LETTING DATE
Dec. 15, 2026

Bridge Deck Overlay
BRF-012-2(042)--38-75

PLYMOUTH COUNTY

Index of Sheets

No.	Description
Sheets	Bridge Plan
A.1	Title Sheet
A.2	Location Map Sheet
V.1	Estimated Quantities - Design 0227
V.2 - V.5	Design 0227
Road Sheets	Road Plan
A.3-J.4	Road Plans
C.1	Estimated Quantities - Road
C.4	Standard Plans - Road

IOWA DOT

PLANS OF PROPOSED IMPROVEMENT ON THE

PRIMARY ROAD SYSTEM
PLYMOUTH COUNTY
Bridge Deck Overlay

IA 12 over Beaver Creek,
0.5 mi. N of Co. Rd C16

Refer to the Plan Sheets for list of applicable specifications.

Value Engineering Saves. Refer to Article 1105.13 of the Specifications.



Revisions

	TOTAL
	31
PROJECT IDENTIFICATION NUMBER	
22-75-012-010	
PROJECT NUMBER	
BRF-012-2(042)--38-75	
R.O.W. PROJECT NUMBER	
PROJECT DIRECTORY NUMBER	
7501201022	

Scan the QR code or click the link below to leave plan quality feedback and help us improve future projects.

Design QR Feedback Link



Standard Road Plans

Standard Road Plans are listed on sheet C.4

Design Data Rural

2024 AADT	1,140 V.P.D.
TRUCKS	27 %

lowa DOT Bridges and Structures
Consultant Coordinator Contact:
Christian Yi

Index of Seals

Sheet No.	Name	Type
A.1	Anthony Bardgett *	Structural Design
A.3	Dung Ta **	Roadway Design

* Kirkham Michael
** Iowa DOT

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.

Anthony Bardgett 9-14-26
Signature Date

Anthony T. Bardgett, P.E.
Printed or Typed Name

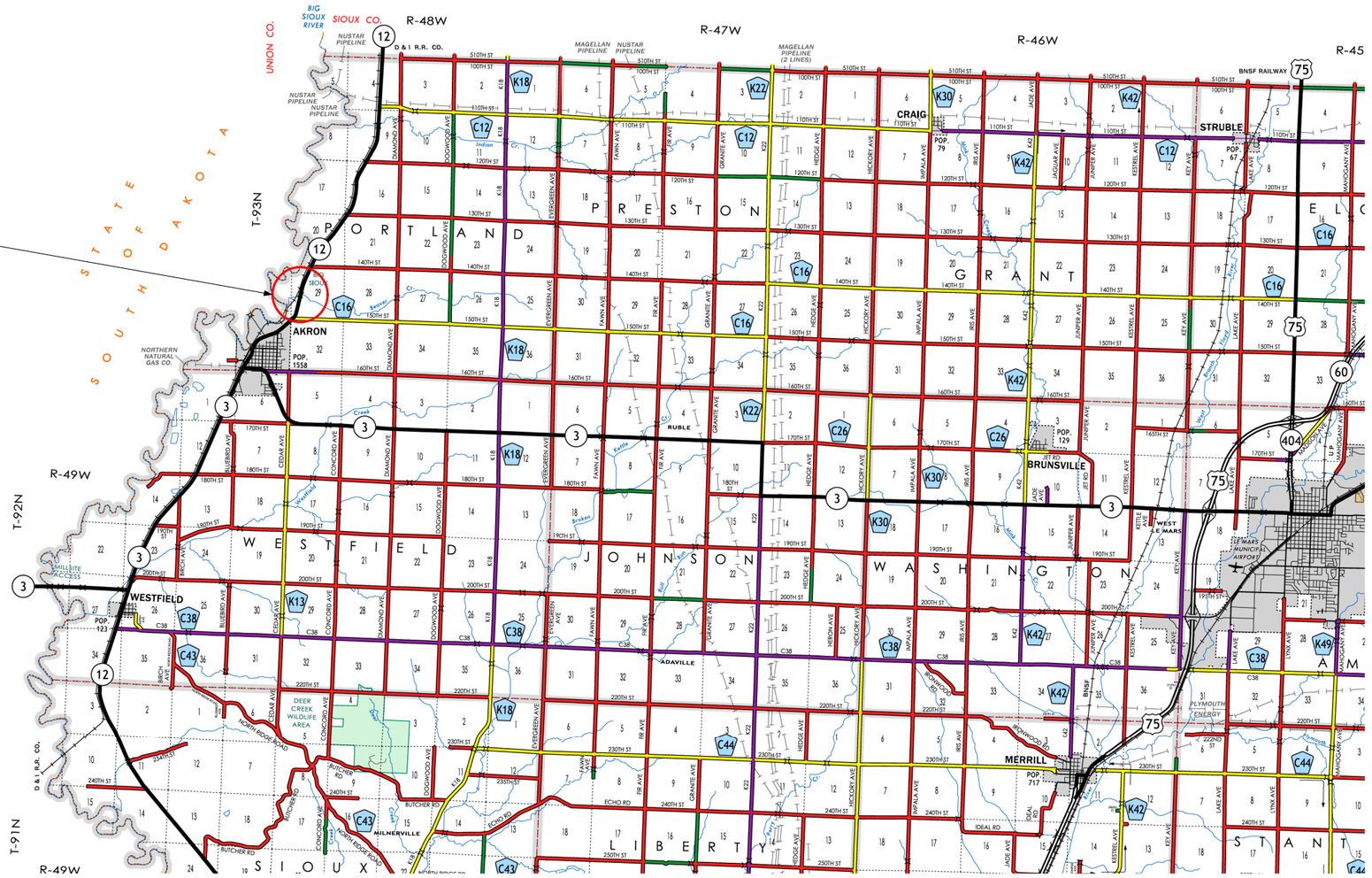
My license renewal date is December 31, 2027

Pages or sheets covered by this seal: A.1, A.2, V.1 thru V.5

FILE NO. 32381	ENGLISH	DESIGN TEAM Kirkham Michael	PLYMOUTH COUNTY	PROJECT NUMBER BRF-012-2(042)--38-75	SHEET NUMBER A.1

2:09:41 PM 9/14/2026 costheimer pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\7501201022\Bridge\(042)_Bridge Deck Overlay\SHT_75012042_KM_0227_039971_Z04.dgn

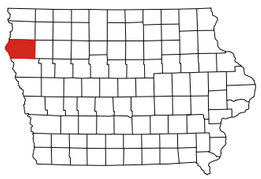
Design No. 0227
FHWA No. 039971



N

Plymouth County Location Map

Not To Scale



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 — ABBEY ROAD
- UNINCORPORATED PLACE — ELWOOD

- STATE PARKS
- STATE INSTITUTIONS
- FEDERAL LAND

FILE NO. **32381**	ENGLISH	DESIGN TEAM **Kirkham MIchael**	**PLYMOUTH** COUNTY	PROJECT NUMBER **BRF-012-2(042)--38-75**	SHEET NUMBER **A.2**

2:09:46 PM 9/14/2026 costheimer pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\7501201022\Bridge\(042)_Bridge Deck Overlay\SHT_75012042_KM_0227_039971_Z04.dgn

Estimated Project Quantities and Reference Notes - Design #0227

Item No.	Item Code	Item	Unit	Quantities Estimated Design No. 0227	Estimate Reference Notes
1	2413-0698074	DECK REPAIR, CLASS A	SY	65.4	Minimum Class A repair depth shall be down to the top mat of the deck reinforcing. Maximum Class A repair shall be half of the existing deck thickness unless overdepth Class A is approved by the Engineer. The Contractor shall sound the deck after the surface has been scarified for the overlay. The project inspector will verify the patch areas before any concrete is removed. All materials removed from the repair shall become the property of the Contractor and removed from the project site.
2	2533-4980005	MOBILIZATION	LS	1	----
		Alternate AA Option 1			
3	2413-0698066	DECK OVERLAY (CLASS O PCC)	SY	654	Includes cleaning existing curbs, and rails, and furnishing and placing concrete sealer. See details on Situation Plan.
		Alternate AA Option 2			
4	2403-1000010	TRIAL BATCH AND TEST PLACEMENT (FIBER REINFORCED CONCRETE)	LS	1	Refer to Developmental Specifications for Fiber Reinforcement of Structural Concrete.
5	2413-0698067	DECK OVERLAY (CLASS HPC-O PCC)	SY	654	Includes cleaning existing curbs, and rails, and furnishing and placing concrete sealer. See details on Situation Plan.
6	2413-1000005	FIBER REINFORCEMENT FOR CONCRETE REPAIR/OVERLAY	SY	654	Refer to Developmental Specifications for Fiber Reinforcement of Structural Concrete.

