

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

FAI ROUTE 57 (I-57)
SECTION (25-6,7)RS-2

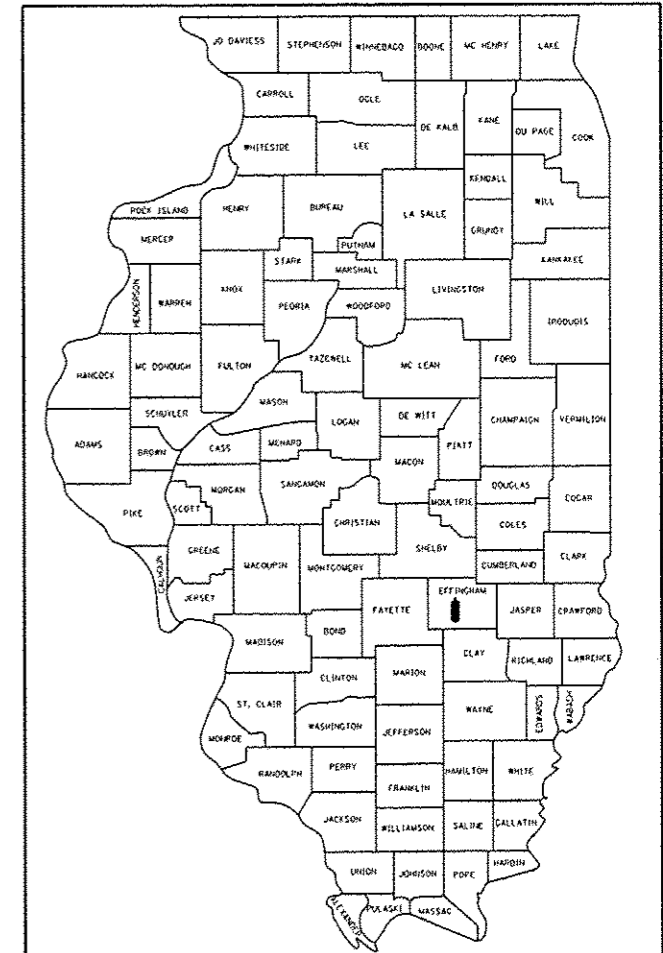
RESURFACING (INT-2ND)
EFFINGHAM COUNTY

C-97-084-13

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(25-6,7)RS-2	EFFINGHAM	63	1
ILLINOIS			CONTRACT NO. 74638	

* 63 + 18 = 81 TOTAL SHEETS

D-97-038-13



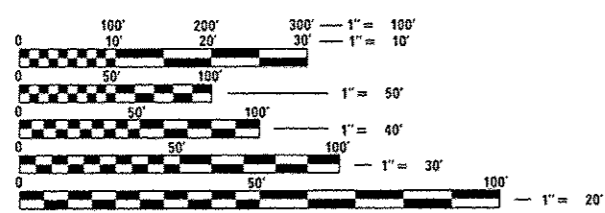
LOCATION OF SECTION INDICATED THUS: -- ■ --

FOR INDEX OF SHEETS, SEE SHEET NO. 2

ADT = 15,900 (2013)

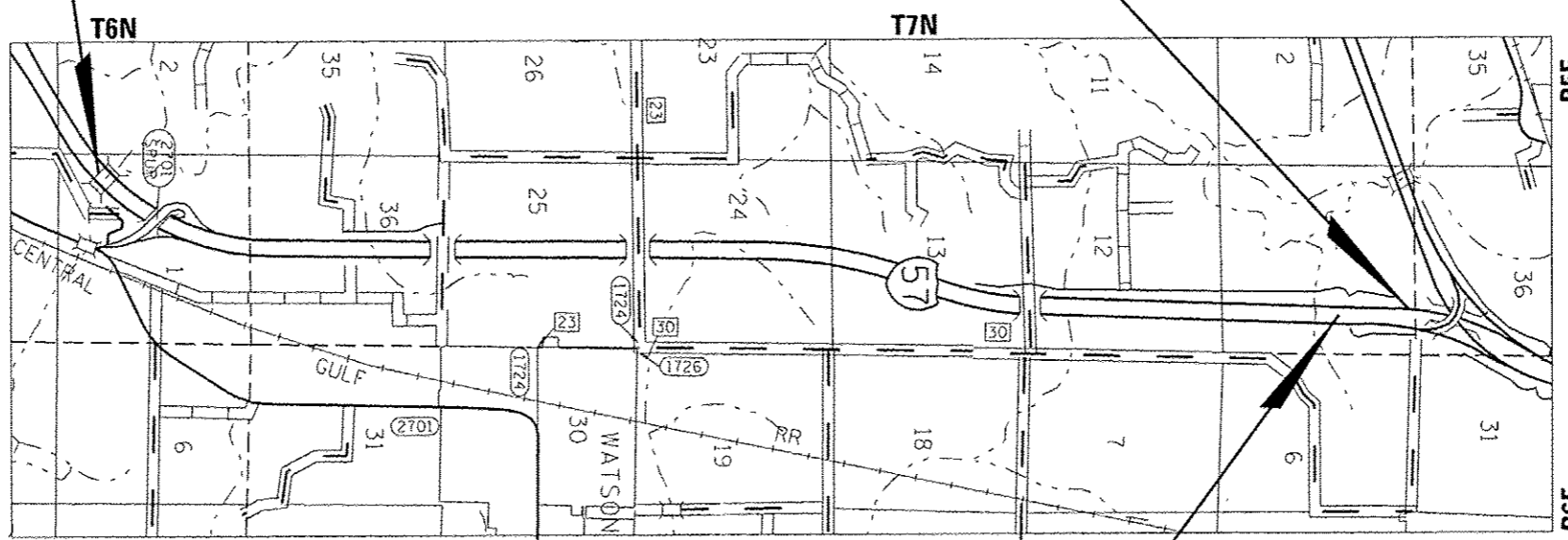
FAI ROUTE 57 (I-57)
SECTION (25-6,7)RS-2
PROJECT BEGINS
STATION 4625 + 56 (NBL)
STATION 4625 + 53 (SBL)

FAI ROUTE 57 (I-57)
SECTION (25-6,7)RS-2
PROJECT ENDS
STATION 5015 + 43 (NBL)
STATION 5009 + 14 (SBL)



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

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



PROJECT ENGINEER: MARK DAUGHERTY
PROJECT MANAGER: MATT BOWER

CONTRACT NO. 74638

GROSS LENGTH = 36,674.27 FT. = 6.946 MILE
NET LENGTH = 36,674.27 FT. = 6.946 MILE

STATION EQUATION
4976 + 87.27 BK = 5000 + 00.00 AH (NBL)
4976 + 85.60 BK = 5000 + 00.00 AH (SBL)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
SUBMITTED Sept. 08 20 14
Roger L. Orshel
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
Oct 17 20 14
John D. Baranzelli, P.E.
ENGINEER OF DESIGN AND ENVIRONMENT
Oct 17 20 14
Omer Osman, P.E.
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

INDEX OF SHEETS

SHEET NO.	ITEM
1	COVER SHEET
2	INDEX OF SHEETS, HIGHWAY STANDARDS AND GENERAL NOTES
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7-9	TYPICAL CROSS SECTIONS
10-14	SCHEDULE OF QUANTITIES
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22-26	RAMP CLOSURE DETAIL SHEETS
27-28	TRAFFIC CONTROL FOR STAGE CONSTRUCTION
* 29-58	STRUCTURE PLANS
59-61	MISCELLANEOUS DETAILS
62-63	PAVEMENT MARKING DETAILS

* INCLUDES SHEETS 49A-49G
AND SHEETS 58A-58K.

THE FOLLOWING STANDARDS ARE A PART OF THESE PLANS AND ARE INCLUDED FOLLOWING THE LAST NUMBERED SHEET OF THE PLANS.

STD. NO.	DESCRIPTION
000001-06	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
442201-03	CLASS C AND D PATCHES
482001-02	HMA SHOULDER ADJACENT TO FLEXIBLE PAVEMENT
630001-10	STEEL PLATE BEAM GUARDRAIL
631011-09	TRAFFIC BARRIER TERMINAL, TYPE 2
631032-08	TRAFFIC BARRIER TERMINAL, TYPE 6A
631033-05	TRAFFIC BARRIER TERMINAL, TYPE 6B
635001-01	DELINEATORS
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-02	REFLECTOR MARKER AND MOUNTING DETAILS
642001-02	SHOULDER RUMBLE STRIPS, 16 IN.
701101-04	OFF-ROAD OPERATIONS, MULTILANE, 15' TO 24" FROM PAVEMENT EDGE
701106-02	OFF-RD OPERATIONS, MULTILANE, MORE THAN 15' AWAY
701201-04	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS >= 45MPH
701400-07	APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
701401-08	LANE CLOSURE, FREEWAY/EXPRESSWAY
701402-09	LANE CLOSURE, FREEWAY/EXPRESSWAY, WITH BARRIER
701406-08	LANE CLOSURE, FREEWAY/EXPRESSWAY, DAY OPERATIONS ONLY
701411-08	LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP, FOR SPEEDS >= 45MPH
701426-06	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATION, FOR SPEEDS >= 45 MPH
701456-03	PARTIAL EXIT RAMP CLOSURE FREEWAY / EXPRESSWAY
701901-03	TRAFFIC CONTROL DEVICES
704001-07	TEMPORARY CONCRETE BARRIER
720011-01	METAL POSTS FOR SIGNS, MARKERS & DELINEATORS
780001-04	TYPICAL PAVEMENT MARKINGS
781001-03	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS
782001	PRISMATIC CURB REFLECTORS

GENERAL NOTES

THIS SECTION SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PLANS, THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", ADOPTED JANUARY 1, 2012; THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS" INDICATED ON THE CHECK SHEET, AND THE SPECIAL PROVISIONS INCLUDED IN THE PROPOSAL.

THIS PROJECT IS LOCATED ON I-57 (I-57) IN EFFINGHAM COUNTY, FROM THE LITTLE WABASH RIVER TO I-70. THE WORK INCLUDED IN SECTION (25-6, 7)RS-2 CONSISTS OF PATCHING, HOT-MIX ASPHALT SURFACE REMOVAL, HOT-MIX ASPHALT RESURFACING, GUARDRAIL REMOVAL AND REPLACEMENT, PAVEMENT MARKING, AND ANY OTHER WORK NECESSARY TO COMPLETE THE SECTION.

TEMPORARY RAMPS SHALL BE INSTALLED AT THE TAPER RATE OF 1:80 (V:H).

THE CONTRACTOR SHALL MILL THROUGH THE CLASS D PATCHES AFTER THE PATCHING IS COMPLETED. THIS WORK SHALL BE PAID FOR AS HMA SURFACE REMOVAL OF THE THICKNESS SPECIFIED.

THE RESIDENT ENGINEER SHALL BE THE SOLE JUDGE CONCERNING THE CURING TIME FOR THE VARIOUS HOT-MIX ASPHALT LIFTS.

THE ACTUAL LOCATIONS OF PAVEMENT PATCHING SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

PAVEMENT MARKING SHALL BE APPLIED IN ACCORDANCE WITH SECTION 780 OF THE STANDARD SPECIFICATIONS. SHORT TERM PAVEMENT MARKING SHALL BE APPLIED TO THE MILLED SURFACE, BITUMINOUS MATERIALS (PRIME COAT), AND HOT-MIX ASPHALT SURFACE COURSE AS SPECIFIED IN SECTION 703 OF THE STANDARD SPECIFICATIONS. TEMPORARY TAPE SHALL BE USED ON THE SURFACE COURSE AND HOT-MIX ASPHALT SHOULDERS. PAINT SHALL BE USED ON MILLED SURFACES.

THE RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED AS DOUBLE MARKERS ON I-57 AS SHOWN ON STANDARD 781001

THE CONTRACTOR SHALL PROVIDE INTERNET ACCESS TO THE BITUMINOUS PLANT QUALITY CONTROL LAB SO THAT BITUMINOUS PLANT REPORTS CAN BE E-MAILED TO THE DISTRICT HEADQUARTERS. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE UNIT PRICES FOR OTHER ITEMS IN THE CONTRACT.

IN ADDITIONAL TO THE REQUIREMENTS FOR PORTABLE CHANGEABLE MESSAGE SIGNS IN ARTICLE 701.15(J), A LAPTOP COMPUTER SHALL ALSO BE SUPPLIED BY THE CONTRACTOR.

MATERIAL FOR AGGREGATE WEDGE SHOULDER, TYPE B SHALL BE CRUSHED STONE OR CRUSHED CONCRETE.

THE BDE SPECIAL PROVISION "HOT-MIX ASPHALT-PAY FOR PERFORMANCE USING PERCENT WITHIN LIMITS-JOBSITE SAMPLING" SHALL APPLY TO THE PAY ITEMS POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, IL-19.0 FG, N90 AND POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N90.

THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT:

APPLICATION	AC/PG	DESIGN AIR Voids	MIXTURE COMPOSITION	FRICTION AGGREGATE
BINDER COURSE POLYMERIZED HMA BINDER COURSE, IL-19.0 FG N90	SBS PG 70-22	4.0% @ N=90	IL - 19.0FG	N/A
HMA SURFACE COURSE POLYMERIZED HMA SURFACE COURSE, MIX "D" N90	SBS PG 70-22	4.0% @ N=90	IL - 9.5	MIX D
HMA SHOULDER HMA SURFACE COURSE, IL-9.5L, N30	PG 64-22	4.0% @ N=30	IL - 9.5	N/A
CLASS D PATCHING HMA ASPHALT BINDER COURSE, IL-19.0 N90	PG 64-22	4.0% @ N=90	IL - 19.0	N/A

THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN THE CALCULATING PLAN QUANTITIES:

BITUMINOUS MATERIALS (PRIME COAT)	0.05 LBS/SQ FT
BITUMINOUS MATERIALS (PRIME COAT)-FOG COAT	0.025 LBS/SQ FT
SURFACE, BINDER, SHOULDERS	112 LBS/SQ YD/ INCH

FILE NAME: c:\pwork\pwork\staff\m\20140816\07	USER NAME: staff\m	DESIGNED: -	REVISED: -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX OF SHEETS, HIGHWAY STANDARDS, & GENERAL NOTES	F.A.I. RIE:	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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PLOT SCALE: 1/8" = 1'-0"	CHECKED: -	REVISED: -	CONTRACT NO. 74638							
PLOT DATE: 9/8/2014	DATE: -	REVISED: -	ILLINOIS FED. AID PROJECT							
Default				SCALE: N/A	SHEET 1 OF 1 SHEETS	STA.	TO STA.			

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SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		0004	0014 SN 025-0071 & 0072	0014 SN 025-0042
20700220	POROUS GRANULAR EMBANKMENT	CU YD	60.8	60.8		
40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	207173	207173		
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	2058	2058		
40600990	TEMPORARY RAMP	SQ YD	211	211		
40603243	POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, IL-19.0, FG, N90	TON	25814	25814		
40603545	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N90	TON	17647	17647		
44000151	HOT-MIX ASPHALT SURFACE REMOVAL, 1/2"	SQ YD	204874	204874		
44000155	HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"	SQ YD	5207	5207		
44000159	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/2"	SQ YD	1781	1781		
44201789	CLASS D PATCHES, TYPE II, 12 INCH	SQ YD	120	120		
44201794	CLASS D PATCHES, TYPE III, 12 INCH	SQ YD	50	50		
44201796	CLASS D PATCHES, TYPE IV, 12 INCH	SQ YD	50	50		
44201803	CLASS D PATCHES, TYPE II, 13 INCH	SQ YD	1350	1350		

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		0004	0014 SN 025-0071 & 0072	0014 SN 025-0042
44201807	CLASS D PATCHES, TYPE III, 13 INCH	SQ YD	140	140		
44201809	CLASS D PATCHES, TYPE IV, 13 INCH	SQ YD	90	90		
44201827	CLASS D PATCHES, TYPE II, 15 INCH	SQ YD	900	900		
44201831	CLASS D PATCHES, TYPE III, 15 INCH	SQ YD	95	95		
44201833	CLASS D PATCHES, TYPE IV, 15 INCH	SQ YD	60	60		
48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	5520	5520		
48203100	HOT-MIX ASPHALT SHOULDERS	TON	26141	26141		
50102400	CONCRETE REMOVAL	CU YD	228		105.5 122.5	
50104000	BRIDGE RAIL REMOVAL	FOOT	1344		1344	
50200100	STRUCTURE EXCAVATION	CU YD	60.8		60.8	
50300100	FLOOR DRAINS	EACH	130		114 16	
50300225	CONCRETE STRUCTURES	CU YD	40		24 16	
50300255	CONCRETE SUPERSTRUCTURE	CU YD	201.8		81.5 120.3	
50300260	BRIDGE DECK GROOVING	SQ YD	3634		2784 850	
50300300	PROTECTIVE COAT	SQ YD	882.1		132.1 750	

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SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		0004	0014 SN 025-0071 & 0072	0014 SN 025-0042
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	11830		4140	7690
50800105	REINFORCEMENT BARS	POUND	156	156		
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	28780		11640	17140
50800515	BAR SPLICERS	EACH	172		172	
50800530	MECHANICAL SPLICERS	EACH	174		160	14
50900200	STEEL RAILING, TYPE 2399	FOOT	2226	882	1344	
52000110	PREFORMED JOINT STRIP SEAL	FOOT	540		296	244
* 63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	9232.5	9232.5		
* 63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	12	12		
* 63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	18	18		
* 63100089	TRAFFIC BARRIER TERMINAL, TYPE 6B	EACH	8	8		
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	38	38		
63200310	GUARDRAIL REMOVAL	FOOT	11960	11960		

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		0004	0014 SN 025-0071 & 0072	0014 SN 025-0042
63500105	DELINEATORS	EACH	267	267		
64200116	SHOULDER RUMBLE STRIPS, 16 INCH	FOOT	143626	143626		
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	7	7		
67100100	MOBILIZATION	L SUM	1	1		
70100207	TRAFFIC CONTROL AND PROTECTION, STANDARD 701402	EACH	2	2		
70100420	TRAFFIC CONTROL AND PROTECTION, STANDARD 701411	EACH	4	4		
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1		
70100700	TRAFFIC CONTROL AND PROTECTION, STANDARD 701406	L SUM	1	1		
70100800	TRAFFIC CONTROL AND PROTECTION, STANDARD 701401	L SUM	1	1		
70100825	TRAFFIC CONTROL AND PROTECTION, STANDARD 701456	L SUM	1	1		
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	10	10		

* SPECIALTY ITEM

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SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		0004	0014 SN 025-0071 & 0072	0014 SN 025-0042
70300100	SHORT TERM PAVEMENT MARKING	FOOT	33765	33765		
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	163824	163824		
70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	17953	17953		
70300250	TEMPORARY PAVEMENT MARKING - LINE 8"	FOOT	1982	1982		
70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	35	35		
70300275	TEMPORARY PAVEMENT MARKING - LINE 18"	FOOT	108	108		
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	50 FT	9069	9069		
70400100	TEMPORARY CONCRETE BARRIER	FOOT	1294	1294		
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	1294	1294		
70600250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2		
70600350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2		
* 72700100	STRUCTURAL STEEL SIGN SUPPORT - BREAKAWAY	POUND	256.6	256.6		
* 73400100	CONCRETE FOUNDATIONS	CU YD	1.4	1.4		

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		0004	0014 SN 025-0071 & 0072	0014 SN 025-0042
78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	163824	163824		
78000500	THERMOPLASTIC PAVEMENT MARKING - LINE 8"	FOOT	1982	1982		
78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	35	35		
78000620	THERMOPLASTIC PAVEMENT MARKING - LINE 18"	FOOT	108	108		
78004230	PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - INLAID - LINE 6"	FOOT	17953	17953		
78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	1950	1950		
78100300	REPLACEMENT REFLECTOR	EACH	50	50		
78200300	PRISMATIC CURB REFLECTOR	EACH	39	39		
78200410	GUARDRAIL MARKERS, TYPE A	EACH	179	179		
78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	38	38		
X0323388	TRAFFIC COUNTER	EACH	1	1		
X0326519	STEEL RAILING REMOVAL	FOOT	9.5	9.5		
X5870015	BRIDGE DECK CONCRETE SEALER	50 FT	3678	3678		
X6350120	DELINEATOR REMOVAL	EACH	267	267		

* SPECIALTY ITEM

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SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		0004	0014 SN 025-0071 & 0072	0014 SN 025-0042
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1		
X7010410	SPEED DISPLAY TRAILER	CAL MO	7	7		
X7015005	CHANGEABLE MESSAGE SIGN	CAL DA	28	28		
* X7830070	GROOVING FOR RECESSED PAVEMENT MARKING 5"	FOOT	163824	163824		
* X7830076	GROOVING FOR RECESSED PAVEMENT MARKING 9"	FOOT	1982	1982		
* X7830078	GROOVING FOR RECESSED PAVEMENT MARKING 13"	FOOT	35	35		
* X7830084	GROOVING FOR RECESSED PAVEMENT MARKING 19"	FOOT	108	108		
Z0001903	STRUCTURAL STEEL REMOVAL	POUND	11830		4140 7690	
Z0001905	STRUCTURAL STEEL REPAIR	POUND	3050		310 2740	
Z0006012	BRIDGE DECK LATEX CONCRETE OVERLAY, 2 1/4"	SQ YD	895		895	
Z0012110	BRIDGE DECK FLY ASH OR GGBF SLAG CONCRETE OVERLAY, 2 1/4"	SQ YD	3760		2890 870	
Z0012142	BRIDGE DECK SCARIFICATION 2 1/4"	SQ YD	3760		2890 870	
Z0012500	CONCRETE CURB REPAIR	FOOT	100	100		
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	1557.1		1067.1 490	
Z0016001	DECK SLAB REPAIR (FULL DEPTH, TYPE I)	SQ YD	4		4	
Z0016002	DECK SLAB REPAIR (FULL DEPTH, TYPE II)	SQ YD	303		290 13	
Z0034105	MATERIAL TRANSFER DEVICE	TON	40215	40215		

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		0004	0014 SN 025-0071 & 0072	0014 SN 025-0042
Z0026407	TEMPORARY SHEET PILING	SQ FT	200		200	
Z0042505	POST REMOVAL AND REPLACEMENT	EACH	2	2		
Z0073200	TEMPORARY SHORING AND CRIBBING	EACH	35		16 19	
Z0076604	TRAINEES TRAINING PROGRAM GRADUATE	HOUR	500	500		
Z0107005	PAVEMENT MARKING BLACKOUT TAPE, LINE 5"	FOOT	4240	4240		
Z0107007	PAVEMENT MARKING BLACKOUT TAPE, LINE 7"	FOOT	2000	2000		

