Bridge Replacement
BRFN-141-1(046)--39-97
LETTING DATE 11/20/2029

WOODBURY COUNTY

INDEX OF SHEETS

IOWA DOT

REVISIONS

TOTAL 35
PROJECT IDENTIFICATION NUMBER
24-97-141-010
PROJECT NUMBER
BRFN-141-1(046)--39-97
R.O.W. PROJECT NUMBER
STPN-141-1 (048)--2J-97

PLANS OF PROPOSED IMPROVEMENT ON THE

PRIMARY ROAD SYSTEM

WOODBURY COUNTY

Bridge Replacement

IA 141 over Fork Little Sioux River
0.3 mile west of Secondary Road K64

SCALES: As Noted

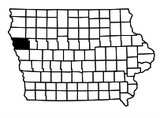
Refer to the Proposal Form for list of applicable specifications.

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

D2 Field Exam note:
Verification of Design Year ADT has been requested. What impact will the updated traffic count have on the design?

Letting may need to change based on county project on detour route. District will check on schedule

Assuming B02 submittal is not necessary since not replacing any pipes



DESIGN DATA RURAL			
2024	AADT	1970	V.P.D.
2044	AADT	2310	V.P.D.
2044	DHV	xx	V.P.H.
TRUCKS		13	%
Total Design ESALs		--	

INDEX OF SEALS

SHEET NO.	NAME	TYPE	BID QUANTITY SHEETS
A.1	X	Primary Signature Block	X
V.1	Mark D. Werner	Hydraulics Design	X

PRELIMINARY PLANS

Subject to change by final design.

D5 PLAN-Date: 12/05/2025

FILE NO. 32857 | ENGLISH | DESIGN TEAM Stanley Consultants, Inc. | WOODBURY COUNTY | PROJECT NUMBER BRFN-141-1(046)--39-97 | SHEET NUMBER A.1

2:26:12 PM 12/1/2025 9474 pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\9714101024\Design\CADD_Files\Sheet_Files\SHT_97141046_A01.dgn

IA 141 BRIDGE REPLACEMENT
FHWA NO. 053261

LOCATION MAP SCALE
0 1 2 3
Miles

FILE NO. 32857	ENGLISH	DESIGN TEAM Stanley Consultants, Inc.	WOODBURY COUNTY	PROJECT NUMBER BRFN-141-1(046)--39-97	SHEET NUMBER A.2

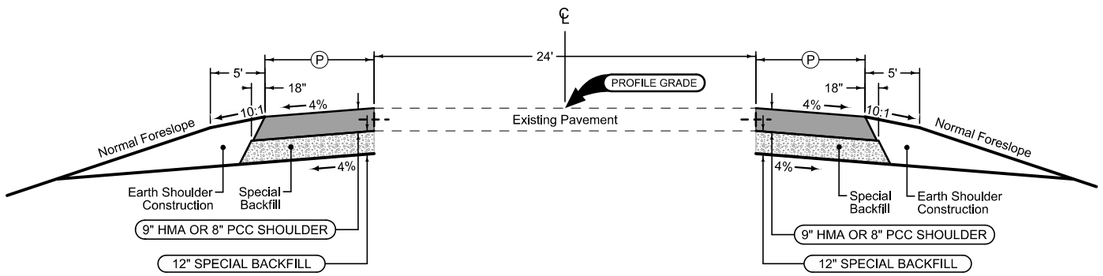
9:20:57 AM 9/22/2025 9474 pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\9714101024\Design\CADD_Files\Sheet_Files\SHT_97141046_A01.dgn

Paved Shoulder at Guardrail

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

2_P_Guard_
04-21-20

STATION TO STATION		(P) Feet
110+19.52	112+07.65	10
112+07.65	112+39.80	13.7
115+00.20	115+38.41	11.7 - 13.6
115+38.41	115+58.41	13.6
115+58.41	117+20.48	10



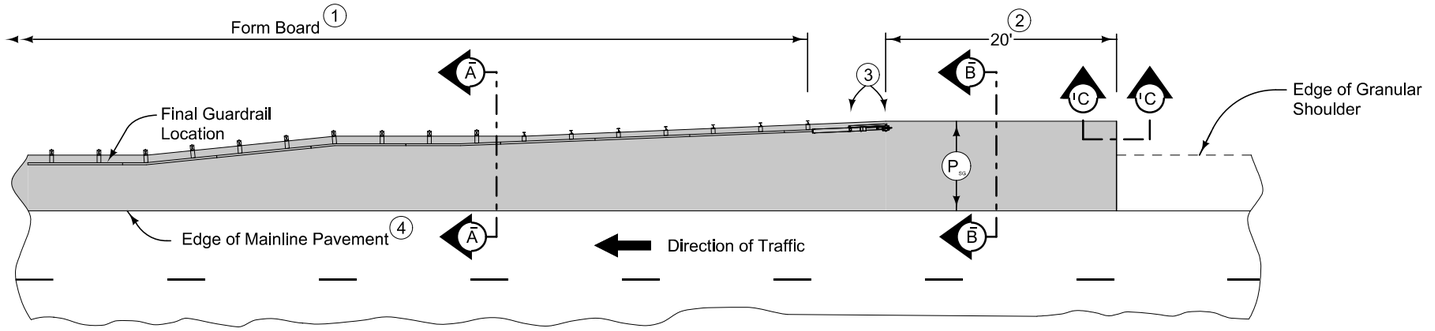
Paved Shoulder at Guardrail

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

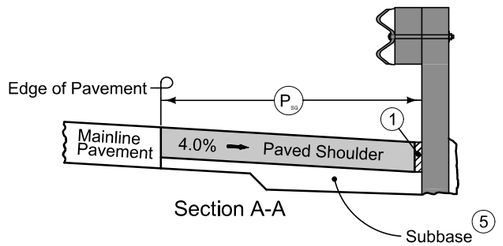
2_P_Guard_
04-21-20

STATION TO STATION		(P) Feet
110+19.52	111+81.60	10
111+81.60	112+01.60	13.9
112+01.60	112+39.80	13.9 - 12
115+00.31	115+28.18	13.4
115+28.18	117+20.48	10

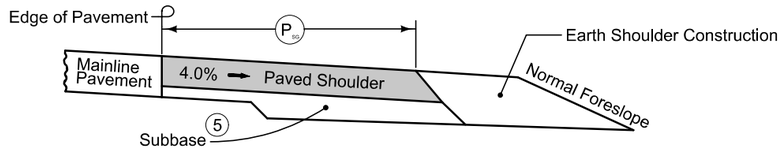
IA 141



PLAN VIEW

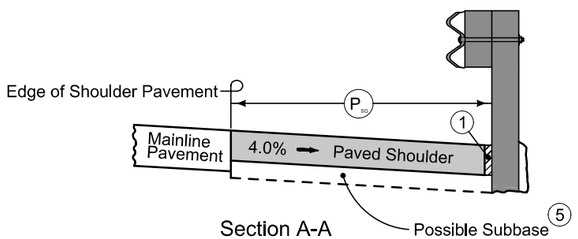


Section A-A

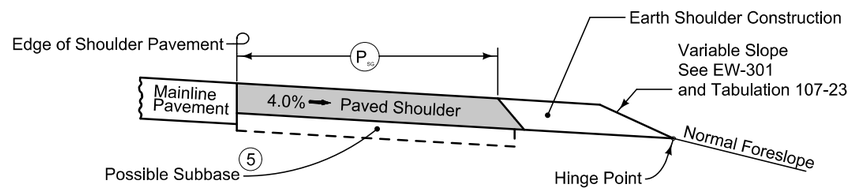


Section B-B

NEW CONSTRUCTION



Section A-A



Section B-B

EXISTING SHOULDER

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

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

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

Refer to Tabulation 112-9 for shoulder quantities.

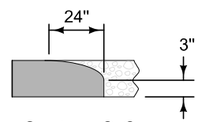
(1) PCC option only: When guardrail posts are installed prior to construction of PCC paved shoulder, fasten form board to the face of guardrail posts for the length shown.

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

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

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

(5) 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)

100_01A
3/24/25

ESTIMATED PROJECT QUANTITIES

Line No.	Item No.	Item Code	Item	Unit	Total	As Built Qty.

100_01D
8/15/22

PROJECT DESCRIPTION

This project involves the replacement of the IA 141 bridge over Fork Little Sioux River, located 0.3 mile west of Secondary Road K64.

STANDARDS

The following Standards apply to construction work on this project.

Number	Date	Title
BA-200	4/15/2025	Steel Beam Guardrail Components
BA-202	4/15/2025	Steel Beam Guardrail Bolted End Anchor
BA-205	10/17/2023	Steel Beam Guardrail Tangent End Terminal (MASH TL-3)
BA-209	10/15/2024	Steel Beam Guardrail Barrier Transition Section (Mash Tl-3, 34in Mounting Height)
BA-225	10/18/2022	Steel Beam Guardrail Tangent End Terminal (MASH TL-2)
BA-250	10/21/2025	Steel Beam Guardrail Installation at Concrete Barrier or Bridge End Post (MASH TL-3)
BA-260	10/21/2025	Steel Beam Guardrail Installation at Concrete Barrier or Bridge End Post (MASH TL-2)
BR-205	10/21/2025	DOUBLE REINFORCED 12'' APPROACH (Slab Bridge)
BR-211	10/21/2025	Bridge Approach (Abutting PCC or Composite Pavement)
DR-303	10/17/2017	Subdrains (Longitudinal)
DR-306	10/17/2023	Precast Concrete Headwall for Subdrain Outlets
EC-201	4/20/2021	Silt Fence
EC-202	10/21/2014	Floating Silt Curtain
EC-204	10/19/2021	Perimeter, Slope and Ditch Check Sediment Control Devices
EC-303	10/19/2021	Stabilized Construction Entrance
EC-502	4/21/2015	Seeding in Rural Areas
EW-202	4/19/2016	Bridge Berm Grading without Recoverable Slope (Non-Barnroof Section)
EW-301	4/16/2024	Guardrail Grading
EW-401	10/20/2015	Temporary Stream Crossing, Causeway, or Equipment Pad
EW-402	4/18/2017	Temporary Stream Diversion
PM-110	10/15/2024	Line Types
PV-101	10/21/2025	Joints
PV-102	10/21/2025	PCC Curb Details
SI-172	4/19/2016	Delineators
SI-173	4/19/2016	Object Markers
SI-881	4/16/2019	Special Signs for Workzones
TC-1	10/15/2019	Work Not Affecting Traffic (Two-Lane or Multi-Lane)
TC-202	4/18/2023	Work Within 15 ft of Traveled Way
TC-252	10/21/2025	Routes Closed to Traffic

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
- E1
- G
- T1

FO1D, Mid-American Energy - Quality D
EL1D, Mid-American Energy - Quality D
GL1D, Enterprise Products Operating - Quality D
TL1D, Iowa Western Telephone Company - Quality D

PLAN VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

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

PROFILE VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

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

- Reference Point / 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. 32857	ENGLISH	DESIGN TEAM Stanley Consultants, Inc.	WOODBURY COUNTY	PROJECT NUMBER BRFN-141-1(046)--39-97	SHEET NUMBER D.1	

10:40:41 AM 9/22/2025 9474 pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\9714101024\Design\CADD_Files\Sheet_Files\SHT_97141046_D01.dgn

109+00 110+00 111+00 112+00 113+00 114+00

Willow Township
T-86N R-45W
Section 29

18"x61'
HDPE Pipe
(U.A.C.)

+20 Prop.
Type "C" Ent.

Exist. ROW

E1 T1 FO

STA 113+19.52 (ML141)
END BRIDGE APPROACH
BEGIN BRIDGE CONSTRUCTION

Fork Little Sioux River

STA 110+19.52 (ML141)
BEGIN PROJECT

IA 141 (ML141)

STA 112+39.80 (ML141)
BEGIN BRIDGE APPROACH

Fork Little Sioux River

30"x46'
Conc. Pipe
(U.A.C.)

Exist. ROW

Exist. ROW

Note for Final Designer:
Do not salvage guardrail.

Willow Township
T-86N R-45W
Section 32

0 20
FEET

Sta. 113+70.00
Proposed 100' x 44'
Continuous Concrete Slab Bridge

Note for Final Designer:
NW corner guardrail shall use TL-3
BA-209 with TL-2 End Treatment.

