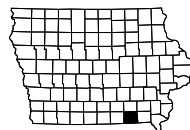


DAVIS COUNTY

BRIDGE REPLACEMENT - PPCB
BRFN-063-1(94)--39-26

LETTING DATE
01-01-2025



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 - 2	Typical Cross Sections and Details
C Sheets	Quantities and General Information
C.1	Project Description
D Sheets	Mainline Plan and Profile Sheets
* D.1	Plan & Profile Legend & Symbol Information Sheet
* D.2	US 63
G Sheets	Survey Sheets
G.1 - 3	Reference Ties and Bench Marks
G.4	Horizontal Control Tab. & Super for all Alignments
J Sheets	Traffic Control and Staging Sheets
J.1	Traffic Control Plan and Staging Notes
R Sheets	Erosion Control Sheets
RC.1 - 3	Est. Quantities, PPP, General Notes and Tabulations
* RR.1	Erosion Control Legend and Symbol Information Sheet
* RR.2 - 5	Erosion Control Device Maps
V Sheets	Bridge and Culvert Situation Plans
* V.1 - 3	Bridge and Culvert Situation Plans
W Sheets	Mainline Cross Sections
* W.1	Cross Sections Legend & Symbol Information Sheet
* W.2 - 10	Mainline Cross Sections
	* Color Plan Sheets



PLANS OF PROPOSED IMPROVEMENT ON THE
PRIMARY ROAD SYSTEM
DAVIS COUNTY
BRIDGE REPLACEMENT - PPCB
US 63 BRIDGE OVER MIDDLE CHEQUEST CREEK
0.2 MI. N. OF JUNCTION 180TH STREET

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
33
PROJECT IDENTIFICATION NUMBER
20-26-063-010
PROJECT NUMBER
BRFN-063-1(94)--39-26
R.O.W. PROJECT NUMBER

DESIGN DATA RURAL

2021	AADT	6500	V.P.D.
20 --	AADT	--	V.P.D.
20 --	DHV	--	V.P.H.
TRUCKS		10.5	%
Total			
Design	ESALs	--	

INDEX OF SEALS

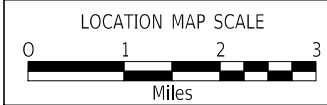
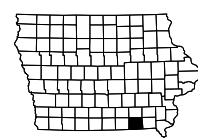
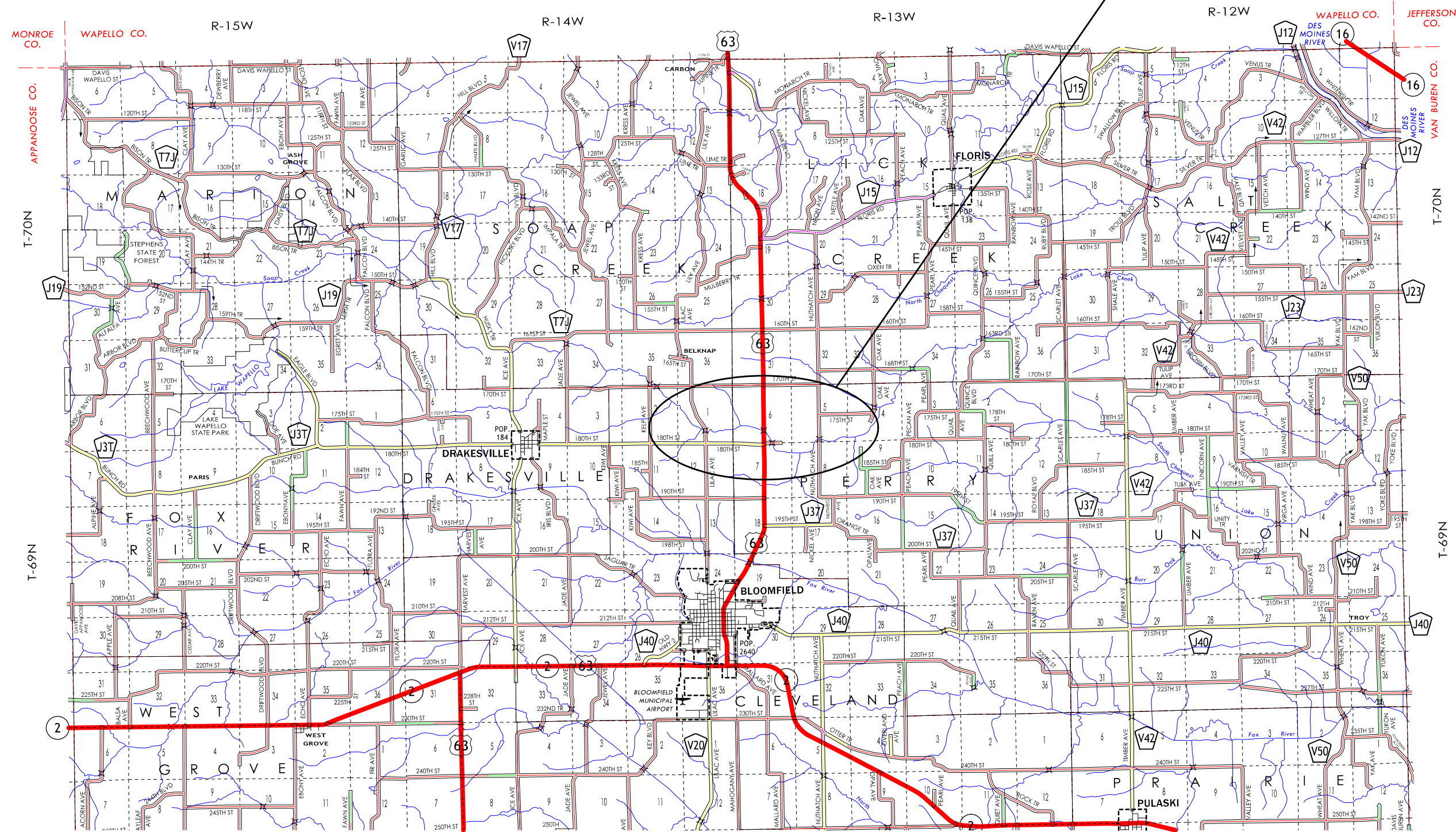
SHEET NO.	NAME	TYPE
A.1	Taylor R. Theulen	Roadway Design
V.1	Anthony J. Bower	Structural Design

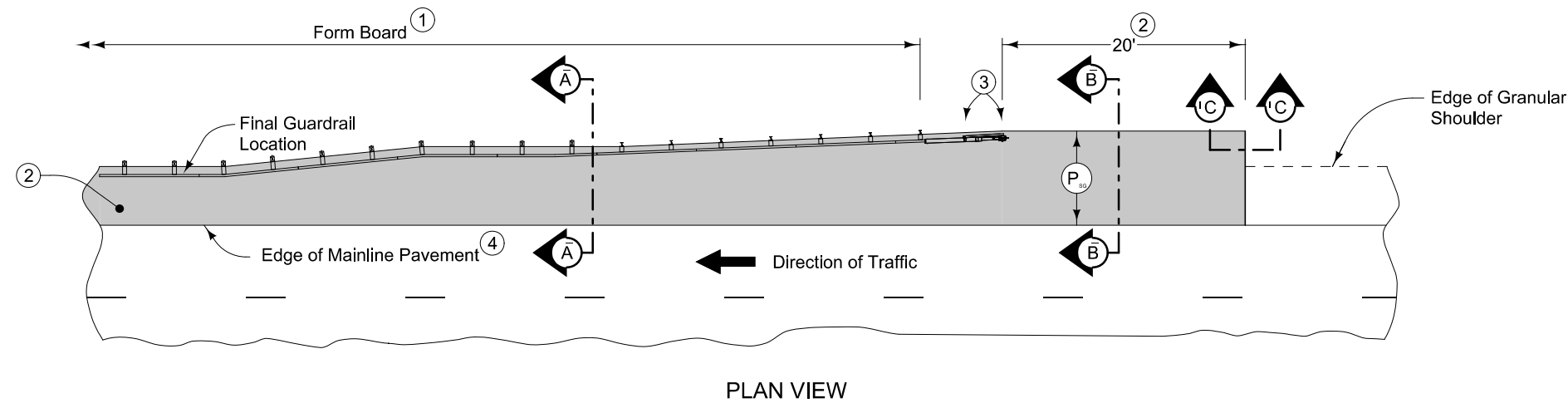
PRELIMINARY PLANS

Subject to change by final design.

D5 PLAN - Date: 06-15-2023

PROJECT LOCATION





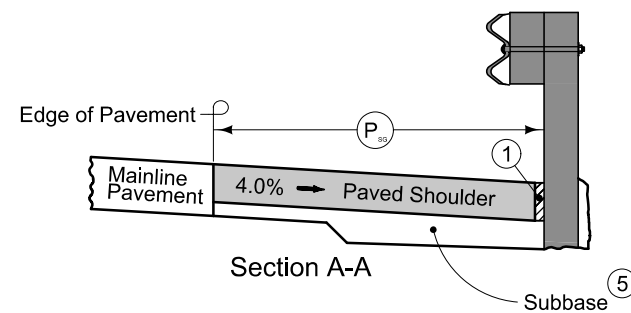
9" HMA Paved Shoulder at guardrail. 8" PCC may be substituted with the following jointing layout:

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.

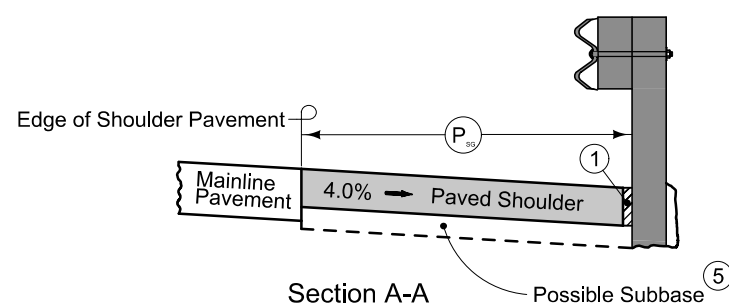
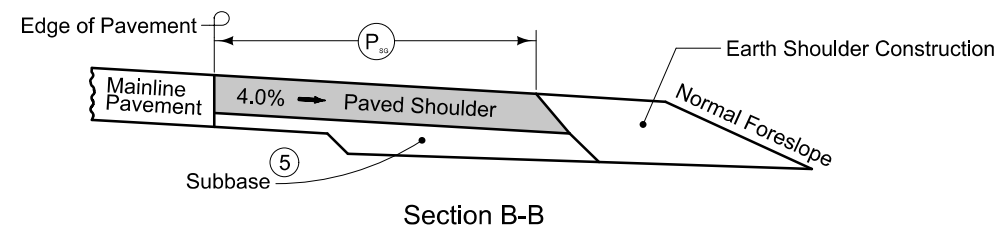
Compaction of HMA is required to face of guardrail post. Hand compaction will be allowed under guardrail. Removal and reinstallation of guardrail will be allowed with no additional payment.

Refer to Tabulation 112-9 for shoulder quantities.

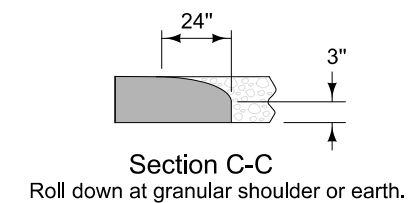
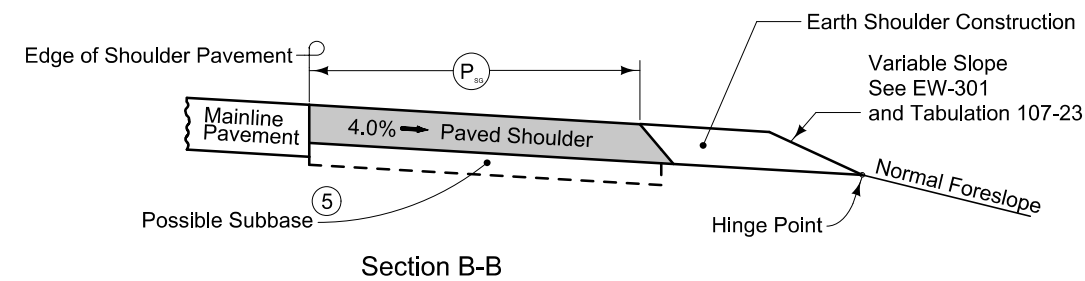
- ① PCC option only: When guardrail posts are installed prior to construction of PCC paved shoulder, fasten form board to the face of guardrail posts for the length shown.
- ② Continue paved shoulder 20 feet beyond the center of the first post.
- ③ Shoulder may be notched for first 2 posts or post sleeves may be installed through pavement. Do not drive posts through pavement.
- ④ 'KT' joint (per PV-101) for PCC shoulder. 'B' joint (per PV-101) for HMA shoulder.
- ⑤ Refer to other details in the plan.



