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PLANS OF PROPOSED IMPROVEMENT ON THE  
**PRIMARY ROAD SYSTEM**  
**CLINTON COUNTY**  
**HMA PAVEMENT - REPLACE**  
From WCL Delmar to US 61

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

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



REVISIONS

	TOTAL
	114
PROJECT IDENTIFICATION NUMBER	
24-23-136-020	
PROJECT NUMBER	
STP-136-1(116)--2C-23	
R.O.W. PROJECT NUMBER	

LICENSED PROFESSIONAL ENGINEER

Ahmad M. Abu-Afifeh

22563

IOWA

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

Ahmad Abu Afifeh

Signature

04/02/2026

Date

Printed or Typed Name

Ahmad M. Abu-Afifeh

My license renewal date is December 31, 2026

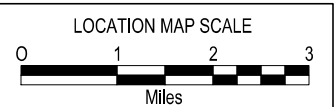
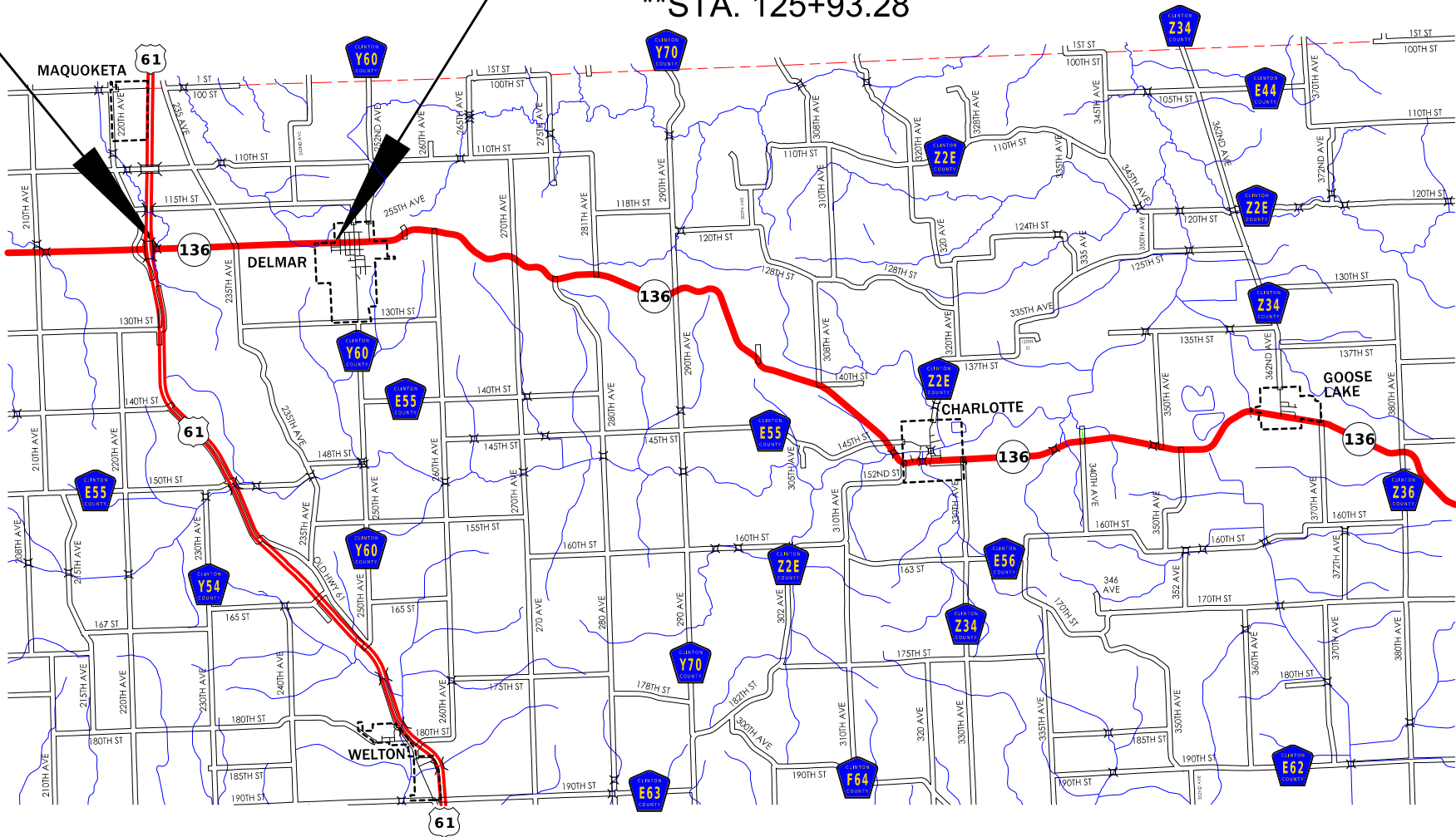
Pages or sheets covered by this seal: ALL



**\*\*NOTE:**  
This project uses stationing in reverse direction  
of the route mileposts.  
The orientation of all cross sections and typicals  
are shown in the direction of increased stationing.

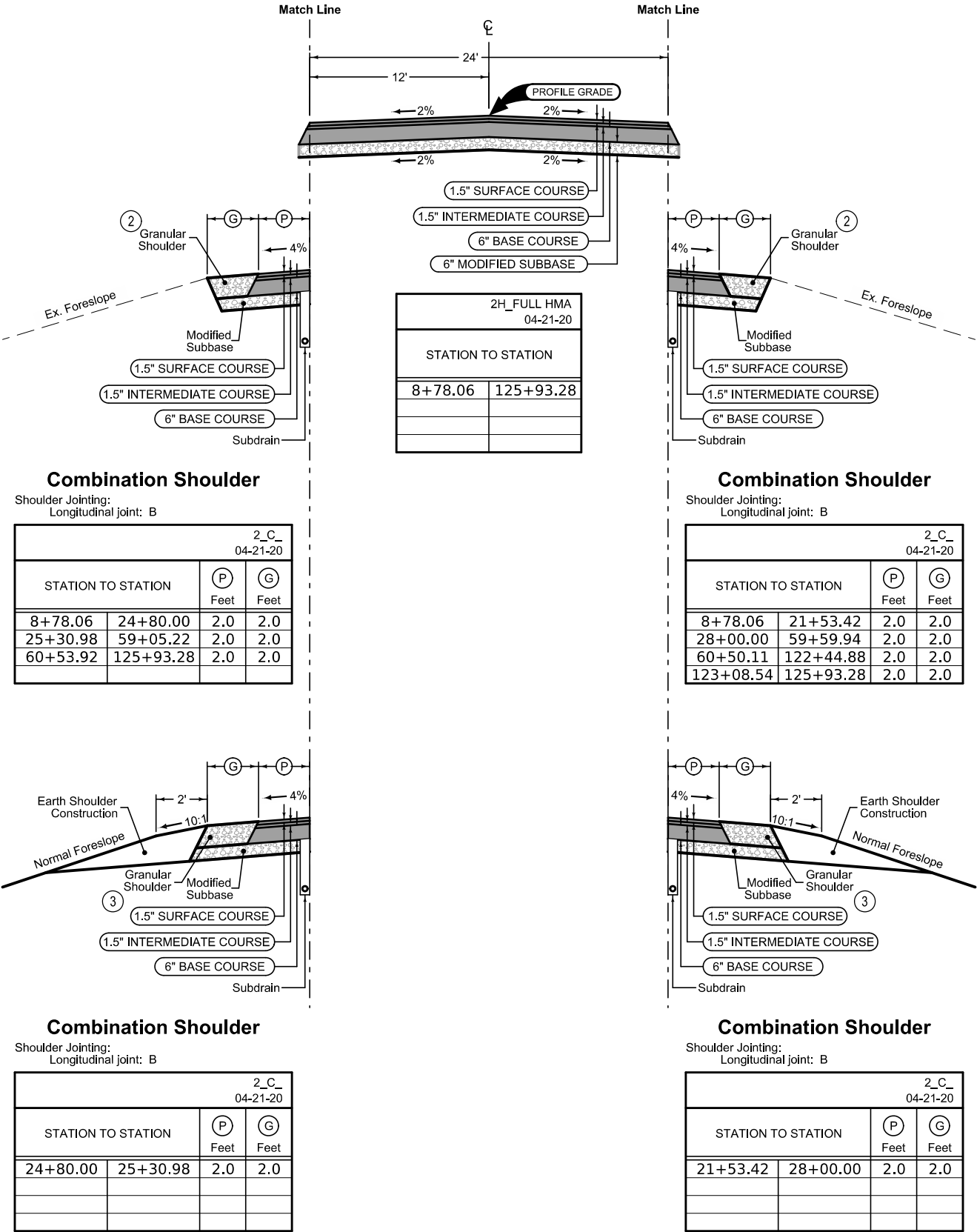
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M.P. 29.80  
\*\*STA. 8+78.06

BEGIN PROJECT  
M.P. 27.54  
\*\*STA. 125+93.28

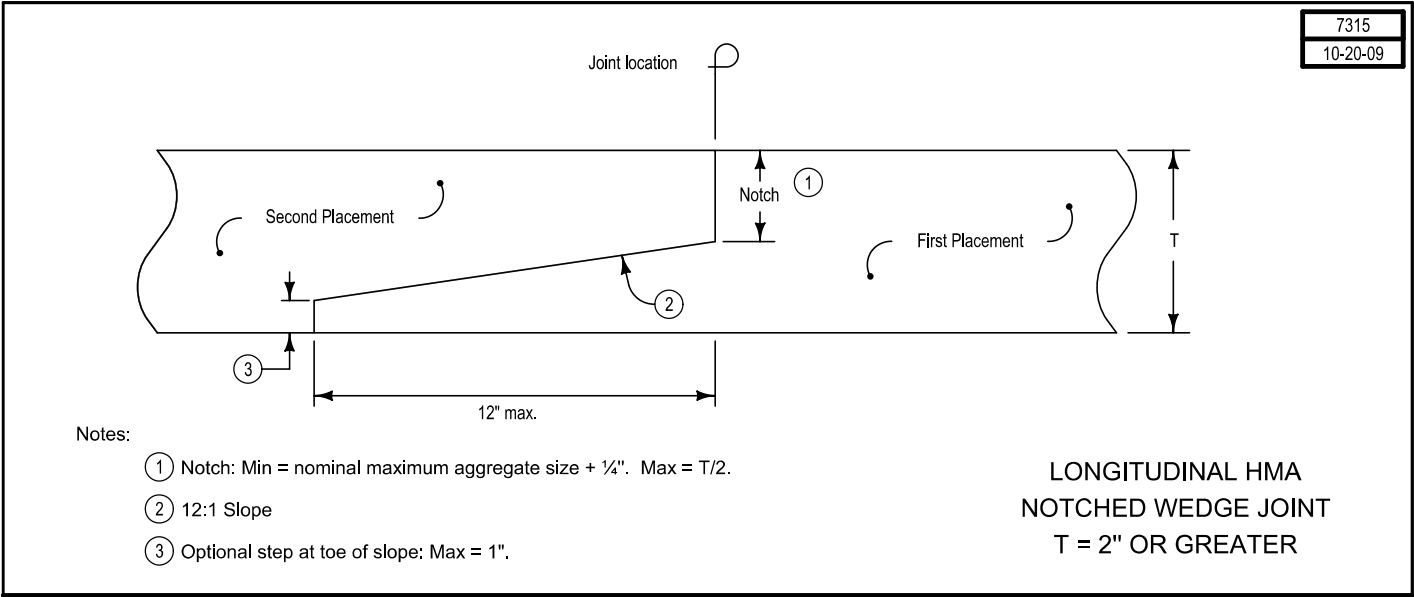
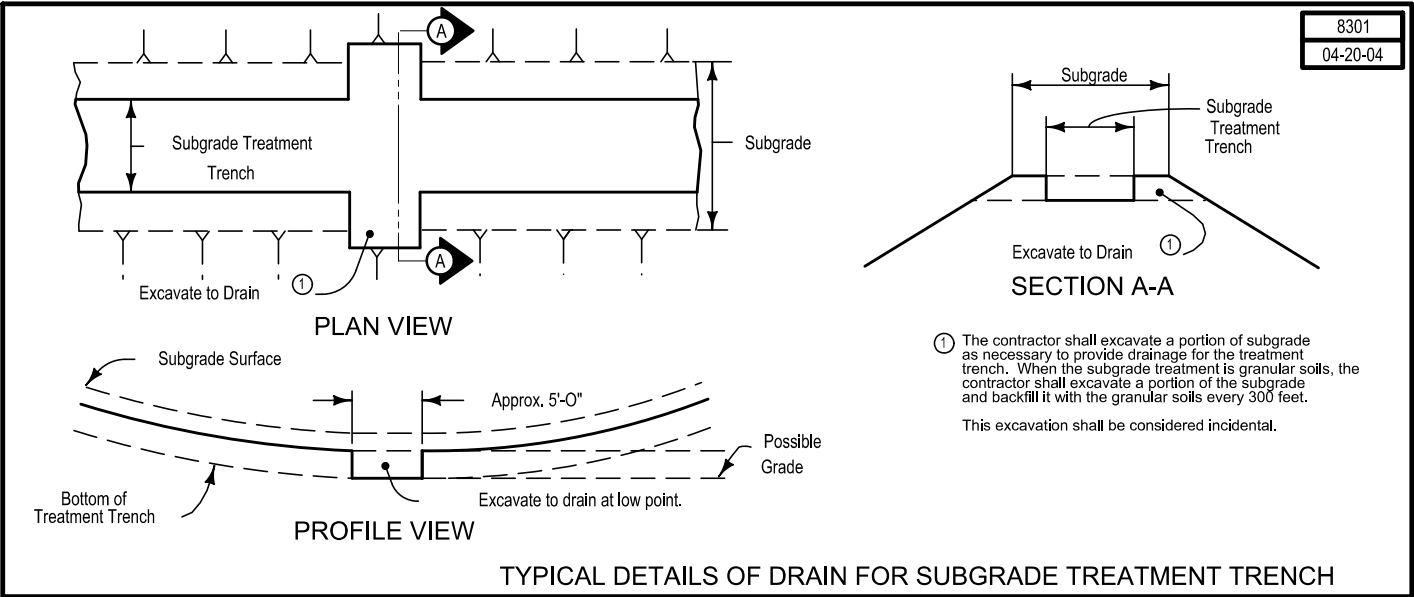
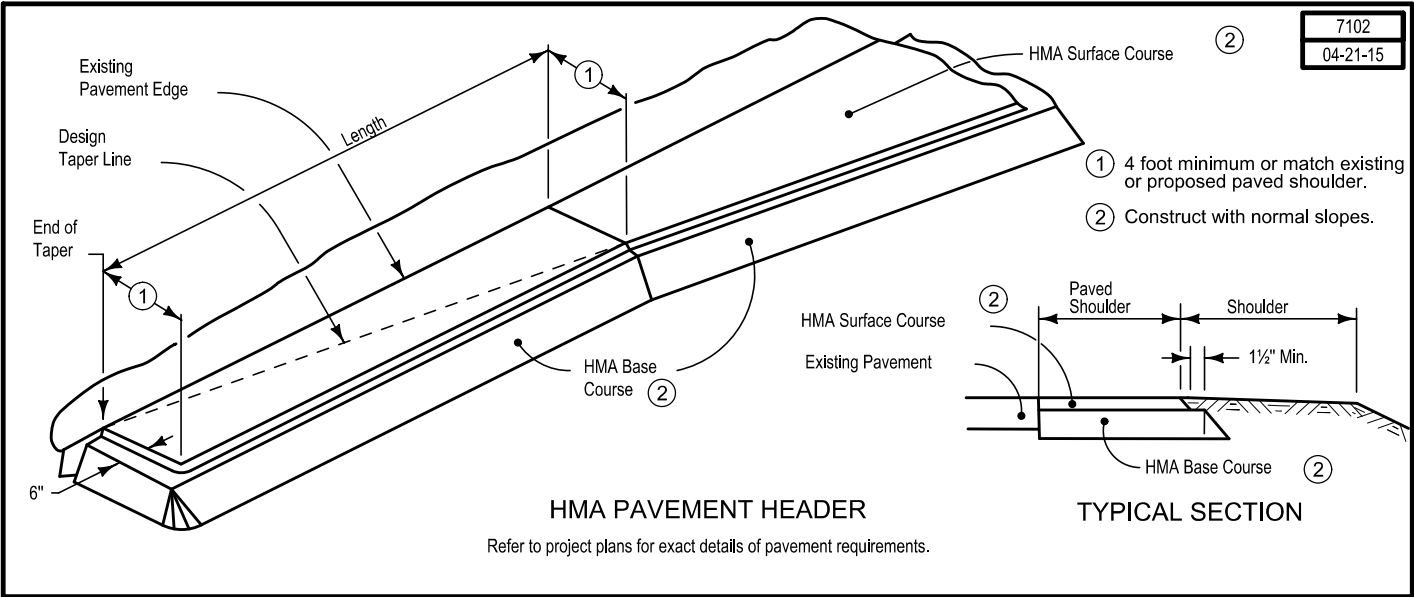




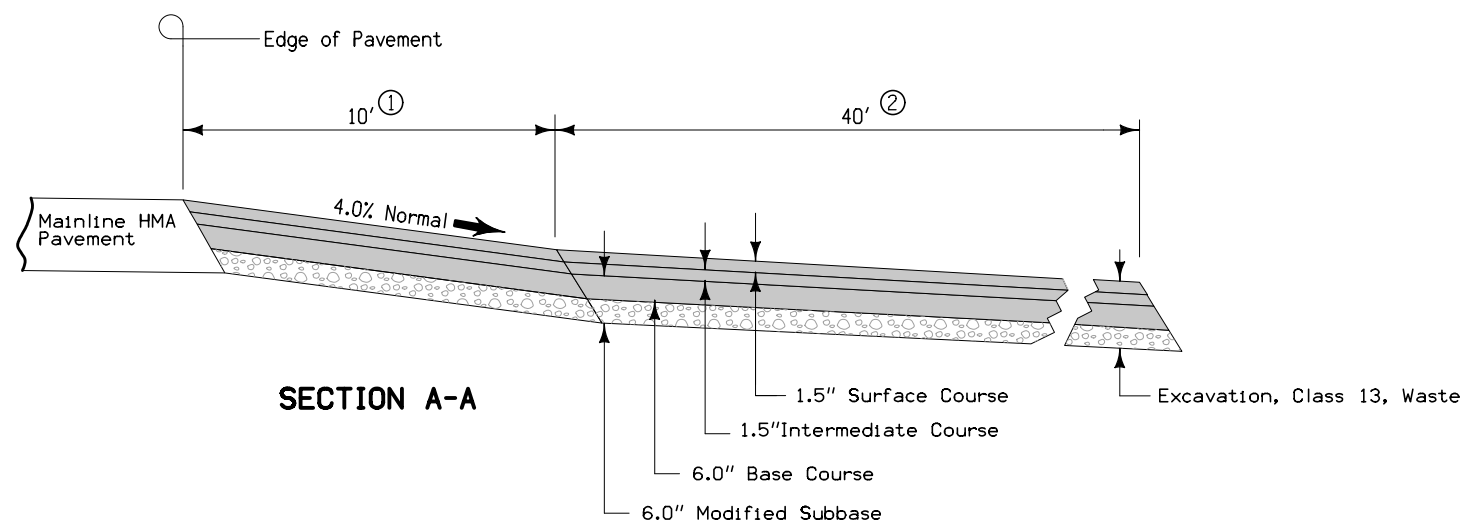
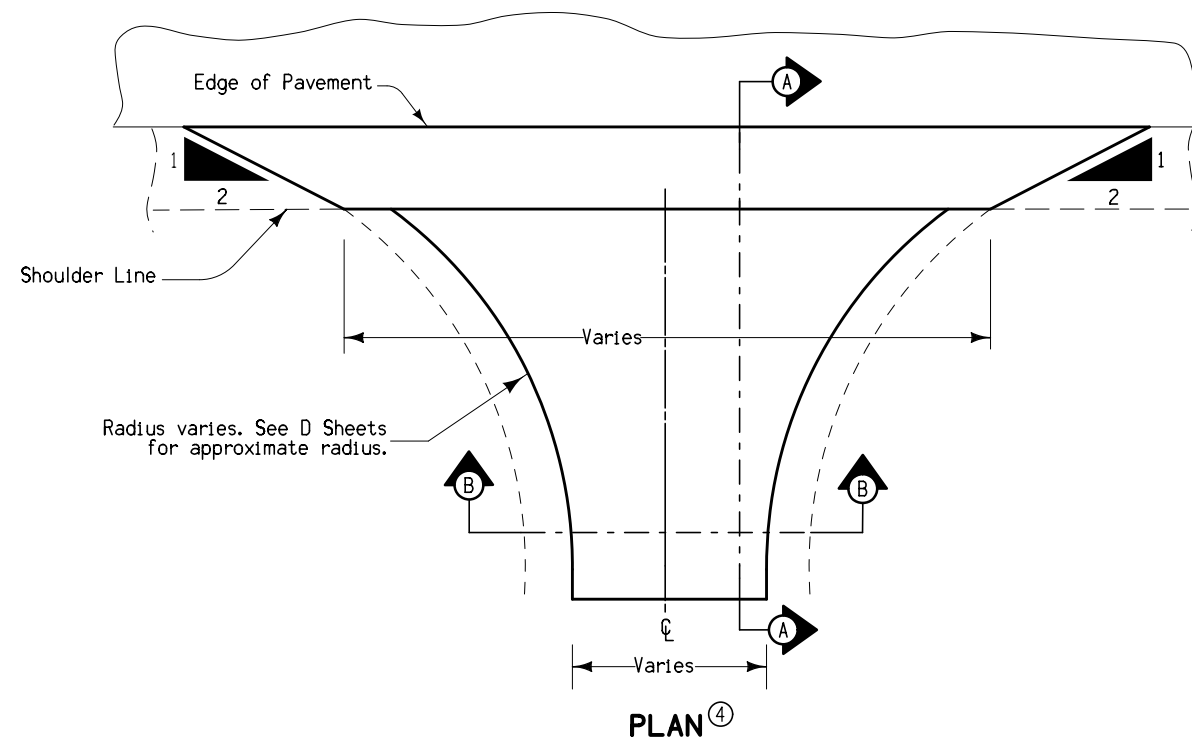
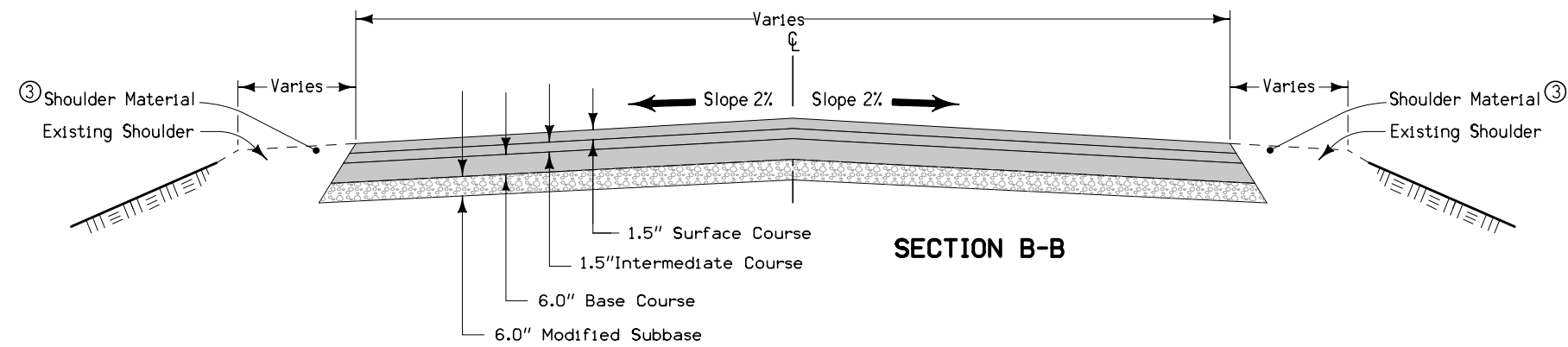
- Notes:
- ① HMA pavement shall be constructed with a safety edge per PV-3. An additional quantity of 4.1 Tons/Sta. EA. Side has been added to the HMA Base Quantity for estimating purposes.
  - ② Quantity estimated at 8.0 Tons/Sta.
  - ③ Quantity estimated at 10.5 Tons/Sta.









[illegible]

NOTES:

- ① Quantities in STP-136-2(116)--2C-23, Division 1.
- ② Quantities in STP-136-2(116)--2C-23, Division 2 or Division 3.
- ③ Quantity included in bid item for Granular Shoulder, Type B.
- ④ Dimensions shall be adjusted by the engineer to fit existing conditions.

## DETAIL SHEET

## EXTENDED PAVED FILLETS FOR SIDEROADS



ESTIMATED PROJECT QUANTITIES AND REFERENCE NOTES

Division 1 : Iowa DOT - Participating  
Division 2 : Clinton Co - Non-Participating  
Division 3 : City of Delmar - Non-Participating

Item no.	Item Code	Item	Unit	Quantities				Estimate Reference Notes
				Estimated				
				Division 1	Division 2	Division 3	Total	
1	2102-2710070	EXCAVATION, CLASS 10, ROADWAY AND BORROW	CY	245			245	Refer to T Sheets.  Overhaul is incidental to roadway excavation on this project and will not be paid for separately
2	2102-2710090	EXCAVATION, CLASS 10, WASTE	CY	2,955			2,955	Dispose of excess material according to Article 1106.07 of the current specifications.
3	2102-2713090	EXCAVATION, CLASS 13, WASTE	CY	3,727	165	51	3,943	Dispose of excess material according to Article 1106.07 of the current specifications.  Material is from excavation of existing granular shoulders and sideroad material removed for construction of extended paved fillets.
4	2105-8425015	TOPSOIL, STRIP, SALVAGE AND SPREAD	CY	398			398	Refer to Tab. 103-10 on sheet CS.3 for details and the T Sheets.  Quantity will be computed on the basis of a uniform 12 inch cut, or the depth as specified in the contract documents over the area involved. Sufficient field measurements will be taken to assure reasonable conformity with the required depth of cut.
5	2113-0001100	SUBGRADE STABILIZATION MATERIAL, POLYMER GRID	SY	4,165			4,165	Quantity estimated at 10% of the mainline pavement area for use in areas as determined by the engineer where unstable subgrade may be encountered during construction.
6	2115-0100000	MODIFIED SUBBASE	CY	6,942	70	25	7,037	Refer to Sheet B.3  Refer to Typical on Sheet B.1 and B.3
7	2121-7425010	GRANULAR SHOULDERS, TYPE A	TON	3,500			3,500	Includes 1,868 tons for mainline shoulders as shown on Sheet B.01.  Includes 1,632 Tons for maintenance of local residential property access as determined to be needed by the contractor and final granular surfacing of existing driveways. ----- Refer to Tab. 112-9 and 102-3 on Sheet C.17 and C.18.



Item no.	Item Code	Item	Unit	Quantities				Estimate Reference Notes
				Estimated				
				Division 1	Division 2	Division 3	Total	
8	2123-7450000	SHOULDER CONSTRUCTION, EARTH	STA	7			7	Includes 7 Sta. of earth shoulders on mainline from Sta. 24+80 to 25+30 Lt, and Sta. 21+50 - 28+00 Rt. ----- Requires approximately 200 cu. yds. for Earth Shoulder Fill. ----- Requires a minimum of 6 inches of topsoil. Place according to Article 2105.03,B of the Standard Specifications. Topsoil is incidental to the Earth Shoulder Construction Method of Measurement
9	2303-1031750	HOT MIX ASPHALT STANDARD TRAFFIC, BASE COURSE, 3/4 IN. MIX	TON	12,986	140	43	13,169	An additional 5% quantity has been included for irregularities.  RAP is not allowed in the bottom 3 inches of the base course mix.
10	2303-1032500	HOT MIX ASPHALT STANDARD TRAFFIC, INTERMEDIATE COURSE, 1/2 IN. MIX	TON	3,247	35	11	3,293	An additional 5% quantity has been included for irregularities.
11	2303-1033504	HOT MIX ASPHALT STANDARD TRAFFIC, SURFACE COURSE, 1/2 IN. MIX, FRICTION L-4	TON	3,355	36	12	3,403	
12	2303-1258283	ASPHALT BINDER, PG 58-28S, STANDARD TRAFFIC	TON	1,175	13	4	1,192	
13	2303-6911000	HOT MIX ASPHALT PAVEMENT SAMPLES	LS	1			1	
14	2303-7000610	PAYMENT ADJUSTMENT INCENTIVE/DISINCENTIVE FOR HMA MIXTURE LABORATORY VOIDS (FORMULA - BY PAY FACTOR)	EACH	19,588	211	66	19,865	
15	2303-7000620	PAYMENT ADJUSTMENT INCENTIVE/DISINCENTIVE FOR HMA MIXTURE FIELD VOIDS (FORMULA - BY PAY FACTOR)	EACH	19,588	211	66	19,865	
16	2317-7000120	PAYMENT ADJUSTMENT INCENTIVE/DISINCENTIVE FOR HMA PAVEMENT SMOOTHNESS (BY SCHEDULE)	EACH	7,498			7,498	
17	2401-6750001	REMOVALS, AS PER PLAN	LS	1			1	Includes all work for removal and off-site disposal of the existing 2' x 2' x 37' RCB at Sta. 25+03
18	2402-0425040	FLOODED BACKFILL	CY	39			39	See Tab. 104-03 on Sheet C. 19  Includes 30 CY of Floodable Backfill and 9 CY of Porous Backfill
19	2402-2720100	EXCAVATION, CLASS 20, FOR ROADWAY PIPE CULVERT	CY	55			55	Refer to Tab. 104-3 on Sheet C.19.



Item no.	Item Code	Item	Unit	Quantities				Estimate Reference Notes
				Estimated				
				Division 1	Division 2	Division 3	Total	
20	2416-0102224	APRON, LOW CLEARANCE CONCRETE, EQUIVALENT DIAMETER 24 IN.	EACH	4			4	
21	2416-1200224	CULVERT, LOW CLEARANCE CONCRETE ROADWAY PIPE, EQUIVALENT DIAMETER 24 IN.	LF	92			92	
22	2502-8212034	SUBDRAIN, LONGITUDINAL, (SHOULDER) 4 IN. DIA.	LF	26,430			26,430	
23	2502-8221306	SUBDRAIN OUTLET, DR-306	EACH	100			100	
24	2506-4984000	FLOWABLE MORTAR	CY	16			16	Includes 16 CY. for backfill over culvert. Refer to Tab. 104-03 on Sheet C.19
25	2510-6745850	REMOVAL OF PAVEMENT	SY	28,637			28,637	Refer to Tabs. 102-5 and 110-1 on Sheets C.10 and C.13.
26	2520-0005010	POP-UP NETWORK DEVICE	EACH	1			1	
27	2520-3350015	FIELD OFFICE	EACH	1			1	
28	2527-9263209	PAINTED PAVEMENT MARKINGS, WATERBORNE OR SOLVENT-BASED	STA	325			325	
29	2527-9270112	GROOVES CUT FOR PAVEMENT MARKINGS	STA	234			234	Edgelines only
30	2528-2518000	SAFETY CLOSURE	EACH	5			5	
31	2528-8445110	TRAFFIC CONTROL	LS	1			1	Refer to Traffic Control Plan on Sheet J.1.  For details of detour route and signing layout see Sheet J.4 and J.5.  Furnishing, installing, maintaining, and removal of all detour signing is incidental to Traffic Control.
32	2528-8445113	FLAGGERS	EACH	0			0	See Proposal.
33	2528-8445115	PILOT CARS	EACH	0			0	
34	2528-9290050	PORTABLE DYNAMIC MESSAGE SIGN (PDMS)	CDAY	0			0	See Proposal for quantity
35	2533-4980005	MOBILIZATION	LS	1			1	
36	2548-0000100	MILLED SHOULDER RUMBLE STRIPS, HMA SURFACE	STA	212			212	
37	2548-0000110	ASPHALT EMULSION FOR FOG SEAL (SHOULDER RUMBLE STRIPS)	GAL	230			230	
38	2548-0000310	MILLED CENTERLINE RUMBLE STRIPS, HMA SURFACE	STA	106			106	



Item no.	Item Code	Item	Unit	Quantities				Estimate Reference Notes
				Estimated				
				Division 1	Division 2	Division 3	Total	
39	2601-2634100	MULCHING	ACRE	2			2	<p>Perform mulching according to Article 2601.03, E, 2, of the Standard Specifications. Anchor mulch into the soil using mulch anchoring equipment with a minimum of two passes.</p> <p>Item is included for areas requiring reshaping and seedbed preparation. Use mulch that is Certified Noxious Weed Seed Free Mulch as certified by the Iowa Crop Improvement Association or adjacent states Crop Improvement Association.</p> <p>Mulch Rate: 1 1/2 tons of dry cereal straw or native grass straw per acre. MULCHING</p>
40	2601-2636043	SEEDING AND FERTILIZING (RURAL)	ACRE	1			1	Seed and fertilize all areas 8 foot adjacent to the shoulder mainline, medians, and side according to Article 2601.03, C, 3, of the Standard Specifications.
41	2601-2638352	SLOPE PROTECTION, WOOD EXCELSIOR MAT	SQ	55			55	<p>Refer to Tab. 100-22 for locations. Refer to Standard Road Plan EC-103</p> <p>-----</p> <p>Prepare seedbed according to Article 2601.03, B, 4, of the Standard Specifications prior to seeding and fertilizing under the slope protection.</p> <p>Use material meeting Article 4169.10, C of the Standard Specifications.</p>
42	2601-2640350	SPECIAL DITCH CONTROL, WOOD EXCELSIOR MAT	SQ	65			65	<p>Refer to Tab. 100-22 for locations. Refer to Standard Road Plan EC-101.</p> <p>-----</p> <p>Prepare seedbed according to Article 2601.03, B, 4 of the Standard Specifications. Install according to Article 2601.03, H, 2, of the Standard Specifications. Seed according to Article 2601.03, H, 2, of the Standard Specifications. See sheet X.X for locations. Use material meeting the requirements of Article 4169.10, B of the Standard Specifications.</p>
43	2601-2642100	STABILIZING CROP - SEEDING AND FERTILIZING	ACRE	1			1	<p>Item is included for disturbed areas.</p> <p>Seed and fertilize all disturbed areas according to Article 2601.03, C, 1, of the Standard Specifications.</p>
44	2601-2643110	WATERING FOR SOD, SPECIAL DITCH CONTROL, OR SLOPE PROTECTION	MGAL	24			24	Estimate for watering Special Ditch Control, Slope Protection Areas, Turf Reinforcement Mat, or Transition Mat is based on a total of four waterings at a rate of 50 gallons per square.
45	2601-2643300	MOBILIZATION FOR WATERING	EACH	3			3	
46	2602-0000320	PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE, 20 IN. DIA.	LF	2,730			2,730	<p>Refer to Tab. 100-19.</p> <p>The tabulation includes estimated locations for placement of "Perimeter and Slope Sediment Control Device, 20 in. dia." to address erosion to be encountered during construction. Verify the specific locations with the Engineer prior to beginning placement. Bid item includes 25% additional quantity for field adjustments and replacements.</p>



Item no.	Item Code	Item	Unit	Quantities				Estimate Reference Notes
				Estimated				
				Division 1	Division 2	Division 3	Total	
47	2602-0000351	REMOVAL OF PERIMETER AND SLOPE OR DITCH CHECK SEDIMENT CONTROL DEVICE	LF	2,960			2,960	
48	2602-0000370	DITCH CHECK SEDIMENT CONTROL DEVICE, 20 IN. DIA.	LF	230			230	Refer to Tab. 100-19.  The tabulation includes estimated locations for placement of "Ditch Check Sediment Control Device, 20 in. dia." to address erosion to be encountered during construction. Verify the specific locations with the Engineer prior to beginning placement. Bid item includes 25% additional quantity for field adjustments and replacements.
49	2602-0010010	MOBILIZATIONS, EROSION CONTROL	EACH	1			1	
50	2602-0010020	MOBILIZATIONS, EMERGENCY EROSION CONTROL	EACH	1			1	



100\_01D  
8/15/22

PROJECT DESCRIPTION

This project is located on Iowa 136 in Clinton County, from WCL of Delmar westerly to the US 61 interchange.

- The work includes:
- Full-Depth Removal of Existing Composite Pavement
  - Grading
  - Removal of One Existing RCB
  - Installation of twin 24 IN. EQUIV. DIA. LCP Culverts
  - Modified Subbase
  - Full-Depth HMA Mainline and Shoulder Paving
  - Granular Shoulders
  - Milled Centerline and Shoulder Rumble Strips
  - Longitudinal Subdrain
  - Pavement Markings
  - Erosion Control

Monument preservation will be performed by District 6 Right-of-Way post-construction.  
Control Point Survey, Location Survey, and any ROW staking needs for construction will be performed by the Davenport RCE office. Contractor shall provide adequate notice to the Engineer of any staking needs.



111_25 4/21/26		
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100_22	ROLLED EROSION CONTROL	RC.5



<div>105_04 4/21/26</div> <div>STANDARDS</div> <div>The following Standards apply to construction work on this project.</div>		
Number	Date	Title
DR-101	4/18/2017	Pipe Culvert (Bedding and Backfill)
DR-102	4/21/2015	Pipe Culvert (Cover and Camber)
DR-103	4/21/2015	Pipe Culvert (Installation Details)
DR-104	4/19/2016	Depth of Cover Tables for Concrete and Corrugated Pipe
DR-121	4/18/2023	Connected Pipe Joints
DR-201	10/17/2023	Concrete Aprons
DR-202	10/17/2023	Low Clearance Concrete Pipe Aprons
DR-206	10/17/2023	Low Clearance Concrete Pipe Apron With End Wall
DR-303	10/17/2017	Subdrains (Longitudinal)
DR-306	10/17/2023	Precast Concrete Headwall for Subdrain Outlets
EC-101	4/19/2016	Wood Excelsior Mat for Ditch Protection
EC-103	4/21/2015	Wood Excelsior Mat for Slope Protection
EC-204	10/19/2021	Perimeter, Slope and Ditch Check Sediment Control Devices
EW-301	4/16/2024	Guardrail Grading
PM-110	10/15/2024	Line Types
PM-115	4/15/2025	Grooving for Line Types
PM-120	10/15/2024	Stop Lines and Islands
PM-420	10/15/2024	Two-Lane Roadway with no Turn Lanes (One-Way Stop Condition)
PM-520	10/15/2024	Two-Lane Roadway with no Turn Lanes (Two-Way Stop Condition)
PV-101	10/21/2025	Joints
PV-12	4/16/2024	Milled Shoulder Rumble Strips
PV-13	4/16/2024	Milled Centerline Rumble Strips
PV-3	10/15/2024	Safety Edge
TC-1	10/15/2019	Work Not Affecting Traffic (Two-Lane or Multi-Lane)
TC-202	4/18/2023	Work Within 15 ft of Traveled Way
TC-212	4/18/2023	Spot Location Lane Closure with Flaggers
TC-214	4/18/2023	Lane Closure with Flaggers for use with Pilot Car
TC-252	10/21/2025	Routes Closed to Traffic



PROPOSED POSTED SPEED LIMIT					
Line No.	Roadway Identification	Station From	Station To	Proposed Posted Speed	Remarks
1.0	IA 136	8+78.06	125+93.28	over 45	50 MPH

100\_27  
8/15/22



102\_05  
9/29/23

EXISTING PAVEMENT																				
County	Route	Direction of Travel	Begin Ref. Location Sign	End Ref. Location Sign	Year	Type	Project Number	Surface Type	Surface Depth (IN)	Base Type	Base Depth (IN)	Subbase Type	Subbase Depth (IN)	Removal Type	Removal Depth (IN)	Coarse Aggregate Source	Coarse Aggregate Type	Course Aggregate Durability Class	Reinforcement Type	Remarks
	IA-136	Both	27.56	29.95	2018	M	STPN-136-1(86)--2J-23	SS												
	IA-136	Both	27.56	29.95	2004	M	MP-136-6(706)1--76-23													PCC patching VL
	IA-136	Both	27.56	29.95	1991		FN-136-1(34)--21-2	AAC	1.5	BAC	1.5					CRESCENT	C.LST.			WIDEN
	IA-136	Both	27.56	29.95	1929		FA-295	PC7	7.0							BELLEVUE	GRAVEL	I		



102\_05A  
9/29/23

EXISTING HMA PAVEMENT FOR RECYCLING																
For informational purposes only. When designed RAP is specified, process the RAP to control the uniformity of the final mixture.																
Route No.	Location	Year Placed	Layer	Thickness	Asphalt Binder Grade	Asphalt Binder Content	Description	Quality Type	Size	Content	% of -4 that is Type 2	% of +4 that is Type 2	% of +4 that is Type 3	% of +4 that is Type 4	% Crushed	% Limestone
136		1991	Surface	1.5	AC 10	5.5		A	1/2''	75.0				96.1	75.0	
136		1991	Base	1.5	AC 10	6.2		B	3/4	67.0				95.9	67.0	



UTILITIES			
Company	Contact	Phone	Email
Alliant Energy	Billie Reid	800-255-4268	billiereid@alliantenergy.com
Iowa DOT	Jason Hermann		jason.hermann@iowadot.us
Eastern Iowa Power & Power	Chad Ruden	563-529-3727	chad.ruden@easterniowa.com
Northern Natural Gas	Jennifer Sweney	651-402-1776	jennifer.sweney@nngco.com
Windstream	Steve Kness	319-538-1985	stephen.kness@windstream.com

111\_26  
4/15/25



<div>REMOVAL OF PAVEMENT</div> <div>Refer to Tabulation 102-5.</div>						110_01 4/5/24
* Not a bid item.						
Station From	Station To	Side	Pavement Type	Area (SY)	Saw Cut* (LF)	Remarks
8+78.06	125+93.28	Both	Composite	28637.0	44.0	3" HMA over 10-7-10 PCC

Bid Item Quantities:  
Removal of Pavement - 28,637 SY

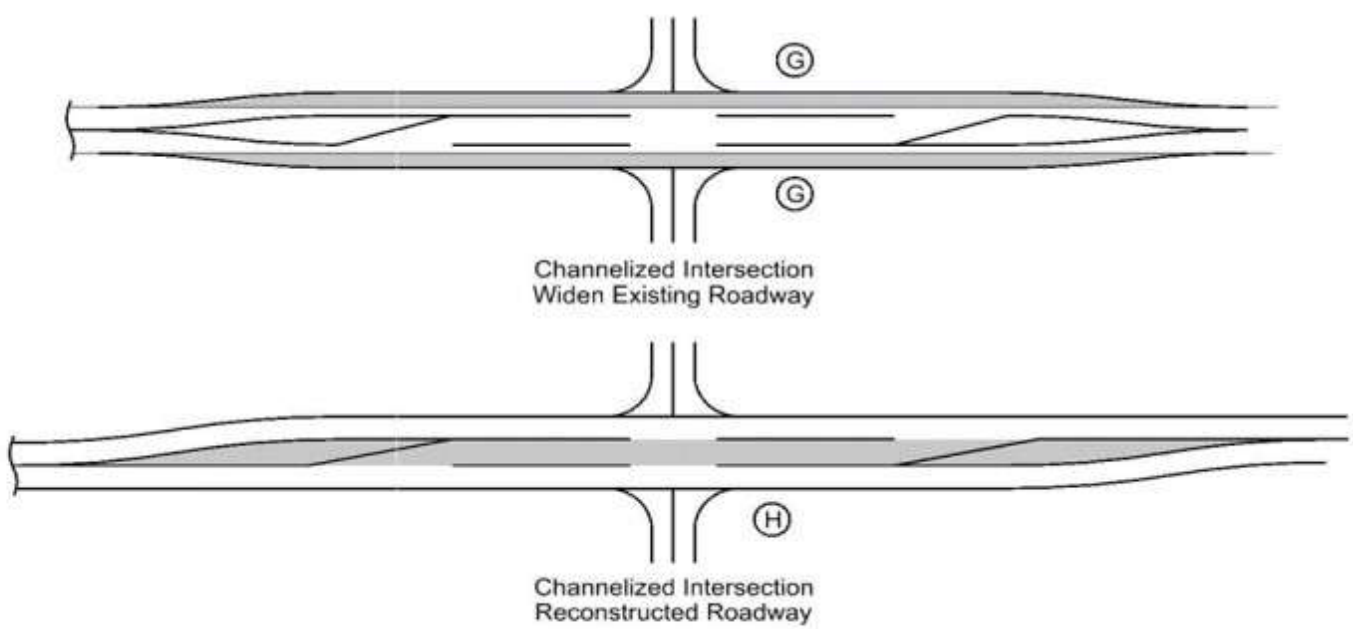
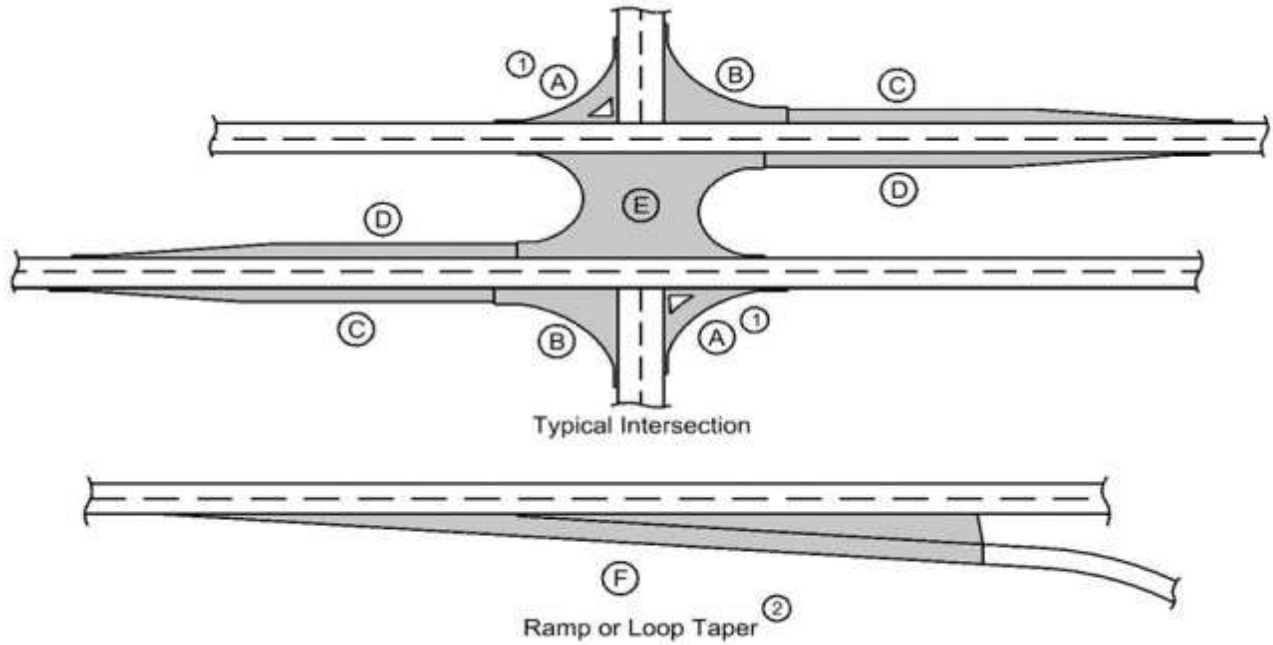


REMOVAL OF EXISTING STRUCTURES				110 02 8/15/22
Line No.	Location	Description	Remarks	
1.0	25+03	2' x 2' x 37.3' RCB	46' in length including wingwalls	

Bid Item Quantities:  
Removals, As Per Plan - 1.0 LS



HMA PAVEMENT



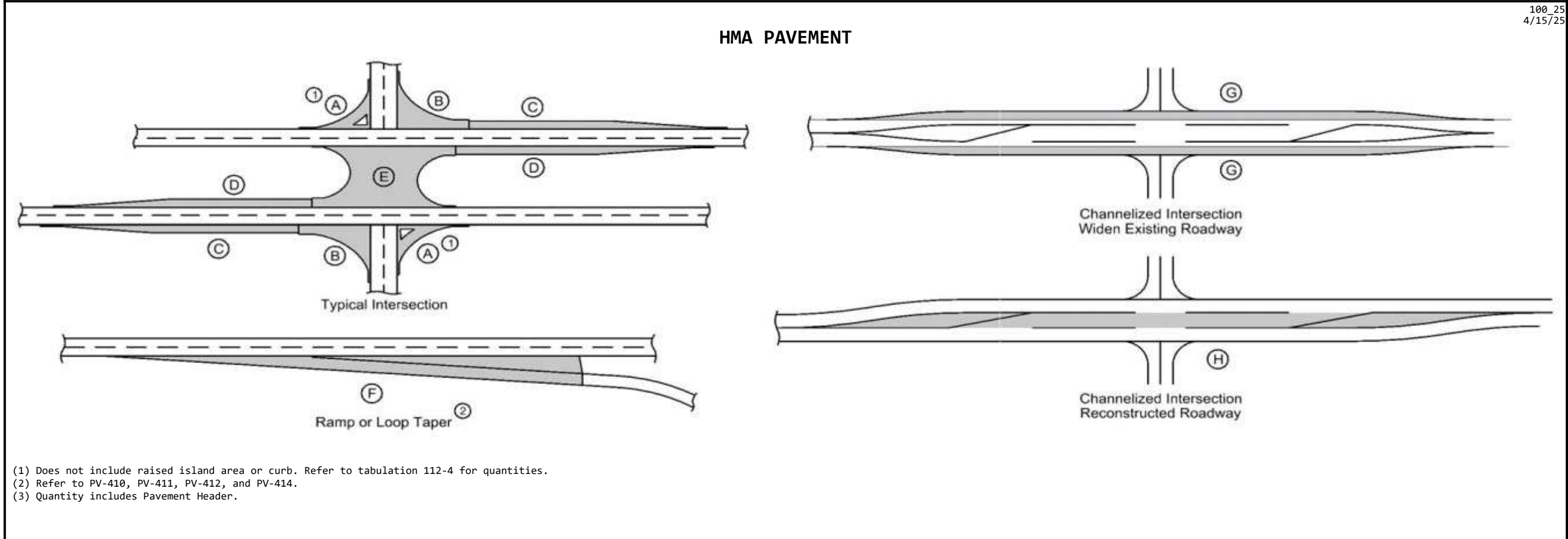
(1) Does not include raised island area or curb. Refer to tabulation 112-4 for quantities.  
(2) Refer to PV-410, PV-411, PV-412, and PV-414.  
(3) Quantity includes Pavement Header.

