03-03-2017 LETTING ITEM 079

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

FOR INDEX OF SHEETS, SEE SHEET NO. 2

IRAFFIC DATA

2015 ADT=5500 (ACTUAL) 2017 ADT=5600 (ESTIMATED) SU=5.0% MU=5.0%

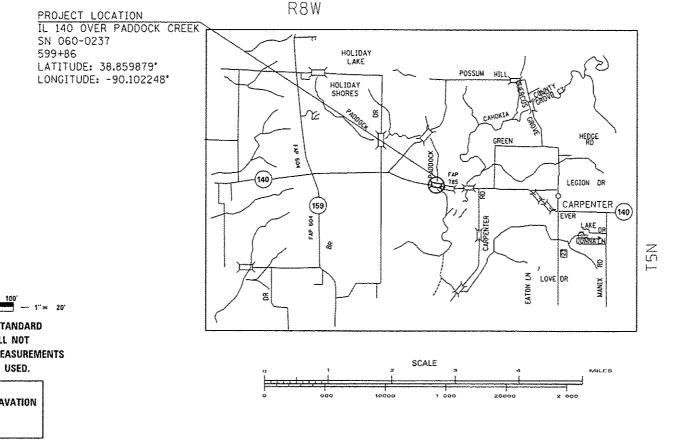
PROPOSED **HIGHWAY PLANS**

FAP ROUTE 785 (IL 140) SECTION 134B-R-2

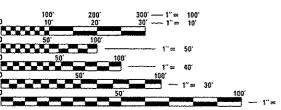
BRIDGE DECK WATERPROOFING & JOINT REPAIR MADISON COUNTY

N

C-98-056-16



GROSS LENGTH = 473.4 FT. = 0.0897 MILE NET LENGTH = 473.4 FT. = 0.0897 MILE



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES, REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E. JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION 1-800-892-0123 OR 811

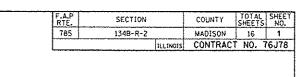
PROJECT ENGINEER: TIM PADGETT (618) 346-3325 PROJECT MANAGER: MESERET SIMA (618) 346-3141

CONTRACT NO. 76J78

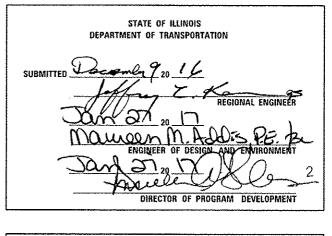
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PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

INDEX OF SHEETS

- COVER 1
- INDEX OF SHEETS, HIGHWAY STANDARDS, GENERAL NOTES, & COMMITMENTS
- SUMMARY OF QUANTITIES 3-5
- TYPICAL SECTIONS 6
- SCHEDULE OF QUANTITIES
- BUTT JOINT DETAIL AND WIDE LOAD SIGNING
- 9-16 STRUCTURE PLANS

LIST OF STANDARDS

000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
701006-05	OFF-RD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
701201-04	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS > 45 MPH
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701306-03	LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS DAY ONLY, FOR SPEEDS > 45 MPH
701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
701321-16	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701326-04	LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS > 45 MPH
701901-06	TRAFFIC CONTROL DEVICES
704001-08	TEMPORARY CONCRETE BARRIER
780001-05	TYPICAL PAVEMENT MARKINGS
781001-04	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS

GENERAL NOTES

1 ILLINOIS STATE LAW REQUIRES A 48-HOUR NOTICE BE GIVEN TO UTILITIES BEFORE DIGGING, FIELD MARKING OF FACILITIES MAY BE OBTAINED BY CONTACTING J.U.L.I.E. OR FOR NON-MEMBERS, THE UTILITY COMPANY DIRECTLY.

AGENCIES KNOWN TO HAVE FACILITIES WITHIN THE PROJECT AREA ARE AS FOLLOWS:

UTILITY		BELOW GROUND
*AMEREN ILLINOIS	Х	Х
•AT&T ILLINOIS	Х	Х
•NORTHEAST CENTRAL COUNTY PUBLIC WATER DISTRICT		Х
 SOUTHWESTERN ELECTRIC COOPERATIBE, INC. 	X	X

MEMBERS OF J.U.L.I.E. CALL TOLL FREE (800) 892-0123 OR 811 AND ARE INDICATED BY . NON-J.U.L.I.E. MEMBERS MUST BE NOTIFIED INDIVIDUALLY.

- 2 THE DEPARTMENT STRONGLY ENCOURAGES THE PRIME CONTRACTOR AND THEIR APPROVED SUB-CONTRACTORS TO HIRE MINORITY, WOMEN AND DISADVANTAGED INDIVIDUALS FROM ITS FEDERALLY FUNDED HIGHWAY CONSTRUCTION CAREERS TRAINING PROGRAM (HCCTP) TO HELP MEET WORKFORCE AND TRAINEE GOALS. THIS PROGRAM IS TRAINING MINORITIES. WOMEN AND DISADVANTAGED INDIVIDUALS IN HIGHWAY CONSTRUCTION-RELATED SKILLS. E.G., MATH FOR THE TRADES, JOB READINESS, TECHNICAL SKILLS COURSEWORK (CARPENTRY, CONCRETE FLATWORK, BLUEPRINT READING, SITE PLANS, SITE WORK, TOOLS USE. ETC.) AND OSHA 10 HOUR CERTIFICATION, TO PREPARE THEM FOR A CAREER IN THE HIGHWAY CONSTRUCTION TRADES. GRADUATES ARE WELL-TRAINED AND READY TO BECOME PRODUCTIVE ENTRY-LEVEL CONSTRUCTION WORKERS. CONTACT THE DISTRICT 8 EEO OFFICE AT 618-346-3360 AND/OR THE HCCTP COORDINATOR AT 618-874-6528 TO LEARN MORE ABOUT THE PROGRAM AND FOR ASSISTANCE IN MEETING WORKFORCE AND TRAINEE GOALS.
- 3 "ROAD CONSTRUCTION AHEAD" SIGNS SHALL BE PLACED AT EACH END OF THE PROJECT PLUS THE INTERSECTING SIDE ROADS AND RAMPS, AND WILL BE CONSIDERED INCLUDED IN THE TRAFFIC CONTROL PAY ITEMS. ALL CONSTRUCTION SIGNS SHALL BE 48" X 48"FLUORESCENT ORANGE.

- 4 ALL AREAS DISTURBED FOR ANY REASON SHALL BE PERMENANTLY SEEDED AS DIRECTED BY THE ENGINEER. ALL AREAS DISTURBED BY THE CONTRACTOR OUTSIDE THE PROPOSED CONTRUCTION LIMITS SHALL BE SEEDED AT THE CONTRACTOR'S EXPENSE.
- 5 THE CONTRACTOR AND THE ENGINEER SHALL BE AWARE THAT NO SURVEY WAS PERFORMED FOR THIS PROJECT. THE STATIONING, TOPOGRAPHY, AND QUANTITIES SHOWN IN THE PLANS WERE CREATED USING MICROFILM AND FIELD MEASUREMENTS. ALL SHALL BE ASSUMED TO BE APPROXIMATE, THE CONTRACTOR SHALL VERIFY DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.
- SHALL BE INCLUDED IN THE PAY ITEM PAVED SHOULDER REMOVAL.
- 7 A QUANTITY OF 782 FEET OF TEMPORARY PAVEMENT MARKING LINE-6" YELLOW HAS BEEN INCLUDED IN THE PLANS FOR PAINTING THE BOTTOM 6" OF THE TEMPORARY CONCRETE BARRIER.
- 8 ANY EARTH EXCAVATION WITHIN THE PROJECT LIMITS RESULTING IN SURPLUS MATERIAL SHALL BE PLACED ON ROW WITHIN THE PROJECT LIMITS AND SHALL NOT BE DISPOSED OF OFF-SITE.
- 9 PROPOSED PAVEMENT MARKING SHALL MATCH EXISTING LOCATIONS.

THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT.

MIXTURE USE	POLY SURFACE	Shoulder (STAGE CONST)
AC/PG RAP % (MAX)	SBS 76-22 SEE SPECIAL PROVISION	PG 64-22 SEE SPECIAL PROVISION
DESIGN AIR VOIDS	4.0% @ Ndes=70	4. 0% @Ndes=70
MIX COMPOSITION (Gradation)	IL 9.5	IL 19.0
FRICTION AGG	MIXTURE "D"	MIXTURE "B"
QUALITY MGMT PROGRAM	QC/QA	0C/0A

PLAN QUANTITIES FOR HMA SURFACE COURSE ITEMS ARE CALCULATED USING A UNIT WEIGHT OF 112 LB/SQ YD/IN (59.8 KG/SQ M/25 MM THICKNESS).

> COMMITMENTS NONE

Qefeult	PLOT DATE + 1/10/2017	DATE -	REVISED -		SCALE:	SHEET 1	OF 1	SHEETS	STA,
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FILE NAME 1	USER NAME = simam	DESIGNED -	REVISED -			INDEX OF	SHEETS,	HIGHWA	AY ST

6 THE REMOVAL OF THE EXISTING AGGREGATE SHOULDER AND EARTH EXCAVATION FOR PROPOSED SHOULDER

STANDARDS,		SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
AITMENTS	785	1348-R-2	MADISON	16	2
MINICIAIS			CONTRACT	NO. 7	6J78
A, TO STA.	ILLINOIS FED. AID PROJECT				

				CONSTR. CO
			100 1. STATE	
				BRIDGE
CODE			TOTAL	0014
NO.	ITEM	UNIT	QUANTITY	S. N. 060-02
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	192	192
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	426	426
40603540	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "D". N70	TON	48	48
44004250	PAVED SHOULDER REMOVAL	SQ YD	89	89
48203029	HOT-MIX ASPHALT SHOULDERS, 8"	SQ YD	356	356
50102400	CONCRETE REMOVAL	CU YD	19.6	19.6
50300255	CONCRETE SUPERSTRUCTURE	CU YD	37	37
50300300	PROTECTIVE COAT	SQ YD	94	94
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	3970	3970
50800515	BAR SPLICERS	EACH	48	48
50800530	MECHANICAL SPLICERS	EACH	152	152
52000110	PREFORMED JOINT STRIP SEAL	FOOT	74.5	74, 5
58100200	WATERPROOFING MEMBRANE SYSTEM	SQ YD	420	420
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	3	3

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 State of illinois
 SUMMARY OF QUAN

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			F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
NTITIES		785	1348-R-2	MADISON	16	3	
					CONTRACT	NO. 1	16J78
STA.	TO	STA.		ILLINOIS FED. A	ID PROJECT		

			100 %. STATE	CONSTR. CC
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	BRIDGE 0014 S. N. 060-02
67100100	MOBILIZATION	LSUM	And	1
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	LSUM	1	1
70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	LSUM	1	1
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	LSUM	1	1
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	
70106700	TEMPORARY RUMBLE STRIPS	EACH	12	12
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	2	2
70300100	SHORT TERM PAVEMENT MARKING	FOOT	133	133
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	44	44
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	948	948
70300240	TEMPORARY PAVEMENT MARKING ~ LINE 6"	FOOT	748	748
70400100	TEMPORARY CONCRETE BARRIER	FOOT	374	374
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	374	374

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	PLOT SCALE . 188.8888 1/ 10.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION		3	OWIWART	UF QUANTITIES			·····	CONTRACT	NO. 76J78
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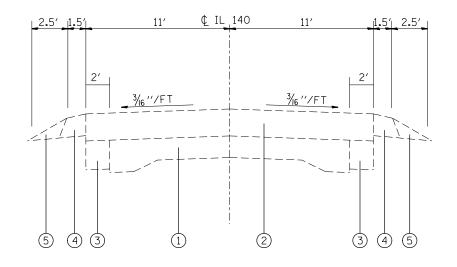
				100 %. STATE	CONSTR. CODE
	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	BRIDGE 0014 S. N. 060-0237
	70600250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL	EACH	2	2
	70600350	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2	2
*	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	978	978
*	78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	2	2
	78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	2	2
	x0327980	PAVEMENT MARKING REMOVAL - WATER BLASTING	SQ FT	316	316
*	x5060601	CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES NO. 1	LSUM	1	y y
	X7200200	WIDE LOAD SIGNING	LSUM	<u>1</u>	1
*	20010501	CLEANING AND PAINTING STEEL BRIDGE NO. 1	LSUM	1	1
	20012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	40	40
	Z0016200	DECK SLAB REPAIR (PARTIAL)	SQ YD	15	15

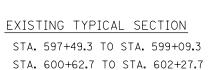
* SPECIALTY ITEM

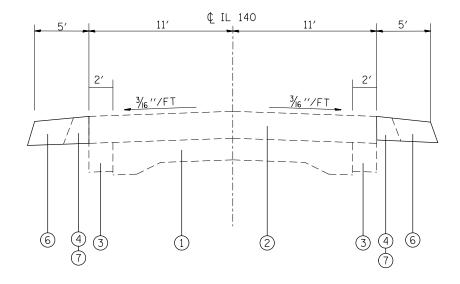
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l ľ	PLOT SCALE = 188.8888 '/ in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION		CO	NTRACT NO. 76J78
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TYPICAL SECTION







1	EXI
2	EXI
3	EXI
4	EXI
(5)	EXI
6	PRO
7	P۸

NOTE

BETWEEN STA. 599+09.3 AND STA. 599+24.3 AS WELL AS BETWEEN STA. 600+47.7 AND 600+62.7, THE CONTRACTOR SHALL FEATHER SHOULDER MIX FOR AN APPROXIMATE 2.5' WIDE X 15' LONG AREA TO COVER THE EXISTING CONCRETE BRIDGE APPROACH SHOULDER PAVEMENT FOR RIDEABILITY IN ALL FOUR QUADRANTS. COST INCLUDED WITH HOT-MIX ASPHALT SHOULDERS, 8"

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Default	PLOT DATE = 12/23/2016	DATE –	REVISED -	SCA		SHEET 1 OF 1 SHEETS STA.	TO STA.	ILLINOIS FED. AID PROJECT				

PROPOSED TYPICAL SECTION STA. 597+49.3 TO STA. 599+24.3 STA. 600+62.7 TO STA. 602+27.7

LEGEND

ISTING PCC PAVEMENT, 18' WIDE (9''-6''-9'') ISTING HMA OVERLAY (8" TO 8 1/2") ISTING PCC WIDENING (8" THICK) (ISTING BITUMINOUS SHOULDER (6") (ISTING AGGREGATE SHOULDERS, TYPE A (6") ROPOSED HOT-MIX ASPHALT SHOULDER 8" VED SHOULDER REMOVAL

