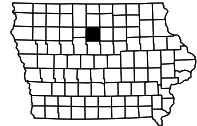


WRIGHT COUNTY

Bridge-Unspecified
BRF-069-7(45)--38-99

LETTING DATE
Oct 21 2025



INDEX OF SHEETS	
No.	DESCRIPTION
A Sheets	Title Sheets
A.1	Title Sheet
A.2	Location Map Sheet
B Sheets	Typical Cross Sections and Details
B.1 - 4	Typical Cross Sections and Details
D Sheets	Mainline Plan and Profile Sheets
* D.1	Plan & Profile Legend & Symbol Information Sheet
* D.2 - 3	US 69
G Sheets	Survey Sheets
G.1 - 3	Reference Ties and Bench Marks
J Sheets	Traffic Control and Staging Sheets
J.1	Traffic Control Plan
* J.2	Traffic Control & Staging Legend & Symbol Info. Sheet
* J.3	Staging Typical
V Sheets	Bridge and Culvert Situation Plans
* V.1 - 3	US 69 Bridge Situation Plans
W Sheets	Mainline Cross Sections
* W.1	Cross Sections Legend & Symbol Information Sheet
* W.2 - 10	Mainline Cross Sections
	* Color Plan Sheets



<-- H-Sheets

PLANS OF PROPOSED IMPROVEMENT ON THE
PRIMARY ROAD SYSTEM
WRIGHT COUNTY
 Bridge-Unspecified
 Iowa River 1.4 mi S of S Jct Co Rd C20 in Belmond

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

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



REVISIONS

TOTAL
..
PROJECT IDENTIFICATION NUMBER
21-99-069-010
PROJECT NUMBER
BRF-069-7(45)--38-99
R.O.W. PROJECT NUMBER
STPN-069-7(46)--2J-99

INDEX OF SEALS			
SHEET NO.	NAME	TYPE	BID QUANTITY SHEETS
A.1	Kelly C. Bell	Primary Signature Block	X
X	X	X	X

PRELIMINARY PLANS

Subject to change by final design.

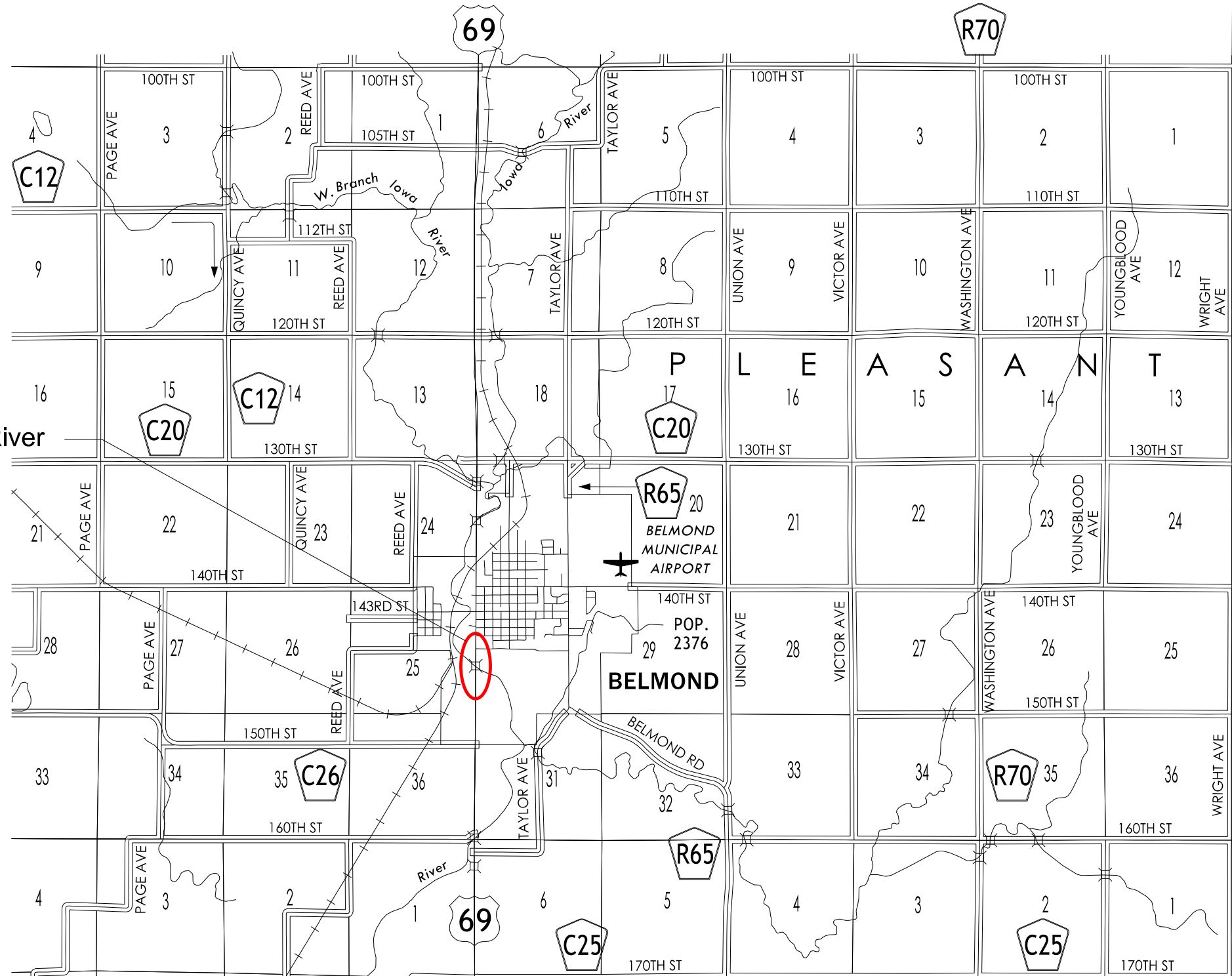
D5 Revisions
Date: 05-23-2024

R-24W

R-23W

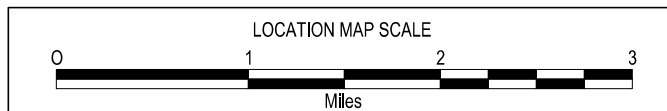
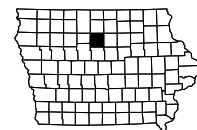
HANCOCK CO.

CERRO GORDO CO.

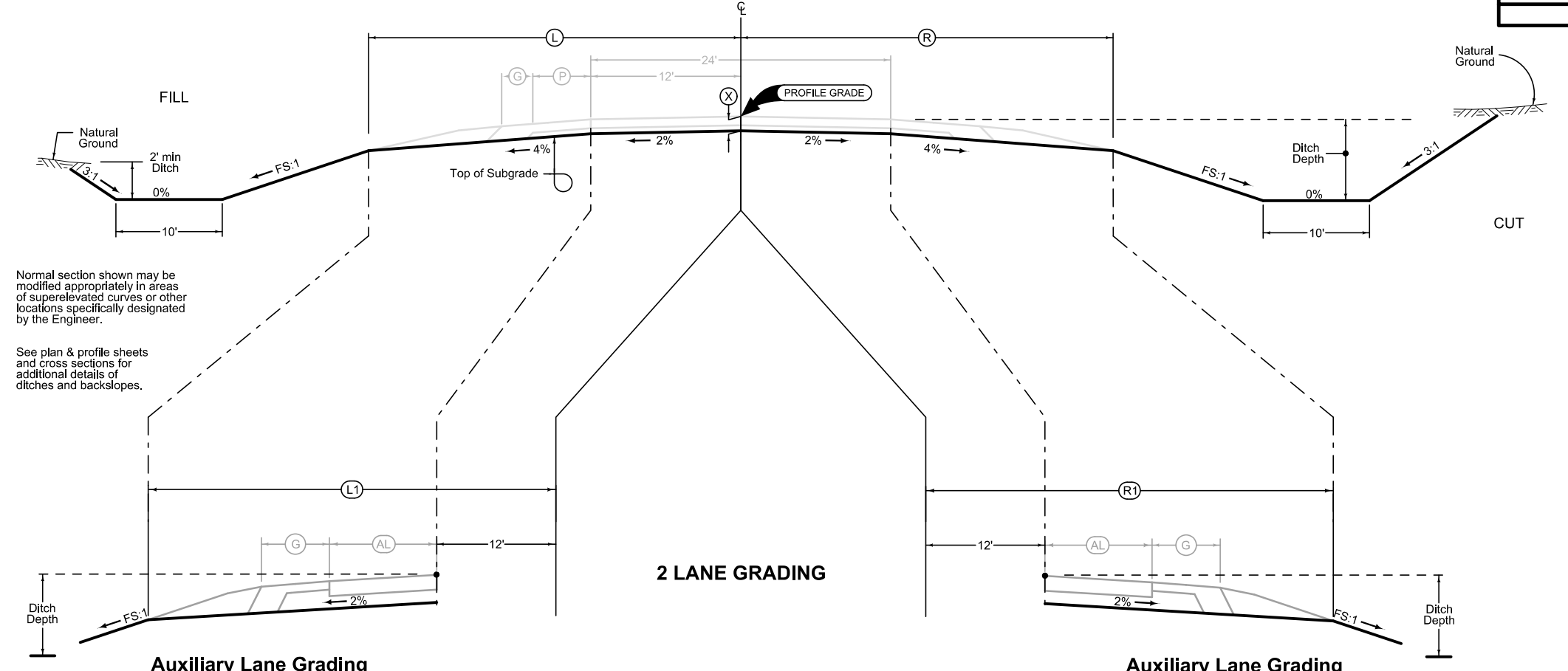


Existing Bridge over Iowa River
 MP 174.2, Sta 395+59.30
 Asset ID: 054310
 Maint. No.: 9974.2S069

Proposed Bridge
 MP 174.2, Sta 395+59.30
 Asset ID: 054311
 Design No.: 0126



LOCATION		DIMENSIONS			
ROAD IDENTIFICATION	STATION TO STATION	(L) Feet	(R) Feet	(X) Inches	FS
US 69	392+25.00 - 393+57.85	(1)	(1)	22.0	3
(1) See Auxiliary Lane Grading					



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

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

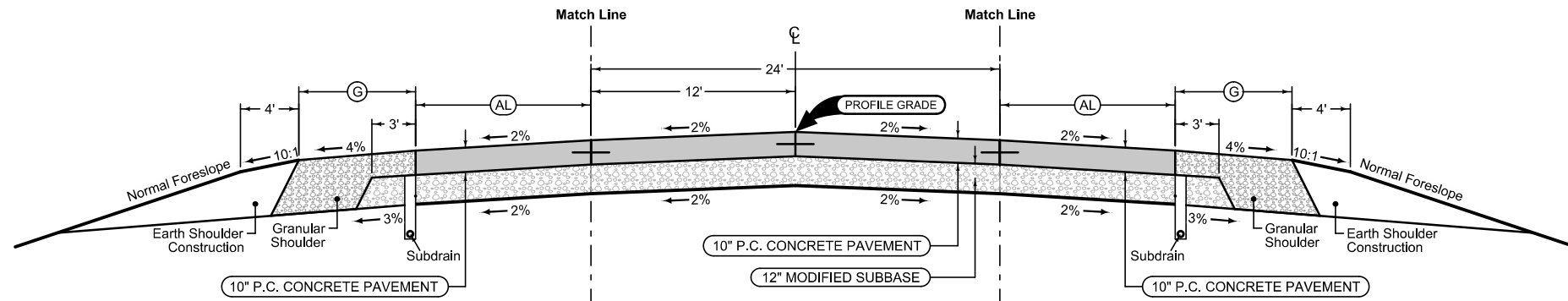
Auxiliary Lane Grading

LOCATION			(L1)
ROAD IDENTIFICATION	STATION TO STATION		Feet
US 69	392+25.00	393+57.85	40.5 - 41.7

Auxiliary Lane Grading

LOCATION			(R1)
ROAD IDENTIFICATION	STATION TO STATION		Feet
US 69	392+25.00	393+57.85	42.3 - 40.8

Grade_1



Auxiliary Lane
 Longitudinal joint: L or KT
 Transverse joint: Match Mainline

Auxiliary Lane Granular Shoulder

		4_AuxLane_PCC_10-18-16		4_AL_Shldr_G_04-21-20	
Direction of Travel	BEGIN STATION	END STATION	(AL) Feet	(G) Feet	
SB	392+25.00	393+57.85	8.6 - 12	6	

