Bridge Replacement - CSS
BRF-136-2(043)--38-53

LETTING DATE
Jan 20 2027

JONES COUNTY

INDEX OF SHEETS	
No.	DESCRIPTION
A Sheets	**Title Sheets**
A.1	Title Sheet
B Sheets	**Typical Cross Sections and Details**
B.1 - 2	Typical Cross Sections and Details
D Sheets	**Mainline Plan and Profile Sheets**
* D.1	Plan & Profile Legend & Symbol Information Sheet
* D.2	IA 136
G Sheets	**Survey Sheets**
G.1 - 2	Reference Ties and Bench Marks
G.3	Horizontal Control Tab.
J Sheets	**Traffic Control and Staging Sheets**
* J.1	Traffic Control Plan
* J.2	Coordinated Operations
V Sheets	**Bridge and Culvert Situation Plans**
* V.1 - 2	Bridge and Culvert Situation Plans
W Sheets	**Mainline Cross Sections**
* W.1	Cross Sections Legend & Symbol Information Sheet
* W.2 - 10	Mainline Cross Sections
	* Color Plan Sheets

<-- H Sheets

IOWA DOT

REVISIONS

TOTAL
..
PROJECT IDENTIFICATION NUMBER
22-53-136-010
PROJECT NUMBER
BRF-136-2(043)--38-53
R.O.W. PROJECT NUMBER
STPN-136-2(044)--2J-53
-
-

PLANS OF PROPOSED IMPROVEMENT ON THE

PRIMARY ROAD SYSTEM

JONES COUNTY

Bridge Replacement - CSS

Mineral Creek 2.1 mi N of N Jct Co Rd E29

-

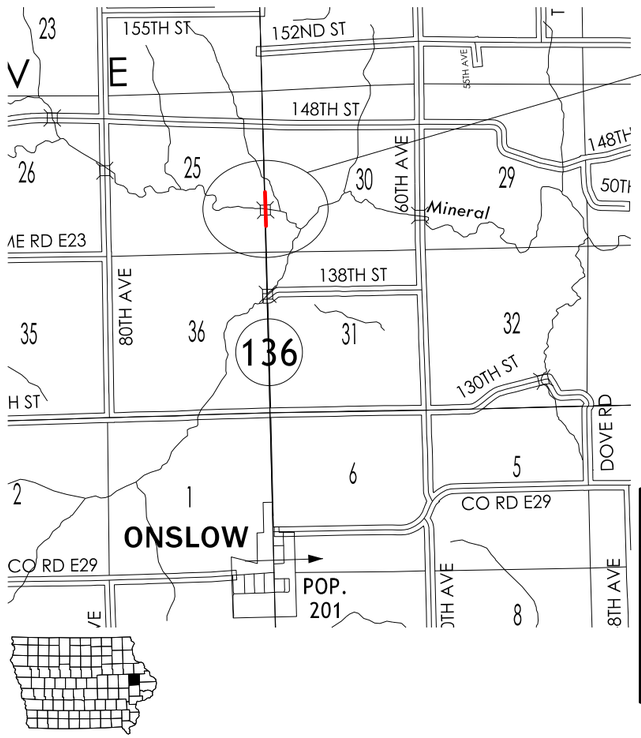
-

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

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

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



PROJECT LOCATION
FHWA # 32540
REF LOC 60.1

DESIGN DATA RURAL		
2027 AADT	700	V.P.D.
2047 AADT	900	V.P.D.
20 - DHV	-	V.P.H.
TRUCKS	23	%
Total Design ESALs	-	

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

P9 PLAN - Date: 11/05/25
D4 PLAN - Date: 9/08/26

PRELIMINARY PLANS

Subject to change by final design.

D5 PLAN - Date: 7/25/25

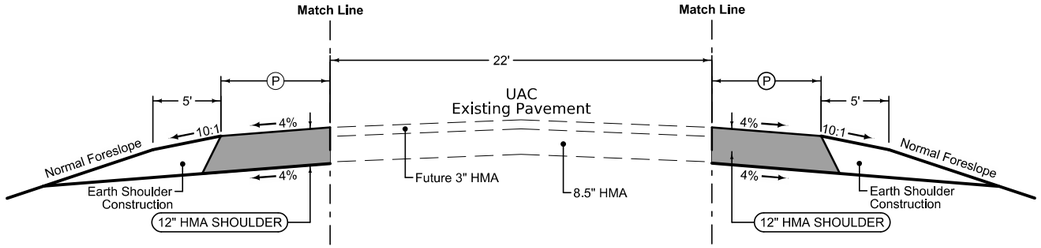
FILE NO. 32676	ENGLISH	DESIGN TEAM MILLER/SCHOENROCK/RYAN	JONES COUNTY	PROJECT NUMBER BRF-136-2(043)--38-53	SHEET NUMBER A.1

10:47:07 AM 7/25/2025 jryan3 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\5313601022\Design\CADD_Files\Sheet_Files\SHT_53136043_A01.dgn

Paved Shoulder at Guardrail

Shoulder Jointing:
Longitudinal joint: B

STATION TO STATION		2_P_FullPCC_ MODIFIED (P) Feet
292+63.50	293+16.56	Varies
296+11.43	297+01.99	Varies

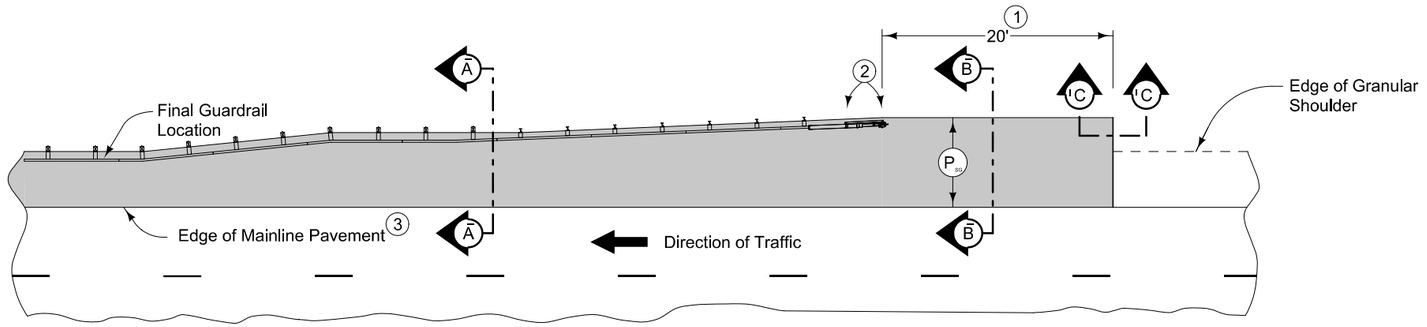


Paved Shoulder at Guardrail

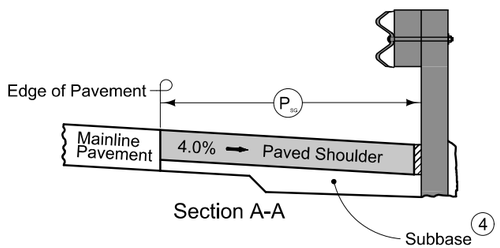
Shoulder Jointing:
Longitudinal joint: B

STATION TO STATION		2_P_FullPCC_ MODIFIED (P) Feet
292+26.00	293+16.56	Varies
296+11.43	296+64.49	Varies

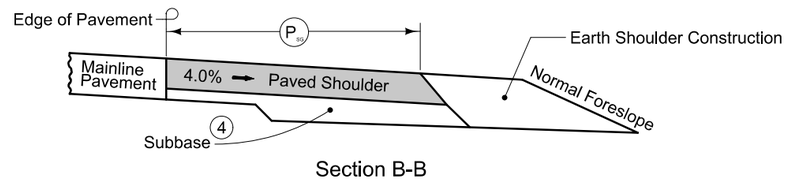
IA 136



PLAN VIEW

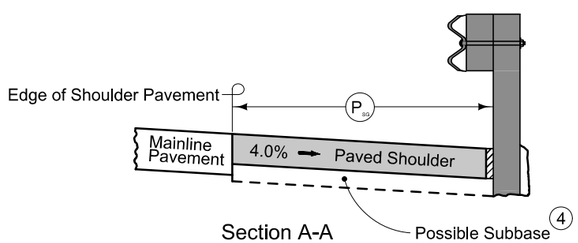


Section A-A

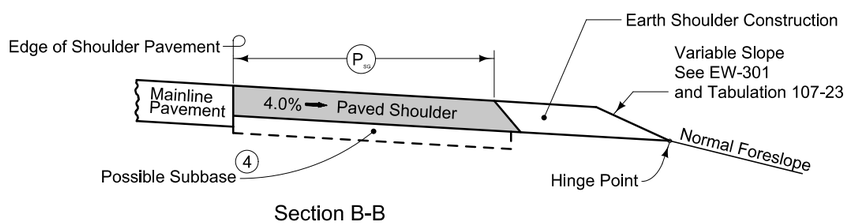


Section B-B

NEW CONSTRUCTION



Section A-A



Section B-B

EXISTING SHOULDER

DESIGNER INFO

7156 MODIFIED

12" HMA Paved Shoulder at guardrail.

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.

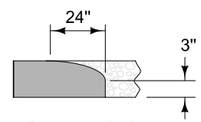
Refer to Tabulation 112-9 for shoulder quantities.

(1) Continue paved shoulder 20 feet beyond the center of the first post.

