

INDEX OF SHEETS

- 1 COVER SHEET
- 2 HIGHWAY STANDARDS, GENERAL NOTES, AND COMMITMENTS
- 3 SUMMARY OF QUANTITIES
- 4 TYPICAL SECTIONS
- 5-6 SCHEDULE OF QUANTITIES
- 7 LOCATION MAP
- 8-9 CLASS A PATCHING (SPECIAL)

FOR LIST OF HIGHWAY STANDARDS, SEE SHEET NO.2

TRAFFIC DATA

I-70 WESTBOUND

2021 ADT = 25500 (ACTUAL)
 2041 ADT = 32400 (ESTIMATED)
 SU=2.8% MU=33.3%

I-70 EASTBOUND

2021 ADT = 26800 (ACTUAL)
 2041 ADT = 34000 (ESTIMATED)
 SU=2.8% MU=38.1%

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

**PROPOSED
 HIGHWAY PLANS**

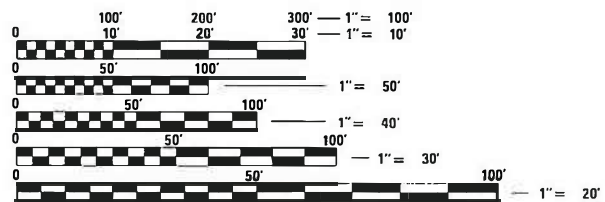
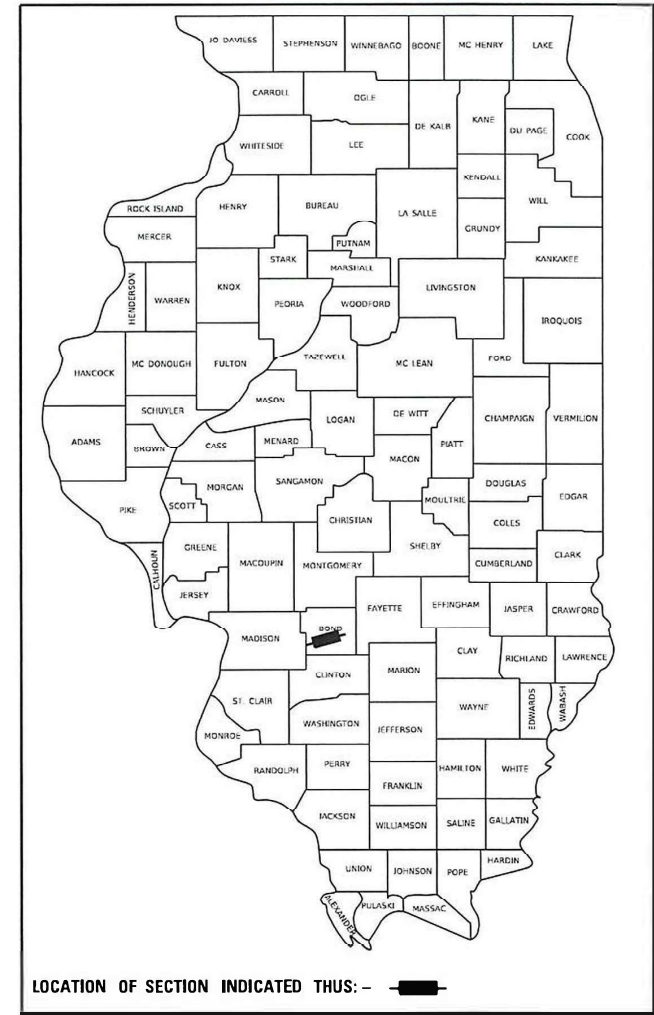
FAI ROUTE 70 (I-70)
 SECTION 3-(1,2)PP-1

PATCHING
 BOND COUNTY

C-98-060-22

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	3-(1,2)PP-1	BOND	9	1
		ILLINOIS	CONTRACT NO. 76P87	

D-98-031-22



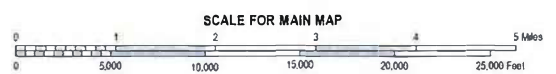
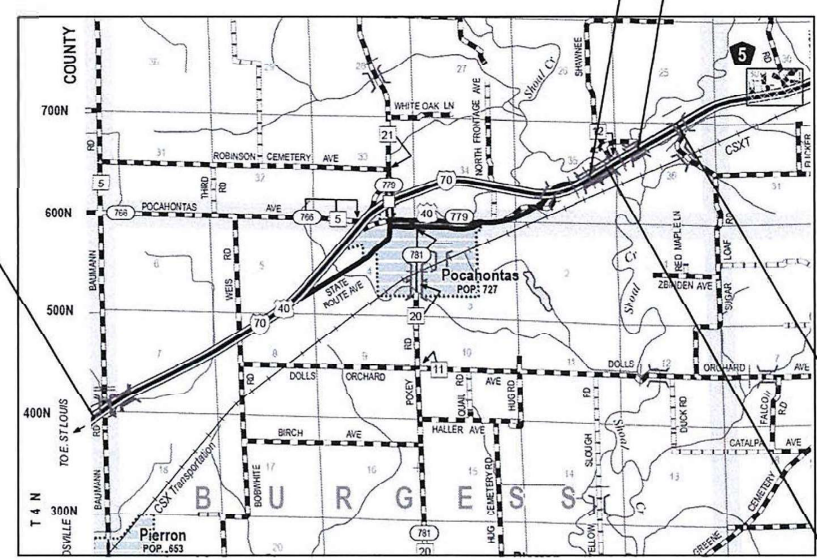
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS THE ABOVE SCALES MAY BE USED.

