BRIDGE APPROACH REPAIR LETTING DATE 01-20-2021

MBIN-035-1(514)157--0M-35

FRANKLIN COUNTY

LEGEND

INTERSTATE HIGHWAY	
PRIMARY HIGHWAY-DIVIDED	
PRIMARY HIGHWAY	
PORTLAND CEMENT CONCRETE ROAD	
ASPHALT ROAD	
BITUMINOUS ROAD	
GRAVEL ROAD	
EARTHEN ROAD	
INTERSTATE HIGHWAY	80
UNITED STATES HIGHWAY	65
STATE HIGHWAY	175
COUNTY HIGHWAY	S27
RAILROAD	
PIPELINE	
AIRPORT	
HYDROLOGY	
BRIDGE	
STATE BOUNDARY	
COUNTY BOUNDARY	
CORPORATE BOUNDARY	
TOWNSHIP LINE	
SECTION LINE	
ROAD NAMES	ABBEY ROAD
UNINCORPORATED PLACE	ELWOOD

IOWA DOT

Highway Division

PLANS OF PROPOSED IMPROVEMENTS ON THE

INTERSTATE ROAD SYSTEM

FRANKLIN COUNTY

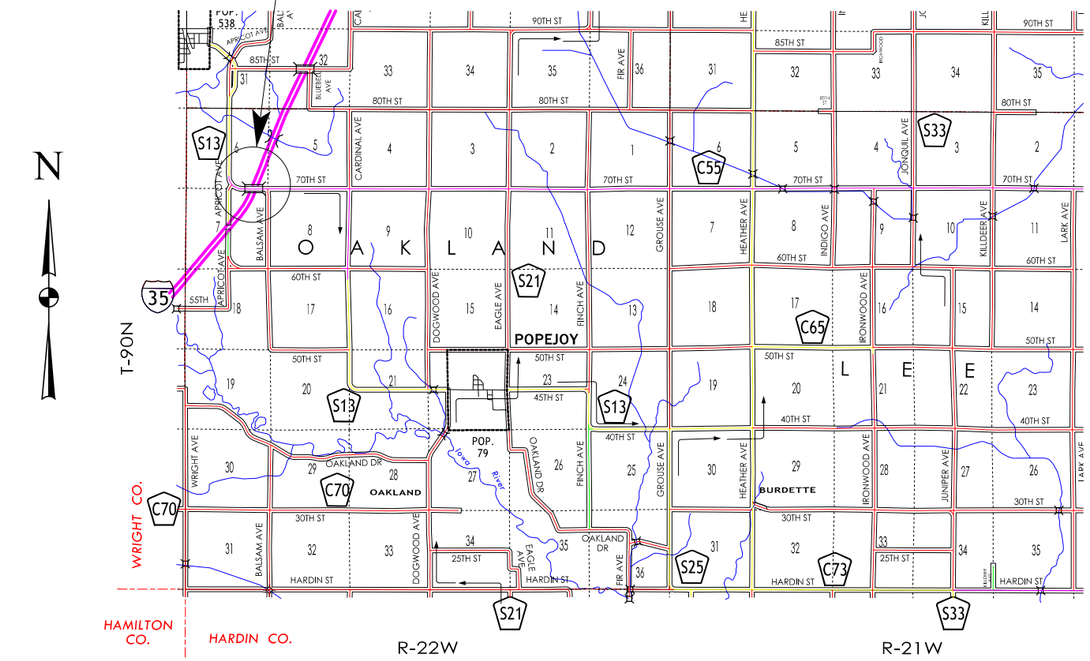
BRIDGE APPROACH REPAIR

CO. RD. S13 OVER I-35

5.2 MILES NORTH OF JCT. SR C70

THE IOWA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION, SERIES 2015, PLUS APPLICABLE GENERAL SUPPLEMENTAL SPECIFICATIONS, DEVELOPMENTAL SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS SHALL APPLY TO CONSTRUCTION WORK ON THIS PROJECT.

FHWA 602425



LOCATION MAP

PROJECT DIRECTORY NAME: 3503501017

	TOTAL SHEETS
	13
PROJECT NUMBER	
MBIN-035-1(514)157--0M-35	
R.O.W. PROJECT NUMBER	
PROJECT IDENTIFICATION NUMBER	
17-35-035-010	

INDEX OF SHEETS

REVISIONS

IOWA ONE CALL

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

www.iowaonecall.com

REVISIONS TO THIS DESIGN PLAN AND/OR PROJECT SPECIFICATIONS SHOULD BE SUBMITTED BY _____

STANDARD ROAD PLANS

STANDARD ROAD PLANS ARE LISTED ON SHEET NUMBER C.1

DESIGN DATA RURAL

2017 AADT	460	V.P.D.
TRUCKS	24	%

INDEX OF SEALS

SHEET NO.	NAME	TYPE
1	JAREMY D. KOTTA	STRUCTURAL DESIGN
A.1	BRIAN BIRKLAND	ROADWAY DESIGN

STRUCTURAL DESIGN

LICENSED PROFESSIONAL ENGINEER JAREMY D. KOTTA 18994 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 _____

Printed or Typed Name Jaremy D. Kotta

My license renewal date is December 31, 2021

Pages or sheets covered by this seal: SHEETS 1 THRU 2

PRELIMINARY NOT FOR CONSTRUCTION

GENERAL NOTES:

THIS DESIGN IS FOR REPAIRS TO THE EXISTING 314'-0 x 30'-0 CONTINUOUS WELDED PLATE GIRDER BRIDGE LOCATED IN FRANKLIN COUNTY ON CO. RD. S13 OVER I-35.

ELECTRONIC COPIES OF ORIGINAL DESIGN PLANS AND REPAIR PLANS WILL BE MADE 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. 2970 AND REPAIR DESIGN NO. 304).

SEE THIS SHEET FOR LIST OF REPAIR ITEMS.

FAINT LINES ON PLANS INDICATE EXISTING PORTIONS OF THE BRIDGE.

ALL DIMENSIONS AND DETAILS SHOWN ON THESE PLANS PERTINENT TO NEW CONSTRUCTION SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR BEFORE STARTING CONSTRUCTION.

THE 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.

THE TOP AND INTERIOR FACES OF THE CONCRETE RAILING ARE TO BE CLEANED AND SEALED IN ACCORDANCE WITH ARTICLE 2403.03, P, OF THE STANDARD SPECIFICATIONS. ALL COSTS ASSOCIATED WITH CLEANING AND SEALING OF THE CONCRETE RAILS SHALL BE INCLUDED IN THE UNIT PRICE BID ITEM "MOBILIZATION".

