

Iowa DOT Bridges and Structures
Consultant Coordinator Contact:
Zahrah Alghalibi

Standard Road Plans
Standard Road Plans are listed on Sheet C.4.

Design Data Rural		
2024	1,310	V.P.D.
TRUCKS	18.2	%
Total Design ESALs	1,522,000	

Index of Seals		
Sheet No.	Name	Type
A.1	Edward Sowder *	Structural Design
A.3	Xingwei Weng *	Roadway Design

* HNTB



Structural 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.

Edward M. Sowder 08-14-2026
Signature Date
Edward M. Sowder
Printed or Typed Name
My license renewal date is December 31, 2027

Pages or sheets covered by this seal: Sheets A.1, A.2, V.1 thru V.7

Index of Sheets	
No.	Description
A Sheets	Bridge Plan
A.1	Title Sheet
A.2	Location Map Sheet
V Sheets	Bridge Plan
V.1	Estimated Quantities - Design 128
V.2 - V.7	Design No. 128
Road Sheets	Road Plan
A.3 - U.1	Road Plans
C.1 - C.2	Estimated Quantities - Road
C.4	Standard Plans - Road



PLANS OF PROPOSED IMPROVEMENT ON THE

PRIMARY ROAD SYSTEM

UNION COUNTY

Bridge Deck Overlay

IA 25 over Branch Platte River
3.4 mi S of US 34

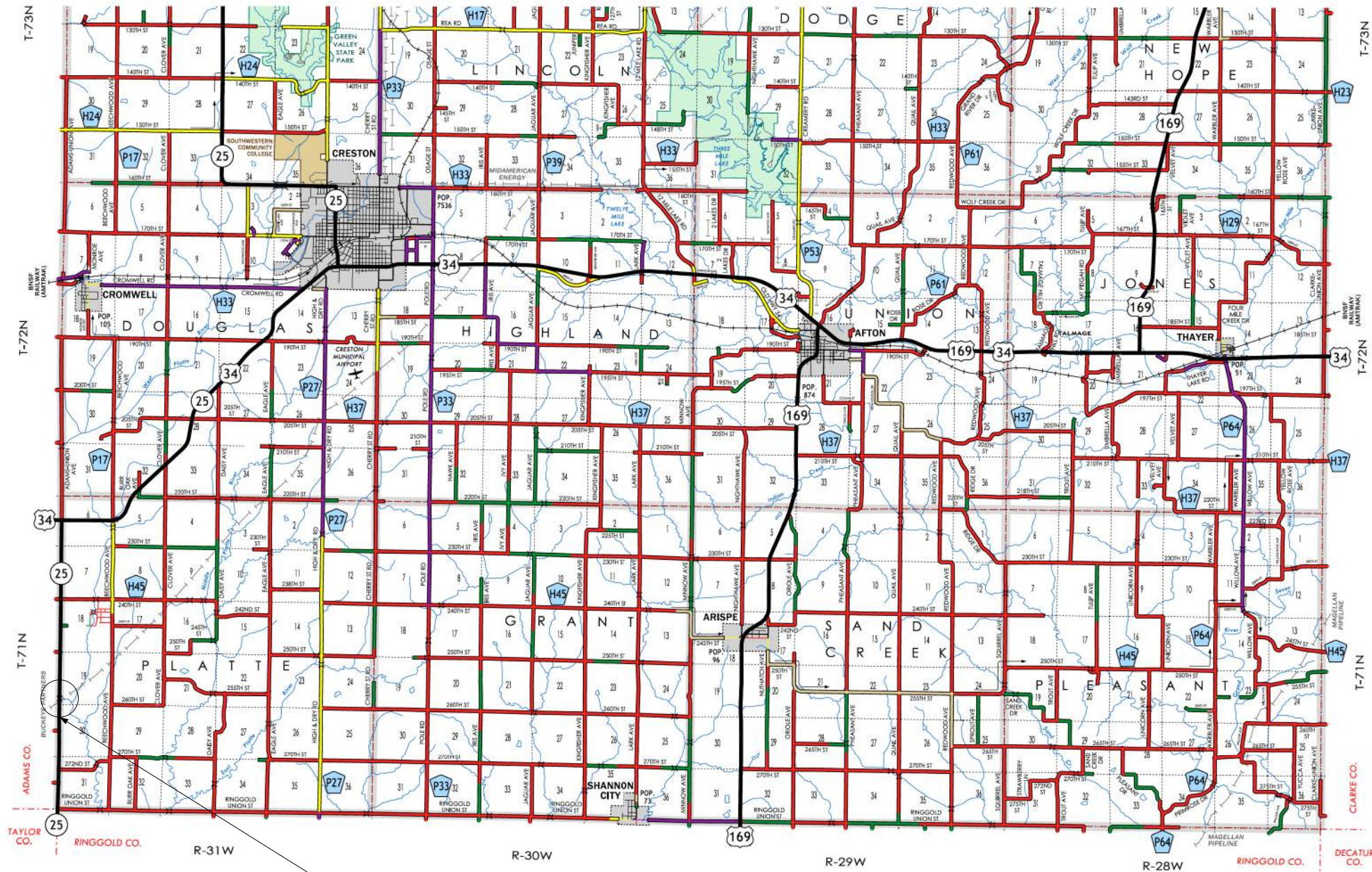
Refer to the Plan Sheets for list of applicable specifications.

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



Revisions

	TOTAL
	49
PROJECT IDENTIFICATION NUMBER	
23-88-025-010	
PROJECT NUMBER	
BRF-025-2(028)--38-88	
R.O.W. PROJECT NUMBER	
-	
PROJECT DIRECTORY NUMBER	
8802501023	



LEGEND

INTERSTATE HIGHWAY

PRIMARY HIGHWAY-DIVIDED

PRIMARY HIGHWAY

PORTLAND CEMENT CONCRETE ROAD

ASPHALT ROAD

BITUMINOUS ROAD

GRAVEL ROAD

EARTHEN ROAD

INTERSTATE HIGHWAY

UNITED STATES HIGHWAY

STATE HIGHWAY

COUNTY HIGHWAY

RAILROAD

PIPELINE

AIRPORT

HYDROLOGY

BRIDGE

STATE BOUNDARY

COUNTY BOUNDARY

CORPORATE BOUNDARY

TOWNSHIP LINE

SECTION LINE

ROAD NAMES

UNINCORPORATED PLACE

STATE PARKS

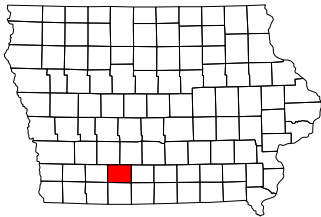
STATE INSTITUTIONS

FEDERAL LAND

Union County Location Map

Not To Scale

Design No. 128
FHWA No. 050141



Estimated Bridge Repair Quantities and Reference Notes - Design #128					
Item No.	Item Code	Item	Unit	Quantities Estimated Design No. 128	Estimate Reference Notes
1	2413-0698074	DECK REPAIR, CLASS A	SY	189.8	--
2	2413-0698076	PARTIAL REMOVAL OF EXISTING BRIDGE DECK USING HYDRODEMOLITION	SY	764.6	Refer to Special Provisions for "Partial Removal of Existing Bridge Deck Using Hydrodemolition" for additional information. Asbestos Present: No
3	2426-6772016	CONCRETE REPAIR	SF	23.2	--
4	2533-4980005	MOBILIZATION	LS	1	--
		ALTERNATE AA OPTION 1			
5	2413-0698066	DECK OVERLAY (CLASS O PCC)	SY	1055.9	Includes cleaning existing concrete rails and furnishing and placing concrete sealer. See details on Situation Plan, Includes 291.3 SY for the south bridge approach pavement overlay and 764.6 SY for the bridge deck overlay. See BR-110 and Tab. 102_16 in Roadway Sheets.
		ALTERNATE AA OPTION 2			
6	2403-1000010	TRIAL BATCH AND TEST PLACEMENT (FIBER REINFORCED CONCRETE)	LS	1	Refer to the Developmental specification for Fiber Reinforcement for Structural Concrete for additional information.
7	2413-0698067	DECK OVERLAY (CLASS HPC-O PCC)	SY	1055.9	Includes cleaning existing concrete rails and furnishing and placing concrete sealer. See details on Situation Plan, Includes 291.3 SY for the south bridge approach pavement overlay and 764.6 SY for the bridge deck overlay. See BR-110 and Tab. 102_16 in Roadway Sheets.
8	2413-1000005	FIBER REINFORCEMENT FOR CONCRETE REPAIR/OVERLAY	SY	1055.9	Refer to the Developmental specification for Fiber Reinforcement for Structural Concrete for additional information. Includes 291.3 SY for the south bridge approach pavement overlay and 764.6 SY for the bridge deck overlay. See BR-110 and Tab. 102_16 in Roadway Sheets.

Note:
Roadway quantities shown
elsewhere in these plans.

Design For Repair To 18° Degree Skew LA

188'-0" x 36'-0" Pretensioned
Prestressed Concrete Beam Bridge

40'-9" End Spans106'-6" Interior Span

Estimated Bridge Quantities

STA. 110+90.62 (C 1A 25)Turn-in Date: Sept 2026

Union County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. 128Design Sheet No. 1 of 7FHWA No. 050141

General Notes:

This design is for repairs to the existing 188'-0" x 36'-0" Pretensioned Prestressed Concrete Beam Bridge on IA 25 over Branch Platte River. Electronic copies of original design plans are available to the Contractor as part of the E-files supplied with the contract documents. Dimensions shown on these plans are based on design plans (original design No. 103). See Situation Plan for list of repair items.

All dimensions and details shown on these plans pertinent to new construction shall be verified in the field by the Contractor before starting construction.

Faint lines on plans indicate the existing structure.

The utility companies whose facilities are shown on the plans or known to be within the construction limits shall be notified by the Contractor of the construction starting date.

Minimum clear distance from face of concrete to near reinforcing bar is to be 2" unless otherwise noted or shown.

These bridge plans label all reinforcing steel with english notation (5a1 is 5⁄8 inch diameter bar). English reinforcing steel received in the field may display the following "Bar Designation". The "Bar Designation" is the stamped impression on the reinforcing bars, and is equivalent to the bar diameter in millimeters.

English Size	3	4	5	6	7	8	9	10	11
Bar Designation	10	13	16	19	22	25	29	32	36

All reinforcing bars and bars noted as dowels supplied for this structure shall be deformed reinforcement unless otherwise noted or shown.

The top and interior faces of the existing concrete railing are to be cleaned and sealed in accordance with Article 2403.03, P, of the Standard Specifications. If new sections of rail are constructed, the new sections shall not be sealed. All costs associated with cleaning and sealing of the concrete rails shall be included in the Unit Price Bid Item "Deck Overlay (Class O PCC)" or "Deck Overlay (Class HPC-O PCC)".

Present deck thickness is about 8". The Deck Reinforcing is quite shallow for a portion of the Deck Area. In those areas were reinforcing is less than 1⁄4" clear below the original finished surface, the bottom limit of Bridge Deck Overlay will be considered as the top of the top reinforcing. Unsound concrete below the top of the top reinforcing shall be repaired as Class A Bridge Deck Repair. The Contractor will be required to carefully regulate scarifying depth and employ hand methods as necessary in order to prevent damage or unbonding of reinforcing.

Plan quantity of deck repair is based on the "survey plot" as shown in these plans. Hatched portions represent Class A bridge repair. Cross hatched portions, if shown, represent Class B bridge deck repair. The plan quantity for "Class A Deck Repair" is estimated as 189.8 SY based on automated sounding of the deck plus 25% increase for estimating purposes. Actual spalled and hollow areas as determined by the Engineer shall be repaired.

Construction shall be done in stages with at least one lane traffic maintained at all times in accordance with "Traffic Control Plan" note.

Construction Stages I & II as detailed on these plans may be reversed at the Contractor's option subject to the Engineer's approval.

Ready mix trucks are not allowed on the prepared portion of the bridge deck.

Surface preparation shall be according to Article 2413.03, B and C of the Standard Specification and Special Provisions for "Partial Removal of Existing Deck Using Hydrodemolition". The Contractor shall ensure the vertical edges of the stage 1 overlay is prepared for placement of the new concrete for stage 2 by sandblasting or shot blasting, followed by an air blast. Ensure this cleaning removes all dirt, oil, and other foreign material. Ensure it removes all unsound concrete, laitance, or loose material from the surface and edges against which the surface mixture is to be placed. The cleaning should roughen the surface in order to provide satisfactory bond with the surfacing mixture.

Surface raise, as shown on these plans, shall be considered a minimum. In order to limit the additional dead load surface raise shall be restricted to a maximum of 1⁄2" more than shown on the plans. Profile may be adjusted to the extent possible within these limits.

Areas of rail repair indicated on the Situation Plan sheet or designated by the Engineer are to be repaired using concrete repair notes and details included in these plans.

The Contractor shall place portland cement concrete overlay on the south bridge approach pavement as noted and shown on the Standard Road Plan BR-110. Payment for this work shall be noted on Standard Road Plan BR-110.

Specifications:

Design:
AASHTO series of 2002.

Construction:

Iowa Department of Transportation Standard Specifications for Highway and Bridge Construction, Series 2023, plus applicable General Supplemental Specifications, Developmental Specifications, Supplemental Specifications and Special Provisions shall apply to construction work on this project.

- Developmental Specifications for Fiber Reinforcement for Structural Concrete.
- Special Provisions for Partial Removal of Existing Deck Using Hydrodemolition

Design Stresses:

Design stresses for the following materials are in accordance with the AASHTO Standard Specifications for Highway Bridges, Series of 2002.

Reinforcing steel in accordance with Section 8, Grade 60.
Concrete in accordance with Section 8, f'c = 4.0 ksi.

Traffic Control Plan:
The roadway will be open to thru traffic.
Refer to the traffic control plan shown elsewhere in these plans.

Design History At This Site (includes this Design)	
Des. No.	Type Of Work
103	Original Design
128	Bridge Deck Overlay

Design For Repair To 18° Degree Skew LA

188'-0" x 36'-0" Pretensioned
Prestressed Concrete Beam Bridge

40'-9" End Spans106'-6" Interior Span

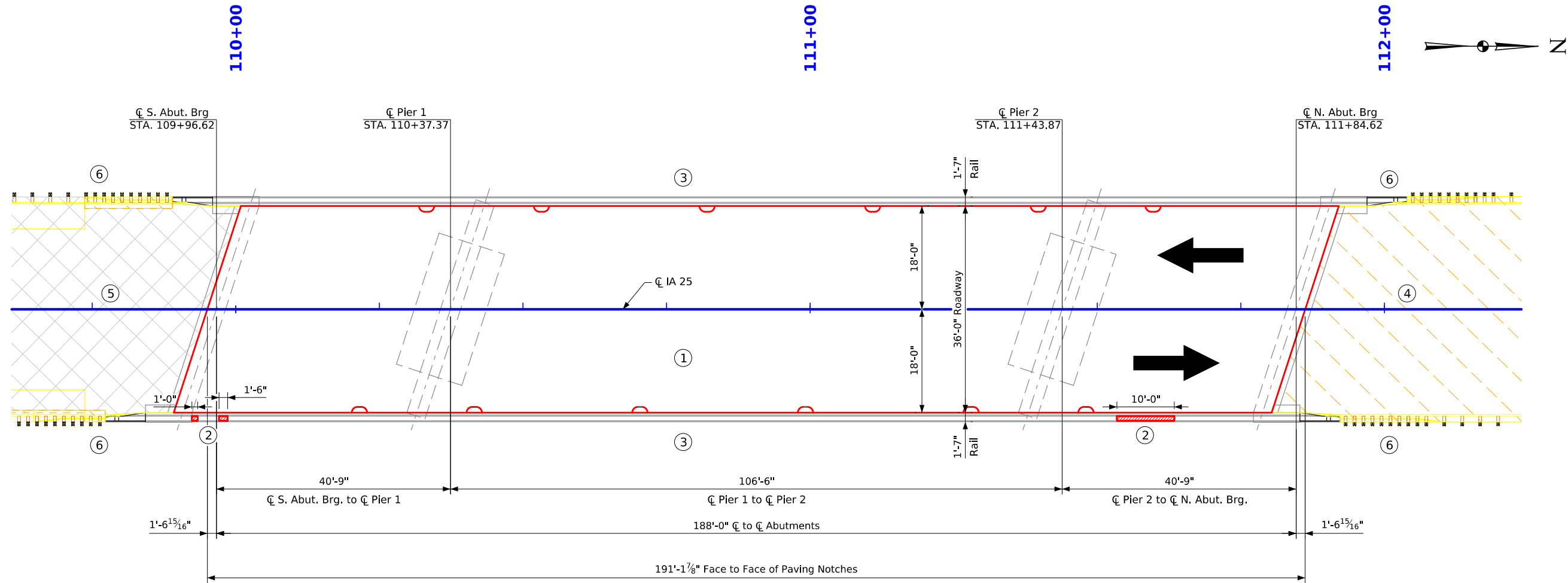
General Notes

STA. 110+90.62 (☞ IA 25)Turn-in Date: Sept 2026

Union County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. 128Design Sheet No. 2 of 7FHWA No. 050141



Situation Plan

- Repair Legend
- ② Concrete repair spalled rail (23.2 sq. ft.)

