STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

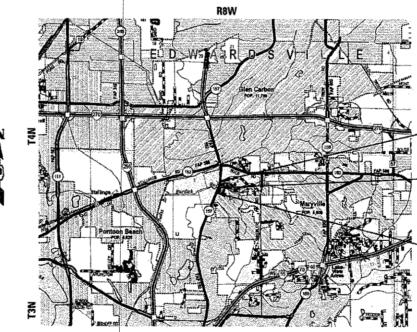
DIVISION OF HIGHWAYS

PROPOSED HIGHWAY PLANS

FAP ROUTE 592 (IL 157) SECTION 117-B-R-1

BRIDGE DECK REPAIR MADISON COUNTY

C-98-191-18



END PROJECT STA. 559 + 23

STATION 557 + 19.85, IL RTE. 157 STRUCTURE OVER BURDICK BRANCH S.N. 060-0088

BEGIN PROJECT STA. 555 + 18

MUELLER 062-046699

117-B-R-1

D-98-048-18

MADISON 19 1 ILLINOIS CONTRACT NO. 76L37

5400 (ACTUAL)

LOCATION OF SECTION INDICATED THUS: --

STATE OF ILLINOIS

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

INDEX OF SHEETS

COVER SHEET

STANDARDS & GENERAL NOTES 2.

SUMMARY OF QUANTITIES

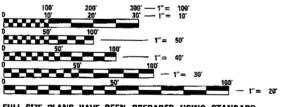
TYPICAL SECTIONS - EXISTING & PROPOSED

SCHEDULES OF QUANTITIES

PLAN SHEET

9. TRAFFIC CONTROL STAGING DETAIL

11. - 19. BRIDGE PLANS



ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION 1-800-892-0123

PROJECT ENGINEER: TIM PADGETT (618) 346-3325 PROJECT MANAGER: DIANA MURRAY (618) 346-3207

CONTRACT NO. 76L37

GROSS LENGTH = 405 FT. = 0.077 MILE NET LENGTH = 405 FT. = 0.077 MILE

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GENERAL NOTES

1. ILLINOIS STATE LAW REQUIRES A 48-HOUR NOTICE BE GIVEN TO ALL 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:

	ABOVE	RELOA
	GROUND	GROUN
*AMEREN ILLINOIS, GAS AND ELECTRIC	X	X
•AT&T CORPORATION, COMMUNICATIONS	X	X
•CHARTER COMMUNICATIONS	X	X
•VILLAGE OF MARYVILLE, WATER & SEWER		X
*SOUTHWESTERN ELECTRIC COOPERATIVE	X	X
*ENABLE MIDSTREAM PARTNERS		X

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

- 2. THE CONTRACTOR AND ENGINEER SHALL BE AWARE THAT NO SURVEY WAS PERFORMED FOR THIS PROJECT. THE STATIONING AND TOPOGRAPHY SHOWN IN THE PLANS WERE CREATED USING RECORD PLANS AND FIELD MEASUREMENTS MADE BY DESIGN PERSONNEL. BOTH SHALL BE ASSUMED TO BE APPROXIMATE.
- 3. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.
- 4. THE THICKNESS OF THE BITUMINOUS MIXTURE SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE BITUMINOUS MIXTURE IS PLACED, SUCH AS ON THE NORTH APPROACH.
- 5. THE PROPOSED PAVEMENT MARKING SHALL MATCH THE LOCATIONS OF THE EXISTING PAVEMENT MARKING, AS DIRECTED BY THE ENGINEER.
- 6. THE HMA OVERLAY ON THE BRIDGE APPROACH SHOULDER PAVEMENT WILL BE HAND GRADED TO PROMOTE DRAINAGE INTO THE EXISTING INLET GRATES AT NO ADDITIONAL COST TO THE CONTRACT.
- 7. GUARDRAIL REFLECTORS TYPE A HAVE BEEN ADDED TO THE PROJECT TO REPLACE ANY MISSING REFLECTORS.

HIGHWAY STANDARDS

000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
642006	SHOULDER RUMBLE STRIPS, 8 INCH
701201-04	LANE CLOSURE, 2 LANE, 2 WAY, DAY ONLY, FOR
	SPEEDS ≥45 MPH
701301-04	LANE CLOSURE, 2 LANE, 2 WAY, SHORT TIME
	OPERATIONS
701306-04	LANE CLOSURE, 2 LANE, 2 WAY, SLOW MOVING
	OPERATIONS, DAY ONLY, FOR SPEEDS ≥45 MPH
701311-03	LANE CLOSURE, 2 LANE, 2 WAY, MOVING OPERATIONS,
	DAY ONLY
701321-17	LANE CLOSURE, 2 LANE, 2 WAY, BRIDGE REPAIR WITH
	BARRIER
701326-04	LANE CLOSURE, 2 LANE, 2 WAY, PAVEMENT WIDENING
	FOR SPEEDS ≥45 MPH
701901-07	TRAFFIC CONTROL DEVICES
704001-08	TEMPORARY CONCRETE BARRIER
780001-05	TYPICAL PAVEMENT MARKINGS
781001-04	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT
	MARKERS
782006	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING
	DETAILS

COMMITMENTS

PASTOR ROGER WRIGHT OF THE BLUFFVIEW BAPTIST CHURCH-MUST BE NOTIFIED BY THE RESIDENT ENGINEER TWO WEEKS PRIOR TO THE TEMPORARY CLOSURE OF THE ENTRANCE ON IL 157.

•618-288-9832

THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT:

MIXTURE USE	POLY SURFACE	BASE CSE WIDE		
AC/PG	SBS PG 76-22	PG 64-22		
RAP %(MAX)	SEE SPECIAL PROVISION	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	QC/QA		

MIXTURE USE	SHOULDERS ≥ 2.25"	SHOULDERS < 2.25"		
AC/PG	PG 64-22	PG 64-22		
RAP %(MAX)	SEE SPECIAL PROVISION	SEE SPECIAL PROVISION		
DESIGN AIR VOIDS	4.0% @ Ndes=30	4.0% @ Ndes=30		
MIX COMPOSITION	TI 10 01	TI 0.51		
(GRADATION)	IL 19 . 0L	IL 9.5L		
FRICTION AGG				
QUALITY MGMT	QC/QA	OC/QA		
PROGRAM	UC/UA	UC/UA		

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

SCALE: N/A

PRELIMINARY – NOT FOR CONSTRUCTION

USER NAME = default	DESIGNED -	REVISED -	
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PLOT DATE = 1/25/2018	DATE -	REVISED -	i

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL NOTES, STANDARDS & COMMITMENTS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	592	117-B-R-1	MADISON	19	2
			CONTRACT	NO. 7	6L37
SHEET 1 OF 1 SHEETS STA.N/A TO STA.N/A		ILL INDIS FED. AT	D PROJECT		-

