06-16-2017 LETTING ITEM 150

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS

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- 13 BAR SPLICER DETAILS

TRAFFIC DATA - FAI 70 (I-55/70)

EASTBOUND 1-55 /70
2015 ADT = 24,600 (ACTUAL)
2017 ADT = 25,100 (ESTIMATED)
2037 ADT = 28,900 (ESTIMATED)
SU = 2.0% MU = 12.2%

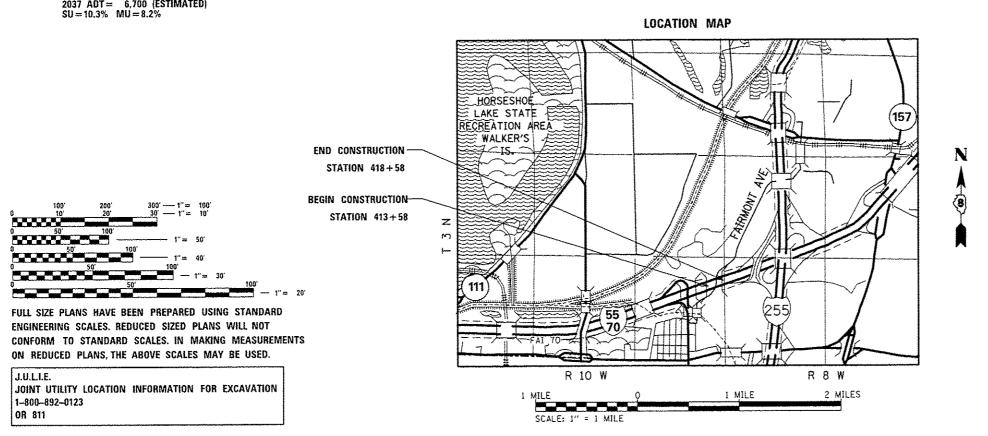
EASTBOUND 1-55 /70 TO
NORTHBOUND 1-255 RAMP
2016 ADT = 5,800 (ACTUAL)
2017 ADT = 5,900 (ESTIMATED)
SU = 10,3% MU = 8.2%

PROPOSED HIGHWAY PLANS

FAI ROUTE 70 / 55 (I-70 / 55) SECTION 60-6PP-1

I-70 / 55 PATCHING MADISON COUNTY

C-98-039-17



GROSS LENGTH = 500 FT. = 0.09 MILE

NET LENGTH = 500 FT. = 0.09 MILE

CONTRACT NO. 76K48

PROJECT ENGINEER TIMOTHY PADGETT 618-346-3325

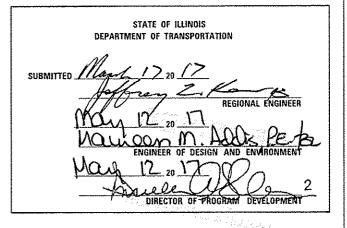
PROJECT MANAGER JEFFREY SCHWEIZER 618-346-3206

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D-98-072-17



PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

LIST OF HIGHWAY STANDARDS

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STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
AREAS OF REINFORCEMENT BARS
DECIMAL OF AN INCH AND OF A FOOT
PAVEMENT JOINTS
CLASS A PATCHES
HMA SHOULDER ADJACENT TO RIGID PAVEMENT
PIPE UNDERDRAINS
CONCRETE HEADWALL FOR PIPE UNDERDRAINS
SHOULDER RUMBLE STRIPS, 16 IN.
APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
LANE CLOSURE, FREEWAY/EXPRESSWAY
LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP, FOR SPEEDS >45 MPH
LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPER., FOR SPEEDS >45 MPH
LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPER., FOR SPEEDS >45 MPH
TRAFFIC CONTROL SETUP AND REMOVAL FREEWAY/EXPRESSWAY
TWO LANE CLOSURE, FREEWAY / EXPRESSWAY
TWO LANE CLOSURE, FREEWAY / EXPRESSWAY
TWO LANE CLOSURE, FREEWAY / EXPRESSWAY
TRAFFIC CONTROL DEVICES
TYPICAL PAVEMENT MARKINGS
TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKINGS
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GENERAL NOTES

1. ILLINOIS STATE LAW REQUIRES A 48-HOUR NOTICE BE GIVEN TO ALL UTILITIES WITHIN THE PROJECT AREA BEFORE DIGGING. FIELD MARKING OF FACILITIES MAY BE OBTAINED BY CONTACTING J.U.L.I.E. OR FOR NON-MEMBERS, THE UTILITY COMPANY DIRECTLY. AGENCIES KNOWN TO HAVE FACILITIES WITHIN THE PROJECT AREA ARE AS FOLLOWS:

UTILITY	ABOVE GROUND	BELOW GROUND
*AMEREN ILLINOIS (GAS AND ELECTRIC)	Х	Х
*AT&T ILLINOIS (COMMUNICATIONS)	Х	X
*CITY OF COLLINSVILLE (WATER AND SANITARY SEWER)		Х

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

- 2. ALL AREAS DISTURBED FOR ANY REASON SHALL BE PERMENANTLY SEEDED AND MULCHED AS DIRECTED BY THE ENGINEER. ALL AREAS DISTURBED BY THE CONTRACTOR OUTSIDE THE PROPOSED CONTRUCTION LIMITS SHALL BE SEEDED AT THE CONTRACTOR'S EXPENSE.
- 3. THE CONTRACTOR AND THE ENGINEER SHALL BE AWARE THAT NO SURVEY WAS PERFORMED FOR THIS PROJECT. THE STATIONING, TOPOGRAPHY, AND QUANTITIES SHOWN IN THE PLANS WERE CREATED USING MICROFILM AND FIELD MEASUREMENTS, ALL SHALL BE ASSUMED TO BE APPROXIMATE, THE CONTRACTOR SHALL VERIFY DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.
- 4. THE DEPARTMENT STRONGLY ENCOURAGES THE PRIME CONTRACTOR AND THEIR APPROVED SUB-CONTRACTORS TO HIRE MINORITY, WOMEN AND DISADVANTAGED INDIVIDUALS FROM ITS FEDERALLY FUNDED HIGHWAY CONSTRUCTION CAREERS TRAINING PROGRAM (HCCTP) TO HELP MEET WORKFORCE AND TRAINEE GOALS. THIS PROGRAM IS TRAINING MINORITIES. WOMEN AND DISADVANTAGED INDIVIDUALS IN HIGHWAY CONSTRUCTION-RELATED SKILLS, E.G., MATH FOR THE TRADES, JOB READINESS, TECHNICAL SKILLS COURSEWORK (CARPENTRY, CONCRETE FLATWORK, BLUEPRINT READING, SITE PLANS, SITE WORK, TOOLS USE, ETC.) AND OSHA 10 HOUR CERTIFICATION, TO PREPARE THEM FOR A CAREER IN THE HIGHWAY CONSTRUCTION TRADES, GRADUATES ARE WELL-TRAINED AND READY TO BECOME PRODUCTIVE ENTRY-LEVEL CONSTRUCTION WORKERS, CONTACT THE DISTRICT 8 EEO OFFICE AT 618-346-3360 AND/OR THE HCCTP COORDINATOR AT 618-874-6528 TO LEARN MORE ABOUT THE PROGRAM AND FOR ASSISTANCE IN MEETING WORKFORCE AND TRAINEE GOALS.
- 5. THE PROPOSED PAVEMENT MARKINGS SHALL MATCH THE LOCATIONS OF THE EXISTING PAVEMENT MARKING. AS DIRECTED BY THE ENGINEER.
- 6. DIAMOND GRINDING OF THE PAVEMENT SHALL BE REQUIRED AFTER ALL THREE STAGES OF CONSTRUCTION ARE COMPLETE, SEE SPECIAL PROVISION 'PROFILE DIAMOND GRINDING CONCRETE PAVEMENT' FOR MORE INFORMATION.
- 7. EARTH EXCAVATION FOR THIS PROJECT IS MINIMAL AND SHALL BE INCLUDED IN THE COST OF THE CONTRACT.