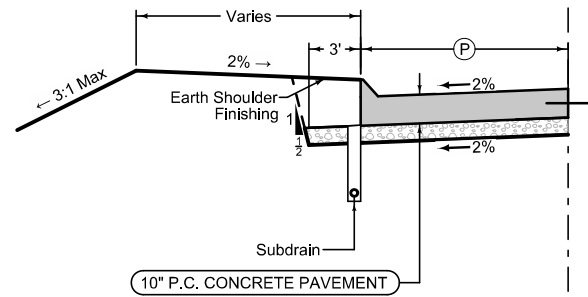
Mainline Jointing:
 Transverse joints: CD at 17' spacing
 Longitudinal joint: L-2

STATION TO STATION	
392+25.00	393+87.50
Bridge & Approaches	
397+60.64	398+87.50

Auxiliary Lane
 Longitudinal joint: L or KT
 Transverse joint: Match Mainline

Auxiliary Lane Granular Shoulder

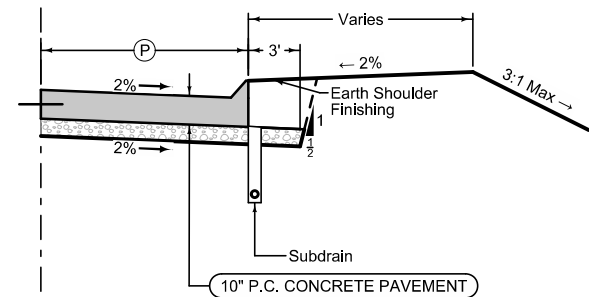
		4_AuxLane_PCC_10-18-16		4_AL_Shldr_G_04-21-20	
Direction of Travel	BEGIN STATION	END STATION	(AL) Feet	(G) Feet	
NB	392+25.00	393+57.85	8.6 - 12	6	



Curbed Auxiliary Lane
 Jointing:
 Single pour: L-2
 Staged: KT-2
 Transverse: C at 17' spacing

STATION TO STATION		(P) Feet	Curb Type See PV-102
397+60.64	397+79.76	12.5 - 26.4	4" Sloped
397+79.76	398+87.50	12.5	4" Sloped *

* Transition 5' from 4" Sloped to 6" Standard at end of project per PV-102



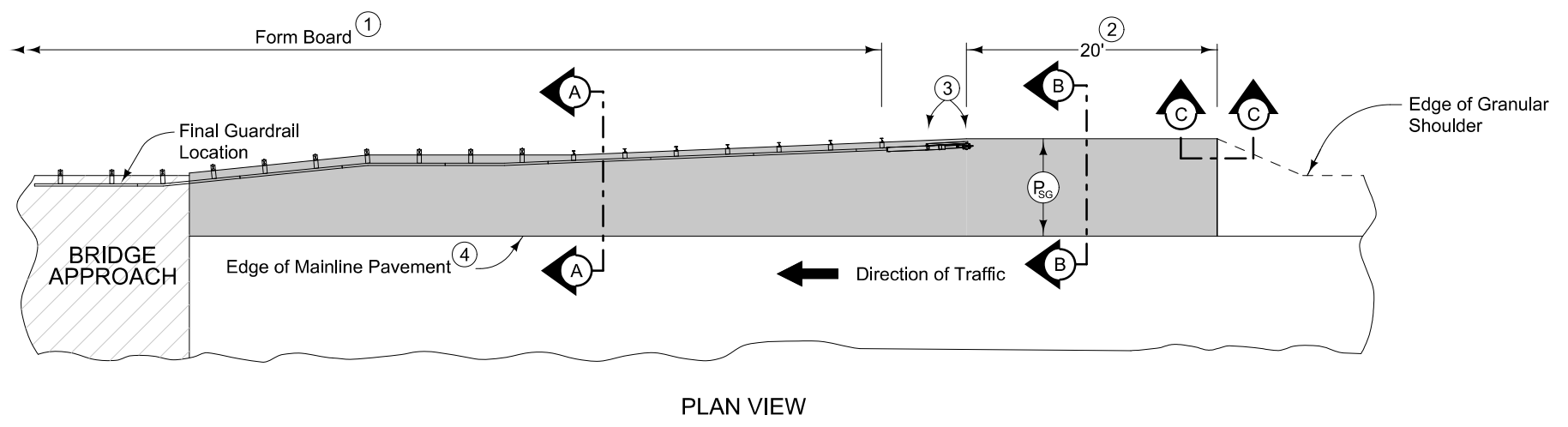
Curbed Auxiliary Lane
 Jointing:
 Single pour: L-2
 Staged: KT-2
 Transverse: C at 17' spacing

STATION TO STATION		(P) Feet	Curb Type See PV-102
397+60.64	397+79.76	12.5 - 26.4	4" Sloped
397+79.76	398+87.50	12.5	4" Sloped *

* Transition 5' from 4" Sloped to 6" Standard at end of project per PV-102

See Tab 100-24 for pavement quantities.
 See Tab 112-9 for shoulder quantities.

US HIGHWAY 69

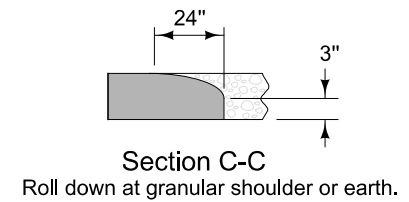
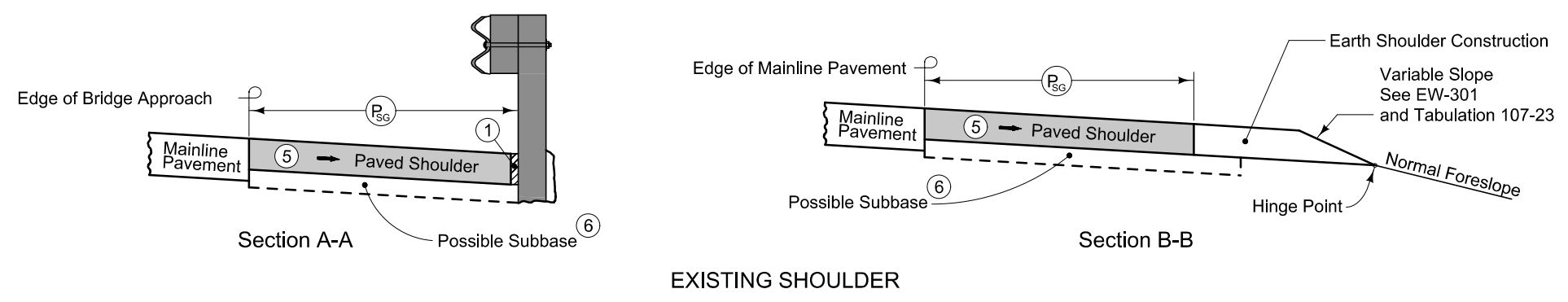
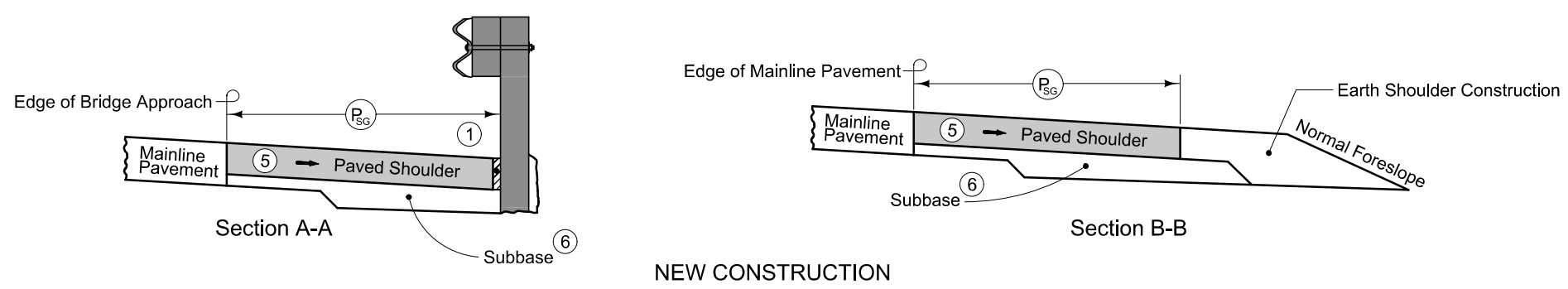


8" PCC Paved Shoulder at guardrail with the following jointing layout:

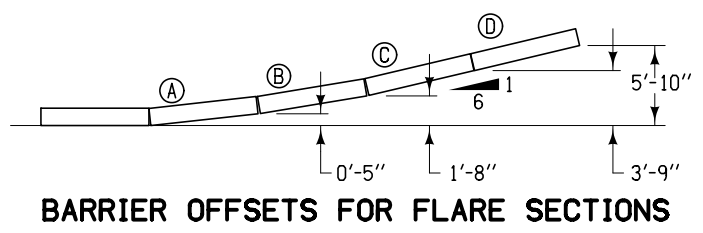
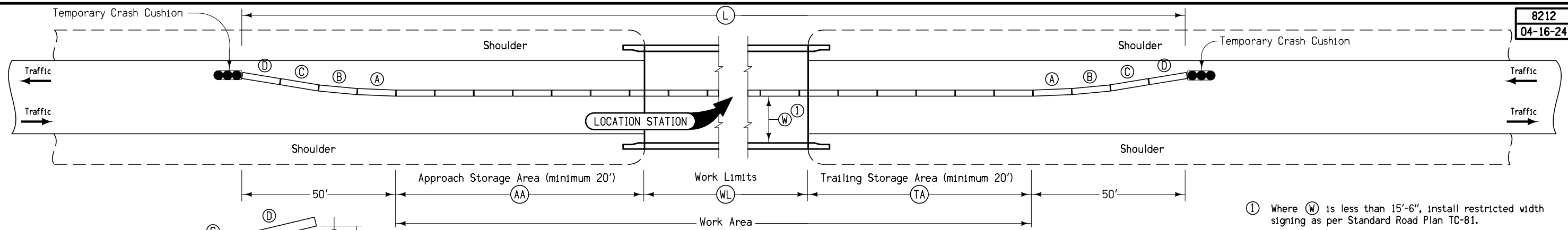
Match mainline pavement joint spacing. When mainline pavement is 8" or greater in thickness, place additional transverse 'C' joints in shoulder at mid-panel of the mainline pavement. Place longitudinal 'C' joint at P/2 from edge of mainline pavement when P is greater than 10' wide. Terminate longitudinal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

Refer to Tabulation 112-9 for shoulder quantities.

- ① 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' joint (per PV-101) for PCC shoulder.
- ⑤ Design shoulder slope.
- ⑥ Refer to other details in the plan.



PAVED SHOULDER AT GUARDRAIL
(GRANULAR SHOULDER ADJACENT TO MAINLINE)



Station	Side	AA	WL	TA	L	Anchored	W ^①	Remarks
		Feet	Feet	Feet	Feet	X	Ft-Inches	
Stage 1 395+59.3	NB	32	662.5	32	726.5	X	16'-0"	* TBR anchored from Sta. 392+05.50 to Sta 399+05.50
Stage 2 395+59.3	SB	32	662.5	32	726.5		19'-0"	

① Where W is less than 15'-6", install restricted width signing as per Standard Road Plan TC-81.

