STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS

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- 2 STANDARDS LIST & GENERAL NOTES
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- 7 TYPICAL SECTIONS
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- 13 STRUCTURE 050-0174 BRIDGE PLANS 27 STRUCTURE 050-0173 BRIDGE PLANS
- 41-42 DISTRICT 3 STANDARD DETAILS

PROPOSED HIGHWAY PLANS

FAI ROUTE 39 (I-39) SECTION 50(5A&5B)BJR,BRR PROJECT: NHPP-4WVR(541) BRIDGE REPAIR LASALLE COUNTY

C-93-070-21





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 EXCAVATORS 1-800-892-0123 OR 811

PROJECT ENGINEER JACOB OYIER P.E. UNIT CHIEF STEPHENIE CARMIN

GROSS LENGTH = 136 FT. = 0.03 MILE NET LENGTH = 136 FT. = 0.03 MILE

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REV. 2/7/22 REV. 1/12/22

HIGHWAY STANDARDS

000001-08 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS	
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- 001001-02AREAS OF REINFORCEMENT BARS001006DECIMAL OF AN INCH AND OF A FOOT
- 483001-06 PCC SHOULDER
- 610001-09 SHOULDER INLET WITH CURB
- 701101-05 OFF-ROAD OPERATIONS, MULTILANE, 15' TO 24" FROM PAVEMENT EDGE
- 701106-02 OFF-ROAD OPERATIONS, MULTILANE, MORE THAN 15' AWAY
- 701301-04 LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
- 701400-11 APPROACH TO LANE CLOSURE, FREEWAY EXPRESSWAY
- 701402-12 LANE CLOSURE, FREEWAY/EXPRESSWAY, WITH BARRIER
- 701426-09 LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPER., FOR SPEEDS \ge 45 MPH
- 701428-01 TRAFFIC CONTROL, SETUP AND REMOVAL, FREEWAY/EXPRESSWAY
- 701901-08 TRAFFIC CONTROL DEVICES
- 704001-08 TEMPORARY CONCRETE BARRIER

782006-01 GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS

GENERAL NOTES

COMMITMENTS

NONE 09/17/2021

EXCEPT AS NOTED ON THE PLANS, PAVEMENT GRADES SHOWN ARE AT THE TOP OF PAVEMENT SURFACES. THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN CALCULATING PLAN QUANTITES:

SHORT TERM PAVEMENT MARKING 10 FT / 100 FT OF APPLICATION

MEMBERS OF J.U.L.I.E. KNOWN TO BE WITHIN THE LIMITS OF THE IMPROVEMENT ARE: NONE

NON-MEMBERS OF J.U.L.I.E. KNOWN TO BE WITHIN THE LIMITS OF THE IMPROVEMENT ARE: NONE

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT THREE AS BUILT INFORMATION

SUPERVISING CONSTRUCTION FIELD ENGINEER

RESIDENT ENGINEER / TECHNICIAN

START & END DATES OF CONSTRUCTION:

INSPECTORS:

efault : V:\1		USER NAME = mjverheyen	DESIGNED - CRS	REVISED -		HIGHWAY STANDARDS.	F.A.I BTE	SECTION	COUNTY TOTAL SHEET
Stantec		DRAWN - CRS	REVISED -	STATE OF ILLINOIS	GENERAL NOTES AND COMMITMENTS	39	(50-5B)I-1	LASALLE 41 2	
	PLOT SCALE = 20 00 0' /in.	CHECKED - DB/RJT	REVISED -	DEPARTMENT OF TRANSPORTATION		•		CONTRACT NO. 66L74	
ΣΞ		PLOT DATE = 12/10/2021	DATE - 12/10/2021	REVISED -		SCALE: N.T.S. SHEET 1 OF 1 SHEETS STA. 1210+35.63 TO STA. 1222+53.23		ILLINOIS FED. A	JD PROJECT

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT THREE

PREPARED BY:

DISTRICT STUDIES & PLANS ENGINEER

DATE: ____

EXAMINED BY:

DISTRICT CONSTRUCTION ENGINEER

DISTRICT MATERIALS ENGINEER

DISTRICT OPERATIONS ENGINEER

				CONSTRUCTIC CODE 90% FED 10% STATE
CODE NO .	ITEM	UNIT	TOTAL QUANT I TY	BR I DGE 0047 RURAL
31102100	SUBBASE GRANULAR MATERIAL, TYPE C 4"	SQ YD	254	254
44004250	PAVED SHOULDER REMOVAL	SQ YD	3139	3139
48300500	PORTLAND CEMENT CONCRETE SHOULDERS 10"	SQ YD	3139	3139
50102400	CONCRETE REMOVAL	CU YD	16.2	16.2
50300255	CONCRETE SUPERSTRUCTURE	CU YD	16.2	16.2
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	2,550	2,550
50800515	BAR SPLICERS	EACH	24	24
52000110	PREFORMED JOINT STRIP SEAL	FOOT	178.0	178.0
58700300	CONCRETE SEALER	SQ FT	5,131	5,131
59000200	EPOXY CRACK INJECTION	FOOT	306	306
60260100	INLETS TO BE ADJUSTED	EACH	4	4
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	5	5

<u>~</u>	USER NAME = mjverheyen	DESIGNED - CRS	REVISED -								F.A.I RTE.	SECTION	COUNTY	TOTAL SHEET SHEETS NO.
Stantoc		DRAWN - CRS	 REVISED -	STATE OF ILLINOIS	SUMMARY OF QUANTITIES					39	(50-5B)I-1	LASALLE	41 3	
June	PLOT SCALE = 2.0000 ' / in. PLOT DATE = 12/10/2021	CHECKED - DB/RJT DATE - 12/10/2	 REVISED - REVISED -	DEPARTMENT OF TRANSPORTATION	SCALE: N.T.S.	SCALE: N.T.S. SHEET 1 OF 4 SHEETS STA. 1210+35.63 TO STA. 1222+53.23						ILLINOIS FED.		CT NO. 66L74
						1								