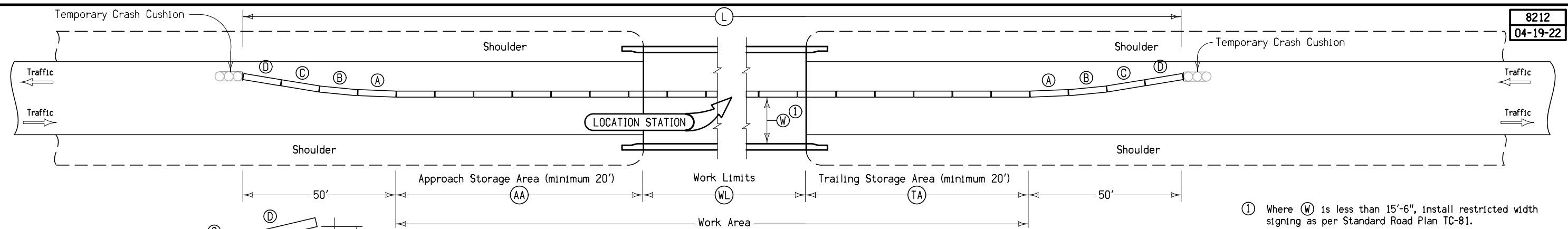
NEW CONSTRUCTION



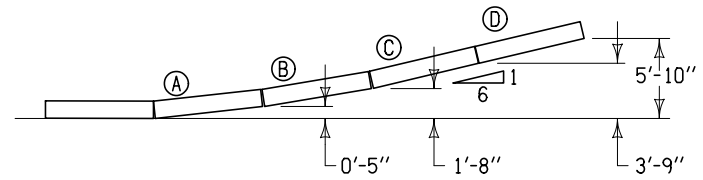
EXISTING SHOULDER



PAVED SHOULDER AT GUARDRAIL
(GRANULAR SHOULDER ADJACENT TO MAINLINE)



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



BARRIER OFFSETS FOR FLARE SECTIONS

Station	Side	(AA)	(WL)	(TA)	(L)	Anchored X	(W) ①	Remarks
		Feet	Feet	Feet	Feet		Ft-Inches	
182+50.00								
182+50.00								

**TEMPORARY CONCRETE BARRIER LAYOUT
for Two-Way Traffic**

PROJECT DESCRIPTION	100-1D 10-18-05
This project involves the replacement of the US 63 bridge (Maint. No. 2619.8S063) over Middle Chequest Creek.	

ESTIMATED PROJECT QUANTITIES (1 DIVISION PROJECT)	100-1A 07-15-97				
Item No.	Item Code	Item	Unit	Total	As Built Qty.

ESTIMATE REFERENCE INFORMATION	100-4A 10-29-02	
Item No.	Item Code	Description

STANDARD ROAD PLANS			105-4 10-18-11
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	10-19-21	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)	
BA-401	04-20-21	Temporary Barrier Rail (Precast Concrete)	
BA-500	04-20-21	Temporary Crash Cushions Sand Barrel	
BR-203	10-19-21	Double Reinforced 12" Approach	
BR-212	10-18-22	Bridge Approach (Abutting HMA Pavement)	
DR-306	10-16-18	Precast Concrete Headwall for Subdrain Outlets	
EC-201	04-20-21	Silt Fence	
EC-204	10-19-21	Perimeter, Slope and Ditch Check Sediment Control Devices	
EW-301	04-20-21	Guardrail Grading	
PM-110	04-21-20	Line Types	
PV-12	10-20-20	Milled Shoulder Rumble Strips	
PV-101	04-19-22	Joints	
PV-102	04-21-20	PCC Curb Details	
SI-172	04-19-16	Delineators	
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	
SI-882	10-18-16	Special Signs for Restricted Width Traffic Control Zones	
TC-1	10-15-19	Work Not Affecting Traffic (Two-Lane or Multi-Lane)	
TC-81	10-15-19	Restricted Width Signing (Less Than 14.5 Feet)	
TC-202	10-19-21	Work Within 15 ft of Traveled Way	
TC-213	10-18-22	Lane Closure with Flaggers	
TC-217	10-18-16	Lane Closure with Signals and TBR	

SURVEY SYMBOLS

(IN PROGRESS)

- TDC Tree Deciduous
- TEV Evergreen Tree
- SI Sign
- PPA Power Pole Co. 1
- IN Storm Sewer Intake
- MM Mile Marker Post
- LUM Luminaire
- INB Storm Sewer Beehive Intake
- ROW Right of Way Mark
- OUT Tile Outlet
- MH Utility Access (Manhole)
- HT Electrical Highline Tower
- SHR Shrub
- UB Utility Box
- TPD Telephone Pedestal
- GV Gas Valve
- RET Retaining Walls
- WV Water Valve
- WEL Well
- FHD Fire Hydrants
- WHU RV Water Hook Up
- TV Satellite TV Dish
- TA Tower Anchor
- BNK Stream Bank
- CUL Culvert
- D Centerline Draw or Stream (Down)
- DIK Centerline of Dike or Dam
- Terrace
- DU Centerline Draw or Stream (Up)
- EW Edge of Water
- FCL Chain Link and Security Fence
- FW Wire Fence
- FWD Wood Fence
- GDL Guard Rail Steel
- GPR Guard Post (4 or More Posts)
- PIP Pipe Culvert
- RIP Rip-Rap
- SP Stream Profile
- TIL Tile Line

UTILITY LEGEND

- Company Name: CenturyLink
 Contact Name: Sadie Hull
 Contact Phone: (918) 547-0147
 Contact Email: sadie.hull@lumen.com
- Company Name: Citizens Mutual Telephone
 Contact Name: Kyndal Bodkins
 Contact Phone: (641) 664-2074
 Contact Email: kbodkins@mycmtech.com
- Company Name: Iowa Communications Network
 Contact Name: Shannon Marlow
 Contact Phone: (800) 572-3940
 Contact Email: icnoutsideplantiowaonecall@iowa.gov
- Company Name: Rathbun Regional Water
 Contact Name: Scott Jackson
 Contact Phone: (641) 647-1086
- Company Name: Southern Iowa Electric Cooperation
 Contact Name: Greg Proctor
 Contact Phone: (641) 664-2277
 Contact Email: gproctor@sie.coop

PLAN VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

LINEWORK	Design	Color No.	Description
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.	Description	
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

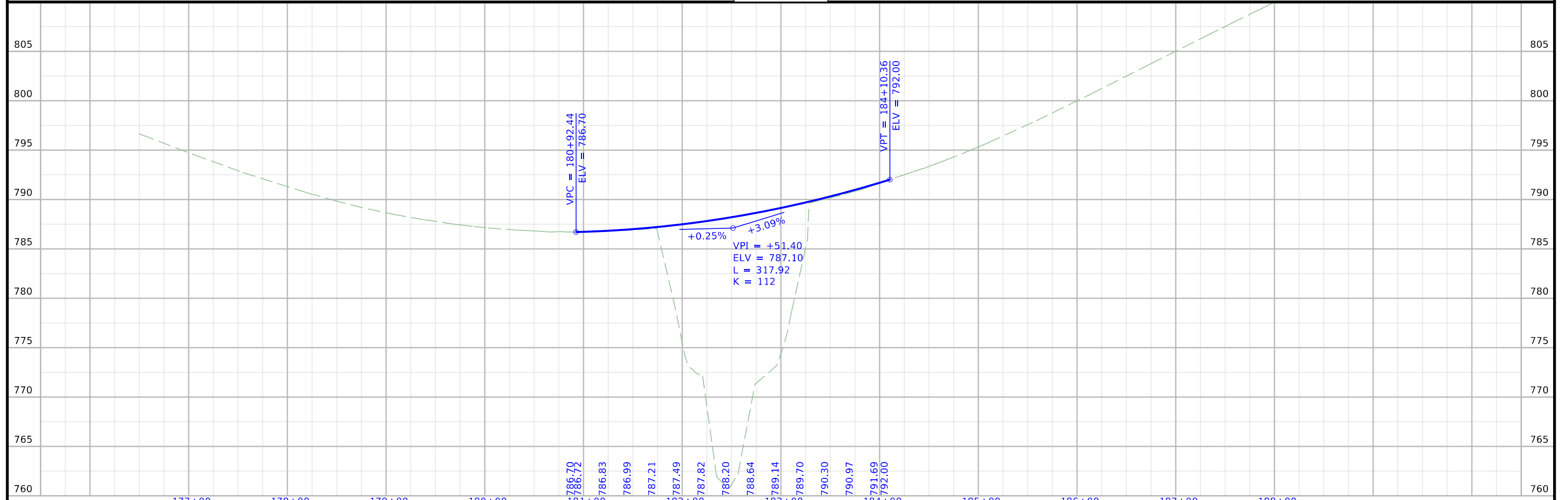
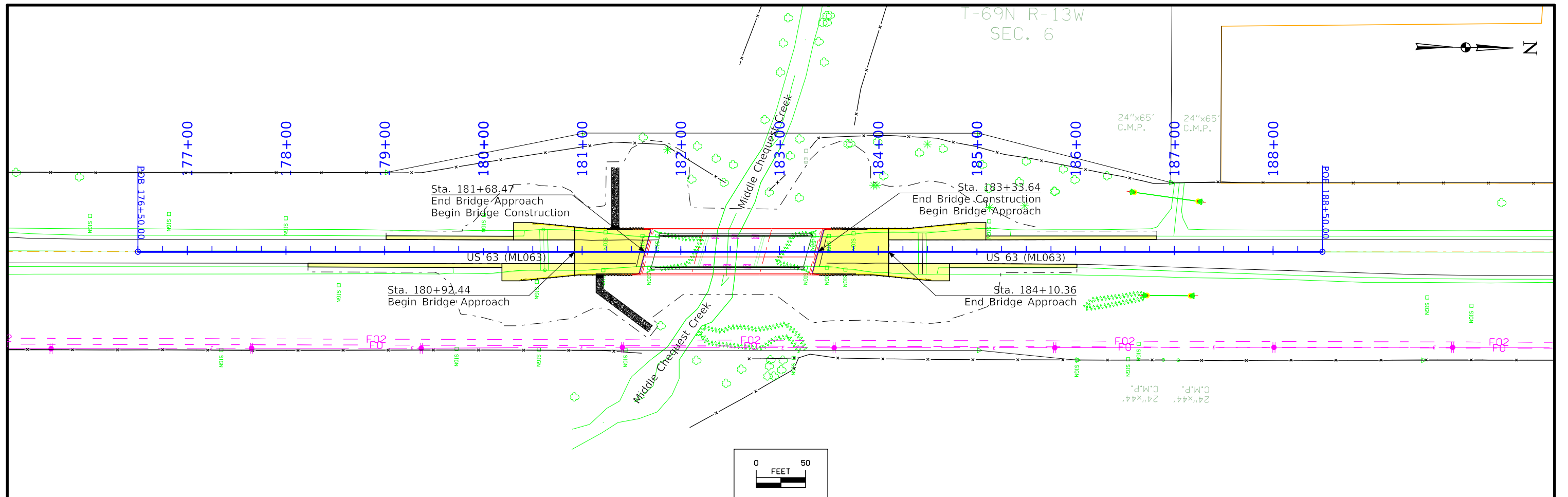
LINEWORK	Design	Color No.	Description
Green	(10)		Existing Ground Line Profile
Blue	(1)		Proposed Profile and Annotation
Magenta	(5)		Existing Utilities
Blue, Light	(230)		Proposed Ditch Grades, Left
Black	(0)		Proposed Ditch Grades, Median
Rust	(14)		Proposed Ditch Grades, Right