* SPECIALTY ITEM

φ 0042

FILE NAME =	USER NAME = steffennk	DESIGNED -	REVISED -
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	PLOT DATE = 9/8/2014	DATE -	REVISED -

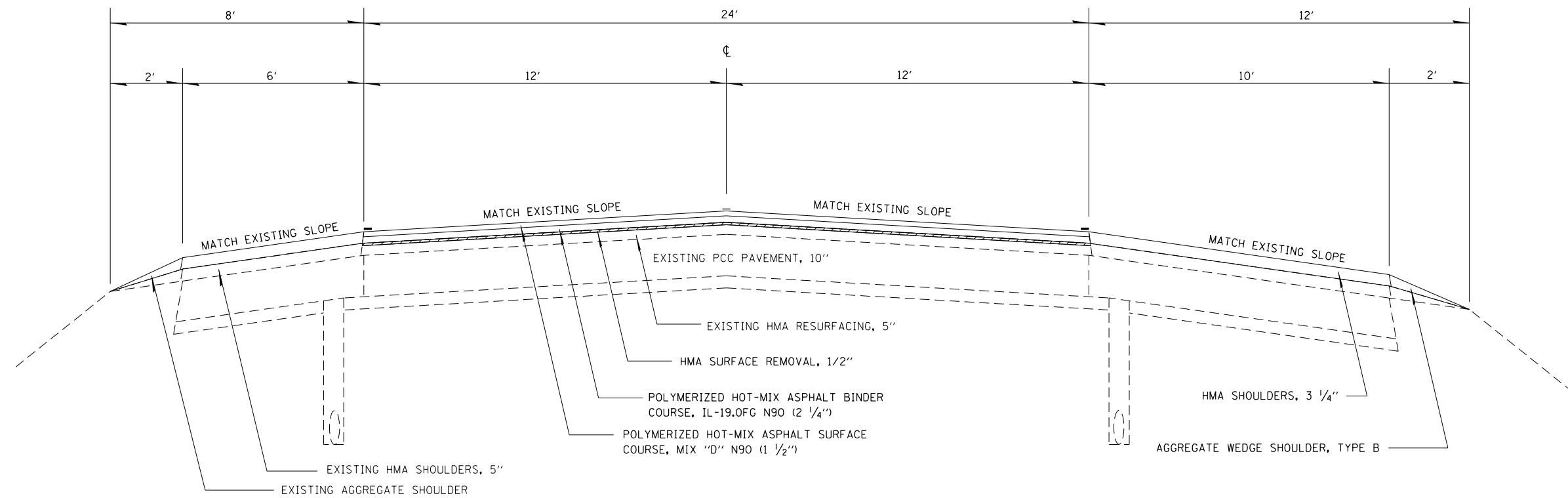
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

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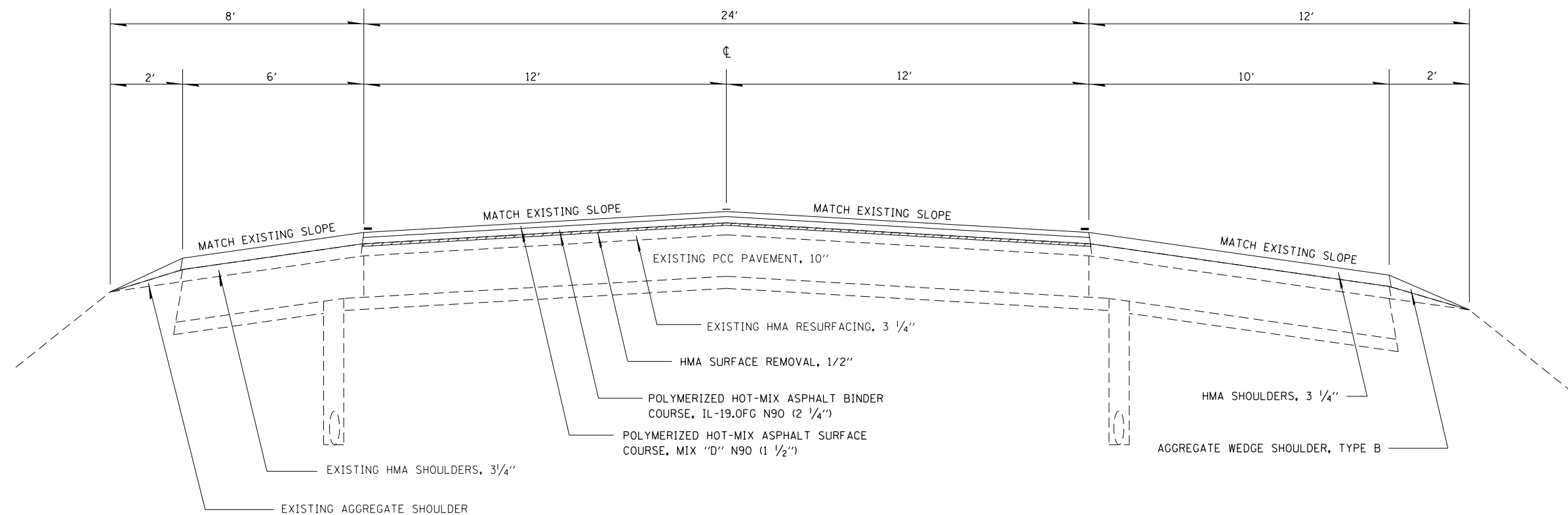
F.A.I. RIE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(25-6, TIRS-2	EFFINGHAM	63	6
CONTRACT NO. 74638			ILLINOIS FED. AID PROJECT	

TYPICAL CROSS SECTION FAI ROUTE 57
STATION 4681+80 TO STATION 4725+61 (NBL)



TYPICAL CROSS SECTION FAI ROUTE 57

STATION 4725+61.0 TO STATION 4822+15 (NBL) STATION 4632+86.0 TO STATION 4822+12.0 (SBL)
STATION 4890+86.0 TO STATION 4949+15 (NBL) STATION 4891+01.3 TO STATION 5008+30.0 (SBL)



FILE NAME =	USER NAME = steffenmk	DESIGNED -	REVISED -
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Default	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 9/8/2014	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL CROSS SECTIONS

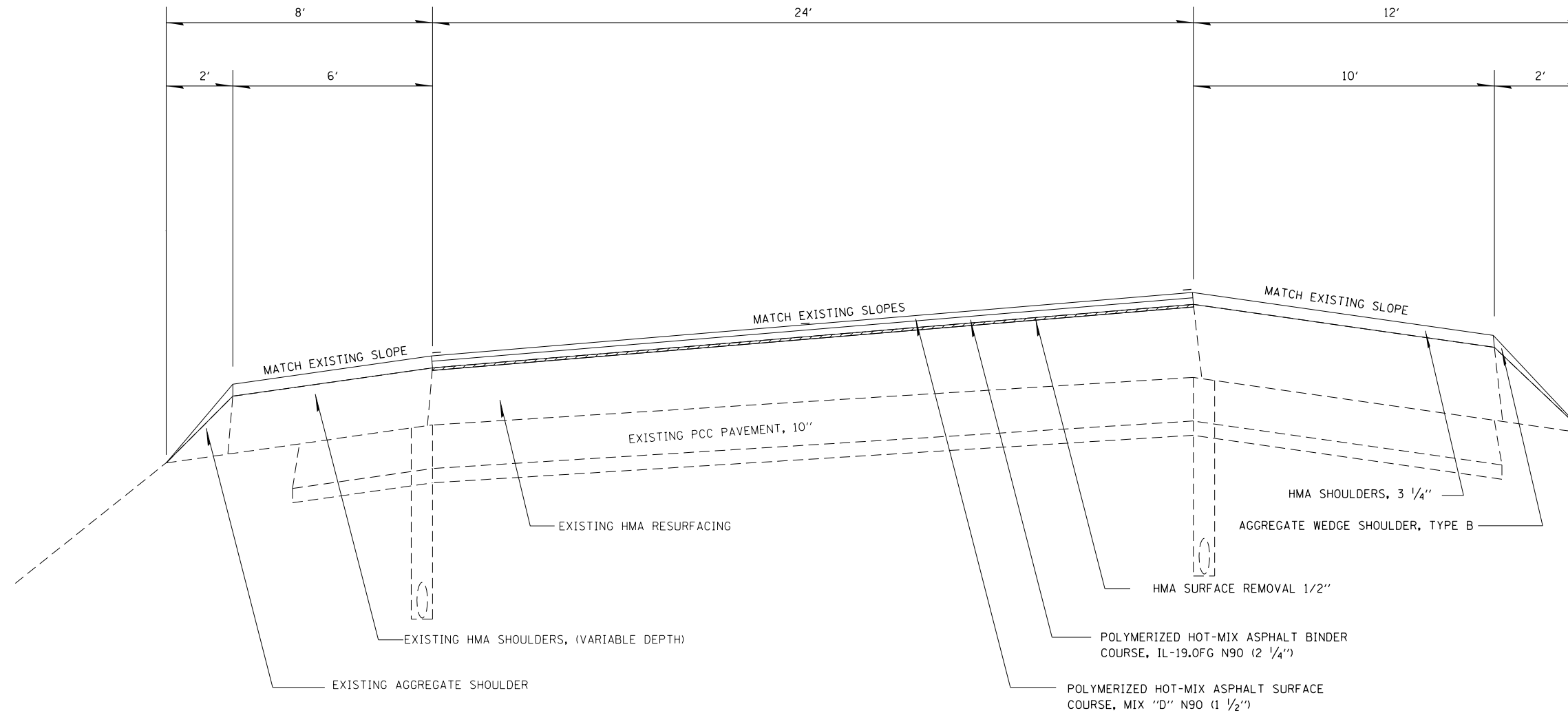
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(25-6,7)RS-2	EFFINGHAM	63	7
CONTRACT NO. 74638				
ILLINOIS FED. AID PROJECT				

TYPICAL CROSS SECTION FAI ROUTE 57

STATION 4625+56 TO STATION 4681+80 (NBL)
 STATION 4822+15 TO STATION 4890+86 (NBL)
 STATION 4949+15 TO STATION 5015+43 (NBL)

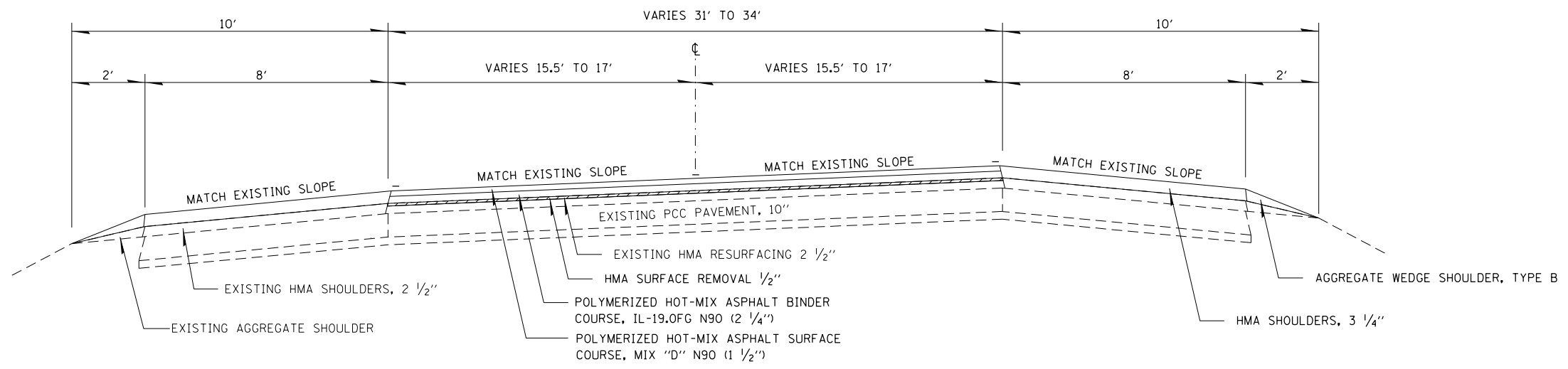
 STATION 4625+53 TO STATION 4632+86 (SBL)
 STATION 4822+12 TO STATION 4891+01.3 (SBL)
 STATION 5008+30 TO STATION 5009+14 (SBL)



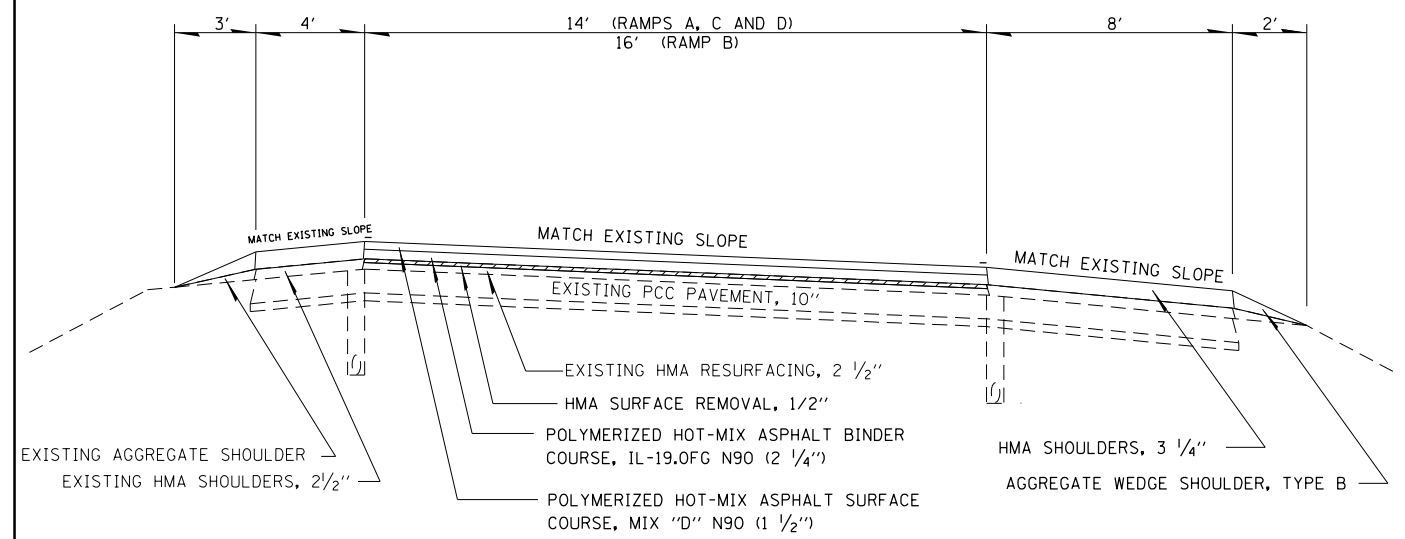
NOTE: THE MAXIMUM ALGEBRAIC DIFFERENCE BETWEEN PAVEMENT SLOPE AND SHOULDER SLOPE SHALL NOT EXCEED 8%.

FILE NAME =	USER NAME = steffenmk	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TYPICAL CROSS SECTIONS			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
ci:\pw\work\p\idot\steffenmk\d0401616\07	4638-sh-typical.dgn	DRAWN -	REVISED -		SCALE: N/A	SHEET 2	OF 3	SHEETS	STA.	TO STA.	EFFINGHAM	63	8
Default	PLOT SCALE = 100.0000' / 1in.	CHECKED -	REVISED -					CONTRACT NO. 74638			ILLINOIS FED. AID PROJECT		
	PLOT DATE = 9/8/2014	DATE -	REVISED -										

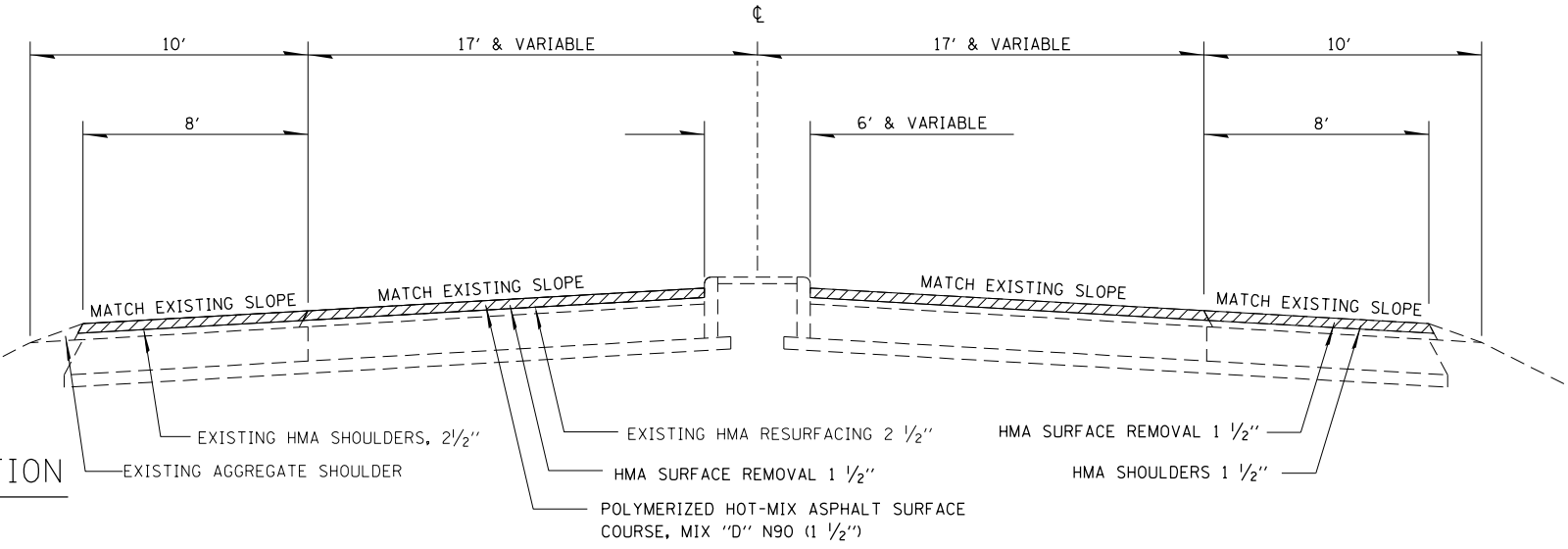
TYPICAL CROSS SECTION ILL ROUTE 37 SPUR CONNECTION
STATION 35+41.75 TO STATION 37+15.25



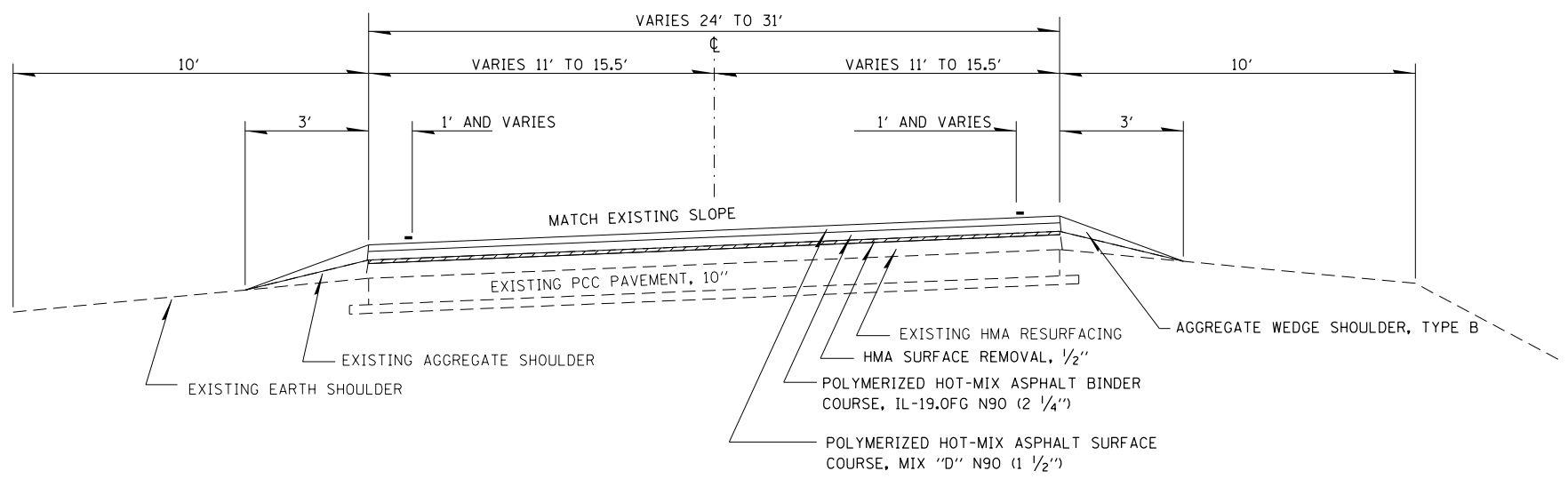
TYPICAL CROSS SECTION ILL-37/FAI-57 (WATSON) INTERCHANGE
RAMPS A, B, C, D



ILL-37 SPUR CONNECTION/RAMP AB
STATION 37+15.25 TO STATION 48+82
STATION 51+35.4 TO STATION 56+24.4



TYPICAL CROSS SECTIONS ILLINOIS ROUTE 37 SPUR CONNECTION
STATION 34+50.00 TO STATION 35+41.75



NOTE: THE MAXIMUM ALGEBRAIC DIFFERENCE BETWEEN PAVEMENT SLOPE AND SHOULDER SLOPE SHALL NOT EXCEED 8%.

