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PLANS OF PROPOSED IMPROVEMENT ON THE

PRIMARY ROAD SYSTEM

PAGE/FREMONT COUNTY

HMA Resurfacing with Milling

From south leg of the Co Rd J18 (old IA 184) intersection to the Mills Co line

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

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



REVISIONS

PROJECT IDENTIFICATION NUMBER	TOTAL
	8
26-73-059-020	
PROJECT NUMBER	
NHSX-059-1(041)--3H-73	
R.O.W. PROJECT NUMBER	

ROADWAY 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.

Orest T. Lechnowsky 8-25-2026
Signature Date

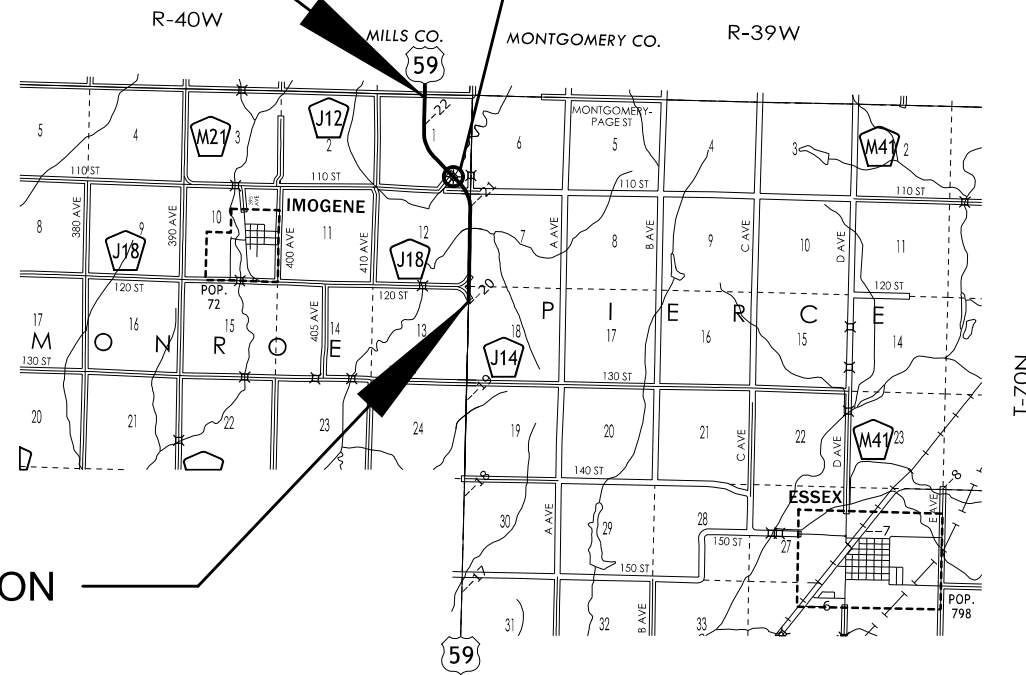
Orest T. Lechnowsky
Printed or Typed Name

My license renewal date is December 31, 2027

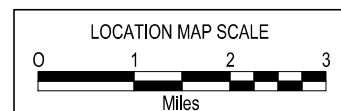
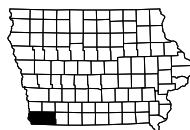
Pages or sheets covered by this seal: ALL

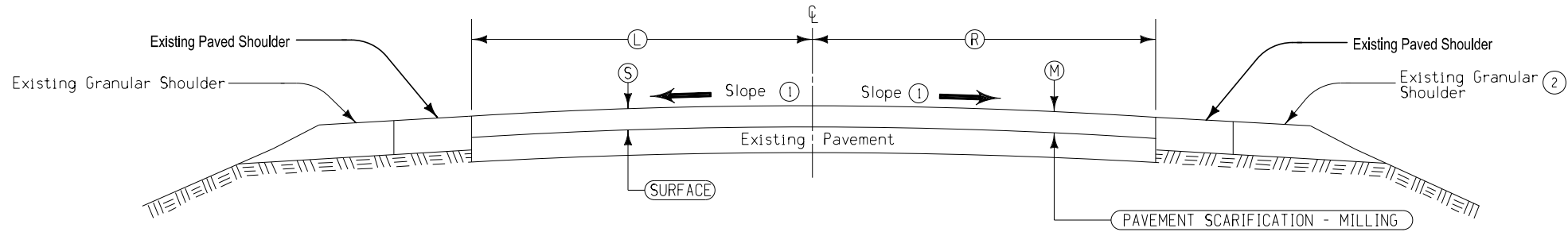
END CONSTRUCTION
MP 22.31
Station 502+90

FHWA #25241



BEGIN CONSTRUCTION
MP 20.07
Station 382+20





- Notes:
- Section shown in the direction of travel
- ① Finished slope is to be 2.0% Section may be modified as directed by the Engineer through areas of special shaping.
- ② Refer to shoulder typicals.

