PCC Pavement - Grade and New
HSIPX-059-1(037)--3L-73

LETTING DATE
1/20/2027

PAGE COUNTY

REVISIONS

	TOTAL
	84
PROJECT IDENTIFICATION NUMBER	
25-73-059-010	
PROJECT NUMBER	
HSIPX-059-1(037)--3L-73	
R.O.W. PROJECT NUMBER	
NHSN-059-1(038)--2R-73	

IOWA | DOT

PLANS OF PROPOSED IMPROVEMENT ON THE

PRIMARY ROAD SYSTEM
PAGE COUNTY

PCC Pavement - Grade and New

Intersection of IA 2
and US 59 S. of Shenandoah

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

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

IOWA ONE CALL
1-800-292-8989
www.iowaonecall.com
811 Know what's below. Call before you dig.

INDEX OF SHEETS

D3 - 10/3/25
B2 - 12/5/25
D5 - 12/19/25
R1 - 1/30/26
P9 - 3/25/26
DM5 - 9/29/26

IA 2 West Leg
DESIGN DATA RURAL

2025	AADT	1950	V.P.D.
20 –	AADT	–	V.P.D.
20 –	DHV	–	V.P.H.
TRUCKS		12	%
Total Design ESALs		–	

IA 2 East Leg
DESIGN DATA RURAL

2025	AADT	2420	V.P.D.
20 --	AADT	–	V.P.D.
20 --	DHV	–	V.P.H.
TRUCKS		12	%
Total Design ESALs		–	

US 59 South Leg
DESIGN DATA RURAL

2025	AADT	1820	V.P.D.
20 –	AADT	–	V.P.D.
20 –	DHV	–	V.P.H.
TRUCKS		16	%
Total Design ESALs		–	

US 59 North Leg
DESIGN DATA RURAL

2025	AADT	4590	V.P.D.
20 --	AADT	–	V.P.D.
20 --	DHV	–	V.P.H.
TRUCKS		11	%
Total Design ESALs		–	

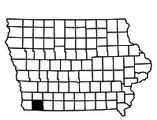
INDEX OF SEALS

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

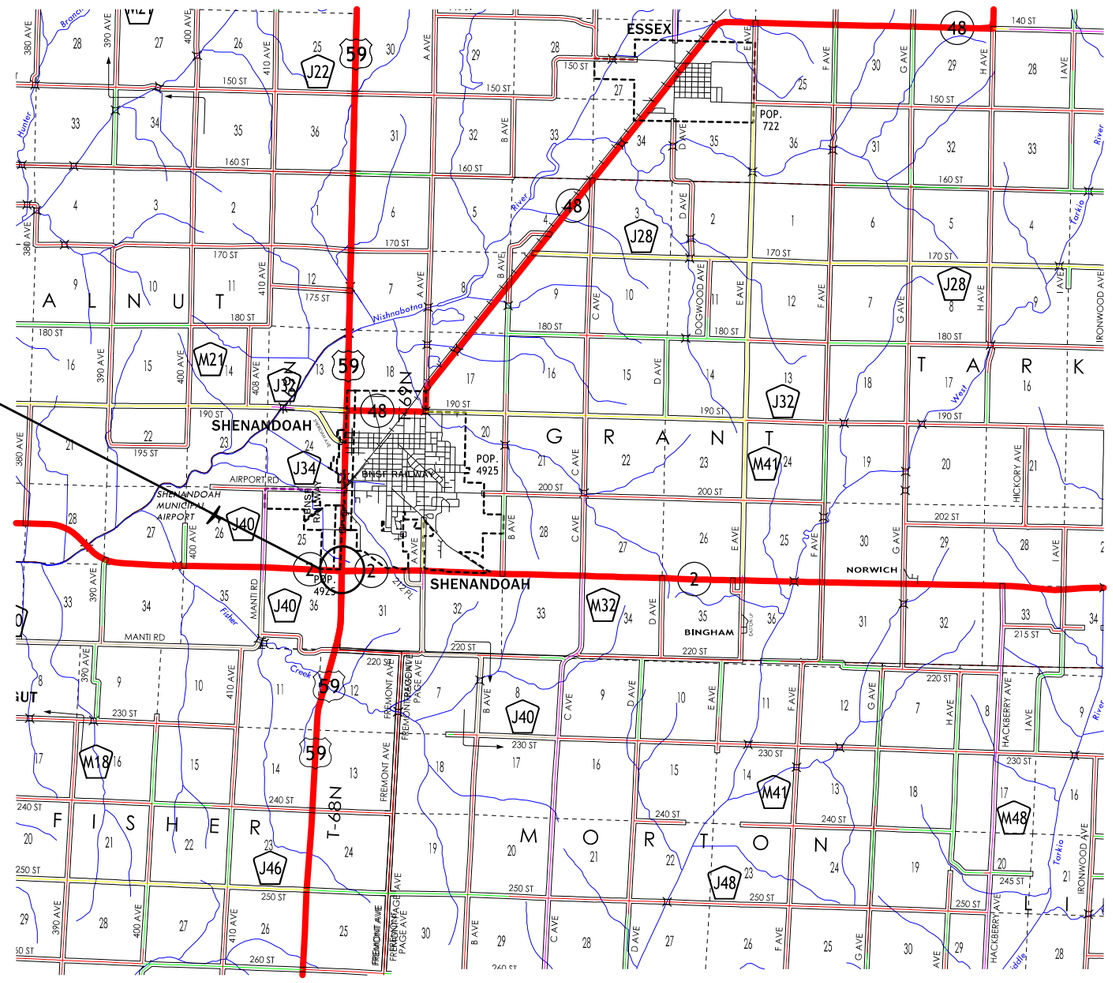
PRELIMINARY PLANS

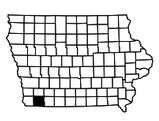
Subject to change by final design.

D2 PLAN - Date: 9/30/25



PROJECT LOCATION





LOCATION MAP SCALE

0 1 2 3

Miles

FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER A.2

8:11:41 AM 9/30/2025 jsnyde2 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7305901025\Design\CADD\Sheets\SHT_73059037_A01.dgn

IOWA DEPARTMENT OF TRANSPORTATION

TO OFFICE: District 4 **DATE:** July 9, 2025

ATTENTION: Scott Schram **PROJECT:** Page County
HSIPX-059-1(037)—3L-73
PIN: 25-73-059-010

FROM: Wes Mayberry

SUBJECT: Project Concept Statement; (Final, D0)

INTRODUCTION:

Project HSIPX-059-1(037)—3L-73, involves constructing a roundabout at the intersection of U.S. Hwy 59 and Iowa Hwy 2, south of Shenandoah, Iowa.

MAINLINE PROJECT DATA:

ROUTE: US Hwy 59 from Iowa Hwy 48 (M.P. 10.6) to Iowa Hwy 2 (M.P. 20.1).

PLANNING CLASSIFICATION: Hwy 59 from Hwy 34 to Hwy 2 is part of the National Highway System (NHS). Hwy 2 east of Hwy 59 is also part of the NHS. Neither route is part of the Commercial and Industrial Network (CIN).

MAINTENANCE SERVICE LEVEL: B

TRAFFIC:

Leg	ADT (2025)	% Trucks
North	4590	11
East	2420	12
South	1820	16
West	1950	12

PRESENT PAVEMENT WIDTH: 24 ft.

SHOULDER WIDTH: 10 ft. outside (4' paved, 6' granular, 6" thick)

SAFETY CONSIDERATION:

Hwy 59/Hwy 2 Intersection

Intersection PCR Level All Crashes (KABCO): High 1.09 crash/year for all crashes

10 crashes were reported from 2020-2024.

Crash Severity	
Fatal Crash	1
Serious injury	1
Minor injury	2
Unknow injury	1
Property damage only	5

Manner of Crash	
Ran stop sign	2
From stop sign	3
Making left turn	3
Made improper turn	1

A roundabout is a proven solution to reduce the severity of crashes, particularly those crashes involving high speeds and right-angle crashes. A roundabout at this intersection should reduce or eliminate the fatal crashes and injury crashes.

RECOMMENDATION:

I recommend constructing a roundabout at this location.

Traffic will be maintained on local detour routes. Construction proposal will include incentives to minimize the closure of this intersection.

BRIDGES:

No Bridges at this project location.

ROW:

ROW impacts are not anticipated. This will be determined at the D05 event.

AGREEMENTS:

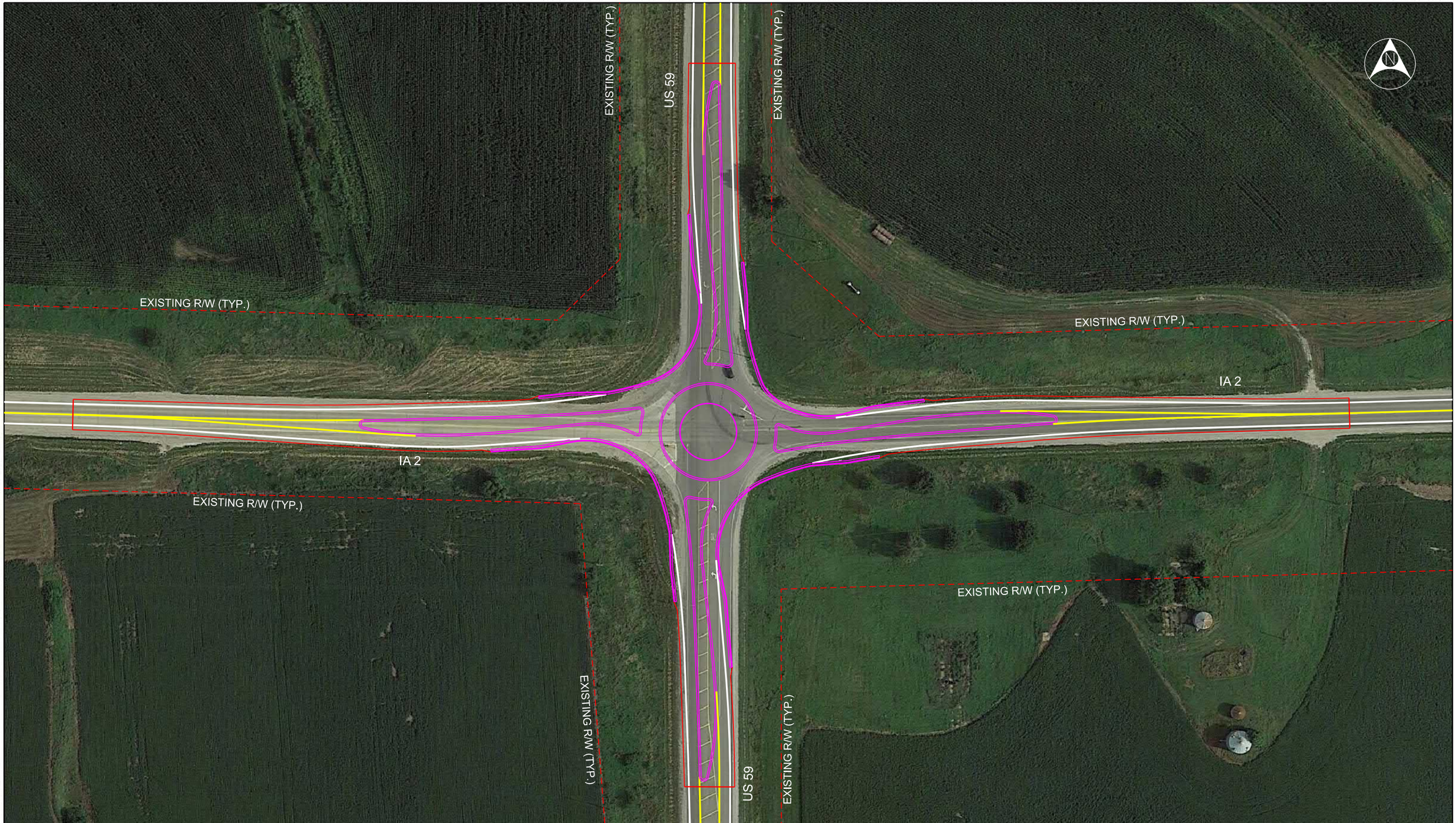
Possible detour agreement needed.

Estimate:

Item Description	Quantity	Unit Price	Total
Concrete Pavement, 10"	9,200 SY	$100.00	$920,000.00
Concrete Median, 4 in, Splitter Island	2,000 SY	$50.00	$100,000.00
Concrete Median, 8 in, Truck Apron	630 SY	$110.00	$69,300.00
Subbase, 6"	15,200 SY	$10.00	$152,000.00
Subgrade Treatment, Geogrid	15,200 SY	$4.00	$60,800.00
Concrete Curb and Gutter 1.5'	200 LF	$28.00	$5,600.00
Concrete Curb and Gutter 2.5'	4,400 LF	$32.00	$140,800.00
Excavation	1 LS	$100,000.00	$100,000.00
Storm Sewer/Drainage	1 LS	$50,000.00	$50,000.00
Traffic Control	1 LS	$40,000.00	$40,000.00
Lighting	1 LS	$80,000.00	$80,000.00
Mobilization	1 LS	$80,000.00	$80,000.00
Other Items*	1 LS	$500,000.00	$500,000.00
Estimate of Let Construction Cost			$ 2,298,500.00
Right-of-Way			0
Estimated Total Cost			$ 2,298,500.00

FUNDS PROGRAMMED:

Traffic and Safety Bureau approved this project using HSIP candidate submission form. They've allocated $2,500,000 of HSIP/SR FY 27 funds for this project.



MSA

ENGINEERING | ARCHITECTURE | SURVEYING
FUNDING | PLANNING | ENVIRONMENTAL
1702 Pankratz Street, Madison WI 53704
(608) 242-7779 www.msa-ps.com

IA 2 at US 59

FREMONT & PAGE COUNTY, IA

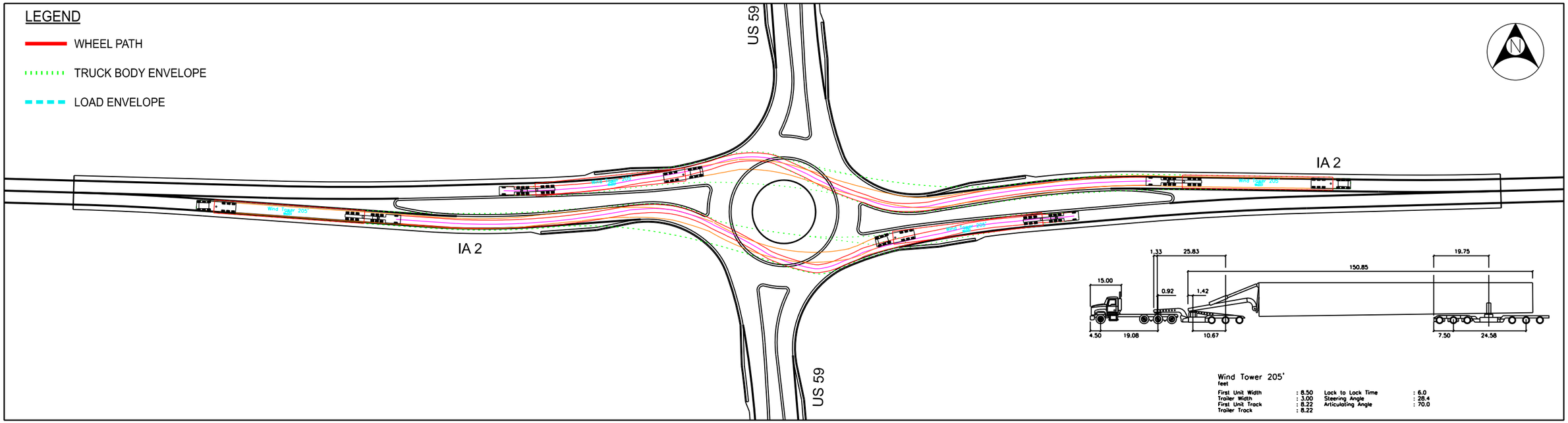
ROUNDABOUT OVERVIEW

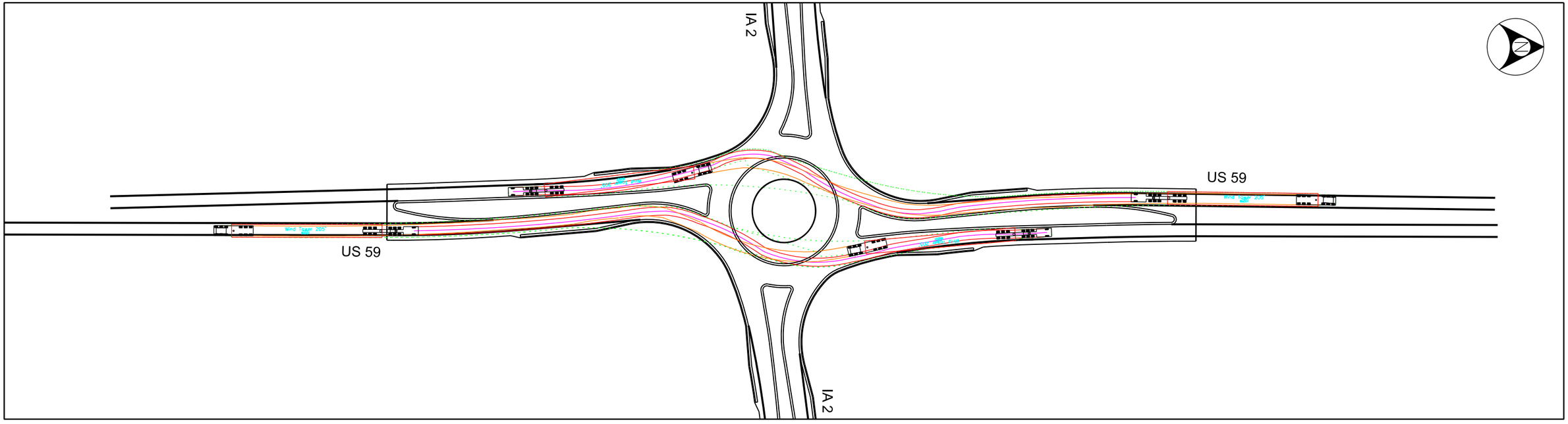
SCALE
0 50 100

EXHIBIT: 1.0

Plot Date: 4/30/2021 File Name: \\msa-ps.com\fs\Projects\7900s\7970s\7976\07976005\Assignments\IA 2 and US 59 Shenandoah\Exhibits\Exhibit 1 IA 2 at US 59 Roundabout Overview.dgn

Exhibit 1 IA 2 at US 59 Roundabout Overview.dgn 4/30/2021 9:02:01 AM ncook





MSA
ENGINEERING | ARCHITECTURE | SURVEYING
FUNDING | PLANNING | ENVIRONMENTAL
1702 Pankratz Street, Madison WI 53704
(608) 242-7779 www.msa-ps.com

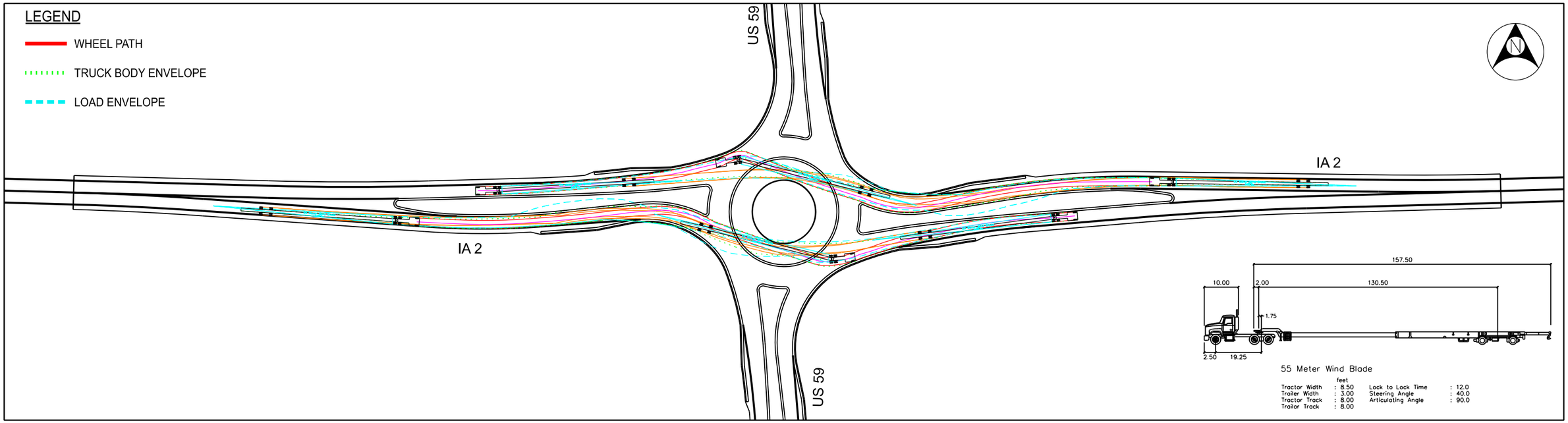
IA 2 at US 59

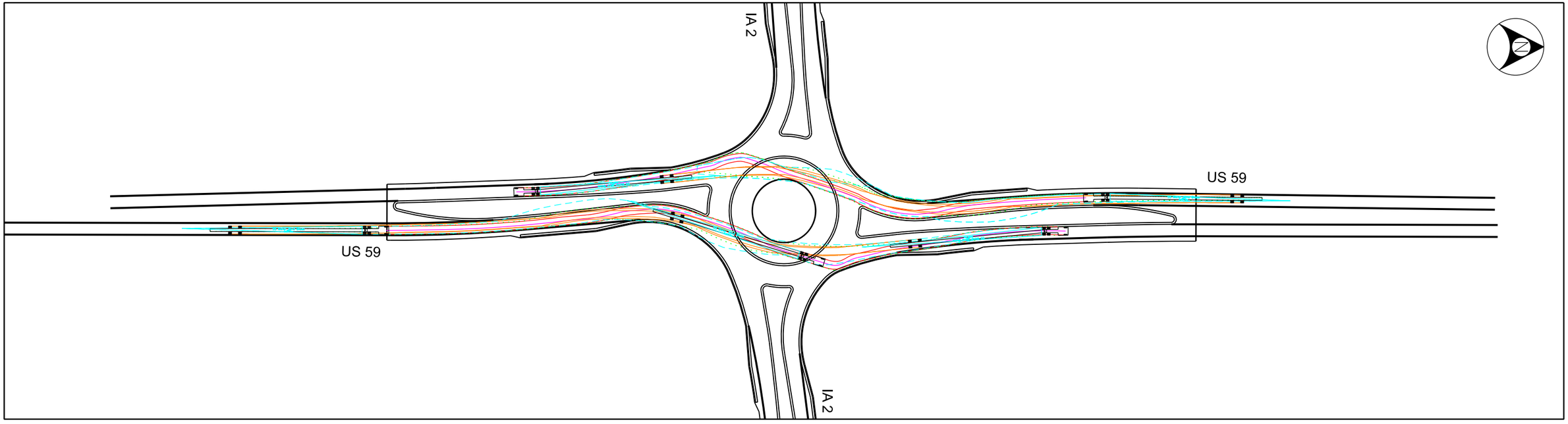
FREMONT & PAGE COUNTY, IA

DESIGN VEHICLE - WIND TOWER

SCALE
0 50 100

EXHIBIT: 2.0





MSA
ENGINEERING | ARCHITECTURE | SURVEYING
FUNDING | PLANNING | ENVIRONMENTAL
1702 Pankratz Street, Madison WI 53704
(608) 242-7779 www.msa-ps.com

IA 2 at US 59

FREMONT & PAGE COUNTY, IA

DESIGN VEHICLE - WIND BLADE

SCALE
0 50 100

EXHIBIT: 3.0

Roadway	US 59 / IA 2			
PIN Number	25-73-059-010		**Submittal Date**	
Project Number	HSIPX-059-1(037)--3L-73			**Approval Date**
District	District 6	**Assistant District Engineer**		
County	PAGE	**or**		
Route	US 59	**Office Director**		
Location	Intersection of IA 2 and US 59 S. of Shenandoah			
Work Type	PCC Pavement - Grade and New			
Segment Manager	Miller			
Designer	Dewolf / Snyder			

Design Manual Section 1C-1
Last Updated: 04-29-19

Rural Two-Lane Highways (Rural Arterials)

Design Element		Preferred	Acceptable	Project Values
Design speed (mph)		60	50	60
Maximum superelevation rate (Refer to Section 2A-2)		6%	8%	N/A
Design lane width (ft)		12	12	12
Full depth paved width (ft)		12	12	12
Right turn lane (ft)		12	10	N/A
Climbing Lane (ft)		12	12	N/A
Left turn lane (ft)		12	10	N/A
Pavement cross-slope (on tangent sections)	Through lanes	2%	1.5% minimum, 2% maximum	2%
	Auxiliary and turn lanes	3%	3% maximum	N/A
	Crown break at centerline	4%	4% maximum	4%
Shoulder cross-slope (on tangent sections)		4%	Shoulder cross-slope cannot be less than the adjacent lane, 6% max for paved or granular shoulders, 8% max for earth shoulders	4%
Curb type (Refer to Section 3C-2)	Design speed = 50 or 55 mph	6-inch sloped	6-inch standard	
	Design speed ≥ 60 mph	4-inch sloped	6-inch sloped	
Foreslope (For fill areas greater than 40 ft, contact the Soils Design Section for assistance)	Adjacent to shoulder	10:1 for 4' then 6:1	3:1	4:1
	Beyond standard ditch depth and design clear zone	3.5:1	3:1	3:1
	Curbed roadways	2%	not steeper than 3:1	4%
Backslope (For cut areas greater than 25 feet, contact the Soils Design Section for assistance with backslope benches.)		3:1	2.5:1	2.5:1
Transverse Slopes	w/ drainage structures	8:1	6:1	8:1
	w/o drainage structures	10:1	6:1	10:1
Ditches (Refer to Section 3G-1)	Outside ditch (depth x width) (ft)	5 x 10	--	5 X 10
Bridge width—new*	Bridge length ≤ 200 ft	design lane widths + effective shoulder widths	design lane widths + effective shoulder widths	N/A
	Bridge length > 200 ft	design lane widths + effective shoulder widths	design lane width + 4' right and left of the design lane widths	N/A
Bridge width—existing*		design lane widths + no less than 2 ft left and right	design lane widths + 2 ft. offset left and right	N/A
Vertical clearance (ft) (above lanes, shoulders and 25 feet left and right of the center of railroad tracks)	Over primary	16.5	16	N/A
	Over non-primary	16.5 at interchange locations, 15 at all other locations	14	N/A
	Over railroad	23.3	23.3	N/A
	Sign trusses and pedestrian bridges	17.5	17	N/A
Structural Capacity		Contact Office of Bridges and Structures	Contact Office of Bridges and Structures	N/A
Level of Service		B	B	

*FHWA notification via email is required if acceptable critera is not met on the NHS system (No formal design exeption is required)

Design year ADT =	

Design Manual Section 1C-1
Last Updated: 04-29-19

Effective Shoulder Width and Type for Two-Lane Highways

Preferred (values shown in feet)			Acceptable (values shown in feet)			Project Values
	Rural Roadways	Urban Roadways		Rural Roadways	Urban Roadways	
Turn lanes with shoulders	6	6	Turn lanes with shoulders	6	0	N/A
Turn lanes with curbs	6	See Section 3C-2	Turn lanes with curbs	6	0	N/A
	Effective Shoulder Width	Paved Width		Effective Shoulder Width	Paved Width	
Climbing Lanes	6	4	Climbing Lanes	4	0	N/A
Two-Lane Highways	Effective Shoulder Width	Paved Width	Two-Lane Highways	Effective Shoulder Width	Paved Width	
Routes where bicycles are to be accommodated	10	10	Design year ADT > 2000 vpd	8	0*	4' Paved / 6' Granular
On roadways approaching urban areas (due to increased bike traffic)	10	10				
On all curves with a superelevation rate of 7.0% or greater	10	10				
On roadways with design year ADT > 5000	10	6	Design year ADT between 400 - 2000 vpd	6	0*	
On all other NHS	10	6				
On non-NHS routes with design year ADT > 3000	10	6	Design year ADT < 400 vpd	4	0*	
On non-NHS routes with design year ADT < 3000	8	0*				

*Requires safety edge-Refer to Section 3C-6

Curbs should be located beyond the outer edge of the effective shoulder width in rural areas

Refer to Section 3C-2 for curb offsets in urban areas

Notes:

Roadway Design Speed (mph) = 60

Design Manual Section 1C-1
Last Updated: 04-29-19

Design Criteria for High Speed Roadways

Design Element			Preferred Criteria						Acceptable Criteria						Project Values
			Design Speed, mph						Design Speed, mph						
			50	55	60	65	70	75	50	55	60	65	70	75	
Stopping sight distance (ft) (Refer to Section 6D-1)			425	495	570	645	730	820	425	495	570	645	730	820	570
Minimum horizontal curve radius (ft) (Refer to Sections 2A-2 and 2A-3)	Method 5 superelevation and side friction distribution	e_{max} = 6%	833	1060	1330	1660	2040	2500	833	1060	1330	1660	2040	2500	1330
		e_{max} = 8%	--	--	--	--	--	--	758	960	1200	1480	1810	2210	
Minimum vertical curve length (ft) (Refer to Section 2B-1)			150	165	180	195	210	225	150	165	180	195	210	225	180
Minimum rate of vertical curvature (K) (Refer to Section 2B-1)	crest vertical curves		84	114	151	193	247	312	84	114	151	193	247	312	151
	sag vertical curves	roadways without fixed-source lighting	96	115	136	157	181	206	96	115	136	157	181	206	136
		roadways with fixed-source lighting	96	115	136	157	181	206	54	66	78	91	106	121	136
Minimum gradient (%)	(Refer to Section 2B-1)		0.5						0.3% with a curb, 0.0% without a curb						0.5
Maximum gradient (%)	(Refer to Section 2B-1)	Urban roadways	4		3				7	6	6	--	--	--	4
		Rural roadways							5	5	4	4	4	4	
		Interstates							5	5	4	4	4	4	
Clear zone			See "Preferred Clear Zone" table in Section 8A-2						See "Acceptable Clear Zone" table in Section 8A-2						

Roadway	US 59 / IA 2			
PIN Number	25-73-059-010		**Submittal Date**	
Project Number	HSIPX-059-1(037)--3L-73			**Approval Date**
District	District 6	**Assistant District Engineer**		
County	PAGE	**or**		
Route	US 59	**Office Director**		
Location	Intersection of IA 2 and US 59 S. of Shenandoah			
Work Type	PCC Pavement - Grade and New			
Segment Manager	Miller			
Designer	Dewolf / Snyder			

Design Manual Section 1C-1
Last Updated: 04-29-19

Urban Two-Lane Roadways (Urban Arterials)

Design Element		Preferred	Acceptable Criteria	Project Values
Design speed (mph)		The anticipated posted speed limit	30	
Maximum superelevation rate (Refer to Section 2A-2)		4%	6%	N/A
Design lane width (ft)		12	11	12 -20
Full depth paved width (ft)		Design lane width + curb and gutter unit or 14 feet for roadways with shoulders	Match design lane width	
Right turn lane (ft)		12	10	N/A
Left turn lane (ft)	With raised or painted median	12 ft + median	10 ft + median	N/A
	With depressed median	12	10	N/A
Two-way left turn lane		14	11	N/A
Parking lane width (ft)		10	7	N/A
Pavement cross-slope (on tangent sections)	Through lanes	2%	1.5% minimum, 2% maximum	2%
	Auxiliary and turn lanes	3%	3% maximum	N/A
	Crown break at centerline	4%	4% maximum	4%
Shoulder cross-slope (on tangent sections)	Shoulders	4%	Shoulder cross-slope cannot be less than the adjacent lane, 6% max for paved or granular shoulders, 8% max for earth shoulders	N/A
	Curb and gutter units	Match pavement cross-slope	6% maximum	
	Parking lanes	1% greater than pavement cross-slope	6% maximum	N/A
Curb type (See Section 3C-2)	Design speed ≤ 45 mph	6-inch standard	any shape	6-inch standard
Foreslope (For fill areas greater than 40 ft, contact the Soils Design Section for assistance)	Adjacent to shoulder	10:1 for 4' then 6:1	3:1	
	Beyond standard ditch depth and design clear zone	3.5:1	3:1	
	Curbed roadways	2%	not steeper than 3:1	2%
Backslope (For cut areas greater than 25 feet, contact the Soils Design Section for assistance with backslope benches.)		3:1	2.5:1	3:1
Traverse Slopes	w/ drainage structures	8:1	6:1	N/A
	w/o drainage structures	10:1	6:1	N/A
Ditches (See Section 3G-1)	Outside ditch (depth x width) (ft)	5 x 10	--	5 x 10
Bridge width—new*	Bridge length ≤ 200 ft	design lane widths + effective shoulder widths (curbed or uncurbed) or design lane width + 3 ft each side (curbed) which ever is greater	design lane widths + effective shoulder widths or curb-to-curb width in curb and gutter section**	N/A
	Bridge length > 200 ft	design lane widths + effective shoulder widths (curbed or uncurbed) or design lane width + 3 ft each side (curbed) which ever is greater	design lane widths + 4 ft offset each side for roadways with shoulders or curb-to-curb width in curb and gutter section**	N/A
Bridge width—existing*		design lane widths + no less than 2 ft left and right	design lane widths + 2 ft left and right	N/A
Vertical clearance (ft) (above lanes, shoulders and 25 feet left and right of the center of railroad tracks)	Over primary	16.5	16	N/A
	Over non-primary	16.5 at interchange locations, 15 at all other locations	14	N/A
	Over railroad	23.3	23.3	N/A
	Sign trusses and pedestrian bridges	17.5	17	N/A
Structural Capacity		Contact Office of Bridges and Structures	Contact Office of Bridges and Structures	N/A
Level of Service		C	D	N/A

*FHWA notification via email is required if acceptable critera is not met on the NHS system (No formal design exeption is required)

** If travel lanes are less than 12 ft wide contact the Methods Section for assistance.

Design year ADT =	

Design Manual Section 1C-1
Last Updated: 04-29-19

Effective Shoulder Width and Type for Two-Lane Highways

Preferred (values shown in feet)			Acceptable (values shown in feet)			Project Values
	Rural Roadways	Urban Roadways		Rural Roadways	Urban Roadways	
Turn lanes with shoulders	6	6	Turn lanes with shoulders	6	0	N/A
Turn lanes with curbs	6	See Section 3C-2	Turn lanes with curbs	6	0	N/A
	Effective Shoulder Width	Paved Width		Effective Shoulder Width	Paved Width	
Climbing Lanes	6	4	Climbing Lanes	4	0	N/A
Two-Lane Highways	Effective Shoulder Width	Paved Width	Two-Lane Highways	Effective Shoulder Width	Paved Width	
Routes where bicycles are to be accommodated	10	10	Design year ADT > 2000 vpd	8	0*	Curbed
On roadways approaching urban areas (due to increased bike traffic)	10	10				
On all curves with a superelevation rate of 7.0% or greater	10	10				
On roadways with design year ADT > 5000	10	6	Design year ADT between 400 - 2000 vpd	6	0*	
On all other NHS	10	6				
On non-NHS routes with design year ADT > 3000	10	6	Design year ADT < 400 vpd	4	0*	
On non-NHS routes with design year ADT < 3000	8	0*				

*Requires safety edge-Refer to Section 3C-6

Curbs should be located beyond the outer edge of the effective shoulder width in rural areas

Refer to Section 3C-2 for curb offsets in urban areas

Notes:

Roadway Design Speed (mph) = 25

Design Manual Section 1C-1
Last Updated: 04-29-19

Design Criteria for Low Speed Roadways

Design Element			Preferred Criteria					Acceptable Criteria					Project Values
			Design Speed, mph					Design Speed, mph					
			25	30	35	40	45	25	30	35	40	45	
Stopping sight distance (ft) (Refer to Section 6D-1)			155	200	250	305	360	155	200	250	305	360	155
Minimum horizontal curve radius (ft) and superelevation rate (Refer to Sections 2A-2 and 2A-3)	Method 2 superelevation and side friction distribution	e = 4% max	See Table 10 in Section 2A-3					--					
	Method 5 superelevation and side friction distribution	e_{max} = 6%	144	231	340	485	643	144	231	340	485	643	144
		e_{max} = 8%	--	--	--	--	--	134	214	314	444	587	
Minimum vertical curve length (ft) (Refer to Section 2B-1)			75	90	105	120	135	75	90	105	120	135	75
Minimum rate of vertical curvature (K) (Refer to Section 2B-1)	crest vertical curves		12	19	29	44	61	12	19	29	44	61	12
	sag vertical curves	roadways without fixed-source lighting	26	37	49	64	79	26	37	49	64	79	26
		roadways with fixed-source lighting	26	37	49	64	79	14	20	27	35	44	26
Minimum gradient (%)	(Refer to Section 2B-1)		0.5					0.3% with a curb, 0.0% without a curb					0.5
Maximum gradient (%)	(Refer to Section 2B-1)	Urban roadways	5					–	9	8	8	7	5
		Rural roadways						–	–	–	6	6	5
Clear zone			See "Preferred Clear Zone" table in Section 8A-2					See "Acceptable Clear Zone" table in Section 8A-2					

Preferred Clear Zone Distances (feet)
(Based on AASHTO Roadside Design Guide, 4th Edition)

		FORESLOPES			BACKSLOPES		
design speed	design ADT	6:1 or flatter	Steeper than 6:1, up to and including 4:1	Steeper than 4:1	Steeper than 4:1*	4:1 or flatter, up to 6:1	6:1 or flatter
40 mph or less	ADT < 750	10	10	**	10	10	10
	750 ≤ ADT < 1500	12	14	**	12	12	12
	1500 ≤ ADT < 6000	14	16	**	14	14	14
	ADT ≥ 6000	16	18	**	16	16	16
45 – 50 mph	ADT < 750	12	14	**	10	10	12
	750 ≤ ADT < 1500	16	20	**	12	14	16
	1500 ≤ ADT < 6000	18	26	**	14	16	18
	ADT ≥ 6000	22	28	**	16	20	22
55 mph	ADT < 750	14	18	**	10	12	12
	750 ≤ ADT < 1500	18	24	**	12	16	18
	1500 ≤ ADT < 6000	22	30	**	16	18	22
	ADT ≥ 6000	24	32	**	18	22	24
60 mph	ADT < 750	18	24	**	12	14	16
	750 ≤ ADT < 1500	24	32	**	14	18	22
	1500 ≤ ADT < 6000	30	40	**	18	22	26
	ADT ≥ 6000	32	44	**	22	26	28
65 – 70 mph	ADT < 750	20	26	**	12	16	16
	750 ≤ ADT < 1500	26	36	**	16	20	22
	1500 ≤ ADT < 6000	32	42	**	20	24	28
	ADT ≥ 6000	34	46	**	24	30	30

* Backslopes as steep as 2.5:1 can be considered as part of the clear zone, as long as they are relatively smooth and do not contain any fixed objects. Refer to Section 8A-4 of the Design Manual for information regarding backslopes steeper than 2.5:1.