Road Identification	Direction of Travel	Station From	Station To	Width (FT)	Length (FT)	Area (SY)	Area A(1) (SY)(3)	Area B (SY)(3)	Area C (SY)(3)	Area D (SY)(3)	Area E(2) (SY)(3)	Area F (SY)(3)	Area G (SY)(3)	Area H (SY)(3)	Total Area (SY)	Surface Course Unit Weight (lbs-Unit Weight)	Intermediate Course Unit Weight	Base Course Unit Weight (lbs-cf)	Pavement Thickness Surface (IN)	Pavement Thickness Intermediate (IN)	Pavement Thickness Base (IN)	HMA Pavement Surface (TONS)	HMA Pavement Intermediate (TONS)	HMA Pavement Base (TONS)	Binder Surface (TONS)	Binder Intermediate (TONS)	Binder Base (TONS)	Modified Subbase (CY)	Remarks
IA 136	Both	8+78.06	125+93.28	28.0	11715.22	36447.35									36447.35	155	150	150	1.5	1.5	6.0	3178.000	3075.000	12301.000	191.000	185.000	738.000	6942.00	
235th Ave	Both	59+94.53	59+94.53	30.7		18.00	73.00								91.00	155	150	150	1.5	1.5	6.0	8.000	8.000	31.000	1.000	1.000	2.000	15.00	Div. 1
235th Ave	Both	59+94.53	59+94.53	30.7		183.00	46.00								229.00	155	150	150	1.5	1.5	6.0	20.000	19.000	77.000	1.000	1.000	5.000	40.00	Div. 2
235th Ave	Both	59+99.01	59+99.01	27.7		22.00	39.00								61.00	155	150	150	1.5	1.5	6.0	5.000	5.000	21.000	1.000	1.000	1.000	10.00	Div. 1
235th Ave	Both	59+99.01	59+99.01	27.7		133.00	32.00								165.00	155	150	150	1.5	1.5	6.0	14.000	14.000	56.000	1.000	1.000	3.000	30.00	Div. 2
Western Ave	Both	122+83.38	122+83.38	20.0		16.00	28.00								44.00	155	150	150	1.5	1.5	6.0	4.000	4.000	15.000	1.000	1.000	1.000	7.00	Div. 1
Western Ave	Both	122+83.38	122+83.38	20.0		105.00	17.00								122.00	155	150	150	1.5	1.5	6.0	11.000	10.000	41.000	1.000	1.000	2.000	25.00	Div. 3
Total:															37159.35							3240	3135	12542	197	191	752	7069	

Bid Item Quantities:  
Division 1 - Iowa DOT  
Ex. CL. 13, Waste - 82 CY  
Modified Subbase - 6,972 CY  
HMA Standard Traffic, Base Course, 3/4 IN. Mix - 12,986 Tons  
HMA Standard Traffic, Intermediate Course, 1/2 IN. Mix - 3,247 Tons  
HMA Standard Traffic, Surface Course, 1/2 IN. Mix - 3,355 Tons

Asphalt Binder, PG 58-28S, Standard Traffic - 1,175 Tons







112\_09  
4/21/26

SHOULDERS

(1) Lane(s) to which the shoulder is adjacent.  
(2) See Typ. 7156, 7157, or 7158.  
(3) Bid Item.  
(4) Applies only for Paved Shoulders constructed on project with existing granular shoulders.  
(5) Bid Item. Typ. 7156, 7157, or 7158.  
(6) Does not include shrink.  
(7) Paved shoulder thickness specified in Remarks.  
(8) Subbase type specified in Remarks.

Roadway Identification	Direction of Travel (1)	Station From	Station To	Side	P Width (FT)	P SG Width (2) (FT)	G Width (FT)	L Length (FT)	Class 13 Excavation (CY)(3)(4)	HMA (TON)	HMA (TON/ STA)	Binder (TONS)	Paved Shoulder (3) (SY)	Shoulder at Grd rail (5)(7)	Reinforced Paved Shoulder(3) (SY)	Pavement Scarification (SY)	Polymer Grid (SY)	Granular Shoulder (3) (TON)	Granular Shoulder (TON/STA)	Shoulder Const. Alt (3) (STA)	Shoulder Const. Alt HMA (6) (CY)	Shoulder Const. Alt PCC (6) (CY)	Remarks
IA 136	NB	8+78.06	24+80.00	Left			2	1602.00										128.000	8.000				
IA 136	NB	24+80.00	25+30.98	Left			2	51.00										5.000	10.500	1.00	15.00		
IA 136	NB	25+30.98	59+05.22	Left			2	3374.00										270.000	8.000				
IA 136	NB	60+53.92	125+93.28	Left			2	6539.00										523.000	8.000				
IA 136	SB	8+78.06	21+53.42	Right			2	1275.00										102.000	8.000				
IA 137	SB	21+53.42	28+00.00	Right			2	647.00										68.000	10.500	6.00	185.00		
IA 138	SB	28+00.00	59+59.94	Right			2	3160.00										253.000	8.000				
IA 136	SB	60+50.11	122+44.88	Right			2	6195.00										496.000	8.000				
IA 136	SB	123+08.54	125+93.28	Right			2	285.00										23.000	8.000				
Total:																		1868		7	200		

Bid Item Quantities:  
Granular Shoulders, Type A - 1,868 Tons  
Shoulder Construction, Earth - 7 Sta.



ACCESS POINTS AND SAFETY RAMPS

Refer to Cross-Sections

102\_03  
10/15/24

Length of Unclassified Pipe calculated is based on using Corrugated Metal Pipe.

- (1) Refer to MI-210.  
(2) Refer to EW-501.  
(3) Refer to EW-501 or EW-502.

\*Predetermined for access point not constructed with this project.

Station	Side	Access Type	Descriptor	Case	Curb Type	Curb Length (1) (LF)	Width (FT)	PR (1) (2) (FT)	SR (2) (FT)	Pipe Culvert (H) (3) (FT)	Pipe Culvert Size (3) (IN)	Culvert Length (3) (LF)	Pipe Culvert Lt. (3) (LF)	Pipe Culvert Rt. (3) (LF)	Culvert Aprons (3) (No.)	Driveway Surface Type	Driveway Surface Area (SY)	Driveway Surfacing Material (TON)	Remarks
11+28.00	Right	C														Granular	17.0	4.000	(4) (5)
11+29.00	Left	C														Granular	23.0	5.000	(4) (5)
15+75.00	Left	C														Granular	18.0	4.000	(5)
20+14.00	Right	C														Granular	43.0	9.000	(4) (5)
20+36.00	Right	C														Granular	45.0	10.000	(4) (5)
23+07.00	Left	C														Granular	25.0	5.000	(4) (5)
23+57.00	Left	C														Granular	22.0	5.000	(4) (5)
29+19.00	Left	C														Granular	23.0	5.000	(4) (5)
49+19.00	Right	C														Granular	54.0	11.000	(4) (5)
51+99.00	Right	C														Granular	77.0	16.000	(5)
58+07.00	Left	C														Granular	15.0	3.000	(5)
58+13.00	Right	C														Granular	19.0	4.000	(4) (5)
87+14.00	Right	C														Granular	15.0	3.000	(5)
88+96.00	Right	C														Granular	40.0	8.000	(5)
90+17.00	Right	C														Granular	29.0	6.000	(5)
90+26.00	Left	C														Granular	53.0	11.000	(5)
90+70.00	Right	C														Granular	34.0	7.000	(5)
91+69.00	Left	C														Granular	39.0	8.000	(5)
91+82.00	Right	C														Granular	42.0	9.000	(5)
100+63.00	Left	C														Granular	96.0	20.000	(4) (5)
109+04.00	Right	C														Granular	31.0	7.000	(5)
110+50.00	Left	C														Granular	22.0	5.000	(5)
112+23.00	Left	C														Granular	48.0	10.000	(4) (5)
117+31.00	Left	C														Granular	22.0	5.000	(5)
118+52.00	Left	C														Granular	21.0	4.000	(5)
118+92.00	Right	C														Granular	23.0	5.000	(4) (5)
124+97.00	Left	C														Granular	56.0	12.000	(4) (5)

Bid Item Quantities:  
Granular Shoulders, Type A - 200 Tons

- (4) U.A.C. Ex. Driveway Pipe  
(5) Granular Quantity for driveway resurfacing is included in the Granular Shoulder, Type A item  
(6) Quantities are estimated based on 4" of granular material being needed to touch up each driveway



DRAINAGE STRUCTURE BY ROAD CONTRACTOR

104\_03  
3/18/24

Length of unclassified pipe calculated is based on using Reinforced Concrete Pipe.  
\* Not a bid item  
(1) Diameter or equivalent diameter  
(2) UNCL = Unclassified Pipe    CMP = Corrugated Metal Pipe    RCP = Reinforced Concrete Pipe    LCP = Arch or Elliptical Low Clearance Pipe    SARC = Steel Arch Pipe  
(3) Backfill according to DR-101

Drainage Area (ACRE)	Location	Type	Size (IN) (1)	Pipe Classification	Kind of Pipe (2)	Length New Const. (LF)	Length of total that is Trenchless	Bedding Class	Design Cover (H) (FT)	Camber* (DR-102) (FT)	Apron No. (IN)	Apron No. (OUT)	Apron Guard* (DR-213) (No.)	Elbow* (DR-141) (No.)	Diaphragm* (DR-501) (No.)	Tee Section* (DR-142) (No.)	"D" Section* (DR-141) (No.)	Reducer* (No.)	Type 'C' Conn.* (DR-122)	Type 'C' Conn.* (No.)	Connected Pipe Joint* (DR-121)	4" Perforated Subdrain* (FT)	Flow Line Elevation LT.	Flow Line Elevation RT.	Flow Line Elevation Other	Flow Line Elevation Other	Dimensions Lineal Feet Total (Left)	Dimensions Lineal Feet Total (Right)	Dimensions Lineal Feet Extensions	Dimensions Lineal Feet Extensions	Skew Ahead Degrees (Left)	Skew Ahead Degrees (Right)	Dike Location	Dike Station	Dike Elevation	Dike Type	Class 20 (CY)	Flowable Mortar	Floodable Backfill* (A)	Porous Backfill* (B)	Flooded Backfill (A+B)	Remarks
7	25+01.07		24.0	2000D	LCP	46.0		B	1.91		1	1									Type 1		730.20	729.27			30.22	27.84									55.0	16.0	30.0	9.0	39.0	(4)
7	25+05.65		24.0	2000D	LCP	46.0		B	1.98		1	1									Type 1		730.20	729.26			30.22	27.78														(3) (4)

Bid Item Quantities:  
Ex. CL 20, For Roadway Pipe Culvert - 55 CY  
Apron, LCP, 24 IN. Equivalent DIA. - 4 EA (2 EA - DR 202, 2 EA - DR-206)  
Culvert, LCP Roadway Pipe, 24 IN. Equivalent DIA. - 92 LF  
Flowable Mortar - 16 CY  
-----

Notes:  
(3) CL 20, Flowable, and Flooded for 25+05.6 included in quantities for pipe at 25+01.07  
(4) DR-202 for Outlet Apron, DR-206 for Inlet Apron



MILLED RUMBLE STRIPS															112_10 4/15/25
* Calculated at 18" width for Shoulder. ** For use with penetrating Engineered Fog Seal. Calculated at 2" wider than rumble strips.															
Road Identification	Station From	Station To	Shoulder Pavement Type	Rumble Strip Lane	Rumble Strip Type	Fog Seal Type	L (IN)	PCC Length (STA)	HMA Length (STA)	Fog Seal* Shoulder (GAL)	Fog Seal (SY)**	Effective Shoulder Width PCC (FT)	Effective Shoulder Width HMA (FT)	Effective Shoulder Width Granular\Earth (FT)	Remarks
IA 136	8+78.06	115+10.00	HMA	Centerline	Milled				106.00						
IA 136	8+78.06	115+10.00	HMA	Left Shoulder	Milled	Asphalt			106.00	115.0	1767.0		2.0	2.0	
IA 136	8+78.06	115+10.00	HMA	Right Shoulder	Milled	Asphalt Emulsion			106.00	115.0	1767.0		2.0	2.0	
Total:									318	230	3534				

Bid Item Quantities:  
Milled Shoulder Rumble Strips, HMA Surf - 212 Sta.  
Asphalt Emulsion for Fog Seal (Shoulder Rumble Strips) - 230 Gal.  
Milled Centerline Rumble Strips, HMA Surf - 106 STA



108\_22  
11/25/25

PAVEMENT MARKING LINE TYPES

Line factors based on 6-inch wide continuous line.

\*BCY4 - Place on the same side of the roadway to match existing markings near the project.

\*\*NPY4 - Estimating purposes only. No Passing Zone Lines will be located in the field.

\*\*\*MNY6 - Factor of 1.00 includes number of 6-inch passes to cover median nose area.

BCY4: Broken Centerline (Yellow) @ 0.17

BCY6: Broken Centerline (Yellow) @ 0.25

BLC6: Broken Line Contrast (White/Black) @ 0.50

BLW4: Broken Lane Line (White) @ 0.17

BLW6: Broken Lane Line (White) @ 0.25

CBW6: Crosswalk Bar (White) @ 10.00

CHW8: Channelizing Line (White) @ 1.33

CHW10: Channelizing Line (White) @ 1.67

CHY8: Channelizing Line (Yellow) @ 1.33

CHY10: Channelizing Line (Yellow) @ 1.67

CLW6: Crosswalk Line (White) @ 2.00

DCY4: Double Centerline (Yellow) @ 1.34

DCY6: Double Centerline (Yellow) @ 2.00

DDY4: Double Dotted Line (Yellow) @ 0.44

DDY6: Double Dotted Line (Yellow) @ 0.67

DLW4: Dotted Line (White) @ 0.22

DLW6: Dotted Line (White) @ 0.33

DLY4: Dotted Line (Yellow) @ 0.22

DLY6: Dotted Line (Yellow) @ 0.33

ELW4: Edge Line Right (White) @ 0.67

ELW6: Edge Line Right (White) @ 1.00

ELY4: Edge Line Left (Yellow) @ 0.67

ELY6: Edge Line Left (Yellow) @ 1.00

LDW8: Lane Drop (White) @ 0.33

LDW10: Lane Drop (White) @ 0.42

RLW4: Ramp Edge Line Right (White) @ 0.67

RLW6: Ramp Edge Line Right (White) @ 1.00

SLW4: Solid Lane Line (White) @ 0.67

SLW6: Solid Lane Line (White) @ 1.00

SPY6: Sloped Curb 6" (Yellow) @ 2.28

STW6: Standard Curb 6" (Yellow) @ 2.03

MNY6: Median Nose (Yellow) @ 1.00

NPY4: No Passing Zone Line (Yellow) @ 0.84

NPY6: No Passing Zone Line (Yellow) @ 1.25

RLY4: Ramp Edge Line Left (Yellow) @ 0.67

RLY6: Ramp Edge Line Left (Yellow) @ 1.00

SPW6: Sloped Curb 6" (White) @ 2.28

YLY2: Yield Line (White) @ 1.15

Line No.	Road ID	Station From	Station To	Lane	Marking Type	Left	Center	Right	Groove Marking Needed?	Groove Qty. (STA)	BCY4* Factored (STA)	BCY6 Factored (STA)	BLW4 Factored (STA)	DCY4 Factored (STA)	DCY6 Factored (STA)	ELW6 Factored (STA)	ELY4 Factored (STA)	NPY6** Factored (STA)	Remarks
1.0	IA 136	8+78.06	16+13.00	NB	Waterborne/Solvent Paint	X			No	9.22								9.22	
2.0	IA 136	16+13.00	80+13.00	2-Lane	Waterborne/Solvent Paint	X			No	16.00		16.00							
3.0	IA 136	80+13.00	89+93.00	SB	Waterborne/Solvent Paint	X			No	12.25								12.25	
4.0	IA 136	89+93.00	91+43.00	2-Lane	Waterborne/Solvent Paint				No	0.38		0.38							
5.0	IA 136	91+43.00	99+18.00	NB	Waterborne/Solvent Paint	X			No	9.69								9.69	
6.0	IA 136	99+18.00	101+58.00	2-Lane	Waterborne/Solvent Paint	X			No	4.80					4.80				
7.0	IA 136	101+58.00	107+98.00	SB	Waterborne/Solvent Paint	X			No	8.00								8.00	
8.0	IA 136	107+98.00	115+13.00	NB	Waterborne/Solvent Paint	X			No	8.94								8.94	
9.0	IA 136	115+13.00	125+93.28	2-Lane	Waterborne/Solvent Paint	X			No	21.60					21.60				
10.0	IA 136	8+78.06	125+93.28	Both	Waterborne/Solvent Paint			X	Yes	234.30						234.30			

Bid Item Quantities:

Painted Pavement Markings, Waterborne or Solvent-Based - 325 STA.

Grooves Cut for Pavement Markings - 234 STA



103\_06  
8/15/22

EMBANKMENT WITH MOISTURE CONTROL

Moisture Control is required for all Class 10 fill placed in all locations and depths. Stability berms placed outside the normal foreslope template and topsoil will not require Moisture Control.



103\_07  
8/15/22

SHRINKAGE DATA

Material	%	Remarks
Ex. CL 10	30.0	
Topsoil	40.0	



TOPSOIL STRIPPING AND PLACEMENT							103 10 4/30/25
Line No.	Road Identification	Dir. of Traffic	Station From	Station To	Topsoil Stripping Thickness (IN)	Topsoil Placement Thickness (IN)	Remarks
1.0	IA 136	NB	24+80.00	28+30.98	12.0	12.0	
2.0	IA 136	SB	21+53.42	28+00.00	12.0	12.0	



LONGITUDINAL SUBDRAIN SHOULDER										104_09A 5/6/24
* Not a bid item.										
Road or Lane Identification	Station From	Station To	Side	Depth (IN) (D)	Subdrain Size (IN)	Length (FT)	Outlet Station	Outlet Type	Porous Backfill* (CY)	Remarks
IA 136	8+75.00	12+85.00	Left	24.0	4.0	440.0	8+75.00	DR-306	20.4	
IA 136			Left	24.0	4.0	30.0	12+85.00	DR-306	1.4	
IA 136	12+85.00	17+85.00	Left	24.0	4.0	530.0	12+85.00	DR-306	24.5	
IA 136			Left	24.0	4.0	30.0	17+85.00	DR-306	1.4	
IA 136	17+85.00	22+85.00	Left	24.0	4.0	530.0	17+85.00	DR-306	24.5	
IA 136			Left	24.0	4.0	30.0	22+85.00	DR-306	1.4	
IA 136	22+85.00	27+85.00	Left	24.0	4.0	530.0	22+85.00	DR-306	24.5	
IA 136			Left	24.0	4.0	30.0	27+85.00	DR-306	1.4	
IA 136	27+85.00	32+85.00	Left	24.0	4.0	530.0	27+85.00	DR-306	24.5	
IA 136			Left	24.0	4.0	30.0	32+85.00	DR-306	1.4	
IA 136	32+85.00	37+85.00	Left	24.0	4.0	530.0	32+85.00	DR-306	24.5	
IA 136			Left	24.0	4.0	30.0	37+85.00	DR-306	1.4	
IA 136	37+85.00	42+85.00	Left	24.0	4.0	530.0	37+85.00	DR-306	24.5	
IA 136			Left	24.0	4.0	30.0	42+85.00	DR-306	1.4	
IA 136	42+85.00	47+85.00	Left	24.0	4.0	530.0	42+85.00	DR-306	24.5	
IA 136			Left	24.0	4.0	30.0	47+85.00	DR-306	1.4	
IA 136	47+85.00	52+85.00	Left	24.0	4.0	530.0	47+85.00	DR-306	24.5	
IA 136			Left	24.0	4.0	30.0	52+85.00	DR-306	1.4	
IA 136	52+85.00	57+85.00	Left	24.0	4.0	530.0	52+85.00	DR-306	24.5	
IA 136			Left	24.0	4.0	30.0	57+85.00	DR-306	1.4	
IA 136	57+85.00	62+50.00	Left	24.0	4.0	495.0	57+85.00	DR-306	22.9	
IA 136			Left	24.0	4.0	30.0	62+50.00	DR-306	1.4	
IA 136	62+50.00	67+50.00	Left	24.0	4.0	530.0	62+50.00	DR-306	24.5	
IA 136			Left	24.0	4.0	30.0	67+50.00	DR-306	1.4	
IA 136	67+50.00	72+50.00	Left	24.0	4.0	530.0	67+50.00	DR-306	24.5	
IA 136			Left	24.0	4.0	30.0	72+50.00	DR-306	1.4	
IA 136	72+50.00	77+50.00	Left	24.0	4.0	530.0	72+50.00	DR-306	24.5	
IA 136			Left	24.0	4.0	30.0	77+50.00	DR-306	1.4	
IA 136	77+50.00	82+50.00	Left	24.0	4.0	530.0	77+50.00	DR-306	24.5	
IA 136			Left	24.0	4.0	30.0	82+50.00	DR-306	1.4	
IA 136	82+50.00	87+50.00	Left	24.0	4.0	530.0	82+50.00	DR-306	24.5	
IA 136			Left	24.0	4.0	30.0	87+50.00	DR-306	1.4	
IA 136	87+50.00	90+42.82	Left	24.0	4.0	322.8	87+50.00	DR-306	14.9	
IA 136			Left	24.0	4.0	30.0	90+42.82	DR-306	1.4	
IA 136	90+42.82	95+42.82	Left	24.0	4.0	530.0	90+42.82	DR-306	24.5	
IA 136			Left	24.0	4.0	30.0	95+42.82	DR-306	1.4	
IA 136	95+42.82	100+08.40	Left	24.0	4.0	495.6	95+42.82	DR-306	22.9	
IA 136			Left	24.0	4.0	30.0	100+08.40	DR-306	1.4	
IA 136	100+08.40	101+85.68	Left	24.0	4.0	207.3	100+08.40	DR-306	9.6	
IA 136			Left	24.0	4.0	30.0	101+85.68	DR-306	1.4	
IA 136	101+85.68	106+85.68	Left	24.0	4.0	530.0	101+85.68	DR-306	24.5	
IA 136			Left	24.0	4.0	30.0	106+85.68	DR-306	1.4	
IA 136	106+85.68	111+76.08	Left	24.0	4.0	520.4	106+85.68	DR-306	24.1	
IA 136			Left	24.0	4.0	30.0	111+76.08	DR-306	1.4	
IA 136	111+76.08	115+89.84	Left	24.0	4.0	443.8	111+76.08	DR-306	20.5	
IA 136			Left	24.0	4.0	30.0	115+89.84	DR-306	1.4	
IA 136	115+89.84	120+89.84	Left	24.0	4.0	530.0	115+89.84	DR-306	24.5	
IA 136			Left	24.0	4.0	30.0	120+89.84	DR-306	1.4	
IA 136	120+89.84	125+90.00	Left	24.0	4.0	530.2	120+89.84	DR-306	24.5	
IA 136			Left	24.0	4.0	30.0	125+90.00	DR-306	1.4	
IA 136	8+75.00	12+85.00	Right	24.0	4.0	440.0	8+75.00	DR-306	20.4	
IA 136			Right	24.0	4.0	30.0	12+85.00	DR-306	1.4	
IA 136	12+85.00	17+85.00	Right	24.0	4.0	530.0	12+85.00	DR-306	24.5	
IA 136			Right	24.0	4.0	30.0	17+85.00	DR-306	1.4	










































































LONGITUDINAL SUBDRAIN SHOULDER										104_09A 5/6/24
* Not a bid item.										
Road or Lane Identification	Station From	Station To	Side	Depth (IN) (D)	Subdrain Size (IN)	Length (FT)	Outlet Station	Outlet Type	Porous Backfill* (CY)	Remarks
IA 136	17+85.00	22+85.00	Right	24.0	4.0	530.0	17+85.00	DR-306	24.5	
IA 136			Right	24.0	4.0	30.0	22+85.00	DR-306	1.4	
IA 136	22+85.00	27+85.00	Right	24.0	4.0	530.0	22+85.00	DR-306	24.5	
IA 136			Right	24.0	4.0	30.0	27+85.00	DR-306	1.4	
IA 136	27+85.00	32+85.00	Right	24.0	4.0	530.0	27+85.00	DR-306	24.5	
IA 136			Right	24.0	4.0	30.0	32+85.00	DR-306	1.4	
IA 136	32+85.00	37+85.00	Right	24.0	4.0	530.0	32+85.00	DR-306	24.5	
IA 136			Right	24.0	4.0	30.0	37+85.00	DR-306	1.4	
IA 136	37+85.00	42+85.00	Right	24.0	4.0	530.0	37+85.00	DR-306	24.5	
IA 136			Right	24.0	4.0	30.0	42+85.00	DR-306	1.4	
IA 136	42+85.00	47+85.00	Right	24.0	4.0	530.0	42+85.00	DR-306	24.5	
IA 136			Right	24.0	4.0	30.0	47+85.00	DR-306	1.4	
IA 136	47+85.00	52+85.00	Right	24.0	4.0	530.0	47+85.00	DR-306	24.5	
IA 136			Right	24.0	4.0	30.0	52+85.00	DR-306	1.4	
IA 136	52+85.00	57+85.00	Right	24.0	4.0	530.0	52+85.00	DR-306	24.5	
IA 136			Right	24.0	4.0	30.0	57+85.00	DR-306	1.4	
IA 136	57+85.00	62+50.00	Right	24.0	4.0	495.0	57+85.00	DR-306	22.9	
IA 136			Right	24.0	4.0	30.0	62+50.00	DR-306	1.4	
IA 136	62+50.00	67+50.00	Right	24.0	4.0	530.0	62+50.00	DR-306	24.5	
IA 136			Right	24.0	4.0	30.0	67+50.00	DR-306	1.4	
IA 136	67+50.00	72+50.00	Right	24.0	4.0	530.0	67+50.00	DR-306	24.5	
IA 136			Right	24.0	4.0	30.0	72+50.00	DR-306	1.4	
IA 136	72+50.00	77+50.00	Right	24.0	4.0	530.0	72+50.00	DR-306	24.5	
IA 136			Right	24.0	4.0	30.0	77+50.00	DR-306	1.4	
IA 136	77+50.00	82+50.00	Right	24.0	4.0	530.0	77+50.00	DR-306	24.5	
IA 136			Right	24.0	4.0	30.0	82+50.00	DR-306	1.4	
IA 136	82+50.00	87+50.00	Right	24.0	4.0	530.0	82+50.00	DR-306	24.5	
IA 136			Right	24.0	4.0	30.0	87+50.00	DR-306	1.4	
IA 136	87+50.00	90+42.82	Right	24.0	4.0	322.8	87+50.00	DR-306	14.9	
IA 136			Right	24.0	4.0	30.0	90+42.82	DR-306	1.4	
IA 136	90+42.82	95+42.82	Right	24.0	4.0	530.0	90+42.82	DR-306	24.5	
IA 136			Right	24.0	4.0	30.0	95+42.82	DR-306	1.4	
IA 136	95+42.82	100+08.40	Right	24.0	4.0	495.6	95+42.82	DR-306	22.9	
IA 136			Right	24.0	4.0	30.0	100+08.40	DR-306	1.4	
IA 136	100+08.40	101+85.68	Right	24.0	4.0	207.3	100+08.40	DR-306	9.6	
IA 136			Right	24.0	4.0	30.0	101+85.68	DR-306	1.4	
IA 136	101+85.68	106+85.68	Right	24.0	4.0	530.0	101+85.68	DR-306	24.5	
IA 136			Right	24.0	4.0	30.0	106+85.68	DR-306	1.4	
IA 136	106+85.68	111+76.08	Right	24.0	4.0	520.4	106+85.68	DR-306	24.1	
IA 136			Right	24.0	4.0	30.0	111+76.08	DR-306	1.4	
IA 136	111+76.08	115+89.84	Right	24.0	4.0	443.8	111+76.08	DR-306	20.5	
IA 136			Right	24.0	4.0	30.0	115+89.84	DR-306	1.4	
IA 136	115+89.84	120+89.84	Right	24.0	4.0	530.0	115+89.84	DR-306	24.5	
IA 136			Right	24.0	4.0	30.0	120+89.84	DR-306	1.4	
IA 136	120+89.84	125+90.00	Right	24.0	4.0	530.2	120+89.84	DR-306	24.5	
IA 136			Right	24.0	4.0	30.0	125+90.00	DR-306	1.4	
Total:						26430.2			1222.6	




Bid Item Quantities:  
Subdrain, Longitudinal, (Shoulder) 4 IN DIA. - 26,430 LF  
Subdrain Outlet, DR-306 - 100 EA



## 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

## SURVEY SYMBOLS

 **PR**, Electric 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**, Traffic Detection Loop  



---

 **TER**, Terrace  



---

  **TEV**, Evergreen 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 Luminaire  


---

 **TV**, Satellite 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  



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 **WEL**, Well  



---

 **WHD**, Water Hydrant  


---

  **WHU**, RV Water Hook Up  



---

  **WM**, Wind Mill  


---

 **WND**, Wind Turbine  


---

  **WV**, Water Valve

## SURVEYED UTILITY OWNER SYMBOLS

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


















### Remark Abbreviations

QLA Quality Level A Highest guideline quality level







QLD Quality Level D Lowest guideline quality level

F1	EL1D, Electric Line Eastern Iowa Light and Power Cooperative - Quality D
F0	F01D, Fiber Optic F&B Communications - Quality D
G	GL1D, Gas Line Alliant Energy - Quality D
G2	GL2D, Gas Line Northern Natural Gas - Quality D
SAN	SA1D, Sanitary Sewer City of Delmar - Quality D
ST S	ST1D, Storm Sewer City of Delmar - Quality D
W	WL1D, Water Line City of Delmar - Quality D
	PPA, Power Pole Windstream Communications
E1	EL2D, Electric Line IDOT - Quality D
T1	TL1D, Telephone Line Co. 1 - Quality D

## PLAN VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

LINEWORK		Design Color No.	
Green	(2)		Existing Topographic Features and Labels
Blue	(1)		Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation
Magenta	(5)		Existing Utilities
SHADING		Design Color No.	Transparency
Pink, Dark	(13)		Temporary Pavement Shading 50%
Yellow	(4)		Proposed Pavement Shading 50%
Orange	(6)		Proposed Granular Shading 50%
Orange	(70)		Proposed Shoulder Granular Shading 50%
Yellow	(68)		Proposed Shoulder Paved Full Depth Shading 50%
Yellow	(132)		Proposed Shoulder Paved Partial Depth Shading 50%
Brown, Light	(236)		Grading Shading 50%
Orange, Light	(134)		Proposed Granular Entrance Shading 50%
Yellow	(220)		Proposed Paved Entrance Shading 50%
Tan	(8)		Proposed Sidewalk Shading 50%
Blue, Light	(230)		Proposed Sidewalk Landing Shading 50%
Pink	(11)		Proposed Sidewalk Ramp Shading 50%
Red	(3)		Proposed Structure Shading 50%
Red	(3)		Delineates Restricted Areas 0%

## PROFILE VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

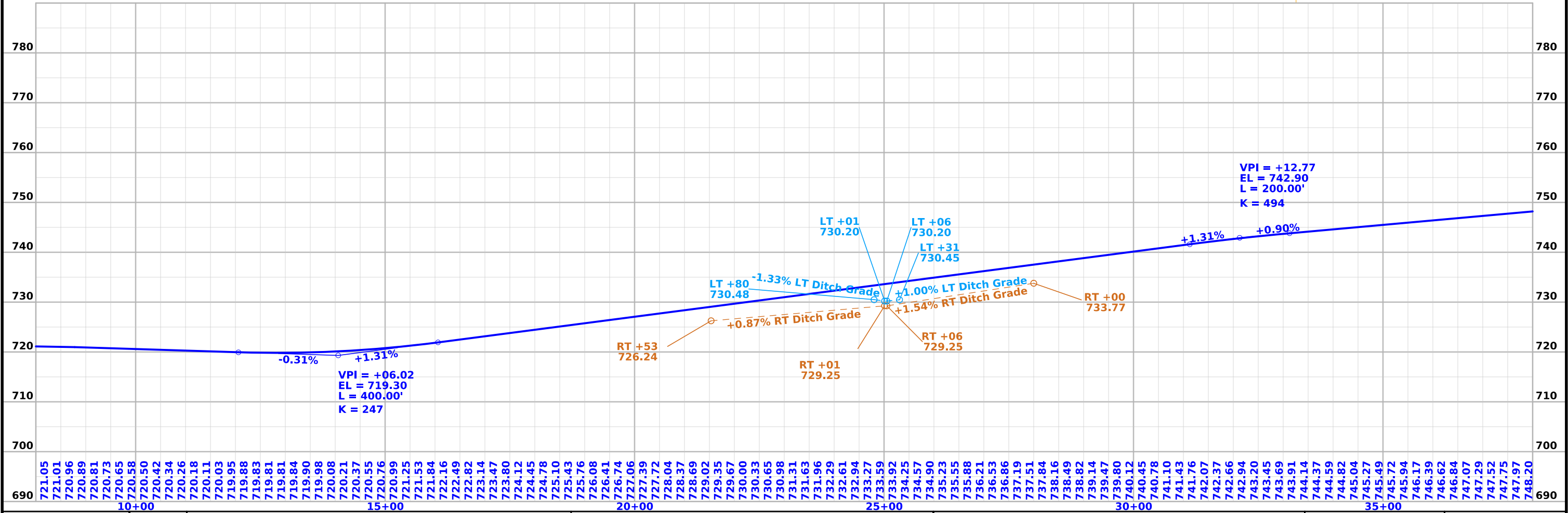
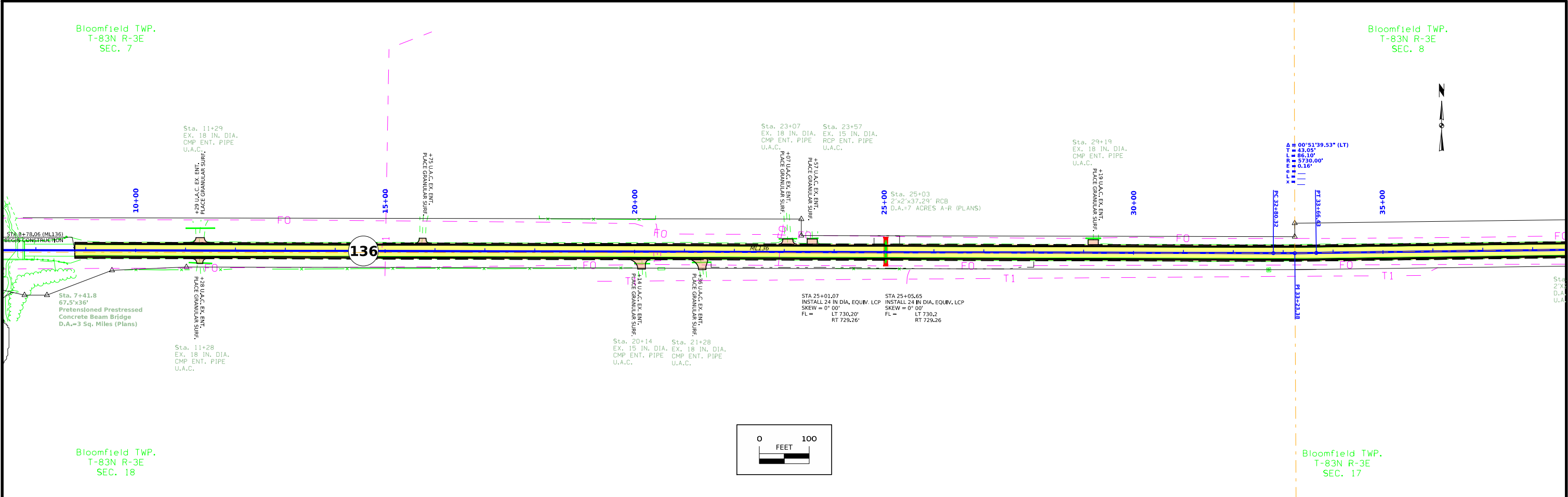
LINEWORK	Design Color No.
Green	(10)  Existing Ground Line Profile
Blue	(1)  Proposed Profile and Annotation
Magenta	(5)  Existing Utilities
Blue, Light	(230)  Proposed Ditch Grades, Left
Black	(0)  Proposed Ditch Grades, Median
Rust	(14)  Proposed Ditch Grades, Right

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

# PLAN AND PROFILE LEGEND AND SYMBOL INFORMATION SHEET

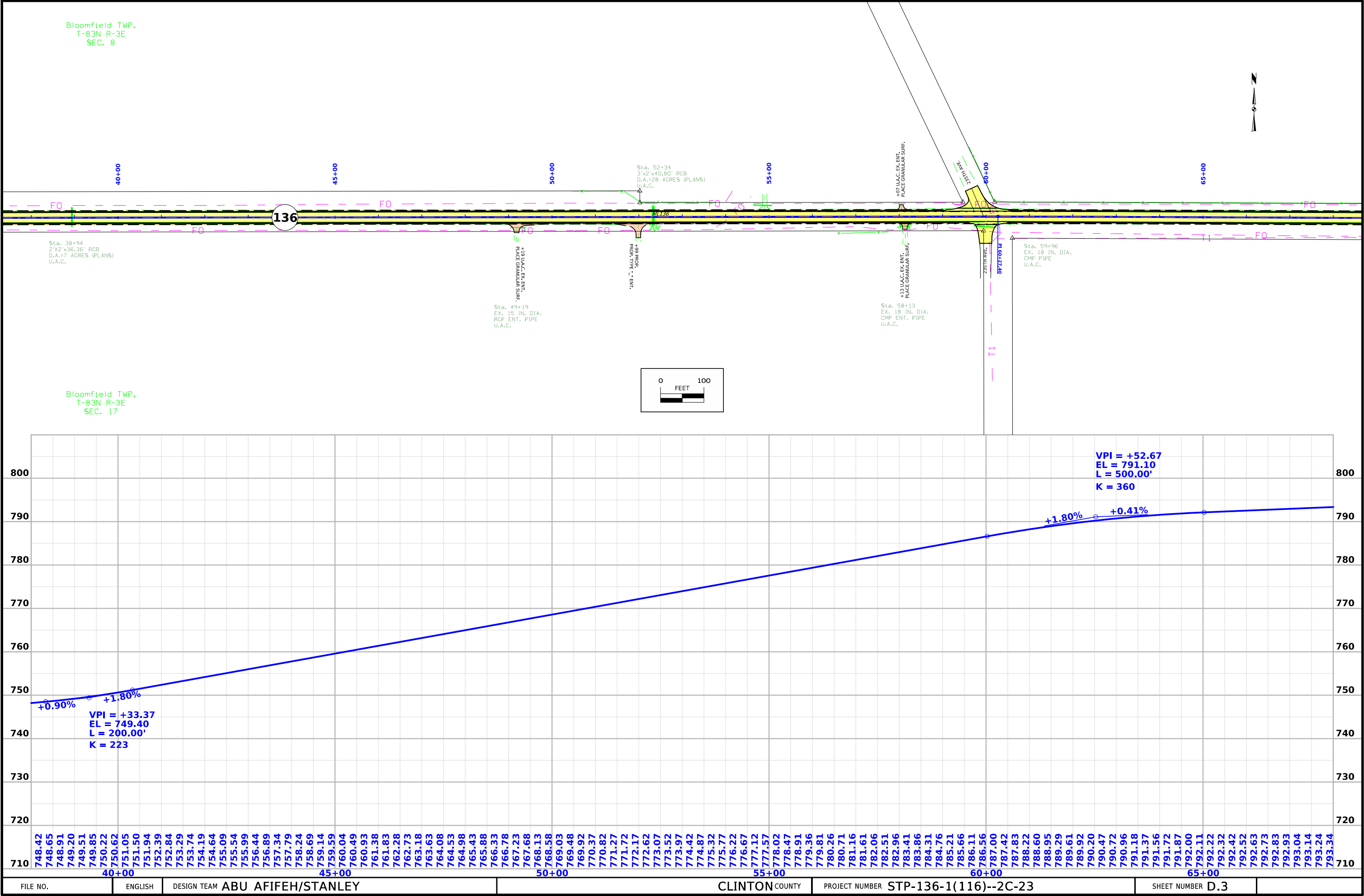
(COVERS SHEET SERIES D, E, F, & K)



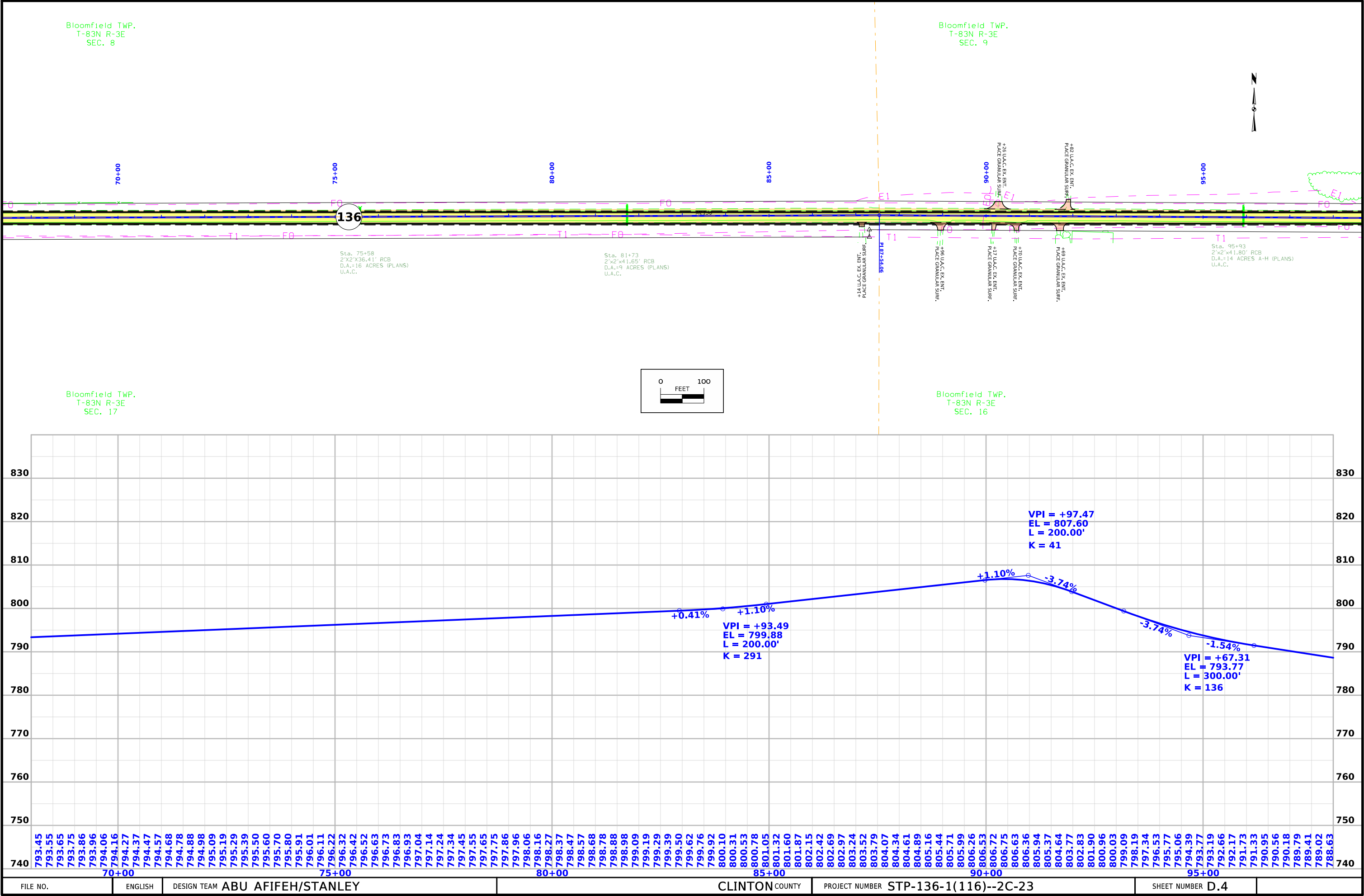


FILE NO.	ENGLISH	DESIGN TEAM	ABU AFIFEH/STANLEY	CLINTON COUNTY	PROJECT NUMBER	STP-136-1(116)--2C-23	SHEET NUMBER	D.2
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Survey Information

SURVEY INDEX

County : Clinton  
Project Code : 24-23-136-020  
Phase Number : STP-136-1(116)--2C-23  
Location : WCL Delmar to US 61  
Work Code : 1034-Unknown Pavement - Grade and Replace  
Project Directory : 2313602024

Survey Personnel

John Hahn – Survey Party Chief

Date(s) of Survey

Begin Date 02/12/2025  
End Date 06/25/2025

General Information

This survey is for IA Hwy 136 Pavement Grade and Replace from WCL Delmar to US 61. This survey request was for the IA Hwy 136 corridor only. This project is a Full Field DTM survey.

