LETTING DATE 1/20/2027

Bridge-Unspecified

BRF-038-3(063)--38-53

JONES COUNTY

# IOWA DOT

REVISIONS

| TOTAL |
|---|
| 22 |
| PROJECT IDENTIFICATION NUMBER |
| 22-53-038-030 |
| PROJECT NUMBER |
| BRF-038-3(063)--38-53 |
| R.O.W. PROJECT NUMBER |
| |
| |
| |

## INDEX OF SHEETS



<-- H Sheets

PLANS OF PROPOSED IMPROVEMENT ON THE

PRIMARY ROAD SYSTEM

# JONES COUNTY

## Bridge-Unspecified

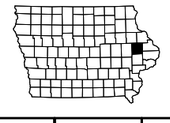
Sibles Creek 0.3 mi S
of Co Rd E53

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.



| DESIGN DATA RURAL | | | |
|---|---|---|---|
| 2027 | AADT | 1100 | V.P.D. |
| 2047 | AADT | 1100 | V.P.D. |
| 20 – | DHV | – | V.P.H. |
| TRUCKS | | 22 | % |
| Total Design ESALs | | – | |

INDEX OF SEALS

| SHEET NO. | NAME | TYPE | BID QUANTITY SHEETS |
|---|---|---|---|
| A.1 | Dung T. Ta | Primary Signature Block | X |
| | | | |
| X | X | X | X |
| | | | |
| | | | |
| | | | |
| | | | |

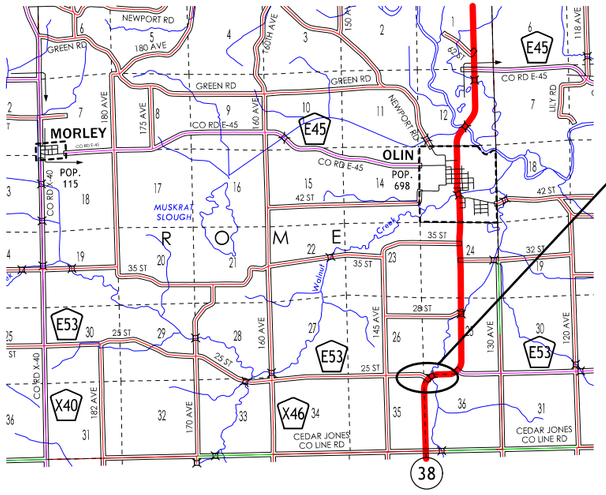
PRELIMINARY PLANS

Subject to change by final design.

D5 PLAN - Date: 12/3/2024

| FILE NO. TBD | ENGLISH | DESIGN TEAM TA/TAP | JONES COUNTY | PROJECT NUMBER BRF-038-3(063)--38-53 | SHEET NUMBER A.1 | |
|---|---|---|---|---|---|---|

8:47:48 AM 12/3/2024 ctap pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\5303803022\Design\CADD_Files\Sheet_Files\53038063_A01.dgn




R-3W

PROJECT LOCATION
Sta. 267+15.00
Maint. #: 5340.1S038
FHWA #: 32290

LOCATION MAP SCALE
0 1 2 3
Miles

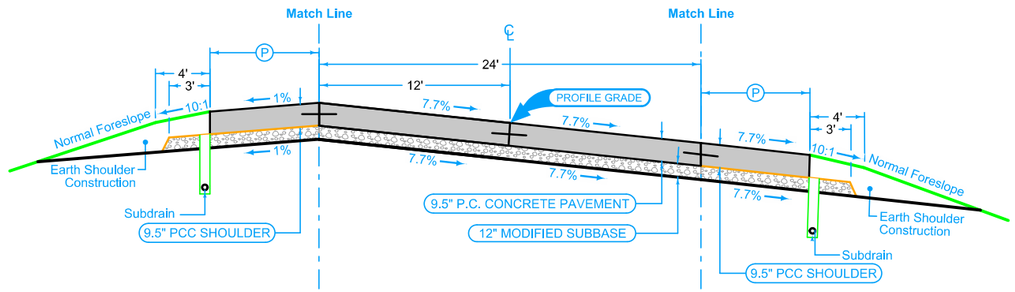
| FILE NO. TBD | ENGLISH | DESIGN TEAM TA/TAP | JONES COUNTY | PROJECT NUMBER BRF-038-3(063)--38-53 | SHEET NUMBER A.2 |
|---|---|---|---|---|---|

10:17:05 AM 8/2/2024 ctap pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\5303803022\Design\CADD_Files\Sheet_Files\53038063_A01.dgn

## Full Depth PCC Shoulder

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

| 2_P_FullPCC_ 04-20-21 | | |
|---|---|---|
| STATION TO STATION | | (P) Feet |
| 266+27.53 | 268+02.93 | 10 |
| | | |
| | | |
| | | |



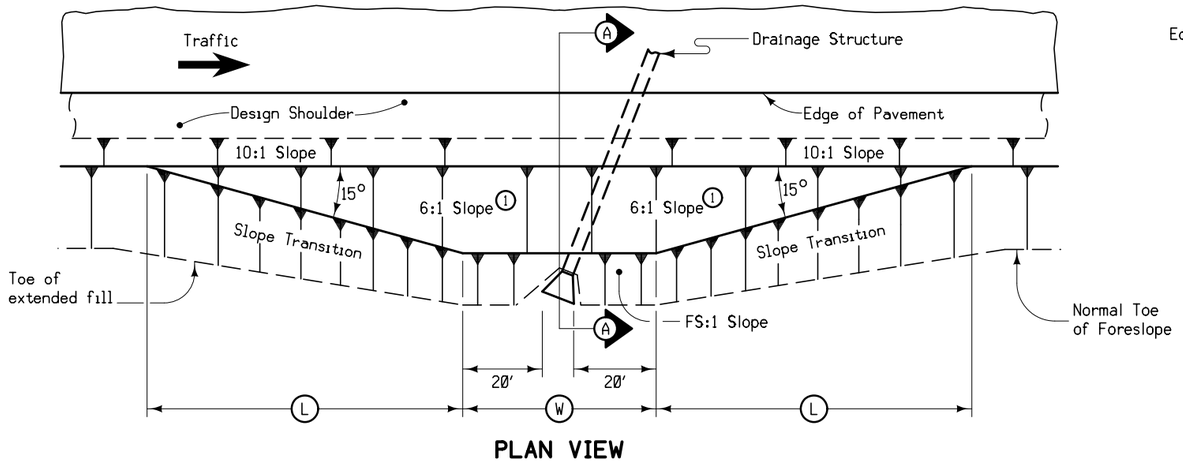

Mainline Jointing:
Transverse joints: CD at 17' spacing
Longitudinal joint: L-2

| 2P_ 04-21-20 | |
|---|---|
| STATION TO STATION | |
| 266+27.53 | 268+02.93 |
| | |
| | |
| | |

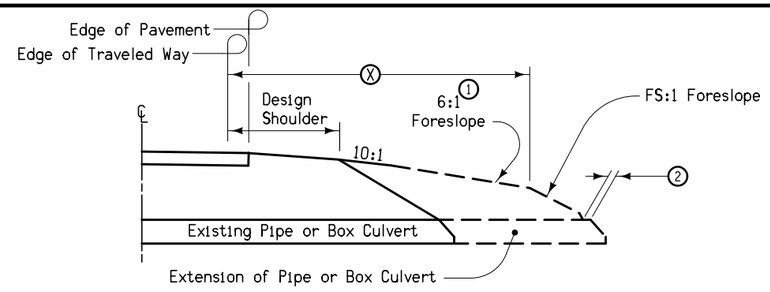

## Full Depth PCC Shoulder

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

| 2_P_FullPCC_ 04-20-21 | | |
|---|---|---|
| STATION TO STATION | | (P) Feet |
| 266+27.53 | 268+02.93 | 10 |
| | | |
| | | |
| | | |




PLAN VIEW




SECTION A-A

| STRUCTURE LOCATION | | (W) | (L) | (X) | (FS) |
|---|---|---|---|---|---|
| STATION (3) | SIDE | Feet | Feet | Feet | |
| 267+23 | RT | 54 | 50 | 24 | 3 |
| 267+23 | LT | 54 | 50 | 24 | 3 |
| | | | | | |
| | | | | | |