Design Quantities Per Station								
Location			Ⓢ	Ⓡ	Ⓜ	Ⓛ	Ⓡ	Remarks
			Inches	Inches	Inches	Feet	Feet	
Road Identification	Station To Station							
US 59	382+20	451+75	2		2	11	11	
	453+50	502+90	2		2	11	11	

TYPICAL CROSS SECTION
HMA RESURFACING & PAVEMENT
SCARIFICATION

7135

MODIFIED

① Place and compact material to the dashed lines; then blade and shape to foreslope that portion above the solid line in the outer 2' and roll with loaded truck tire.

② Existing shoulder surface to be shaped to a uniform cross slope prior to placing granular shoulder material. Shape to ensure the thickness of the granular shoulder material is not less than the thickness of the resurfacing.

③ Granular shoulder width varies. Adjust placement width of new granular material to match the full existing shoulder width from the edge of paved shoulder to the shoulder breakpoint at the existing foreslope. Multiple passes may be needed

TYPICAL SECTION
FOR TYPE 'B'
GRANULAR SHOULDER
ADJACENT TO HOT MIX ASPHALT
RESURFACING

At locations where the existing granular shoulder is higher than the resurfacing, or where the slope of the shoulder is toward the mainline rather than away from it, the contractor shall correct the existing shoulder elevation and slope to match this typical.

LOCATION				⑩
ROAD IDENTIFICATION	STATION TO STATION		SIDE	Inches
US 59	382+20	382+80	Lt	1.7
	383+70	393+80	Lt	1.7
	395+65	450+50	Lt	1.7
	453+85	502+90	Lt	1.7
	382+20	450+70	Rt	1.7
	454+55	502+90	Rt	1.7

ESTIMATED PROJECT QUANTITIES AND REFERENCE NOTES

Roadway Items : Roadway Items

Item no.	Item Code	Item	Unit	Quantities	Estimate Reference Notes
				Estimated	
				Roadway Items	
1	2121-7425020	GRANULAR SHOULDERS, TYPE B	TON	694.3	Quantity increased for cross slope correction. In locations where the existing shoulder drains toward the pavement, the shoulders shall first be graded to drain away from the pavement at a minimum of 4% cross slope, before additional rock is added. Granular shoulders shall transition smoothly and directly into the existing foreslope with no secondary ledge at the outside edge of the shoulder. Existing shoulders shall be protected from damage during the granular placement, shaping, and compaction operations.
2	2212-0475095	CLEANING AND PREPARATION OF BASE	MILE	2.25	
3	2212-5070310	PATCHES, FULL-DEPTH REPAIR	SY	150.4	
4	2212-5070330	PATCHES BY COUNT (REPAIR)	EACH	6	
5	2212-5075001	HOT MIX ASPHALT SURFACE PATCHES	TON	5	
6	2214-5145150	PAVEMENT SCARIFICATION, NOMINAL THICKNESS	SY	29,076.67	Scarification shall be accomplished in stages in order to limit the lane drop off and prevent ponding of water during non-working hours. The contractor shall limit the length of scarification to ensure that the scarified area will be replaced with new HMA on the same day. Milled surfaces shall be considered corrected for purposes of smoothness incentive. Shoulder cross-slopes in super-elevated curves shall be scarified to match cross slopes given in Standard Road Plan PV-302. Corrective milling needed to achieve this requirement is incidental to this item.
7	2303-1033500	HOT MIX ASPHALT STANDARD TRAFFIC, SURFACE COURSE, 1/2 IN. MIX, NO SPECIAL FRICTION REQUIREMENT	TON	3,365.99	Quantity increased by 5% for irregularities.
8	2303-1258283	ASPHALT BINDER, PG 58-28S, STANDARD TRAFFIC	TON	201.96	Quantity estimated at 6% of mix weight.
9	2303-6911000	HOT MIX ASPHALT PAVEMENT SAMPLES	LS	1	
10	2303-7000610	PAYMENT ADJUSTMENT INCENTIVE/DISINCENTIVE FOR HMA MIXTURE LABORATORY VOIDS (FORMULA - BY PAY FACTOR)	EACH	3,366	
11	2303-7000620	PAYMENT ADJUSTMENT INCENTIVE/DISINCENTIVE FOR HMA MIXTURE FIELD VOIDS (FORMULA - BY PAY FACTOR)	EACH	3,366	
12	2317-7000120	PAYMENT ADJUSTMENT INCENTIVE/DISINCENTIVE FOR HMA PAVEMENT SMOOTHNESS (BY SCHEDULE)	EACH	6,978	
13	2526-8285040	CONSTRUCTION SURVEY, LOCATION SURVEY	LS	1	
14	2527-9263209	PAINTED PAVEMENT MARKINGS, WATERBORNE OR SOLVENT-BASED	STA	705.46	
15	2527-9270112	GROOVES CUT FOR PAVEMENT MARKINGS	STA	238.76	
16	2528-8445110	TRAFFIC CONTROL	LS	1	
17	2528-8445113	FLAGGERS	EACH	0	See Proposal.