** Since a vehicle traveling on a slope steeper than 4:1 is likely to be diverted to the bottom of the slope, the width of any slope steeper than 4:1 cannot be counted in the clear zone determination. Refer to Section 8A-2 of the Design Manual for information on providing clear recovery areas at the base of steep slopes.

From Design Manual, Section 8A-2:

For roadways with a posted speed of 35 mph or less, the preferred clear zone distance is 10 feet and the acceptable clear zone distance is 8 feet. Where the speed limit is 25 mph or less, the preferred clear zone distance remains the same, but the acceptable clear zone distance may be reduced to 6 feet. If sidewalks are not present, consider using a clear zone value that will accommodate them in the future.

Chapter 8—Safety Design

Section 8A-2—Clear Zones
Revision Date: 01-05-17

Acceptable Clear Zone Distances (feet)
(Based on AASHTO Roadside Design Guide, 4th edition)

		FORESLOPES			BACKSLOPES		
design speed	design ADT	6:1 or flatter	Steeper than 6:1, up to and including 4:1	Steeper than 4:1	Steeper than 4:1*	4:1 or flatter, up to 6:1	6:1 or flatter
40 mph or less	ADT < 750	7	7	**	7	7	7
	750 ≤ ADT < 1500	10	12	**	10	10	10
	1500 ≤ ADT < 6000	12	14	**	12	12	12
	ADT ≥ 6000	14	16	**	14	14	14
45 – 50 mph	ADT < 750	10	12	**	8	8	10
	750 ≤ ADT < 1500	14	16	**	10	12	14
	1500 ≤ ADT < 6000	16	20	**	12	14	16
	ADT ≥ 6000	20	24	**	14	18	20
55 mph	ADT < 750	12	14	**	8	10	10
	750 ≤ ADT < 1500	16	20	**	10	14	16
	1500 ≤ ADT < 6000	20	24	**	14	16	20
	ADT ≥ 6000	22	26	**	16	20	22
60 mph	ADT < 750	16	20	**	10	12	14
	750 ≤ ADT < 1500	20	26	**	12	16	20
	1500 ≤ ADT < 6000	26	30	**	14	18	24
	ADT ≥ 6000	30	30	**	20	24	26
65 – 70 mph	ADT < 750	18	20	**	10	14	14
	750 ≤ ADT < 1500	24	28	**	12	18	20
	1500 ≤ ADT < 6000	28	30	**	16	22	26
	ADT ≥ 6000	30	30	**	22	26	28

* Backslopes as steep as 2.5:1 can be considered as part of the clear zone, as long as they are relatively smooth and do not contain any fixed objects. Refer to Section 8A-4 of the Design Manual for information regarding backslopes steeper than 2.5:1.

** Since a vehicle traveling on a slope steeper than 4:1 is likely to be diverted to the bottom of the slope, the width of any slope steeper than 4:1 cannot be counted in the clear zone determination. Refer to Section 8A-2 of the Design Manual for information on providing clear recovery areas at the base of steep slopes.

Field Exam Questions:

1) Confirm Pavement Thickness?

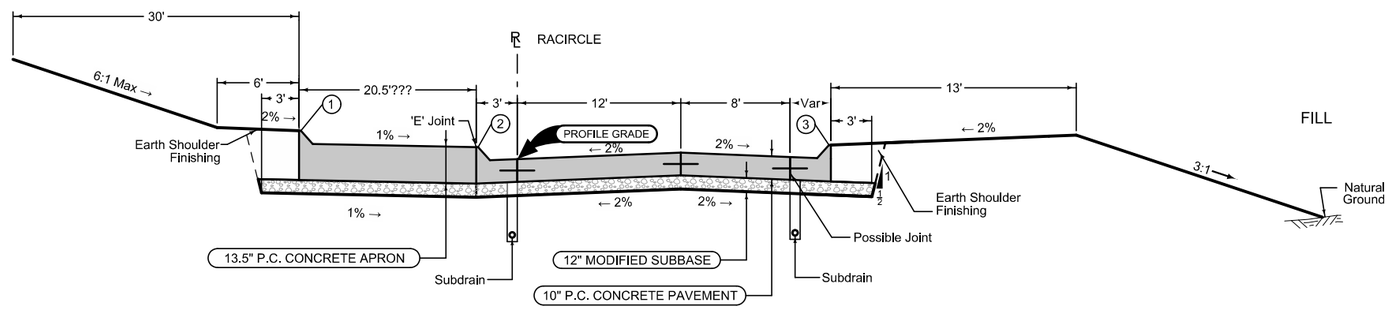
2) Pipe Conditions?

3) Discuss Preferred Design Criteria:

6:1 Foreslope
3:1 Backslope

10' Wide Shoulder

5' Ditch Depth
10' Wide Ditches



1 6" Standard Curb

2 4" Sloped Curb

3 6" Sloped Curb

LOCATION		
ROAD IDENTIFICATION	STATION TO STATION	
CIRC	0+00.00	###

Note: See 'L' Sheets for Jointing Layout

See Tab 100-24 or 100-25 for pavement quantities.

See Tab 112-9 for shoulder quantities.

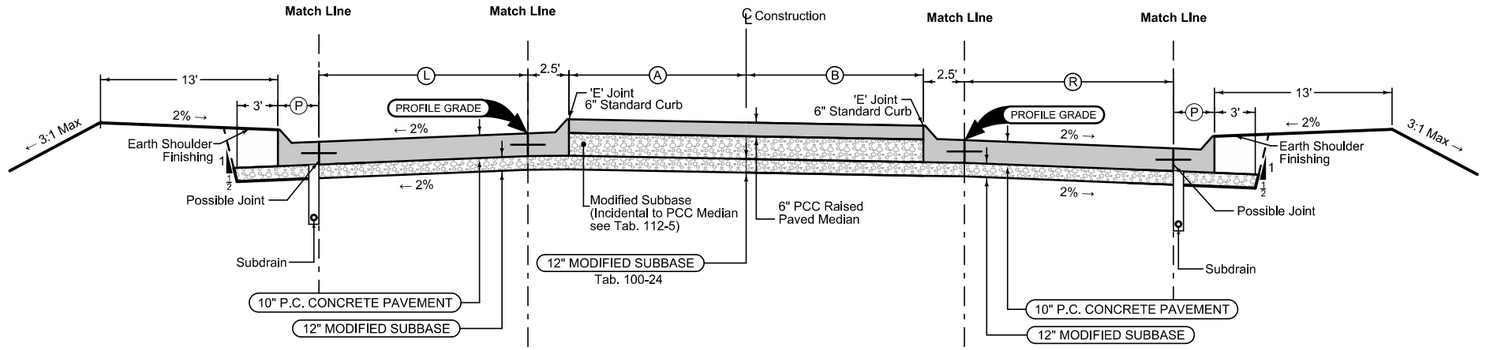
Roundabout

Curbed Shoulder

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: CD refer to L sheets for spacing

2_Curb_ 04-21-20			
STATION TO STATION		(P) Feet	Curb Type See PV-102
#	#	#	6" Sloped



Curbed Shoulder

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: CD refer to L sheets for spacing

2_Curb_ 04-21-20			
STATION TO STATION		(P) Feet	Curb Type See PV-102
#	#	#	6" Sloped

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

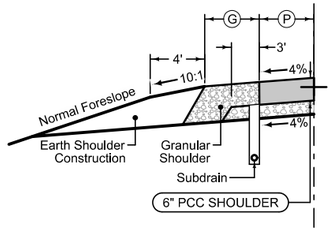
BEGIN STATION	END STATION	(L) Feet
#	#	Vari.

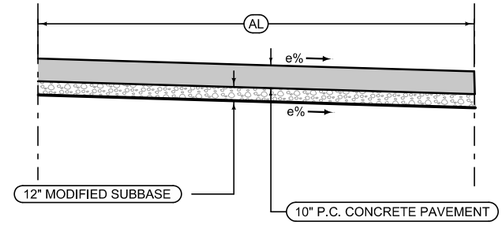
Median

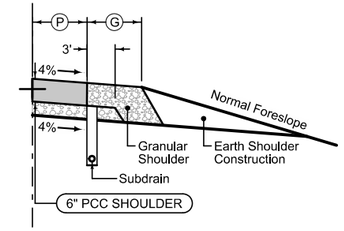
4DP_Raised_Out_ 04-21-20			
BEGIN STATION	END STATION	(A) Feet	(B) Feet
#	#	Vari.	Vari.

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

BEGIN STATION	END STATION	(R) Feet
#	#	Vari.







Full Depth PCC Combination Shoulder

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

2_C_FullPCC_ 04-20-21			
STATION TO STATION		(P) Feet	(G) Feet
#	#	4	6

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

STATION TO STATION		(AL) Feet
#	#	Vari

Full Depth PCC Combination Shoulder

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

2_C_FullPCC_ 04-20-21			
STATION TO STATION		(P) Feet	(G) Feet
#	#	4	6

See Tab 100-24 or 100-25 for pavement quantities.

See Tab 112-9 for shoulder quantities.

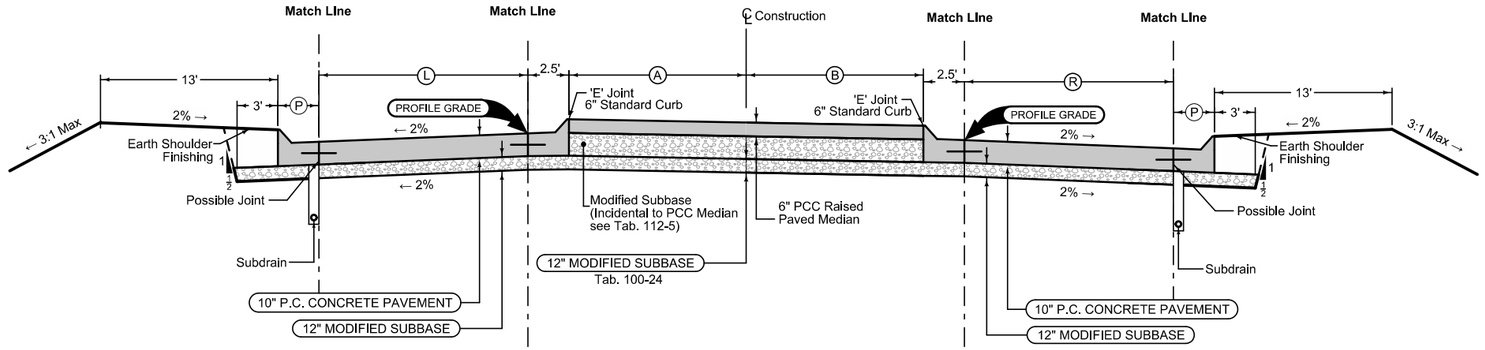
US 59

Curbed Shoulder

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: CD refer to L sheets for spacing

2_Curb_ 04-21-20			
STATION TO STATION		(P) Feet	Curb Type See PV-102
#	#	#	6" Sloped



Curbed Shoulder

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: CD refer to L sheets for spacing

2_Curb_ 04-21-20			
STATION TO STATION		(P) Feet	Curb Type See PV-102
#	#	#	6" Sloped

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

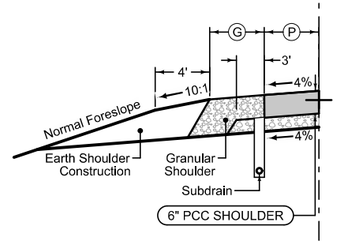
BEGIN STATION	END STATION	(L) Feet
#	#	Vari.

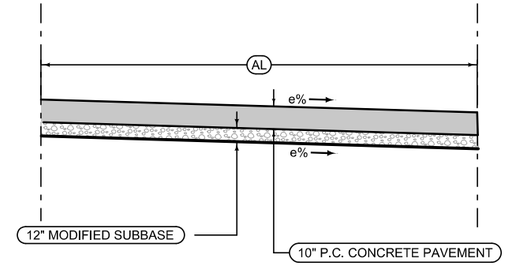
Median

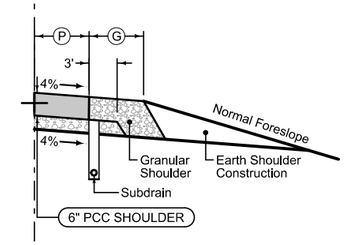
4DP_Raised_Out_ 04-21-20			
BEGIN STATION	END STATION	(A) Feet	(B) Feet
#	#	Vari.	Vari.

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

BEGIN STATION	END STATION	(R) Feet
#	#	Vari.







Full Depth PCC Combination Shoulder

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

2_C_FullPCC_ 04-20-21			
STATION TO STATION		(P) Feet	(G) Feet
#	#	4	6

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

STATION TO STATION		(AL) Feet
#	#	Vari

Full Depth PCC Combination Shoulder

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

2_C_FullPCC_ 04-20-21			
STATION TO STATION		(P) Feet	(G) Feet
#	#	4	6

See Tab 100-24 or 100-25 for pavement quantities.

See Tab 112-9 for shoulder quantities.

IA 2

SURVEY SYMBOLS

- AST, Above Ground Storage Tank
- BB, Billboard
- BBB, Bottom of Bridge Beam
- BCL, Bridge Centerline
- BD, Bridge Deck
- BIN, Grain Bin
- BL, Topo Breakline
- BLD, Building or Foundation
- BLS, Bridge Low Steel
- BM, Bench Mark
- BNK, Stream Bank
- BRG, Bridge
- C, Centerline BL of Road -ML or SR
- CAV, Cave
- CEL, Cell Phone Tower
- CIS, Cistern
- CON, Concrete or A/C Slab
- CP, Control Point
- CRP, Corporation Line
- CS, Curve Point
- CU, Back of Curb
- CUL, Culvert
- D, Centerline Draw or Stream -Down
- DAB, Drainage Area Boundary
- DIK, Centerline of Dike or Dam
- DTM, Photogrammetry Elv Control Check
- DU, Centerline Draw or Stream -Up
- EB, Electrical Box
- EG, Edge of Gravel Road
- ENP, Edge Paved Entrance and Park Lot
- ENT, Centerline BL of Entrance
- ENU, Edge Unpaved Entrance and Parking
- EP, Edge of Paved Roads -ML or SR
- EW, Edge of Water
- FCL, Chain Link and Security Fence
- FENO, FENO Monument
- FHD, Fire Hydrants
- FLG, Flag Poles
- FP, Filler Pipe
- FW, Wire Fence
- FWD, Wood Fence
- GDC, Guard Rail Cable
- GDL, Guard Rail Steel
- GP, Guard Post -Less Than 4 Posts
- GPR, Guard Post -4 or More Posts
- GR, Ground Shot
- GRV, Grave
- GU, Gutter In Front of Curb
- GV, Gas Valve
- HDG, Hedge Row
- HS, Hydric Soil -Wetlands
- HT, Electrical Highline Tower
- IN, Storm Sewer Intake
- INB, Storm Sewer Beehive Intake
- LC, Lot Corner
- LIN, Miscellaneous Line
- LP, L.P. Tank
- LUM, Luminaire
- MH, Utility Access -Manhole
- MIS, Miscellaneous
- MM, Mile Marker Post
- OUT, Tile Outlet
- PC, Curve Point
- PCP, Photo Control Point
- PCT, Photo Control Target
- PI, Tangent Point
- PIP, Pipe Culvert
- PL, Location of Photo -Wetlands
- PLG, Location of General Photo
- POC, Curve Point
- POST, Spiral Point
- PR, Electic Riser Pole
- PRO, Profile Shot
- PT, Curve Point
- REF, Reference Tie Point
- RET, Retaining Walls
- RIP, Rip-Rap
- ROC, Rock Outcropping
- ROW, Right of Way Mark
- RR, Centerline of Railroad Tracks
- RRB, Railroad Signal Box
- RRF, Railroad Frog
- RRR, Railroad Rail
- RRS, Railroad Signal
- RRW, Railroad Switch
- RT, Radio Tower
- S, Soil Sampling Site -Wetlands
- SBR, Size of Bridge
- SC, Spiral Point
- SCR, Section Corner
- SEP, Septic Tank
- SF, Silt Fence -Wetlands
- SG, Staff Gauge -Wetlands
- SH, Paved Shoulder
- SHR, Shrub
- SI, Sign
- SL, Speed Limit Sign
- SLN, Section Line
- SLO, Silo
- SNK, Sink Hole
- SNP, Unpaved Shoulder
- SP, Stream Profile
- STP, Stump
- SWK, Sidewalk
- SWP, Swamp or Marsh
- TA, Tower Anchor
- TBO, Telephone Booth
- TCB, Traffic Signal Box
- TDC, Tree Deciduous
- TDL, Trafic Detection Loop
- TER, Terrace
- TEV, Evergeen Tree
- TFR, Tree Fruit
- TGP, Telegraph Pole
- TIL, Tile Line
- TLNL, Tree Line Left
- TLNR, Tree Line Right
- TOP, Top of Bridge Pier
- TPA, Telephone Pole Co. 1
- TPB, Telephone Pole Co. 2
- TPC, Telephone Pole Co. 3
- TR, Telephone Riser Pole
- TRL, Trail
- TS, Spiral Point
- TSB, Telephone Switch Box
- TSG, Traffic Signal
- TSL, Traffic Signal and Luminare
- TV, Satelite TV Dish
- TVP, TV Pedestal
- TW, Top of Water
- UB, Utility Box
- UE, Utility Elevation
- UPH, Utility Pot Hole - Quality A
- UST, Underground Tank
- UV, Underground Utility Vault
- VS, Channel Cross Section
- WC, Wild Card -Misc. Field Shot
- WEL, Well
- WHD, Water Hydrant
- WHU, RV Water Hook Up
- WM, Wind Mill
- WND, Wind Turbine
- WV, Water Valve

UTILITY LEGEND

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

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

- FO — FO1D, Fiber Optic Farmers Telephone - Quality D
- FO2 — FO2D, Fiber Optic Chat Mobility - Quality D
- FO3 — FO3D, Fiber Optic Prairie Telephone - Quality D
- FO4 — FO4D, Fiber Optic ICN - Quality D
- FO5 — FO5D, Fiber Optic MidAmerican-Fiber - Quality D
- FO6 — FO6D, Fiber Optic Centurylink - Quality D
- W — WL1D, Water Line SW Regional Water District - Quality D
- PPA, Power Pole MidAmerican-Electric

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

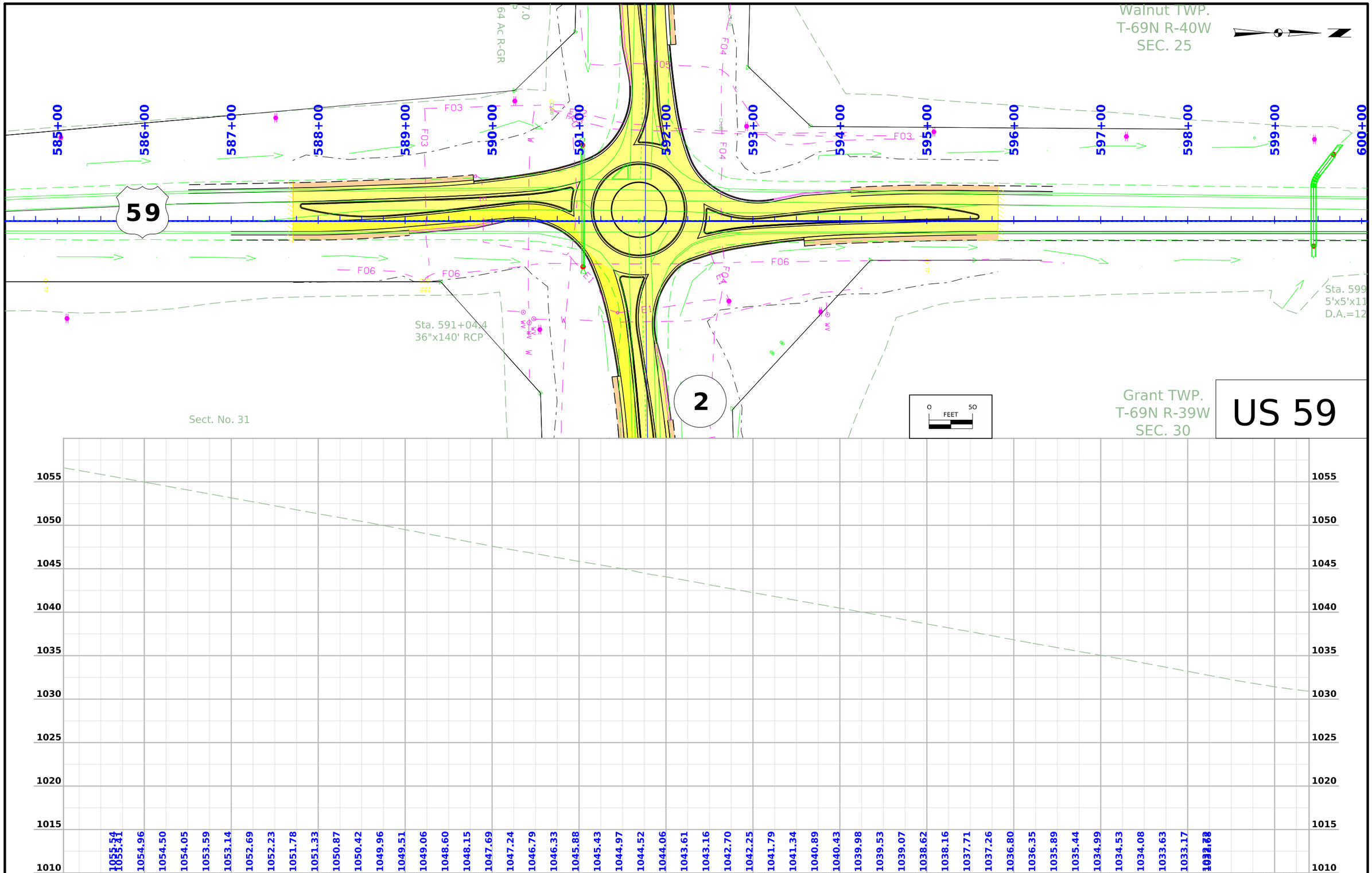
- Reference Point — Station — Survey Line
- Section Corner
- Ground Line Intercept
- Saw Cut
- Guardrail
- Trench Drain
- HighTension Cable Guardrail
- Sheet Pile
- Pavement Removal
- Clearing & Grubbing Area

RIGHT-OF-WAY LEGEND

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

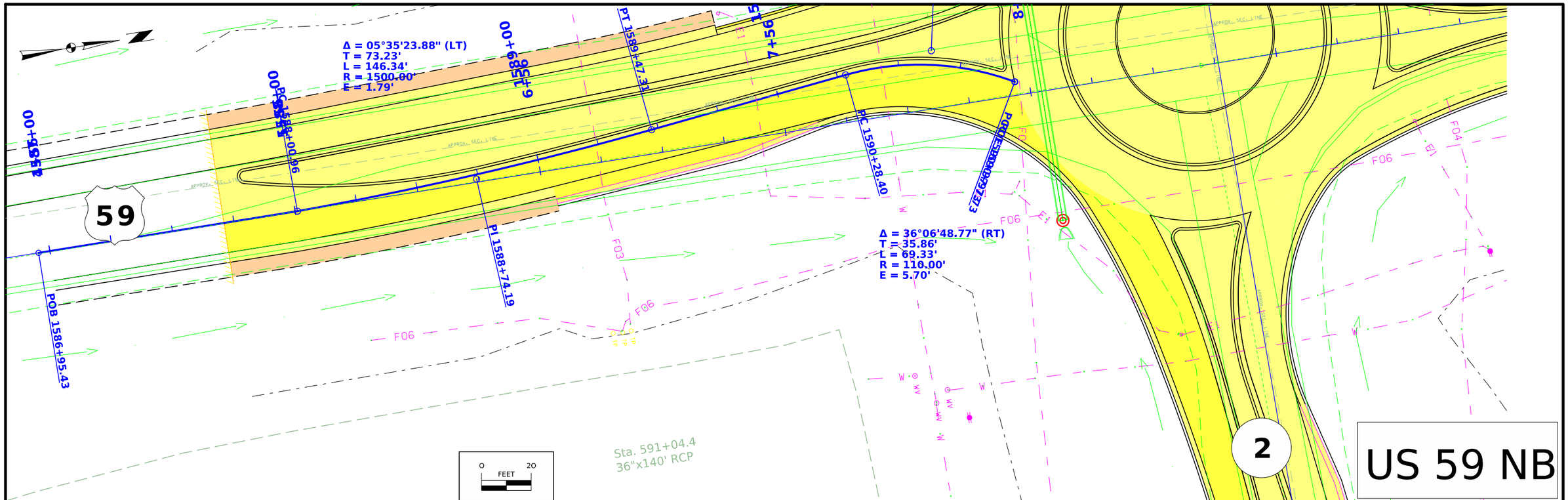
PLAN AND PROFILE LEGEND AND SYMBOL INFORMATION SHEET

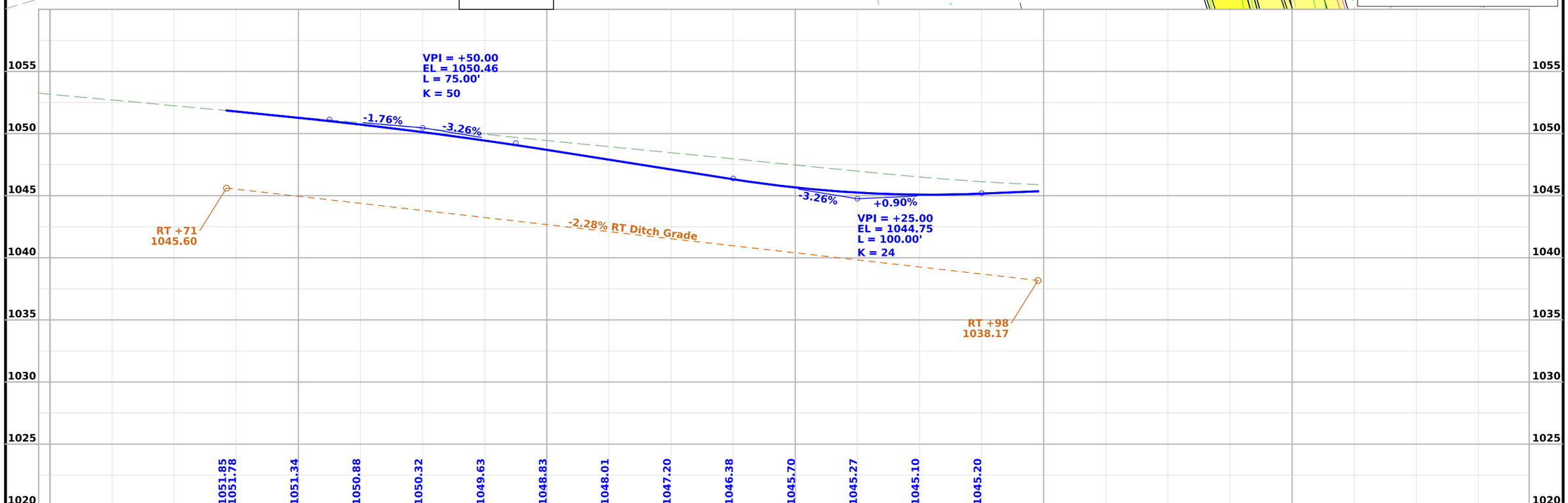
(COVERS SHEET SERIES D, E, F, & K)



FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER D.2

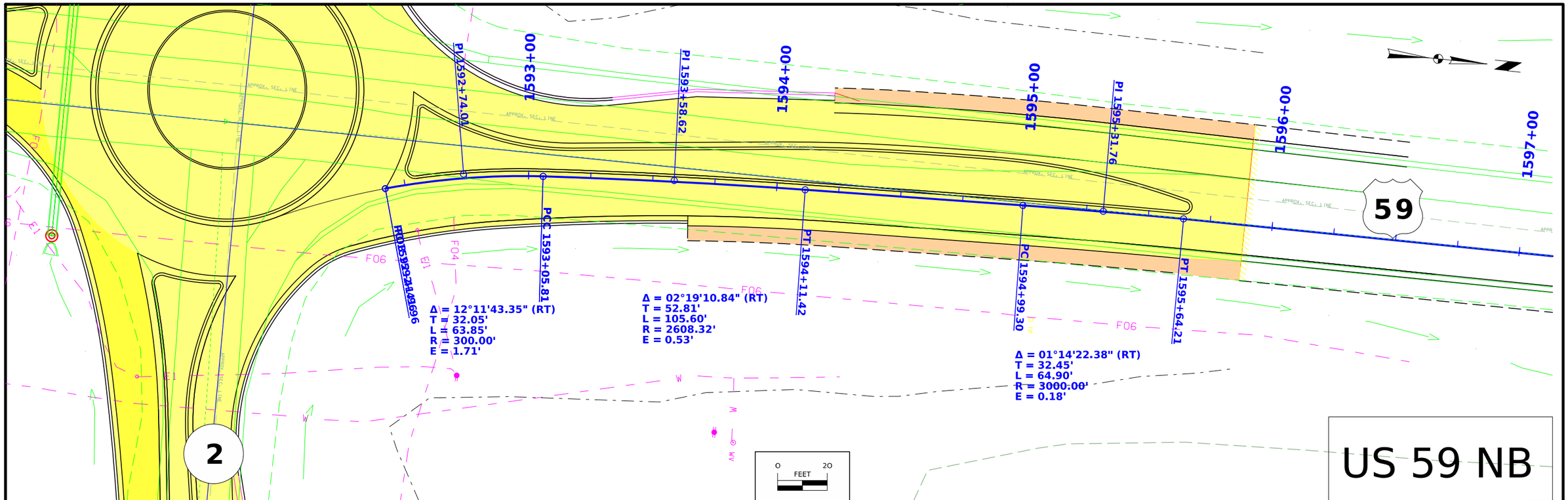
8:16:52 PM 9/29/2025 adewolf pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7305901025\Design\CADD\Sheets\SHT_73059037_D02_ML059.dgn

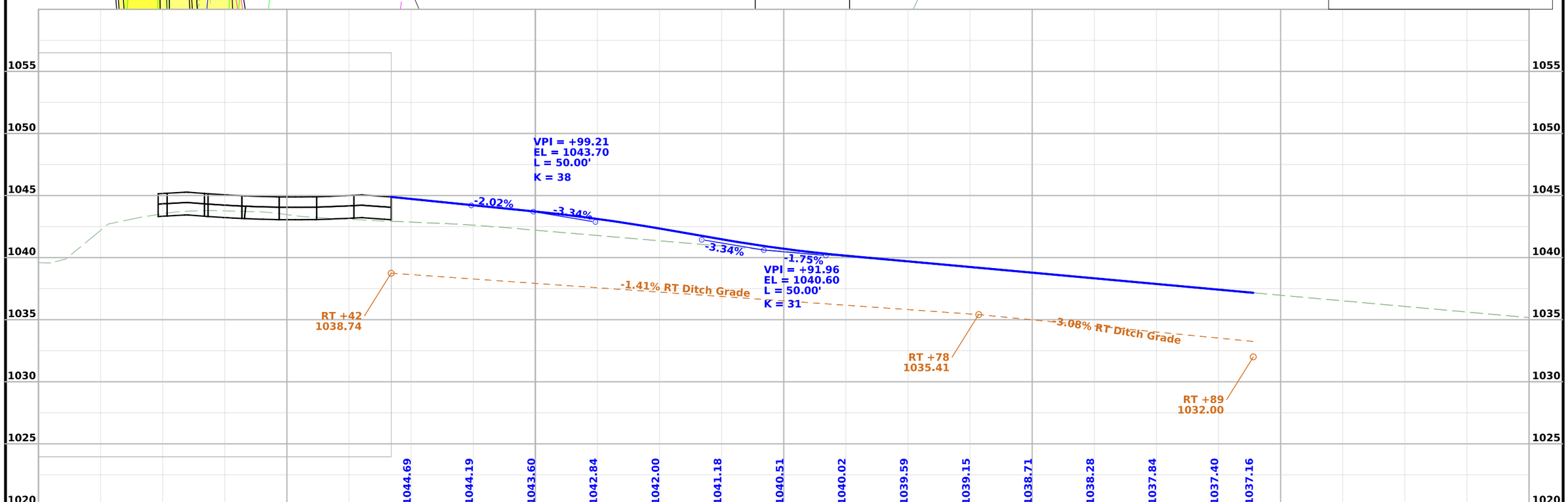




FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER D.3

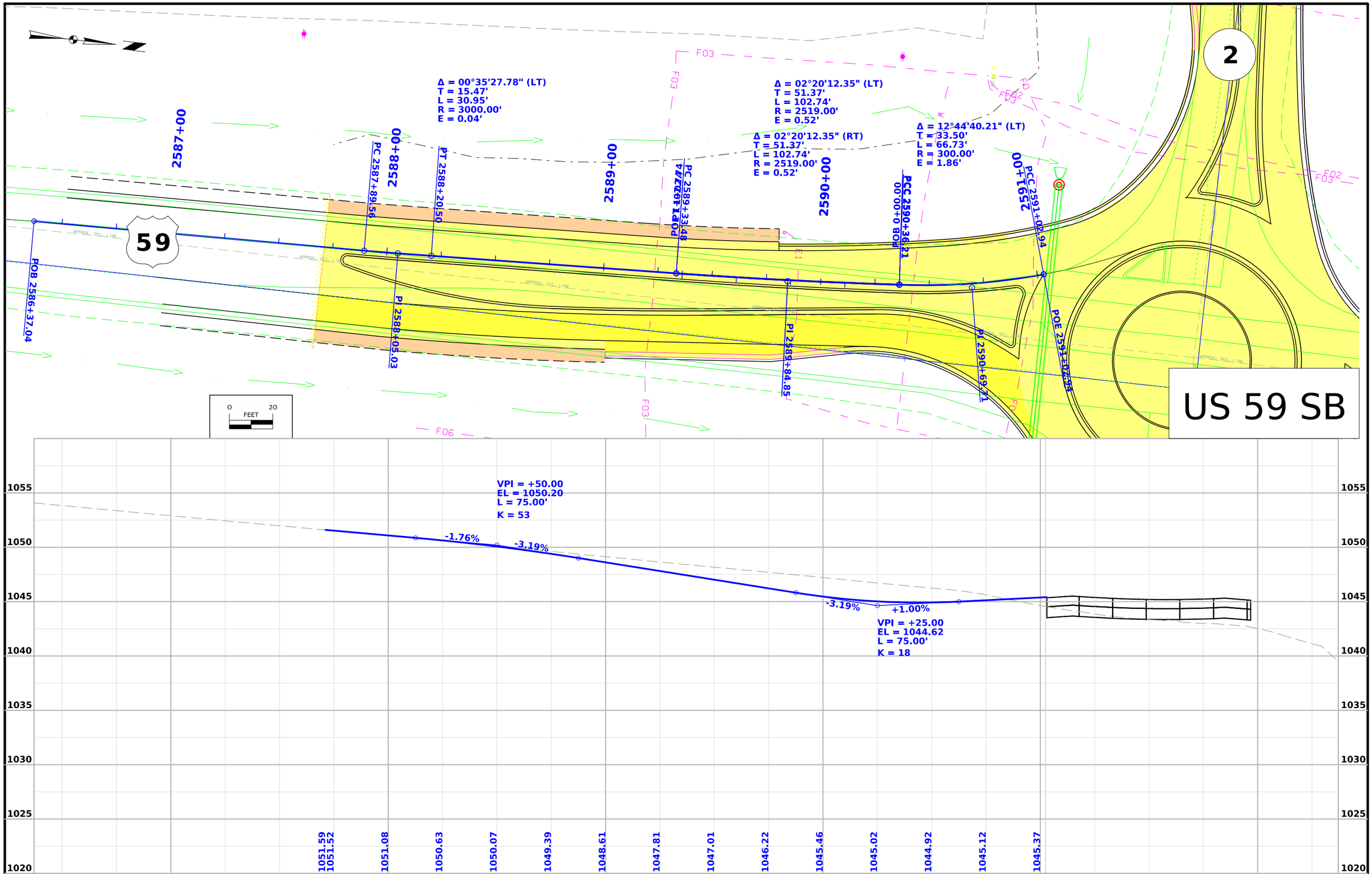
8:16:58 PM 9/29/2025 adewolf pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7305901025\Design\CADD\Sheets\SHT_73059037_D03.dgn





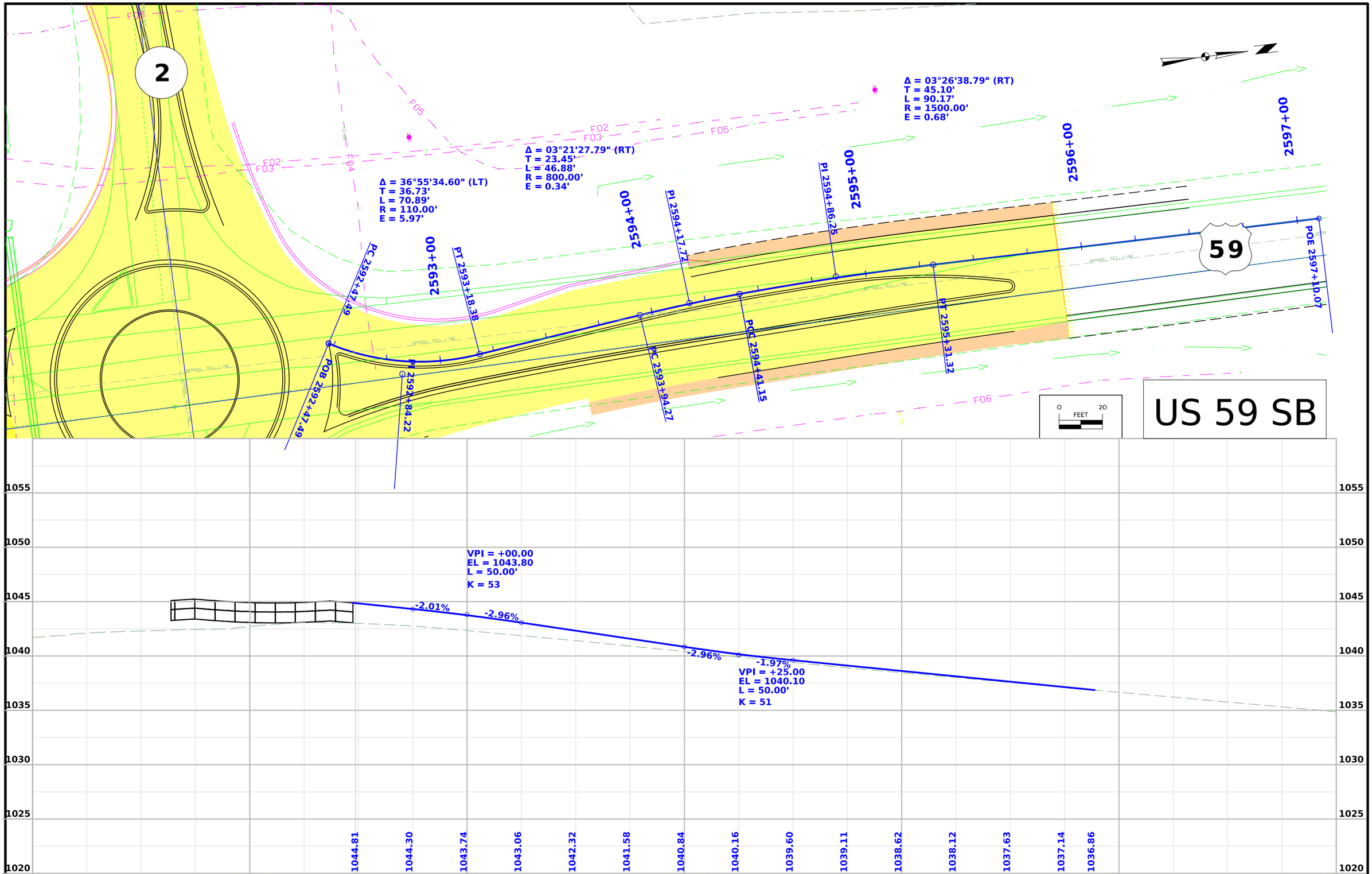
FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER D.4

