

A d d e n d u m

Iowa Department of Transportation
Office of Contracts

Date of Letting: May 17, 2016
Date of Addendum: May 4, 2016

B.O.	Proposal ID	Proposal Work Type	County	Project Number	Addendum
156	25-1694-064	HMA RESURFACING WITH MILLING	DALLAS	NHSN-169-4(64)--2R-25	17MAY156.A01

Make the following changes to the PROPOSAL SCHEDULE OF PRICES:

Change Proposal Line No. 0010 2102-0425070 SPECIAL BACKFILL:

From: 2,552.200 TON

To: 110.300 TON

Add Proposal Line No. 0025 2115-0100000 MODIFIED SUBBASE; 1,292.000 CY

Change Proposal Line No. 0060 2213-2713300 EXCAVATION, CLASS 13, FOR WIDENING:

From: 1,089.700 CY

To: 2,477.700 CY

Add Proposal Line No. 0065 2213-8200000 BASE WIDENING, HOT MIX ASPHALT MIXTURE, 868.000 TON

Change Proposal Line No. 0100 2303-0245828 ASPHALT BINDER, PG 58-28:

From: 96.100 TON

To: 143.700 TON

Change Proposal Line No. 0110 2303-0247634 ASPHALT BINDER, PG 76-34:

From: 8.520 TON

To: 7.300 TON

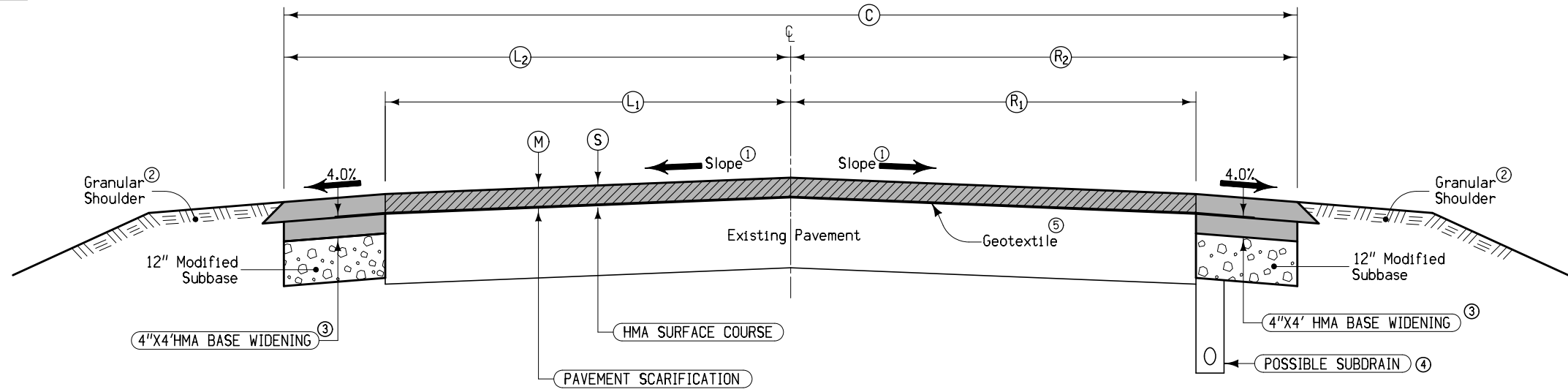
Add Proposal Line No. 0125 2310-8300550 PAVEMENT INTERLAYER GEOTEXTITLE;
12,770.000 SY

If the above changes are not made, they will be made as shown here.

Make the following changes to the PLAN:

Replace plan SHEET NUMBER B.1, C.1, and C.3 with the attached.