				CONSTRUCTIC CODE 90% FED
		I	1	10% STATE
CODE			TOTAL	BRIDGE
NO.	ITEM	UNIT	QUANTITY	0047
			Q 07 11 1 1 1	RURAL
67100100	MOBILIZATION	L SUM	1	1
70100207	TRAFFIC CONTROL AND PROTECTION, STANDARD 701402	EACH	2	2
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	14	14
70107025	CHANGEABLE MESSAGE SIGN	CAL DA	158	158
70300100	SHORT TERM PAVEMENT MARKING	FOOT	1037	1037
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	347	347
/0300150	STICKT TERM FAVEMENT MARKING REMOVAL		547	547
70301120	TEMPORARY PAVEMENT MARKING - LINE 4" - EPOXY	FOOT	11,610	11,610
70400100	TEMPORARY CONCRETE BARRIER	FOOT	1100	1100
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	1025	1025
70600250	IMPACT ATTENUATORS, TEMPORARY, (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2
70600350	IMPACT ATTENUATORS, RELOCATE, (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2
78008310	POLYUREA PAVEMENT MARKING TYPE II - LINE 4"	FOOT	3433	3433
78011025	GROOVING FOR RECESSED PAVEMENT MARKING 5"	FOOT	3433	3433
78011045	GROOVING FOR RECESSED PAVEMENT MARKING 9"	FOOT	68	68

*= SPECIALTY ITEM



	USER NAME = mjverheyen	DESIGNED -	CRS	REVISED -				
Stantoc		DRAWN -	CRS	REVISED -	STATE OF ILLINOIS			SUMMARY OF
Stantec	PLOT SCALE = 2.0000 / in	CHECKED -	DB/RJT	REVISED -	DEPARTMENT OF TRANSPORTATION			
	PLOT DATE = 12/10/2021	DATE -	12/10/2021	REVISED -		SCALE: N.T.S.	SHEET 2	OF 4 SHEETS

	F.A.I RTE	SECT	10N		COUNTY	TOTAL SHEETS	SHEET NO.
QUANTITIES	39	(50-5	B)I-1		LASALLE	41	4
1					CONTRACT	NO. 66	5L74
TS STA 1210+35.63 TO STA 1222+53.23			D PROJECT				

REV. 2/2/22 REV. 1/12/22

				CONSTRUCTIO CODE 90% FED 10% STATE
COD NO		UNIT	TOTAL QUANTITY	BR I DGE 0047 RURAL
78100	00 RAISED REFLECTIVE PAVEMENT MARKER	EACH	8	8
78200	05 GUARDRAIL REFLECTORS, TYPE A	EACH	58	58
• 78200	11 BARRIER WALL REFLECTORS, TYPE C	EACH	86	86
78300	02 PAVEMENT MARKING REMOVAL - WATER BLASTING	SQ FT	5049	5049
X0322	15 CLEANING BRIDGE SCUPPERS AND DOWNSPOUTS	EACH	6	6
X0325	48 ACRYLIC COATING	SQ YD	67	67
X0325	49 FIBER WRAP	SQ FT	480	480
X0326	49 LINEAR DELINEATOR PANELS, 6 INCH	EACH	4	4
X0327	09 LINEAR DELINEATOR PANELS, 4 INCH	EACH	16	16
78004	40 PREFORMED PLASTIC PAVEMENT MARKING, TYPE D - LINE 8"	FOOT	68	68
X5030		SQ YD	703	703
X5870	15 BRIDGE DECK CONCRETE SEALER	SQ FT	11,536	11,536
X7200	201 WIDTH RESTRICTION SIGNING	L SUM	1	1



*= SPECIALTY ITEN	= SPECIALIY I I EM														
<u>~</u>	USER NAME = mjverheyen	DESIGNED - CRS	REVISED -			F.A.I SECTION	COUNTY TOTAL SHEET SHEETS NO.								
Stantoc		DRAWN - CRS	REVISED -	STATE OF ILLINOIS	SUMMARY OF QUANTITIES	39 (50-5B)I-1	LASALLE 41 5								
	PLOT SCALE = 2.0000 ' / in.	CHECKED - DB/RJT	REVISED -	DEPARTMENT OF TRANSPORTATION			CONTRACT NO. 66L74								
U	PLOT DATE = 12/10/2021	DATE - 12/10/2021	REVISED -		SCALE: N.T.S. SHEET 3 OF 4 SHEETS STA. 1210+35.63 TO STA. 1222+53.23	ILLINOIS FED.	AID PROJECT								

REV. 2/7/22 REV. 2/2/22 REV. 1/12/22

				CONSTRUCTIO CODE 90% FED 10% STATE
CODE NO .	ITEM	UNIT	TOTAL QUANTITY	BR I DGE 0047 RURAL
Z0012152	BRIDGE DECK SCARIFICATION 3 1/2"	SQ YD	556	556
Z0012170	BRIDGE DECK MICROSILICA CONCRETE OVERLAY, 3 1/4"	SQ YD	556	556
Z0012174	BRIDGE DECK MICROSILICIA CONCRETE OVERLAY, 3 3/4"	SQ YD	556	556
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	444	444
Z0012755	STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES)	SQ FT	33	33
Z0016001	DECK SLAB REPAIR (FULL DEPTH, TYPE I)	SQ YD	10.9	10.9
Z0016002	DECK SLAB REPAIR (FULL DEPTH, TYPE II)	SQ YD	26.4	26.4
Z0029090 Z0043800	DIAMOND GRINDING (BRIDGE SECTION) PRECAST PRESTRESSED CONCRETE I-BEAM REPAIR	SQ YD SQ FT	1076 67	1076 67

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Ŕ	USER NAME = mjverheyen	DESIGNED -	CRS	REVISED -								F.A.I RTE.	SECTION	COUNTY TOTAL SHEET SHEETS NO.
() Stantoc		2	CRS	REVISED -	STATE OF ILLINOIS			SUMMAR		JANTITIES		39	(50-5B)I-1	LASALLE 41 6
Julie	PLOT SCALE = 2.0000 ' / in.	CHECKED -	DB/RJT	REVISED -	DEPARTMENT OF TRANSPORTATION									CONTRACT NO. 66L74
•	PLOT DATE = 12/10/2021	DATE -	12/10/2021	REVISED -		SCALE: N.T.S.	SHEET 4	OF 4	SHEETS	STA. 1210+35.63	TO STA. 1222+53.23		ILLINOIS FED. /	ID PROJECT

REV. 2/7/22 REV. 2/2/22 REV. 1/12/22



			29	A	D)DJN,DI	<u></u>	LASALLE	42	1 '
_							CONTRACT	NO. 60	5L74
S	STA. 1210+35.63	TO STA. 1222+53.23			ILLINOIS	FED. A	D PROJECT		-