- 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
 - Access Control
 - Property Line

PLAN AND PROFILE LEGEND AND SYMBOL INFORMATION SHEET

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



Survey Information

SURVEY INDEX

County: Davis
PIN: 20-26-063-010
Project Number: BRFN-063-1(94)--39-26
Location: Middle Chesquest Creek 0.2 Mi North of 180th Street
Type of Work: Bridge Deck Replacement

COORDINATE SYSTEM: IOWA REGIONAL COORDINATE SYSTEM ZONE 12
(Ottumwa).
(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
Jason Wunsch – Survey Technician
Joshua Randolph – Survey CADD Technician

Date(s) of Survey

Begin Date 10/05/2022
End Date 10/14/2022

General Information

This survey is for preliminary design for the section of approximately 0.04 miles of roadway, 575 feet north of 180th Street. 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

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

POINT NAME	NORTHING	EASTING	ELEVATION	DESCRIPTION
CP1	6161341.080	22874068.920	802.540	SET 5/8" REBAR ON EAST SIDE OF HIGHWAY 63 IN A FARM ENTRANCE
CP2	6160071.170	22874088.000	803.520	SET 5/8" REBAR ON EAST SIDE OF THE BRIDGE BY A FARM ENTRANCE
CP3	6160827.800	22873972.090	781.380	SET 5/8" REBAR ON SOUTHWEST SIDE OF BRIDGE
BM1	6160840.470	22874021.720	787.198	FOUND BRASS CAP IN WING WALL
BM2	6160984.431	22874057.233	789.603	FOUND BRASS CAP IN WING WALL

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 63 (ML063)	176+50.00	6160312.59	22874047.74															
2	US 63 (ML063)	188+50.00	6161512.48	22874031.57															

108-23A 08-01-08
TRAFFIC CONTROL PLAN
<p>1. At least one lane of traffic in both directions shall be maintained on US 63 at all times.</p> <p>2. Refer to Standard Road Plans shown on Tab 105-4 in C Sheets for other information.</p> <p>3. Refer to Staging Notes (Tabulation 108-26A) and other J sheets for details of specific closures.</p>

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.						
<table border="1"> <tr> <td>Project</td> <td>Type of Work</td> </tr> <tr> <td>None provided</td> <td></td> </tr> <tr> <td></td> <td></td> </tr> </table>	Project	Type of Work	None provided			
Project	Type of Work					
None provided						

108-26A 08-01-08
STAGING NOTES
<p>Stage 1A Traffic Control: Close SB US 63 using TC-213. Construction: Construct Shoulder Strengthening per Tab SS-1 in C sheets.</p> <p>Stage 1B Traffic Control: Close NB US 63 lane using temporary traffic signals and temporary barrier rail (TBR). Construction: Replace the NB US 63 lane bridge deck and approaches. Construct Shoulder Strengthening per Tab SS-1 in C sheets.</p> <p>Stage 2 Traffic Control: Close SB US 63 lane using temporary traffic signals and temporary barrier rail (TBR). Construction: Replace the SB US 63 lane bridge deck and approaches.</p>

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
US 63	NB/SB	Davis	0.2 mi. North of Junction 180th Street	Middle Chequest Creek	Barrier	2619.8S063	Horizontal	N/A	13'-5"	12'-5"		Stage 1B
US 63	NB/SB	Davis	0.2 mi. North of Junction 180th Street	Middle Chequest Creek	Barrier	2619.8S063	Horizontal	N/A	14'-3.5"	13'-3.5"		Stage 2
US 63	NB/SB	Davis	0.2 mi. North of Junction 180th Street	Middle Chequest Creek	Temporary Signal	2619.8S063	Vertical	N/A	15'-0"	N/A		Stage 1B
US 63	NB/SB	Davis	0.2 mi. North of Junction 180th Street	Middle Chequest Creek	Temporary Signal	2619.8S063	Vertical	N/A	15'-0"	N/A		Stage 2

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 RESPONSIBILITIES

- 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 performing 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 *Describe Type of Facility*.
- B. This PPP covers approximately *Provide # Of Acres* acres with an estimated *Provide # of Acres* acres being disturbed. The portion of the PPP covered by this contract has *Provide # of Acres* acres disturbed.
- C. The PPP is located in an area of *Provide # of Types Of Soil Association* soil association (*Provide Soil Association Type or *Types*). The estimated weighted average runoff coefficient number for this PPP after completion will be *Provide runoff coefficient Number*.
- 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

POLLUTION PREVENTION PLAN

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 *List Outlets for Runoff*.

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 environmental 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.

POLLUTION PREVENTION PLAN

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

V. INSPECTION REQUIREMENTS
A. Inspections shall be made jointly by the Contractor and the Contracting Authority's inspector at least once every seven calendar days. Storm water site inspections will include:
1. Date of the inspection.
2. Summary of the scope of the inspection.
3. Name and qualifications of the personnel making the inspection.
5. Review of erosion and sediment control measures within disturbed areas for the effectiveness in preventing impacts to receiving waters.
6. Major observations related to the implementation of the PPP.
7. Identification of corrective actions required to maintain or modify erosion and sediment control measures.
B. Include storm water site inspection reports in the Amended PPP. Incorporate any additional erosion and sediment control measures determined as a result of the inspection. Immediately begin corrective actions on all deficiencies found within 3 calendar days of the inspection and complete within 7 calendar days following the inspection. If it is determined that making the corrections less than 72 hours after the inspection is impracticable, it should be documented why it is impracticable and indicate an estimated date by which the corrections will be made.

VI. NON-STORM WATER DISCHARGES
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

TABULATION OF SILT FENCES

Refer to EC-201

Location			Length LF	Remarks
Begin Station	End Station	Side		
179+90.00	182+35.00	Lt	440.0	
179+56.00	181+94.00	Rt	440.0	
181+88.00	182+56.00	Both	200.0	
182+31.00	183+00.00	Both	210.0	
182+90.00	185+65.00	Lt	500.0	
182+54.00	185+29.00	Rt	500.0	
Totals:			2290.0	

PERIMETER, SLOPE AND DITCH CHECK SEDIMENT CONTROL DEVICES

Possible Standards: EC-204

Location			Perimeter and Slope			Ditch Check		Remarks
Begin Station	End Station	Side	Length of Installation			Length of Installation		
			9 inch Dia	12 inch Dia	20 inch Dia	12 inch Dia	20 inch Dia	
			LF	LF	LF	LF	LF	
178+80.00	179+90.00	Lt		110.0				
185+45.00	186+85.00	Lt		140.0				
178+00.00	179+80.00	Rt		180.0				
185+10.00	186+10.00	Rt		100.0				
Totals:				530.0				

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 Acres	Disturbed Area with Storage Provided Acres	Disturbed Area without Storage Provided Acres	Best Management Practice		Total Storage Volume Provided	Total Storage Volume Required	Storage Volume Met?
	Station	Side		CF	CF						Yes/No		
1	178+20.00	186+80.00	Both	182+57.00	Lt	1.6	1.6	0.0	Vegetated Buffer			5878.8	No

LINE STYLE LEGEND OF LANDSCAPE SHEETS

LINETYPE	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

LINETYPE	Design Element
	Silt Fence
	Perimeter and Slope Sediment Control Device (9")
	Perimeter and Slope Sediment Control Device (12")
	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

LINWORK	Design Color No.	Design Element
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

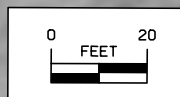
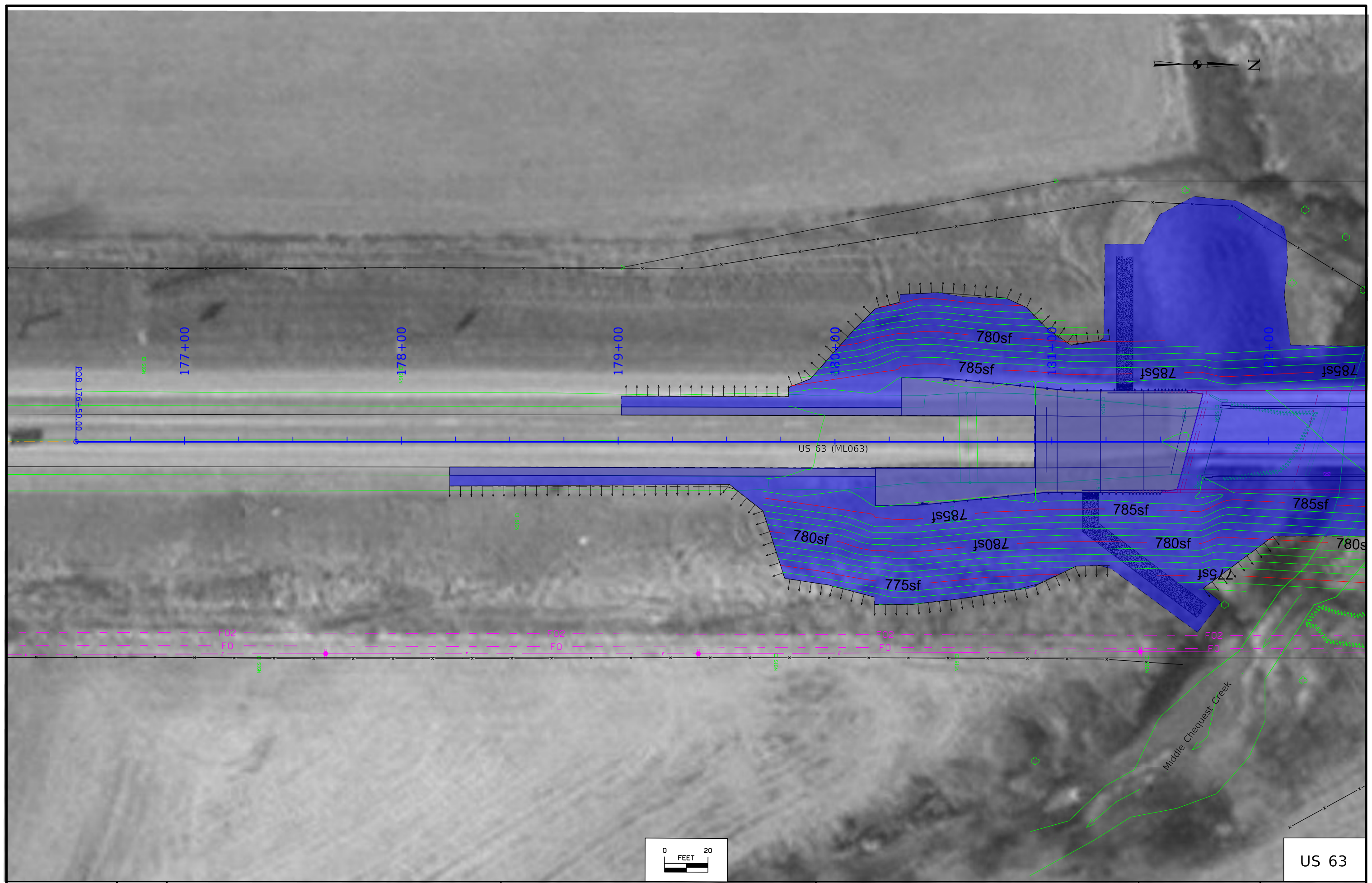
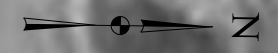
SHADING	Design Color No.	Design Element	Transparency
Citron	(234)	Mulching, All Types	50%
Light Brown	(238)	Special Ditch Control, Wood Excelsior Mat	0%
Grass Green	(233)	8FT Mow Strip	50%

PATTERN LEGEND OF EROSION CONTROL SHEETS

	Seeding and Fertilizing		Turf Reinforcement Mat Type 1
	Seeding and Fertilizing (Rural)		Turf Reinforcement Mat Type 2
	Seeding and Fertilizing (Urban)		Turf Reinforcement Mat Type 3
	Native Grass Seeding		Turf Reinforcement Mat Type 4
	Salt Tolerant Seeding		Slope Protection, Wood Excelsior Mat
	Wetland Grass Seeding		Transition Mat
	Wildflower Seeding		Rock Features, Permanent
	Sodding		Rock Features, Temporary

