



PLANS OF PROPOSED IMPROVEMENT ON THE
PRIMARY ROAD SYSTEM
GREENE COUNTY
Bridge-Unspecified
Buttrick Creek 2.8 mi W of IA 144

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

21

PROJECT IDENTIFICATION NUMBER

21-37-030-010

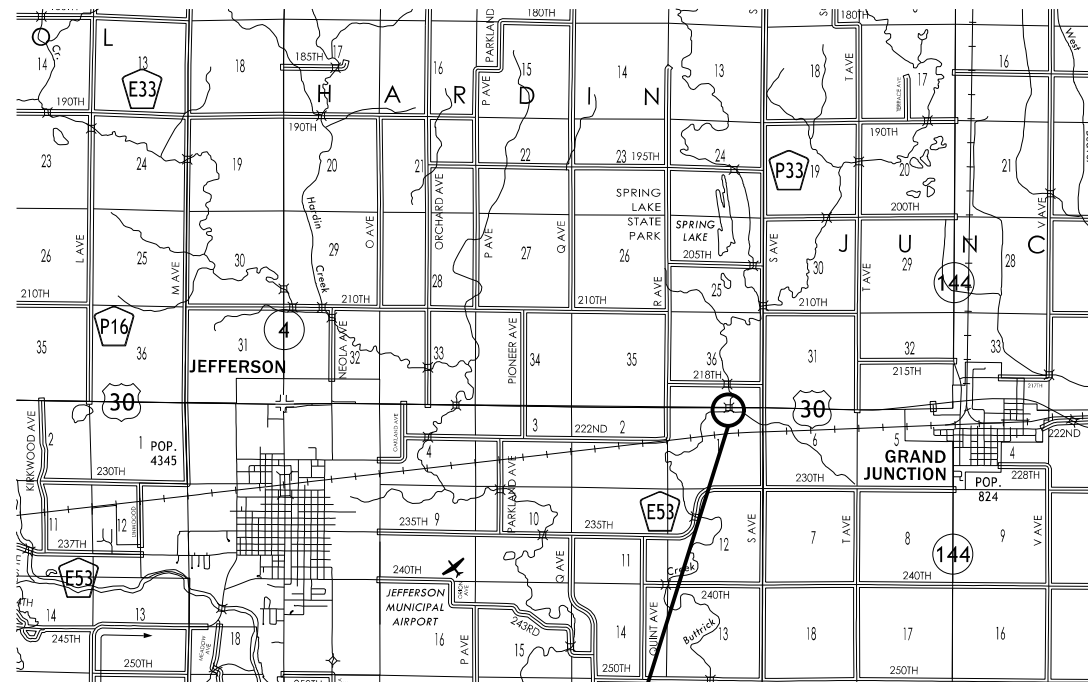
PROJECT NUMBER

BRF-030-3(53)--38-37

R.O.W. PROJECT NUMBER

NHSN-030-3(54)--2R-37

No.	DESCRIPTION
A Sheets	Title Sheets
* A.1	Title Sheet/Location Map
B Sheets	Typical Cross Sections and Details
B.1 - 3	Typical Cross Sections and Details
D Sheets	Mainline Plan and Profile Sheets
* D.1	Plan & Profile Legend & Symbol Information Sheet
* D.2	US 30
G Sheets	Survey Sheets
G.1	Survey Information
G.2 - 3	Control Point Location Map/Control Point Coordinates
J Sheets	Traffic Control and Staging Sheets
J.1	Traffic Control Plan
* J.2	Detour Route Map
W Sheets	Mainline Cross Sections
* W.1	Cross Sections Legend & Symbol Information Sheet
* W.2 - 10	Mainline Cross Sections
	* Color Plan Sheets



Project Location
Sta: 1245+15
FHWA 25630
Maint. 3712.85030
Design 656

DESIGN DATA RURAL	
2026 AADT	4300 V.P.D.
2046 AADT	4400 V.P.D.
20 - DHV	-- V.P.H.
TRUCKS	15 %
Total Design ESALs	2,821,003

INDEX OF SEALS		
SHEET NO.	NAME	TYPE
A.1	Jeremy Vortherms	Primary Signature Block

D4 PLAN - Date: 6/23/26

PRELIMINARY PLANS

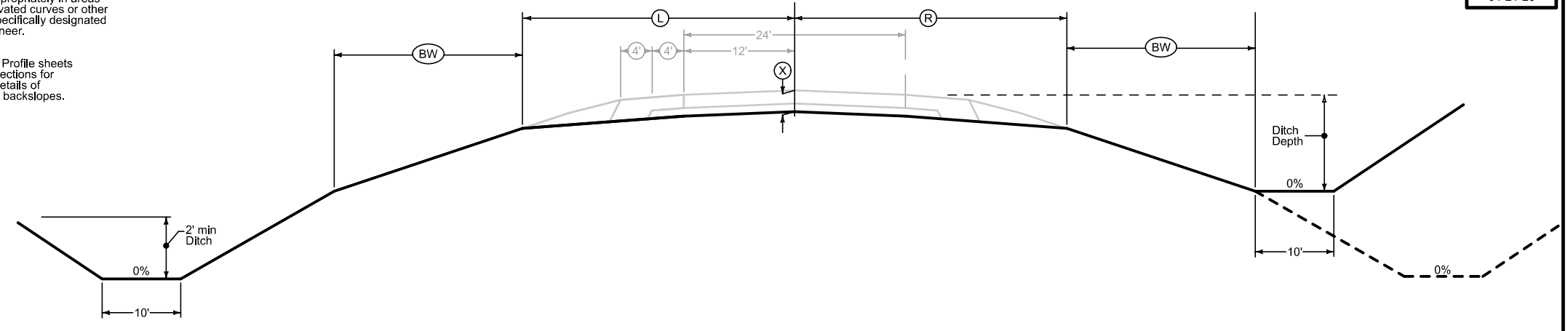
Subject to change by final design.

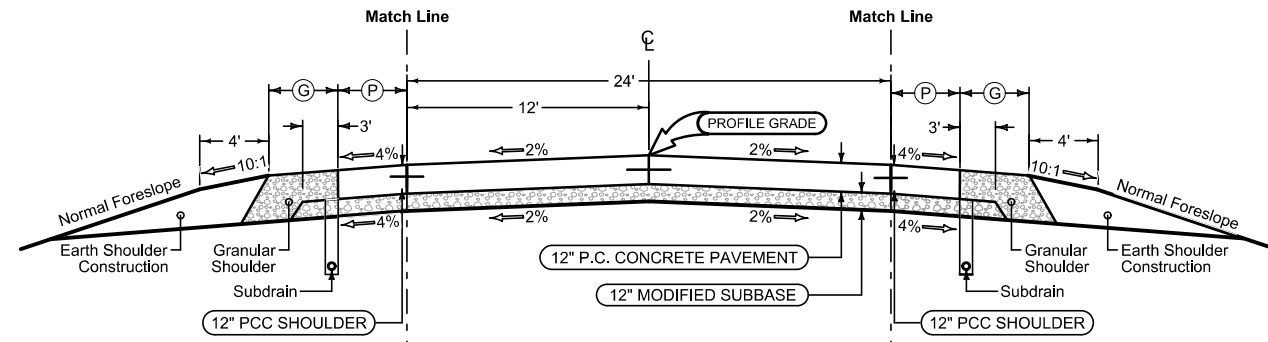
D5 PLAN - Date: 10/6/23

LOCATION			DIMENSIONS			
ROAD IDENTIFICATION	STATION TO STATION		(L)	(R)	(X)	(BW)
			Feet	Feet	Inches	Feet
US 30	1242+60	1244+07.83	34.96	34.96	varies	42.0
US 30	1246+20.83	1247+72.10	34.96	34.96	varies	42.0