Traffic Estimate

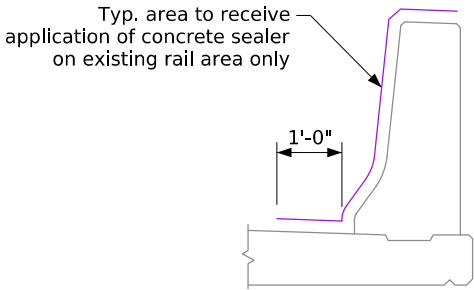
2024 AADT	1,310
TRUCKS	V.P.D. 18.2 %

Location

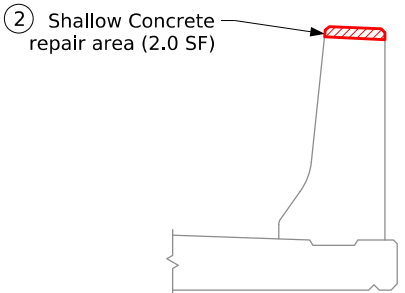
IA 25 over Branch Platte River
T-71N R-31 W
Section 19
Platte Township
Union County
FHWA No. 050141
Bridge Maint. No. 8824.75025
Latitude 40.929693°
Longitude -94.470549°

Repairs shall consist of:

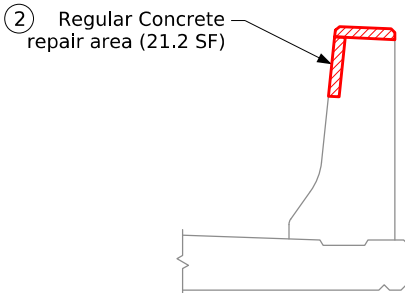
- ① Scarify deck using hydrodemolition, complete Class A repairs, and overlay the bridge with PCC.
- ② Concrete repair spalled barrier rail.
- ③ Clean and seal inside and top of existing barrier rails and barrier rail end sections.
- ④ Remove and replace north approach pavement.
- ⑤ Overlay south approach pavement with PCC for bridge grade raise.
- ⑥ Remove and replace existing guardrails and install paved shoulders at guardrails.



Detail of Concrete Sealer Area



Detail of Concrete Repair (Span 1)



Detail of Concrete Repair (Near Pier 2)

Design For Repair To 18° Degree Skew LA

188'-0" x 36'-0" Prestensioned Prestressed Concrete Beam Bridge

40'-9" End Spans 106'-6" Interior Span

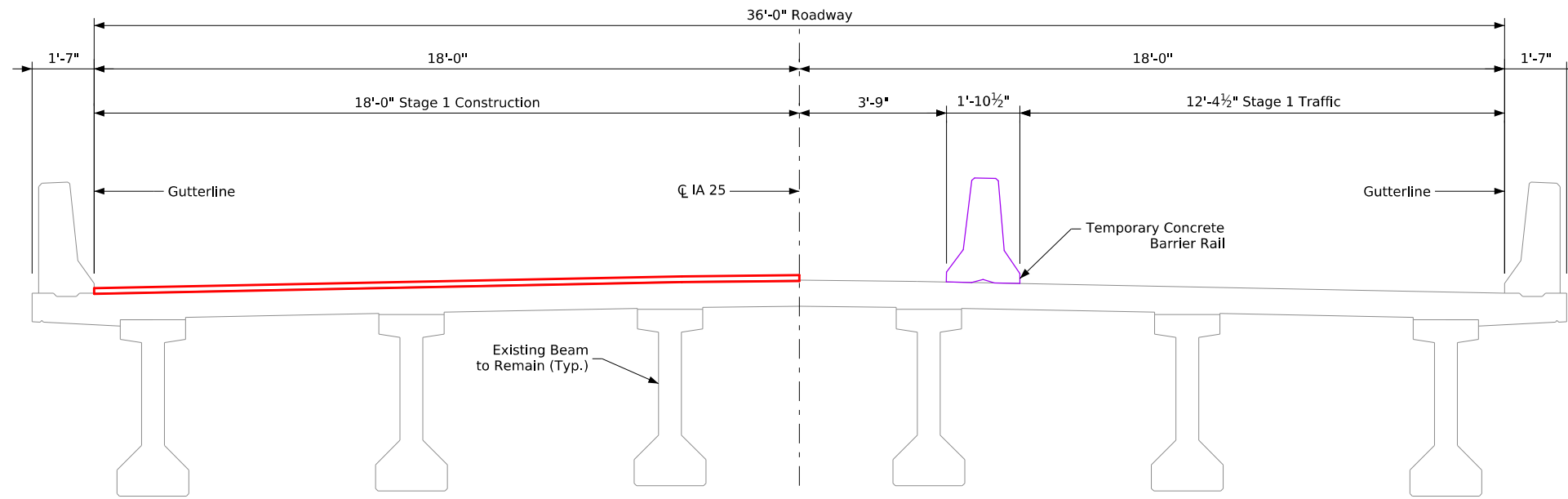
Situation Plan

STA. 110+90.62 (☐ IA 25) Turn-in Date: Sept 2026

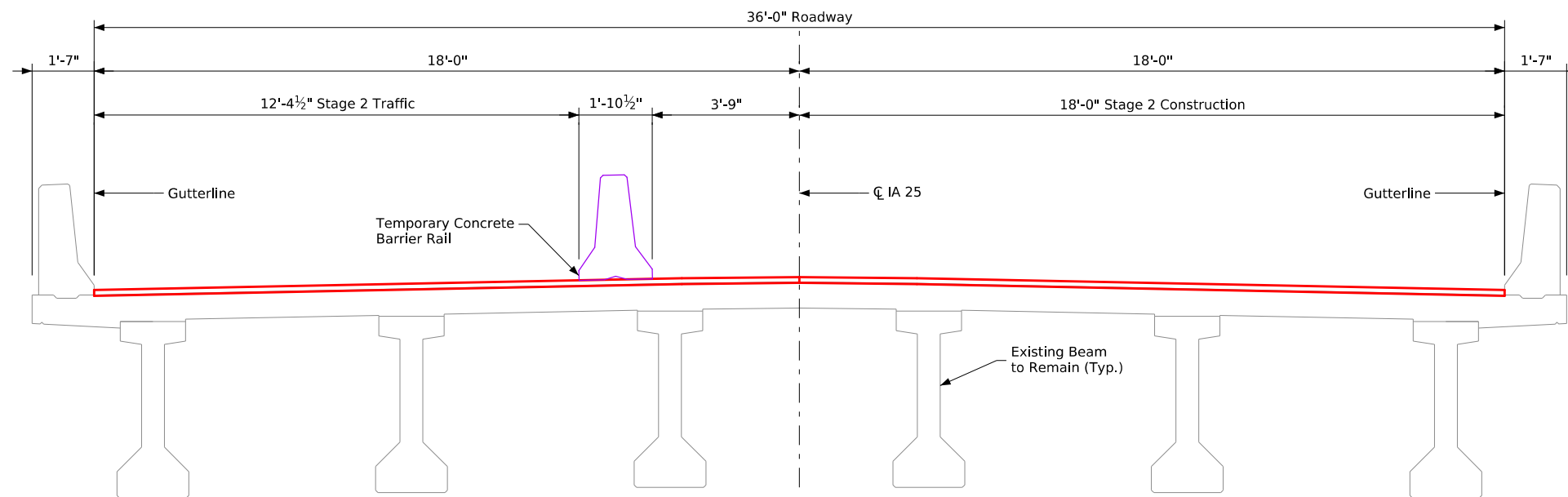
Union County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. 128 Design Sheet No. 3 of 7 FHWA No. 050141



Typical Section Stage 1 Construction
(Looking North)



Typical Section Stage 2 Construction
(Looking North)

Design For Repair To 18° Degree Skew LA

**188'-0" x 36'-0" Prestensioned
Prestressed Concrete Beam Bridge**

40'-9" End Spans 106'-6" Interior Span

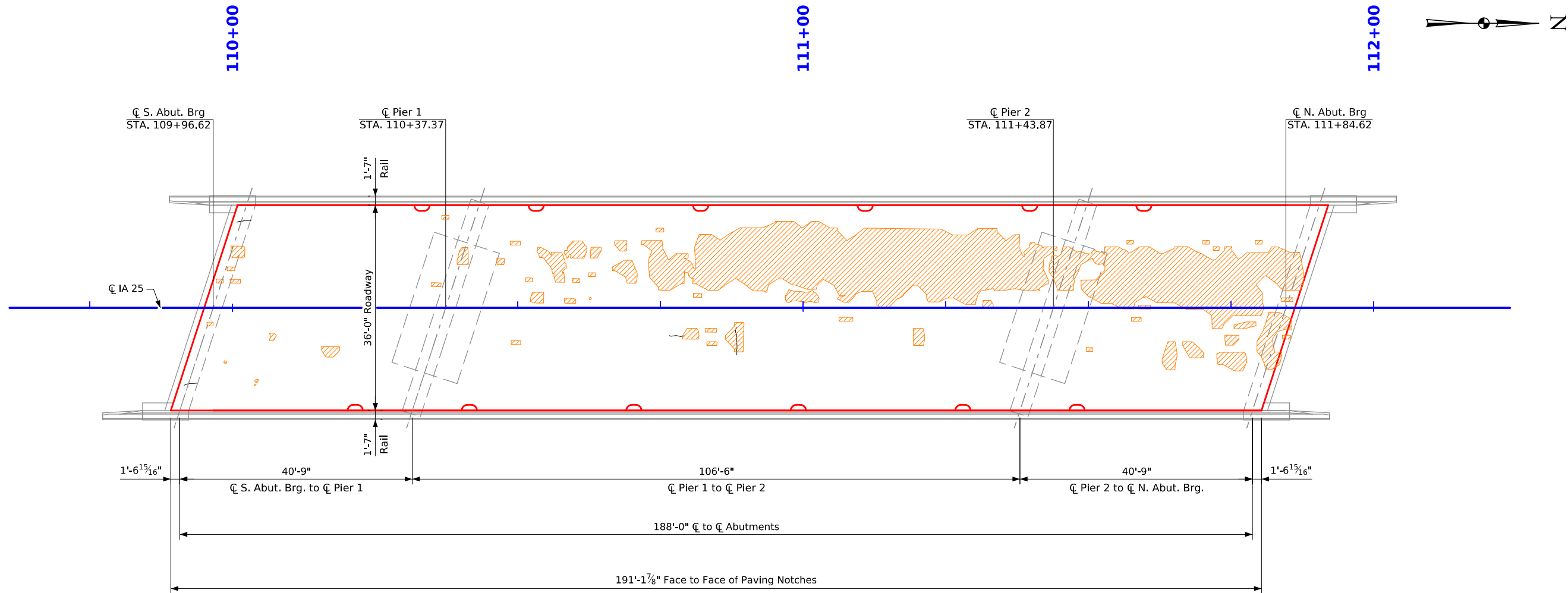
Staging Details

STA. 110+90.62 (CL IA 25) Turn-in Date: Sept 2026

Union County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. 128 Design Sheet No. 4 of 7 FHWA No. 050141



Survey Plot
(Hatched Areas = Areas of Delamination = Approximately 1,272 Sq. Ft.)
(Not to Scale)

Notes:
Data shown was provided by Iowa DOT District personnel.

Limits on class A repair areas are approximate. Actual areas as designated by the engineer shall be repaired.

Estimated Class A Repair		
Deck Sounding Area	Sq. Yd.	141.3
Deck Sounding Increase (25%)	Sq. Yd.	35.3
2' Areas at End of Deck	Sq. Yd.	13.2
Total Class A (SY)		189.8

Legend

Class A Repair Area

Crack

Design For Repair To 18° Degree Skew LA

188'-0" x 36'-0" Pretensioned
Prestressed Concrete Beam Bridge

40'-9" End Spans106'-6" Interior Span

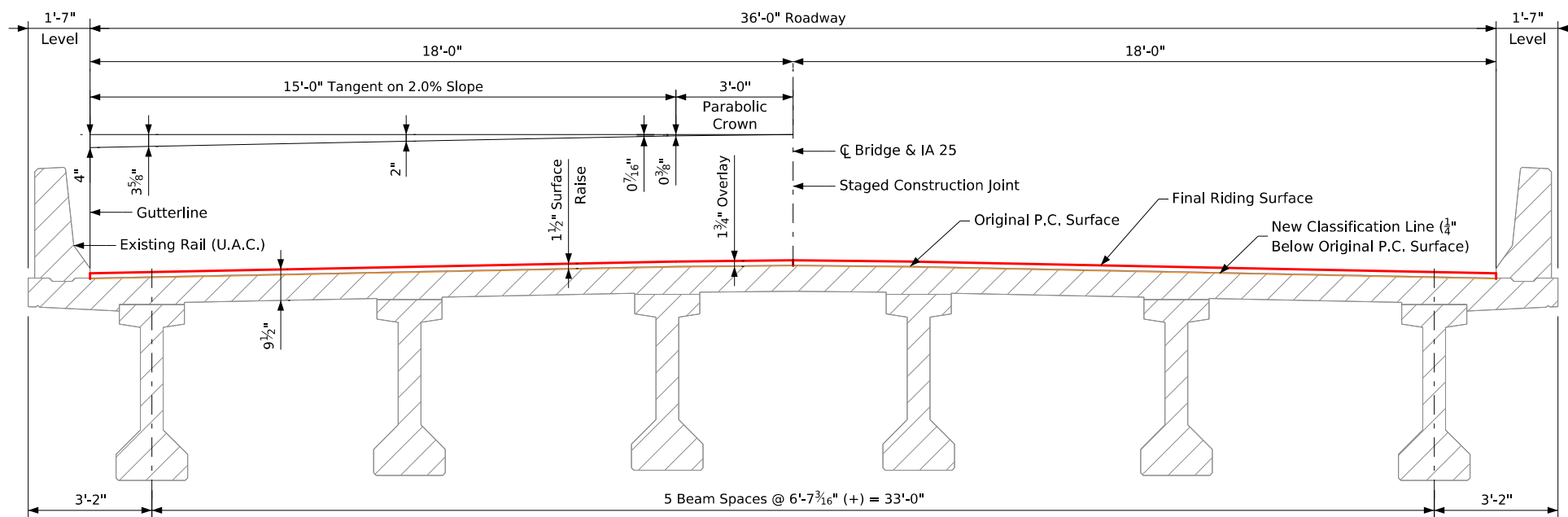
Deck Sounding Details

STA. 110+90.62 (CL IA 25)Turn-in Date: Sept 2026

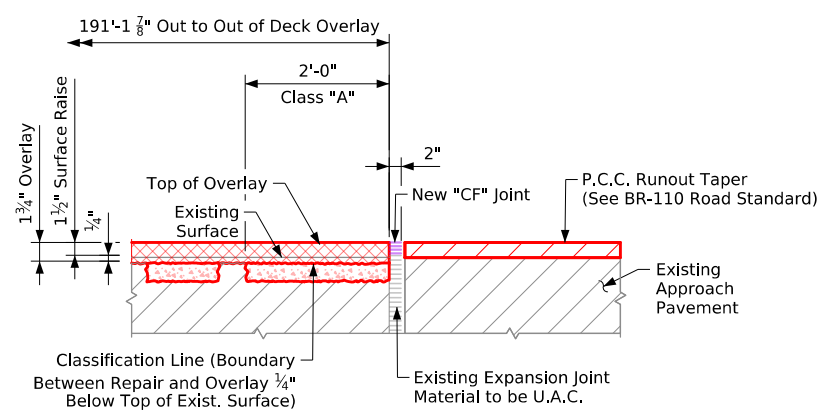
Union County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. 128Design Sheet No. 5 of 7FHWA No. 050141

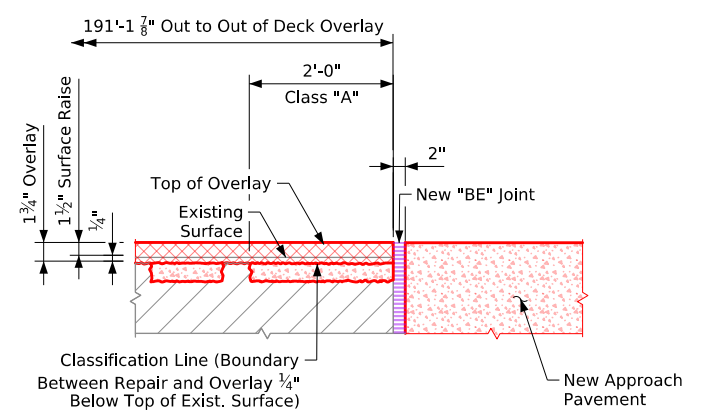


Typical Section



Part Longitudinal Section Along Roadway

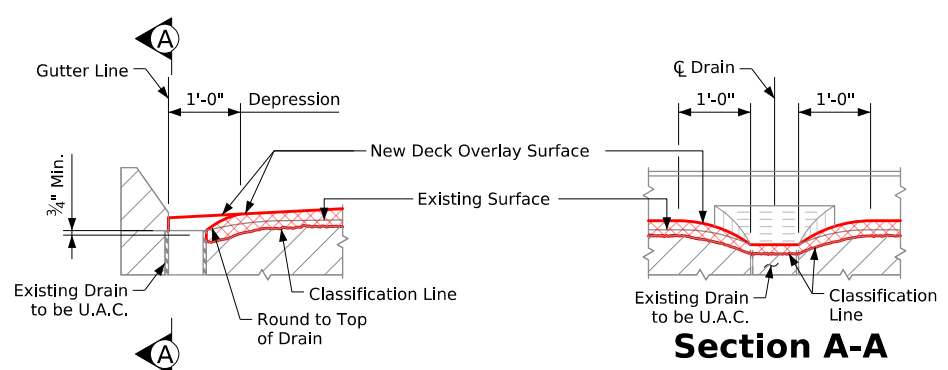
South Abutment



Part Longitudinal Section Along Roadway

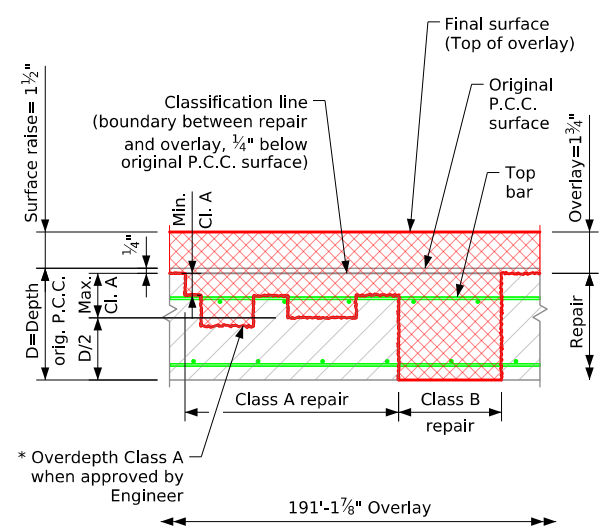
North Abutment

* Per IDOT Std. Spec. 2413.03.C.3.b, limited areas of Class A removal may exceed 50% of the floor thickness at the Engineer's direction. These limited areas of excess depth (overdepth) will be measured as Class A deck repair.



