

1033-Unknown Pavement - Grade and New
DHS-706-0(018)--7H-65

MILLS COUNTY

LETTING DATE

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PLANS OF PROPOSED IMPROVEMENT ON THE
PRIMARY ROAD SYSTEM
Mills COUNTY
1033-Unknown Pavement - Grade and New
 US-34 Access Roads
 Orchard Dr. and 240th St.
 Glenwood Resource Center
SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

Value Engineering Saves. Refer to Article 1105.13 of the Specifications.



REVISIONS

TOTAL
201

PROJECT IDENTIFICATION NUMBER
24-65-706-010
PROJECT NUMBER
DHS-706-0(018)--7H-65
R.O.W. PROJECT NUMBER
DHS-706-0(019)--7H-65

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* A.2	Location Map Sheet
B Sheets	Typical Cross Sections and Details
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* D.2 - 7	Mainline US-34
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* W.1	Cross Sections Legend & Symbol Information Sheet
* W.2 - 50	Mainline US-34 Cross Sections
X Sheets	Side Road Cross Sections
* X.1 - 64	Sideroad Orchard Dr. Cross Sections
* X.65 - 94	Sideroad 240th St. Cross Sections
	* Color Plan Sheets

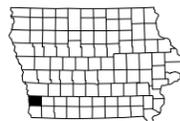
**For Project Location Map
Refer to Sheet A.2**

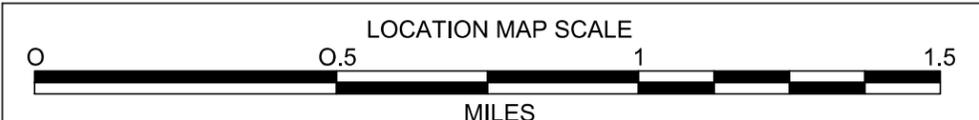
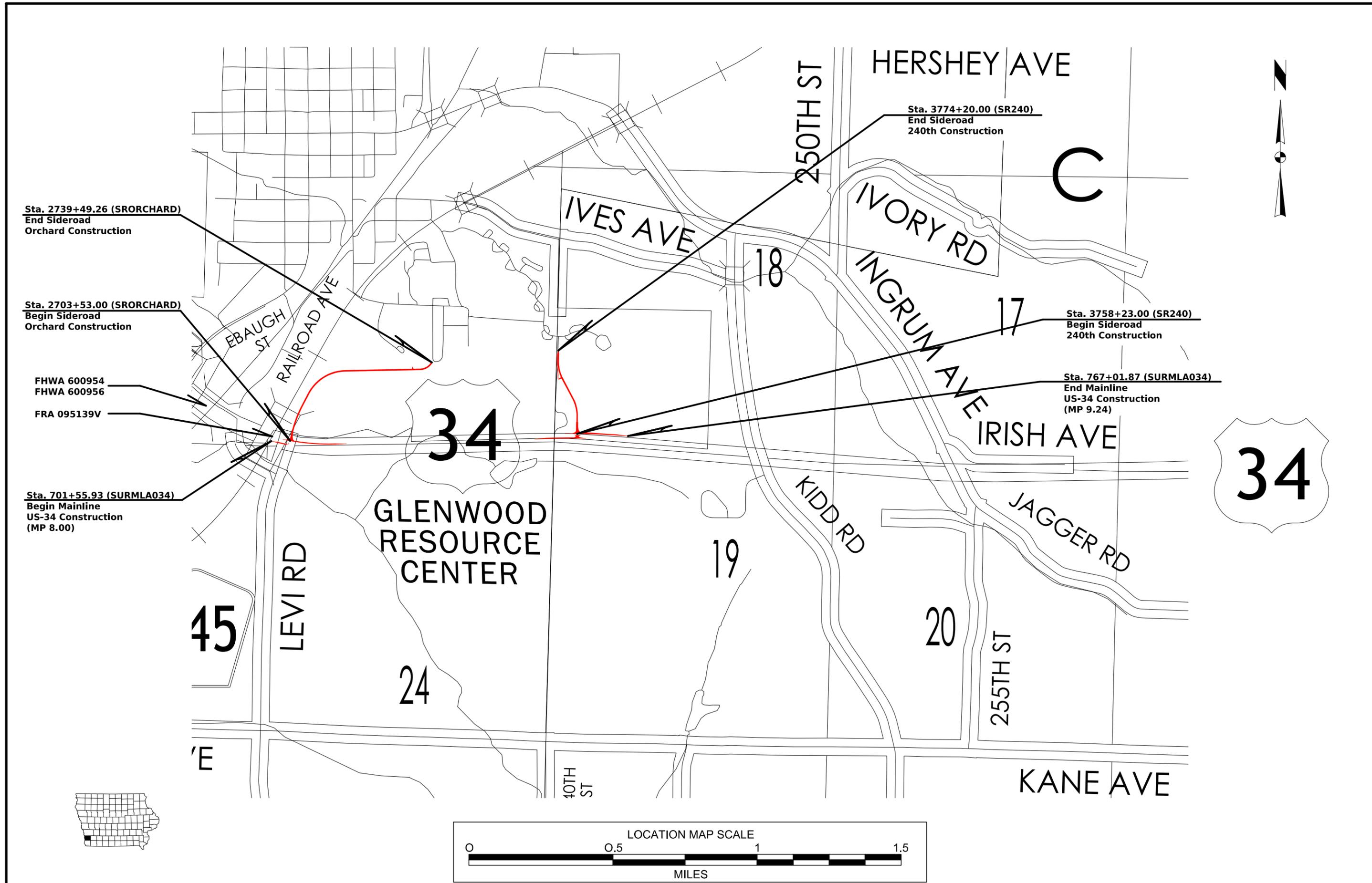
US-34	
DESIGN DATA RURAL	
20 23	AADT 7,200 V.P.D.
20 -	AADT - V.P.D.
20 23	DHV 650 V.P.H.
TRUCKS	15 %
Total	
Design ESALs	-

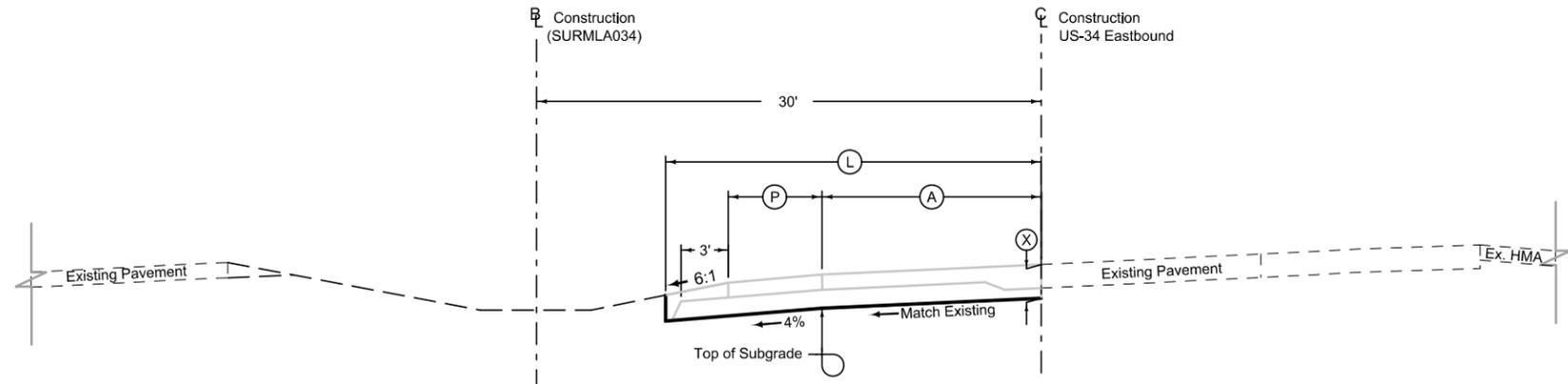
PRELIMINARY PLANS

Subject to change by final design.

D5 PLAN - Date: 10/15/24







US-34 EB LEFT TURN LANE (ORCHARD DR. ACCESS)

LOCATION		DIMENSIONS			
STATION TO STATION		(A) Feet	(L) Feet	(P) Feet	(X) Inches
701+55.93	701+73.17	0	9-11	4-6	21
701+73.17	702+93.17	0-12	11-23.8	6	21
702+93.17	704+42.46	12	23.8-23	6	21

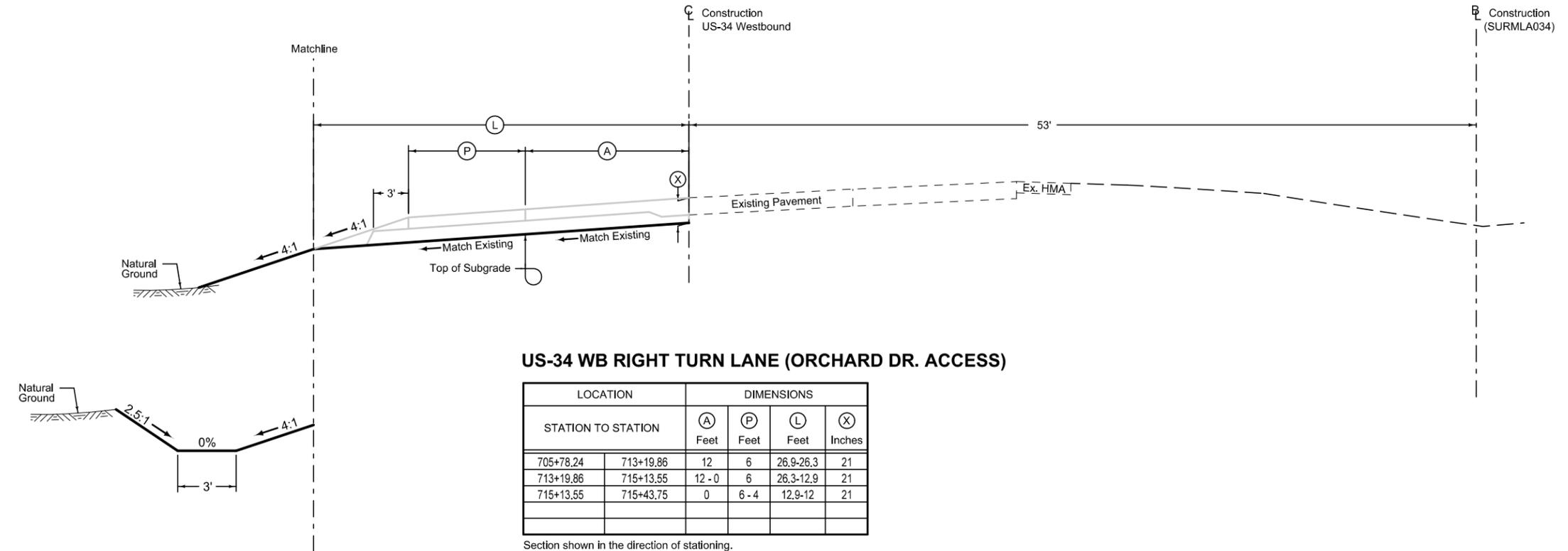
Section shown in the direction of stationing.

Left Ditch Fill Section

LOCATION	
STATION TO STATION	
705+78.24	710+00.00
712+00.00	715+43.75

Left Ditch Cut Section

LOCATION	
STATION TO STATION	
712+00.00	715+43.75



US-34 WB RIGHT TURN LANE (ORCHARD DR. ACCESS)

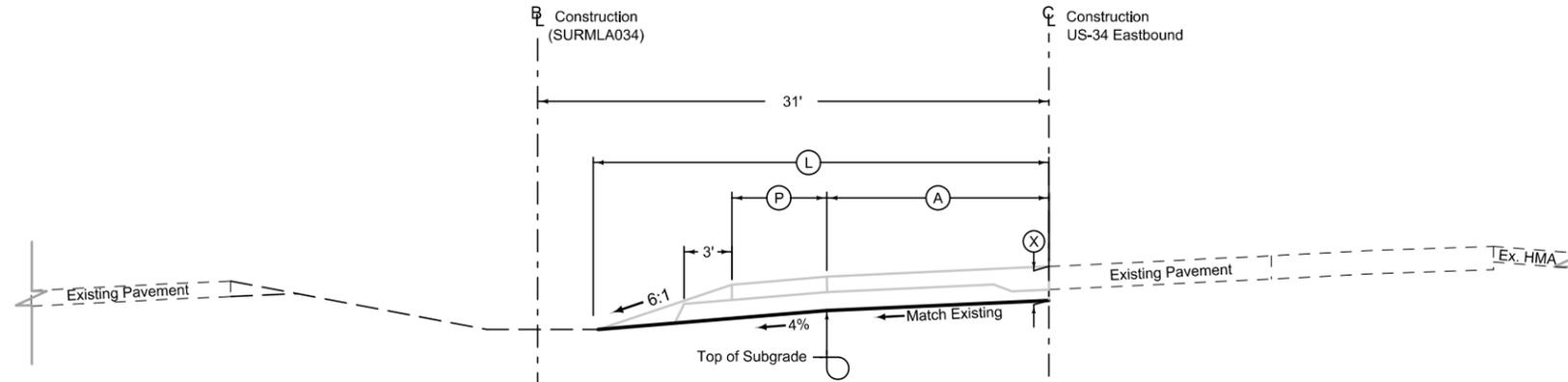
LOCATION		DIMENSIONS			
STATION TO STATION		(A) Feet	(P) Feet	(L) Feet	(X) Inches
705+78.24	713+19.86	12	6	26.9-26.3	21
713+19.86	715+13.55	12-0	6	26.3-12.9	21
715+13.55	715+43.75	0	6-4	12.9-12	21

Section shown in the direction of stationing.

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.

MAINLINE US 34 GRADING

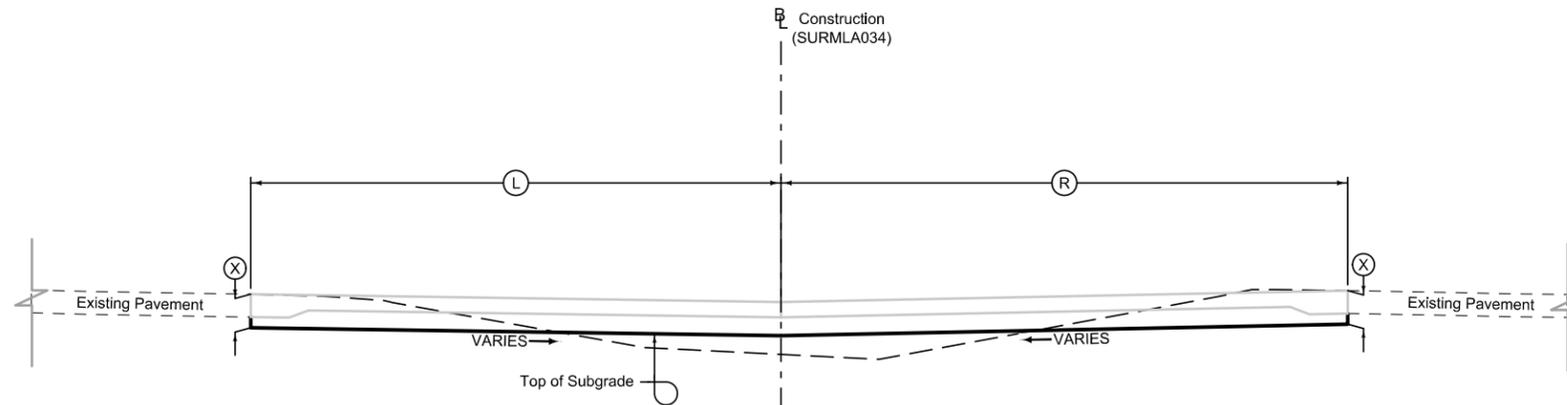


US-34 EB LEFT TURN LANE (240TH ST. ACCESS)

LOCATION		DIMENSIONS			
STATION TO STATION		(A) Feet	(L) Feet	(P) Feet	(X) Inches
749+89.22	750+19.42	0	9-11	4-6	21
750+19.42	751+95.24	0-12	11-31.8	6	21
751+95.24	757+09.10	12	31.8	6	21

Section shown in the direction of stationing.

**MAINLINE US 34
GRADING**



US-34 MEDIAN (240TH ST. ACCESS)

LOCATION		DIMENSIONS	
STATION TO STATION		(L) Feet	(X) Inches
757+33.04	757+53.03	0-29	21
757+53.03	757+98.02	29	21
757+98.02	758+35.45	29-0	21

Section shown in the direction of stationing.

US-34 MEDIAN (240TH ST. ACCESS)

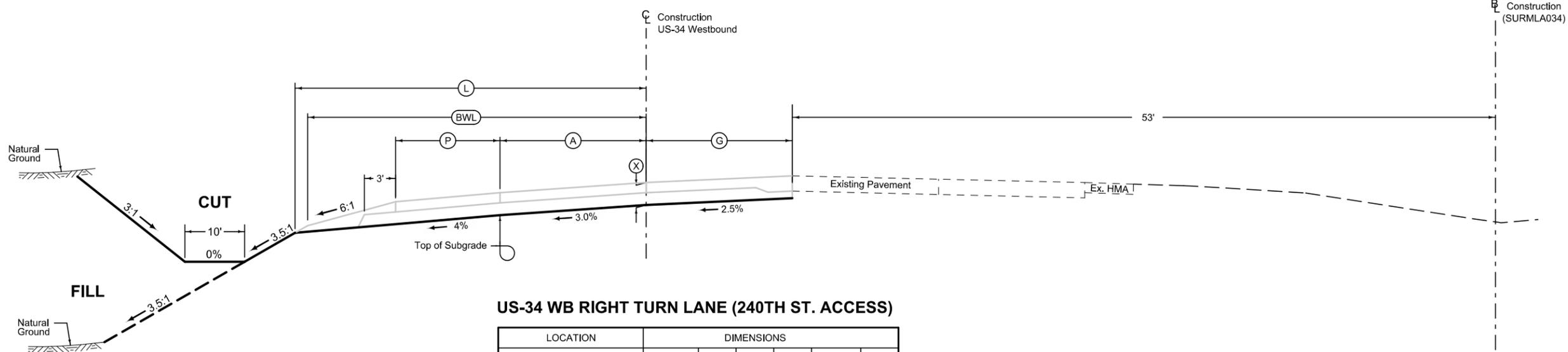
LOCATION		DIMENSIONS	
STATION TO STATION		(R) Feet	(X) Inches
757+09.10	757+53.03	12-31	21
757+53.03	757+98.02	31	21
757+98.02	759+35.63	31-0	21

Section shown in the direction of stationing.

**MEDIAN CROSSOVER
GRADING**

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.



US-34 WB RIGHT TURN LANE (240TH ST. ACCESS)

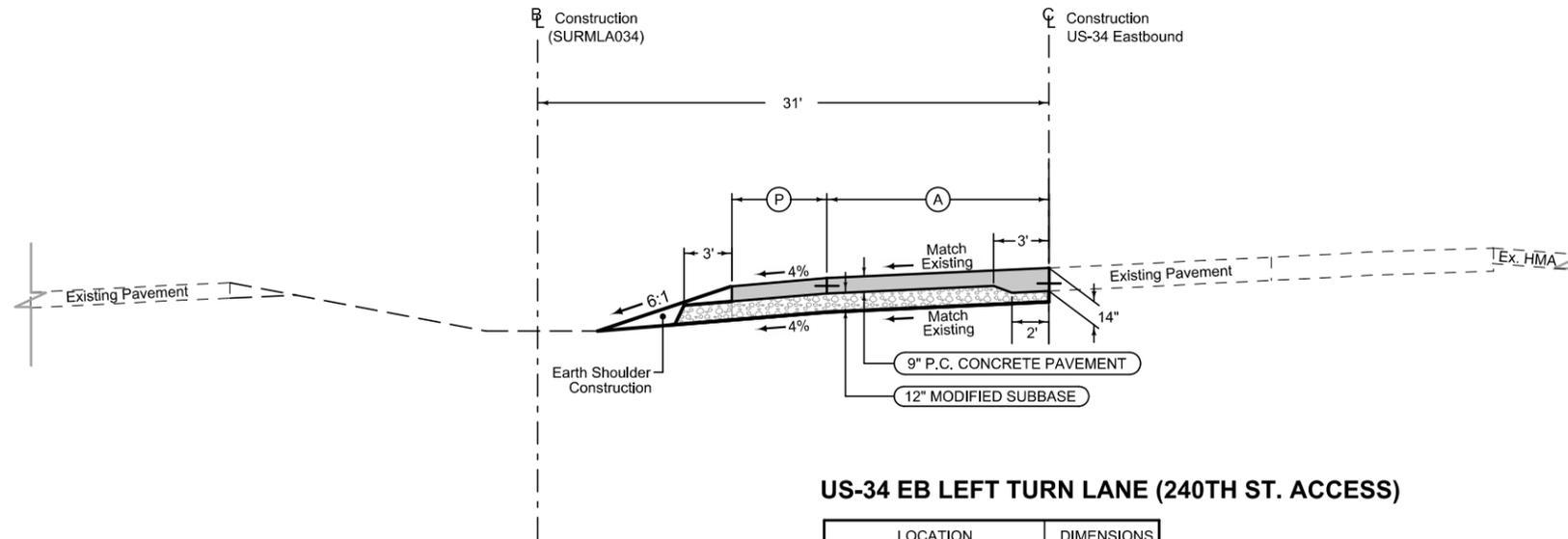
LOCATION		DIMENSIONS					
STATION TO STATION		Ⓒ	Ⓐ	Ⓟ	ⒷⓌ	Ⓛ	ⓧ
		Feet	Feet	Feet	Feet	Feet	Inches
757+81.94	758+42.02	20.4 - 16.9	12	0	16	Varies	21
758+42.02	763+50.19	16.9 - 0	12	6	16 - 30	48.6-31.7	21
763+50.19	764+90.28	0	12	6	30	31.7-30.9	21
764+90.28	766+71.48	0	12 - 0	6	30	30.9-23.8	21
766+71.48	767+01.87	0	0	6 - 4	30	23.8	21

Section shown in the direction of stationing.

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

MAINLINE US 34 GRADING



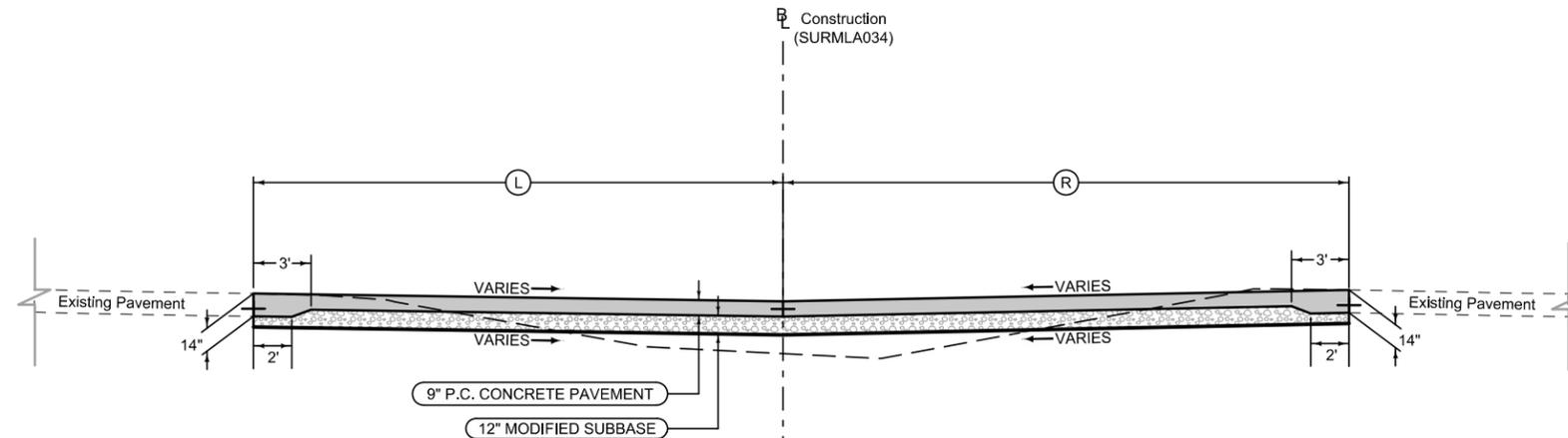
US-34 EB LEFT TURN LANE (240TH ST. ACCESS)

LOCATION		DIMENSIONS	
STATION TO STATION		(A) Feet	(P) Feet
749+89.22	750+19.42	0	4 - 6
750+19.42	751+95.24	0 - 12	6
751+95.24	757+09.10	12	6

Section shown in the direction of stationing.

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

**MAINLINE US 34
PAVING**



US-34 MEDIAN (240TH ST. ACCESS)

LOCATION		DIMENSIONS
STATION TO STATION		(L) Feet
757+33.04	757+53.03	0 - 29
757+53.03	757+98.02	29
757+98.02	758+35.45	29 - 0

Section shown in the direction of stationing.

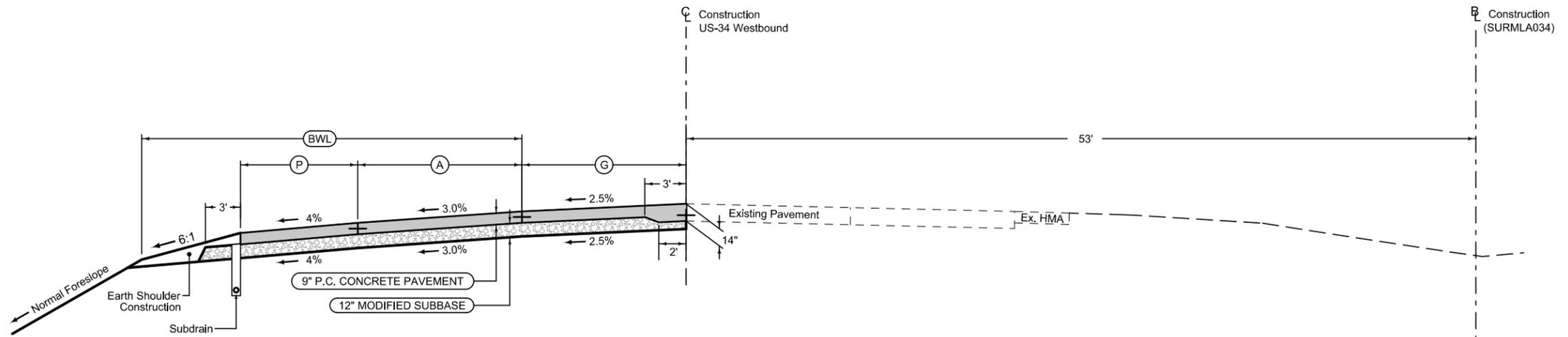
US-34 MEDIAN (240TH ST. ACCESS)

LOCATION		DIMENSIONS
STATION TO STATION		(R) Feet
757+09.10	757+53.03	12 - 31
757+53.03	757+98.02	31
757+98.02	759+35.63	31 - 0

Section shown in the direction of stationing.

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

**MEDIAN CROSSOVER
PAVING**



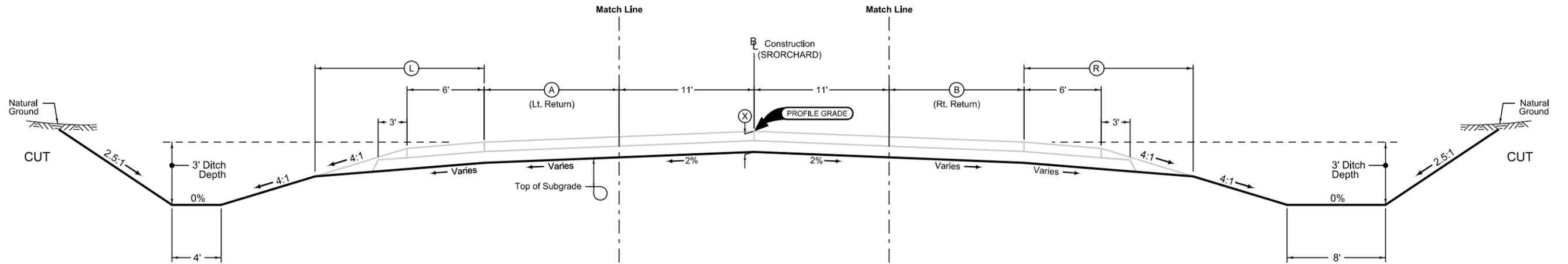
US-34 WB RIGHT TURN LANE (240TH ST. ACCESS)

LOCATION		DIMENSIONS			
STATION TO STATION		Ⓒ	Ⓐ	Ⓟ	Ⓑ
		Feet	Feet	Feet	Feet
757+81.94	758+42.02	20.4 - 16.9	12	0	16
758+42.02	763+50.19	16.9 - 0	12	6	16 - 30
763+50.19	764+90.28	0	12	6	30
764+90.28	766+71.48	0	12 - 0	6	30
766+71.48	767+01.87	0	0	6 - 4	30

Section shown in the direction of stationing.

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

**MAINLINE US 34
PAVING**



SIDEROAD RETURN

STATION TO STATION		(A) Feet	(L) Feet	(X) Inches
2705+53.00	2705+77.57	123.4 - 28.3	14.3	21
2705+77.57	2706+28.52	28.3 - 0	14.3-12	21
2706+28.52	2706+85.40	0	12	21

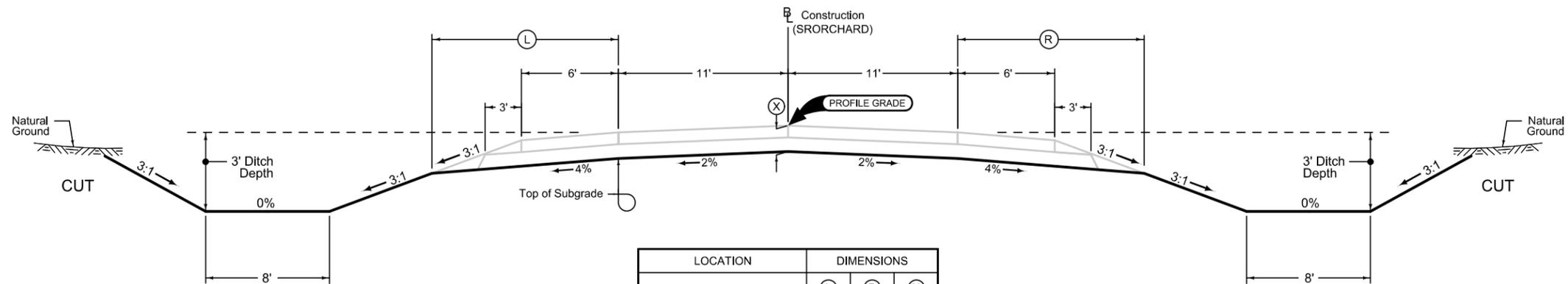
ORCHARD SIDEROAD

STATION TO STATION		(X) Inches
2705+53.00	2706+85.40	21

Section shown in the direction of stationing.

SIDEROAD RETURN / TURN LANE

STATION TO STATION		(B) Feet	(R) Feet	(X) Inches
2705+53.00	2705+65.79	65.9	14.3	21
2705+65.79	2705+94.57	65.9 - 19.6	14.3	21
2705+94.57	2706+85.40	19.6 - 0	14.3-12	21



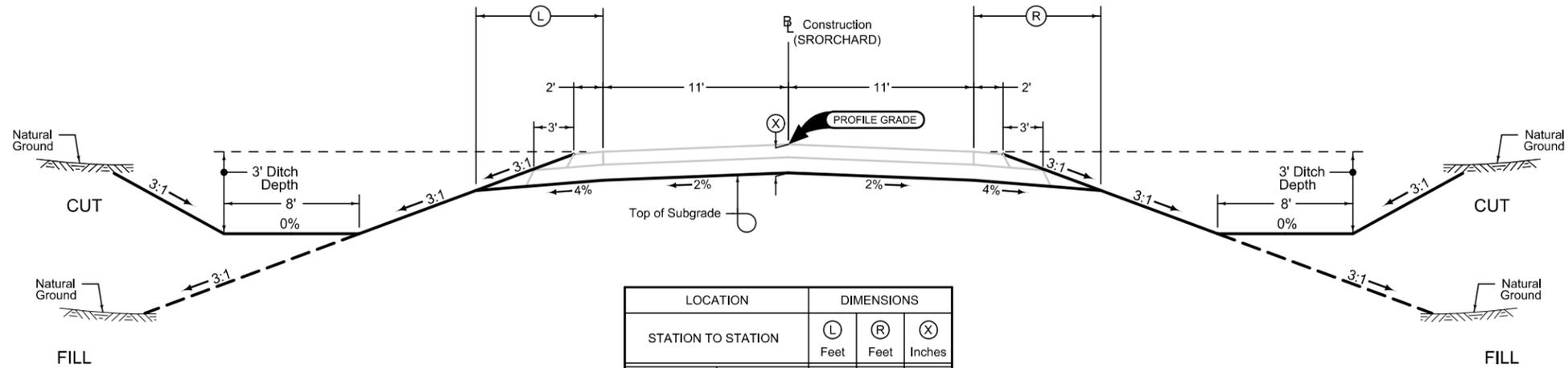
LOCATION		DIMENSIONS		
STATION TO STATION		(L) Feet	(R) Feet	(X) Inches
2706+85.40	2707+28.28	12	12	21

Section shown in the direction of stationing.

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

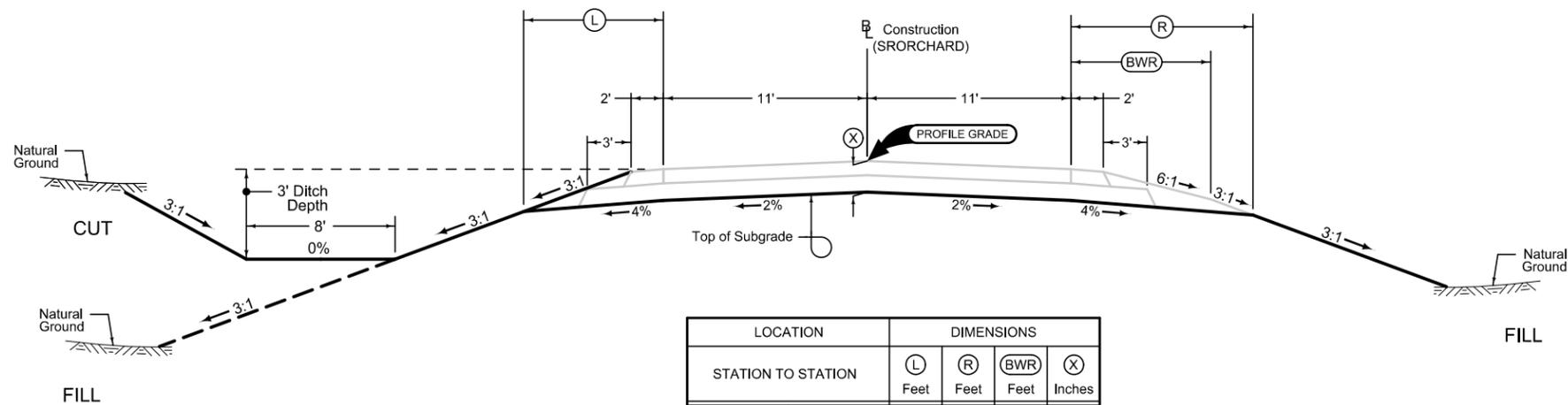
See Plan & Profile sheets and cross sections for additional details of ditches and backslopes.

ORCHARD ROAD GRADING



LOCATION		DIMENSIONS		
STATION TO STATION		(L) Feet	(R) Feet	(X) Inches
2707+28.28	2734+65.00	6	6	14
2738+50.00	2739+49.26	6	6	14

Section shown in the direction of stationing.



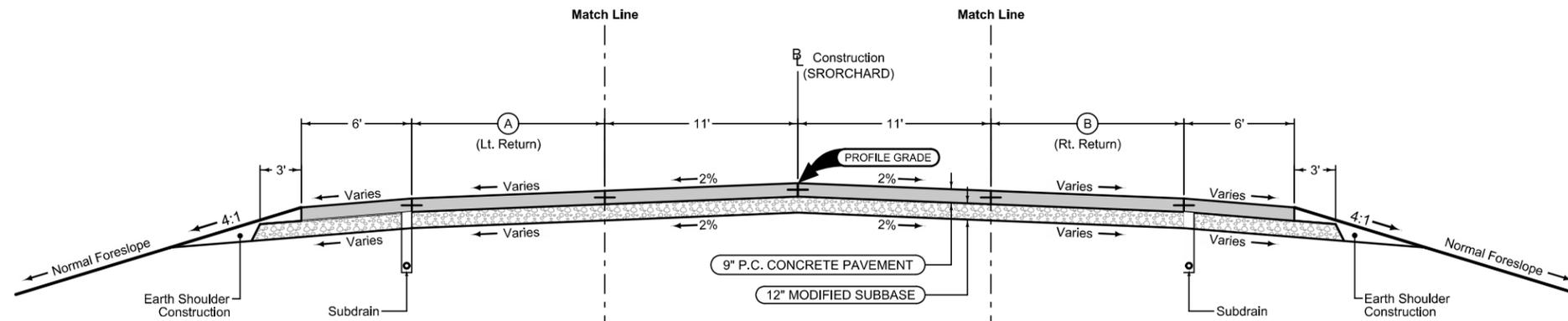
LOCATION		DIMENSIONS			
STATION TO STATION		(L) Feet	(R) Feet	(BWR) Feet	(X) Inches
2734+65.00	2734+90.00	6	6-10.53	0-10	14
2734+90.00	2738+25.00	6	10.53	10	14
2738+25.00	2738+50.00	6	10.53-6	10-0	14

Section shown in the direction of stationing.

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.

ORCHARD ROAD GRADING



SIDEROAD RETURN

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

STATION TO STATION		(A) Feet
2705+53.00	2705+77.57	123.4 - 28.3
2705+77.57	2706+28.52	28.3 - 0

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

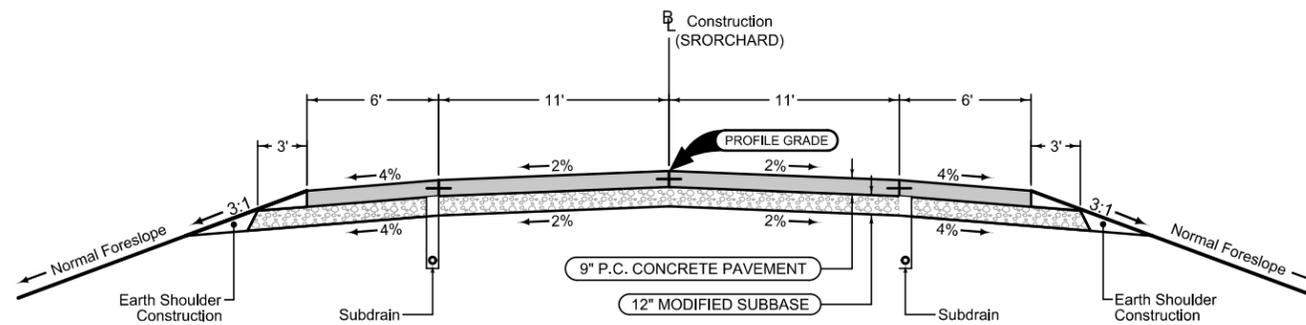
STATION TO STATION	
2705+53.00	2706+85.40

Section shown in the direction of stationing.

SIDEROAD RETURN / TURN LANE

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

STATION TO STATION		(B) Feet
2705+53.00	2705+65.79	65.9
2705+65.79	2705+94.57	65.9 - 19.6
2705+94.57	2706+85.40	19.6 - 0



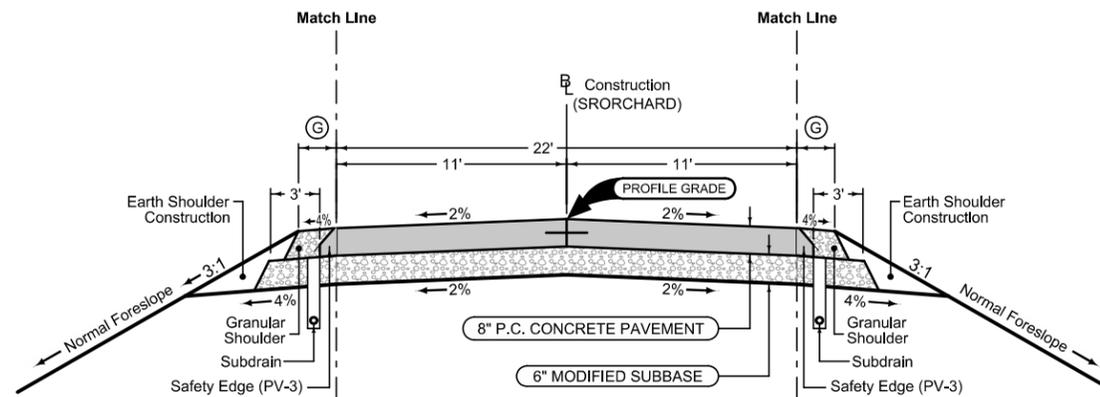
Mainline Jointing:
 Transverse joints: CD at 17' spacing
 Longitudinal joint: L-2

STATION TO STATION	
2706+85.40	2707+28.28

Section shown in the direction of stationing.

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

**ORCHARD ROAD
 PAVING**



Granular Shoulder with Safety Edge

		2_G_
		04-21-20
STATION TO STATION		Ⓞ
		Feet
2707+28.28	2739+49.26	2

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

		2P_
		04-21-20
STATION TO STATION		
2707+28.28	2739+49.26	

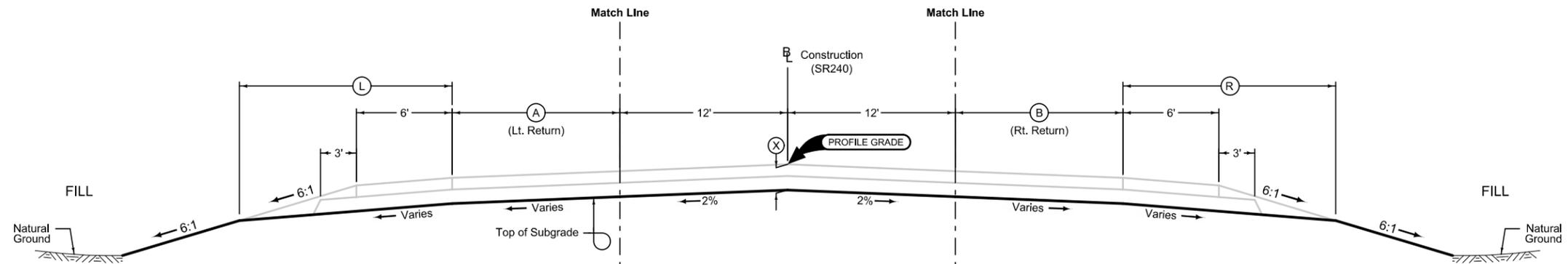
Section shown in the direction of stationing.

Granular Shoulder with Safety Edge

		2_G_
		04-21-20
STATION TO STATION		Ⓞ
		Feet
2707+28.28	2739+49.26	2

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

**ORCHARD ROAD
PAVING**



SIDEROAD RETURN

STATION TO STATION		(A) Feet	(L) Feet	(X) Inches
3758+23.00	3758+42.22	113.1 - 28.3	19.8	21
3758+42.22	3758+87.24	28.3 - 0	19.8	21
3758+87.24	3759+63.97	0	19.8	21

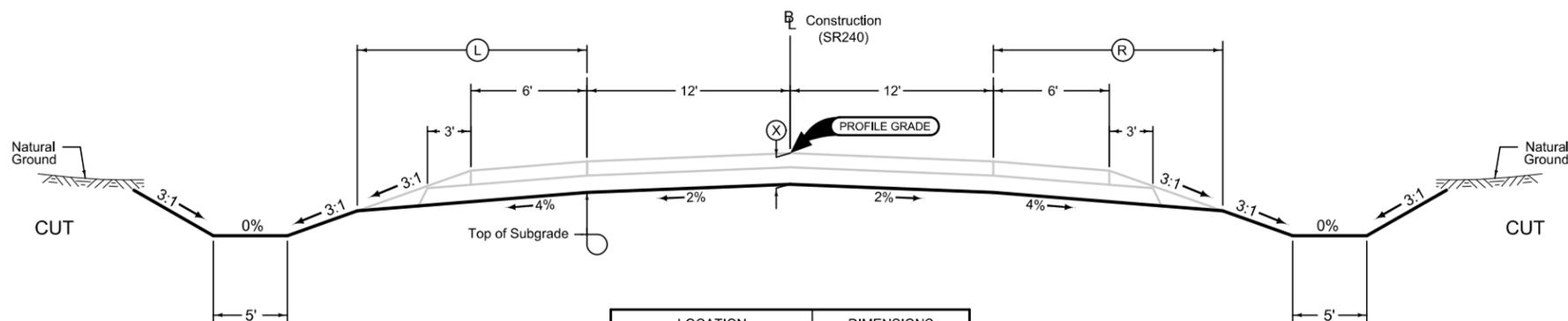
240TH STREET SIDEROAD

STATION TO STATION		(X) Inches
3758+23.00	3759+63.97	21

Section shown in the direction of stationing.

SIDEROAD RETURN / TURN LANE

STATION TO STATION		(B) Feet	(R) Feet	(X) Inches
3758+23.00	3758+51.66	0	19.8	21
3758+51.66	3758+80.76	60.5 - 18.1	19.8	21
3758+80.76	3759+63.97	18.1 - 0	19.8	21



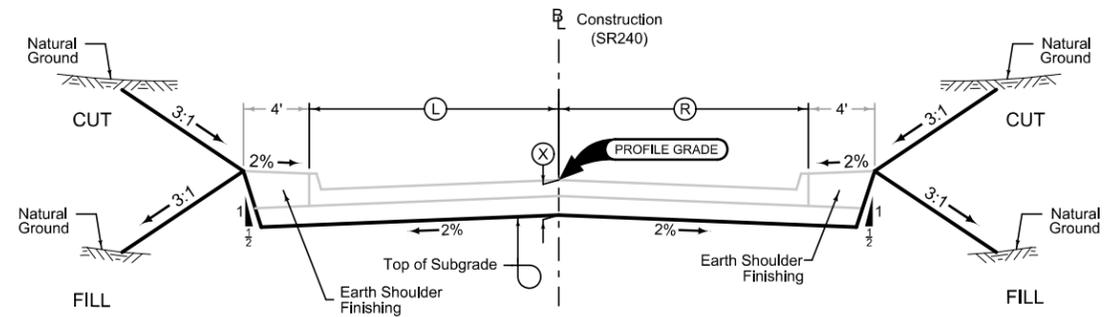
LOCATION		DIMENSIONS		
STATION TO STATION		(L) Feet	(R) Feet	(X) Inches
3759+63.97	3760+37.24	12	12	21

Section shown in the direction of stationing.

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

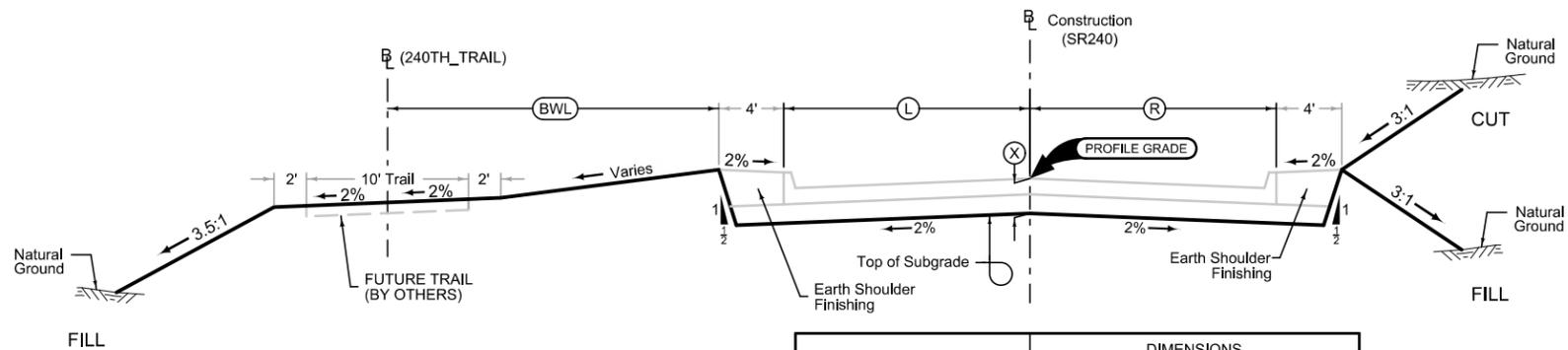
See Plan & Profile sheets and cross sections for additional details of ditches and backslopes.

**240TH STREET
GRADING**



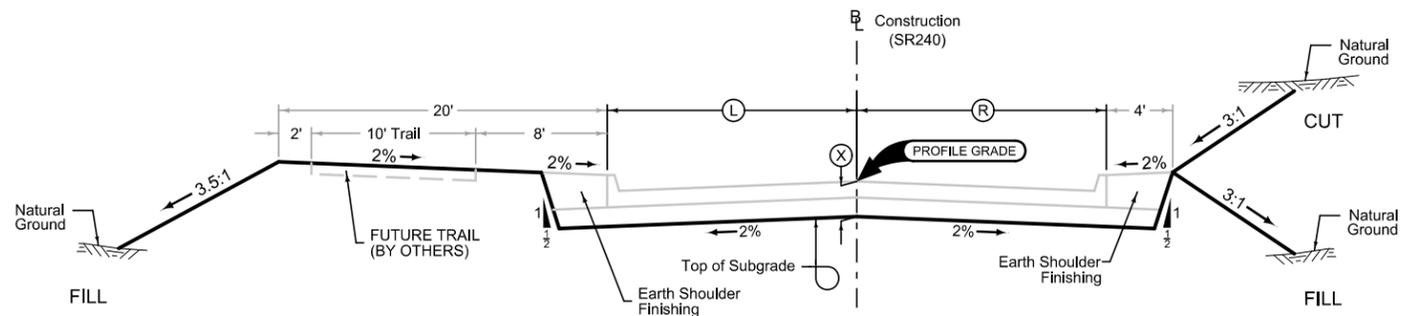
BEING STATION	END STATION	DIMENSIONS		
		Ⓛ Feet	Ⓡ Feet	ⓧ Inches
3760+37.24	3769+24.28	13	13	14

Section shown in the direction of stationing.



BEING STATION	END STATION	DIMENSIONS			
		Ⓛ Feet	Ⓡ Feet	ⓇⓁ Feet	ⓧ Inches
3769+24.28	3770+92.31	13	13	59-13	14

Section shown in the direction of stationing.



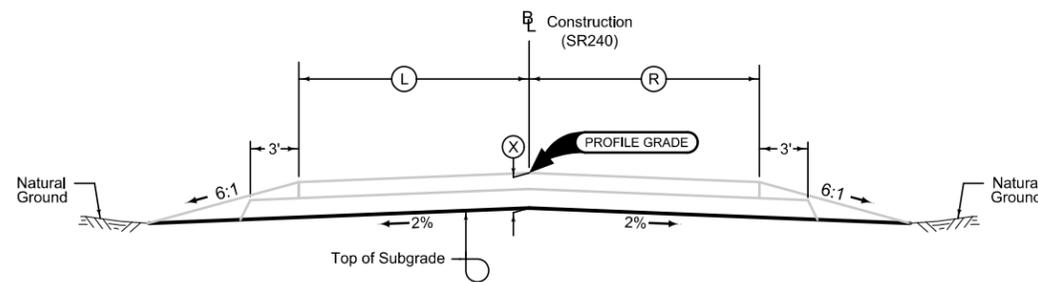
BEING STATION	END STATION	DIMENSIONS		
		Ⓛ Feet	Ⓡ Feet	ⓧ Inches
3770+92.31	3773+65.00	13	13	14

Section shown in the direction of stationing.

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

**240TH STREET
GRADING**



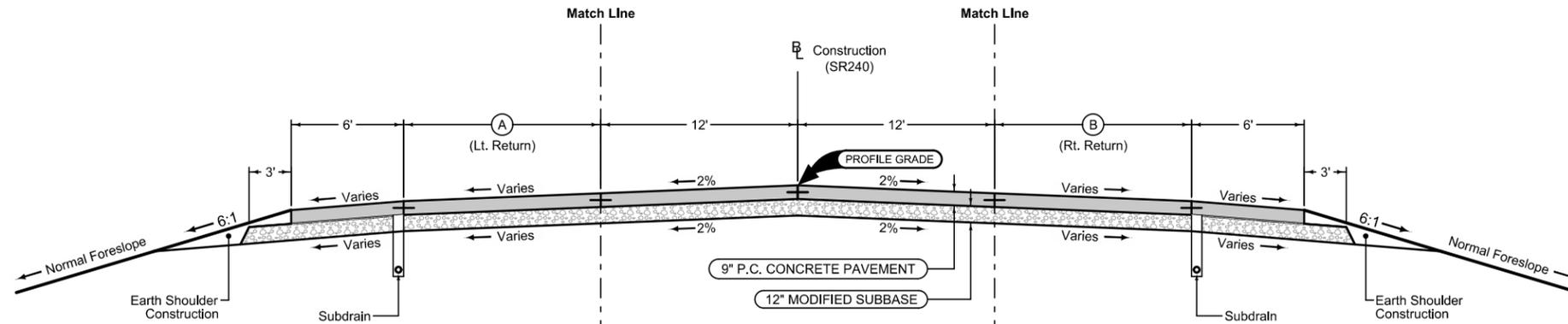
LOCATION		DIMENSIONS		
STATION TO STATION		(L) Feet	(R) Feet	(X) Feet
3773+65.00	3774+20.00	13 - 8	13 - 8	14

Section shown in the direction of stationing.

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.

**240TH STREET
GRADING**



SIDEROAD RETURN / TURN LANE

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

STATION TO STATION		(A) Feet
3758+23.00	3758+42.22	113.1 - 28.3
3758+42.22	3758+87.24	28.3 - 0
3758+87.24	3759+63.97	0

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

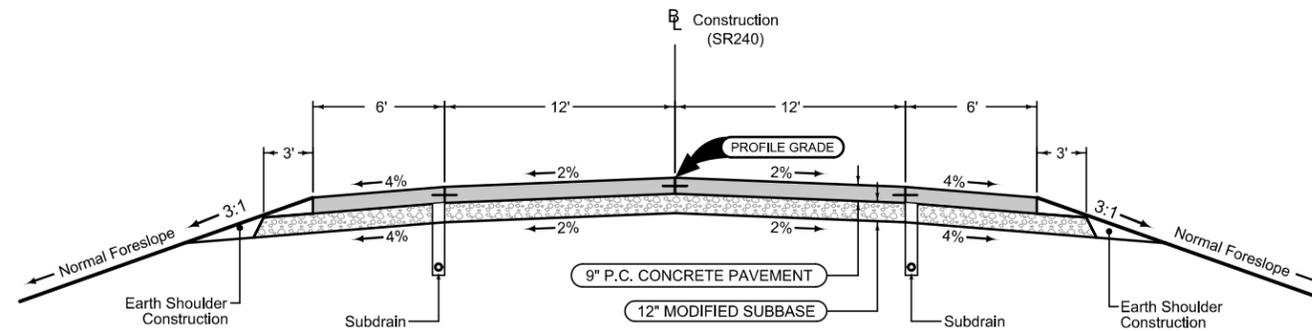
STATION TO STATION	
3758+23.00	3759+63.97

Section shown in the direction of stationing.

SIDEROAD RETURN / TURN LANE

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

STATION TO STATION		(B) Feet
3758+23.00	3758+51.66	0
3758+51.66	3758+80.76	60.5 - 18.1
3758+80.76	3759+63.97	18.1 - 0



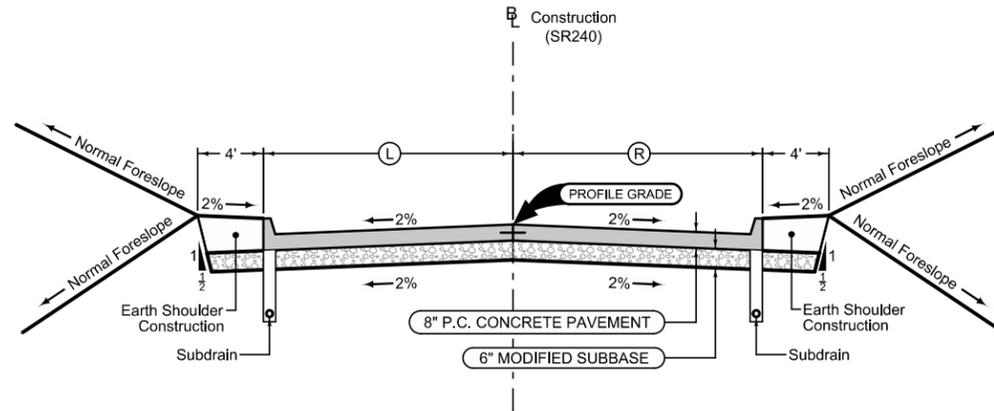
Mainline Jointing:
 Transverse joints: CD at 17' spacing
 Longitudinal joint: L-2

STATION TO STATION	
3759+63.97	3760+37.24

Section shown in the direction of stationing.

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

**240TH STREET
PAVING**

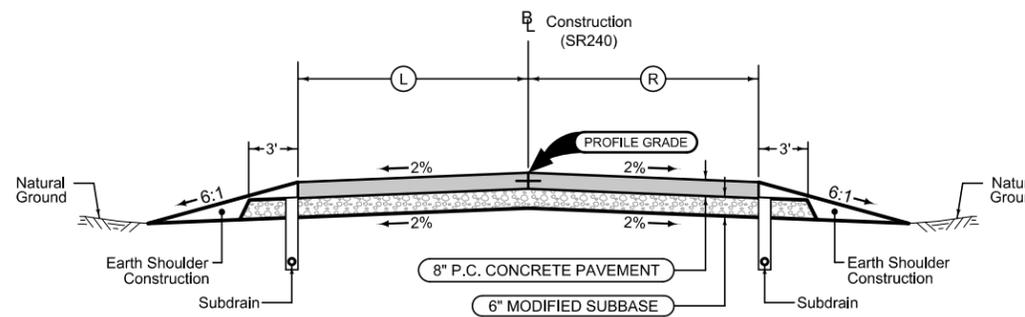


Shoulder Jointing:
 Longitudinal joint not required when distance from back of curb to nearest joint is less than 15':

Single pour: L-2
 Staged: KT-2
 Transverse: C at 17' spacing

BEING STATION	END STATION	Ⓐ Feet	Ⓑ Feet	Curb Type See PV-102
3760+37.24	3773+65.00	13	13	6" Standard

Section shown in the direction of stationing.

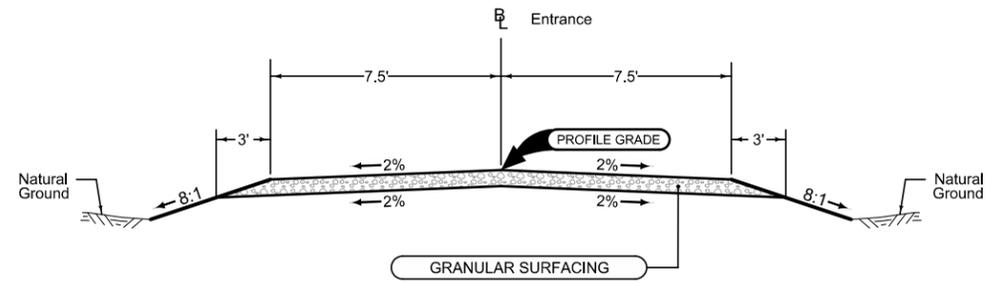


LOCATION		DIMENSIONS	
STATION TO STATION		Ⓐ Feet	Ⓑ Feet
3773+65.00	3774+20.00	13 - 8	13 - 8

Section shown in the direction of stationing.

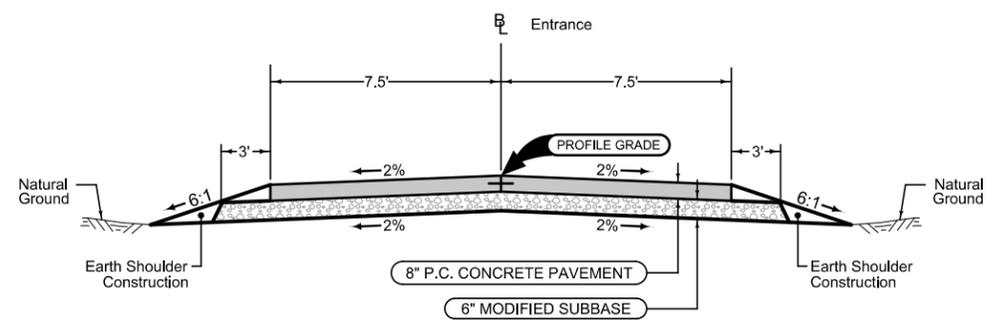
Normal section shown may be modified appropriately in areas of superelevated curves or other locations specifically designated by the Engineer.

240TH STREET PAVING



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

**ORCHARD
ENTRANCE**



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

**240TH
ENTRANCE
PAVING**

SURVEY SYMBOLS

- Interstate Highway Symbol
- U.S. Highway Symbol
- Iowa Highway Symbol
- County Road Highway Symbol
- Evergreen Tree
- Deciduous Tree
- Fruit Tree
- Shrub (Bushes)
- Timber
- Hedge
- Stump
- Swamp
- Rock Outcrop
- Broken Concrete
- Revetment (Rip Rap)
- Cemetery
- Grave
- Cave
- Sink Hole
- Board Fence
- Chain Link or Security Fence
- Wire Fence
- 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)
- Septic Tank
- Cistern
- L.P. Gas Tank (No Footing)
- Underground Storage Tank
- Latrine
- Satellite TV Dish
- Water Hook Up
- Radio Tower
- Tower Anchor
- Guardrail (Beam or Cable)
- Guard Post (one or two)
- Guard Post (over two)
- Filler Pipe
- Gas Valve
- Water Valve
- Speed Limit Sign
- Mile Marker Post
- Sign
- Traffic Signal Control Box
- Rail Road Signal Control Box
- Telephone Switch Box
- Electric Box

UTILITY LEGEND

SURVEYED UTILITY OWNER SYMBOLS

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

- T1 - TL1D, Breda Telephone Corp - Quality D
- FO - FO1D, CenturyLink/Lumen - Quality D
- FO2 - FO2D, Iowa Communications Network - Quality D
- FO3 - FO3D, Aureon - Quality D
- FO4 - FO4D, Omnitel Communications - Quality D

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	50%
Yellow	(4)		Proposed Pavement Shading	50%
Orange	(6)		Proposed Granular Shading	50%
Orange	(70)		Proposed Shoulder Granular Shading	50%
Yellow	(68)		Proposed Shoulder Paved Full Depth Shading	50%
Yellow	(132)		Proposed Shoulder Paved Partial Depth Shading	50%
Brown, Light	(236)		Grading Shading	50%
Orange, Light	(134)		Proposed Granular Entrance Shading	50%
Yellow	(220)		Proposed Paved Entrance Shading	50%
Tan	(8)		Proposed Sidewalk Shading	50%
Blue, Light	(230)		Proposed Sidewalk Landing Shading	50%
Pink	(11)		Proposed Sidewalk Ramp Shading	50%
Red	(3)		Proposed Structure Shading	50%
Red	(3)		Delineates Restricted Areas	0%

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

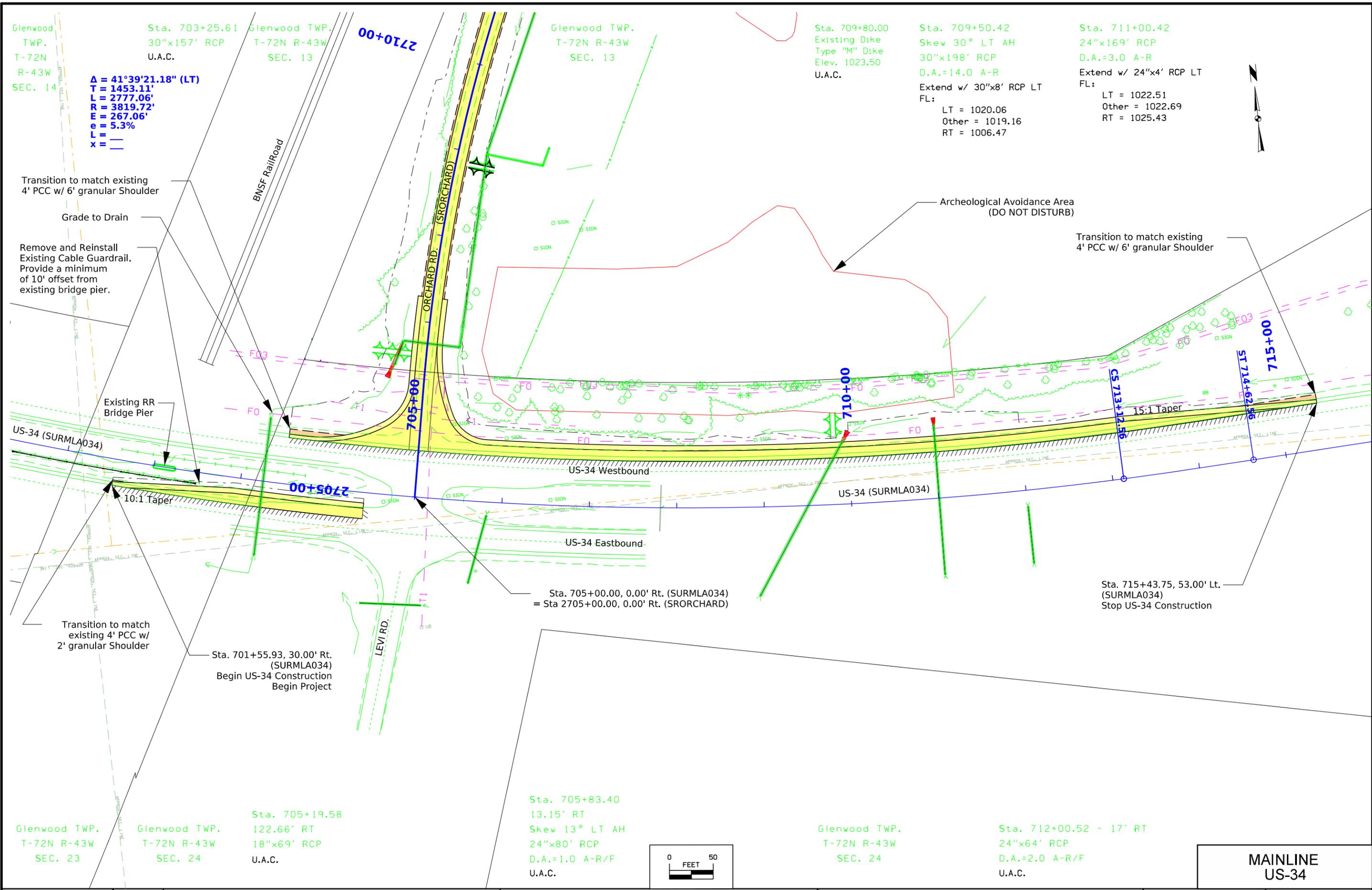
- Reference Point
- Station
- Section Corner
- Ground Line Intercept
- Saw Cut
- Guardrail
- Trench Drain
- HighTension Cable Guardrail
- Sheet Pile
- Pavement Removal
- Clearing & Grubbing Area
- Archeological Avoidance Area
- Proposed Storm Sewer (Direction of Pipe Flow)
- Proposed Intakes
- Proposed Culvert

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)



Glenwood TWP. T-72N R-43W SEC. 14

Sta. 703+25.61
30"x157' RCP
U.A.C.

$\Delta = 41^{\circ}39'21.18''$ (LT)
T = 1453.11'
L = 2777.06'
R = 3819.72'
E = 267.06'
e = 5.3%
L = —
x = —

Glenwood TWP. T-72N R-43W SEC. 13

Sta. 709+80.00
Existing Dike
Type "M" Dike
Elev. 1023.50
U.A.C.

Sta. 709+50.42
Skew 30° LT AH
30"x198' RCP
D.A.=14.0 A-R
Extend w/ 30"x8' RCP LT
FL:
LT = 1020.06
Other = 1019.16
RT = 1006.47

Sta. 711+00.42
24"x169' RCP
D.A.=3.0 A-R
Extend w/ 24"x4' RCP LT
FL:
LT = 1022.51
Other = 1022.69
RT = 1025.43

Transition to match existing 4' PCC w/ 6' granular Shoulder
Grade to Drain
Remove and Reinstall Existing Cable Guardrail. Provide a minimum of 10' offset from existing bridge pier.

Archeological Avoidance Area (DO NOT DISTURB)

Transition to match existing 4' PCC w/ 6' granular Shoulder

Existing RR Bridge Pier
US-34 (SURMLA034)

US-34 Westbound
US-34 Eastbound

Transition to match existing 4' PCC w/ 2' granular Shoulder

Sta. 701+55.93, 30.00' Rt. (SURMLA034)
Begin US-34 Construction
Begin Project

Sta. 705+00.00, 0.00' Rt. (SURMLA034)
= Sta 2705+00.00, 0.00' Rt. (SRORCHARD)

Sta. 715+43.75, 53.00' Lt. (SURMLA034)
Stop US-34 Construction

Glenwood TWP. T-72N R-43W SEC. 23

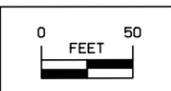
Glenwood TWP. T-72N R-43W SEC. 24

Sta. 705+19.58
122.66' RT
18"x69' RCP
U.A.C.

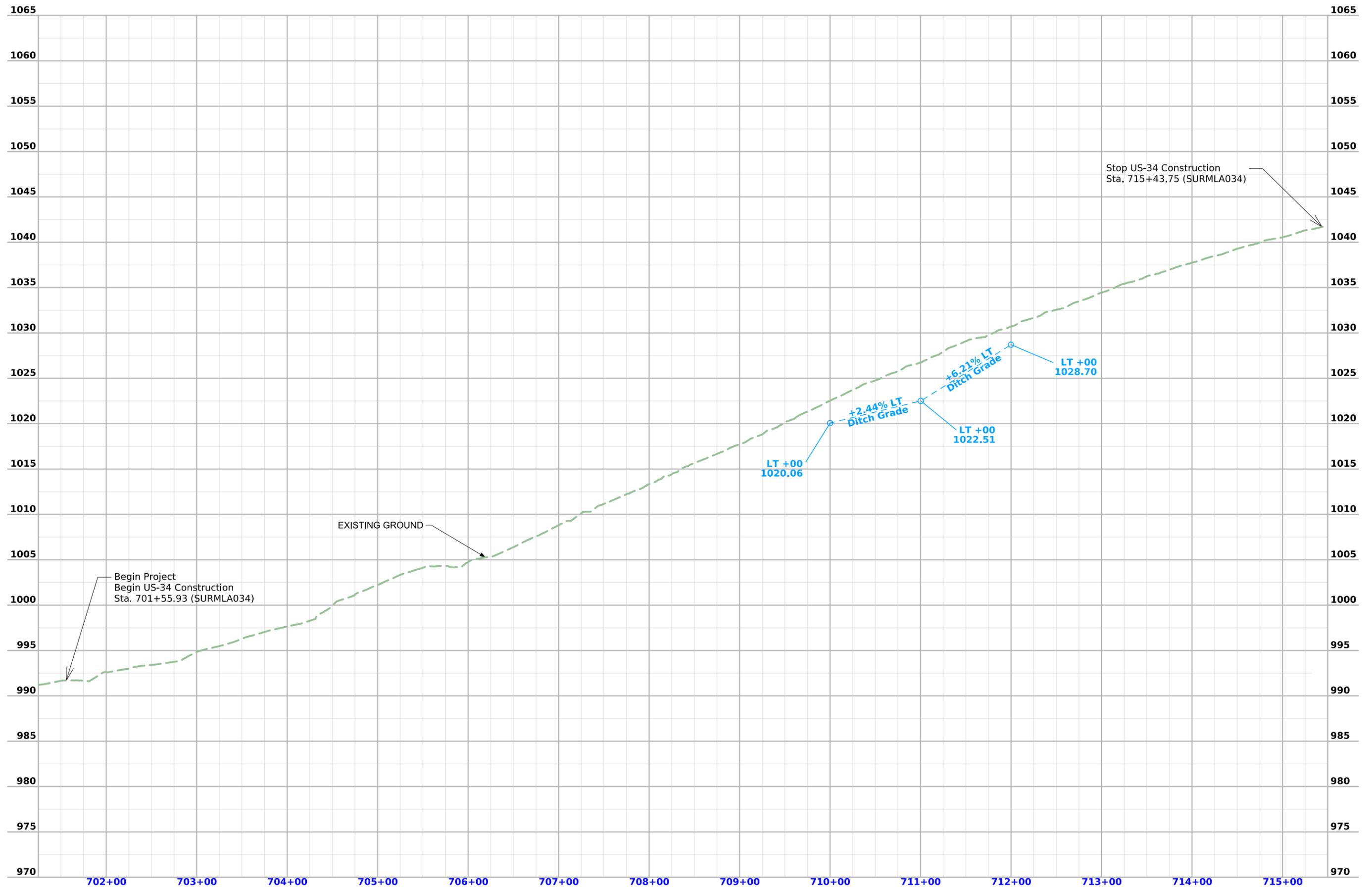
Sta. 705+83.40
13.15' RT
Skew 13° LT AH
24"x80' RCP
D.A.=1.0 A-R/F
U.A.C.

Glenwood TWP. T-72N R-43W SEC. 24

Sta. 712+00.52 - 17' RT
24"x64' RCP
D.A.=2.0 A-R/F
U.A.C.



MAINLINE US-34



Sta. 749+56.19
 Skew 12° RT AH
 30"x187' RCP
 D.A.=15.0 A-R
 U.A.C.

Glenwood TWP.
 T-72N R-43W
 SEC. 13

Sta. 754+20.98
 12'x12'x168' RCB
 (WAGON PASS)
 U.A.C.

Sta. 755+27.04
 Skew 11° LT AH
 24"x268' RCP/HDPE
 D.A.=5.0 A-R
 U.A.C.

Sta. 758+79.27
 Skew 23° LT AH
 4'x4'x284' RCB
 D.A.=50.0 A-H/R
 Extend w/ 54"x32' RCP LT
 TYPE C-2 Connection
 (SRP DR-122)
 FL:
 LT = 1096.14
 Other = 1093.58
 RT = 1075.44

Glenwood TWP.
 T-72N R-42W
 SEC. 18

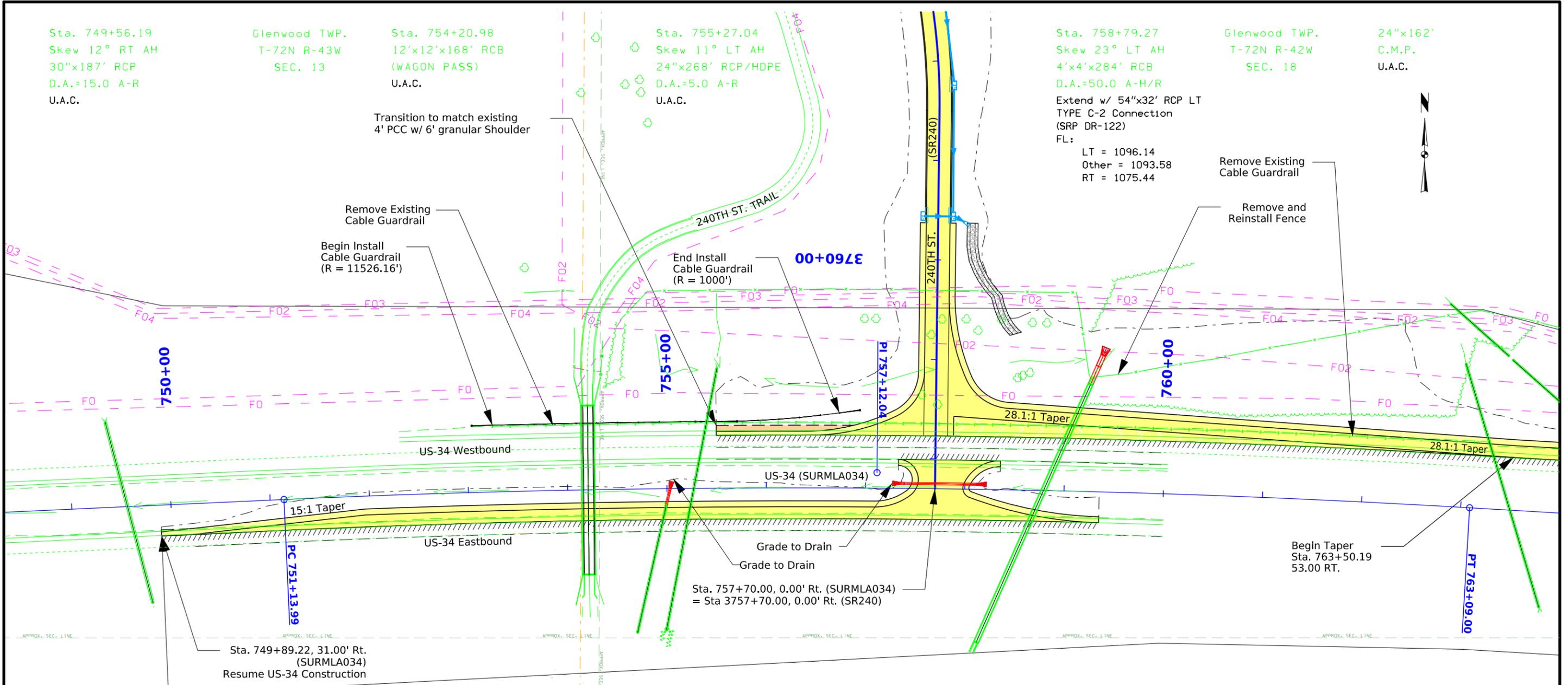
24"x162'
 C.M.P.
 U.A.C.

Transition to match existing
 4' PCC w/ 6' granular Shoulder

Remove Existing
 Cable Guardrail
 Begin Install
 Cable Guardrail
 (R = 11526.16')

End Install
 Cable Guardrail
 (R = 1000')

Remove Existing
 Cable Guardrail
 Remove and
 Reinstall Fence



Sta. 749+89.22, 31.00' Rt.
 (SURMLA034)
 Resume US-34 Construction

Sta. 757+70.00, 0.00' Rt. (SURMLA034)
 = Sta 3757+70.00, 0.00' Rt. (SR240)

Begin Taper
 Sta. 763+50.19
 53.00 RT.

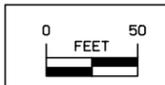
Transition to match
 existing 4' PCC w/
 2' granular Shoulder

$\Delta = 05^{\circ}58'30.00''$ (RT)
 $T = 598.04'$
 $L = 1195.00'$
 $R = 11459.16'$
 $E = 15.60'$
 $e = 1.5\%$
 $L =$
 $x =$

Sta. 754+99.28 - 16.10' RT
 Skew 16° LT AH
 24"x132' RCP
 D.A.=3.0 A-R/F

STA 755+03.11
 Extend w/ 24"x20' RCP LT
 TYPE C-1 Connection
 (SRP DR-122)
 FL:

LT = 1096.49
 Other = 1094.02
 RT = 1069.48



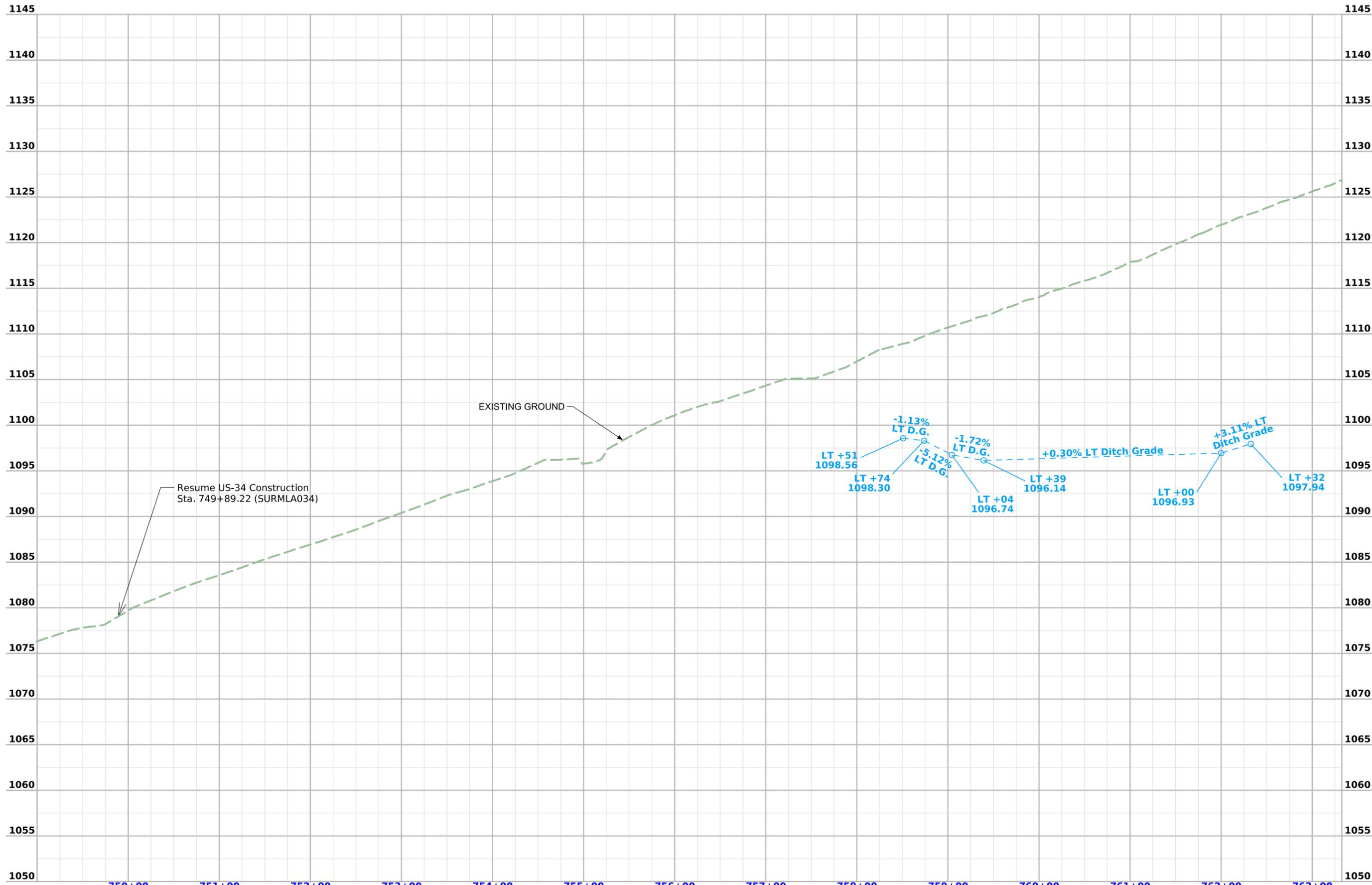
Sta. 3757+74.86 (SR240) =
 Sta. 757+70.00, 4.90' LT (SURMLA034)
 Install Median 24"x82' RCP
 FL:

LT = 1103.52 (DR-201)
 Other = 1105.08 (DR-122 Type C-1)
 RT = (DR-205)
 Top End Wall FL = 1108.40
 Bottom End Wall FL = 1107.61

Glenwood TWP.
 T-72N R-42W
 SEC. 19

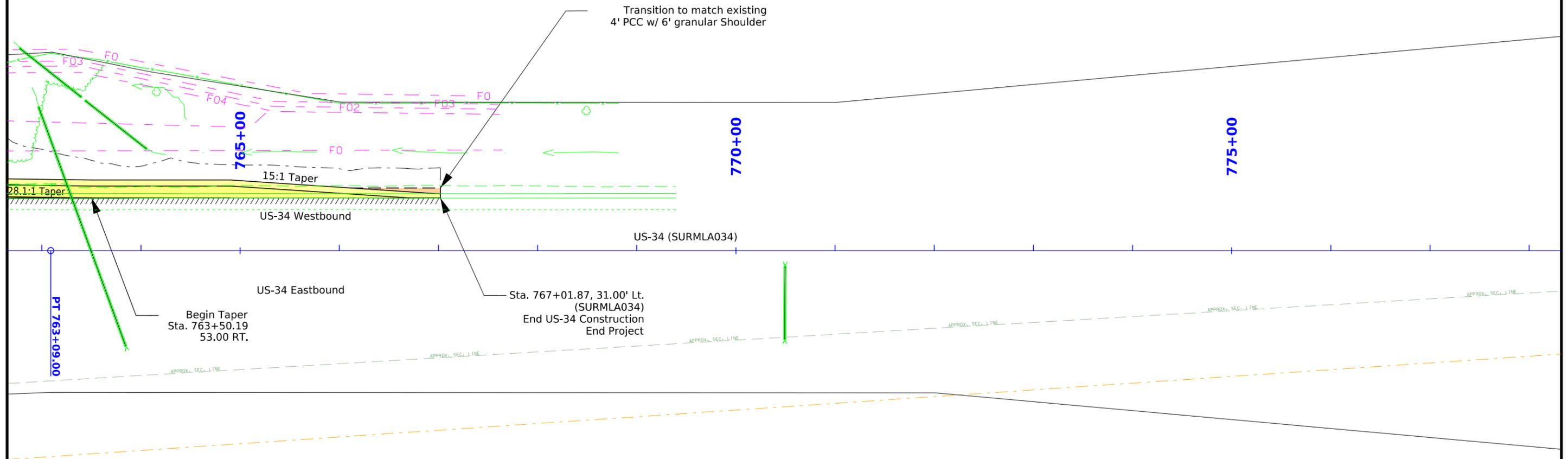
Sta. 763+49.51
 Skew 20° RT AH
 24"x256' RCP
 D.A.=1.0 A-R
 U.A.C.

**MAINLINE
 US-34**



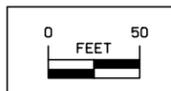
24"x162'
C.M.P.
U.A.C.

Glenwood TWP.
T-72N R-42W
SEC. 18



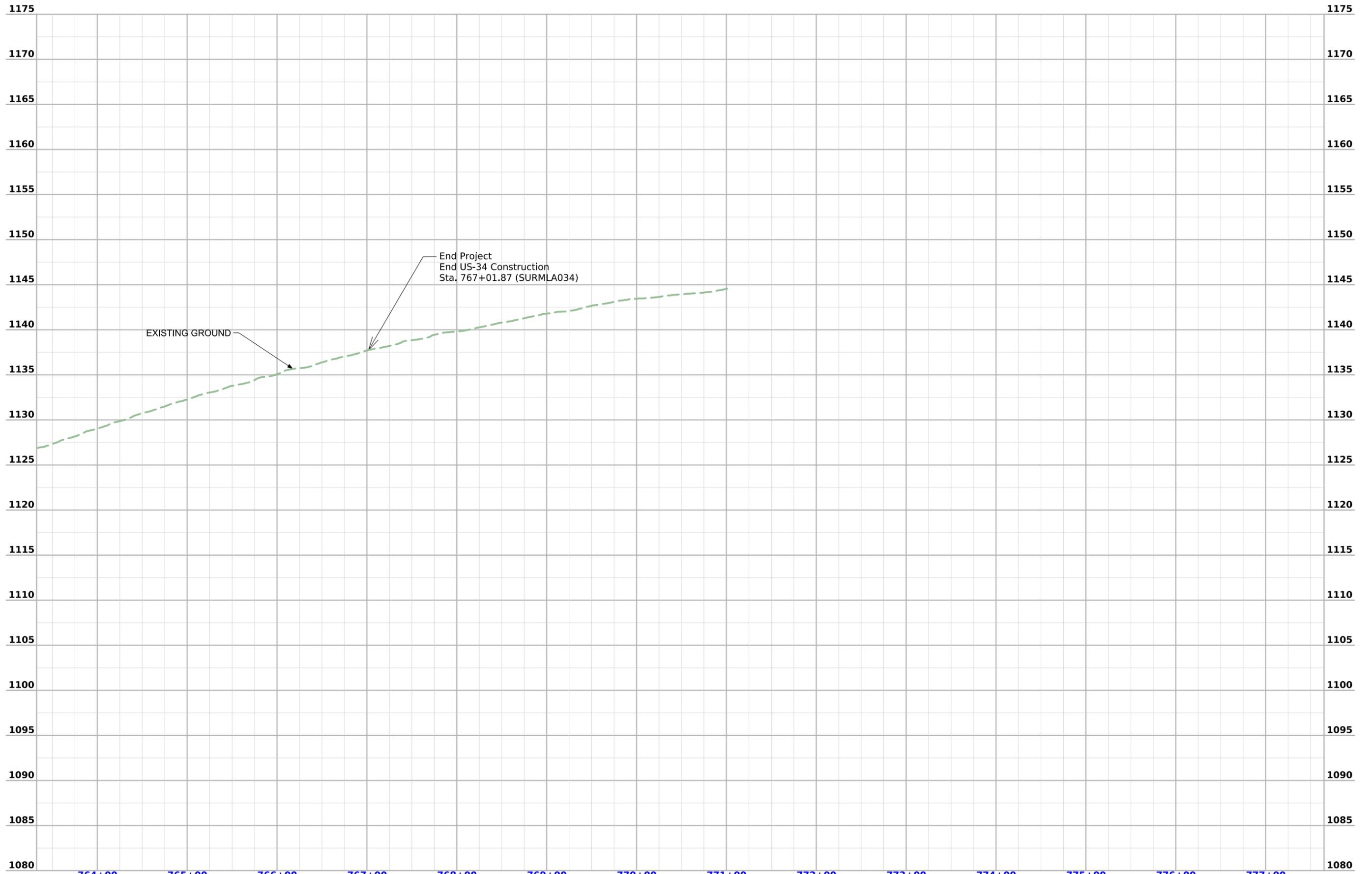
Sta. 763+49.51
Skew 20° RT AH
24"x256' RCP
D.A.=1.0 A-R
U.A.C.