	7800	8310	X2700027	78300202	70300100	70300150	78011025	78011045	78100100
PAVEMENT MARKING SCHEDULE	POLY PAVEMENT TYPE II	MARKING	PREFORMED PLASTIC PAVEMENT MARKING, TYPE D - LINE 8", CONTRAST	PAVEMENT MARKING REMOVAL - WATER BLASTING	SHORT TERM PAVEMENT MARKING	SHORT TERM PAVEMENT MARKING REMOVAL	GROOVING FOR RECESSED PAVEMENT MARKING 5"	GROOVING FOR RECESSED PAVEMENT MARKING 9"	RAISED REFLECTIVE PAVEMENT MARKER
	YELLOW LANE LINE	WHITE LANE LINE	WHITE DOTTED LINE						
LOCATION	(FOOT)	(FOOT)	(FOOT)	(SQ FT)	(FOOT)	(SQ FT)	(FOOT)	(FOOT)	(EACH)
NORTHBOUND	700.1	1016.4	34.0	589.2	518.4	173.4	1716.5	34.0	6.0
SOUTHBOUND	700.1	1016.4	34.0	589.2	518.4	173.4	1716.5	34.0	6.0
TOTAL =	34	33	68	1179	1037	347	3433	68	12

	70400100	70400200	78200011	70600250	70600350
MAINTENANCE OF TRAFFIC	TEMPORARY CONCRETE BARRIER	RELOCATE TEMPORARY CONCRETE BARRIER	BARRIER WALL REFLECTORS, TYPE C	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE) TEST LEVEL 3	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3
LOCATION	(FOOT)	(FOOT)	(EACH)	(EACH)	(EACH)
		STAGE 1			
NORTHBOUND	550.0		22	1	
SOUTHBOUND	550.0		22	1	
	•	STAGE 2			
NORTHBOUND		512.5	21		1
SOUTHBOUND		512.5	21		1
TOTAL =	1100	1025	86	2	2

	78200005	X0326649	X0327809
GUARDRAIL SCHEDULE	GUARDRAIL REFLECTORS, TYPE A	LINEAR DELINEATOR PANELS, 6 INCH	LINEAR DELINEATOR PANELS, 4 INCH
LOCATION	(EACH)	(EACH)	(EACH)
NORTHBOUND	29.0	2.0	8.0
SOUTHBOUND	29.0	2.0	8.0
TOTAL =	58	4	16

	31102100	48300500	44004250	60260100
PRE-STAGING SHOULDER	SUBBASE GRANULAR MATERIAL, TYPE C 4"	PORTLAND CEMENT CONCRETE SHOULDERS 10"	PAVED SHOULDER REMOVAL	INLETS TO BE AD JUSTED
LOCATION	(SQ YD)	(SQ YD)	(SQ YD)	(EACH)
NORTHBOUND	200.0	1570.5	1570.5	2.0
SOUTHBOUND	53.6	1567.7	1567.7	2.0
TOTAL =	254	3139	3139	4

7030	1120	X7030005
		TEMPORARY PAVEMENT MARKING REMOVAL
YELLOW LANE LINE	WHITE LANE LINE	(SQ FT)
(FOOT)	(FOOT)	
STAGE 1		
1016.6	2097.0	1037.9
1016.6	2097.0	1037.9
STAGE 2		
700.4	1990.3	896.9
700.4	1990.3	896.9
116	510	3870
	TEMPORARY MARKING - LIN YELLOW LANE LINE (FOOT) STAGE 1 1016.6 1016.6 STAGE 2 700.4 700.4	LINE LINE (FOOT) (FOOT) STAGE 1 1016.6 1016.6 2097.0 STAGE 2 700.4

efault V:\1	^	USER NAME = cstanuch	DESIGNED - MJV	REVISED -				CONSTR	ICTION	STAGING		F.A.I BTE	SECTION	COUNTY	TOTAL SHEET
		DRAWN - MJV	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SCHEDULE OF QUANTITIES			39	50(5A & 5B)BJR,BRR	LASALLE	42 8				
	PLOT SCALE = 100.0000 / in.	CHECKED - DB/RJT	REVISED -					-		CONTRACT	T NO. 66L74				
< "L		PLOT DATE = 1/21/2022	DATE - 01/21/2022	REVISED -		SCALE: N.T.S.	SHEET 1	OF 1	SHEETS	STA. 1210+35.63	TO STA. 1222+53.23		ILLINOIS FED. A	ID PROJECT	







STAGE II

I-39 SOUTHBOUND (LOOKING NORTH)

efault : V:\15		USER NAME = cstanuch	DESIGNED - MJV	REVISED -		STAGING AND TRAFFIC CONTROL	F A I RTE SECTION	COUNTY TOTAL SHEET SHEETS NO.
		DRAWN - MJV	REVISED -	STATE OF ILLINOIS		39 50(5A & 5B)BJR,BRR	LASALLE 42 9	
DDEI P		PLOT SCALE = 6.0000 / in	CHECKED - DB/RJT	REVISED -	DEPARTMENT OF TRANSPORTATION	ARTMENT OF TRANSPORTATION TYPICAL SECTIONS		CONTRACT NO. 66L74
МЕ		PLOT DATE = 1/21/2022	DATE - 01/21/2022	REVISED -		SCALE: N.T.S. SHEET 1 OF 1 SHEETS STA. 1210+35.63 TO STA. 1222+53.23	ILLINOIS FED.	AID PROJECT

STAGE II

I-39 NORTHBOUND (LOOKING NORTH)



PLOT DATE = 1/21/2022

DATE

01/21/2022

REVISED

SHEET 1 OF 3 SHEETS SCALE: 50

DF TRAFFIC Details			F.A.I RTE	SECTION		COUNTY	TOTAL SHEETS	SHEET NO.	
			39	50(5A & 5B)BJR,BRR		LASALLE	42	10	
						CONTRACT NO. 66L74			
ГS	STA. 1210+35.63	TO STA. 1222+53.23	ILLINOIS FED. AID PROJECT						