(2) Shoulder may be notched for first 2 posts or post sleeves may be installed through pavement. Do not drive posts through pavement.

(3) 'BT' joint (per PV-101) for PCC shoulder.
'B' joint (per PV-101) for HMA shoulder.

(4) Refer to other details in the plan.



Section C-C
Roll down at granular shoulder or earth.

PAVED SHOULDER AT GUARDRAIL
(GRANULAR SHOULDER ADJACENT TO MAINLINE)

SURVEY SYMBOLS

AST, Above Ground Storage Tank
BB, Billboard
BBB, Bottom of Bridge Beam
BCL, Bridge Centerline
BD, Bridge Deck
BIN, Grain Bin
BL, Topo Breakline
BLD, Building or Foundation
BLS, Bridge Low Steel
BM, Bench Mark
BNK, Stream Bank
BRG, Bridge
C, Centerline BL of Road -ML or SR
CAV, Cave
CEL, Cell Phone Tower
CIS, Cistern
CON, Concrete or A/C Slab
CP, Control Point
CRP, Corporation Line
CS, Curve Point
CU, Back of Curb
CUL, Culvert
D, Centerline Draw or Stream -Down
DAB, Drainage Area Boundary
DIK, Centerline of Dike or Dam
DTM, Photogrammetry Elv Control Check
DU, Centerline Draw or Stream -Up
EB, Electrical Box
EG, Edge of Gravel Road
ENP, Edge Paved Entrance and Park Lot
ENT, Centerline BL of Entrance
ENU, Edge Unpaved Entrance and Parking
EP, Edge of Paved Roads -ML or SR
EW, Edge of Water
FCL, Chain Link and Security Fence
FENO, FENO Monument
FHD, Fire Hydrants
FLG, Flag Poles
FP, Filler Pipe
FW, Wire Fence
FWD, Wood Fence
GDC, Guard Rail Cable
GDL, Guard Rail Steel
GP, Guard Post -Less Than 4 Posts
GPR, Guard Post -4 or More Posts
GR, Ground Shot
GRV, Grave
GU, Gutter In Front of Curb
GV, Gas Valve
HDG, Hedge Row
HS, Hydric Soil -Wetlands
HT, Electrical Highline Tower
IN, Storm Sewer Intake
INB, Storm Sewer Beehive Intake
LC, Lot Corner
LIN, Miscellaneous Line
LP, L.P. Tank
LUM, Luminaire
MH, Utility Access -Manhole
MIS, Miscellaneous
MM, Mile Marker Post
OUT, Tile Outlet
PC, Curve Point
PCP, Photo Control Point
PCT, Photo Control Target
PI, Tangent Point
PIP, Pipe Culvert
PL, Location of Photo -Wetlands
PLG, Location of General Photo
POC, Curve Point
POST, Spiral Point

PR, Electic Riser Pole
PRO, Profile Shot
PT, Curve Point
REF, Reference Tie Point
RET, Retaining Walls
RIP, Rip-Rap
ROC, Rock Outcropping
ROW, Right of Way Mark
RR, Centerline of Railroad Tracks
RRB, Railroad Signal Box
RRF, Railroad Frog
RRR, Railroad Rail
RRS, Railroad Signal
RRW, Railroad Switch
RT, Radio Tower
S, Soil Sampling Site -Wetlands
SBR, Size of Bridge
SC, Spiral Point
SCR, Section Corner
SEP, Septic Tank
SF, Silt Fence -Wetlands
SG, Staff Gauge -Wetlands
SH, Paved Shoulder
SHR, Shrub
SI, Sign
SL, Speed Limit Sign
SLN, Section Line
SLO, Silo
SNK, Sink Hole
SNP, Unpaved Shoulder
SP, Stream Profile
STP, Stump
SWK, Sidewalk
SWP, Swamp or Marsh
TA, Tower Anchor
TBO, Telephone Booth
TCB, Traffic Signal Box
TDC, Tree Deciduous
TDL, Trafic Detection Loop
TER, Terrace
TEV, Evergeen Tree
TFR, Tree Fruit
TGP, Telegraph Pole
TIL, Tile Line
TLNL, Tree Line Left
TLNR, Tree Line Right
TOP, Top of Bridge Pier
TPA, Telephone Pole Co. 1
TPB, Telephone Pole Co. 2
TPC, Telephone Pole Co. 3
TR, Telephone Riser Pole
TRL, Trail
TS, Spiral Point
TSB, Telephone Switch Box
TSG, Traffic Signal
TSL, Traffic Signal and Luminare
TV, Satelite TV Dish
TVP, TV Pedestal
TW, Top of Water
UB, Utility Box
UE, Utility Elevation
UPH, Utility Pot Hole - Quality A
UST, Underground Tank
UV, Underground Utility Vault
VS, Channel Cross Section
WC, Wild Card -Misc. Field Shot
WEL, Well
WHD, Water Hydrant
WHU, RV Water Hook Up
WM, Wind Mill
WND, Wind Turbine
WV, Water Valve

UTILITY LEGEND

T1

TL1D, Onslow Coop Telephone Assn. - Quality D
Russ Benke
563-485-2833
onslow@netins.net

FO

FO1D, Fiber Optic Co. 1 - Quality D

PPA, Maquoketa Valley Electric Coop
Nic Schulte
319-462-3542
Nschulte@mvec.com

CIPCO (Electric Transmission)
Adam Clymer
319-734-4323
adam-clymer@cipco.net

PLAN VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

LINEWORK	Design Color No.	
Green	(2)	Existing Topographic Features and Labels
Blue	(1)	Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation
Magenta	(5)	Existing Utilities

SHADING	Design Color No.		Transparency
Pink, Dark	(13)	Temporary Pavement Shading	50%
Yellow	(4)	Proposed Pavement Shading	50%
Orange	(6)	Proposed Granular Shading	50%
Orange	(70)	Proposed Shoulder Granular Shading	50%
Yellow	(68)	Proposed Shoulder Paved Full Depth Shading	50%
Yellow	(132)	Proposed Shoulder Paved Partial Depth Shading	50%
Brown, Light	(236)	Grading Shading	50%
Orange, Light	(134)	Proposed Granular Entrance Shading	50%
Yellow	(220)	Proposed Paved Entrance Shading	50%
Tan	(8)	Proposed Sidewalk Shading	50%
Blue, Light	(230)	Proposed Sidewalk Landing Shading	50%
Pink	(11)	Proposed Sidewalk Ramp Shading	50%
Red	(3)	Proposed Structure Shading	50%
Red	(3)	Delineates Restricted Areas	0%

PROFILE VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

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

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

RIGHT-OF-WAY LEGEND

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

PLAN AND PROFILE LEGEND AND SYMBOL INFORMATION SHEET

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

Scotch Grove TWP.
T-85N R-2W
SEC. 25

Clay TWP.
T-85N R-1W
SEC. 30

LEASED BY HARM HARMS
Jan. 16, 1961
Book 161, Page 627

STA 293+16.56 (ML136)
BEGIN BRIDGE APPROACH

STA 296+11.43 (ML136)
END BRIDGE APPROACH

STA 297+48.62 (ML136)
END PROJECT

STA 291+78.15 (ML136)
BEGIN PROJECT

Mineral Creek

(UAC)

(UAC)
18"x59.1'
C.M.P.

(UAC)
16"x23'
C.M.P.

IA 136

(REMOVE)
Sta. 294+64
125'x26'
Continuous Concrete Slab Bridge
D.A.= 24 sq. mi. - R (Plan)

Sta. 294+64
Build 150'x40'
Continuous Concrete Slab Bridge
Design No. 0327

0 50 FEET

IA 136

Future 3" HMA

BEGIN PROJECT
STA 291+78.15

BEGIN BRIDGE APPROACH
STA 293+16.56
EL 830.54

VPI = +01.98
EL = 831.00
L = 200.00'
K = 301

+0.25%

-0.42%

END BRIDGE APPROACH
STA 296+11.43
EL 830.55

END PROJECT
STA 297+48.62

Future 3" HMA

-0.59% RT Ditch Grade

RT +78
816.93

RT +84
815.71

830.54 830.56 830.63 830.69 830.75 830.80 830.84 830.85 830.84 830.81 830.76 830.69 830.59 830.55

287+00 288+00 289+00 290+00 291+00 292+00 293+00 294+00 295+00 296+00 297+00 298+00 299+00 300+00 301+00

845 840 835 830 825 820 815 810 805 800

FILE NO. 32676	ENGLISH	DESIGN TEAM MILLER/SCHOENROCK/RYAN	JONES COUNTY	PROJECT NUMBER BRF-136-2(043)--38-53	SHEET NUMBER D.2

10:38:13 AM 7/25/2025 jryan3 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\5313601022\Design\CADD_Files\Sheet_Files\SHT_53136043_D01.dgn

SURVEY INDEX

Jones County
BRF-136-2(43)--38-53
Mineral Creek 2.1 mi N of N Jct Co Rd E29
PIN: 22-53-136-010
Type of Work: Bridge Unspecified
Project Directory: 5313601022

Survey Personnel

Myron Fox – Survey Party Chief
Samuel Schilb – Assistant Survey Party Chief

Date(s) of Survey

Begin Date	03/28/2024
End Date	05/20/2024

General Information

This survey is for the bridge over Mineral Creek on Hwy 136. This survey request was for the 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

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

PROJECT DATUM: NAD83(2011) for EPOCH 2010.00 (IaRTN 2019 ADJUSTMENT)
COORDINATE SYSTEM: IOWA REGIONAL COORDINATE SYSTEM ZONE 10 (U.S. SURVEY FOOT)
VERTICAL DATUM: NAVD88
GEOID MODEL: 2018u3

Alignment Information

The Alignments for this project were provided by the District Land Surveyors Office

CONTROL POINT VICINITY MAP

This map is a guide to the vicinity of the primary project control points. Primary control is for use with RTK base stations and for RTN validation. Future surveys will use primary project control to establish temporary control as needed for construction or other surveying applications.