Note:
Roadway quantities shown elsewhere in these plans.

Design For Repair To 35° Skew (RA)

130'-0'' x 44'-0''

Continuous Concrete Slab Bridge

39'-6'' End Spans 51'-0'' Interior Span

Estimated Project Quantities

STA. 96+30.00 (IA 12) Turn-in Date: October 2026

Plymouth County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. 0227 Design Sheet No. 1 of 5 FHWA No. 039971

General Notes:

This design is for repairs to the existing 130'-0" x 44'-0" Continuous Concrete Slab Bridge on IA 12 over Beaver Creek. 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. 774, retrofit barrier rail design no. 196). 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.

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 $\frac{5}{8}$ 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)".

The Contractor shall exercise care in removing concrete in order to prevent unnecessary unbonding of reinforcing steel.

No preliminary deck survey is shown. The plan quantity for "Class A Bridge Deck Repair" is estimated as 10% of the total deck area. The actual quantity is determined by the Engineer at the time of repair. Actual spalled and hollow areas as determined by the Engineer shall be repaired.

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

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

Surface preparation shall be according to Article 2413.03, B and C of the Standard Specifications. The Contractor shall ensure the vertical edge 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.

The Bridge Contractor is to provide a method of removal that will prevent feather edging at the bottom of the existing slab. Care shall be taken when exposing existing reinforcing so the bond to existing concrete is not broken at the concrete break lines.

Keyway dimensions shown on the plans are based on nominal dimensions unless stated otherwise. In addition, the bevel used on the keyway shall be limited to a maximum of 10 degrees from vertical.

Surface raise, as shown on the plans, shall be considered a minimum. In order to limit the additional dead load surface raise shall be restricted to a maximum of ½" more than shown on the plans. Profile may be adjusted to the extent possible within these limits.

Present slab thickness is about 19.5 inches. The Contractor shall exercise care in order to prevent unnecessary removal of concrete below the top of the top reinforcing. The energy of hand tools shall be restricted near the bottom of the designated Class A repair areas in order to prevent unbonding of reinforcing. No concrete shall be removed below the top of the top longitudinal reinforcing without prior permission from the Bridge Engineer.

The existing bridge was originally constructed using staged construction. Abandoned temporary barrier rail anchor pins, bolts, or similar embedded steel may be present in the existing concrete slab near the original stage construction line. The Contractor shall anticipate encountering embedded steel during scarification, Class A deck repair, and overlay preparation. Any exposed or interfering pins/anchors shall be removed as necessary to complete the work, as directed by the Engineer. Resulting voids shall be repaired with approved deck repair or overlay material. This work shall be considered incidental to the bid item "Deck Overlay (Class O PCC)" or "Deck Overlay (Class HPC-O PCC)".

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

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
774	Original Design
196	Rail Retrofit
227	Overlay

Design For Repair To 35° Skew (RA)

130'-0'' x 44'-0''
Continuous Concrete Slab Bridge

39'-6'' End Spans — 51'-0'' Interior Span

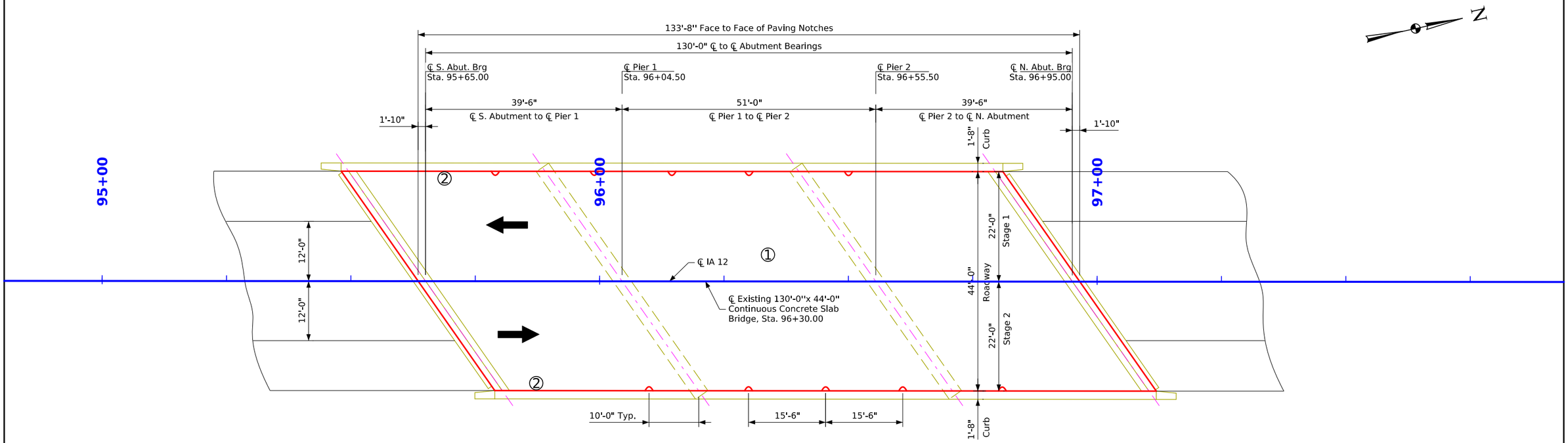
General Notes

STA. 96+30.00 (IA 12) — Turn-in Date: October 2026

Plymouth County

IOWA DEPARTMENT OF TRANSPORTATION

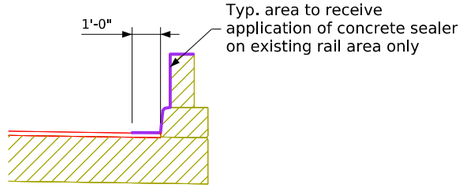
Design No. 0227 — Design Sheet No. 2 of 5 — FHWA No. 039971



Repairs shall consist of:

① Scarify existing bridge slab, complete Class A repairs, and overlay the bridge with Class O PCC or Fiber-Reinforced Class HPC-O PCC.

② Seal existing barrier rails and barrier end sections continuously from the outside top edge of the rail to a line on the roadway surface one foot from the curb.



Detail of Concrete Sealer

Location

IA 12 over Beaver Creek
T-93N R-48W
Section 29
Portland Township
Plymouth County
FHWA No. 039971
Bridge Maint. No. 7535.4S012
Latitude 42.84357044°
Longitude -96.54389545°

Design For Repair To 35° Skew (RA)