DESIGNER INFO

4312
10-15-19

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

## 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

## 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

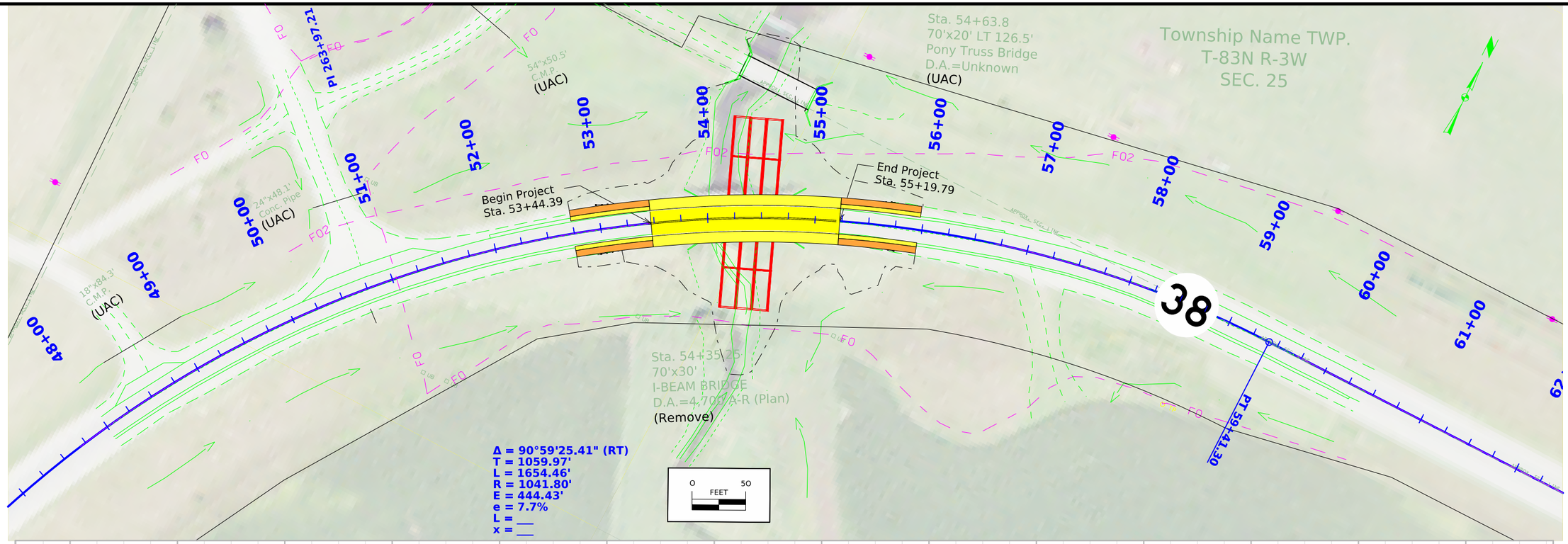
- Proposed Right-of-Way
- Existing Right of Way
- Existing and Proposed Right-of-Way
- Easement and Existing Right-of-Way
- Easement (Temporary)
- Easement
- C/A Access Control
- Property Line

# PLAN AND PROFILE LEGEND AND SYMBOL INFORMATION SHEET

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

| FILE NO. TBD | ENGLISH | DESIGN TEAM TA/TAP | JONES COUNTY | PROJECT NUMBER BRF-038-3(063)--38-53 | SHEET NUMBER D.1 |
|---|---|---|---|---|---|

9:02:50 AM 6/20/2024 ctap pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\5303803022\Design\CADD_Files\Sheet_Files\53038063_LGD.dgn




| | | | | | | |
|---|---|---|---|---|---|---|
| FILE NO. TBD | ENGLISH | DESIGN TEAM TA/TAP | JONES COUNTY | PROJECT NUMBER BRF-038-3(063)--38-53 | SHEET NUMBER D.2 | |

9:21:22 AM 12/3/2024 ctap pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\5303803022\Design\CADD_Files\Sheet_Files\53038063_D02.dgn

# SURVEY INDEX

**County: Jones**
**PIN: 22-53-038-030**
**Project Number: BRF-038-3(063)--38-53**
**Location: IA 38 Bridge over Sibles Creek 0.3 mi S of Co Rd E53**
**Type of Work: Bridge Replacement**
**Project Directory: 5303803022**

## Survey Personnel

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

## Date(s) of Survey

| | |
|---|---|
| Begin Date | 04/16/2024 |
| End Date | 05/15/2024 |

## General Information

This survey is for a Bridge Replacement over Sibles Creek 0.3 mi S of Co. Rd. E53. This survey request was for the US Hwy 38 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 alignment for this project was provided by the District 6 Land Survey 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 |
|---|---|---|---|---|
| 600227 | 8044472.65 | 20640059.17 | 795.12 | CP SCR E 1/4 SEC 35-T83N-R3W FND AS DESCRIBED |
| 600437 | 8052455.62 | 20642703.67 | 772.53 | CP SCR N 1/4 COR SEC 25-T83N FND AS DESCRIBED |
| 300 | 8047219.20 | 20642464.40 | 818.32 | CP SET 5/8th" x 42" rebar from the intersection of Hwy 38 and Co Rd E53 proceed SE 168' point is 75' SW of CL Co Rd E53 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 | |
|---|---|---|---|---|---|---|---|

ROME TWP.
T-83N R-3W
SEC. 25

NE 1/4 NE1/4
T-83N R-3W
SEC. 35

SW 1/4 SW 1/4
T-83N R-3W
SEC. 25

NW 1/4 NW 1/4
T-83N R-3W
SEC. 36

25th St.

1

MELODY S RECK

54+00±EX R/W Cor.
℄ 190'

54+87
℄ 168'

54+97
℄ 156'±EX.R/W

54"x50.5'
C.M.P.

(UAC)

Sta. 54+63.8
70'x20' LT 126.5'
Pony Truss Bridge
D.A.=Unknown

(UAC)

FO

FO2

53+00

54+00

55+00

56+00

57+00

58+00

59+00

60+00

52+00

51+00

50+00

49+00

24"x48.1'
Conc. Pipe

(UAC)

38

18"x84.3'
C.M.P.

(UAC)

53+90
℄ 97'±EX.R/W

54+75
℄ 100'±EX.R/W

54+05
℄ 150'

54+42
℄ 148'

Sta. 54+35.25
70'x30'
I-BEAM BRIDGE
D.A.=4,700 A-R (Plan)

(Remove)

1

MELODY S RECK

ROME TWP.
T-83N R-3W
SEC. 36

38

0 50
FEET

| Right of Way Design Information |
|---|
| THIS SHEET INCLUDED FOR INFORMATION ONLY |

ROW Team: Larson / Hughes
ROW #: STPN-038-3(064)--2J-53
Plan Date: 2-11-2025
Color Legend:

- Property Lines
- Temporary Easement
- Permanent Acquisition
- Permanent Acquisition County
- Permanent Acquisition City

| FILE NO. 98765 | ENGLISH | DESIGN TEAM TA / TAP | Jones COUNTY | PROJECT NUMBER BRF-038-3(063)--38-53 | SHEET NUMBER H.1 |
|---|---|---|---|---|---|

7:34:18 AM 2/11/2025 CHUGHES pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\5303803022\ROW\53038064.dgn

108_23A
8/15/22

# TRAFFIC CONTROL PLAN

Traffic on IA 38 shall be maintained at all times during construction through the use of an offsite detour as shown in the following J sheets.

# 511 TRAVEL RESTRICTIONS

| Line No. | Route | Direction | County | Location Description | Feature Crossed | Object Type | Maint. Bridge No. or Structure ID or FHWA No. | Type of Restriction | Existing Measurement | Construction Measurement | Construction Measurement as Signed | Projected As Built Measurement | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.0 | IA 38 | Both | Jones | IA 38 over Sibles Creek | | Traffic Control Device | 32290 | Road Closure | | | | | |