	STAGING SCHEDULE											
LOCATION	STRUCTURE NUMBER	TEMPORARY CONCRETE BARRIER	RELOCATE TEMPORARY CONCRETE BARRIER	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	TEMPORARY PAVEMENT MARKING - LINE 6"	TEMPORARY RUMBLE STRIPS					
IL 140 OVER		FOOT	FOOT	EACH	EACH	FOOT	EACH					
PADDOCK CREEK	060-0237											
STAGE I		374		2		374	6					
STAGE II			374		2	374	6					
TOTAL		374	374	2	2	748	12					

PAVEMENT MARKING REMOVAL -
WATER BLASTING
SQ FT
EB WB
0 158.00 158.00
316.00
316

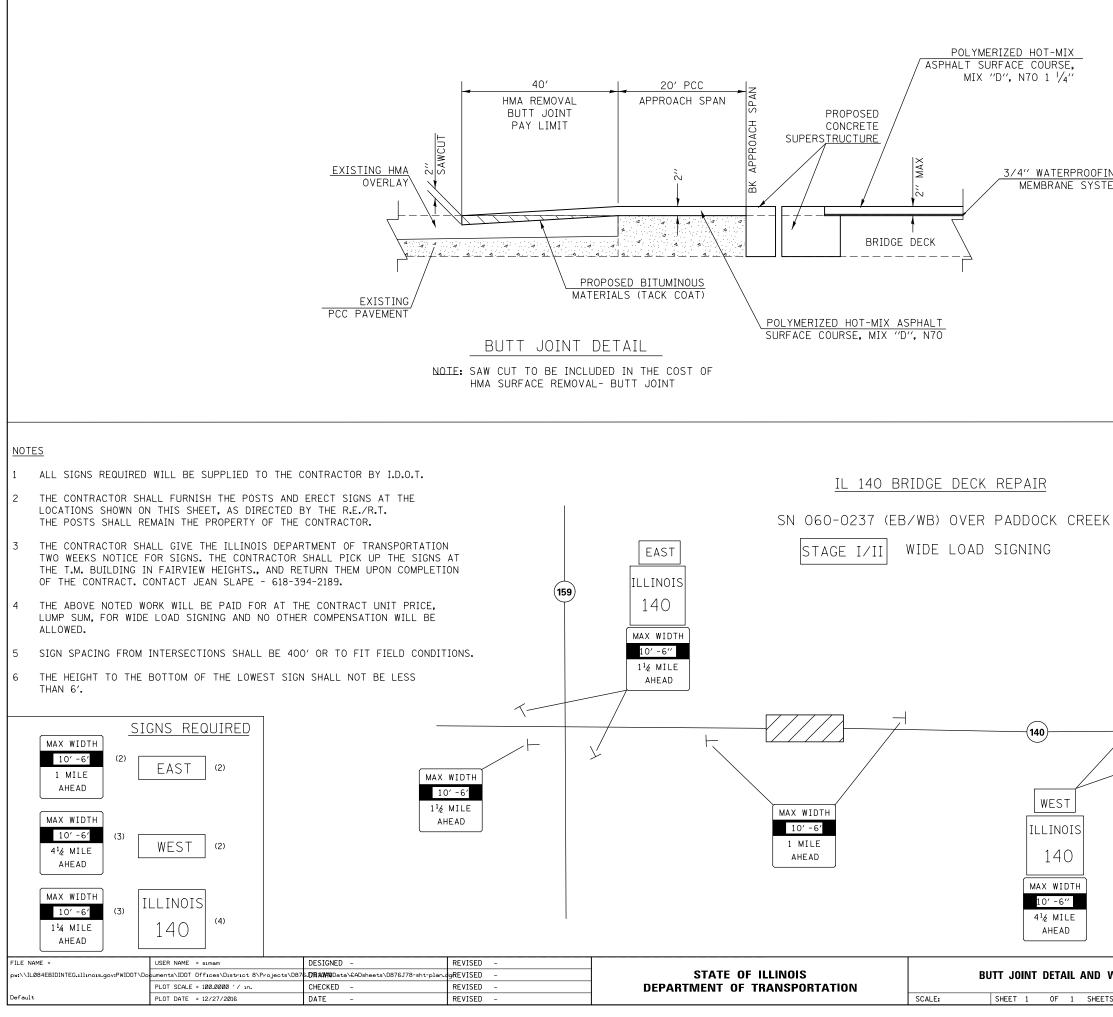
				RESURFACING SCHEDU	LE	
STATION		ROADWAY WIDTH			BITUMINOUS MATERIAL (TACK COAT)	
		FOOT			POUND	
SN 060-0237- EAST SIDE						
600+47.70 T0 601+07.70 3		32	23.89	213.33	96.00	
SN 060-02	237-	WEST SIDE				
598+64.30	ΤO	599+24.30	32	23.89	213.33	96.00
	SUB TOTAL			47.79	426.67	192.00
		TOTAL		48	192	

				TEMPOR	ARY PAVE	MENT MA	RKING	SCHEDULE			
	LOCATION		SHORT TERM PAVEMENT MARKING		SHORT TERM PAVEMENT MARKING REMOVAL		TEMPORARY PAVEMENT MARKING LINE - 4''		PAVEMENT MARKI REMOVAL - WATER BLASTIN		
			FOOT		SQ FT		FOOT		SQ FT		
				EB	WB	EB	WB	EB	WB	EB	WB
	597+49	ТО	602+23	66.36	66.36	22.12	22.12	474.00	474.00	158.00	158.00
	SUB-TOTAL		132	. 72	44.	24	948.00		316.00		
	TOTAL		133		44		948		316		

			SHOULDEF	R SCHEDULE	
				PAVED SHOULDER REMOVAL	HOT-MIX ASPHALT SHOULDERS, 8″
	LOCA	TION		EB/WB	EB/WB
	STATION	ТО	STATION	SQ.YD	SQYD
WB	597+49	ТО	599+09	26.72	89.06
	600+63	ТО	602+23	26.67	88.89
	599+24	ТО	600+48	BR	IDGE
EB	597+49	ТО	599+09	17.81	89.06
ED	600+63	ТО	602+23	17.78	88.89
	S	ИВ ТОТИ	4L	89	356
		TOTAL		89	356