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

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





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

2P_04-21-20	
STATION TO STATION	
1243+40.0	1244+10.0
1246+20.0	1246+90.0

Full Depth PCC Combination Shoulder

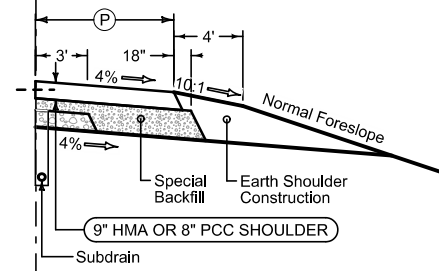
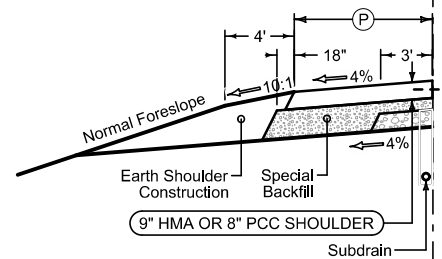
Shoulder Jointing:
 Longitudinal joint: L-2 or KT-2
 Transverse joints: C at 17' spacing

2_C_FullPCC_04-21-20			
STATION TO STATION		(P) Feet	(G) Feet
1242+56.66	1243+37.88	4	6
1242+81.72	1243+37.88	4	6

Full Depth PCC Combination Shoulder

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

2_C_FullPCC_04-21-20			
STATION TO STATION		(P) Feet	(G) Feet
1246+90.41	1247+46.61	4	6
1246+90.41	1247+72.10	4	6



Paved Shoulder at Guardrail

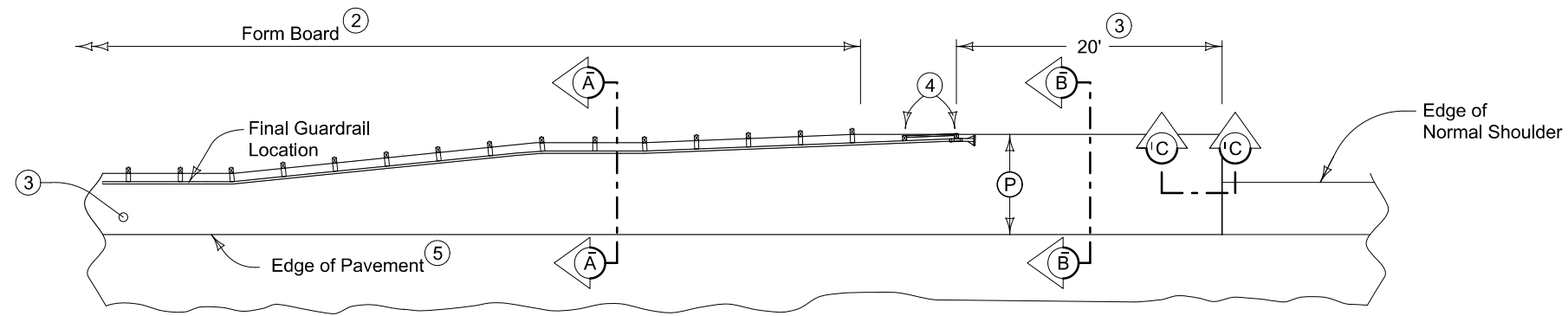
PCC Shoulder Jointing:
 Longitudinal joint: BT-1 or BT-5
 Transverse joints: C at mainline spacing
 HMA Shoulder Jointing:
 Longitudinal joint: B

2_P_Guard_04-21-20		
STATION TO STATION		(P) Feet
1242+81.72	1243+38.23	VAR.
1246+90.71	1247+72.10	VAR.

Paved Shoulder at Guardrail

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

2_P_Guard_04-21-20		
STATION TO STATION		(P) Feet
1242+56.66	1243+35.02	VAR.
1246+92.92	1247+46.61	VAR.



PLAN VIEW

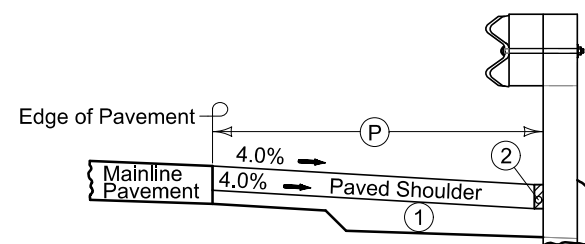
9" HMA Paved Shoulder at guardrail. 8" PCC may be substituted with the following jointing layout:

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

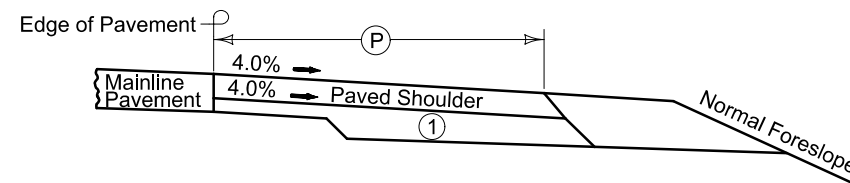
Compaction of HMA is required to face of guardrail post. Hand compaction will be allowed under guardrail. Removal and reinstallation of guardrail will be allowed with no additional payment.

Refer to Tabulation 112-9 for shoulder quantities.

- ① For subgrade treatment, refer to other details in the plan.
- ② PCC option only: When guardrail posts are installed prior to construction of PCC paved shoulder, fasten form board to the face of guardrail posts for the length shown. Refer to note 4 for final 2 posts.
- ③ Continue paved shoulder to existing paved shoulder or 20 feet beyond the center of the first post.
- ④ Shoulder may be notched for final 2 posts or post sleeves may be installed through pavement. Do not drive posts through pavement.
- ⑤ 'KT-1 joint for PCC shoulder.
'B' joint for HMA shoulder.

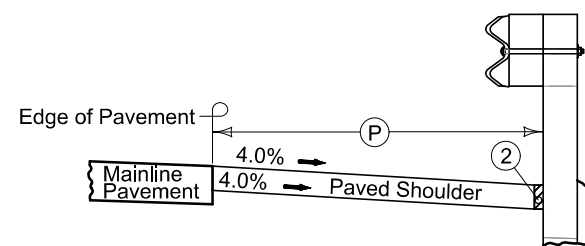


Section A-A

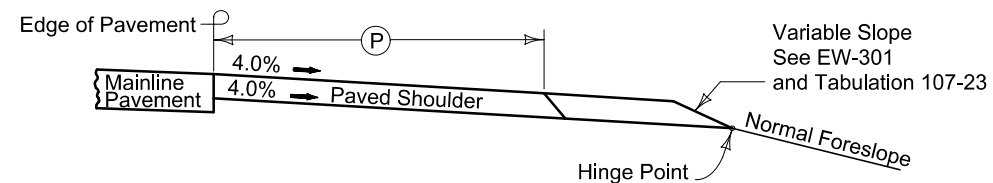


Section B-B

NEW CONSTRUCTION

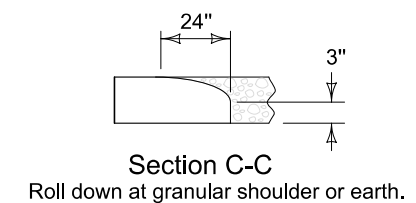


Section A-A



Section B-B

EXISTING SHOULDER



PAVED SHOULDER AT GUARDRAIL

SURVEY SYMBOLS

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

UTILITY LEGEND

- Mike Broderick
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Iowa Communications Network
400 E. 14th St., Grimes State Office Building
Des Moines, IA 50319
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Mike.Broderick@iowa.gov
- Dan Hogan
Fiber Optic Windstream
1614 230th St.
Manchester, IA 52057
(563)920-2428 Cell: (563)920-2428
Dan.Hogan@windsteam.com
- Duane Russell
CTO
Jefferson Telecom
105 W. Harrison St.
Jefferson, IA 50129
(515)386-4141 Cell: (515)386-4705
duane@jeffersontelecom.com