Glenwood TWP.
T-72N R-42W
SEC. 19



Sta. 770+49.60
14.45' RT
24"x73' RCP
D.A.=3.0 A-R/F
U.A.C.

**MAINLINE
US-34**



30"x28' Install 30"x38' RCP
 C.M.P. Tie into Existing Intake Structure
 REMOVE FL: Other = 991.35
 LT = 991.00

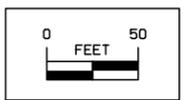
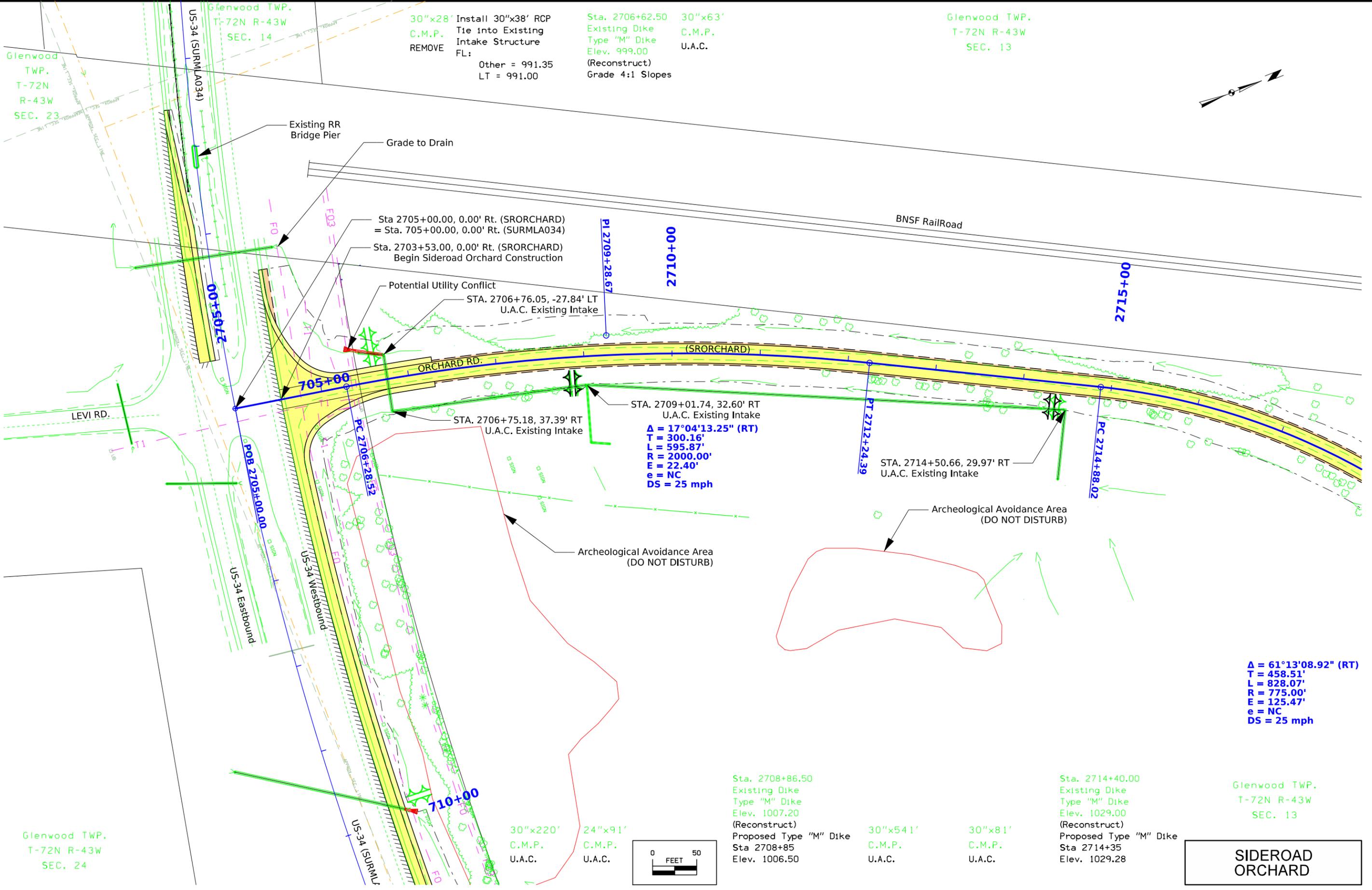
Sta. 2706+62.50 Existing Dike
 Type "M" Dike
 Elev. 999.00
 (Reconstruct)
 Grade 4:1 Slopes

30"x63' C.M.P. U.A.C.

Glenwood TWP.
 T-72N R-43W
 SEC. 13

Glenwood TWP.
 T-72N R-43W
 SEC. 23

Glenwood TWP.
 T-72N R-43W
 SEC. 24



SIDEROAD ORCHARD

30"x63'
Skew 28.5° RT AH
Conc. Pipe
FL: LT = 1053.22
RT = 1058.32
U.A.C.

24"x51'
C.M.P.
Remove

Glenwood TWP.
T-72N R-43W
SEC. 13

Glenwood Archeological State
Preserve Boundary

Archeological Avoidance Area
(DO NOT DISTURB)

$\Delta = 61^{\circ}13'08.92"$ (RT)
T = 458.51'
L = 828.07'
R = 775.00'
E = 125.47'
e = NC
DS = 25 mph

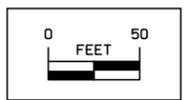
Sta. 2722+23.00
Existing Dike
Type "M" Dike
Elev. 1061.10
(Reconstruct)
Proposed Type "M" Dike
Sta 2722+05
Elev. 1061.16

30"x53'
C.M.P.
Remove

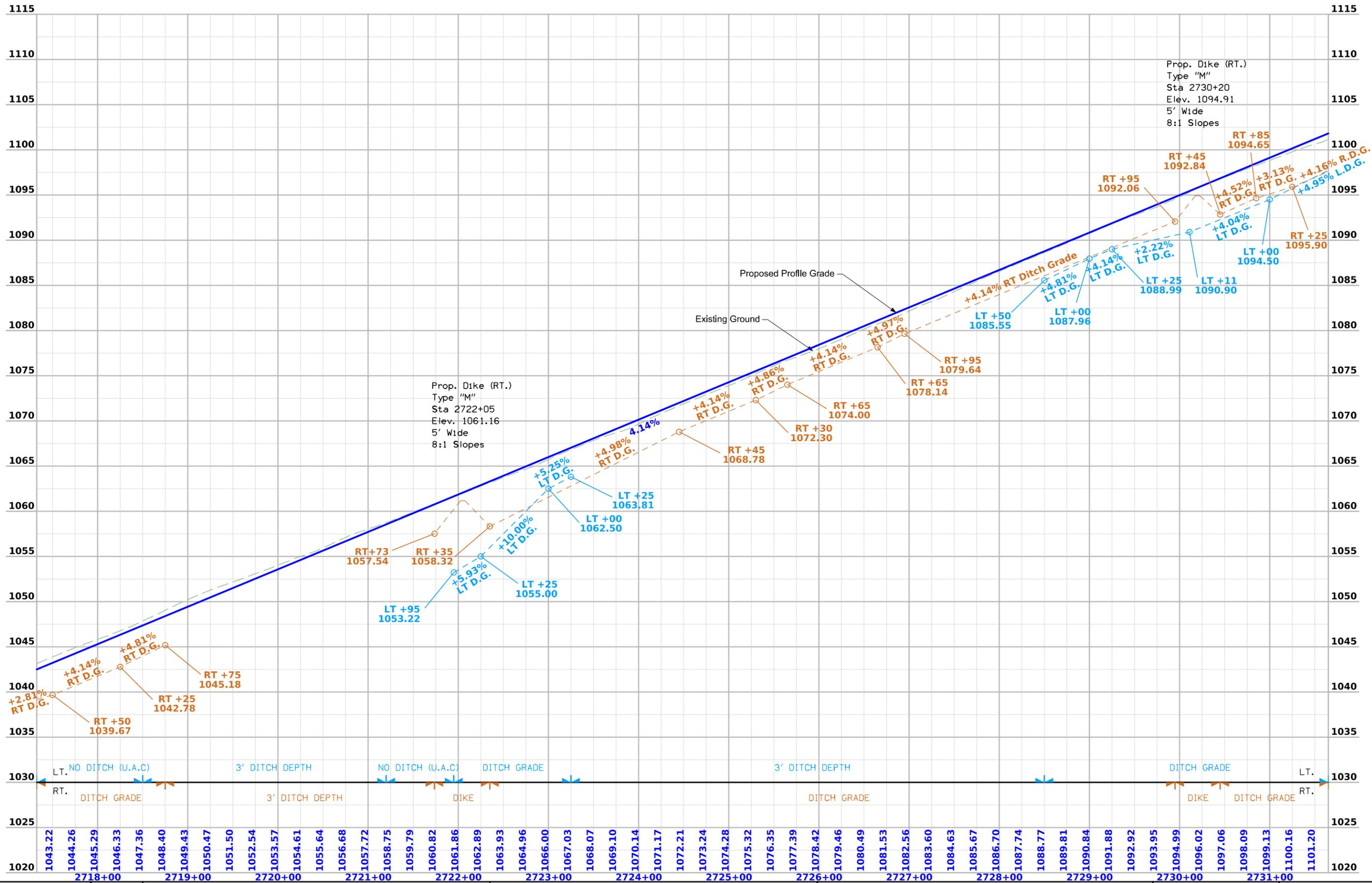
Glenwood TWP.
T-72N R-43W
SEC. 13

Sta. 2730+36.50
Existing Dike
Type "M" Dike
Elev. 1095.50
(Reconstruct)
Proposed Type "M" Dike
Sta 2730+20
Elev. 1094.91

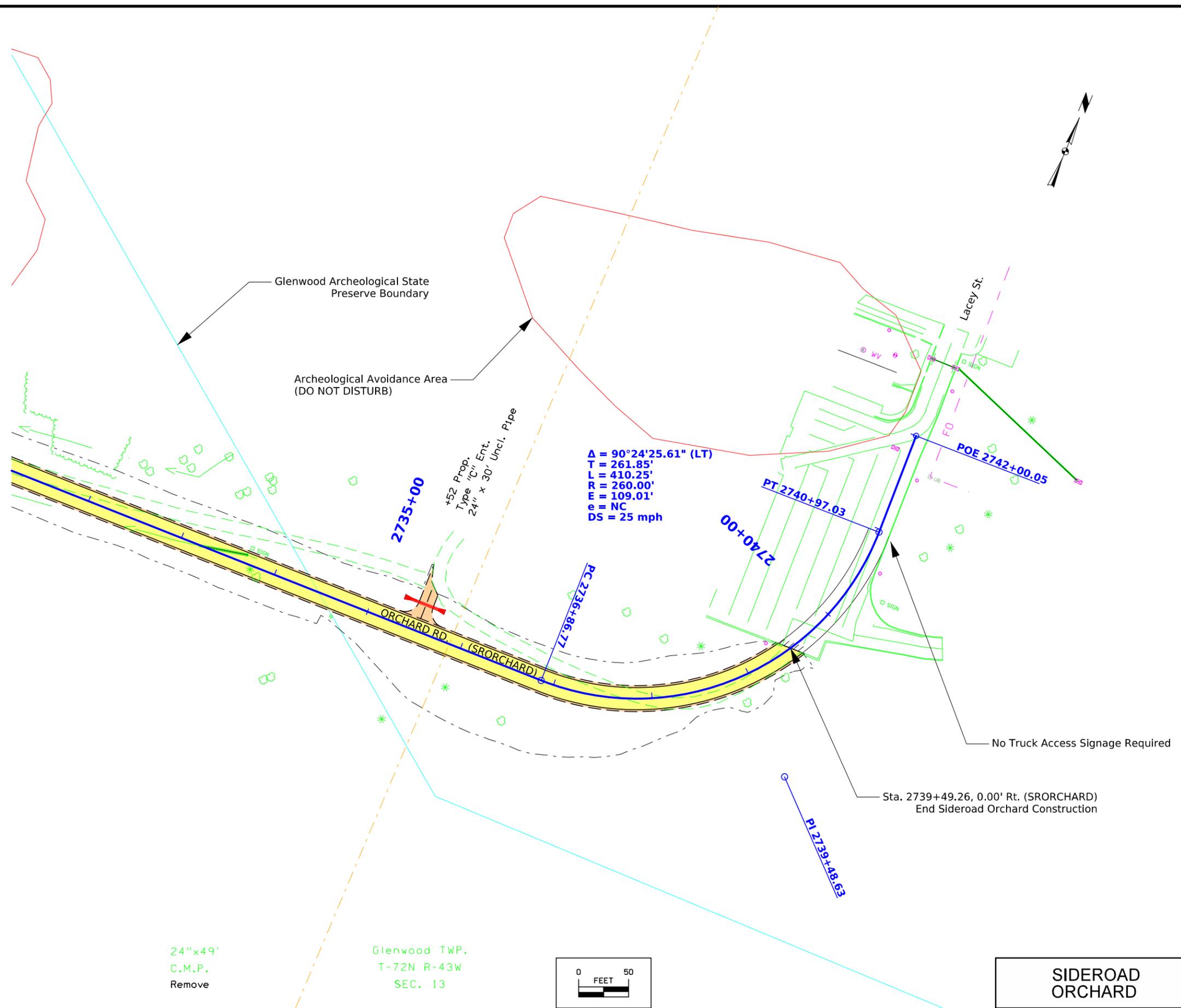
24"x55'
Skew 29° RT AH
Conc. Pipe
FL: LT = 1090.90
RT = 1092.84
U.A.C.



SIDEROAD ORCHARD



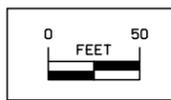
FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT \ HDR	Mills COUNTY	PROJECT NUMBER	DHS-706-0(018)--7H-65	SHEET NUMBER	E.4
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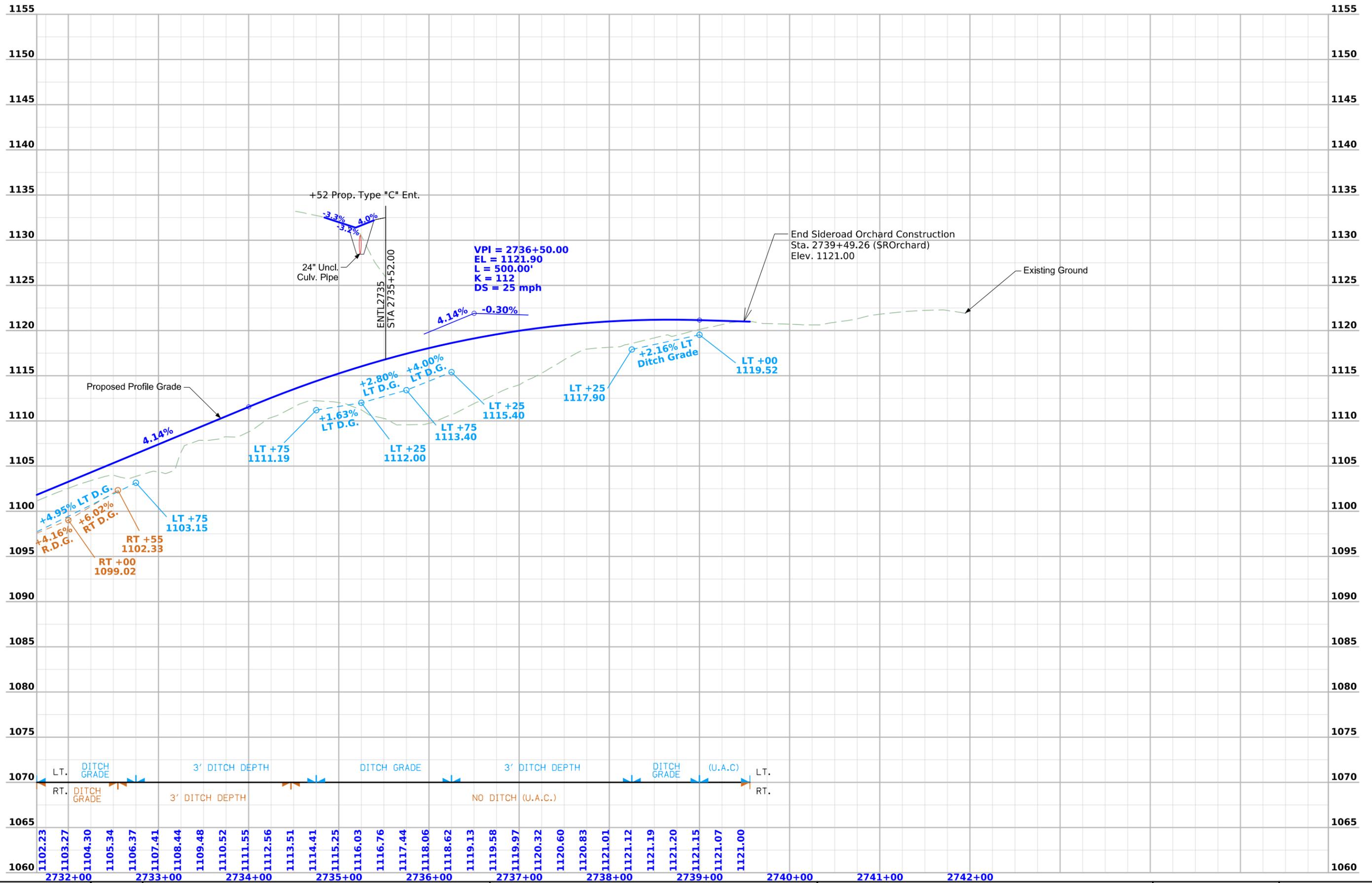
$\Delta = 90^\circ 24' 25.61''$ (LT)
 $T = 261.85'$
 $L = 410.25'$
 $R = 260.00'$
 $E = 109.01'$
 $e = NC$
 $DS = 25$ mph

24"x49'
C.M.P.
Remove

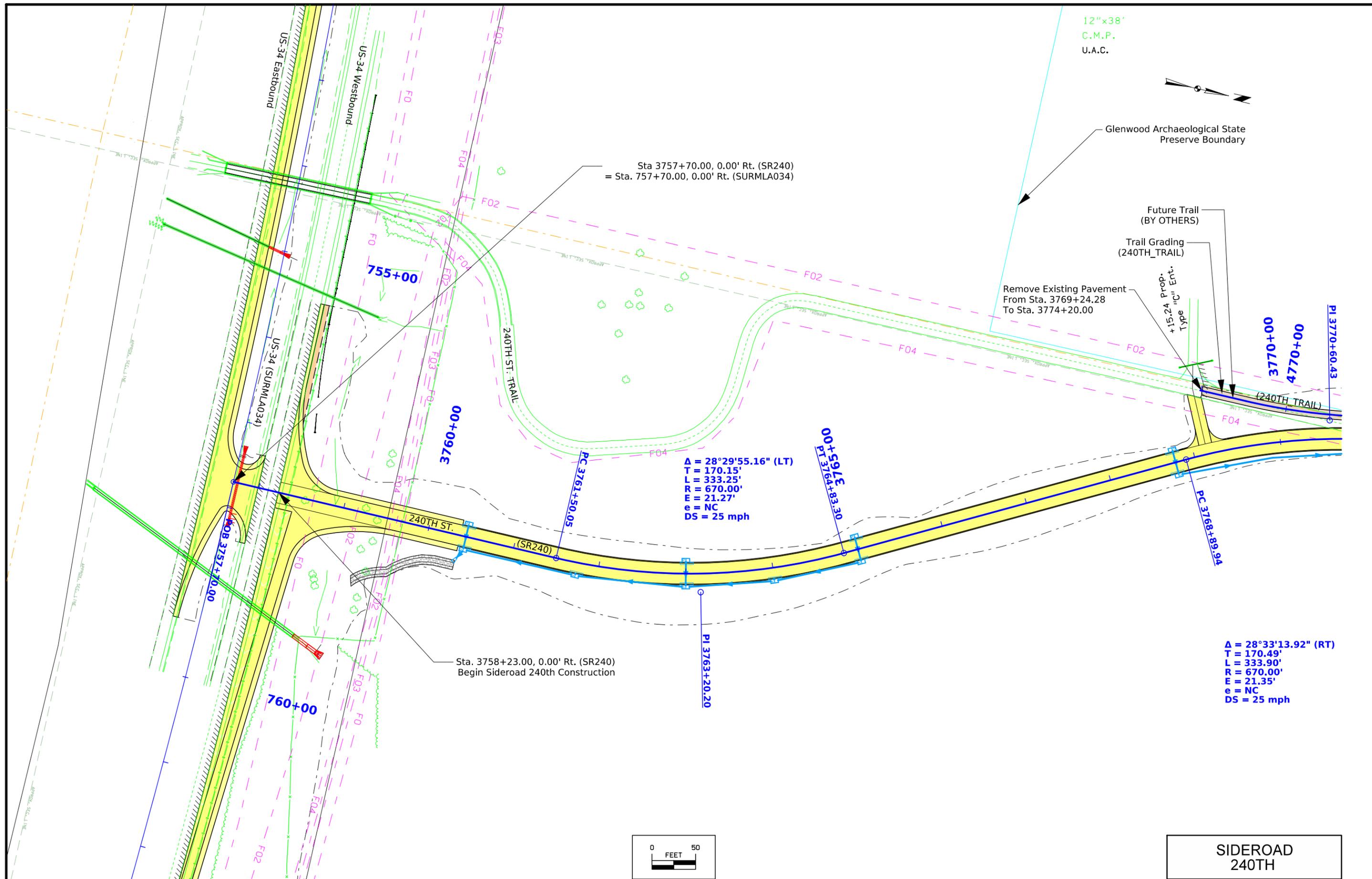
Glenwood TWP.
T-72N R-43W
SEC. 13



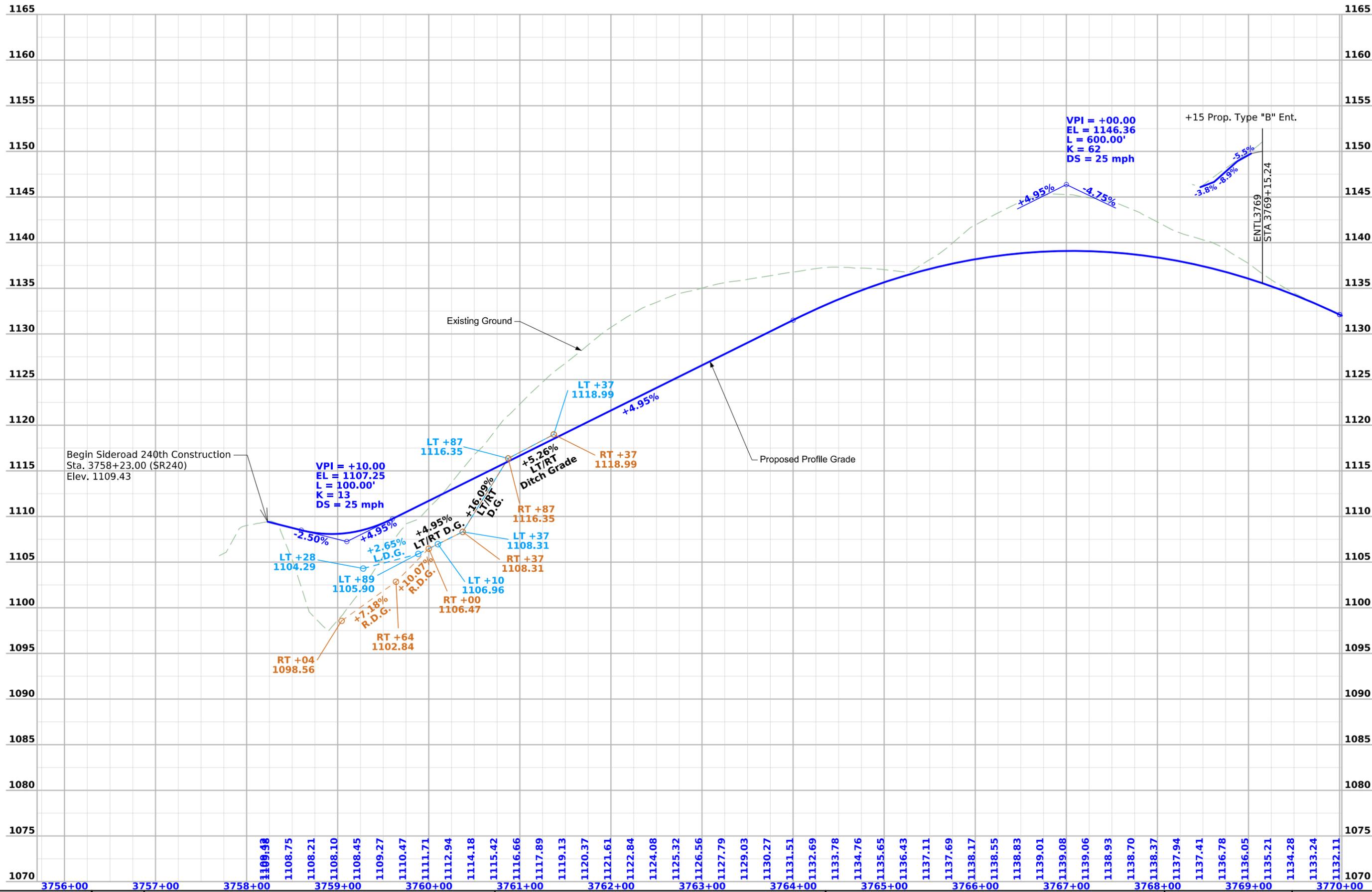
SIDEROAD ORCHARD

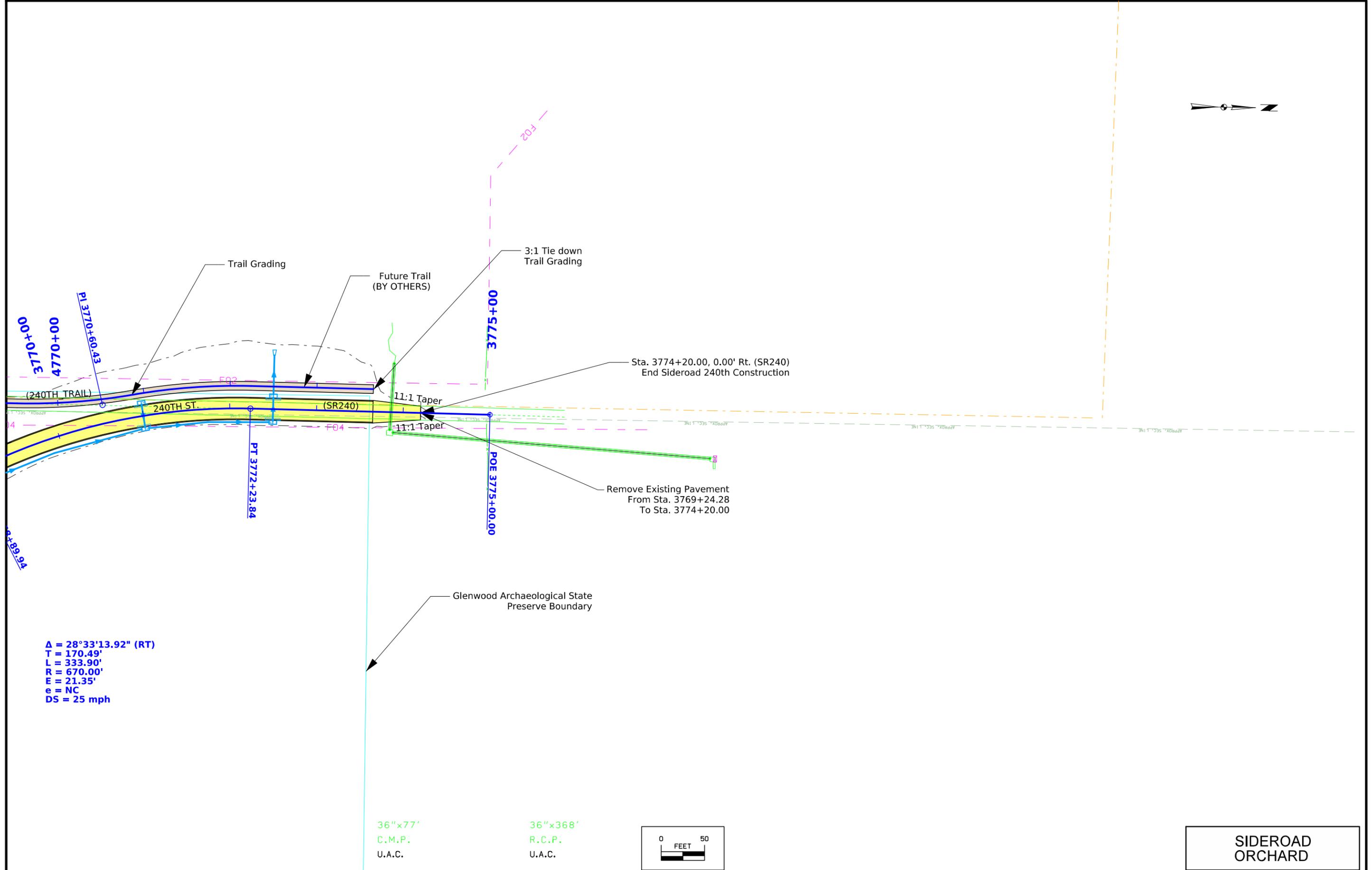


FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	Mills COUNTY	PROJECT NUMBER DHS-706-0(018)--7H-65	SHEET NUMBER E.6
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**SIDEROAD
240TH**

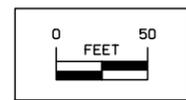




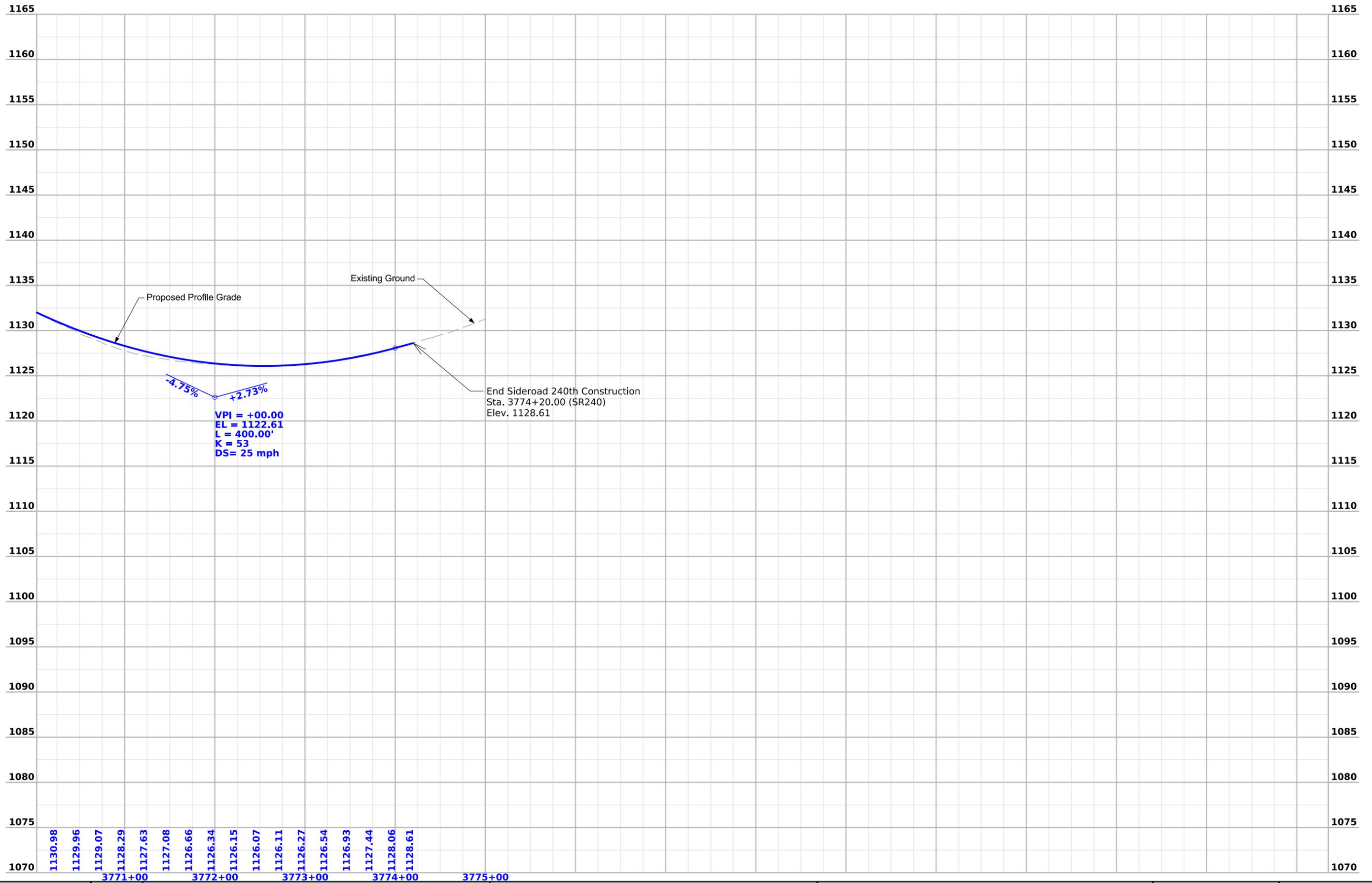
$\Delta = 28^\circ 33' 13.92''$ (RT)
 $T = 170.49'$
 $L = 333.90'$
 $R = 670.00'$
 $E = 21.35'$
 $e = NC$
 $DS = 25$ mph

36"x77'
 C.M.P.
 U.A.C.

36"x368'
 R.C.P.
 U.A.C.



SIDEROAD ORCHARD



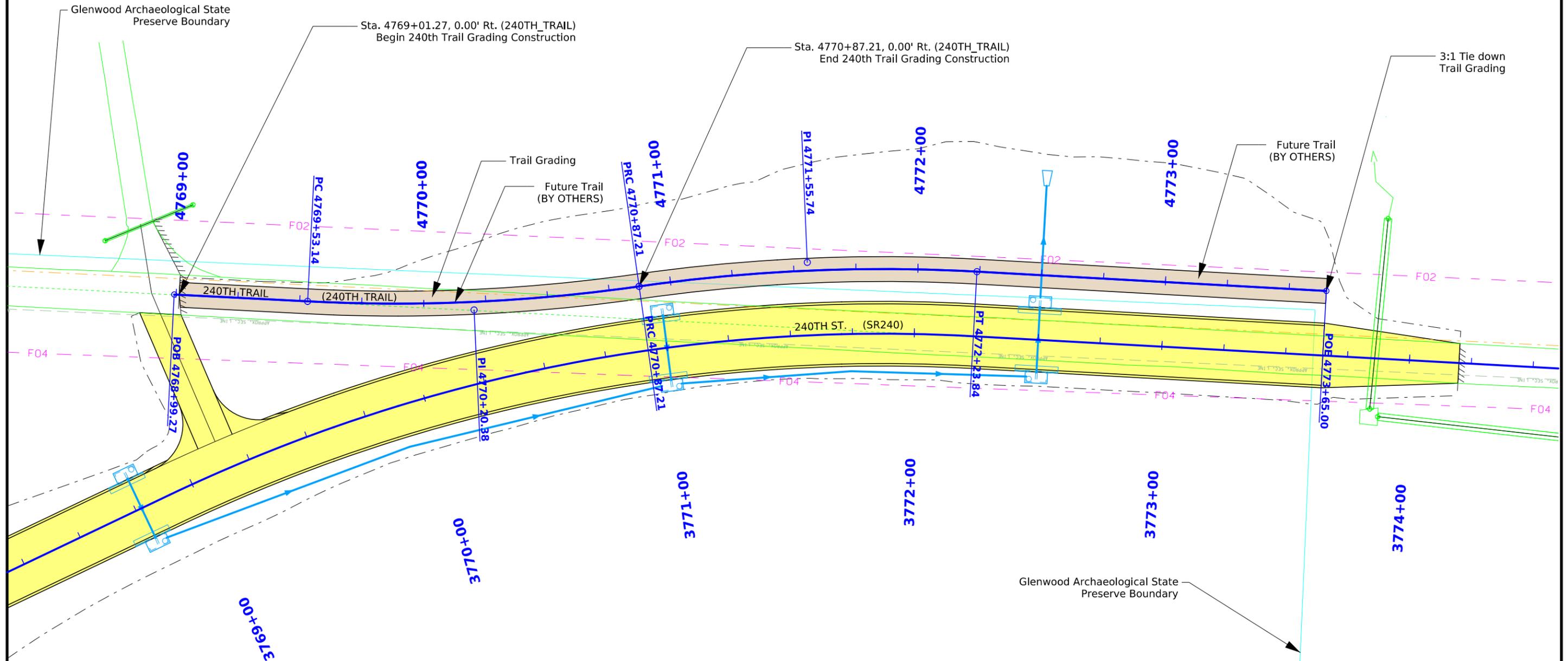
12"x38'
C.M.P.
U.A.C.

36"x77'
C.M.P.
U.A.C.

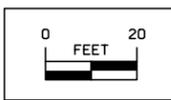


$\Delta = 11^\circ 02' 12.44''$ (LT)
T = 67.24'
L = 134.07'
R = 696.00'
E = 3.24'

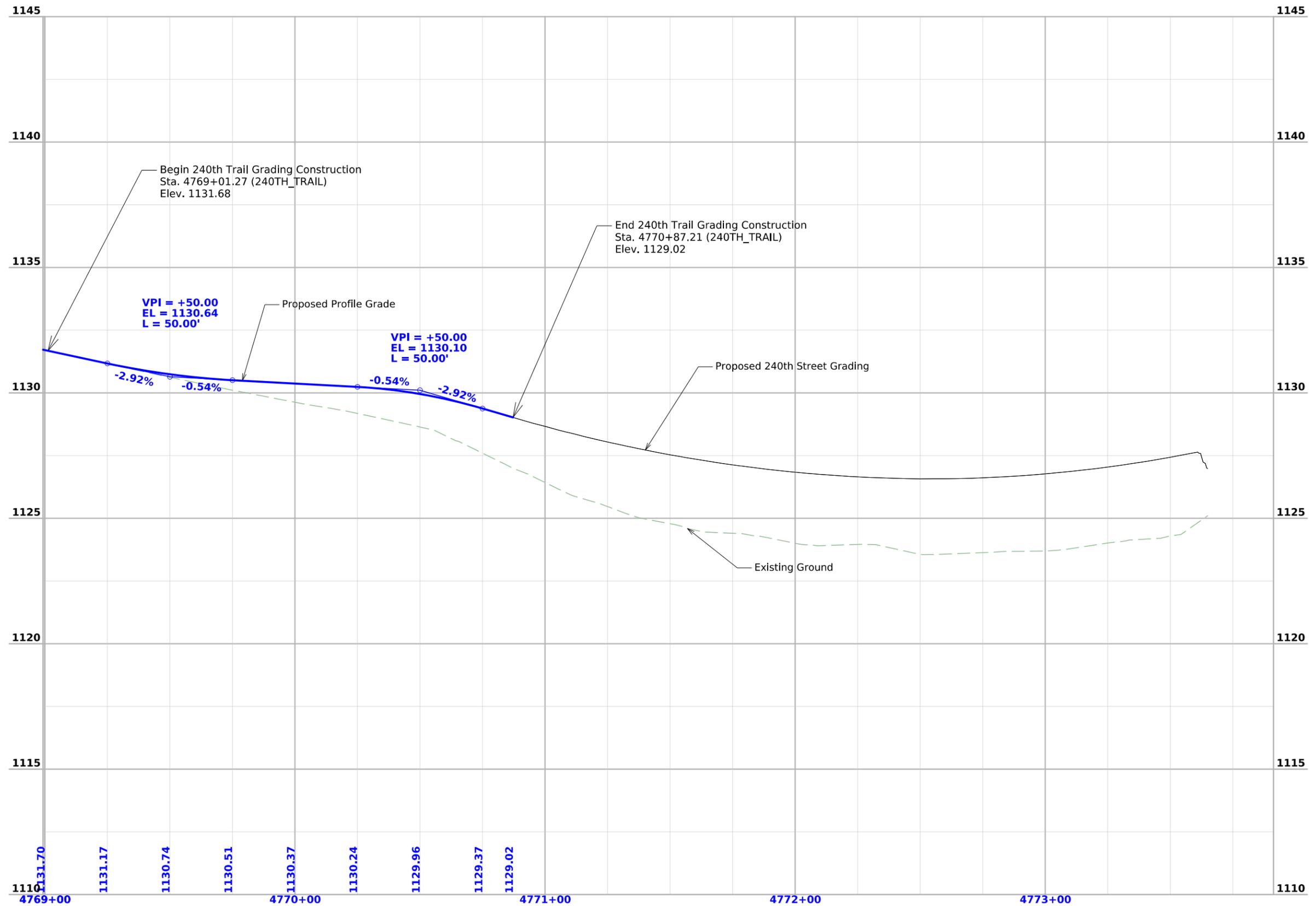
$\Delta = 11^\circ 14' 52.93''$ (RT)
T = 68.54'
L = 136.64'
R = 696.00'
E = 3.37'



36"x368'
R.C.P.
U.A.C.



240TH TRAIL



Survey Information

SURVEY INDEX

County: Mills
PIN: 24-65-706-010
Project Number: DHS-706-0(018)--7H-65
Location: Glenwood Resource Center
Type of Work: 1033-Unknown Pavement – Grade and New
Project Directory: 657060102

Survey Personnel

Jody Budde - PLS
Wes Shimp - PLS
Dave Overman - Party Chief
Katerina Wyatt - Party Chief
Jimmy Michael – Assistant Survey Party Chief
Jason Flaherty - Assistant Survey Party Chief
Ronaldo Rodriguez - Assistant Survey Party Chief

Date(s) of Survey

Begin Date 05/01/2024
End Date (Independence St) 05/31/2024
End Date (240th St) 06/17/2024

General Information

This survey is for approximately 1.8 miles of roadway (0.7 miles/Orchard Dr, 0.3 miles/240th St, 0.8 miles/U.S. Highway 34). This project is a Full 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 FENO101, FENO102, and FENO103, FENO104. 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 within 0.04' horizontally, and 0.04' vertically. RTN validation shots were within 0.05' horizontally, and 0.05' vertically. 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 6
(U.S. SURVEY FOOT)
VERTICAL DATUM: NAVD88
GEOID MODEL: 2018u3

Alignment Information

The horizontal alignment for Hwy 34 this survey is a retrace of As-built Plans No. F-34-1(23)--20-65. Survey stationing was equated to the plan TS at Sta. 683+85.50 and carried back and ahead without equation throughout the survey.

Survey stationing relates to as built plan stationing as follows:

TS Sta. 683+85.50 As-Built Plans Project No. F-34-1(23)--20-65
Survey TS 683+85.50

SC Sta. 685+35.50 As-Built Plans Project No. F-34-1(23)--20-65
Survey SC Sta. 685+35.50

CS Sta. 713+12.16 As-Built Plans Project No. F-34-1(23)--20-65
Survey CS Sta. 713+12.56

ST Sta. 714+62.16 As-Built Plans Project No. F-34-1(23)--20-65
Survey ST Sta. 714+62.56

PC Sta. 751+14.37 As-Built Plans Project No. F-34-1(23)--20-65
Survey PC Sta. 751+14.00

PT Sta. 763+09.37 As-Built Plans Project No. F-34-1(23)--20-65
Survey PT Sta. 763+09.00

POT Sta. 780+31.10 As-Built Plans Project No. F-34-1(23)--20-65
Survey POT Sta. 780+30.73

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

Point Name	Northing	Easting	Elevation	Code-Description
FENO101	6884299.86	16496715.07	1008.25	CP SET FENO 150 FT EAST OF LEVI RD IN SOUTH ROW OF HWY 35
FENO102	6885974.60	16499338.84	1117.72	CP SET FENO 100 FT EAST OF PARKING LOT AND LACEY ST ON SOUTH SIDE OF CAMP RD
FENO103	6886439.34	16501571.04	1141.45	CP SET FENO 50 FT SOUTH OF INDIAN HILL DR AND EAST OF 240TH ST
FENO104	6884664.75	16503171.65	1149.19	CP SET FENO 1650 FT EAST OF 240TH ST IN NORTH ROW OF HWY 35

ALIGNMENT COORDINATES

Name	Location	Point on Tangent			Begin Spiral			Begin Curve			Simple Curve PI or Master PI of SCS			End Curve			End Spiral		
		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates	
			Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)
SR240																			
1	SR240	375770.000 R1	6884580.82	16501881.38															
2	SR240							376150.049 R1	6884960.85	16501884.87	376320.199 R1	6885130.99	16501886.43	376483.304 R1	6885281.26	16501806.62			
4	SR240							376889.940 R1	6885640.39	16501615.89	377060.434 R1	6885790.97	16501535.92	377223.841 R1	6885961.45	16501537.65			
5	SR240	377500.000 R1	6886237.60	16501540.45															
SRORCHARD																			
1	SROrchard	270500.000 R1	6884449.52	16496619.94															
2	SROrchard							270628.518 R1	6884575.86	16496643.49	270928.675 R1	6884870.93	16496698.49	271224.385 R1	6885136.86	16496837.69			
4	SROrchard							271488.021 R1	6885370.44	16496959.95	271946.530 R1	6885776.66	16497172.59	272316.090 R1	6885785.87	16497631.01			
6	SROrchard							273686.772 R1	6885813.41	16499001.41	273948.626 R1	6885818.67	16499263.21	274097.026 R1	6886080.43	16499256.09			
7	SROrchard	274200.047 R1	6886183.41	16499253.29															
SRMLA034																			
1	SURMLA034				68385.500 R1	6885377.59	16494749.69												
2	SURMLA034							68535.500 R1	6885279.63	16494863.27	68485.502 R1	6885311.78	16494824.99						
3	SURMLA034				71312.560 R1	6884386.38	16497428.50				69988.608 R1	6884345.07	16495975.98	71312.560 R1	6884386.38	16497428.50			
5	SURMLA034							75113.995 R1	6884568.06	16501225.59	71362.562 R1	6884387.80	16497478.49						
6	SURMLA034	78030.725 R1	6884466.46	16504139.05							75712.037 R1	6884596.80	16501822.94	76308.995 R1	6884563.20	16502420.04			
ENTL3769																			
1	ENTL3769	+00.00	6885662.96	16501604.44															
1	ENTL3769	+76.87	6885629.49	16501535.24															
240TH_TRAI																			
1	240TH_TRAIL	476899.270 R1	6885638.64	16501535.30															
2	240TH_TRAIL							476953.136 R1	6885692.50	16501535.65	477020.379 R1	6885759.75	16501536.09	477087.205 R1	6885825.83	16501523.64			
3	240TH_TRAIL							477087.205 R1	6885825.83	16501523.64	477155.743 R1	6885893.18	16501510.95	477223.841 R1	6885961.72	16501511.65			
4	240TH_TRAIL	477365.000 R1	6886102.87	16501513.08															
Orch_RET_1																			
1	Orch_RET_1							10+00.000 R1	6884535.62	16496485.08	10+10.039 R1	6884533.39	16496494.86	10+20.077 R1	6884531.21	16496504.66			
2	Orch_RET_1							10+20.077 R1	6884531.21	16496504.66	10+67.195 R1	6884521.01	16496550.66	11+11.384 R1	6884538.93	16496594.24			
3	Orch_RET_1							11+11.384 R1	6884538.93	16496594.24	11+40.751 R1	6884550.11	16496621.39	11+65.178 R1	6884578.98	16496626.78			
Orch_RET_2																			
1	Orch_RET_2							20+00.000 R1	6884504.40	16496718.44	20+05.000 R1	6884505.20	16496713.51	20+10.000 R1	6884506.02	16496708.57			
2	Orch_RET_2							20+10.000 R1	6884506.02	16496708.57	20+38.618 R1	6884510.69	16496680.34	20+60.746 R1	6884538.39	16496673.16			
3	Orch_RET_2							20+60.746 R1	6884538.39	16496673.16	21+06.826 R1	6884582.99	16496661.59	21+51.229 R1	6884628.03	16496671.32			
240th_RET																			
1	240th_RET_1							30+00.000 R1	6884633.72	16501660.85	30+47.970 R1	6884634.20	16501708.82	30+95.940 R1	6884634.28	16501756.79			
2	240th_RET_1							30+95.940 R1	6884634.28	16501756.79	31+40.575 R1	6884634.36	16501801.43	31+83.772 R1	6884653.40	16501841.79			
3	240th_RET_1							31+83.772 R1	6884653.40	16501841.79	32+15.146 R1	6884666.79	16501870.17	32+39.810 R1	6884698.16	16501870.46			
240th_RET																			
1	240th_RET_2							40+00.000 R1	6884661.81	16501954.66	40+29.985 R1	6884663.92	16501924.75	40+54.020 R1	6884691.30	16501912.53			
2	240th_RET_2							40+54.020 R1	6884691.30	16501912.53	40+97.598 R1	6884731.09	16501894.76	41+39.835 R1	6884774.67	16501895.16			
US34_RET_1																			
1	US34_RET_1							50+00.000 R1	6884562.21	16501820.40	50+19.965 R1	6884562.13	16501840.37	50+38.547 R1	6884574.04	16501856.40			
2	US34_RET_1							50+38.547 R1	6884574.04	16501856.40	50+98.443 R1	6884609.74	16501904.49	50+88.488 R1	6884610.09	16501844.60			
US34_RET_2																			
1	US34_RET_2							60+00.000 R1	6884560.96	16501950.92	60+18.403 R1	6884565.78	16501933.16	60+36.780 R1	6884572.22	16501915.92			
2	US34_RET_2							60+36.780 R1	6884572.22	16501915.92	60+47.558 R1	6884575.98	16501905.82	60+53.236 R1	6884585.77	16501910.33			
3	US34_RET_2							60+53.236 R1	6884585.77	16501910.33	60+79.267 R1	6884609.41	16501921.23	60+99.390 R1	6884609.02	16501947.26			

SPIRAL OR CIRCULAR CURVE DATA

Name	Location	ΔSCS	Horizontal Alignment Data												Remarks		
			Spiral Data						Curve Data								
			θS	Ls	Ts	Es	Xc	Yc	L.T.	S.T.	ΔC	T	L	R		E	
SR240																	
C1	SR240																
C2	SR240																
SRORCHARD																	
C1	SROrchard																
C2	SROrchard																
C3	SROrchard																
SURMLA034																	
C1	SURMLA034	43.906°	1.125°	150.000	1614.717	298.880	149.994	0.982	100.002	50.002	41.656°	1453.108	2777.060	3819.720	267.061		
C2	SURMLA034										5.975°	598.042	1195.000	11459.160	15.595		
240TH TRAIL																	
C1	240TH TRAIL										11.037	67.243	134.069	696.000	3.241		
C2	240TH TRAIL										11.248	68.538	136.635	696.000	3.366		
Orch_RET_1																	
C1	Orch_RET_1										0.306	10.039	20.077	3762.723	0.013		
C3	Orch_RET_1										34.877	47.117	91.307	150.000	7.226		
C3	Orch_RET_1										57.077	29.367	53.794	54.000	7.469		
Orch_RET_2																	
C1	Orch_RET_2										0.153	5.000	10.000	3748.718	0.003		
C3	Orch_RET_2										66.080	28.618	50.746	44.000	8.488		
C3	Orch_RET_2										26.723	46.080	90.483	194.000	5.397		
240th_RET_1																	
C1	240th_RET_1										0.477	47.970	95.940	11512.160	0.100		
C2	240th_RET_1										25.162	44.636	87.832	200.000	4.920		
C3	240th_RET_1										64.215	31.374	56.039	50.000	9.028		
240th_RET_2																	
C1	240th_RET_2										61.902	29.985	54.020	50.000	8.302		
C2	240th_RET_2										24.584	43.578	85.816	200.000	4.693		
US34_RET_1																	
C1	US34_RET_1										36.810	19.965	38.547	60.000	3.235		
C2	US34_RET_1										143.070	59.896	49.941	20.000	43.147		
US34_RET_2																	
C1	US34_RET_2										5.268	18.403	36.780	400.000	0.423		
C3	US34_RET_2										94.288	10.778	16.456	10.000	4.703		
C3	US34_RET_2										66.110	26.031	46.154	40.000	7.724		

108-23A
08-01-08

TRAFFIC CONTROL PLAN

Refer to Staging Notes for Traffic Control Plan details.

1. Traffic shall be maintained on US 34 at all times.
2. Contractor shall not encroach into BNSF Railroad Right of Way.
3. Contractor shall not disturb Archeological Avoidance Areas.
4. Contractor shall not utilize Glenwood Resource Center Campus for site access or haul routes. Contractor shall coordinate closure of 240th St. and Orchard Dr. with Glenwood Resource Center.
5. Contractor to maintain access to Levi Rd at all times.

108-26A
08-01-08

STAGING NOTES

It is not the intent to confine the Contractor's activities to the areas of suggested stages alone. It is understood that some of the various steps may occur simultaneously. The Contractor may conduct several operations concurrently, provided that traffic is maintained and that these operations do not conflict with staging indicated herein.

Stage 1A

Summary: Construct Orchard Road and 240th Street.
Traffic: Maintain traffic on US 34 utilizing Standard Road Plan TC-402. Install Safety Closures at both Orchard Dr. and 240th St. Close 240th Street gate from Glenwood Resource Center.

Stage 1B

Summary: Construct US 34 Widening on north side of US 34 Westbound.
Traffic: Maintain traffic on US 34 utilizing Standard Road Plan TC-418 and TC-402.

Stage 2

Summary: Construct US 34 Widening in median.
Traffic: Maintain traffic on US 34 utilizing Standard Road Plan TC-418 and TC-402. Maintain full access of US 34 to and from Levi Road.

108-25
10-21-14

511 TRAVEL RESTRICTIONS

Route	Direction	County	Location Description	Feature Crossed	Object Type	Maint. Bridge No., Structure ID, or FHWA No.	Type of Restriction	Existing Measurement	Construction Measurement	Construction Measurement as Signed	Projected As Built Measurement	Remarks
			NONE ANTICIPATED									

111-01
04-17-12

COORDINATED OPERATIONS

Other work in progress during the same period of time will include the construction of the projects listed. Coordinate operations with those of other contractors working within the same area.

Project	Type of Work
NONE PROVIDED	

**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

LINWORK	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	(6)	Proposed Granular Surface Shading
Gray, Med	(80)	Previously Constructed Granular Surface Shading
Blue, Light	(230)	Proposed Pavement Shading
Pink, Dark	(13)	Temporary Pavement Shading
Brown, Light	(236)	Proposed Grading Limits Shading
Cyan	(7)	Proposed MSE or CIP Wall Shading
Red	(3)	Proposed Bridge Shading and Sign Trusses
Black w/Gray, Light Fill	(0,48)	Previously Constructed Structure

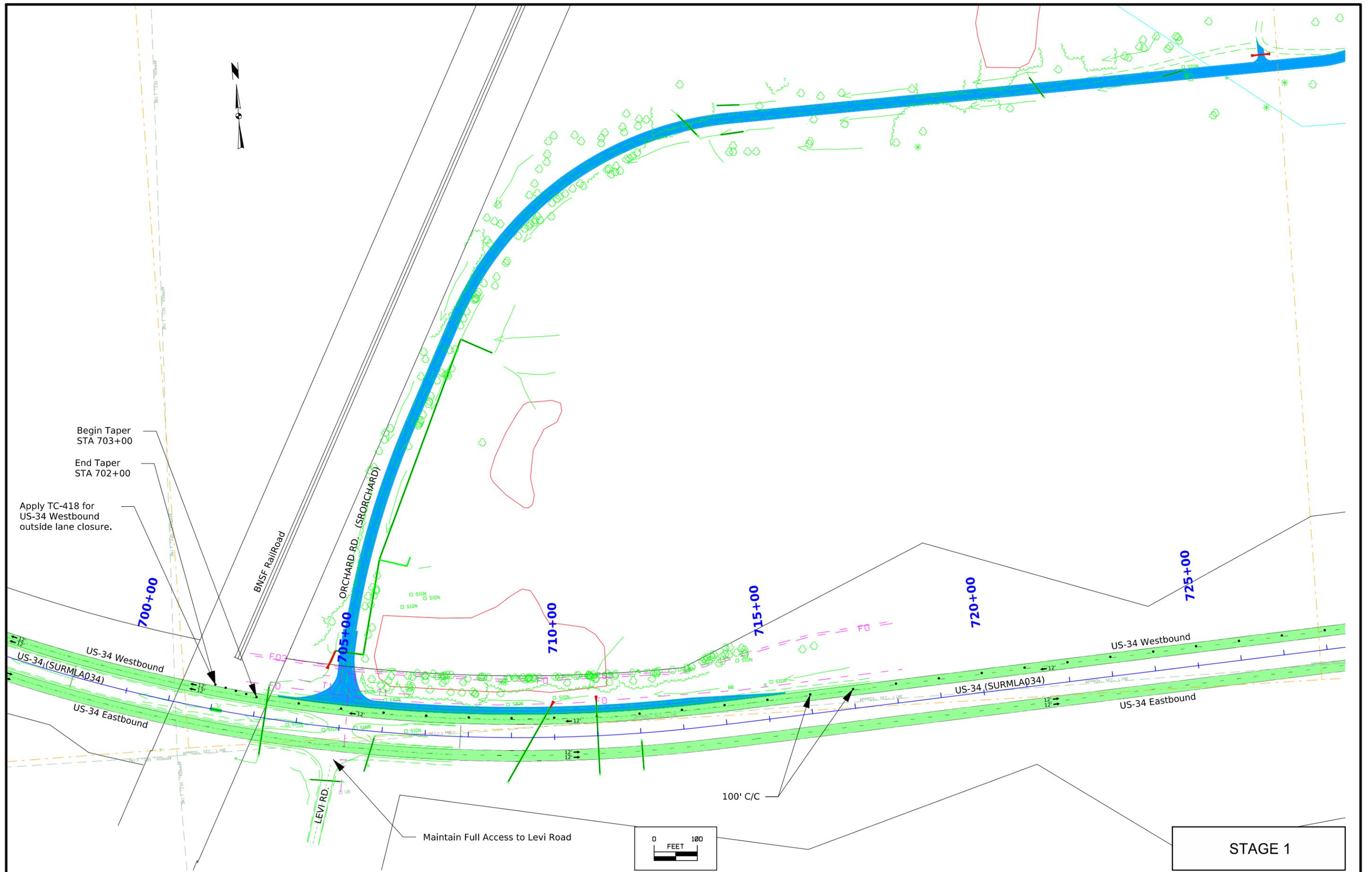
**PLAN VIEW PATTERN AND SYMBOL LEGEND
OF TRAFFIC CONTROL AND STAGING SHEETS**

	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)



Begin Taper
STA 703+00

End Taper
STA 702+00

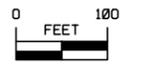
Apply TC-418 for
US-34 Westbound
outside lane closure.

BNSF Rail/Road

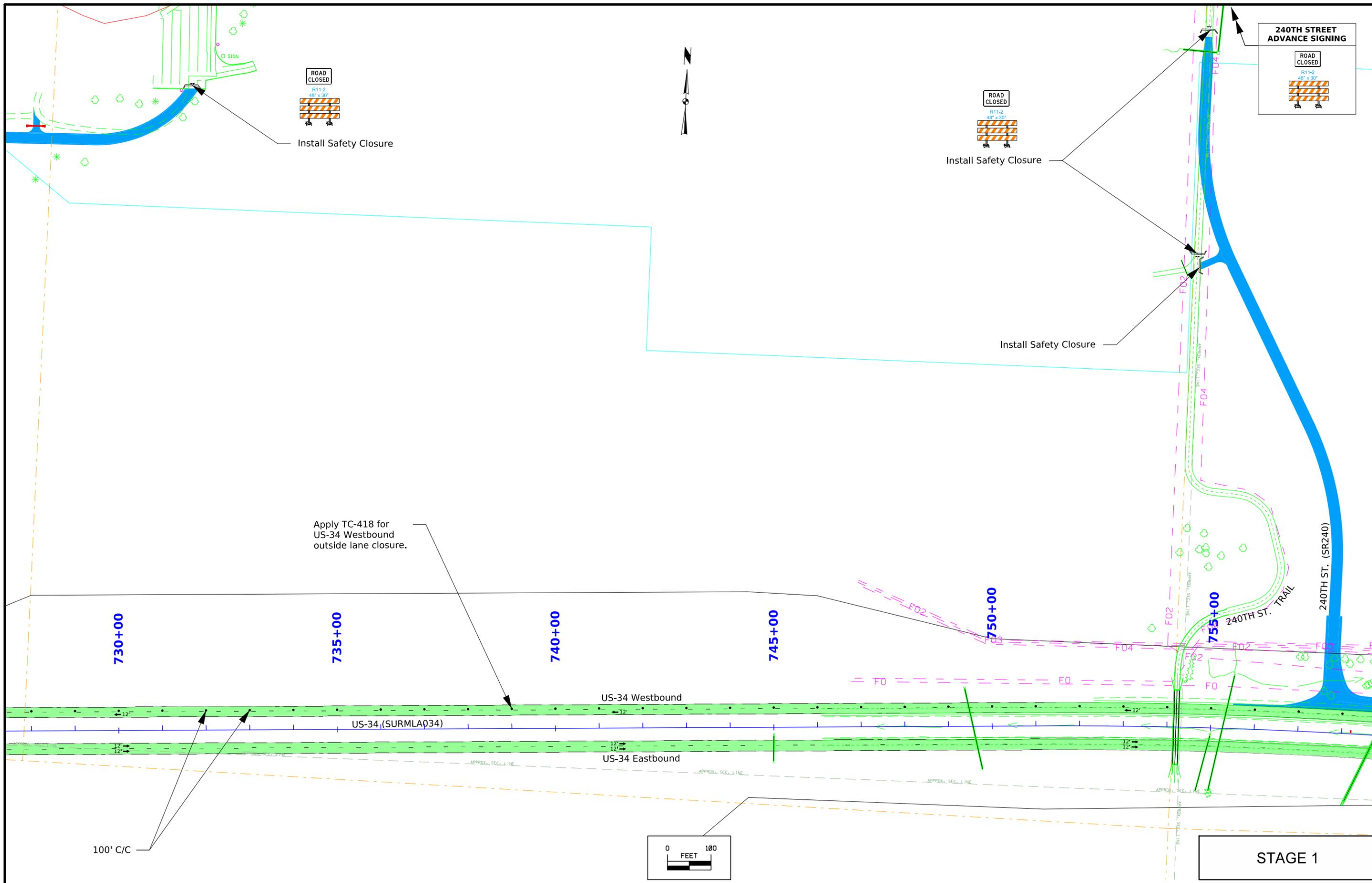
ORCHARD RD. (SR ORCHARD)

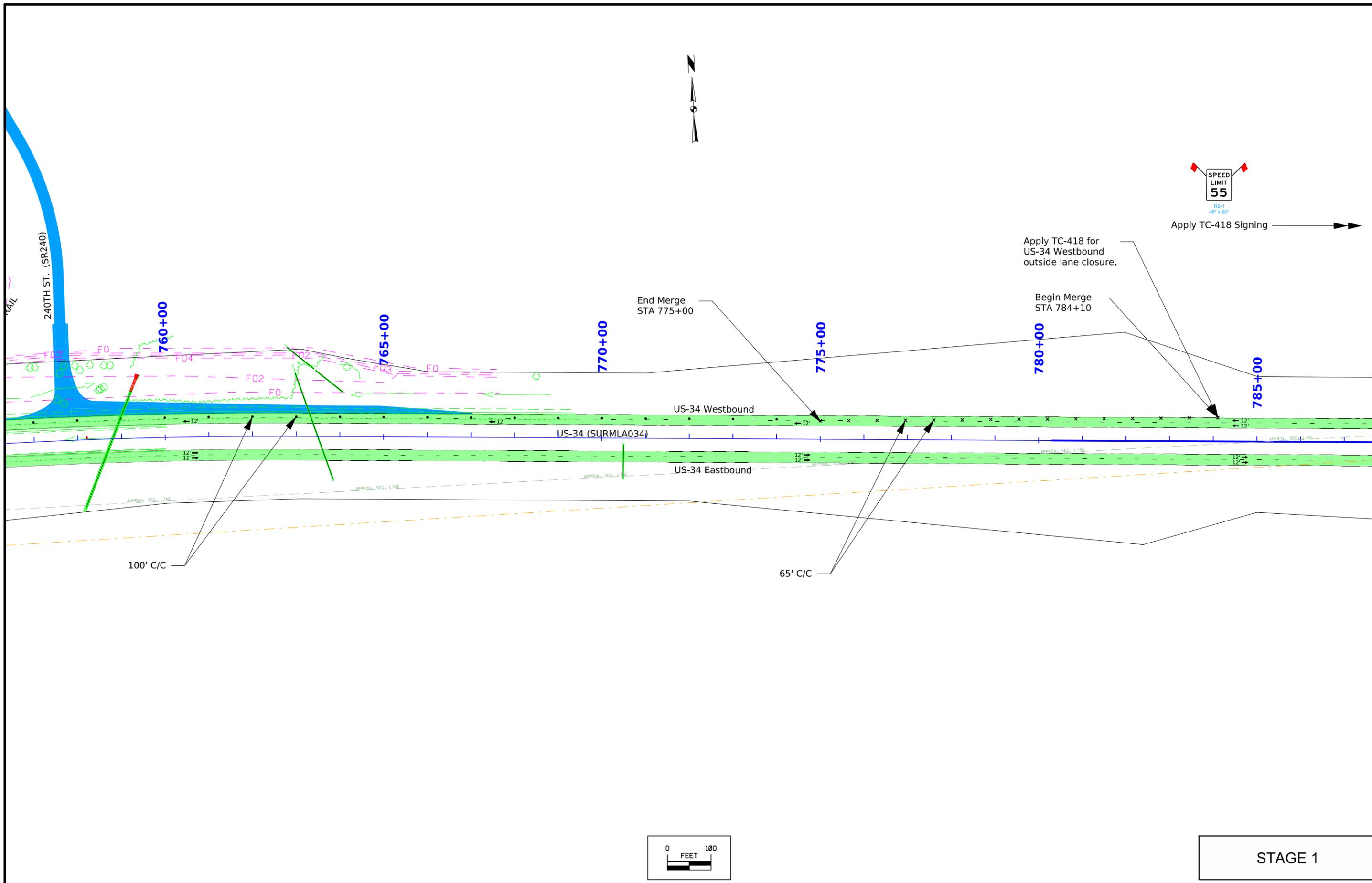
LEVI RD.

Maintain Full Access to Levi Road



STAGE 1







Apply TC-418 Signing

Begin Merge
STA 662+60

660+00

665+00

670+00

675+00

680+00

685+00

690+00

RAMP C

US-34 Westbound

LOOP G

US-34 (SURMLA034)

US-34 Eastbound

RAMP B

LOOP F

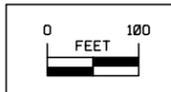
65' C/C

Existing Ramp Merge

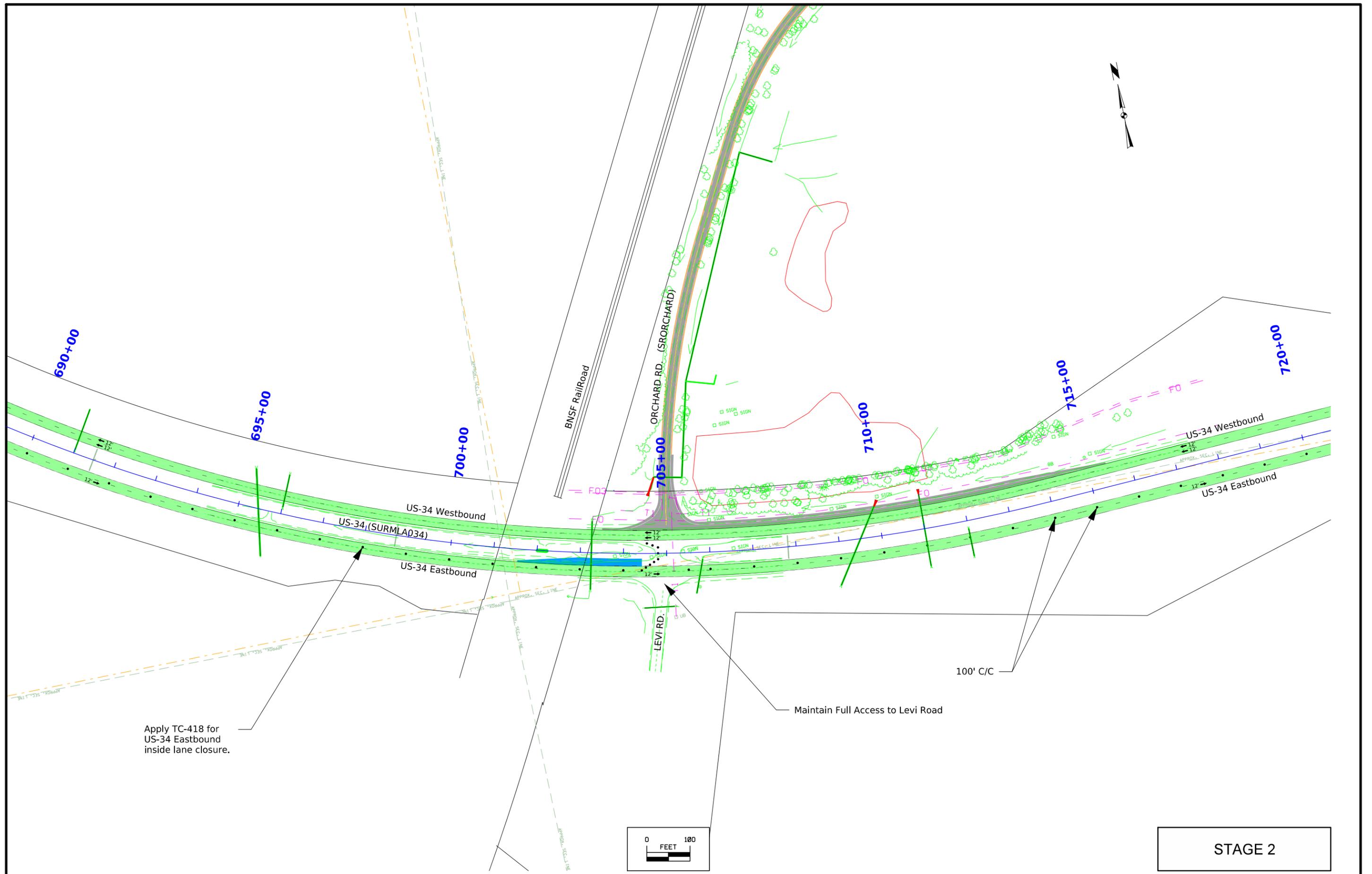
Apply TC-418 for
US-34 Eastbound
inside lane closure.

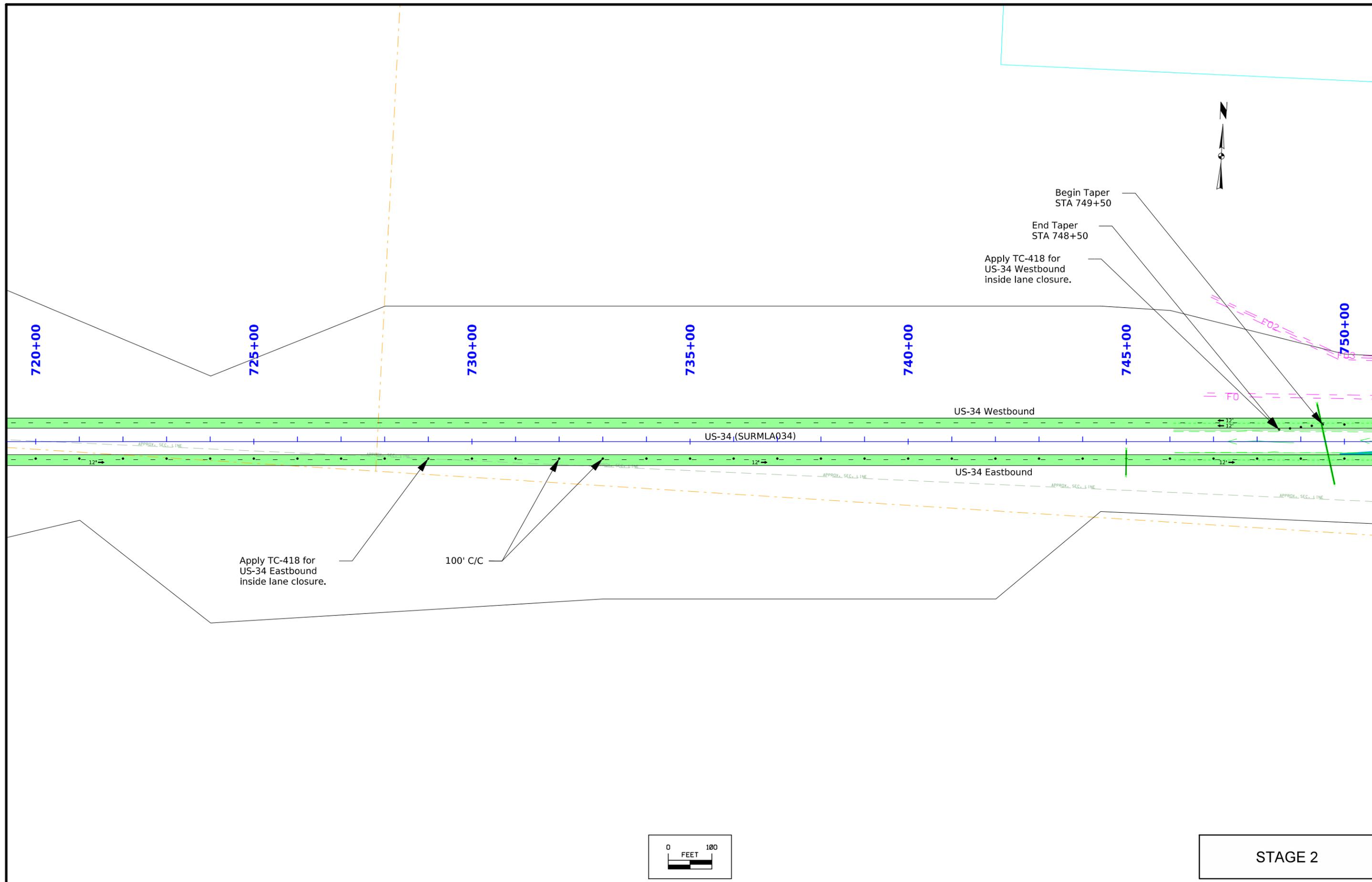
End Merge
STA 671+70

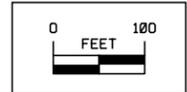
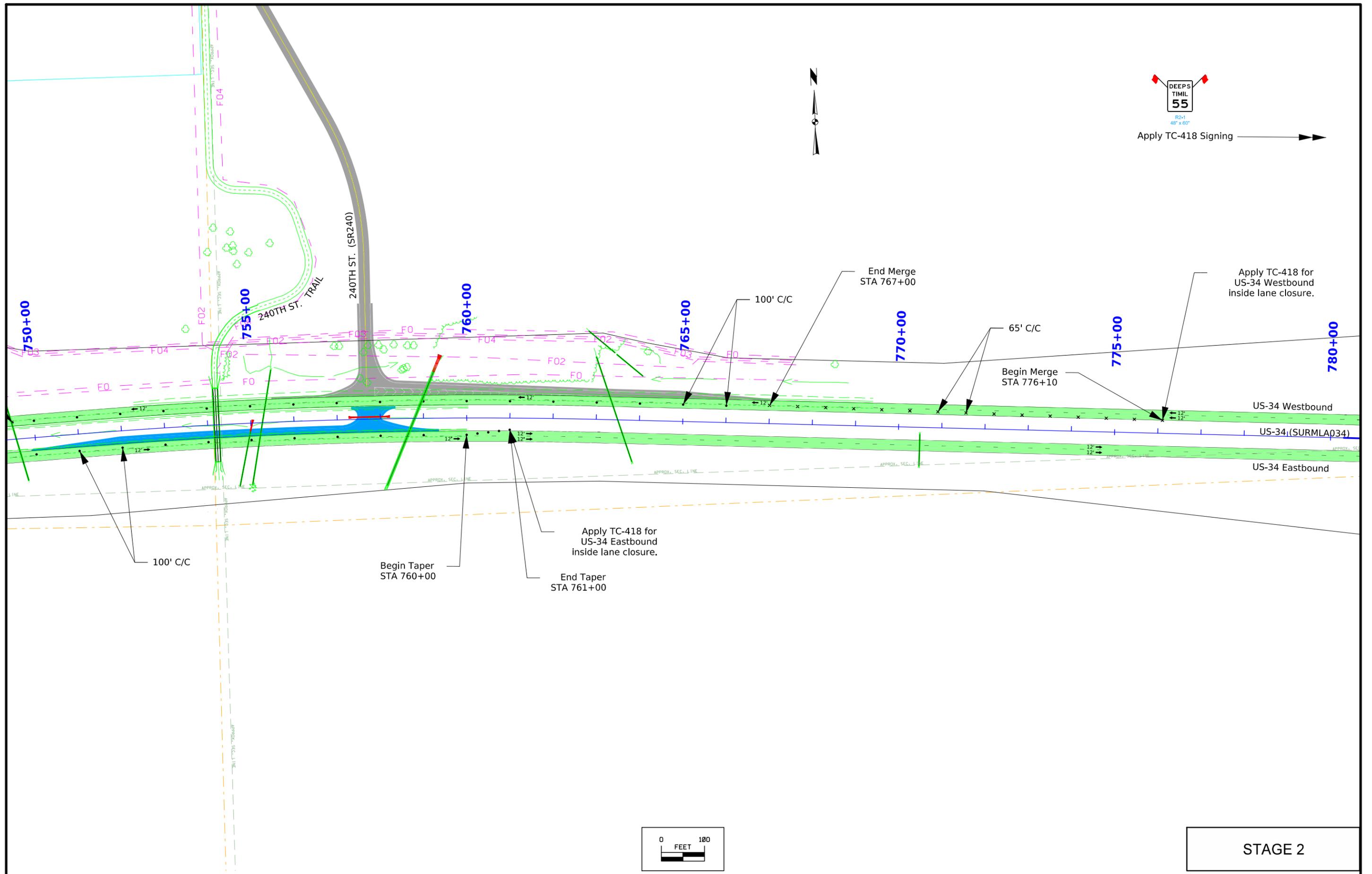
100' C/C



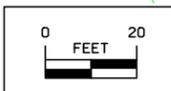
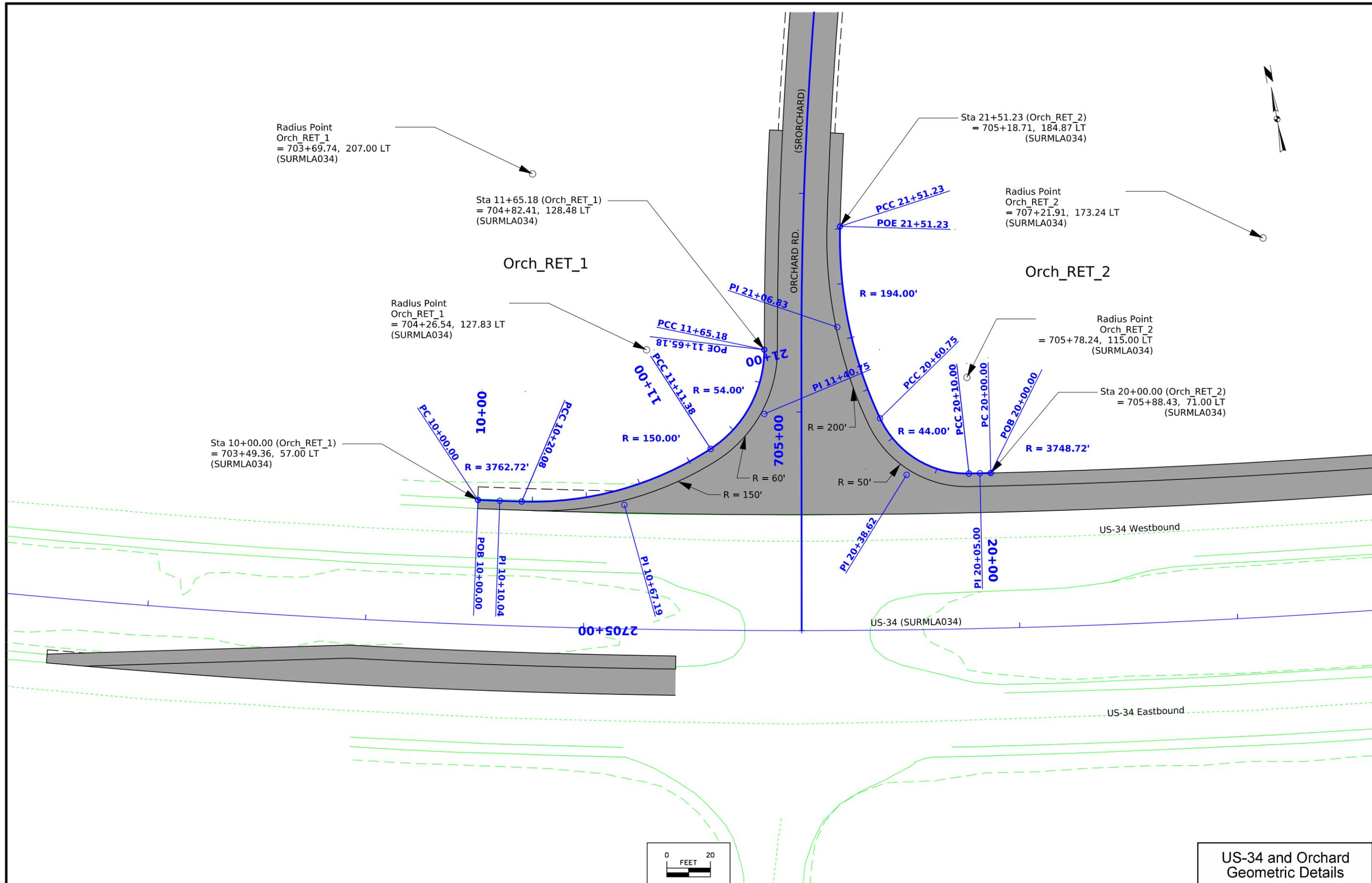
STAGE 2



