RCB Culvert Replacement - Twin Box
BRF-078-1(029)--38-54
KEOKUK COUNTY

LETTING DATE 01/19/2028

INDEX OF SHEETS	
No.	DESCRIPTION
A Sheets	**Title Sheets**
A.1	Title Sheet
A.2	Location Map Sheet
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	Iowa 78 Plan View
G Sheets	**Survey Sheets**
G.1	Reference Ties and Bench Marks
G.2	Survey Index
G.3	Horizontal Control Tab. & Super for all Alignments
J Sheets	**Traffic Control and Staging Sheets**
J.1	Traffic Control Plan
J.2	Detour Map
V Sheets	**Bridge and Culvert Situation Plans**
V.1	Culvert Situation Plans
W Sheets	**Mainline Cross Sections**
W.1	Cross Sections Legend & Symbol Information Sheet
W.2 - 10	Mainline Cross Sections

IOWA DOT

PLANS OF PROPOSED IMPROVEMENT ON THE

PRIMARY ROAD SYSTEM

KEOKUK COUNTY

RCB Culvert Replacement - Twin Box

IA-78 Culvert Over Stream
3.9 Mi E of IA 149

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
	23
PROJECT IDENTIFICATION NUMBER	
23-54-078-010	
PROJECT NUMBER	
BRF-078-1(029)--38-54	
R.O.W. PROJECT NUMBER	

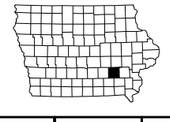
P9 PLAN - Date: 4/22/26

DESIGN DATA RURAL			
2028	AADT	1200	V.P.D.
2048	AADT	1400	V.P.D.
20	DHV		V.P.H.
TRUCKS		27	%
Total Design ESALs			

PRELIMINARY PLANS

Subject to change by final design.

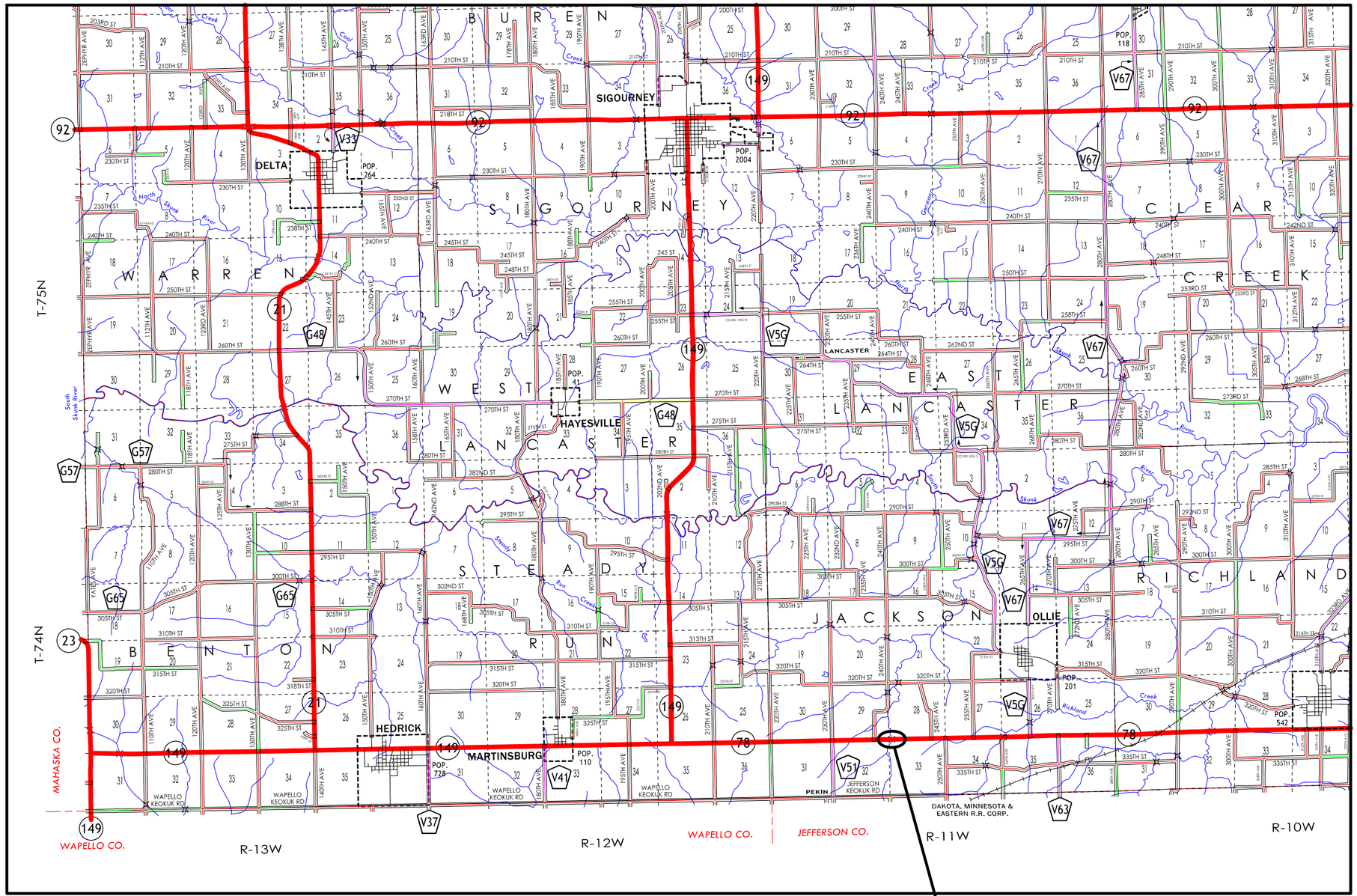
D5 PLAN - Date: 11/21/25



FILE NO.	ENGLISH	DESIGN TEAM Miller / O'Riley	KEOKUK COUNTY	PROJECT NUMBER BRF-078-1(029)--38-54	SHEET NUMBER A.1

7:38:57 AM 11/18/2025 koriley pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\5407801023\Design\CADD_Files\Sheet_Files\A01_54078029Z13.dgn

KEOKUK COUNTY



LOCATION MAP SCALE
0 1 2 3
Miles

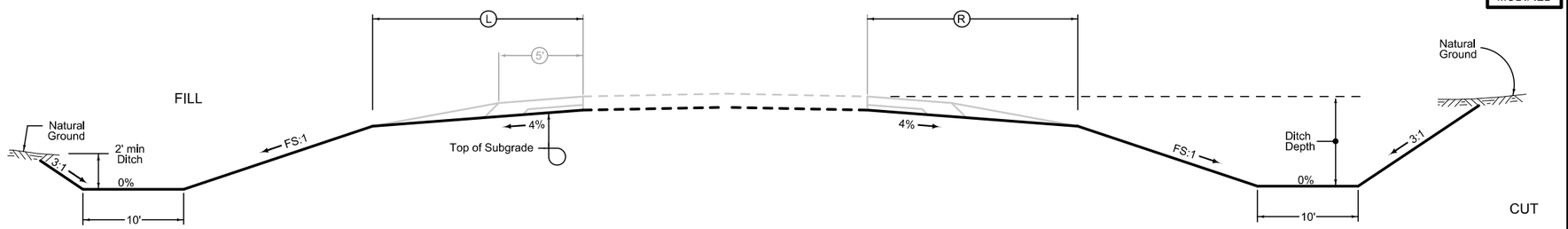
Sta. 214+66.84
Maint. No. 604370
FHWA: 604370

FILE NO.	ENGLISH	DESIGN TEAM Miller / O'Riley	KEOKUK COUNTY	PROJECT NUMBER BRF-078-1(029)--38-54	SHEET NUMBER A.2

7:39:06 AM 11/18/2025 koriley pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\5407801023\Design\CADD_Files\Sheet_Files\A01_54078029Z13.dgn

LOCATION			DIMENSIONS			
ROAD IDENTIFICATION	STATION TO STATION		(L) Feet	(R) Feet	(X) Inches	FS
IA-78						
	311+99.24	313+00.00		17'-11'		3:1
	313+00.00	313+94.60		11'		3:1
	316+10.26	316+38.91		12'		3:1
	312+66.19	313+00.00	14'-11'			3:1
	313+00.00	313+63.56	11'			3:1
	315+79.17	316+70.00	11'			3:1
	316+70.00	316+81.45	11'-12"			3:1

G_2_Grade
MODIFIED



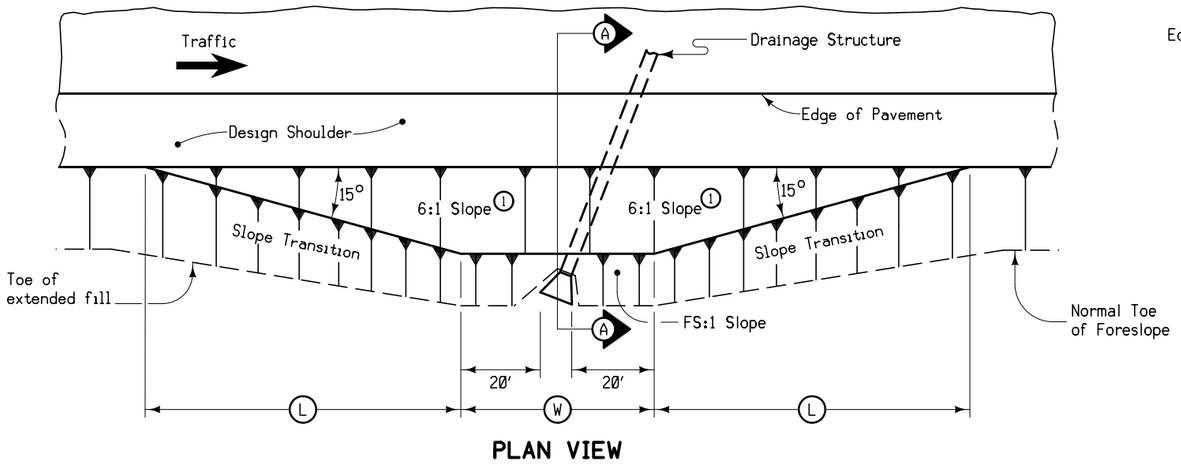
Normal section shown may be modified appropriately in areas of superelevated curves or other locations specifically designated by the Engineer.

