LETTING DATE 12/15/2026

Bridge Deck Overlay
BRF-122-1(026)--38-17

Cerro Gordo County

Index of Sheets

No.	Description
Sheets	Bridge Plan
A.1	Title Sheet
A.2	Location Map Sheet
V.1	Estimated Quantities - Design 0327
V.2 - V.5	Design 0327
Road Sheets	Road Plan
A.3 - J.14	Road Plans
C.1-C.2	Estimated Quantities - Road
C.3	Standard Plans - Road

IOWA DOT

PLANS OF PROPOSED IMPROVEMENT ON THE

PRIMARY ROAD SYSTEM

Cerro Gordo County

Bridge Deck Overlay

IA 122 over Ideal Creek,
1.2 mi. W of Sec. Rd. S56

Refer to the Plan Sheets for list of applicable specifications.

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

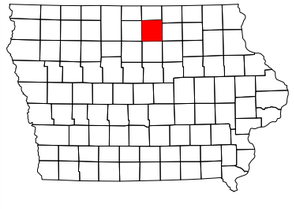
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1-800-292-8989
www.iowaonecall.com
811 Know what's below. Call before you dig.

Revisions

	TOTAL
	30
PROJECT IDENTIFICATION NUMBER	
22-17-122-010	
PROJECT NUMBER	
BRF-122-1(026)--38-17	
R.O.W. PROJECT NUMBER	
PROJECT DIRECTORY NUMBER	
1712201022	

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

Design QR Feedback Link



Design Data Rural

2024 AADT	5,000	V.P.D.
2044 AADT	5,000	V.P.D.
TRUCKS	2	%

Index of Seals

Sheet No.	Name	Type
A.1	David R. Evans	Structural Design
A.3	Dung T. Ta	Roadway Design

Structural Design

LICENSED PROFESSIONAL ENGINEER
David R. Evans
18670
IOWA

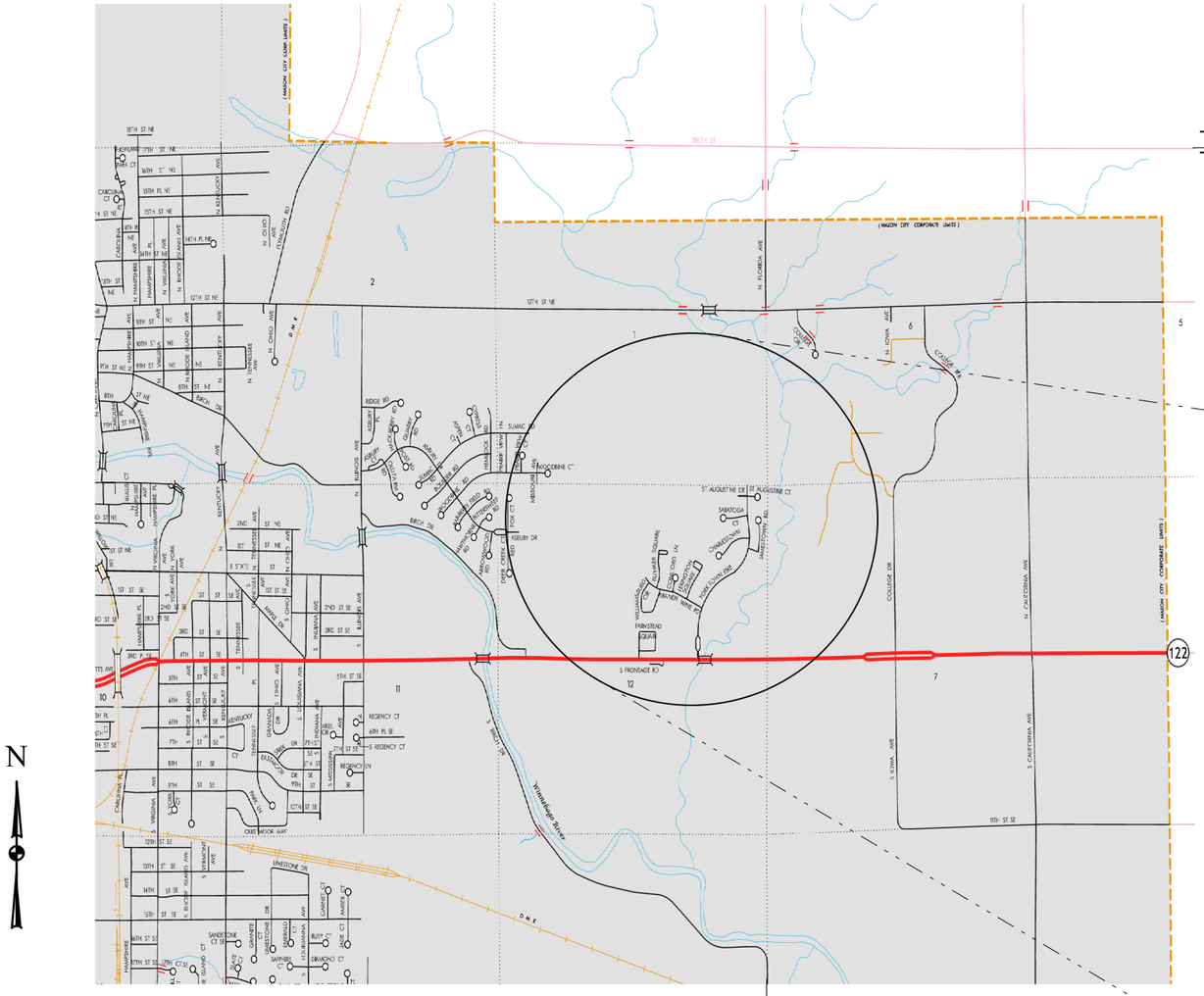
I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

Signature — 09-16-2026 Date

David R. Evans
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-V.5

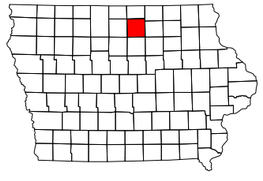


LEGEND

- INTERSTATE ROUTE
- FREEWAY OR EXPRESSWAY ROUTE
- U.S. NUMBERED ROUTE
- BUSINESS ROUTE
- STATE NUMBERED ROUTE
- UNSIGNED ROUTE
- COUNTY NUMBERED ROUTE
- SECONDARY ROAD OR ADJOINING CITY STREET
- CITY STREET
- PARK, INSTITUTION, OR FEDERAL ROAD
- RAILROAD
- CORPORATION LINE
- SECTION LINE
- CUL-DE-SAC
- SECTION, TOWNSHIP & RANGE NUMBERS — 9, T-81N, R-30W

Mason City Location Map

Not To Scale



FILE NO. 032368	ENGLISH	DESIGN TEAM JS / AY / DRE / TWE	Cerro Gordo COUNTY	PROJECT NUMBER BRF-122-1(026)--38-17	SHEET NUMBER A.2	

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ESTIMATED DECK OVERLAY QUANTITIES

ITEM NO.	ITEM CODE	ITEM	UNIT	TOTAL
1	2413-0698074	DECK REPAIR, CLASS A	SY	87.1
2	2510-6745640	REMOVAL OF EXISTING P.C. OVERLAY	SY	341.3
3	2533-4980005	MOBILIZATION	LS	1
Design No. 327 - Cerro Gordo Alt. AA Option 1 - Class O PCC				
4	2413-0698066	DECK OVERLAY (CLASS O PCC)	SY	341.3
Design No. 327 - Cerro Gordo Alt. AA Option 2 - Class HPC-O PCC				
5	2403-1000010	TRIAL BATCH AND TEST PLACEMENT (FIBER REINFORCED CONCRETE)	LS	1
6	2413-0698067	DECK OVERLAY (CLASS HPC-O PCC)	SY	341.3
7	2413-1000005	FIBER REINFORCEMENT FOR CONCRETE REPAIR/OVERLAY	SY	341.3

ESTIMATE REFERENCE INFORMATION

ITEM NO.	ITEM CODE	ITEM DESCRIPTION
1	2413-0698074	DECK REPAIR, CLASS A See general notes for Class A deck repair quantity information.
2	2510-6745640	REMOVAL OF EXISTING P.C. OVERLAY Includes costs associated with inlaying 1.5" into the existing C.I.P deck. Predemolition plan meeting and working drawing submittal is incidental to this bid item.
3	2533-4980005	MOBILIZATION - -
4	2413-0698066	DECK OVERLAY (CLASS O PCC) Includes cleaning concrete rails, furnishing and placing concrete sealer.
5	2403-1000010	TRIAL BATCH AND TEST PLACEMENT (FIBER REINFORCED CONCRETE) Includes Trial Batch and Test Placement for Fiber Reinforced Concrete. Trial Batch and Test Placement shall apply to the (Class HPC-O) bridge deck overlay mix and shall simulate bridge deck overlay placement conditions. Refer to developmental specifications for "Fiber Reinforcement for Structural Concrete" for additional information.
6	2413-0698067	DECK OVERLAY (CLASS HPC-O PCC) Includes cleaning concrete rails, furnishing and placing concrete sealer.
7	2413-1000005	FIBER REINFORCEMENT FOR CONCRETE REPAIR/OVERLAY Includes furnishing and incorporating fiber reinforcement in the concrete for Deck Overlay (Class HPC-O). Refer to developmental specifications for "Fiber Reinforcement for Structural Concrete" for additional information.