HORIZ. DATUM: NAD83(2011) for EPOCH 2010.00 (IaRTN 2019 Adjustment) - Iowa RCS Zone 10 (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 10 (U.S. Survey Foot)
VERT. DATUM: NAVD88
Geoid Model: 2018u3

Point Name	Northing	Easting	Elevation	Code Description
300	8109427.37	20677020.12	831.68	CP Set FENO monument from the intersection of Hwy 136 and 138th St proceed NE 62' point is 24' NW of CL of 138th St 4" below surface
54	8104855.10	20677065.67	896.12	CP Jones County Contol Monument FND as Described
301	8115058.26	20677002.68	851.82	CP Set 5/8th" x 42" rebar from the intersection of Hwy 136 and 148th St proceed S 85' point is 63' W of CL of Hwy 136 4" below surface

NO ACCESS RIGHTS ARE TO BE ACQUIRED ON THIS PROJECT.

FILE NO.	ENGLISH	DESIGN TEAM	IOWA DOT * OFFICE OF ROW	COUNTY	PROJECT NUMBER	SHEET NUMBER	

Scotch Grove TWP.
T-85N R-2W
SEC. 25

2

HARMS FAMILY TRUST

TEMPORARY EASEMENT FOR
UTILITY PURPOSES

STA: 293+75.00
OFF: 150.00' LT

LEASED BY HARM HARMS
Jan. 16, 1961
Book 161, Page 627

STA: 296+20.00
OFF: 150.00' LT

STA: 291+10.10
OFF: 60.01' LT

STA 293+16.56 (ML136)
BEGIN BRIDGE APPROACH

STA 296+11.43 (ML136)
END BRIDGE APPROACH

STA 297+48.62 (ML136)
END PROJECT

STA: 299+30.00
OFF: 60.06' LT

290+00

295+00

300+00

Mineral Creek

(UAC)

IA 136

(UAC)

(UAC)

(UAC)

(UAC)

(UAC)

(REMOVE)
Sta. 294+64
125'x26'
Continuous Concrete Slab Bridge
3,250 sq. ft. - R (Hist.)

STA: 294+90.00
OFF: 59.97' RT

Sta. 294+64
Build 150'x40'
Continuous Concrete Slab Bridge
Design No. 0327

STA: 294+80.00
OFF: 103.00' RT

STA: 293+88.37
OFF: 103.00' RT

STA 291+78.15 (ML136)
BEGIN PROJECT

STA: 291+50.00
OFF: 59.98' RT

STA: 292+00.00
OFF: 90.00' RT

Clay TWP.
T-85N R-1W
SEC. 30

1

GLENN E & CYNTHIA A LANPHER

2

HARMS FAMILY TRUST

IA 136

0 50
FEET

Right of Way Design Information
THIS SHEET INCLUDED
FOR INFORMATION ONLY

ROW Team: FREDRICKSON / CUVA
ROW #: STPN-136-2(044)--2J-53
Plan Date: 09/23/2025
Color Legend:
Property Lines
Temporary Easement
Permanent Acquisition
Permanent Acquisition County
Permanent Acquisition City

FILE NO. 32676	ENGLISH	DESIGN TEAM MILLER/SCHOENROCK/RYAN	JONES COUNTY	PROJECT NUMBER BRF-136-2(043)--38-53	SHEET NUMBER H.1	

1:32:22 PM 9/23/2025 afredri pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\5313601022\ROW\ROW_53136044.dgn

108_23A
8/15/22

TRAFFIC CONTROL PLAN

Traffic on IA 136 will be maintained at all times via an offsite detour.

COORDINATED OPERATIONS

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

Project	Type of Work
BRF-136-2(38)--38-53	Bridge Deck Replacement

Control Point: CP300, N 8109427.37, E 20677020.12, CP Set FENO Monument From the Intersection of Hwy 136 and 138th St Proceed NE 62'. Point Is 24' NW of CL of 138th St 4" Below Surface. Elev. = 831.68

General Notes:
This Design Is for the Replacement of the Existing 125' x 26' Continuous Concrete Slab Bridge, Jones Design No. 1253, FHWA No. 032540, Maint. No. 5360.1S136.

Top of Bridge Slab at Centerline Roadway is 0.03' Below the Profile Grade to Account for Deck Cross Slope and Parabolic Crown.

Design Notes:
See Design Sheet No. 3 for Staging Sequence Details.

Standard Bridge Index No. J40. Verify Abutment, Wingwall, and End Barrier Geometries after Standard J40 Is Updated to the CONNECT Version.

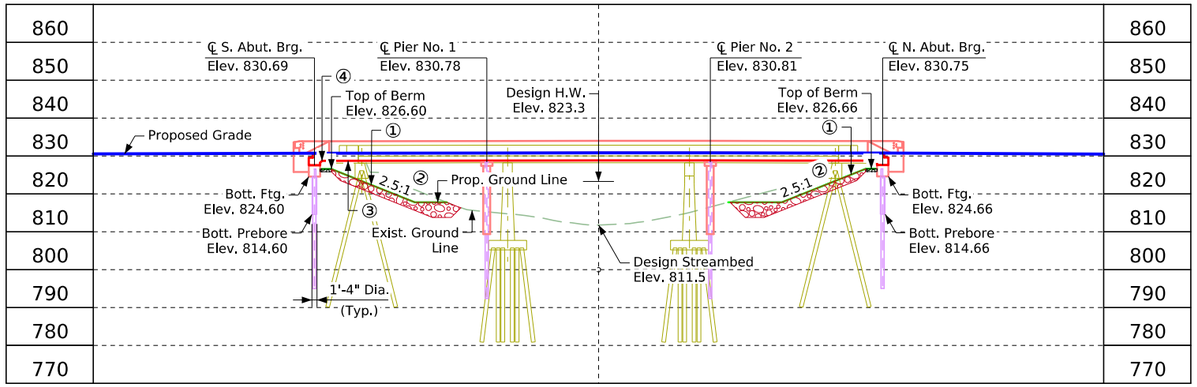
TL-4 Single Slope Bridge Railing Proposed.

Pier Type - Fully Encased Pile Bent with an Assumed Cap Width of 3'-0" and Encasement Thickness of 2".

Final Design Shall Consider the Need for Temporary Shoring to Accommodate Staging of Bridge Construction and Include in the Final Plans as Necessary.

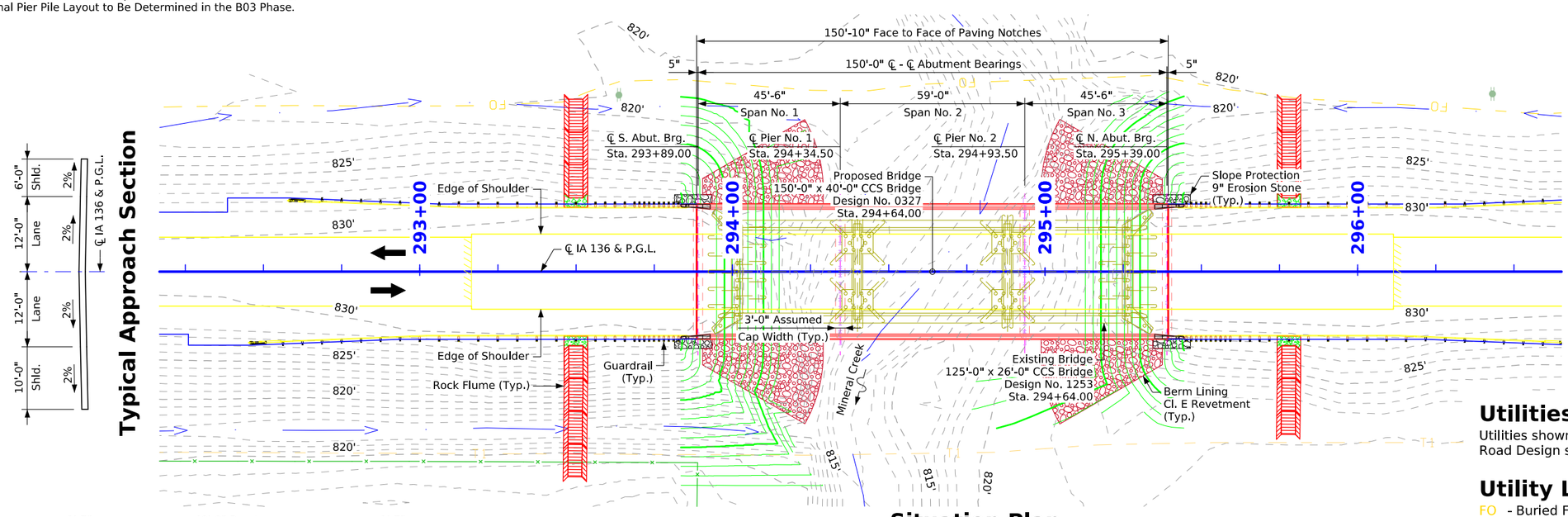
Class E Revetment Stone Is Embedded.