FILE NAME =	USER NAME = steffenmk	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TYPICAL CROSS SECTIONS			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Default	4638-shr-typical.dgn	DRAWN -	REVISED -					57	(25-6,7)RS-2	EFFINGHAM	63	9
	PLOT SCALE = 100.0000' / 1"	CHECKED -	REVISED -		CONTRACT NO. 74638							
	PLOT DATE = 9/8/2014	DATE -	REVISED -		SCALE: N/A	SHEET 3 OF 3 SHEETS	STA. TO STA.	ILLINOIS FED. AID PROJECT				

PAVING SCHEDULES				44000151 HMA SURF REM 1/2"	44000155 HMA SURF REM 1 1/2"	40603243 PLY HMA BINDER N90	40603545 PLY HMA SURF N90	40600275 BIT MT (PRM CT)	48203100 HMA SHLDRS	48102100 AGG WEDGE SHLDR TY B
STATION	TO	STATION	LENGTH (FT)	MAINLINE WIDTH (FT)	AREA (SQ YD)	(SQ YD)	(SQ YD)	(TON)	(TON)	(TON)

IL RT 37 SPUR				44000151 HMA SURF REM 1/2"	44000155 HMA SURF REM 1 1/2"	40603243 PLY HMA BINDER N90	40603545 PLY HMA SURF N90	40600275 BIT MT (PRM CT)	48203100 HMA SHLDRS	48102100 AGG WEDGE SHLDR TY B		
STATION	TO	STATION	LENGTH (FT)	MAINLINE WIDTH (FT)	AREA (SQ YD)	(SQ YD)	(SQ YD)	(TON)	(TON)	(TON)		
34+50.00		35+41.75	91.75	30	305.8	305.8		38.5	25.7	206.4	8.9	
35+41.75		37+15.25	173.50	33	636.2	636.2		80.2	53.4	1817.4	56.1	11.3
37+15.25		38+12.50	97.25	30	324.2		324.2	27.2	257.7	14.5	6.3	
38+12.50		48+82.00	1069.50	28	3327.3		3327.3	279.5	2673.8	159.7	69.5	
48+82.00		51+35.40	BRIDGE OMISSION									
RAMP A												
51+35.40		56+24.40	489.00	14	760.7		760.7	63.9	440.1	36.5		
56+24.40 BK = 0+00.00 AH												
00+00.00		12+18.20	1218.20	14	1895.0	1895.0		238.8	159.2	2010.0	295.6	99.0
12+18.2 BK = 4662+84.50 AH												
4662+84.50		4668+14.10	529.60	8	470.8	470.8		59.3	39.5	635.5	128.5	43.0
4661+34.00		4665+28.80	394.80	5	219.3	219.3		27.6	18.4	384.9	95.8	32.1
RAMP B												
51+35.40		53+24.90	189.50	14	294.8		294.8	24.8	170.6	14.1		
53+24.90		56+24.90	300.00	15	500.0		500.0	42.0	285.0	22.4		
56+24.90 BK = 0+00.00 AH												
00+00.00		07+01.90	701.90	16	1247.8	1247.8		157.2	104.8	1263.4	170.3	57.0
7+01.90 BK = 4652+99.90 AH												
4652+99.90		4639+64.20	1335.70	11	1632.5	1632.5		205.7	137.1	1903.4	324.1	108.5
RAMP C												
36+72.10		42+46.50	574.4	14	893.5	893.5		112.6	75.1	947.8	139.4	46.7
42+46.50		43+97.60	151.1	3	50.4	50.4		6.3	4.2	124.7	36.7	12.3
42+46.50 BK = 0+00.00 AH												
00+00.00		13+13.70	1313.7	14	2043.5	2043.5		257.5	171.7	2167.6	318.8	106.7
13+13.70 BK = 4665+62 AH												
4655+62.00		4657+61.80	199.8	14	310.8	310.8		39.2	26.1	329.7	48.5	16.2
4657+61.80		4665+11.80	750.0	8	666.7	666.7		84.0	56.0	900.0	182.0	60.9
RAMP D												
4635+04.50		4640+33.50	529.00	14	822.9	822.9		103.7	69.1	872.9	128.4	43.0
4640+33.50		4641+84.60	151.10	4	67.2	67.2		8.5	5.6	136.0	36.7	12.3
4640+33.50 BK = 0+00 AH												
00+00.00		09+85.80	985.80	14	1533.5	1533.5		193.2	128.8	1626.6	239.2	80.1
9+85.80 BK = 41+48.60 AH												
41+48.60		36+76.10	472.5	11	577.5	577.5		72.8	48.5	673.3	114.7	38.4
TOTAL PAGE 1=						13373	5207	1685	1561	19827	2562	852

PAVING SCHEDULES CONTINUED				44000151	44000159	40603243	40603545	40600275	Z0034105	48203100	48102100
STATION	TO	STATION	LENGTH (FT)	HMA SURF REM 1/2" (SQ YD)	HMA SURF REM 2 1/2" (SQ YD)	PLY HMA BINDER N90 (TON)	PLY HMA SURF N90 (TON)	BIT MT (PRM CT) (LB)	MAT TR DEVICE (TON)	HMA SHLDRS (TON)	AGG WEDGE SHLDR TY B (TON)
				MAINLINE WIDTH (FT)	AREA (SQ YD)						

NORTHBOUND LANES													
4630+07.00		4976+87.27	34680.27	24	92480.7	92480.7		11652.6	7768.4	90168.7	19421.0	11221.0	2254.2
4976+87.27 BK = 5000+00.00 AH													
5000+00.00		5015+43.00	1543.00	24	4114.7	4114.7		518.4	345.6	4011.8	864.1	499.2	100.3
SOUTHBOUND LANES													
4630+10.00		4976+85.60	34675.60	24	92468.3	92468.3		11651.0	7767.3	90156.6	19418.3	11219.5	2253.9
4976+85.60 BK = 5000+00.00 AH													
5000+00.00		5009+14.00	914.00	24	2437.3	2437.3		307.1	204.7	2376.4	511.8	295.7	59.4
CROSSOVERS													
	4698+10				172.0					77.4		31.3	
	4810+10				172.0					77.4		31.3	
	4941+90				172.0					77.4		31.3	
QUANTITIES ON SHOULDERS FOR REMOVING RUMBLE STRIPS WHEN USING TRAFFIC CONTROL STD. 701402													
NORTHBOUND LANES													
STAGE 1	4620+61.00		4625+62.00	501.00				556.7		75.2		77.9	
STAGE 2	4620+61.00		4625+62.00	501.00				334.0		125.3		46.8	
SOUTHBOUND LANES													
STAGE 1	4630+10.00		4635+11.00	501.00				334.0		75.2		46.8	
STAGE 2	4630+10.00		4635+11.00	501.00				556.7		125.3		77.9	
				TOTAL PAGE 2=	191501	1781	24129	16086	187346	40215	23579	4668	

44000151	44000155	44000159	40603243	40603545	40600275	Z0034105	48203100	48102100	
HMA SURF REM 1/2" (SQ YD)	HMA SURF REM 1 1/2" (SQ YD)	HMA SURF REM 2 1/2" (SQ YD)	PLY HMA BINDER N90 (TON)	PLY HMA SURF N90 (TON)	BIT MT (PRM CT) (LB)	MAT TR DEVICE (TON)	HMA SHLDRS (TON)	AGG WEDGE SHLDR TY B (TON)	
TOTAL PAGE 1 AND PAGE 2=	204874	5207	1781	25814	17647	207173	40215	26141	5520

PAVEMENT MARKING SCHEDULES				78000200 THERMO PVT MRK 4" WHITE (FOOT)	78000200 THERMO PVT MRK 4" YELLOW (FOOT)	X7830070 GRV FOR REC PVT MRK 5" (FOOT)	78000500 THERMO PVT MRK 8" WHITE (FOOT)	X7830076 GRV FOR REC PVT MRK 9" (FOOT)	78000600 THERMO PVT MRK 12" YELLOW (FOOT)	X7830078 GRV FOR REC PVT MRK 13" (FOOT)	70300100 SHRT TRM PVT MRK (FOOT)	70301000 WRK ZN PVT MRK REM (SQ FT)	70300220 TEMP PVT MRK 4" (FOOT)	70300250 TEMP PVT MRK 8" (FOOT)	70300260 TEMP PVT MRK 12" (FOOT)	
STATION	TO	STATION	LENGTH (FT)													

IL RT 37 SPUR																	
34+50.00		34+85.00	35.00	35.0	40.0	75.0					9.0	1.0	75.0				
34+85.00		35+40.80	55.80	111.6	69.8	181.4					21.8	2.4	181.4				
35+40.80		37+15.00	174.20	348.4	696.8	1045.2			35.0	35.0	125.4	13.9	1045.2		35.0		
37+15.00		41+90.00	475.00		950.0	950.0					76.0	12.7	950.0				
41+90.00		48+82.00	692.00	1114.0	1384.0	2498.0	42.0	42.0			199.8	33.3	2498.0	42.0			
48+82.00		51+35.40	253.40	506.8	506.8	1013.6	224.0	224.0			81.1	13.5	1013.6	224.0			
RAMP A																	
51+35.40		56+24.40	489.00	489.0	489.0	978.0					78.2	13.0	978.0				
56+24.40 BK = 0+00.00 AH																	
00+00.00		11+62.00	1162.00	1162.0	1162.0	2324.0					278.9	31.0	2324.0				
11+62.00		12+18.20	56.20	56.2		56.2	56.2	56.2			6.7	0.7	56.2	56.2			
12+18.2 BK = 4662+84.50 AH																	
4662+84.50		4665+28.80	244.30	244.3		244.3	244.3	244.3			29.3	3.3	244.3	244.3			
4665+28.80		4668+14.10	285.30	285.3		285.3					34.2	3.8	285.3				
RAMP B																	
51+35.40		56+24.90	489.50	489.5	489.5	979.0					78.3	13.1	979.0				
56+24.90 BK = 0+00.00 AH																	
00+00.00		05+67.00	567.00	567.0	567.0	1134.0					136.1	15.1	1134.0				
05+67.00		06+35.00	68.00	68.0	68.0	136.0	68.0	68.0			16.3	1.8	136.0	68.0			
06+35.00		07+01.90	66.90	66.9		66.9					8.0	0.9	66.9				
7+01.90 BK = 4652+99.90 AH																	
4652+99.90		4650+42.00	257.90	257.9		257.9					30.9	3.4	257.9				
4650+42.00		4638+64.20	1177.80	1177.8		1177.8					141.3	15.7	1177.8				
RAMP C																	
37+15.00		42+46.50	531.5	531.5		531.5	135.0	135.0			63.8	7.1	531.5	135.0			
42+46.50 BK = 0+00.00 AH																	
00+00.00		11+00.00	1100.0	1100.0	1100.0	2200.0					264.0	29.3	2200.0				
11+00.00		12+40.00	140.0	140.0		140.0					16.8	1.9	140.0				
12+40.00		13+13.70	73.7	73.7		73.7	73.7	73.7			8.8	1.0	73.7	73.7			
13+13.70 BK = 4665+62 AH																	
4655+62.00		4657+61.80	199.8	199.8		199.8					24.0	2.7	199.8				
4657+61.80		4665+11.80	750.0	750.0		750.0					90.0	10.0	750.0				
RAMP D																	
4635+04.60		4637+90.10	285.50	285.5		285.5					34.3	3.8	285.5				
4637+90.10		4640+33.50	243.40	243.4		243.4	243.4	243.4			29.2	3.2	243.4	243.4			
4640+33.50 BK = 0+00 AH																	
00+00.00		00+72.00	72.00	72.0		72.0	72.0	72.0			8.6	1.0	72.0	72.0			
00+72.00		09+85.80	913.80	913.8	913.8	1827.6					219.3	24.4	1827.6				
9+85.80 BK = 41+48.60 AH																	
41+48.60		36+76.10	472.5	472.5		472.5	120.0	120.0			56.7	6.3	472.5	120.0			
TOTAL =				11762	8437	20199	1279	1279	35	35	2167	269	20199	1279	35		

PAVEMENT MARKING SCHEDULES CONTINUED				78000200 THERMO PVT MRK 4'' (FOOT)	X7830070 GRV FOR REC PVT MRK 5'' (FOOT)	78004230 PRF PL TY B INLAID 6'' (FOOT)	78000500 THERMO PVT MRK 8'' (FOOT)	X7830076 GRV FOR REC PVT MRK 9'' (FOOT)	78000620 THERMO PVT MRK 18'' (FOOT)	X7830084 GRV FOR REC PVT MRK 19'' (FOOT)	70300100 SHRT TRM PVT MRK (FOOT)	70301000 WRK ZN PVT MRK REM (SQ FT)	70300220 TEMP PVT MRK 4'' (FOOT)	70300240 TEMP PVT MRK 6'' (FOOT)	70300250 TEMP PVT MRK 8'' (FOOT)	70300275 TEMP PVT MRK 18'' (FOOT)	PVT MRK BLCK TP 5'' (FOOT)	PVT MRK BLCK TP 7'' (FOOT)
STATION	TO	STATION	LENGTH (FT)	(FOOT)	(FOOT)	(FOOT)	(FOOT)	(FOOT)	(FOOT)	(FOOT)	(FOOT)	(SQ FT)	(FOOT)	(FOOT)	(FOOT)	(FOOT)	(FOOT)	(FOOT)

NORTHBOUND LANES

4630+07.00		4637+90.10	783.10	1566.2	1566.2	195.8					344.6	20.9	1566.2	195.8				
4637+90.10		4641+41.50	351.40	702.8	702.8	87.9	351.4	351.4			154.6	9.4	702.8	87.9	351.4			
4641+41.50		4976+87.27	33545.77	67091.5	67091.5	8386.4			72.0	72.0	14760.1	894.6	67091.5	8386.4		72.0		
4976+87.27 BK = 5000+00.00 AH																		
5000+00.00		5015+43.00	1543.00	3086.0	3086.0	385.8					678.9	41.1	3086.0	385.8				

SOUTHBOUND LANES

4630+10.00		4661+77.00	3167.00	6334.0	6334.0	791.8					1393.5	84.5	6334.0	791.8				
4661+77.00		4665+28.80	351.80	703.6	703.6	87.9	351.8	351.8			154.8	9.4	703.6	87.9	351.8			
4665+28.80		4976+85.60	31156.80	62313.6	62313.6	7789.2			36.0	36.0	13709.0	830.8	62313.6	7789.2		36.0		
4976+85.60 BK = 5000+00.00 AH																		
5000+00.00		5009+14.00	914.00	1828.0	1828.0	228.5					402.2	24.4	1828.0	228.5				

FOR TRAFFIC CONTROL & PROTECTION 701402

NORTHBOUND LANES

STAGE 1 LT	4605+61.00		4631+18.00	2557.00									852.3					
STAGE 1 RT	4620+61.00		4631+18.00	1057.00									352.3					
STAGE 2 RT	4605+61.00		4631+18.00	2557.00									852.3					
STAGE 2 LT	4620+61.00		4631+18.00	1057.00									352.3					

NORTHBOUND LANES

STAGE 1 RT	4620+61.00		4631+18.00	1057.00									440.4				1057	
STAGE 2 RT	4605+61.00		4615+61.00	1000.00									145.8					1000
STAGE 2 LT	4620+61.00		4631+18.00	1057.00									440.4				1057	

SOUTHBOUND LANES

STAGE 1 RT	4624+48.00		4650+11.00	2563.00									854.3					
STAGE 1 LT	4624+48.00		4635+11.00	1063.00									354.3					
STAGE 2 LT	4624+48.00		4650+11.00	2563.00									854.3					
STAGE 2 RT	4624+48.00		4635+11.00	1063.00									354.3					

SOUTHBOUND LANES

STAGE 1 LT	4624+48.00		4635+11.00	1063.00									442.9				1063	
STAGE 2 LT	4640+11.00		4650+11.00	1000.00									145.8					1000
STAGE 2 RT	4624+48.00		4635+11.00	1063.00									442.9				1063	

TOTAL =	143626	143626	17953	703	703	108	108	31598	8800	143626	17953	703	108	4240	2000		
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	78000200 THERMO PVT MRK 4'' (FOOT)	X7830070 GRV FOR REC PVT MRK 5'' (FOOT)	78004230 PRF PL TY B INLAID 6'' (FOOT)	78000500 THERMO PVT MRK 8'' (FOOT)	X7830076 GRV FOR REC PVT MRK 9'' (FOOT)	78000600 THERMO PVT MRK 12'' (FOOT)	X7830078 GRV FOR REC PVT MRK 13'' (FOOT)	78000620 THERMO PVT MRK 18'' (FOOT)	X7830084 GRV FOR REC PVT MRK 19'' (FOOT)	70300100 SHRT TRM PVT MRK (FOOT)	70301000 WRK ZN PVT MRK REM (SQ FT)	70300220 TEMP PVT MRK 4'' (FOOT)	70300240 TEMP PVT MRK 6'' (FOOT)	70300250 TEMP PVT MRK 8'' (FOOT)	70300260 TEMP PVT MRK 12'' (FOOT)	70300275 TEMP PVT MRK 18'' (FOOT)	PVT MRK BLCK TP 5'' (FOOT)	PVT MRK BLCK TP 7'' (FOOT)
TOTAL FOR RAMPS & MAINLINE =	163824	163824	17953	1982	1982	35	35	108	108	33765	9069	163824	17953	1982	35	108	4240	2000

GUARDRAIL SCHEDULES

NORTHBOUND I-57					STEEL PLATE BEAM GUARD RAIL, TYPE A, 6 FOOT POSTS	STEEL RAILING, TYPE 2399	TRAFFIC BARRIER TERMINAL, TYPE 6A	TRAFFIC BARRIER TERMINAL, TYPE 6B	TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)	TRAFFIC BARRIER TERMINAL, TYPE 2	GUARDRAIL REMOVAL	GUARDRAIL MARKER, TYPE A	TERMINAL MARKER - DIRECT APPLIED
RT STA	TO	RT STA	FT	FT	EACH	EACH	EACH	EACH	FT	EACH	EACH		
4621+93	4625+62	287.5	1	1	369	4	1						
4623+31	4630+07	137.5	1	1	676	4	1						
4643+56	4646+85	237.5		1	329.0	4	1						
4723+95	4727+12	225		1	317.0	4	1						
4777+13	4780+29	225		1	316.0	4	1						
4886+62	4889+79	225		1	317.0	4	1						
4943+15	4946+83	312.5		1	368.0	4	1						
4943+77	4946+94	262.5		1	317.0	4	1						
4963+66	4969+31	512.5		1	565.0	7	1						
4970+48	4978+49	750		1	801.0	10	1						
4971+14	4978+62	687.5		1	748.0	9	1						
5013+49	5022+60	850		1	911.0	11	1						
5016+82	5023+10	575		1	628.0	8	1						

SOUTHBOUND I-57

RT STA	TO	RT STA	FT	FT	EACH	EACH	EACH	EACH	FT	EACH	EACH	
4625+59	4632+72	175	1	1	713.0	4	1					
4625+59	4632+72	175	1	1	609.0	4	1					
4646+93	4650+22	237.5		1	329.0	4	1					
4646+49	4650+63	362.5		1	414.0	5	1					
4726+47	4729+64	225		1	317.0	4	1					
4780+10	4783+26	225		1	316.0	4	1					
4889+40	4892+57	225		1	317.0	4	1					
4947+33	4950+87	300		1	354.0	4	1					
5000+09	5002+98	237.5		1	289.0	4	1					
5000+25	5003+53	275		1	328.0	4	1					
TOTAL PAGE 1=				7725	0	4	8	23	11	10648	119	23

GUARDRAIL SCHEDULES CONTINUED

IL 37					STEEL PLATE BEAM GUARD RAIL, TYPE A, 6 FOOT POSTS	STEEL RAILING, TYPE 2399	TRAFFIC BARRIER TERMINAL, TYPE 6A	TRAFFIC BARRIER TERMINAL, TYPE 6B	TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)	TRAFFIC BARRIER TERMINAL, TYPE 2	GUARDRAIL REMOVAL	GUARDRAIL MARKER, TYPE A	TERMINAL MARKER - DIRECT APPLIED
RT STA	TO	RT STA	FT	FT	EACH	EACH	EACH	EACH	FT	EACH	EACH		
39+75.00	41+13.00	82.5	1	1	138.0	4	1						
46+83.00	48+85.00	112.5	1	1	202.0	4	1						
51+27.00	53+21.00	112.5	1	1	194.0	4	1						
SN 025-0061, 700th AVENUE													
NORTHEAST CORNER					100	221	1	1	117.0	5	1		
SOUTHEAST CORNER					100	221	1	1		5	1		
SOUTHWEST CORNER					100		1	1	117.0	3	1		
NORTHWEST CORNER					100		1	1		3	1		
SN 025-0053, 800th AVENUE													
NORTHEAST CORNER					100		1	1	90.0	5	1		
SOUTHEAST CORNER					100		1	1	65.0	5	1		
SOUTHWEST CORNER					100		1	1	90.0	3	1		
NORTHWEST CORNER					100		1	1	65.0	3	1		
SN 025-0060, 1000th AVENUE													
NORTHEAST CORNER					100	220	1	1	117.0	5	1		
SOUTHEAST CORNER					100	220	1	1		5	1		
SOUTHWEST CORNER					100		1	1	117.0	3	1		
NORTHWEST CORNER					100		1	1		3	1		
TOTAL PAGE 2=					1507.5	882	14	0	15	1	1312	60	15

TOTAL PAGE 1=	7725	0	4	8	23	11	10648	119	23
TOTAL PAGE 2=	1507.5	882	14	0	15	1	1312	60	15
TOTAL GUARDRAIL QUANTITIES=	9232.5	882	18	8	38	12	11960	179	38

70400100 TEMPORARY CONCRETE BARRIER

STAGE	DIRECTION	STATION	STATION	FOOT
STAGE 1	NORTHBOUND	4623+69	4630+13	644.0
STAGE 1	SOUTHBOUND	4625+53	4632+03	650.0
TOTAL=				1294.0

70400200 RELOCATE CONCRETE BARRIER

STAGE	DIRECTION	STATION	STATION	FOOT
STAGE 1	NORTHBOUND	4623+69	4630+13	644.0
STAGE 1	SOUTHBOUND	4625+53	4632+03	650.0
TOTAL=				1294.0

