LETTING DATE 12/15/2026

Improvement of Crossing
BRF-020-9(269)--38-31

DUBUQUE COUNTY

INDEX OF SHEETS

IOWA DOT

PLANS OF PROPOSED IMPROVEMENT ON THE

PRIMARY ROAD SYSTEM

DUBUQUE COUNTY

Improvement of Crossing

Westbound U.S. 20 bridge
over the North Fork Maquoketa River
0.6 mile west of IA 136

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

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

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

REVISIONS

TOTAL 47

PROJECT IDENTIFICATION NUMBER
21-31-020-020
PROJECT NUMBER
BRF-020-9(269)--38-31
R.O.W. PROJECT NUMBER

Paddling Portage Detour will be required since river is a DNR paddling route. Need signage in J sheets. Requested info through Tom Lovan 9/25/2023.

Salvage existing steel beam guardrail and deliver to Dyersville DOT Maintenance shop. Separate Cost Division is needed per design manual due to Federal Funding.

DESIGN DATA RURAL

2021	AADT	10,900	V.P.D.
2046	AADT	15,300	V.P.D.
2046	DHV	1,580	V.P.H.
TRUCKS		17	%
Total Design ESALs		--	

INDEX OF SEALS

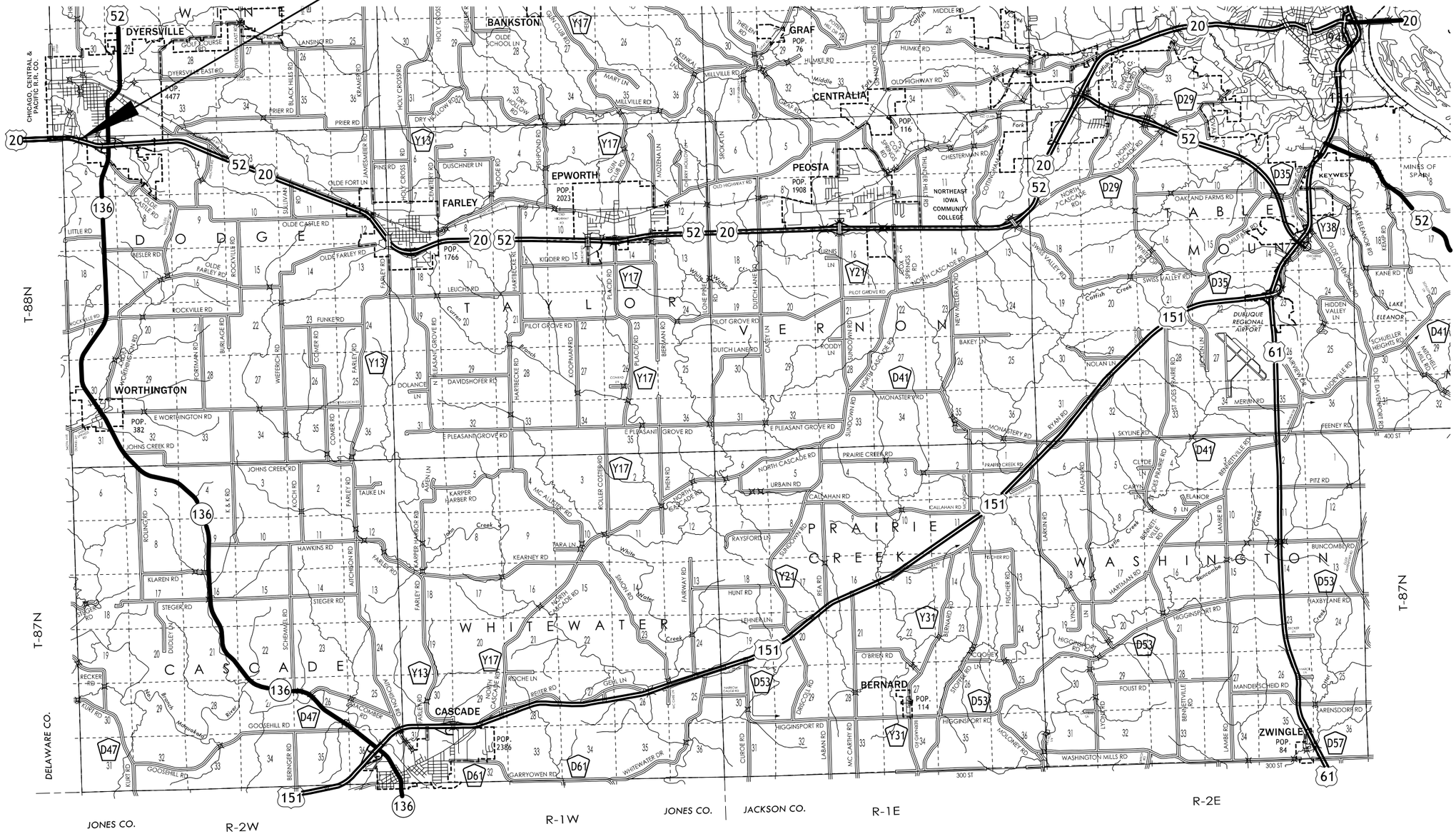
SHEET NO.	NAME	TYPE
A.1	X	Primary Signature Block
V.1 / V.2	Mark D. Werner	Hydraulics
X	X	X

PRELIMINARY PLANS

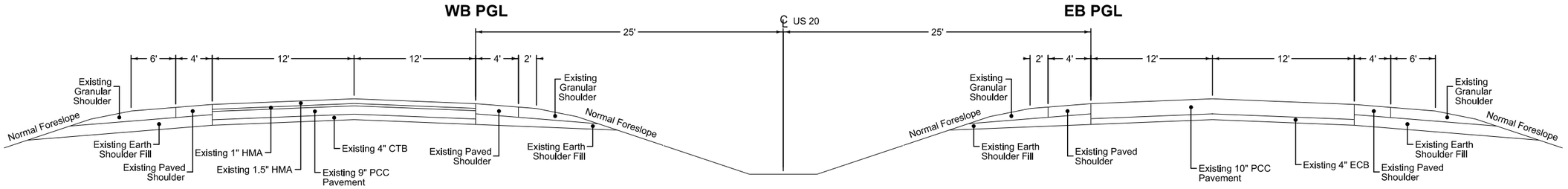
Subject to change by final design.

D05 Plan, Date: 12/22/2023

US 20 IMPROVEMENT OF CROSSING
FHWA NO. 23780
MAINT. 3193.5L020
STA. 25+58.71



FILE NO. TBD	ENGLISH	DESIGN TEAM Stanley Consultants Inc.	DUBUQUE COUNTY	PROJECT NUMBER BRF-020-9(269)--38-31	SHEET NUMBER A.2



US 20 WB

Shoulders near bridge ends are partially paved.

US 20 EB

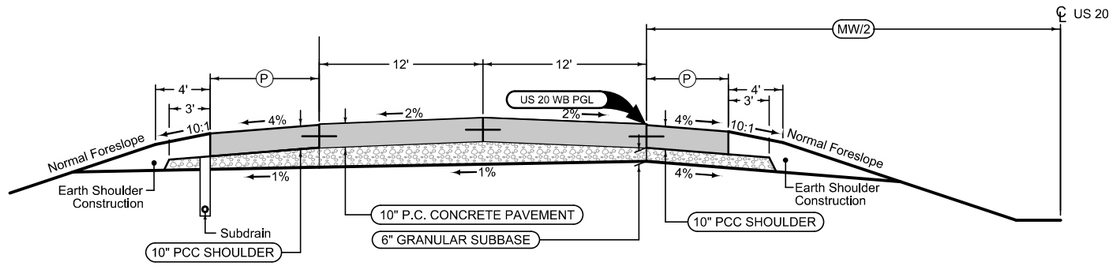
Shoulders near bridge ends are partially paved.

EXISTING US 20

Full Depth PCC Shoulder

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

4_P_FullPCC_ 04-20-21			
Direction of Travel	BEGIN STATION	END STATION	(P) Feet
WB	20+09.21	22+39.21	10
WB	28+78.20	29+70.17	11.6
WB	29+70.17	30+17.88	11.6-13.5
WB	30+17.88	30+40.53	13.5
WB	30+40.53	31+08.20	10
EB	28+09.10	28+54.18	11
EB	28+54.18	28+99.92	11-13
EB	28+99.92	29+19.07	13



* See Sheet B.3 for "Paved Shoulder at Guardrail" Details

Refer to Standard Road Plans for Bridge Approach Pavement.

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

4DP_1 04-21-20			
Direction of Travel	BEGIN STATION	END STATION	(MW) Feet
WB	22+10.52	22+39.21	50

Full Depth PCC Shoulder

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

4_P_FullPCC_ 04-20-21			
Direction of Travel	BEGIN STATION	END STATION	(P) Feet
WB	20+09.21	22+39.21	6
WB	28+78.20	29+66.00	7.5
WB	29+66.00	30+13.57	7.5-9.5
WB	30+13.57	30+40.46	9.5
WB	30+40.46	31+08.20	6
EB	28+08.97	29+00.70	7
EB	29+00.70	29+50.30	7-9
EB	29+50.30	29+69.08	9

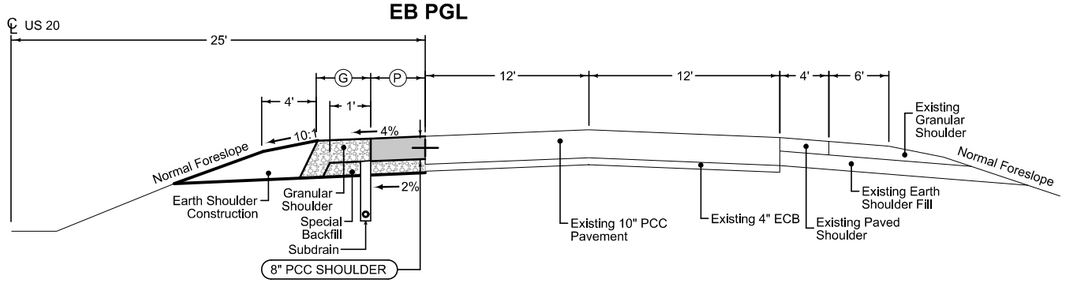
Plan to include Shoulder Strengthening (9" HMA/8"PCC) for inside shoulders EB between temporary median crossovers.

Anthony at District 6:

Oct. 2023 letting for EB shoulders project includes standard 6" thickness. (ie: not thick enough to carry traffic during our project).

US 20

EB PGL



US 20 EB SHOULDER STRENGTHENING

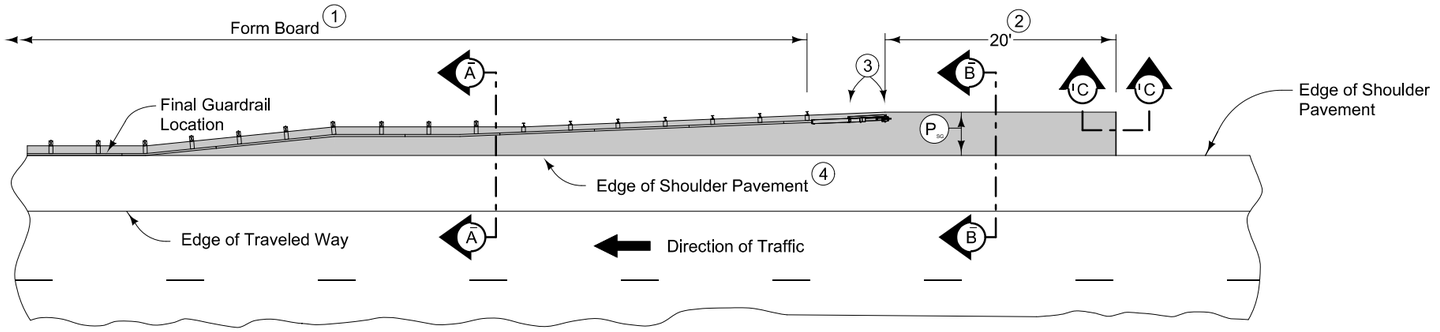
Full Depth PCC Combination Shoulder

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

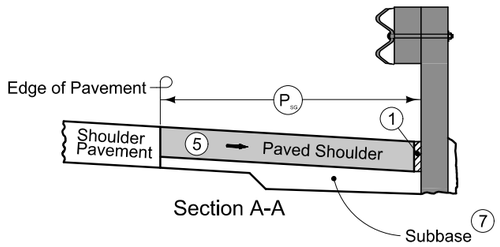
4_C_FullPCC_
04-20-21

Direction of Travel	BEGIN STATION	END STATION	(P) Feet	(G) Feet
EB	8+44.76	22+72.23	4	2
EB	29+69.08	31+53.91	4	2

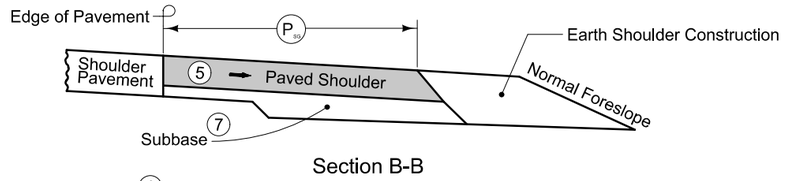
US 20 EB



PLAN VIEW

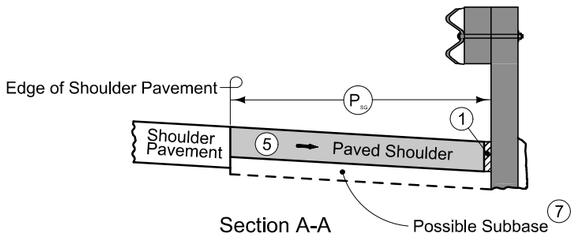


Section A-A

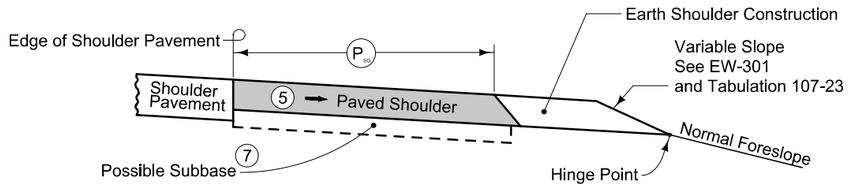


Section B-B

NEW CONSTRUCTION 6



Section A-A



Section B-B

EXISTING SHOULDER

DESIGNER INFO

7158
04-19-22

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.

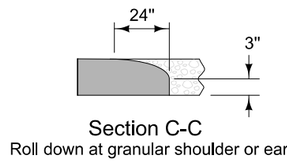
(3) Shoulder may be notched for first 2 posts or post sleeves may be installed through pavement. Do not drive posts through pavement.

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

(5) Match shoulder slope.

(6) The Contractor has the option to pave the paved shoulder at guardrail and the full 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 FULL WIDTH PAVED SHOULDER)

100-0A
10-28-97

ESTIMATED ROADWAY QUANTITIES
(1 DIVISION PROJECT)

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

100-4A
10-29-02

ESTIMATE REFERENCE INFORMATION

Item No.	Item Code	Description

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-202	10-20-15	Steel Beam Guardrail Bolted End Anchor
BA-205	10-17-23	Steel Beam Guardrail Tangent End Terminal (MASH TL-3)
BA-250	04-20-21	Steel Beam Guardrail Installation at Concrete Barrier or Bridge End Post (MASH TL-3)
BR-203	10-19-21	Double Reinforced 12" Approach
DR-212	04-21-20	Beveled Pipe and Guard
DR-303	10-17-17	Subdrains (Longitudinal)
DR-306	10-17-23	Precast Concrete Headwall for Subdrain Outlets
DR-402	04-19-22	Rock Flume for Bridge End Drain
DR-504	04-21-20	Diagonal Placed Drain for Median Crossovers
EC-201	04-20-21	Silt Fence
EC-204	10-19-21	Perimeter, Slope and Ditch Check Sediment Control Devices
EC-301	10-18-22	Rock Erosion Control (REC)
EC-502	04-21-15	Seeding in Rural Areas
EW-201	04-19-16	Bridge Berm Grading without Recoverable Slope (Barnroof Section)
EW-301	04-20-21	Guardrail Grading
EW-403	04-18-17	Temporary Erosion Control Measures
PM-110	04-21-20	Line Types
PM-111	04-21-20	Symbols and Legends
PV-12	10-20-20	Milled Shoulder Rumble Strips
PV-101	04-19-22	Joints
PV-102	04-21-20	PCC Curb Details
PV-501	04-21-20	Median Crossover (50' Median) 16' Wide 1 Lane
SI-173	04-19-16	Object Markers
SI-211	10-18-22	Object Marker and Delineator Placement with Guardrail
SI-881	04-16-19	Special Signs for Workzones
TC-1	10-15-19	Work Not Affecting Traffic (Two-Lane or Multi-Lane)
TC-61	10-17-23	Two-Lane, Two-way Operation
TC-252	04-21-20	Routes Closed to Traffic
TC-402	04-18-23	Work Within 15 ft of Traveled Way
TC-418	04-18-23	Lane Closure on Divided Highway
TC-420	10-16-18	Lane Closure at Ramps
TC-432	10-17-17	Shoulder Rumble Strip Operations
TC-433	10-17-17	Pavement Marking Operations

102-5
04-18-17

EXISTING PAVEMENT

No.	Location					Year	Type	Project Number	Surface		Base		Subbase		Removal		Coarse Aggregate			Reinforcement	Remarks
	County	Route	Dir. of Travel	Begin Ref. Loc. Sign	End Ref. Loc. Sign				Type	Depth IN	Type	Depth IN	Type	Depth IN	Type	Depth IN	Source	Type	Durability Class	Type	
	Dubuque	US-20	EB	293.16	294.55	2023		HSIPX-020-8(56)--3L-28													HMA PAVED SHOULDER
						2017	M	MP-020-6(706)283--76-28	PCC	10											PCC Patching
						1987		F-20-9(66)--20-31	PCC	10	ECB	4					SUNDHEIM	C.LST	I		
	Dubuque	US-20	WB	293.15	294.55	2023		HSIPX-020-8(56)--3L-28													HMA PAVED SHOULDER
						2017	M	MP-020-6(706)283--76-28	PCC	10											PCC Patching
						2013	V	NHSN-020-8(49)--3H-28	HMA	1.5	HMA	1			SCR	1					HMA overlay last 0.3mi
						2000	S	MP-20-6(701)283--76-28	MSS												
						1988		NA	PCC	10	CTB	4									

112-8
04-15-14

MEDIAN CROSSOVERS

Refer to PV-500 Series.