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GENERAL NOTES

- 1. 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.
- 2. Joint openings shall be adjusted according to Article 520.04 of the Std. Specs. when the deck is poured at an ambient temperature other than 50° F.
- 3. 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.
- 4. Reinforcement bars designated (E) shall be epoxy coated.
- 5. Bridge deck concrete sealer shall be applied to the new overlay, reconstructed transverse expansion joint concrete and inside faces and top faces of the parapets adjacent to the joints.
- 6. Concrete sealer shall be applied to all exposed concrete areas of the abutments and piers.
- 7. Prior to pouring the new concrete deck: all heavy or loose rust, loose mill scale, and other loose potentially detrimental foreign material shall be removed from the surface in contact with concrete. Removal shall be accomplished by methods that will not damage the PPC Beam and the cost will be included with the pay item covering removal of the existing concrete.
- 8. The Contractor shall use extreme care during concrete removal operations so the existing PPC beams are not damaged. If the beams are damaged due to the Contractor's operations, they shall be repaired to the satisfaction of the Engineer at no expense to the Department.
- 9. Removal of the existing expansion joint steel, anchor studs, expansion material shall not be paid for separately but shall be included in the cost of Concrete Removal.
- 10. All exposed concrete edges shall have a $\frac{3}{4}$ " chamfer, except where shown otherwise.
- 11. Expansion joint shall be fabricated to conform to the existing cross slopes of the bridge.
- 12. The full depth of the existing microsilica overlay shall be completely removed as part of the scarification. None of the existing microsilica overlay shall be allowed to remain in place. The scarification shall not expose the top mat of deck reinforcement. In the event that the top mat is exposed, the Contractor shall contact the Engineer.
- 13. Acrylic coating shall be placed over Fiber Wrap repairs. Two coats shall be applied.

INDEX OF SHEETS

- S1. General Plan and Elevation
- S2. General Notes, Total Bill of Marterial and Index of Sheets
- S3. Stage Construction Details
- S4. Temporary Concrete Barrier for Staged Construction S5. Deck Removal
- S6. Deck Repairs
- S7. Deck Reconstruction Plan
- S8. Deck Reconstruction Details
- S9. Parapet Repairs
- S10. Preformed Joint Strip Seal Details
- S11. PPC Beam Repair Details 1
- S12. PPC Beam Repair Details 2
- S13 Abutment Repair Details
- S14. Pier Repair Details
- S15. Bar Splicer Assembly and Mechanical Splicer Details

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Removal	Cu.Yd.	8.1	-	8.1
Concrete Superstructure	Cu.Yd.	8.1	-	8.1
Reinforcement Bars, Epoxy Coated	Pound	1,380	-	1,380
Bar Splicers	Each	12	-	12
Preformed Joint Strip Seal	Foot	88.5	-	88.5
Concrete Sealer	Sq. Ft.	-	2,576	2,576
Epoxy Crack Injection	Foot	-	152	152
Cleaning Bridge Scuppers and Downspouts	Each	3	-	3
Acrylic Coating	Sq.Yd.	41	-	41
Fiber Wrap	Sq. Ft.	366	-	366
Bridge Deck Grooving (Longitudinal)	Sq. Yd.	352		352
Bridge Deck Concrete Sealer	Sq. Ft.	5,259	-	5,259
Bridge Deck Scarification 3"	Sq. Yd.	556	-	556
Bridge Deck Microsilica Concrete Overlay, 3¼"	Sq.Yd.	556	-	556
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.	88	44	132
Structural Repair of Concrete (Depth Greater Than 5 Inches)	Sq. Ft.	9	-	9
Deck Slab Repair (Full Depth, Type I)	Sq.Yd.	0.4	-	0.4
Deck Slab Repair (Full Depth, Type II)	Sq.Yd.	1.2	-	1.2
Diamond Grinding (Bridge Section)	Sq.Yd.	520	-	520
Precast Prestressed Concrete I-Beam Repair	Sq. Ft.	47	-	47

areas will be determined by the Engineer in the field.

~		USER NAME =	DESIGNED – CRS	REVISED –		GENERAL NOTES, TOTAL BILL OF MATERIAL AND INDEX OF SHEETS	F.A.I RTE	SECTION	COUNTY TOTAL SHEE SHEETS NO.
AMI	Stantoc		CHECKED – DTS	REVISED –	STATE OF ILLINUIS	STRUCTURE NO. 050-0174		50(5A & 5B)BJR,BRR	LaSALLE 42 14
z	Julie	PLOT SCALE = N/A	DRAWN – CRS	REVISED -	DEPARTMENT OF TRANSPORTATION	STRUCTURE NO. 050-0174	· · · · · ·		CONTRACT NO. 66L74
H	•	PLOT DATE = 01/21/2022	CHECKED – DTS	REVISED -		SHEET S2 OF S15 SHEETS		ILLINOIS FED. AI	D PROJECT

TOTAL BILL OF MATERIAL

* Quantity includes a contingency (above the amount shown in the bill of material) to account for uncertainies associated with the condition of the the existing structure. Actual repair



STAGE I CONSTRUCTION AND REMOVAL

(Looking North)

*Prior to grinding



STAGE II CONSTRUCTION AND REMOVAL

(Looking North)

TOTAL SHEET
COUNTY SHEETS NO
LaSALLE 42 15
CONTRACT NO. 66L74
PROJECT
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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,

RETE BARRIER FOR STAGED CONSTRUCTION	F.A.I RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
STRUCTURE NO. 050-0174	39	50(5A & 5B)BJR,B	LaSALLE	42	16		
				CONTRACT NO. 66L74			
SHEET S4 OF S15 SHEETS	ILLINOIS FED. AID PROJECT						



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SHEET 55 OF ST



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		BII	L OF MATE	RIA	۱ <i>L</i>	
	Ito		scription		Unit	Quantity
Deck	Slab Rep	air (Fu	ull Depth, Type	I) .	Sq. Yd.	0.4
Deck	Slab Rep	air (Fu	ull Depth, Type	<i>II)</i> .	Sq. Yd.	1.2
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	Ę	Bearir	ng North Abutme	nt —	-	
					N N	
	NOTE	<u>S:</u>				
			airs areas are e			
	visu	ual ins	spection and will in the Special	l be	paid fo	r as
	rep	air ar	eas and location	ns sl	hall be	determined
			ngineer and show shall sound dec			
		F.A.I	SECTION		COUNT	V TOTAL SHE
IRS 950-0174		RTE. 39	50(5A & 5B)BJR,BRI	र	LaSALL	' SHEETS NO
		I			CON	TRACT NO. 66L7

5	SHEETS	



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SHEET S7 OF S15 SHEETS



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SHEET S8 OF S1

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		_	

4'-3''	