**STAGE 1 & Stage 2
TEMPORARY CONCRETE BARRIER LAYOUT
for Two-Way 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
- Water Hydrant (Rural)
- Septic Tank
- Cistern
- L.P. Gas Tank (No Footing)
- Underground Storage Tank
- Latrine
- Satellite TV Dish
- Water Hook Up
- Radio Tower
- Tower Anchor
- Guardrail (Beam or Cable)
- Guard Post (one or two)
- Guard Post (over two)
- Filler Pipe
- Gas Valve
- Water Valve
- Speed Limit Sign
- Mile Marker Post
- Sign
- Traffic Signal Control Box
- Rail Road Signal Control Box
- Telephone Switch Box
- Electric Box

UTILITY LEGEND

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

- EL1D, Alliant Energy - Quality D
- FO1D, Communications One Network Inc. - Quality D
- FO2D, Aureon Network Services - Quality D
- SA1D, City of Belmond - Quality D
- ST1D, City of Belmond - Quality D
- TL1D, Frontier Communications - Quality D
- WL1D, City of Belmond - Quality D
- PPA, Alliant Energy

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
- 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
- Access Control
- Property Line

PLAN AND PROFILE LEGEND AND SYMBOL INFORMATION SHEET

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

Belmond TWP.
T-93N R-24W
SEC. 25

Iowa River

UAC
Sta. 401+64.8
Skew 55° LT AH
24"x60' RCP

390+00

STA 392+25.00 (ML069)
BEGIN CONSTRUCTION

UAC/Remove?
30"x109'
C.M.P.

395+00

400+00

69

UAC

UAC

UAC

UAC

UAC

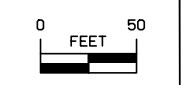
UAC
12"x36'
C.M.P.

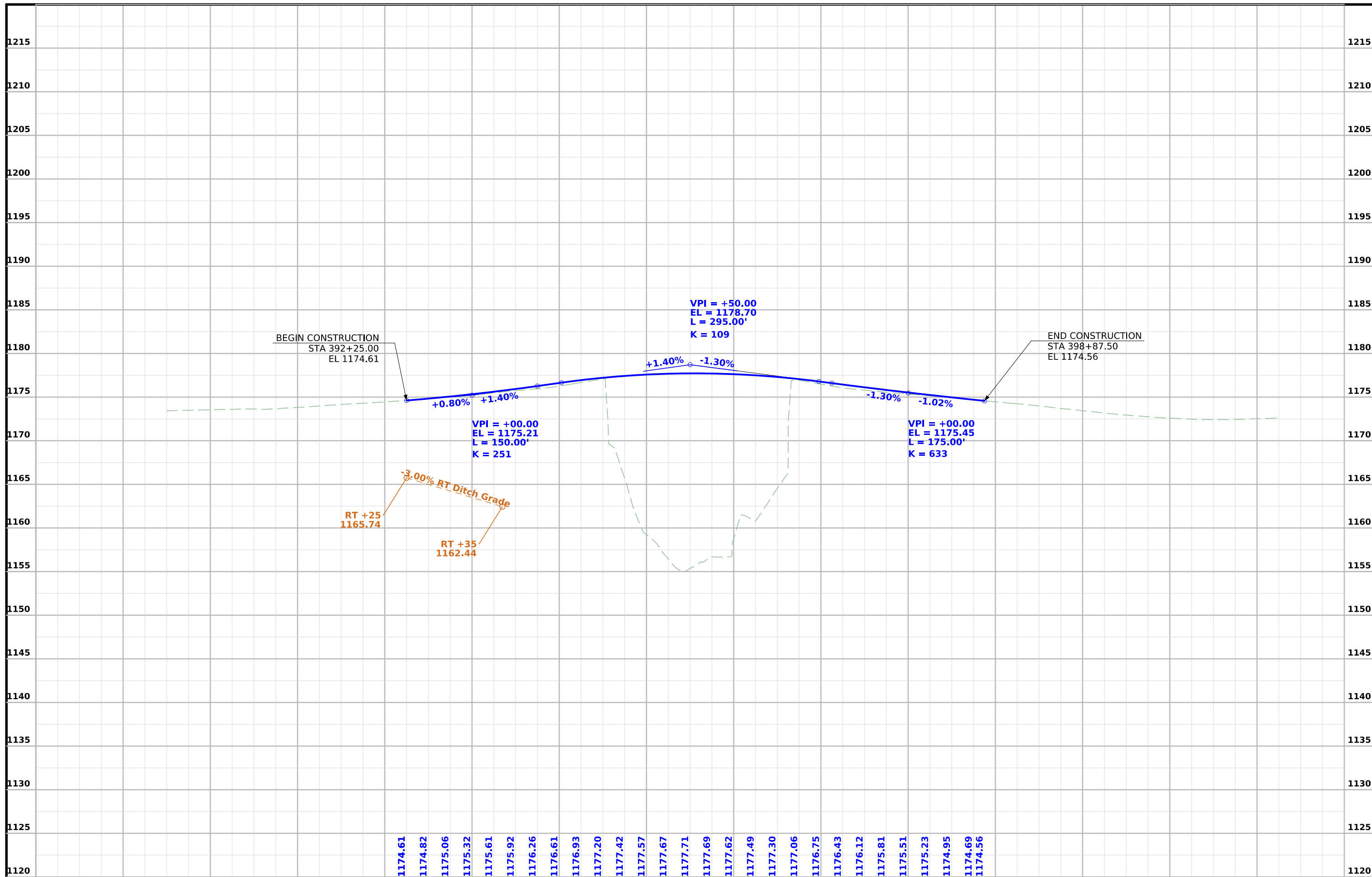
STA 398+87.50 (ML069)
END CONSTRUCTION

5th St SE

Pleasant TWP.
T-93N R-23W
SEC. 30

Remove
Sta. 395+59.3
Skew 35°LT AH
54'x210'
Steel I-Beam Bridge
D.A.=360 Sq. Ml. (per plan)
Sta 395+59.30
Build 229'-0" x 54'-0"
Pretensioned Prestressed Concrete Beam Bridge





388+00	389+00	390+00	391+00	392+00	393+00	394+00	395+00	396+00	397+00	398+00	399+00	400+00	401+00	402+00	403+00												
1174.61	1174.82	1175.06	1175.32	1175.61	1175.92	1176.26	1176.61	1176.93	1177.20	1177.42	1177.57	1177.67	1177.71	1177.69	1177.62	1177.49	1177.30	1177.06	1176.75	1176.43	1176.12	1175.81	1175.51	1175.23	1174.95	1174.69	1174.56

Survey Information

SURVEY INDEX

County: Wright
PIN: 21-99-069-010
Project Number: BRF-069-7(45)--38-99
Location: Iowa River 1.4 mi S of S Jct Co Rd C20 in Belmond
Type of Work: Bridge Unspecified
Project Directory: 9906901021

Survey Personnel

John Hahn – Survey Party Chief
Robert Frederickson – Assistant Survey Party Chief

Date(s) of Survey

Begin Date 04/11/2022
End Date 09/12/2022

General Information

Measurement units for this survey are US survey feet. This is a full DTM survey for US Hwy 69 Bridge Replacement over the Iowa River 1.4 miles south of the South Junction of County Road C20 in Belmond.

Project Control

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

PROJECT DATUM: NAD83(2011) EPOCH 2010.00
VERTICAL DATUM: NAVD88
COORDINATE SYSTEM: IOWA REGIONAL COORDINATE SYSTEM ZONE 4

Alignment Information

Alignment for Iowa Highway 69 and the bridge over the Iowa River was a retrace of As-built Plans FN-69-7(2)--20-99 and F-267. Survey stationing was equated to the plan bridge station 395+59.3 and run back and ahead without equation.

Survey stationing relates to As-built plan stationing as follows:

PI (SE Cor. Sec. 25) Sta. 376+01.0 Plan F-267
= Survey PI Sta. 376+00.32

POST (E ¼ Cor. Sec. 25) Sta. 402+70.0 Plan FN-69-7(2)--20-99
= Survey POST Sta. 402+69.3

Utility Information

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

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) EPOCH 2010.00 - Ia. RCS Zone 04
VERT. DATUM: NAVD88 - Geoid Model g2012bu3

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

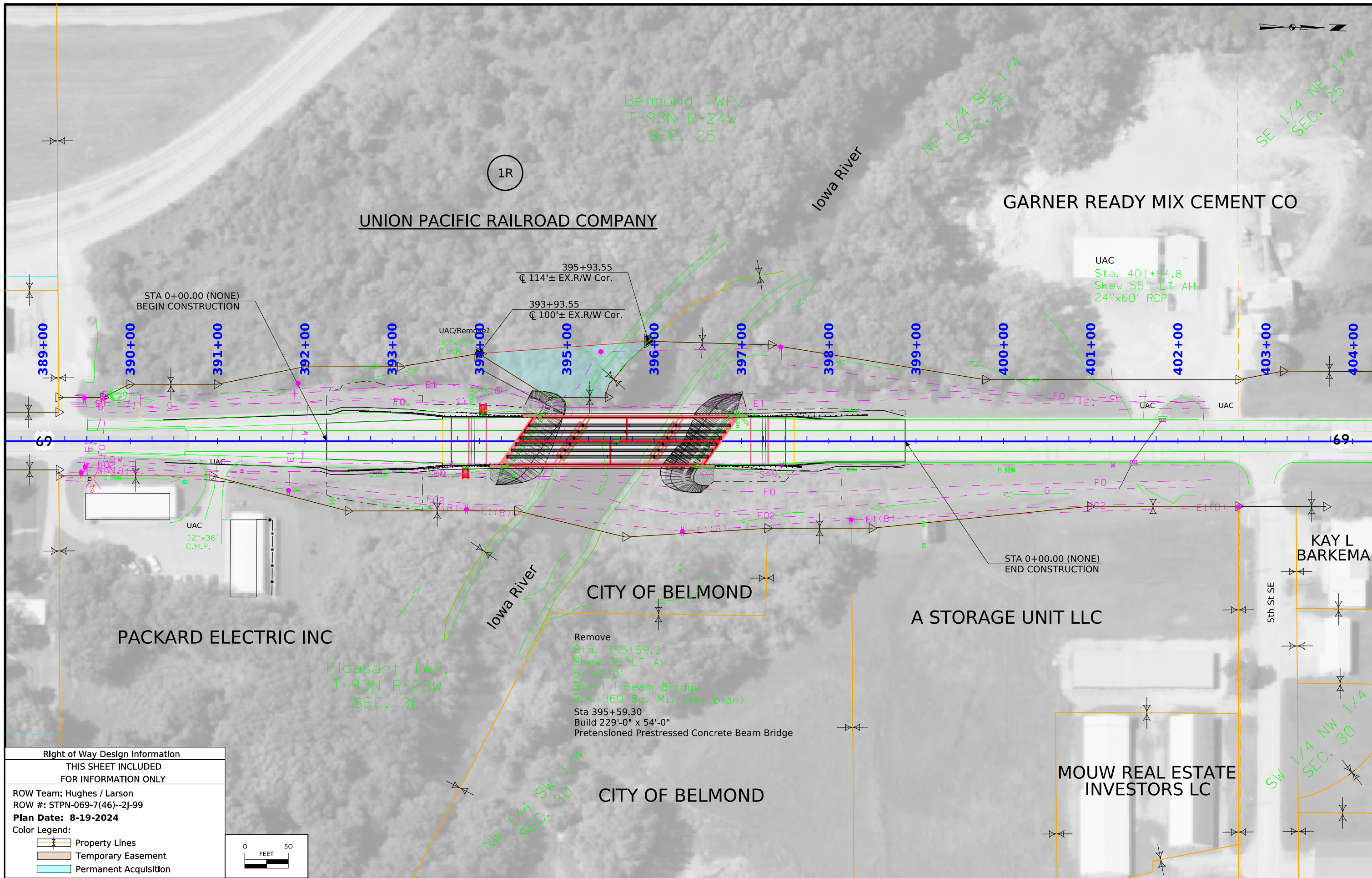
HORIZ. DATUM: NAD83(2011) EPOCH 2010.00
 1a. Regional Coordinate System Zone 04

VERT. DATUM: NAVD88
 Geoid Model g2012bu3
 Project Control Marks are Bench Marks

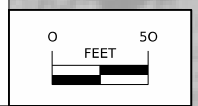
Point Name	Northing	Easting	Elevation	Code/Description
0020	8706212.86	14826783.97	1165.21	CP FD WRIGHT CO GPS CONTROL MONUMENT AS DESCRIBED IN GOOD CONDITION
0019	8706549.00	14813611.80	1211.15	CP FD WRIGHT CO GPS CONTROL MONUMENT AS DESCRIBED IN GOOD CONDITION
990691743	8714550.02	14826314.46	1172.14	CP SET CUT X BACK OF CATCH BASIN -149 FT S OF CL OF 5TH ST SE- 27 FT E OF CL OF HWY 69- 1055 FT N OF COMMERCIAL DRIVE ON E SIDE
99002	8717909.35	14826288.47	1172.67	CP FD FENO-42 FT E OS CL OF HWY69-23FEET S OF CL OF PARKING LOT ENT-19 FT W OF NE CRNR FAREWAY PARKING LOT
0011	8722615.33	14826104.62	1180.25	CP FD WRIGHT CO GPS CONTROL MONUMENT AS DESCRIBED IN GOOD CONDITION

NOTE:

The first two digits in the control point name refer to the county number.
 The next 3 digits refer to the highway number.
 The next 3 digits refer to the highway milepost.
 The last digit refers to the distance from the referenced milepost to the nearest tenth of a mile.