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

PROJECT ENGINEER: BILLIE OWEN (618) 346-3209
 PROJECT MANAGER: PHIL FREIMUTH (618) 346-3194

CONTRACT NO. 76P87

BEGIN IMPROVEMENT
 MILE STA. 0.00
 LAT: 38.801902°
 LONG: -89.598516°



GROSS LENGTH = 35,323.20 FEET = 6.69 MILES
 NET LENGTH = 34,531.20 FEET = 6.54 MILES

STRUCTURE OMISSION
 MILE STA. 5.65 TO 5.68 MILES

STRUCTURE OMISSION
 MILE STA. 6.21 TO 6.25 MILES

END IMPROVEMENT
 MILE STA. 6.69 MILES
 LAT: 38.842228°
 LONG: -89.4915495°

STRUCTURE OMISSION
 MILE STA. 5.85 TO 5.93 MILES

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SUBMITTED *Oct 22, 2021*
Keith Roberts
 REGIONAL ENGINEER

December 10, 2021
[Signature]
 ENGINEER OF DESIGN AND ENVIRONMENT

December 10, 2021
Stephen M. Smith
 DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

**PRINTED BY THE AUTHORITY
 OF THE STATE OF ILLINOIS**

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE
				100% STATE
				ROADWAY 0006 RURAL
44213000	PATCHING REINFORCEMENT	SQ YD	557	557
44213200	SAW CUTS	FOOT	942	942
44213204	TIE BARS 3/4"	EACH	137	137
67100100	MOBILIZATION	L SUM	1	1
70100420	TRAFFIC CONTROL AND PROTECTION, STANDARD 701411	EACH	4	4
70100700	TRAFFIC CONTROL AND PROTECTION, STANDARD 701406	L SUM	1	1
70100800	TRAFFIC CONTROL AND PROTECTION, STANDARD 701401	L SUM	1	1
70107025	CHANGEABLE MESSAGE SIGN	CAL DA	376	376
70200100	NIGHTTIME WORK ZONE LIGHTING	L SUM	1	1
* 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	29000	29000
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	384	384
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	384	384
X1700051	CLASS A PATCHES, TYPE IV, 15 INCH (SPECIAL)	SQ YD	557	557
X4405020	LONGITUDINAL PARTIAL DEPTH REMOVAL 2"	FOOT	1452	1452

* SPECIALTY ITEM

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE
				100% STATE
				ROADWAY 0006 RURAL
X4406020	PARTIAL DEPTH REMOVAL, TYPE I, 2"	SQ YD	16	16
X4406220	PARTIAL DEPTH REMOVAL, TYPE II, 2"	SQ YD	73	73
X4406420	PARTIAL DEPTH REMOVAL, TYPE III, 2"	SQ YD	59	59
X4406620	PARTIAL DEPTH REMOVAL, TYPE IV, 2"	SQ YD	13403	13403
X4420900	LONGITUDINAL PARTIAL DEPTH PATCHING	TON	36	36
X4421000	PARTIAL DEPTH PATCHING	TON	1491	1491

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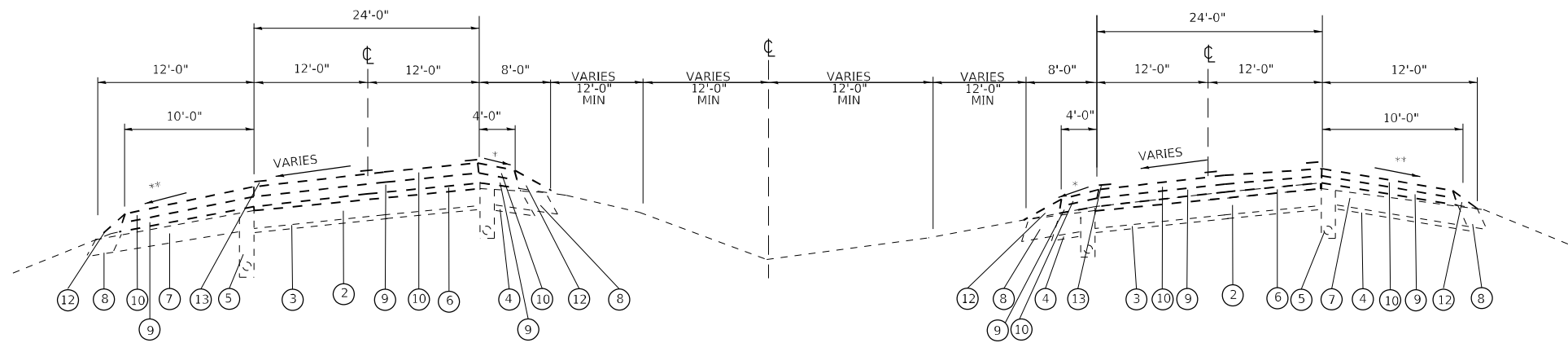
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

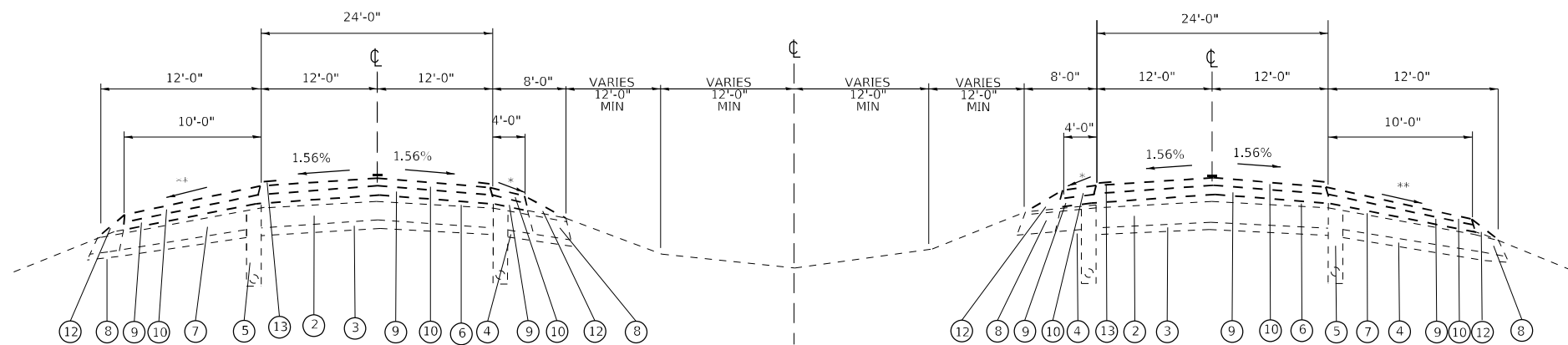
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	3-(1,2)PP-1	BOND	9	3
CONTRACT NO. 76P87				
ILLINOIS FED. AID PROJECT				



