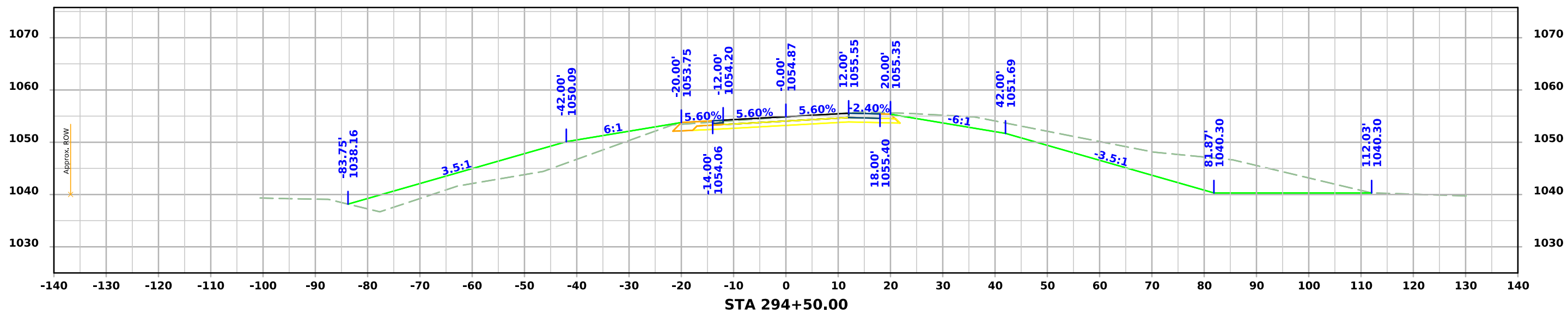


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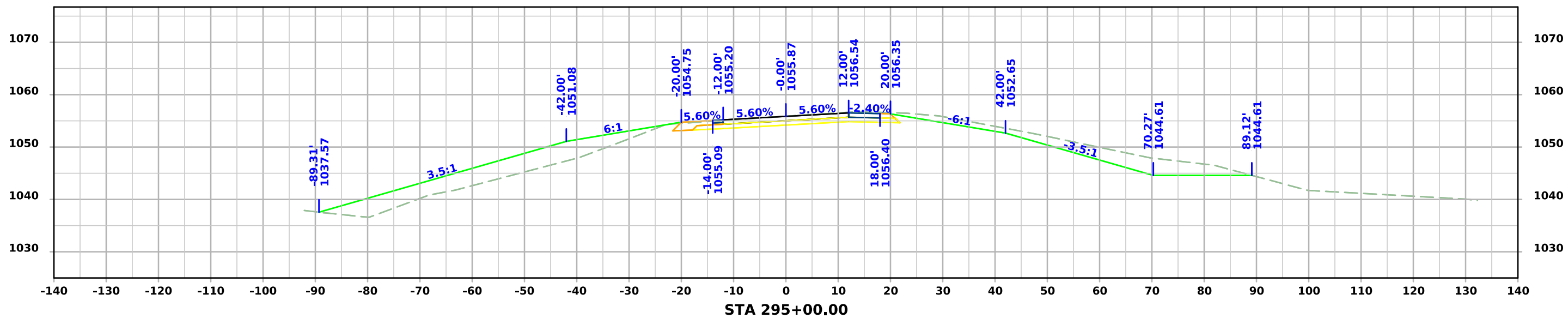
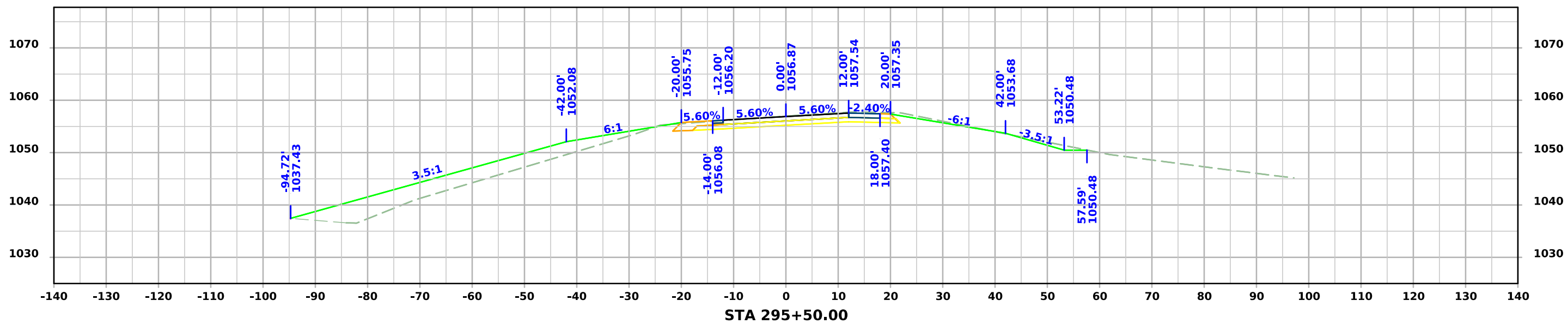


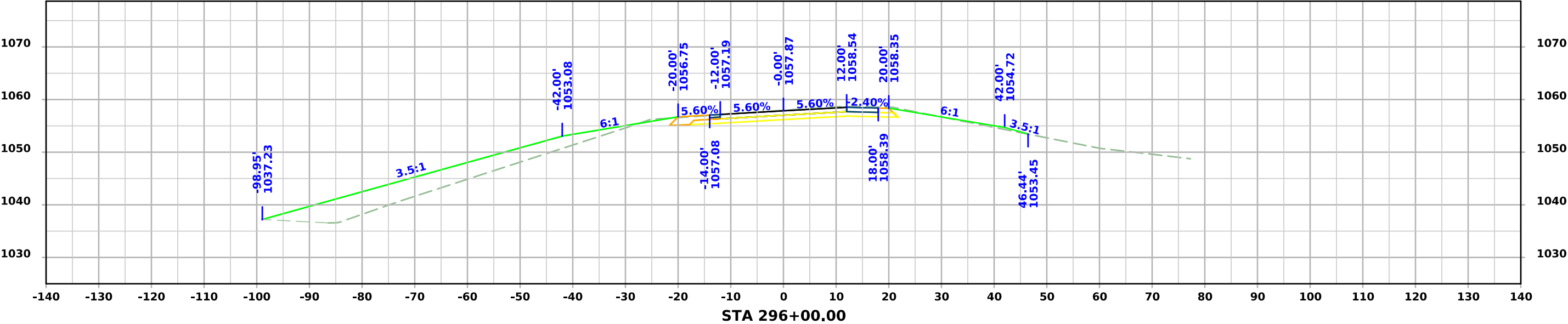
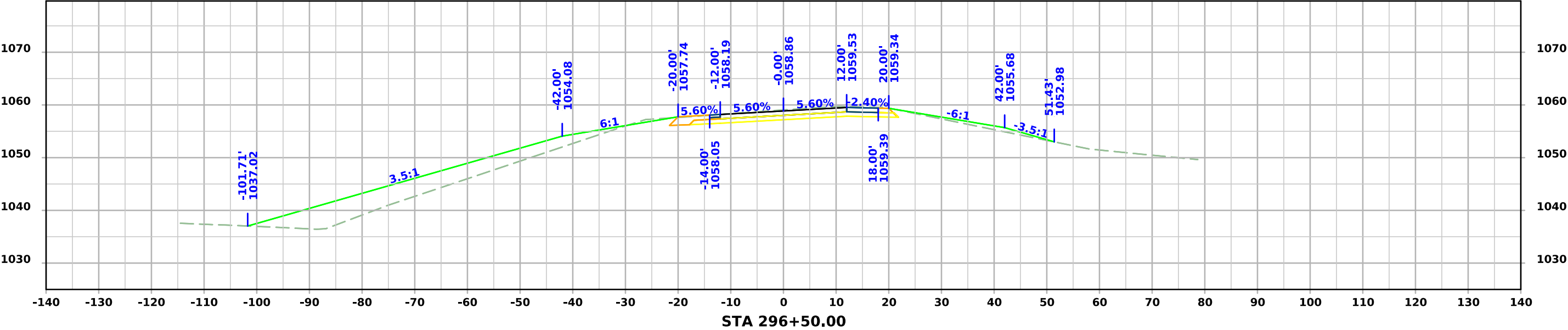


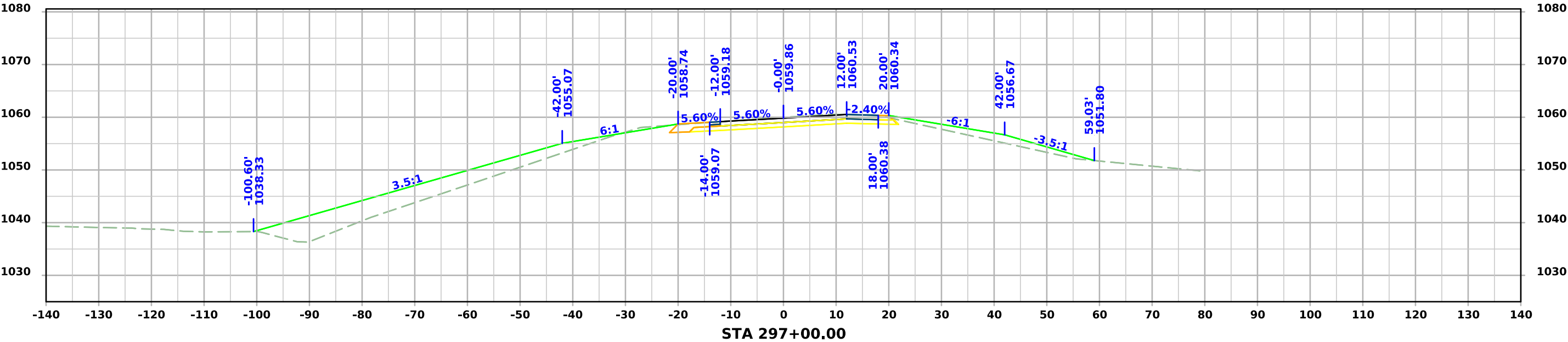
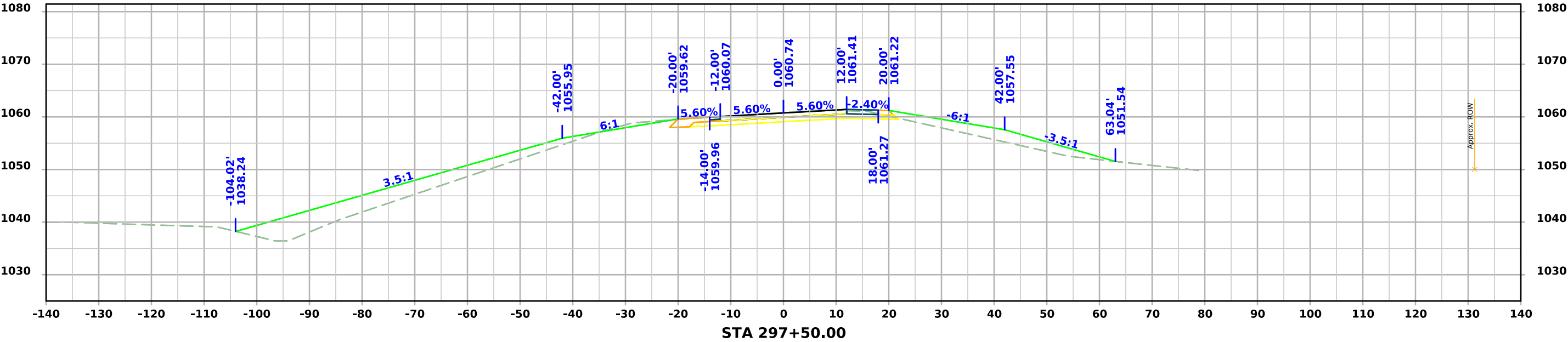
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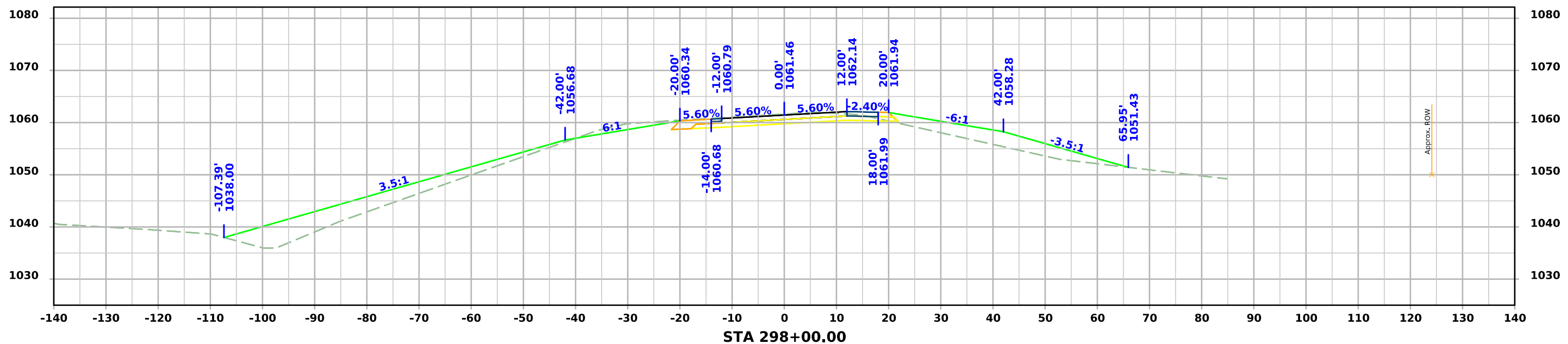
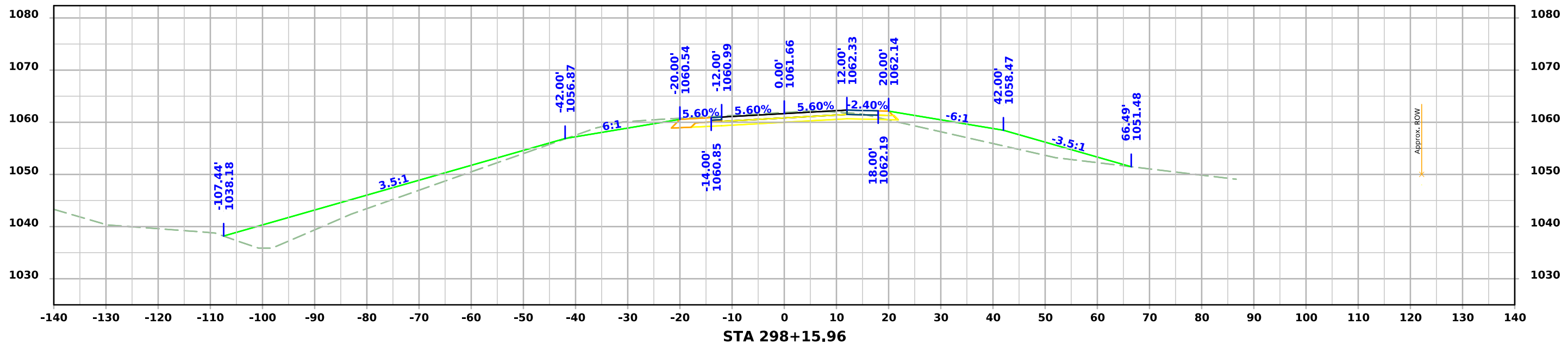
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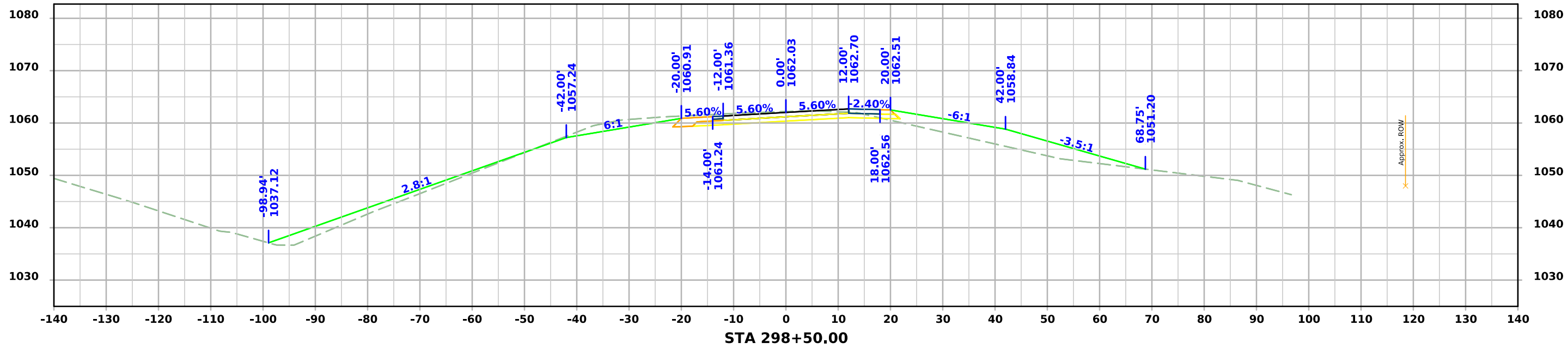
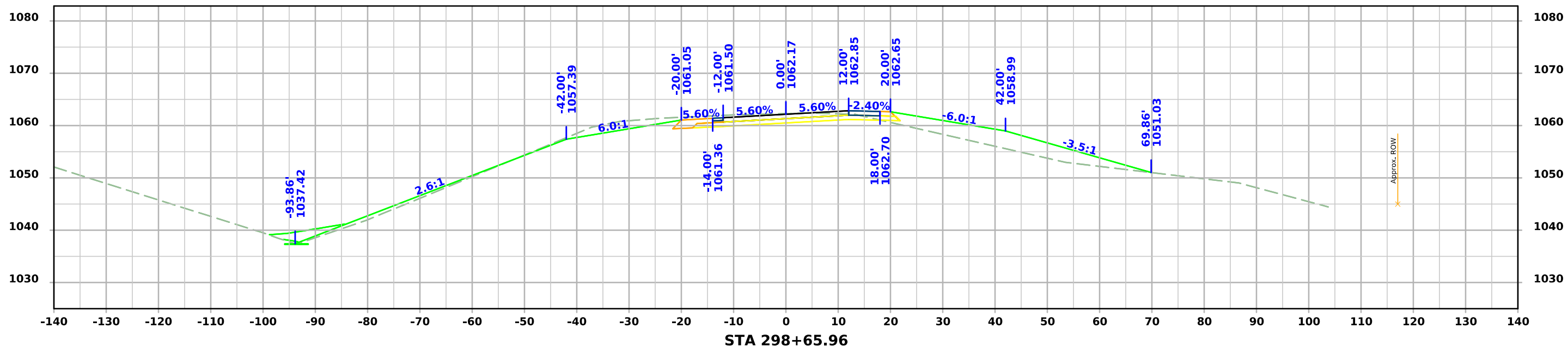




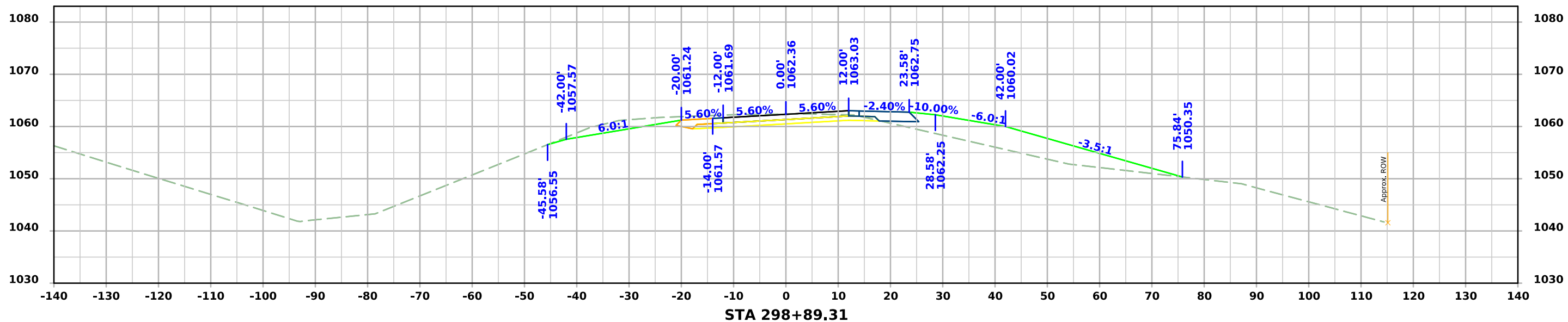
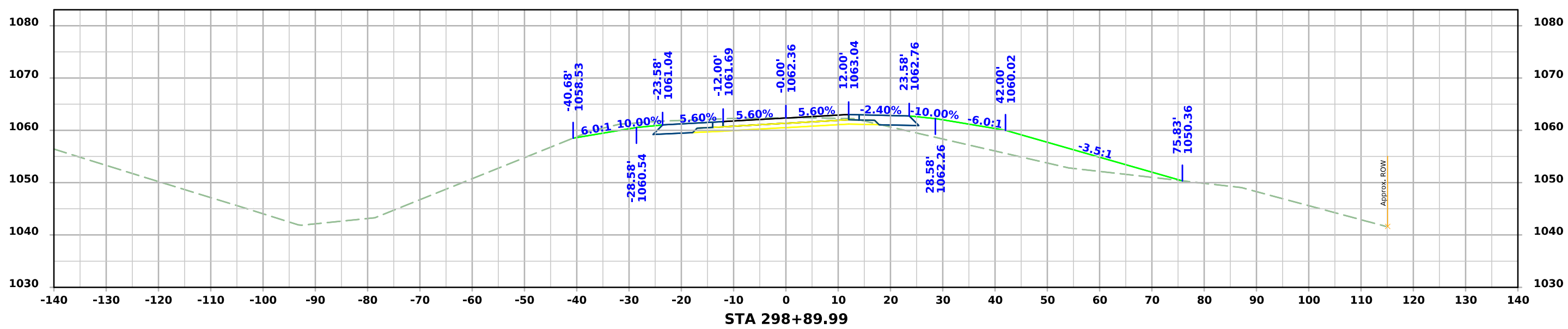
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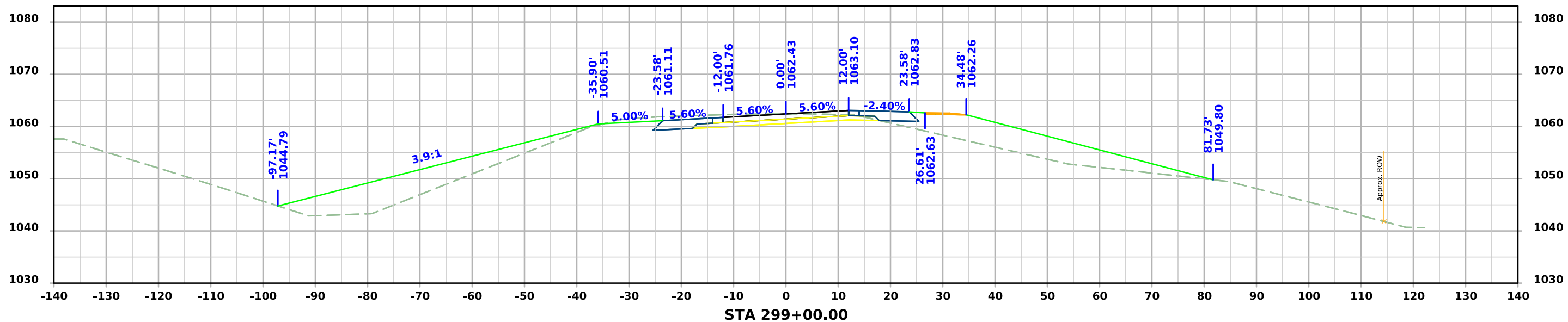
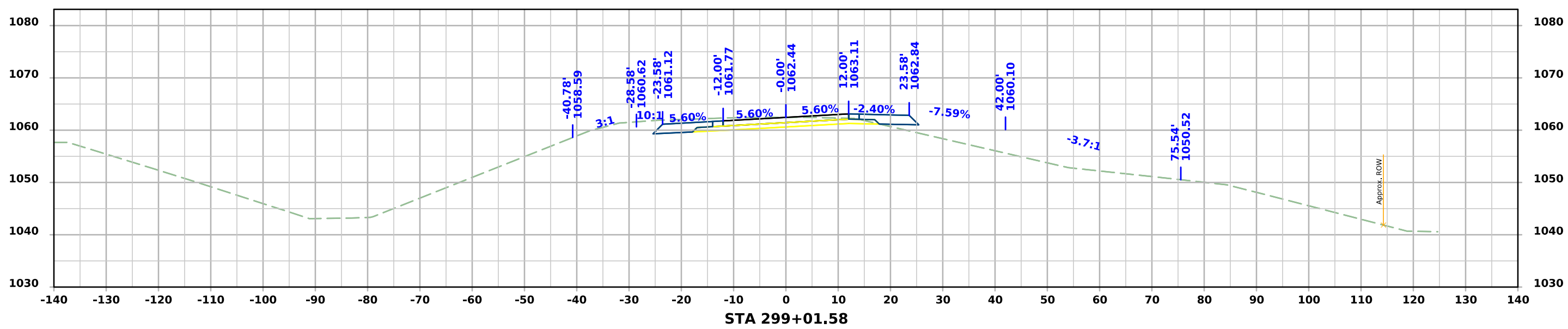
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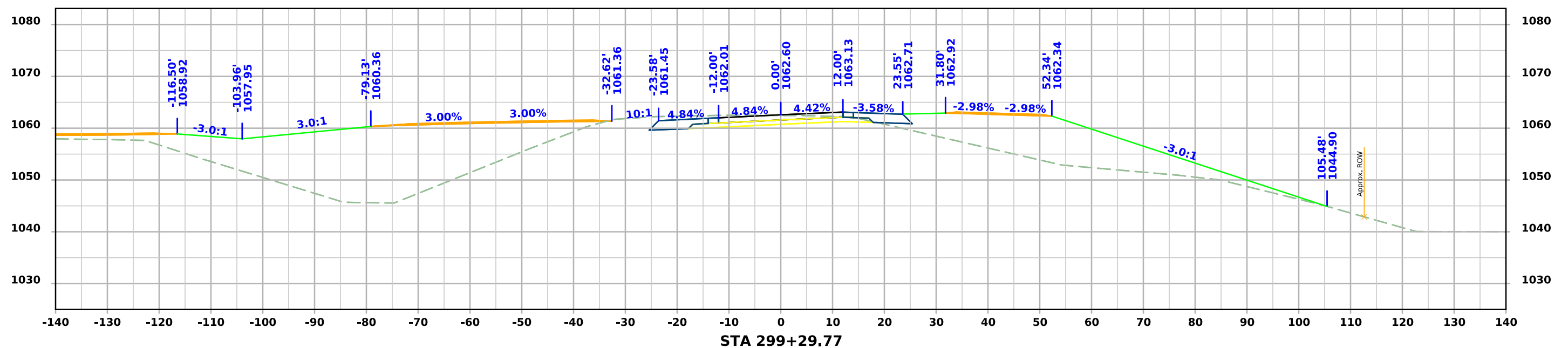
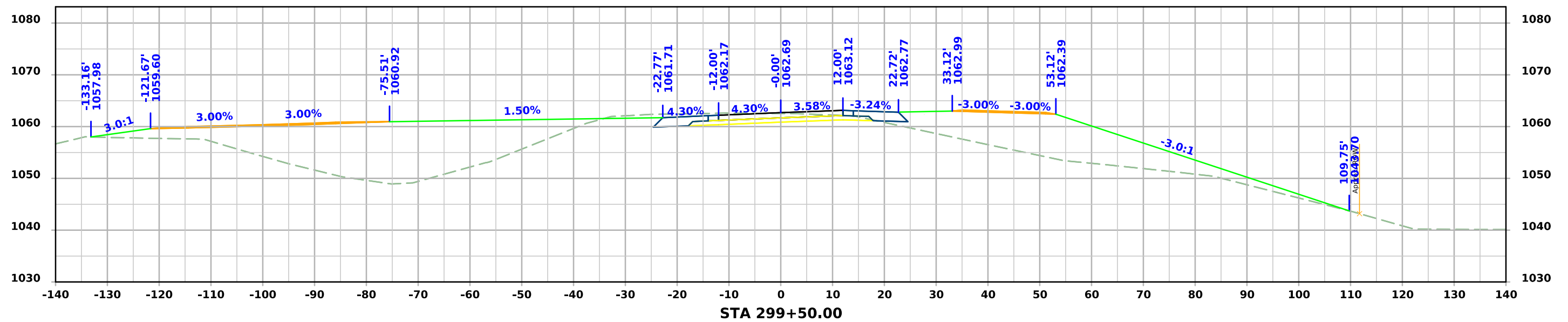
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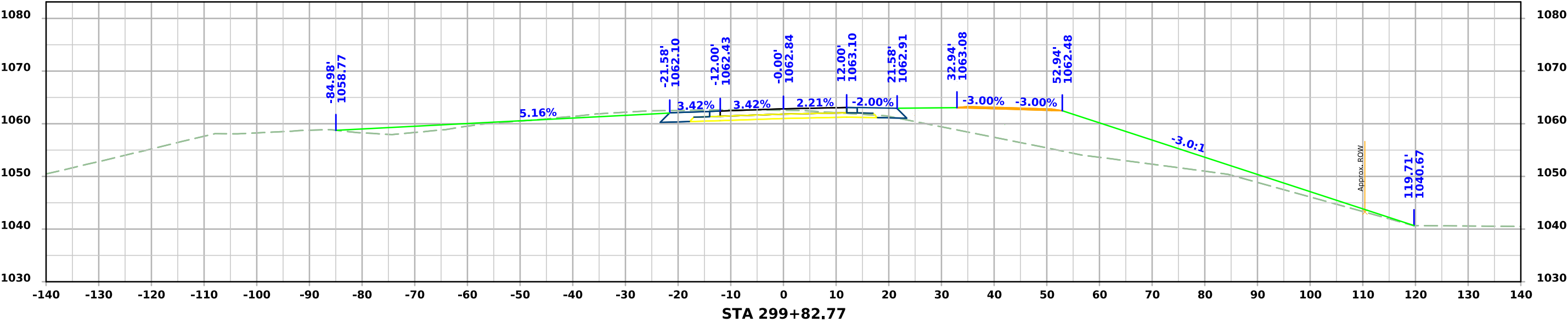
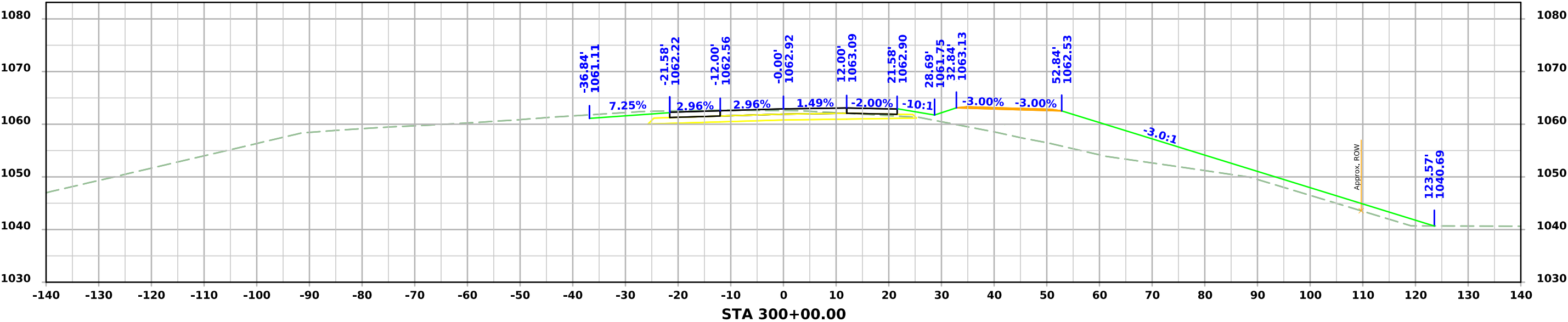
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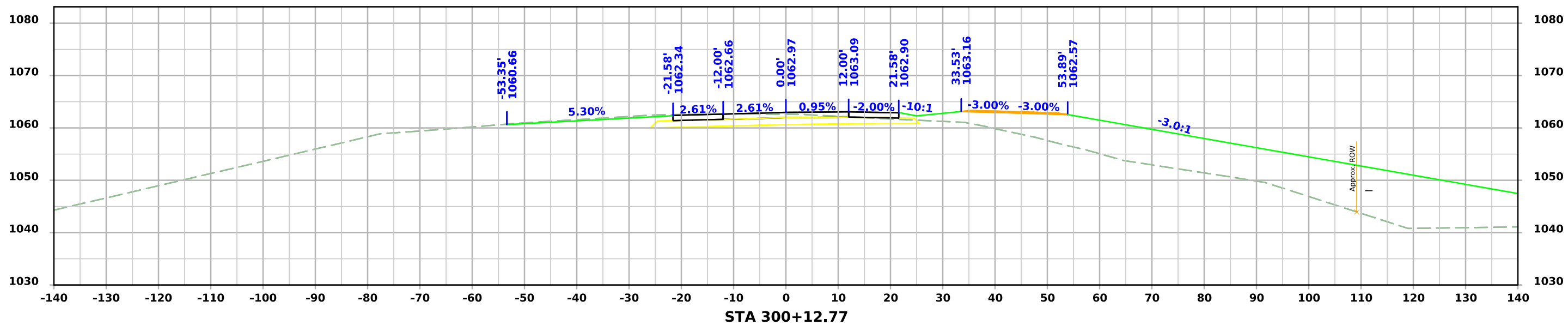
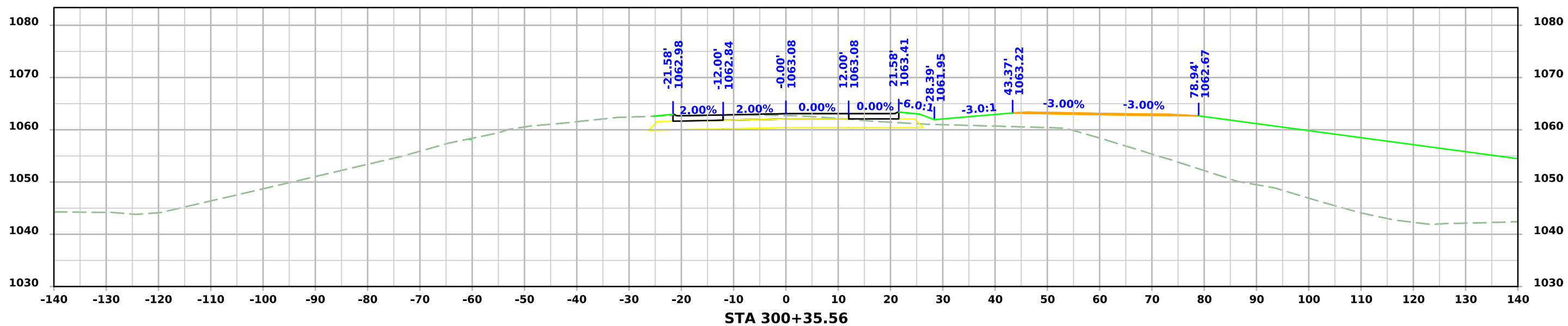
IA 175