- 9. PIPE UNDERDRAIN CONSTRUCTION SHALL BE PERFORMED WHILE THE LANE OR LANES ADJACENT TO THE PIPE UNDERDRAIN CONSTRUCTION IS CLOSED TO TRAFFIC. THE PIPE UNDERDRAINS SHALL BE CONNECTED TO THE CULVERTS AS SHOWN ON THE PLANS. PRIOR TO THE START OF THIS WORK, THE METHOD AND CONSTRUCTION OF THIS WORK SHALL BE APPROVED BY THE ENGINEER. ALL WORK TO MAKE THIS CONNECTION SHALL BE INCLUDED IN THE PAY ITEM PIPE UNDERDRAINS 4 INCH. PRIOR TO REMOVING TRAFFIC CONTROL FROM THE ADJACENT LANE OR LANES THE CONTRACTOR SHALL CONSTRUCT THE SHOULDER TO ITS ORGINAL ELEVATION.
- 10. THE COST OF REMOVING THE EXISTING RAISED PAVEMENT MARKERS SHALL BE INCLUDED IN THE PAY ITEM CLASS A PATCHES TYPE IV. 16 INCH.
- 11. ONLY NON-CHLORIDE CONCRETE ACCELERATOR WILL BE ACCEPTED ON THIS PROJECT. IF USED, THE ACCELERATOR SHALL MEET THE APPROVAL OF THE ENGINEER PRIOR TO POURING THE CONCRETE. ACCELERATION WILL BE ALLOWED FOR ALL COONCRETE ITEMS SUBJECT TO THE APPROVAL OF THE ENGINEER, COST INCLUDED WITH RESPECTIVE CONCRETE ITEM.

MIX REQUIREMENTS

ROUTE	F.A.I ROUTE 70 (I-55/70)				
SECTION	60-6PP-1				
COUNTY	MADISON				
CONTRACT	76K48				

PATCHING AT THE SKYHOOK BRIDGE EB LANES WILL CONSIST OF 500' X DESCRIPTION: 36' CLASS A CONCRETE PATCH 16" THICK WITH 12" OF AGGREGATE / STABILIZED SUBBASE AND SHOULDER REMOVAL AND REPLACEMENT,

MIX DESIGN TABLE							
MIXTURE USE	UNDERDRAIN HMA CAP*						
AC/PG	PG 64-22						
RAP % (MAX)	SEE SPECIAL PROVISION						
DESIGN AIR VOID	4.0% @ Ndes=30						
MIX COMPOSITION (GRADATION)	IL 19.0 L						
FRICTION AGG							
QUALITY MGMT PROGRAM	QC / QA						

Plan quantities for Bituminous Surface Course items are calculated using a unit weight of 112 lb/sq yd/in (59.8 kg/sq m/25 mm thickness)

SCALE: N/A

*PAID FOR AS SHOULDER REMOVAL AND REPLACEMENT.

COMMITMENTS

NONE

	FILE NAME =	USER NAME = CoppernollPE	DESIGNED -	REVISED -	ī
	D87648-sht-plan.dgn		DRAWN -	REVISED -	ı
		PLOT SCALE = 100.0000 '/ in.	CHECKED -	REVISED -	ı
	Default	PLOT DATE = 3/20/2017	DATE -	REVISED -	1

STATE	: OF	ILLINOIS
DEPARTMENT	0F	TRANSPORTATION

HIGHWAY STANDARDS,		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.				
	GENERAL NOTES & COMMITMENTS			70	60-6PP-1	MADISON	13	2		
				CONTRAC	T NO. 7	76K48				
	SHEET 1	OF 1	SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT				

			ар. Ф. А. Дан	100 1/
				STATE
				ROADWAY
CODE			TOTAL	0005V
NO.	ITEM	UNIT	QUANTITY	URBAN
		marken special states	and the same of th	•
35101100	AGGREGATE BASE COURSE, TYPE A 12"	SQ YD	2185	2185
42000080	PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB	SQ YD	100	100
······································				
42000500	PORTLAND CEMENT CONCRETE PAVEMENT 10"	SO YO	48	48
44200647	CLASS A PATCHES, TYPE IV. 16 INCH	SO YD	2185	2185
44213000	PATCHING REINFORCEMENT	SO YD	2185	2185
44213200	SAW CUTS	FOOT	3526	3526
44213204	TIE BARS 3/4"	EACH	860	860
50800105	REINFORCEMENT BARS	POUND	2495	2495
50800515	BAR SPLICERS	EACH	96	96
			2	
50100060	CONCRETE HEADWALLS FOR PIPE DRAINS	EACH	and description of the second	1
0100070	CHOULDED SENOVAL AND DEDLACEVENT	FOOT	667	
50100070	SHOULDER REMOVAL AND REPLACEMENT	FOOT	667	667
50107600	PIPE UNDERDRAINS 4"	FOOT	657	657
			A Paragraphic Andrews of the Control	
50108100	PIPE UNDERDRAINS 4" (SPECIAL)	FOOT	20	20
··	MOBILIZATION	LSUM		1