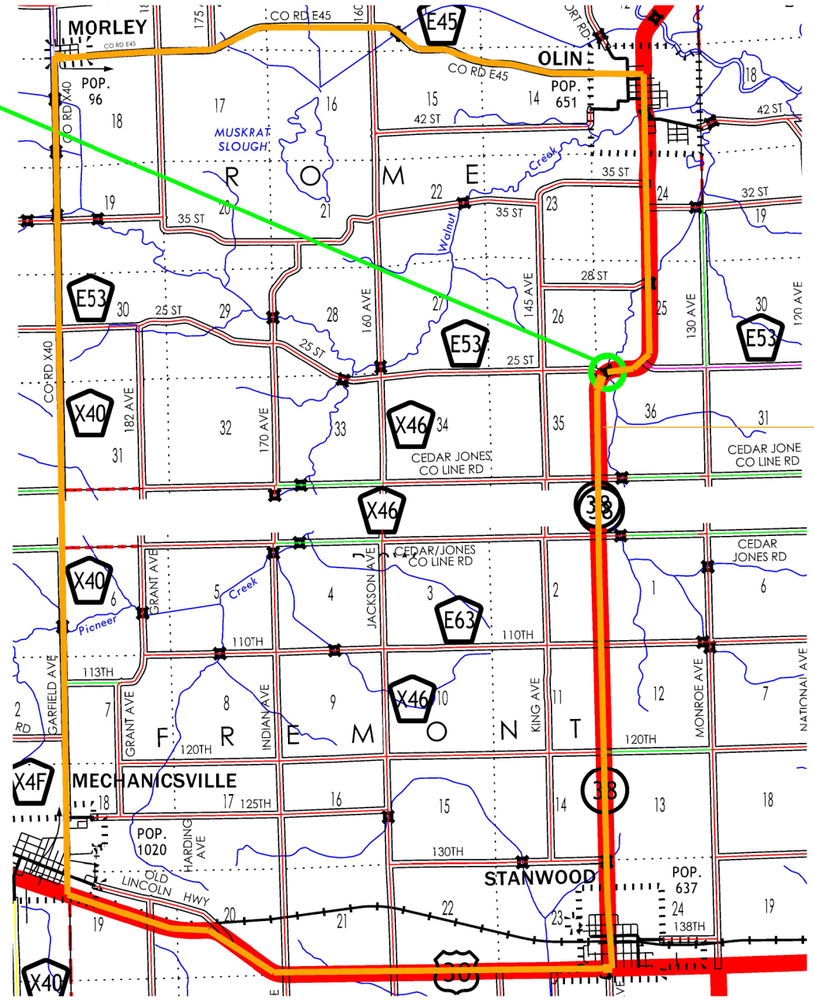
# COORDINATED OPERATIONS

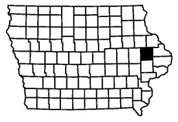
Other work in progress during the same period of time will include the construction of the projects listed. Coordinate operations with those of other contractors working within the same area.

| Project | Type of Work |
|---|---|
| None Provided | |

STA 267+15.00
FHWA 32290
MAINT. NO. 5340.1S038
DESIGN 101

# JONES COUNTY



OVER SIBLES CREEK ON IA 38, 0.3 MI S OF CO RD E53
BRF-038-3(063)—38-53
PROJECT CODE: 22-53-038-030

53

| FILE NO. TBD | ENGLISH | DESIGN TEAM TA/TAP | JONES COUNTY | PROJECT NUMBER BRF-038-3(063)--38-53 | SHEET NUMBER J.4 |
|---|---|---|---|---|---|

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Control Point: CP300, N 8047219.20, E 20642464.40, CP Set ⅝" x 42" rebar from the intersection of Hwy 38 and Co Rd E53 proceed SE 168' point is 75' SW of ℄ Co Rd E53 4" below surface, Elev. = 818.32

**General Notes:**
This design is for the replacement of the existing 71'-3" x 30'-0" steel I-beam bridge, Jones Design No. 1351, FHWA No. 032290, Maint. No. 5340.1S038.

**Design Notes:**
Inlet revetment is proposed at the culvert due to the velocity exceeding policy limits. Outlet revetment is proposed at the culvert
due to the creek channel shaping.

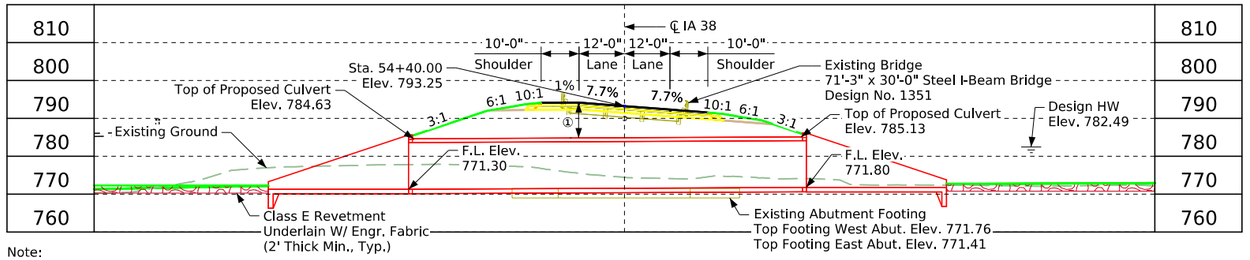
Flow line of the culvert has been set 1' below streambed.

Span length exceeds the maximum span length for standard triple cell culverts. Therefore, the structure will require a non-standard design.

Assumed culvert top slab depth is 12" and assumed wall thickness is 12".

Clearances to the existing structure are derived from existing drawings. It is the responsibility of the contractor to verify the dimensions as needed.

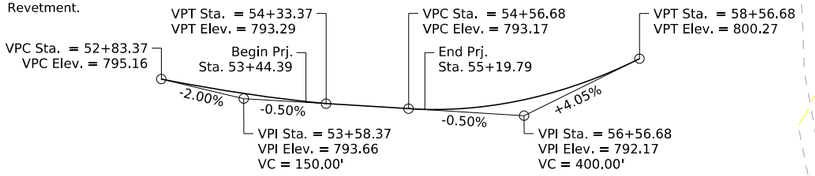
The west abutment of the existing bridge, located at the downstream side of the culvert, shall be well protected from stream velocity using Class E Revetment.



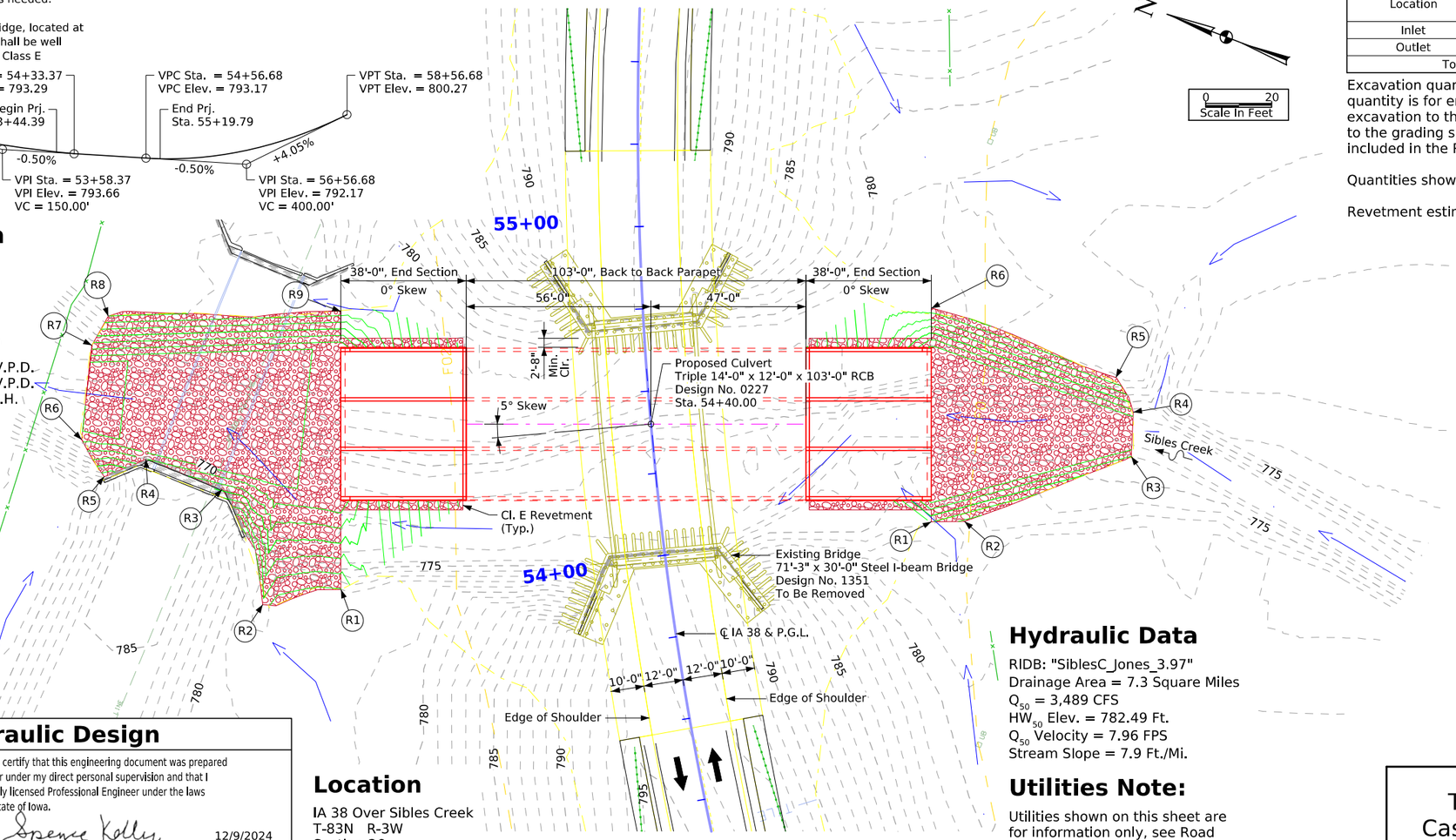

Note:
Roadway dimensions are measured perpendicular to ℄ IA 38.