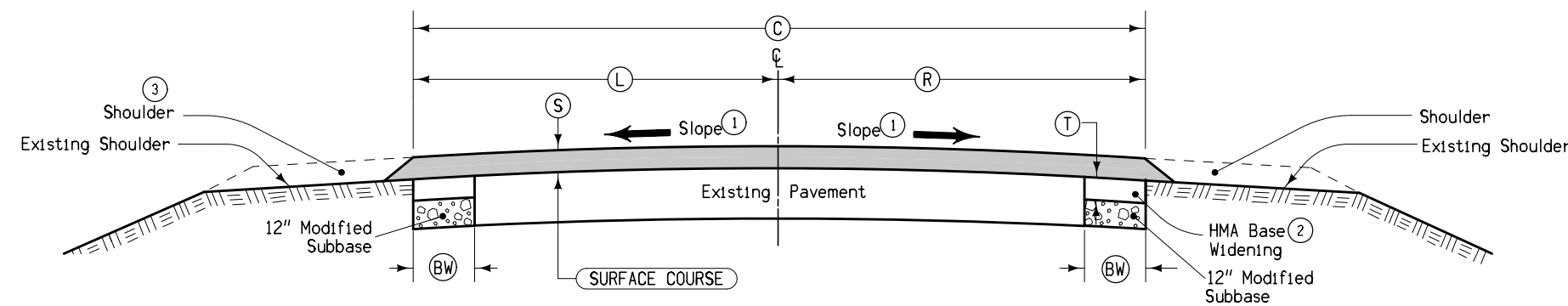
■ = HMA Resurfacing and Base Widening
 ▨ = Pavement Scarification



- Notes:
- ① Finished slope shall match existing pavement except that the maximum allowable slope is 3.0%, minimum allowable slope is 2.0%. Section may be modified as directed by the Engineer through areas of special shaping. Refer to tabulation listing of superelevated curves and Standard Road Plans for additional requirements through superelevated curves.
 - ② Refer to Typ. 7135 and Tab. 112-9.
 - ③ Refer to Tab. 106-5
 - ④ Refer to Tab. 104-9
 - ⑤ Refer to Tab. 106-7 and DS-15018

Location		(S)	(M)	(C)	(L ₁)	(R ₁)	(L ₂)	(R ₂)	Remarks
Road Id	Station To Station	Inches	Inches	Feet	Feet	Feet	Feet	Feet	
US 169	90+00 128+31	2	2	32	12	12	16	16	

**MODIFIED TYPICAL CROSS SECTION
HMA RESURFACING WITH MILLING**



- ① Match finished slope to existing pavement, except that the maximum allowable slope is 3.0%, minimum allowable slope is 2.0%. Section may be modified as directed by the Engineer through areas of special shaping. Refer to tabulation listing of superelevated curves and Standard Road Plans for additional requirements through superelevated curves.
- ② Base Widening quantities are not included with Resurfacing quantities, see Standard Road Plan PV-203 and Tab. 106-5 on Sheet C.3.
- ③ Refer to shoulder typicals.
- ④ Refer to Tab. 100-25 and DS-15037

Location		(S)	(C)	(L)	(R)	(T)	(BW)	Remarks
Road Identification	Station To Station	Inches	Feet	Feet	Feet	Inches	Feet	
US 169	77+00 77+81.5	0-2	24	12	12	-	-	HMA wedge at S appr
US 169	83+79.25 90+00	1	32	16	16	5	4	HP Thin Lift HMA surface ④