Right of Way Design Information	
THIS SHEET INCLUDED FOR INFORMATION ONLY	
ROW Team: Hughes / Larson	
ROW #: STPN-069-7(46)--2J-99	
Plan Date: 8-19-2024	
Color Legend:	
	Property Lines
	Temporary Easement
	Permanent Acquisition



108-23A
08-01-08

TRAFFIC CONTROL PLAN

US 69 traffic will be maintained at all times during construction.

108-26A
08-01-08

STAGING NOTES

Stage 1
Traffic: Shift to one lane traffic on existing NB outside lane of bridge using traffic signals.
Construction: Remove SB portion of Bridge and build 27' of new bridge deck and SB lanes.

Stage 2
Traffic: Shift to one lane traffic on new SB lanes of bridge and shift to new outside SB lane of bridge using traffic signals.
Construction: Remove NB portion of bridge and build 27' of new bridge deck and NB lanes.

Stage 3
Traffic: Remove temporary traffic signals and open all lanes of US 69 to normal traffic.

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	

108-25
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
			No travel restrictions expected									

CROSS SECTION VIEW COLOR LEGEND OF TRAFFIC CONTROL AND STAGING SHEETS

SHADING	Design Color No.	
Green, Light	(225)	Existing Pavement Shading
Gray, Light	(48)	Previously Constructed Pavement Shading
Gray, Med	(80)	Previously Constructed Granular Surface Shading
Blue, Light	(230)	Proposed Pavement Shading
Lavender	(9)	Temporary Pavement Shading
Brown, Med	(237)	Future Proposed Pavement Shading

CROSS SECTION VIEW PATTERN AND SYMBOL LEGEND OF TRAFFIC CONTROL AND STAGING SHEETS





















	Pavement Removal		Proposed Granular Shoulder
	Proposed Granular Subbase		Temporary Shoulder
	Proposed Special Backfill		Existing Shoulder Strengthening
	Temporary Barrier Rail		Permanent Barrier Rail
			Channelizing Device

PLAN VIEW COLOR LEGEND OF TRAFFIC CONTROL AND STAGING SHEETS

LINEWORK	Design Color No.	
Green	(2)	Existing Topographic Features and Labels
Magenta	(5)	Pavement Marking Call Outs
Blue	(1)	Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation
Yellow	(4)	Pavement Markings, Yellow
Off White	(254)	Pavement Markings, White
Violet	(15)	Temporary barrier rail, Unpinned
Flush Orange	(228)	Temporary barrier rail, Pinned

SHADING	Design Color No.	
Green, Light	(225)	Existing Pavement Shading
Gray, Light	(48)	Previously Constructed Pavement Shading
Gray, Med	(80)	Proposed Granular Surface Shading
Gray, Med	(80)	Previously Constructed Granular Surface Shading
Blue, Light	(230)	Proposed Pavement Shading
Lavender	(9)	Temporary Pavement Shading
Brown, Light	(236)	Proposed Grading Limits Shading
Pink, Dark	(13)	Proposed MSE or CIP Wall Shading
Red	(3)	Proposed Bridge Shading and Sign Trusses
Black w/Gray, Light Fill	(0,48)	Previously Constructed Structure

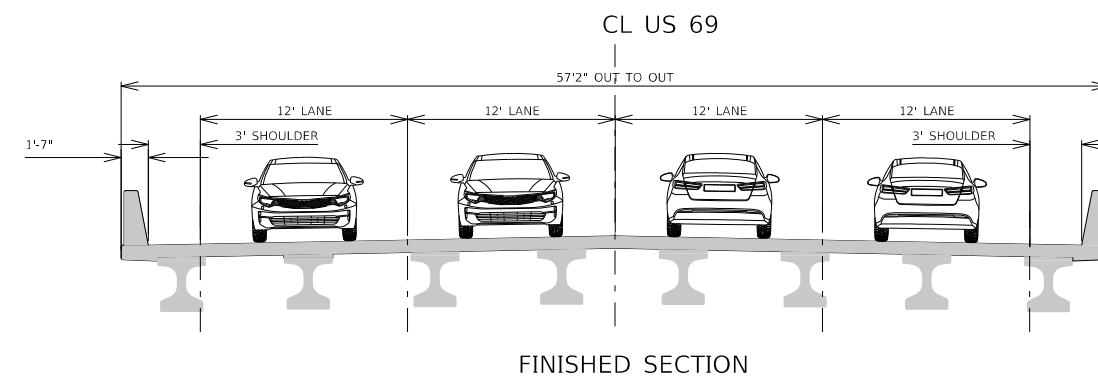
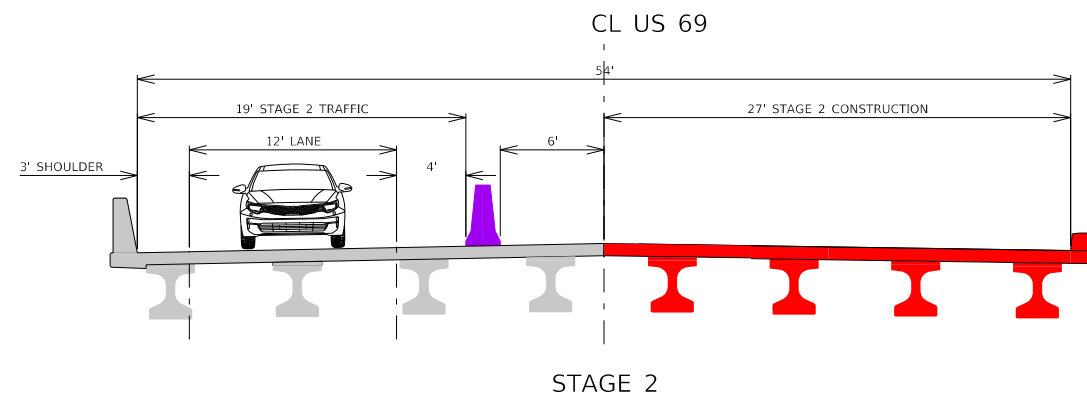
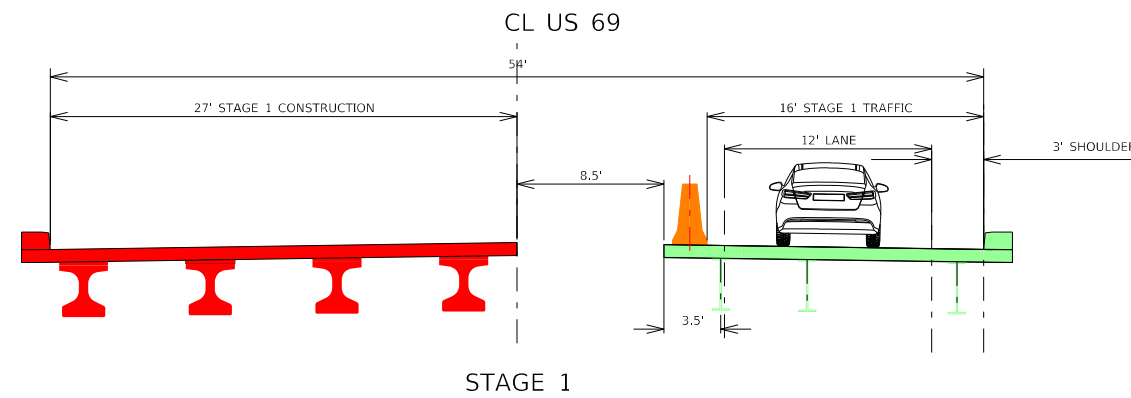
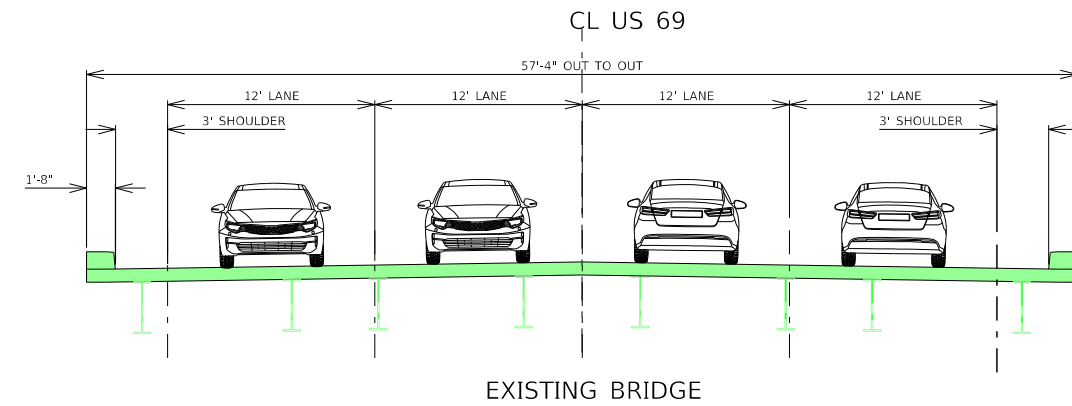
PLAN VIEW PATTERN AND SYMBOL LEGEND OF TRAFFIC CONTROL AND STAGING SHEETS

	Channelizing Device		Crash Cushion (Temp or Perm)
	Drum		Traffic Signal
	Temporary Lane Separator		Flagger
	Tubular Marker		Temporary Floodlighting
	Channelizer Marker		Traffic Sign
	Concrete Barrier Marker		Type III Barricade
	Delineator		Type A Warning Light
	Temporary Barrier Rail		Direction of Traffic
	Pavement Removal		Safety Closure
	Sand Barrel Layout		Lane Identification

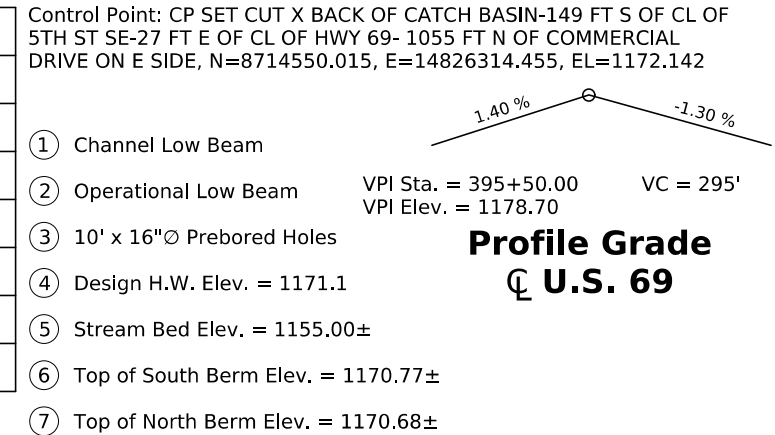
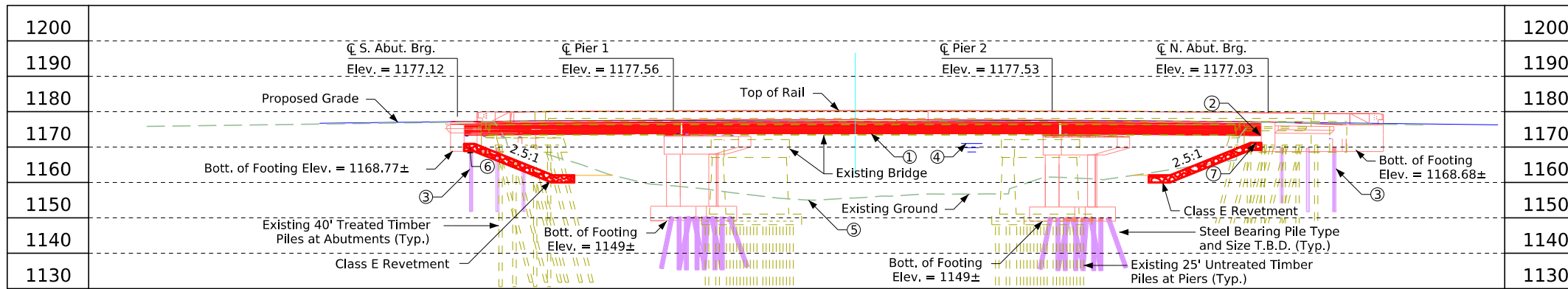
NOTE: Device spacing according to Standard Road Plans unless specifically dimensioned.