① Max Fill Height = 9'-6"

## Longitudinal Section Along ℄ Culvert




## Profile Grade on ℄ IA 38 & P.G.L.




## IA 38 Traffic Estimate

| | |
|---|---|
| 2027 AADT | 1,100 V.P.D. |
| 2047 AADT | 1,100 V.P.D. |
| 2047 DHV | ??? V.P.H. |
| Trucks | 22 % |
| Total Design ESALs | ??? |

## Curve Data IA 38

PI Sta. 53+46.80
△= 90°59'25.41" (RT)
T = 1059.97'
L = 1654.46'
E = 444.43'
R = 1041.80'
PC Sta. 42+86.48
PT Sta. 59+41.30

## Hydraulic Design

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.

Licensed Professional Engineer — Spencer Kelly — P29157 — Iowa

Signature: Spencer Kelly — Date: 12/9/2024

Printed or Typed Name: Spencer Kelly

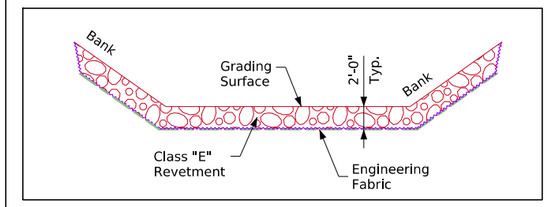
My license renewal date is December 31, 2025

Pages or sheets covered by this seal: Sheets V.1 and V.2

## Location

IA 38 Over Sibles Creek
T-83N R-3W
Section 36
Rome Township
Jones County
FHWA No. 032291
Bridge Maint. No. 5340.1S038
Latitude 41.961118°
Longitude -91.149890°

## Situation Plan




## Typical Channel Protection

### Estimated Revetment Quantities Included With Road Plans

| Location | Revetment Class "E" (Ton) | Engineering Fabric (SY) | CL. 10 Channel Excavation (CY) |
|---|---|---|---|
| Inlet | 370.7 | 347.5 | 231.6 |
| Outlet | 621.9 | 583.0 | 388.6 |
| Totals | 992.6 | 930.5 | 620.3 |

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.

Revetment estimated at 1.6 Ton/CY.

## Revetment Layout Table

| Points | Inlet End | | |
|---|---|---|---|
| | Station | Offset | Elev. |
| R1 | 53+99.97 | 81.39' Rt. | 775.93 |
| R2 | 53+98.66 | 91.38' Rt. | 777.21 |
| R3 | 54+13.90 | 143.92' Rt. | 774.01 |
| R4 | 54+29.38 | 145.93' Rt. | 773.56 |
| R5 | 54+41.96 | 141.79' Rt. | 777.92 |
| R6 | 54+70.22 | 87.35' Rt. | 778.70 |
| Points | Outlet End | | |
| | Station | Offset | Elev. |
| R1 | 54+01.82 | 98.78' Lt. | 778.04 |
| R2 | 54+00.41 | 122.80' Lt. | 777.26 |
| R3 | 54+32.55 | 131.21' Lt. | 774.74 |
| R4 | 54+42.42 | 153.44' Lt. | 772.98 |
| R5 | 54+38.75 | 166.50' Lt. | 776.59 |
| R6 | 54+48.84 | 172.34' Lt. | 771.76 |
| R7 | 54+73.21 | 167.36' Lt. | 773.55 |
| R8 | 54+80.62 | 161.92' Lt. | 777.95 |
| R9 | 54+78.95 | 91.43' Lt. | 777.73 |

## Hydraulic Data

RIDB: "SiblesC_Jones_3.97"
Drainage Area = 7.3 Square Miles
$Q_{50}$ = 3,489 CFS
$HW_{50}$ Elev. = 782.49 Ft.
$Q_{50}$ Velocity = 7.96 FPS
Stream Slope = 7.9 Ft./Mi.

## Utilities Note:

Utilities shown on this sheet are for information only, see Road Design sheets for final utility information.

## Utility Legend:

FO - Buried Fiber Optic, Olin Telephone Company
FO2 - Buried Fiber Optic, Mediacom

Design For 5° Skew (LA)

# Triple 14'-0" x 12'-0" x 103'-0" Cast-in-Place Concrete Box Culvert

## Situation Plan

STA. 54+40.00 (IA 38)

December 2024

Jones County
IOWA DEPARTMENT OF TRANSPORTATION

Design No. 0227 Design Sheet No. 1 of 1 FHWA/Asset 032291

| FILE NO. 32674 | ENGLISH | DESIGN TEAM Jacobs | Jones COUNTY | PROJECT NUMBER BRF-038-3(063)--38-53 | SHEET NUMBER V.1 | |
|---|---|---|---|---|---|---|

4:23:04 PM 12/9/2024 saaveddj pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5303803022\Bridge\(63)_Bridge-Unspecified\SHT_53038063_JACOBS_0227_032291_Z10.dgn

Control Point: CP300, N 8047219.20, E 20642464.40, CP Set ⅝" x 42" rebar from the intersection of Hwy 38 and Co Rd E53 proceed SE 168' point is 75' SW of ℄ Co Rd E53 4" below surface, Elev. = 818.32

**General Notes:**
This design is for the replacement of the existing 71'-3" x 30'-0" steel I-beam bridge, Jones Design No. 1351, FHWA No. 032290, Maint. No. 5340.1S038.

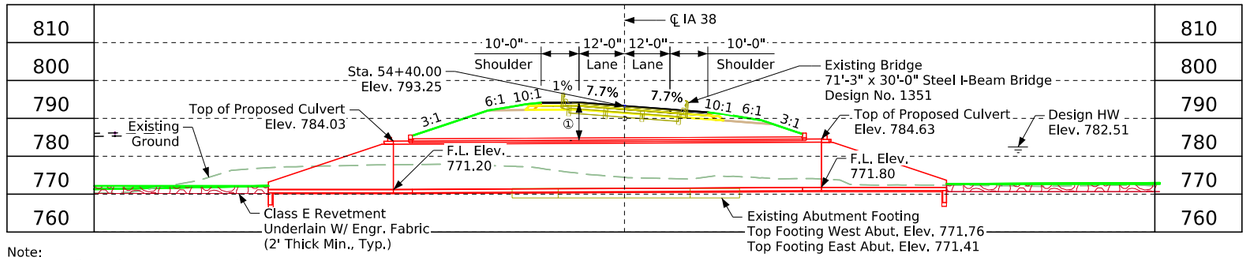
**Design Notes:**
Inlet revetment is proposed at the culvert due to the velocity exceeding policy limits. Outlet revetment is proposed at the culvert due to the creek channel shaping.

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

Assumed culvert top slab depth is 10" and assumed wall thickness is 9". Provide 6" gap between culvert barrels.

Clearances to the existing structure are derived from existing drawings. It is the responsibility of the contractor to verify dimensions as needed.

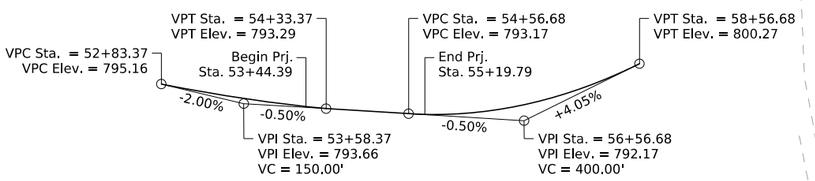
The west abutment of the existing bridge, located at the downstream side of the culvert, shall be well protected from stream velocity using Class E Revetment.




Note:
Roadway dimensions are measured perpendicular to ℄ IA 38.