Roadway Quantities shown elsewhere in these plans.

Design For Repairs to 0° Skew

42'-6 x 68'-0 Prestressed Double-Tee Beam Bridge

Estimated Quantities

STA. 371+94.5 (IA 122)

Turn-in Date: Oct. 2026

Cerro Gordo County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. 0327 | Design Sheet No. 1 of 5 | FHWA No. 018841

General Notes

This design is for repairs to the existing 42'-6" x 68' Prestressed Double-Tee Beam Bridge, Design no. 1352 and 1082, with a year of construction of 1952 and 1984, on IA 122 over Ideal Creek.
Electronic plans of the existing structure are available to the Contractor as part of the E-Files supplied with the Contract Documents.

Repairs shall consist of the following:
1. Perform 1½" Deck Inlay. (Remove 1½ inches and P.C.C inlay to the original elevation.)
2. Perform Class A deck repair as needed.
3. Clean and Seal Concrete Barriers.
4. Remove and Install New Guardrails.
5. Install Paved Shoulders.

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

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

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 Bridge Contractor of the starting date.

All concrete removal lines shall be initiated with a ¾ inch sawcut.

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 deck.

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

Present Cast-in-Place Deck thickness is about 5.5 inches, which is supported by precast double-tee panels. 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.

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.

Plan quantity of deck repair is based on the “Survey Plot” as shown in these plans. Hatched portions represent Class A Bridge Deck Repair. The plan quantity for “Class A Deck Repair” is estimated as 87.1 square yards based on automated sounding of the deck plus 25% increase for estimating unknowns and additional 20% for estimating Overdepth Class A. Actual spalled, hollow and delaminated areas as determined by the Engineer at the time of construction, shall be repaired.

Special attention shall be given to the (UAC) 3c bars, which connect the precast double-tee panels to the cast-in-place bridge deck. The 3c bars are located at the interior joints between precast panels and at the curb. The Bridge Contractor is to use **EXTREME CARE** when removing deck concrete below the top reinforcing around the 3c bars and at the interference between the P.C.C CIP deck and the top of the precast double-tee panels. The top reinforcing is approximately 2½” below top of the existing bridge deck. The existing bridge deck is composed of a 5½” cast-in-place deck on top of 4” thick flanges of the precast double tee sections. Class B repairs are not permitted due to the presence of precast double-tee panels. No damage of any kind is allowed to the precast double-tee panels during repairs or removals.

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 Reinforcment 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.

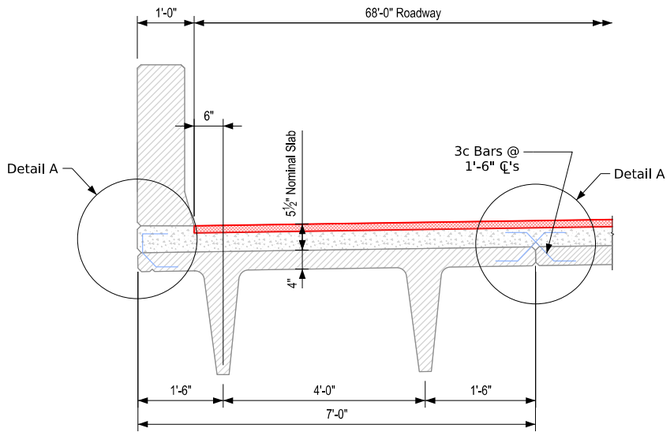
Working Drawing and Calculation Submittals

Working drawings and calculations shall be submitted for the following items shown in the table below. (Note additional working drawings and calculations may be required in accordance with Article 1105.03 of the Standard Specifications.)

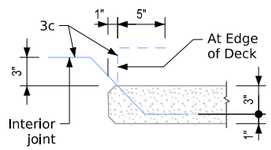
Submittal requirements for working drawings and calculations shall be in accordance with 1105.03 of the Standard Specifications for Highway and Bridge Construction of the Iowa Department of Transportation. The absence of a certification requirement for a submittal does not relieve the Contractor of the responsibility to attain certification.

Calculation submittals in this table which are associated with working drawing submittals shall be submitted on the same day. Review time for calculation submittals shall be of the same duration as and run concurrently with review time for associated working drawings. The calculation submittals listed in the table are not meant to be an exhaustive list and do not relieve the Contractor from providing additional calculation submittals if requested by the Engineer.

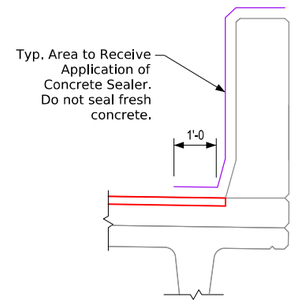
No.	Working Drawing Description	Working Drawing File Name Convention For Submittal	Certified by Iowa P.E. (Yes/No)
1	✱ Predemolition Plan	(026)_Cerro Gordo_Design327_PredemolitionPlan.pdf	No
No.	Calculation Description	Calculation File Name Convention For Submittal	Certified by Iowa P.E. (Yes/No)



As Built Detail for Precast Double-Tee to CIP Deck Connection



Detail A



Detail of Concrete Sealer Area

The top and interior faces of the existing concrete railings and one foot of deck from gutterline are to be cleaned and sealed in accordance with Article 2403.03, P, 3, of the Standard Specifications. All costs associated with cleaning and sealing of the concrete rails shall be included in the unit price bid item “Deck Overlay”.

✱ A predemolition plan shall be submitted to the engineer on this project to demonstrate means and methods for removal of concrete to ensure the 3c bars in the joint areas and the top surface of the precast double tees will be preserved with **NO DAMAGE**. Prior to commencing any deck repair work, the contractor shall attend a predemolition meeting, hosted by the Iowa DOT, at least two weeks before the scheduled work is to occur.

Design History at this Site
(Includes this Design)

Des. No.	Type of Work
1352	Original Design
1082	Bridge Widening Double Tee
0212	Retrofit Rail and Paving Notch
0327	Bridge Deck Overlay/Inlay

Traffic Control Plan

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

Design For Repairs to 0° Skew

42'-6 x 68'-0 Prestressed Double-Tee Beam Bridge

General Notes

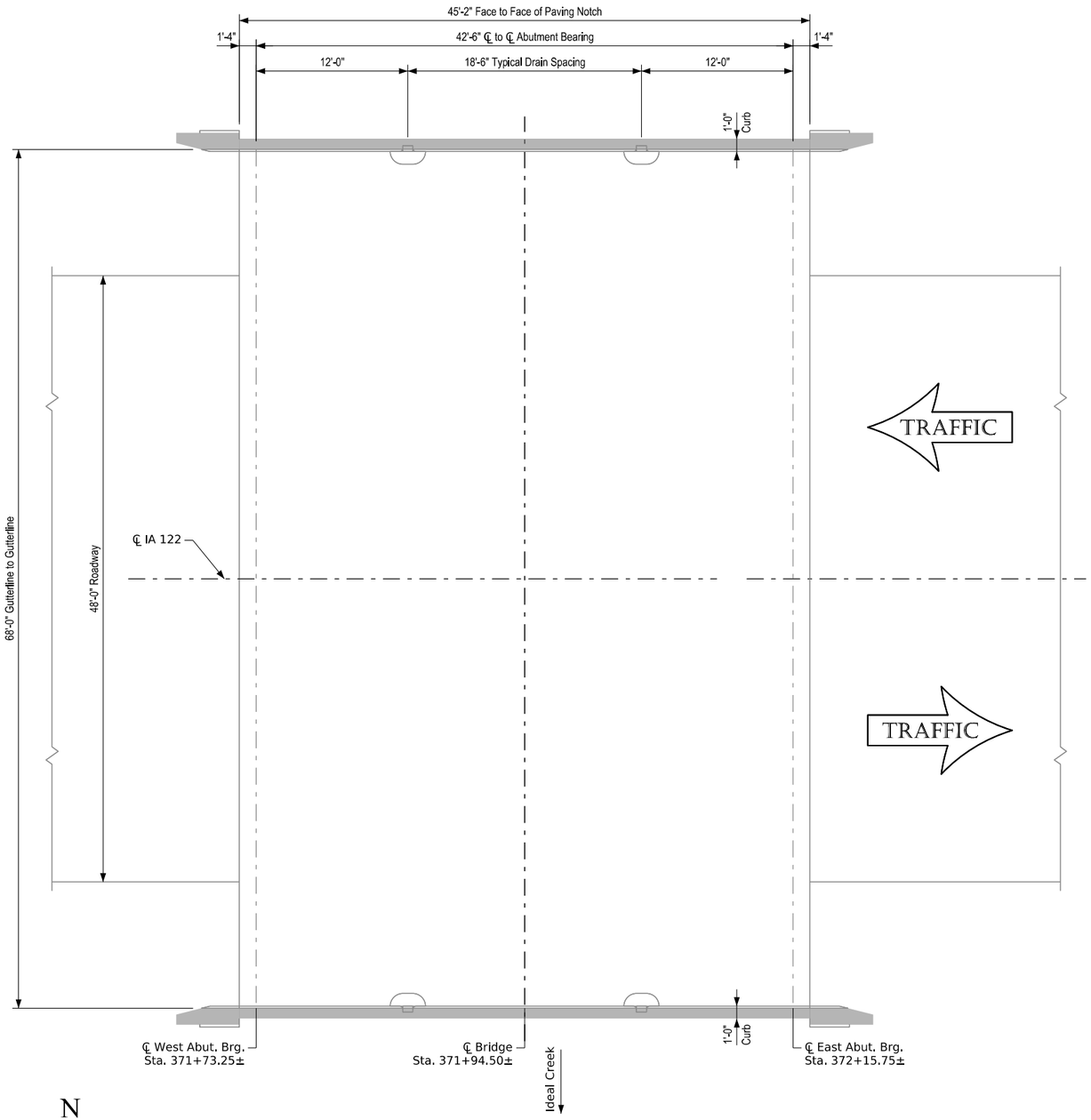
STA. 371+94.5 (IA 122)
Turn-in Date: Oct. 2026