See plan & profile sheets and cross sections for additional details of ditches and backslopes.

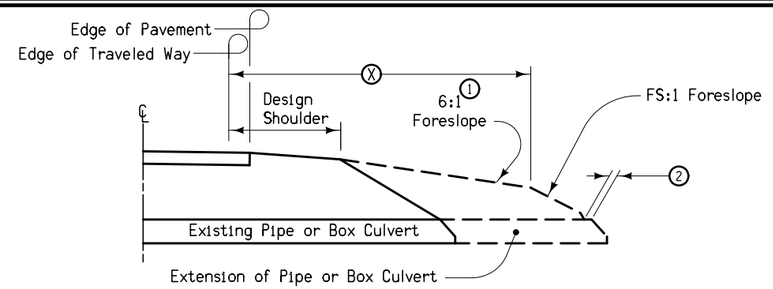
2 LANE GRADING

FILE NO.	ENGLISH	DESIGN TEAM **Miller / O'Riley**	**KEOKUK** COUNTY	PROJECT NUMBER **BRF-078-1(029)--38-54**	SHEET NUMBER **B.1**	

9:51:25 PM 11/17/2025 koriley pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\5407801023\Design\CADD_Files\Sheet_Files\B01_54078029Z13.dgn



PLAN VIEW



SECTION A-A

STRUCTURE LOCATION		(W)	(L)	(X)	(FS)
STATION (3)	SIDE	Feet	Feet	Feet	
314+86.93	LT	73.71'	72'	24'	3:1
314+86.93	RT	73.82'	72'	24'	3:1

4312
MODIFIED

At locations where an extended or newly constructed drainage structure extends beyond the normal foreslope cover, flatten as indicated so as to cover the structure. Minimum earth cover is 6 inches.

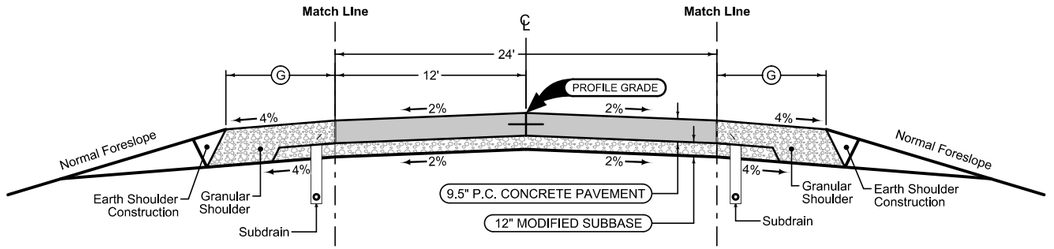
(1) Slope may be flatter than 6:1.

(2) 6 inch minimum for pipe installations or to top of headwall on RCB.

(3) At ℄ of roadway.

(W) = Pipe or RCB opening width plus 20 feet each side.

BARNROOF FORESLOPE AT SKEWED DRAINAGE STRUCTURE



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

Granular Shoulder

2_G_
04-21-20

STATION TO STATION		(G) Feet
314+30.00	315+45.00	5'

2P_
04-21-20

STATION TO STATION	
314+30.00	315+45.00

Granular Shoulder

2_G_
04-21-20

STATION TO STATION		(G) Feet
314+30.00	315+45.00	5'

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
- WH Water Hydrant (Rural)
- ST Septic Tank
- C Cistern
- LP L.P. Gas Tank (No Footing)
- UST Underground Storage Tank
- Latrine
- Satellite TV Dish
- WHU Water Hook Up
- RT Radio Tower
- TA Tower Anchor
- Guardrail (Beam or Cable)
- GP Guard Post (one or two)
- Guard Post (over two)
- FP Filler Pipe
- GV Gas Valve
- WV Water Valve
- SL Speed Limit Sign
- MM Mile Marker Post
- SIGN Sign
- TCB Traffic Signal Control Box
- RRB Rail Road Signal Control Box
- TSB Telephone Switch Box
- EB Electric Box

UTILITY LEGEND

- FO — ***FO1D, Windstream - Quality D***
- ***PPA, Alliant Energy***
- T1 — ***TL1D, Windstream - Quality D***
- T2 — ***TL2D, Kalona Cooperative - Quality D***
- W — ***WL1D, Wapello Rural Water - Quality D***

WINDSTREAM COMMUNICATIONS
Design Contact: Locate Desk
Phone: 800-289-1901
Email: locate.desk@windstream.com

ALLIANT ENERGY
Design Contact: Alliant Energy Field Engineer
Phone: 800-255-4268
Email: locate_ipl@alliantenergy.com

KALONA COOPERATIVE TELEPHONE
Design Contact: On Call
Phone: 319-656-2769
Email: backoffice@kctc.net

WAPELLO RURAL WATER ASSOCIATION
Design Contact: Kathy Alex or Donnie Johnston
Phone: 641-6828351
Email: onecall@wrh2o.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.**		**Transparency**
Pink, Dark	(13)	Temporary Pavement Shading	50%
Yellow	(4)	Proposed Pavement Shading	50%
Orange	(6)	Proposed Granular Shading	50%
Orange	(70)	Proposed Shoulder Granular Shading	50%
Yellow	(68)	Proposed Shoulder Paved Full Depth Shading	50%
Yellow	(132)	Proposed Shoulder Paved Partial Depth Shading	50%
Brown, Light	(236)	Grading Shading	50%
Orange, Light	(134)	Proposed Granular Entrance Shading	50%
Yellow	(220)	Proposed Paved Entrance Shading	50%
Tan	(8)	Proposed Sidewalk Shading	50%
Blue, Light	(230)	Proposed Sidewalk Landing Shading	50%
Pink	(11)	Proposed Sidewalk Ramp Shading	50%
Red	(3)	Proposed Structure Shading	50%
Red	(3)	Delineates Restricted Areas	0%

PROFILE VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

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

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

RIGHT-OF-WAY LEGEND

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

PLAN AND PROFILE LEGEND AND SYMBOL INFORMATION SHEET

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

FILE NO.	ENGLISH	DESIGN TEAM Miller / O'Riley	KEOKUK COUNTY	PROJECT NUMBER BRF-078-1(029)--38-54	SHEET NUMBER D.1

6:45:31 AM 11/18/2025 koriley pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\5407801023\Design\CADD_Files\Sheet_Files\D01_54078029Z13.dgn

(REMOVE)
Sta. 314+68.5
10'x12'x43' Twin RCB
D.A.=1,450 A-Hilly

Jackson TWP.
T-74N R-11W
SEC. 28

Sect. No. 29

STA 314+30.00 (ML078)
BEGIN PAVEMENT CONSTRUCTION

STA 315+45.00 (ML078)
END PAVEMENT CONSTRUCTION

UAC ENTRANCE AND PIPE

307+00 308+00 309+00 310+00 311+00 312+00 313+00 314+00 315+00 316+00 317+00 318+00 319+00 320+00 321+00 322+00

78

STA 311+99.24 (ML078)
BEGIN RIGHT SHOULDER/DITCH CONSTRUCTION

STA 312+66.19 (ML078)
BEGIN LEFT SHOULDER/DITCH CONSTRUCTION

STA 316+81.45 (ML078)
END LEFT SHOULDER/DITCH CONSTRUCTION

STA 316+38.92 (ML078)
END RIGHT SHOULDER/DITCH CONSTRUCTION

REMOVE GUARDRAIL
(BOTH SIDES)

REMOVE AND REPLACE FENCE

(BUILD)
Sta. 214+86.93
Twin 10' x 12' x 74' RCB
15° Skew

Sect. No. 32

Sect. No. 33

0 50 FEET

765 760 755 750 745 740 735 730 725 720

STA 315+45.00 (ML078
END PAVEMENT CONSTRUCTION

STA 314+30.00 (ML078)
BEGIN PAVEMENT CONSTRUCTION

RT +99 744.84
-5.49% RT DG
RT +53 741.89
-5.35% LT DG
LT +66 742.60
-4.53% RT DG
-7.77% LT DG
LT +43 738.48
-6.61% RT DG
RT +65 736.81
LT +94 734.52
-4.74% RT DG
RT +00 734.50
-13.50% LT DG
RT +82 730.60
LT +57 726.00
LT +79 726.00
+16.93% LT DG
RT +95 725.90
RT +17 725.90
+27.07% RT DG
+2.07% RT DG
RT +52 726.63
LT +10 731.18
+7.21% LT DG
RT +93 737.67
LT +95 737.33
+2.21% RT DG
RT +39 739.98
+11.70% RT DG
LT +81 746.20
+46.83% LT DG
LT +74 742.84
+14.79% LT DG
+2.38% LT DG
RT +25 738.38
LT +45 738.52