1105 1100 1095 1090 1085 1080 1075 1070 1065 1060 1055 1050 1045 1040 1035 1030 1025 1020 1015 1010

Prop.
Type. "C" Ent.

-8.0%

112+20.63

STA 112+39.80
BEGIN PAVEMENT CONSTRUCTION
ELEV 1068.89

VPI = +70.00
EL = 1070.00
L = 200.00'
K = 140

+0.85% -0.58%

(U.A.C.)

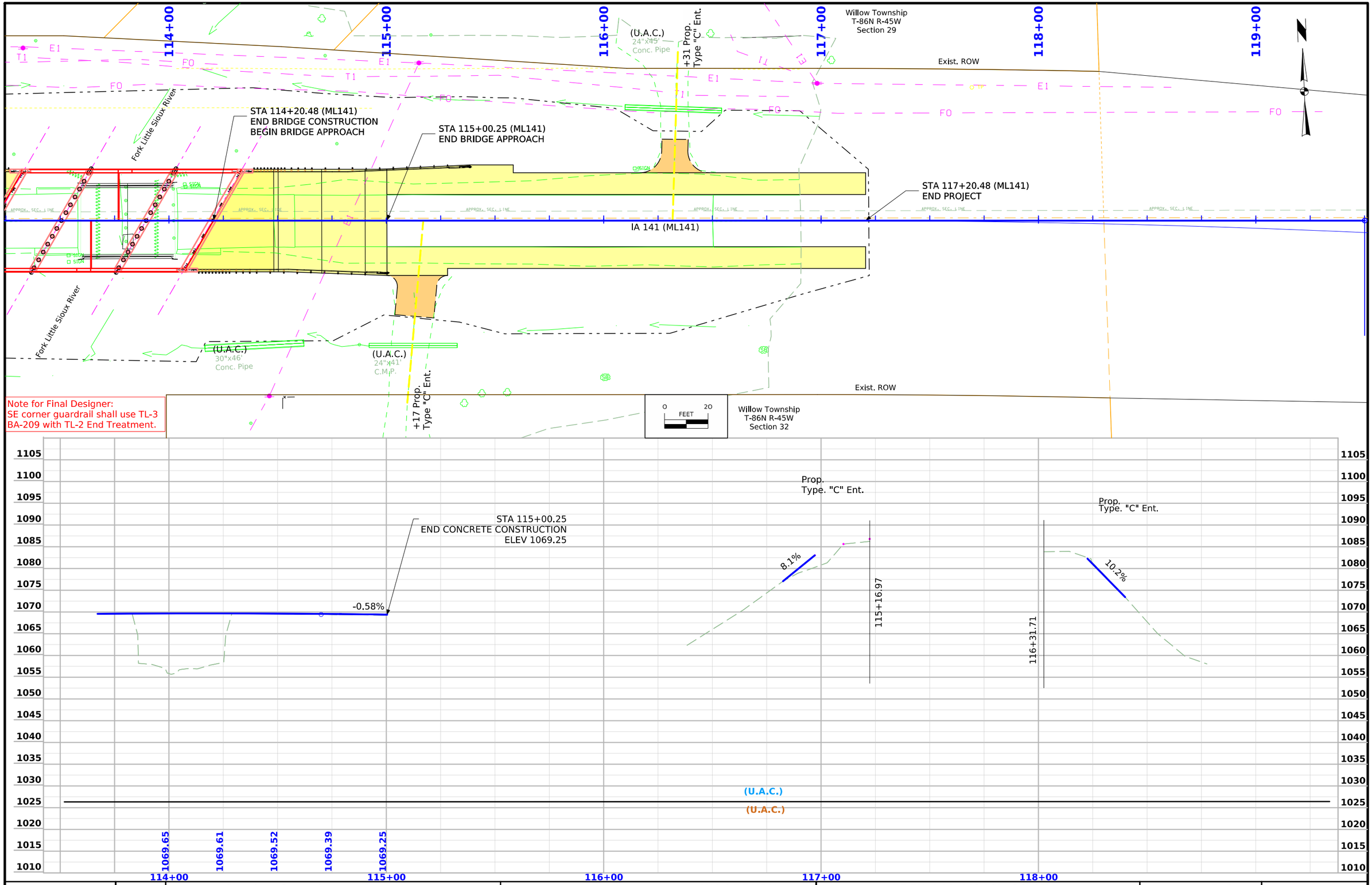
(U.A.C.)

1068.89 1068.98 1069.19 1069.37 1069.51 1069.60 1069.65

109+00 110+00 111+00 112+00 113+00

FILE NO. 32857	ENGLISH	DESIGN TEAM Stanley Consultants, Inc.	WOODBURY COUNTY	PROJECT NUMBER BRFN-141-1(046)--39-97	SHEET NUMBER D.2

10:29:12 AM 10/12/2025 9474 pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\9714101024\Design\CADD_Files\Sheet_Files\SHT_97141046_D02.dgn



FILE NO. 32857	ENGLISH	DESIGN TEAM Stanley Consultants, Inc.	WOODBURY COUNTY	PROJECT NUMBER BRFN-141-1(046)--39-97	SHEET NUMBER D.3

10:29:12 AM 10/12/2025 9474 pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\9714101024\Design\CADD_Files\Sheet_Files\SHT_97141046_D02.dgn

SURVEY INDEX

County: Woodbury
PIN: 24-97-141-010
Project Number: BRFN-141-1(046)--39-97, STPN-141-1(048)--2J-97
Location: Fork Little Sioux River 0.3 mi W of Co Rd K64
Type of Work: Topographic Bridge Survey
Project Directory: 9714101024

Survey Personnel

Dave Overman – Survey Party Chief
Lee Budde – Survey Party Chief
Eric Green – Professional Land Surveyor
Jimmy Michael – Survey Party Chief
Jason Flaherty – Survey Party Chief
Ronaldo Polanco – Survey Party Chief

Date(s) of Survey

Begin Date	01/01/2025
End Date	02/11/2025

General Information

This survey is for the fork over Little Sioux River 0.3 mi W of Co Rd K64. This survey request was for the IA 141 corridor over the Little Sioux River fork. This project is a Full Field DTM survey.

Utility Information

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

Project Control

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

Alignment Information

The horizontal alignment for U.S. Hwy 141 this survey is a retrace of As-built Plans 1961 No. F.N. 1040. Total distance inconsistency is 1.46 feet.

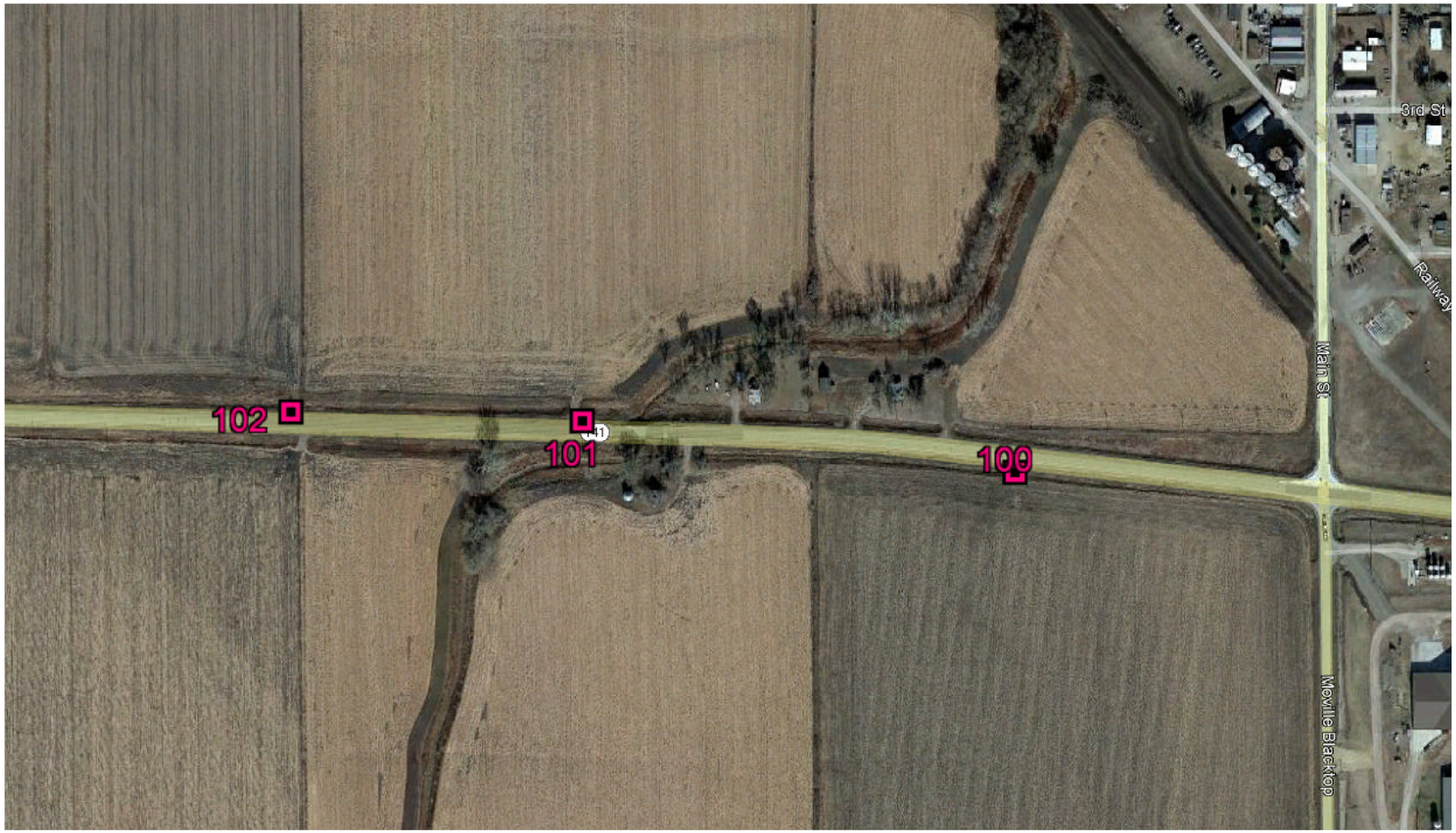
Survey stationing relates to as built plan stationing as follows:

N1/4 Sta. 521+75.35 As built Plans Project No. F.N. 1040
Survey POT Sta. 521+76.81

PI Sta 536+00 As built Plans Project No. F.N. 1040
Survey PI Sta. 536+00

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 04 (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 04 (U.S. Survey Foot)
VERT. DATUM: NAVD88
Geoid Model: 2018u3

Point Name	Northing	Easting	Elevation	Feature Definition - Description
100	8490884.12	14156876.01	1063.97	FENO SET 750 FEET WEST OF MAIN STREET ALONG SOUTH SHOULDER OF 141
101	8491031.21	14155774.15	1066.93	FENO SET 100 FEET WEST OF WEST BRIDGE ABUTMENT AND EAST SIDE OF FIELD ENTRANCE ALONG NORTH SHOULDER OF 141
102	8491065.28	14155029.68	1063.05	FENO SET 900 FEET WEST OF WEST BRIDGE ABUTMENT AND WEST SIDE OF FIELD ENTRANCE ALONG NORTH SHOULDER OF 141

ALIGNMENT COORDINATES

Line No.	Name	Location	Point on Tangent Station	Point on Tangent Y Northing	Point on Tangent X Easting	Begin Spiral Station	Begin Spiral Y Northing	Begin Spiral X Easting	Begin Curve Station	Begin Curve Y Northing	Begin Curve X Easting	Simple Curve PI or Master PI Station	Simple Curve PI or Master PI Y Northing	Simple Curve PI or Master PI X Easting	End Curve Station	End Curve Y Northing	End Curve X Easting	End Spiral Station	End Spiral Y Northing	End Spiral X Easting
1.0	1	ML141	105+26.90	8491029.026	14155059.693															
2.0	1	ML141	119+50.09	8490968.77	14156481.611															

108_23A
8/15/22

TRAFFIC CONTROL PLAN

IA 141

Both lanes of IA 141 will be closed to traffic for the duration of the project. Offsite detour shall be as shown on J sheets.

Private Entrances

Maintain traffic for the duration of the project.

Woodbury County Traffic Control Statement

The bridge on IA 141 over Fork Little Sioux River, located 0.3 mile west of Secondary Road K64 will be replaced. The current bridge is a 44' x 30' reinforced concrete slab bridge, built in 1952 and overlaid in 1990. The posted speed limit is 55 and the 2022 daily traffic (ADT) is estimated as 2,130 with 13% trucks.