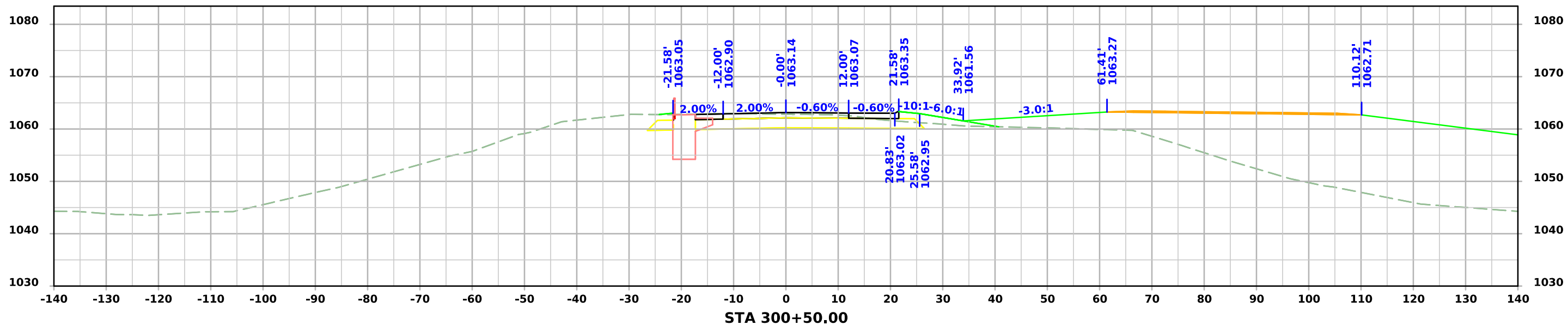
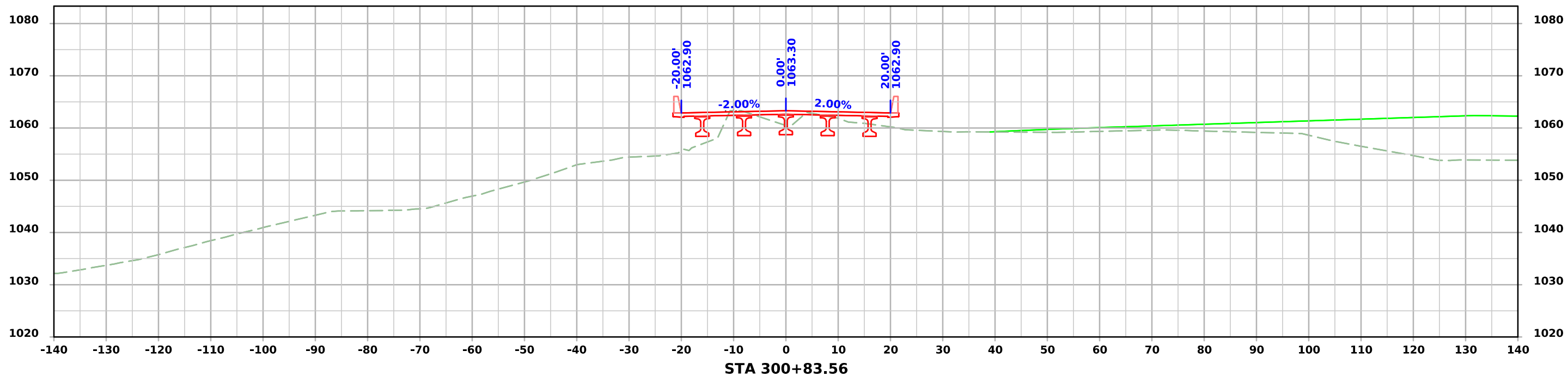
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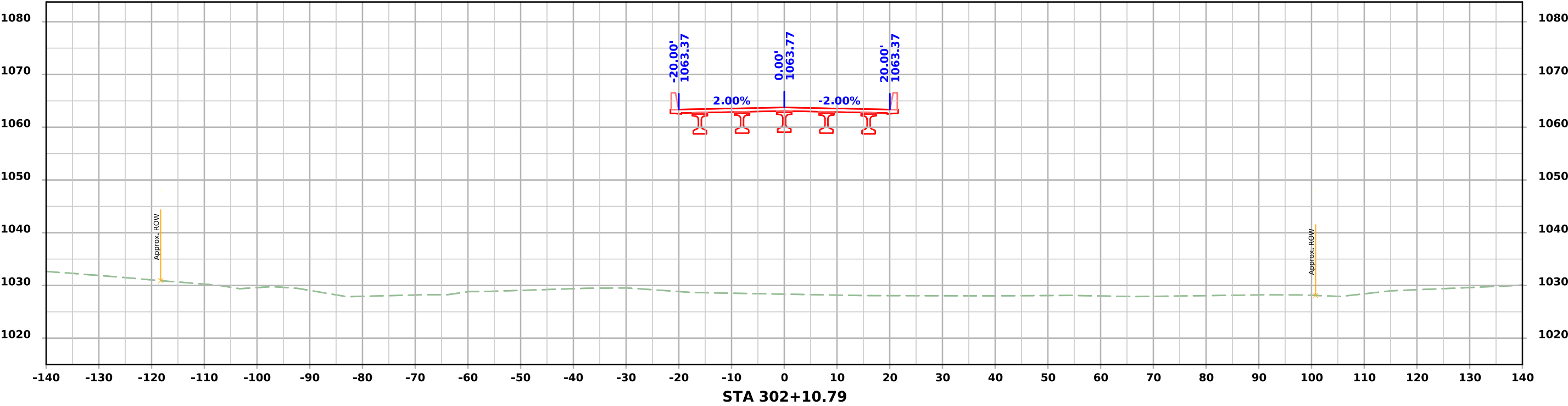
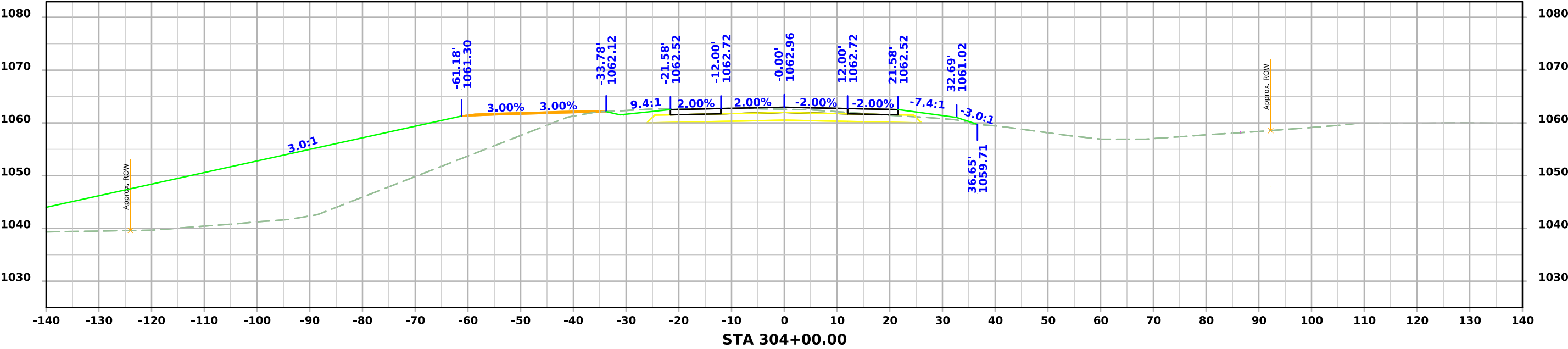


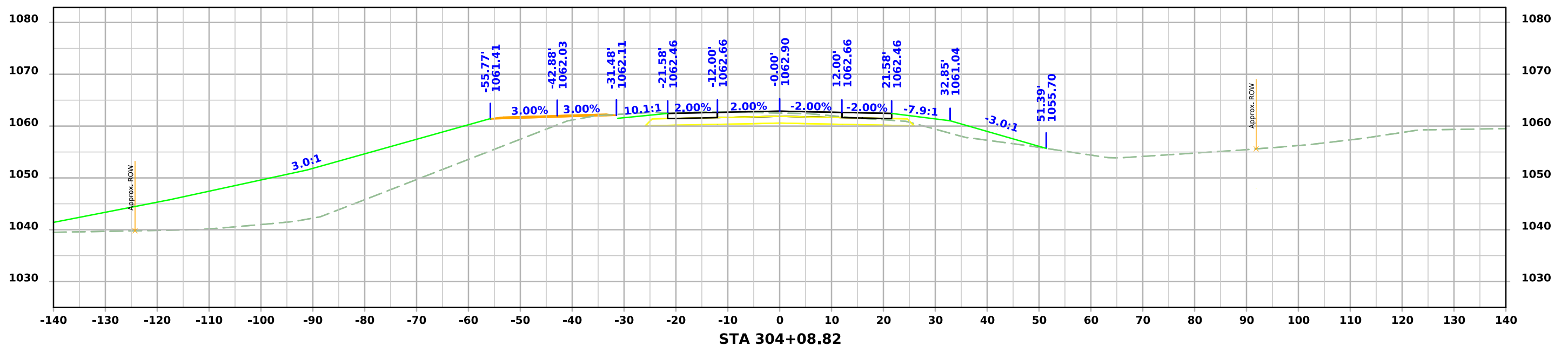
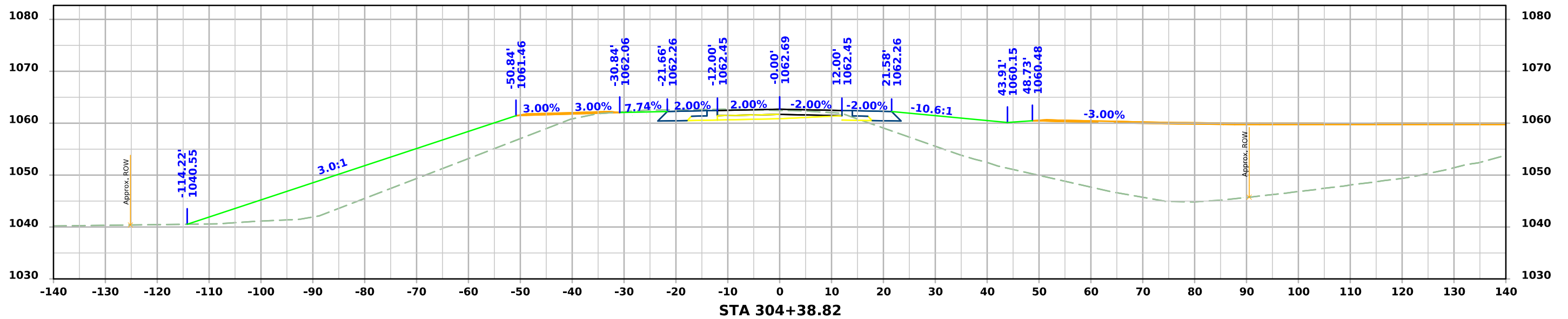
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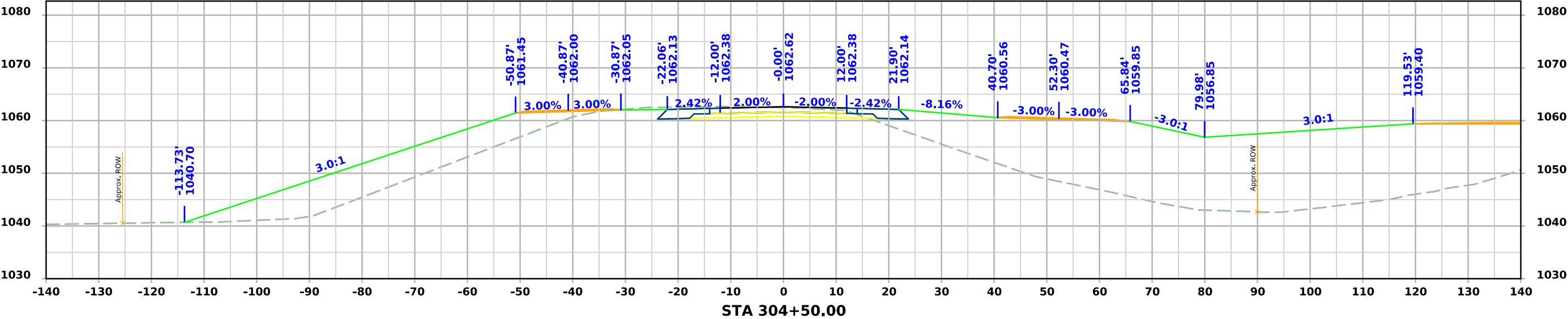
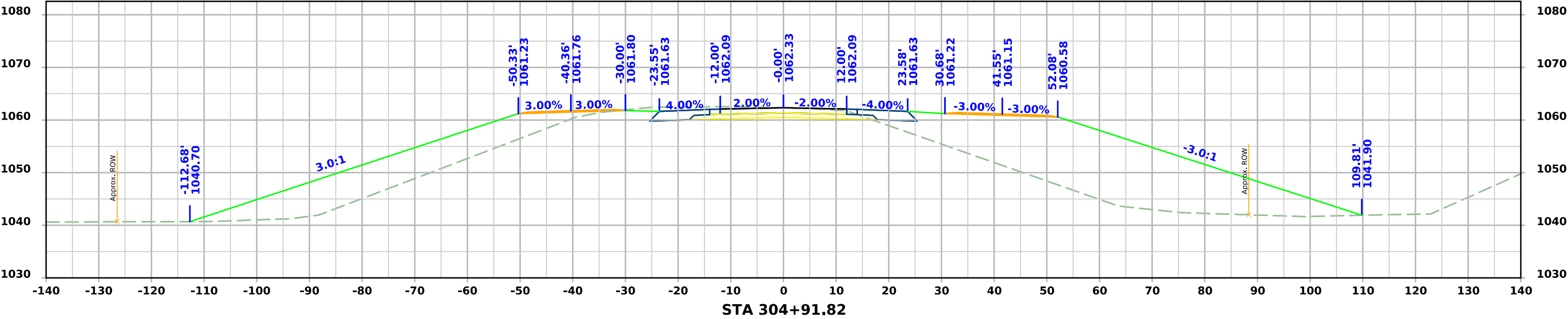


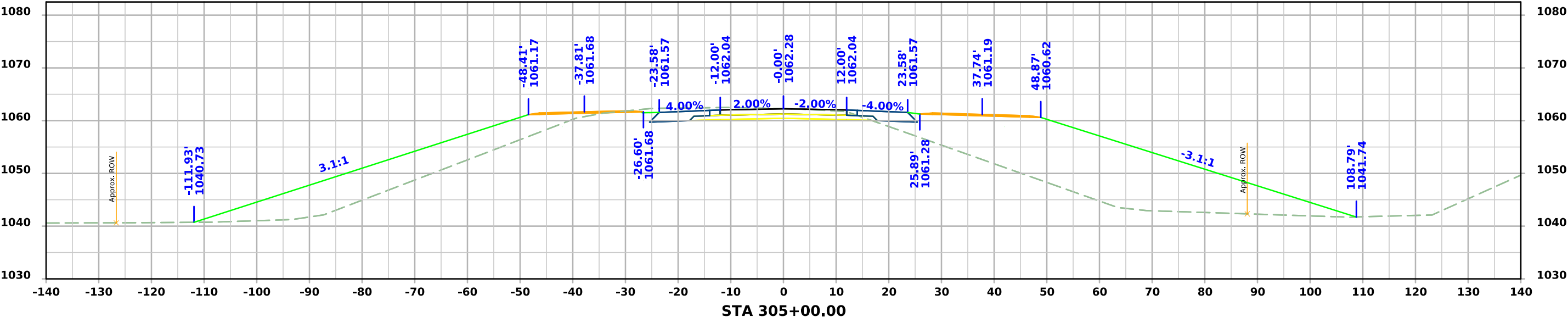
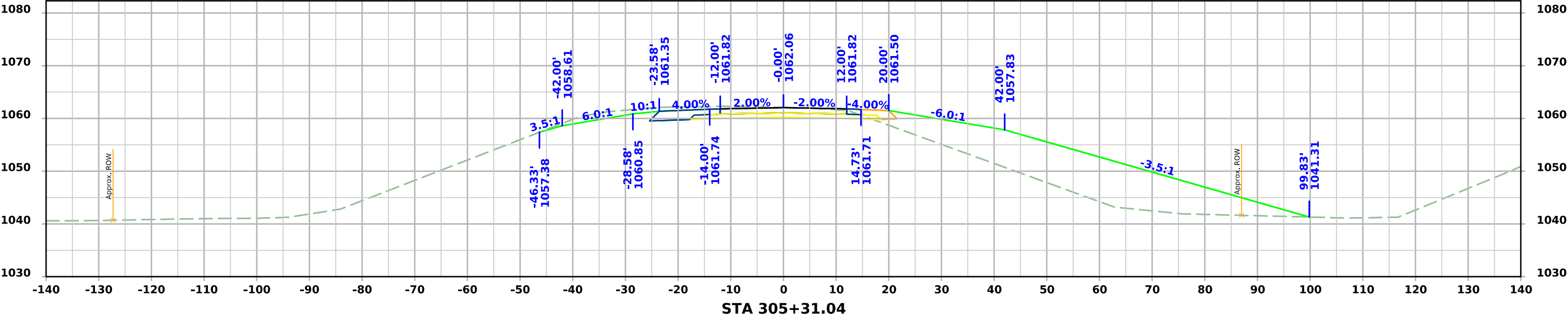
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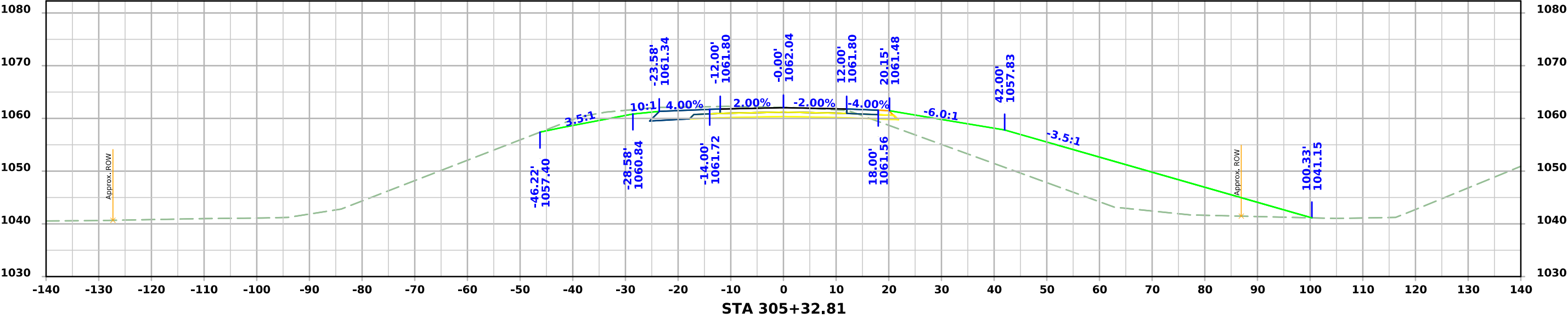
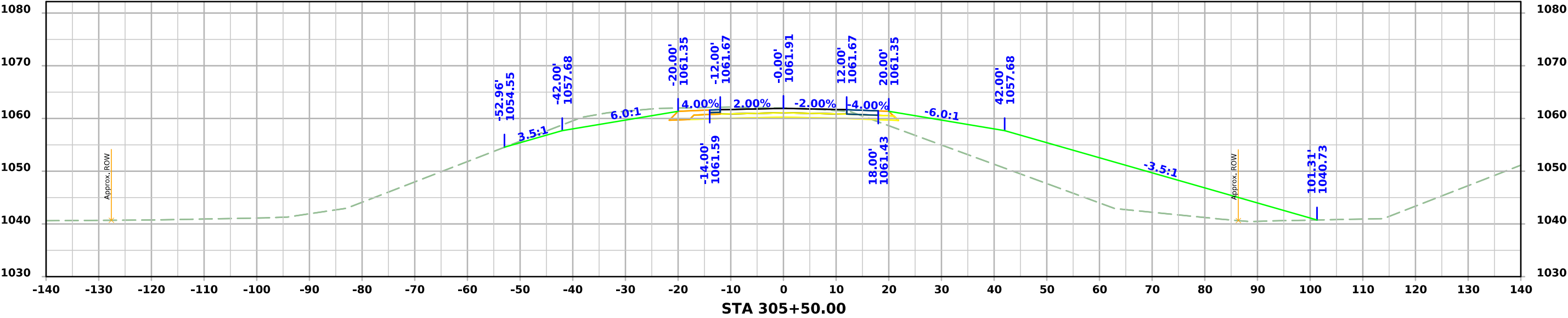


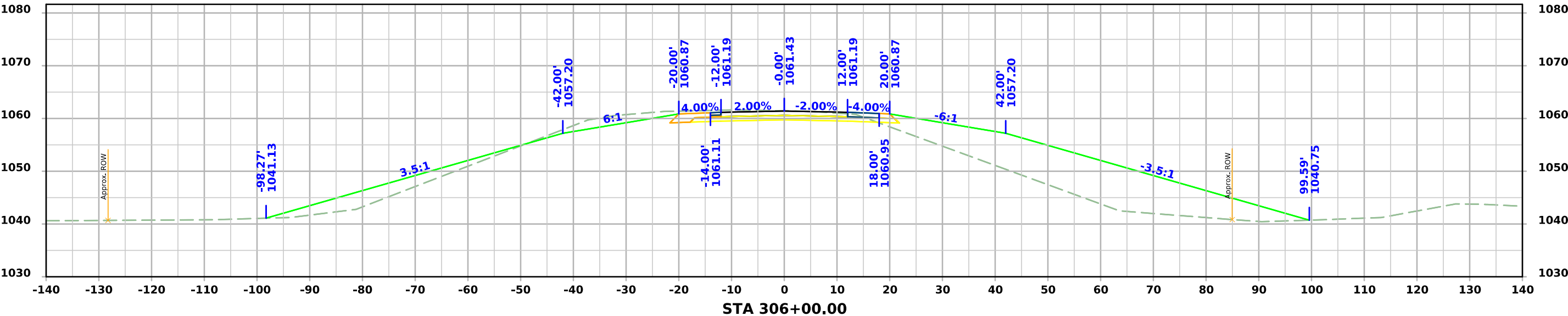
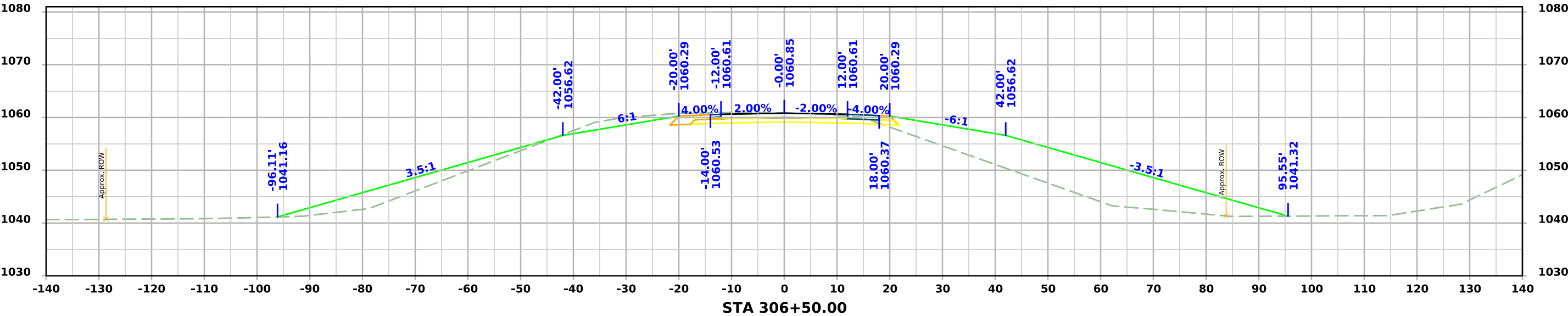


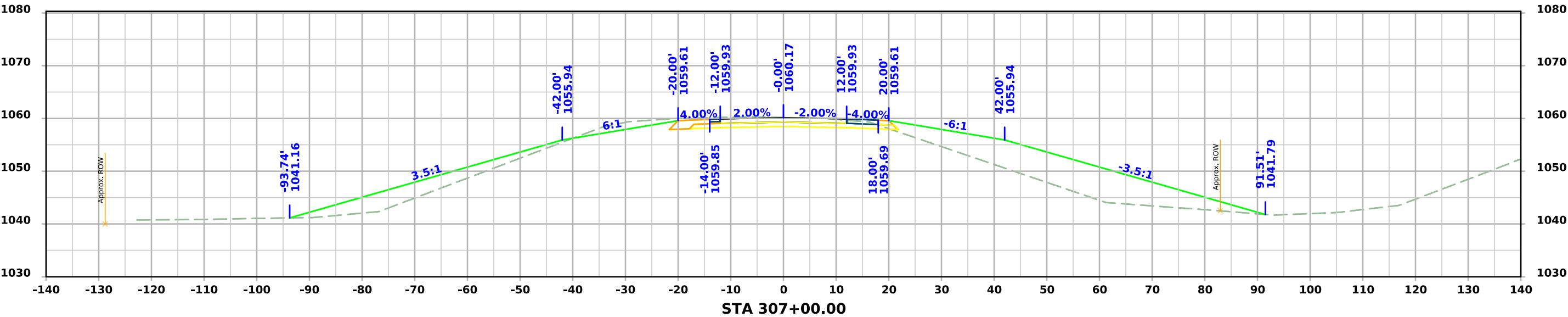
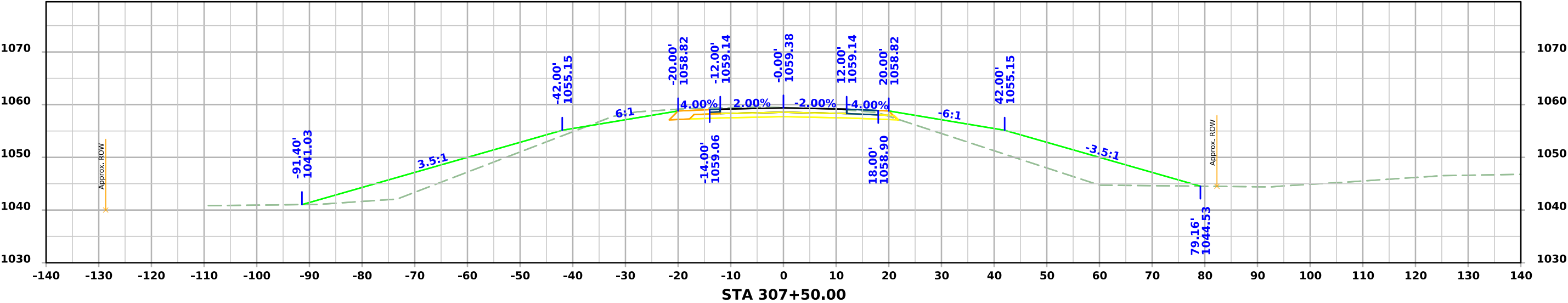


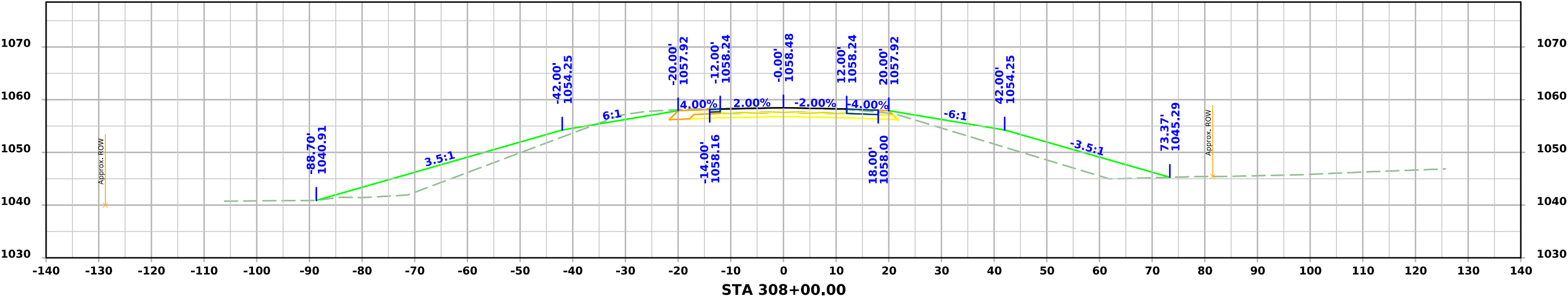
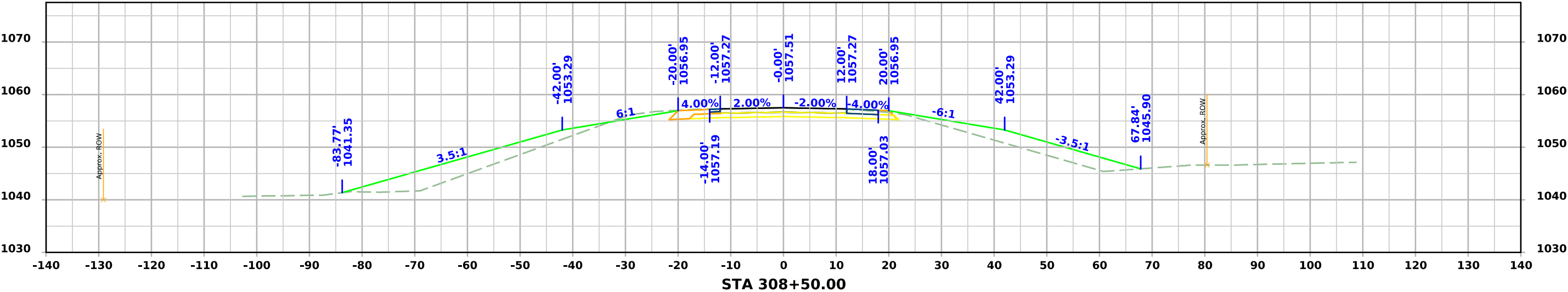