Utility Information

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

Project Control

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

PROJECT DATUM: NAD83(2011) for EPOCH 2010.00 (IaRTN 2019 ADJUSTMENT)  
COORDINATE SYSTEM: IOWA REGIONAL COORDINATE SYSTEM ZONE 11  
(U.S. SURVEY FOOT)  
VERTICAL DATUM: NAVD88  
GEOID MODEL: 2018u3

Alignment Information

The horizontal alignment for IA Hwy 136 this survey is a retrace of As-built Plans No. FA-295 and NHS-61-6(35)--19-23. Survey stationing was equated to the plan PI at Sta. 60+27.4 with equation POT Sta. 6+52.57 ahead and 13108+21.98 back.

Survey stationing relates to as built plan stationing as follows:

POT Sta. 13100+50.0 As-built Plans Project No. NHS-61-6(35)--19-23  
Survey POT Sta. 13100+50.

PC Sta. 32+78.5 As-built Plans Project No. FA-295  
Survey PC Sta. 32+80.8

PI Sta. 33+21.0 As-built Plans Project No. FA-295  
Survey PI Sta. 33+23.3

PT Sta. 33+63.5 As-built Plans Project No. FA-295  
Survey PT Sta. 33+66.5

PI Sta. 60+27.4 As-built Plans Project No. FA-295  
Survey PI Sta. 60+27.4, ¼ Sec. Corner Sec. 8 T83N R3E

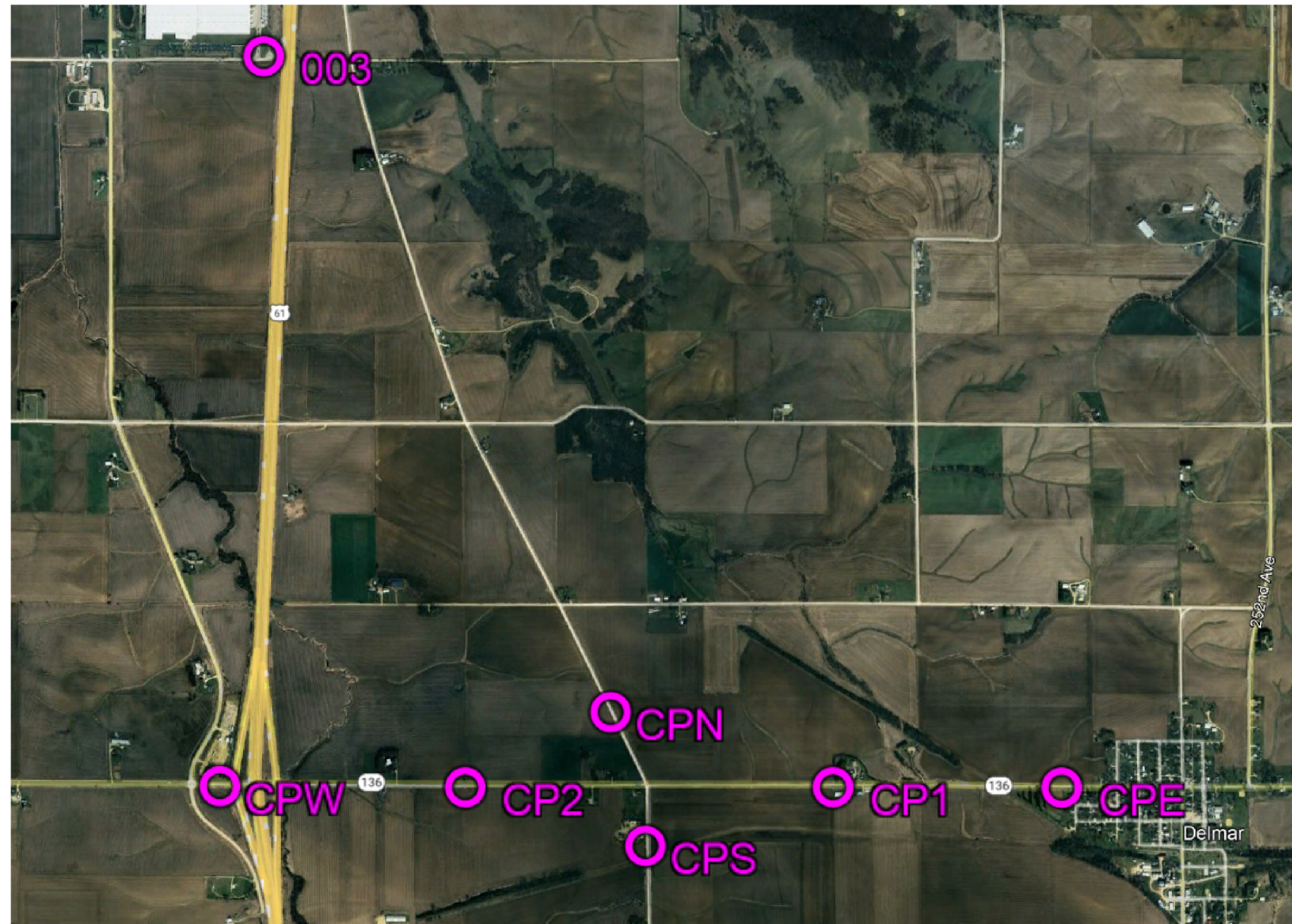
PI Sta. 87+55.8 As-built Plans Project No. FA-295  
Survey PI Sta. 87+55.37

PI Sta. 138+45.0 As-built Plans Project No. FA-295  
Survey PI Sta. 138+43.6



## 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 11 (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 11 (U.S. Survey Foot)  
VERT. DATUM: NAVD88  
Geoid Model: 2018u3

Point Name	Northing	Easting	Elevation	Code/Description
3	8249671.96	21466424.47	710.17	FND CO GPS CONTROL MON IN GOOD CONDITION AS DESCRIBED
CPW	8238949.98	21465803.11	738.14	SET FENO MON
CPS	8238092.97	21472081.66	783.63	SET FENO MON
CPN	8240041.27	21471566.01	761.62	SET FENO MON
CPE	8238952.92	21478188.87	805.44	SET FENO MON
CP1	8238954.86	21474833.94	807.03	FND ROW RAIL
CP2	8238937.21	21469426.22	743.37	FND ROW RAIL



ALIGNMENT COORDINATES																			101_16 10/25/24
Name	Location	Point on Tangent Station	Point on Tangent Y Northing	Point on Tangent X Easting	Begin Spiral Station	Begin Spiral Y Northing	Begin Spiral X Easting	Begin Curve Station	Begin Curve Y Northing	Begin Curve X Easting	Simple Curve PI or Master PI Station	Simple Curve PI or Master PI Y Northing	Simple Curve PI or Master PI X Easting	End Curve Station	End Curve Y Northing	End Curve X Easting	End Spiral Station	End Spiral Y Northing	End Spiral X Easting
ML136		13100+50.00	8238989.477	21465982.49															
ML136								32+80.32	8238969.707	21469382.17	33+23.38	8238969.457	21469425.22	33+66.43	8238969.854	21469468.27			
ML136		60+27.40	8238994.366	21472129.13															
ML136		87+54.06	8239004.237	21474855.77															
ML136		138+43.62	8238974.915	21479945.25															
ML136		112+86.00	8238991.756	21477387.68															



SPIRAL OR CIRCULAR CURVE DATA																101_17 1/17/24
Name	Location	SCS	S	Ls	Ts	Es	Xc	Yc	L.T.	S.T.	C	T	L	R	E	Remarks
C1	32+80.32										0.861	43.053	86.105	5730	0.162	



108\_23A  
8/15/22

TRAFFIC CONTROL PLAN

The project limits will be closed to thru-traffic for the duration of the project.

The contractor shall be responsible for maintenance of access for the adjacent property owners during construction. The staging and methods of doing such shall be at the contractor's discretion. 72 hours advanced notification of impacts or changes to property access shall be given to the engineer and property owners by the contractor.



<div>111_01 10/14/22</div> <div>COORDINATED OPERATIONS</div> <div>Other work in progress during the same period of time will include the construction of the projects listed. Coordinate operations with those of other contractors working within the same area.</div>	
Project	Type of Work
MP-061-6(708)142--76-23	PCC Patching
HSIPX-000-T(453)--3L-00	Milled Rumble Strips



<div><div>108_13A 3/27/25</div><div><div><div>SAFETY CLOSURES</div><div>Refer to Section 2528 of the Standard Specifications</div></div></div></div>			
Station	Road Closure Qty.	Hazard Closure Qty.	Remarks
6+52.57	1		BOP. Situation 1
59+94.20	2		235th St. (Both Sides) Situation 6
122+85.00	1		Western Ave. Situation 6
128+50.00	1		EOP. Situation 1
Total:	5		

Bid Item Quantities:  
Road Closures - 5 EA









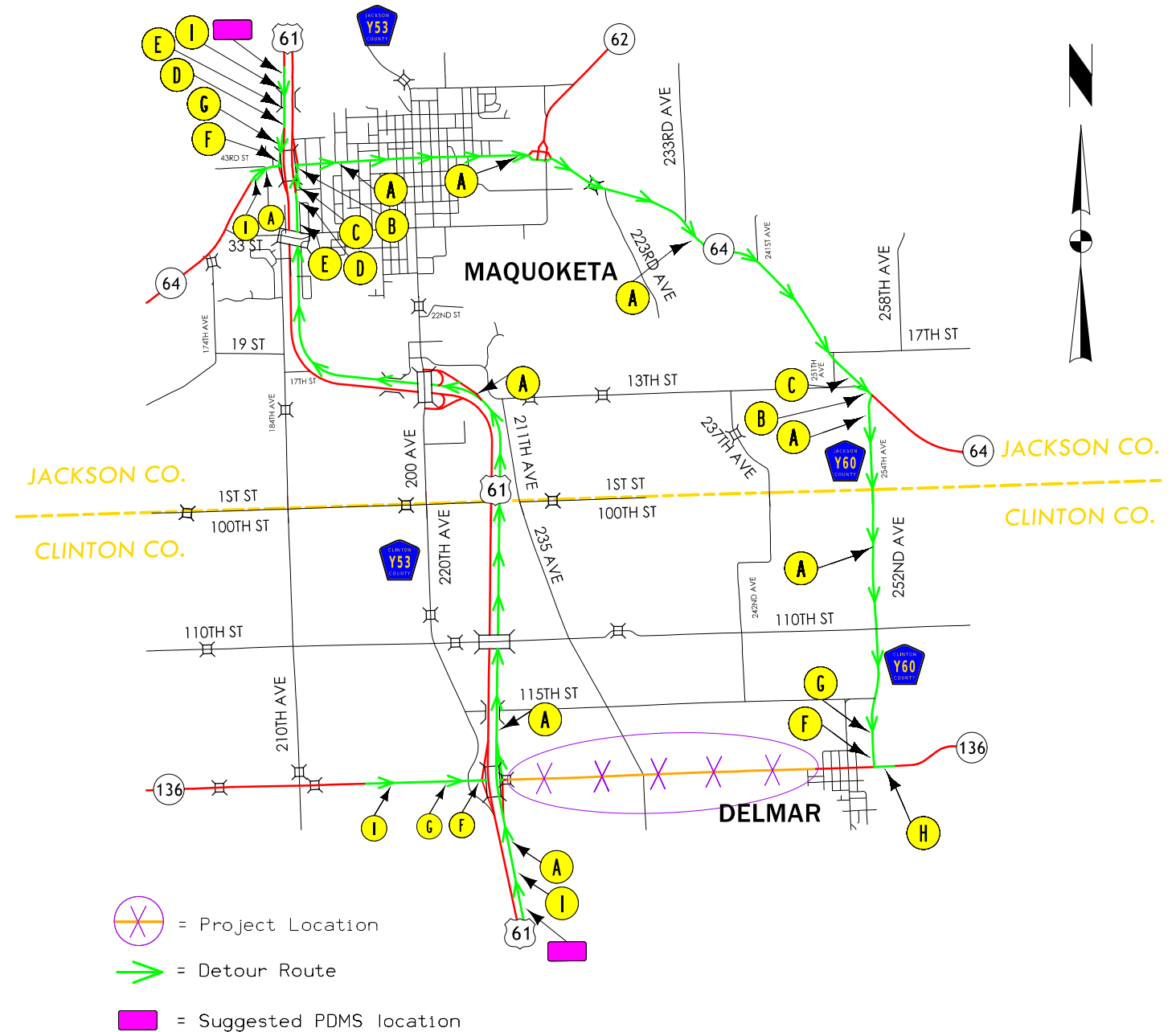
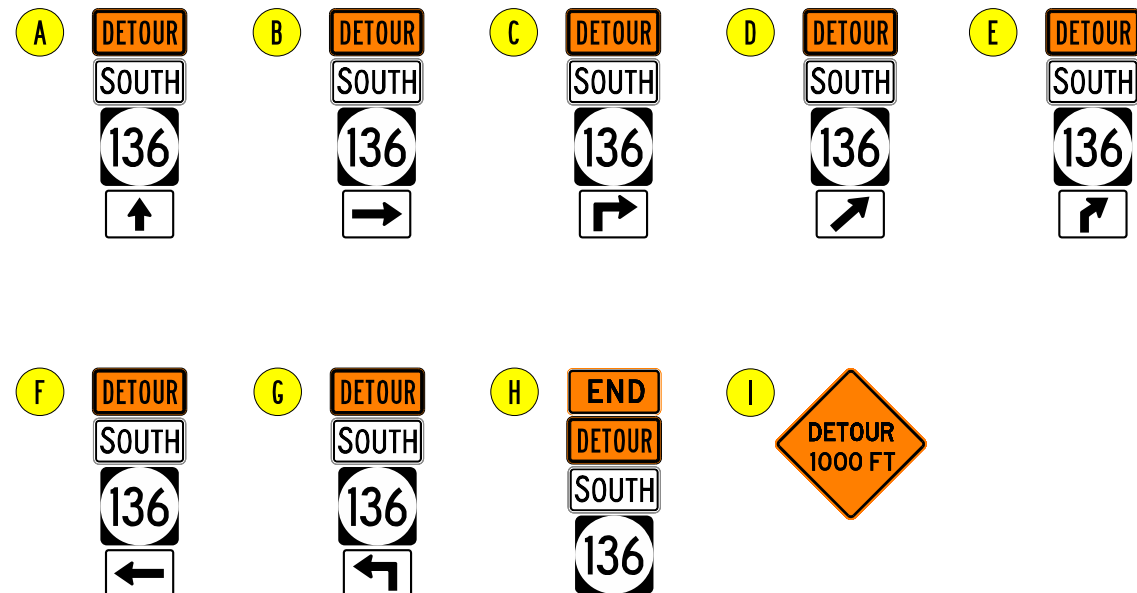
ROAD DETOUR

## Iowa 136 Detour Route

STP-136-1(116)--2C-23  
Clinton County

Southbound IA 136

- \* NOTE 1: The contractor is responsible for furnishing, installing, maintaining, and removing all detour signing.
- \* NOTE 2: The quantity of detour signs and the locations provided are for guidance. If field conditions (i.e. grade, existing signs, etc.) require a modification, additional signs, or safety concerns arise, please contact the project inspector and the appropriate accommodations will be made.
- \* NOTE 3: PDMS's placed 7 calendar days prior to implementation of detour.



TABULATION OF DETOUR SIGNS				TABULATION OF DETOUR SIGNS			
SIGN TYPE	MUTCD #	STOCK #	SIZE	SIGN TYPE	MUTCD #	STOCK #	SIZE
	M3-1B	N/A	36X18		M6-3P	N/A	21X15
	M3-3B	N/A	36X18		M6-1P LEFT/RIGHT	N/A	21X15
	M4-8bP	N/A	36X18		M5-1P LEFT	N/A	21X15
	M4-8P	N/A	36X18		M5-1P RIGHT	N/A	21X15
	M1-5	N/A	36X36		M5-2P RIGHT	N/A	21X15
	W20-2	N/A	48X48		M6-2P RIGHT	N/A	21X15



<div>110_12 1/13/23</div> <div>POLLUTION PREVENTION PLAN</div> <div><p>This project is regulated by the requirements of the Iowa Department of Natural Resources (DNR) National Pollutant Discharge Elimination System (NPDES) General Permit No. 2 OR an Iowa Department of Natural Resources (DNR) National Pollutant Discharge Elimination System (NPDES) individual storm water permit. The Contractor shall carry out the terms and conditions of this permit and the Pollution Prevention Plan (PPP).</p><p>This Base PPP includes information on Roles and Responsibilities, Project Site Description, Controls, Maintenance Procedures, Inspection Requirements, Non-Storm Water Controls, Potential Sources of Off Right-of-Way Pollution, and Definitions. This plan references other documents rather than repeating the information contained in the documents. A copy of this Base Pollution Prevention Plan, amended as needed during construction, will be readily available for review.</p><p>All contractors shall conduct their operations in a manner that controls pollutants, minimizes erosion, and prevents sediments from entering waters of the state and leaving the highway right-of-way. The Contractor shall be responsible for compliance and implementation of the PPP for their entire contract. This responsibility shall be further shared with subcontractors whose work is a source of potential pollution as defined in this PPP.</p><p>I. ROLES AND RESPONSIBILITES</p><p>A. Designer:</p><ol style="list-style-type: none"><li>Prepares Base PPP included in the project plan.</li><li>Prepares Notice of Intent (NOI) submitted to Iowa DNR.</li><li>Is signature authority on the Base PPP. If consultant designed, signature from Contracting Authority is also required.</li></ol><p>B. Contractor:</p><ol style="list-style-type: none"><li>Signs a co-permittee certification statement adhering to the requirements of the NPDES permit and this PPP. All co-permittees are legally required under the Clean Water Act and the Iowa Administrative Code to ensure compliance with the terms and conditions of this PPP.</li><li>Designates a Water Pollution Control Manager (WPCM), who has the duties and responsibilities as defined in Section 2602 of the Standard Specifications.</li><li>Submits an Erosion Control Implementation Plan (ECIP) and ECIP updates according to Section 2602 of the Standard Specifications.</li><li>Installs and maintains appropriate controls. This work may be subcontracted as documented through Subcontractor Request Forms (Form 830231).</li><li>Supervises and implements good housekeeping practices according to Paragraph III, C, 2.</li><li>Conducts joint required inspections of the site with inspection staff. When Contractor is not mobilized on site, Contractor may delegate this responsibility to a trained or certified subcontractor. Contracting Authority also may waive joint inspection requirement during winter shutdown. In both circumstances, WPCM (or trained or certified delegate from the Contractor) is still responsible to review and sign inspection reports.</li><li>Complies with training and certification requirements of Section 2602 of the Standard Specifications.</li><li>Submits amended PPP site map according to Section 2602 of the Standard Specifications.</li></ol><p>C. Subcontractors:</p><ol style="list-style-type: none"><li>Sign a co-permittee certification statement adhering to the requirements of the NPDES permit and this PPP if: responsible for sediment or erosion controls; involved in land disturbing activities; or performing work that is a source of potential pollution as defined in this PPP. Subcontracted work items are identified in Subcontractor Request Forms (Form 830231). All co-permittees are legally required under the Clean Water Act and the Iowa Administrative Code to ensure compliance with the terms and conditions of this PPP.</li><li>Implement good housekeeping practices according to Paragraph III, C, 2.</li></ol><p>D. RCE/Project Engineer:</p><ol style="list-style-type: none"><li>Is Project Storm Water Manager.</li><li>On projects where DOT is the Contracting Authority, is current with erosion control training or certification.</li><li>Takes actions necessary to ensure compliance with storm water requirements including, where appropriate, issuing stop work orders, and directing additional inspections at construction project sites that are experiencing problems with achieving permit compliance.</li><li>Orders the taking of measures to cease, correct, prevent, or minimize the consequences of non-compliance with the storm water requirements of the Applicable Permit.</li><li>Supervises all work necessary to meet storm water requirements at the Project, including work performed by contractors and subcontractors.</li><li>Requires employees, contractors, and subcontractors to take appropriate responsive action to comply with storm water requirements, including requiring any such person to cease or correct a violation of storm water requirements, and to order or recommend such other actions as necessary to meet storm water requirements.</li><li>Is familiar with the Project PPP and storm water site map.</li><li>On projects where DOT is Contracting Authority, is responsible for periodically monitoring inspection reports to determine whether deficiencies identified in inspection reports were adequately and timely addressed, and if not, has the authority and responsibility to direct immediate actions to correct the deficiencies.</li><li>Is the point of contact for the Project for regulatory officials, Inspector, contractors, and subcontractors regarding storm water requirements.</li><li>Is signature authority on Notice of Discontinuation.</li><li>Maintains an up-to-date record of contractors, subcontractors, and subcontracted work items through Subcontractor Request Forms (Form 830231).</li><li>Makes information to determine permit compliance available to the DNR upon their request.</li></ol></div>				<div>110_12 1/13/23</div> <div>POLLUTION PREVENTION PLAN</div> <div><p>E. Inspector:</p><ol style="list-style-type: none"><li>Updates PPP through fieldbook entries and storm water site inspection reports if there is a change in design, construction, operation, or maintenance which has a significant effect on the discharge of pollutants from the project.</li><li>Makes information to determine permit compliance available to the DNR upon their request.</li><li>Conducts joint required inspections of the site with the contractor/subcontractor.</li><li>Completes an inspection report after each inspection.</li><li>Is signature authority on storm water inspection reports.</li></ol><p>II. PROJECT SITE DESCRIPTION</p><p>A. This Pollution Prevention Plan (PPP) is for the construction of a HMA Pavement - Grade and Replacement project on IA 136 in Clinton County from its junction with US 61 to the city of Delmar.</p><p>B. This PPP covers approximately 24 acres with an estimated 8 acres being disturbed. The portion of the PPP covered by this contract has 13 acres disturbed.</p><p>C. The PPP is located in an area of Dinsdale-Klinger and Sparta-Chelsea-Dickinson soil associations. The estimated weighted average runoff coefficient number for this PPP after completion will be 0.42.</p><p>D. Storm Water Site Map is located in the R sheets. Proposed slopes are shown in cross sections, details, or standard road plans. Supplemental information is located in the Tabulations in the C or CE sheets.</p><p>E. The base storm water site map is amended by contract modifications and progress payments (fieldbook entries) of completed erosion control work. Also, due to project phasing, erosion and sediment controls shown on project plans may not be installed until needed, based on site conditions. For example, silt fence ditch checks will typically not be installed until the ditch has been installed. Installed locations may also be modified from tabulation locations by field staff. Installed locations will be documented by fieldbook entries and amended PPP site map.</p><p>F. Runoff from this work will flow into *List Outlets for Runoff*.</p><p>III. CONTROLS</p><p>A. The Contractor’s ECIP specified in Article 2602.03 of the Standard Specifications for accomplishment of storm water controls should clearly describe the intended sequence of major activities, and for each activity define the control measure and the timing during the construction process that the measure will be implemented.</p><p>B. Preserve vegetation in areas not needed for construction.</p><p>C. Sections 2601 and 2602 of the Standard Specifications define requirements to implement erosion and sediment control measures. Actual quantities used and installed locations may vary from the Base PPP and amendment of the plan will be documented via fieldbook entries, amended PPP site map, or by contract modification. Additional erosion and sediment control items may be required as determined by the inspector and/or contractor during storm water site inspections. If the work involved is not applicable to any contract items, the work will be paid for according to Article 1109.03 paragraph B of the Standard Specifications.</p><p>1. EROSION AND SEDIMENT CONTROLS</p><p>a. Stabilization Practices</p><ol style="list-style-type: none"><li>Site plans will ensure that existing vegetation or natural buffers are preserved where attainable and disturbed portions of the site will be stabilized.</li><li>Initialize stabilization of disturbed areas immediately after clearing, grading, excavating, or other earth disturbing activities have:<ol style="list-style-type: none"><li>Permanently ceased on any portion of the site, or</li><li>Temporarily ceased on any portion of the site and will not resume for a period exceeding 14 calendar days.</li></ol></li><li>Staged permanent and/or temporary stabilizing seeding and mulching shall be completed as the disturbed areas are completed. Incomplete areas shall be stabilized according to paragraph III, C, 1, a, 2, b above.</li><li>Permanent and Temporary Stabilization practices to be used for this project are located in the storm water site map, Estimated Project Quantities (100-0A, 100-1A, or 100-1C), and Estimate Reference Information (100-4A) located in the C or R sheets. Typical drawings detailing construction of the practices to be used on this project are referenced in the Standard Road Plans Tabulation (105-4) in the C or R sheets.</li><li>Preservation of existing vegetation within right-of-way or easements will act as vegetative buffer strips.</li><li>Preservation of topsoil: Bid items to be used for this project are located in the Estimated Project Quantities (100-0A, 100-1A, or 100-1C) and Estimate Reference Information (100-4A) located in the C or R sheets. Additional information may be found in the Tabulations in the C or T Tabulation sheets, or is referenced in Section 2105 of the Standard Specifications.</li></ol><p>b. Structural Practices</p><ol style="list-style-type: none"><li>Structural practices will be implemented to divert flows from exposed soils and detain or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. Additionally, structural practices may include: silt basins that provide 3600 cubic feet of storage per acre drained or equivalent sediment controls, outlet structures that withdraw water from surface when discharging basins, and controls to direct storm water to vegetated areas.</li><li>Structural practices to be used for this project are located in the storm water site map, Estimated Project Quantities (100-0A, 100-1A, or 100-1C), and Estimate Reference Information (100-4A) located in the C or R sheets, as well as all other item specific Tabulations. Typical drawings detailing construction of the devices to be used on this project can be</li></ol></div>				
FILE NO.	ENGLISH	DESIGN TEAM	AFIFEH/STANLEY	CLINTON COUNTY	PROJECT NUMBER	STP-136-1(116)--2C-23	SHEET NUMBER	RC.1

4/1/2026 8:47:09 AM@gestaailey@iowadot.us



## POLLUTION PREVENTION PLAN

### c. Storm Water Management

## 2. OTHER CONTROLS

a. Vehicle Entrances and Exits - Construct and maintain entrances and exits to prevent tracking of sediments onto roadways.

c. Stockpile Management - Install controls to reduce or eliminate pollution of storm water from stockpiles of soil and paving.

f. Concrete Residuals and Washout Wastes - Waste shall not be discharged to a surface water and is not allowed to adversely affect a water of the state. Designate temporary concrete washout facilities for rinsing out concrete trucks. Provide directions to truck drivers where designated washout facilities are located. Designated washout areas should be located at least 50 feet away from storm drains, streams or other water bodies. Care should be taken to ensure these facilities do not overflow during storm events.

h. Vehicle and Equipment Storage and Maintenance Areas - Perform on site fueling and maintenance in accordance with all environment laws such as proper storage of onsite fuels and proper disposal of used engine oil or other fluids on site.

j. Dewatering - Properly treat water to remove suspended sediment before it re-enters a waterbody or discharges off-site. Measures are also to be taken to prevent scour erosion at dewatering discharge point.

### 3. APPROVED STATE OR LOCAL PLANS

#### IV. MAINTENANCE PROCEDURES

## V. INSPECTION REQUIREMENTS

1. Date of the inspection.

## 2. Summary of the scope of the inspection.

3. Name and qualifications of the personnel making the inspection.

5. Review of erosion and sediment control measures within disturbed areas for the effectiveness in preventing impacts to receiving waters.

6. Major observations related to the implementation of the PPP.

7. Identification of corrective actions required to maintain or modify erosion and sediment control measures.

FILE NO.	ENGLISH	DESIGN TEAM	<b>AFIFEH/STANLEY</b>
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**CLINTON COUNTY PROJECT NUMBER STP-136-1(116) - 2C-23**

**SHEET NUMBER RC.2**



100\_34  
11/30/25

STORMWATER DRAINAGE BASIN  
Refer to EC Standards and 570s Details.

Line No.	Basin No.	Station From	Station To	Direction of Traffic	Side	Discharge Station	Discharge Direction	Total Disturbed Area (ACRES)	Disturbed Area with Storage Provided (ACRES)	Disturbed Area without Storage Provided (ACRES)	Best Management Practice	Total Storage Volume Provided (CF)	Total Storage Volume Required (CF)	Storage Volume Met	Remarks
1.0		+ .00													
2.0	1	8+78.06	12+83.00	2-Lane	L/R	878+00.00	W	0.3		0.3	Vegetated Buffer				
3.0	2	12+83.00	90+42.00	2-Lane	L/R	12+83.00	W	5.3		0.7	Vegetated Buffer				
4.0	3	90+42.00	100+08.00	2-Lane	L/R	100+08.00	N	0.6		0.6	Vegetated Buffer				
5.0	4	100+08.00	111+76.00	2-Lane	L/R	100+08.00	N	0.8		0.8	Vegetated Buffer				
6.0	5	111+76.00	115+90.00	2-Lane	L/R	115+90.00	S	0.3		0.3	Vegetated Buffer				
7.0	6	115+90.00	125+93.00	2-Lane	L/R	115+90.00	S	0.6		0.6	Vegetated Buffer				
8.0		+ .00													



PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE						
Possible Standards: EC-204						
Station From	Station To	Side	Sediment Control Device Type	Diameter Size	Length (LF)	Remarks
24+80.00	25+31.00	Left	Perimeter and Slope	20 inch	60.00	Foreslope
24+80.00	25+31.00	Left	Perimeter and Slope	20 inch	60.00	Foreslope
24+80.00	25+31.00	Left	Perimeter and Slope	20 inch	60.00	Backslope
25+02.00		Left	Perimeter and Slope	20 inch	50.00	Culvert Inlet
24+82.00		Left	Ditch Check	20 inch	10.00	
25+00.00		Left	Ditch Check	20 inch	10.00	
25+15.00		Left	Ditch Check	20 inch	10.00	
25+30.00		Left	Ditch Check	20 inch	10.00	
+ .00						
21+50.00	28+00.00	Right	Perimeter and Slope	20 inch	650.00	Foreslope
21+50.00	28+00.00	Right	Perimeter and Slope	20 inch	650.00	Foreslope
21+50.00	28+00.00	Right	Perimeter and Slope	20 inch	650.00	Backslope
21+50.00		Right	Ditch Check	20 inch	10.00	
22+00.00		Right	Ditch Check	20 inch	10.00	
22+50.00		Right	Ditch Check	20 inch	10.00	
23+00.00		Right	Ditch Check	20 inch	10.00	
23+50.00		Right	Ditch Check	20 inch	10.00	
24+00.00		Right	Ditch Check	20 inch	10.00	
24+50.00		Right	Ditch Check	20 inch	10.00	
25+00.00		Right	Ditch Check	20 inch	10.00	
25+50.00		Right	Ditch Check	20 inch	10.00	
26+00.00		Right	Ditch Check	20 inch	10.00	
26+50.00		Right	Ditch Check	20 inch	10.00	
27+00.00		Right	Ditch Check	20 inch	10.00	
27+50.00		Right	Ditch Check	20 inch	10.00	
28+00.00		Right	Ditch Check	20 inch	10.00	

Bid Item Quantities:  
Perimeter and Slope Sediment Control Device, 20 IN. DIA. - 2,730 LF  
Removal of Perimeter and Slope or Ditch Check Sediment Control Device - 2,960 LF  
Ditch Check Sediment Control Device, 20 IN. DIA. - 230 LF  
A discretionary quantity of 25% has added to the Perimeter and Slope Sediment Control Device, and Ditch Check Sediment Control Device items.











<div>ROLLED EROSION CONTROL</div> <div>Refer to EC-101, EC-103 and EC-104.</div>										100.22 8/15/22
Road Identification	Station From	Station To	Side	Length (FT)	Width (FT)	TRM Type (EC-104)	TRM Quantity (Squares)	Slope Protection (EC-103) (Squares)	Special Ditch Control (EC-101) (Squares)	Remarks
IA 136	24+80.00	25+35.00	Left	55.0	9.0				5.0	
IA 136	21+53.42	28+00.00	Right	650.0	9.0				60.0	
IA 136	21+53.42	28+00.00	Right	650.0	8.0			51.0		
IA 136	24+80.00	25+35.00	Left	55.0	8.0			4.0		
Total:								55	65	








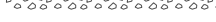
Bid Item Quantities:  
Slope Protection, Wood Excelsior Mat - 55 SQ  
Special Ditch Control, Wood Excelsior Mat - 65 SQ  
Watering for Sod, Special Ditch Control, or Slope Protection - 12 MGAL  
Mobilization for Watering - 3 EA



















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

















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

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

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

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

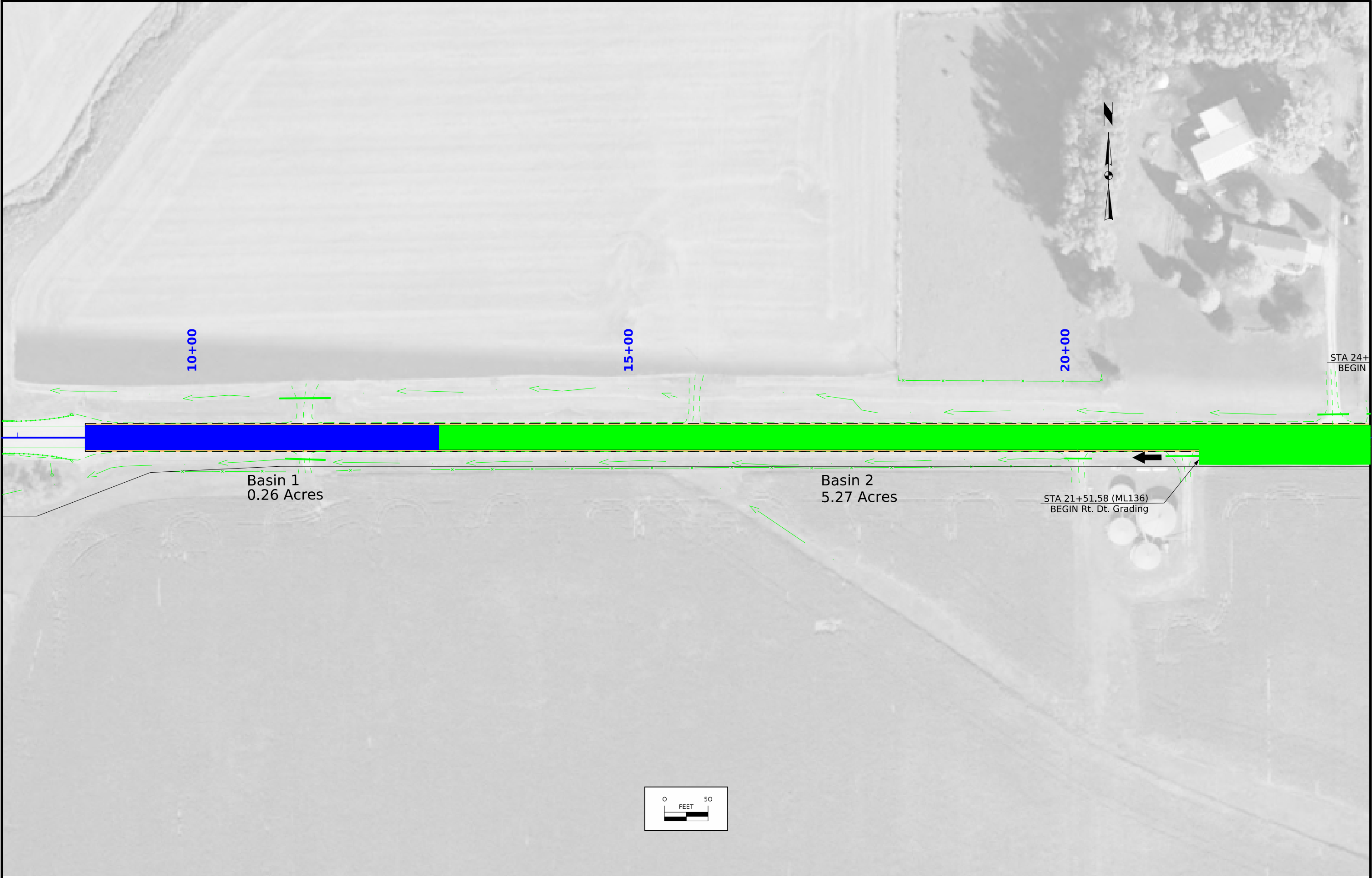
PLAN VIEW COLOR LEGEND OF EROSION CONTROL SHEETS				
LINEWORK	Design Color No.			
Green	(2)		Existing Topographic Features and Labels	
Blue	(1)		Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation	
Magenta	(5)		Existing Utilities	
Black	(0)		Permanent Erosion Control Features	
Blaze Orange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

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

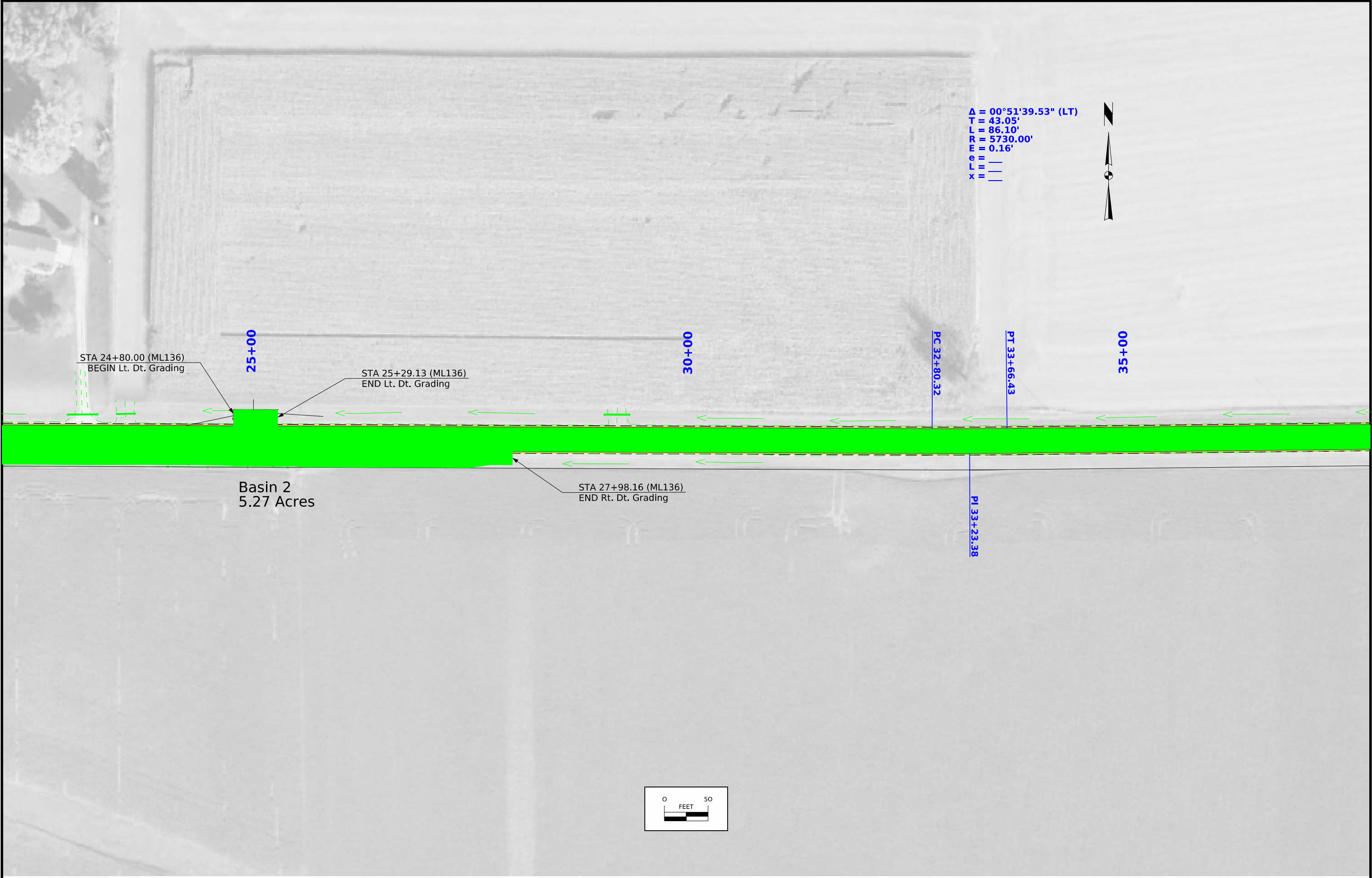
LEGEND AND SYMBOL  
INFORMATION SHEET

(COVERS SHEET SERIES D & R)