① Max Fill Height = 10'-0"

## Longitudinal Section Along ℄ Culvert



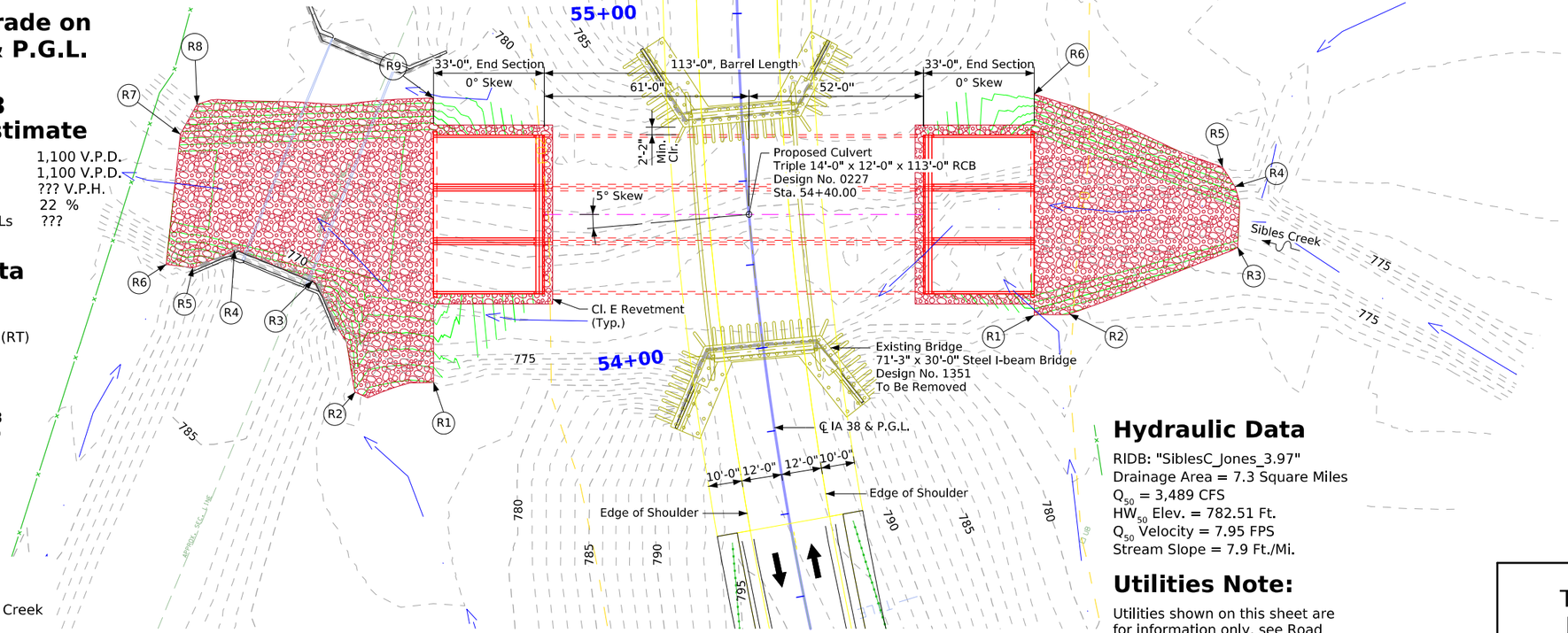

## Profile Grade on ℄ IA 38 & P.G.L.

### IA 38 Traffic Estimate

| | |
|---|---|
| 2027 AADT | 1,100 V.P.D. |
| 2047 AADT | 1,100 V.P.D. |
| 2047 DHV | ??? V.P.H. |
| Trucks | 22 % |
| Total Design ESALs | ??? |

### Curve Data IA 38

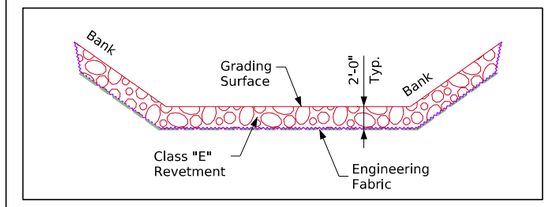
PI Sta. 53+46.80
△= 90°59'25.41" (RT)
T = 1059.97'
L = 1654.46'
E = 444.43'
R = 1041.80'
PC Sta. 42+86.48
PT Sta. 59+41.30




## Situation Plan

### Location

IA 38 Over Sibles Creek
T-83N R-3W
Section 36
Rome Township
Jones County
FHWA No. 032291
Bridge Maint. No. 5340.1S038
Latitude 41.961118°
Longitude -91.149890°




## Typical Channel Protection

## Estimated Revetment Quantities Included With Road Plans

| Location | Revetment Class "E" (Ton) | Engineering Fabric (SY) | CL. 10 Channel Excavation (CY) |
|---|---|---|---|
| Inlet | 389.5 | 365.2 | 243.4 |
| Outlet | 642.6 | 602.5 | 401.6 |
| Totals | 1032.1 | 967.7 | 645.0 |

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.

Revetment estimated at 1.6 Ton/CY.

## Revetment Layout Table

| Points | Inlet End | | |
|---|---|---|---|
| | Station | Offset | Elev. |
| R1 | 53+99.47 | 81.33' Rt. | 775.95 |
| R2 | 53+98.27 | 91.31' Rt. | 777.24 |
| R3 | 54+13.89 | 143.91' Rt. | 774.03 |
| R4 | 54+34.92 | 145.00' Rt. | 775.76 |
| R5 | 54+42.01 | 141.79' Rt. | 777.95 |
| R6 | 54+70.86 | 87.38' Rt. | 778.69 |
| **Points** | **Outlet End** | | |
| | Station | Offset | Elev. |
| R1 | 54+01.86 | 98.78' Lt. | 778.02 |
| R2 | 54+01.95 | 122.40' Lt. | 777.14 |
| R3 | 54+32.55 | 131.21' Lt. | 774.65 |
| R4 | 54+42.44 | 153.43' Lt. | 772.92 |
| R5 | 54+38.80 | 166.49' Lt. | 776.55 |
| R6 | 54+40.26 | 174.30' Lt. | 777.82 |
| R7 | 54+73.21 | 167.33' Lt. | 773.58 |
| R8 | 54+80.69 | 161.91' Lt. | 778.00 |
| R9 | 54+79.30 | 91.43' Lt. | 777.61 |

## Hydraulic Data

RIDB: "SiblesC_Jones_3.97"
Drainage Area = 7.3 Square Miles
$Q_{50}$ = 3,489 CFS
$HW_{50}$ Elev. = 782.51 Ft.
$Q_{50}$ Velocity = 7.95 FPS
Stream Slope = 7.9 Ft./Mi.

## Utilities Note:

Utilities shown on this sheet are for information only, see Road Design sheets for final utility information.

## Utility Legend:

FO - Buried Fiber Optic, Olin Telephone Company
FO2 - Buried Fiber Optic, Mediacom

Design For 5° Skew (LA)

# Triple 14'-0" x 12'-0" x 113'-0" Precast Concrete Box Culvert

## Situation Plan

STA. 54+40.00 (IA 38)