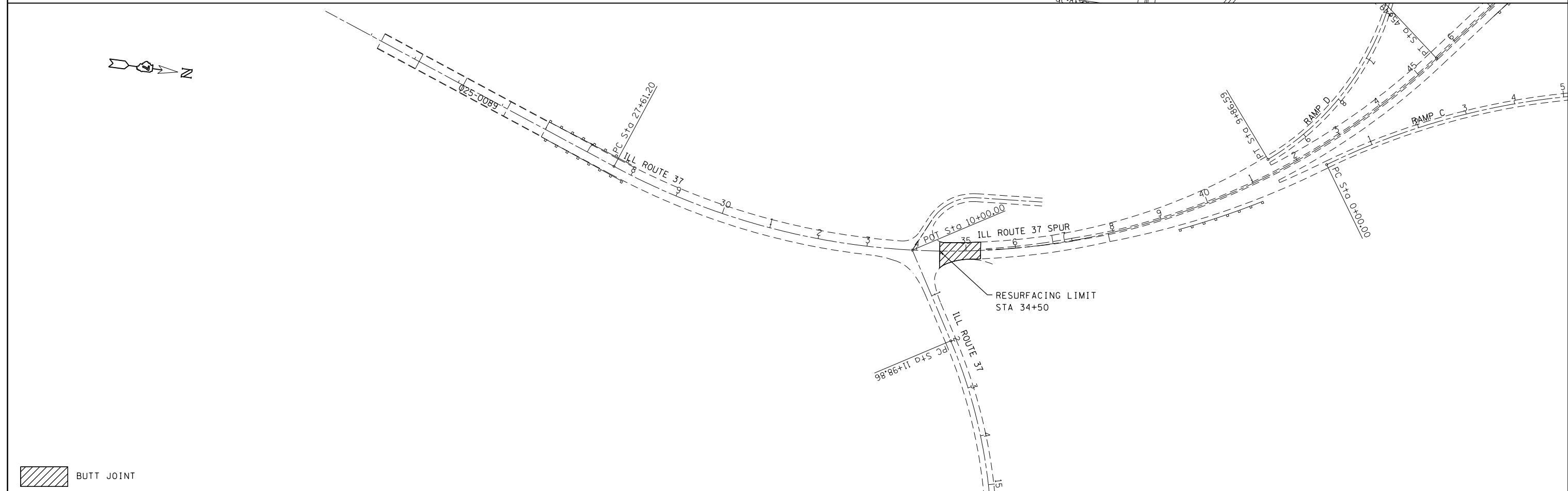
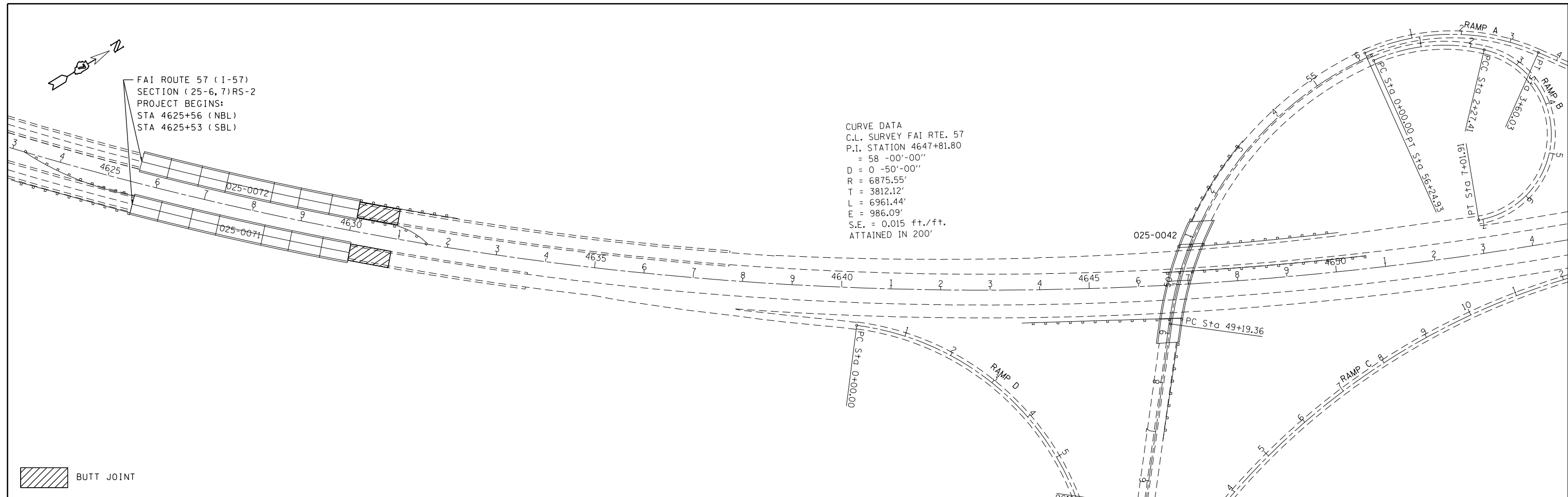
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	PLOT DATE = 9/8/2014	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

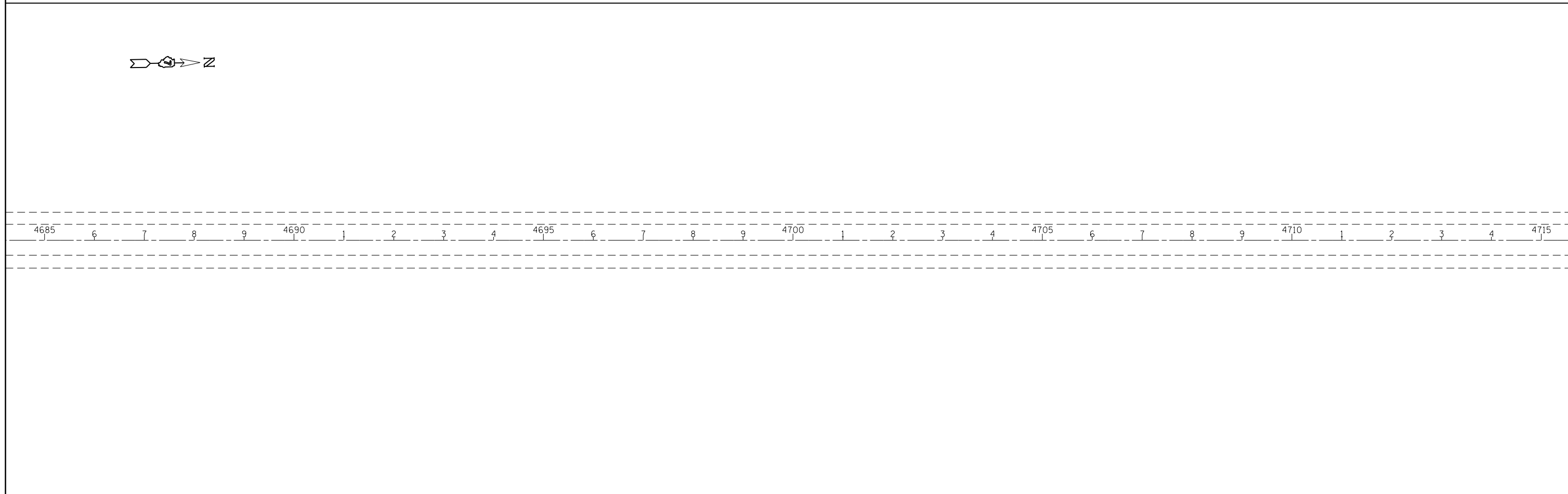
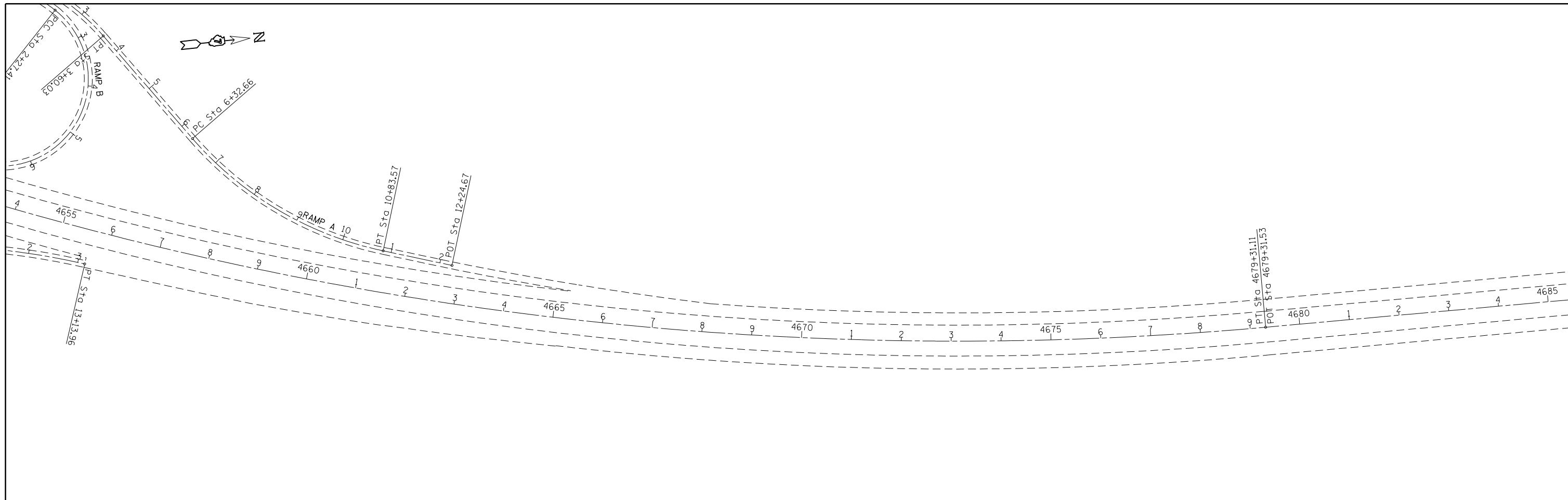
SCHEDULE OF QUANTITIES

SCALE: N/A SHEET 5 OF 5 SHEETS STA. TO STA.

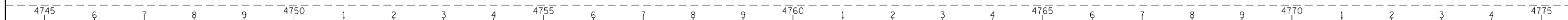
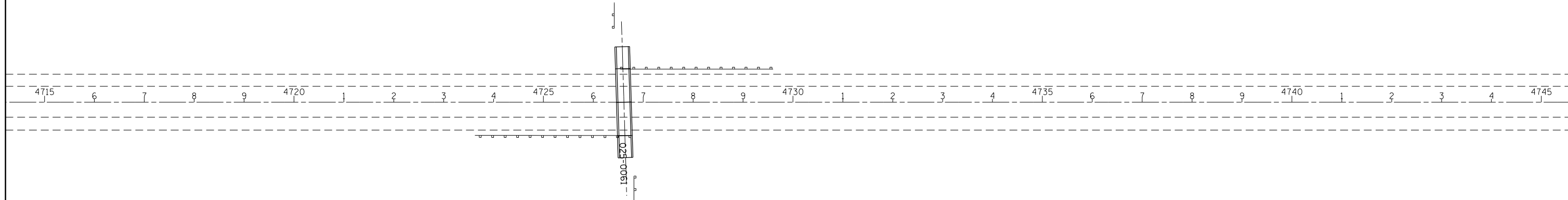
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(25-6,7)RS-2	EFFINGHAM	63	14
CONTRACT NO. 74638				
ILLINOIS FED. AID PROJECT				



FILE NAME =	USER NAME = steffenmk	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PLAN SHEETS		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.			
c:\pw\work\p\dot\steffenmk\d0401616\07	4638-shr-plan.dgn	DRAWN -	REVISED -		SCALE: 100	SHEET 1	OF 7 SHEETS	STA.	TO STA.	57	(25-6, 7)RS-2	EFFINGHAM	63	15
Default	PLOT SCALE = 200.0000' / in.	CHECKED -	REVISED -									CONTRACT NO. 74638		
	PLOT DATE = 9/8/2014	DATE -	REVISED -									ILLINOIS FED. AID PROJECT		



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c:\pw\work\p\midot\steffenmk\d0401616\07	4638-sh1-plan.dgn	DRAWN -	REVISED -					57	(25-6, 7)RS-2	EFFINGHAM	63	16
Default	PLOT SCALE = 200.0000' / in.	CHECKED -	REVISED -		SCALE: 100 SHEET 2 OF 7 SHEETS STA. TO STA.			CONTRACT NO. 74638				
	PLOT DATE = 9/8/2014	DATE -	REVISED -		ILLINOIS FED. AID PROJECT							



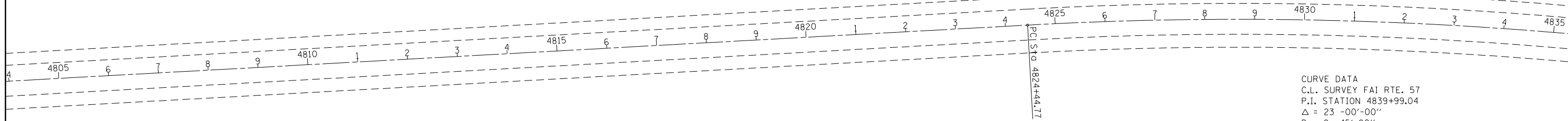
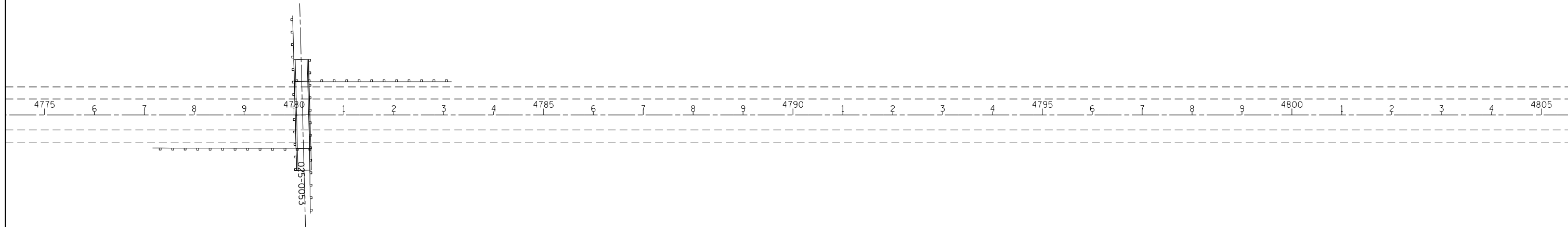
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	PLOT DATE = 9/8/2014	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PLAN SHEETS

SCALE: 100 SHEET 3 OF 7 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(25-6, 7)RS-2	EFFINGHAM	63	17
ILLINOIS FED. AID PROJECT			CONTRACT NO. 74638	



CURVE DATA
 C.L. SURVEY FAI RTE. 57
 P.I. STATION 4839+99.04
 $\Delta = 23 -00'-00''$
 $D = 0 -45'-00''$
 $R = 7639.49'$
 $T = 1554.27'$
 $L = 3066.67'$
 $E = 156.51'$
 $S.E. = 0.015 \text{ ft./ft.}$
 ATTAINED IN 200'

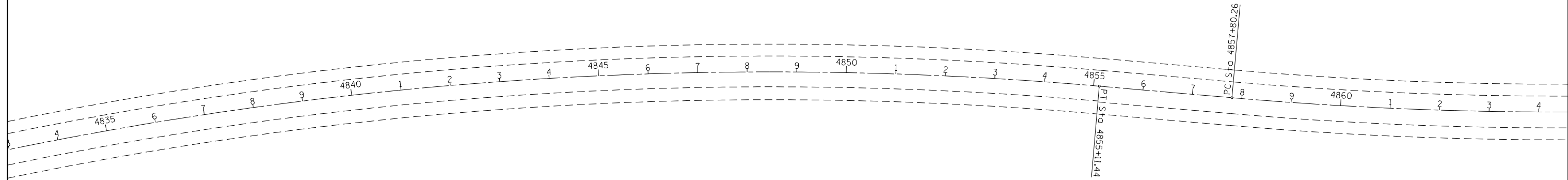
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Default	PLOT SCALE = 200.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 9/8/2014	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

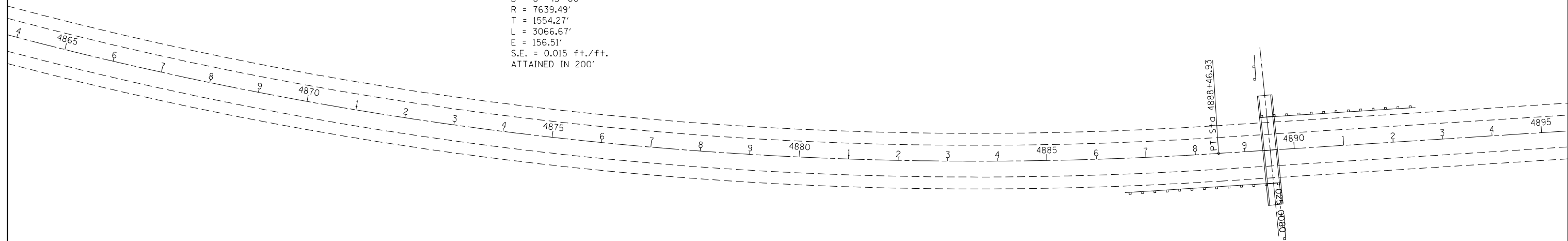
PLAN SHEETS

SCALE: 100 SHEET 4 OF 7 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(25-6, 7)RS-2	EFFINGHAM	63	18
CONTRACT NO. 74638			ILLINOIS FED. AID PROJECT	



CURVE DATA
 C.L. SURVEY FAI RTE. 57
 P.I. STATION 4647+81.80
 $\Delta = 58 -00' -00''$
 $D = 0 -50' -00''$
 $R = 6875.55'$
 $T = 3812.12'$
 $L = 6961.44'$
 $E = 986.09'$
 $S.E. = 0.015 \text{ ft./ft.}$
 ATTAINED IN 200'



CURVE DATA
 C.L. SURVEY FAI RTE. 57
 P.I. STATION 4873+34.54
 $\Delta = 23 -00' -00''$
 $D = 0 -45' -00''$
 $R = 7639.49'$
 $T = 1554.27'$
 $L = 3066.67'$
 $E = 156.51'$
 $S.E. = 0.015 \text{ ft./ft.}$
 ATTAINED IN 200'

FILE NAME =	USER NAME = steffenmk	DESIGNED -	REVISED -
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	PLOT DATE = 9/8/2014	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

PLAN SHEETS

SCALE: 100 SHEET 5 OF 7 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(25-6, 7)RS-2	EFFINGHAM	63	19
CONTRACT NO. 74638			ILLINOIS FED. AID PROJECT	

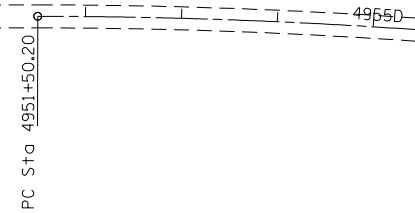


4895 6 7 8 9 4900 1 2 3 4 4905 6 7 8 9 4910 1 2 3 4 4915 6 7 8 9 4920 1 2 3 4 4925



CURVE DATA
 C.L. SURVEY FAI RTE. 57
 P.I. STATION 4955D+50 =
 44' RT. C.L. SURVEY STATION 4955+50
 $\Delta = 7 -58'-59''$
 $D = 1 -00'-00''$
 $R = 5729.65'$
 $L = 798.31'$
 $S.E. = 0.015 \text{ ft./ft.}$
 ATTAINED IN 200'

4925 6 7 8 9 4930 1 2 3 4 4935 6 7 8 9 4940 1 2 3 4 4945 6 7 8 9 4950 1 2 3 4 4955



CURVE DATA
 C.L. SURVEY FAI RTE. 57
 P.I. STATION 4955D+50 =
 44' RT. C.L. SURVEY STATION 4955+50
 $= 7 -58'-59''$
 $D = 1 -00'-00''$
 $R = 5729.65'$
 $L = 798.31'$
 $S.E. = 0.015 \text{ ft./ft.}$
 ATTAINED IN 200'

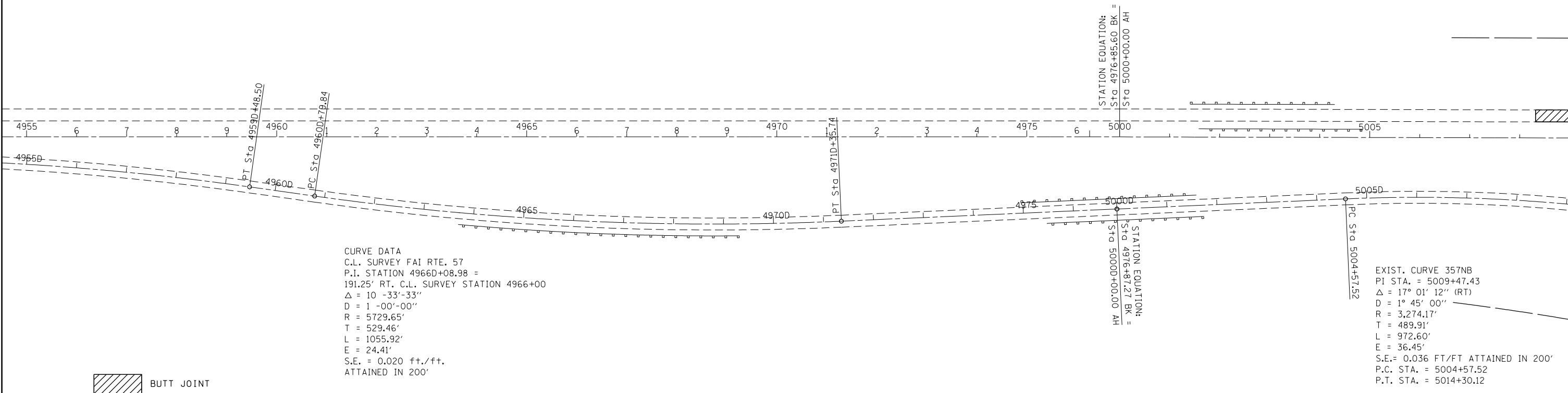
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	PLOT DATE = 9/8/2014	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

PLAN SHEETS

SCALE: 100 SHEET 6 OF 7 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(25-6, 7)RS-2	EFFINGHAM	63	20
CONTRACT NO. 74638			ILLINOIS FED. AID PROJECT	



CURVE DATA
 C.L. SURVEY FAI RTE. 57
 P.I. STATION 4966D+08.98 =
 191.25' RT. C.L. SURVEY STATION 4966+00
 $\Delta = 10^\circ -33' -33''$
 $D = 1' -00' -00''$
 $R = 5729.65'$
 $T = 529.46'$
 $L = 1055.92'$
 $E = 24.41'$
 $S.E. = 0.020 \text{ ft./ft.}$
 ATTAINED IN 200'

EXIST. CURVE 357NB
 PI STA. = 5009+47.43
 $\Delta = 17^\circ 01' 12'' \text{ (RT)}$
 $D = 1^\circ 45' 00''$
 $R = 3,274.17'$
 $T = 489.91'$
 $L = 972.60'$
 $E = 36.45'$
 $S.E. = 0.036 \text{ FT/FT ATTAINED IN 200'}$
 P.C. STA. = 5004+57.52
 P.T. STA. = 5014+30.12

BUTT JOINT



FAI ROUTE 57 (1-57)
 SECTION (25-6, 7)RS-2
 PROJECT ENDS:
 STA 5009+14 (SBL)

FAI ROUTE 57 (1-57)
 SECTION (25-6, 7)RS-2
 PROJECT ENDS:
 STA 5015+43 (NBL)