* Not a bid item

Road Ident.	Location Station	Standard Road Plan	Detour Pavement	Special Backfill	Granular Shoulder	Embankment in Place	Class 10 Excavation	Class 13 Excavation	Removal of Pavement	Saw Cut*	18" Unclassified Roadway Pipe	36" CMP Slotted Drain/ 6" Grate	Beveled Pipe and Guard	Remarks
		No.	SY	TON	TON	CY	CY	CY	SY	LF	LF	LF	No.	
US 20	3+76.03	PV-501	1140.0	555.0	200.0	267.2	384.5		1298.2	1456.0	250.0		2	
US 20	36+22.56	PV-501	1140.0	555.0	200.0	267.2	384.5		1298.2	1456.0	250.0		2	
		Totals:	2280.0	1110.0	400.0	534.3	768.9		2596.4	2912.0	500.0		4	

SURVEY SYMBOLS

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

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

SURVEYED UTILITY OWNER SYMBOLS

Sub-Surface Utility Mapping Quality Level is in accordance with CI/ASCE 38-02 Standard Guidelines for the Collection and Depiction of Existing Subsurface Utility Data.

Remark Abbreviations
QLA Quality Level A Highest guideline quality level
QLD Quality Level D Lowest guideline quality level

—E1(C)—
ELIC, ALLIANT ANERGY - Quality C
Mary Montgomery
319-786-4768
marymontgomery@alliantenergy.com

—SAN.(C)—
SAIC, CITY OF DYERSVILLE- Quality C
John Wandsnider
563-875-7724
jwandsnider@cityofdyersville.com

— W(C) —
WLIC, CITY OF DYERSVILLE - Quality C
John Wandsnider
563-875-7724
jwandsnider@cityofdyersville.com

—FO(C)—
FOIC, IOWA COMMUNICATIONS NETWORK - Quality C
Tim Flickinger
515-725-4699
timothy.flickinger@icn.state.ia.us

— FO2(C) —
FO2C, MAQUOKETA VALLEY ELECTRIC CO-OP - Quality C
Nic Schulte
P.O. Box 370
Anamosa, IA 52205
319-462-3541
nschulte@mvec.com

PLAN VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

LINEWORK	Design Color No.	
Green	(2)	Existing Topographic Features and Labels
Blue	(1)	Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation
Magenta	(5)	Existing Utilities
SHADING	**Design Color No.**	
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. TBD	ENGLISH	DESIGN TEAM Stanley Consultants Inc.	DUBUQUE COUNTY	PROJECT NUMBER BRF-020-9(269)--38-31	SHEET NUMBER D.1

4:46:37 PM 10/12/2023 9589 pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\3102002021\Design\CADD_Files\Sheet_Files\SHT_31020269_D01.dgn

Refer to W sheets for superelevation runout at west end of west approach pavement.

During Field Exam, DOT mentioned that going forward, bridge reconstruction projects should construct 300 ft of full depth/full width shoulders at all four corners of bridge.

DODGE TWP.
T-88N R-2W
SEC. 6

Sta. 22+10.52
Begin WB Construction

Sta. 20+09.21
Begin 300' Full Width Full Depth Shoulder Construction

Existing ROW

Sta. 28+08.21
End Bridge Construction
Begin WB Bridge Approach

Sta. 28+78.21
End WB Bridge Approach

Sta. 31+08.20
End 300' WB Full Width Full Depth Shoulder Construction

Sta. 31+53.91
End EB Shoulder Strengthening
Begin Temp Median Crossover

19+00 20+00 21+00 22+00 23+00 24+00 25+00 26+00 27+00 28+00 29+00 30+00 31+00 32+00 33+00 34+00

WS 20 WB PGL
(WB20 PGL)

C/L US 20
(ML020)

WB US 20

EB US 20

Sta. 21+10.19

Sta. 22+39.21
Begin WB Bridge Approach

Sta. 30+40.46
End WB Guardrail Shoulder
Begin Full Width Full Depth Shoulder Construction

Remove intake and pipe

North Fork Maquoketa River

Sta. 29+69.08
End EB Guardrail Shoulders
Begin EB Shoulder Strengthening

Sta. 28+09.10
Begin EB Shoulder Construction

Sta. 22+09.21
End WB Bridge Approach
Begin Bridge Construction

Sta. 22+72.23
End EB Shoulder Strengthening

Δ = 18°13'21.40" (RT)
T = 453.54
L = 899.43
R = 2828.00
E = 36.14
e = 6.5%
L = 200
x = 62

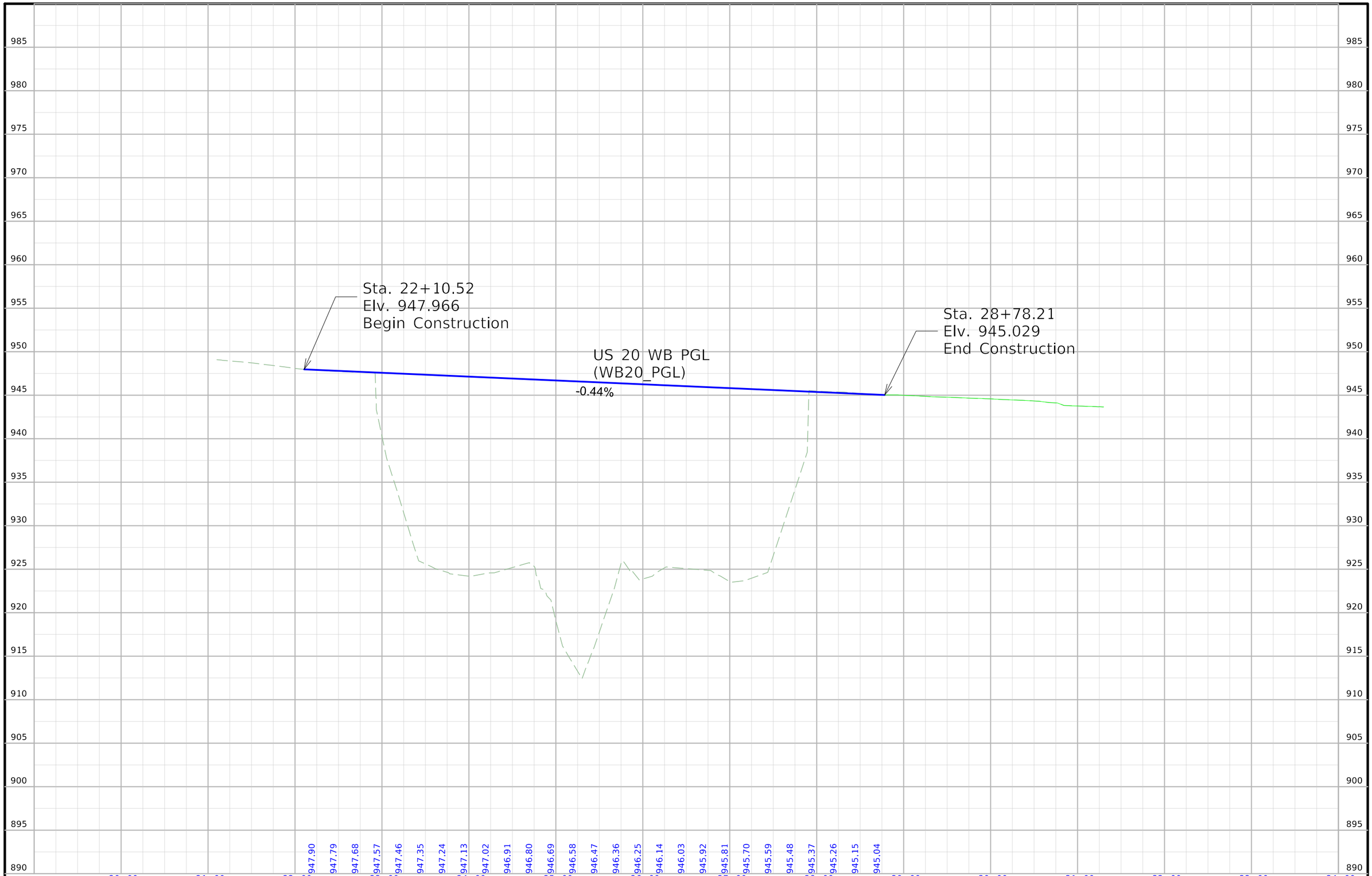
Existing ROW

Refer to V sheets for notes regarding Steel Beam Guardrail connections to East end of EB US 20 bridge.

0 FEET 50

FILE NO. TBD	ENGLISH	DESIGN TEAM Stanley Consultants Inc.	DUBUQUE COUNTY	PROJECT NUMBER BRF-020-9(269)--38-31	SHEET NUMBER D.2

3:19:22 PM 10/17/2023 9589 pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\3102002021\Design\CADD_Files\Sheet_Files\SHT_31020269_D02.dgn



FILE NO. TBD	ENGLISH	DESIGN TEAM Stanley Consultants Inc.	DUBUQUE COUNTY	PROJECT NUMBER BRF-020-9(269)--38-31	SHEET NUMBER D.3	

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SURVEY INDEX

County: Dubuque
PIN: 21-31-020-020
Project Number: BRF-020-9(269)--38-31
Location: N. Fork Maquoketa River 0.6 Mi W of IA 136 (WB)
Type of Work: Bridge Replacement

(U.S. SURVEY FOOT)
VERTICAL DATUM: NAVD88
GEOID MODEL: GEOID12B

Alignment Information

NO alignment

Survey Personnel

Matthew Fouts – PLS
Daniel Marti – PLS
Drake Marti – Survey Technician
Joshua Randolph – Survey CADD Technician

Date(s) of Survey

Begin Date	01/31/2023
End Date	02/06/2023

General Information

This survey is for preliminary design for the section of approximately 0.2 miles of roadway, there is one bridge along the route. Project datum is provided by Design Survey Office. This project is a full 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

(RTN)
Nearby Iowa Real Time Network reference stations were utilized to obtain horizontal and vertical control on primary project control points. For additional details of the control survey, contact the Preliminary Survey department.

(Static)
Static observations were not used for this survey.

PROJECT DATUM: NAD83(2011) for EPOCH 2010.00
COORDINATE SYSTEM: IOWA REGIONAL COORDINATE SYSTEM ZONE 11 (Dubuque / Davenport).

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 11 (U.S. Survey Foot)

VERT. DATUM: NAVD88 - Geoid Model: 12B

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 11 (U.S. Survey Foot)
VERT. DATUM: NAVD88
Geoid Model: 12B

POINT NAME	NORTHING	EASTING	ELEVATION	DESCRIPTION
CP2	8409852.23	21339787.30	954.00	SET 5/8" REBAR ON SOUTH SIDE OF WEST BOUND LANE ALONG HIGHWAY 20 WEST OF BRIDGE AND 250'+/- SOUTH OF CENTERLINE OF HIGHWAY 20
CP5	8409722.04	21340187.51	945.71	SET 5/8" REBAR ON EAST END OF THE BRIDGE ON TOP OF SLOPE
CP8	8409545.08	21340680.65	945.51	SET 5/8" REBAR ON WEST END OF THE BRIDGE ON TOP OF SLOPE
CP9	8409440.07	21341192.88	942.47	SET 5/8" REBAR 250'+/- EAST OF BRIDGE NORTH OF CENTERLINE OF HIGHWAY 20 OF WEST BOUND LANE
CP10	8409640.45	21340384.44	925.87	SET 5/8" REBAR ON SOUTH SIDE OF HIGHWAY 20 SECOND PIER FROM THE WEST ON TOP OF BANK WEST SIDE OF RIVER
CP11	8409721.85	21340368.23	926.15	SET 5/8" REBAR ON NORTH SIDE OF HIGHWAY 20 30'+/- NORTHWEST OF SECOND PIER TO THE WEST OF THE RIVER
CP12	8409844.05	21340282.00	924.78	SET FENO MONUMENT ON BOTTOM OF SLOPE NORTHWEST QUADRANT OF BRIDGE
CP13	8409906.92	21339795.01	953.71	SET FENO MONUMENT 1'+/- SOUTH OF REFLECTOR AND 5'+/- NORTH OF EDGE OF ROAD
CP14	8409484.42	21340902.67	943.62	SET FENO MONUMENT AT CORNER OF ASPHALT SHOULDER WEST END OF BRIDGE
BM200	8409609.80	21340115.53	942.76	WEST BOLT ON FIRE HYDRANT SOUTH OF HIGHWAY 20 WEST END OF BRIDGE AT RIGHT OF WAY
NGS15	8405441.28	21361006.04	1059.04	FOUND NGS MONUMENT B73 1934

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	
			Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)
1	US 20 (ML020)	+00.00	8409929.69	21337927.47															
2	US 20 (ML020)							12+10.76	8409919.86	21339138.19	16+64.31	8409916.18	21339591.72	21+10.19	8409770.86	21340021.36			
3	US 20 (ML020)							39+25.98	8409189.06	21341741.42	44+52.24	8409020.44	21342239.93	49+67.18	8409037.60	21342765.91			
4	US 20 (ML020)	115+61.56	8409252.69	21349356.77															
1	US 20 (WB20_PGL)	21+10.19	8409794.54	21340029.37															
2	US 20 (WB20_PGL)	39+25.98	8409212.74	21341749.43															

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 20 (ML020)										18.223°	453.545	899.430	2828.000	36.138	
C2	US 20 (ML020)										20.557°	526.257	1041.200	2902.000	47.331	

108-23A
08-01-08

TRAFFIC CONTROL PLAN

1. At least one lane of traffic in both directions shall be maintained on US 20 at all times.

2. Refer to Standard Road Plans shown on Tab 105-4 in C Sheets for other information.

3. Refer to Staging Notes (Tabulation 108-26A) and other J sheets for details of specific closures.

4. All interchange ramps shall be maintained at all times.

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
None provided	

108-26A
08-01-08

STAGING NOTES

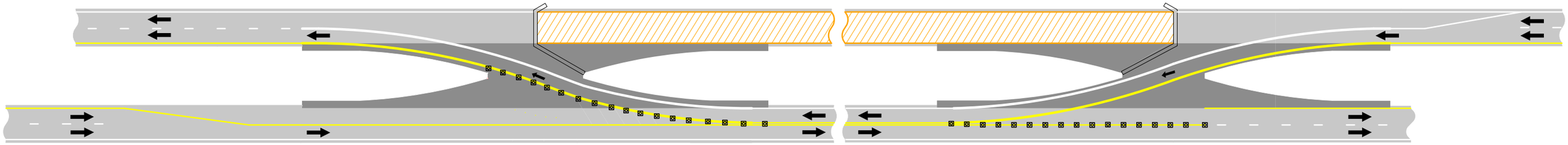
Stage 1
Traffic Control: Close US 20 EB and WB inside lanes. Maintain outside lanes of traffic in both directions.
Construction: Construct west and east median crossovers (PV-501); also construct shoulder and guardrail for eastbound bridge trailing side. Construct shoulder strengthening on EB inside shoulder between the median crossovers.

Stage 2
Traffic Control: Close US 20 westbound. Maintain 2-lane 2-way traffic in the eastbound lanes between west and east crossovers.
Construction: Improve US 20 westbound bridge, approaches, shoulder and guardrail.

108-25
10-21-14

511 TRAVEL RESTRICTIONS

Route	Direction	County	Location Description	Feature Crossed	Object Type	Maint. Bridge No., Structure ID, or FHWA No.	Type of Restriction	Existing Measurement	Construction Measurement	Construction Measurement as Signed	Projected As Built Measurement	Remarks
None												



See Sheets 2 and 4 for Details

See Sheets 3 and 4 for Details

OVERVIEW OF CROSSOVER

Place Two-Way Traffic symbol and DO NOT PASS signs alternately on both sides of the roadway at a maximum of one-half mile intervals for both directions of travel. Always have signs in sight of motorists.

Contract Items:

Painted Symbols and Legends
Pavement Marking Items
Pavement Marking Removed
Safety Closures
Temporary Floodlighting
Temporary Lane Separator System
Traffic Control

Tabulations:

108-13A, 108-22, 108-27, 108-29, 108-30, 108-33, 108-35

MODIFIED

STANDARD ROAD PLAN

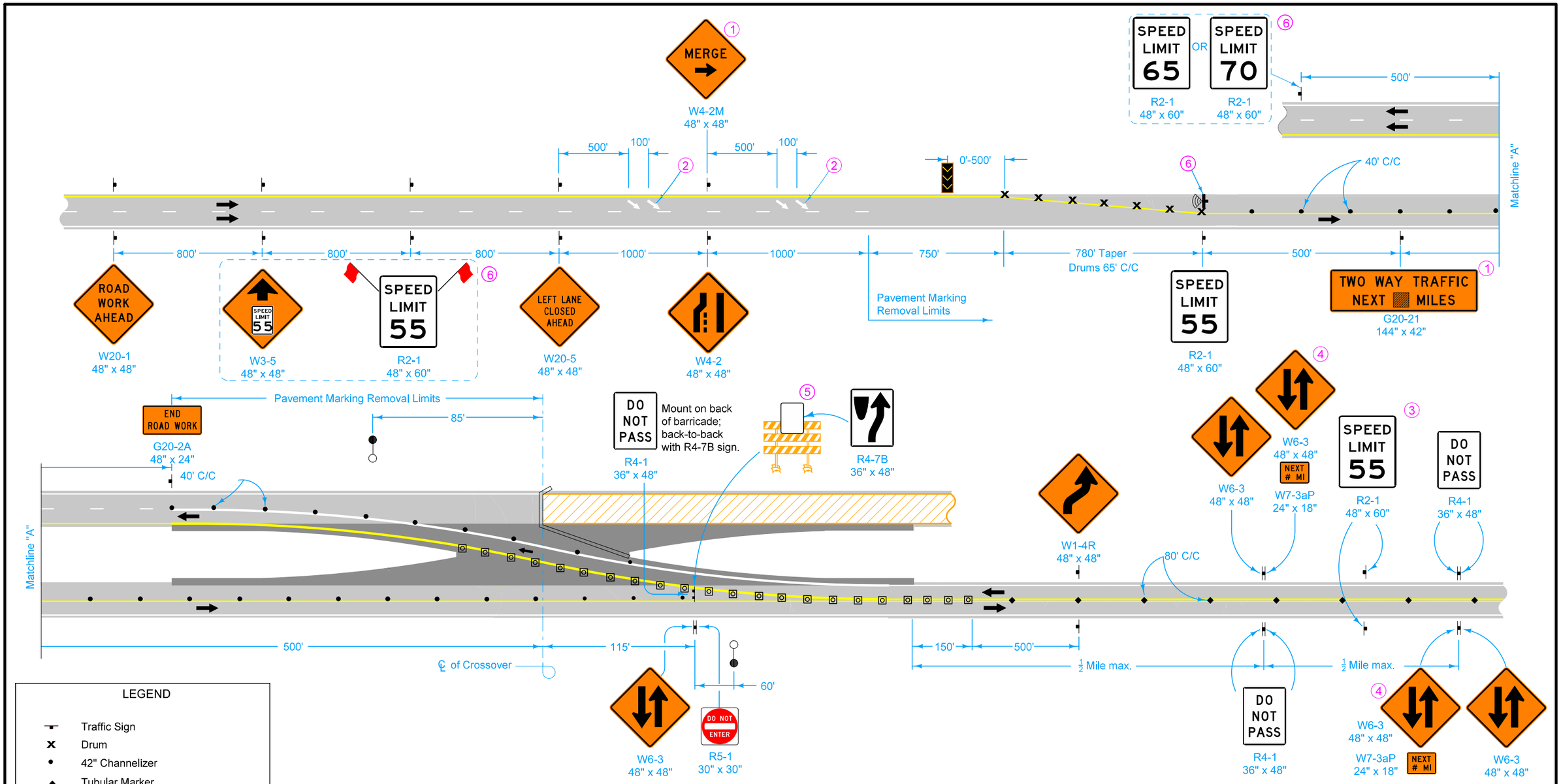
REVISION 17 10-17-23

TC-61

SHEET 1 of 5

MODIFICATIONS: Added westbound interchange ramps on sheet 5 of 5. Deleted original sheets 5 and 6.