**MODIFIED TYPICAL CROSS SECTION
HMA RESURFACING WITH BASE WIDENING**

**ESTIMATED PROJECT QUANTITIES
(1 DIVISION PROJECT)**

100-1A
07-15-97

Item No.	Item Code	Item	Unit	Total	As Built Qty.
1	2102-0425070	SPECIAL BACKFILL	TON	110.3	
2	2102-2625001	EMBANKMENT-IN-PLACE, CONTRACTOR FURNISHED	CY	500.0	
3	2115-0100000	MODIFIED SUBBASE	CY	1,292.0	
4	2121-7425020	GRANULAR SHOULDERS, TYPE B	TON	503.8	
5	2122-5500060	PAVED SHOULDER, HOT MIX ASPHALT MIXTURE, 6 IN.	SY	350.0	
6	2212-0475095	CLEANING AND PREPARATION OF BASE	MILE	0.1	
7	2213-2713300	EXCAVATION, CLASS 13, FOR WIDENING	CY	2,477.7	
8	2213-8200000	BASE WIDENING, HOT MIX ASPHALT MIXTURE	TON	868.6	
9	2214-5145150	PAVEMENT SCARIFICATION	SY	13,834.6	
10	2303-0003380	HOT MIX ASPHALT MIXTURE THIN LIFT SURFACE COURSE, 3/8 IN. MIX	TON	127.754	
11	2303-0033503	HOT MIX ASPHALT MIXTURE (1,000,000 ESAL), SURFACE COURSE, 1/2 IN. MIX, FRICTION L-3	TON	1,602.069	
12	2303-0245828	ASPHALT BINDER, PG 58-28	TON	143.7	
13	2303-0247634	ASPHALT BINDER, PG 76-34	TON	7.300	
14	2303-6911000	HOT MIX ASPHALT PAVEMENT SAMPLES	LS	1.00	
15	2310-8300550	PAVEMENT INTERLAYER GEOTEXTILE	SY	12,770.0	
16	2502-8212034	SUBDRAIN, LONGITUDINAL, (SHOULDER) 4 IN. DIA.	LF	4,640.0	
17	2502-8221304	SUBDRAIN OUTLET, DR-304	EACH	20	
18	2505-4008120	REMOVAL OF STEEL BEAM GUARDRAIL	LF	275.0	
19	2505-4008300	STEEL BEAM GUARDRAIL	LF	200.0	
20	2505-4008400	STEEL BEAM GUARDRAIL BARRIER TRANSITION SECTION	EACH	4	
21	2505-4021010	STEEL BEAM GUARDRAIL END ANCHOR, BOLTED	EACH	4	
22	2505-4021720	STEEL BEAM GUARDRAIL TANGENT END TERMINAL, BA-205	EACH	4	
23	2527-9263109	PAINTED PAVEMENT MARKING, WATERBORNE OR SOLVENT-BASED	STA	276.63	
24	2527-9263137	PAINTED SYMBOLS AND LEGENDS, WATERBORNE OR SOLVENT-BASED	EACH	4	
25	2528-8445110	TRAFFIC CONTROL	LS	1.00	
26	2528-8445113	FLAGGERS	EACH	See Proposal	
27	2528-8445115	PILOT CARS	EACH	See Proposal	
28	2529-5070110	PATCHES, FULL-DEPTH FINISH, BY AREA	SY	26.6	
29	2529-5070120	PATCHES, FULL-DEPTH FINISH, BY COUNT	EACH	2	
30	2529-8201000	JOINT ASSEMBLY, EF	EACH	2	
31	2533-4980005	MOBILIZATION	LS	1.00	

ESTIMATE REFERENCE INFORMATION

100-4A
10-29-02

Item No.	Item Code	Description
1	2102-0425070	SPECIAL BACKFILL Refer to Tab. 112-9 on Sheet C.5
2	2102-2625001	EMBANKMENT-IN-PLACE, CONTRACTOR FURNISHED Grading for bridge approach guardrail installations. Refer to Tab. 107-23 on Sheet C.4. Material shall be provided by the Contractor. Top 6 inches shall be free of granular material and suitable for seeding. Material available from the Class 13 excavation may be used if approved by the engineer.
3	2115-0100000	MODIFIED SUBBASE Refer to Typical 2602 and 2617 on Sheet B.1 and Tab. 106-5 on Sheet C.3.
4	2121-7425020	GRANULAR SHOULDERS, TYPE B Refer to Typical 7151 Modified on Sheet B.2 and Tab. 112-9 on Sheet C.5. Estimate is based on a nominal thickness of 1.5 inches for entire project limits. Actual thickness may vary. Includes additional 10% for irregularities.
5	2122-5500060	PAVED SHOULDER, HOT MIX ASPHALT MIXTURE, 6 IN. Paved shoulder at bridge approach guardrails. Refer to Typical 7156 on Sheet B.2 and Tab. 112-9 on Sheet C.5.
6	2212-0475095	CLEANING AND PREPARATION OF BASE Clean and prepare the existing PCC pavement from approximate Sta. 83+79 to approximate Sta. 90+00 prior to application of tack coat and thin coat high performance HMA surface.
7	2213-2713300	EXCAVATION, CLASS 13, FOR WIDENING Refer to Tab. 106-5 on Sheet C.3 and Tab. 112-9 on Sheet C.5.
8	2213-8200000	BASE WIDENING, HOT MIX ASPHALT MIXTURE Refer to Typical 2602 and 2617 on Sheet B.1 and Tab 106-5 on Sheet C.3
9	2214-5145150	PAVEMENT SCARIFICATION Refer to Typical 2206 on Sheet B.1 and Tab. 100-25 on Sheet C.3.
10	2303-0003380	HOT MIX ASPHALT MIXTURE THIN LIFT SURFACE COURSE, 3/8 IN. MIX See Typical 2617 on Sheet B.1 and Tab 100-25 on Sheet C.3. Quantity increased by 5% for irregularities. As per current Standard Specifications and Developmental Specification for High Performance Thin Lift Overlay.
11	2303-0033503	HOT MIX ASPHALT MIXTURE (1,000,000 ESAL), SURFACE COURSE, 1/2 IN. MIX, FRICTION L-3 Refer to Tab. 100-25 on Sheet C.3. Includes additional 5% for irregularities.
12	2303-0245828	ASPHALT BINDER, PG 58-28 Estimated at a rate of 6%.