There Is a Potential for Conflicts With Existing Battered Timber Piles Near the Piers. The Proposed Piles May Be Spaced to Maintain a Clearance That is the Larger of 2.5 Feet or 2.5 Times the Proposed Pile Size Per BDM 6.1.7.1. Final Pier Pile Layout to Be Determined in the B03 Phase.



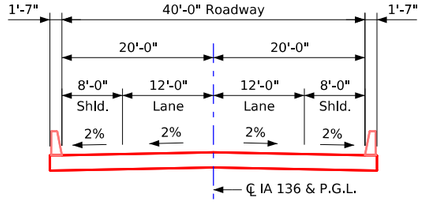
① Class E Revetment (Embedded)
② Berm Slope Normal to ℄ Abutment
③ Channel Low Chord
④ Operational Low Chord

Longitudinal Section Along ℄ IA 136



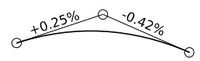
Situation Plan

Typical Approach Section



Typical Bridge Section
(Looking North)

VPI Sta. = 295+01.98
VPI Elev. = 831.00
VC = 200.00'



VPC Sta. = 294+01.98
VPC Elev. = 830.75
VPT Sta. = 296+01.98
VPT Elev. = 830.58

Profile Grade on ℄ IA 136 & P.G.L.

IA 136 Traffic Estimate

2027 AADT	700 V.P.D.
2047 AADT	900 V.P.D.
2047 DHV	90 V.P.H.
Trucks	23%
Total Design ESALs	???

Hydraulic Data

RIDB: ""MineralC_Jack_19.02"
Drainage Area = 24.3 Sq. Mi.
Stream Slope (HGL) = 7.9 Ft./Mi.
Avg. Low Water Stage = ???.?

Q_{50} = 5,730 cfs
Stage = 823.3
Channel Low Chord = 828.3
Avg. Bridge Velocity = 9.8 fps

Q_{100} = 6,740 cfs
Stage = 824.1
Operational Low Chord = 828.3
Backwater = 3.1 Ft.
Avg. Bridge Velocity = 9.7 fps

Q_{200} = 8,700 cfs
Stage = 824.3
Calculated Design Scour = Elev. 796.3

Q_{500} = 9,470 cfs
Stage = 825.7
Avg. Bridge Velocity = 10.1 fps
Calculated Check Scour = ???.?

Utilities Note:

Utilities shown on this sheet are for information only. See Road Design sheets for utility information.

Utility Legend:

FO - Buried Fiber Optic, Maquoketa Valley Electric Coop
T1 - Buried Tele. Cable, Onslow Coop Telephone Assn.
- Power Pole, Maquoketa Valley Electric Coop

Hydraulic Design

LICENSED PROFESSIONAL ENGINEER
Spencer Kelly
P29157
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.

XX-XX-XXXX
Signature Date
Spencer Kelly
Printed or Typed Name
My license renewal date is December 31, 2025
Pages or sheets covered by this seal: Sheets V.1 and V.2

N

0 20
Scale In Feet

Location

IA 136 Over Mineral Creek
T-85N R-1W & R-2W
Section 25 & Section 30
Scotch Grove & Clay Townships
Jones County
FHWA No. 032541
Bridge Maint. No. 5360.1S136
Latitude 42.139503°
Longitude -91.014207°

Design For 0° Skew
150'-0" x 40'-0" Continuous Concrete Slab Bridge
45'-6" End Spans 59'-0" Interior Span
Situation Plan
STA. 294+64.00 (IA 136) May 2025
Jones County
IOWA DEPARTMENT OF TRANSPORTATION
Design No. 0327 Design Sheet No. 1 of 3 FHWA No. 032541

FILE NO. 32676	ENGLISH	DESIGN TEAM Jacobs	Jones COUNTY	PROJECT NUMBER BRF-136-2(043)--38-53	SHEET NUMBER V.1

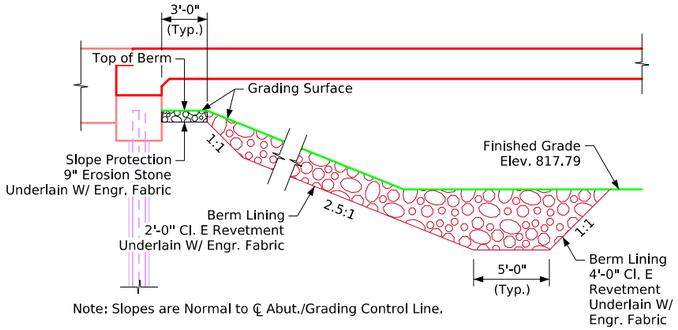
10:10:48 PM 4/30/2025 saaveddj pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5313601022\Bridge\(43)_Bridge-Unspecified\SHT_53136043_JACOBS_0327_032541_Z10.dgn

Control Point: CP300, N 8109427.37, E 20677020.12, CP Set FENO Monument From the Intersection of Hwy 136 and 138th St Proceed NE 62'. Point Is 24' NW of CL of 138th St 4" Below Surface. Elev. = 831.68

Berm Slope Location Table

Points	South Abutment			North Abutment		
	Station	Offset	Elev.	Station	Offset	Elev.
A1	294+15.50	24.58' Lt.	817.79	295+12.38	24.58' Lt.	817.79
A2	294+15.50	24.58' Rt.	817.79	295+12.38	24.58' Rt.	817.79
B1	293+93.50	24.58' Lt.	826.60	295+34.50	24.58' Lt.	826.66
B2	293+93.50	24.58' Rt.	826.60	295+34.50	24.58' Rt.	826.66
W1	293+83.50	24.58' Lt.	830.15	295+44.50	24.58' Lt.	830.22
W2	293+83.50	24.58' Rt.	830.15	295+44.50	24.58' Rt.	830.22

Berm slope elevations reflect the grading surface.



Note: Slopes are Normal to ℄ Abut./Grading Control Line.

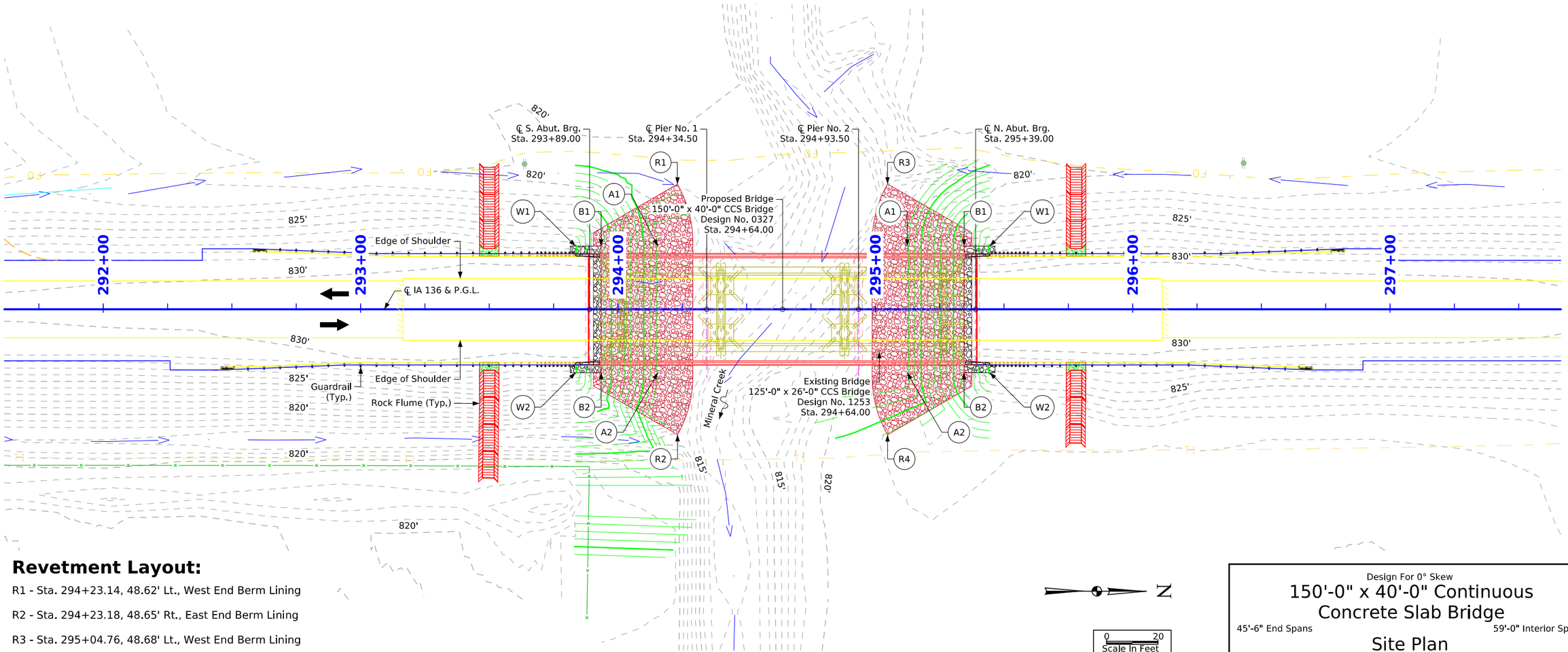
Revetment Quantities

Location	Revetment CL. E (Ton)	Erosion Stone (Ton)	Engineering Fabric (SY)	CL. 10 Channel Excavation (CY)
Berm Lining - South	507.7	-	336.8	317.3
Berm Lining - North	509.4	-	338.2	318.4
Stone Protection - South	-	9.4	23.4	5.9
Stone Protection - North	-	9.4	23.4	5.9
Totals	1017.1	18.8	721.8	647.4

Excavation quantity calculated from grading surface. Excavation quantity is for embedded revetment core out only, and does not include excavation to the grading surface. Excavation quantity to the grading surface is determined by Road Design and included in the Road Plans.