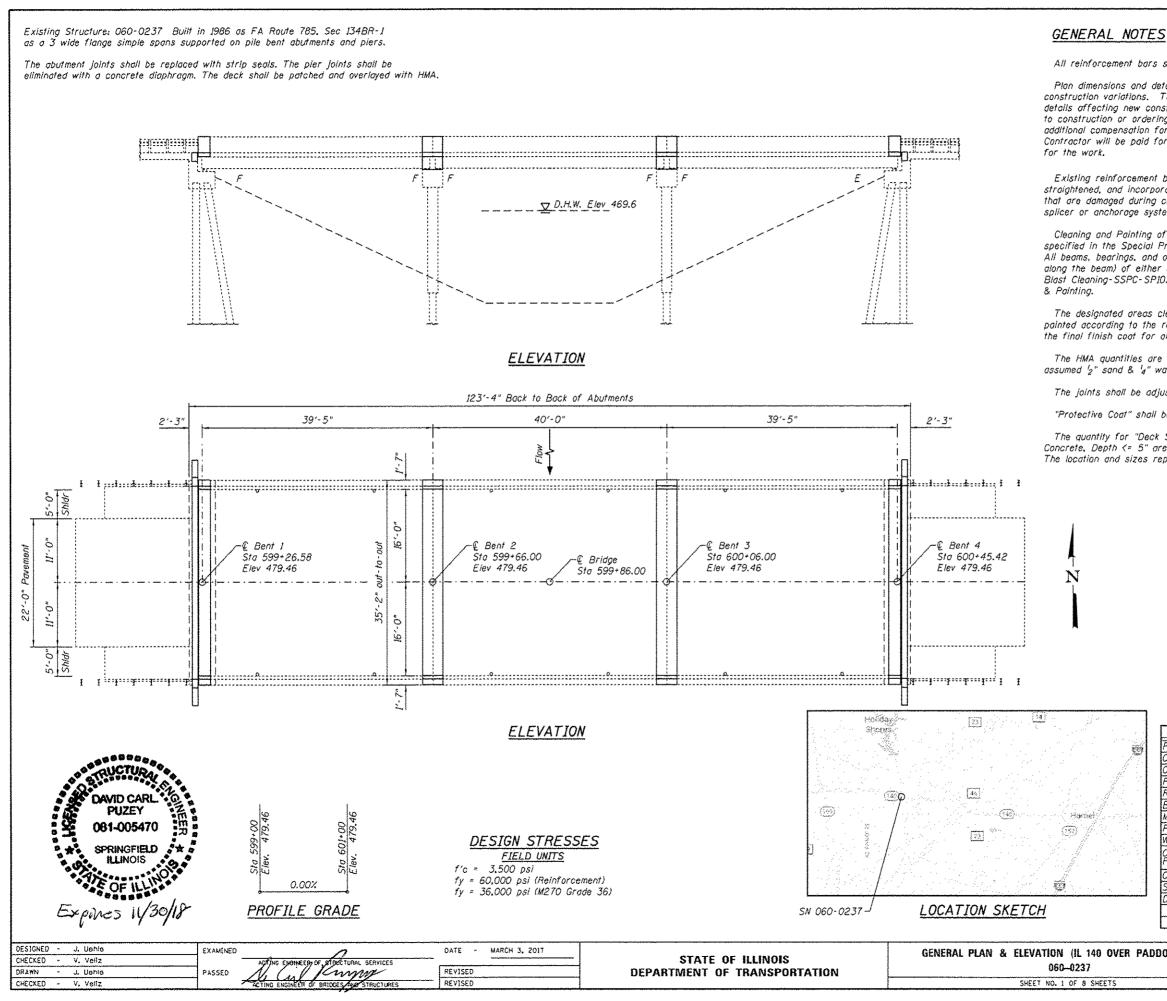
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Default	PLOT DATE = 12/23/2016	DATE –	REVISED -		SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.			ILLINOIS FED.	AID PROJECT	

VEMENT MA	RKING SCHEDULE					
ASTIC PAV LINE	EMENT MARKING- 4''	RAISED REFLECTIVE PAVEMENT MARKER				
IITE LINE	YELLOW SKIP DASH LINE	REMOVAL 2-WAY	NEW 2-WAY			
ОТ	FOOT	EACH	EACH			
WB	CL	CL	EB			
175						
123	31	2	2			
175						
474	31	2	2			
978		2	2			



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K			NOT	<u> </u>		SCA	LE	-
Т (157) 	10' - 4 ¹ ⁄2 M AHE	MILE EAD	N / {					
WIDE LOAD SIGNING	F.A.P RTE. 785	SECTIO 134B-R-		COUNT MADISC	NC	TOTAL SHEETS 16 NO. 7	SHEET NO. 8 76J78	-

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							CONTRACT	' NO.	76J78
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All reinforcement bars shall be epoxy coated.

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid

Existing reinforcement bars extending into the removal area shall be cleaned. straightened, and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system, Cost included with Concrete Removal.

Cleaning and Painting of the existing structural steel and bearings shall be as specified in the Special Provision for "Cleaning and Painting Existing Steel Surfaces". All beams, bearings, and other structural steel within 5 feet (measured along the beam) of either side of the pier joints shall be cleaned per Near White Blast Cleaning-SSPC-SP10. The areas at the abutments shall not be Cleaned

The designated areas cleaned per near white blast cleaning SSPC-SPIO shall be painted according to the requirements of paint system I- 0Z/E/U. The color of the final finish coat for all steel surfaces shall be Federal Color #595C 20045.

The HMA quantities are shown for the bridge only. The quantity is calculated excluding an assumed '2" sand & 'a" waterproofing membrane, for an HMA thickness of 1'a" thickness

The joints shall be adjusted according to Article 520.04 of the Standard Specifications.

"Protective Coat" shall be only be applied to new concrete.

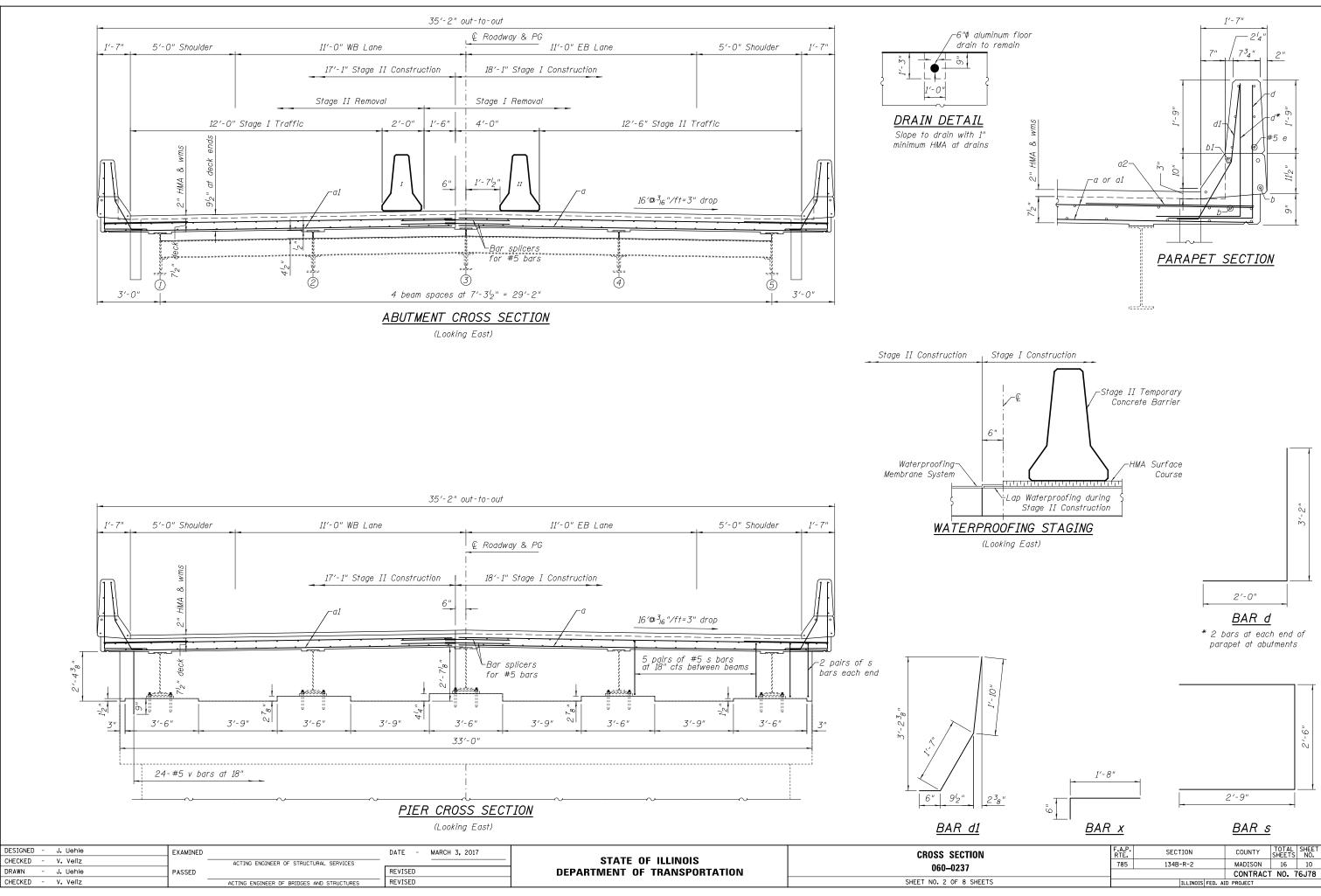
The quantity for "Deck Slab Repair (Partial Depth)" and "Structural Repair of Concrete, Depth <= 5" are estimated. The location and sizes repairs are to be determined by the Engineer in the field.