CONSTR.	CODE

CODE	·		TOTAL	BRIDGE 0047
NO.	ITEM	UNIT	QUANTITY	URBAN
20200600	EXCAVATING AND GRADING EXISTING SHOULDER	UNIT	4	4
5600716	HOT-MIX ASPHALT BASE COURSE WIDENING, 10"	SQ YD	315	315
0600295	POLYMERIZED BITUMINOUS MATERIALS (TACK COAT)	POUND	470	470
0600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	240	240
0603540	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	99	99
4004250	PAVED SHOULDER REMOVAL	SO YD	64	64
0102400	CONCRETE REMÔVAL	CU YD	9.0	9.0
0300255	CONCRETE SUPERSTRUCTURE	CU YD	9. 7	9. 7
0500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	2550	2550
0800205	REINFORCEMENT BARS, EPOXY COATED	POUND	1160	1160
0800515	BAR SPLICERS	EACH	12	12
2000110	PREFORMED JOINT STRIP SEAL	FOOT	58. 5	58. 5
8100200	WATERPROOFING MEMBRANE SYSTEM	SO YD	580	580
7000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	5	5

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ITEM	UNIT	TOTAL	BRIDGE 0047 URBAN
MOBILIZATION	L SUM	1	1
TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1
TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1	1
TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	1
TRAFFIC CONTROL SURVEILLANCE	CAL DAY	90	90
TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1
TEMPORARY RUMBLE STRIPS	EACH	12	12
TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	48	48
PAVEMENT MARKING TAPE, TYPE III 4"	FOOT	2239	2239
TEMPORARY CONCRETE BARRIER	FOOT	382	382
RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	362	362
IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	2	2
IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	2	2
	MOBILIZATION TRAFFIC CONTROL AND PROTECTION, STANDARD 701201 TRAFFIC CONTROL AND PROTECTION, STANDARD 701306 TRAFFIC CONTROL AND PROTECTION, STANDARD 701326 TRAFFIC CONTROL SURVEILLANCE TEMPORARY BRIDGE TRAFFIC SIGNALS TEMPORARY RUMBLE STRIPS TEMPORARY PAVEMENT MARKING - LINE 24" PAVEMENT MARKING TAPE, TYPE III 4" TEMPORARY CONCRETE BARRIER RELOCATE TEMPORARY CONCRETE BARRIER IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	MOBILIZATION L SUM TRAFFIC CONTROL AND PROTECTION, STANDARD 701201 L SUM TRAFFIC CONTROL AND PROTECTION, STANDARD 701306 L SUM TRAFFIC CONTROL AND PROTECTION, STANDARD 701326 L SUM TRAFFIC CONTROL SURVEILLANCE CAL DAY TEMPORARY BRIDGE TRAFFIC SIGNALS EACH TEMPORARY RUMBLE STRIPS EACH TEMPORARY PAVEMENT MARKING - LINE 24" FOOT PAVEMENT MARKING TAPE, TYPE III 4" FOOT TEMPORARY CONCRETE BARRIER FOOT RELOCATE TEMPORARY CONCRETE BARRIER FOOT IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3 EACH	ITEM UNIT QUANTITY MOBILIZATION L SUM 1 TRAFFIC CONTROL AND PROTECTION, STANDARD 701201 L SUM 1 TRAFFIC CONTROL AND PROTECTION, STANDARD 701306 L SUM 1 TRAFFIC CONTROL AND PROTECTION, STANDARD 701326 L SUM 1 TRAFFIC CONTROL SURVEILLANCE CAL DAY 90 TEMPORARY BRIDGE TRAFFIC SIGNALS EACH 1 TEMPORARY RUMBLE STRIPS EACH 12 TEMPORARY PAVEMENT MARKING - LINE 24" FOOT 48 PAVEMENT MARKING TAPE, TYPE III 4" FOOT 2239 TEMPORARY CONCRETE BARRIER FOOT 362 RELOCATE TEMPORARY CONCRETE BARRIER FOOT 362 IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3 EACH 2

* SPECIALTY ITEM

USER NAME - defauls	DESIGNED	REVISED		·		AMMIIS	WV DE	QUANTITIES		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEET
	DRAWN -	REVISED -	STATE OF ILLINOIS			JUITIITA	uli Vi	COMMITTEE		592	117-B-R-1	MADISON	19 4
PLOT SCALE - 120.0020 17 in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION				_			1			T NO. 76L37
PLGT DATE = 1/25/2018	DATE -	REVISED -		SCALE: N/A	SHEET 2	OF 3	SHEETS	STA.N/A	TO STA.N/A		ILLINOIS FED. A		- 101 10201

CONSTR. CODE

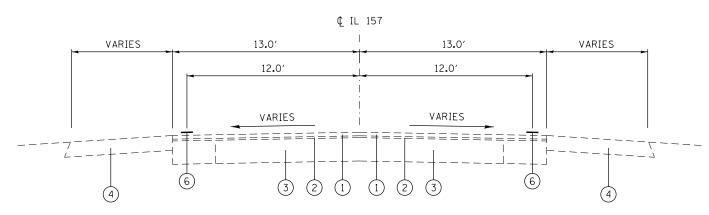
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19 08 Var Ph. Land 11\634484 -	
P-o_eots\634403 - 5~3 176-19 O8 V.	

			-	CONSTR. C
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	BRIDGE 0047 URBAN
78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	9	9
78200005	GUARDRAIL REFLECTORS, TYPE A	EACH	16	16
78200011	BARRIER WALL REFLECTORS, TYPE C	EACH	45	45
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	9	9
X0327979	PAVEMENT MARKING REMOVAL - GRINDING	SO FT	390	390
X1200030	FILLING INLETS, TEMPORARY	EACH	4	4
X5870015	BRIDGE DECK CONCRETE SEALER	SQ FT	1030	1030
X7010202	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)	EACH	1	1
X7015005	CHANGEABLE MESSAGE SIGN	CAL DAY	90	90
x7030005	TEMPORARY PAVEMENT MARKING REMOVAL	SO FT	747	747
X7040125	PINNING TEMPORARY CONCRETE BARRIER	EACH	12	12
Z0001903	STRUCTURAL STEEL REMOVAL	POUND	1950	1950
Z0016200	DECK SLAB REPAIR (PARTIAL)	SQ YO	50	50
Z0033700	LONGITUDINAL JOINT SEALANT	FOOT	261	261

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	DRAWN -	REVISED		STATE OF ILLINOIS			SOUTHWEA	INT OF I	HOMITTIES		592	117-B-R-1	MADISON	10 5
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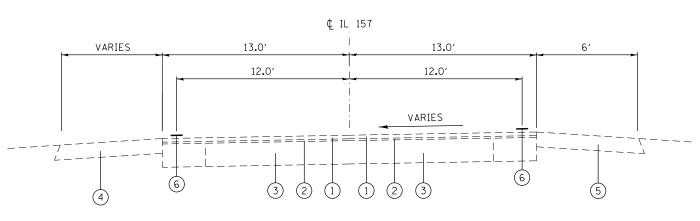
LEGEND

- 1) EXISTING SURFACE COURSE
- (2) EXISTING LEVELING BINDER
- 3 EXISTING PAVEMENT
- (4) EXISTING AGGREGATE SHOULDER
- (5) EXISTING PAVED SHOULDER
- (6) EXISTING PAVEMENT MARKING LINE, 4"
- 7) PROPOSED POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, 2"
- (8) PROPOSED POLYMERIZED BITUMINOUS MATERIALS (TACK COAT)
- 9) PROPOSED HOT-MIX ASPHALT BASE COURSE WIDENING, 10"
- (10) PROPOSED THERMOPLASTIC PAVEMENT MARKING, 4"
- (11) LONGITUDINAL JOINT SEALANT