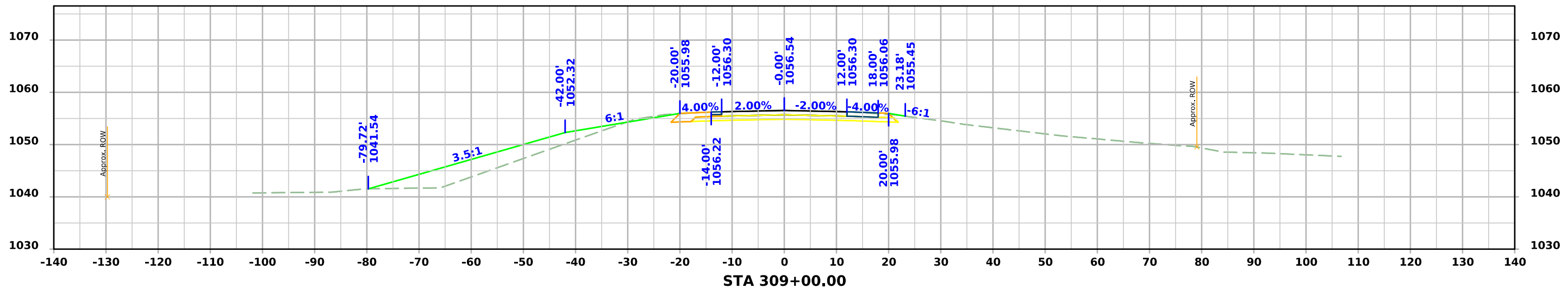
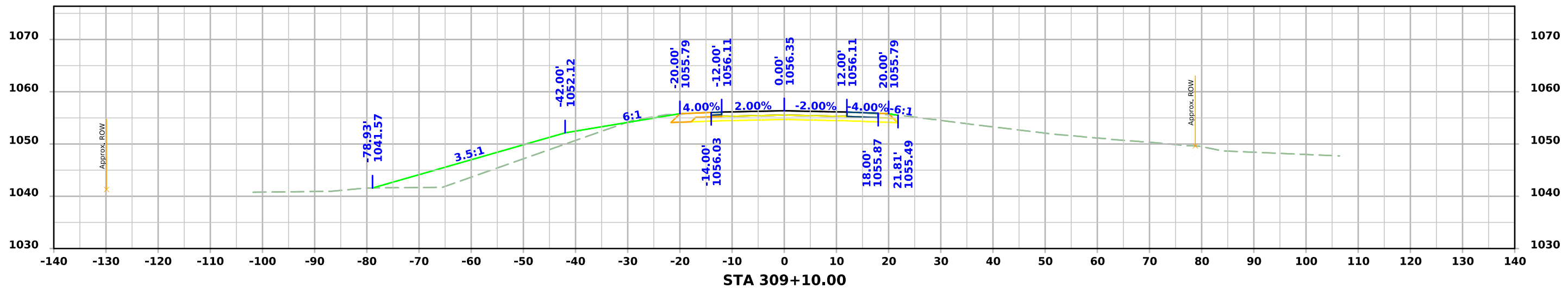
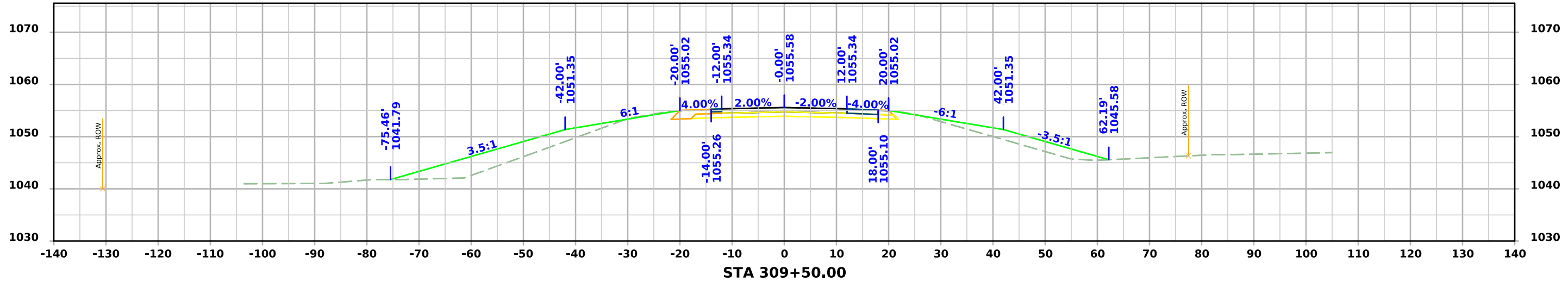




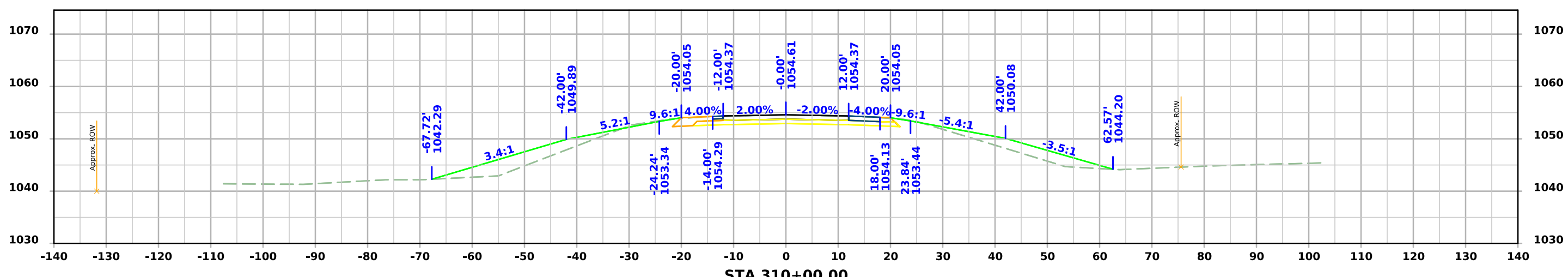
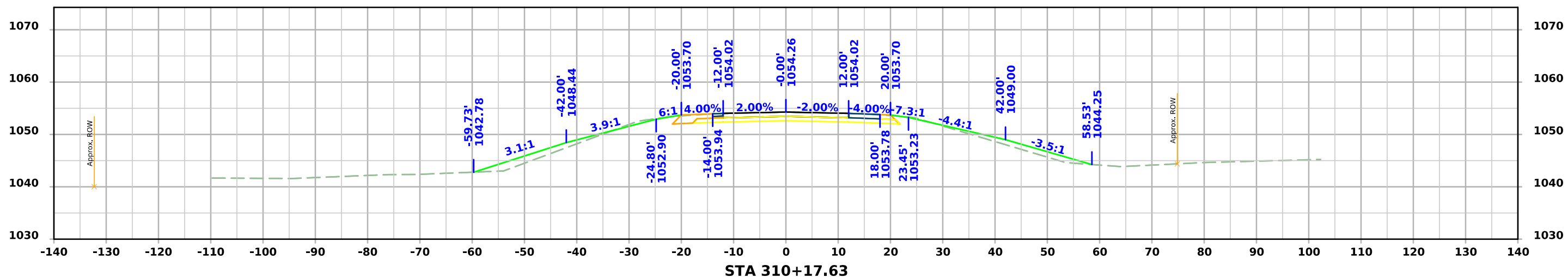
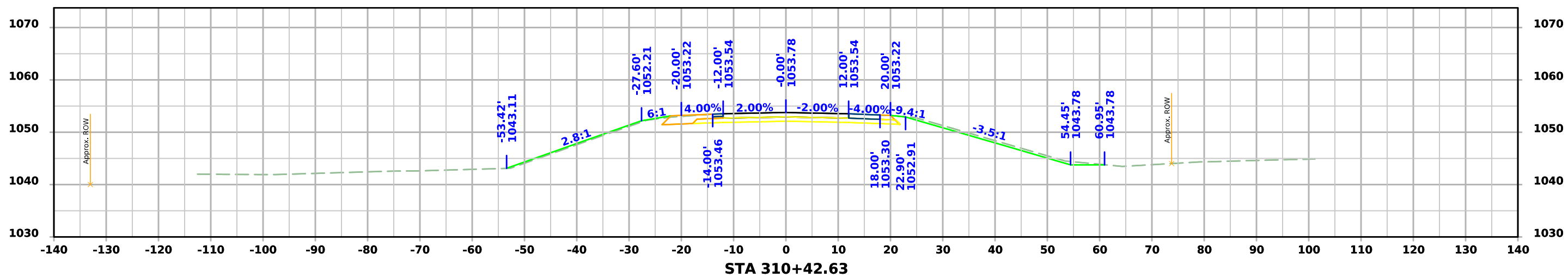




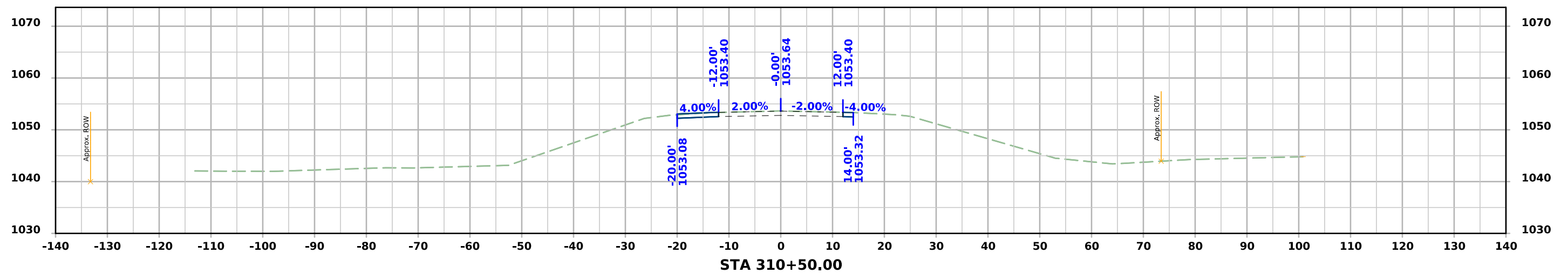
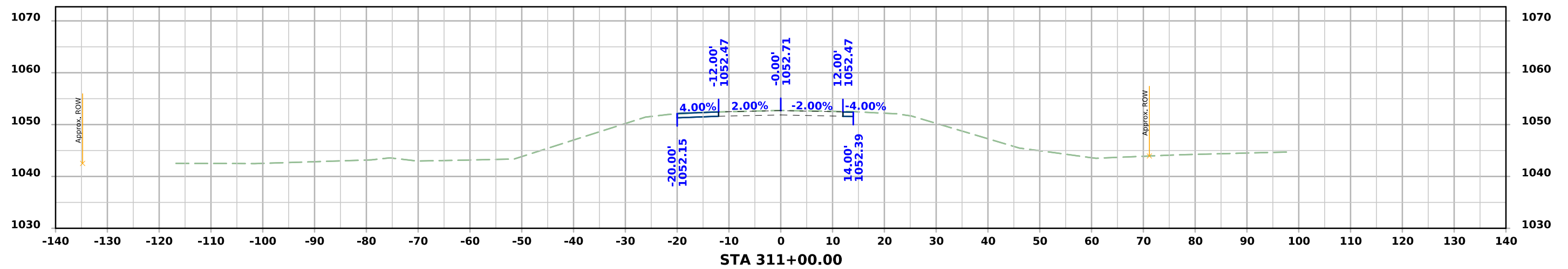
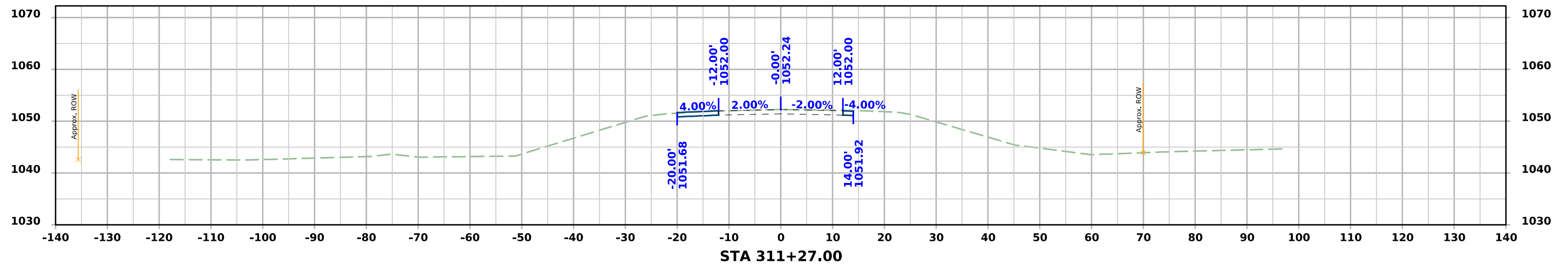
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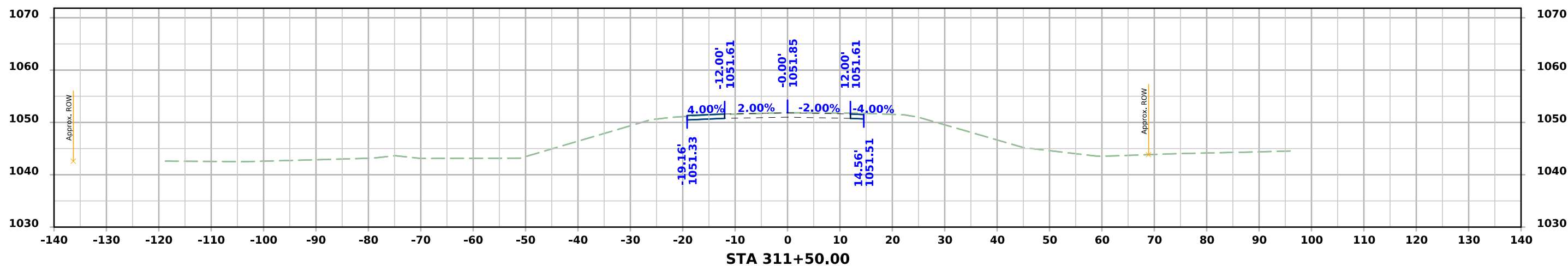
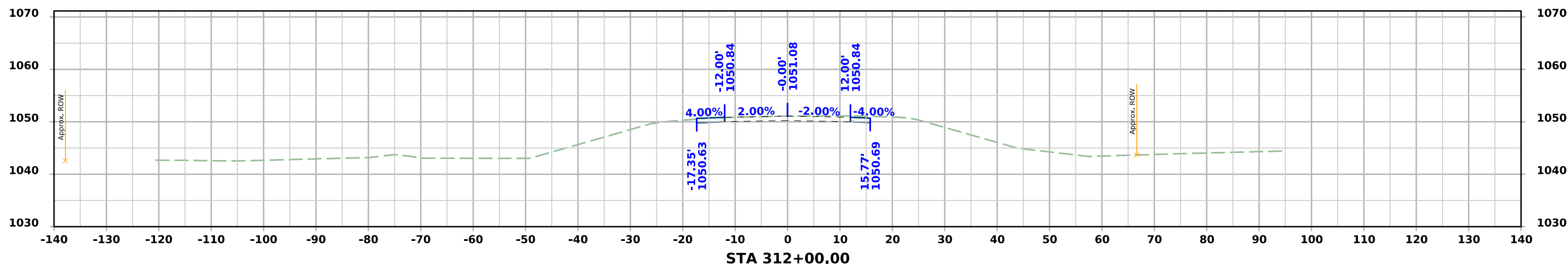
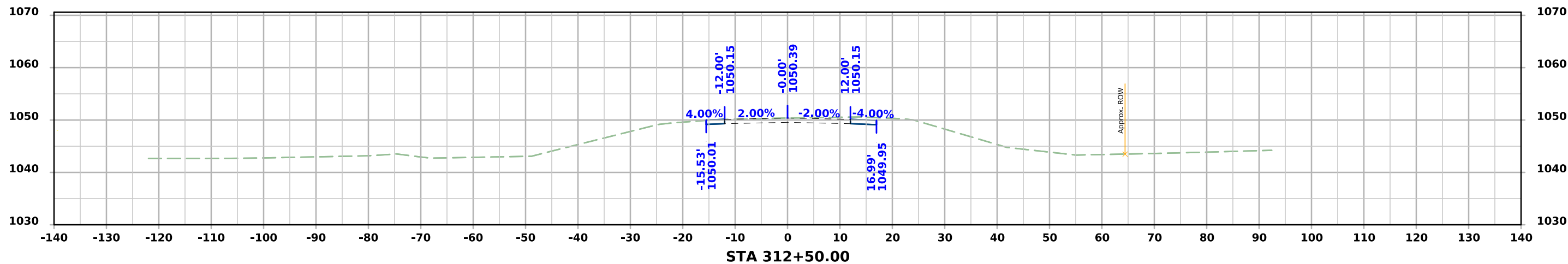
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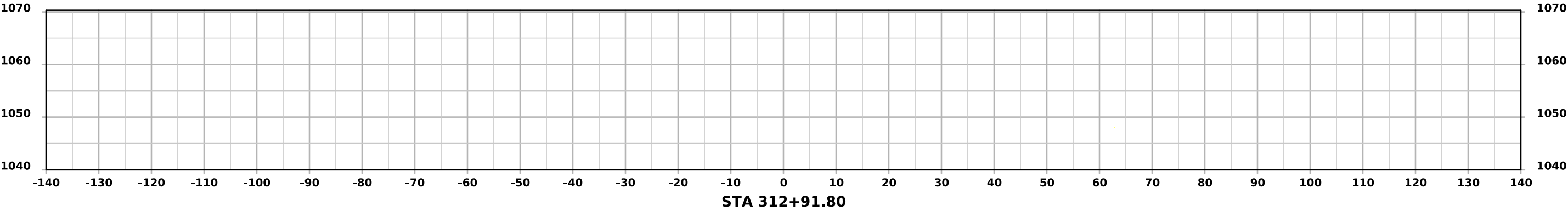
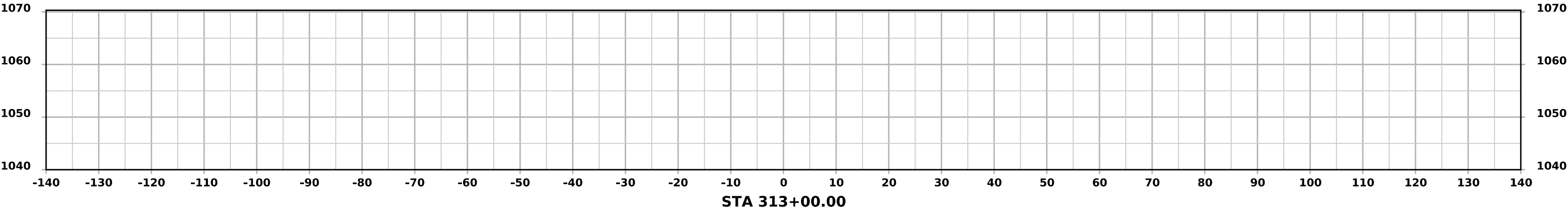


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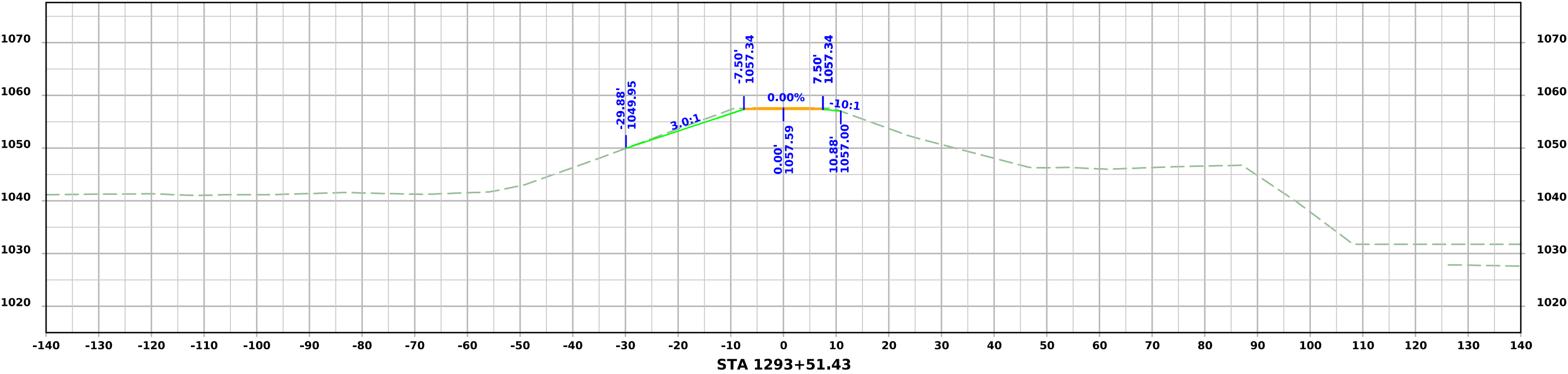
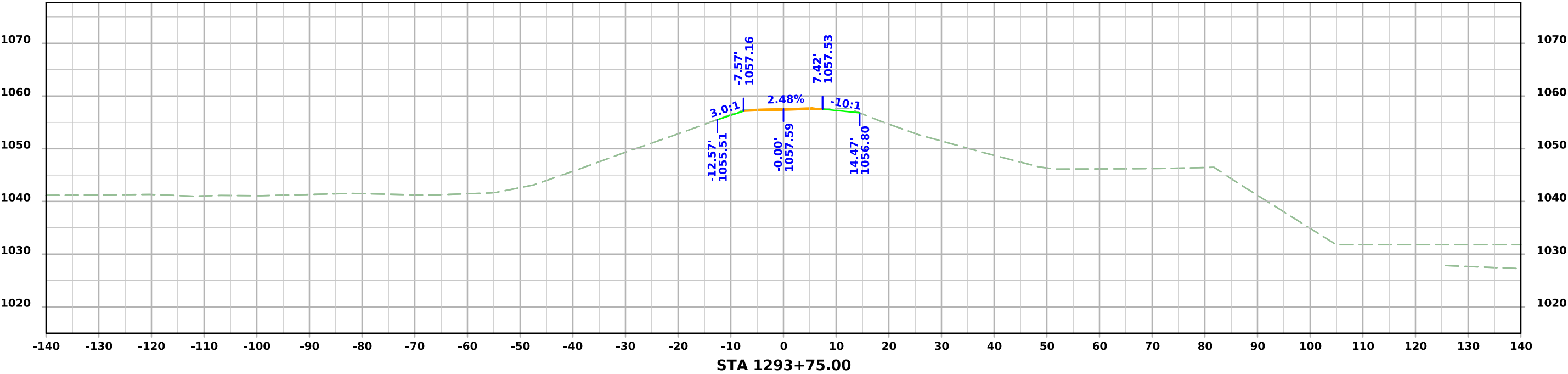


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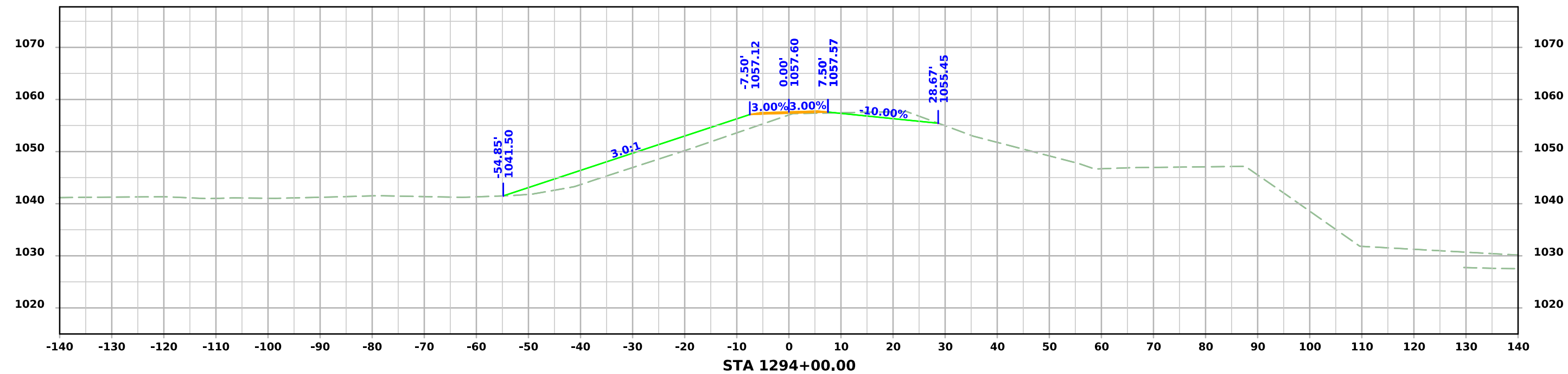
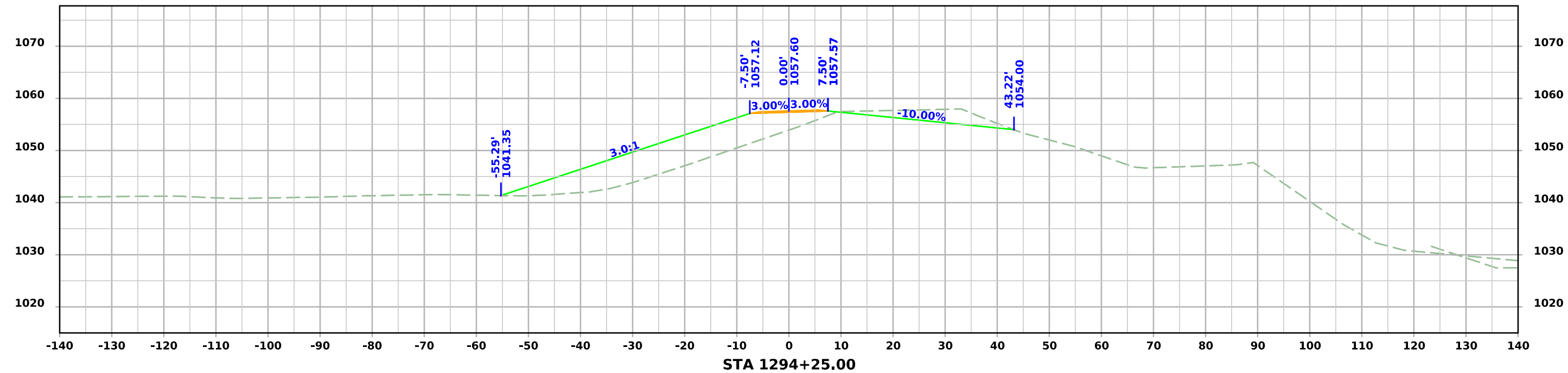




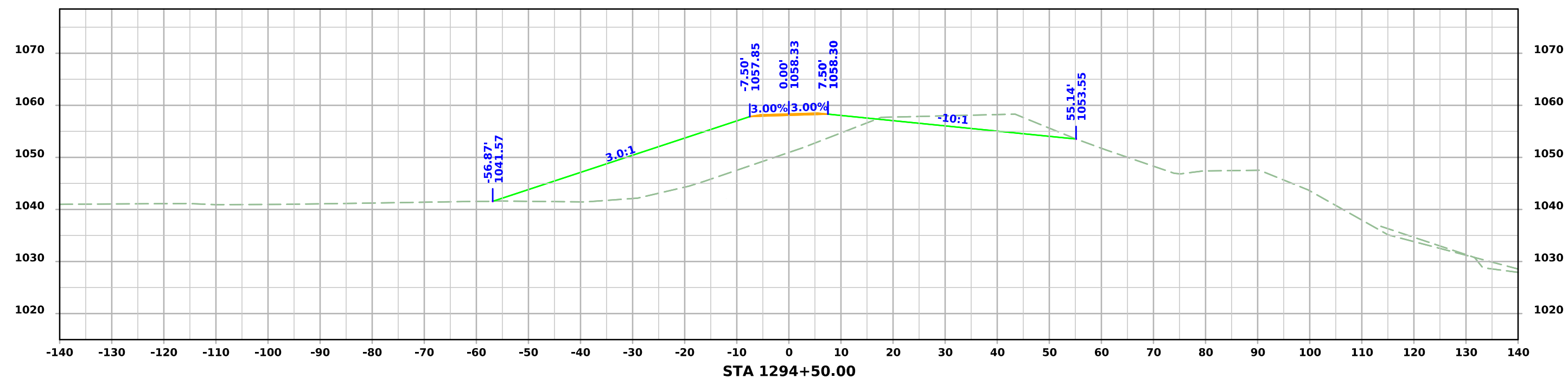
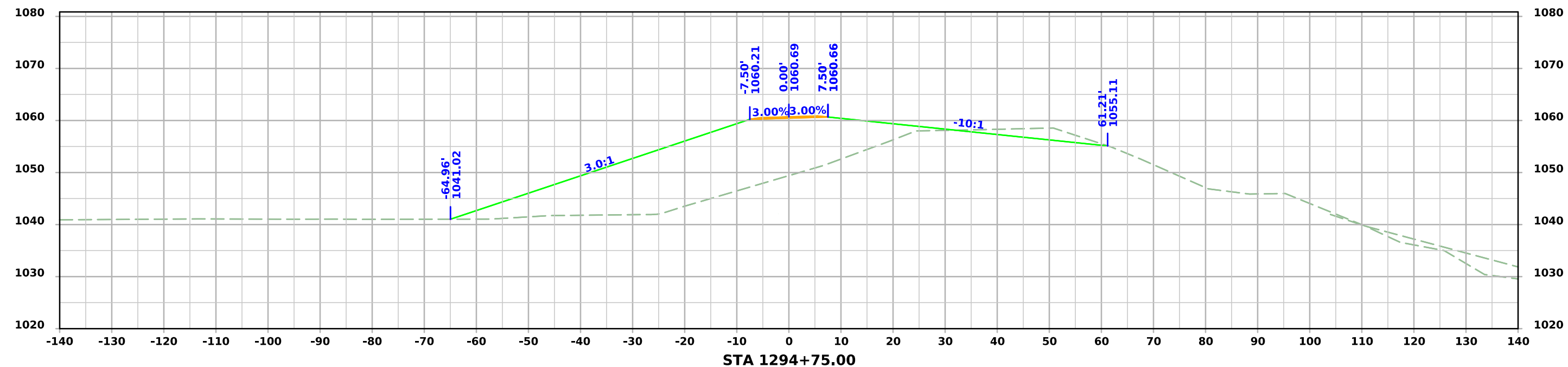
Southwest Levee Road



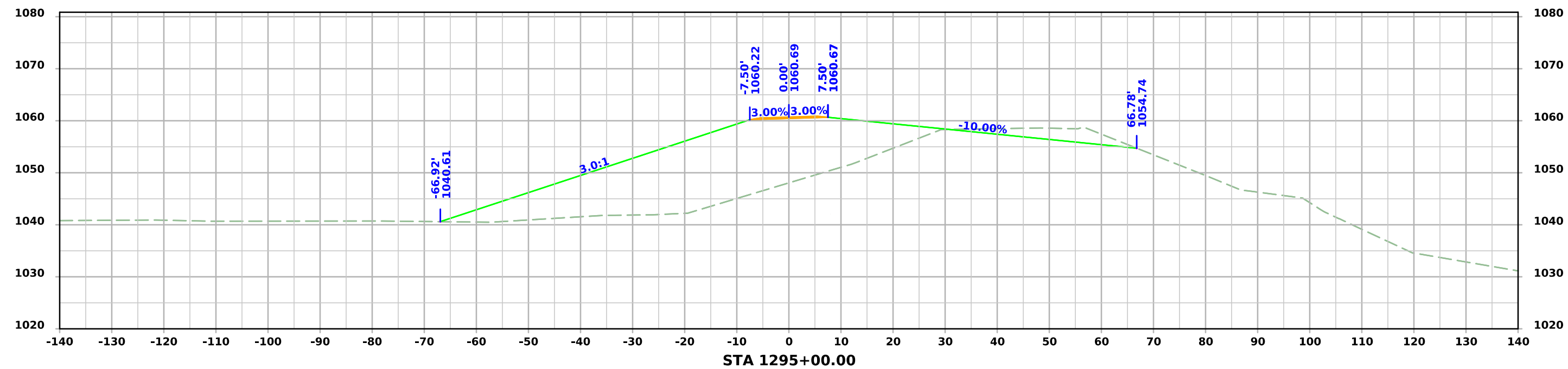
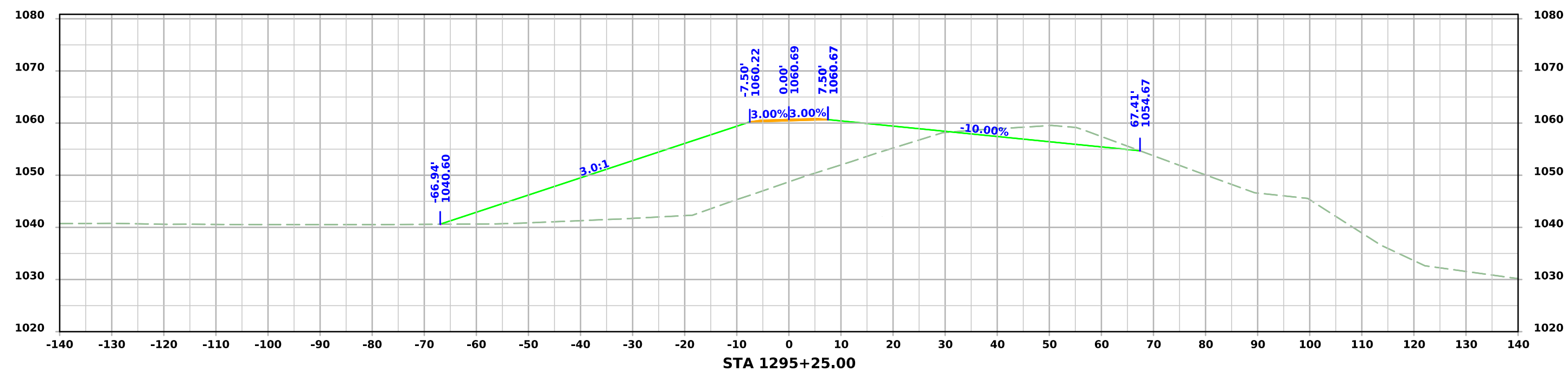
Southwest Levee Road