Cerro Gordo County
IOWA DEPARTMENT OF TRANSPORTATION

Design No. 0327 | Design Sheet No. 2 of 5 | FHWA No. 018841



Typ. Approach Sect.





Situation Plan
(Not to Scale)

Location
IA 122 over Ideal Creek,
T-96N R-20W
Section 12
Mason Township
Cerro Gordo County
FHWA No. 018841
Bridge Maint. No. 1711.1S122
Latitude 43.148037
Longitude -93.146162

Design For Repairs to 0° Skew

42'-6 x 68'-0 Prestressed Double-Tee Beam Bridge

Situation Plan

STA. 371+94.5 (IA 122)

Turn-in Date: Oct. 2026

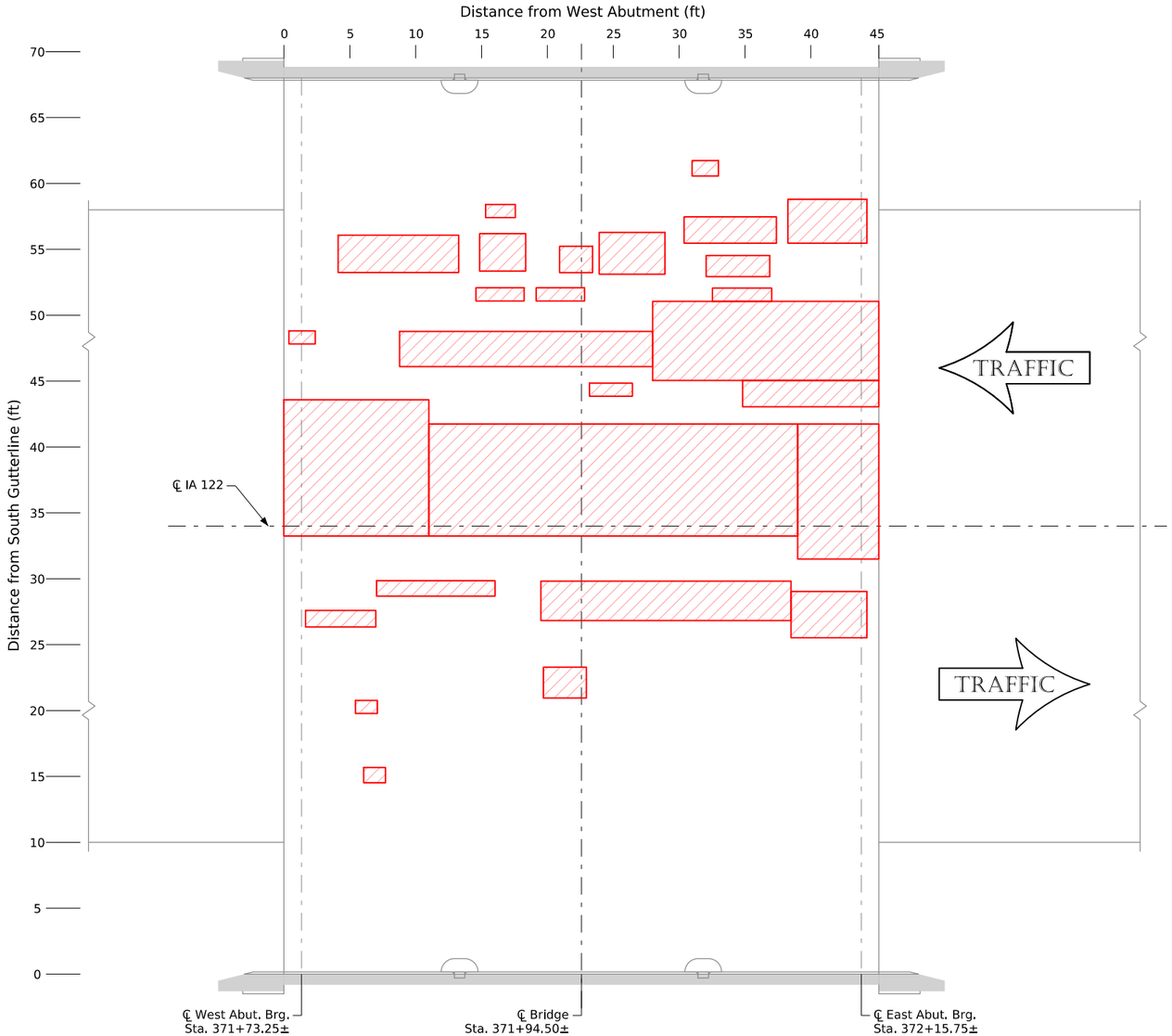
Cerro Gordo County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. 0327 | Design Sheet No. 3 of 5 | FHWA No. 018841

FILE NO. 032368	ENGLISH	DESIGN TEAM JS / AY / DRE / TWE	Cerro Gordo COUNTY	PROJECT NUMBER BRF-122-1(026)--38-17	SHEET NUMBER V.3

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N

Survey Plot

(Not to Scale)
Performed on 10-10-2025

Repair Type Key

Delamination

Estimated Class A Repair

Delamination Area	SQ.YD.	58.1
Delamination Area Increase (~25%)	SQ.YD.	14.5
** Overdepth Class A (20% of Delam Area)	SQ.YD.	14.5
	Total (SQ.YD.)	87.1

** Overdepth Class A is an estimated quantity with only assumptions to estimate the total amount of overdepth repair required.

Design For Repairs to 0° Skew

42'-6 x 68'-0 Prestressed Double-Tee Beam Bridge

Bridge Repair Plan

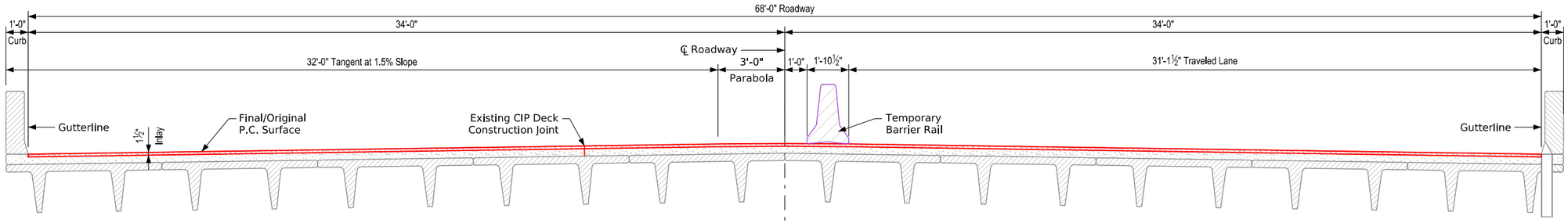
STA. 371+94.5 (IA 122)