BUTT JOINT

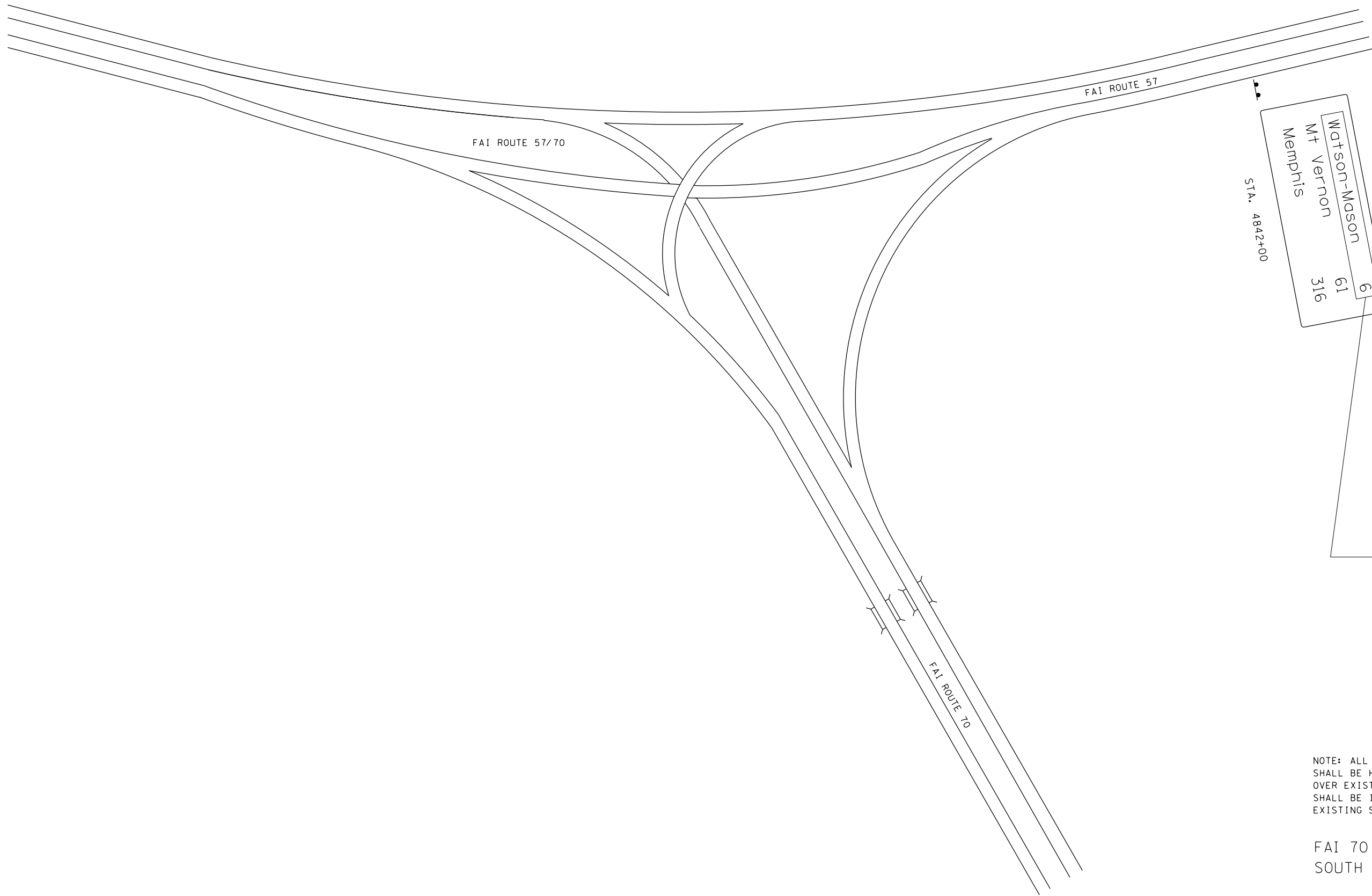
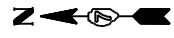
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	PLOT DATE = 9/8/2014	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

PLAN SHEETS

SCALE: 100 SHEET 7 OF 7 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(25-6, 7)RS-2	EFFINGHAM	63	21
CONTRACT NO. 74638			ILLINOIS FED. AID PROJECT	



RAMP CLOSED

84"x18"
ORANGE

NOTE: ALL RAMP CLOSED SIGNS
SHALL BE HUNG UNDERNEATH OR
OVER EXISTING SIGNS. NO SCREWS
SHALL BE INSTALLED INTO THE
EXISTING SIGNS

FAI 70 & FAI 57 TRI-LEVEL
SOUTH OF EFFINGHAM

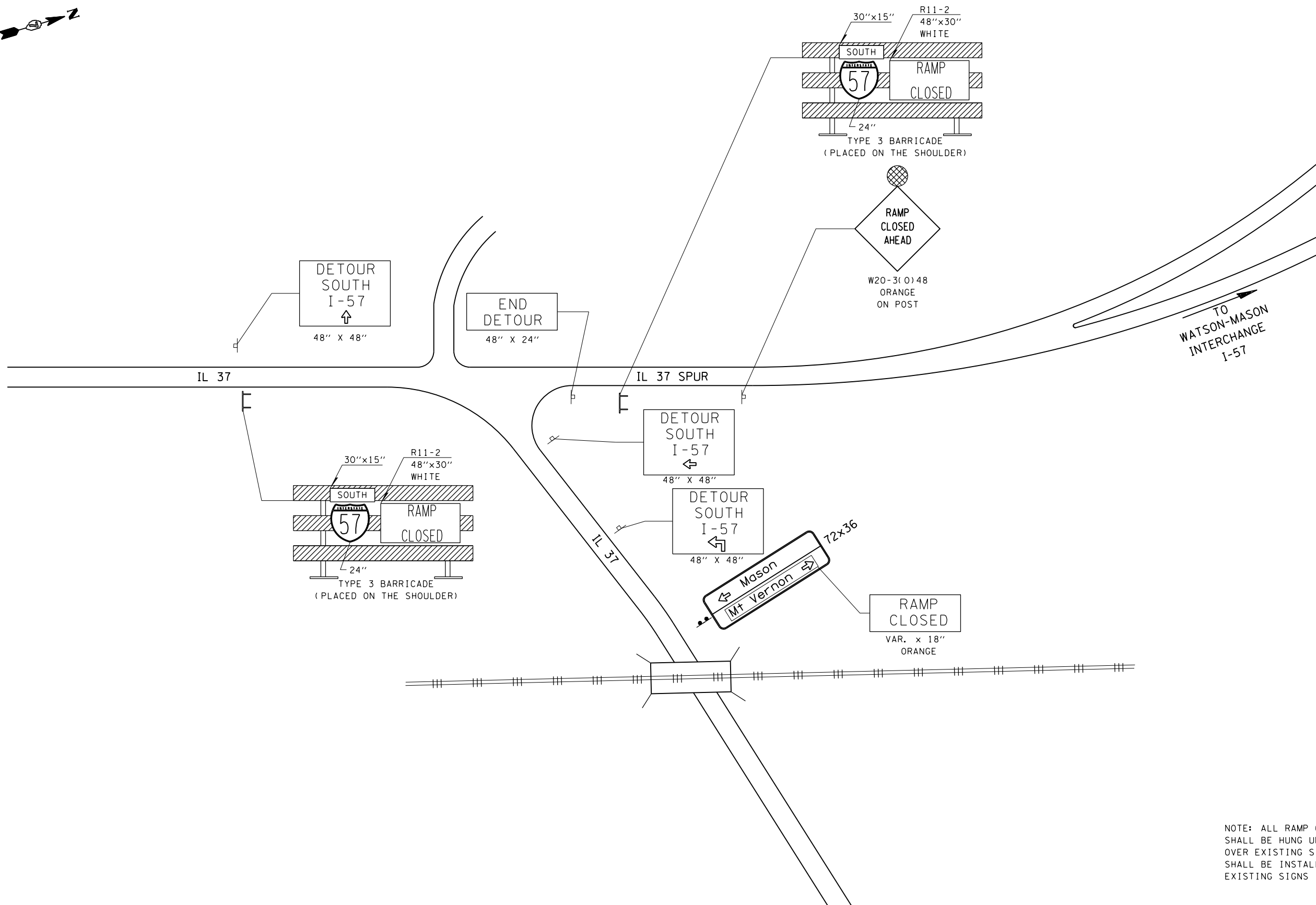
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Default	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 9/8/2014	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**INTERSTATE SIGNING
RAMP CLOSURE DETAIL SHEETS**

SCALE: SHEET 2 OF 5 SHEETS STA. TO STA.

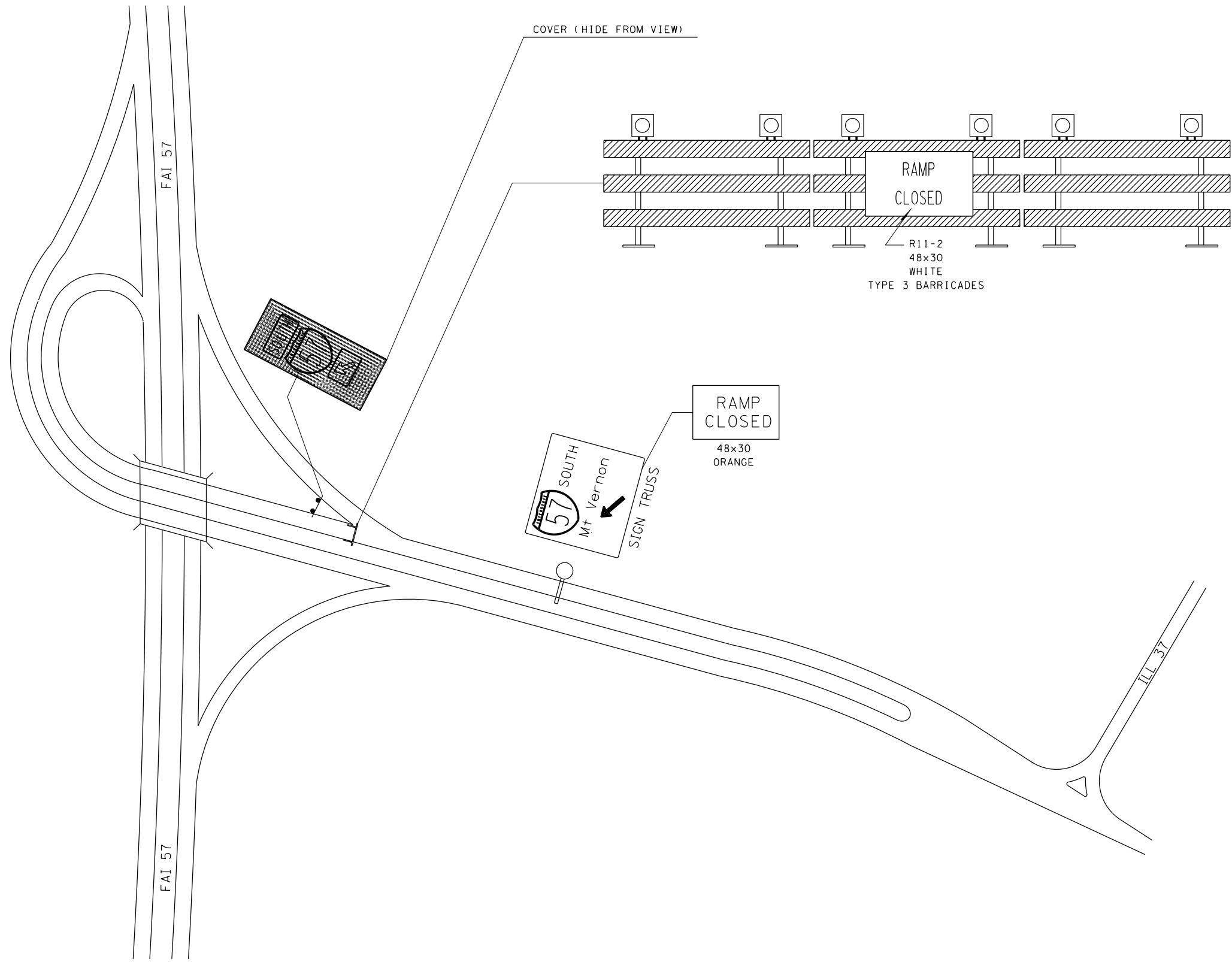
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(25-6, 7)RS-2	EFFINGHAM	63	23
CONTRACT NO. 74638			ILLINOIS FED. AID PROJECT	



NOTE: ALL RAMP CLOSED SIGNS SHALL BE HUNG UNDERNEATH OR OVER EXISTING SIGNS. NO SCREWS SHALL BE INSTALLED INTO THE EXISTING SIGNS

IL 37 SPUR TO FAI 57
NORTH OF MASON

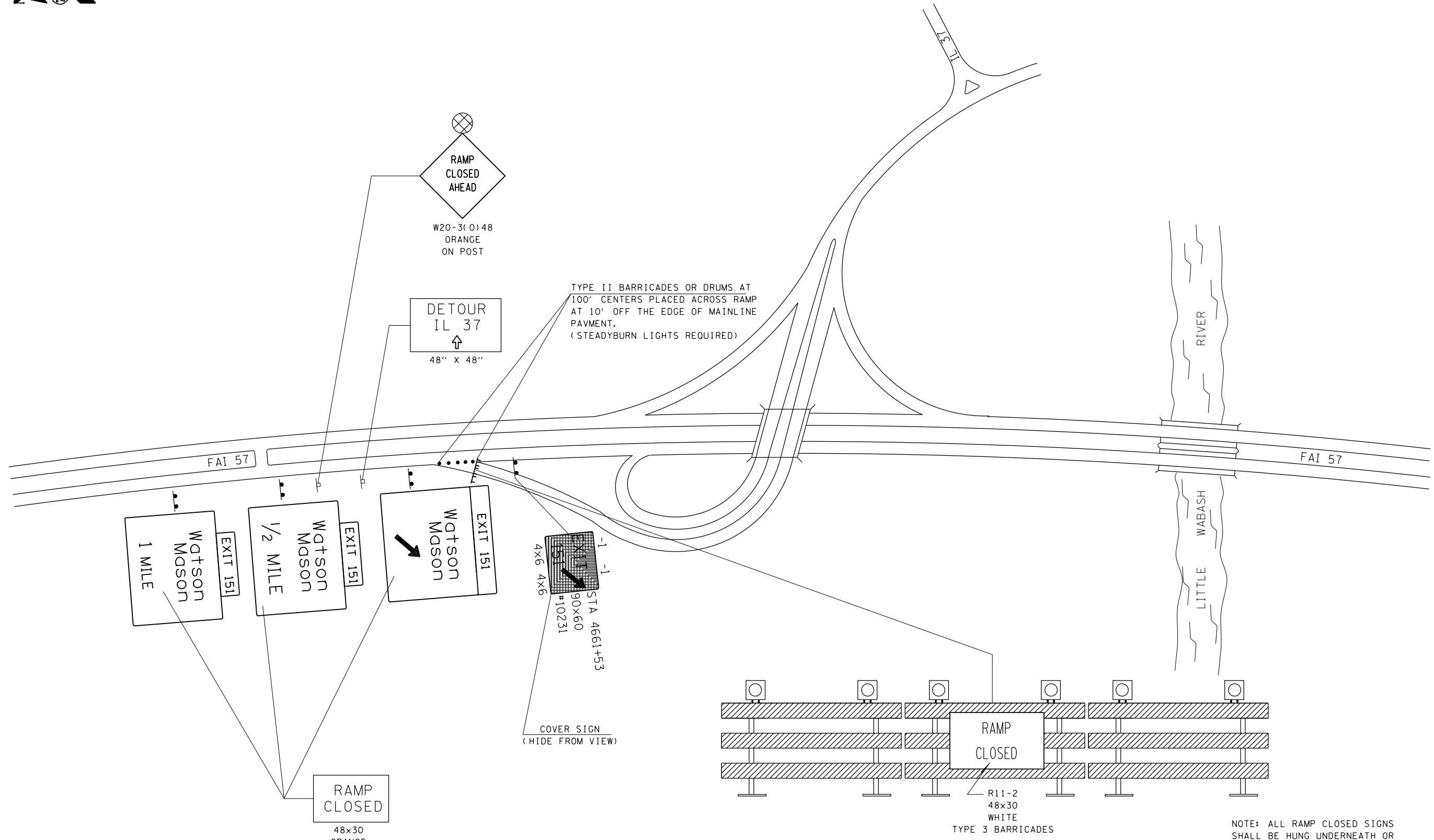
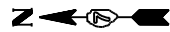
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	4638-shit-staging.dgn	DRAWN -	REVISED -		57	(25-6, 7)RS-2	EFFINGHAM	63	24			
Default	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -	SCALE: SHEET 3 OF 5 SHEETS STA. TO STA.			CONTRACT NO. 74638		ILLINOIS FED. AID PROJECT			
	PLOT DATE = 9/8/2014	DATE -	REVISED -									



NOTE: ALL RAMP CLOSED SIGNS SHALL BE HUNG UNDERNEATH OR OVER EXISTING SIGNS. NO SCREWS SHALL BE INSTALLED INTO THE EXISTING SIGNS

FAI 57 - IL 37 SPUR
SOUTH OF WATSON

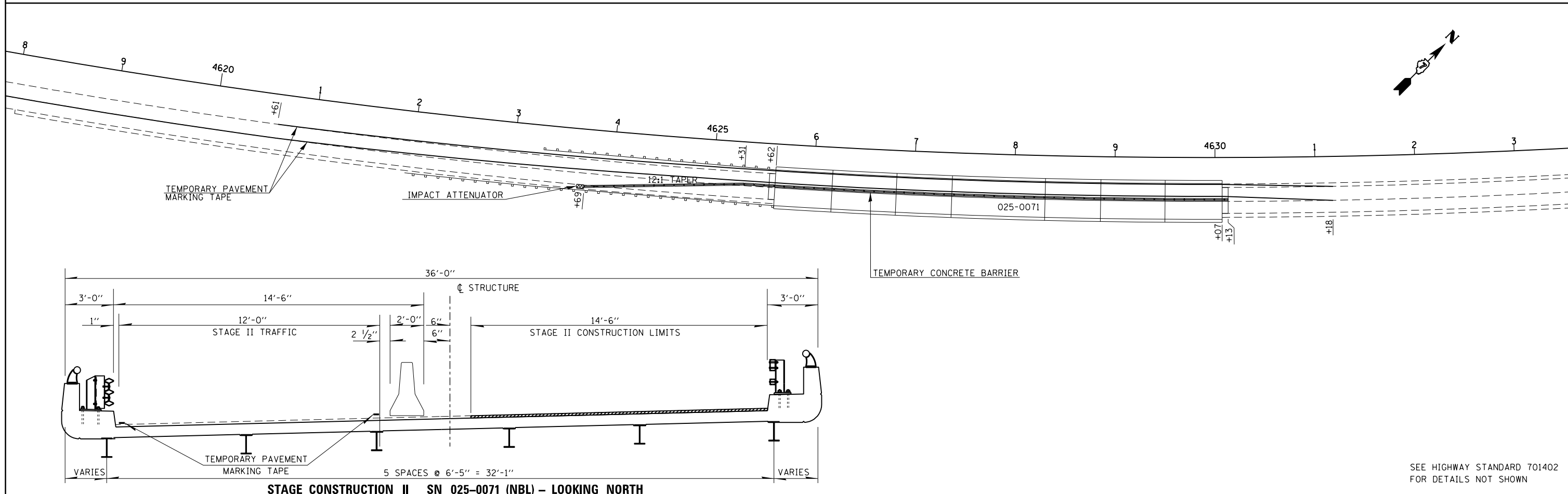
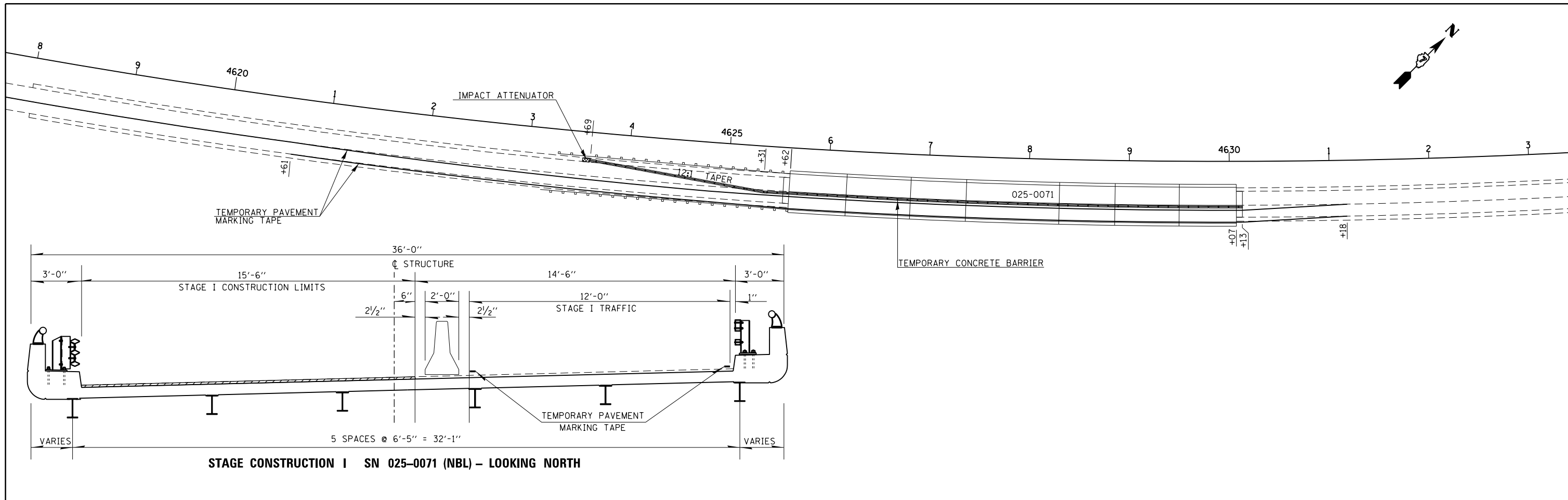
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ci:\pw\work\p\idot\steffenmk\d0401616\07	4638-shit-staging.dgn	DRAWN -	REVISED -		57	(25-6, 7)RS-2	EFFINGHAM	63	25			
Default	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -		SCALE: SHEET 4 OF 5 SHEETS STA. TO STA.			CONTRACT NO. 74638				
	PLOT DATE = 9/8/2014	DATE -	REVISED -		ILLINOIS FED. AID PROJECT							



NOTE: ALL RAMP CLOSED SIGNS SHALL BE HUNG UNDERNEATH OR OVER EXISTING SIGNS. NO SCREWS SHALL BE INSTALLED INTO THE EXISTING SIGNS