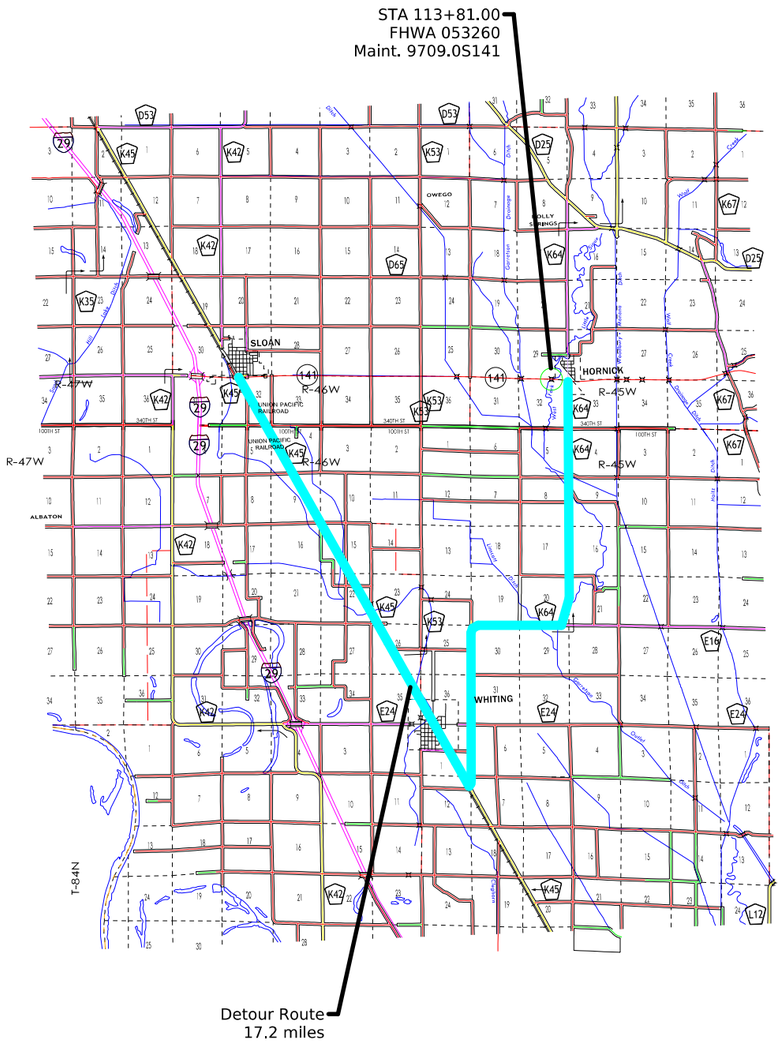
Traffic Control

Traffic will be detoured off-site during the project. The route will be South on County Hwy K64, then North on County Hwy K45.

Intersection of drives within 1,000 feet of the bridge:

- Field Entrances: 800 feet west of the bridge, north and south side (to remain open)
- Field Entrance: 100 feet west of the bridge, north side (to remain open)
- Field Entrance: 100 feet east of the bridge, south side (to remain open)
- Residential Entrance: 250 feet east of the bridge, north side (to remain open)
- Residential Entrance: 500 feet east of the bridge, north side (to remain open)
- Residential Entrance: 800 feet east of the bridge, north side (to remain open)

Traffic control will involve safety closures and detour signage.



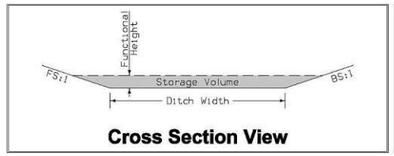
NOT TO SCALE

FILE NO. 32857	ENGLISH	DESIGN TEAM Stanley Consultants, Inc.	WOODBURY COUNTY	PROJECT NUMBER BRFN-141-1(046)--39-97	SHEET NUMBER J.2	

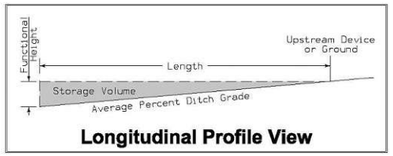
SYSTEMTIME SYSTEMDATE USERNAME DGNSPEC

SILT FENCES FOR DITCH CHECKS

Possible Standard: EC-201



Cross Section View



Longitudinal Profile View

* The functional height used in the volume equation is 85% of effective height. Effective height is 1.58 feet as shown on EC-201.
* Volume equation: [0.5*Spacing*(0.5*H^2*FS+DW*H+0.5*H^2*BS)]

Line No.	Basin No.	Type	Station	Side	Installation (LF)	Maintenance (LF)	Removal (LF)	Foreslope (FS:1)	Backslope (BS:1)	Ditch Width (FT)	Avg. % Slope Ditch Grade	Volume (CF)	Remarks
	1	Type 4	111+75.00	Left	40.0	4.0	40.0	3.0	3.0	1.0	1.0	523.13	
	1	Type 4	116+75.00	Left	40.0	4.0	40.0	3.0	3.0	1.0	1.0	523.13	
	1	Type 4	116+25.00	Right	50.0	5.0	50.0	3.0	3.0	3.0	1.0	731.60	
	1	Type 4	115+25.00	Left	50.0	5.0	50.0	3.0	3.0	1.0	1.0	523.13	
	1	Type 4	114+00.00	Right	50.0	5.0	50.0	3.0	3.0	3.0	1.0	731.60	
	1	Type 5	113+00.00	Right	60.0	6.0	60.0	3.0			1.0	210.03	
	1	Type 5	114+00.00	Left	60.0	6.0	60.0	3.0			1.0	210.03	
	1	Type 5	112+00.00	Right	50.0	5.0	50.0	3.0			0.5	426.82	
	1	Type 5	113+25.00	Left	60.0	6.0	60.0	3.0	3.0	1.0	1.0	523.13	
	1	Type 3	115+50.00	Right	30.0	3.0	30.0	3.0	3.0	3.0	1.0	731.60	
Total:					**490**	**49**	**490**					**5134.2**	

PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE

Possible Standards: EC-204

Line No.	Station From	Station To	Side	Sediment Control Device Type	Diameter Size	Length (LF)	Remarks
1.0	110+25.00	113+00.00	Left	Perimeter and Slope	12 inch	280.00	
2.0	114+00.00	117+25.00	Left	Perimeter and Slope	12 inch	330.00	
3.0	110+25.00	113+25.00	Right	Perimeter and Slope	12 inch	300.00	
4.0	114+25.00	117+25.00	Right	Perimeter and Slope	12 inch	300.00	
Total:						**1210**	

STORMWATER DRAINAGE BASIN

Refer to EC Standards and 570s Details.

Line No.	Basin No.	Station From	Station To	Direction of Traffic	Side	Discharge Station	Discharge Direction	Total Disturbed Area (ACRES)	Disturbed Area with Storage Provided (ACRES)	Disturbed Area without Storage Provided (ACRES)	Best Management Practice	Total Storage Volume Provided (CF)	Total Storage Volume Required (CF)	Storage Volume Met	Remarks
	1	110+20.00	117+20.00			113+00.00	SW	1.4	1.4		Silt Fence for Ditch Check (EC-201)	5134.00	5040.0	Yes	

POLLUTION PREVENTION PLAN

This project is regulated by the requirements of the Iowa Department of Natural Resources (DNR) National Pollutant Discharge Elimination System (NPDES) General Permit No. 2 OR an Iowa Department of Natural Resources (DNR) National Pollutant Discharge Elimination System (NPDES) individual storm water permit. The Contractor shall carry out the terms and conditions of this permit and the Pollution Prevention Plan (PPP).

This Base PPP includes information on Roles and Responsibilities, Project Site Description, Controls, Maintenance Procedures, Inspection Requirements, Non-Storm Water Controls, Potential Sources of Off Right-of-Way Pollution, and Definitions. This plan references other documents rather than repeating the information contained in the documents. A copy of this Base Pollution Prevention Plan, amended as needed during construction, will be readily available for review.

All contractors shall conduct their operations in a manner that controls pollutants, minimizes erosion, and prevents sediments from entering waters of the state and leaving the highway right-of-way. The Contractor shall be responsible for compliance and implementation of the PPP for their entire contract. This responsibility shall be further shared with subcontractors whose work is a source of potential pollution as defined in this PPP.

I. ROLES AND RESPONSIBILITES

A. Designer:
1. Prepares Base PPP included in the project plan.
2. Prepares Notice of Intent (NOI) submitted to Iowa DNR.
3. Is signature authority on the Base PPP. If consultant designed, signature from Contracting Authority is also required.

B. Contractor:
1. Signs a co-permittee certification statement adhering to the requirements of the NPDES permit and this PPP. All co-permittees are legally required under the Clean Water Act and the Iowa Administrative Code to ensure compliance with the terms and conditions of this PPP.
2. Designates a Water Pollution Control Manager (WPCM), who has the duties and responsibilities as defined in Section 2602 of the Standard Specifications.
3. Submits an Erosion Control Implementation Plan (ECIP) and ECIP updates according to Section 2602 of the Standard Specifications.
4. Installs and maintains appropriate controls. This work may be subcontracted as documented through Subcontractor Request Forms (Form 830231).
5. Supervises and implements good housekeeping practices according to Paragraph III, C, 2.
6. Conducts joint required inspections of the site with inspection staff. When Contractor is not mobilized on site, Contractor may delegate this responsibility to a trained or certified subcontractor. Contracting Authority also may waive joint inspection requirement during winter shutdown. In both circumstances, WPCM (or trained or certified delegate from the Contractor) is still responsible to review and sign inspection reports.
7. Complies with training and certification requirements of Section 2602 of the Standard Specifications.
8. Submits amended PPP site map according to Section 2602 of the Standard Specifications.

C. Subcontractors:
1. Sign a co-permittee certification statement adhering to the requirements of the NPDES permit and this PPP if: responsible for sediment or erosion controls; involved in land disturbing activities; or perorming work that is a source of potential pollution as defined in this PPP. Subcontracted work items are identified in Subcontractor Request Forms (Form 830231). All co-permittees are legally required under the Clean Water Act and the Iowa Administrative Code to ensure compliance with the terms and conditions of this PPP.
2. Implement good housekeeping practices according to Paragraph III, C, 2.

D. RCE/Project Engineer:
1. Is Project Storm Water Manager.
2. On projects where DOT is the Contracting Authority, is current with erosion control training or certification.
3. Takes actions necessary to ensure compliance with storm water requirements including, where appropriate, issuing stop work orders, and directing additional inspections at construction project sites that are experiencing problems with achieving permit compliance.
4. Orders the taking of measures to cease, correct, prevent, or minimize the consequences of non-compliance with the storm water requirements of the Applicable Permit.
5. Supervises all work necessary to meet storm water requirements at the Project, including work performed by contractors and subcontractors.
6. Requires employees, contractors, and subcontractors to take appropriate responsive action to comply with storm water requirements, including requiring any such person to cease or correct a violation of storm water requirements, and to order or recommend such other actions as necessary to meet storm water requirements.
7. Is familiar with the Project PPP and storm water site map.
8. On projects where DOT is Contracting Authority, is responsible for periodically monitoring inspection reports to determine whether deficiencies identified in inspection reports were adequately and timely addressed, and if not, has the authority and responsibility to direct immediate actions to correct the deficiencies.
9. Is the point of contact for the Project for regulatory officials, Inspector, contractors, and subcontractors regarding storm water requirements.
10. Is signature authority on Notice of Discontinuation.
11. Maintains an up-to-date record of contractors, subcontractors, and subcontracted work items through Subcontractor Request Forms (Form 830231).
12. Makes information to determine permit compliance available to the DNR upon their request.

110_12
1/13/23

POLLUTION PREVENTION PLAN

E. Inspector:
1. Updates PPP through fieldbook entries and storm water site inspection reports if there is a change in design, construction, operation, or maintenance which has a significant effect on the discharge of pollutants from the project.
2. Makes information to determine permit compliance available to the DNR upon their request.
3. Conducts joint required inspections of the site with the contractor/subcontractor.
4. Completes an inspection report after each inspection.
5. Is signature authority on storm water inspection reports.