Revetment and erosion stone estimated at 1.6 Ton/CY.

Section Through Berm Lining (Embedded)



Revetment Layout:

R1 - Sta. 294+23.14, 48.62' Lt., West End Berm Lining

R2 - Sta. 294+23.18, 48.65' Rt., East End Berm Lining

R3 - Sta. 295+04.76, 48.68' Lt., West End Berm Lining

R4 - Sta. 295+04.76, 48.68' Rt., East End Berm Lining

N

0 20
Scale In Feet

Site Plan

Design For 0° Skew

150'-0" x 40'-0" Continuous Concrete Slab Bridge

45'-6" End Spans 59'-0" Interior Span

Site Plan

STA. 294+64.00 (IA 136) May 2025

Jones County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. 0327 Design Sheet No. 2 of 3 FHWA No. 032541

FILE NO. 32676	ENGLISH	DESIGN TEAM Jacobs	Jones COUNTY	PROJECT NUMBER BRF-136-2(043)--38-53	SHEET NUMBER V.2

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CROSS SECTION VIEW COLOR LEGEND

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

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

NOTES:

Text

NOTES:

Text

CROSS SECTIONS
LEGEND AND INFORMATION SHEET

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

FILE NO. 32676	ENGLISH	DESIGN TEAM MILLER/SCHOENROCK/RYAN	JONES COUNTY	PROJECT NUMBER BRF-136-2(043)--38-53	SHEET NUMBER W.1

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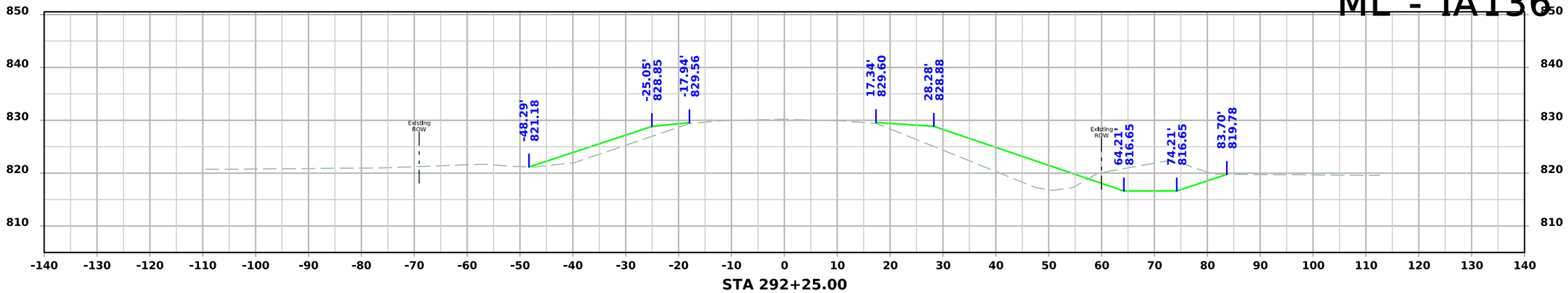
ML - IA136



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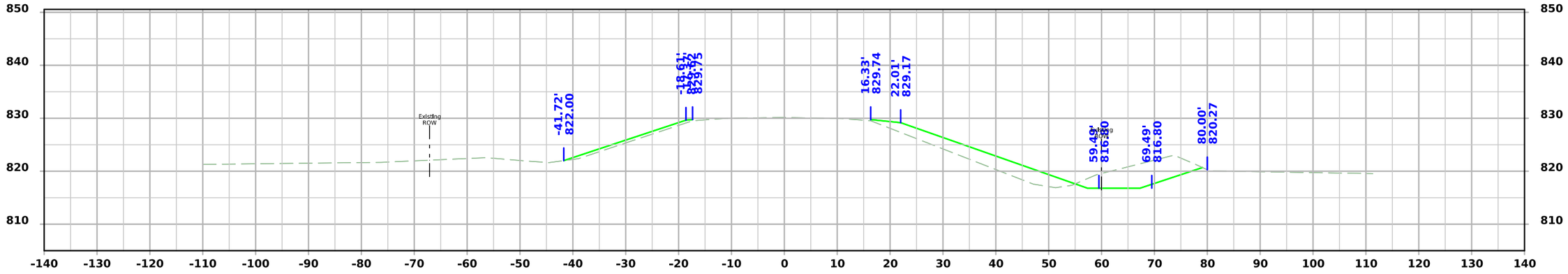

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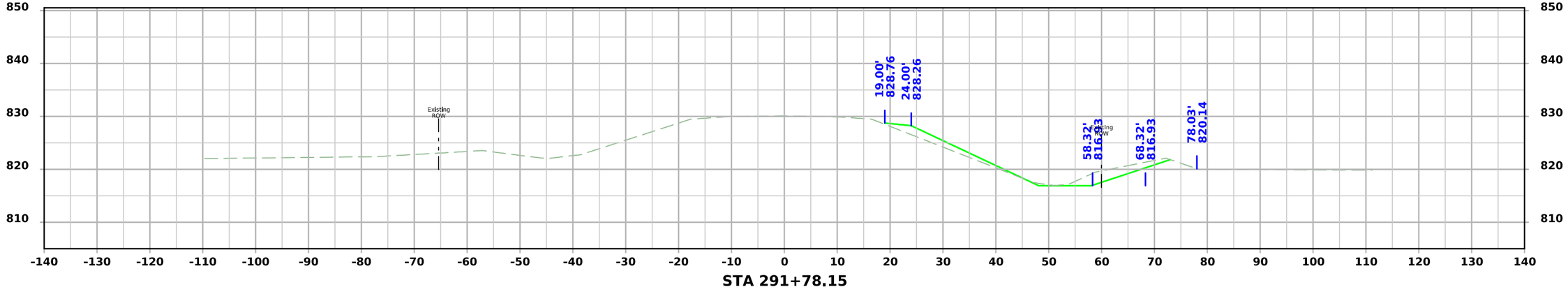

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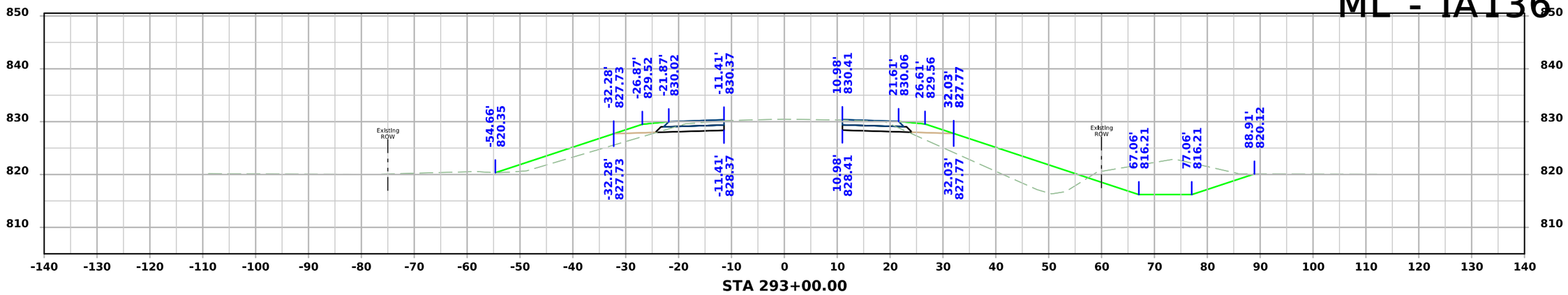