Turn-in Date: Oct. 2026

Cerro Gordo County

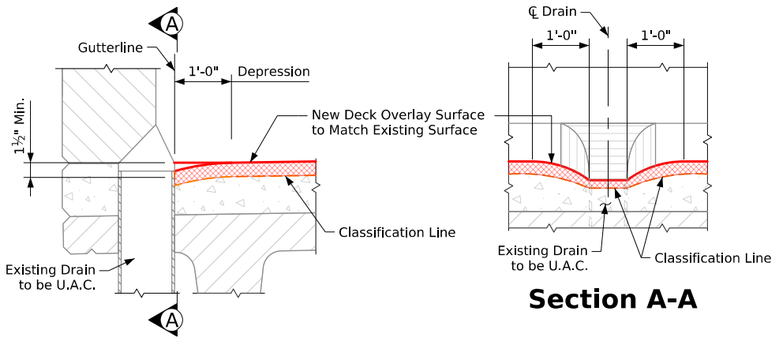
IOWA DEPARTMENT OF TRANSPORTATION

Design No. 0327 | Design Sheet No. 4 of 5 | FHWA No. 018841



Typical Cross Section

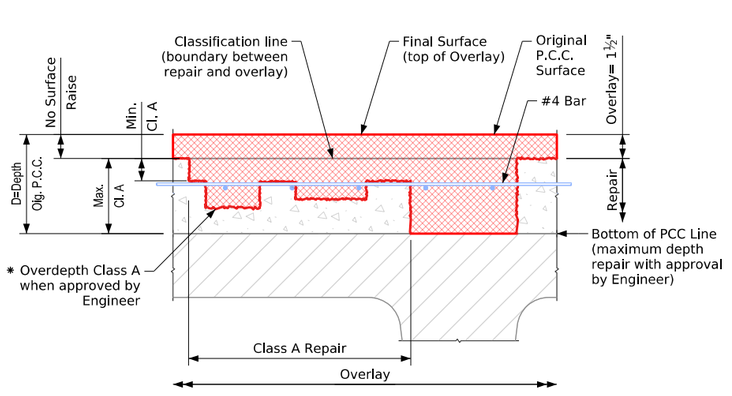
Stage 1 - Shown
Stage 2 - Similar (Mirrored)
(Looking West)



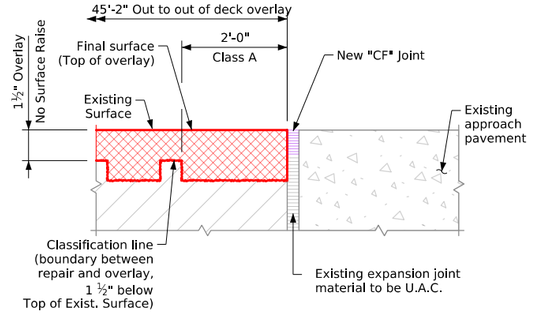
Deck Repair Detail at Drain

(Required at 4 Locations)

Section A-A



Repair and Overlay Definition



Part Longitudinal Section Along Roadway

(At Abutments)

* 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.

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 Repairs to 0° Skew

42'-6 x 68'-0 Prestressed Double-Tee Beam Bridge

Deck Repair Details

STA. 371+94.5 (IA 122)

Turn-in Date: Oct. 2026

Cerro Gordo County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. 0327 | Design Sheet No. 5 of 5 | FHWA No. 018841

FILE NO. 032368	ENGLISH	DESIGN TEAM JS / AY / DRE / TWE	Standard Sheets 1038/1040 (Modified)	Cerro Gordo COUNTY	PROJECT NUMBER BRF-122-1(026)--38-17	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 - 5	Estimated Project Quantities
D Sheets	**Mainline Plan and Profile Sheets**
* D.1	Plan & Profile Legend & Symbol Information Sheet
J Sheets	**Traffic Control and Staging Sheets**
* J.1 - 14	Traffic Control Plan
	* Color Plan Sheets

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

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: 08-11-2026

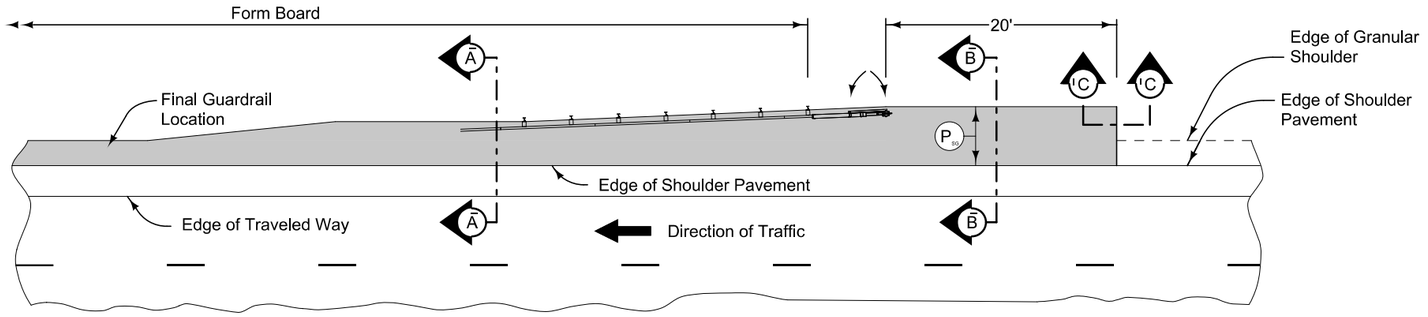
Dung T. Ta
Printed or Typed Name

My license renewal date is December 31, 20 27

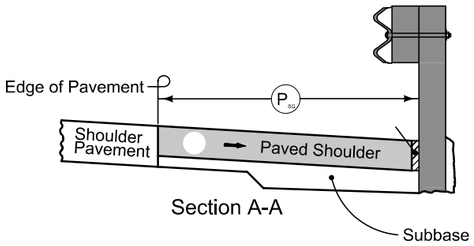
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FILE NO. 32368	ENGLISH	DESIGN TEAM Ta\McClanahan	Cerro Gordo COUNTY	PROJECT NUMBER BRF-122-1(026)--38-17	SHEET NUMBER A.3	

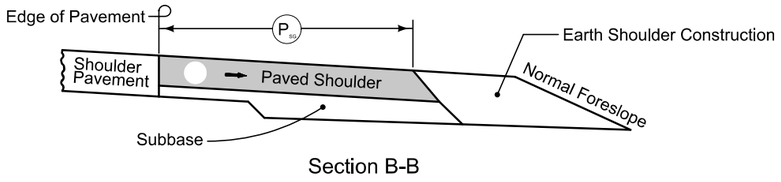
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PLAN VIEW

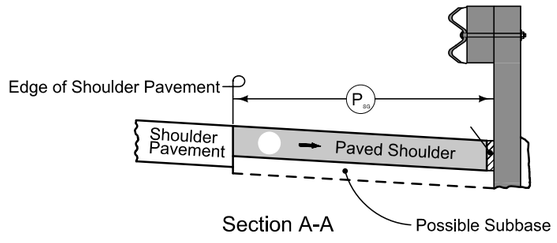


Section A-A

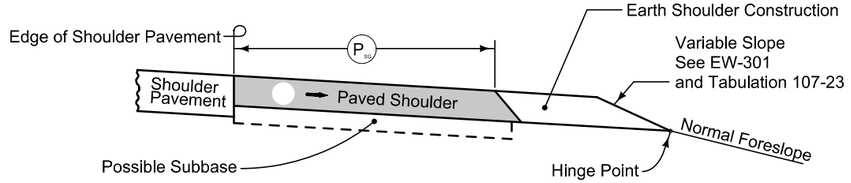


Section B-B

NEW CONSTRUCTION



Section A-A



Section B-B

EXISTING SHOULDER

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.

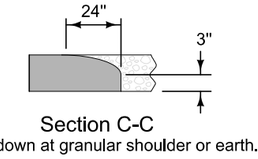
Shoulder may be notched for first 2 posts or post sleeves may be installed through pavement. Do not drive posts through pavement.

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

Match shoulder slope.

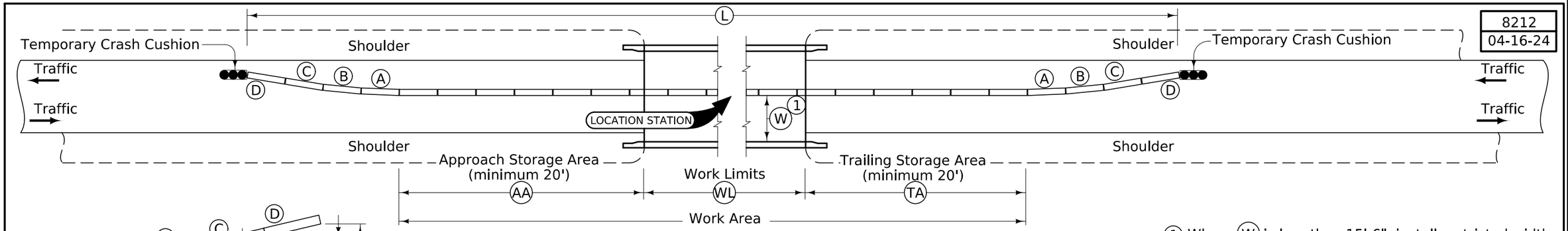
The Contractor has the option to pave the paved shoulder at guardrail and the partial width paved shoulder as one operation.