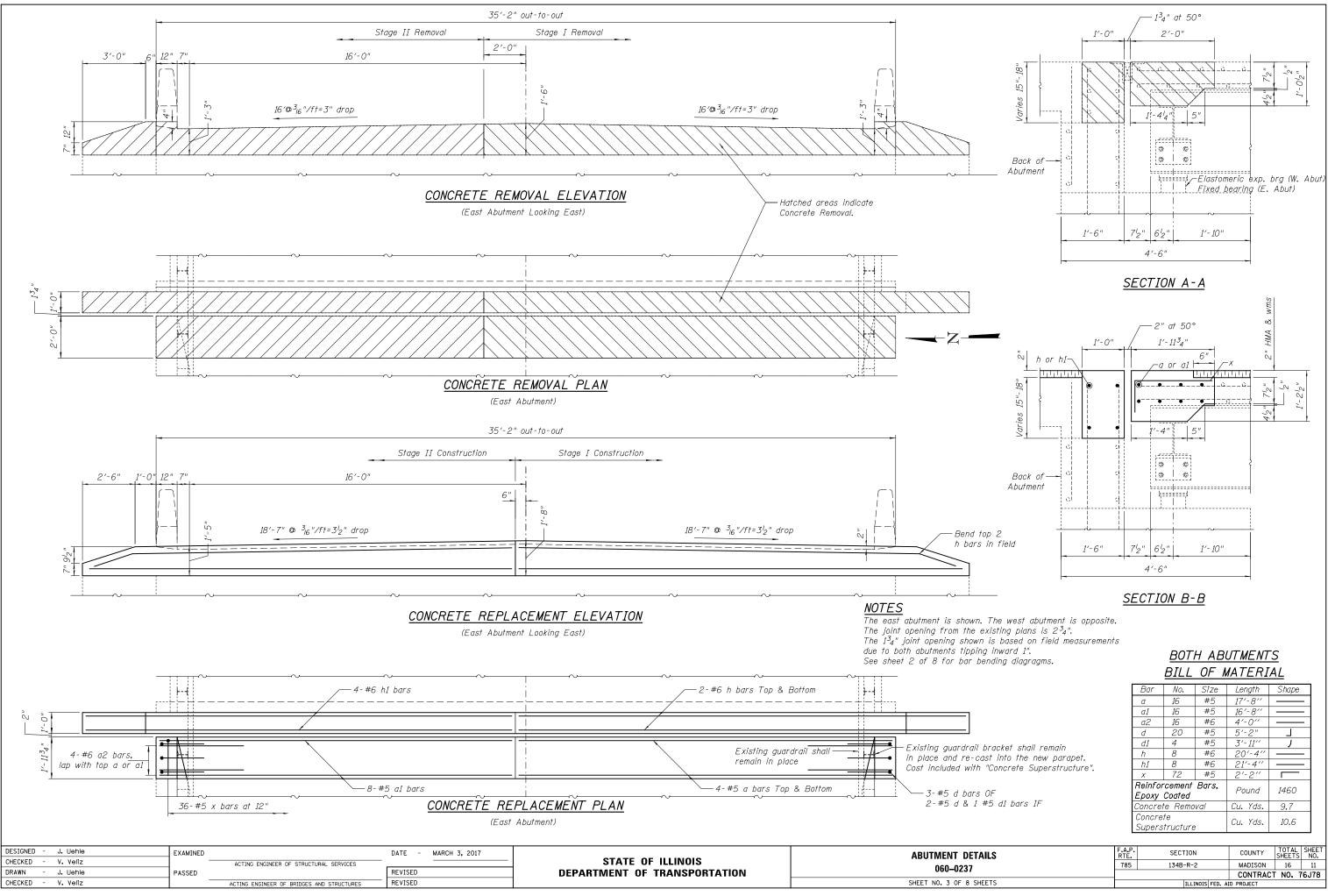
SHEET INDEX

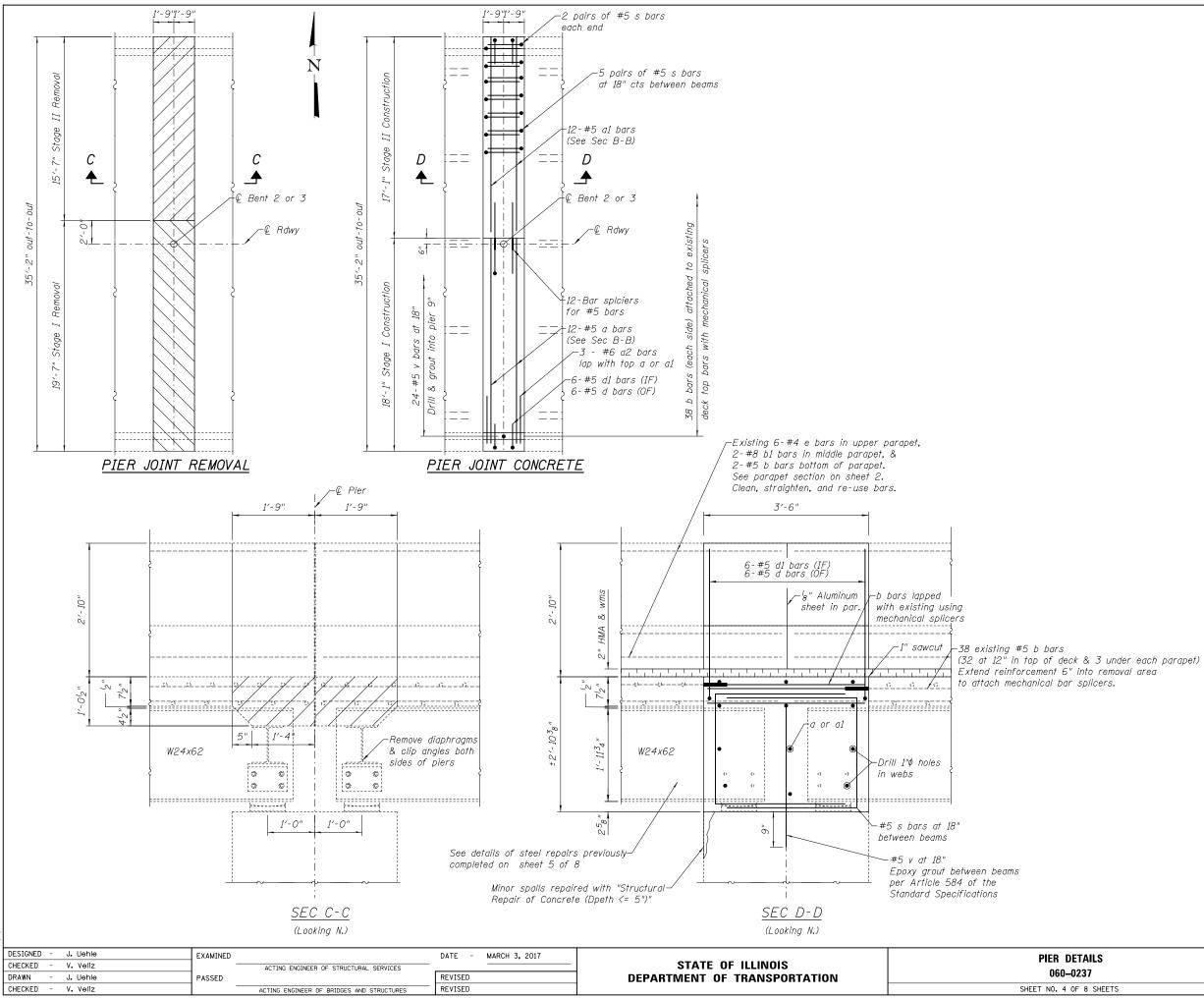
- 1) General Plan and Elevation
- 2) Cross Sections
- 3) Abutment Details
- 4) Pler details
- 5) For Information Only Previous Beam Repair
- 6) Strip Seal
- 7) Temporary Concrete Barrier
- 8) Bar Splicer

	ITEM		UNIT	TOTAL
Polymerize	d HMA Surface	Course, Mix "D", N70	Ton	29.0
Concrete F	Removal		Cu. Yd.	19.6
Concrete S	uperstructure		Cu. Yd.	37.0
Protective	Coat		Sq. Yd.	94
Reinforcen	ent Bars, Epox	y Coated	Pound	3970
Bar Splice	rs		Each	48
Mechanical	Splicers		ÉgCh	152
Preformed	Joint Strip Sea	1	Foot	74.5
Waterproof	ing Membrane S	ystem	Sq. Yd.	420