EXISTING TYPICAL SUPERELEVATED CROSS SECTION

* 3/4" FT. MAX
 ** 4.2% AND VARIABLE



EXISTING TYPICAL TANGENT CROSS SECTION

WB/EB MILE STA. 0.00 TO MILE STA. 6.69

LEGEND

- ① EXISTING CONTINUOUSLY REINFORCED P.C.C. PAVEMENT 7"
- ② EXISTING CONTINUOUSLY REINFORCED P.C.C. PAVEMENT 8"
- ③ EXISTING STABILIZED SUBBASE 4"
- ④ EXISTING AGGREGATE SUBBASE
- ⑤ EXISTING PIPE UNDERDRAINS
- ⑥ EXISTING BITUMINOUS CONCRETE OVERLAY 3 1/4"
- ⑦ EXISTING BITUMINOUS SHOULDER

- ⑧ EXISTING AGGREGATE SHOULDER
- ⑨ EXISTING BITUMINOUS CONCRETE BINDER COURSE SUPERPAVE, IL-19.0 N90 - 1 3/4"
- ⑩ EXISTING BITUMINOUS CONCRETE SURFACE COURSE SUPERPAVE, MIX D, N90 1 1/2"
- ⑪ EXISTING BITUMINOUS SHOULDERS
- ⑫ EXISTING BITUMINOUS SHOULDERS VARIES 1 3/4" TO 1 1/2"
- ⑬ EXISTING PAVEMENT MARKING

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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

TYPICAL SECTIONS

SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	3-(1,2)PP-1	BOND	9	4
CONTRACT NO. 76P87				
ILLINOIS FED. AID PROJECT				

FULL DEPTH PATCHING SCHEDULE 15"							
LOCATION	LANE	WIDTH	LENGTH	CLASS A PATCHES, TYPE IV, 15 INCH (SPECIAL)	PATCHING REINF.	TIE BARS 3/4"	SAWCUT
MILE STATION	SB	FOOT	FOOT	SQ YD	SQ YD	EACH	FOOT
2.03	EB	12	190	253	253.33	62.33	428.0
1.93	WB	12	190	253	253.33	62.33	428.0
SUB-TOTAL				506.67	506.67	124.67	856.00
10% ALLOWANCE FOR FAILURE				50.67	50.67	12.47	85.60
TOTAL				557	557	137	942

I-70 EASTBOUND										
MILE STA.	LANE	WIDTH FOOT	LENGTH FOOT	PARTIAL DEPTH REMOVAL, 2"				LONGITUDINAL PARTIAL DEPTH REMOVAL, 2" FOOT	LONGITUDINAL PARTIAL DEPTH PATCHING TON	PARTIAL DEPTH PATCHING TON
				TYPE I	TYPE II	TYPE III	TYPE IV			
				SQ YD	SQ YD	SQ YD	SQ YD			
#REF!										
1.420	D	6	6	4.00						1
1.440	D	2	50					50.00	1.30	
3.754	D	4	12	5.33						1
4.470	D	4	23		10.22					1
4.470	CL	4	23445				10420.00			1167
SUB-TOTAL				9.33	10.22	0.00	10420.00	50.00	1.30	1169
ANTICIPATED FAILURES (10%)				0.93	1.02	0.00	1042.00	5.00	0.13	117
EB SUB-TOTAL				10	11	0	11462	55	1	1286

I-70 WESTBOUND										
MILE STA.	LANE	WIDTH FOOT	LENGTH FOOT	PARTIAL DEPTH REMOVAL, 2"				LONGITUDINAL PARTIAL DEPTH REMOVAL, 2" FOOT	LONGITUDINAL PARTIAL DEPTH PATCHING TON	PARTIAL DEPTH PATCHING TON
				TYPE I	TYPE II	TYPE III	TYPE IV			
				SQ YD	SQ YD	SQ YD	SQ YD			
6.613	CL	3	75		25.00					2.80
6.110	P	4	4	1.78						0.20
5.767	CL	2	10					10.00	0.30	
5.653	CL	4	40		17.78					2.00
4.840	CL	4	3240				1440.00			161.30
4.352	CL	2	980				217.78	980.00	24.40	
3.992	CL	2	200					200.00	5.00	
SUB-TOTAL				1.8	42.8	0.0	1657.8	1190.0	29.7	166.30
ANTICIPATED FAILURES (10%)				0.2	4.3	0.0	165.8	119.0	3.0	16.63
WB SUB-TOTAL (A)				2	47	0	1824	1309	33	183

P= PASSING LANE
D= DRIVING LANE
CL= CENTER LINE

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SCHEDULE OF QUANTITIES

SCALE: SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	3-(1,2)PP-1	BOND	8	5
CONTRACT NO. 76P87				
ILLINOIS FED. AID PROJECT				

I-70 WESTBOUND										
MILE STA.	LANE	WIDTH FOOT	LENGTH FOOT	PARTIAL DEPTH REMOVAL, 2"				LONGITUDINAL PARTIAL DEPTH REMOVAL, 2" FOOT	LONGITUDINAL PARTIAL DEPTH PATCHING TON	PARTIAL DEPTH PATCHING TON
				TYPE I SQ YD	TYPE II SQ YD	TYPE III SQ YD	TYPE IV SQ YD			
3.057	D	4	30		13.33					1.50
3.024	D	3	10	3.33						0.40
2.543	D	12	40			53.33				6.00
2.274	D	2	80					80.00	2.00	
2.035	D	12	80				106.67			11.90
SUB-TOTAL				3.3	13.3	53.3	106.7	80.0	2.0	19.80
ANTICIPATED FAILURES (10%)				0.3	1.3	5.3	10.7	8.0	0.2	1.98
WB SUB-TOTAL (B)				4	15	59	117	88	2	22

PARTIAL DEPTH PATCHING TOTALS							
I-70 WESTBOUND	PARTIAL DEPTH REMOVAL, 2"				LONGITUDINAL PARTIAL DEPTH REMOVAL, 2" FOOT	LONGITUDINAL PARTIAL DEPTH PATCHING TON	PARTIAL DEPTH PATCHING TON
	TYPE I SQ YD	TYPE II SQ YD	TYPE III SQ YD	TYPE IV SQ YD			
WB SUB TOTAL A	2	47	0	1824	1309	33	183
WB SUB TOTAL B	4	15	59	117	88	2	22
EB TOTAL	10	11	0	11462	55	1	1286
GRAND TOTAL	16	73	59	13403	1452	36	1491

P= PASSING LANE
D= DRIVING LANE
CL= CENTER LINE

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PLOT DATE = 10/27/2021	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SCHEDULE OF QUANTITIES

SCALE: SHEET 2 OF 2 SHEETS STA. TO STA.