TRAFFIC CONTROL AND STAGING LEGEND AND SYMBOL INFORMATION SHEET

(COVERS SHEET SERIES J)



Staging Typical
US 69 over Iowa River



Longitudinal Section Along Centerline Approach Roadway

Hydraulic Data

RIDB: IowaR_324.20
Drainage Area = 351 Sq. Mi.
Stream Slope = 1.11 Ft./Mi.
Avg. Low Water Stage = 1157.0

Q₂₅ = 6,590 cfs
Stage = 1170.3

Q₅₀ = 8,010 cfs
Stage = 1171.1
Channel Low Beam = 1173.1
Avg. Bridge Velocity = 4.3 fps

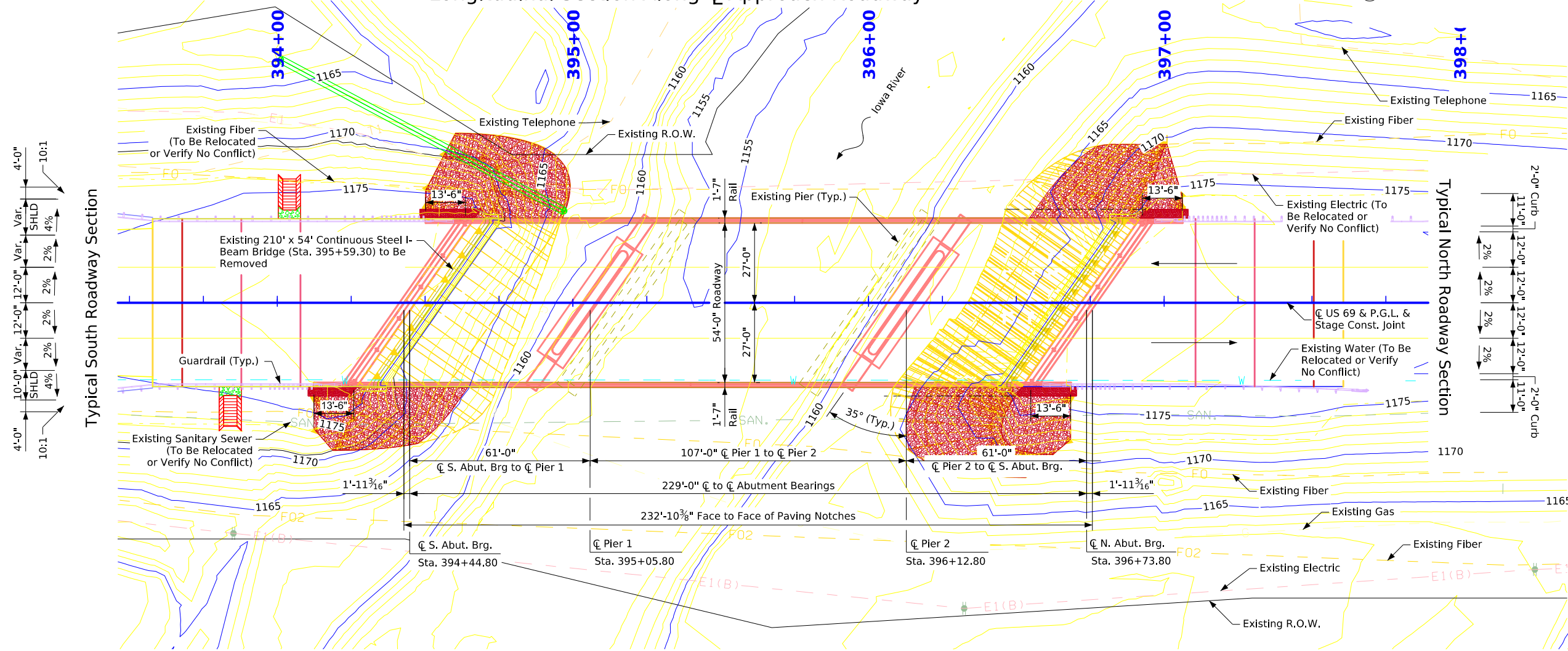
Q₁₀₀ = 9,530 cfs
Stage = 1171.7
Backwater = -0.08 Ft./0.31 Ft.
Operational Low Beam = 1172.4
Avg. Bridge Velocity = 4.7 fps

Q₂₀₀ = 11,170 cfs
Stage = 1172.3
Avg. Bridge Velocity = 5.8 fps
Calculated Design Scour = 1145.0

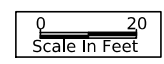
Q₅₀₀ = 13,440 cfs
Stage = 1173.1
Avg. Bridge Velocity = 6.3 fps
Calculated Check Scour = 1143.8

Roadway Overtop = 9,970 cfs
Roadway Overtop Elev. = 1172.4
Sta. 401+57

Backwater references change from existing/pre-development condition.



Situation Plan



Utilities Note:
Utilities shown on this sheet are for information only. See Road Design sheets for utility information. Conflicts with existing utilities and need for potential relocations to be confirmed in Final Design.

General Utility Symbols:
E1 - Electric Line
SAN. - Sanitary Sewer
G - Gas Line
T1 - Telephone Line
FO - Fiber Optic Line
FO2 - Fiber Optic Line
W - Water Line

Location:
US 69 over Iowa River
T-93N R-23W & R-24W
Section 30
Belmond & Pleasant Township
Wright County
City of Belmond
Maint. No. 9974.25069
FHWA No. 54311
Latitude: 42.839566
Longitude: -93.616838

Traffic Data

2022 AADT	3210	V.P.D.	14 %
TRUCKS			

Preliminary

Design For 35° Skew LA

229'-0" x 54'-0" Prestressed Concrete Beam Bridge

61'-0" End Spans BTB Beams 107'-0" Interior Span

Situation Plan

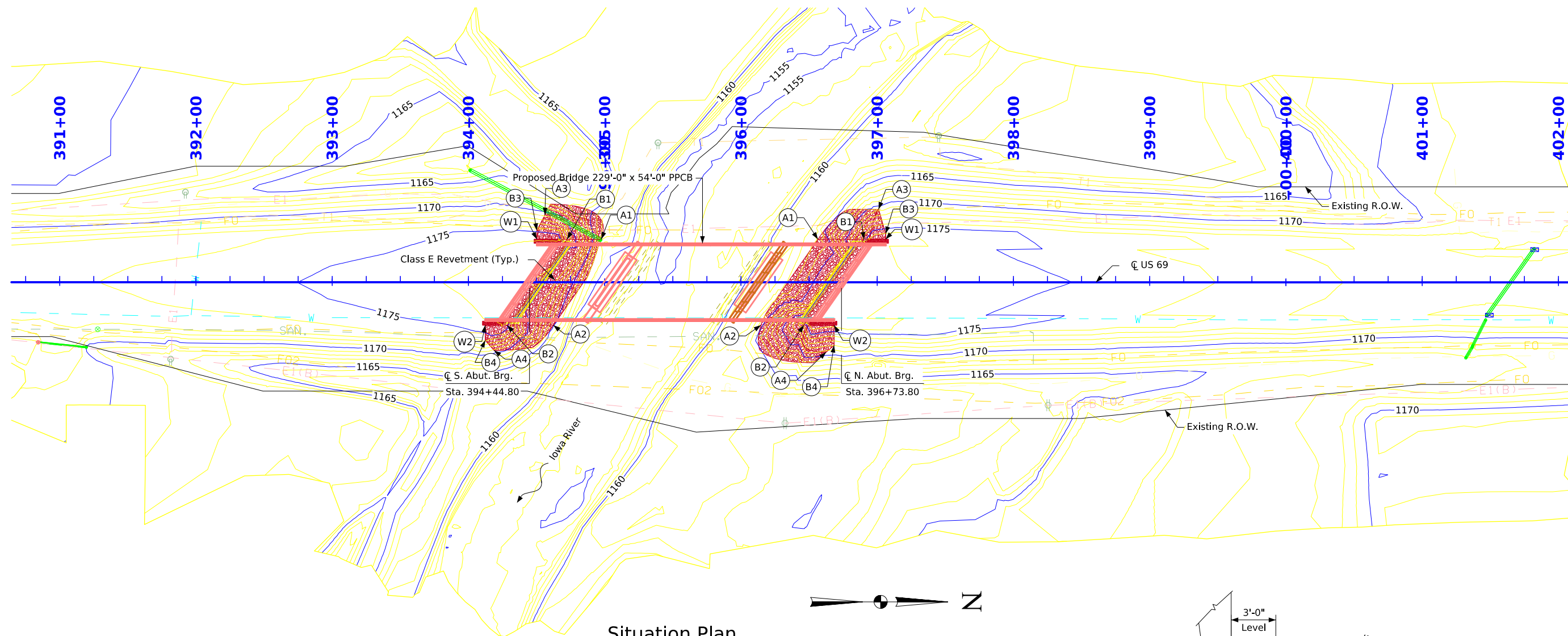
STA. 395+59.30 (US 69)

Wright County

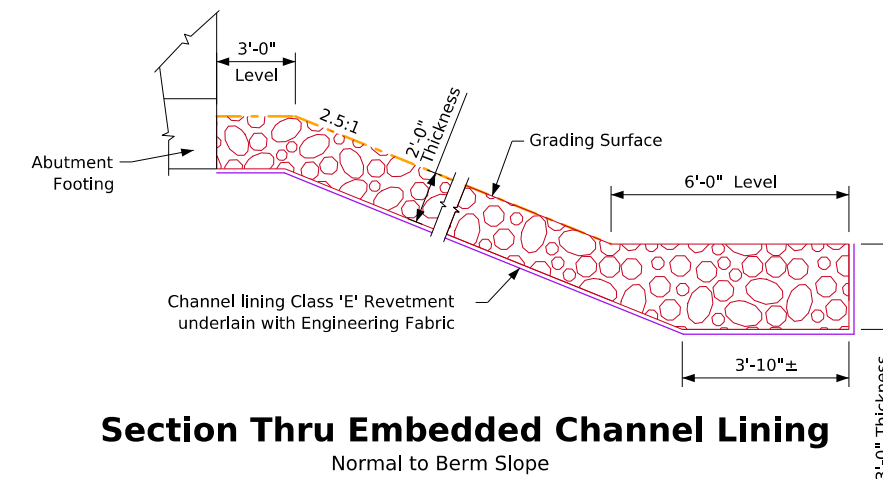
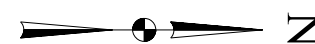
IOWA DEPARTMENT OF TRANSPORTATION

Design No. 126 Design Sheet No. 1 of 3 FHWA No. 54311

Control Point: CP SET CUT X BACK OF CATCH BASIN-149 FT S OF CL OF 5TH ST SE-27 FT E OF CL OF HWY 69- 1055 FT N OF COMMERCIAL DRIVE ON E SIDE, N=8714550.015, E=14826314.455, EL=1172.142



Situation Plan



Section Thru Embedded Channel Lining
Normal to Berm Slope

Berm Slope Location Table						
Points	South Abutment			North Abutment		
	Station	Offset	Elev.	Station	Offset	Elev.
A1	394+97.57	31.58' Lt	1162.00	396+56.50	31.58' Lt	1162.00
A2	394+62.37	31.58' Rt	1162.00	396+14.63	31.58' Rt	1162.00
A3	394+56.12	49.33' Lt	1170.77	397+00.99	53.61' Lt	1170.68
A4	394+18.81	49.96' Rt	1170.77	396+62.47	51.28' Rt	1170.68
B1	394+72.51	31.58' Lt	1170.77	396+90.32	31.58' Lt	1170.68
B2	394+28.53	31.58' Rt	1170.77	396+46.09	31.58' Rt	1170.68
B3	394+50.21	37.98' Lt	1174.70	397+06.21	35.65' Lt	1176.06
B4	394+12.39	42.66' Rt	1174.04	396+68.39	46.25' Rt	1172.07
W1	394+50.21	31.58' Lt	1176.81	397+06.21	31.58' Lt	1176.32
W2	394+12.39	31.58' Rt	1176.28	396+68.39	31.58' Rt	1176.91

Berm slope elevations reflect the grading surface.