Containmen Paint Clear	t and Disposal hing Residues No	of Non-Lead	L Sum	1
Cleaning a	nd Painting Stee	I Bridge No. 1	L Sum	1
Structural	HMA Surface Course, Mix "D", N70 Ton 2 imoval Cu, Yd, 2 iperstructure Cu, Yd, 3 int Bars, Epoxy Coated Pound 3 Splicers Each Ioint Strip Seal Foat ing Membrane System Sq. Yd, ing Residues No, 1 L Sum Painting Steel Bridge No, 1 L Sum Repair of Concrete (Depth (~ 5") Sq. Ft,	40.0		
Deck Slab	Repair (Partial)		5q. Yd.	15.0
				TOTAL S

OVER PADDOCK CREEK)	F.A.P. RTE.	SECTION	COUNTY	TOTAL	SHEET NO.
	785	1348-R-2	MADISON	16	9
			CONTRACT	NO. T	6J78
ETS		ILLINDIS FED. A	D PROJECT		





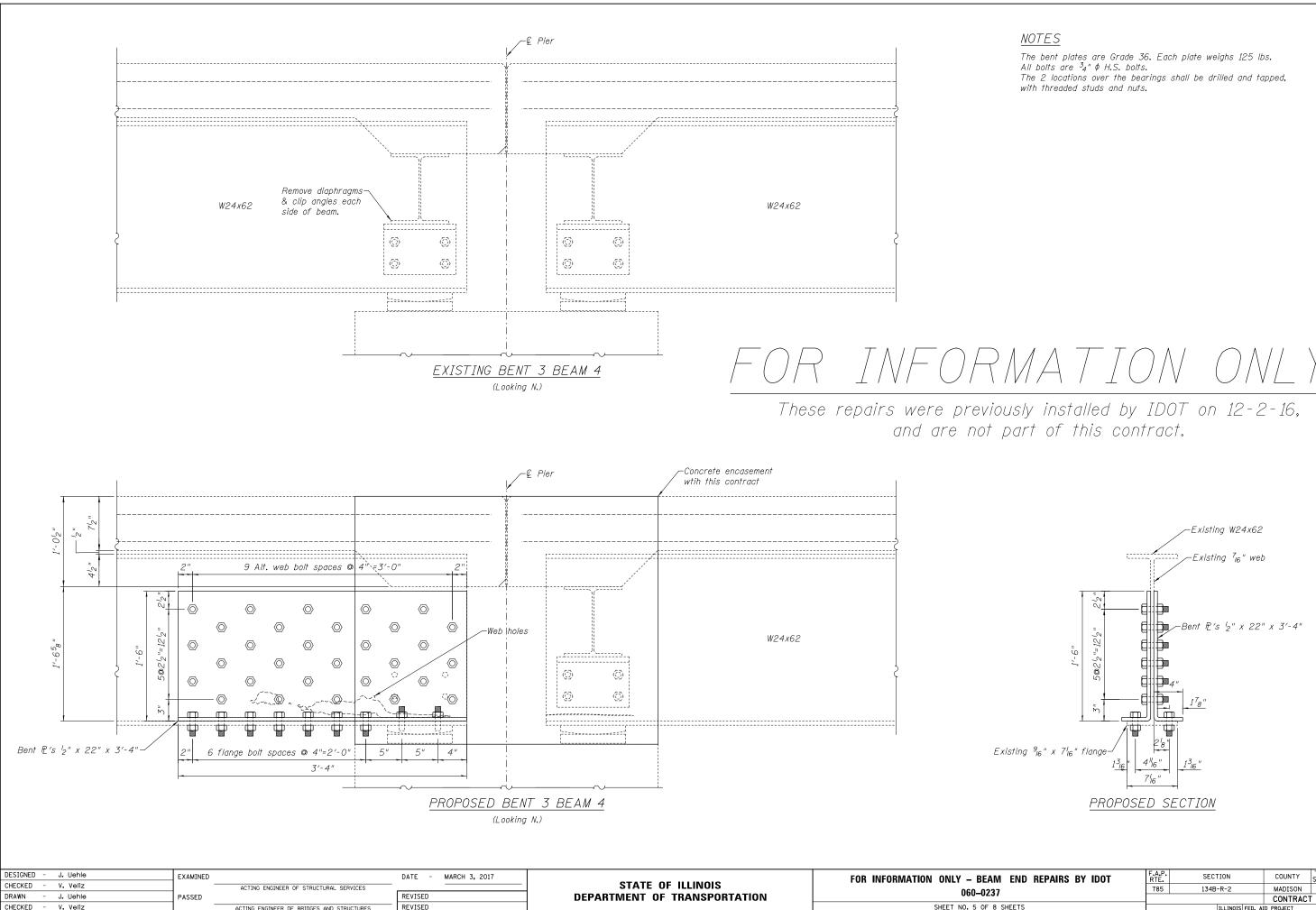


See sheet 2 of 8 for bar bending diagragms.