8:17:03 PM 9/29/2025 adewolf pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7305901025\Design\CADD\Sheets\SHT_73059037_D04.dgn



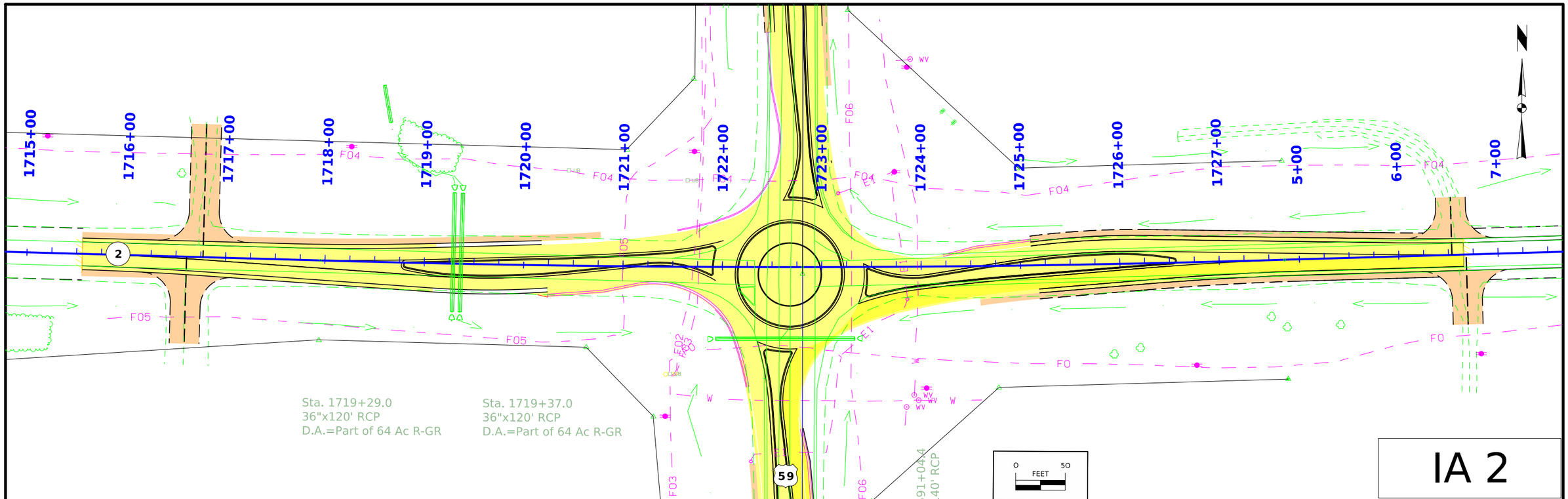
FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER D.5

8:17:08 PM 9/29/2025 adewolf pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7305901025\Design\CADD\Sheets\SHT_73059037_D05.dgn

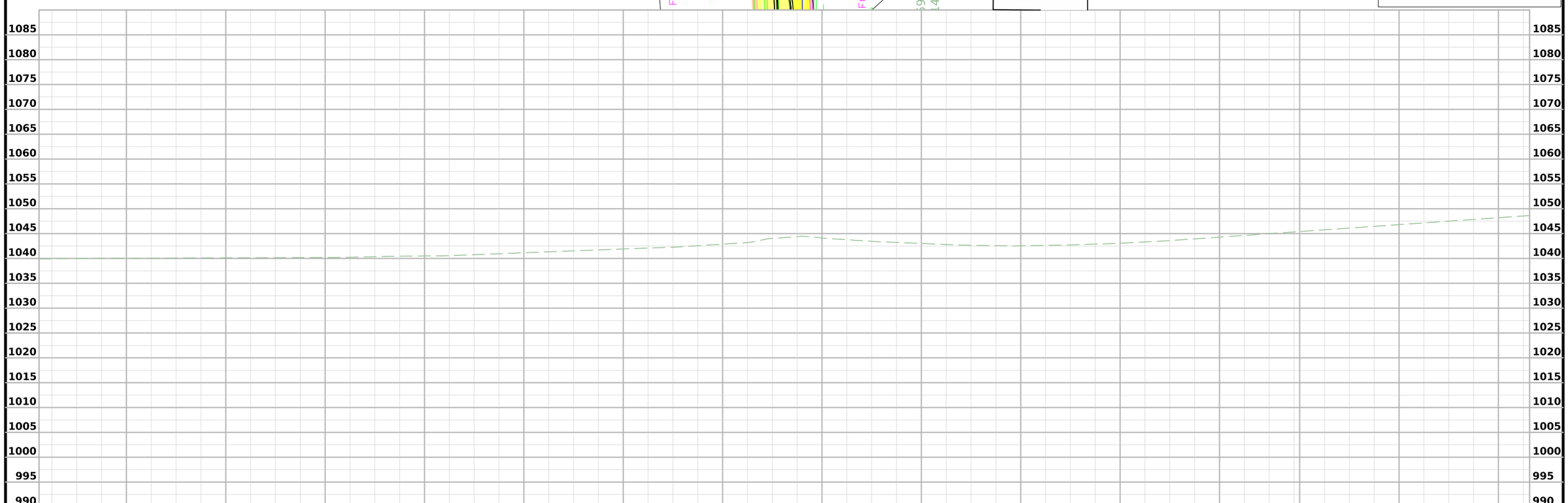


FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER D.6

8:17:14 PM 9/29/2025 adewolf pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7305901025\Design\CADD\Sheets\SHT_73059037_D06.dgn

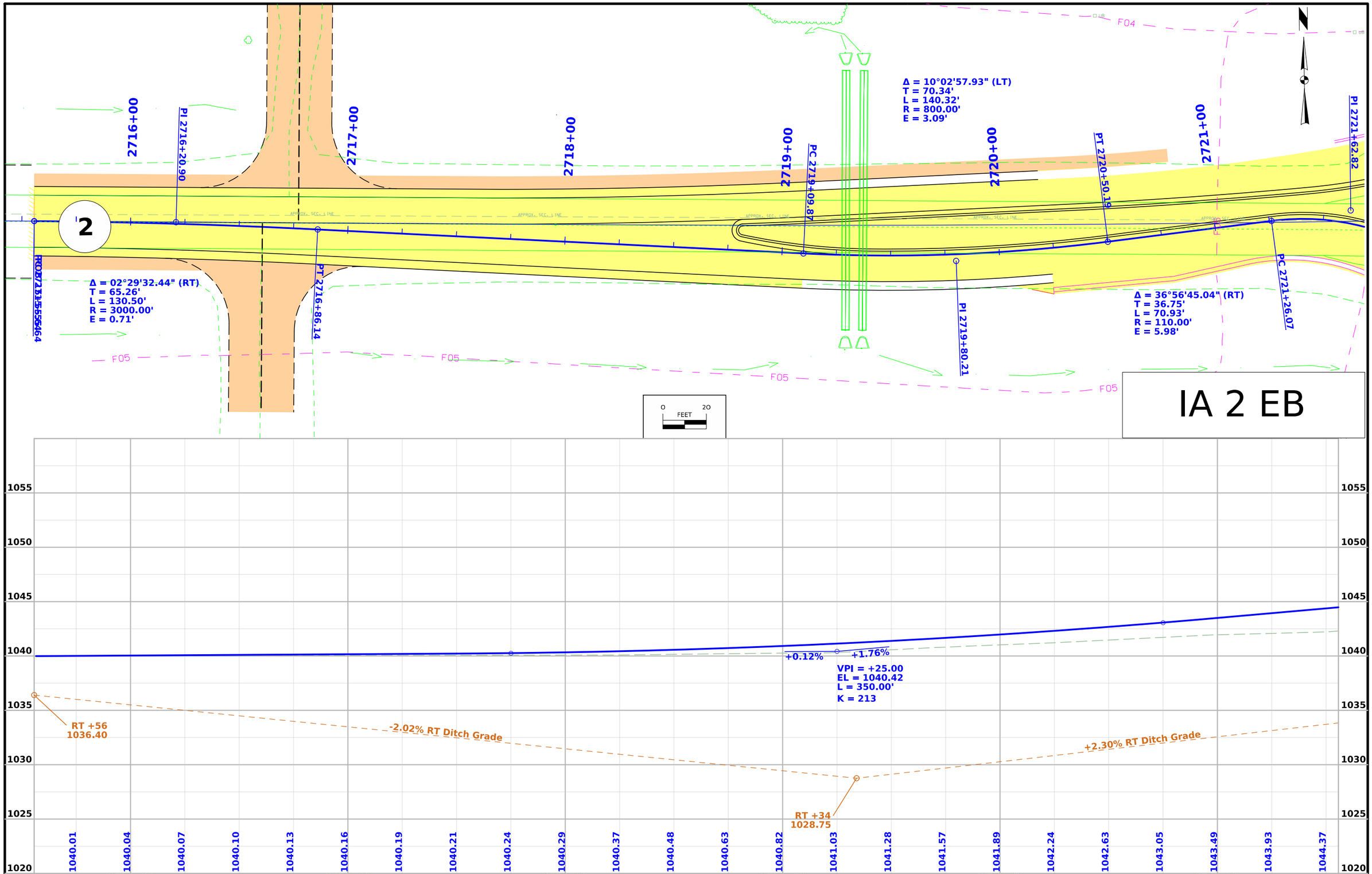


IA 2



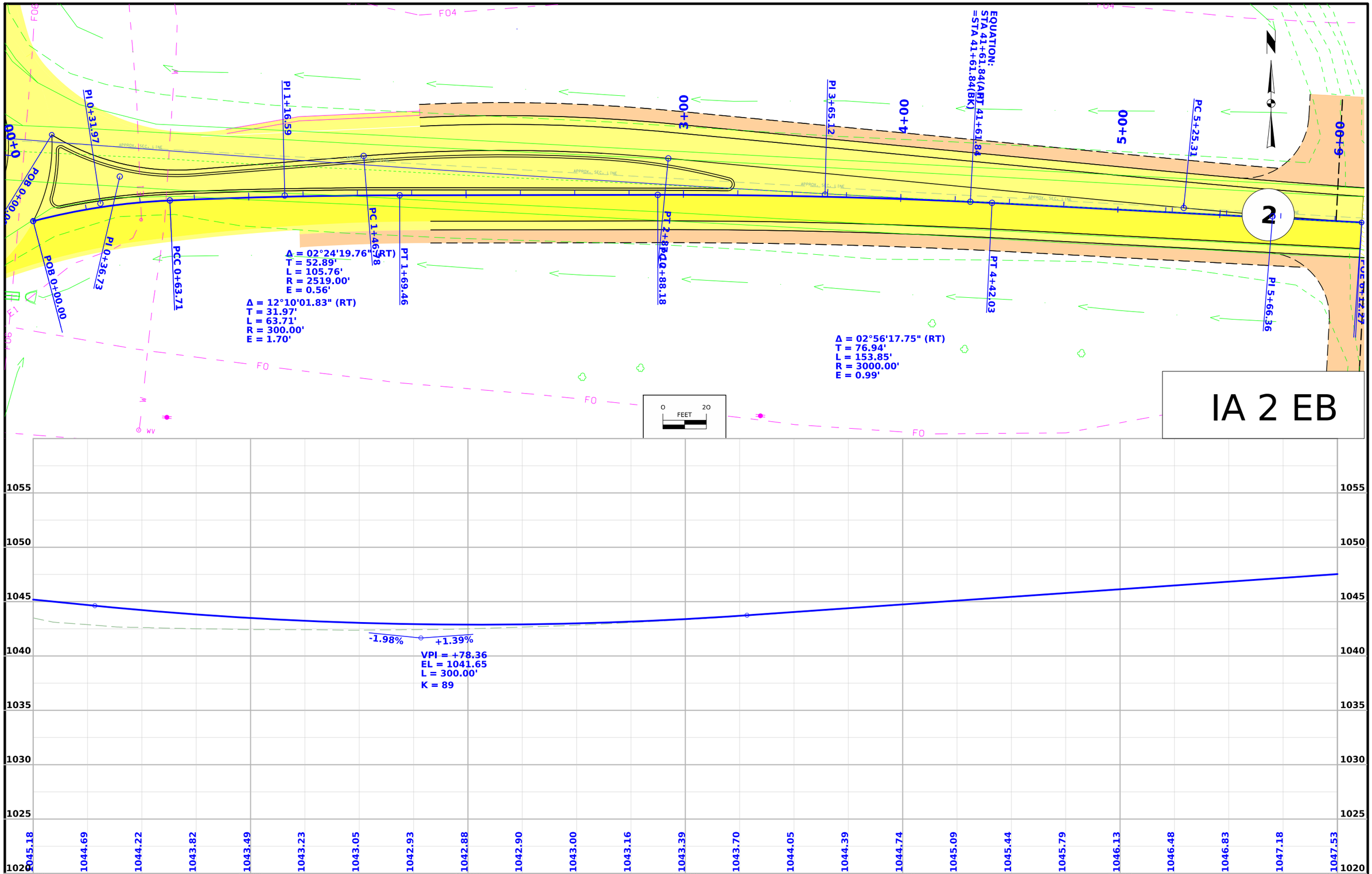
FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER E.1

8:20:26 PM 9/29/2025 adewolf pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7305901025\Design\CADD\Sheets\SHT_73059037_E01.dgn



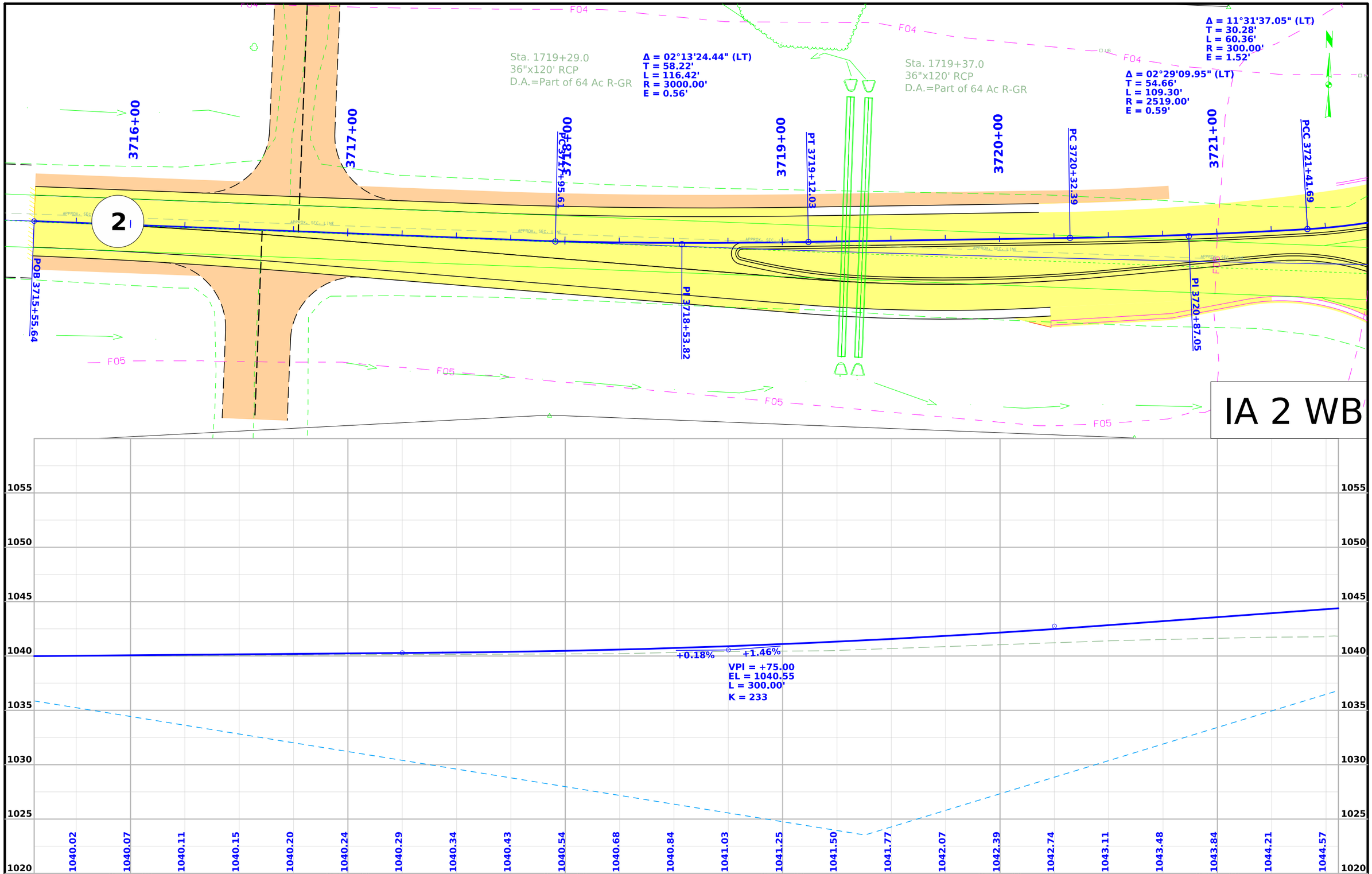
FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER E.2

8:20:32 PM 9/29/2025 adewolf pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7305901025\Design\CADD\Sheets\SHT_73059037_E02.dgn



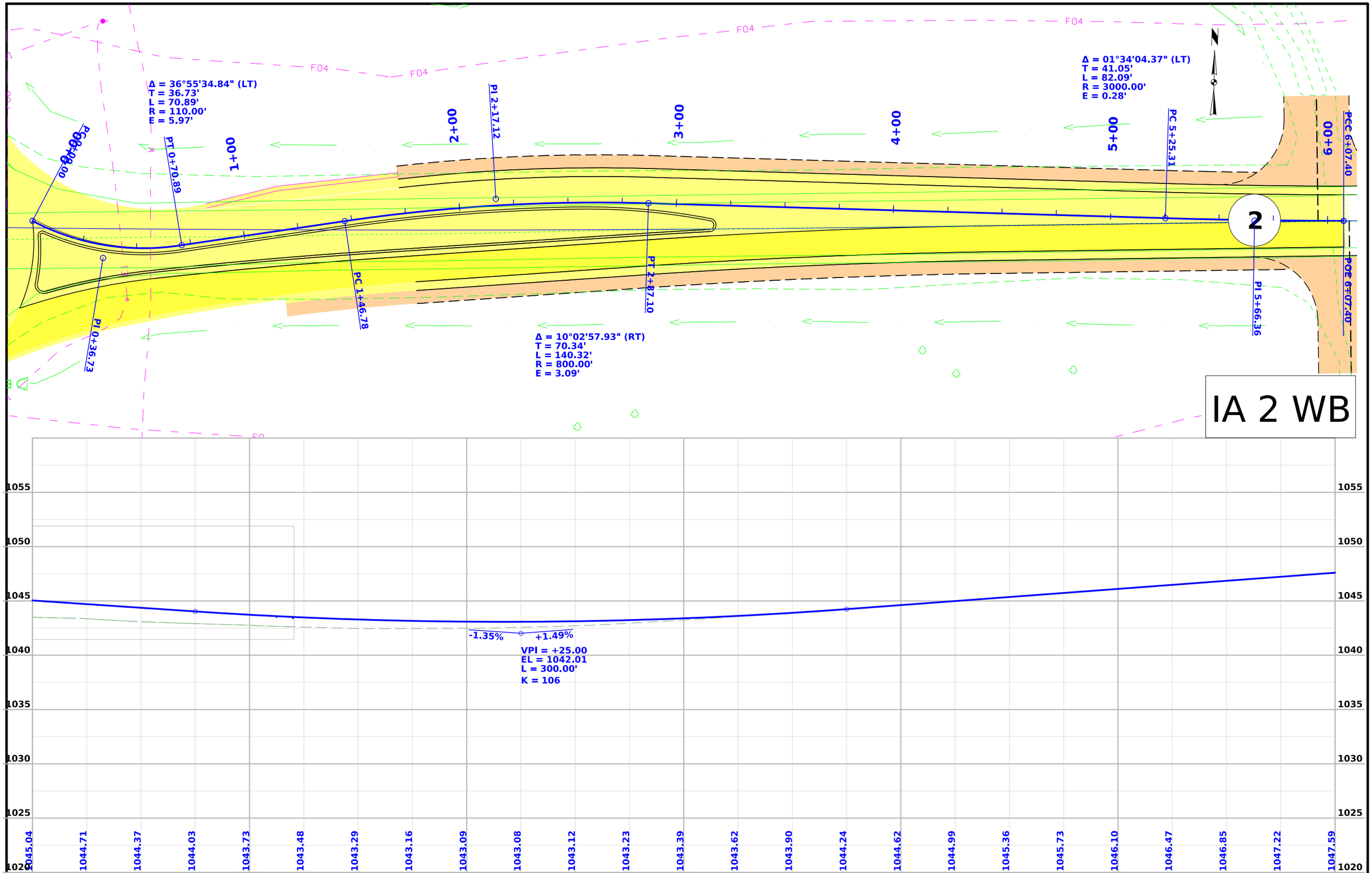
FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER E.3

8:20:38 PM 9/29/2025 adewolf pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7305901025\Design\CADD\Sheets\SHT_73059037_E03.dgn



FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER E.4

8:20:43 PM 9/29/2025 adewolf pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7305901025\Design\CADD\Sheets\SHT_73059037_E04.dgn



FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER E.5

8:20:49 PM 9/29/2025 adewolf pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7305901025\Design\CADD\Sheets\SHT_73059037_E05.dgn

SURVEY INDEX

County : Page
Project Code : 25-73-059-010
Phase Number : HSIPX-059-1(037)--3L-73
Location : IA 2 Intersection
Work Code : 1013-PCC Pavement - Grade and New
Project Directory : 7305901025

Survey Personnel

Paul Harry – Survey Party Chief
Bob Fredrickson – Assistant Survey Party Chief

Date(s) of Survey

Begin Date	06/09/2025
End Date	07/24/2025

General Information

This survey is for US Hwy 59 and Iowa Hwy 2 intersection improvements. This project is a Full Field DTM survey.

Utility Information

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

Project Control

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

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

Alignment Information

The horizontal alignment for U.S. Hwy 59 this survey is a retrace of As-built Plans No. F-472(2) and RF-2-1(11)—35-36. Survey stationing was equated to the plan PT at Sta. 559+93.9 and carried ahead without equation throughout the survey.

Survey stationing relates to as built plan stationing as follows:

PT Sta. 559+93.9 As-built Plans Project No. F-472(2).
Survey PT Sta. 559+93.9

POT Sta. 591+68.85 As-built Plans Project No. RF-2-1(11)—35-36.
Survey POT Sta. 591+69.66

POT Sta. 591+75.7 As-built Plans Project No. RF-2-1(11)—35-36.
Survey POT Sta. 591+76.40

PI Sta. 610+11.2 As-built Plans Project No. F-472(2).
Survey PI Sta. 610+11.2

The horizontal alignment for Iowa Hwy 2 this survey is a retrace of As-built Plans No. RF-2-1(11)—35-36 and FN-2-2(1)—21-73. Survey stationing was equated to the plan PC at Sta. 1717+95.61 and carried back along back tangent and ahead through ahead curve with equation at PT 1727+65.77 Back Equals POT 4+85.04 Ahead.

Survey stationing relates to as built plan stationing as follows:

POT Sta. 1686+03.7 As-built Plans Project No. RF-2-1(11)—35-36.
Survey POT Sta. 1686+03.93

PC Sta. 1717+95.61 As-built Plans Project No. RF-2-1(11)—35-36.
Survey PC Sta. 1717+95.61

PI Sta. 1722+80.82 As-built Plans Project No. RF-2-1(11)—35-36.
Survey PI Sta. 1722+80.83

POC Sta. 1722+80.65 As-built Plans Project No. RF-2-1(11)—35-36.
Survey PI Sta. 1722+80.71

PT Sta. 1727+65 As-built Plans Project No. RF-2-1(11)—35-36. = POT Sta.4+85.04 As-built Plans Project No. FN-2-2(1)—21-73.
Survey PI Sta. 1727+65.77 Back = POT Sta. 4+85.04 Ahead.

PC Sta. 22+80.84 As-built Plans Project No. FN-2-2(1)—21-73.
Survey POT Sta. 22+80.39

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.

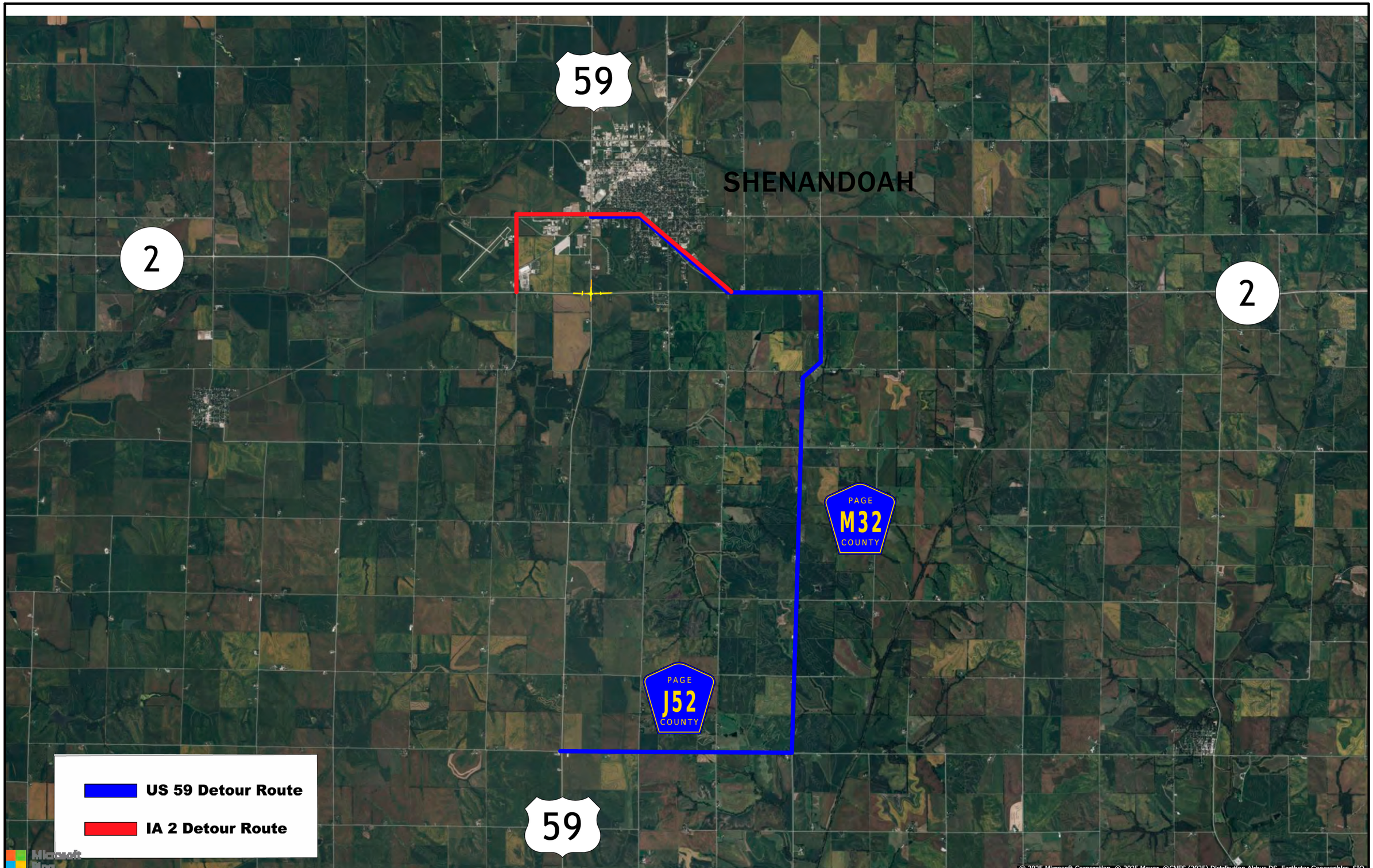
HORIZONTAL AND VERTICAL PROJECT CONTROL COORDINATE LISTING
HORIZ. DATUM: NAD83(2011) for EPOCH 2010.00 (IaRTN 2019 Adjustment)
Ia. Regional Coordinate System Zone 06 (U.S. Survey Foot)
VERT. DATUM: NAVD88
Geoid Model: 2018u3

Point Name	Northing	Easting	Elevation	Code Description
360020281	6779633.37	16593781.02	1012.72	CP FD CUT X IN ROW RAIL
730020287	6779558.19	16596941.73	1065.19	CP FD CENTER PUNCH HOLE IN ROW RAIL
SDAA	6784003.52	16591003.06	972.02	CP NGS MONUMENT AS DESCRIBED IN GOOD CONDITION
730020291	6779658.05	16599333.20	1079.55	CP SET FENO MONUMENT W/ IOWA DOT BRASS CAP
362036	6774465.66	16596790.53	1069.02	CP COUNTY MONUMENT AS DESCRIBED IN GOOD CONDITION

108_23A
8/15/22

TRAFFIC CONTROL PLAN

US 59 and IA 2 traffic will be maintained at all times via an off-site detour. Refer to J.2 for Detour Route.



FILE NO.	ENGLISH	DESIGN TEAM **MILLER / DEWOLF**	**PAGE** COUNTY	PROJECT NUMBER **HSIPX-059-1(037)--3L-73**	SHEET NUMBER **J.2**

7:25:26 AM 9/30/2025 jsnyde2 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7305901025\Design\CADD\Sheets\SHT_73059037_J02.dgn

CROSS SECTION VIEW COLOR LEGEND

Design Color No.	Feature
Aggregate	
(64)	Choke Stone
(42)	Engineering Fabric
(8)	Flooded Backfill
(92)	Macadam Stone
(20)	Modified
(12)	Plowing Shaping
(14)	Porous Backfill
(8)	Revetment Class A
(6)	Revetment Class B
(62)	Revetment Class C
(188)	Revetment Class D
(28)	Revetment Class E
(12)	Shoulder Special Backfill
(12)	Special Backfill
(20)	Subbase
(20)	Subbase Lower
(20)	Subbase Upper
(118)	Subgrade Treatment
Asphalt	
(207)	HMA Base Course
(207)	HMA Interim Course
(207)	HMA Surface Course
Bridge	
(0)	Bridge
Concrete	
(0)	Barrier Concrete
(0)	Barrier Concrete Footing
(0)	Curb Gutter
(48)	Flowable Mortar
(0)	Median Concrete
(0)	PCC Pavement
(0)	Sidewalk
Existing	
(0)	Existing Pavement
Shoulder	
(209)	Shoulder HMA
(0)	Shoulder PCC
(6)	Shoulder Granular
Structural	
(112)	Noise Wall
(112)	Noise Wall Footing
(112)	Retaining Wall Back
(112)	Retaining Wall Back Excavate
(112)	Retaining Wall Face
(112)	Retaining Wall Front Excavate
(112)	Retaining Wall Front Footing
(112)	Retaining Wall MSE Gutter
(112)	Retaining Wall Reinforced Earth

Design Color No.	Feature
Grading	
(8)	Behind Curb Cut
(6)	Granular
(13)	Granular Back Fill
(48)	Rock Undercut
(8)	Shoulder Earth Fill
(2)	Side Slopes
(226)	Side Slopes Dressing
Substrata	
(128)	Boulder
(209)	Boulder Removed
(48)	Broken Weathered
(210)	Broken Weathered Removed
(3)	Core Out
(115)	Core Out Remove Only
(195)	Core Out Remove and Replace
(203)	Existing Pavement
(184)	Existing Pavement Remove Only
(200)	Existing Pavement Remove and Replace
(6)	Loam
(211)	Loam Removed
(80)	Rock
(212)	Rock Removed
(4)	Select Sand
(214)	Select Sand Removed
(3)	Shale
(215)	Shale Removed
(10)	Topsoil
(2)	Topsoil Remove Only
(4)	Topsoil Remove and Replace
Unsuitable / Waste	
(3)	Unsuitable Type A
(216)	Unsuitable Type A Removed
(13)	Unsuitable Type B
(217)	Unsuitable Type B Removed
(11)	Unsuitable Type C
(218)	Unsuitable Type C Removed
(3)	Waste
(219)	Waste Removed

NOTES:

Text

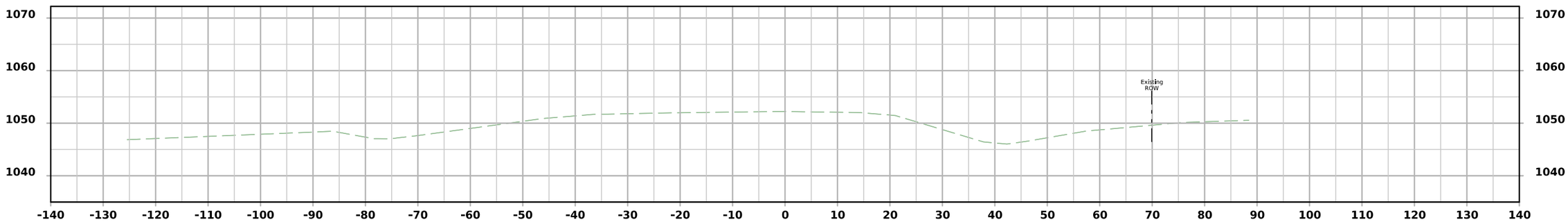
NOTES:

Text

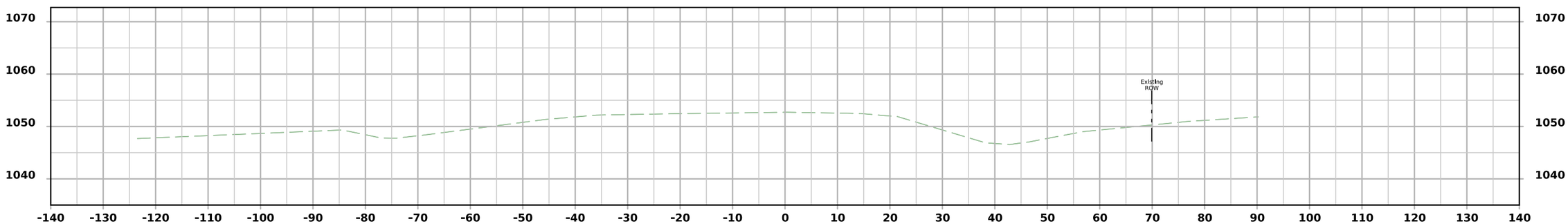
CROSS SECTIONS
LEGEND AND INFORMATION SHEET

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

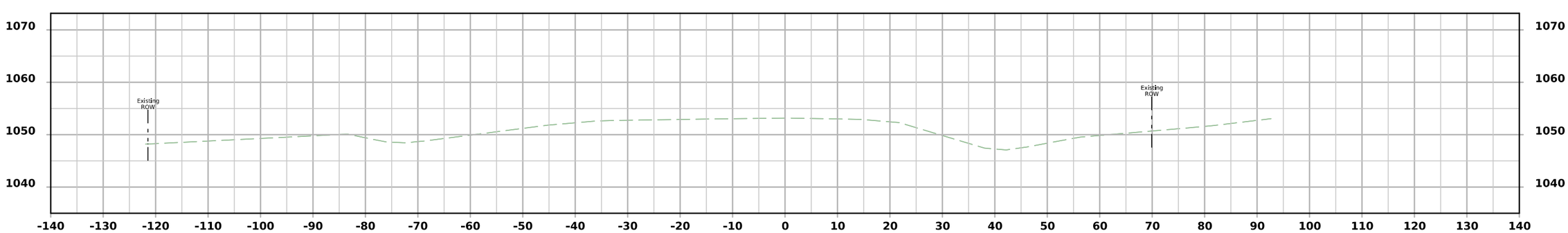
ML - US059



STA 587+50.00

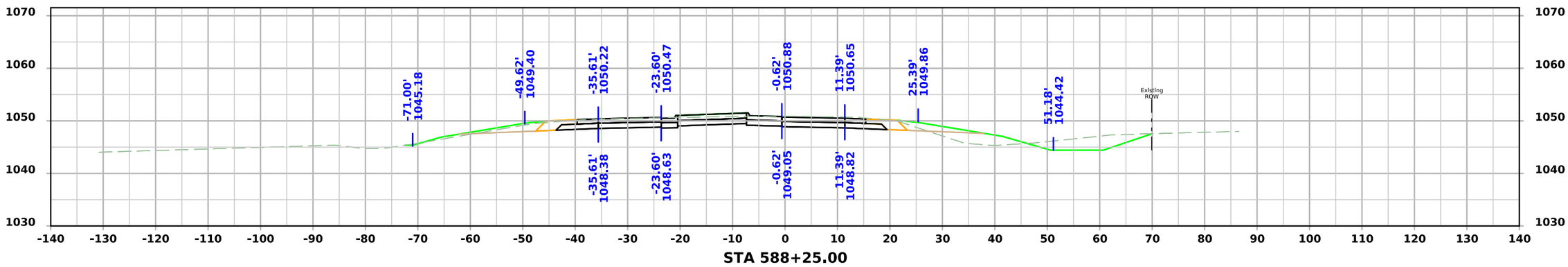


STA 587+25.00

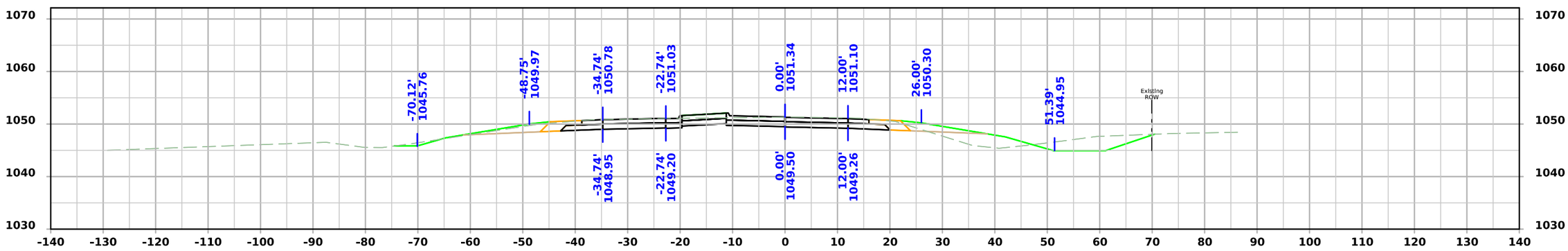


STA 587+00.00

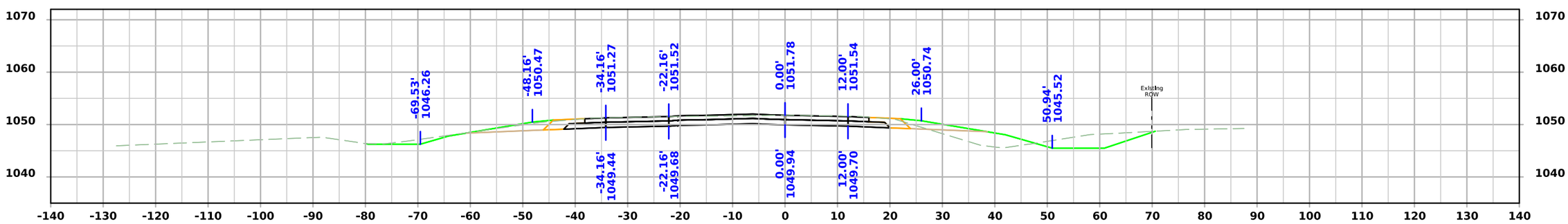
ML - US059



STA 588+25.00



STA 588+00.00

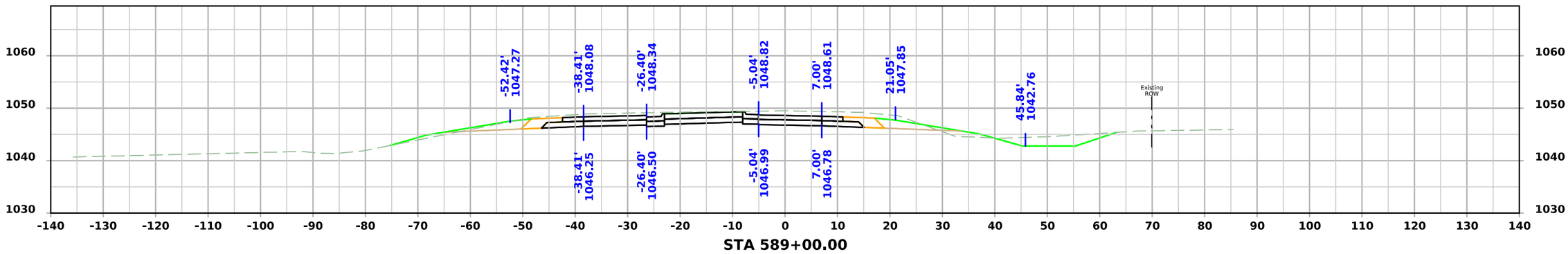


STA 587+75.00

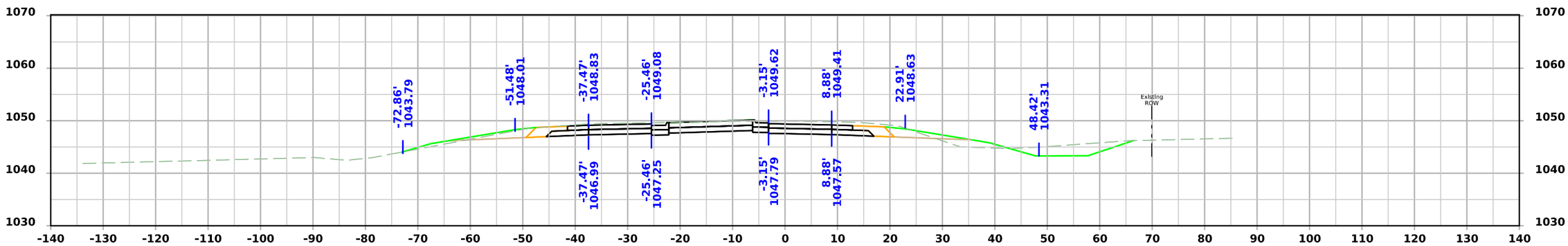
FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER W.3