SUPERSTRUCTURE BILL OF MATERIAL

	BILL	UFN	IAIERI	AL	
Bar	No.	Size	Length	Shape	
a(E)	4	#7	21'-11"		
a1(E)	4	#7	22'-1"		
d(E)	8	#5	3'-0"		
d1(E)	8	#5	3'-3"		
d2(E)	8	#4	3'-0"		
d3(E)	8	#4	4'-2"		
h(E)	8	#6	20'-10"		
h1(E)	8	#6	21'-0"		
u(E)	88	#4	2'-10''		
v(E)	8	#6	3'-11"		
	Item		Unit	Quantity	
Concre Super	ete structui	re	Cu. Yd.	8.1	
Bridge Groovi	e Deck		Sq. Yd.	352	
	rcemen Coated	,	Pound	1,380	
Bridge Deck Concrete Sealer			Sq. Ft.	5,259	
Bridge Deck Microsilica Concrete Overlay, 3¼ Inches			Sq. Yd.	556	
	nd Grin e Secti		Sq. Yd.	520	

NOTES:

- 1. Space reinforcement to avoid studs in strip seal joint.
- 2. Diamond Grinding (Bridge Section) within the limits of the bridge shall be measured for payment.

TION DETAILS		SECTION			COUNTY	TOTAL SHEETS	SHEET NO.
050-0174		50(5A & 5B)BJR,BRR		ł	LaSALLE	42	20
.030-0174					CONTRA	CT NO.	66L74
S15 SHEETS			ILLINOIS	FED.A	D PROJECT		



ELEVATION OF WEST PARAPET

(Looking West at West Parapet)

* Extends to top of parapet



ELEVATION OF EAST PARAPET

(Reflected View of East Parapet)

<u>LEGEND</u>



Structural Repair of Concrete (Depth Equal to or Less Than 5")

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efau : V:	•	USER NAME =	DESIGNED – CRS	REVISED –		PARAPET REPAIRS
ME :	() Stantoc		CHECKED – DTS	REVISED –	STATE OF ILLINOIS	
DEL NZ		PLOT SCALE = N/A	DRAWN – CRS	REVISED –	DEPARTMENT OF TRANSPORTATION	STRUCTURE NO. 050-0174
	PLOT DATE = 01/21/2022	CHECKED – DTS	REVISED –		SHEET S9 OF S15 SHEETS	
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<u>BILL OF MA</u>	ATER	RIAL		
Item Description			Unit	Quantity
pair of Concrete (Depth Equal To	Or Le	ess Than 5 Inches)	Sq. Ft.	88
<u>1'-0¼" Limits of parapet r</u> 5' *1.5'	econs	truction		
EPAIRS	F.A.I RTE.	SECTION	COUNT	SHEETS NO.
0. 050-0174	39	50(5A & 5B)BJR,BRR	LaSALL	E 42 21
S15 SHEETS		ILLINOIS FED	CON	TRACT NO. 66L74
	1	LLINOIS FED	AID PROJECT	



1/20/2022 4:15:41 PM Notes:

The strip seal shall be made continuous and shall have a minimum thickness of $\frac{1}{4}$ ". 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 configured for typical applications and are conceptual only. The actual configuration of the locking edge rails and matching strip seal may vary from manufacturer to manufacturer provided they fit the application and meet the minimum anchorage shown. Flanged edge rails, however, will not be allowed. Locking edge rails may exceed the 4¹/₂" maximum depth provided the anchorage system is revised according to the manufacturer's recommendation.

The manufacturer's recommended installation methods shall be followed.

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

The Maximum space between locking edge rail segments shall be $\frac{3}{16}$ " and sealed with a suitable sealant; however, any rail joint within 10' measured perpendicular to the face of the curb or parapet shall be welded as shown in the locking edge rail splice detail.

Cost of parapet sliding plates, embedded plates, and anchorage studs included with Preformed Joint Strip Seal.

The concrete opening below the strip seal will vary based on the locking edge rail chosen by the Contractor. Deck and parapet lengths shown elsewhere in the plans are dimensioned to the concrete opening, not the joint opening, and are based on the rolled locking edge rail. If the Contractor elects to use a different locking edge rail, dimensional adjustments may be required. One exception to this would be the strip seal joint at the end of the precast bridge approach slab. For these cases the pavement connector length shall be adjusted, not the length of the bridge approach slab.



WELDED RAIL

3/4''

LOCKING EDGE RAILS

** Back gouge not required if complete joint penetration is verified by mock-up.



LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue. Rolled rail shown, welded rail similar.

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	88.5

RIP SEAL DETAILS		SECTION		COUNTY	TOTAL SHEETS	SHEET NO.	
.050-0174	39 50(5A & 5B)BJR,BRR		LaSALLE	42	22		
.030-0174					CONTRA	CT NO.	66L74
S15 SHEETS			ILLINOIS	FED.A	ID PROJECT		
-							



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R DETAILS - 2 . 050-0174		SECTION			COUNTY	TOTAL SHEETS	SHEET NO.
		50(5A & 5B)BJR,BRR			LaSALLE	42	24
.030-0114					CONTRA	CT NO.	66L74
S15 SHEETS	ILLINOIS FED. AID PROJECT						





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AIR DETAILS	F.A.I RTE			COUNTY	TOTAL SHEETS	SHEET NO.	
. 050-0174		50(5A & 5B)BJR,BRR		LaSALLE	42	25	
					CONTRA	CT NO.	66L74
S15 SHEETS			ILLINOIS	FED.A	D PROJECT		





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AME :	() Stantoc		CHECKED – DTS	REVISED –	STATE OF ILLINOIS	
DEL		PLOT SCALE = N/A	DRAWN – CRS	REVISED -	DEPARTMENT OF TRANSPORTATION	STRUCTURE NO. 05
	9	PLOT DATE = 01/21/2022	CHECKED – DTS	REVISED -		SHEET S14 OF S15 S

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DETAILS 050-0174		SECTION		COUNTY	TOTAL SHEETS	SHEET NO.		
		50(5A & 5B)BJR,BRR		LaSALLE	42	26		
050-0174					CONTRACT NO. 66L			
15 SHEETS			ILLINOIS	FED.A	D PROJECT			





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.

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.