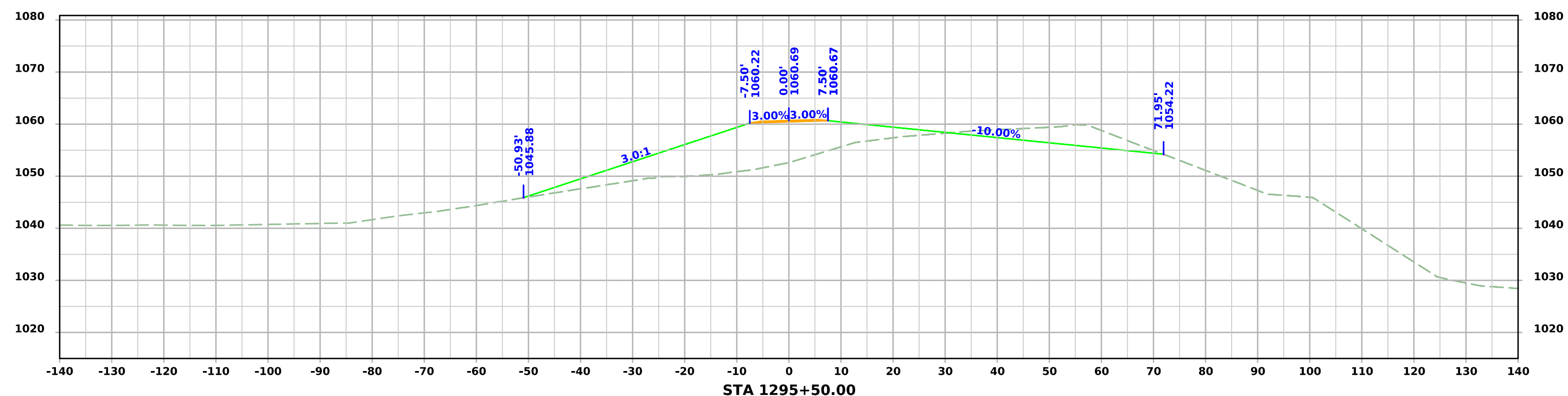
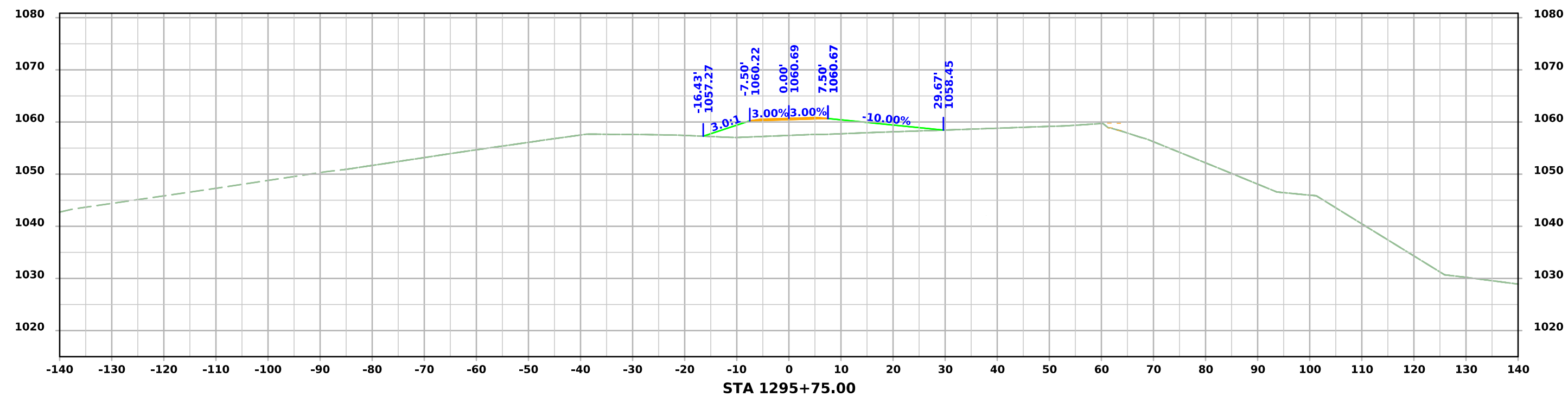
Southwest Levee Road



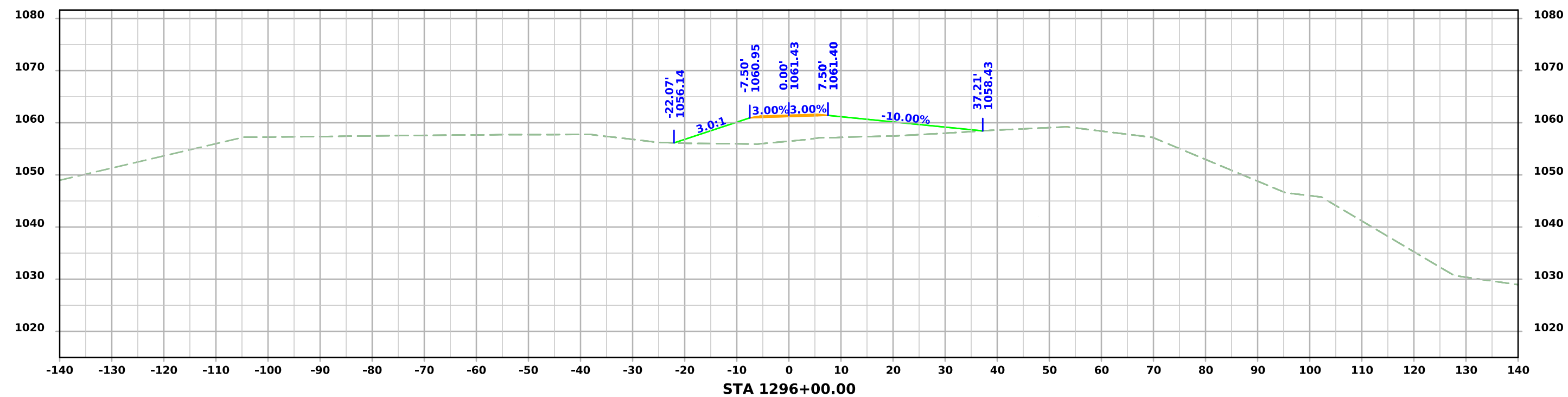
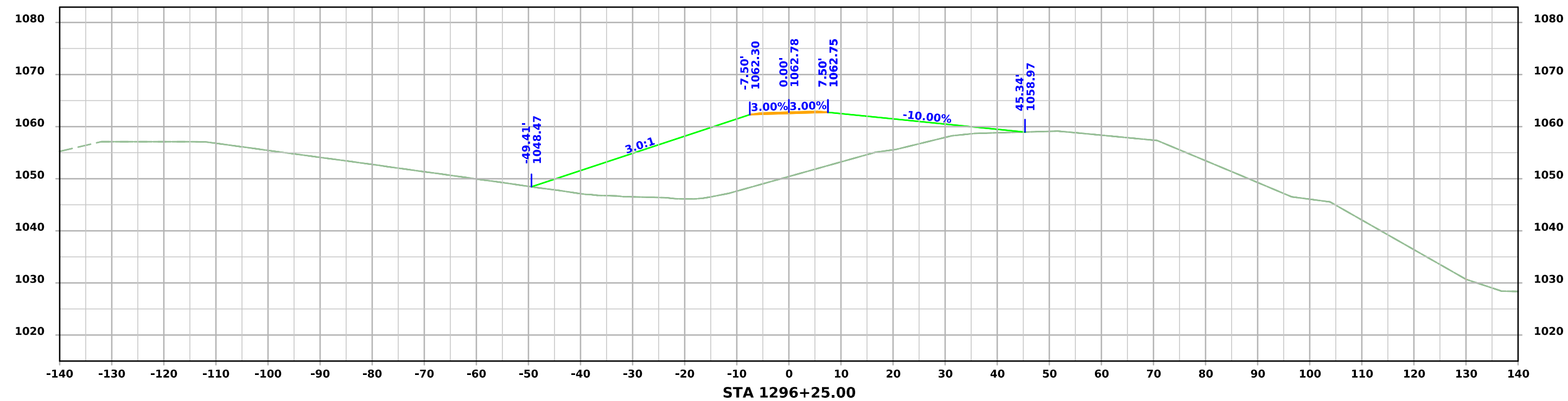
Southwest Levee Road



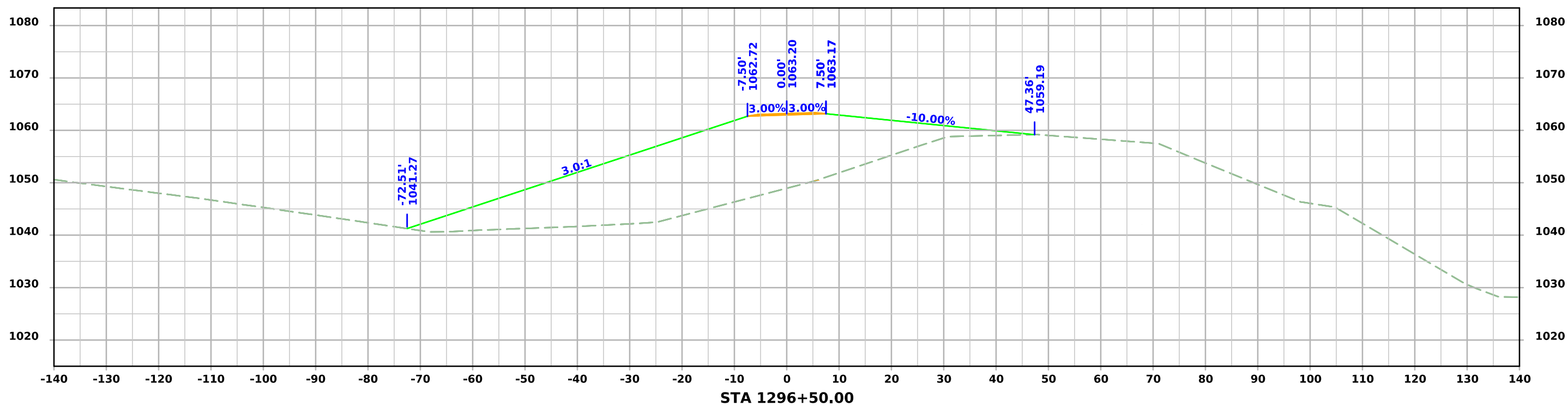
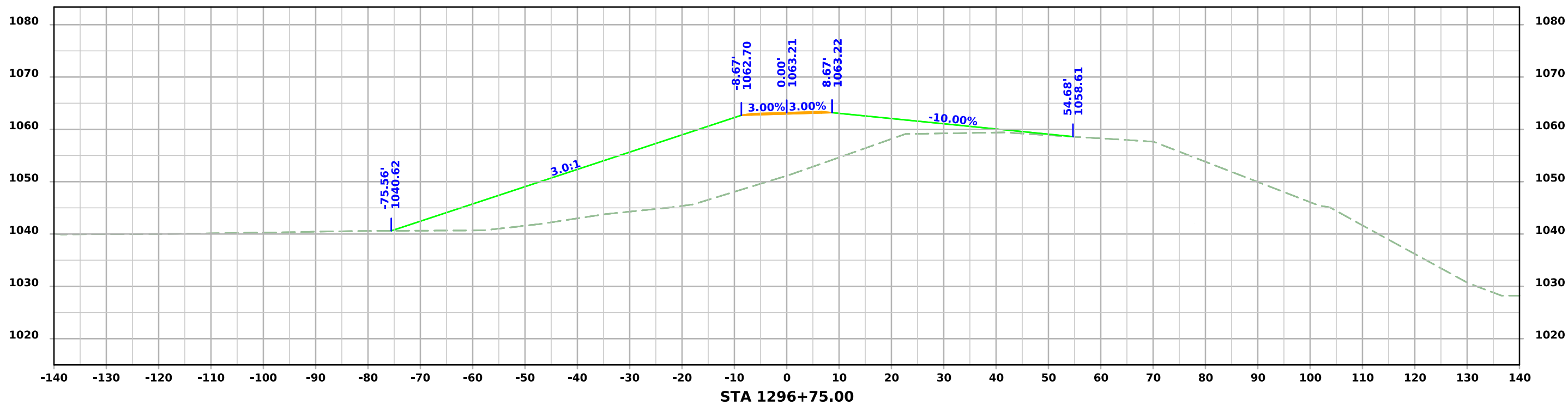
Southwest Levee Road



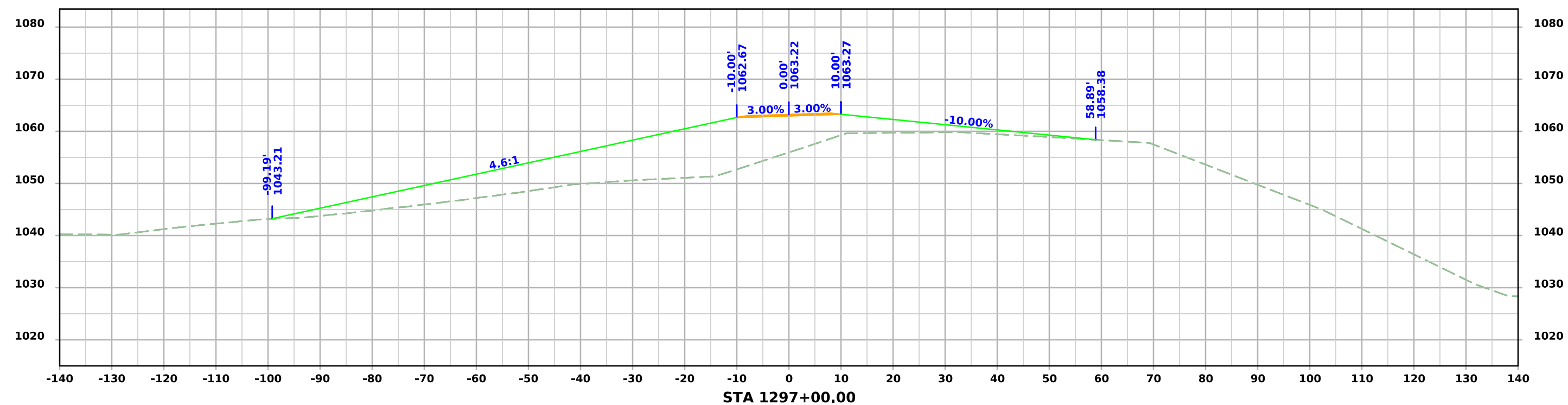
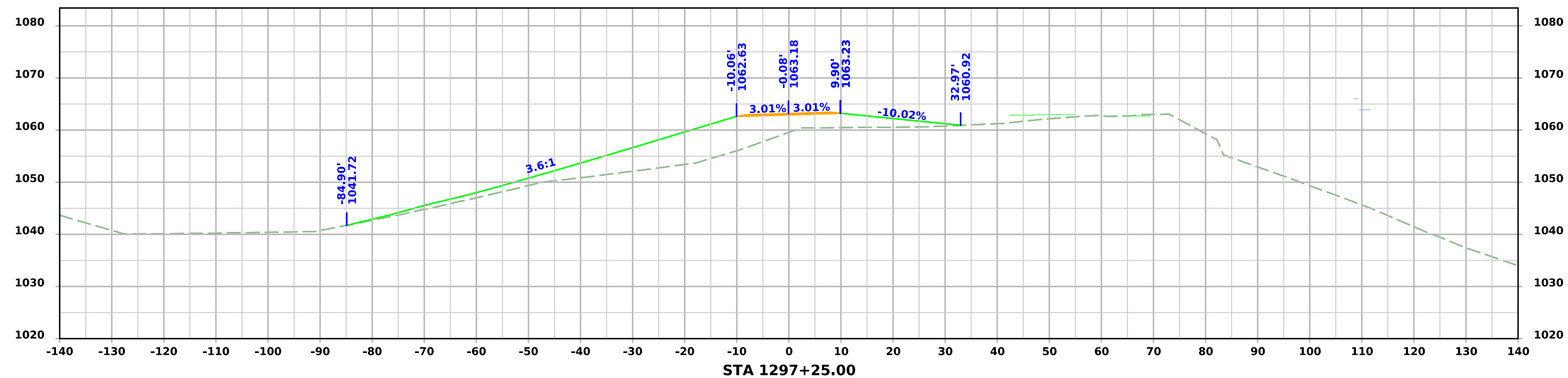
Southwest Levee Road



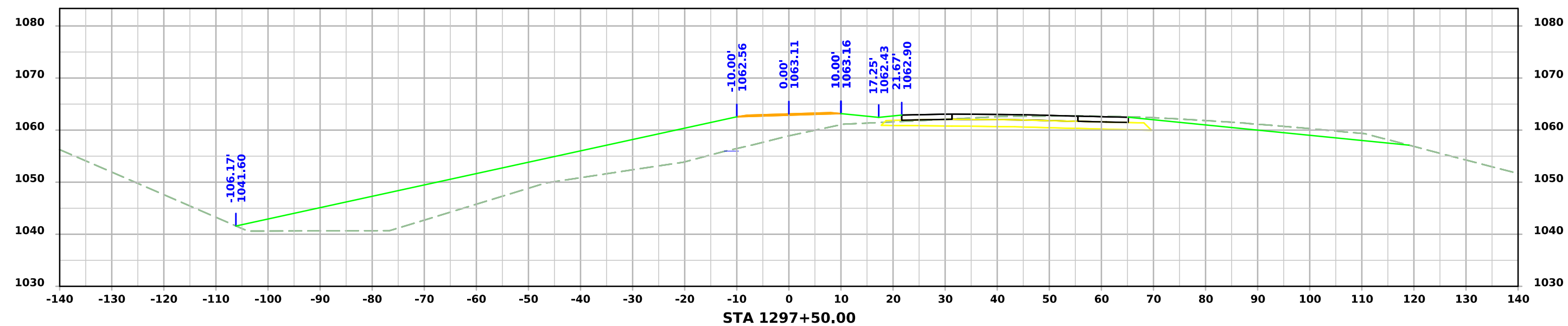
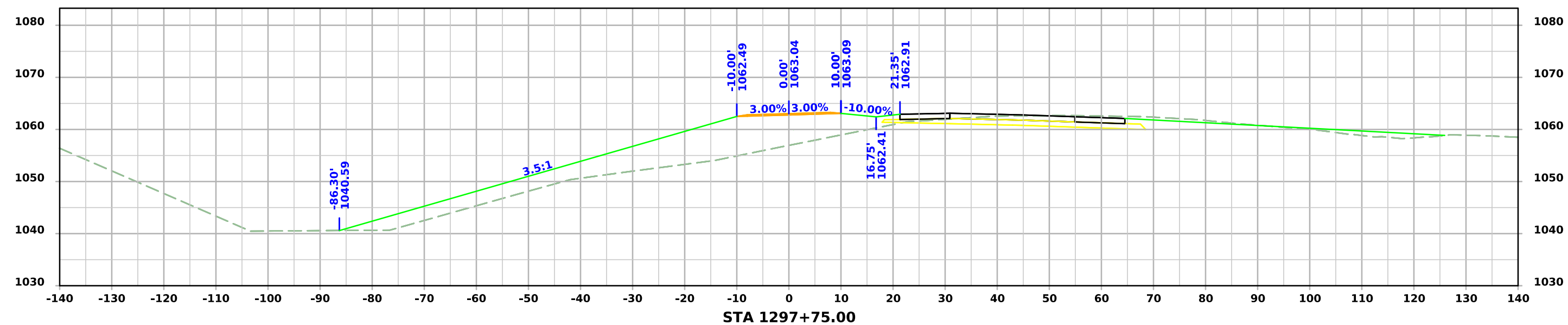
Southwest Levee Road



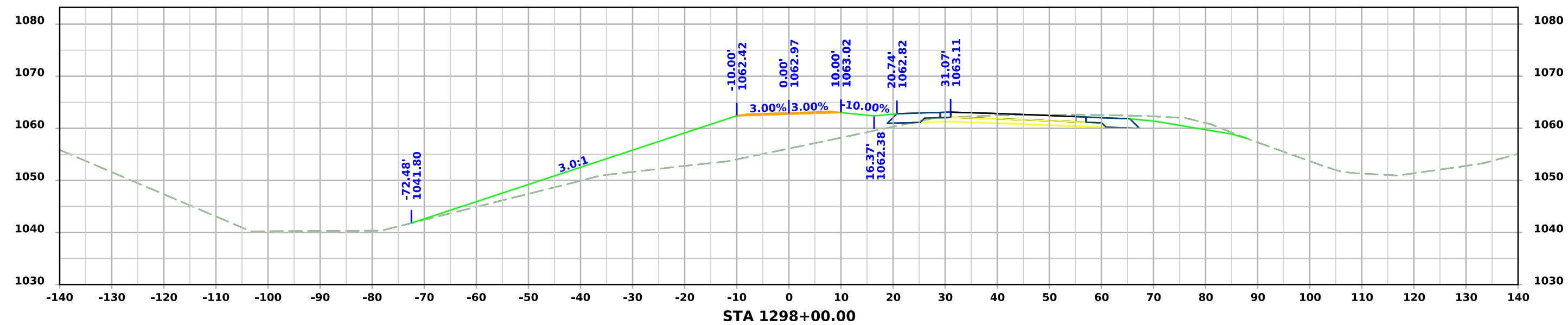
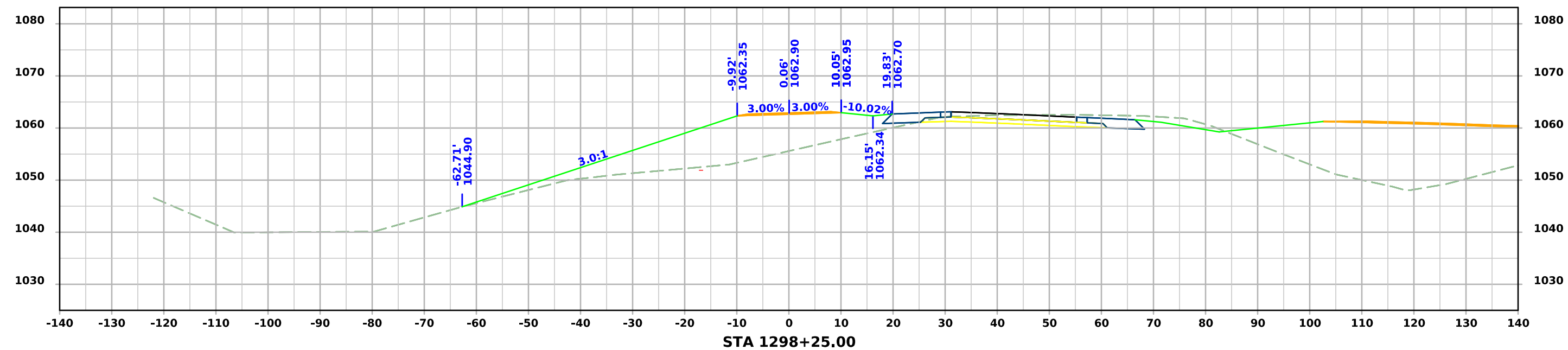
Southwest Levee Road



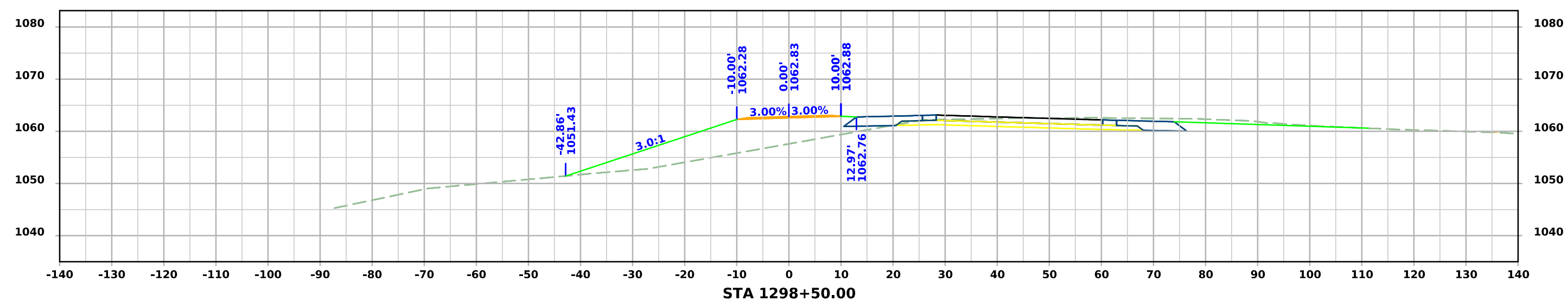
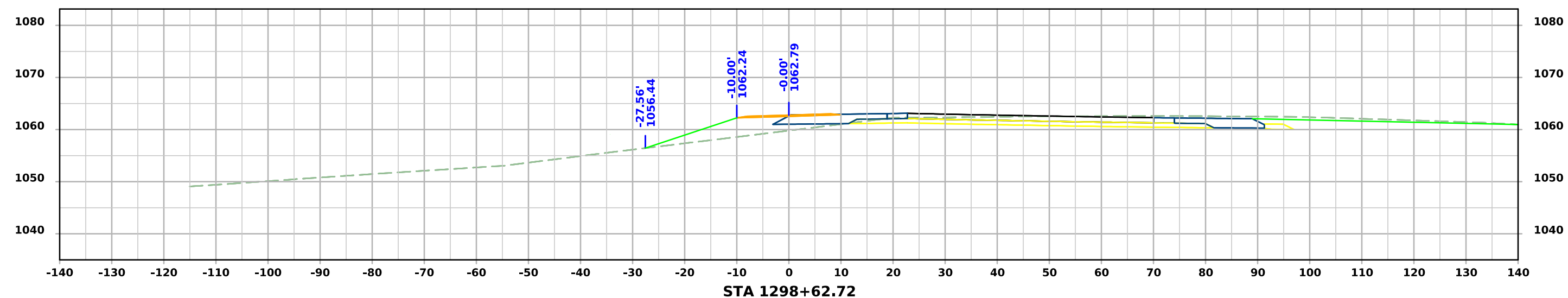
Southwest Levee Road



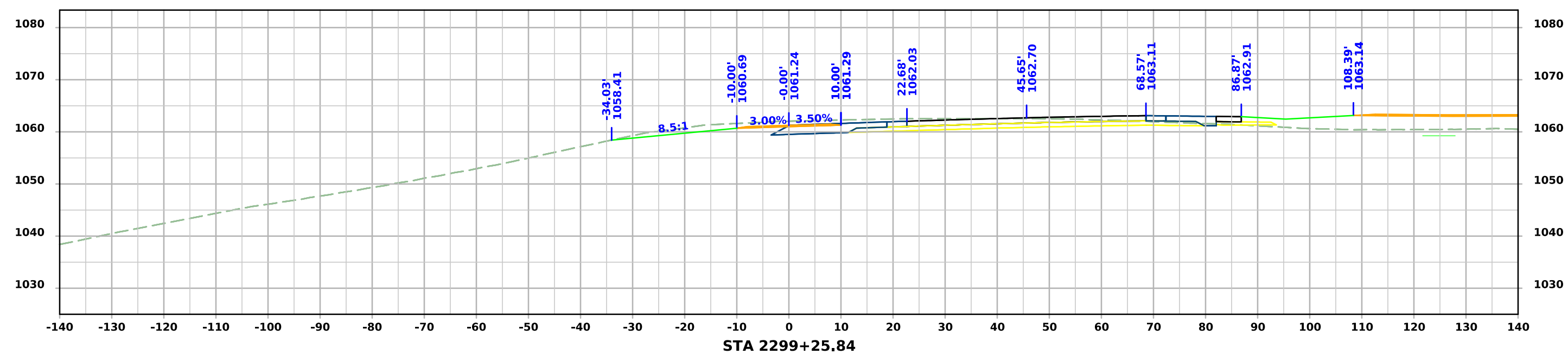
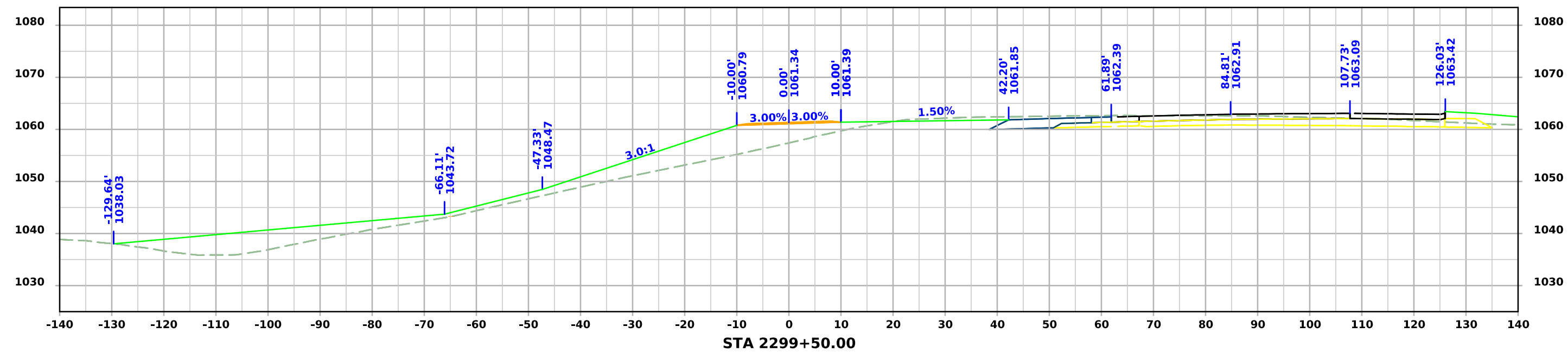
Southwest Levee Road



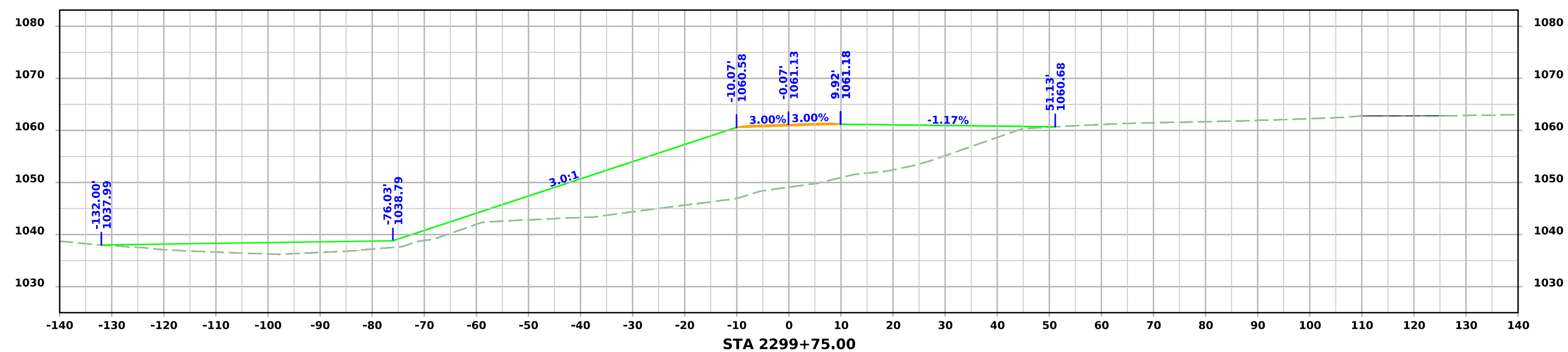
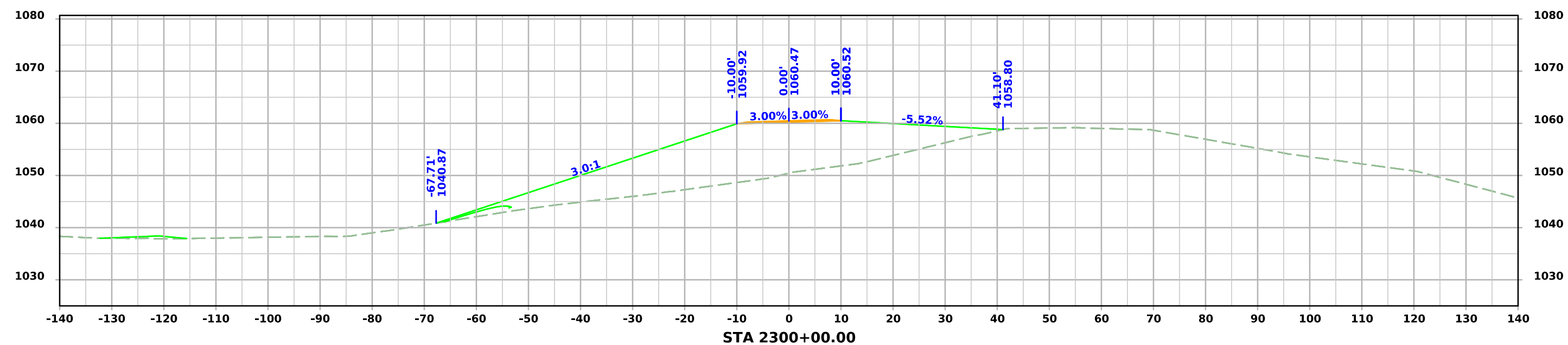
Southwest Levee Road