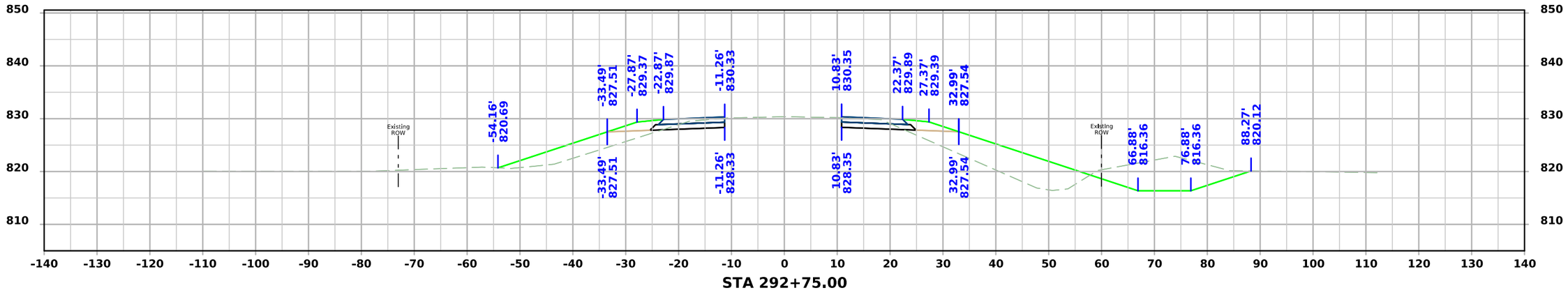

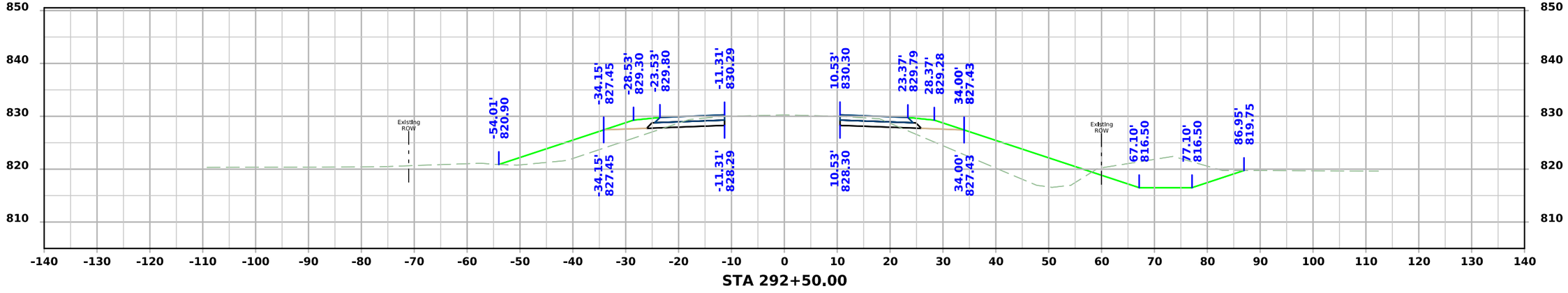

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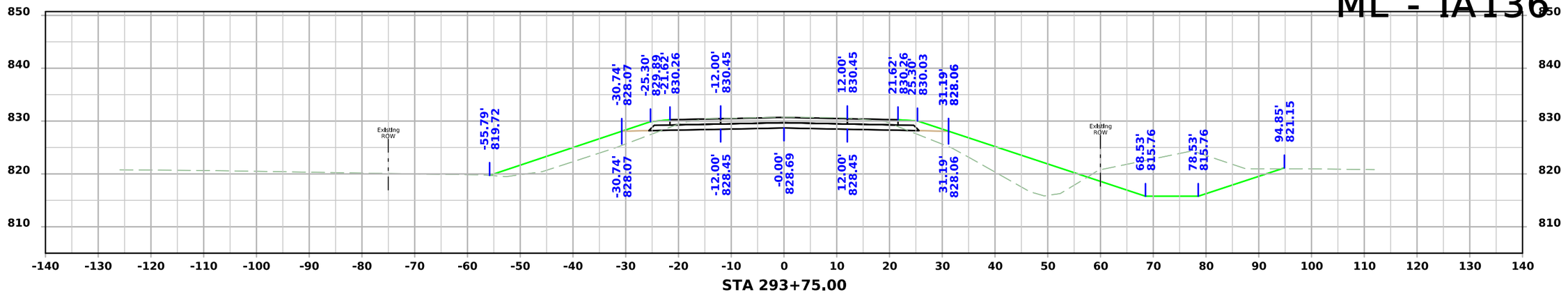

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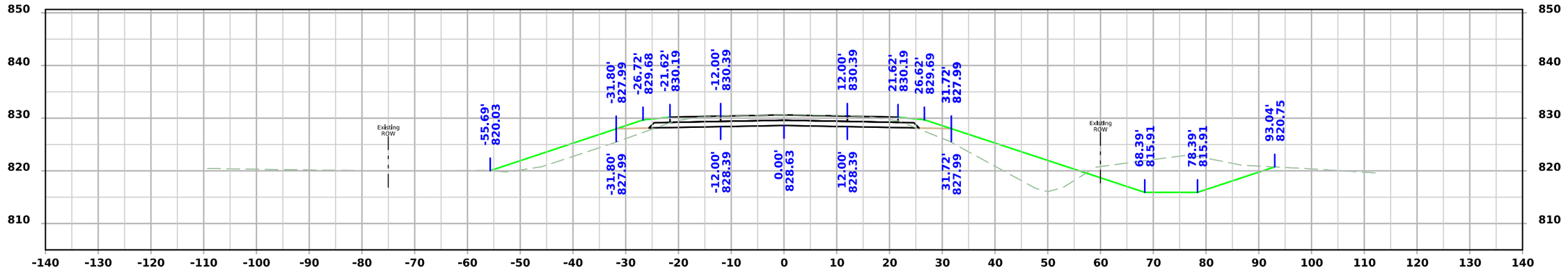

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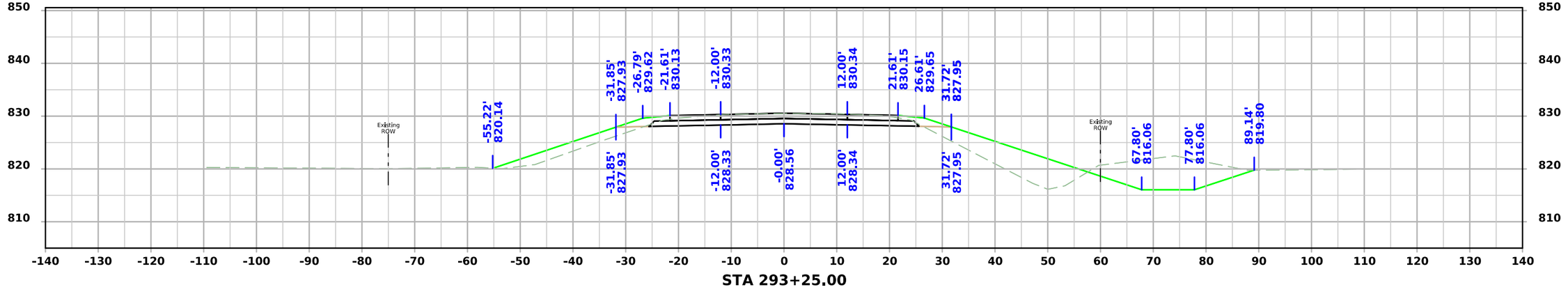

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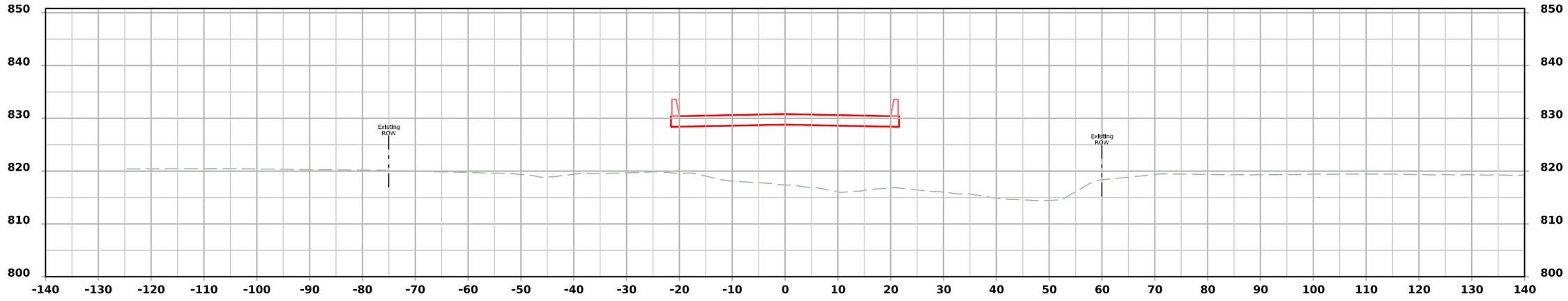

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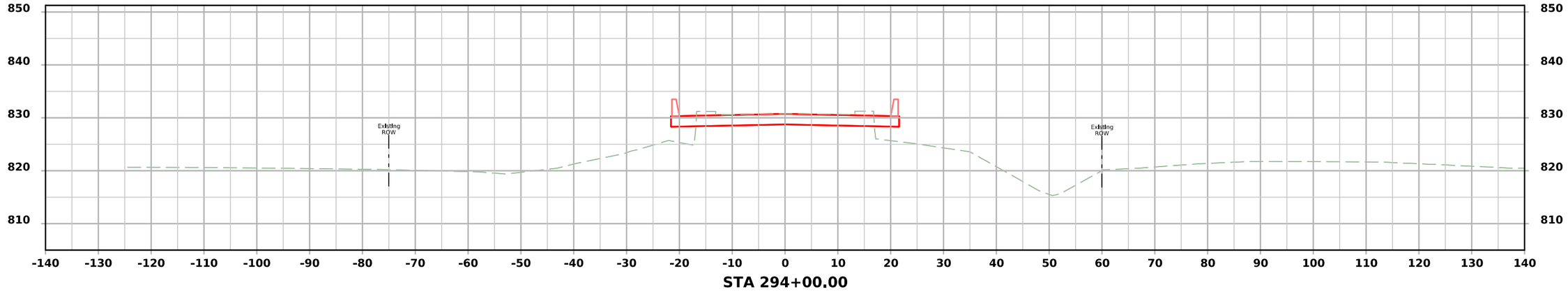