STANDARD BAR SPLICER ASSEMBLY PLAN

(All components shall be provided from one supplier)

Location	Bar size	No. assemblies required	Minimum Iap length
South Backwall	#6	4	4'-0"
South Deck	outh Deck #7		4'-2''
North Backwall	#6	4	4'-0''
North Deck	#7	2	4'-2"

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Defai E: V		USER NAME =	DESIGNED – CRS	REVISED -		BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS	F.A.I SECTION	COUNTY TOTAL SHEET SHEETS NO.
WE	() Stantac		CHECKED – DTS	REVISED –	STATE OF ILLINOIS		39 50(5A & 5B)BJR,BR	R LaSALLE 42 27
DEL UN	Stantec	PLOT SCALE = N/A	DRAWN – CRS	REVISED -	DEPARTMENT OF TRANSPORTATION	STRUCTURE NO, 050-0174		CONTRACT NO. 66L74
MOI	9	PLOT DATE = 01/21/2022	CHECKED – DTS	REVISED –		SHEET S15 OF S15 SHEETS	ILLINOIS	FED. AID PROJECT



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required
	SIZE	тецитеи

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.



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		USER NAME = mlange	DESIGNED - C. SEDLACKO	REVISED -		GENERAL PLAN & E
NAME	ENGINEERING RESOURCE ASSOCIATES	PLOT SCALE = 16.0000 / in.	CHECKED - M. LANGE DRAWN - C. SEDLACKO	REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STRUCTURE NO. 09
FILE		PLOT DATE = 1/21/2022	CHECKED - M. LANGE	REVISED -	DEFARTMENT OF TRANSFORTATION	SHEET S1 OF S14

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14 SHEETS

POJECT

GENERAL NOTES

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.

Joint Openings shall be be adjusted according to Article 520.04 of the Std. Specifications when the deck is poured at an ambient temperature other than 50°F.

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.

Reinforcement bars designated (E) shall be epoxy coated.

Bridge deck concrete sealer shall be applied to the new overlay, reconstructed transverse expansion joint concrete and inside faces and top faces of the parapets adjacent to the joints.

Concrete sealer shall be applied to all exposed concrete areas of the abutments and piers.

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.

The Contractor shall use extreme care during concrete removal operations so the existing PPC beams are not damaged. If the beams are damaged due to the Contractor's operations they shall be repaired to the satisfaction of the Engineer at no expense to the Department.

Removal of the existing expansion joint steel, anchor studs, expansion material shall not be paid for separately but shall be included in the cost of Concrete Removal.

All exposed concrete edges shall have a $0\frac{3}{4}$ " chamfer, except where shown otherwise.

Expansion joint shall be fabricated to conform to the existing cross slopes of the bridge.

The full depth of the existing microsilicia overlay shall be completely removed as part of the scarification. None of the existing microsilicia overlay shall be allowed to remain in place. The scarification shall not expose the top mat of deck reinforcement. In the event that the top mat is exposed, the Contractor shall contact the Engineer.

Acrylic coating shall be placed over fiber wrap repairs. Two coats shall be applied.

INDEX OF SHEETS

- S1. General Plan and Elevation
- 52. General Data
- S3. Stage Construction Details
- S4. Temporary Concrete Barrier for Staged Construction
- S5. Deck Removal
- S6. Underside Deck Repairs
- S7. Deck Reconstruction Plan
- S8. Deck Reconstruction Details
- S9. Parapet Repairs
- S10. Performed Joint Strip Seal Details
- S11. PPC Beam Repair Details
- S12. Abutment Repair Details
- S13. Pier Repair Details
- S14. Bar Splicer Assembly and Mechanical Splicer Details

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Removal	Cu. Yd.	8.1		8.1
Concrete Superstructure	Cu. Yd.	8.1		8.1
Reinforcement Bars, Epoxy Coated	Pound	1,170		1,170
Bar Splicers	Each	12		12
Preformed Joint Strip Seal	Foot	89		89
Concrete Sealer	Sq. Ft.		2,555	2,555
Epoxy Crack Injection	Foot	6	148	154
Cleaning Bridge Scuppers and Downspouts	Each	3		3
Acrylic Coating	Sq. Yd.	26		26
Fiber Wrap	Sq. Ft.	114		114
Bridge Deck Grooving (Longitudinal)	Sq. Yd.	351		351
Bridge Deck Concrete Sealer	Sq. Ft.	6,277		6,277
Bridge Deck Scarification $3\frac{1}{2}$ "	Sq. Yd.	556		556
Bridge Deck Microsilica Concrete Overlay 3¾"	Sq. Yd.	556		556
Structural Repair of Concrete (Depth Equal to or Less than 5 inches)	Sq. Ft.	260	52	312
Structural Repair of Concrete (Depth Greater than 5 inches)	Sq. Ft.		23.5	23.5
Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	10.5		10.5
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	25.2		25.2
Diamond Grinding (Bridge Section)	Sq. Yd.	556		556
Precast Prestressed Concrete I-Beam Repair	Sq. Ft.	20		20

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		CHECKED - M. LANGE	REVISED -	STATE OF ILLINOIS	STRUCTURE NO. 050-0173	39	(50-5B)I-1	LaSALLE	42	29
RESOURCE ASSOCIATES	URCE ASSOCIATES PLOT SCALE = 20.0000 / in. DRAWN - C. SEDLACKO REVISED -	REVISED -	DEPARTMENT OF TRANSPORTATION	STRUCTURE NO. 050-0173			CONTRACT NO. 66L7		L74	
	PLOT DATE = 1/21/2022	CHECKED - M. LANGE	REVISED -		SHEET S2 OF S14 SHEETS		ILLINOIS FED. A	D PROJECT		

TOTAL BILL OF MATERIAL



STAGE II CONSTRUCTION AND REMOVAL

I-39 Southbound (Looking North)

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		CHECKED - M. LANGE	REVISED -	STATE OF ILLINOIS	STAGE CONSTRUCTION DETAILS STRUCTURE NO. 050-0173	39	(50-5B)I-1	LaSALLE 42 30). 0	
	G RESOURCE ASSOCIATES	PLOT SCALE = 4.0000 / in. PLOT DATE = 1/21/2022	DRAWN - C. SEDLACKO CHECKED - M. LANGE	REVISED - REVISED -	DEPARTMENT OF TRANSPORTATION	SHEET S3 OF S14 SHEETS		ILLINOIS FED.	CONTRACT NO. 66L74	4
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SHEET S4 OF S

reinforcement to accommodate the installation of the retainer assemblies.