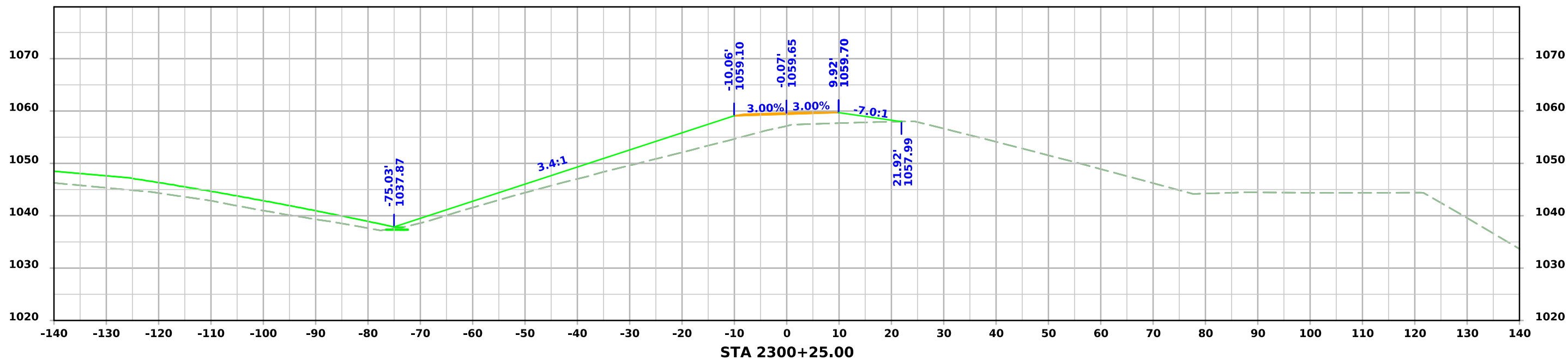
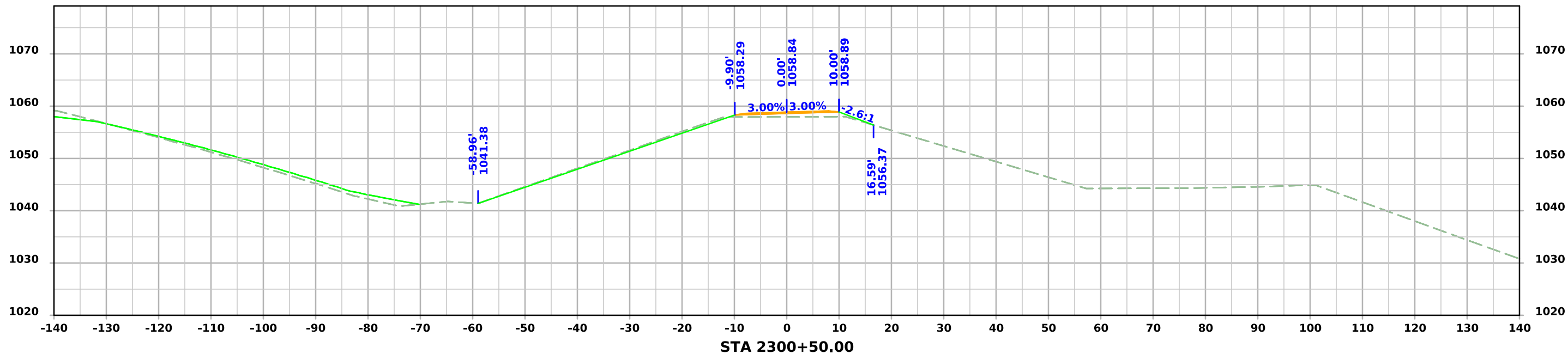
Northwest Levee Road



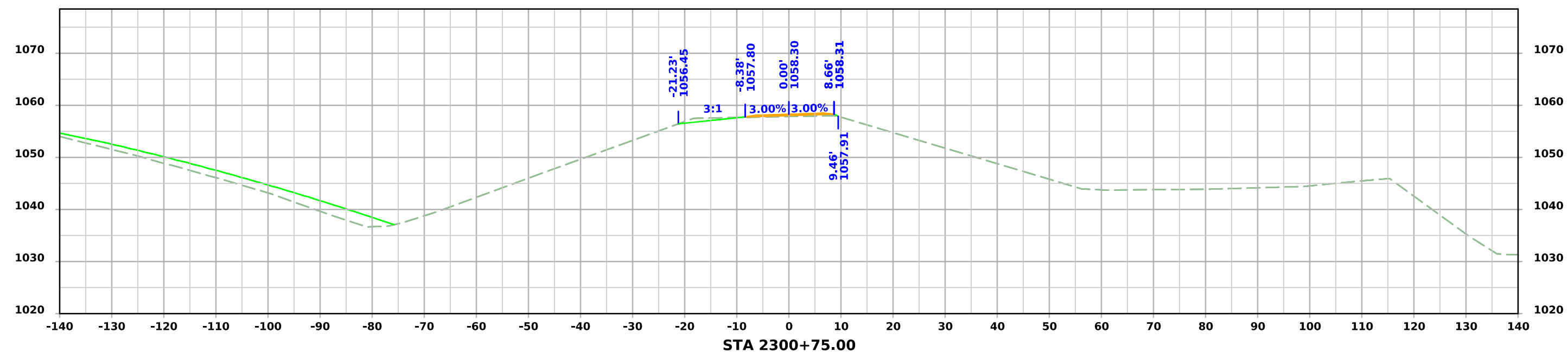
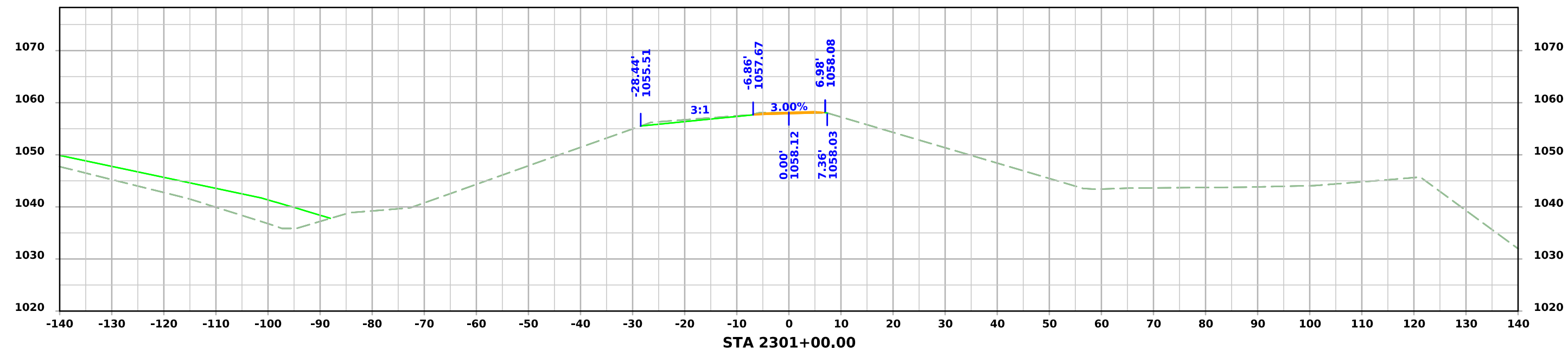
Northwest Levee Road



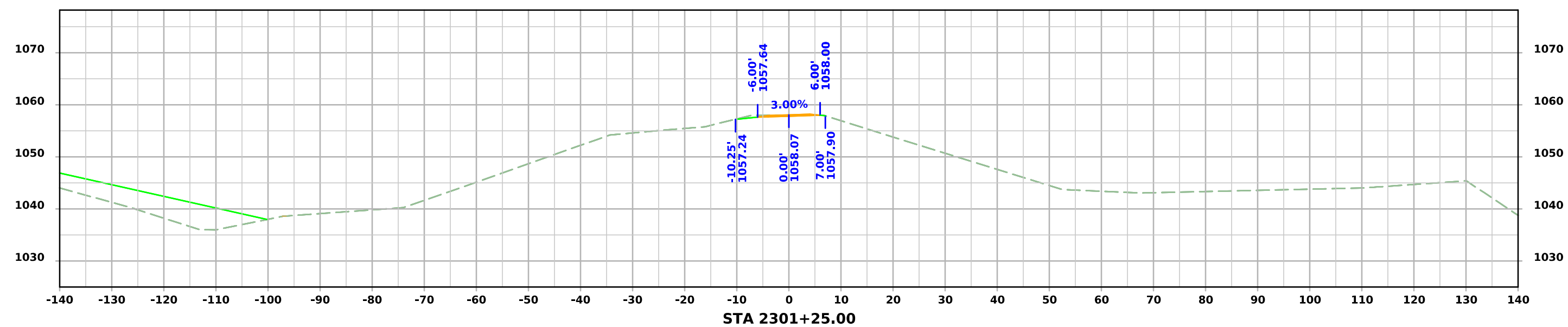
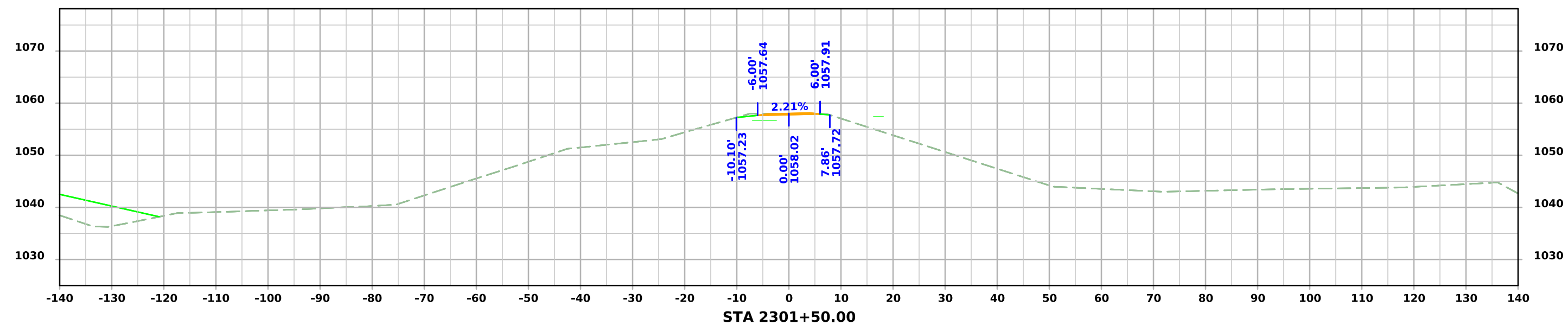
Northwest Levee Road



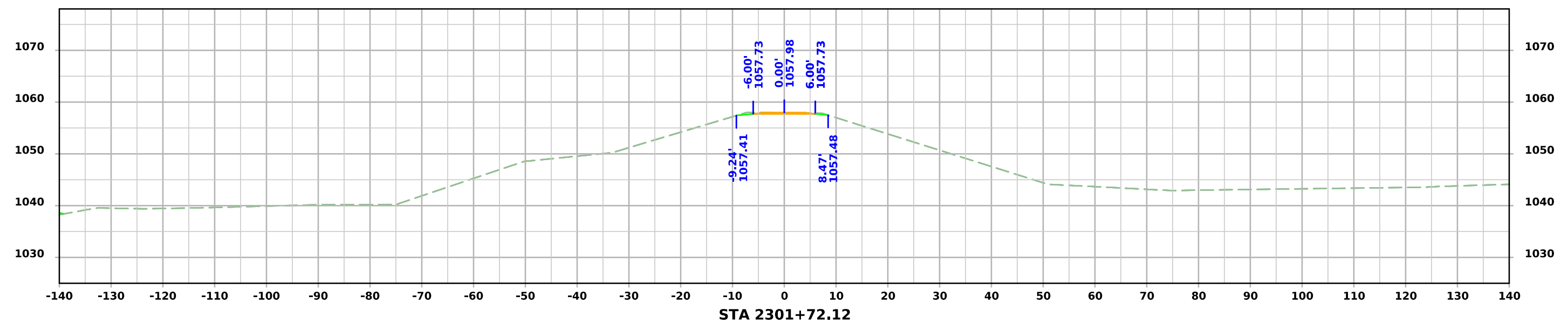
Northwest Levee Road



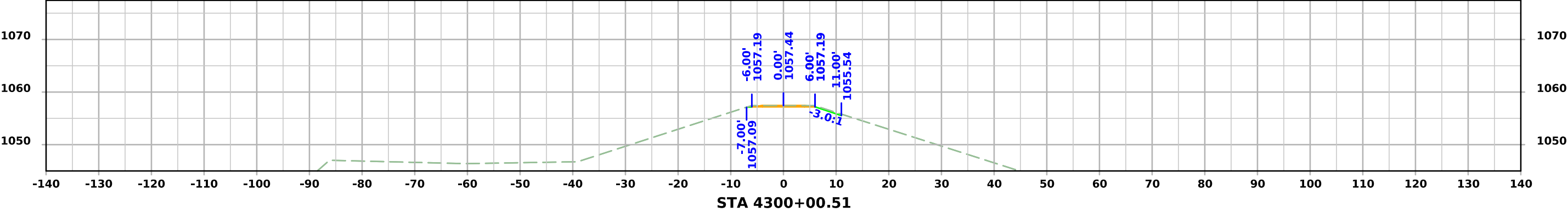
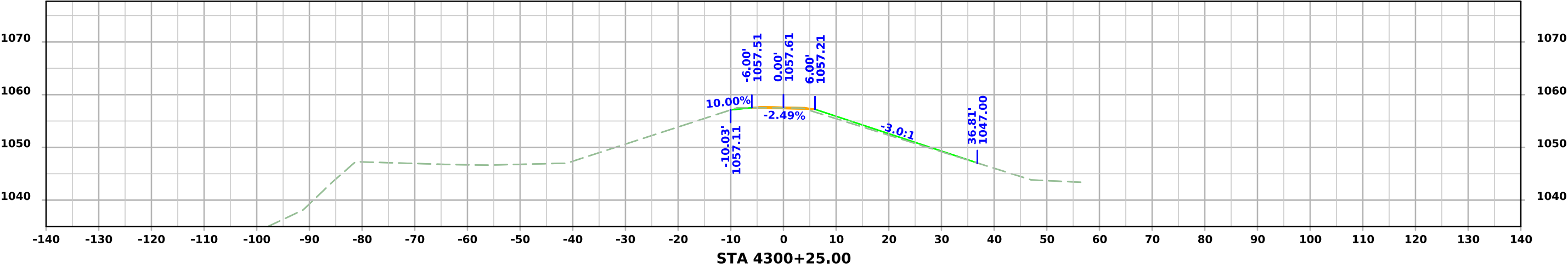
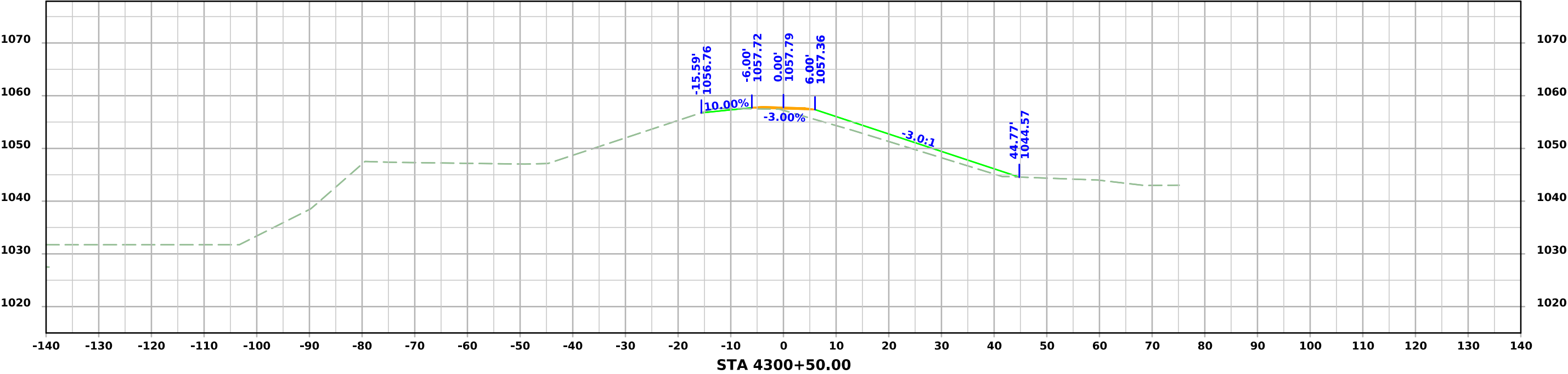
Northwest Levee Road



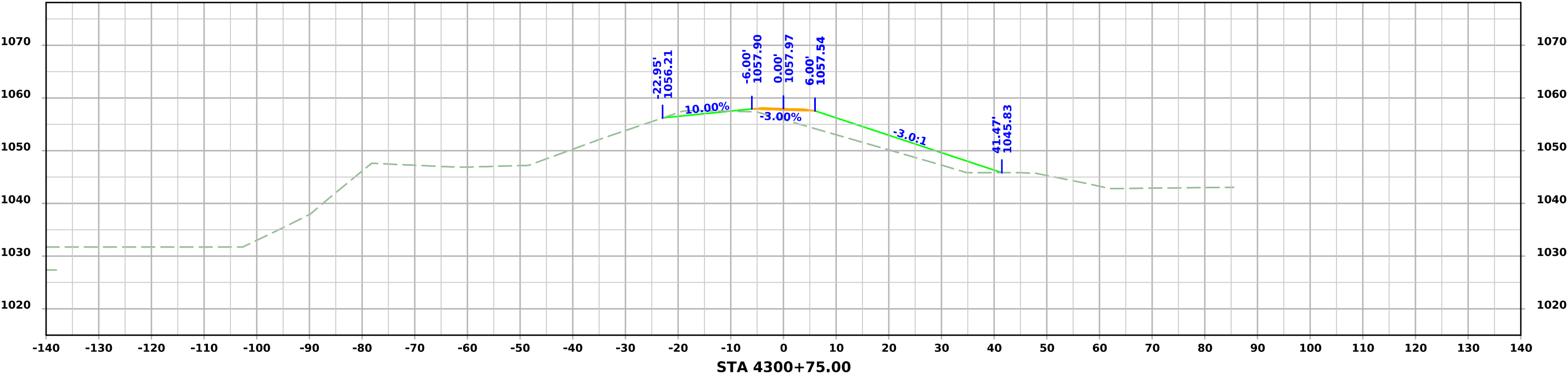
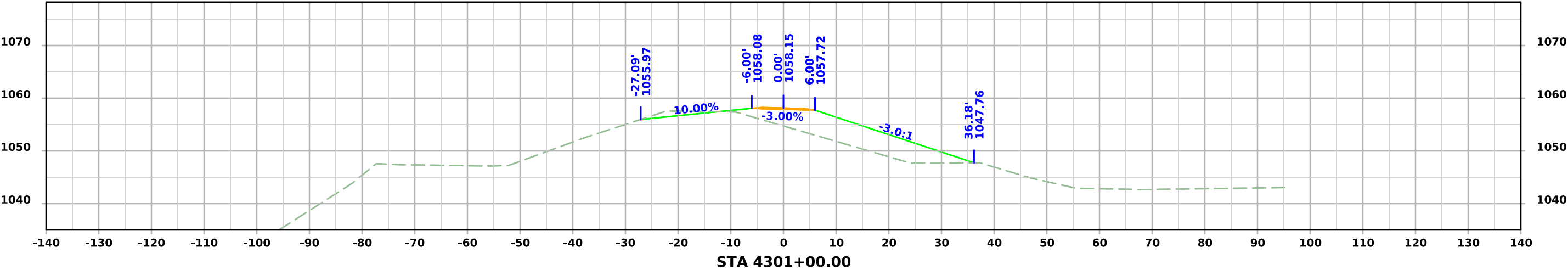
Northwest Levee Road



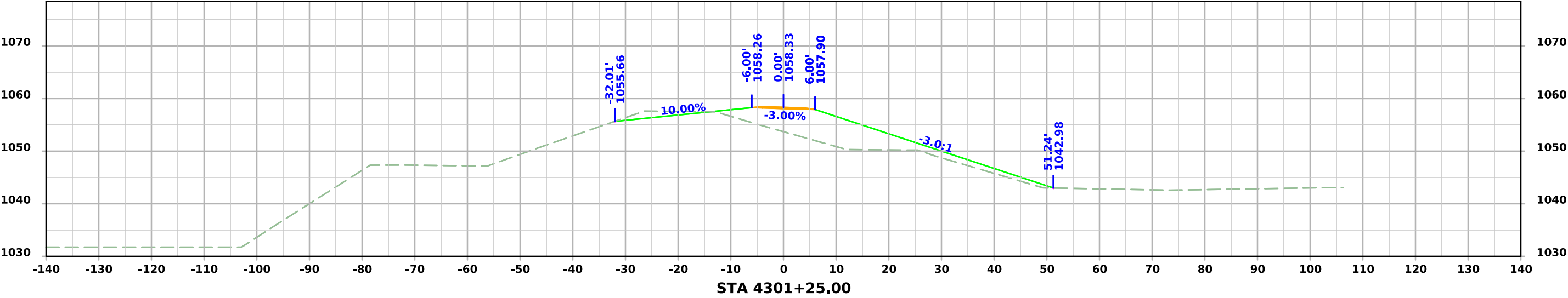
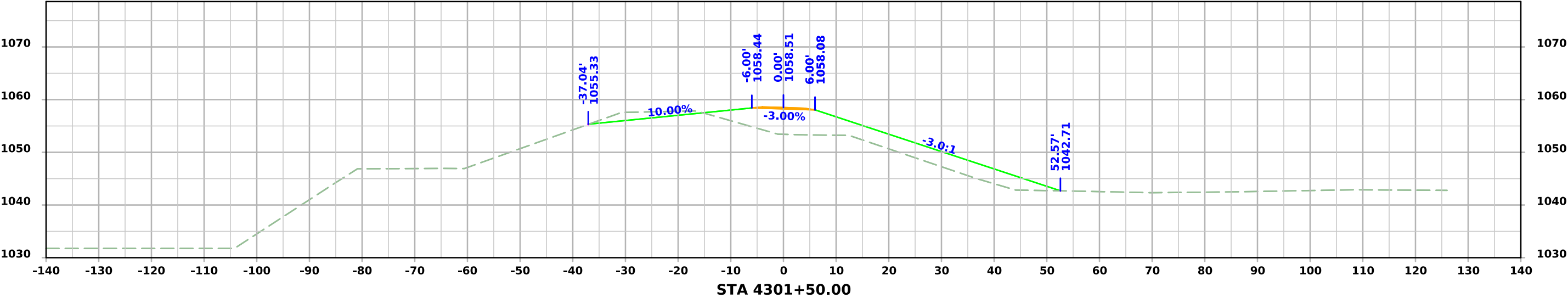
Southeast Levee Road



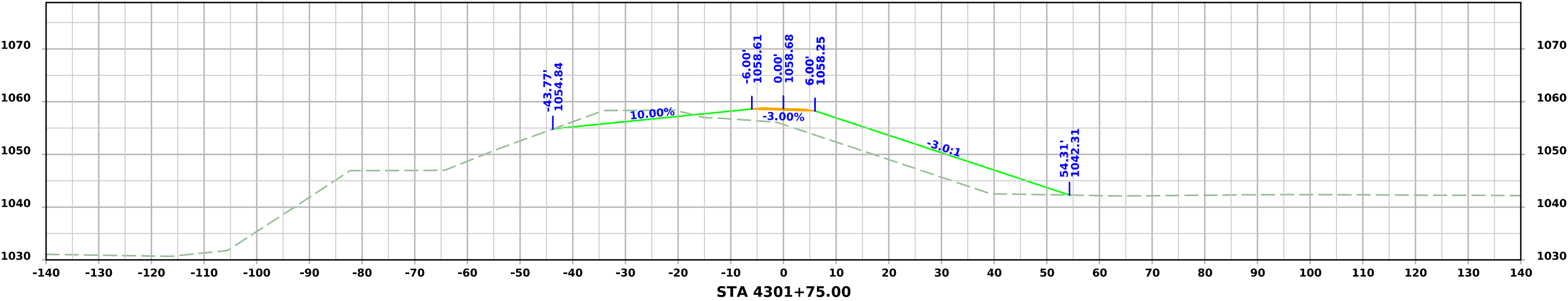
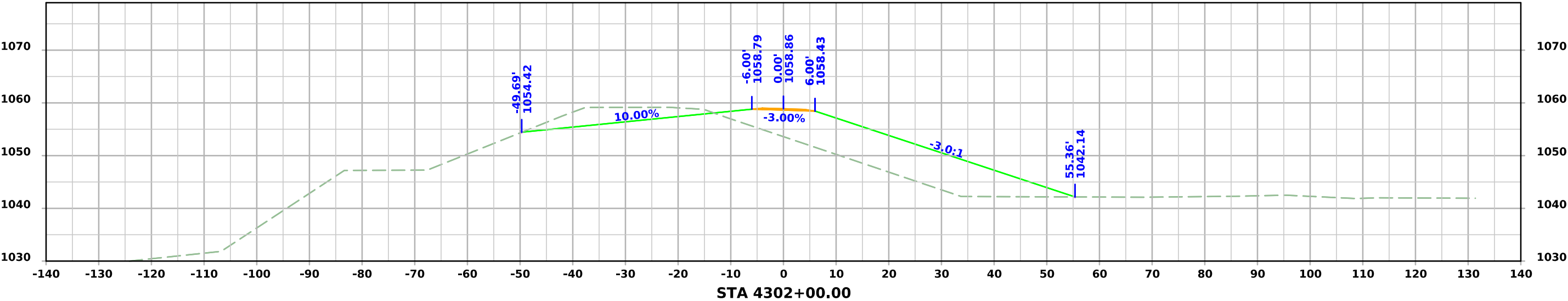
Southeast Levee Road



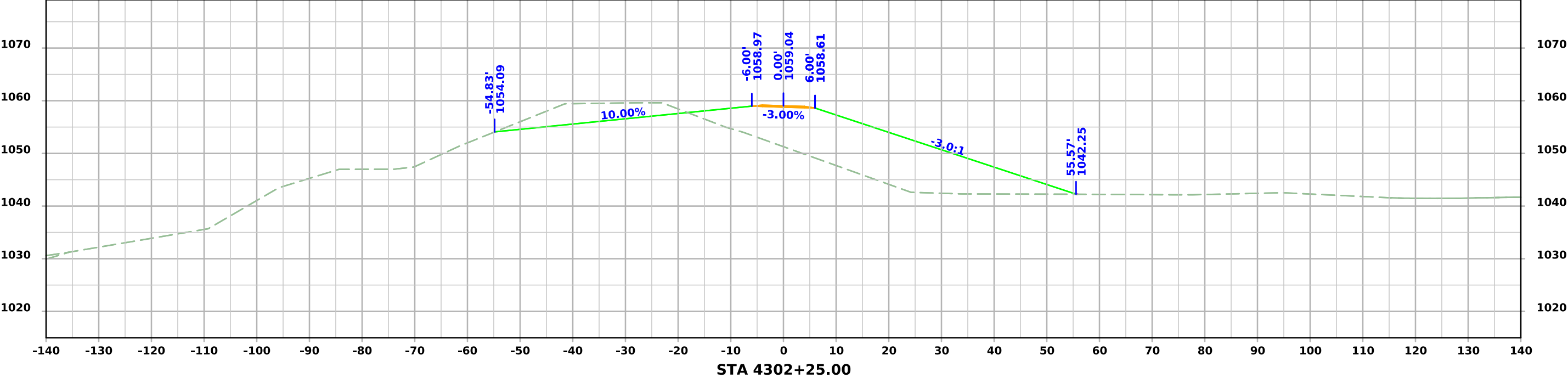
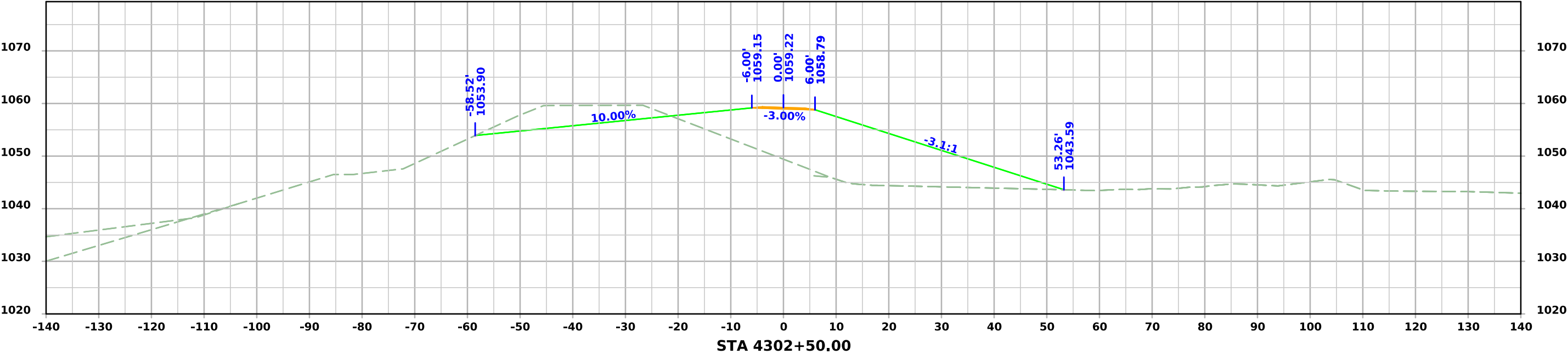
Southeast Levee Road



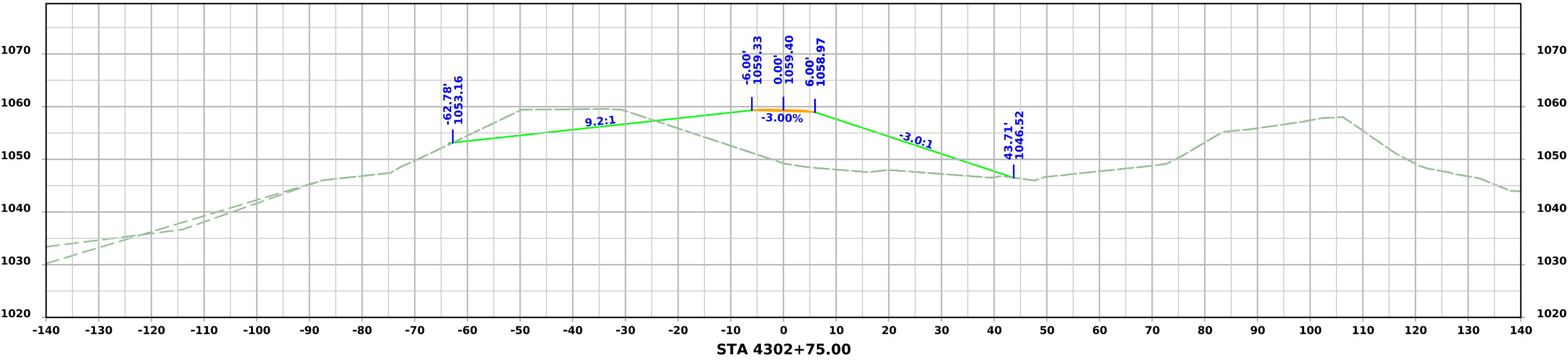
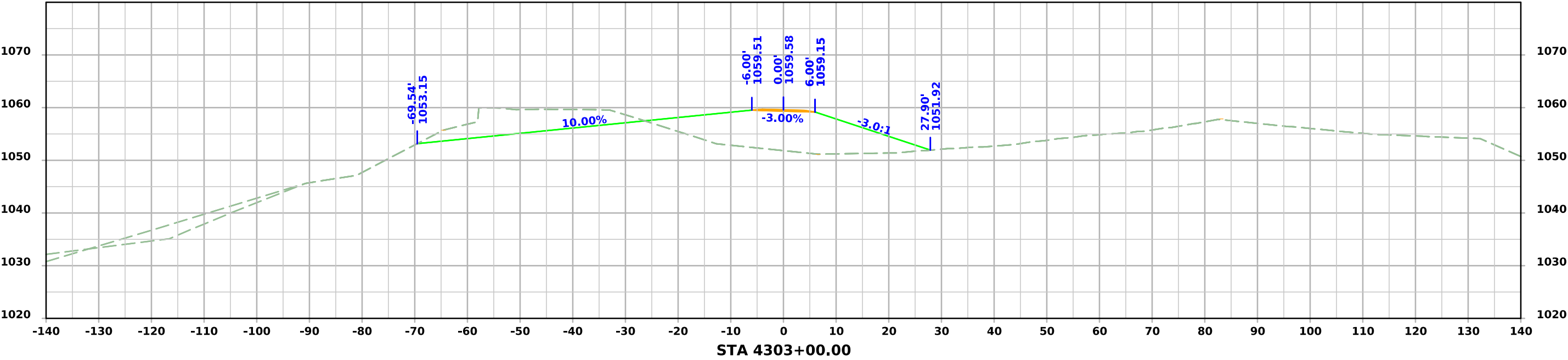
Southeast Levee Road