PLAN VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

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

PROFILE VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

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

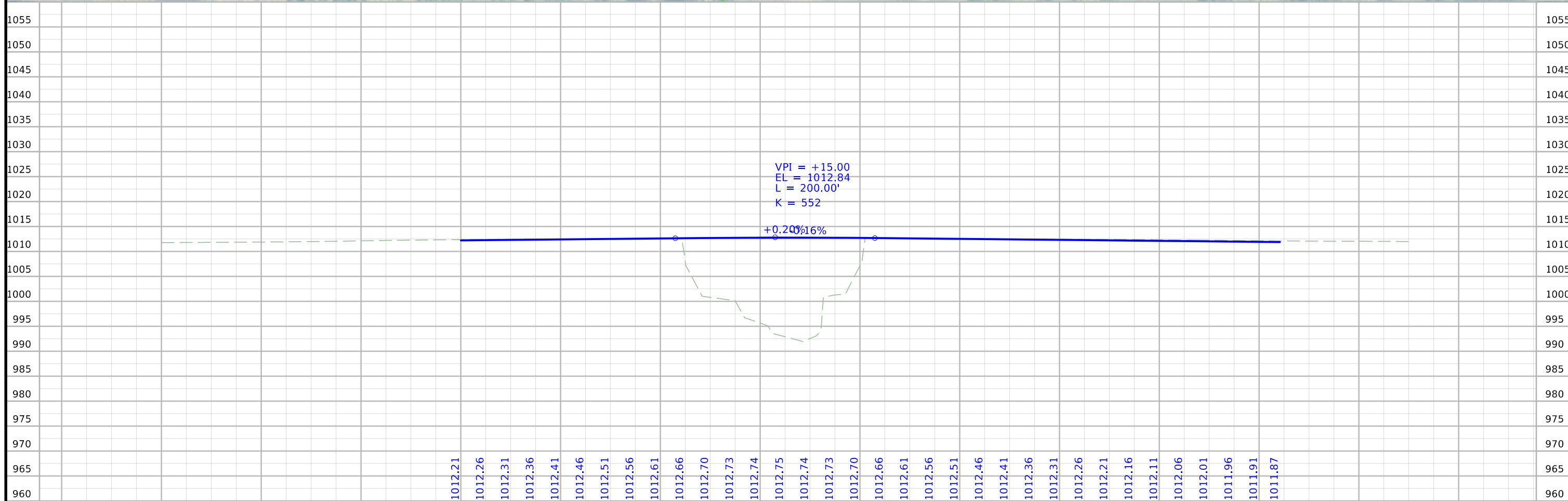
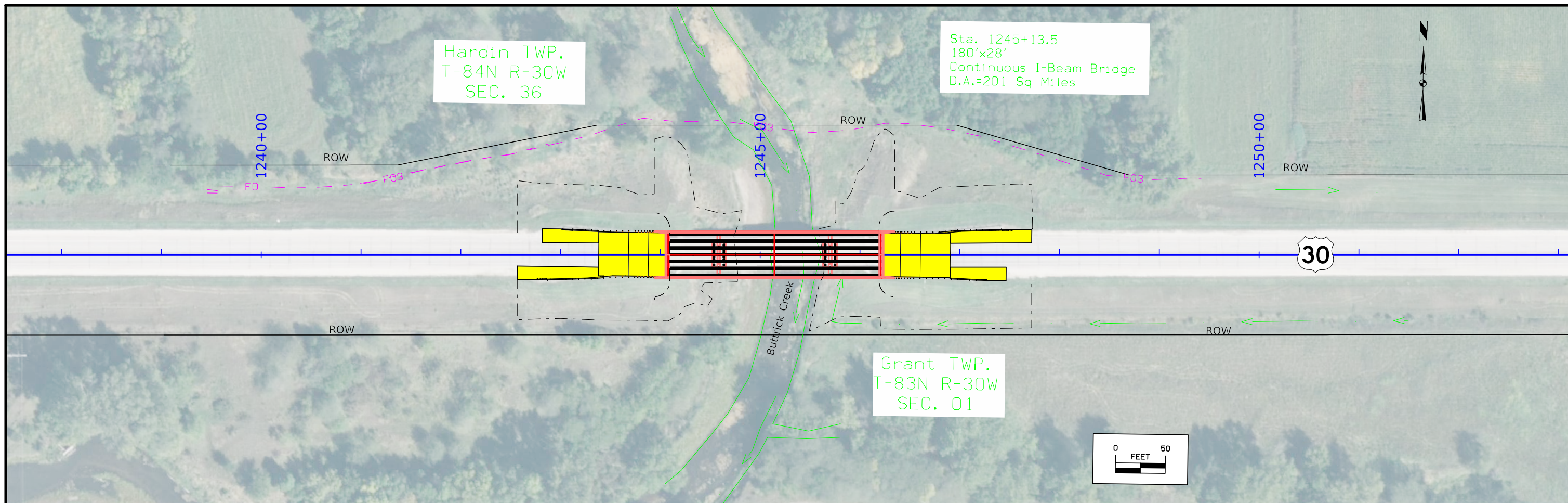
- Reference Point
- Station
- Survey Line
- Section Corner
- Ground Line Intercept
- Saw Cut
- Guardrail
- Trench Drain
- HighTension Cable Guardrail
- Sheet Pile
- Pavement Removal
- Clearing & Grubbing Area

RIGHT-OF-WAY LEGEND

- Proposed Right-of-Way
- Existing Right of Way
- Existing and Proposed Right-of-Way
- Easement and Existing Right-of-Way
- Easement (Temporary)
- Easement
- Access Control
- Property Line

PLAN AND PROFILE LEGEND AND SYMBOL INFORMATION SHEET

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



Survey Information

SURVEY INDEX

County: Green
PIN: 21-37-030-010
Project Number: BRF-030-3(53)—38-37
Location: Over Buttrick Creek
Type of Work: Bridge Unspecified
Project Directory: 3703001021

Survey Personnel

Geoff Tinker- Senior Land Surveyor
Paul Harry – Survey Party Chief
Bob Fredrickson – Assistant Survey Party Chief

Date(s) of Survey

Begin Date 07/14/2022
End Date 08/09/2022

General Information

Project datum and control information is provided by the Design Survey Office. Measurement units for this survey are US survey feet. This survey is for US Hwy 30 over Buttrick Creek in Green County. This project is a Full Field DTM survey.