Refer to other details in the plan.

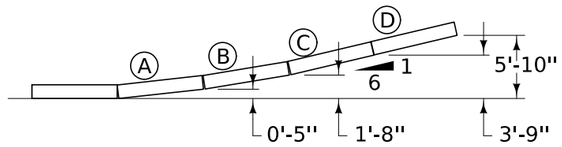


Section C-C
Roll down at granular shoulder or earth.

PAVED SHOULDER AT GUARDRAIL
(ADJACENT TO PARTIAL WIDTH PAVED SHOULDER)



8212
04-16-24



BARRIER OFFSETS FOR FLARE SECTIONS

Station	Side	AA	WL	TA	L	Anchored	W (1)	Remarks
		Ft.	Ft.	Ft.	Ft.	X	Ft-Inches	
371+94.5	Lt.	25	50	25	200		31-1.5	See sheet V.5
371+94.5	Rt.	25	50	25	200		31-1.5	For Stagging
								Typical
								Cross Section

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

TEMPORARY CONCRETE BARRIER LAYOUT
for Two-Way Traffic

FILE NO. 32368	ENGLISH	DESIGN TEAM Ta\McClanahan	Cerro Gordo COUNTY	PROJECT NUMBER BRF-122-1(026)--38-17	SHEET NUMBER B.2	

8:23:18 AM 9/14/2026 dta pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\1712201022\Design\CADD_Files\Sheet_Files\171221026_B01.dgn

ESTIMATED PROJECT QUANTITIES AND REFERENCE NOTES

Item no.	Item Code	Item	Unit	Quantities	Estimate Reference Notes
				Estimated	
				Roadway Items	
1	2102-0425070	SPECIAL BACKFILL	TON	278.1	Refer to Tabs. 112-9 in the C sheets for details.
2	2102-2713090	EXCAVATION, CLASS 13, WASTE	CY	870	Refer to Tabs. 112-9 in the C sheets for details. Dispose of excess material according to Article 1106.07 of the current specifications.
3	2123-7450000	SHOULDER CONSTRUCTION, EARTH	STA	6.5	Refer to Tab.112-9 in the C sheets for details. Requires a minimum of 4 inches of topsoil. Place according to Article 2105.03,B of the Standard Specifications.
4	2304-0100000	DETOUR PAVEMENT	SY	760.3	Refer to Tab. 112-9 in the C sheets for details.
5	2412-0000100	LONGITUDINAL GROOVING IN CONCRETE, BRIDGE DECK AND/OR APPROACHES	SY	319	Refer to Tab. 100-28 in the C sheets for details.
6	2505-4008120	REMOVAL OF STEEL BEAM GUARDRAIL	LF	160	Refer to Tab110-7A in the C sheets for details.
7	2505-4008300	STEEL BEAM GUARDRAIL	LF	25	Refer to Tab.108-8A in the C sheets for details.
8	2505-4008410	STEEL BEAM GUARDRAIL BARRIER TRANSITION SECTION, BA-201	EACH	2	Refer to Tab. 108-8A in the C sheets for details.
9	2505-4021010	STEEL BEAM GUARDRAIL END ANCHOR, BOLTED	EACH	2	
10	2505-4021720	STEEL BEAM GUARDRAIL TANGENT END TERMINAL, BA-205	EACH	2	
11	2527-9263181	PAVEMENT MARKINGS REMOVED	STA	39.43	Refer to Tab.108-22 in the C sheets for details.
12	2527-9263209	PAINTED PAVEMENT MARKINGS, WATERBORNE OR SOLVENT-BASED	STA	39.95	
13	2527-9263231	REMOVABLE TAPE MARKINGS, WET RETROREFLECTIVE	STA	8.05	
14	2528-8400048	TEMPORARY BARRIER RAIL, CONCRETE	LF	400	Refer to sheet B.1 and J sheets and Tab. 108-33 in the C sheets for details. All temporary barrier rail shall be nominal 12'-6 long concrete units.
15	2528-8400256	TEMPORARY TRAFFIC SIGNALS	EACH	1	Refer to Tab. 108-28 in the C sheets and J sheets for details.
16	2528-8445110	TRAFFIC CONTROL	LS	1	Refer to Traffic Control Plan on J sheets for details.

Item no.	Item Code	Item	Unit	Quantities	Estimate Reference Notes
				Estimated	
				Roadway Items	
17	2551-0000110	TEMP CRASH CUSHION	EACH	4	Refer to Tab. 108-30 in the C sheets for 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.

STANDARDS

The following Standards apply to construction work on this project.

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-206	10-19-21	Steel Beam Guardrail Flared End Terminal For Cable Connection
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
PM-110	10-15-24	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
PV-101	10-20-26	Joints
SI-881	10-20-26	Special Signs for Workzones

108-8A
10-16-18

STEEL BEAM GUARDRAIL AT CONCRETE BARRIER OR BRIDGE RAIL END SECTION

Possible Standards: BA-200, BA-201, BA-202, BA-205, BA-206, 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.

Location					Layout Lengths				Long-Span System		Delineators and Object Markers (2)					Bid Items									
					BA-250, BA-260, LS-630, or LS-635														BA-250 or LS-630					BA-260 or LS-635		
No.	(1) Direction of Traffic	Side O = Outside M = Median	Station	Offset	VT1	VF	VT2	ET	BA-211 STATION	BA-211 TYPE	SI-211	Delineator SI-172 Type 1	Object Marker SI-173 Type 2	Object Marker SI-173 Type 3		Bolted End Anchor	Post Adapter	Steel Beam Guardrail	Barrier Transition Section	End Terminal				Barrier Transition Section	End Terminal	Remarks
																				Tangent	Flared	Tangent	Flared		Tangent	
				FT	LF	LF	LF	LF	STATION	TYPE	TYPE	White EACH	OM2-2 EACH	OM3-L EACH	OM3-R EACH	TYPE	EACH	EACH	EACH	BA-201 EACH	BA-205 EACH	BA-206 EACH	LS-625 EACH	LS-626 EACH	BA-221 EACH	BA-225 EACH	
1	EB	O	371+52.40	34.2	53.125			47.7			3				1	B	1		12.5	1	1					
1	WB	O	372+36.60	34.2	53.125			47.7			3				1	B	1		12.5	1	1					

108-30
04-16-13

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

No.	(1) Direction of Traffic	Location Station	Side	Obstacle Width	Crash Cushion (Select One)*					Sand Barrel Details (2)					Earthwork*		Spare Parts Kit (Select One)*		Obstacle Description	Remarks
					Temporary	Temporary Redirective	Temporary Severe Use	Permanent	Permanent Severe Use	V Length	W Length	X Length	Y Length	Z Length	Excavation Class 10	Embankment in Place	Permanent	Permanent Severe Use		
				FT						FT	FT	FT	FT	FT	CY	CY	EACH	EACH		
1	EB	370+94.50	Rt	2.00	1														TBR	Staging
2	EB	372+94.50	Rt	2.00	1														TBR	
3	WB	370+94.50	Lt.	2.00	1														TBR	
4	WB	372+94.50	Lt.	2.00	1														TBR	

110-7A
04-17-12

REMOVAL OF STEEL BEAM GUARDRAIL

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

Location				
No.	(1) Direction of Traffic	Station to Station	Side	Removal of Guardrail (2)
				LF
1	EB	SW Corner	Rt	80.0
2	WB	NE Corner	Rt.	80.0

108-33
10-15-19

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.

No.	Station to Station		Length	(Select One) Concrete BA-401	(Select One) Steel 560-7	Anchored*	Modular Glare Screen System	Remarks
			LF			(Y/N)	(Y/N)	
1	370+94.50	372+94.50	200.0	x		No	No	Staging
2	370+94.50	372+94.50	200.0	x		No	No	Staging

100-28
10-19-10

LONGITUDINAL GROOVING

Location	Total	Remarks
	SY	
371+97.50	319.0	Bridge Deck

108-28
08-01-08

TEMPORARY TRAFFIC SIGNALS

No.	Location Station	Type: One Lane Traffic	Type: Haul Road	Type: Intersection	Remarks
1	368+75.00	x			staging
2	376+00.00	x			
3	369+75.00			Yorktown Pike	See Sheet J.5

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.