F.A.1 RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	3-(1,2)PP-1	BOND	9	6
CONTRACT NO. 76P87			ILLINOIS FED. AID PROJECT	

BEGIN PROJECT
MILE STA. 0.00

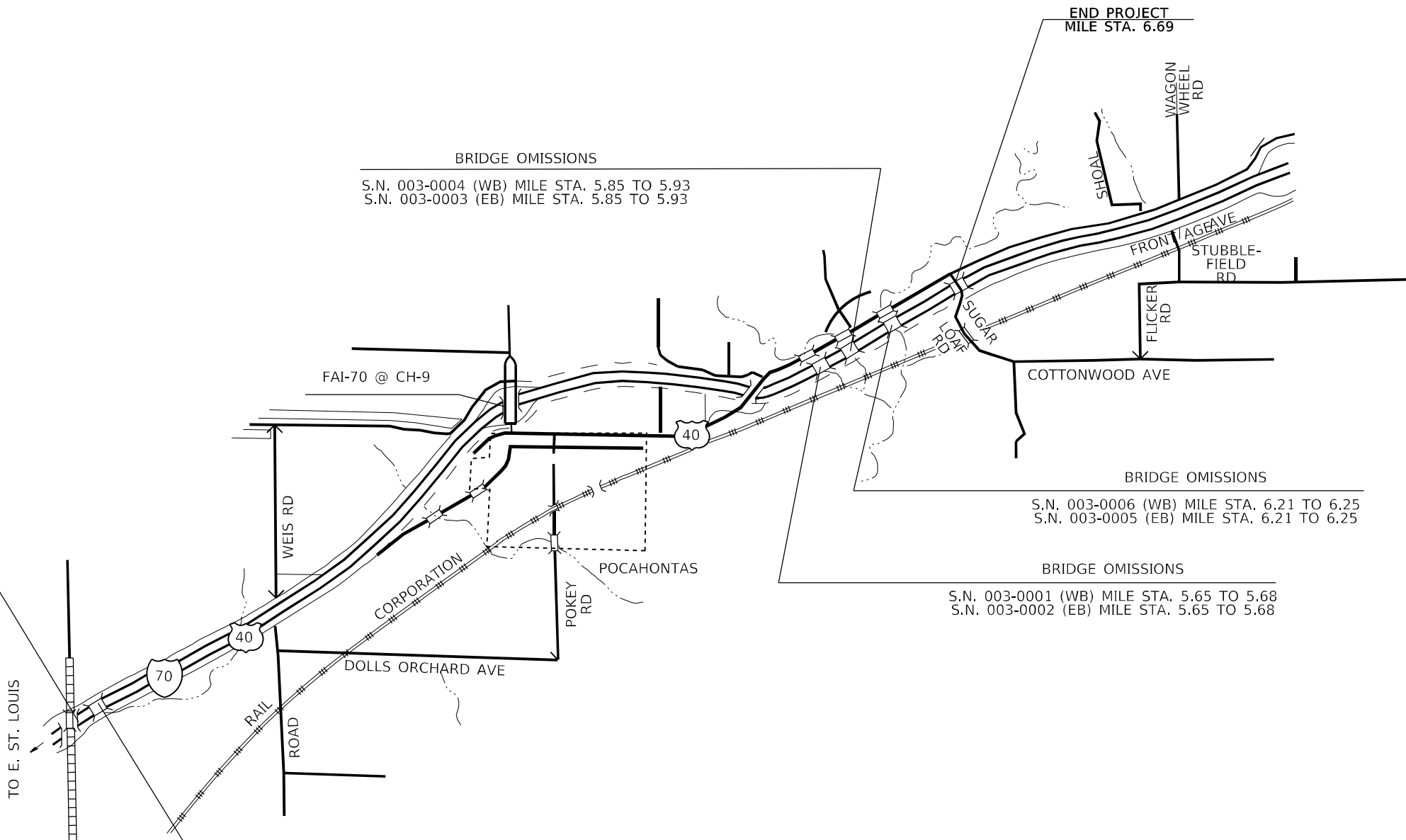
BOX CULVERTS
MILE STA. 0.181

BRIDGE OMISSIONS
S.N. 003-0004 (WB) MILE STA. 5.85 TO 5.93
S.N. 003-0003 (EB) MILE STA. 5.85 TO 5.93

END PROJECT
MILE STA. 6.69

BRIDGE OMISSIONS
S.N. 003-0006 (WB) MILE STA. 6.21 TO 6.25
S.N. 003-0005 (EB) MILE STA. 6.21 TO 6.25

BRIDGE OMISSIONS
S.N. 003-0001 (WB) MILE STA. 5.65 TO 5.68
S.N. 003-0002 (EB) MILE STA. 5.65 TO 5.68