ESTIMATE REFERENCE INFORMATION

100-4A
10-29-02

Item No.	Item Code	Description
13	2303-0247634	ASPHALT BINDER, PG 76-34 Refer to Typical 2617 on Sheet B.1 and Tab. 100-25 on Sheet C.3. Estimated at 7% of the of the Thin Lift Surface course.
14	2303-6911000	HOT MIX ASPHALT PAVEMENT SAMPLES
15	2310-8300550	PAVEMENT INTERLAYER GEOTEXTILE Refer to Tab. 106-7 on Sheet C.2.
16	2502-8212034	SUBDRAIN, LONGITUDINAL, (SHOULDER) 4 IN. DIA.
17	2502-8221304	SUBDRAIN OUTLET, DR-304 Refer to Tab. 104-9 on Sheet C.2.
18	2505-4008120	REMOVAL OF STEEL BEAM GUARDRAIL Refer to Tab 110-7A on Sheet C.4.
19	2505-4008300	STEEL BEAM GUARDRAIL
20	2505-4008400	STEEL BEAM GUARDRAIL BARRIER TRANSITION SECTION
21	2505-4021010	STEEL BEAM GUARDRAIL END ANCHOR, BOLTED
22	2505-4021720	STEEL BEAM GUARDRAIL TANGENT END TERMINAL, BA-205 Refer to Tab 108-8A on Sheet C.4.
23	2527-9263109	PAINTED PAVEMENT MARKING, WATERBORNE OR SOLVENT-BASED Refer to Tab. 108-22 on Sheet C.4.
24	2527-9263137	PAINTED SYMBOLS AND LEGENDS, WATERBORNE OR SOLVENT-BASED Refer to Tab. 108-29 on Sheet C.4.
25	2528-8445110	TRAFFIC CONTROL Refer to Tab. 108-23A, Traffic Control Plan, on Sheet J.1.
26	2528-8445113	FLAGGERS
27	2528-8445115	PILOT CARS
28	2529-5070110	PATCHES, FULL-DEPTH FINISH, BY AREA
29	2529-5070120	PATCHES, FULL-DEPTH FINISH, BY COUNT
30	2529-8201000	JOINT ASSEMBLY, EF Refer to Tab. 102-6C on Sheet C.5.
31	2533-4980005	MOBILIZATION

PROJECT DESCRIPTION

100-1D
10-18-05

On US 169 in the City of De Soto, mill the existing HMA section, place 4' widening units on each side, place geotextile per DS-15018 over the existing and the placed widening units and overlay with 2 inches of HMA. In the PCC section (approx. 700ft) overlay with 1 inch of thin-lift HMA with PG76-34 binder. Install 4 inch thick 4ft widening underlain by 12 inches of modified subbase on each side to be overlaid with the 2 inch HMA for a total thickness of 6 inches in the composite section. Install 5 inch thick 4 foot widening underlain by 12 inches of special backfill each side overlaid with 1 inch of high performance thin lift HMA per DS-15037 for a total of 6 inches in the PCC section. Update guardrails and paved shoulders at bridge location. Place a HMA wedge and repave EF joint on the south side of the bridge to improve rideability. Install subdrains along the alignment as tabulated.