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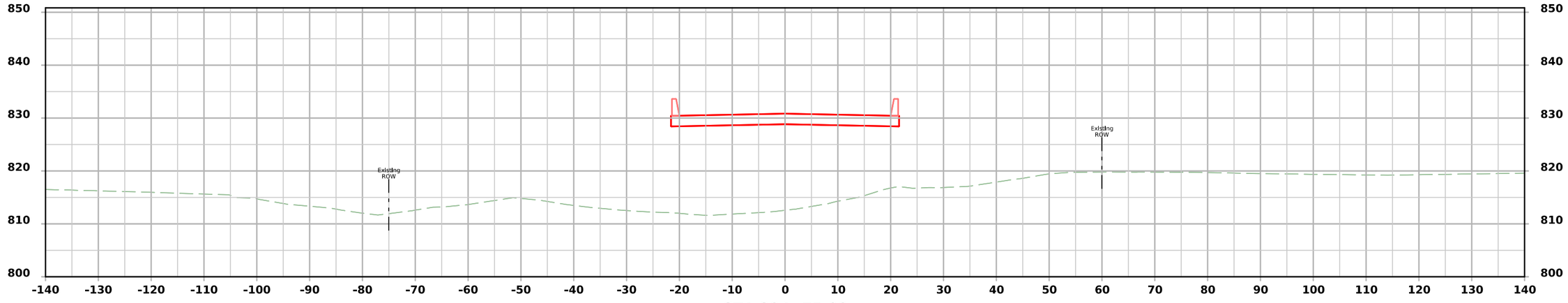

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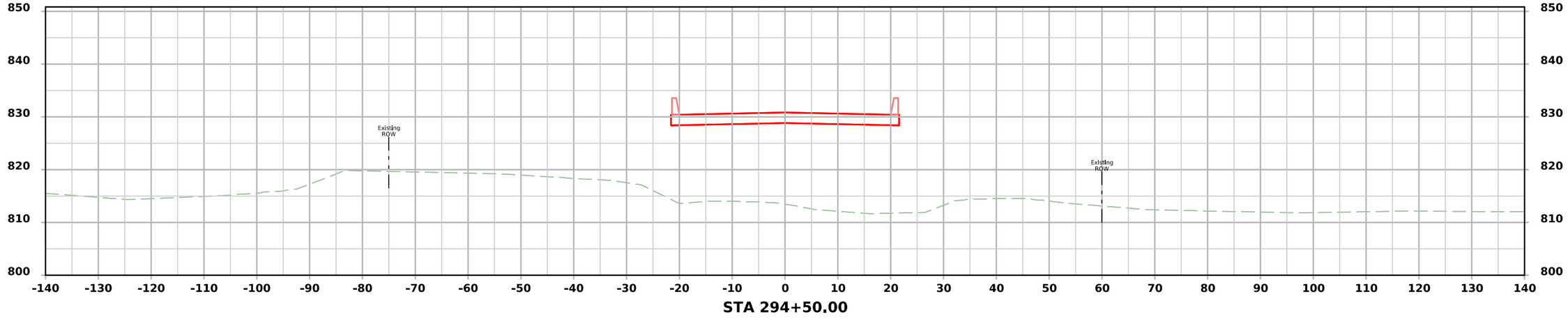

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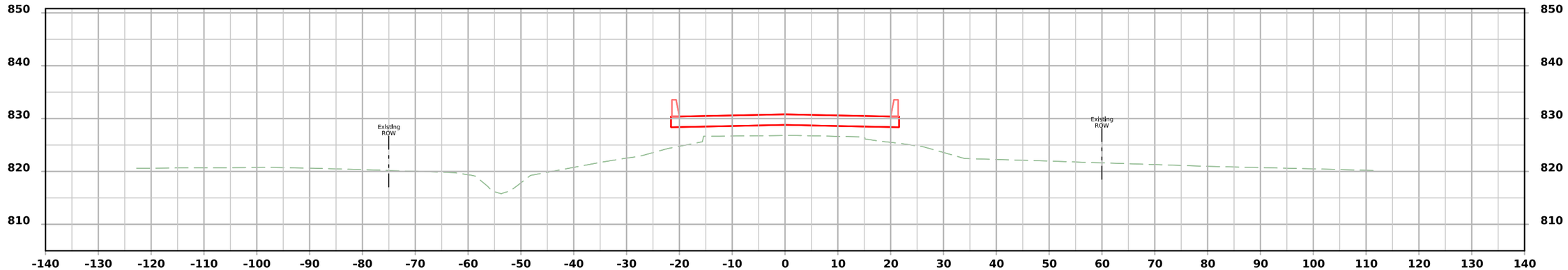

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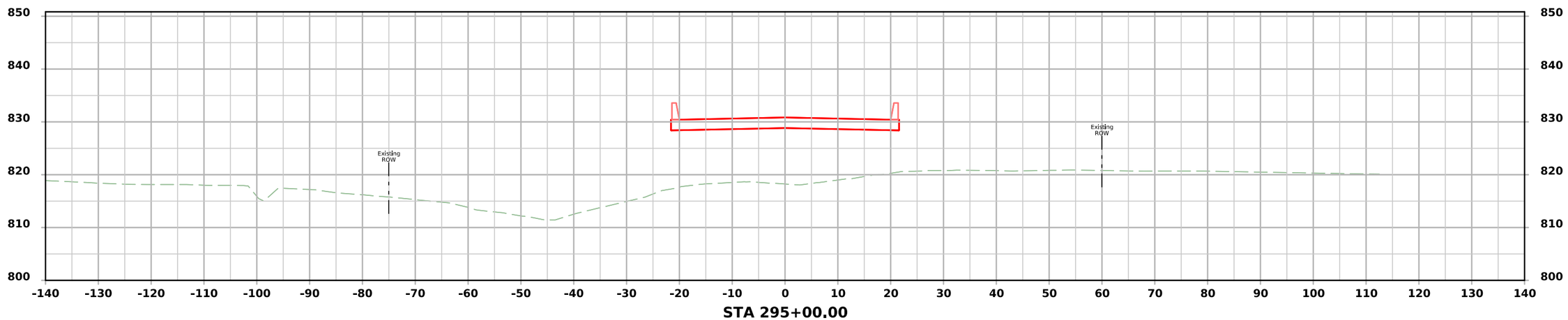

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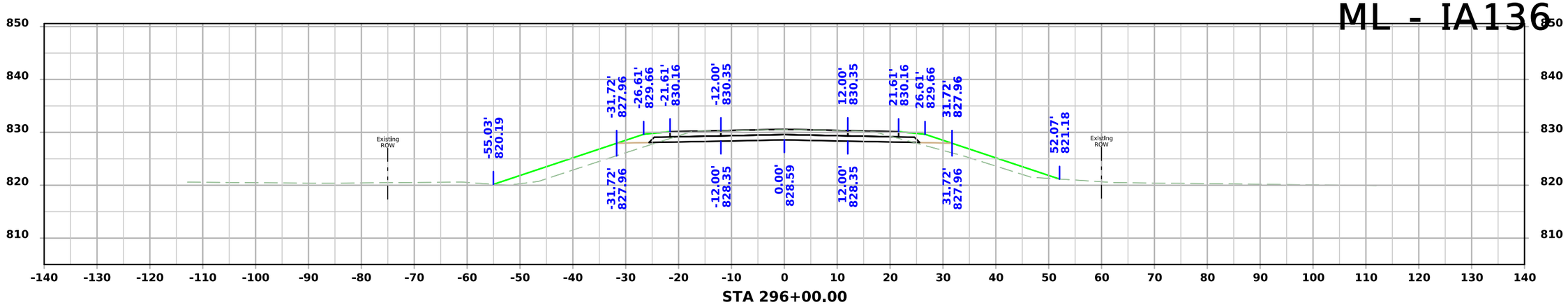

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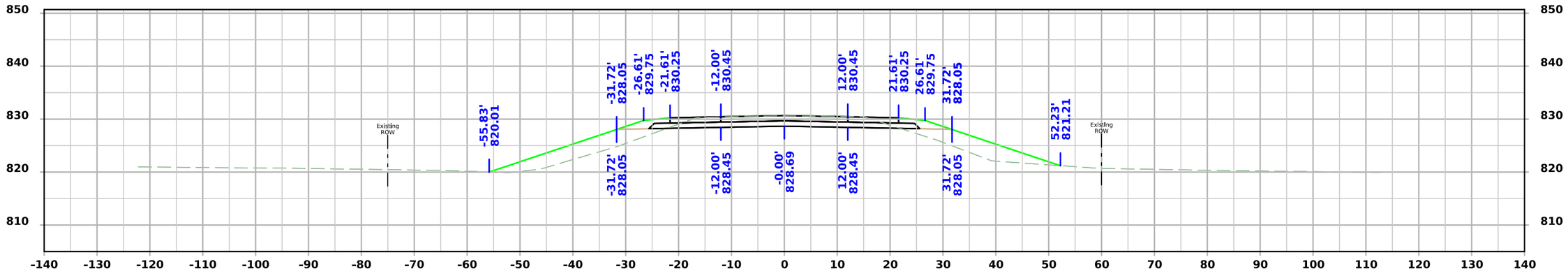