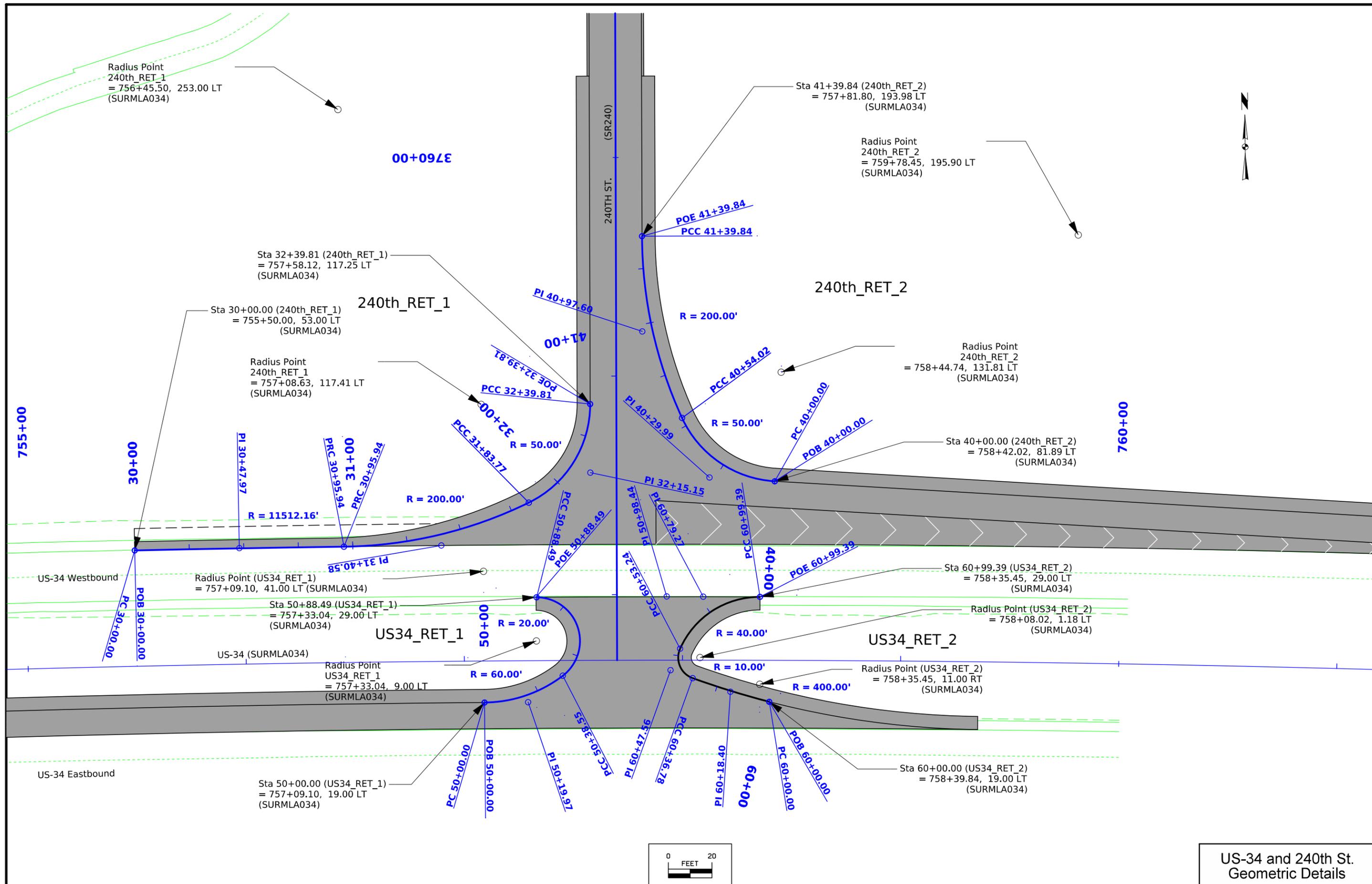




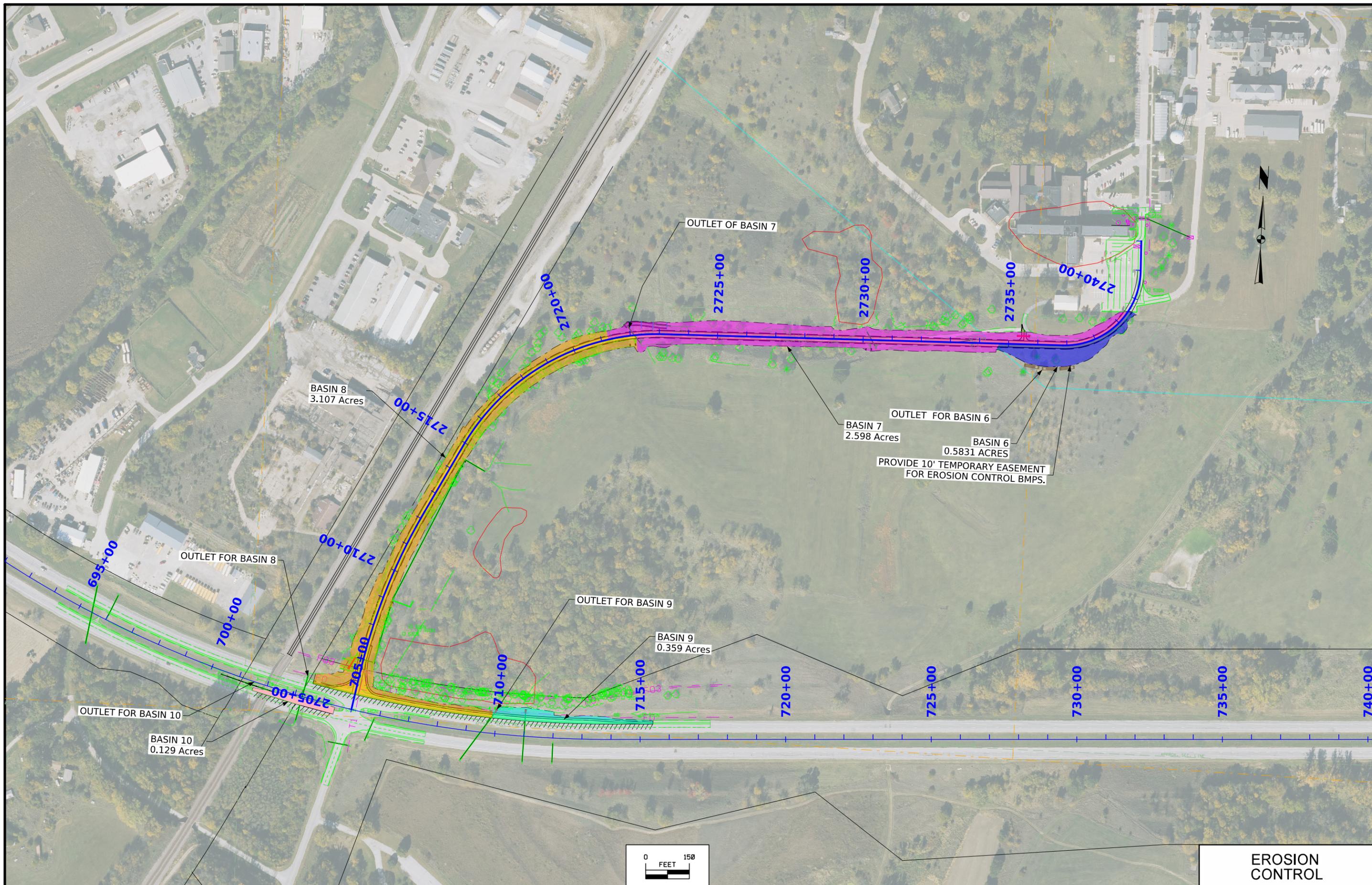
STAGE 2



**US-34 and Orchard
Geometric Details**

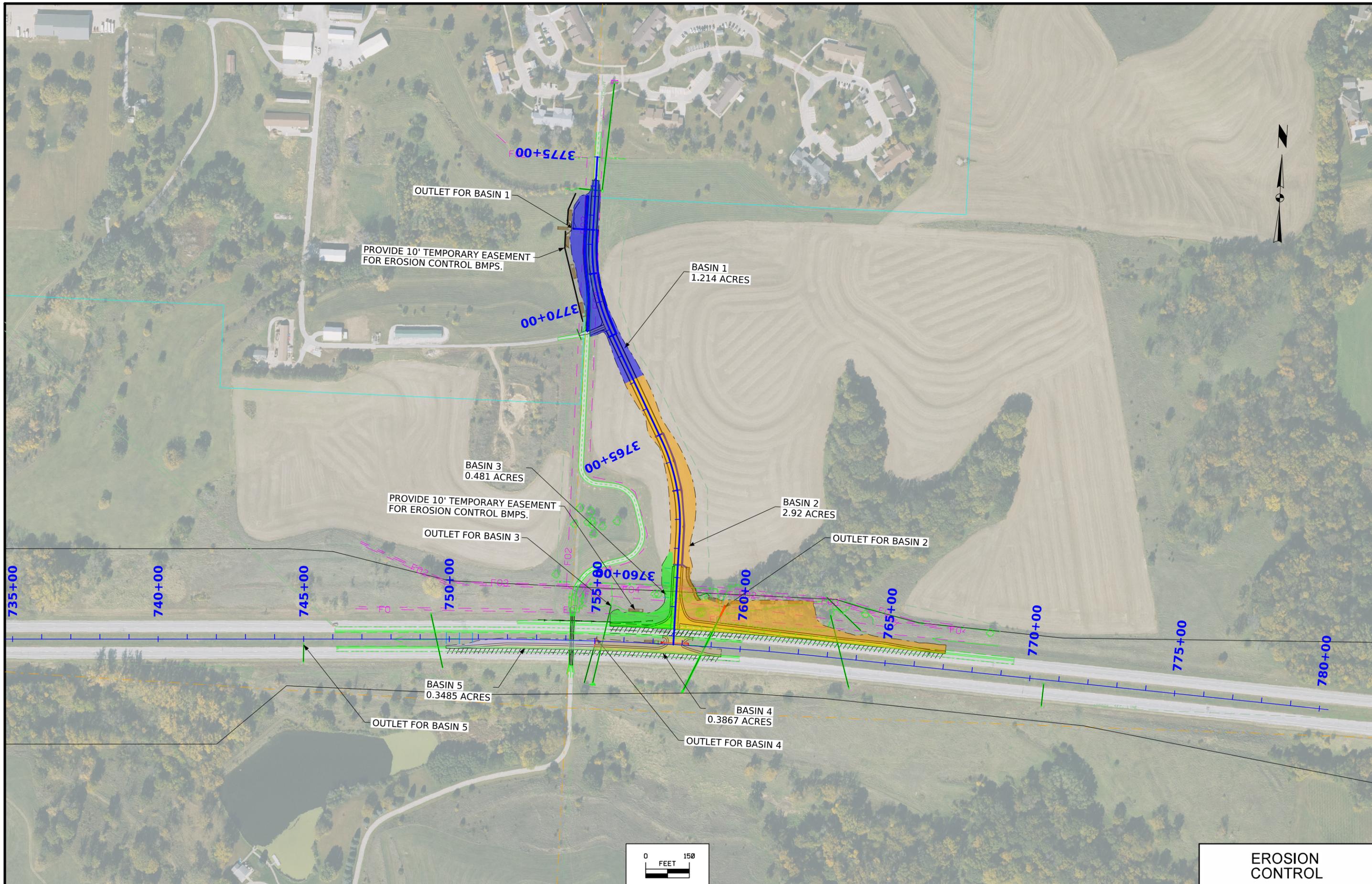


US-34 and 240th St.
Geometric Details



EROSION CONTROL

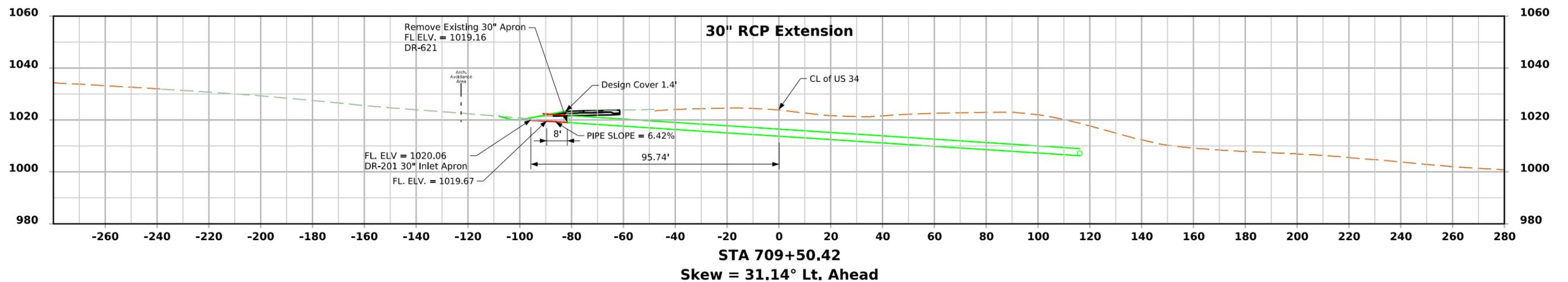
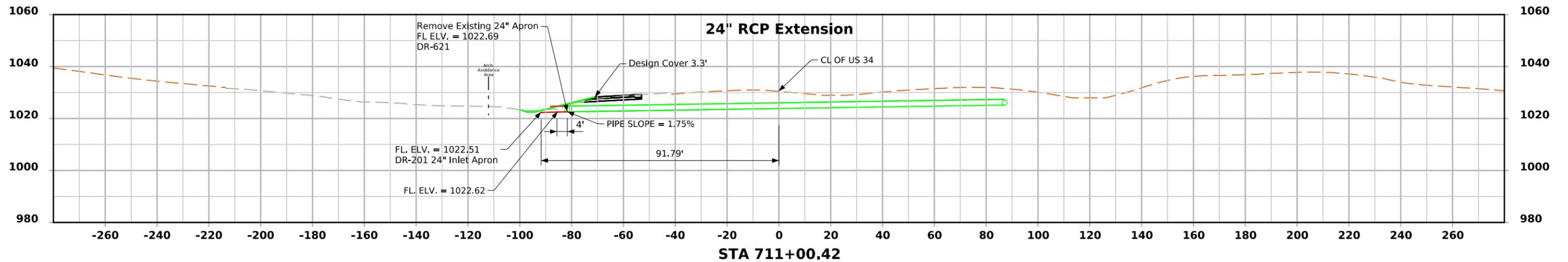
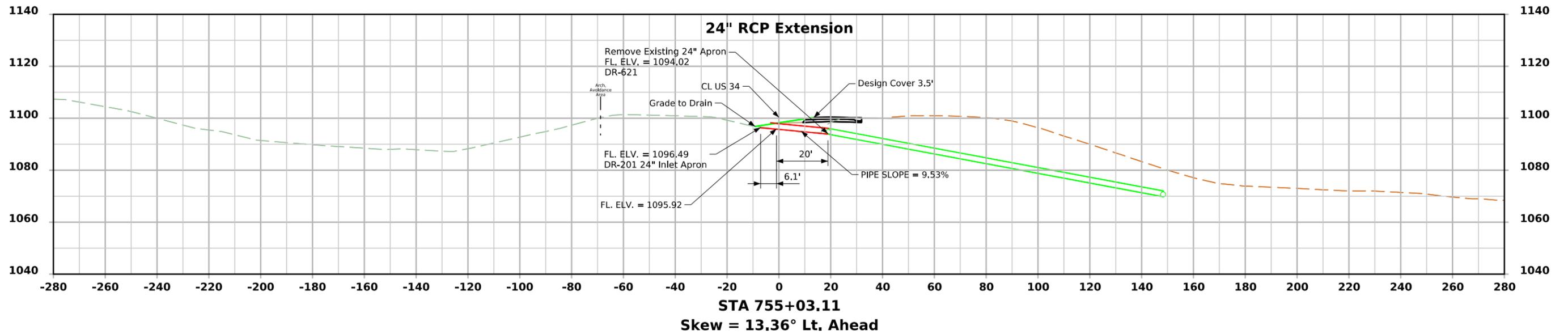
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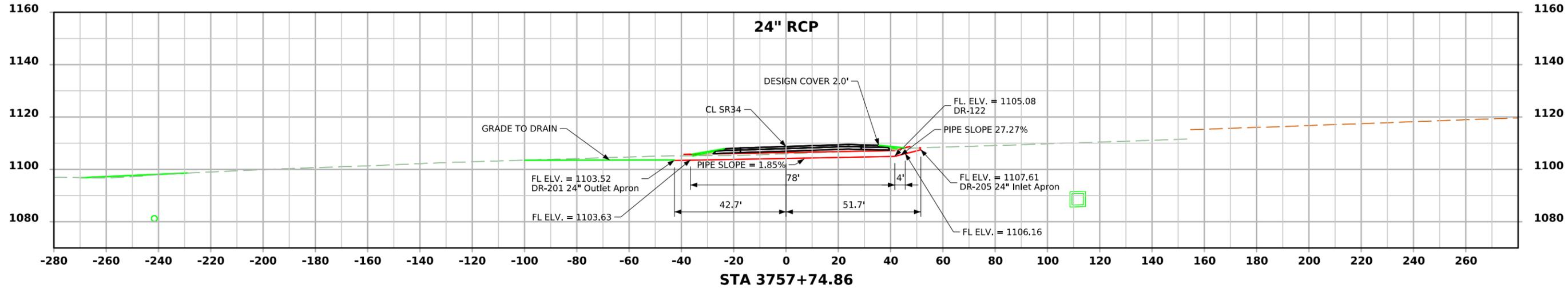
EROSION CONTROL

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT \ HDR	Mills COUNTY	PROJECT NUMBER DHS-706-0(018)--7H-65	SHEET NUMBER RR.2
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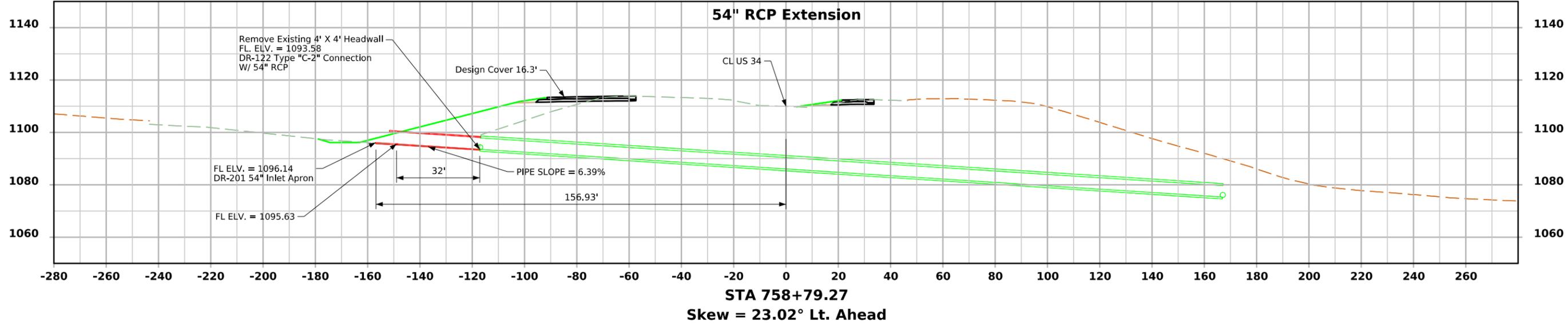
PRELIMINARY US-34 Culverts



PRELIMINARY SR240 Culvert



PRELIMINARY US-34 Culvert



CROSS SECTION VIEW COLOR LEGEND

Design Color No.	Feature	Design Color No.	Feature
Aggregate			
(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			
(207)	HMA Base Course	(6)	Loam
(207)	HMA Interim Course	(211)	Loam Removed
(207)	HMA Surface Course	(80)	Rock
Bridge			
(0)	Bridge	(212)	Rock Removed
Concrete			
(0)	Barrier Concrete	(4)	Select Sand
(0)	Barrier Concrete Footing	(214)	Select Sand Removed
(0)	Curb Gutter	(3)	Shale
(48)	Flowable Mortar	(215)	Shale Removed
(0)	Median Concrete	(10)	Topsoil
(0)	PCC Pavement	(2)	Topsoil Remove Only
(0)	Sidewalk	(4)	Topsoil Remove and Replace
Existing			
(0)	Existing Pavement	Unsuitable / Waste	
Shoulder			
(209)	Shoulder HMA	(3)	Unsuitable Type A
(0)	Shoulder PCC	(216)	Unsuitable Type A Removed
(6)	Shoulder Granular	(13)	Unsuitable Type B
Structural			
(112)	Noise Wall	(217)	Unsuitable Type B Removed
(112)	Noise Wall Footing	(11)	Unsuitable Type C
(112)	Retaining Wall Back	(218)	Unsuitable Type C Removed
(112)	Retaining Wall Back Excavate	(3)	Waste
(112)	Retaining Wall Face	(219)	Waste Removed
(112)	Retaining Wall Front Excavate	Proposed Culvert	
(112)	Retaining Wall Front Footing	Existing Culvert	
(112)	Retaining Wall MSE Gutter	Proposed Storm Sewer / Intakes	
(112)	Retaining Wall Reinforced Earth		

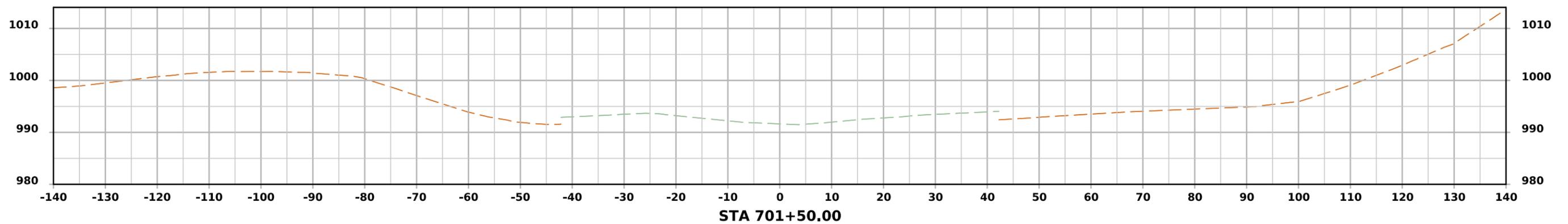
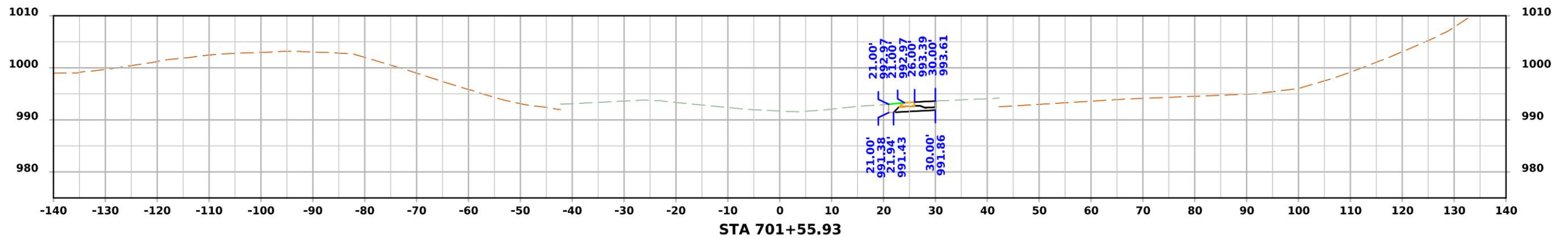
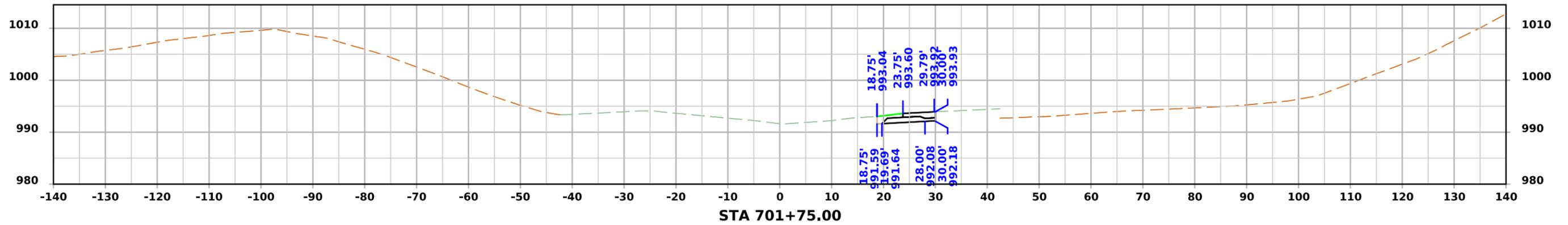
NOTES:

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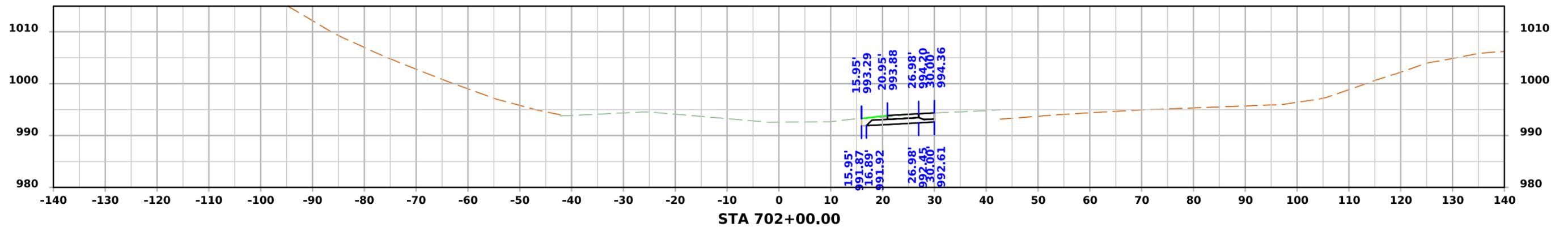
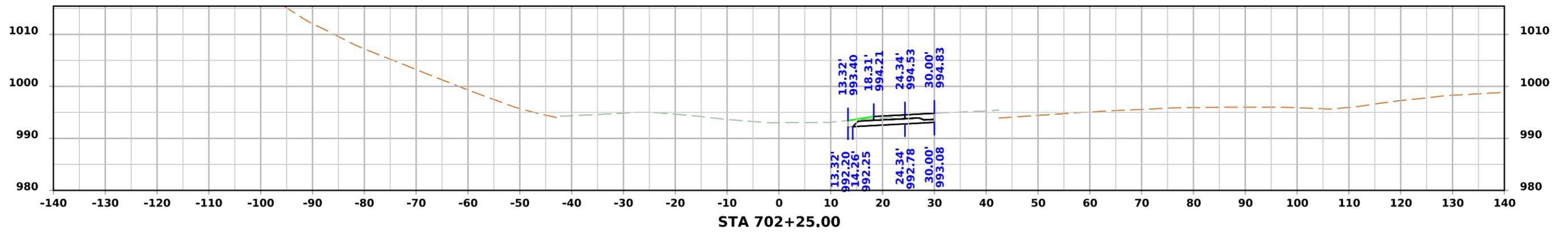
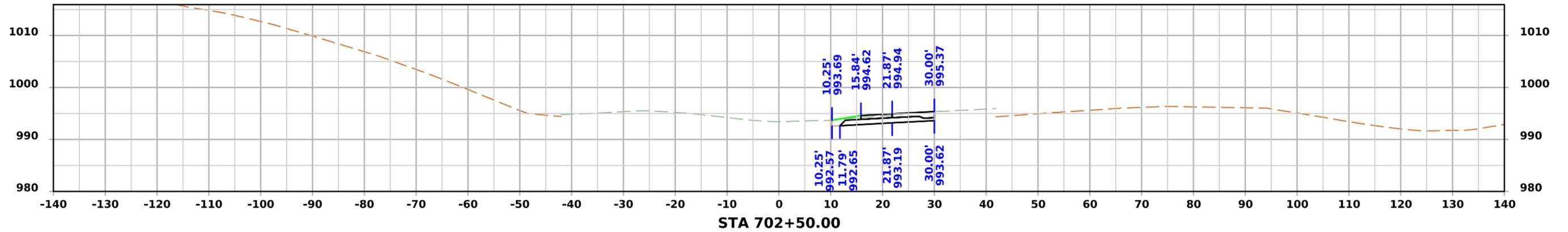
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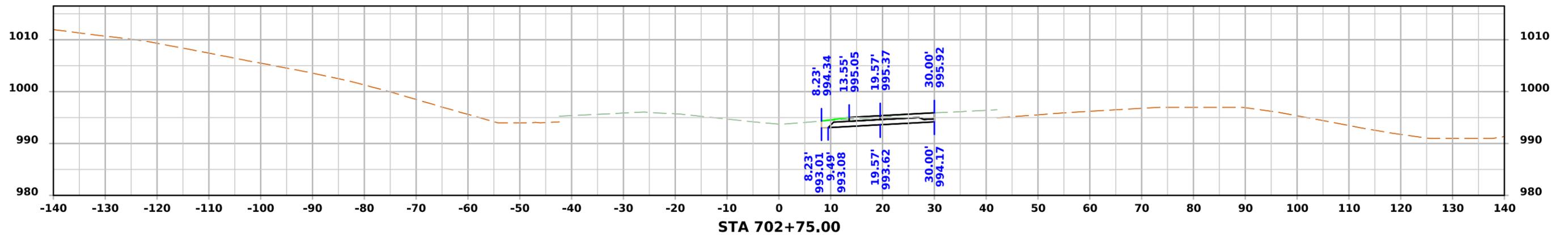
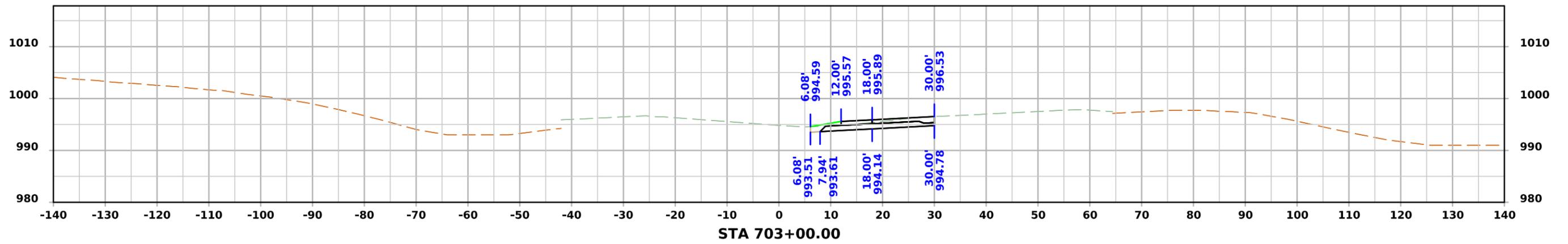
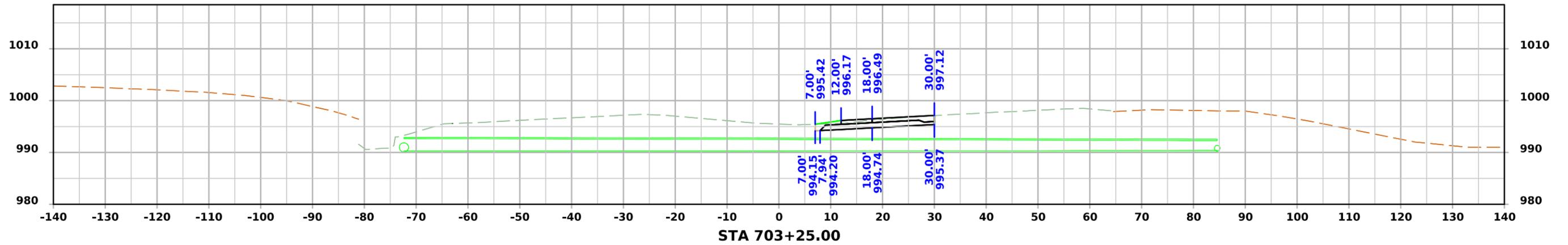
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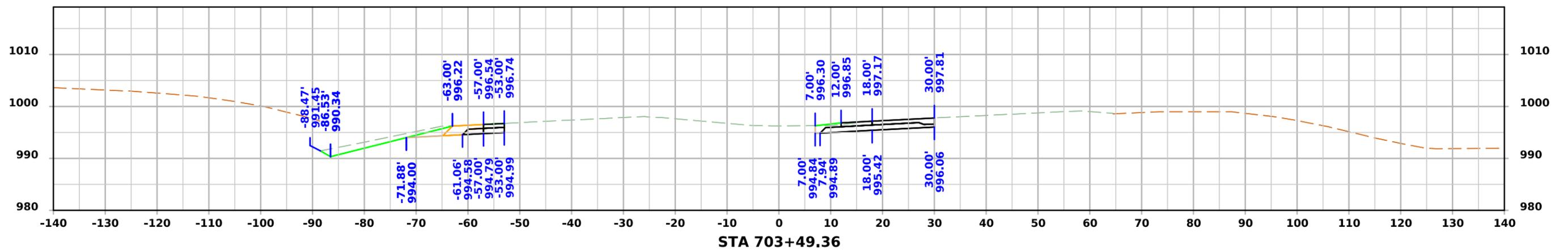
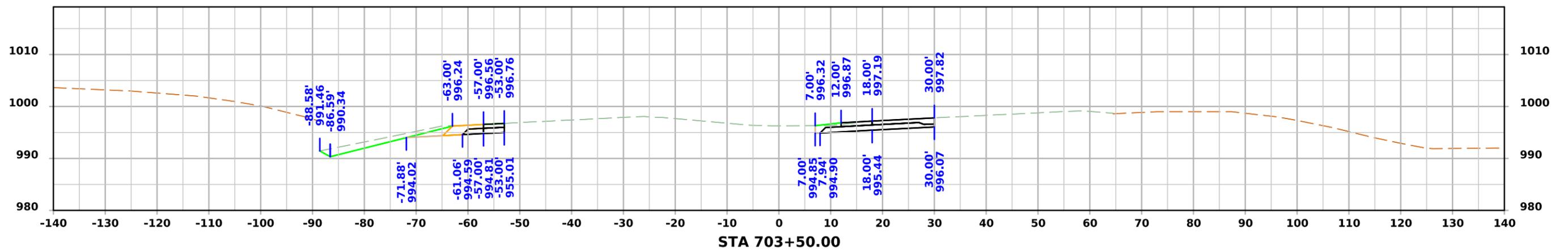
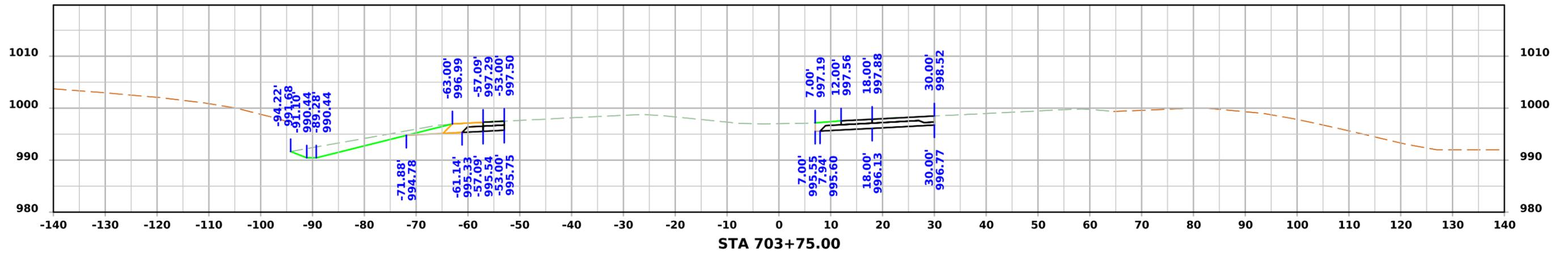
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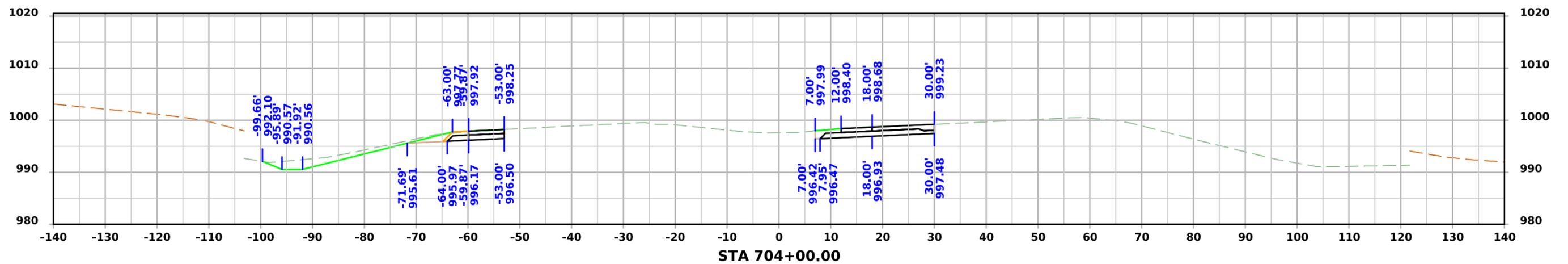
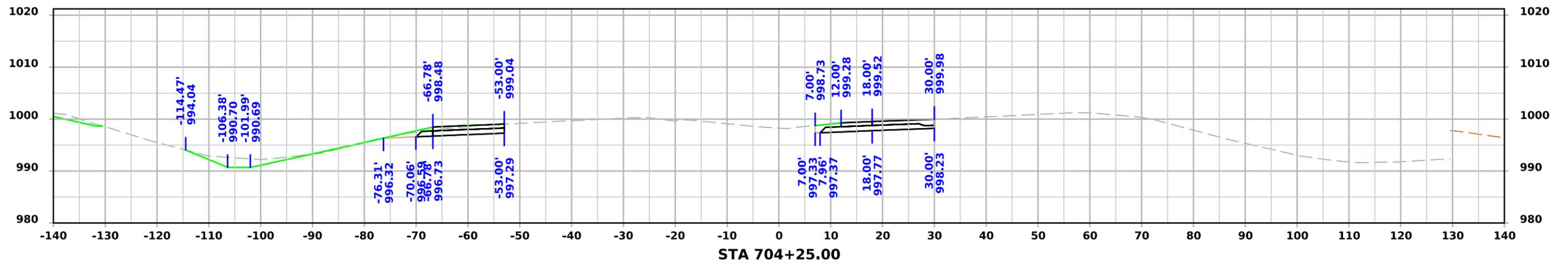
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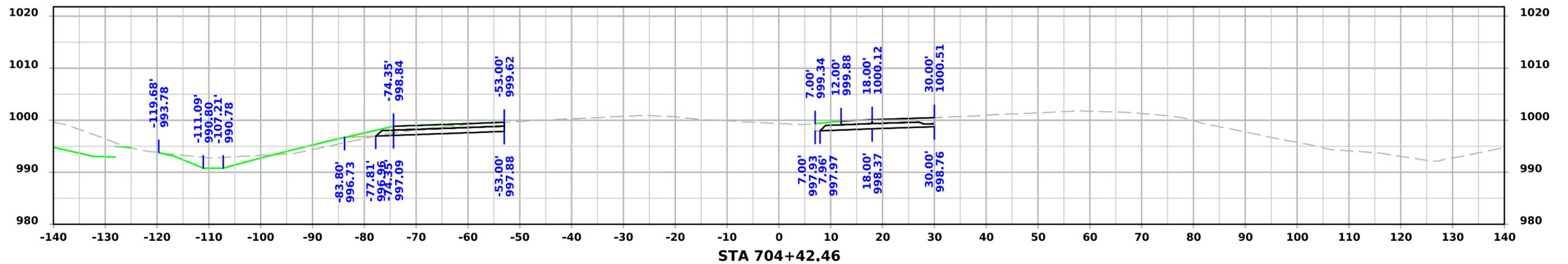
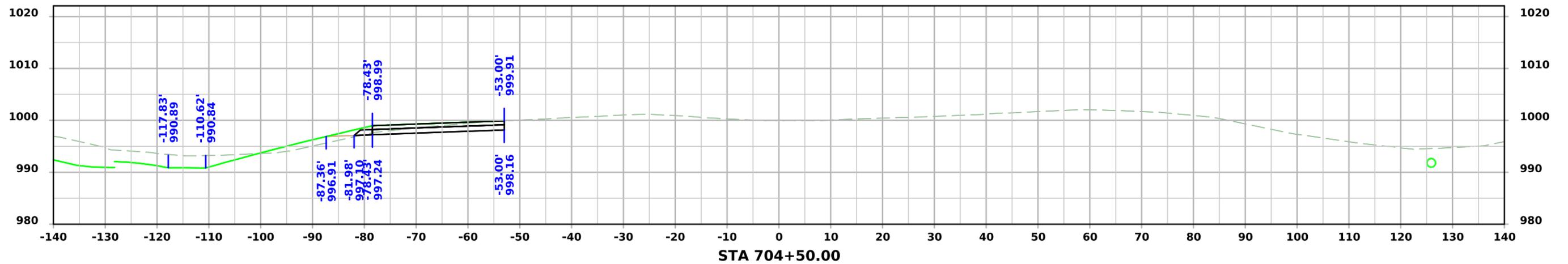
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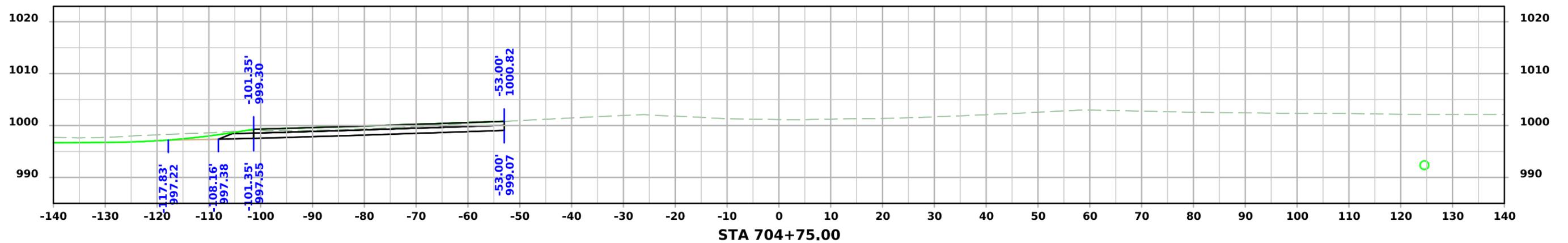
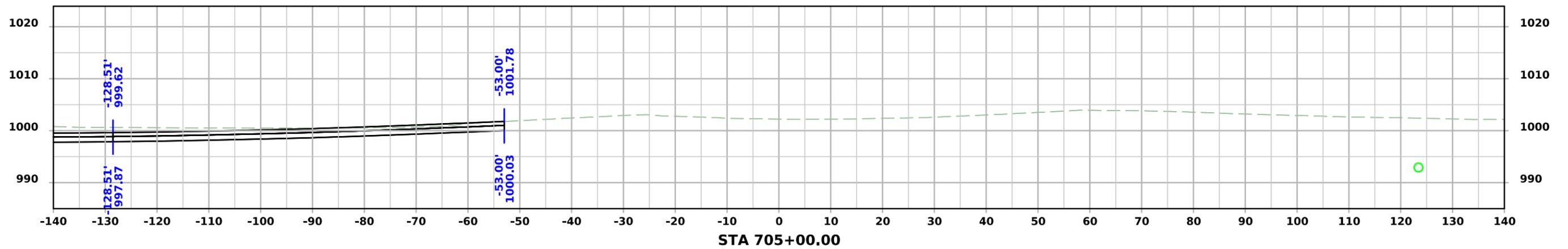
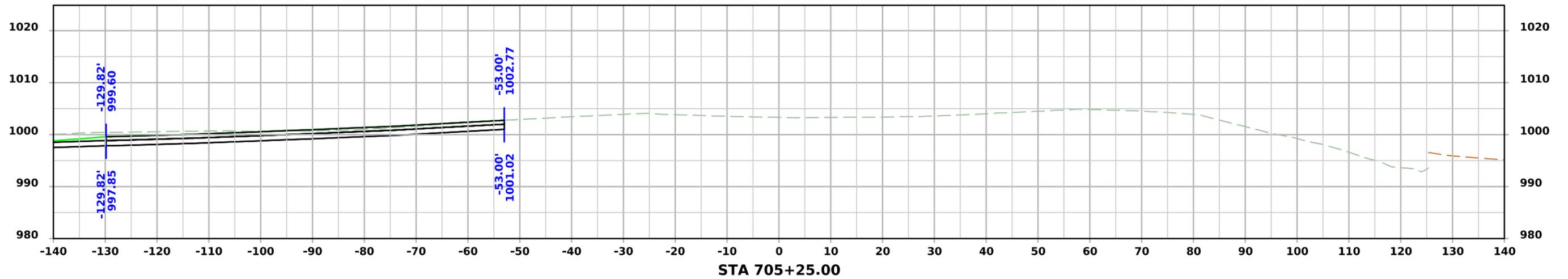
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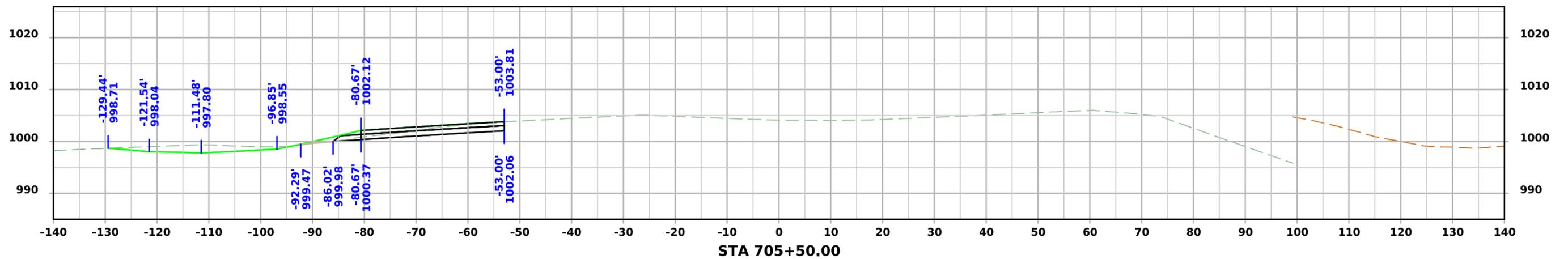
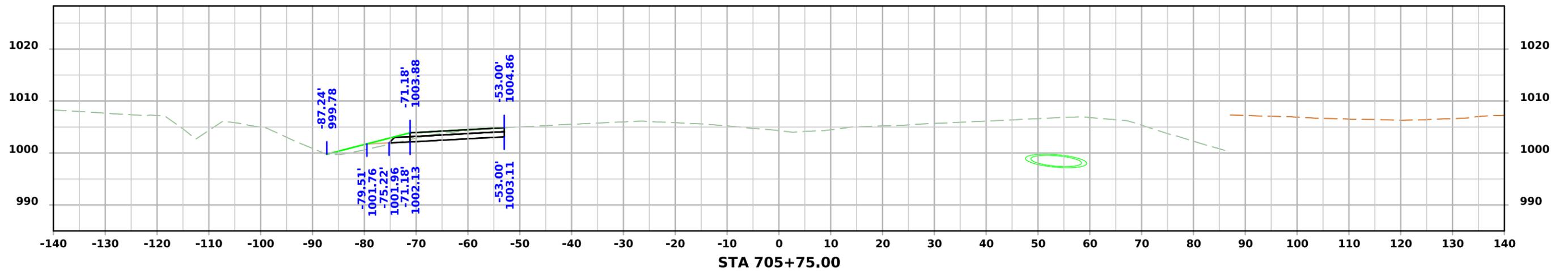
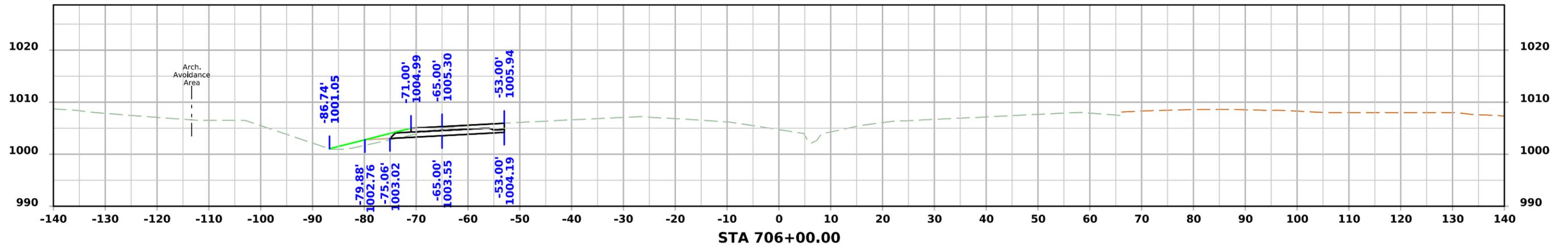
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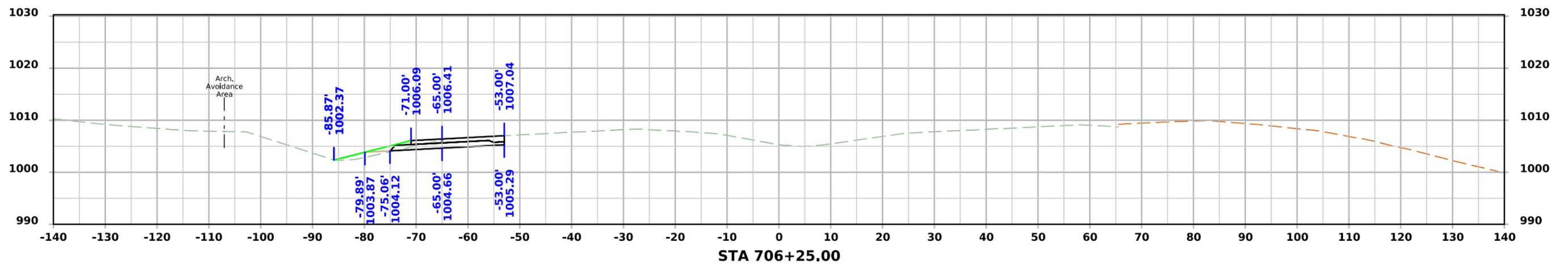
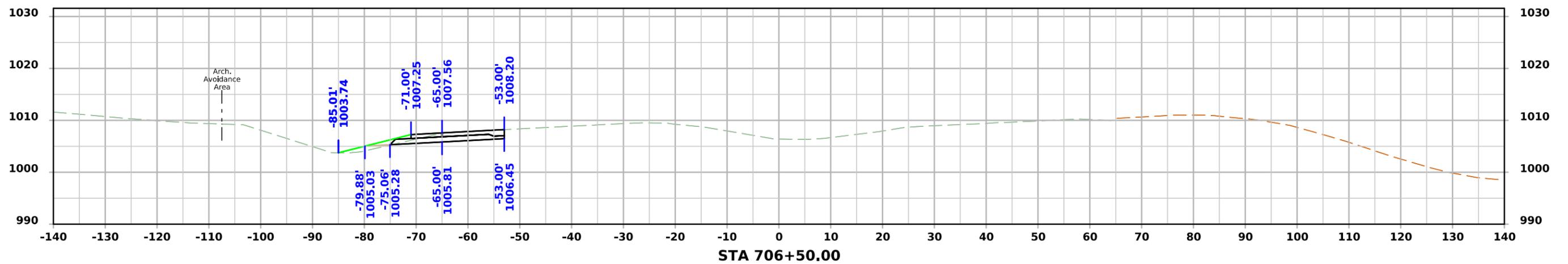
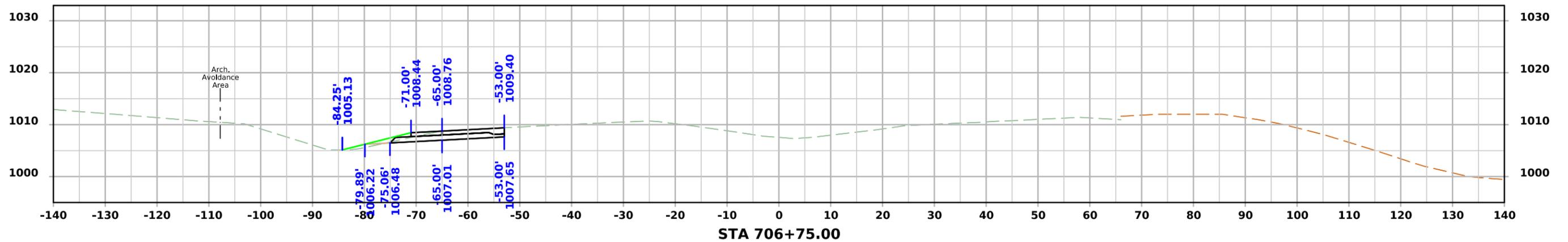
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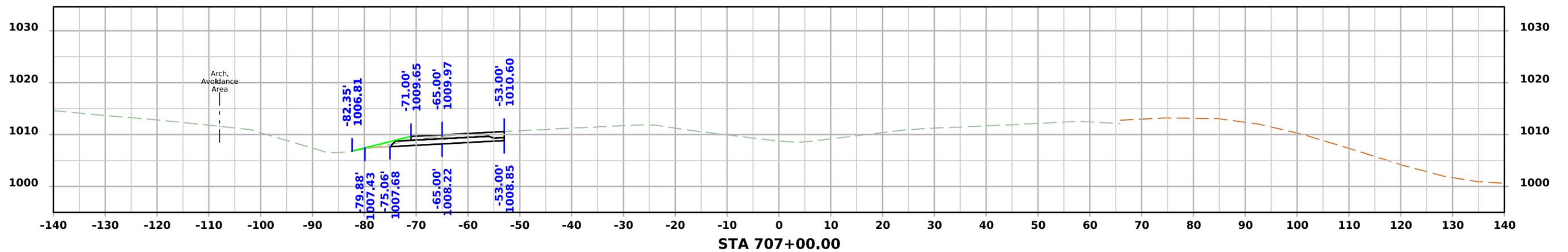
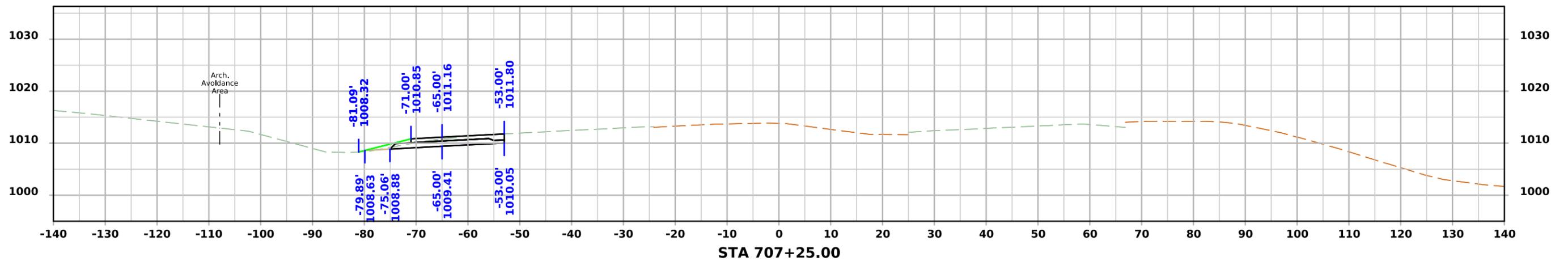
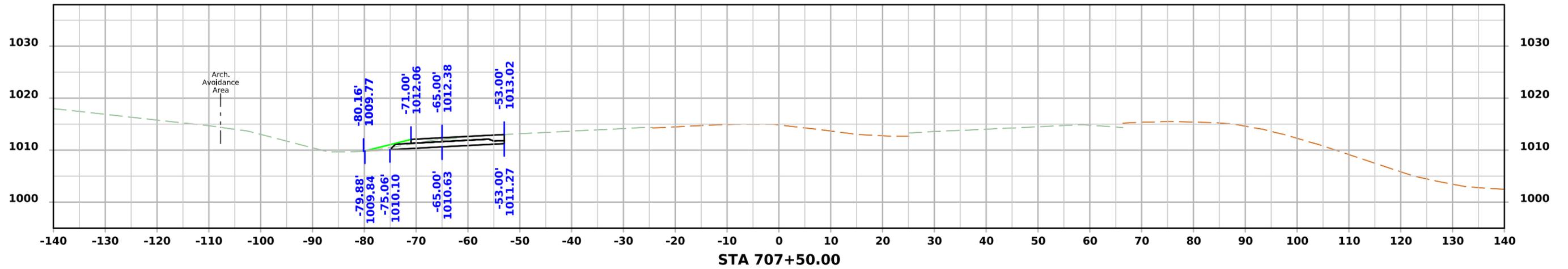
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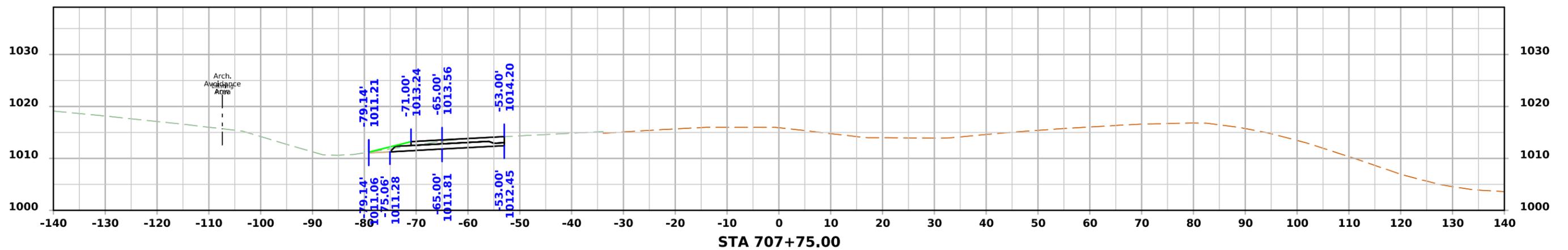
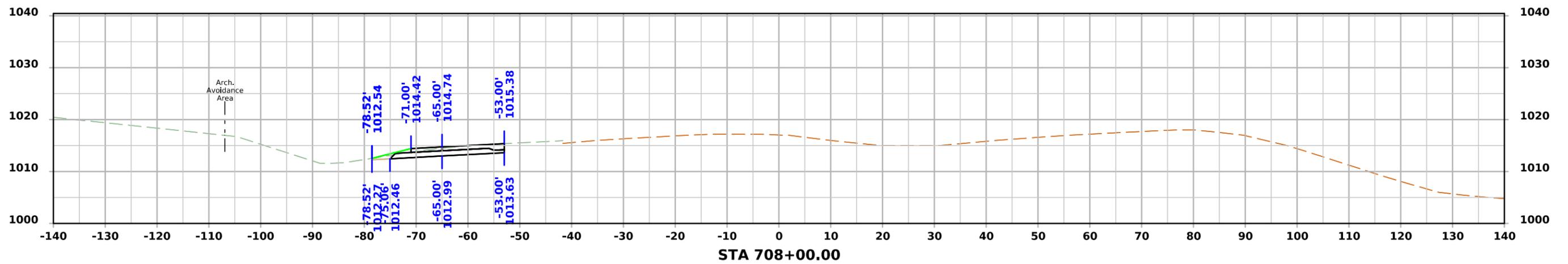
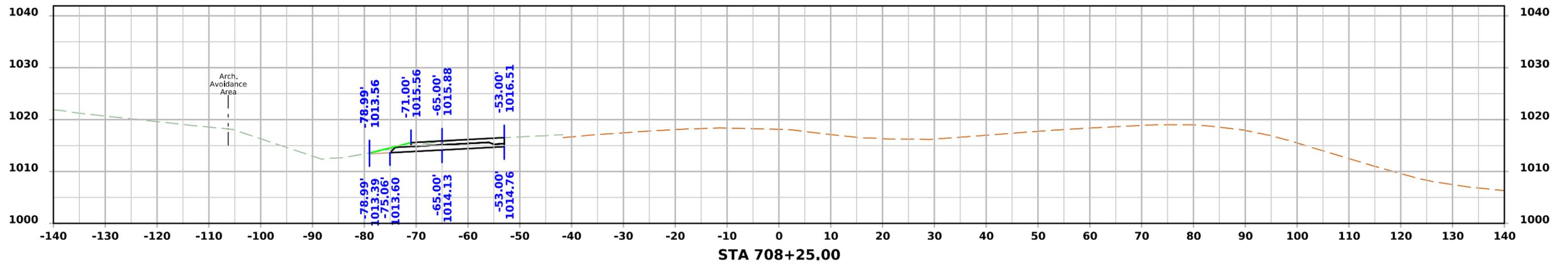
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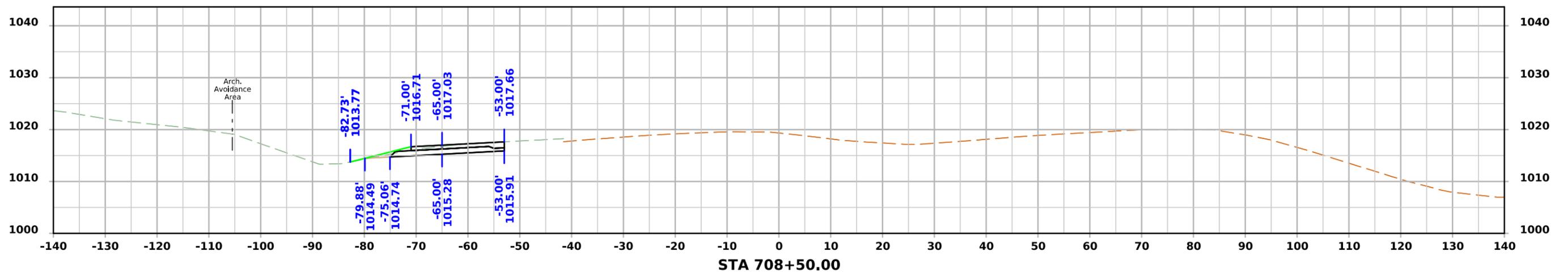
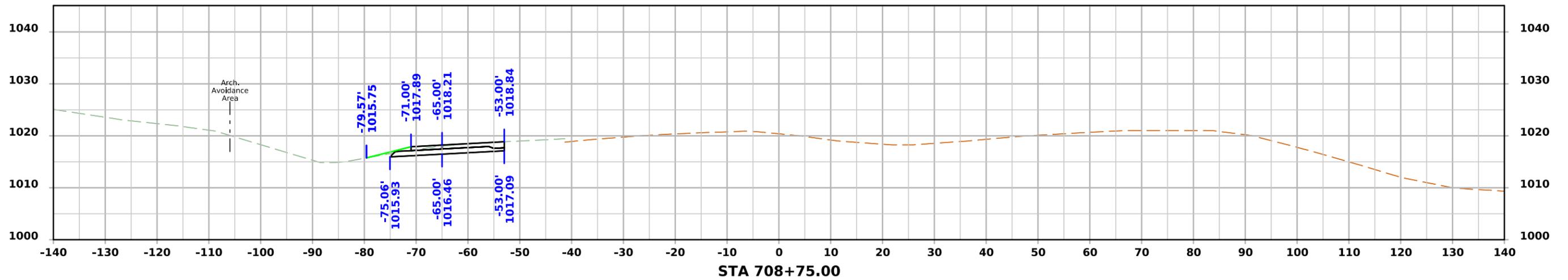
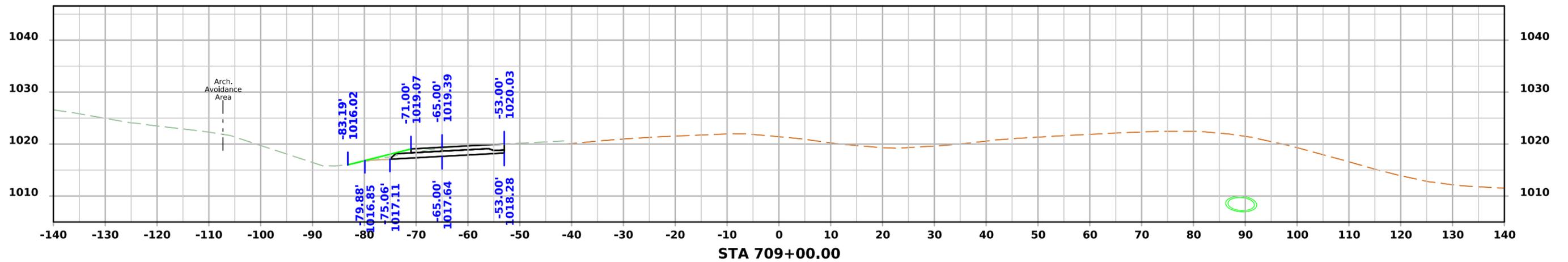
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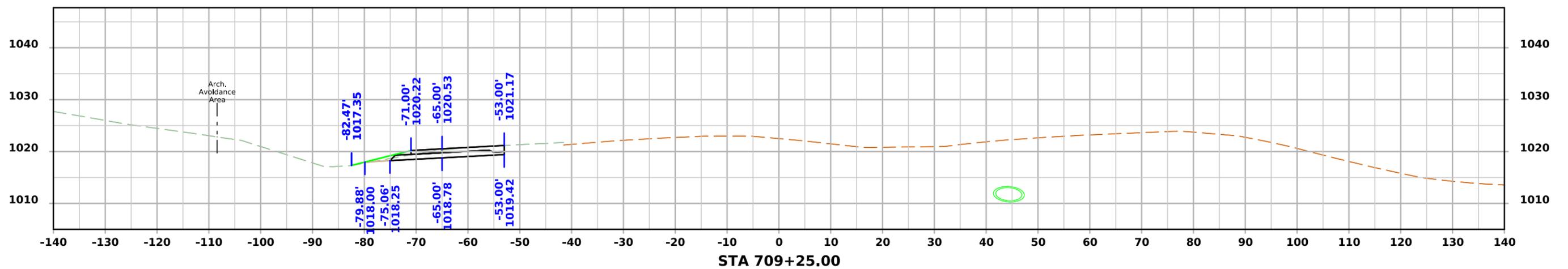
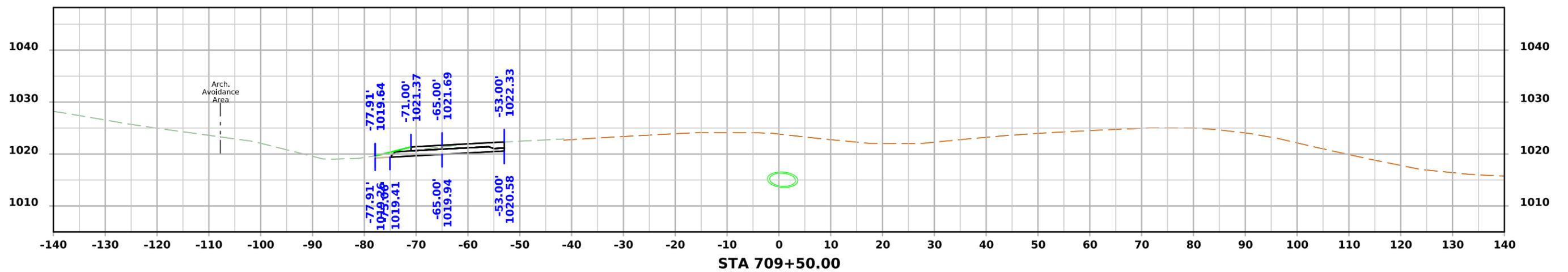
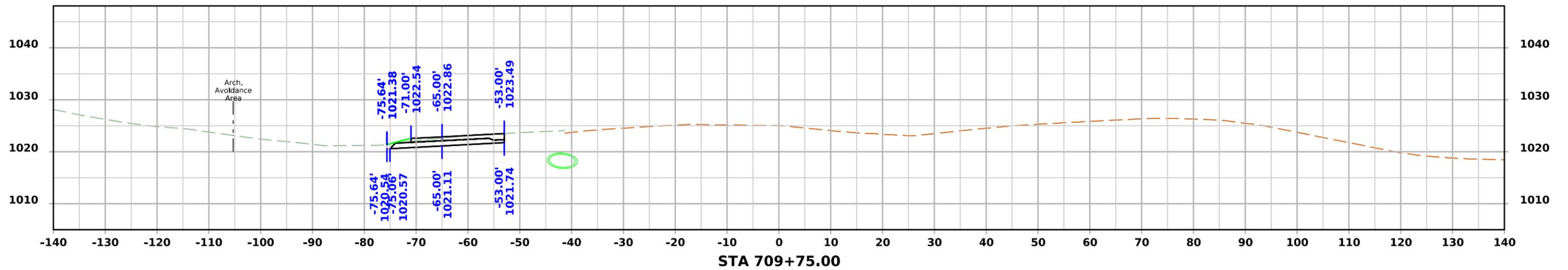
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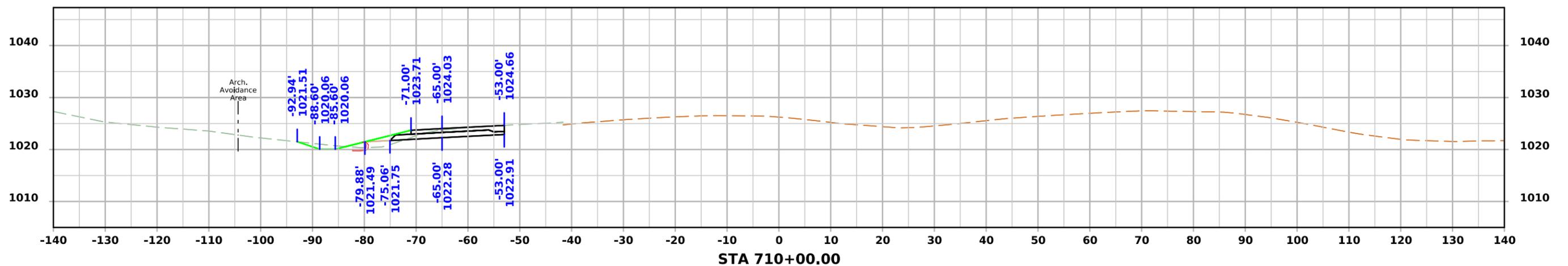
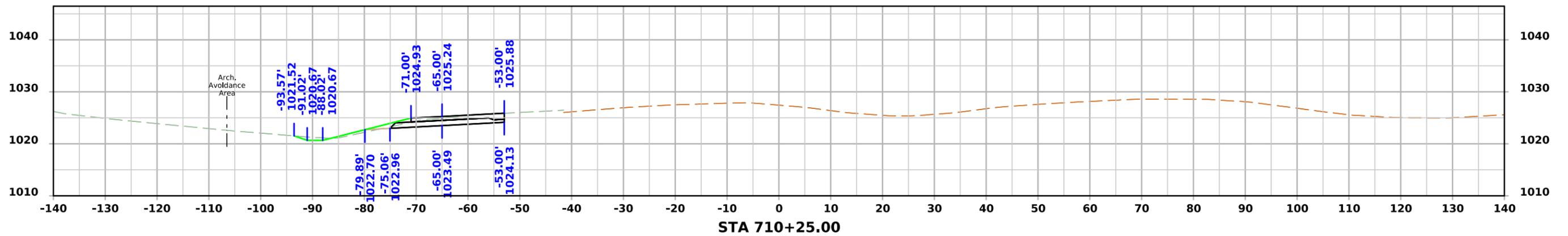
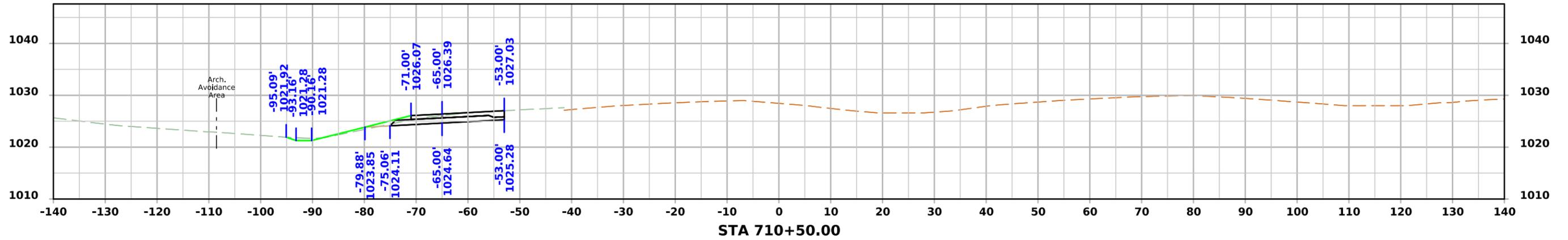
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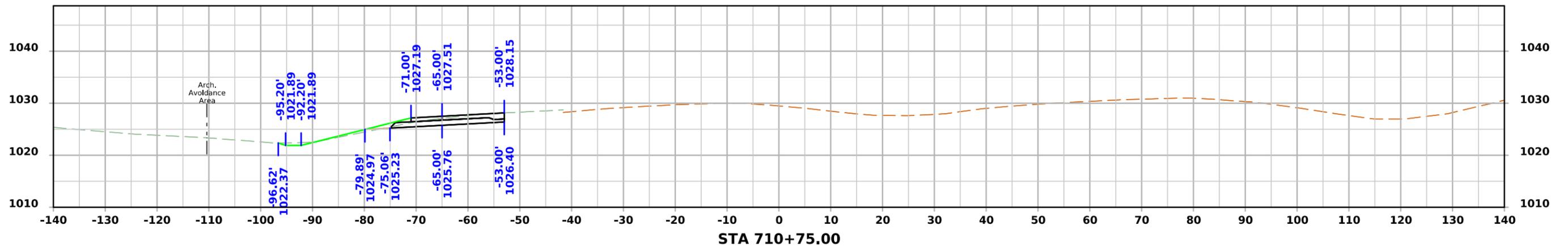
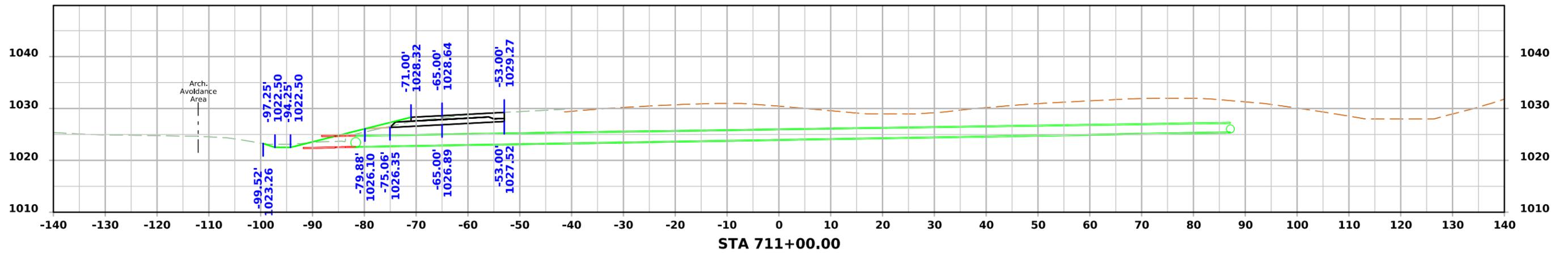
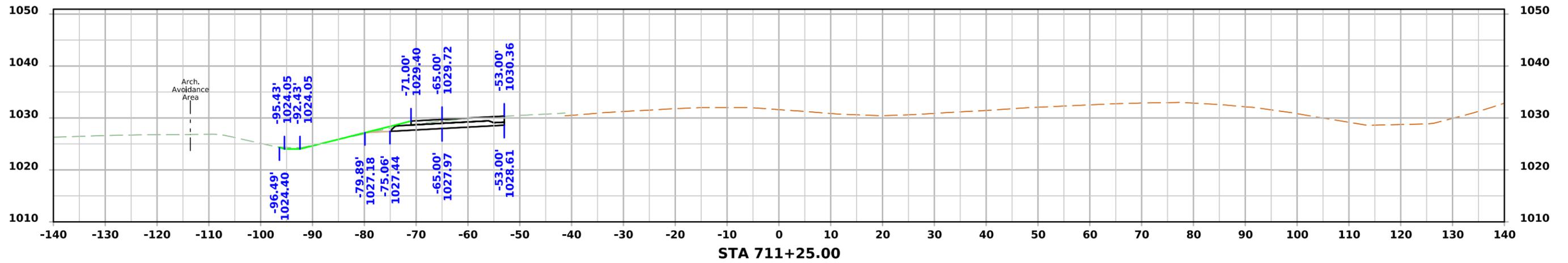
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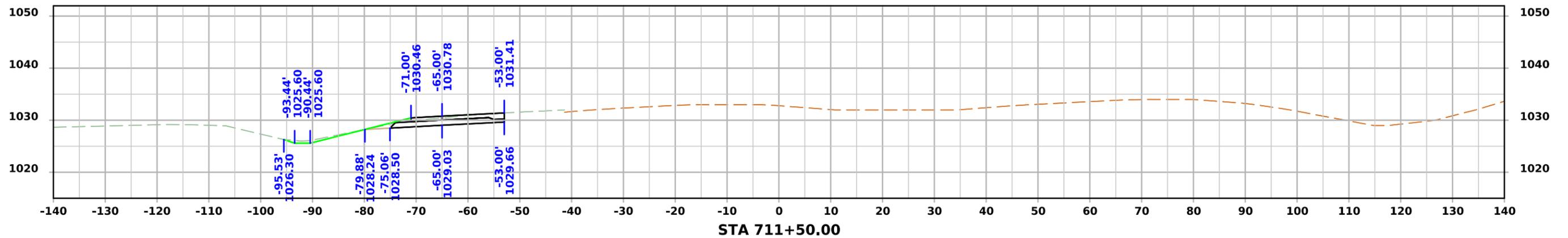
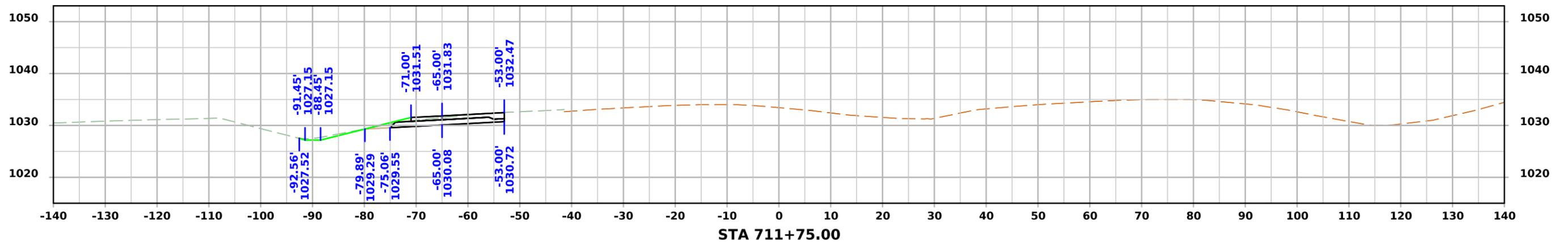
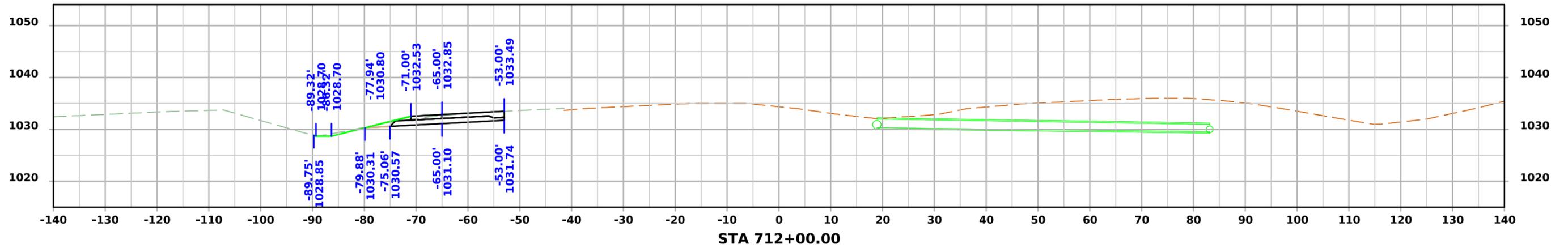
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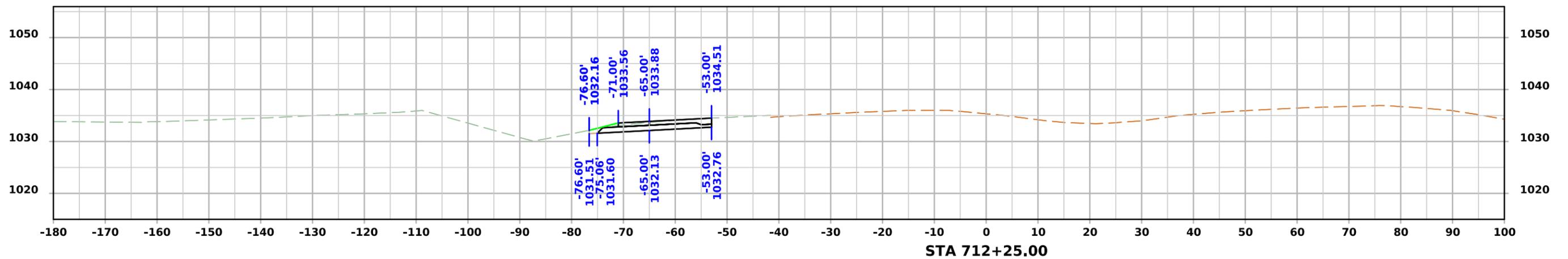
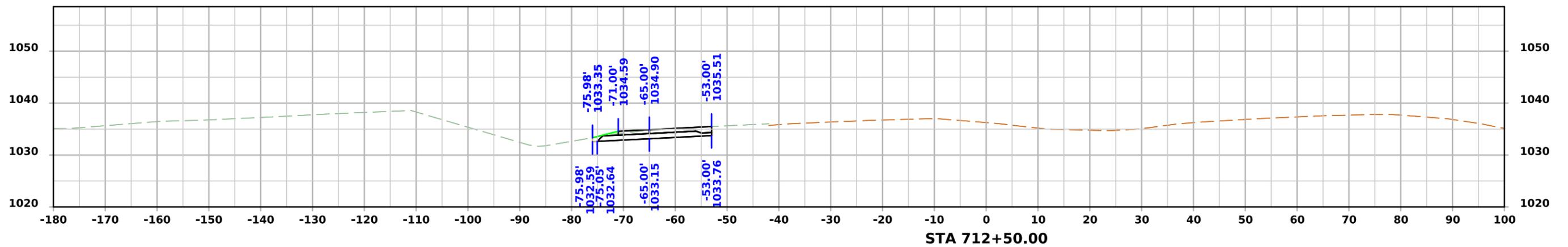
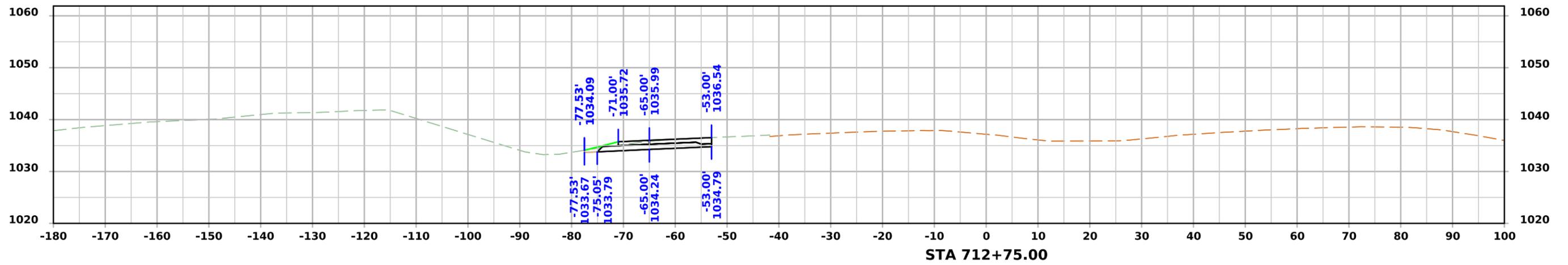
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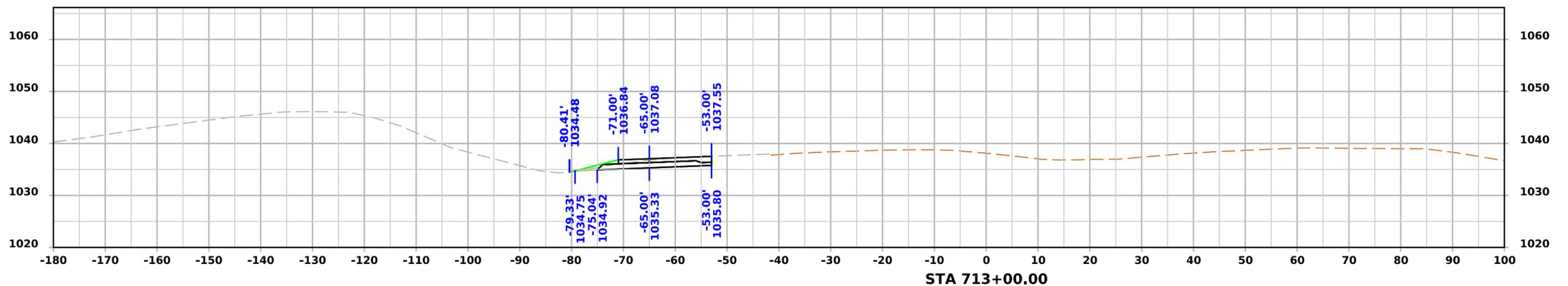
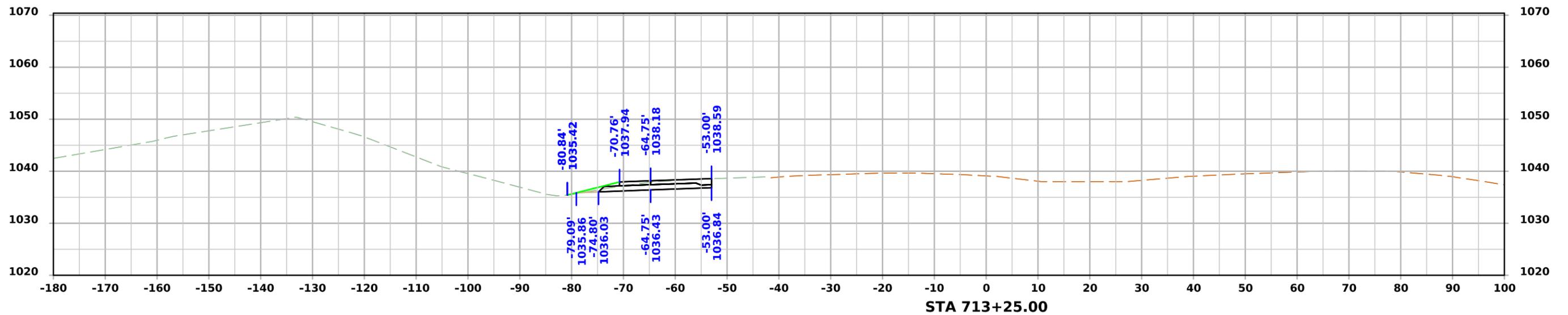
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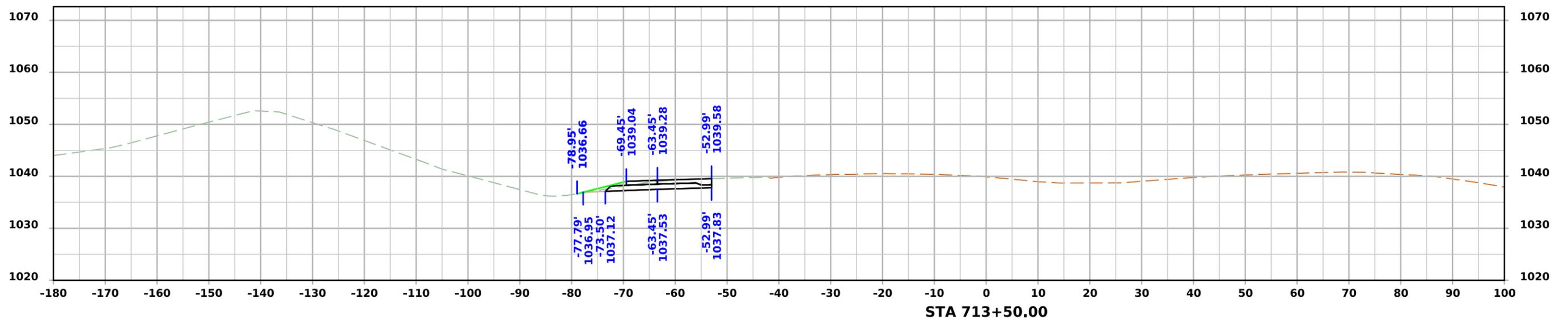
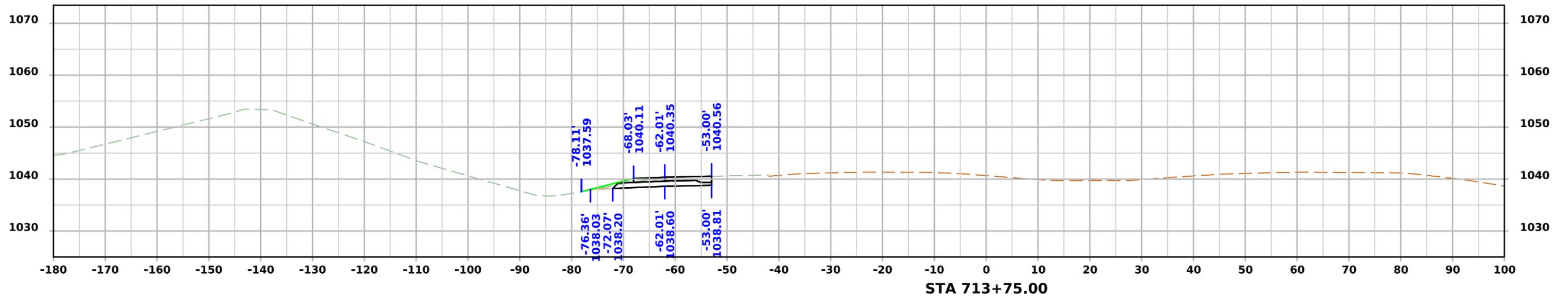
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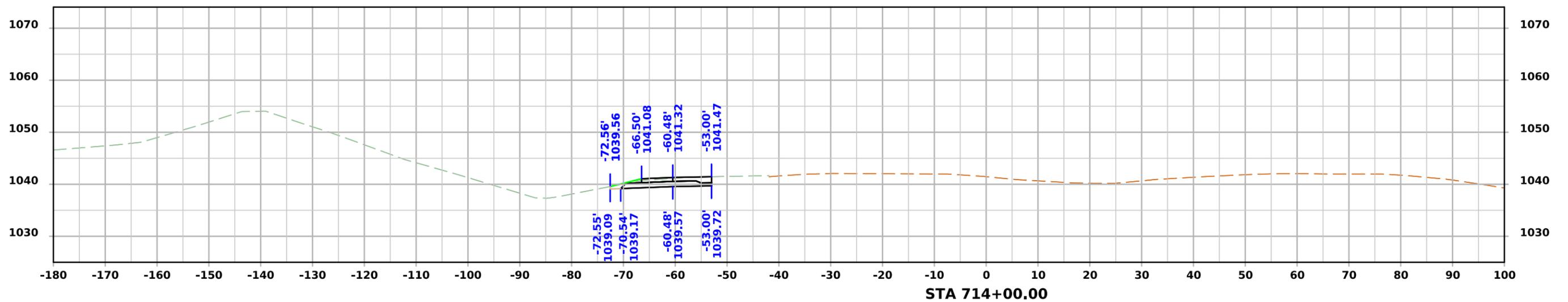
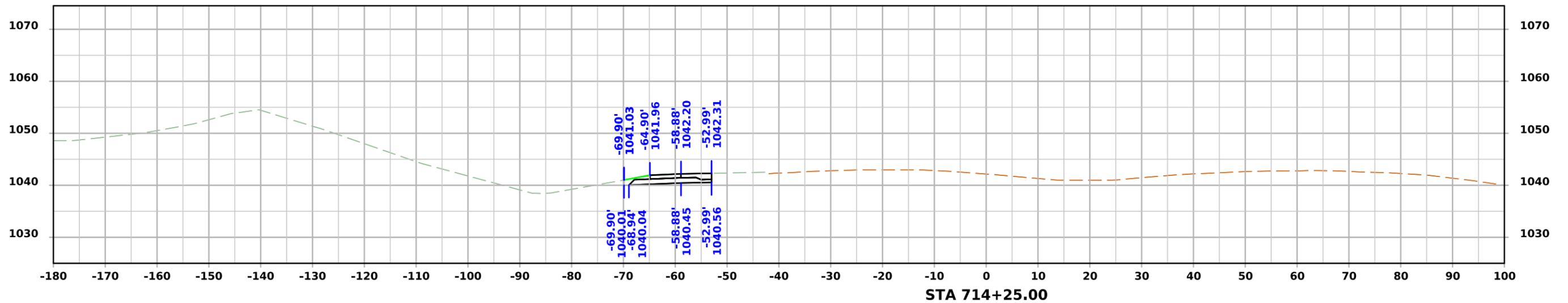
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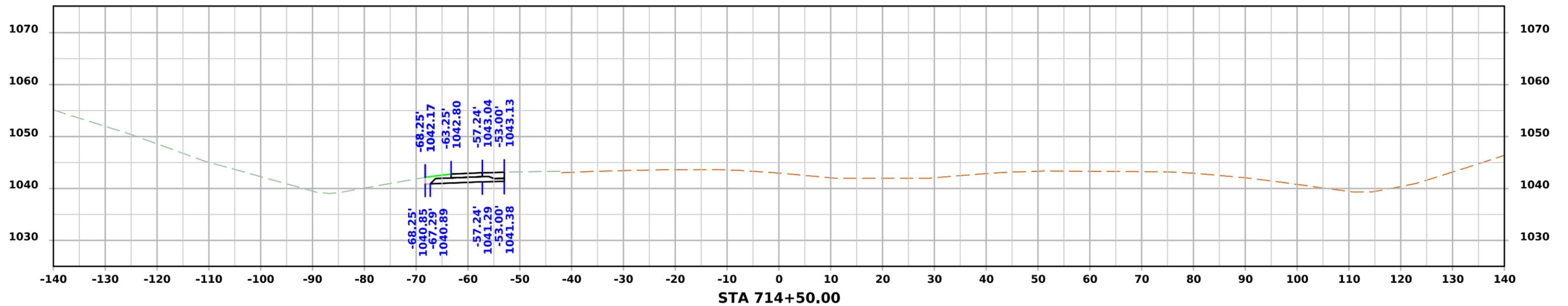
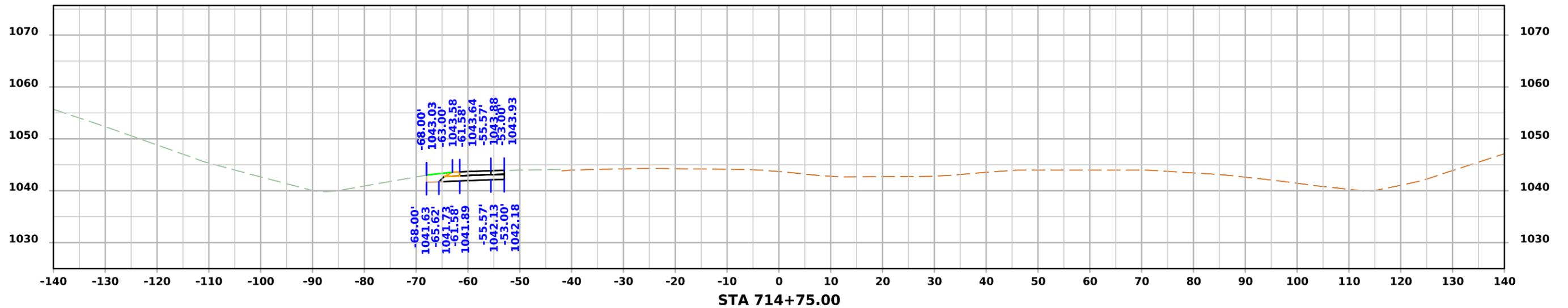
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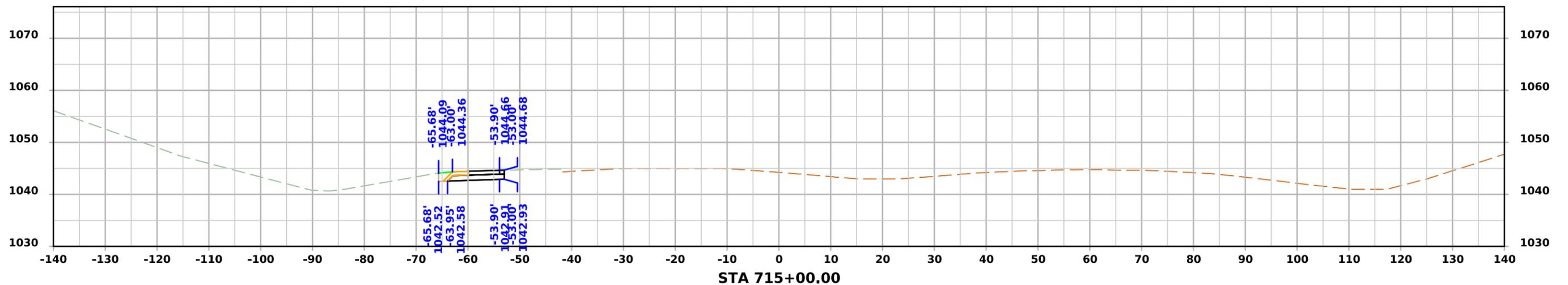
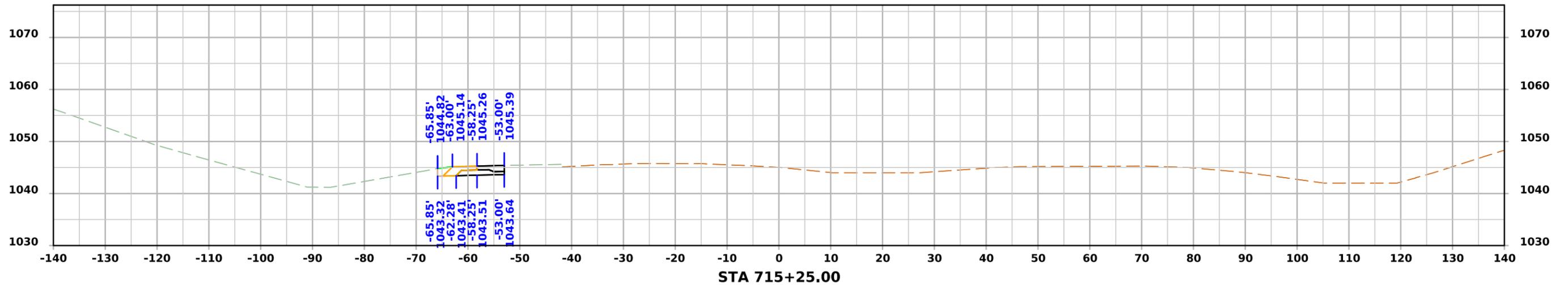
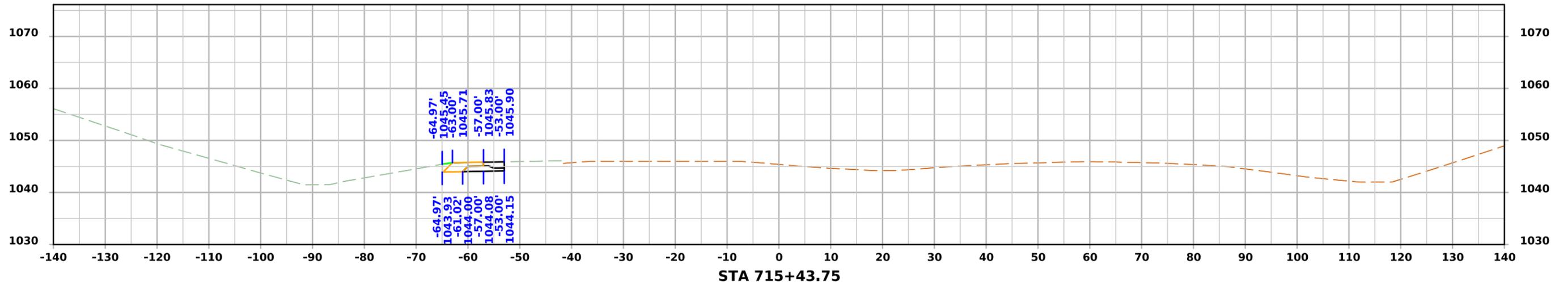
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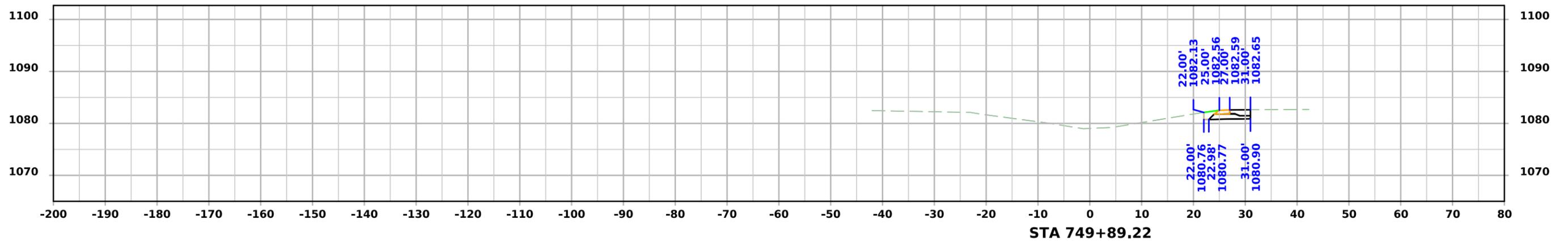
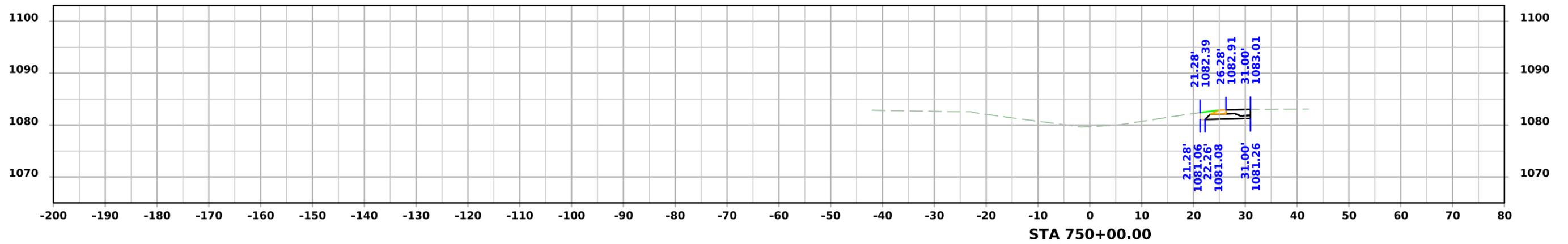
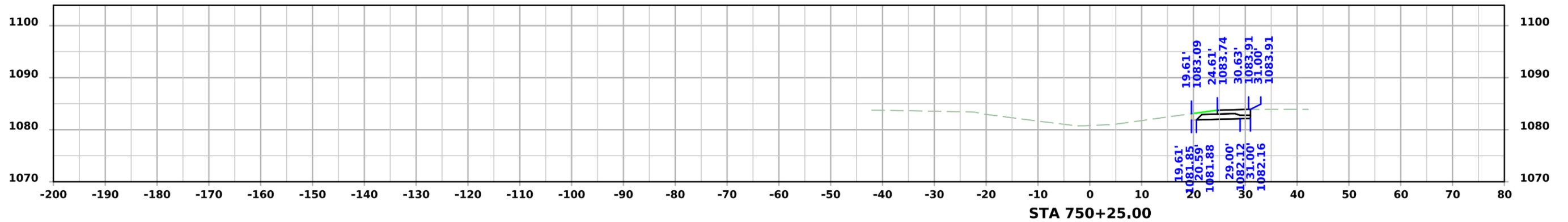
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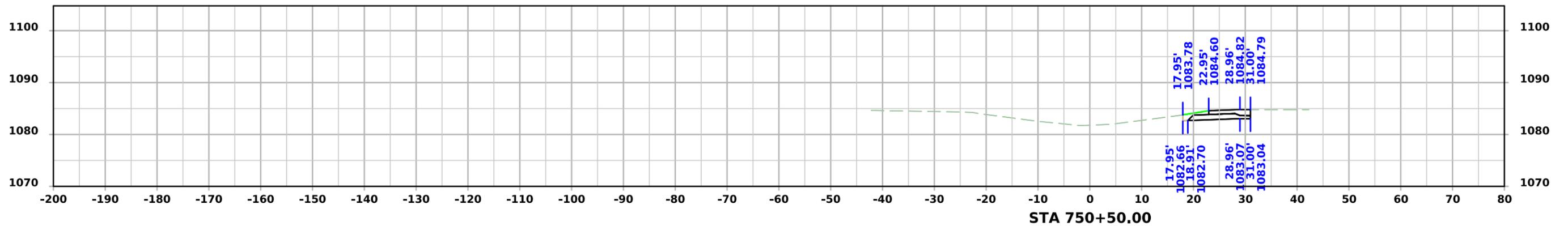
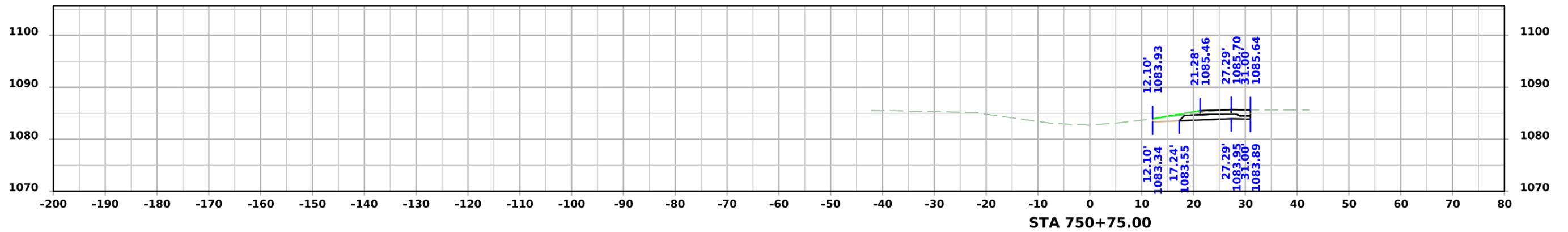
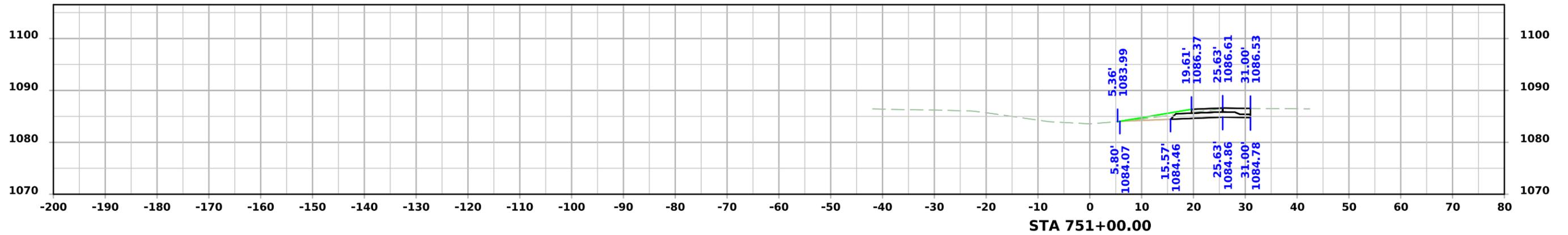
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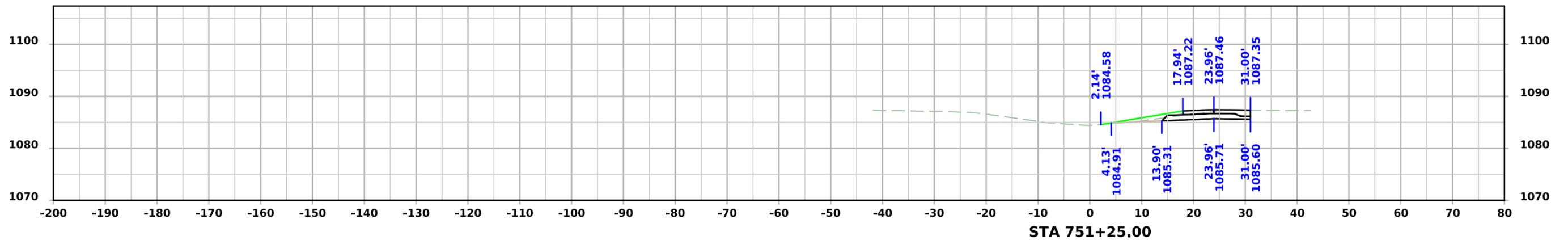
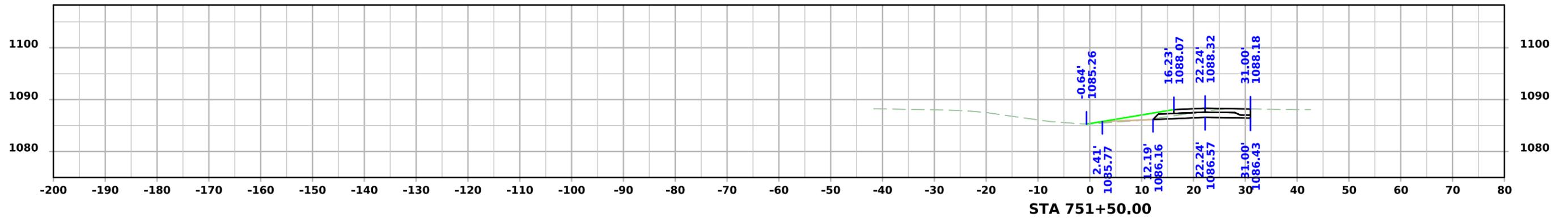
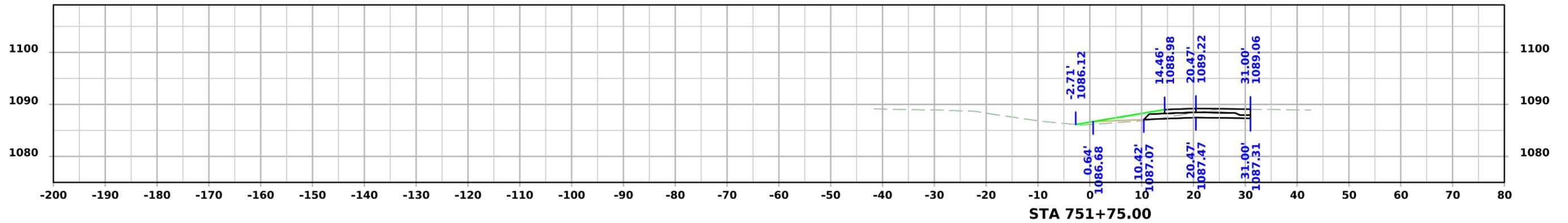
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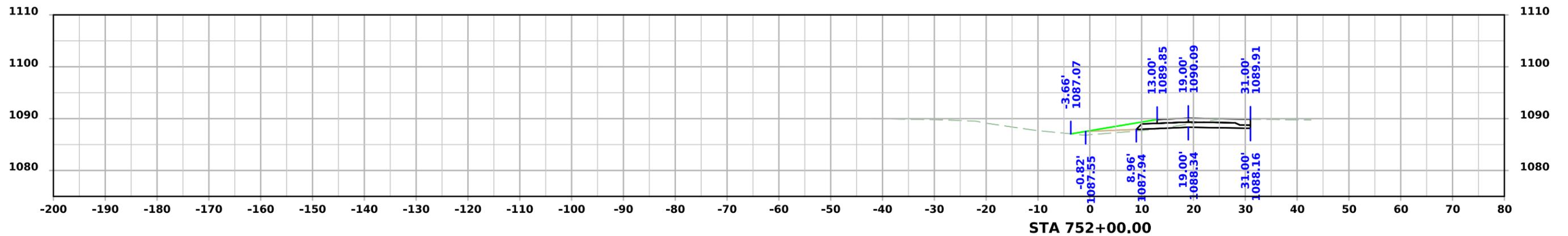
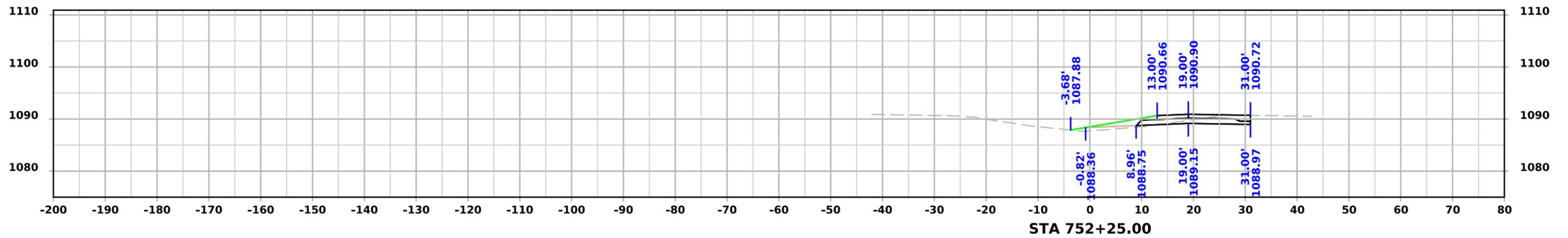
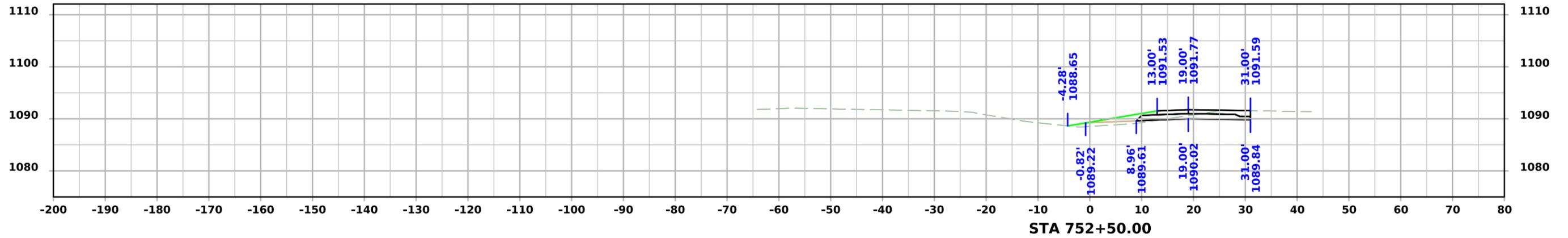
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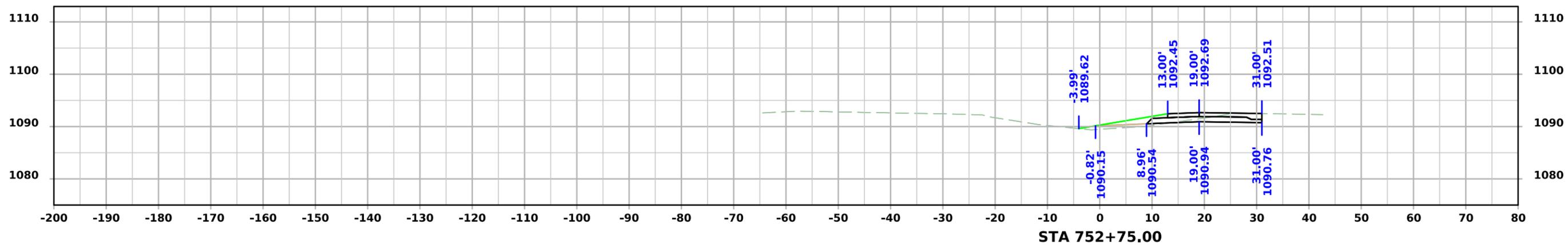
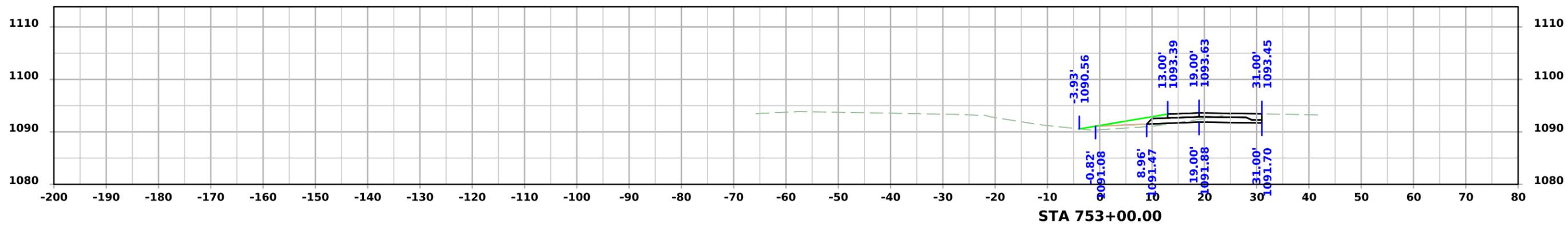
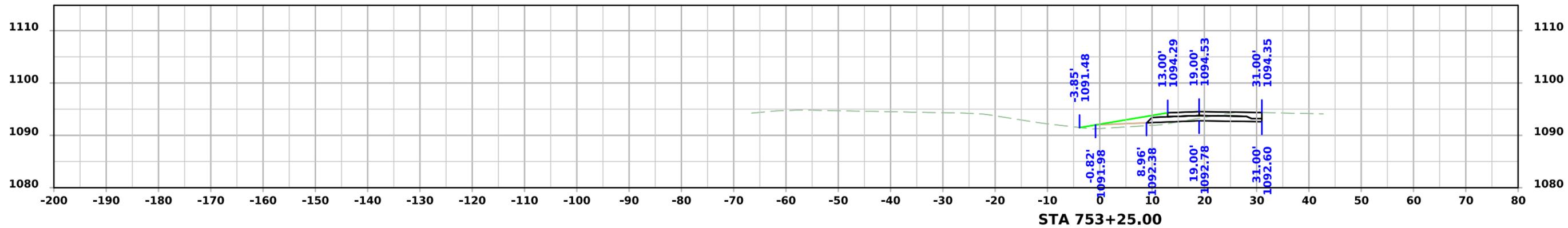
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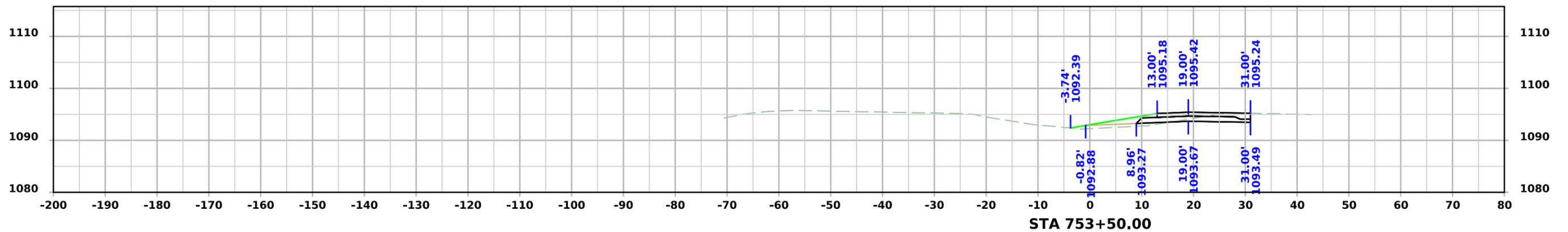
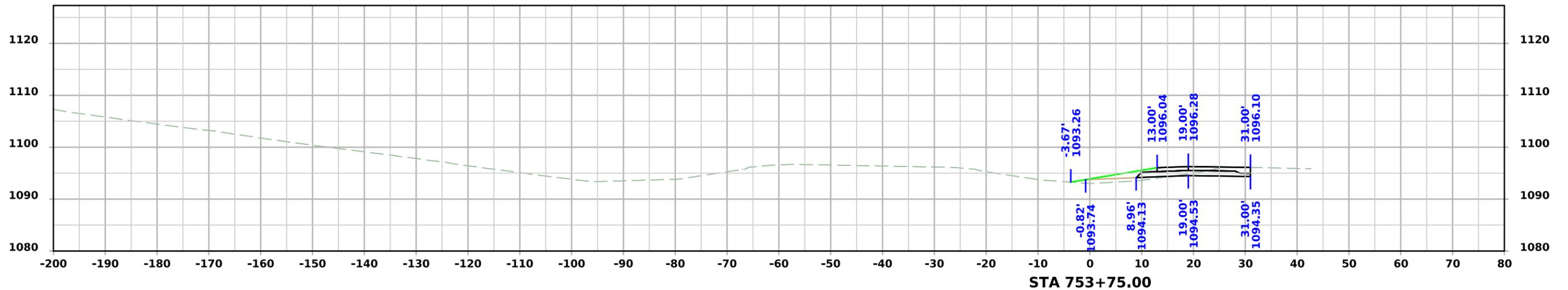
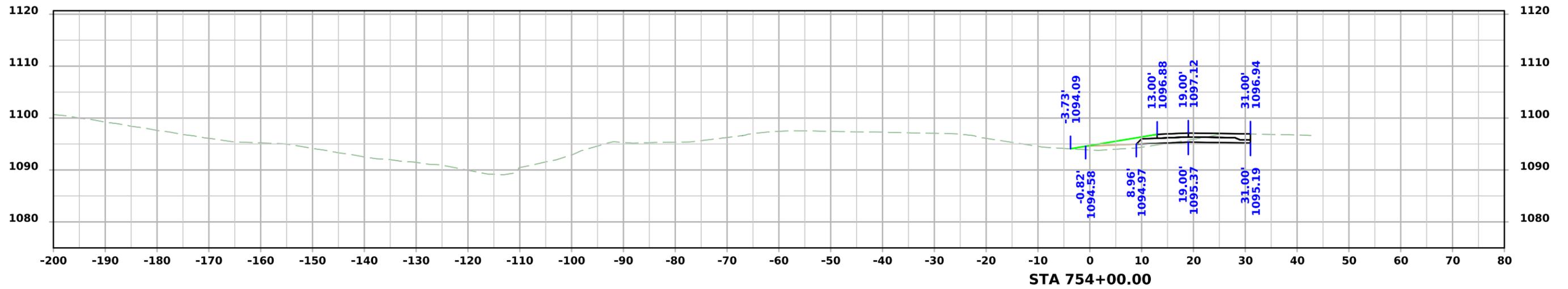
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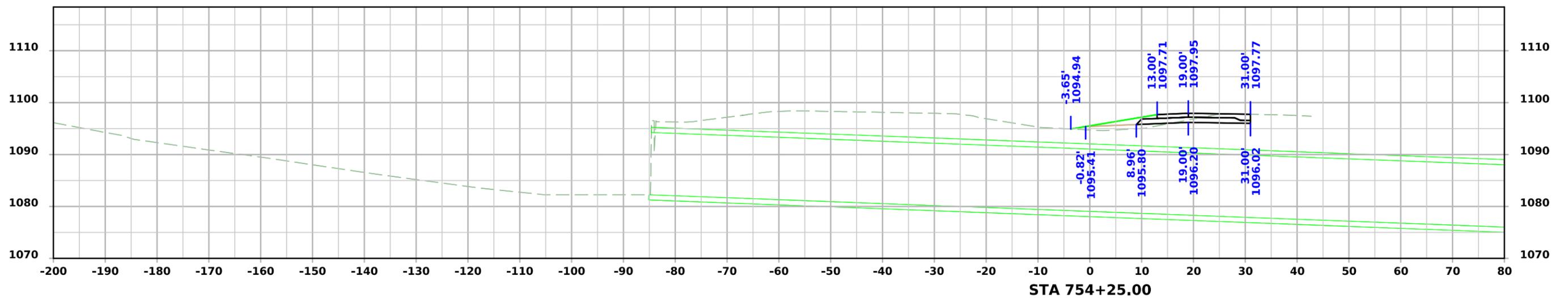
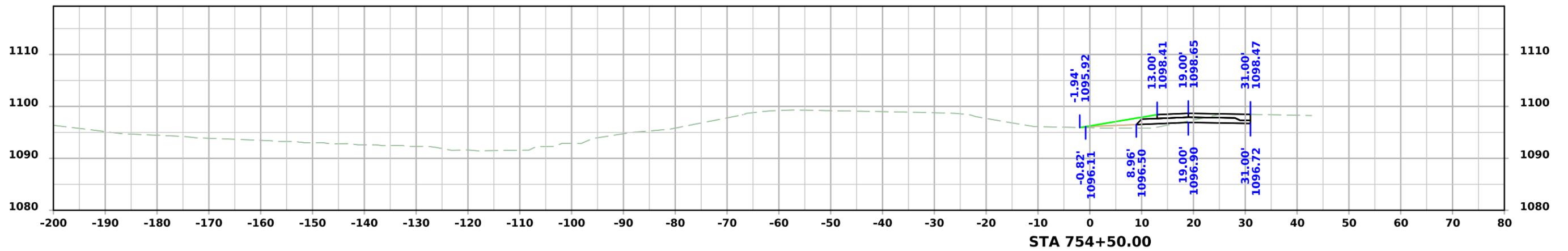
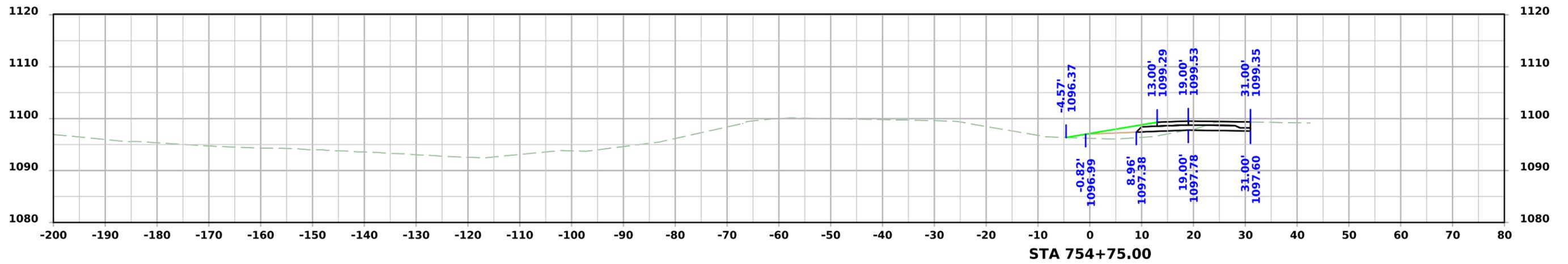
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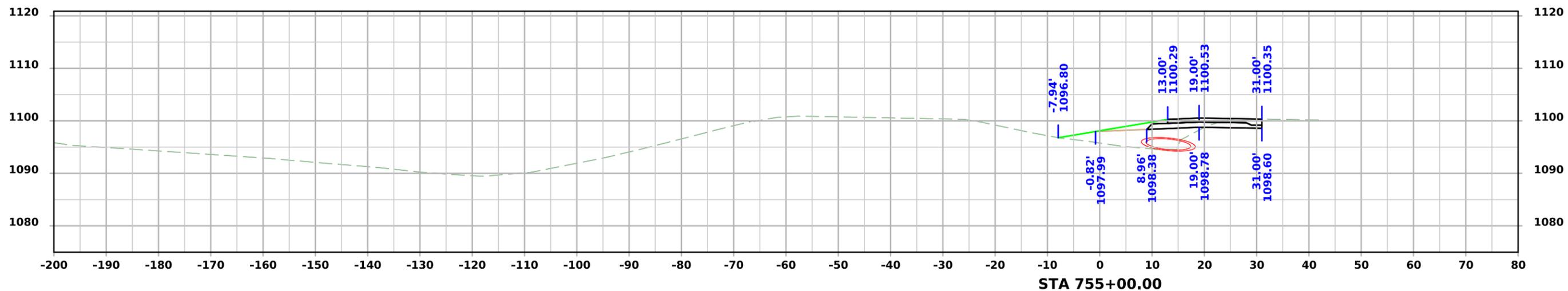
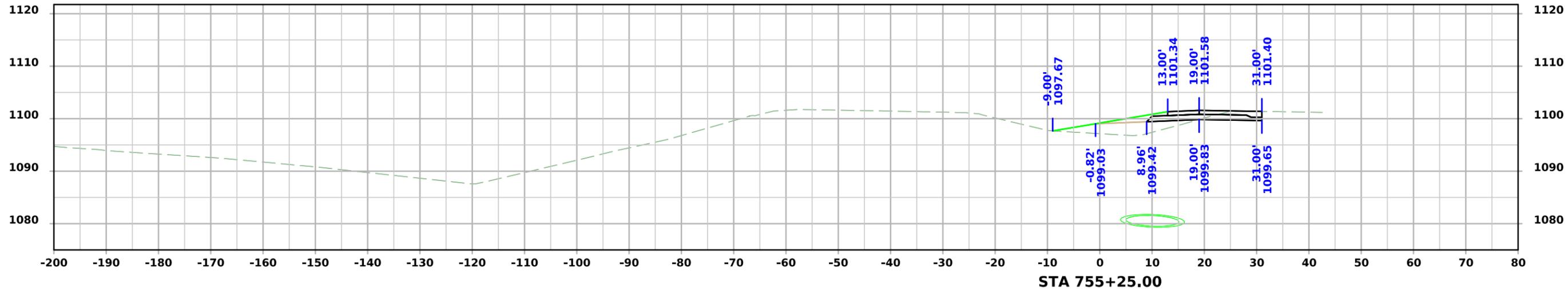
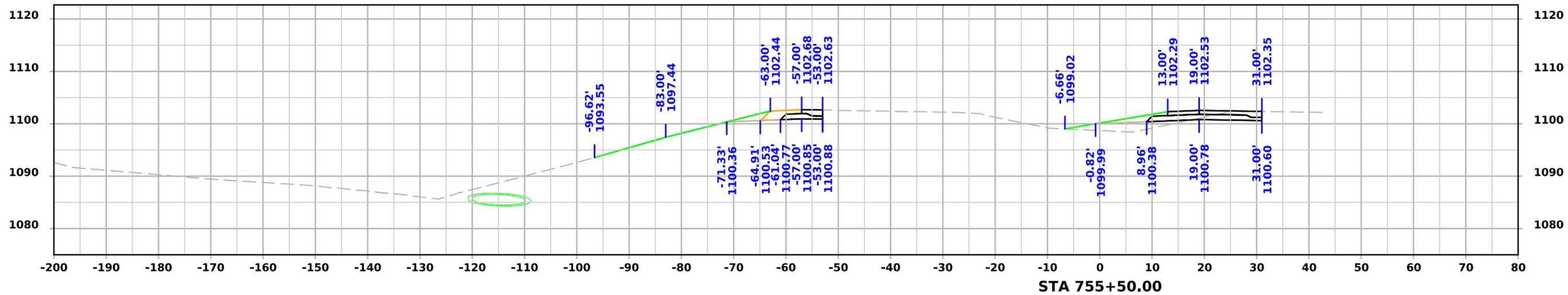
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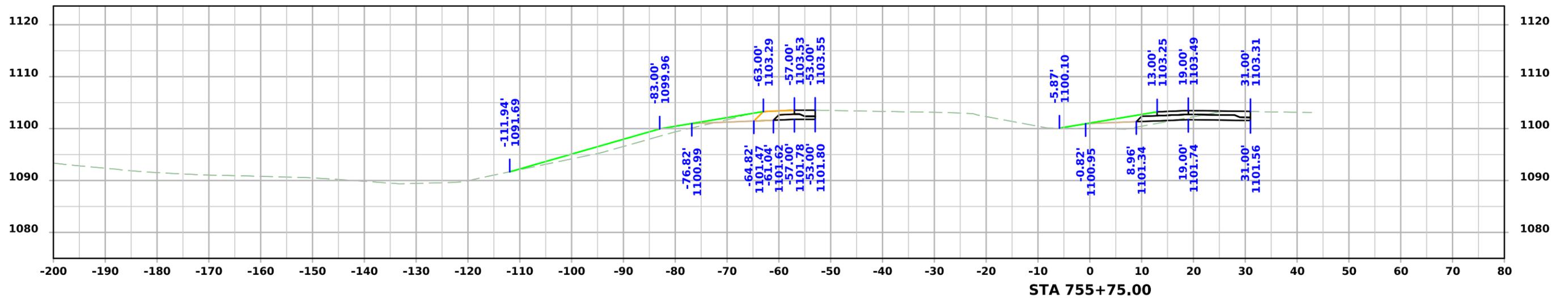
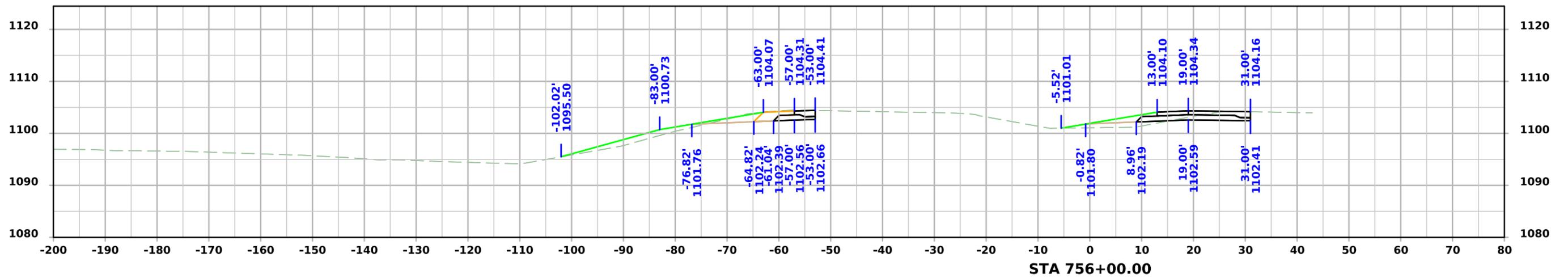
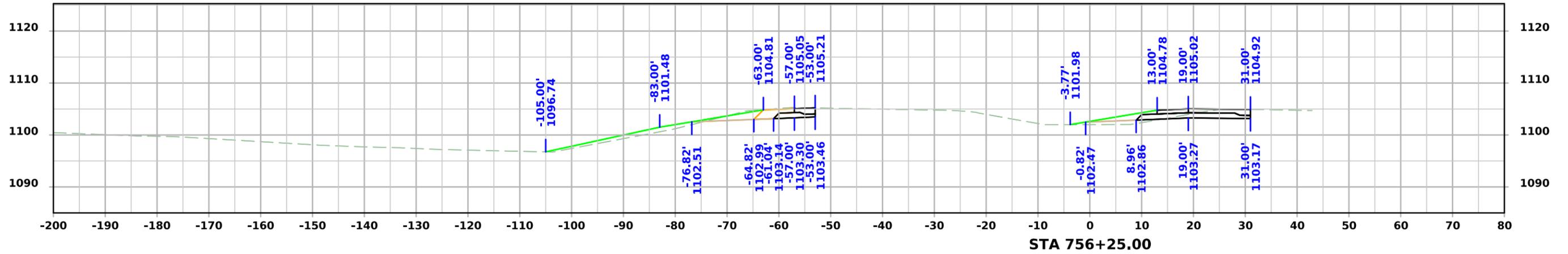
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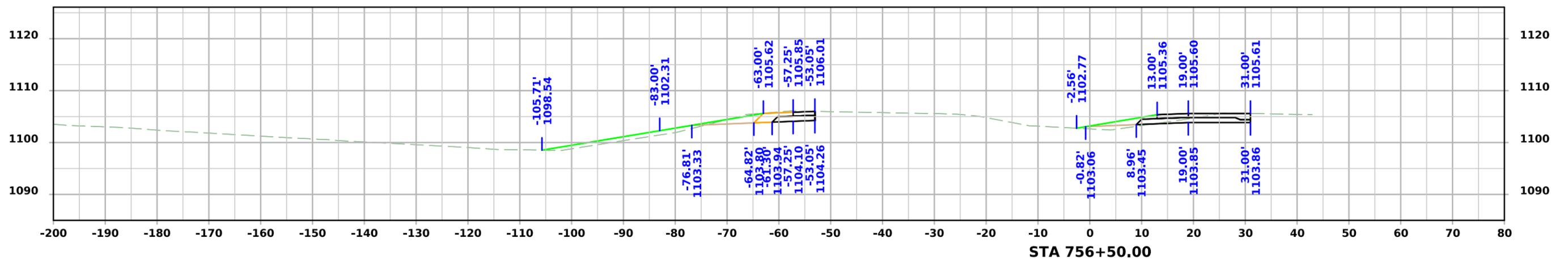
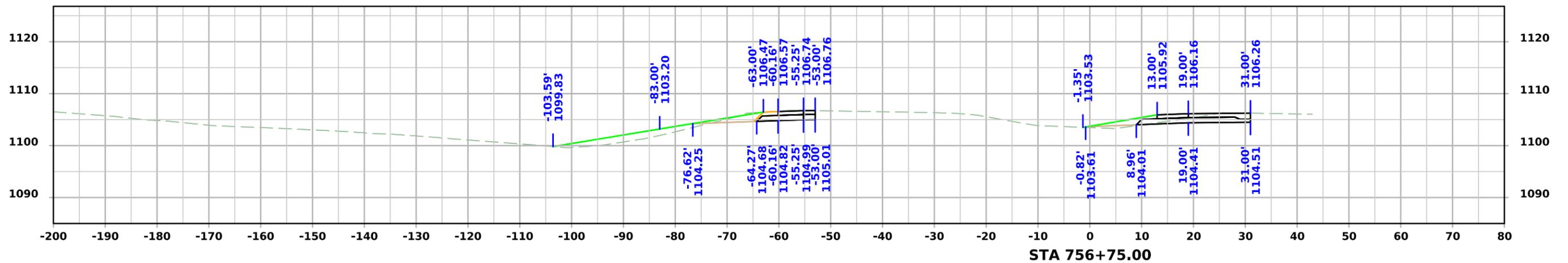
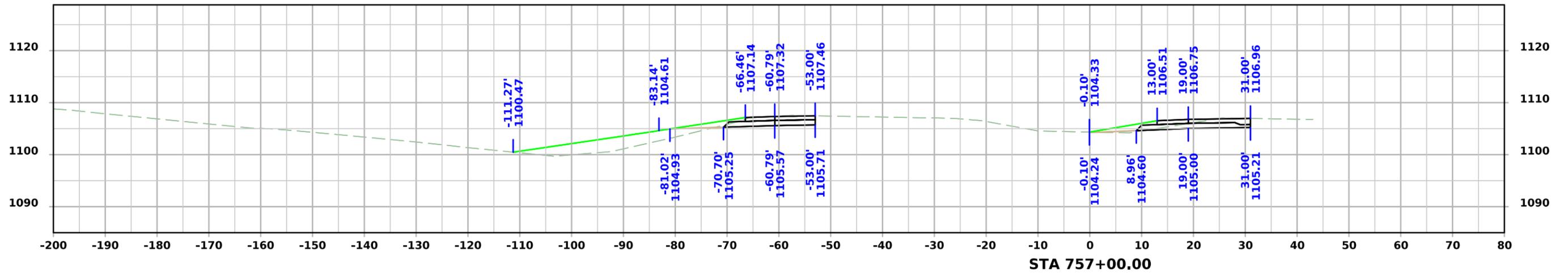
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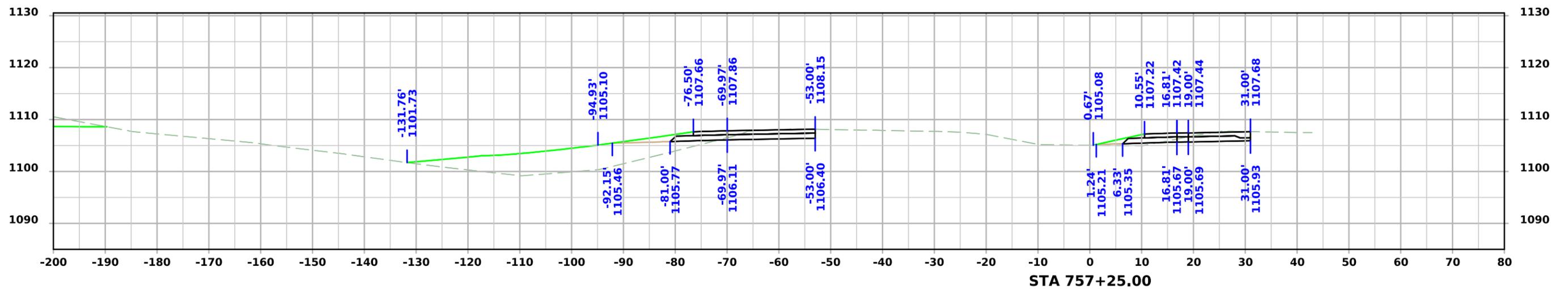