Deck Repair Detail at Drain

(Required at 12 Locations)



Repair and Overlay Definition

Note: The 2'-0" Class "A" repair area shown at the joint shall be removed to a minimum depth 1" below the existing top mat of reinforcing. The existing bridge deck reinforcing bars shall be carefully exposed and incorporated into the new construction work. A construction joint shall not be located in this 2'0" area and it shall be poured monolithically with the overlay.

Design For Repair To 18° Degree Skew LA

188'-0" x 36'-0" Prestressed Concrete Beam Bridge

40'-9" End Spans 106'-6" Interior Span

Deck Repair Details

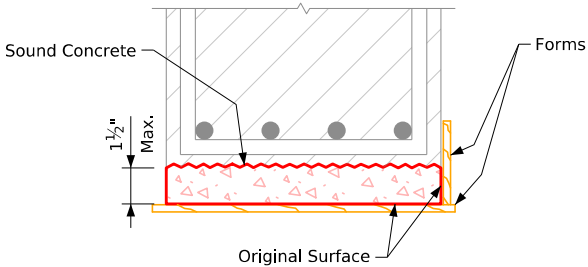
STA. 110+90.62 (C IA 25) Turn-in Date: Sept 2026

Union County

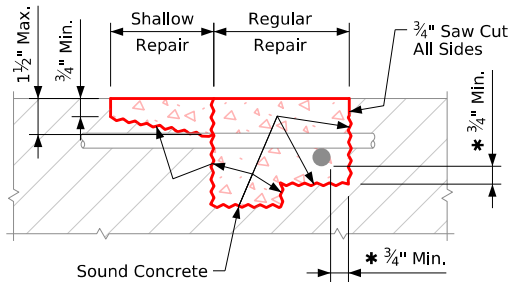
IOWA DEPARTMENT OF TRANSPORTATION

Design No. 128 Design Sheet No. 6 of 7 FHWA No. 050141

Revised 10-2014 - Deleted All References to Grout. Section 2426 Covers this Requirement and Doesn't Need to be Stated on the Plans.
RepairRetrofitBridges.dgn - 1045 - This Sheet Redrawn 09-27-1990.
RepairRetrofitBridges.dgn - 1045 - This Sheet Re-Issued 07-2023.

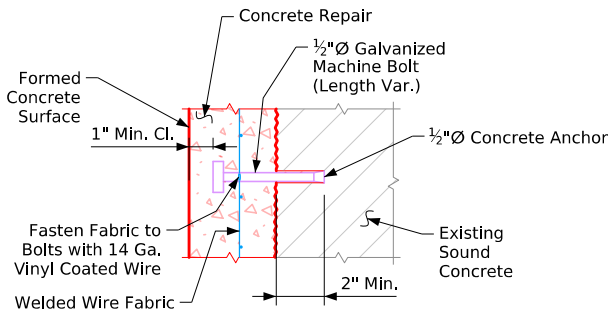


Shallow Repair
Bottom Surface



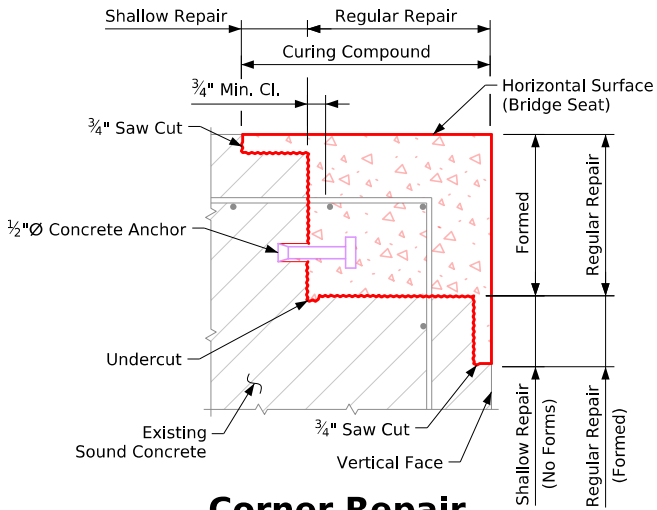
Repair Definition

* Indicates Clearance for an Un-Bonded Rebar.

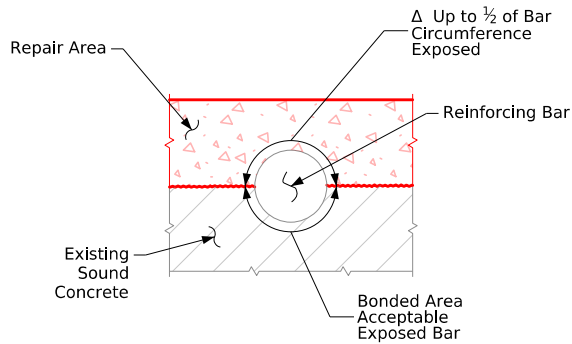


Anchor Detail

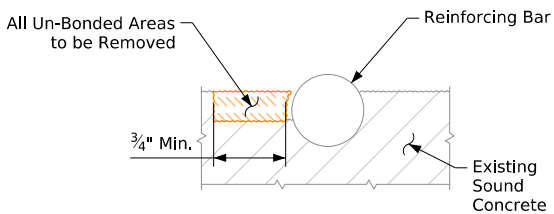
For Spacing and Use of Concrete Anchors and WWF See the Repair Notes.



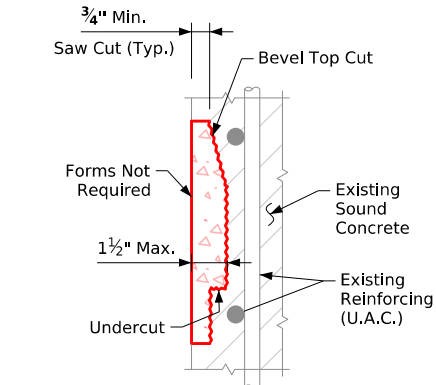
Corner Repair



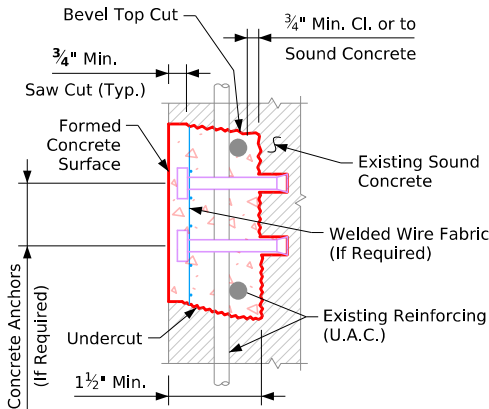
Δ If more than 1/2 of the rebar is exposed it shall be treated as an un-bonded rebar.



Concrete Removal
Adjacent to Reinforcing



Shallow Repair
Vertical Face



Regular Repair
Vertical Face

Repair Notes:

The spalled and hollow areas of this bridge as noted and shown in these plans shall be repaired as follows:

- All the costs of equipment and materials required to repair the spalled and hollow areas of this bridge shall be included in the price bid for "Concrete Repair".
- The price bid for "Concrete Repair" shall include the cost of all concrete anchors and welded wire fabric required by the plans.
- The Engineer shall determine and outline by visual and audible inspection the actual areas of the concrete repairs. The Contractor shall be paid for the actual amount of repairs made on a square foot basis based on the price bid per square foot.
- All existing reinforcing bars that are exposed by the concrete removal shall be cleaned and carefully incorporated into the new work, except badly deteriorated existing reinforcing which shall be replaced as directed by the Engineer.
- The concrete anchors required shall have a minimum pull out of 5,000 lbs based on 4,000 psi concrete. An anchor meeting the requirements of Iowa D.O.T. Materials I.M. 453.09 and the pull out load above is required. The anchors shall be galvanized and shall be installed according to recommendations of the Manufacturer. The cost of furnishing and installing the concrete anchors shall be included in the price bid for "Concrete Repair".
- The welded wire fabric shall be ASTM A185 and galvanized as per ASTM A-641. The WWF wires shall be spaced 3x3 or 4x4 and the wires shall have a nominal area of 0.014 to 0.029 square inch inclusive, example "WWF 3x3 - W1.4xW2.9".

Where reinforcement has been exposed and clearance around the periphery of the existing bar is provided, no supplemental reinforcing is required, except where existing reinforcement density and pattern are such that individual open spaces between bars are of 1.5 square feet or larger. For this condition 1/2"Ø concrete anchors and welded wire fabric shall be installed at the rate of one concrete anchor with WWF per each 1.5 square feet of area within each open space.

Repairing the structural concrete shall be in accordance with Section 2426 of the Standard Specifications.

Concrete Placement Quantities

Mark	Type	Units	Quantity
①	Shallow Repair	Sq. Ft.	2.0
②	Regular Repair	Sq. Ft.	21.2
		Total (Sq. Ft.)	23.2

Estimated Concrete Repair Quantities

Description	Units	Amount
Concrete Repair	Sq. Ft.	23.2

For estimated repair areas and locations, see Design Sheet 3.

Design For Repair To 18° Degree Skew LA

188'-0" x 36'-0" Prestensioned
Prestressed Concrete Beam Bridge

40'-9" End Spans106'-6" Interior Span

Concrete Repairs

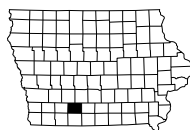
STA. 110+90.62 (Ç IA 25)Turn-in Date: Sept 2026

Union County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. 128Design Sheet No. 7 of 7FHWA No. 050141

INDEX OF SHEETS	
No.	DESCRIPTION
A Sheets	Title Sheets
A.3	Title Sheet
B Sheets	Typical Cross Sections and Details
* B.1 - B.6	Typical Cross Sections and Details
C Sheets	Quantities and General Information
C.1 - C.2	Estimated Project Quantities & Reference Notes
C.3 - C.25	Tabulations
D Sheets	Mainline Plan and Profile Sheets
* D.1	Plan & Profile Legend & Symbol Information Sheet
* D.2 - D.3	IA 25 Plan Sheets
J Sheets	Traffic Control and Staging Sheets
J.1 - J.4	Traffic Control Plan, Staging Notes and Tabulations
U Sheets	Modified Standards and Details
* U.1	Curb Reconstruction Details
	* Color Plan Sheets

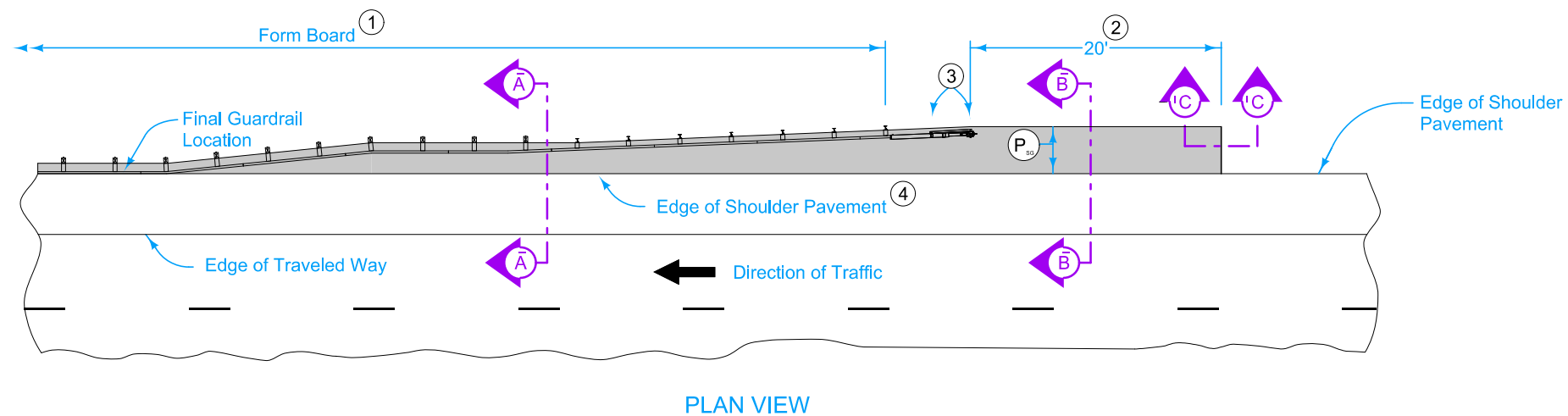


A circular professional engineer seal for the State of Iowa. The outer ring contains the text "LICENSED PROFESSIONAL ENGINEER" at the top and "IOWA" at the bottom, separated by two stars. The center of the seal contains the name "Xingwei Weng" and the license number "P27644".

Signature _____ Date _____

Xingwei Weng

Pages or sheets covered by this seal: A.3, B.1 - B.6, C.1 - C.25, D.1 - D.3, J.1 - J.4,
U.1

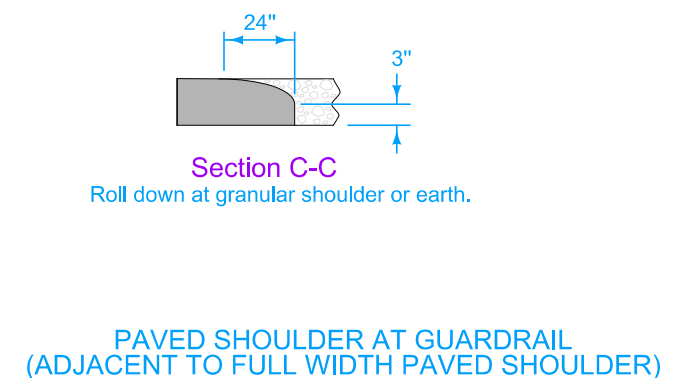
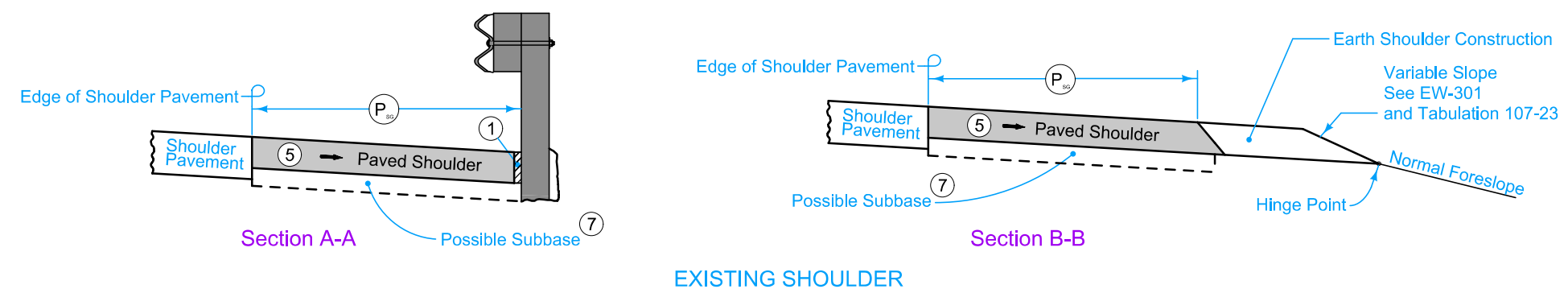
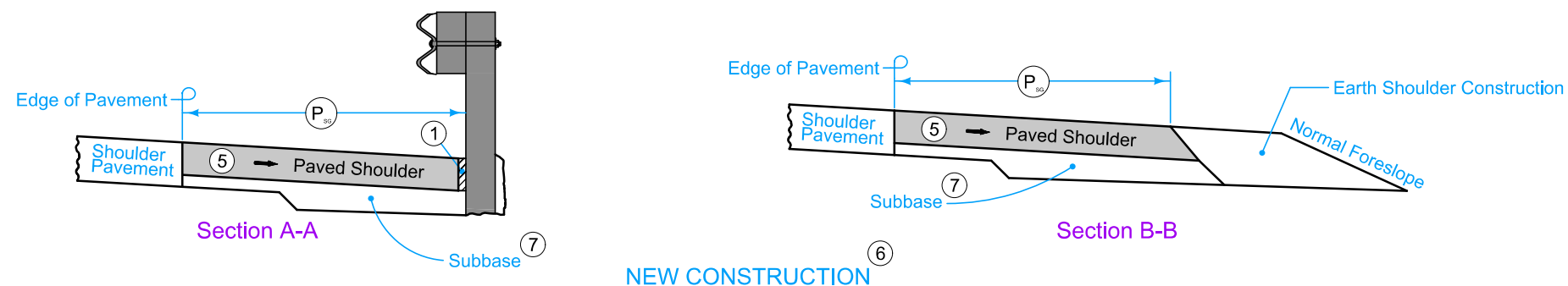


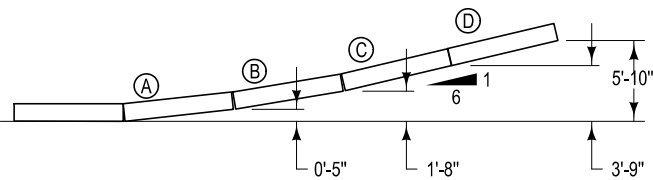
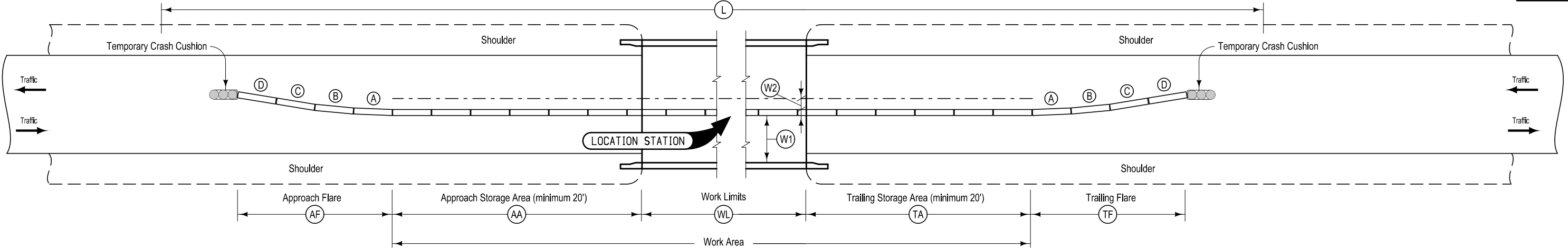
8" PCC Paved Shoulder at guardrail with the following jointing layout:

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 'BT' joint (per PV-101) for PCC 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.