130'-0'' x 44'-0''
Continuous Concrete Slab Bridge

39'-6'' End Spans — 51'-0'' Interior Span

Situation Plan

STA. 96+30.00 (IA 12) — Turn-in Date: October 2026

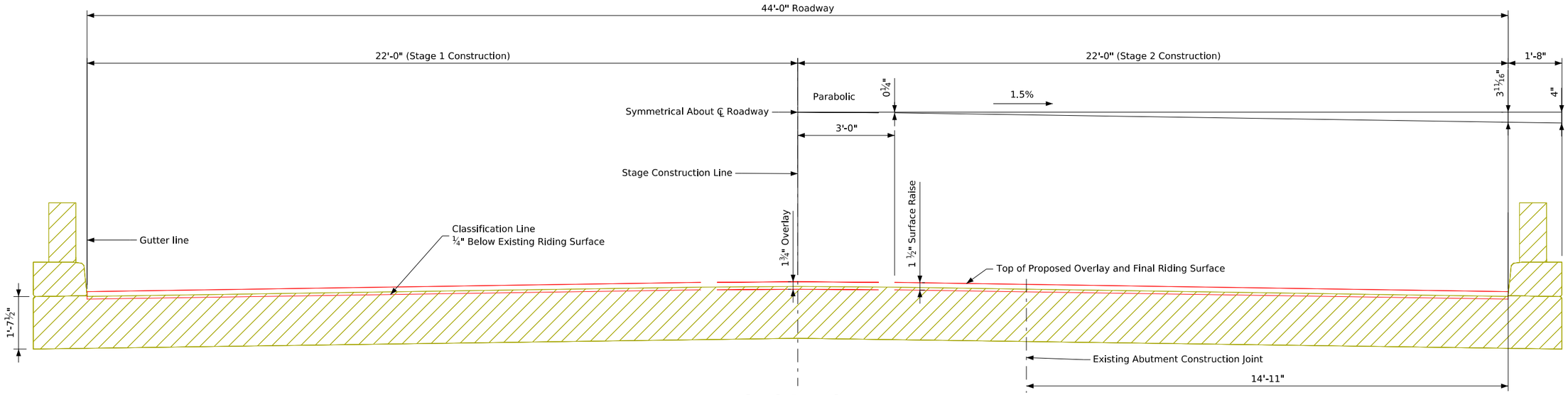
Plymouth County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. 0227 — Design Sheet No. 3 of 5 — FHWA No. 039971

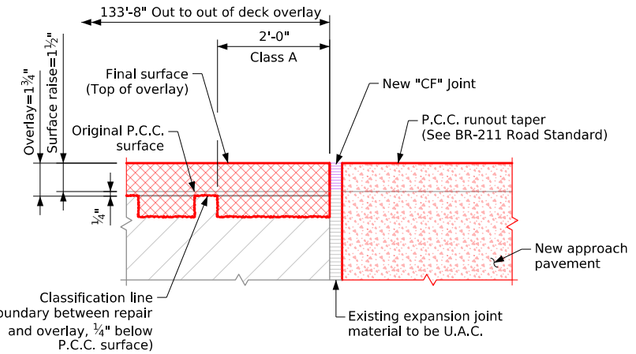
FILE NO. 32381	ENGLISH	DESIGN TEAM Kirkham MIchael	Plymouth COUNTY	PROJECT NUMBER BRF-012-2(042)--38-75	SHEET NUMBER V.3

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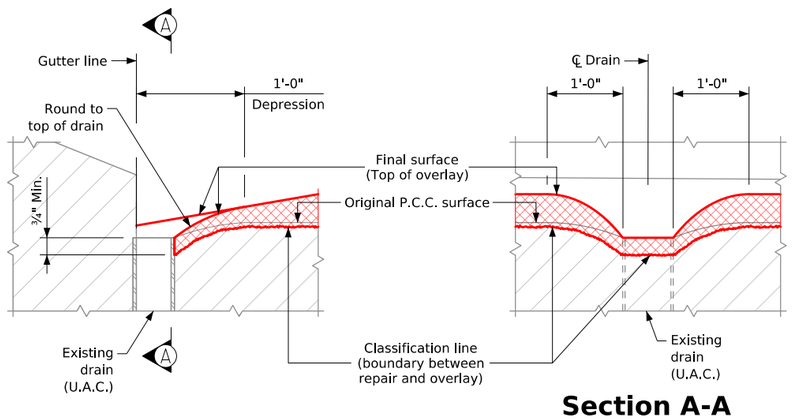
Typical Section

Looking North



Part Longitudinal Section Along Roadway

Both Abutments

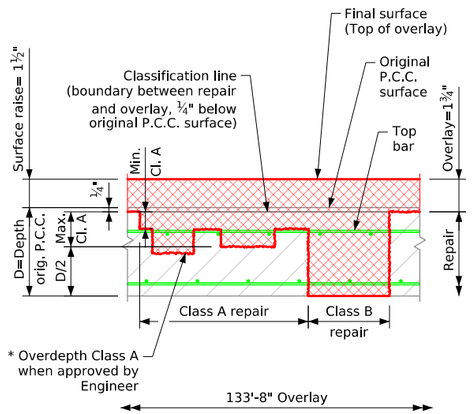


Section A-A

Slab Repair Detail at Drain

(Required at 10 Locations)

* 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.



Repair and Overlay Definition

Note: The 2'-0" Class A repair area shown at the joint at the end of the bridge deck 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. The 2'-0" Class A repair area shall be placed monolithically with overlay.

Design For Repair To 35° Skew (RA)

130'-0'' x 44'-0''

Continuous Concrete Slab Bridge

39'-6" End Spans — 51'-0" Interior Span

Deck Repair - Quantities

STA. 96+30.00 (IA 12)

Turn-in Date: October 2026

Plymouth County

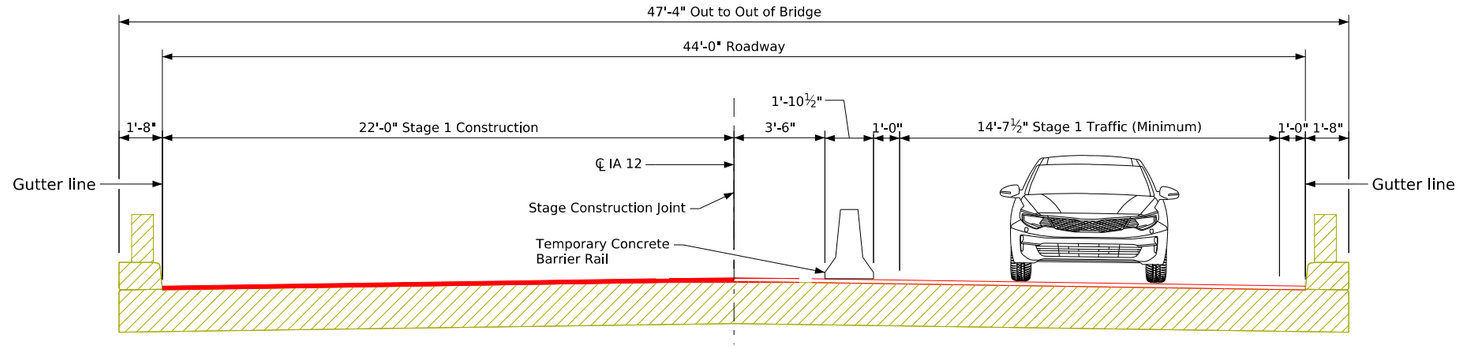
IOWA DEPARTMENT OF TRANSPORTATION

Design No. 0227 — Design Sheet No. 4 of 5 — FHWA No. 039971

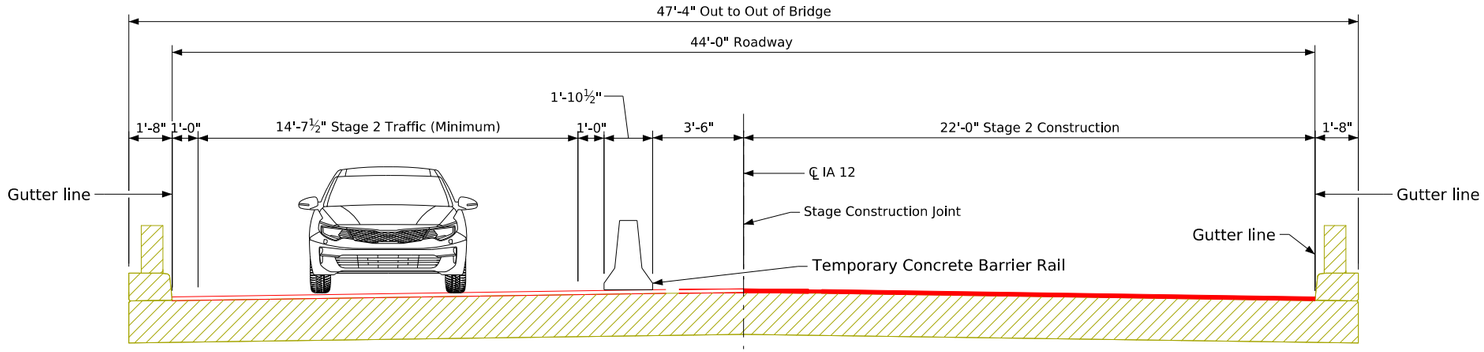
FILE NO. 32381	ENGLISH	DESIGN TEAM Kirkham Michael	Deck Overlay Repair - Quantities	Standard Sheet 1038 (Modified)	Plymouth COUNTY	PROJECT NUMBER BRF-012-2(042)--38-75	SHEET NUMBER V.4

Revised 11-2015 - Modified "Design History" Table to State "(Includes this Design)".
TRevised 03-2017 - Modified Construction: Standard Specifications Bridge Construction, Series to 2015, (Was 2012).
RepairRetrofitBridges.dgn - 1038 - This Sheet Redrawn 09-08-1988.
RepairRetrofitBridges.dgn - 1038 - This Sheet Re-Issued 07-2023.