TWO-LANE, TWO WAY OPERATION



LEGEND

- Traffic Sign
- Drum
- 42" Channelizer
- Tubular Marker
- Speed Feedback Sign
- Arrow Board
- Safety Closure (Refer to TC-252)
- Temporary Floodlighting
- Work Area
- Direction of Traffic
- Detour Pavement
- Temporary Lane Separator System

See sheet 4 for supplemental drawings.

1. Refer to SI-881 for sign details.
2. Refer to PM-111 for arrow details.
3. Space Speed Limit signs at one-mile intervals.
4. Install an additional supplemental plaque with the message NEXT X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length of two-lane traffic. Round X to the nearest whole-mile increment.
5. Use a 4 foot wide Type III Barricade.
6. For roadways with a posted speed limit of 60 mph or greater before road work:

   Place SPEED LIMIT AHEAD sign and SPEED LIMIT 55 sign prior to the lane closure as shown. Place SPEED LIMIT 65 or 70 beyond the work area as shown.

   Remove or cover all existing signs that conflict with 55 mph speed limit while 55 mph speed limit is in effect.

   Place Speed Feedback Sign at the end of the merge taper.

MODIFIED STANDARD ROAD PLAN

REVISION	
17	10-17-23

TC-61

SHEET 2 of 5

MODIFICATIONS: Added westbound interchange ramps on sheet 5 of 5. Deleted original sheets 5 and 6.

TWO-LANE, TWO WAY OPERATION

FILE NO. TBD	ENGLISH	DESIGN TEAM Stanley Consultants Inc.	DUBUQUE COUNTY	PROJECT NUMBER BRF-020-9(269)--38-31	SHEET NUMBER J.3

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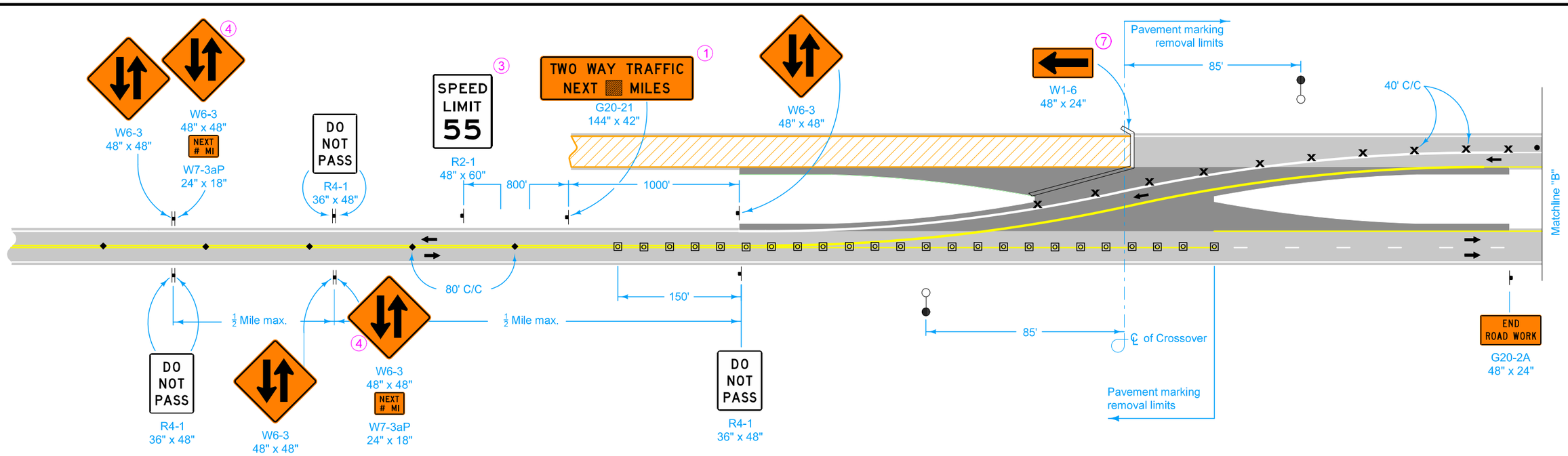

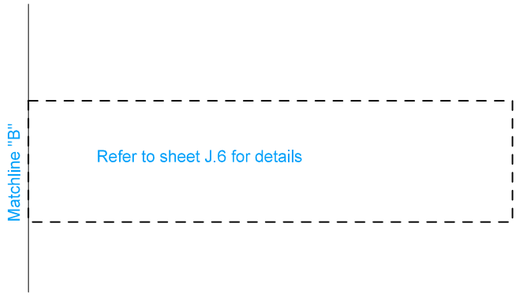

LEGEND

- Traffic Sign
- Drum
- 42" Channelizer
- Tubular Marker
- Temporary Lane Separator System
- Speed Feedback Sign
- Arrow Board
- Safety Closure (Refer to TC-252)
- Temporary Floodlighting
- Work Area
- Direction of Traffic
- Detour Pavement

See sheet 4 for supplemental drawings.

1. Refer to SI-881 for sign details.
2. Refer to PM-111 for arrow details.
3. Space Speed Limit signs at one-mile intervals.
4. Install an additional supplemental plaque with the message NEXT X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length of two-lane traffic. Round X to the nearest whole-mile increment.

6. For roadways with a posted speed limit of 60 mph or greater before road work:

   Place SPEED LIMIT AHEAD sign and SPEED LIMIT 55 sign prior to the lane closure as shown. Place SPEED LIMIT 65 or 70 beyond the work area as shown.

   Remove or cover all existing signs that conflict with 55 mph speed limit while 55 mph speed limit is in effect.

   Place Speed Feedback Sign at the end of the merge taper.

7. Add below R11-2 already included in Safety Closure.

MODIFIED

STANDARD ROAD PLAN

REVISION 17 10-17-23

TC-61

SHEET 3 of 5

MODIFICATIONS: Added westbound interchange ramps on sheet 5 of 5. Deleted original sheets 5 and 6.

TWO-LANE, TWO WAY OPERATION

FILE NO. TBD	ENGLISH	DESIGN TEAM Stanley Consultants Inc.	DUBUQUE COUNTY	PROJECT NUMBER BRF-020-9(269)--38-31	SHEET NUMBER J.4

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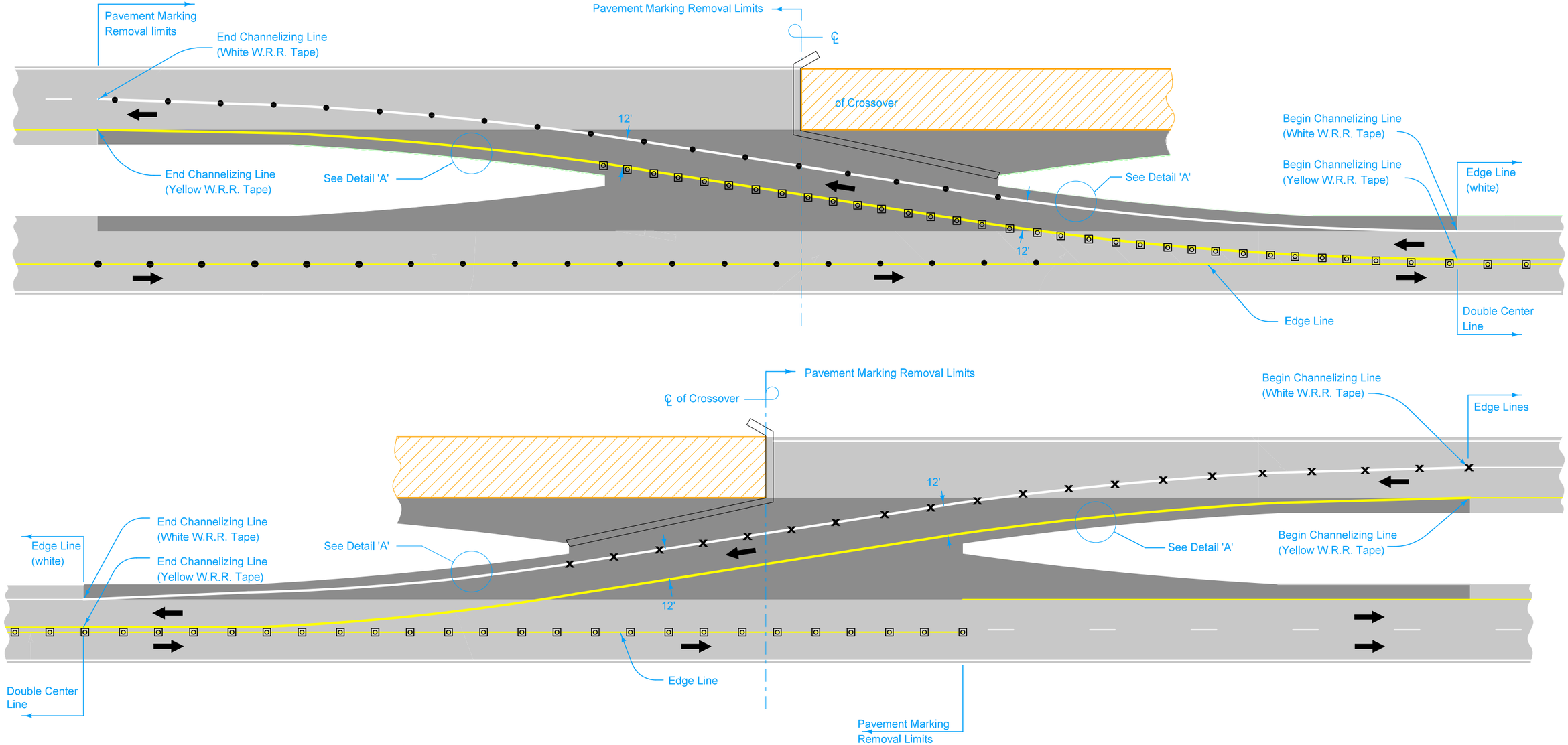
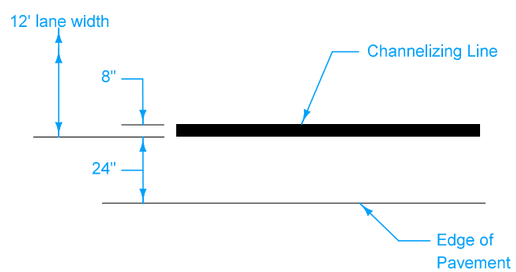


LEGEND

- Drum
- 42" Channelizer
- Work Area
- Direction of Traffic
- Detour Pavement
- Safety Closure (Refer to TC-252)
- Temporary Lane Separator System



DETAIL 'A'

SUPPLEMENTAL CROSSOVER DRAWINGS (8)

(8) Details shown hereon are intended to provide additional information to the requirements shown on sheets 2 and 3.

MODIFIED

STANDARD ROAD PLAN

REVISION	
17	10-17-23

TC-61

SHEET 4 of 5

MODIFICATIONS: Added westbound interchange ramps on sheet 5 of 5. Deleted original sheets 5 and 6.

TWO-LANE, TWO WAY OPERATION

FILE NO. TBD	ENGLISH	DESIGN TEAM Stanley Consultants Inc.	DUBUQUE COUNTY	PROJECT NUMBER BRF-020-9(269)--38-31	SHEET NUMBER J.5

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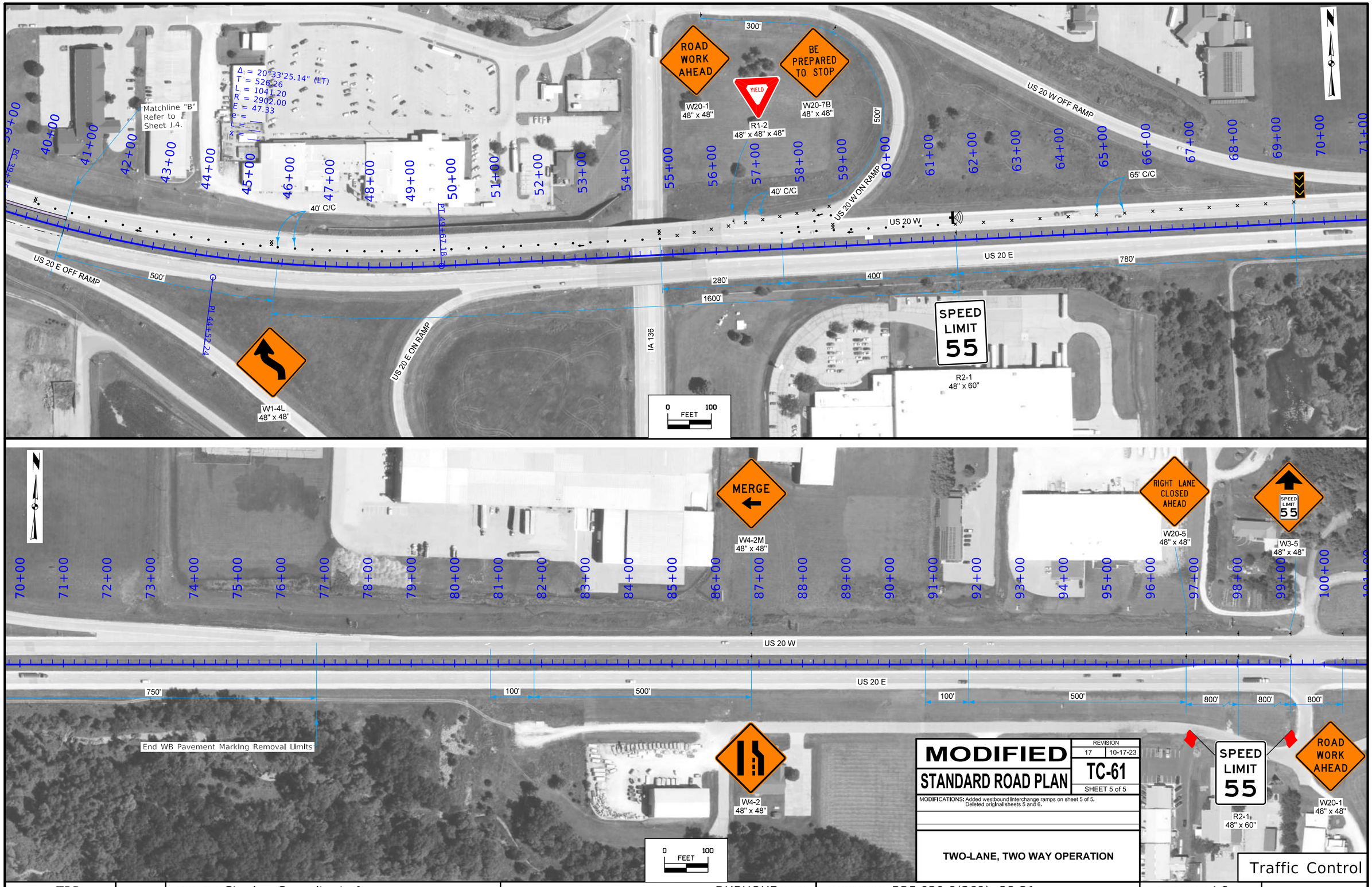

MODIFIED

STANDARD ROAD PLAN

REVISION	
17	10-17-23

TC-61

SHEET 5 of 5

MODIFICATIONS: Added westbound Interchange ramps on sheet 5 of 5.
Deleted original sheets 5 and 6.