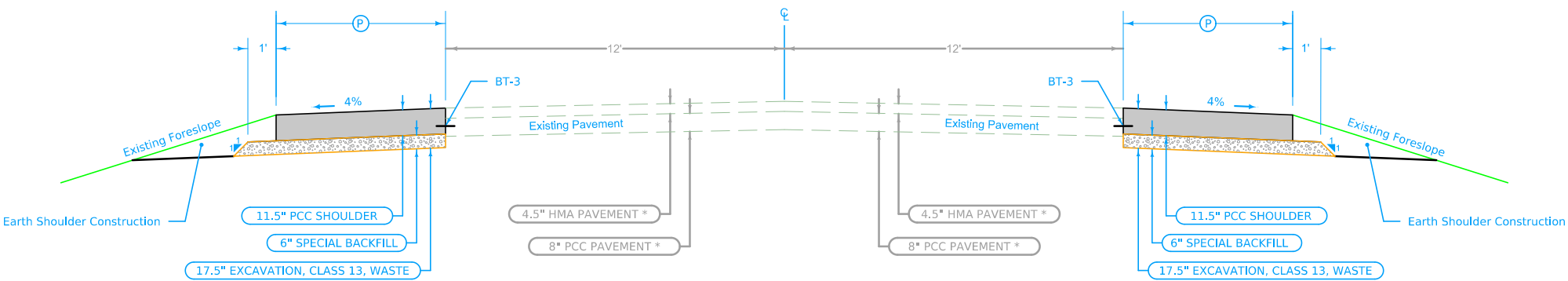
Station	Side	AF	AA	WL	TA	TF	L	Anchored X	W1 ^①	W2	Remarks
		Feet	Feet	Feet	Feet	Feet	Feet		Feet-Inches	Feet-Inches	
110+90.62	Right	50	30	325	20	50	475		12 - 4.5	3 - 9	Stage 1: 38 - 12.5' TBR Sections
110+90.62	Left	50	30	325	20	50	475		12 - 4.5	3 - 9	Stage 2: 38 - 12.5' TBR Sections

① Where (W1) is less than 15'-6", install restricted width signing as per Standard Road Plan TC-81.

The location station is the bridge center station.

The approach, trailing, and side are in the direction of stationing.

TEMPORARY CONCRETE BARRIER LAYOUT
for Two-Way Traffic



PCC Shoulder

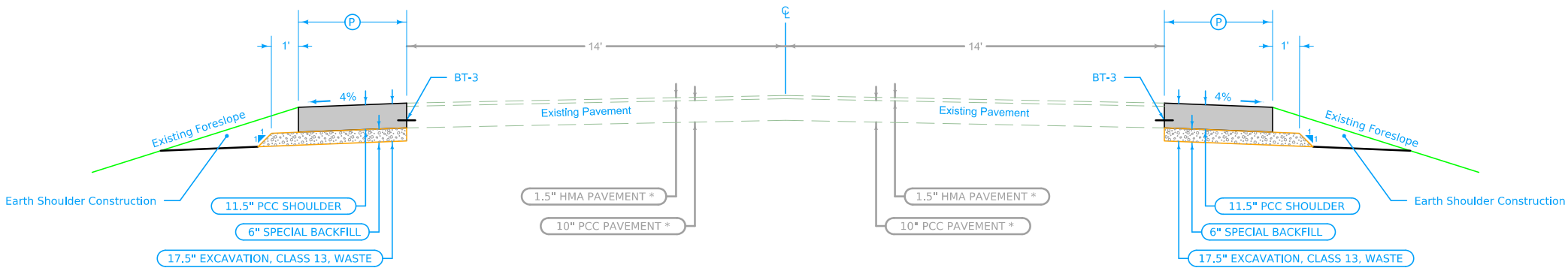
Longitudinal joint: BT-3
Transverse joints: C at mainline spacing

STATION TO STATION		Ⓟ Feet
105+50.00	106+00.00	6

PCC Shoulder

Longitudinal joint: BT-3
Transverse joints: C at mainline spacing

STATION TO STATION		Ⓟ Feet
105+50.00	106+00.00	6



PCC Shoulder

Longitudinal joint: BT-3
Transverse joints: C at mainline spacing

STATION TO STATION		Ⓟ Feet
106+00.00	109+73.68	4
112+57.56	116+20.00	4

PCC Shoulder

Longitudinal joint: BT-3
Transverse joints: C at mainline spacing

STATION TO STATION		Ⓟ Feet
106+00.00	109+73.68	4
112+57.56	116+20.00	4

Shoulder shall be constructed by exposing the existing concrete pavement to drill and install rebar. The depth of the shoulder shall match the bottom of the lane pavement section as shown in the shoulder detail.

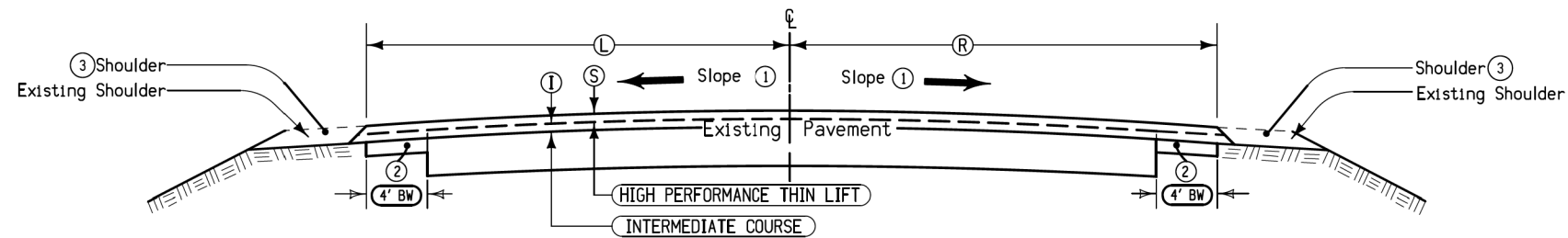
Transverse 'C' joints shall match the mainline pavement joint spacing. Longitudinal 'BT-3' joints shall be used to tie the shoulder pavement to the mainline.

* Existing pavement information is approximate and based on as-builts. Contractor shall field verify existing pavement depths and base layers to align with the proposed shoulder section.

Refer to Tab. 112-9 for P width and shoulder quantities.

PCC SHOULDER

DIST.4-1
MODIFIED

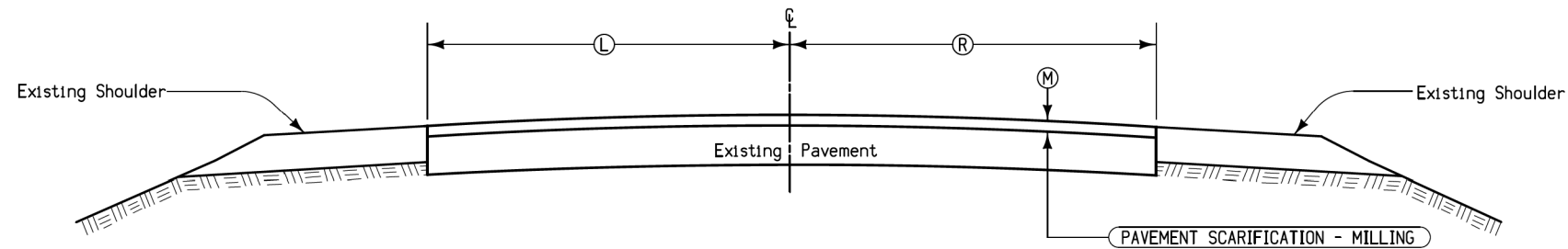


- Notes:
- Section shown in the direction of travel
- ① Finished slope of driving lanes is to be 2.0%, paved shoulder slope is to be 4%. Section may be modified as directed by the Engineer through areas of special shaping.
- ② Base Widening quantities are not included with Resurfacing quantities, see Standard Road Plan PV-203 and Tab 106-5.
- ③ Refer to shoulder typicals.

**TYPICAL CROSS SECTION
HMA RESURFACING &
BASE WIDENING**

HMA Resurfacing & Pavement Scarification						
Location		⑤	①	②	③	Remarks
Road Identification	Station To Station	Inches	Inches	Feet	Feet	
IA 25	1031+40	1089+65	1.5	1.5	16	16
	0+00	106+00	1.5	1.5	16	16
	106+00	109+85	1.5		16	16
	112+35	116+20	1.5		16	16
	116+20	288+82	1.5	1.5	16	16

DIST.4-1
MODIFIED



- Notes:
- Section shown in the direction of travel.
- Scarification widths may be less than 12 feet in some areas due to pavement unraveling.

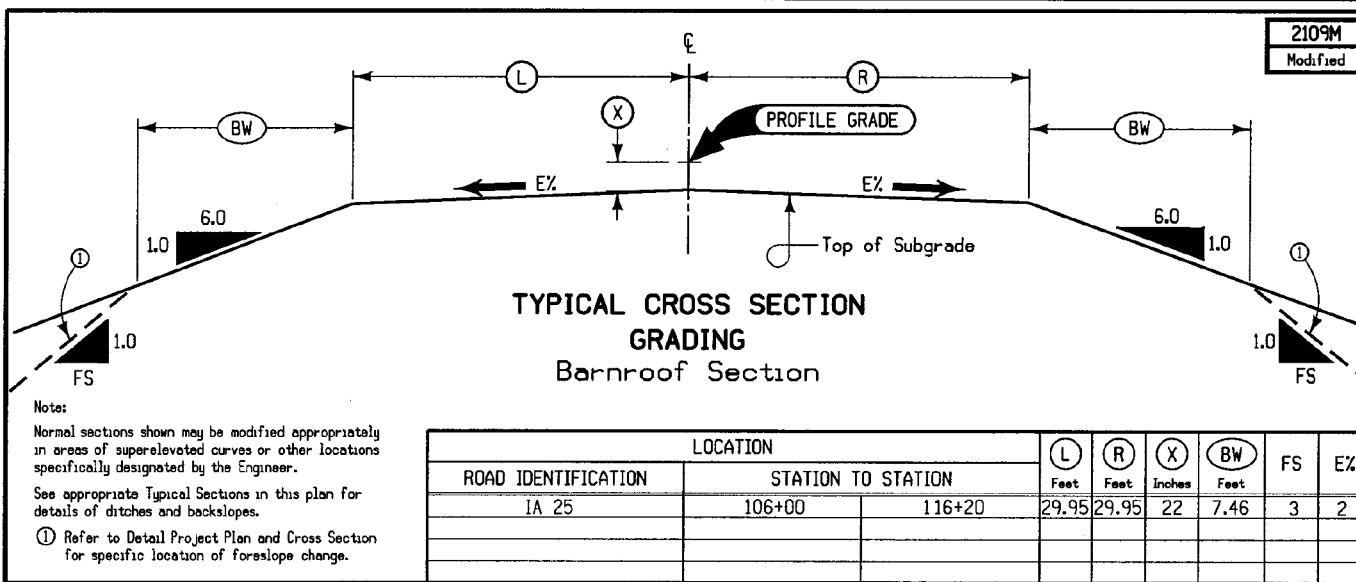
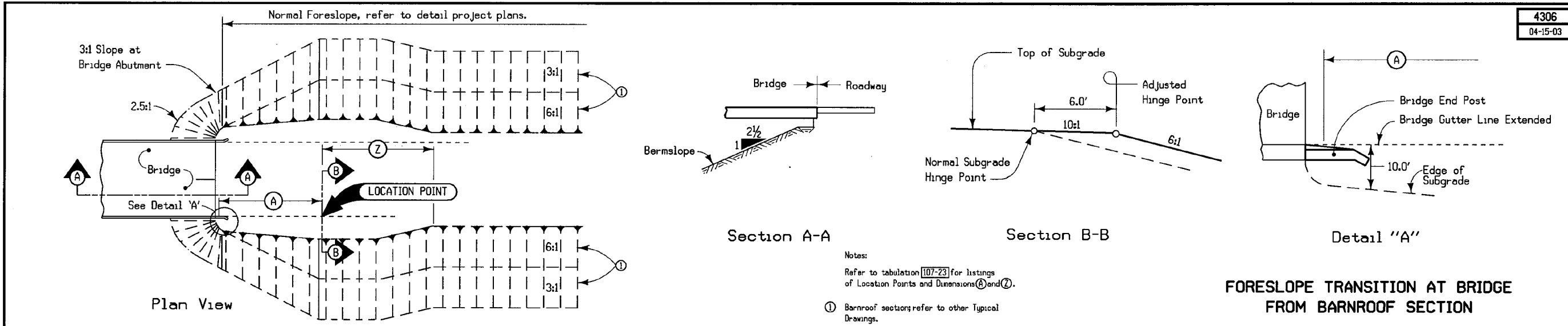
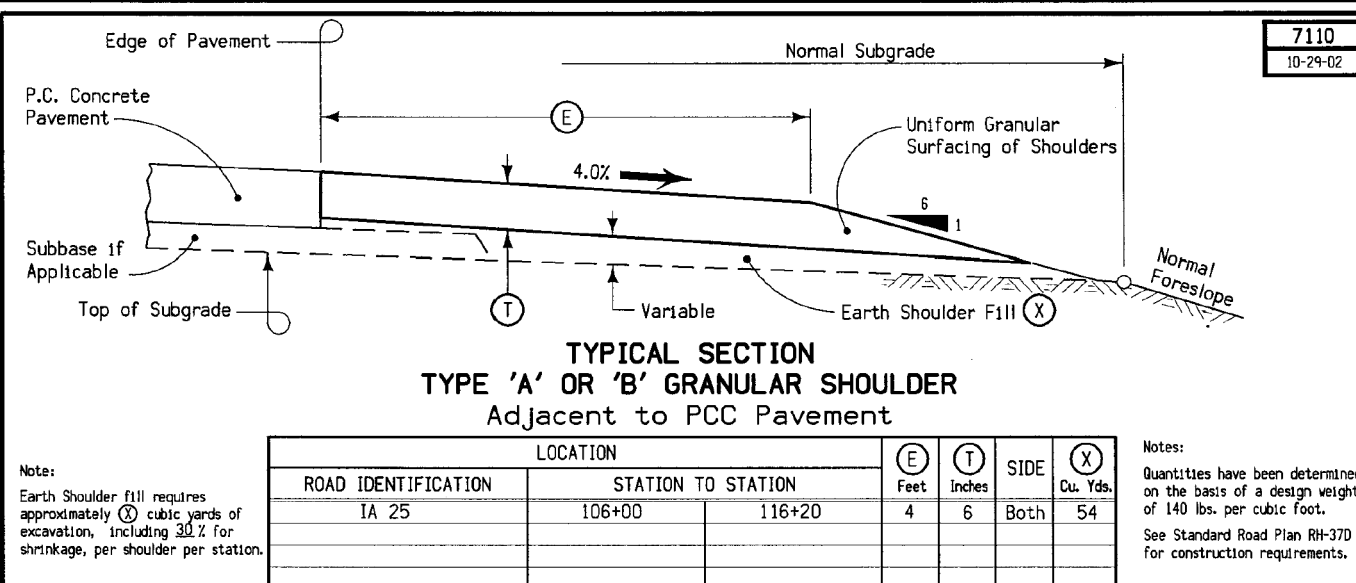
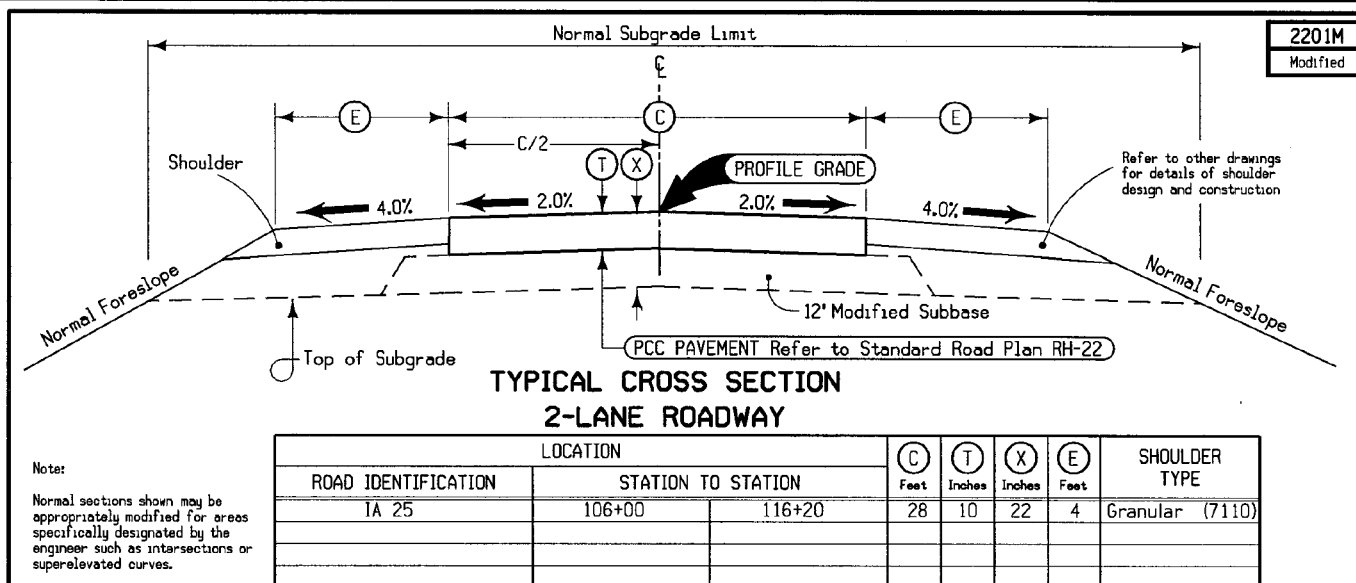
**TYPICAL CROSS SECTION
PAVEMENT SCARIFICATION**