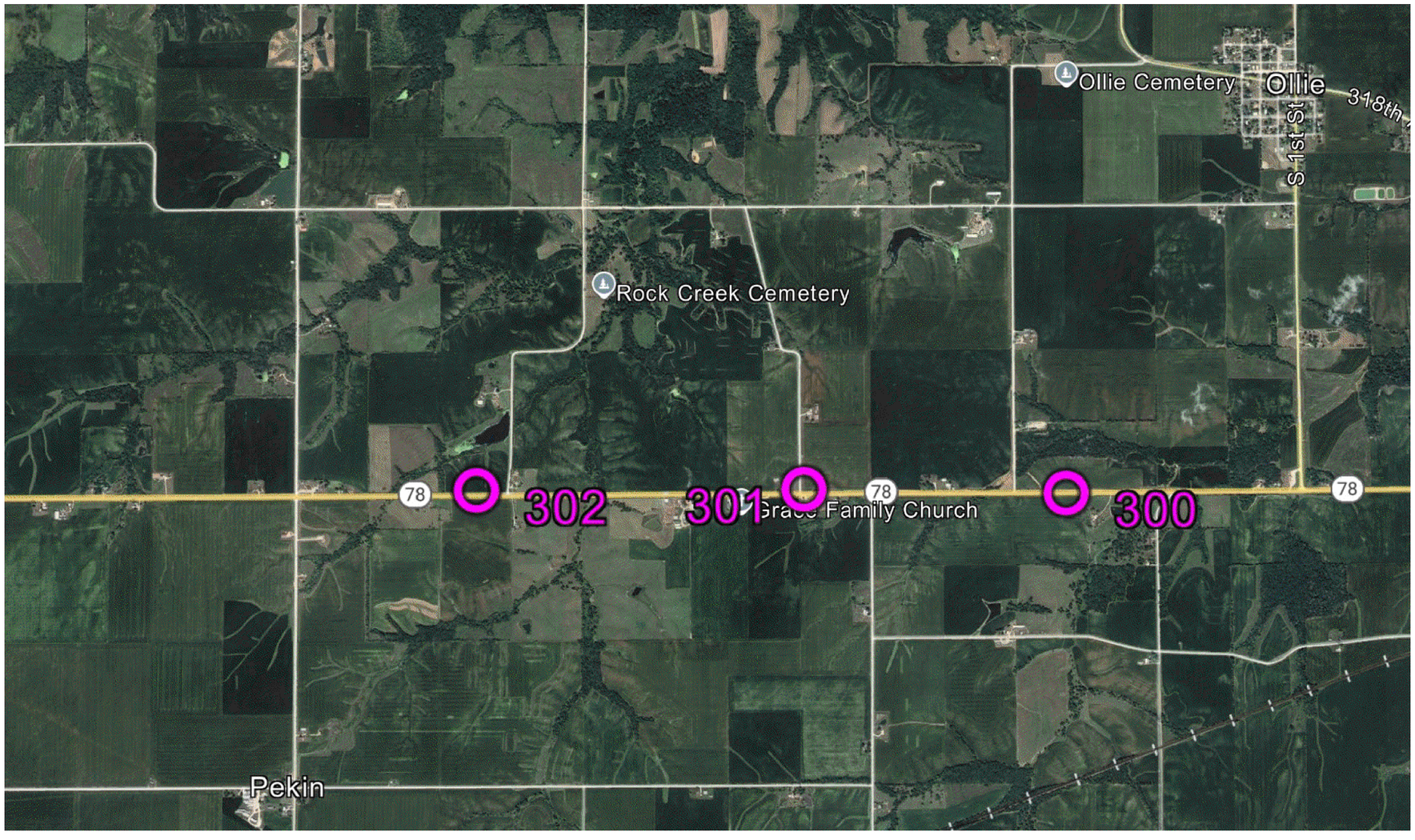
307+00 308+00 309+00 310+00 311+00 312+00 313+00 314+00 315+00 316+00 317+00 318+00 319+00 320+00 321+00 322+00

FILE NO.	ENGLISH	DESIGN TEAM Miller / O'Riley	KEOKUK COUNTY	PROJECT NUMBER BRF-078-1(029)--38-54	SHEET NUMBER D.2

6:46:31 AM 11/18/2025 koriley pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\5407801023\Design\CADD_Files\Sheet_Files\D02_54078029Z13.dgn

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 13 (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.

SURVEY INDEX

County: Keokuk
Project Code: 23-54-078-010
Phase Number: BRF-078-1(029)--38-54
Location: Stream 3.9 mi E of IA 149
Type of Work: Culvert-Unspecified
Project Directory: 5407801023

Survey Personnel

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

Date(s) of Survey

Begin Date	07/25/2024
End Date	10/16/2024

General Information

This survey is for Hwy 78 3.9 miles East of the Hwy 149 and 78 intersection. This survey request was for the Hwy 78 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 Prelim Survey 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 13 (U.S. SURVEY FOOT)
VERTICAL DATUM: NAVD88
GEOID MODEL: 2018u3

Alignment Information

The horizontal alignment for Hwy 78 was provided by the District 5 Right of Way Department in Fairfield, IA.

HORIZONTAL AND VERTICAL PROJECT CONTROL COORDINATE LISTING
HORIZ. DATUM: NAD83(2011) for EPOCH 2010.00 (IaRTN 2019 Adjustment)
Ia. Regional Coordinate System Zone 13 (U.S. Survey Foot)
VERT. DATUM: NAVD88
Geoid Model: 2018u3

Point Name	Northing	Easting	Elevation	Code Description
300	6737919.09	23447351.35	783.38	CP FND FENO MONUMENT 4" BELOW SURFACE IN GOOD CONDITION
301	6737994.91	23442521.14	794.24	CP SET 5/8"x42" REBAR 4" BELOW SURFACE
302	6737988.45	23436527.83	798.05	CP SET 5/8"x42" REBAR 4" BELOW SURFACE

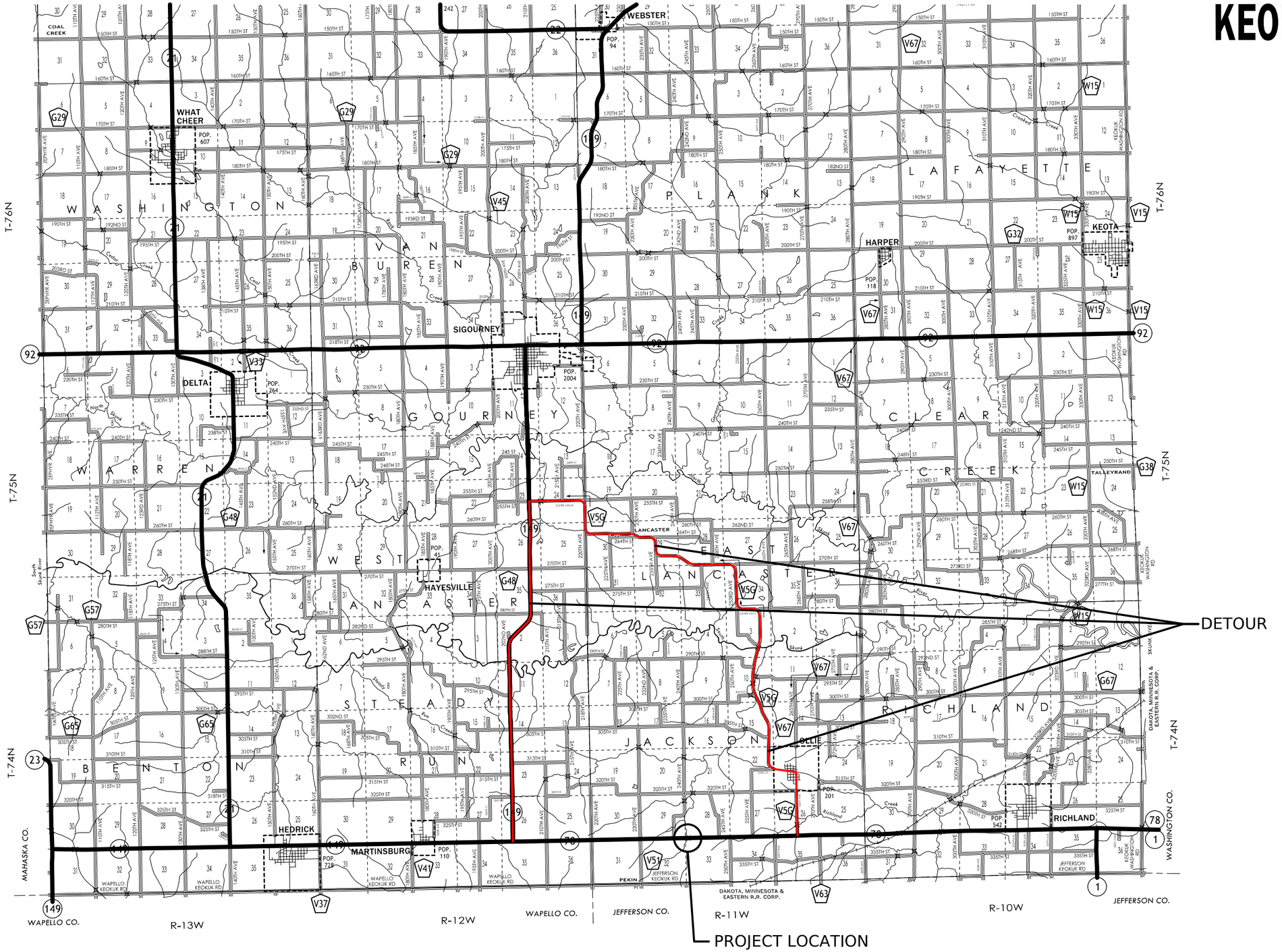
108_23A
8/15/22

TRAFFIC CONTROL PLAN

Traffic on IA 78 will be maintained at all times via an off-site detour.