December 2024

## Jones County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. 0227 Design Sheet No. 1 of 1 FHWA/Asset 032291

| FILE NO. 32674 | ENGLISH | DESIGN TEAM Jacobs | Jones COUNTY | PROJECT NUMBER BRF-038-3(063)-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. TBD | ENGLISH | DESIGN TEAM TA/TAP | JONES COUNTY | PROJECT NUMBER BRF-038-3(063)--38-53 | SHEET NUMBER W.1 |
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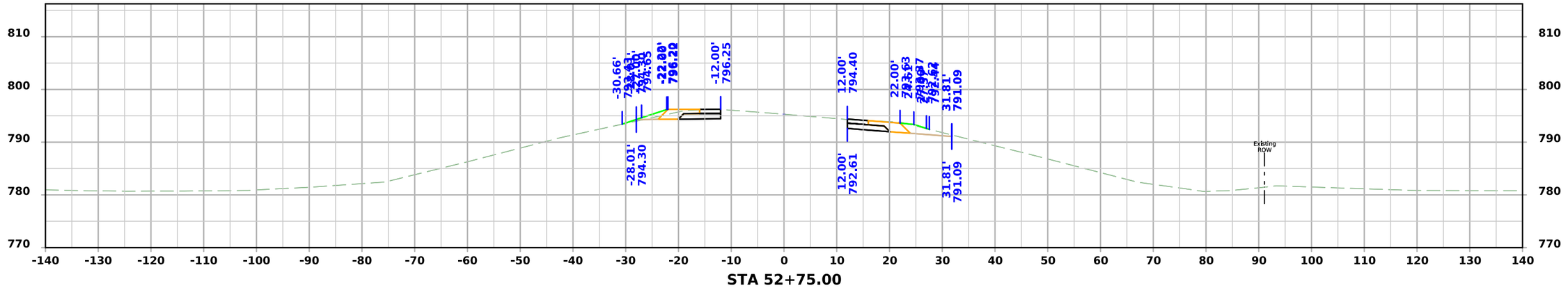
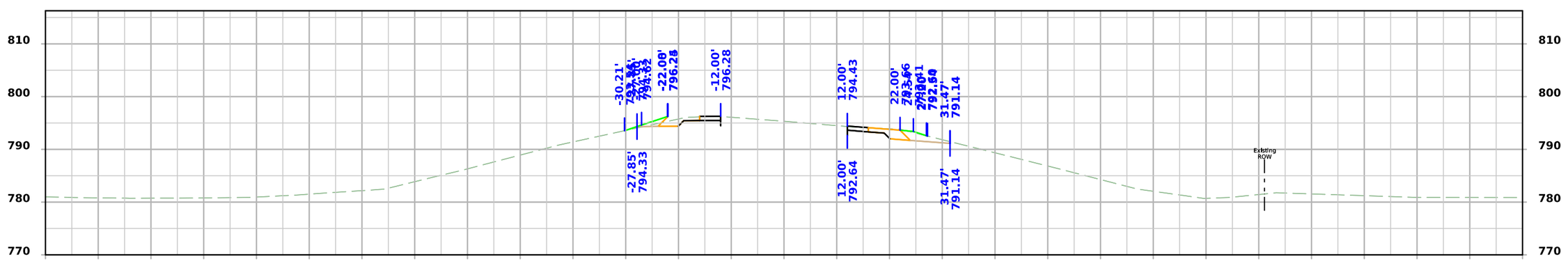



STA 52+75.00

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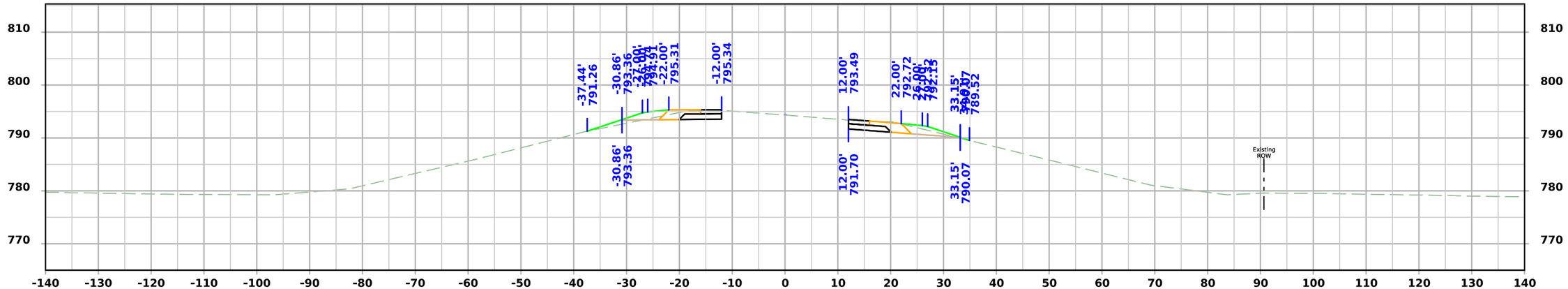


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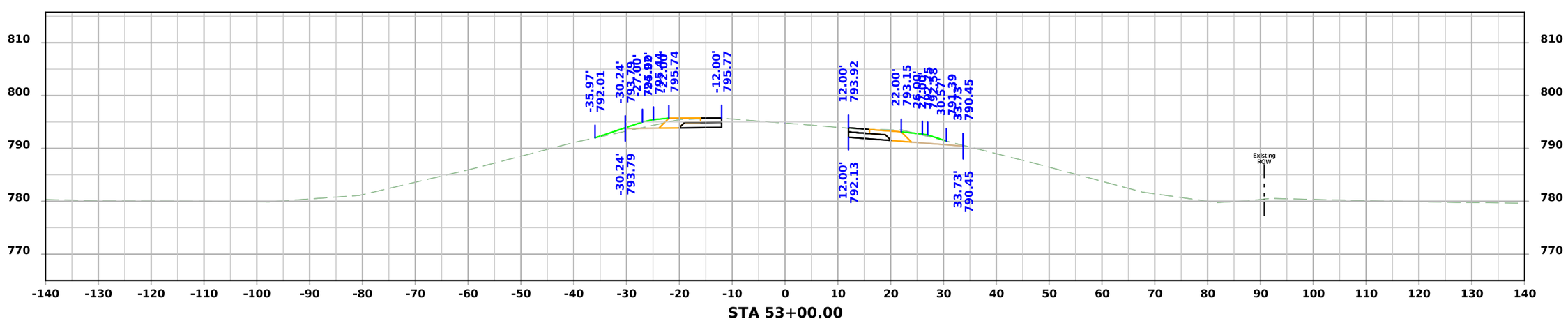


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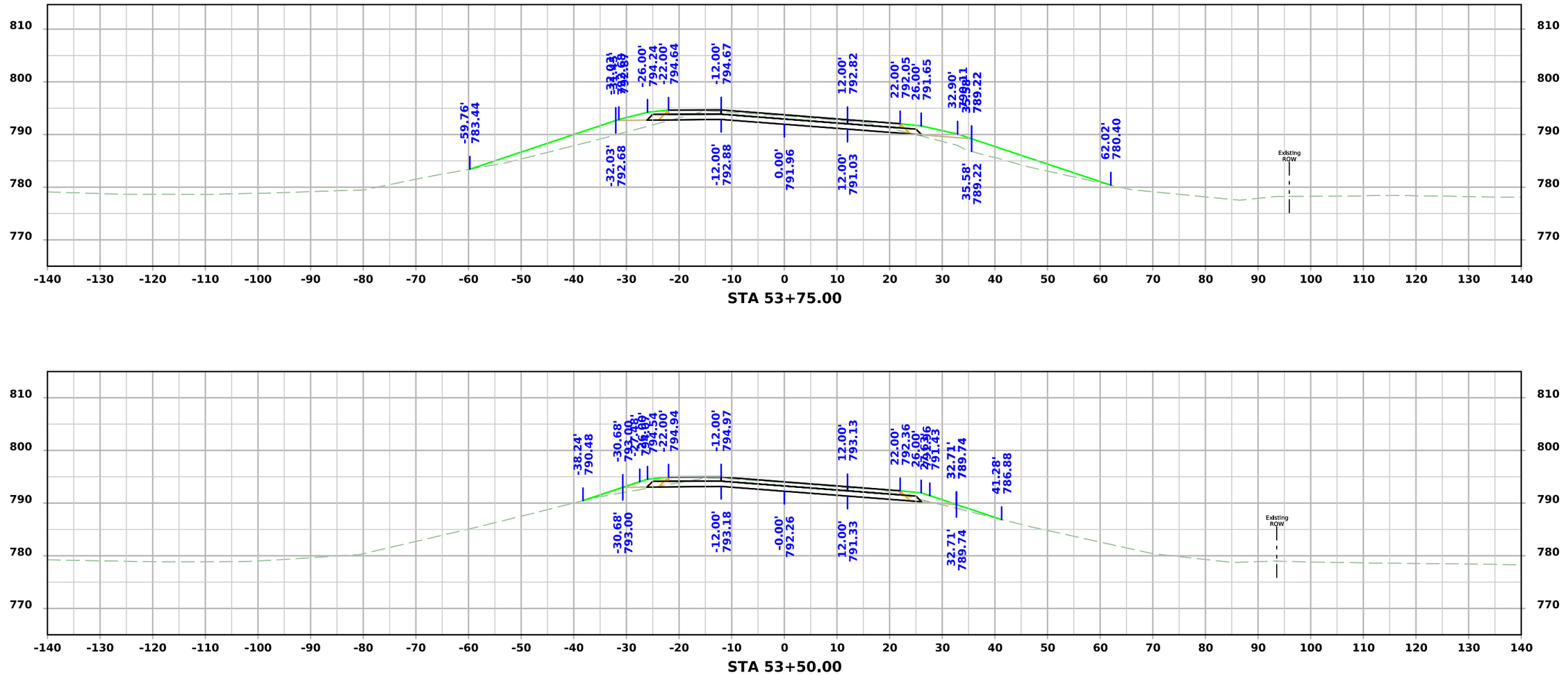