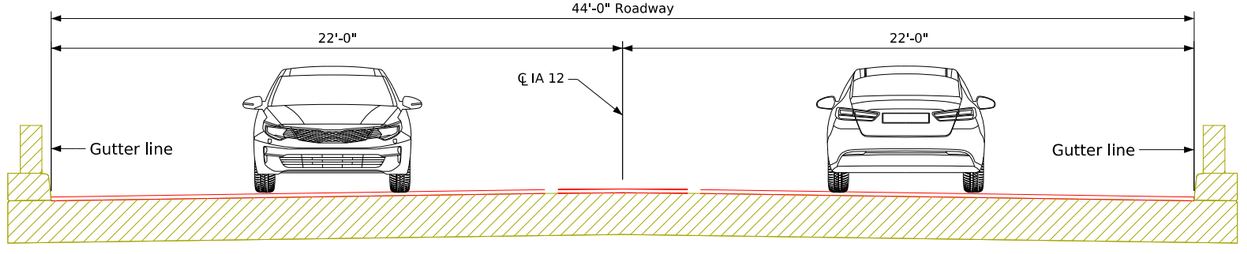
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Typical Section Stage 1 Construction
(Looking North)



Typical Section Stage 2 Construction
(Looking North)



Final
(Looking North)

Design For Repair To 35° Skew (RA)

130'-0'' x 44'-0''
Continuous Concrete Slab Bridge

39'-6" End Spans — 51'-0" Interior Span

Stage Construction Details

STA. 96+30.00 (IA 12) — Turn-in Date: October 2026

Plymouth County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. 0227 — Design Sheet No. 5 of 5 — FHWA No. 039971

FILE NO. 32381	ENGLISH	DESIGN TEAM Kirkham Michael	Plymouth COUNTY	PROJECT NUMBER BRF-012-2(042)--38-75	SHEET NUMBER V.5	

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INDEX OF SHEETS

No.	DESCRIPTION
A Sheets	**Title Sheets**
A.3	Title Sheet
B Sheets	**Typical Cross Sections and Details**
B.1 - 2	Typical Cross Sections and Details
C Sheets	**Quantities and General Information**
C.1 - 2	Estimated Project Quantities & Reference Information
C.3	Index of Tabulations
C.4	Standard Road Plans
C.5 - 15	Tabulations
D Sheets	**Mainline Plan and Profile Sheets**
D.1	Plan & Profile Legend & Symbol Information Sheet
D.2	ML-IA 12
J Sheets	**Traffic Control and Staging Sheets**
J.1 - 4	Traffic Control Plan

ROADWAY DESIGN

LICENSED PROFESSIONAL ENGINEER
Dung T. Ta 21117
IOWA

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

Signature — Date: XX-XX-XXXX

Dung T. Ta
Printed or Typed Name

My license renewal date is December 31, 20 26

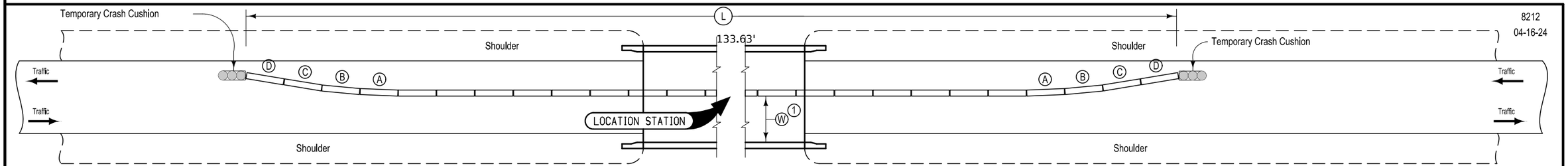
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X

FILE NO. 32381	ENGLISH	DESIGN TEAM Ta/McClanahan	PLYMOUTH COUNTY	PROJECT NUMBER BRF-012-2(042)--38-75	SHEET NUMBER A.3

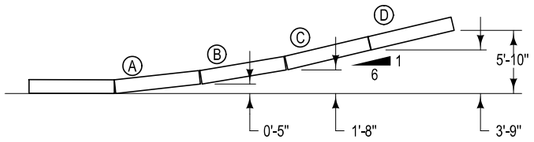
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DESIGNER INFORMATION



8212
04-16-24

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



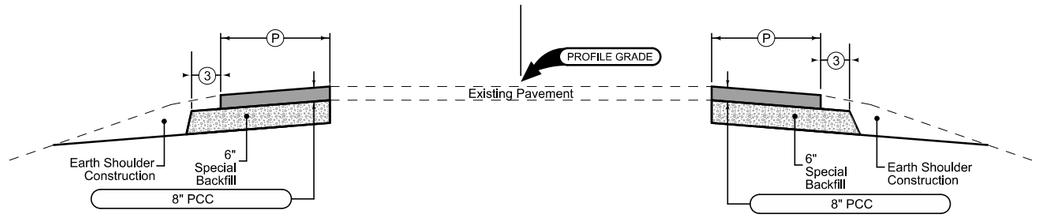
BARRIER OFFSETS FOR FLARE SECTIONS

Station	Side	AA Feet	WL Feet	TA Feet	L Feet	Anchored X	W (1) Ft-Inches	Remarks
96+30	LT	50	300	50	500	Yes	19	Stage 2
96+30	RT	50	300	50	500	Yes	19	Stage 1

TEMPORARY CONCRETE BARRIER LAYOUT
for Two-Way Traffic

Shoulder Strengthening
Full Depth PCC Shoulder

2_P_Guard_ 04-21-20		
STATION TO STATION		P Feet
87+05.00	94+33.86	6
97+95.13	105+50.00	6

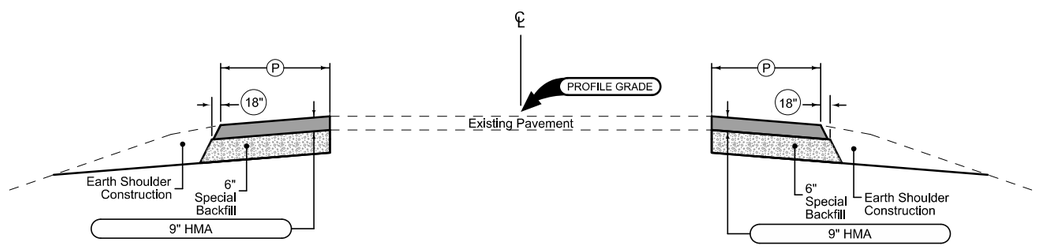


Shoulder Strengthening
Full Depth PCC Shoulder

2_P_Guard_ 04-21-20		
STATION TO STATION		P Feet
87+05.00	94+14.88	6
98+26.15	105+50.00	6