NOT TO SCALE

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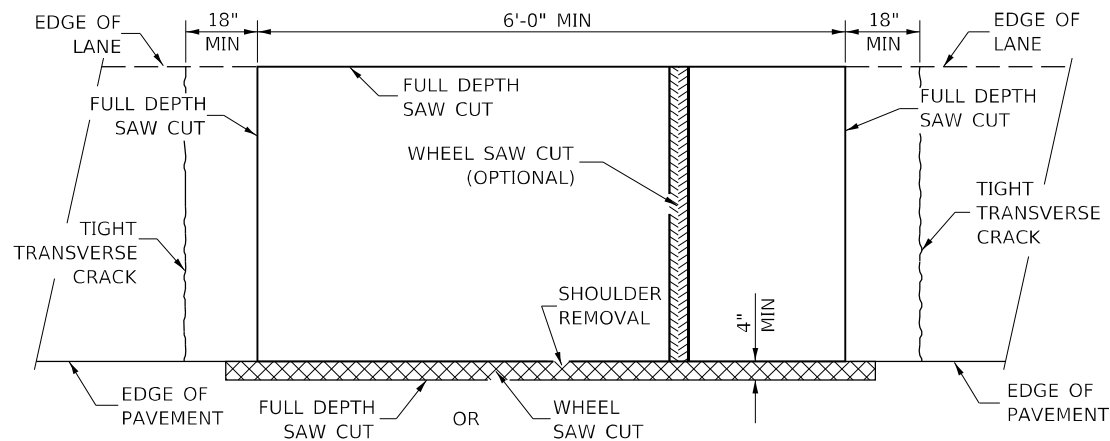
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

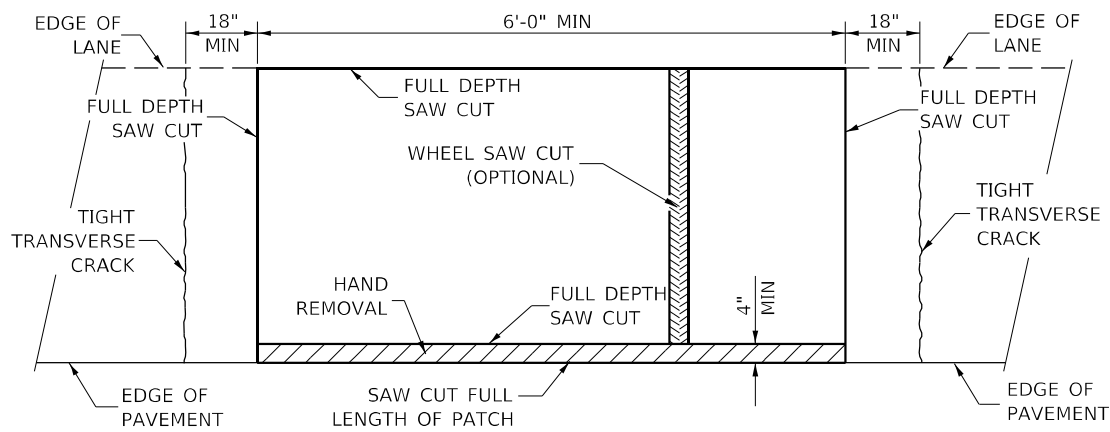
LOCATION MAP

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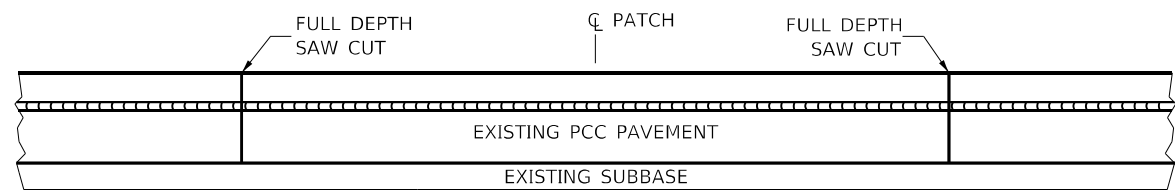
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70	3-(1,2)PP-1	BOND	9	7
CONTRACT NO. 76P87				
ILLINOIS FED. AID PROJECT				



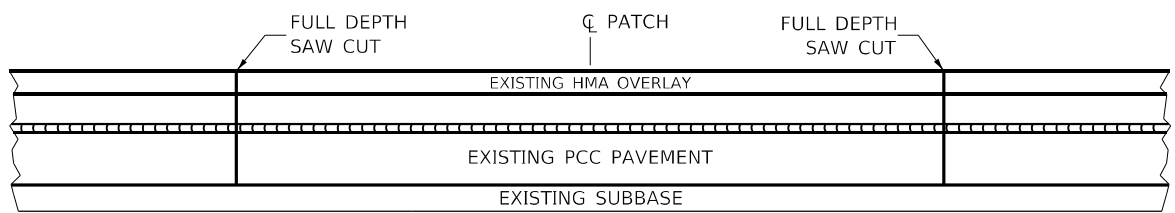
**PAVEMENT SAWING DETAIL
(HMA SHOULDER)**



