LETTING DATE 1/21/2026

Bridge Replacement - RCB
BRF-061-2(96)--38-29

DES MOINES COUNTY

INDEX OF SHEETS

IOWA DOT

PLANS OF PROPOSED IMPROVEMENT ON THE

PRIMARY ROAD SYSTEM

DES MOINES COUNTY

Bridge Replacement - RCB

US 61 Bridge over the Branch Smith Creek
1.0 mi S. of Louisa Co

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
811
www.iowaonecall.com

REVISIONS

	TOTAL
	28
PROJECT IDENTIFICATION NUMBER	
15-29-061-010	
PROJECT NUMBER	
BRF-061-2(96)--38-29	
R.O.W. PROJECT NUMBER	

DESIGN DATA RURAL

20 21	AADT	5,100	V.P.D.
20 26	AADT	130	V.P.D.
20 –	DHV	--	V.P.H.
TRUCKS		13	%
Total Design ESALs		--	

INDEX OF SEALS

SHEET NO.	NAME	TYPE
A.1	X	Primary Signature Block
V.1 / V.2	Mark D. Werner	Hydraulics

PRELIMINARY PLANS

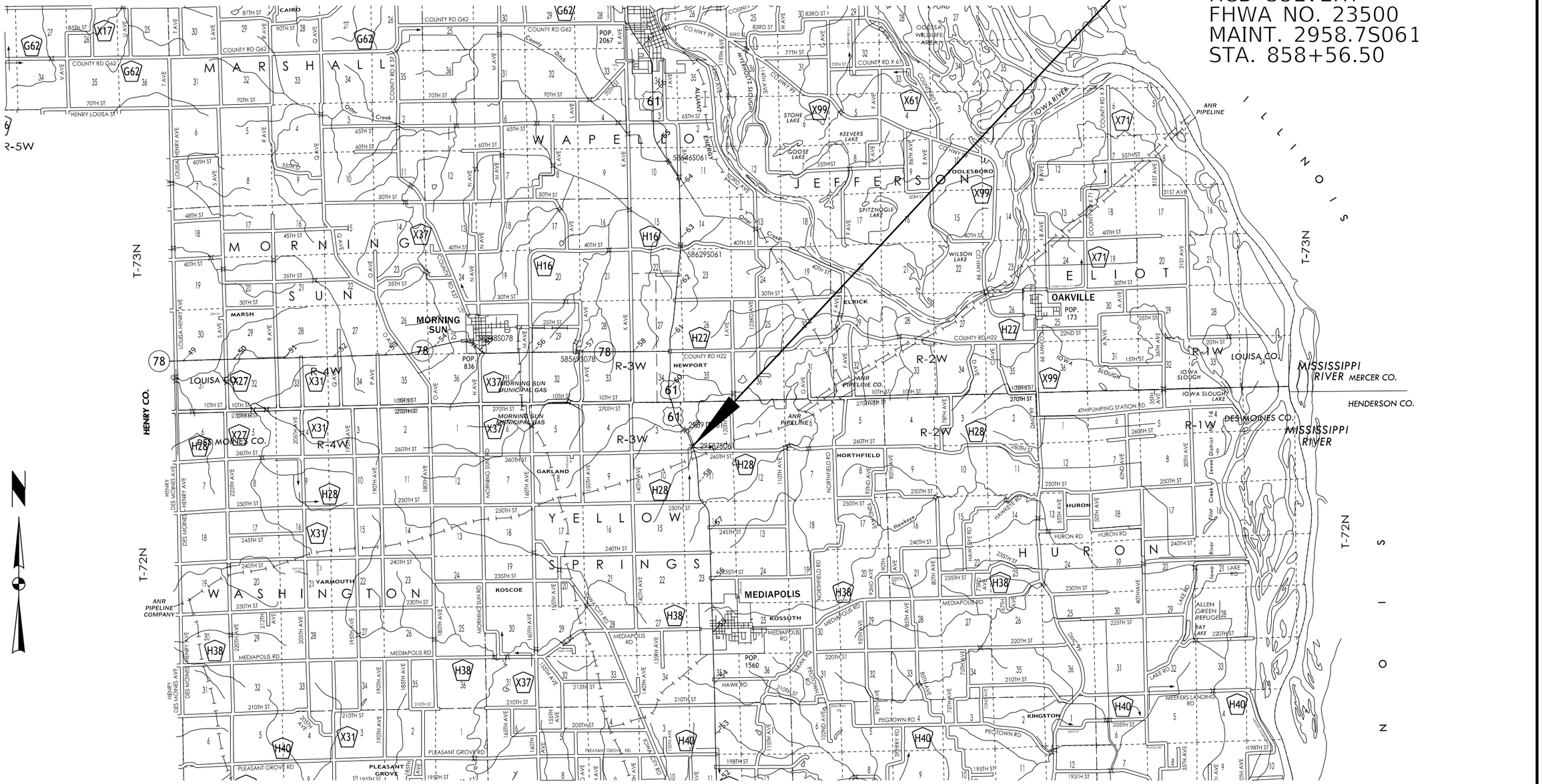
Subject to change by final design.

D05 Plan, Date: 12/22/2023

FILE NO.	ENGLISH	DESIGN TEAM Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER BRF-061-2(96)--38-29	SHEET NUMBER A.1

1:20:34 PM 12/19/2023 8877 pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\2906101015\Design\CADD_Files\Sheet_Files\SHT_29061096_A01.dgn

US 61 BRIDGE REPLACEMENT
RCB CULVERT
FHWA NO. 23500
MAINT. 2958.7S061
STA. 858+56.50

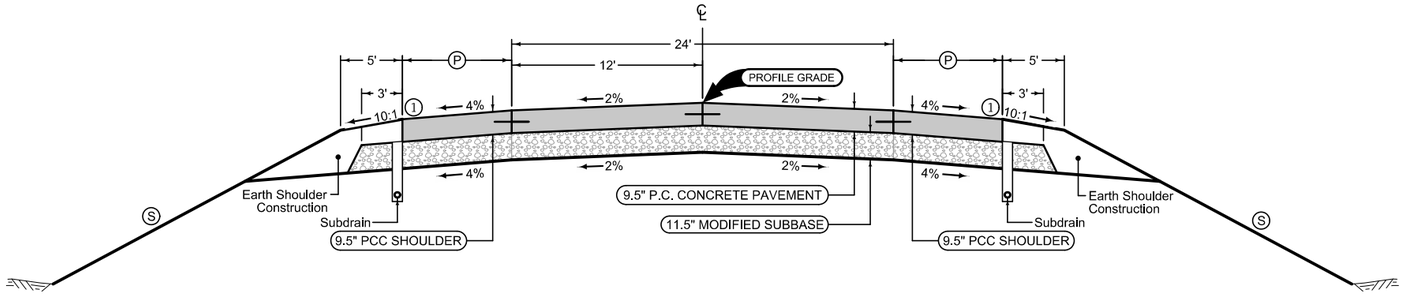


LOCATION MAP SCALE
0 1 2 3
Miles

FILE NO.	ENGLISH	DESIGN TEAM Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER BRF-061-2(96)--38-29	SHEET NUMBER A.2	

8:29:03 AM 9/7/2023 8877 pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\2906101015\Design\CADD_Files\Sheet_Files\SHT_29061096_A01.dgn

During Final Design, Discuss using Standard Road Plan PR-120.



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		(S)	(P) Feet
857+20.57	857+65.00	4:1	
857+65.00	857+80.00	4:1 - 2:1	
857+80.00	858+55.00	2:1	
858+55.00	858+70.00	2:1 - 4:1	
858+70.00	859+99.69	4:1	
857+20.57	857+40.57		11.2
857+40.57	857+88.11		11.2 - 9.3
857+88.11	859+32.24		9.3
859+32.24	859+79.69		9.3-11.2
859+79.69	859+99.69		11.2

(1) Refer to Detail 7157 for Guardrail Shoulder Paving

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

2P_ 04-21-20	
STATION TO STATION	
857+38.87	859+70.52

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		(S)	(P) Feet
857+38.87	857+87.47	(2)	
857+87.47	858+40.00	4:1	
858+40.00	858+55.00	4:1 - 2:1	
858+55.00	859+30.00	2:1	
859+30.00	859+45.00	2:1 - 4:1	
859+45.00	859+90.52	4:1	
857+38.87	857+87.47		8
857+87.47	858+55.34		16.3 - 9.3
858+55.34	859+23.52		9.3
859+23.52	859+70.52		9.3-11.2
859+70.52	859+90.52		11.2

(1) Refer to Detail 7157 for Guardrail Shoulder Paving

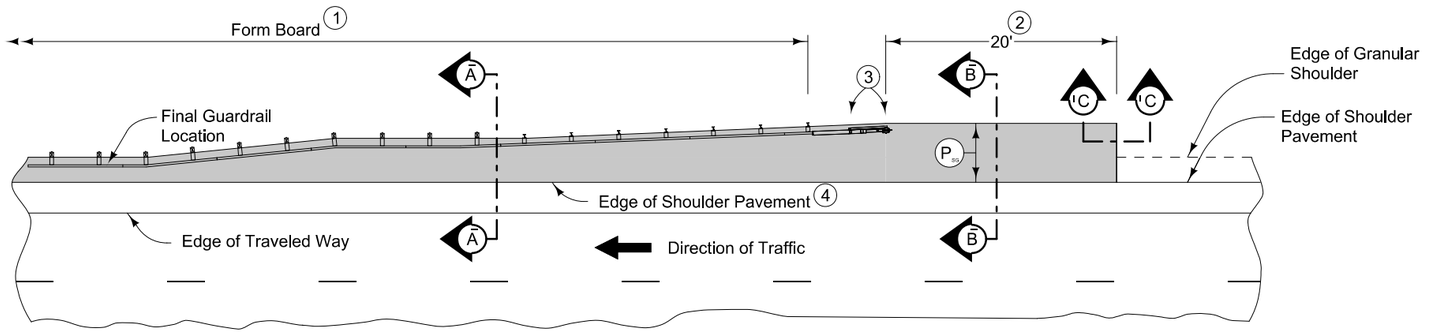
(2) Match existing driveway grade.

US HIGHWAY 61

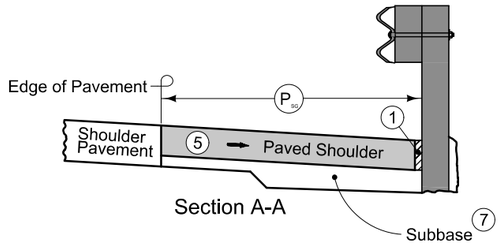
FILE NO.	ENGLISH	DESIGN TEAM Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER BRF-061-2(96)--38-29	SHEET NUMBER B.1	

1:06:45 PM 12/19/2023 8877 pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\2906101015\Design\CADD_Files\Sheet_Files\SHT_29061096_B01.dgn

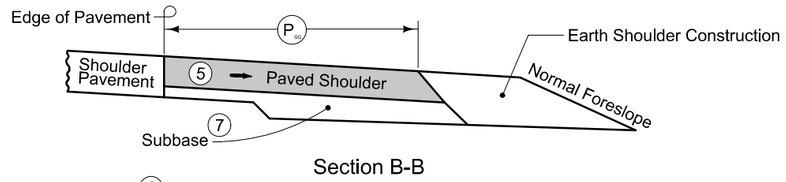
7157
Modified



PLAN VIEW

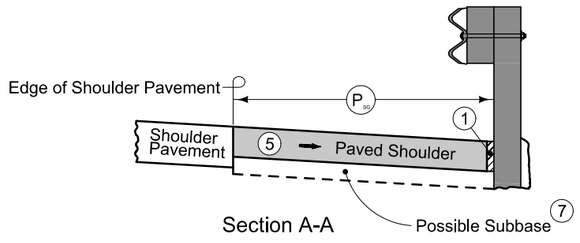


Section A-A

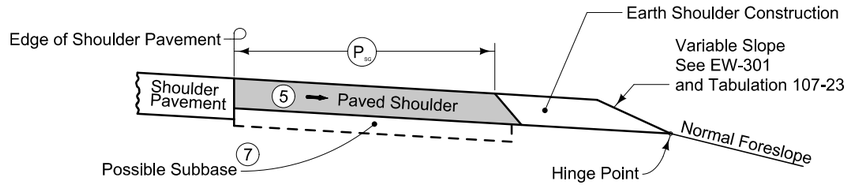


Section B-B

NEW CONSTRUCTION
6



Section A-A



Section B-B

EXISTING SHOULDER

9.5" PCC Paved Shoulder at guardrail shall use the following joint 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.

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.

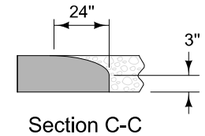
(3) Shoulder may be notched for first 2 posts or post sleeves may be installed through pavement. Do not drive posts through pavement.

(4) 'KT' (per PV-101) joint for PCC shoulder.

(5) Match shoulder slope.

(6) The Contractor has the option to pave the paved shoulder at guardrail and the partial width paved shoulder as one operation.

(7) Refer to other details in the plan.