2:21:45 PM 9/23/2025 adewolf pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7305901025\Design\CADD\Cross Sections\XS_73059037_ML059.dgn

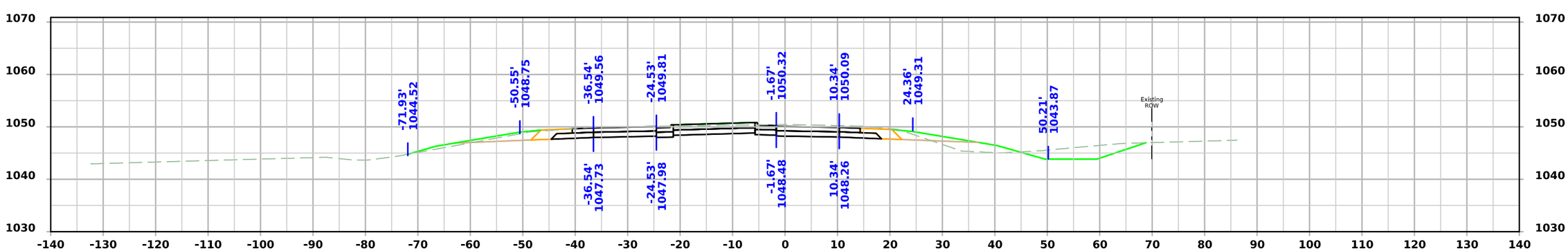
ML - US059



STA 589+00.00



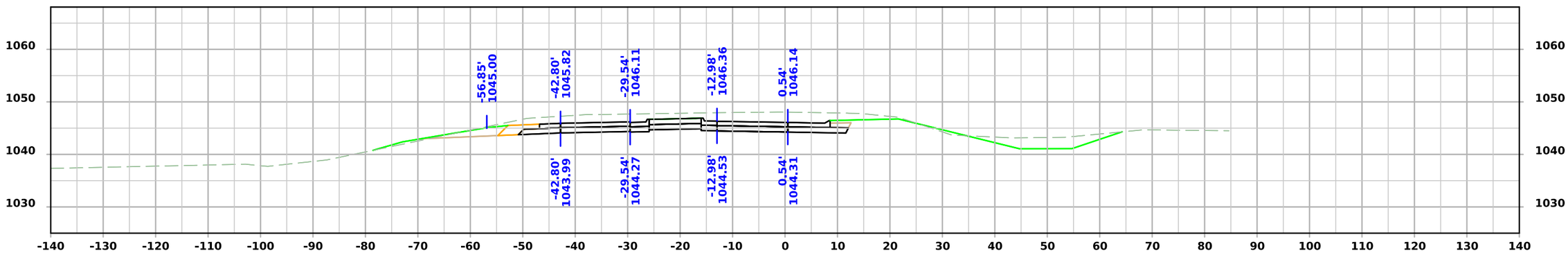
STA 588+75.00



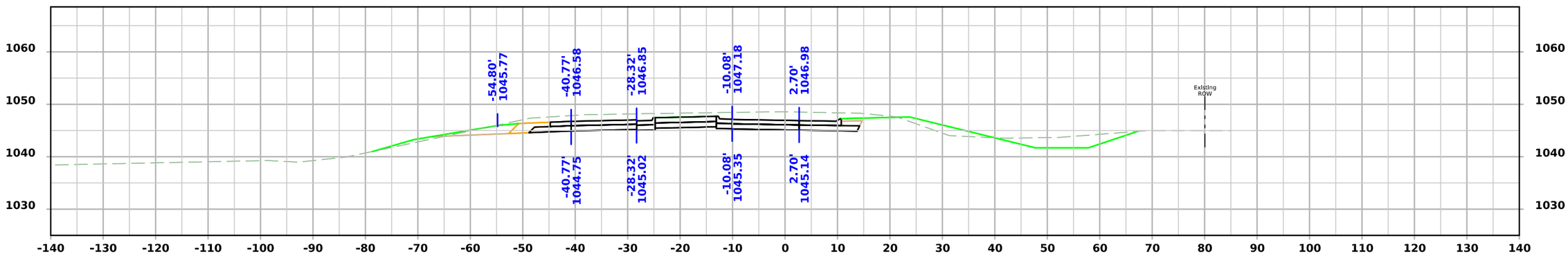
STA 588+50.00

FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER W.4

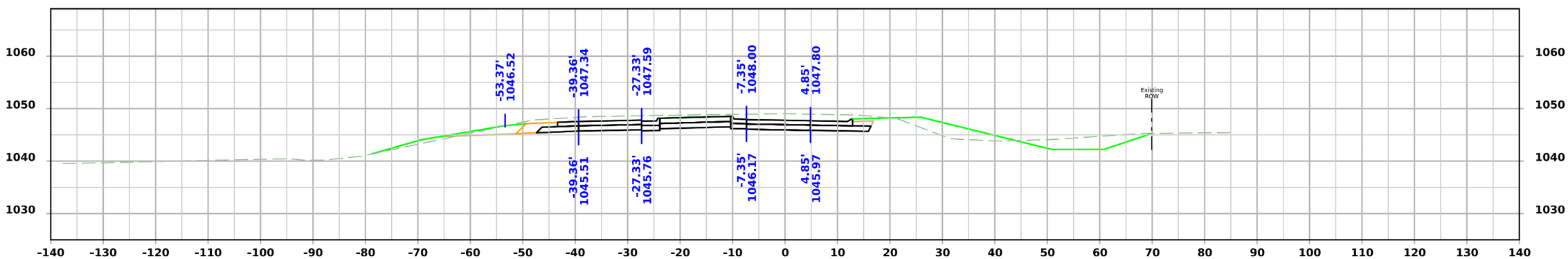
ML - US059



STA 589+75.00

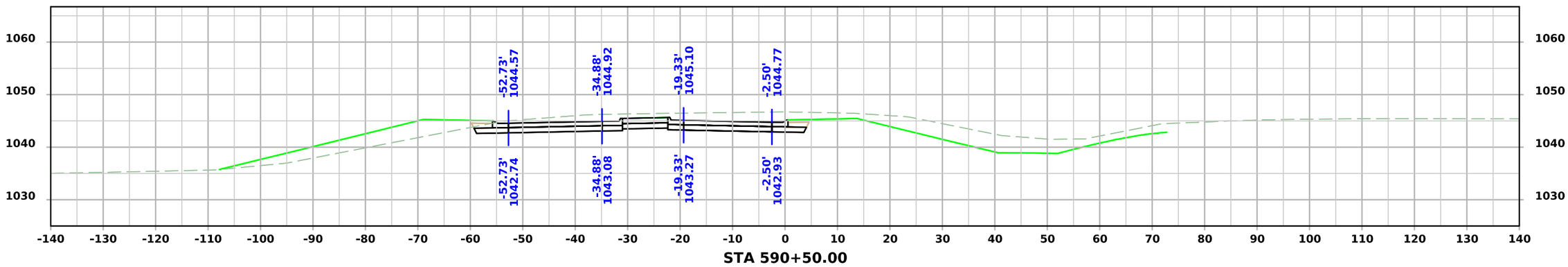


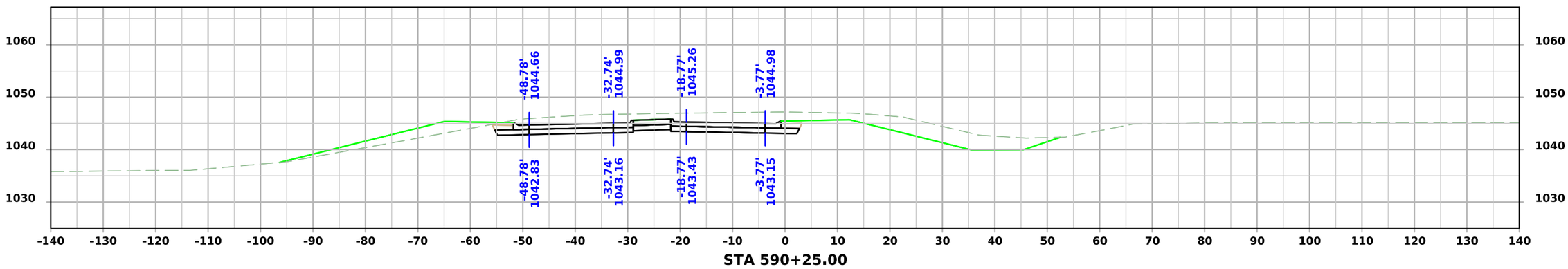
STA 589+50.00

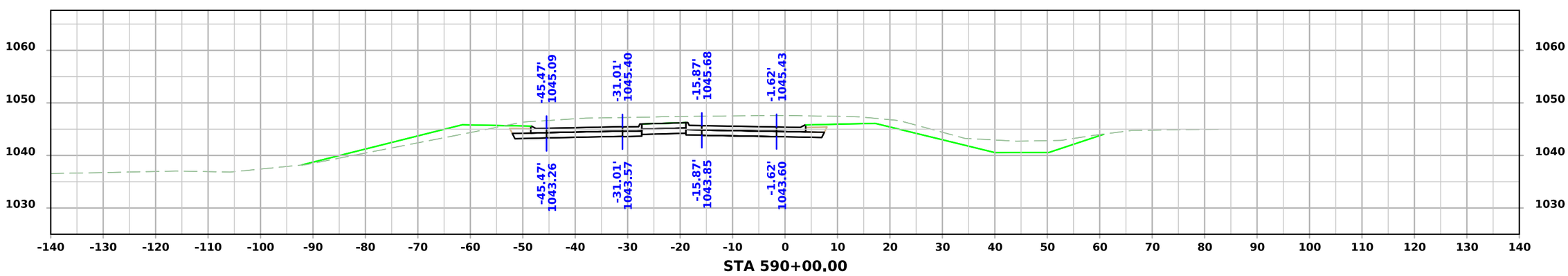


STA 589+25.00

ML - US059



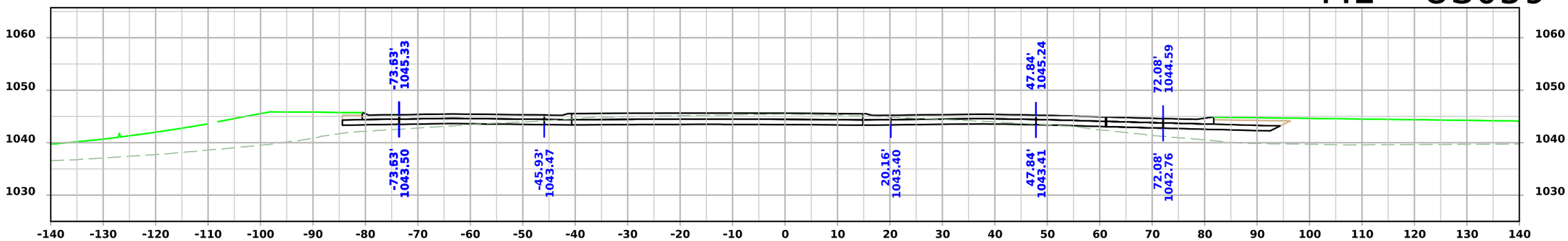




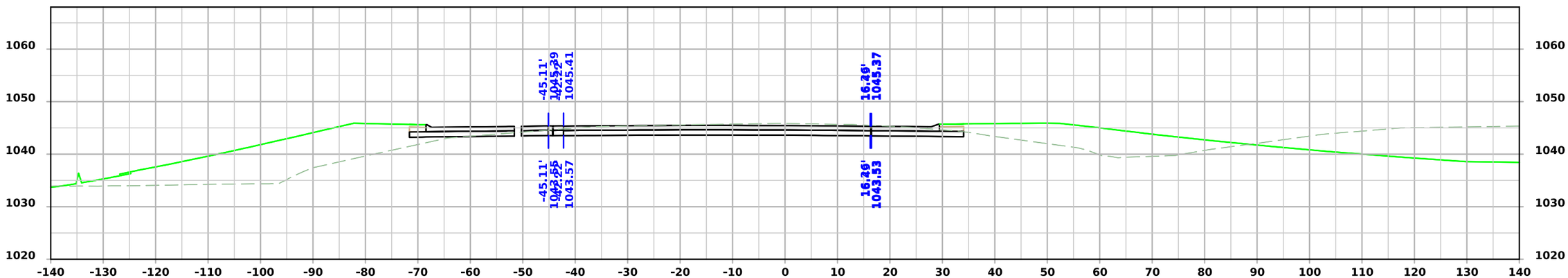
FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER W.6

2:21:48 PM 9/23/2025 adewolf pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7305901025\Design\CADD\Cross Sections\XS_73059037_ML059.dgn

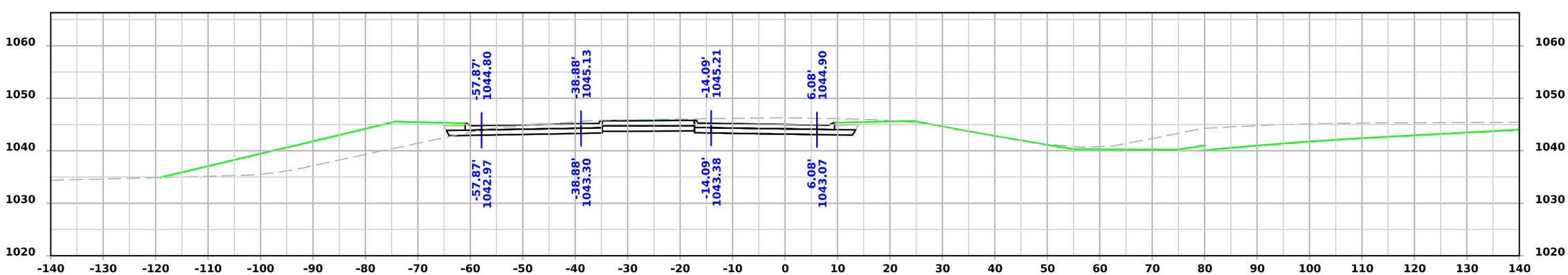
ML - US059



STA 591+25.00



STA 591+00.00

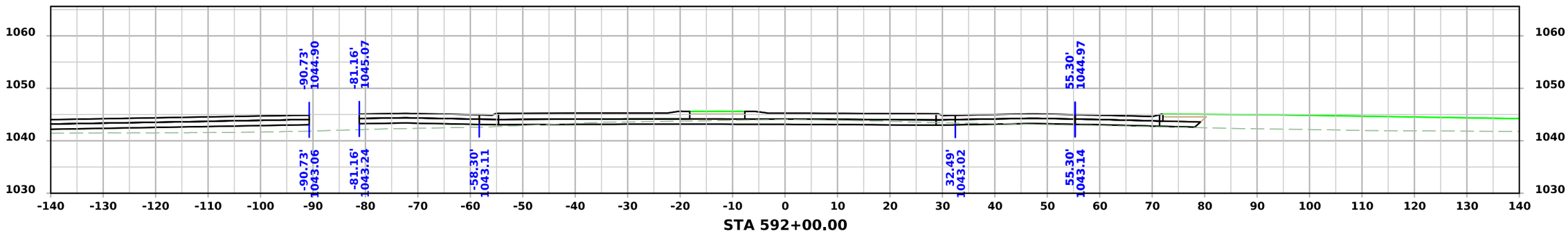


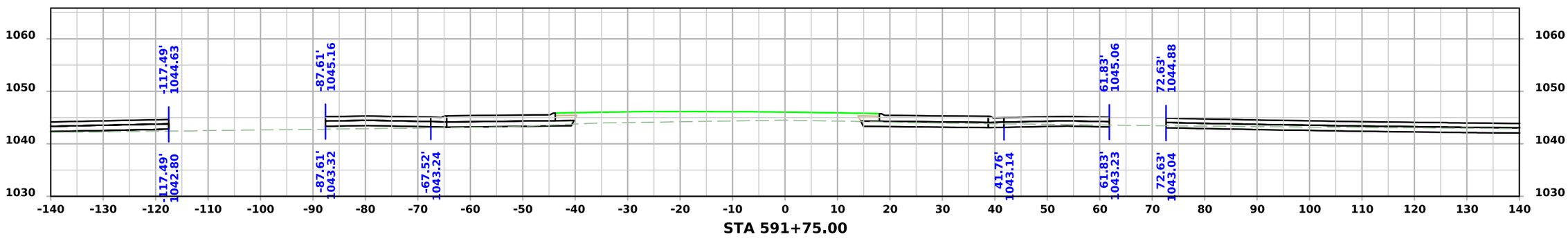
STA 590+75.00

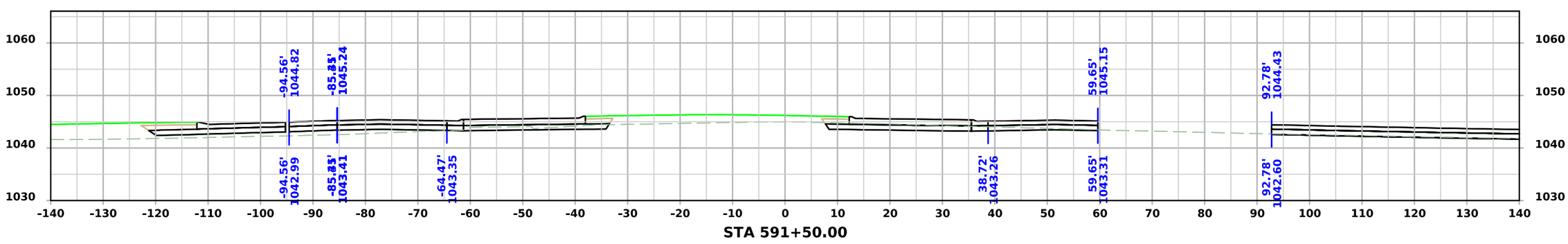
FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER W.7

2:21:50 PM 9/23/2025 adewolf pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7305901025\Design\CADD\Cross Sections\XS_73059037_ML059.dgn

ML - US059



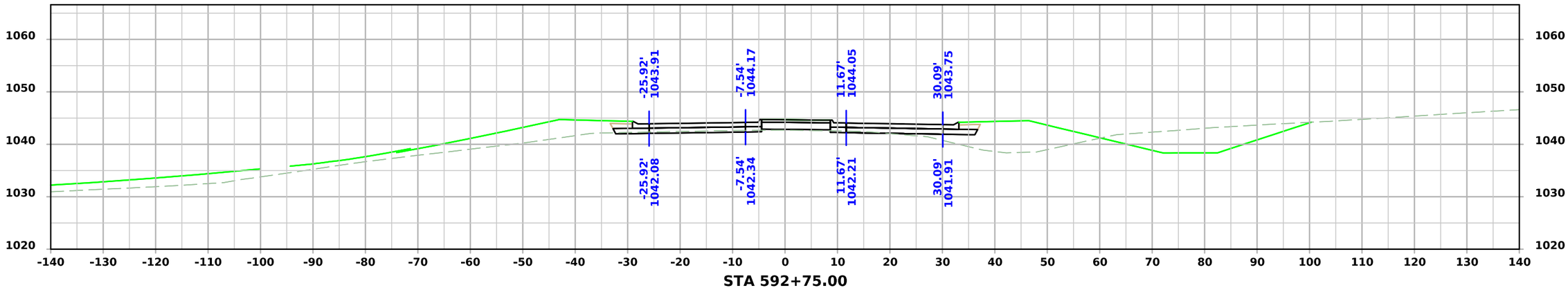




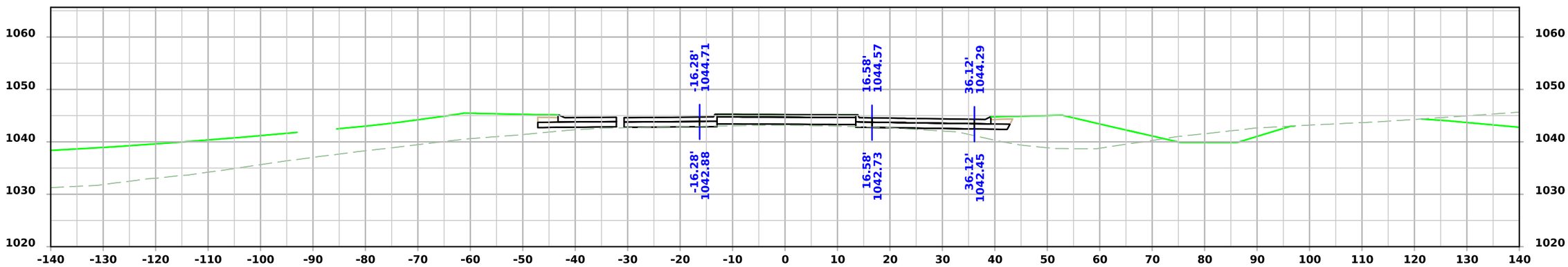
FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER W.8

2:21:51 PM 9/23/2025 adewolf pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7305901025\Design\CADD\Cross Sections\XS_73059037_ML059.dgn

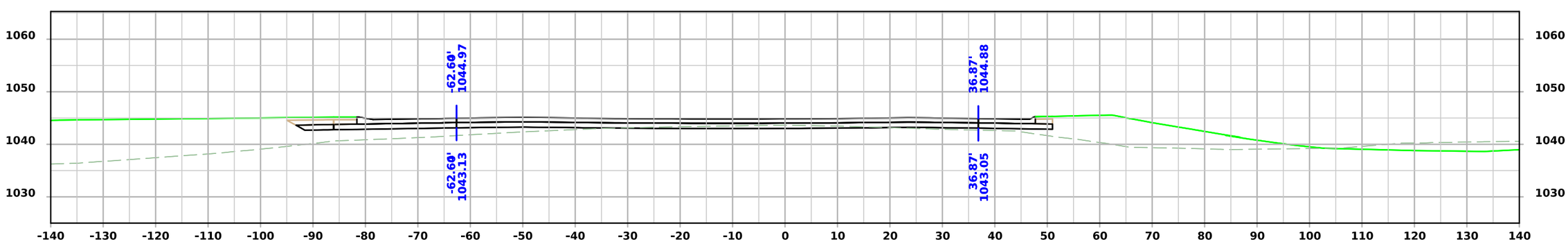
ML - US059



STA 592+75.00



STA 592+50.00

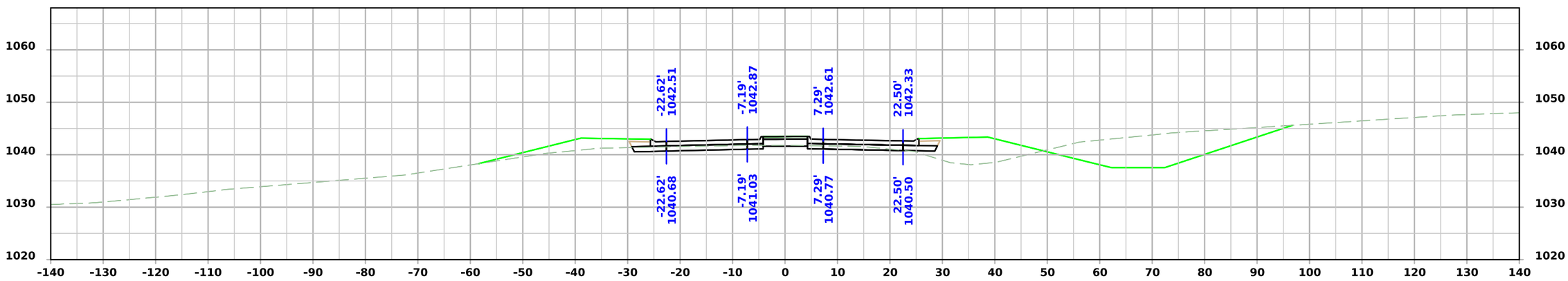


STA 592+25.00

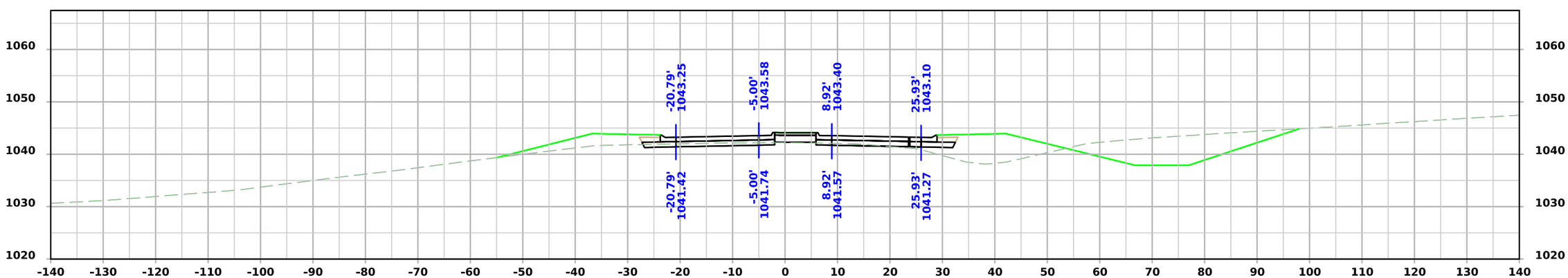
FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER W.9

2:21:52 PM 9/23/2025 adewolf pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7305901025\Design\CADD\Cross Sections\XS_73059037_ML059.dgn

ML - US059



STA 593+25.00

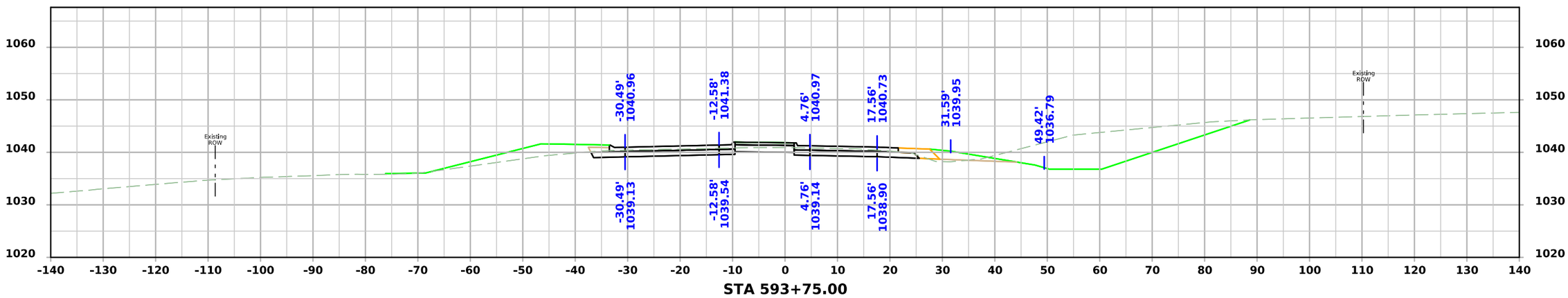


STA 593+00.00

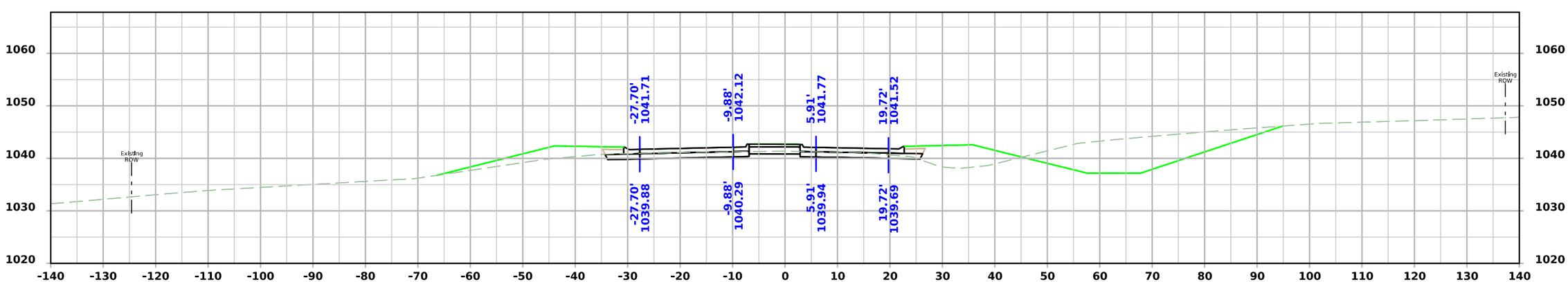
FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER W.10

2:21:53 PM 9/23/2025 adewolf pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7305901025\Design\CADD\Cross Sections\XS_73059037_ML059.dgn

ML - US059



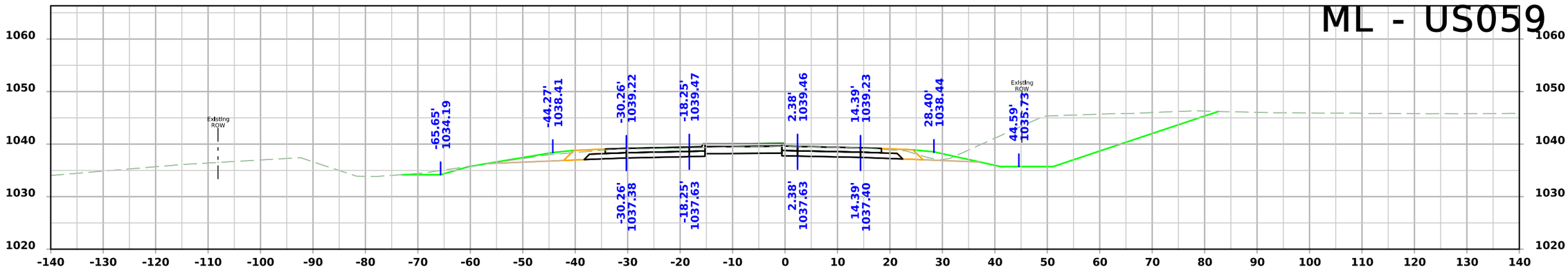
STA 593+75.00



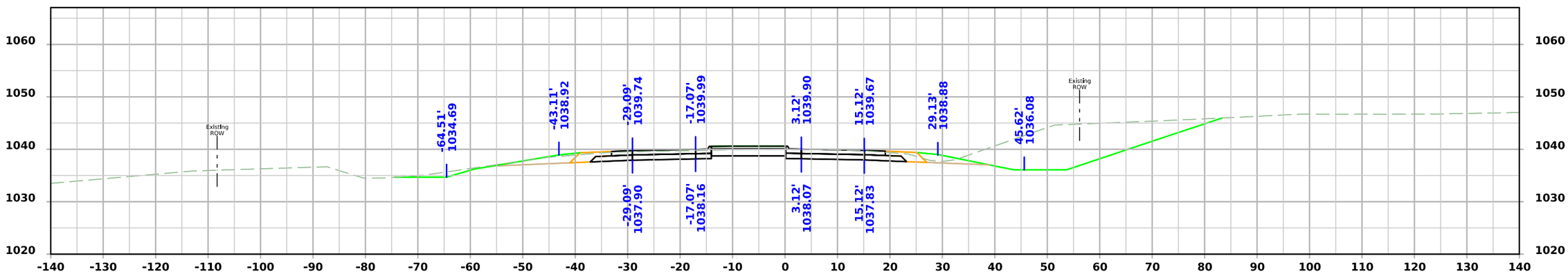
STA 593+50.00

FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER W.11

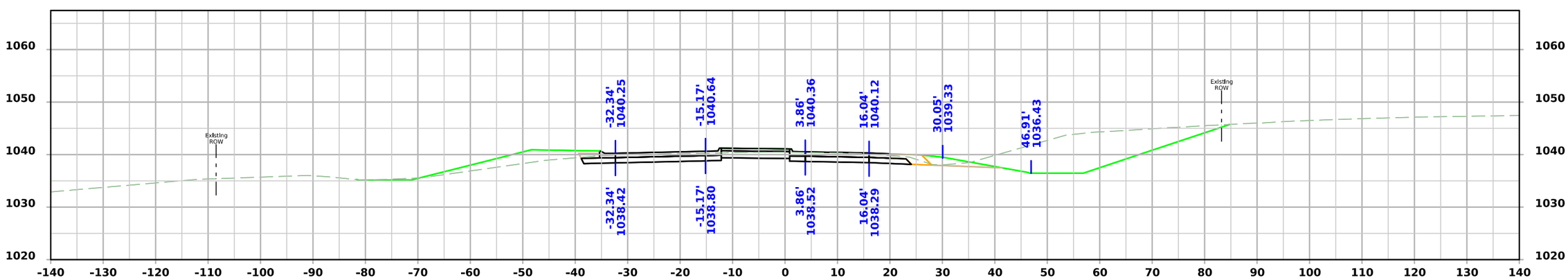
ML - US059



STA 594+50.00



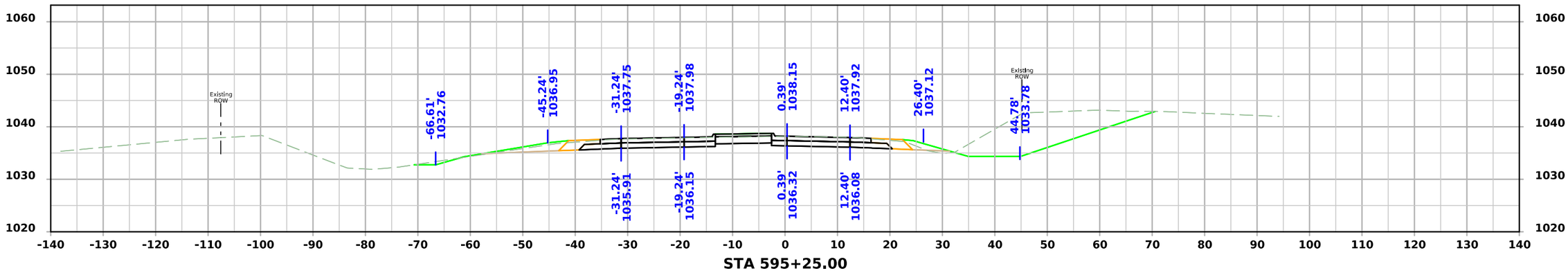
STA 594+25.00



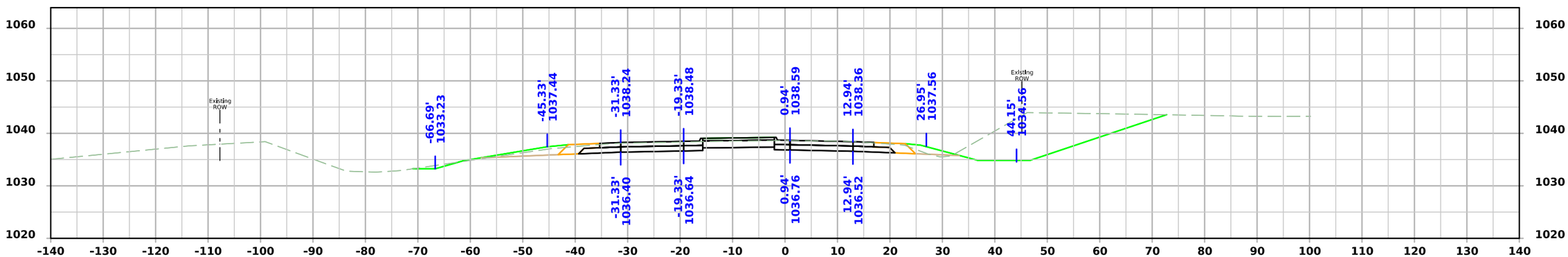
STA 594+00.00

FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER W.12

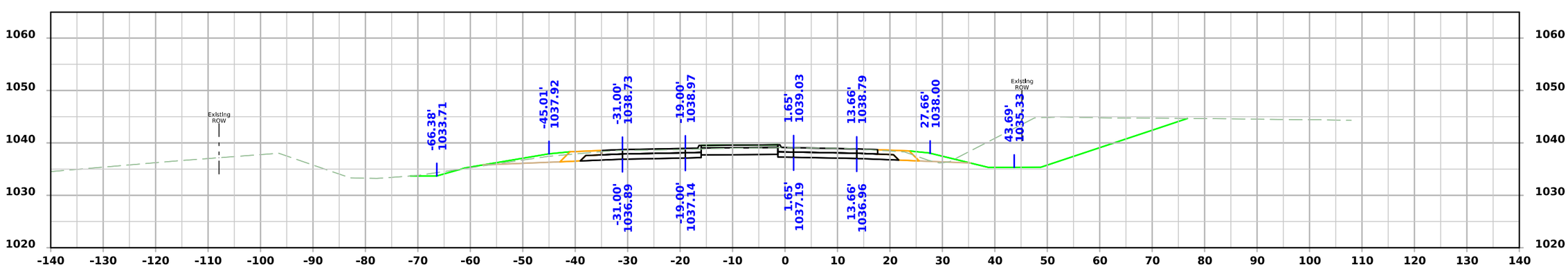
ML - US059



STA 595+25.00



STA 595+00.00

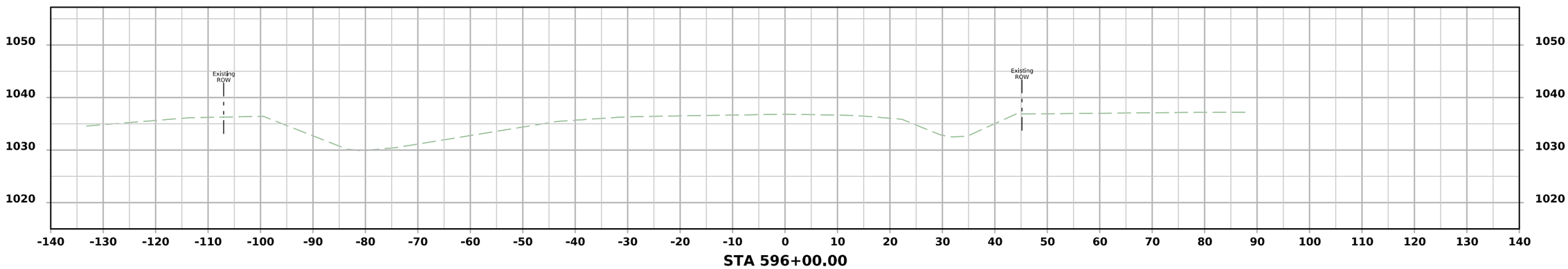


STA 594+75.00

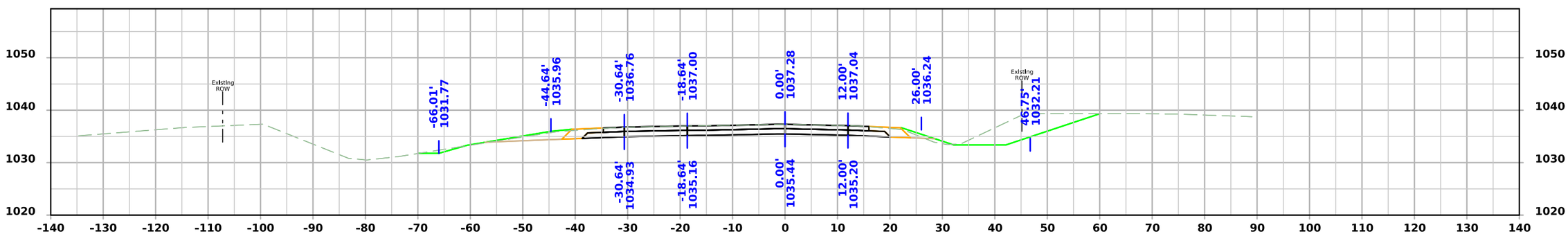
FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER W.13