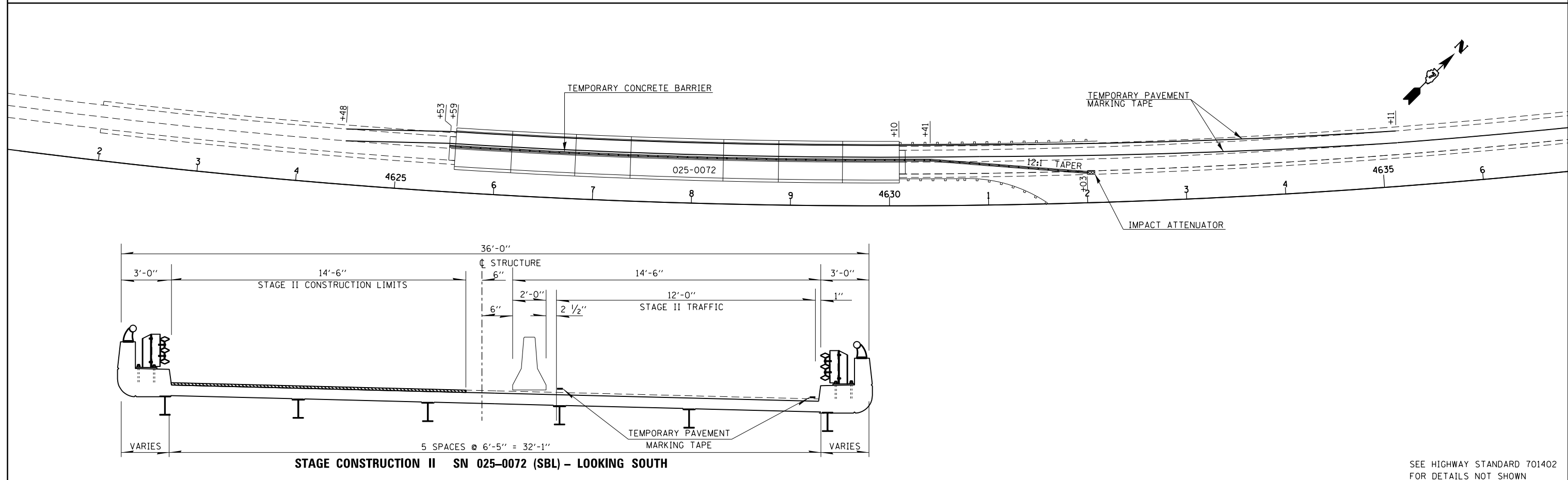
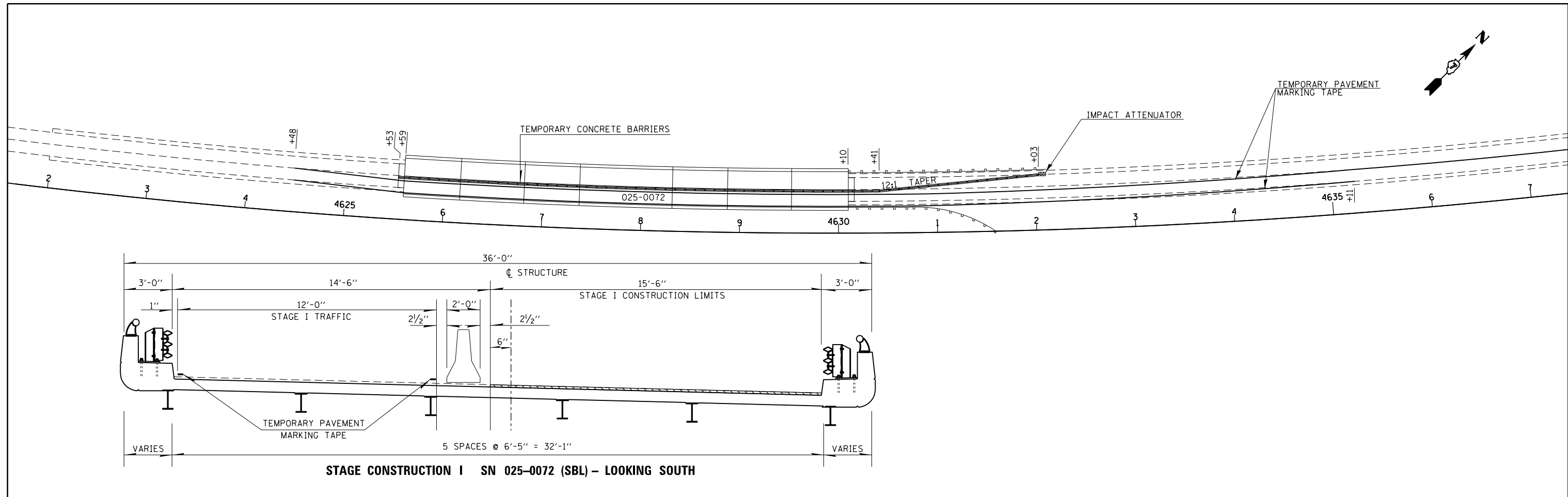
FAI 57 - IL 37 SPUR
SOUTH OF WATSON

FILE NAME =	USER NAME = steffenmk	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INTERSTATE SIGNING RAMP CLOSURE DETAIL SHEETS			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
Default	4638-shit-staging.dgn	DRAWN -	REVISED -		SCALE:	SHEET 5	OF 5 SHEETS	STA.	TO STA.	57	(25-6, 7)RS-2	EFFINGHAM	63	26
	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -		CONTRACT NO. 74638									
	PLOT DATE = 9/8/2014	DATE -	REVISED -		ILLINOIS FED. AID PROJECT									



SEE HIGHWAY STANDARD 701402 FOR DETAILS NOT SHOWN

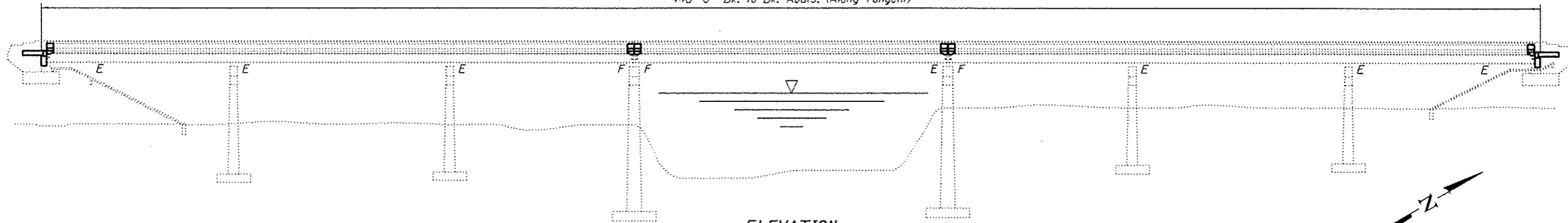
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Default	4638-sh1-staging.dgn	DRAWN -	REVISED -		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.	57	(25-6, 7)RS-2	EFFINGHAM	63	27
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	PLOT DATE = 9/8/2014	DATE -	REVISED -												
											CONTRACT NO. 74638				
											ILLINOIS FED. AID PROJECT				



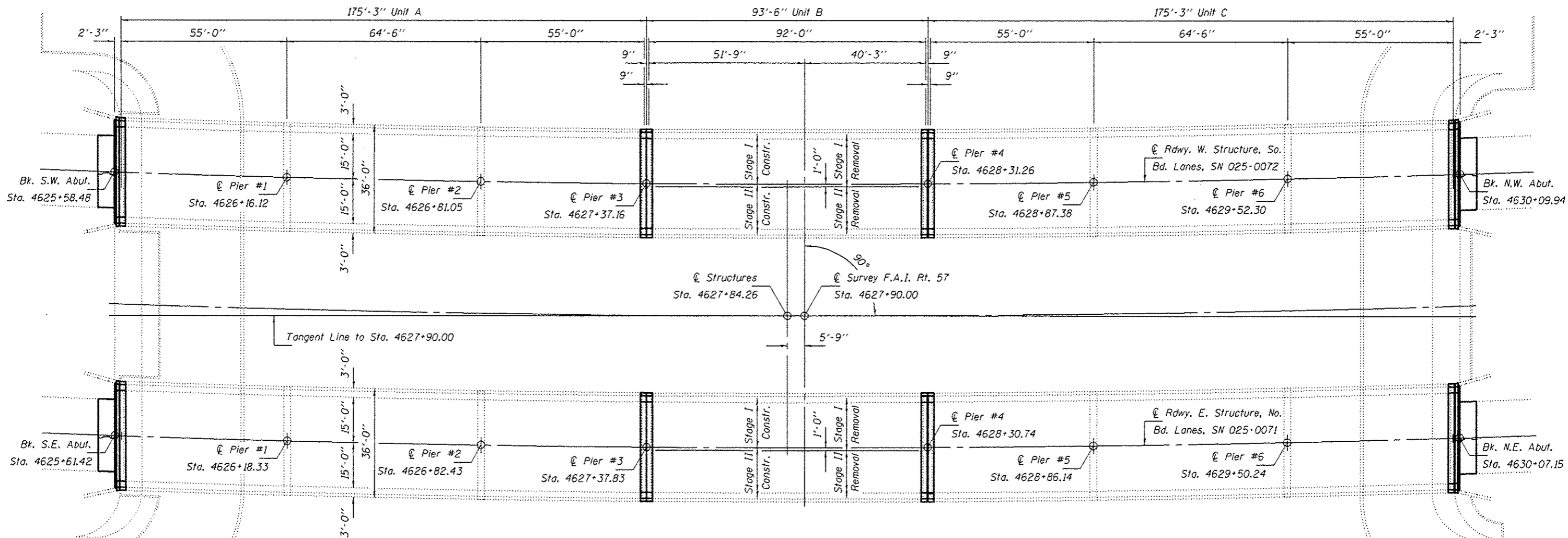
SEE HIGHWAY STANDARD 701402 FOR DETAILS NOT SHOWN

FILE NAME =	USER NAME = steffenmk	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STAGE CONSTRUCTION SN 025-072				F.A.I. R.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.			
Default	4638-sh1-staging.dgn	DRAWN -	REVISED -		SCALE:	SHEET	OF	SHEETS	STA.	TO	STA.	57	(25-6, 7)RS-2	EFFINGHAM	63	28
	PLOT SCALE = 100.0000' / 1".	CHECKED -	REVISED -						CONTRACT NO. 74638							
	PLOT DATE = 9/8/2014	DATE -	REVISED -						ILLINOIS FED. AID PROJECT							

448'-6" Bk. to Bk. Abuts. (Along Tangent)



ELEVATION



PLAN



EXPIRES 11-30-2014

DESIGNED *David Puzey*
 CHECKED *J. Schneller*
 DRAWN *J. Schneller*
 CHECKED *SMR, etc*

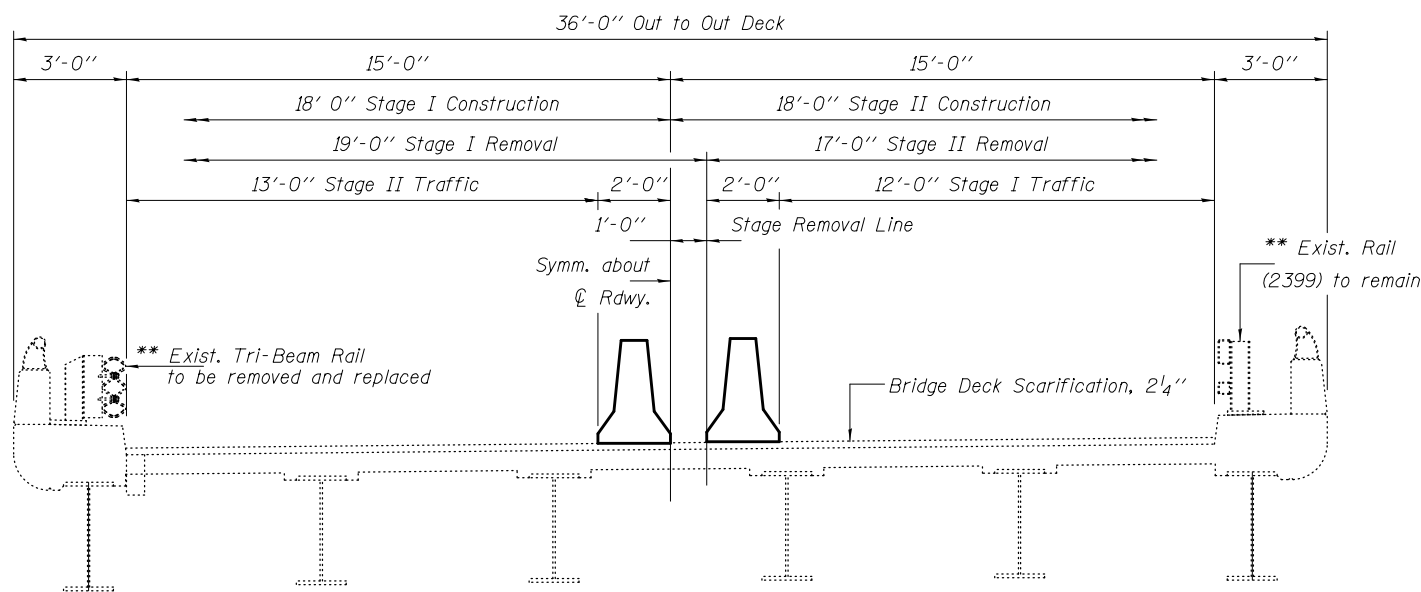
EXAMINED *Timothy A. ...*
 PASSED *...*
 ACTING ENGINEER OF STRUCTURAL SERVICES
 ACTING ENGINEER OF BRIDGES AND STRUCTURES

DATE *October 15, 2014*
 REVISED
 REVISED

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

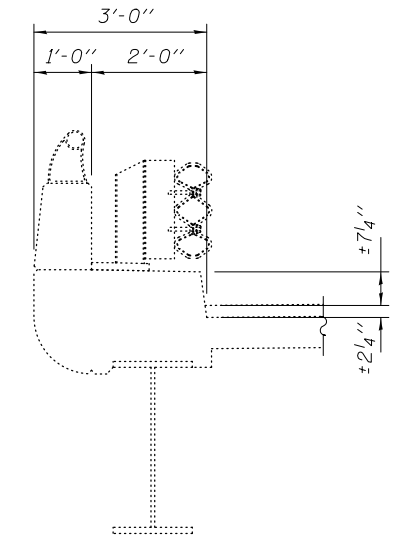
PLAN & ELEVATION
 F.A.I. RT. 57 OVER LITTLE WABASH RIVER
 SN 025-0071 & 025-0072
 SHEET NO. 1 OF 22 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(25-6, 7)RS-2	EFFINGHAM	63	29
CONTRACT NO. 74638				
ILLINOISIFIED AID PROJECT				



CROSS SECTION
(Looking North, Both Structures)

** Existing Rail (2399) on the east side of structure 025-0071 to remain. Existing Tri-Beam rail on west side of structure 025-0071 and both sides of structure 025-0072 to be removed and replaced with Steel Railing (2399). See sheet 20 of 22.



CURB SECTION

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.

Reinforcement bars designated (E) shall be epoxy coated.

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.

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.

All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.

Fasteners shall be high strength bolts. Bolts 3/4"φ, open holes 13/16"φ, unless otherwise noted.

Diaphragm connection holes shall be 15/16"φ for 3/4"φ bolts. Two hardened washers shall be required at diaphragm connections.

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

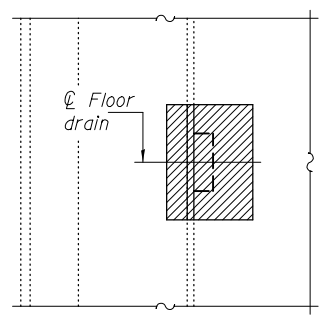
The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat shall be Reddish Brown, Munsell No. 2.5YR 3/4.

Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the GBSP "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".

Deck Slab Repairs (Full Depth) adjacent to exterior curb and around the exterior deck drains shall be completed in an alternating sequence.

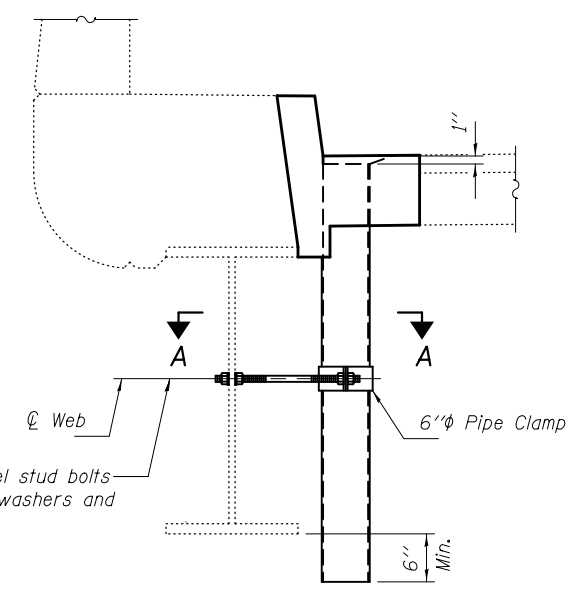
The contractor shall select alternating areas to be repaired. Before the start of the adjacent area, the contractor shall ensure the following:

1. At least 72 hours shall have elapsed from the end of the previous pour.
2. The contractor shall have attained a minimum modulus of rupture of 650 psi or a minimum compressive strength of 3500 psi.



PARTIAL PLAN

**** Hatched areas indicate removal. For dimensions not shown, see Deck Slab repair details. Cost of removal and replacement of concrete included with Deck Slab Repair (Full Depth, Type II).



CURB AT DRAIN

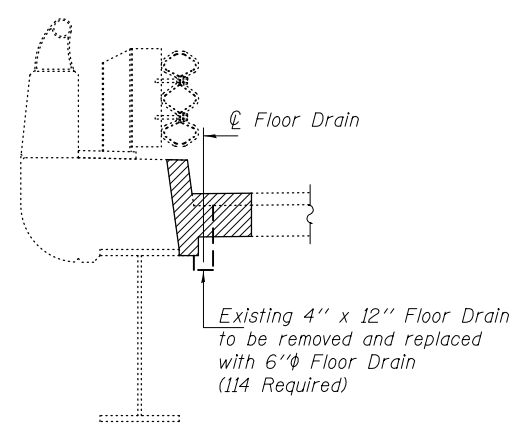
Notes:

Drains shall be located clear of all diaphragms.

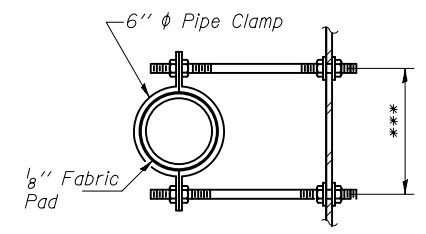
The exterior surfaces of the floor drains shall be painted with the finish coat as specified in the special provisions for Cleaning and Painting New Metal Structures. The exterior surfaces of the drains shall be cleaned according to the Society of Protective Coatings Spec. SSPC-SP1 prior to painting.

Fiberglass pipe shall conform to ASTM D 2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.

Galvanize clamping device according to AASHTO M232. Cost of clamping device and inserts is included with Floor Drains.

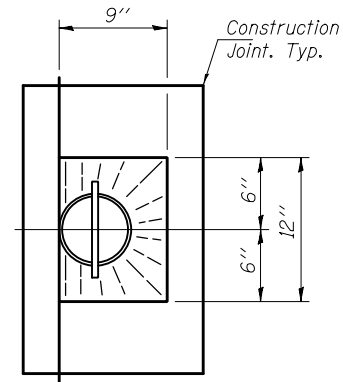


CURB SECTION AT DRAIN

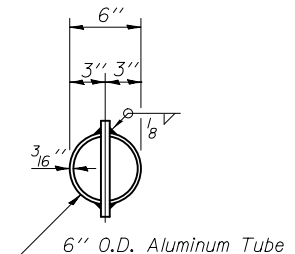


SECTION A-A

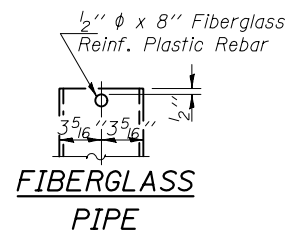
*** Dimension as required by Pipe Clamp



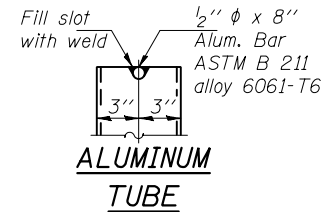
TOP PLAN



TOP PLAN
(Showing Aluminum Tube)



FIBERGLASS PIPE



ALUMINUM TUBE

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	105.5
Concrete Superstructure	Cu. Yd.	81.5
Concrete Structures	Cu. Yd.	24.0
Preformed Joint Strip Seal	Foot	296
Reinforcement Bars, Epoxy Coated	Pound	11640
Furnishing and Erecting Structural Steel	Pound	4140
Structural Steel Removal	Pound	4140
Structural Steel Repair	Pound	310
Bar Splicers	Each	172
Mechanical Splicers	Each	160
* Protective Coat	Sq. Yd.	132.1
Floor Drains	Each	114
Steel Railing, Type 2399	Foot	1344
Structure Excavation	Cu. Yd.	60.8
Porous Granular Embankment	Cu. Yd.	60.8
Bridge Deck Scarification (2 1/4")	Sq. Yd.	2890
Temporary Shoring and Cribbing	Each	16
Bridge Deck Grooving	Sq. Yd.	2784
Temporary Sheet Piling	Sq. Ft.	200
Structural Repair of Concrete (Depth Equal to or Less Than 5")	Sq. Ft.	1067.1
Bridge Rail Removal	Foot	1344
Bridge Deck Fly Ash or GGBF Concrete Overlay, 2 1/4"	Sq. Yd.	2890
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	290

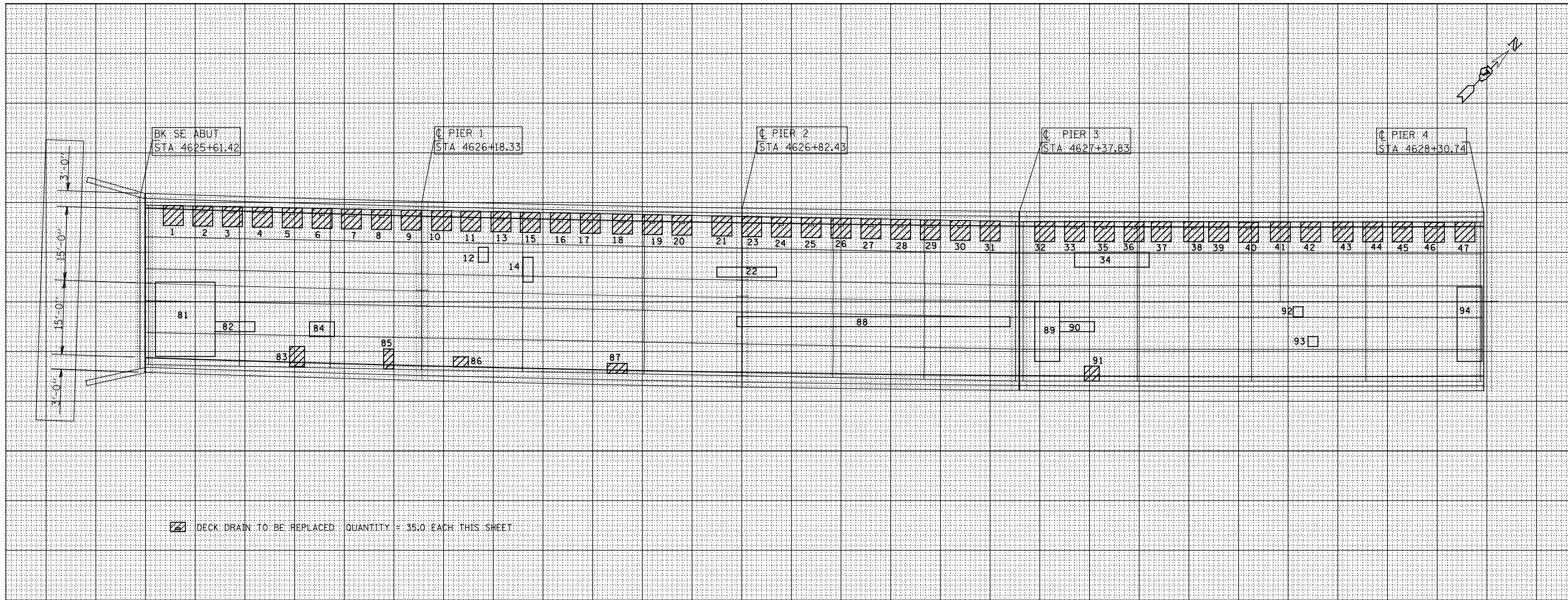
* On new concrete only, adjacent to joints and top and inside faces of curbs & parapets.