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

PAVED SHOULDER AT GUARDRAIL
(ADJACENT TO PARTIAL WIDTH PAVED SHOULDER)

100-1D
10-18-05

PROJECT DESCRIPTION

This project involves the replacement of the US 61 bridge (Maint. No. 2958.7S061) over Branch Smith Creek, located 1.0 mi S of Louisa Co.

100-0A
10-28-97

ESTIMATED ROADWAY QUANTITIES
(1 DIVISION PROJECT)

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

105-4
10-18-11

STANDARD ROAD PLANS

The following Standard Road Plans apply to construction work on this project.

Number	Date	Title
BA-200	04-20-21	Steel Beam Guardrail Components
BA-201	10-18-22	Steel Beam Guardrail Barrier Transition Section (MASH TL-3)
BA-205	10-17-23	Steel Beam Guardrail Tangent End Terminal (MASH TL-3)
BA-210	10-19-21	Guardrail Post Adaptor Unit
BA-251	04-20-21	Steel Beam Guardrail Installation at Side Object (Two-Way Protection)
DR-111	04-17-18	Box Culvert (Backfill)
EC-201	04-20-21	Silt Fence
EC-202	10-21-14	Floating Silt Curtain
EC-204	10-19-21	Perimeter, Slope and Ditch Check Sediment Control Devices
EC-303	10-19-21	Stabilized Construction Entrance
EC-502	04-21-15	Seeding in Rural Areas
EW-301	04-16-24	Guardrail Grading
LS-626	10-19-21	Steel Beam Guardrail Flared End Terminal (NCHRP 350 TL-3)
LS-631	04-20-21	Steel Beam Guardrail Installation At Side Object (Two-Way Protection)
PM-110	04-16-24	Line Types
PR-120	04-21-20	Double Reinforced Pavement Over Box Culverts
PV-12	04-16-24	Milled Shoulder Rumble Strips
PV-101	04-19-22	Joints
SI-211	10-18-22	Object Marker and Delineator Placement with Guardrail
TC-1	10-15-19	Work Not Affecting Traffic (Two-Lane or Multi-Lane)
TC-252	04-21-20	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)
- Septic Tank
- Cistern
- L.P. Gas Tank (No Footing)
- 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

Eastern Iowa Electric
Tom Quiram
P.O. Box 3003
Wilton, IA 52778-3003
563-732-2211

Mediapolis Telephone Company
Marc Carlson
652 Main St,
Mediapolis, IA 52637
319-394-3456
T1
F02

Windstream
Bryan Bogan
4001 N Rodney Parham Rd.
Little Rock, AR
501-748-6919
T2

Lumen
Steve Parker
2103 E University Ave., 1st Floor
Des Moines, IA 50317
515-265-0968
T3

Mutual Telephone Company
Randy Foor
28 W Division St,
Morning Sun, IA 52640
319-868-7636
T4

Windstream
Communications
(Iowa Telecom)
Bryan Bogan
4001 N Rodney Parham Rd.
Little Rock, AR
501-748-6919
T5

Alliant Energy
Mary Montgomery
200 1st St. SE
Cedar Rapids, IA 52401
319-786-8196
G

ANR Pipeline Company
Robert Southers
P.O. Box 9
2795 Locust Avenue
Birmingham, IA 52535
319-498-4200 ext 2252
G2

ICN
Mike Broderick
400 E 14th Street
Grimes State Office Bldg
Des Moines, IA 50319
515-725-4610
FO

Eastern Iowa Electric
Tom Quiram
P.O. Box 3003
Wilton, IA 52778-3003
563-732-2211
E1

Iowa Dept Of Transportation
Lamont Sutter
900 Park Street
Donnellson, IA 52625
319-835-5211
E2

Rathbun Regional Water
Bill Benjamin
16166 Hwy J-29
Centerville, IA 52544
319-258-2103
W

Alliant Energy
Mary Montgomery
200 1st St. SE
Cedar Rapids, IA 52401
319-786-8196

Mediacom
Tim Eagen
3210 Division St.
Burlington, IA
319-208-1829

PLAN VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

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

PROFILE VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

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

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

RIGHT-OF-WAY LEGEND

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

PLAN AND PROFILE LEGEND AND SYMBOL INFORMATION SHEET

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

FILE NO.	ENGLISH	DESIGN TEAM Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER BRF-061-2(96)--38-29	SHEET NUMBER D.1

12:26:40 PM 11/29/2023 9589 pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\2906101015\Design\CADD_Files\Sheet_Files\SHT_29061096_D01.dgn

YELLOW SPRINGS TWP
T-72N R-3W
SEC. 2

Sta. 858+56.50
Build Twin 12'x8'x85' RCB
Length LT 42'
Length RT 43'
Skew = 45° Rt. Ahd.
F.L. LT 682.2
F.L. RT 681.2
DA = 1.9 SQ. MI.
DES# = TBD

Construction Limits Extended Due to
Channel Realignment. Refer to Sheet V.1

856+00 | 857+00 | 858+00 | 859+00 | 860+00 | 861+00

Sta. 857+20.57
Begin Construction

Sta. 857+38.87
Begin Roadway
Pavement Construction

US 61 (ML061)

Sta. 859+99.69
End Construction

Sta. 859+70.52
End Roadway
Pavement Construction

175 U.A.C. Ent.

F02

U.A.C.
24" X 84" HDPE

Remove Fence

Clearing
and Grubbing

Branch Smith Creek

Sta. 858+56.60
Exisiting 32' x 44'
Continous I Beam Bridge
DES# 160
FHWA No. 23500
(TO BE REMOVED)

salvage existing guardrail
sections to be unbolted not cut

0 FEET 20

Sta. 857+38.87
Begin Roadway
Pavement Construction

-5.26%
-0.59%
VPI = +88.02
ELV = 695.03
L = 350.85
K = 75

Sta. 859+70.52
End Roadway
Pavement Construction

710 705 700 695 690 685 680 675

702.38 701.23 700.17 699.18 698.28 697.47 696.73 696.08 695.52 695.03 694.63 694.31 694.08 693.92 693.77 693.62 693.47 693.33 693.18 693.06

856+00 | 857+00 | 858+00 | 859+00 | 860+00 | 861+00

FILE NO.	ENGLISH	DESIGN TEAM Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER BRF-061-2(96)--38-29	SHEET NUMBER D.2

1:22:24 PM 11/29/2023 9589 pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\2906101015\Design\CADD_Files\Sheet_Files\SHT_29061096_D02.dgn

Survey Information

Horizontal Control -

Control Monuments used for this project consisted of 11 Des Moines County GPS Monuments and 2 Louisa County GPS Monuments. These monuments are all 5/8" diameter aluminum rods with 2.5" diameter aluminum caps encased in 5" diameter PVC pipes with aluminum access covers. All monuments were previously set as part of countywide GPS control networks. Each monument was observed for a minimum of two 5 minute RTK sessions, at differing times of day using the Iowa RTN as a reference station. The monuments completely surround the project area, are approximately 1 to 2 miles east or west of the existing US 61 alignment and are spaced 3 to 4 miles apart north and south. These monuments are considered to be in safe locations that will survive construction.

Control Points used for this project consisted of 80 iron pins that were previously set along the existing Highway 61 alignment. These points were used for the initial survey work completed in 1999 and recovered for the new survey work. An additional 3 iron pins were set to supplement the points recovered. Points are no more than 1300 feet apart and intervisible. All points were observed for a minimum of two 5 minute RTK sessions, at differing times of day using the Iowa RTN as a reference station.

All Control Monuments and Control Points were referenced to at least three durable physical objects and complete sketches were made in the field notes.

GPS Horizontal Errors	Mean Error of Observations	0.034
	Standard Deviation of Error	0.021

Coordinate System -

The coordinate system used is NAD83(CORS) (Epoch 2002.00) Iowa State Plane, South Zone, U. S. Survey Feet. The 13 Control Monuments were used to compute an average scale factor for the project area to convert from grid distances to ground distances. After applying the scale factor, a shift was applied to hold a central point in the job at true state plane coordinate values.

A sample of these initial coordinate values was compared to the coordinates from the previous work. This resulted in a scale difference of 0.62' over the entire length of the project or approximately 0.03' per mile. To ensure all previous work would merge seamlessly with the new work, the average scale factor initially computed was adjusted to correct the difference. The shift was also recomputed to better fit the previous work.

Final Scale and Shift Parameters-	Scale Factor	0.99992280532
	Northing Shift	-27.7970
	Easting Shift	-176.3040

Vertical Control -

The vertical datum used is NAVD88. Benchmarks for this project consisted of 82 benchmarks that were previously established along the existing Highway 61 alignment. These were used for the initial survey work completed in 1999 and recovered for the new survey work. An additional 21 benchmarks were established to supplement the ones recovered. Benchmarks are spaced no more than 1300' apart.

The levels were started at an offsite benchmark, run to the job just North of the BOP and then run along the existing US 61 corridor. Side legs were added as necessary. The levels were run through all control points and all benchmarks. The levels were closed out on 2 separate offsite benchmarks. The levels were run in approximately 0.5 to 1 mile segments, each segment was closed back on its starting point at the end of each day.

The original benchmark used at the South end of the project in1999 was not found. However, Des Moines County notes were found where this benchmark had been transferred to another location. We started our leveling at this point, MW#701. The closing benchmarks were NGS N126, point MW#725 and a USGS monument 20RWM, point MW#730. This USGS monument was also used in 1999 for the previous work.

The average closure error was 0.014' over 32 looped segments. All looped segments were left unadjusted. Holding the Des Moines County elevation value of the starting benchmark MW#701 resulted in a closure of +0.08' on both NGS N126, MW#725 and USGS monument 20RWM, MW#730. A comparison of the 1999 benchmark elevations and the new elevations showed an average difference of +0.085' using 51 common points that should have held stable since the previous work was done.

Assuming that the starting benchmark elevation was in error and based on the above information all computed elevations were adjusted by -0.08 to better match the 2 closing benchmarks and the benchmarks previously used on this project.

HORIZONTAL CONTROL

Point	North	East	Elevation	Description
10	316565.66	2290949.79	653.28	CP 5/8" IR ALUM. CAP
11	317319.97	2290212.99	615.15	CP 1/2" RBR
12	318446.49	2289469.77	571.01	CP 5/8" IR
13	319644.91	2288664.75	568.12	CP 5/8" IR
14	320278.11	2287983.20	570.37	CP 5/8" IR
15	320370.58	2288429.47	569.82	CP 5/8" IR
16	323957.12	2287382.86	0.00	CP 5/8" IR
17	323995.18	2287800.98	677.06	CP 5/8" IR
18	325079.06	2287189.51	681.26	CP 5/8" IR
19	326383.07	2286383.21	686.33	CP 5/8" IR
20	327128.52	2285760.24	693.13	CP 5/8" IR
21	328217.60	2284674.37	696.55	CP USGS MON.
22	330490.16	2284595.51	693.77	CP 5/8" IR
23	332134.41	2284467.60	699.39	CP CUT "X" ON RAIL
24	333512.68	2284552.27	701.99	CP CONC. MON. WITH 5/8" IR
25	335585.92	2284465.93	705.51	CP 5/8" IR
26	337984.93	2284415.36	708.32	CP 5/8" IR
27	340978.93	2284241.98	713.85	CP 5/8" IR
28	342777.37	2284140.88	717.74	CP 5/8" IR
29	344981.61	2284223.10	717.61	CP 5/8" IR
30	346827.67	2284061.21	719.18	CP CUT "X" ON RAIL
31	349067.67	2284088.87	730.03	CP 5/8" IR
32	350770.10	2283997.02	736.48	CP 5/8" IR
33	352181.14	2283961.03	741.88	CP 5/8" IR
34	354450.91	2283876.68	748.66	CP 5/8" IR ALUM. CAP
35	357594.25	2283872.40	755.26	CP 5/8" IR
36	360061.44	2283711.89	756.93	CP 5/8" IR
37	363164.70	2283719.54	759.12	CP 5/8" IR
38	365358.82	2283705.38	763.19	CP CON. MON. WITH 1/2" IR
39	367956.49	2283568.49	770.09	CP 5/8" IR
40	370533.13	2283515.82	767.07	CP 5/8" IR
41	372470.68	2283509.56	773.09	CP 5/8" IR
42	375793.19	2281367.31	773.97	CP 5/8" IR
43	375806.57	2282595.02	774.34	CP 5/8" IR
44	379824.12	2283313.63	770.15	CP CUT "X" ON RAIL
45	381467.31	2283176.63	772.02	CP 5/8" IR
46	383709.46	2283086.69	774.36	CP CON. MON.
47	387152.02	2283014.98	757.53	CP 5/8" IR
48	388442.31	2282835.22	751.57	CP 5/8" IR
49	389095.02	2281964.68	755.79	CP CUT "X" ON RAIL
50	391654.27	2281884.15	751.00	CP 5/8" IR
51	393694.80	2281727.63	746.54	CP 5/8" IR
52	394377.56	2279854.48	744.43	CP 5/8" IR
53	394375.10	2280584.83	738.75	CP 5/8" IR
54	397704.15	2279678.36	740.23	CP 5/8" IR
55	399123.67	2279264.72	736.55	CP 5/8" IR
56	400548.52	2278729.52	734.18	CP 5/8" IR ALUM. CAP
57	402939.54	2278990.17	727.94	CP 5/8" IR
58	404687.79	2279046.90	724.86	CP 5/8" IR ALUM. CAP
59	406278.76	2278920.89	720.91	CP 5/8" IR
100	321738.06	2288570.42	0.00	CP 5/8" IR W/CAP
101	323044.07	2287878.96	643.35	CP 5/8" IR W/CAP
102	329355.92	2284632.84	692.53	CP 5/8" IR W/CAP
103	331269.82	2284605.23	698.34	CP 5/8" IR W/CAP
104	334601.80	2284509.89	702.19	CP 5/8" IR W/CAP
105	336804.45	2284426.80	708.20	CP 5/8" IR W/CAP
106	339475.89	2284355.38	713.68	CP 5/8" IR W/CAP
107	344078.21	2284252.53	707.73	CP 5/8" IR W/CAP
108	345854.02	2284169.40	712.64	CP 5/8" IR W/CAP
109	347924.00	2284120.10	724.22	CP 5/8" IR W/CAP
110	353683.46	2283924.82	746.40	CP 5/8" IR W/CAP
111	355976.19	2283946.93	752.61	CP 5/8" IR W/CAP
112	358752.18	2283764.53	756.87	CP 5/8" IR W/CAP
113	361415.50	2283693.30	756.94	CP 5/8" IR W/CAP
114	366725.34	2283570.62	769.49	CP 5/8" IR W/CAP
115	369376.61	2283633.56	766.22	CP 5/8" IR W/CAP
116	371464.12	2283541.11	770.81	CP 5/8" IR W/CAP
117	374021.86	2283489.00	772.68	CP 5/8" IR W/CAP
118	374117.64	2283458.78	774.83	CP 5/8" IR W/CAP
119	375907.17	2283343.66	771.18	CP 5/8" IR W/CAP
120	376420.49	2283321.24	769.62	CP 5/8" IR
121	377731.16	2283357.86	762.92	CP 5/8" IR W/CAP
122	382680.80	2283194.52	771.68	CP 5/8" IR W/CAP
123	385469.61	2283143.29	763.23	CP 5/8" IR W/CAP
124	390399.79	2281979.70	754.04	CP 5/8" IR W/CAP
125	392655.85	2281861.82	751.01	CP 5/8" IR W/CAP
126	394487.71	2281466.83	708.94	CP 5/8" IR W/CAP
127	396311.19	2280761.35	678.34	CP 5/8" IR W/CAP
128	401700.27	2278857.10	730.79	CP 5/8" IR W/CAP
129	405618.26	2278976.98	718.00	CP 5/8" IR W/CAP