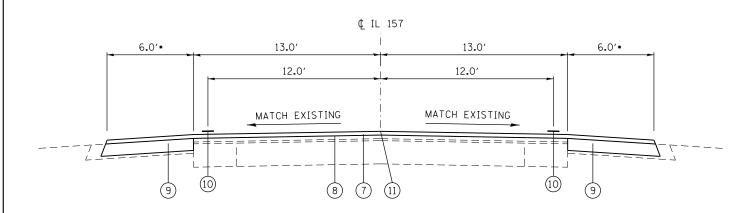
EXISTING TYPICAL SECTION

STA. 506+53 TO 556+58



EXISTING TYPICAL SECTION

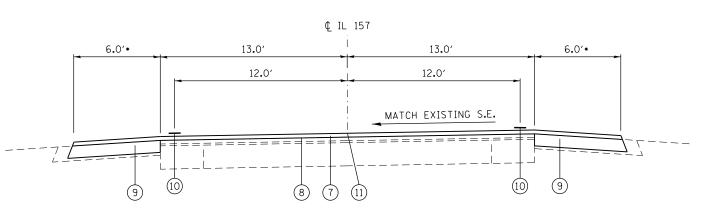
STA. 557+81 TO 567+39



PROPOSED TYPICAL SECTION

STA. 555+89.32 TO 556+58.69

*SHOULDER WIDENING FROM: STA. 555+18 RT TO 556+58 RT STA. 555+35 LT TO 556+31 LT



PROPOSED TYPICAL SECTION

STA. 557+81.01 TO 558+50.39

*SHOULDER WIDENING FROM: STA. 558+08 RT TO 559+04 RT STA. 557+83 LT TO 559+23 LT

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STATE OF ILLINOIS	
DEPARTMENT OF TRANSPORTATION	

SCALE: N/A

		TYP	ICAL SEC	CTIONS		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
						592	117-B-R-1	MADISON	19	6
								CONTRACT	NO.	76L37
SHEET	1	OF 1	SHEETS	STA.N/A	TO STA.N/A		ILLINOIS FED. AI	D PROJECT		

	STAGING SCHEDULE											
STAGE	TEMPORARY CONCRETE BARRIER	RELOCATE TEMPORARY CONCRETE BARRIER	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW) TEST LEVEL 3	IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE, NARROW) TEST LEVEL 3	PAVEMENT MARKING TAPE, TYPE III 4"	TEMPORARY PAVEMENT MARKING LINE 24"	PAVEMENT MARKING REMOVAL - GRINDING	TEMPORARY PAVEMENT MARKING REMOVAL	HOT-MIX ASPHALT BASE COURSE WIDENING, 10"	EXCAVATING AND GRADING EXISTING SHOULDER	PAVED SHOULDER REMOVAL	TEMPORARY RUMBLE STRIPS
	(FOOT)	(FOOT)	(EACH)	(EACH)	(FOOT)	(FOOT)	(SQ FT)	(SQ FT)	(SQ YD)	(UNIT)	(SQ YD)	(EACH)
I	382	0	2		1016	24	164	339	157.3	2.5	0	6
II	0	362		2	1223	24	302	408	157.3	1.5	64	6
TOTAL	382	362	2	2	2239	48	466	747	314.6	4.0	64	12

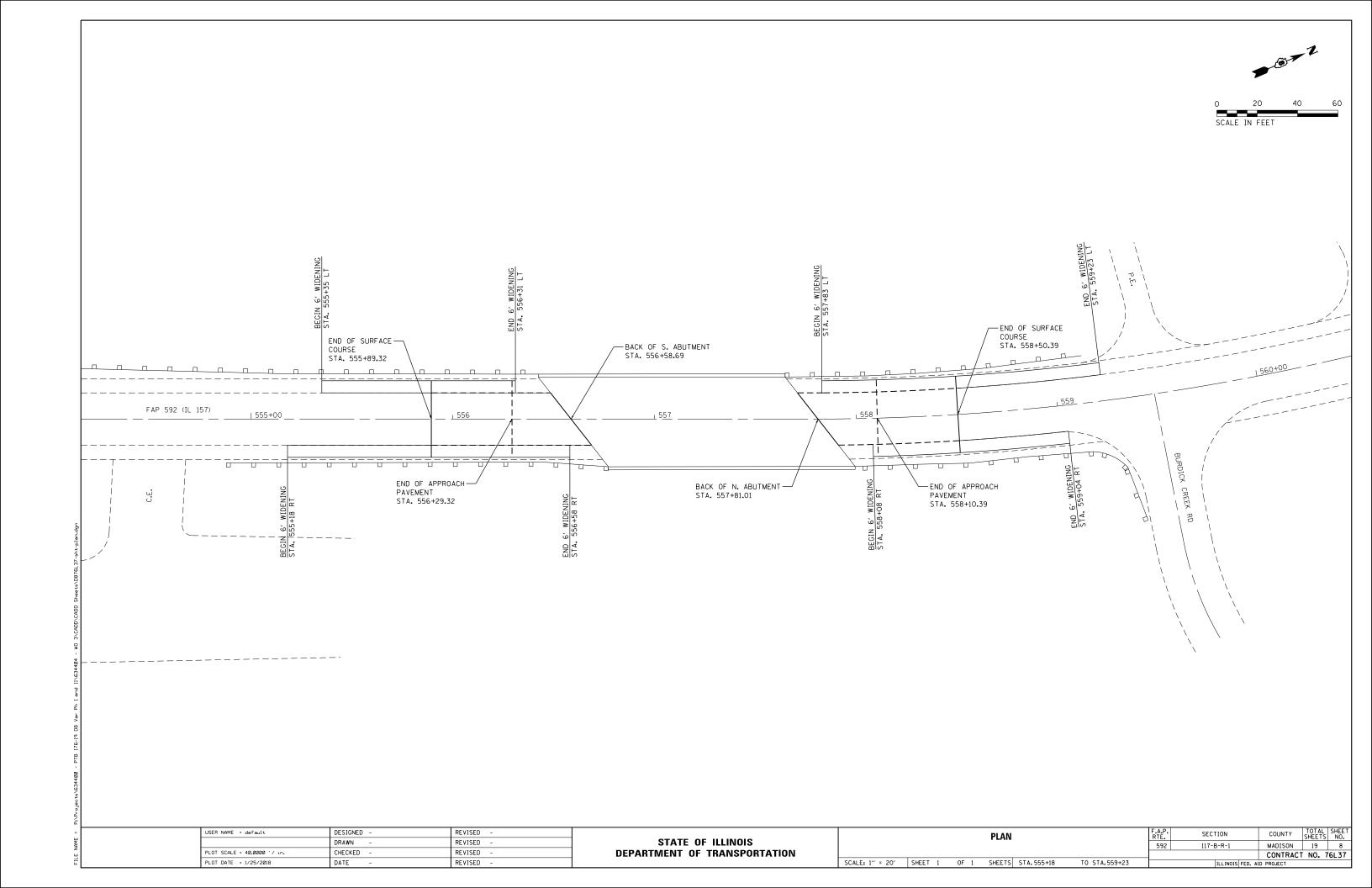
			PAVEME	NT MARKIN	NG SCHEDUL	E		
					HERMOPLASTI PAVEMENT RKING - LINE	RAISED REFLECTIVE PAVEMENT MARKERS		
				WHITE	YELLOW	YELLOW	1	
STATION	то	STATION	NO PASSING DIRECTION NB/SB	SOLID	SKIP	SOLID	AMBER	REMOVAL
					(FOOT)		(EA	(CH)
555+18 RT		559+04 RT		386				
555+35 LT		559+23 LT		388				
553+58		559+10	NB			552		
559+10		560+83	NB		50		3	3
553+58		557+81	SB		110		6	6
557+81		560+83	SB			302		
	TOTAL			774	160	854	9	9