Item no.	Item Code	Item	Unit	Quantities	Estimate Reference Notes
				Estimated	
				Roadway Items	
18	2528-8445115	PILOT CARS	EACH	0	
19	2528-9290050	PORTABLE DYNAMIC MESSAGE SIGN (PDMS)	CDAY	32	
20	2529-2242304	CD JOINT ASSEMBLY	EACH	4	
21	2533-4980005	MOBILIZATION	LS	1	
22	2548-0000110	ASPHALT EMULSION FOR FOG SEAL (SHOULDER RUMBLE STRIPS)	GAL	174.34	Application of asphalt emulsion fog seal on centerline rumble strips is included in this item. The emulsion shall be fully cured before application of the final painted pavement markings.
23	2548-0000355	DIAMOND GROUND CENTERLINE SINUSOIDAL RUMBLE STRIPS, HMA SURFACE	STA	120.7	

100_01D
8/15/22

PROJECT DESCRIPTION

HMA Resurfacing with Milling on US 59 from MP 20.07-22.31 in Page and Fremont Counties. Work will only include the mainline paving. Current HMA shoulders will be UAC. Other work will include full depth patching, centerline rumble strips, granular shoulders and new pavement markings.

105_04
10/20/26

STANDARDS

The following Standards apply to construction work on this project.

Number	Date	Title
PM-110	10-15-24	Line Types
PM-115	10-20-26	Grooving for Line Types
PM-420	10-20-26	Two-Lane Roadway with no Turn Lanes (One-Way Stop Condition)
PR-103	10-21-25	Full Depth PCC Patch with Dowels
PV-13	10-20-26	Milled Centerline Rumble Strips
PV-202	04-21-20	Hot Mix Asphalt Resurfacing
SI-882	10-18-16	Special Signs for Restricted Width Traffic Control Zones
TC-1	10-15-19	Work Not Affecting Traffic (Two-Lane or Multi-Lane)
TC-81	04-18-23	Restricted Width Signing (Less Than 15.5 Feet)
TC-202	04-18-23	Work Within 15 ft of Traveled Way
TC-214	04-18-23	Lane Closure with Flaggers for use with Pilot Car
TC-233	10-17-17	Pavement Marking Operations Two-Lane
TC-282	10-15-19	Uneven Lanes

102_06C
4/21/26

FULL-DEPTH PATCHES

Line No.	Count	Station	Reference Location Sign	Direction of Travel	Side	Length (FT)	Width (FT)	Patch Thickness (IN)	Patch Repair or Finish	PCC Patch Type	PCC Patch Quantity (SY)	HMA Patches (SY)	Composite HMA (TON)	Subbase Patches (PR-140) (SY)	Subbase Patch with 'EF' Joint (PR-101) (SY)	Patch Subdrain PR-101 or PR-140 (No.)	'CD' Joints (No.)	'CT' Joints (No.)	'EF' Joints PR-101 (No.)	Anchor Lugs Removal (No.)	Remarks
1.0	2	419+60.00		2-Lane	Both	6.0	11.0	12.0	Repair	PCC With Dowels (PR-103)	14.7										
2.0	2	422+10.00		2-Lane	Both	8.0	11.0	12.0	Repair	PCC With Dowels (PR-103)	19.6										
3.0	1	450+70.00		2-Lane	Left	30.0	11.0	12.0	Repair	PCC With Dowels (PR-103)	36.7						1				
4.0	1	450+70.00		2-Lane	Right	65.0	11.0	12.0	Repair	PCC With Dowels (PR-103)	79.4						3				
Total:		6									150.4						4				

262_06
9/28/22

UTILITIES (NOT A POINT 25 PROJECT)

This is NOT a POINT 25 project and is not subject to the provisions of IAC 761-115.25.