2:21:56 PM 9/23/2025 adewolf pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7305901025\Design\CADD\Cross Sections\XS_73059037_ML059.dgn

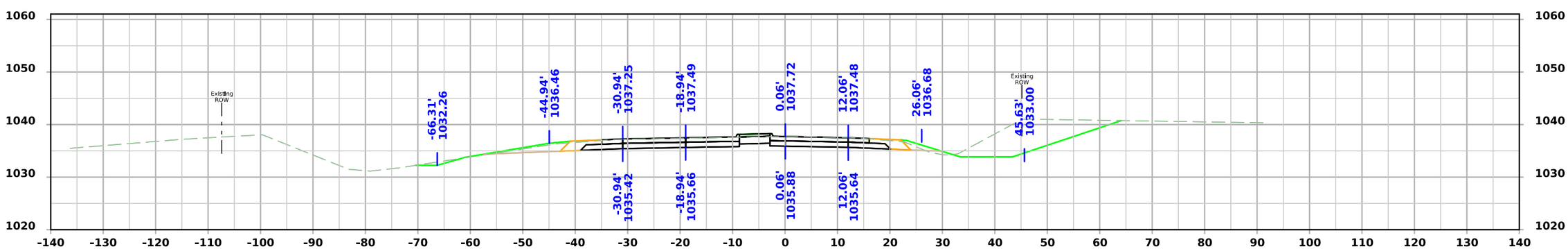
ML - US059



STA 596+00.00



STA 595+75.00

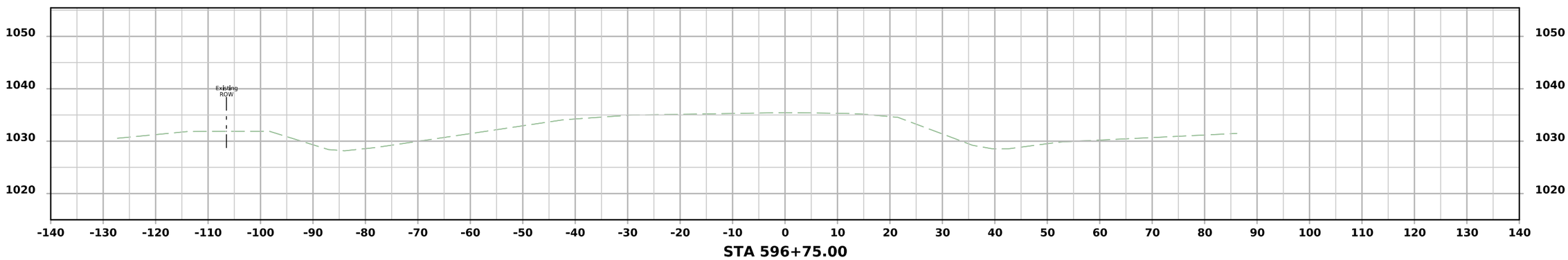


STA 595+50.00

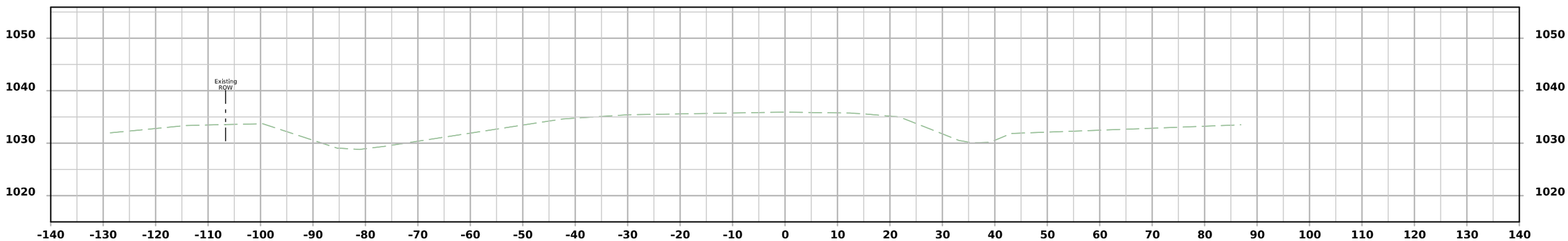
FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER W.14

2:21:57 PM 9/23/2025 adewolf pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7305901025\Design\CADD\Cross Sections\XS_73059037_ML059.dgn

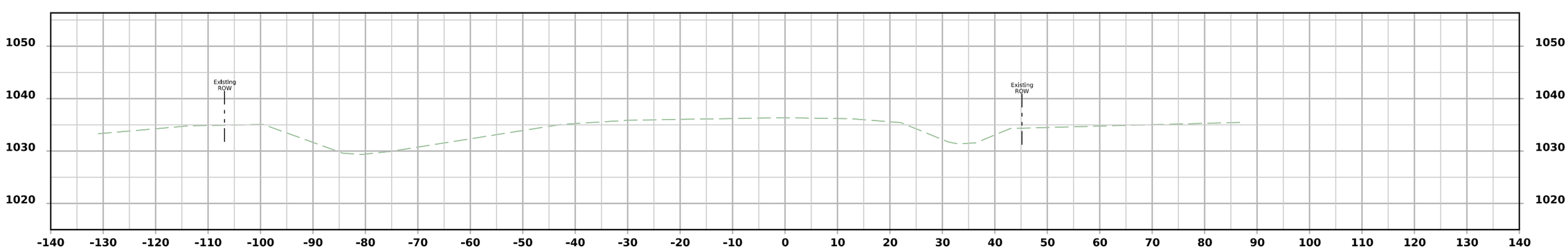
ML - US059



STA 596+75.00

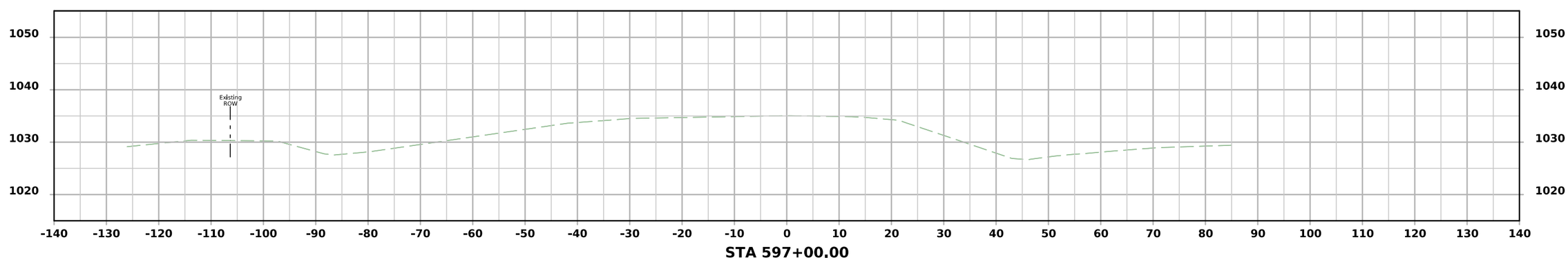


STA 596+50.00



STA 596+25.00

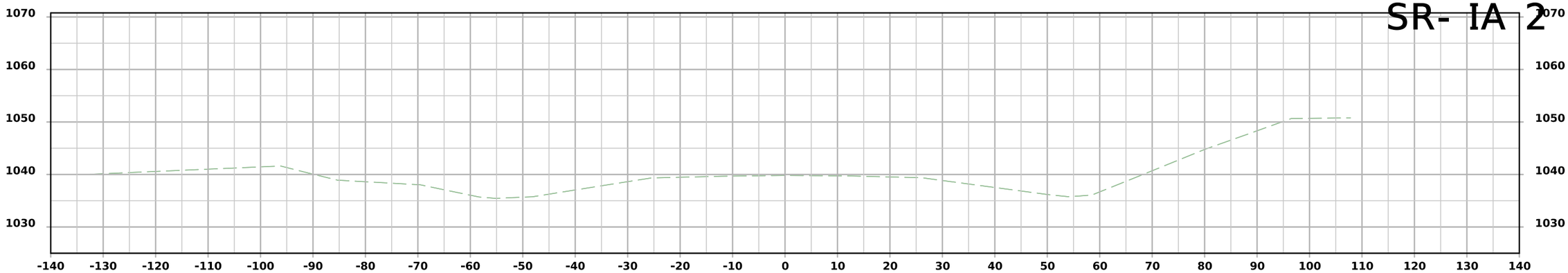
ML - US059



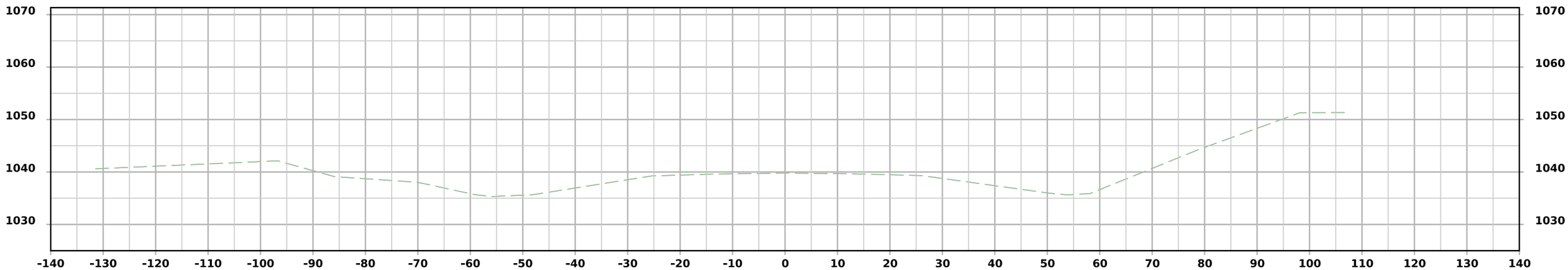
FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER W.16

2:21:58 PM 9/23/2025 adewolf pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7305901025\Design\CADD\Cross Sections\XS_73059037_ML059.dgn

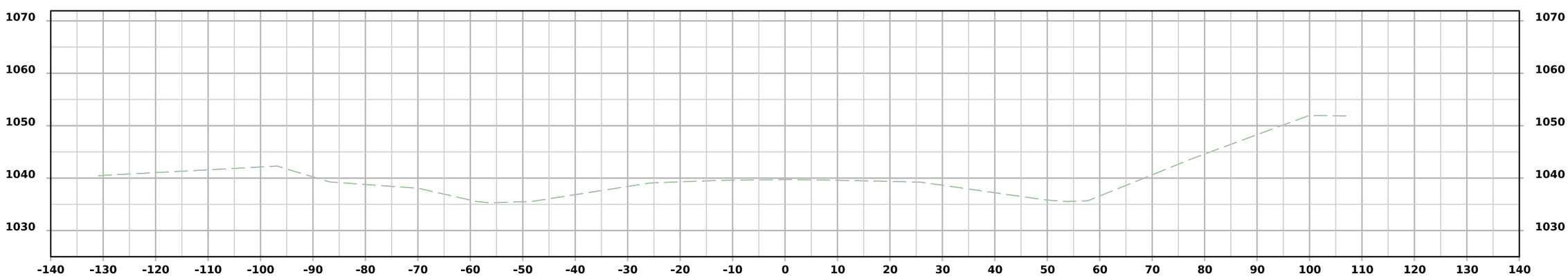
SR- IA 2



STA 1714+50.00



STA 1714+25.00

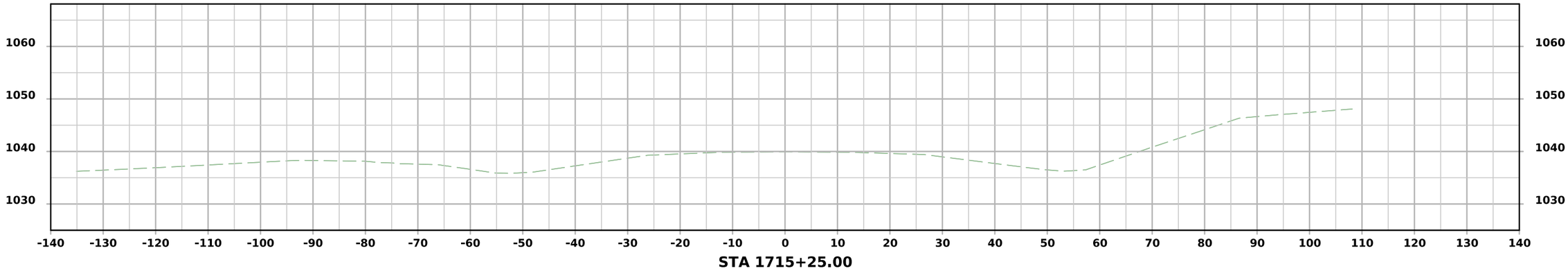


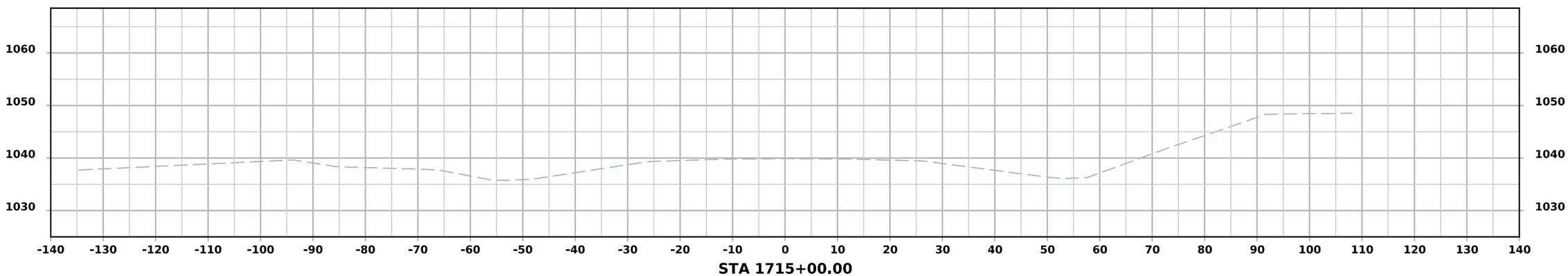
STA 1714+00.00

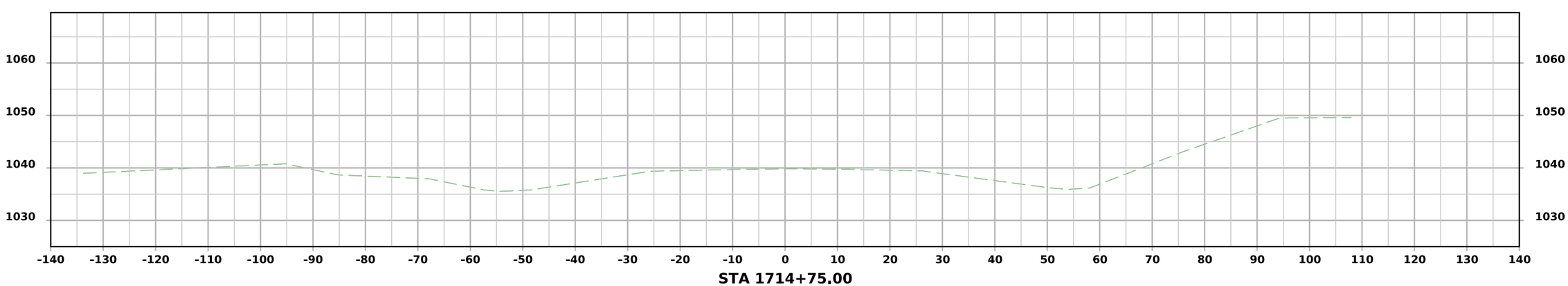
FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER X.1

3:20:29 PM 9/25/2025 adewolf pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7305901025\Design\CADD\Cross Sections\XS_73059037_SR002.dgn

SR- IA 2



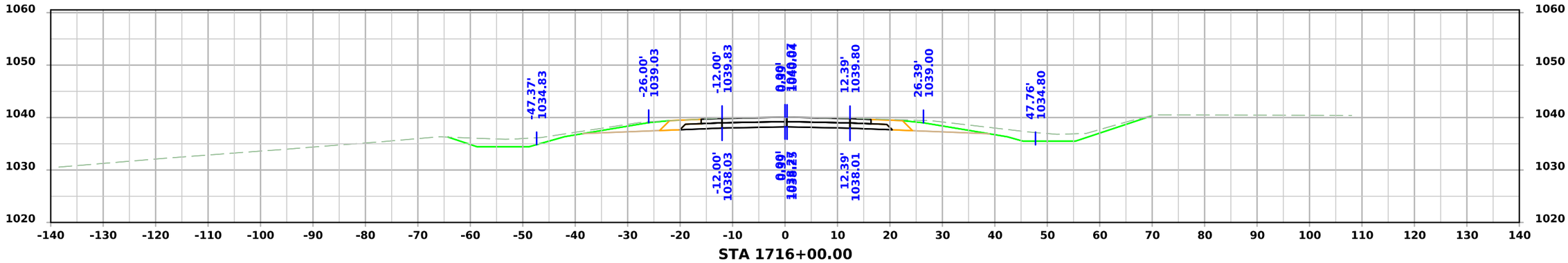


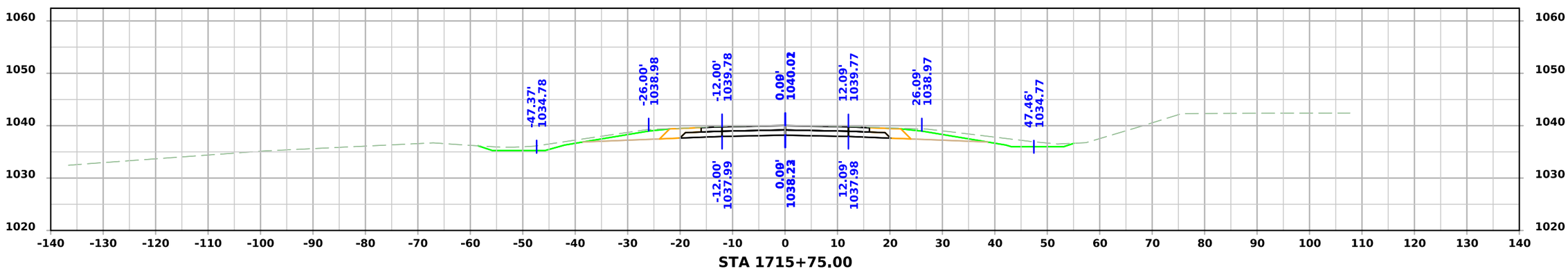


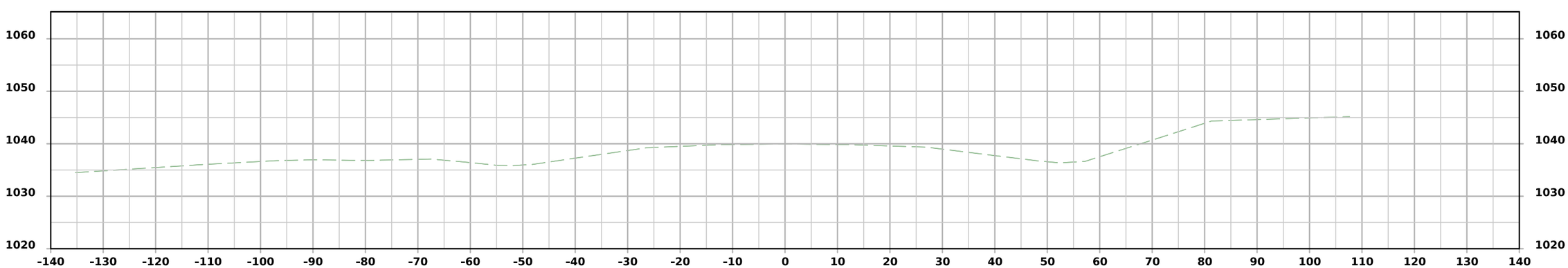
FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER X.2

3:20:30 PM 9/25/2025 adewolf pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7305901025\Design\CADD\Cross Sections\XS_73059037_SR002.dgn

SR- IA 2



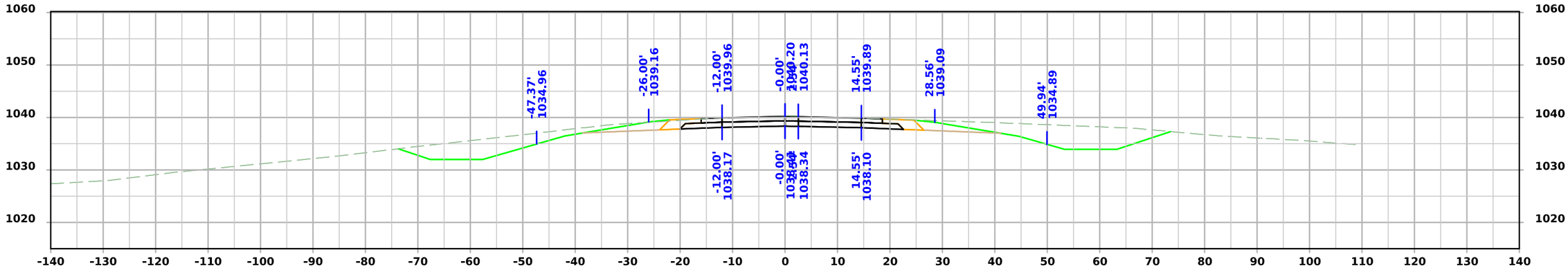




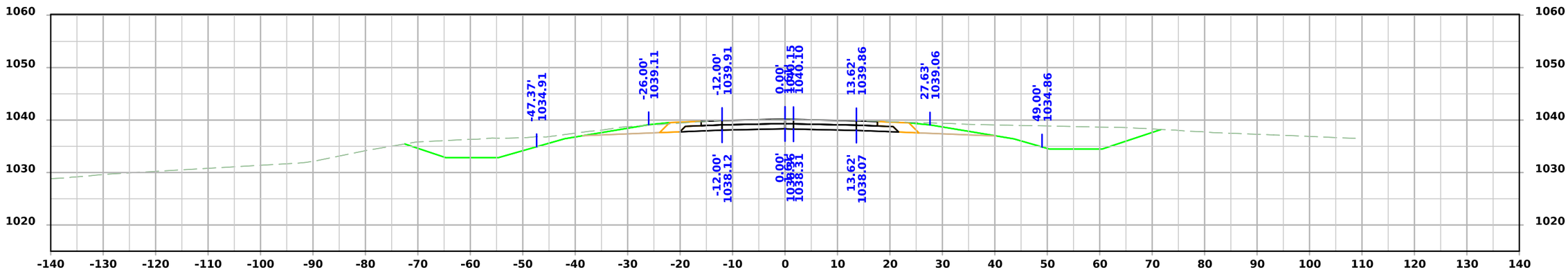
FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER X.3

3:20:31 PM 9/25/2025 adewolf pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7305901025\Design\CADD\Cross Sections\XS_73059037_SR002.dgn

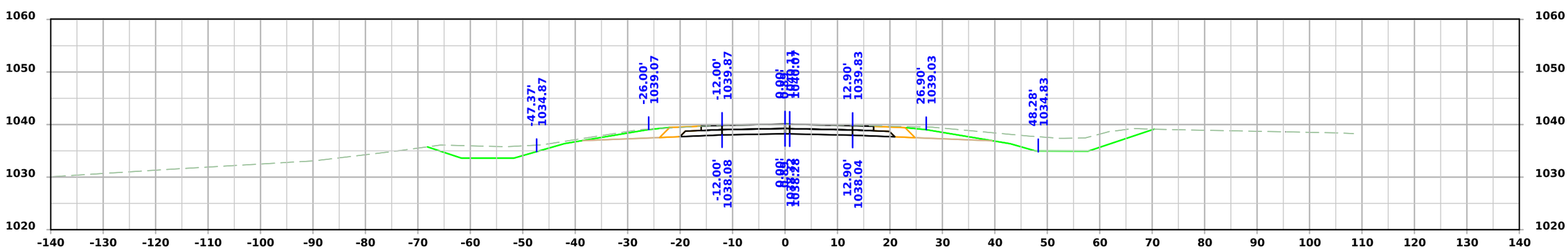
SR- IA 2



STA 1716+75.00



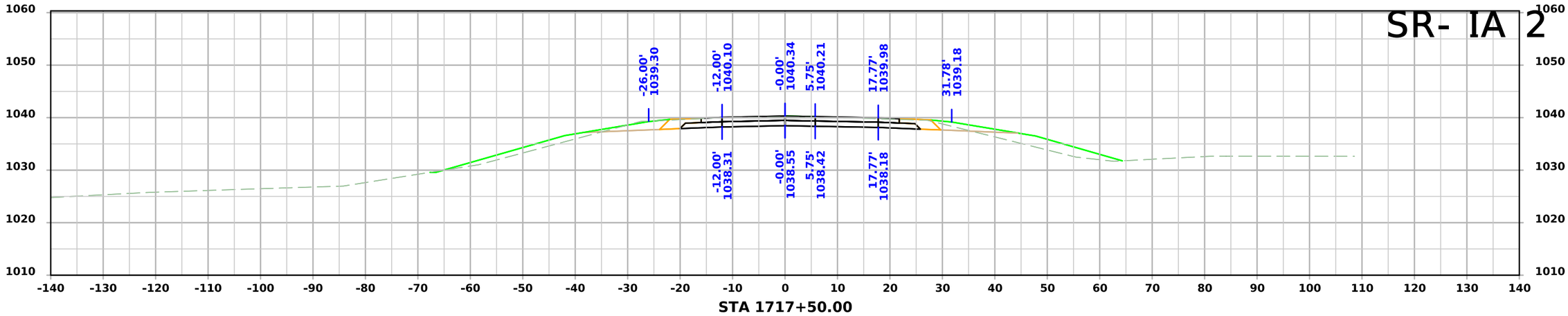
STA 1716+50.00

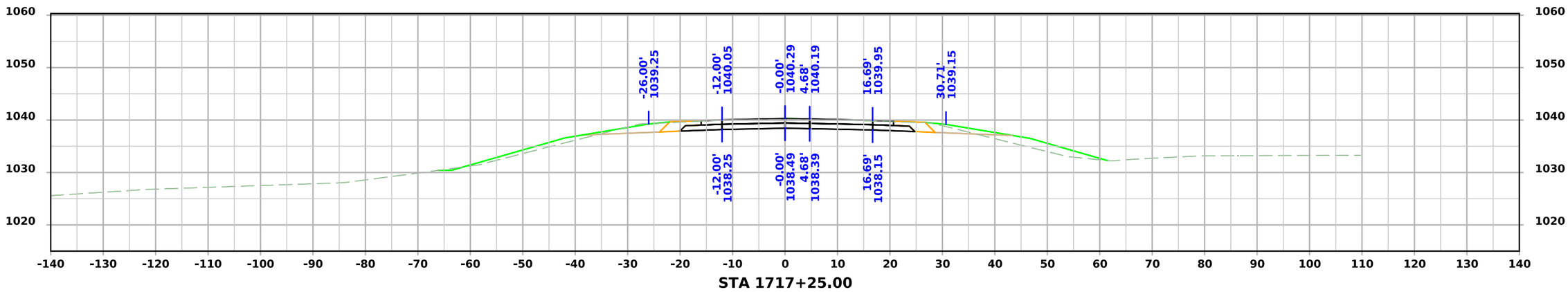


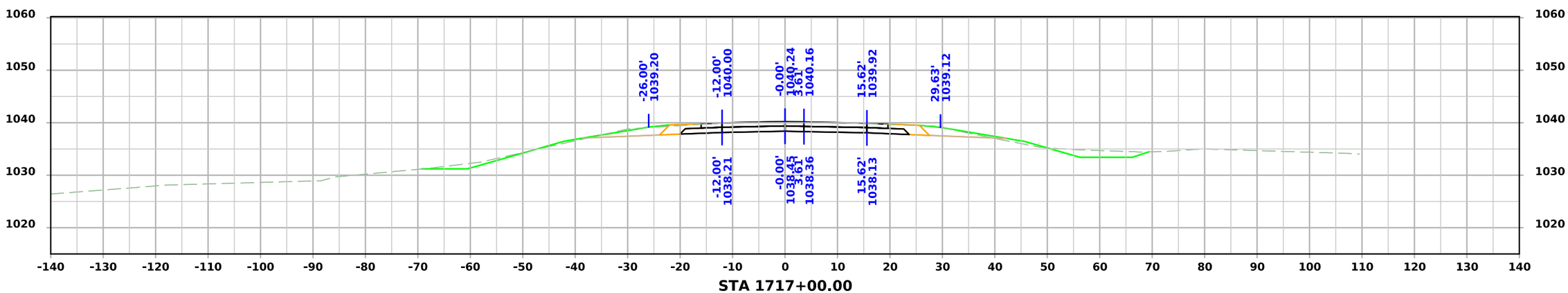
STA 1716+25.00

FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER X.4

3:20:32 PM 9/25/2025 adewolf pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7305901025\Design\CADD\Cross Sections\XS_73059037_SR002.dgn



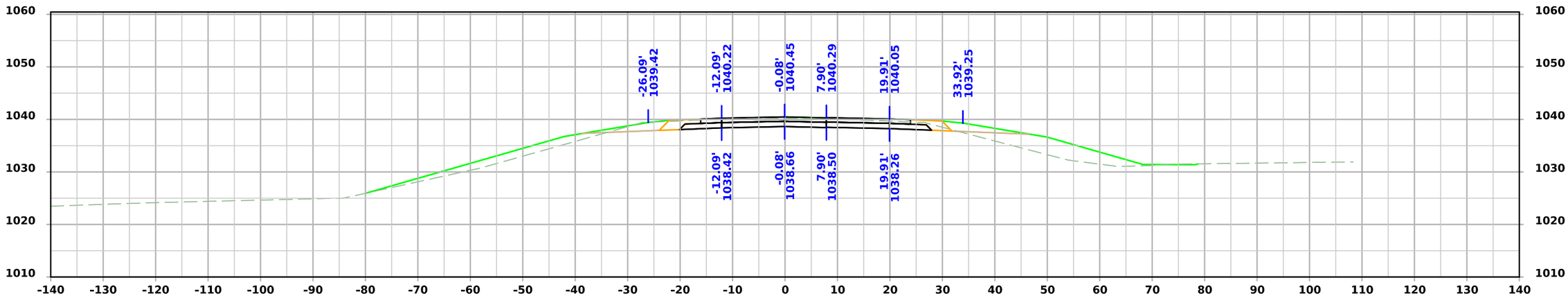




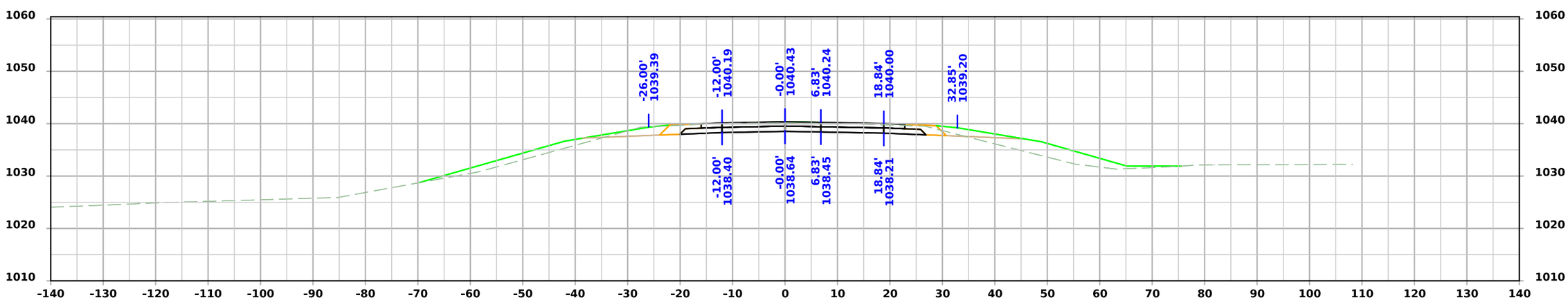
FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER X.5

3:20:33 PM 9/25/2025 adewolf pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7305901025\Design\CADD\Cross Sections\XS_73059037_SR002.dgn

SR- IA 2



STA 1718+00.00

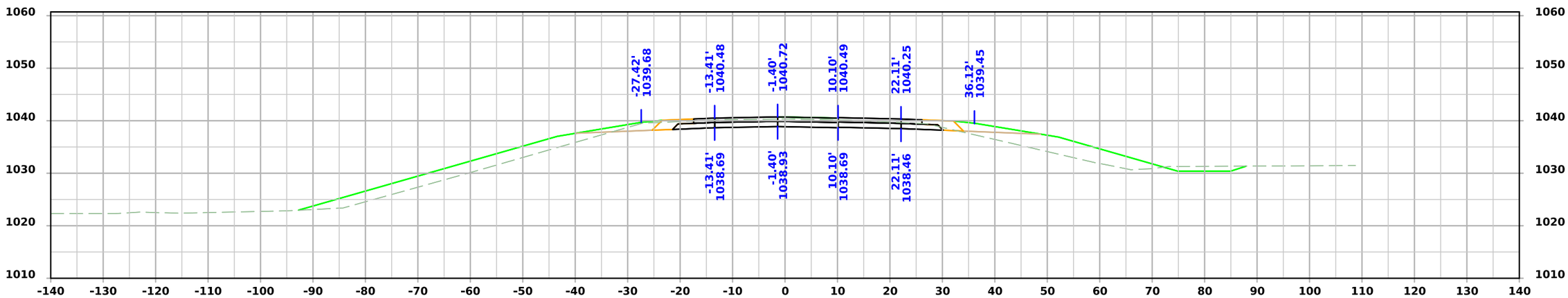


STA 1717+75.00

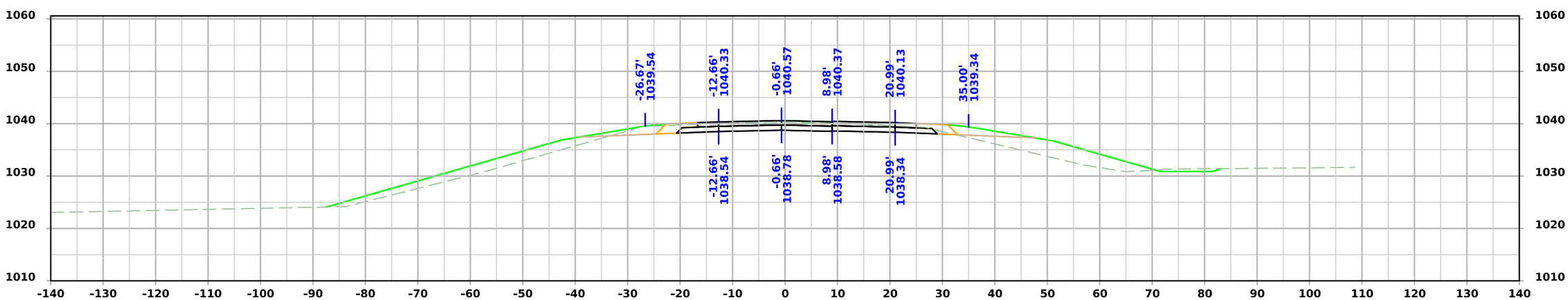
FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER X.6