Calculations assume a HMA unit weight (lbs/cf) of 0, a Special Backfill unit weight (lbs/cf) of 140, and a Granular Shoulder unit weight (lbs/cf) of 140.

Location					Quantities																				
Road Identification	(1) Direction Of Traffic	Station to Station		Side	(P) Width	(P_{SG}) Width	(G) Width	(L) Length	Class 13 (4) Excavation	Hot Mix Asphalt		Binder	Paved Shoulder	_" Paved Shoulder at Guardrail	Reinforced Paved Shoulder	Special Backfill				_____ Subbase	Granular Shoulder		Earth Shoulder Construction Alternates			Remarks
																HMA Alternate		PCC Alternate					STA (3)	HMA	PCC	
					FT	FT (2)	FT	FT	CY (3)	TON	TON/STA	TONS	SY (3)	SY (5)	SY (3)	TON (3)	TON/STA	TON (3)	TON/STA	CY (3)	TON (3)	TON/STA		CY (6)	CY (6)	
IA 122	EB	370+25.00	370+32.50	Rt.		13.0		7.5	5.0					10.8		3.877	51.688	4.272	56.959				0.1			
IA 122	EB	370+32.50	370+89.00	Rt.		13 to 11		56.5	33.0					75.3		27.222	48.181	30.200	53.452				0.6			
IA 122	EB	372+58.00	375+00.00	Rt.		10.0		242.0	119.0					268.9		99.590	41.153	112.346	46.424				2.4			
IA 122	WB	370+13.00	370+50.00	Lt.		4 to 10		37.0	18.0					28.8		10.052	27.167	10.694	28.903				0.4			
IA 122	WB	370+50.00	371+33.00	Lt.		10.0		83.0	41.0					92.2		34.157	41.153	38.532	46.424				0.8			
IA 122	WB	372+77.50	373+37.00	Lt.		11 to 12		59.5	35.0					76.0		27.610	46.403	30.746	51.674				0.6			
IA 123	WB	373+37.00	375+00.00	Lt.		11.5		163.0	91.0					208.3		75.637	46.403	84.229	51.674				1.6			
								TOTALS:	870.0					760.3		278.100							6.5			

PAVEMENT MARKING LINE TYPES

See PM-110

*BCY4 - Place on the same side of the roadway to match existing markings near the project.
**NPY4 - For estimating purposes only. No Passing Zone Lines will be located in the field.
***MNY4 - Factor of 1.00 as value includes number of 4-inch passes to cover median nose area.

NPY4: No Passing Zone Line (Yellow) @ 0.84 ELW4: Edge Line Right (White) @ 0.67 ELW6: Edge Line Right (White) @ 1.00 NPY6: No Passing Zone Line (Yellow) @ 1.25

Location								Length by Line Type (Unfactored)																Remarks
Road ID	Station to Station		Dir. of Travel	Marking Type	Side			NPY4**	ELW4	ELW6	NPY6													
					L	C	R	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	
IA 122	368+00.00	376+75.00	EB	PAVEMENT MARKINGS REMOVED	X			8.75																See D sheet for
IA 122	368+00.00	376+75.00	WB	PAVEMENT MARKINGS REMOVED			X	8.75																Existing Pavement
IA 122	368+00.00	376+75.00	EB	PAVEMENT MARKINGS REMOVED			X		8.75															Markings
IA 122	368+00.00	376+75.00	WB	PAVEMENT MARKINGS REMOVED			X		8.75															
IA 122	369+50.00	371+90.00	BOTH	WET RETROREFLECTIVE REMOVABLE TAPE MARKINGS			X			2.40														Stage 1
IA 122	371+90.00	372+75.00	BOTH	PAINTED PAVEMENT MARKING, WATERBORNE OR SOLVENT-BASED			X			0.85														Stage 1
IA 122	373+50.00	374+35.00	BOTH	PAINTED PAVEMENT MARKING, WATERBORNE OR SOLVENT-BASED			X			0.85														Stage 1
IA 122	374+35.00	376+75.00	BOTH	WET RETROREFLECTIVE REMOVABLE TAPE MARKINGS			X			2.40														Stage 1
IA 122	369+50.00	371+90.00	BOTH	PAVEMENT MARKINGS REMOVED			X			2.40														Stage 1 removal
IA 122	371+90.00	372+75.00	BOTH	PAVEMENT MARKINGS REMOVED			X			0.85														Stage 1 removal
IA 122	373+50.00	374+35.00	BOTH	PAVEMENT MARKINGS REMOVED			X			0.85														Stage 1 removal
IA 122	374+35.00	376+75.00	BOTH	PAVEMENT MARKINGS REMOVED			X			2.40														Stage 1 removal
IA 122	369+50.00	371+90.00	BOTH	WET RETROREFLECTIVE REMOVABLE TAPE MARKINGS						2.40														Stage 2
IA 122	371+90.00	372+75.00	BOTH	PAINTED PAVEMENT MARKING, WATERBORNE OR SOLVENT-BASED						0.85														Stage 2
IA 122	373+50.00	374+35.00	BOTH	PAINTED PAVEMENT MARKING, WATERBORNE OR SOLVENT-BASED						2.40														Stage 2
IA 122	374+35.00	376+75.00	BOTH	WET RETROREFLECTIVE REMOVABLE TAPE MARKINGS						0.85														Stage 2
IA 122	369+50.00	371+90.00	BOTH	PAVEMENT MARKINGS REMOVED						2.40														Stage 2 removal
IA 122	371+90.00	372+75.00	BOTH	PAVEMENT MARKINGS REMOVED						0.85														Stage 2 removal
IA 122	373+50.00	374+35.00	BOTH	PAVEMENT MARKINGS REMOVED						2.40														Stage 2 removal
IA 122	374+35.00	376+75.00	BOTH	PAVEMENT MARKINGS REMOVED						0.85														Stage 2 removal
IA 122	368+00.00	376+75.00	EB	PAINTED PAVEMENT MARKING, WATERBORNE OR SOLVENT-BASED	x					8.75														Restore to original
IA 122	368+00.00	376+75.00	WB	PAINTED PAVEMENT MARKING, WATERBORNE OR SOLVENT-BASED			x			8.75														Restore to original
IA 122	368+00.00	376+75.00	EB	PAINTED PAVEMENT MARKING, WATERBORNE OR SOLVENT-BASED			x			8.75														Restore to original
IA 122	368+00.00	376+75.00	WB	PAINTED PAVEMENT MARKING, WATERBORNE OR SOLVENT-BASED			x			8.75														Restore to original
				Factored Total: PAINTED PAVEMENT MARKING, WATERBORNE OR SOLVENT-BASED				-	-	39.95	-	-	-	-	-	-	-	-	-	-	-	-	-	
				Factored Total: WET RETROREFLECTIVE REMOVABLE TAPE MARKINGS				-	-	8.05	-	-	-	-	-	-	-	-	-	-	-	-	-	
				Factored Total: PAVEMENT MARKINGS REMOVED				14.70	11.73	13.00	-	-	-	-	-	-	-	-	-	-	-	-	-	
				Bid Quantity: 2527-9263209 - PAINTED PAVEMENT MARKING, WATERBORNE OR SOLVENT-BASED							39.95													
				Bid Quantity: 2527-9263231 - WET RETROREFLECTIVE REMOVABLE TAPE MARKINGS							8.05													
				Bid Quantity: 2527-9263181 - PAVEMENT MARKINGS REMOVED							39.43													



FILE NO. 32368	ENGLISH	DESIGN TEAM Ta\McClanahan	Cerro Gordo COUNTY	PROJECT NUMBER BRF-122-1(026)--38-17	SHEET NUMBER D.1	

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108-23A
08-01-08

TRAFFIC CONTROL PLAN

Traffic on IA 122 will be maintained at all times.
Traffic control will be staged. Refer to J sheets for details.

108-26A
08-01-08

STAGING NOTES

Traffic control will be staged. Refer to J sheets and bridge V sheets for details.

108-25
10-21-14

511 TRAVEL RESTRICTIONS

Route	Direction	County	Location Description	Feature Crossed	Object Type	Maint. Bridge No., Structure ID, or FHWA No.	Type of Restriction	Existing Measurement	Construction Measurement	Construction Measurement as Signed	Projected As Built Measurement	Remarks
IA 122	EB/WB	Cerro Gordo	Bridge on IA122 1.2 miles west of Co. Rd. S56 in Mason City	Bridge on IA 122 over Ideal Creek	Barrier	18841	Horizontal	68'	31.12'	31.12'		

111-01
04-17-12

COORDINATED OPERATIONS

Other work in progress during the same period of time will include the construction of the projects listed. Coordinate operations with those of other contractors working within the same area.