Estimated Berm Armoring Quantities			
Location	Revetment CL. E (Ton)	Engineering Fabric (SY)	CL. 10 Channel Excavation (CY)
South Abutment Berm	480.3	708.4	300.2
North Abutment Berm	536.5	777.6	335.3
Totals	1016.8	1486.0	635.5

Excavation quantity calculated from grading surface. Excavation quantity is for embedded revetment core out only, and does not include excavation to the grading surface. Excavation quantity to the grading surface is determined by Road Design and included in the Road Plans.

Preliminary

Design For 35° Skew LA

**229'-0" x 54'-0" Prestensioned
Prestressed Concrete Beam Bridge**

61'-0" End Spans BTB Beams 107'-0" Interior Span

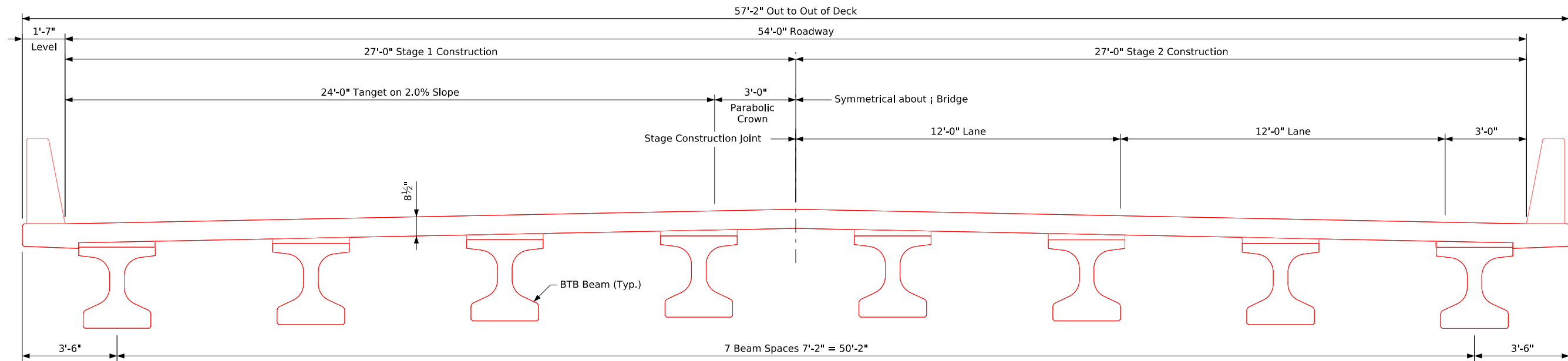
Situation Plan - Site

STA. 395+59.30 (US 69) November 2023

Wright County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. 126 Design Sheet No. 2 of 3 FHWA No. 54311



Transverse Section
Looking North

Plan Notes:

Top of bridge deck at centerline roadway is 0.03' below the profile.
 The bridge is designed to withstand the applicable effects of ice and the horizontal stream loads and uplift forces associated with the Q₁₀₀ flood.
 Class E revetment stone is embedded.

General Notes:

This design is for the replacement of the existing 210' x 54' Continuous I-Beam Bridge, Wright Design No. 167, FHWA No. 54310, Maint. No. 9974.25069.

Work under this design may involve removal of remnants of Wright Design No. 4832 (abutment wings and portions of piers).

Designer Notes:

TSS TL-4 Bridge Railing Proposed

Pier Type - Tee assumed 3'-2" width

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 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.

Final Design shall consider the need for temporary shoring to accommodate staging of the bridge construction and include in the final plans as necessary.

This bridge uses non standard abutment and pier widths.

Non-standard wing lengths are required.

Preliminary

Design For 35° Skew LA

**229'-0" x 54'-0" Prestensioned
Prestressed Concrete Beam Bridge**

61'-0" End Spans BTB Beams 107'-0" Interior Span

Situation Plan - Misc.

STA. 395+59.30 (US 69) Novemeber 2023

Wright County
IOWA DEPARTMENT OF TRANSPORTATION

Design No. 126 Design Sheet No. 3 of 3 FHWA No. 54311

CROSS SECTION VIEW COLOR LEGEND

Design Color No.	Feature	Design Color No.	Feature
Aggregate			
(64)	Choke Stone	(112)	Noise Wall
(42)	Engineering Fabric	(112)	Noise Wall Footing
(8)	Flooded Backfill	(112)	Retaining Wall Back
(92)	Macadam Stone	(112)	Retaining Wall Back Excavate
(20)	Modified	(112)	Retaining Wall Face
(12)	Plowing Shaping	(112)	Retaining Wall Front Excavate
(14)	Porous Backfill	(112)	Retaining Wall Front Footing
(8)	Revetment Class A	(112)	Retaining Wall MSE Gutter
(6)	Revetment Class B	(112)	Retaining Wall Reinforced Earth
(62)	Revetment Class C		
(188)	Revetment Class D	Grading	
(28)	Revetment Class E	(8)	Behind Curb Cut
(12)	Shoulder Special Backfill	(6)	Granular
(12)	Special Backfill	(13)	Granular Back Fill
(20)	Subbase	(48)	Rock Undercut
(20)	Subbase Lower	(8)	Shoulder Earth Fill
(20)	Subbase Upper	(2)	Side Slopes
(118)	Subgrade Treatment	(226)	Side Slopes Dressing
Asphalt			
(207)	HMA Base Course	Substrata	
(207)	HMA Interim Course	(128)	Boulder Substrata
(207)	HMA Surface Course	(48)	Broken Weathered Substrata
Concrete			
(0)	Barrier Concrete	(3)	Core Out Substrata
(0)	Barrier Concrete Footing	(203)	Existing Pavement Substrata
(0)	Curb Gutter	(6)	Loam Substrata
(48)	Flowable Mortar	(80)	Rock Substrata
(0)	Median Concrete	(4)	Select Sand Substrata
(0)	PCC Pavement	(3)	Shale Substrata
(0)	Sidewalk	(10)	Topsoil Substrata
Shoulder			
(209)	Shoulder HMA	Unsuitable / Waste	
(0)	Shoulder PCC	(3)	Unsuitable Type A
(6)	Shoulder Granular	(13)	Unsuitable Type B
		(11)	Unsuitable Type C
		(3)	Waste
Existing			
(0)	Existing Pavement		

NOTES:

Text

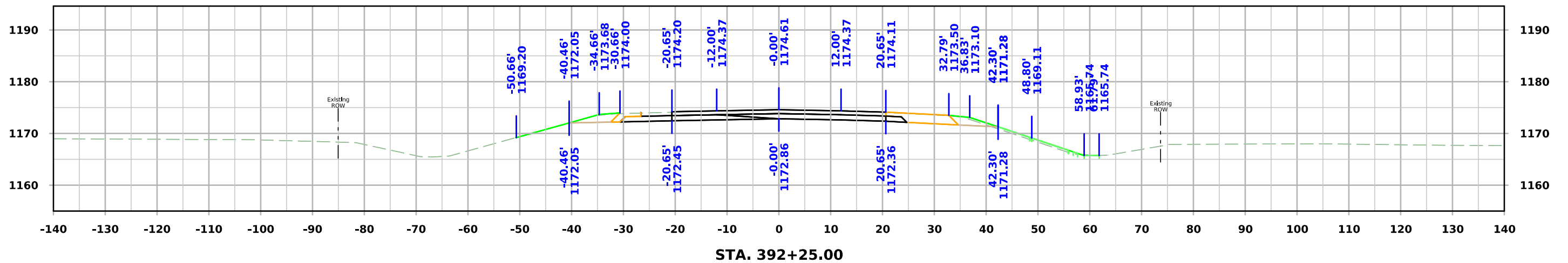
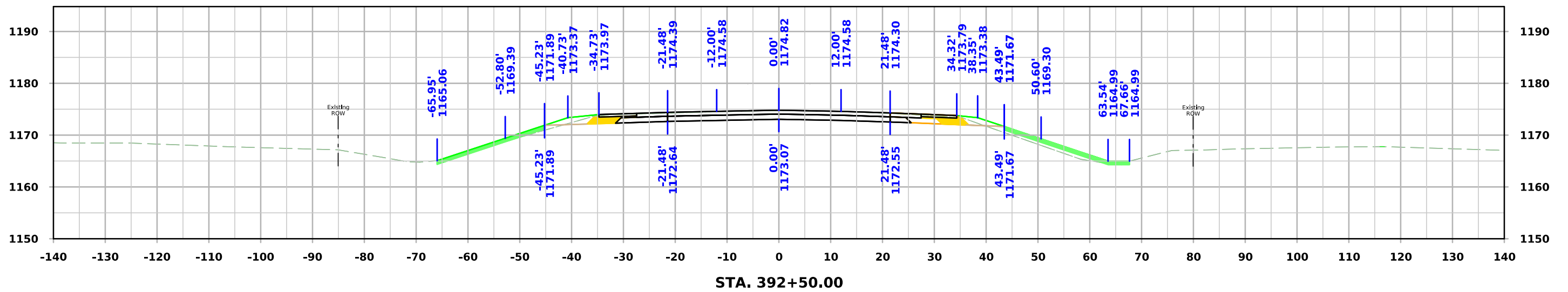
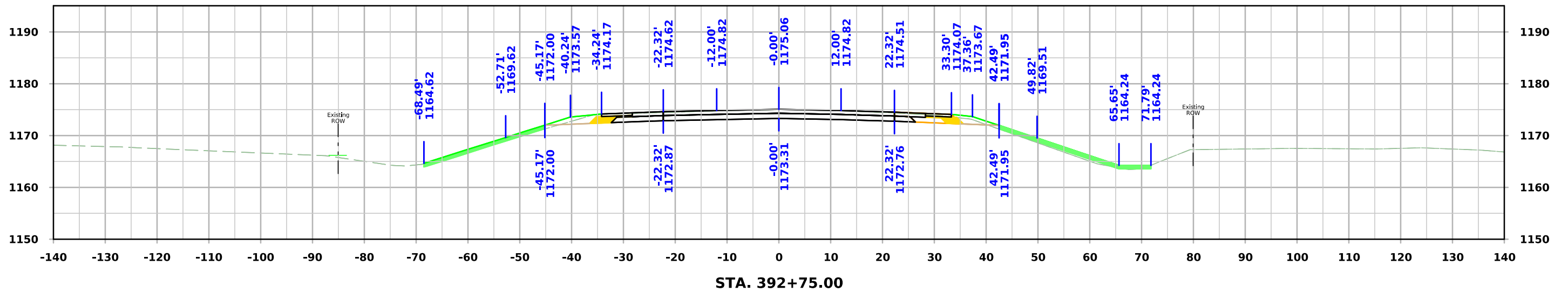
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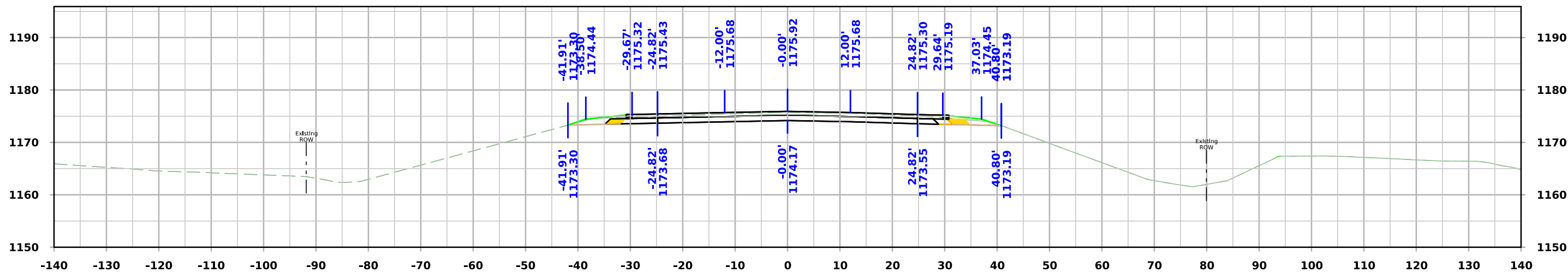
CROSS SECTIONS LEGEND AND INFORMATION SHEET

