

INDEX OF SHEETS	
No.	DESCRIPTION
A Sheets	Title Sheets
A.1	Title Sheet
A.2	Location Map Sheet
B Sheets	Typical Cross Sections and Details
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D.2	I-29
E Sheets	Side Road Plan and Profile Sheets
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G Sheets	Survey Sheets
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G.2	Control Pooint Vicinity Map
G.3	Horizontal & Vertical Control Tab.
J Sheets	Traffic Control and Staging Sheets
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J.3	Staging Notes
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X Sheets	Side Road Cross Sections
X.1	Side Road Cross Sections
Y Sheets	Ramp Cross Sections
Y.1	Ramp Cross Sections



PLANS OF PROPOSED IMPROVEMENT ON THE
PRIMARY ROAD SYSTEM
POTTAWATTAMIE COUNTY
Bridge Replacement - PPCB
Co Rd L19 Interchange
Bridge over I-29

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

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

REVISIONS

TOTAL
..
PROJECT IDENTIFICATION NUMBER
21-78-029-010
PROJECT NUMBER
IMN-029-4(133)66--0E-78
R.O.W. PROJECT NUMBER
IMN-029-4(144)66--0E-78

D5 - Date: 2/6/2026

P9 - Date: 8/5/2026

PRELIMINARY PLANS

Subject to change by final design.

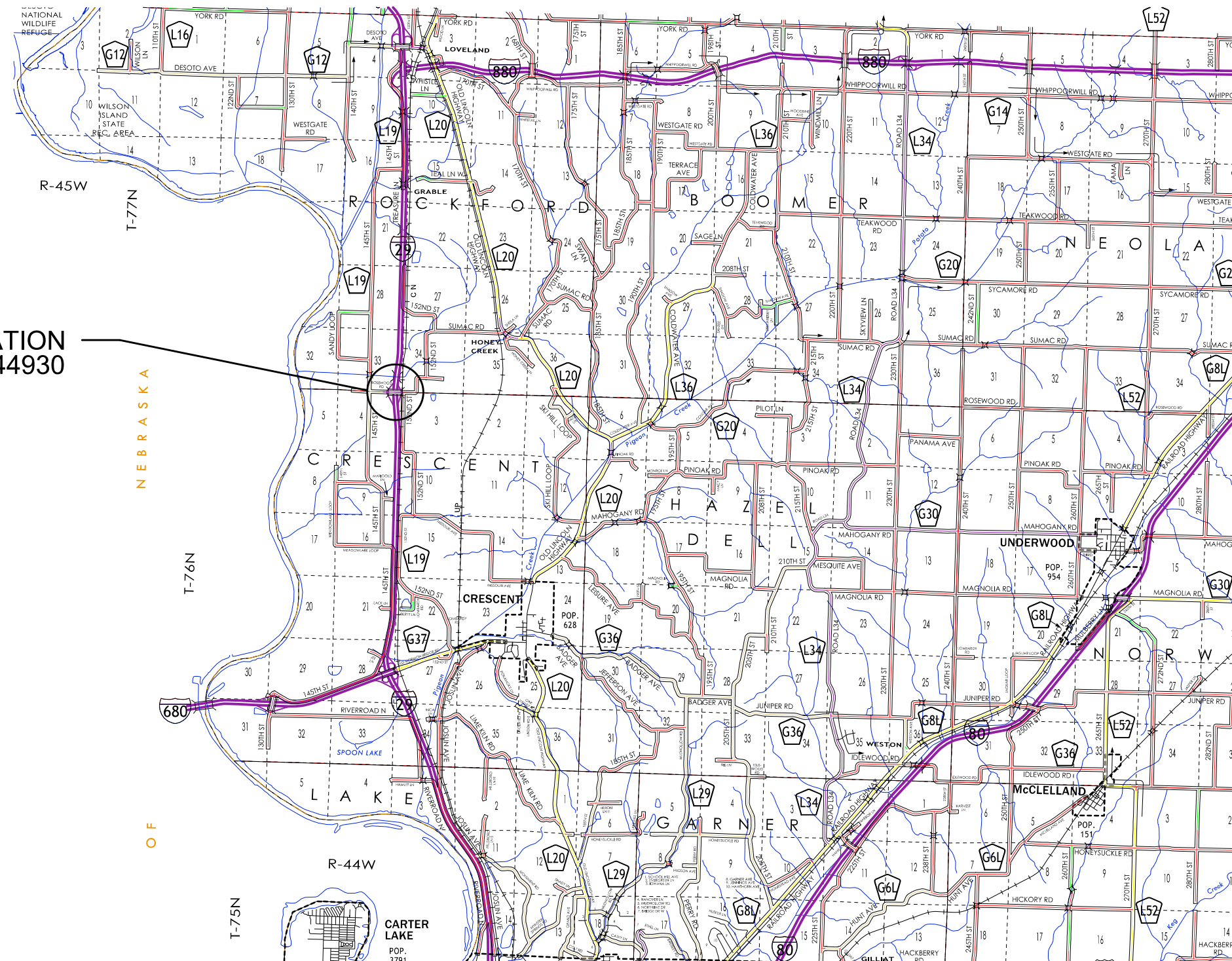
D3 - Date: 10/3/2025

Co. Rd. L19			
DESIGN DATA RURAL			
20 16	AADT	230	V.P.D.
20 --	AADT	--	V.P.D.
20 --	DHV	--	V.P.H.
TRUCKS		--	%
Total			
Design ESALs		--	

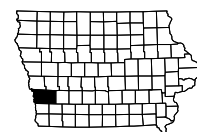
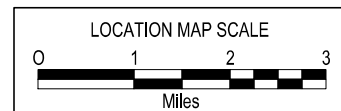
I-29			
DESIGN DATA RURAL			
20 23	AADT	20900	V.P.D.
20 --	AADT	--	V.P.D.
20 --	DHV	--	V.P.H.
TRUCKS		22	%
Total			
Design ESALs		--	

INDEX OF SEALS			
SHEET NO.	NAME	TYPE	BID QUANTITY SHEETS
A.1	X	Primary Signature Block	X
X	X	X	X

PROJECT LOCATION
FHWA #: 44930



NEBRASKA
OF



Full Depth PCC Combination Shoulder

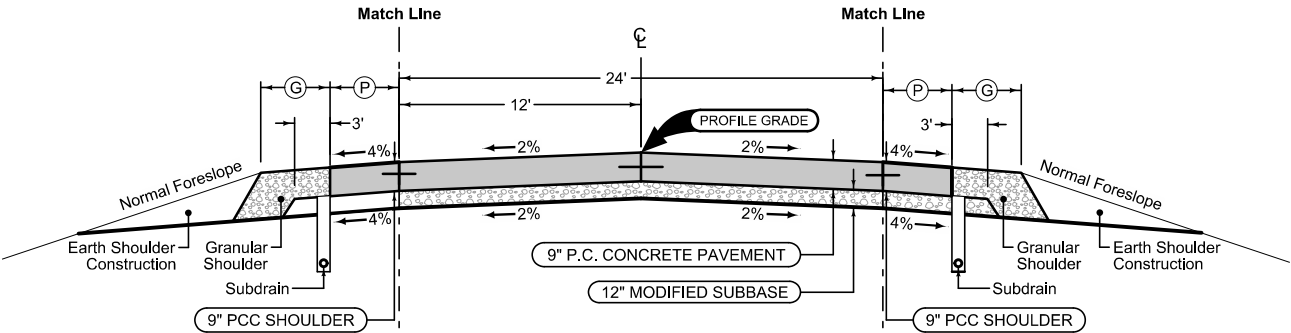
Shoulder Jointing:
Longitudinal joint: BT-2, or L-2
Transverse joints: C at 17' spacing

2_C_FullPCC_04-15-25			
STATION TO STATION		(P) Feet	(G) Feet
1580+83.00	1585+64.23	4	0
1587+43.74	1589+27.19	4	4
1594+70.62	1595+03.00	4	6

Full Depth PCC Combination Shoulder

Shoulder Jointing:
Longitudinal joint: BT-2, or L-2
Transverse joints: C at 17' spacing

2_C_FullPCC_04-15-25			
STATION TO STATION		(P) Feet	(G) Feet
1580+83.00	1585+57.08	4	0
1587+39.90	1589+27.19	4	4
1594+70.62	1595+03.00	4	6



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

STATION TO STATION	
1581+90.00	1592+80.00

Paved Shoulder at Guardrail

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

2_P_Guard_04-21-20		
STATION TO STATION		(P) Feet
1589+27.19	1589+96.91	Varies
1594+00.91	1594+70.62	Varies

Paved Shoulder at Guardrail

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

2_P_Guard_04-21-20		
STATION TO STATION		(P) Feet
1589+27.19	1589+96.91	Varies
1594+00.91	1594+70.62	Varies

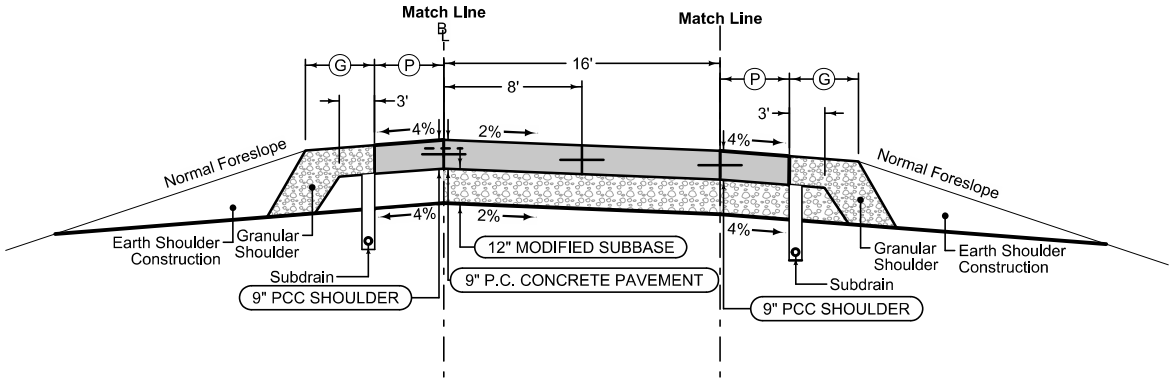


Co Rd L19

Full Depth PCC Combination Shoulder

Shoulder Jointing:
Longitudinal joint: BT-2, or L-2
Transverse joints: C at 15' spacing

2_C_FullPCC_04-15-25				
ROADWAY	STATION TO STATION		P Feet	G Feet
Ramp A	5586+05.29	5587+84.00	6	1.5
Ramp C	3584+30.00	3585+74.94	6	4



Full Depth PCC Combination Shoulder

Shoulder Jointing:
Longitudinal joint: BT-2, or L-2
Transverse joints: C at 15' spacing

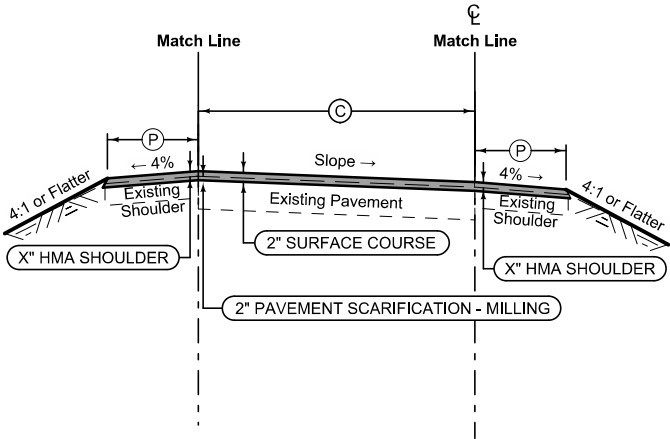
2_C_FullPCC_04-15-25				
ROADWAY	STATION TO STATION		P Feet	G Feet
Ramp A	5586+05.29	5587+84.00	4	5
Ramp C	3584+30.00	3585+74.94	4	5

Section shown in the direction of traffic.