DESIGNED SMR	EXAMINED	DATE October 15, 2014
CHECKED CCC	PASSED	
DRAWN J. Schneller		
CHECKED SMR CCC		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN & ELEVATION DETAILS
F.A.I. RT. 57 OVER LITTLE WABASH RIVER
SN 025-0071 & 025-0072

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(25-6, 7)RS-2	EFFINGHAM	63	30
CONTRACT NO. 74638				
ILLINOIS FED. AID PROJECT				



PATCH NO.	SIZE	DECK SLAB REPAIR (PART DEPTH)		
		SO FT	SO FT	SO FT
1	4.0 x 4.0			16.0
2	4.0 x 4.0			16.0
3	4.0 x 4.0			16.0
4	4.0 x 4.0			16.0
5	4.0 x 4.0			16.0
6	4.0 x 4.0			16.0
7	4.0 x 4.0			16.0
8	4.0 x 4.0			16.0
9	4.0 x 4.0			16.0
10	4.0 x 4.0			16.0
11	4.0 x 4.0			16.0
12	3.0 x 2.0	6.0		
13	4.0 x 4.0			16.0
14	5.0 x 2.0	10.0		
15	4.0 x 4.0			16.0
16	4.0 x 4.0			16.0
17	4.0 x 4.0			16.0
18	4.0 x 4.0			16.0

PATCH NO.	SIZE	DECK SLAB REPAIR (PART DEPTH)		
		SO FT	SO FT	SO FT
19	4.0 x 4.0			16.0
20	4.0 x 4.0			16.0
21	4.0 x 4.0			16.0
22	2.0 x 12.0	24.0		
23	4.0 x 4.0			16.0
24	4.0 x 4.0			16.0
25	4.0 x 4.0			16.0
26	4.0 x 4.0			16.0
27	4.0 x 4.0			16.0
28	4.0 x 4.0			16.0
29	4.0 x 4.0			16.0
30	4.0 x 4.0			16.0
31	4.0 x 4.0			16.0
32	4.0 x 4.0			16.0
33	4.0 x 4.0			16.0
34	3.0 x 15.0	45.0		
35	4.0 x 4.0			16.0
36	4.0 x 4.0			16.0

PATCH NO.	SIZE	DECK SLAB REPAIR (PART DEPTH)		
		SO FT	SO FT	SO FT
37	4.0 x 4.0			16.0
38	4.0 x 4.0			16.0
39	4.0 x 4.0			16.0
40	4.0 x 4.0			16.0
41	4.0 x 4.0			16.0
42	4.0 x 4.0			16.0
43	4.0 x 4.0			16.0
44	4.0 x 4.0			16.0
45	4.0 x 4.0			16.0
46	4.0 x 4.0			16.0
47	4.0 x 4.0			16.0
48	3.0 x 2.0	6.0		
49	12.0 x 7.0	84.0		
50	4.0 x 4.0			16.0
51	4.0 x 4.0			16.0
52	4.0 x 4.0			16.0
53	4.0 x 4.0			16.0
54	4.0 x 4.0			16.0

PATCH NO.	SIZE	DECK SLAB REPAIR (PART DEPTH)		
		SO FT	SO FT	SO FT
55	4.0 x 4.0			16.0
56	4.0 x 4.0			16.0
57	2.0 x 14.0	28.0		
58	4.0 x 4.0			16.0
59	4.0 x 4.0			16.0
60	4.0 x 4.0			16.0
61	4.0 x 4.0			16.0
62	4.0 x 4.0			16.0
63	4.0 x 4.0			16.0
64	4.0 x 4.0			16.0
65	4.0 x 4.0			16.0
66	4.0 x 4.0			16.0
67	4.0 x 4.0			16.0
68	4.0 x 4.0			16.0
69	4.0 x 4.0			16.0
70	2.0 x 16.0	32.0		
71	4.0 x 4.0			16.0
72	4.0 x 4.0			16.0

PATCH NO.	SIZE	DECK SLAB REPAIR (PART DEPTH)		
		SO FT	SO FT	SO FT
73	4.0 x 4.0			16.0
74	4.0 x 4.0			16.0
75	4.0 x 4.0			16.0
76	4.0 x 4.0			16.0
77	4.0 x 4.0			16.0
78	4.0 x 4.0			16.0
79	4.0 x 4.0			16.0
80	4.0 x 4.0			16.0
81	15.0 x 12.0	180.0		
82	2.0 x 8.0	16.0		
83	4.0 x 3.0			12.0
84	3.0 x 5.0	15.0		
85	4.0 x 2.0			8.0
86	2.0 x 3.0			6.0
87	2.0 x 4.0			8.0
88	2.0 x 55.0	110.0		
89	12.0 x 5.0	60.0		
90	2.0 x 7.0	14.0		

THE LOCATIONS AND SIZES SHOWN GRAPHICALLY ABOVE ARE APPROXIMATE. SEE THIS TABLE FOR ACTUAL SIZES.

PATCHING LEGEND
(FOR INFORMATION ONLY)

□ PARTIAL DEPTH

▨ FULL DEPTH

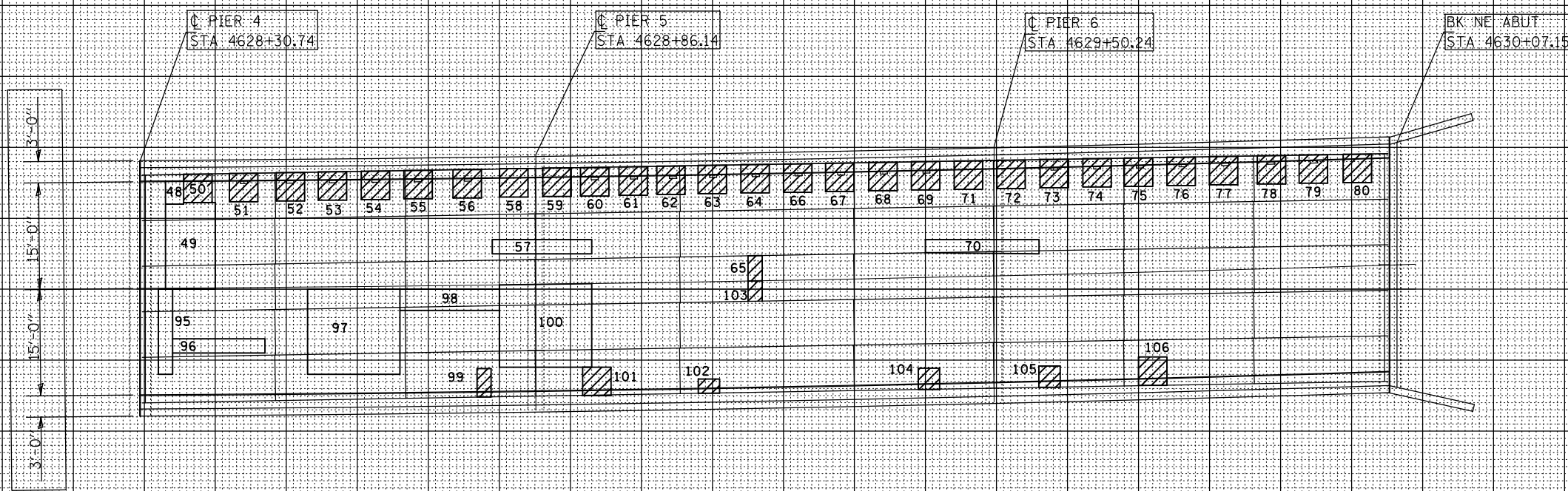
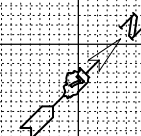
DATE OF SURVEY: 7-29-14
SURVEY BY: DFZ
METHOD OF SURVEY: VISUAL

BRIDGE DECK PATCHING
EFFINGHAM COUNTY
FAI ROUTE 57 NBL OVER
LITTLE WABASH RIVER
0.5 MILES SOUTH OF
WATSON INTERCHANGE

SN 025-0071

071

FILE NAME =	USER NAME = *USER*	DESIGNED - DFZ	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DECK SLAB REPAIR SN 025-0071 (NB)		F.A. RTE. 57	SECTION (25-6, 7)RS-2	COUNTY EFFINGHAM	TOTAL SHEETS 63	SHEET NO. 31	
FILEL	PLOT SCALE = *SCALE*	DRAWN - DFZ	REVISED -		SCALE:	SHEET NO. 3 OF 22 SHEETS	STA.	TO STA.	CONTRACT NO. 74638		FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT
	PLOT DATE = *DATE*	CHECKED - MEA	REVISED -									
		DATE - 8/6/2014	REVISED -									



DECK DRAIN TO BE REPLACED QUANTITY = 22.0 EACH THIS SHEET

PATCH NO.	SIZE	DECK SLAB REPAIR (PART DEPTH)		
		SQ FT	SQ FT	SQ FT
91	3.0 x 3.0			9.0
92	2.0 x 2.0	4.0		
93	2.0 x 2.0	4.0		
94	12.0 x 5.0	60.0		
95	12.0 x 2.0	24.0		
96	2.0 x 13.0	26.0		
97	12.0 x 13.0	156.0		
98	3.0 x 14.0	42.0		
99	2.0 x 4.0		8.0	
100	12.0 x 13.0	156.0		
101	4.0 x 4.0		16.0	
102	2.0 x 3.0		6.0	
103	3.0 x 2.0		6.0	
104	3.0 x 3.0		9.0	
105	3.0 x 3.0		9.0	
106	4.0 x 4.0		16.0	
TOTAL		1102	0	1265

PATCH NO.	SIZE	DECK SLAB REPAIR (PART DEPTH)		
		SQ FT	SQ FT	SQ FT
PARTIAL DEPTH				
1102	/ 9 =	122.4		
	USE	122	SQ YD	
FULL DEPTH, TYPE 1				
0	/ 9 =	0.0		
	USE	0	SQ YD	
FULL DEPTH, TYPE 2				
1265	/ 9 =	140.6		
	USE	141	SQ YD	
BRIDGE SIDEWALK REPAIR				
	USE	0	SQ FT	

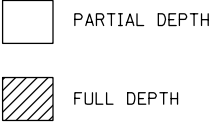
PATCH NO.	SIZE	DECK SLAB REPAIR (PART DEPTH)		
		SQ FT	SQ FT	SQ FT

PATCH NO.	SIZE	DECK SLAB REPAIR (PART DEPTH)		
		SQ FT	SQ FT	SQ FT

PATCH NO.	SIZE	DECK SLAB REPAIR (PART DEPTH)		
		SQ FT	SQ FT	SQ FT

THE LOCATIONS AND SIZES SHOWN GRAPHICALLY ABOVE ARE APPROXIMATE. SEE THIS TABLE FOR ACTUAL SIZES.

PATCHING LEGEND (FOR INFORMATION ONLY)



DATE OF SURVEY: 7-29-14
SURVEY BY: DFZ
METHOD OF SURVEY: VISUAL

BRIDGE DECK PATCHING
EFFINGHAM COUNTY
FAI ROUTE 57 NBL OVER
LITTLE WABASH RIVER
0.5 MILES SOUTH OF
WATSON INTERCHANGE

SN 025-0071

071

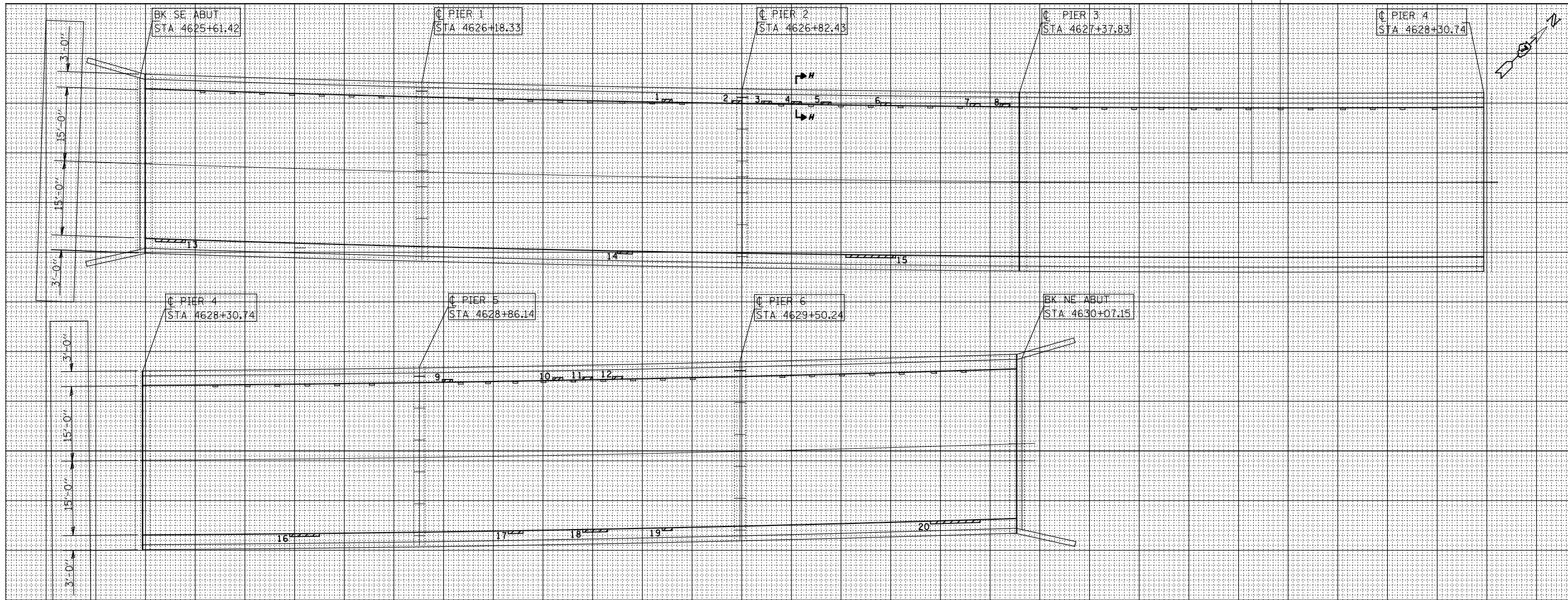
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FILEL		DRAWN - DFZ	REVISED -
	PLOT SCALE = #SCALE#	CHECKED - MEA	REVISED -
	PLOT DATE = #DATE#	DATE - 8/6/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK SLAB REPAIR
SN 025-0071 (NB)

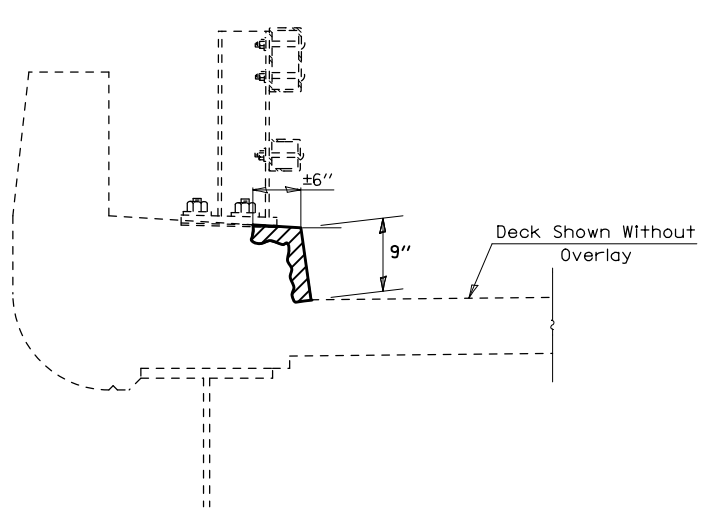
SCALE: SHEET NO. 4 OF 22 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(25-6, 7)RS-2	EFFINGHAM	63	32
CONTRACT NO. 74638				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



PATCH NO.	SIZE	STRUCTURAL REPAIR OF CONCRETE $\leq 5"$ SQ FT
1	1.3 x 2.0	2.5
2	1.3 x 2.0	2.5
3	1.3 x 2.0	2.5
4	1.3 x 2.0	2.5
5	1.3 x 2.0	2.5
6	1.3 x 2.0	2.5
7	1.3 x 2.0	2.5
8	1.3 x 2.0	2.5
9	1.3 x 2.0	2.5
10	1.3 x 2.0	2.5
11	1.3 x 2.0	2.5
12	1.3 x 2.0	2.5
13	1.3 x 6.0	7.5
14	1.3 x 3.0	3.8
15	1.3 x 10.0	12.5
16	1.3 x 6.0	7.5
17	1.3 x 3.0	3.8
18	1.3 x 5.0	6.5

PATCH NO.	SIZE	STRUCTURAL REPAIR OF CONCRETE $\leq 5"$ SQ FT
19	1.3 x 2.0	2.6
20	1.3 x 10.0	13.0
TOTAL		87
STRUCTURAL REPAIR OF CONCRETE $< 5"$		
87 / 9 =		9.7
USE		10 SQ YD



SECTION H-H
(Dimensions at Rt. L's to end of deck)

Note: Face of curb is included in size of patch.

Actual dimensions of the Structural Repair of Concrete $\leq 5"$ shall be determined by the Engineer based on the extent of deterioration.

Removal and replacement of the existing bridge rail and posts may be necessary to complete the Structural Repair of Concrete. All mounting hardware is to be reused. This work and all materials shall be included in the contract unit price for Structural Repair of Concrete $\leq 5"$.

THE LOCATIONS AND SIZES SHOWN GRAPHICALLY ABOVE ARE APPROXIMATE. SEE THIS TABLE FOR ACTUAL SIZES.

PATCHING LEGEND

PATCHING

DATE OF SURVEY: 8/1/14
SURVEY BY: MEA
METHOD OF SURVEY: VISUAL

STRUCTURAL REPAIR OF CONCRETE $\leq 5"$
EFFINGHAM COUNTY
FAI ROUTE 57 NBL OVER
LITTLE WABASH RIVER
0.5 MILES SOUTH OF
WATSON INTERCHANGE

SN 025-0071

071

FILE NAME =	USER NAME = *USER*	DESIGNED - DFZ	REVISED -
FILEL		DRAWN - DFZ	REVISED -
	PLOT SCALE = *SCALE*	CHECKED - MEA	REVISED -
	PLOT DATE = *DATE*	DATE - 8/7/2014	REVISED -

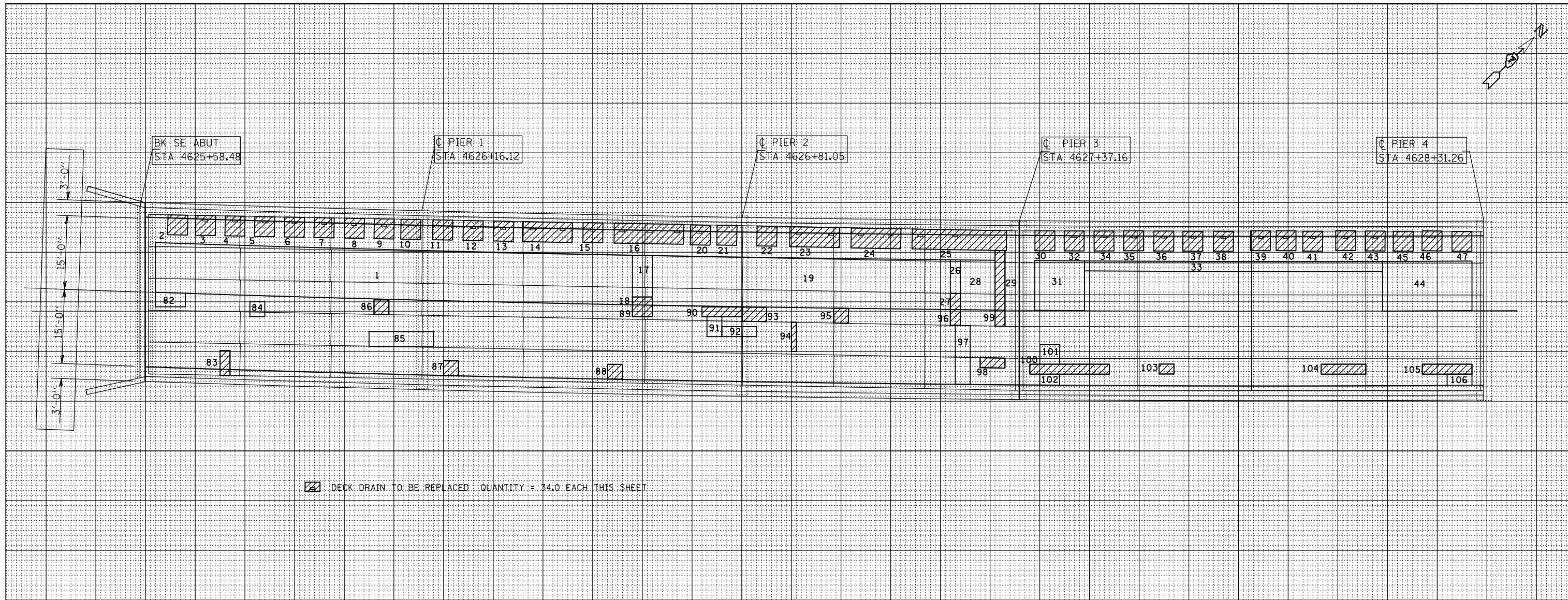
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURAL REPAIR OF CONCRETE $\leq 5"$
SN 025-0071 (NB)