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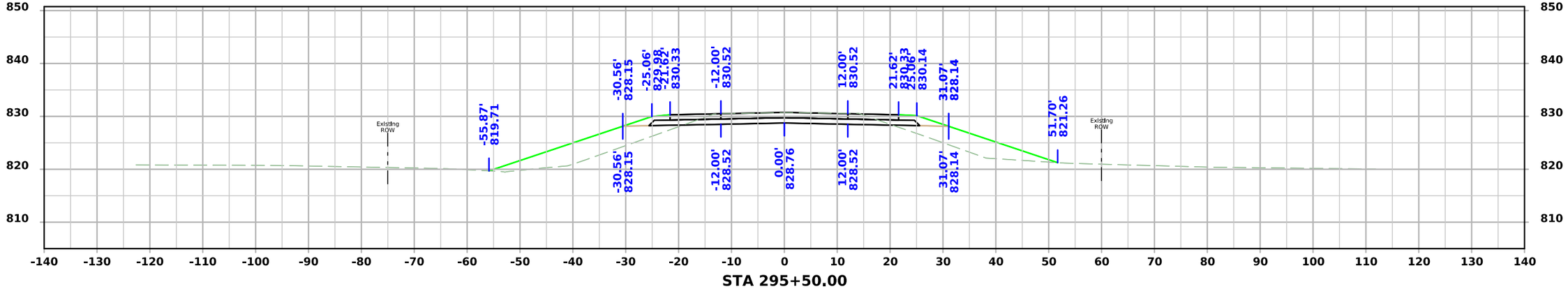

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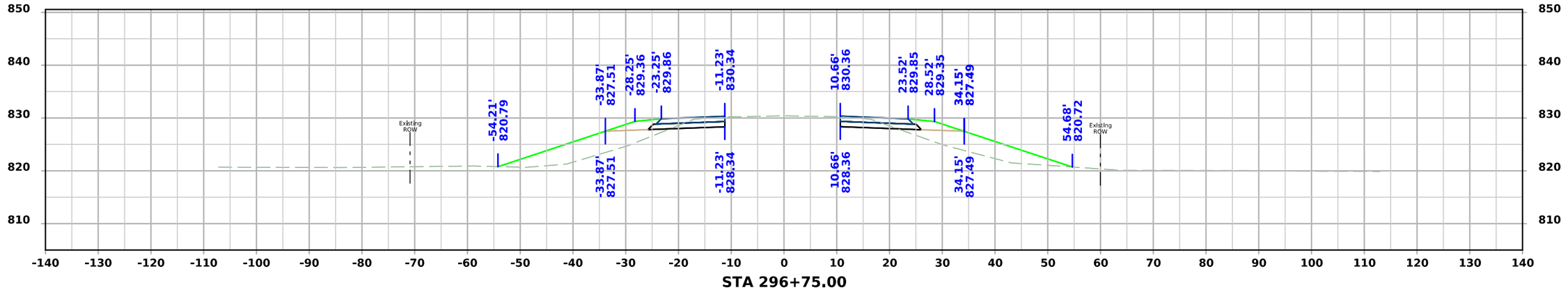
ML - IA136



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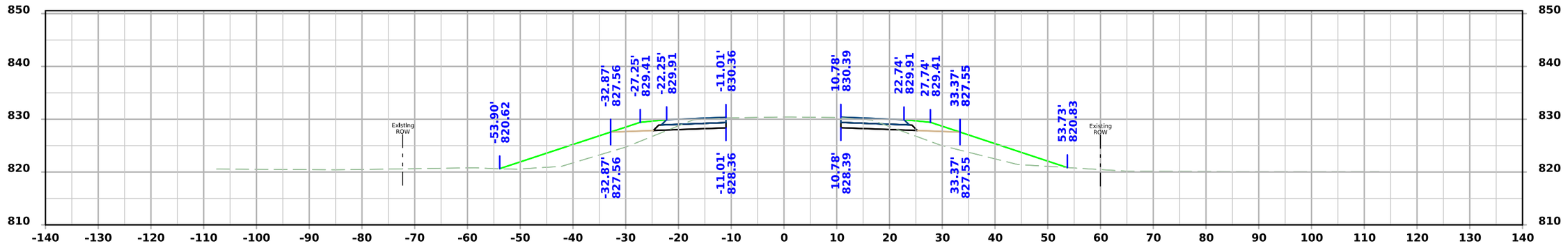

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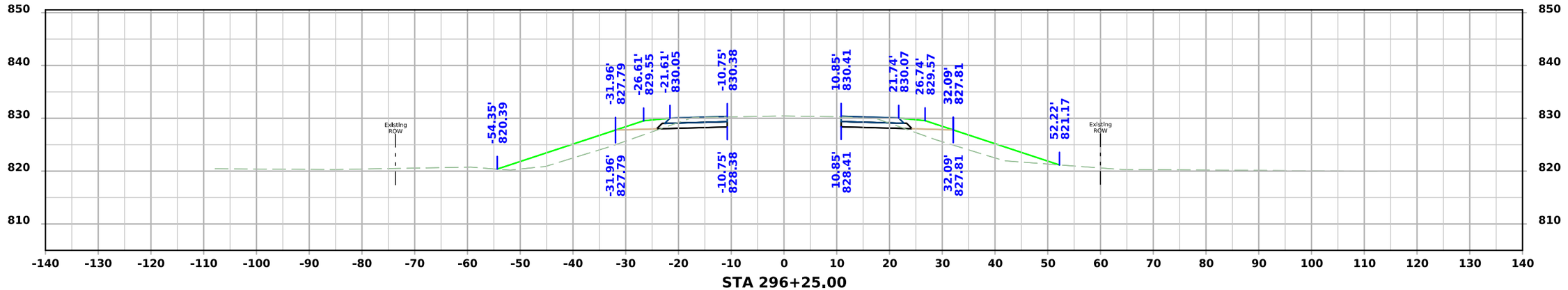

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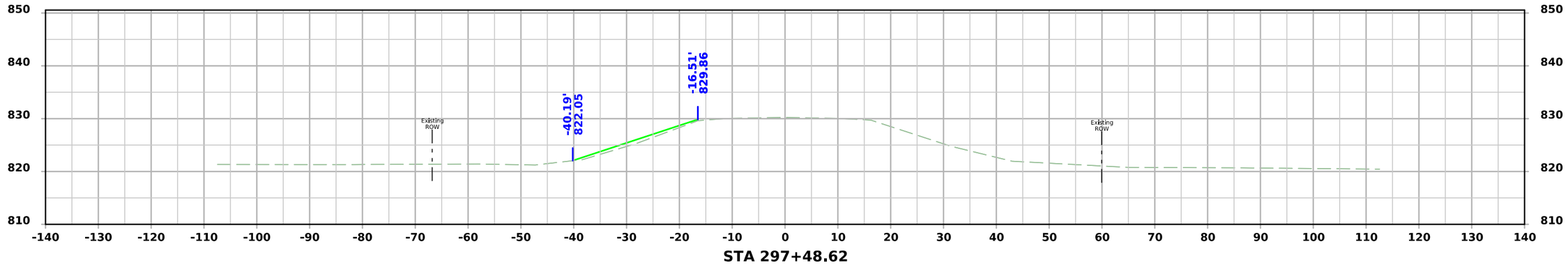
ML - IA136



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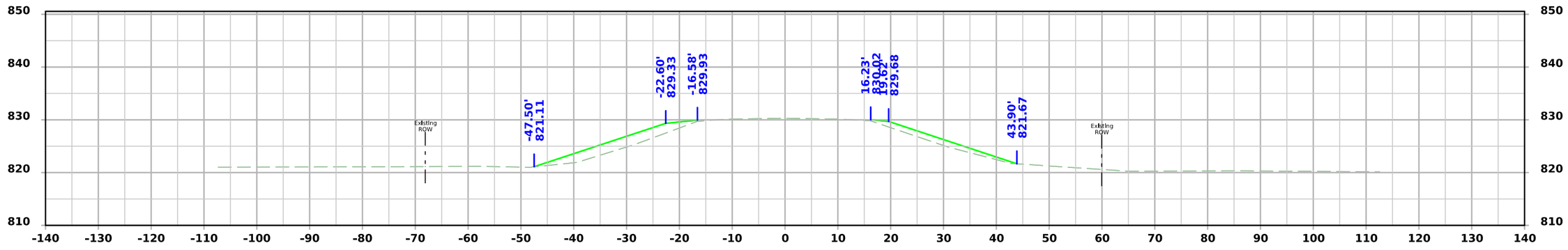

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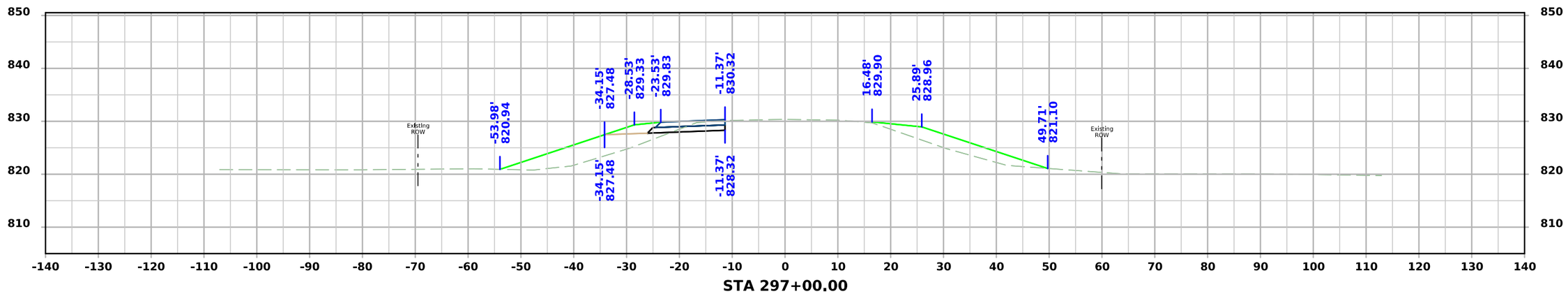

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