Ramp Jointing:
Transverse joints: CD at 15' spacing.
Longitudinal joints: L-2

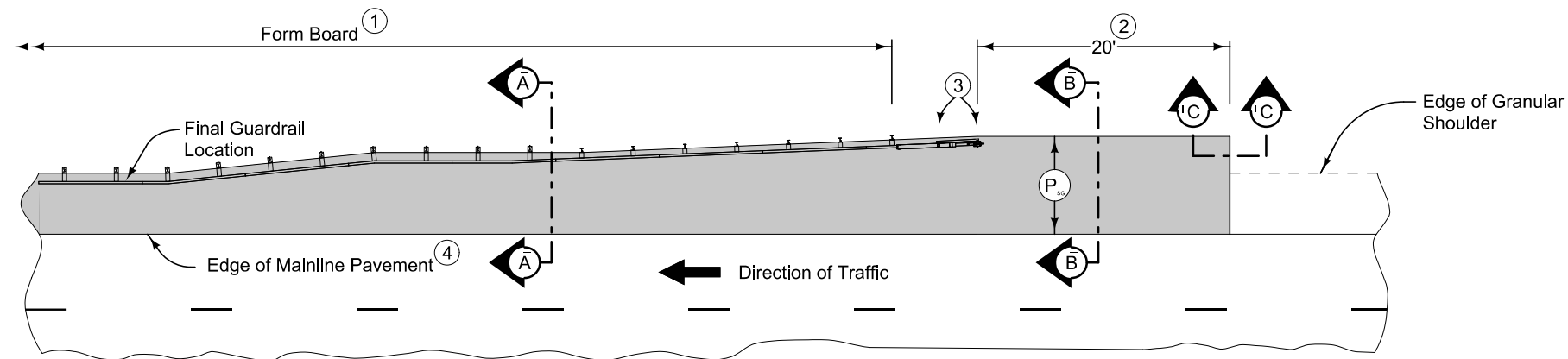
1RP_Modified		
ROADWAY	BEGIN STATION	END STATION
Ramp A	5586+05.29	5587+84.00
Ramp C	3584+30.00	3585+74.94

Ramps A & C



3R_MillingOverlay_04-19-11						
ROADWAY	STATION TO STATION		C Feet	L Feet	R Feet	Pavement Scarification SY
Ramp C	3195+00.00	3206+75.00	15	5	1	
Ramp B	2590+00.00	2600+50.00	Varies	Varies	Varies	

Loveland Detour
Ramps



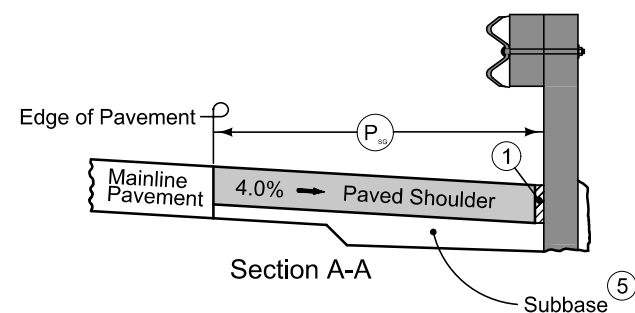
PLAN VIEW

9" PCC may be used with the following jointing layout:

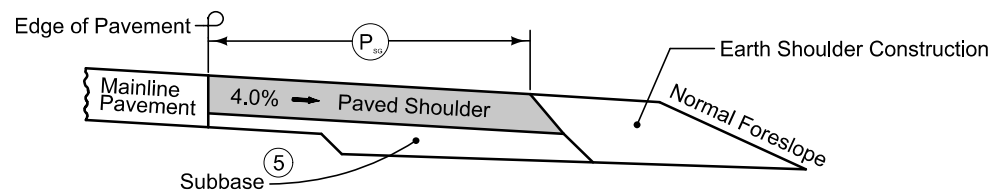
Match mainline pavement joint spacing. When mainline pavement is 8" or greater in thickness, place additional transverse 'C' joints in shoulder at mid-panel of the mainline pavement. Place longitudinal 'C' joint at $P/2$ from edge of mainline pavement when P is greater than 10' wide. Terminate longitudinal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

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 'BT' joint (per PV-101) for PCC shoulder.
- ⑤ Refer to other details in the plan.

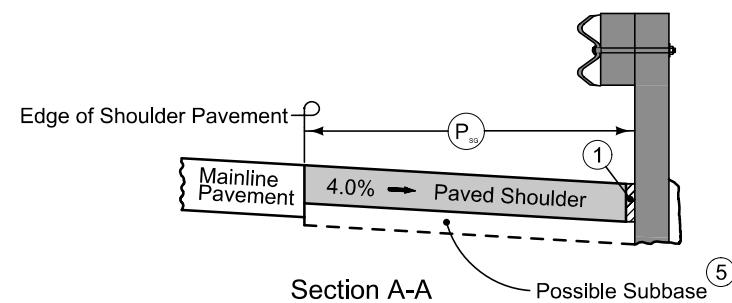


Section A-A

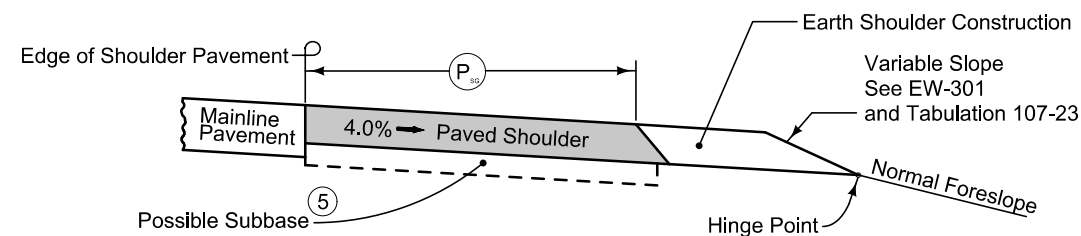


Section B-B

NEW CONSTRUCTION

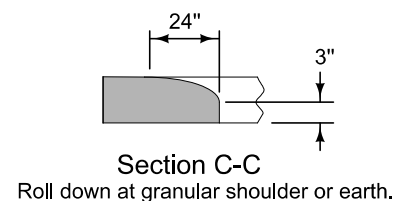


Section A-A



Section B-B

EXISTING SHOULDER



Section C-C

Roll down at granular shoulder or earth.

PAVED SHOULDER AT GUARDRAIL
(GRANULAR SHOULDER ADJACENT TO MAINLINE)

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
	Sink Hole		Traffic Signal Control Box
	Board Fence		Rail Road Signal Control Box
	Chain Link or Security Fence		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

Sub-Surface Utility Mapping Quality Level is in accordance with CI/ASCE 38-02 Standard Guidelines for the Collection and Depiction of Existing Subsurface Utility Data.

Remark Abbreviations
QLA Quality Level A Highest guideline quality level
QLD Quality Level D Lowest guideline quality level

	FO1D, MCI - Quality D
	FO2D, Centurylink - Quality D
	TL1D, AT&T - Quality D
	PPA, Midamerican Energy
	EL1D, Iowa DOT - Quality D

Utility Contact Information:

AT&T
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Lenny Vohs
Senior - Project Manager
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(816) 275-4014, Cell: (770) 335-8254
lv2121@att.com

MCI/Verizon Business
Fiber Transmission
Thanh (TK) Nguyen
Outside Plant Engineer
2600 Westown Pkwy STE 100
West Des Moines, IA 50266
(515) 783-7177
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MidAmerican Energy Company
Electric Distribution
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Lead, Electric Distribution Engineering SW Iowa
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Council Bluffs, IA 51501
(712) 366-5636, Cell: (402) 657-1059
scott.behrens@midamerican.com

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.	Transparency
Pink, Dark	(13)		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
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
Red	(3)		Proposed Structure Shading
Red	(3)		Delineates Restricted Areas

PROFILE VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

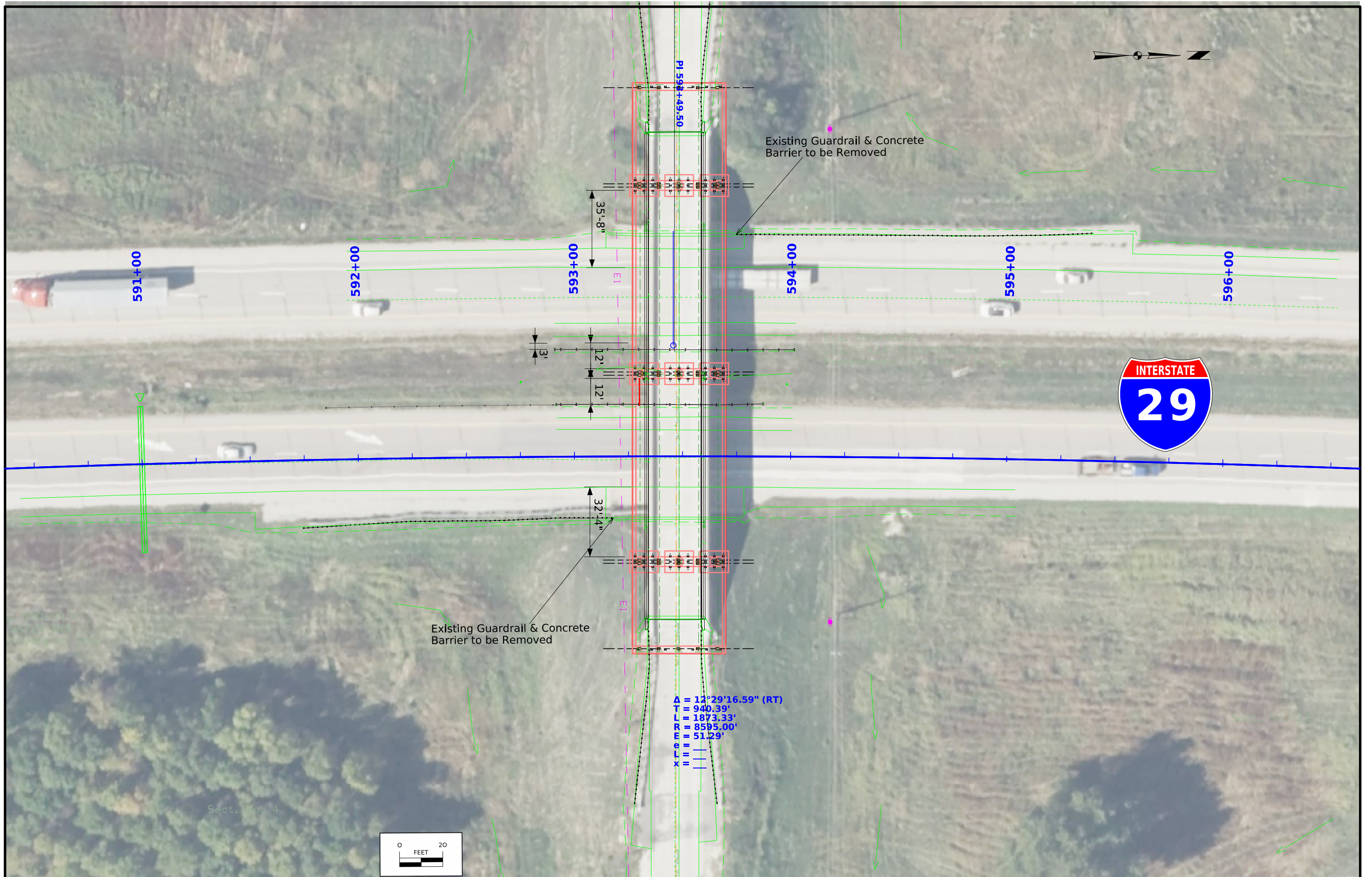
LINEWORK		Design Color No.	
Green	(10)		Existing Ground Line Profile
Blue	(1)		Proposed Profile and Annotation
Magenta	(5)		Existing Utilities
Blue, Light	(230)		Proposed Ditch Grades, Left
Black	(0)		Proposed Ditch Grades, Median
Rust	(14)		Proposed Ditch Grades, Right

	Reference Point		Survey Line
	Station		Section Corner
	Ground Line Intercept		Saw Cut
	Guardrail		Trench Drain
	HighTension Cable Guardrail		Sheet Pile
	Pavement Removal		Clearing & Grubbing Area

RIGHT-OF-WAY LEGEND	
	Proposed Right-of-Way Symbol
	Proposed Right-of-Way Line
	Existing Right of Way
	Existing and Proposed Right-of-Way
	Easement and Existing Right-of-Way
	Easement (Temporary) Symbol
	Easement (Temporary) Line
	Easement
	C/A Access Control
	Property Line Symbol
	Property Line

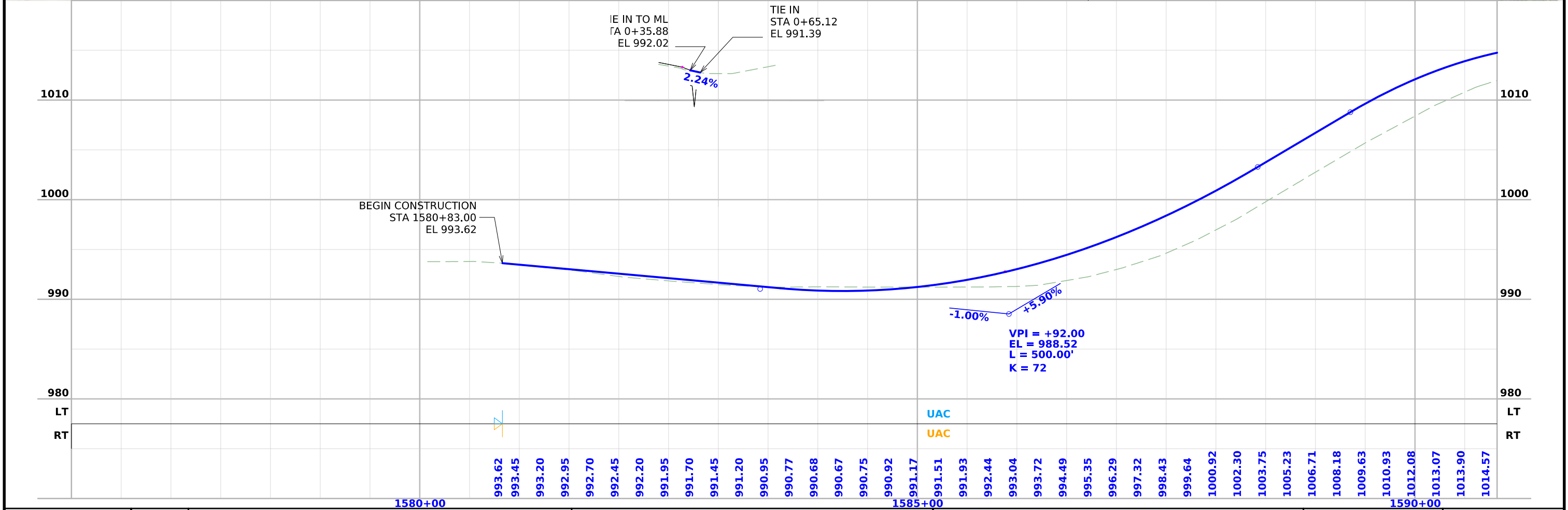
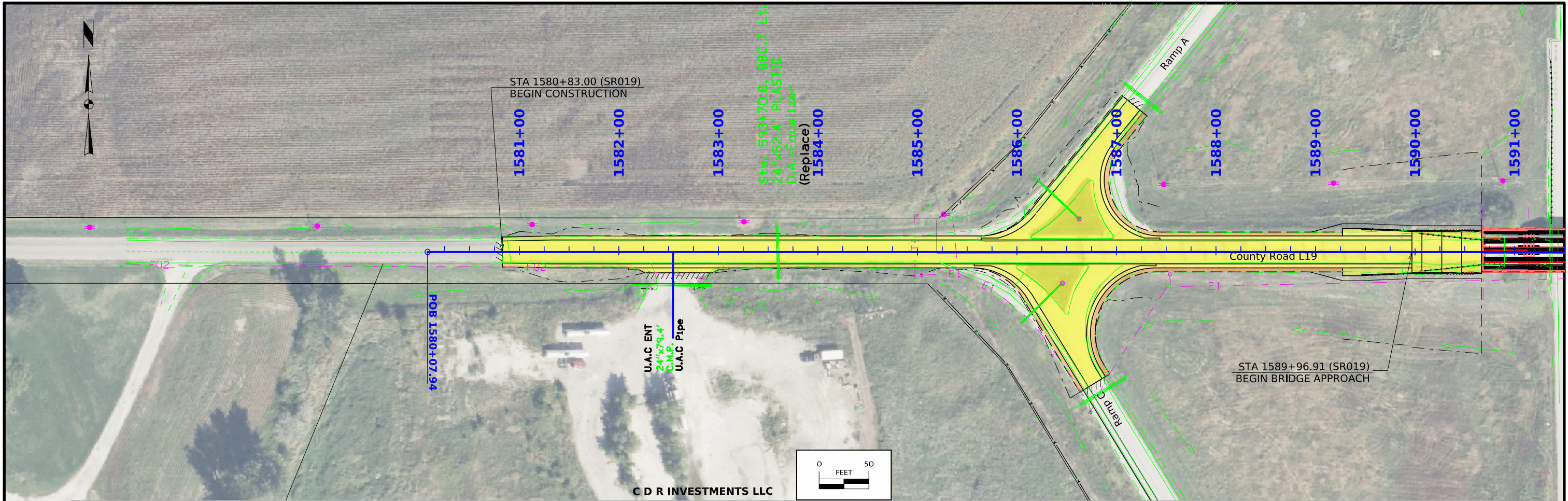
PLAN AND PROFILE
LEGEND AND SYMBOL
INFORMATION SHEET