BOTH PIERS BILL OF MATERIAL

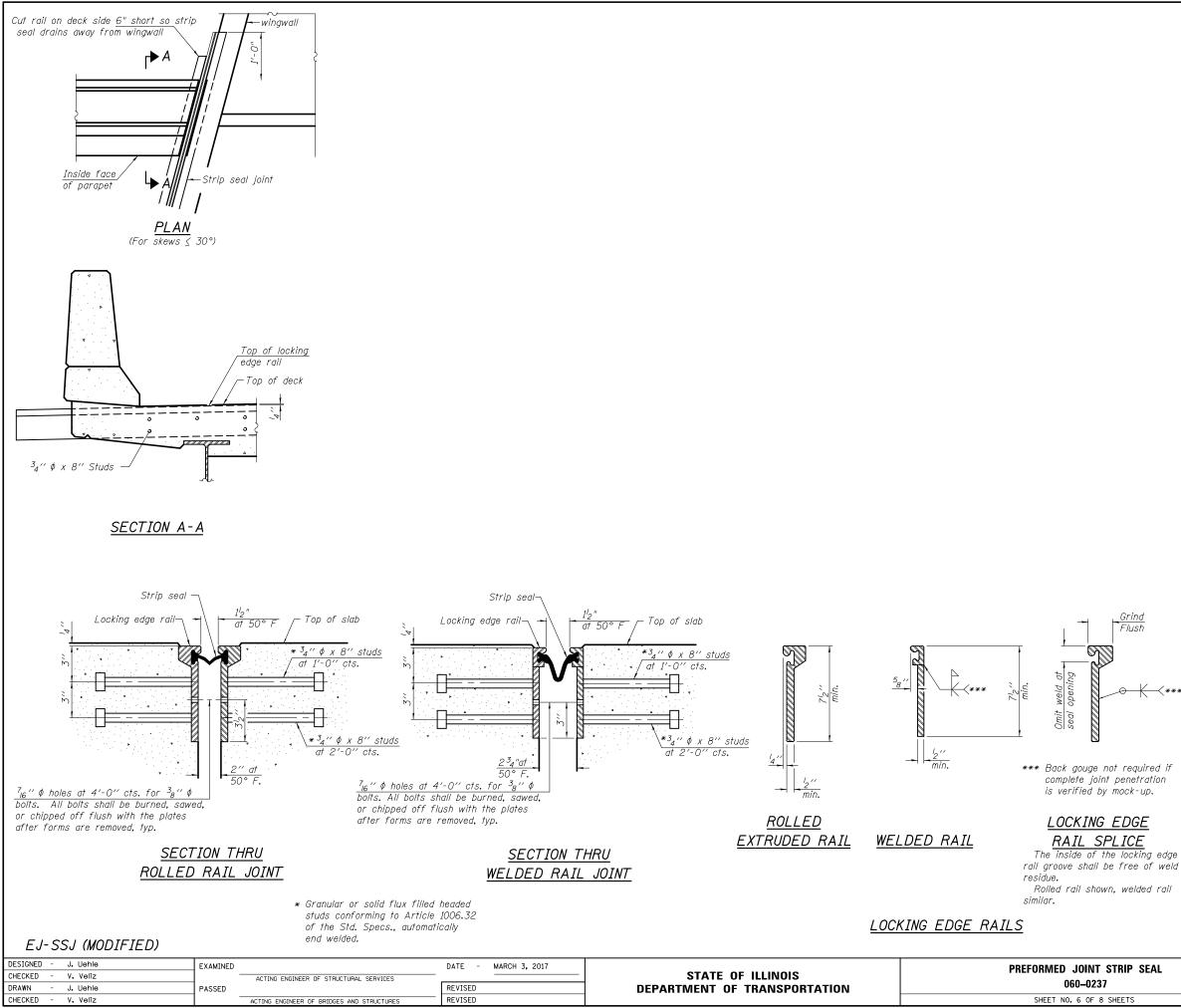
		•••••		<u></u>
Bar	No.	Size	Length	Shape
a	24	#5	17′-8′′	
al	24	#5	16′-8′′	
a2	12	#6	4'-0''	
d	24	#5	5′-2″	
d1	24	#5	3′-11′′	J
b	152	#5	2'-6''	
S	96	#5	8'-0''	
V	48	#5	3'-0''	
Reinforcement Bars, Epoxy Coated			Pound	2510
Concrete Removal		val	Cu. Yds.	9.9
Concrete Superstructure			Cu. Yds.	26.4
_				
	CECTION	1	COLINITY	TOTAL SHE

	_				
AILS		SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
37	785	134B-R-2	MADISON	16	12
57			CONTRACT	NO. 7	'6J78
8 SHEETS	ILLINOIS FED. AID PROJECT				



SHEET NO. 5 OF 8

M END REPAIRS BY IDOT	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7	785	134B-R-2	MADISON	16	13
1			CONTRACT	NO. 7	'6J78
3 SHEETS	ILLINOIS FED. AID PROJECT				



Notes:

The strip seal shall be made continuous and shall have a minimum thickness of ${}^{l}_{4}$ ". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

The Locking Edge Rails depicted are conceptual only, except for the minimum dimensions shown. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities.

The manufacturer's recommended installation methods shall be followed.

The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications. Maximum space between rail segments shall be ³₁₆", sealed with a suitable sealant. Joints in rails within 10 ft.