				STATE
			T	ROADWAY
CODE			TOTAL -	0005
NO.	ITEM	UNIT	QUANTITY	URBAN
	710	0,111	300000000000000000000000000000000000000	ONDAN
70100420	TRAFFIC CONTROL AND PROTECTION, STANDARD 701411	EACH	11	1
70100430	TRAFFIC CONTROL AND PROTECTION, STANDARD 701446	EACH	1	1
70100800	TRAFFIC CONTROL AND PROTECTION, STANDARD 701401	LSUM	1	1
70107006	PAVEMENT MARKING BLACKOUT TAPE, 6"	FOOT	69	69
70107008	PAVEMENT MARKING BLACKOUT TAPE, 8"	FOOT	255	255
70200100	NIGHTTIME WORK ZONE LIGHTING	LSUM	1	1
70300100	SHORT TERM PAVEMENT MARKING	FOOT	272	272
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	91	91
70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	750	750
70300250	TEMPORARY PAVEMENT MARKING - LINE 8"	FOOT	196	196
78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	750	, 750
78000500	THERMOPLASTIC PAVEMENT MARKING - LINE 8"	FOOT	196	196
78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	26	26
(0326767	PROFILE DIAMOND GRINDING CONCRETE PAVEMENT	SQ YD	1900	1900

* SPECIALTY ITEM

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONSTR. CODE

 SUMMARY OF QUANTITIES
 F.A.I. RTE. 70
 SECTION 70

 SCALE: N/A
 SHEET 1 OF 2 SHEETS STA. TO STA.
 ILLIMO

SECTION COUNTY TOTAL SHEETS NO.

60-6PP-1 MADISON 13 3

CONTRACT NO. 76K48

CONSTR. CODE

98 2 F F F

CONSTR. CODE

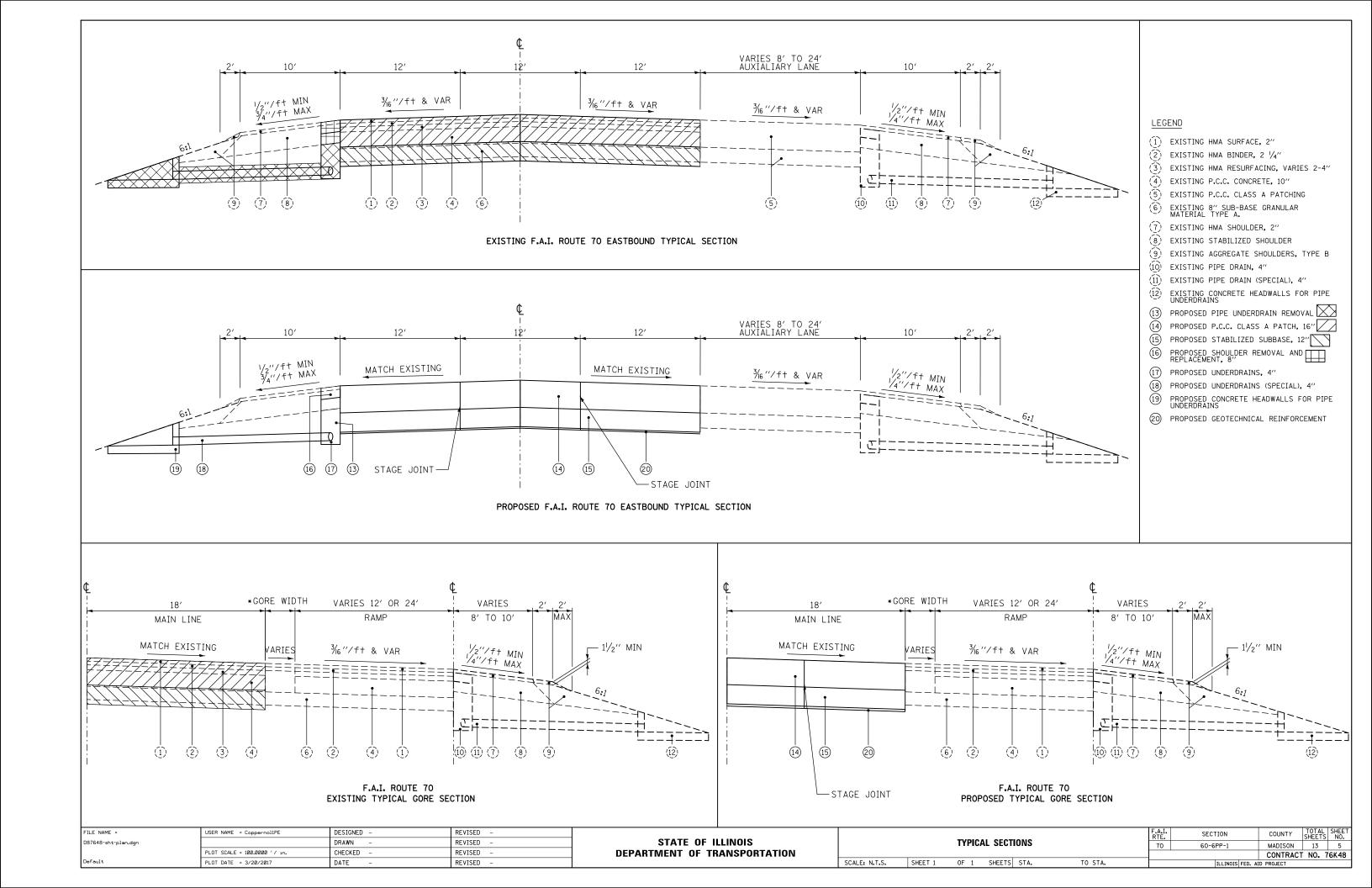
				23 11 (1 2
·				ROADWAY
CODE			TOTAL	0005
NO.	ITEM	UNIT	QUANTITY	URBAN
			and the state of t	
X7010410	SPEED DISPLAY TRAILER	CAL MO	1	1
Transfer Andrews				
X7015005	CHANGEABLE MESSAGE SIGN	CAL DA	282	282
***************************************			4	· ·
X7030005	TEMPORARY PAVEMENT MARKING REMOVAL	SQ FT	506	506
Z0028415	GEOTECHNICAL REINFORCEMENT	SO YD	2185	2185

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	PLOT SCALE * 188.0000 '/ in.	CHECKED -	REVISED -
Osfault	PLOT DATE = 3/20/2017	DATE -	REVISED -