**PAVEMENT SAWING DETAIL
(PCC SHOULDER)**

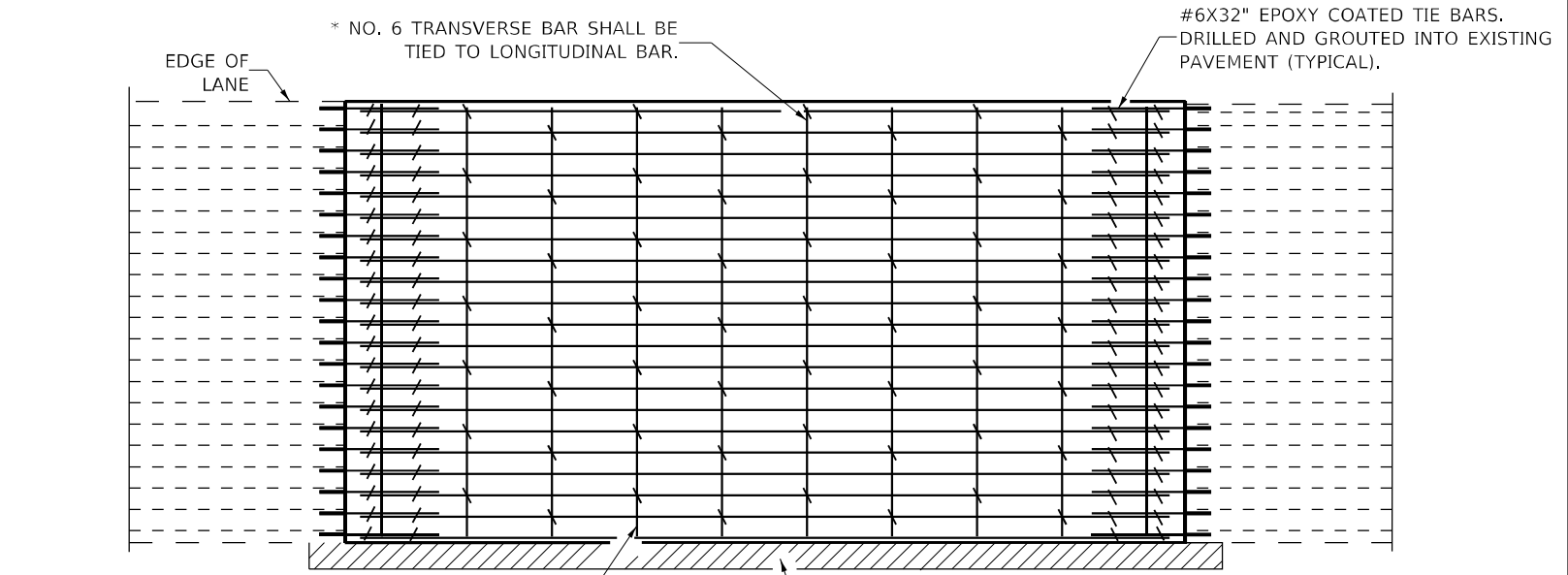


EXISTING PAVEMENT WITHOUT HMA SURFACE

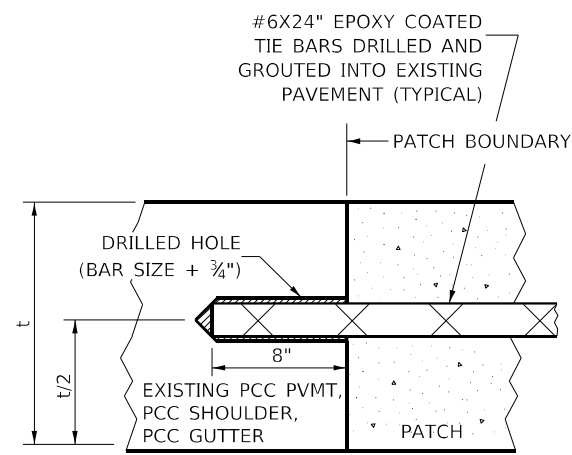


EXISTING PAVEMENT WITH HMA SURFACE

**PAVEMENT SAWING DETAIL FOR CLASS A PATCHING
(CRC PAVEMENT)**



PAVEMENT REINFORCEMENT DETAIL



LONGITUDINAL CONSTRUCTION JOINT

PATCHES MORE THAN 20' IN LENGTH SHALL BE TIED TO ADJACENT PAVEMENT, PCC SHOULDERS OR PCC CURB AND GUTTER WITH #6x24" EPOXY COATED TIE BARS AT 36" CENTERS.

NOTES:

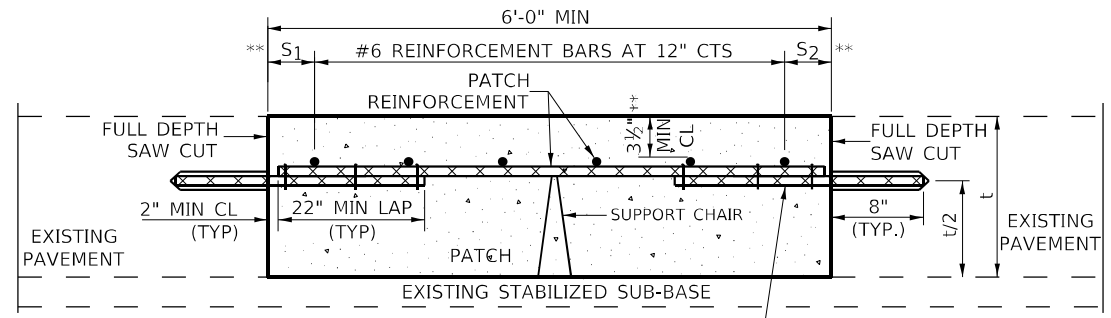
EXISTING LONGITUDINAL REINFORCEMENT SPACING; $\pm 6\frac{1}{2}$ ".

SPACING OF NEW LONGITUDINAL REINFORCEMENT AND NEW LONGITUDINAL TIE BARS SHALL MATCH SPACING OF EXISTING REINFORCEMENT AND SHALL BE TIED TOGETHER WITH A MINIMUM OF TWO TIES PER BAR.

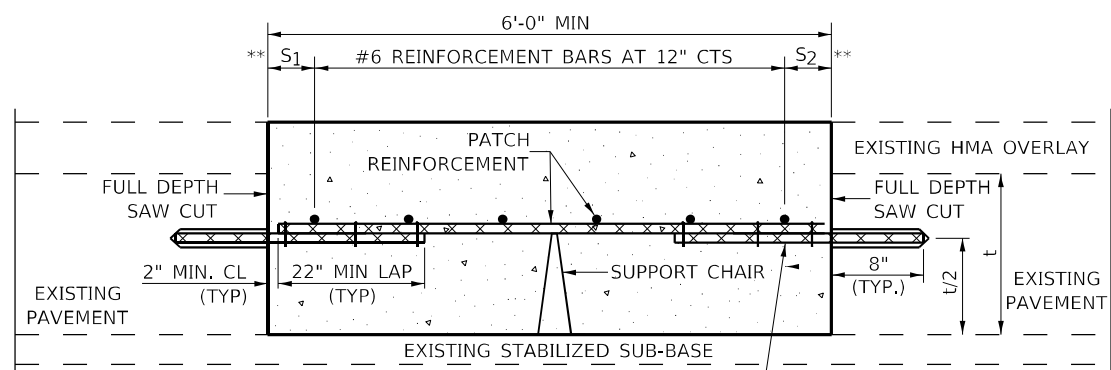
SUPPORT CHAIRS SHALL BE REQUIRED WHENEVER PATCH LENGTH EXCEEDS 6'-0"

* EVERY THIRD INTERSECTION MUST BE TIED. WHEN THE MINIMUM CLEARANCE CANNOT BE OBTAINED WITH THE TRANSVERSE REBAR ON TOP, THEN THE TRANSVERSE REBAR SHALL BE TIED TO THE BOTTOM OF THE LONGITUDINAL REBAR.