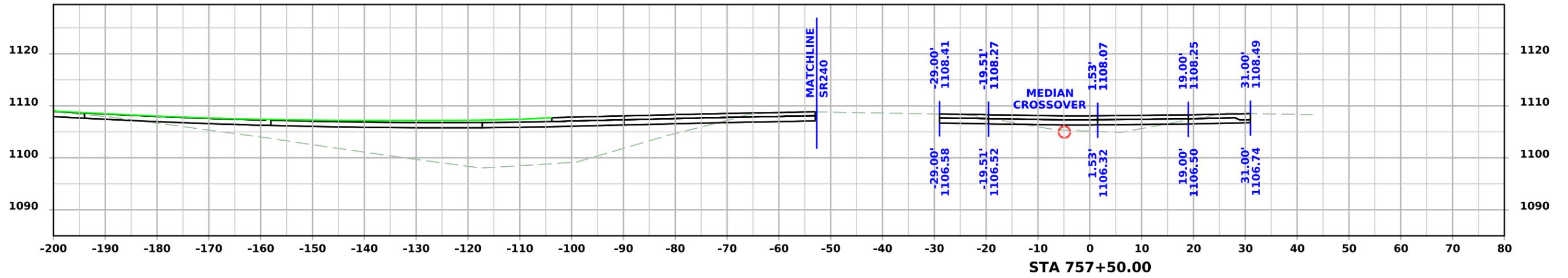
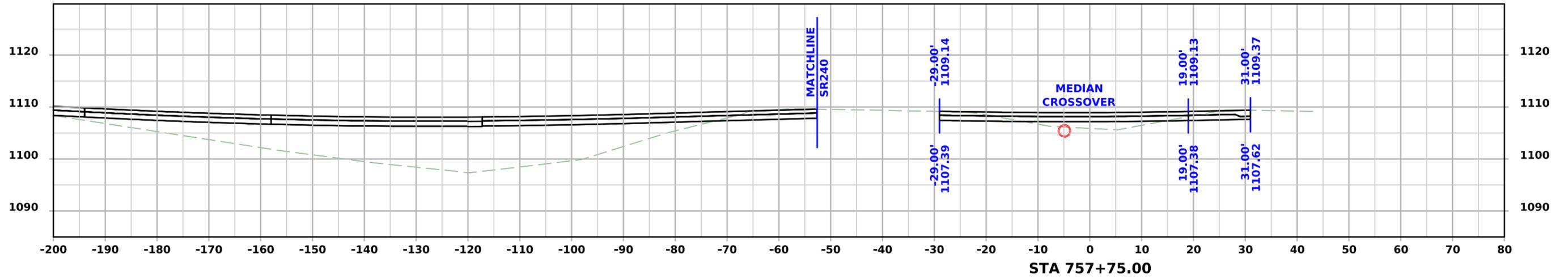
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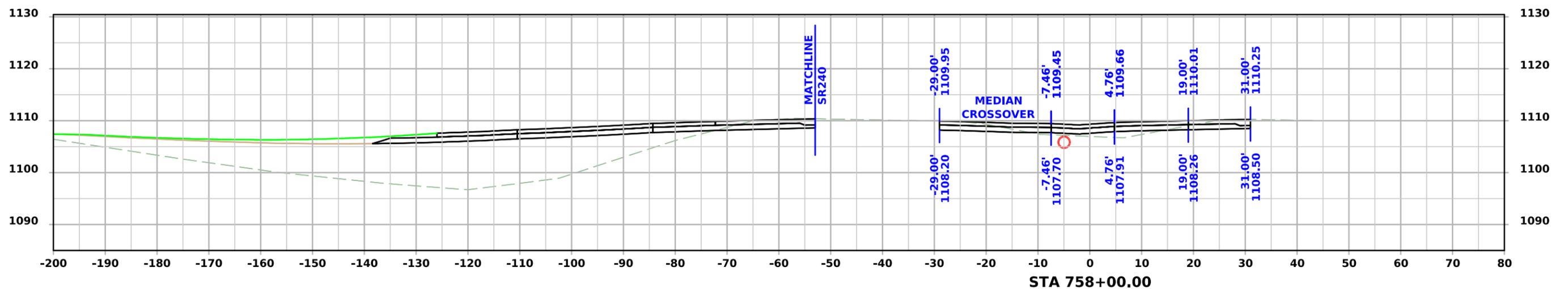
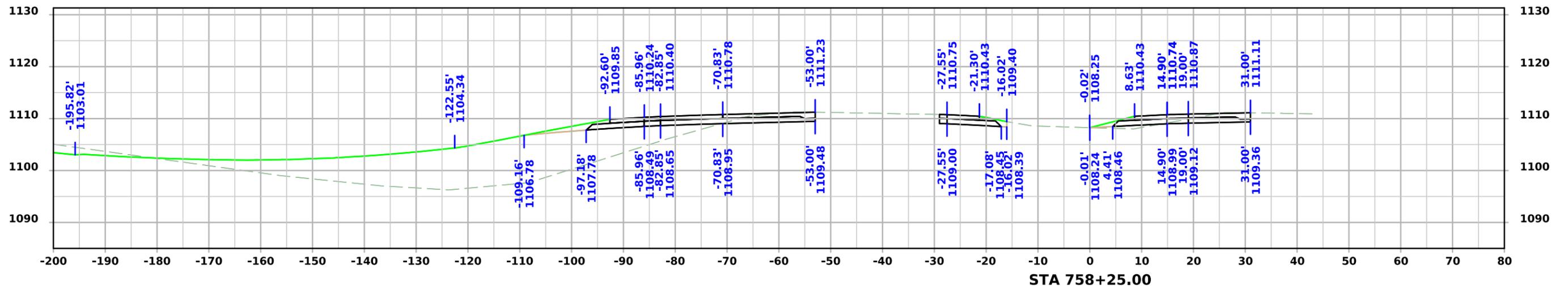
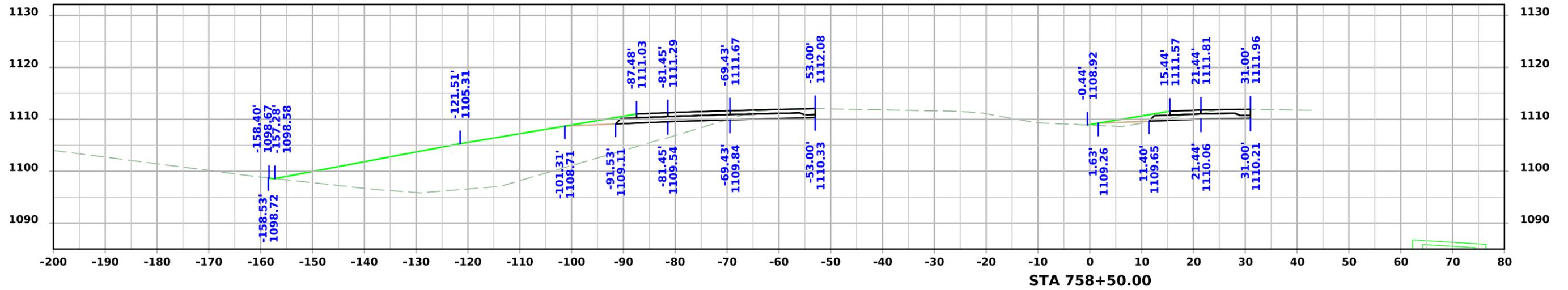
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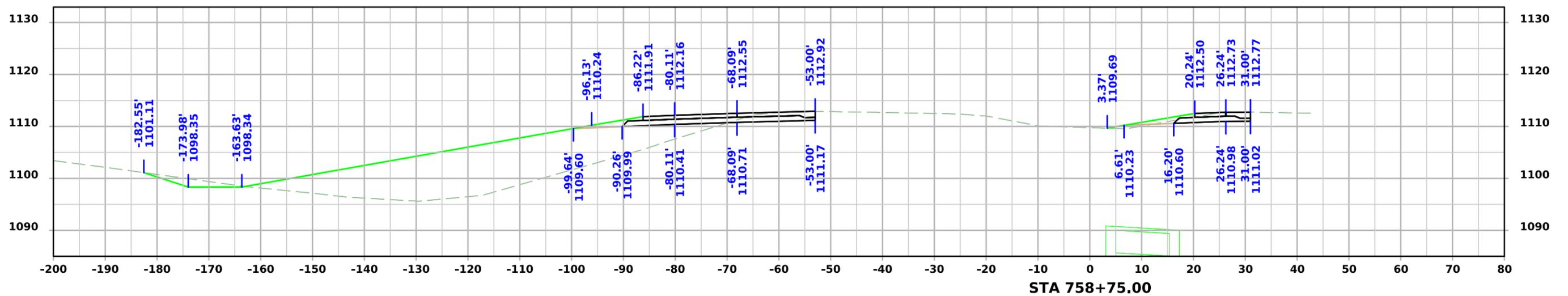
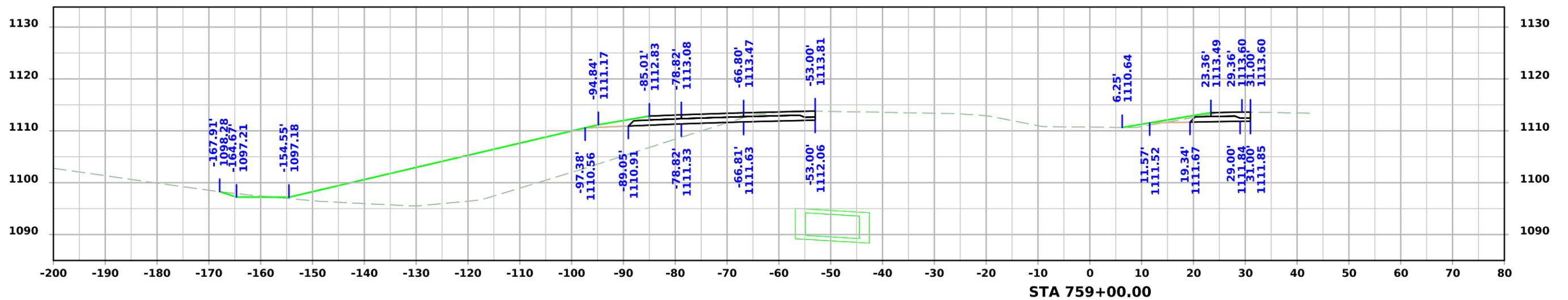
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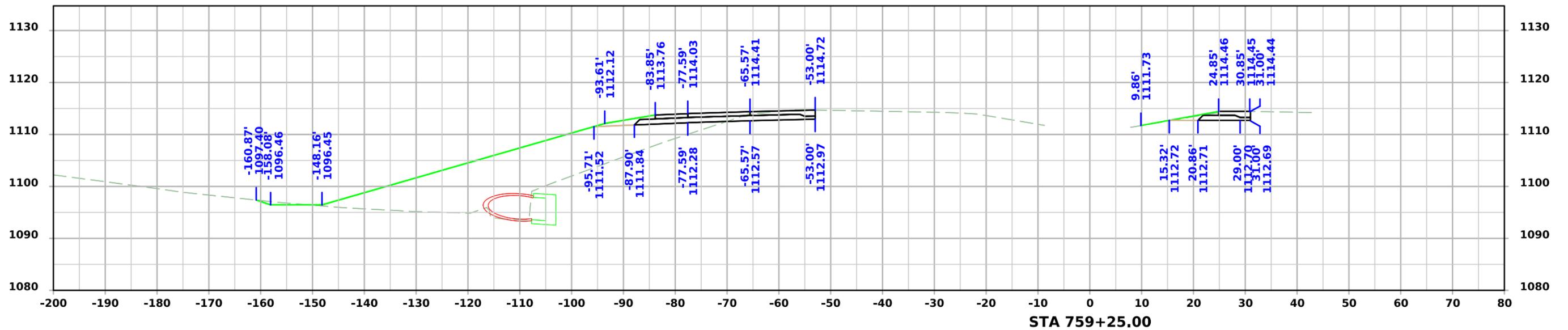
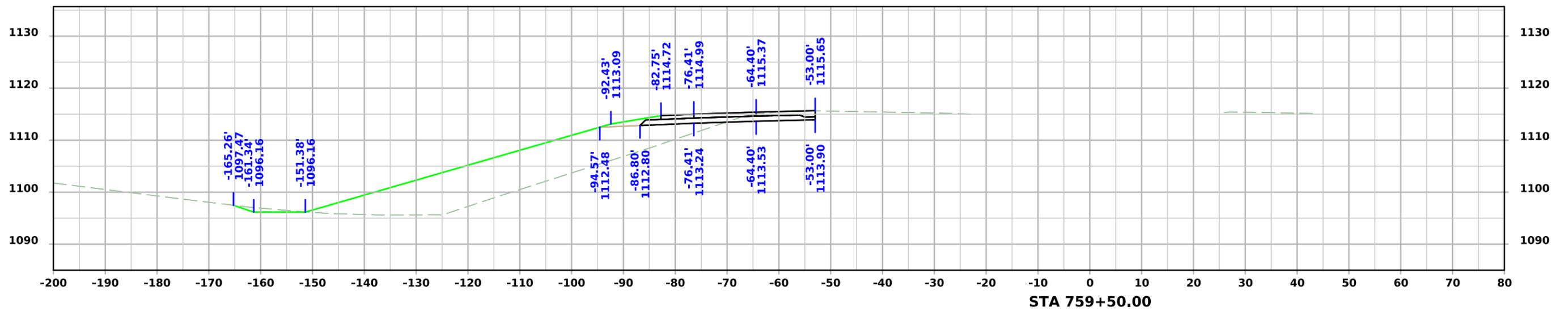
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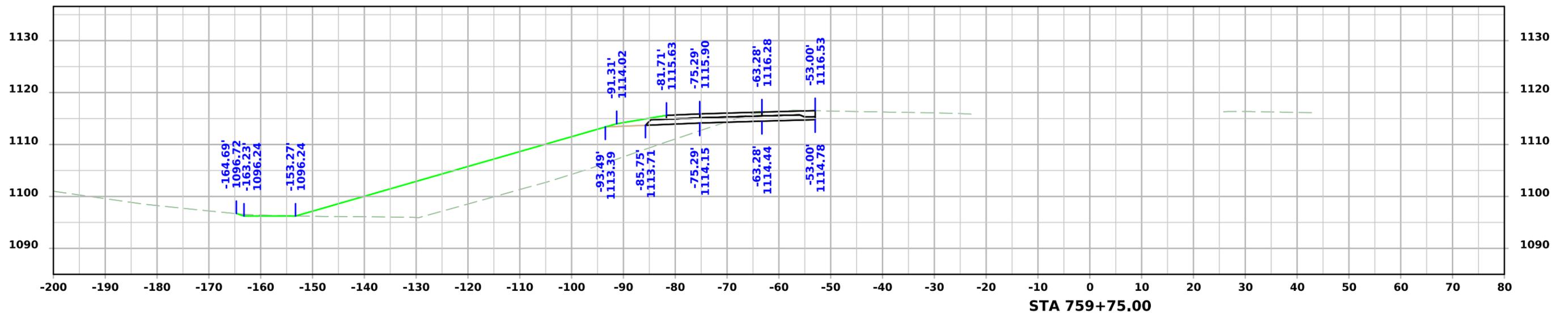
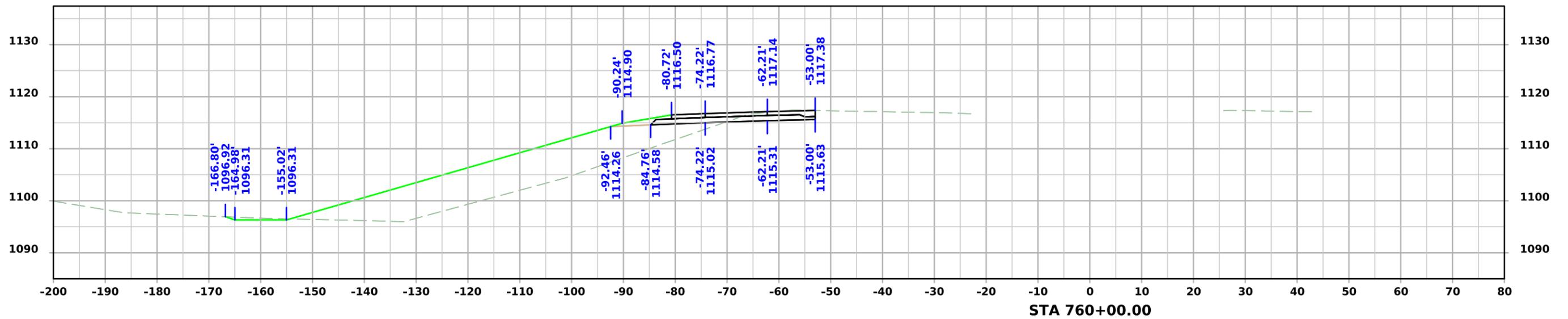
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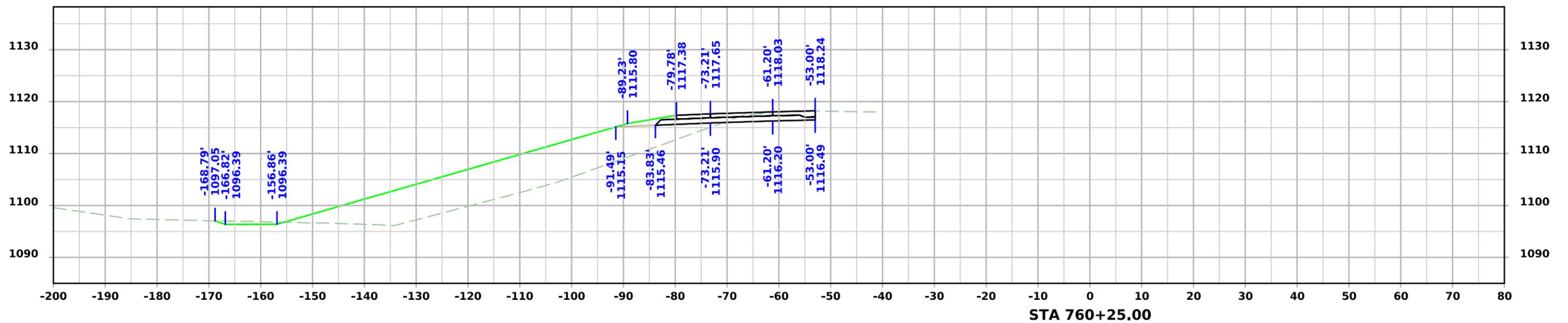
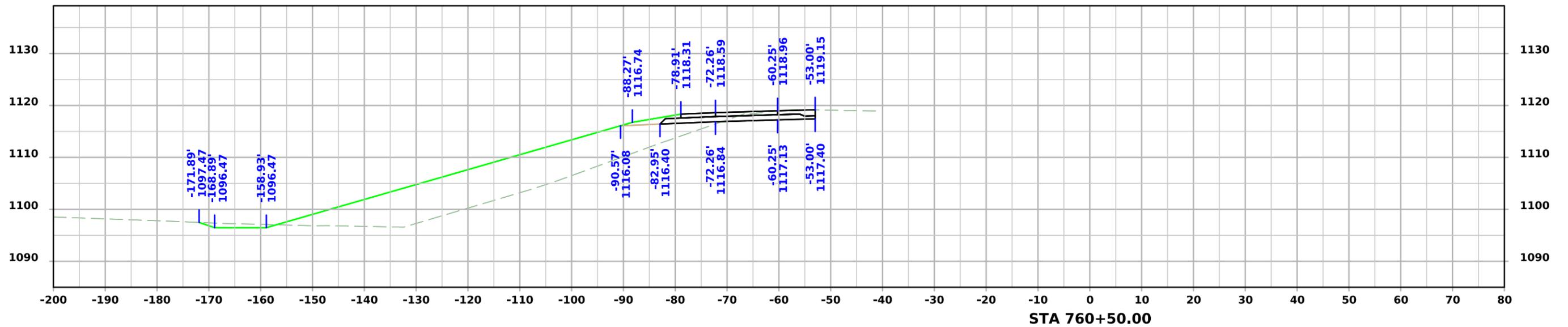
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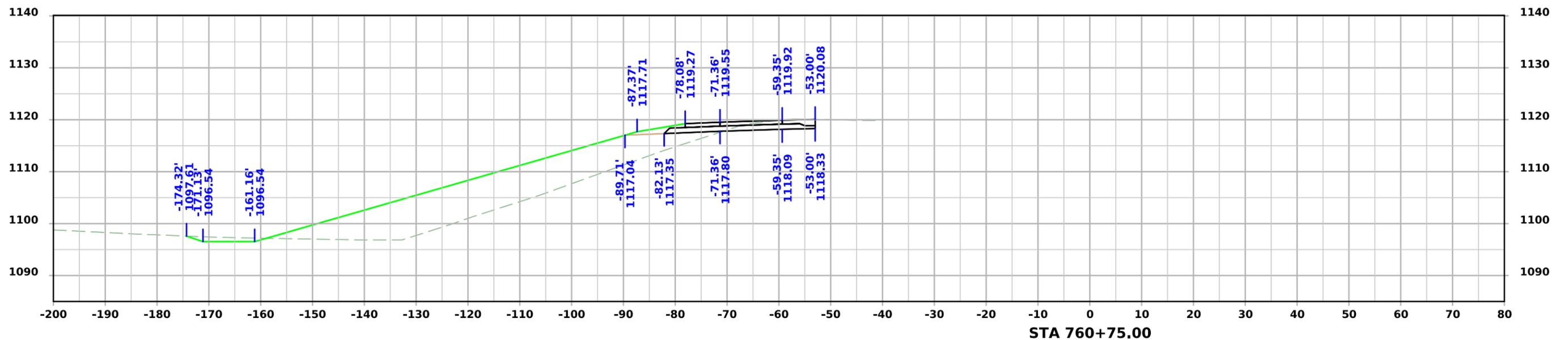
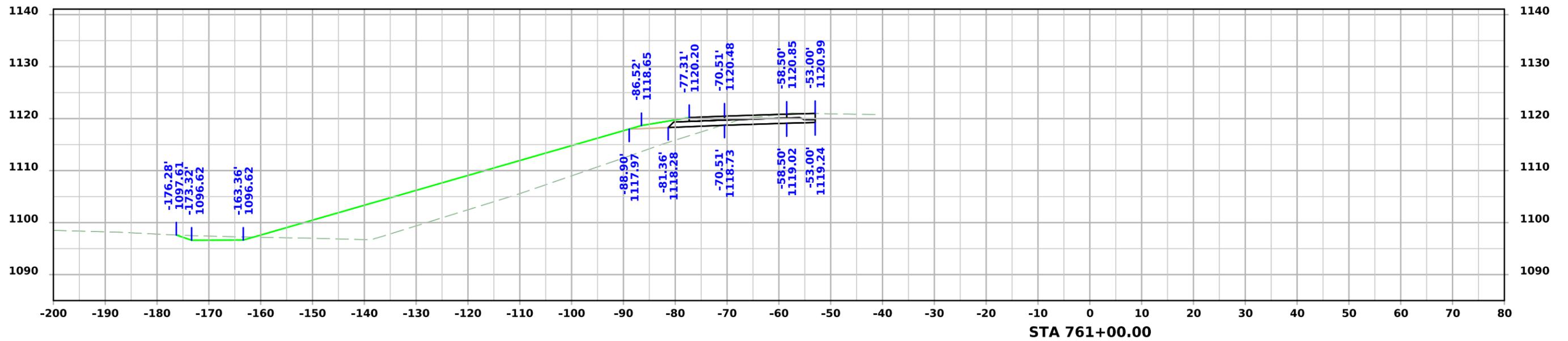
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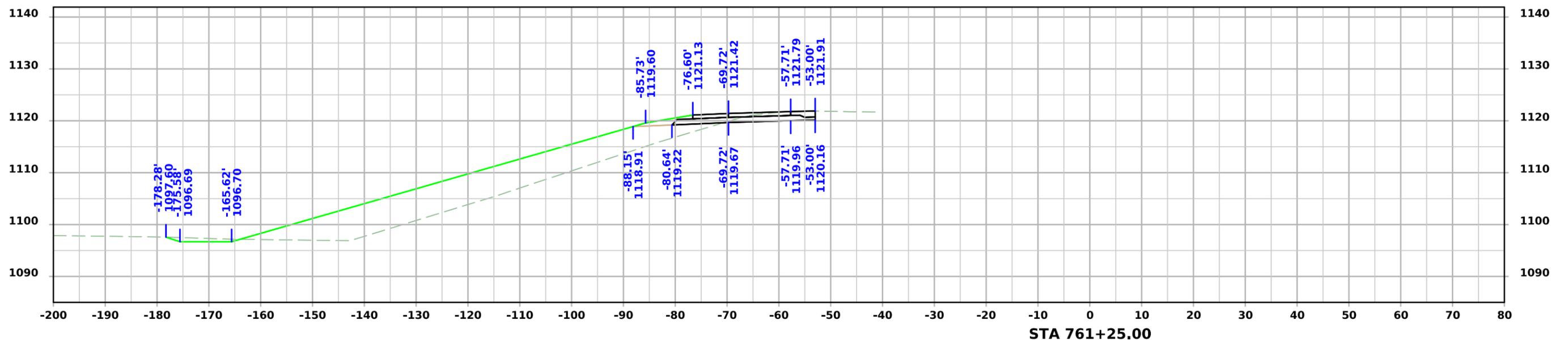
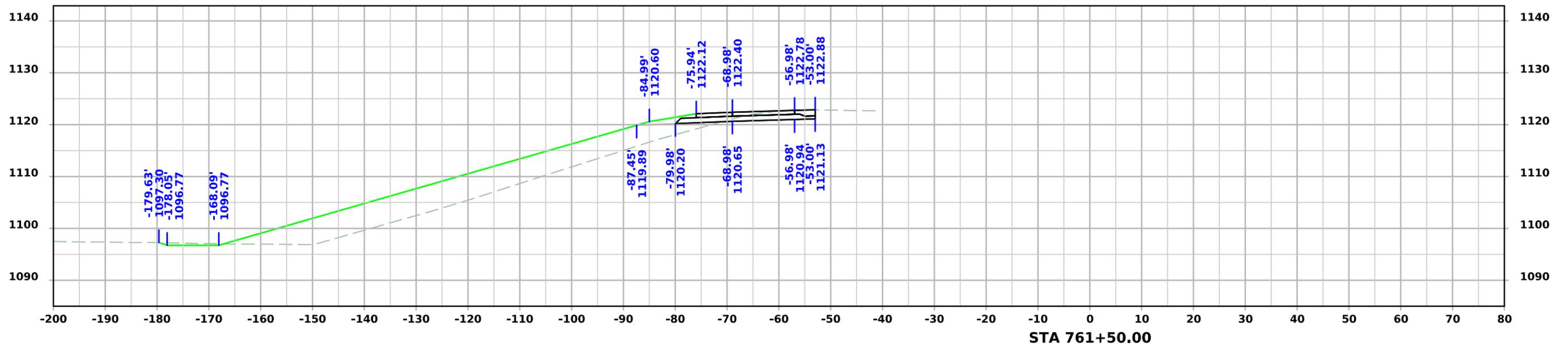
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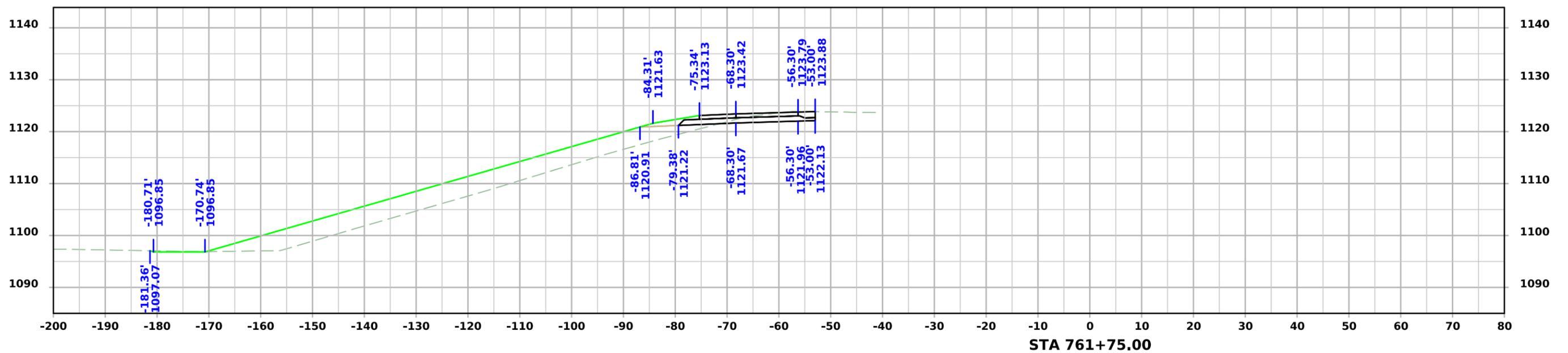
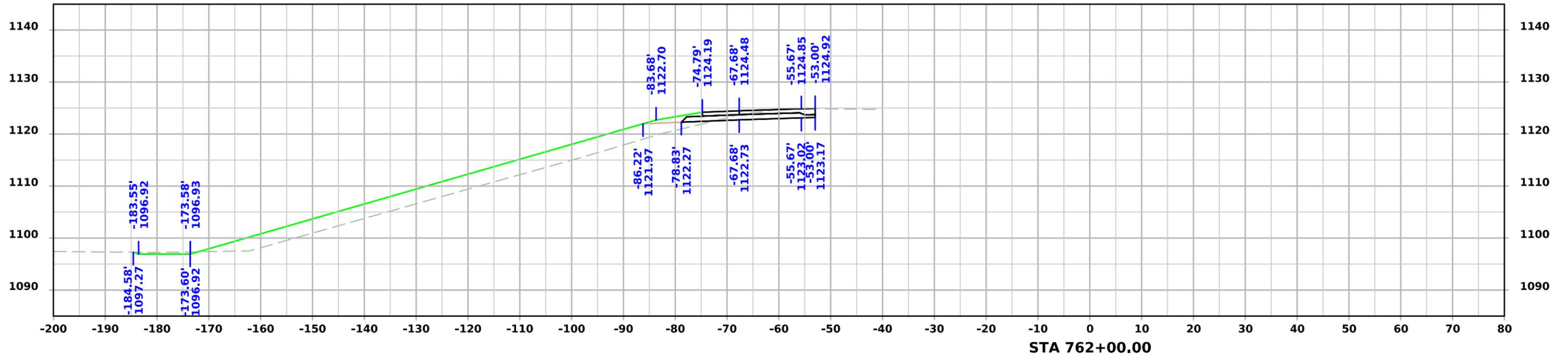
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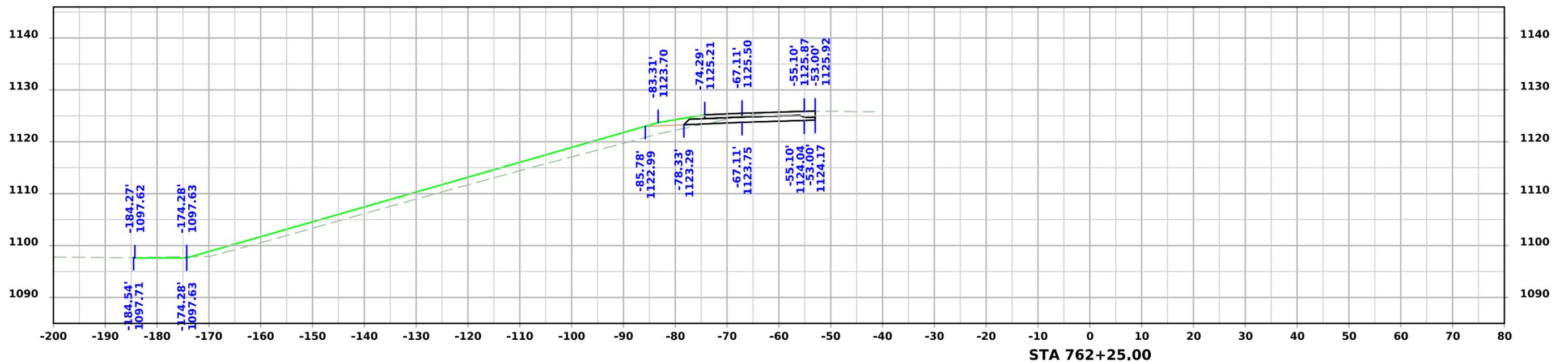
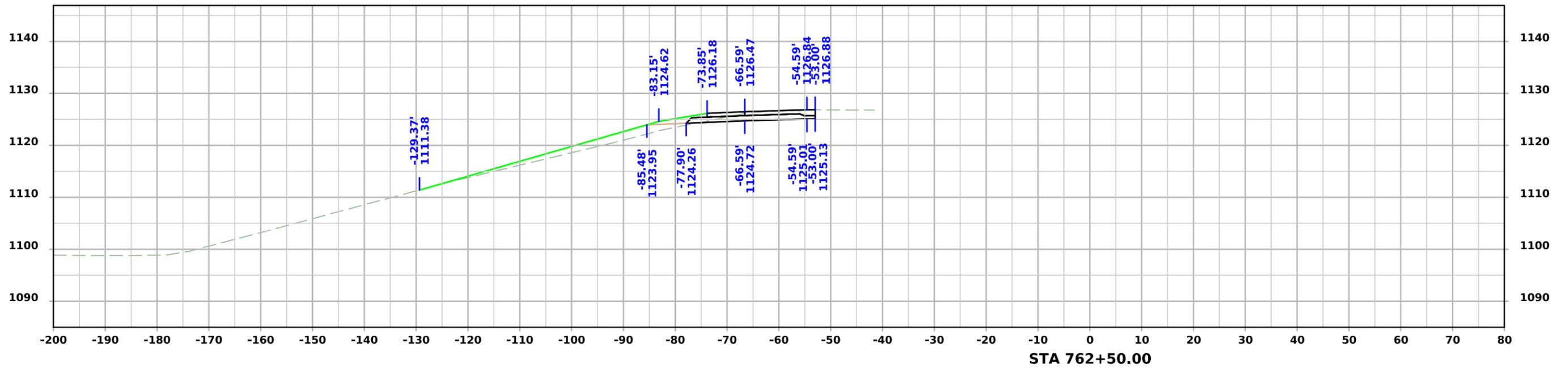
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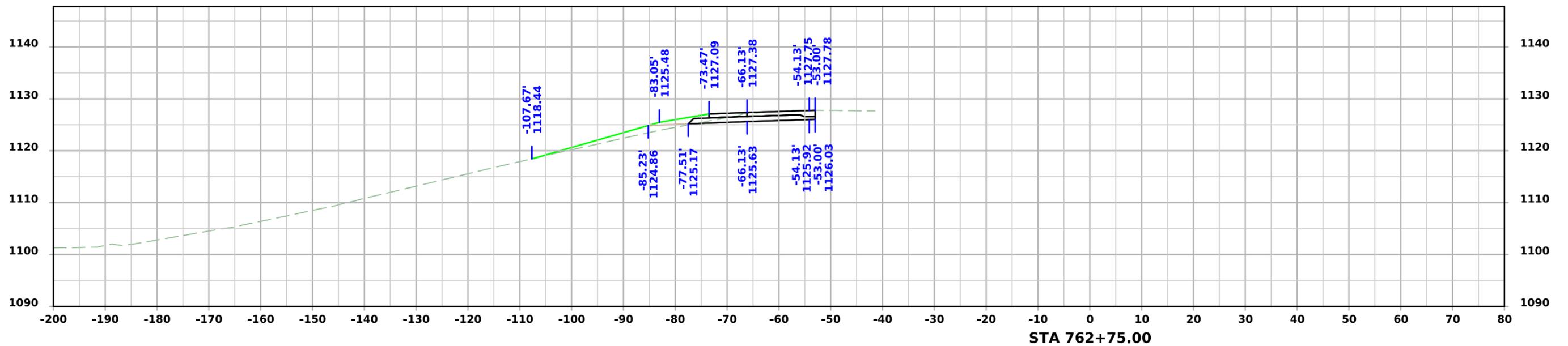
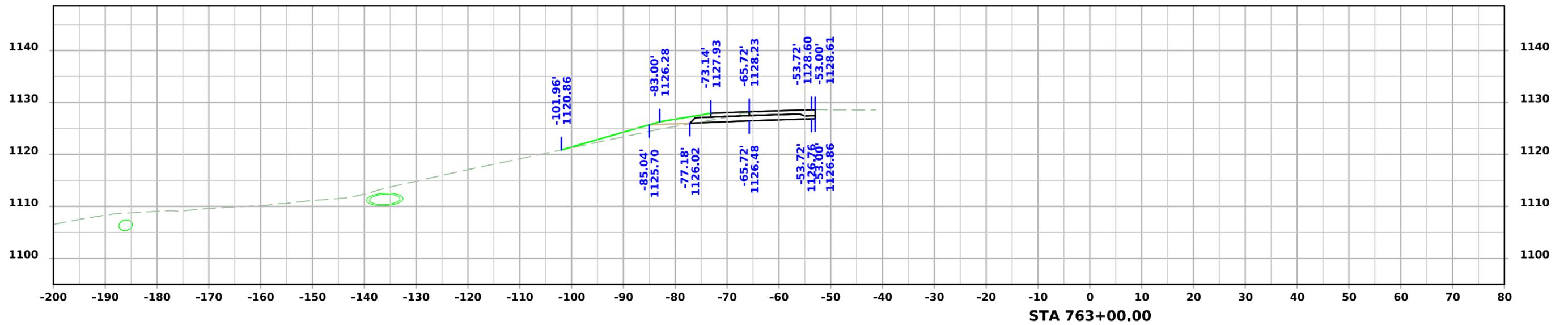
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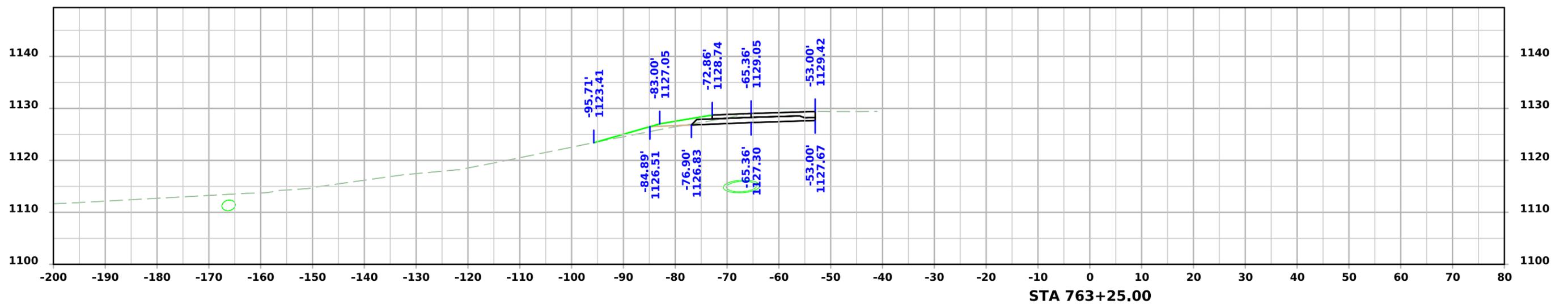
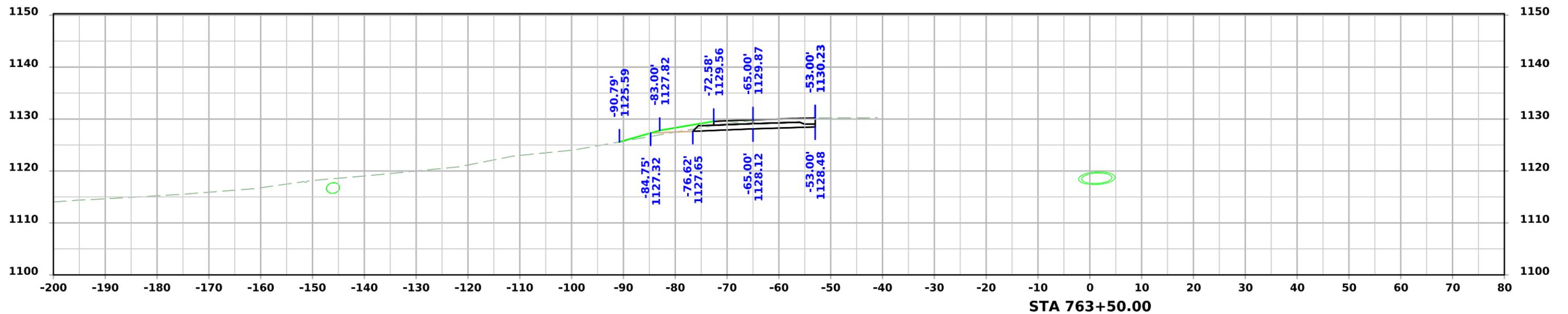
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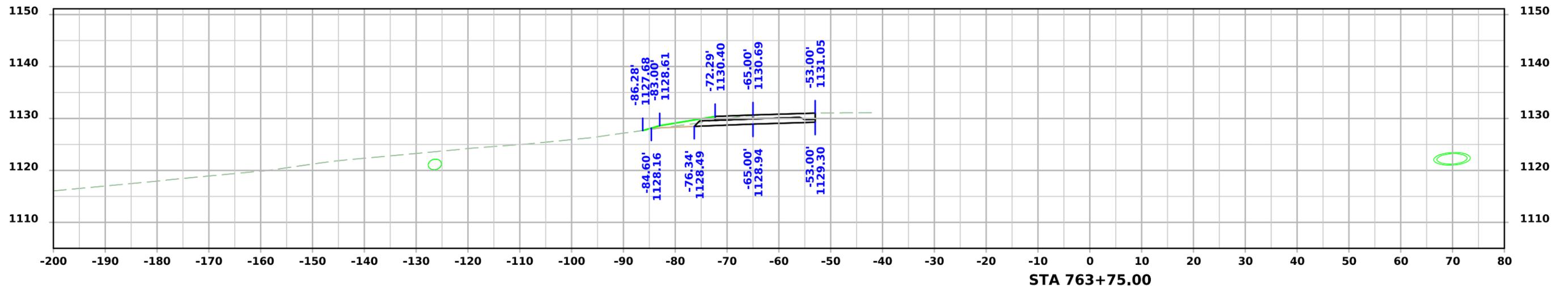
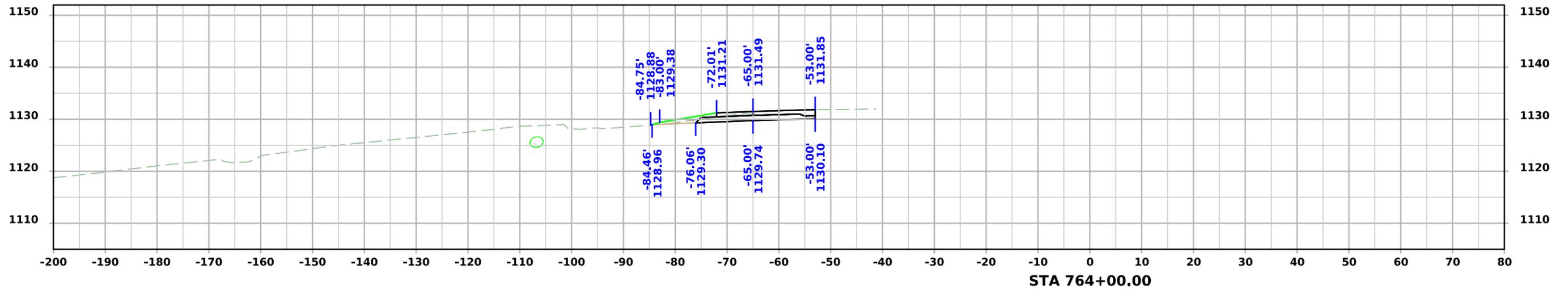
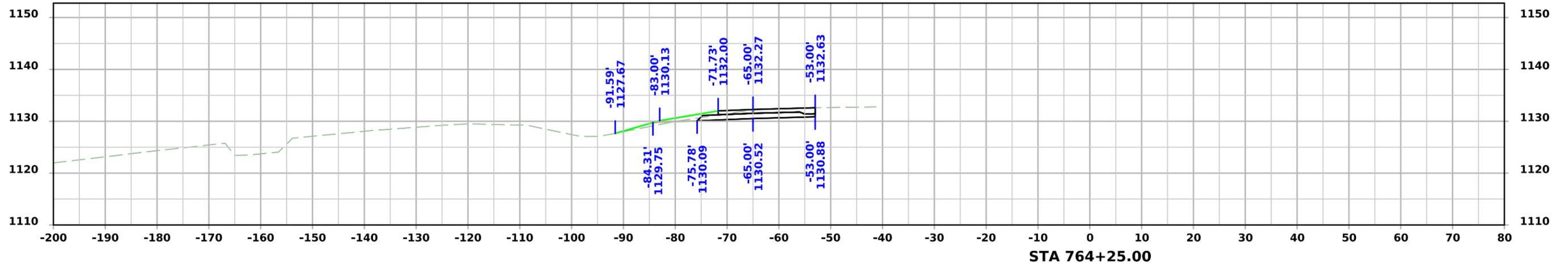
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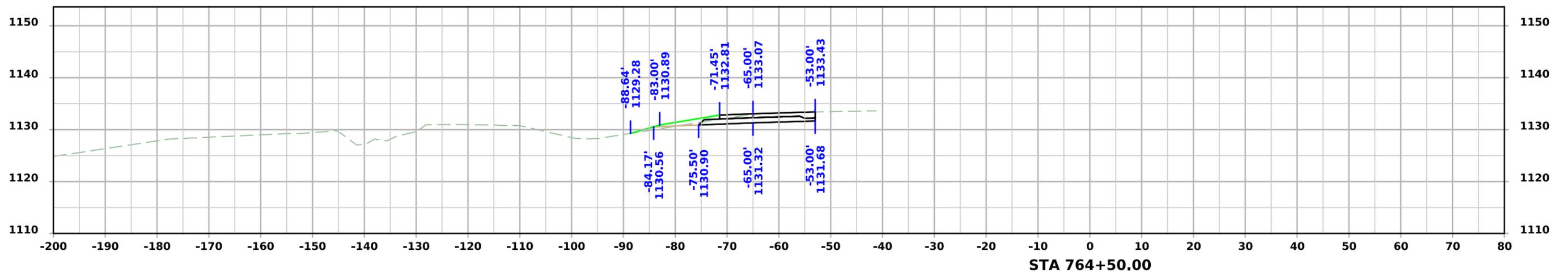
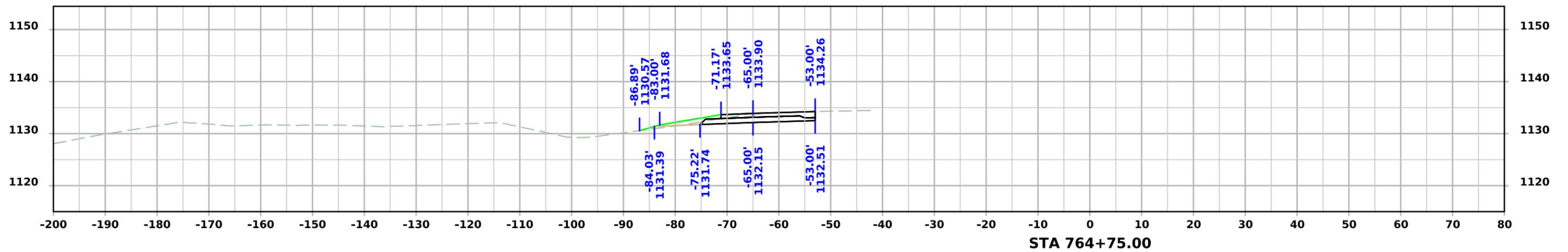
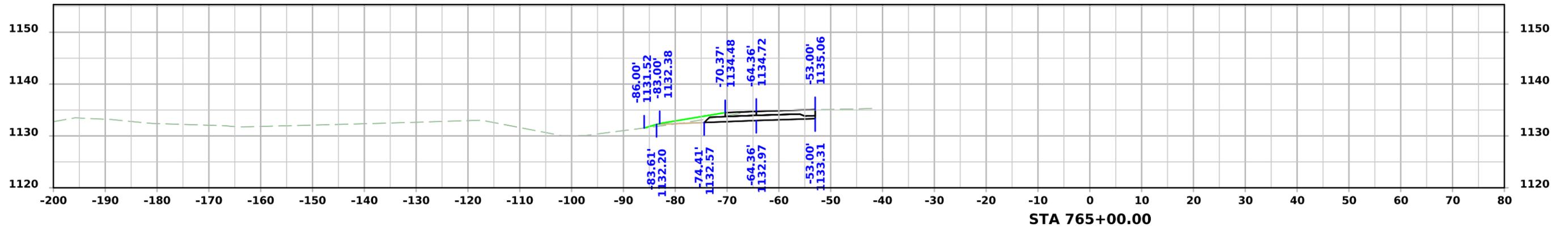
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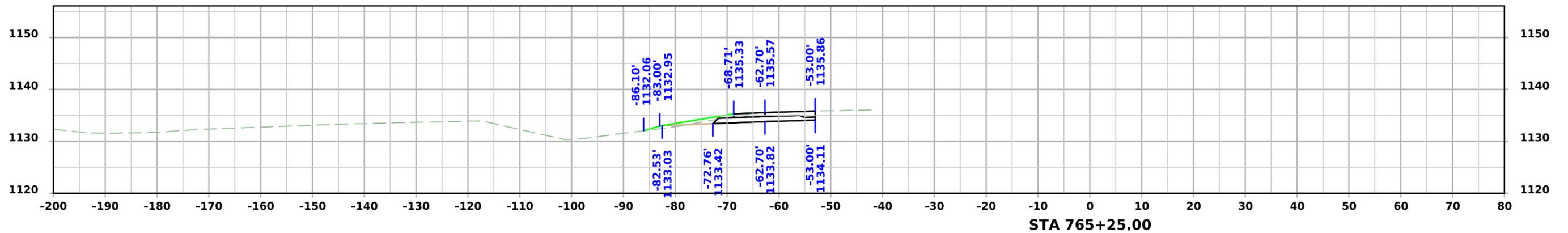
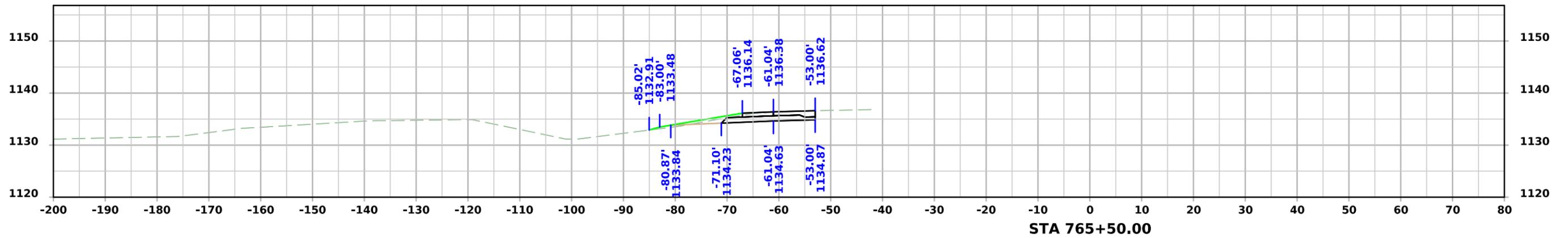
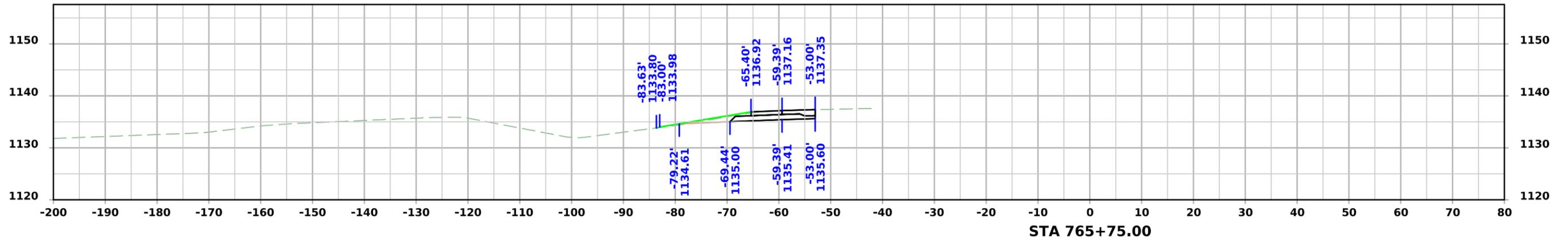
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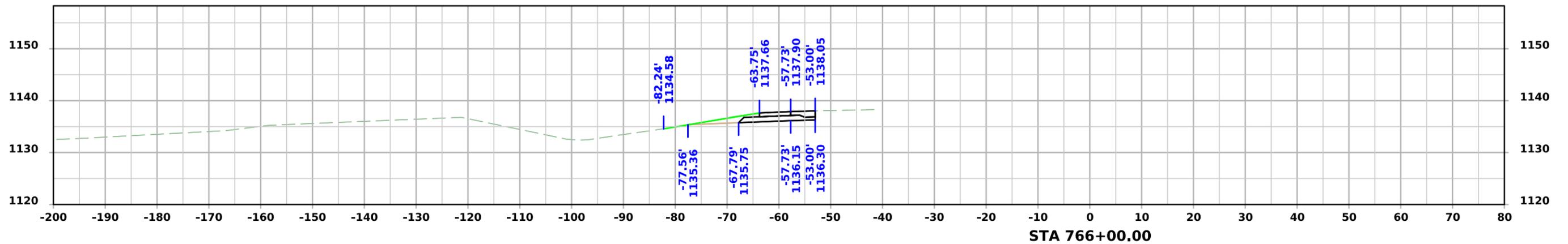
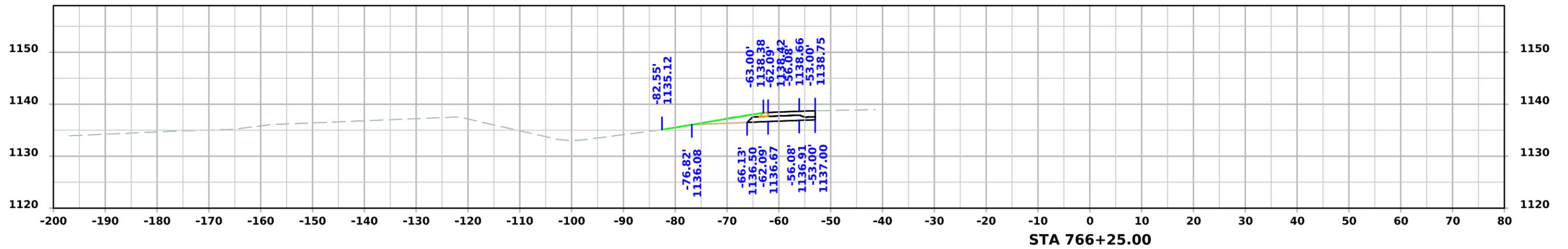
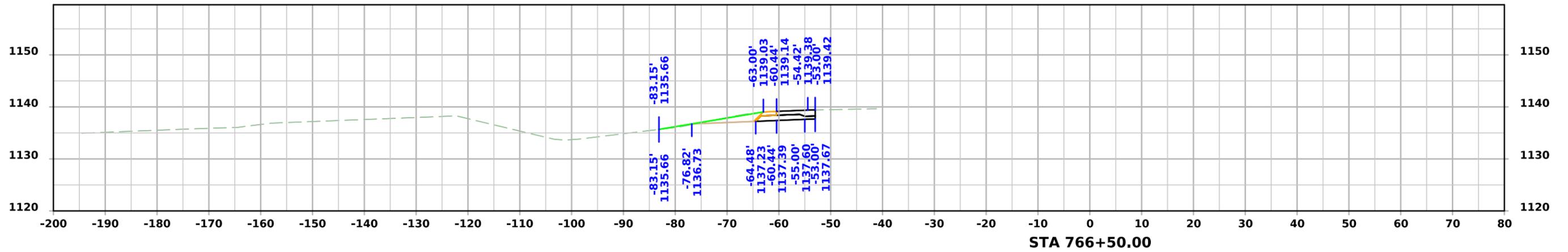
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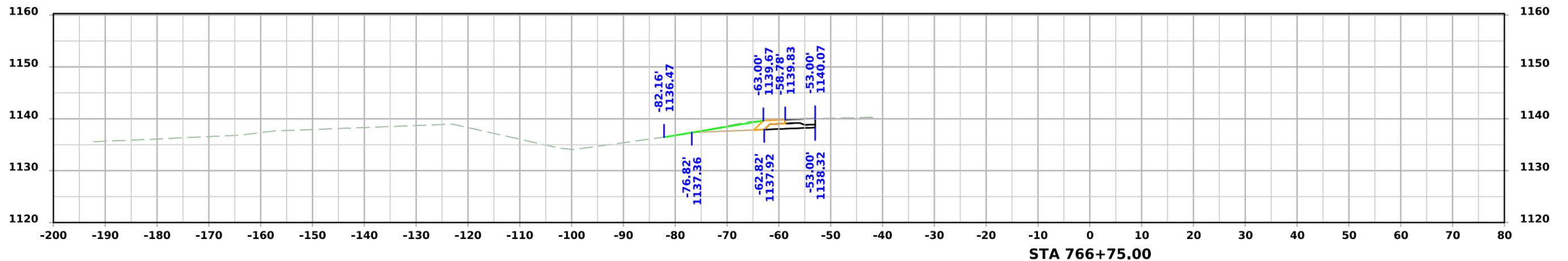
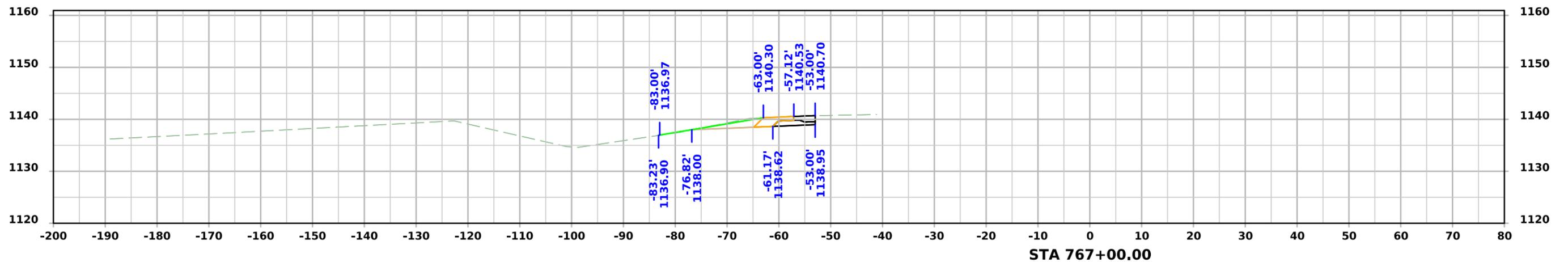
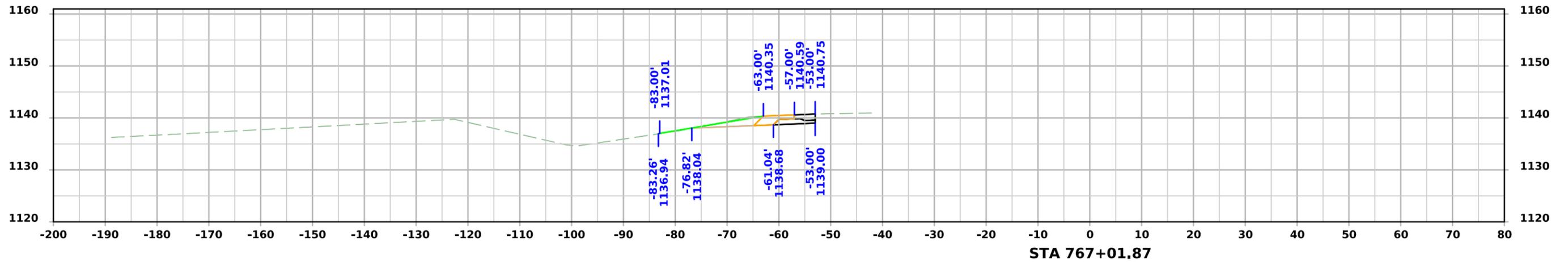
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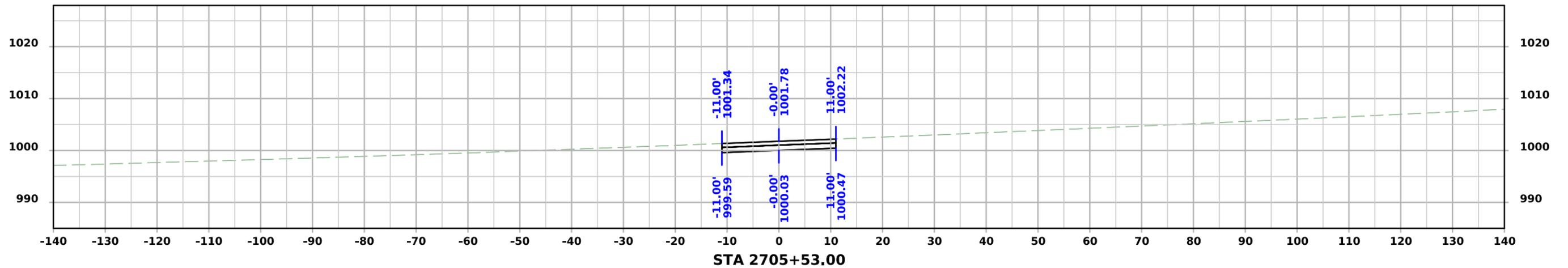
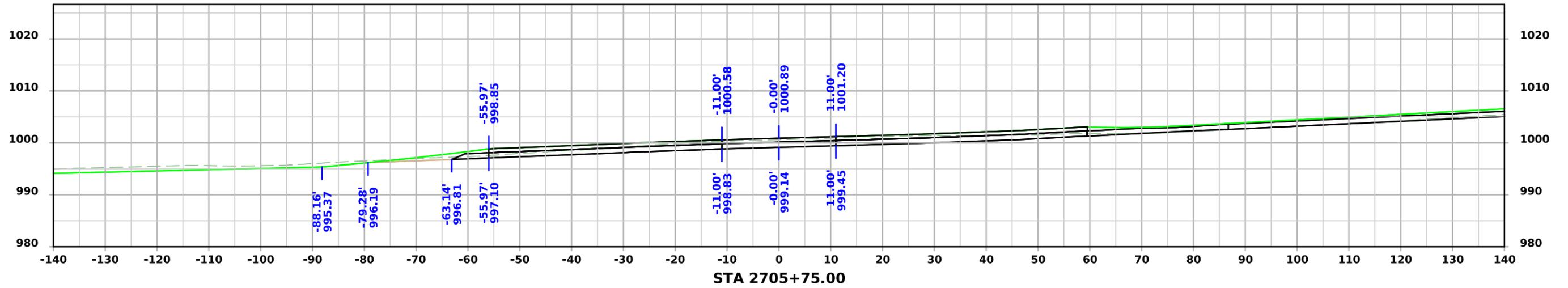
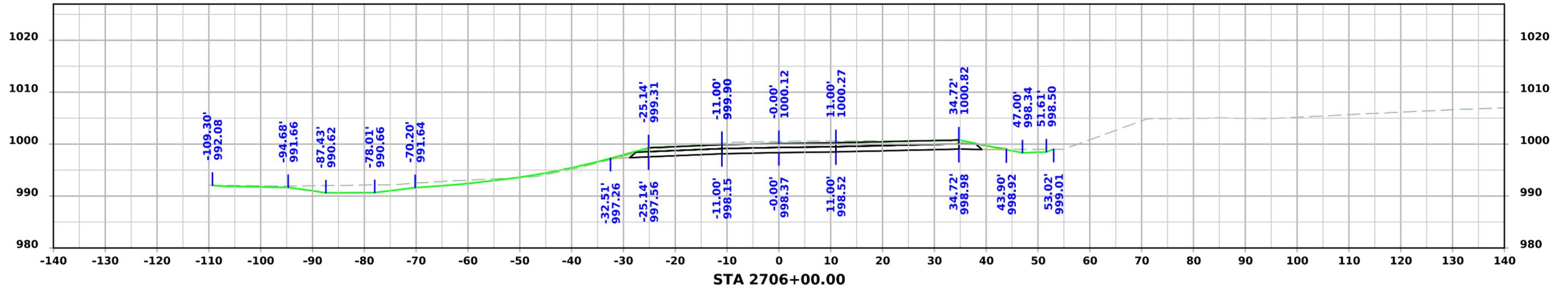
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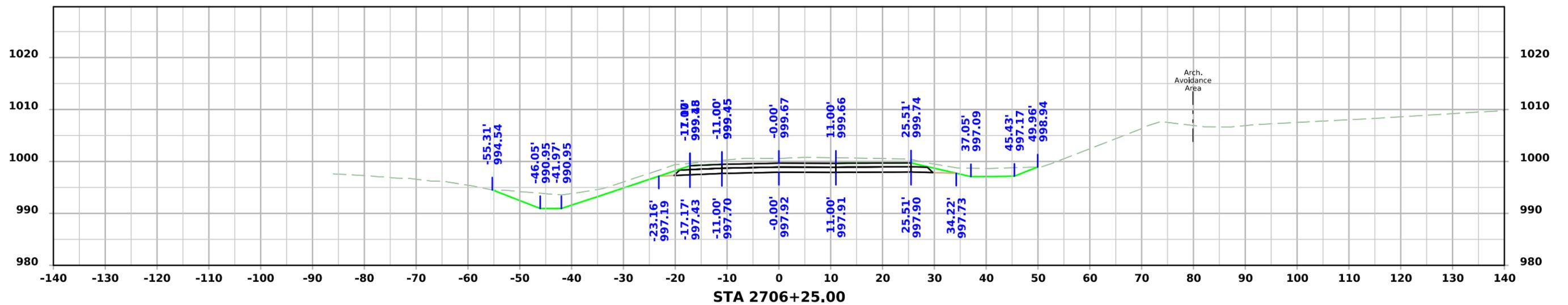
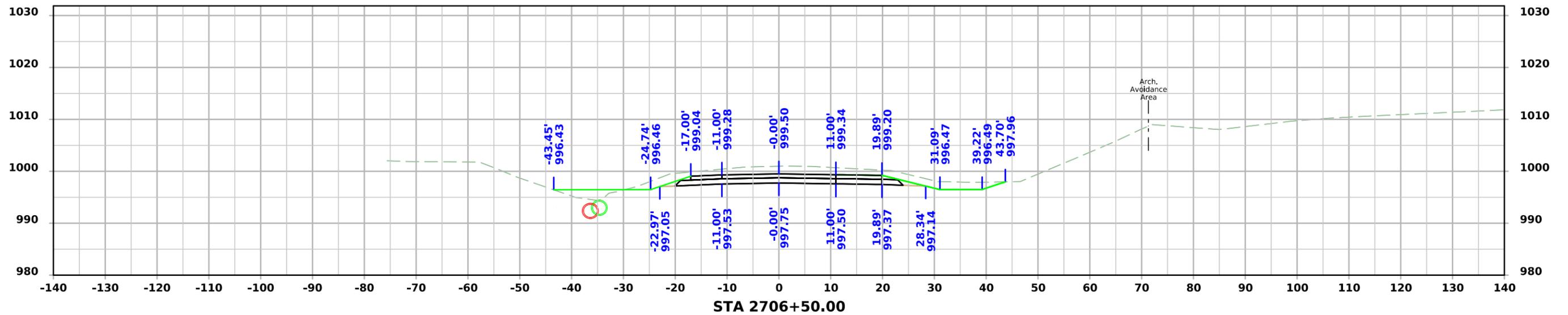
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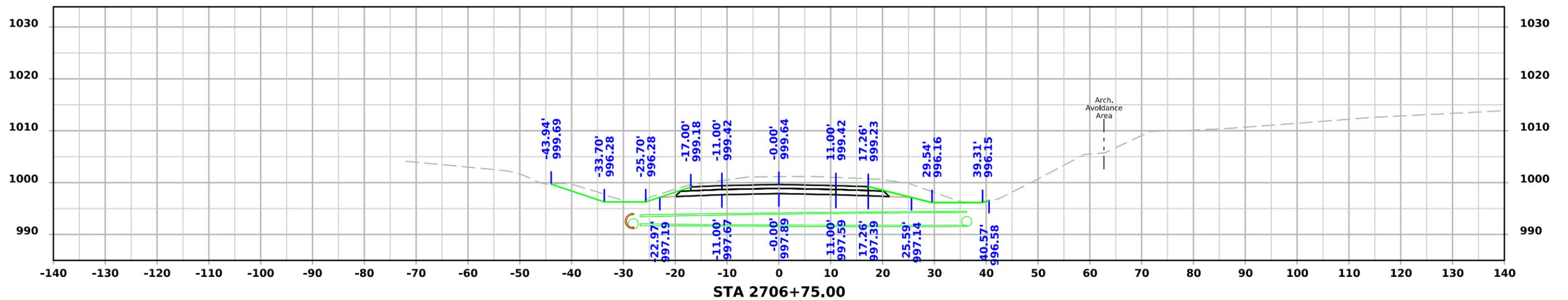
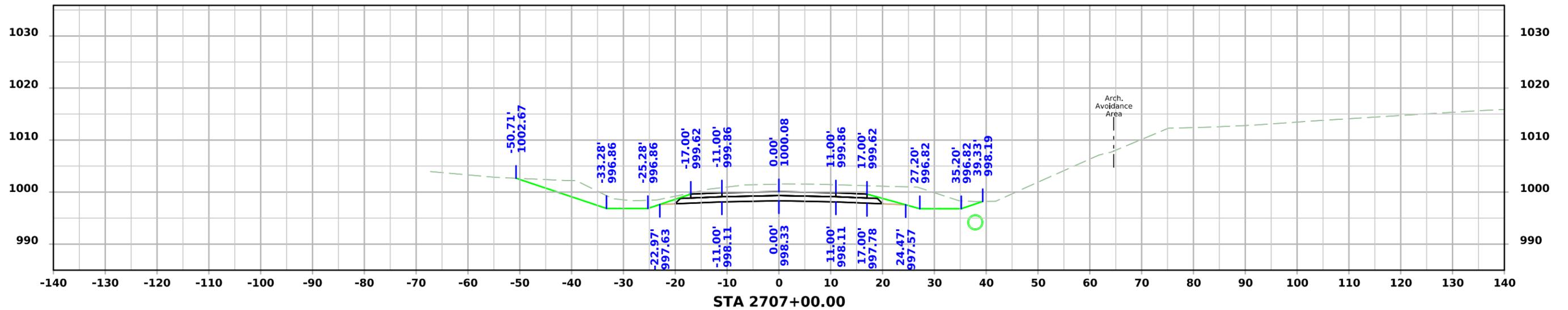
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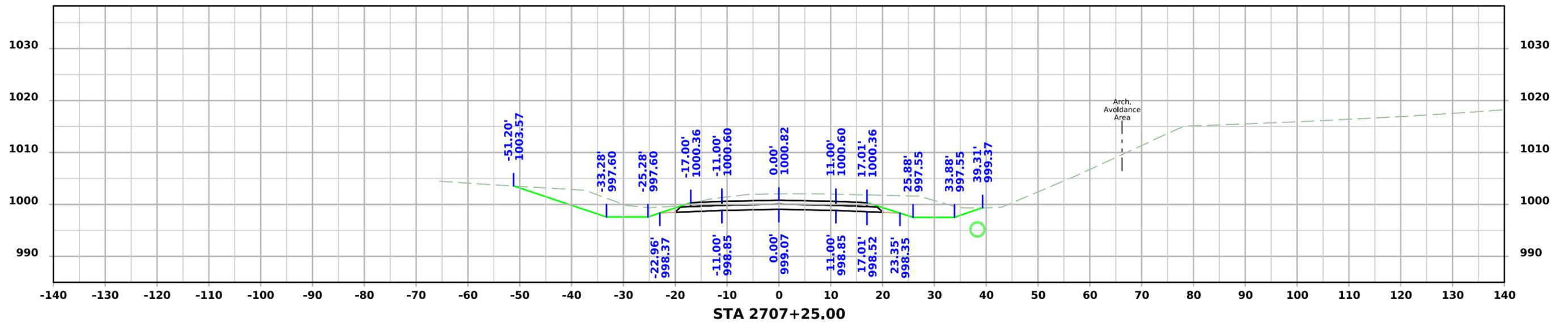
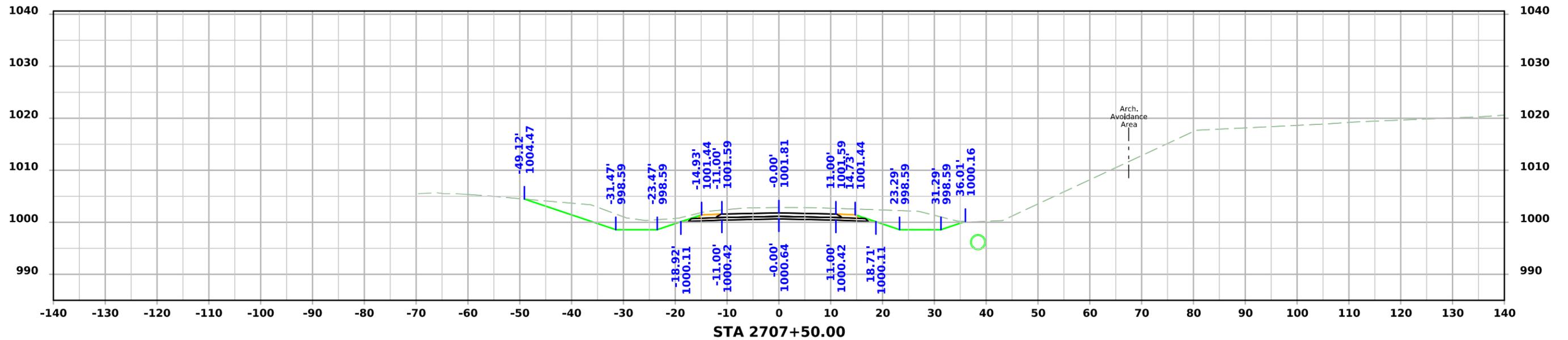
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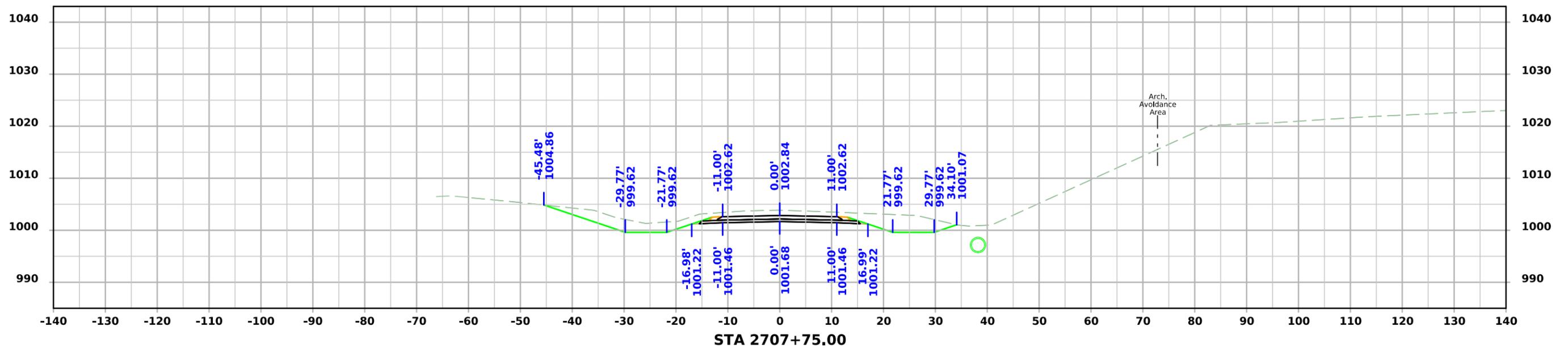
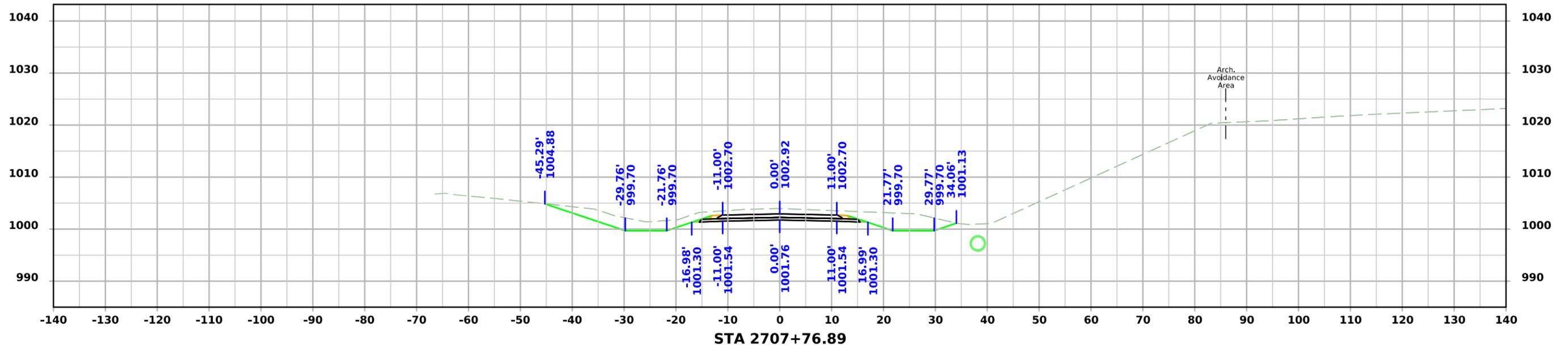
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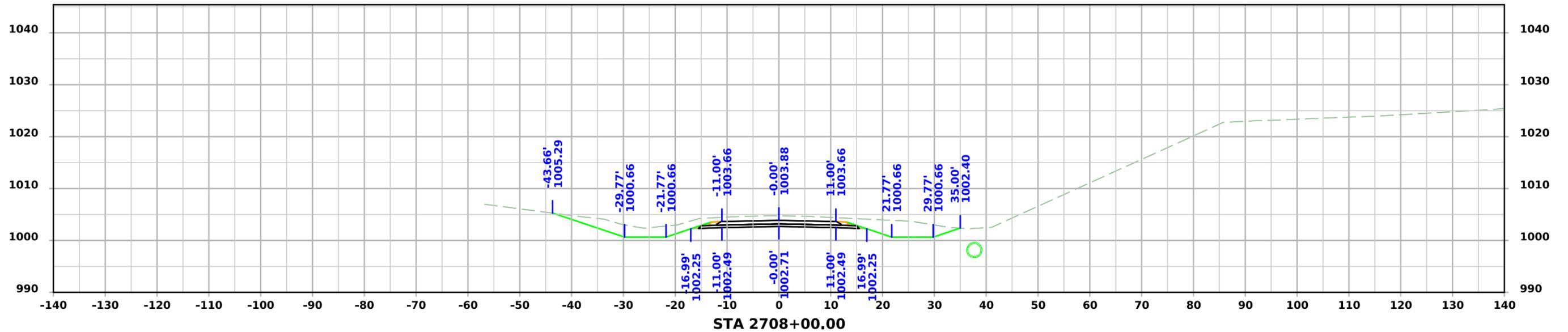
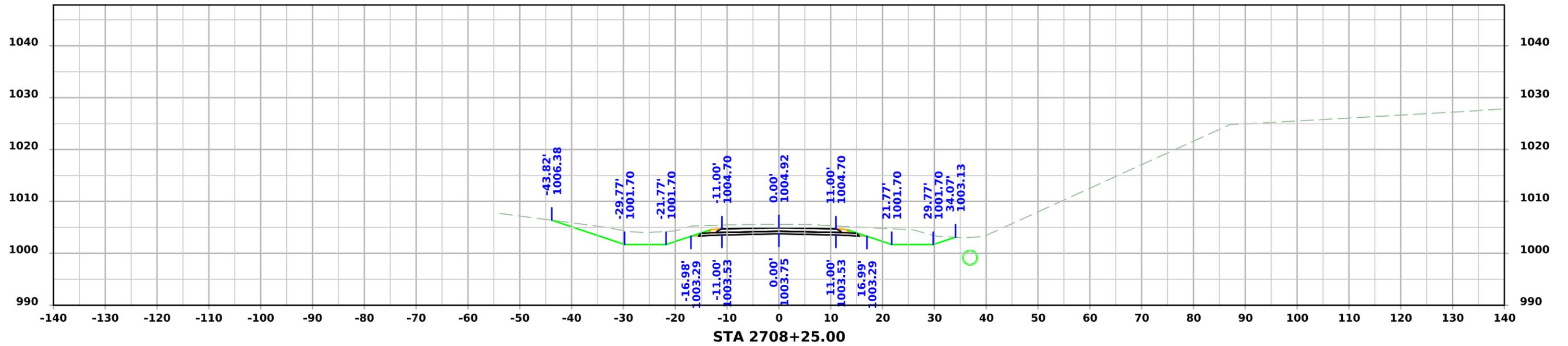
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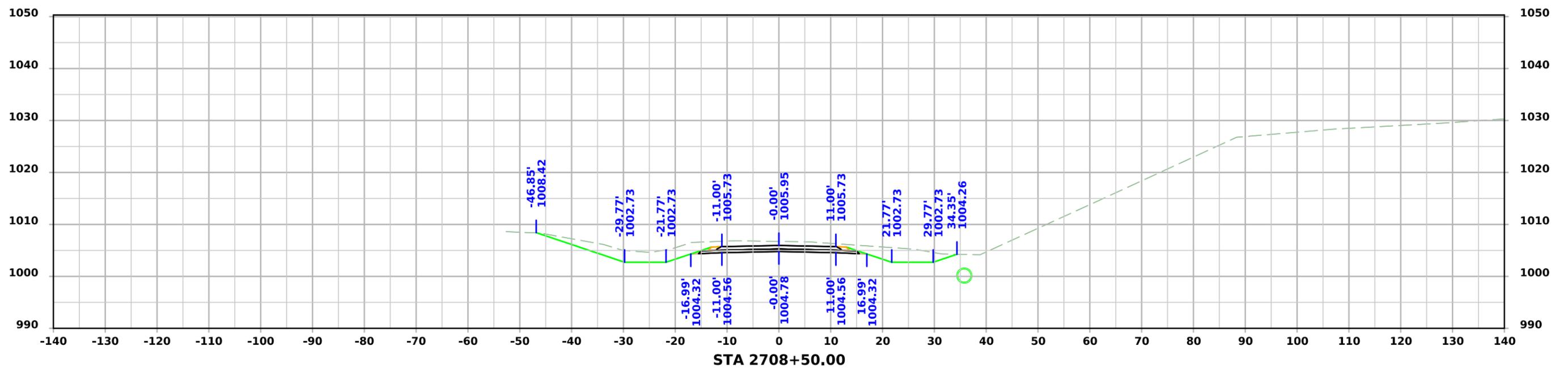
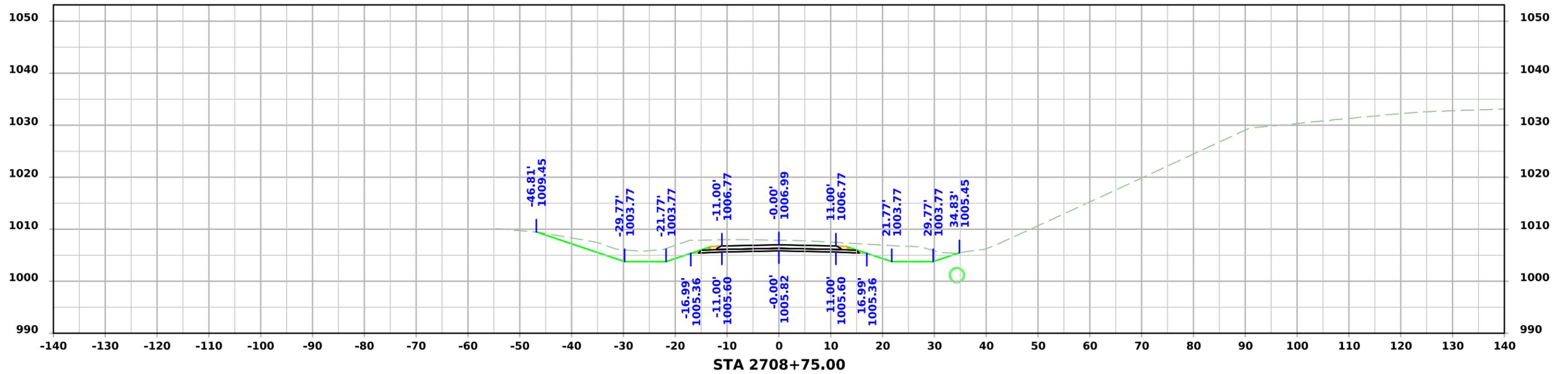
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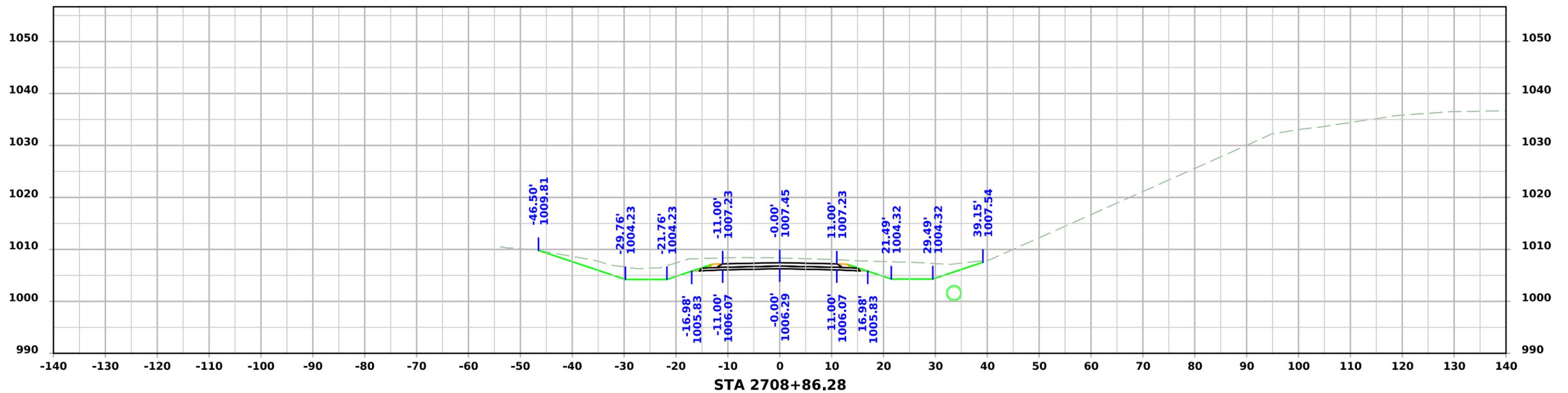
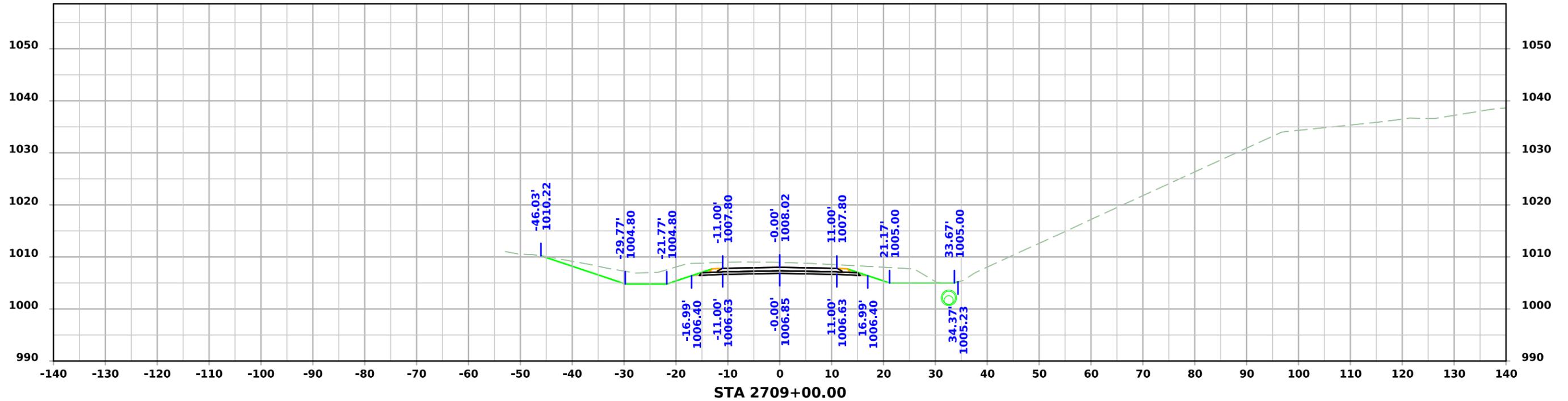
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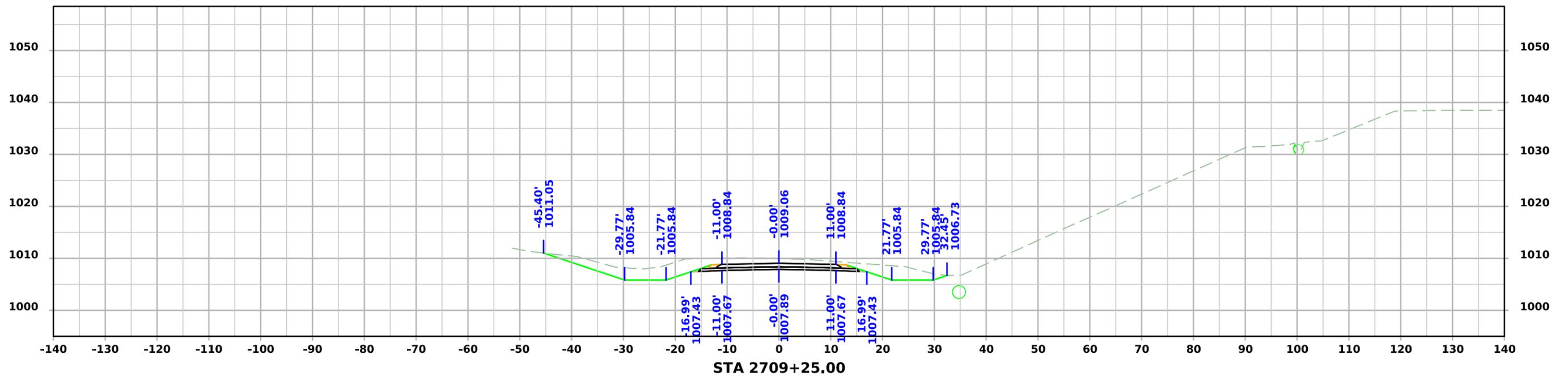
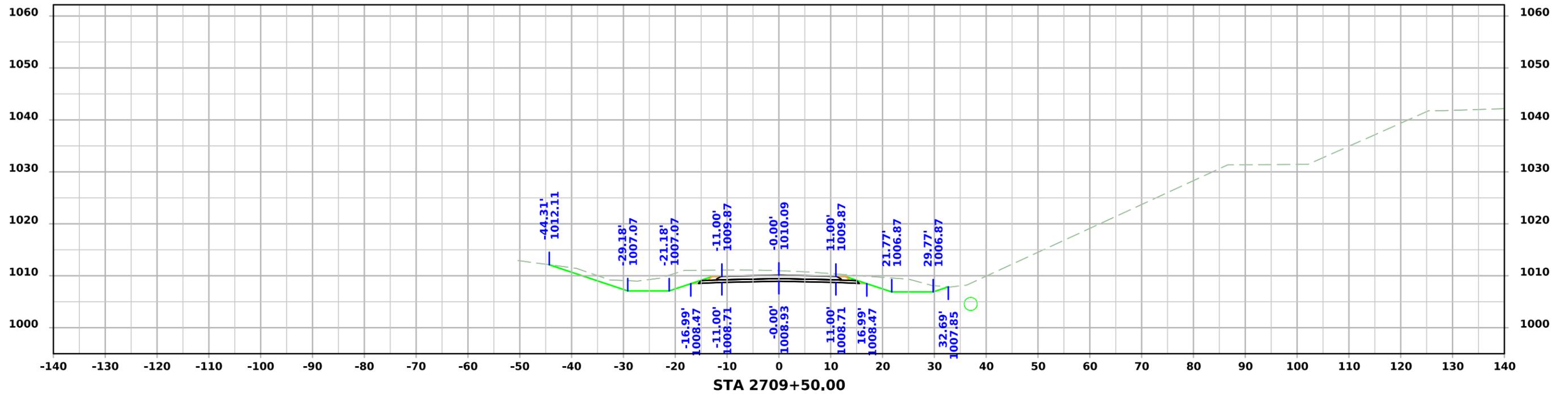
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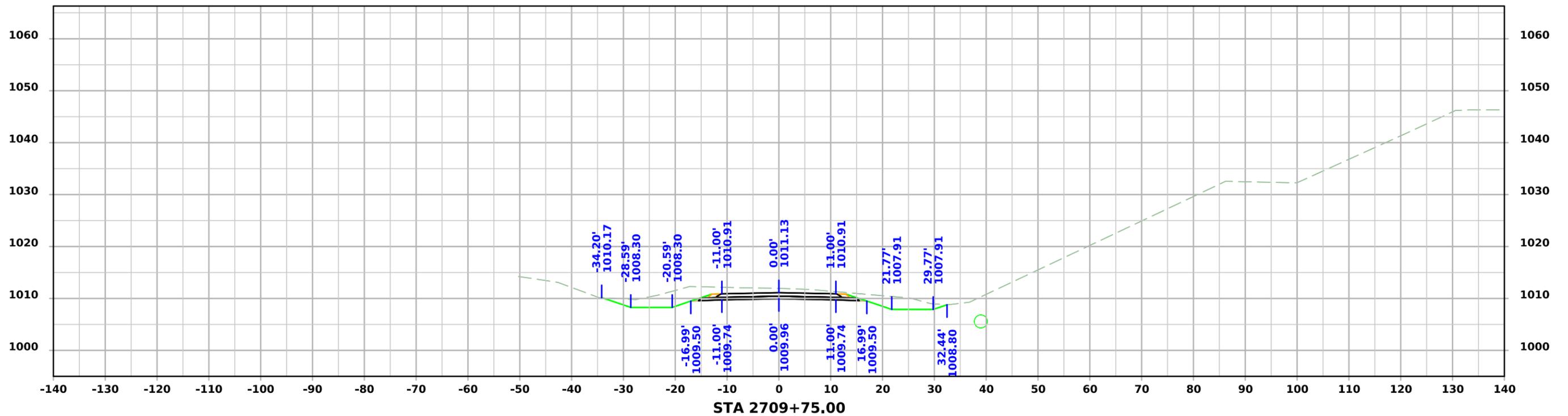
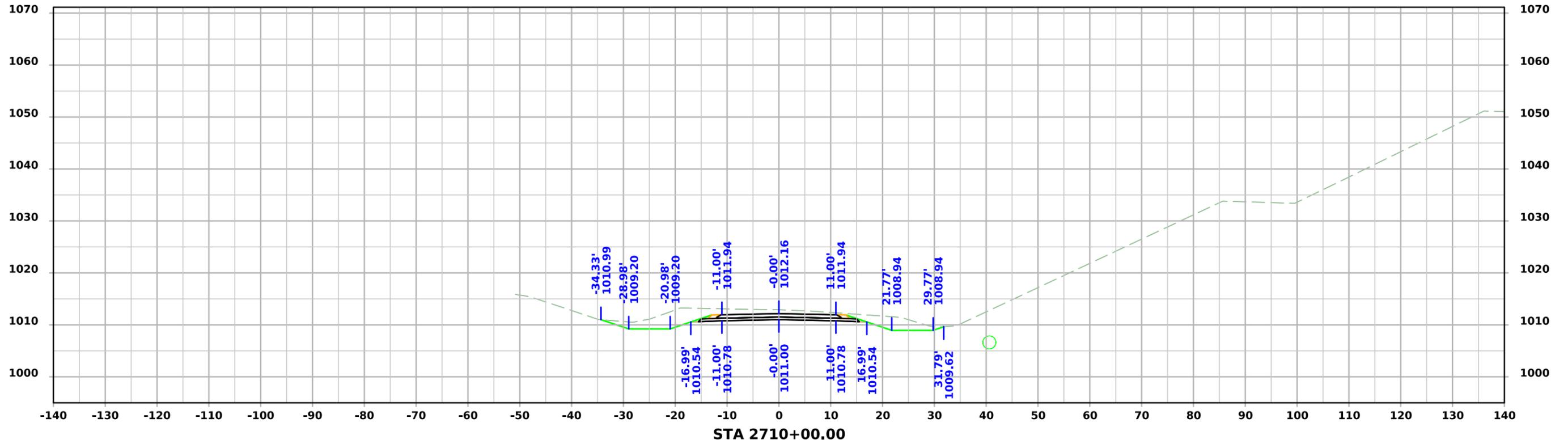
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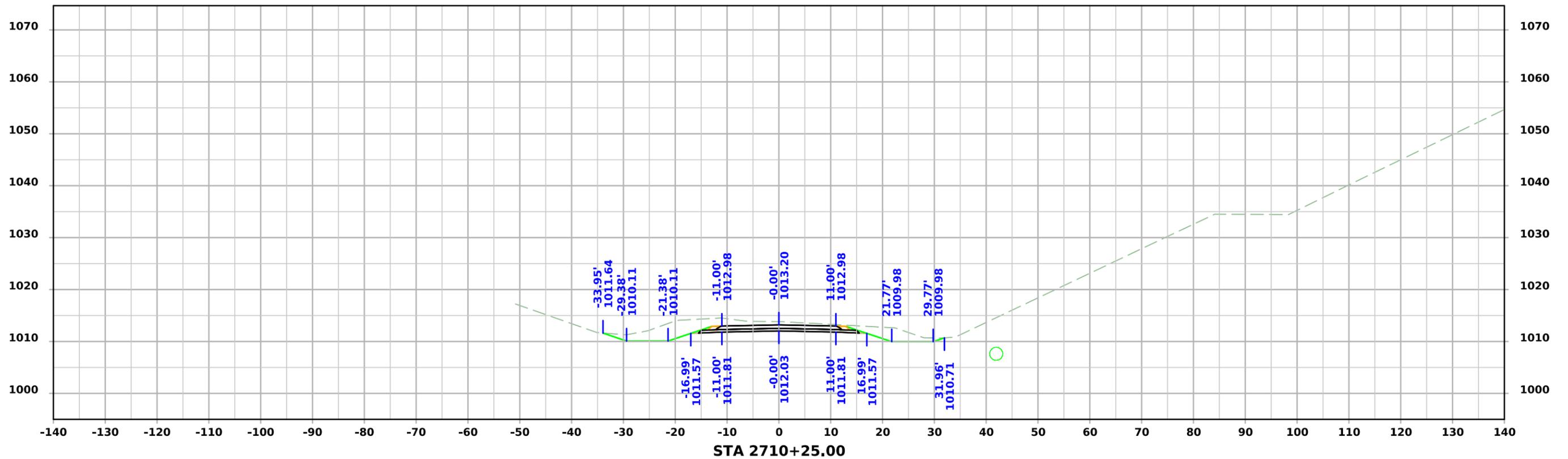
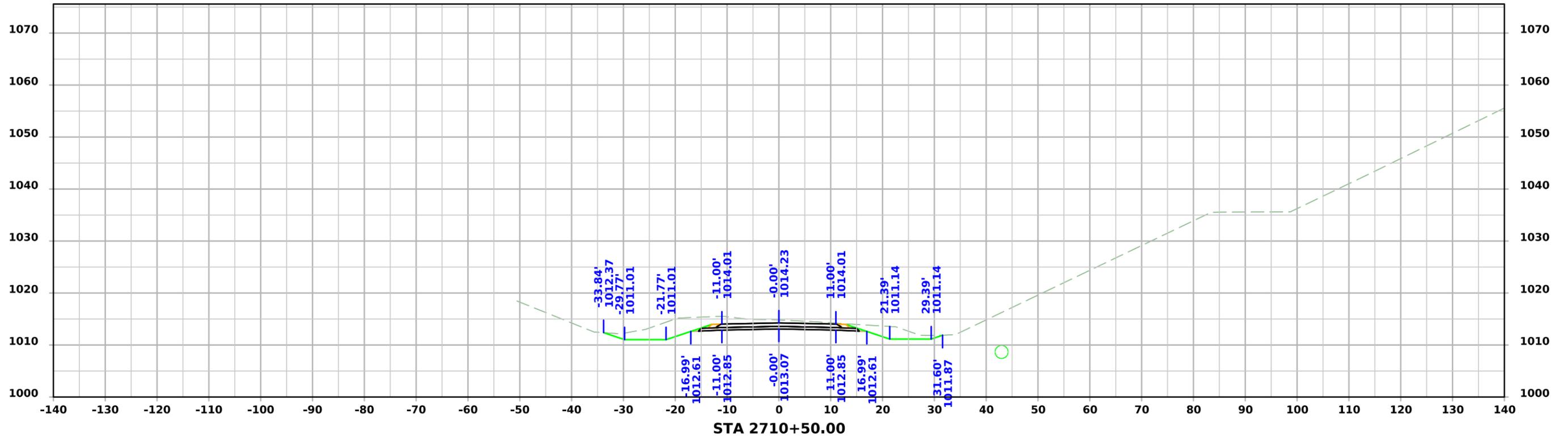
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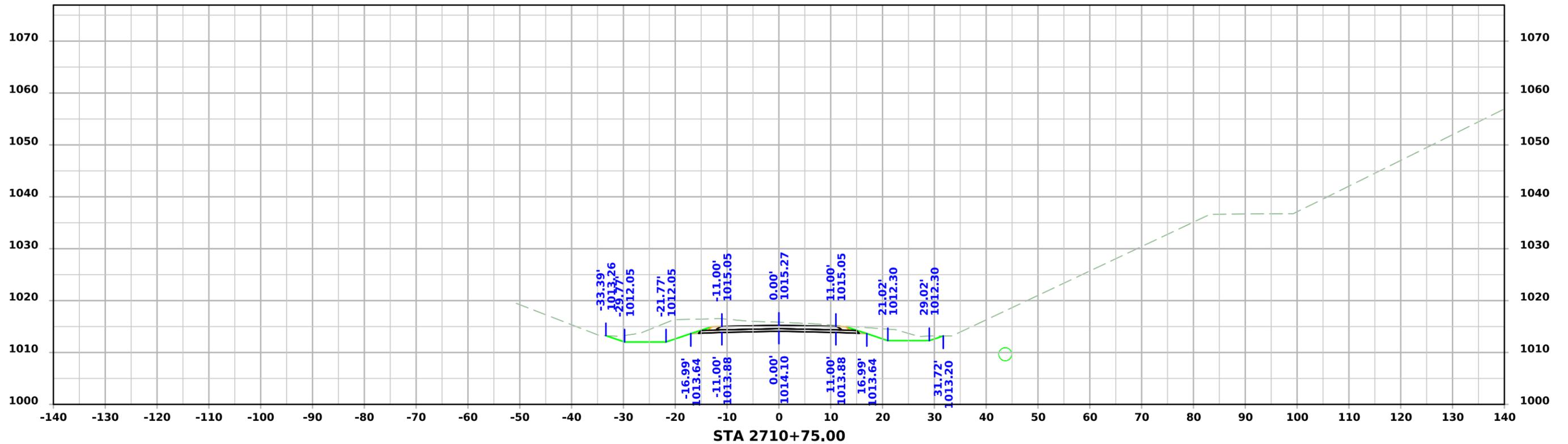
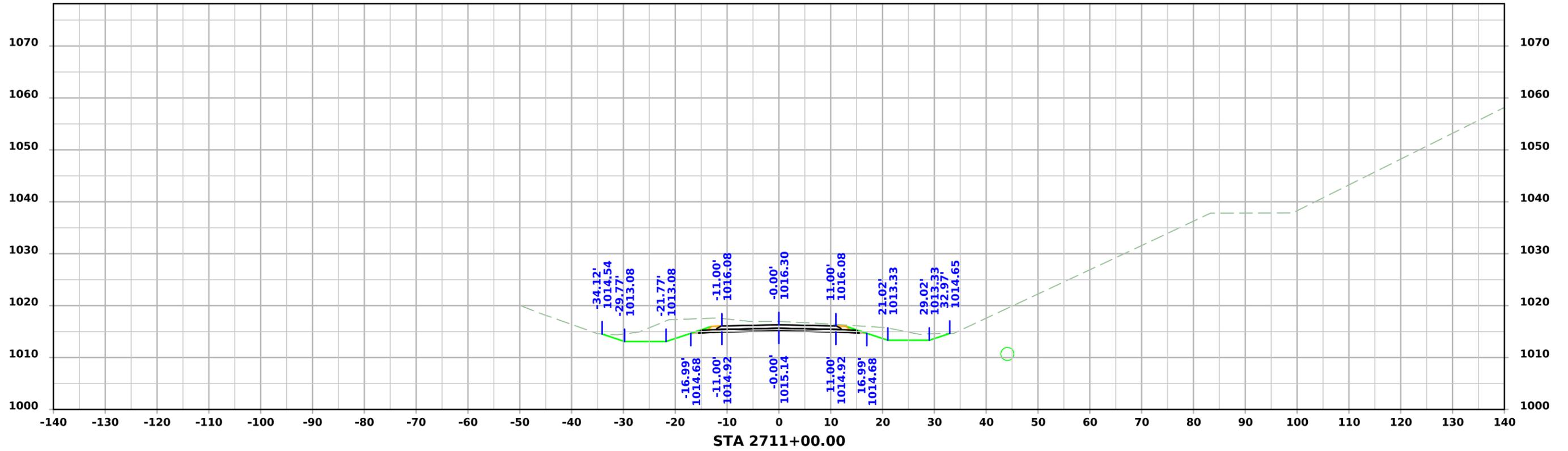
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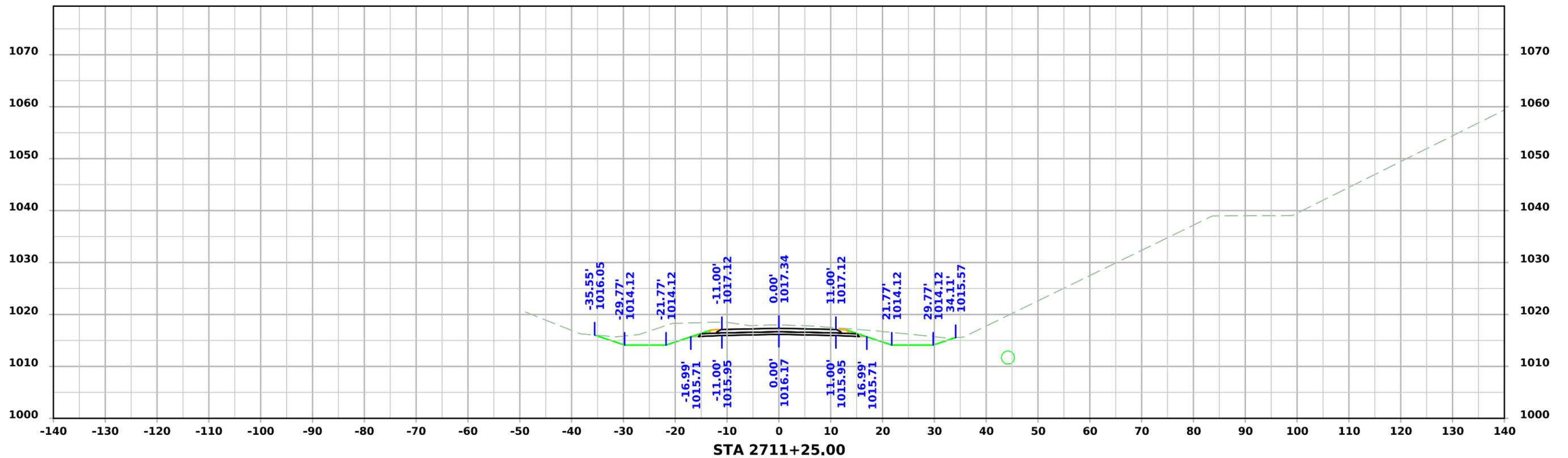
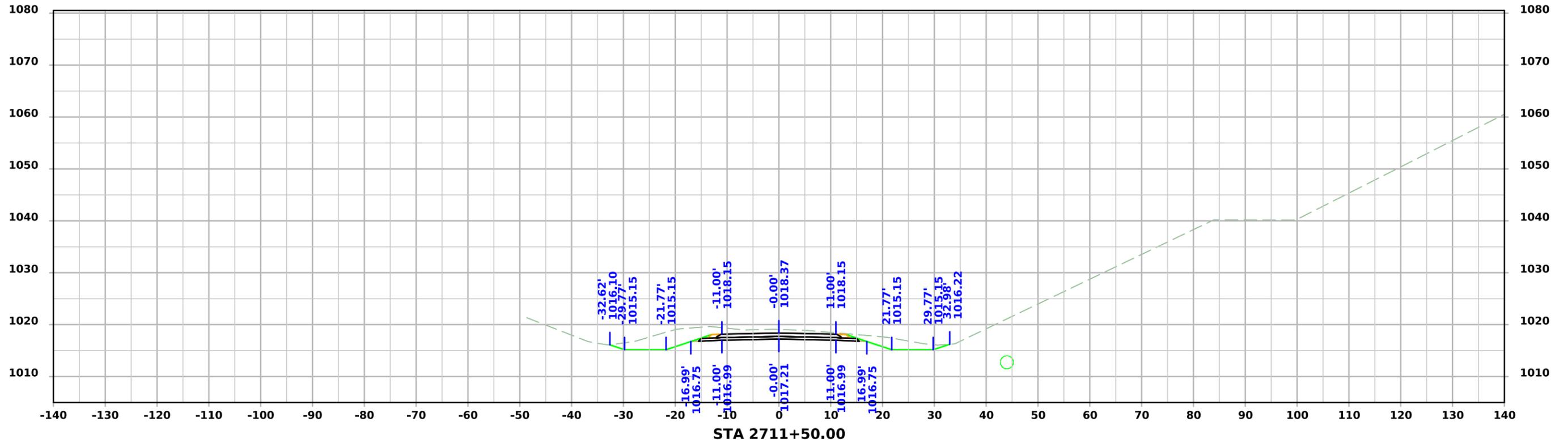
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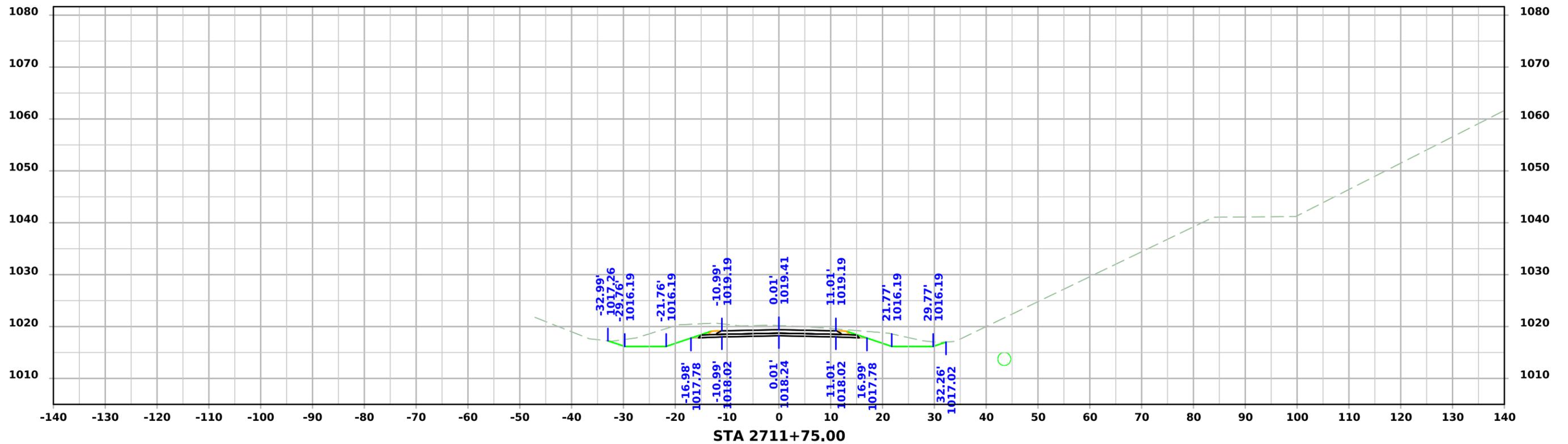
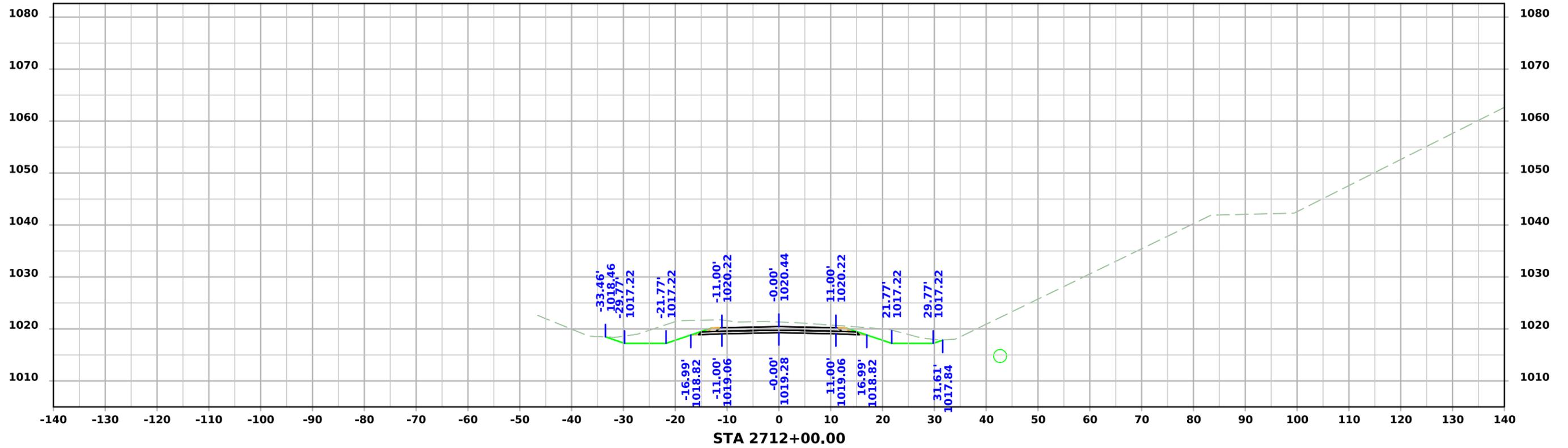
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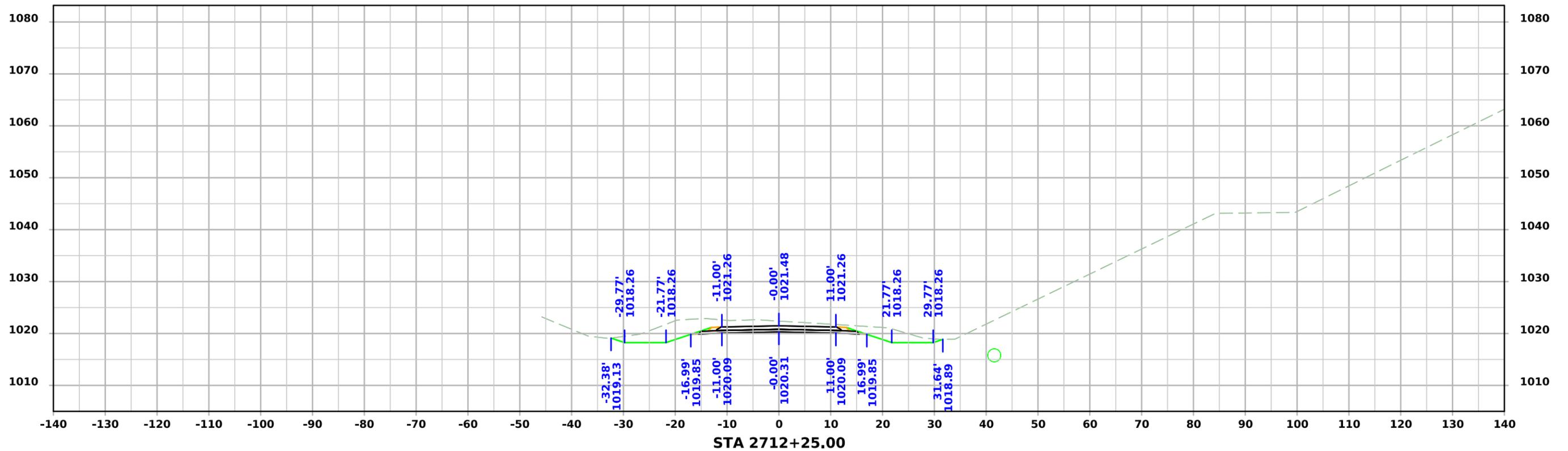
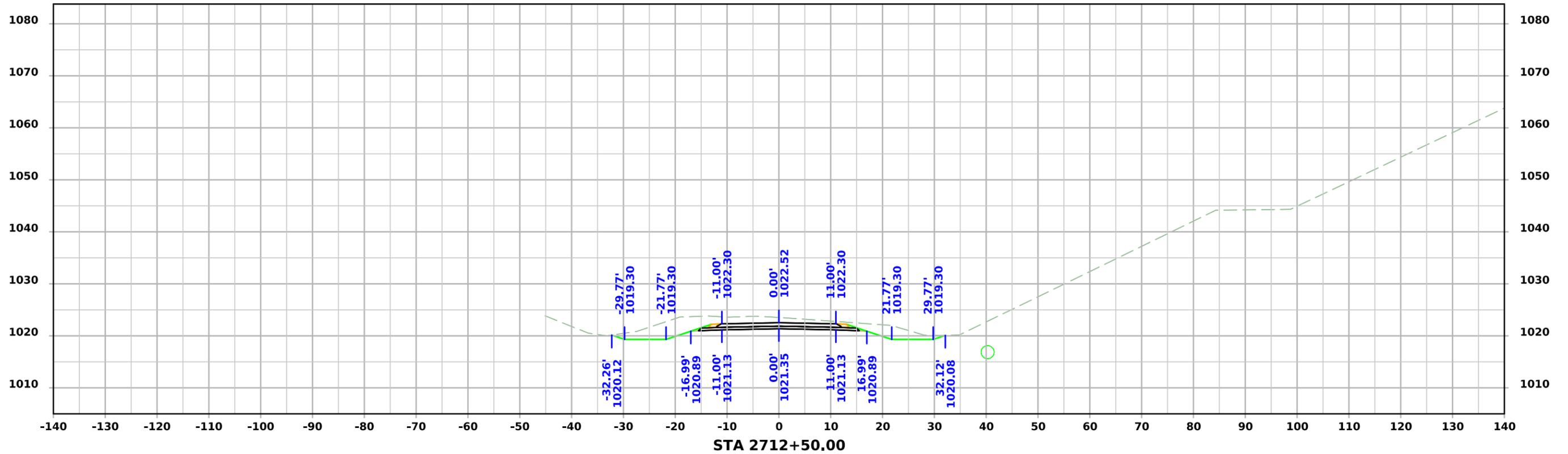
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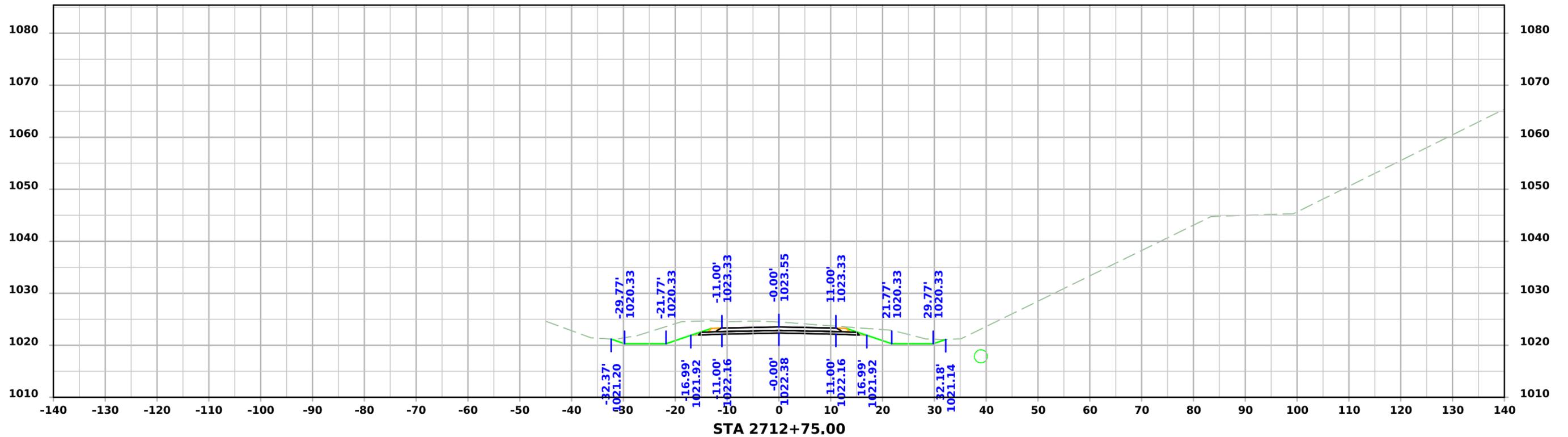
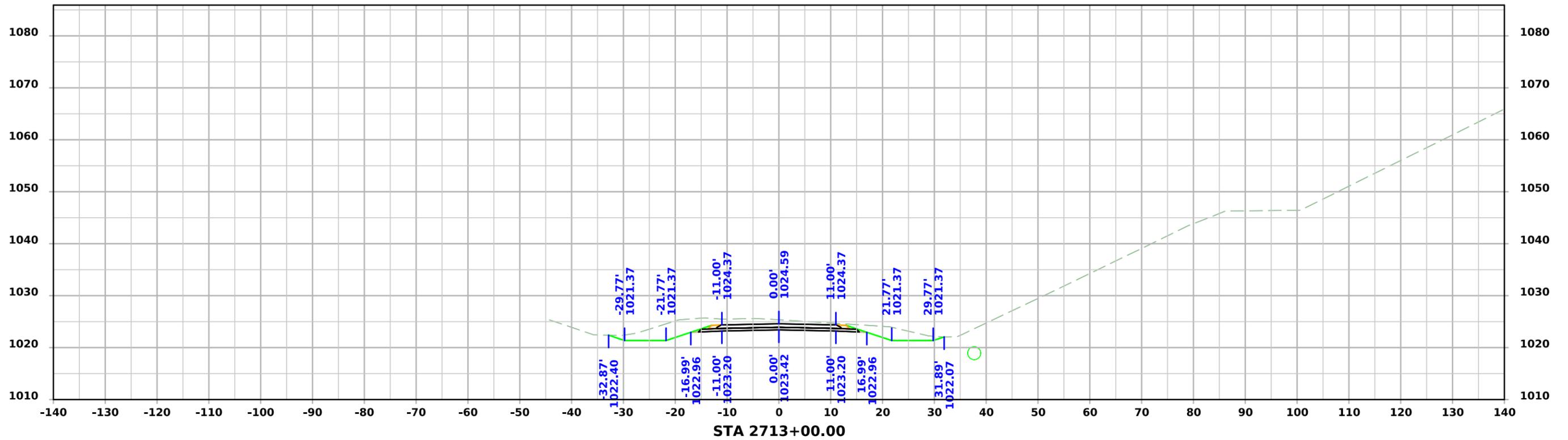
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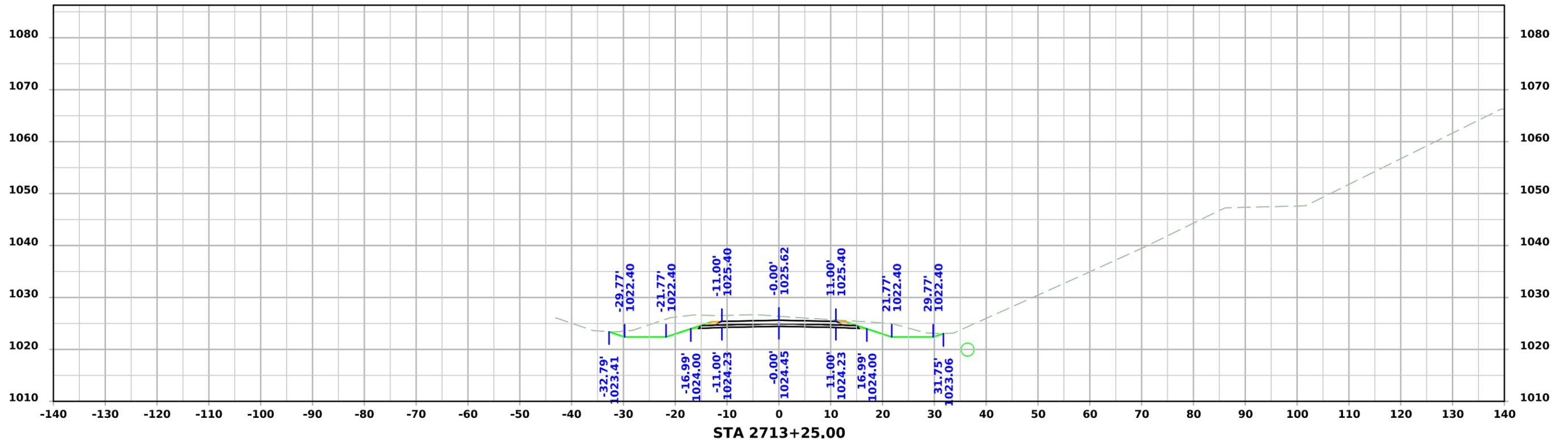
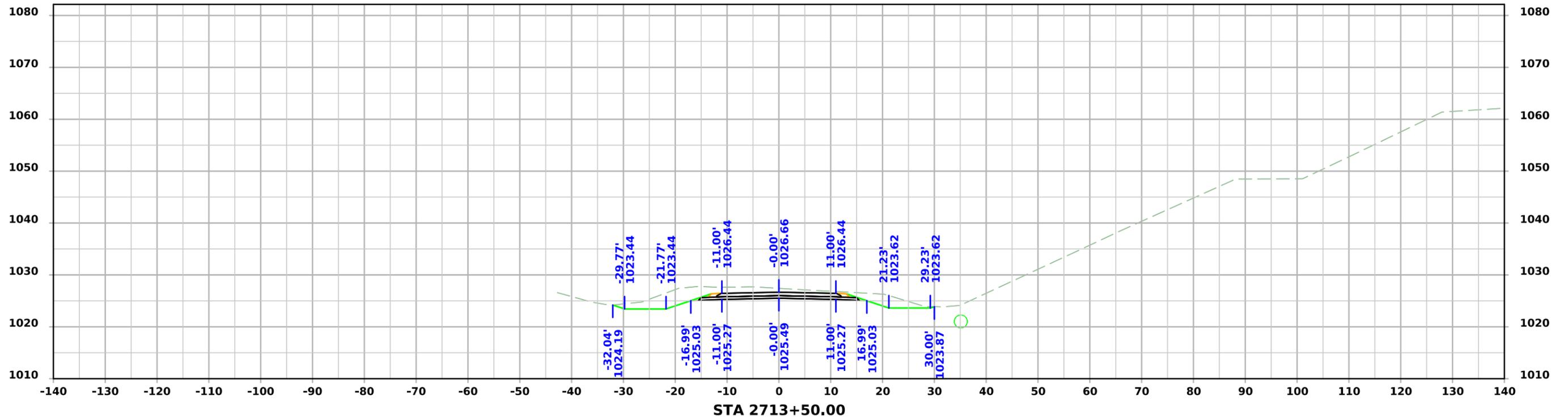
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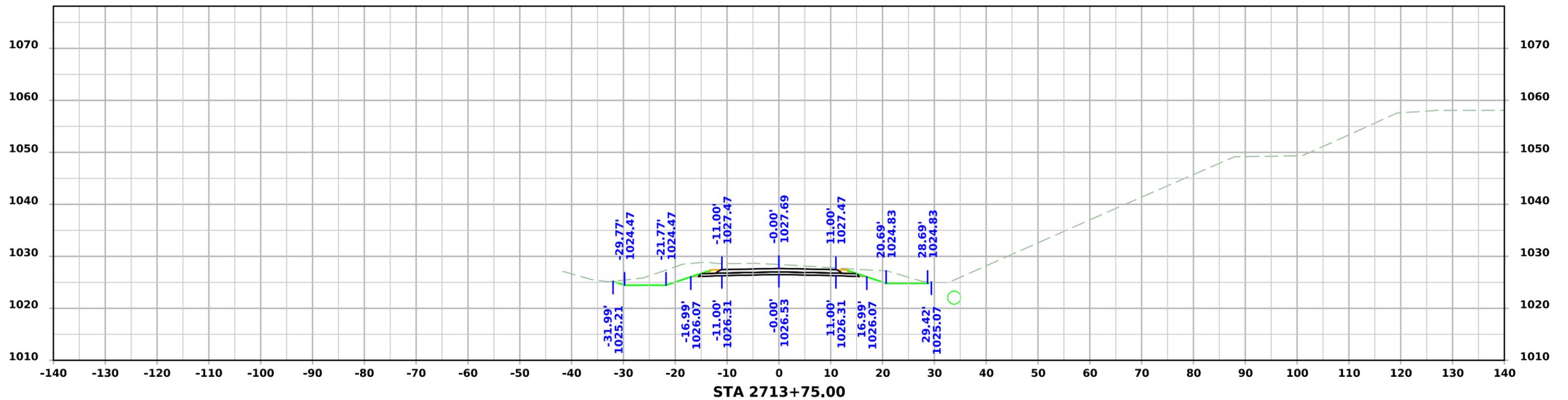
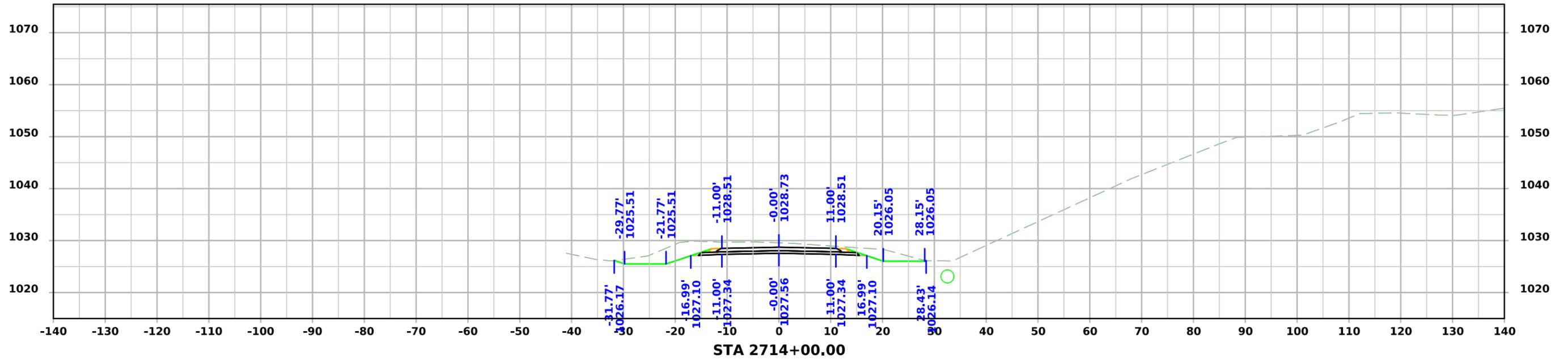
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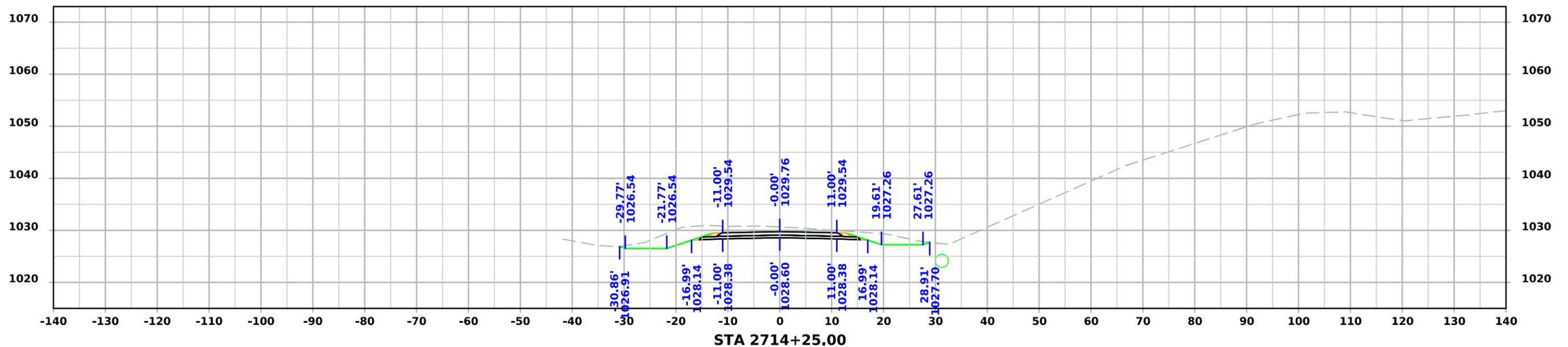
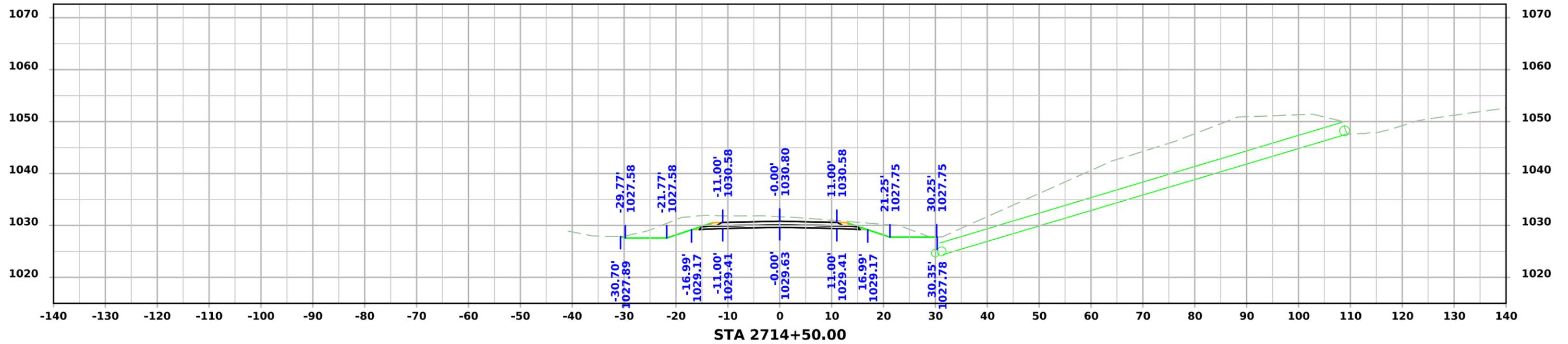
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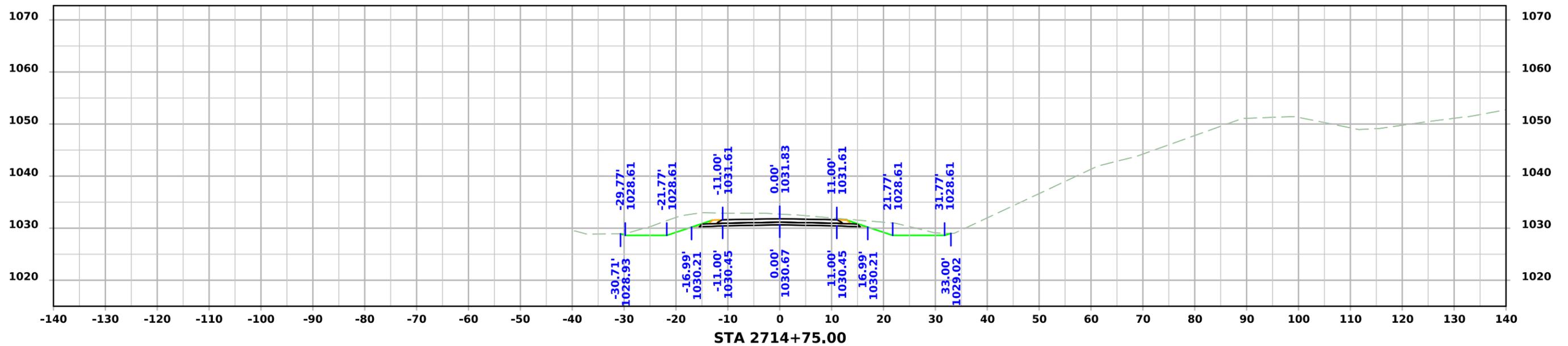
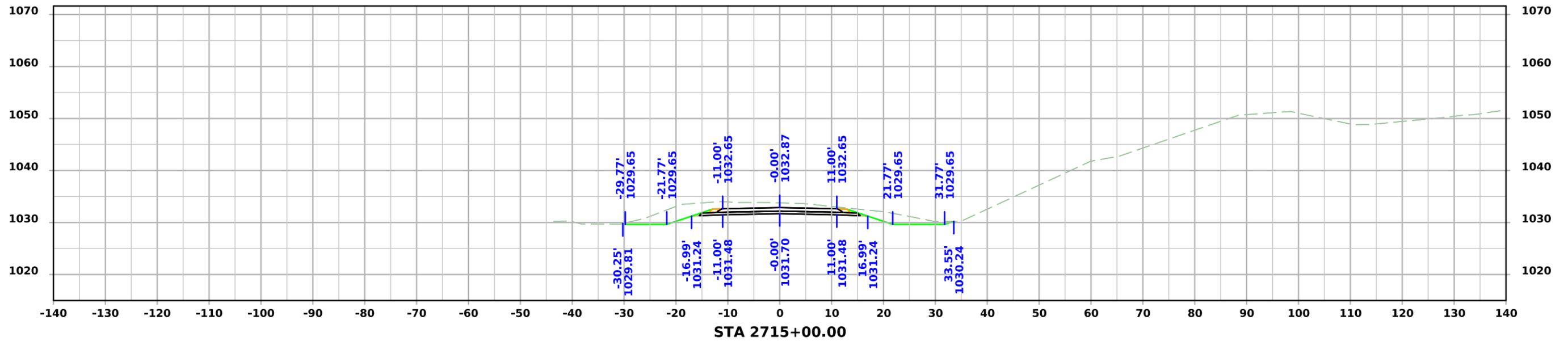
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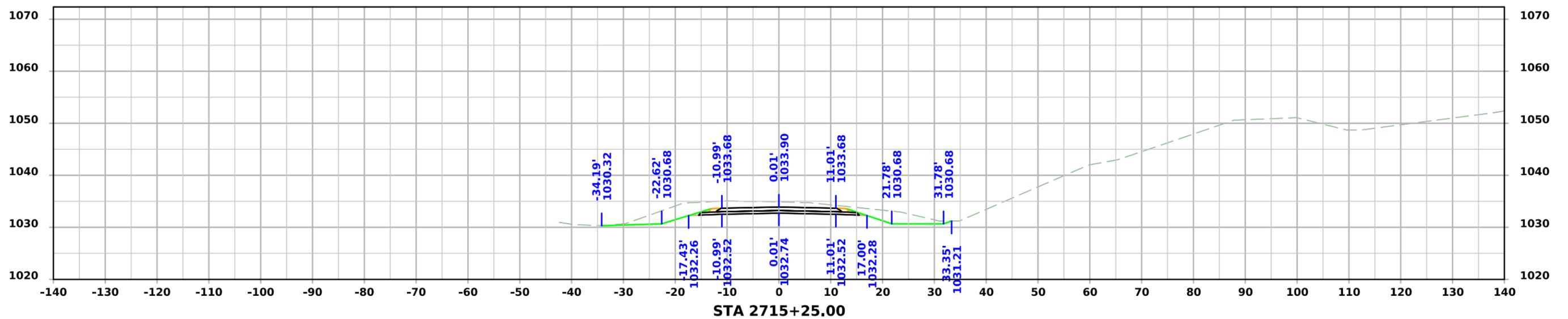