STATE OF ILLINOIS							
DEPARTMENT	OF	TRANSPORTATION					

								SECTION	COUNTY	TOTAL	
	SUMMARY OF QUANTITIES						70	60-6PP-1	MADISON	13	4
									CONTRACT	r No.	76K48
	SCALE: N/A	SHEET 2	OF 2	SHEETS	STA.	TO STA.	ILLINOIS FEO. AID PROJECT				

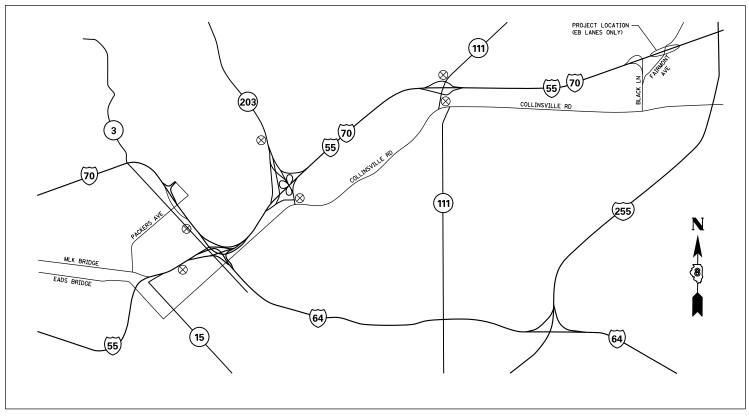


CLASS A PAVEMENT PATCHING 16 INCH SCHEDULE													
LOCATION		LANE	LENGTH	LANE WIDTH	CLASS A PATCHES, TYPE IV, 16 INCH	AGGREGATE BASE COURSE, TYPE A 12″	GEOTECHNICAL REINFORCEMENT	PATCHING REINFORCEMENT	TIE BARS 3/4"	SAWCUT	EXPANSION JOINT (SPECIAL)	PROFILE DIAMOND GRINDING CONCRETE PAVEMENT	
			(FT)	(FT)	(SQ YD)	(SQ YD)	(SQ YD)	(SQ YD)	(EACH)	(FT)	(FT)	(SQ YD)	
413+58	TO 418+58 LEFT 475.0 12.0 633.3		633.3	633.3	633.3	249	1022	24	633. 3				
413+58	0 418+5	CENTER	475.0	12.0	633.3	633.3	633.3	633.3	249	1022	24	633. 3	
413+58	13+58 TO 418+58 RIGHT 475.0 12.0		633.3	633.3	633.3	633.3	249	1022	24	633. 3			
	SUBTOTAL:			1900	1900	1900	1900	747	3066	72	1900		
	ANTICIPATED FAILURES (15%): 2				285	285	285	285	113	460			
				TOTAL:	2185	2185	2185	2185	860	3526	72	1900	

							PAV	EMENT MARKING S	CHEDULE						
						THERMOPLASTIC PAVEMENT MARKING									
LOCATION		LANE	LENGTH	LANE WIDTH	6" YELLOW EDGE LINE	6" WHITE CENTER SKIP-DASH LINE	8" WHITE SKIP-DASH AUX LANE LINE	8" WHITE GORE MARKING	RAISED RELFLECTIVE PAVEMENT MARKERS	SHORT TERM PAVEMENT MARKING	SHORT TERM PAVEMENT MARKING REMOVAL	TEMPORARY PAVEMENT MARKING - LINE 6"	TEMPORARY PAVEMENT MARKING - LINE 8"	TEMPORARY PAVEMENT MARKING REMOVAL	
S	STATION			(FT)	(FT)	(SQ YD)	(SQ YD)	(EACH)	(FT)	(EACH)	(FT)	(SQ FT)	(FT)	(FT)	(SQ FT)
413+58	ТО	418+58	LEFT	500	12	500					70	23	500	0	250
413+58	ТО	418+58	CENTER	500	12		125			13	100	33	125	0	63
413+58	TO	418+58	RIGHT	500	12		125	152	44	13	102	34	125	196	193
					TOTAL:	500	250	152	44	26	272	91	750	196	506

			BLACKOUT TA	PE SCHEDUL	.E	
	LOCATION		LANE	LENGTH	PAVEMENT MARKING BLACKOUT TAPE, 6"	PAVEMENT MARKING BLACKOUT TAPE, 8"
STATION	ТО	STATION		(FT)	(FT)	(FT)
419+58	TO	421+18	RIGHT	160	40	
420+32	ТО	421+63	RIGHT	131		131
420+78	TO	422+02	RIGHT	124		124
421+63	TO	422+78	RAMP	115	29	
				TOTAL:	69	255