** VARIABLES WHERE S_1 AND S_2 ARE $2\frac{1}{2}$ " MIN. AND 12" MAX.



WITHOUT HMA OVERLAY



WITH HMA OVERLAY

**PATCHING DETAIL FOR CLASS A PATCHING
(CRC PAVEMENT)**

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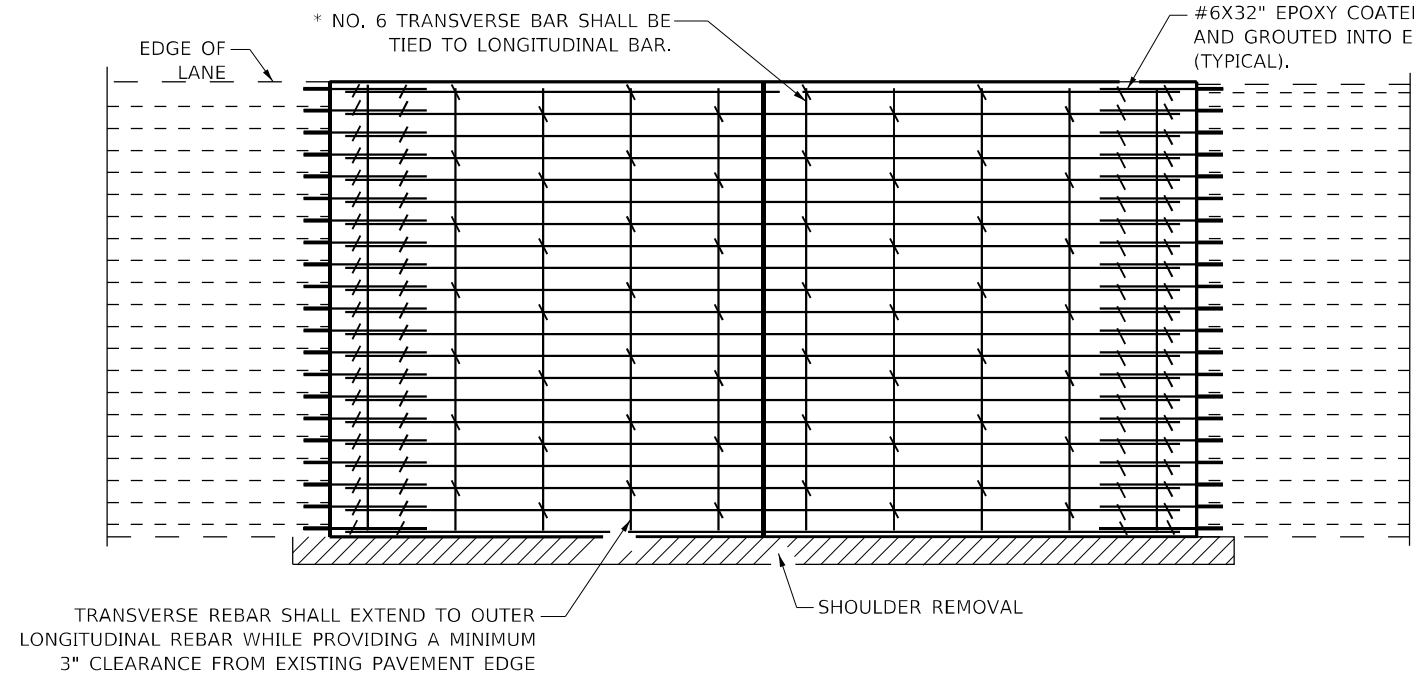
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

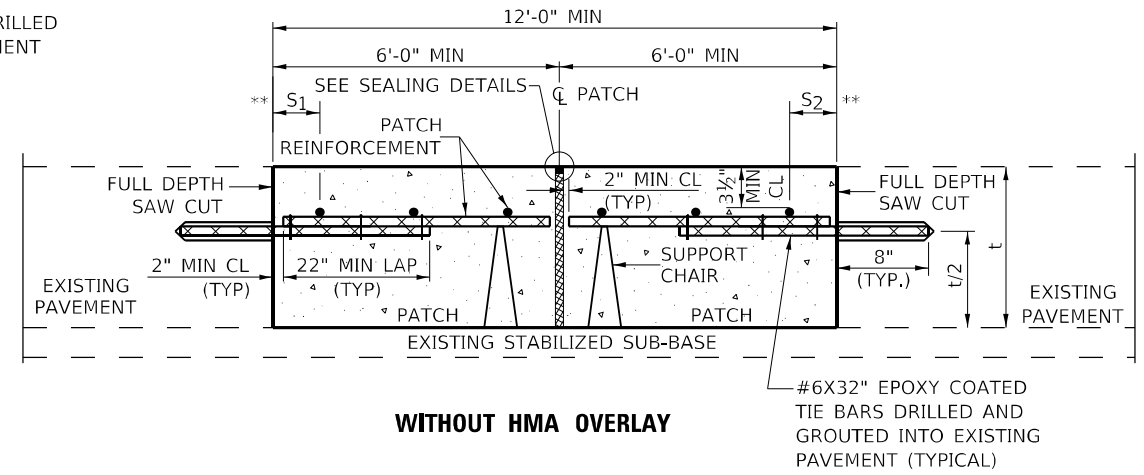
CLASS A PATCHING (SPECIAL)

SCALE: NONE SHEET 1 OF 2 SHEETS STA. TO STA.