TWO-LANE, TWO WAY OPERATION

Traffic Control

FILE NO. TBD	ENGLISH	DESIGN TEAM Stanley Consultants Inc.	DUBUQUE COUNTY	PROJECT NUMBER BRF-020-9(269)--38-31	SHEET NUMBER J.6

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CROSSOVERS LAYOUT

FILE NO. TBD	ENGLISH	DESIGN TEAM Stanley Consultants Inc.	DUBUQUE COUNTY	PROJECT NUMBER BRF-020-9(269)--38-31	SHEET NUMBER J.7	

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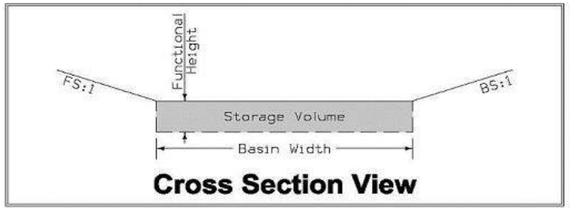
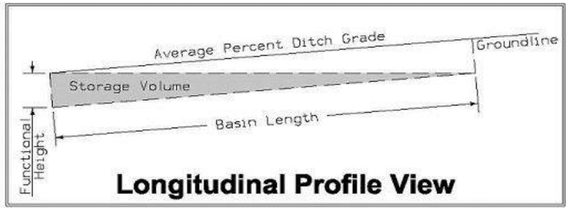
SILT BASINS

Possible Standard: EW-403



Cross Section View



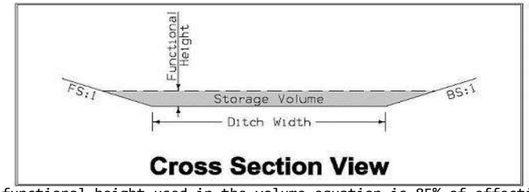
Longitudinal Profile View

* The functional height used in the volume equation is 95% of effective height. Effective height is 3 feet as shown in EW-403.
* Volume equation: (0.5*Length*(Width*Height+Width*(Height-Length*Avg%Slope))

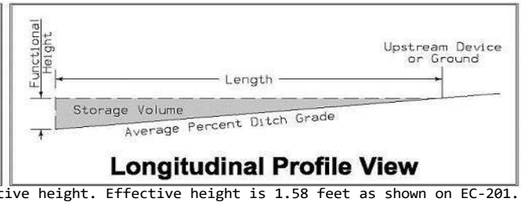
Basin No.	Location		Bid Items		Stormwater Storage Volume Summary					Remarks
	Station	Side	Installation	Removal	Basin Width	Basin Length	Height	Avg. % Slope	Volume*	
			EACH	EACH	FT	FT	FT		CF	
1	19+57.00	Med	1	1	10.0	50.0	2.85	1.5%	1237.5	
2	23+63.00	Med	1	1	10.0	50.0	2.85	2.2%	1150.0	
3	27+40.00	Med	1	1	10.0	50.0	2.85	0.7%	1337.5	
5	33+92.00	Med	1	1	10.0	50.0	2.85	0.2%	1400.0	
5	34+10.00	Med	1	1	10.0	50.0	2.85	0.2%	1400.0	
		Totals:	5	5						

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)]

Basin No.	Type	Location		Bid Items			Stormwater Storage Volume Summary					Remarks
		Station	Side	Installation	Maintenance	Removal	Foreslope	Backslope	Ditch Width	Avg.% Slope Ditch Grade	Volume*	
				LF	LF	LF	FS:1	BS:1	FT		CF	
1	1	1+40.00	Med	20.0	2.0	20.0	10.0	10.0	10.0	1.1%	1573.3	
1	1	6+73.00	Med	24.0	2.4	24.0	8.0	8.0	10.0	0.3%	4387.8	
1	1	7+72.00	Med	24.0	2.4	24.0	8.0	8.0	10.0	0.7%	2159.1	
1	1	8+72.00	Med	24.0	2.4	24.0	8.0	8.0	10.0	1.3%	1393.0	
1	1	9+72.00	Med	24.0	2.4	24.0	8.0	8.0	10.0	1.3%	1393.0	
1	1	10+72.00	Med	24.0	2.4	24.0	8.0	8.0	10.0	1.5%	1393.0	
1	1	11+72.00	Med	24.0	2.4	24.0	8.0	8.0	10.0	1.5%	1393.0	
1	1	12+72.00	Med	24.0	2.4	24.0	8.0	8.0	10.0	1.5%	1393.0	
1	1	13+72.00	Med	24.0	2.4	24.0	8.0	8.0	10.0	1.5%	1393.0	
1	1	14+72.00	Med	24.0	2.4	24.0	8.0	8.0	10.0	1.5%	1393.0	
1	1	15+72.00	Med	24.0	2.4	24.0	8.0	8.0	10.0	1.5%	1393.0	
1	1	16+72.00	Med	24.0	2.4	24.0	8.0	8.0	10.0	1.5%	1393.0	
1	1	17+72.00	Med	24.0	2.4	24.0	8.0	8.0	10.0	1.5%	1393.0	
1	1	18+72.00	Med	24.0	2.4	24.0	8.0	8.0	10.0	1.5%	1393.0	
2	1	20+72.00	Med	24.0	2.4	24.0	8.0	8.0	1.0	1.7%	591.5	
2	1	21+72.00	Med	24.0	2.4	24.0	8.0	8.0	1.0	1.4%	788.6	
2	1	22+72.00	Med	24.0	2.4	24.0	8.0	8.0	1.0	1.4%	788.6	
3	1	27+57.00	Med	20.0	2.0	20.0	8.0	8.0	1.0	2.2%	473.2	
3	1	28+17.00	Med	20.0	2.0	20.0	8.0	8.0	1.0	2.2%	473.2	
5	1	28+77.00	Med	20.0	2.0	20.0	8.0	8.0	1.0	0.9%	788.6	
5	1	29+77.00	Med	20.0	2.0	20.0	8.0	8.0	3.3	1.0%	943.1	
5	1	30+77.00	Med	20.0	2.0	20.0	8.0	8.0	10.0	1.0%	1393.0	
5	1	31+77.00	Med	20.0	2.0	20.0	8.0	8.0	10.0	1.0%	1393.0	
5	1	38+88.00	Med	20.0	2.0	20.0	8.0	8.0	10.0	0.4%	2785.9	
		Totals:		544.0	54.4	544.0						

100-19
10-19-21

PERIMETER, SLOPE AND DITCH CHECK SEDIMENT CONTROL DEVICES

Possible Standards: EC-204

Location			Perimeter and Slope			Ditch Check		Remarks
			Length of Installation			Length of Installation		
Begin Station	End Station	Side	9 inch Dia	12 inch Dia	20 inch Dia	12 inch Dia	20 inch Dia	
			LF	LF	LF	LF	LF	
+00.00	4+29.35	Med		550				
4+09.00	23+31.00	Med		1920				
19+71.00	23+30.00	Med		360				
19+66.00	23+30.00	Lt		370				
21+76.00	23+30.00	Lt		150				
22+00.00	23+30.00	Lt		160				
23+28.00	23+28.00	Lt		150				
23+59.00	23+59.00	Lt		150				
27+34.00	27+34.00	Lt		140				
27+64.00	27+64.00	Lt		140				
27+48.00	31+28.00	Lt		380				
27+41.00	30+91.00	Lt		350				
27+89.00	31+49.00	Med		360				
27+80.00	36+39.00	Med		860				
36+11.00	41+31.00	Med		520				
27+56.00	28+11.00	Rt		90				
27+77.00	30+07.00	Rt		230				
			Totals:	6880				

100-23
04-17-18

ROCK EROSION CONTROL

Refer to EC-301 and Detail 570-8

Location				L	W	Rock Erosion Control (REC)					Material Bid Quantities			Remarks
						Type 1	Type 2	Type 3	Type 4	Type 5	Eng. Fabric	Class E Revetment	Erosion Stone	
Road Identification	Begin Station	End Station	Side			Rock Ditch Check	Rock Ditch	Rock Flume	Rock Splash Basin	Rock Slope Protection				
			Lt./Rt.	FT	FT						SY	TON	TON	
US 20	1+62.54	1+62.54	Med	12	12				X		28.4	15.1		
US 20	2+51.60	2+51.60	Med	7	11				X		18.3	8.1		
US 20	5+00.00	5+00.00	Med	7	11				X		18.3	8.1		
US 20	20+01.83	20+01.83	Med	12	12				X		28.4	15.1		
US 20	24+03.28	24+03.28	Med	12	12				X		28.4	15.1		
US 20	34+00.00	34+00.00	Med	12	12				X		28.4	15.1		
US 20	35+00.00	35+00.00	Med	7	11				X		18.3	8.1		
US 20	37+47.00	37+47.00	Med	7	11				X		18.3	8.1		
					Totals:						186.8	92.8		

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	+00.00	20+12.88	Med	20+01.83	RT	1.3	1.3	0.0	Silt Fence for Ditch Check (EC-201)	23442.8	4680.0	Yes	
									Silt Basin (EW-403)	1237.5			
									Total	24680.3			
2	20+09.00	23+62.62	Both	23+61.00	Med	0.6	0.6	0.0	Silt Fence for Ditch Check (EC-201)	2168.7	2160.0	Yes	
									Silt Basin (EW-403)	1150.0			
									Total	3318.7			
3	27+40.00	31+08.20	Lt	27+42.50	Med	0.6	0.6	0.0	Silt Fence for Ditch Check (EC-201)	946.3	2160.0	Yes	
									Silt Basin (EW-403)	1337.5			
									Total	2283.8			
4	27+92.70	29+53.06	Rt	27+92.70	Rt	0.1	0.0	0.1	Vegetated Buffer	0.0	0.0	N/A	
5	28+35.50	40+91.13	Med	34+02.00	Rt	1.2	1.2	0.0	Silt Fence for Ditch Check (EC-201)	7303.5	4320.0	Yes	
									Silt Basin (EW-403)	2800.0			
									Total	10103.5			

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 River Crossing Improvement.

B. This PPP covers approximately 3.8 acres with an estimated 3.8 acres being disturbed.The portion of the PPP covered by this contract has 3.8 acres disturbed.

C. The PPP is located in an area of 1 soil association Dinsdale - Klinger. The estimated weighted average runoff coefficient number for this PPP after completion will be 0.40.

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 N. Fork Maquoketa 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.

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)

US 20

FILE NO. TBD	ENGLISH	DESIGN TEAM Stanley Consultants Inc.	DUBUQUE COUNTY	PROJECT NUMBER BRF-020-9(269)--38-31	SHEET NUMBER RR.2	

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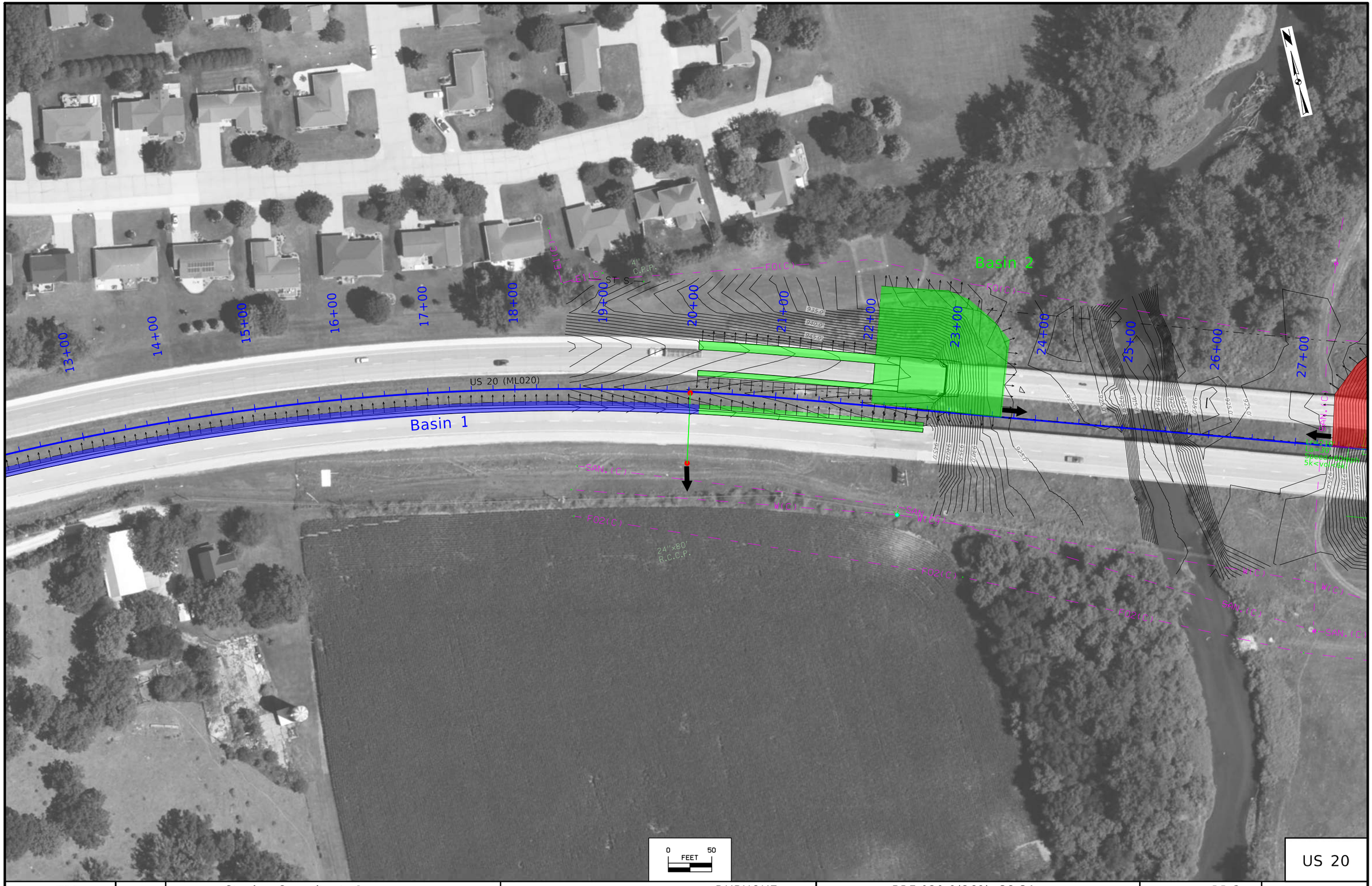

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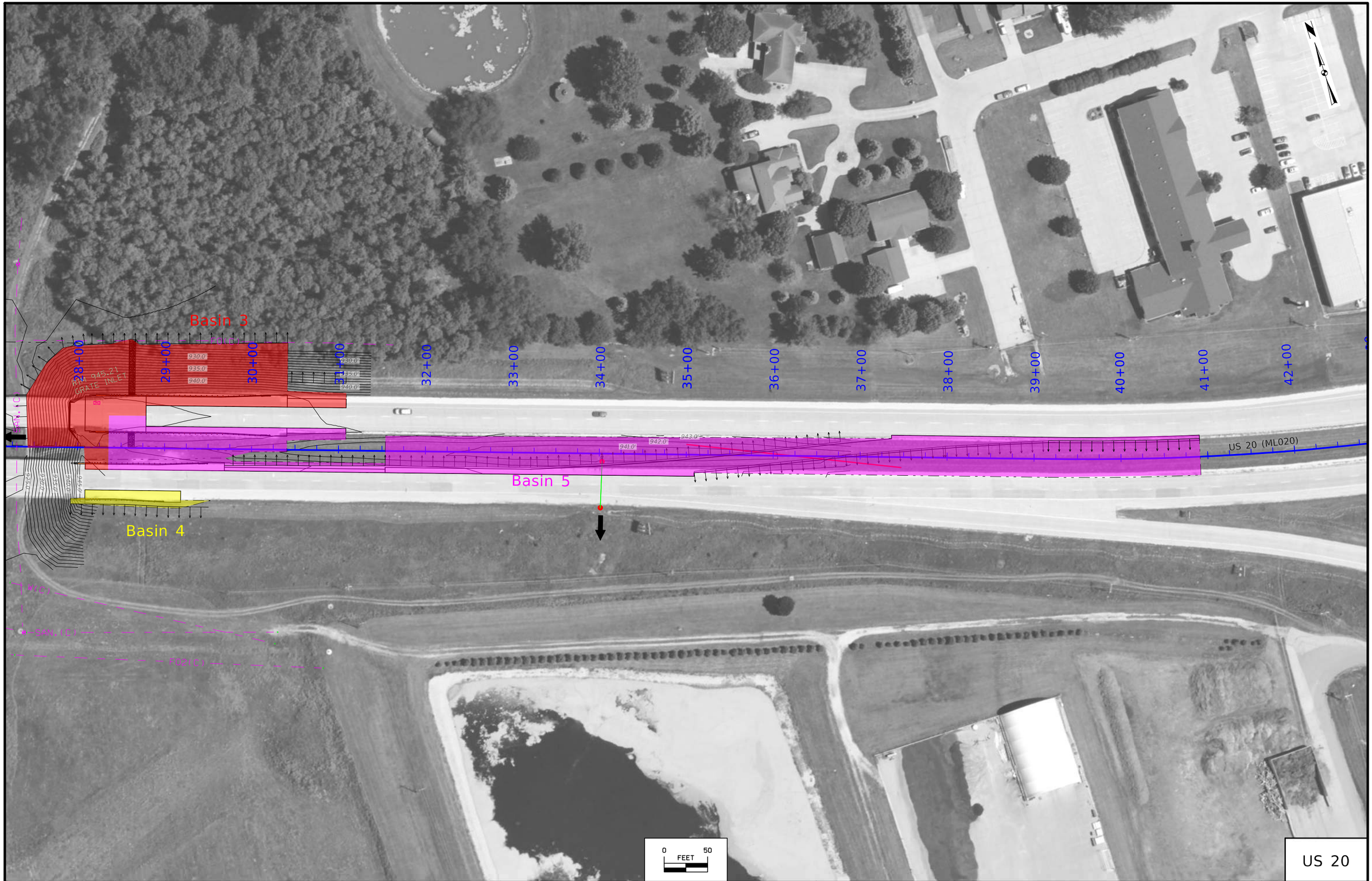

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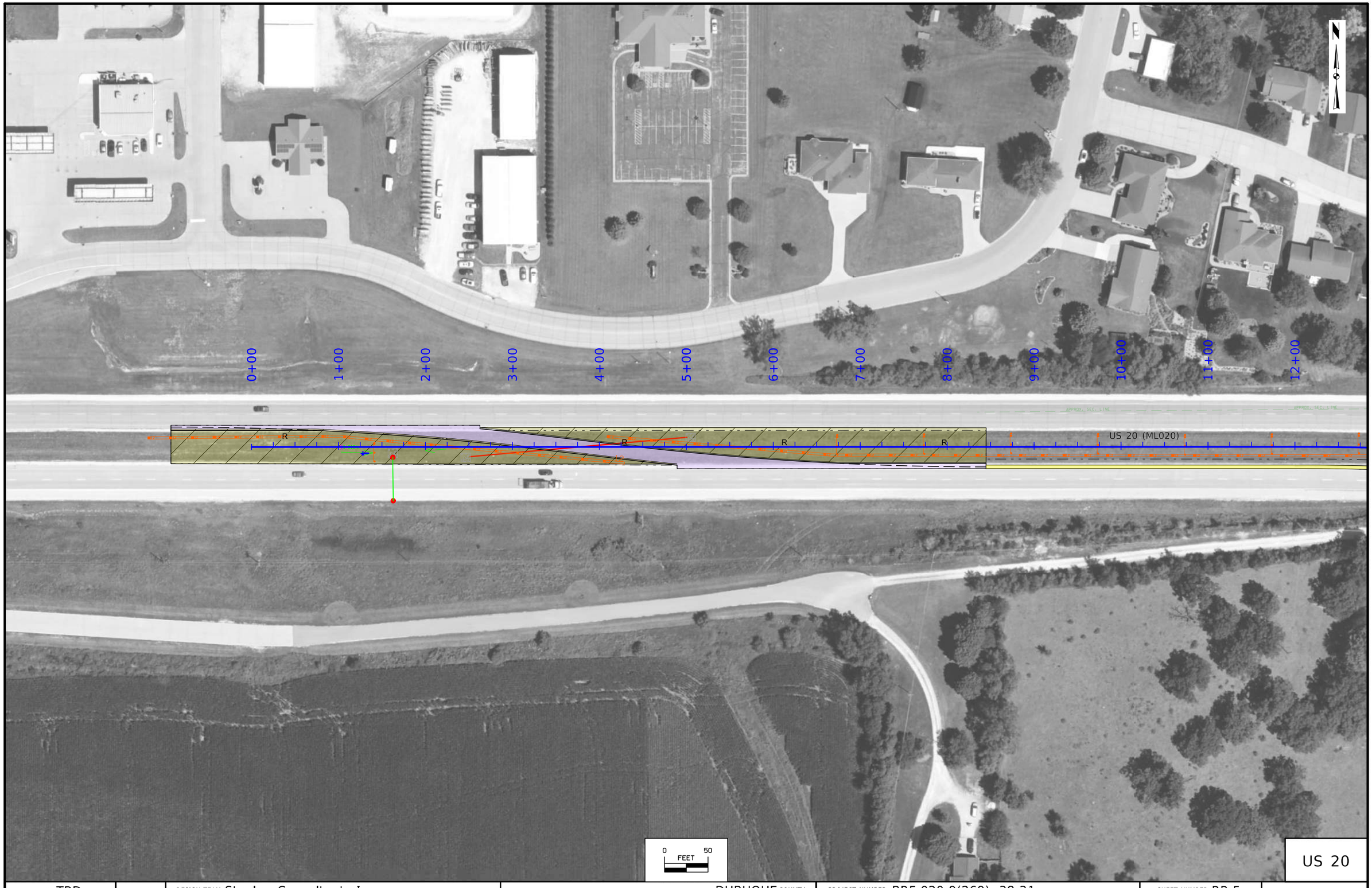