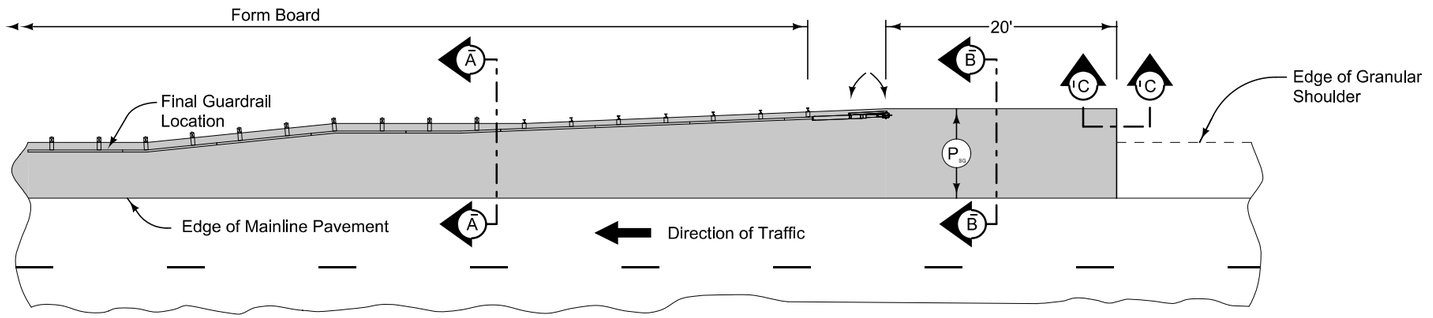
Shoulder Strengthening
Full Depth HMA Shoulder

2_P_Guard_ 04-21-20		
STATION TO STATION		P Feet
87+05.00	94+33.86	6
97+95.13	105+50.00	6

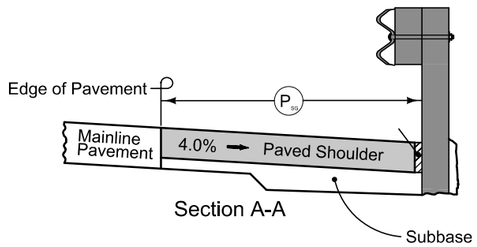


Shoulder Strengthening
Full Depth HMA Shoulder

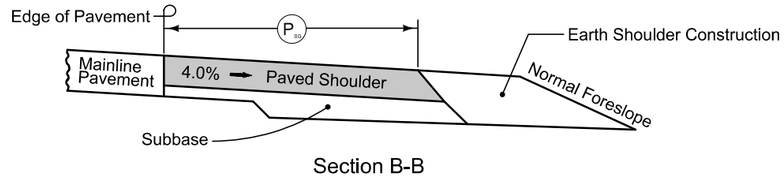
2_P_Guard_ 04-21-20		
STATION TO STATION		P Feet
87+05.00	94+14.88	6
98+26.15	105+50.00	6



PLAN VIEW

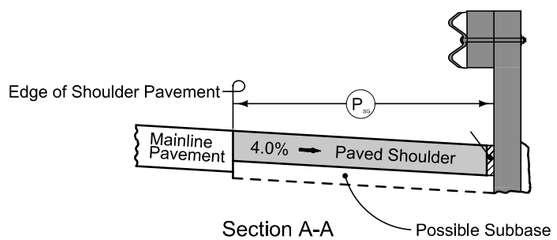


Section A-A

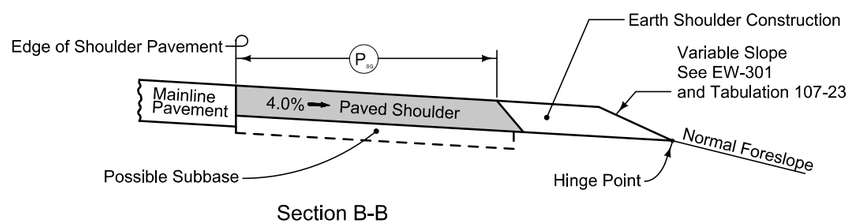


Section B-B

NEW CONSTRUCTION



Section A-A



Section B-B

EXISTING SHOULDER

DESIGNER INFORMATION

7156
10-21-25

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.

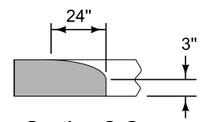
PCC option only: When guardrail posts are installed prior to construction of PCC paved shoulder, fasten form board to the face of guardrail posts for the length shown.

Continue paved shoulder 20 feet beyond the center of the first post.

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

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

Refer to other details in the plan.



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

PAVED SHOULDER AT GUARDRAIL
(GRANULAR SHOULDER ADJACENT TO MAINLINE)

ESTIMATED PROJECT QUANTITIES AND REFERENCE NOTES

Item no.	Item Code	Item	Unit	Quantities Estimated Roadway Items	Estimate Reference Notes
1	2102-0425070	SPECIAL BACKFILL	TON	1,101.19	Refer to D sheets and Tab 112-09 in the C sheets for details. Special Backfill PCC 1101.19 Tons / Special Backfill HMA 920.65 Tons
2	2102-2713090	EXCAVATION, CLASS 13, WASTE	CY	1,056.2	Dispose of excess material according to Article 1106.07 of the current specifications.
3	2301-0690203	BRIDGE APPROACH, BR-203	SY	803.6	Refer to tab 112-06.
4	2304-0100000	DETOUR PAVEMENT	SY	2,319.5	Refer to Sheet B.1 and Tab. 112-9 in the C sheets for details. This quantity is included in the quantity of "Paved Shoulder and Shoulder at Guardrail" will be bid as detour pavement.
5	2412-0000100	LONGITUDINAL GROOVING IN CONCRETE, BRIDGE DECK	SY	1,439.8	Refer to Tab 100_28 in the C sheet for details. Need bridge area from bridge.
6	2503-0500402	BRIDGE END DRAIN, DR-402	EACH	1	Refer to D sheet and Tab 104_08A.
7	2505-6765006	REMOVE AND REINSTALL FORMED STEEL BEAM GUARDRAIL	LF	403.2	The intent of this work is to remove and reinstall only the steel beam guardrail for placement of pavement. Carefully remove and stockpile steel beam guardrail for reinstallation. The Contractor has the option to leave the posts in place, or to remove and reinstall the posts at no additional cost to the Contracting Authority. Replace steel beam rail and posts damaged by the Contractor's operations at no additional cost to the Contracting Authority. Posts, delineators, and object markers are to remain in place. Replace posts, delineators, and object markers damaged by the Contractors operations at no additional cost to the Contracting Authority. Ensure that all posts are firm and plum prior to reinstalling the guardrail. Restore the area disturbed by removal and reinstallation operations to an acceptable condition. Method of Measurement: Measurement will be in linear feet, measured along the front of the rail, of steel beam guardrail (includes W-beam and Thrie-beam guardrail) removed and reinstalled. Basis of Payment: Payment will be at the contract unit price per linear foot of steel beam guardrail removed and reinstalled. Payment includes all labor, equipment, and materials required to remove and reinstall the steel beam guardrail.
8	2510-6745850	REMOVAL OF PAVEMENT	SY	1,102.3	Refer to Tab.110_01 and D sheets.
9	2527-9263181	PAVEMENT MARKINGS REMOVED	STA	28.82	Refer to Tab 108_22 in the C sheets.
10	2527-9263209	PAINTED PAVEMENT MARKINGS, WATERBORNE OR SOLVENT-BASED	STA	42.47	Refer to Tab. 108_22 in the C sheets for details. Apply 6" wide pavement markings on IA 12.
11	2527-9263231	REMOVABLE TAPE MARKINGS, WET RETROREFLECTIVE	STA	22.74	Refer to Tab. 108_22 in the C sheets for details.

Item no.	Item Code	Item	Unit	Quantities	Estimate Reference Notes
				Estimated	
				Roadway Items	
12	2528-8400048	TEMPORARY BARRIER RAIL, CONCRETE	LF	1,000	Refer to Tab. 108-33 in the C sheets for details. All temporary barrier rail shall be nominal 12'-6 long concrete units.
13	2528-8400256	TEMPORARY TRAFFIC SIGNALS	EACH	2	Refer to Tab. 108-28 in the C sheets for details.
14	2528-8445110	TRAFFIC CONTROL	LS	1	Refer to Tab 108_23A traffic Control Plan in J sheet for details. Refer to Tab 108_26A in J sheets for details.
15	2528-8445113	FLAGGERS	EACH	0	See Proposal.
16	2551-0000110	TEMP CRASH CUSHION	EACH	4	Refer to Tab. 108_30 in the C sheets for details.