IN ADDITION TO THE REQUIREMENTS OF ARTICLE 2413.03, G, OF THE STANDARD SPECIFICATIONS, BOTH EXPOSED ABUTMENT BRIDGE SEATS AND WASH SURFACES SHALL HAVE AN APPLICATION OF CONCRETE SEALER IN ACCORDANCE WITH ARTICLE 2403.03, P, 3, OF THE STANDARD SPECIFICATIONS.

SPECIFICATIONS:

DESIGN: AASHTO SERIES 2002.

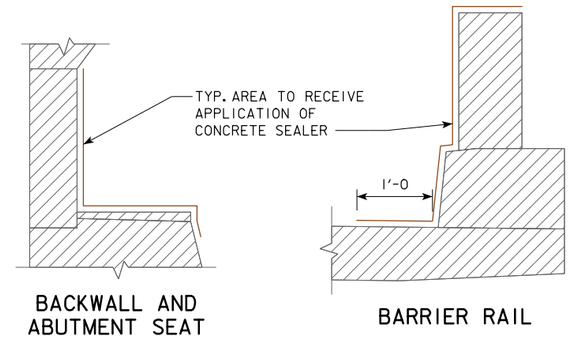
CONSTRUCTION: IOWA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION, SERIES 2015, PLUS APPLICABLE GENERAL SUPPLEMENTAL SPECIFICATIONS, DEVELOPMENTAL SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS SHALL APPLY TO CONSTRUCTION WORK ON THIS PROJECT.

ESTIMATED BRIDGE QUANTITIES

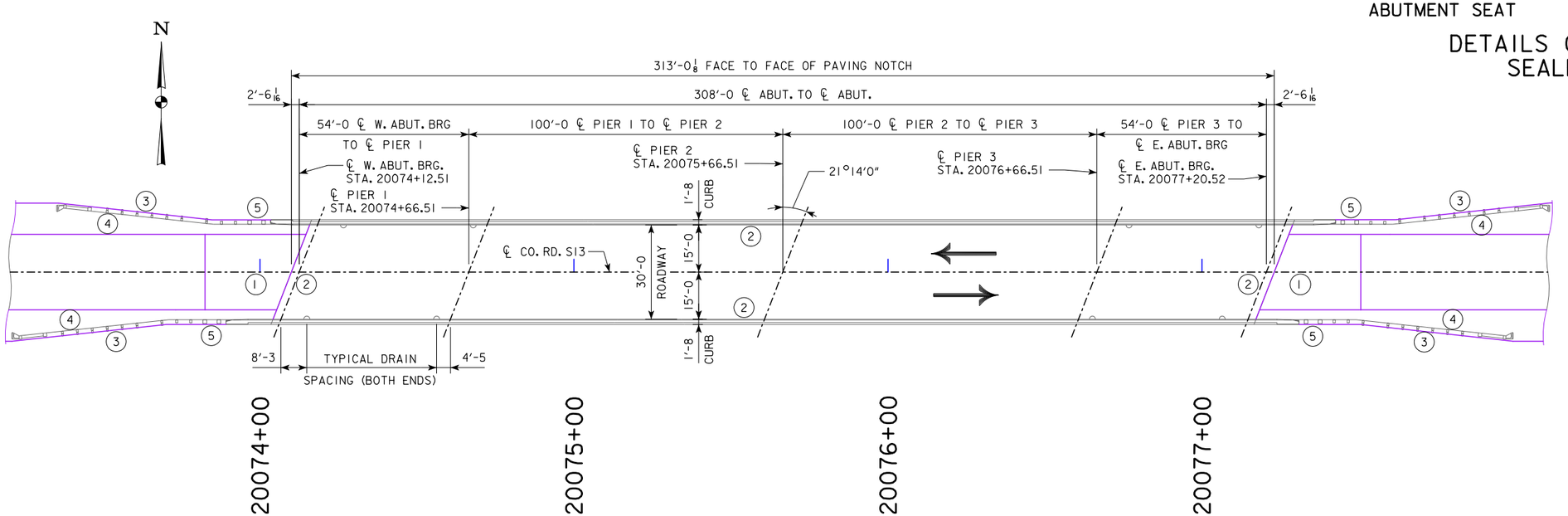
ITEM NO.	ITEM CODE	ITEM	UNIT	TOTAL	AS BUILT QUANTITY
1	2533-4980005	MOBILIZATION	LS	1.00	

ESTIMATE REFERENCE INFORMATION:

ITEM NO.	DESCRIPTION
1	INCLUDES CLEANING EXISTING CONCRETE RAILS AND ABUTMENT BRIDGE SEATS AS NOTED AND SHOWN IN THESE PLANS, AND FURNISHING AND PLACING CONCRETE SEALER.



DETAILS OF CONCRETE SEALER AREA



SITUATION PLAN

DESIGN HISTORY AT THIS SITE
(INCLUDES THIS DESIGN)

DES. NO.	TYPE OF WORK
2970	ORIGINAL DESIGN
304	RETROFIT BARRIER RAIL
---	BRIDGE APPROACH REPAIR

TRAFFIC ESTIMATE

2017 AADT 460 V.P.D.

TRUCKS 24 %

REPAIRS SHALL CONSIST OF:

1. REMOVE AND REPLACE FIRST TWO PANELS OF BOTH APPROACHES.
2. CLEAN & SEAL BARRIER RAILS AND ABUTMENT BRIDGE SEATS.
3. REMOVE AND REINSTALL EXISTING GUARDRAIL.
4. PAVE FROM THE EDGE OF PAVEMENT TO GUARDRAIL POSTS.
5. REPLACE ALL FOUR BRIDGE END DRAINS WITH ROCK FLUMES.

TRAFFIC CONTROL PLAN:
THE ROADWAY WILL BE CLOSED TO THRU TRAFFIC. REFER TO THE TRAFFIC CONTROL PLAN SHOWN ELSEWHERE IN THESE PLANS.

ROADWAY QUANTITIES SHOWN ELSEWHERE IN THESE PLANS.

LOCATION:

CO. RD. S13 OVER I-35
T-90N, R-22W
SECTION 6
OAKLAND TOWNSHIP
FRANKLIN COUNTY
MAINT. NO. 3556.70035
FHWA NO. 602425
LATITUDE 42.630188°
LONGITUDE -93.483341°

DESIGN FOR REPAIRS TO A 21°14' SKEW (L.A.)