FILE NO.	ENGLISH	DESIGN TEAM MILLER / O'RILEY	KEOKUK COUNTY	PROJECT NUMBER BRF-078-1(029)--38-54	SHEET NUMBER J.1	

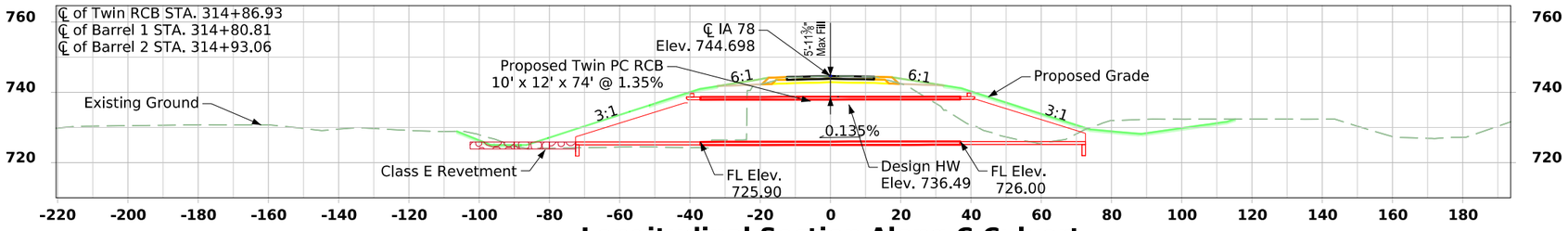
KEOKUK COUNTY



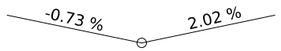
FILE NO.	ENGLISH	DESIGN TEAM **Miller / O'Riley**	**KEOKUK** COUNTY	PROJECT NUMBER **BRF-078-1(029)--38-54**	SHEET NUMBER **J.2**	

10:27:49 AM 8/26/2025 koriley pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\5407801023\Design\CADD_Files\Sheet_Files\J02_54078029Z13.dgn

Control Point 300: 6737919.09 N, 23447351.35 E, 783.38 Elev, CP FND FENO MONUMENT 4" BELOW SRUFACE IN GOOD CONDITION

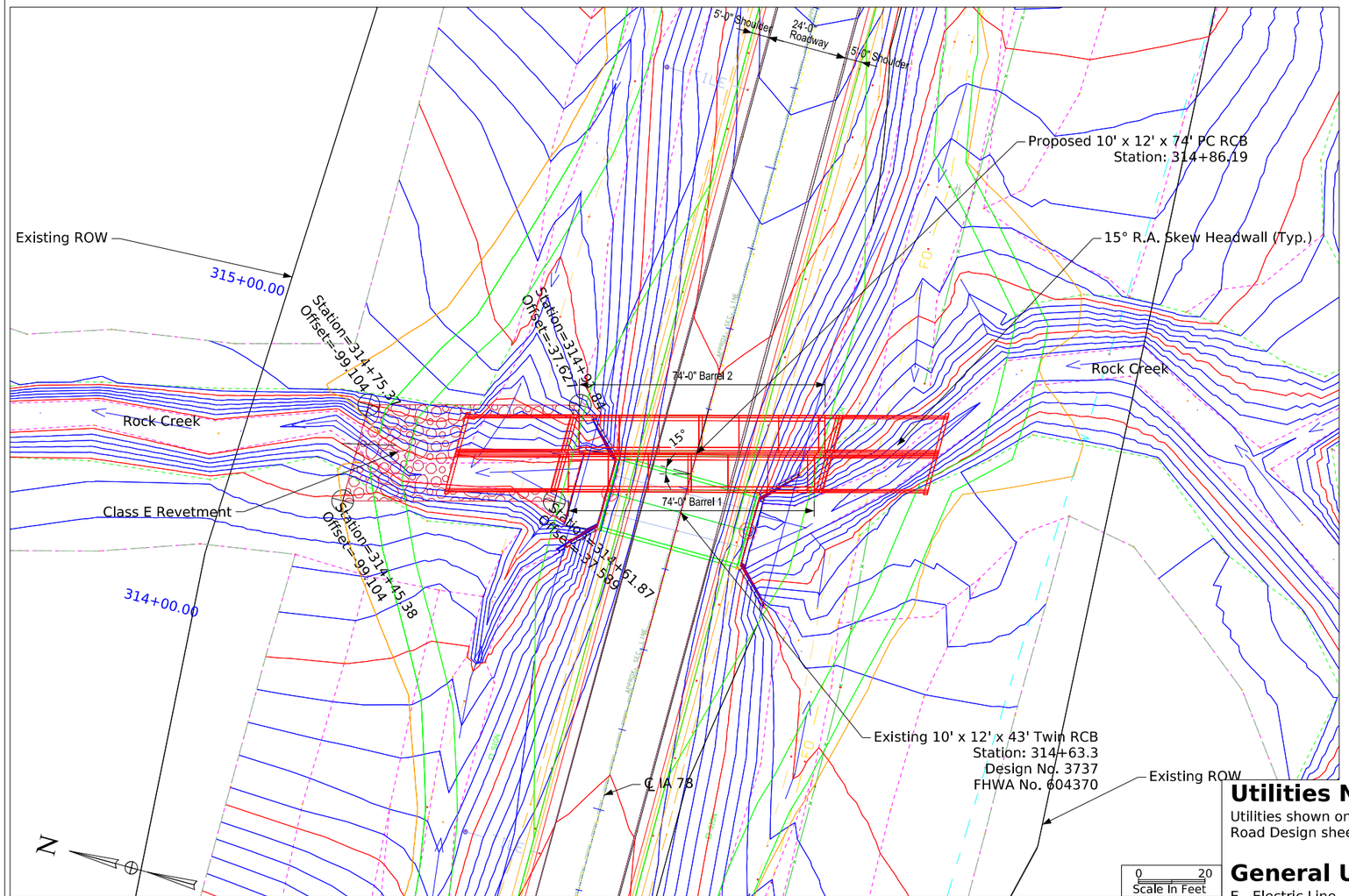


Longitudinal Section Along ℄ Culvert



VPI Sta. = 314+75.00 VC = 110'
VPI Elev. = 744.23

Proposed Profile Grade IA 78



Situation Plan

Location

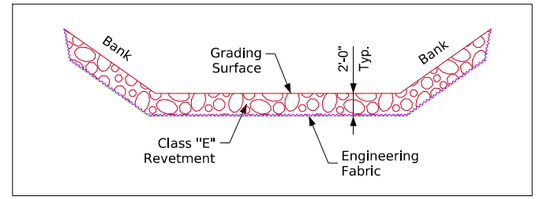
IA 78 over Rock Creek
T-74N R-11W
Section 28 and 33
Jackson Township
Keokuk County
FHWA No. 604371
Bridge Maint. No. 5404.1S078
Latitude 41.1773190°
Longitude -92.1390130°

Hydraulic Data

RIDB: Not Applicable
Drainage Area = 2.23 Sq. Mi.
Stream Slope = 27.48 Ft./Mi.
Q_{50} = 1,787 cfs
HW Elev. = 736.49
Exit Velocity = 13.94 fps

Traffic Estimate

2028 AADT	1200 V.P.D.
2048 AADT	1400 V.P.D.
2048 DHV	140 V.P.H.
TRUCKS	28 %
Total Design ESALs	???



Typical Channel Protection

Estimated Revetment Quantities Included With Road Plans

Location	Revetment Class "E" (Ton)	Engineering Fabric (SY)	CL. 10 Channel Excavation (CY)
Outlet	120	120	79
Totals			

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. Quantities shown for information only. See Road Sheets.

General Notes

This design is for the replacement of the existing 10' x 12' x 43' Twin RCB, Keokuk Design No. 3737, FHWA No. 604370, Maint. no. 5404.1S078.

Design Notes

Revetment is prooposed at the culvert outlet due to the outlet velocity exceeding policy limits.

The proposed RCB will be constructed utilizing a precast option only. The precast only method has been chosen by the district as the preferred method to accelerate structure construction due to time constraints.

Density used for Class E quantity calculations is 1.5 Tons/CY.

Plan Notes

Flow line of the culvert has been set 1' below streambed for fish passage.

Hydraulic Design

LICENSED PROFESSIONAL ENGINEER
Jimmy D. Ellis
15557
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.