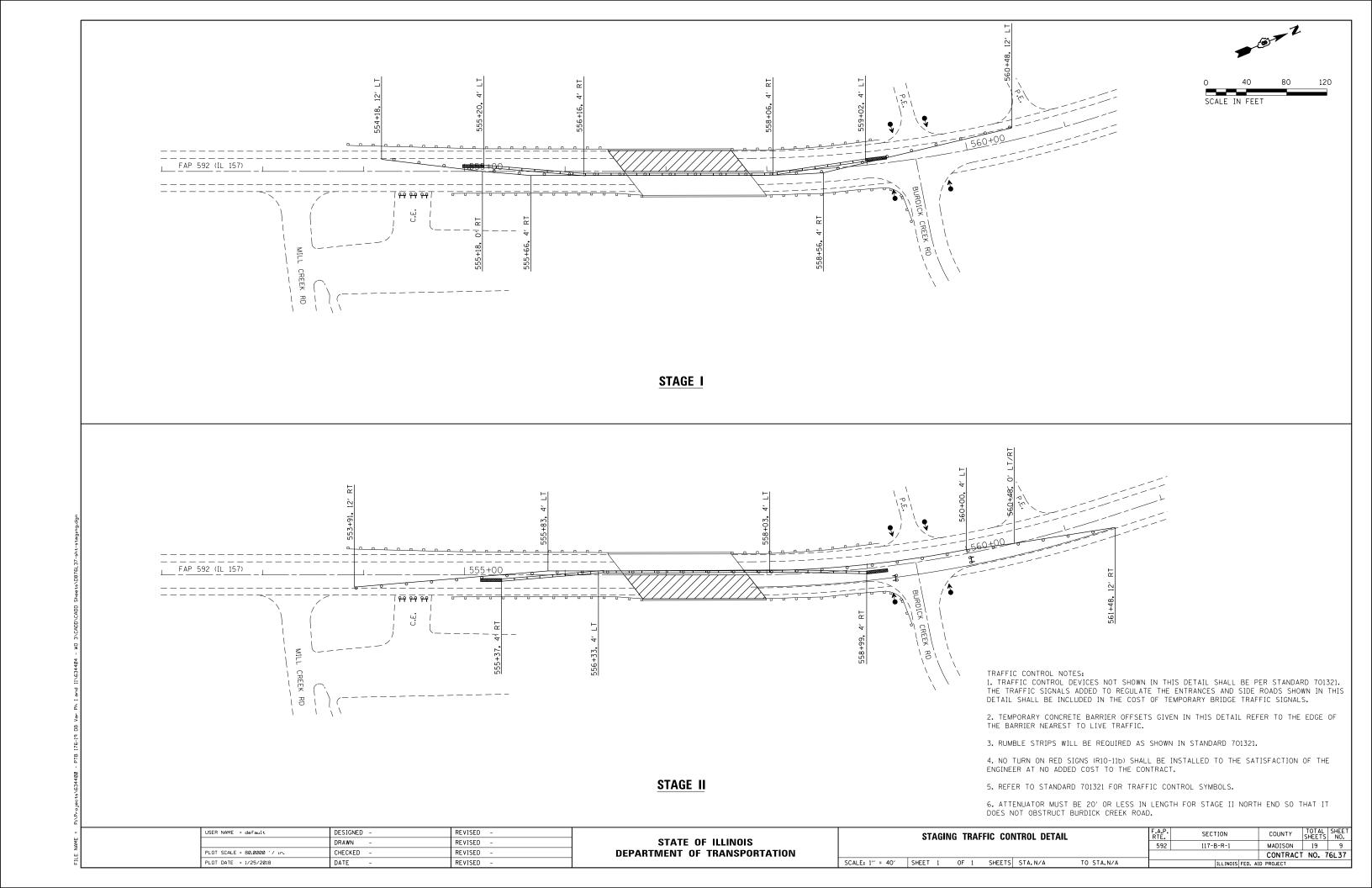
	RESURFACING SCHEDULE								
	DOL 1445D1750		ROADWAY	BRIDGE					
LOCATION	POLYMERIZED BITUMINOUS MATERIALS (TACK COAT) 0.5LB/SF	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	HOT-MIX SURFACE	ERIZED ASPHALT COURSE, 0'', N70					
	(POUND)	(SQ YD)	(TON)	(TON)					
STAGE I	235	120	29	20.5					
STAGE II	235	120	29	20.5					
TOTAL	470	240	9	9					

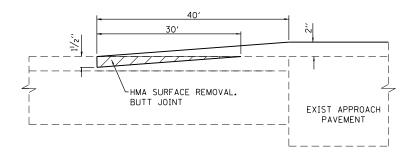
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PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 1/25/2018	DATE -	REVISED -	

STATE	OF ILLINOIS	
DEPARTMENT O	OF TRANSPORTATION	N

592 117-B-R-1 MADISON 19 CONTROLS NO. 76	SCHEDULE OF QUANTITIES F.A.P. SECTION COUNT	TOTAL SHEET:				
CONTRACT NO. 76	592 117-B-R-1 MADIS	19	7			
CONTRACT NO. 76	CONT	CT NO.	76L37			
SCALE: N/A SHEET 1 OF 1 SHEETS STA.N/A TO STA.N/A ILLINOIS FED. AID PROJECT	SHEET 1 OF 1 SHEETS STA.N/A TO STA.N/A ILLINOIS FED. AID PROJECT	ILLINOIS FED. AID PROJECT				







BUTT JOINT DETAIL

NOTE: THE BUTT JOINT EXTENDS ACROSS THE WIDENING AS WELL AS THE PAVEMENT.