308'-0 x 30'-0 CONTINUOUS WELDED GIRDER BRIDGE

54'-0 END SPANS — 2-100'-0 INTERIOR SPANS

QUANTITIES, NOTES & SITUATION PLAN

STA. 20075+66.51 (℄ SURVEY - LOCAL ROAD)
STA. 75+66.51 (℄ SURVEY - I-35)

NOVEMBER, 2020

FRANKLIN COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. _____ DESIGN NO. _____

whks engineers + planners + land surveyors

DESIGN TEAM : DJA/JDK/CM | FRANKLIN COUNTY | PROJECT NUMBER MBIN-035-1(514)157--0M-35 | SHEET NUMBER 2

4/14/2020 9:16:06 AM lu L:\Dept\6\8500.19 FY21 MB Projects\Franklin 514\Drawings\BRG_35035514.dgn 35DDDDS001 11x17_pdf.pltcfg

INDEX OF SHEETS

No.	DESCRIPTION
A Sheets	**Title Sheets**
A.1	Roadway Title Sheet
B Sheets	**Typical Cross Sections and Details**
B.1	Detail 7156
C Sheets	**Quantities and General Information**
C.1	Project Description
C.1	Estimated Roadway Quantities
C.1	Estimate Reference Information
C.1	General Notes and Standard Road Plans
C.1	Index of Tabulations
C.1 - 3	Tabulations
D Sheets	**Mainline Plan and Profile Sheets**
* D.1	Co. Rd. S13 / C55 Plan Sheet
J Sheets	**Traffic Control and Staging Sheets**
J.1	Traffic Control Plan
J.1	511 Travel Restrictions
* J.2	Detour Plan
U Sheets	**500 Series, Mod.Stds. and Detail Sheets**
U.1 - 3	Bridge Approach, As Per Plan

* Color Plan Sheets

whks
engineers + planners + land surveyors

LICENSED PROFESSIONAL ENGINEER
BRIAN J. BIRKLAND 17375
IOWA

I hereby certify that this plan 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

Brian J. Birkland
Printed or Typed Name

My license renewal date is December 31, 2020

Pages or sheets covered by this seal: A.1, B.1, C.1-C.3, D.1, J.1-J.2, U.1-U.3

CHECK PLANS

FILE NO.	ENGLISH	DESIGN TEAM WHKS & CO.	FRANKLIN COUNTY	PROJECT NUMBER MBIN-035-1(514)157--0M-35	SHEET NUMBER A.1

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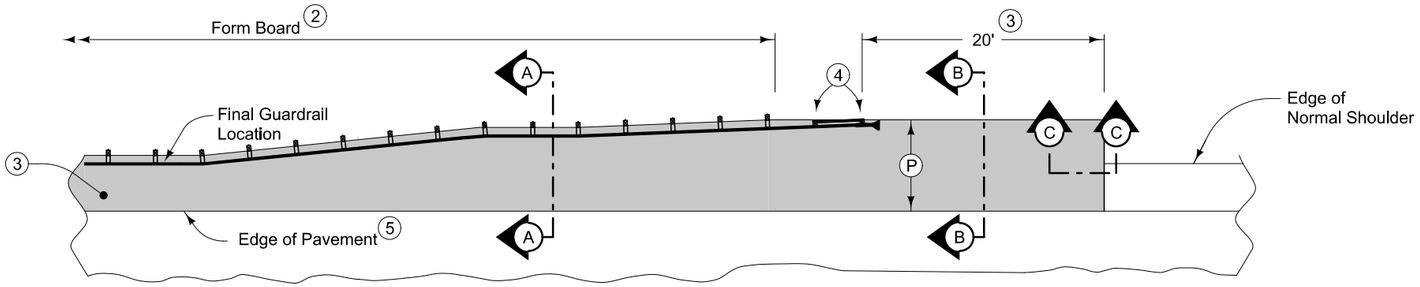
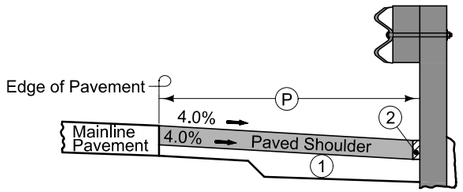
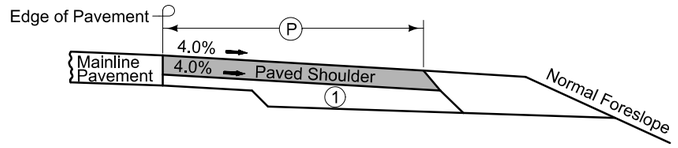


PLAN VIEW

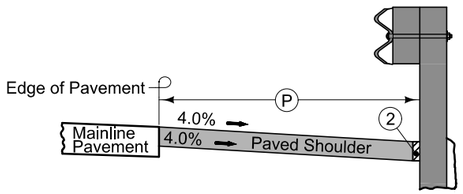


Section A-A

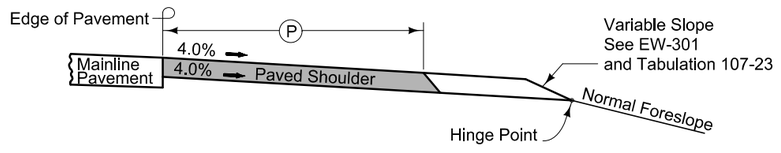


Section B-B

NEW CONSTRUCTION



Section A-A



Section B-B

EXISTING SHOULDER

7156
04-18-17

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

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

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

Refer to Tabulation 112-9 for shoulder quantities.

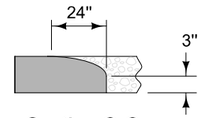
(1) For subgrade treatment, refer to other details in the plan.

(2) 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. Refer to note 4 for final 2 posts.

(3) Continue paved shoulder to existing paved shoulder or 20 feet beyond the center of the first post.

(4) Shoulder may be notched for final 2 posts or post sleeves may be installed through pavement. Do not drive posts through pavement.

(5) 'KT-1 joint for PCC shoulder.
'B' joint for HMA shoulder.



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

PAVED SHOULDER AT GUARDRAIL

whks
engineers + planners + land surveyors

FILE NO.	ENGLISH	DESIGN TEAM WHKS & CO.	FRANKLIN COUNTY	PROJECT NUMBER MBIN-035-1(514)157--0M-35	SHEET NUMBER B.1

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100-1D
10-18-05

PROJECT DESCRIPTION

This project is for bridge and roadway repair for the 314' x 30' Continuous Welded Plate Girder Bridge on Co. Rd. S13 / C55 over I-35, 5.0 mi. N of Jct. Co. Rd. C70.