Design Quantities Per Station						
Location			Ⓜ	Ⓛ	Ⓡ	Remarks
Road Identification	Station To Station		Inches	Feet	Feet	
IA 25	1031+40	1089+65	1.5	12	12	
	0+00	106+00	1.5	12	12	
	116+20	288+82	1.5	12	12	

FOR INFORMATION ONLY

FILE NO.	ENGLISH	DESIGN TEAM MAYBERRY\MALONE\KELLY	RINGGOLD\UNION COUNTY	PROJECT NUMBER STP-025-1(012)--2C-80	SHEET NUMBER B.1
3:57:52 PM	10/24/2024	mkelly	pw:\INTPwint1.dot.int.lan:PWMain\Documents\Projects\8002501023\DistrictDesign\80-0251-012 B Sheets.dgn		

FILE NO. 32577	ENGLISH	DESIGN TEAM HNTB	UNION COUNTY	PROJECT NUMBER BRF-025-2(028)--38-88	SHEET NUMBER B.4
10:40:05 AM	8/13/2026	rberbersolis	pw:\projectwise.dot.int.lan:PWMain\Documents\Projects\8802501023\Design\CADD_Files\Sheet_Files\SHT_B_88025028.dgn		



FOR INFORMATION ONLY

Design No. 103
File No. 29876
Design Sheet No. B.01

ESTIMATED PROJECT QUANTITIES AND REFERENCE NOTES

Roadway Items : Roadway Items

Item no.	Item Code	Item	Unit	Quantities	Estimate Reference Notes
				Estimated	
				Roadway Items	
1	2102-0425070	SPECIAL BACKFILL	TON	345.2	Refer to Tab. 112_09 for locations and details. Existing HMA and PCC from Pavement removal may be used on the project as special backfill.
2	2102-2625000	EMBANKMENT-IN-PLACE	CY	144.6	Refer to Tab. 107_23 and Standard Road Plan EW-301. Provide borrow material according to Section 2102 of the Standard Specifications. Material shall be provided by the Contractor.
3	2102-2713090	EXCAVATION, CLASS 13, WASTE	CY	444.3	Refer to Tab. 112_09 for locations and details. This item is for the removal of existing granular shoulder and existing pavement base material. Dispose of excess material according to Article 1106.07 of the current specifications. No payment for overhaul allowed.
4	2105-8425015	TOPSOIL, STRIP, SALVAGE AND SPREAD	CY	64.4	Refer to Tab. 103_10. This item is for stripping and salvaging 8 inches of topsoil from grading for guardrail installations. Topsoil shall be spread to an 8 inch thickness, after shrinkage, over disturbed areas to finished grade. No cross sections are provided with the contract documents.
5	2122-5190008	PAVED SHOULDER, P.C. CONCRETE, 8 IN.	SY	111.3	Refer to Tab. 112_09 and B Sheets for locations and details. This item is for the paved shoulder at guardrail.
6	2122-5190115	PAVED SHOULDER, P.C. CONCRETE, 11.5 IN.	SY	734.3	Refer to Tab. 112_09 and B Sheets for locations and details. This item is for the paved shoulder strengthening for shifting traffic during construction.
7	2123-7450000	SHOULDER CONSTRUCTION, EARTH	STA	15.64	Refer to Tab. 112_09 for locations and details.
8	2301-0690203	BRIDGE APPROACH, BR-203	SY	307.6	Refer to Tab. 112_06. Contractor to uniformly transition the 1.5 inch grade raise along the entire bridge approach.
9	2412-0000100	LONGITUDINAL GROOVING IN CONCRETE, BRIDGE DECK	SY	1,102.1	Refer to Tab. 100_28 for details.
10	2505-4008120	REMOVAL OF STEEL BEAM GUARDRAIL	LF	260	Refer to Tab. 110_07A for details. Refer to Tab. 108_08A for details.
11	2505-4008300	STEEL BEAM GUARDRAIL	LF	125	
12	2505-4008410	STEEL BEAM GUARDRAIL BARRIER TRANSITION SECTION, BA-201	EACH	4	
13	2505-4021010	STEEL BEAM GUARDRAIL END ANCHOR, BOLTED	EACH	4	
14	2505-4021720	STEEL BEAM GUARDRAIL TANGENT END TERMINAL, BA-205	EACH	4	Refer to Tabs. 102_05 and 110_01 for locations and quantities. This item includes the removal of approach pavement on the north side of the bridge and shoulder pavement for shoulder strengthening and curb installation.
15	2510-6745850	REMOVAL OF PAVEMENT	SY	672.7	
16	2512-1750006	CURB AND GUTTER, P.C. CONCRETE, AS PER PLAN	LF	27.8	Refer to Tab. 112_04 for locations and quantities. Refer to U Sheets for details.
17	2526-8285040	CONSTRUCTION SURVEY, LOCATION SURVEY	LS	1	Survey required to be furnished for the construction of the project includes, but is not limited to, guardrail, bridge approaches, and grading for guardrail as needed.

Item no.	Item Code	Item	Unit	Quantities	Estimate Reference Notes
				Estimated	
				Roadway Items	
18	2527-9263181	PAVEMENT MARKINGS REMOVED	STA	33.56	Refer to Tab. 108_22 for locations and quantities.
19	2527-9263209	PAINTED PAVEMENT MARKINGS, WATERBORNE OR SOLVENT-BASED	STA	37.73	
20	2527-9263231	REMOVABLE TAPE MARKINGS, WET RETROREFLECTIVE	STA	26.52	
21	2527-9270112	GROOVES CUT FOR PAVEMENT MARKINGS	STA	21.49	
22	2528-8400048	TEMPORARY BARRIER RAIL, CONCRETE	LF	950	Refer to Detail 8212 Modified in the B Sheets, Tab. 108_33, and D Sheets for location and details. All temporary barrier rail shall be nominal 12'-6" long concrete units.
23	2528-8400256	TEMPORARY TRAFFIC SIGNALS	EACH	1	Refer to Tab. 108_28 and D Sheets for locations and details.
24	2528-8445110	TRAFFIC CONTROL	LS	1	Refer to Traffic Control Plan on J Sheets.
25	2528-8445116	FLAGGER WITH AFAD	EACH	0	See Proposal. Flaggers shall be used to construct paved shoulder prior to Stage 1, to set up traffic control for Stages 1 and 2, and to remove temporary barrier rail during final construction.
26	2529-5070110	PATCHES, FULL-DEPTH FINISH, BY AREA	SY	37.4	Refer to Tab. 102_6C for locations and quantities.
27	2529-5070120	PATCHES, FULL-DEPTH FINISH, BY COUNT	EACH	2	
28	2529-8174020	SUBBASE PATCH WITH EF JOINT	SY	37.4	
29	2529-8174050	PATCH SUBDRAIN	EACH	1	
30	2529-8201000	JOINT ASSEMBLY, EF	EACH	2	
31	2548-0000320	MILLED CENTERLINE RUMBLE STRIPS, PCC SURFACE	STA	0.1	Refer to Tab. 112_10 for locations and details.
32	2551-0000110	TEMP CRASH CUSHION	EACH	4	Refer to Tab. 108_30, B and D Sheets for locations and details. Winterize sand filled or water filled crash cushions according to the manufacturer's recommendations if they are to remain in place during winter months.
33	2555-0000010	DELIVER AND STOCKPILE SALVAGED MATERIALS	LS	1	Refer to Tab. 110-13.
34	2602-0000320	PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE, 20 IN. DIA.	LF	2,300	Refer to Tab. 100_19. The tabulation includes estimated locations for placement of "Perimeter and Slope Sediment Control Device, 20 in. dia." to address erosion to be encountered during construction. Verify the specific locations with the Engineer prior to beginning placement. Bid item includes 25% additional quantity for field adjustments and replacements.
35	2602-0000351	REMOVAL OF PERIMETER AND SLOPE OR DITCH CHECK SEDIMENT CONTROL DEVICE	LF	2,300	

111_25 10/20/26		
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Tabulation	Tabulation Title	Sheet No.
	C Sheet	
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100_19	PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE	C.5
100_28	LONGITUDINAL GROOVING	C.6
102_05	EXISTING PAVEMENT	C.7
102_06C	FULL-DEPTH PATCHES	C.8
102_16	NOTCHES AND RUNOUTS FOR RESURFACING	C.9
103_10	TOPSOIL STRIPPING AND PLACEMENT	C.10
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108_28	TEMPORARY TRAFFIC SIGNALS	C.15
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110_01	REMOVAL OF PAVEMENT	C.18
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110_13	DELIVERY AND STOCKPILING	C.20
112_04	CURBS AND RAISED ISLANDS	C.21
112_06	BRIDGE APPROACH SECTION	C.22
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112_10	MILLED RUMBLE STRIPS	C.24
232_03A	EROSION CONTROL (RURAL SEEDING)	C.25
232_03C	EROSION CONTROL (NATIVE GRASS SEEDING)	C.25
232_11	EROSION CONTROL (STABILIZING CROP SEEDING)	C.25
262_06	UTILITIES (NOT A POINT 25 PROJECT)	C.25
	J Sheets	
108_23A	TRAFFIC CONTROL PLAN	J.1
108_25	511 TRAVEL RESTRICTIONS	J.2
108_26A	STAGING NOTES	J.3
111_01	COORDINATED OPERATIONS	J.4

Number	Date	Title
BA-200	10-20-26	Steel Beam Guardrail Components
BA-201	10-18-22	Steel Beam Guardrail Barrier Transition Section (MASH TL-3)
BA-202	10-20-26	Steel Beam Guardrail Bolted End Anchor
BA-205	10-17-23	Steel Beam Guardrail Tangent End Terminal (MASH TL-3)
BA-250	10-20-26	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-110	10-15-24	PCC Overlay of Bridge Approach Section
BR-203	10-20-26	Double Reinforced 12 in Approach
BR-211	04-21-26	Bridge Approach (Abutting PCC or Composite Pavement)
DR-306	10-17-23	Precast Concrete Headwall for Subdrain Outlets
EC-204	10-19-21	Perimeter, Slope and Ditch Check Sediment Control Devices
EC-502	04-21-15	Seeding in Rural Areas
EW-301	10-20-26	Guardrail Grading
PM-110	10-15-24	Line Types
PM-115	10-20-26	Grooving for Line Types
PR-101	10-21-25	Full Depth Patch with 'EF' Joint in PCC
PR-103	10-21-25	Full Depth PCC Patch with Dowels
PR-202	10-21-14	Notches for Resurfacing (with or without Runout)
PV-13	10-20-26	Milled Centerline Rumble Strips
PV-101	10-20-26	Joints
PV-102	10-21-25	PCC Curb Details
SI-173	04-19-16	Object Markers
SI-211	10-18-22	Object Marker and Delineator Placement with Guardrail
SI-881	10-20-26	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	04-18-23	Restricted Width Signing (Less Than 15.5 Feet)
TC-202	04-18-23	Work Within 15 ft of Traveled Way
TC-213	04-18-23	Lane Closure with Flaggers
TC-217	10-20-26	Lane Closure with Signals and TBR
TC-233	10-17-17	Pavement Marking Operations Two-Lane

100_19 10/15/24 PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE Possible Standards: EC-204							
Line No.	Station From	Station To	Side	Sediment Control Device Type	Diameter Size	Length (LF)	Remarks
1.0	105+27.00	110+15.00	Right	Perimeter and Slope	20 inch	260.00	
2.0	105+32.00	110+25.00	Left	Perimeter and Slope	20 inch	540.00	
3.0	111+56.00	116+25.00	Right	Perimeter and Slope	20 inch	520.00	
4.0	111+71.00	116+25.00	Left	Perimeter and Slope	20 inch	520.00	
Total						1840.00	

Perimeter and Slope Sediment Control Device, 20 In. Dia = 2,300 LF (Includes an additional 25% for field adjustments and replacements.)

100_28 8/15/22 LONGITUDINAL GROOVING			
Line No.	Location	Total (SY)	Remarks
1.0	110+90.62	200.7	South Approach
2.0	110+90.62	697.2	Bridge
3.0	110+90.62	204.2	North Approach
Total	1102.1		

Line No.	County	Route	Direction of Travel	Begin Ref. Location Sign	End Ref. Location Sign	Year	Type	Project Number	Surface Type	Surface Depth (IN)	Base Type	Base Depth (IN)	Subbase Type	Subbase Depth (IN)	Removal Type	Removal Depth (IN)	Coarse Aggregate Source	Coarse Aggregate Type	Course Aggregate Durability Class	Reinforcement Type	Remarks
1.0	Union	IA 25	2-Lane	22.59	28.07	2025	S	STP-025-1(012)--2C-80	HMA	1.5		1.0				1.0	FRENCHTOWN_A2209	DOLOM.	4		
2.0	Union	IA 25	2-Lane			2003		BRF-25-2(18)--38-88	PCC	10.0			Modified	12.0		12.0					
3.0	Union	IA 25	2-Lane	22.59	28.07	1992		FN-25-2(15)--21-88	AAC	0.5	BAC	1.0					MENLO	C.LST.			
4.0	Union	IA 25	2-Lane	22.59	28.07	1976		FN-25-2(11)--21-88	BAC	1.5	TBB	1.5					CORNING	C.LST.			
5.0	Union	IA 25	2-Lane	22.59	28.07	1965		F-451(8)	PCC	8.0							STANZEL	C.LST.	1		DUR=0

102_06C 4/21/26																					
FULL-DEPTH PATCHES																					
Line No.	Count	Station	Reference Location Sign	Direction of Travel	Side	Length (FT)	Width (FT)	Patch Thickness (IN)	Patch Repair or Finish	PCC Patch Type	PCC Patch Quantity (SY)	HMA Patches (SY)	Composite HMA (TON)	Subbase Patches (PR-140) (SY)	Subbase Patch with 'EF' Joint (PR-101) (SY)	Patch Subdrain PR-101 or PR-140 (No.)	'CD' Joints (No.)	'CT' Joints (No.)	'EF' Joints PR-101 (No.)	Anchor Lugs Removal (No.)	Remarks
1.0	1	109+30.04		SB	Left	10.0	14.0	12.0	Finish	PCC With Dowels (PR-103)	15.6				15.6				1		Stage 1
2.0	1	109+30.04		NB	Right	10.0	19.6	12.0	Finish	PCC With Dowels (PR-103)	21.8				21.8	1			1		Stage 2
Total																					
2										37.4				37.4		1				2	

									102_16 11/1/24
NOTCHES AND RUNOUTS FOR RESURFACING									
Refer to PR-201 and PR-202.									
(1) Bid item. Applies only to Types 'N1' and 'N3' on PR-202. Refer to 100-25 for remaining values.									
Line No.	Station	Type of Notch or Runout	S (IN)	I (IN)	DI (IN)	L (FT)	M (IN)	Pavement Scarification (SY) (1)	Remarks
1.0	109+30.04	Type N1	1.5			70.0	1.5	157.6	Stage 1 - PCC Overlay: 157.60 SY - See Note Below
2.0	109+30.04	Type N1	1.5			70.0	1.5	133.7	Stage 2 - PCC Overlay: 133.70 SY - See Note Below
Total									291.3

Pavement scarification and PCC overlay on the south approach shall be paid for as "Deck Overlay" on the Bridge Sheets and according to Section 2413 of the Standard Specifications.

103_10
4/30/25

TOPSOIL STRIPPING AND PLACEMENT

Line No.	Road Identification	Dir. of Traffic	Station From	Station To	Topsoil Stripping Thickness (IN)	Topsoil Placement Thickness (IN)	Remarks
1.0	IA 25	NB	107+91.01	109+77.88	8.0	8.0	Stage 2 - 17.9 CY (Stripping)
2.0	IA 25	SB	108+40.37	109+89.57	8.0	8.0	Stage 1 - 14.4 CY (Stripping)
3.0	IA 25	NB	111+91.67	113+41.04	8.0	8.0	Stage 2 - 14.4 CY (Stripping)
4.0	IA 25	SB	112+03.36	113+90.23	8.0	8.0	Stage 1 - 17.8 CY (Stripping)

Topsoil, Strip, Salvage and Spread = 64.4 CY

107_23
8/15/22

GRADING FOR GUARDRAIL INSTALLATIONS

Refer to EW-301.

(1) Lane(s) to which the installation is adjacent.

Line No.	Direction of Traffic (1)	Station	Side	Foreslope at Guardrail	X1 (FT)	Y1 (FT)	X2 (FT)	Y2 (FT)	X3 (FT)	Y3 (FT)	X4 (FT)	Y4 (FT)	Z (FT)	Excavation Class 10 (CY)	Embankment-in-Place (CY)	Remarks
1.0	NB	109+77.88	Right	MatchExist	82.2	5.0					138.4	7.2	47.6		40.2	Stage 2
2.0	SB	109+89.57	Left	MatchExist	44.7	5.0					101.0	7.2	47.6		32.1	Stage 1
3.0	NB	111+91.67	Right	MatchExist	44.7	5.0					101.0	7.2	47.6		32.1	Stage 2
4.0	SB	112+03.36	Left	MatchExist	82.2	5.0					138.4	7.2	47.6		40.2	Stage 1
Total															144.6	

108_08A

4/25/25

STEEL BEAM GUARDRAIL AT CONCRETE BARRIER OR BRIDGE RAIL END SECTION

Possible Standards: BA-200, BA-201, BA-202, BA-205, BA-206, BA-209, BA-210, BA-211, BA-221, BA-225, BA-250, BA-260, LS-625, LS-626, LS-630, LS-635, SI-172, SI-173 and SI-211.

(1) Lane(s) to which the obstacle is adjacent.

(2) Not a bid item. Incidental to guardrail installation.