II. PROJECT SITE DESCRIPTION

A. This Pollution Prevention Plan (PPP) is for the construction of a Bridge Replacement.

B. This PPP covers approximately 1.4 acres with an estimated 1.4 acres being disturbed. The portion of the PPP covered by this contract has 1.4 acres disturbed.

C. The PPP is located in an area of two soil associations (Albaton - Luton - Onawa, Monona - Ida - Napier). The estimated weighted average runoff coefficient number for this PPP after completion will be 0.48.

D. Storm Water Site Map is located in the R sheets. Proposed slopes are shown in cross sections, details, or standard road plans. Supplemental information is located in the Tabulations in the C or CE sheets.

E. The base storm water site map is amended by contract modifications and progress payments (fieldbook entries) of completed erosion control work. Also, due to project phasing, erosion and sediment controls shown on project plans may not be installed until needed, based on site conditions. For example, silt fence ditch checks will typically not be installed until the ditch has been installed. Installed locations may also be modified from tabulation locations by field staff. Installed locations will be documented by fieldbook entries and amended PPP site map.

F. Runoff from this work will flow into Fork Little Sioux River.

III. CONTROLS

A. The Contractor’s ECIP specified in Article 2602.03 of the Standard Specifications for accomplishment of storm water controls should clearly describe the intended sequence of major activities, and for each activity define the control measure and the timing during the construction process that the measure will be implemented.

B. Preserve vegetation in areas not needed for construction.

C. Sections 2601 and 2602 of the Standard Specifications define requirements to implement erosion and sediment control measures. Actual quantities used and installed locations may vary from the Base PPP and amendment of the plan will be documented via fieldbook entries, amended PPP site map, or by contract modification. Additional erosion and sediment control items may be required as determined by the inspector and/or contractor during storm water site inspections. If the work involved is not applicable to any contract items, the work will be paid for according to Article 1109.03 paragraph B of the Standard Specifications.

1. EROSION AND SEDIMENT CONTROLS

a. Stabilization Practices
1) Site plans will ensure that existing vegetation or natural buffers are preserved where attainable and disturbed portions of the site will be stabilized.
2) Initialize stabilization of disturbed areas immediately after clearing, grading, excavating, or other earth disturbing activities have:
a) Permanently ceased on any portion of the site, or
b) Temporarily ceased on any portion of the site and will not resume for a period exceeding 14 calendar days.
3) Staged permanent and/or temporary stabilizing seeding and mulching shall be completed as the disturbed areas are completed. Incomplete areas shall be stabilized according to paragraph III, C, 1, a, 2, b above.
4) Permanent and Temporary Stabilization practices to be used for this project are located in the storm water site map, Estimated Project Quantities (100-0A, 100-1A, or 100-1C), and Estimate Reference Information (100-4A) located in the C or R sheets. Typical drawings detailing construction of the practices to be used on this project are referenced in the Standard Road Plans Tabulation (105-4) in the C or R sheets.
5) Preservation of existing vegetation within right-of-way or easements will act as vegetative buffer strips.
6) Preservation of topsoil: Bid items to be used for this project are located in the Estimated Project Quantities (100-0A, 100-1A, or 100-1C) and Estimate Reference Information (100-4A) located in the C or R sheets. Additional information may be found in the Tabulations in the C or T Tabulation sheets, or is referenced in Section 2105 of the Standard Specifications.

b. Structural Practices
1) Structural practices will be implemented to divert flows from exposed soils and detain or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. Additionally, structural practices may include: silt basins that provide 3600 cubic feet of storage per acre drained or equivalent sediment controls, outlet structures that withdraw water from surface when discharging basins, and controls to direct storm water to vegetated areas.
2) Structural practices to be used for this project are located in the storm water site map, Estimated Project Quantities (100-0A, 100-1A, or 100-1C), and Estimate Reference Information (100-4A) located in the C or R sheets, as well as all other item specific Tabulations. Typical drawings detailing construction of the devices to be used on this project can be found on the B or R sheets or are referenced in the Standard Road Plans Tabulation (105-4) located in the C or R sheets.

POLLUTION PREVENTION PLAN

c. Storm Water Management
Measures shall be installed during the construction process to control pollutants in storm water discharges that will occur after construction operations have been completed. This may include velocity dissipation devices at discharge locations and along length of outfall channel as necessary to provide a non-erosion velocity flow from structure to water course. If included with this project, these items are located in the storm water site map and Estimated Project Quantities (100-0A, 100-1A, or 100-1C) and Estimate Reference Information (100-4A) located in the C or R sheets, as well as all other item specific Tabulations. Typical drawings detailing construction of the practices to be used on this project are referenced in the Standard Road Plans Tabulation. The installation of these devices may be subject to Section 404 of the Clean Water Act.

2. OTHER CONTROLS
Contractor disposal of unused construction materials and construction material wastes shall comply with applicable state and local waste disposal, sanitary sewer, or septic system regulations. In the event of a conflict with other governmental laws, rules and regulations, the more restrictive laws, rules or regulations shall apply.

a. Vehicle Entrances and Exits - Construct and maintain entrances and exits to prevent tracking of sediments onto roadways.
b. Material Delivery, Storage and Use - Implement practices to prevent discharge of construction materials during delivery, storage, and use.
c. Stockpile Management - Install controls to reduce or eliminate pollution of storm water from stockpiles of soil and paving.
d. Waste Disposal - Do not discharge any materials, including building materials, into waters of the state, except as authorized by a Section 404 permit.
e. Spill Prevention and Control - Implement chemical spill and leak prevention and response procedures to contain and clean up spills and prevent material discharges to the storm drain system and waters of the state.
f. Concrete Residuals and Washout Wastes - Waste shall not be discharged to a surface water and is not allowed to adversely affect a water of the state. Designate temporary concrete washout facilities for rinsing out concrete trucks. Provide directions to truck drivers where designated washout facilities are located. Designated washout areas should be located at least 50 feet away from storm drains, streams or other water bodies. Care should be taken to ensure these facilities do not overflow during storm events.
g. Concrete Grooving/Grinding Slurry – Do not discharge slurry to a waterbody or storm drain. Slurry may be applied on foreslopes or removed from the project.
h. Vehicle and Equipment Storage and Maintenance Areas - Perform on site fueling and maintenance in accordance with all environment laws such as proper storage of onsite fuels and proper disposal of used engine oil or other fluids on site. Employ washing practices that prevent contamination of surface and ground water from wash water. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge.
i. Litter Management - Ensure employees properly dispose of litter. Minimize exposure of trash if exposure to precipitation or storm water would result in a discharge of pollutants.
j. Dewatering – Properly treat water to remove suspended sediment before it re-enters a waterbody or discharges off-site. Measures are also to be taken to prevent scour erosion at dewatering discharge point.

3. APPROVED STATE OR LOCAL PLANS
During the course of this construction, it is possible that situations will arise where unknown materials will be encountered. When such situations are encountered, they will be handled according to all federal, state, and local regulations in effect at the time.

IV. MAINTENANCE PROCEDURES
The Contractor is required to maintain all temporary erosion and sediment control measures in proper working order, including cleaning, repairing, or replacing them throughout the contract period. This shall begin when the features have lost 50% of their capacity.

V. INSPECTION REQUIREMENTS
A. Inspections shall be made jointly by the Contractor and the Contracting Authority's inspector at least once every seven calendar days. Storm water site inspections will include:
1. Date of the inspection.
2. Summary of the scope of the inspection.
3. Name and qualifications of the personnel making the inspection.
5. Review of erosion and sediment control measures within disturbed areas for the effectiveness in preventing impacts to receiving waters.
6. Major observations related to the implementation of the PPP.
7. Identification of corrective actions required to maintain or modify erosion and sediment control measures.

B. Include storm water site inspection reports in the Amended PPP. Incorporate any additional erosion and sediment control measures determined as a result of the inspection. Immediately begin corrective actions on all deficiencies found within 3 calendar days of the inspection and complete within 7 calendar days following the inspection. If it is determined that making the corrections less than 72 hours after the inspection is impracticable, it should be documented why it is impracticable and indicate an estimated date by which the corrections will be made.

VI. NON-STORM WATER DISCHARGES

110_12
1/13/23

POLLUTION PREVENTION PLAN

This includes subsurface drains (i.e. longitudinal and standard subdrains) and slope drains. The velocity of the discharge from these features may be controlled by the use of headwalls or blocks, Class A stone, erosion stone or other appropriate materials. This also includes uncontaminated groundwater from dewatering operations, which will be controlled as discussed in Section III of the PPP.

VII. POTENTIAL SOURCES OF OFF RIGHT-OF-WAY (ROW) POLLUTION
Silts, sediment, and other forms of pollution may be transported onto highway right-of-way (ROW) as a result of a storm event. Potential sources of pollution located outside highway ROW are beyond the control of this PPP. Pollution within highway ROW will be conveyed and controlled per this PPP.

VIII. DEFINITIONS
A. Base PPP - Initial Pollution Prevention Plan.
B. Amended PPP - Base PPP amended during construction. May include Plan Revisions or Contract Modifications for new items, storm water site inspection reports, fieldbook entries made by the inspector, amended PPP site map by the Contractor, ECIP, NOI, co-permittee certifications, and Subcontractor Request Forms. Items amending the PPP are stored electronically and are readily available upon request.
C. Fieldbook Entries – This contains the inspector’s daily diary and bid item postings.
D. Controls - Methods, practices, or measures to minimize or prevent erosion, control sedimentation, control storm water, or minimize contaminants from other types of waste or materials. Also called Best Management Practices (BMPs).
E. Signature Authority - Representative authorized to sign various storm water documents.

CERTIFICATION STATEMENT

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

_____
Signature

_____
Printed or Typed Name

_____
Signature

_____
Printed or Typed Name

LINE STYLE LEGEND OF LANDSCAPE SHEETS

LINESTYLE	Design Element
– – – – – – – – – – – –	Living Snow Fence Single Row
:::::::::::::::::::	Living Snow Fence Double Row
———	Mechanical Edge

CELL LEGEND OF LANDSCAPE SHEETS

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

PATTERN LEGEND OF LANDSCAPE SHEETS

Brush Clearing

Spray Area

Clearing & Grubbing

LINE STYLE LEGEND OF EROSION CONTROL SHEETS

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

CELL LEGEND OF EROSION CONTROL SHEETS

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

PLAN VIEW COLOR LEGEND OF EROSION CONTROL SHEETS

LINEWORK	Design Color No.	
Green	(2)	Existing Topographic Features and Labels
Blue	(1)	Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation
Magenta	(5)	Existing Utilities
Black	(0)	Permanent Erosion Control Features
Blaze Orange	(222)	Temporary Erosion Control Features

SHADING	Design Color No.		Transparency
Citron	(234)	Mulching, All Types	50%
Light Brown	(238)	Special Ditch Control, Wood Excelsior Mat	0%
Grass Green	(233)	8FT Mow Strip	50%
Red	(3)	Delineates Restricted Areas	0%

PATTERN LEGEND OF EROSION CONTROL SHEETS

Seeding and Fertilizing

R — Seeding and Fertilizing (Rural)

U — Seeding and Fertilizing (Urban)