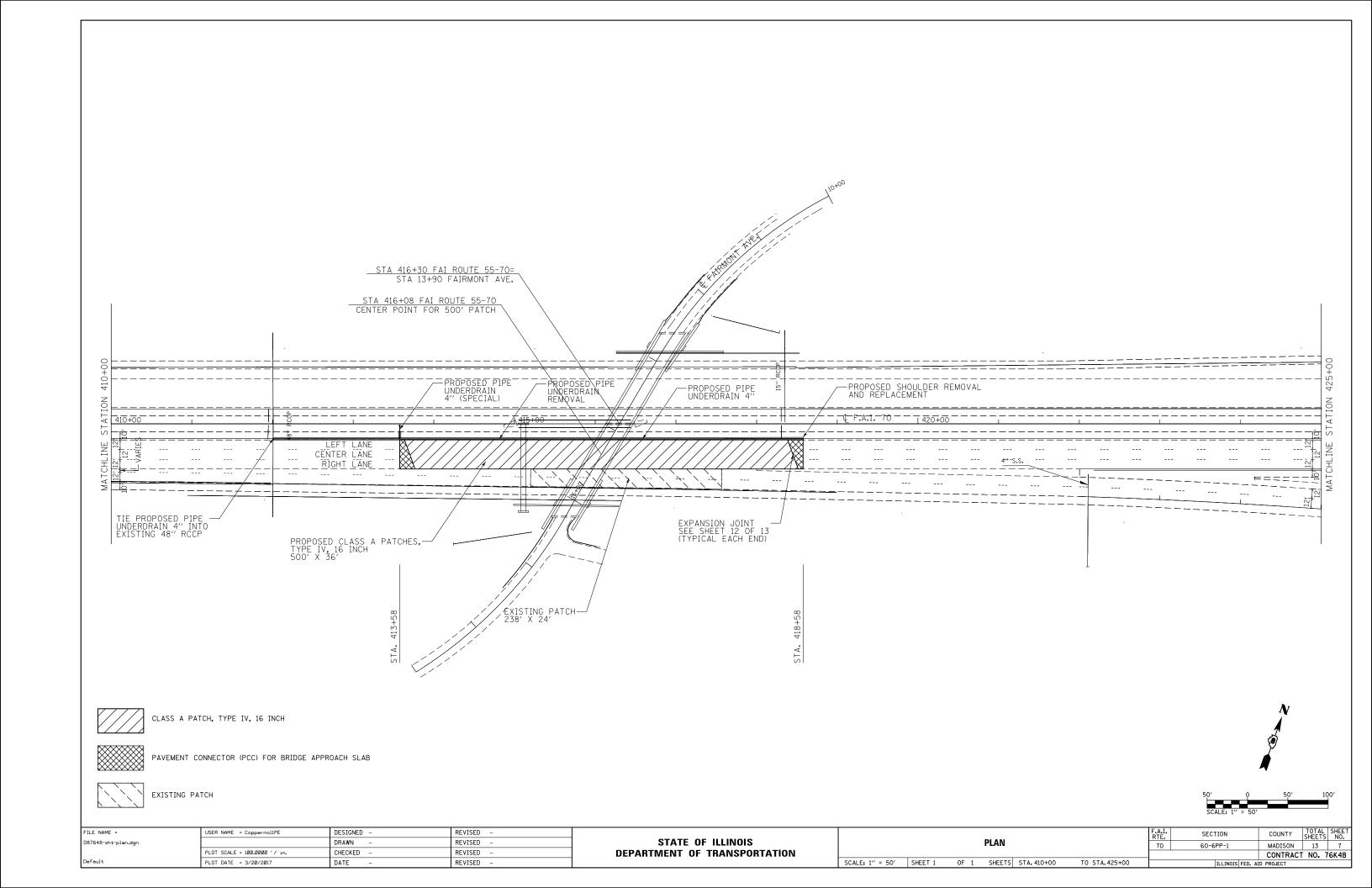
	PIPE UNDERDRAIN SYSTEM SCHEDULE													
LOCATION I-55/70		N	PIPE UNDERDRAIN REMOVAL	PIPE UNDERDRAIN 4"		DERDRAIN PECIAL)	CONCRETE HEADWALL FOR PIPE DRAINS	SHOULDER REMOVAL AND REPLACEMENT 8"						
		LEFT SHOULDER	LEFT SHOULDER	LEFT SHOULDER	EB MEDIAN	EB MEDIAN	LEFT SHOULDER							
STATION	ТО	STATION	FOOT	FOOT	FOOT	FOOT	EACH	FOOT						
412+01		413+58	157	157	10	10	1	167						
413+58		418+58	500	500			-	500						
SUB-TOTAL		657	657	10	10	1	667							
TOTAL :			657	657	2	20	1	667						