Project Control

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

PROJECT DATUM: NAD83(2011) EPOCH 2010.00
VERTICAL DATUM: NAVD88
COORDINATE SYSTEM: IOWA REGIONAL COORDINATE SYSTEM ZONE 07
GEOID MODEL: 2012bu3

Alignment Information

The horizontal alignment for U.S. Hwy 30 survey is a retrace of As-built Plans No. NHSN-30-3(38)—2R-37. Survey stationing was equated to the plan POT at Sta. 1215+19.7 and run ahead without equation throughout the survey.

Survey stationing relates to as built plan stationing as follows:

POT Sta. 1215+19.7 As-built Plans Project No. NHSN-30-3(38)—2R-37.
Survey POT Sta. 1215+19.7

PI Sta. 1263+79.0 As-built Plans Project No. NHSN-30-3(38)—2R-37.
Survey PI Sta. 1263+76.7

Utility Information

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

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) EPOCH 2010.00 - Ia. RCS Zone 07
VERT. DATUM: NAVD88 - Geoid Model 2012bu03

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) EPOCH 2010.00
 1a. Regional Coordinate System Zone 07

VERT. DATUM: NAVD88
 Geoid Model 2012 bu3
 Project Control Marks are Bench Marks

A034	7450572.619	17595688.89	1006.337	CP FD GREEN COUNTY MONUMENT STAMPED A034 NEAR THE INTERSECTION OF HWY 30 AND COUNTY RD P33 MONUMENT IS 113FT N OF CL HWY 30 77FT W OF CL P33 30FT NE OF A 4IN CONC MON AND 16FT SW OF A 4IN CONC MON
GSVS 58	7450420.403	17587879.29	1033.617	CP FD NGS MOUNMENT STAMPED GSVS 058 0.5MILES W ALONG HWY 30 FROM THE INTERSECTION OF HWY 30 AND R AVE MONUMENT IS 55FT N OF CL HWY 30 15FT W OF CL FIELD ENT AND 91FT E OF 4IN CONC MON
GSVS 59	7450411.647	17594106.68	1011.576	CP FD NGS MONUMENT STAMPED GSVS 059 0.3MILES W ALONG HWY 30 FROM THE INTERSECTION OF HWY 30 AND COUNTY RD P33 MONUMENT IS 29FT S OF CL HWY 30 105FT E OF NEAR COR CONC BRG WING 5FT SW OF NEAR COR END GUARDRAIL POST
GSVS 60	7450472.231	17600216.8	1030.839	CP FD NGS MONUMENT STAMPED GSVS 060 0.1MILES W ALONG HWY 30 FROM THE INTERSECTION OF HWY 30 AND T AVE MONUMENT IS 50FT N OF CL HWY 30 25FT E OF CL FIELD ENT AND 10FT NW OF END RCP INLET AT TOP CENTER
370301121	7450492.927	17590561.55	1041.477	CP FD 4IN DIA CONC MON NEAR THE INTERSECTION OF HWY 30 AND R AVE MONUMENT IS 95FT N OF CL HWY 30 50FT E OF CL R AVE 35FT SE OF PP 26FT SE OF ROW RAIL AND 10FT NW OF ROW RAIL

108-23A 08-01-08
TRAFFIC CONTROL PLAN
US 30 will be closed to traffic and traffic will be detoured, see map on sheet J.2. The contractor shall maintain detour and signing.

111-01 04-17-12								
COORDINATED OPERATIONS								
Other work in progress during the same period of time will include the construction of the projects listed. Coordinate operations with those of other contractors working within the same area.								
<table border="1" style="width: 100%;"> <tr> <th style="width: 50%;">Project</th> <th style="width: 50%;">Type of Work</th> </tr> <tr> <td>none</td> <td></td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td></td> <td></td> </tr> </table>	Project	Type of Work	none					
Project	Type of Work							
none								

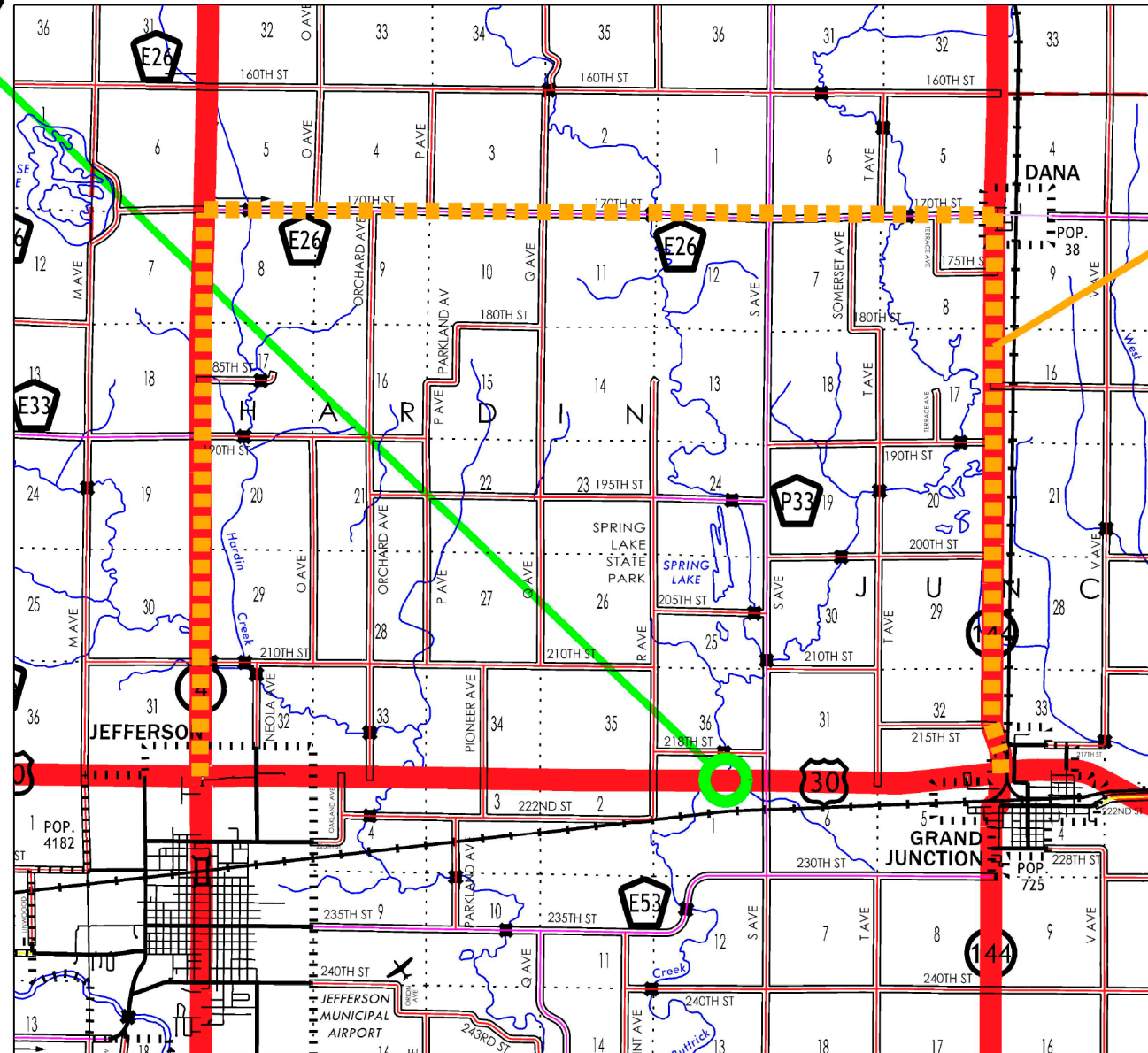
108-25 10-21-14	511 TRAVEL RESTRICTIONS
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Route	Direction	County	Location Description	Feature Crossed	Object Type	Maint. Bridge No., Structure ID, or FHWA No.	Type of Restriction	Existing Measurement	Construction Measurement	Construction Measurement as Signed	Projected As Built Measurement	Remarks
			None anticipated.									