Line No.	Direction of Travel (1)	Side	Station	Offset (FT)	Barrier Transition Section	Barrier Transition Section (EA)	End Terminal	End Terminal Count (EA)	VT1 (LF)	VF (LF)	VT2 (LF)	ET (LF)	BA-211 Station	BA-211 (Type)	SI-211 (Type) (2)	Delineator SI-172 Type 1 (EA) (2)	Object Marker Type 2 (EA) (2)	Object Marker Type 3 Lt (EA)(2)	Object Marker Type 3 Rt (EA)(2)	Bolted End Anchor BA-202 (Type)	Bolted End Anchor BA-202 (EA)	Steel Beam Guardrail BA-200 (LF)	Remarks				
1.0	NB	Right	109+77.88	18.4	BA-201	1	BA-205	1	90.625			47.70			3				1	A	1	50.0	SE Corner of Bridge				
2.0	SB	Left	109+89.57	18.4	BA-201	1	BA-205	1	53.125			47.70			3			1		A	1	12.5	SW Corner of Bridge				
3.0	NB	Right	111+91.67	18.4	BA-201	1	BA-205	1	53.125			47.70			3			1		A	1	12.5	NE Corner of Bridge				
4.0	SB	Left	112+03.36	18.4	BA-201	1	BA-205	1	90.625			47.70			3				1	A	1	50.0	NW Corner of Bridge				
Total																											
					4		4												2		2		4		125.0		

PAVEMENT MARKING LINE TYPES

Line factors based on 6-inch wide continuous line.
*BCY4 - Place on the same side of the roadway to match existing markings near the project.
**NPY4 - Estimating purposes only. No Passing Zone Lines will be located in the field.
***MNY6 - Factor of 1.00 includes number of 6-inch passes to cover median nose area.
BCY4: Broken Centerline (Yellow) @ 0.17 BCY6: Broken Centerline (Yellow) @ 0.25 BLC6: Broken Line Contrast (White/Black) @ 0.50
CBW6: Crosswalk Bar (White) @ 10.00 CHW8: Channelizing Line (White) @ 1.33 CHW10: Channelizing Line (White) @ 1.67
CLW6: Crosswalk Line (White) @ 2.00 DCY4: Double Centerline (Yellow) @ 1.34 DCY6: Double Centerline (Yellow) @ 2.00
DLW4: Dotted Line (White) @ 0.22 DLW6: Dotted Line (White) @ 0.33 DLY4: Dotted Line (Yellow) @ 0.22
ELW6: Edge Line Right (White) @ 1.00 ELY4: Edge Line Left (Yellow) @ 0.67 ELY6: Edge Line Left (Yellow) @ 1.00
MNY6: Median Nose (Yellow) @ 1.00 NPY4: No Passing Zone Line (Yellow) @ 0.84 NPY6: No Passing Zone Line (Yellow) @ 1.25
RLY4: Ramp Edge Line Left (Yellow) @ 0.67 RLY6: Ramp Edge Line Left (Yellow) @ 1.00 SLW2: Stop Line (White) @ 4.00
SPW4: Sloped Curb 4" (White) @ 2.16 SPW6: Sloped Curb 6" (White) @ 2.28 SPY4: Sloped Curb 4" (Yellow) @ 2.16
STY6: Standard Curb 6" (Yellow) @ 2.03 YLW2: Yield Line (White) @ 1.15

BLW4: Broken Lane Line (White) @ 0.17 BLW6: Broken Lane Line (White) @ 0.25
CHY8: Channelizing Line (Yellow) @ 1.33 CHY10: Channelizing Line (Yellow) @ 1.67
DDY4: Double Dotted Line (Yellow) @ 0.44 DDY6: Double Dotted Line (Yellow) @ 0.67
DLY6: Dotted Line (Yellow) @ 0.33 ELW4: Edge Line Right (White) @ 0.67
LDW8: Lane Drop (White) @ 0.33 LDW10: Lane Drop (White) @ 0.42
RLW4: Ramp Edge Line Right (White) @ 0.67 RLW6: Ramp Edge Line Right (White) @ 1.00
SLW4: Solid Lane Line (White) @ 0.67 SLW6: Solid Lane Line (White) @ 1.00
SPY6: Sloped Curb 6" (Yellow) @ 2.28 STW6: Standard Curb 6" (Yellow) @ 2.03

Road ID	Station From	Station To	Line Length (STA)	Lane	Marking Type	Left	Center	Right	Groove Marking Needed?	Groove Qty. (STA)	BCY6 Factored (STA)	CHW8 Factored (STA)	ELW6 Factored (STA)	SLW2 Factored (STA)	Remarks
IA 25	105+68.83	116+03.00	10.34	NB	Removal of Paint			x	No				10.34		Prior to Stage 1
IA 25	105+68.83	109+25.00	3.56	Both	Removal of Paint	x			No		0.89				Prior to Stage 1
IA 25	112+57.56	116+03.00	3.45	Both	Removal of Paint	x			No		0.86				Prior to Stage 1
IA 25	108+08.83	108+93.83	0.85	SB	Removal of Paint			x	No				0.85		Prior to Stage 2
IA 25	108+08.83	113+62.29	5.53	NB	Removal of Paint			x	No				5.53		Prior to Stage 2
IA 25	112+77.29	113+62.29	0.85	NB	Removal of Paint			x	No				0.85		Prior to Stage 2
IA 25	105+68.83	109+25.00	3.56	SB	Removal of Paint			x	No				3.56		Prior to Stage 2
IA 25	112+57.56	116+03.00	3.45	SB	Removal of Paint			x	No				3.45		Prior to Stage 2
IA 25	108+08.83	108+93.83	0.85	NB	Removal of Paint			x	No				0.85		Stage 2
IA 25	108+08.83	113+62.29	5.53	SB	Removal of Paint			x	No				5.53		Stage 2
IA 25	112+77.29	113+62.29	0.85	NB	Removal of Paint			x	No				0.85		Stage 2
Total											0.00	1.75	0.00	31.81	0.00
Marking Type : Removal of Paint															
IA 25	105+68.83	108+08.83	2.40	Both	Removal of Removable Tape			x	No			6.38			Prior to Stage 2
IA 25	113+62.29	116+03.00	2.41	Both	Removal of Removable Tape			x	No			6.40			Prior to Stage 2
IA 25	113+62.29	116+03.00	2.41	Both	Removal of Removable Tape			x	No			6.40			Stage 2
IA 25	105+68.83	105+68.83	0.12	NB	Removal of Removable Tape			x	No					0.48	Stage 2
IA 25	116+03.00	116+03.00	0.12	SB	Removal of Removable Tape			x	No					0.48	Stage 2
IA 25	105+68.83	108+08.83	2.40	Both	Removal of Removable Tape			x	No			6.38			Stage 2
Total											0.00	0.00	25.56	0.00	0.96
Marking Type : Removal of Removable Tape															
IA 25	108+08.83	108+93.83	0.85	SB	Waterborne/Solvent Paint			x	No				0.85		Stage 1
IA 25	108+08.83	113+62.29	5.53	NB	Waterborne/Solvent Paint			x	No				5.53		Stage 1
IA 25	112+77.29	113+62.29	0.85	SB	Waterborne/Solvent Paint			x	No				0.85		Stage 1
IA 25	108+08.83	108+93.83	0.85	NB	Waterborne/Solvent Paint			x	No				0.85		Stage 2
IA 25	108+08.83	113+62.29	5.53	SB	Waterborne/Solvent Paint			x	No				5.53		Stage 2
IA 25	112+77.29	113+62.29	0.85	NB	Waterborne/Solvent Paint			x	No				0.85		Stage 2
IA 25	105+68.83	116+03.00	10.34	NB	Waterborne/Solvent Paint			x	Yes	10.34			10.34		Final Pavement Marking
IA 25	105+68.83	116+03.00	10.34	SB	Waterborne/Solvent Paint			x	Yes	10.34			10.34		Final Pavement Marking
IA 25	105+68.83	116+03.00	10.34	Both	Waterborne/Solvent Paint	x			Yes	0.81	2.59				Final Pavement Marking
Total											21.49	2.59	0.00	35.14	0.00
Marking Type : Waterborne/Solvent Paint															
IA 25	105+68.83	105+68.83	0.12	NB	Wet Retroreflective Removable Tape			x	No					0.48	Stage 1
IA 25	116+03.00	116+03.00	0.12	SB	Wet Retroreflective Removable Tape			x	No					0.48	Stage 1
IA 25	105+68.83	108+08.83	2.40	Both	Wet Retroreflective Removable Tape			x	No			6.38			Stage 1
IA 25	113+62.29	116+03.00	2.41	Both	Wet Retroreflective Removable Tape			x	No			6.40			Stage 1
IA 25	105+68.83	108+08.83	2.40	Both	Wet Retroreflective Removable Tape			x	No			6.38			Stage 2
IA 25	113+62.29	116+03.00	2.41	Both	Wet Retroreflective Removable Tape			x	No			6.40			Stage 2
Total											0.00	0.00	25.56	0.00	0.96

PAVEMENT MARKING LINE TYPES

Line factors based on 6-inch wide continuous line.
*BCY4 - Place on the same side of the roadway to match existing markings near the project.
**NPY4 - Estimating purposes only. No Passing Zone Lines will be located in the field.
***MNY6 - Factor of 1.00 includes number of 6-inch passes to cover median nose area.

BCY4: Broken Centerline (Yellow) @ 0.17	BCY6: Broken Centerline (Yellow) @ 0.25	BLC6: Broken Line Contrast (White/Black) @ 0.50	BLW4: Broken Lane Line (White) @ 0.17	BLW6: Broken Lane Line (White) @ 0.25
CBW6: Crosswalk Bar (White) @ 10.00	CHW8: Channelizing Line (White) @ 1.33	CHW10: Channelizing Line (White) @ 1.67	CHY8: Channelizing Line (Yellow) @ 1.33	CHY10: Channelizing Line (Yellow) @ 1.67
CLW6: Crosswalk Line (White) @ 2.00	DCY4: Double Centerline (Yellow) @ 1.34	DCY6: Double Centerline (Yellow) @ 2.00	DDY4: Double Dotted Line (Yellow) @ 0.44	DDY6: Double Dotted Line (Yellow) @ 0.67
DLW4: Dotted Line (White) @ 0.22	DLW6: Dotted Line (White) @ 0.33	DLY4: Dotted Line (Yellow) @ 0.22	DLY6: Dotted Line (Yellow) @ 0.33	ELW4: Edge Line Right (White) @ 0.67
ELW6: Edge Line Right (White) @ 1.00	ELY4: Edge Line Left (Yellow) @ 0.67	ELY6: Edge Line Left (Yellow) @ 1.00	LDW8: Lane Drop (White) @ 0.33	LDW10: Lane Drop (White) @ 0.42
MNY6: Median Nose (Yellow) @ 1.00	NPY4: No Passing Zone Line (Yellow) @ 0.84	NPY6: No Passing Zone Line (Yellow) @ 1.25	RLW4: Ramp Edge Line Right (White) @ 0.67	RLW6: Ramp Edge Line Right (White) @ 1.00
RLY4: Ramp Edge Line Left (Yellow) @ 0.67	RLY6: Ramp Edge Line Left (Yellow) @ 1.00	SLW2: Stop Line (White) @ 4.00	SLW4: Solid Lane Line (White) @ 0.67	SLW6: Solid Lane Line (White) @ 1.00
SPW4: Sloped Curb 4" (White) @ 2.16	SPW6: Sloped Curb 6" (White) @ 2.28	SPY4: Sloped Curb 4" (Yellow) @ 2.16	SPY6: Sloped Curb 6" (Yellow) @ 2.28	STW6: Standard Curb 6" (Yellow) @ 2.03
STY6: Standard Curb 6" (Yellow) @ 2.03	YLV2: Yield Line (White) @ 1.15			

Road ID	Station From	Station To	Line Length (STA)	Lane	Marking Type	Left	Center	Right	Groove Marking Needed?	Groove Qty. (STA)	BCY6 Factored (STA)	CHW8 Factored (STA)	ELW6 Factored (STA)	SLW2 Factored (STA)	Remarks
Marking Type : Wet Retroreflective Removable Tape															
Grand Totals										21.49	4.34	51.12	66.95	1.92	

108_28 8/15/22			
TEMPORARY TRAFFIC SIGNALS			
Line No.	Station	Signal Type	Remarks
1.0	106+38.83	One Lane Traffic	
2.0	115+25.00	One Lane Traffic	

Total = 1 set

108_30

4/16/24

CRASH CUSHIONS

* Bid Item

1. Lane(s) to which the installation is adjacent.

2. Complete this section when using the Temporary Crash Cushion bid item and Earthwork is needed for Sand Barrel placement. Refer to BA-500.

Line No.	Lane	Station	Side	Obstacle Width (FT)	Crash Cushion Type	Crash Cushion Quantity	V (FT) (2)	W (FT) (2)	X (FT) (2)	Y (FT) (2)	Z (FT) (2)	Excavation Class 10* (CY)	Embankment in Place* (CY)	Obstacle Description	Remarks
1.0	SB	108+42.50	Left	1.9	Temporary	1								TBR	Stage 1
2.0	SB	113+28.50	Left	1.9	Temporary	1								TBR	Stage 1
3.0	NB	108+42.50	Right	1.9	Temporary	1								TBR	Stage 2
4.0	NB	113+28.50	Right	1.9	Temporary	1								TBR	Stage 2
Total						4									

108_33
8/15/22

TEMPORARY BARRIER RAIL

Possible Standard: BA-401 Possible Detail: 560-7

* Not a bid item. Anchorage requirements are based on TBR locations shown in the plans. TBR alignments that vary from what is shown in the plans may result in additional TBR sections requiring anchorage.

Line No.	Station From	Station To	Length (FT)	Barrier Rail Type	Anchored*	Modular Glare Screen System	Remarks
1.0	108+42.50	113+28.50	475.0	Concrete BA-401	No	No	Stage 1
2.0	108+42.50	113+28.50	475.0	Concrete BA-401	No	No	Stage 2
Total			950.0				

110_01
4/5/24

REMOVAL OF PAVEMENT

Refer to Tabulation 102-5.

* Not a bid item.

Line No.	Station From	Station To	Side	Pavement Type	Area (SY)	Saw Cut* (LF)	Remarks
1.0	105+50.00	109+73.68	NB	HMA	105.3	432.0	Prior to Stage 1 - SE Shouldder
2.0	112+27.56	116+20.00	NB	HMA	87.2	397.0	Prior to Stage 1 - NE Shoulder
3.0	105+50.00	109+73.68	SB	HMA	105.3	432.0	Stage 1 - SW Shoulder
4.0	109+73.68	109+88.97	SB	Composite	3.4	19.3	Stage 1 - SW Corner Curb
5.0	111+86.20	112+57.56	SB	Composite	134.6	85.0	Stage 1 - North Approach
6.0	112+57.56	116+20.00	SB	HMA	80.5	367.0	Stage 1 - NW Shoulder
7.0	109+64.77	109+77.27	NB	Composite	1.2	15.0	Stage 2 - SE Corner Shoulder and Curb
8.0	111+86.20	112+57.56	NB	Composite	155.1	90.0	Stage 2 - North Approach
Total					672.76	1837.3	

					110_07A 8/15/22
REMOVAL OF STEEL BEAM GUARDRAIL					
(1) Lane(s) to which the installation is adjacent. (2) Includes length of End Terminals and End Anchors.					
Line No.	Direction of Traffic (1)	Station From	Station To	Side	Removal of Guardrail (2) (LF)
1.0	NB	109+27.37	109+83.62	Right	60.0
2.0	SB	109+39.71	109+95.96	Left	60.0
3.0	NB	111+85.28	112+54.03	Right	70.0
4.0	SB	111+97.62	112+66.37	Left	70.0
Total					260.0

							110_13 8/15/22
DELIVERY AND STOCKPILING							
Line No.	Item Description	Quantity	Quantity Units	Delivery Location	Contact Name	Contact Number	Remarks
1.0	Steel Beam Guardrail	260	LF	IADOT Creston Maintenance Yard	Brandon Brimm, Supervisor	641-782-4310	405 S. Chestnut, Creston, IA 50801

									112_04 8/15/22
CURBS AND RAISED ISLANDS Refer to PV-20, PV-102, and 6000s Detail Series.									
(1) Bid Item									
Line No.	Point No.	Station	Offset (FT)	Island Interior Area (1) (SY)	Curb Type	Curb Height (IN)	Gutter Width (FT)	Length (1) (FT)	Remarks
1.0		109+73.68	19.6		Dowelled PCC	4.0	1.4	15.3	Stage 1 - See U Sheets for Details
2.0		109+64.77	19.6		Dowelled PCC	4.0	1.4	12.5	Stage 2 - See U Sheets for Details
Total						27.8			

BRIDGE APPROACH SECTION
Refer to the BR Series.

* Not a bid item
** Verify layout of bridge approach does not conflict with guardrail posts.

Line No.	Bridge Station	End	Skew Ahead Left (Degrees)	Skew Ahead Right (Degrees)	(T) Thickness (IN)	Pay Length (FT)	Right Edge Offset (FT) **	Left Edge Offset (FT) **	Non-Reinf. Area (SY)	Single-Reinf. Area (SY)	Double-Reinf. Area (SY)	SRP Approach	SRP Abutment Type	SRP Abutting Pavement	Perforated * 4" Subdrain (LF)	Subdrain * Outlet (STA)	Subdrain * Outlet Side	Porous * Backfill (CY)	Modified * Subbase (TON)	Polymer * Grid (SY)	Special * Backfill (TON)	Remarks
1.0	110+90.62	N	18.0		12.0	71.4	19.6	19.6	131.2	87.2	89.2	BR-203	Movable	BR-211	60.0	112+47.56	Right	1.7	300.405	334.0		

Bridge Approach, BR-203 = 307.6 SY

SHOULDERS

- (1) Lane(s) to which the shoulder is adjacent.
(2) See Typ. 7156, 7157, or 7158.
(3) Bid Item.
(4) Applies only for Paved Shoulders constructed on project with existing granular shoulders.
(5) Bid Item. Typ. 7156, 7157, or 7158.
(6) Does not include shrink.
(7) Paved shoulder thickness specified in Remarks.
(8) Subbase type specified in Remarks.