100-0A
10-28-97

ESTIMATED ROADWAY QUANTITIES (1 DIVISION PROJECT)

Item No.	Item Code	Item	Unit	Total	As Built Qty.
1	2102-2713090	EXCAVATION, CLASS 13, WASTE	CY	100.2	
2	2122-5190501	PAVED SHOULDER, PORTLAND CEMENT CONCRETE (PAVED SHOULDER PANEL FOR BRIDGE END DRAIN)	SY	76.8	
3	2122-5500090	PAVED SHOULDER, HOT MIX ASPHALT MIXTURE, 9 IN.	SY	301.4	
4	2123-7450000	SHOULDER CONSTRUCTION, EARTH	STA	2.72	
5	2301-0685550	BRIDGE APPROACH PAVEMENT, AS PER PLAN	SY	237.2	
6	2401-6745065	REMOVAL OF BRIDGE END DRAINS	EACH	4	
7	2503-0500402	BRIDGE END DRAIN, DR-402	EACH	4	
8	2510-6745850	REMOVAL OF PAVEMENT	SY	239.0	
9	2518-6910000	SAFETY CLOSURE	EACH	2	
10	2527-9263109	PAINTED PAVEMENT MARKING, WATERBORNE OR SOLVENT-BASED	STA	3.20	
11	2528-8445110	TRAFFIC CONTROL	LS	1.00	
12	2602-0000312	PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE, 12 IN. DIA.	LF	540.0	
13	2602-0000320	PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE, 20 IN. DIA.	LF	150.0	
14	2602-0000350	REMOVAL OF PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE	LF	690.0	

111-25
10-18-11

INDEX OF TABULATIONS

262-6
10-18-05

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.

232-3A
04-16-19

EROSION CONTROL (RURAL SEEDING)

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.

232-3C
04-16-19

EROSION CONTROL (NATIVE GRASS SEEDING)

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

Furnish Big bluestem, Indiangrass, Canada wildrye and Little bluestem that is debearded 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.

100-4A
10-29-02

ESTIMATE REFERENCE INFORMATION

Item No.	Item Code	Description
1	2102-2713090	**EXCAVATION, CLASS 13, WASTE**
		This item is for excavation for placement of paved shoulders.
		Refer to Tab. 112-9 for details.
-	-	-
2	2122-5190501	**PAVED SHOULDER, PORTLAND CEMENT CONCRETE (PAVED SHOULDER PANEL FOR BRIDGE END DRAIN)**
		Paved shoulder thickness shall be 10 inches.
		Refer to Tab. 104-8A for details.
-	-	-
3	2122-5500090	**PAVED SHOULDER, HOT MIX ASPHALT MIXTURE, 9 IN.**
		Item is for paved shoulders adjacent to existing guardrail per detail 7156 on Sheet B.1.
		Refer to Tab. 112-9 for details.
-	-	-
4	2123-7450000	**SHOULDER CONSTRUCTION, EARTH**
		Item is for earth shoulder construction adjacent to paved shoulders and existing guardrail posts.
		Refer to Tab. 112-9 for details.
-	-	-
5	2301-0685550	**BRIDGE APPROACH PAVEMENT, AS PER PLAN**
		For Bridge Approach Pavement, as per Plan, constructed in accordance with the contract documents, the quantities shown in the contract documents will be considered the quantity placed, in square yards, and will be paid for at the contract unit price per square yard. The contract unit price shall be compensation for furnishing all tools, equipment, labor, and materials necessary for construction of the Bridge Approach Pavement in accordance with the contract documents.
		Removal and reinstallation of steel beam guardrail will be allowed with no additional payment.
		Refer to modified standard road plan BR-202 on the U Sheets and Tab. 112-6 for details.
-	-	-
6	2401-6745065	**REMOVAL OF BRIDGE END DRAINS**
		Item is for removal of existing bridge end drains, pipes, and outlets adjacent to each corner of the bridge.
		Refer to Tab. 110-2 for details.
-	-	-
7	2503-0500402	**BRIDGE END DRAIN, DR-402**
		Item is for placement of rock flume bridge end drains adjacent to paved shoulder panels for bridge end drains.
		Refer to Tab. 104-8A for details.
-	-	-
8	2510-6745850	**REMOVAL OF PAVEMENT**
		Refer to Tab 110-1 for details.
-	-	-
9	2518-6910000	**SAFETY CLOSURE**
		Refer to Tab. 108-13A for details.
-	-	-
10	2527-9263109	**PAINTED PAVEMENT MARKING, WATERBORNE OR SOLVENT-BASED**
		Refer to Tab. 108-22 for details.
-	-	-
11	2528-8445110	**TRAFFIC CONTROL**
		Refer to Traffic Control Plan on Sheet J.1.
-	-	-
12	2602-0000312	**PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE, 12 IN. DIA.**
13	2602-0000320	**PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE, 20 IN. DIA.**
14	2602-0000350	**REMOVAL OF PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE**
		Refer to Tab. 100-19.
		The tabulation includes estimated locations for placement of Perimeter and Slope Sediment Control Device, 12 in. and 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.
		Use Perimeter and Slope Sediment Control Devices fabricated using wood excelsior.
-	-	-

105-4
10-18-11

STANDARD ROAD PLANS

The following Standard Road Plans apply to construction work on this project.

Number	Date	Title
BR-211	10-17-17	Bridge Approach (Abutting PCC or Composite Pavement)
DR-402	10-15-19	Rock Flume for Bridge End Drain
EC-204	04-21-20	Perimeter and Slope Sediment Control Devices
PM-110	04-21-20	Line Types
PV-101	04-21-20	Joints
SI-881	04-16-19	Special Signs for Workzones
TC-1	10-15-19	Work Not Affecting Traffic (Two-Lane or Multi-Lane)
TC-252	04-21-20	Routes Closed to Traffic

100-19
04-19-16

PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE

Possible Standards: EC-204

Location			Length of Installation			
Begin Station	End Station	Side	9 inch Dia	12 inch Dia	20 inch Dia	Remarks
			LF	LF	LF	
20072+92.00	20074+02.00	Lt.		110.0		
20072+80.00	20073+90.00	Rt.		110.0		
20077+32.00	20078+42.00	Rt.		110.0		
20077+42.00	20078+52.00	Lt.		110.0		
20073+64.00	20073+64.00	Rt.			30.0	At bottom of rock flume
20073+76.00	20073+76.00	Lt.			30.0	At bottom of rock flume
20077+82.00	20077+82.00	Lt.			30.0	At bottom of rock flume
20077+55.00	20077+55.00	Rt.			30.0	At bottom of rock flume
			Subtotals:	440.0	120.0	
			25% contingency	100.0	30.0	
			Totals:	540.0	150.0	

110-2
04-16-13

REMOVAL OF EXISTING STRUCTURES

Location	Description	Remarks
NW Corner of Bridge	Bridge End Drain & connected pipes/outlets	To Become Property of the Contractor, remove from site.
SW Corner of Bridge	Bridge End Drain & connected pipes/outlets	To Become Property of the Contractor, remove from site.
SE Corner of Bridge	Bridge End Drain & connected pipes/outlets	To Become Property of the Contractor, remove from site.
NE Corner of Bridge	Bridge End Drain & connected pipes/outlets	To Become Property of the Contractor, remove from site.