EROSION CONTROL LEGEND AND SYMBOL INFORMATION SHEET

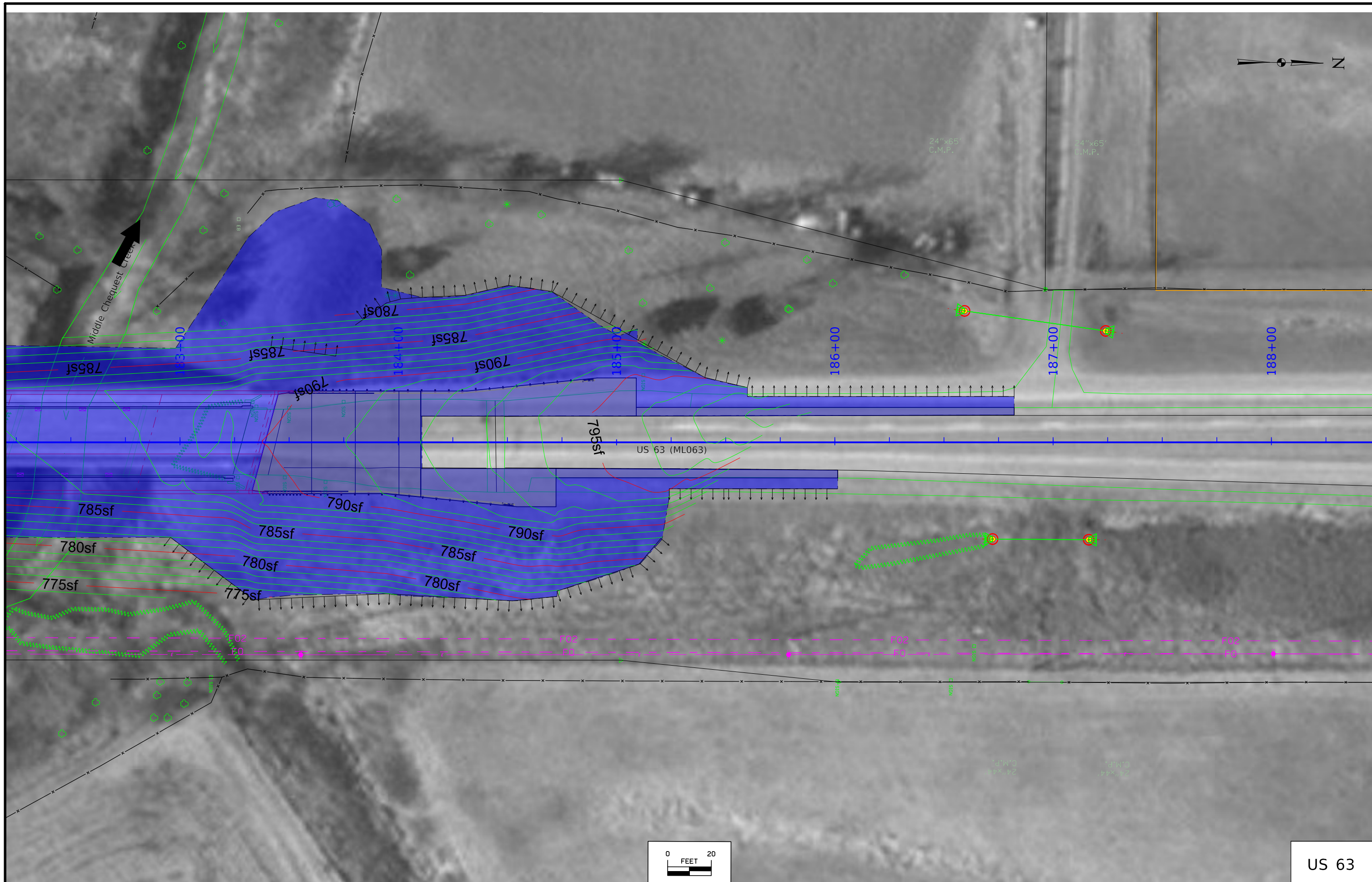
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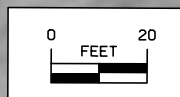
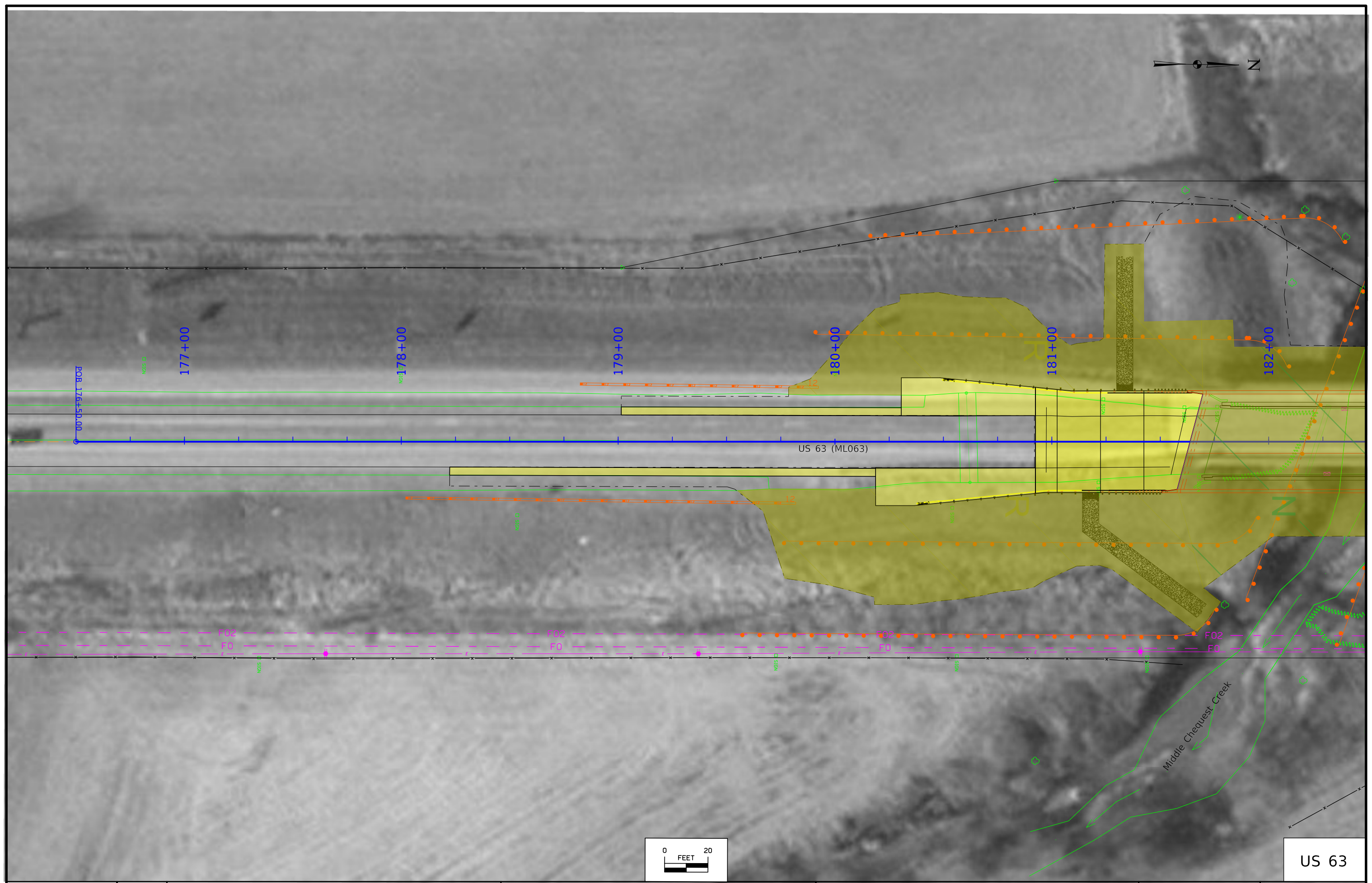


US 63

FILE NO.	ENGLISH	DESIGN TEAM Stanley Consultants Inc.	DAVIS COUNTY	PROJECT NUMBER BRFN-063-1(94)--39-26	SHEET NUMBER RR.2
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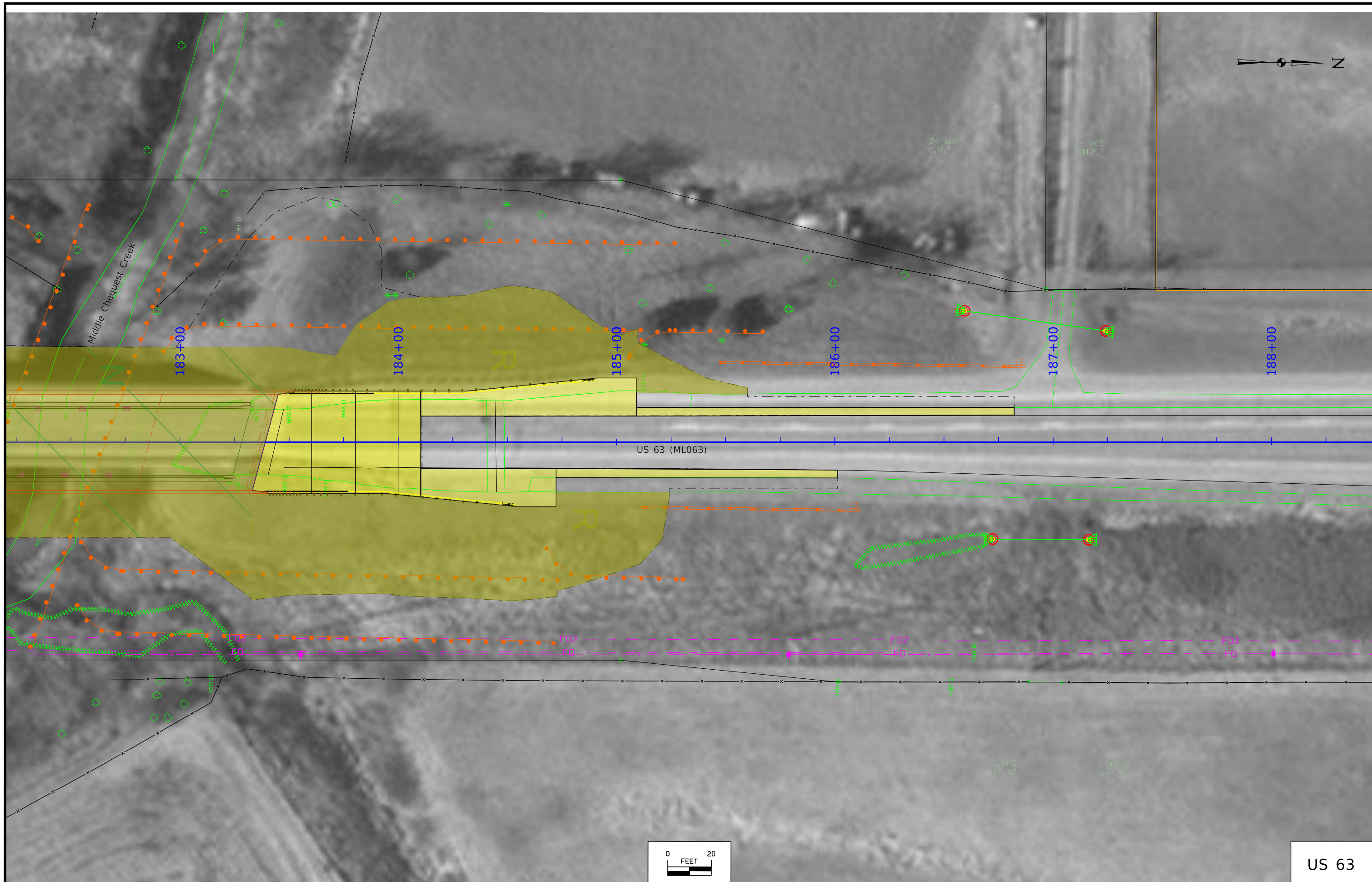