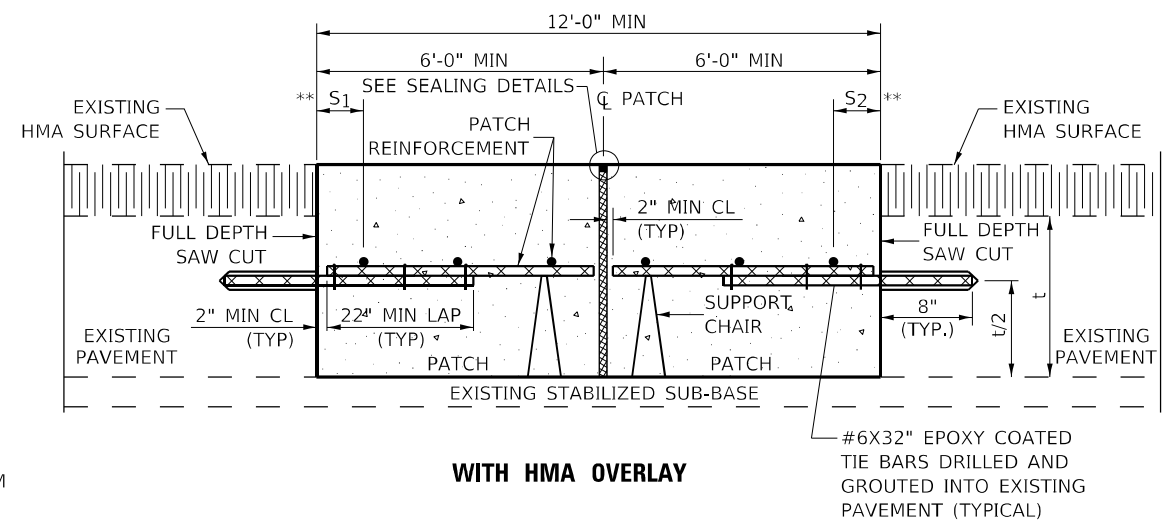
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70	3-(1,2)PP-1	BOND	9	8
CONTRACT NO. 76P87				
ILLINOIS FED. AID PROJECT				



PAVEMENT REINFORCEMENT DETAIL

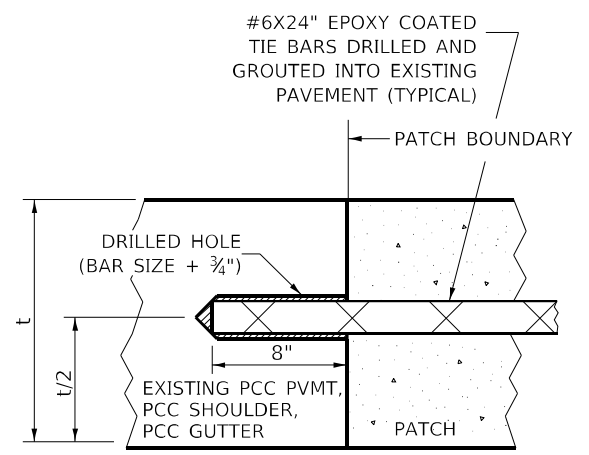


WITHOUT HMA OVERLAY



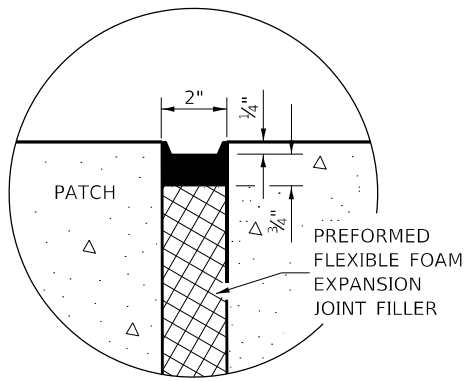
WITH HMA OVERLAY

CLASS A PATCH WITH EXPANSION JOINT

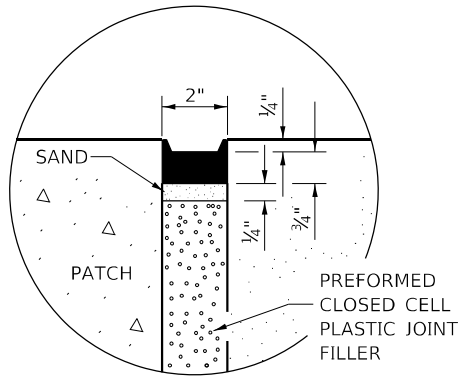


LONGITUDINAL CONSTRUCTION JOINT

PATCHES MORE THAN 20' IN LENGTH SHALL BE TIED TO ADJACENT PAVEMENT, PCC SHOULDERS OR PCC CURB AND GUTTER WITH #6x24" EPOXY COATED TIE BARS AT 36" CENTERS.



SEALING DETAIL



SEALING DETAIL

- NOTES:
- EXISTING LONGITUDINAL REINFORCEMENT SPACING; $\pm 6\frac{1}{2}$ ".
 - SPACING OF NEW LONGITUDINAL REINFORCEMENT AND NEW LONGITUDINAL TIE BARS SHALL MATCH SPACING OF EXISTING REINFORCEMENT AND SHALL BE TIED TOGETHER WITH A MINIMUM OF TWO TIES PER BAR.
 - SUPPORT CHAIRS SHALL BE REQUIRED WHENEVER PATCH LENGTH EXCEEDS 6'-0"
 - * EVERY THIRD INTERSECTION MUST BE TIED, WHEN THE MINIMUM CLEARANCE CANNOT BE OBTAINED WITH THE TRANSVERSE REBAR ON TOP, THEN THE TRANSVERSE REBAR SHALL BE TIED TO THE BOTTOM OF THE LONGITUDINAL REBAR.
 - ** VARIABLES WHERE S_1 AND S_2 ARE $2\frac{1}{2}$ " MIN. AND 12" MAX.

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PLOT SCALE = 100,0015' / in.	CHECKED -	REVISED -
PLOT DATE = 10/27/2021	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CLASS A PATCHING (SPECIAL)

SCALE: NONE SHEET 2 OF 2 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	3-(1,2)PP-1	BOND	9	9
CONTRACT NO. 76P87				
ILLINOIS FED. AID PROJECT				