HORIZONTAL CONTROL (CONT.)

Point	North	East	Elevation	Description
130	407463.91	2279240.16	728.87	CP 1/2" IR
131	408635.16	2279408.93	726.80	CP 1/2" IR
132	409819.08	2279519.10	716.00	CP 1/2" IR

VERTICAL CONTROL

Point	North	East	Elevation	Description
508	316706.83	2290897.26	648.46	BM CUT "X" IN HDWL OVER CMP
515	322181.17	2288400.38	611.47	BM CUT "X" IN RCB
516	322598.16	2288093.15	617.83	BM CUT "X" IN RCP
518	324312.31	2287678.08	681.26	BM FROST NAIL W. SIDE BRACE POST
519	324817.31	2287234.72	682.98	BM R.R. SPIKE IN E. SIDE OF P.P.
520	325589.15	2286781.37	686.33	BM R.R. SPIKE IN E. SIDE OF P.P.
521	326572.90	2286120.43	690.21	BM BALL OF R.R. RAIL
522	327535.14	2285399.89	699.08	BM 60d SPIKE IN S. SIDE OF P.P.
524	328269.77	2284814.28	698.29	BM BALL OF R.R. RAIL
527	329592.47	2284655.35	695.80	BM BALL OF R.R. RAIL
529	330915.69	2284619.68	697.05	BM R.R. SPIKE IN N. SIDE OF P.P.
530	332259.24	2284405.97	699.77	BM 60d SPIKE IN E. SIDE OF ANGLE POST
532	333576.62	2284431.14	704.10	BM BALL OF R.R. RAIL
533	333578.86	2284551.34	704.61	BM BALL OF R.R. RAIL
534	334809.54	2284523.95	705.61	BM R.R. SPIKE IN E. SIDE OF P.P.
536	336107.10	2284555.67	707.40	BM 60d SPIKE IN W. SIDE TEL. PAD POST
538	337518.18	2284350.66	704.33	BM BRASS DISK IN HDWL
540	338785.78	2284387.82	713.87	BM R.R. SPIKE IN W. SIDE OF P.P.
542	340117.92	2284230.11	714.82	BM BALL OF R.R. RAIL
544	341522.82	2284325.53	718.31	BM CONC. MON. WITH IR
552	342095.54	2284213.09	705.11	BM BRASS DISK IN HDWL
554	343280.93	2284267.10	712.42	BM BALL OF R.R. RAIL
556	343904.57	2284146.97	699.50	BM BRASS DISK IN HDWL
558	344465.65	2284248.49	704.59	BM R.R. SPIKE IN E. SIDE OF P.P.
560	345244.08	2284217.70	719.99	BM R.R. SPIKE IN E. SIDE OF P.P.
564	346815.50	2284093.38	714.31	BM BRASS DISK IN HDWL
566	348012.86	2284030.98	728.30	BM NAIL IN E. SIDE OF CORNER POST
569	349436.84	2283995.81	733.35	BM BALL OF R.R. RAIL
571	350769.02	2283962.62	739.96	BM BALL OF R.R. RAIL
572	352071.97	2283871.80	743.42	BM R.R. SPIKE IN N. SIDE OF FENCE POST
574	353585.44	2284014.35	748.14	BM R.R. SPIKE IN W. SIDE OF BRACE POST
576	354750.93	2283987.54	752.10	BM R.R. SPIKE IN SW. SIDE OF CORNER POST
577	354751.37	2283877.77	752.90	BM BALL OF R.R. RAIL
581	357485.65	2283779.98	756.63	BM CONC. MON.
586	360061.50	2283831.08	758.81	BM 60d SPIKE IN W. SIDE OF CORNER POST
588	361494.65	2283793.45	758.67	BM 60d SPIKE IN W. SIDE TEL. PAD POST
590	362710.87	2283774.19	763.04	BM R.R. SPIKE IN N. SIDE OF FENCE POST
594	365140.84	2283625.21	761.13	BM BRASS DISK IN HDWL
598	367810.30	2283671.74	770.54	BM 60d SPIKE IN NW. SIDE OF ANGLE POST
599	367920.84	2283477.93	770.33	BM R.R SPIKE IN N. SIDE OF P.P.
602	369697.78	2283528.85	754.61	BM BRASS DISK IN HDWL
605	370602.31	2283484.25	770.18	BM CONC. MON.
606	372130.27	2283545.92	773.43	BM R.R SPIKE IN P.P.
610	374651.15	2283370.38	778.55	BM "X" ON S. BOLT OF F.H.
620	377532.38	2283367.95	768.27	BM R.R. SPIKE IN W. SIDE OF P.P.
622	378403.13	2283322.54	767.38	BM CUT "X" ON RCBC
623	378450.70	2283271.69	767.32	BM BRASS DISK ON RCBC
624	379824.95	2283314.48	770.69	BM 60d SPIKE IN S. SIDE OF CORNER POST
628	382377.40	2283116.62	774.62	BM R.R. SPIKE IN W. SIDE OF P.P.
630	383555.80	2283091.60	774.76	BM R.R. SPIKE IN E. SIDE OF P.P.
632	385116.33	2283036.43	767.73	BM 60d SPIKE IN E. SIDE OF CORNER POST
634	386458.97	2283000.15	761.87	BM 60d SPIKE IN E. SIDE OF BRACE POST
636	387708.55	2282965.66	758.15	BM 60d SPIKE IN E. SIDE OF BRACE POST
637	387720.82	2283084.71	756.84	BM BALL OF R.R. RAIL
638	388688.45	2282573.55	739.27	BM BRASS DISK IN HDWL
640	389335.48	2282033.49	754.26	BM R.R SPIKE IN W. SIDE OF P.P.
644	391731.57	2281915.29	752.69	BM 60d SPIKE IN W. SIDE OF BRACE POST
646	392751.49	2281867.14	753.40	BM 60d SPIKE IN W. SIDE OF BRACE POST
648	393852.48	2281701.54	749.28	BM 60d SPIKE IN W. SIDE OF BRACE POST
650	394945.29	2281289.33	696.63	BM BRASS DISK SE. CORNER OF BRIDGE
654	397757.46	2279654.43	741.82	BM R.R SPIKE IN E. SIDE OF P.P.
656	398633.69	2279420.32	739.68	BM R.R SPIKE IN W. SIDE OF P.P.
658	399598.00	2279180.99	735.98	BM R.R SPIKE P.P.
660	400341.81	2278764.86	722.33	BM CUT "X" IN HDWL
661	400547.58	2278879.34	731.15	BM R.R. SPIKE IN S. SIDE OF P.P.
662	401576.00	2278881.44	724.88	BM CUT "X" IN RCP FES
664	402606.87	2279021.13	716.24	BM CUT "X" IN RCP FES
666	404246.34	2279039.68	725.74	BM R.R SPIKE P.P.
668	405610.37	2278998.89	712.51	BM CUT "X" IN FES

VERTICAL CONTROL (CONT.)

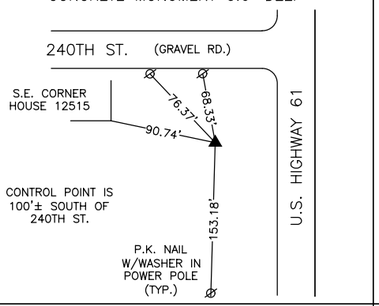
Point	North	East	Elevation	Description
670	406505.75	2279025.91	719.20	BM CUT "X" IN FES
701	317340.23	2294847.55	557.07	BM CUT "X" ON INTAKE
702	320824.08	2294002.67	685.81	BM GEAR SPIKE IN P.P.
703	320386.60	2291489.95	586.64	BM GEAR SPIKE IN P.P.
704	318941.75	2289023.62	576.10	BM CUT "X" ON NW. BRIDGE WALL
705	317673.33	2289785.23	583.05	BM GEAR SPIKE IN P.P.
706	321188.77	2288447.04	586.49	BM CUT "X" ON HDWL
707	323006.56	2287829.86	651.24	BM GEAR SPIKE IN P.P.
708	356053.57	2283951.04	755.94	BM "X" ON BOLT OF F.H.
709	358753.12	2283872.23	758.90	BM GEAR SPIKE IN BRACE POST
710	364079.45	2283702.32	759.45	BM CUT "X" ON CULVERT
711	366745.55	2283685.87	770.54	BM GEAR SPIKE IN BRACE POST
712	368849.24	2283641.33	770.49	BM GEAR SPIKE IN P.P.
713	372863.05	2283529.37	774.78	BM GEAR SPIKE IN P.P.
714	373640.88	2283565.74	776.91	BM "X" ON BOLT OF F.H.
715	375885.53	2283408.64	773.65	BM GEAR SPIKE IN P.P.
716	375775.63	2282050.02	775.82	BM GEAR SPIKE IN FENCE POST
717	375775.22	2281366.75	772.87	BM CUT "X" ON CULVERT
718	381102.31	2283333.12	773.91	BM GEAR SPIKE IN P.P.
719	390380.54	2281865.10	756.81	BM GEAR SPIKE IN BRACE POST
720	396636.28	2280484.96	682.58	BM CUT "X" ON BRIDGE WALL
721	410516.75	2279626.40	699.92	BM CUT "X" ON E END 48" CONC PIPE
725	409331.77	2288093.80	636.95	BM NGS 446
730	373423.75	2294123.68	766.96	BM CONC MON RWM20
731	394379.79	2279854.42	747.68	BM GEAR SPIKE IN P.P.