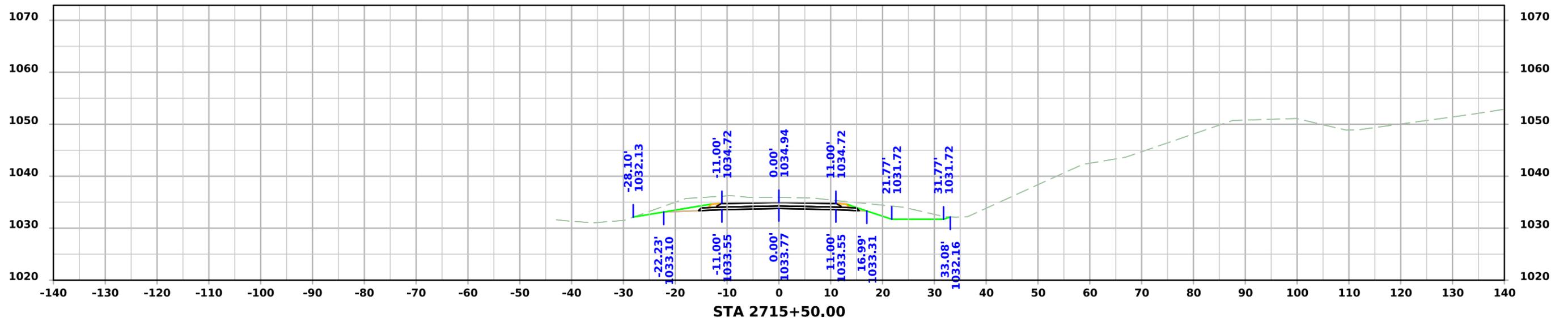
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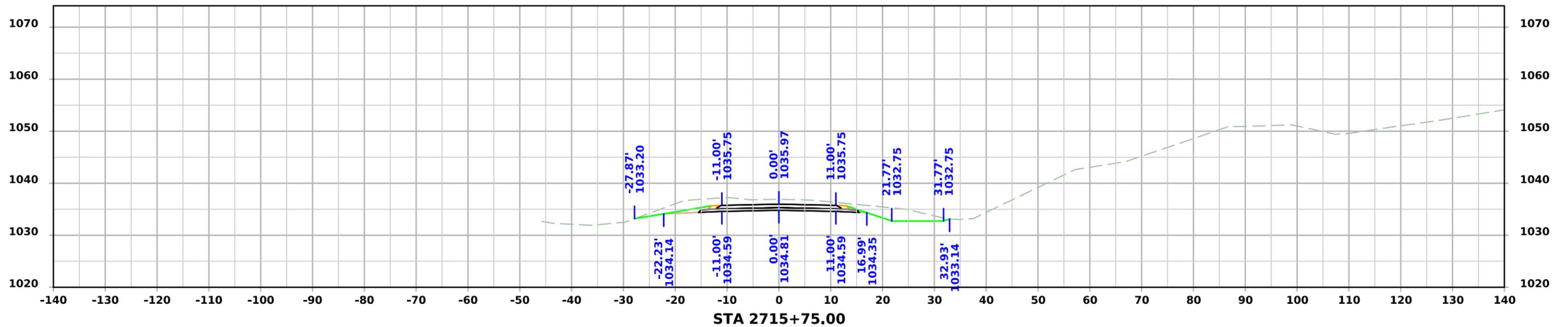
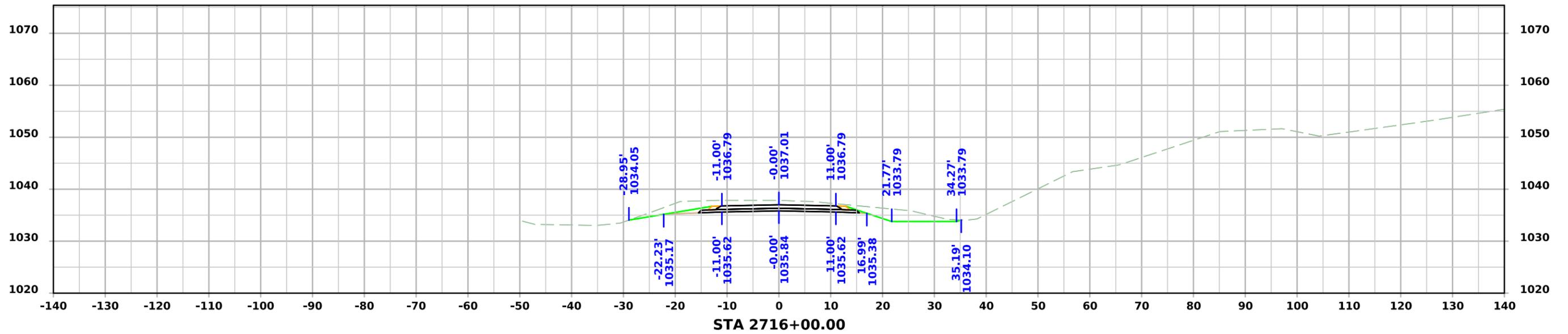
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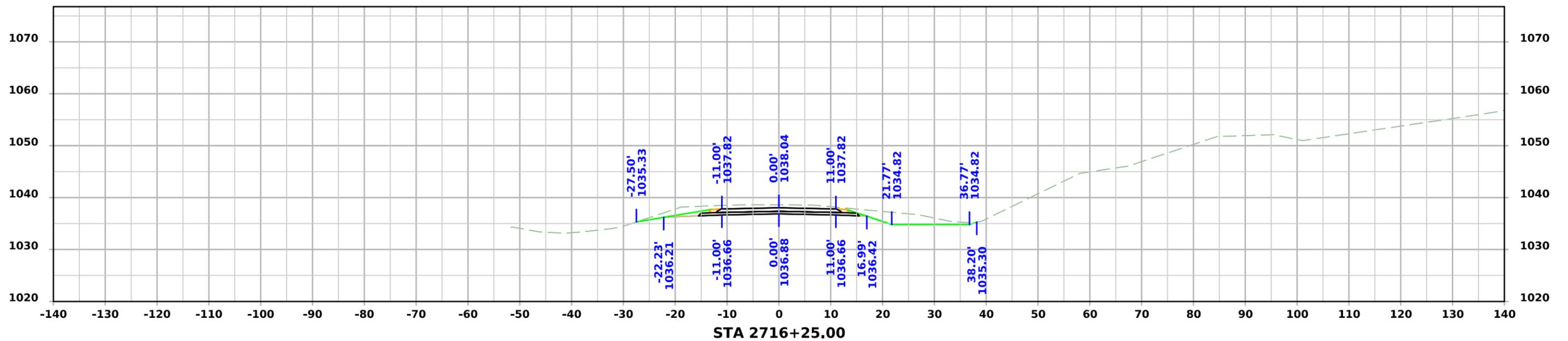
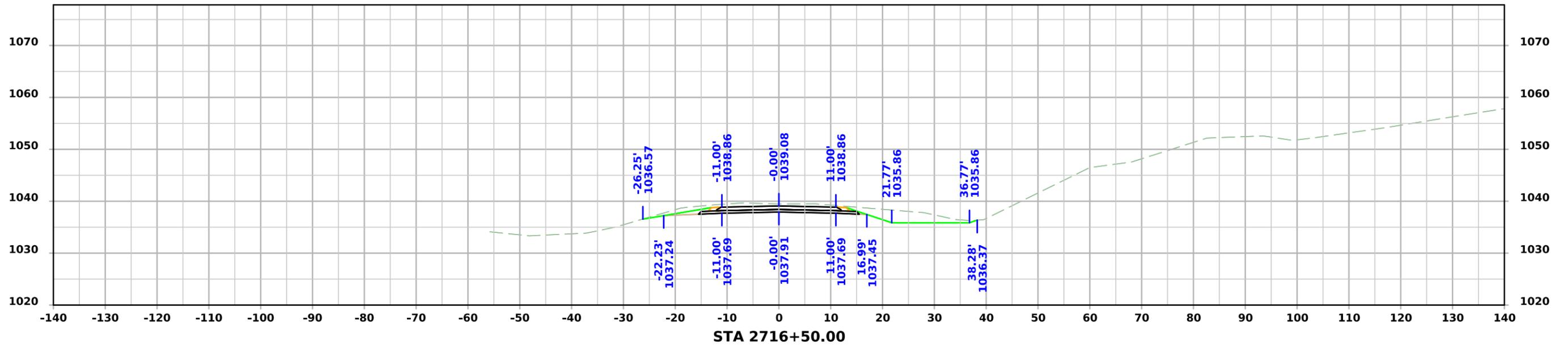
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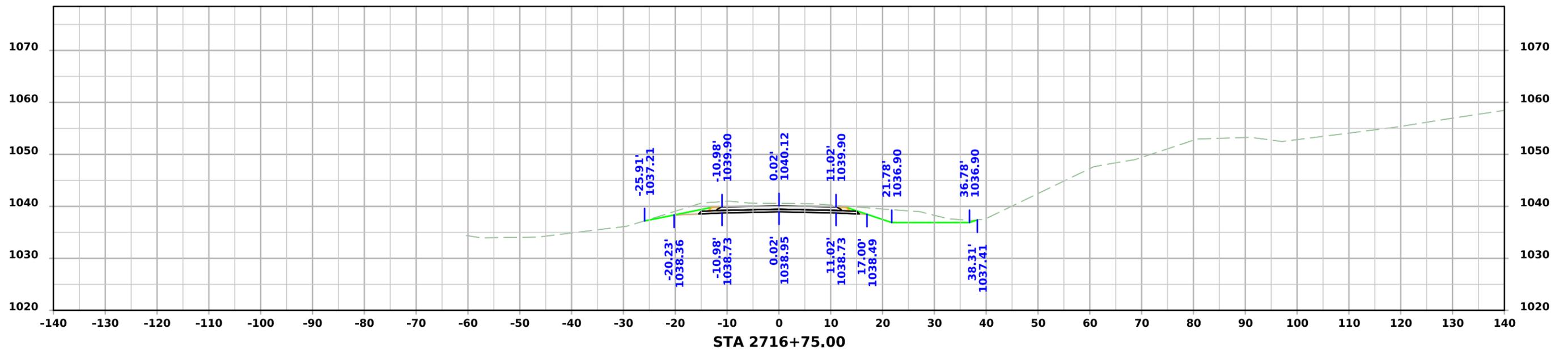
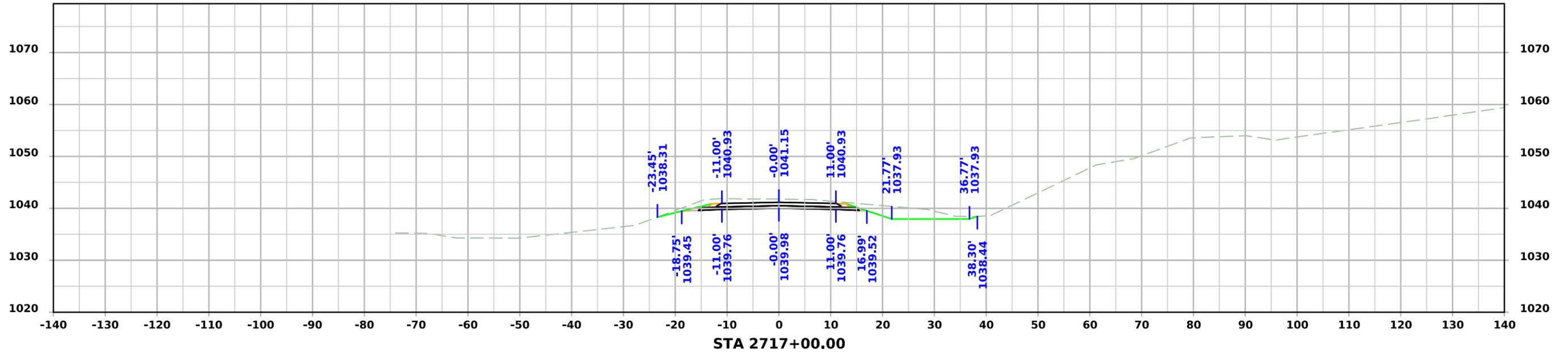
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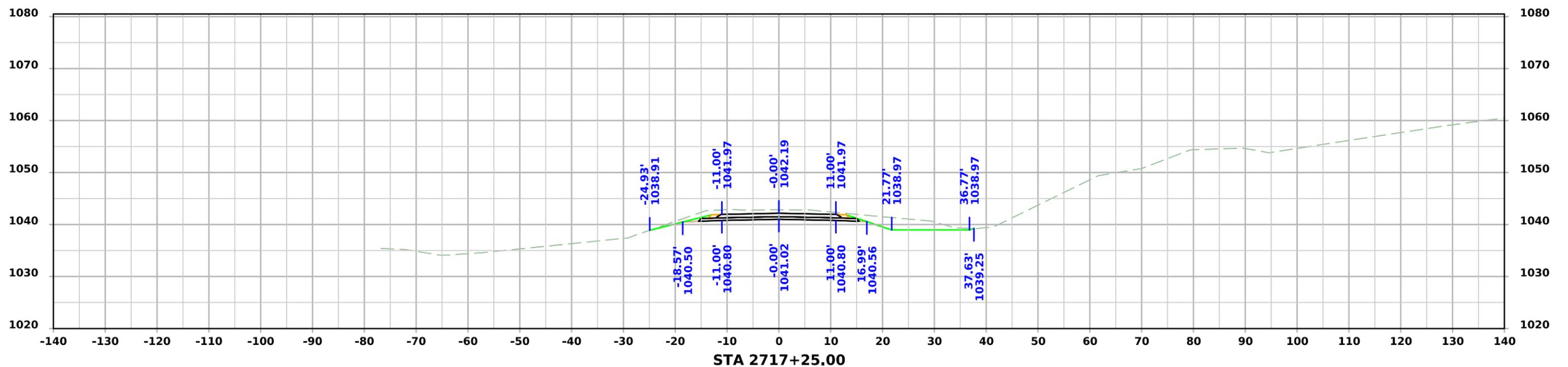
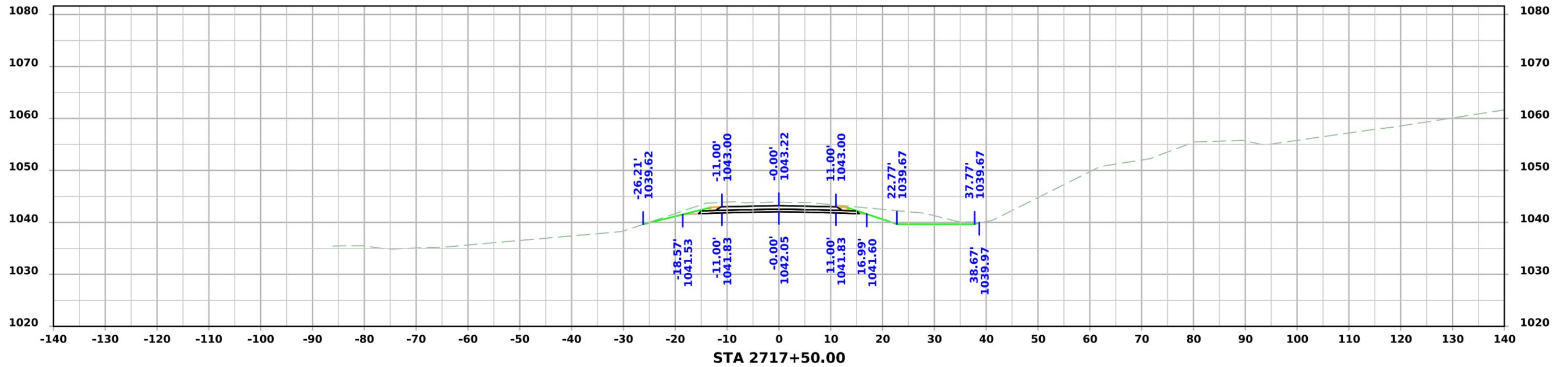
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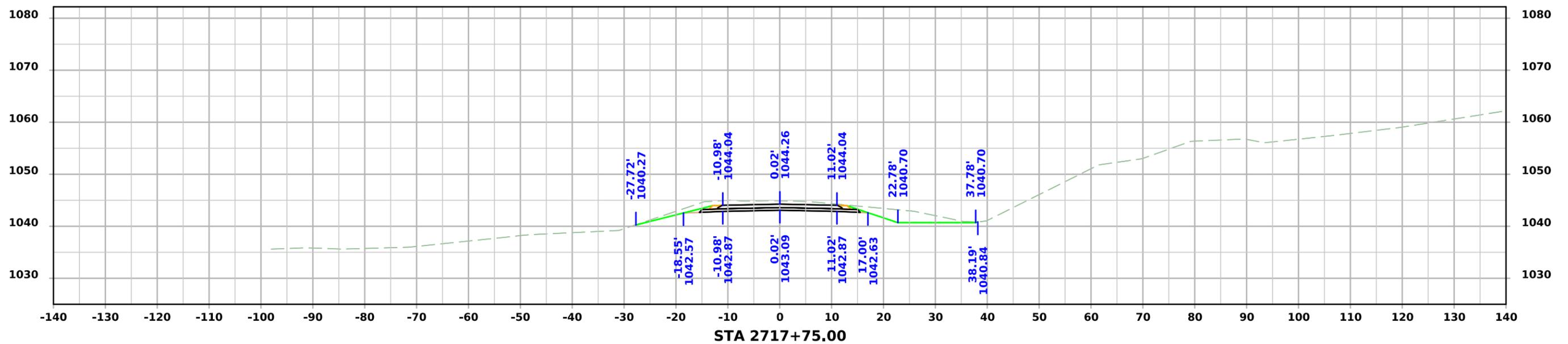
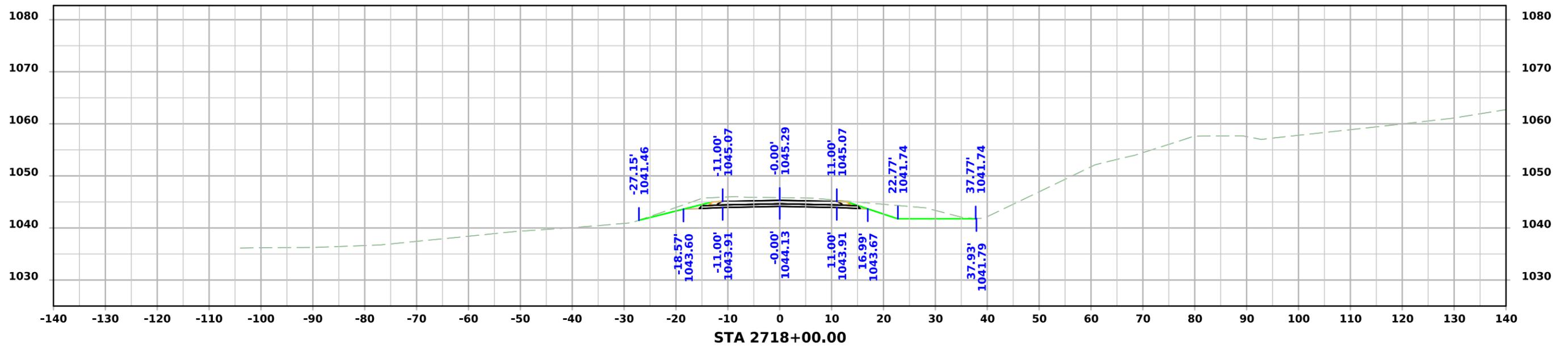
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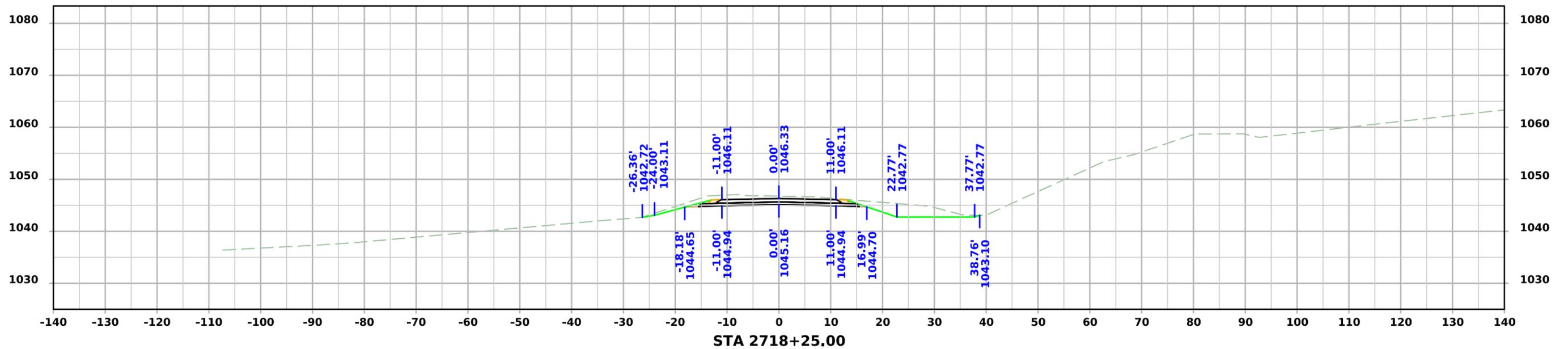
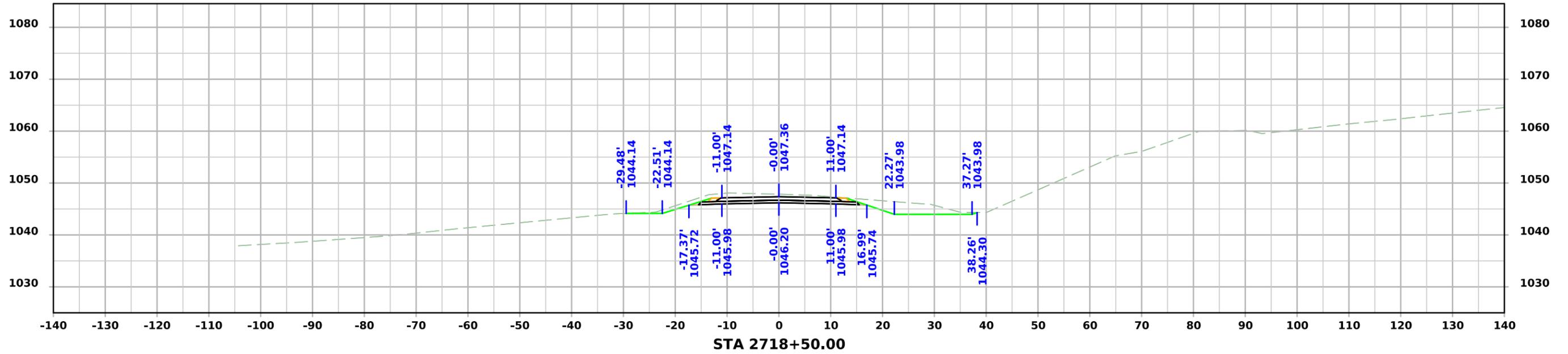
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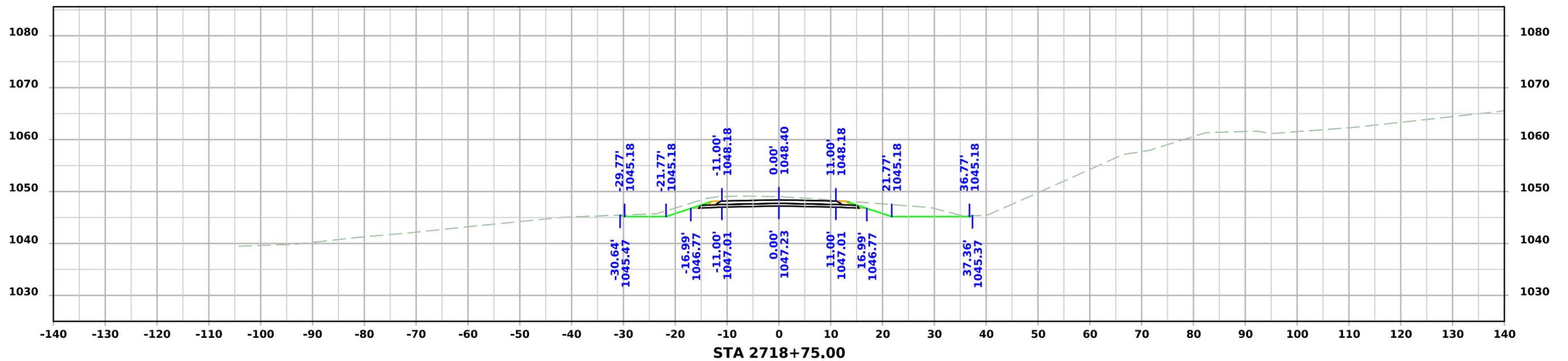
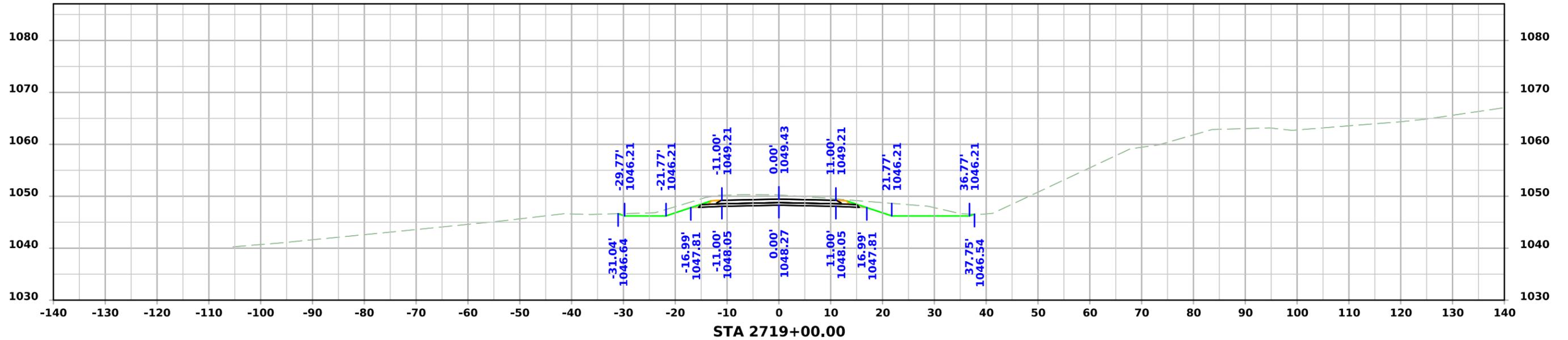
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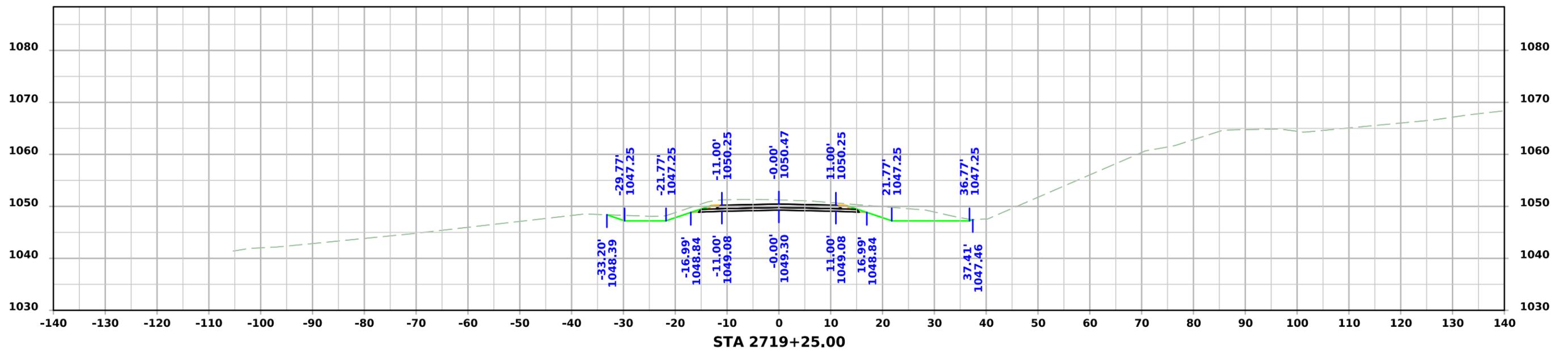
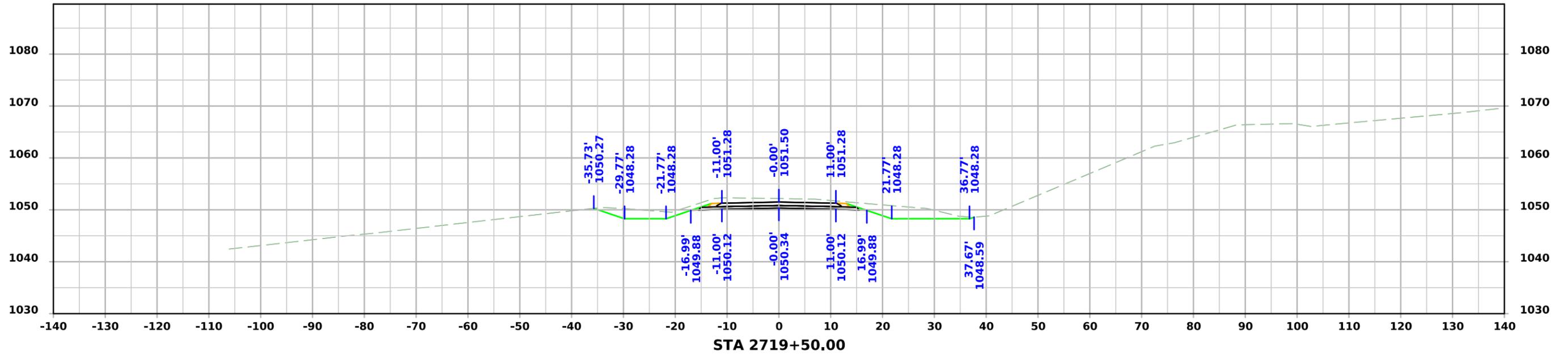
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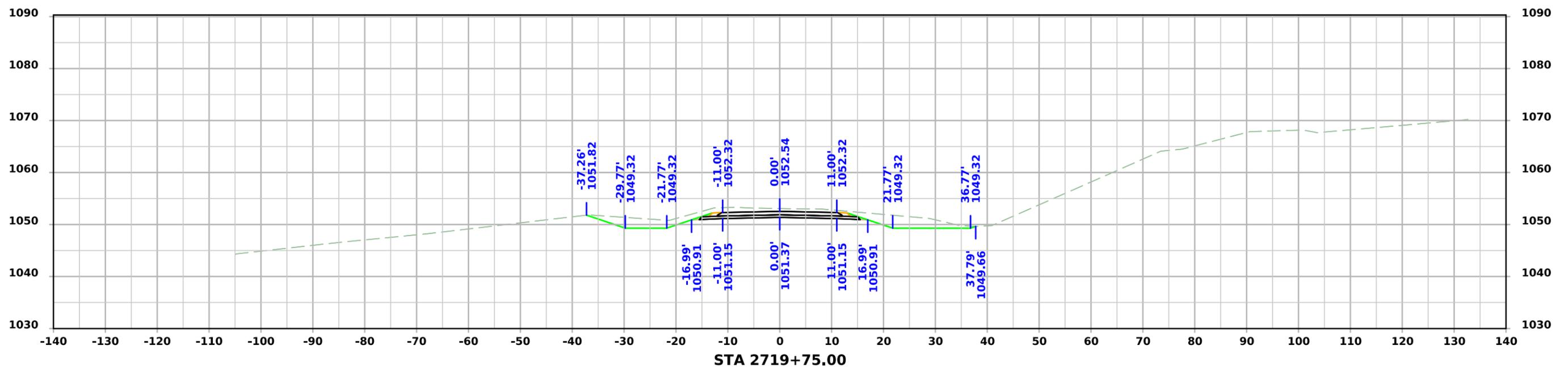
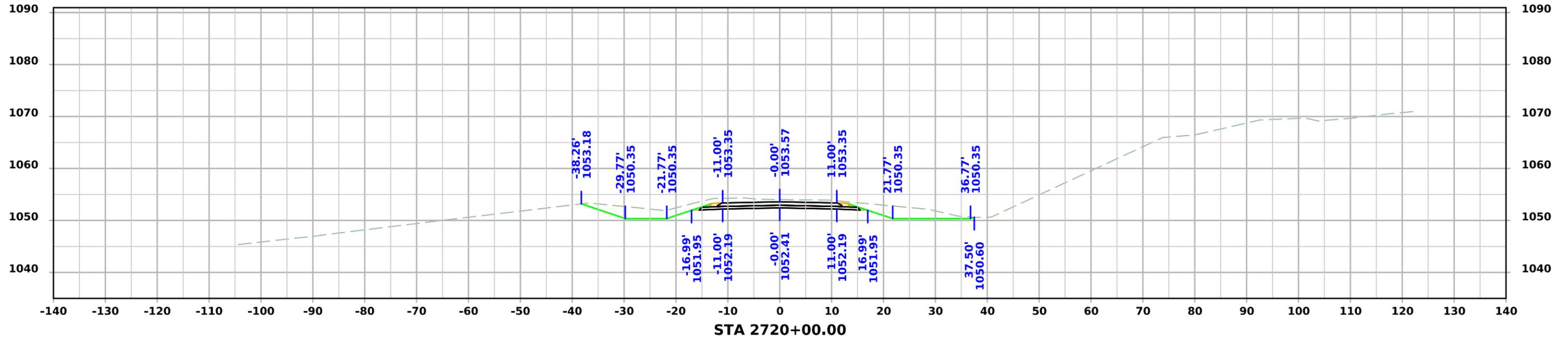
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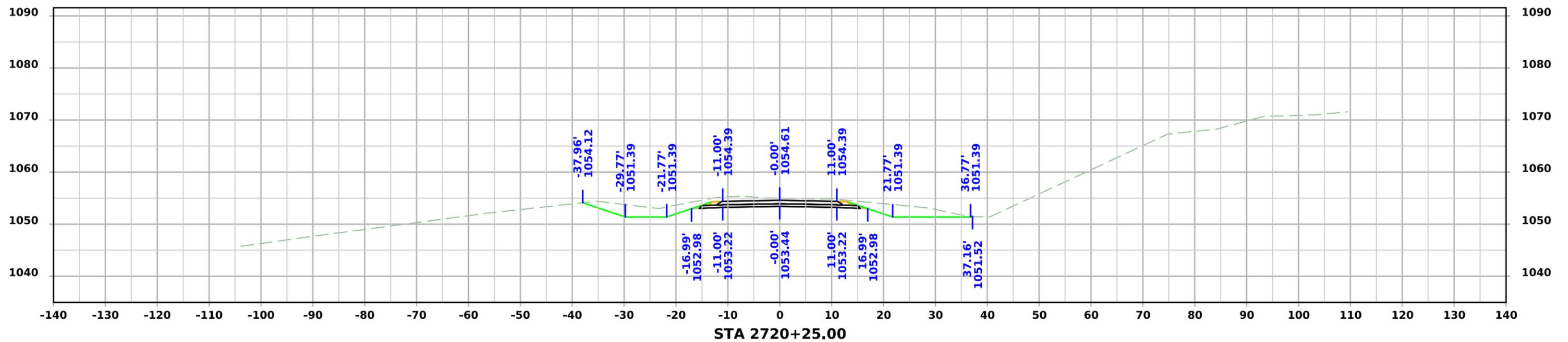
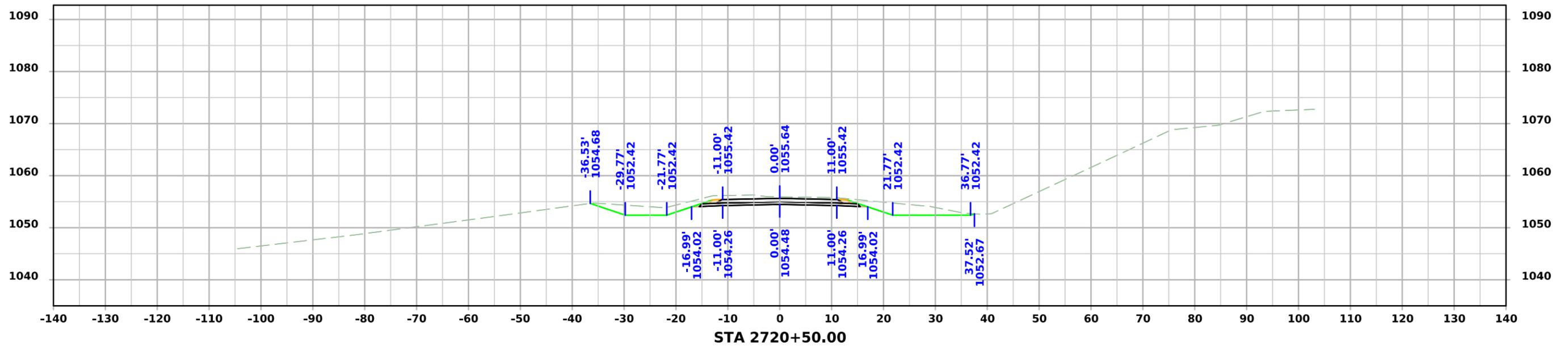
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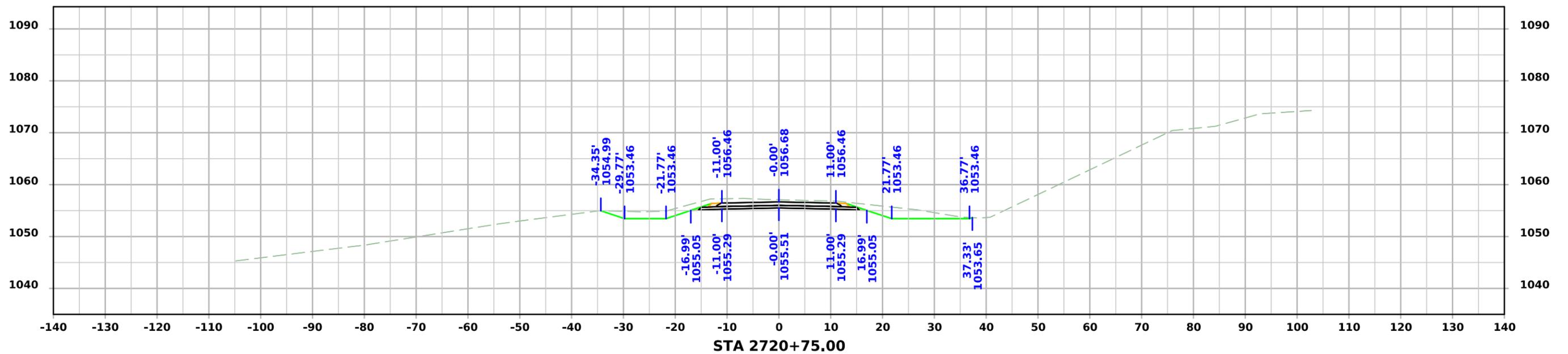
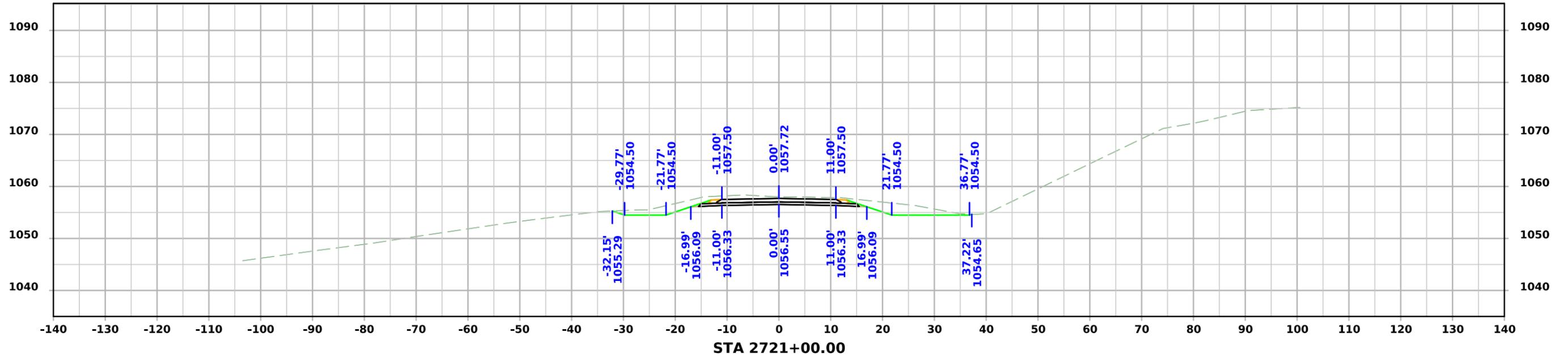
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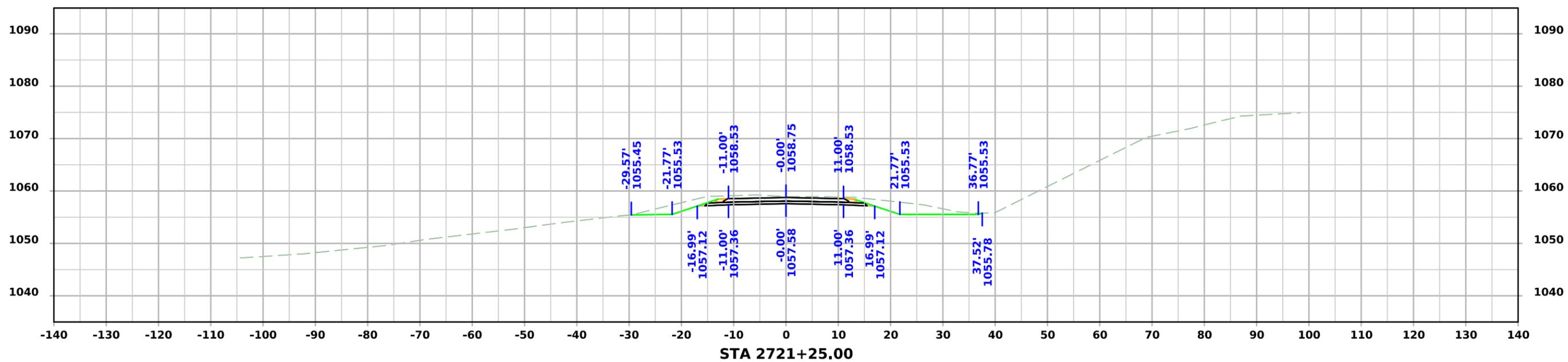
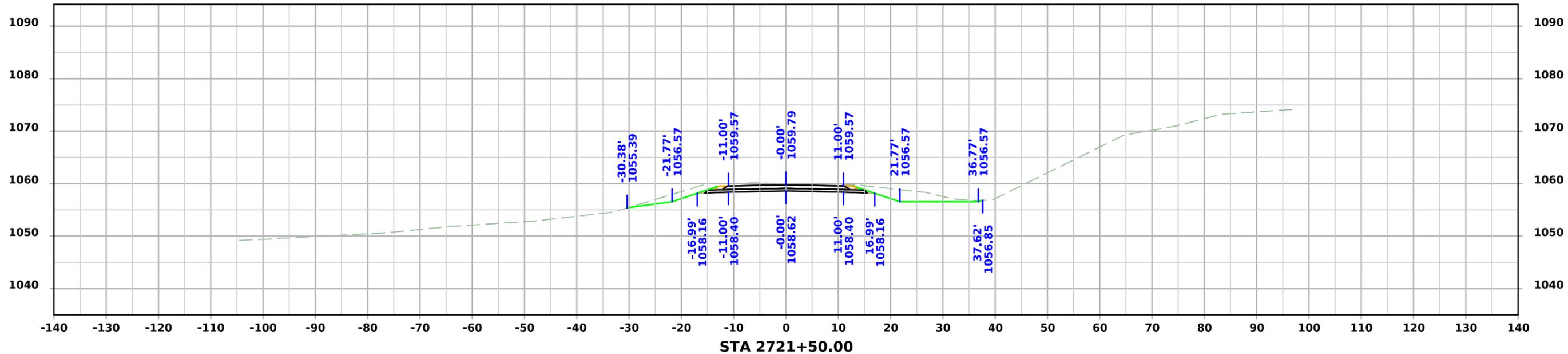
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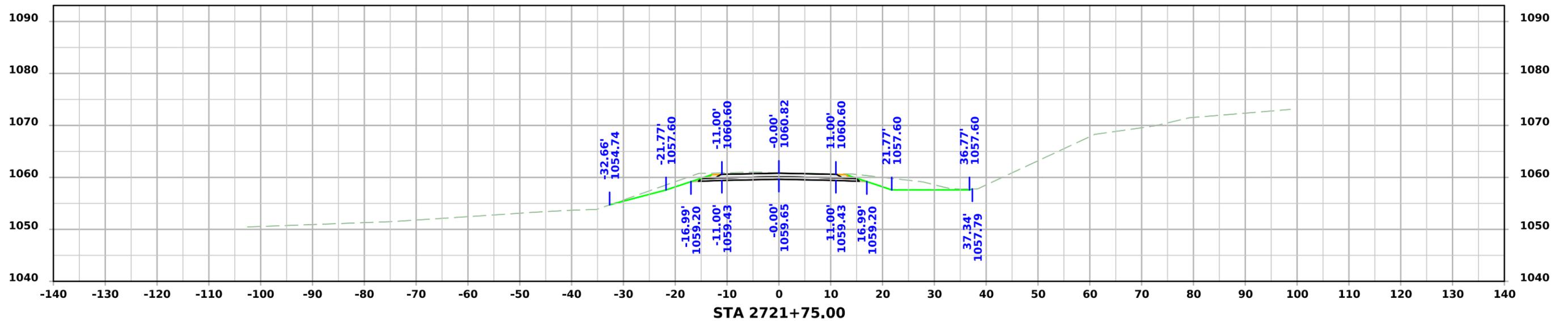
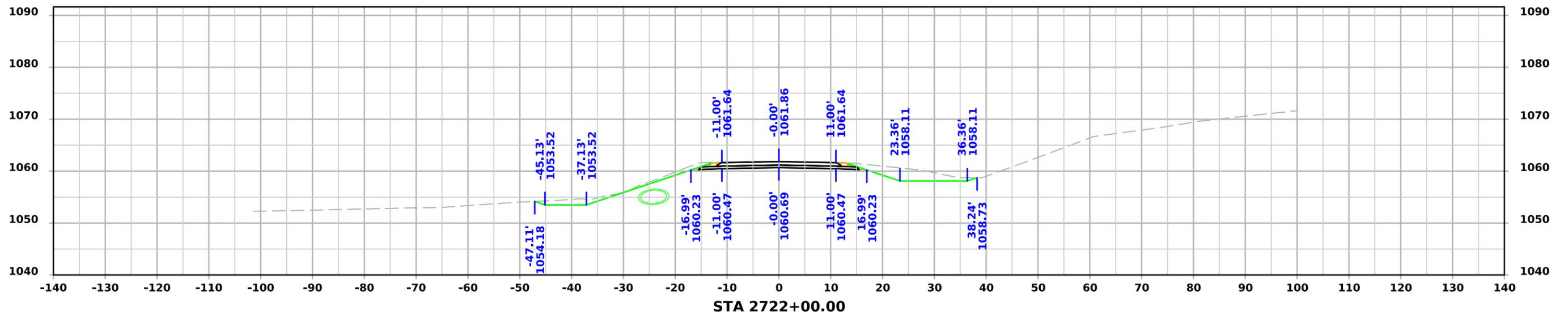
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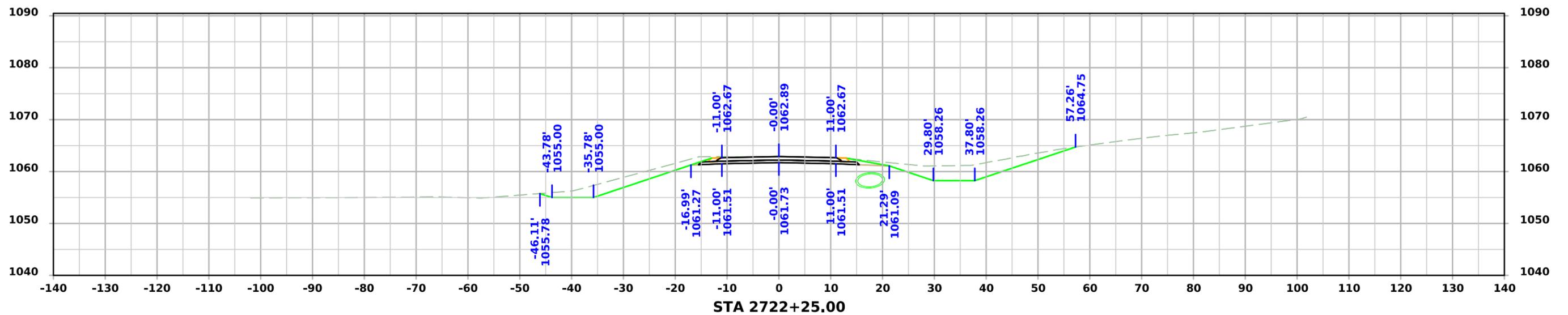
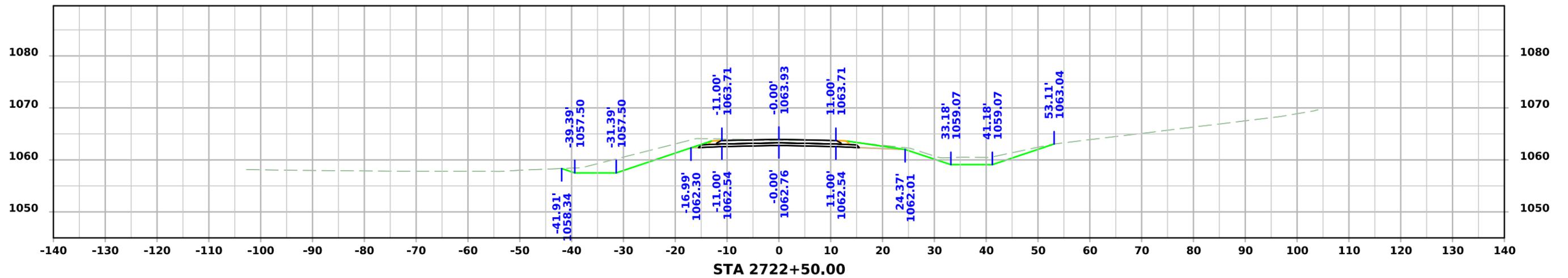
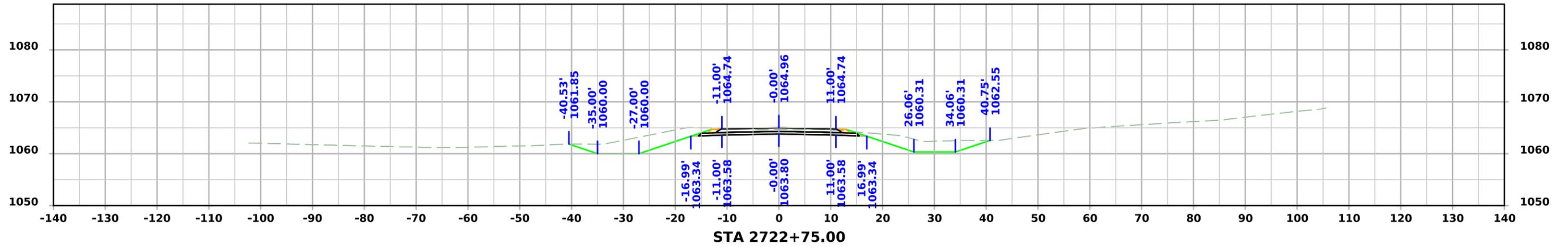
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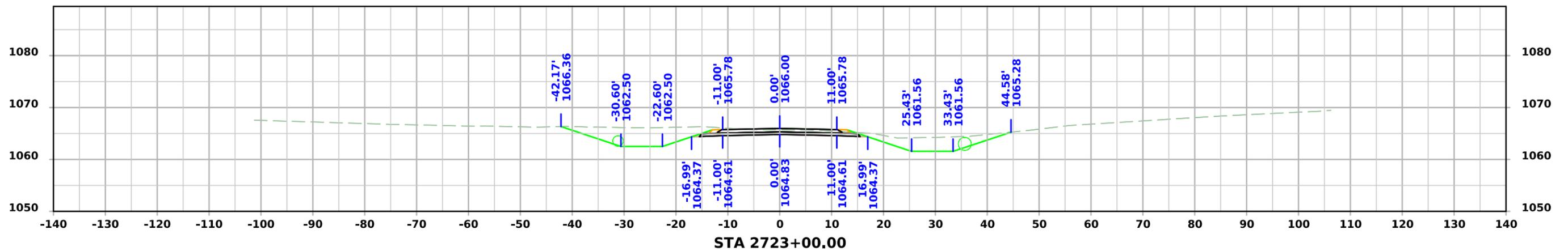
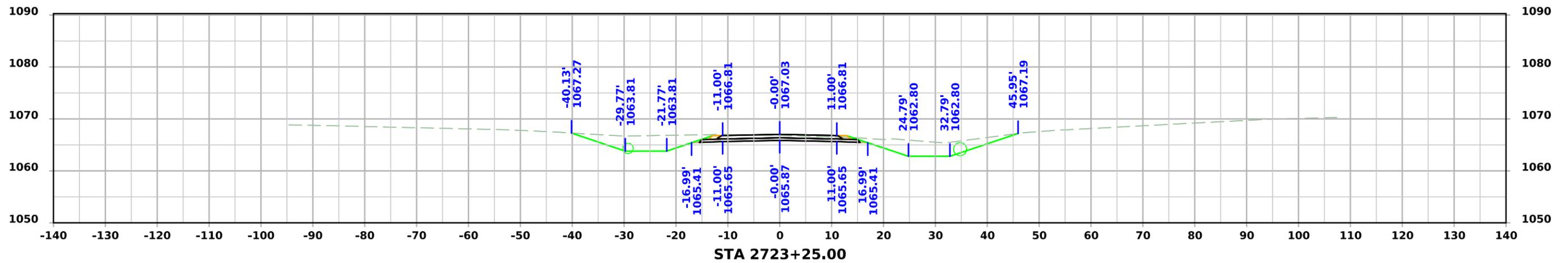
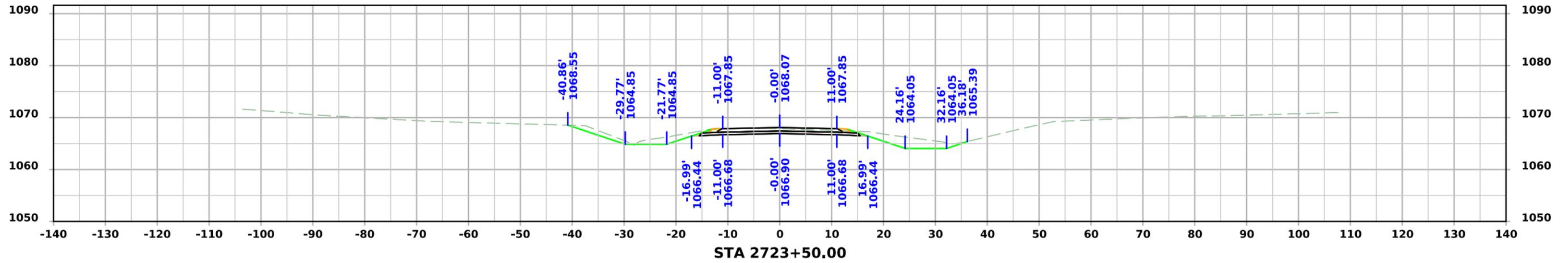
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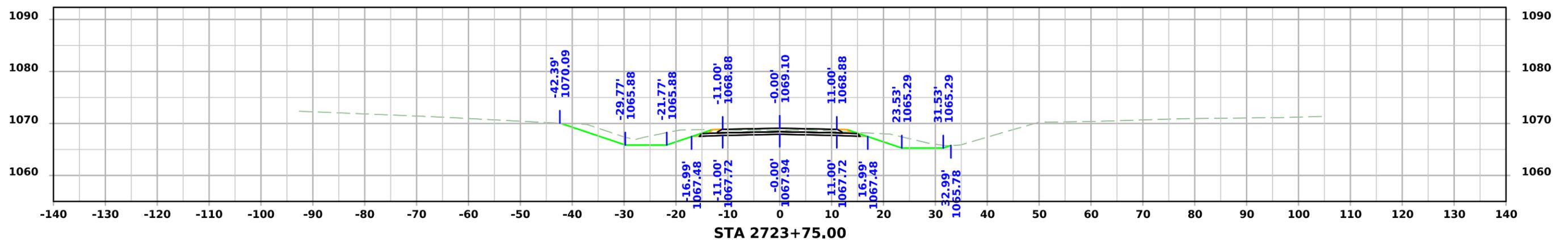
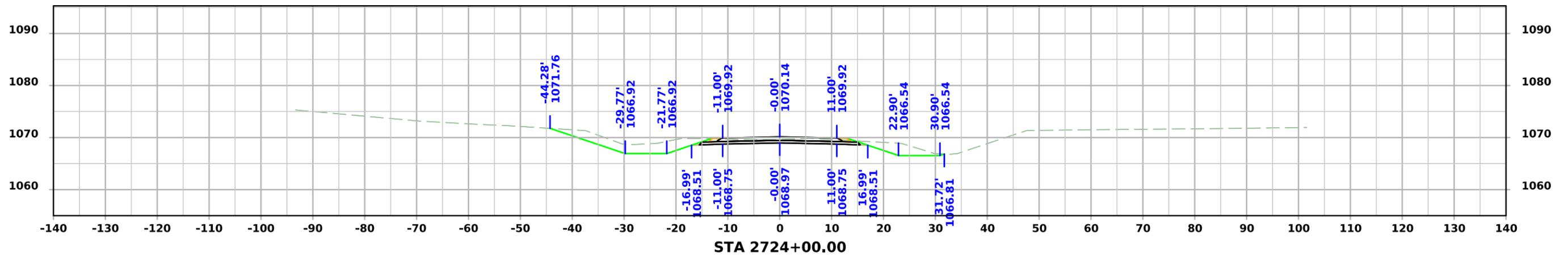
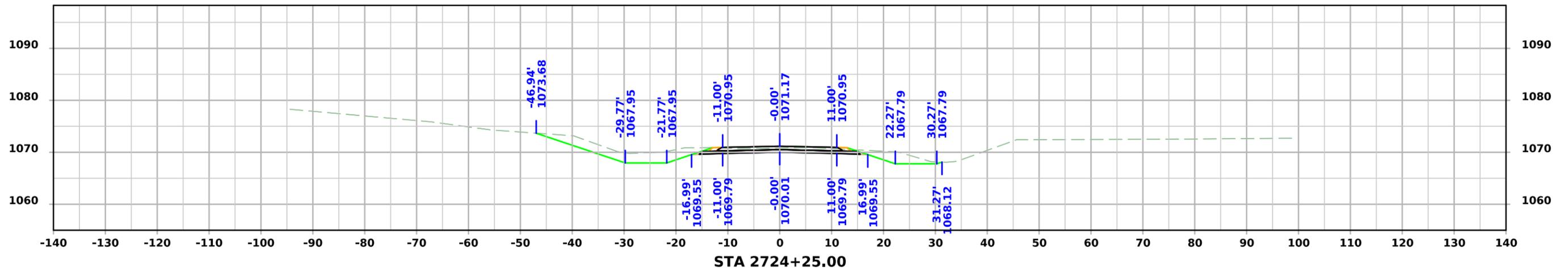
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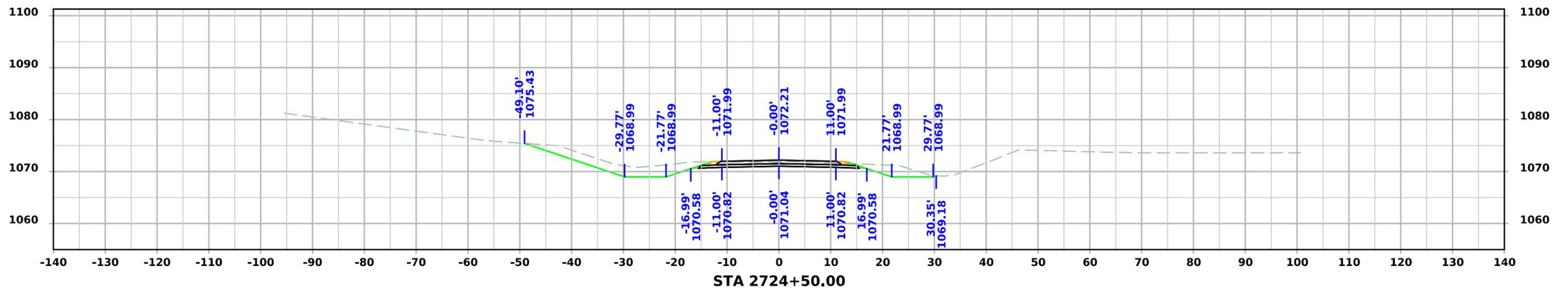
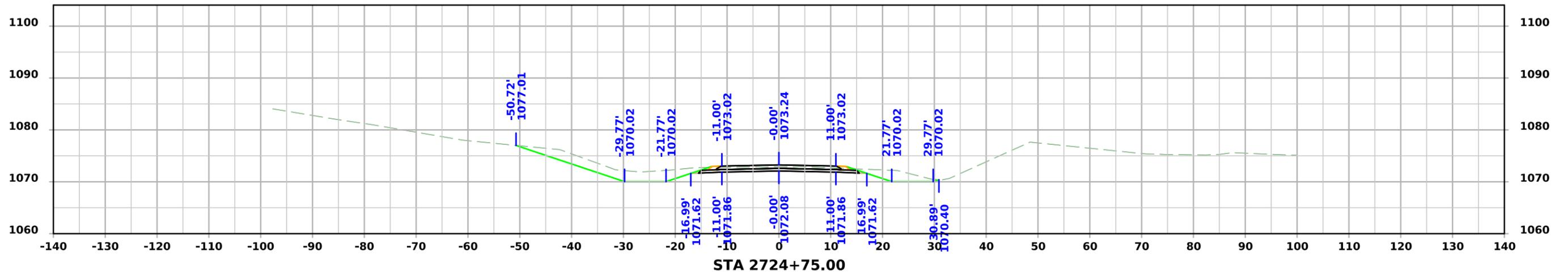
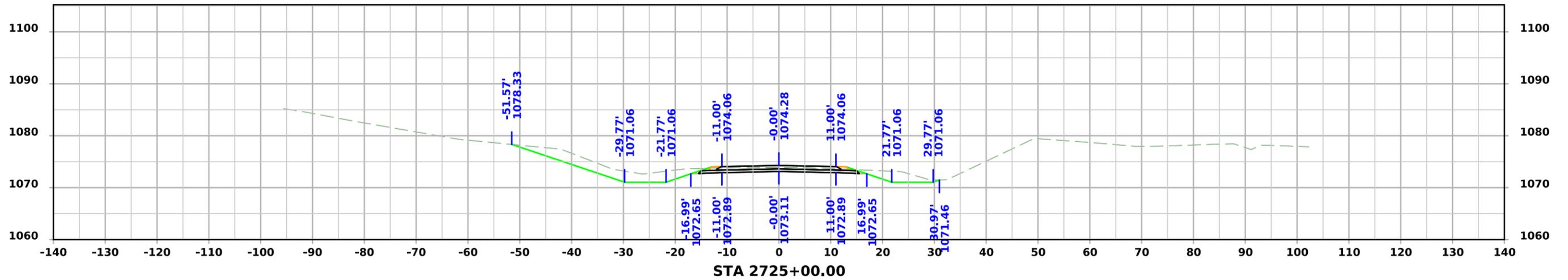
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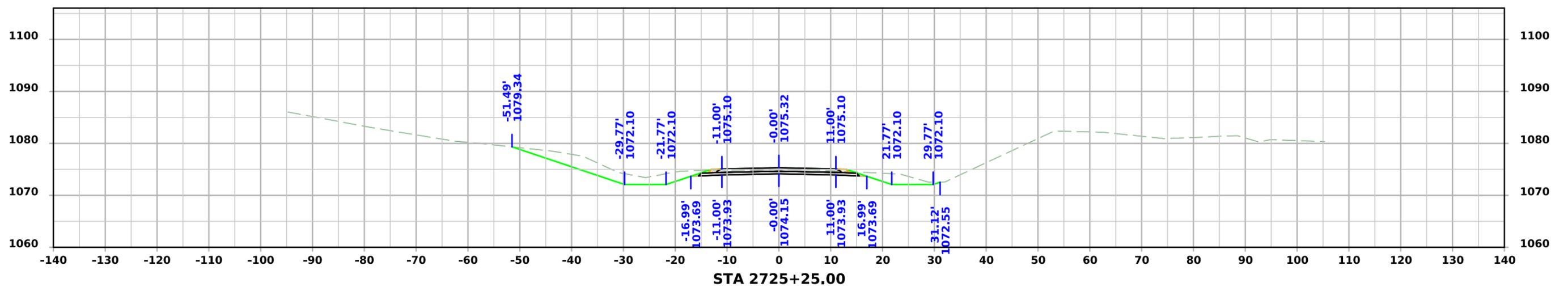
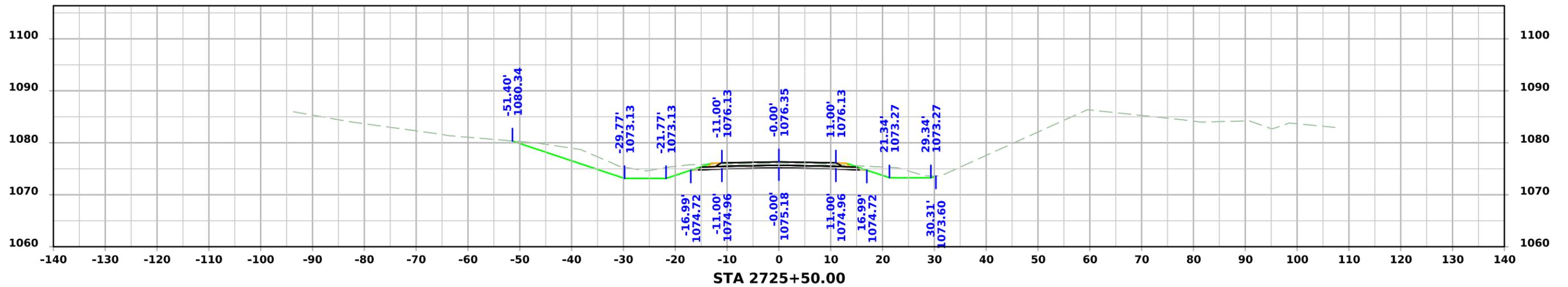
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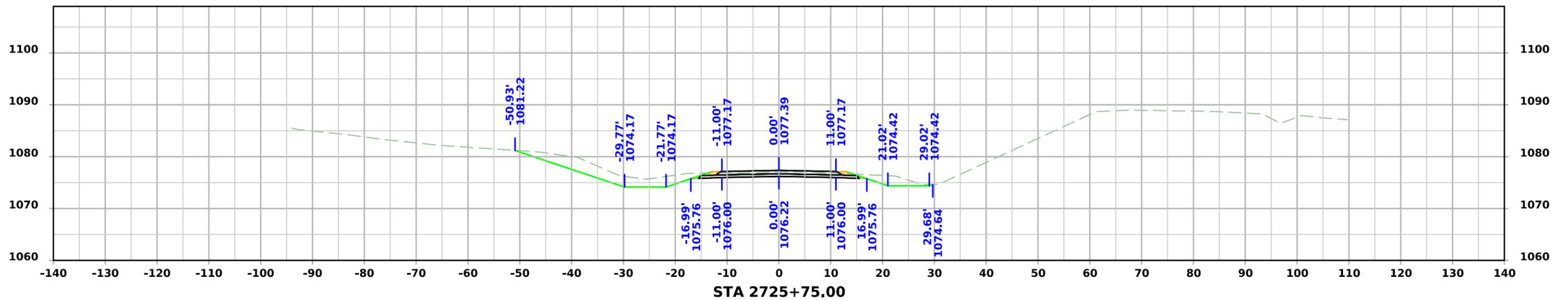
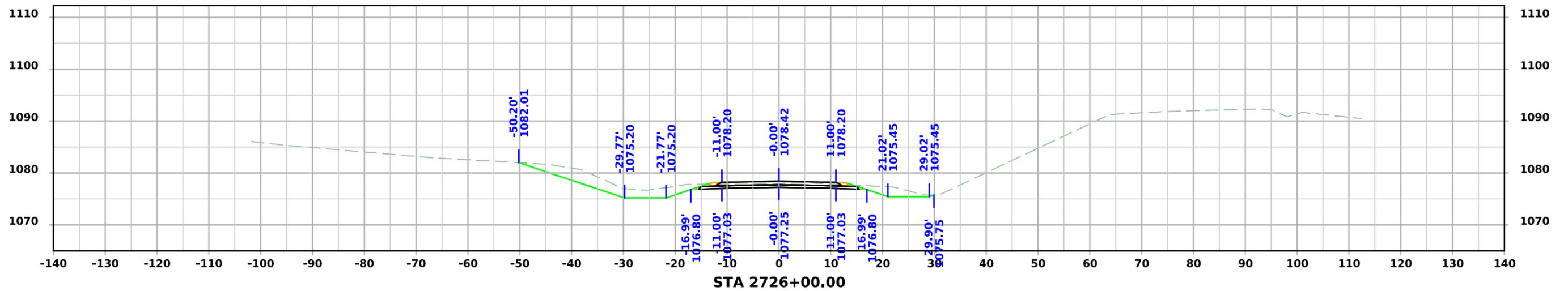
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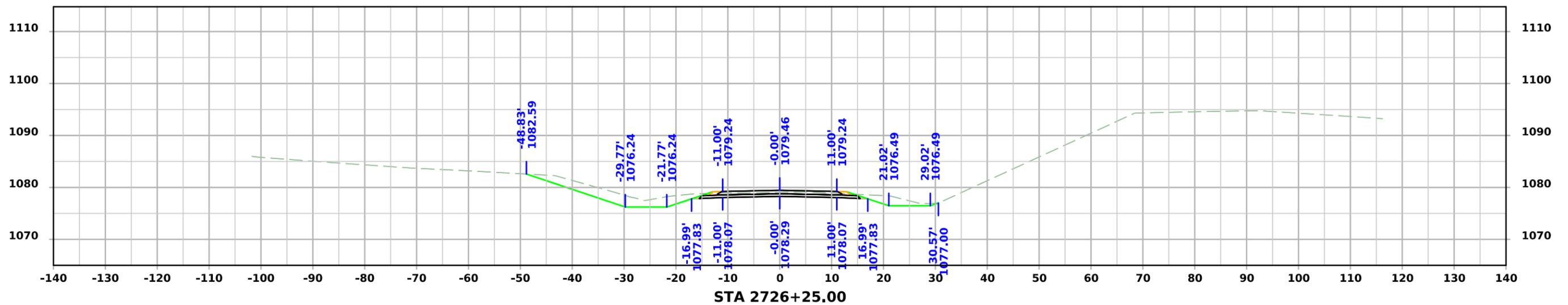
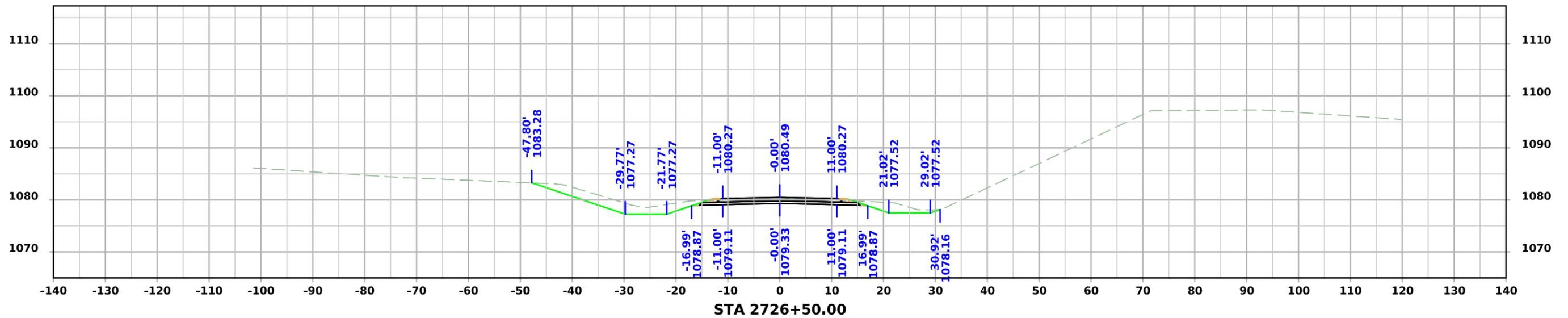
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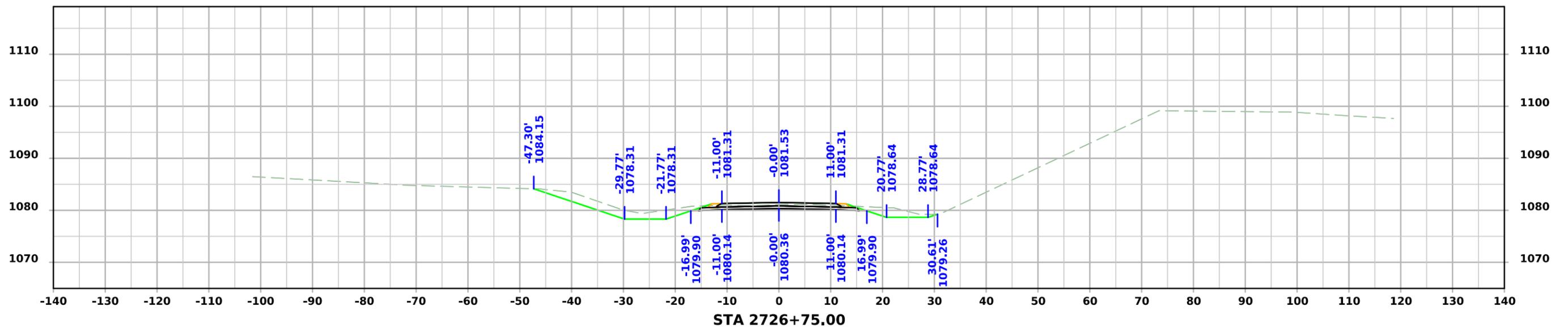
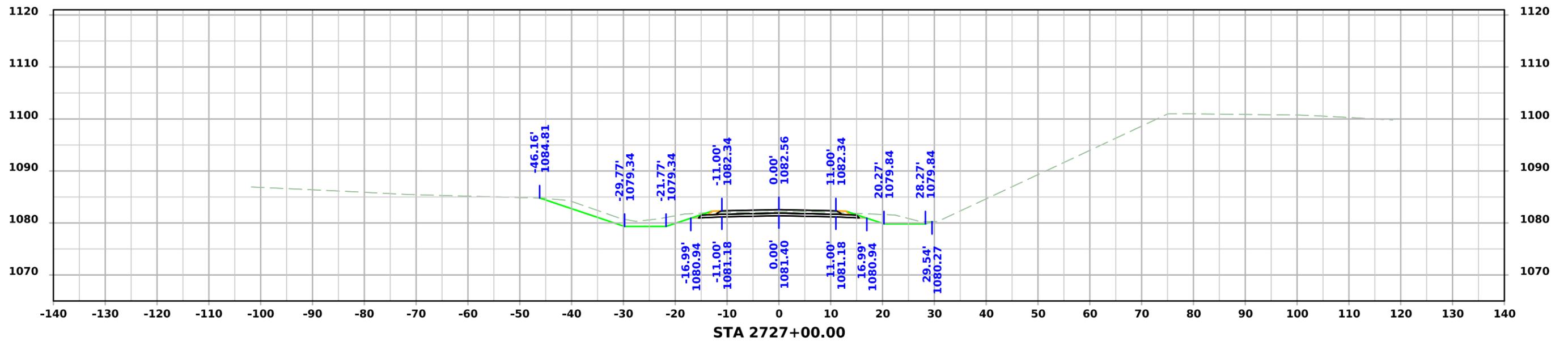
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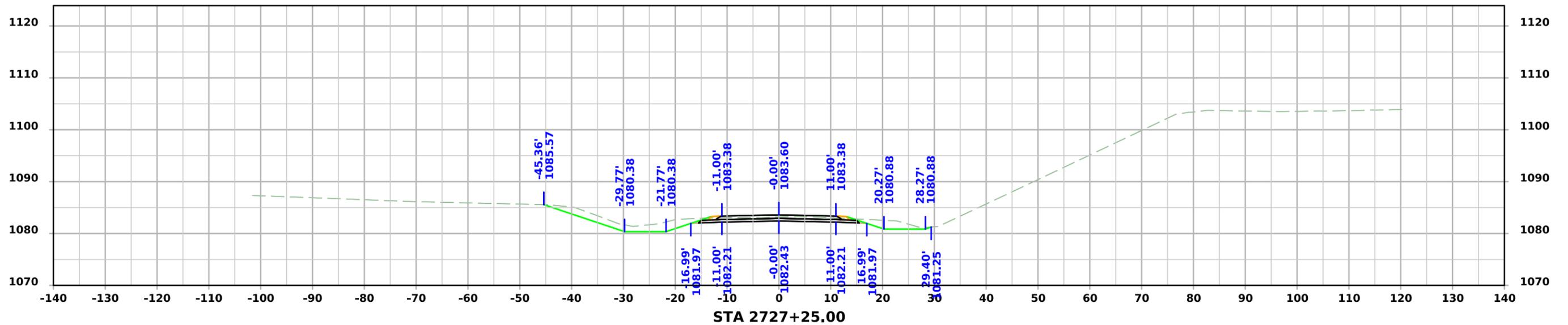
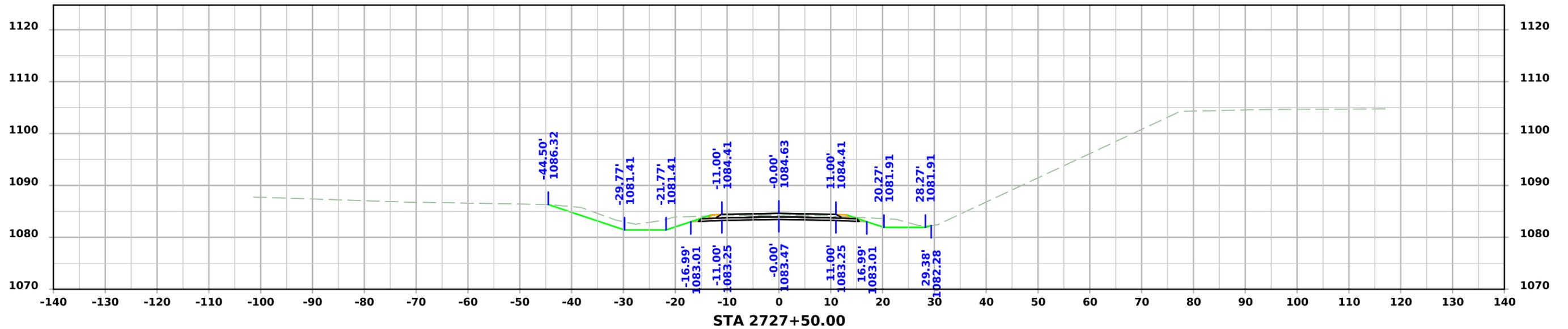
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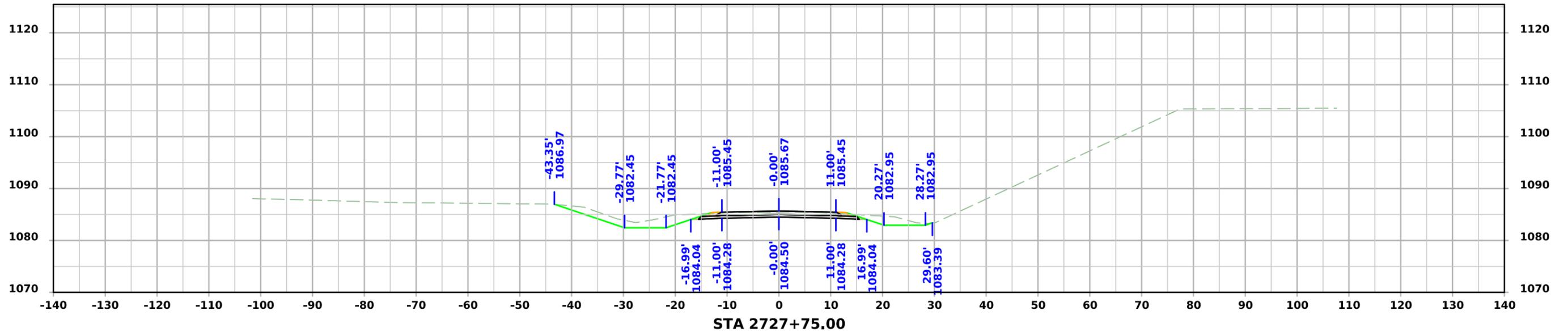
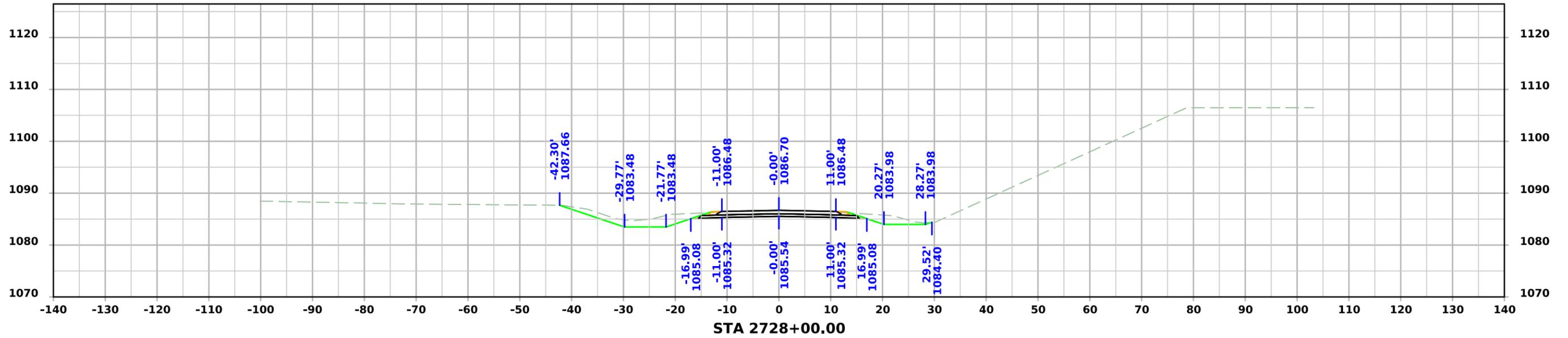
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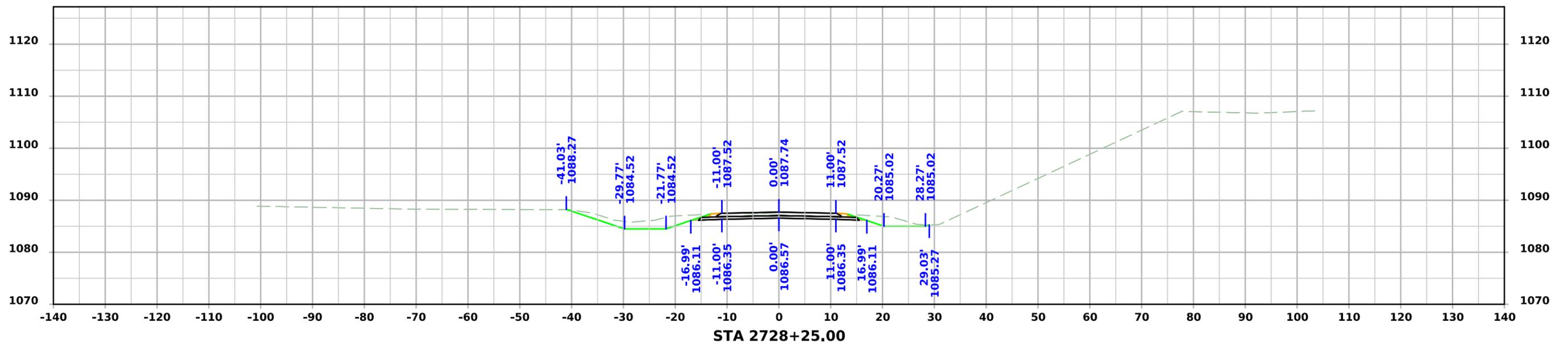
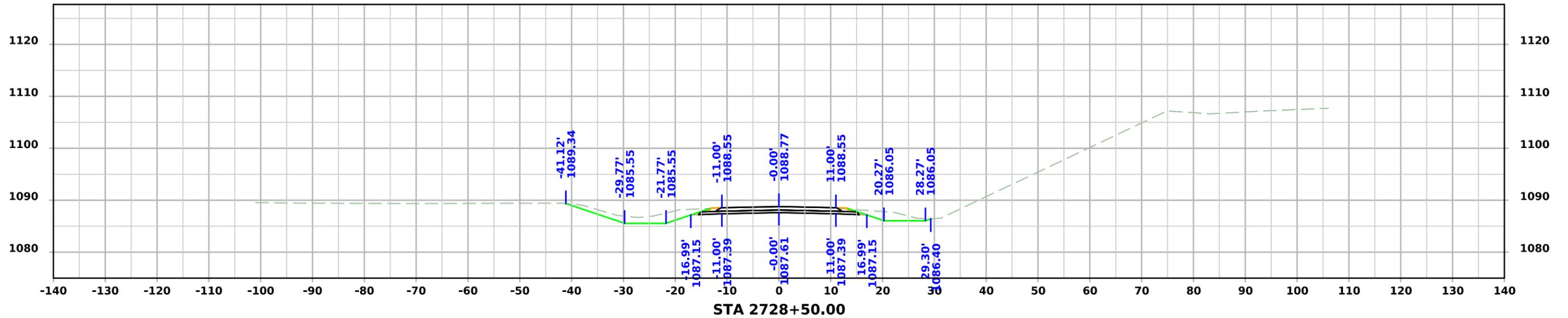
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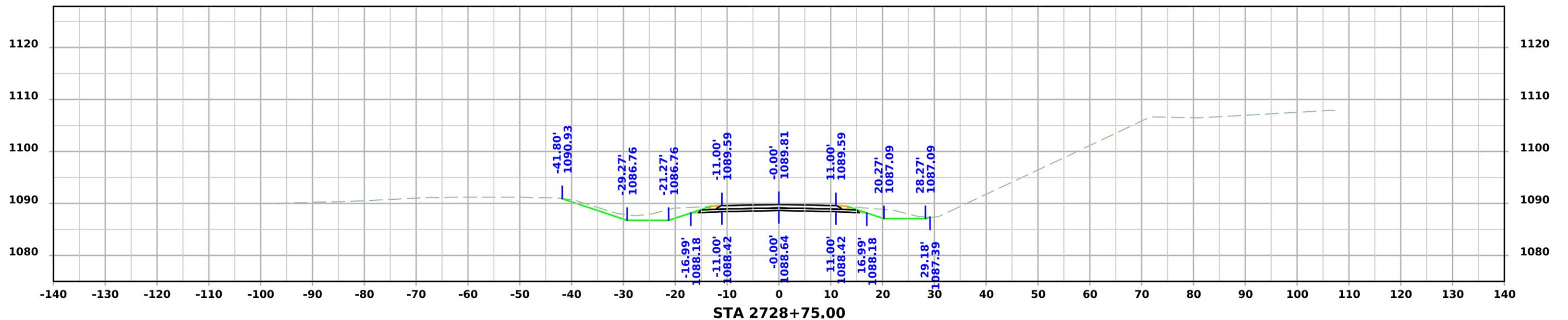
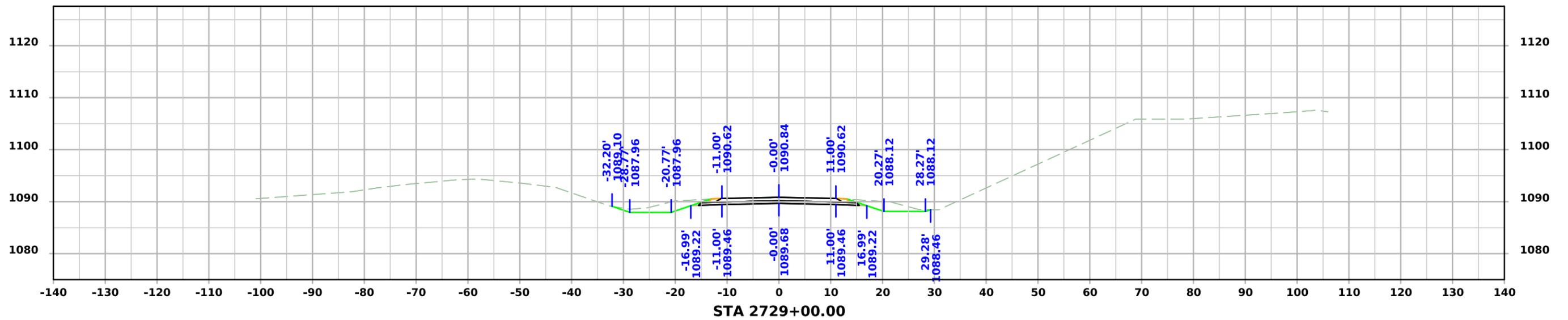
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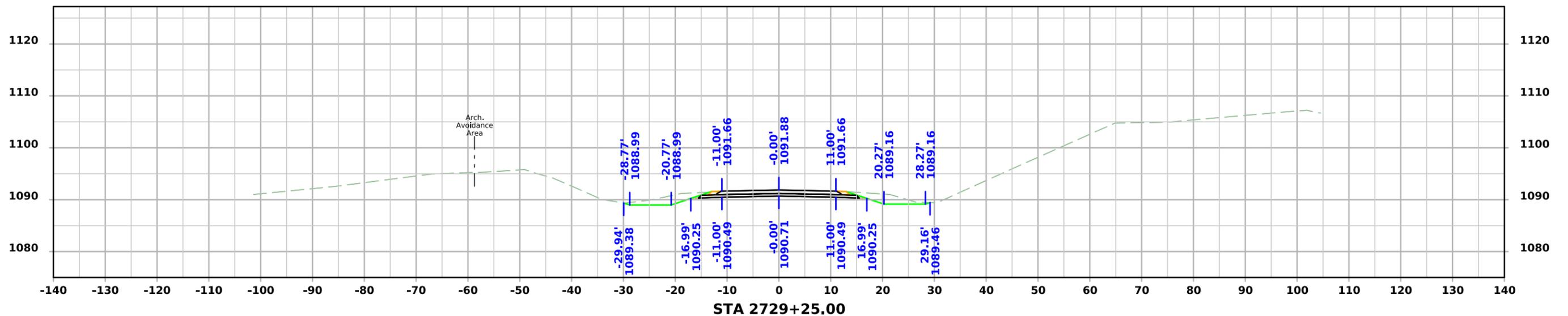
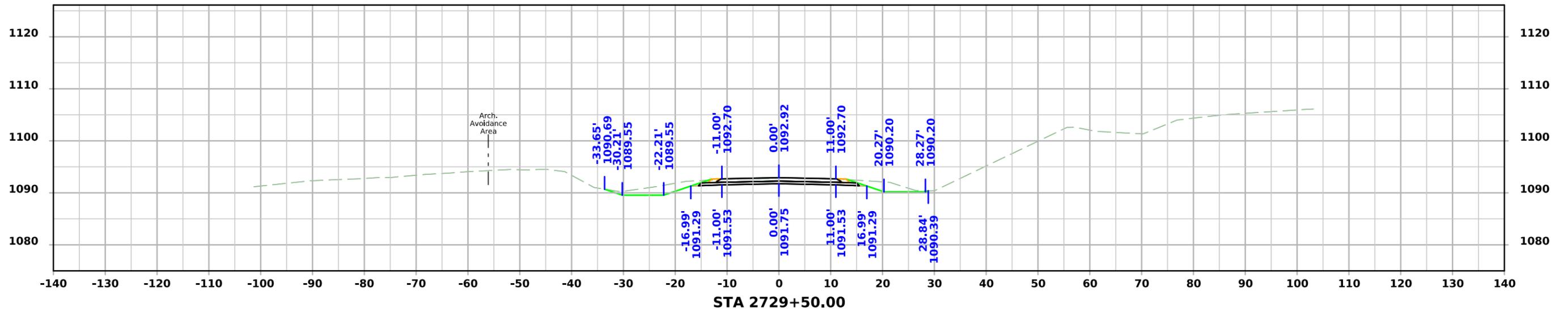
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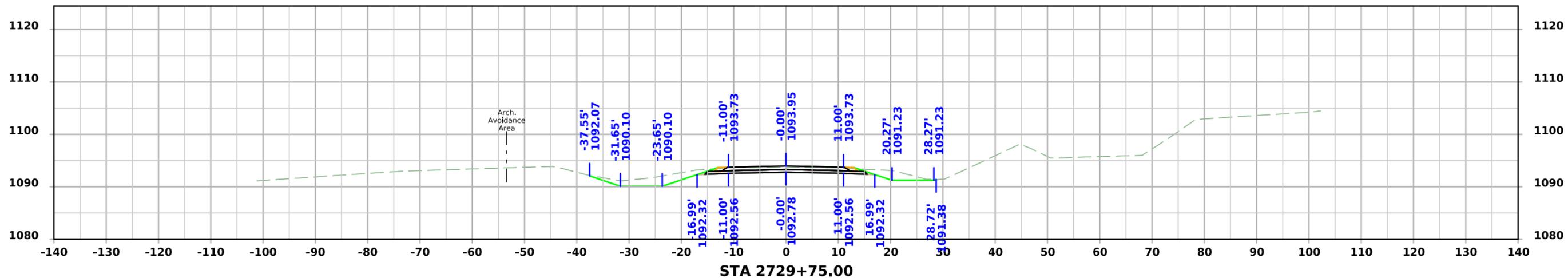
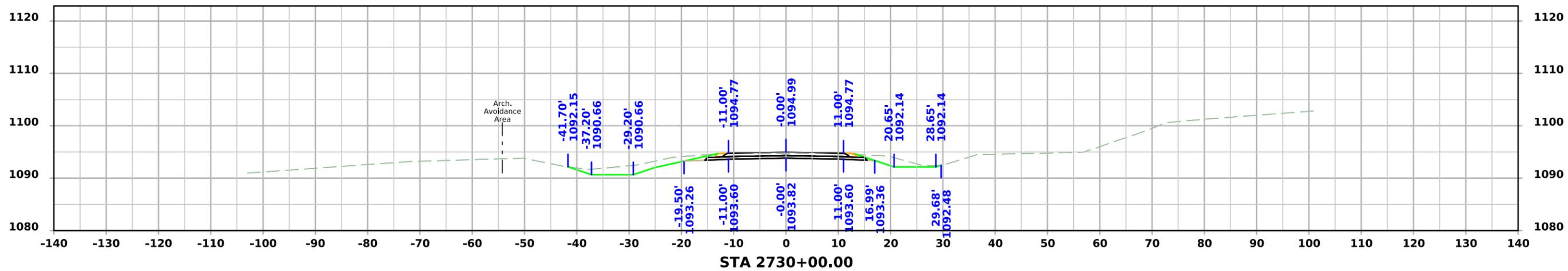
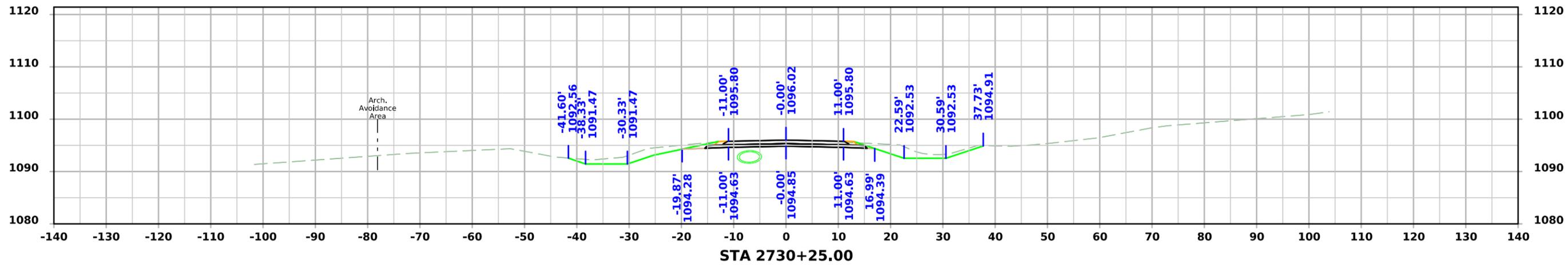
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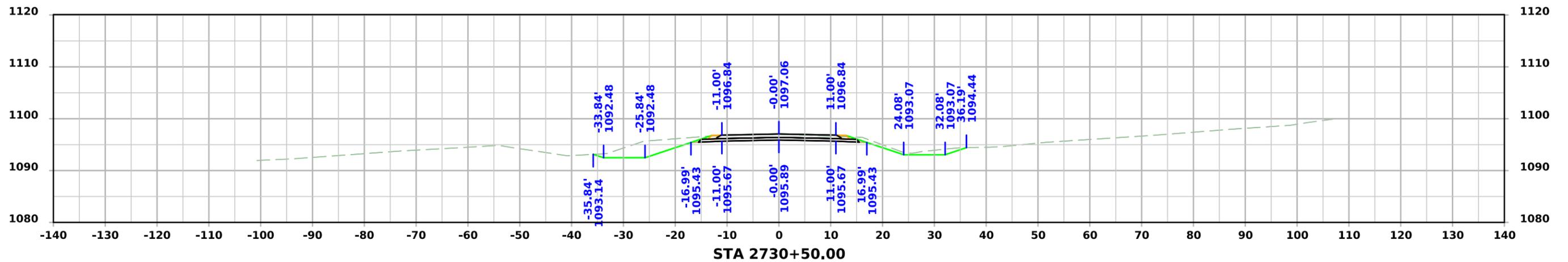
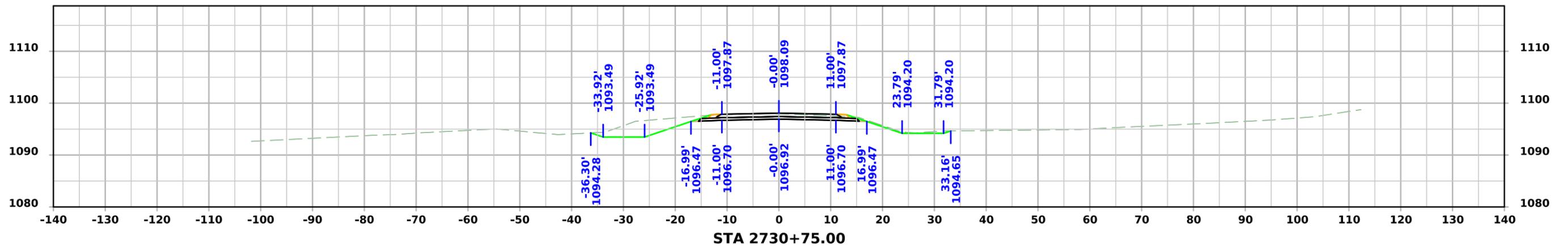
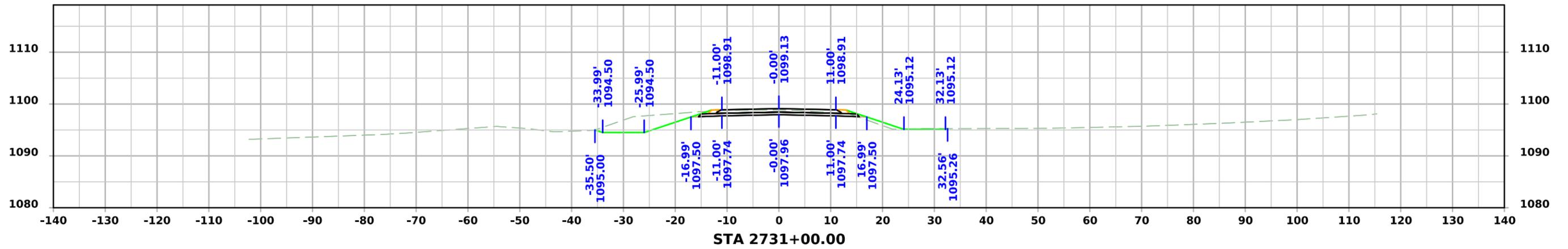
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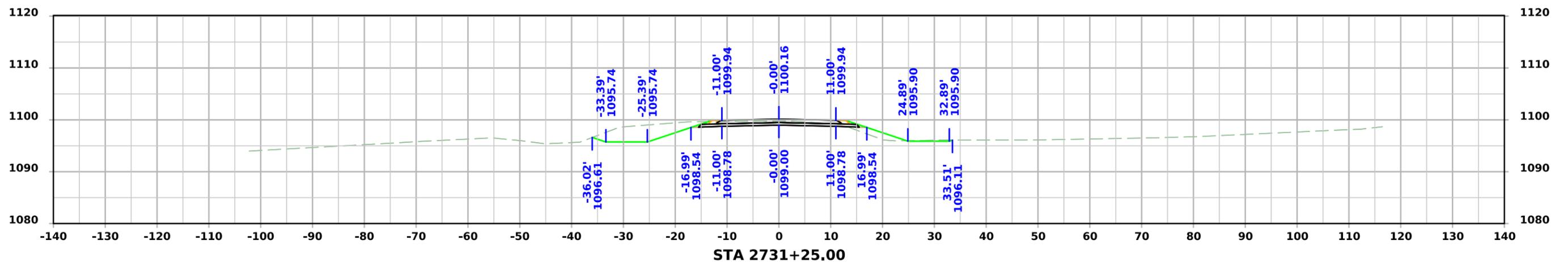
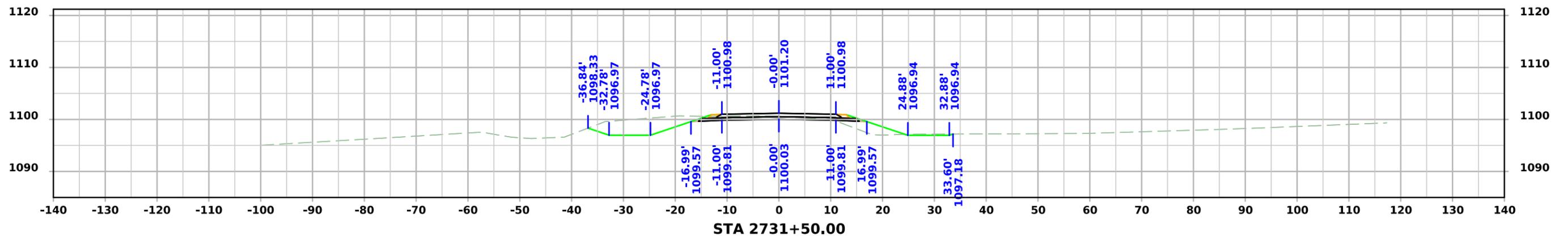
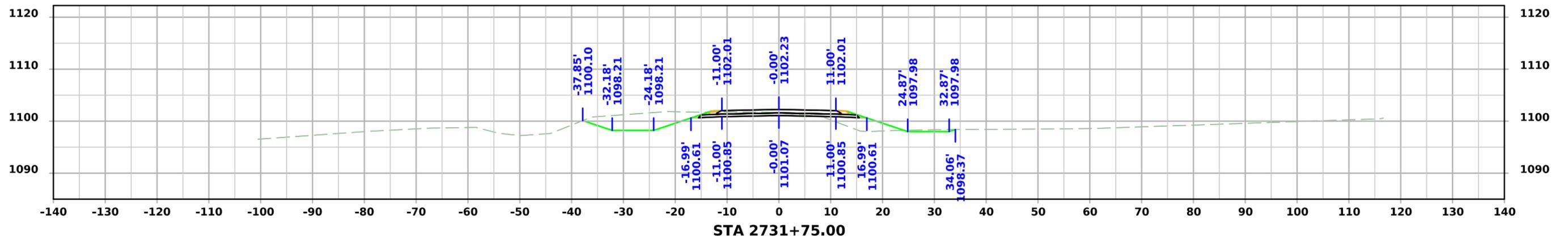
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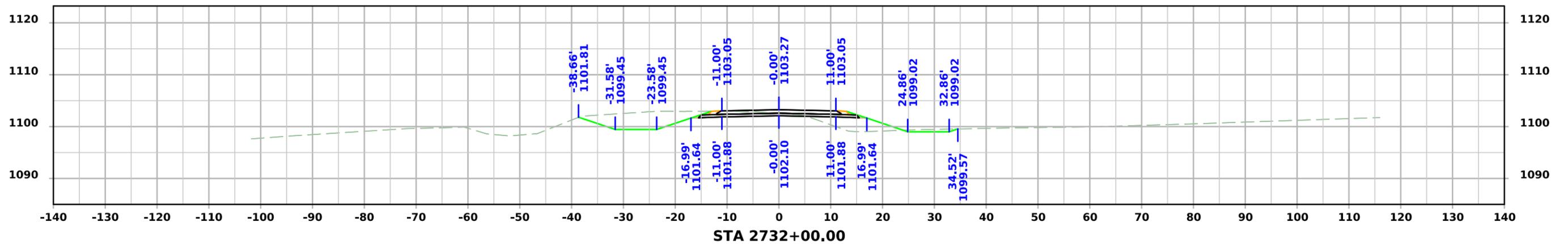
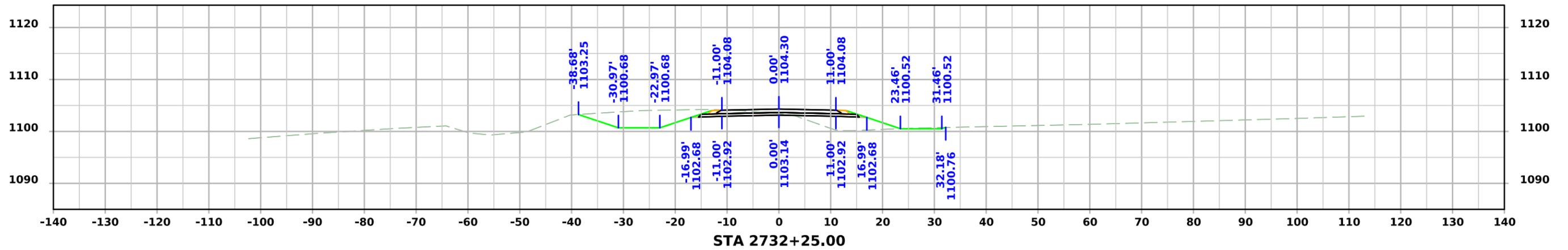
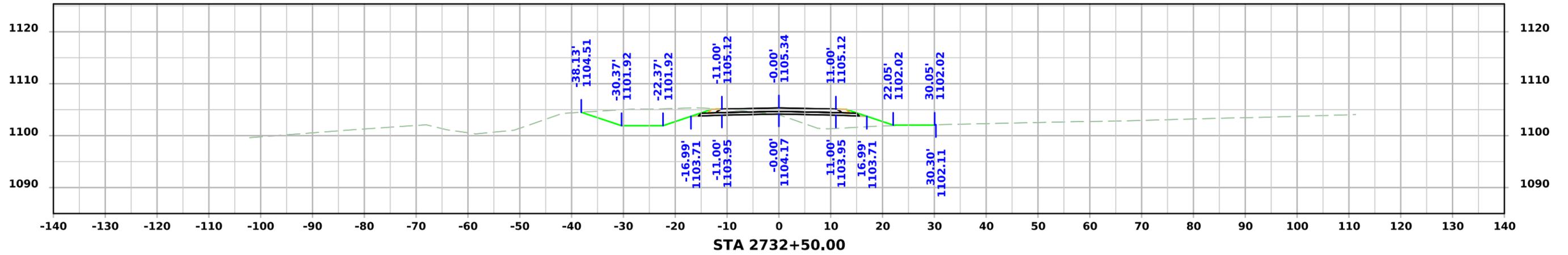
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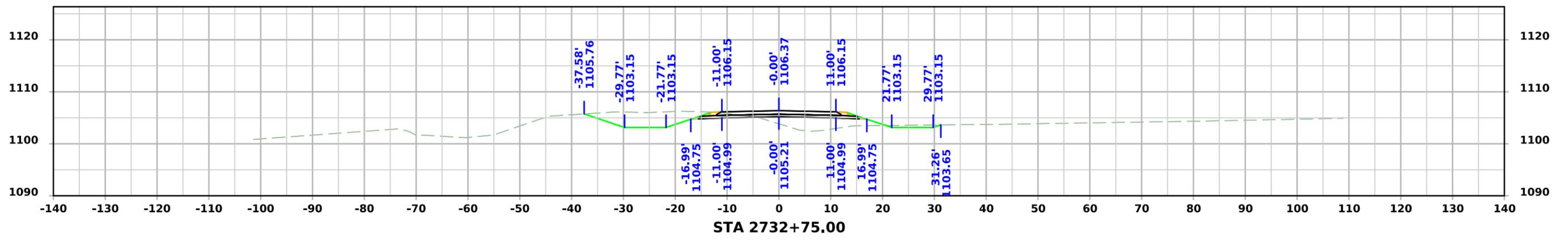
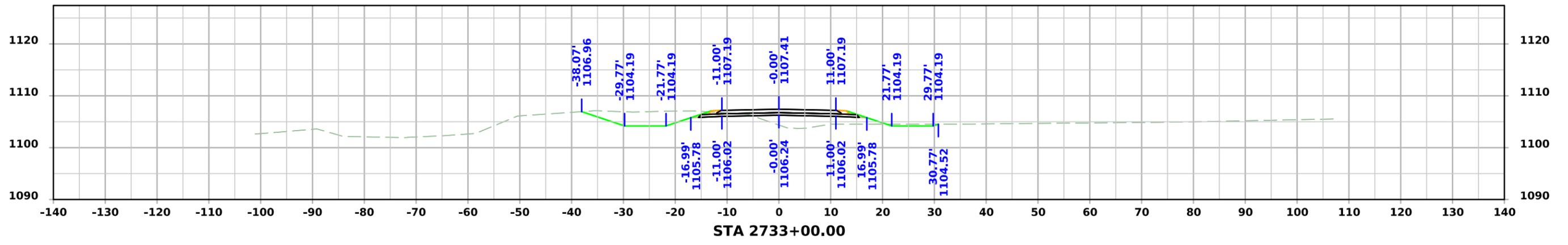
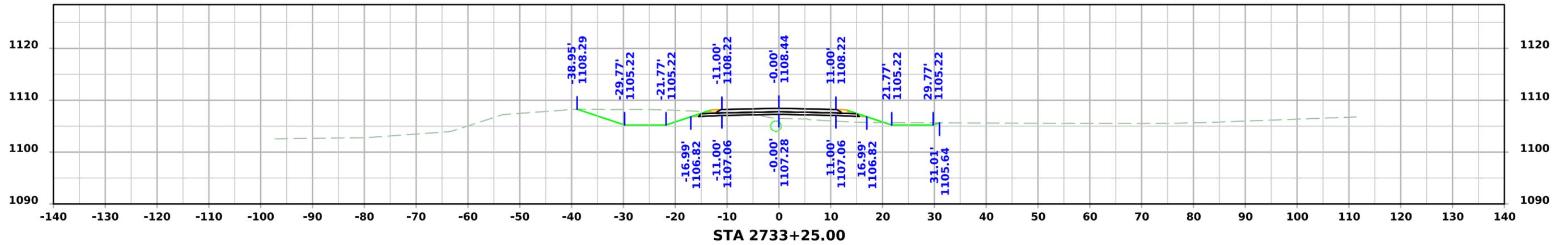
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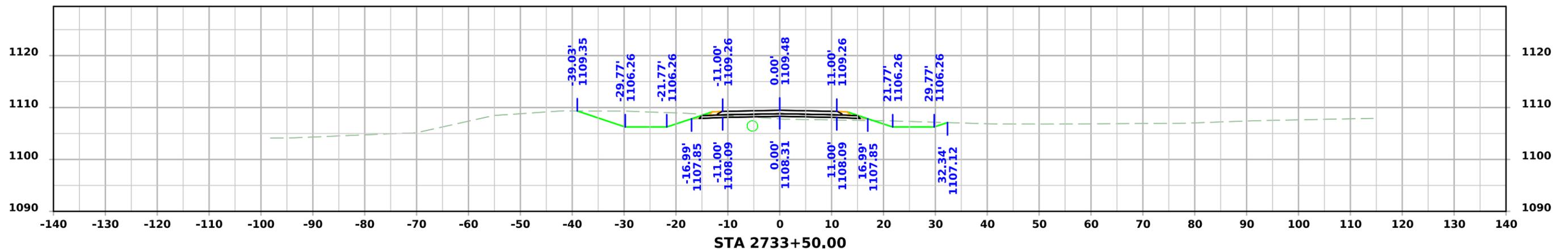
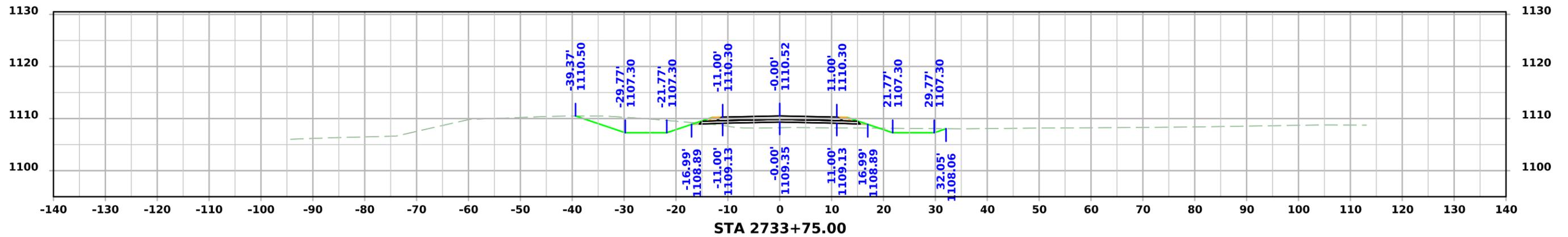
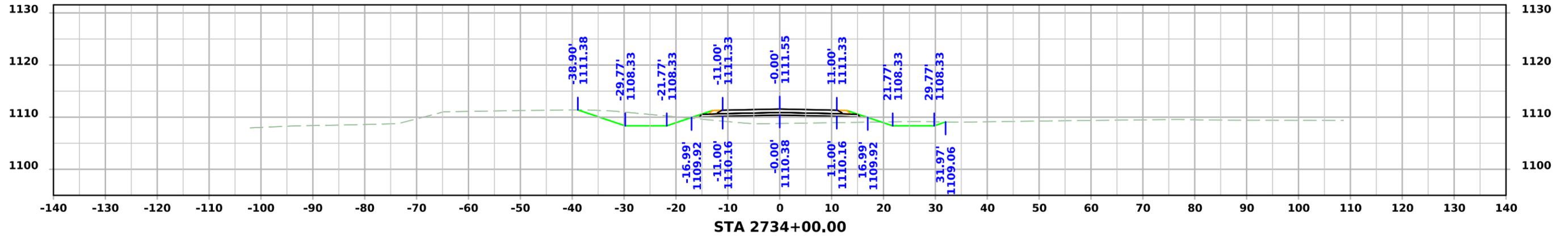
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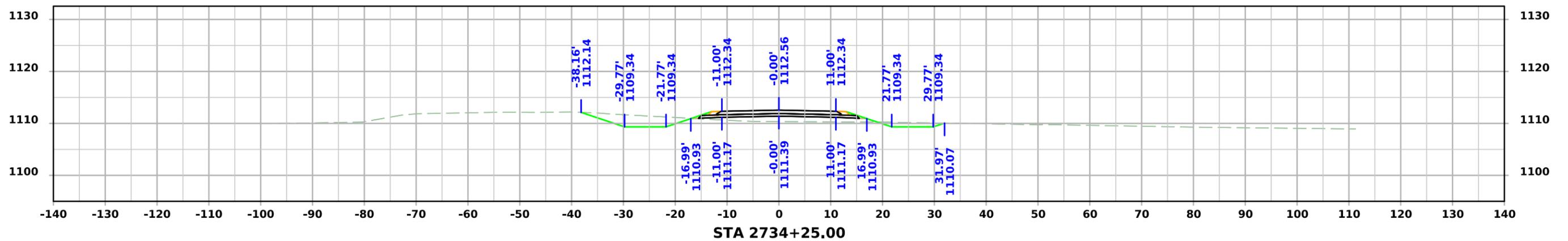
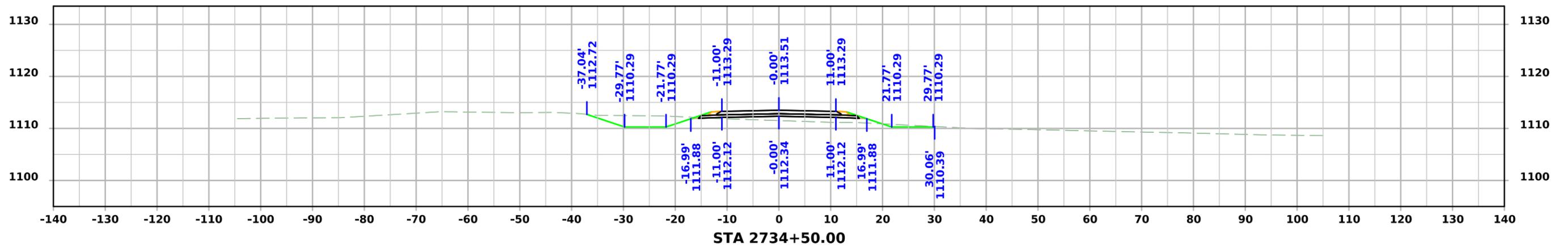
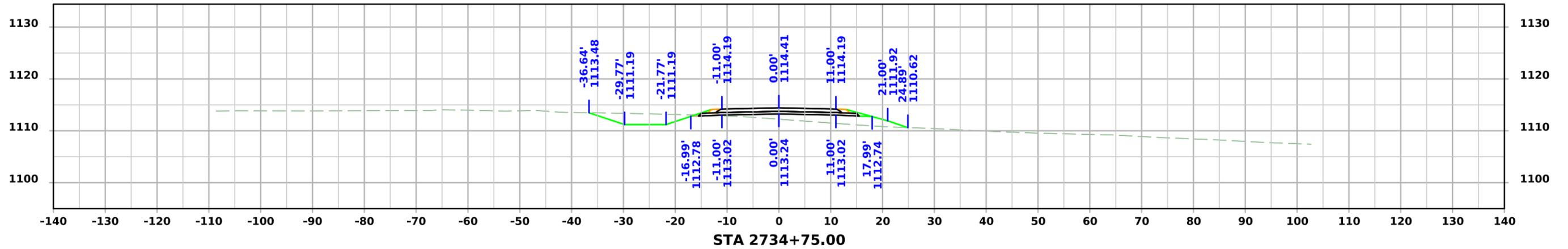
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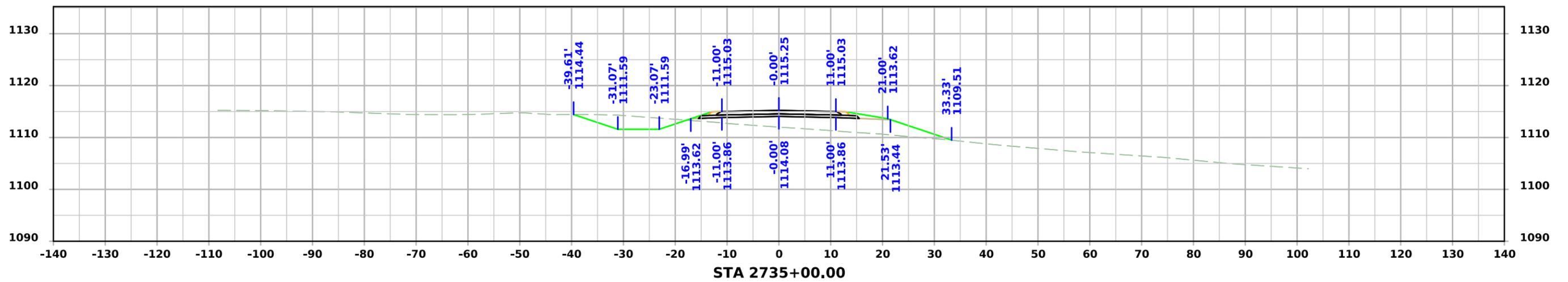
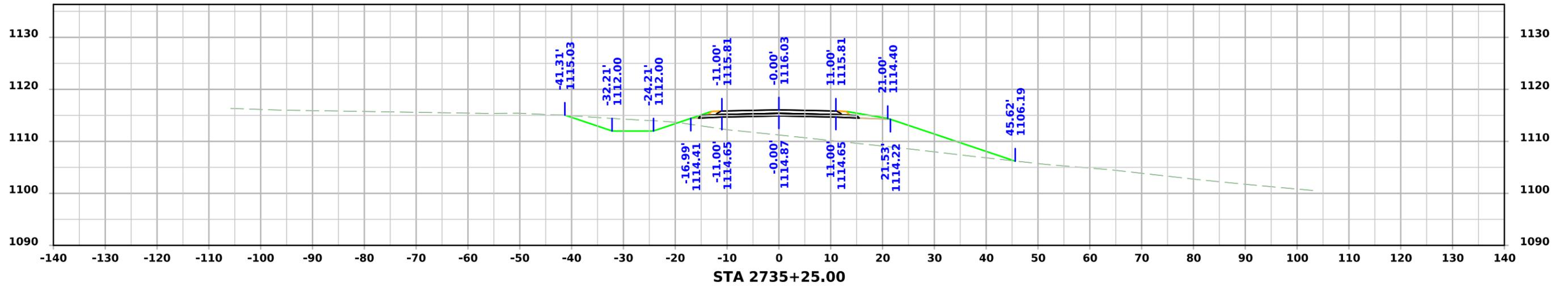
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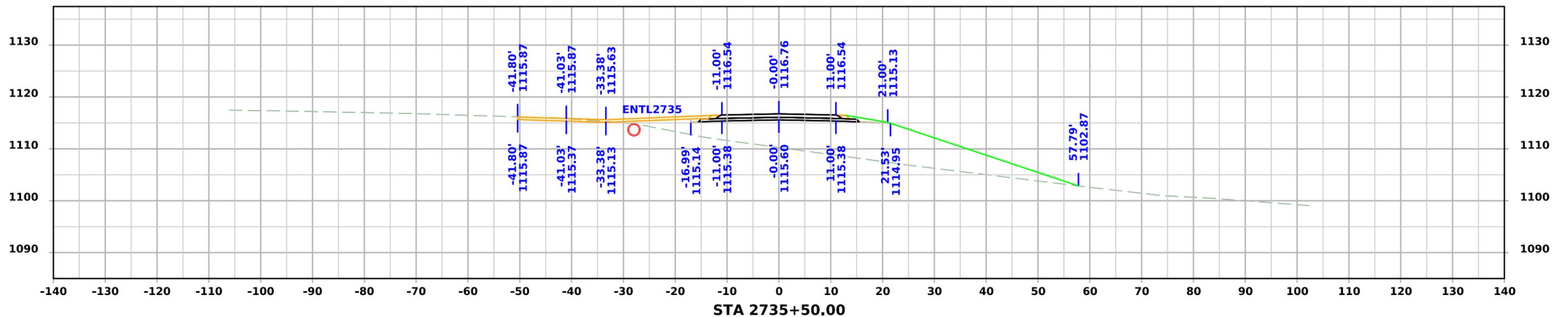
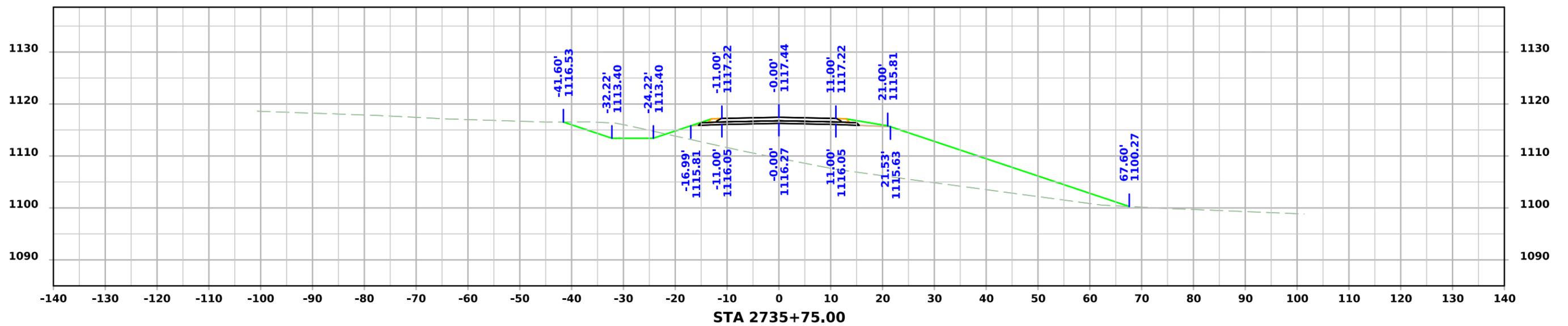
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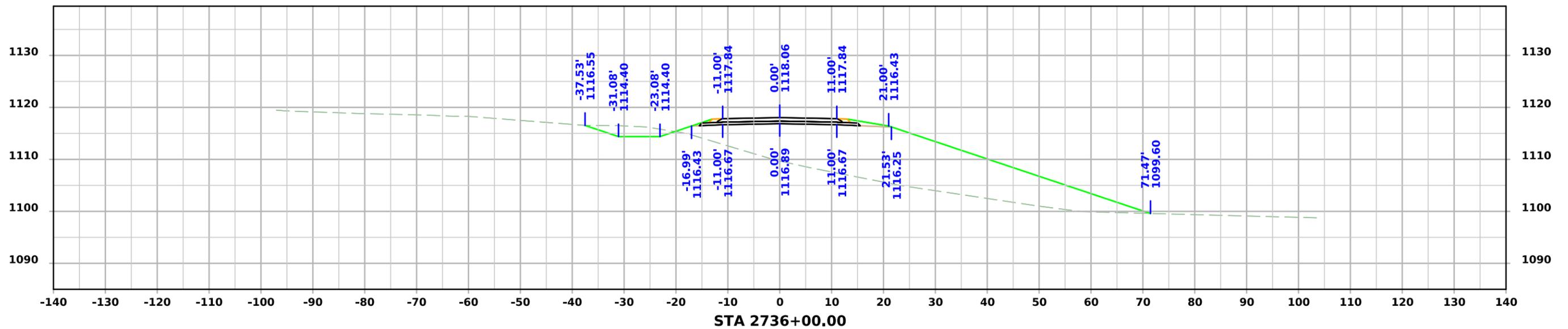