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

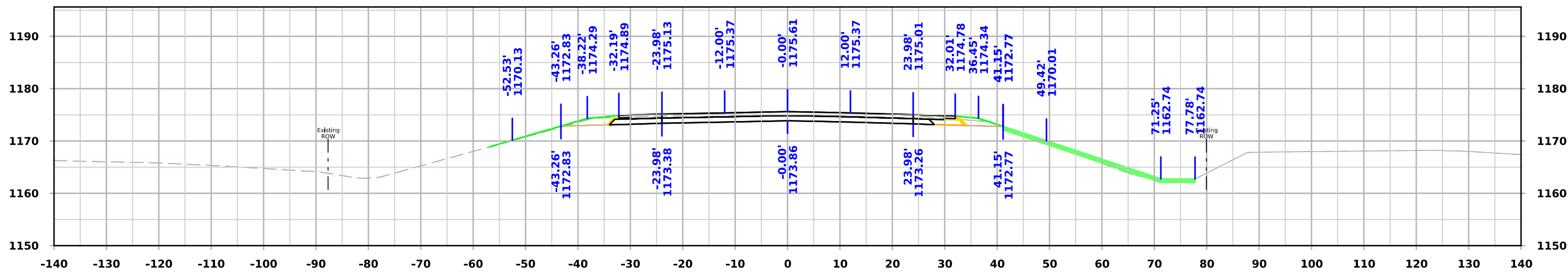
US 69



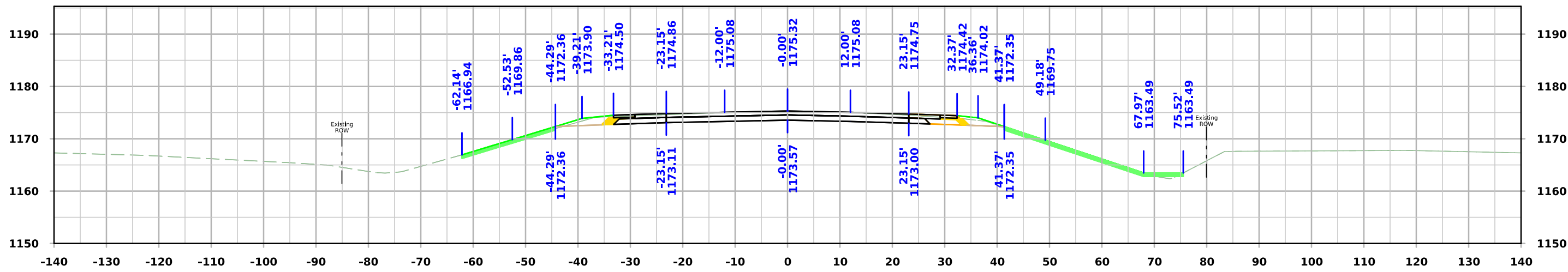
US 69



STA. 393+50.0

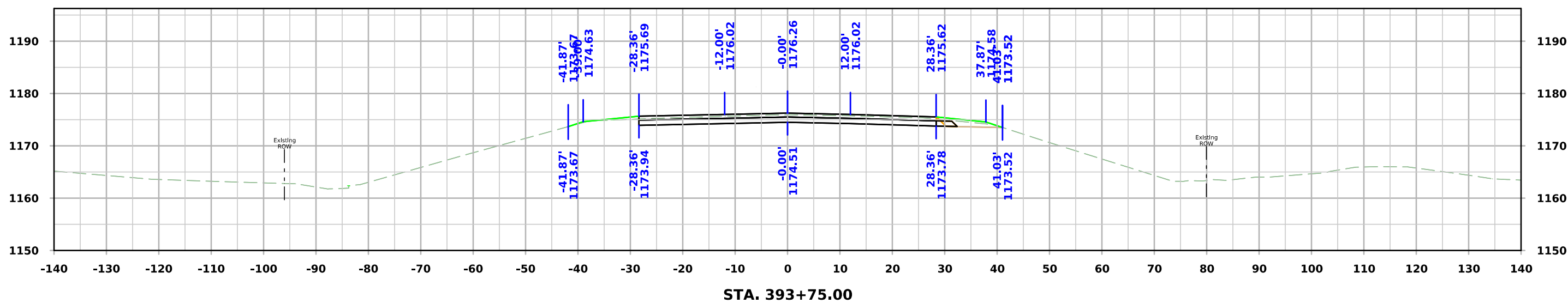
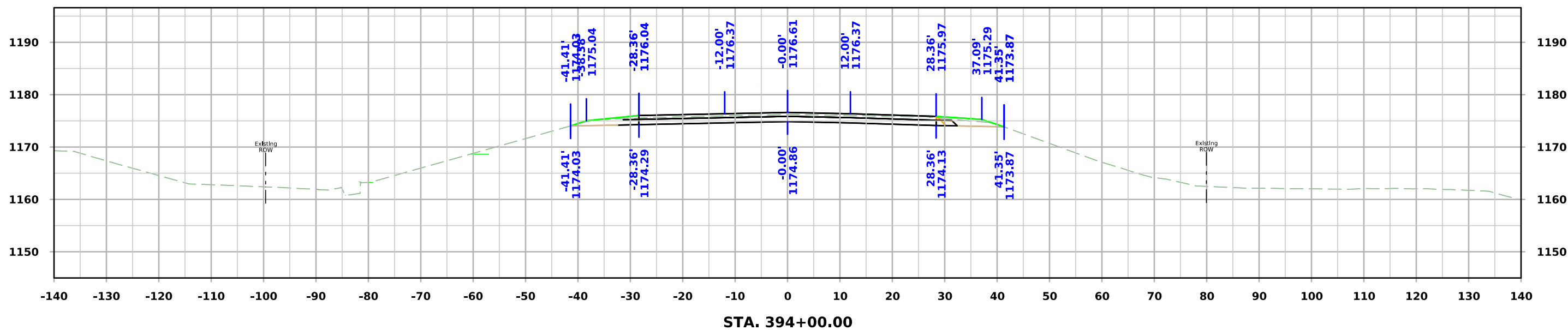


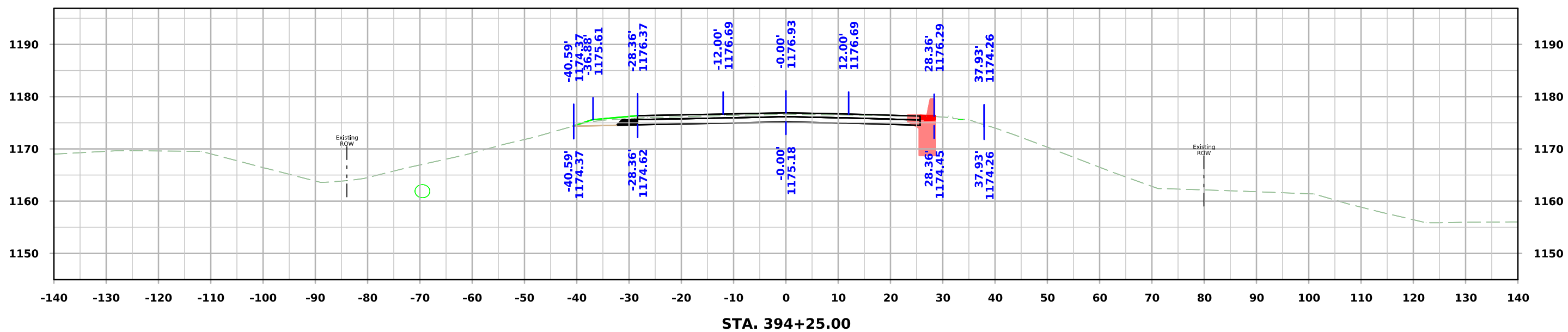
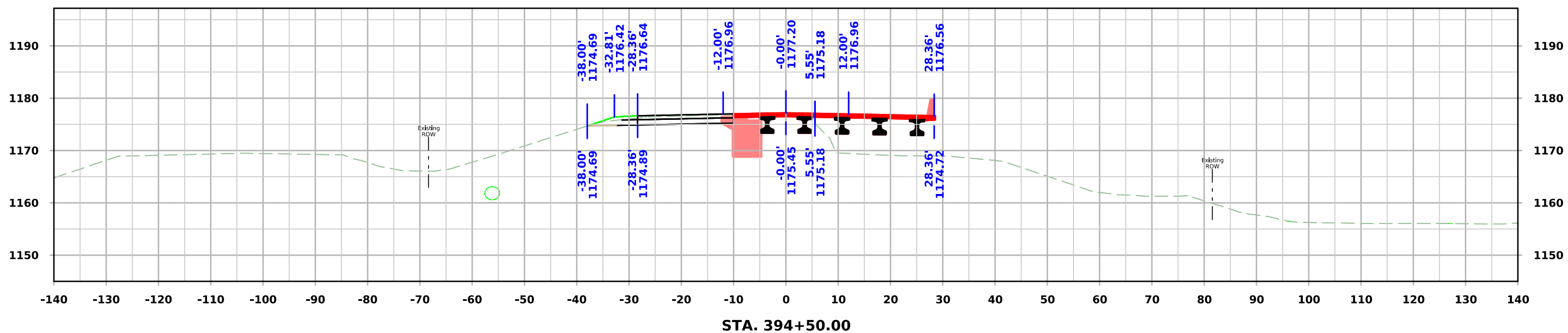
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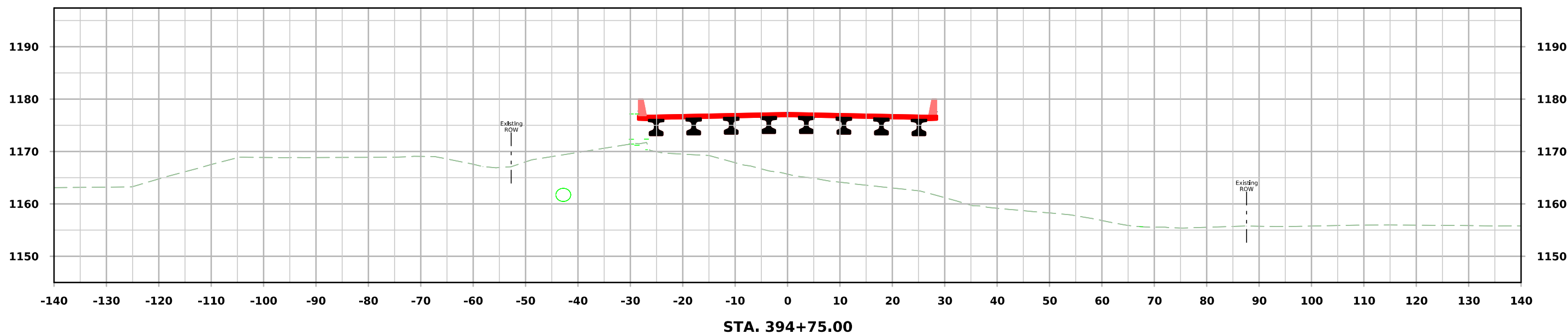
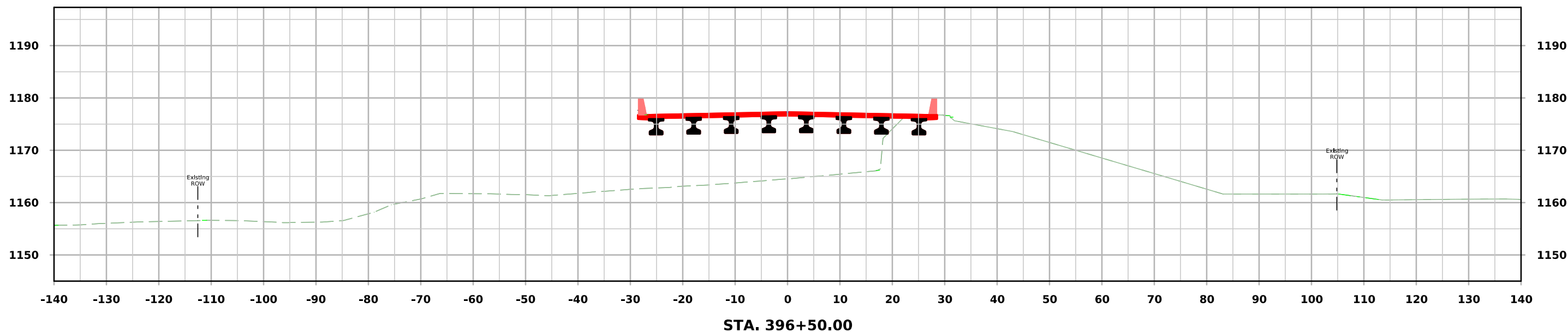
STA. 393+00.0