3:20:34 PM 9/25/2025 adewolf pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7305901025\Design\CADD\Cross Sections\XS_73059037_SR002.dgn

SR- IA 2

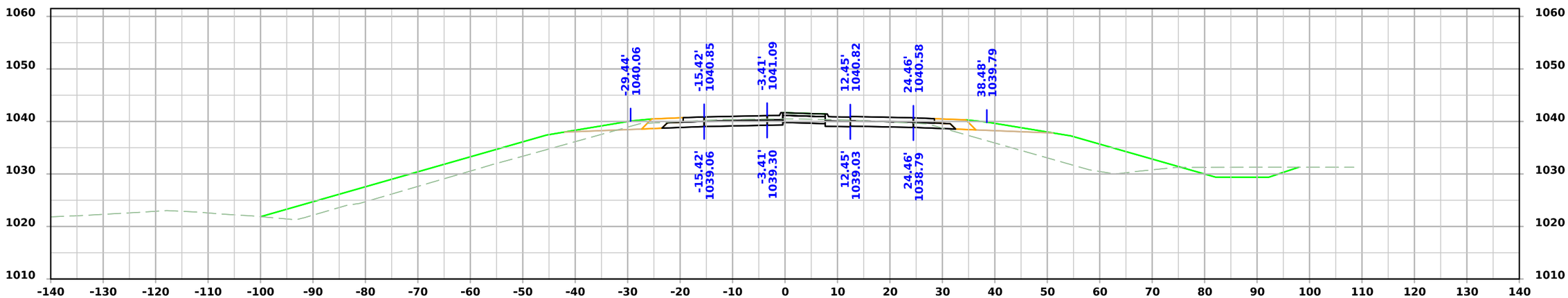


STA 1718+50.00

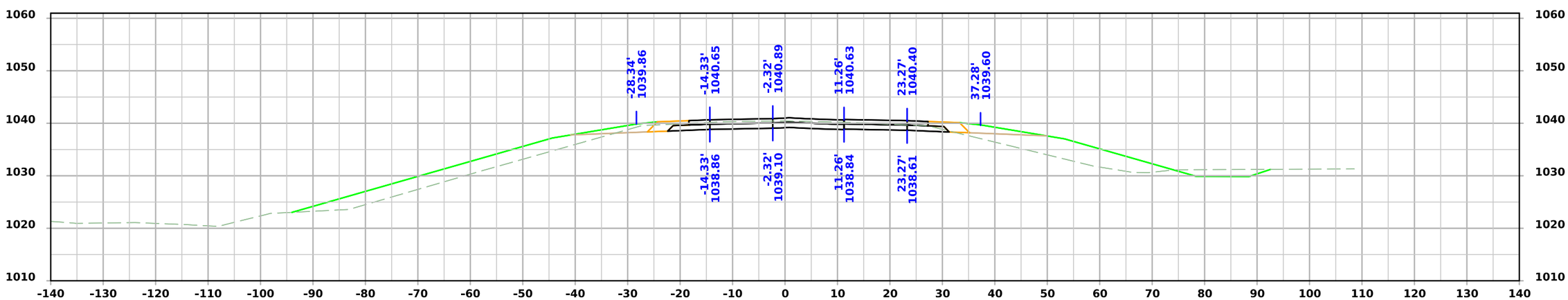


STA 1718+25.00

SR- IA 2



STA 1719+00.00

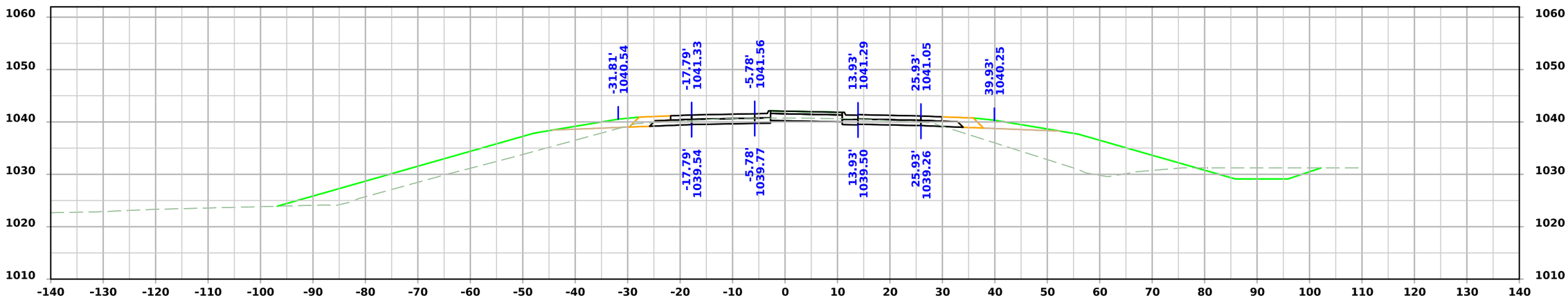


STA 1718+75.00

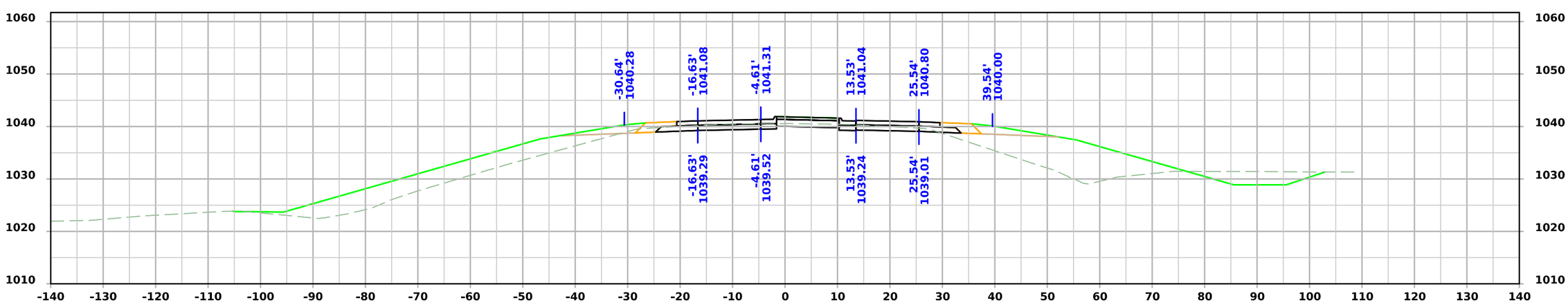
FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER X.8

3:20:36 PM 9/25/2025 adewolf pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7305901025\Design\CADD\Cross Sections\XS_73059037_SR002.dgn

SR- IA 2



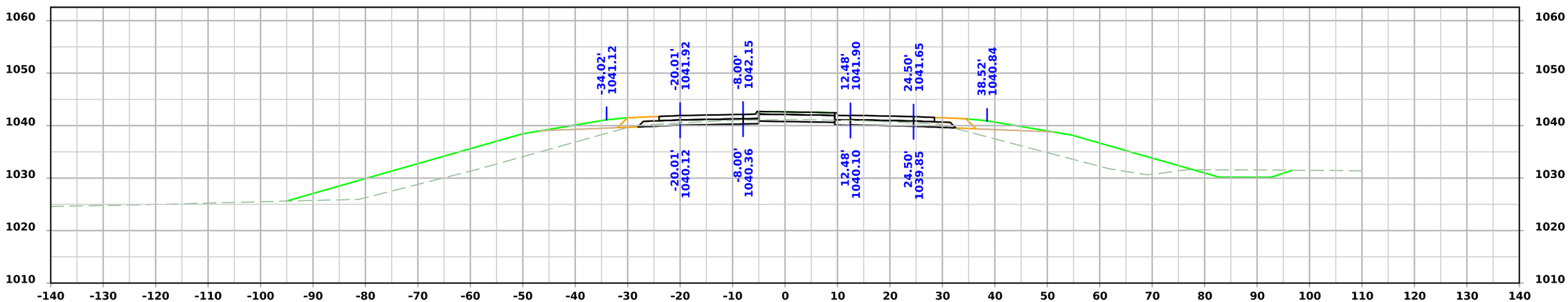
STA 1719+50.00



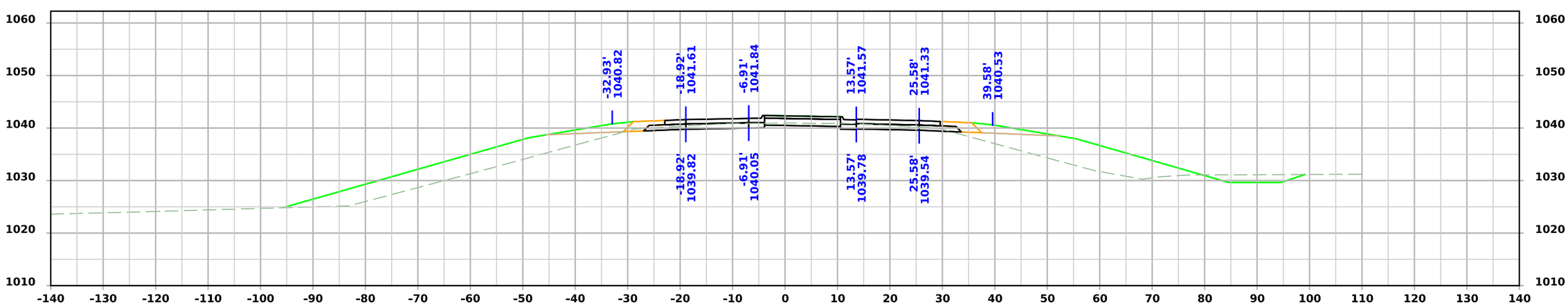
STA 1719+25.00

FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER X.9

SR- IA 2

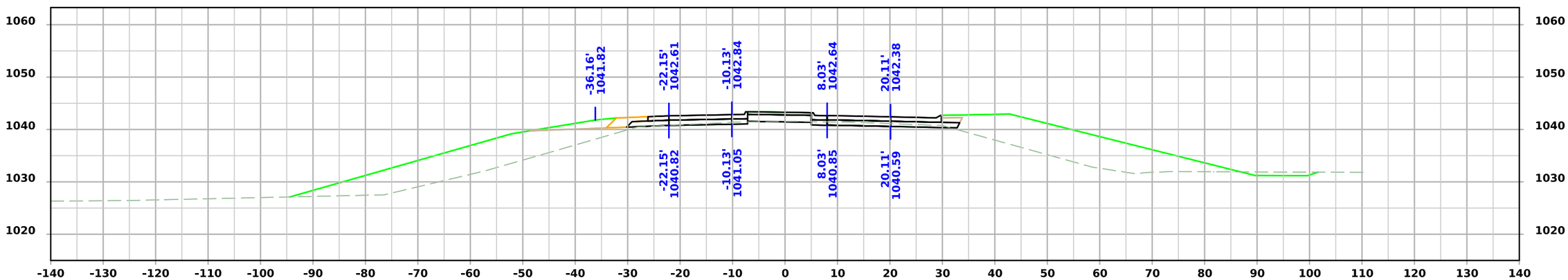


STA 1720+00.00

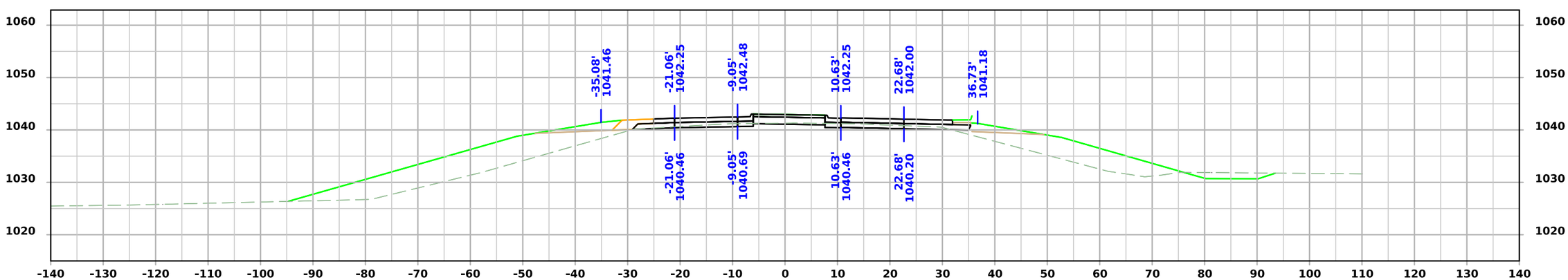


STA 1719+75.00

SR- IA 2



STA 1720+50.00

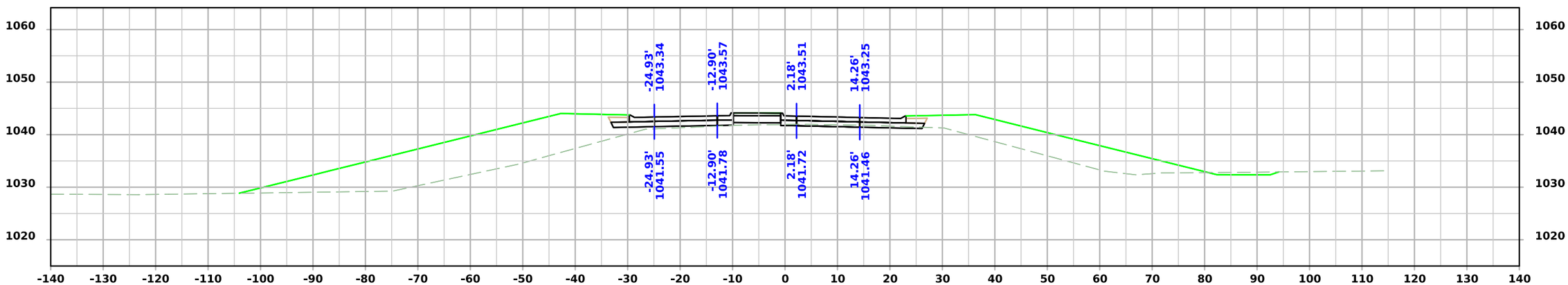


STA 1720+25.00

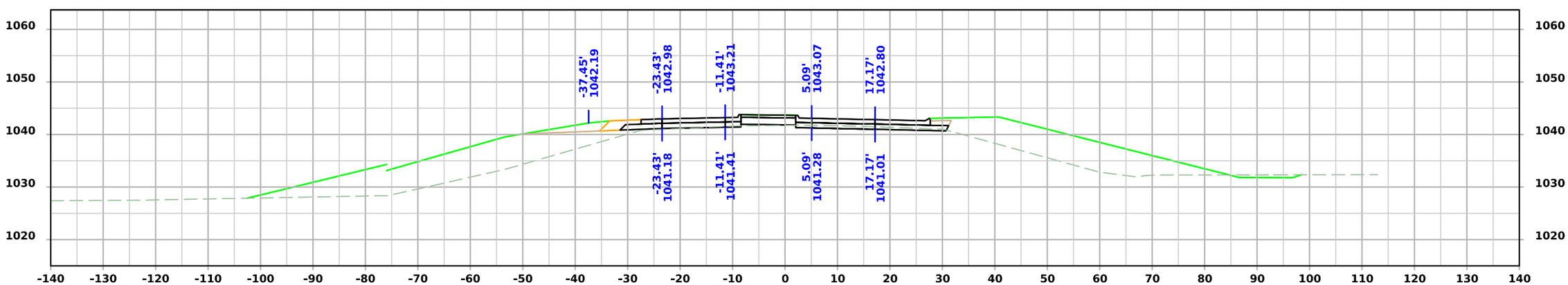
FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER X.11

3:20:38 PM 9/25/2025 adewolf pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7305901025\Design\CADD\Cross Sections\XS_73059037_SR002.dgn

SR- IA 2



STA 1721+00.00

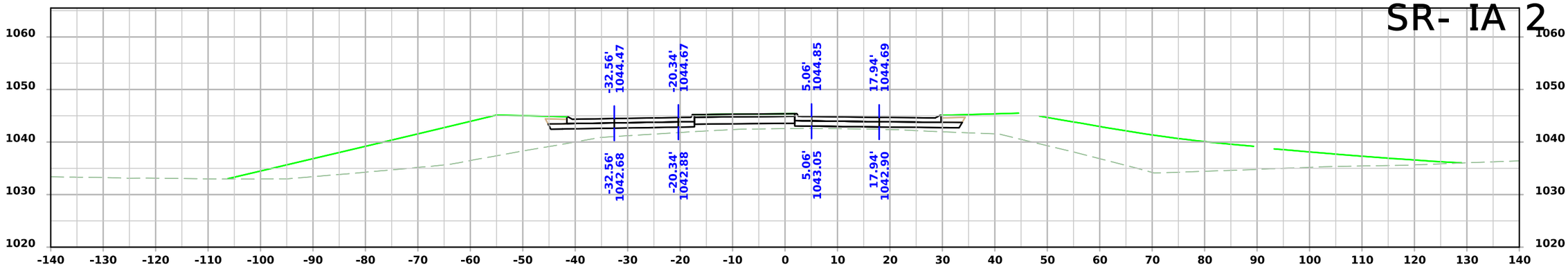


STA 1720+75.00

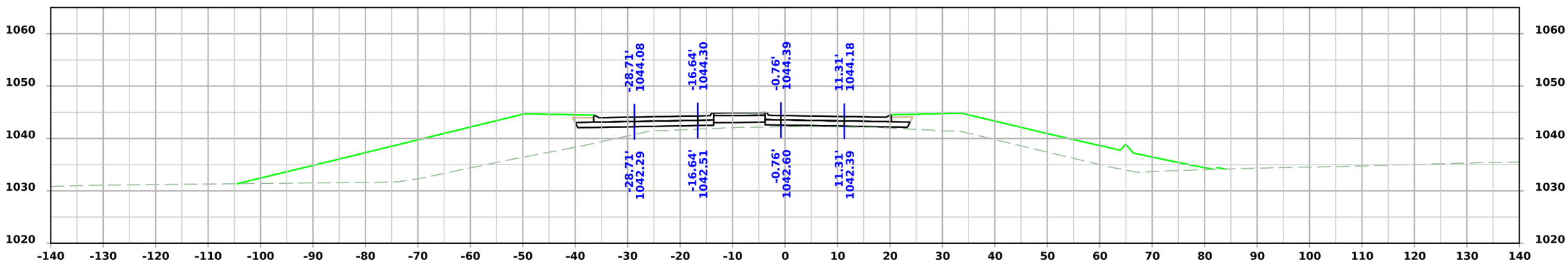
FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER X.12

3:20:39 PM 9/25/2025 adewolf pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7305901025\Design\CADD\Cross Sections\XS_73059037_SR002.dgn

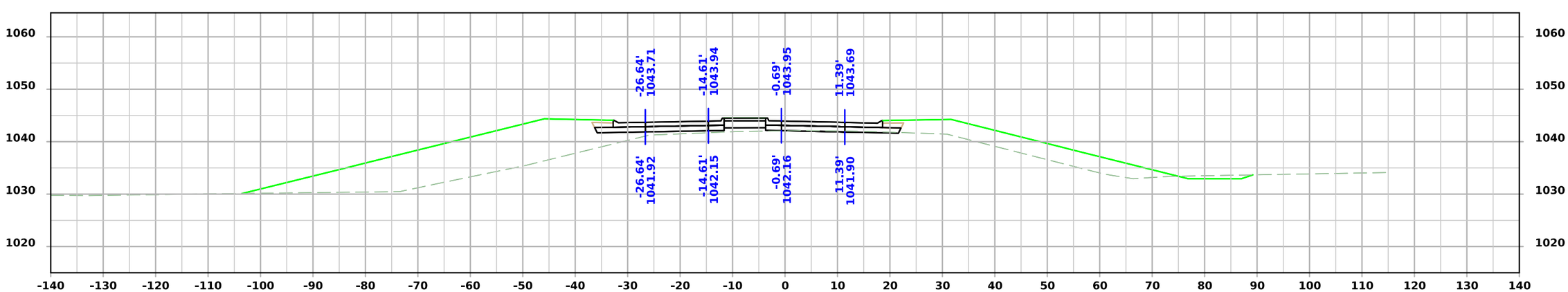
SR- IA 2



STA 1721+75.00



STA 1721+50.00

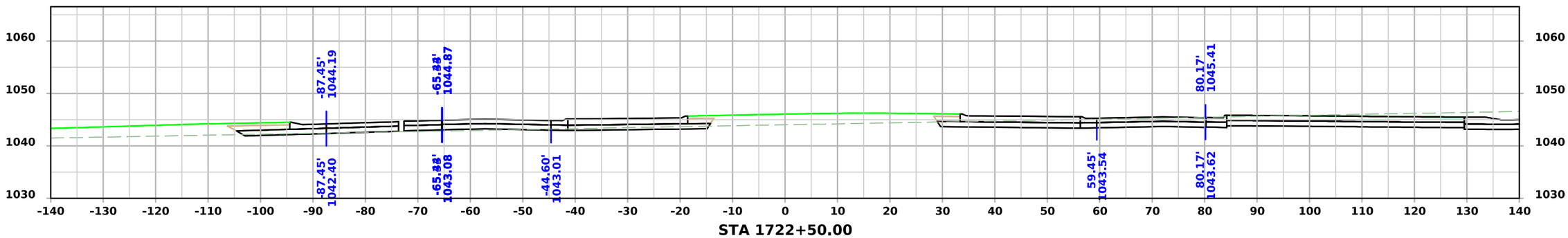


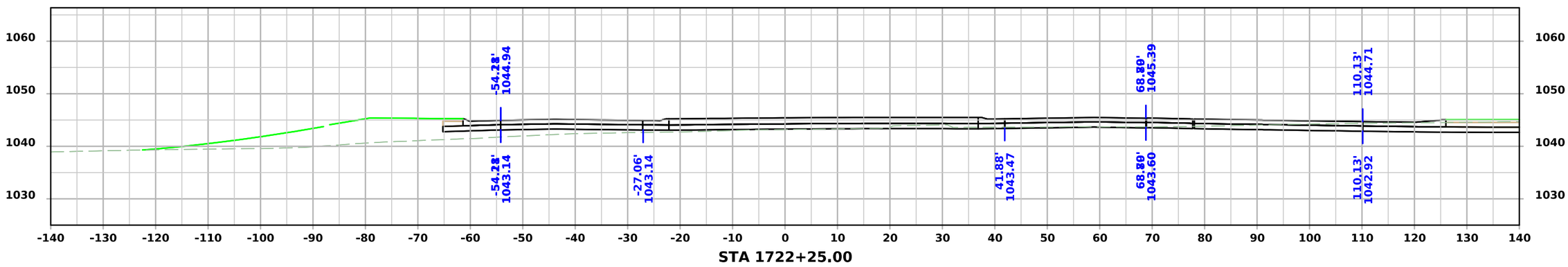
STA 1721+25.00

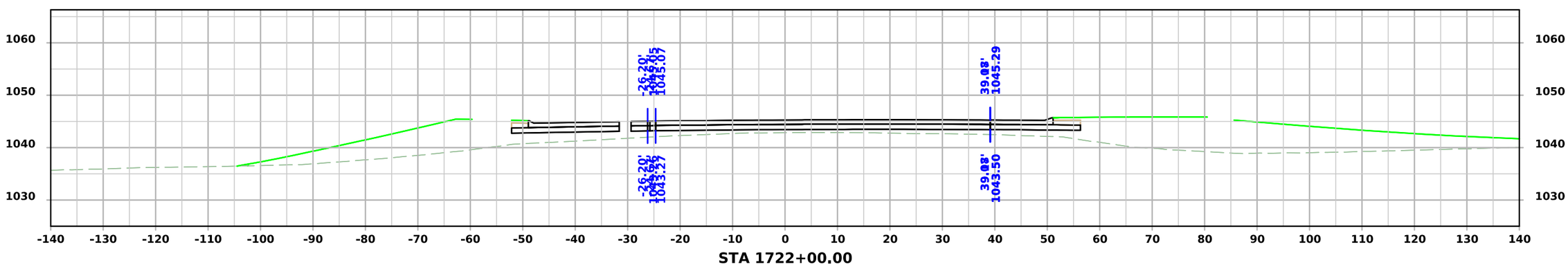
FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER X.13

3:20:40 PM 9/25/2025 adewolf pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7305901025\Design\CADD\Cross Sections\XS_73059037_SR002.dgn

SR- IA 2



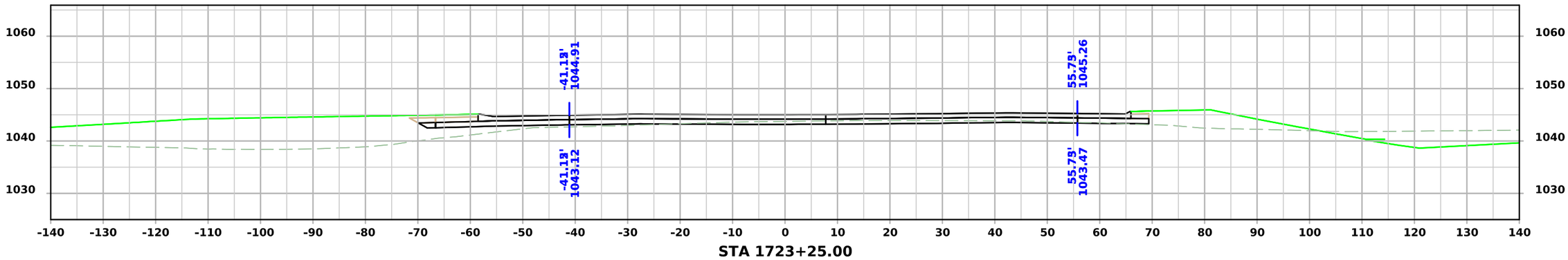




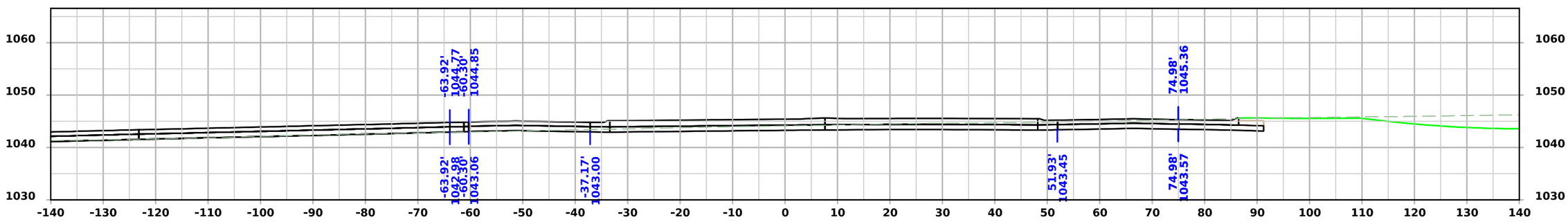
FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER X.14

3:20:41 PM 9/25/2025 adewolf pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7305901025\Design\CADD\Cross Sections\XS_73059037_SR002.dgn

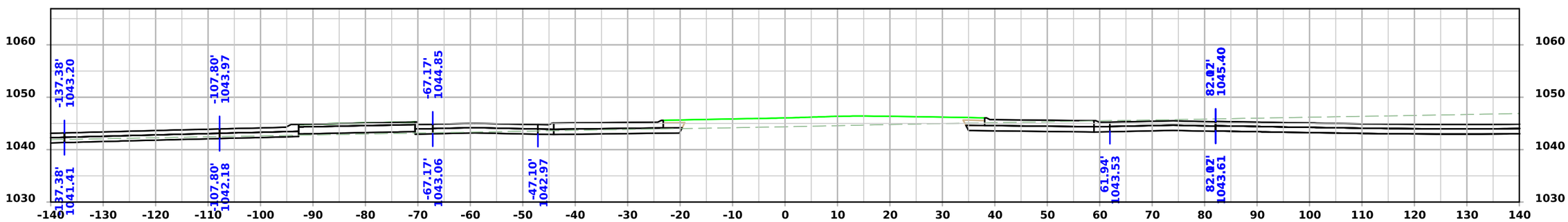
SR- IA 2



STA 1723+25.00



STA 1723+00.00

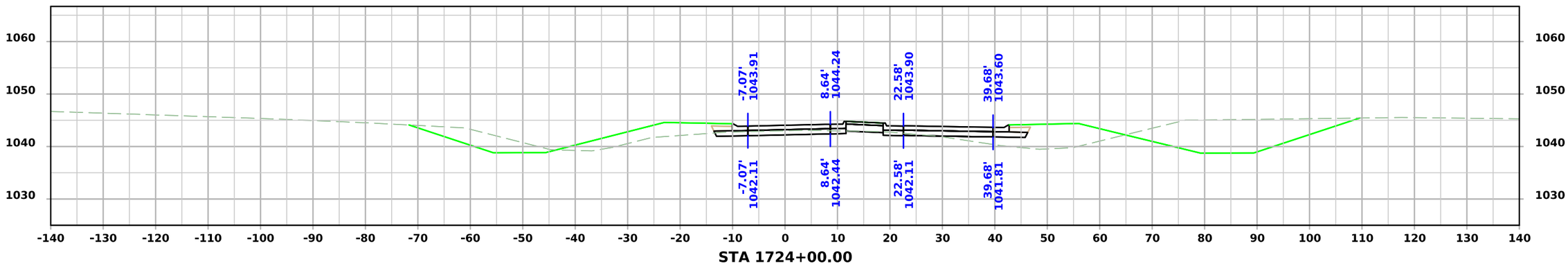


STA 1722+75.00

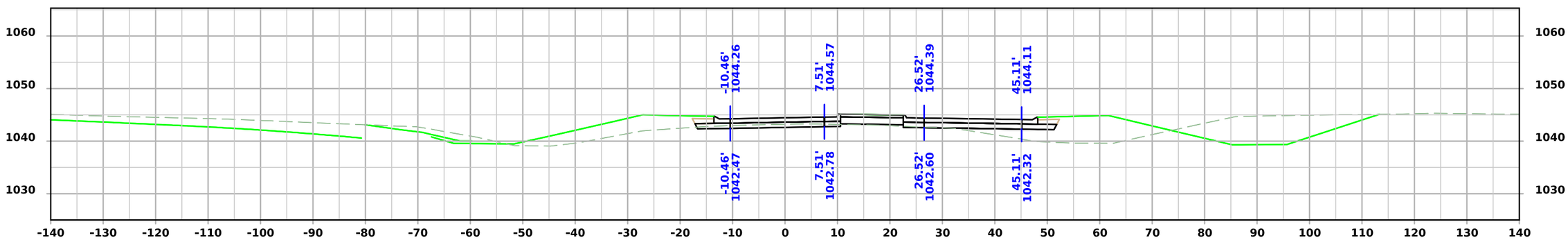
FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER X.15

3:20:42 PM 9/25/2025 adewolf pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7305901025\Design\CADD\Cross Sections\XS_73059037_SR002.dgn

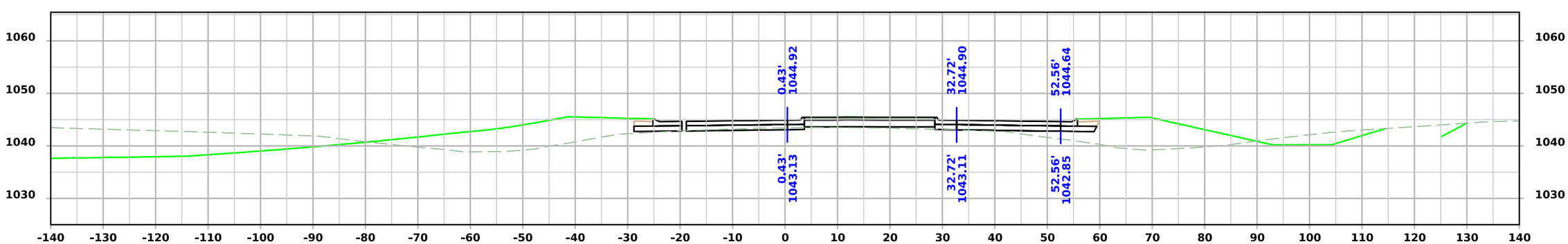
SR- IA 2



STA 1724+00.00



STA 1723+75.00

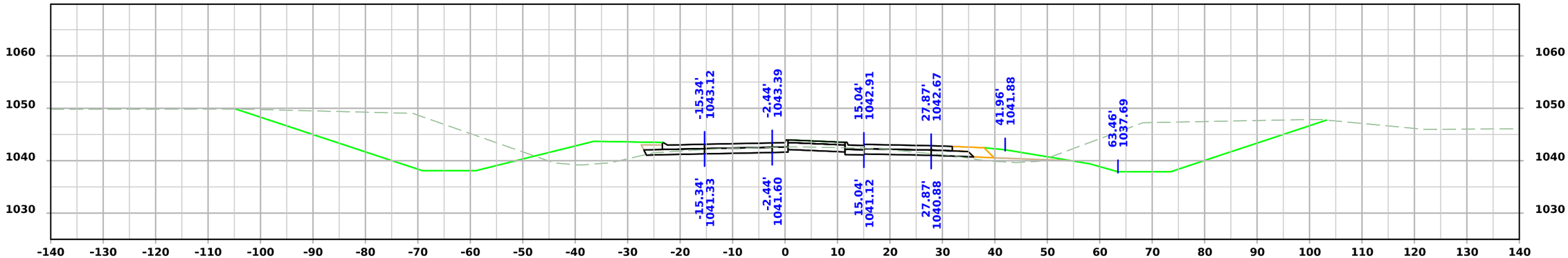


STA 1723+50.00

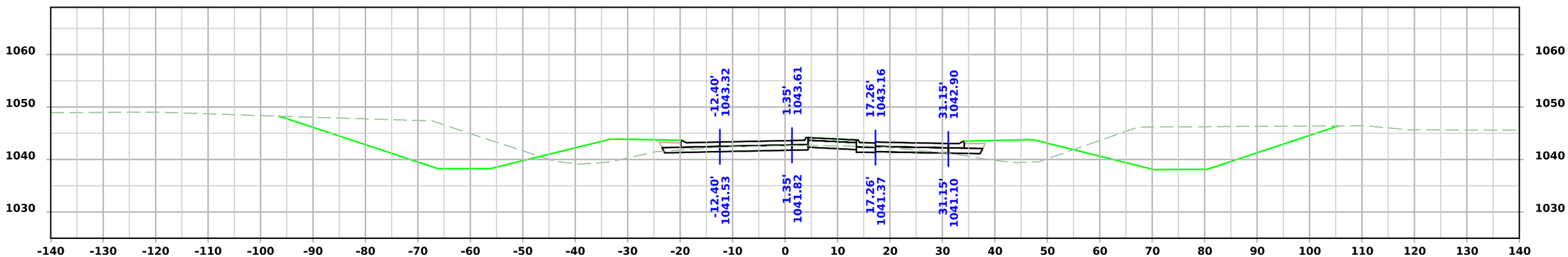
FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER X.16

3:20:44 PM 9/25/2025 adewolf pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7305901025\Design\CADD\Cross Sections\XS_73059037_SR002.dgn

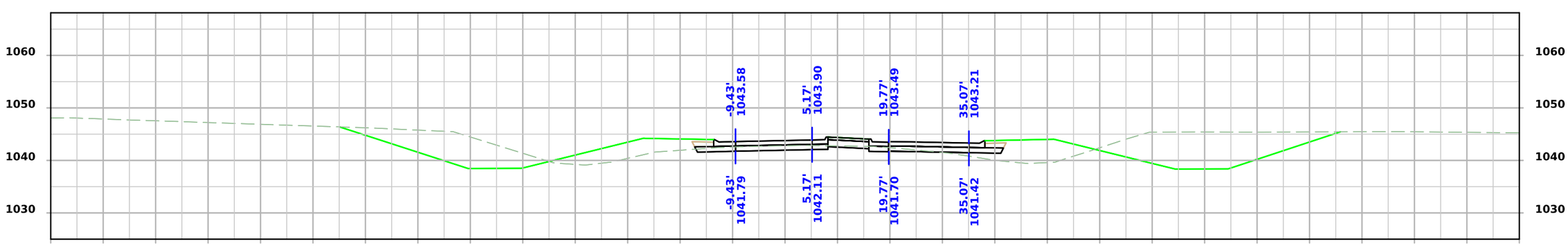
SR- IA 2



STA 1724+75.00



STA 1724+50.00

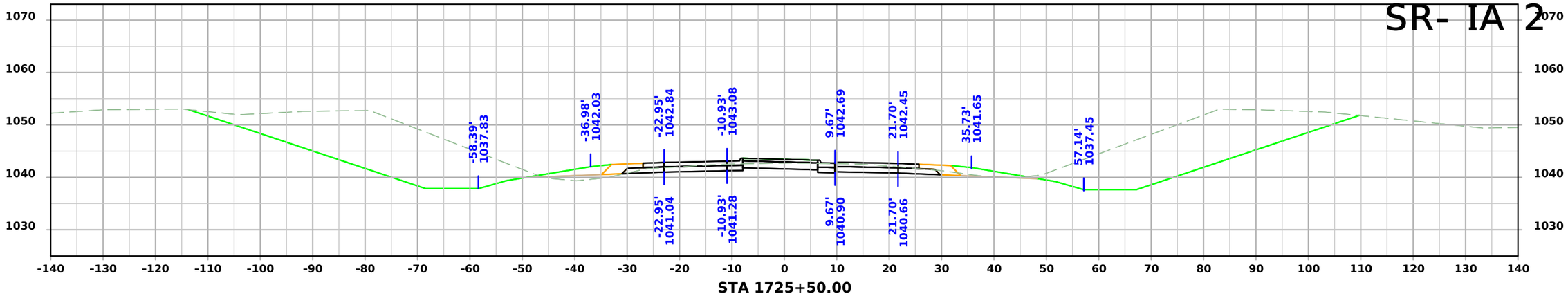


STA 1724+25.00

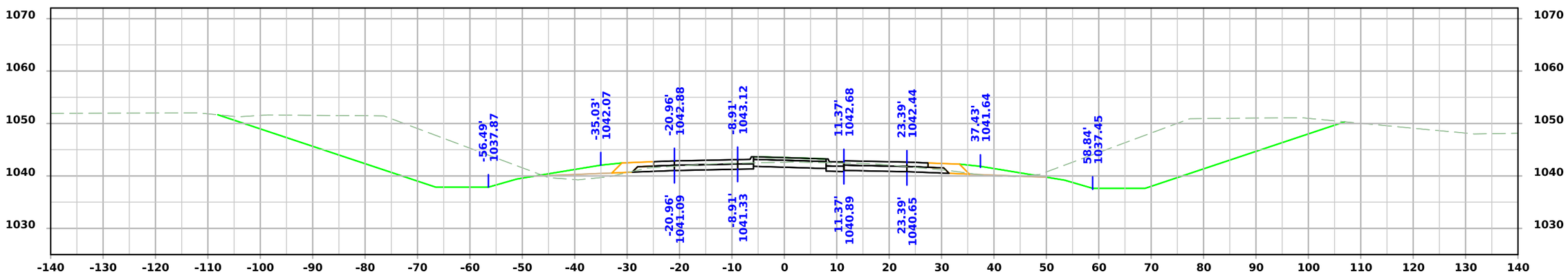
FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER X.17