Project	Type of Work
None Provided	

an 1-1

350+00

351+00

352+00

353+00

354+00

355+00

356+00

END
ROAD WORK

G20-2A
48" x 24"

122

500'

50' C/C

ROAD
WORK
AHEAD

PI 351+82.63

W20-1
48" x 48"

STAGE 1
IA 122

FILE NO. 32368	ENGLISH	DESIGN TEAM Ta\McClanahan	Cerro Gordo COUNTY	PROJECT NUMBER BRF-122-1(026)--38-17	SHEET NUMBER J.2	

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an 2-1

356+00
357+00
358+00
PT 358+13.16
359+00
360+00
361+00
362+00

122

500'

50' C/C

W1-4L
48" x 48"

STAGE 1
IA 122

FILE NO. 32368	ENGLISH	DESIGN TEAM Ta\McClanahan	Cerro Gordo COUNTY	PROJECT NUMBER BRF-122-1(026)--38-17	SHEET NUMBER J.3	

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362+00
363+00
364+00
365+00
366+00
367+00
368+00

DCY6

122

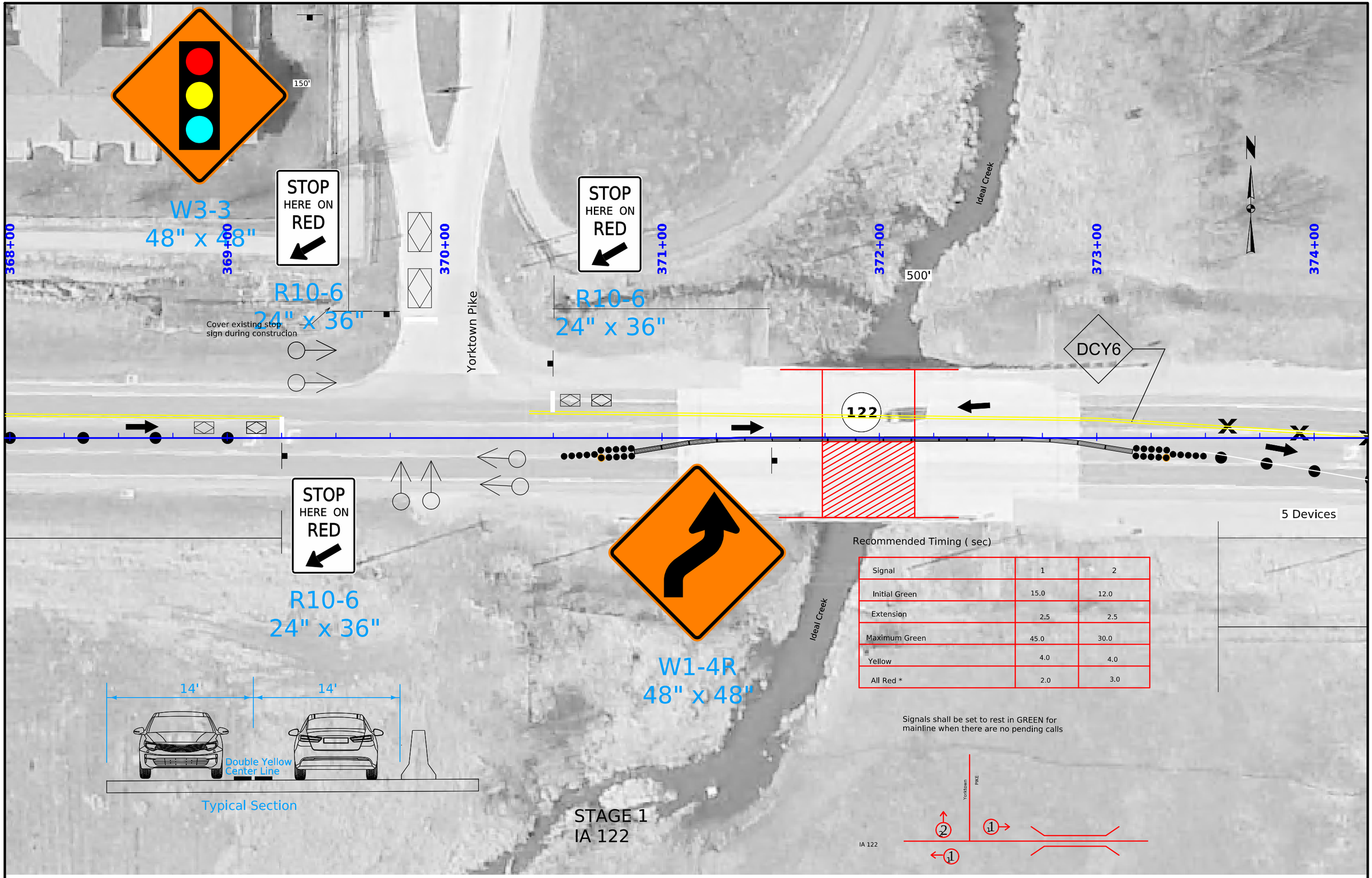
250'
50' C/C
300'
50' C/C

W3-3
48" x 48"

STAGE 1
IA 122

FILE NO. 32368	ENGLISH	DESIGN TEAM Ta\McClanahan	Cerro Gordo COUNTY	PROJECT NUMBER BRF-122-1(026)--38-17	SHEET NUMBER J.4	

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Signal	1	2
Initial Green	15.0	12.0
Extension	2.5	2.5
Maximum Green	45.0	30.0
Yellow	4.0	4.0
All Red *	2.0	3.0

FILE NO. 32368	ENGLISH	DESIGN TEAM Ta\McClanahan	Cerro Gordo COUNTY	PROJECT NUMBER BRF-122-1(026)--38-17	SHEET NUMBER J.5

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an 5-1

374+00
375+00
376+00
377+00
378+00
379+00
380+00

1000'

W3-3
48" x 48"

122

vices

480'

STAGE 1
IA 122

FILE NO. 32368	ENGLISH	DESIGN TEAM Ta\McClanahan	Cerro Gordo COUNTY	PROJECT NUMBER BRF-122-1(026)--38-17	SHEET NUMBER J.6	

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FILE NO. 32368	ENGLISH	DESIGN TEAM Ta\McClanahan	Cerro Gordo COUNTY	PROJECT NUMBER BRF-122-1(026)--38-17	SHEET NUMBER J.7	

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END
ROAD WORK

G20-2A
48" x 24"

122

ROAD
WORK
AHEAD

W20-1
48" x 48"

STAGE 2
IA 122

FILE NO. 32368	ENGLISH	DESIGN TEAM Ta\McClanahan	Cerro Gordo COUNTY	PROJECT NUMBER BRF-122-1(026)--38-17	SHEET NUMBER J.8

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FILE NO. 32368	ENGLISH	DESIGN TEAM Ta\McClanahan	Cerro Gordo COUNTY	PROJECT NUMBER BRF-122-1(026)--38-17	SHEET NUMBER J.9	

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122

400'

50' C/C

W3-3
48" x 48"

STOP
HERE ON
RED

R10-6
24" x 36"

STAGE 2
IA 122

FILE NO. 32368	ENGLISH	DESIGN TEAM Ta\McClanahan	Cerro Gordo COUNTY	PROJECT NUMBER BRF-122-1(026)--38-17	SHEET NUMBER J.10	

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ROAD WORK AHEAD

W20-1
48" x 48"

ROAD WORK AHEAD

W20-1
48" x 48"

W3-3
48" x 48"

STOP HERE ON RED

R10-6
24" x 36"

150'

Cover existing stop sign during construction

Yorktown Pike

R10-6
24" x 36"

STOP HERE ON RED

122

FILE NO. 32368	ENGLISH	DESIGN TEAM Ta\McClanahan	Cerro Gordo COUNTY	PROJECT NUMBER BRF-122-1(026)--38-17	SHEET NUMBER J.11	

10:14:50 AM 9/30/2026 dta pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\1712201022\Design\CADD_Files\Staging\171221026Staging2.dgn

W3-3
48" x 48"

STOP
HERE ON
RED

R10-6
24" x 36"

Cover exlstlng stop
sign during construcion

150'

Yorktown Pike

STOP
HERE ON
RED

R10-6
24" x 36"

Ideal Creek

500'

W1-4R
48" x 48"

122

70'

250'

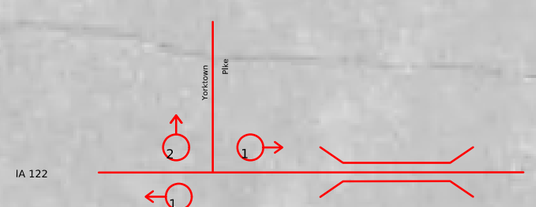
Ideal Creek

Recommended Timing (sec)

Signal	1	2
Initial Green	15.0	12.0
Extension	2.5	2.5
Maximum Green	45.0	30.0
Yellow	4.0	4.0
All Red *	2.0	3.0