US 20

FILE NO. TBD	ENGLISH	DESIGN TEAM Stanley Consultants Inc.	DUBUQUE COUNTY	PROJECT NUMBER BRF-020-9(269)--38-31	SHEET NUMBER RR.5	

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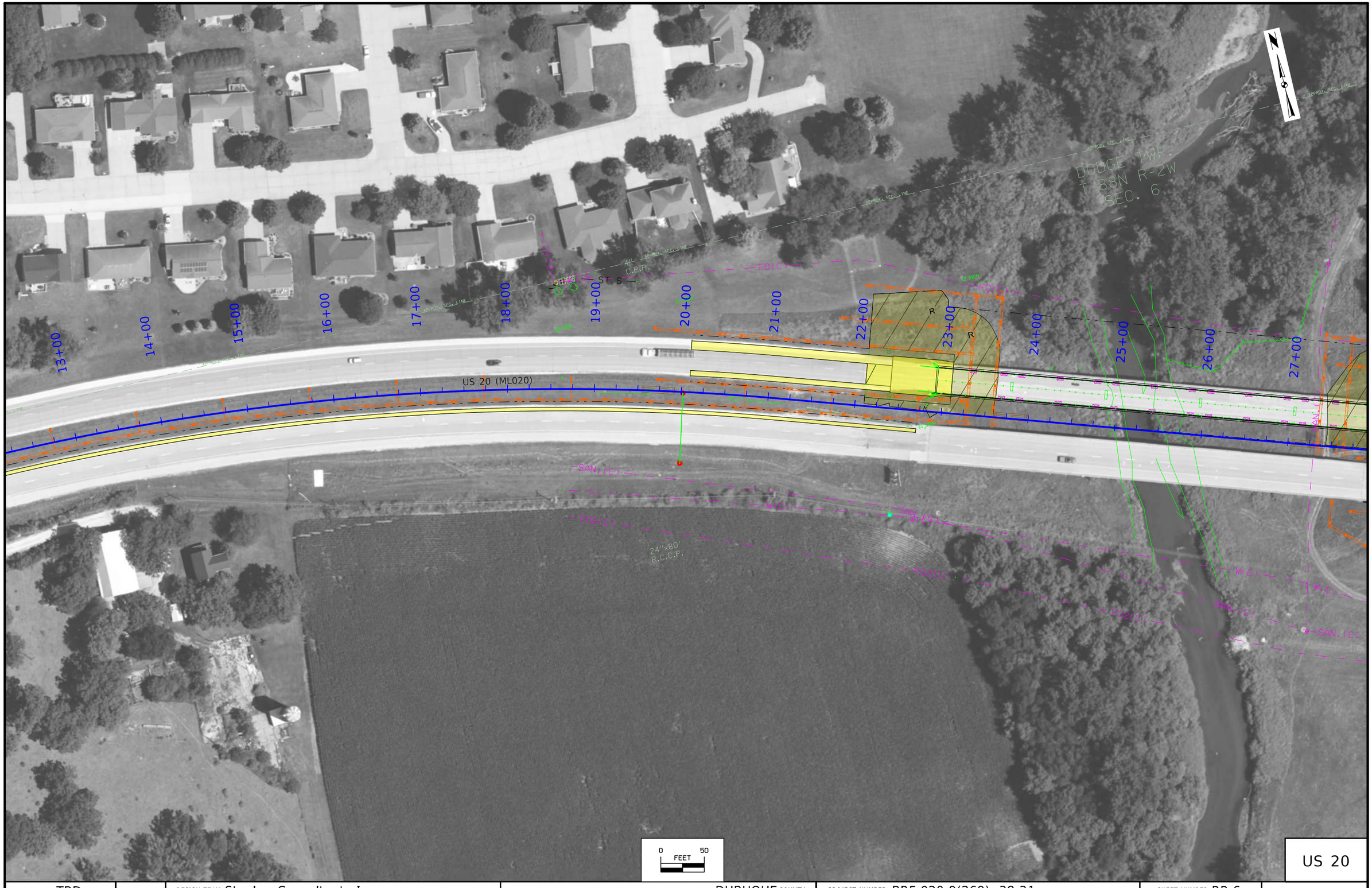

US 20

FILE NO. TBD	ENGLISH	DESIGN TEAM Stanley Consultants Inc.	DUBUQUE COUNTY	PROJECT NUMBER BRF-020-9(269)--38-31	SHEET NUMBER RR.6	

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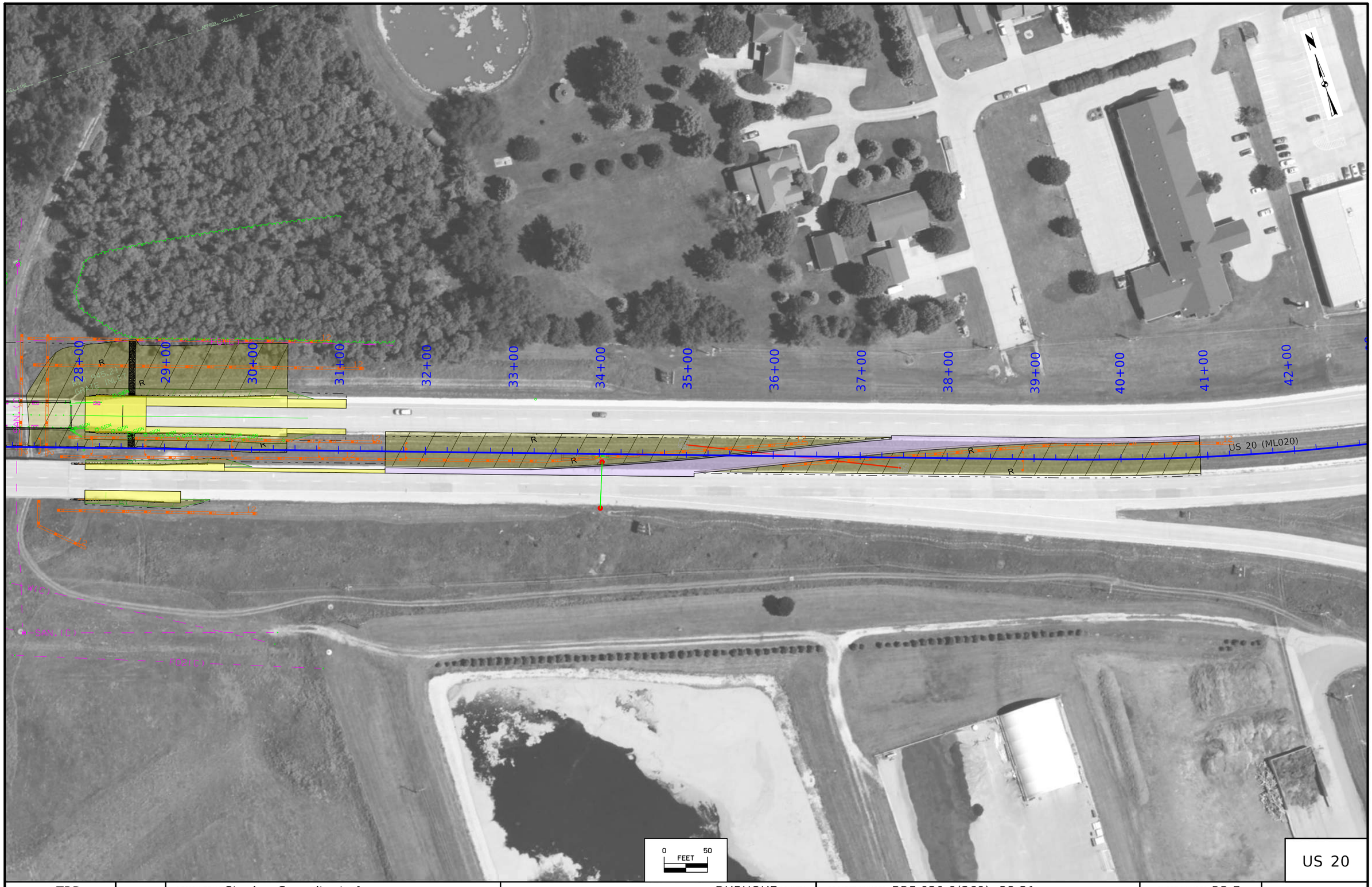

US 20

FILE NO. TBD	ENGLISH	DESIGN TEAM Stanley Consultants Inc.	DUBUQUE COUNTY	PROJECT NUMBER BRF-020-9(269)--38-31	SHEET NUMBER RR.7	

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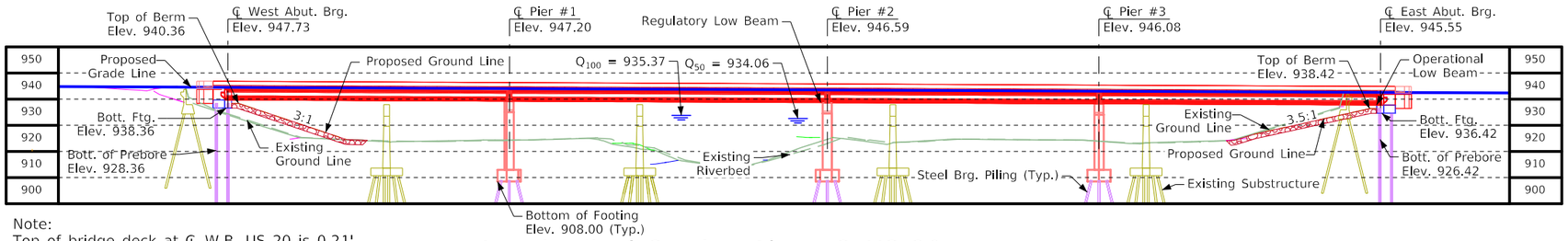
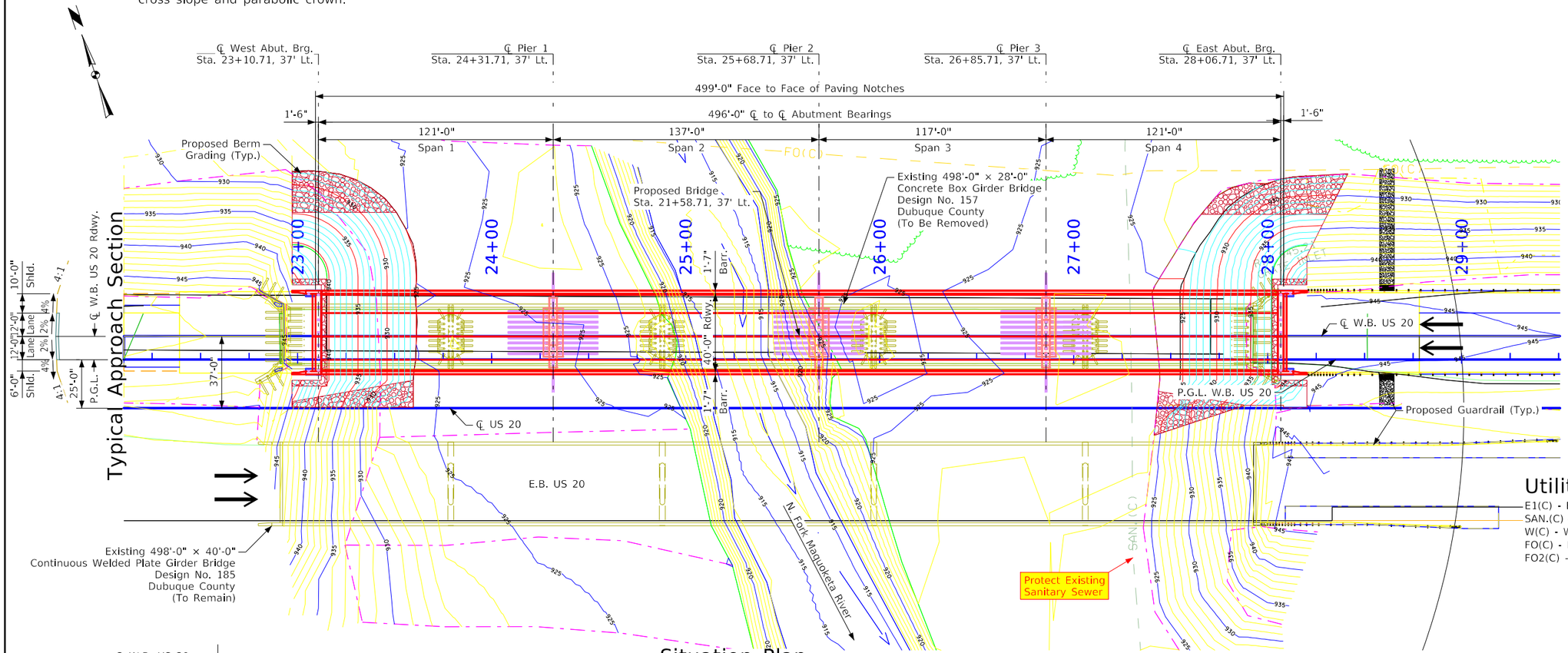
PROGRESS PLANS, NOT FOR CONSTRUCTION



Note:
Top of bridge deck at ℄ W.B. US 20 is 0.21' above the profile grade to account for deck cross slope and parabolic crown.

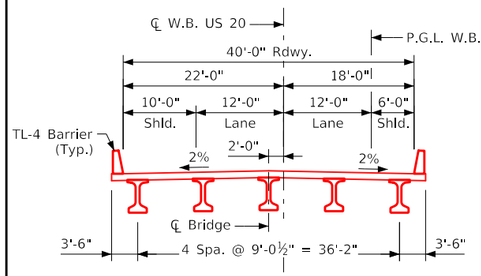
Longitudinal Section Along ℄ US 20



Situation Plan

O ENGLISH 60
SCALE IN FEET

Typical Approach Section



Typical Bridge Section
(Looking East)

Location

W.B. US 20 over N Fork Maquoketa River
T-88N R-2W
Section 6
Dodge Township
Dubuque County
FHWA No. 23780
Bridge Maint. No. 3193.5L020
Latitude 42.470288°
Longitude -91.123804°

Notes

All units are in feet unless noted otherwise.
TL-4 Bridge Railing proposed
Pier Type = Tee Piers
Beam Type = BTD Beams
Foundation type to be confirmed during final design.
Berm slopes to be confirmed during final design.

BENCH MARK NO. CP10: N:8409640.45 E:21340384.44; ELEV 925.87
SET ⅝" REBAR ON SOUTH SIDE OF HIGHWAY 20 SECOND PIER FROM THE WEST ON TOP OF BANK WEST SIDE OF RIVER

-0.44%

VPI Sta. = 22+10.52
VPI Elev. = 947.966

VPI Sta. = 28+78.20
VPI Elev. = 945.029

Proposed Profile Grade U.S. 20

Hydraulic Data

RIDB: MaquoketaR_NF_71.5
Stream Gauge number: NWSDYRI4
Drainage Area = 122.0 Sq. Mi.
Stream Slope (HGL) = 7.69 Ft./Mi.

Q_{50} = 13,181 cfs
Stage = 934.06 Ft.
Regulatory Low Beam=941.41

Q_{100} = 15,895 cfs
Stage = 935.37 Ft.
Operational Low Beam=940.18
Backwater = 0.10 Ft.
Avg. Bridge Velocity = 3.16 fps

Q_{200} = 20,470 cfs
Stage = 937.57 Ft.
Calculated Design Scour = 910.7 Ft.

Q_{500} = 25,678 cfs
Stage = 939.52 Ft.
Avg. Bridge Velocity = 3.72 fps
Calculated Check Scour = 910.4 Ft.

50- 100-, 500-year stages and discharges from Dubuque County F.I.S., Dated August 10, 2021.
F.I.S. Datum = NAVD88

Utilities Legend:

E1(C) - Electric Line - Alliant Energy
SAN.(C) - Sanitary Sewer - City of Dyersville
W(C) - Water Line - City of Dyersville
FO(C) - Fiber Optic - Iowa Communications Network
FO2(C) - Fiber Optic - Maquoketa Valley Electric Co-op

Traffic Estimate

2021 AADT 10,900 V.P.D.
(Includes EB and WB traffic)

TRUCKS 19 %

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 9-28-2023
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 0° Skew

496'-0" × 40'-0" Pretensioned Prestressed Concrete Beam Bridge

121'-0" End Spans 137'-0", 117'-0" Interior Span

Situation Plan

STA. 25+58.71, 37' Lt. (℄ US 20) Turn-in Date: July 2023

Dubuque County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. TBD Design Sheet No. 1 of 2 FHWA No. 23780

FILE NO. TBD	ENGLISH	DESIGN TEAM Stanley Consultants	Dubuque COUNTY	PROJECT NUMBER BRF-020-9(269)--38-31	SHEET NUMBER V.01

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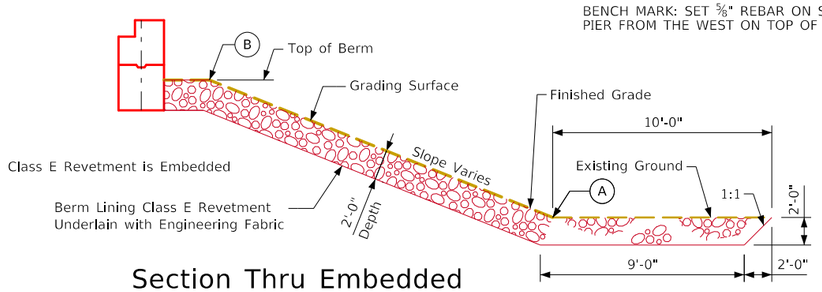
PROGRESS PLANS, NOT FOR CONSTRUCTION

Design Notes

All units are in feet unless noted otherwise.
TL-4 Bridge Railing proposed
Pier Type = Tee Piers
Beam Type = BTD Beams
Foundation type to be confirmed during final design.
Berm slopes to be confirmed during final design.