HORIZONTAL CONTROL MONUMENTS

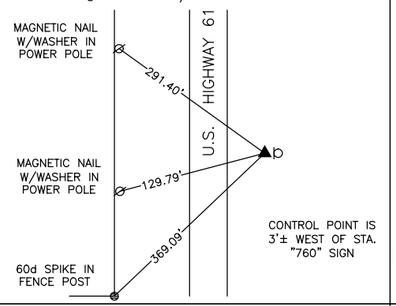
Point	North	East	Elevation	Description
99236	313485.39	2279200.49	0.00	CP DM CO GPS 99-236
99238	338732.07	2277389.66	0.00	CP DM CO GPS 99-238
99240	357602.22	2276008.71	0.00	CP DM CO GPS 99-240
99242	378910.75	2275330.96	0.00	CP DM CO GPS 99-242
99244	399440.14	2275016.23	0.00	CP DM CO GPS 99-244
99249	315171.61	2292424.08	0.00	CP DM CO GPS 99-249
99251	336206.60	2287765.76	0.00	CP DM CO GPS 99-251
99253	357466.16	2291248.64	0.00	CP DM CO GPS 99-253
99255	379869.39	2293947.62	0.00	CP DM CO GPS 99-255
99257	399885.77	2294557.13	0.00	CP DM CO GPS 99-257
99259	325304.84	2305476.11	0.00	CP DM CO GPS 99-259
200633	415630.45	2290117.08	0.00	CP LOUISA CO GPS 2006-33
200634	415599.02	2274858.29	0.00	CP LOUISA CO GPS 2006-34

FILE NO.	ENGLISH	DESIGN TEAM Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER BRF-061-2(96)--38-29	SHEET NUMBER G.2

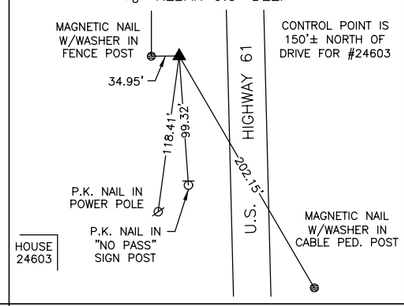
CONTROL POINT 46
N: 383709.46 E: 2283086.69 EL. 774.36
CONCRETE MONUMENT 0.6' DEEP



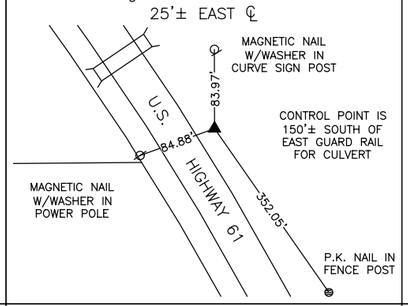
CONTROL POINT 123
N: 385469.61 E: 2283143.29 EL. 763.23
5/8" REBAR W/CAP 0.6' DEEP



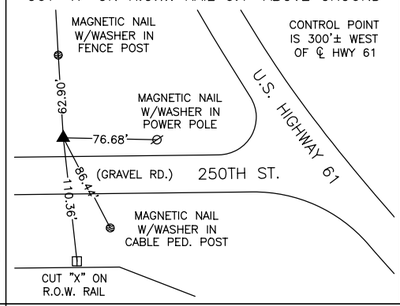
CONTROL POINT 47
N: 387152.02 E: 2283014.98 EL. 757.53
5/8" REBAR 0.5' DEEP



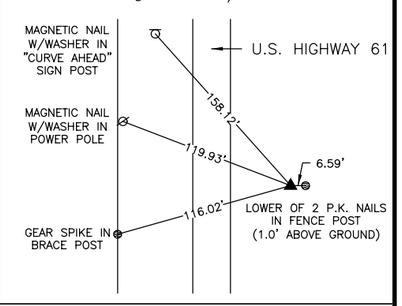
CONTROL POINT 48
N: 388442.31 E: 2282835.22 EL. 751.57
5/8" REBAR 0.5' DEEP
25'± EAST ℄



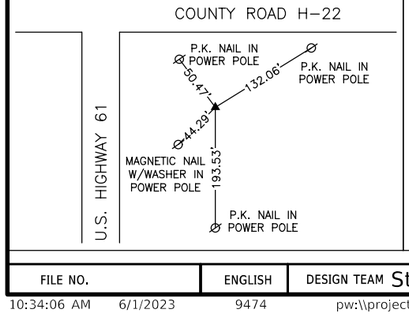
CONTROL POINT 49
N: 389095.02 E: 2281964.68 EL. 755.79
CUT "X" ON R.O.W. RAIL 0.1' ABOVE GROUND



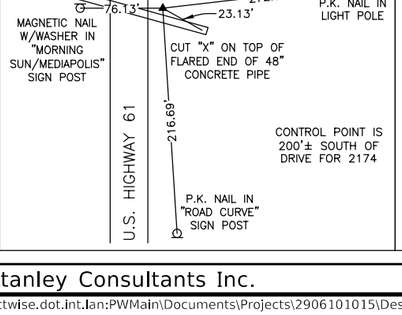
CONTROL POINT 124
N: 390399.79 E: 2281979.70 EL. 754.04
5/8" REBAR W/CAP



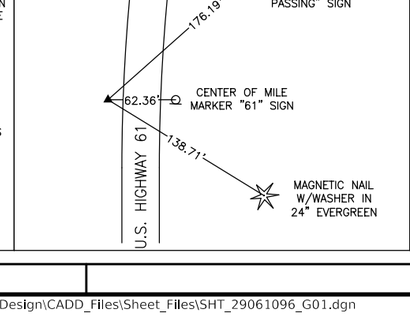
CONTROL POINT 50
N: 391654.27 E: 2281884.15 EL. 751.00
5/8" REBAR 0.5' DEEP



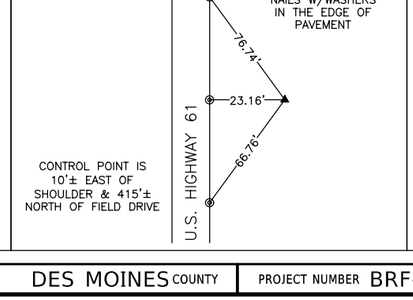
CONTROL POINT 125
N: 392655.85 E: 2281861.82 EL. 751.01
5/8" REBAR W/CAP 0.5' DEEP



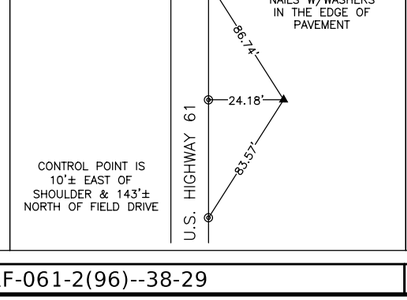
CONTROL POINT 51
N: 393694.80 E: 2281727.63 EL. 746.54
5/8" REBAR



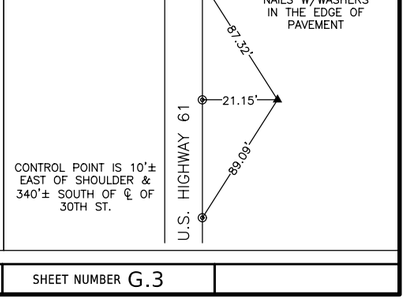
CONTROL POINT 126
N: 394487.71 E: 2281466.83 EL. 708.94
5/8" REBAR W/CAP 0.6' DEEP



CONTROL POINT 52
N: 394377.56 E: 2279854.48 EL. 744.43
5/8" REBAR



CONTROL POINT 53
N: 394375.10 E: 2280584.83 EL. 738.75
5/8" REBAR



CONTROL POINT 127
N: 396311.19 E: 2280761.35 EL. 678.34
5/8" REBAR W/CAP

CONTROL POINT 54
N: 397704.15 E: 2279678.36 EL. 740.23
5/8" REBAR 0.6' DEEP

CONTROL POINT 55
N: 399123.67 E: 2279264.72 EL. 736.55
5/8" REBAR 0.75' DEEP

CONTROL POINT 56
N: 400548.52 E: 2278729.52 EL. 734.18
5/8" REBAR W/ALUMINUM CAP FLUSH W/GROUND

CONTROL POINT 128
N: 401700.27 E: 2278857.10 EL. 730.79
5/8" REBAR W/CAP 0.6' DEEP

CONTROL POINT 57
N: 402939.54 E: 2278990.17 EL. 727.94
5/8" REBAR 0.5' DEEP

CONTROL POINT 58
N: 404687.79 E: 2279046.90 EL. 724.86
5/8" REBAR W/ALUMINUM CAP 0.1' DEEP

CONTROL POINT 129
N: 405618.26 E: 2278976.98 EL. 718.00
5/8" REBAR W/CAP 0.5' DEEP

CONTROL POINT 59
N: 406278.76 E: 2278920.89 EL. 720.91
5/8" REBAR

CONTROL POINT 130
N: 407463.91 E: 2279240.16 EL. 728.87
1/2" REBAR

CONTROL POINT 131
N: 408635.16 E: 2279408.93 EL. 726.80
1/2" REBAR

CONTROL POINT 132
N: 409819.08 E: 2279519.10 EL. 716.00
1/2" REBAR

FILE NO.	ENGLISH	DESIGN TEAM Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER BRF-061-2(96)--38-29	SHEET NUMBER G.3

ALIGNMENT COORDINATES

Name	Location	Point on Tangent			Begin Spiral			Begin Curve			Simple Curve PI or Master PI of SCS			End Curve			End Spiral		
		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates	
1	US 61 (ML061)	823+70.55	391525.69	2281866.00															
2	US 61 (ML061)							836+01.38	392754.82	2281801.45	844+58.49	393610.76	2281756.49	853+02.68	394415.00	2281460.14			
4	US 61 (ML061)							870+26.39	396032.40	2280864.13	873+65.75	396350.83	2280746.80	876+93.72	396587.03	2280503.14			
5	US 61 (ML061)	880+33.14	396823.28	2280259.44															

SPIRAL OR CIRCULAR CURVE DATA

Name	Location	ΔSCS	Horizontal Alignment Data													Remarks
			Spiral Data								Curve Data					
			θS	Ls	Ts	Es	Xc	Yc	L.T.	S.T.	ΔC	T	L	R	E	
C1	US 61 (ML061)										17.222°	857.113	1701.3	5660	64.53	
C2	US 61 (ML061)										25.661°	339.357	667.33	1490	38.157	

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	

Yellow Springs Twp
T-72N R-3W
SEC. 2
SW 1/4 SW 1/4

857+35.00
℄ 150.00' LT

TEMPORARY EASEMENT FOR
CHANNEL REALIGNMENT

1

Quail Creek Farms INC.

856+99.00
℄ 115.00' LT

858+64± EX R/W
℄ 65' LT

857+30± EX R/W
℄ 65' LT

Existing R.O.W.

856+00 857+00 858+00 859+00 860+00 861+00

US 61

+75\u A.C. Ent

857+45± EX R/W
℄ 54.00' RT

857+67.00
℄ 80.00' RT

TEMPORARY EASEMENT
TO SHAPE

857+93± EX R/W
℄ 58' RT

858+49.88
℄ 59.99' RT

858+97.00
℄ 80.00' RT

Existing R.O.W.

859+73.45
℄ 59.93' RT

859+54.00
℄ 80.00' RT

2

Doriem S Harvey

0 20
FEET

Right of Way Design Information

THIS SHEET INCLUDED
FOR INFORMATION ONLY

ROW Team: HINRICHSEN / LARSON
ROW #: NHSN-061-2(97)--2R-29
Plan Date: 03/15/2024
Color Legend:
Property Lines
Temporary Easement
Permanent Acquisition

FILE NO.	ENGLISH	DESIGN TEAM **Stanley Consultants**	**Des Moines** COUNTY	PROJECT NUMBER **BRF-061-2(96)--38-29**	SHEET NUMBER **H1**

8:00:43 AM 8/6/2024 thinric pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\2906101015\ROW\ROW_29061097.dgn

108-23A
08-01-08

TRAFFIC CONTROL PLAN

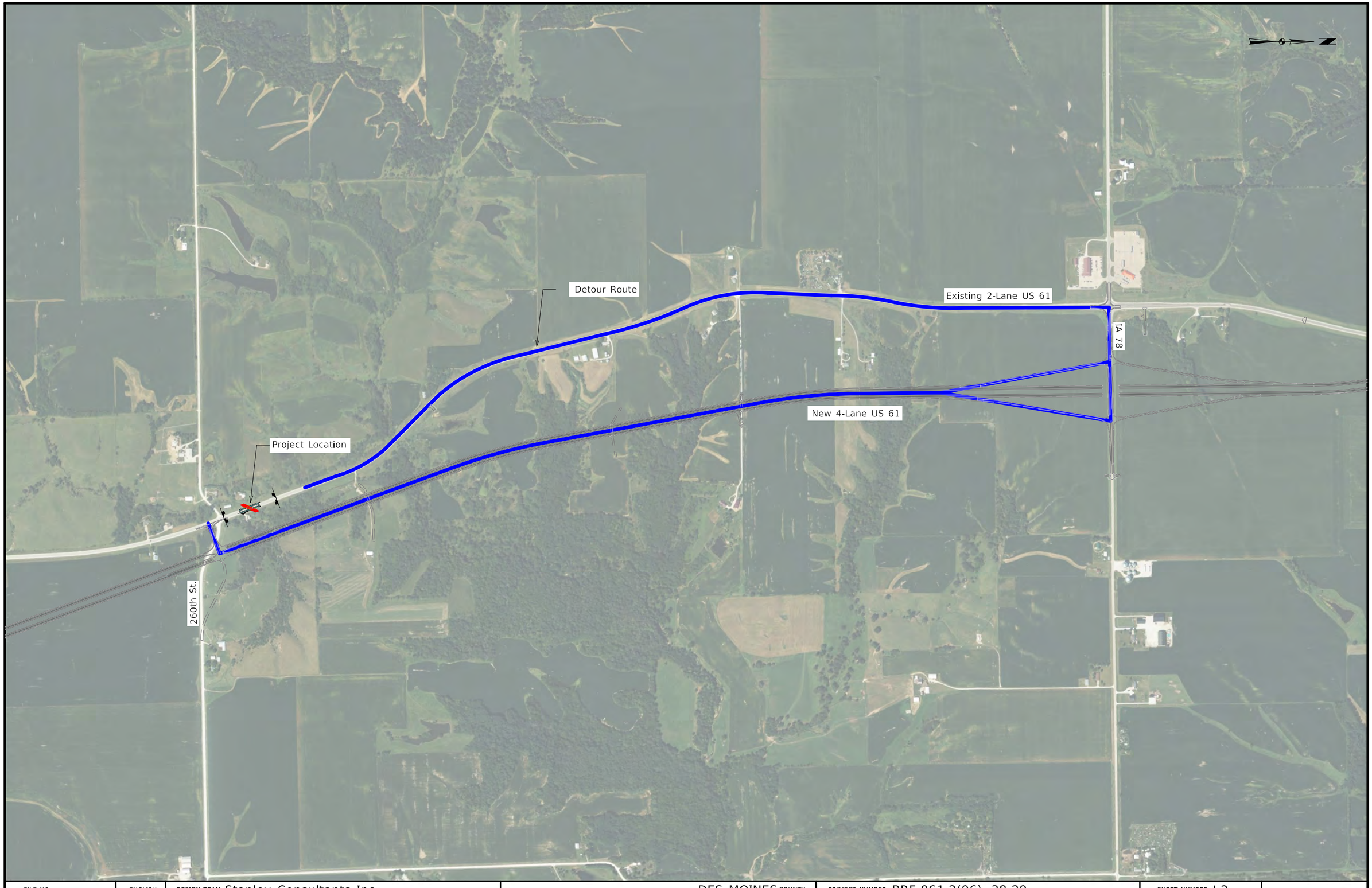
US 61
- Close existing 2-lane US 61 and utilize detour route via new 4-lane US 61 for duration of the project. Refer to Sheet J.2 for detour route map.