104-8A
10-17-17

SCOUR PROTECTION OR ROCK FLUME FOR BRIDGE END DRAIN

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

Location			Bid Items		PCC Paved Shoulder			Scour Protection (DR-401)			Rock Flume (DR-402)			
Bridge Station	Bridge Corner	Distance DI-1 or DI-2	PCC Paved Shoulder	Bridge End Drain	Panels Required	Polymer Grid	Modified Subbase	Special Ditch Control, Wood Excelsior Mat	Turf Reinforced Mat (TRM), Type 2	Transition Mat	Macadam Stone Base	Engineering Fabric	Erosion Stone	Remarks
								EC-101	EC-104	EC-105				
		FT	SY	TYPE	A B C or D	SY	TONS	SQ	SQ	SF	TONS	SY	TONS	
20075+66.51	SW	42.1	25.9	DR-402	C & B	25.9	16.3				1.5	72.6	58.8	
20075+66.51	NW	50.4	12.5	DR-402	A	12.5	7.9				1.5	96.0	77.8	
20075+66.51	SE	50.4	12.5	DR-402	A	12.5	7.9				1.5	100.7	81.6	
20075+66.51	NE	42.1	25.9	DR-402	C & B	25.9	16.3				1.5	101.9	82.5	
		Totals:	76.8							Totals	6.0	371.2	300.7	

110-1
04-16-13

REMOVAL OF PAVEMENT

Refer to Tabulation 102-5

* Not a Bid Item

Begin Station	End Station	Side	Pavement Type	Area	Saw Cut*	Remarks
				SY	LF	
20073+70.00	20074+15.83	Both	PCC	119.5	22.0	
20077+17.19	20077+63.02	Both	PCC	119.5	22.0	
			Total:	239.0	44.0	

108-13A
08-01-08

SAFETY CLOSURES

Refer to Section 2518 of the Standard Specifications

Station	Closure Type		Remarks
	Road Qty.	Hazard Qty.	
20071+85.00	1		
20079+47.00	1		

112-6
04-18-17

BRIDGE APPROACH SECTION

Refer to the BR Series.

* Not a bid item

Location				Approach Pavement					Standard Road Plans BR Series			Subdrain								
Bridge Station	End	Skew Ahead		T Thickness	Pay Length	Non-Reinf. Pavement Area	Single-Reinf. Pavement Area	Double-Reinf. Pavement Area	Approach	Fixed or Movable Abutment	Abutting Pavement	* Perforated Subdrain 4"	* Subdrain Outlet		* Porous Backfill	* Class 'A' Crushed Stone Backfill	* Modified Subbase	* Polymer Grid	* Special Backfill	Remarks
		Degrees																		
		LEFT	RIGHT	Inches	FT	SY	SY	SY				LF	STA	Side	CY	CY	TON	SY	TON	
20075+66.51	West	21.233		10.0	40.0	0.0	46.9	71.7	BR-202	Fixed	BR-211						118.8	133.1	0.000	
20075+66.51	East	21.233		10.0	40.0	0.0	46.9	71.7	BR-202	Fixed	BR-211						118.8	133.1	0.000	
						Totals:	93.8	143.4	237.2											

SHOULDERS

(1) Lane(s) to which the shoulder is adjacent.
(2) Bid Item
(3) Applies only for Paved Shoulders constructed on project with existing granular shoulders.
(4) Does not include shrink.

Calculations assume a HMA unit weight (lbs/cf) of 145, 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	(G) Width	(L) Length	Class 13 (3) Excavation	Hot Mix Asphalt		Binder	Paved Shoulder	Reinforced Paved Shoulder	Special Backfill				Modified Subbase	Granular Shoulder		Earth Shoulder Construction Alternates			Remarks
														HMA Alternate		PCC Alternate								
					FT	FT	FT	CY (2)	TON	TON/STA	TONS	SY (2)	SY (2)	TON (2)	TON/STA	TON (2)	TON/STA	CY (2)	TON (2)	TON/STA	STA (2)	CY (4)	CY (4)	
CO. Rd. S13	WB	20072+97.59	20073+29.85	Lt.	10.9		32.3	13.0	19.120		1.147	39.1									0.32			
CO. Rd. S13	WB	20073+29.85	20073+70.00	Lt.	10.9 to 6.9		40.1	13.2	19.430		1.166	39.7									0.40			
CO. Rd. S13	EB	20072+85.98	20073+18.24	Rt.	10.9		32.3	13.0	19.120		1.147	39.1									0.32			
CO. Rd. S13	EB	20073+18.24	20073+50.00	Rt.	10.9 to 7.7		31.8	10.9	16.061		0.964	32.8									0.32			
CO. Rd. S13	WB	20077+83.02	20078+14.78	Lt.	7.7 to 10.9		31.8	10.9	16.061		0.964	32.8									0.32			
CO. Rd. S13	WB	20078+14.78	20078+47.04	Lt.	10.9		32.3	13.0	19.120		1.147	39.1									0.32			
CO. Rd. S13	EB	20077+63.02	20078+03.17	Rt.	6.9 to 10.9		40.1	13.2	19.430		1.166	39.7									0.40			
CO. Rd. S13	EB	20078+03.17	20078+35.43	Rt.	10.9		32.3	13.0	19.120		1.147	39.1									0.32			
							Totals:	100.2				301.4									2.72			

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.