BENCH MARK: SET ⅝" REBAR ON SOUTH SIDE OF HIGHWAY 20 SECOND PIER FROM THE WEST ON TOP OF BANK WEST SIDE OF RIVER

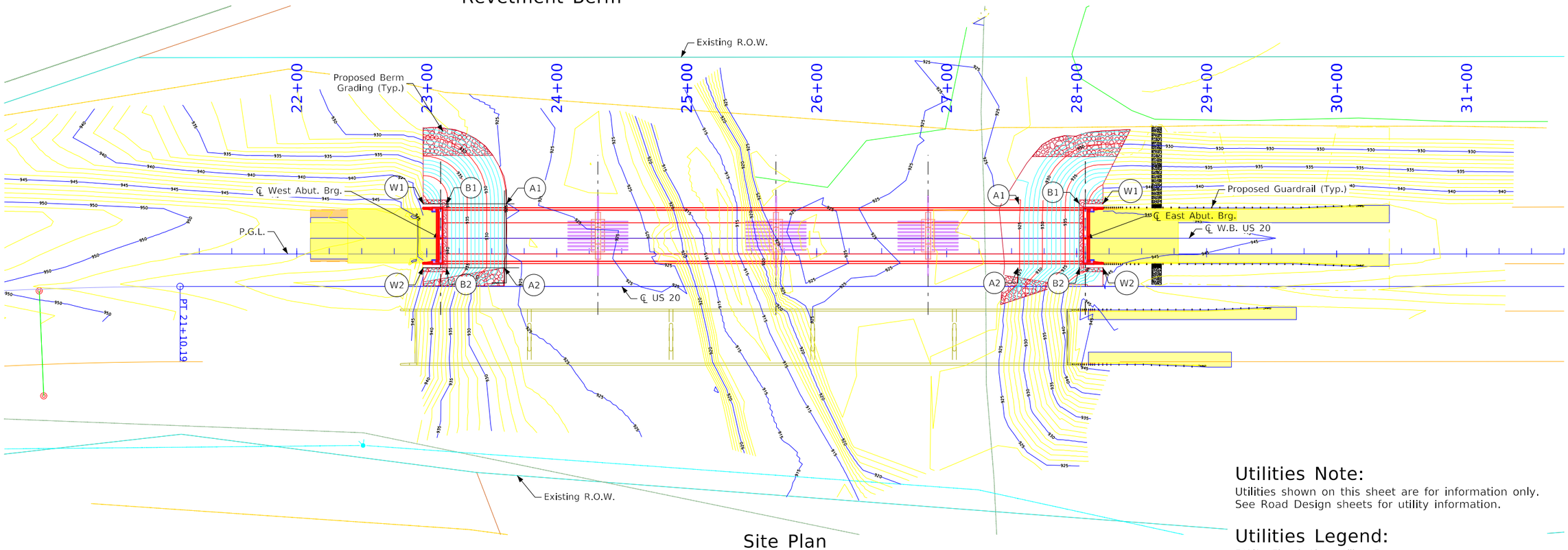


Section Thru Embedded Revetment Berm

Berm Slope Location Table

Points	West Abutment			East Abutment		
	Station	Offset	Elev.	Station	Offset	Elev.
A1	23+61.26	63.58' LT	925.00	27+55.56	63.58' LT	924.81
A2	23+59.67	14.42' LT	925.50	0+00.00	14.42' LT	924.61
B1	23+15.21	63.58' LT	940.32	28+02.21	63.58' LT	938.14
B2	23+15.21	14.42' LT	940.32	28+02.21	14.42' LT	938.14
W1	22+97.21	63.58' LT	947.20	28+20.21	63.58' LT	944.90
W2	22+97.21	14.42' LT	947.28	28+20.21	14.42' LT	944.98

Berm slope elevations reflect the grading surface.



Site Plan

N

0 English 80
Scale in Feet

Utilities Note:

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

Utilities Legend:

E1(C) - Electric Line - Alliant Energy
SAN.(C) - Sanitary Sewer - City of Dyersville
W(C) - Water Line - City of Dyersville
FO(C) - Fiber Optic - Iowa Communications Network
FO2(C) - Fiber Optic - Maquoketa Valley Electric Co-op

Estimated Berm Armoring Quantities

Location	Revetment CL. E (Ton)	Erosion Stone (Ton)	Engineering Fabric (SY)	CL. 10 Channel Excavation (CY)
Berm Lining - West	725		843	767
Berm Lining - East	809		941	856
Totals	1534		1784	1623

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.

General Notes

This design is for the replacement of the existing 498'-0" × 28'-0" Concrete Box Girder Bridge, Dubuque Design No. 157, FHWA 23780, Maint. No. 3193.5L020.
An Iowa DNR Flood Plain Permit is required. Preliminary Design will submit the application and place the permit in the PW Regulatory_Permits subdirectory folder upon receipt.
Requirements for a state water trail or paddling route are applicable. Signage, plan notes, and bid items shall be addressed by the Design Bureau and included in the road plans.

PRELIMINARY

Design for 0° Skew

496'-0" × 40'-0" Pretensioned Prestressed Concrete Beam Bridge

121'-0" End Spans 137'-0", 117'-0" Interior Span

Site Plan

STA. 25+58.71, 37' Lt. (℄ US 20) Turn-in Date: July 2023

Dubuque County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. TBD Design Sheet No. 2 of 2 FHWA No. 23780

FILE NO. TBD	ENGLISH	DESIGN TEAM Stanley Consultants	DUBUQUE COUNTY	PROJECT NUMBER BRF-020-9(269)--38-31	SHEET NUMBER V.02	

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CROSS SECTION VIEW COLOR LEGEND

Design Color No.	Feature
Aggregate	
(64)	Choke Stone
(42)	Engineering Fabric
(8)	Flooded Backfill
(92)	Macadam Stone
(20)	Modified
(12)	Plowing Shaping
(14)	Porous Backfill
(8)	Revetment Class A
(6)	Revetment Class B
(62)	Revetment Class C
(188)	Revetment Class D
(28)	Revetment Class E
(12)	Shoulder Special Backfill
(12)	Special Backfill
(20)	Subbase
(20)	Subbase Lower
(20)	Subbase Upper
(118)	Subgrade Treatment
Asphalt	
(207)	HMA Base Course
(207)	HMA Interim Course
(207)	HMA Surface Course
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:

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NOTES:

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CROSS SECTIONS
LEGEND AND INFORMATION SHEET

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

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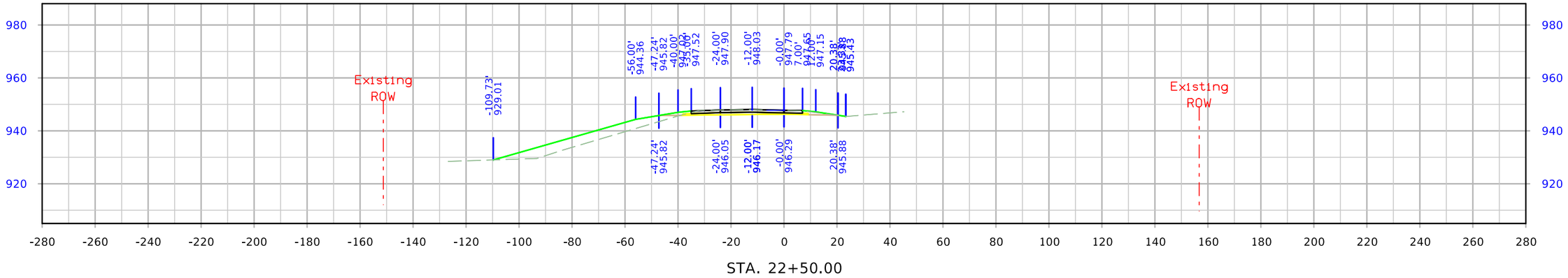

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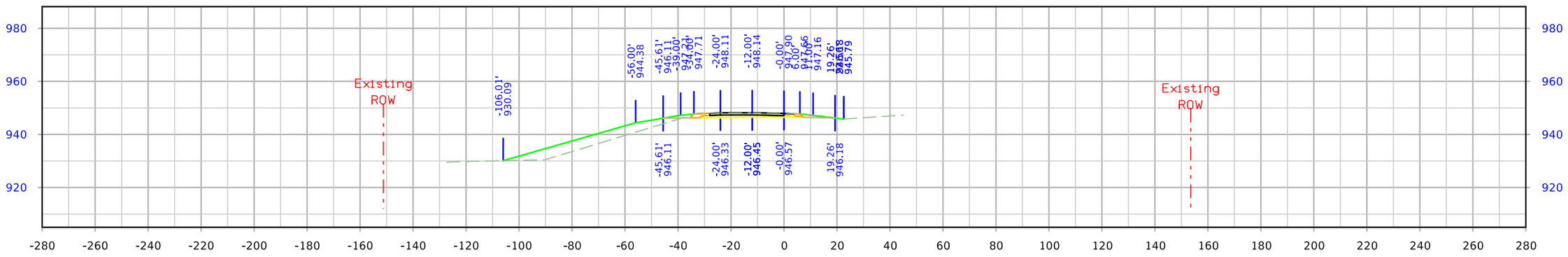

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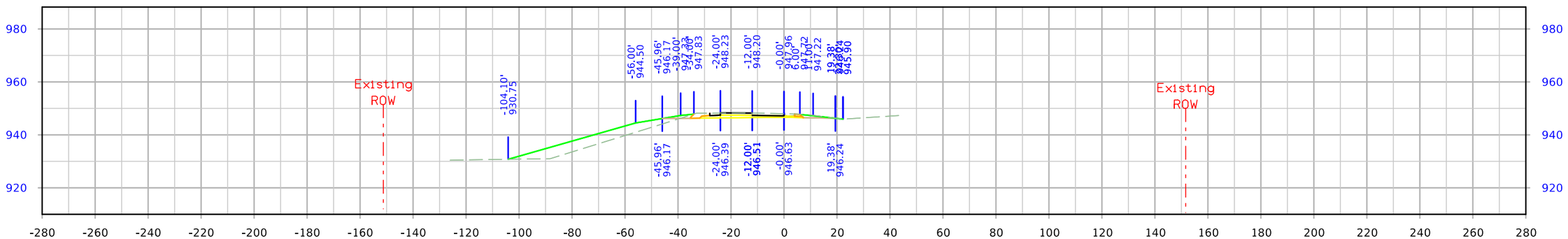

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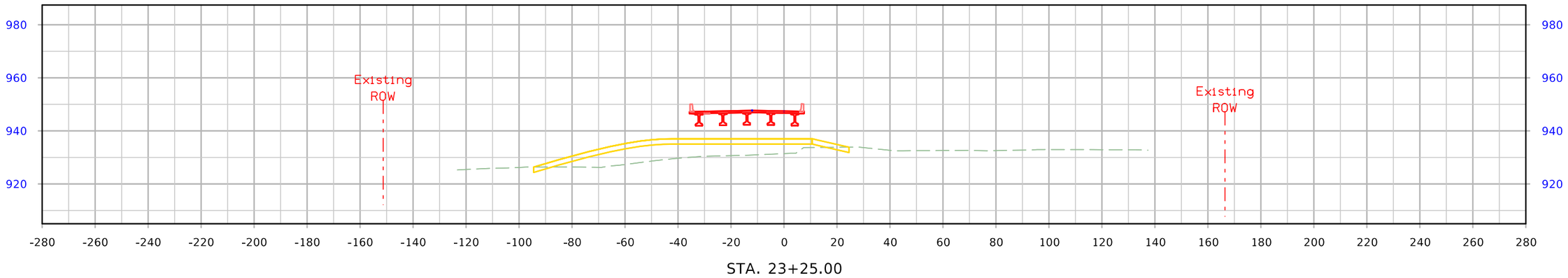

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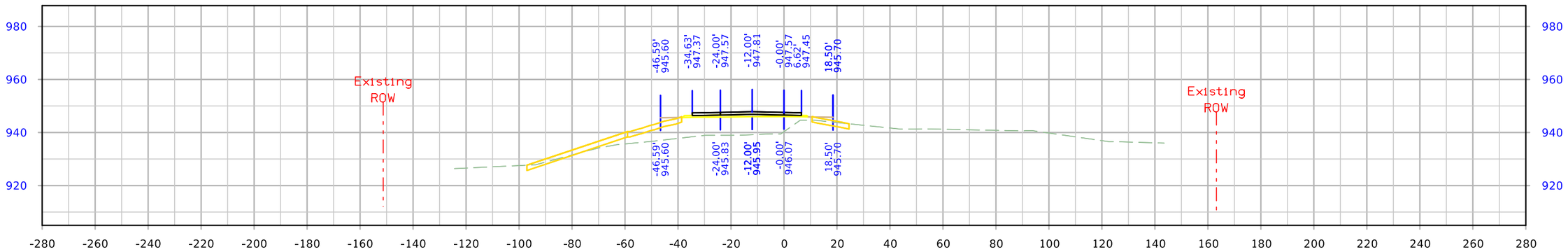

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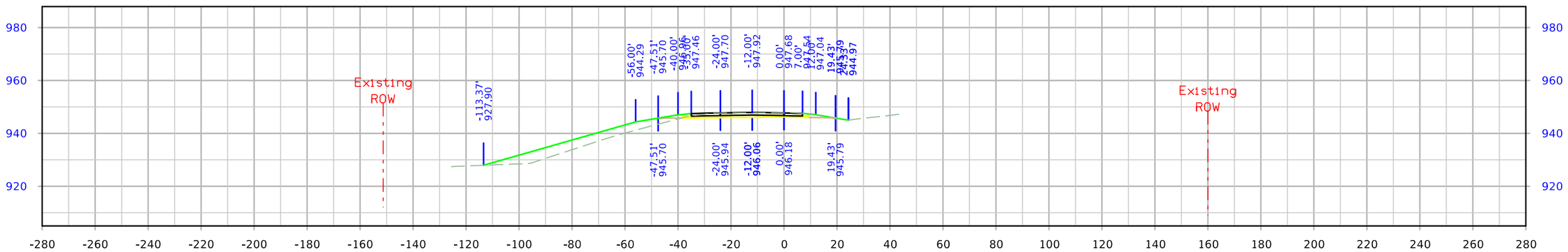

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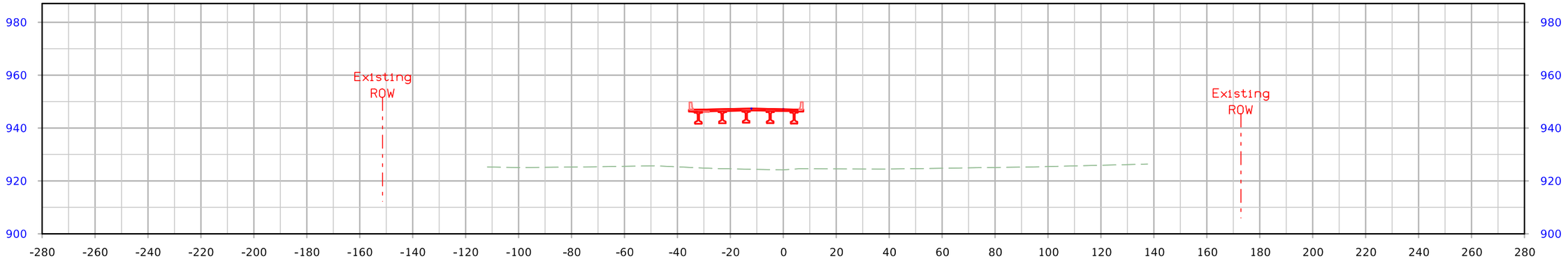

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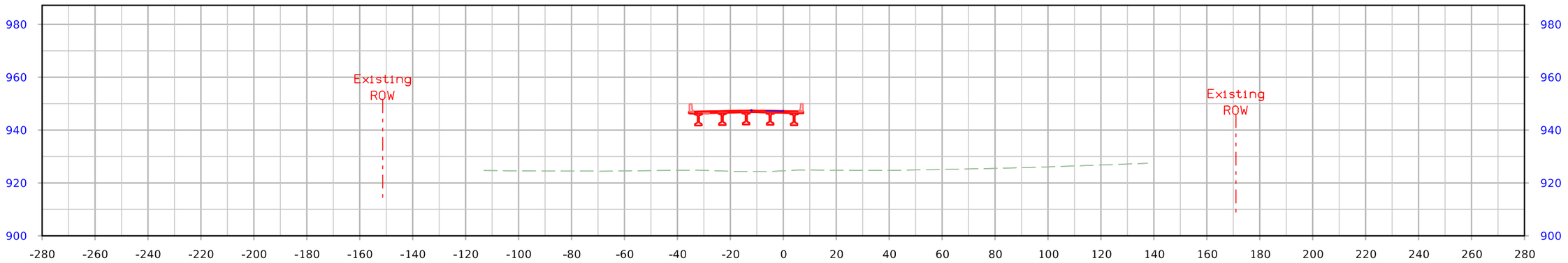