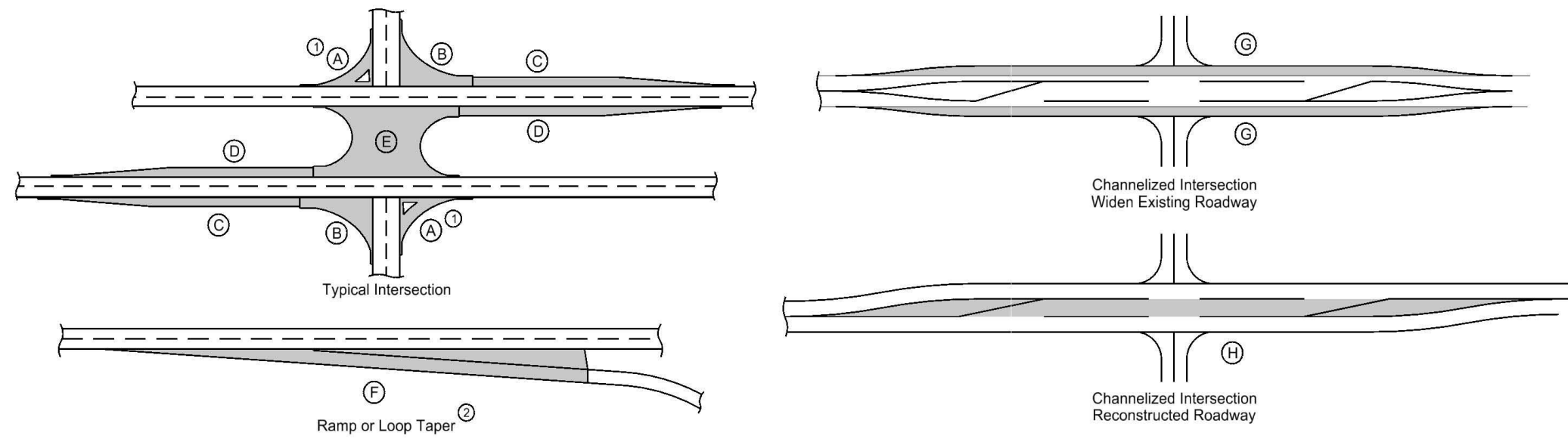
STANDARD ROAD PLANS

105-4
10-18-11

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

Number	Date	Title
BA-200	04-19-16	Steel Beam Guardrail Components
BA-201	04-19-16	Steel Beam Guardrail Barrier Transition Section
BA-202	10-20-15	Steel Beam Guardrail Bolted End Anchor
BA-205	04-19-16	Steel Beam Guardrail End Terminal
BA-250	04-19-16	Steel Beam Guardrail Installation at Concrete Barrier or Bridge End Post
DR-303	10-20-15	Subdrains (Longitudinal)
DR-304	04-21-15	Outlets for Longitudinal, Transverse and Backslope Subdrains
EW-301	10-20-15	Guardrail Grading
PM-110	04-16-13	Line Types
PM-111	04-21-15	Symbols and Legends
PM-420	04-19-11	Two-Lane Roadway with no Turn Lanes (One-Way Stop Condition)
PM-520	04-19-11	Two-Lane Roadway with no Turn Lanes (Two-Way Stop Condition)
PM-522	10-16-12	Two-Lane Roadway with Left Turn Lanes
PR-101	04-21-15	Full Depth Patch with 'EF' Joint in PCC
PR-103	10-21-14	Full Depth PCC Patch with Dowels
PR-202	10-21-14	Notches for Resurfacing (with or without Runout)
PV-101	04-19-16	Joints
PV-202	04-16-13	Hot Mix Asphalt Resurfacing
PV-203	10-15-13	HMA Base Widening
SI-173	04-19-16	Object Markers
SI-211	10-19-10	Object Marker and Delineator Placement with Guardrail
TC-1	04-16-13	Work Not Affecting Traffic (Two-Lane or Multi-Lane)
TC-202	04-21-15	Work Within 15 ft of Traveled Way
TC-213	04-17-12	Lane Closure with Flaggers
TC-214	04-16-13	Lane Closure with Flaggers for use with Pilot Car
TC-233	10-21-14	Pavement Marking Operations Two-Lane