INDEX OF TABULATIONS

Tabulation	Tabulation Title	Sheet No.
105_04	STANDARD ROAD PLANS	C.4
108_28	TEMPORARY TRAFFIC SIGNALS	C.5
108_30	CRASH CUSHIONS	C.6
108_33	TEMPORARY BARRIER RAIL	C.7
110_01	REMOVAL OF PAVEMENT	C.8
110_07A	REMOVAL OF STEEL BEAM GUARDRAIL	C.9
112_06	BRIDGE APPROACH SECTION	C.10
112_09	SHOULDERS	C.11
100_28	LONGITUDINAL GROOVING	C.12
104_08A	SCOUR PROTECTION OR ROCK FLUME FOR BRIDGE END DRAIN	C.13
108_22	PAVEMENT MARKING LINE TYPES	C.14
108_22	PAVEMENT MARKING LINE TYPES	C.15

STANDARDS

The following Standards apply to construction work on this project.

Number	Date	Title
BA-401	04-20-21	Temporary Barrier Rail (Precast Concrete)
BA-500	04-20-21	Temporary Crash Cushions Sand Barrel
BR-203	10-20-26	Double Reinforced 12in Approach
BR-211	04-21-26	Bridge Approach (Abutting PCC or Composite Pavement)
DR-402	04-16-24	Rock Flume for Bridge End Drain
PM-110	10-15-24	Line Types
PV-101	10-20-26	Joints
PM-115	10-20-26	Grooving for Line Types
TC-1	10-15-19	Work Not Affecting Traffic (Two-Lane or Multi-Lane)
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

TEMPORARY TRAFFIC SIGNALS

Item No.	Station	Signal Type	Remarks
1	92+07.79	One Lane Traffic	South of Bridge
1	100+52.21	One Lane Traffic	North of Bridge

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.

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
SB	96+30.00	Left	2.0	Temporary	2								TBR	
NB	96+30.00	Right	2.0	Temporary	2								TBR	

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.

Station From	Station To	Length (FT)	Barrier Rail Type	Anchored*	Modular Glare Screen System	Remarks
93+80.00	98+80.00	500.0	Concrete BA-401	Yes	No	Stage Traffic on North Bound Lane
93+80.00	98+80.00	500.0	Concrete BA-401	Yes	No	Stage Traffic on South Bound Lane

REMOVAL OF PAVEMENT

Refer to Tabulation 102-5.

* Not a bid item.

Station From	Station To	Side	Pavement Type	Area (SY)	Saw Cut* (LF)	Remarks
94+33.86	94+82.77	Left	PCC	69.6		Guardrail Paving South
94+14.88	94+82.77	Right	PCC	105.6		Guardrail Paving South
94+82.77	95+63.18	Both	PCC	412.6		South Approach
96+96.81	97+77.23	Both	PCC	417.6		North Approach
97+77.23	97+95.13	Left	PCC	27.4		Guardrail Paving North
97+77.23	98+26.15	Right	PCC	69.5		Guardrail Paving North
Total:				**1102.3**		

REMOVAL OF STEEL BEAM GUARDRAIL

(1) Lane(s) to which the installation is adjacent.
(2) Includes length of End Terminals and End Anchors.

Direction of Traffic (1)	Station From	Station To	Side	Removal of Guardrail (2) (LF)
SB	97+73.33	96+85.00	Right	88.3
SB	95+41.00	94+52.67	Right	88.3
NB	94+32.67	95+71.00	Right	138.3
NB	97+15.00	98+03.33	Right	88.3
Total:				**403.2**

BRIDGE APPROACH SECTION

Refer to the BR Series.

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

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
96+30.00	S		35.0	12.0	80.4			146.7	97.8	157.3	BR-203	Movable	BR-211	56.0	94+92.77	Right	1.6	395.900	447.4		South Approach
96+30.00	N		35.0	12.0	80.4			146.7	97.8	157.3	BR-201	Movable	BR-211	56.0	97+67.23	Right	1.6	0.200	447.4		North Approach
Total:								**293.4**	**195.6**	**314.6**											

Nonreinforced	293.4 SY
Single Reinforced	195.6 SY
Double Reinforced	314.6 SY
Total	803.6 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 Start Width (FT)	P_SG End Width (FT)	P SG Width (2) (FT)	L Length (FT)	Class 13 Excavation (CY) (3)(4)	Cross Section Area (SF)	HMA (TON)	HMA (TON/STA)	Binder (TONS)	Paved Shoulder (3) (SY)	Shoulder at Grdrail (5)(7)	Backfill Cross Section Area HMA	Backfill Cross Section Area PCC	Special Backfill HMA Alt. (3) (TON)	Special Backfill HMA Alt. (TON/STA)	Special Backfill PCC Alt. (3) (TON)	Special Backfill PCC Alt. (TON/STA)	Shoulder Const. Alt (3) (STA)	Shoulder Const. Alt HMA (6) (CY)	Shoulder Const. Alt PCC (6) (CY)	Remarks
IA 12	NB	94+14.88	94+82.77	Right		15.1	11.8	15	67.89	28.3	10.75	51.087	75.250	3.065		101.5	7.83	9.13	37.211	54.810	43.388	63.910	0.68	18.46	14.96	Guardrail Paving *
IA 12	NB	97+77.23	98+26.15	Right		11.4	13.4	13	48.92	29.4	10.00	34.244	70.000	2.055		67.4	7.33	8.13	25.101	51.310	27.840	56.910	0.49	13.30	10.78	Guardrail Paving *
IA 12	SB	94+33.86	95+63.18	Left		13.4	11.4	13	129.32	77.8	10.00	90.524	70.000	5.431		178.2	7.33	8.13	66.354	51.310	73.596	56.910	1.29	35.16	28.50	Guardrail Paving *
IA 12	SB	97+77.23	97+95.13	Left		13.8	13.8	14	17.90	11.6	10.75	13.470	75.250	0.808		27.4	7.83	8.63	9.811	54.810	10.813	60.410	0.18	4.87	3.94	Guardrail Paving *
										147.1		189.325	290.500	11.359	0.0	374.5			138.477		155.637			71.79	58.18	
Remarks Guardrail Paving *:																										
IA 12	**NB**	**87+05.00**	**94+14.88**	**Right**	**6**	**0.0**	**0.0**		**709.88**	**295.8**	**4.75**	**236.035**	**33.250**	**14.162**	**473.3**		**3.83**	**4.63**	**190.319**	**26.810**	**230.072**	**32.410**	**7.10**	**192.98**	**156.44**	Strengthening *
IA 12	NB	98+26.15	105+50.00	Right	6	0.0	0.0		723.85	201.1	4.75	240.680	33.250	14.441	482.6		3.83	4.63	194.064	26.810	234.600	32.410	7.24	196.78	159.52	Strengthening *
IA 12	SB	87+05.00	94+33.86	Left	6	0.0	0.0		728.86	202.5	4.75	242.346	33.250	14.541	485.9		3.83	4.63	195.407	26.810	236.224	32.410	7.29	198.14	160.62	Strengthening *
IA 12	SB	97+95.13	105+50.00	Left	6	0.0	0.0		754.87	209.7	4.75	250.994	33.250	15.060	503.2		3.83	4.63	202.381	26.810	244.653	32.410	7.55	205.21	166.35	Strengthening *
										909.1		**970.055**	**133**	**58.204**	**1945**	**374.5**			**782.171**		**945.549**			**793.11**	**642.93**	
Remarks Strengthening *:																										
Total:										**1056.2**		**1159.38**	**423.5**	**69.563**	**1945**	**374.5**			**920.648**		**1101.186**			**864.9**	**701.11**	