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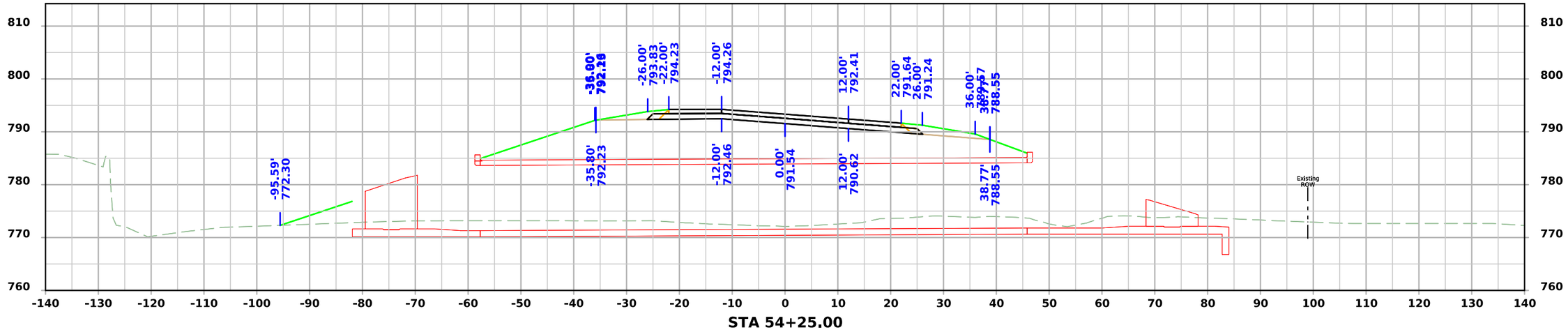


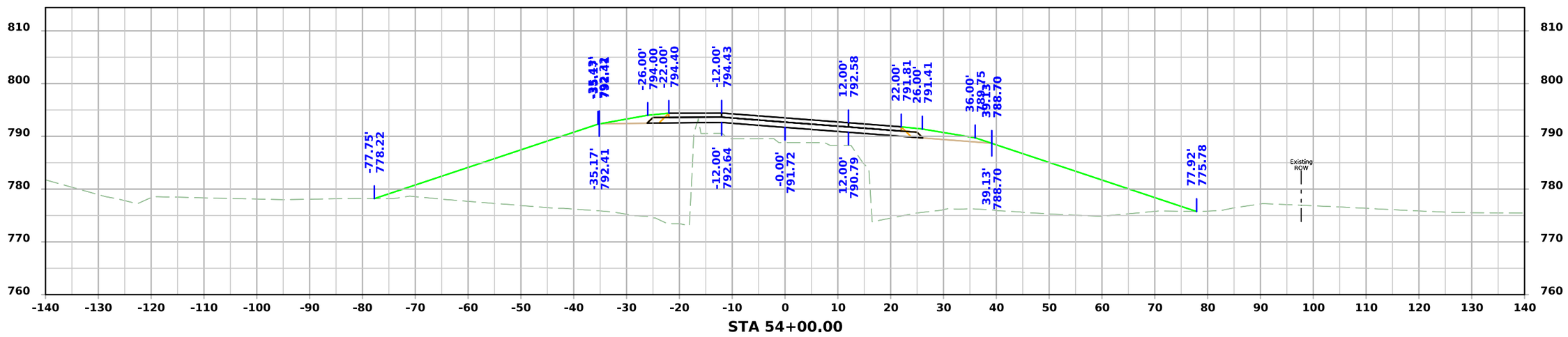


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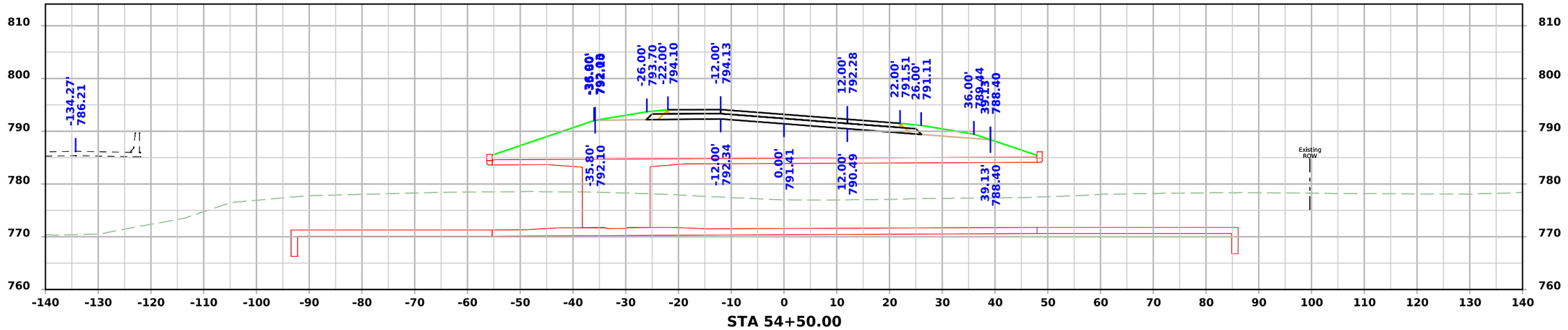


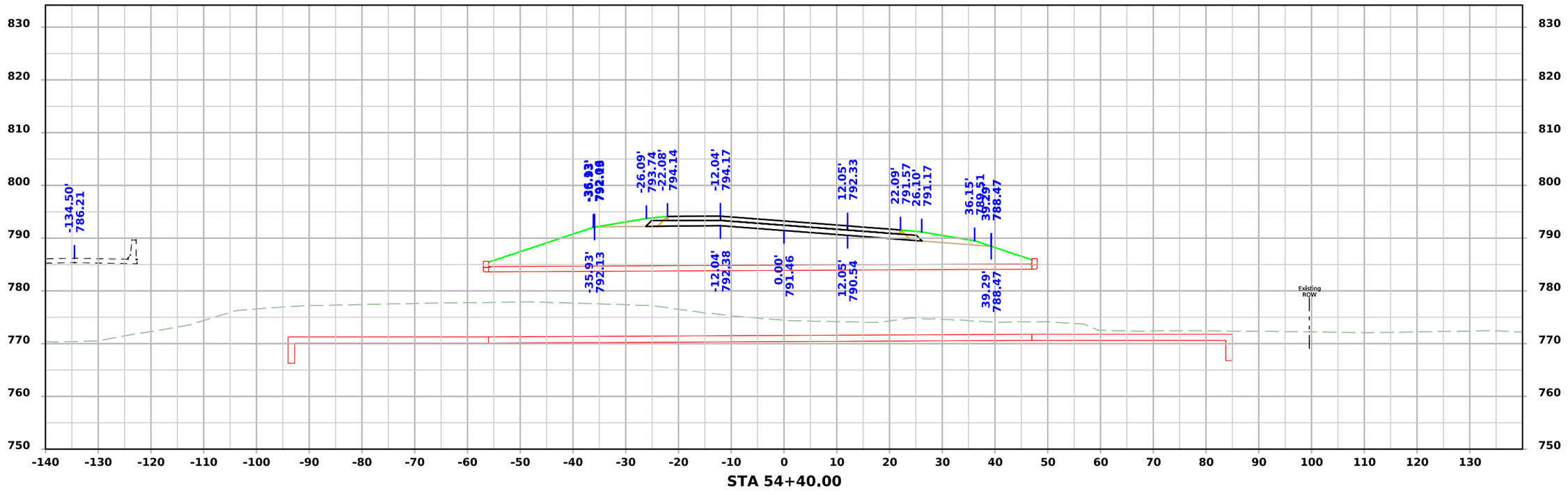


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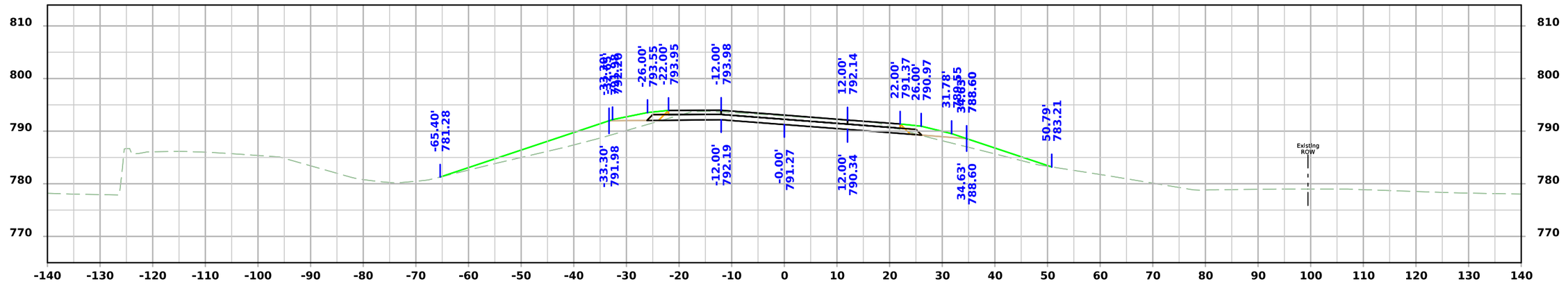