Jim D. Ellis 10/15/2025
Signature Date
Jimmy D. Ellis
Printed or Typed Name

My license renewal date is December 31, 2026

Pages or sheets covered by this seal: V.1

Utilities Note:

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

General Utility Symbols:

E - Electric Line
G - Gas Line
SAN. - Sanitary Sewer
T - Telephone Line
W - Water Line
FO - Fiber Optic Line
GHP - Gas High Pressure
ST S - Storm Sewer
TV - TV
- Power Poles

Design For 15 Degree Skew

TWIN 10' x 12' x 74' PC RCB

Situation Plan

STA. 314+86.93 (IA 78)
Turn-in Date: October 2025

Keokuk County
IOWA DEPARTMENT OF TRANSPORTATION

Design No. 0228 Design Sheet No. 1 of 1 FHWA/Asset 604371

FILE NO. 32869	ENGLISH	DESIGN TEAM CMK	Keokuk COUNTY	PROJECT NUMBER BRF-078-1(029)--38-54	SHEET NUMBER V.1

SYSTEMTIME SYSTEMDATE USERNAME DGNSPEC

CROSS SECTION VIEW COLOR LEGEND

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

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

NOTES:

Text

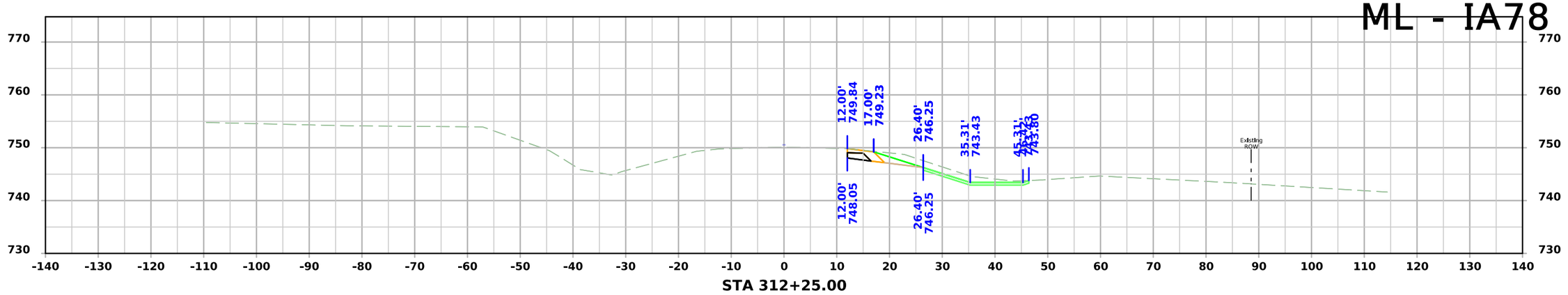
NOTES:

Text

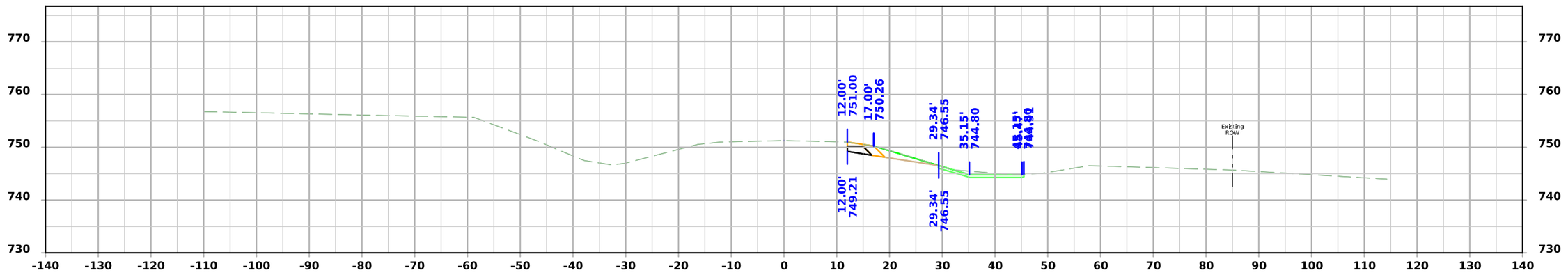
CROSS SECTIONS
LEGEND AND INFORMATION SHEET

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

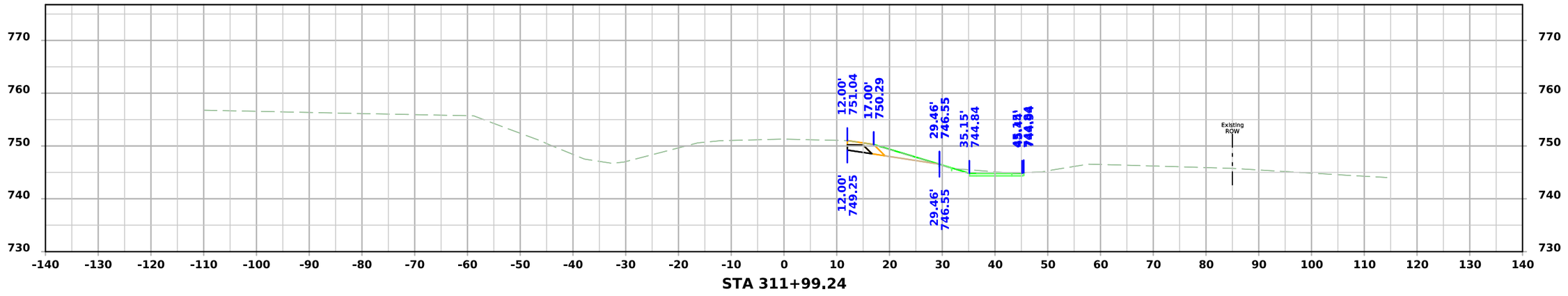
ML - IA78



STA 312+25.00



STA 312+00.00

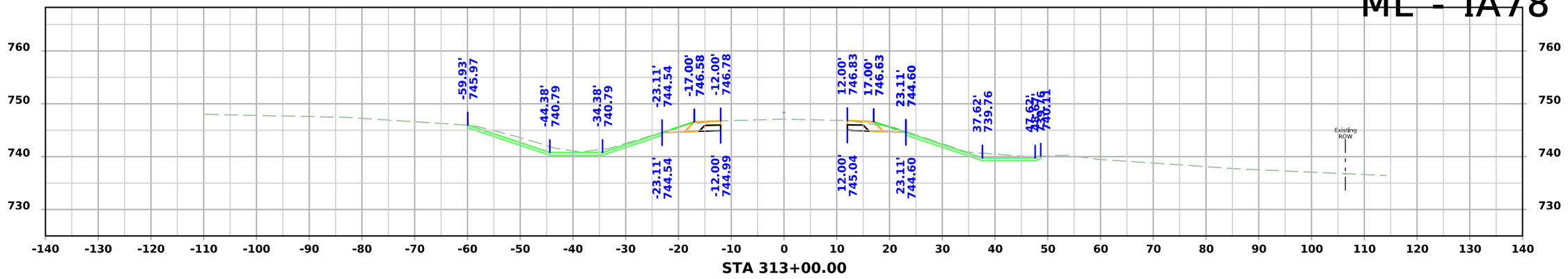


STA 311+99.24

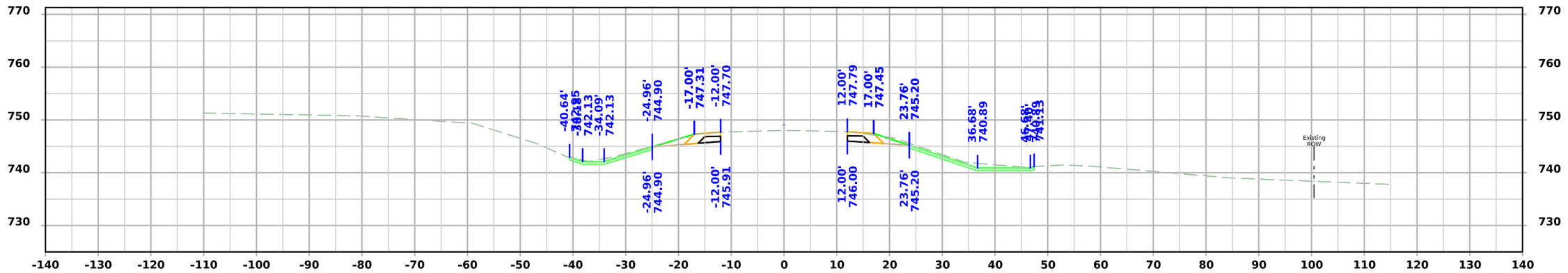
FILE NO.	ENGLISH	DESIGN TEAM Miller / O'Riley	KEOKUK COUNTY	PROJECT NUMBER BRF-078-1(029)--38-54	SHEET NUMBER W.2

6:53:38 AM 11/18/2025 koriley pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\5407801023\Design\CADD_Files\Sheet_Files\W02_54078029Z13.dgn