N — Native Grass Seeding

ST — Salt Tolerant Seeding

WL — Wetland Grass Seeding

WF — Wildflower Seeding

SOD — Sodding

Turf Reinforcement Mat Type 1

Turf Reinforcement Mat Type 2

Turf Reinforcement Mat Type 3

Turf Reinforcement Mat Type 4

Slope Protection, Wood Excelsior Mat

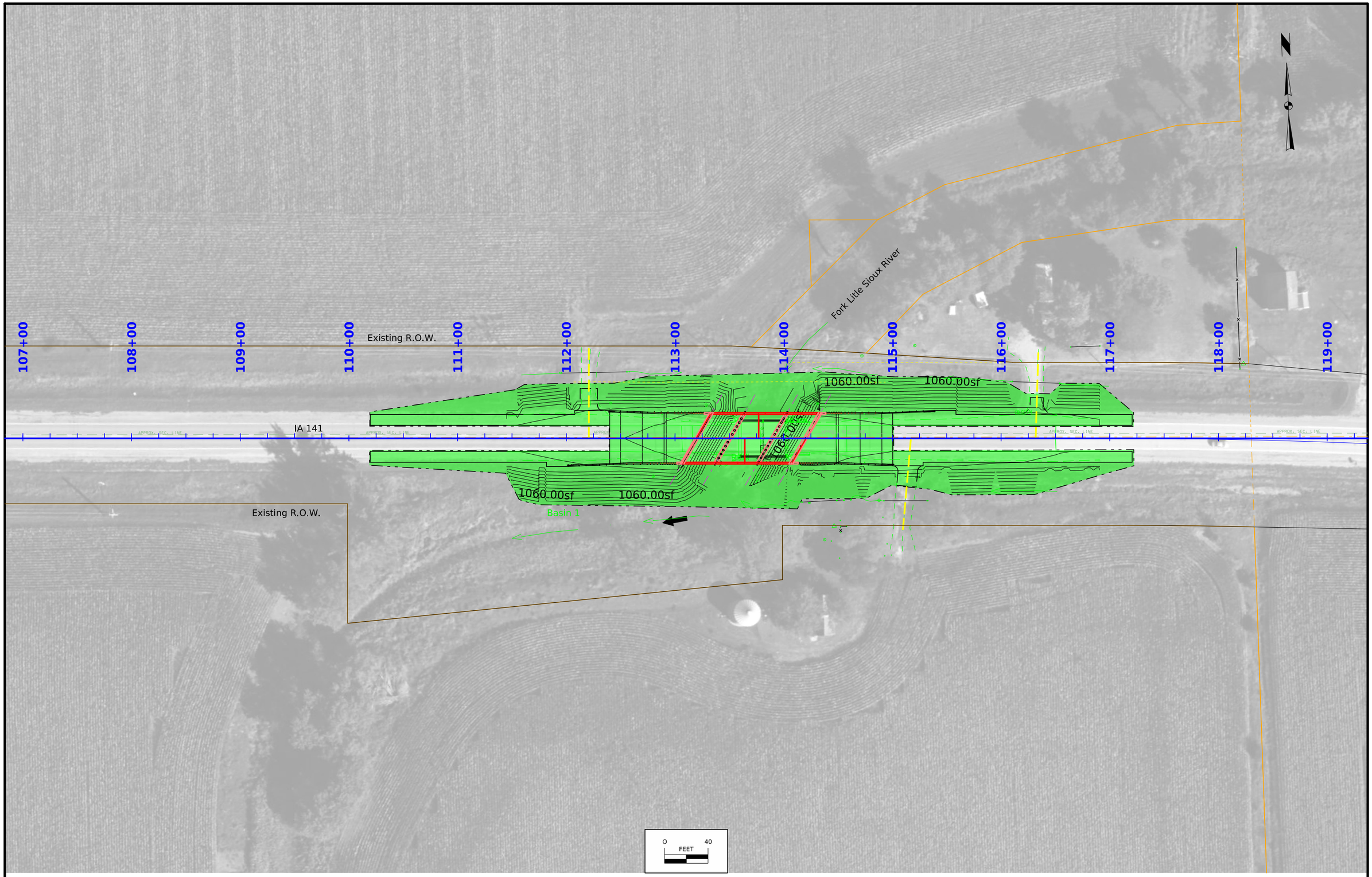
Transition Mat

Rock Features, Permanent

Rock Features, Temporary

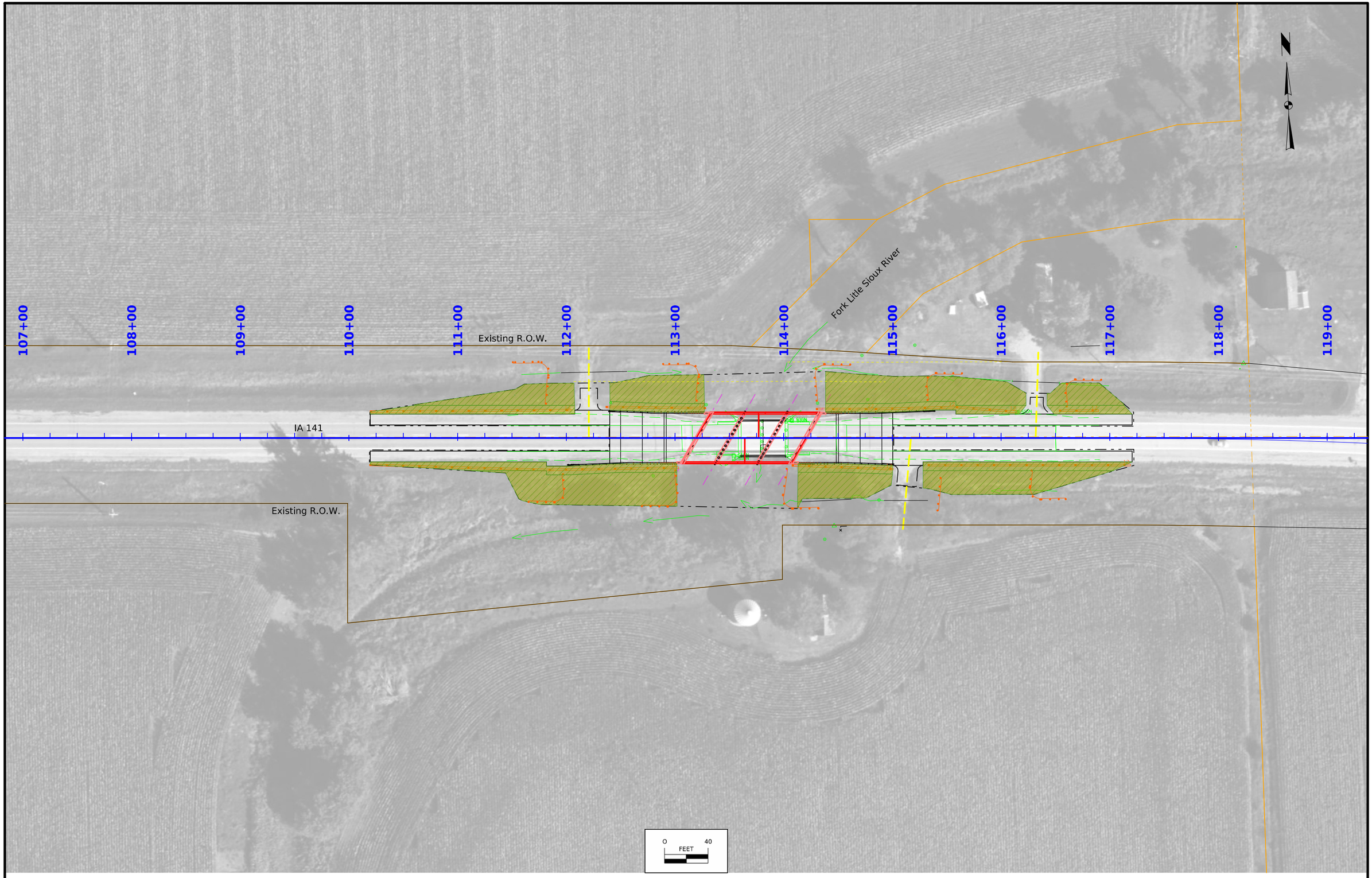
EROSION CONTROL LEGEND AND SYMBOL INFORMATION SHEET

(COVERS SHEET SERIES R)



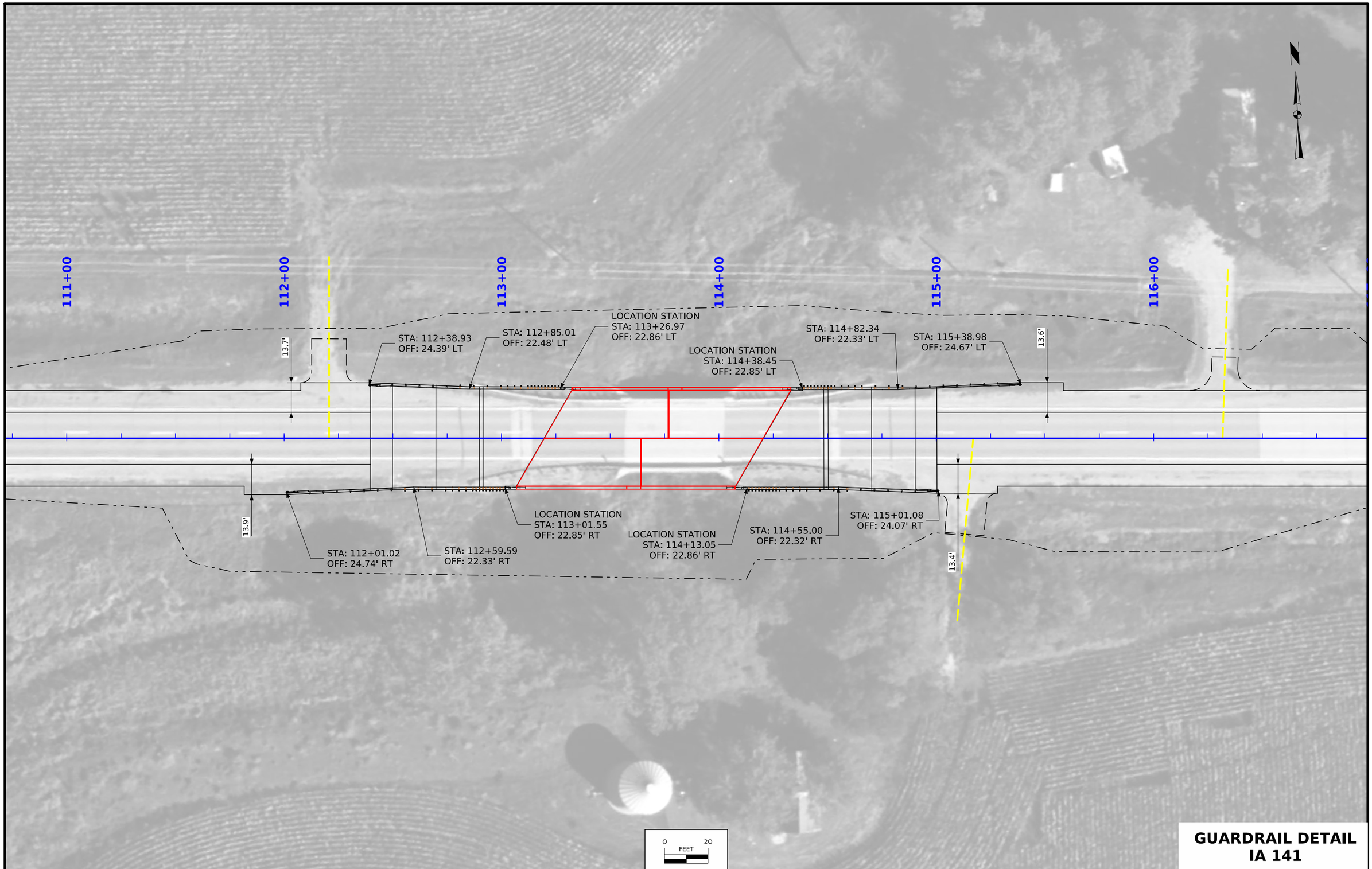
FILE NO. 32857	ENGLISH	DESIGN TEAM Stanley Consultants, Inc.	WOODBURY COUNTY	PROJECT NUMBER BRFN-141-1(046)--39-97	SHEET NUMBER RR.2	

1:44:10 PM 12/1/2025 9474 pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\9714101024\Design\CADD_Files\Sheet_Files\SHT_97141046_RR02.dgn



FILE NO. 32857	ENGLISH	DESIGN TEAM Stanley Consultants, Inc.	WOODBURY COUNTY	PROJECT NUMBER BRFN-141-1(046)--39-97	SHEET NUMBER RR.3	

1:46:28 PM 12/1/2025 9474 pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\9714101024\Design\CADD_Files\Sheet_Files\SHT_97141046_RR03.dgn

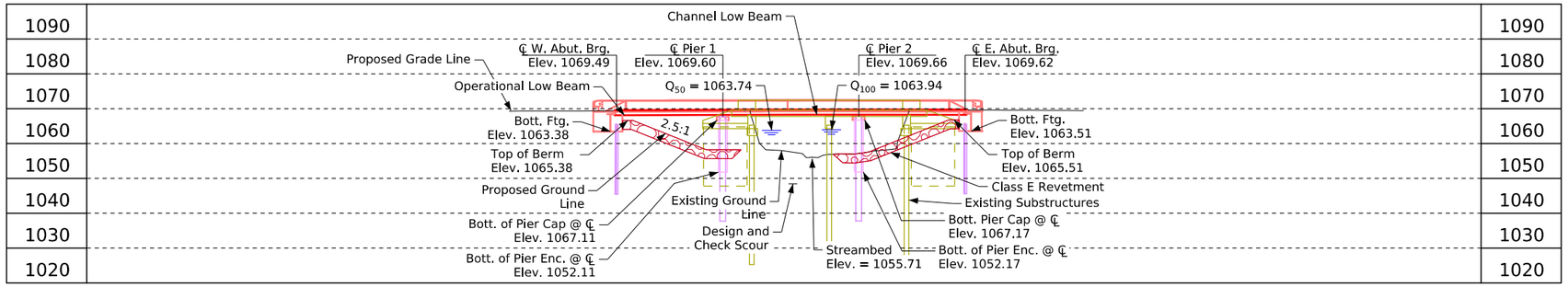


GUARDRAIL DETAIL
IA 141

FILE NO. 32857	ENGLISH	DESIGN TEAM Stanley Consultants, Inc.	WOODBURY COUNTY	PROJECT NUMBER BRFN-141-1(046)--39-97	SHEET NUMBER U.1	

1:13:31 PM 11/20/2025 9474 pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\9714101024\Design\CADD_Files\Sheet_Files\SHT_97141046_U01.dgn

BENCHMARK NO. 100, N: 8490884.12, E: 14156876.01, ELEV. 1063.97, FENO SET 750 FEET WEST OF MAIN STREET ALONG SOUTH SHOULDER OF 141



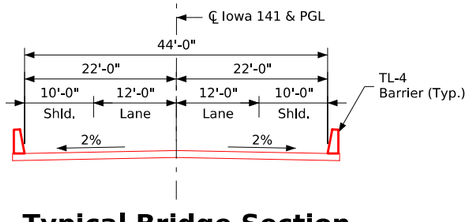
Note: CL elevations shown above reflect profile grade line elevations. Top of bridge deck at centerline roadway is 0.03' below the profile grade to account for parabolic crown.