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

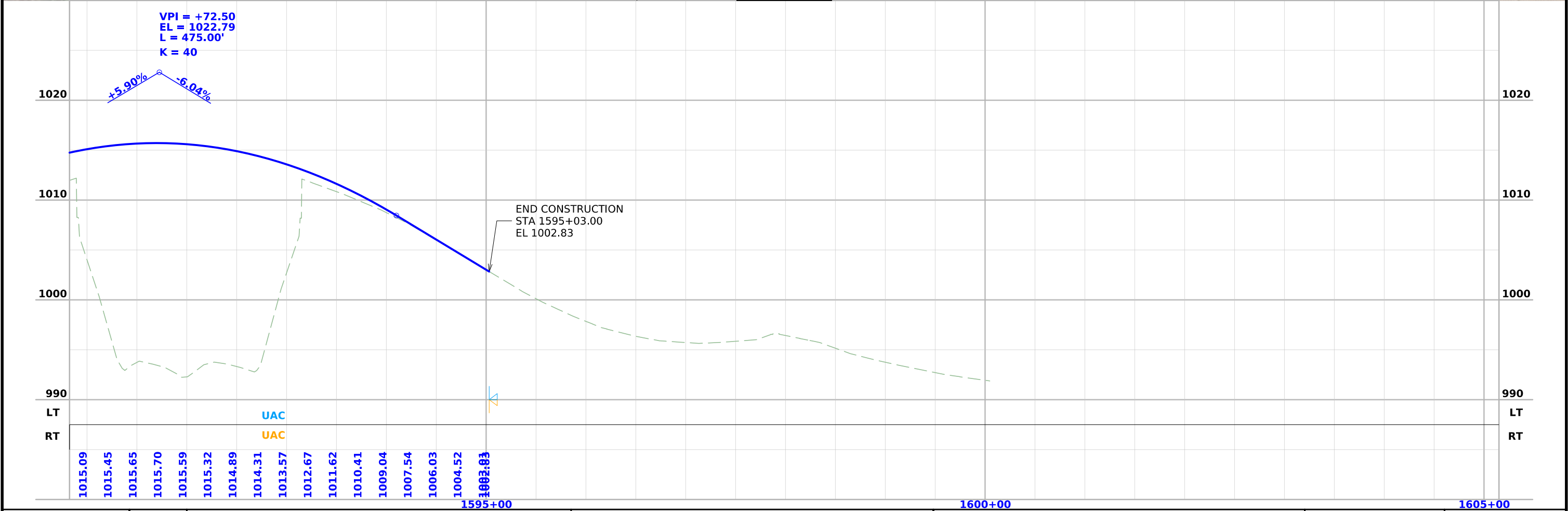
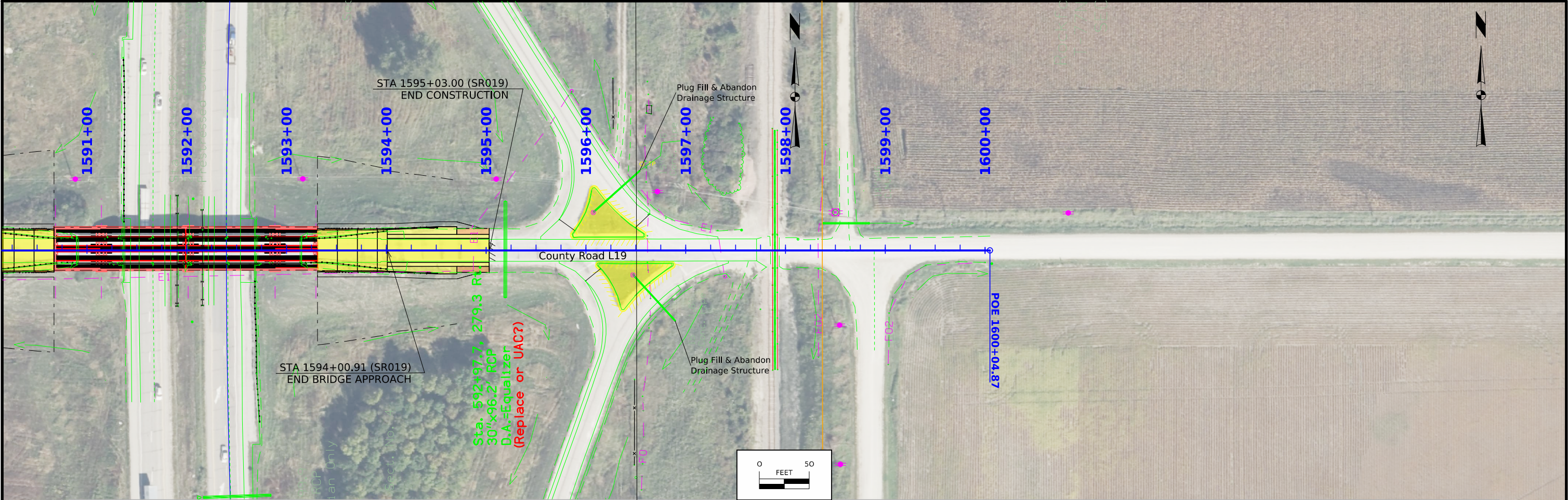


FILE NO.	ENGLISH	DESIGN TEAM Miller/Snyder	POTTAWATTAMIE COUNTY	PROJECT NUMBER IMN-029-4(133)66--0E-78	SHEET NUMBER D.2
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4:41:12 PM 9/17/2025 jsnyde2 pw:\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7802901021\Design\CADD_Files\Sheet_Files\SHT_78029133_D02.dgn



FILE NO.	ENGLISH	DESIGN TEAM	Miller/Snyder	POTTAWATTAMIE COUNTY	PROJECT NUMBER	IMN-029-4(133)66--0E-78	SHEET NUMBER	E.1
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FILE NO.	ENGLISH	DESIGN TEAM	POTTAWATTAMIE COUNTY	PROJECT NUMBER	SHEET NUMBER
		Miller/Snyder		IMN-029-4(133)66--0E-78	E.2

Survey Information

SURVEY INDEX

County: Pottawattamie
PIN: 21-78-029-010
Project Number: IMN-029-4(133)66--0E-78
Location: Co Rd L19 Interchange
Type of Work: Bridge Replacement
Project Directory: 7802901021

Survey Personnel

Clayton Henningsen – Survey Party Chief
Jason Arn – Survey Party Chief

Date(s) of Survey

Begin Date 05/04/2025
End Date 06/03/2025

General Information

This survey is for I-29 interchange of Co Rd L19 for bridge replacement. This survey request was for the I-29 corridor only. 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

Coordinates were determined for primary project control points by conducting concurrent six-hour static observations. Post processing is constrained to nearby Iowa Real Time Network reference stations. For additional details of the control survey, contact the Preliminary Survey department.

PROJECT DATUM: NAD83(2011) for EPOCH 2010.00 (IaRTN 2019 ADJUSTMENT)
COORDINATE SYSTEM: IOWA REGIONAL COORDINATE SYSTEM ZONE 06
(U.S. SURVEY FOOT)
VERTICAL DATUM: NAVD88
GEOID MODEL: 2018u3

Alignment Information

The horizontal alignment for I-29 this survey has been provided by the District 3 office.

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 (IaRTN 2019 Adjustment) - Iowa RCS Zone 06 (U.S. Survey Foot)

VERT. DATUM: NAVD88 - Geoid Model: 2018u3

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 (IaRTN 2019 Adjustment)
Ia. Regional Coordinate System Zone 06 (U.S. Survey Foot)
VERT. DATUM: NAVD88
Geoid Model: 2018u3

<u>Point Name</u>	<u>Northing</u>	<u>Easting</u>	<u>Elevation</u>	<u>Feature Definition-Description</u>
E180	7019597.28	16455887.54	986.64	CP NGS MONUMENT AS DESCRIBED IN GOOD CONDITION
H180	7031139.68	16456582.34	987.32	CP NGS MONUMENT AS DESCRIBED IN GOOD CONDITION
N180	7025873.11	16454543.57	988.03	CP NGS MONUMENT AS DESCRIBED IN GOOD CONDITION
R138	7036755.93	16454583.75	991.17	CP NGS MONUMENT AS DESCRIBED IN GOOD CONDITION

108_23A
8/15/22

TRAFFIC CONTROL PLAN

I-29
Maintain traffic at all times during construction.
Short-term closures of I-29 will be required for placement of bridge beams.

County Road L19
Road will be closed during construction
Traffic will be maintained by an off-site detour. Refer to J.# for the route.

Loveland Detour Ramps
Traffic will be maintained by an off-site detour.

511 TRAVEL RESTRICTIONS

Line No.	Route	Direction	County	Location Description	Feature Crossed	Object Type	Maint. Bridge No. or Structure ID or FHWA No.	Type of Restriction	Existing Measurement	Construction Measurement	Construction Measurement as Signed	Projected As Built Measurement	Remarks
1.0	Co. Rd. L19	Both	Pottawattamie	Co. Rd. L19 over I-29	I-29	Bridge	FHWA # 44930	Vertical	24'	0'	Closed		Closed