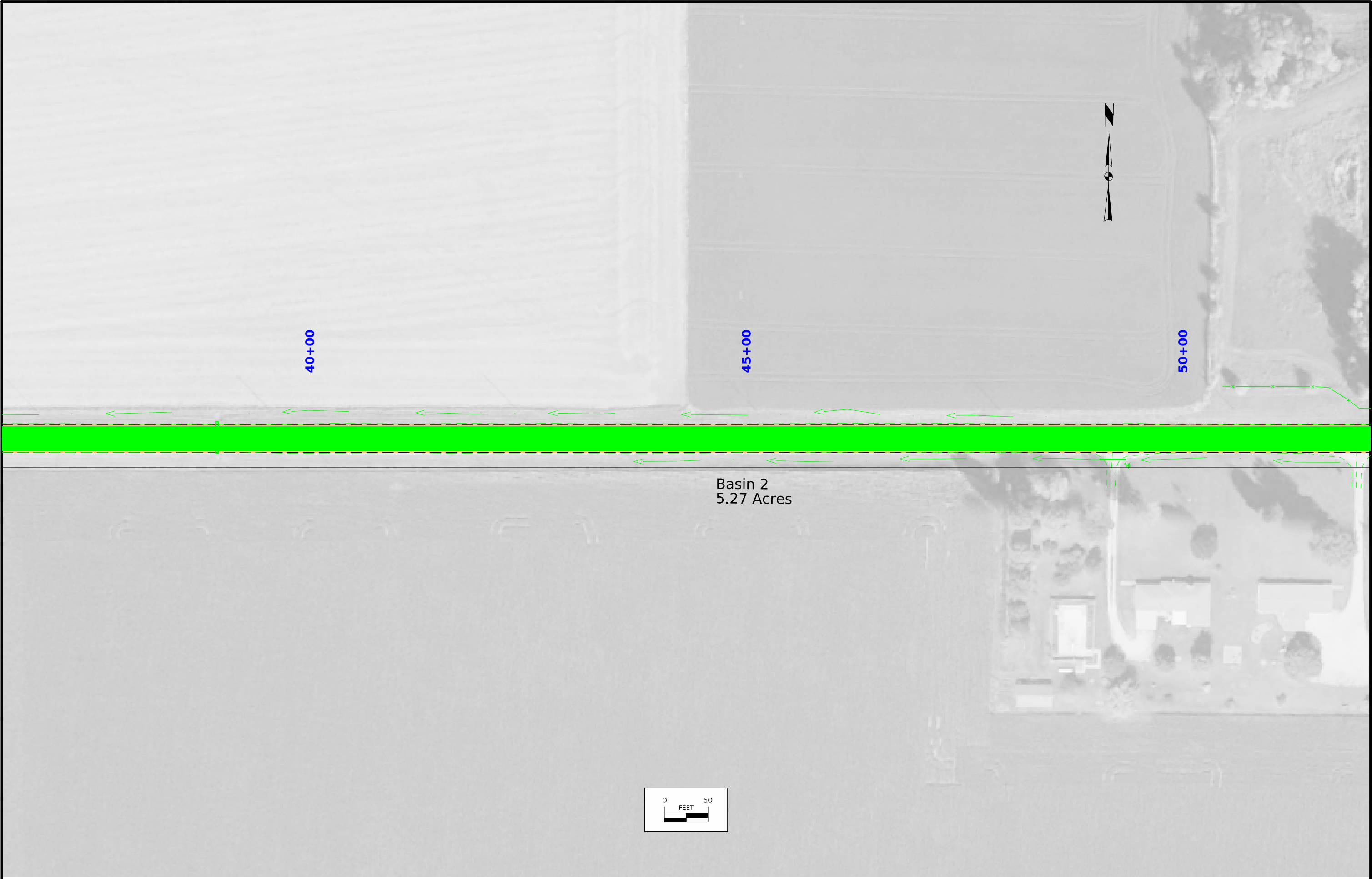








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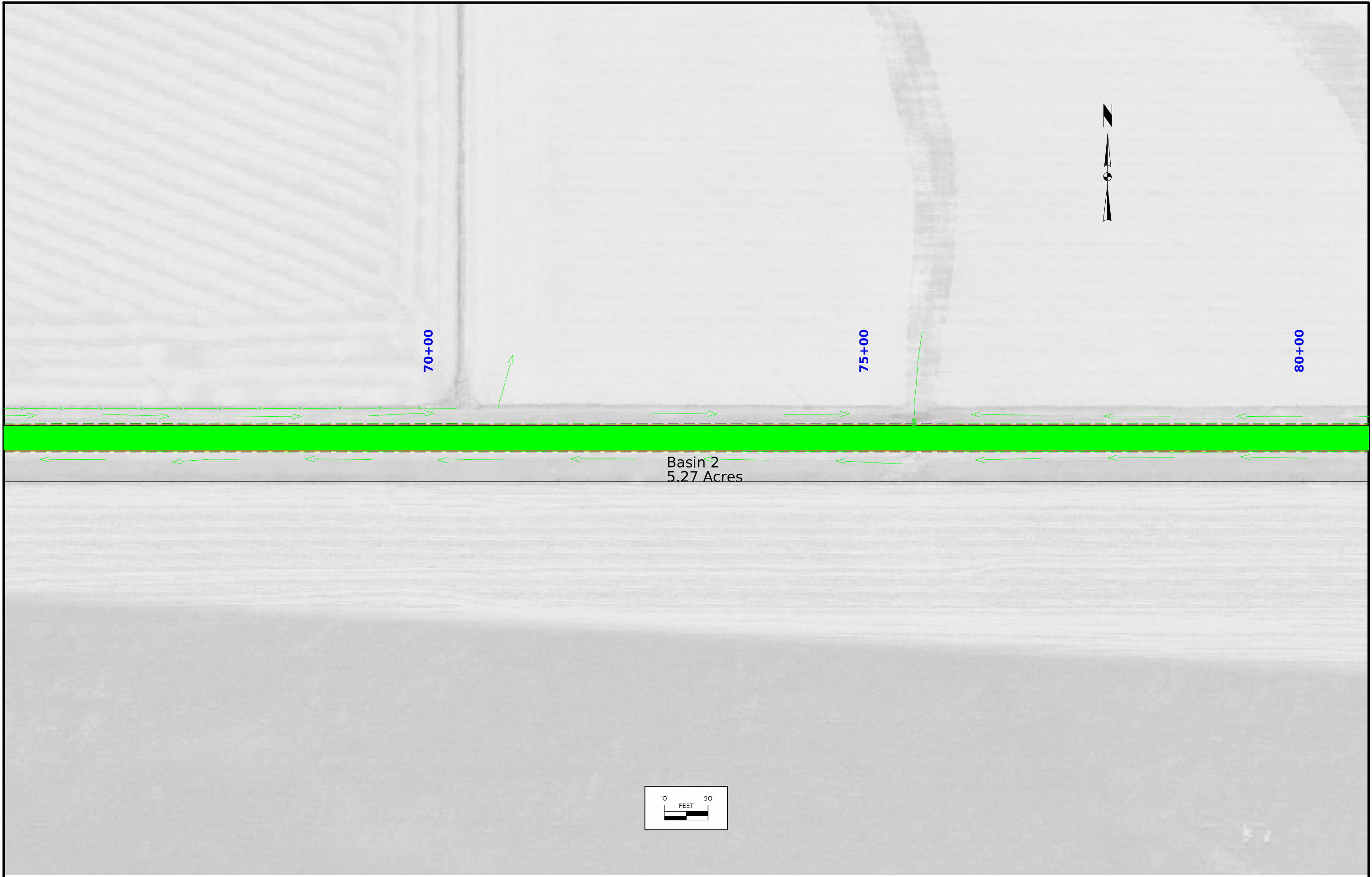


FILE NO.	ENGLISH	DESIGN TEAM <b>ABU AFIFEH/STANLEY</b>	CLINTON COUNTY	PROJECT NUMBER <b>STP-136-1(116)--2C-23</b>	SHEET NUMBER <b>RR.4</b>
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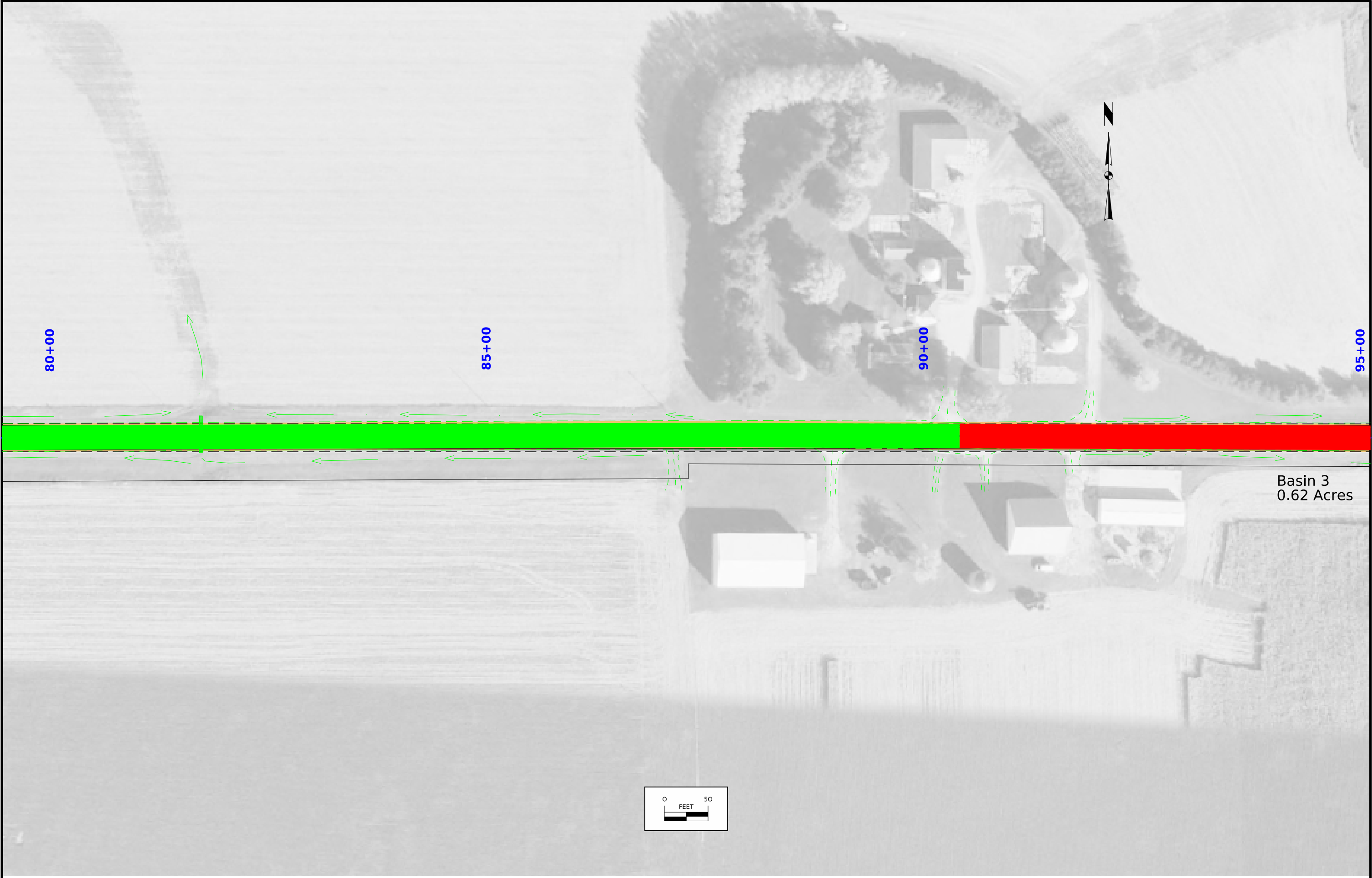




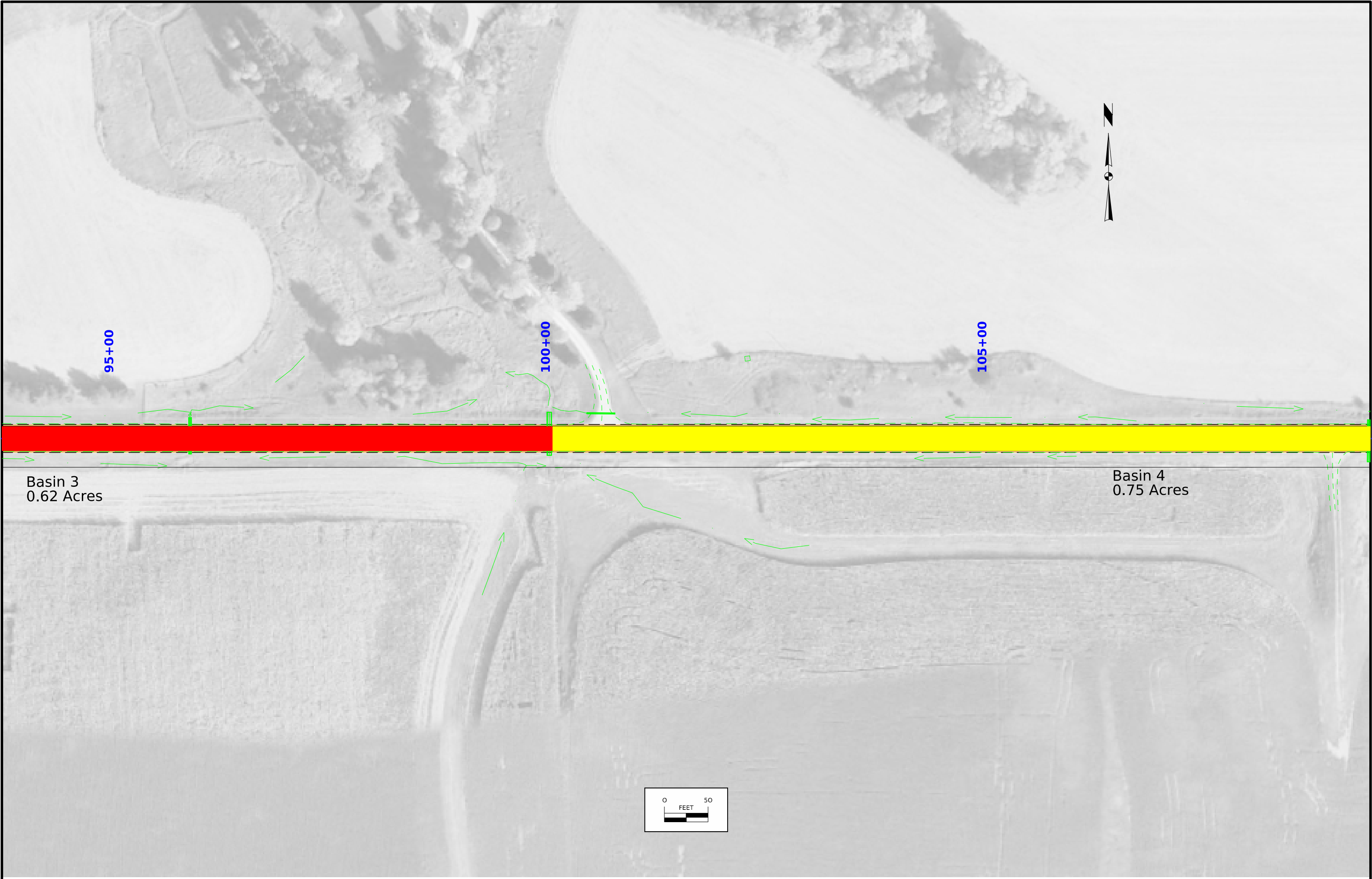












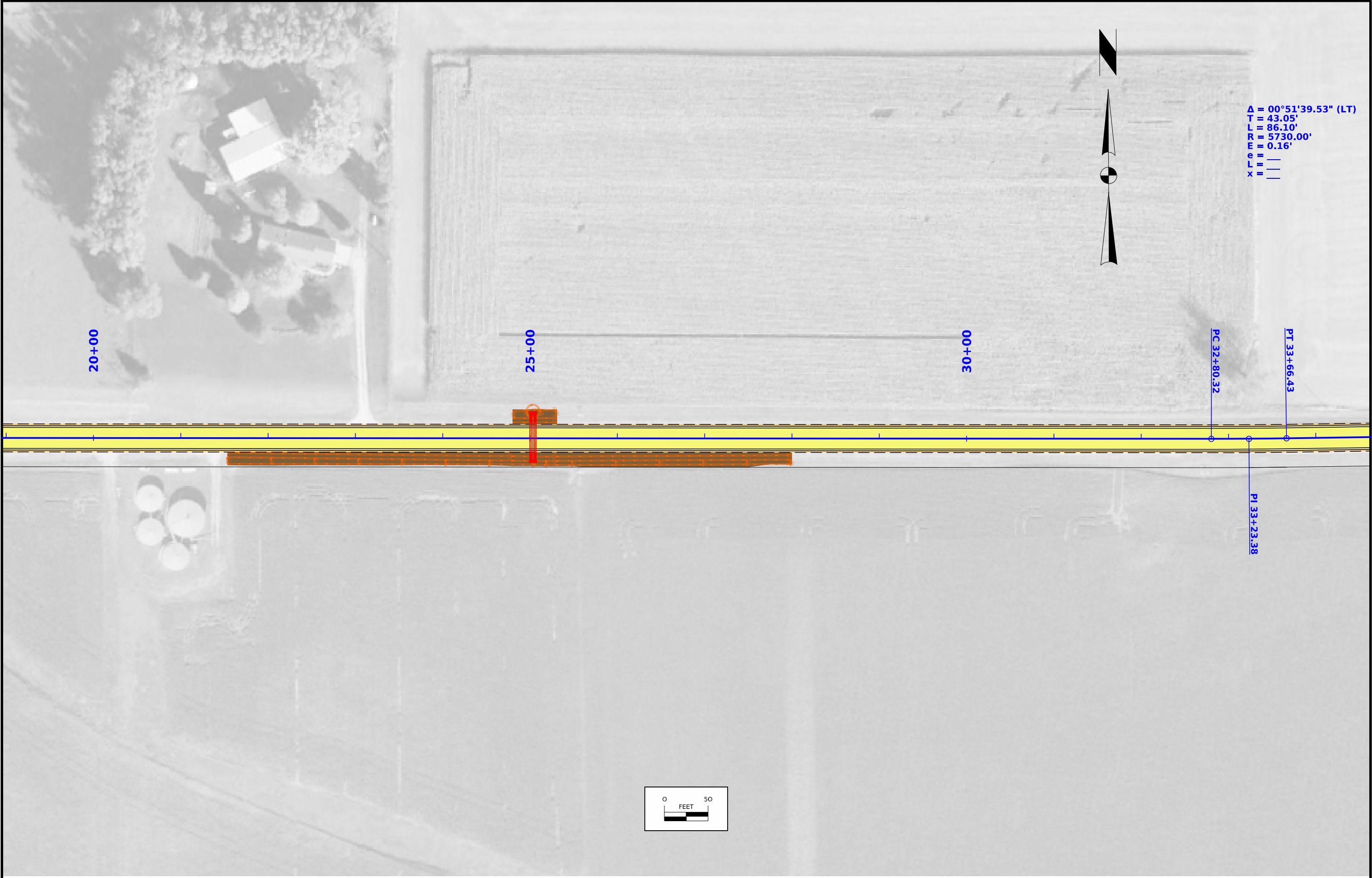








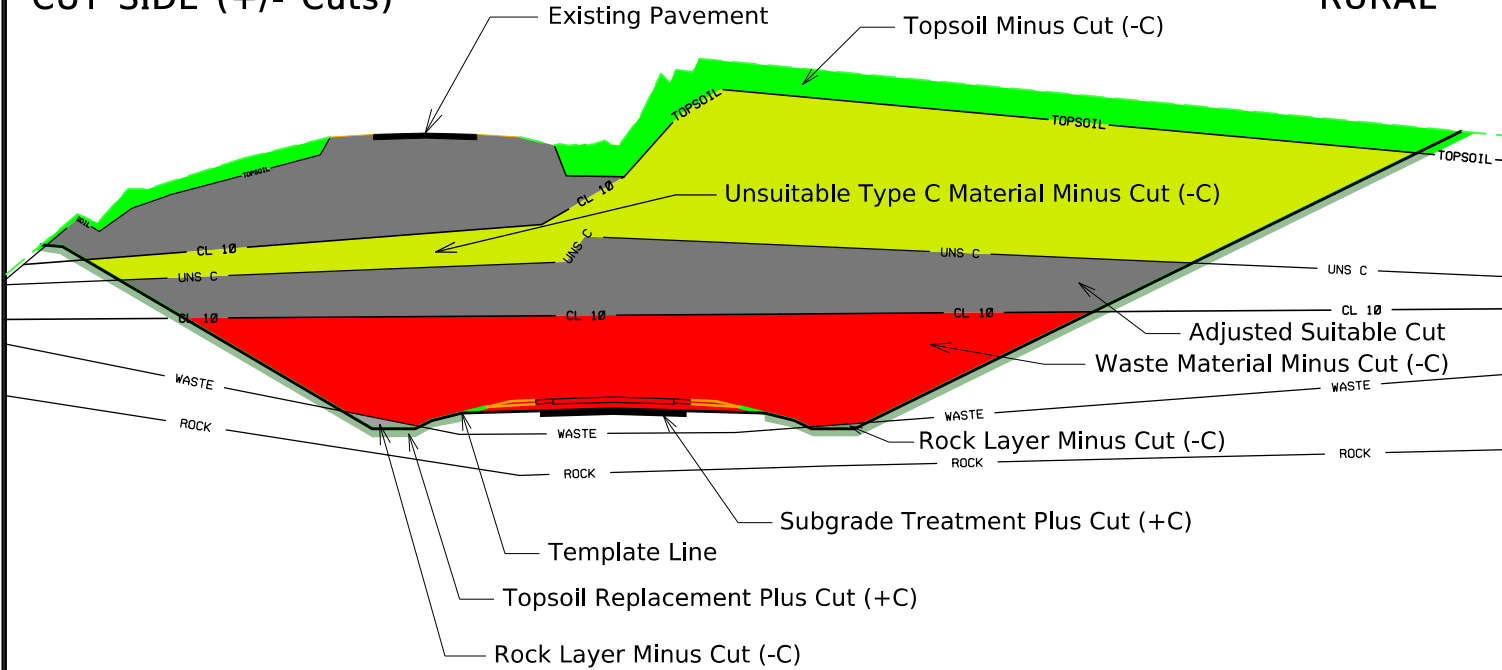






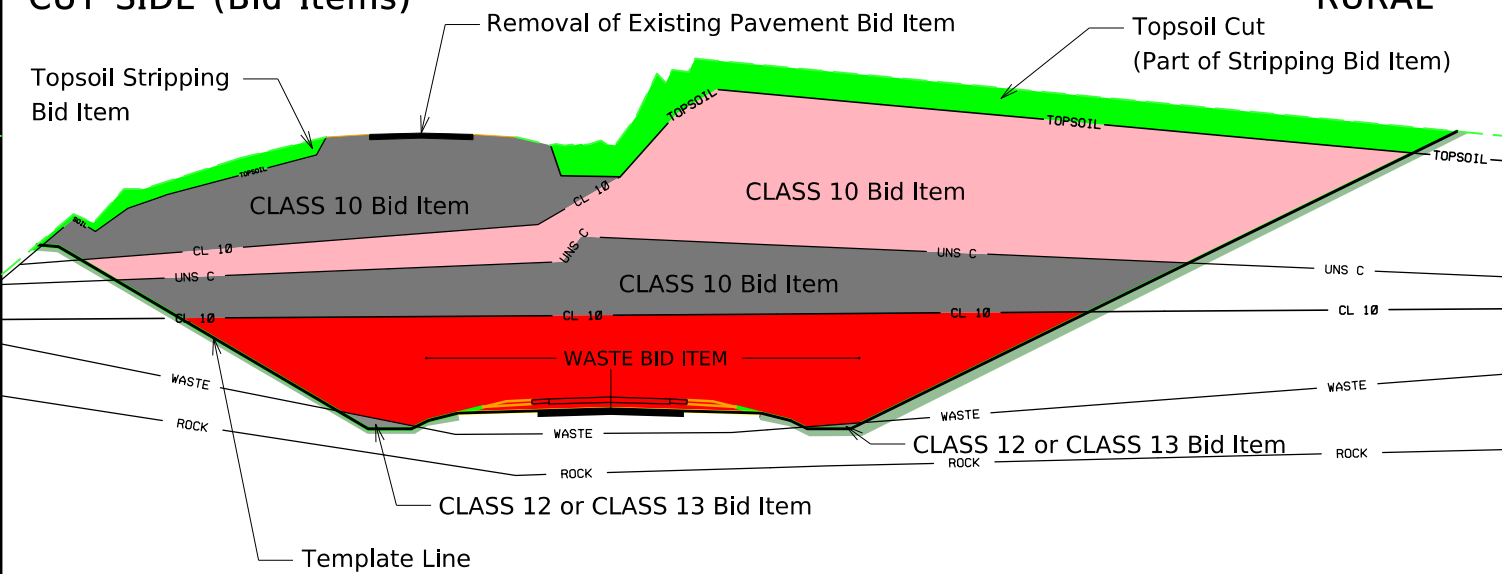
CUT SIDE (+/- Cuts)

RURAL



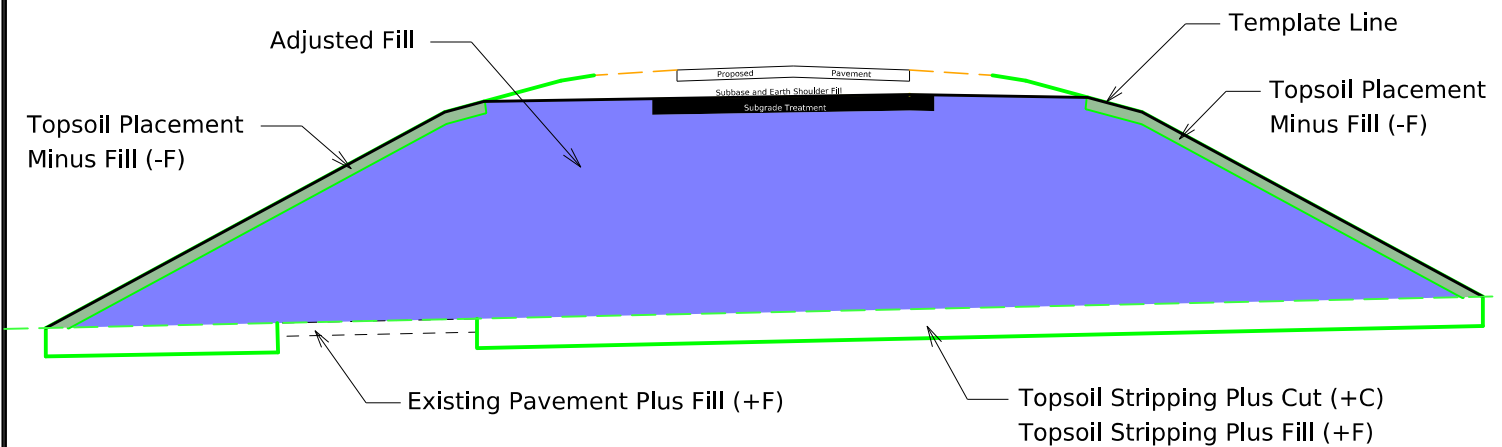
CUT SIDE (Bid Items)

RURAL



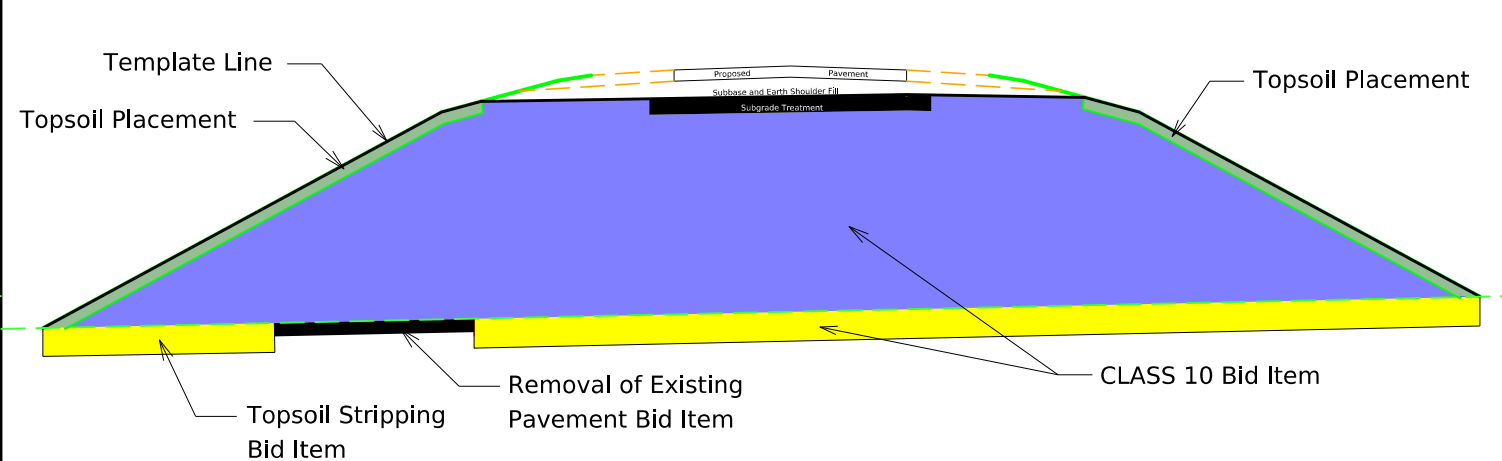
FILL SIDE (+/- Fills)

RURAL



FILL SIDE (Bid Items)

RURAL



Notes:

1. "Add Quantity +C" columns are additional cut encountered that is not Typical, Topsoil, or Subgrade Treatment Based. ( Entrance, Dike, Etc.)
2. "-C" columns are either soil types or Class 10, 12, or 13 designated material that is encountered in the cut station range that is paid for by other bid items.
3. The "(SoilType) Cut" columns are soil types encountered in the cut that are paid by either Class 10, 12, or 13.
4. The "Adjusted Clas (10,12 or 13)" columns are the sum of all various soil types encountered in that station range, that are paid by Class 10, 12, or 13 bid items.
5. Refer to Standard Road Plan EW-102 for placement of unsuitable soil types.

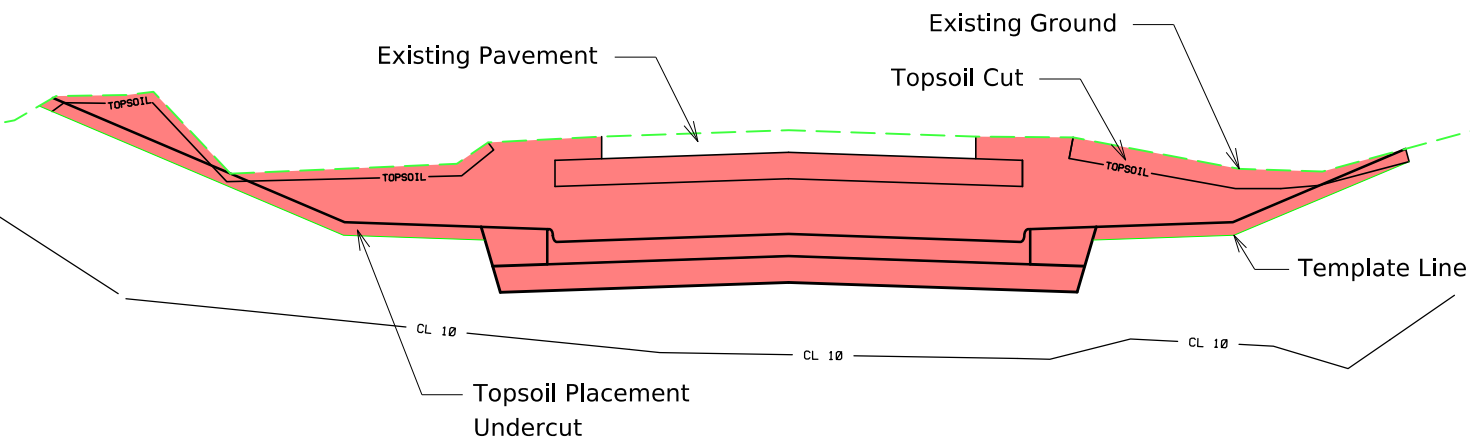
Notes:

1. Refer to Standard Road Plan EW-102 for placement of unsuitable soil types.



CUT SIDE Total Cut Unadjusted

URBAN

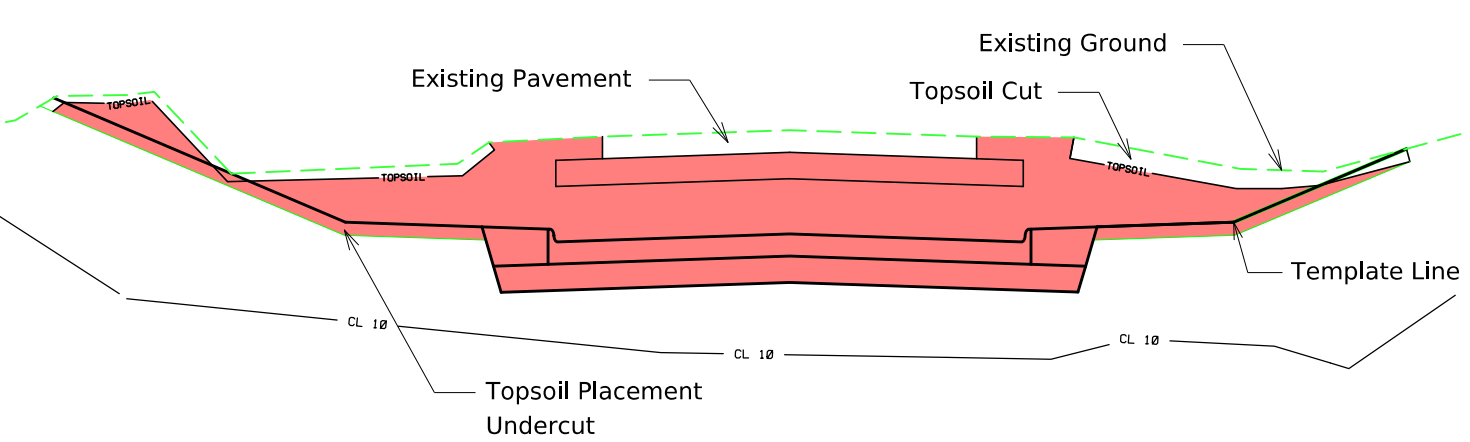


Notes:

- 1. "Total Cut Unadjusted" Column includes all cut values in the Station Range based on Typical, Topsoil and Subgrade Treatment needs.
- 2. "Total Cut Unadjusted" does not include and Existing Pavement values inside or outside the cut template as shown on cross sections.
- 3. Tabulated Plowing and Shaping operations are included in the "Total Cut Unadjusted" values.

CUT SIDE Total Cut Adjusted

URBAN

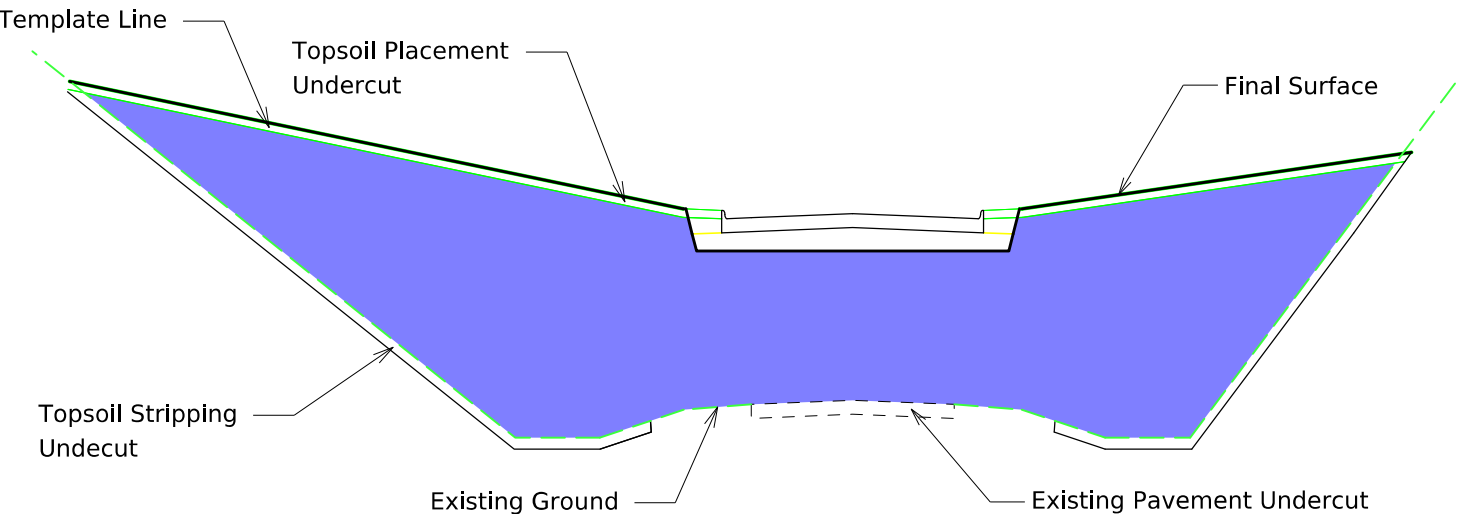


Notes:

- 1. "Total Cut Adjusted" Column includes all cut values usable as Class 10 material.
- 2. "Total Cut Adjusted" does not include and Existing Pavement , Existing Topsoil, or material to be wasted.

FILL SIDE Total Fill Unadjusted

URBAN

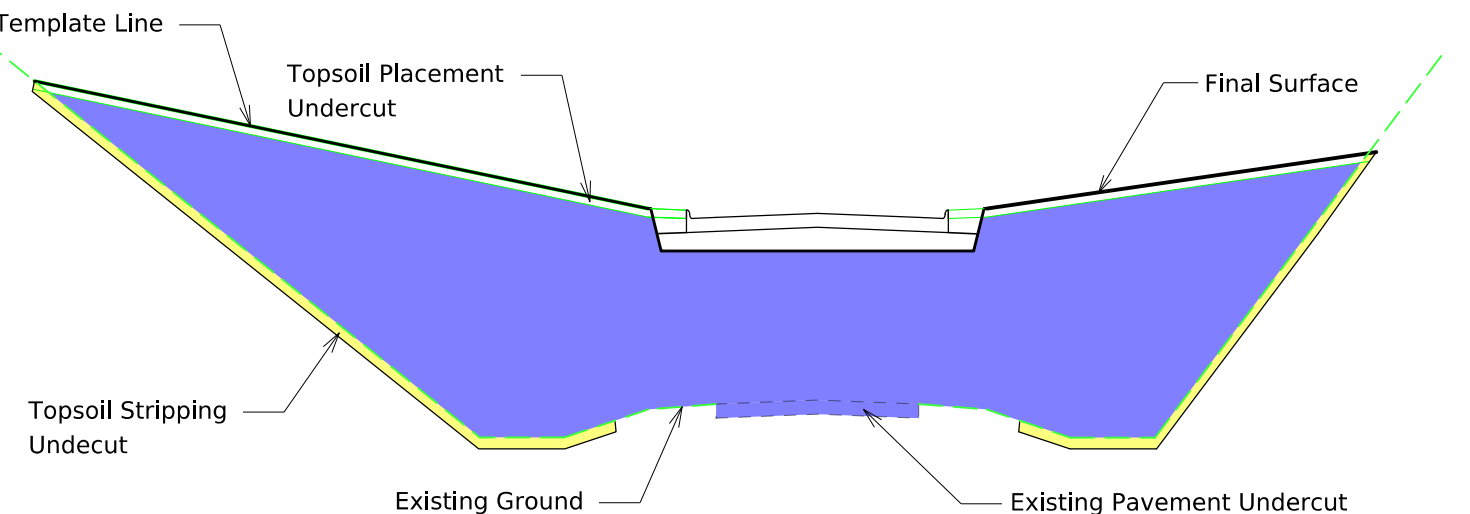


Notes:

- 1. "Total Fill Unadjusted" Column includes all Class 10, 12, and 13 fill. This excludes the topsoil, subgrade treatment, subbase, new pavement, and shoulder fill needs in that station range.
- 2. "Total Fill Unadjusted" Column does not include adjustments for additional fill from cuts such as existing pavement removed, plowing and shaping operations, entrances, dikes, or topsoil stripping.

FILL SIDE Total Fill Adjusted

URBAN



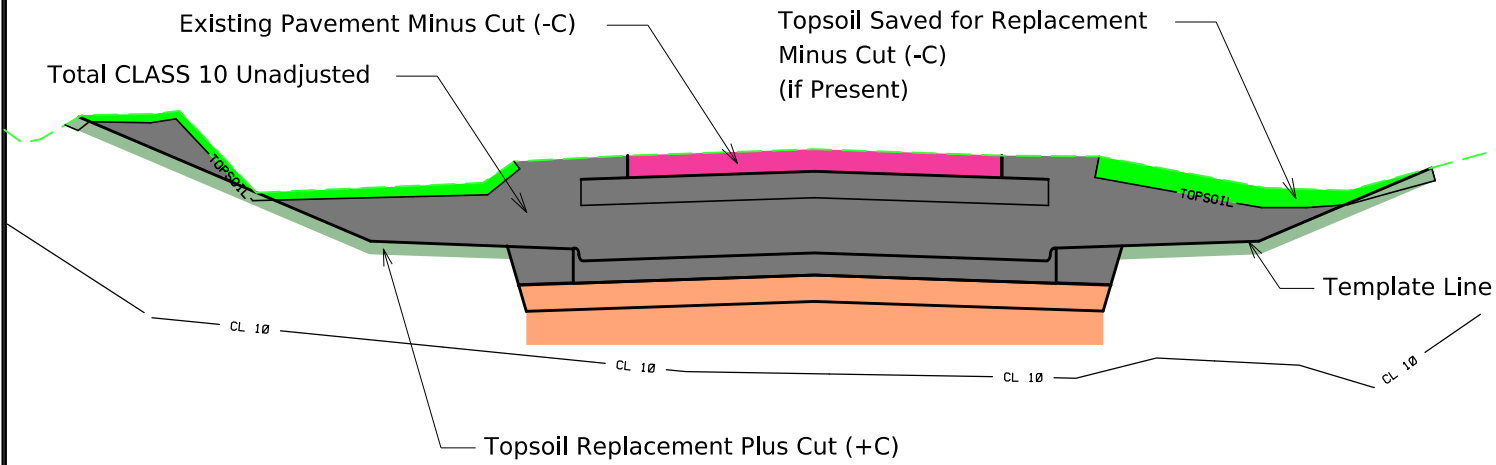
Notes:

- 1. "Total Fill Adjusted" Column includes all Class 10, 12, and 13 fill and adjustments for additional fill from cuts such as existing pavement, plowing and shaping operations, entrances, dikes, and topsoil stripping.
- 2. The available area to place unsuitable materials in the T Sheet tabulation does not include the undercut values from the topsoil stripping, existing pavement, or plowing and shaping.



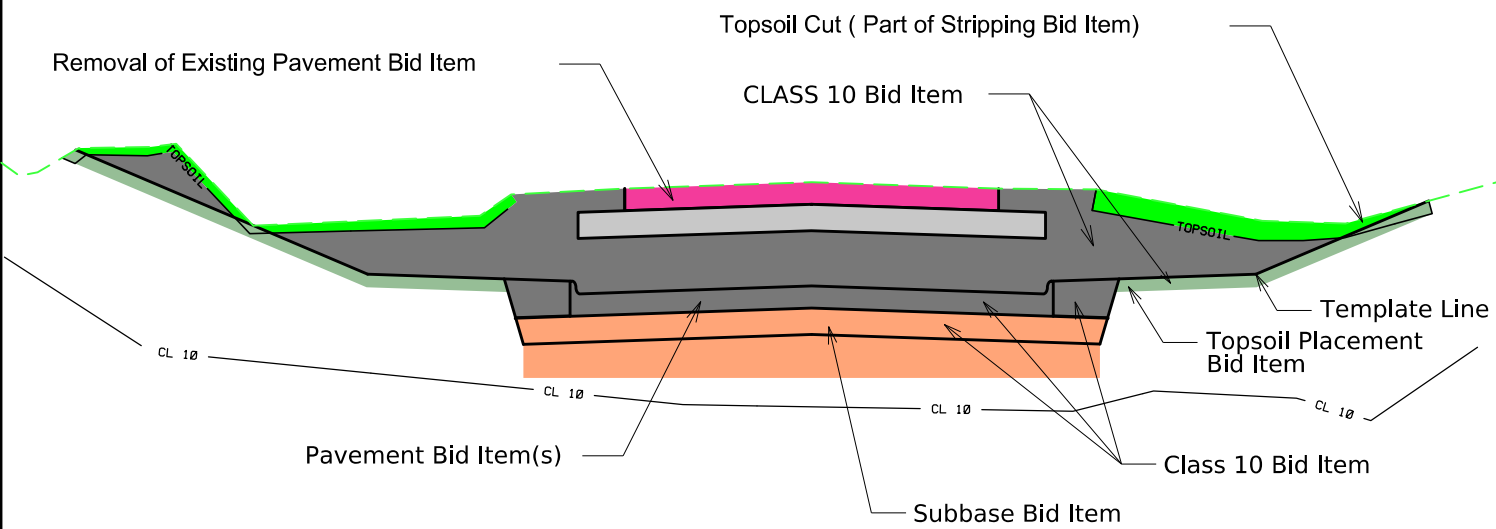
CUT SIDE (+/- Cuts)

URBAN



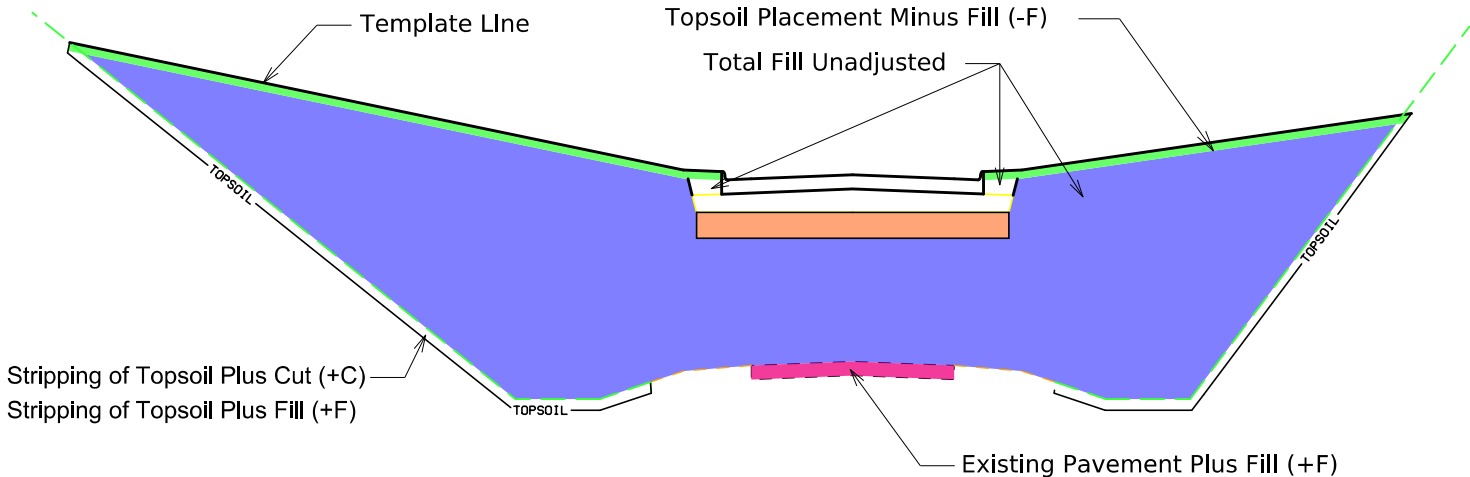
CUT SIDE (Bid Items)

URBAN



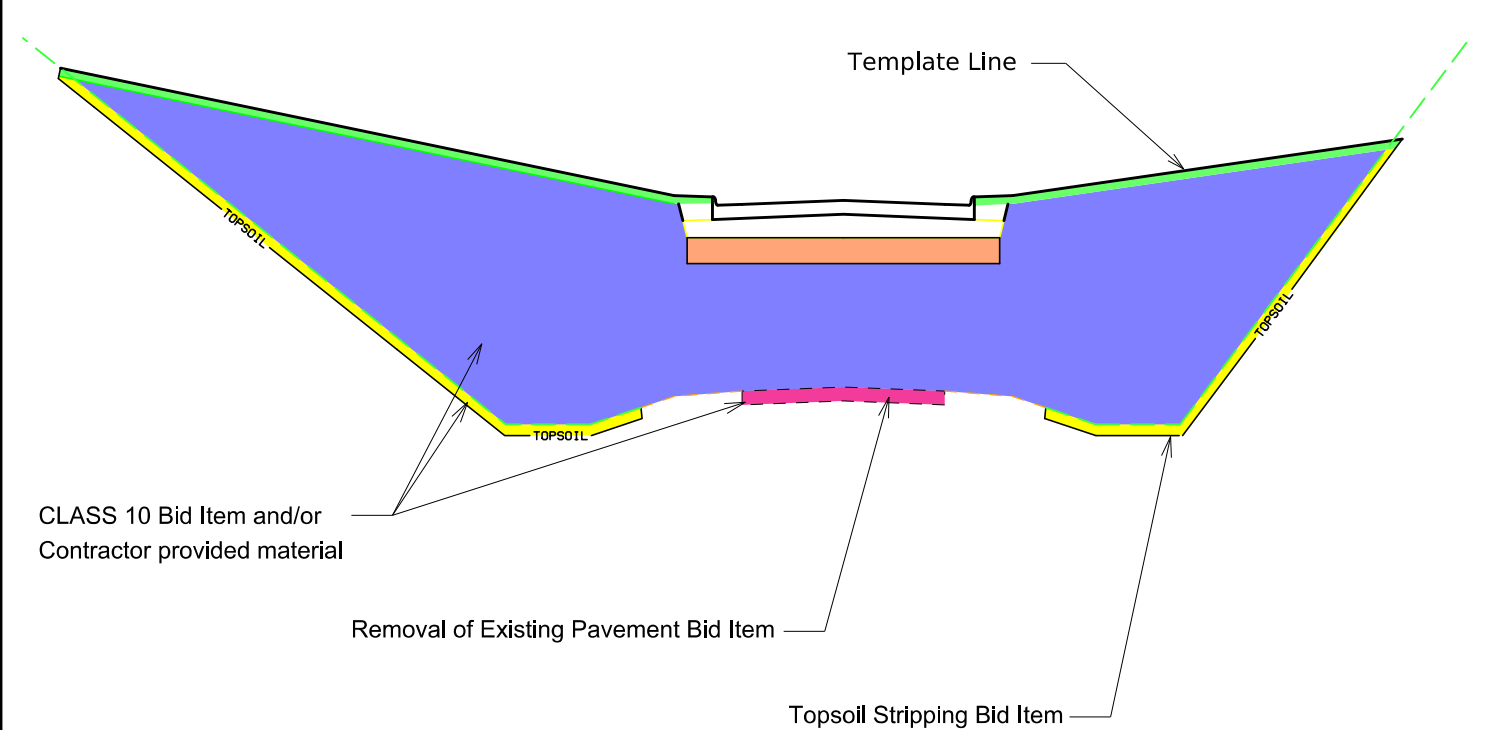
FILL SIDE (+/- Fills)

URBAN



FILL SIDE (Bid Items)

URBAN



Notes:

1. "Manually Calculated Cut Adjustments +C" columns are additional cut encountered that is not Typical, Topsoil, or Subgrade Treatment Based. ( Entrance, Dike, Etc.)
2. "-C" columns are either soil types or Class 10, 12, or 13 designated material that is encountered in the cut station range that is paid for by other bid items.
3. The "(SoilType) Cut" columns are soil types encountered in the cut that are paid by either Class 10, 12 or 13.
4. The "Adjusted Clas (10,12 or 13)" columns are the sum of all various soil types encountered in that station range, that are paid by Class 10, 12, or 13 bid items.



Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28  
04-21-15

Station	Cut						Fill				Checks (EW-102)		Topsoil				[17]	[18]	[19]	[20]	[21]	[22]
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]						
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Template Pavement Removal Volume	Template Waste Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.3 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink						
ML136																						
8+78.06	71	14	0	40	17	14	0	0	0	14	0	0	0	0	0	0						
9+00.00	71	15	0	40	16	15	0	0	0	15	0	0	0	0	0	0						
9+50.00	74	17	0	40	16	17	0	0	0	17	0	0	0	0	0	0						
10+00.00	71	15	0	40	16	15	0	0	0	15	0	0	0	0	0	0						
10+50.00	70	13	0	41	16	13	0	0	0	13	0	0	0	0	0	0						
11+00.00	68	12	0	40	16	12	0	0	0	12	0	0	0	0	0	0						
11+50.00	67	10	0	41	16	10	0	0	0	10	0	0	0	0	0	0						
12+00.00	66	10	0	40	16	10	0	0	0	10	0	0	0	0	0	0						
12+50.00	69	13	0	41	16	13	0	0	0	13	0	0	0	0	0	0						
13+00.00	71	14	0	41	16	14	0	0	0	14	0	0	0	0	0	0						
13+50.00	72	15	0	40	16	15	0	0	0	15	0	0	0	0	0	0						
14+00.00	71	15	0	40	17	15	0	0	0	15	0	0	0	0	0	0						
14+50.00	70	14	0	41	16	14	0	0	0	14	0	0	0	0	0	0						
15+00.00	69	12	0	41	15	12	0	0	0	12	0	0	0	0	0	0						
15+50.00	68	11	0	41	15	11	0	0	0	11	0	0	0	0	0	0						
16+00.00	69	13	0	40	16	13	0	0	0	13	0	0	0	0	0	0						
16+50.00	72	16	0	40	16	16	0	0	0	16	0	0	0	0	0	0						
17+00.00	74	17	0	41	16	17	0	0	0	17	0	0	0	0	0	0						
17+50.00	75	18	0	40	16	18	0	0	0	18	0	0	0	0	0	0						
18+00.00	77	20	0	40	17	20	0	0	0	20	0	0	0	0	0	0						
18+50.00	78	21	0	40	17	21	0	0	0	21	0	0	0	0	0	0						
19+00.00	77	20	0	40	17	20	0	0	0	20	0	0	0	0	0	0						
19+50.00	76	19	0	41	16	19	0	0	0	19	0	0	0	0	0	0						
20+00.00	76	19	0	41	16	19	0	0	0	19	0	0	0	0	0	0						
20+50.00	77	20	0	41	16	20	0	0	0	20	0	0	0	0	0	0						
21+00.00	113	29	27	40	17	29	11	11	14	15	0	0	27	17	24	3						
21+50.00	110	24	29	40	17	24	11	11	14	10	0	0	29	18	25	4						
22+00.00	114	27	29	40	17	27	5	5	6	21	0	0	29	18	25	4						
22+50.00	118	32	28	41	17	32	1	1	2	30	0	0	28	18	25	3						
23+00.00	109	23	29	41	16	23	4	4	6	17	0	0	29	17	25	5						
23+50.00	103	17	29	41	16	17	6	6	8	9	0	0	29	17	25	5						
24+00.00	129	29	43	41	16	29	14	14	18	11	0	0	43	24	33	10						
24+50.00	144	36	50	41	17	36	25	25	33	3	0	0	50	27	38	13						
25+00.00	97	12	29	41	15	12	22	22	29	-17	0	0	29	21	30	-1						
25+50.00	95	11	27	40	16	11	31	31	40	-29	0	0	27	21	30	-3						
26+00.00	95	11	27	40	17	11	20	20	26	-15	0	0	27	21	30	-3						
26+50.00	95	12	25	41	17	12	13	13	18	-6	0	0	25	21	30	-5						
27+00.00	96	13	25	41	17	13	13	13	17	-4	0	0	25	18	25	-1						
27+50.00	69	12	0	41	15	12	0	0	0	12	0	0	0	0	0	0						
28+00.00	69	12	0	41	16	12	0	0	0	12	0	0	0	0	0	0						
28+50.00	71	15	0	41	16	15	0	0	0	15	0	0	0	0	0	0						
29+00.00	71	14	0	41	16	14	0	0	0	14	0	0	0	0	0	0						
29+50.00	71	14	0	41	16	14	0	0	0	14	0	0	0	0	0	0						
30+00.00	71	14	0	40	16	14	0	0	0	14	0	0	0	0	0	0						
30+50.00	71	14	0	40	17	14	0	0	0	14	0	0	0	0	0	0						
31+00.00	70	13	0	40	17	13	0	0	0	13	0	0	0	0	0	0						
31+50.00	69	12	0	40	16	12	0	0	0	12	0	0	0	0	0	0						
32+00.00	70	14	0	40	16	14	0	0	0	14	0	0	0	0	0	0						
32+50.00	71	14	0	40	17	14	0	0	0	14	0	0	0	0	0	0						
33+00.00	71	14	0	40	16	14	0	0	0	15	0	0	0	0	0	0						
33+50.00	71	14	0	40	16	14	0	0	0	14	0	0	0	0	0	0						
34+00.00	71	15	0	41	16	15	0	0	0	15	0	0	0	0	0	0						
34+50.00	73	16	0	41	16	16	0	0	0	16	0	0	0	0	0	0						
35+00.00	72	15	0	41	16	15	0	0	0	15	0	0	0	0	0	0						
35+50.00	71	14	0	41	16	14	0	0	0	14	0	0	0	0	0	0						
36+00.00	70	14	0	41	16	14	0	0	0	14	0	0	0	0	0	0						
36+50.00	68	12	0	41	15	12	0	0	0	12	0	0	0	0	0	0						
37+00.00	68	11	0	41	15	11	0	0	0	11	0	0	0	0	0	0						
37+50.00	68	12	0	41	15	12	0	0	0	12	0	0	0	0	0	0						
38+00.00	70	14	0	41	15	14	0	0	0	14	0	0	0	0	0	0						
38+50.00	71	14	0	41	16	14	0	0	0	14	0	0	0	0	0	0						
39+00.00	70	13	0	41	15	13	0	0	0	13	0	0	0	0	0	0						
39+50.00	70	13	0	41	16	13	0	0	0	13	0	0	0	0	0	0						
40+00.00	65	9	0	41	16	9	0	0	0	9	0	0	0	0	0	0						
40+50.00	65	9	0	41	16	9	0	0	0	9	0	0	0	0	0	0						
41+00.00	63	7	0	41	16	7	0	0	0	7	0	0	0	0	0	0						
41+50.00	62	5	0	40	16	5	0	0	0	5	0	0	0	0	0	0						
42+00.00																						
Subtotals:	5,230	1,028	397	2,723	1,081	1,028	177	177	234	797	0	0	397	259	364	34						



TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

Station	Cut						Fill				Checks (EW-102)		Topsoil									
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Template Pavement Removal Volume	Template Waste Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.3 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink						
42+00.00	61	5	0	41	16	5	0	0	0	5	0	0	0	0	0	0						
42+50.00	62	6	0	41	16	6	0	0	0	6	0	0	0	0	0	0						
43+00.00	64	7	0	41	16	7	0	0	0	7	0	0	0	0	0	0						
43+50.00	65	9	0	40	16	9	0	0	0	9	0	0	0	0	0	0						
44+00.00	66	9	0	40	16	9	0	0	0	9	0	0	0	0	0	0						
44+50.00	67	10	0	41	16	10	0	0	0	10	0	0	0	0	0	0						
45+00.00	68	11	0	41	16	11	0	0	0	11	0	0	0	0	0	0						
45+50.00	69	12	0	40	17	12	0	0	0	13	0	0	0	0	0	0						
46+00.00	71	14	0	40	17	14	0	0	0	14	0	0	0	0	0	0						
46+50.00	72	15	0	41	16	15	0	0	0	15	0	0	0	0	0	0						
47+00.00	72	16	0	40	17	16	0	0	0	16	0	0	0	0	0	0						
47+50.00	73	16	0	40	17	16	0	0	0	16	0	0	0	0	0	0						
48+00.00	75	18	0	40	17	18	0	0	0	18	0	0	0	0	0	0						
48+50.00	74	17	0	41	16	17	0	0	0	17	0	0	0	0	0	0						
49+00.00	75	18	0	40	17	18	0	0	0	18	0	0	0	0	0	0						
49+50.00	74	17	0	41	17	17	0	0	0	17	0	0	0	0	0	0						
50+00.00	73	16	0	41	17	16	0	0	0	16	0	0	0	0	0	0						
50+50.00	75	17	0	40	17	17	0	0	0	18	0	0	0	0	0	0						
51+00.00	74	17	0	41	16	17	0	0	0	17	0	0	0	0	0	0						
51+50.00	69	13	0	41	15	13	0	0	0	13	0	0	0	0	0	0						
52+00.00	68	12	0	41	16	12	0	0	0	12	0	0	0	0	0	0						
52+50.00	70	13	0	40	16	13	0	0	0	13	0	0	0	0	0	0						
53+00.00	69	13	0	41	16	13	0	0	0	13	0	0	0	0	0	0						
53+50.00	69	12	0	41	15	12	0	0	0	12	0	0	0	0	0	0						
54+00.00	70	13	0	41	16	13	0	0	0	13	0	0	0	0	0	0						
54+50.00	68	12	0	41	15	12	0	0	0	12	0	0	0	0	0	0						
55+00.00	67	11	0	41	15	11	0	0	0	11	0	0	0	0	0	0						
55+50.00	70	13	0	40	16	13	0	0	0	13	0	0	0	0	0	0						
56+00.00	71	14	0	41	16	14	0	0	0	14	0	0	0	0	0	0						
56+50.00	71	14	0	41	16	14	0	0	0	14	0	0	0	0	0	0						
57+00.00	72	15	0	41	16	15	0	0	0	15	0	0	0	0	0	0						
57+50.00	74	17	0	40	17	17	0	0	0	17	0	0	0	0	0	0						
58+00.00	73	16	0	40	17	16	0	0	0	16	0	0	0	0	0	0						
58+50.00	72	15	0	40	17	15	0	0	0	15	0	0	0	0	0	0						
59+00.00	71	14	0	41	16	14	0	0	0	14	0	0	0	0	0	0						
59+50.00	70	14	0	42	15	14	0	0	0	14	0	0	0	0	0	0						
60+00.00	71	14	0	41	16	14	0	0	0	14	0	0	0	0	0	0						
60+50.00	72	15	0	41	16	15	0	0	0	15	0	0	0	0	0	0						
61+00.00	72	15	0	41	16	15	0	0	0	15	0	0	0	0	0	0						
61+50.00	71	14	0	41	16	14	0	0	0	14	0	0	0	0	0	0						
62+00.00	70	13	0	41	16	13	0	0	0	13	0	0	0	0	0	0						
62+50.00	70	13	0	41	16	13	0	0	0	13	0	0	0	0	0	0						
63+00.00	70	14	0	41	16	14	0	0	0	14	0	0	0	0	0	0						
63+50.00	71	14	0	41	16	14	0	0	0	14	0	0	0	0	0	0						
64+00.00	70	14	0	41	15	14	0	0	0	14	0	0	0	0	0	0						
64+50.00	68	12	0	41	16	12	0	0	0	12	0	0	0	0	0	0						
65+00.00	68	11	0	41	16	11	0	0	0	11	0	0	0	0	0	0						
65+50.00	69	12	0	40	16	12	0	0	0	12	0	0	0	0	0	0						
66+00.00	69	13	0	40	17	13	0	0	0	13	0	0	0	0	0	0						
66+50.00	72	15	0	40	17	15	0	0	0	15	0	0	0	0	0	0						
67+00.00	74	17	0	40	17	17	0	0	0	17	0	0	0	0	0	0						
67+50.00	75	18	0	40	17	18	0	0	0	18	0	0	0	0	0	0						
68+00.00	74	17	0	41	16	17	0	0	0	17	0	0	0	0	0	0						
68+50.00	73	16	0	41	16	16	0	0	0	16	0	0	0	0	0	0						
69+00.00	71	14	0	41	16	14	0	0	0	14	0	0	0	0	0	0						
69+50.00	69	12	0	41	15	12	0	0	0	12	0	0	0	0	0	0						
70+00.00	67	10	0	42	15	10	0	0	0	10	0	0	0	0	0	0						
70+50.00	65	9	0	42	14	9	0	0	0	9	0	0	0	0	0	0						
71+00.00	64	8	0	42	14	8	0	0	0	8	0	0	0	0	0	0						
71+50.00	64	8	0	42	14	8	0	0	0	8	0	0	0	0	0	0						
72+00.00	64	8	0	42	14	8	0	0	0	8	0	0	0	0	0	0						
72+50.00	64	8	0	41	15	8	0	0	0	9	0	0	0	0	0	0						
73+00.00	66	10	0	41	15	10	0	0	0	10	0	0	0	0	0	0						
73+50.00	67	11	0	41	14	11	0	0	0	11	0	0	0	0	0	0						
74+00.00	67	11	0	41	15	11	0	0	0	11	0	0	0	0	0	0						
74+50.00	66	11	0	41	14	11	0	0	0	11	0	0	0	0	0	0						
75+00.00	64	10	0	41	13	10	1	1	1	9	0	0	0	0	0	0						
75+50.00	67	11	0	41	15	11	0	0	0	11	0	0	0	0	0	0						
76+00.00																						
Subtotals:	4,727	879	0	2,770	1,078	879	1	1	4	879	0	0	0	0	0	0						



TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

Station	Cut						Fill				Checks (EW-102)		Topsoil									
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Template Pavement Removal Volume	Template Waste Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.3 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink						
76+00.00	67	11	0	41	15	11	0	0	0	11	0	0	0	0	0	0						
76+50.00	69	13	0	41	15	13	0	0	0	13	0	0	0	0	0	0						
77+00.00	71	14	0	41	16	14	0	0	0	14	0	0	0	0	0	0						
77+50.00	72	15	0	40	17	15	0	0	0	15	0	0	0	0	0	0						
78+00.00	72	15	0	40	17	15	0	0	0	15	0	0	0	0	0	0						
78+50.00	71	14	0	40	17	14	0	0	0	14	0	0	0	0	0	0						
79+00.00	71	14	0	40	17	14	0	0	0	14	0	0	0	0	0	0						
79+50.00	71	14	0	40	16	14	0	0	0	14	0	0	0	0	0	0						
80+00.00	70	13	0	41	16	13	0	0	0	13	0	0	0	0	0	0						
80+50.00	71	14	0	41	15	14	0	0	0	14	0	0	0	0	0	0						
81+00.00	71	14	0	41	15	14	0	0	0	14	0	0	0	0	0	0						
81+50.00	68	12	0	41	15	12	0	0	0	12	0	0	0	0	0	0						
82+00.00	68	12	0	41	15	12	0	0	0	12	0	0	0	0	0	0						
82+50.00	69	12	0	40	16	12	0	0	0	12	0	0	0	0	0	0						
83+00.00	69	12	0	41	16	12	0	0	0	12	0	0	0	0	0	0						
83+50.00	70	13	0	41	16	13	0	0	0	13	0	0	0	0	0	0						
84+00.00	69	13	0	41	16	13	0	0	0	13	0	0	0	0	0	0						
84+50.00	70	13	0	41	16	13	0	0	0	13	0	0	0	0	0	0						
85+00.00	72	15	0	41	16	15	0	0	0	15	0	0	0	0	0	0						
85+50.00	73	16	0	41	16	16	0	0	0	16	0	0	0	0	0	0						
86+00.00	72	15	0	41	16	15	0	0	0	15	0	0	0	0	0	0						
86+50.00	72	15	0	40	17	15	0	0	0	15	0	0	0	0	0	0						
87+00.00	71	14	0	40	17	14	0	0	0	14	0	0	0	0	0	0						
87+50.00	71	15	0	40	17	15	0	0	0	15	0	0	0	0	0	0						
88+00.00	76	16	0	44	16	16	0	0	0	16	0	0	0	0	0	0						
88+50.00	77	19	0	43	15	19	0	0	0	19	0	0	0	0	0	0						
89+00.00	75	20	0	41	14	20	0	0	0	20	0	0	0	0	0	0						
89+50.00	84	25	0	51	9	25	0	0	0	25	0	0	0	0	0	0						
90+00.00	90	28	0	47	15	28	0	0	0	28	0	0	0	0	0	0						
90+50.00	82	25	0	41	15	25	0	0	0	26	0	0	0	0	0	0						
91+00.00	81	25	0	41	16	25	0	0	0	25	0	0	0	0	0	0						
91+50.00	72	16	0	40	16	16	0	0	0	16	0	0	0	0	0	0						
92+00.00	71	15	0	40	16	15	0	0	0	15	0	0	0	0	0	0						
92+50.00	69	13	0	40	16	13	0	0	0	13	0	0	0	0	0	0						
93+00.00	68	12	0	40	16	12	0	0	0	12	0	0	0	0	0	0						
93+50.00	67	10	0	41	15	10	0	0	0	10	0	0	0	0	0	0						
94+00.00	69	13	0	41	15	13	0	0	0	13	0	0	0	0	0	0						
94+50.00	68	12	0	41	15	12	0	0	0	12	0	0	0	0	0	0						
95+00.00	65	9	0	41	15	9	0	0	0	9	0	0	0	0	0	0						
95+50.00	67	11	0	41	15	11	0	0	0	11	0	0	0	0	0	0						
96+00.00	69	13	0	41	15	13	0	0	0	13	0	0	0	0	0	0						
96+50.00	69	12	0	41	15	12	0	0	0	12	0	0	0	0	0	0						
97+00.00	68	12	0	41	15	12	0	0	0	12	0	0	0	0	0	0						
97+50.00	67	11	0	41	15	11	0	0	0	11	0	0	0	0	0	0						
98+00.00	68	12	0	41	15	12	0	0	0	13	0	0	0	0	0	0						
98+50.00	63	8	0	41	14	8	0	0	0	8	0	0	0	0	0	0						
99+00.00	64	9	0	41	14	9	0	0	0	9	0	0	0	0	0	0						
99+50.00	59	5	0	41	13	5	0	0	0	5	0	0	0	0	0	0						
100+00.00	59	4	0	41	14	4	0	0	0	4	0	0	0	0	0	0						
100+50.00	57	2	0	41	14	2	0	0	0	2	0	0	0	0	0	0						
101+00.00	61	6	0	41	14	6	0	0	0	6	0	0	0	0	0	0						
101+50.00	66	10	0	41	15	10	0	0	0	10	0	0	0	0	0	0						
102+00.00	62	5	0	41	15	5	0	0	0	5	0	0	0	0	0	0						
102+50.00	60	4	0	41	15	4	0	0	0	4	0	0	0	0	0	0						
103+00.00	62	6	0	41	15	6	0	0	0	6	0	0	0	0	0	0						
103+50.00	66	9	0	41	16	9	0	0	0	10	0	0	0	0	0	0						
104+00.00	69	13	0	41	16	13	0	0	0	13	0	0	0	0	0	0						
104+50.00	70	13	0	41	16	13	0	0	0	13	0	0	0	0	0	0						
105+00.00	72	15	0	41	16	15	0	0	0	15	0	0	0	0	0	0						
105+50.00	74	17	0	41	16	17	0	0	0	17	0	0	0	0	0	0						
106+00.00	74	17	0	40	17	17	0	0	0	17	0	0	0	0	0	0						
106+50.00	72	15	0	40	17	15	0	0	0	15	0	0	0	0	0	0						
107+00.00	70	13	0	41	16	13	0	0	0	13	0	0	0	0	0	0						
107+50.00	62	6	0	41	16	6	0	0	0	6	0	0	0	0	0	0						
108+00.00	67	10	0	40	16	10	0	0	0	10	0	0	0	0	0	0						
108+50.00	67	11	0	40	16	11	0	0	0	10	0	0	0	0	0	0						
109+00.00	61	6	0	40	14	6	0	0	0	6	0	0	0	0	0	0						
109+50.00	60	6	0	41	14	6	0	0	0	6	0	0	0	0	0	0						
110+00.00																						
Subtotals:	4,709	871	0	2,791	1,047	871	1	1	4	870	0	0	0	0	0	0						



Refer to Standard Road Plans EW-101 and EW-102.

## TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28  
04-21-15

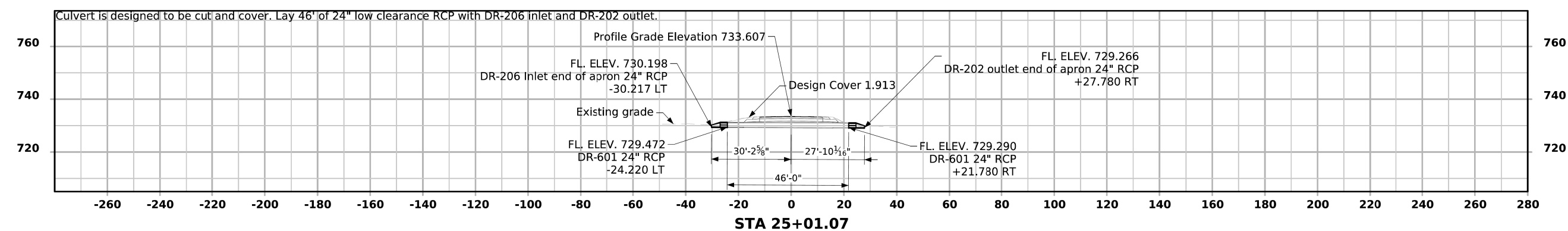
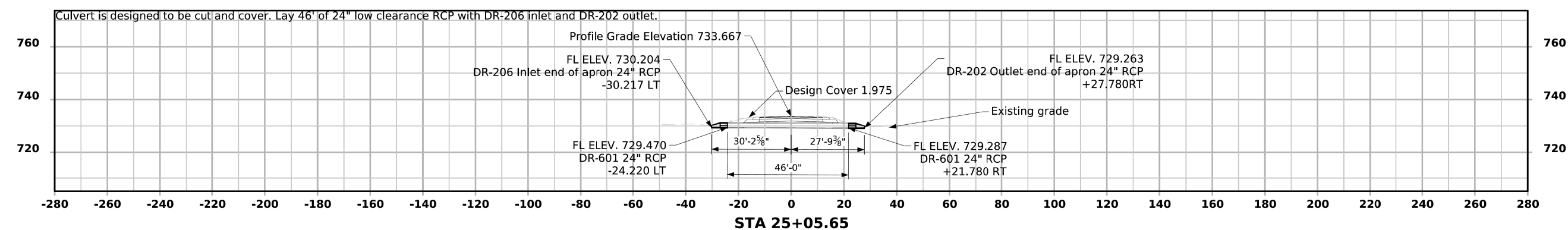
Station	Cut						Fill				Checks (EW-102)		Topsoil									
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Template Pavement Removal Volume	Template Waste Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.3 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink						
110+00.00	64	8	0	42	14	8	0	0	0	8	0	0	0	0	0	0						
110+50.00	72	16	0	41	15	16	0	0	0	16	0	0	0	0	0	0						
111+00.00	71	15	0	41	15	15	0	0	0	15	0	0	0	0	0	0						
111+50.00	68	12	0	45	11	12	0	0	0	12	0	0	0	0	0	0						
112+00.00	67	12	0	41	15	12	0	0	0	12	0	0	0	0	0	0						
112+50.00	66	11	0	41	14	11	0	0	0	11	0	0	0	0	0	0						
113+00.00	64	9	0	41	13	9	0	0	0	9	0	0	0	0	0	0						
113+50.00	65	10	0	41	14	10	0	0	0	10	0	0	0	0	0	0						
114+00.00	68	12	0	41	15	12	0	0	0	12	0	0	0	0	0	0						
114+50.00	66	10	0	40	16	10	0	0	0	10	0	0	0	0	0	0						
115+00.00	65	9	0	41	16	9	0	0	0	9	0	0	0	0	0	0						
115+50.00	68	12	0	41	15	12	0	0	0	12	0	0	0	0	0	0						
116+00.00	71	15	0	42	15	15	0	0	0	15	0	0	0	0	0	0						
116+50.00	77	19	0	43	15	19	0	0	0	20	0	0	0	0	0	0						
117+00.00	77	20	0	43	14	20	0	0	0	20	0	0	0	0	0	0						
117+50.00	78	22	0	43	14	22	0	0	0	22	0	0	0	0	0	0						
118+00.00	75	19	0	42	14	19	0	0	0	19	0	0	0	0	0	0						
118+50.00	73	17	0	41	15	17	0	0	0	17	0	0	0	0	0	0						
119+00.00	70	13	0	41	15	13	0	0	0	13	0	0	0	0	0	0						
119+50.00	69	12	0	41	16	12	0	0	0	12	0	0	0	0	0	0						
120+00.00	67	10	0	41	16	10	0	0	0	10	0	0	0	0	0	0						
120+50.00	67	11	0	41	16	11	0	0	0	11	0	0	0	0	0	0						
121+00.00	72	16	0	41	15	16	0	0	0	16	0	0	0	0	0	0						
121+50.00	72	16	0	41	15	16	0	0	0	16	0	0	0	0	0	0						
122+00.00	72	16	0	41	15	16	0	0	0	16	0	0	0	0	0	0						
122+50.00	16	16	0	41	15	16	0	0	0	16	0	0	0	0	0	0						
123+00.00	69	14	0	41	14	14	0	0	0	14	0	0	0	0	0	0						
123+50.00	67	13	0	40	14	13	0	0	0	13	0	0	0	0	0	0						
124+00.00	70	16	0	41	13	16	0	0	0	16	0	0	0	0	0	0						
124+50.00	66	13	0	41	12	13	0	0	0	13	0	0	0	0	0	0						
125+00.00	65	13	0	41	12	13	0	0	0	12	0	0	0	0	0	0						
125+50.00	48	13	0	30	5	13	0	0	0	13	0	0	0	0	0	0						
126+00.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
ML136	0	0	0																			
Totals:	16,795	3,200	398	9,554	3,645	3,200	180	180	245	2,955	0	0	398	260	364	34						







ML IA 136





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

NOTES:

Text

NOTES:

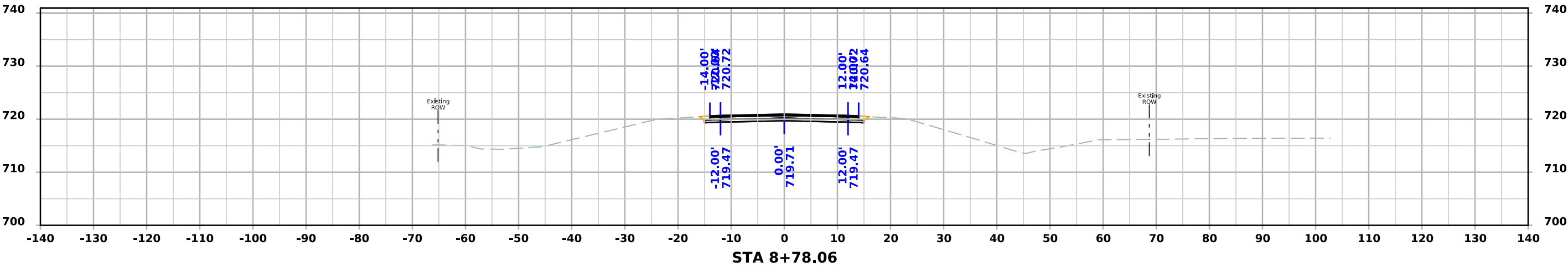
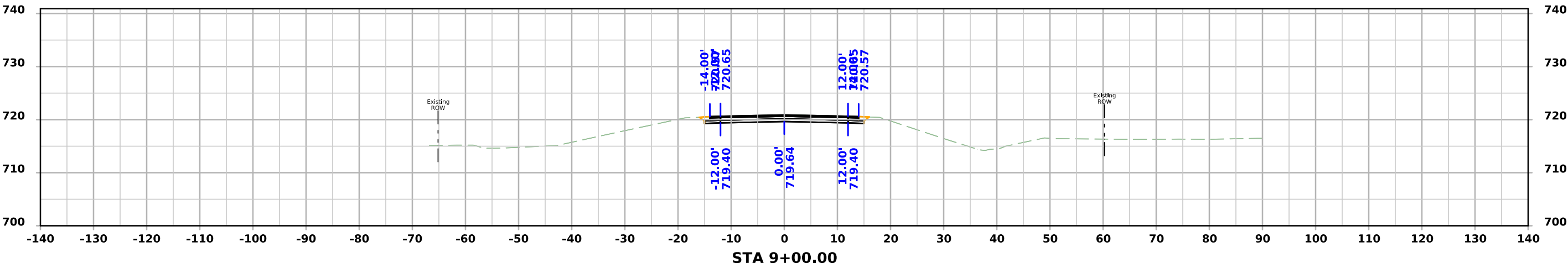
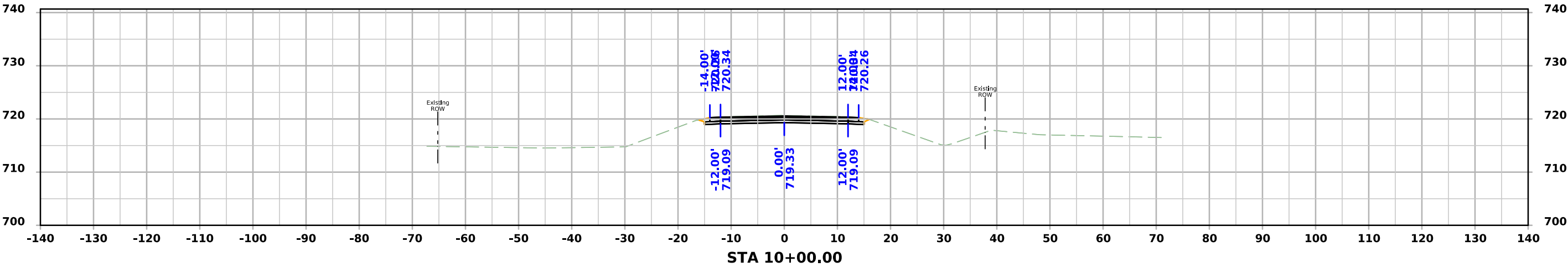
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CROSS SECTIONS  
LEGEND AND INFORMATION SHEET

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

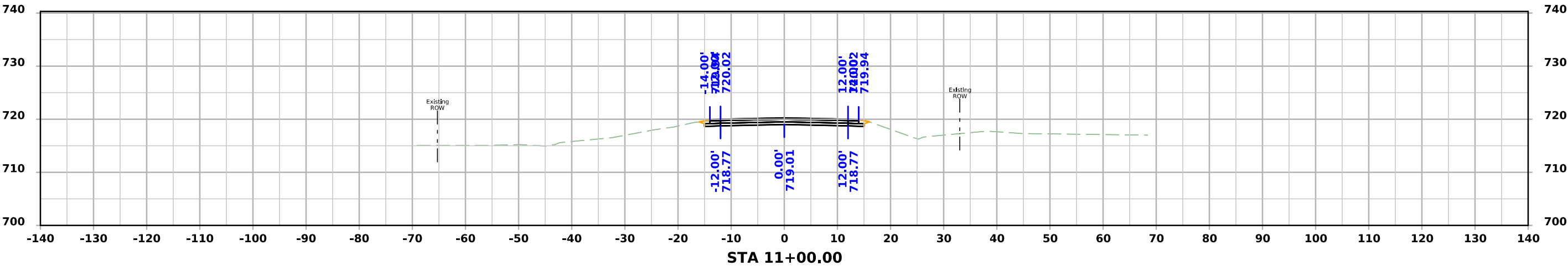
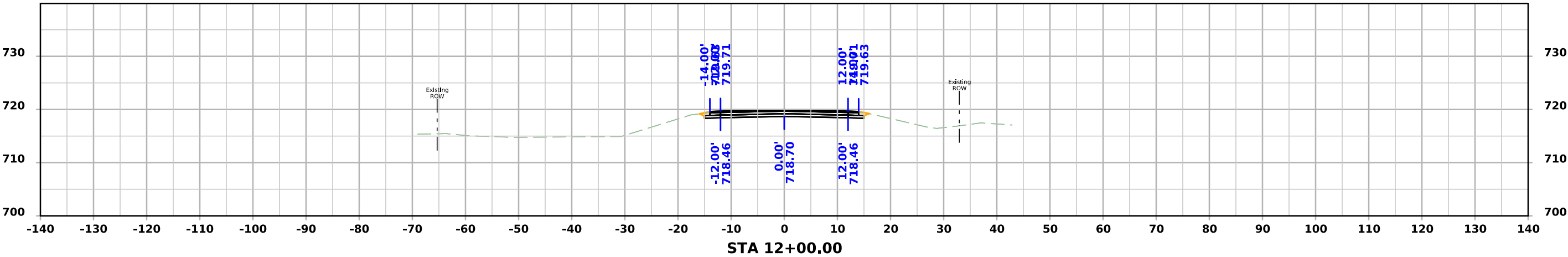
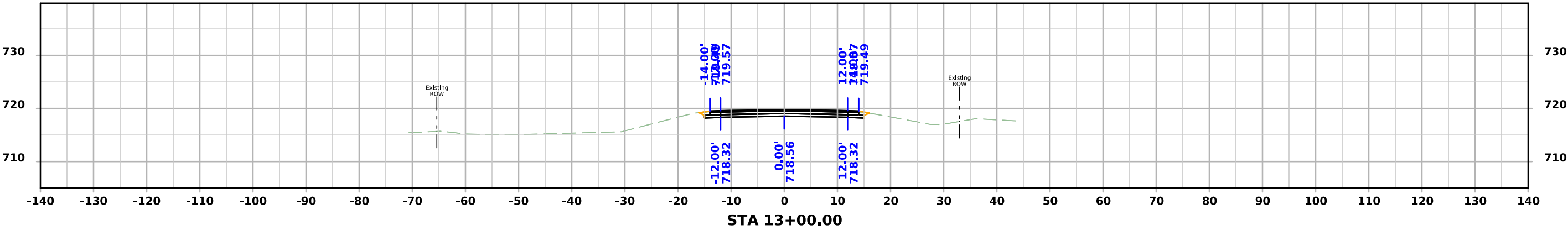


ML - IA 136



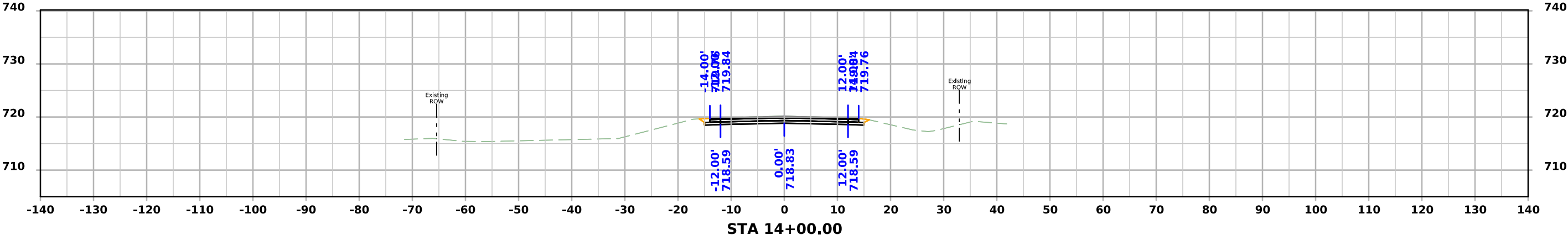
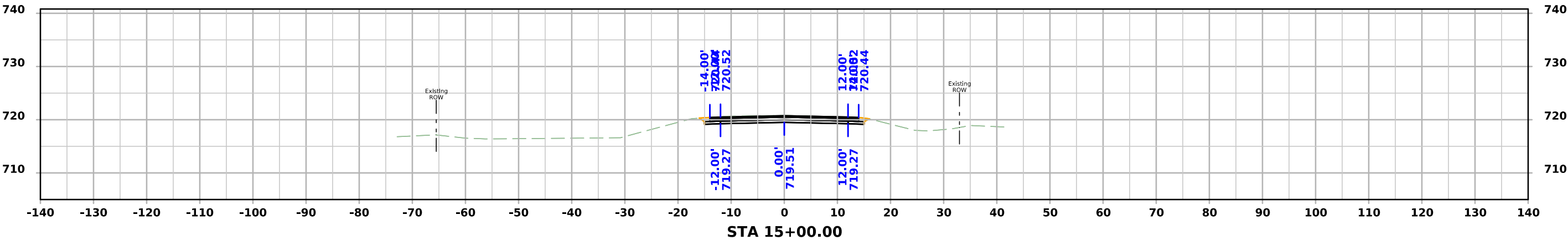
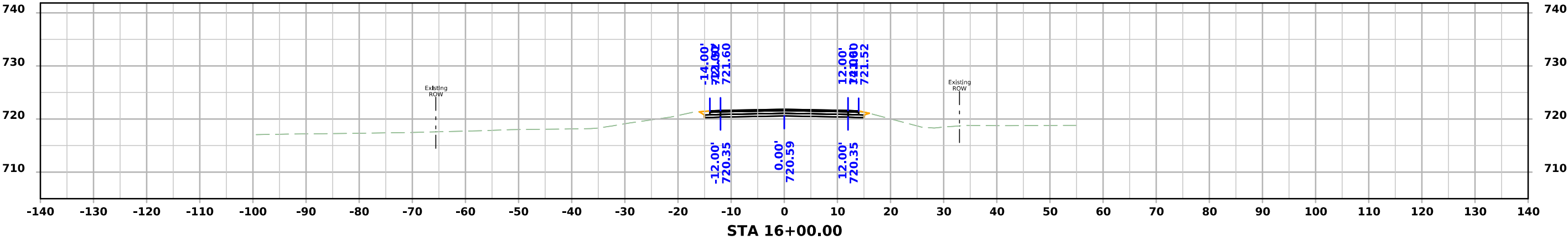


ML - IA 136



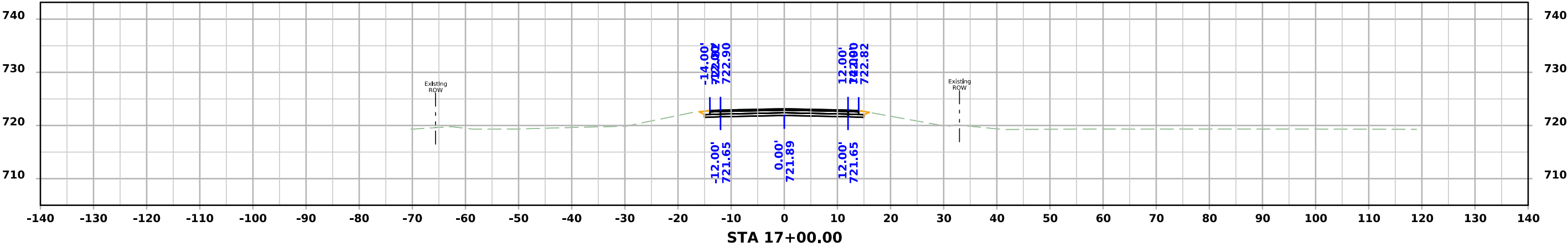
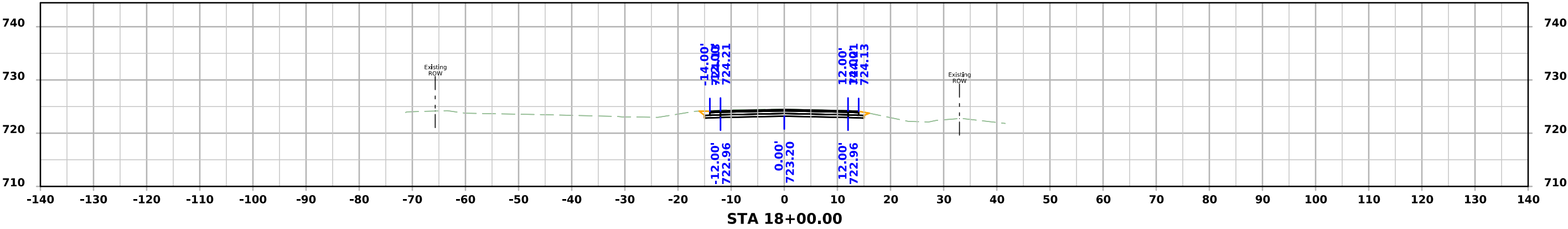
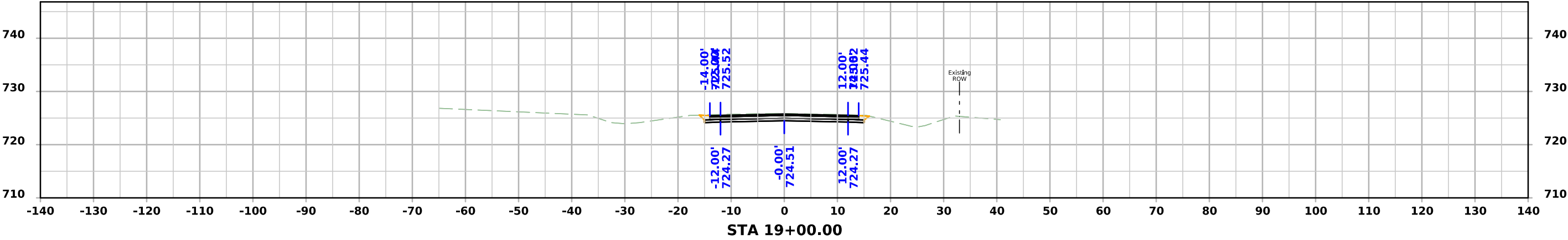