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,

R FOR STAGE CONSTRUCTION . 050-0173		SECTION		COUNTY	TOTAL SHEETS	SHEET NO.	
		(50-5B)I-1			LaSALLE	42	31
					CONTRA	CT NO.	6L74
514 SHEETS			ILLINOIS	FED. A	D PROJECT		



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	Iter	n De:	scription			Unit	Quantit	:y
	Concrete Removal					Cu. Yd.	8.1	
	Bridge Deck Scari	ficati	on 3½"			Sq. Yd.	556	
	Cleaning Bridge Se	сирре	rs and Do	wnspo	uts	Each	3	
								_
		F.A.I. RTE	SEC.	ΠON		COUNTY	TOTAL SHEETS	SHEET NO.
73		39	(50-5	B)I-1		LaSALLE	42	32
10						CONTRACT NO. 66L74		
				ILLINOIS	FED. A	D PROJECT		



<u>PLAN</u>

Notes:

1. Deck repairs area are estimated based on visual inspection and will be paid for as specified in the Special Provisions. Actual repair areas and location shall be determined by the Engineer and shown on As-built plans. Engineer shall sound deck after scarification.

	USER NAME = mlange	DESIGNED - C. SEDLACKO	REVISED -		UNDERSIDE DECK REPAIRS	F.A.I. RTE	SECTION	COUNTY	SHEET
ENGINEERING		CHECKED - M. LANGE	REVISED -	STATE OF ILLINOIS		39	(50-5B)I-1	LaSALLE	42
ERVERSINEERING RESOURCE ASSOCIATES	RESOURCE ASSOCIATES PLOT SCALE = 12.0000 / In. DRAWN - C. SEDLACKO REVISED - DEPA	DEPARTMENT OF TRANSPORTATION	STRUCTURE NO. 050-0173		(CONTRACT NO		
	PLOT DATE = 1/21/2022	CHECKED - M. LANGE	REVISED -		SHEET S6 OF S14 SHEETS		ILLINOIS FED		



TOTAL BILL OF MATERIAL

Item Description	Unit	Quantity
Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	10.5
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	25.2



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	USER NAME = mlange	DESIGNED - C. SEDLACKO	REVISED -		DECK RECONSTRUCTION PLAN	F.A.I. RTE	SECTION	COUNTY TOTAL SHEET SHEETS NO.
		CHECKED - M. LANGE	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		39	(50-5B)I-1	LaSALLE 42 34
	PLOT SCALE = 12.0000 / in.	DRAWN - C. SEDLACKO	REVISED -		STRUCTURE NO. 050-0173		(****=)	CONTRACT NO. 66L74
	PLOT DATE = 1/21/2022	CHECKED - M. LANGE	REVISED -		SHEET S7 OF S14 SHEETS		ILLINOIS FE	D. AID PROJECT
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<u>Notes:</u>

- See Sheet Sx for Section A-A.
 For bridge deck final cross section slopes, see sheet S3.
 For North andSouth Transverse Joint Removal and Reconstruction, see sheets S5 and S8.



	USER NAME = mlange	DESIGNED - C. SEDLACKO	REVISED -		DECK RECONSTRUCTION DETAILS	F.A.I. RTE	SECTION	COUNTY TOTAL SHEETS	SHEET NO.
ERGINEERING RESOURCE ASSOCIATES		REVISED -	STATE OF ILLINOIS	STRUCTURE NO. 050-0173	39	(50-5B)I-1	LaSALLE 42	35	
	PLOT SCALE = 12.0000 / in.	DRAWN - C. SEDLACKO	REVISED -	DEPARTMENT OF TRANSPORTATION		CONT			66L74
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	SUPE	RSTR	UCTURI	Ξ		
	BILL (OF MA	ATERIA	L		
Bar	No.	Size	Length	Shape		
a10(E)	4	#7	21'-3"			
a11(E)	4	#7	21'-4"			
d10(E)	8	#5	3'-0''			
d11(E)	8 #4		4'-2''			
d12(E)	8 #4		3'-0''			
d13(E)	8	#5	3'-9"			
h10(E)	8 #6		21'-3"			
h11(E)	8 #6		21'-4"			
u10(E)	88 #4		2'-10"			
v10(E)	8	#6	3'-11"			
	Item		Unit	Quantity		
Concrete Superstr			Cu. Yd.	8.1		
Reinforc Epoxy Co	ement Ba pated	ars,	Lbs.	1,170		
Bar Spli			Each	12		
	Deck Gro	oving	Sq. Yd.	351		
Bridge L Concrete			Sq. ft.	6,277		
	Peck Micr		Sq. Yd.	556		
Diamond (Bridge :	Grinding Section)		Sq. Yd.	556		











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ENGINEERING RESOURCE ASSOCIATES		DESIGNED - C. SEDLACKO	REVISED -		PARAPET REPAIRS	RTE	SECTION	COUNTY SHEETS NO.
		CHECKED - M. LANGE	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		39	(50-5B)I-1	LaSALLE 42 36
2 RESOURCE AS	OCIATES PLOT SCALE = 10.0000 / in	DRAWN - C. SEDLACKO	REVISED -		STRUCTURE NO. 050-0173			CONTRACT NO. 66L74
	PLOT DATE = 1/21/2022	CHECKED - M. LANGE	REVISED -		SHEET S9 OF S14 SHEETS		ILLINOIS FED. A	ND PROJECT



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11/4"

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<u>ROLLED</u>

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of \mathcal{V}_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 configured for typical applications and are conceptual only. The actual configuration of the locking edge rails and matching strip seal may vary from manufacturer to manufacturer provided they fit the application and meet the minimum anchorage shown. Flanged edge rails, however, will not be allowed. Locking edge rails may exceed the 4¹/₂" maximum depth provided the anchorage system is revised according to the manufacturer's recommendation.

The manufacturer's recommended installation methods shall be followed.

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

The Maximum space between locking edge rail segments shall be $\frac{3}{16}$ " and sealed with a suitable sealant; however, any rail joint within 10' measured perpendicular to the face of the curb or parapet shall be welded as shown in the locking edge rail splice detail.

Cost of parapet sliding plates, embedded plates, and

anchorage studs included with Preformed Joint Strip Seal. 39" constant slope barrier shown, 44" constant slope barrier similar as noted.

The concrete opening below the strip seal will vary based on the locking edge rail chosen by the Contractor. Deck and parapet lengths shown elsewhere in the plans are dimensioned to the concrete opening, not the joint opening, and are based on the rolled locking edge rail. If the Contractor elects to use a different locking edge rail, dimensional adjustments may be required. One exception to this would be the strip seal joint at the end of the precast bridge approach slab. For these cases the pavement connector length shall be adjusted, not the length of the bridge approach slab.