US 63

FILE NO.	ENGLISH	DESIGN TEAM Stanley Consultants Inc.	DAVIS COUNTY	PROJECT NUMBER BRFN-063-1(94)--39-26	SHEET NUMBER RR.4
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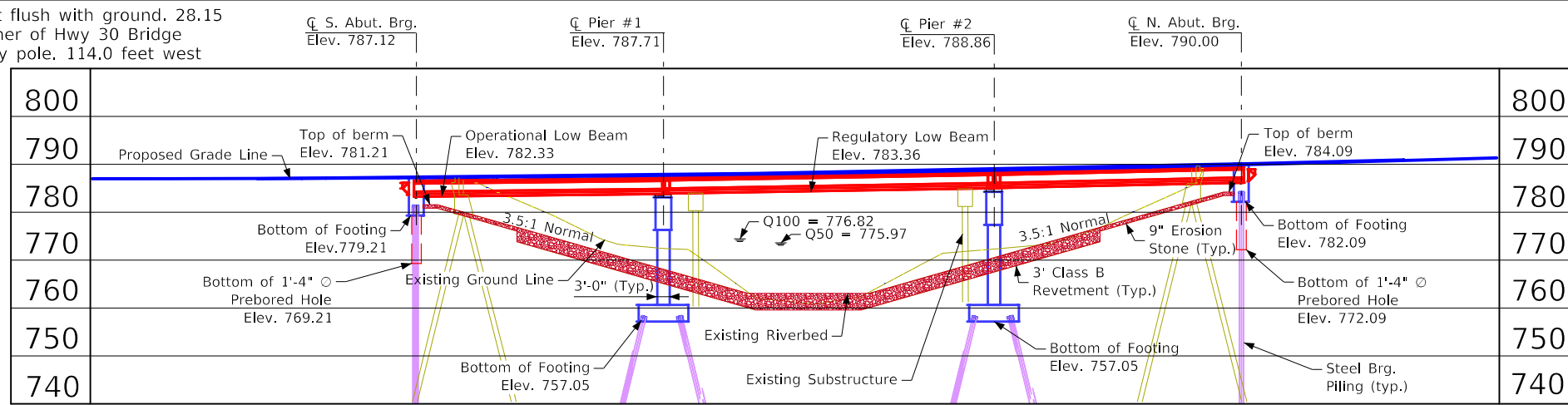
BENCH MARK: New FENO Style monument set flush with ground. 28.15 feet NW of NW corner of wingwall of Hwy 30 Bridge over creek. 37.3 feet south southeast of utility pole. 114.0 feet west of middle of small creek.

LOCATION

US 63 Over Chequest Creek
T-69N R-13W
Section 6
Perry Township
Davis County
FHWA No. 022530
Bridge Maint. No. 2619.8S063
Latitude 40.801275°
Longitude -92.399026°

TRAFFIC ESTIMATE

2021 AADT	5800	V.P.D.
Trucks	10	%
Total Design ESALS	1,694,000	



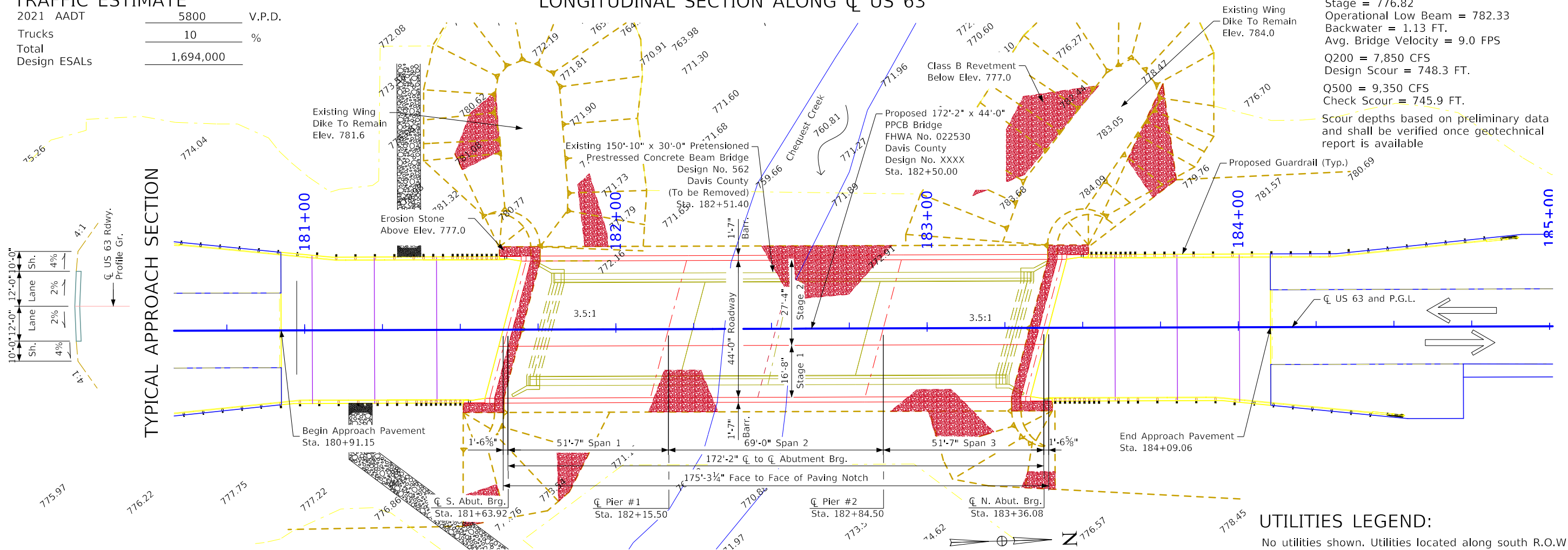
VPI Sta. = 182+50.00
VPI Elev. = 787.10
L = 317.92
VPC Sta. = 180+91.04
VPC Elev. = 786.70
VPT Sta. = 184+08.96
VPT Elev. = 792.00

Proposed Profile Grade US 63

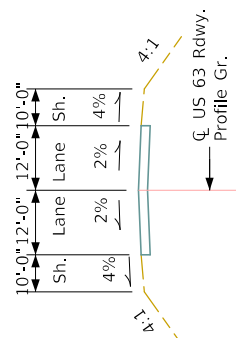
HYDRAULIC DATA

Drainage area = 11.1 SQ. MI.
Stream Slope = 11.7 FT./MI.
Q50 = 5,420 CFS
Stage = 775.97
Regulatory Low Beam = 783.36
Avg. Bridge velocity = 7.9 FPS
Q100 = 6,590 CFS
Stage = 776.82
Operational Low Beam = 782.33
Backwater = 1.13 FT.
Avg. Bridge Velocity = 9.0 FPS
Q200 = 7,850 CFS
Design Scour = 748.3 FT.
Q500 = 9,350 CFS
Check Scour = 745.9 FT.
Scour depths based on preliminary data and shall be verified once geotechnical report is available

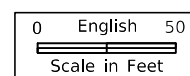
LONGITUDINAL SECTION ALONG C US 63



TYPICAL APPROACH SECTION



SITUATION PLAN



PLAN NOTES:

- Top of bridge deck at centerline US 63 is 0.03' below the profile grade to account for parabolic crown.
- Class B Revetment stone is embedded.

GENERAL NOTES:

- This design is for the replacement of the existing 150'-10" x 30'-0" pretensioned prestressed concrete beam bridge, Davis County, Design No. 562, FHWA No. 022530, Maint. 2619.8S063.

Hydraulic Design

I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

Mark D. Werner 6/13/2023
Signature Date
Mark D. Werner
Printed or Typed Name
My license renewal date is December 31, 2023

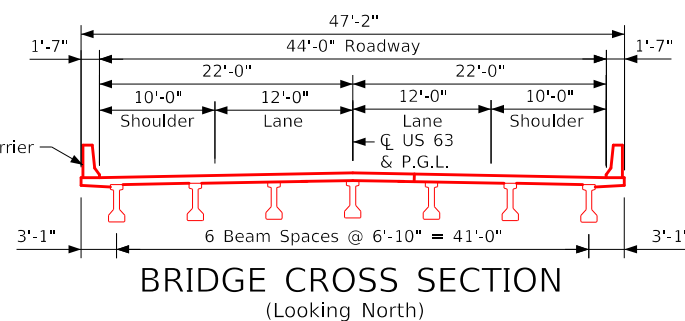
Pages or sheets covered by this seal: V.01 & V.02

UTILITIES LEGEND:

No utilities shown. Utilities located along south R.O.W. beyond limits shown on this sheet. See Roadway Sheets for locations and ownership information.

PRELIMINARY

Design For 15° Skew (L.A.)
172'-2" x 44'-0" Prestressed Concrete Beam Bridge
51'-7" End Spans (B Beams) 69'-0" Interior Span
Situation Plan
STA. 182+50.00 (C US63) June 2023
Davis County
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY ADMINISTRATION
Design No. TBD Design Sheet No. 1 of 3 FHWA No. 022530



DESIGN NOTES:

All units are in feet unless noted otherwise

TL-4 Bridge railing proposed

Pier Type - Wall Piers due to staging

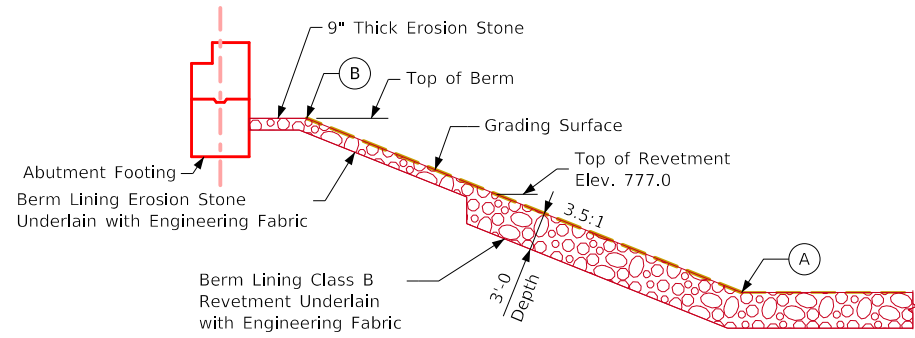
Beam Type - B Beams

Steel H-Pile Foundations for Abutments and Piers

Foundation type to be confirmed during final design

Berm slopes to be confirmed during final design

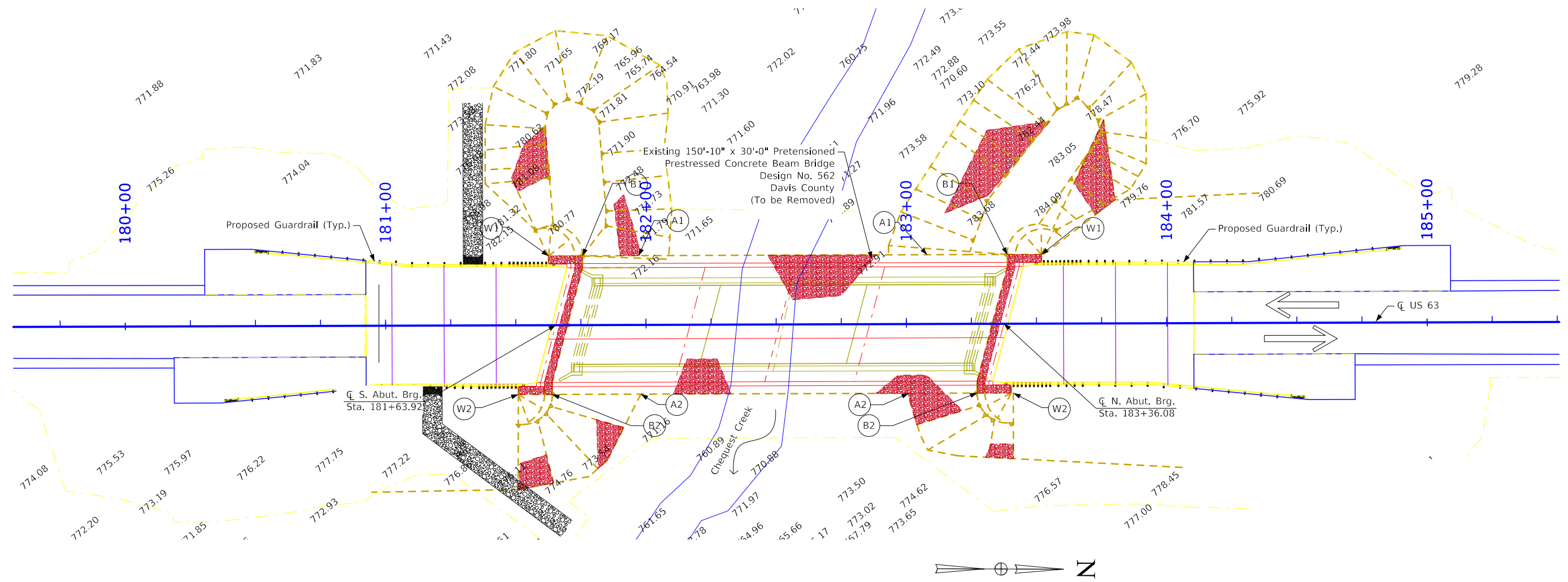
BENCH MARK: New FENO Style monument set flush with ground.
28.15 feet NW of NW cor of wingwall of NW cor of Hwy 30
Bridge over creek. 37.3 feet south southeast of utility pole.
114.0 feet west of middle of small creek.