ML - IA 136



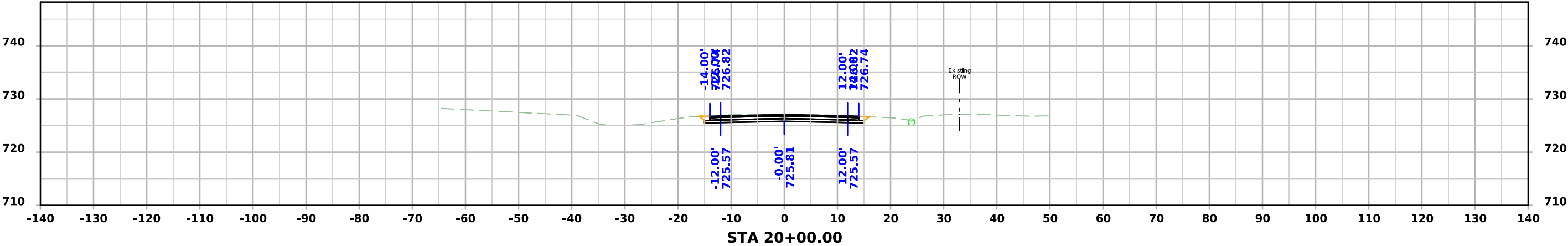
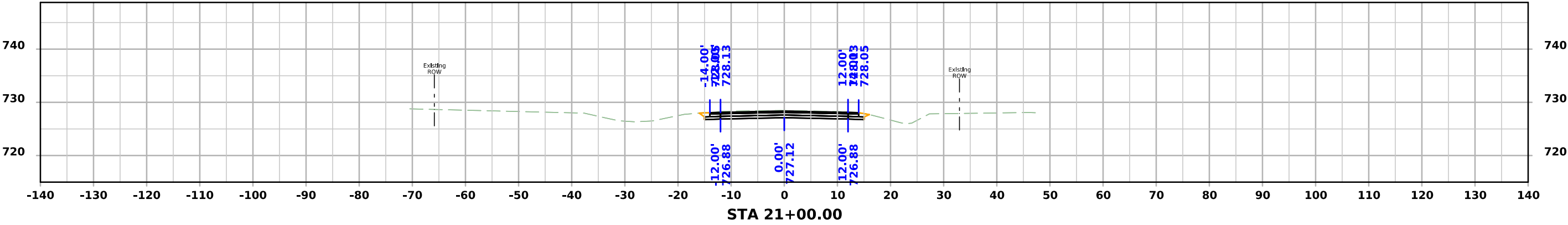
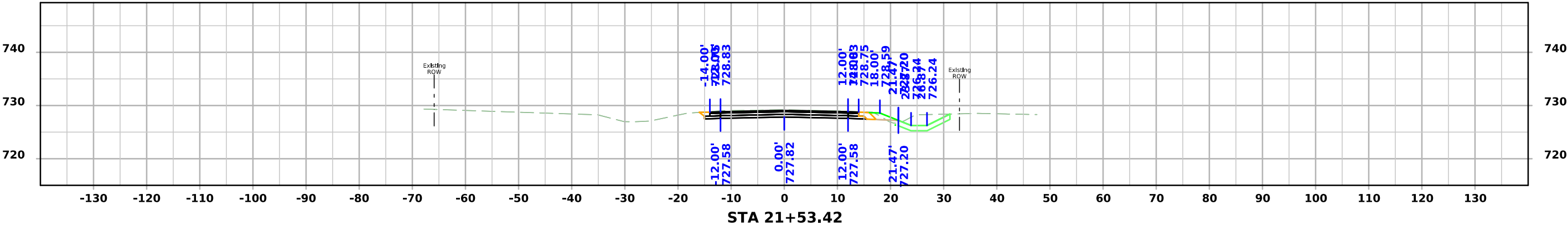


ML - IA 136



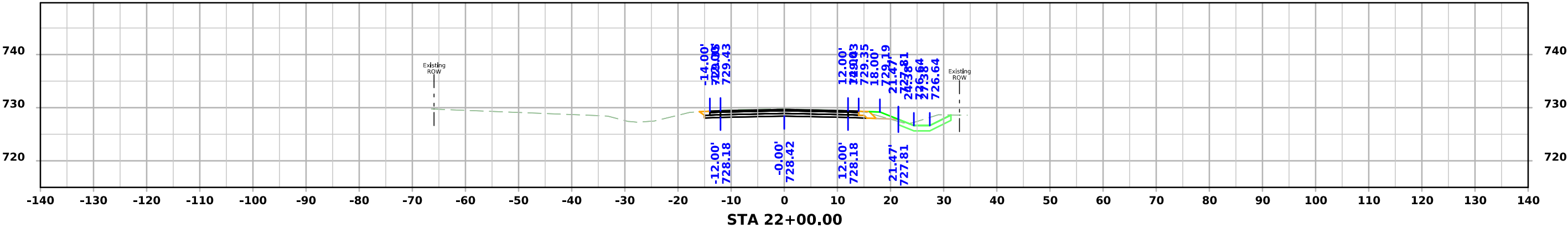
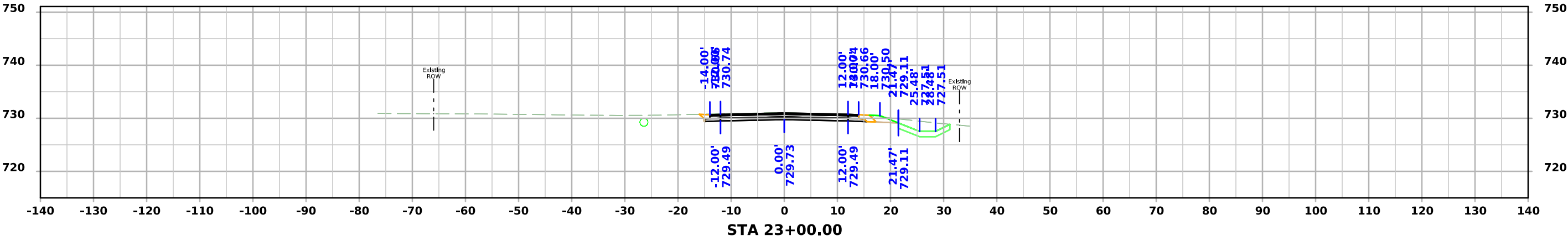
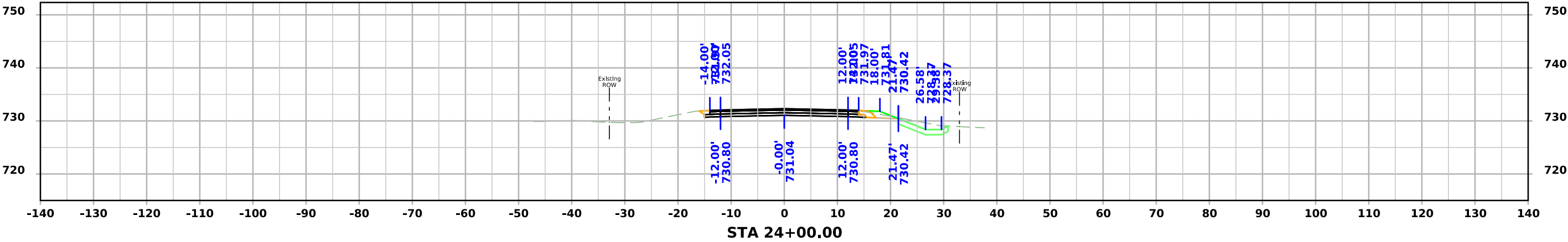


ML - IA 136



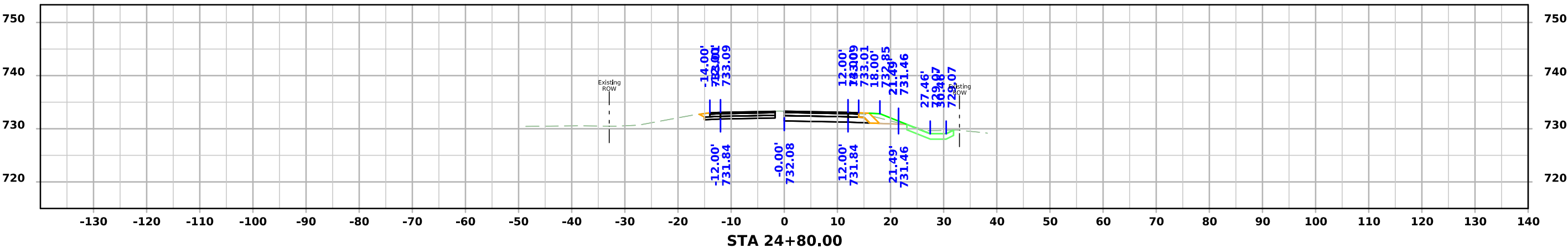
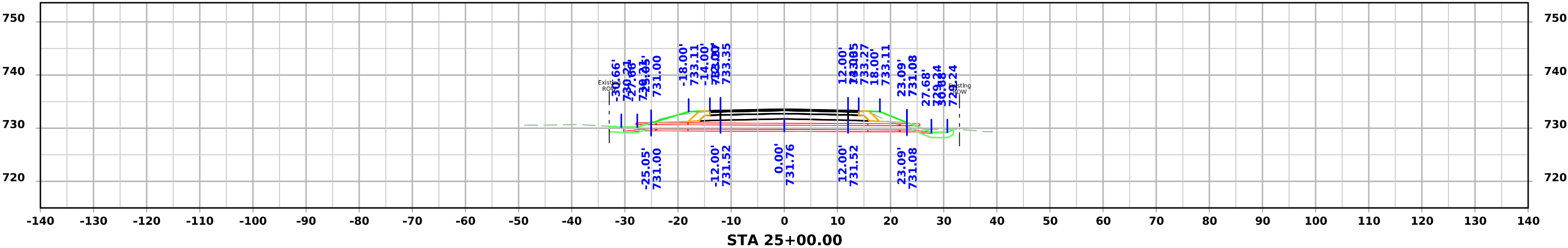
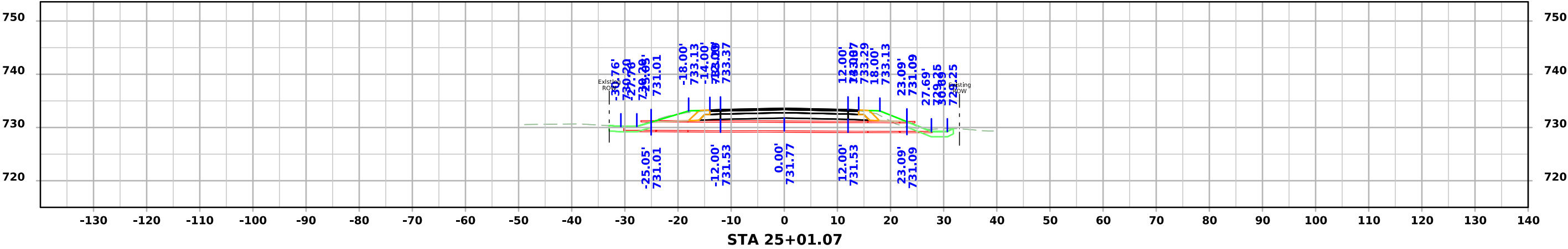


ML - IA 136



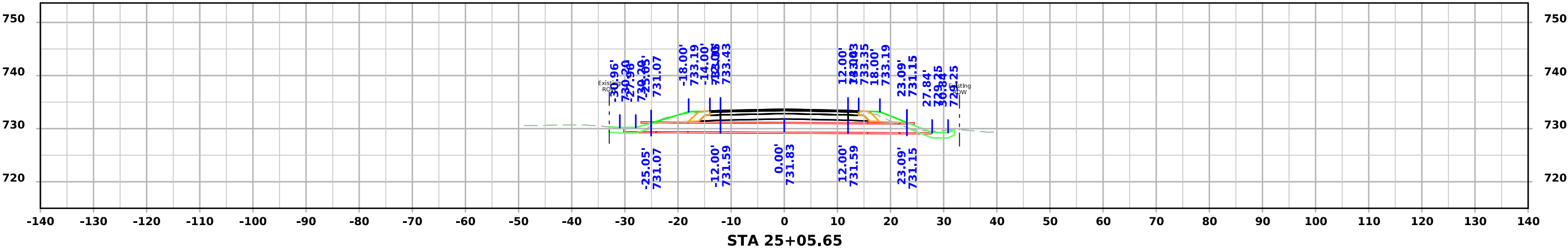
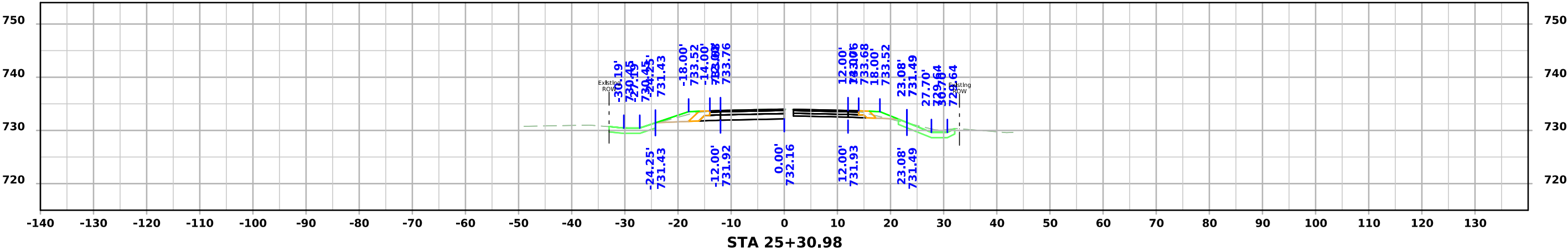
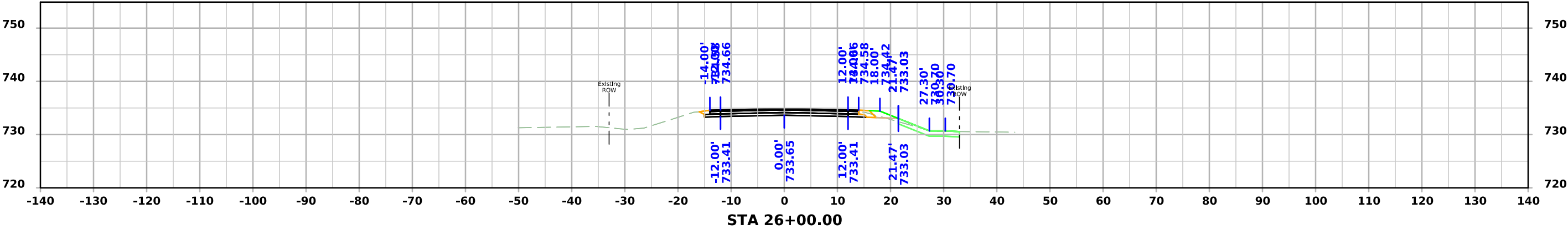


ML - IA 136



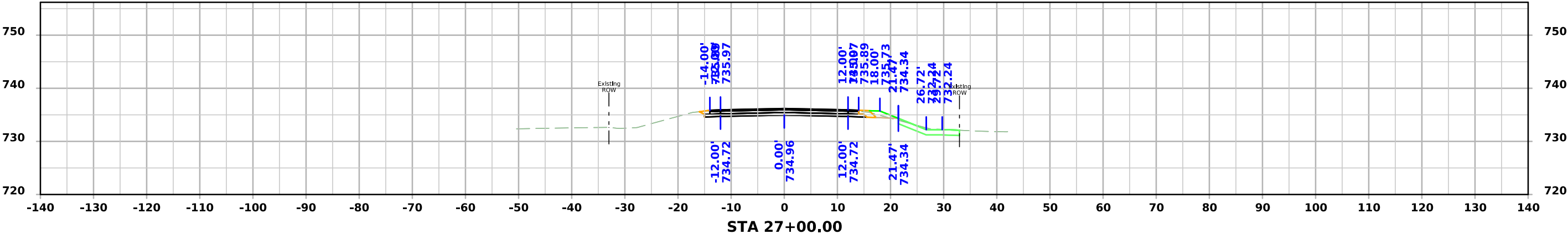
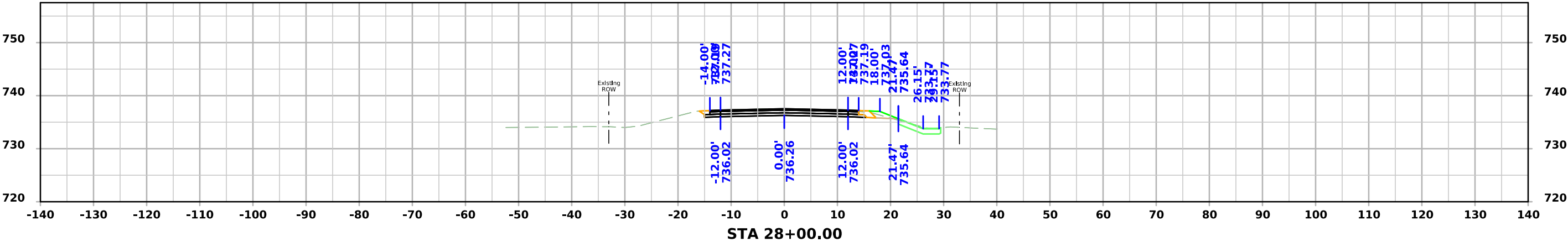
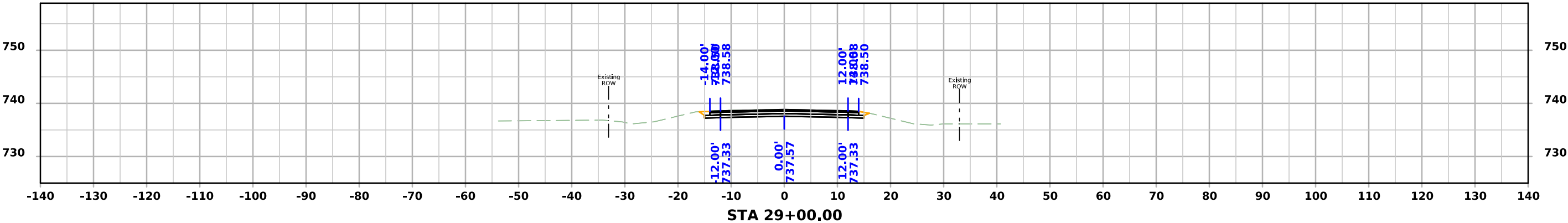


ML - IA 136



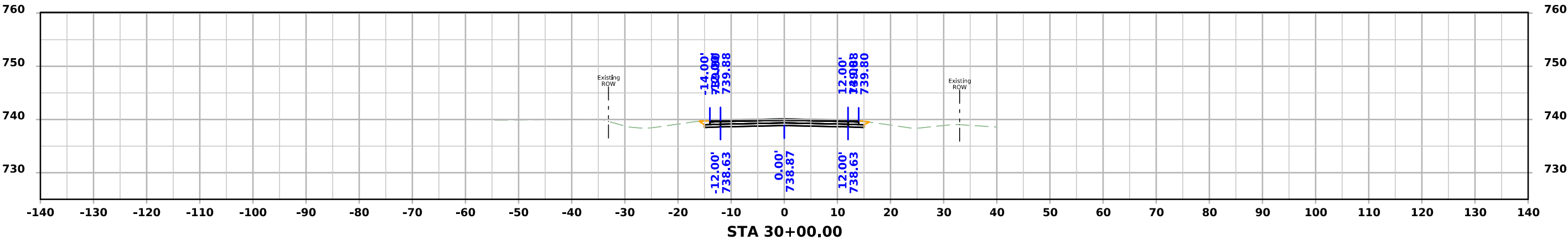
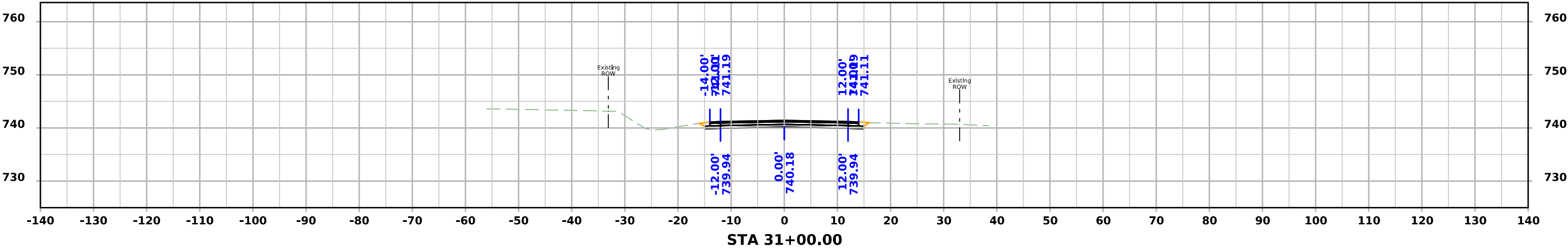
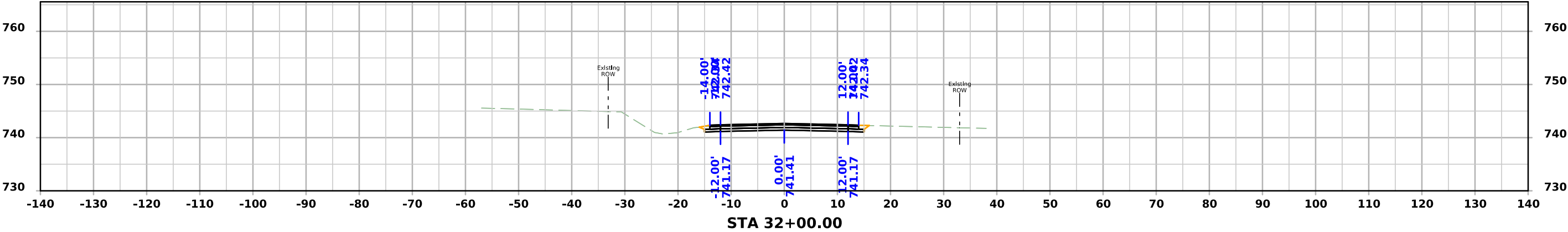


ML - IA 136



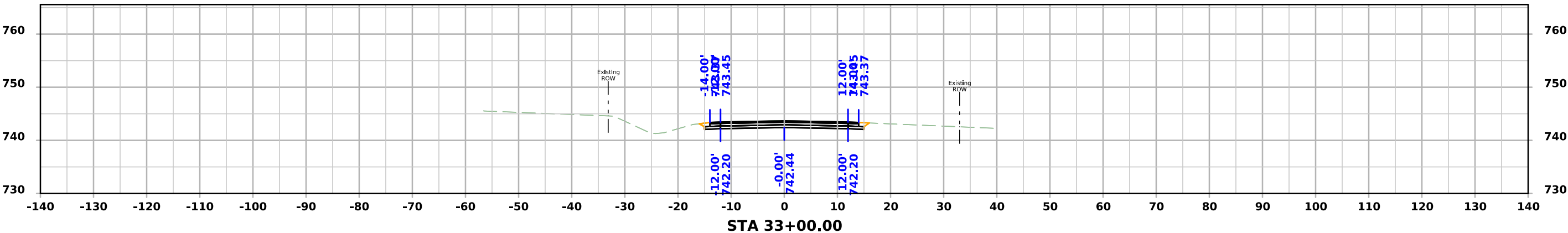
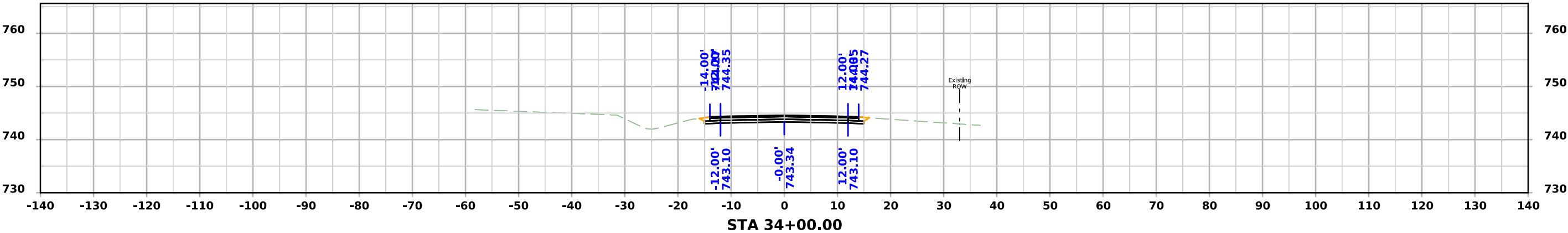
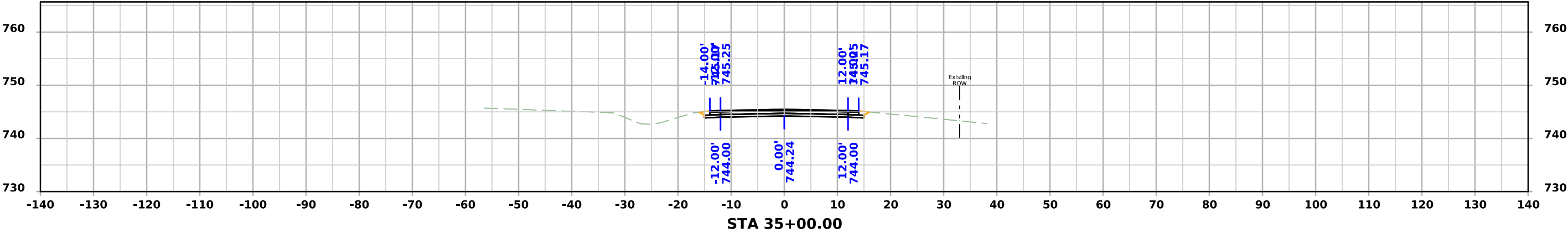


ML - IA 136



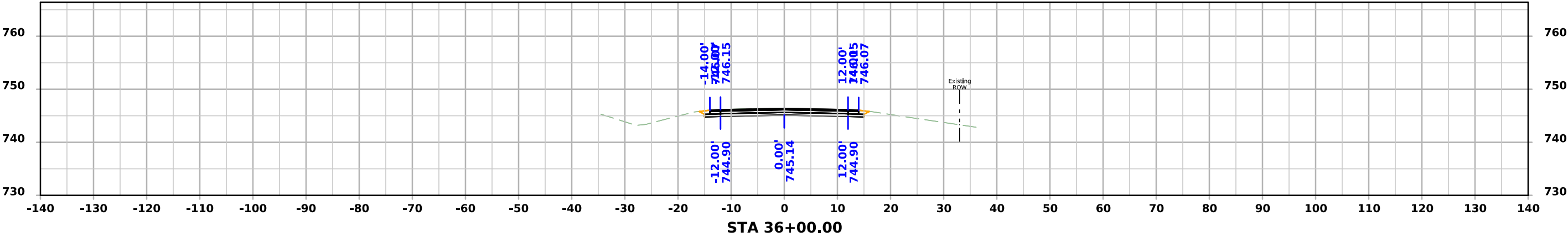
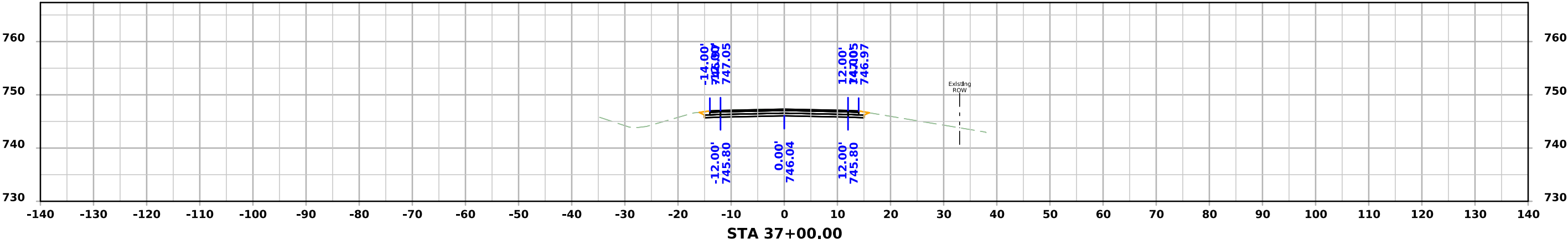
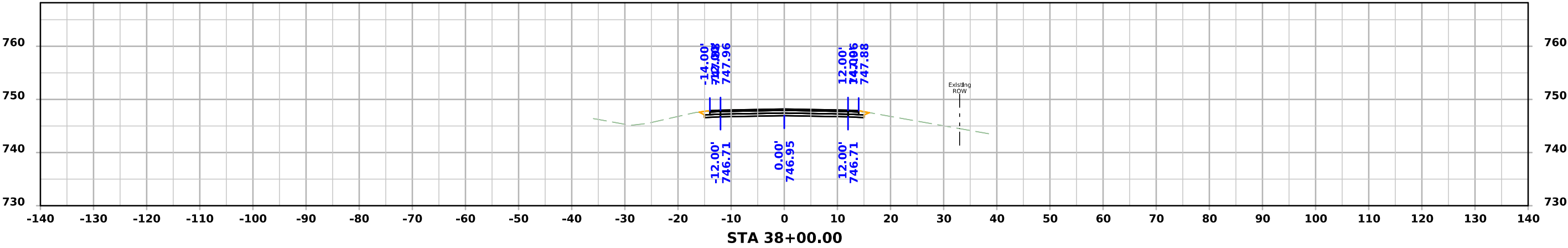


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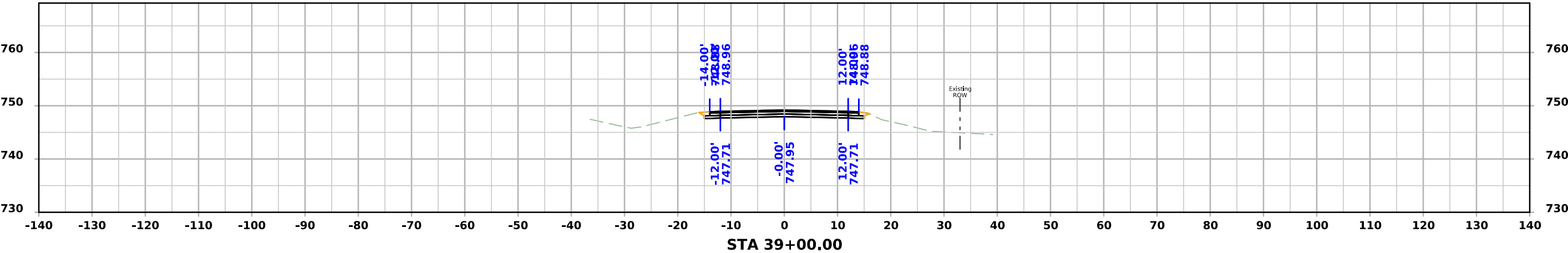
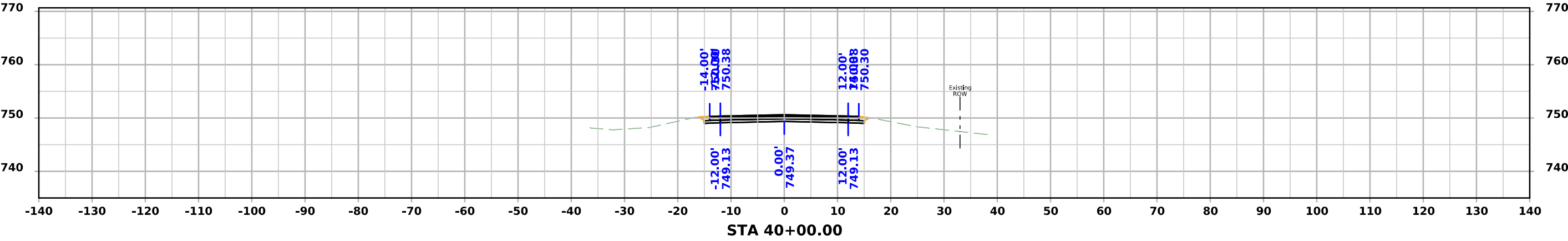
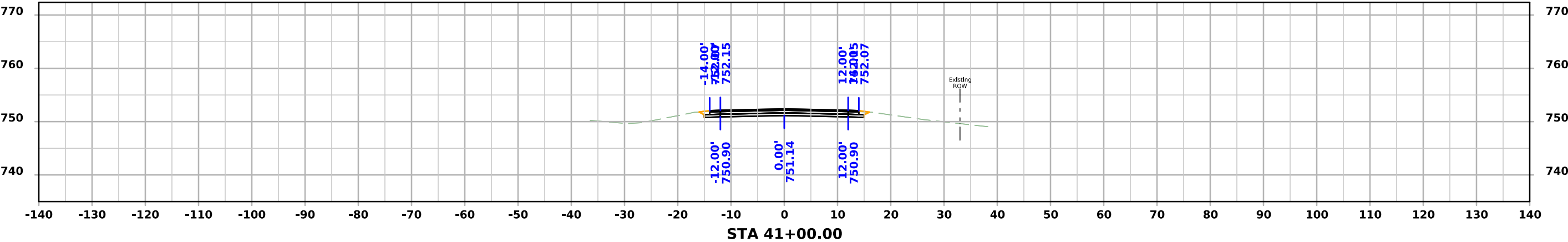


ML - IA 136



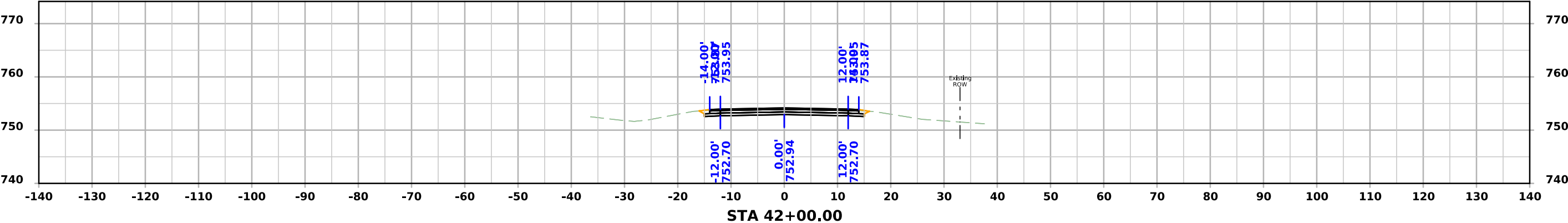
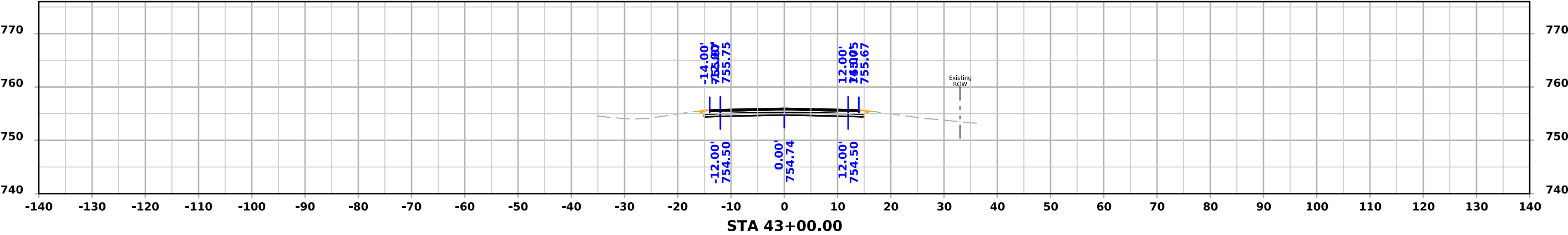
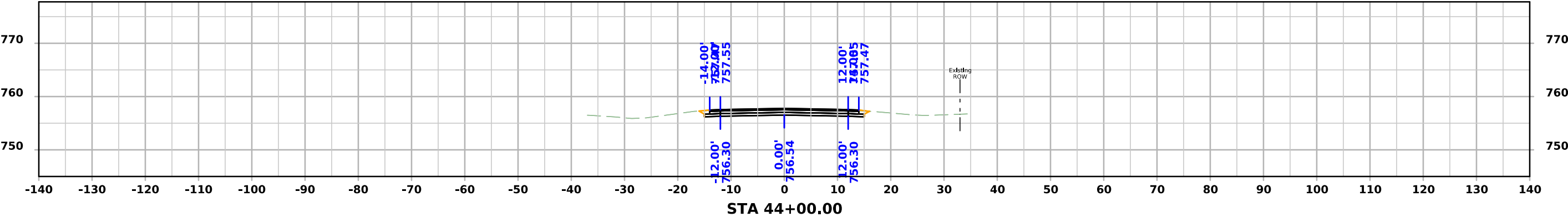


ML - IA 136



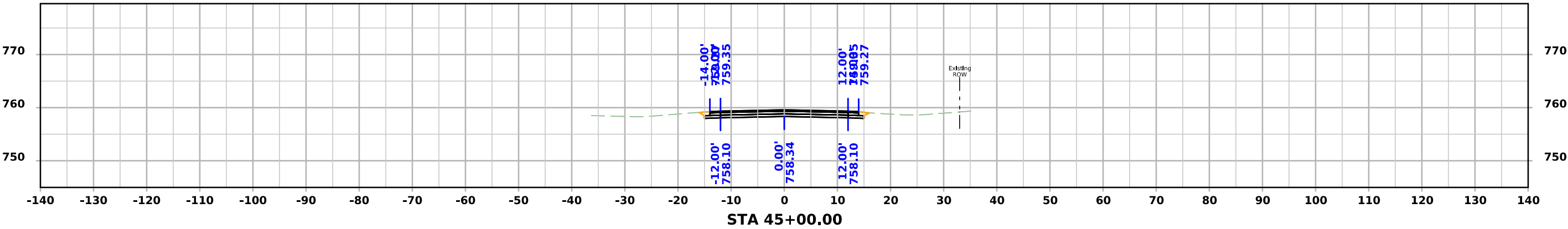
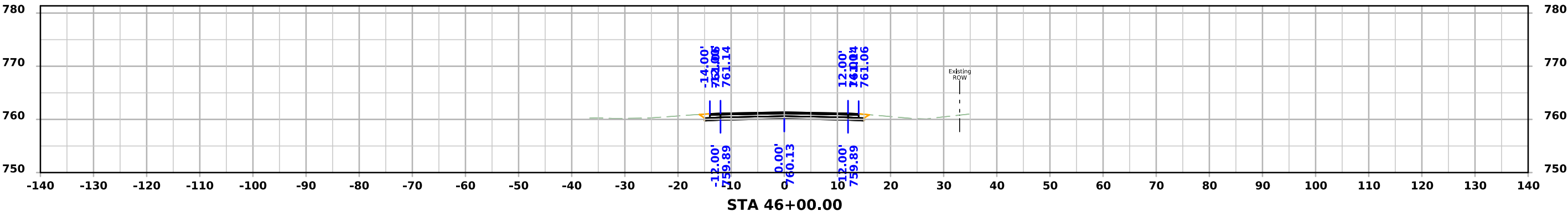
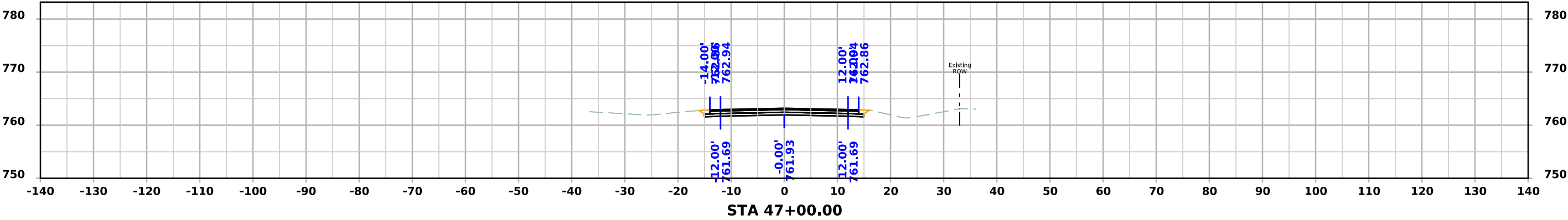


ML - IA 136



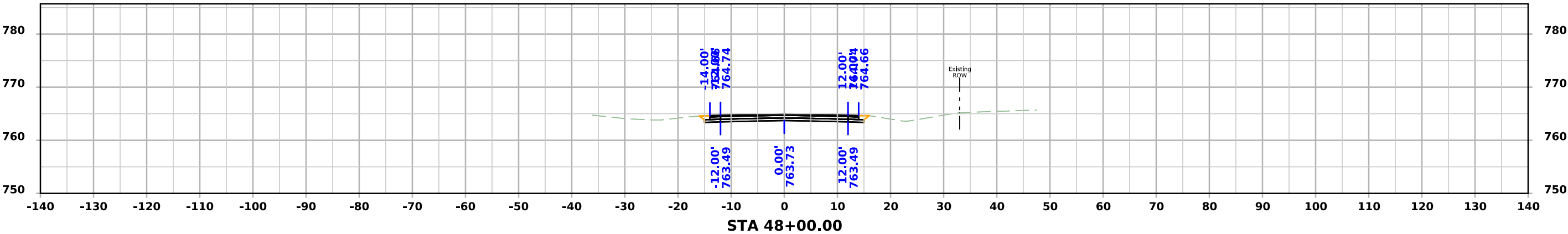
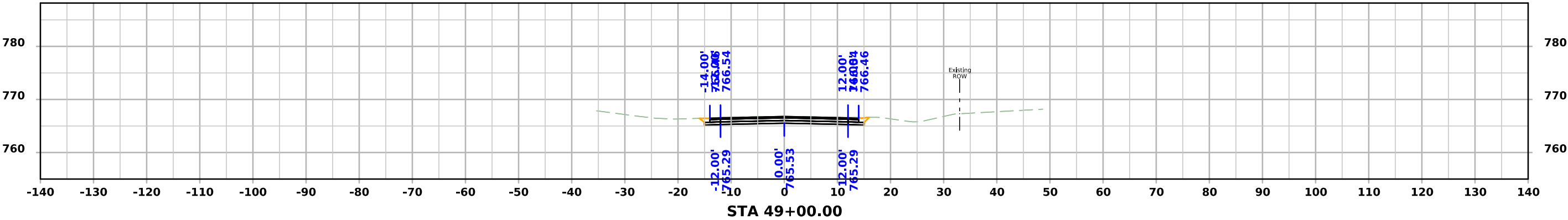
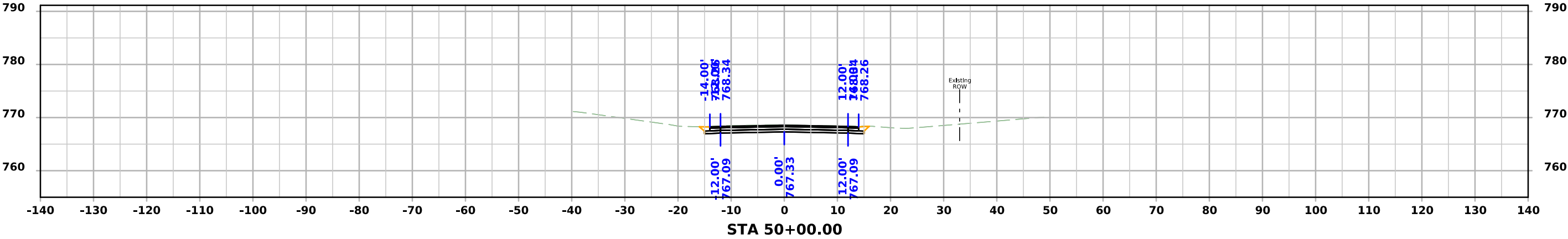


ML - IA 136



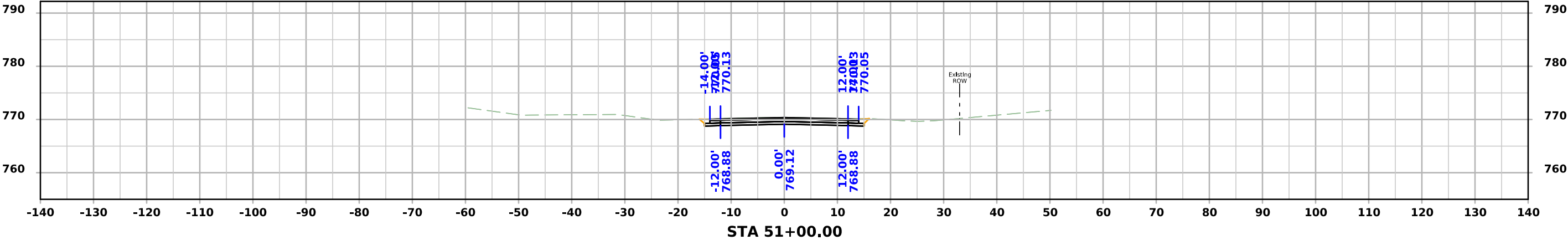
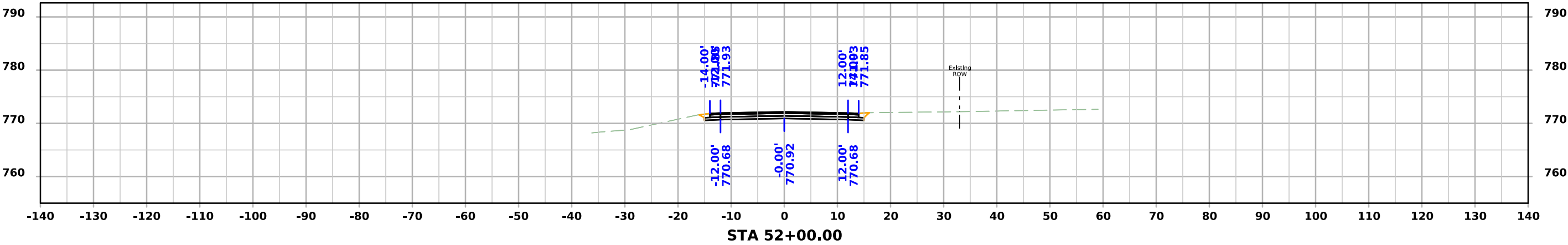
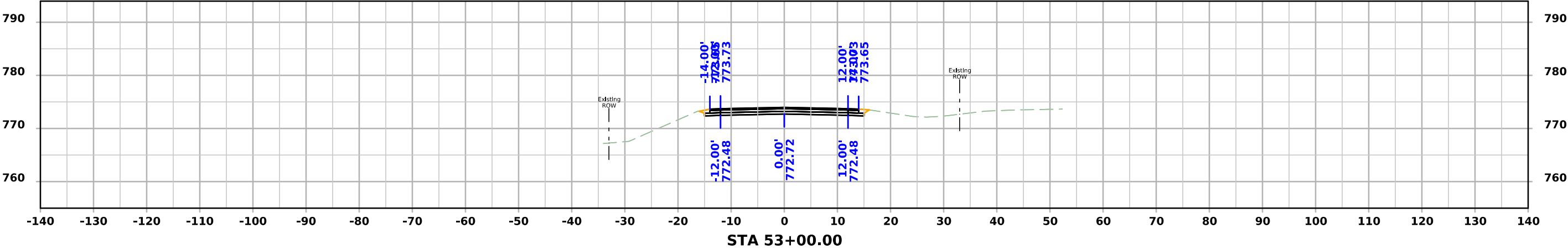