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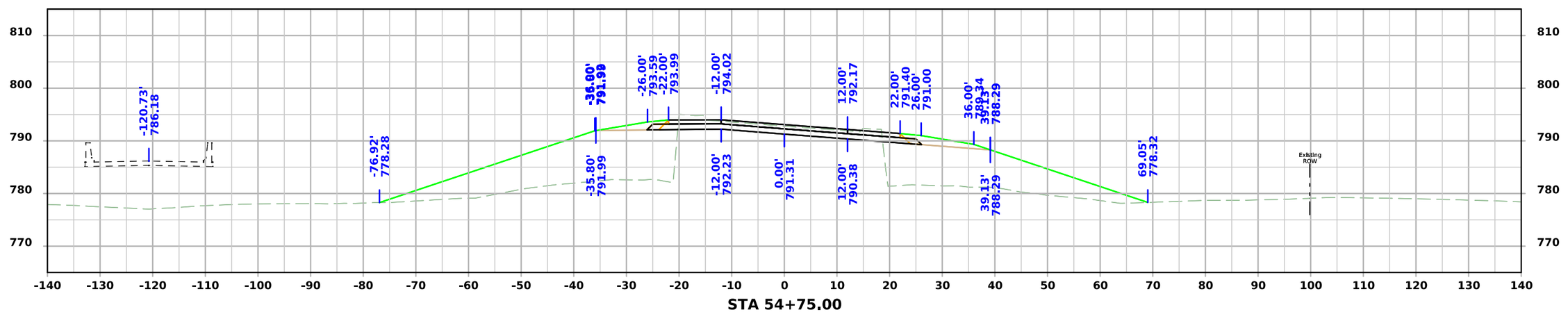


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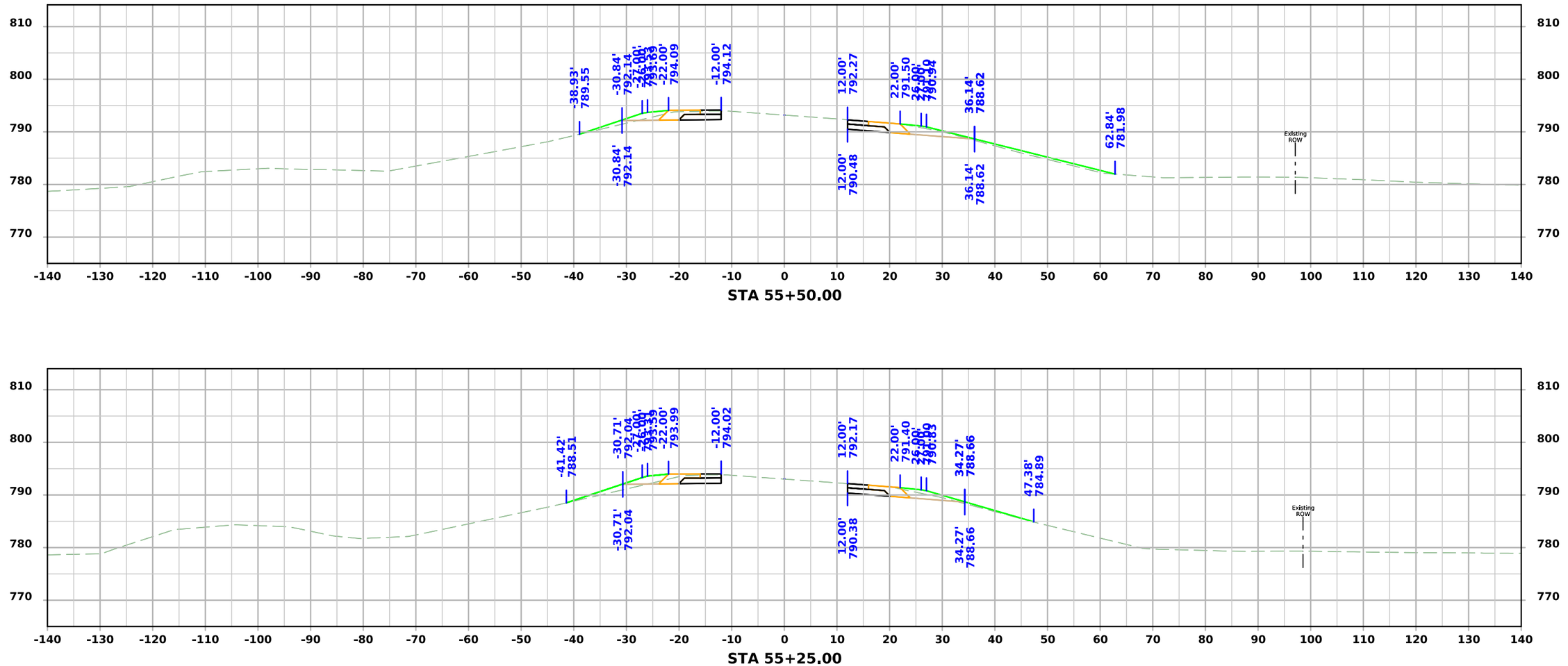


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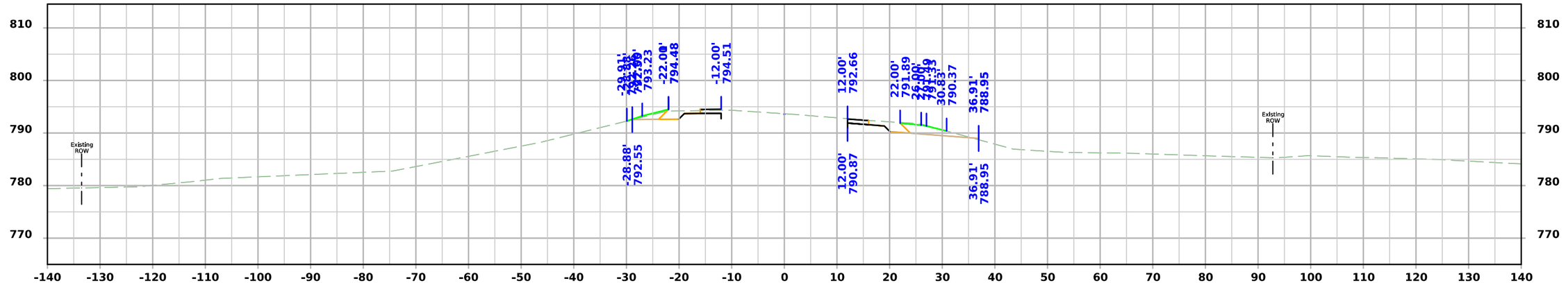


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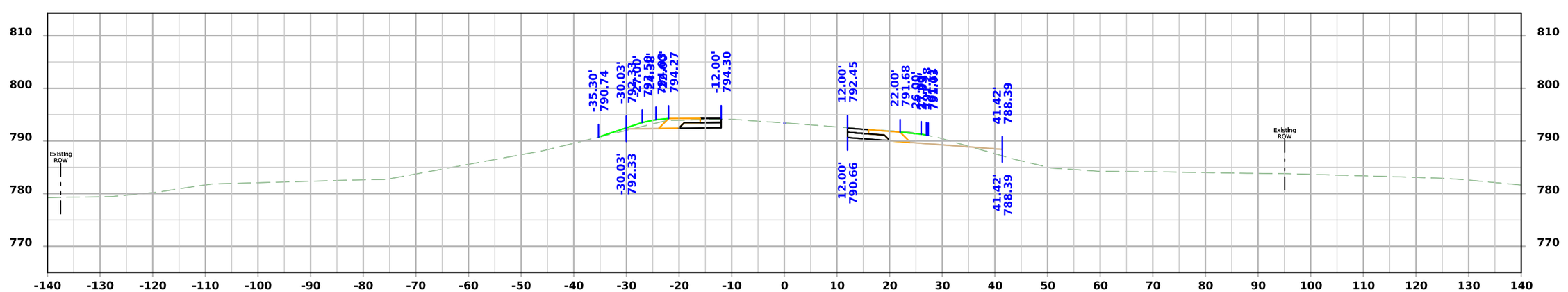


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