111-01
04-17-12

COORDINATED OPERATIONS

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

Project	Type of Work
NHSX-061-2(110)--3H-39	PCC PAVEMENT - GRADE AND NEW



FILE NO.	ENGLISH	DESIGN TEAM Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER BRF-061-2(96)--38-29	SHEET NUMBER J.2	

2:10:52 PM 5/3/2023 8725 pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\2906101015\Design\CADD_Files\Sheet_Files\SHT_29061096_J02.dgn

100-19
10-19-21

PERIMETER, SLOPE AND DITCH CHECK SEDIMENT CONTROL DEVICES

Possible Standards: EC-204

Location			Perimeter and Slope			Ditch Check		Remarks
Begin Station	End Station	Side	Length of Installation			Length of Installation		
			9 inch Dia	12 inch Dia	20 inch Dia	12 inch Dia	20 inch Dia	
			LF	LF	LF	LF	LF	
856+76.00	857+12.00	Lt		150.0				
857+20.00	858+08.00	Lt		130.0				
857+30.00	858+55.00	Lt		160.0				
857+29.00	860+30.00	Lt		330.0				
857+18.00	857+69.00	Rt		70.0				
857+89.00	859+05.00	Rt		120.0				
858+55.00	858+90.00	Rt		50.0				
859+02.00	859+47.00	Rt		60.0				
859+48.00	860+25.00	Rt		90.0				
			Totals:	1160.0				

100-10
10-21-14

FLOATING SILT CURTAINS

Refer to EC-202

Station	Hanging	Containment	Clean-out (Containment)	Maintenance of Floating Silt Curtain	Remarks
	LF	LF	LF	LF	
859+24.00	100.0	100.0	200.0	100.0	

100-34
10-17-17

STORMWATER DRAINAGE BASIN AND STORAGE

Refer to EC Standards and 570s Details.

Drainage Basin Location						Summary of Stormwater Storage							Remarks
Basin No.	Station to Station		Side	Discharge Point		Total Disturbed Area	Disturbed Area with Storage Provided	Disturbed Area without Storage Provided	Best Management Practice	Total Storage Volume Provided	Total Storage Volume Required	Storage Volume Met?	
				Station	Side								
						Acres	Acres	Acres		CF	CF	Yes/No	
1	857+05.00	860+15.00	Both	859+24.00	Rt	0.8	0.0	0.8	Vegetated Buffer	0.0	0.0	N/A	

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.

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 culvert.

B. This PPP covers approximately 0.8 acres with an estimated 0.7 acres being disturbed. The portion of the PPP covered by this contract has 0.7 acres disturbed.

C. The PPP is located in an area of 1 soil association (Otley - Ladoga).
The estimated weighted average runoff coefficient number for this PPP after completion will be 0.41.

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 Branch Smith Creek.

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.

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

POLLUTION PREVENTION PLAN

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

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

_____

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

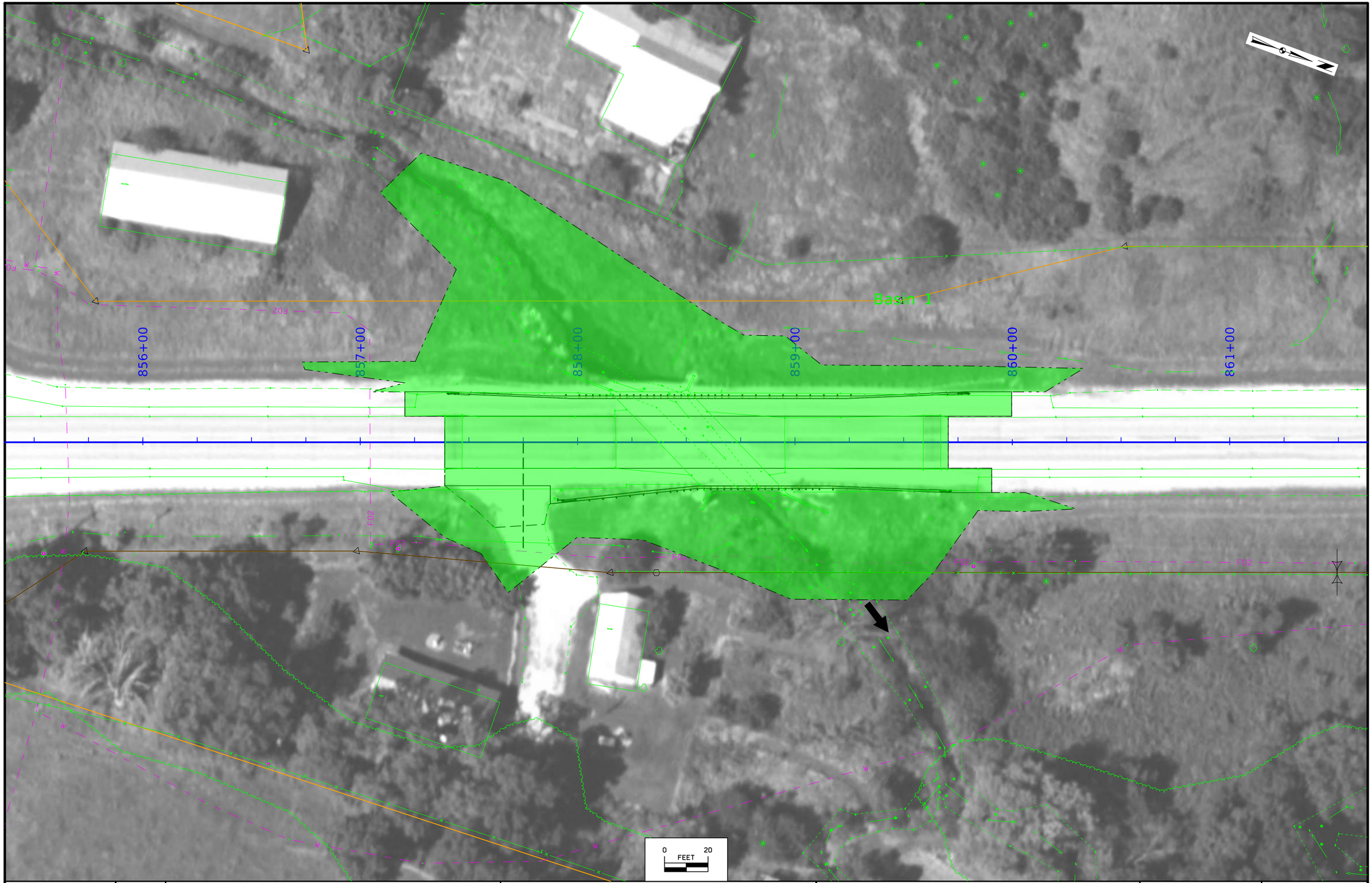
Rock Features, Temporary

EROSION CONTROL LEGEND AND SYMBOL INFORMATION SHEET

(COVERS SHEET SERIES R)

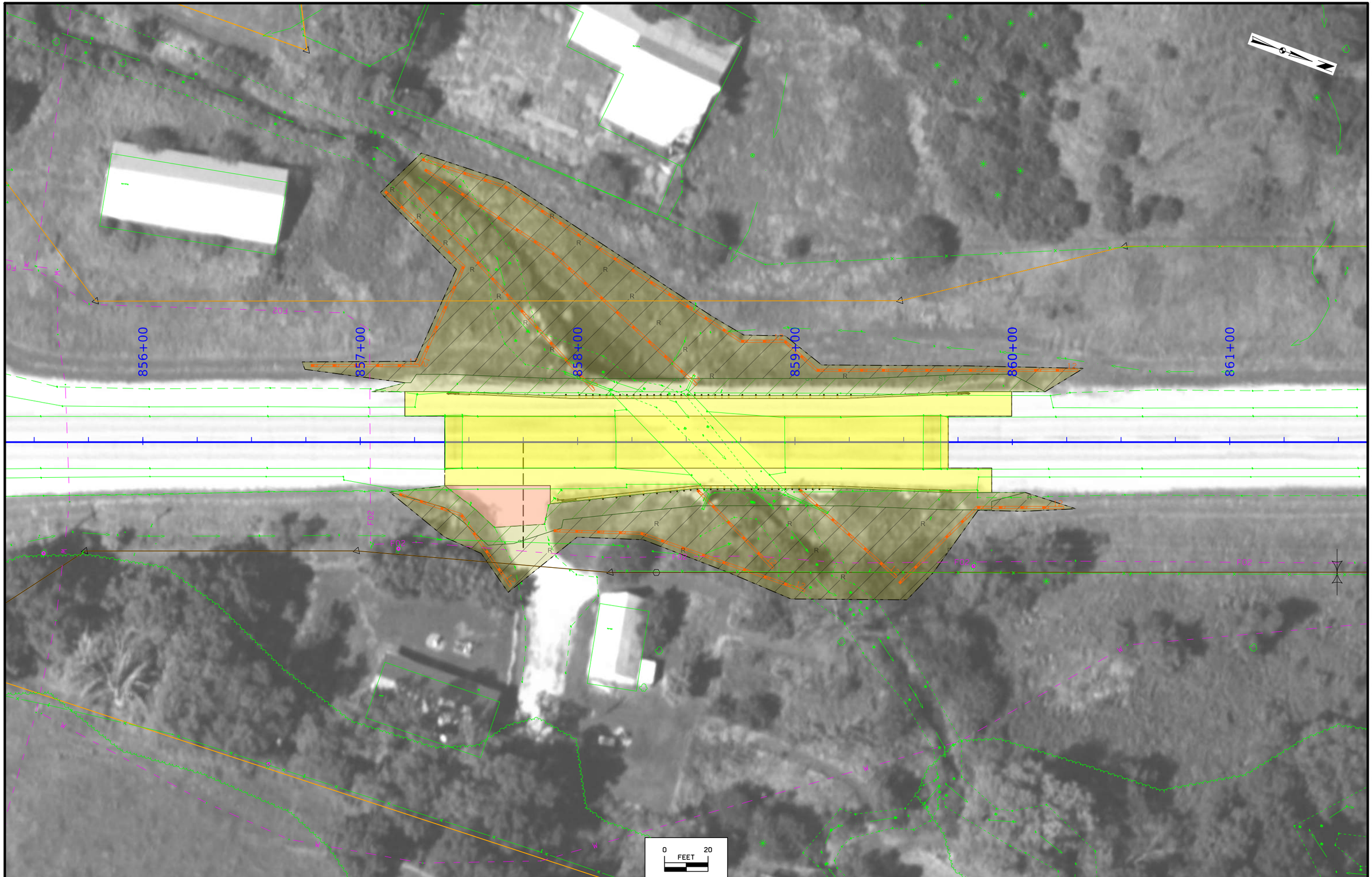
FILE NO.	ENGLISH	DESIGN TEAM Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER BRF-061-2(96)--38-29	SHEET NUMBER RR.1	

2:26:53 PM 11/29/2023 9589 pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\2906101015\Design\CADD_Files\Sheet_Files\SHT_29061096_RR01.dgn



FILE NO.	ENGLISH	DESIGN TEAM Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER BRF-061-2(96)--38-29	SHEET NUMBER RR.2	

11:20:34 PM 11/27/2023 9589 pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\2906101015\Design\CADD_Files\Sheet_Files\SHT_29061096_RR02.dgn