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

Line No.	Road ID	Station From	Station To	Lane	Marking Type	Left	Center	Right	Groove Marking Needed?	Groove Qty. (STA)	BCY6 Factored (STA)	DCY6 Factored (STA)	DLW6 Factored (STA)	ELW6 Factored (STA)	NPY6** Factored (STA)	Remarks
1.0	US 59	382+20.00	502+90.00	2-Lane	Waterborne/Solvent Paint	X	X	X	No		12.74	37.10	0.26	238.50	64.13	Temporary Paint
2.0				2-Lane	Waterborne/Solvent Paint	X	X	X	Yes	238.76			0.26	238.50		Final paint after HMA cures
3.0				2-Lane	Waterborne/Solvent Paint	X	X	X	No		12.74	37.10			64.13	Final paint after HMA cures
Total										238.76	25.48	74.20	0.52	477.00	128.26	

RUMBLE STRIPS

* Calculated at 18" width for Shoulder.
** For use with penetrating Engineered Fog Seal. Calculated at 2" wider than rumble strips.

Line No.	Road Identification	Station From	Station To	Surface Type	Rumble Strip Lane	Rumble Strip Type	Fog Seal Type	PCC Length (STA)	HMA Length (STA)	Fog Seal* Shoulder (GAL)	Effective Shoulder Width PCC (FT)	Effective Shoulder Width HMA (FT)	Effective Shoulder Width Granular\Earth (FT)	Remarks
1.0	US 59	382+20.00	502+90.00	HMA	Centerline	Milled Sinusoidal Centerline Rumble Strips (HMA only)	Asphalt Emulsion		120.70	174.3				1

1 Centerline rumble strip fog seal is caculated at 24" wide. See ERI notes

EXISTING PAVEMENT

Line No.	County	Route	Direction of Travel	Begin Ref. Location Sign	End Ref. Location Sign	Year	Type	Project Number	Surface Type	Surface Depth (IN)	Base Type	Base Depth (IN)	Subbase Type	Subbase Depth (IN)	Removal Type	Removal Depth (IN)	Coarse Aggregate Source	Coarse Aggregate Type	Course Aggregate Durability Class	Reinforcement Type	Remarks
1.0	Page	US 59	Both	20.06	20.98	1993		STP-59-1(18)--2C-36	AAC	2.0	BAC	2.0					Crescent	C. LST.			
2.0						1954		FN-442	PCC	8.0							Sacton	Gravel	3		
3.0																					
4.0	Fremont	US 59	Both	20.98	22.34	1993		STP-59-1(18)--2C-36	AAC	2.0	BAC	2.0					Crescent	C. LST.			
5.0						1954		FN-442	PCC	8.0							Sacton	Gravel	3		

108_23A
8/15/22

TRAFFIC CONTROL PLAN

Through traffic will be maintained on the project at all times. Traffic control on this project shall be in accordance with the TC series of the Standard Road Plans on Tabulation 105-4. Refer to the current Standard Specifications for additional information. The contractor shall coordinate traffic control with other projects in the area. PDMS shall be utilized for advance notification of work anywhere within the project site. Each of the 2 primary route approach directions shall be notified by PDMS message of potential delays and advised to seek alternate routes starting 7 days prior to any work occurring which would impact traffic flow in the project area. PDMS messages shall be coordinated with the RCE and the Iowa DOT TMC office.

108_25
3/28/24

511 TRAVEL RESTRICTIONS													
Line No.	Route	Direction	County	Location Description	Feature Crossed	Object Type	Maint. Bridge No. or Structure ID or FHWA No.	Type of Restriction	Existing Measurement	Construction Measurement	Construction Measurement as Signed	Projected As Built Measurement	Remarks
1.0	US 59	Both	Page	MP 20-22.31		Traffic Control Device		Horizontal					

111_01
10/14/22

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
HSIPX-059-1(037)--3L-73	1013-PCC Pavement - Grade and New
HSIPX-059-1(039)--3L-73	5062-Traffic Signs
HSIPX-059-1(040)--3L-73	5021-Lighting