US 69

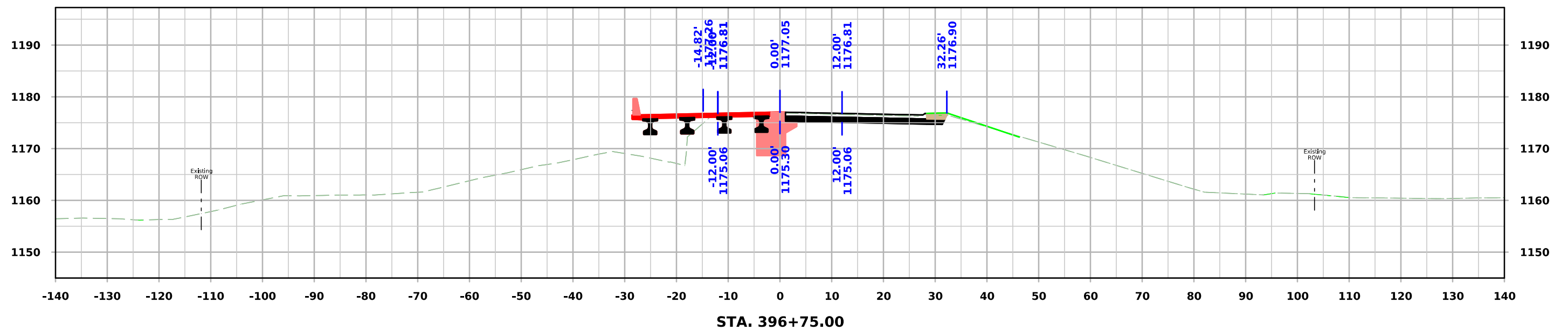
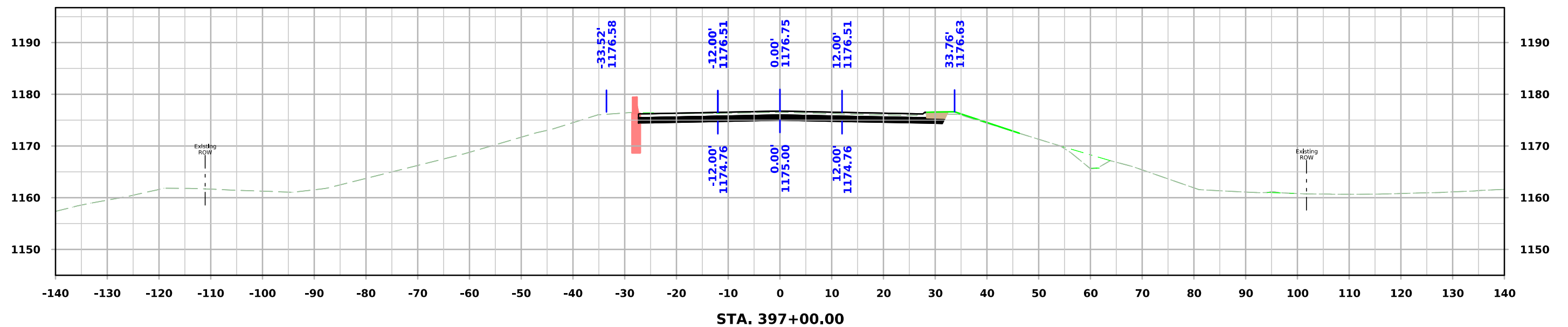


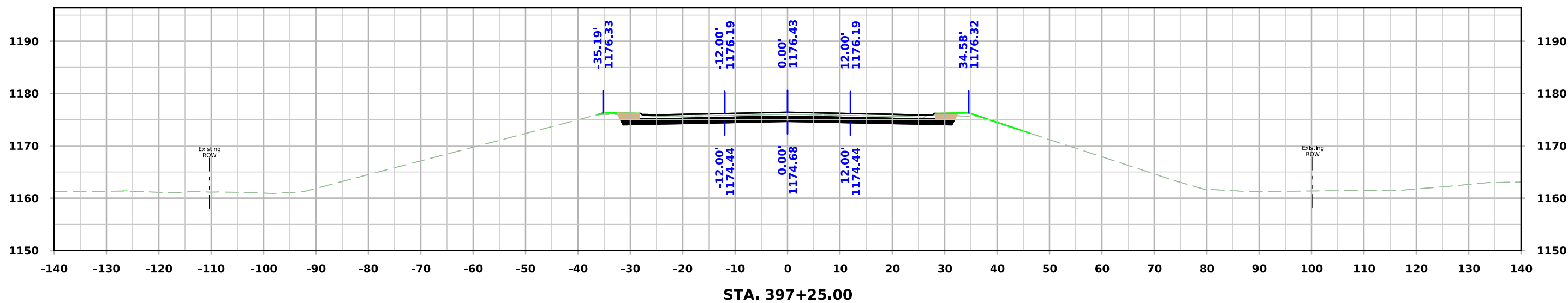
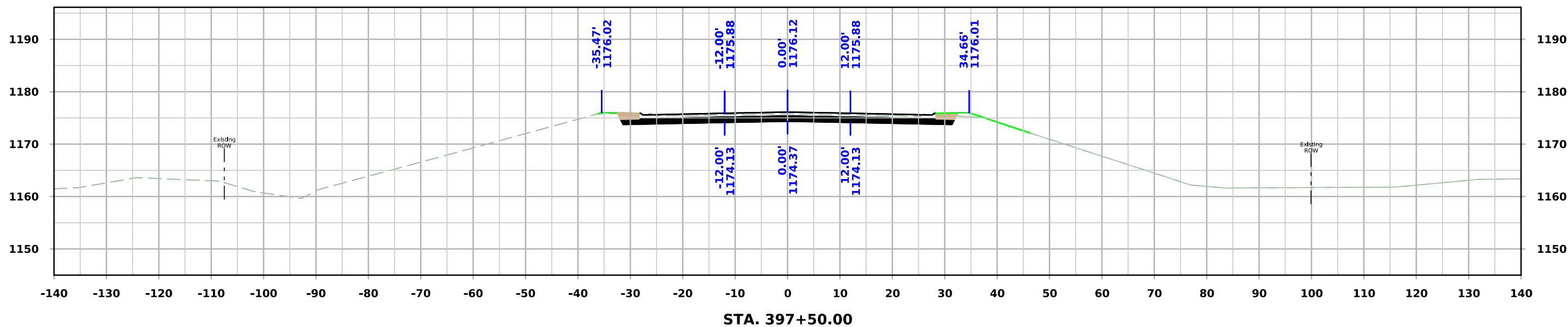


US 69

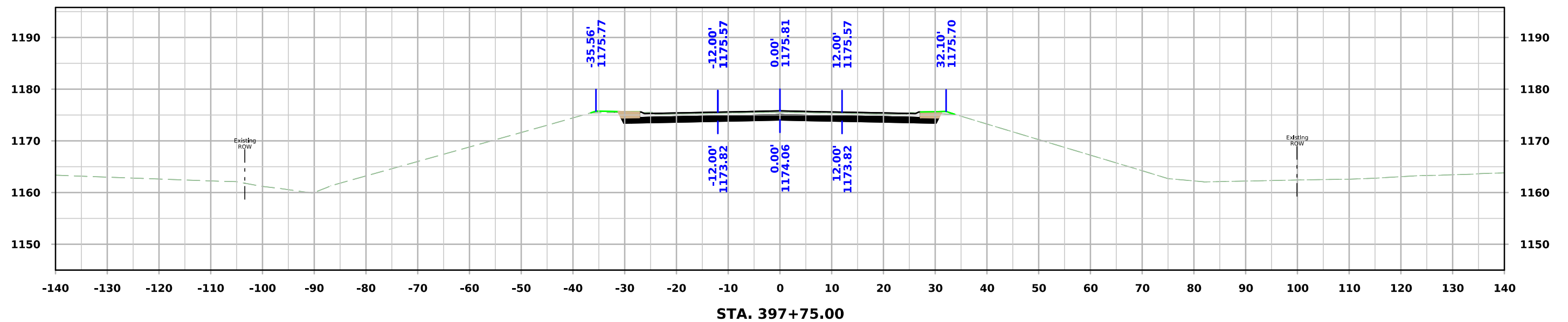
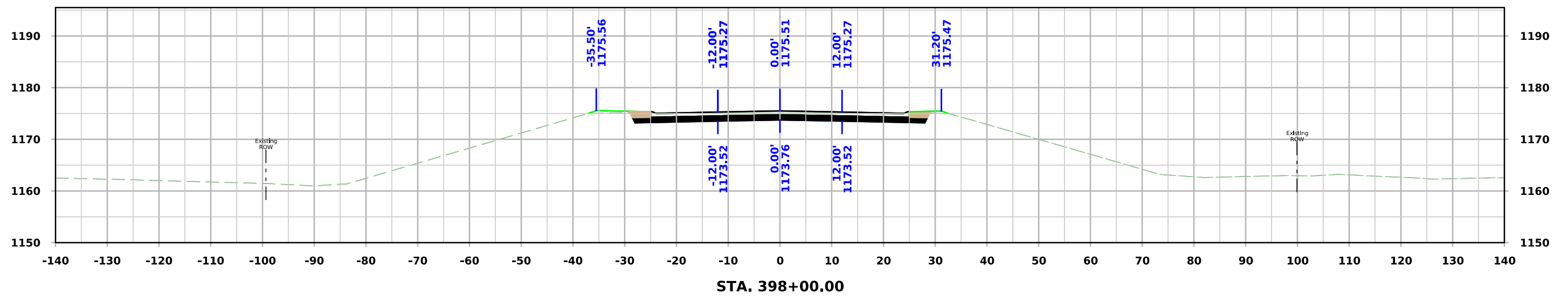


US 69





US 69



US 69