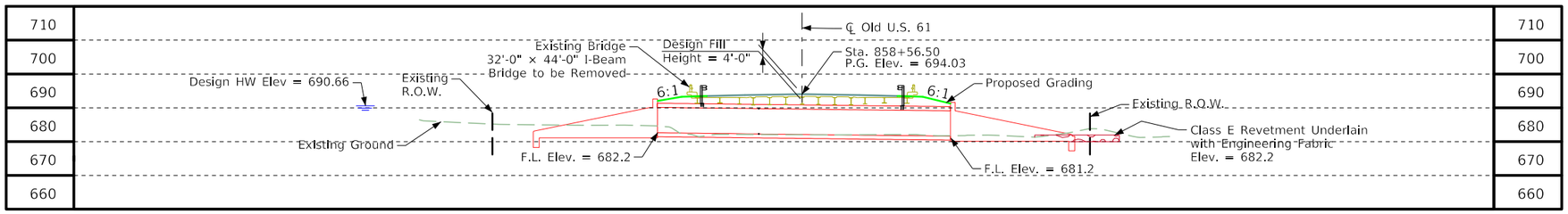


FILE NO.	ENGLISH	DESIGN TEAM Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER BRF-061-2(96)--38-29	SHEET NUMBER RR.3	

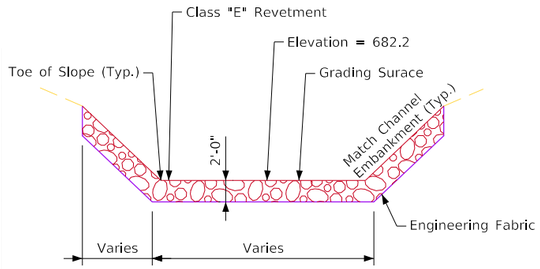
12:09:48 AM 11/28/2023 9589 pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\2906101015\Design\CADD_Files\Sheet_Files\SHT_29061096_RR03.dgn

PROGRESS PLANS, NOT FOR CONSTRUCTION

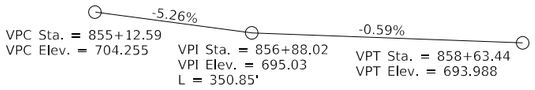
BENCH MARK NO. 648 - BM 60d SPIKE IN W. SIDE OF BRACE POST - N: 393852.48, E: 2281701.54, ELEV. 749.28



LONGITUDINAL SECTION ALONG ℄ CULVERT



CLASS E REVETMENT
OUTLET SPLASH BASIN

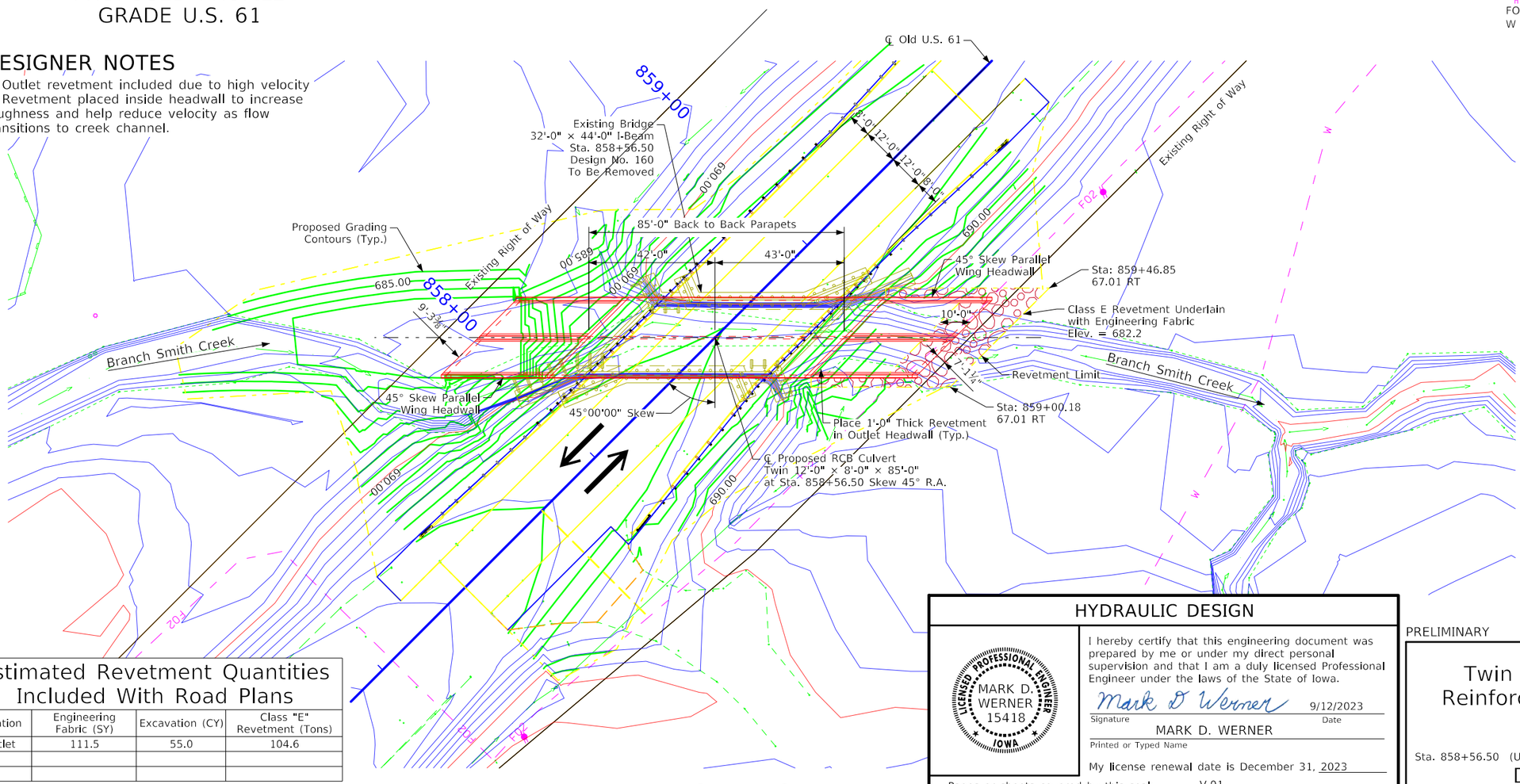


PROPOSED PROFILE
GRADE U.S. 61

0 ENGLISH 40
SCALE IN FEET

DESIGNER NOTES

1. Outlet revetment included due to high velocity
2. Revetment placed inside headwall to increase roughness and help reduce velocity as flow transitions to creek channel.



SITUATION PLAN

UTILITIES LEGEND:

- Power Pole - Eastern Iowa Electric
FO2 - Buried Fiber Optic Line - Mediapolis Telephone Co.
W - Buried Water Line - Rathbun Regional Water

TRAFFIC ESTIMATE

2021 AADT	5,100	V.P.D.
2026 AADT	130	V.P.D.
TRUCKS	15	%

Hydraulic Data

RIDB: Not Applicable
Drainage Area = 1.9 Acres
Stream Slope = 30.8 Ft./Mi.

Q_{50} = 1,257 cfs
HW Elev. = 690.66
Exit Velocity = 13.6 fps

Q_{100} = 1,508 cfs
HW Elev. = 691.79
Exit Velocity = 14.4 fps

LOCATION

US 61 OVER BRANCH SMITH CREEK
T-72N R-3W
SECTION 2
YELLOW SPRING TOWNSHIP
DES MOINES COUNTY
FHWA NO. 23500
BRIDGE MAINT. NO. 2958.7S061
LATITUDE 41.060404°
LONGITUDE -91.175773°

NOTES:

1. Existing 32'-0" × 44'-0" I-Beam Bridge Design No. 160 to be removed.
2. Flow line of culvert nominally buried 1 foot.
3. RCB culvert option shown.
4. U.S. 61 to be relocated on new alignment prior to this project. Roadway to become "Old U.S. 61" with significant reduction in traffic.
5. Drainage through existing channel must be maintained throughout construction.

Estimated Revetment Quantities Included With Road Plans

Location	Engineering Fabric (SY)	Excavation (CY)	Class "E" Revetment (Tons)
Outlet	111.5	55.0	104.6

Excavation quantity calculated from grading surface.
Quantities shown for information only

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 9/12/2023
Signature Date

MARK D. WERNER
Printed or Typed Name

My license renewal date is December 31, 2023

Pages or sheets covered by this seal: V.01

PRELIMINARY

Design For 45° Skew (R.A.)

Twin 12'-0" × 8'-0" × 85'-0" Reinforced Concrete Box Culvert

Situation Plan

Sta. 858+56.50 (US 61) June 2023

Des Moines County

IOWA DEPARTMENT OF TRANSPORTATION

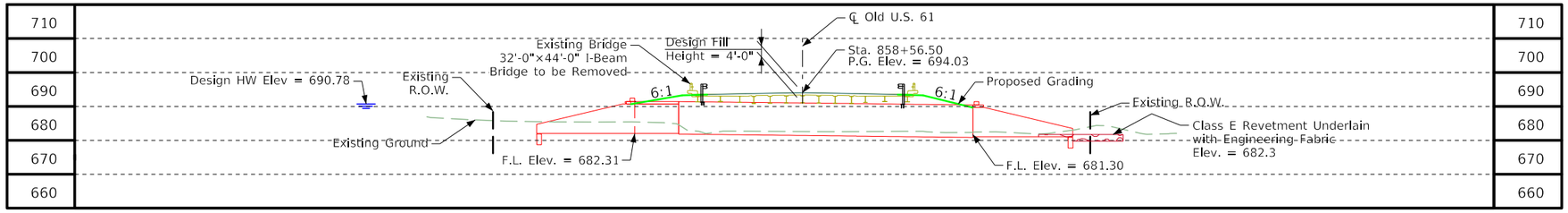
Design No. TBD Design Sheet No. 1 of 2 FHWA/Asset 23500

FILE NO. TBD	ENGLISH	DESIGN TEAM Stanley Consultants	DES MOINES COUNTY	PROJECT NUMBER BRF-061-2(96)—38-29	SHEET NUMBER V.01

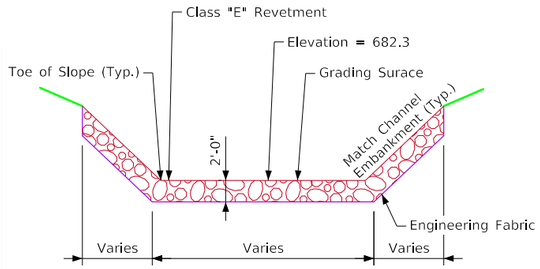
2:36:31 PM 9/8/2023 10117 c:\pw_work\pwmain\mitch.ginther\d1984729\ORD_29061096_STANLEY_23500_SPS.dgn

PROGRESS PLANS, NOT FOR CONSTRUCTION

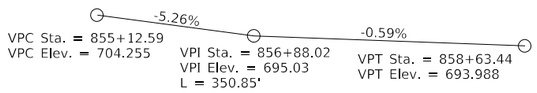
BENCH MARK NO. 648 - BM 60d SPIKE IN W. SIDE OF BRACE POST - N: 393852.48, E: 2281701.54, ELEV. 749.28



LONGITUDINAL SECTION ALONG ℄ CULVERT



CLASS E REVETMENT
OUTLET SPLASH BASIN

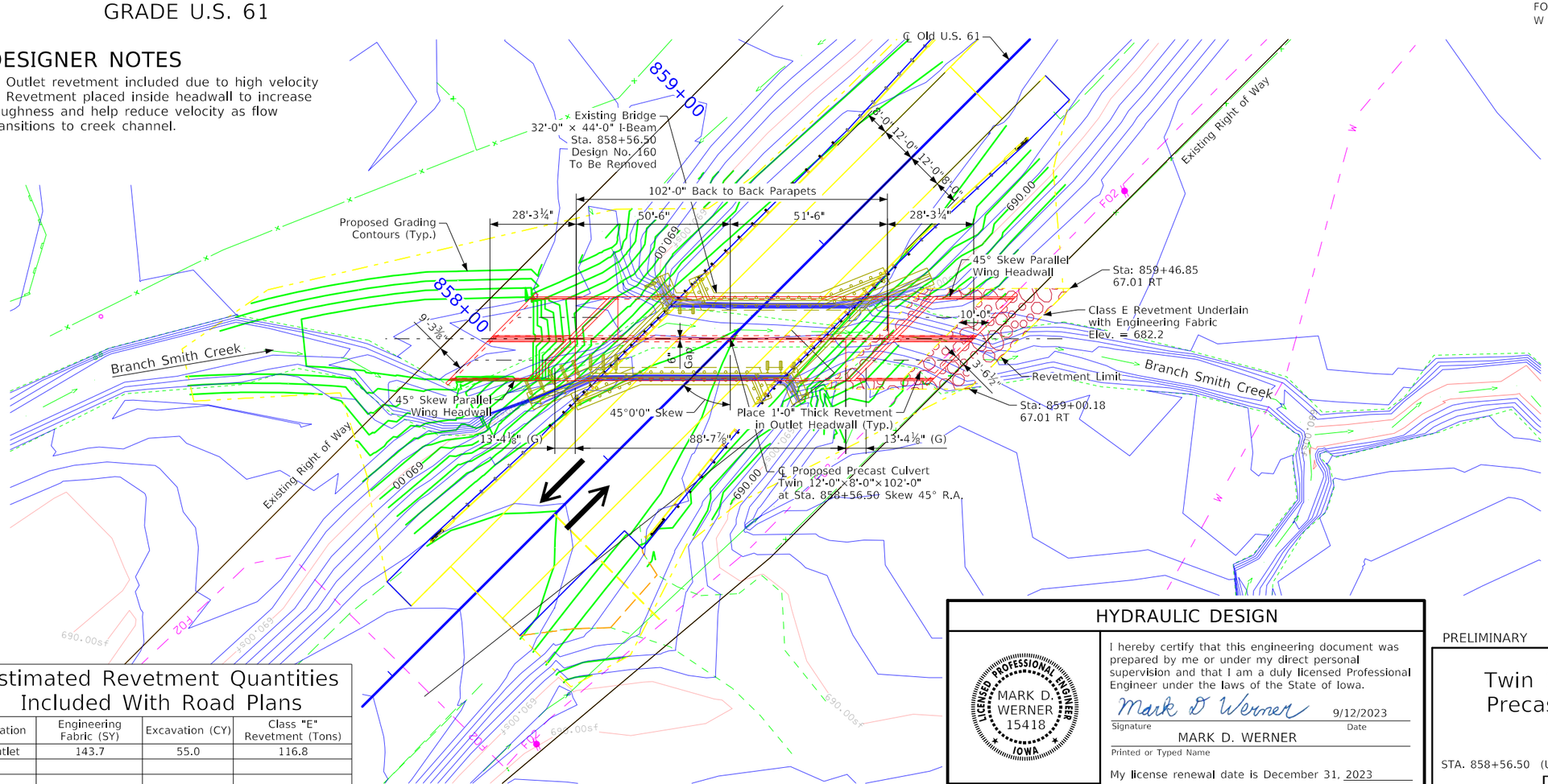


PROPOSED PROFILE
GRADE U.S. 61

0 ENGLISH 40
SCALE IN FEET

DESIGNER NOTES

1. Outlet revetment included due to high velocity
2. Revetment placed inside headwall to increase roughness and help reduce velocity as flow transitions to creek channel.