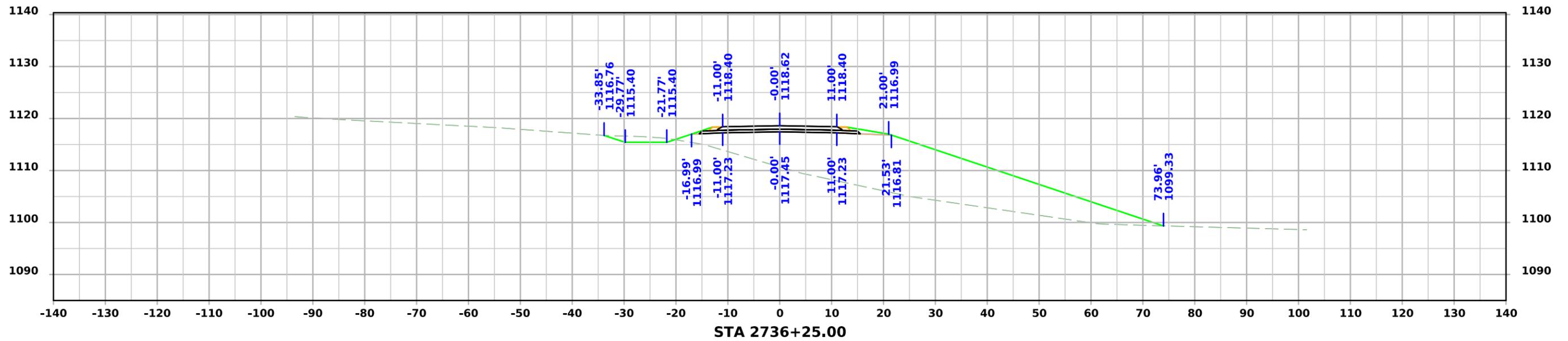
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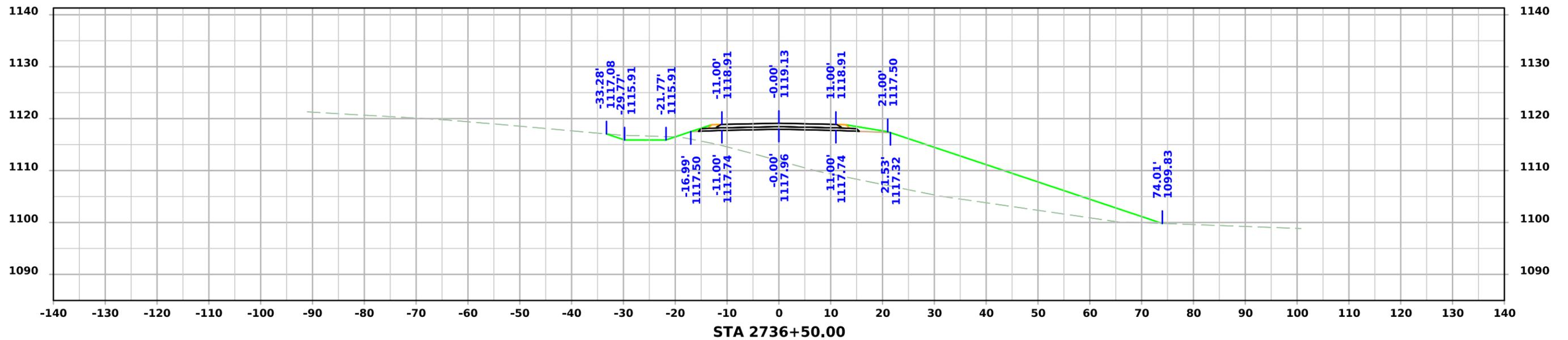
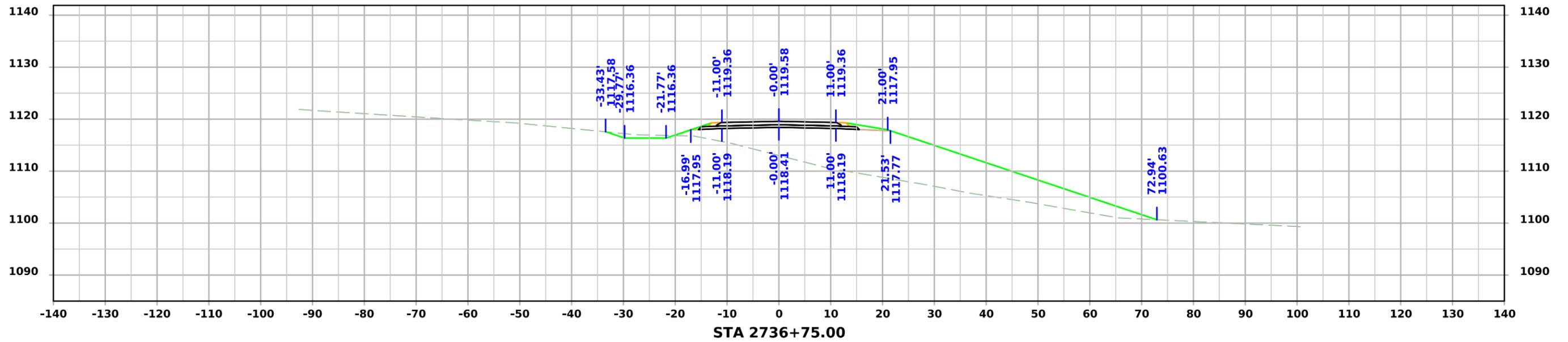
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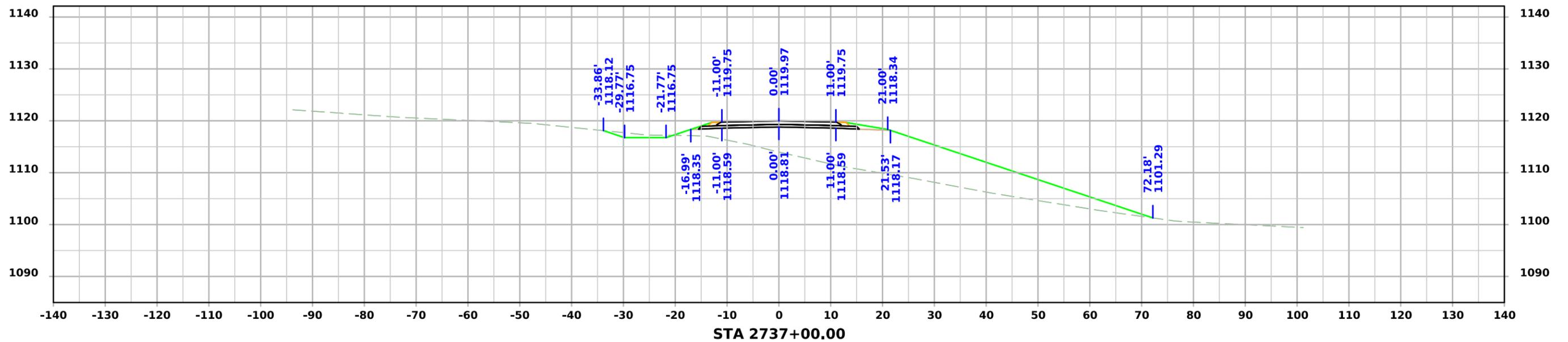
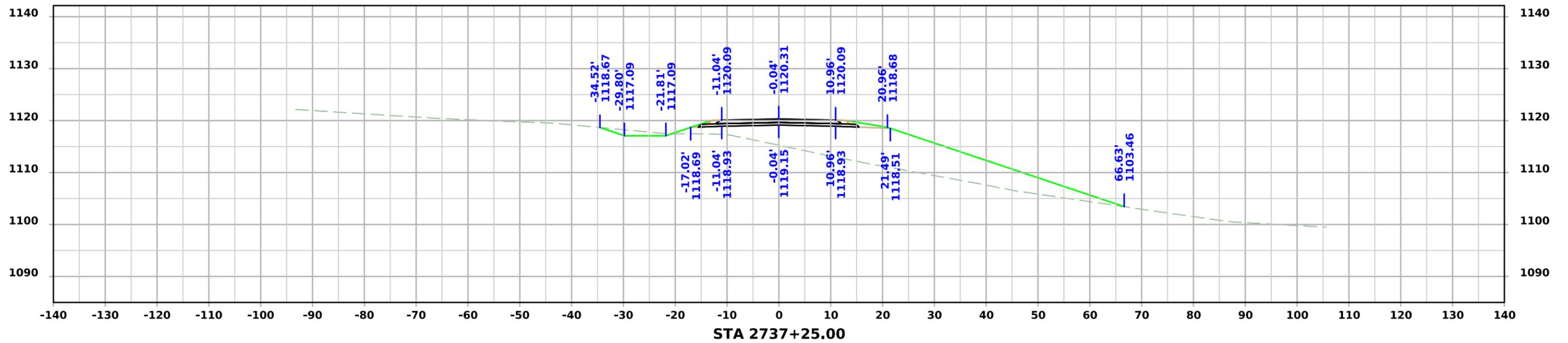
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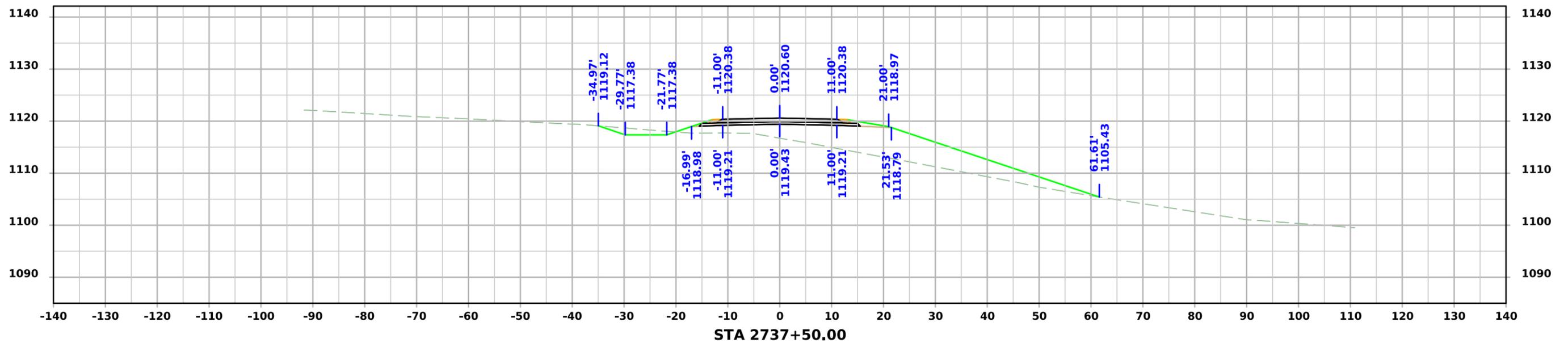
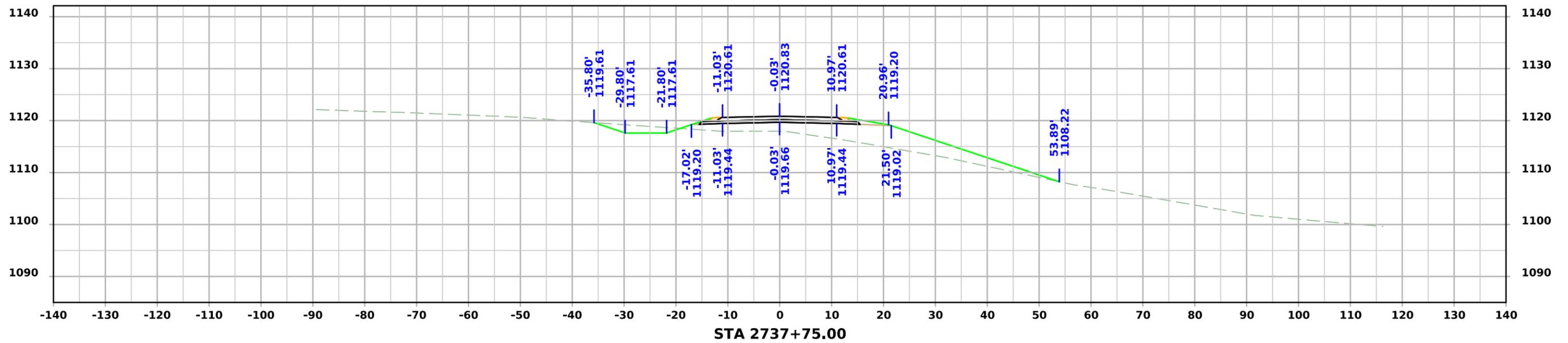
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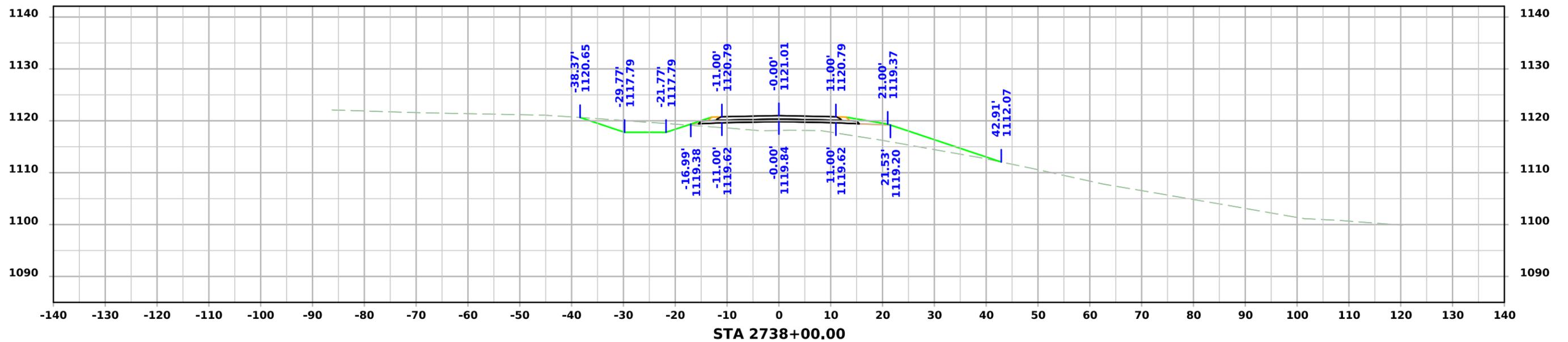
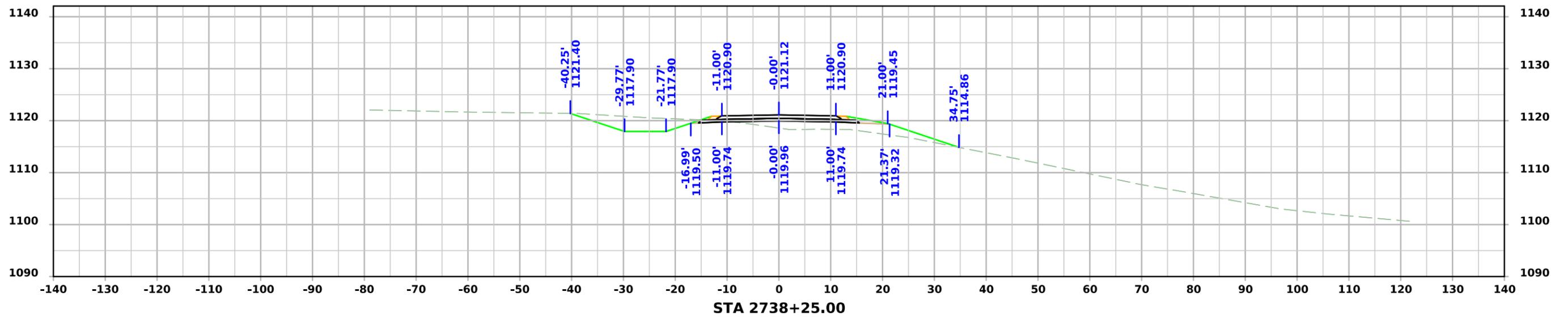
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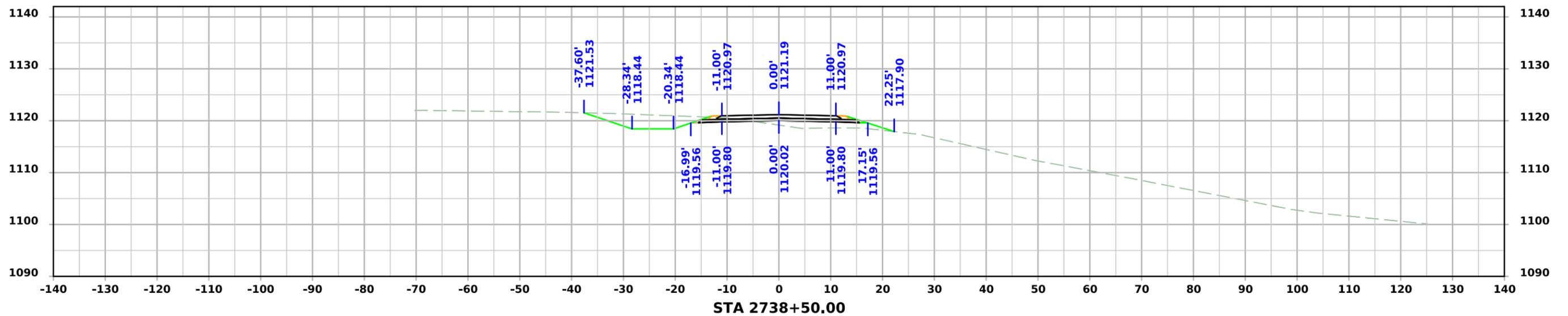
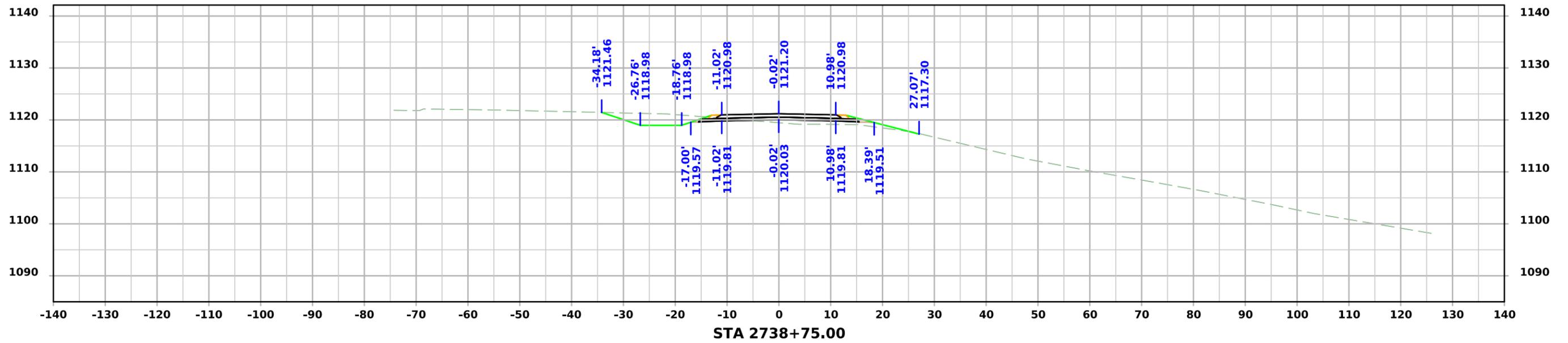
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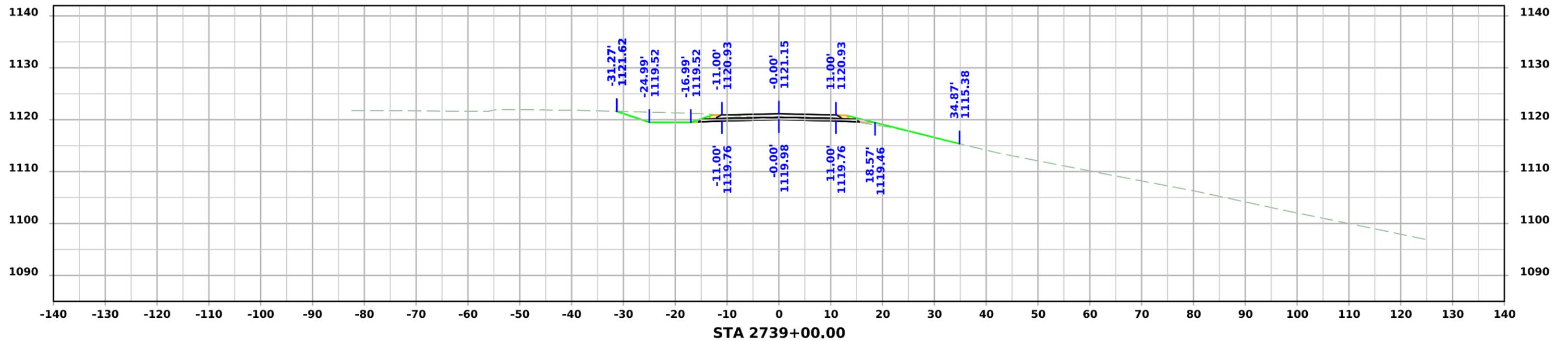
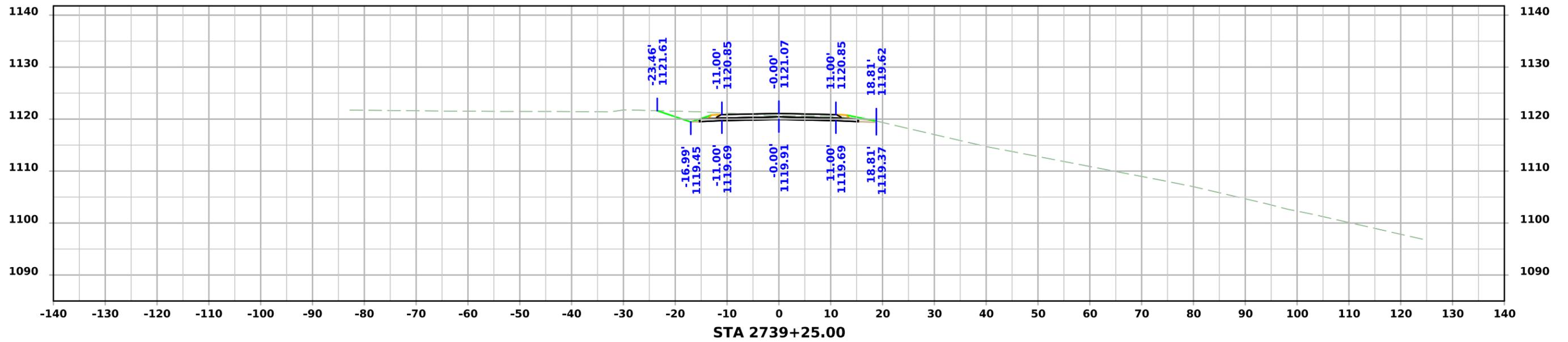
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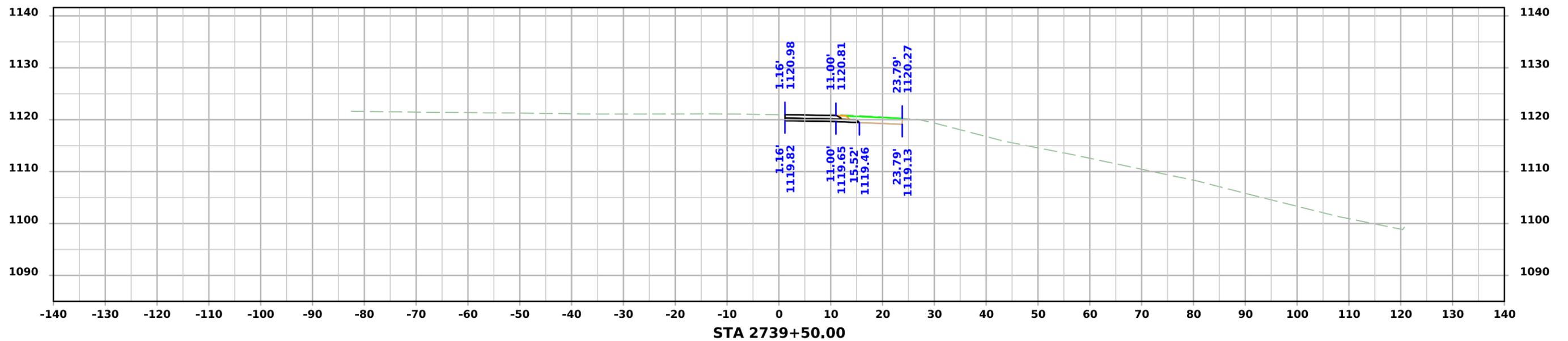
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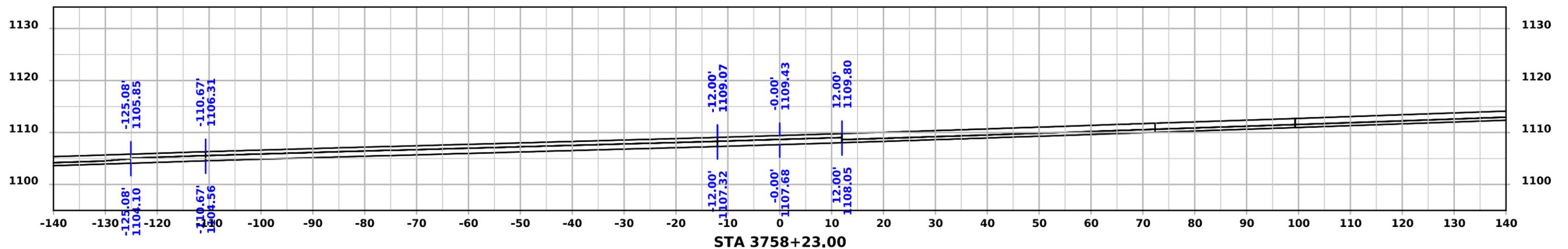
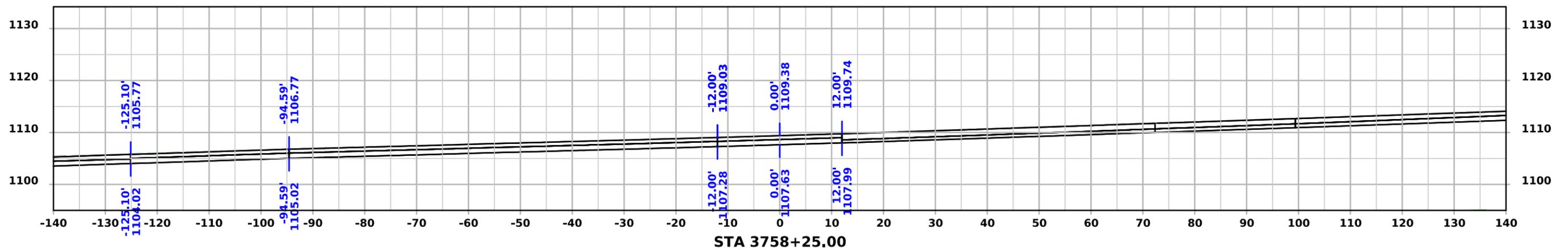
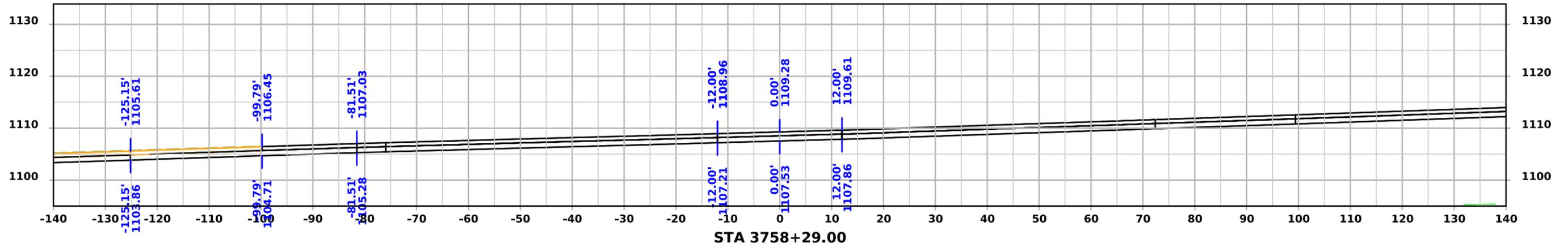
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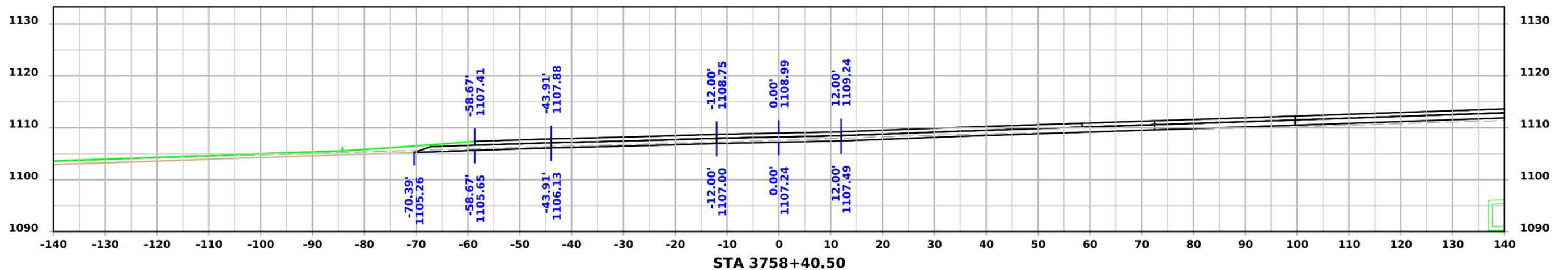
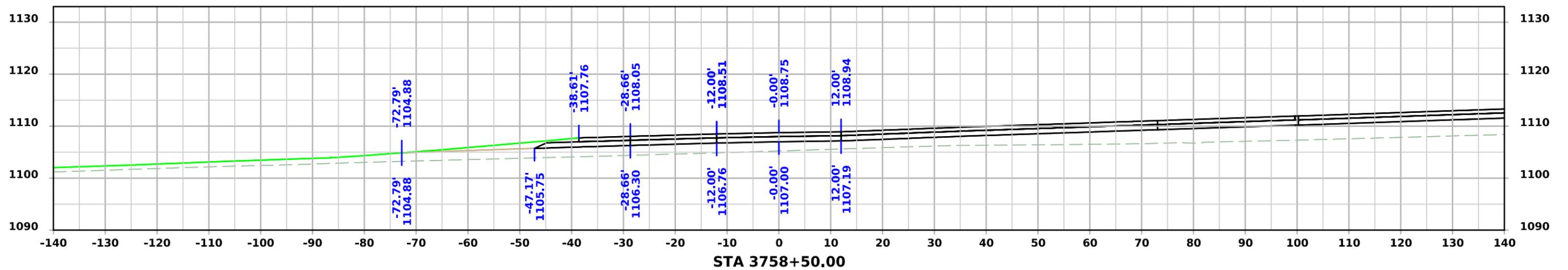
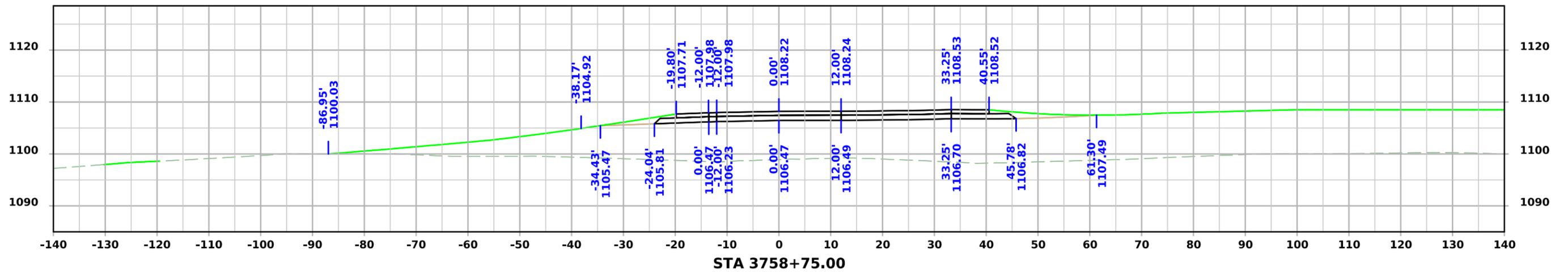
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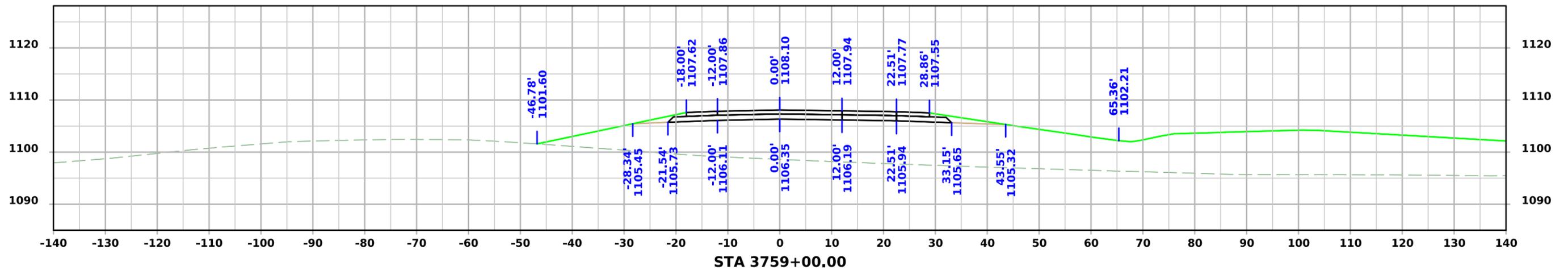
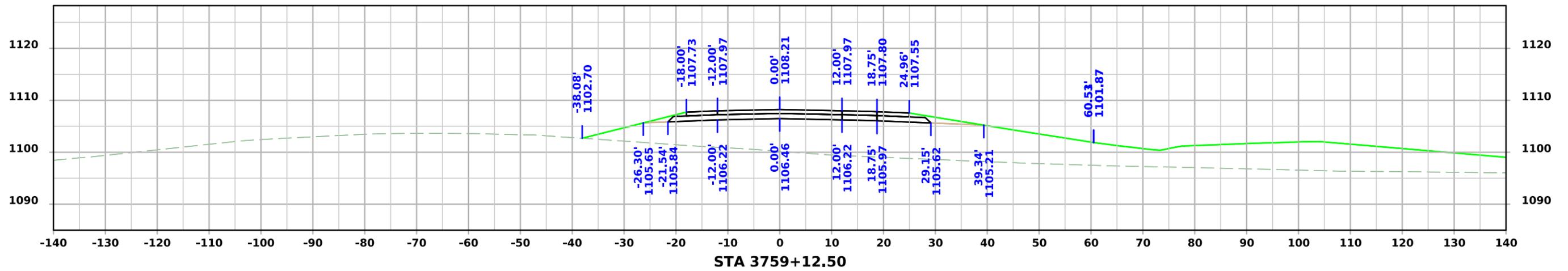
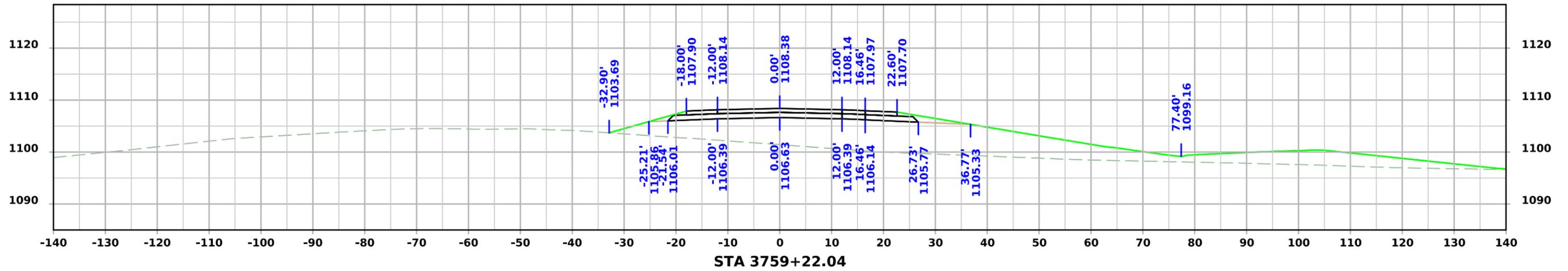
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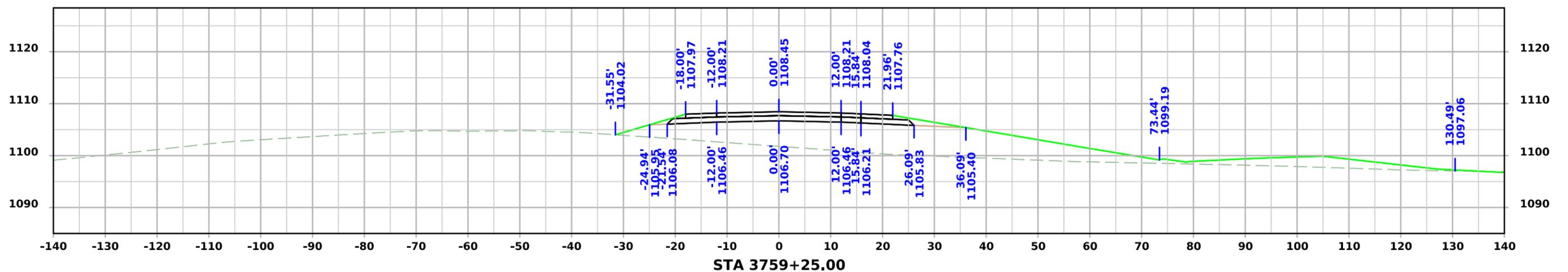
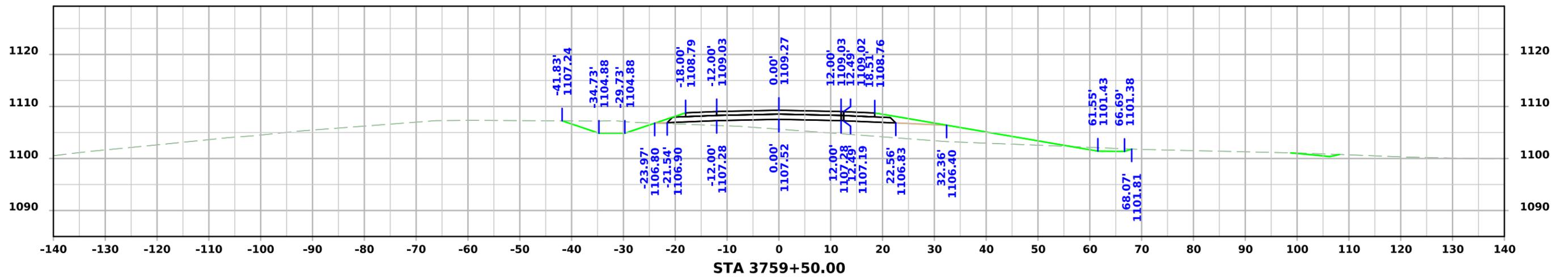
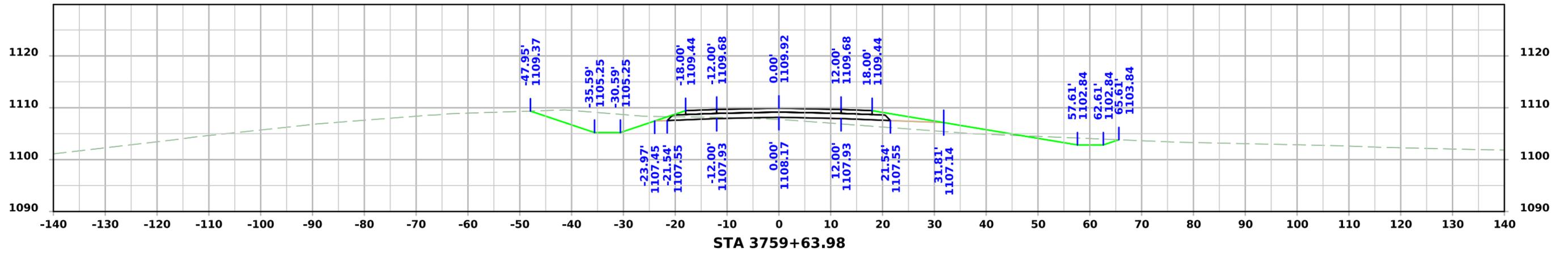
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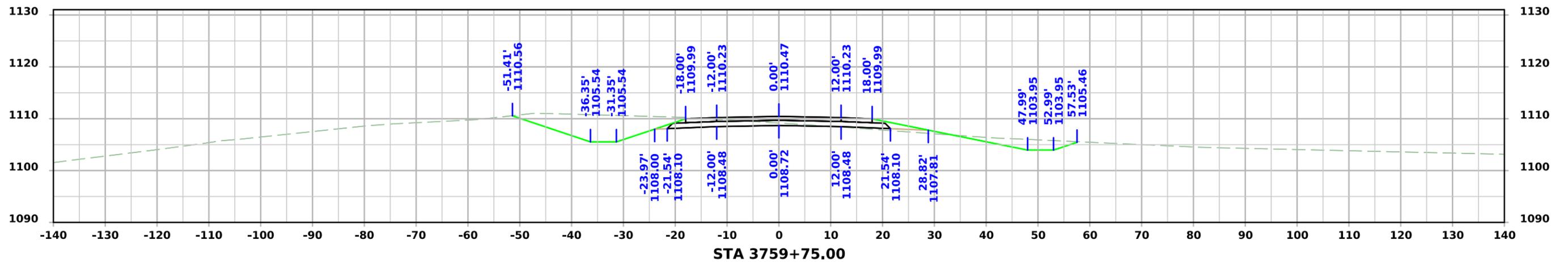
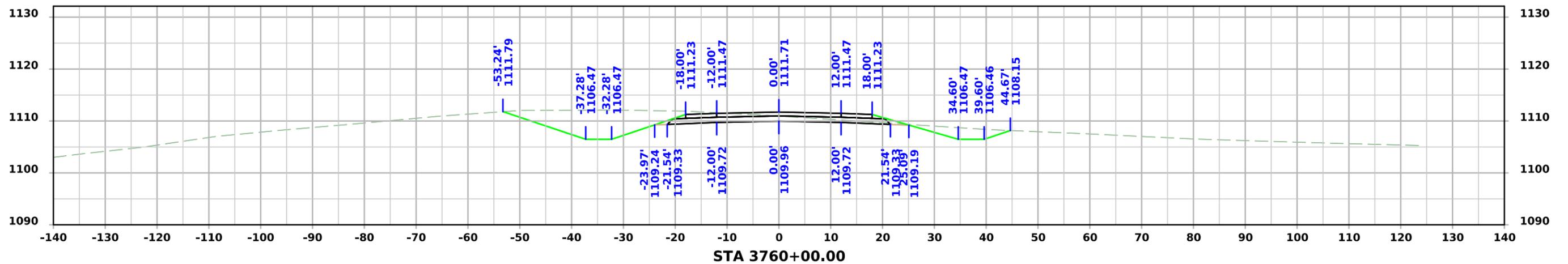
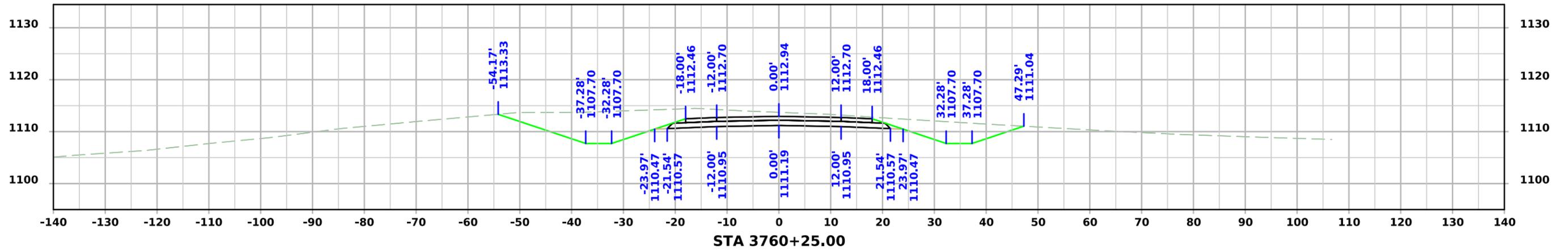
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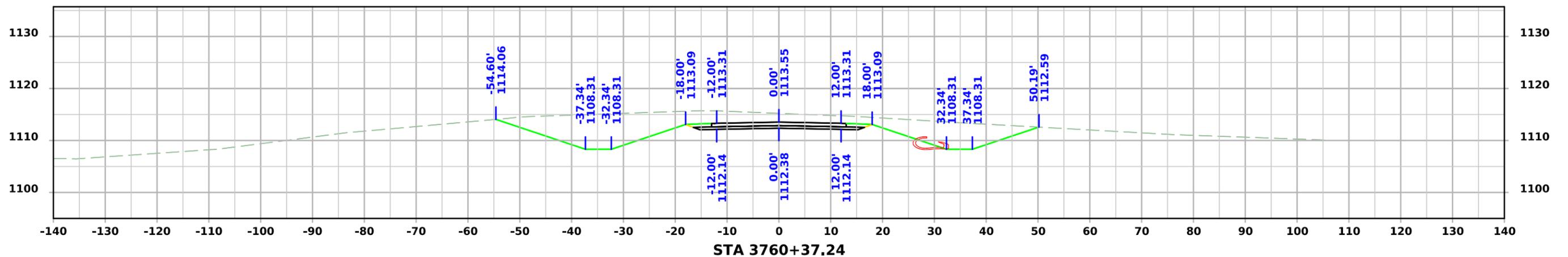
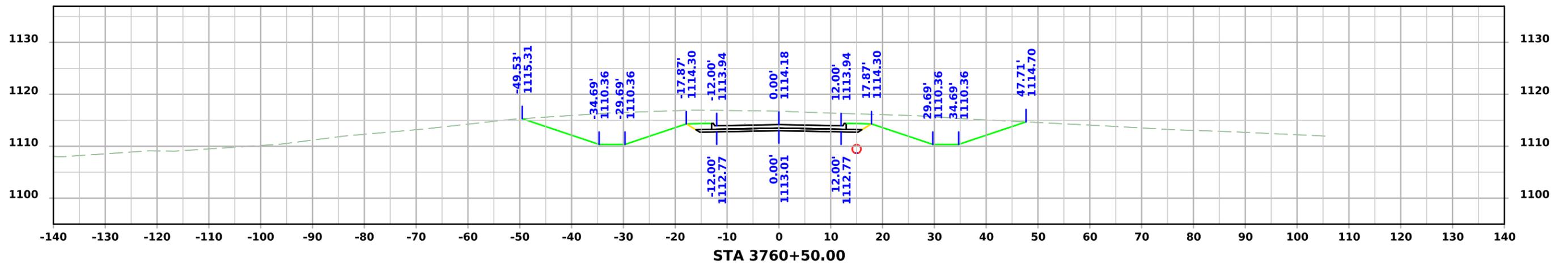
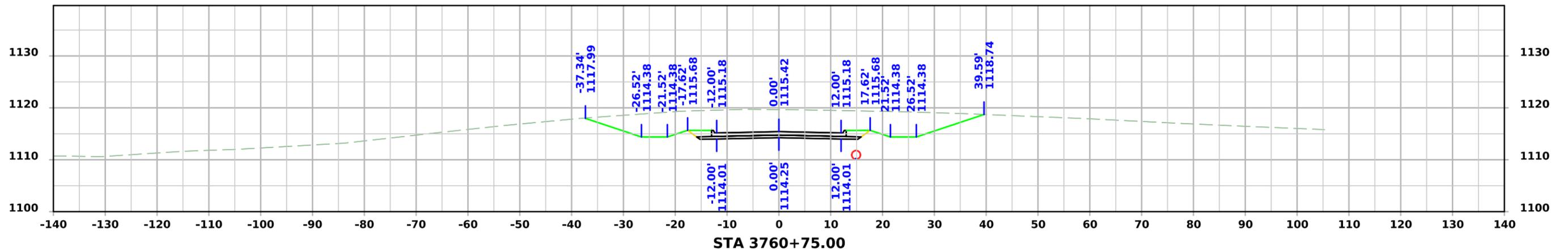
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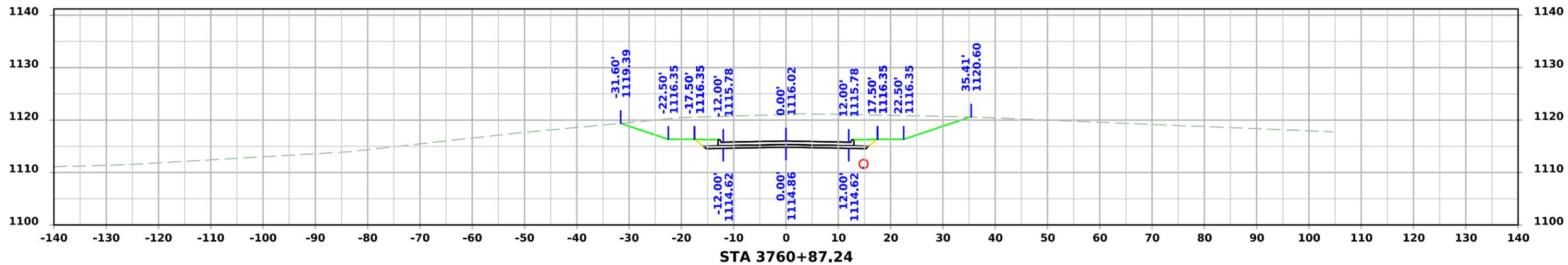
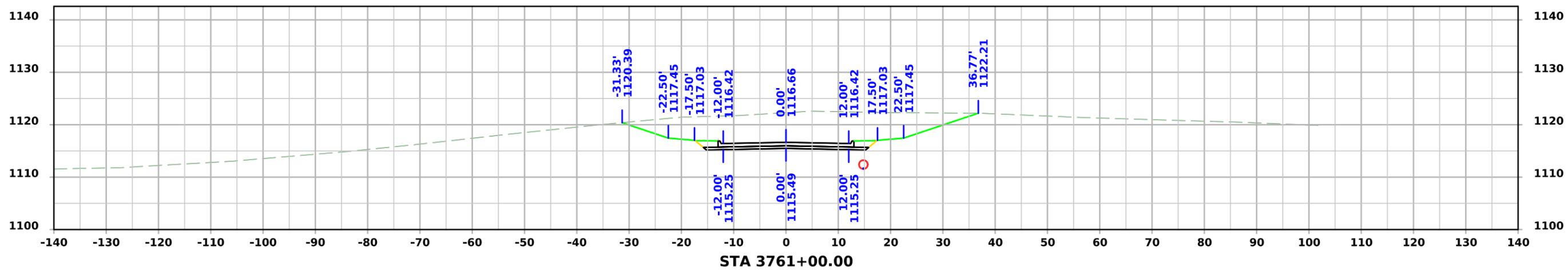
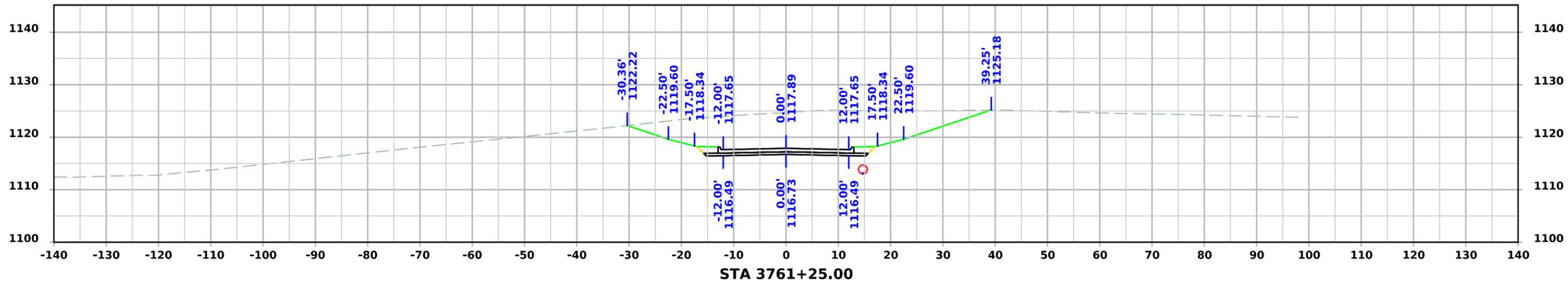
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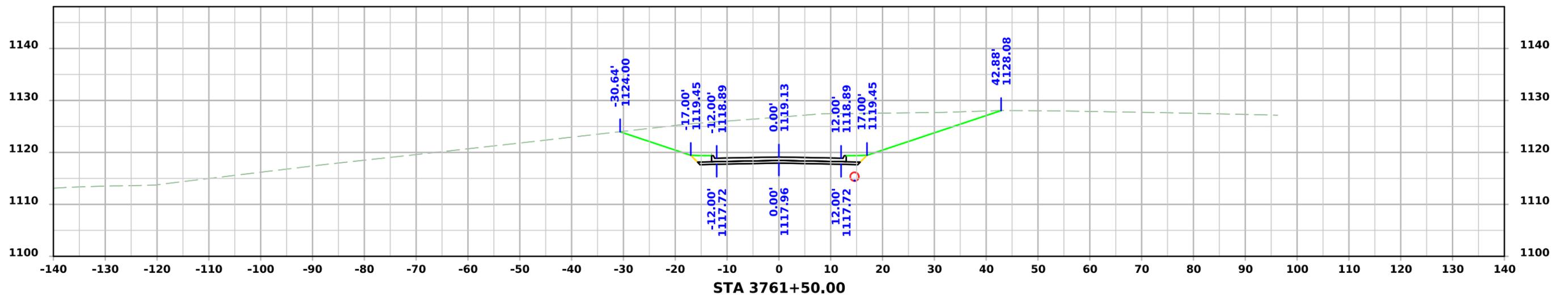
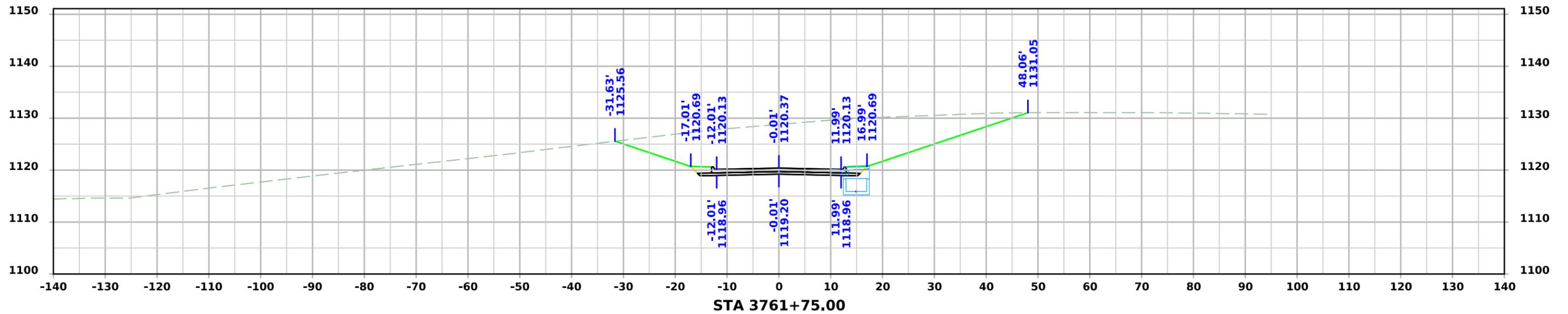
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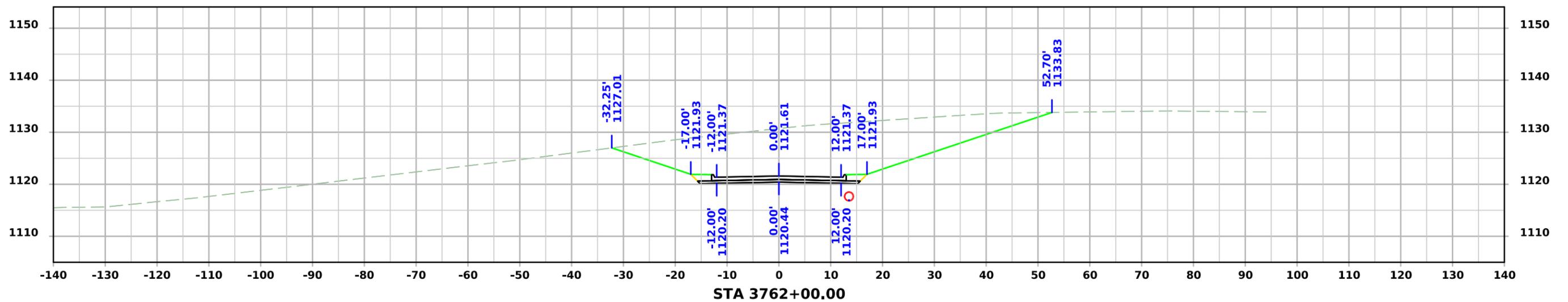
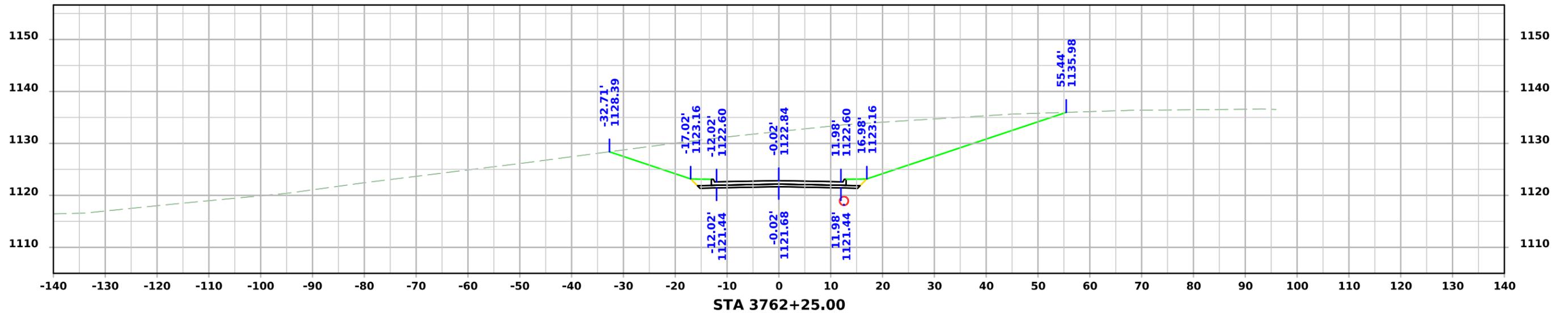
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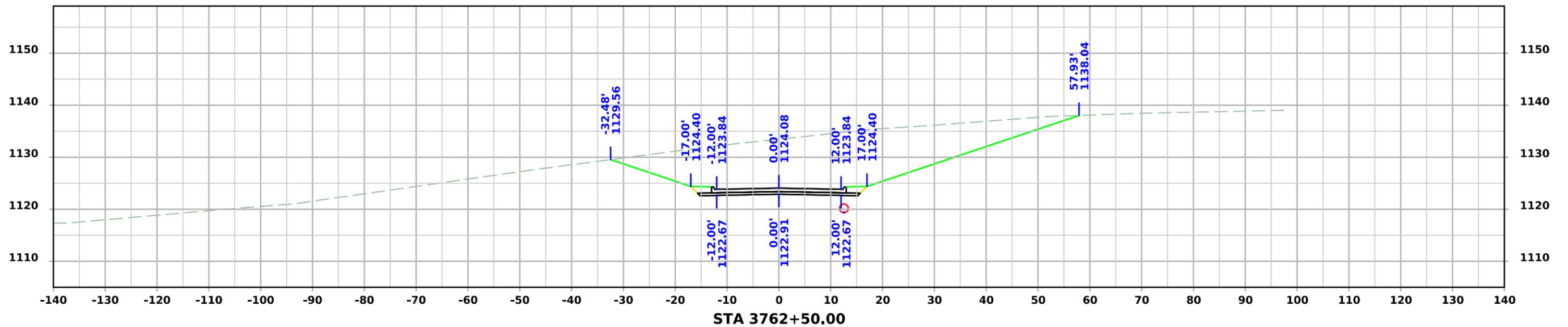
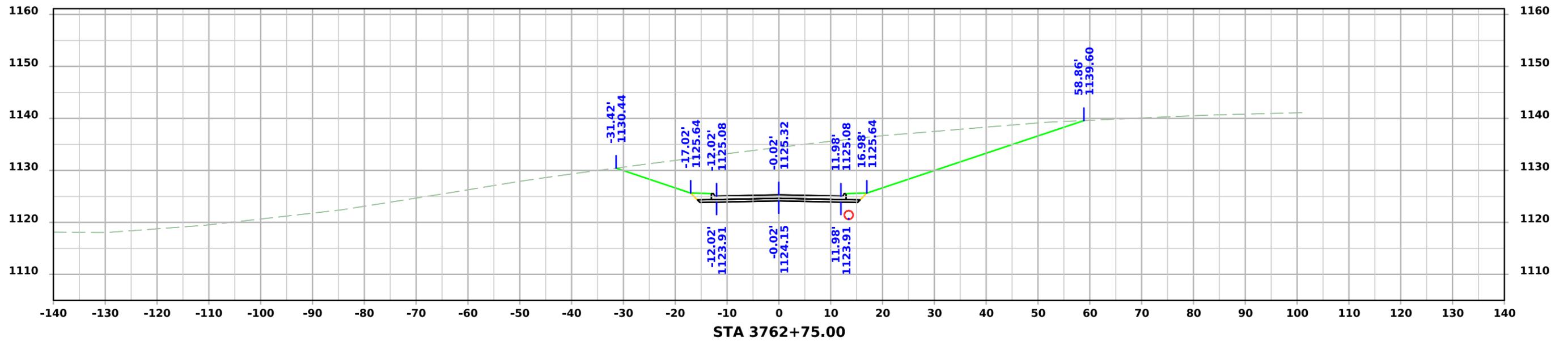
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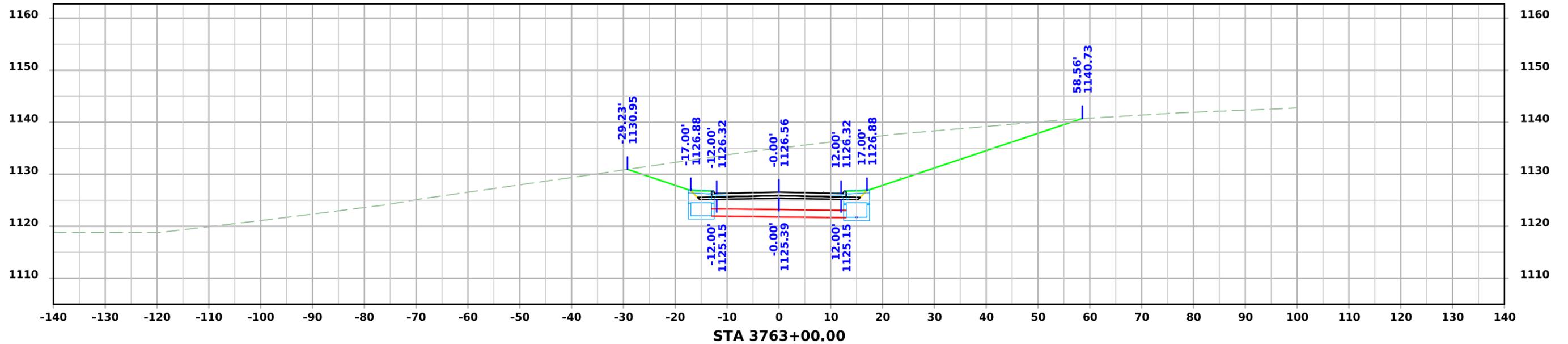
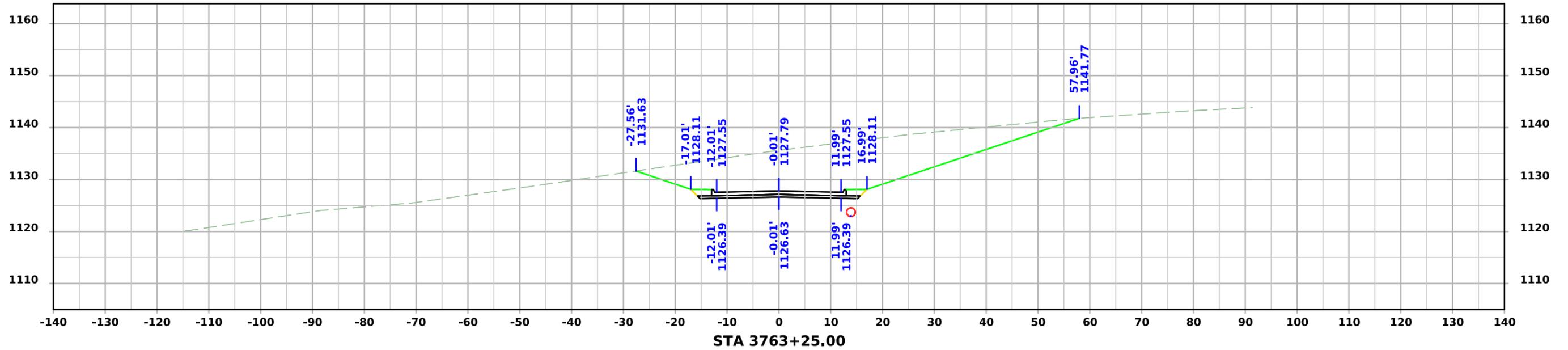
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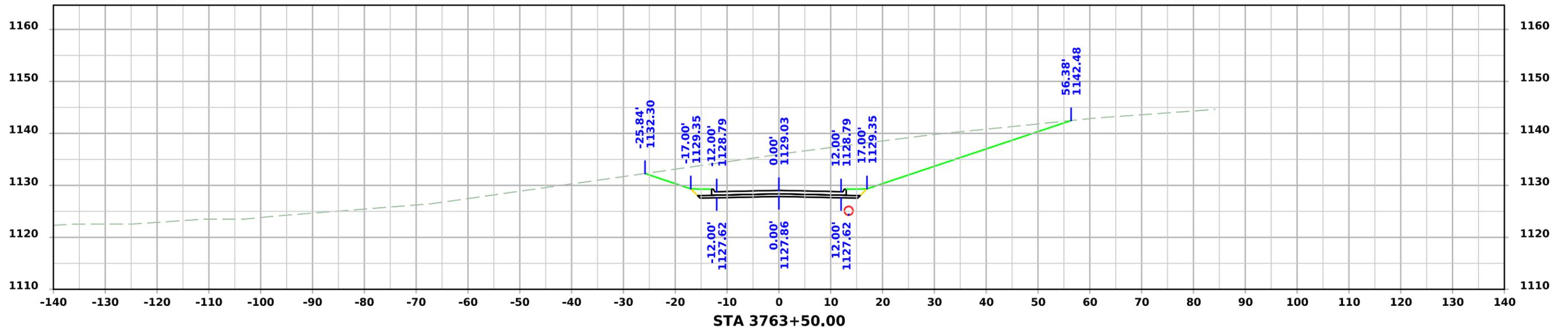
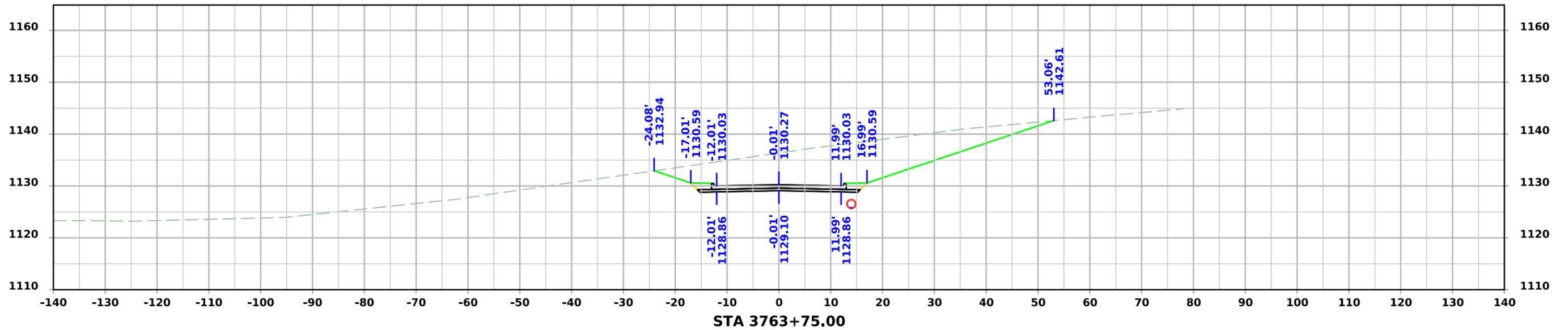
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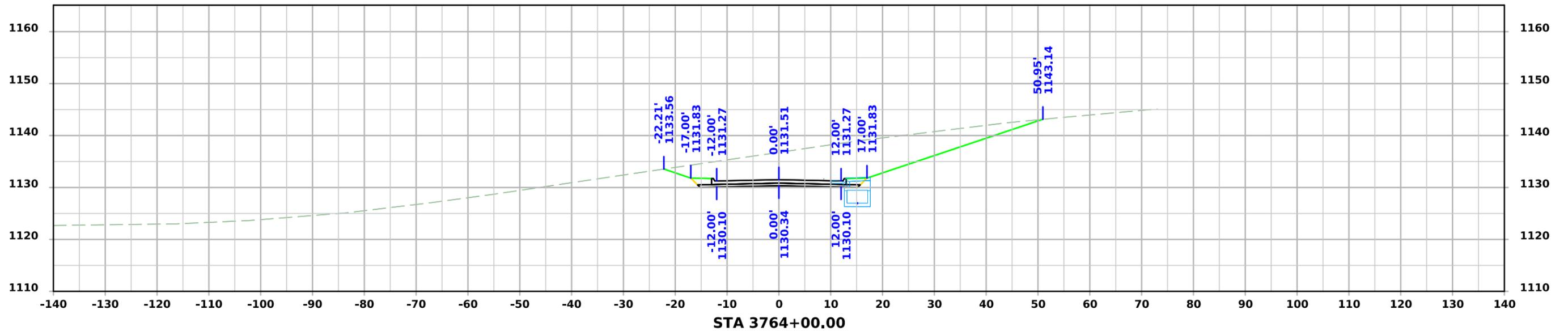
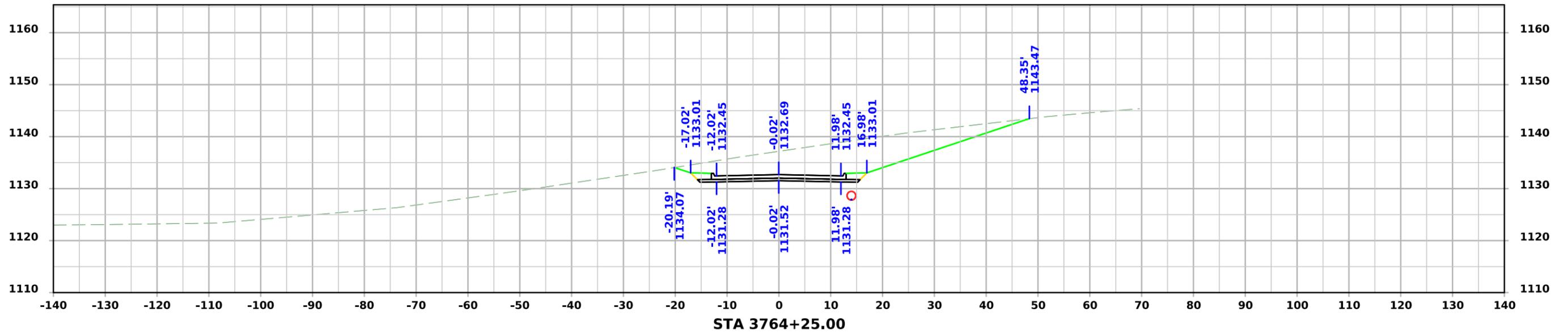
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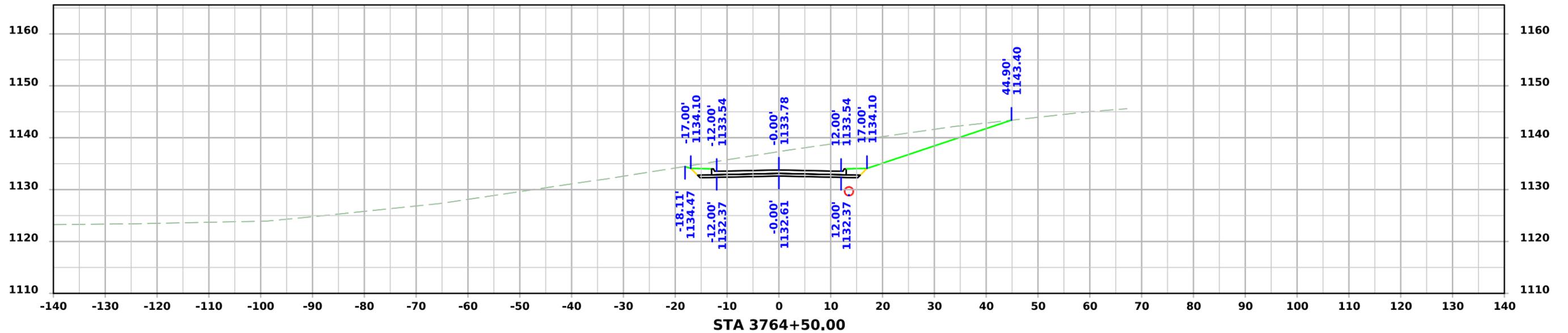
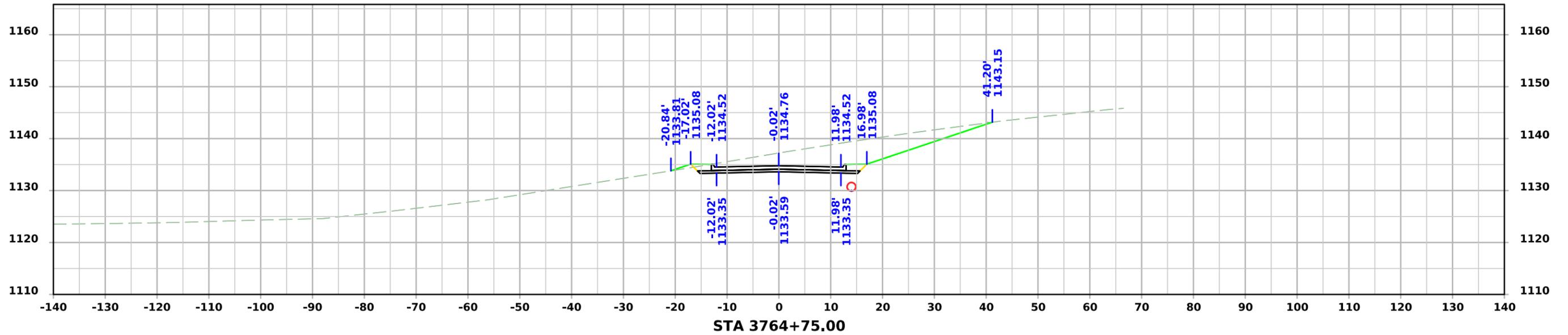
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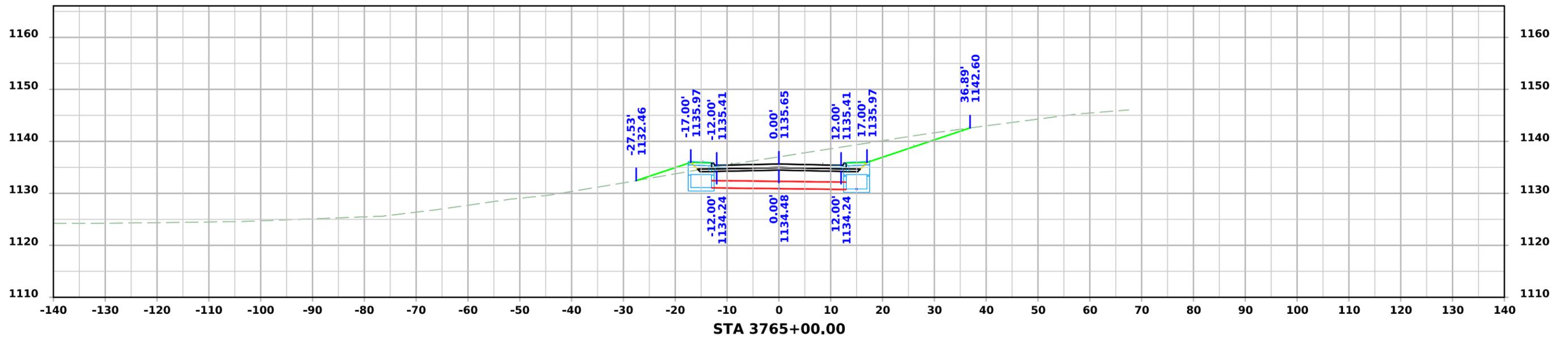
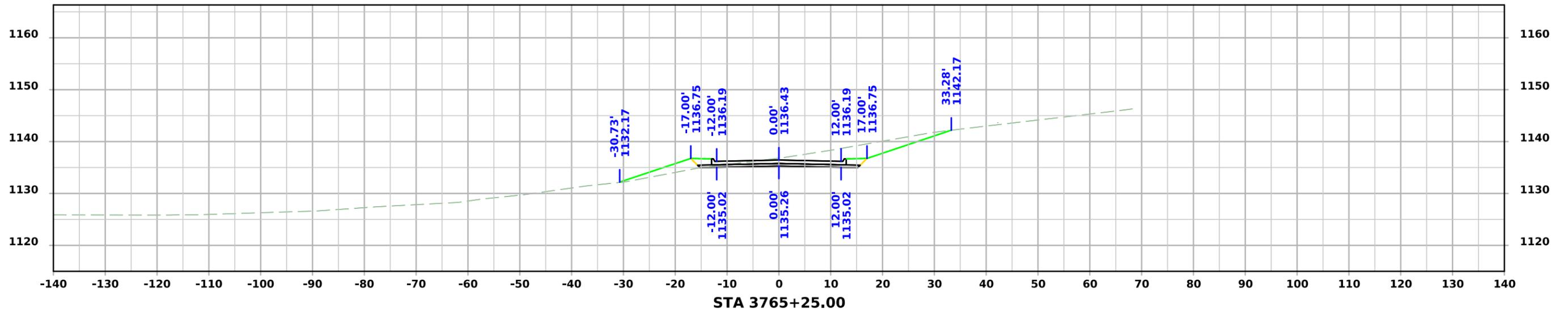
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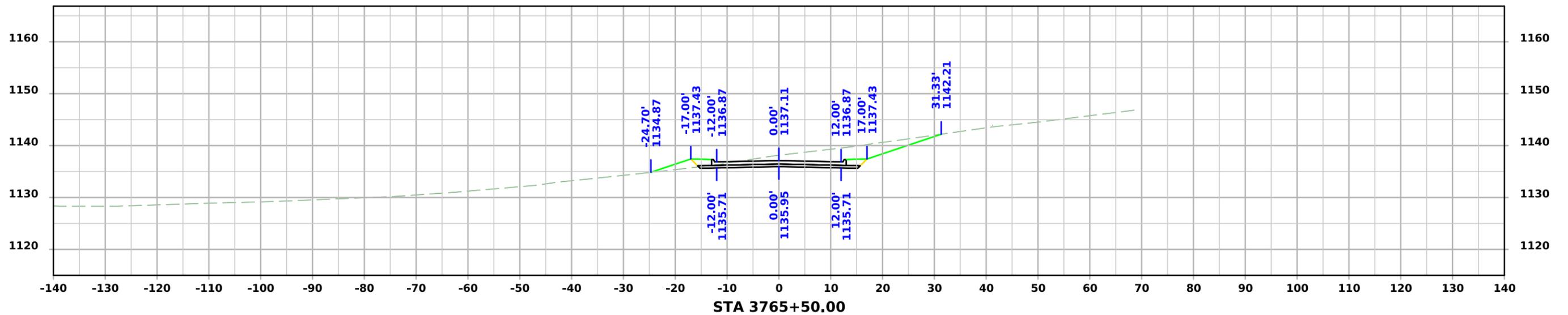
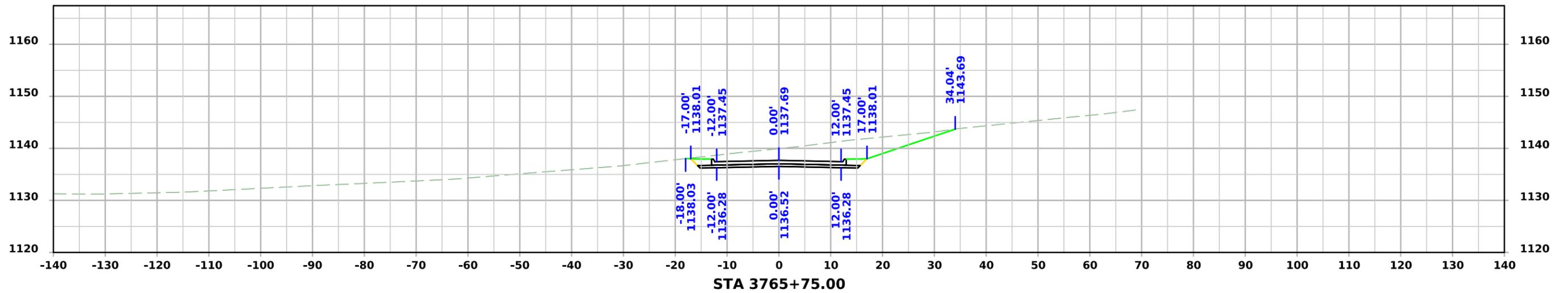
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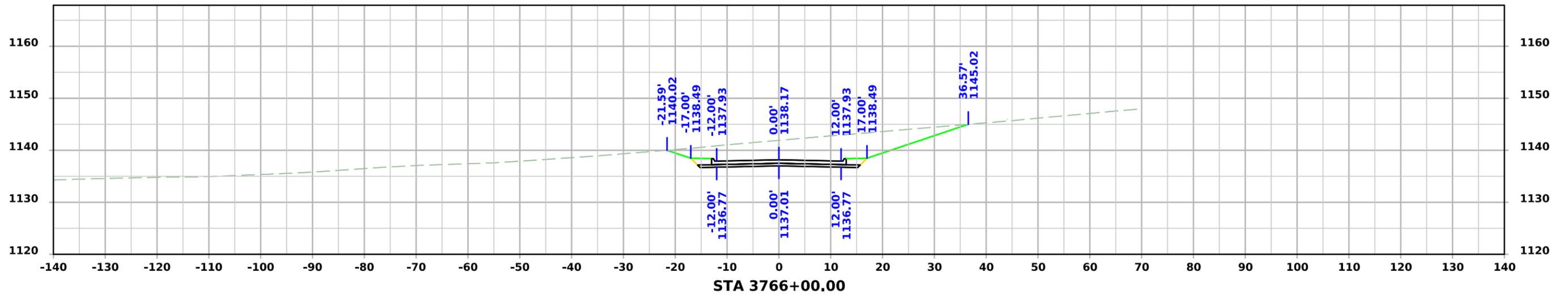
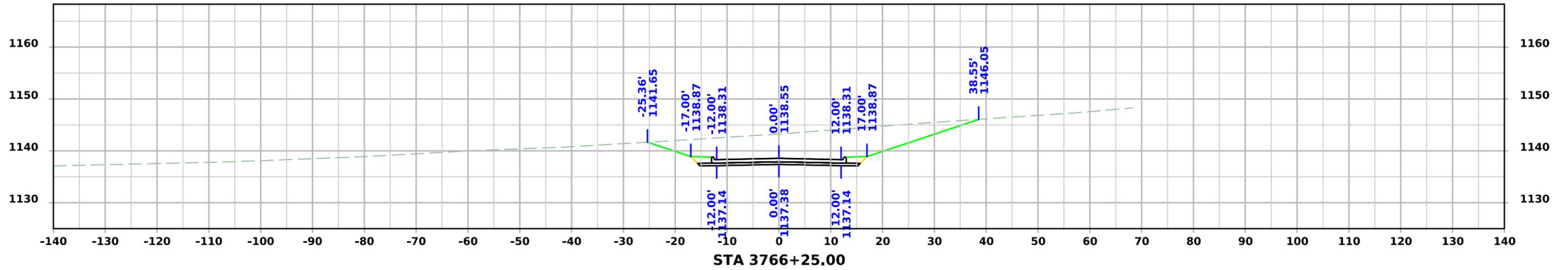
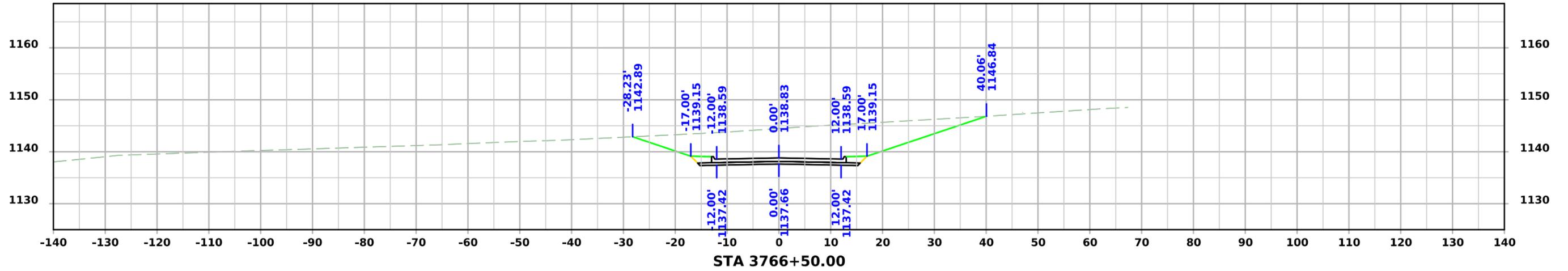
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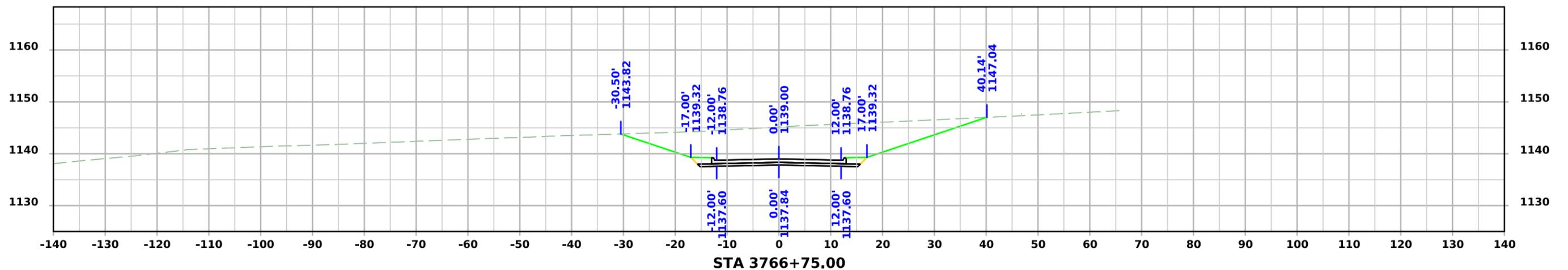
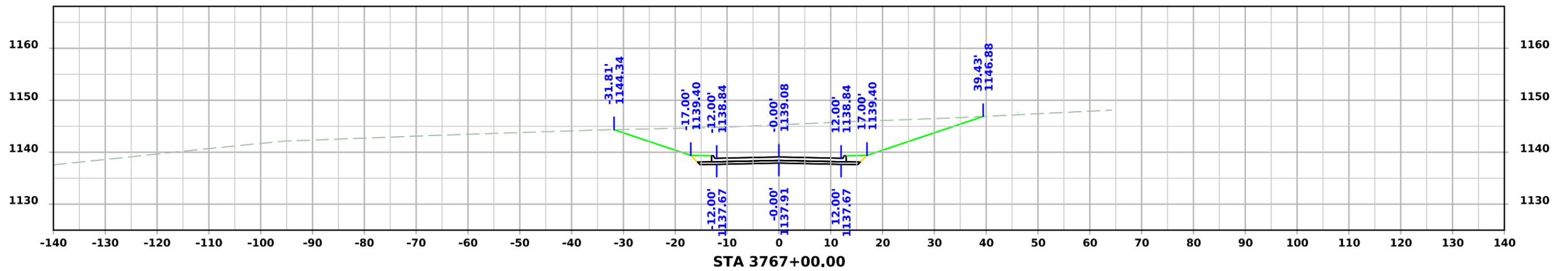
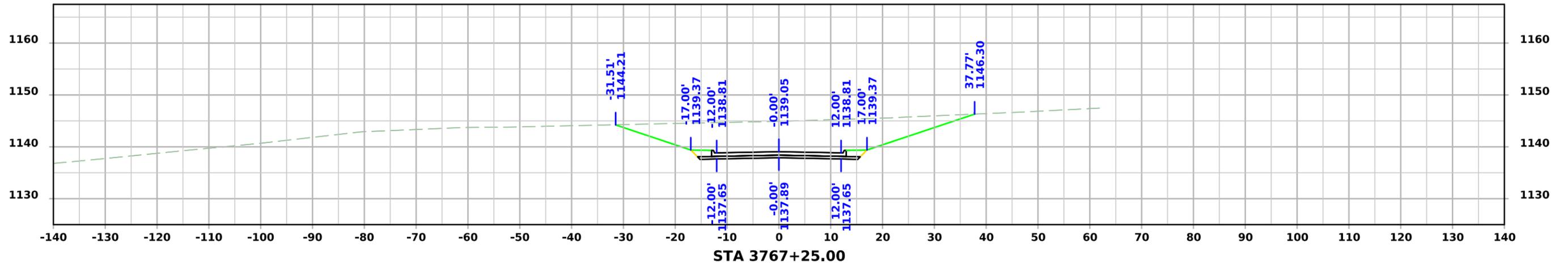
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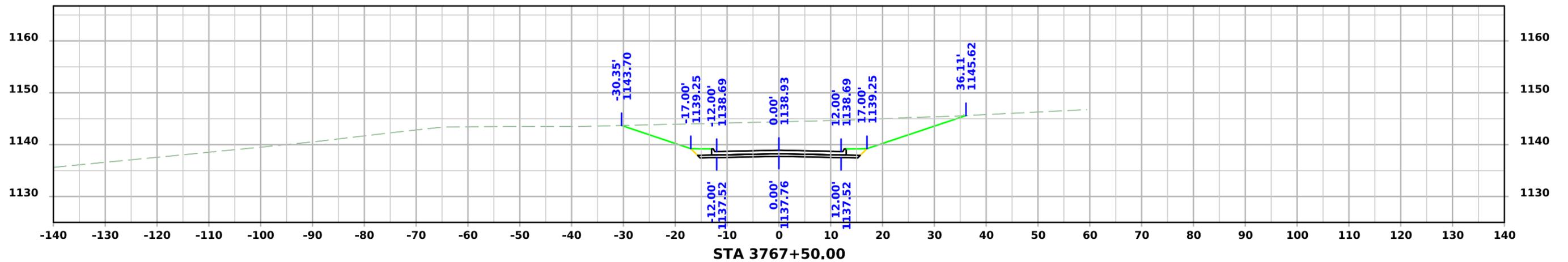
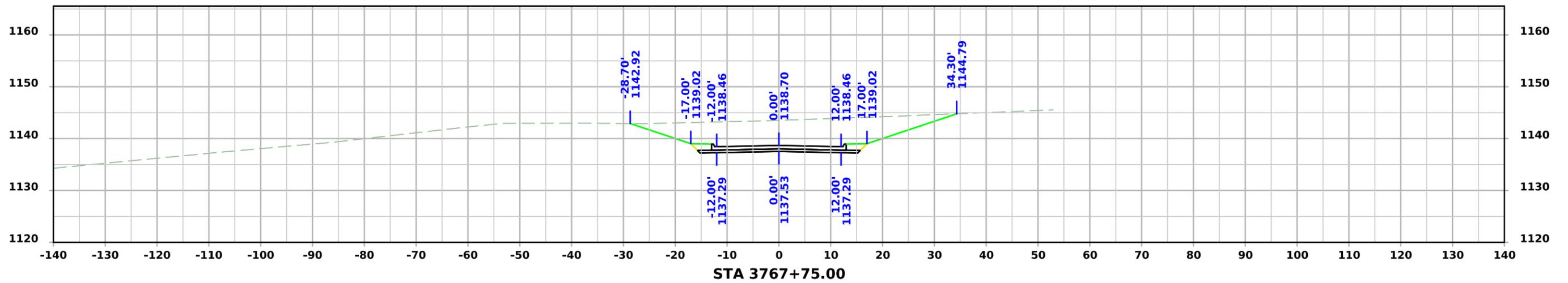
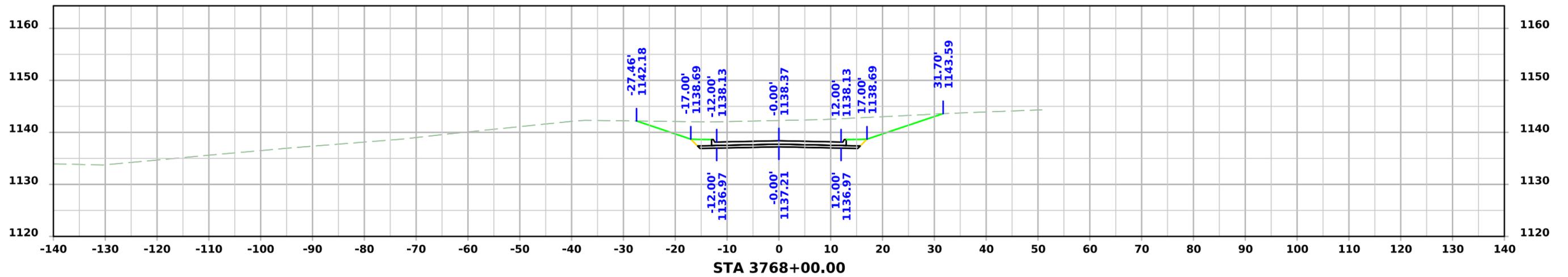
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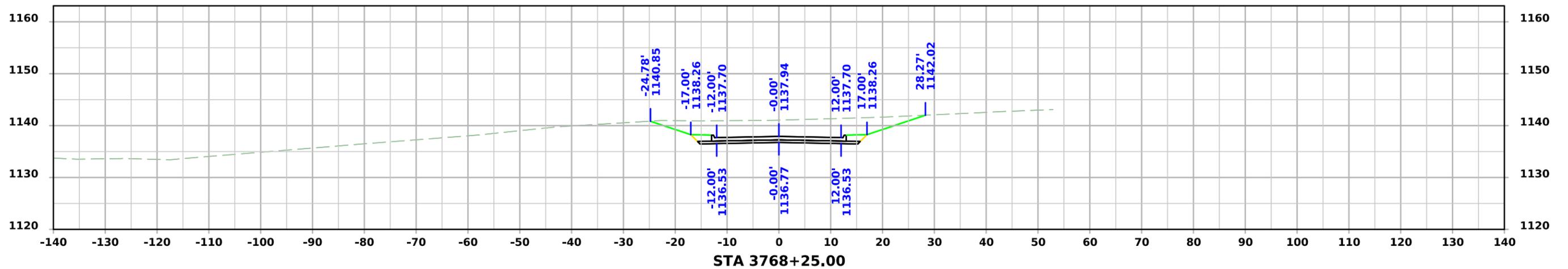
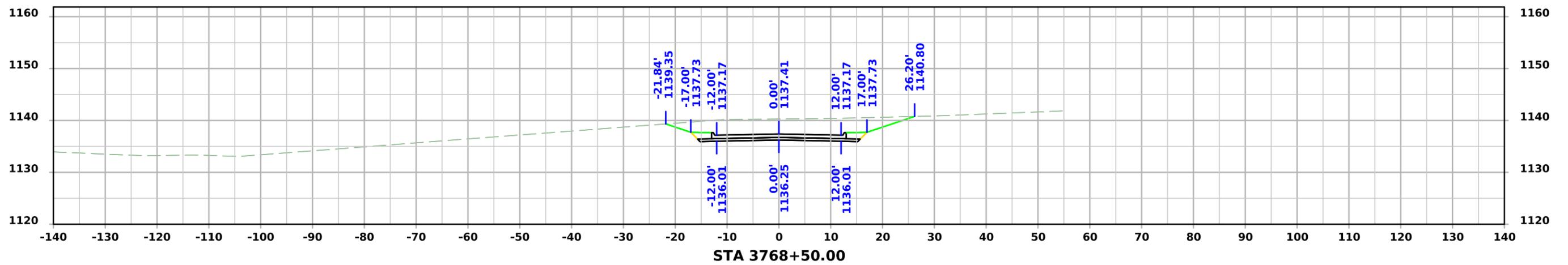
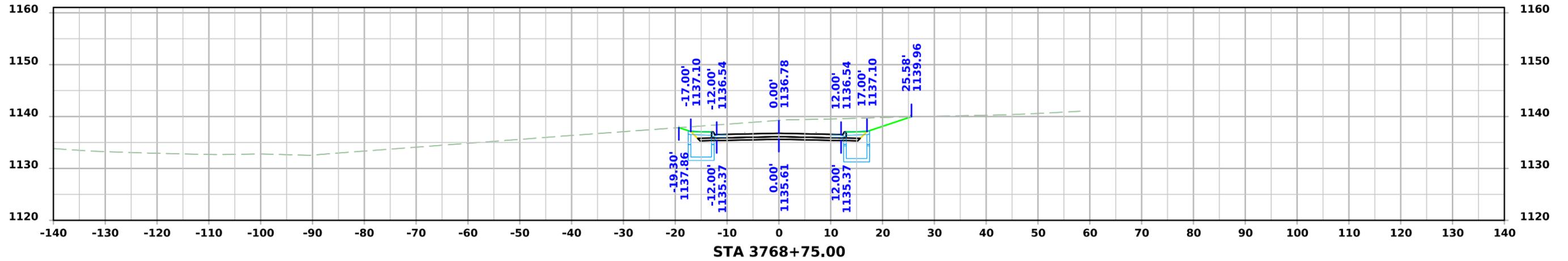
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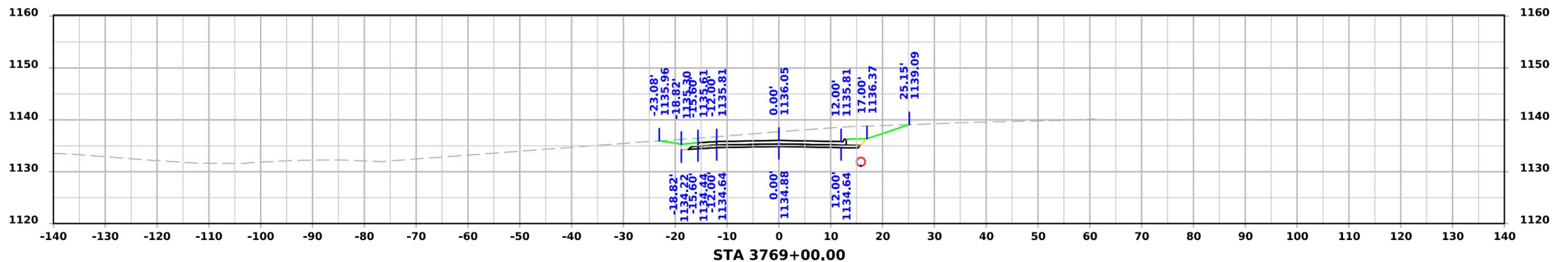
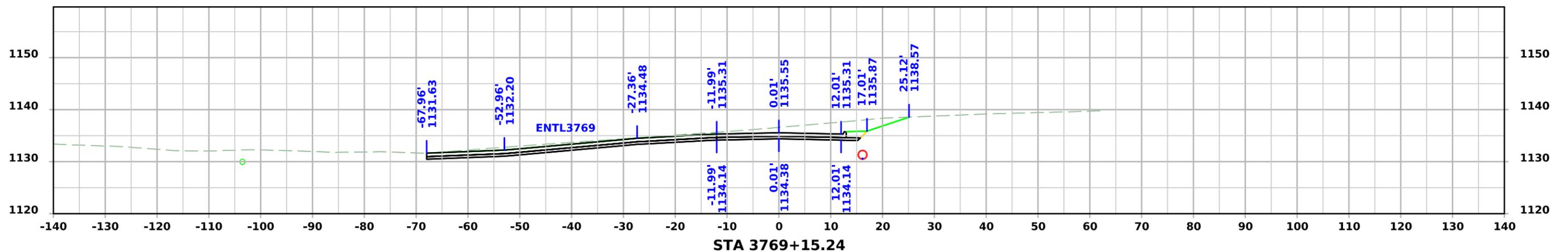
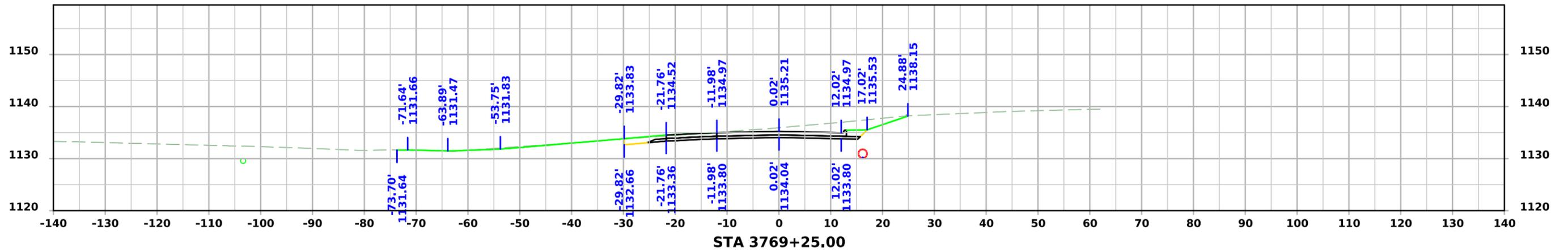
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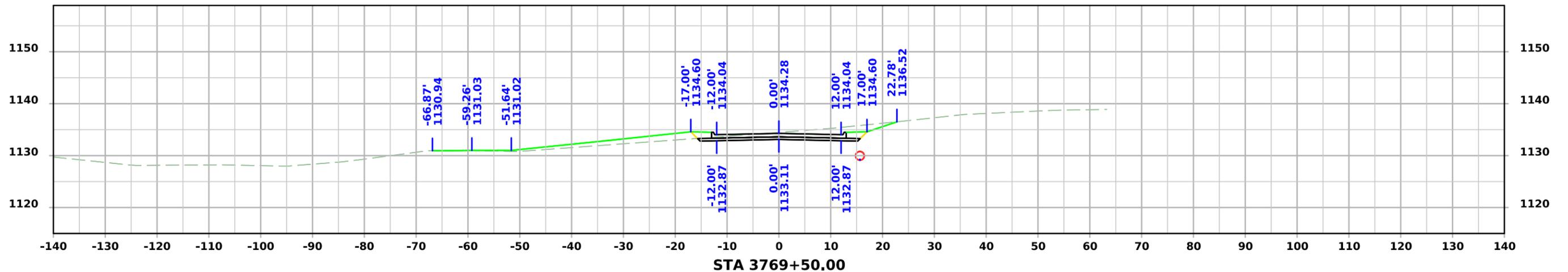
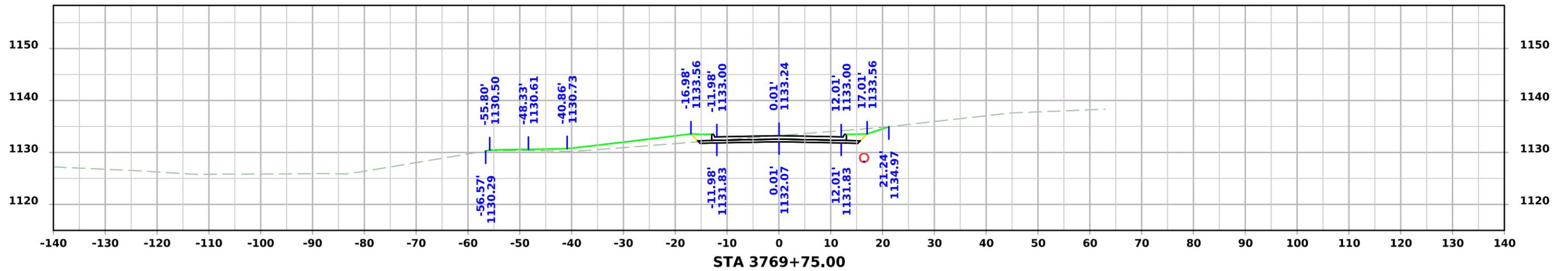
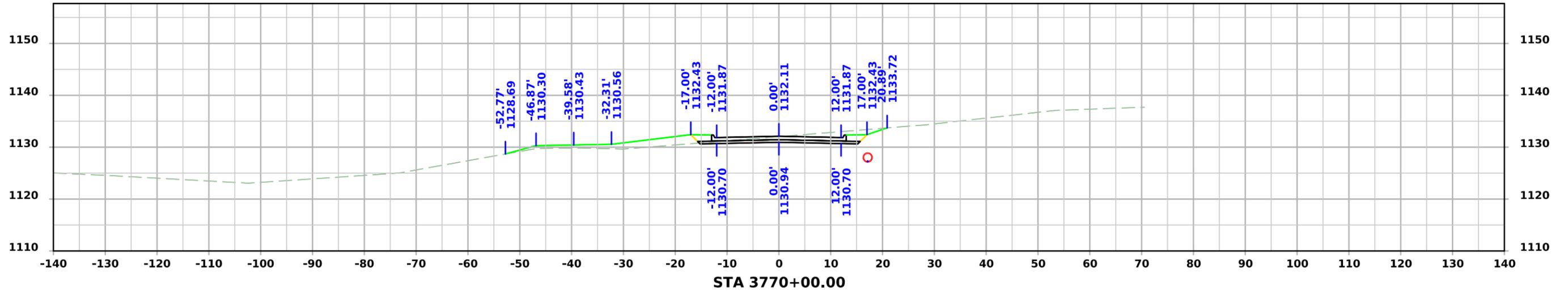
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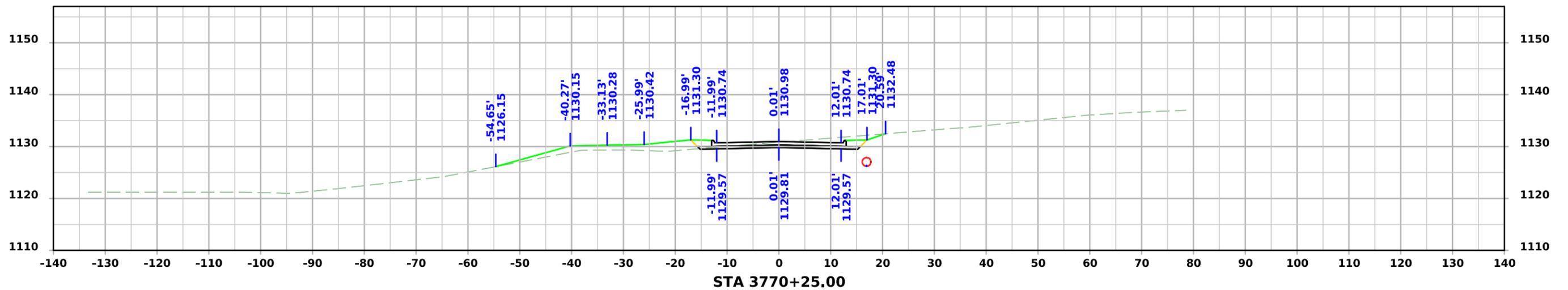
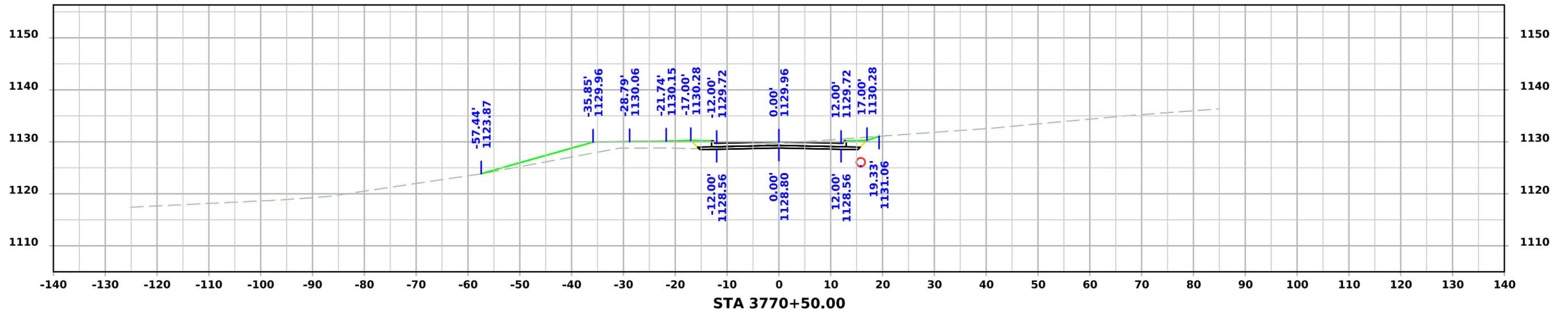
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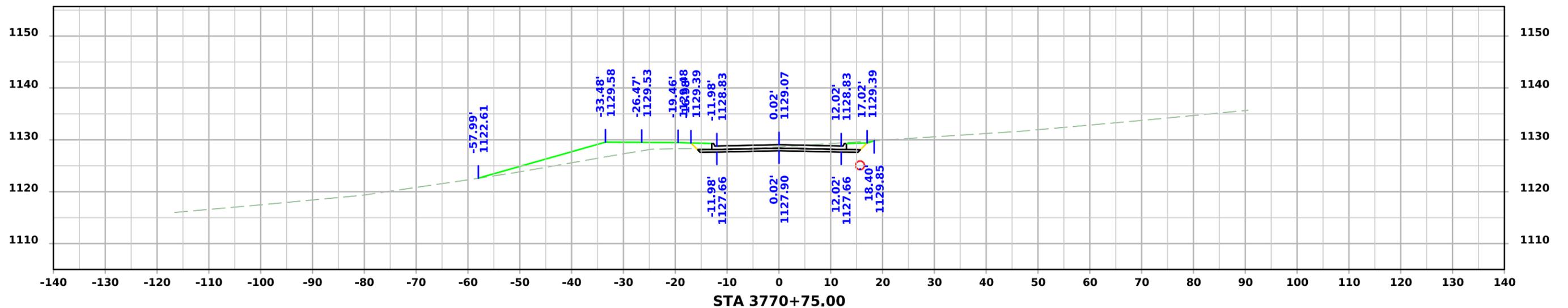
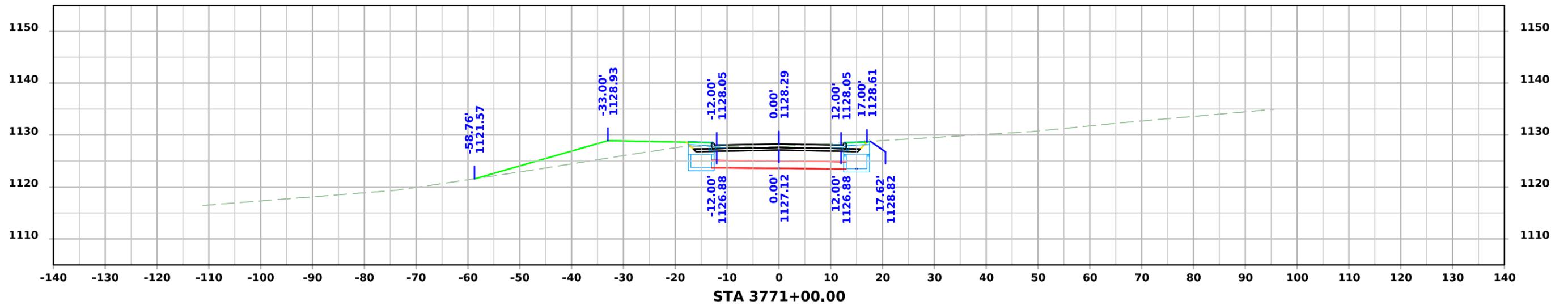
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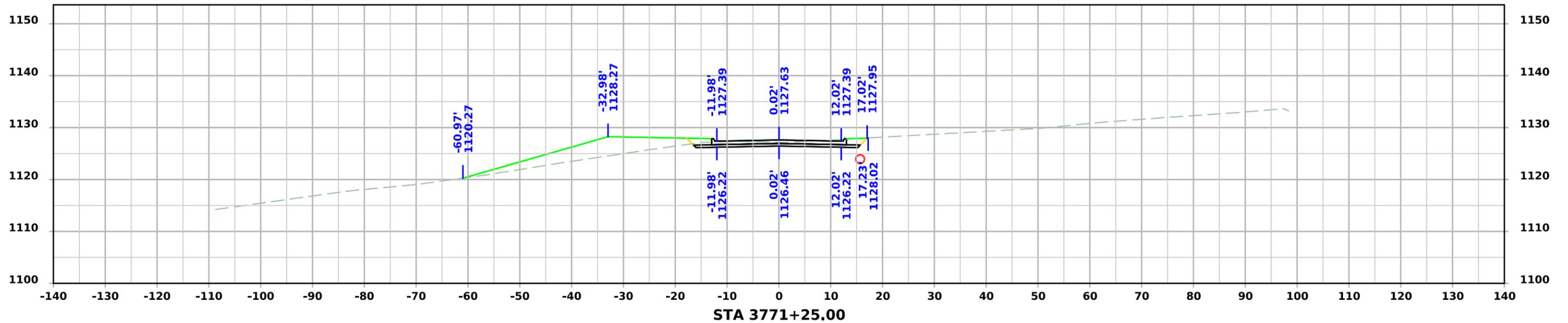
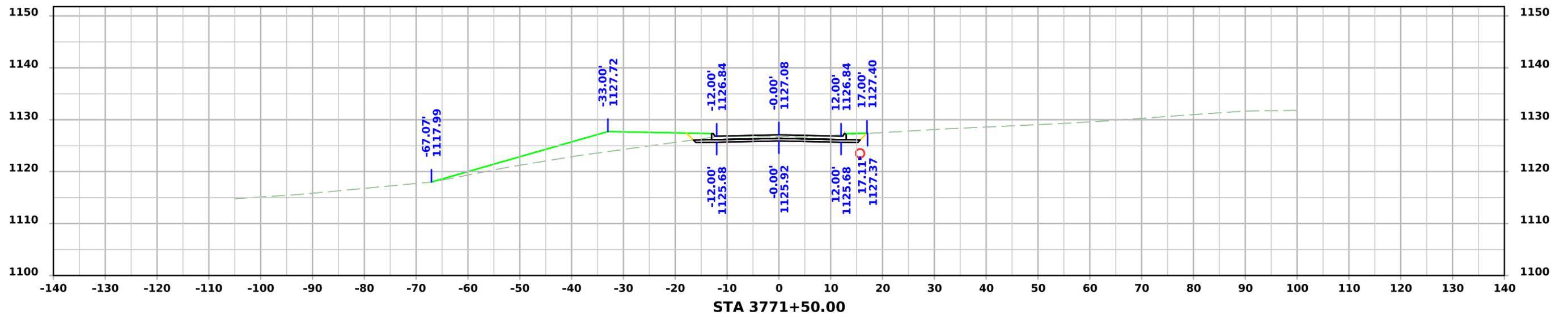
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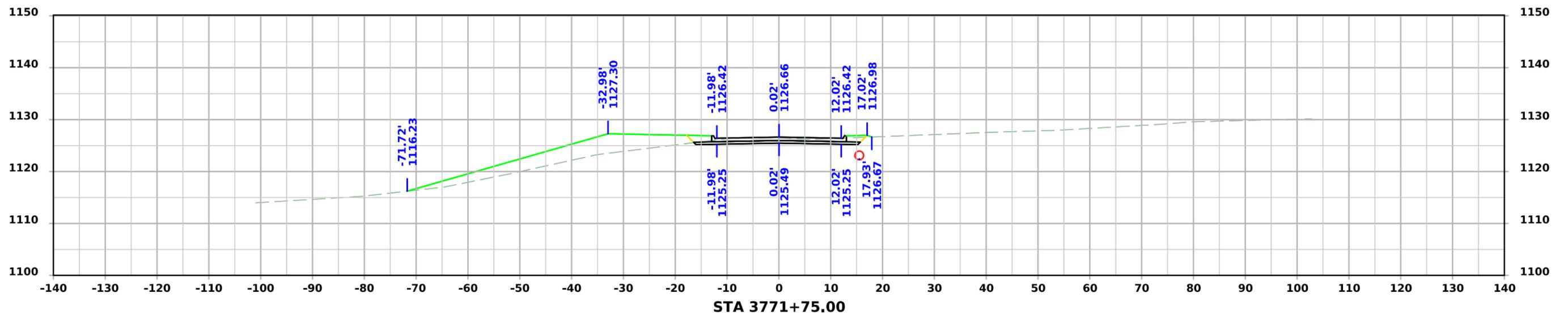
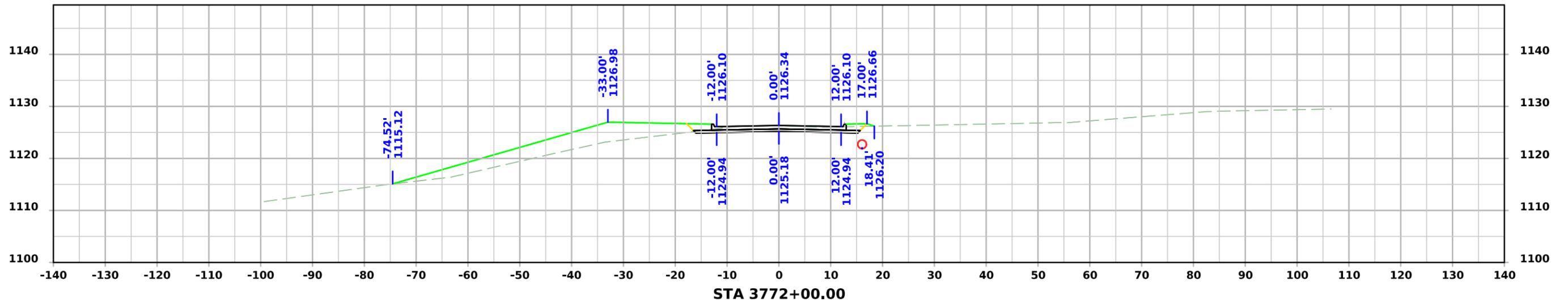
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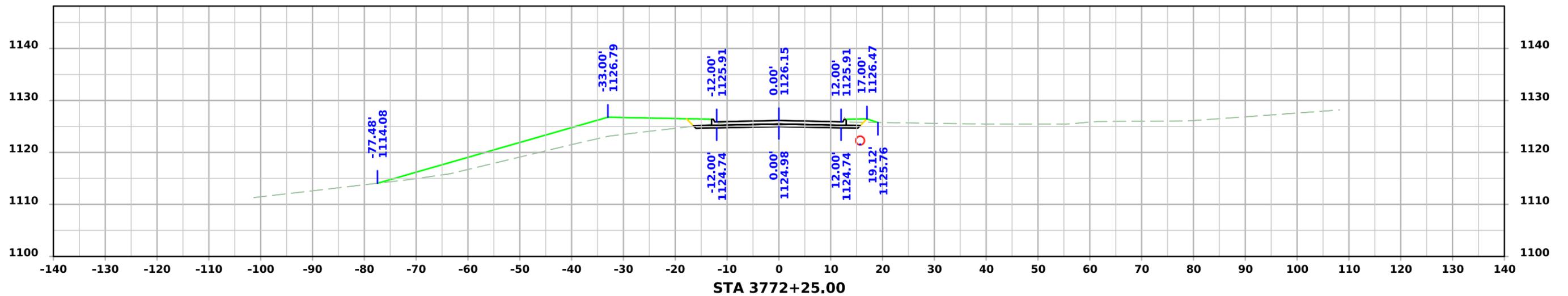
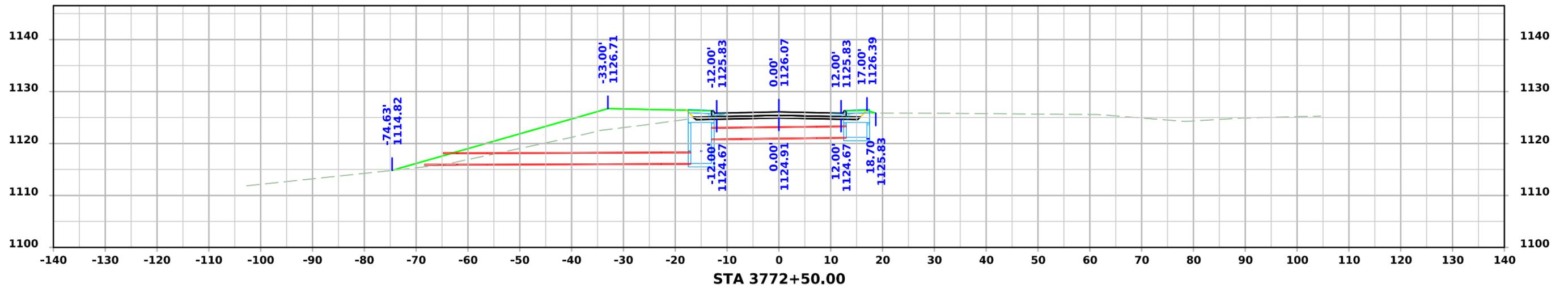
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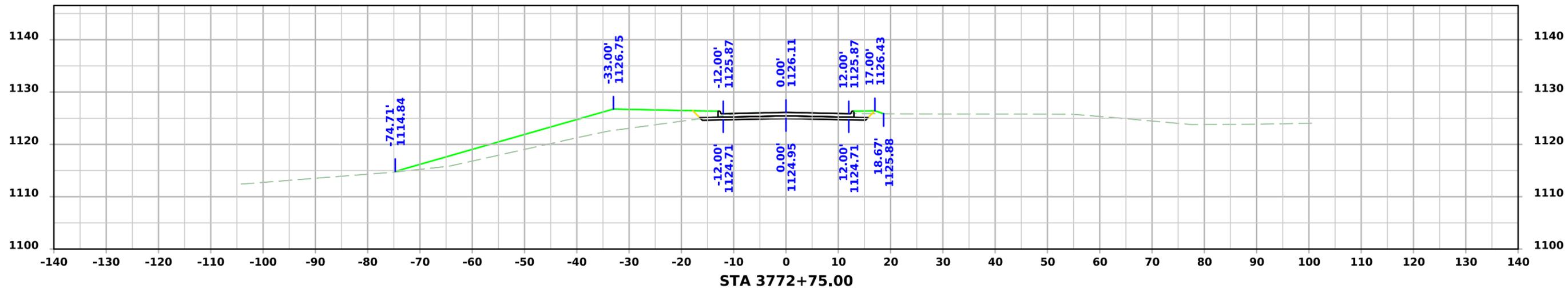
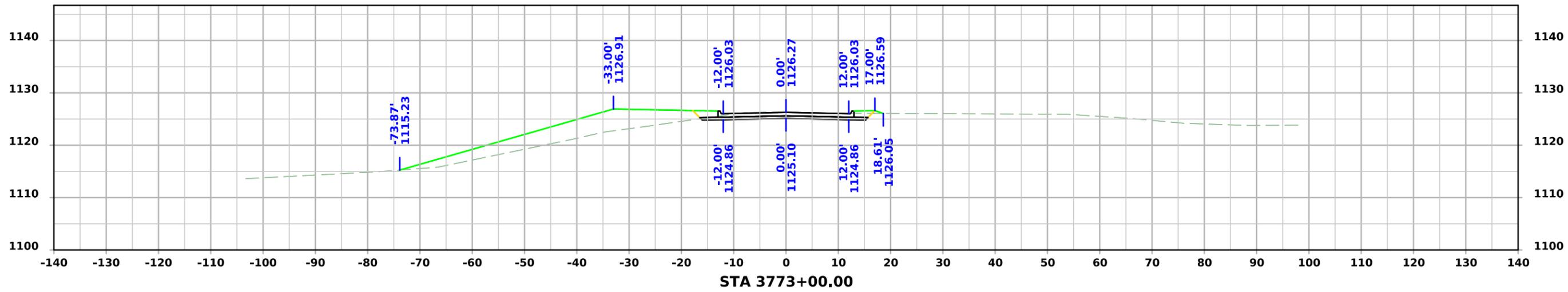
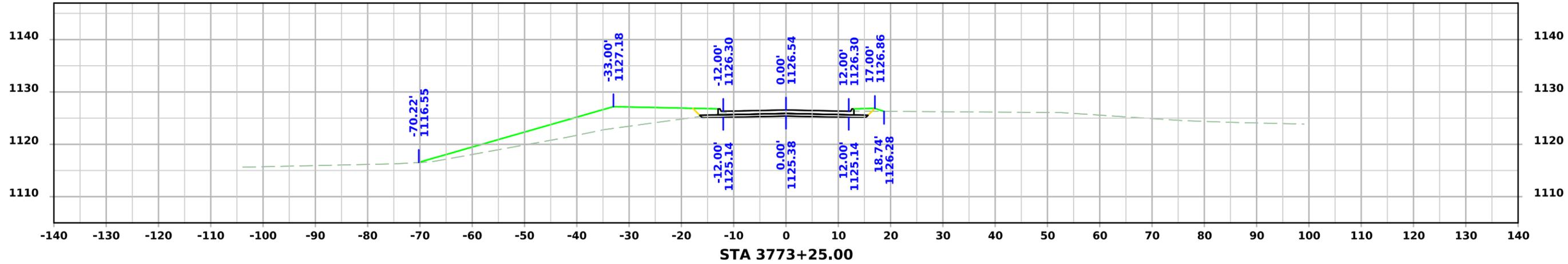
PRELIMINARY SR - 240th Street