USER NAME = default	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 40.0000 '/ in.	CHECKED -	REVISED -	
PLOT DATE = 1/25/2018	DATE -	REVISED -]

STATE (OF ILLINOIS
DEPARTMENT O	F TRANSPORTATION

						F.A.P. RTE.	SECTION		COUNTY	TOTA SHEET		
								592	117-B-R-1		MADISON	19
											CONTRACT	NO.
SCALE: N/A	SHEET	1	OF	1	SHEETS	STA.N/A	TO STA.N/A		ILLINOIS	FED. AII	PROJECT	

Existing Structure: 060-0088 Built in 1933 as SBI 157 Sec H7-B as a 3 wide flange simple spans supported on pile bent abutments and piers. In 1932 the bridge was replaced with a new 3 span continuous wide flange superstructure (reusing abutments and pier piles) as FA 192 Sec 117-BR-1. The north abutment is jointless with the deck extending on top of the mudwall, and will not be repaired. The south abutment deck ends and mudwalls shall be replaced with strip seals, At the south abutment, bearings stiffeners shall be added and end diaphragms replaced. The deck shall be patched and overlayed with HMA. SPUCTUR DAVID CAR Bent 2 S. Abut Bent 3 N. Abut 081-003470 (Bent 1) (Bent 4) ELEVATION ELEXXIS 122'-37%" Back to Back of Abutments 41'-1%" Span 1 40'-1½" Span 2 41'-11/4" Span 3 Bk S. Approach Bent 3 -Bk N. Abut (Bent 4) Sta 556+30.42 Sta 556+99.78 . Sta 557+39.91 Sta 557+81.01 Bk N. Approach-12'-0" NB Lan Bk S. Abut (Bent 1 -Ç Bridge Sta 558+10.38 Sta 556+58.69 Sta 557+19.85 PLAN DESIGN STRESSES FIELD UNITS 3,500 psl fy = 50,000 psi (Reinforcement) fy = 36,000 psi (M270 Grade 36 = 36,000 psi (M270 Grade 36) SHEET INDEX 1) General Plan and Elevation 2) Cross Sections ~ 250' VC 3) South Abutment 4) Strip Seal PROFILE GRADE 5) Temporary Concrete Barrier 6) Bar Splicer 7) For Information Only - 1982 Plans Joint & Curb Details LOCATION SKETCH SN 060-0088 8) For Information Only - 1982 Plans South Abutment Details

GENERAL NOTES

Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts. Bolts $\frac{3}{4}$ %, holes $\frac{12}{8}$ %, unless otherwise noted.

All structural steel shall be AASHTO M 270 Grade 36. All structural steel, bolts, nuts, and washers shall be galvanized according AASHTO M111 or M232 as applicable. Cost included with "Furnishing and Erecting Structural Steel".

No field welding is permitted except as specified in the contract documents.

All reinforcement shall be epoxy coated.

Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.

As directed by the Engineer, existing construction accessories welded to the top flange of beams and girders shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by qualified personnel approved by the Engineer.

Any cracks that cannot be removed by grinding ¼ inch deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.

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 for the work.

Cleaning and field painting of structural steel shall be done under a separate painting contract. Existing structural steel that will be in contact with new structural steel shall only be cleaned and painted prior to erection as required by the Special Provision for "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".

The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

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.

The HMA quantities are shown for the bridge only. The quantity is calculated excluding an assumed ½" sand & ¼" waterproofing membrane, for an HMA thickness of 1¼" thickness

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

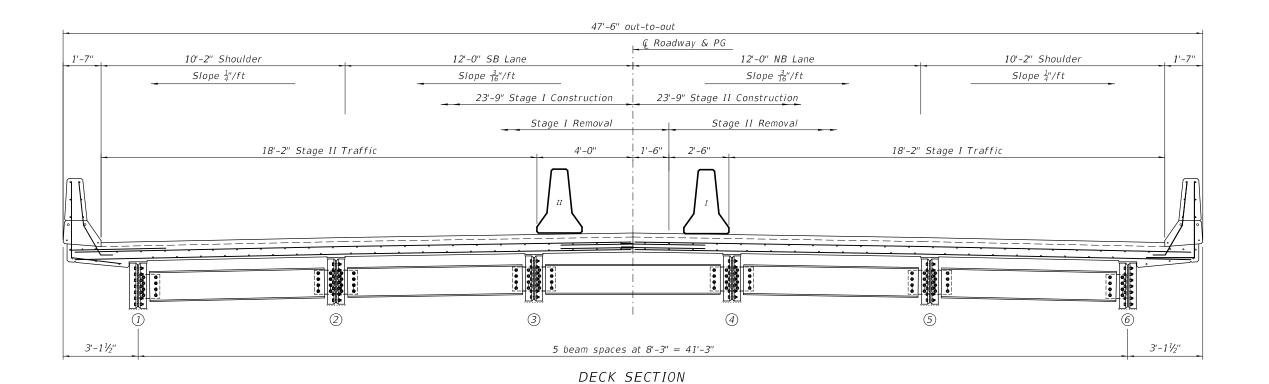
The quantity for "Bridge Deck Concrete Sealer" are for the top and inside parapet surface, and all new concrete.

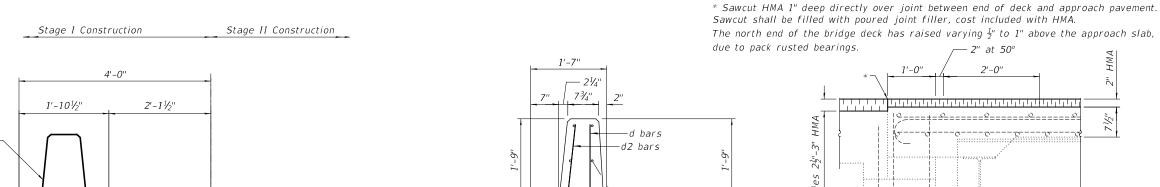
The quantity for "Deck Slab Repair (Partial Depth)" is estimated. The location and sizes of repairs are to be determined by the Engineer in the field.

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Polymerized HMA Surface Course, Mix "D", N70	Ton	41
Concrete Removal	Cu. Yd.	9.0
Concrete Superstructure	Cu. Yd.	9.7
Furnishing and Erecting Structural Steel	Pound	2550
Reinforcement Bars, Epoxy Coated	Pound	1160
Bar Splicers	Each	12
Preformed Joint Strip Seal	Foot	58.5
Waterproofing Membrane System	Sq. Yd.	580
Bridge Deck Concrete Sealer	Sq. Ft.	1030
Structural Steel Removal	Pound	1950
Deck Slab Repair (Partial)	Sq. Yd.	50

DESIGNED - J. Uehle DATE - FEBRUARY 1, 2018 F.A.P. RTE. COUNTY TOTAL SHEE SHEETS NO. GENERAL-PLAN & ELEVATION SECTION CHECKED - ATH STATE OF ILLINOIS MADISON 19 11 SN 060-0088 (IL 157 over Burdick Creek) 592 117-8-R-1 DRAWN - J. Liehle REVISED DEPARTMENT OF TRANSPORTATION CONTRACT NO. 76L37 CHECKED - ATH REVISED SHEET NO. 1 OF 9 SHEETS