Roadway Identification	Direction of Travel (1)	Station From	Station To	Side	P Width (FT)	P SG Width (2) (FT)	G Width (FT)	L Length (FT)	Class 13 Excavation (CY)(3)(4)	Paved Shoulder (3) (SY)	Paved Shoulder at Grd rail (5)(7) (SY)	Reinforced Paved Shoulder(3) (SY)	Special Backfill PCC Alt. (3) (TON)	Special Backfill PCC Alt. (TON/STA)	Granular Shoulder (3) (TON)	Granular Shoulder (TON/STA)	Earth Shoulder Const. Alt (3) (STA)	Earth Shoulder Const. Alt PCC (6) (CY)	Remarks
IA 25	NB	105+50.00	106+00.00	Right	6	0	0	50.00	15.3	33.3			12.690	25.410			0.50	21.50	Prior to Stage 1. 11.5" PCC Shoulder over 6" Special Backfill.
IA 25	NB	106+00.00	108+19.37	Right	4	0	0	219.37	52.7	97.5			40.310	18.410			2.19	85.96	Prior to Stage 1. 11.5" PCC Shoulder over 6" Special Backfill.
IA 25	NB	108+19.37	109+73.68	Right	4	0	0	154.31	37.1	68.6			28.350	18.410			1.54		Prior to Stage 1. 11.5" PCC Shoulder over 6" Special Backfill.
IA 25	NB	112+27.56	113+12.68	Right	4	0	0	85.12	20.5	37.8			15.640	18.410			0.85		Prior to Stage 1. 11.5" PCC Shoulder over 6" Special Backfill.
IA 25	NB	113+12.68	116+20.00	Right	4	0	0	307.32	73.9	136.6			56.470	18.410			3.07	120.42	Prior to Stage 1. 11.5" PCC Shoulder over 6" Special Backfill.
IA 25	SB	105+50.00	106+00.00	Left	6	0	0	50.00	17.4	33.3			12.690	25.410			0.50	21.50	Stage 1. 11.5" PCC Shoulder over 6" Special Backfill.
IA 25	SB	106+00.00	108+68.56	Left	4	0	0	268.56	64.6	119.4			49.350	18.410			2.69	105.24	Stage 1. 11.5" PCC Shoulder over 6" Special Backfill.
IA 25	SB	108+68.56	108+88.62	Left	4	3.58	0	20.06	7.7	8.9	8.0		6.200	30.940			0.20	7.86	Stage 1. 11.5" PCC Shoulder, 8" PCC Guardrail Shoulder over 6" Special Backfill.
IA 25	SB	108+88.62	109+37.35	Left	4	2.58	0	48.73	16.5	21.7	14.0		13.350	27.440			0.49	19.09	Stage 1. 11.5" PCC Shoulder, 8" PCC Guardrail Shoulder over 6" Special Backfill.
IA 25	SB	109+37.35	109+73.68	Left	4	1.58	0	36.33	10.7	16.2	6.4		8.680	23.940			0.36	14.24	Stage 1. 11.5" PCC Shoulder, 8" PCC Guardrail Shoulder over 6" Special Backfill.
IA 25	SB	112+57.56	112+94.11	Left	4	1.63	0	36.55	10.9	16.2	6.6		8.800	24.080			0.37	14.32	Stage 1. 11.5" PCC Shoulder, 8" PCC Guardrail Shoulder over 6" Special Backfill.
IA 25	SB	112+94.11	113+41.81	Left	4	2.605	0	47.70	16.2	21.2	13.8		13.110	27.510			0.48	18.69	Stage 1. 11.5" PCC Shoulder, 8" PCC Guardrail Shoulder over 6" Special Backfill.
IA 25	SB	113+41.81	113+61.87	Left	4	3.58	0	20.06	7.7	8.9	8.0		6.200	30.940			0.20	7.86	Stage 1. 11.5" PCC Shoulder, 8" PCC Guardrail Shoulder over 6" Special Backfill.
IA 25	SB	113+61.87	116+20.00	Left	4	0	0	258.13	62.0	114.7			47.430	18.410			2.58	101.15	Stage 1. 11.5" PCC Shoulder over 6" Special Backfill.
IA 25	NB	108+19.37	108+39.43	Right	0	3.58	0	20.06	4.2		8.0		3.390	16.940			0.20	5.16	Stage 2. 8" PCC Guardrail Shoulder over 6" Special Backfill.
IA 25	NB	108+39.43	108+88.16	Right	0	2.58	0	48.73	8.1		14.0		6.530	13.440			0.49	12.54	Stage 2. 8" PCC Guardrail Shoulder over 6" Special Backfill.
IA 25	NB	108+88.16	109+64.77	Right	0	1.58	0	76.61	8.6		13.5		7.590	9.940			0.77	19.72	Stage 2. 8" PCC Guardrail Shoulder over 6" Special Backfill.
IA 25	NB	112+57.56	112+92.62	Right	0	2.86	0	35.06	6.2		11.1		5.040	14.420			0.35	9.02	Stage 2. 8" PCC Guardrail Shoulder over 6" Special Backfill.
IA 25	NB	112+92.62	113+12.68	Right	0	3.58	0	20.06	4.2		8.0		3.390	16.940			0.20	5.91	Stage 2. 8" PCC Guardrail Shoulder over 6" Special Backfill.
Total									444.27	734.33	111.26		345.21				18.03	590.18	

112_10 10/20/26																
RUMBLE STRIPS																
* Calculated at 18" width for Shoulder. ** For use with penetrating Engineered Fog Seal. Calculated at 2" wider than rumble strips.																
Line No.	Road Identification	Station From	Station To	Surface Type	Rumble Strip Lane	Rumble Strip Type	Fog Seal Type	L (IN)	PCC Length (STA)	HMA Length (STA)	Fog Seal* Shoulder (GAL)	Fog Seal (SV)**	Effective Shoulder Width PCC (FT)	Effective Shoulder Width HMA (FT)	Effective Shoulder Width Granular\Earth (FT)	Remarks
1.0	IA 25	109+25.04	109+29.19	PCC	Centerline	Milled Centerline Rumble Strips		12	0.04							
2.0	IA 25	112+52.05	112+57.56	PCC	Centerline	Milled Centerline Rumble Strips		12	0.06							
Total									0.10							

232_03A 9/28/22 EROSION CONTROL (RURAL SEEDING)
Area to be seeded is estimated to be less than 1 acre. If the contractor determines the area exceeds 2 acres, notify the Engineer. Approved quantity in excess of 2 acres will be paid for as extra work according to Article 1109.03,B of the Standard Specifications. Following the completion of work in a disturbed area and according to the seeding dates in Section 2601 of the Standard Specifications, place seed, fertilizer, and mulch on the disturbed area lying 8 feet adjacent to shoulder and median as follows: Place seed and fertilize according to the requirements of Article 2601.03,C,3 and Section 4169 of the Standard Specifications. Place mulch according to the requirements of Articles 2601.03,E,2,a and 4169.07,A of the Standard Specifications. Preparing the seedbed, furnishing and applying seed, fertilizer, and mulch are all incidental to mobilization and will not be paid for separately.

232_03C
8/28/24

EROSION CONTROL (NATIVE GRASS SEEDING)

Area to be seeded is estimated to be less than 1 acre. If the Contractor determines the area exceeds 2 acres, notify the Engineer. Approved quantity in excess of 2 acres will be paid for as extra work according to Article 1109.03,B of the Standard Specifications.

Following the completion of work in a disturbed area and according to the seeding dates in Section 2601 of the Standard Specifications, place seed and mulch on the disturbed area lying 8 feet or more beyond the shoulder as follows:

SEED MIX:

Big bluestem (<i>Andropogon geradii</i>)	6 lbs. PLS/Acre (7.0 kg/ha)
Indiangrass (<i>Sorghastrum nutans</i>)	6 lbs. PLS/Acre (7.0 kg/ha)
Little bluestem (<i>Schizachyrium scoparium</i>)	6 lbs. PLS/Acre (7.0 kg/ha)
Partridge Pea (<i>Chamaecrista fasciculata</i>)	4 lbs. PLS/Acre (4.5 kg/ha)
Sideoats grama (<i>Bouteloua curtipendula</i>)	4 lbs. PLS/Acre (4.5 kg/ha)
Canada wildrye (<i>Elymus canadensis</i>)	2 lbs. PLS/Acre (2.2 kg/ha)
Switchgrass (<i>Panicum virgatum</i>)	1 lbs. PLS/Acre (1.1 kg/ha)
Oats (<i>Avena sativa</i>)	32 lbs./Acre (36.0 kg/ha)

Furnish Big bluestem, Indiangrass, Canada wildrye and Little bluestem that is debarred or equal to facilitate the application of seed.

Furnish seed certified as Source Identified Class (Yellow Tag) Source G0-Iowa. Oats are excluded from this requirement. Place seed according to the requirements of Article 4169.02 of the Standard Specifications.

Place mulch according to the requirements of Articles 2601.03,E,2,a and 4169.07,A of the Standard Specifications.

Preparing the seedbed, furnishing and applying seed and mulch are incidental to mobilization and will not be paid for separately.

232_11 6/21/23 EROSION CONTROL (STABILIZING CROP SEEDING)
Area to be seeded is estimated to be less than 1 acre. If the contractor determines the area exceeds 2 acres, notify the Engineer. Approved quantity in excess of 2 acres will be paid for as extra work according to Article 1109.03,B of the Standard Specifications. If outside of permanent seeding dates in Section 2601 of the Standard Specifications, or if required by a storm water permit, place stabilizing crop, fertilizer, and mulch on the disturbed area as follows: Place seed and fertilize according to the requirements of Article 2601.03,C,1 and Section 4169 of the Standard Specifications. Place mulch according to the requirements of Articles 2601.03,E,2,a and 4169.07,A of the Standard Specifications. Preparing the seedbed, furnishing and applying seed, fertilizer, and mulch are incidental to mobilization and will will not be paid for separately.

262_06 9/28/22 UTILITIES (NOT A POINT 25 PROJECT)
This is NOT a POINT 25 project and is not subject to the provisions of IAC 761-115.25.

SURVEY SYMBOLS

	Interstate Highway Symbol		Septic Tank
	U.S. Highway Symbol		Cistern
	Iowa Highway Symbol		L.P. Gas Tank (No Footing)
	County Road Highway Symbol		Underground Storage Tank
	Evergreen Tree		Latrine
	Deciduous Tree		Satellite TV Dish
	Fruit Tree		Water Hook Up
	Shrub (Bushes)		Radio Tower
	Timber		Tower Anchor
	Hedge		Guardrail (Beam or Cable)
	Stump		Guard Post (one or two)
	Swamp		Guard Post (over two)
	Rock Outcrop		Filler Pipe
	Broken Concrete		Gas Valve
	Revetment (Rip Rap)		Water Valve
	Cemetery		Speed Limit Sign
	Grave		Mile Marker Post
	Cave		Sign
	Sink Hole		Traffic Signal Control Box
	Board Fence		Rail Road Signal Control Box
	Chain Link or Security Fence		Telephone Switch Box
	Wire Fence		Electric Box
	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)		

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
Yellow	(132)	Proposed Pavement Scarification and Overlay
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
Gray	(64)	Revetment

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		Survey Line
	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)

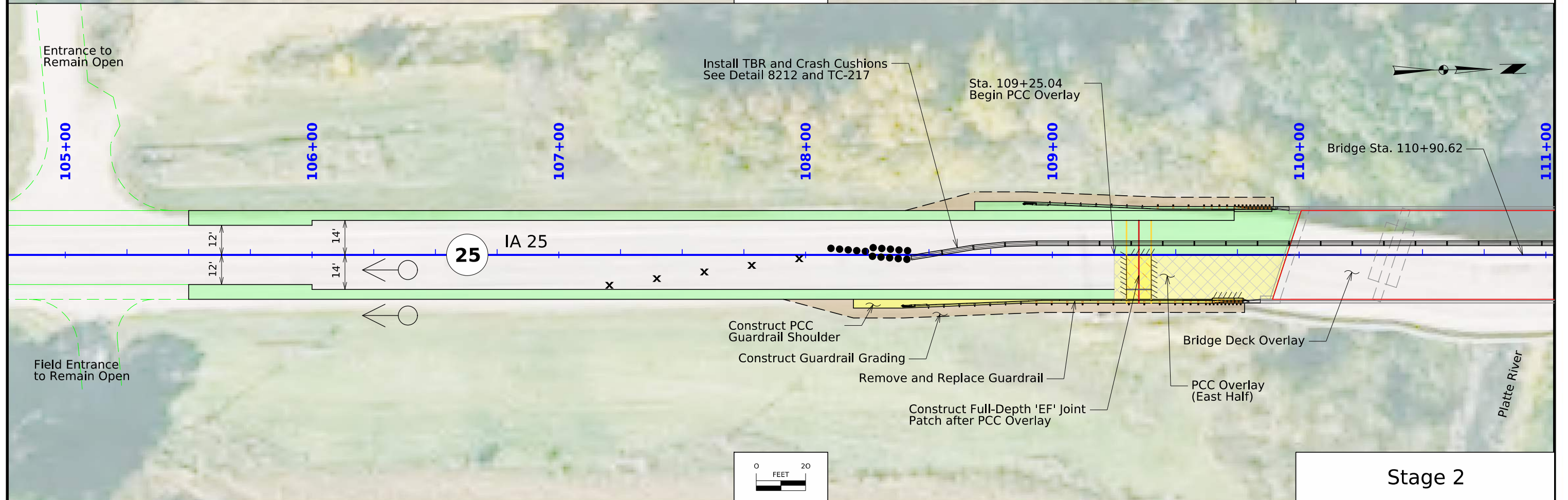
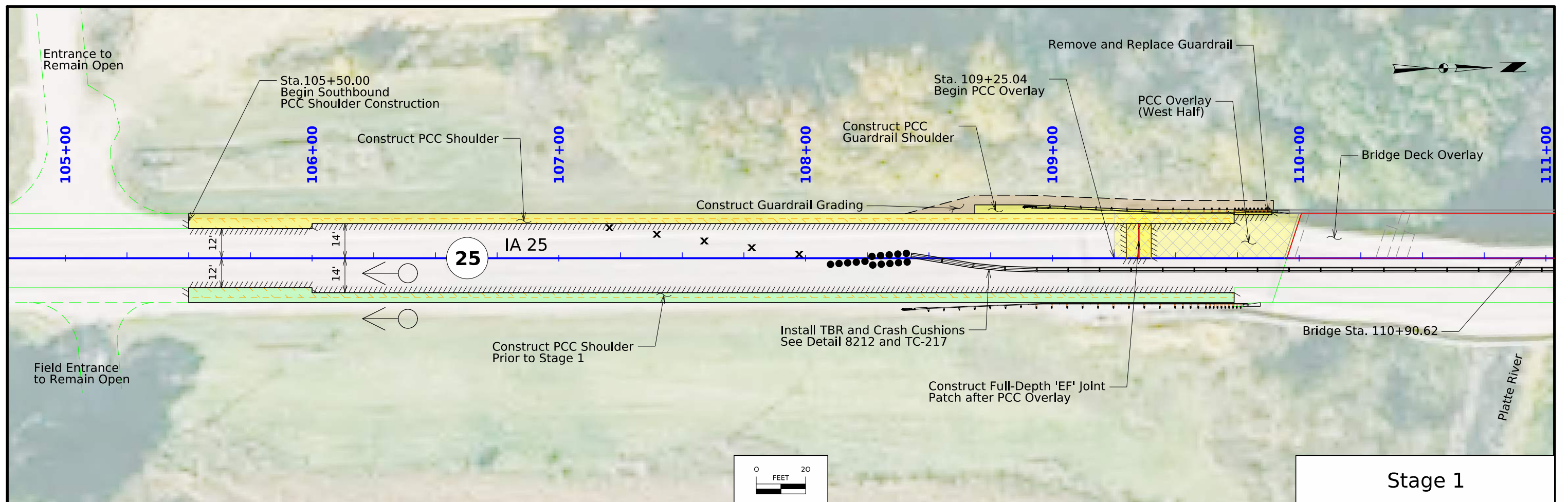
Easement