Signals shall be set to rest in GREEN for
mainline when there are no pending calls

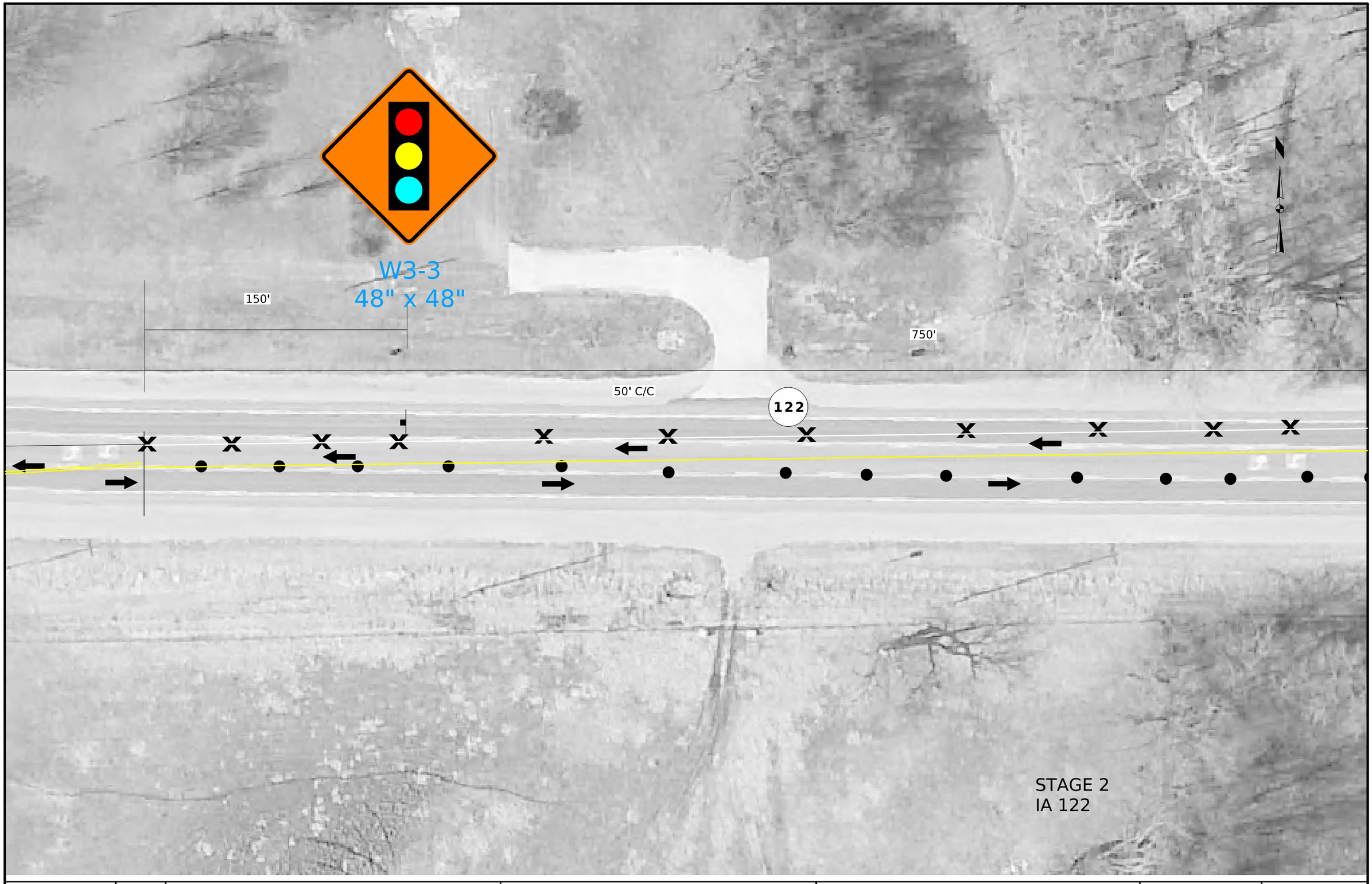
STAGE 2
IA 122



IA 122

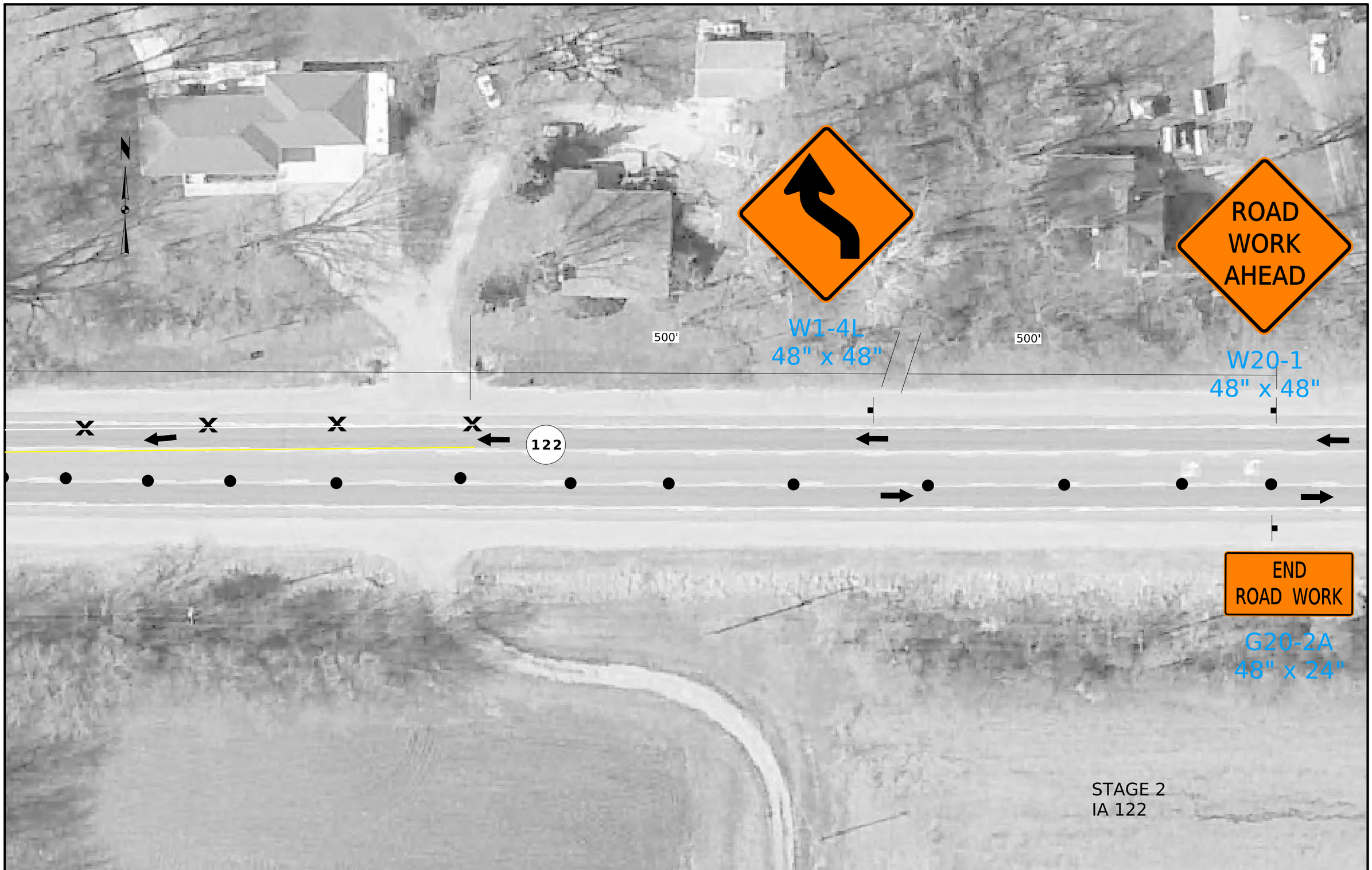
FILE NO. 32368	ENGLISH	DESIGN TEAM Ta\McClanahan	Cerro Gordo COUNTY	PROJECT NUMBER BRF-122-1(026)--38-17	SHEET NUMBER J.12	

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FILE NO. 32368	ENGLISH	DESIGN TEAM Ta\McClanahan	Cerro Gordo COUNTY	PROJECT NUMBER BRF-122-1(026)--38-17	SHEET NUMBER J.13	

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FILE NO. 32368	ENGLISH	DESIGN TEAM Ta\McClanahan	Cerro Gordo COUNTY	PROJECT NUMBER BRF-122-1(026)--38-17	SHEET NUMBER J.14	

10:14:54 AM 9/30/2026 dta pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\1712201022\Design\CADD_Files\Staging\171221026Staging2.dgn