3:20:45 PM 9/25/2025 adewolf pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7305901025\Design\CADD\Cross Sections\XS_73059037_SR002.dgn

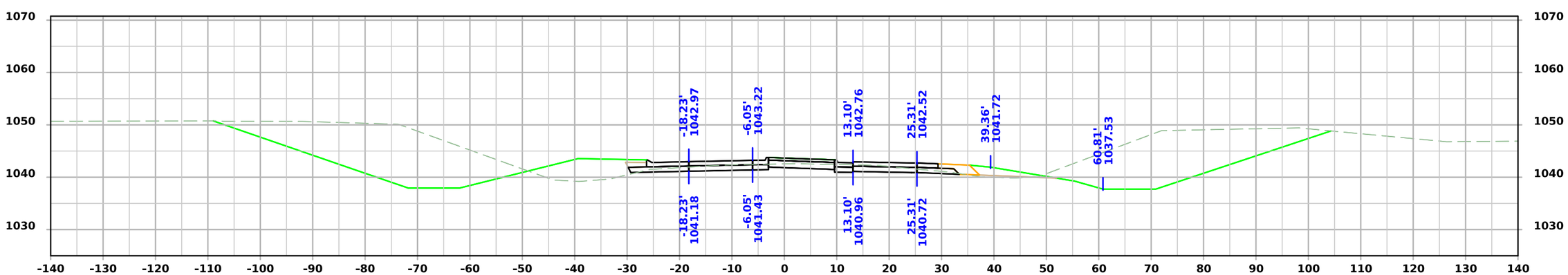
SR- IA 2



STA 1725+50.00



STA 1725+25.00

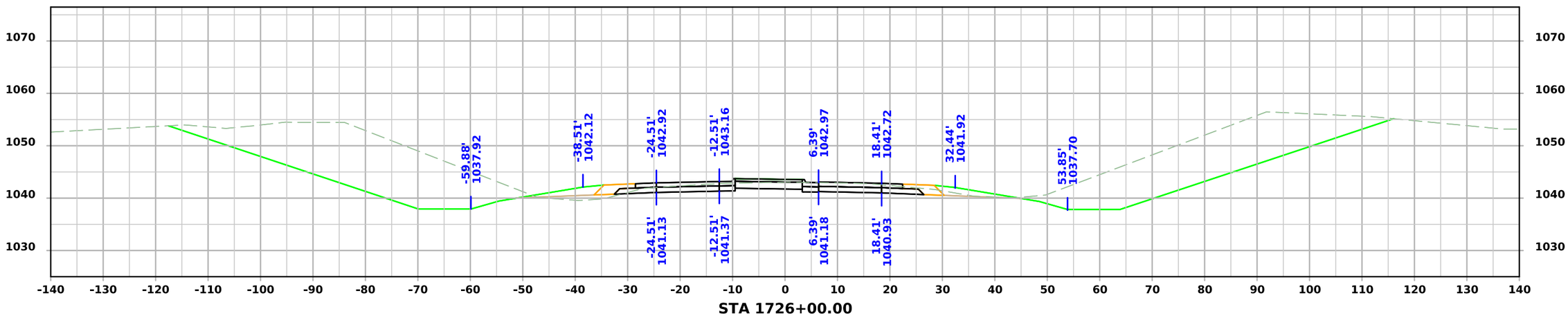


STA 1725+00.00

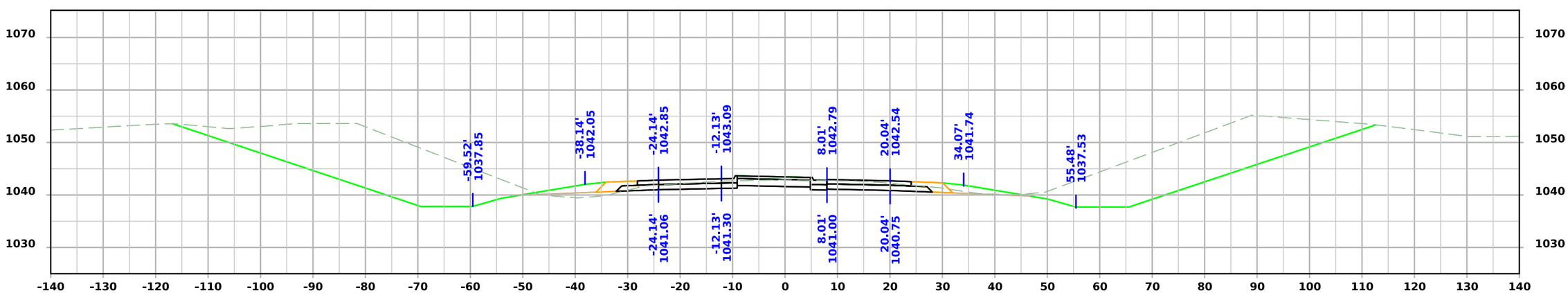
FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER X.18

3:20:46 PM 9/25/2025 adewolf pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7305901025\Design\CADD\Cross Sections\XS_73059037_SR002.dgn

SR- IA 2



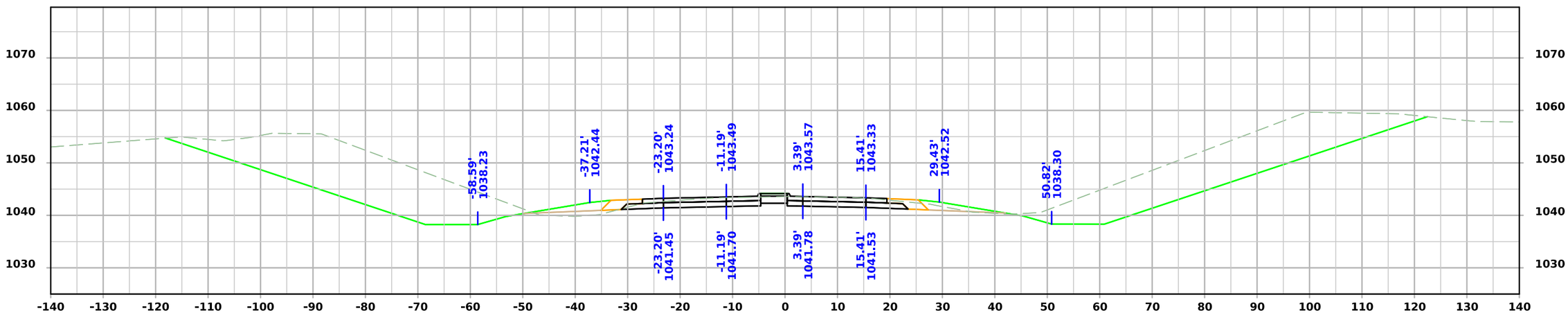
STA 1726+00.00



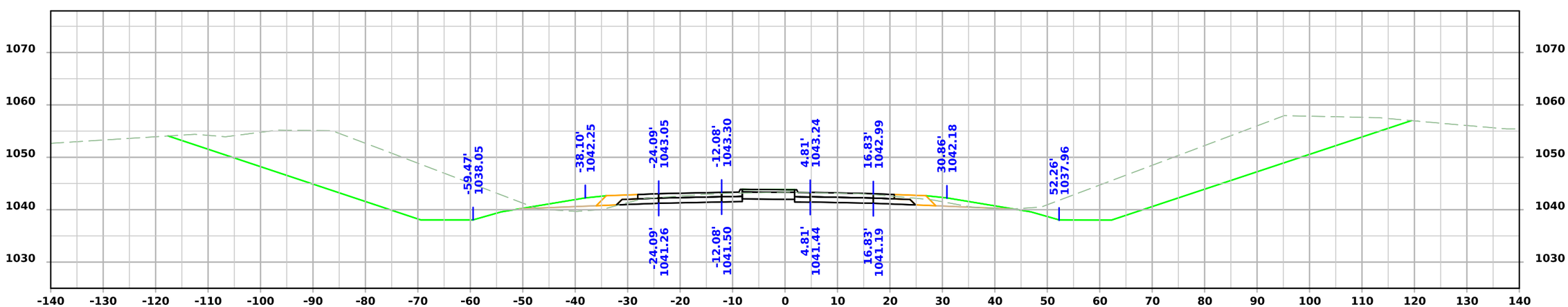
STA 1725+75.00

FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER X.19

SR- IA 2



STA 1726+50.00

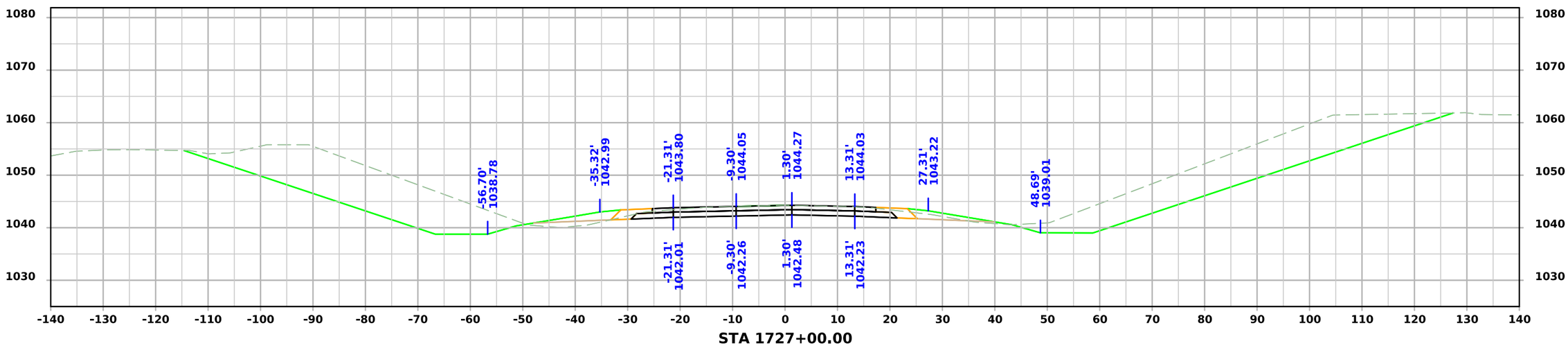


STA 1726+25.00

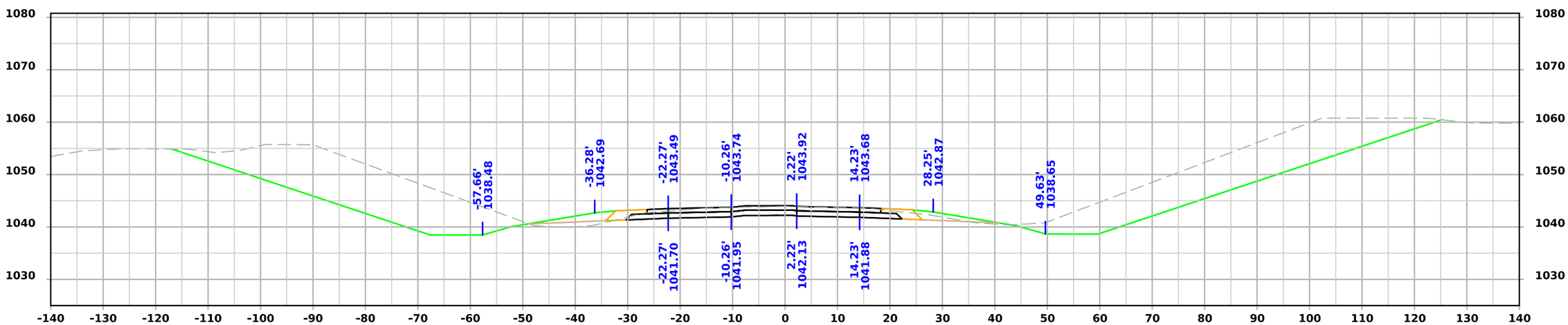
FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER X.20

3:20:48 PM 9/25/2025 adewolf pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7305901025\Design\CADD\Cross Sections\XS_73059037_SR002.dgn

SR- IA 2



STA 1727+00.00

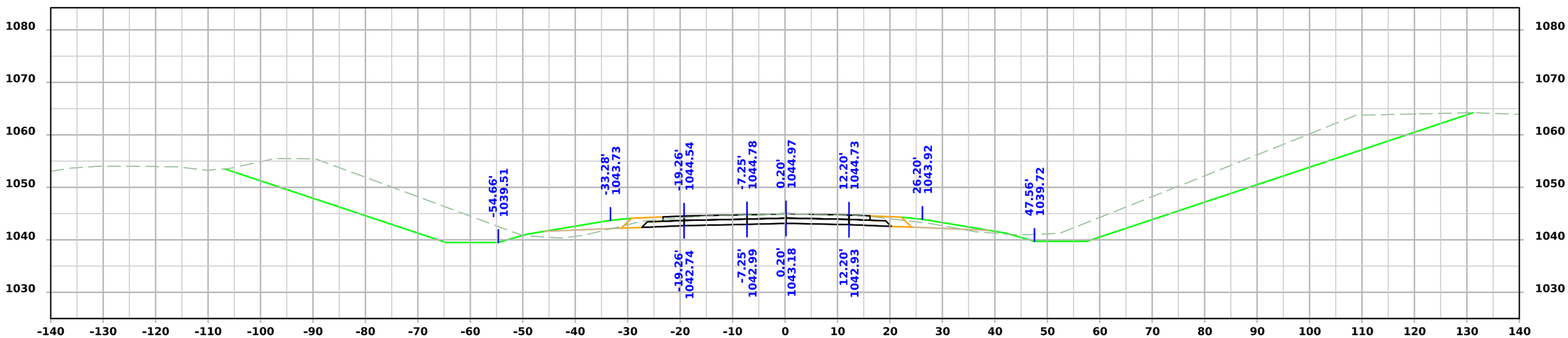


STA 1726+75.00

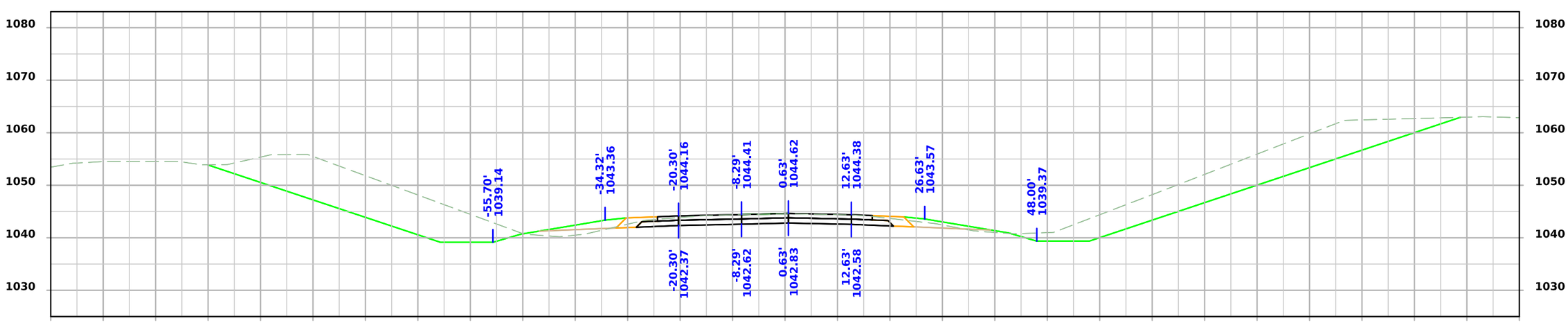
FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER X.21

3:20:48 PM 9/25/2025 adewolf pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7305901025\Design\CADD\Cross Sections\XS_73059037_SR002.dgn

SR- IA 2



STA 1727+50.00

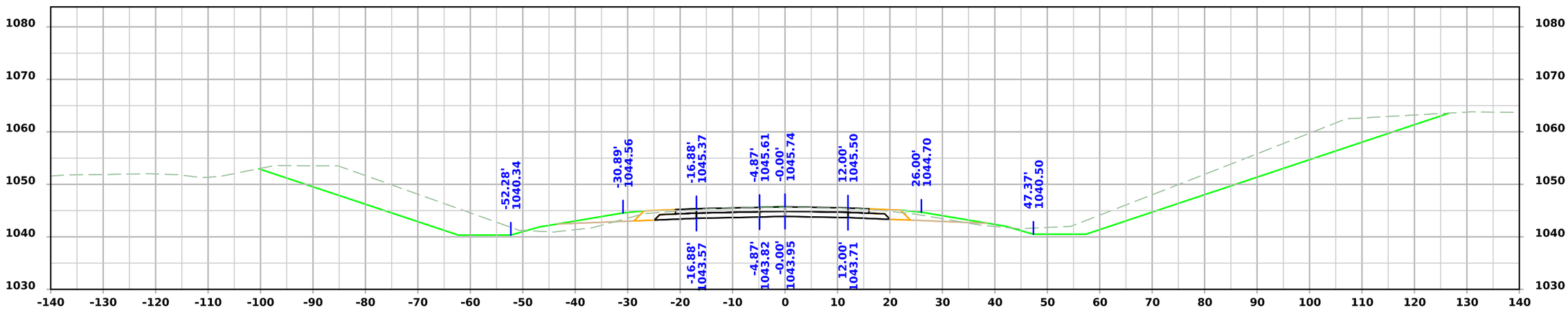


STA 1727+25.00

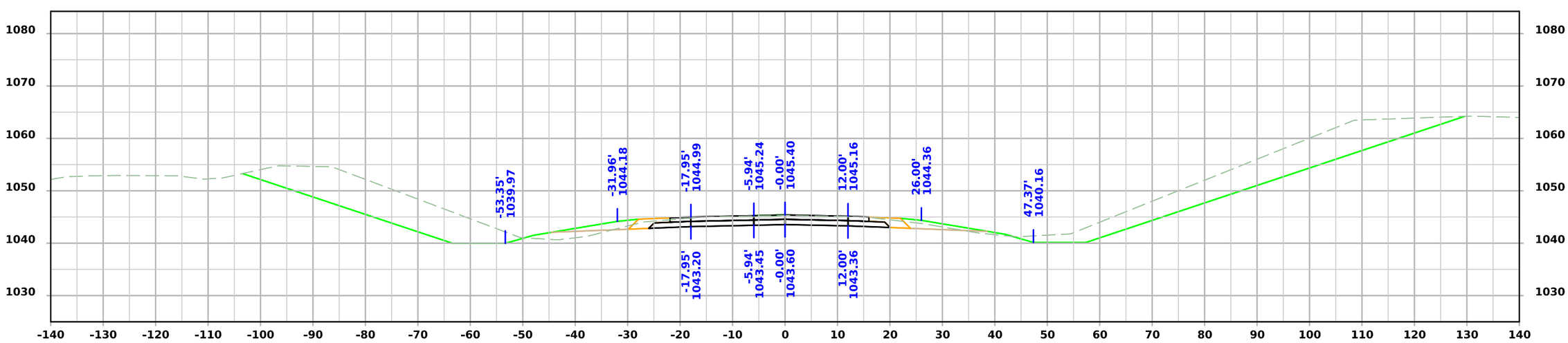
FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER X.22

3:20:49 PM 9/25/2025 adewolf pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7305901025\Design\CADD\Cross Sections\XS_73059037_SR002.dgn

SR- IA 2



STA 5+25.00

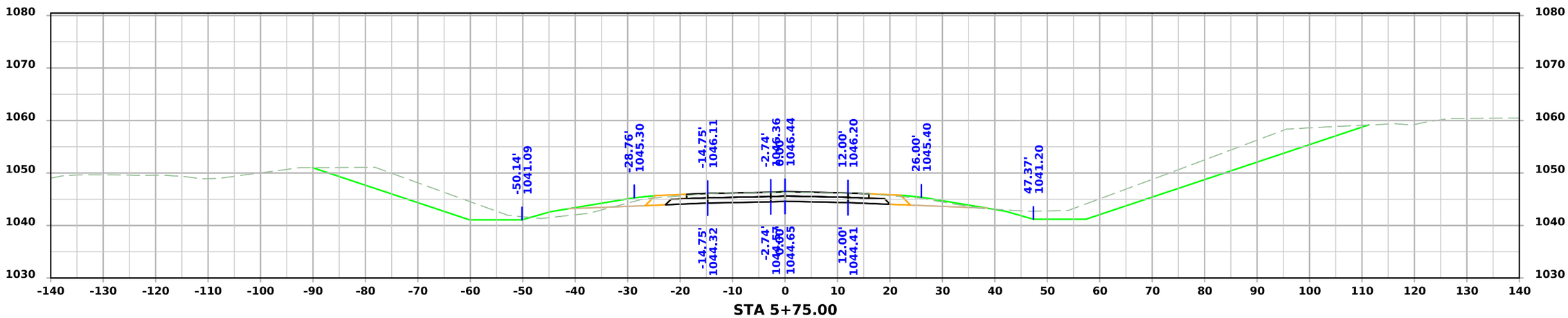


STA 5+00.00

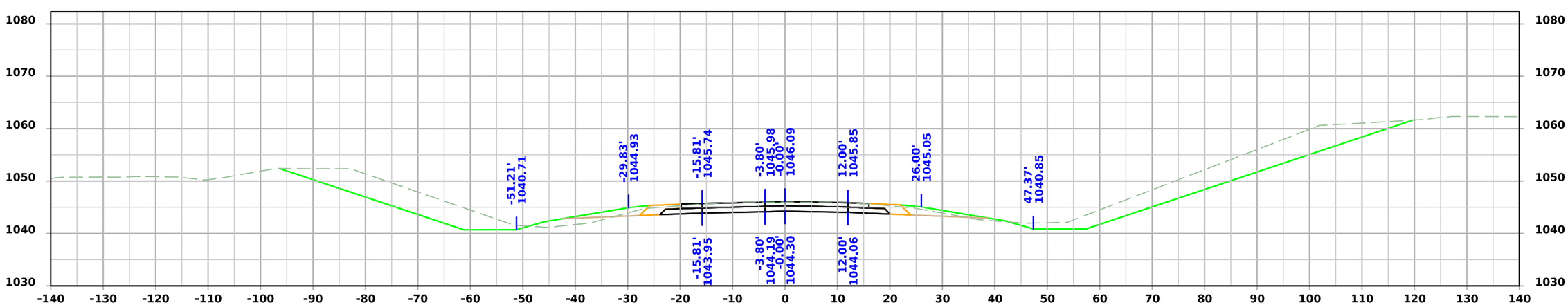
FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER X.23

3:20:50 PM 9/25/2025 adewolf pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7305901025\Design\CADD\Cross Sections\XS_73059037_SR002.dgn

SR- IA 2



STA 5+75.00

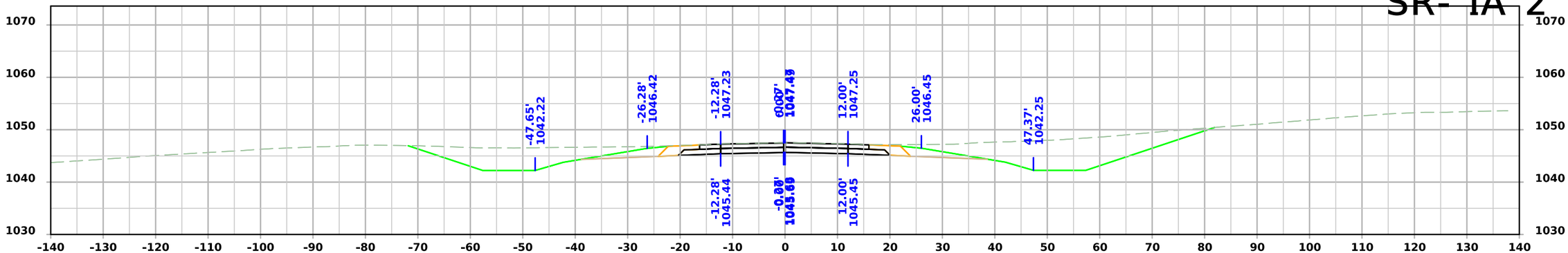


STA 5+50.00

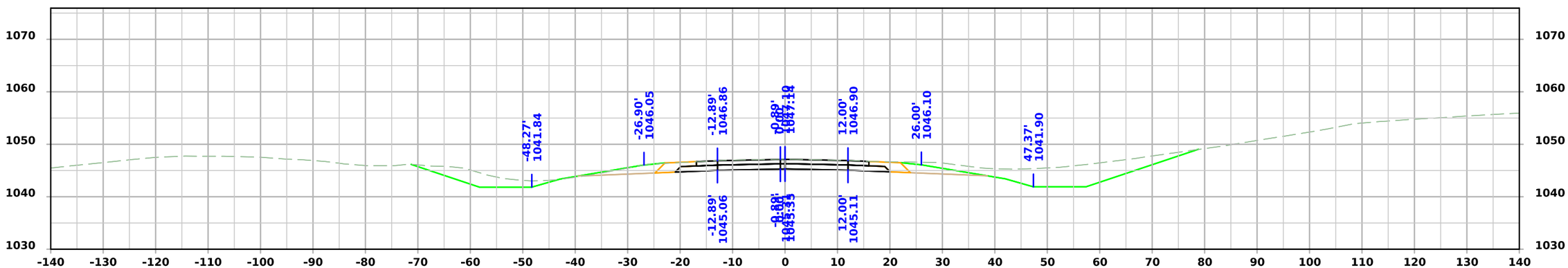
FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER X.24

3:20:51 PM 9/25/2025 adewolf pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7305901025\Design\CADD\Cross Sections\XS_73059037_SR002.dgn

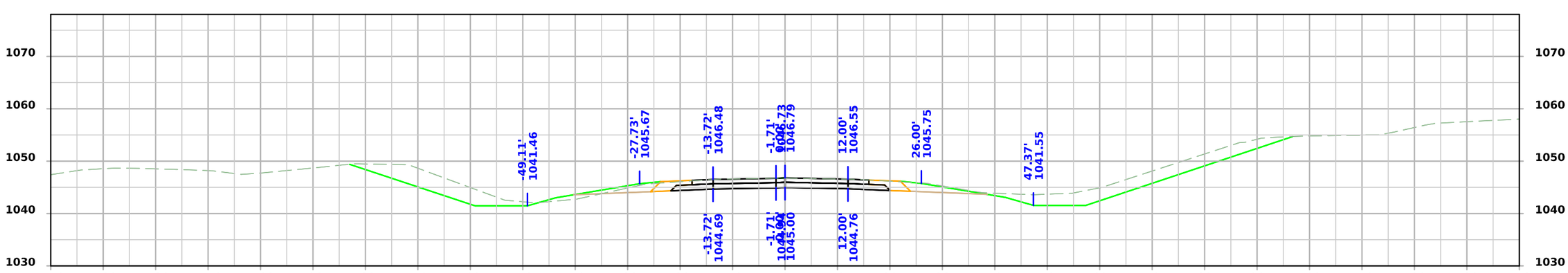
SR- IA 2



STA 6+50.00



STA 6+25.00

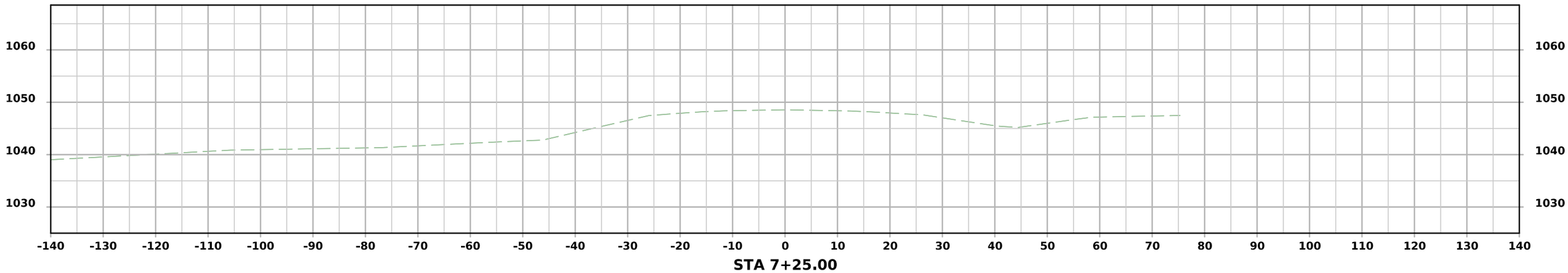


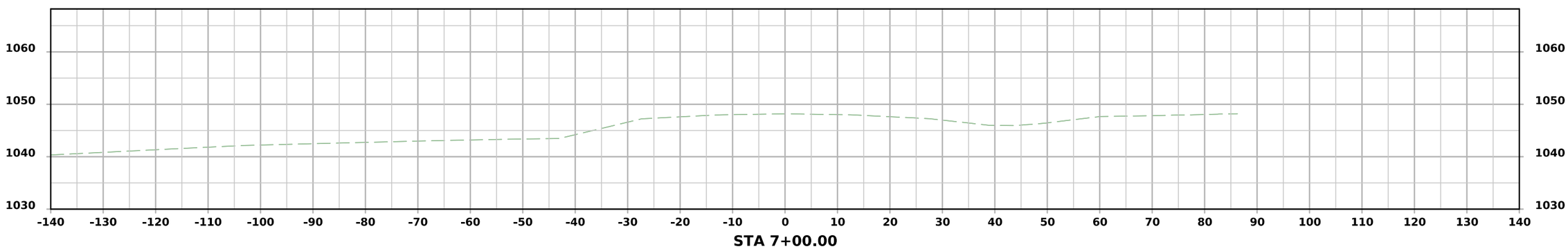
STA 6+00.00

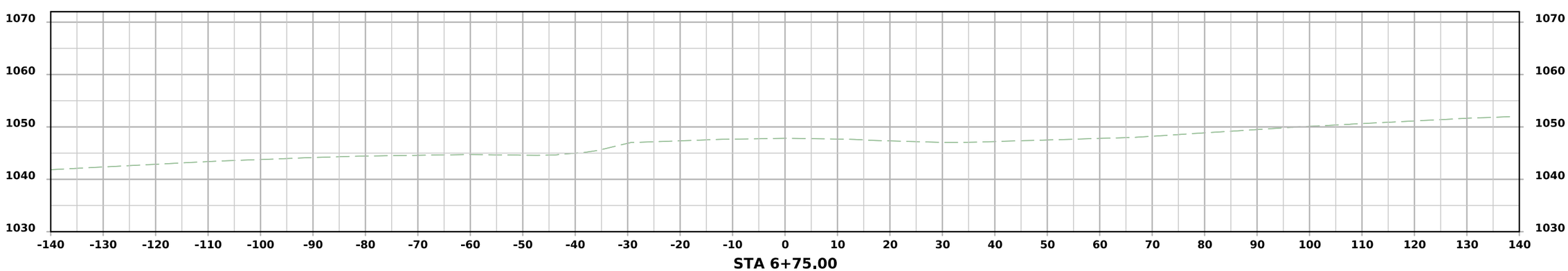
FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER X.25

3:20:52 PM 9/25/2025 adewolf pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7305901025\Design\CADD\Cross Sections\XS_73059037_SR002.dgn

SR- IA 2



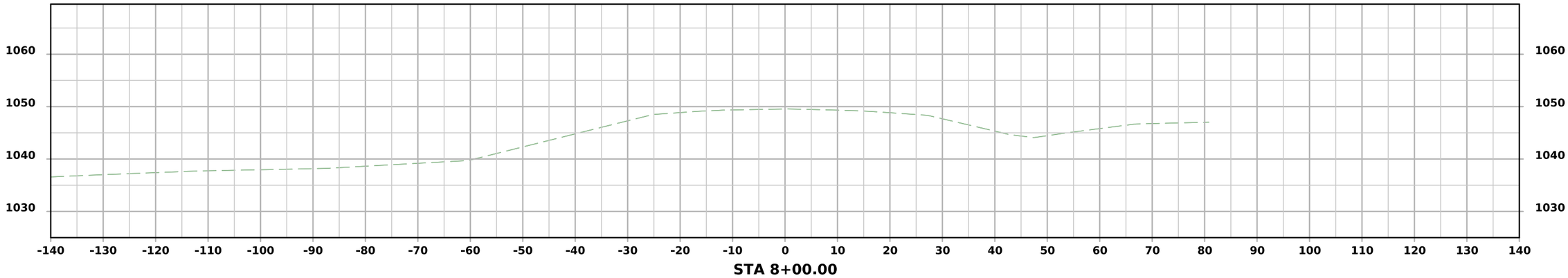


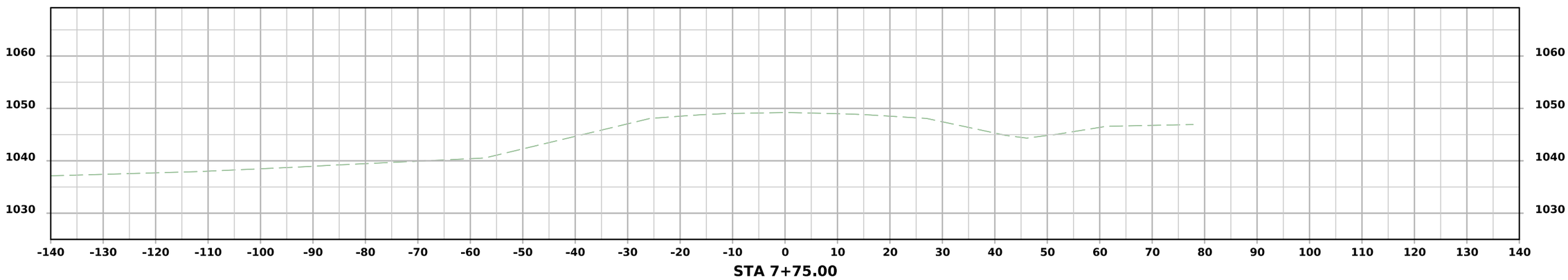


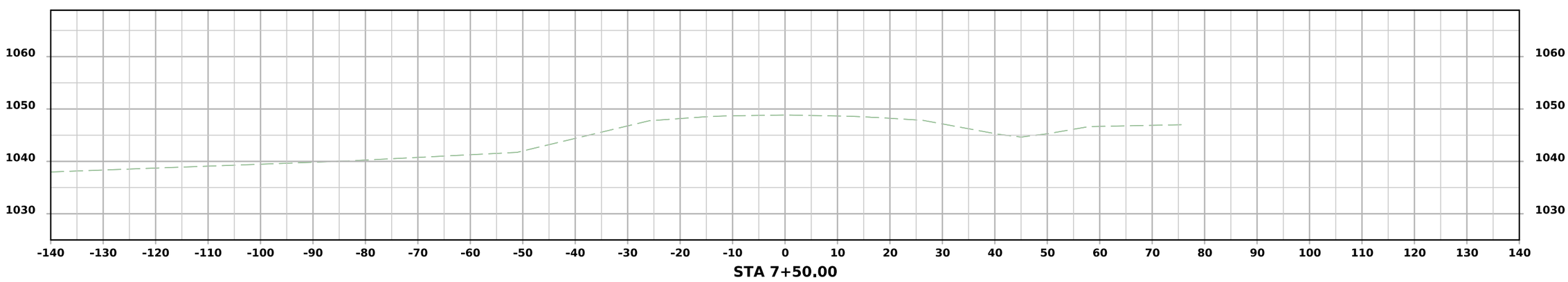
FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER X.26

3:20:53 PM 9/25/2025 adewolf pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7305901025\Design\CADD\Cross Sections\XS_73059037_SR002.dgn

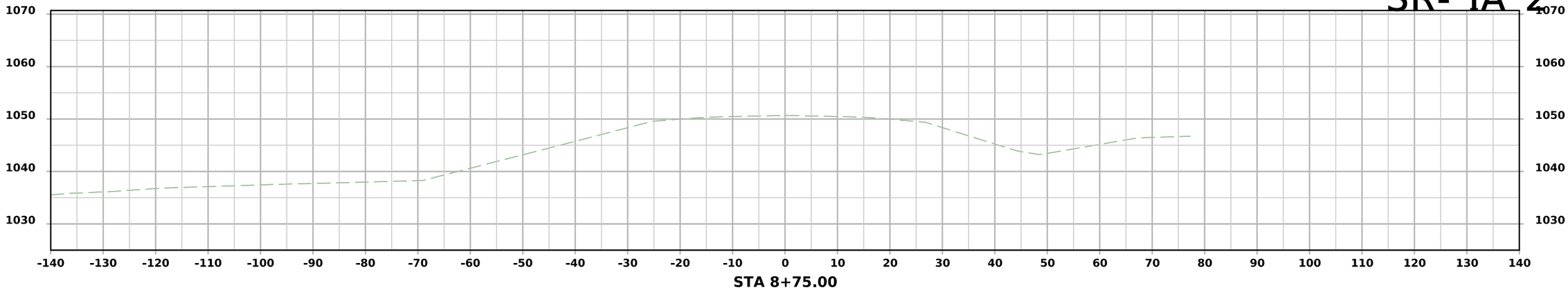
SR- IA 2


1060
1050
1040
1030
-140 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140
STA 8+00.00

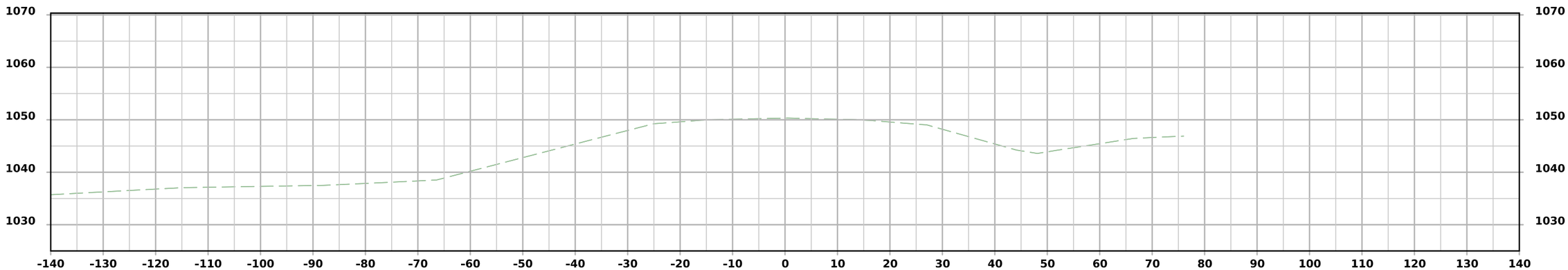

1060
1050
1040
1030
-140 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140
STA 7+75.00