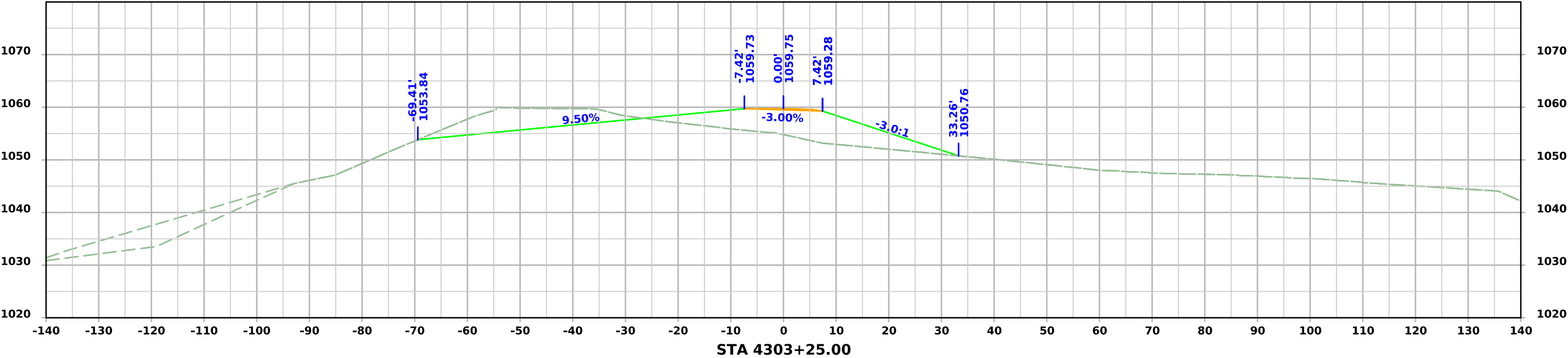
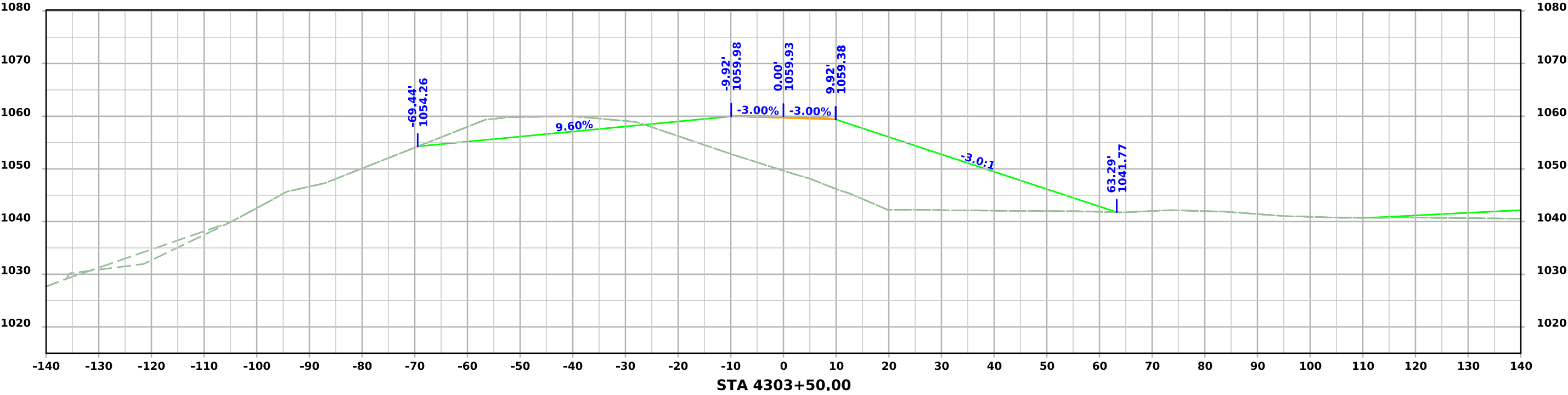
Southeast Levee Road



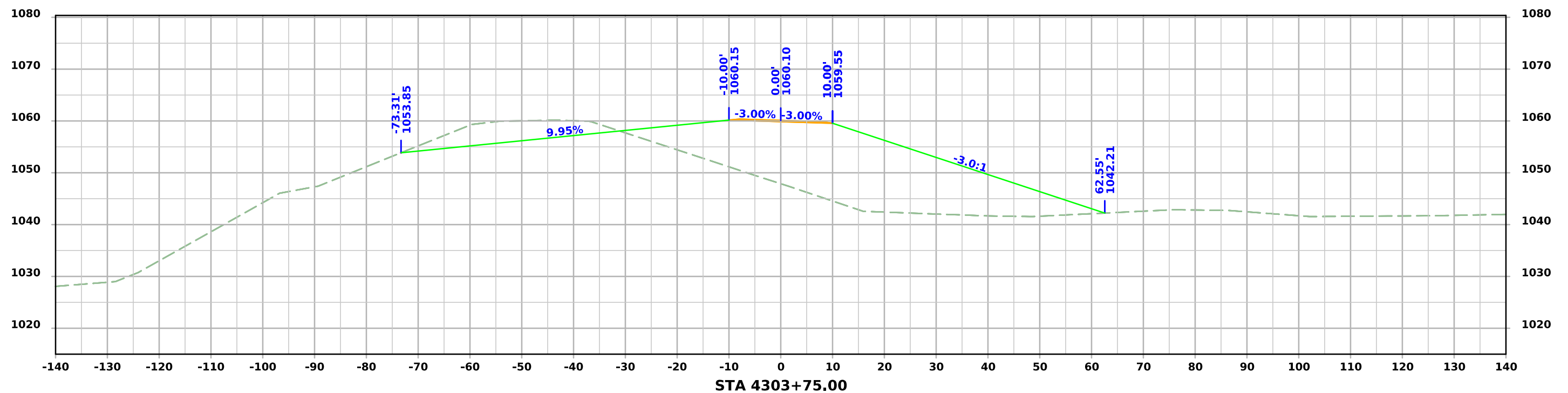
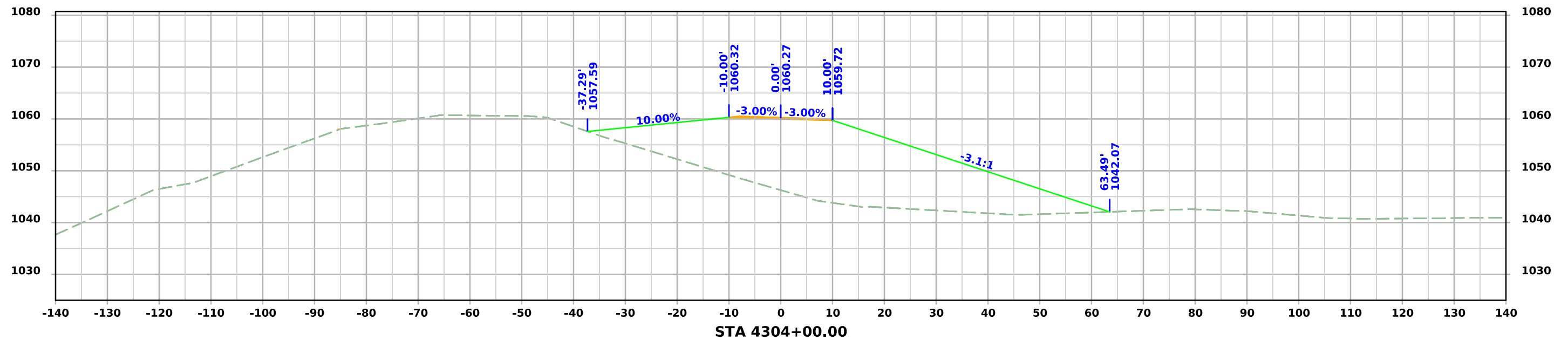
Southeast Levee Road



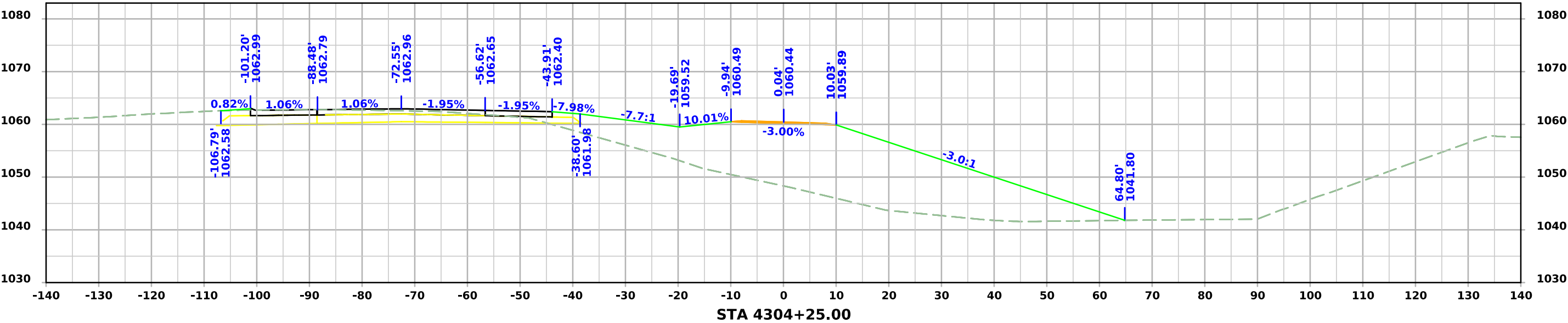
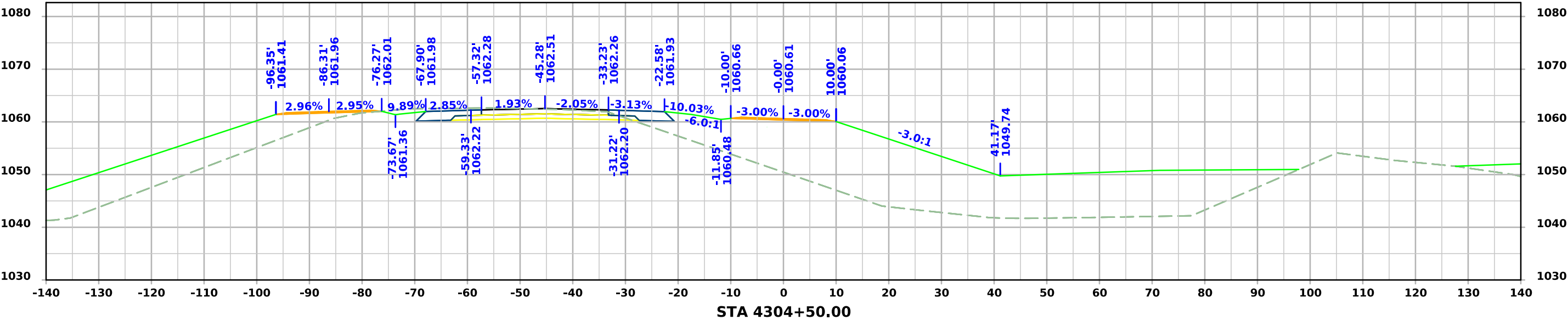
Southeast Levee Road



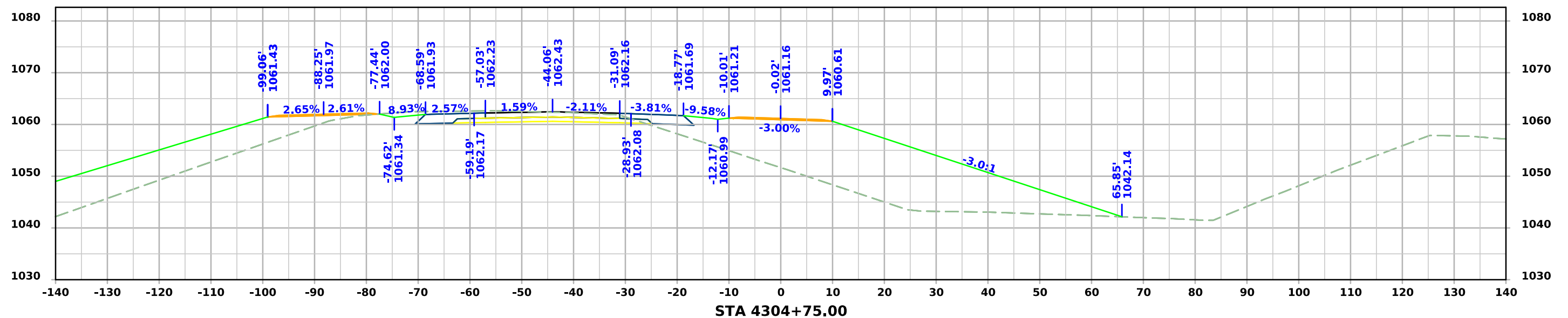
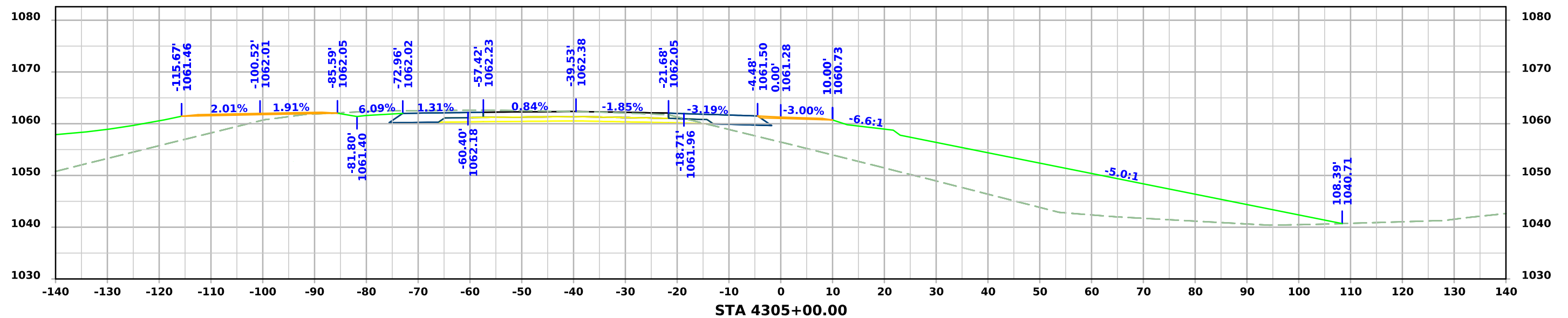
Southeast Levee Road



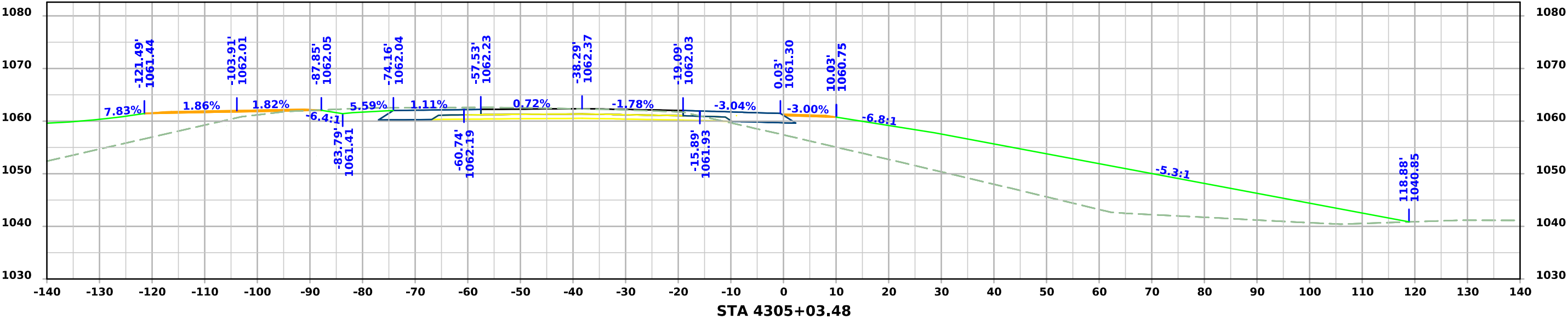
Southeast Levee Road



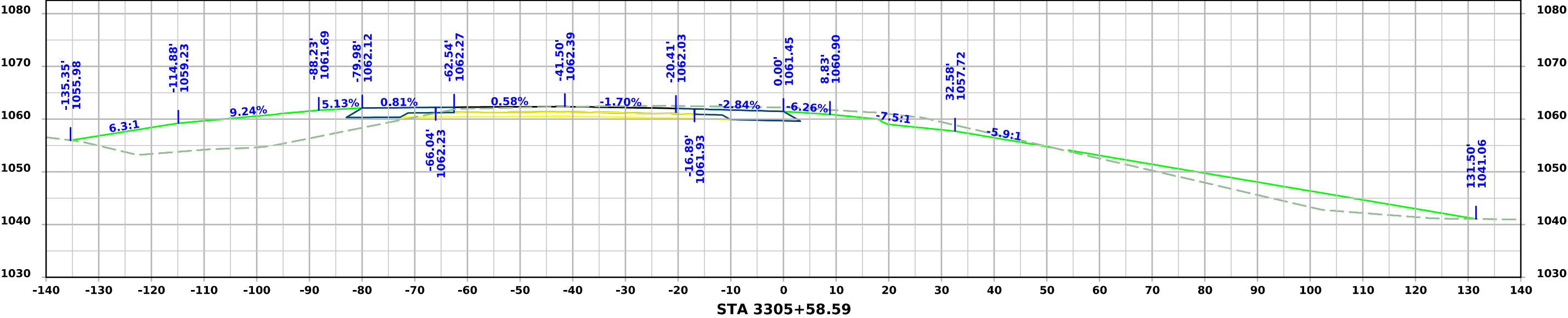
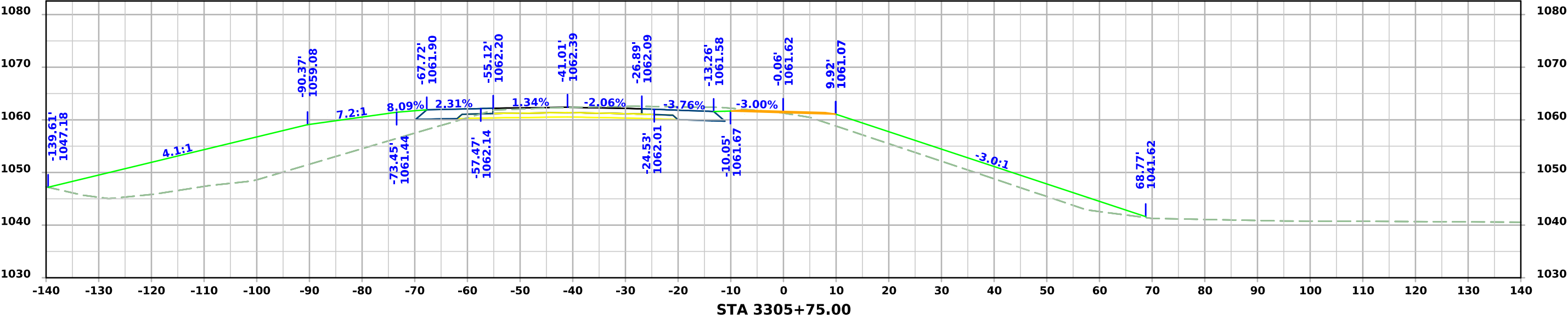
Southeast Levee Road



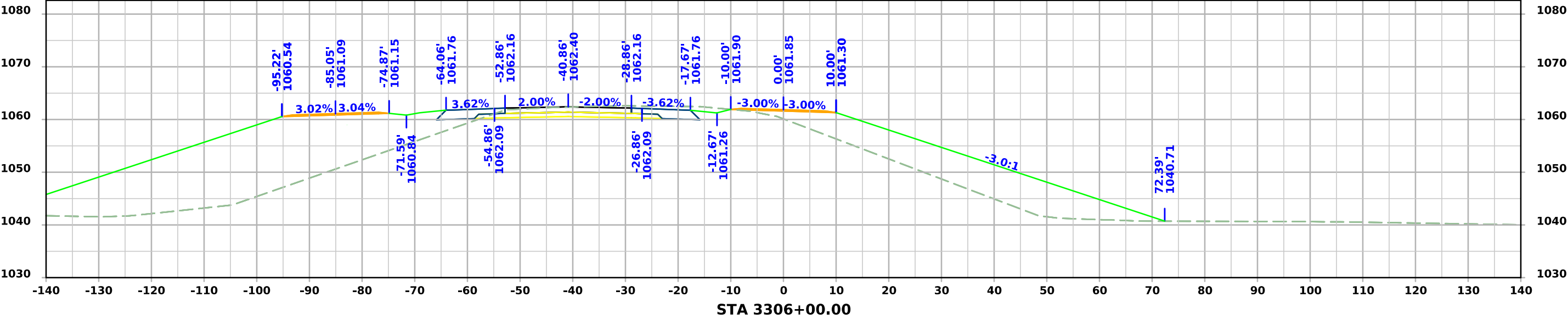
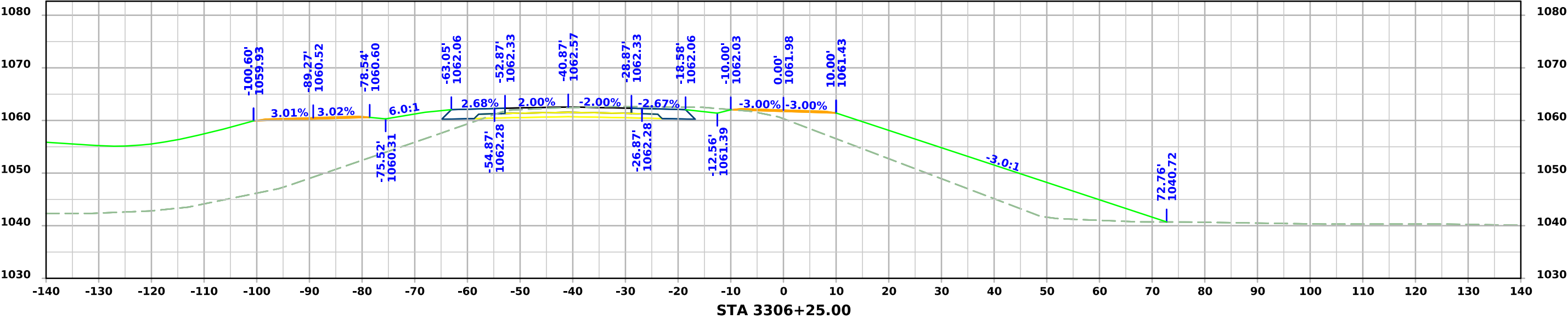
Southeast Levee Road



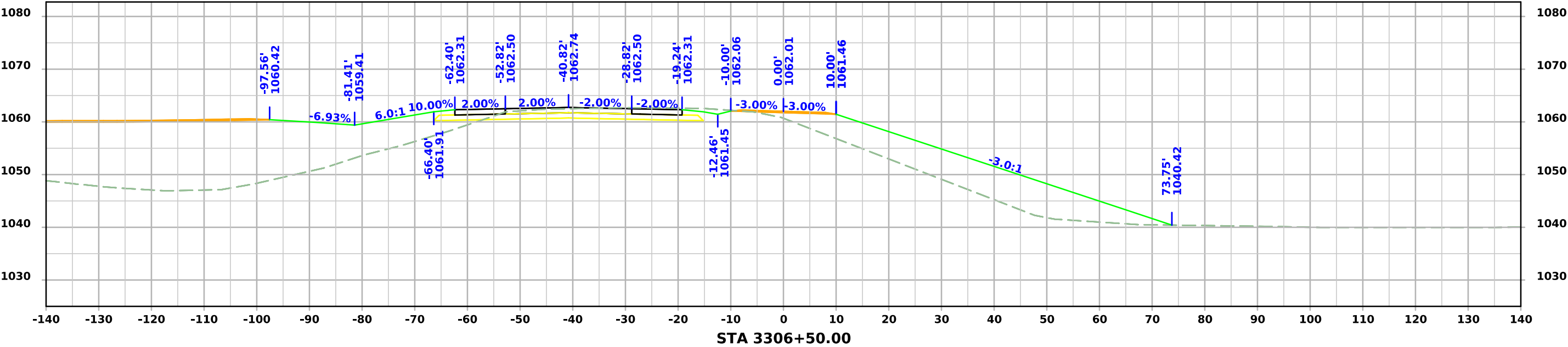
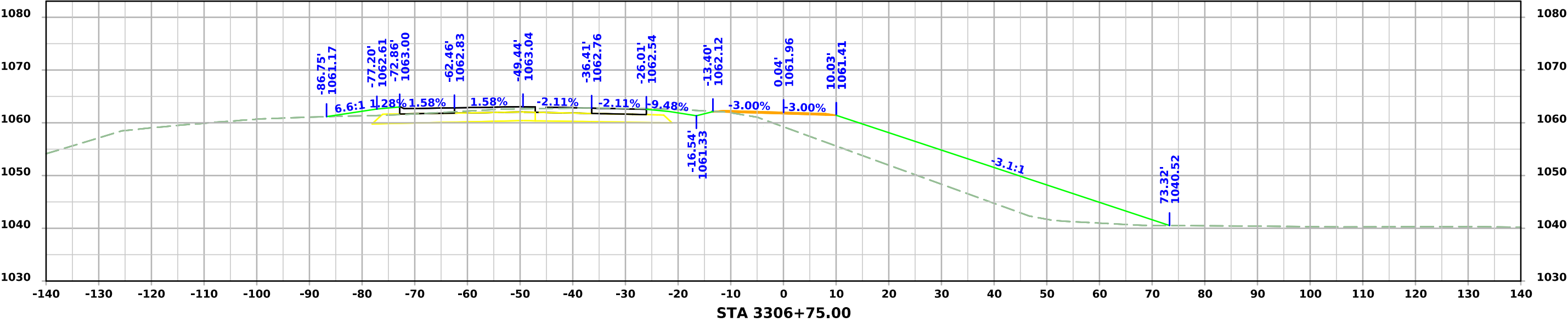
Northeast Levee Road



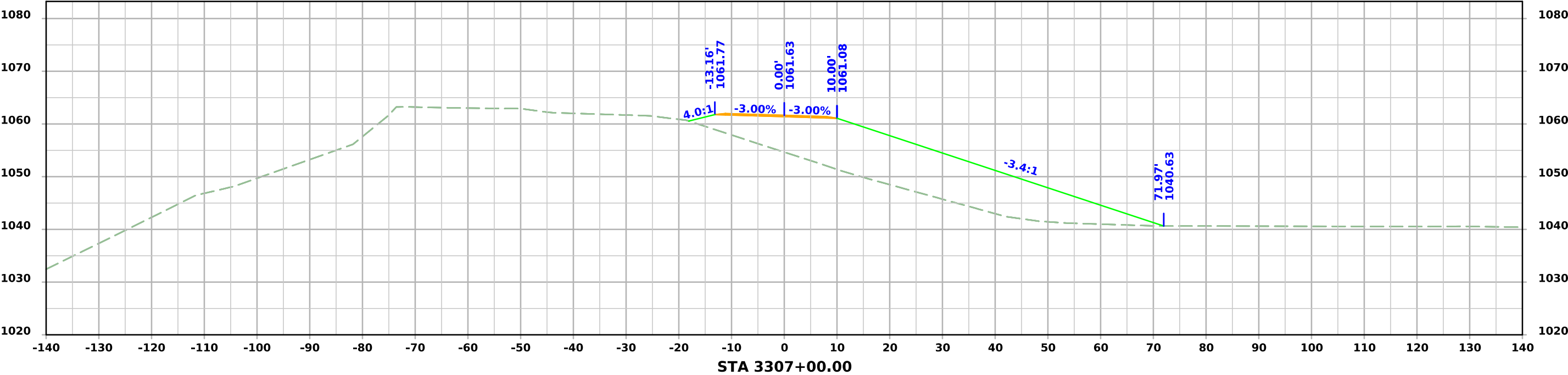
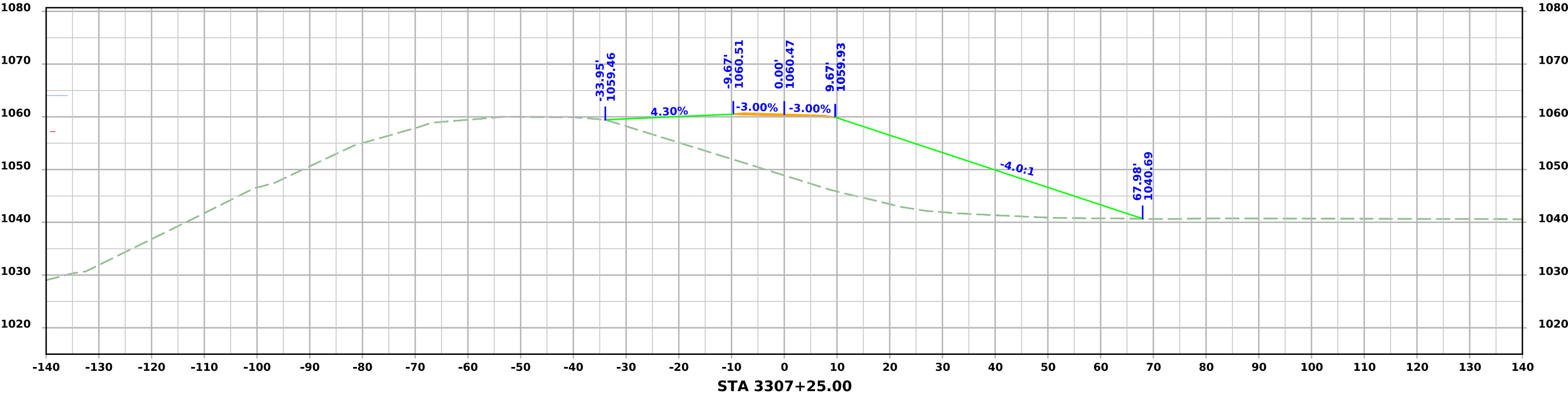
Northeast Levee Road

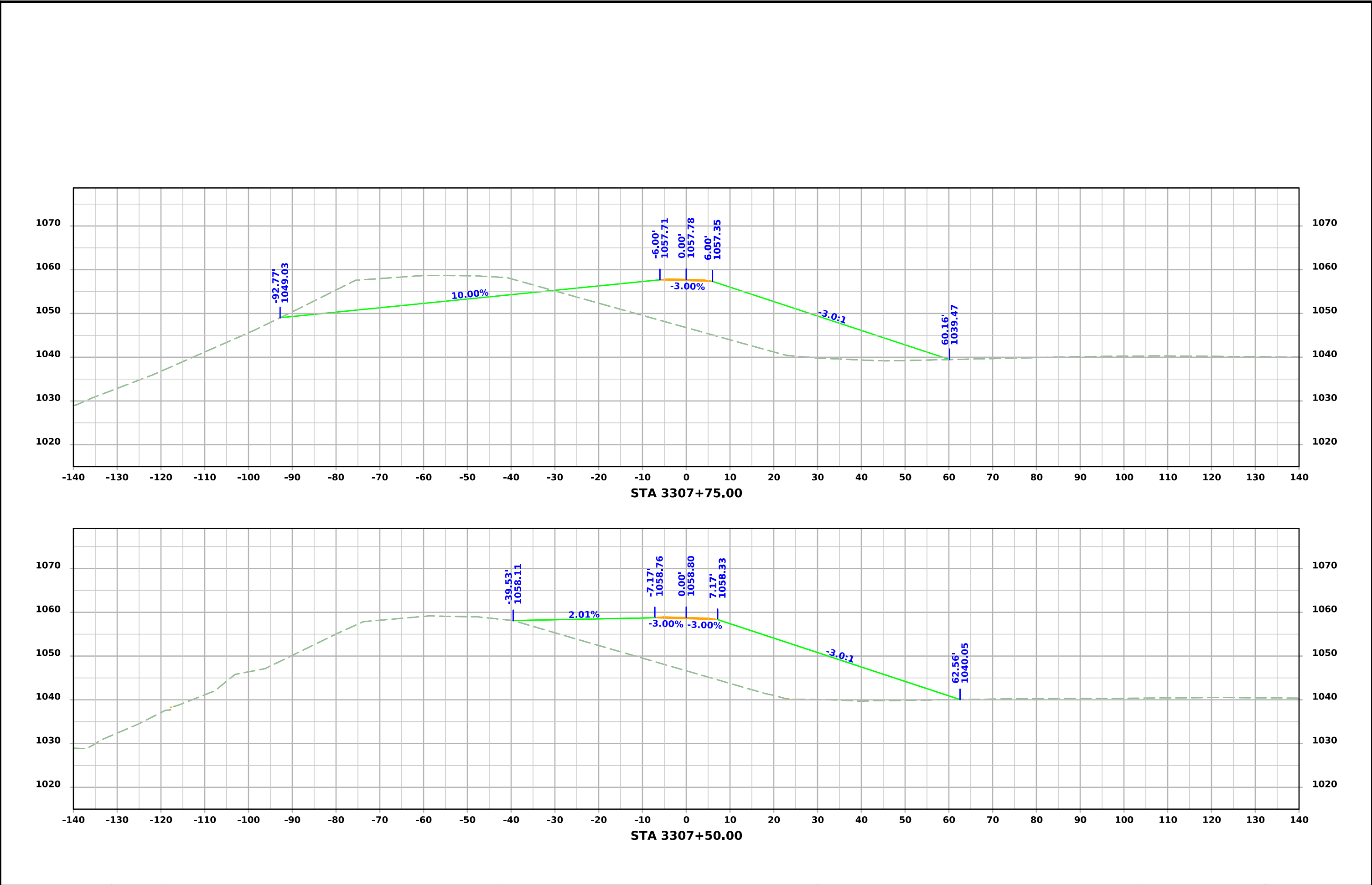


Northeast Levee Road

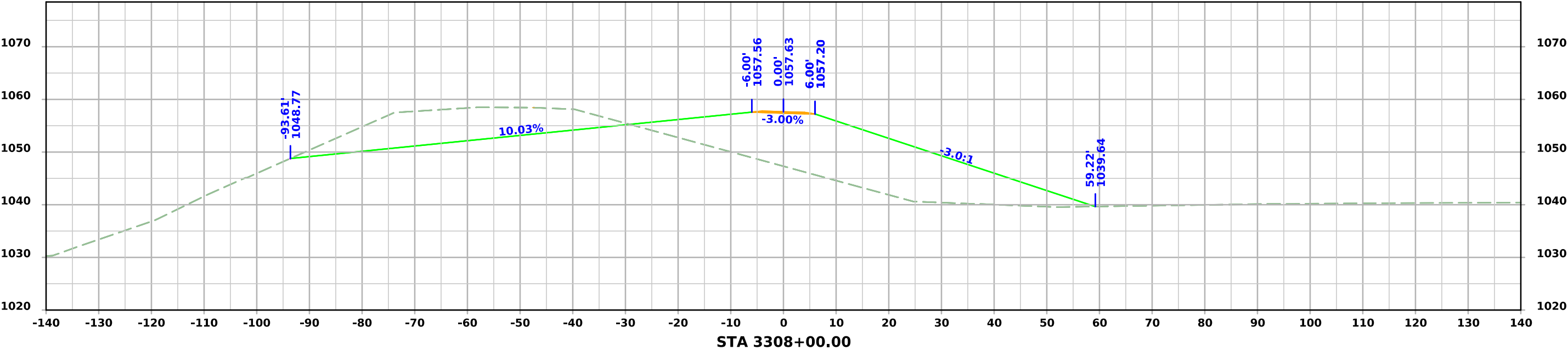
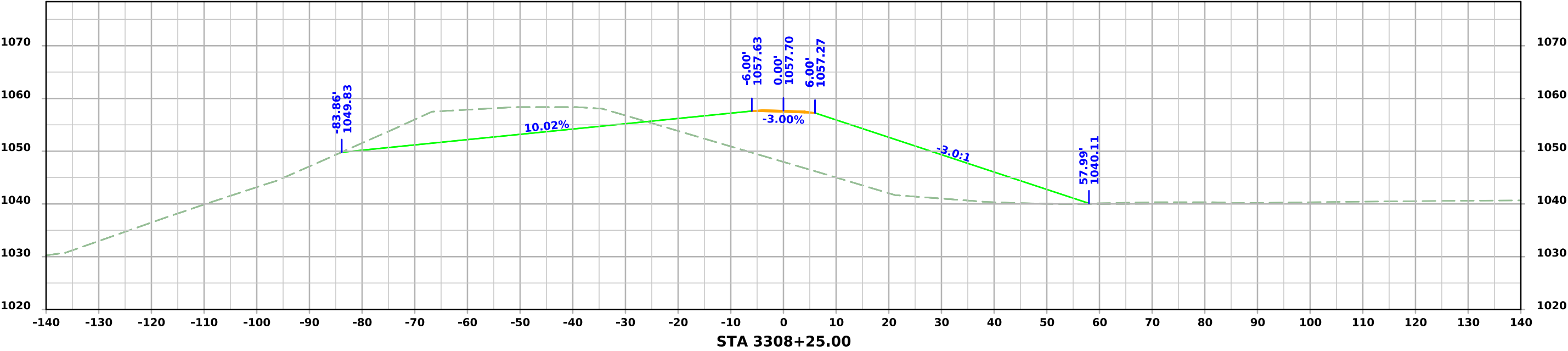