Section Thru Embedded Revetment Berm

Points	South Abutment			North Abutment		
	Station	Offset	Elev.	Station	Offset	Elev.
A1	181+96.34	26.58' LT	774.57	183+06.78	26.58' LT	774.91
A2	181+96.54	26.58' RT	771.12	182+99.26	26.58' RT	776.15
B1	181+74.29	26.58' LT	780.84	183+37.48	26.58' RT	783.71
B2	181+62.51	26.58' RT	780.84	183+25.64	26.58' RT	783.71
W1	181+61.26	26.58' LT	786.34	183+50.53	26.58' LT	789.60
W2	181+49.47	26.58' RT	786.24	183+38.74	26.58' RT	789.30

Berm slope elevations reflect the grading surface.



SITE PLAN

Location	Revetment Cl. B (Ton)	Erosion Stone (Ton)	Engineering Fabric (SY)	Excavation (CY)
Berm Lining - South	1141.3	100.2	936.5	665.7
Berm Lining - North	729.0	213.4	1003.9	517.5
Totals	1870.3	313.6	1940.4	1183.2

Excavation quantity calculated from grading surface.

PRELIMINARY

Design For 15° Skew (L.A.)

172'-2" x 44'-0" Prestressed Concrete Beam Bridge

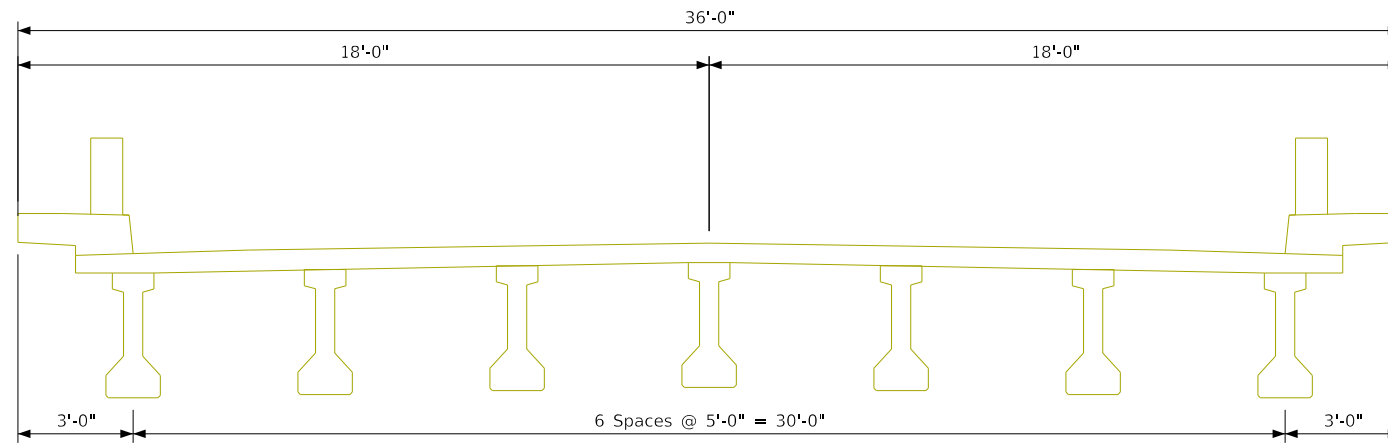
51'-7" End Spans (B Beams) 69'-0" Interior Span

Site Plan

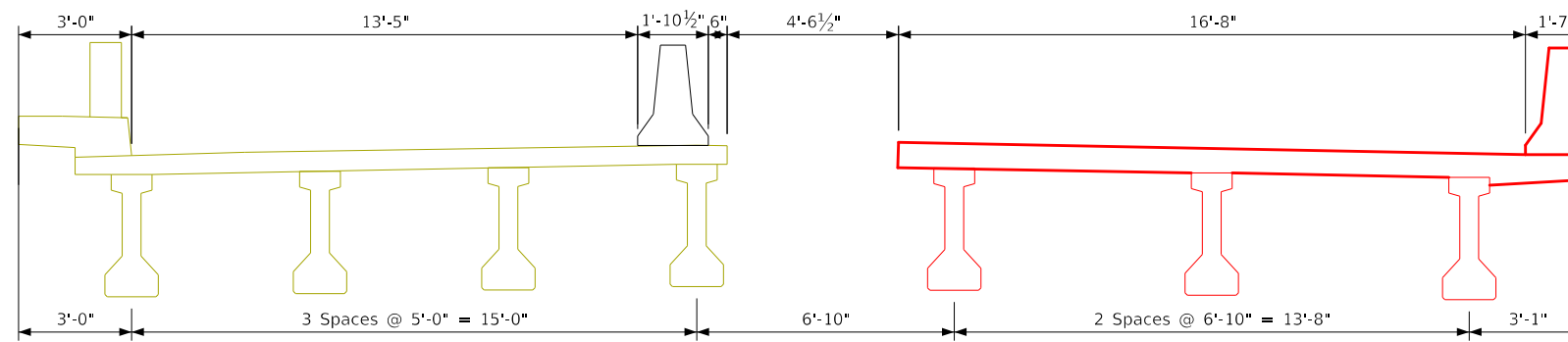
STA. 182+50.00 (C US63) June 2023

Davis County

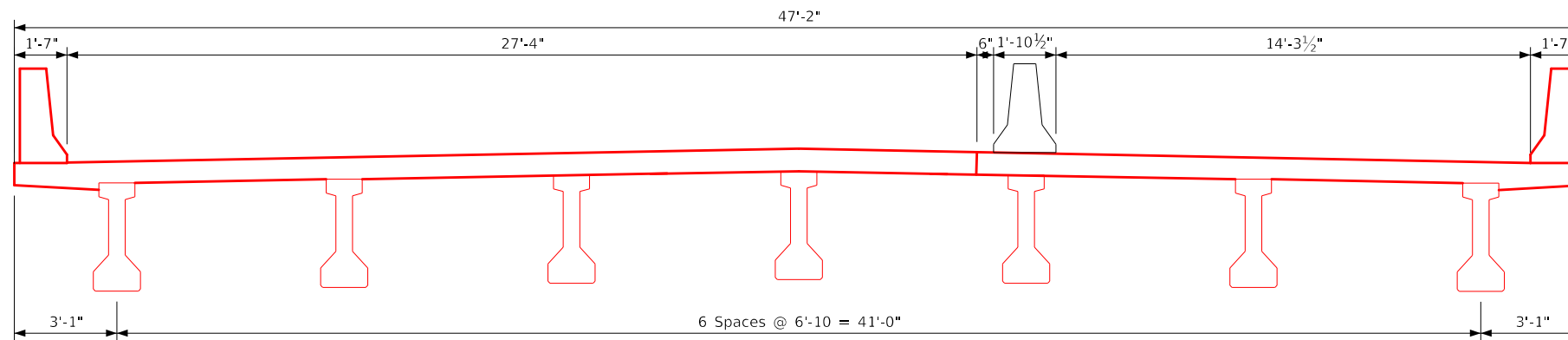
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY ADMINISTRATION
Design No. TBD Design Sheet No. 2 of 3 FHWA No. 022530



EXISTING BRIDGE CROSS SECTION
(Looking North)



STAGE 1 CROSS SECTION
(Looking North)



STAGE 2 CROSS SECTION
(Looking North)

Note:

Widening Beam Spacing to 7'-0" Would Provide Stage 2 Traffic Width of 14'-7 1/2" and 1'-0" Extra Roadway Width

PRELIMINARY

Design For 15° Skew (L.A.)
172'-2" x 44'-0" Prestressed Concrete Beam Bridge
 51'-7" End Spans (B Beams) 69'-0" Interior Span
Staging Details
 STA. 182+50.00 (C US63) June 2023
Davis County
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY ADMINISTRATION
 Design No. TBD Design Sheet No. 3 of 3 FHWA No. 022530

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	Grading	
(188)	Revetment Class D	(8)	Behind Curb Cut
(28)	Revetment Class E	(6)	Granular
(12)	Shoulder Special Backfill	(13)	Granular Back Fill
(12)	Special Backfill	(48)	Rock Undercut
(20)	Subbase	(8)	Shoulder Earth Fill
(20)	Subbase Lower	(2)	Side Slopes
(20)	Subbase Upper	(226)	Side Slopes Dressing
(118)	Subgrade Treatment	Substrata	
Asphalt			
(207)	HMA Base Course	(128)	Boulder Substrata
(207)	HMA Interim Course	(48)	Broken Weathered Substrata
(207)	HMA Surface Course	(3)	Core Out Substrata
Concrete			
(0)	Barrier Concrete	(203)	Existing Pavement Substrata
(0)	Barrier Concrete Footing	(6)	Loam Substrata
(0)	Curb Gutter	(80)	Rock Substrata
(48)	Flowable Mortar	(4)	Select Sand Substrata
(0)	Median Concrete	(3)	Shale Substrata
(0)	PCC Pavement	(10)	Topsoil Substrata
(0)	Sidewalk	Unsuitable / Waste	
Shoulder			
(209)	Shoulder HMA	(3)	Unsuitable Type A
(0)	Shoulder PCC	(13)	Unsuitable Type B
(6)	Shoulder Granular	(11)	Unsuitable Type C
(6)	Shoulder Granular	(3)	Waste
Existing			
(0)	Existing Pavement		