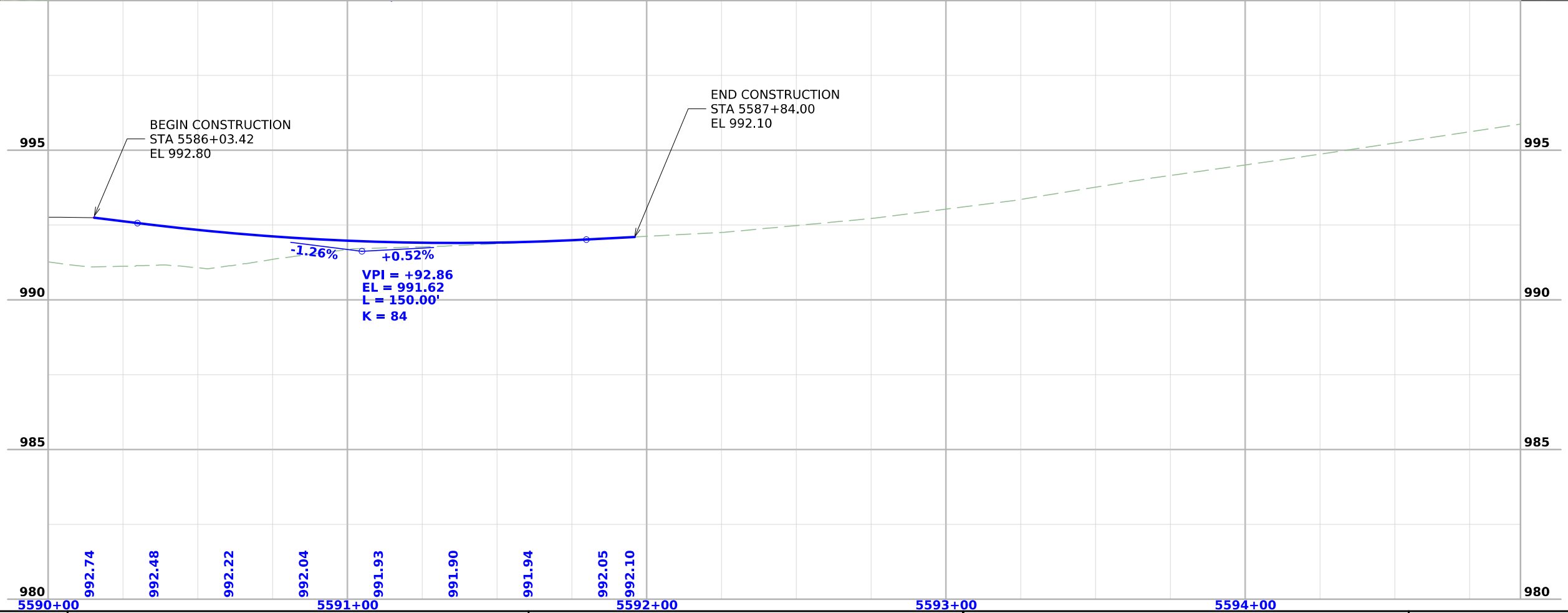
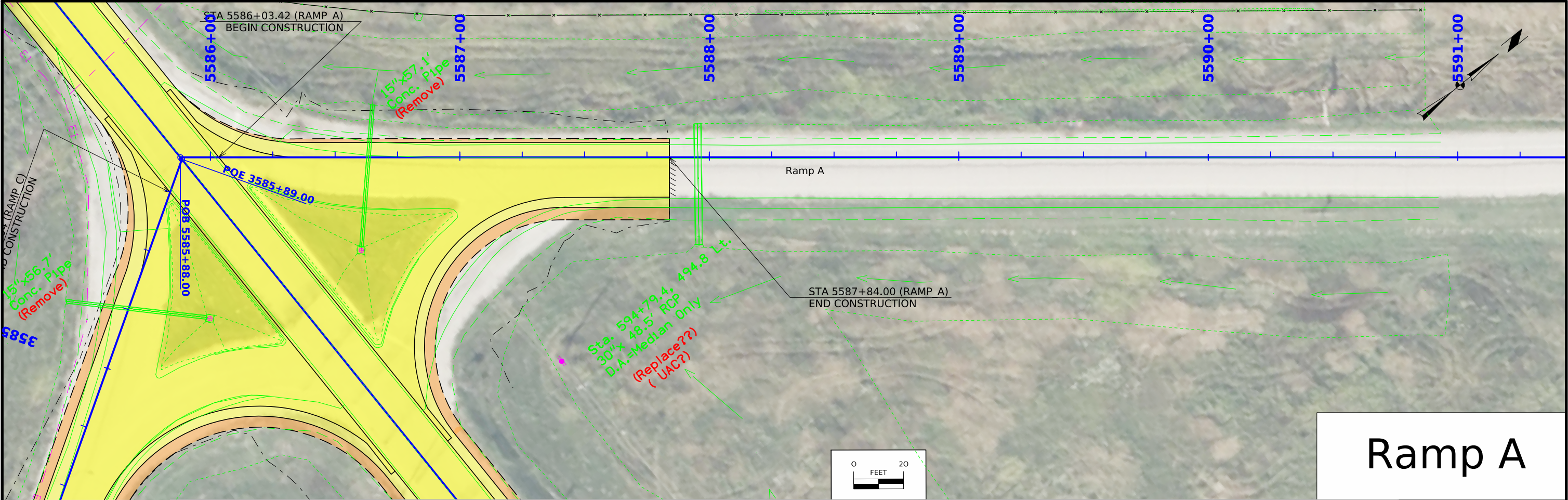
108_26A
8/15/22

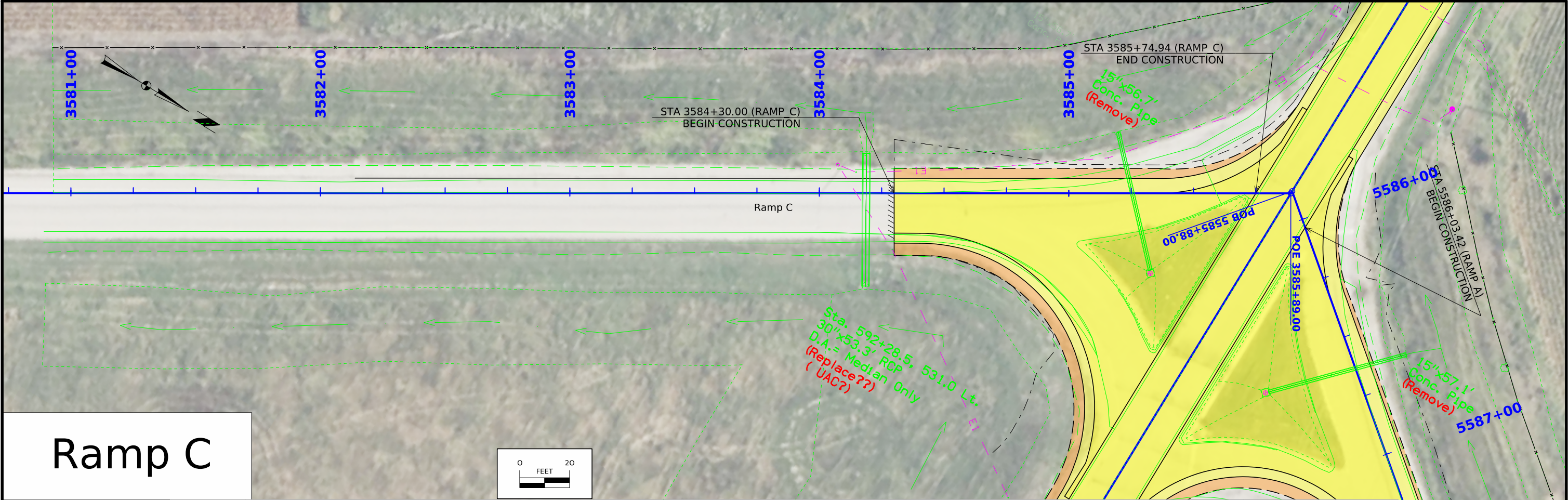
STAGING NOTES

Stage 1
Resurface Loveland detour Ramps.

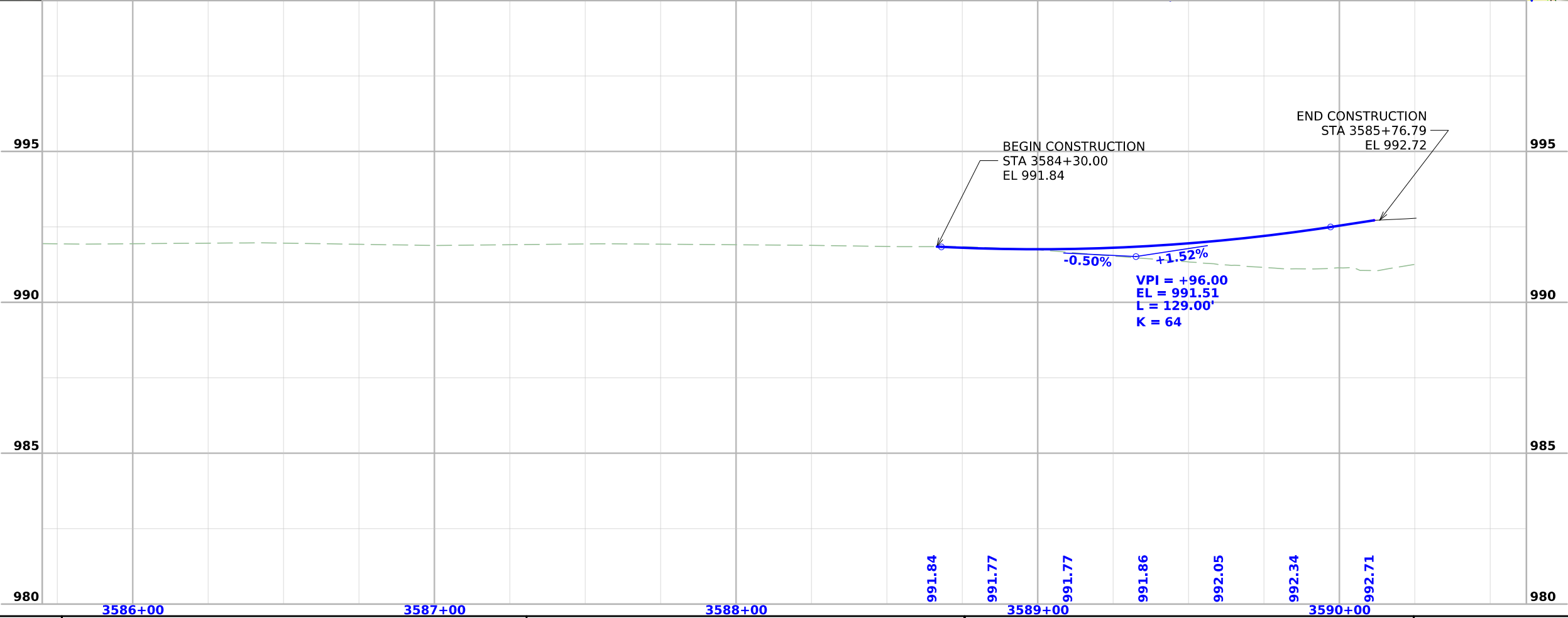
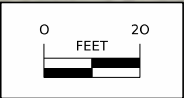
Stage 2
Build the intersection of Ramp A and C.

Stage 3
Remove and reconstruct county road bridge over I-29.





Ramp C



CROSS SECTION VIEW COLOR LEGEND			
Design Color No.	Feature	Design Color No.	Feature
Aggregate		Grading	
(64)	Choke Stone	(8)	Behind Curb Cut
(42)	Engineering Fabric	(6)	Granular
(8)	Flooded Backfill	(13)	Granular Back Fill
(92)	Macadam Stone	(48)	Rock Undercut
(20)	Modified	(8)	Shoulder Earth Fill
(12)	Plowing Shaping	(2)	Side Slopes
(14)	Porous Backfill	(226)	Side Slopes Dressing
(8)	Revetment Class A	Substrata	
(6)	Revetment Class B	(128)	Boulder
(62)	Revetment Class C	(209)	Boulder Removed
(188)	Revetment Class D	(48)	Broken Weathered
(28)	Revetment Class E	(210)	Broken Weathered Removed
(12)	Shoulder Special Backfill	(3)	Core Out
(12)	Special Backfill	(115)	Core Out Remove Only
(20)	Subbase	(195)	Core Out Remove and Replace
(20)	Subbase Lower	(203)	Existing Pavement
(20)	Subbase Upper	(184)	Existing Pavement Remove Only
(118)	Subgrade Treatment	(200)	Existing Pavement Remove and Replace
Asphalt		(6)	Loam
(207)	HMA Base Course	(211)	Loam Removed
(207)	HMA Interim Course	(80)	Rock
(207)	HMA Surface Course	(212)	Rock Removed
Bridge		(4)	Select Sand
(0)	Bridge	(214)	Select Sand Removed
Concrete		(3)	Shale
(0)	Barrier Concrete	(215)	Shale Removed
(0)	Barrier Concrete Footing	(10)	Topsoil
(0)	Curb Gutter	(2)	Topsoil Remove Only
(48)	Flowable Mortar	(4)	Topsoil Remove and Replace
(0)	Median Concrete	Unsuitable / Waste	
(0)	PCC Pavement	(3)	Unsuitable Type A
(0)	Sidewalk	(216)	Unsuitable Type A Removed
Existing		(13)	Unsuitable Type B
(0)	Existing Pavement	(217)	Unsuitable Type B Removed
Shoulder		(11)	Unsuitable Type C
(209)	Shoulder HMA	(218)	Unsuitable Type C Removed
(0)	Shoulder PCC	(3)	Waste
(6)	Shoulder Granular	(219)	Waste Removed
Structural			
(112)	Noise Wall		
(112)	Noise Wall Footing		
(112)	Retaining Wall Back		
(112)	Retaining Wall Back Excavate		
(112)	Retaining Wall Face		
(112)	Retaining Wall Front Excavate		
(112)	Retaining Wall Front Footing		
(112)	Retaining Wall MSE Gutter		
(112)	Retaining Wall Reinforced Earth		

NOTES:

Text

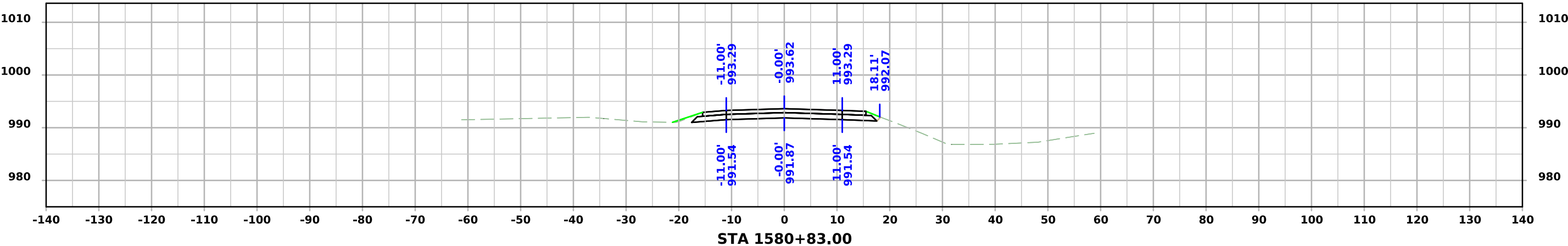
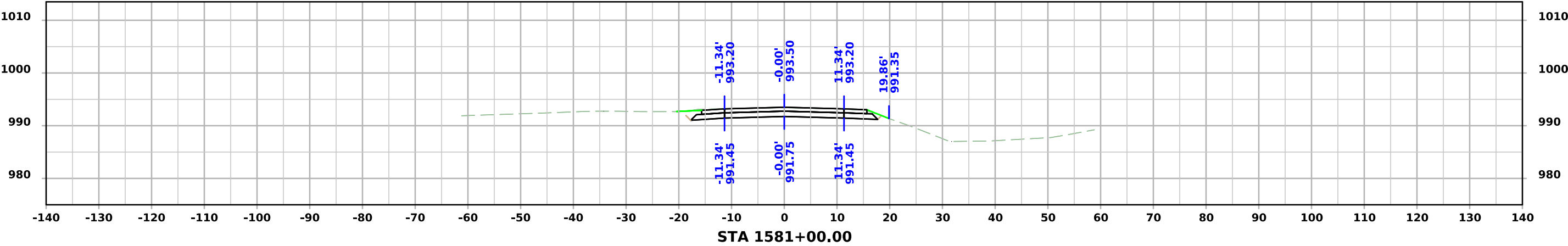
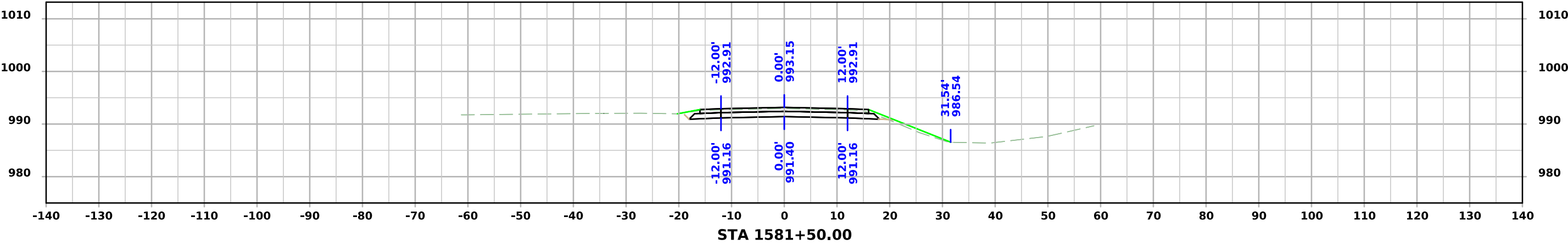
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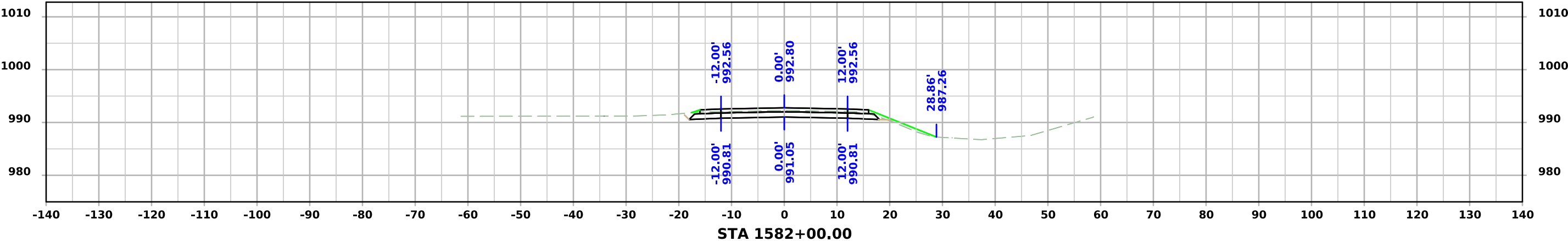
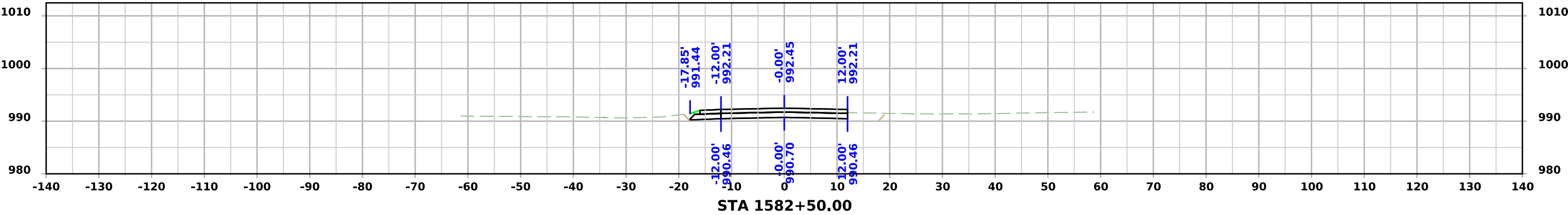
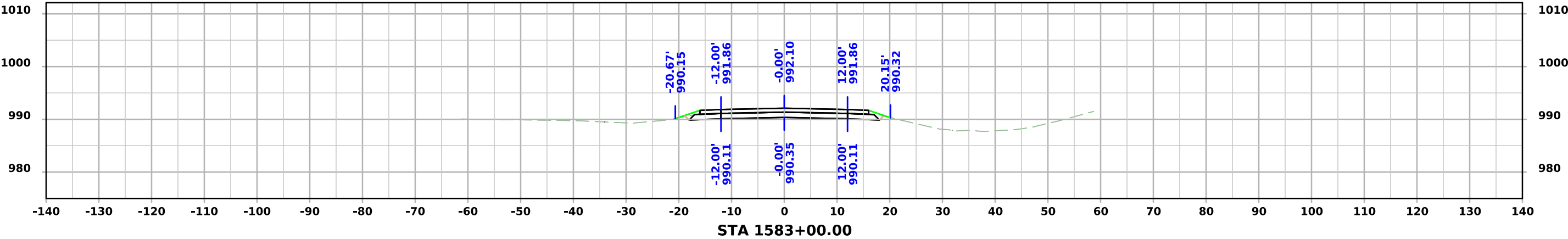
CROSS SECTIONS
LEGEND AND INFORMATION SHEET

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

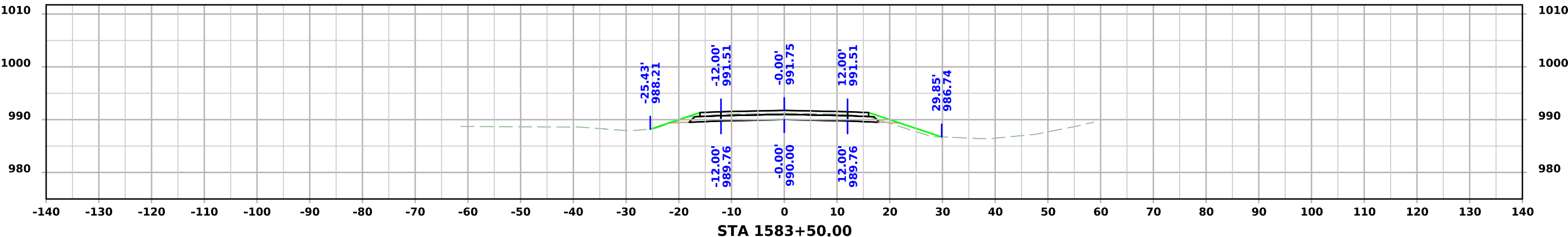
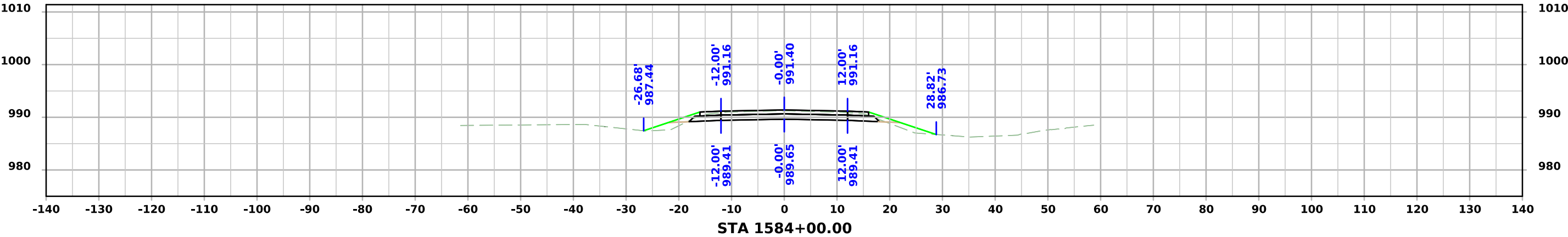
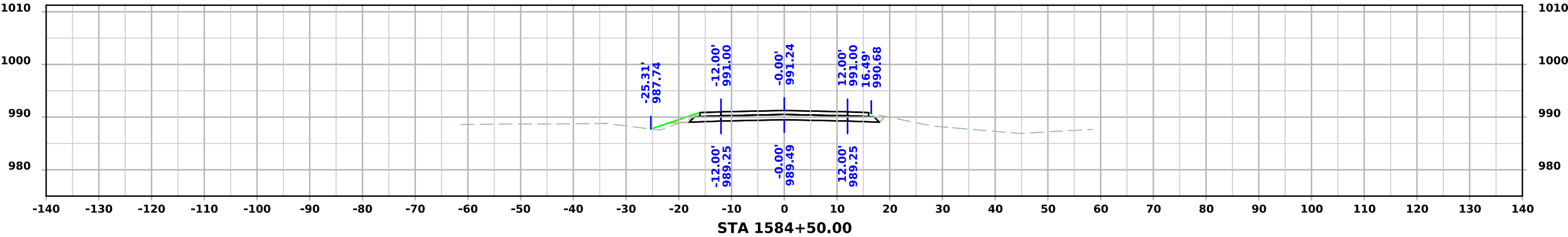
SR - Co. Rd. L19