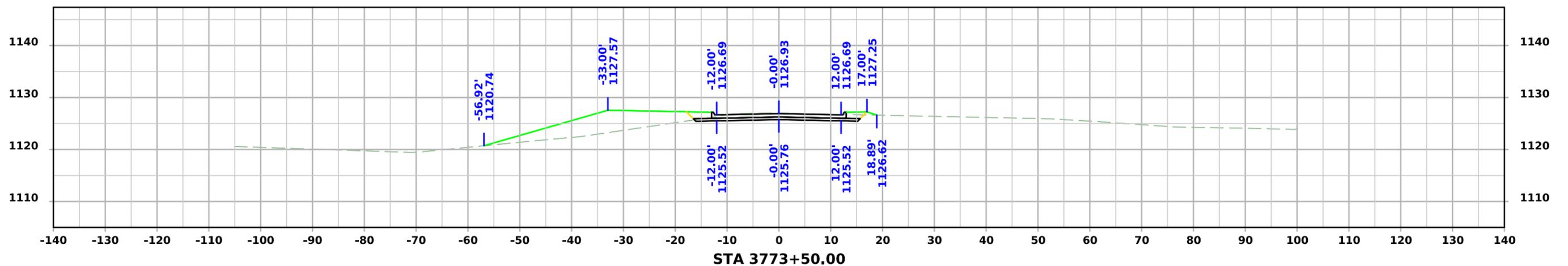
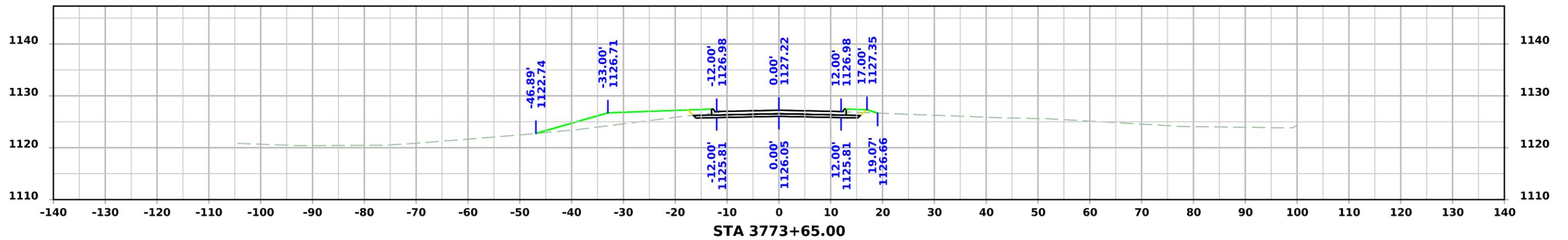
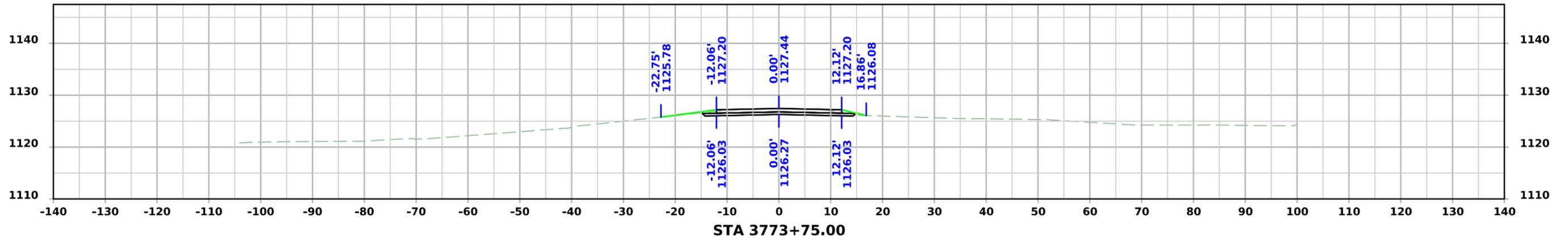
PRELIMINARY SR - 240th Street



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