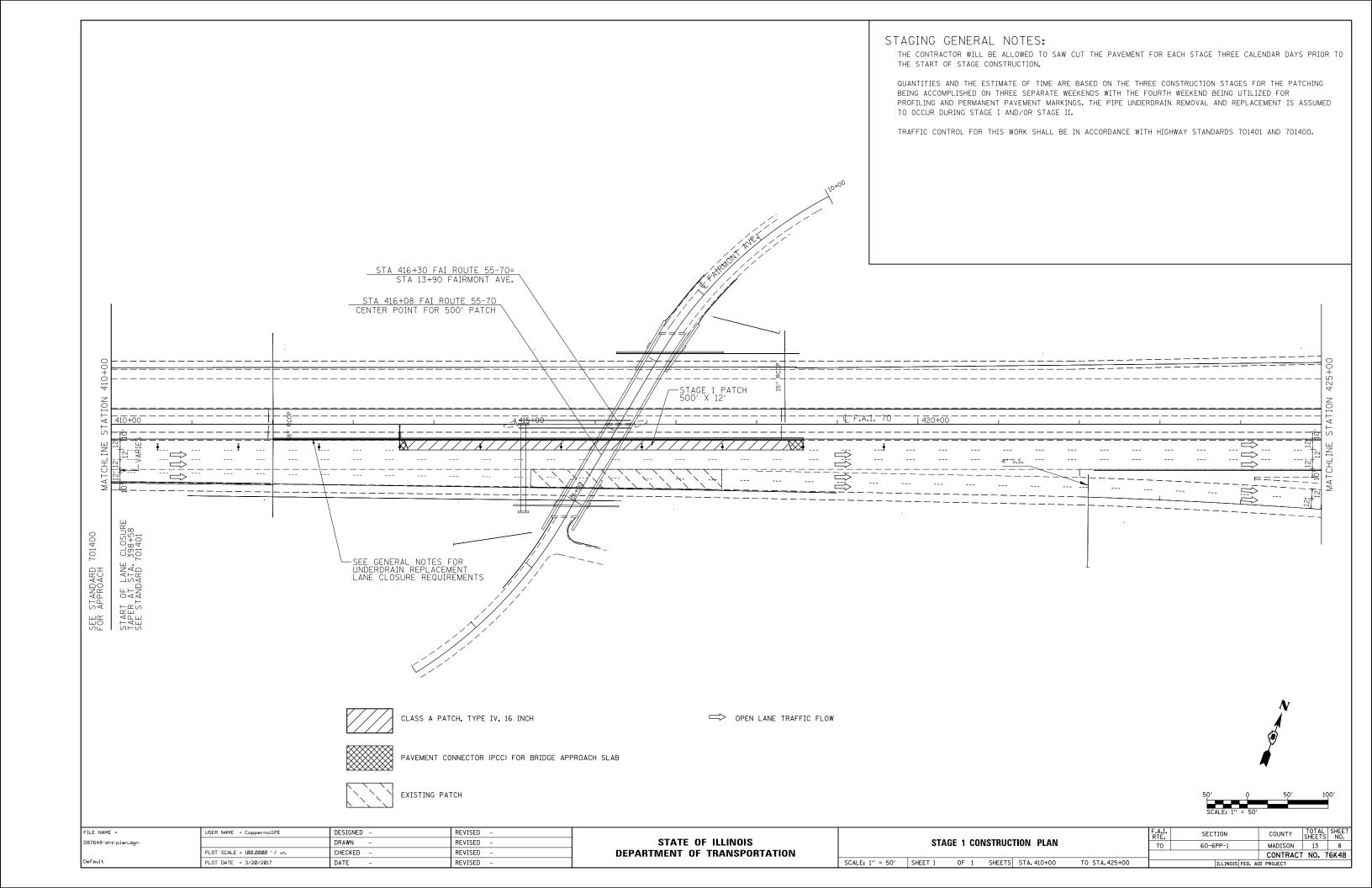


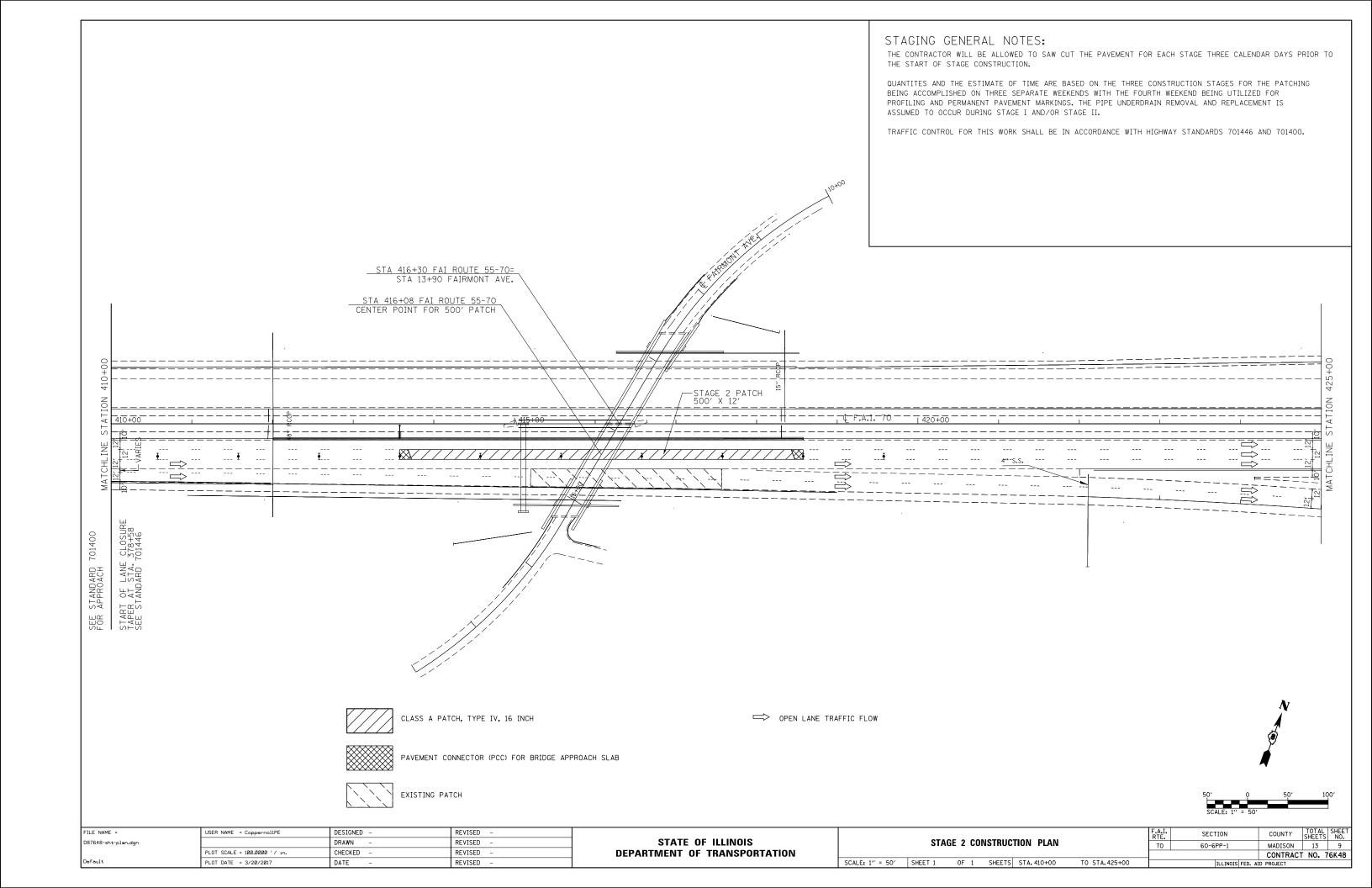
 $\otimes\operatorname{PROPOSED}$ MESSAGE BOARD LOCATIONS (6 TOTAL) (N.T.S.)

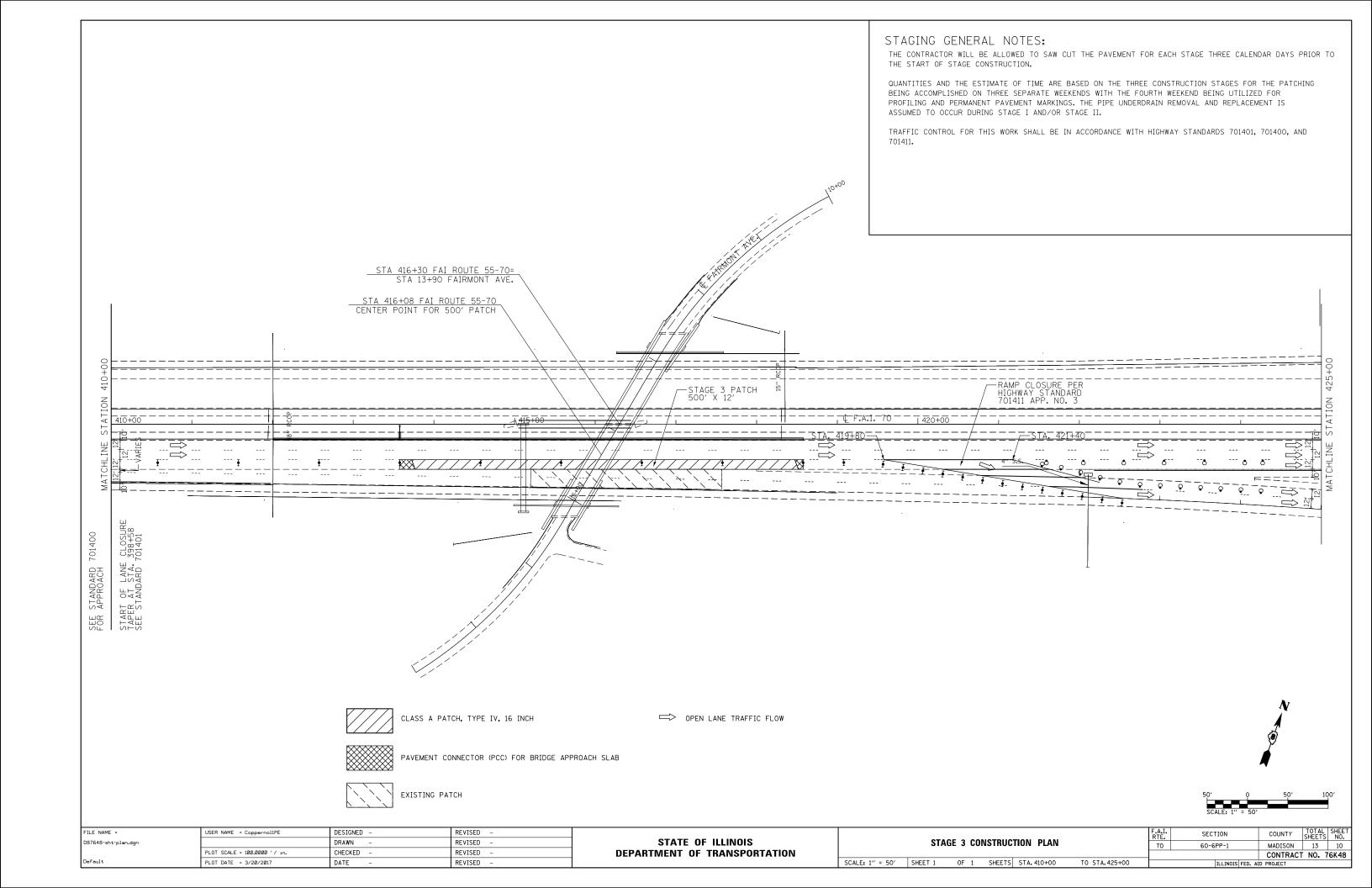
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D87648-sht-plan.dgn		DRAWN -	REVISED -	STATE OF ILLINOIS	SCHEDULE OF QUANTITIES			70	60-6PP-1	MADISON	13 6
	PLOT SCALE = 100.00000 '/ in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION							T NO. 76K48
Default	PLOT DATE = 3/20/2017	DATE -	REVISED -		SCALE: N/A	SHEET 1 OF 1 SHEETS STA.	TO STA.		ILLINOIS FED. A	ID PROJECT	