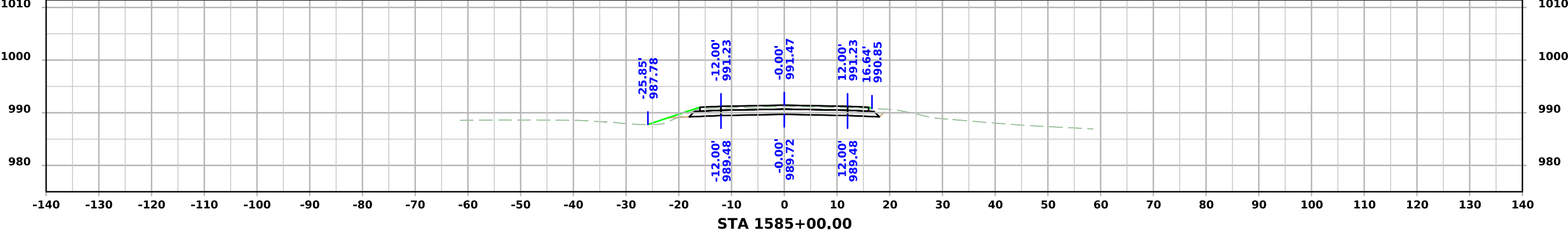
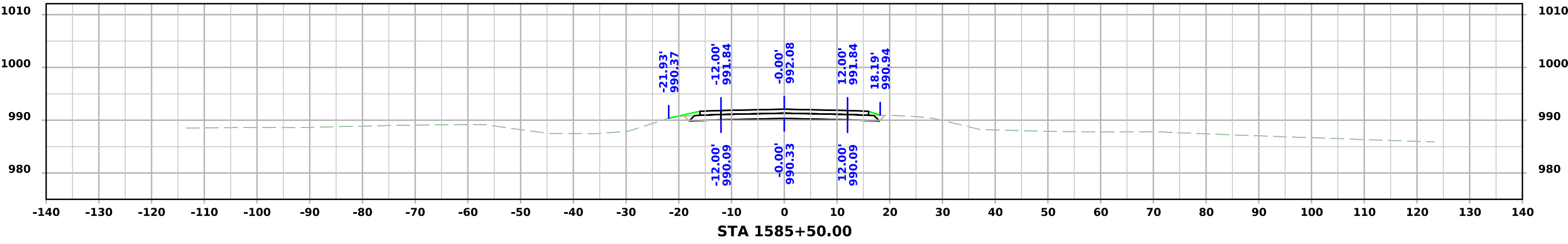
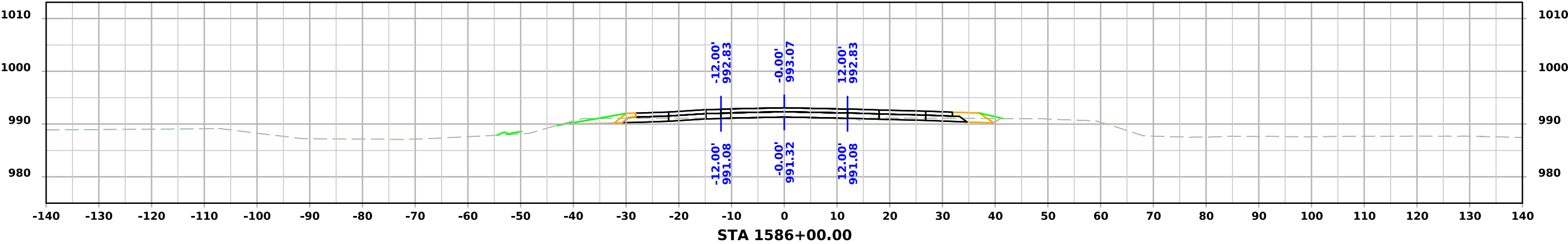
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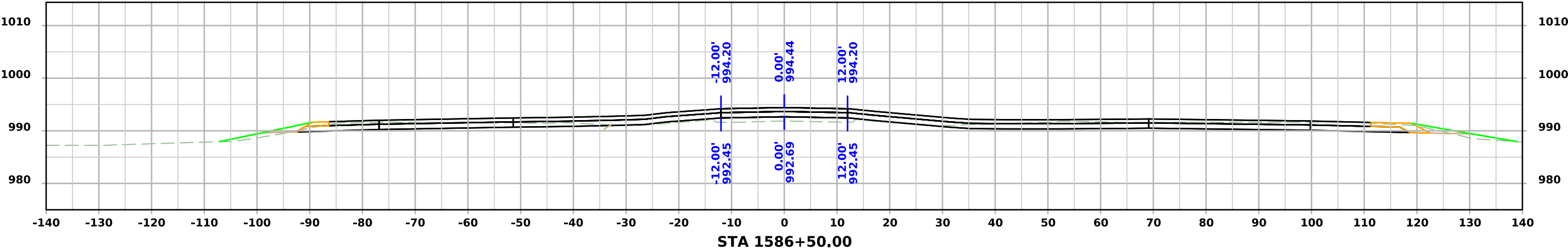
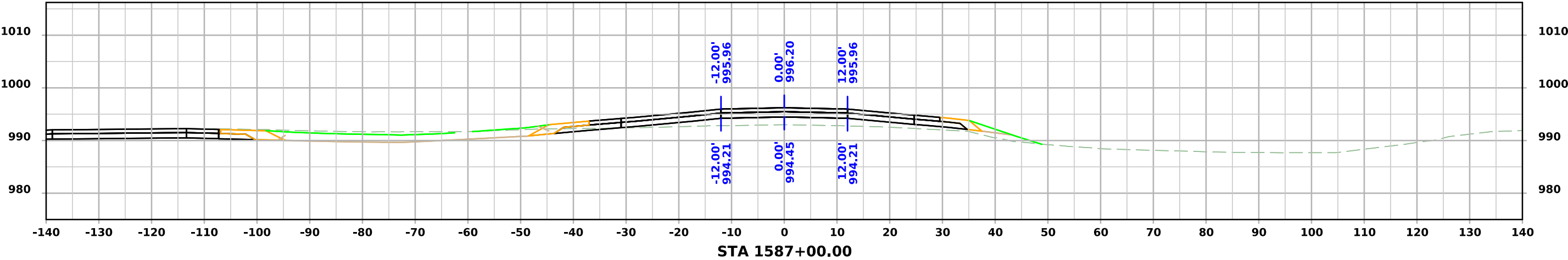
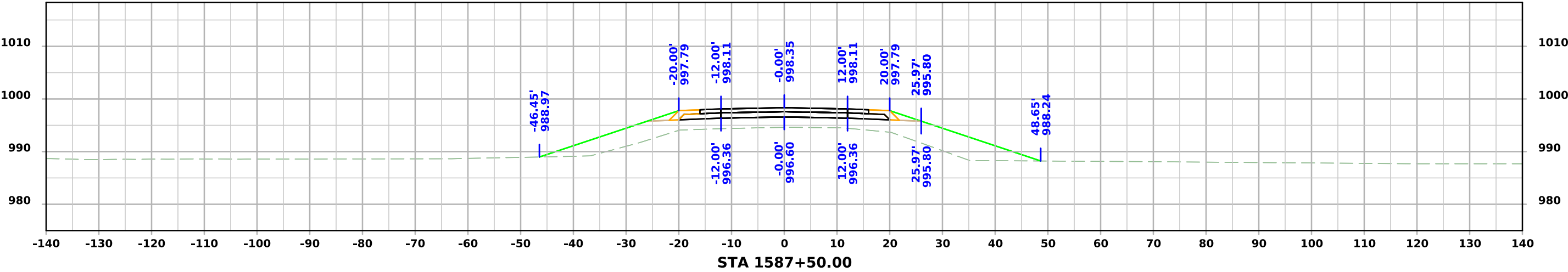
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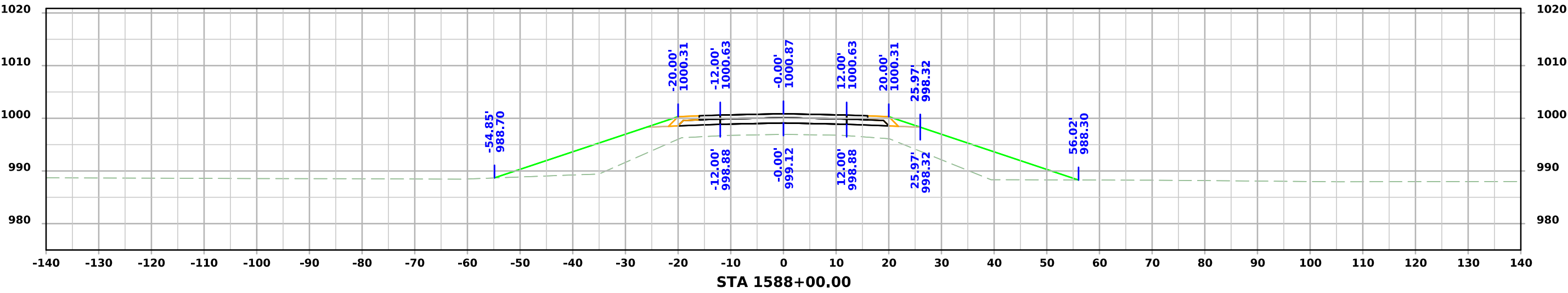
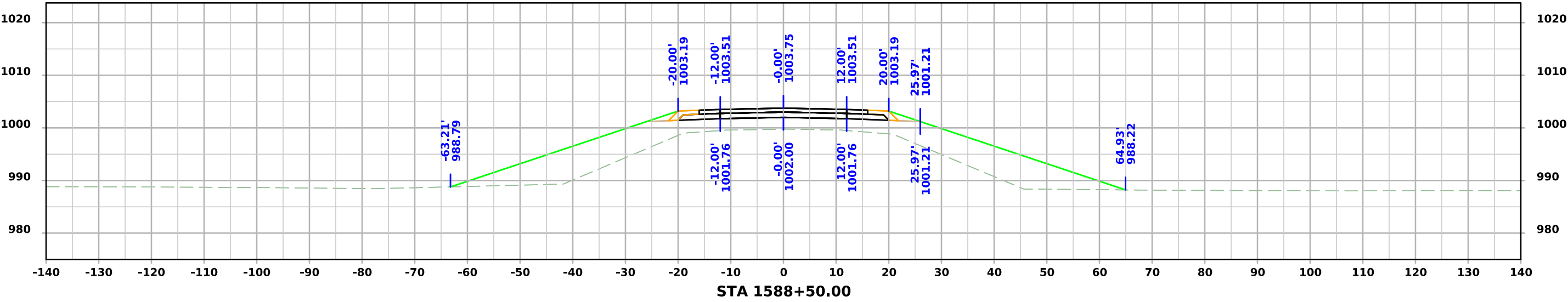
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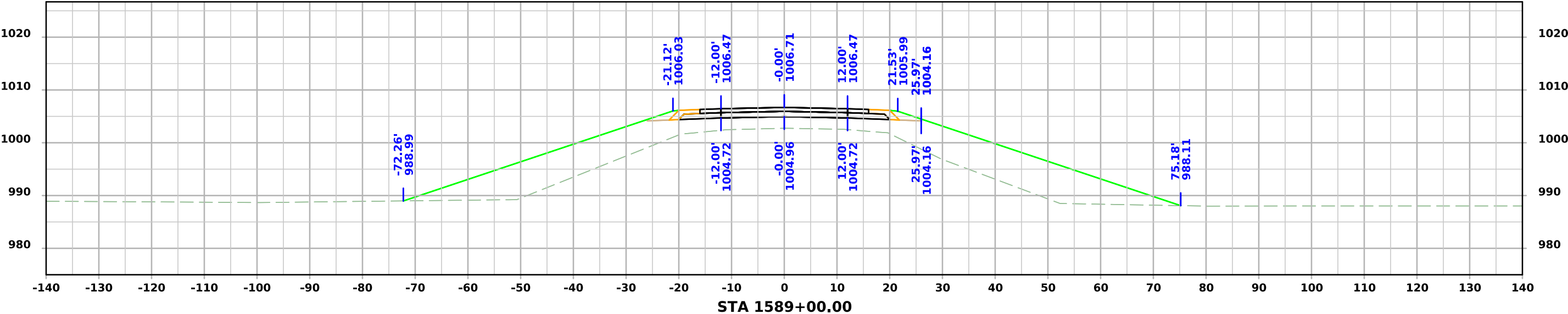
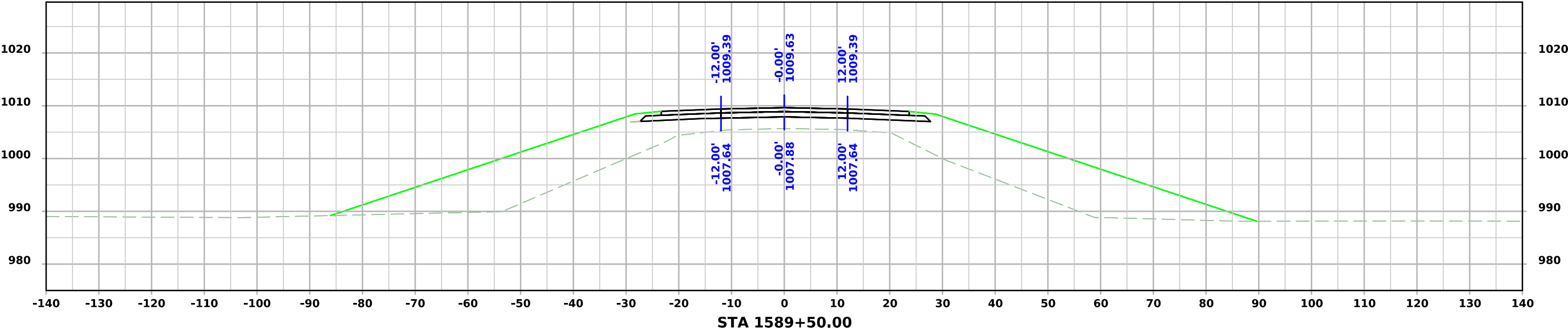
SR - Co. Rd. L19