Northeast Levee Road

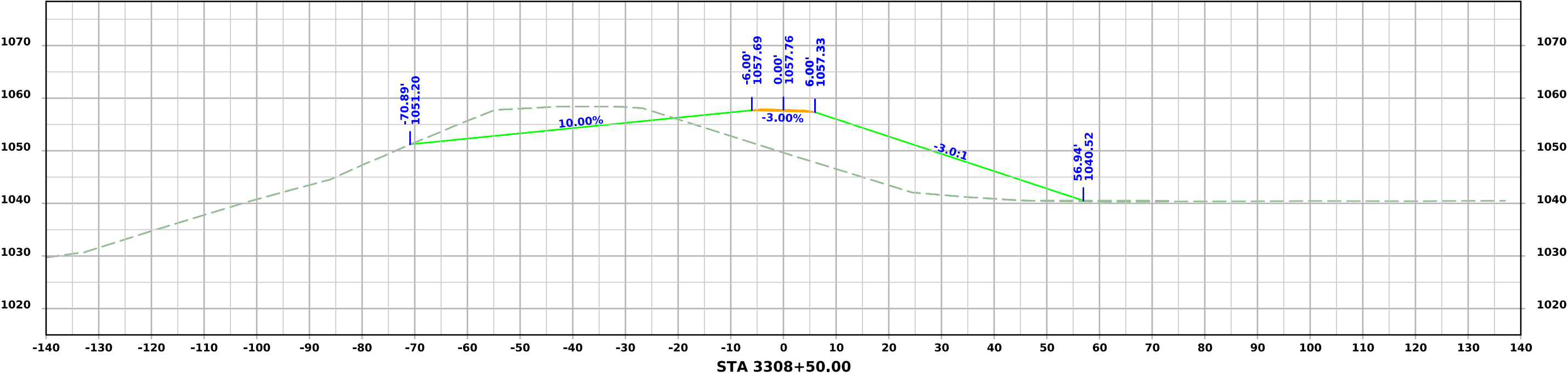
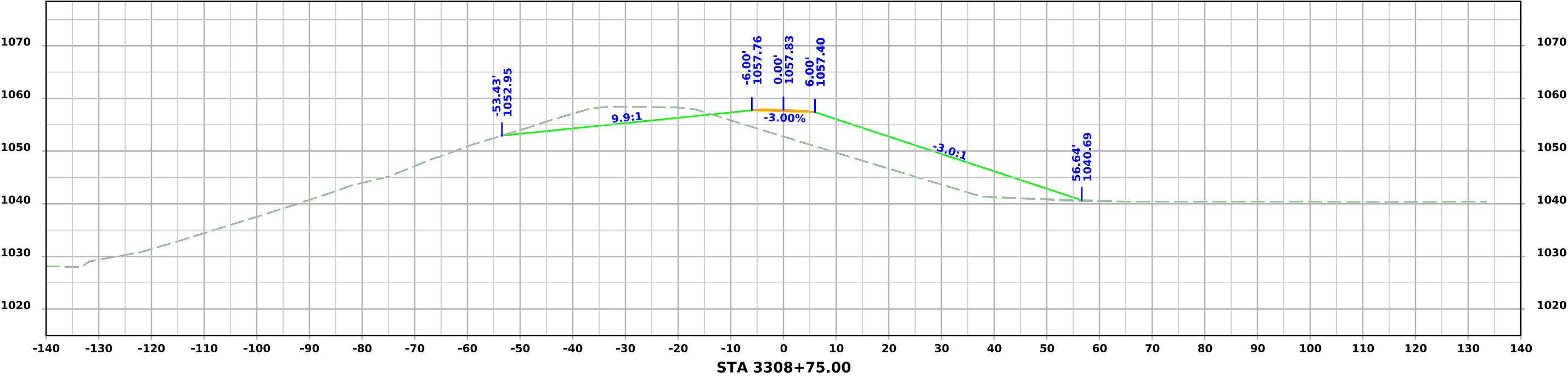




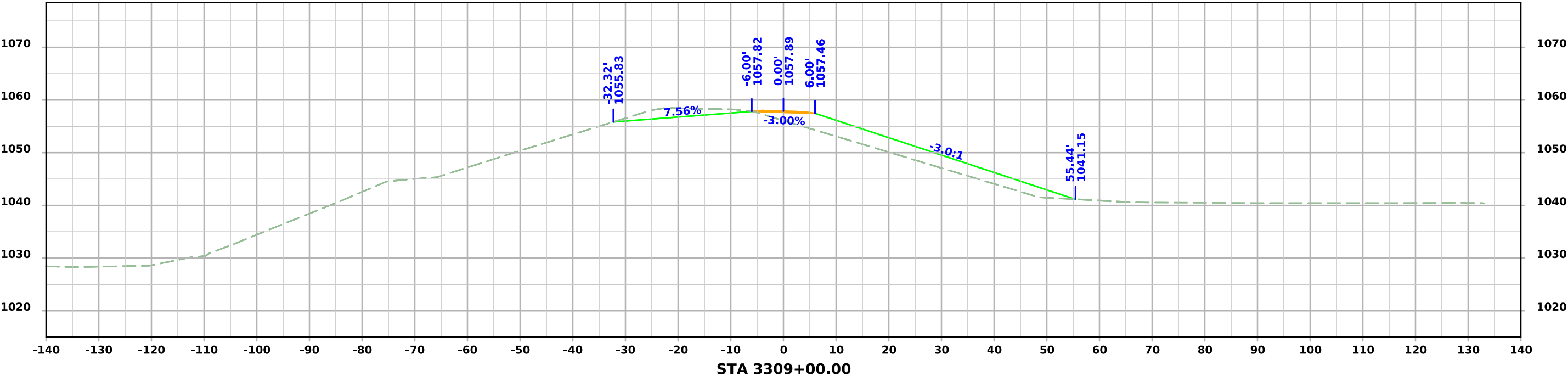
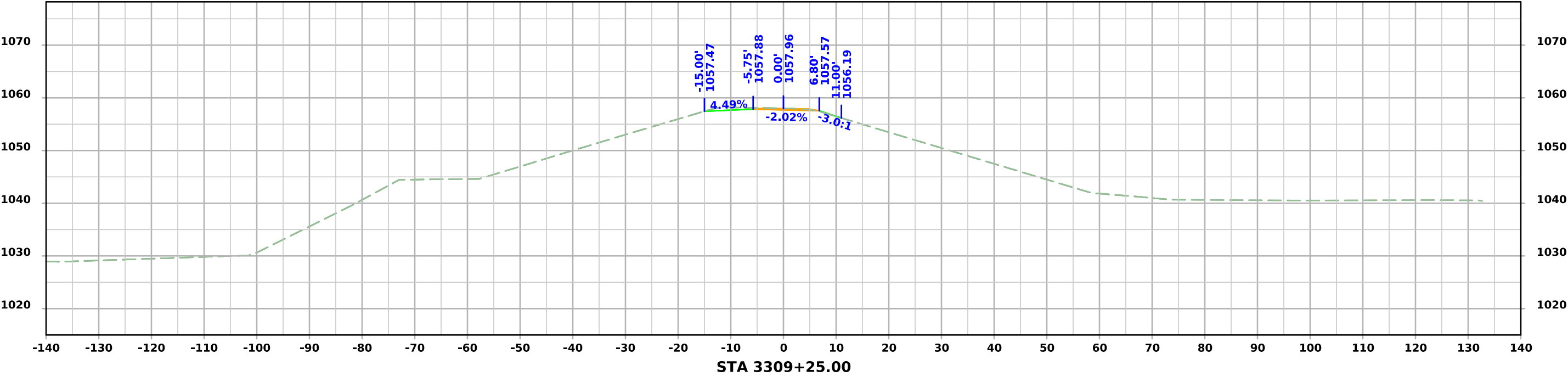
Northeast Levee Road



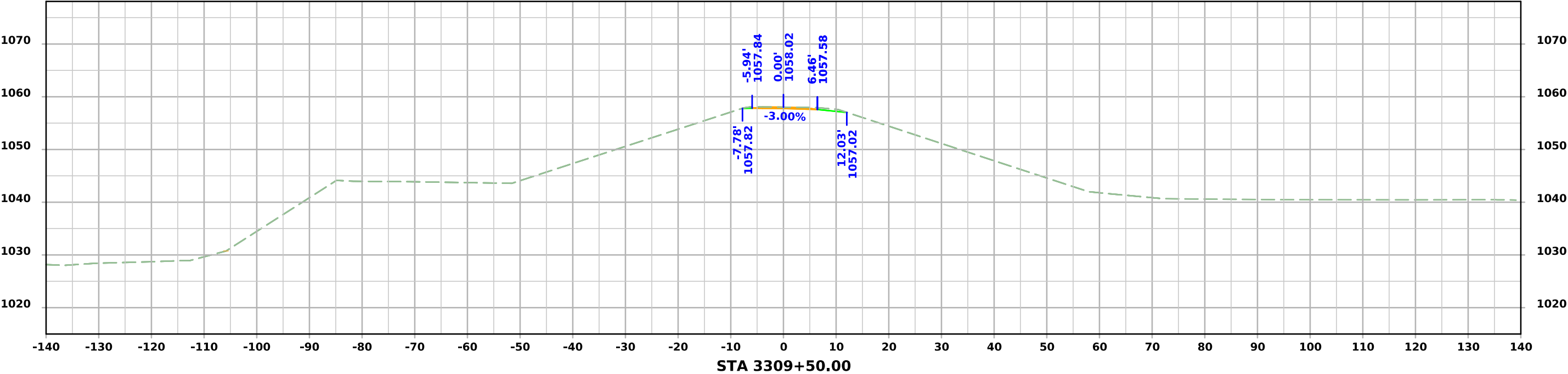
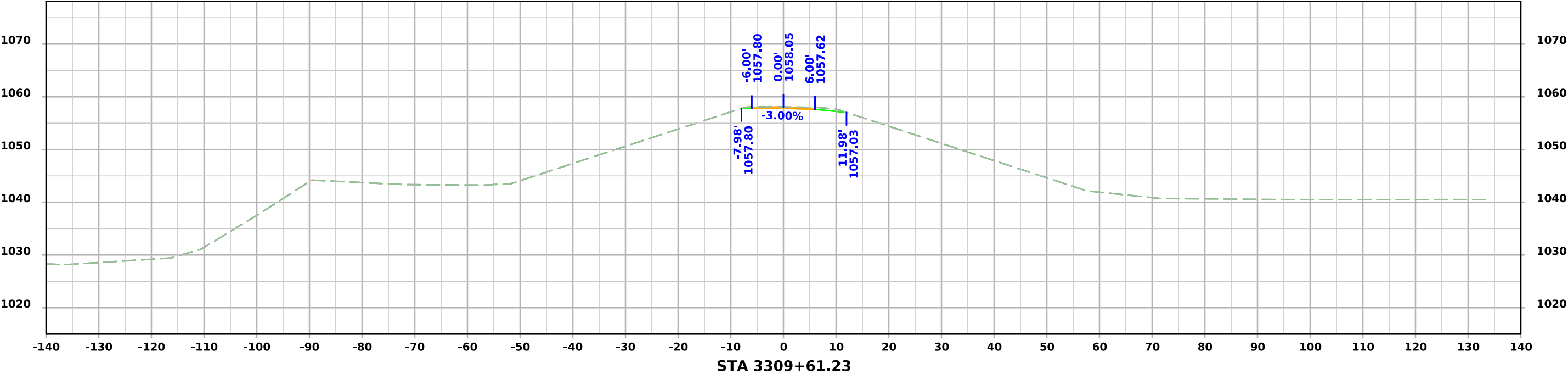
Northeast Levee Road



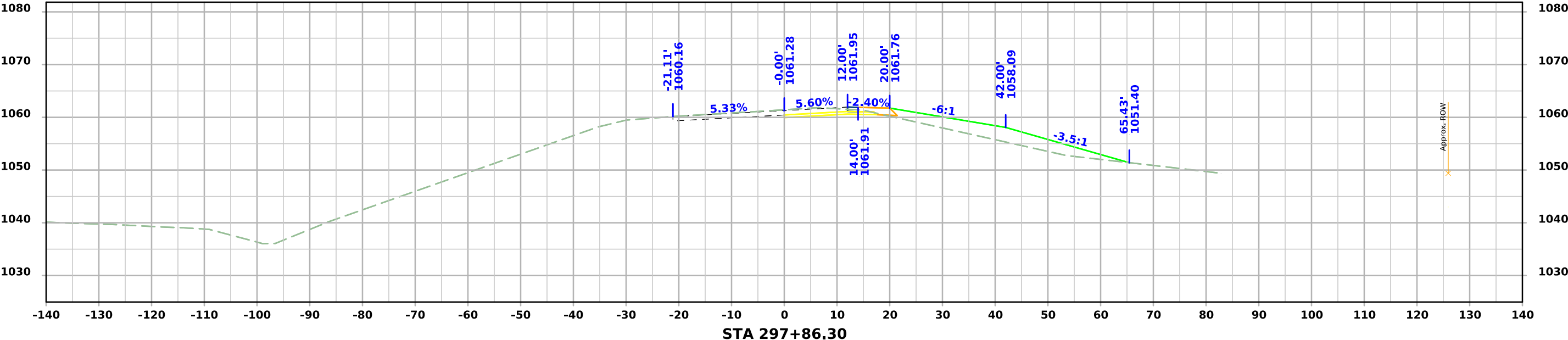
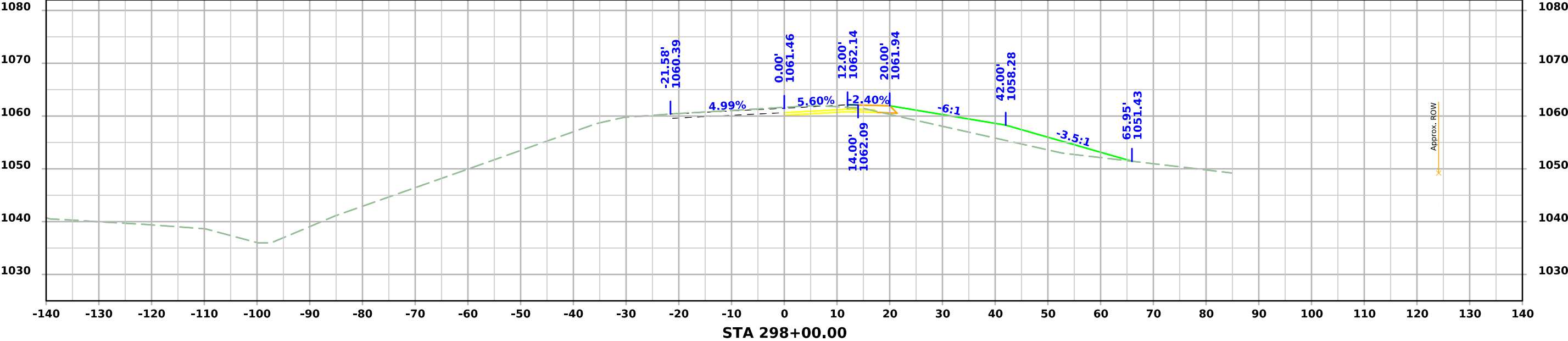
Northeast Levee Road



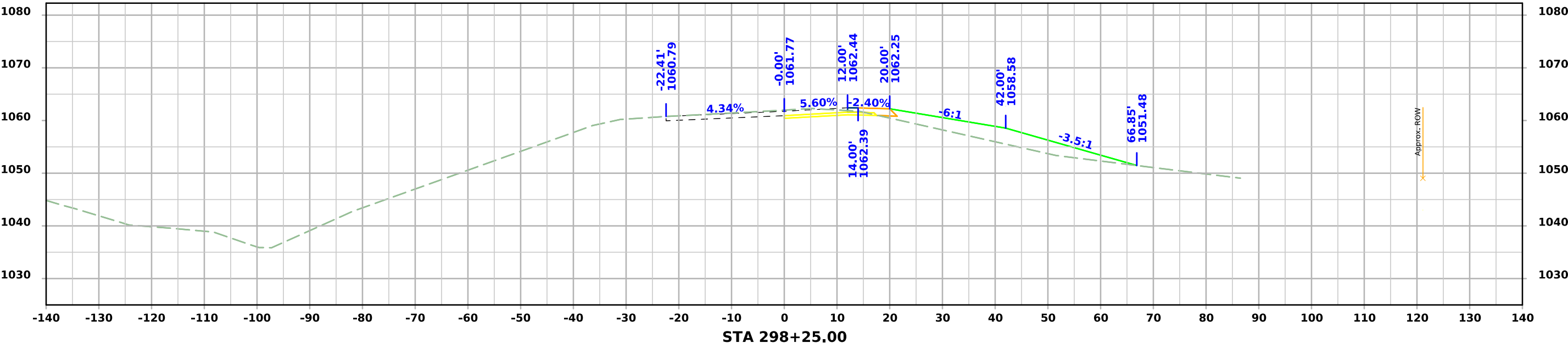
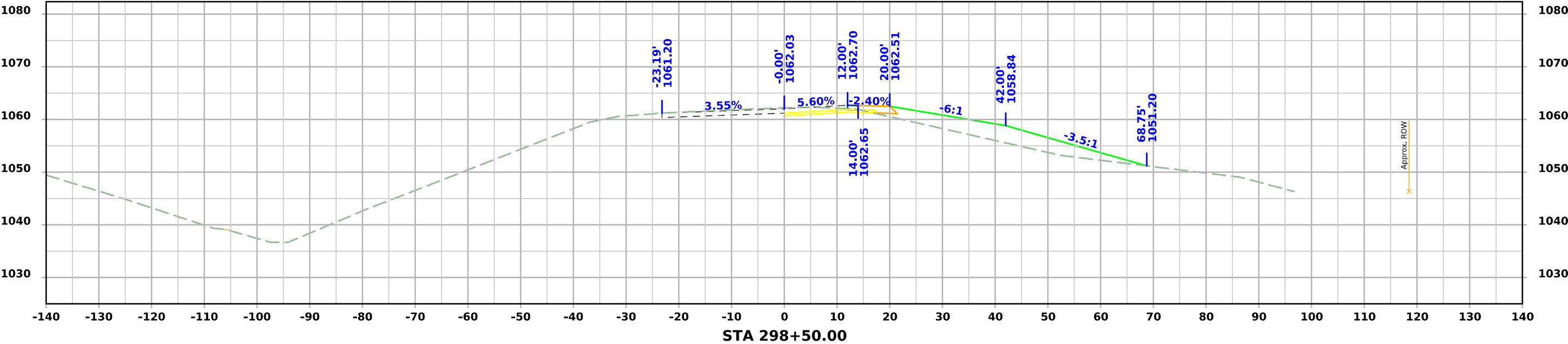
Northeast Levee Road



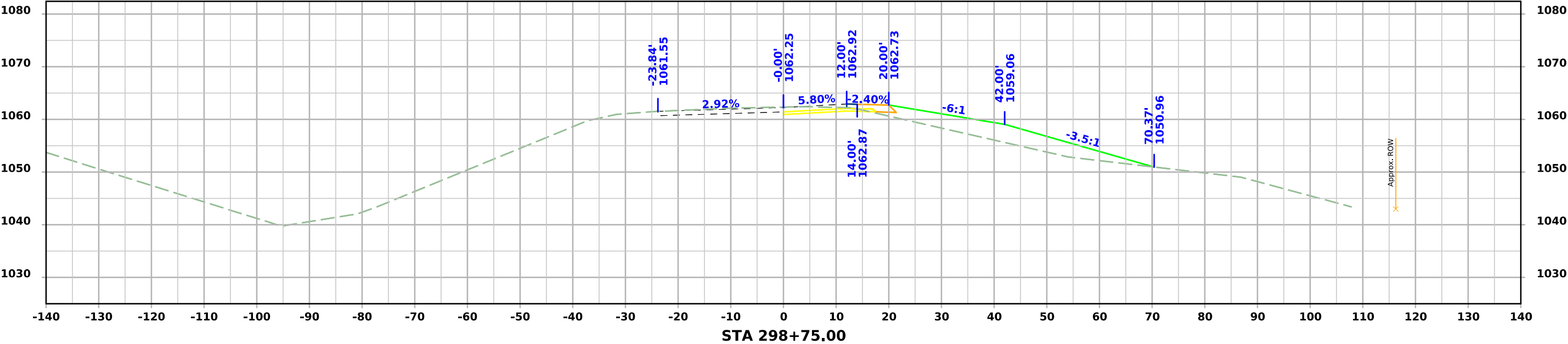
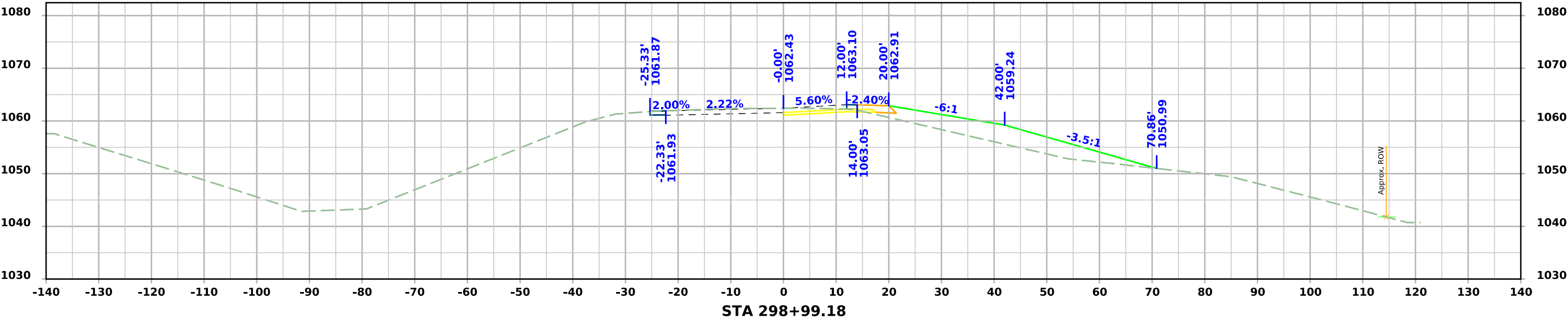
ML175 STAGED PAVING