SITUATION PLAN

Estimated Revetment Quantities Included With Road Plans

Location	Engineering Fabric (SY)	Excavation (CY)	Class "E" Revetment (Tons)
Outlet	143.7	55.0	116.8

Excavation quantity calculated from grading surface.
Quantities shown for information only

UTILITIES LEGEND:

- Power Pole - Eastern Iowa Electric
FO2 - Buried Fiber Optic Line - Mediapolis Telephone Co.
W - Buried Water Line - Rathbun Regional Water

TRAFFIC ESTIMATE

2021 AADT	5,100	V.P.D.
2026 AADT	130	V.P.D.
TRUCKS	15	%

Hydraulic Data

RIDB: Not Applicable
Drainage Area = 1.9 Acres
Stream Slope = 30.8 Ft./Mi.

Q_{50} = 1,257 cfs
HW Elev. = 690.78
Exit Velocity = 13.0 fps

Q_{100} = 1,508 cfs
HW Elev. = 691.91
Exit Velocity = 13.8 fps

LOCATION

US 61 OVER BRANCH SMITH CREEK
T-72N R-3W
SECTION 2
YELLOW SPRING TOWNSHIP
DES MOINES COUNTY
FHWA NO. 23500
BRIDGE MAINT. NO. 2958.7S061
LATITUDE 41.060404°
LONGITUDE -91.175773°

NOTES:

1. Existing 32'-0"×44'-0" I-Beam Bridge Design No. 160 to be removed.
2. Flow line of culvert nominally buried 1 foot.
3. Precast culvert option shown.
4. U.S. 61 to be relocated on new alignment prior to this project. Roadway to become "Old U.S. 61" with significant reduction in traffic.
5. Drainage through existing channel must be maintained throughout construction.

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 — 9/12/2023
Signature — Date

MARK D. WERNER
Printed or Typed Name

My license renewal date is December 31, 2023

Pages or sheets covered by this seal: V.02

PRELIMINARY

Design For 45° Skew (R.A.)

Twin 12'-0" × 8'-0" × 102'-0" Precast Concrete Box Culvert

Situation Plan

STA. 858+56.50 (US 61) — JUNE 2023

Des Moines County
IOWA DEPARTMENT OF TRANSPORTATION

Design No. TBD — Design Sheet No. 2 of 2 — FHWA/Asset 23500

FILE NO. TBD	ENGLISH	DESIGN TEAM Stanley Consultants	DES MOINES COUNTY	PROJECT NUMBER BRF-061-2(96)—38-29	SHEET NUMBER V.02

2:29:27 PM 9/8/2023 10117 c:\pw_work\pwmain\mitch.ginther\d1984729\ORD_29061096_STANLEY_PRECAST_23500_SPS.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
Concrete	
(0)	Barrier Concrete
(0)	Barrier Concrete Footing
(0)	Curb Gutter
(48)	Flowable Mortar
(0)	Median Concrete
(0)	PCC Pavement
(0)	Sidewalk
Shoulder	
(209)	Shoulder HMA
(0)	Shoulder PCC
(6)	Shoulder Granular
Existing	
(0)	Existing Pavement
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
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 Substrata
(48)	Broken Weathered Substrata
(3)	Core Out Substrata
(203)	Existing Pavement Substrata
(6)	Loam Substrata
(80)	Rock Substrata
(4)	Select Sand Substrata
(3)	Shale Substrata
(10)	Topsoil Substrata
Unsuitable / Waste	
(3)	Unsuitable Type A
(13)	Unsuitable Type B
(11)	Unsuitable Type C
(3)	Waste

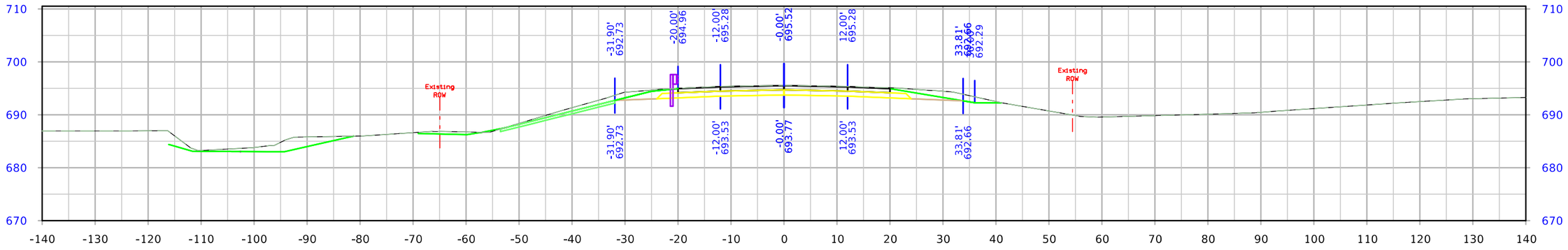
NOTES:

NOTES:

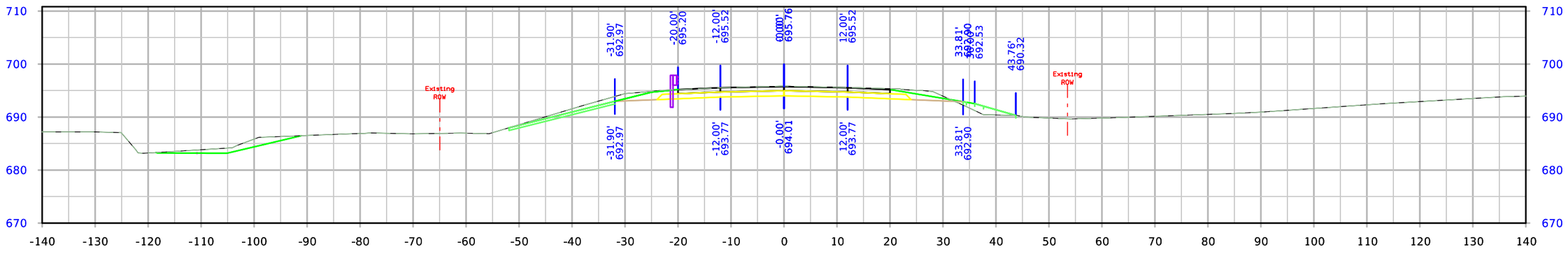
CROSS SECTIONS
LEGEND AND INFORMATION SHEET

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

US 61



STA. 857+50.00

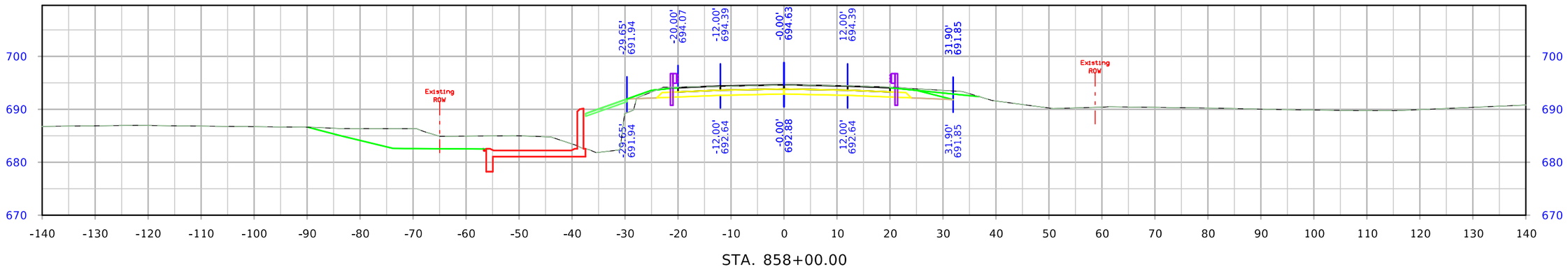


STA. 857+38.87

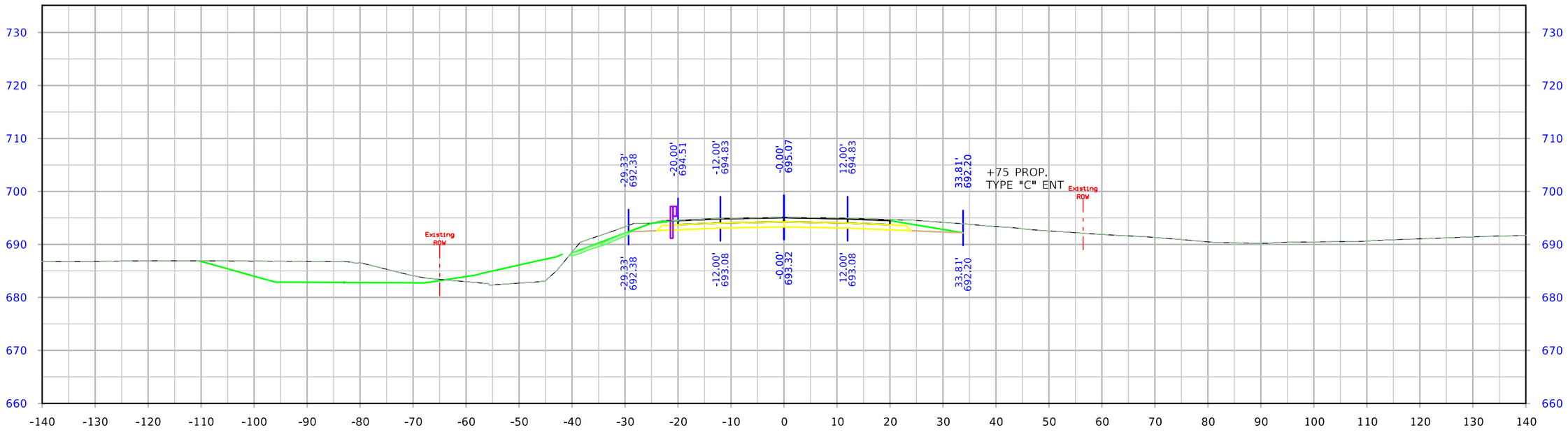
FILE NO.	ENGLISH	DESIGN TEAM Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER BRF-061-2(96)--38-29	SHEET NUMBER W.2

9:15:41 AM 6/20/2023 9474 c:\pw_work\pwmain\seth.morling\d1649368\XS_ML061_29061096SPS.dgn