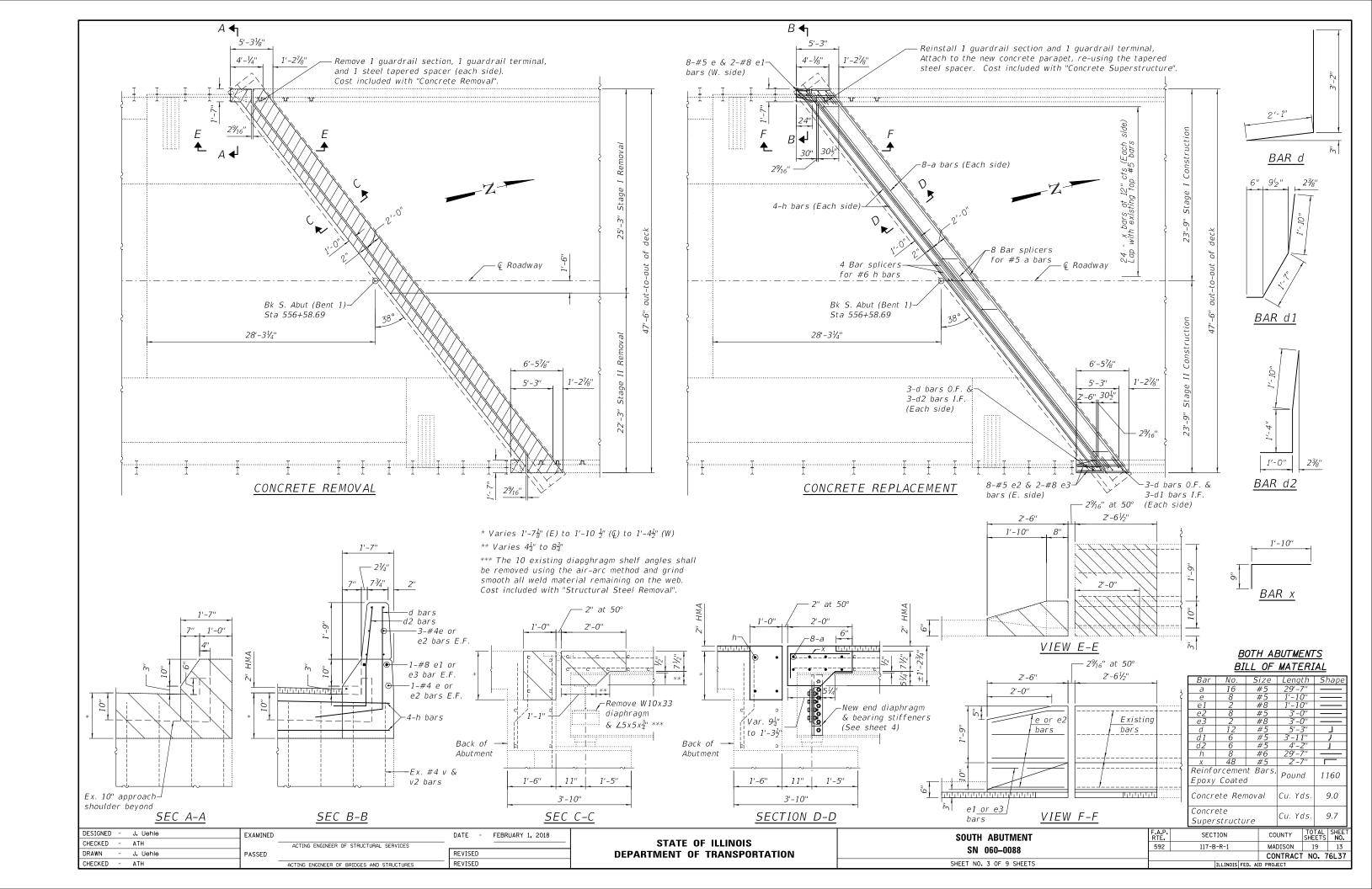


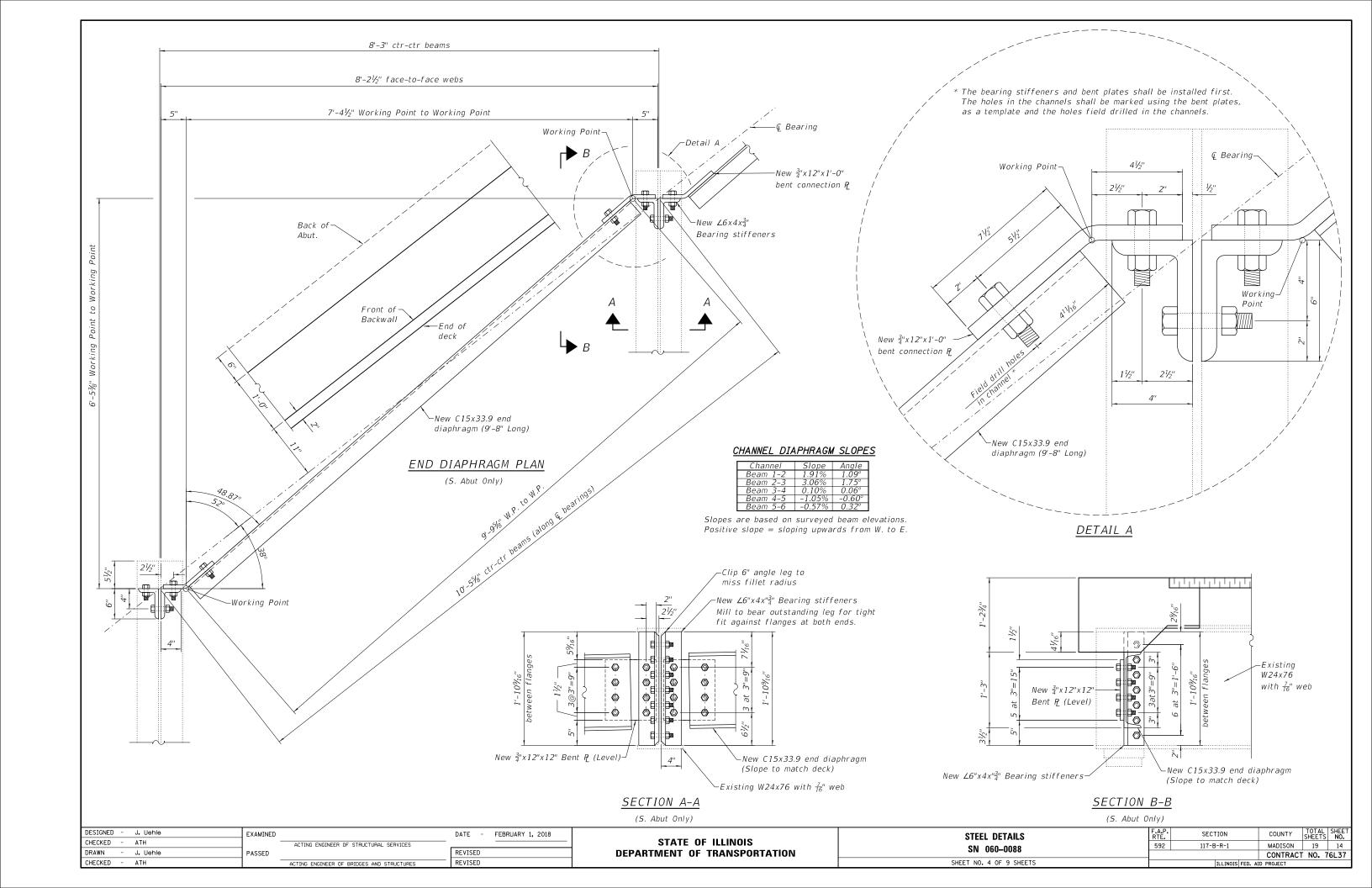
(Looking North)