Longitudinal Section Along ℄ IA 141

Situation Plan

0 20
Scale In Feet

N

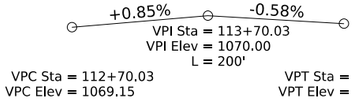


Typical Bridge Section

(Looking East)

Location

IA 141 over Fork Little Sioux River
T-86N R-45W
Section 32
Willow Township
Woodbury County
FHWA No. 053261
Bridge Maint. No. 9707.0S141
Latitude 42.227162°
Longitude -96.103756°



Proposed Profile Grade IA 141

Hydraulic Data

Drainage Area = 3.56 sq. mi.
Stream Slope (HGL) = 4.52 ft./mi.
Avg. Low Water Stage = 1056.21

Q_{50} = 2,370 cfs
Stage = 1063.74
Channel Low Beam = 1067.71
Avg. Bridge Velocity = 4.26 fps
Freeboard = 3.97 ft.

Q_{100} = 2,860 cfs
Stage = 1063.94
Backwater = 0.14 ft.
Operational Low Beam = 1067.52
Avg. Bridge Velocity = 4.47 fps
Calculated Design and Check Scour = 1048.4

Q_{200} = 3,380 cfs
Stage = 1064.15

Q_{500} = 4,000 cfs
Stage = 1064.63
Avg. Bridge Velocity = 2.49 fps

Utilities Legend:

E1 — E1 - Electrical Line - Mid-American Energy
FO — FO - Fiber Optic Line - Mid-American Energy
T1 — T1 - Telephone Line - Iowa Western Telephone Co.

Traffic Estimate

2024 AADT 1,970 V.P.D.
TRUCKS 13 %

Hydraulic Design

LICENSED PROFESSIONAL ENGINEER — Mark D. Werner 15418 — 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.

Mark D Werner 10-23-2025
Signature Date
Mark D. Werner
Printed or Typed Name
My license renewal date is December 31, 2025
Pages or sheets covered by this seal: V.1

Design For 30° Skew (L.A.)
100'-0"×44'-0" Continuous Conrete Slab Bridge
30'-6" End Spans 39'-0" Interior Span
Situation Plan
STA. 113+70.00 (IA 141) Turn-in Date: Aug 2025
Woodbury County
IOWA DEPARTMENT OF TRANSPORTATION
Design No. 0130 Design Sheet No. 1 of 2 FHWA No. 053261

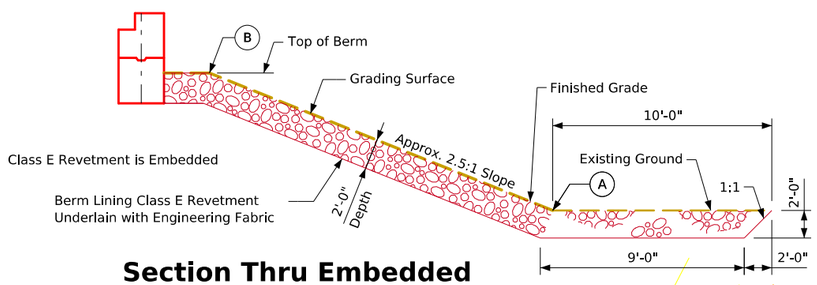
FILE NO. 32857	ENGLISH	DESIGN TEAM Stanley Consultants	Woodbury COUNTY	PROJECT NUMBER BRFN-141-1(046)--39-97	SHEET NUMBER V.1

5:15:04 PM 10/22/2025 10117 pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\9714101024\Bridge\(046)_Bridge-Unspecified\SHT_97141046_0130_053261_Z04.dgn

BENCHMARK NO. 100, N: 8490884.12, E: 14156876.01, ELEV. 1063.97; FENO SET 750 FEET WEST OF MAIN STREET ALONG SOUTH SHOULDER OF 141

Design Notes

All units are in feet unless noted otherwise.
TL-4 Single Slope Bridge Railing proposed.
Pier Type - Single Row Fully Encased Pile Bent
Foundation type to be confirmed during final design.
Berm slopes to be confirmed during final design.
There is a potential for conflicts with existing foundations. Existing abutment pile could potentially interfere with proposed pier pile.

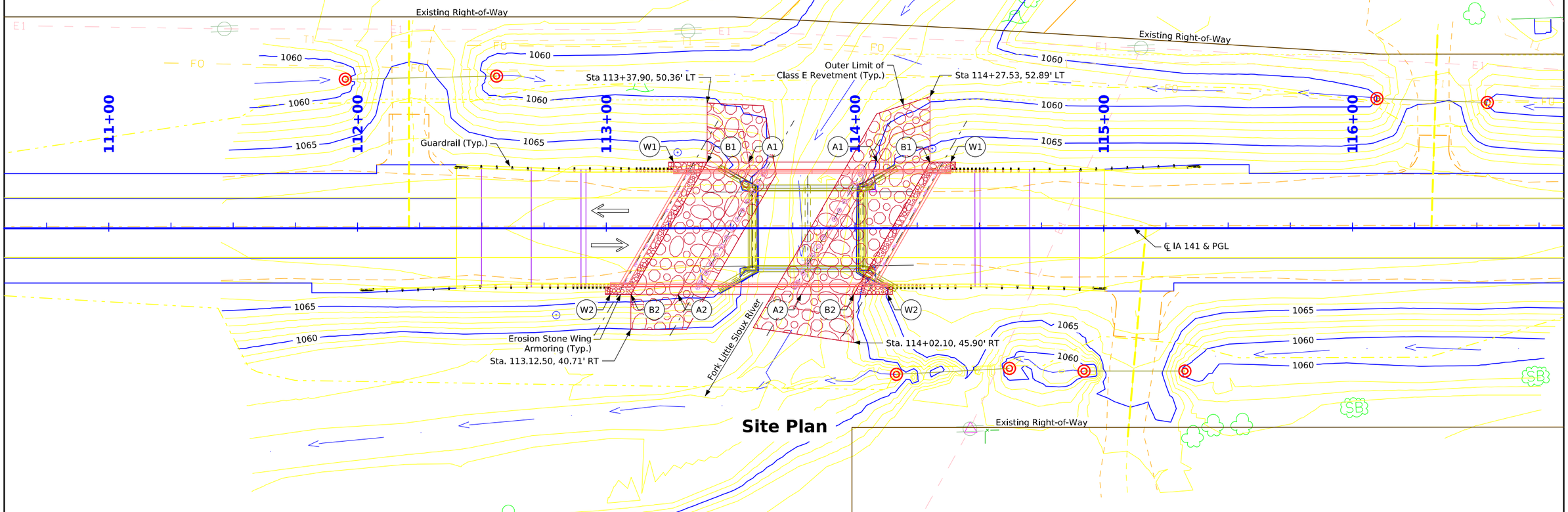


Section Thru Embedded Revetment Berm

Berm Slope Location Table

Points	West Abutment			East Abutment		
	Station	Offset	Elev.	Station	Offset	Elev.
A1	113+57.27	26.58' LT	1058.00	114+09.05	26.58' LT	1057.00
A2	113+28.82	26.58' RT	1058.00	113+78.36	26.58' RT	1057.00
B1	113+37.90	26.58' LT	1065.38	114+27.53	26.58' LT	1065.51
B2	113+12.50	26.58' RT	1065.38	114+02.10	26.58' RT	1065.51
W1	113+26.97	26.58' LT	1069.08	114+38.46	26.58' LT	1069.13
W2	113+01.57	26.58' RT	1068.94	114+13.03	26.58' RT	1069.19

Berm slope elevations reflect the grading surface.



Site Plan

Estimated Berm Armoring Quantities

Location	Revetment CL. E (Ton)	Erosion Stone (Ton)	Engineering Fabric (SY)	CL. 10 Channel Excavation (CY)
Berm Lining - West	350	10	385	235
Berm Lining - East	350	10	385	235
Totals	700	20	770	470

Excavation quantity calculated from grading surface. Excavation quantity if 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.

Density used for Class E quantity calculations is 1.5 ton/cu. yd.

General Notes

This design is for the replacement of the existing 44'-0" × 30'-0" Continuous Concrete Slab Bridge, Woodbury Design No. 546, FHWA 53260, Maint. No. 9707.0S141.

Design For 30° Skew (L.A.)

100'-0"×44'-0" Continuous Conrete Slab Bridge

30'-6" End Spans — 39'-0" Interior Span

Site Plan

STA. 113+70.00 (IA 141) — Turn-in Date: Aug 2025

Woodbury County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. 0130 — Design Sheet No. 2 of 2 — FHWA No. 053261

FILE NO. 32857	ENGLISH	DESIGN TEAM Stanley Consultants	Woodbury COUNTY	PROJECT NUMBER BRFN-141-1(046)--39-97	SHEET NUMBER V.2	

5:15:05 PM 10/22/2025 10117 pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\9714101024\Bridge\(046)_Bridge-Unspecified\SHT_97141046_0130_053261_Z04.dgn

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

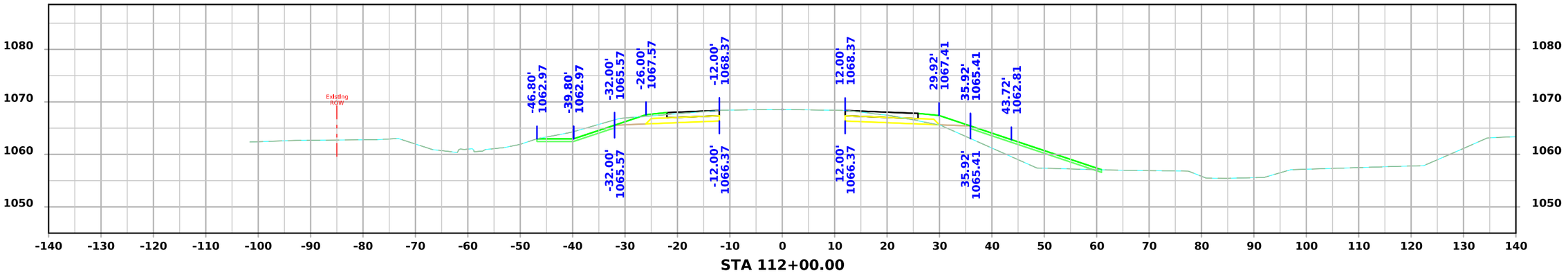
NOTES:

Text

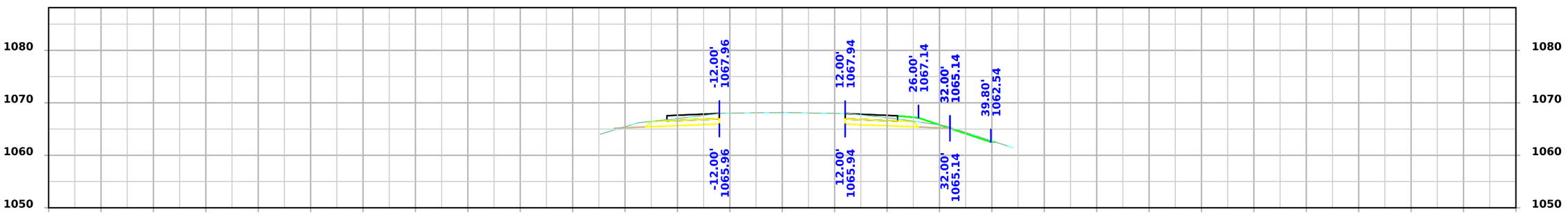
CROSS SECTIONS
LEGEND AND INFORMATION SHEET

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

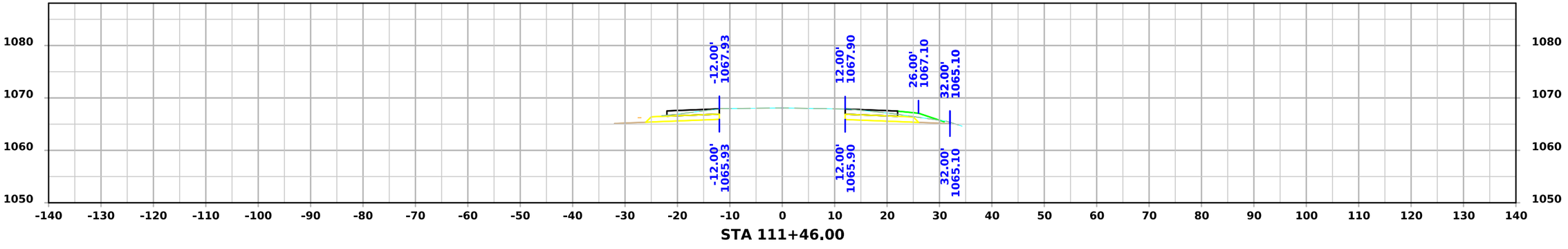
IA 141



STA 112+00.00



STA 111+50.00

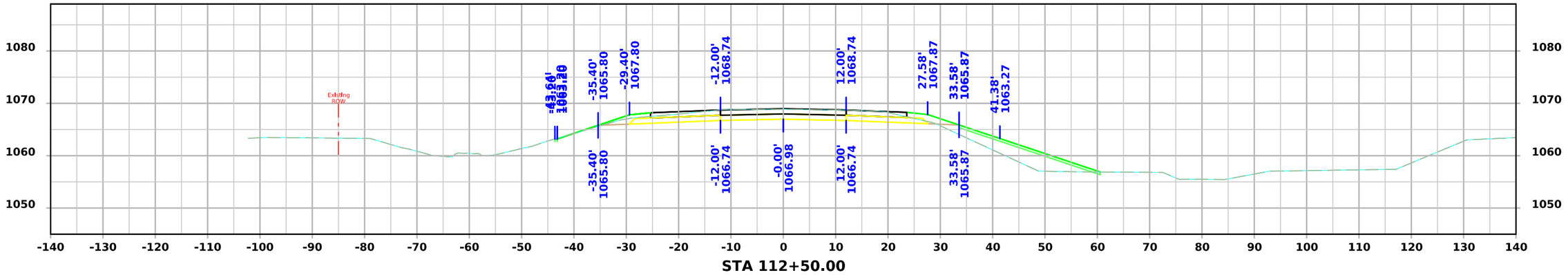


STA 111+46.00

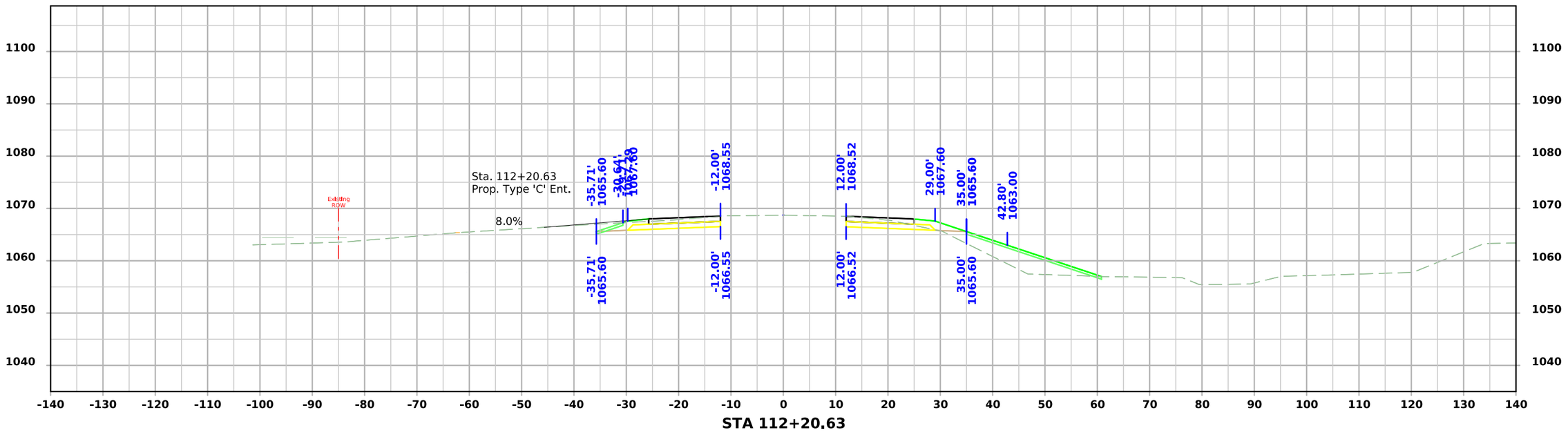
FILE NO. 32857	ENGLISH	DESIGN TEAM Stanley Consultants, Inc.	WOODBURY COUNTY	PROJECT NUMBER BRFN-141-1(046)--39-97	SHEET NUMBER W.2

2:19:43 PM 12/1/2025 9474 pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\9714101024\Design\CADD_Files\Sheet_Files\SHT_97141046_W02.dgn

IA 141



STA 112+50.00

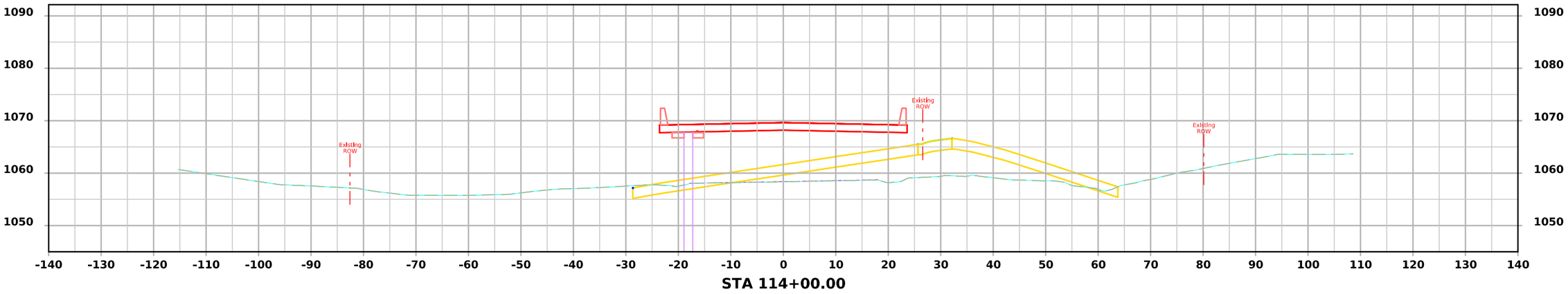


STA 112+20.63

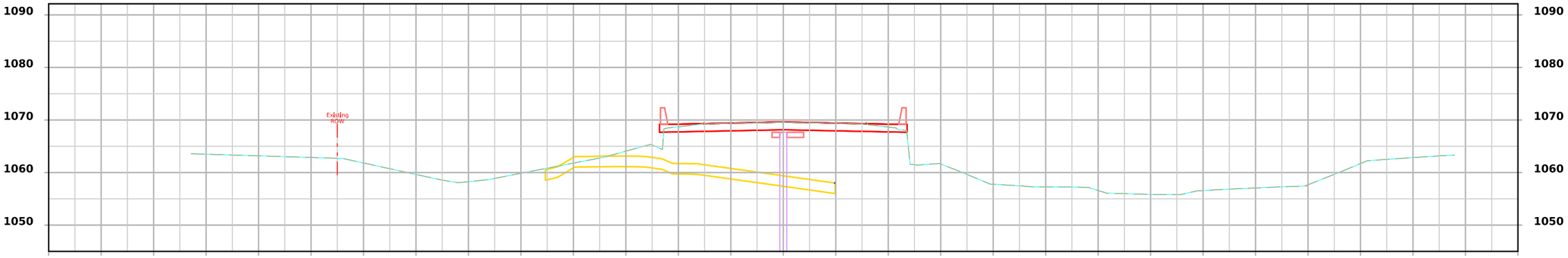
FILE NO. 32857	ENGLISH	DESIGN TEAM Stanley Consultants, Inc.	WOODBURY COUNTY	PROJECT NUMBER BRFN-141-1(046)--39-97	SHEET NUMBER W.3

2:19:44 PM 12/1/2025 9474 pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\9714101024\Design\CADD_Files\Sheet_Files\SHT_97141046_W02.dgn

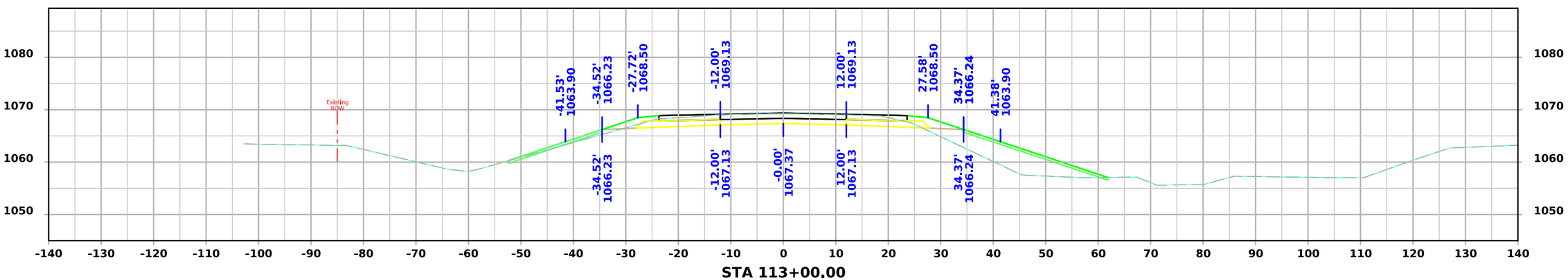
IA 141



STA 114+00.00



STA 113+50.00

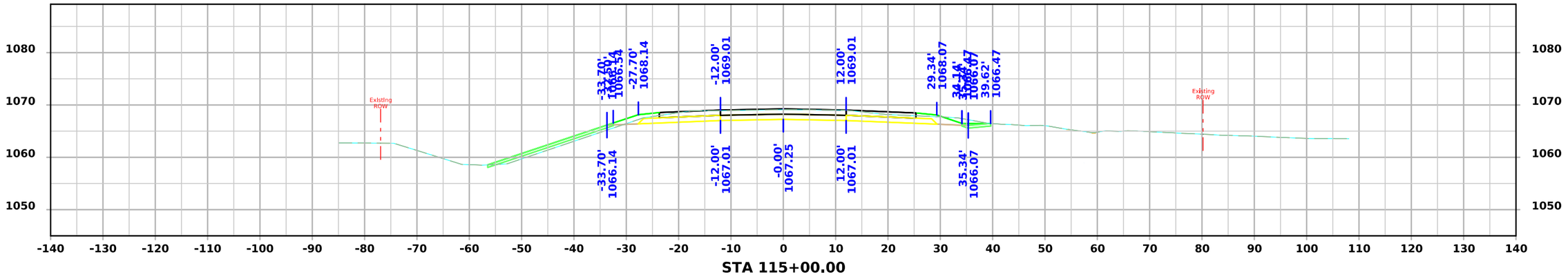


STA 113+00.00

FILE NO. 32857	ENGLISH	DESIGN TEAM Stanley Consultants, Inc.	WOODBURY COUNTY	PROJECT NUMBER BRFN-141-1(046)--39-97	SHEET NUMBER W.4