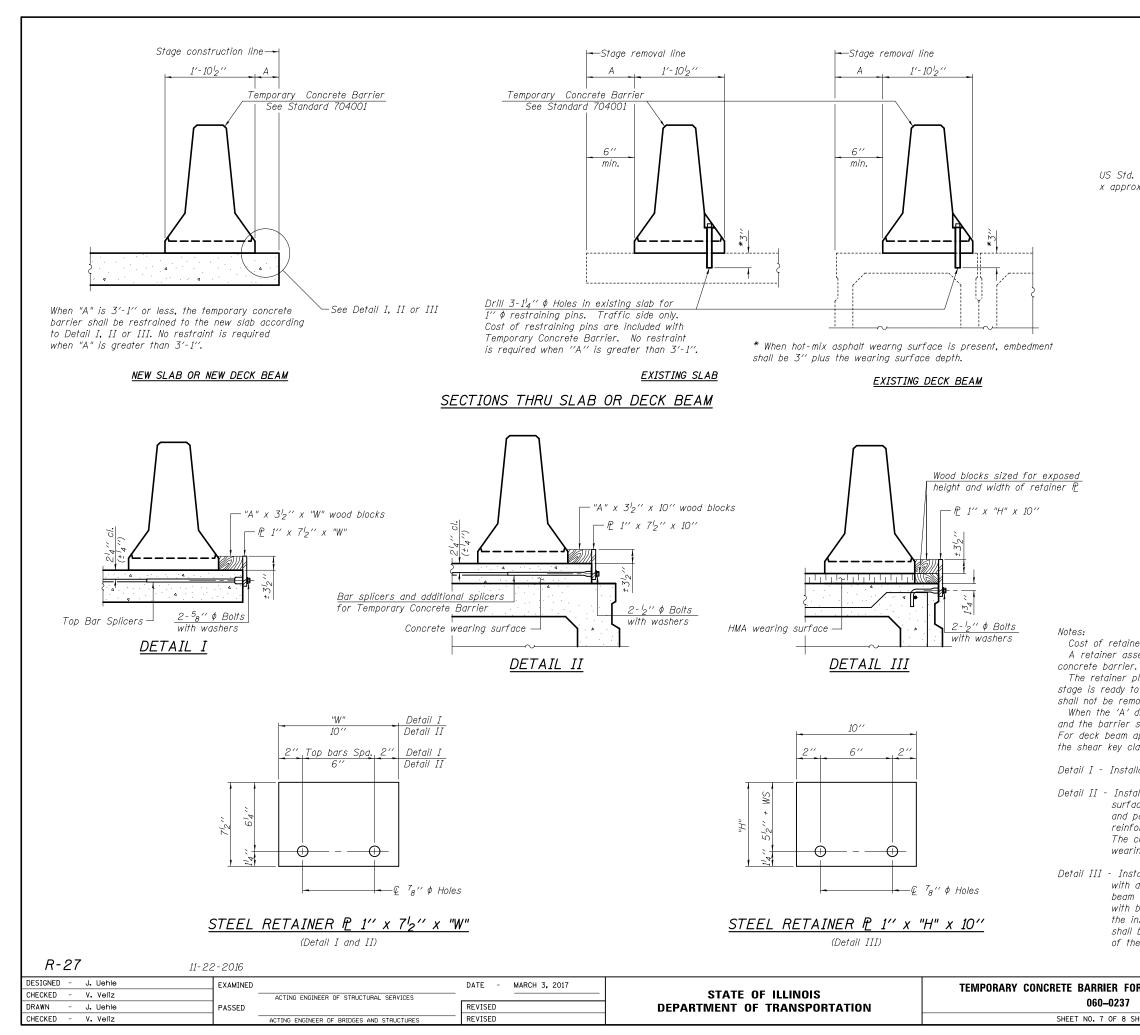
of curbs shall be welded.

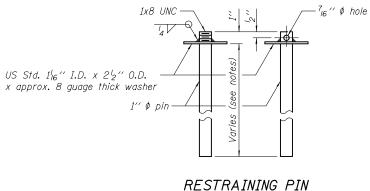
Parapet plates and anchorage studs for skews > 30° included in the cost of Preformed Joint Strip Seal.

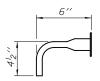
BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	74.5

	_				
r strip seal		SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
37	785	134B-R-2	MADISON	16	14
57			CONTRACT	NO. 7	6J78
8 SHEETS	ILLINOIS FED. AID PROJECT				







BAR SPLICER FOR #4 BAR - DETAIL III

Cost of retainer assembly is included with Temporary Concrete Barrier. A retainer assembly shall be located at the approximate ${\mathbb Q}$ of each temporary oncrete barrier.

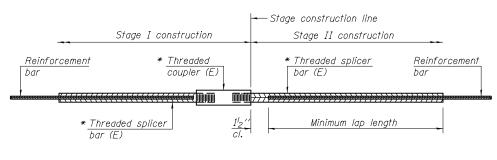
The retainer plate shall not be removed until the concrete on the adjacent stage is ready to be poured. For Detail III applications the retainer plate shall not be removed until just prior to placing the adjacent beam. When the 'A' dimension is less than $1_2''$, the wood block shall be omitted and the barrier shall be placed in direct contact with the steel retainer plate. For deck beam applications the minimum required 'A' distance is 6'' to accommodate the shear key clamping device.

Detail I - Installation for a new bridge deck or bridge slab.

Detail II - Installation for a new deck beam with an initial concrete wearing surface. Additional bar splicers shall be provided at 6'-0'' centers and paired with the bar splicers of the concrete wearing surface reinforcement to accommodate the installation of the retainer assemblies. The cost of the additional bar splicers is included with the concrete wearing surface.

Detail III - Installation for a new deck beam with no initial wearing surface or with an initial hot-mix asphalt (HMA) wearing surface present. The deck beam directly beneath the temporary concrete barrier shall be fabricated with bar splicer inserts in the side of the beam, as detailed, to accommodate the installation of the retainer assemblies. A pair of bar splicers, 6" apart, shall be placed at 6'-0" centers along the length of the beam. The cost of the bar splicers is included with the deck beam.

FOR STAGE CONSTRUCTION		SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
27	785	134B-R-2	MADISON	16	15
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			CONTRACT	NO. 7	76J78
8 SHEETS	ILLINOIS FED. AID PROJECT				



STANDARD BAR SPLICER ASSEMBLY

(48 Required - 24 at abutments & 24 at piers)

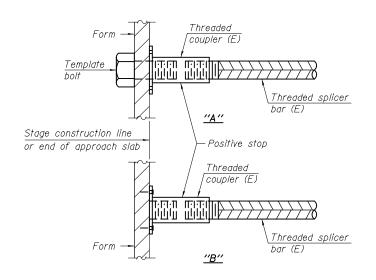
Threaded splicer bar length = min. lap length + $1_2^{\prime\prime}$ + thread length

* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum Iap length
Abutment mudwall	#6	8	3′-6″
Abutment deck end	#5	16	3'-0"
Piers	#5	24	3'-0"

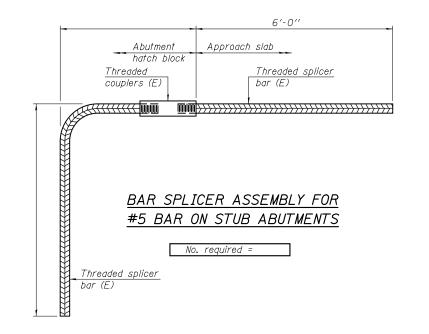
BSD-1

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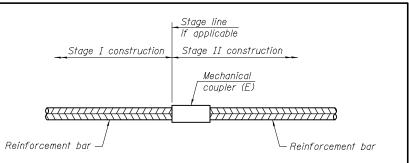


INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt. "B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms. (E) : Indicates epoxy coating.



DESIGNED - J. Uehle	EXAMINED		DATE - MARCH 3, 2017		BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS	F.A.P.	SECTION	COUNTY TOTA	JTAL SHEET
CHECKED - V. Veliz		ACTING ENGINEER OF STRUCTURAL SERVICES		STATE OF ILLINOIS		785	134B-R-2	MADISON 16	16 16
DRAWN - J. Uehle	PASSED		REVISED	DEPARTMENT OF TRANSPORTATION	060–0237			CONTRACT NO.	10. 76J78
CHECKED - V. Veliz		ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED		SHEET NO. 8 OF 8 SHEETS		ILLINOIS FE	ED. AID PROJECT	



STANDARD MECHANICAL SPLICER

(232 Required at piers)

Location	Bar size	No. assemblies required
b (top of deck)	#5	152

<u>NOTES</u>

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.

All reinforcement shall be lapped and tied to the splicer bars. Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications. See approved list of bar splicer assemblies and mechanical splicers for alternatives.