HMA PAVEMENT



- ① Does not include raised island area or curb. Refer to tabulation 112-4 for quantities.
- ② Refer to PV-410, PV-411, PV-412, and PV-414.
- ③ Quantity includes Pavement Header.

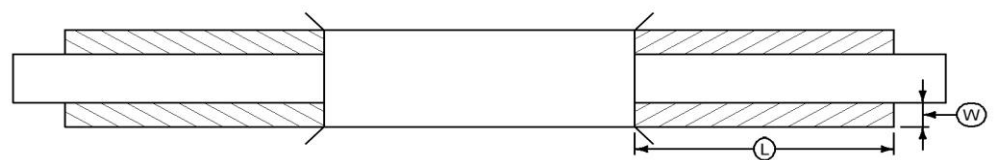
Calculations assume a surface course unit weight (lbs/cf) of 147, an intermediate course unit weight (lbs/cf) of 147, a base course unit weight (lbs/cf) of 0, and a special backfill unit weight (lbs/cf) of 140.

Road Identification	Direction of Travel	Station to Station	Mainline		Area ③								Bid Items										Remarks						
			Width	Length	Area	A ①	B	C	D	E	F ②	G	H	Hot Mix Asphalt Pavement			Binder			Special Backfill	Modified Subbase	Granular Subbase		Pavement Scarification					
														Surface	Intermediate	Base	Surface	Intermediate	Base										
FT	FT	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	TONS	SY	TONS	SY	TONS	SY	TONS	TONS	TONS	CY	SY	SY					
US 169		77+00.00 - 77+81.75	24.0	81.8	218.0									24.03											213.3	1			
		83+79.25 - 90+00.00	32.0	620.8	2207.1									121.67											13621.3				
		90+00.00 - 128+31.00	32.0	3831.0	13621.3									1501.75											13834.6				
TOTALS													1647.45																

1. DS-15037

AREAS FOR PAVEMENT OR BASE WIDENING

Refer to Standard Road Plans PV-105 or PV-203



- ① Bid Item
- ② Estimated for two applications to achieve lifts and one application of 0.10 Gal/SY adjacent to existing pavement. Priming of subgrade or finished base is not required. Calculations assume a HMA unit weight (lbs/cf) of 145, a Special Backfill unit weight (lbs/cf) of 140, and a Tack Coat unit weight (gal/sy) of 0.05.

Station to Station	Side	Pavement Type	L Length	W Width	T Thickness	HMA Base Widening	HMA Base Widening	PCC Base Widening	PCC Pavement Widening	Tack Coat		Asphalt Binder	Class 13 Excavation, Widening	Modified Subbase	Remarks
										Lifts	Vertical Edge				
			FT	FT	IN	TONS	SY	SY	SY	GAL	GAL	TONS	CY	CY	
83+79.00 - 85+25.00	Rt	HMA	146.00	4.0	17.0	59.98				6.49	2.30	8.79	3.60	41.5	21.63
87+08.00 - 90+00.00	Rt	HMA	292.00	4.0	17.0	119.96				12.98	4.60	17.57	7.20	82.9	43.26
90+00.00 - 128+31.00	Rt	HMA	3831.00	4.0	16.0	1481.32				170.27	56.76	227.02	88.88	1040.5	567.56
83+79.00 - 90+00.00	Lt	HMA	621.00	4.0	17.0	255.13				27.60	9.78	37.38	15.31	176.3	92.00
90+00.00 - 128+31.00	Lt	HMA	3831.00	4.0	16.0	1481.32				170.27	56.76	227.02	88.88	1040.5	567.56
TOTALS						3397.71				517.78	203.86	2381.7	1292.00		