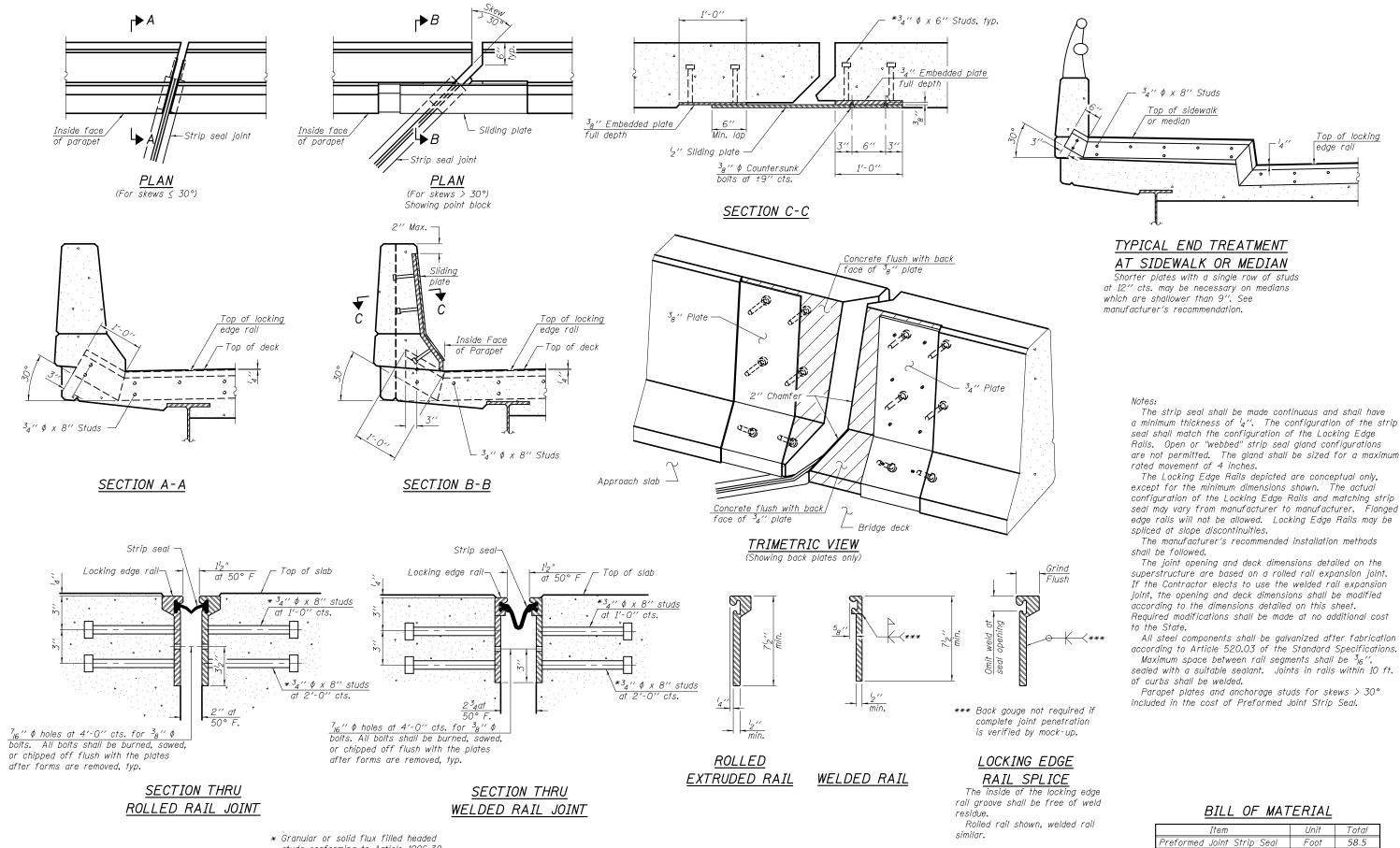
Stage II Temporary — Concrete Barrier —Existing bars 1'-71/2" Back of-Abutment -Waterproofing HMA Membrane System Lap Waterproofing — during Stage II 11" 1'-5" 1'-6" WATERPROOFING STAGING 3'-10" PARAPET SECTION N ABUT SECTION

2									
[DESIGNED - J. Uehle	EXAMINED		DATE - FEBRUARY 1, 2018		DECK SECTION	F.A.P.	SECTION	COUNTY TOTAL SHEE
	CHECKED - ATH		ACTING ENGINEER OF STRUCTURAL SERVICES	·	STATE OF ILLINOIS		592	117-B-R-1	MADISON 19 12
	DRAWN - J. Uehle	PASSED		REVISED	DEPARTMENT OF TRANSPORTATION	SN 060-0088			CONTRACT NO. 76L37
- 1	CHECKED - ATH		ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED		SHEET NO. 2 OF 9 SHEETS		ILLINOIS FED. A	AID PROJECT

(Looking E. at Rt L's to Abut)







BILL OF MATERIAL

Top of locking

edge rail

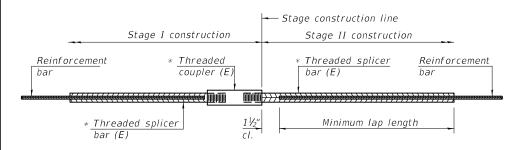
Item	Unit	Total
Preformed Joint Strip Seal	Foot	58.5

studs conforming to Article 1006.32 LOCKING EDGE RAILS of the Std. Specs., automatically end welded.

EJ-SSJ

1-27-12

DESIGNED - J. Uehle EXAMINED DATE FEBRUARY 1, 2018 SECTION COUNTY PREFORMED JOINT STRIP SEAL STATE OF ILLINOIS CHECKED - ATH ACTING ENGINEER OF STRUCTURAL SERVICES 592 117-B-R-1 MADISON 19 15 SN 060-0088 - J. Uehle PASSED REVISED **DEPARTMENT OF TRANSPORTATION** CONTRACT NO. 76L37 SHEET NO. 5 OF 9 SHEETS CHECKED - ATH REVISED

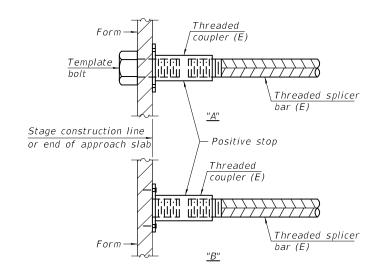


STANDARD BAR SPLICER ASSEMBLY

Threaded splicer bar length = min. lap length + $1\frac{1}{2}$ " + thread length

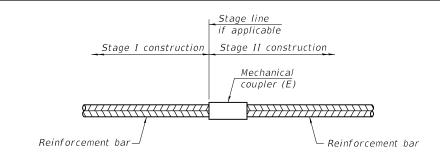
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar	No. assemblies	Minimum
Location	size	required	lap length
Abutment Mudwall	#6	4	4'-0"
Deck End	#5	8	3'-6"
	-		



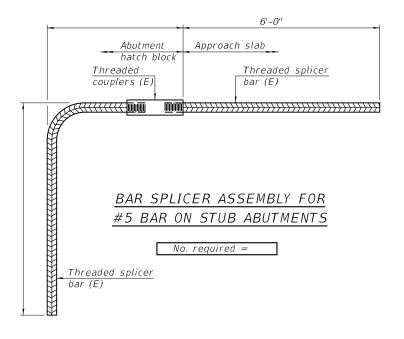
INSTALLATION AND SETTING METHODS

"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.