WELDED RAIL

¥4"

LOCKING EDGE RAILS

** Back gouge not required if complete joint penetration is verified by mock-up.



LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue. Rolled rail shown, welded rail similar.

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	89
· · · · · ·		

IT STRIP SEAL . 050-0173		F.A.I. SECTION RTE. 39 (50-5B)I-1			COUNTY	SHEET NO.	
		(50-5B)I-1			LaSALLE	42	37
					CONTRA	CT NO.	66L74
S14 SHEETS			ILLINOIS	FED. A	D PROJECT		



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1. Vertical panels must be between 10" and 12". The space between each vertical panel shall be 1". Vertical panels shall be extended beyond the repair zone by a minimum of 3". Vertical panels located above the bearing location shall be placed in two pieces as shown in Section A-A. At locations in front of the bearing, the vertical panelsshall be one continuous strip wrapping beneath of the bottom flanges as shown in

2. Horizontal anchorage strips shall be 3" wide and extend a minimum of 6" beyond the vertical panels. The horizontal anchorage strips shall be

3. Spalled concrete and exposed reinforcement shall be repaired according to the special provision "PRECAST PRESTRESSED CONCRETE I-BEAM

4. All cracks greater than 0.007 in. shall be injected with epoxy according to Section 590 of the Standard Specifications for Road and Bridge

5. Acrylic coating shall be placed over fiber wrap repairs. Two coats shall

6. See special provision for "FRP STRENGTHENING FOR PPC I-BEAM REPAIRS".





Precast Prestressed Concrete I-Beam Repair

Crack – Epoxy Crack Injection



 \times

Fiber Wrap Repair and Acrylic Coating

Delaminated

BILL OF MATERIAL

	Iten	ı Des	cription		Uı	nit	Qu	antity	
	Acrylic C	Coatin	g		Sq.	Yd.		26	
	Fiber Wr	ар			Sq. Ft.		114		
	Precast Prestressed Concrete I-Beam Repair				Sq. Ft.		20		
	-								
IR DETAILS		F.A.I. RTE	SECT	TION		COU	NTY	TOTAL SHEETS	SHEET NO.
050-0173		39	(50-5	B)l-1		LaSA	LLE	42	38
								CT NO.	66L74
14 SHEETS				ILLINOIS	FED. A	D PROJECT	Г		



DEPARTMENT OF TRANSPORTATION

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ESOURCE ASSOCIATES

PLOT SCALE = 6:0.0000 ':" / in.

PLOT DATE = 1/21/2022

DRAWN - C. SEDLACKO

CHECKED - M. LANGE

REVISED -

REVISED -

STRUCTURE NO. SHEET S12 OF S

BILL OF MATERIAL

Item Description	Unit	Quantity
Concrete Sealer	Sq. Ft.	1017
Epoxy Crack Injection	Foot	47
Structural Repair of Concrete (Depth Equal to or Less than 5 inches)	Sq. Ft.	16
Structural Repair of Concrete (Depth Greater than 5 inches)	Sq. Ft.	23.5



WINGWALL ELEVATION (looking East)



WINGWALL ELEVATION

(looking West)

AIR DETAILS	F.A.I. RTE	SECTION		COUNTY	TOTAL SHEETS	SHEET NO.
. 050-0173	39	(50-5B)I-1		LaSALLE	42	39
				CONTRA	CT NO.	36L74
S14 SHEETS		ILLINOIS	FED. A	D PROJECT		





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<u>LEGEND</u>

E

PLOT DATE = 1/21/2022

CHECKED - M. LANGE

REVISED -

SHEET S13 OF S1

BILL OF MATERIAL		
Item Description	Unit	Quantity
ealer	Sq. Ft.	1,538
k Injection	Foot	101
Repair of Concrete (Depth Equal to or Less than 5 inches)	Sq. Ft.	35.6
$\frac{2^{2}-6^{\prime\prime}}{1}$		
2'-6"		

DETAILS		SECTION			COUNTY	TOTAL SHEETS	SHEET NO.
.050-0173	39	(50-5B)I-1			LaSALLE	42	40
. 030-0173					CONTRA	CT NO.	66L74
514 SHEETS	ILLINOIS FED. AID PROJECT						





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.

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.

(All components shall be provided from one supplier)

		i	
Location	Bar	No. assemblies	Minimum
LUCATION	size	required	lap length
South Backwall	#6	4	4'-0"
South Deck	#7	2	4'-2"
North Backwall	#6	4	4'-0"
North Deck	#7	2	4'-2"

뵨	BSD-1	1-1-2020							
MODEL: Defau	ENGINEERING RESOURCE ASSOCIATES	USER NAME = mlange	DESIGNED - C. SEDLACKO	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS STRUCTURE NO. 050-0173	F.A.I. RTE	SECTION	COUNTY TOTAL SHEET SHEETS NO.
			CHECKED - M. LANGE	REVISED -			39	(50-5B)I-1	LaSALLE 42 41
		PLOT SCALE = 20.0000 / in.	DRAWN - C. SEDLACKO	REVISED -					CONTRACT NO. 66L74
		PLOT DATE = 1/21/2022	CHECKED - M. LANGE	REVISED -		SHEET \$14 OF \$14 SHEETS	<u> </u>	ILLINOIS F'	ED. AID PROJECT
	/21/2022 4:23:31 PM								



STANDARD MECHANICAL SPLICER

Location	Bar	No. assemblies
Location	size	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.



	USER NAME = cstanuch	DESIGNED - MJV	REVISED -	STATE OF ILLINOIS	DISTRICT 3	A I SECTION	COUNTY TOTAL SHEET	
		DRAWN - MJV	REVISED -		STANDARD DETAILS	39 50(5A & 5B)BJR,BRR	LASALLE 42 42	
	Stantec	PLOT SCALE = 100.0000 / in	CHECKED - DB/RJT	REVISED -	DEPARTMENT OF TRANSPORTATION			CONTRACT NO. 66L74
	•	PLOT DATE = 1/21/2022	DATE - 01/21/2022	REVISED -		SCALE: N.T.S. SHEET 1 OF 1 SHEETS STA. 1210+35.63 TO STA. 1222+53.23	ILLINOIS FE	ED. AID PROJECT