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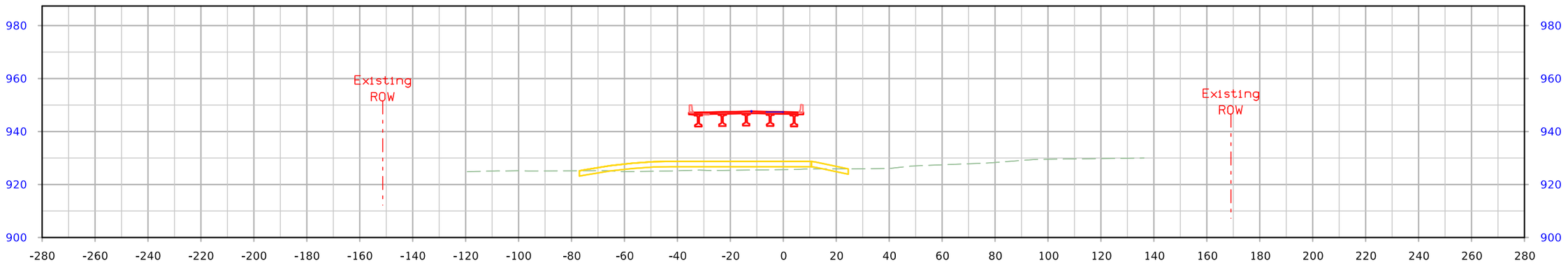

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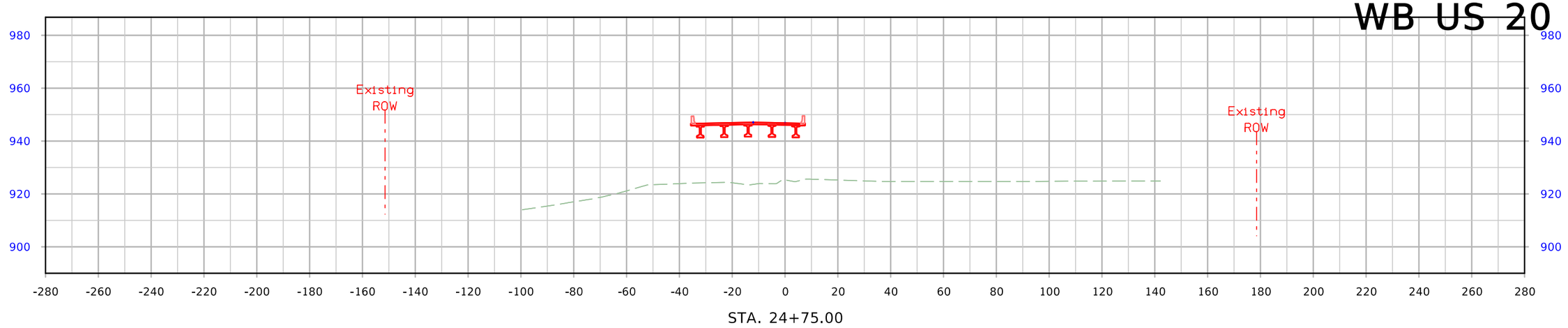

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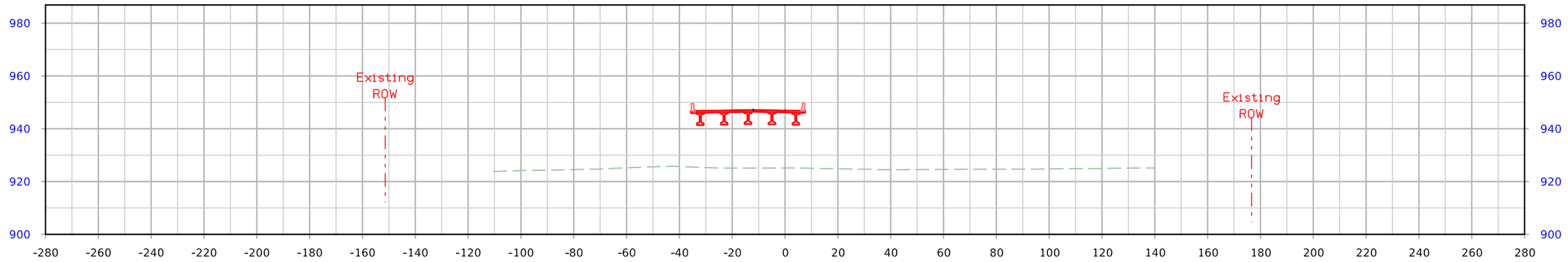

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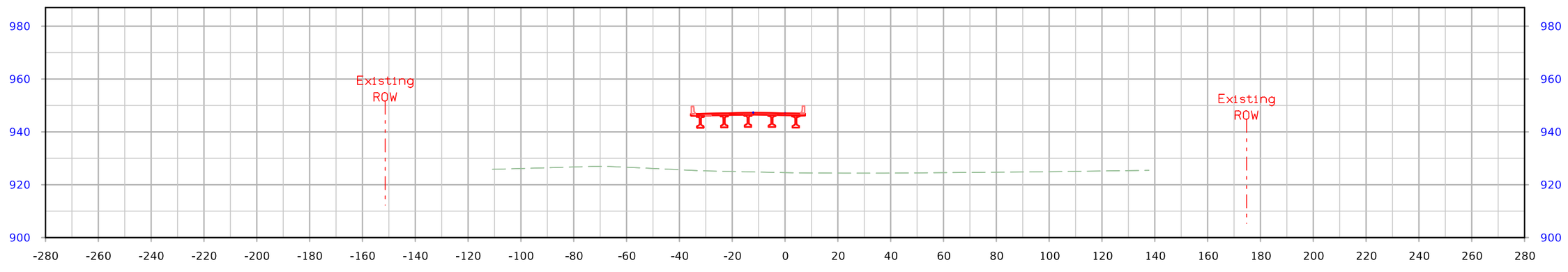

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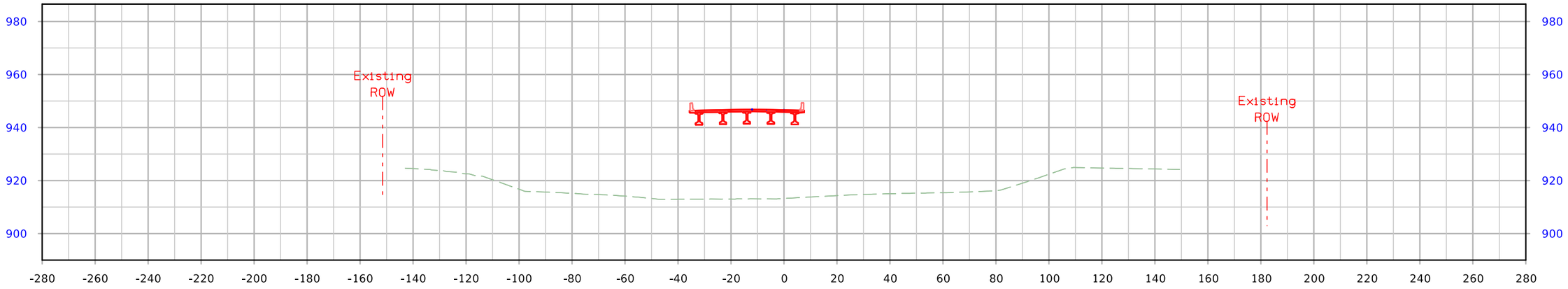

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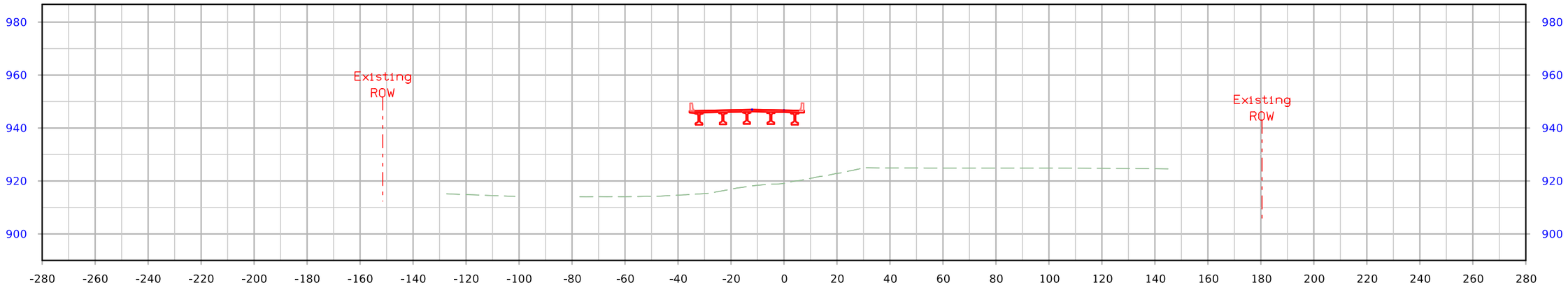

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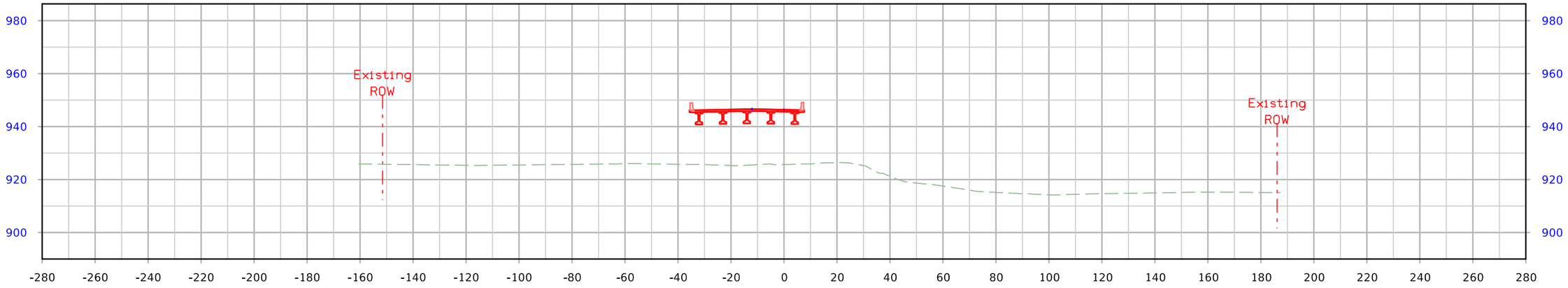

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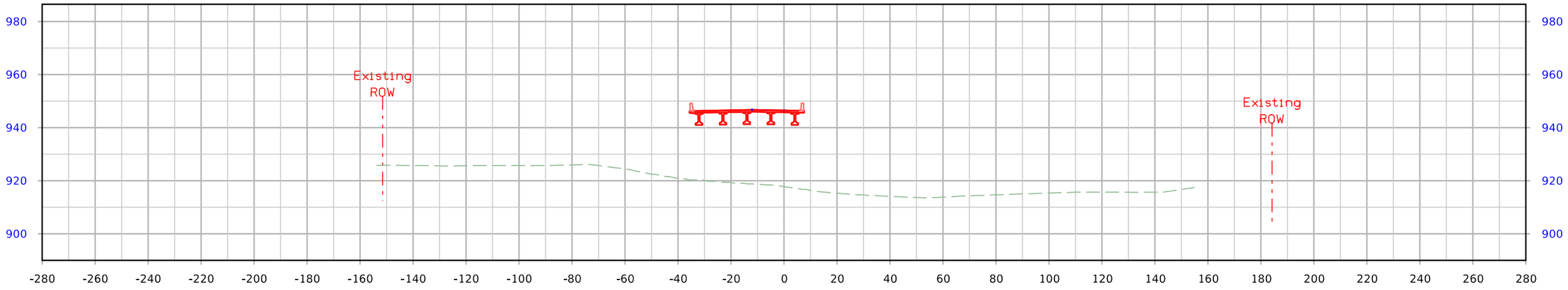

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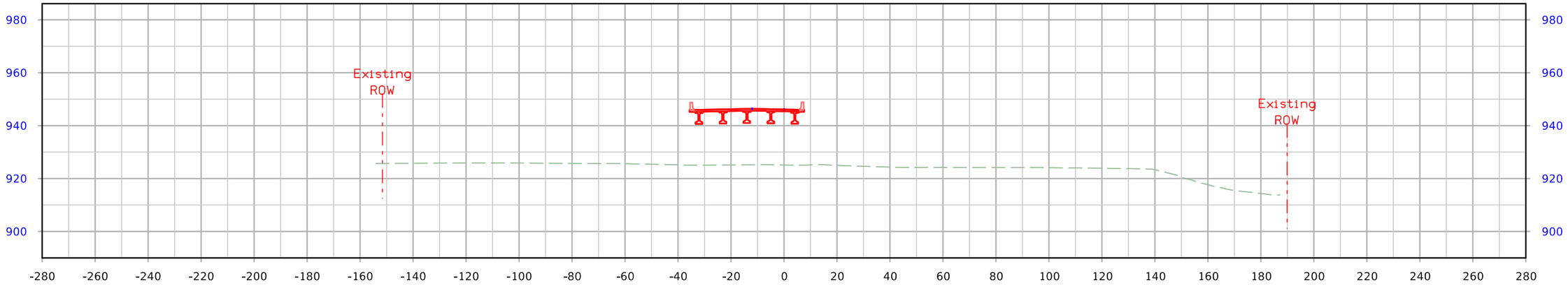

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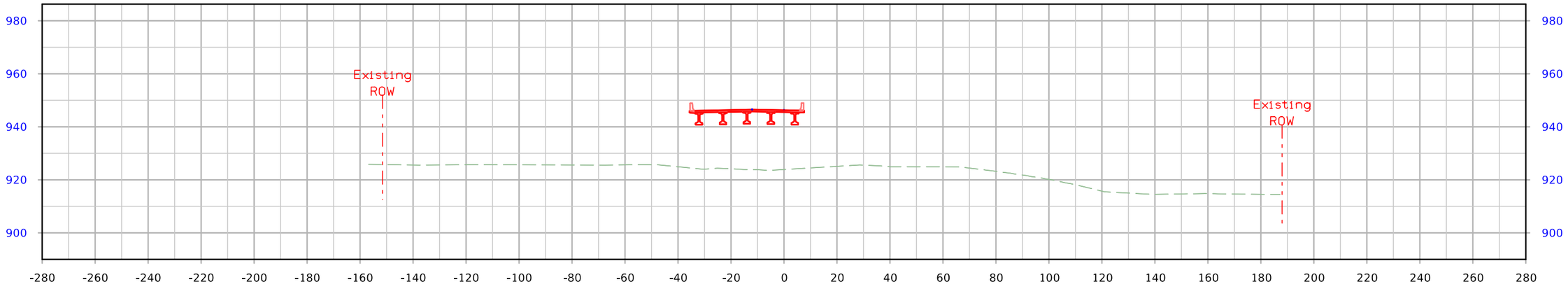

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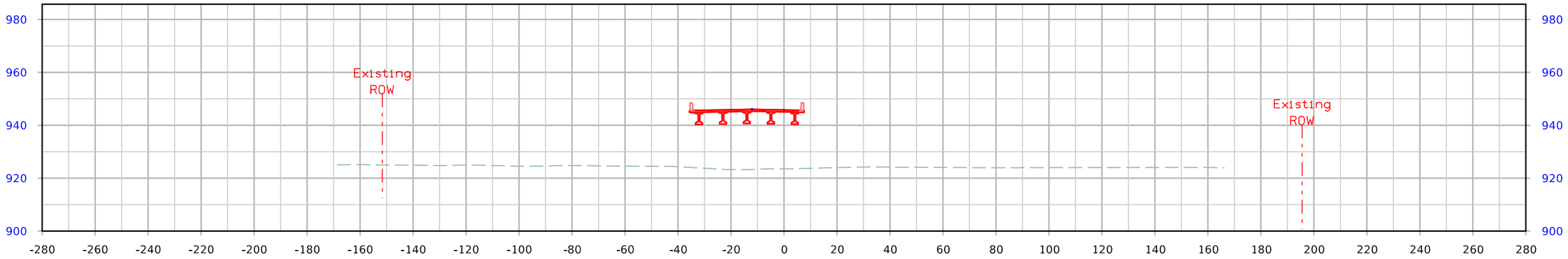

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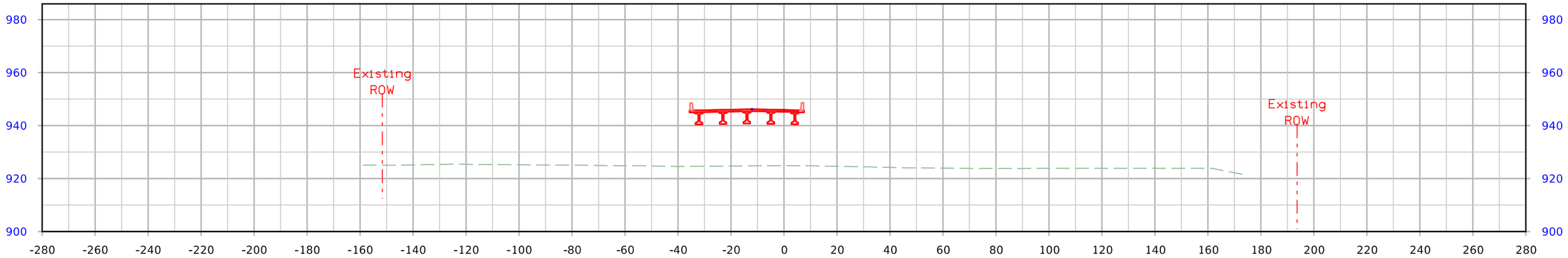

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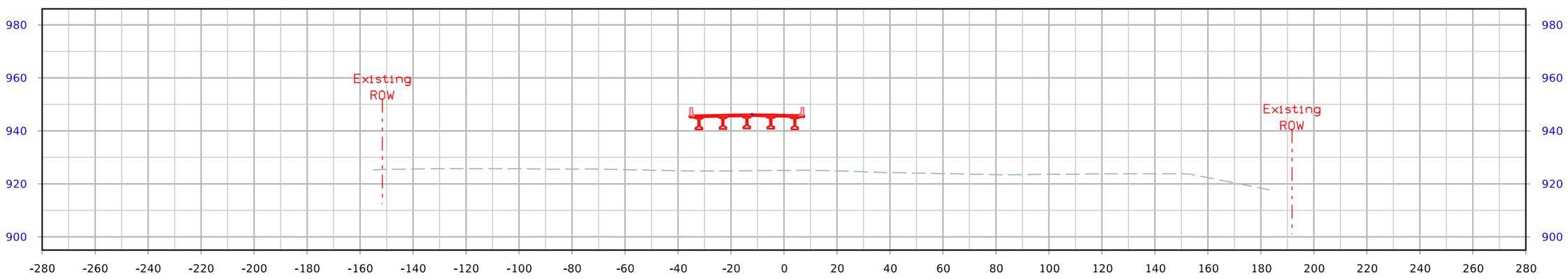