US 61



STA. 858+00.00

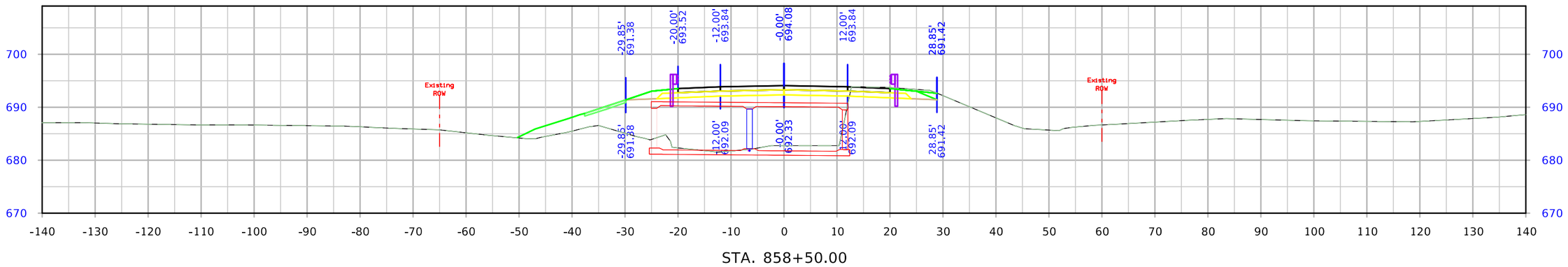


STA. 857+73.28

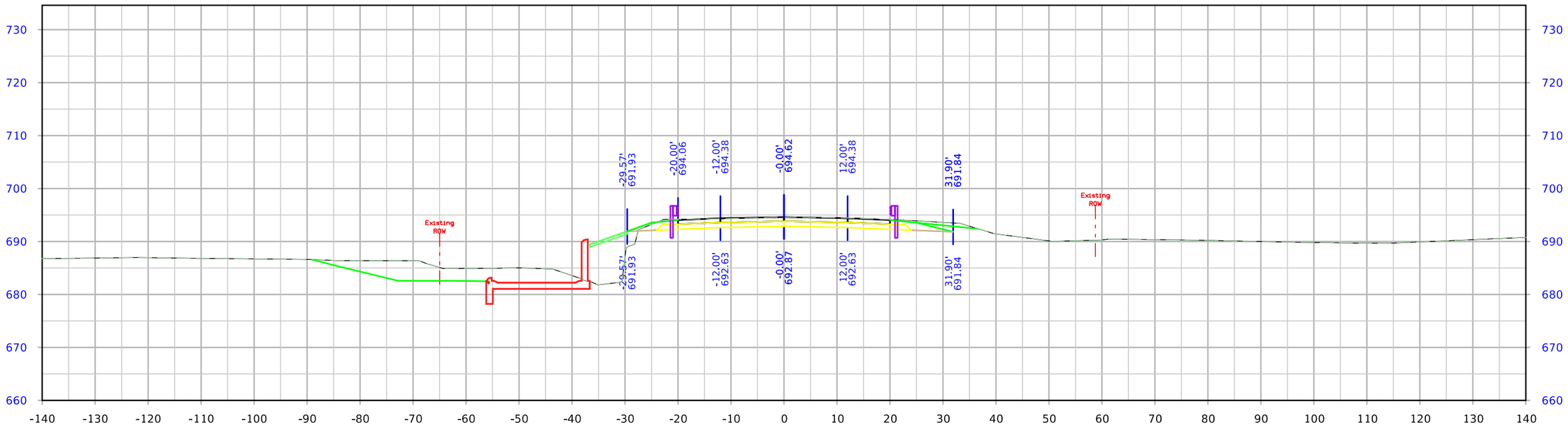
FILE NO.	ENGLISH	DESIGN TEAM Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER BRF-061-2(96)--38-29	SHEET NUMBER W.3	

9:16:04 AM 6/20/2023 9474 c:\pw_work\pwmain\seth.morling\d1649368\XS_ML061_29061096SPS.dgn

US 61



STA. 858+50.00

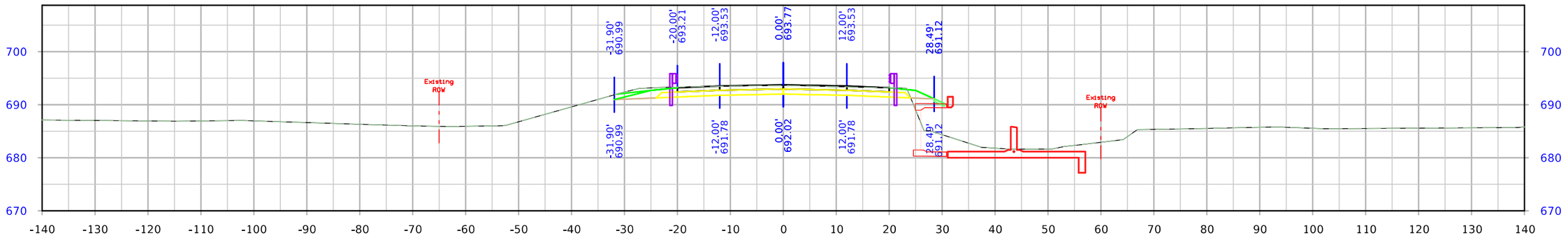


STA. 858+00.80

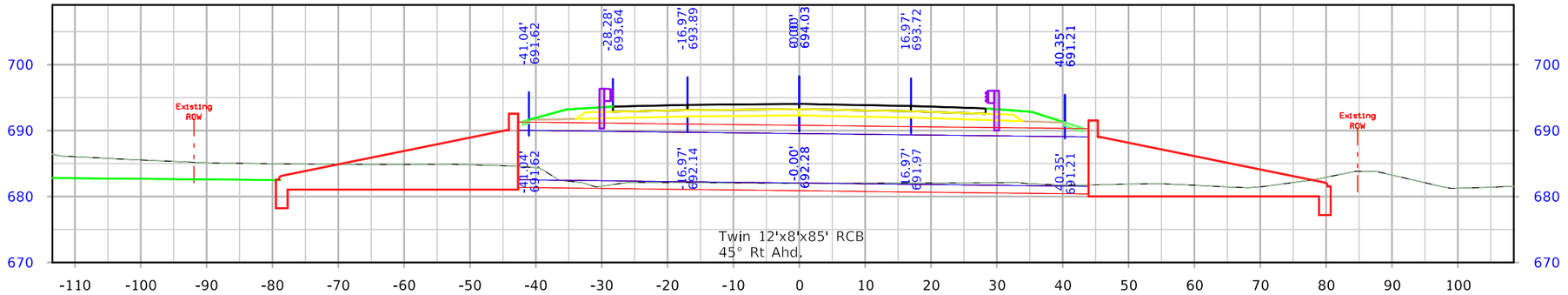
FILE NO.	ENGLISH	DESIGN TEAM Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER BRF-061-2(96)--38-29	SHEET NUMBER W.4

9:16:25 AM 6/20/2023 9474 c:\pw_work\pwmain\seth.morling\d1649368\XS_ML061_29061096SPS.dgn

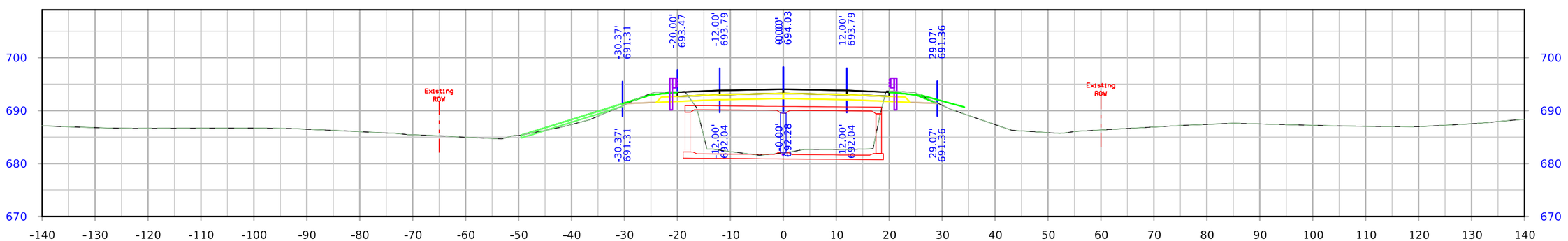
US 61



STA. 859+00.00



STA. 858+56.50

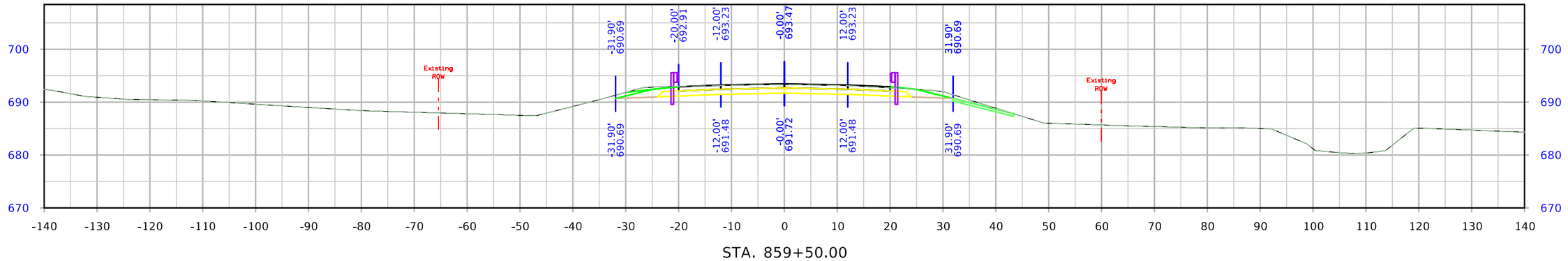


STA. 858+56.50

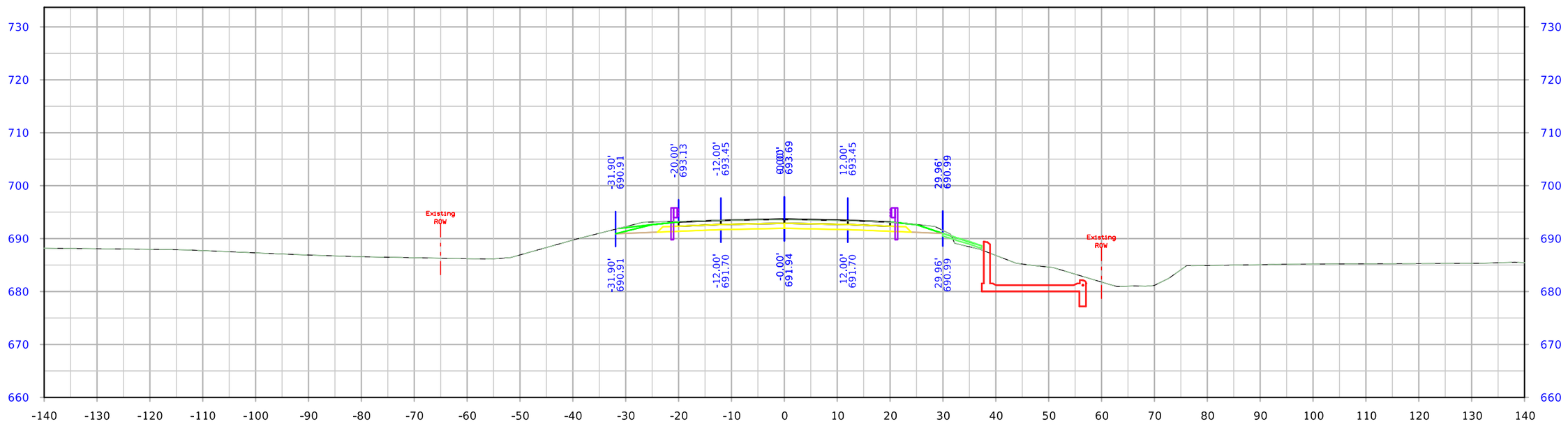
FILE NO.	ENGLISH	DESIGN TEAM Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER BRF-061-2(96)--38-29	SHEET NUMBER W.5

9:16:55 AM 6/20/2023 9474 c:\pw_work\pwmain\seth.morling\d1649368\XS_ML061_29061096SPS.dgn

US 61



STA. 859+50.00

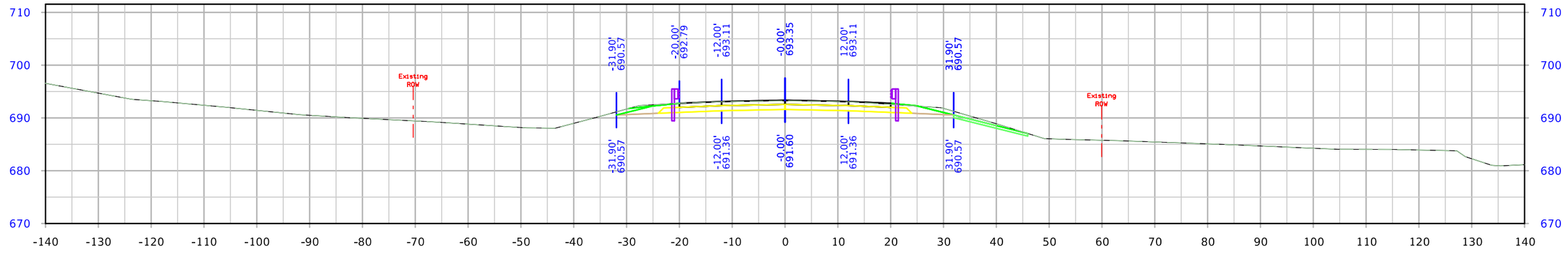


STA. 859+12.91

FILE NO.	ENGLISH	DESIGN TEAM Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER BRF-061-2(96)--38-29	SHEET NUMBER W.6

9:17:18 AM 6/20/2023 9474 c:\pw_work\pwmain\seth.morling\d1649368\XS_ML061_29061096SPS.dgn

US 61



STA. 859+70.52

FILE NO.	ENGLISH	DESIGN TEAM Stanley Consultants Inc.	DES MOINES COUNTY	PROJECT NUMBER BRF-061-2(96)--38-29	SHEET NUMBER W.7

9:17:29 AM 6/20/2023 9474 c:\pw_work\pwmain\seth.morling\d1649368\XS_ML061_29061096SPS.dgn