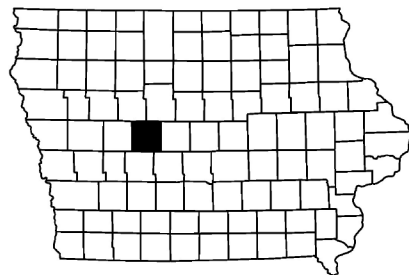
102-15 08-01-08																											
TABULATION OF SPECIAL EVENTS																											
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;">Event</th> <th style="width: 30%;">Location</th> <th style="width: 20%;">Date</th> </tr> </thead> <tbody> <tr> <td>Bell Tower Festival</td> <td>Jefferson</td> <td>Second weekend in June.</td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Event	Location	Date	Bell Tower Festival	Jefferson	Second weekend in June.																					
Event	Location	Date																									
Bell Tower Festival	Jefferson	Second weekend in June.																									

STA 1245 + 15.00
 FHWA 25630
 MAINT. 3712.8S030
 DESIGN 656

GREENE COUNTY



DETOUR



ON I-80, OVER BUTTRICK CREEK 2.8 MILES W
 OF IA 144
 BRF-030-3(53)-38-37
 PIN: 21-37-030-010

37

CROSS SECTION VIEW COLOR LEGEND

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

NOTES:

Text

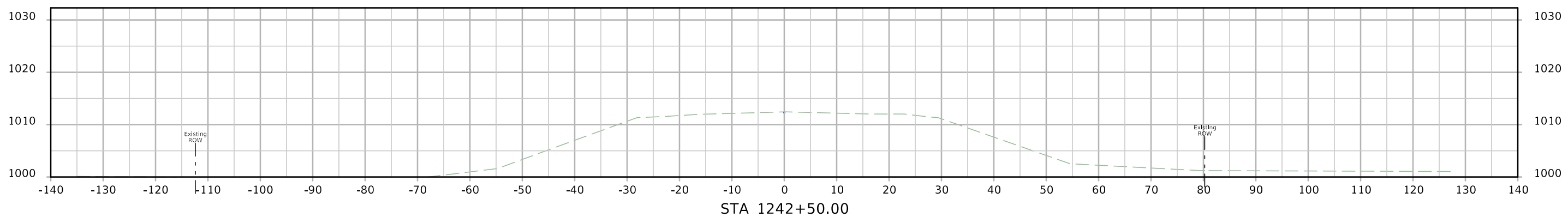
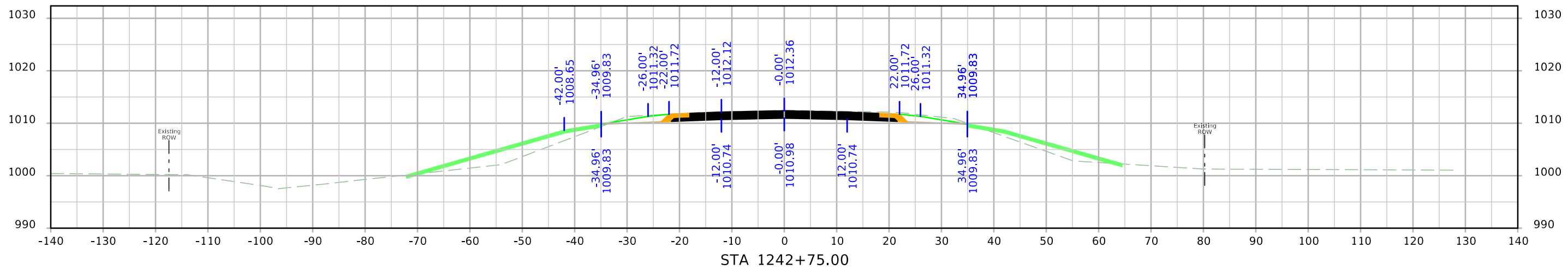
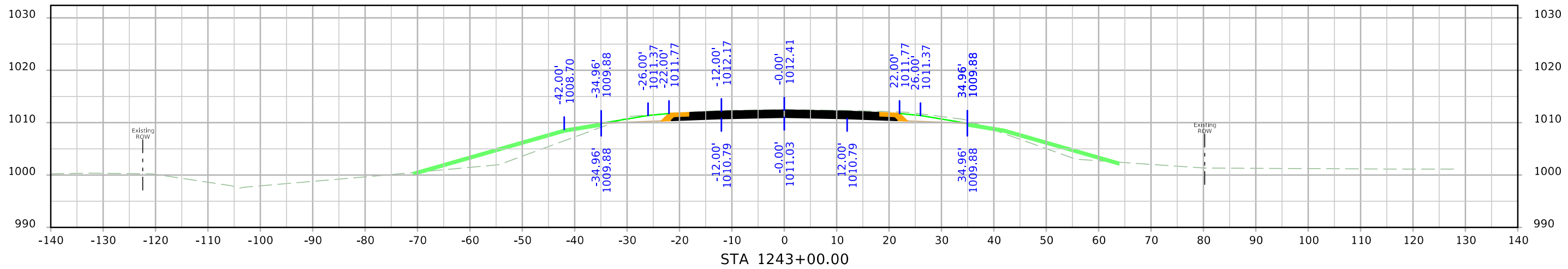
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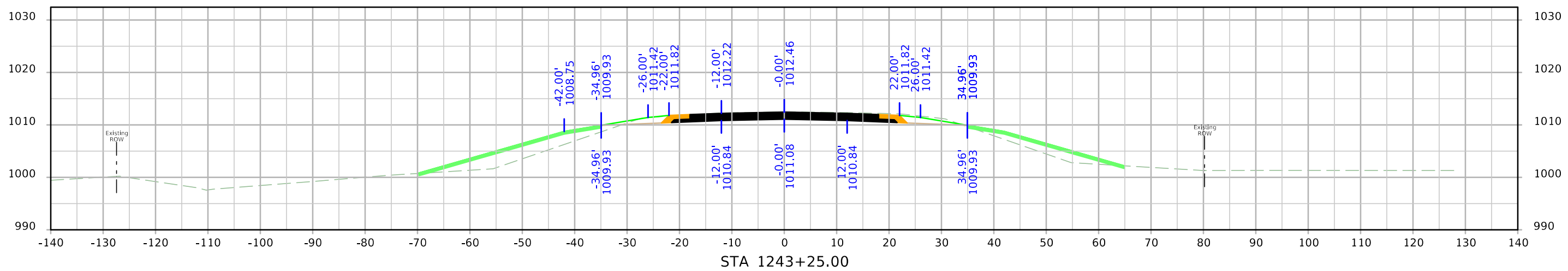
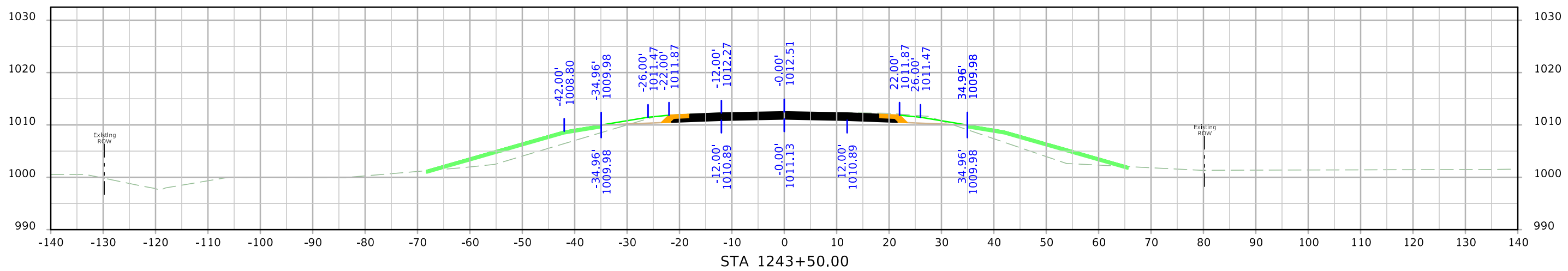
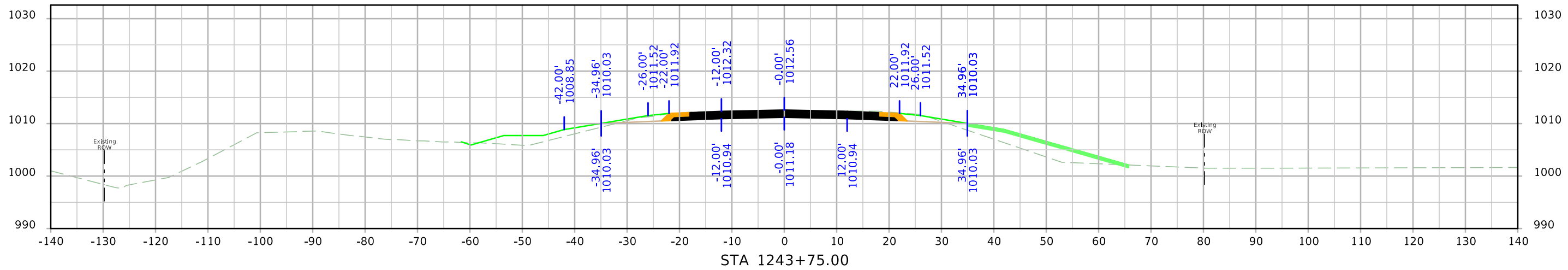
CROSS SECTIONS LEGEND AND INFORMATION SHEET