Paved Shoulder	1945.00
Shoulder at Guardrail	374.50
Total	2319.50

LONGITUDINAL GROOVING

Location	Total (SY)	Remarks
96+30.00	381.7	South Approach
96+30.00	381.7	North Approach
96+30.00	604.4	Bridge Deck
Total:	**1367.8**	

104_08A
8/15/22

SCOUR PROTECTION OR ROCK FLUME FOR BRIDGE END DRAIN

Refer to Standard Road Plan DR-401 and DR-402

Bridge Station	Bridge Corner	Distance DI-1 or DI-2 (FT)	Bridge End Drain Type	Special Ditch Control, Wood Excelsior Mat EC-101 (SQ)	Turf Reinforced Mat (TRM) Type 2 EC-104 (SQ)	Transition Mat EC-105 (SF)	Macadam Stone Base (TONS)	Engineering Fabric (SY)	Erosion Stone (TON)	Remarks
96+30.00	NW	54.0	DR-402				2.000	25.6	31.000	

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 | YLW2: Yield Line (White) @ 1.15

Road ID	Station From	Station To	Lane	Marking Type	Left	Center	Right	Groove Marking Needed?	Groove Qty. (STA)	BCY4* (STA)	BCY4* Factored (STA)	BCY6 (STA)	BCY6 Factored (STA)	ELW4 (STA)	ELW4 Factored (STA)	ELW6 (STA)	ELW6 Factored (STA)	ELY4 (STA)	ELY4 Factored (STA)	SLW2 (STA)	SLW2 Factored (STA)	Remarks
IA 12	87+05.00	105+50.00	Center	Removal of Paint		X				18.45	3.14											
IA 12	87+05.00	105+50.00	Both	Removal of Paint	X		X							36.90	24.72							
IA 12	91+07.79	91+07.79	NB	Removal of Paint			X													0.12	0.48	Stop Line
IA 12	101+52.21	101+52.21	SB	Removal of Paint			X													0.12	0.48	Stop Line
											3.14				24.72						0.96	
Marking Type Removal of Paint:																						
IA 12	**91+07.79**	**93+47.79**	**NB**	Removal of Removable Tape			X							4.80	3.22							Stage (* See Note)
IA 12	91+07.79	93+47.79	NB	Removal of Removable Tape	X									4.80	3.22							Stage (* See Note)
IA 12	93+47.79	94+32.79	NB	Removal of Removable Tape	X									1.70	1.14							Stage (* See Note)
IA 12	98+27.21	99+12.21	NB	Removal of Removable Tape	X									1.70	1.14							Stage (* See Note)
IA 12	99+12.21	101+52.21	SB	Removal of Removable Tape	X									4.80	3.22							Stage (* See Note)
IA 12	99+12.21	101+52.21	SB	Removal of Removable Tape			X							4.80	3.22							Stage (* See Note)
IA 12	91+07.79	93+47.79	SB	Removal of Removable Tape			X							4.80	3.22							Stage (* See Note)
IA 12	91+07.79	93+47.79	SB	Removal of Removable Tape	X									4.80	3.22							Stage (* See Note)
IA 12	93+47.79	94+32.79	SB	Removal of Removable Tape	X									1.70	1.14							Stage (* See Note)
															22.74							
Marking Type Removal of Removable Tape:																						
IA 12	**91+07.79**	**91+07.79**	**NB**	Waterborne/Solvent Paint			X													0.12	0.48	Stop Line
IA 12	101+52.21	101+52.21	SB	Waterborne/Solvent Paint			X													0.12	0.48	Stop Line
IA 12	87+05.00	105+50.00	Both	Waterborne/Solvent Paint			X	Yes	36.90							36.90	36.90					
IA 12	87+05.00	105+50.00	Center	Waterborne/Solvent Paint			X	Yes	4.61			18.45	4.61									
									41.51				4.61				36.9				0.96	
Marking Type Waterborne/Solvent Paint:																						
IA 12	**91+07.79**	**93+47.79**	**NB**	Wet Retroreflective Removable Tape			X							4.80	3.22							Stage (* See Note)
IA 12	91+07.79	93+47.79	NB	Wet Retroreflective Removable Tape	X									4.80	3.22							Stage (* See Note)
IA 12	93+47.79	94+32.79	NB	Wet Retroreflective Removable Tape	X									1.70	1.14							Stage (* See Note)
IA 12	98+27.21	99+12.21	NB	Wet Retroreflective Removable Tape	X									1.70	1.14							Stage (* See Note)
IA 12	99+12.21	101+52.21	SB	Wet Retroreflective Removable Tape	X									4.80	3.22							Stage (* See Note)
IA 12	99+12.21	101+52.21	SB	Wet Retroreflective Removable Tape			X							4.80	3.22							Stage (* See Note)
IA 12	91+07.79	93+47.79	SB	Wet Retroreflective Removable Tape			X							4.80	3.22							Stage (* See Note)
IA 12	91+07.79	93+47.79	SB	Wet Retroreflective Removable Tape	X									4.80	3.22							Stage (* See Note)
IA 12	93+47.79	94+32.79	SB	Wet Retroreflective Removable Tape	X									1.70	1.14							Stage (* See Note)
IA 12	98+27.21	99+12.21	SB	Wet Retroreflective Removable Tape	X									1.70	1.14							Stage (* See Note)
IA 12	99+12.21	101+52.21	SB	Wet Retroreflective Removable Tape	X									4.80	3.22							Stage (* See Note)
IA 12	99+12.21	101+52.21	SB	Wet Retroreflective Removable Tape			X							4.80	3.22							Stage (* See Note)
															30.32							
Marking Type Wet Retroreflective Removable Tape:																						

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 | YLW2: Yield Line (White) @ 1.15

Road ID	Station From	Station To	Lane	Marking Type	Left	Center	Right	Groove Marking Needed?	Groove Qty. (STA)	BCY4* (STA)	BCY4* Factored (STA)	BCY6 (STA)	BCY6 Factored (STA)	ELW4 (STA)	ELW4 Factored (STA)	ELW6 (STA)	ELW6 Factored (STA)	ELY4 (STA)	ELY4 Factored (STA)	SLW2 (STA)	SLW2 Factored (STA)	Remarks
Total:									**41.51**		**3.14**		**4.61**		**77.78**		**36.9**				**1.92**	

Waterborne Solvent Paint Total 42.47
Wet Retroreflective Removable Tape Total 30.32
Removal of Removable Tape Total 22.74
Removal of Paint Total 28.82
* Length was doubled because tape should be 8" (two 4" strips side by side}

SURVEY SYMBOLS

- Interstate Highway Symbol
- U.S. Highway Symbol
- Iowa Highway Symbol
- County Road Highway Symbol
- Evergreen Tree
- Deciduous Tree
- Fruit Tree
- Shrub (Bushes)
- Timber
- Hedge
- Stump
- Swamp
- Rock Outcrop
- Broken Concrete
- Revetment (Rip Rap)
- Cemetery
- Grave
- Cave
- Sink Hole
- Board Fence
- Chain Link or Security Fence
- Wire Fence
- Terrace
- Earth Dam or Dike (Existing)
- Tile Outlet
- Edge of Water
- Existing Drainage
- Right of Way Rail or Lot Corner
- Concrete Monument
- Well
- Windmill
- Beehive Intake
- Existing Intake
- Existing Utility Access (Manhole)
- Fire Hydrant
- WH Water Hydrant (Rural)
- ST Septic Tank
- C Cistern
- LP L.P. Gas Tank (No Footing)
- UST Underground Storage Tank
- Latrine
- Satellite TV Dish
- WHU Water Hook Up
- RT Radio Tower
- TA Tower Anchor
- Guardrail (Beam or Cable)
- GP Guard Post (one or two)
- Guard Post (over two)
- FP Filler Pipe
- GV Gas Valve
- WV Water Valve
- SL Speed Limit Sign
- MM Mile Marker Post
- SIGN Sign
- TCB Traffic Signal Control Box
- RRB Rail Road Signal Control Box
- TSB Telephone Switch Box
- EB Electric Box