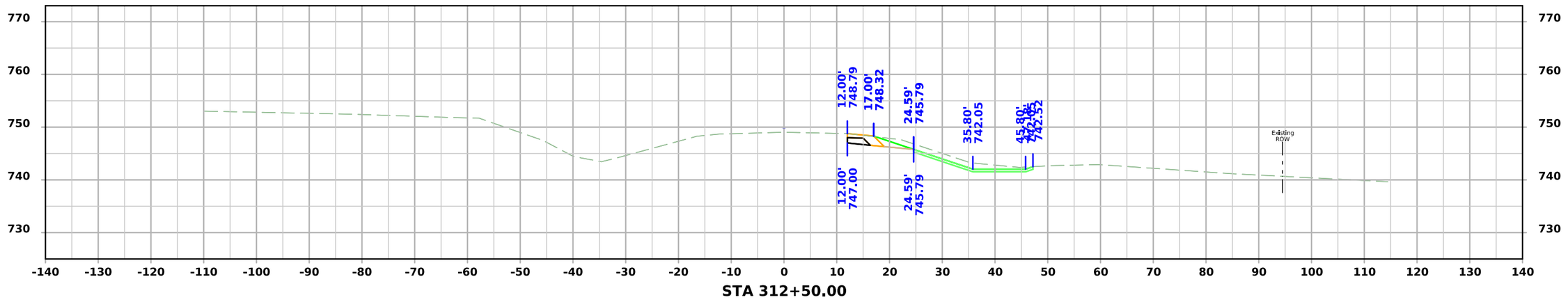
ML - IA78



STA 313+00.00



STA 312+75.00

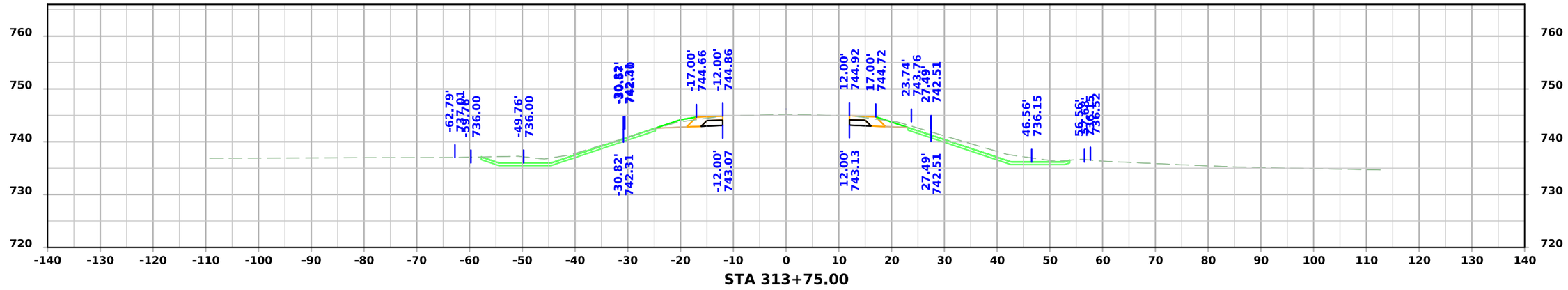


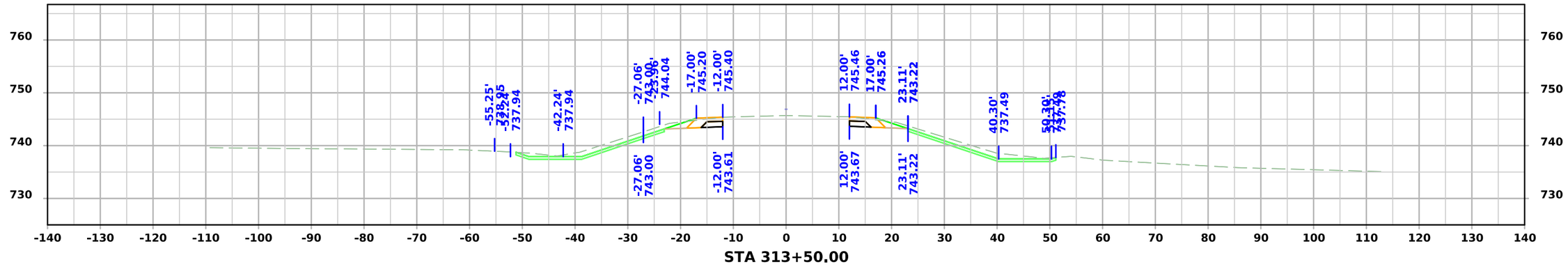
STA 312+50.00

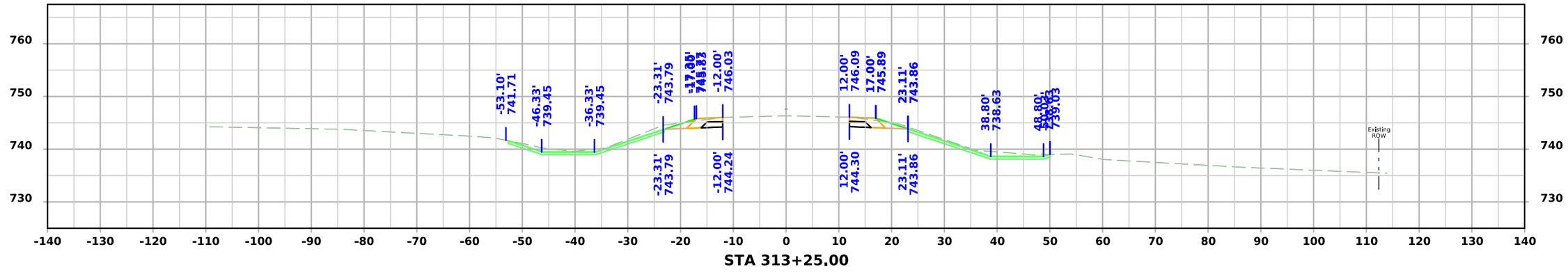
FILE NO.	ENGLISH	DESIGN TEAM Miller / O'Riley	KEOKUK COUNTY	PROJECT NUMBER BRF-078-1(029)--38-54	SHEET NUMBER W.3

6:53:38 AM 11/18/2025 koriley pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\5407801023\Design\CADD_Files\Sheet_Files\W02_54078029Z13.dgn

ML - IA78



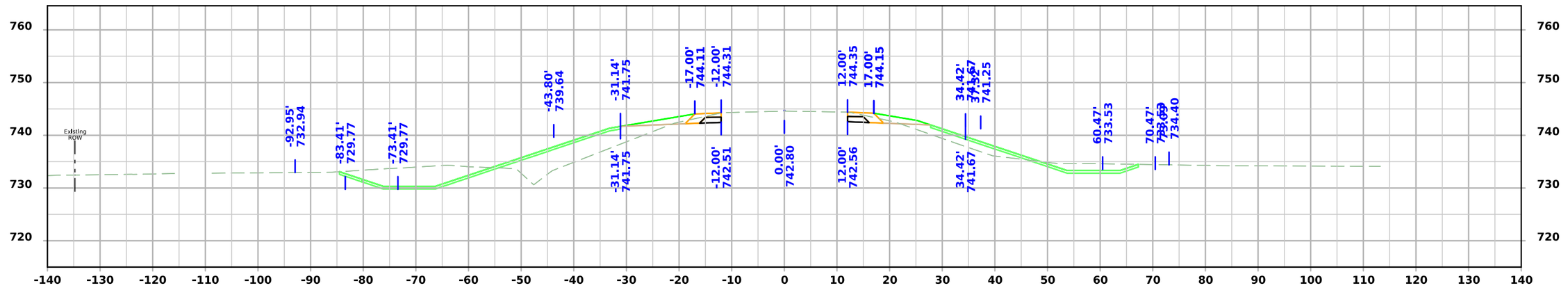




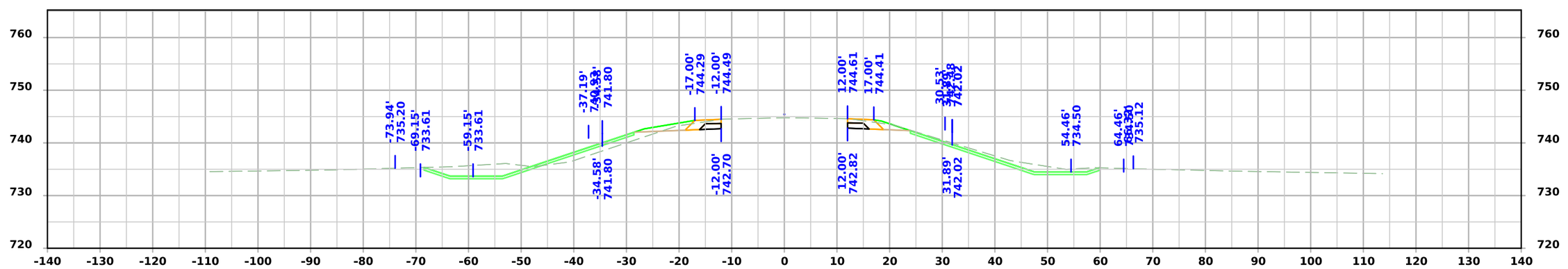
FILE NO.	ENGLISH	DESIGN TEAM Miller / O'Riley	KEOKUK COUNTY	PROJECT NUMBER BRF-078-1(029)--38-54	SHEET NUMBER W.4

6:53:39 AM 11/18/2025 koriley pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\5407801023\Design\CADD_Files\Sheet_Files\W02_54078029Z13.dgn