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



NOTES

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.

BSD-1

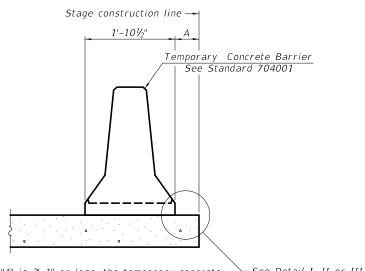
2-17-2017

DESIGNED	-	J. Uehle	EXAMINED		DATE	-	FEBRUARY 1, 2018
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CHECKED	-	ATH		ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISE	.D	

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS SN 060-0088

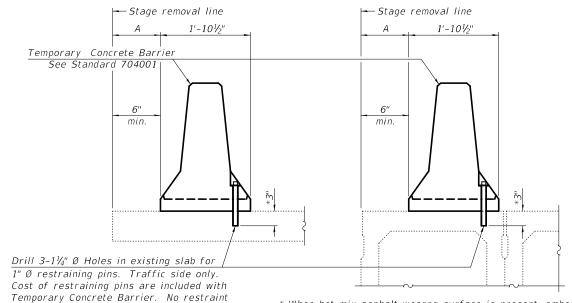
SECTION COUNTY MADISON 592 117-B-R-1 19 16 CONTRACT NO. 76L37

SHEET NO. 6 OF 9 SHEETS



— See Detail I, II or III When "A" is 3'-1" or less, the temporary concrete barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

NEW SLAB OR NEW DECK BEAM



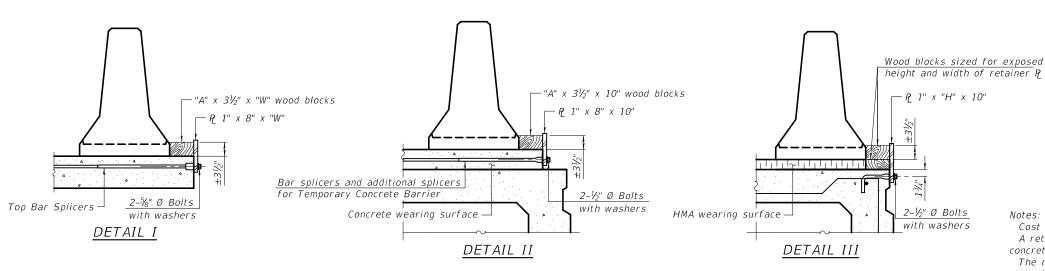
st When hot-mix asphalt wearng surface is present, embedment shall be 3" plus the wearing surface depth.

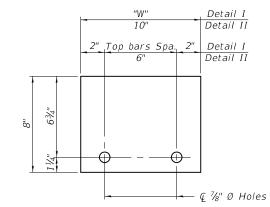
EXISTING DECK BEAM

SECTIONS THRU SLAB OR DECK BEAM

is required when "A" is greater than 3'-1".

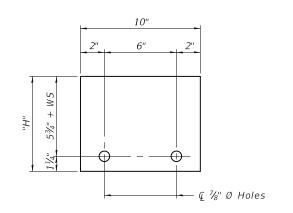
EXISTING SLAB



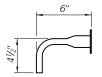


STEEL RETAINER P 1" x 8" x "W"

(Detail I and II)



STEEL RETAINER P 1" x "H" x 10" (Detail III)



RESTRAINING PIN

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 Q of each temporary concrete barrier.

1x8 UNC

US Std. $1\frac{1}{16}$ " I.D. x $2\frac{1}{2}$ " O.D. x approx. 8 guage thick washer

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 $1\frac{1}{2}$ ", 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.

R-27

8-11-2017

DESIGNED	-	J. Uehle	EXAMINED		DATE	-	FEBRUARY 1, 2018
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STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

	F.A.P. RTE.	SECTION	COUNTY	
SN 060-0088	592	117-B-R-1	MADISON	
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ALTERNATE NEOPRENE EXPANSION JOINTS (2") (See Special Provisions)

Model Supplier
TRANSFLEX, MODEL 200A General Tire Company

= 1⁽³16", A = 1⁽⁸", B = 3⁵16"

FEL-SPAN, MODEL T-30 Set joint seal 158" at 50°F Fel-Pro Sulding Products In

T=134", A=24", B=21316"

WABO ELASTODAM, TYPE 300 Set joint seal 158" at 50°F Watson Bowman Associates, Inc

T = 134", A = 24", B = 21316"

WABO ALU-STRIP, TYPE III \$300 Set joint seal i'2" at 50°F Permitted for up to 50° new

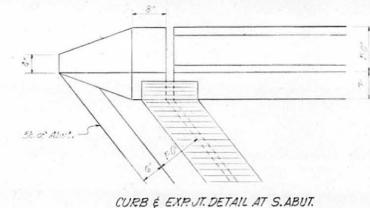
Watson Bowman Associates, Inc. T = 134", A = 158", B = 234"

LOW PROFILE ONFLEX-25 Set joint stal 1/2" at 50° F

Structural Accessories, Inc.

= 134, A=158", B=238"

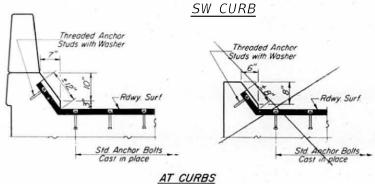
Set joint skal 1'2" at 50°F Roadway bolt channel shall be filled with approved grout Permitted for up to 50° skew.







SE CURB

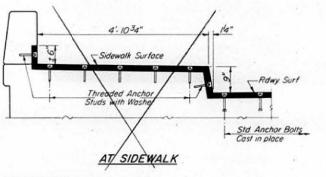


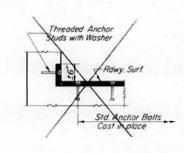
Neoprene Expansion Joint (2")

Std '2" x 6" Anchor Boits

CROSS SECTION

Dimensions are at right angles





TYPICAL END TREATMENTS

-Top of Rdwy. Surf.

See 56.2324 -

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FOR INFORMATION ONLY

NEORRENE EXPANSION JOINTS (2")
FOR EXPANSION LENGTH OF DECK = 0 % 160 H.

F.A.RT. 592 SZC. IIT BR-1

MADISON COUNTY

STA. 557+20.00

DESIGNED	-	J. Uehle	EXAMINED		DATE	-	FEBRUARY 1, 2018	Γ
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FOR INFORMATION ONLY - 1982 PLANS JOINT & CURB DETAILS
SN 060-0088

SHEET NO. 8 OF 9 SHEETS

F.A.P. SECTION COUNTY TOTAL SHEETS NO.

592 117-B-R-1 MADISON 19 18

CONTRACT NO. 76L37

ILLINOIS FED. AID PROJECT