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

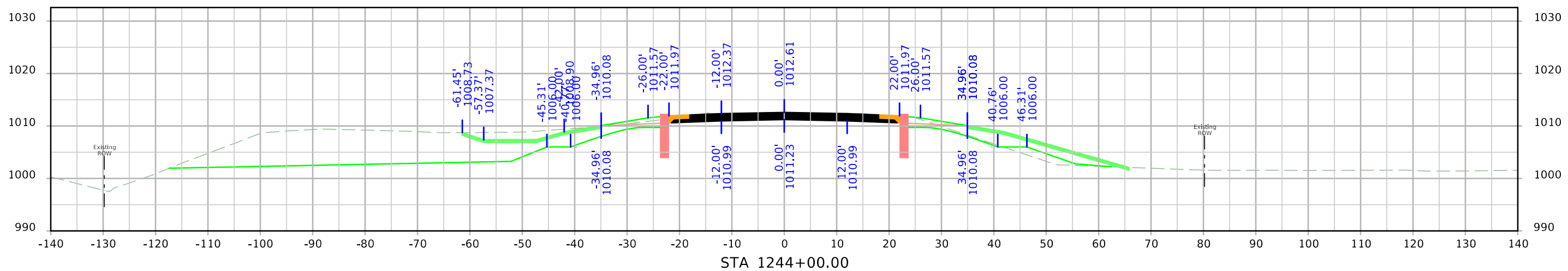
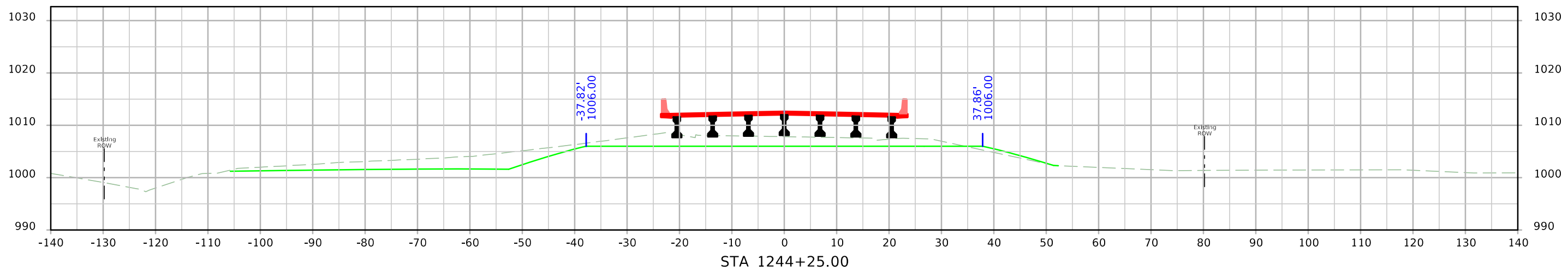
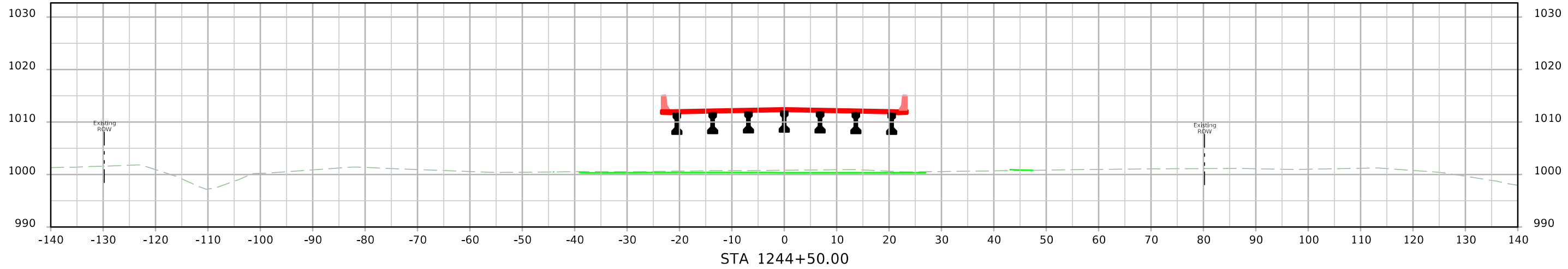
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