ML - IA78



STA 314+25.00

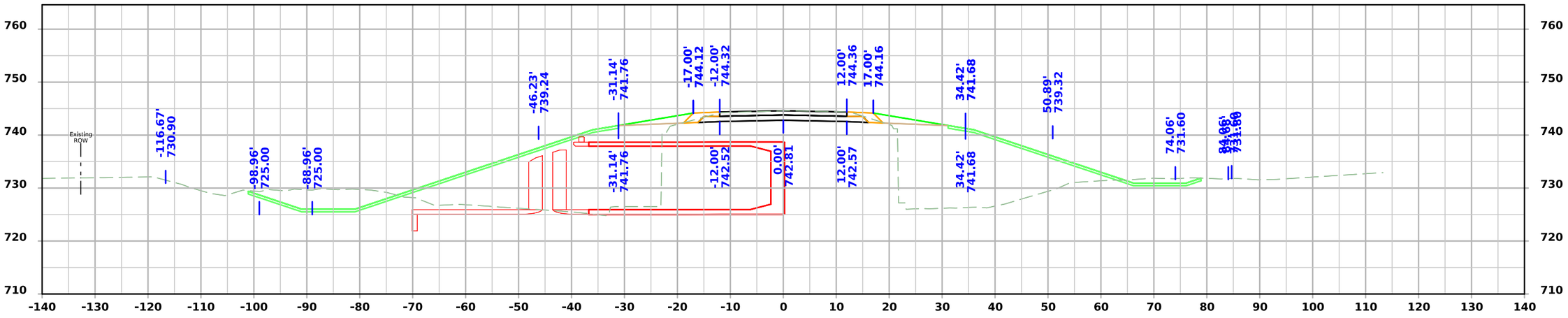


STA 314+00.00

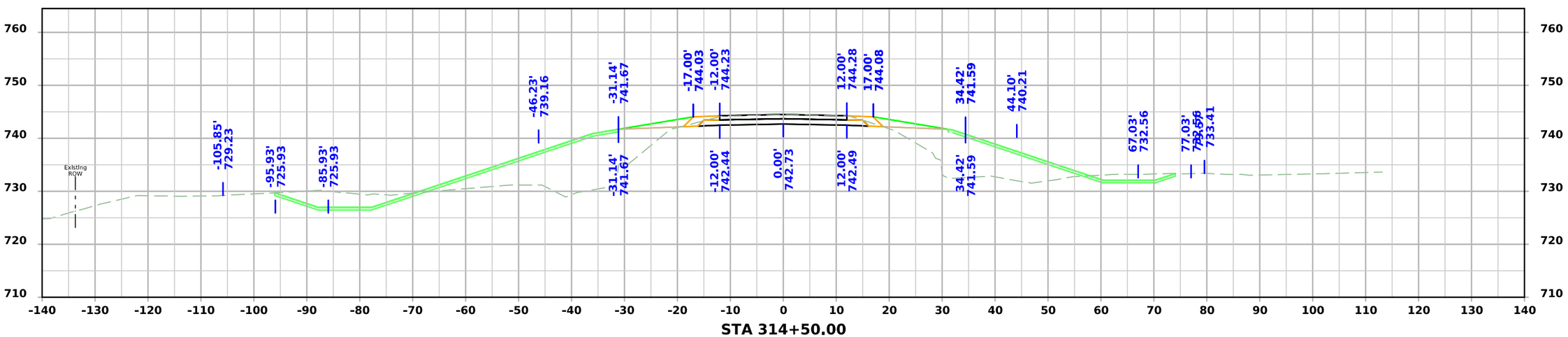
FILE NO.	ENGLISH	DESIGN TEAM Miller / O'Riley	KEOKUK COUNTY	PROJECT NUMBER BRF-078-1(029)--38-54	SHEET NUMBER W.5

6:53:40 AM 11/18/2025 koriley pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\5407801023\Design\CADD_Files\Sheet_Files\W02_54078029Z13.dgn

ML - IA78



STA 314+75.00

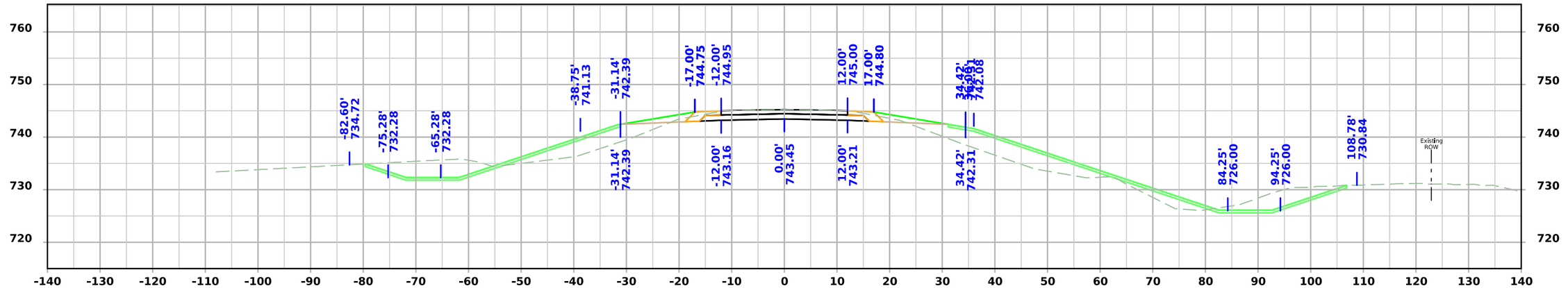


STA 314+50.00

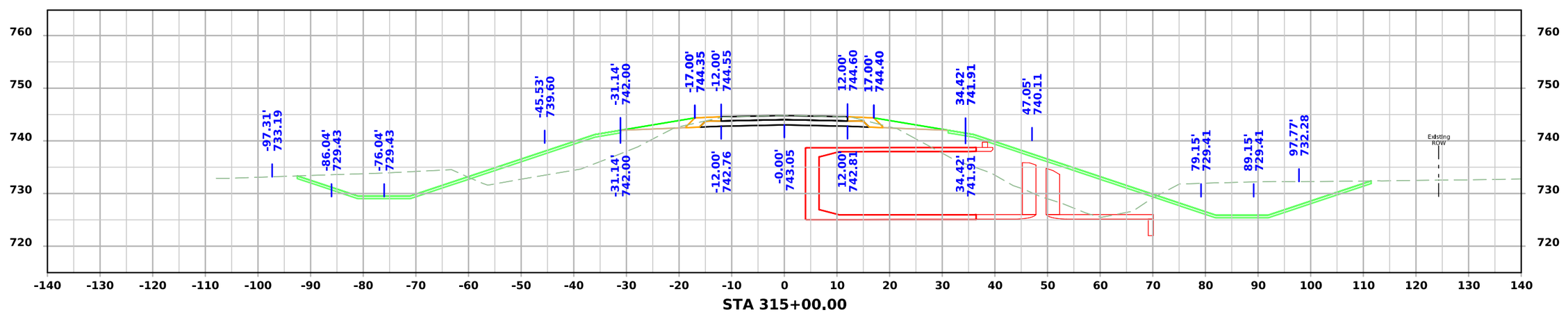
FILE NO.	ENGLISH	DESIGN TEAM Miller / O'Riley	KEOKUK COUNTY	PROJECT NUMBER BRF-078-1(029)--38-54	SHEET NUMBER W.6

6:53:40 AM 11/18/2025 koriley pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\5407801023\Design\CADD_Files\Sheet_Files\W02_54078029Z13.dgn

ML - IA78



STA 315+25.00

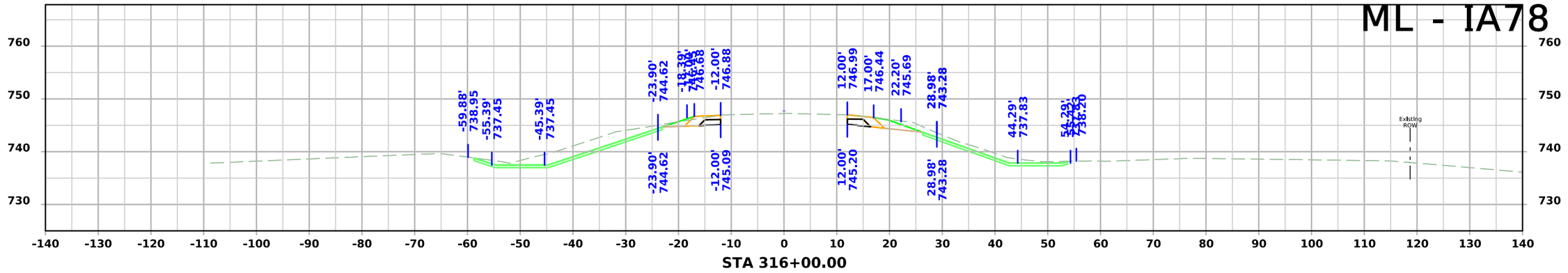


STA 315+00.00

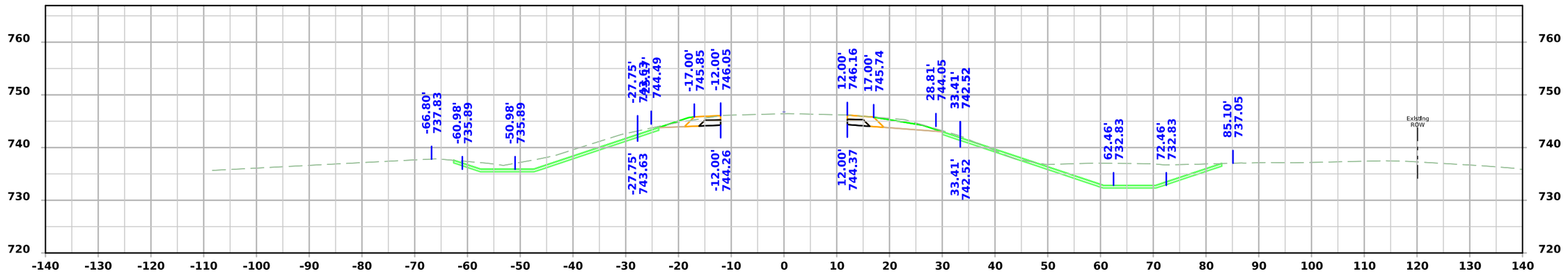
FILE NO.	ENGLISH	DESIGN TEAM Miller / O'Riley	KEOKUK COUNTY	PROJECT NUMBER BRF-078-1(029)--38-54	SHEET NUMBER W.7