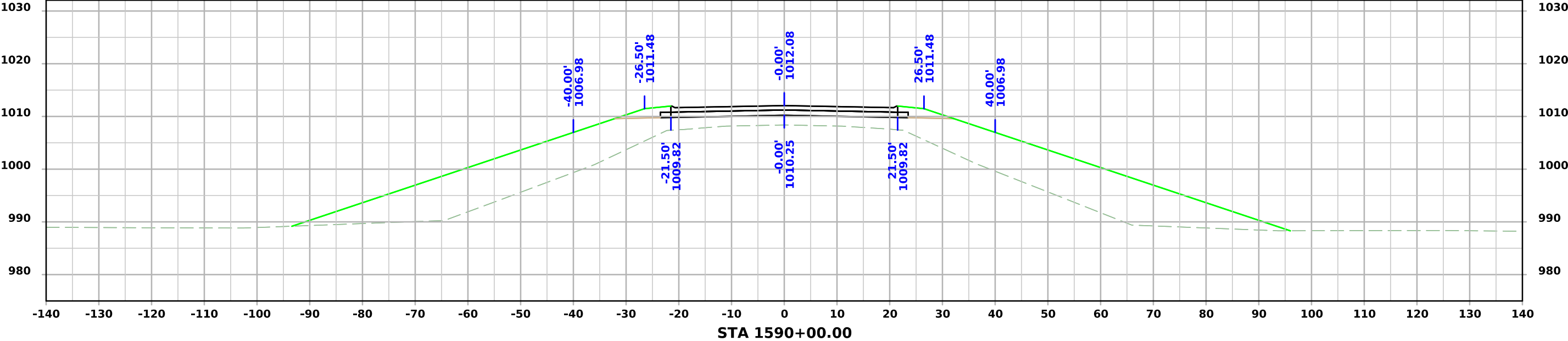
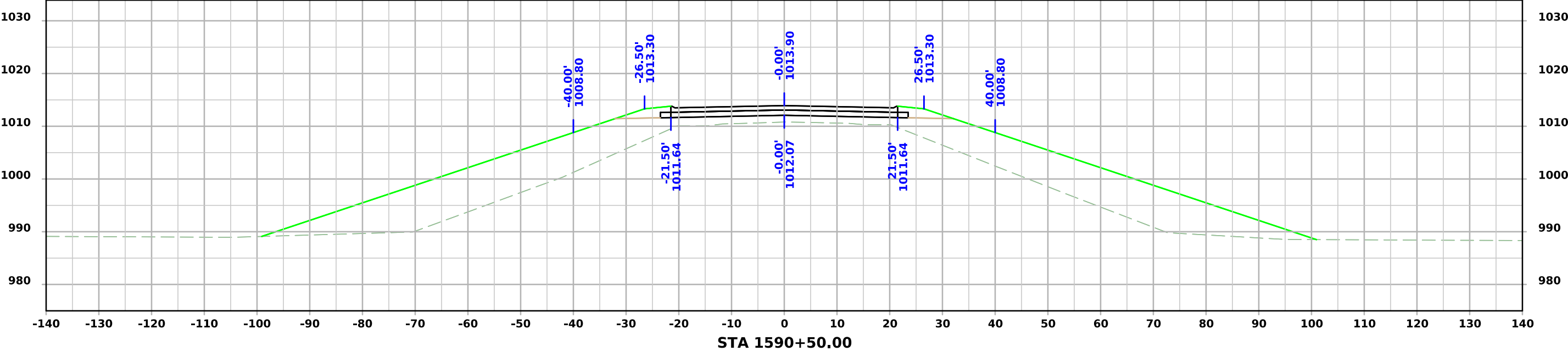
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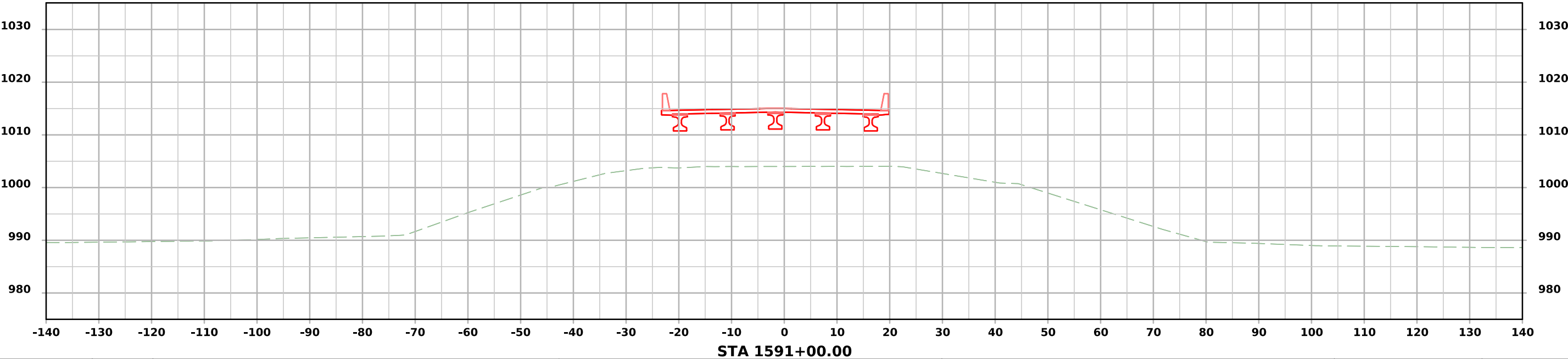
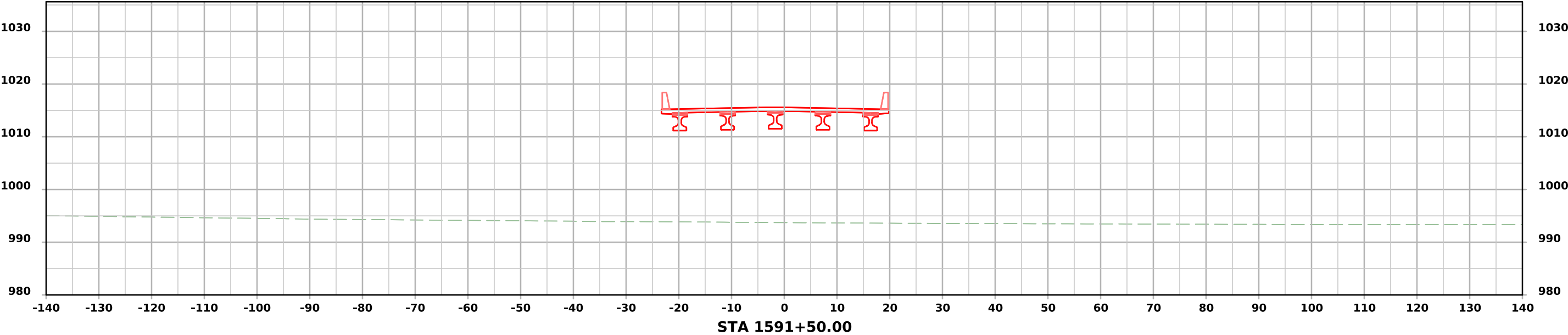
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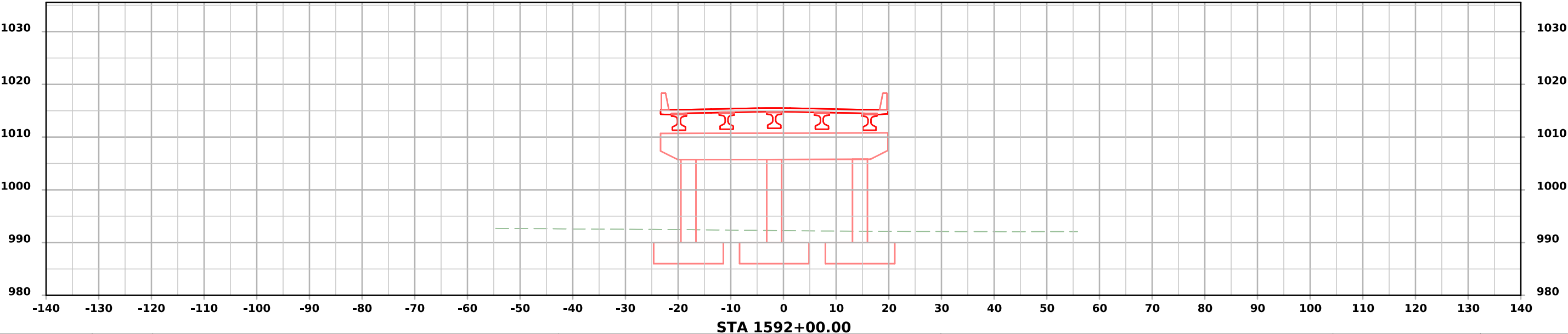
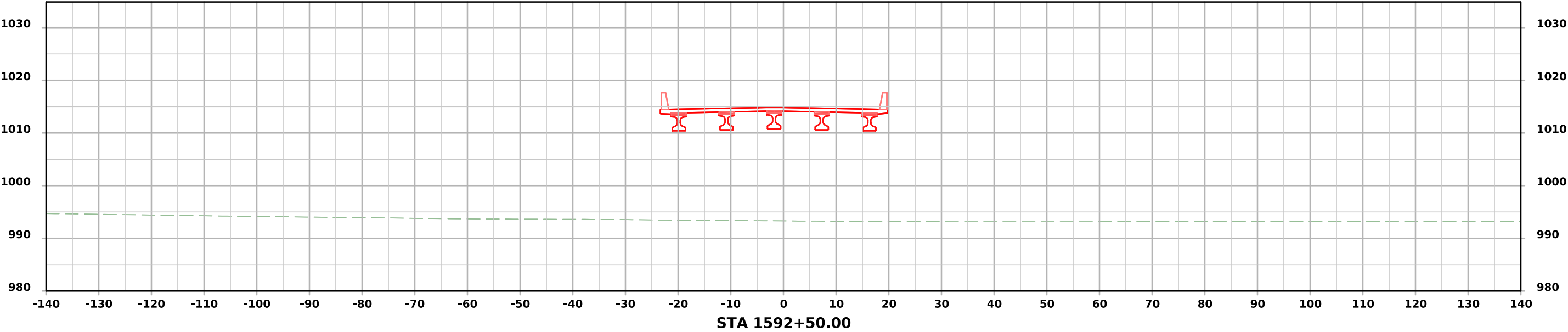
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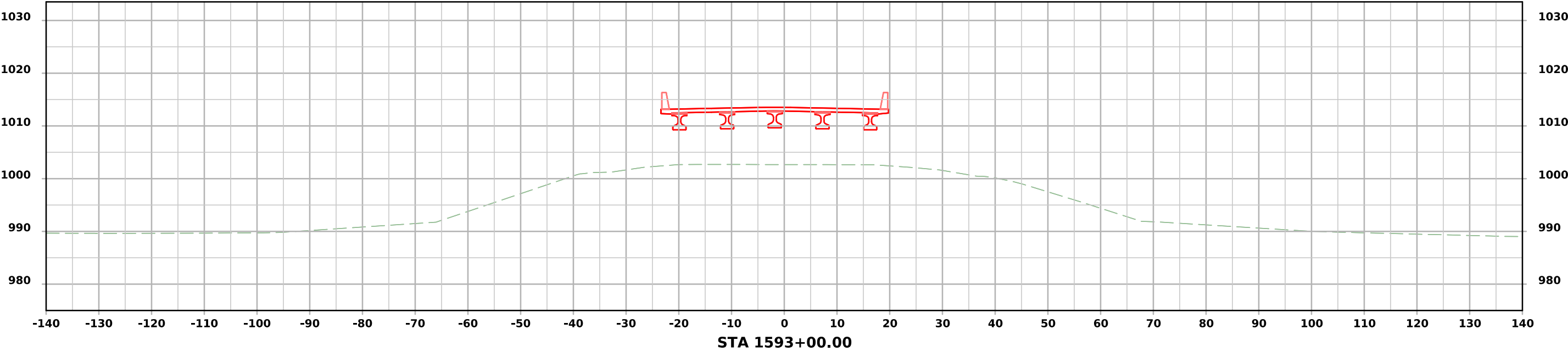
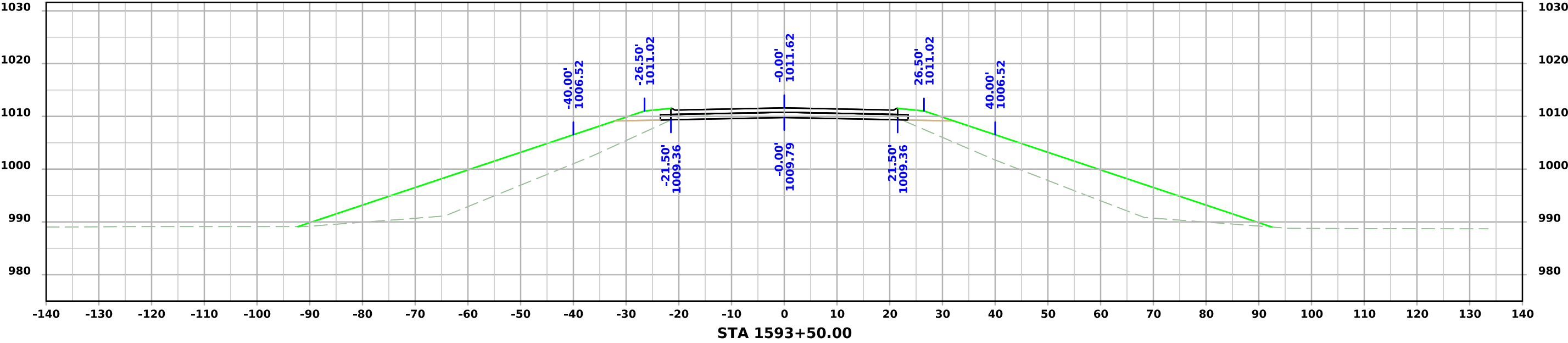
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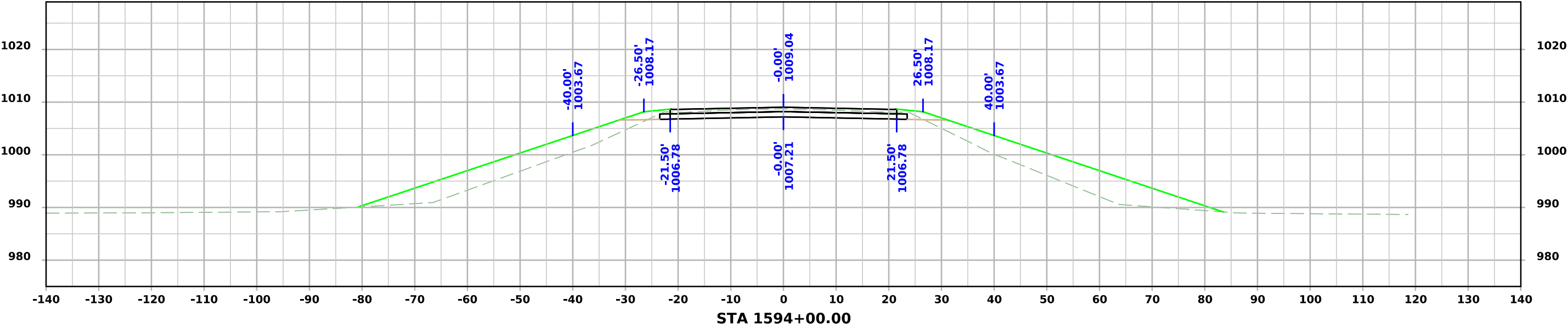
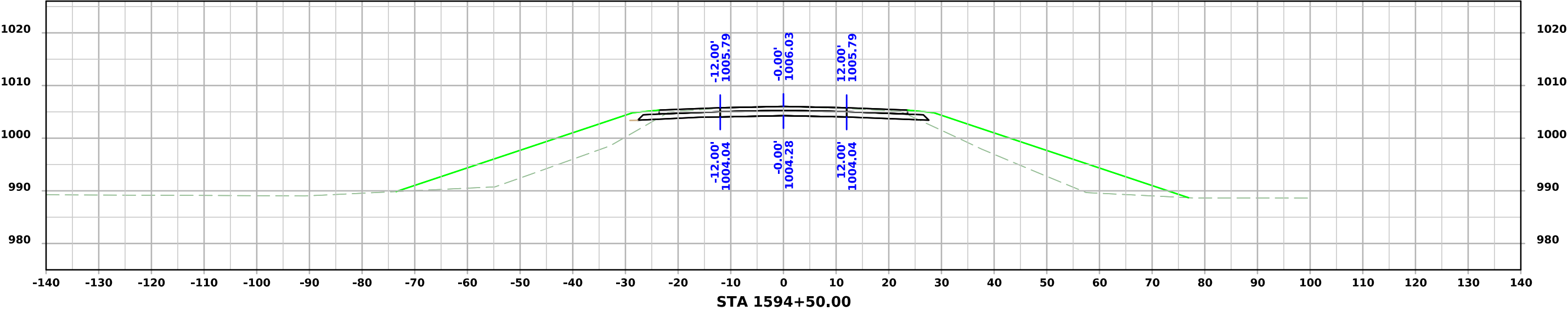