ELW4: Edge Line Right (White) @ 1.00
ELY4: Edge Line Left (Yellow) @ 1.00
DCY4: Double Centerline (Yellow) @ 2.00
NPY4: No Passing Zone Line (Yellow) @ 1.25
BLW4: Broken Lane Line (White) @ 0.25
ELW4: Edge Line Right (White) @ 1.00

Location								Length by Line Type (Unfactored)															Remarks
Road ID	Station to Station		Dir. of Travel	Marking Type	Side			ELW4	DCY4	NPY4**	BLW4	ELW4	ELY4										
					L	C	R	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	
Co. Rd. S13	20073+70.00	20074+10.00	BOTH	Waterborne/Solvent Paint		X			0.40														Post construction
Co. Rd. S13	20077+23.02	20077+63.02	BOTH	Waterborne/Solvent Paint		X			0.40														Post construction
Co. Rd. S13	20073+70.00	20074+14.28	WB	Waterborne/Solvent Paint			X	0.44															Post construction
Co. Rd. S13	20073+70.00	20074+05.73	EB	Waterborne/Solvent Paint			X	0.36															Post construction
Co. Rd. S13	20077+18.74	20077+63.02	EB	Waterborne/Solvent Paint			X	0.44															Post construction
Co. Rd. S13	20077+27.29	20077+63.02	WB	Waterborne/Solvent Paint			X	0.36															Post construction
				Factored Total: Waterborne/Solvent Paint				1.60	1.60	-	-	-	-	-	-	-	-	-	-	-	-	-	
				Bid Quantity: Painted Pavement Markings, Waterborne or Solvent-Based							3.20												

PCC Bridge Approach

PCC Paved Shoulder for Bridge End Drain

HMA Shoulder Paving

Pavement Removal

I-35

Co. Rd. S13 / C55

20073

20074

20075

20076

20077

20078

Construct HMA Paved Shoulder

Construct Bridge End Drain

Construct PCC Paved Shoulder for Bridge End Drain

Remove Existing Bridge End Drain

STA 20073+70.00
BRIDGE APPROACH

Construct Bridge Approach

Face of Paving Notch
22074+10.00

Bridge Sta.
20075+66.51

Face of Paving Notch
22077+23.02

STA 20077+63.02
BRIDGE APPROACH

Construct Bridge End Drain (Deflect 15 deg.)

Construct HMA Paved Shoulder

Oakland
T90N, R22W
Sec. 6

0 20
FEET

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FILE NO.	ENGLISH	DESIGN TEAM WHKS & CO.	FRANKLIN COUNTY	PROJECT NUMBER MBIN-035-1(514)157--0M-35	SHEET NUMBER D.1

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108-23A
08-01-08

TRAFFIC CONTROL PLAN

A. Co. Rd. S13 / C55 will be closed to traffic at the bridge utilizing standard road plan TC-252.

B. The Contractor shall implement the detour of traffic in accordance with the route shown on sheet J.2.

111-01
04-17-12

COORDINATED OPERATIONS

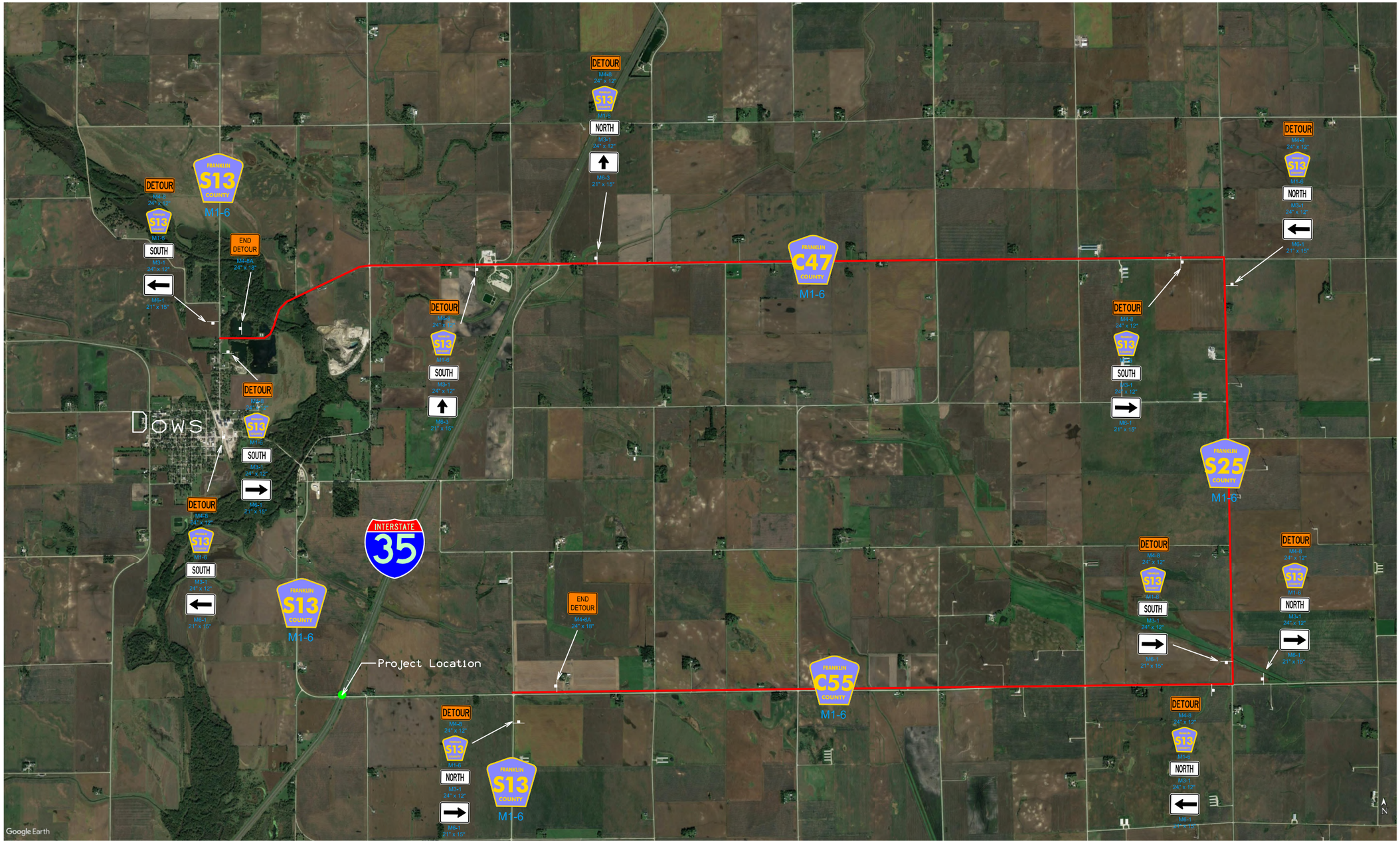
Other work in progress during the same period of time will include the construction of the projects listed. Coordinate operations with those of other contractors working within the same area.