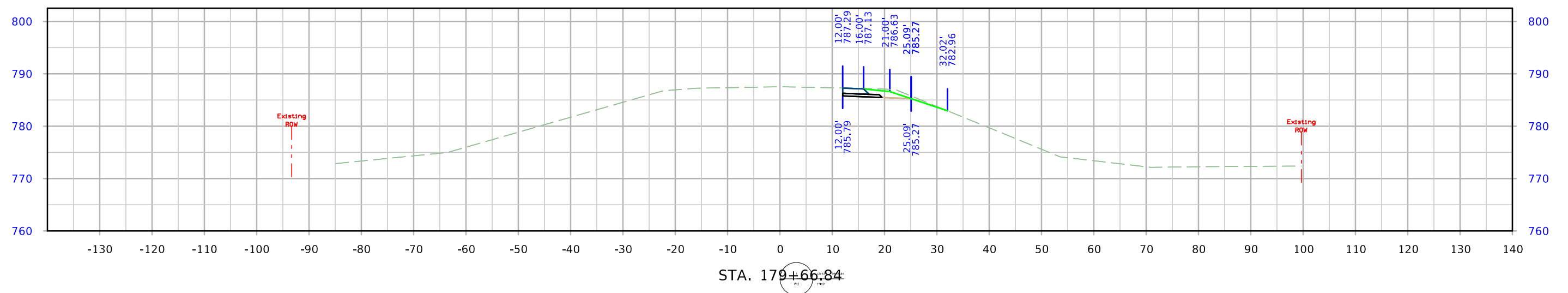
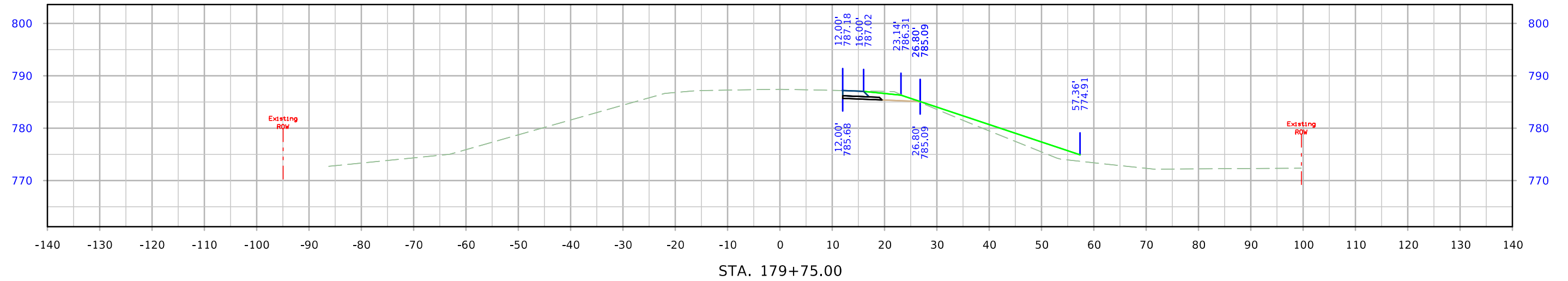
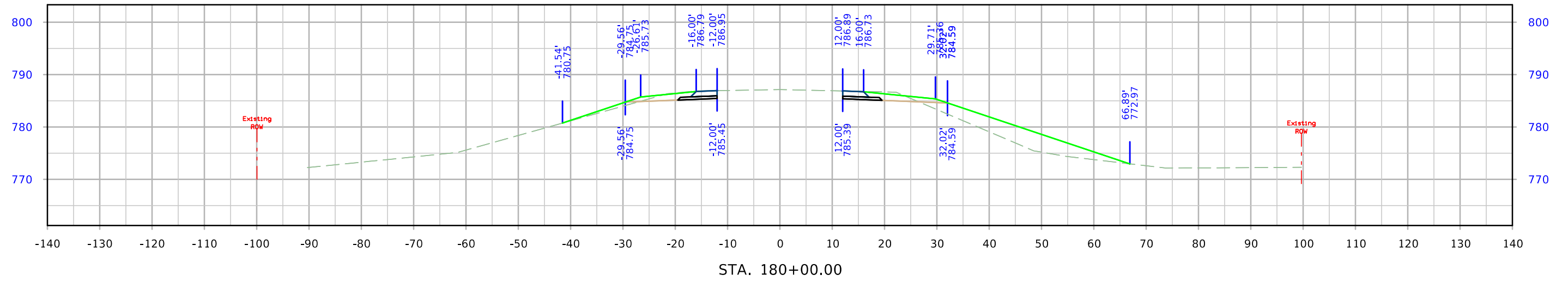
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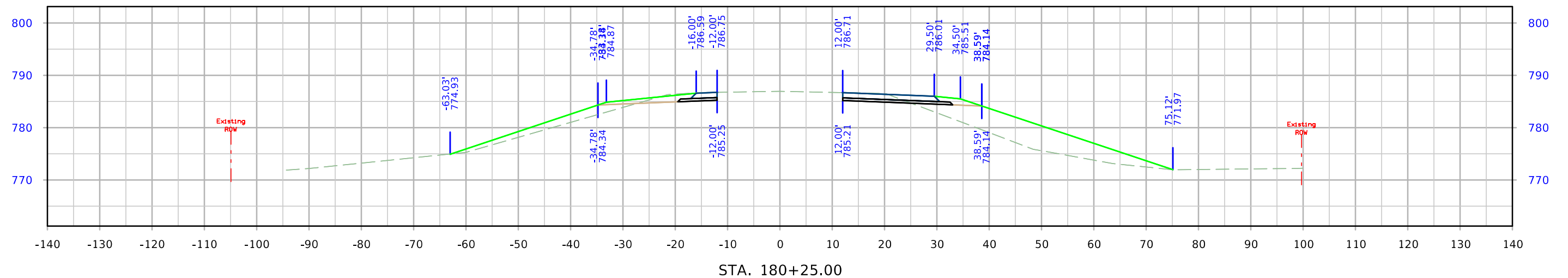
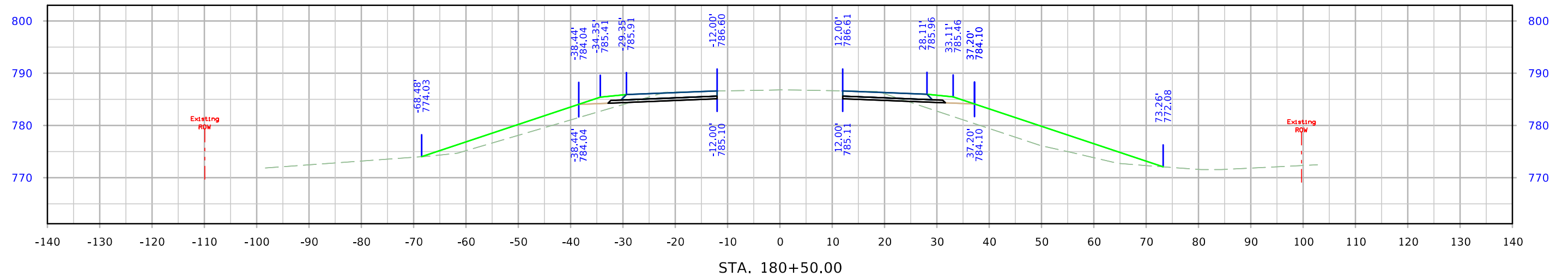
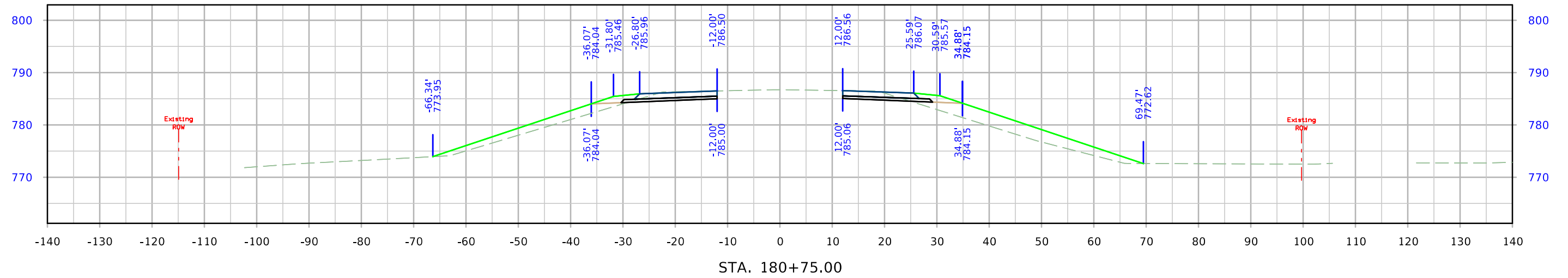
CROSS SECTIONS LEGEND AND INFORMATION SHEET

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

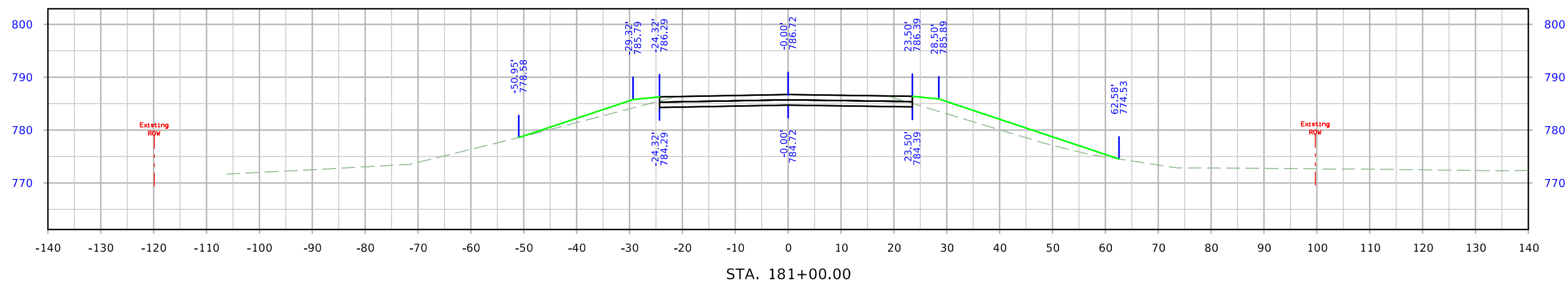
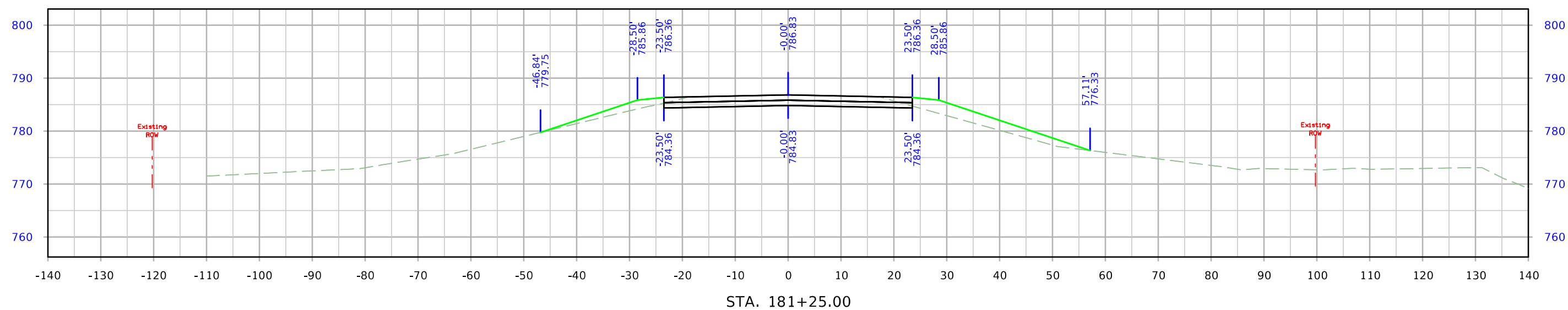
US 63



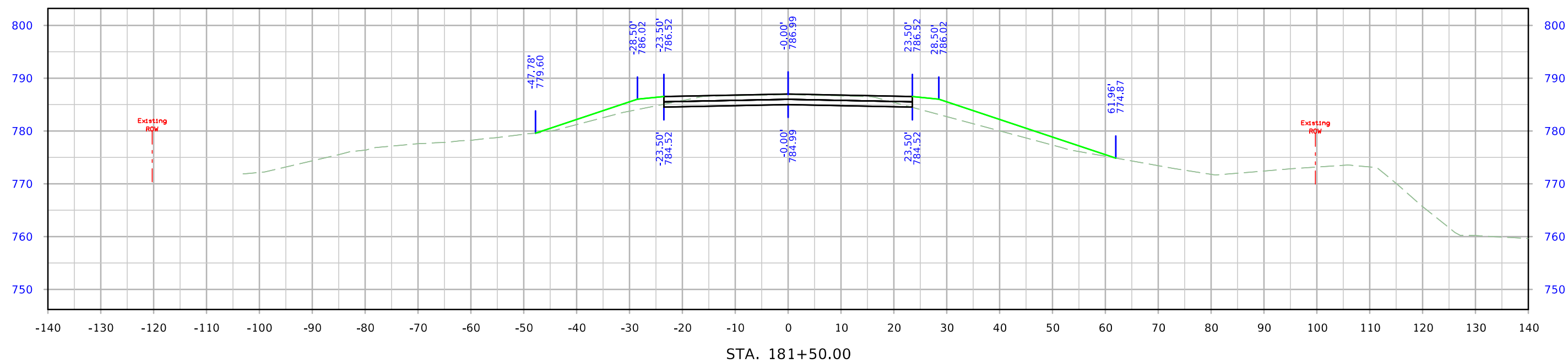
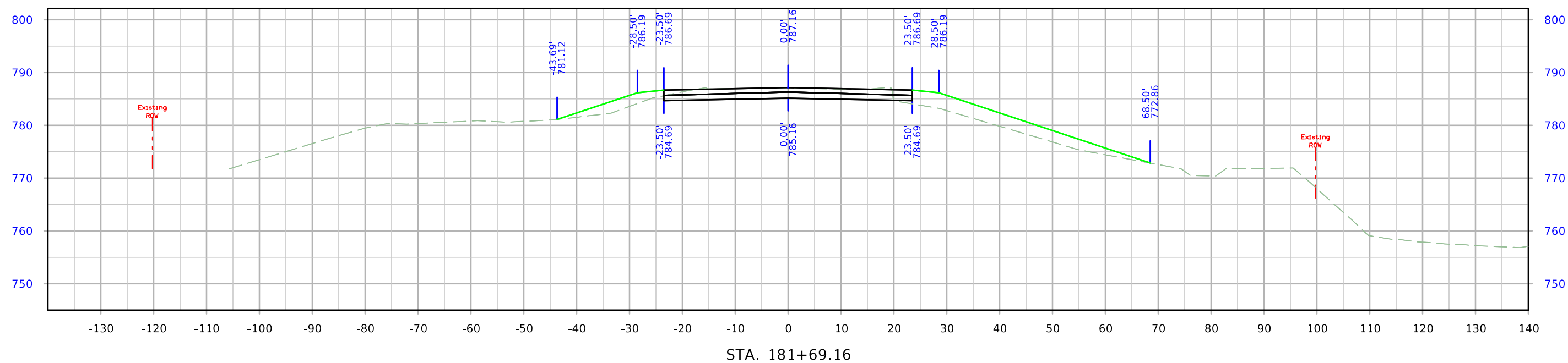
US 63