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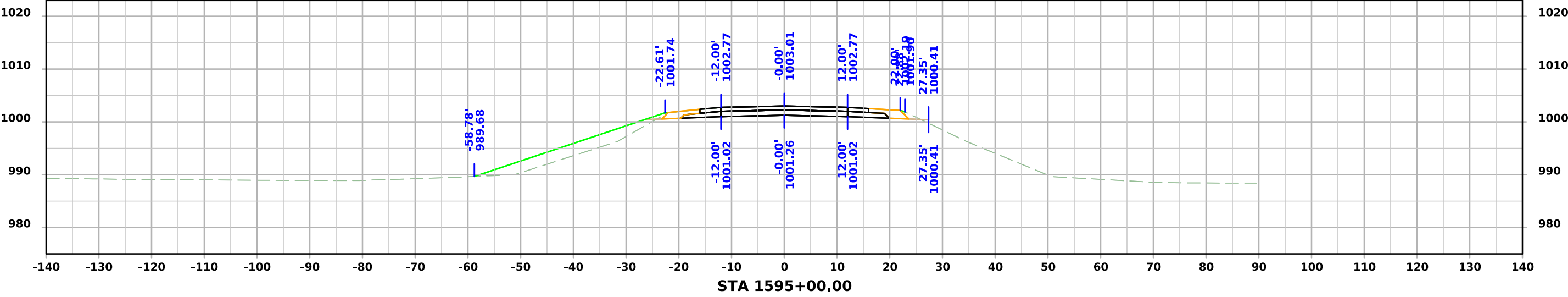
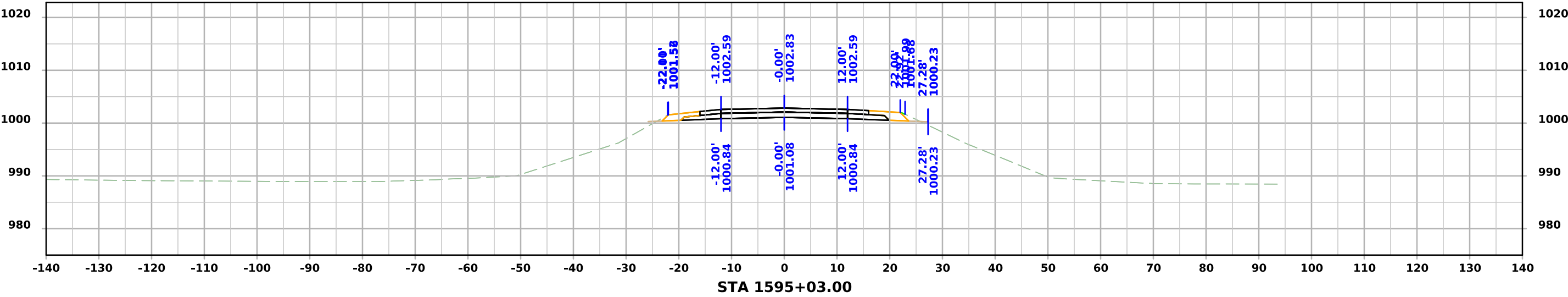
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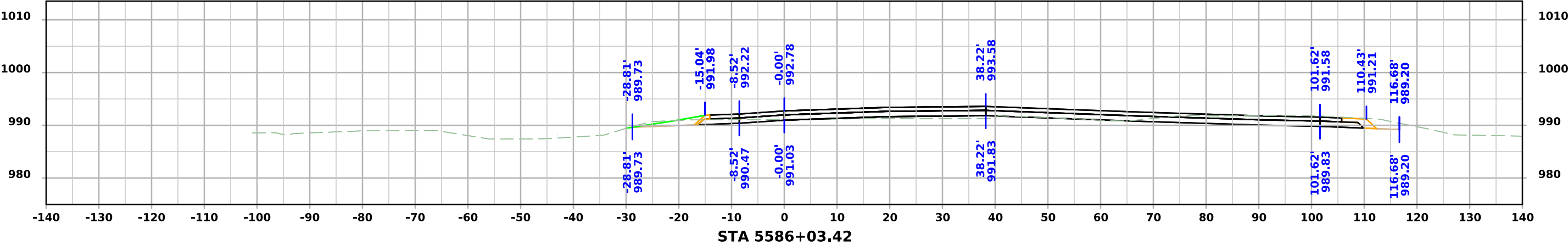
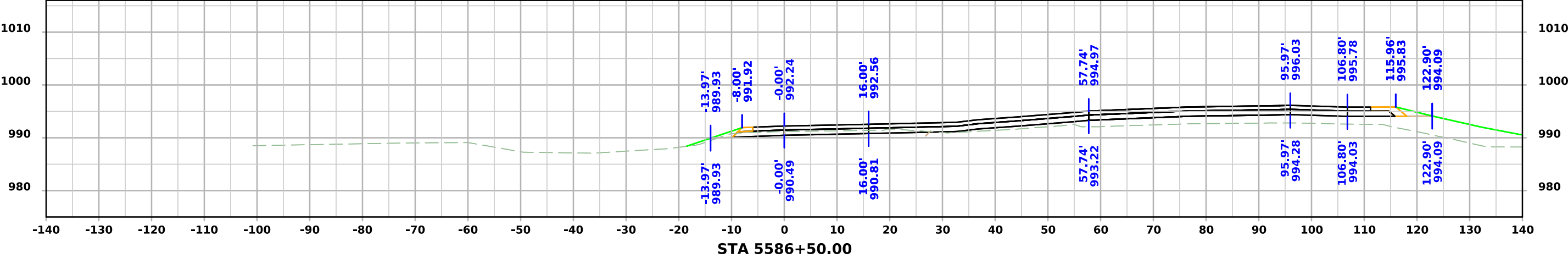
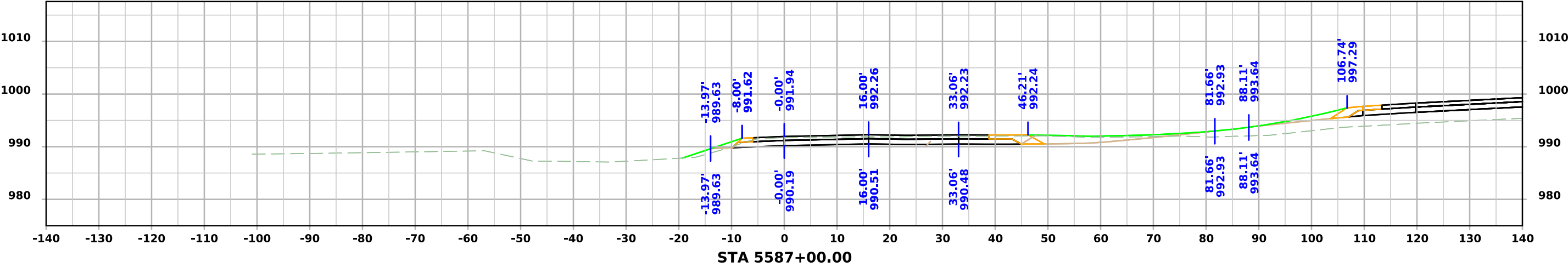
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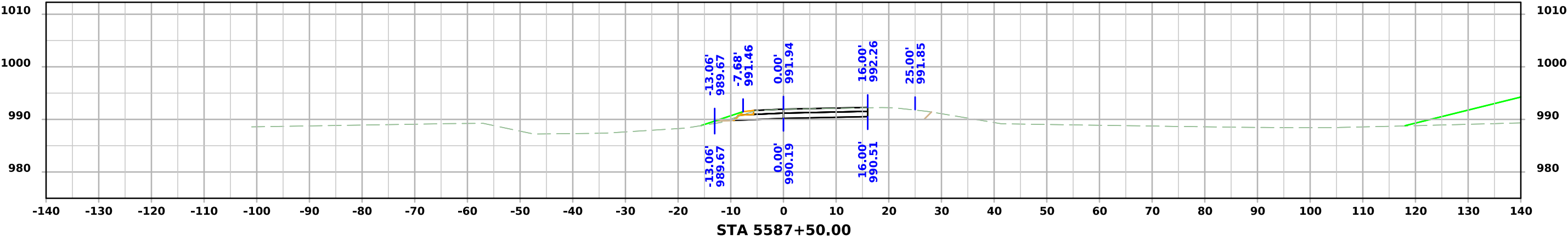
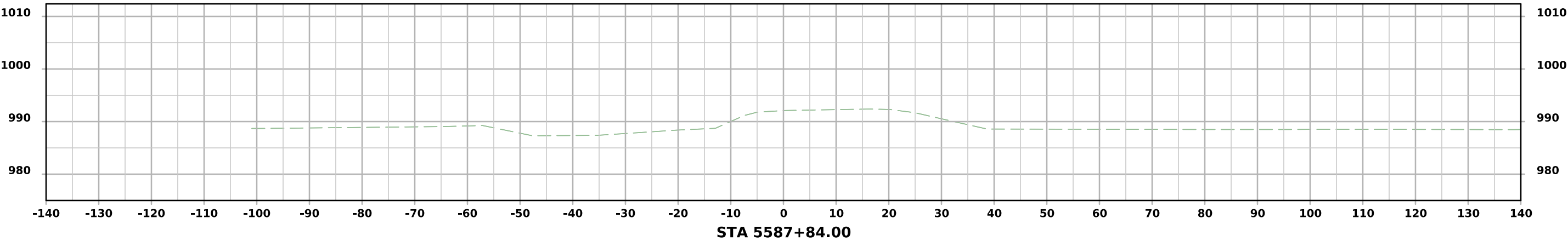
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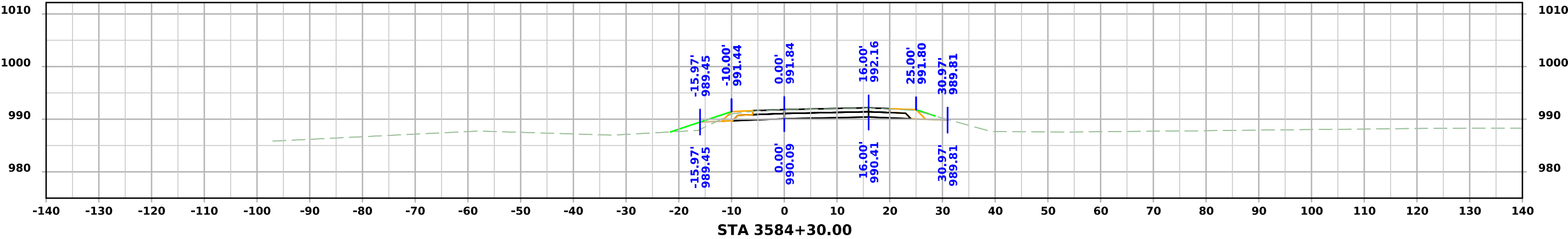
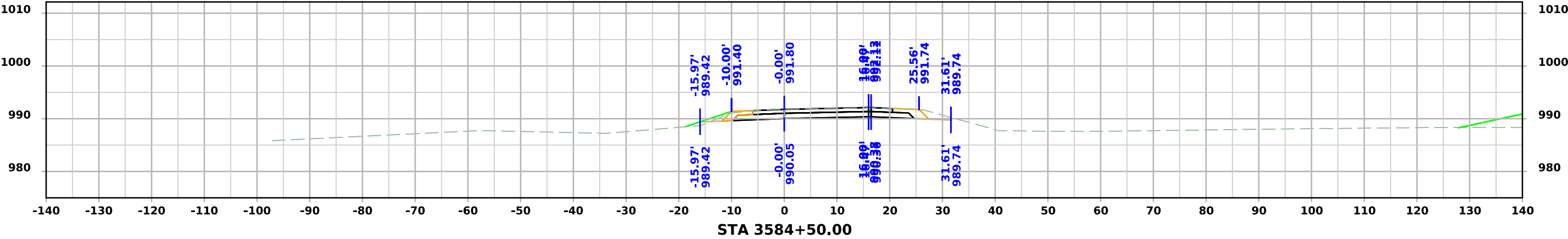
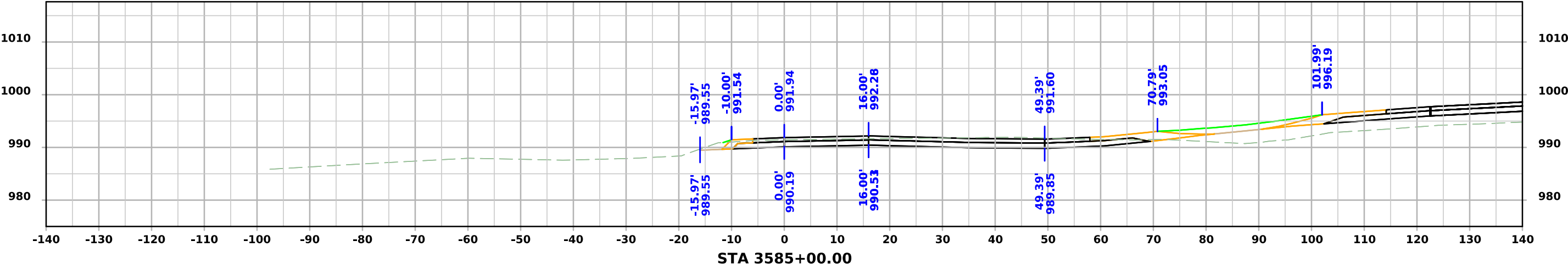
RAMP A



RAMP A



RAMP C



RAMP C