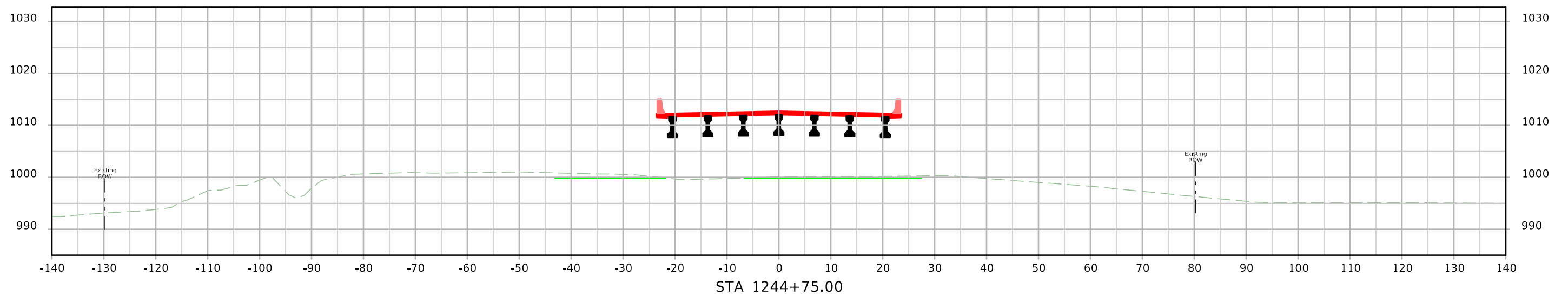
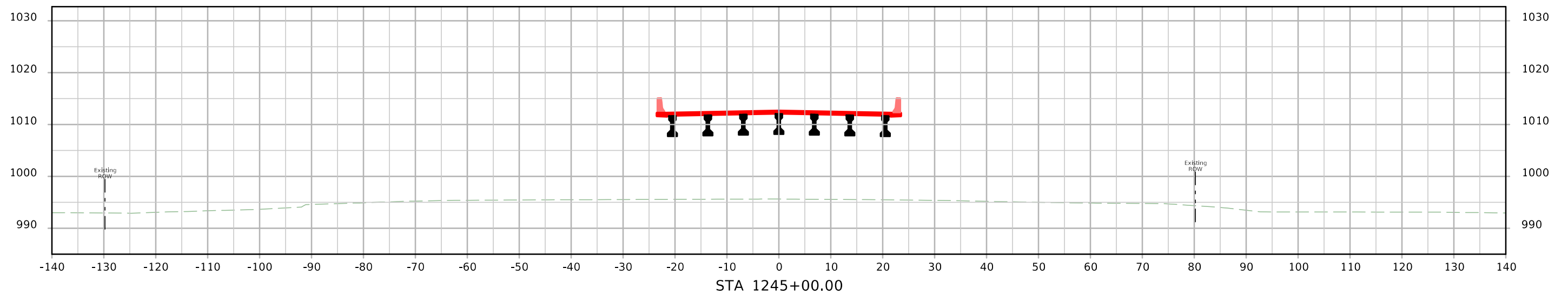
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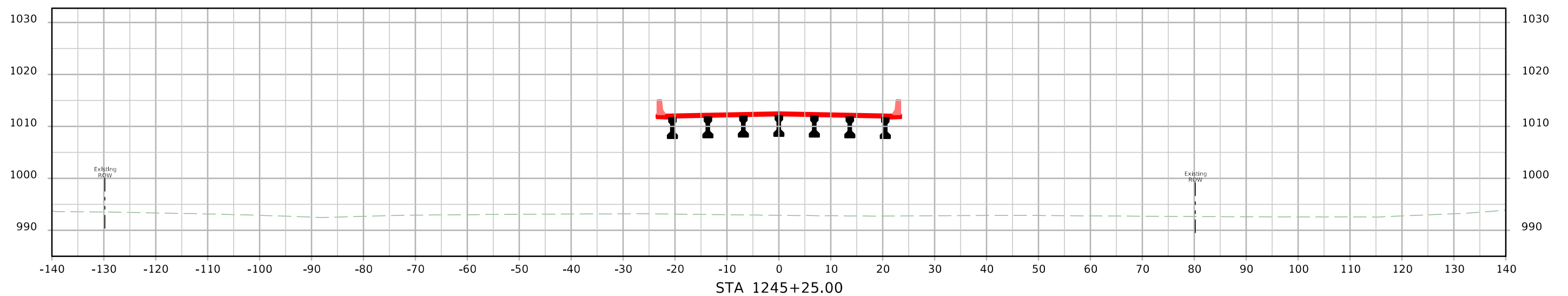
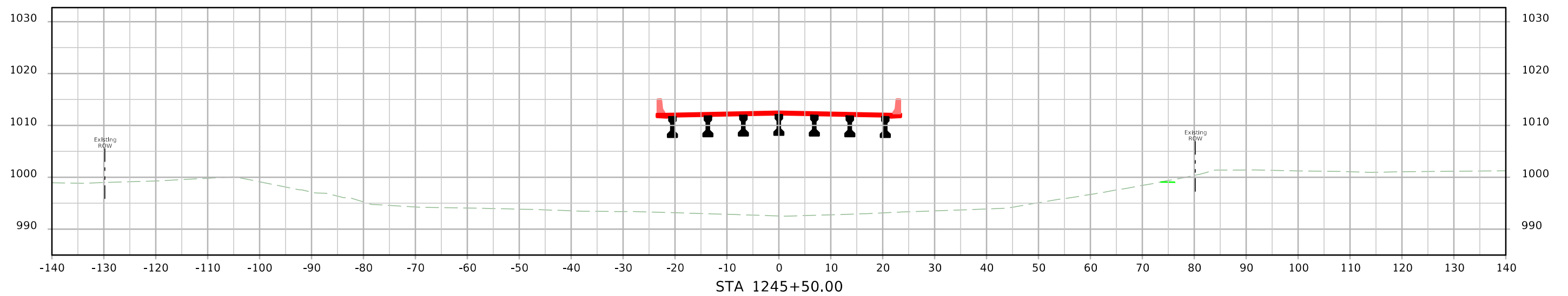
ML- US 30