6:53:41 AM 11/18/2025 koriley pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\5407801023\Design\CADD_Files\Sheet_Files\W02_54078029Z13.dgn

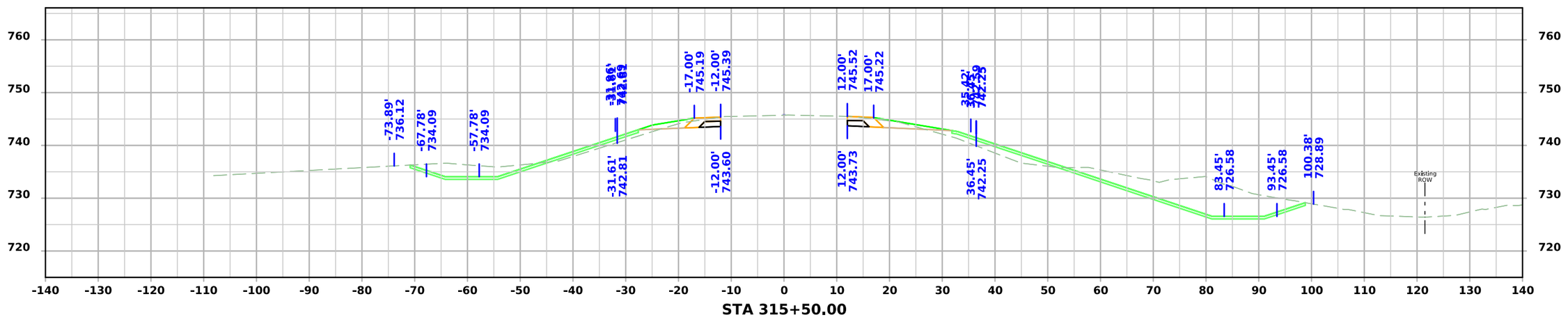
ML - IA78



STA 316+00.00



STA 315+75.00

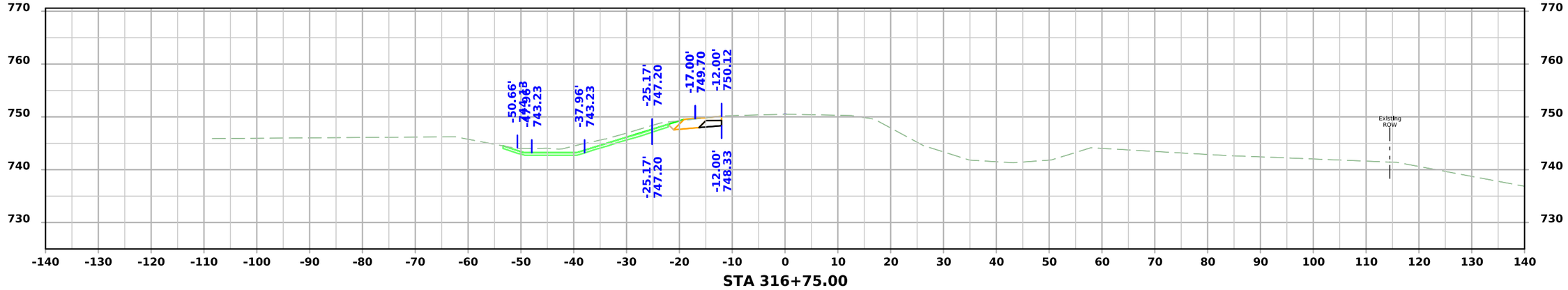


STA 315+50.00

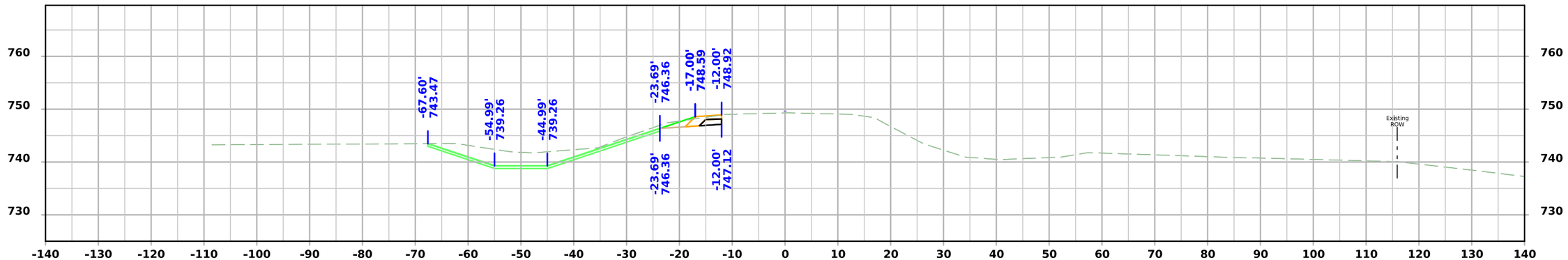
FILE NO.	ENGLISH	DESIGN TEAM Miller / O'Riley	KEOKUK COUNTY	PROJECT NUMBER BRF-078-1(029)--38-54	SHEET NUMBER W.8

6:53:42 AM 11/18/2025 koriley pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\5407801023\Design\CADD_Files\Sheet_Files\W02_54078029Z13.dgn

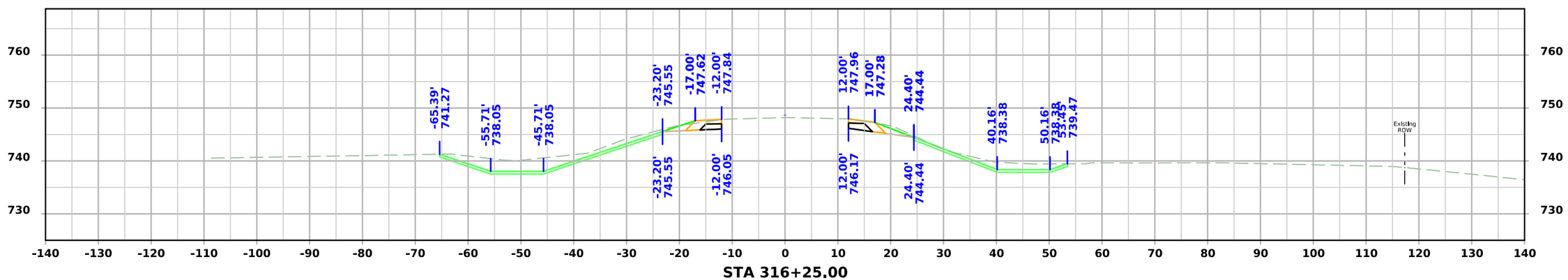
ML - IA78



STA 316+75.00



STA 316+50.00

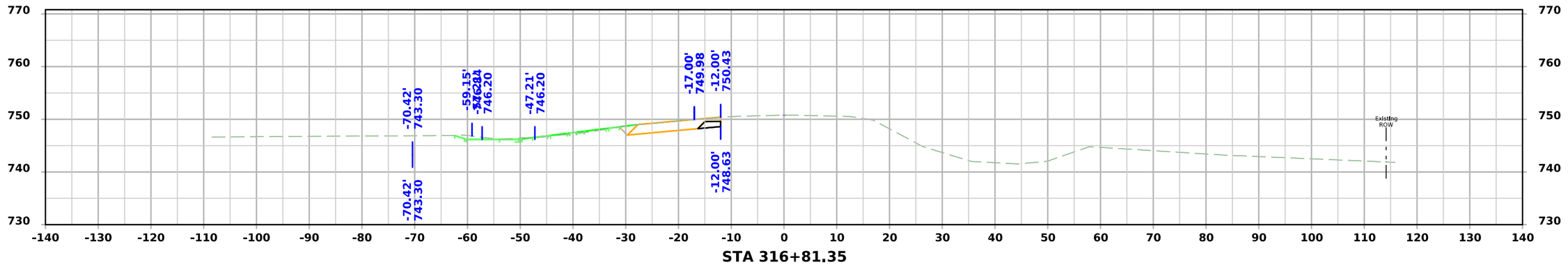


STA 316+25.00

FILE NO.	ENGLISH	DESIGN TEAM Miller / O'Riley	KEOKUK COUNTY	PROJECT NUMBER BRF-078-1(029)--38-54	SHEET NUMBER W.9

6:53:43 AM 11/18/2025 koriley pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\5407801023\Design\CADD_Files\Sheet_Files\W02_54078029Z13.dgn

ML - IA78



STA 316+81.35

FILE NO.	ENGLISH	DESIGN TEAM Miller / O'Riley	KEOKUK COUNTY	PROJECT NUMBER BRF-078-1(029)--38-54	SHEET NUMBER W.10

6:53:43 AM 11/18/2025 koriley pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\5407801023\Design\CADD_Files\Sheet_Files\W02_54078029Z13.dgn