2:19:45 PM 12/1/2025 9474 pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\9714101024\Design\CADD_Files\Sheet_Files\SHT_97141046_W02.dgn

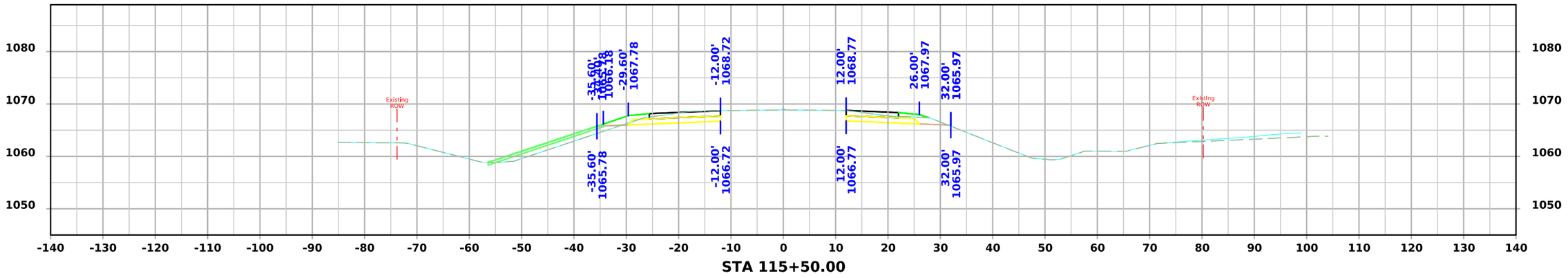
IA 141

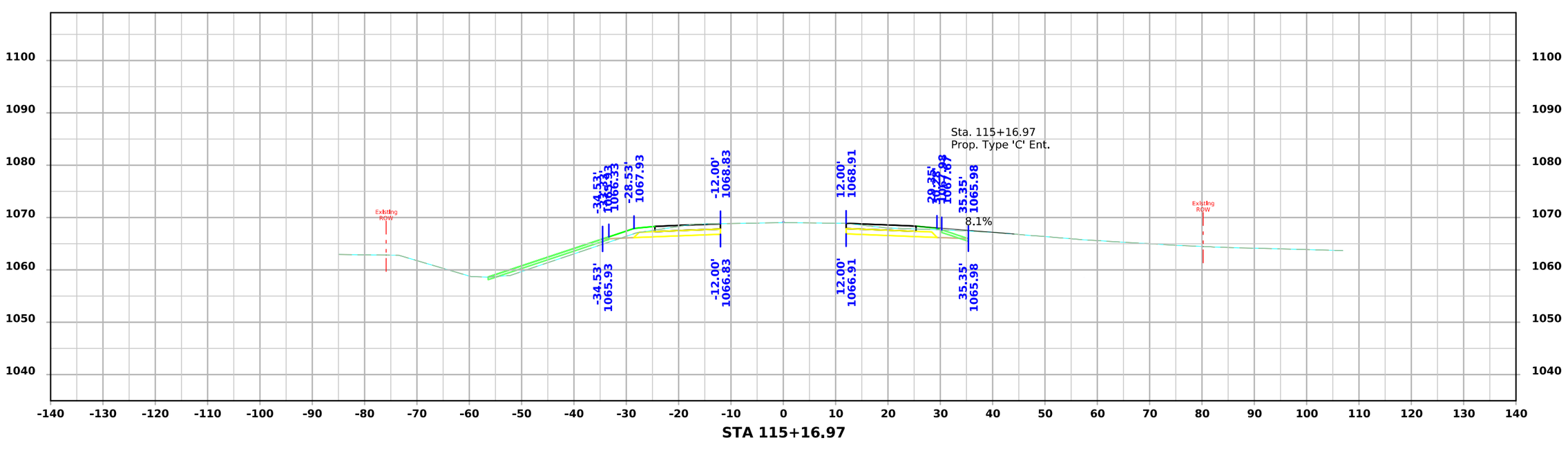


FILE NO. 32857	ENGLISH	DESIGN TEAM Stanley Consultants, Inc.	WOODBURY COUNTY	PROJECT NUMBER BRFN-141-1(046)--39-97	SHEET NUMBER W.5	

2:19:46 PM 12/1/2025 9474 pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\9714101024\Design\CADD_Files\Sheet_Files\SHT_97141046_W02.dgn

IA 141

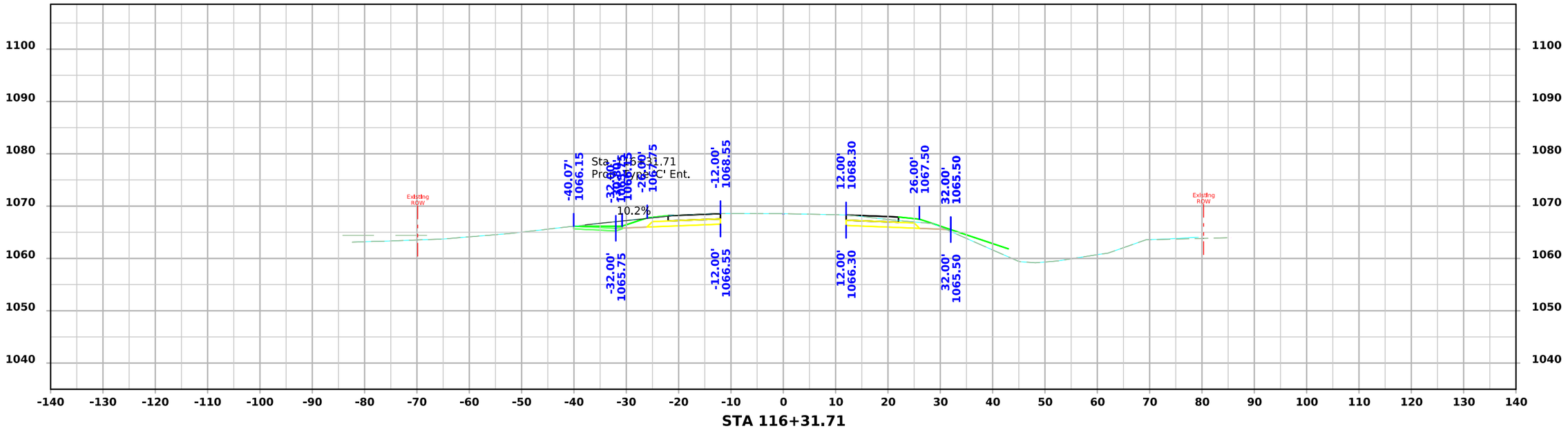




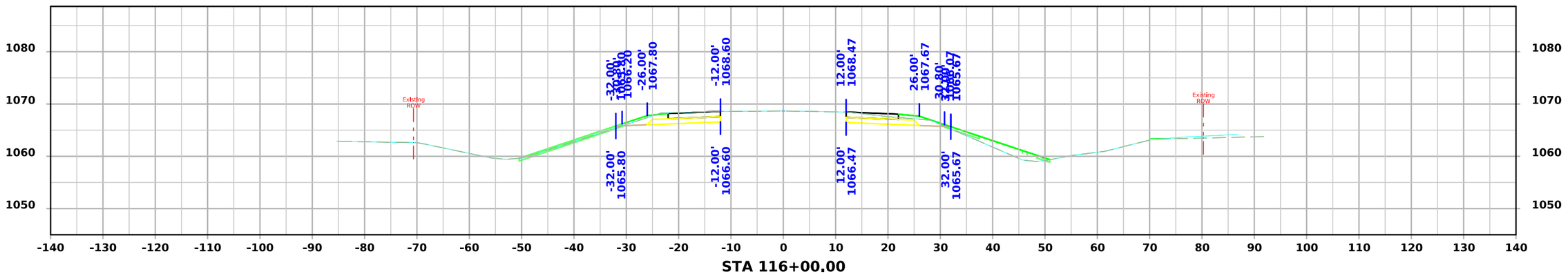
FILE NO. 32857	ENGLISH	DESIGN TEAM Stanley Consultants, Inc.	WOODBURY COUNTY	PROJECT NUMBER BRFN-141-1(046)--39-97	SHEET NUMBER W.6

2:19:46 PM 12/1/2025 9474 pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\9714101024\Design\CADD_Files\Sheet_Files\SHT_97141046_W02.dgn

IA 141



STA 116+31.71

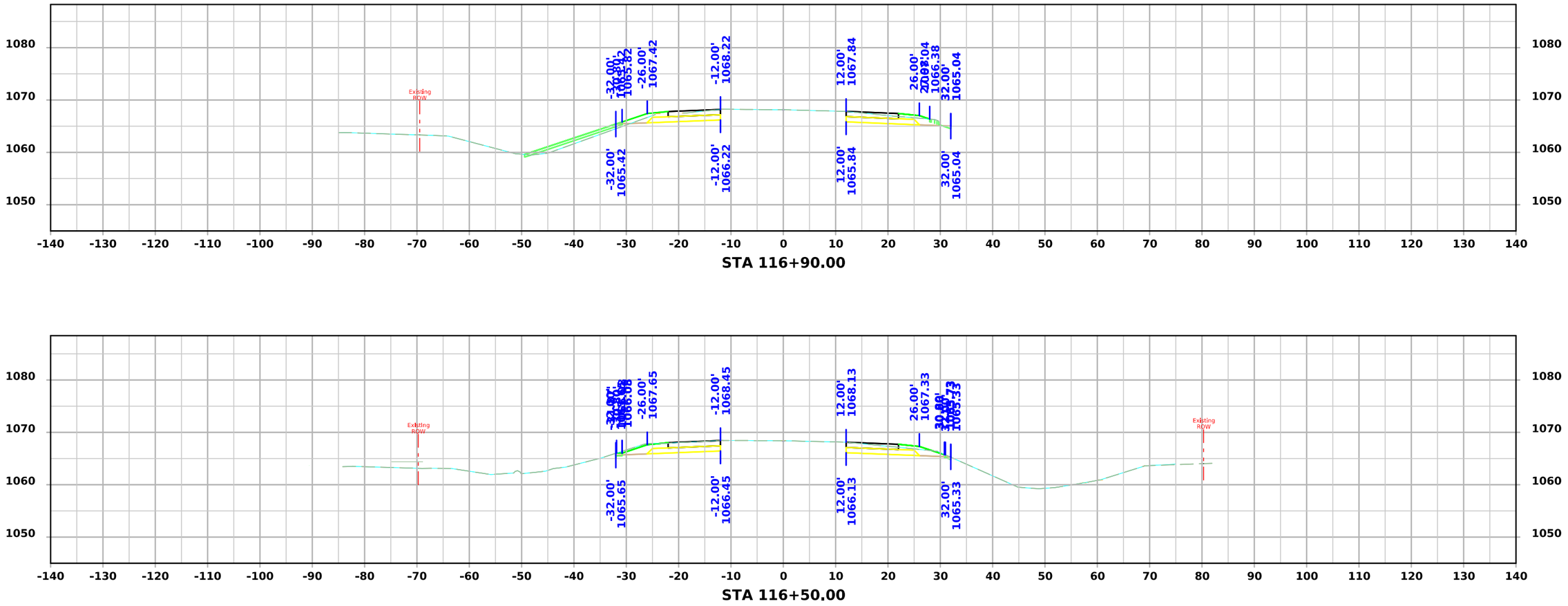


STA 116+00.00

FILE NO. 32857	ENGLISH	DESIGN TEAM Stanley Consultants, Inc.	WOODBURY COUNTY	PROJECT NUMBER BRFN-141-1(046)--39-97	SHEET NUMBER W.7

2:19:47 PM 12/1/2025 9474 pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\9714101024\Design\CADD_Files\Sheet_Files\SHT_97141046_W02.dgn

IA 141



FILE NO. 32857	ENGLISH	DESIGN TEAM Stanley Consultants, Inc.	WOODBURY COUNTY	PROJECT NUMBER BRFN-141-1(046)--39-97	SHEET NUMBER W.8

2:19:48 PM 12/1/2025 9474 pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\9714101024\Design\CADD_Files\Sheet_Files\SHT_97141046_W02.dgn