Project	Type of Work
None Provided	

108-25
10-21-14

511 TRAVEL RESTRICTIONS

Route	Direction	County	Location Description	Feature Crossed	Object Type	Maint. Bridge No., Structure ID, or FHWA No.	Type of Restriction	Existing Measurement	Construction Measurement	Construction Measurement as Signed	Projected As Built Measurement	Remarks
Co. Rd. S13 / C55	Both	Franklin	Bridge over I-35	For Bridge Construction - Traffic Detoured	Barrier	602425	Horizontal	N/A	N/A	N/A	N/A	



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DETOUR MAP

FILE NO.	ENGLISH	DESIGN TEAM WHKS & CO.	FRANKLIN COUNTY	PROJECT NUMBER MBIN-035-1(514)157--0M-35	SHEET NUMBER J.2

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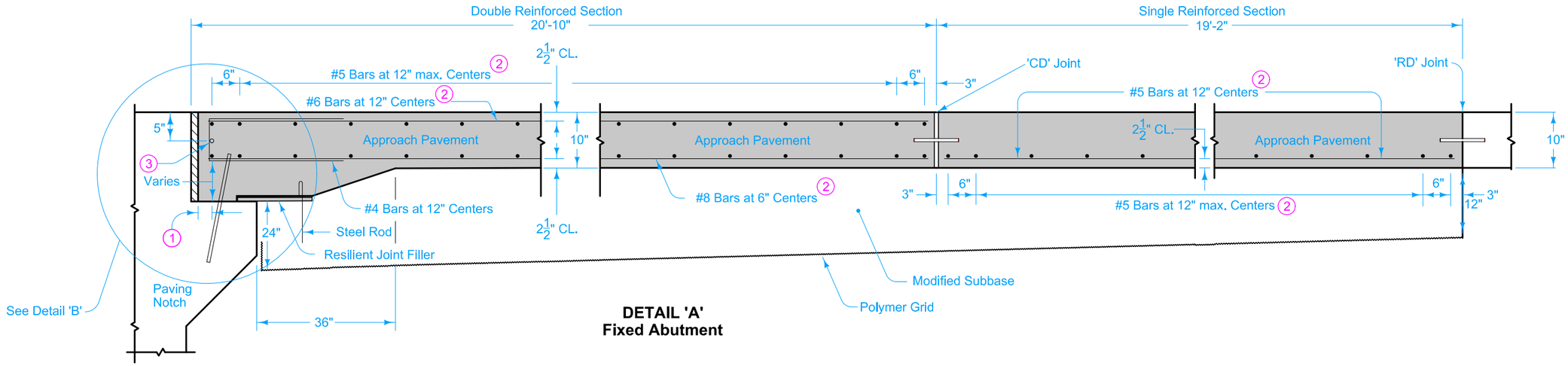
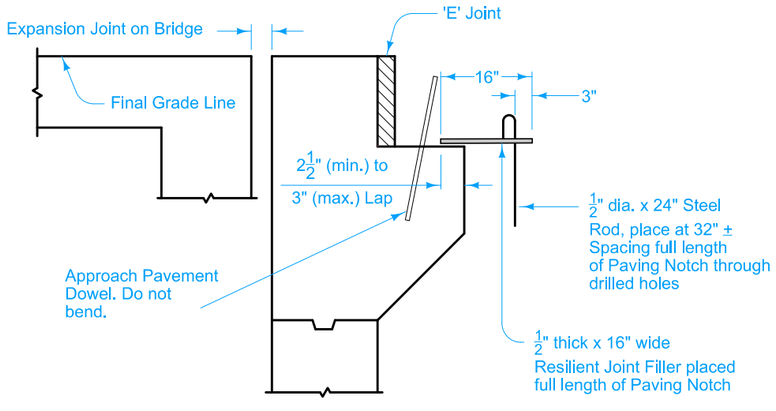


DETAIL 'A'
Fixed Abutment



DETAIL 'B'

1. 2" to 2½" clear to bent bar.
2. Minimum lap length: #5 bars - 18 inches
   #6 bars - 27 inches
   #8 bars - 48 inches
3. Place additional #5 bar parallel to skewed face.

FIXED ABUTMENT

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MODIFIED
STANDARD ROAD PLAN

REVISION
1 | 10-17-17

BR-202

SHEET 1 of 3

MODIFICATIONS: Removed Non-reinforced Setion
Removed Movable Abutment Detail
Updated Notes

DOUBLE REINFORCED 10" APPROACH WITH VARIABLE DEPTH PAVING NOTCH

FILE NO.	ENGLISH	DESIGN TEAM WHKS & CO.	FRANKLIN COUNTY	PROJECT NUMBER MBIN-035-1(514)157--0M-35	SHEET NUMBER U.1

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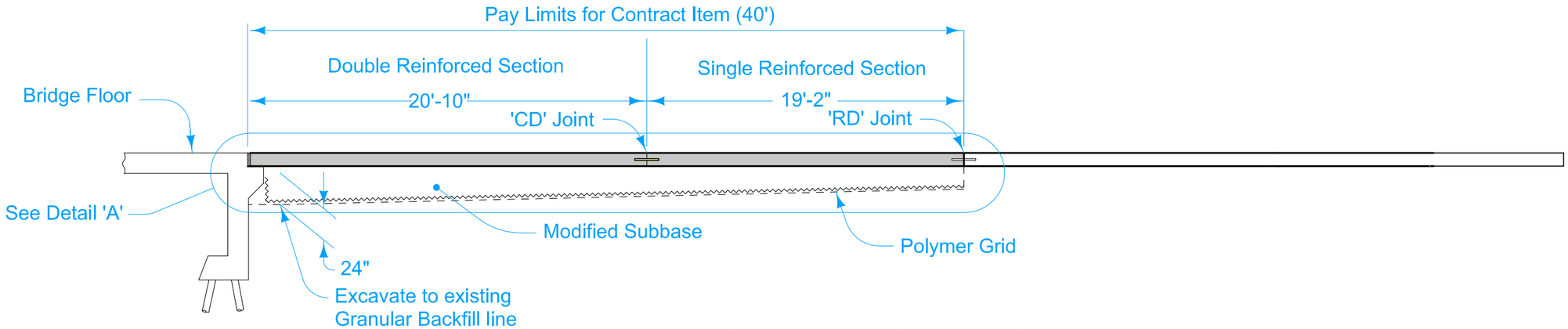

SECTION THRU CENTERLINE

MODIFIED

STANDARD ROAD PLAN

REVISION	
1	10-17-17

BR-202

SHEET 2 of 3

MODIFICATIONS: Adjusted Pay Length
Removed Section Adjacent to HMA Pavement
Updated Notes

DOUBLE REINFORCED 10" APPROACH WITH VARIABLE DEPTH PAVING NOTCH

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FILE NO.	ENGLISH	DESIGN TEAM WHKS & CO.	FRANKLIN COUNTY	PROJECT NUMBER MBIN-Ø35-1(514)157--ØM-35	SHEET NUMBER U.2