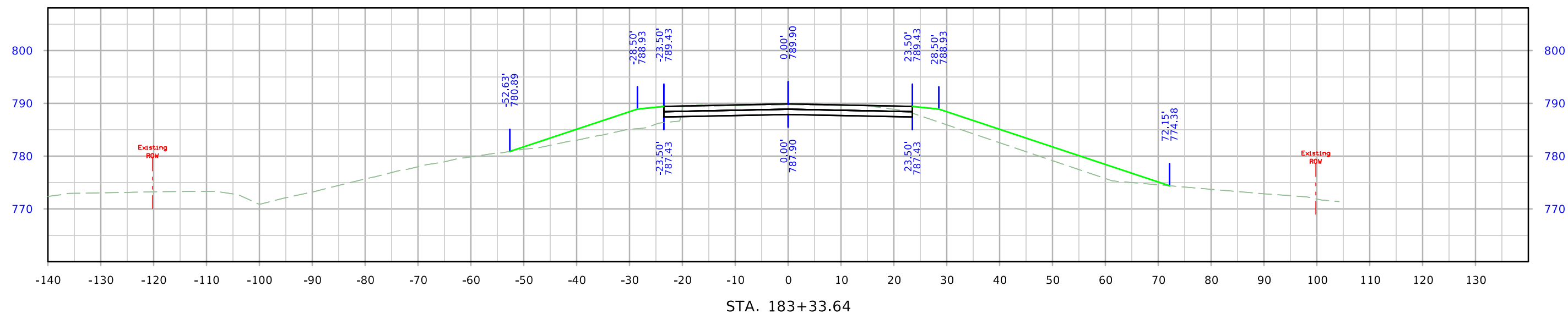
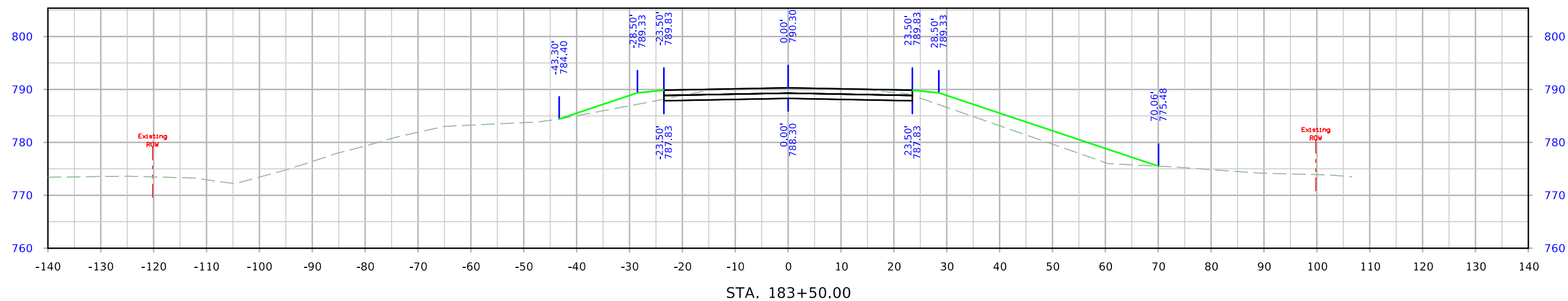


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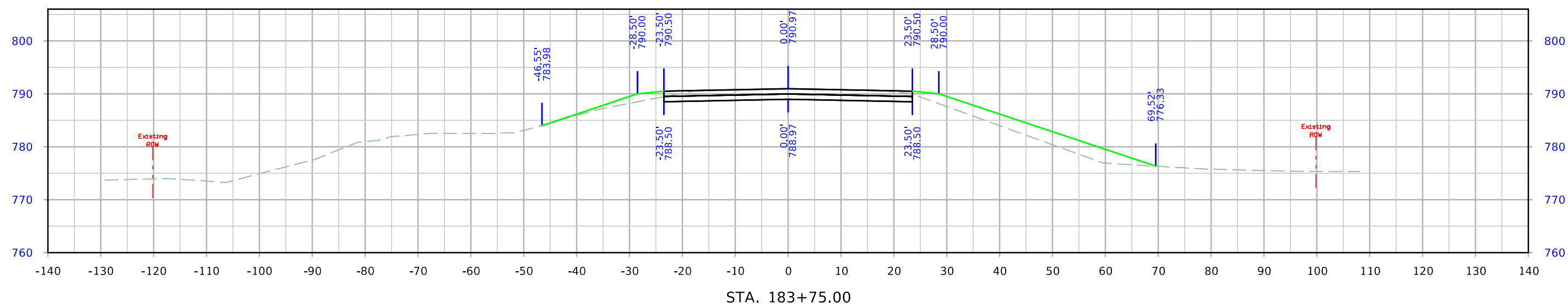
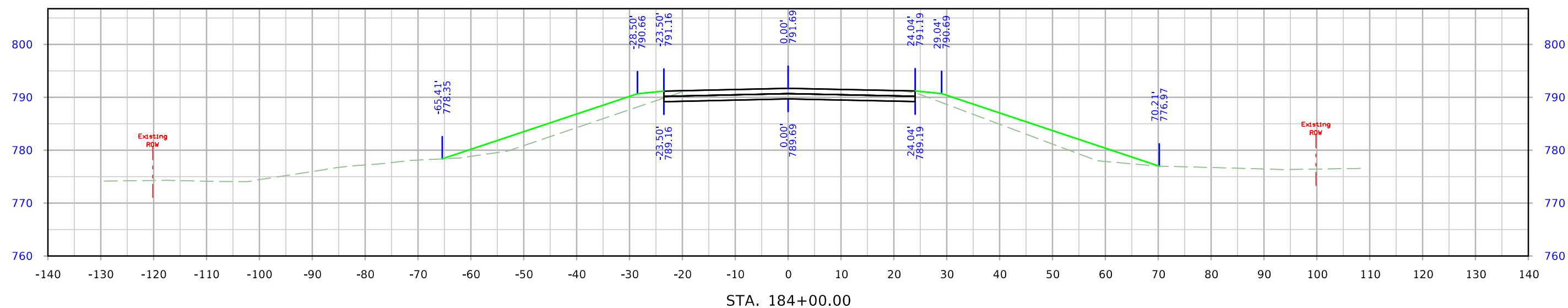


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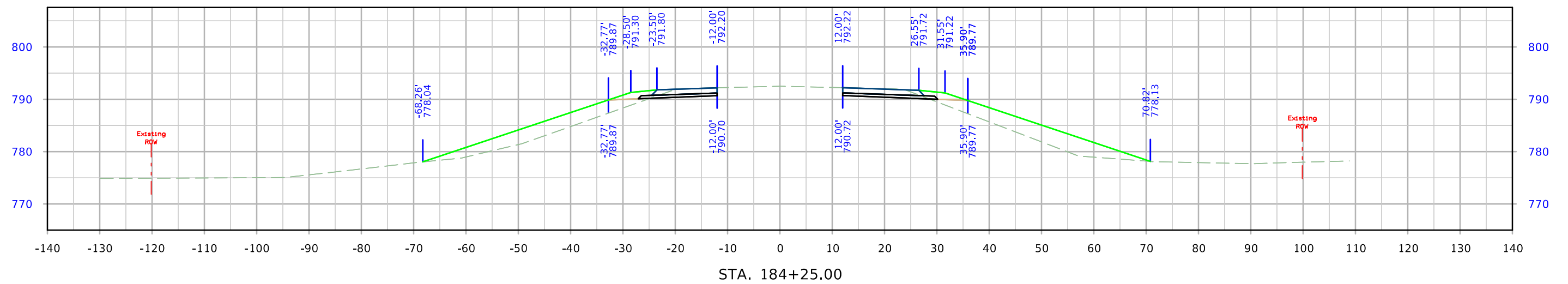
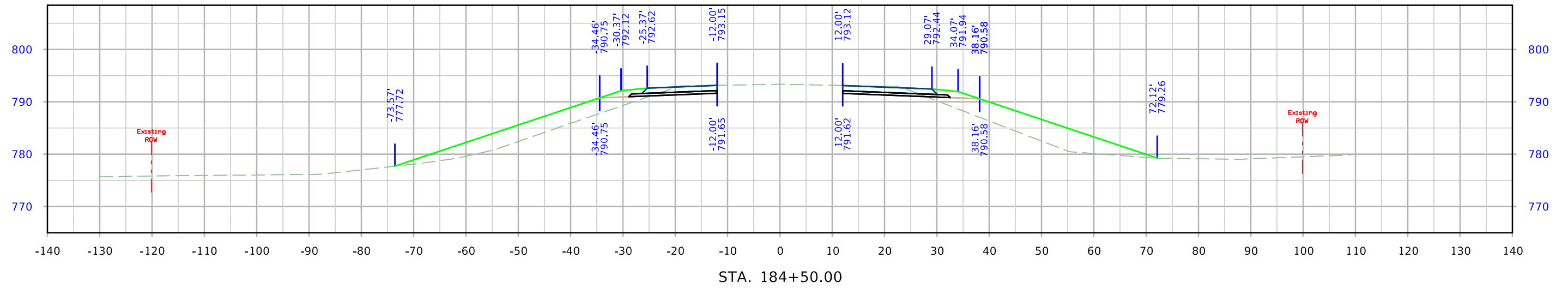
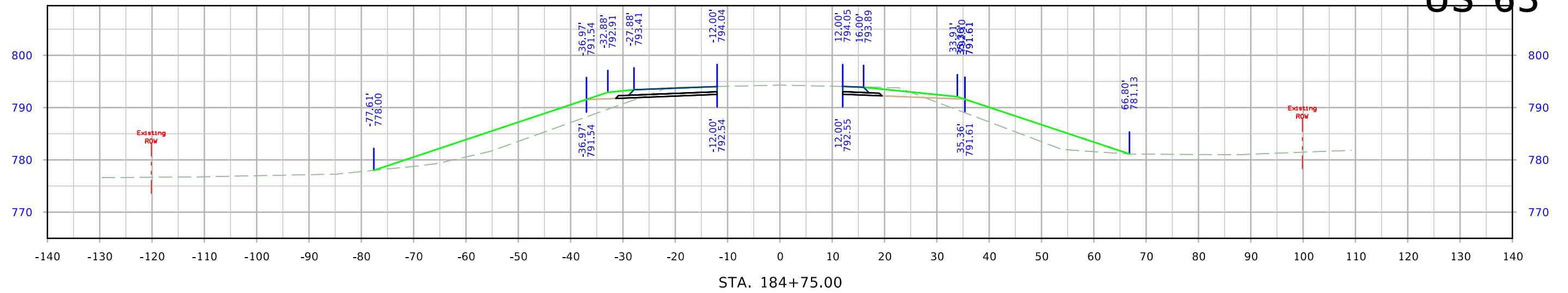




US 63



US 63



US 63