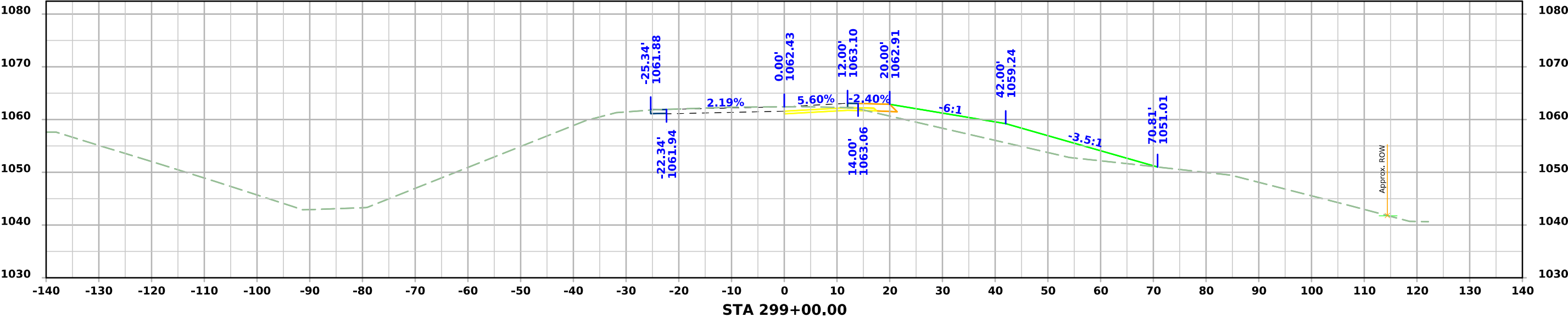
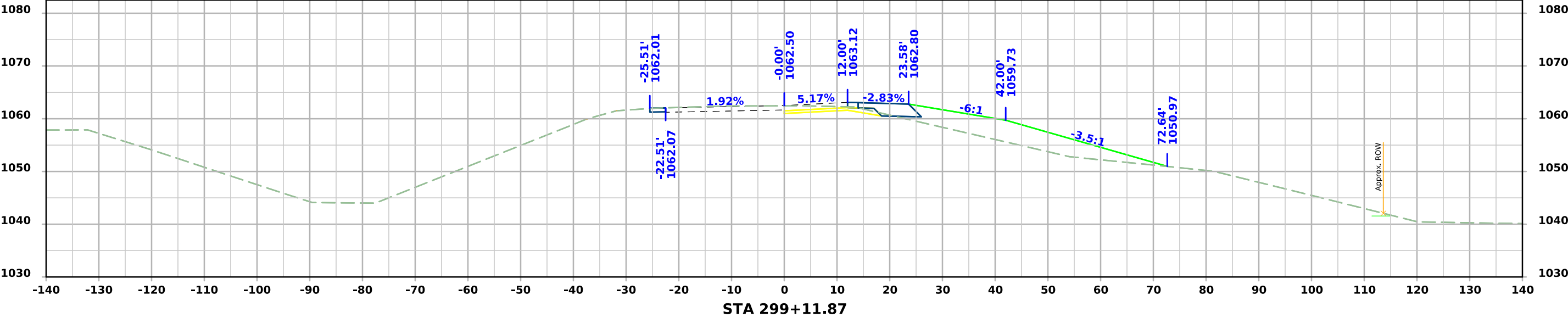
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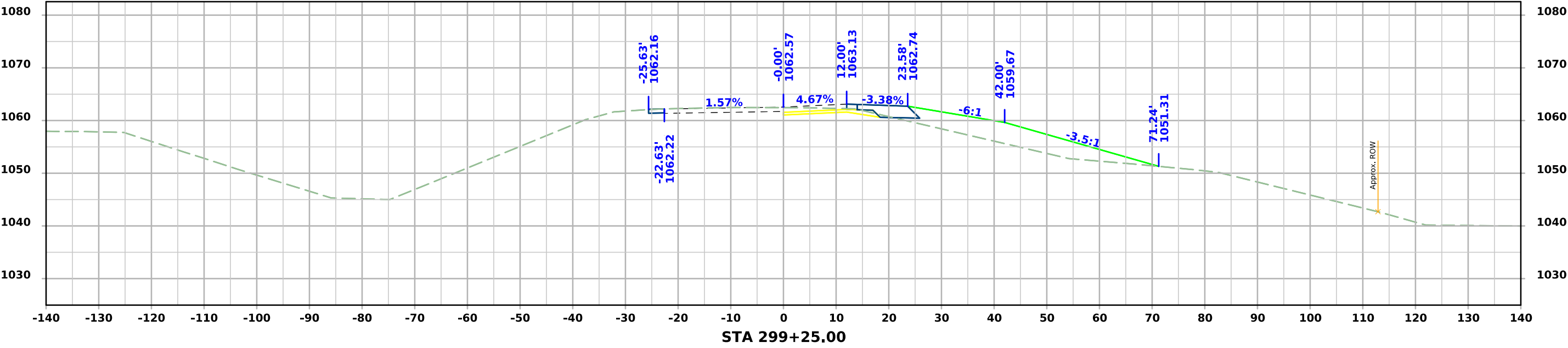
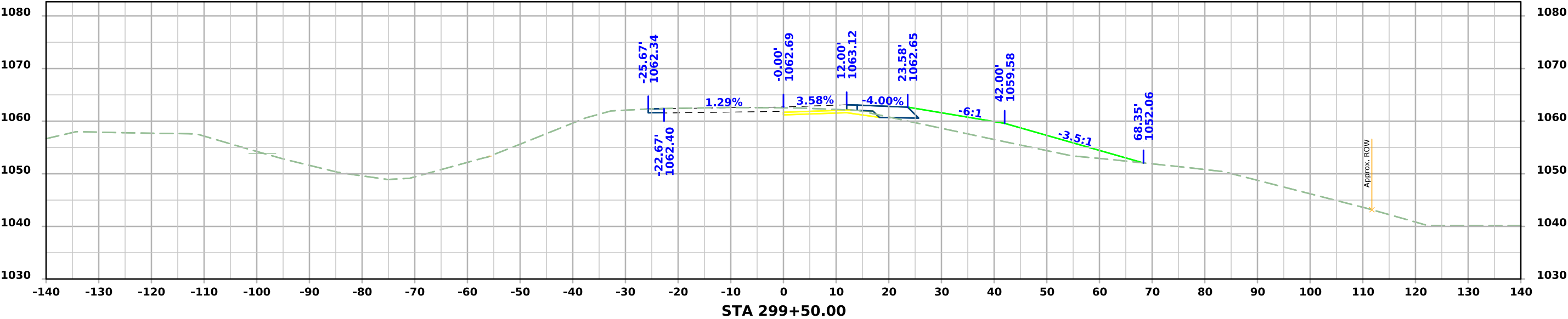
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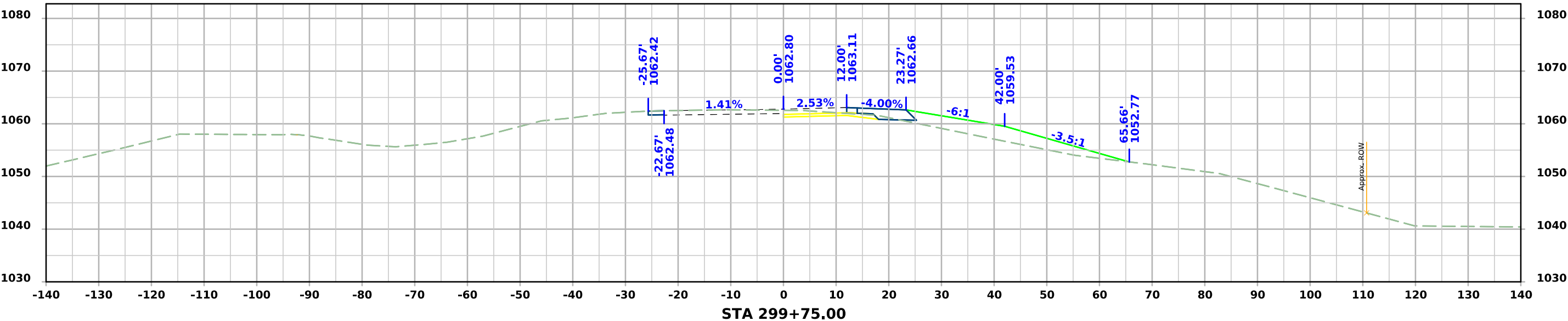
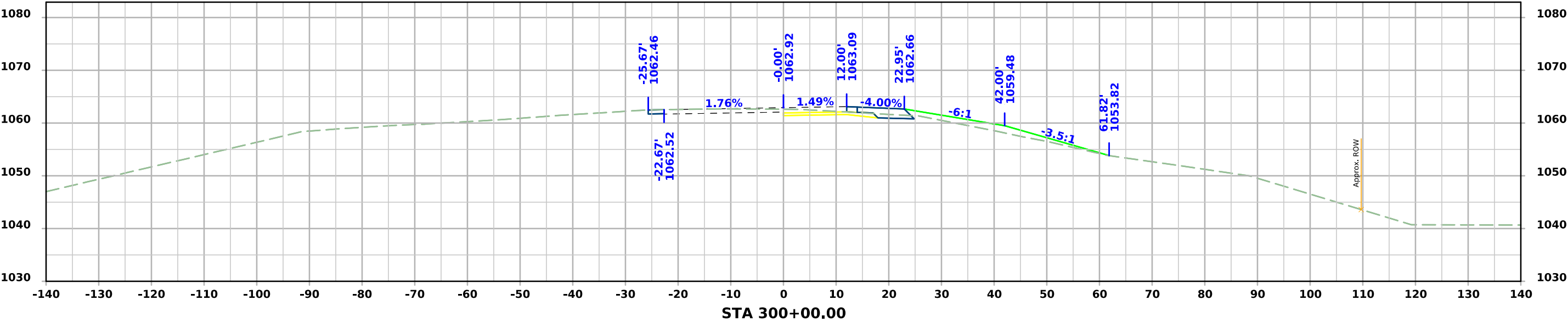
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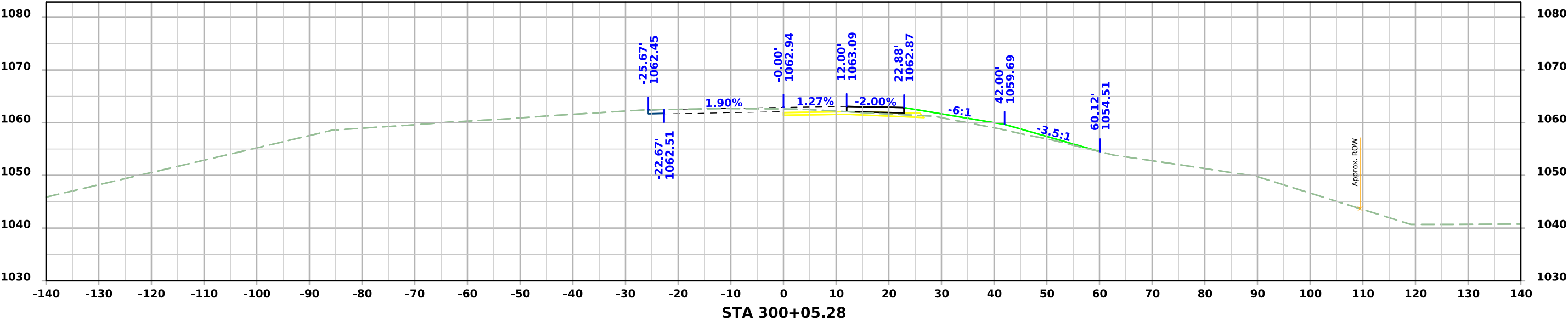
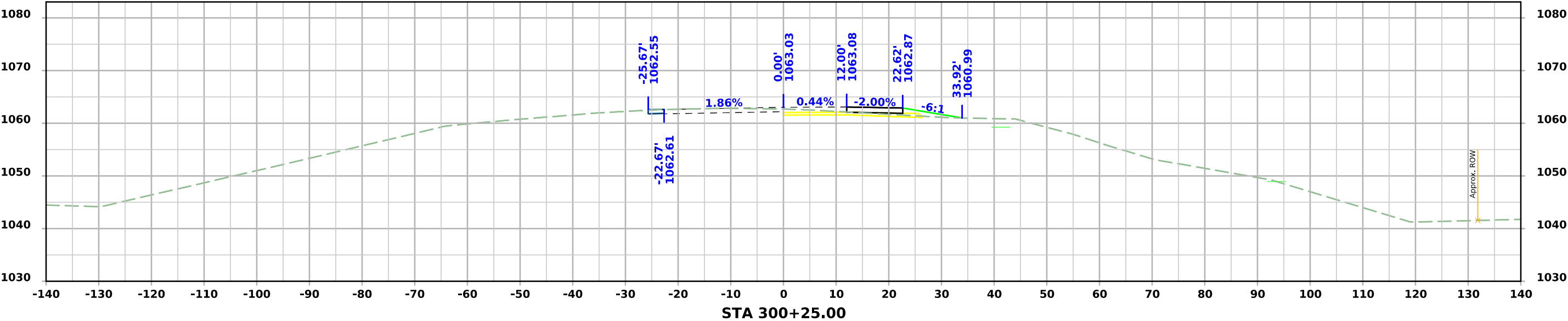
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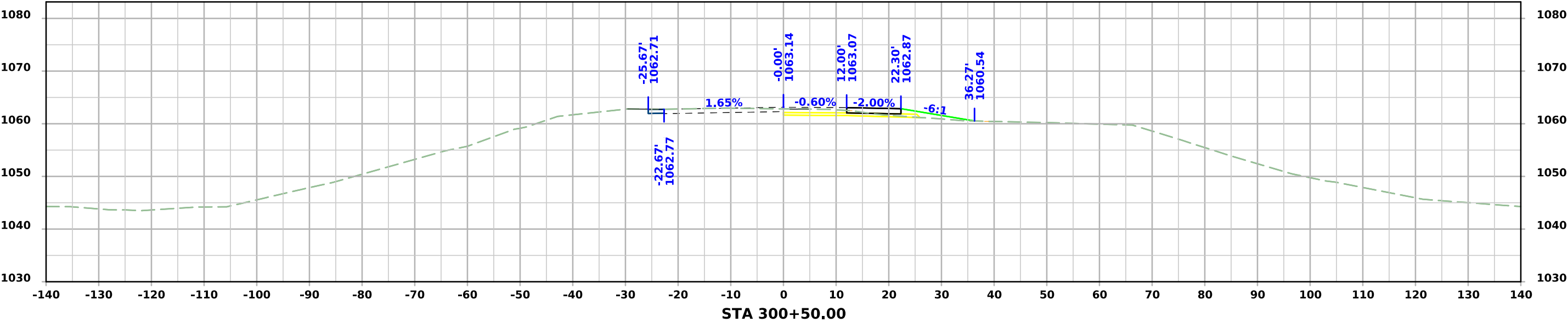
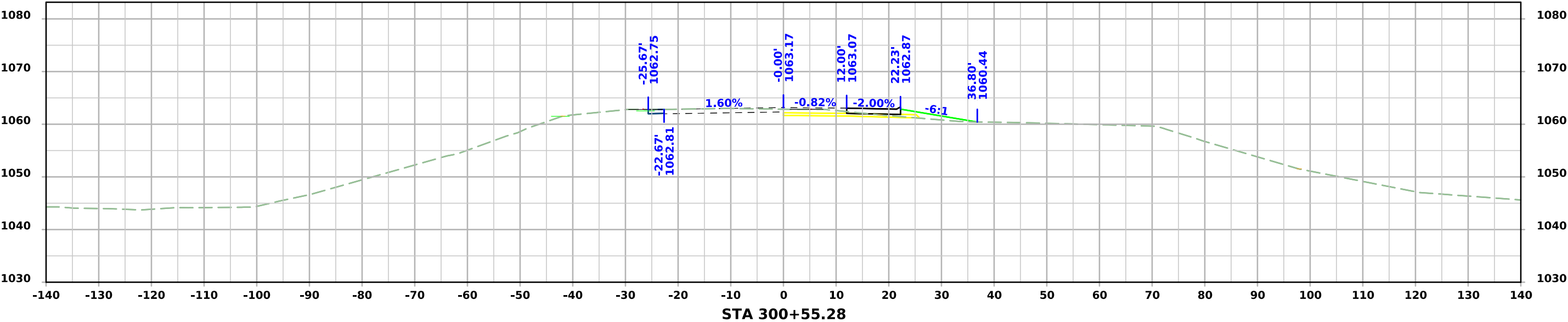
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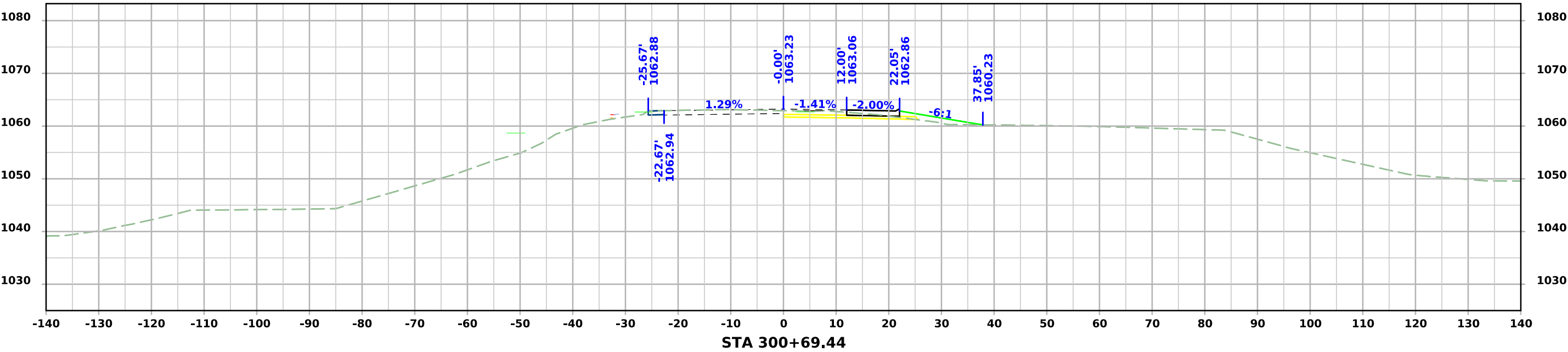
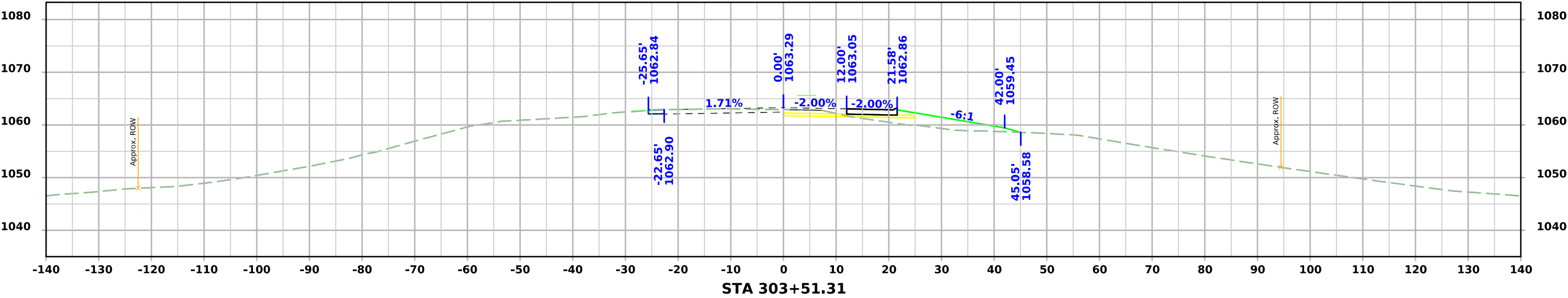
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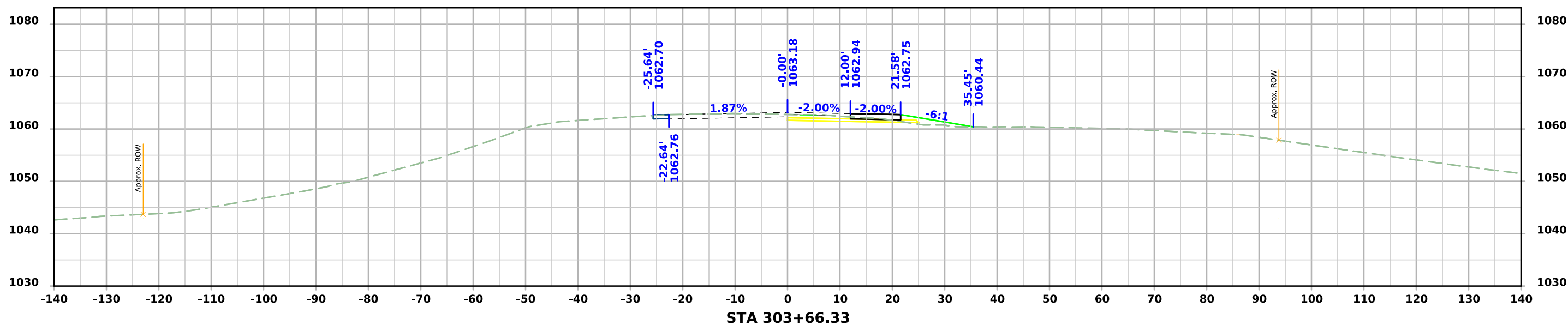
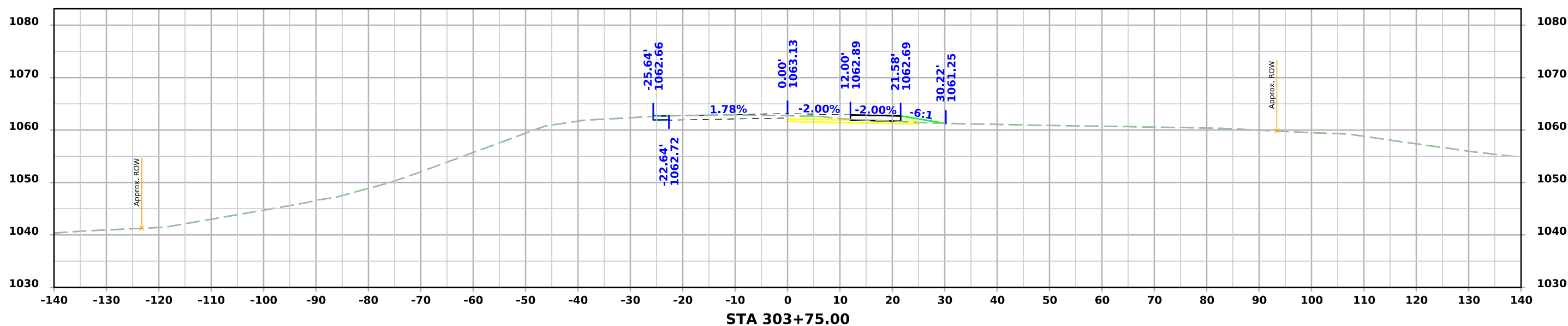
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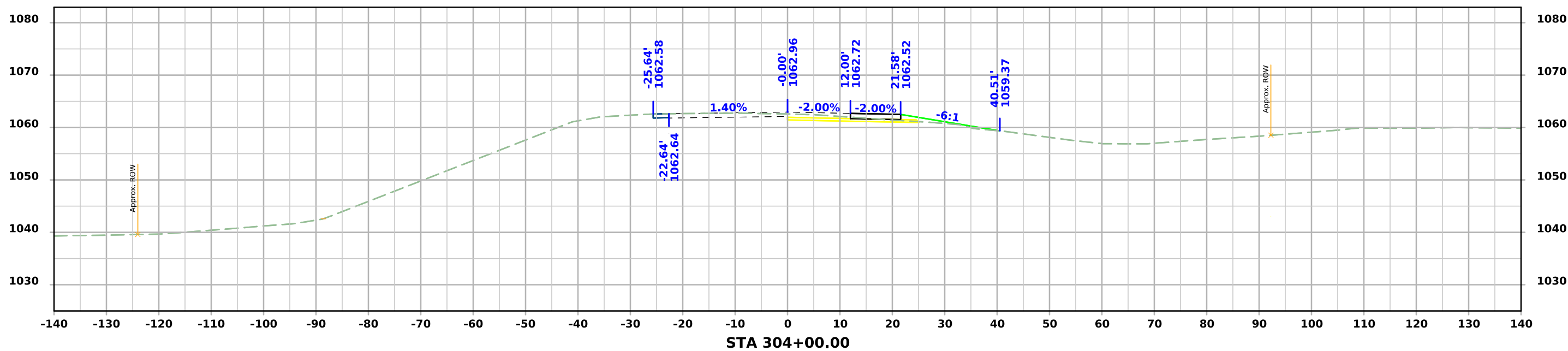
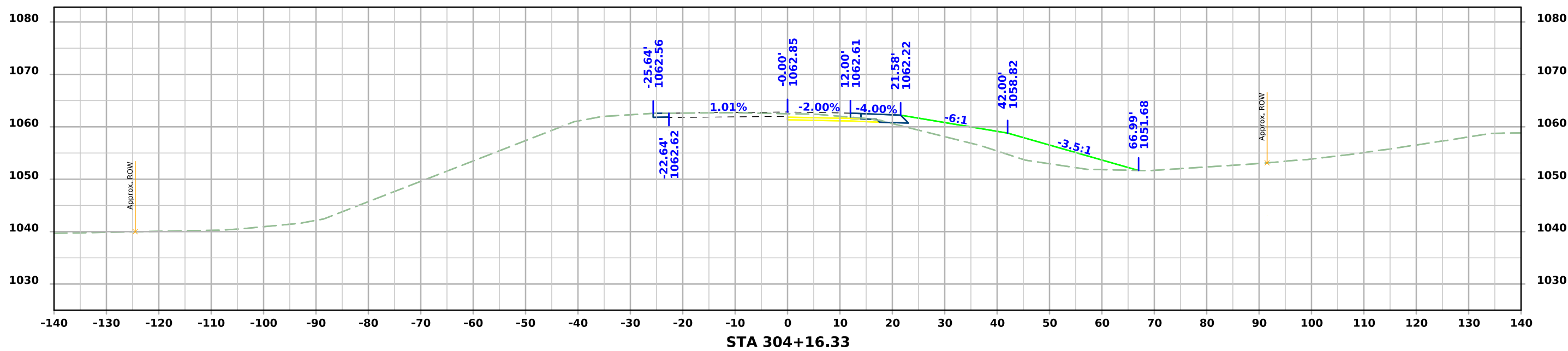
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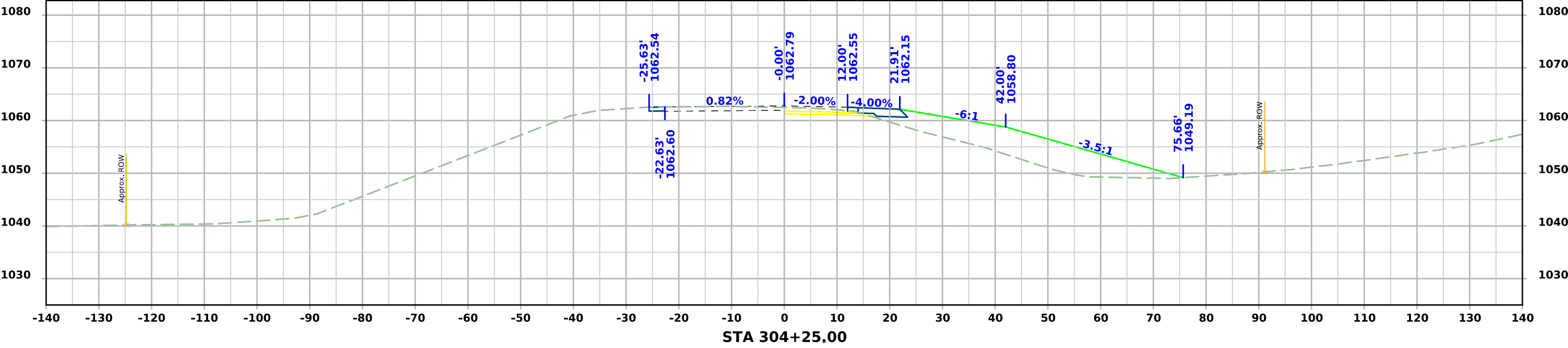
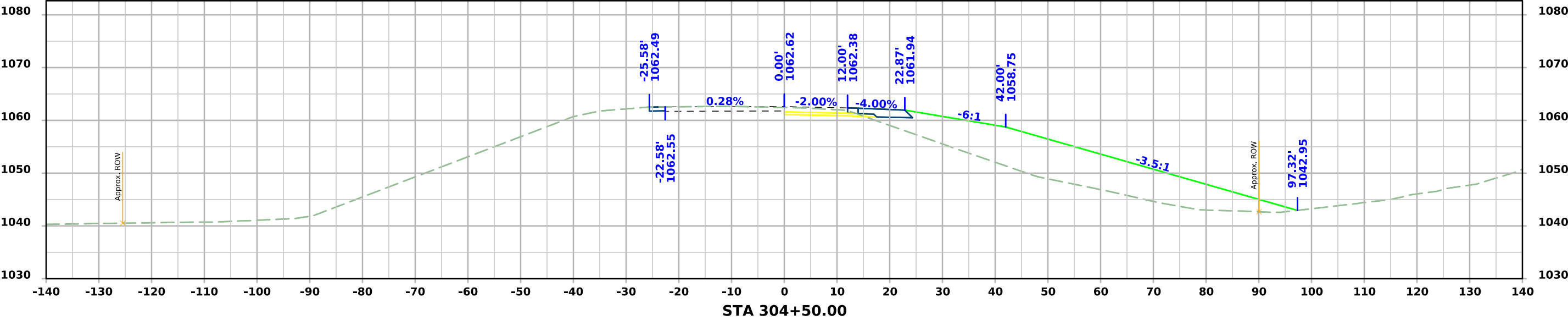
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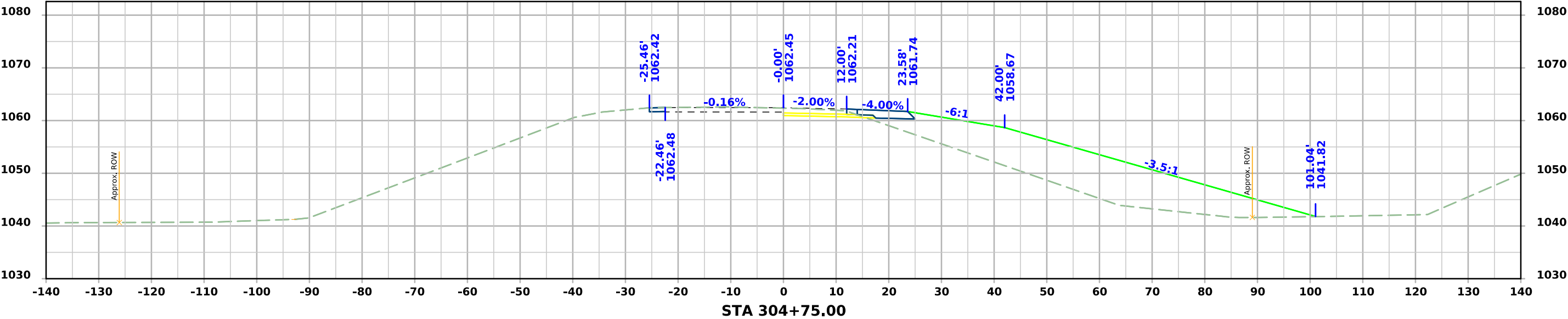
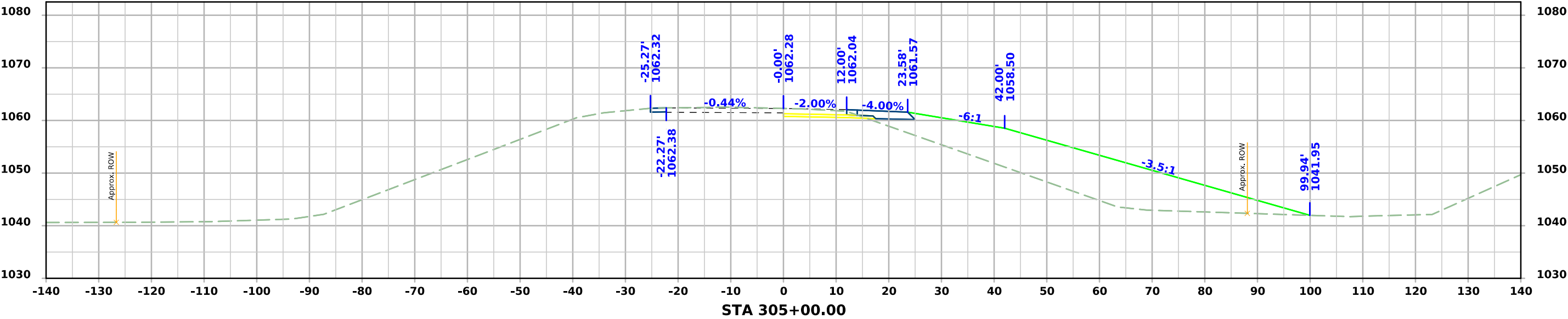
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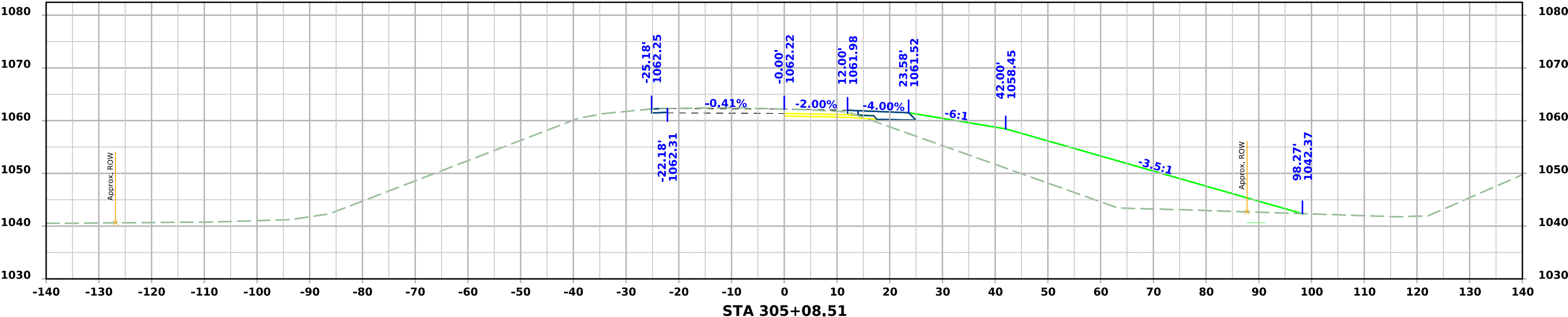
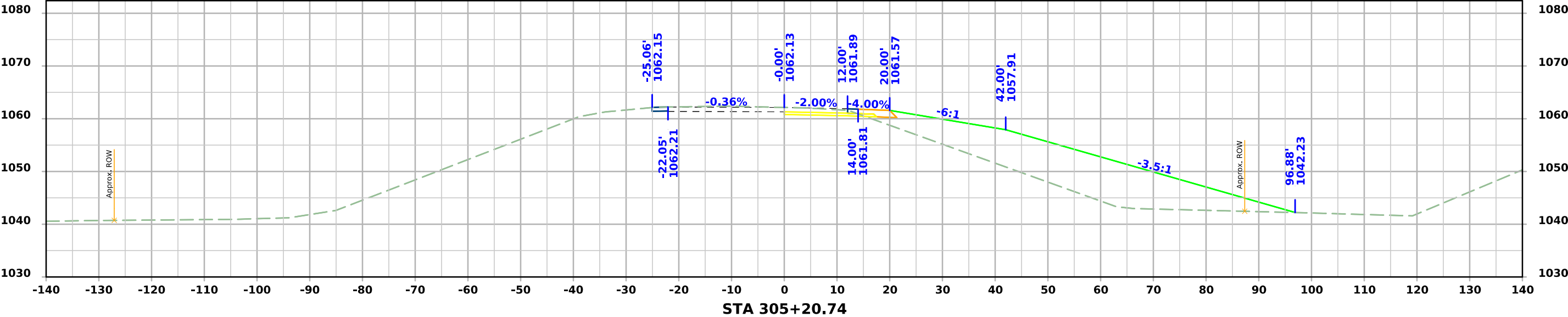
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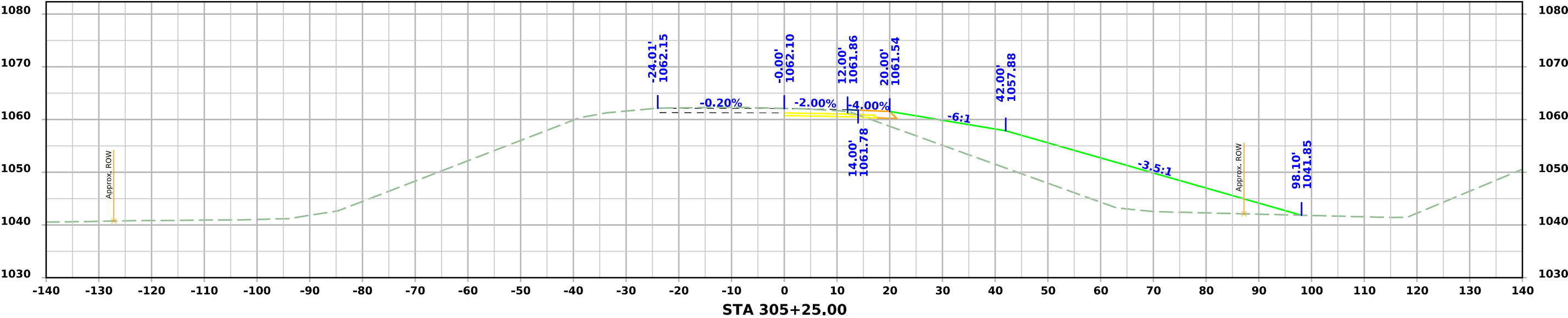
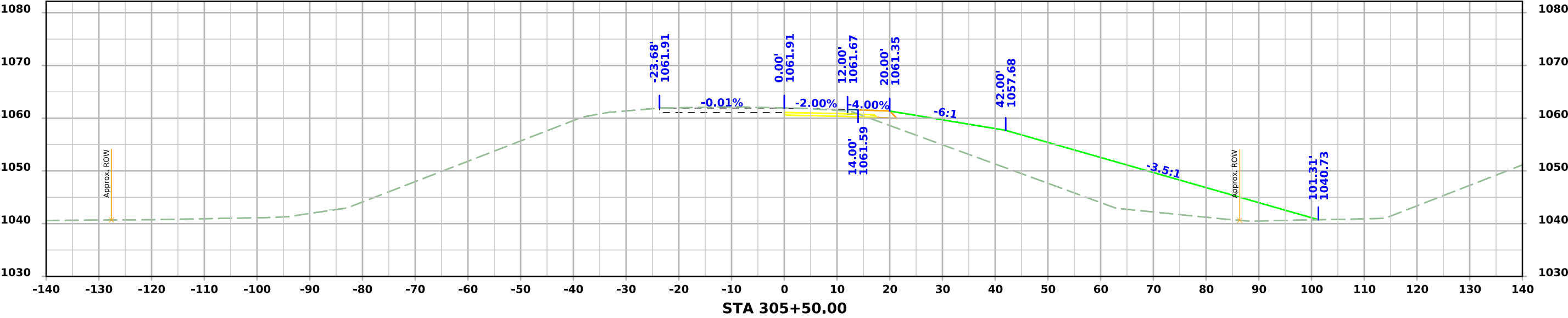
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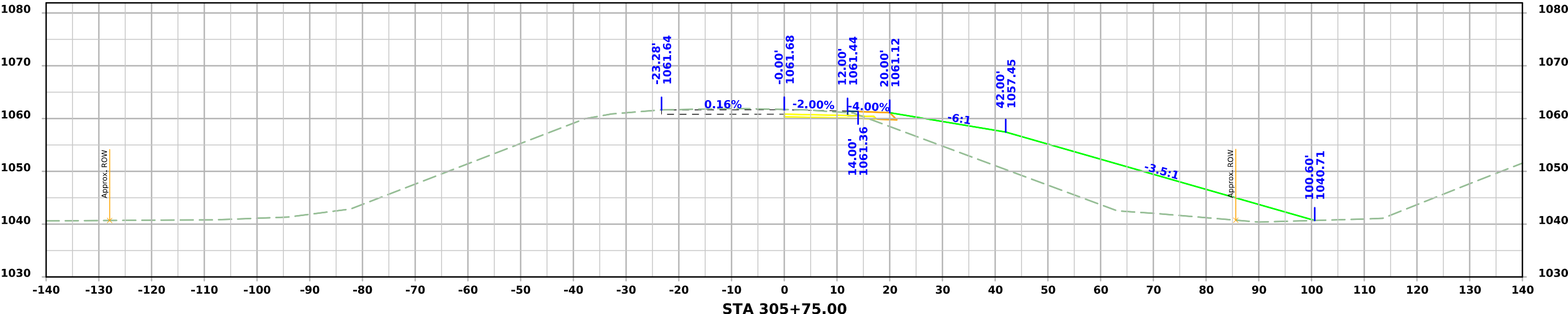
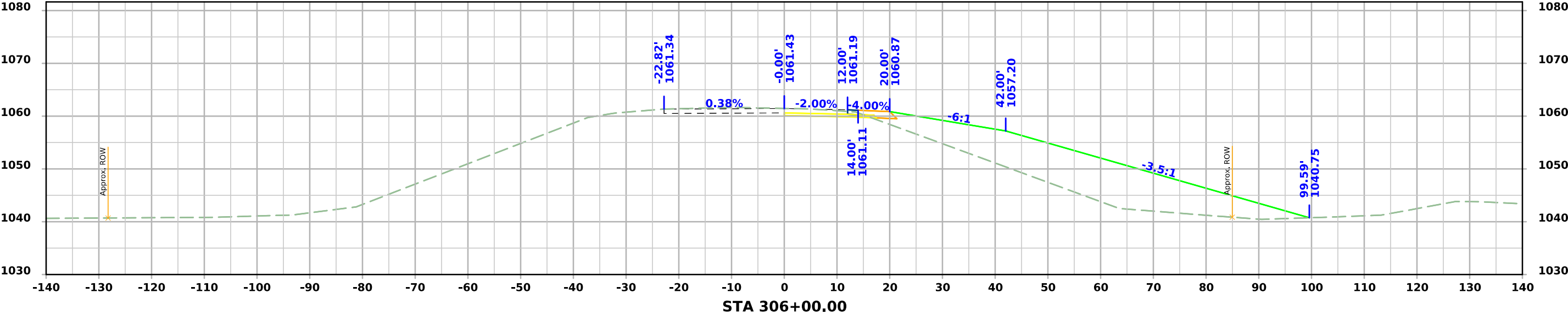
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ML175 STAGED PAVING



ML175 STAGED PAVING



ML175 STAGED PAVING