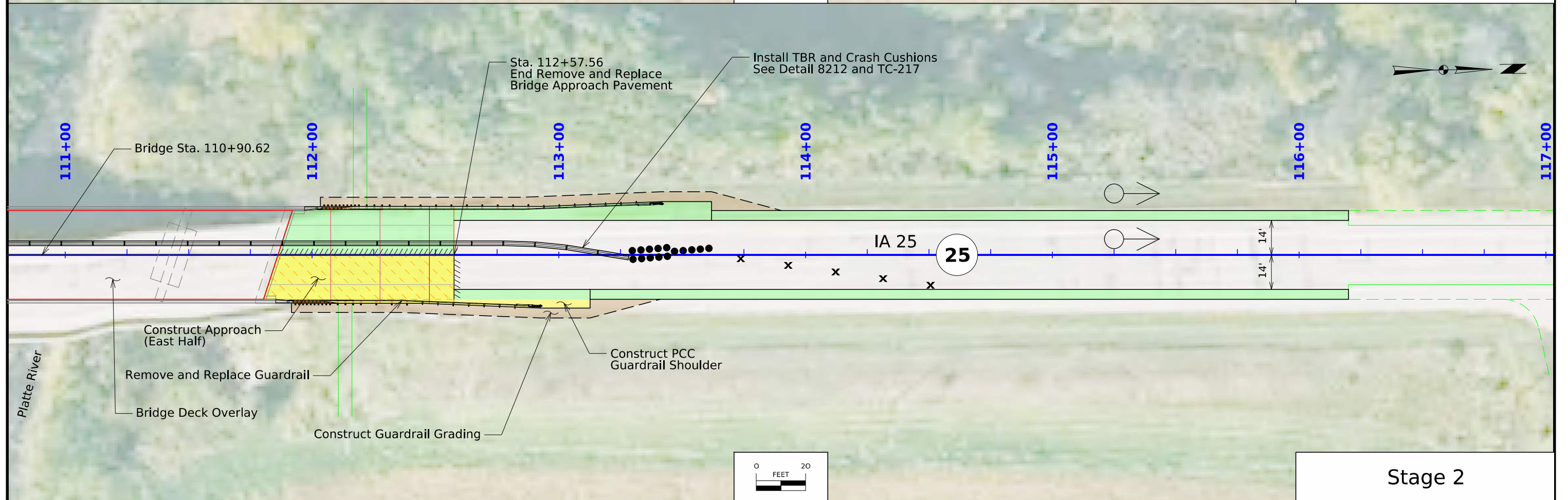
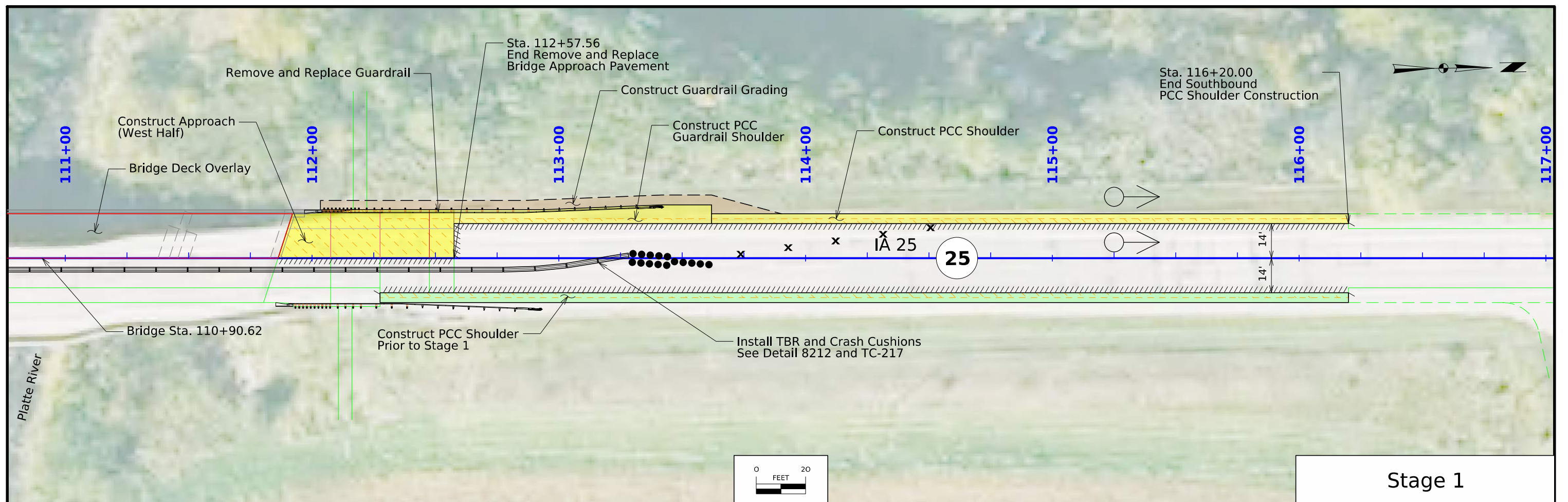
Access Control

Property Line

PLAN AND PROFILE
LEGEND AND SYMBOL
INFORMATION SHEET

(COVERS SHEET SERIES D)





Maintain traffic on IA 25 at all times in accordance with Standard Road Plans listed in Tab. 105_04.
For additional information, refer to Part 6 of the Manual on Uniform Traffic Control Devices and the current Standard Specifications.
Refer to Tab. 108_26A for Staging Notes.
Entrances south of the bridge shall remain open at all times.

Line No.	Route	Direction	County	Location Description	Feature Crossed	Object Type	Maint. Bridge No. or Structure ID or FHWA No.	Type of Restriction	Existing Measurement	Construction Measurement	Construction Measurement as Signed	Projected As Built Measurement	Remarks
1.0	IA 25	Both	Union	Branch Platte River 3.4 mi S of US 34	Branch Platte River	Barrier	FHWA No. 050141	Horizontal	N/A	12' - 4.5"	11' - 4.5"	N/A	
2.0	IA 25	Both	Union	Branch Platte River 3.4 mi S of US 34	Branch Platte River	Temporary Signal	FHWA No. 050141	Vertical	N/A	15' - 0"	14' - 0"	N/A	

Prior to Stage 1	
Traffic:	Maintain two-way traffic on IA 25 in accordance with Standard Road Plan TC-202 and TC-213.
Construction:	Construct PCC shoulder on the northbound shoulder as noted in Tab. 112_09 and D Sheets.
Stage 1	
Traffic:	Maintain two-way traffic on the northbound lane in accordance with Standard Road Plan TC-217 using temporary traffic signals and temporary barrier rail. Field entrances south of the bridge to remain open during construction. See D Sheets for details.
Construction:	Construct bridge deck overlay on the west half of the bridge. Remove and replace north approach pavement with Standard Road Plan BR-203 on the west side. Remove and replace guardrail on the west side of the bridge, and pave shoulders at guardrail. Mill and overlay south approach pavement with Standard Road Plan PR-202 and BR-110 on the west side. Patch south approach 'EF' joint after the overlay is constructed on the west side. Construct south approach curb after the overlay is constructed on the west side. See U Sheets. Construct southbound PCC shoulder for shifting traffic in Stage 2. Complete other Stage 1 construction.
Stage 2	
Traffic:	Maintain two-way traffic on the southbound lane in accordance with Standard Road Plan TC-217 using temporary traffic signals and temporary barrier rail. Field entrances south of the bridge to remain open during construction. See D Sheets for details.
Construction:	Construct bridge deck overlay on the east half of the bridge. Remove and replace north approach pavement with Standard Road Plan BR-203 on the east side. Remove and replace guardrail on the east side of the bridge and pave shoulders at guardrail. Mill and overlay south approach pavement with Standard Road Plan PR-202 and BR-110 on the east side. Patch south approach 'EF' joint after the overlay is constructed on the east side. Construct south approach curb after the overlay is constructed on the east side. See U Sheets. Complete other Stage 2 construction.
Final	
Traffic:	Open both lanes to traffic. Complete final pavement markings operations in accordance with Standard Road Plan TC-233.
Construction:	Complete final pavement markings.

111_01
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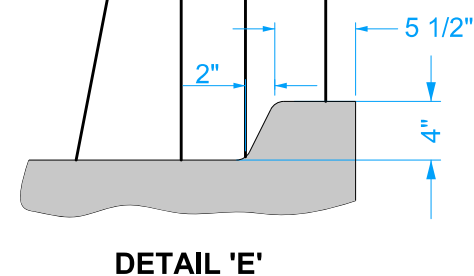
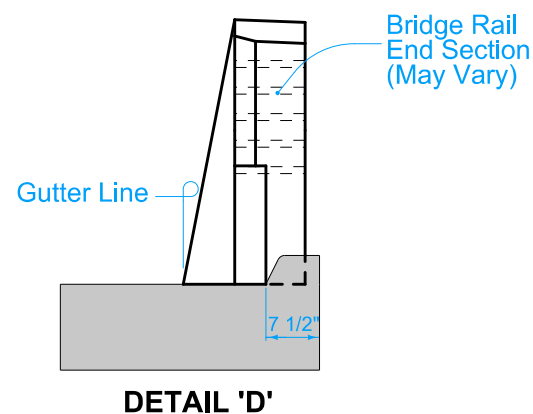
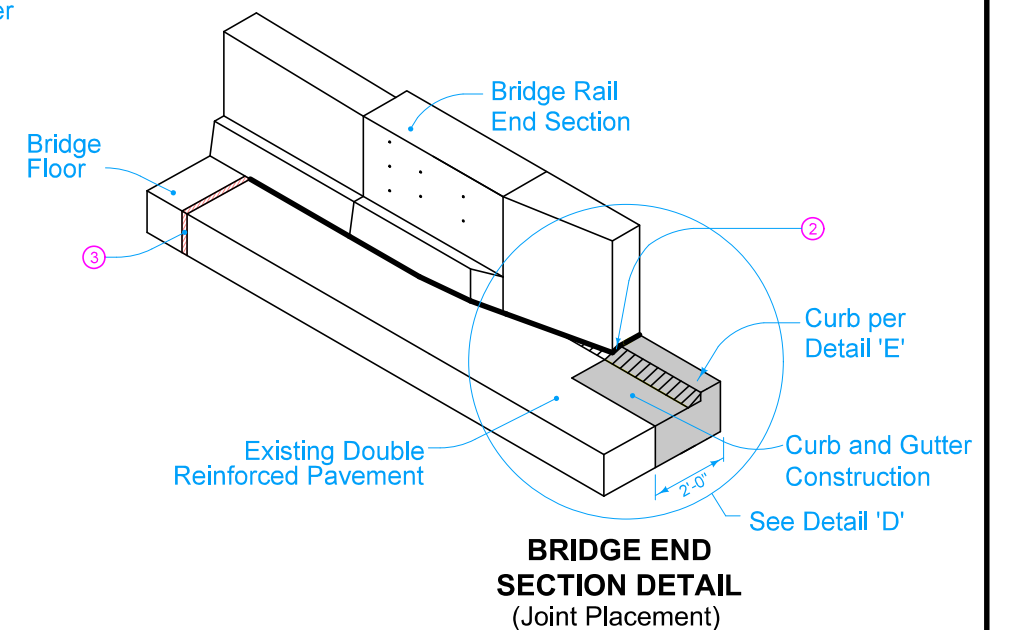
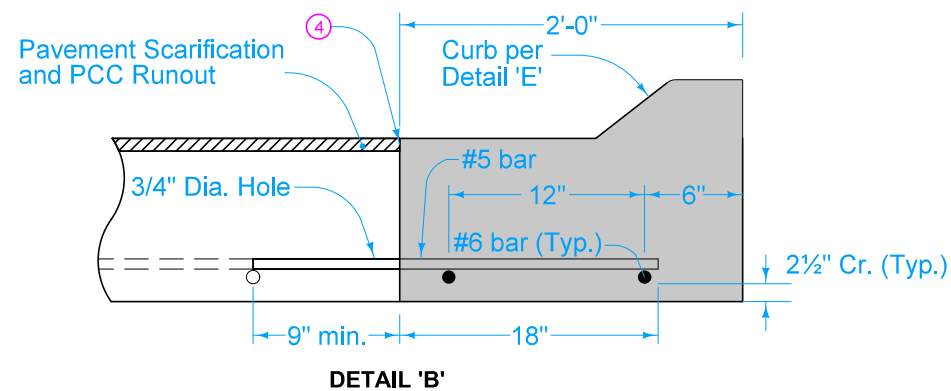
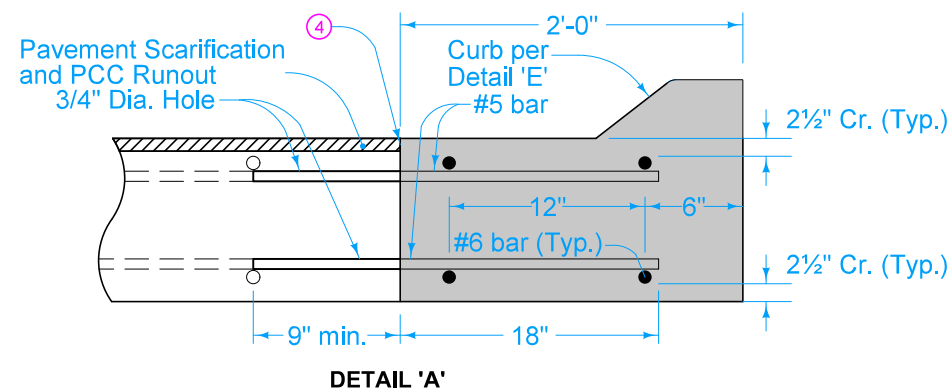
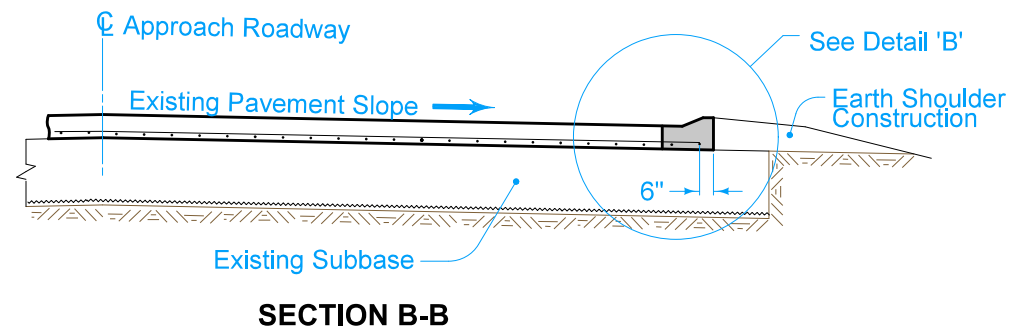
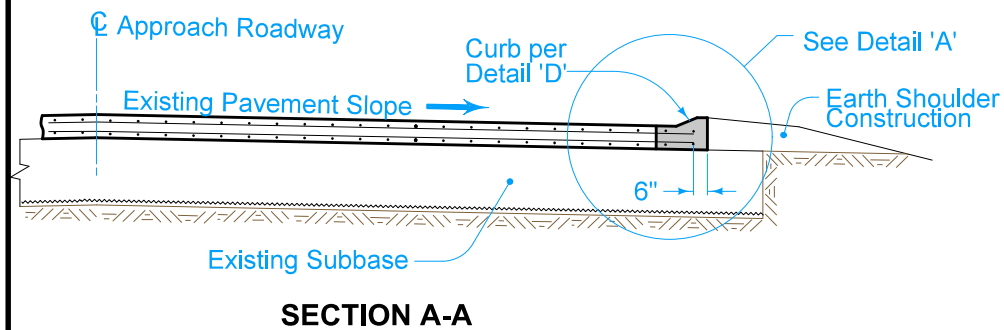
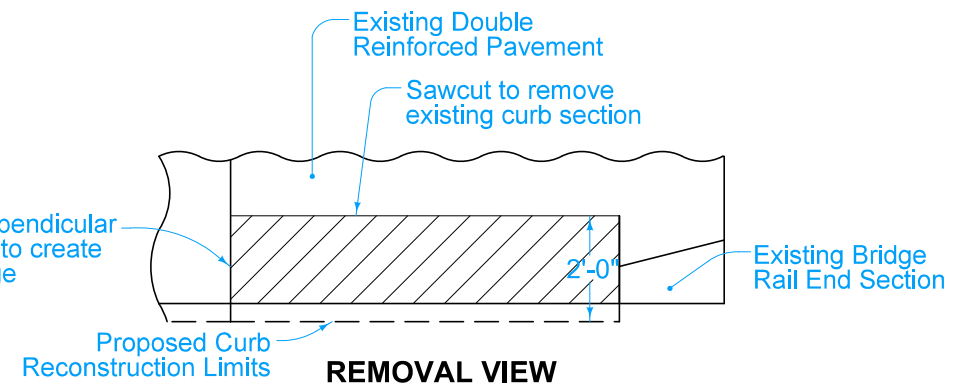
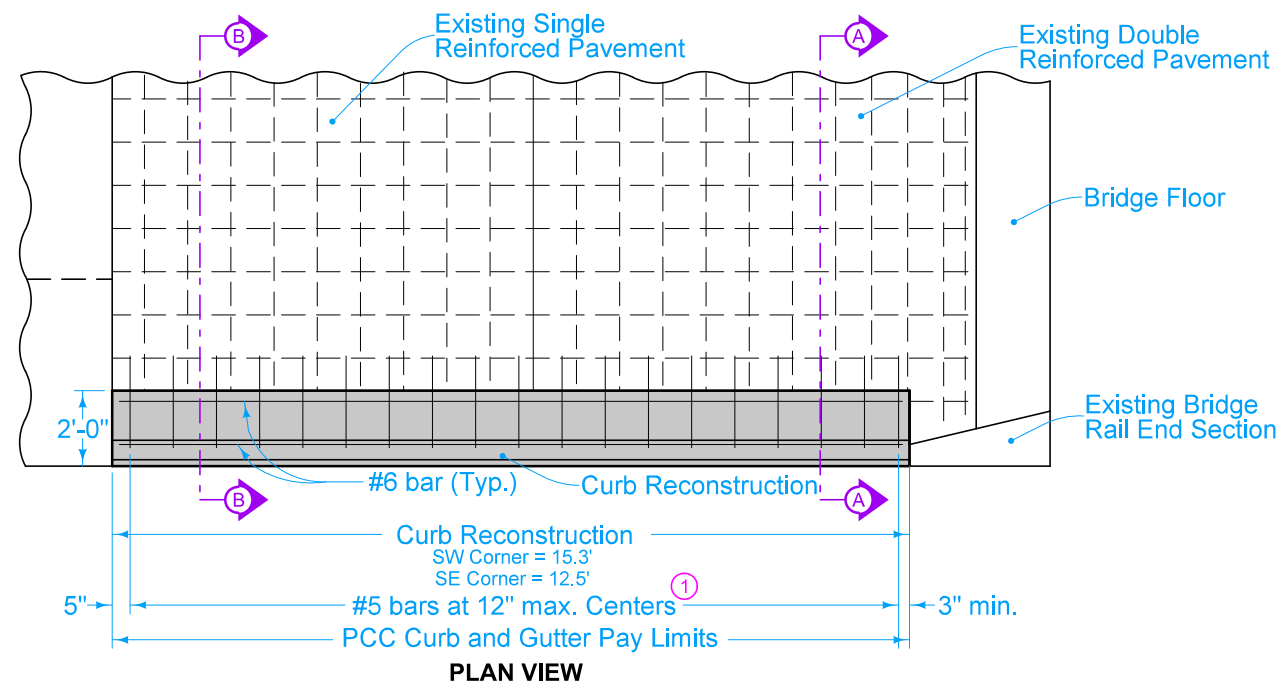
COORDINATED OPERATIONS

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	

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- ① Spacing of #5 bars may vary to avoid conflict with existing approach slab reinforcement.
- ② Expansion joint at end of Bridge Rail End Section: Place joint filler the full depth of the bridge approach pavement. In areas with curb, place full depth of pavement plus curb and shape material to fit the shape of the curb per Section B-B of PV-101. Seal joint per Detail F of PV-101.
- ③ Refer to Bridge Sheets for Bridge Joint details.
- ④ 'BT-4' Joint, refer to PV-101. Incidental to Curb and Gutter, As Per Plan.

Contract Item:
Curb and Gutter, P.C. Concrete, As Per Plan

Tabulations:
112-4

CURB RECONSTRUCTION DETAILS