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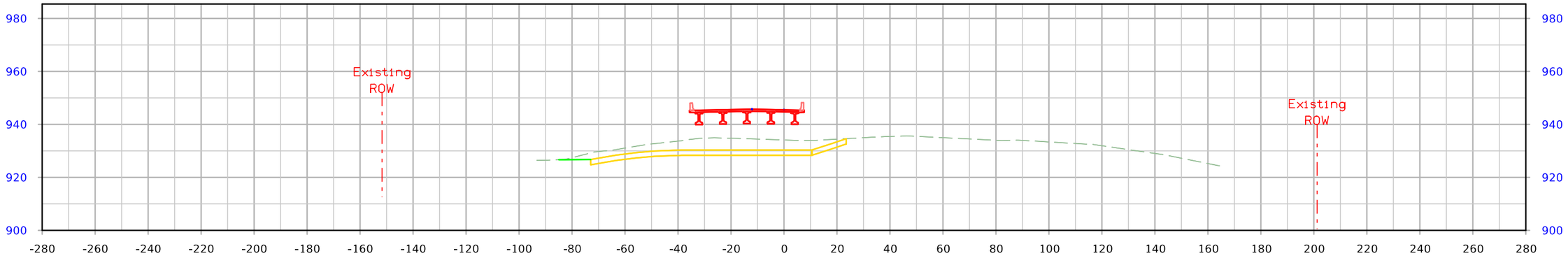

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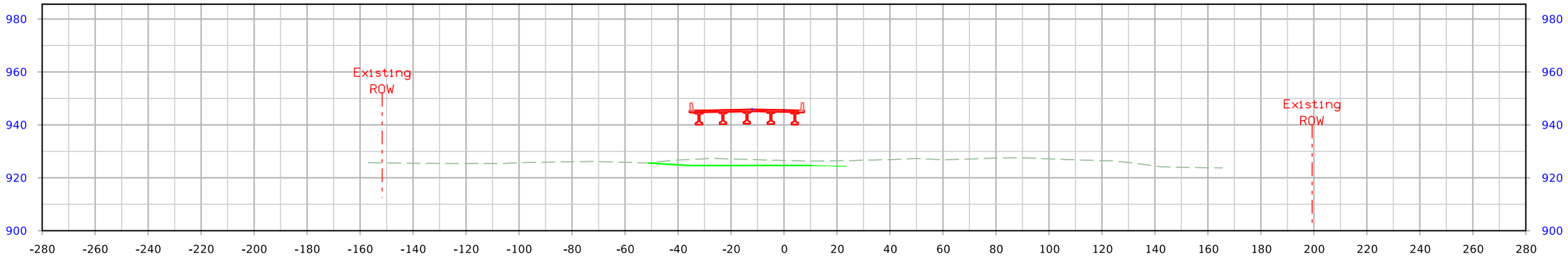

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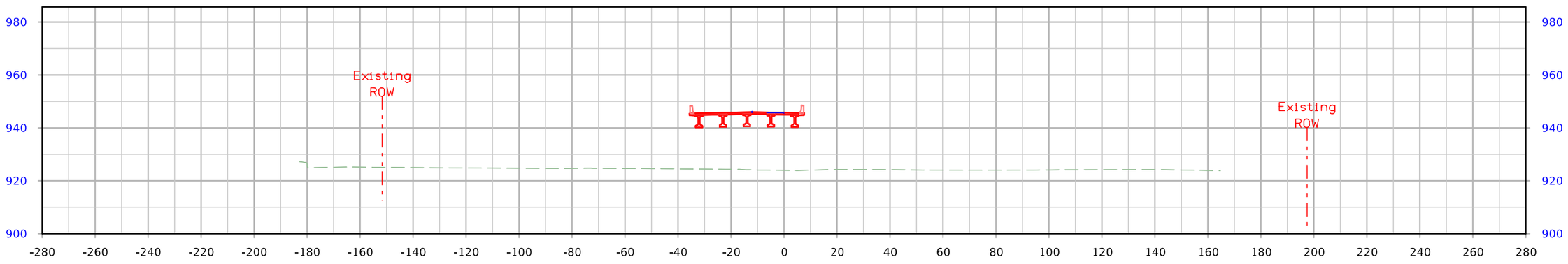

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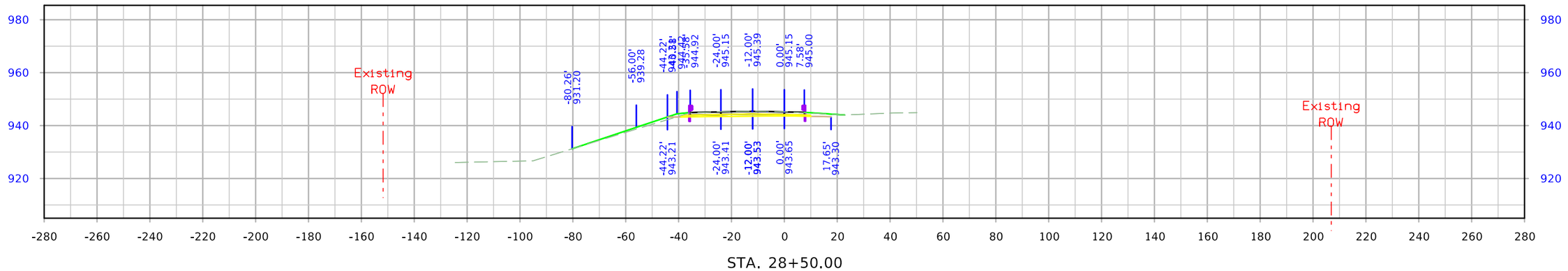

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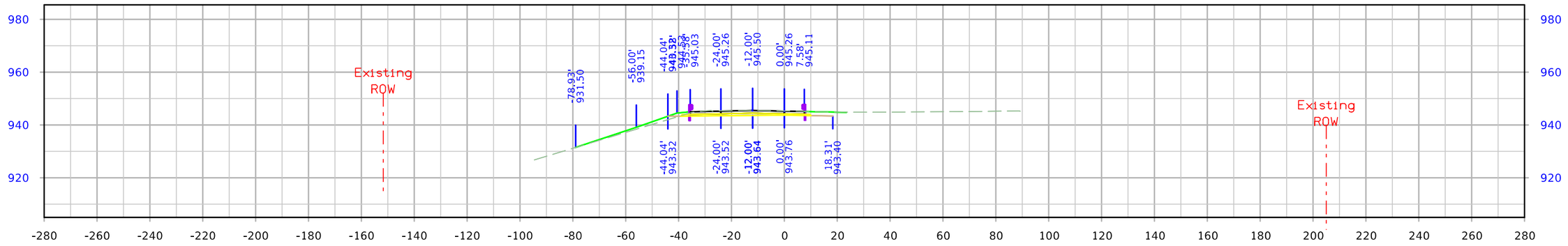

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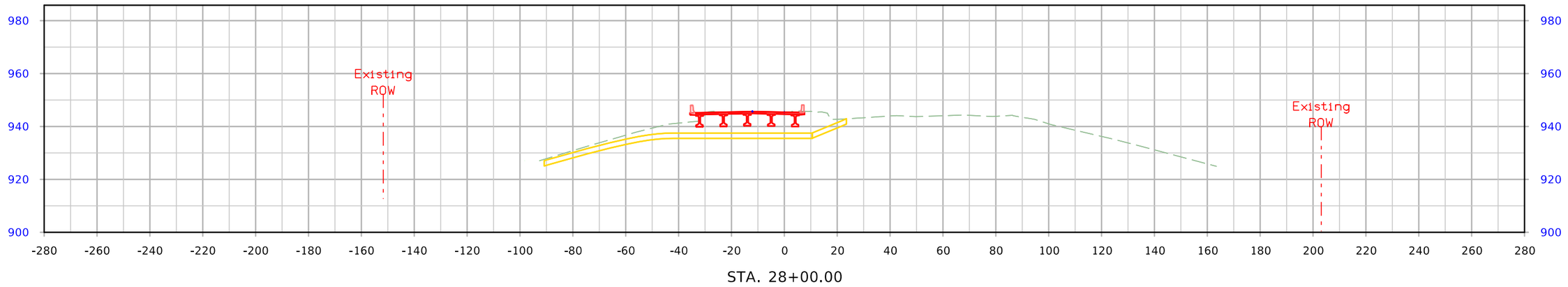

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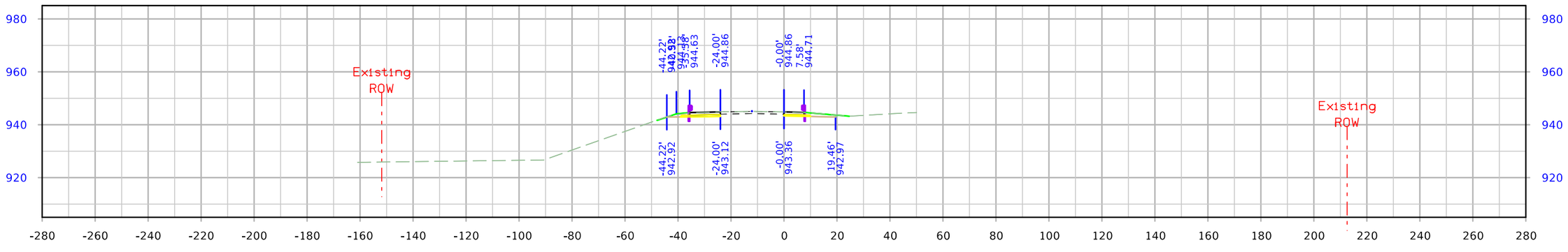

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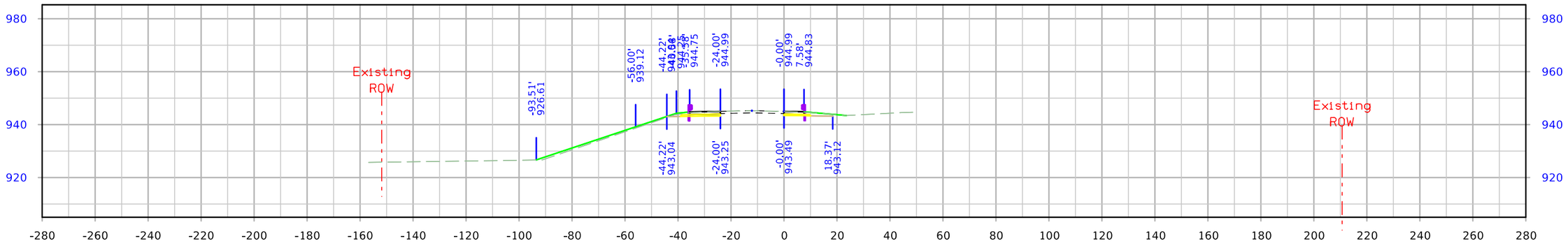

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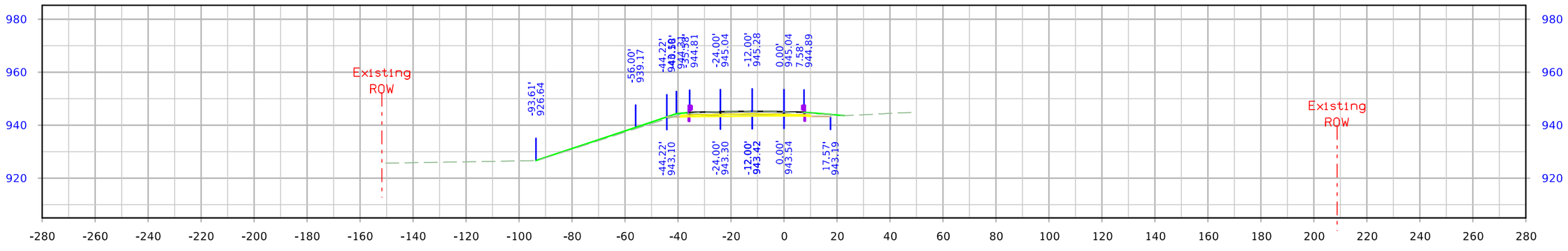

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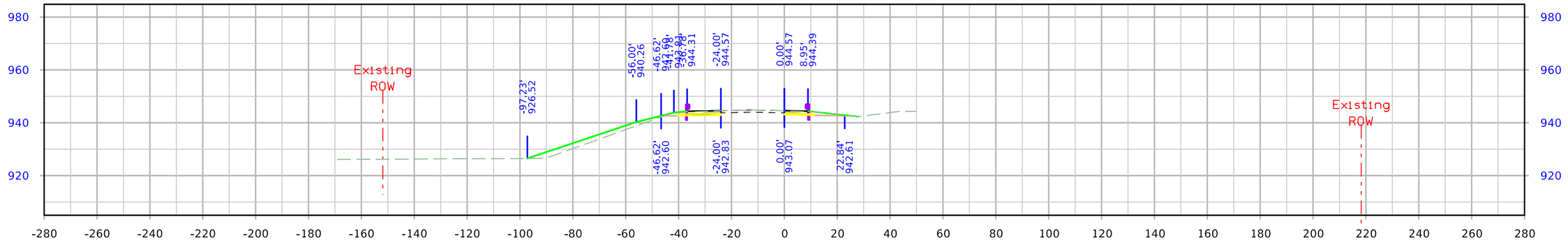

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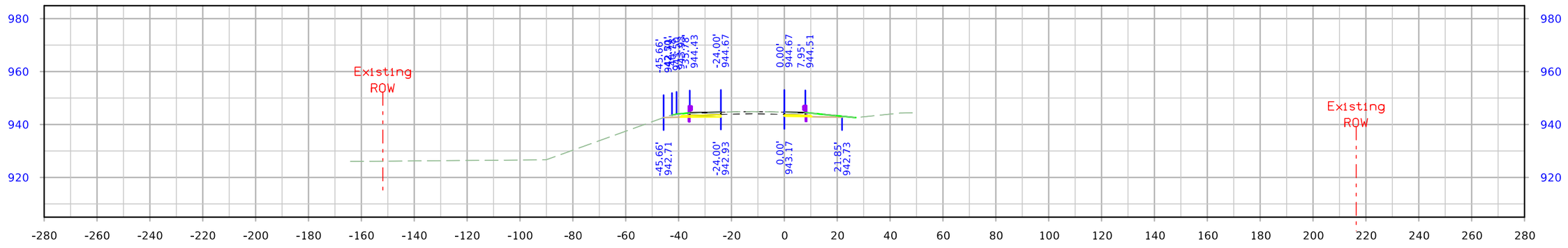

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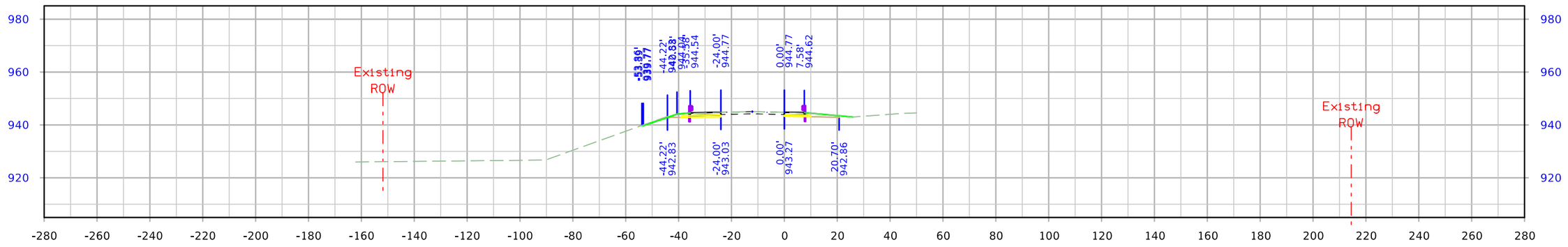

STA. 29+50.00

FILE NO. TBD	ENGLISH	DESIGN TEAM Stanley Consultants Inc.	DUBUQUE COUNTY	PROJECT NUMBER BRF-020-9(269)--38-31	SHEET NUMBER W.13

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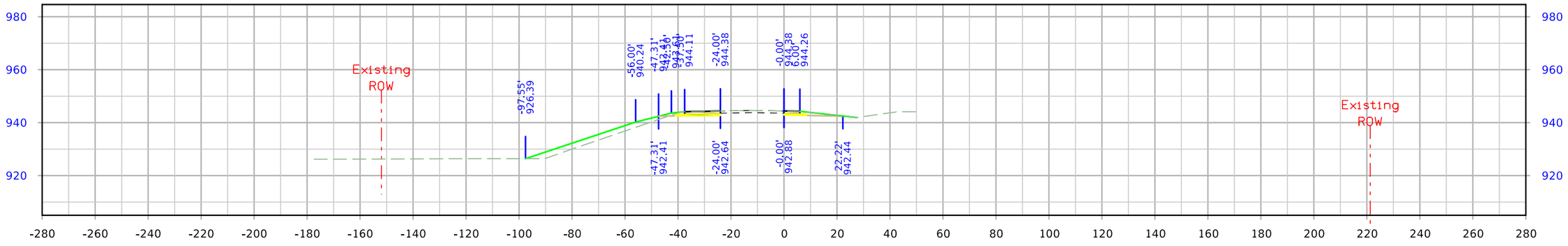
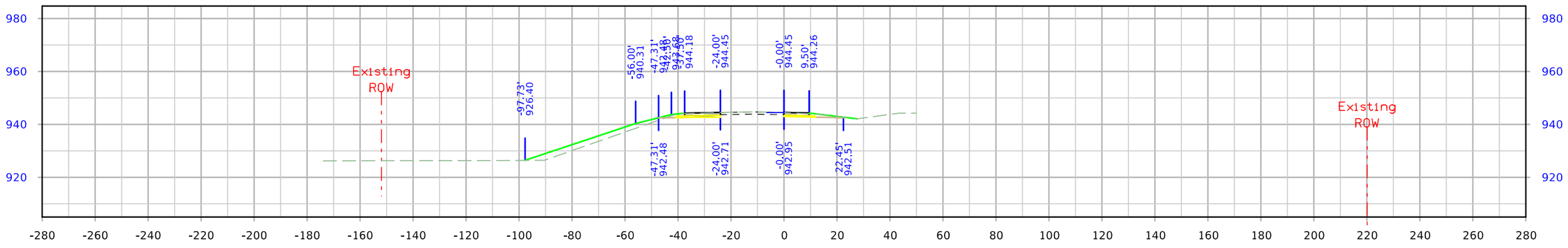
WB US 20



STA. 30+40.54



STA. 30+25.00

FILE NO. TBD	ENGLISH	DESIGN TEAM Stanley Consultants Inc.	DUBUQUE COUNTY	PROJECT NUMBER BRF-020-9(269)--38-31	SHEET NUMBER W.14