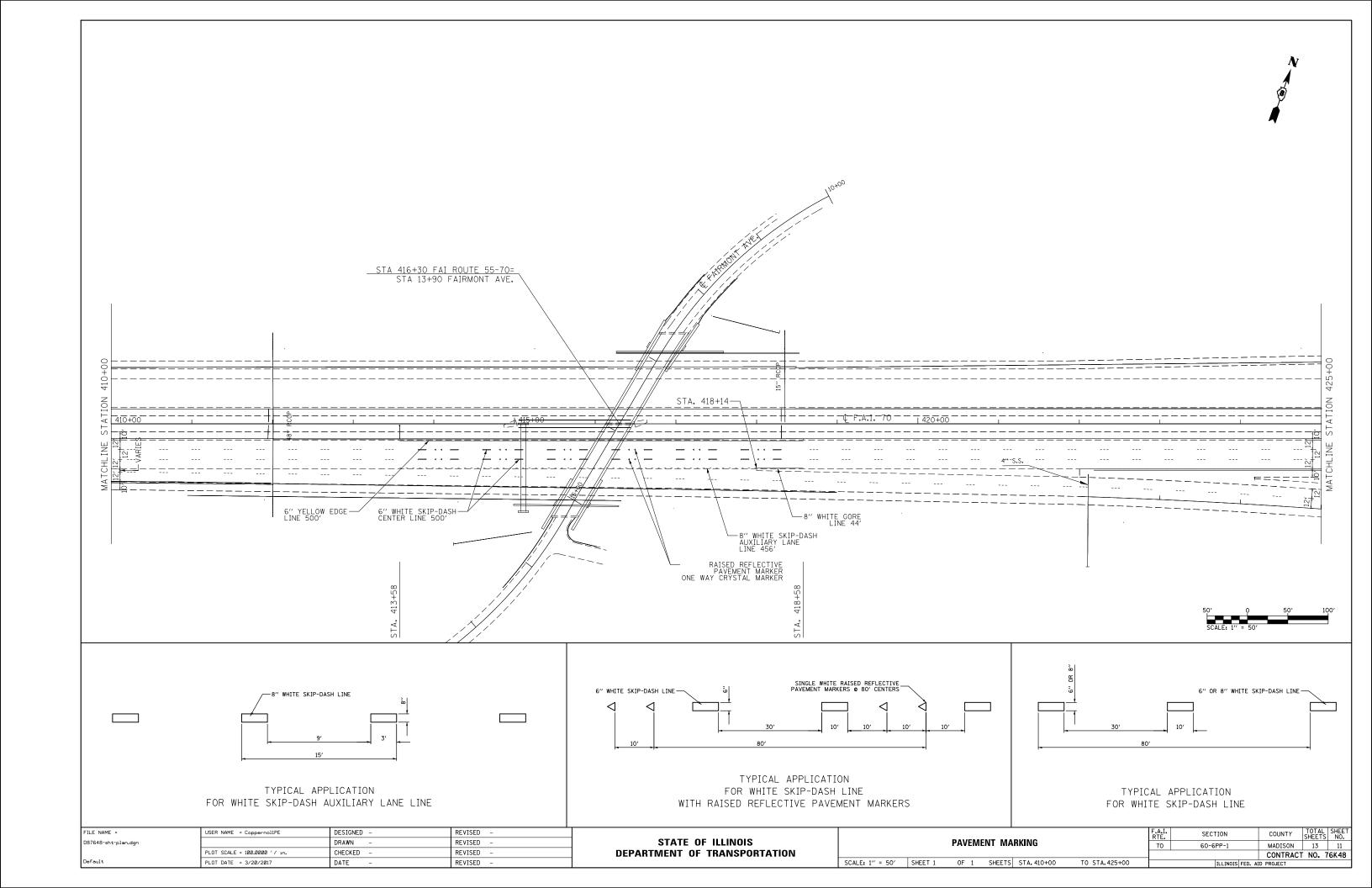
FILE NAME =	USER NAME = CoppernollPE	DESIGNED -	REVISED -				F.A.I.	SECTION	COUNTY	TOTAL	SHEET
D87648-sht-plan.dgn		DRAWN -	REVISED -	STATE OF ILLINOIS	SCHEDULE OF QUANTITIES		70	60-6PP-1	MADISON 13	13	6
	PLOT SCALE = 100.0000 '/ in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION					CONTRACT	NO. 7	6K48
Default	PLOT DATE = 3/20/2017	DATE -	REVISED -		SCALE: N/A SHEET 1 OF 1 SHEETS STA.	TO STA.		ILLINOIS FED. AI	ID PROJECT		