ML - IA 136



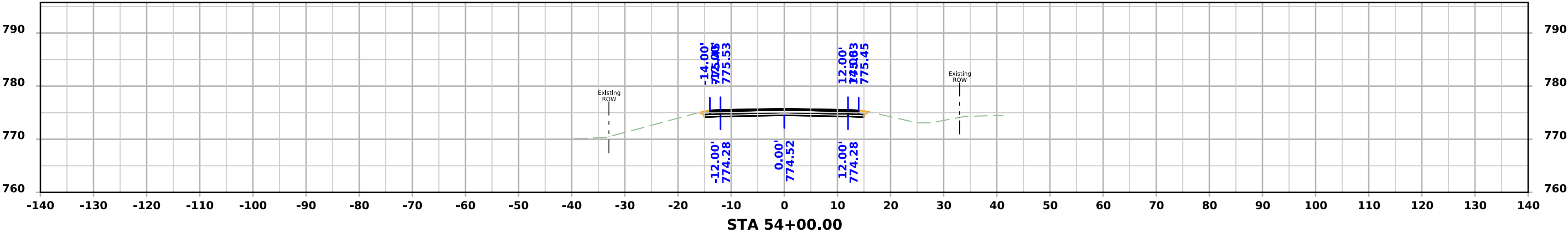
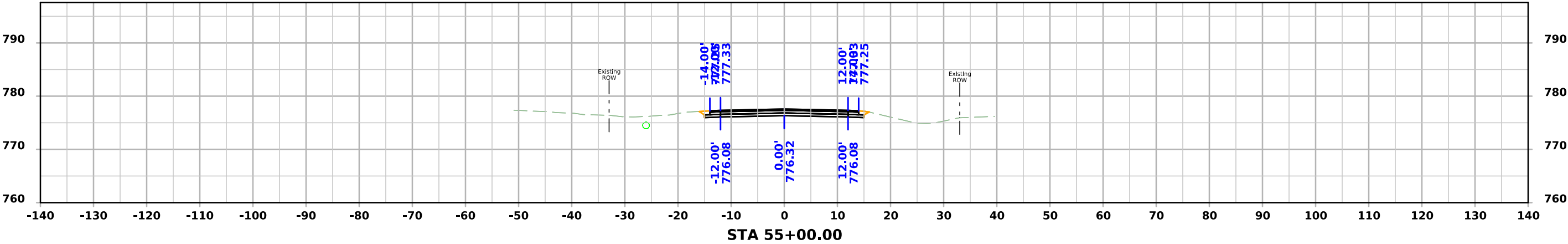
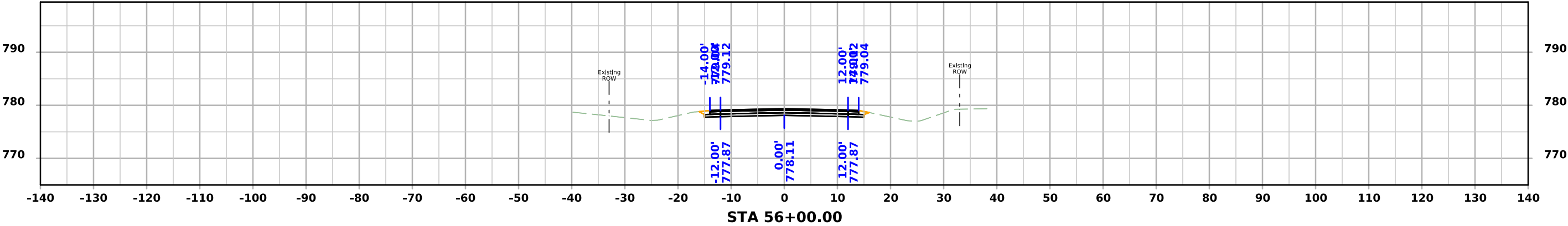


ML - IA 136



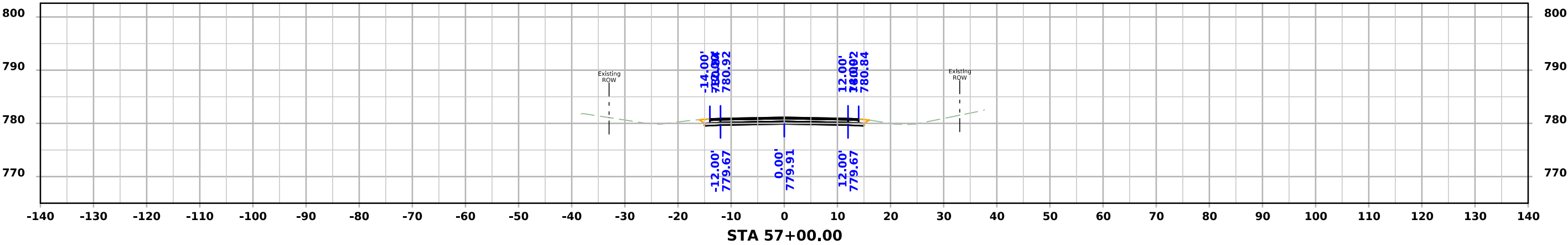
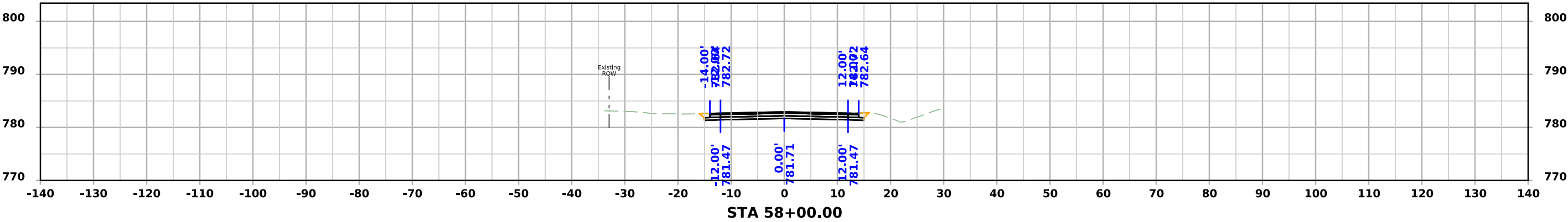
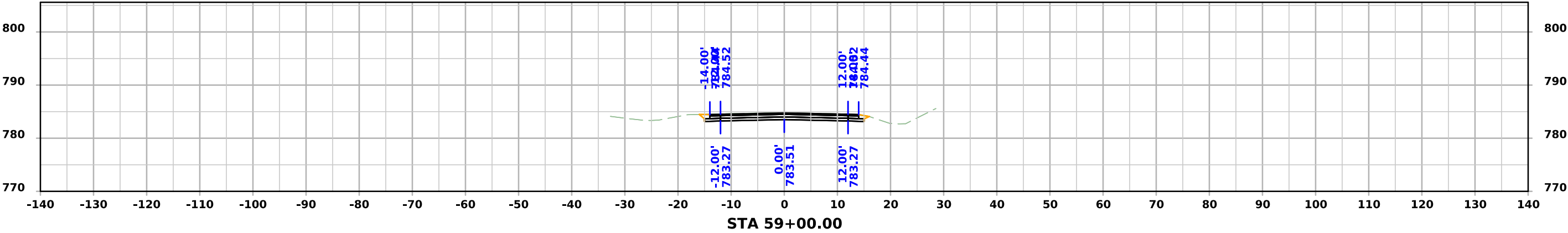


ML - IA 136



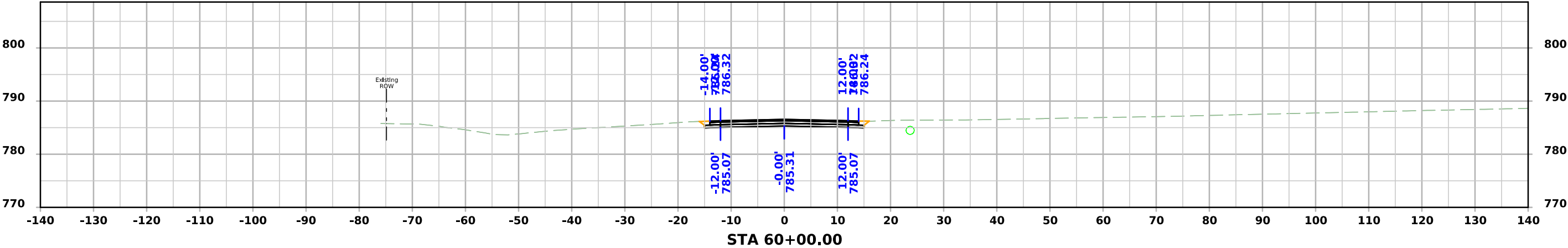
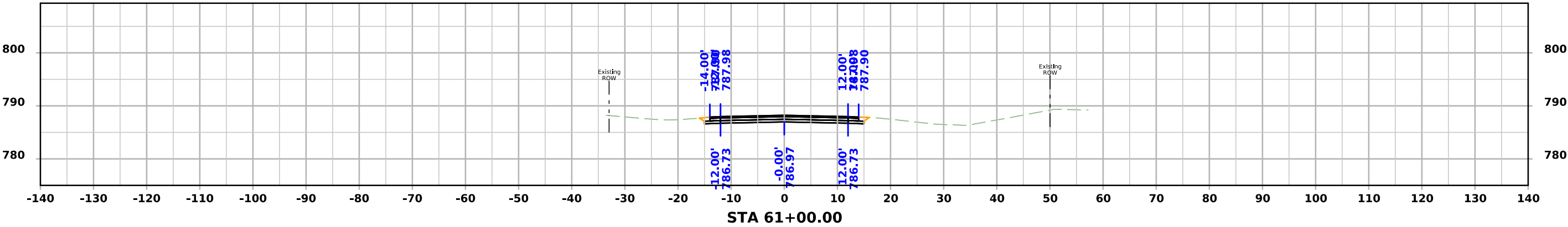
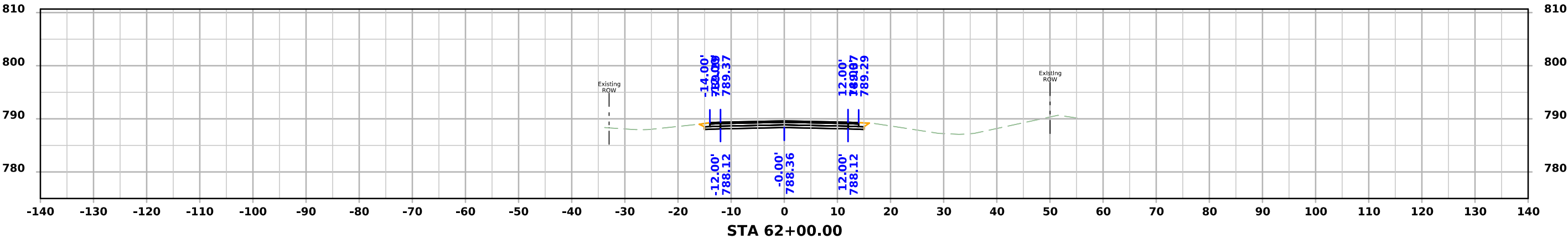


ML - IA 136



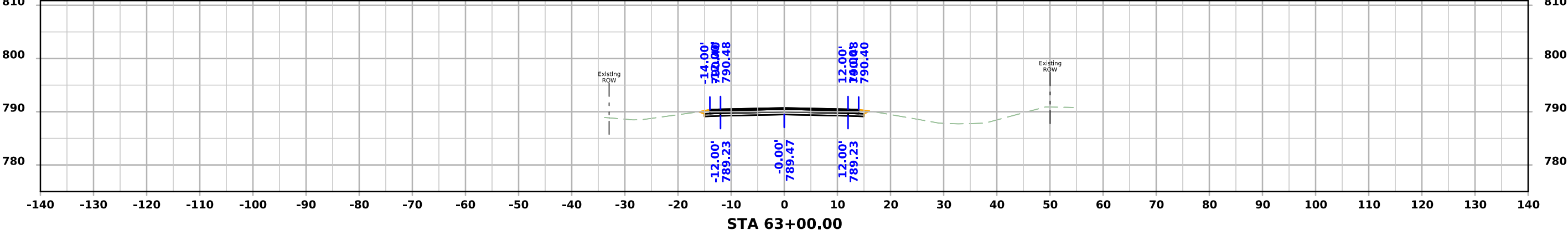
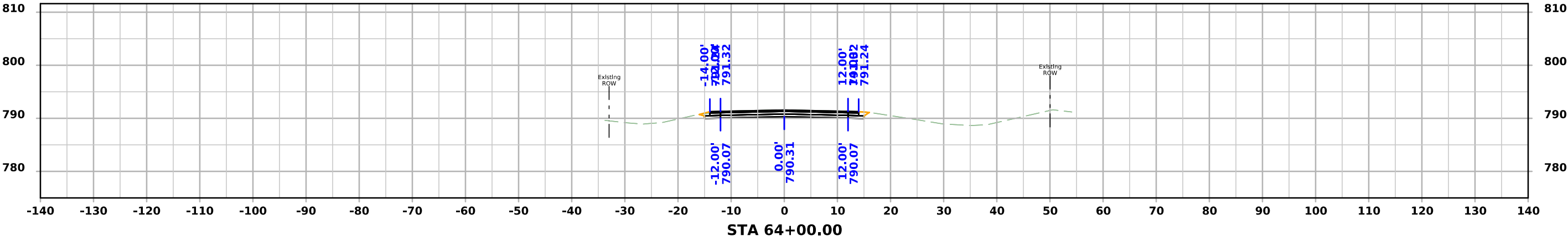
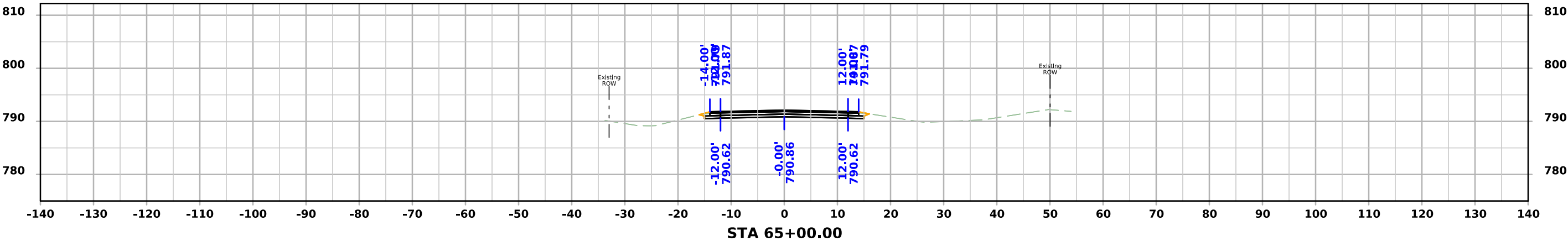


ML - IA 136



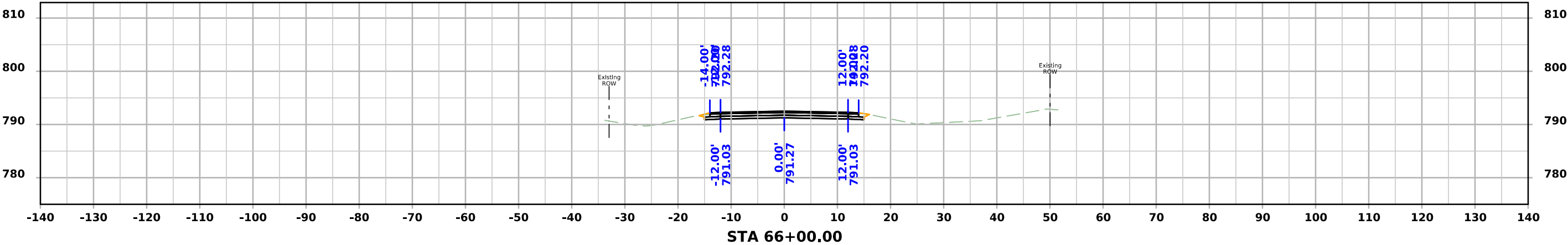
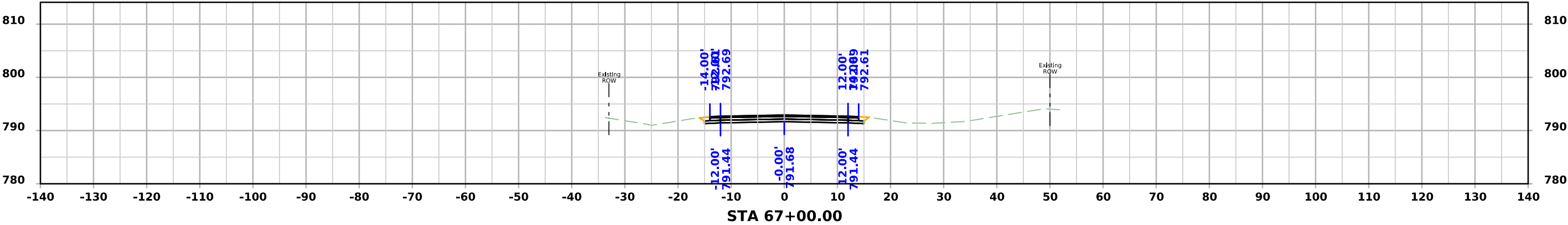
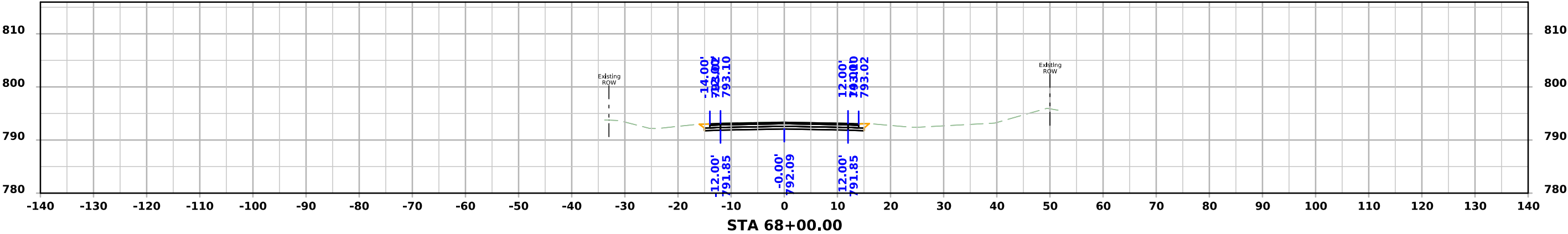


ML - IA 136



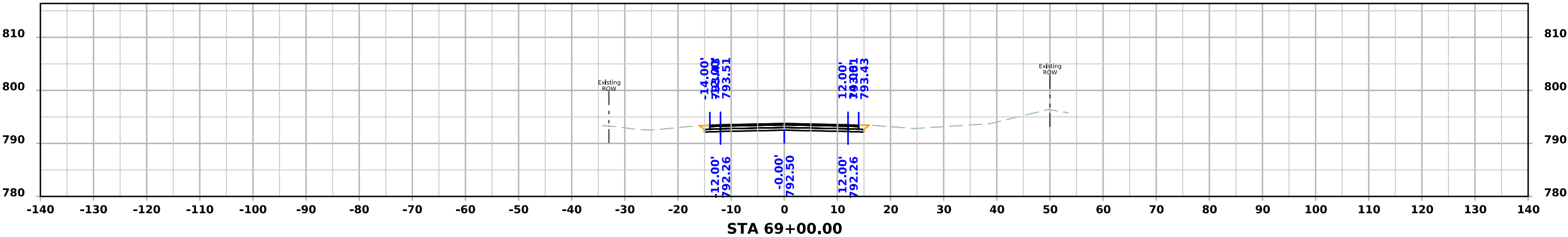
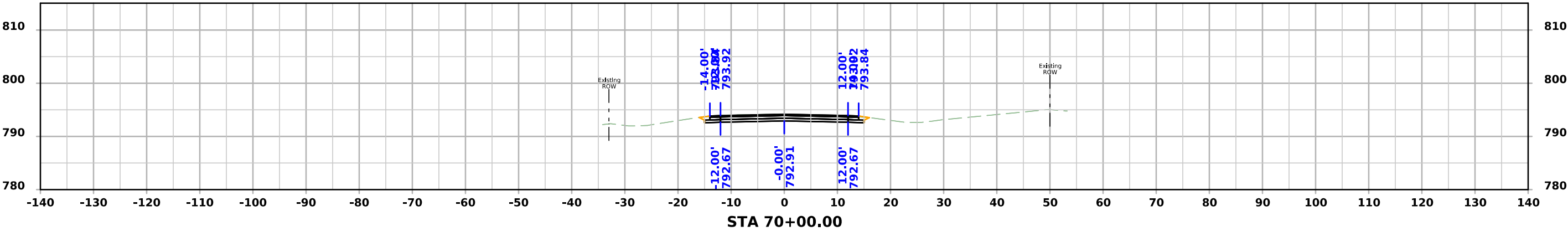
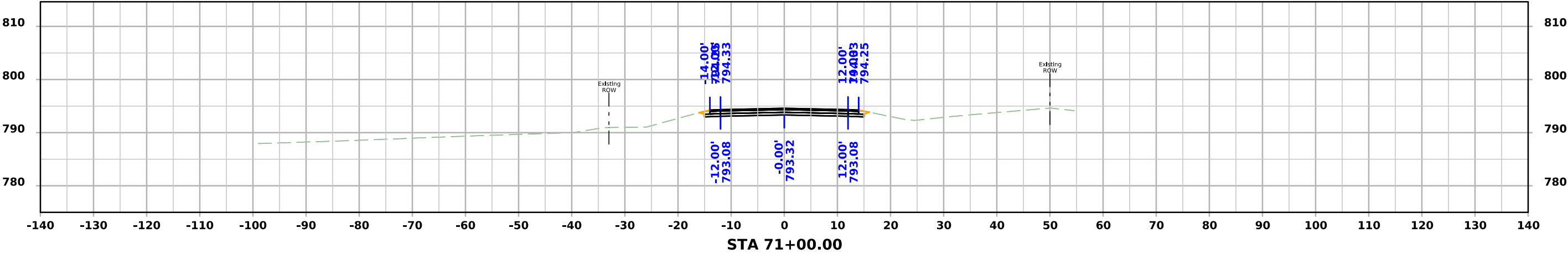


ML - IA 136



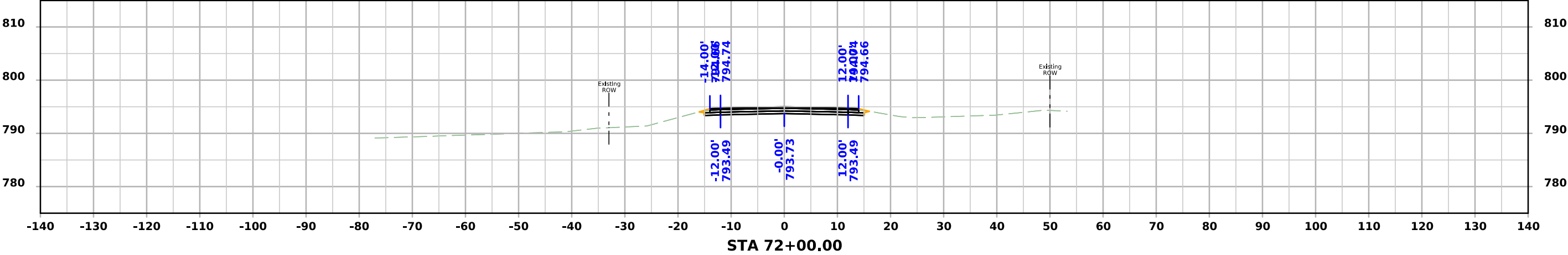
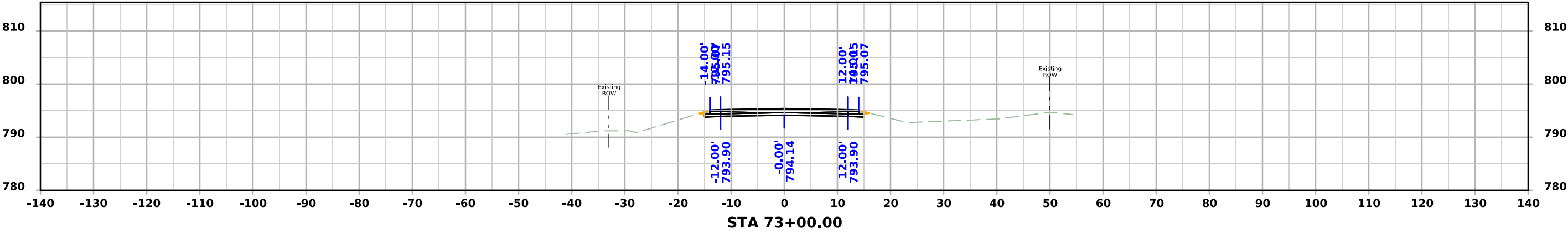
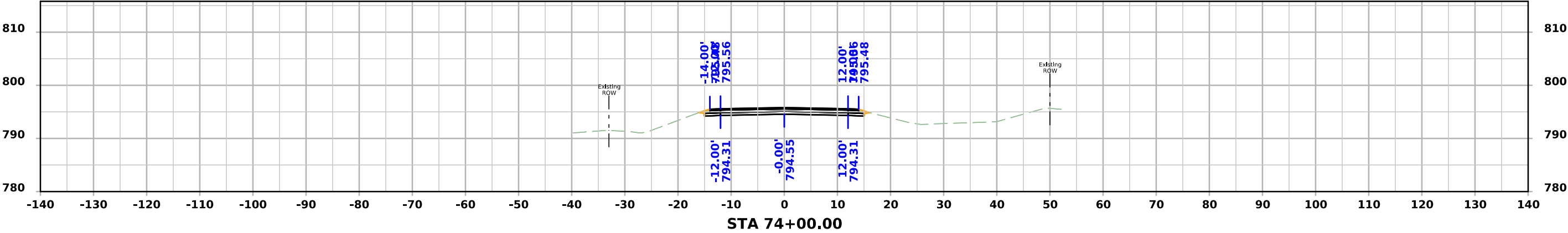


ML - IA 136



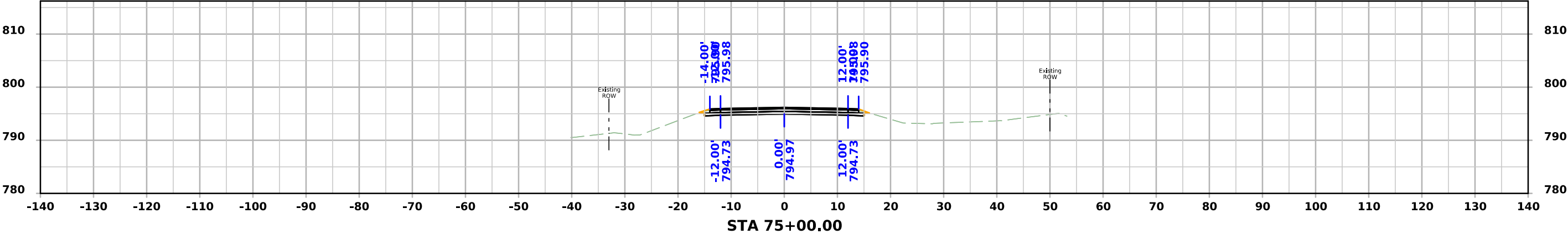
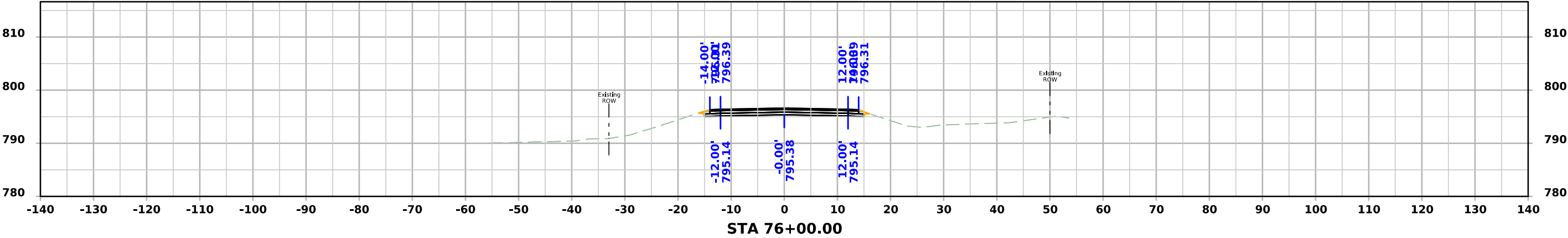
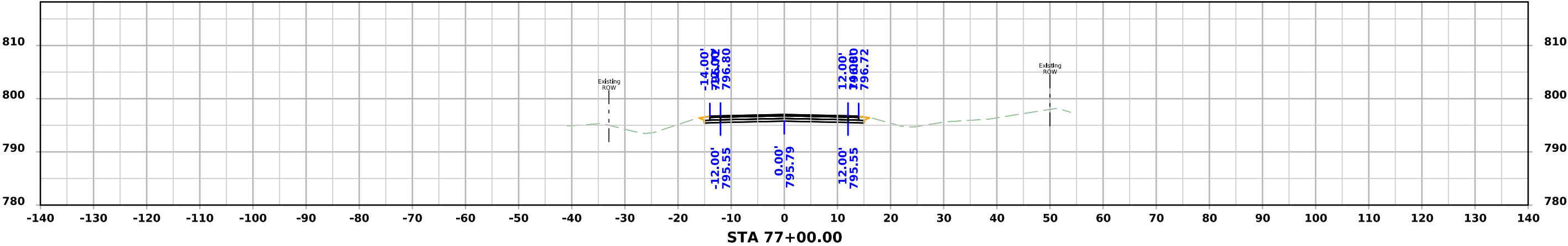


ML - IA 136



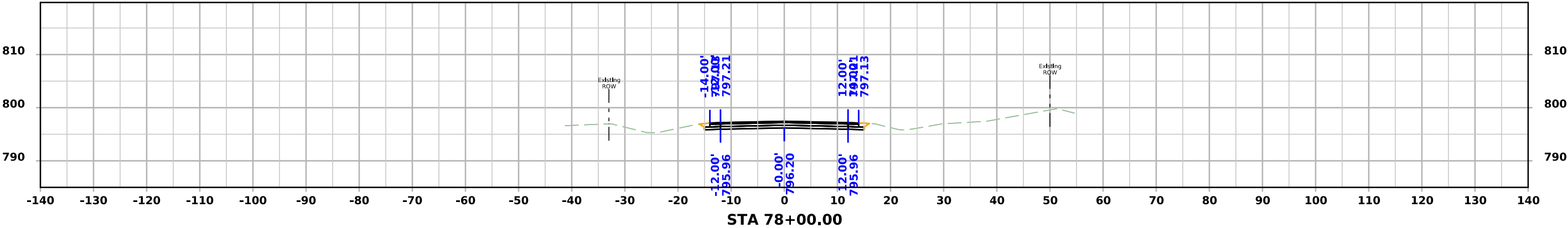
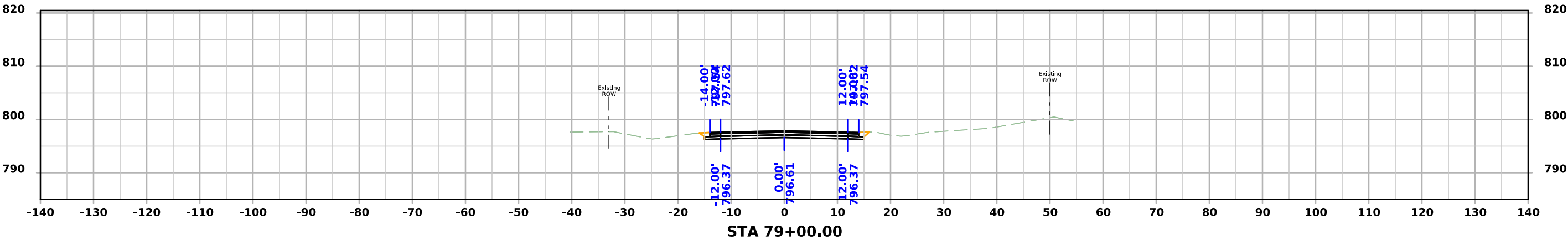
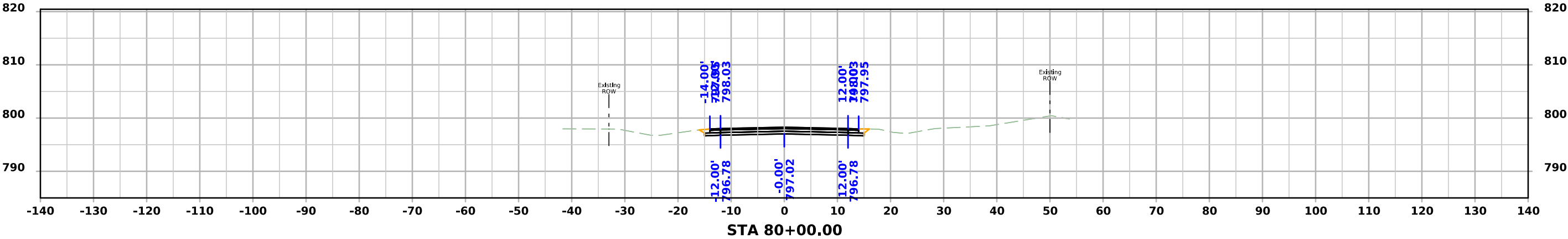


ML - IA 136



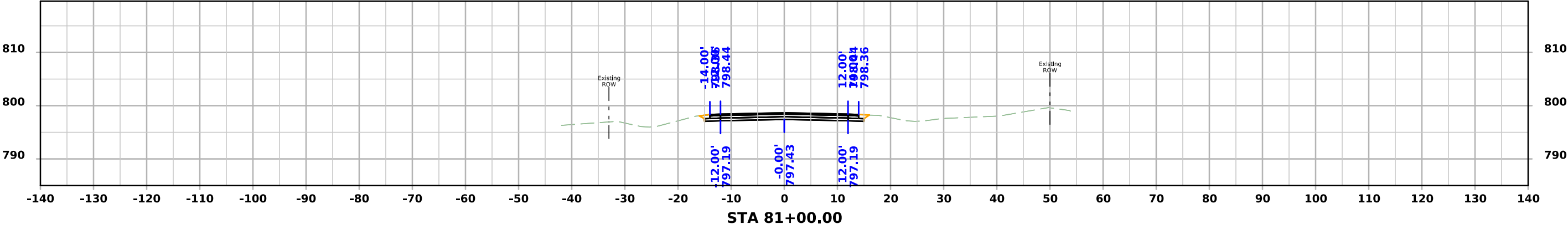
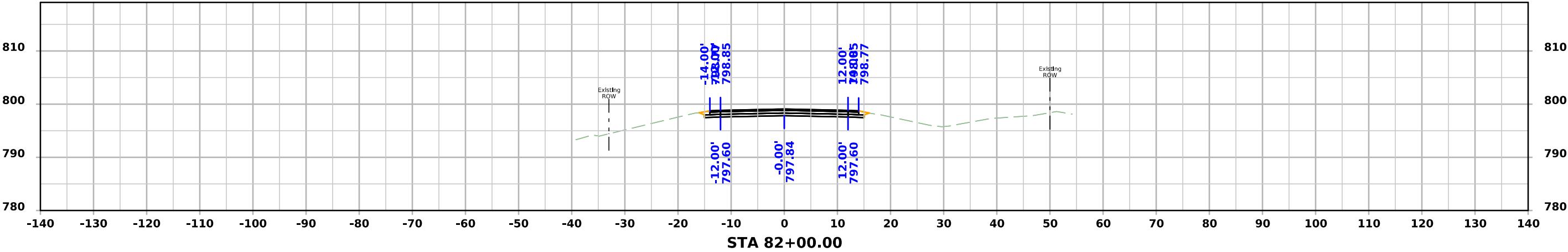
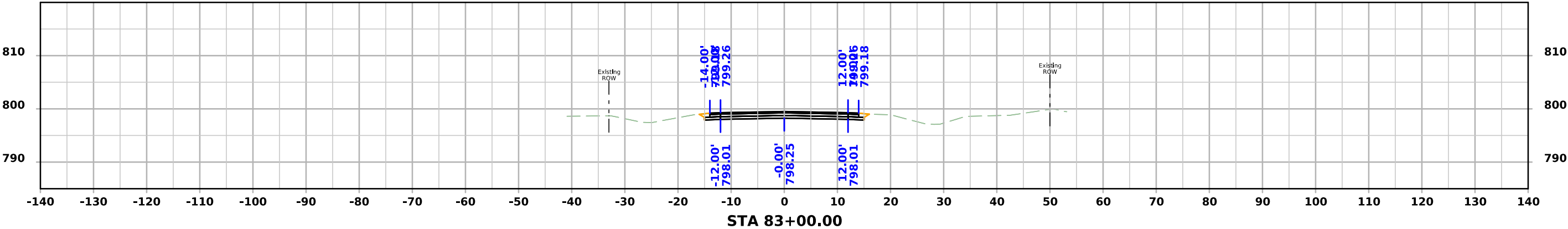


ML - IA 136



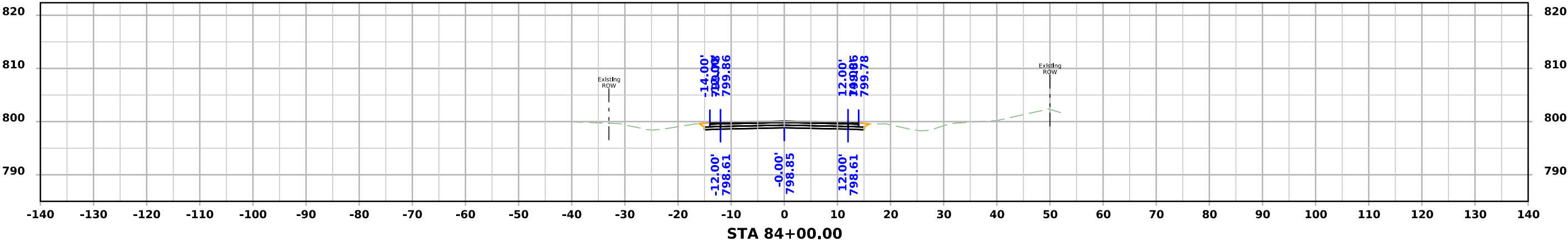
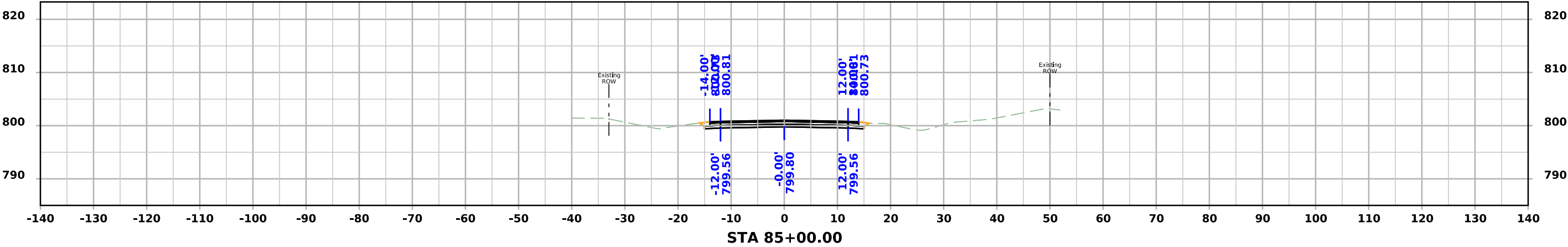
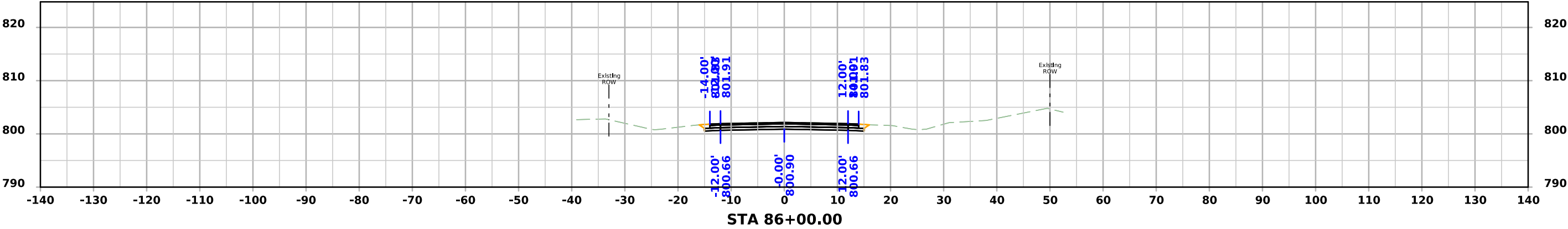


ML - IA 136



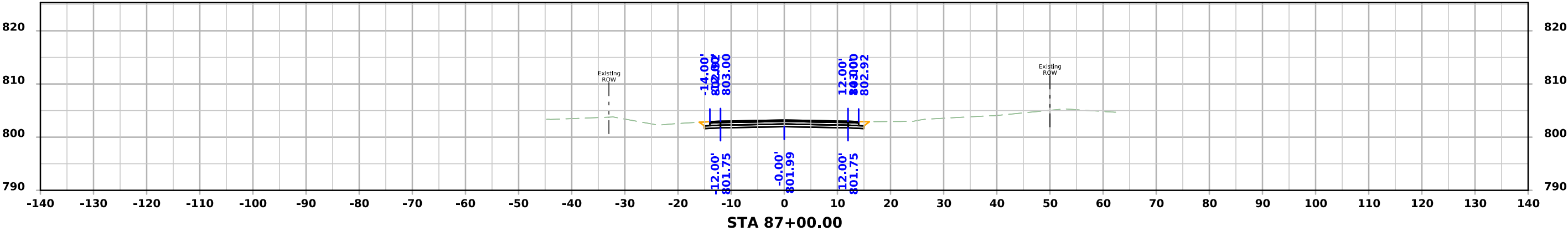
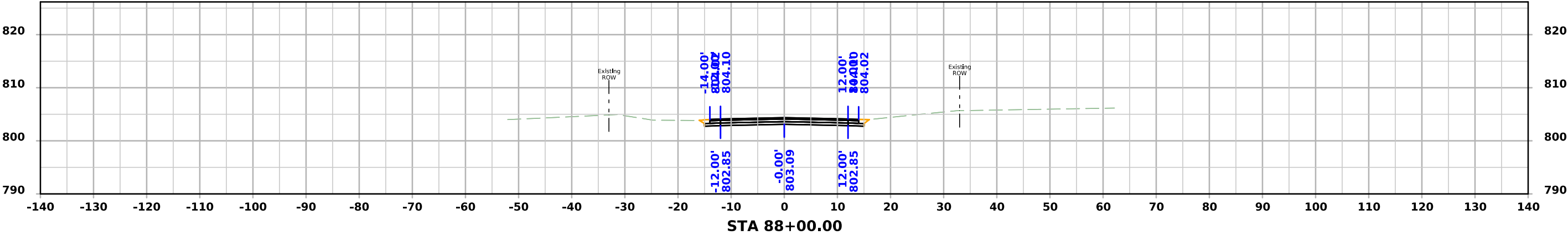
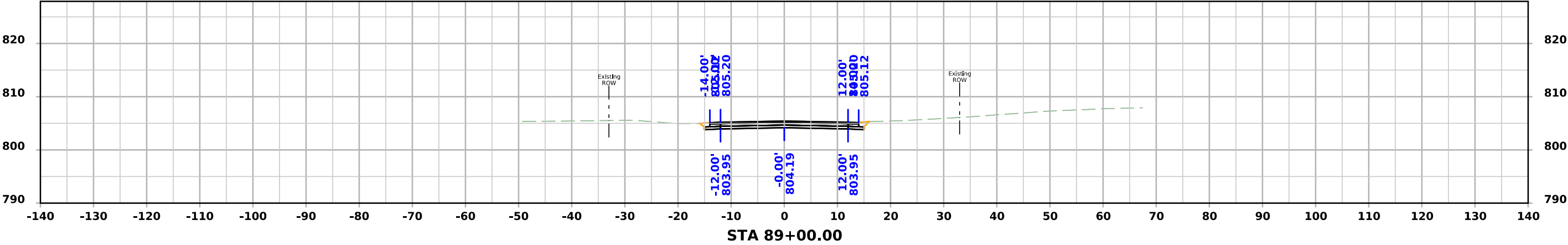