UTILITY LEGEND

The following utilities have been identified by One Call (811):

(CTLIA01) CENTURYLINK
Contact Name : SADIE HULL
Contact Phone: 9185470147
Contact Email: sadie.hull@lumen.com

(NW4) NORTH WEST RURAL ELECTRIC COOP
Contact Name : SHEILA VAN BEEK
Contact Phone: 7127074935
Contact Email: operdept@nwrec.coop

(PR2) PREMIER COMMUNICATIONS
Contact Name : Jake Van Roekel
Contact Phone: 7127223451
Contact Email: jakevr@mypremieronline.com

(SCY) SPRINT NEXTEL
Contact Name : Michael Chebul
Contact Phone: 4028808720
Contact Email: mchebul@cogentco.com

(SSR) SOUTHERN SIOUX COUNTY WATER
Contact Name : Russ Coons
Contact Phone: 7122782212
Contact Email: sscrws@premieronline.net

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.**		**Transparency**
Pink, Dark	(13)	Temporary Pavement Shading	50%
Yellow	(4)	Proposed Pavement Shading	50%
Orange	(6)	Proposed Granular Shading	50%
Orange	(70)	Proposed Shoulder Granular Shading	50%
Yellow	(68)	Proposed Shoulder Paved Full Depth Shading	50%
Yellow	(132)	Proposed Shoulder Paved Partial Depth Shading	50%
Brown, Light	(236)	Grading Shading	50%
Orange, Light	(134)	Proposed Granular Entrance Shading	50%
Yellow	(220)	Proposed Paved Entrance Shading	50%
Tan	(8)	Proposed Sidewalk Shading	50%
Blue, Light	(230)	Proposed Sidewalk Landing Shading	50%
Pink	(11)	Proposed Sidewalk Ramp Shading	50%
Red	(3)	Proposed Structure Shading	50%
Red	(3)	Delineates Restricted Areas	0%

PROFILE VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

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

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

RIGHT-OF-WAY LEGEND

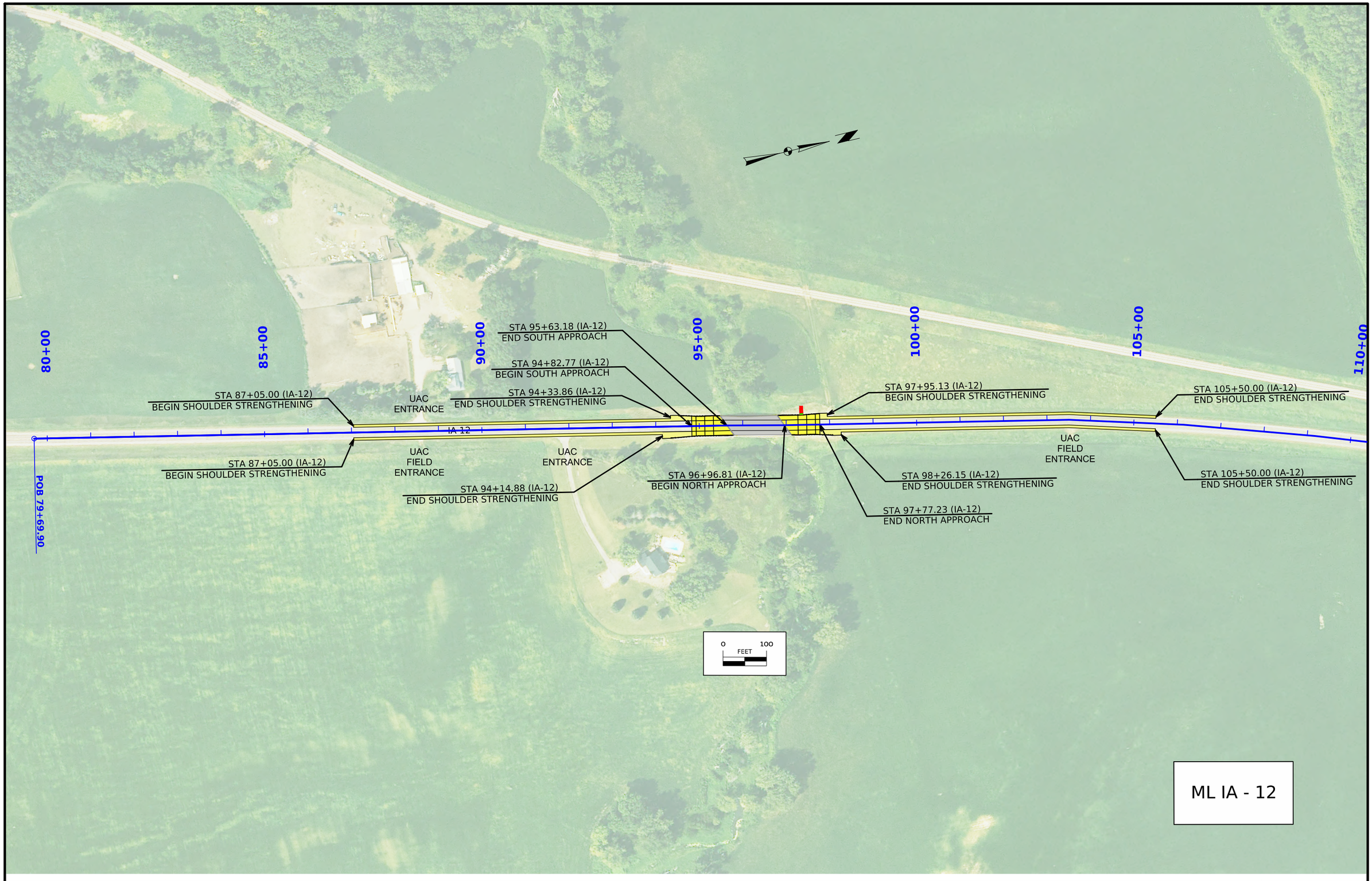
- Proposed Right-of-Way Symbol
- Proposed Right-of-Way Line
- Existing Right of Way
- Existing and Proposed Right-of-Way
- Easement and Existing Right-of-Way
- Easement (Temporary) Symbol
- Easement (Temporary) Line
- Easement
- C/A Access Control
- Property Line Symbol
- Property Line

PLAN AND PROFILE LEGEND AND SYMBOL INFORMATION SHEET

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

FILE NO. 32381	ENGLISH	DESIGN TEAM Ta/McClanahan	PLYMOUTH COUNTY	PROJECT NUMBER BRF-012-2(042)--38-75	SHEET NUMBER D.1

4:56:18 PM 4/28/2026 smcclan pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7501201022\Design\CADD_Files\Sheet_Files\75012042_D01.dgn



FILE NO. 32381	ENGLISH	DESIGN TEAM Ta/McClanahan	PLYMOUTH COUNTY	PROJECT NUMBER BRF-012-2(042)--38-75	SHEET NUMBER D.2	

2:19:41 PM 4/29/2026 smcclan pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7501201022\Design\CADD_Files\Sheet_Files\75012042_D02.dgn

108_23A
8/15/22

TRAFFIC CONTROL PLAN

Traffic on IA 12 shall be maintained at all times except as noted below.

Traffic control on this project shall be in accordance with the Standard Road Plans in Tabulation 105-4 and Tabulation 108-26A.

511 TRAVEL RESTRICTIONS

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
IA 12	NB	Plymouth	.5 miles north SR C16	Bridge over Beaver Creek	Traffic Control Device	7535.4812	Horizontal	44 Roadway				Stage 1
IA 12	SB	Plymouth	.5 miles north SR C16	Bridge over Beaver Creek	Traffic Control Device	7535.4812	Horizontal	44 Roadway				Stage 2

108_26A
8/15/22

STAGING NOTES

Traffic on IA 12 shall be maintained at all times.

Shoulder strengthening will be constructed first. To shift traffic before stage 1.

Pavement Marking will be done during lane closure staging.

The staging typical are shown on the V sheets.

Construction: Bridge work and road work, Install rock flumes,
Remove and reinstall Guardrail.

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