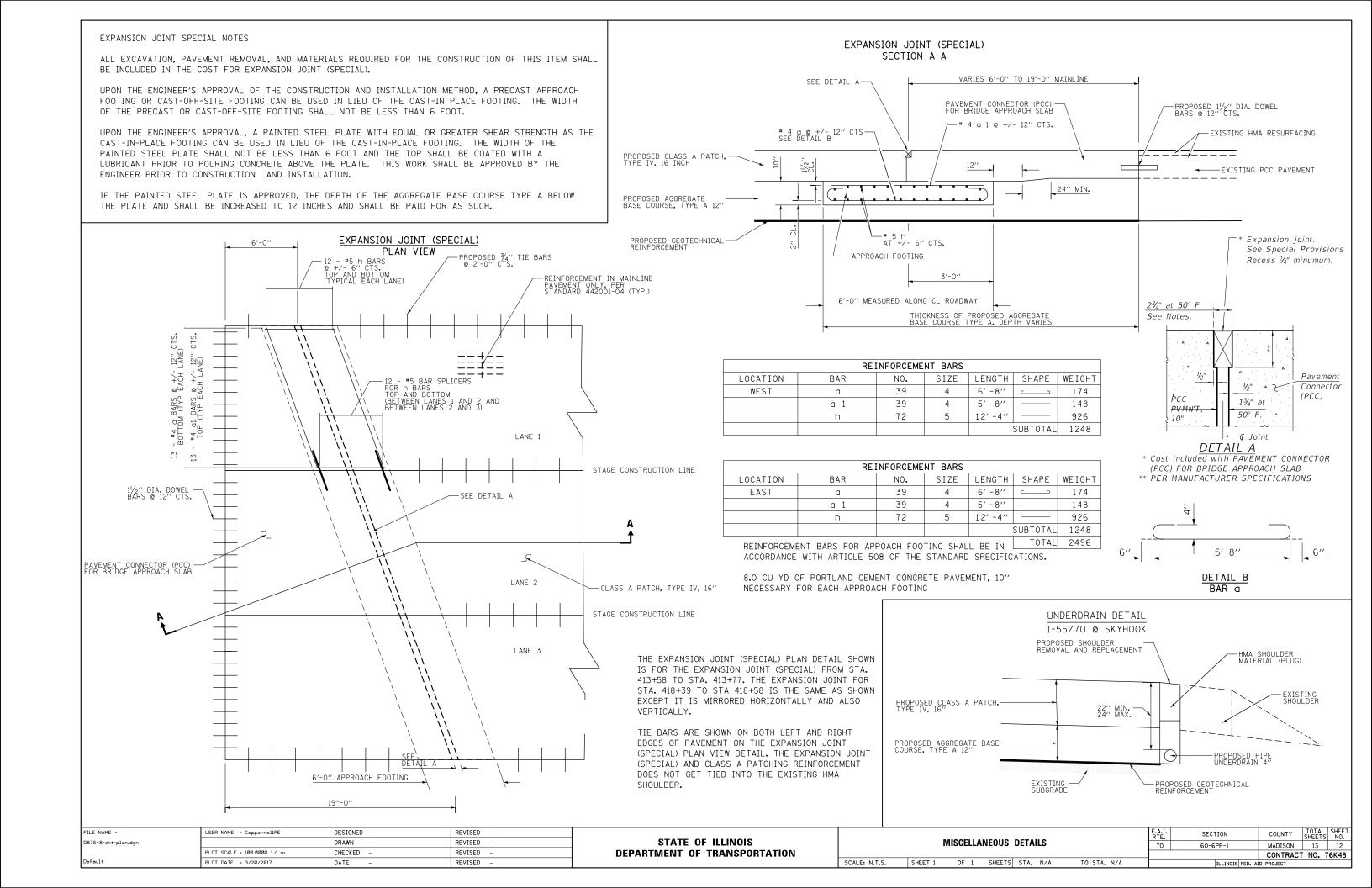


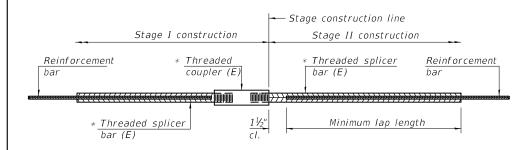










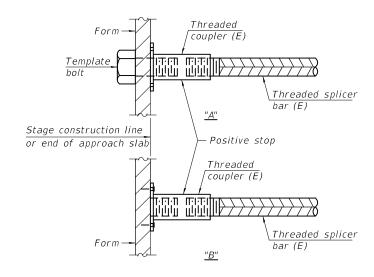


STANDARD BAR SPLICER ASSEMBLY

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.

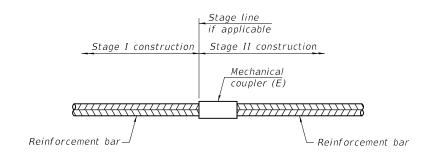
Location	Bar size	No. assemblies required	Minimum lap length
SLEEPER SLAB	#5	96	2'-7"



INSTALLATION AND SETTING METHODS

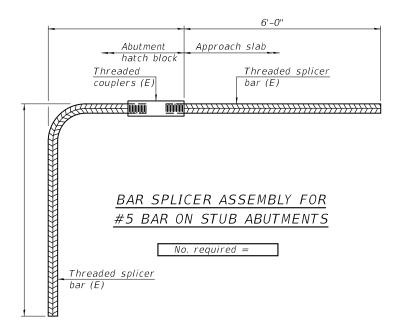
"A": Set bar splicer assembly by means of a template bolt.
"B": Set bar splicer assembly by nailing to wood forms or cementing to steel forms.

(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.

COUNTY

MADISON 13 13

CONTRACT NO. 76K48

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

FILE NAME =	USER NAME = CoppernollPE	DESIGNED -	REVISED -
D87648-sht-plan.dgn		DRAWN -	REVISED -
	PLOT SCALE = 100.0000 '/ in.	CHECKED -	REVISED -
Default	PLOT DATE = 3/20/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

l R									F.A.I. RTE.	A.I. SECTION		N	
BAR SPLI	BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS									60-61	PP-1		
SCALE: N.T.S.	SHEET 1	OF 1	SHEETS	STA.	N/A	TO	STA.	N/A			ILLINOIS FE	D.	