ML - IA 136



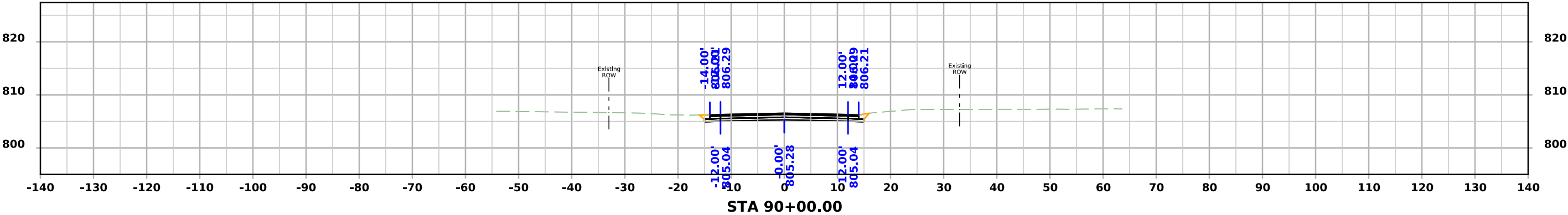
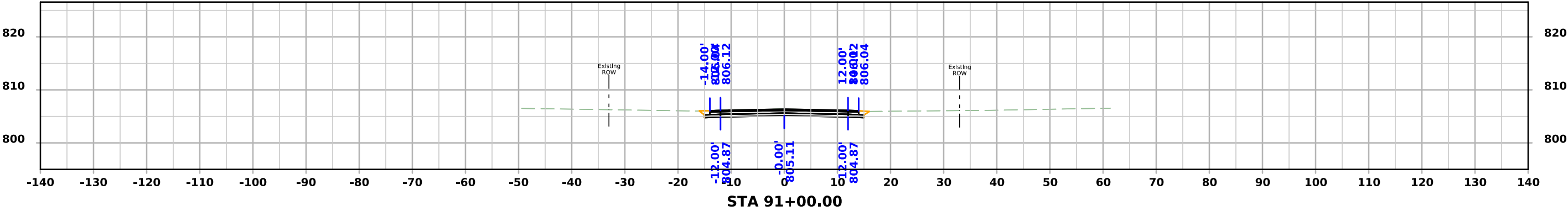
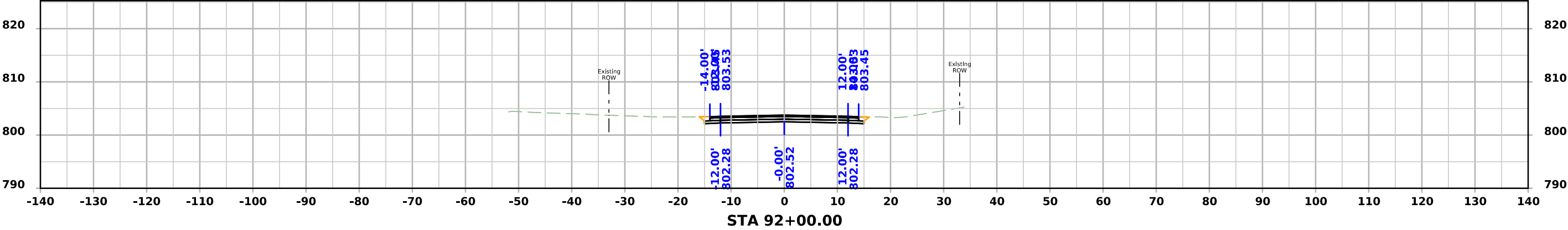


ML - IA 136



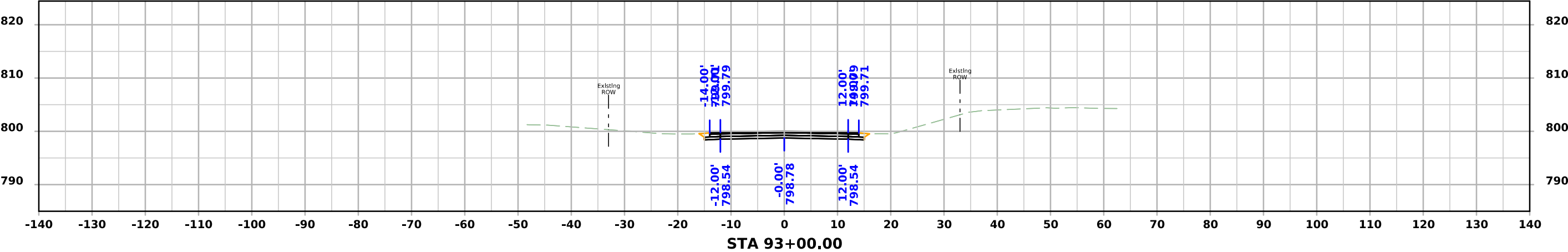
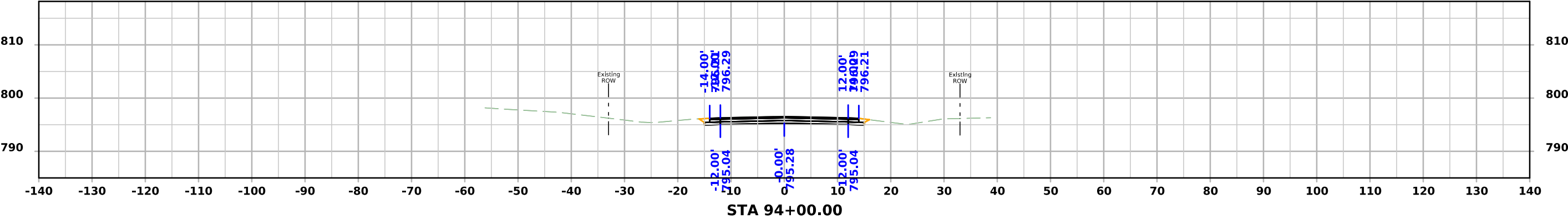
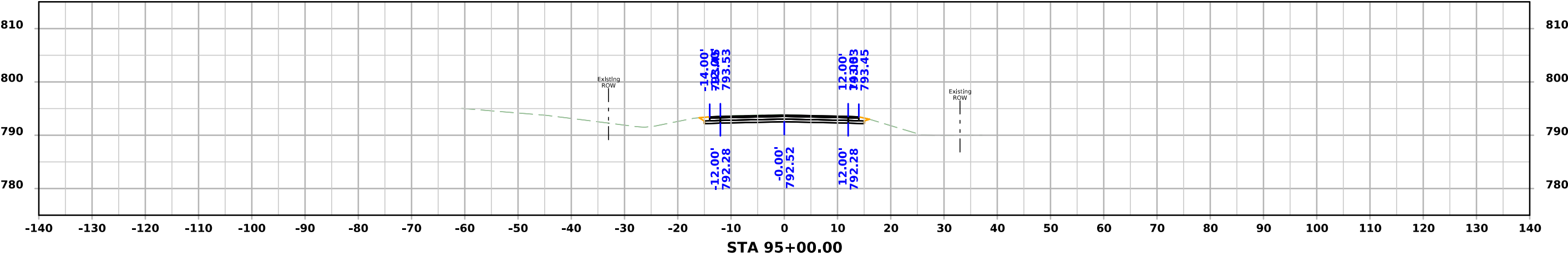


ML - IA 136



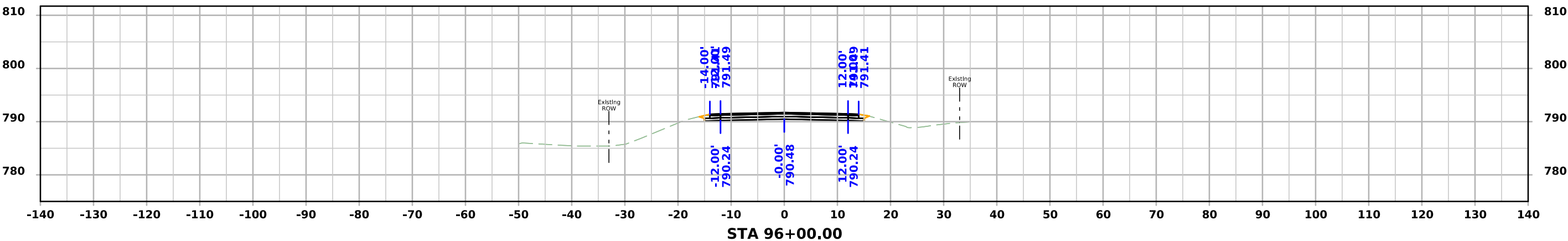
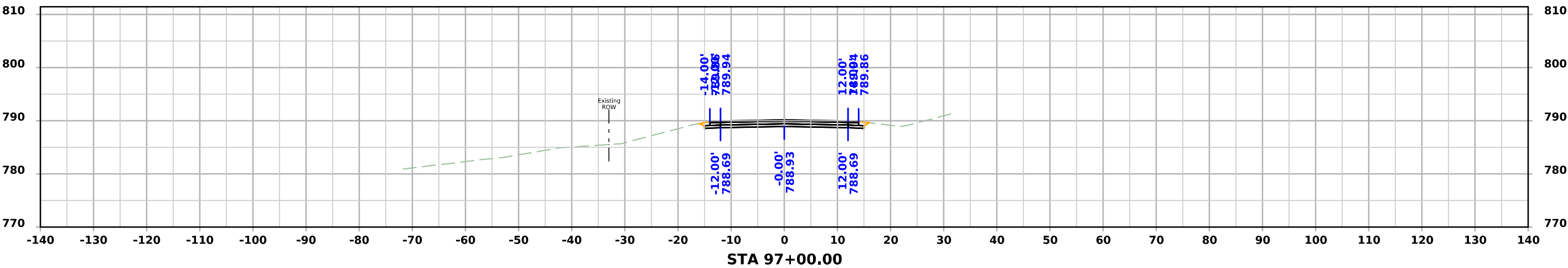
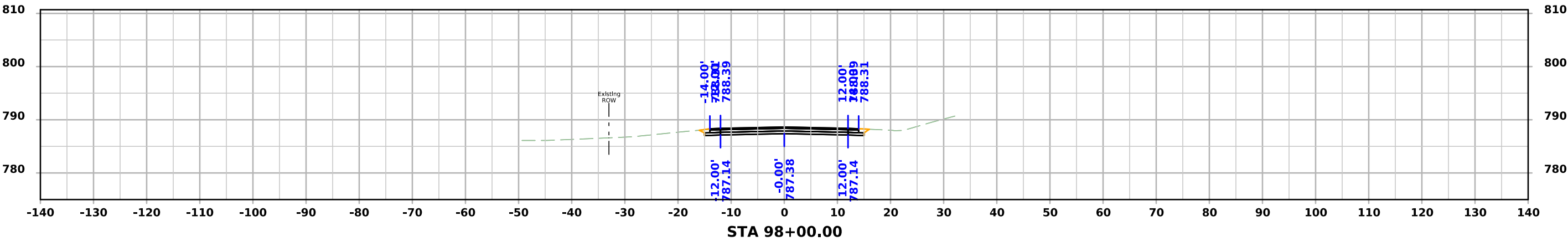


ML - IA 136



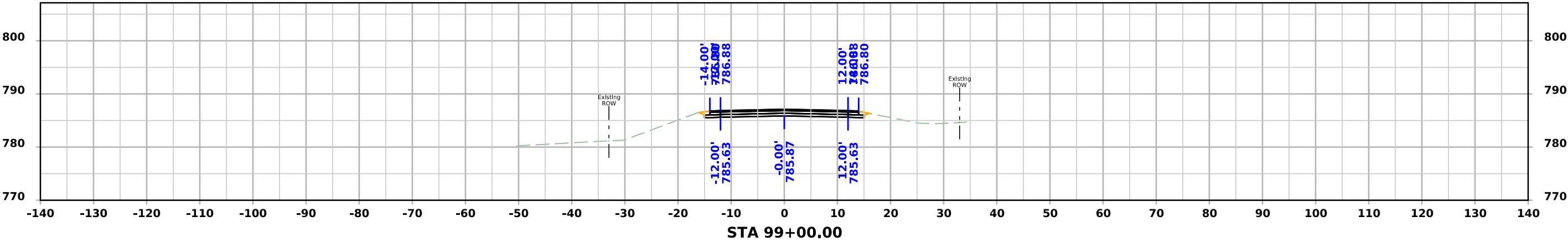
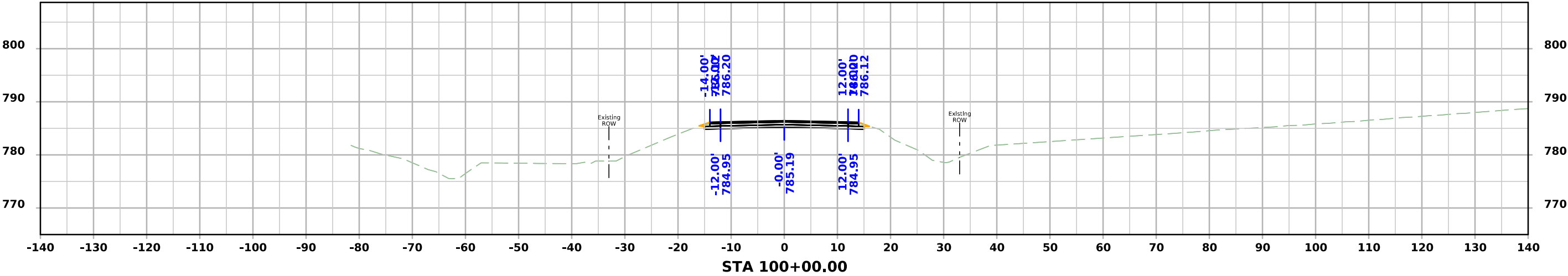
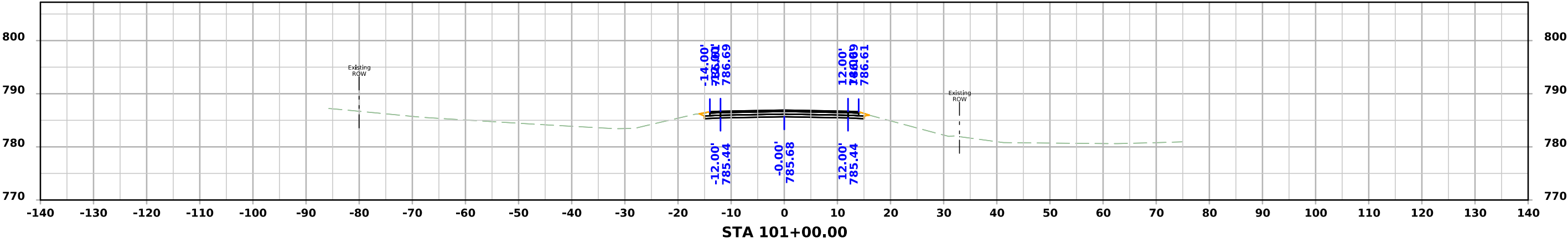


ML - IA 136



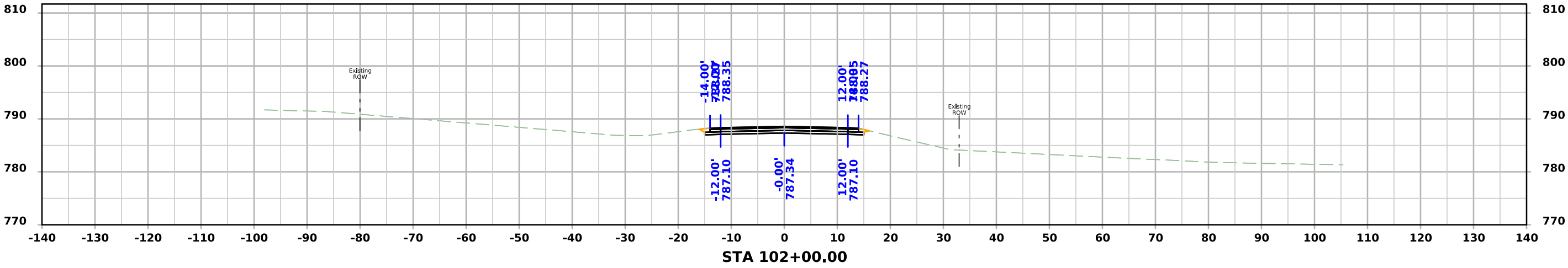
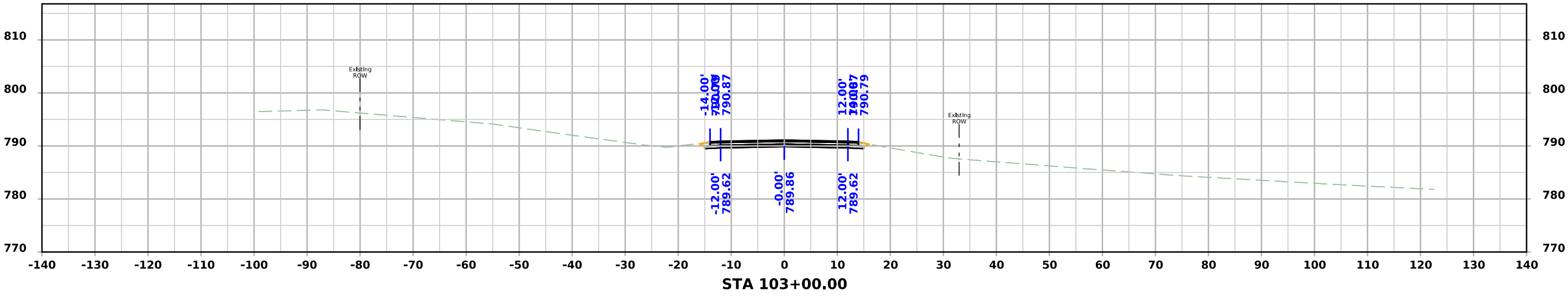
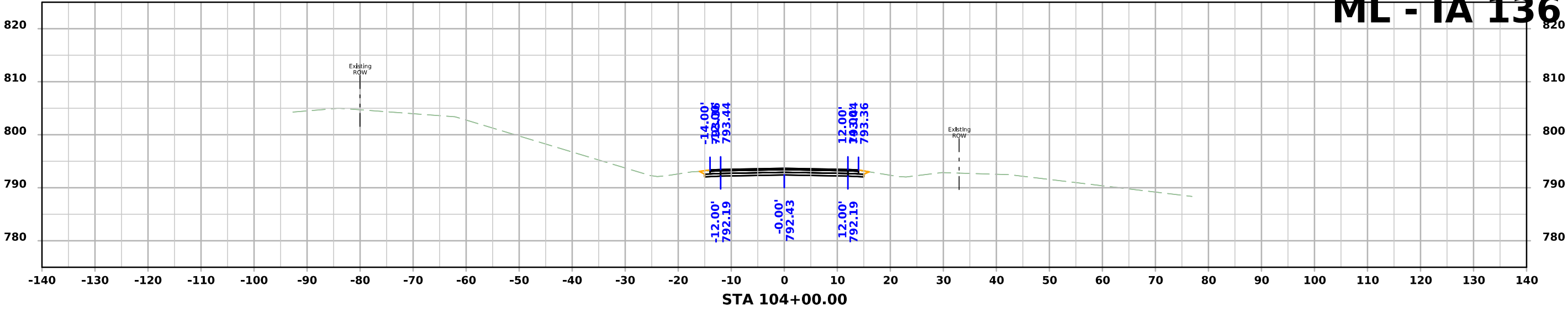


ML - IA 136



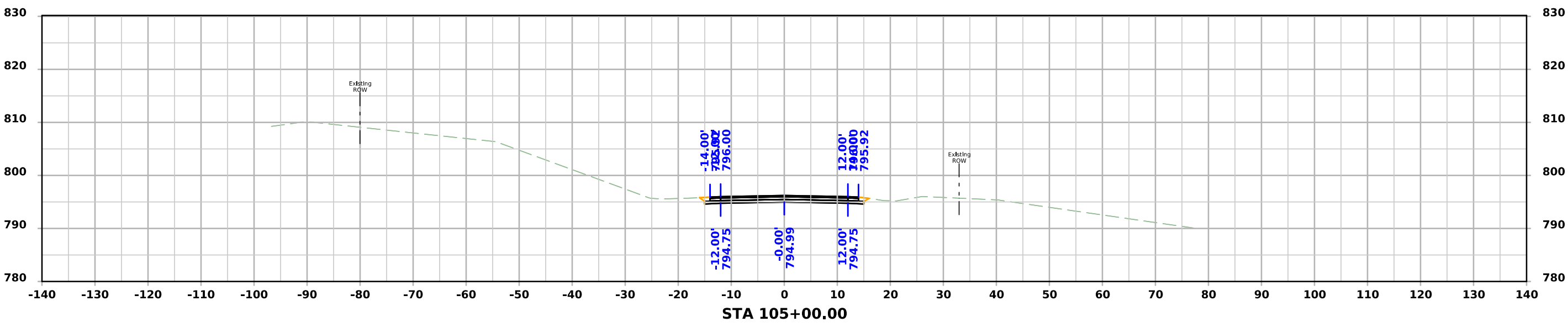
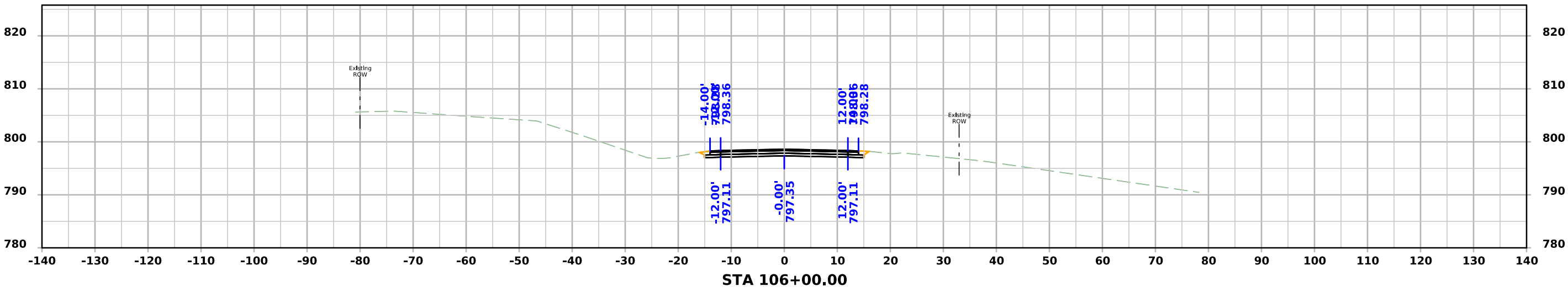
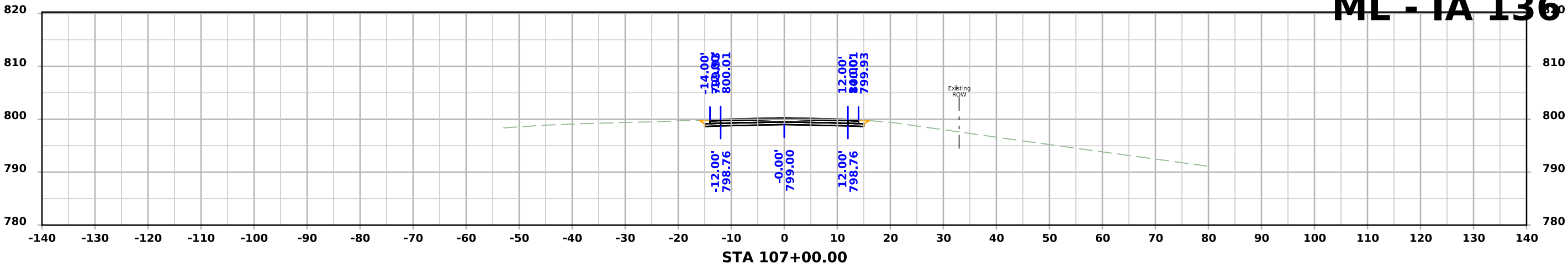


ML - IA 136



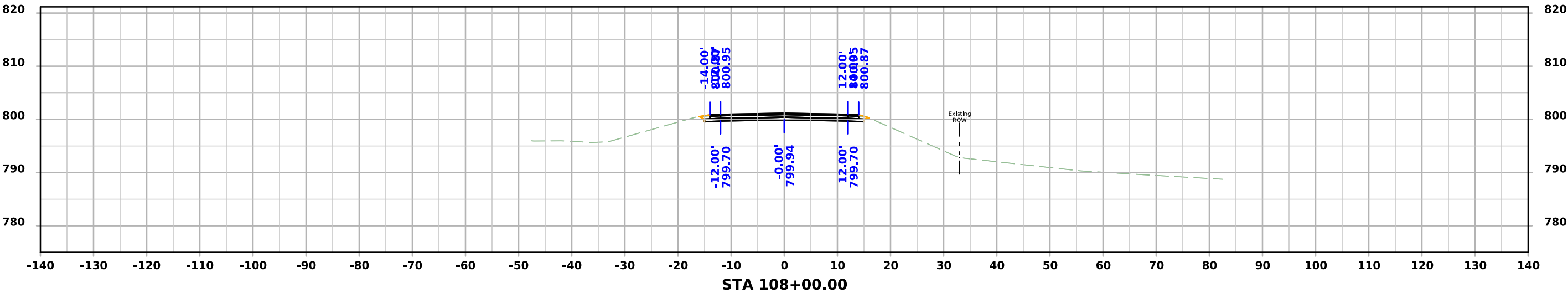
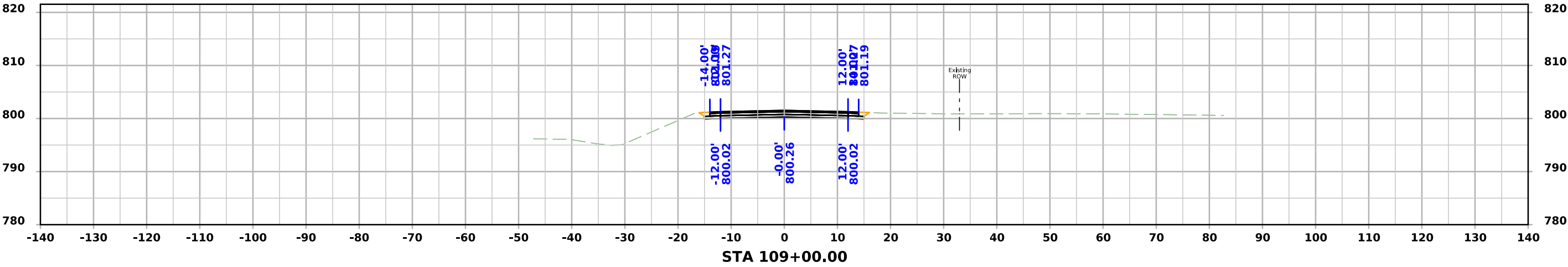
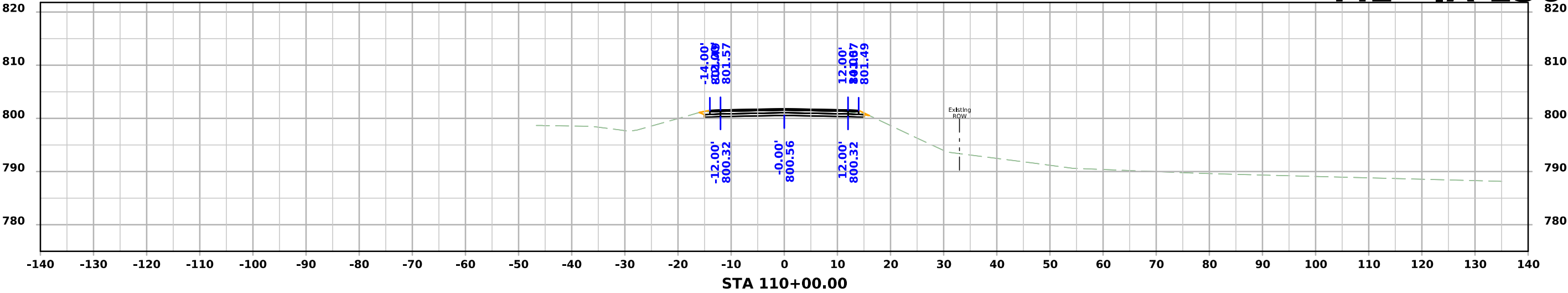


ML - IA 136



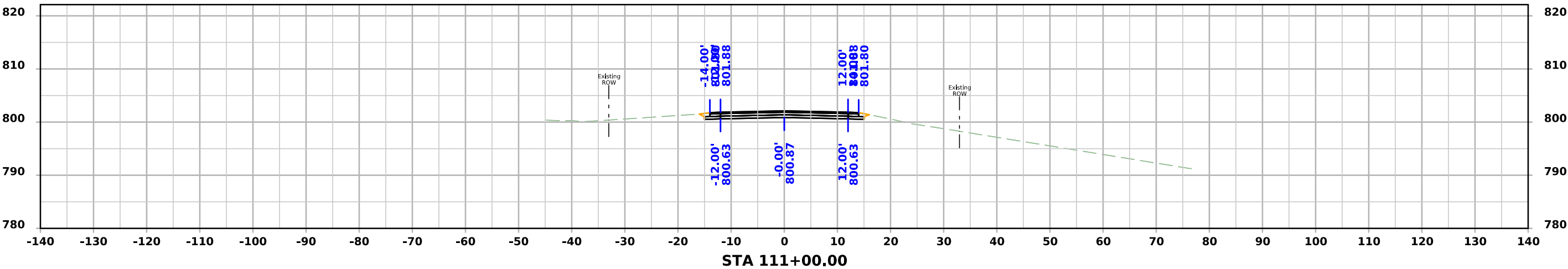
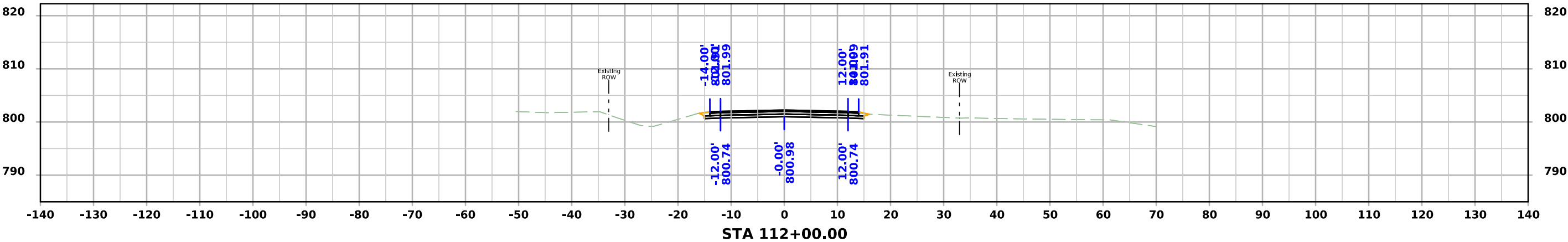
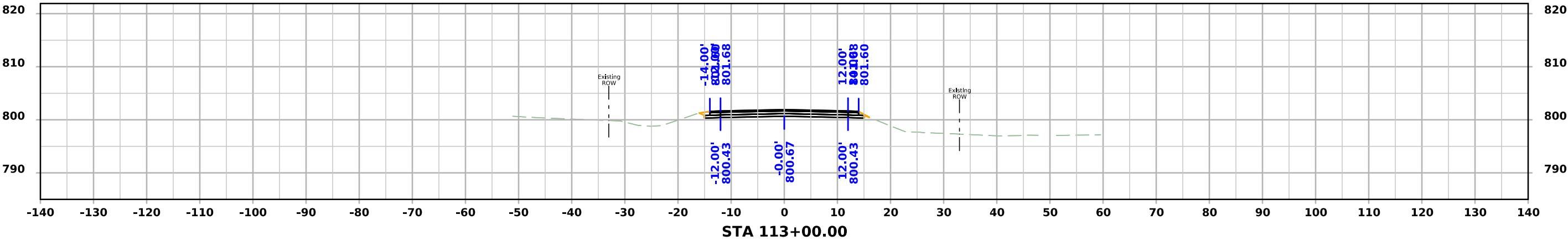


ML - IA 136



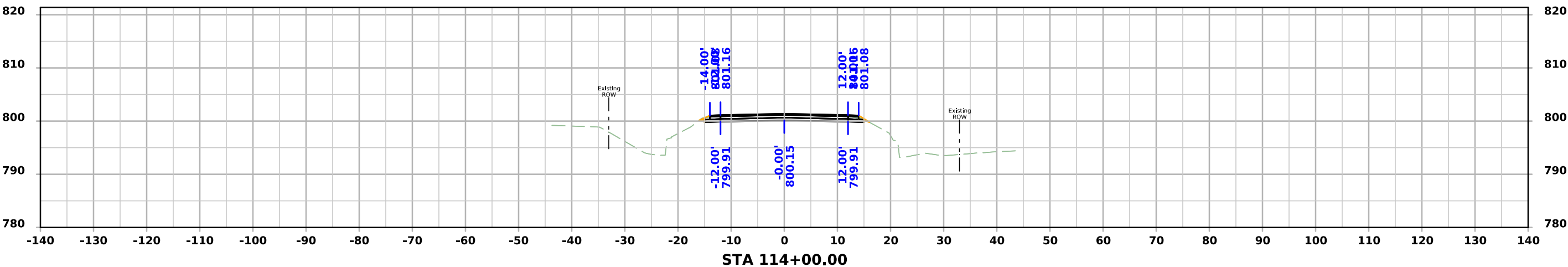
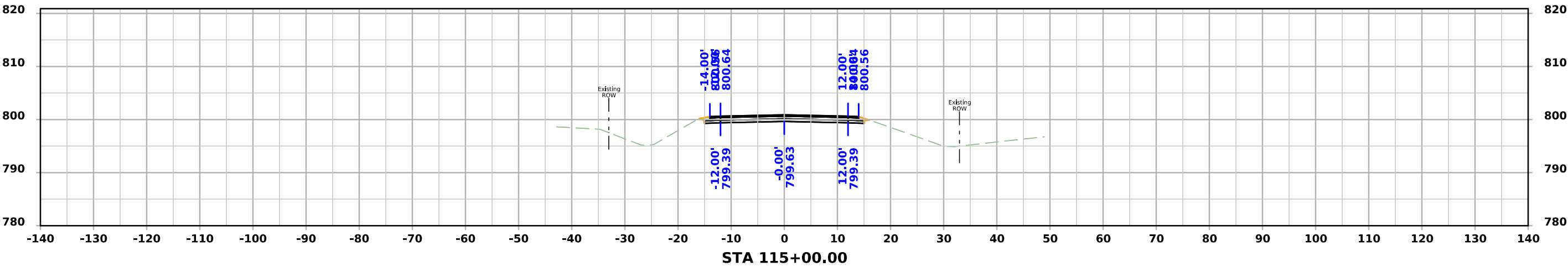
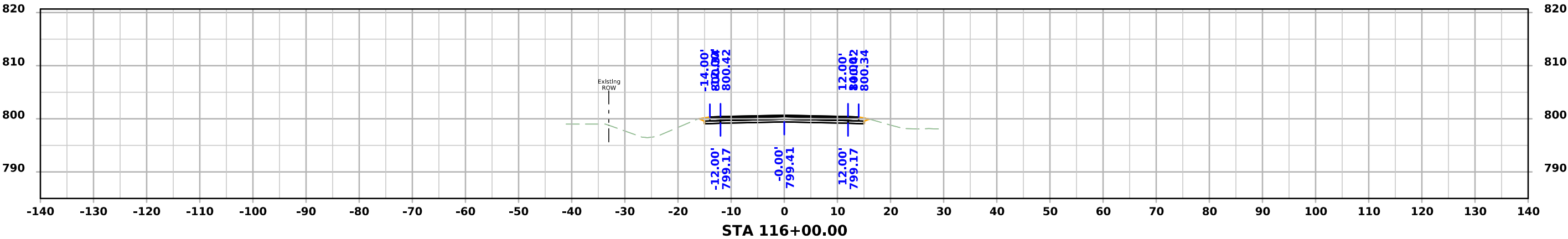


ML - IA 136



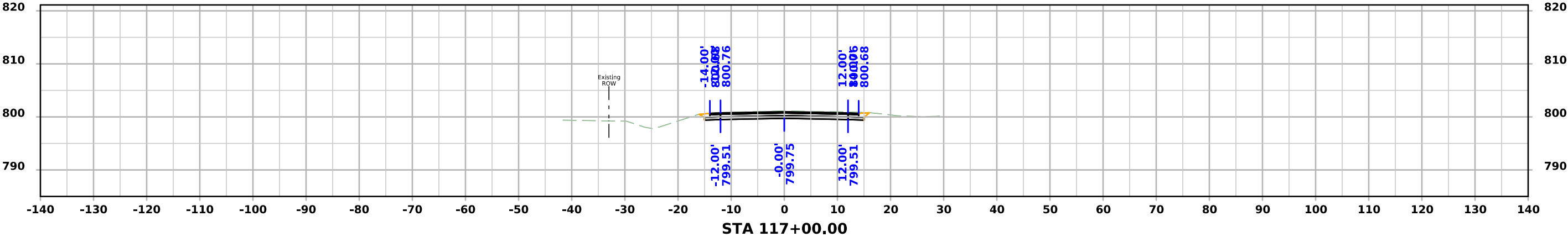
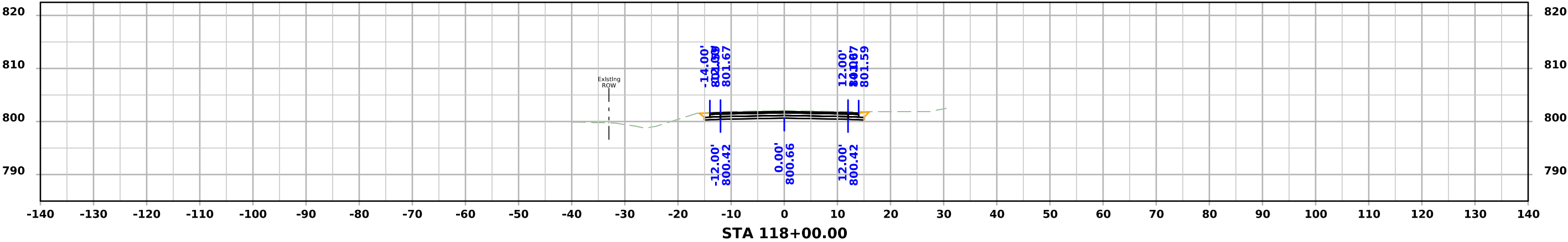
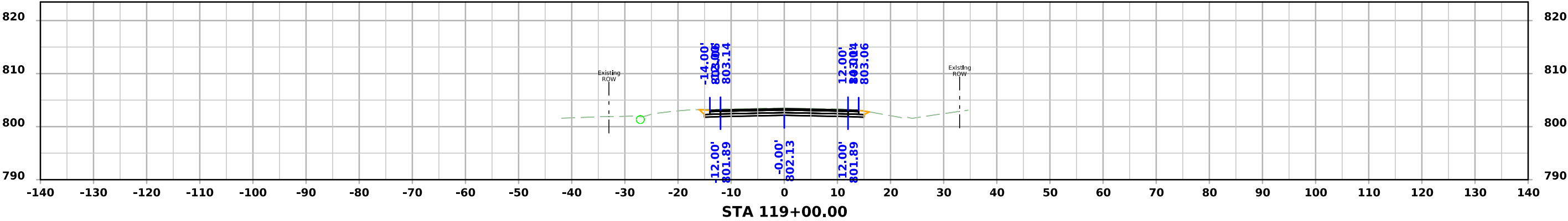


ML - IA 136



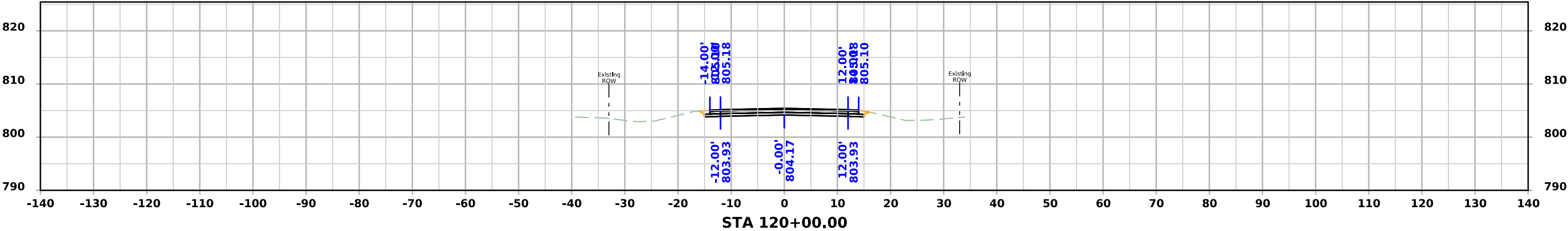
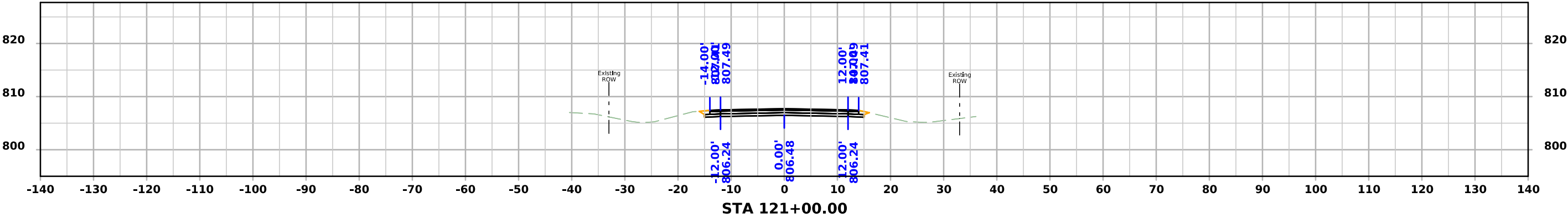
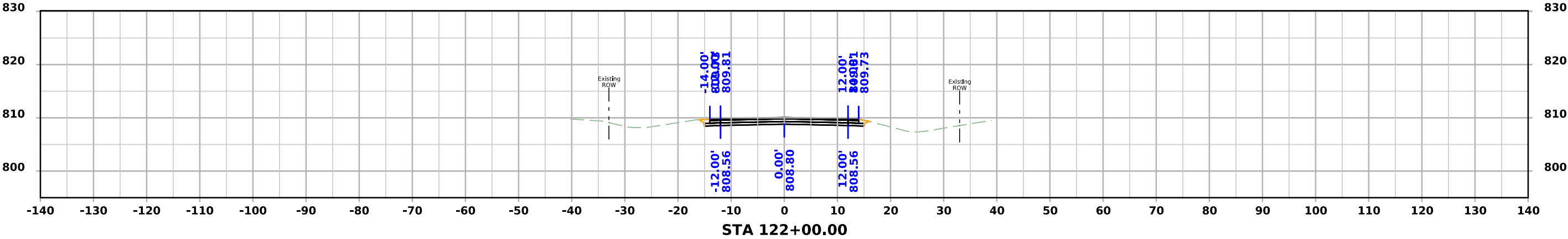


ML - IA 136



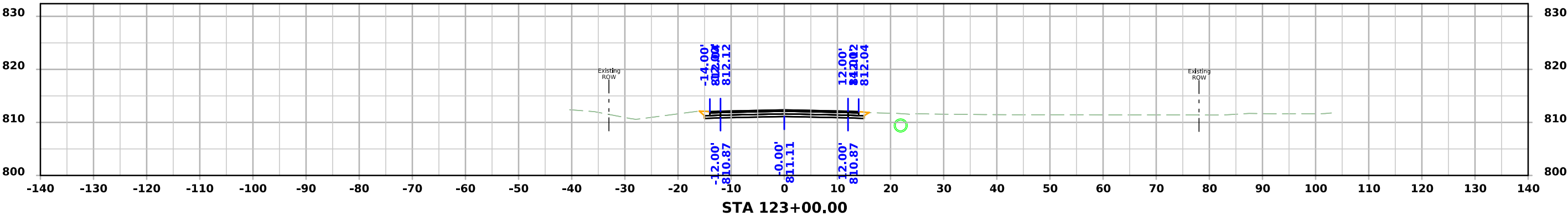
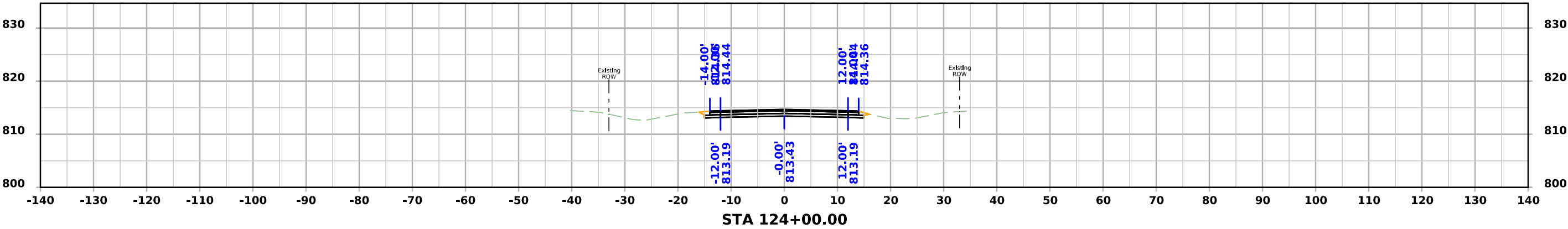
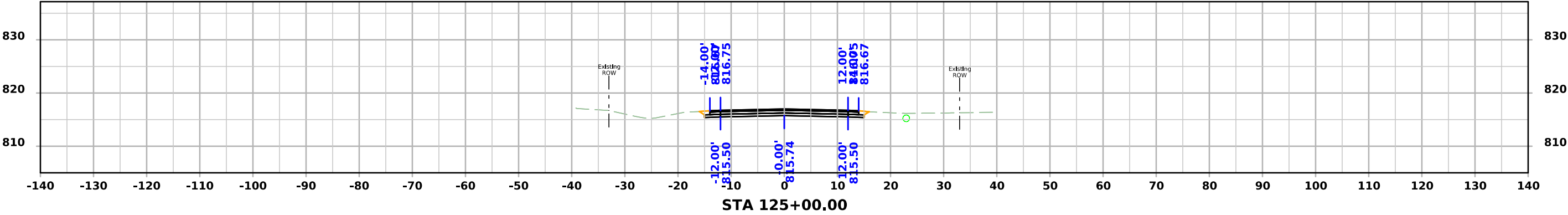


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