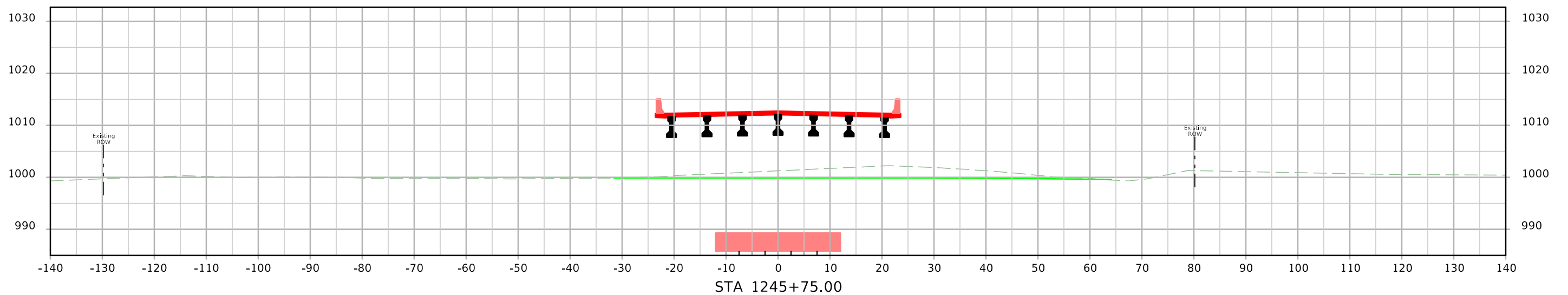
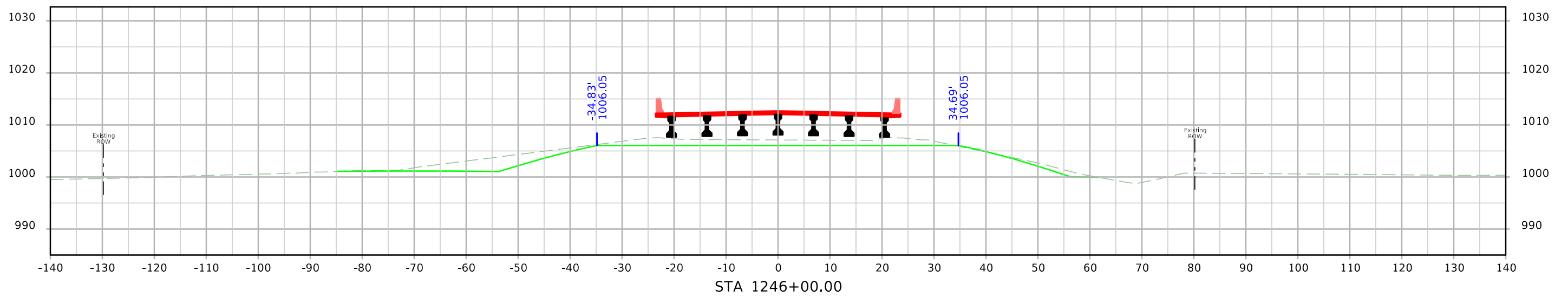
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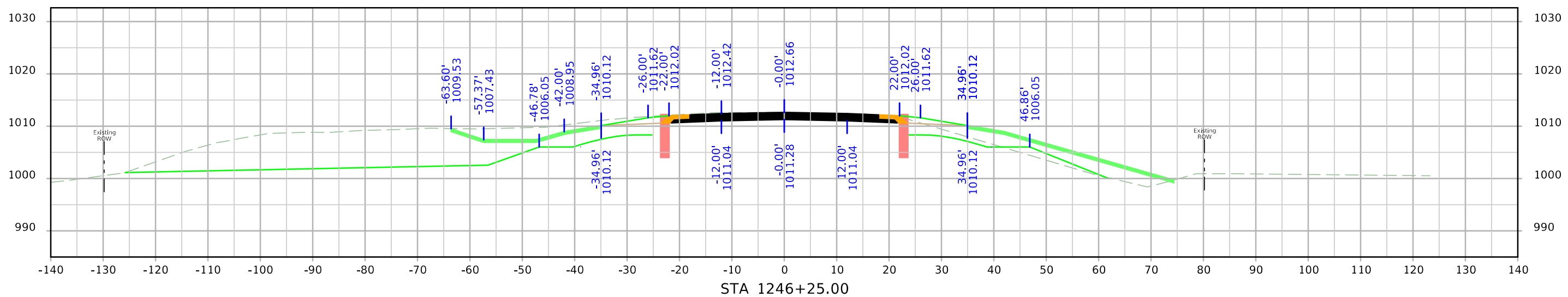
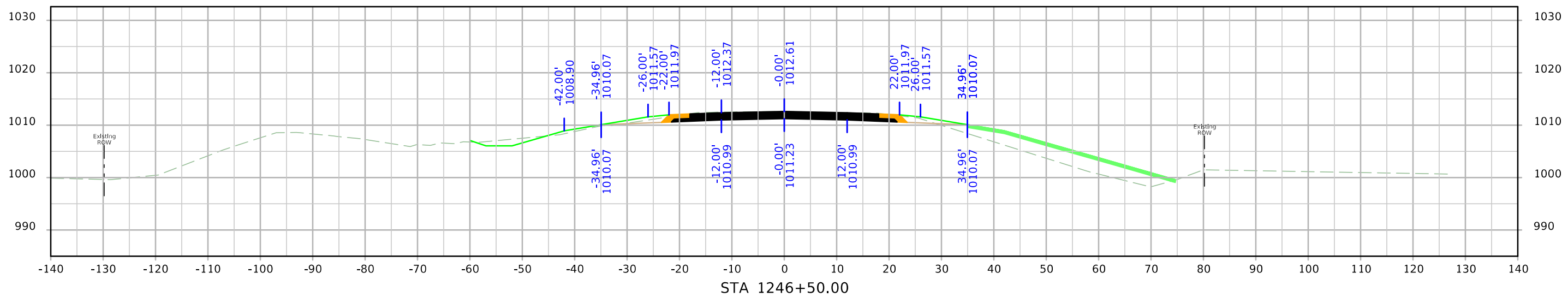
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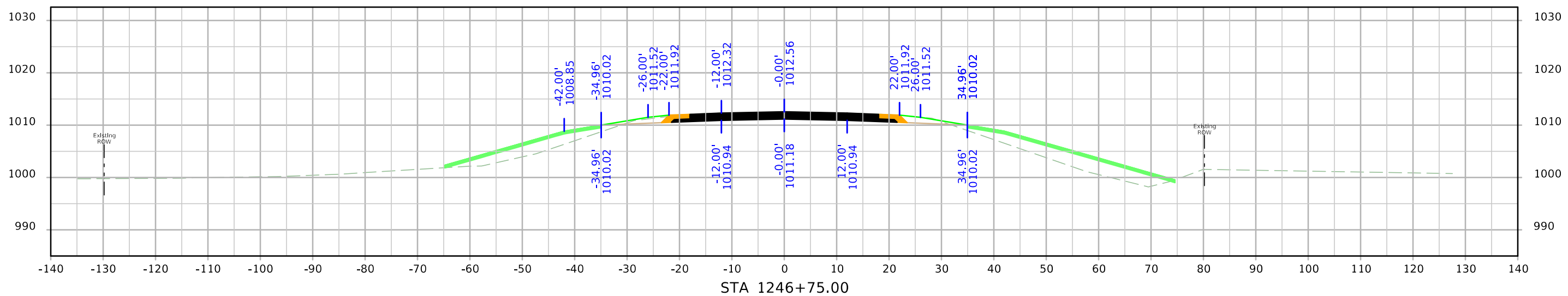
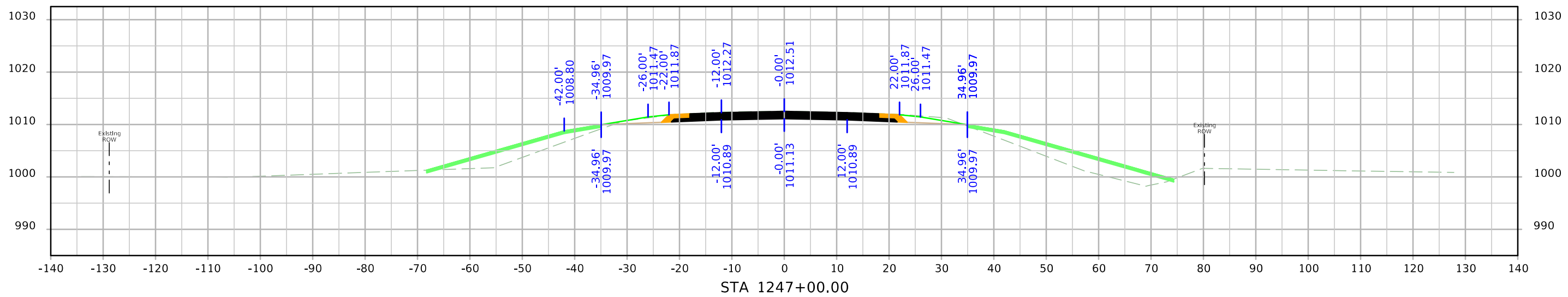
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