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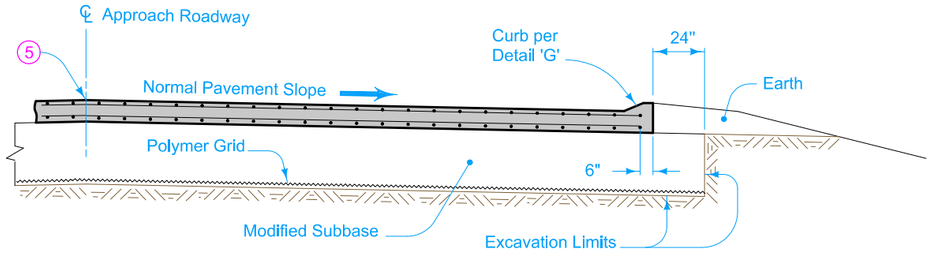
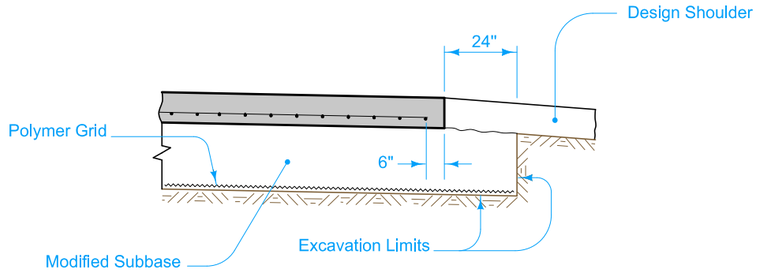


6

SECTION A-A



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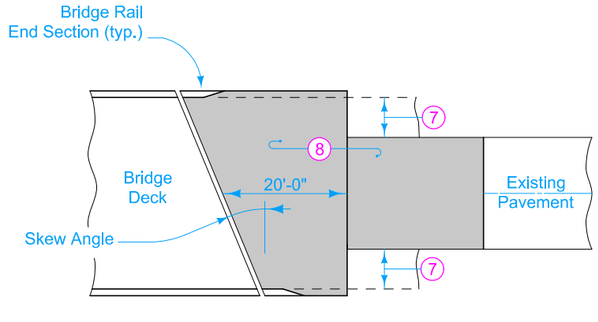
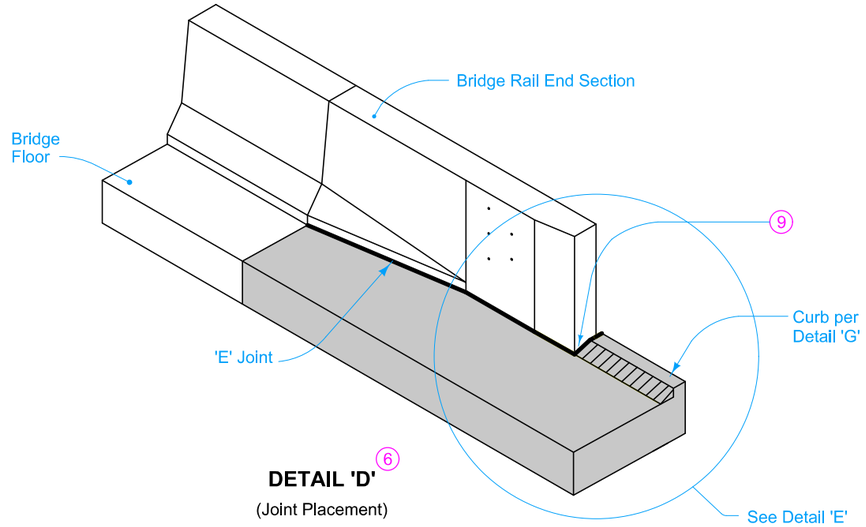
SECTION B-B



APPROACH PAVEMENT LAYOUT AT A SKEW



DETAIL 'D' 6

(Joint Placement)

5) Longitudinal Joint (PV-101):
Single pour - Saw cut joint per Detail B.
Two pours - Use 'KS-2' Joint.

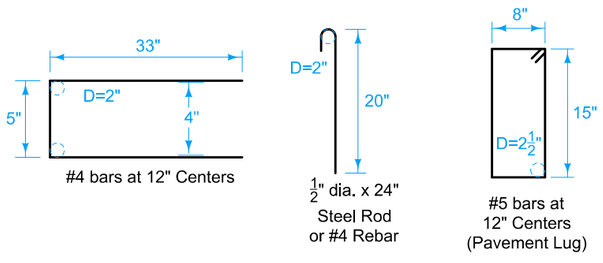
6) Refer to BR-211.

7) Design shoulder width.

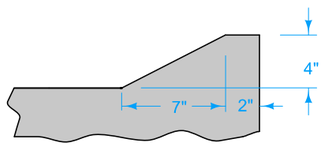
8) Reinforced bridge approach section.

9) 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.

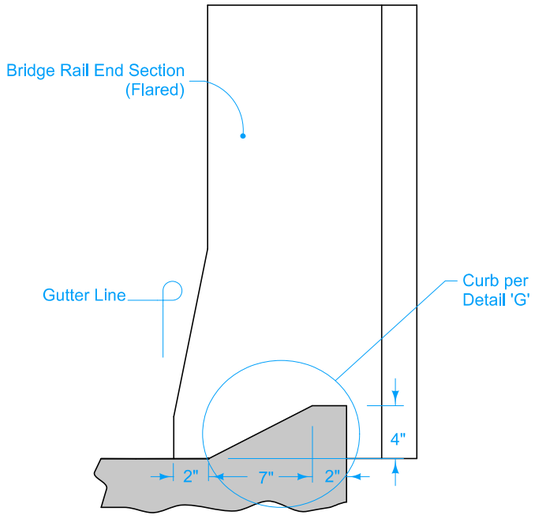
- Fixed Abutment Bridges: Type 'E' Joint.



BENT BAR SHAPES



DETAIL 'G'



DETAIL 'E'

(Back of Curb Placement)

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MODIFIED

STANDARD ROAD PLAN

REVISION 3 10-17-17

BR-202

Sheet 3 of 3

MODIFICATIONS: Updated Notes
Updated Detail 'E' for Existing Retrofit End

DOUBLE REINFORCED 10" APPROACH WITH VARIABLE DEPTH PAVING NOTCH

FILE NO.	ENGLISH	DESIGN TEAM WHKS & CO.	FRANKLIN COUNTY	PROJECT NUMBER MBIN-035-1(514)157--0M-35	SHEET NUMBER U.3

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