1060
1050
1040
1030
-140 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140
STA 7+50.00

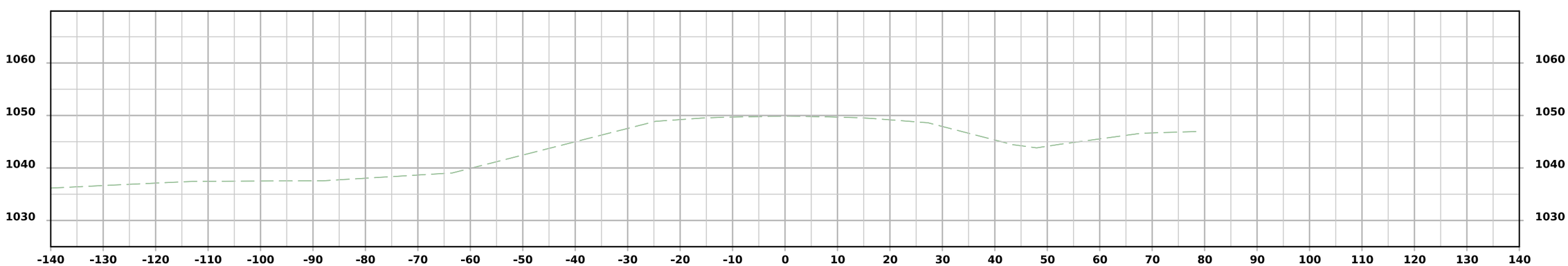
SR- IA 2



STA 8+75.00



STA 8+50.00

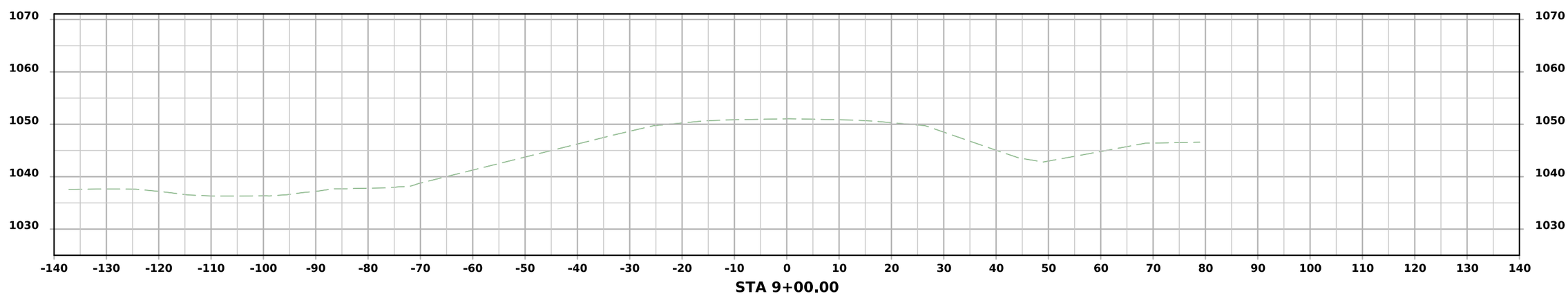


STA 8+25.00

FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER X.28

3:20:54 PM 9/25/2025 adewolf pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7305901025\Design\CADD\Cross Sections\XS_73059037_SR002.dgn

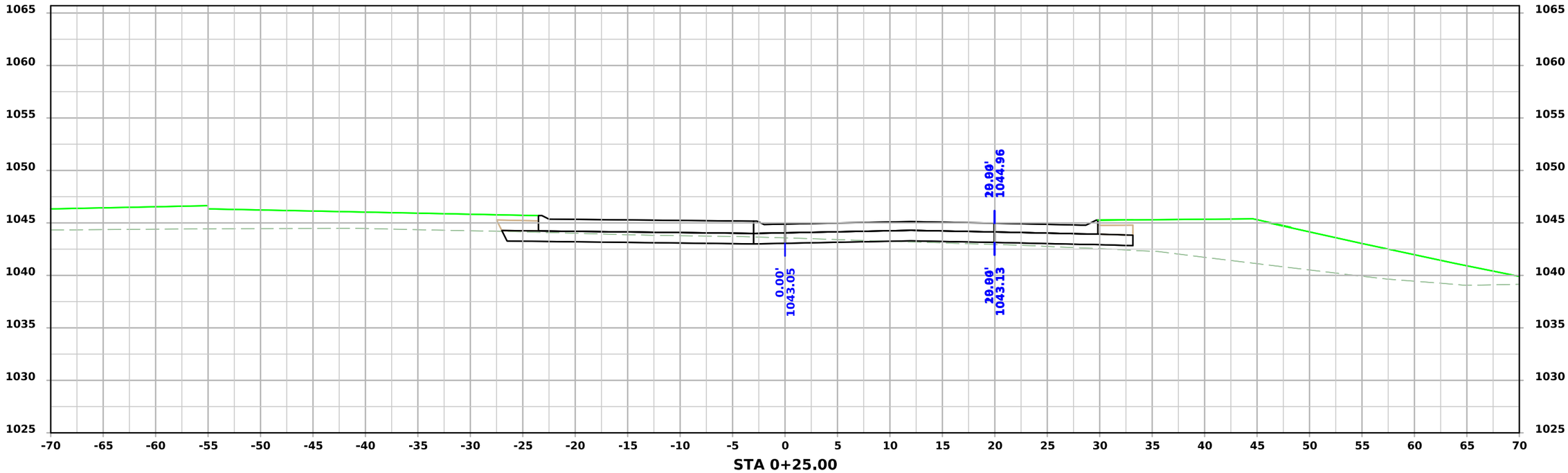
SR- IA 2

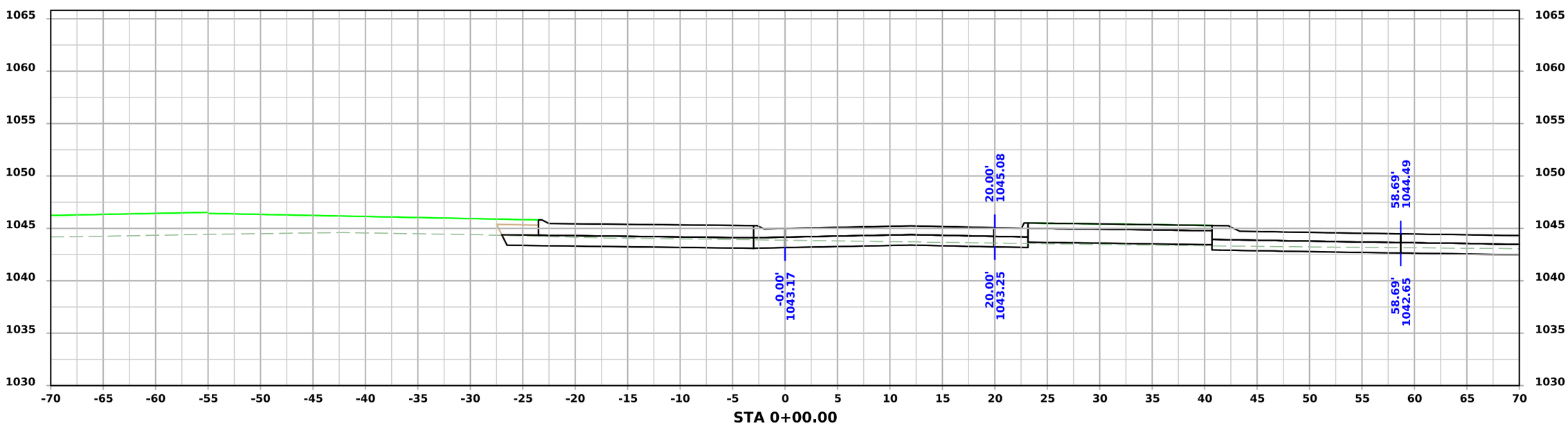


FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER X.29

3:20:54 PM 9/25/2025 adewolf pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7305901025\Design\CADD\Cross Sections\XS_73059037_SR002.dgn

CIRCLE

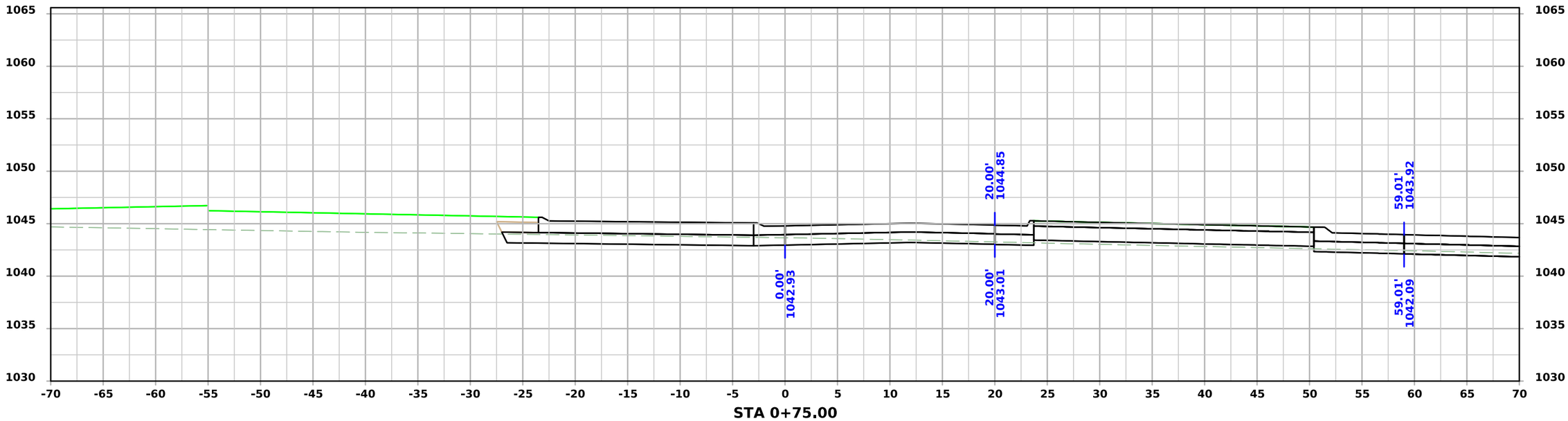


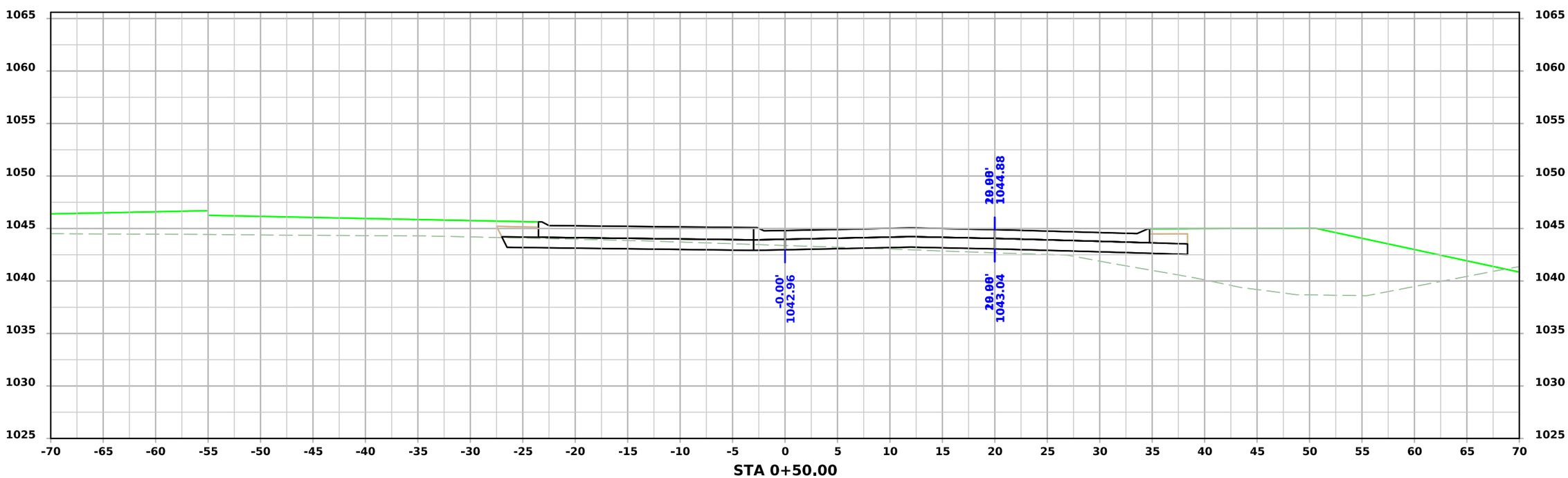


FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER X.100

3:21:01 PM 9/25/2025 adewolf pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7305901025\Design\CADD\Cross Sections\XS_73059037_CIRC.dgn

CIRCLE

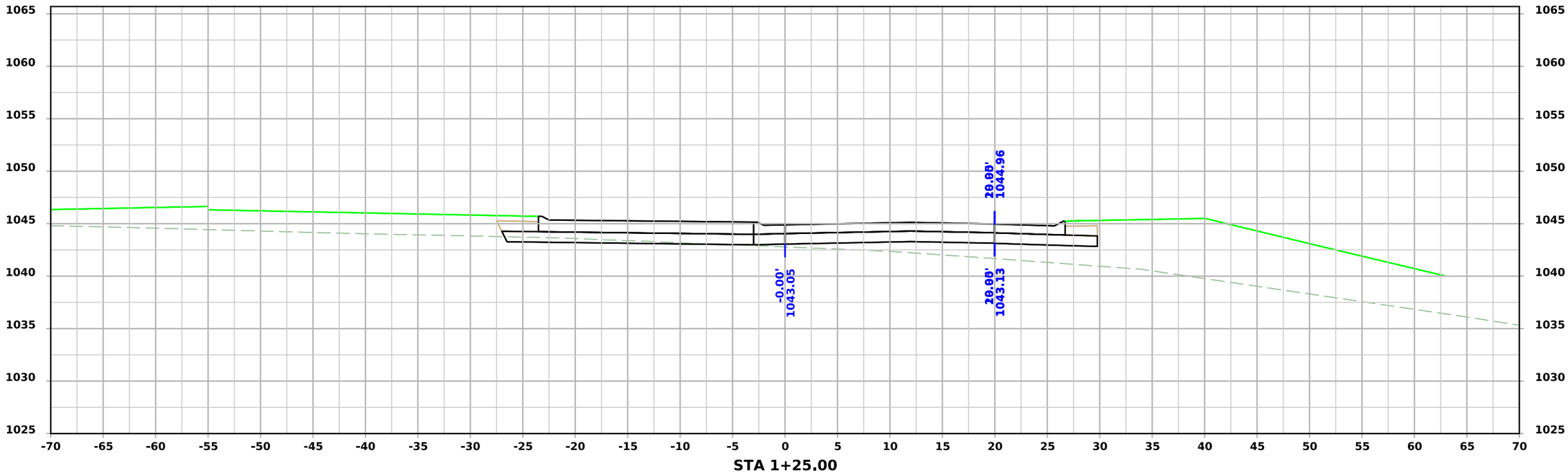




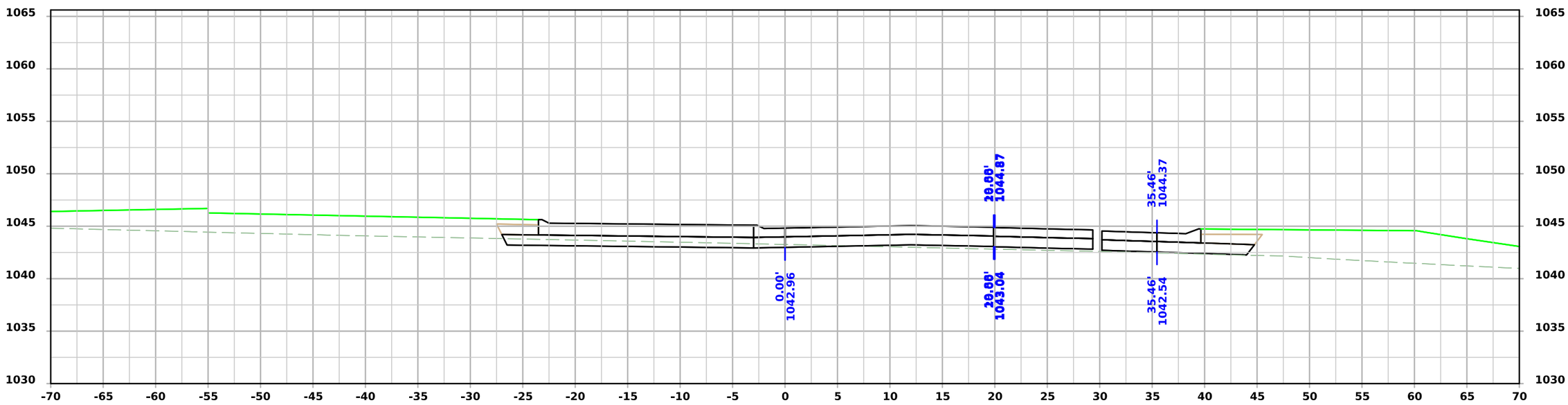
FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER X.101

3:21:02 PM 9/25/2025 adewolf pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7305901025\Design\CADD\Cross Sections\XS_73059037_CIRC.dgn

CIRCLE



STA 1+25.00

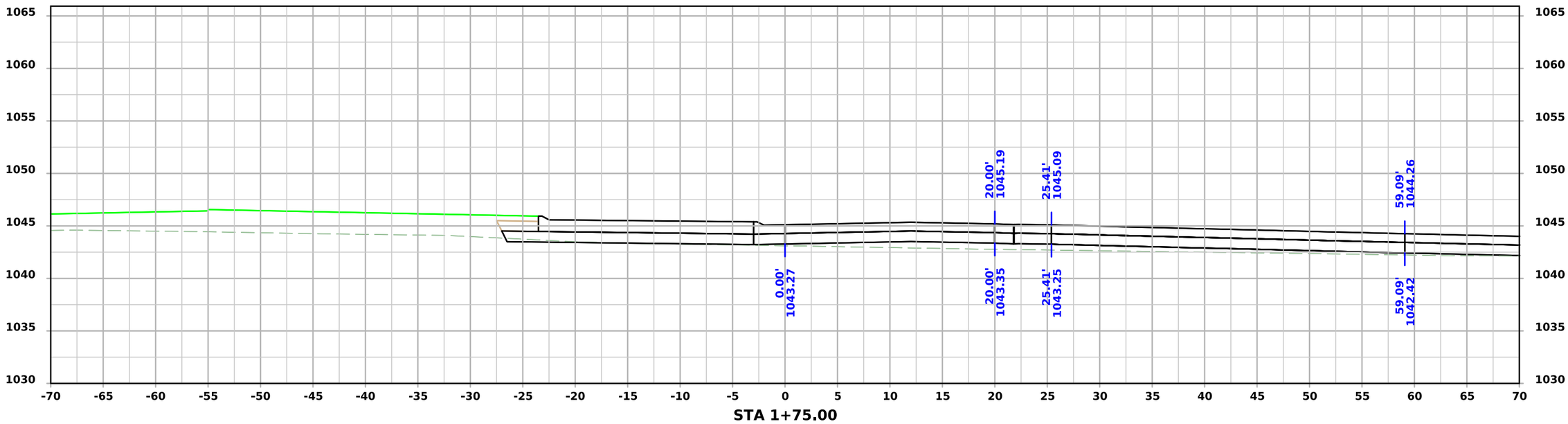


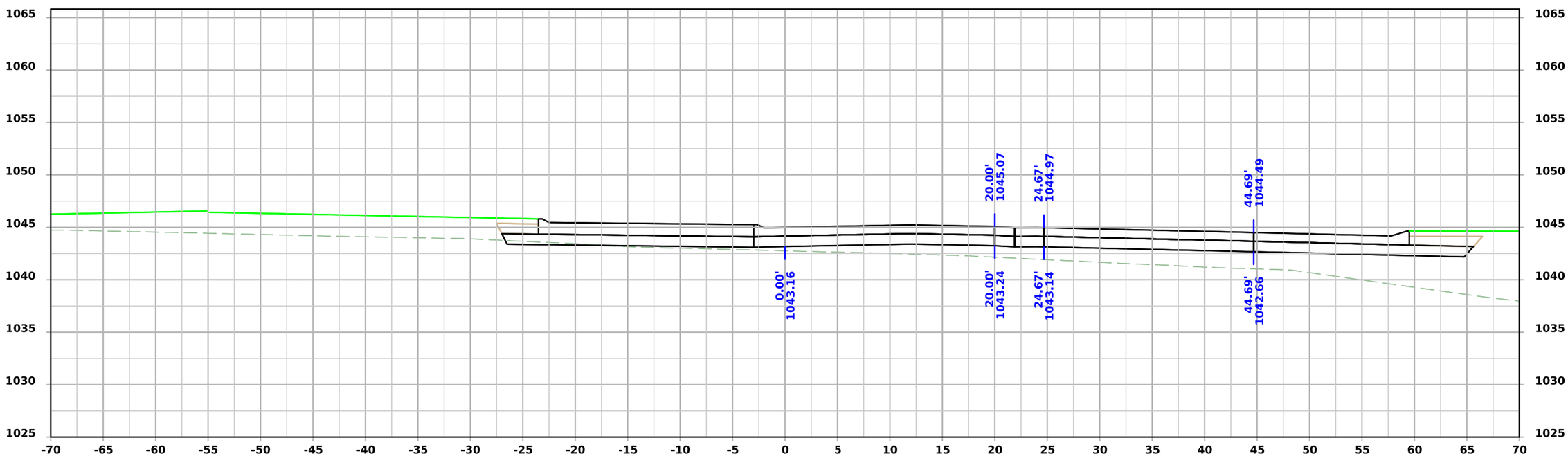
STA 1+00.00

FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER X.102

3:21:03 PM 9/25/2025 adewolf pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7305901025\Design\CADD\Cross Sections\XS_73059037_CIRC.dgn

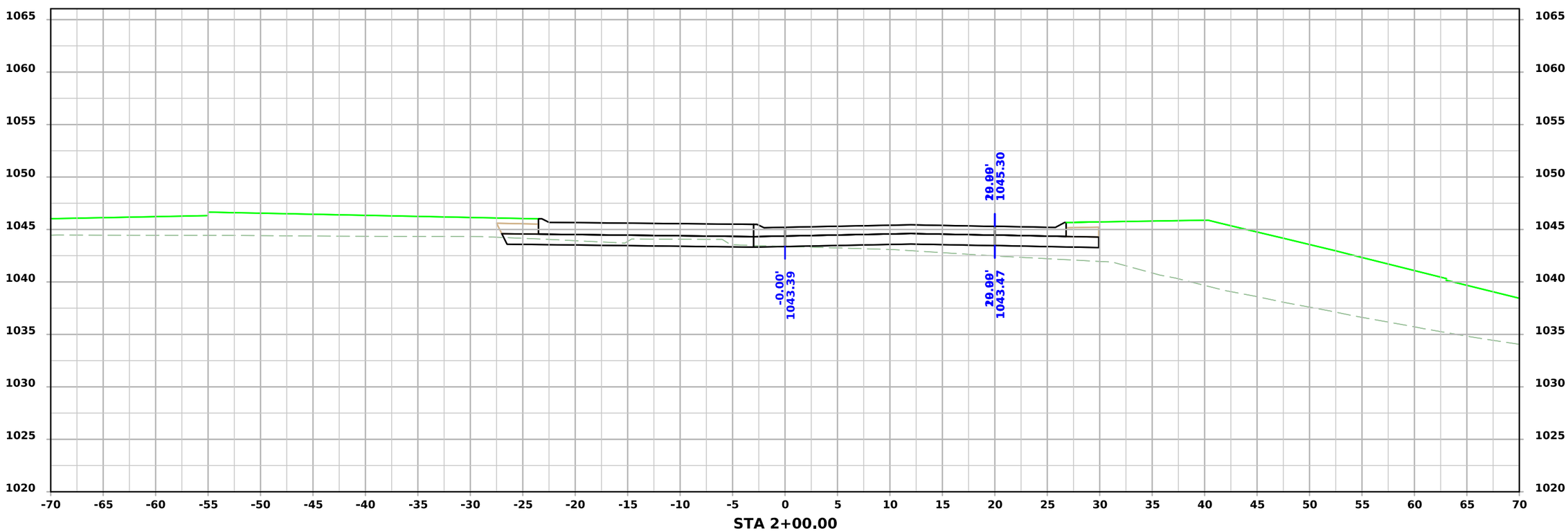
CIRCLE





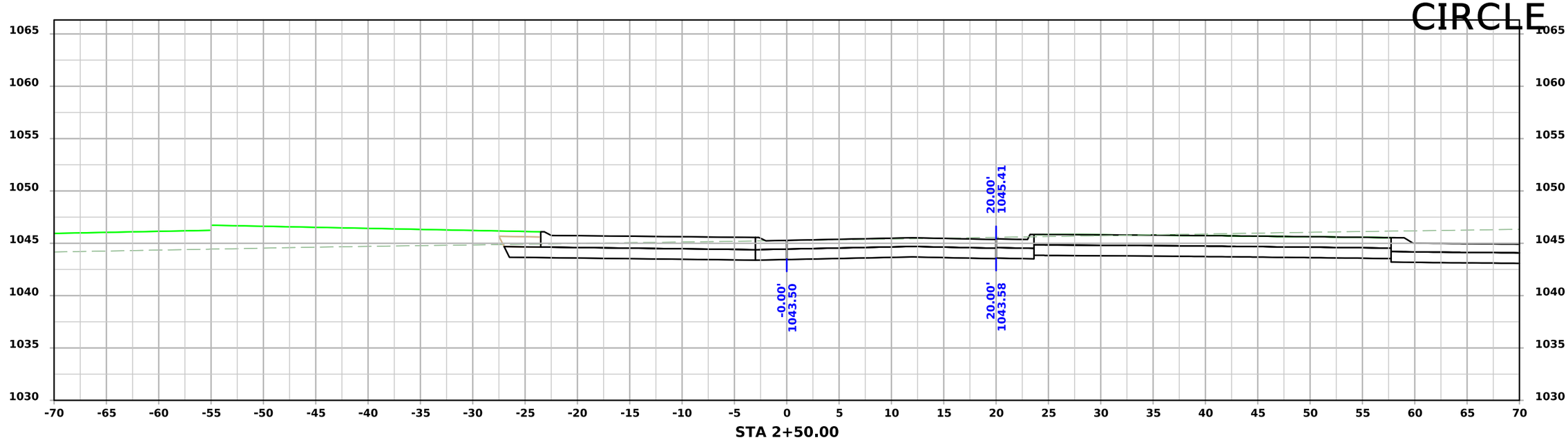
FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER X.103

CIRCLE

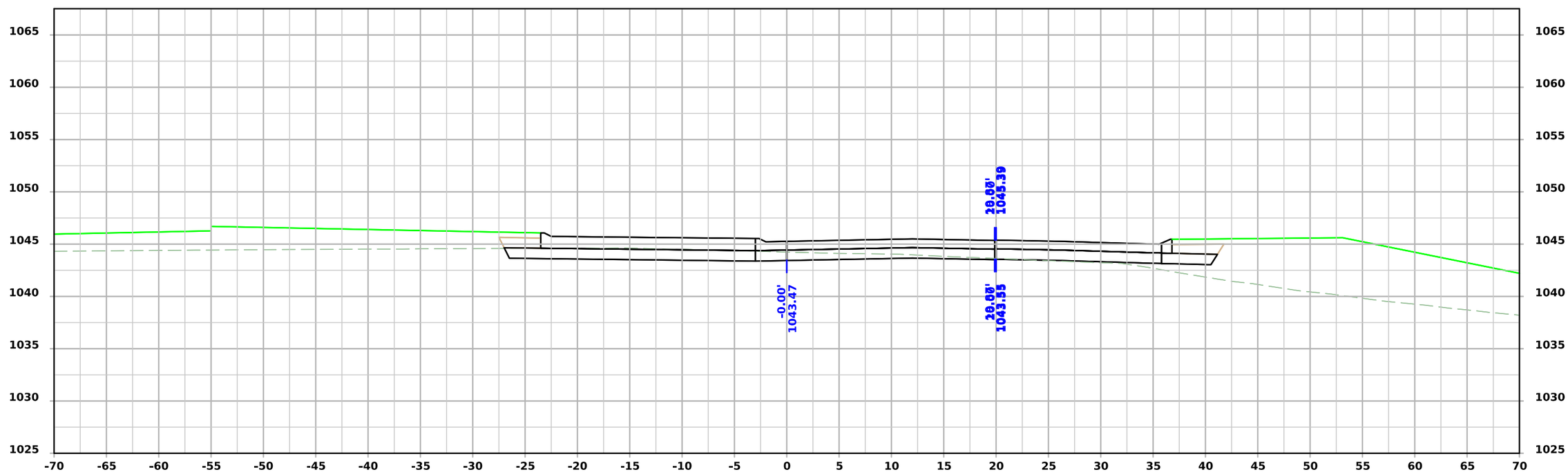


FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER X.104

CIRCLE



STA 2+50.00

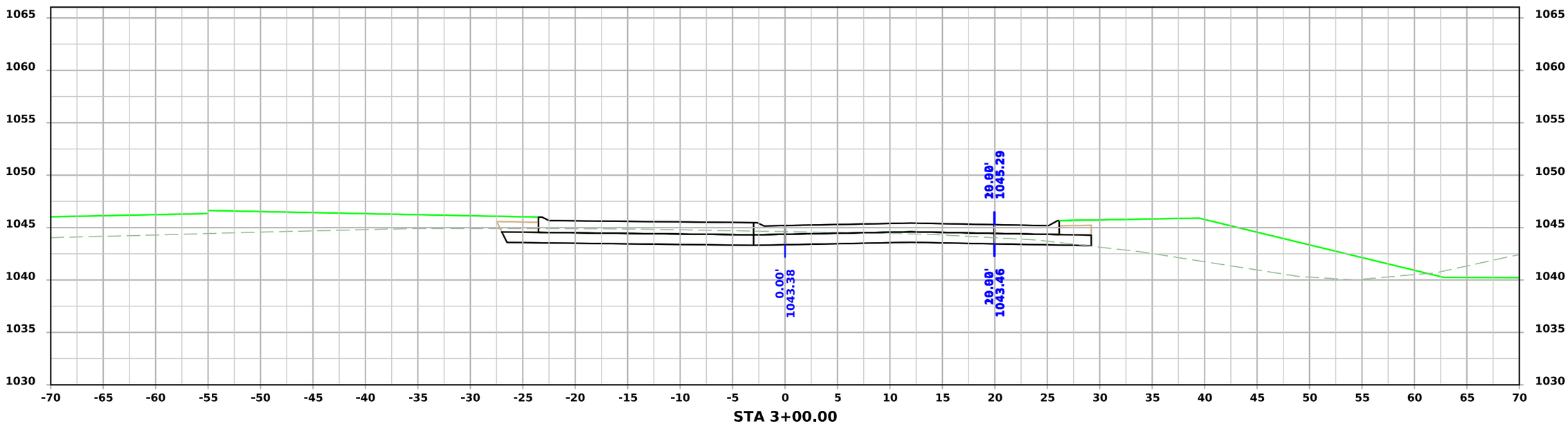


STA 2+25.00

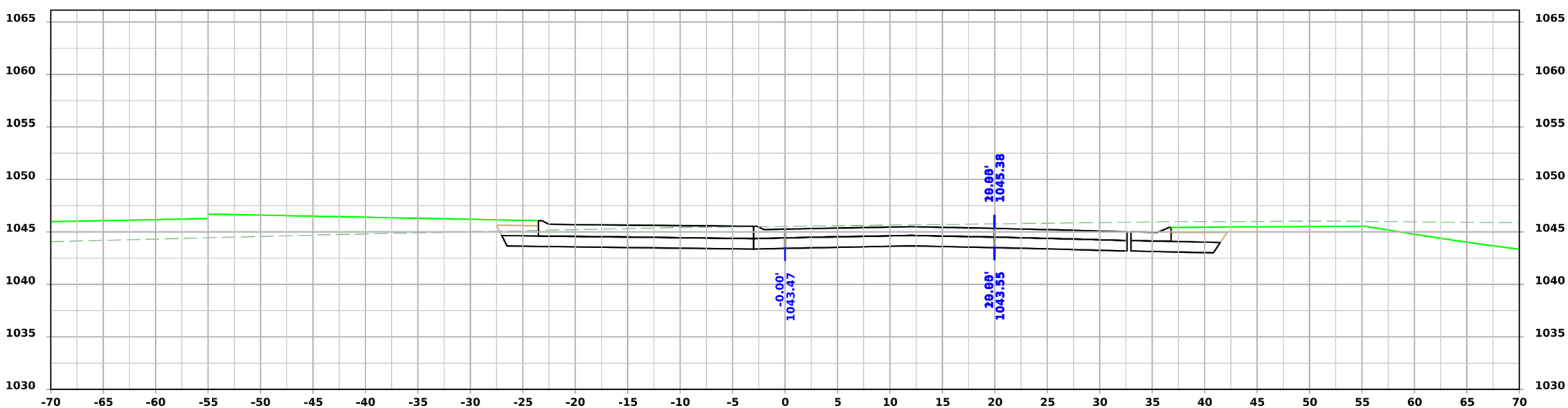
FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER X.105

3:21:06 PM 9/25/2025 adewolf pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7305901025\Design\CADD\Cross Sections\XS_73059037_CIRC.dgn

CIRCLE



STA 3+00.00

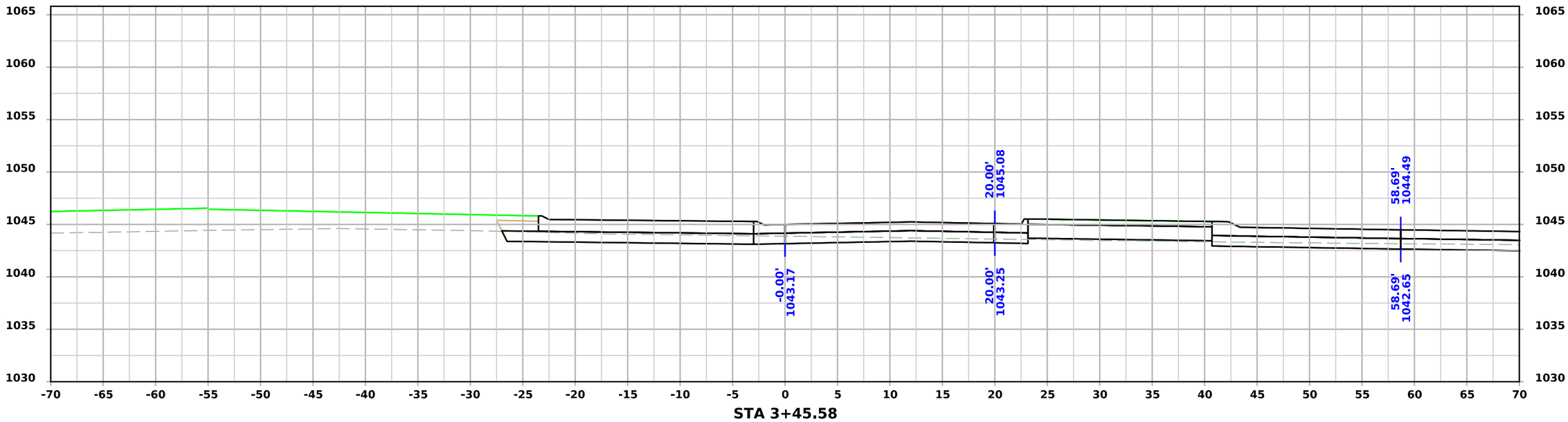


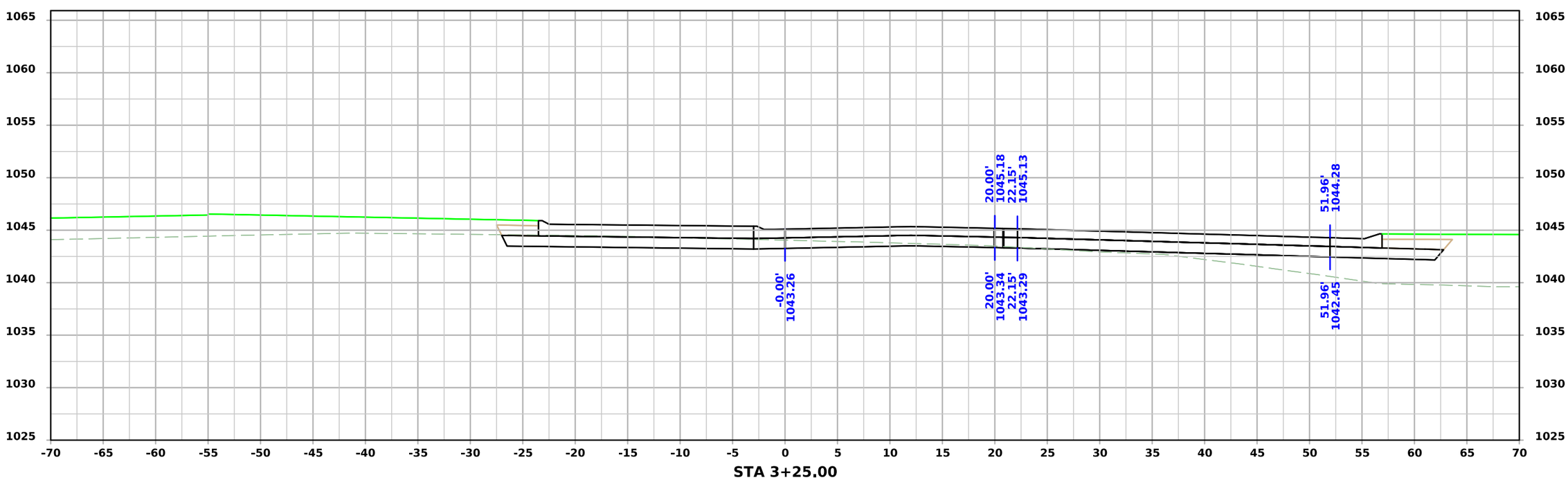
STA 2+75.00

FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER X.106

3:21:07 PM 9/25/2025 adewolf pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7305901025\Design\CADD\Cross Sections\XS_73059037_CIRC.dgn

CIRCLE





FILE NO.	ENGLISH	DESIGN TEAM MILLER / DEWOLF	PAGE COUNTY	PROJECT NUMBER HSIPX-059-1(037)--3L-73	SHEET NUMBER X.107

3:21:08 PM 9/25/2025 adewolf pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7305901025\Design\CADD\Cross Sections\XS_73059037_CIRC.dgn