SCALE: SHEET NO. 5 OF 22 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(25-6, 7)RS-2	EFFINGHAM	63	33
CONTRACT NO. 74638				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

BRIDGE DECK PATCHING



DECK DRAIN TO BE REPLACED QUANTITY = 34.0 EACH THIS SHEET

PATCH NO.	SIZE	DECK SLAB REPAIR (PART DEPTH)		
		SQ FT	SQ FT	SQ FT
1	10.0 x 96.0	960.0		
2	4.0 x 4.0			16.0
3	4.0 x 4.0			16.0
4	4.0 x 4.0			16.0
5	4.0 x 4.0			16.0
6	4.0 x 4.0			16.0
7	4.0 x 4.0			16.0
8	4.0 x 4.0			16.0
9	4.0 x 4.0			16.0
10	4.0 x 4.0			16.0
11	4.0 x 4.0			16.0
12	4.0 x 4.0			16.0
13	4.0 x 4.0			16.0
14	4.0 x 10.0			40.0
15	4.0 x 4.0			16.0
16	4.0 x 14.0			56.0
17	8.0 x 4.0	32.0		
18	2.0 x 4.0			8.0

PATCH NO.	SIZE	DECK SLAB REPAIR (PART DEPTH)		
		SQ FT	SQ FT	SQ FT
19	10.0 x 60.0	600.0		
20	4.0 x 4.0			0.0
21	4.0 x 4.0			16.0
22	4.0 x 4.0			16.0
23	4.0 x 10.0			40.0
24	4.0 x 10.0			40.0
25	4.0 x 19.0			76.0
26	7.0 x 2.0	14.0		
27	3.0 x 2.0			6.0
28	10.0 x 6.0	60.0		
29	15.0 x 2.0			30.0
30	4.0 x 4.0			16.0
31	10.0 x 10.0	100.0		
32	4.0 x 4.0			16.0
33	2.0 x 60.0	120.0		
34	4.0 x 4.0			16.0
35	4.0 x 4.0			16.0
36	4.0 x 4.0			16.0

PATCH NO.	SIZE	DECK SLAB REPAIR (PART DEPTH)		
		SQ FT	SQ FT	SQ FT
37	4.0 x 4.0			16.0
38	4.0 x 4.0			16.0
39	4.0 x 4.0			16.0
40	4.0 x 4.0			16.0
41	4.0 x 4.0			16.0
42	4.0 x 4.0			16.0
43	4.0 x 4.0			16.0
44	6.0 x 18.0	108.0		
45	4.0 x 4.0			16.0
46	4.0 x 4.0			16.0
47	4.0 x 4.0			16.0
48	10.0 x 17.0	170.0		
49	3.0 x 3.0			9.0
50	3.0 x 3.0			9.0
51	3.0 x 3.0			9.0
52	3.0 x 3.0			9.0
53	3.0 x 3.0			9.0
54	6.0 x 46.0	276.0		

PATCH NO.	SIZE	DECK SLAB REPAIR (PART DEPTH)		
		SQ FT	SQ FT	SQ FT
55	3.0 x 3.0			9.0
56	3.0 x 3.0			9.0
57	3.0 x 3.0			9.0
58	3.0 x 3.0			9.0
59	3.0 x 3.0			9.0
60	3.0 x 3.0			9.0
61	3.0 x 3.0			9.0
62	3.0 x 3.0			9.0
63	3.0 x 3.0			9.0
64	3.0 x 3.0			9.0
65	3.0 x 3.0			9.0
66	2.0 x 16.0	32.0		
67	3.0 x 3.0			9.0
68	3.0 x 3.0			9.0
69	10.0 x 1.0			10.0
70	2.0 x 47.0	94.0		
71	3.0 x 3.0			9.0
72	3.0 x 3.0			9.0

PATCH NO.	SIZE	DECK SLAB REPAIR (PART DEPTH)		
		SQ FT	SQ FT	SQ FT
73	3.0 x 3.0			9.0
74	3.0 x 3.0			9.0
75	3.0 x 3.0			9.0
76	3.0 x 3.0			9.0
77	3.0 x 3.0			9.0
78	3.0 x 3.0			9.0
79	10.0 x 11.0	110.0		
80	3.0 x 3.0			9.0
81	3.0 x 3.0			9.0
82	3.0 x 6.0	18.0		
83	5.0 x 2.0			10.0
84	3.0 x 3.0	9.0		
85	3.0 x 13.0	39.0		
86	3.0 x 3.0			9.0
87	3.0 x 3.0			9.0
88	3.0 x 3.0			9.0
89	3.0 x 4.0			12.0
90	2.0 x 8.0			16.0

THE LOCATIONS AND SIZES SHOWN GRAPHICALLY ABOVE ARE APPROXIMATE. SEE THIS TABLE FOR ACTUAL SIZES.

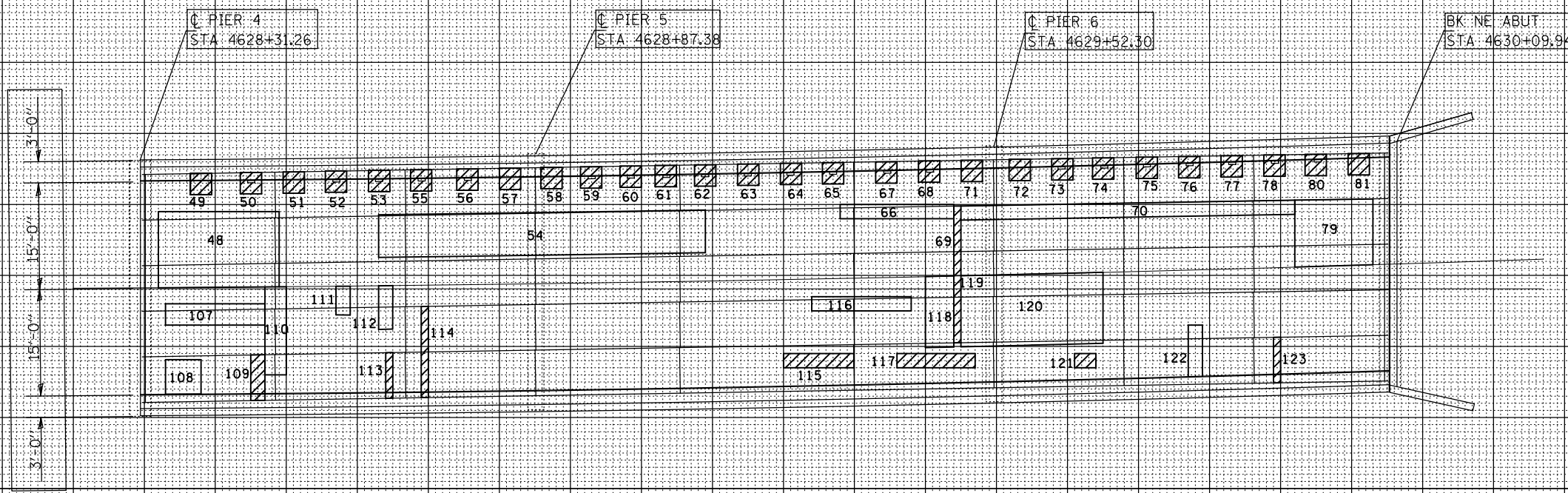
PATCHING LEGEND
(FOR INFORMATION ONLY)
 PARTIAL DEPTH
 FULL DEPTH

DATE OF SURVEY: 7-29-14
 SURVEY BY: DFZ
 METHOD OF SURVEY: VISUAL

BRIDGE DECK PATCHING
 EFFINGHAM COUNTY
 FAI ROUTE 57 SBL OVER
 LITTLE WABASH RIVER
 0.5 MILES SOUTH OF
 WATSON INTERCHANGE

SN 025-0072

072



DECK DRAIN TO BE REPLACED QUANTITY = 21.0 EACH THIS SHEET

PATCH NO.	SIZE	DECK SLAB REPAIR (PART DEPTH)		
		SQ FT	SQ FT	SQ FT
91	4.0 x 3.0	12.0		
92	2.0 x 7.0	14.0		
93	3.0 x 5.0			15.0
94	7.0 x 1.0			7.0
95	3.0 x 3.0			9.0
96	3.0 x 2.0			6.0
97	12.0 x 3.0	36.0		
98	2.0 x 5.0			10.0
99	2.0 x 3.0			6.0
100	2.0 x 16.0			32.0
101	4.0 x 4.0	16.0		
102	2.0 x 4.0	8.0		
103	2.0 x 3.0			6.0
104	2.0 x 9.0			18.0
105	2.0 x 10.0			20.0
106	2.0 x 5.0	10.0		
107	3.0 x 14.0	42.0		
108	5.0 x 5.0	25.0		

PATCH NO.	SIZE	DECK SLAB REPAIR (PART DEPTH)		
		SQ FT	SQ FT	SQ FT
109	2.0 x 7.0			14.0
110	11.0 x 3.0	33.0		
111	4.0 x 2.0	8.0		
112	6.0 x 2.0	12.0		
113	7.0 x 1.0			7.0
114	13.0 x 1.0			13.0
115	2.0 x 10.0			20.0
116	2.0 x 14.0	28.0		0.0
117	2.0 x 11.0			22.0
118	10.0 x 4.0	40.0		
119	9.0 x 2.0			18.0
120	10.0 x 20.0	200.0		
121	2.0 x 3.0			6.0
122	7.0 x 2.0	14.0		
123	7.0 x 1.0			7.0
TOTAL		3240	0	1339

PATCH NO.	SIZE	DECK SLAB REPAIR (PART DEPTH)		
		SQ FT	SQ FT	SQ FT
	PARTIAL DEPTH			
	3240 / 9 = 360.0			
	USE 360	\$Q	YD	
	FULL DEPTH, TYPE 1			
	0 / 9 = 0.0			
	USE 0	\$Q	YD	
	FULL DEPTH, TYPE 2			
	1339 / 9 = 148.8			
	USE 149	\$Q	YD	

PATCH NO.	SIZE	DECK SLAB REPAIR (PART DEPTH)		
		SQ FT	SQ FT	SQ FT

PATCH NO.	SIZE	DECK SLAB REPAIR (PART DEPTH)		
		SQ FT	SQ FT	SQ FT

THE LOCATIONS AND SIZES SHOWN GRAPHICALLY ABOVE ARE APPROXIMATE. SEE THIS TABLE FOR ACTUAL SIZES.

PATCHING LEGEND (FOR INFORMATION ONLY)



PARTIAL DEPTH



FULL DEPTH

DATE OF SURVEY: 7-29-14
 SURVEY BY: DFZ
 METHOD OF SURVEY: VISUAL

BRIDGE DECK PATCHING
 EFFINGHAM COUNTY
 FAI ROUTE 57 SBL OVER
 LITTLE WABASH RIVER
 0.5 MILES SOUTH OF
 WATSON INTERCHANGE

SN 025-0072

072

FILE NAME = *FILEL*
 USER NAME = *USER*
 PLOT SCALE = *SCALE*
 PLOT DATE = *DATE*

DESIGNED - DFZ
 DRAWN - DFZ
 CHECKED - MEA
 DATE - 8/8/2014

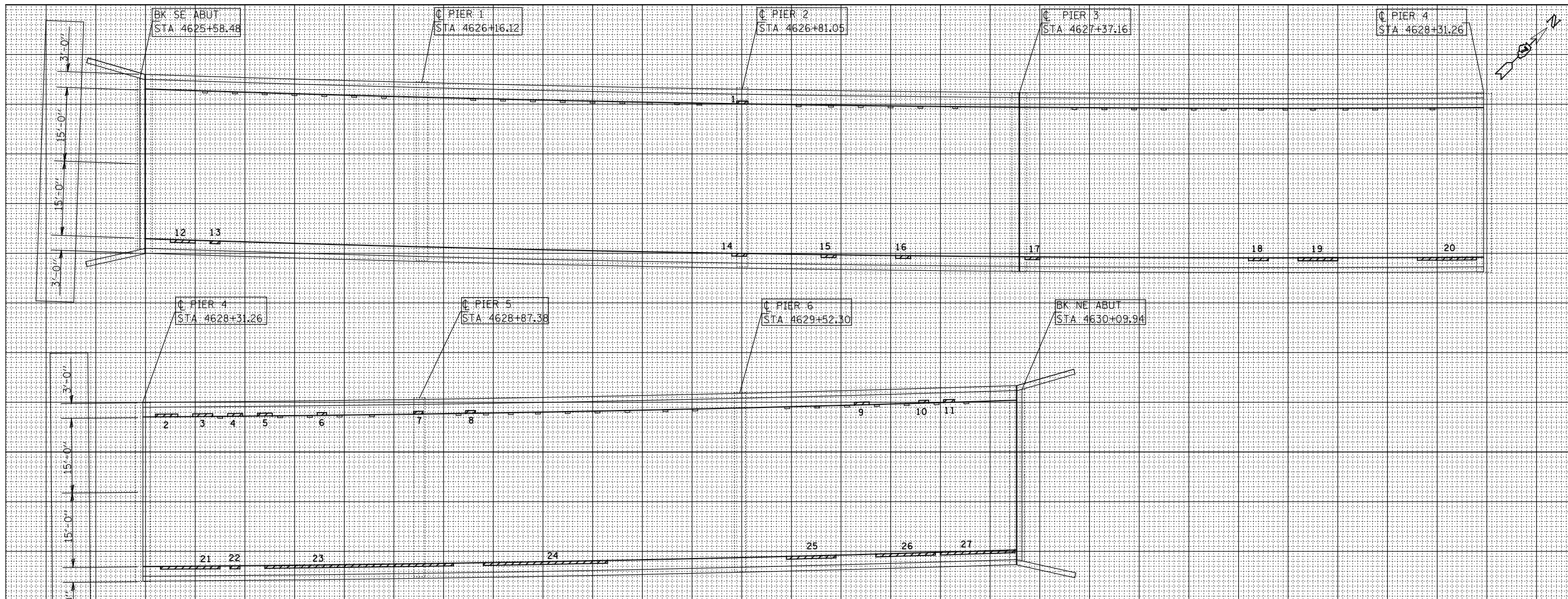
REVISED -
 REVISED -
 REVISED -
 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

DECK SLAB REPAIR
 SN 025-0072 (SB)

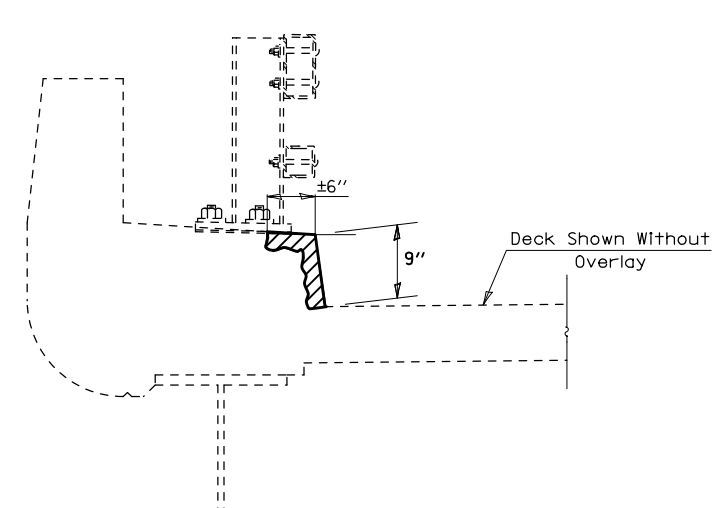
SCALE: SHEET NO. 7 OF 22 SHEETS STA. TO STA.

F.A. RTE. 57	SECTION (25-6, 7)RS-2	COUNTY EFFINGHAM	TOTAL SHEETS 63	SHEET NO. 35
CONTRACT NO. 74638		ILLINOIS FED. AID PROJECT		



PATCH NO.	SIZE	STRUCTURAL REPAIR OF CONCRETE $\leq 5"$ SQ FT
1	1.3 x 2.0	2.5
2	1.3 x 4.0	5.0
3	1.3 x 4.0	5.0
4	1.3 x 3.0	3.8
5	1.3 x 3.0	3.8
6	1.3 x 2.0	2.5
7	1.3 x 2.0	2.5
8	1.3 x 2.0	2.5
9	1.3 x 3.0	3.8
10	1.3 x 2.0	2.5
11	1.3 x 2.0	2.5
12	1.3 x 5.0	6.3
13	1.3 x 2.0	2.5
14	1.3 x 3.0	3.8
15	1.3 x 3.0	3.8
16	1.3 x 3.0	3.8
17	1.3 x 3.0	3.8
18	1.3 x 4.0	5.0

PATCH NO.	SIZE	STRUCTURAL REPAIR OF CONCRETE $\leq 5"$ SQ FT
19	1.3 x 8.0	10.0
20	1.3 x 12.0	15.0
21	1.3 x 12.0	15.0
22	1.3 x 2.0	2.5
23	1.3 x 38.0	47.5
24	1.3 x 25.0	31.3
25	1.3 x 10.0	12.5
26	1.3 x 12.0	15.0
27	1.3 x 15.0	18.8
TOTAL		233
STRUCTURAL REPAIR OF CONCRETE $< 5'$		
233 / 9 =		25.8
USE		26 SQ YD



SECTION H-H
(Dimensions at Rt. L's to end of deck)

Note: Face of curb is included in size of patch.

Actual dimensions of the Structural Repair of Concrete $\leq 5"$ shall be determined by the Engineer based on the extent of deterioration.

Removal and replacement of the existing bridge rail and posts may be necessary to complete the Structural Repair of Concrete. All mounting hardware is to be reused. This work and all materials shall be included in the contract unit price for Structural Repair of Concrete $\leq 5"$.

THE LOCATIONS AND SIZES SHOWN GRAPHICALLY ABOVE ARE APPROXIMATE. SEE THIS TABLE FOR ACTUAL SIZES.

PATCHING LEGEND

PATCHING

DATE OF SURVEY: 8/1/14
SURVEY BY: MEA
METHOD OF SURVEY: VISUAL

STRUCTURAL REPAIR OF CONCRETE $\leq 5"$
EFFINGHAM COUNTY
FAI ROUTE 57 SBL OVER
LITTLE WABASH RIVER
0.5 MILES SOUTH OF
WATSON INTERCHANGE

SN 025-0072

072

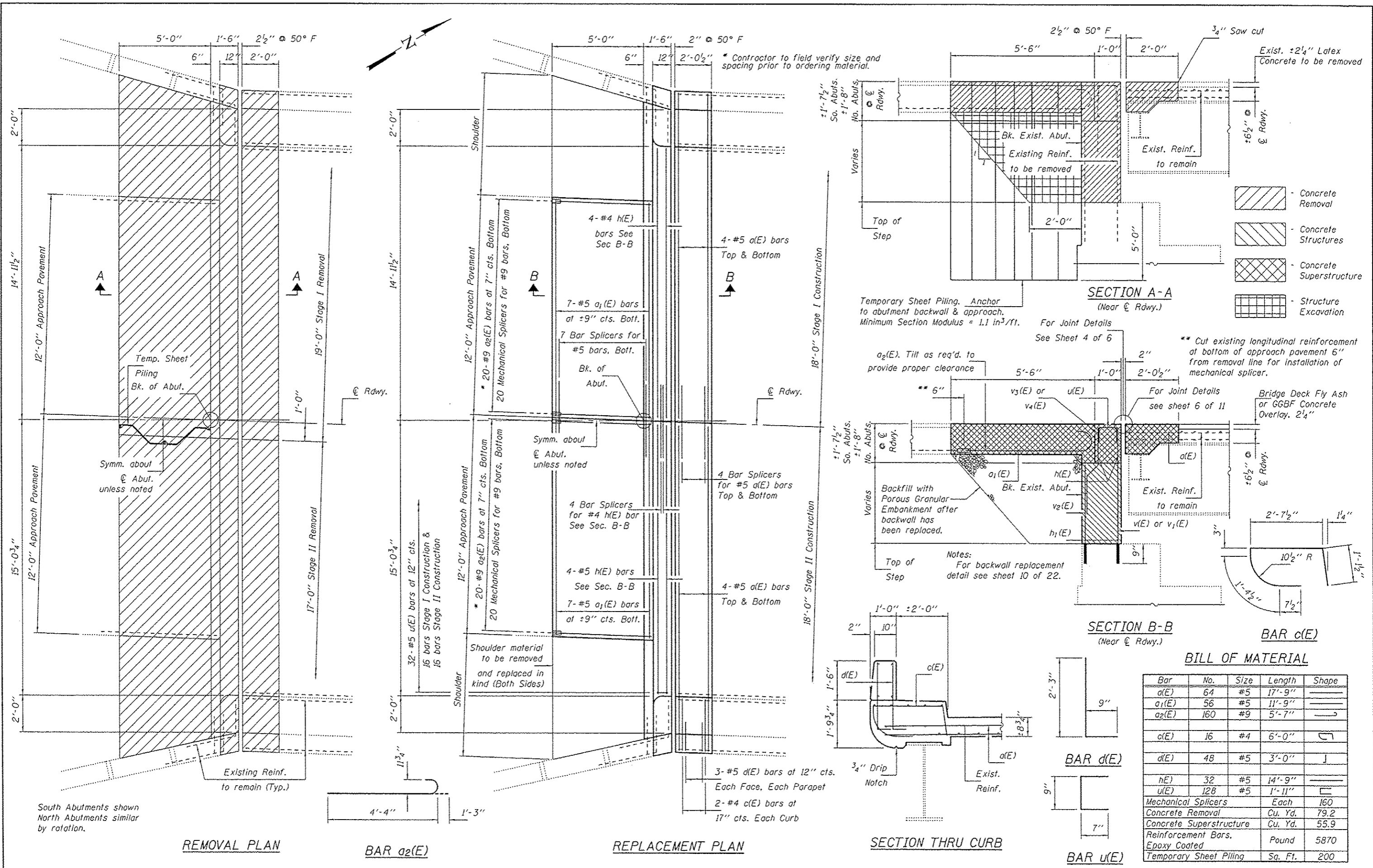
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	PLOT DATE = *DATE*	DATE - 8/8/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURAL REPAIR OF CONCRETE $\leq 5"$
SN 025-0072 (SB)

SCALE: SHEET NO. 8 OF 22 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(25-6, 7)RS-2	EFFINGHAM	63	36
CONTRACT NO. 74638				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



DESIGNED SMR
 CHECKED CCC
 DRAWN J. Schneller
 CHECKED SMR CCC

EXAMINED *Timothy A. Anzani*
 ACTING ENGINEER OF STRUCTURAL SERVICES

DATE October 15, 2014

PASSED *Carl Perry*
 ACTING ENGINEER OF BRIDGES AND STRUCTURES

REVISIONS

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

JOINT REPAIR DETAILS ABUTMENTS
 SN 025-0071 & 025-0072

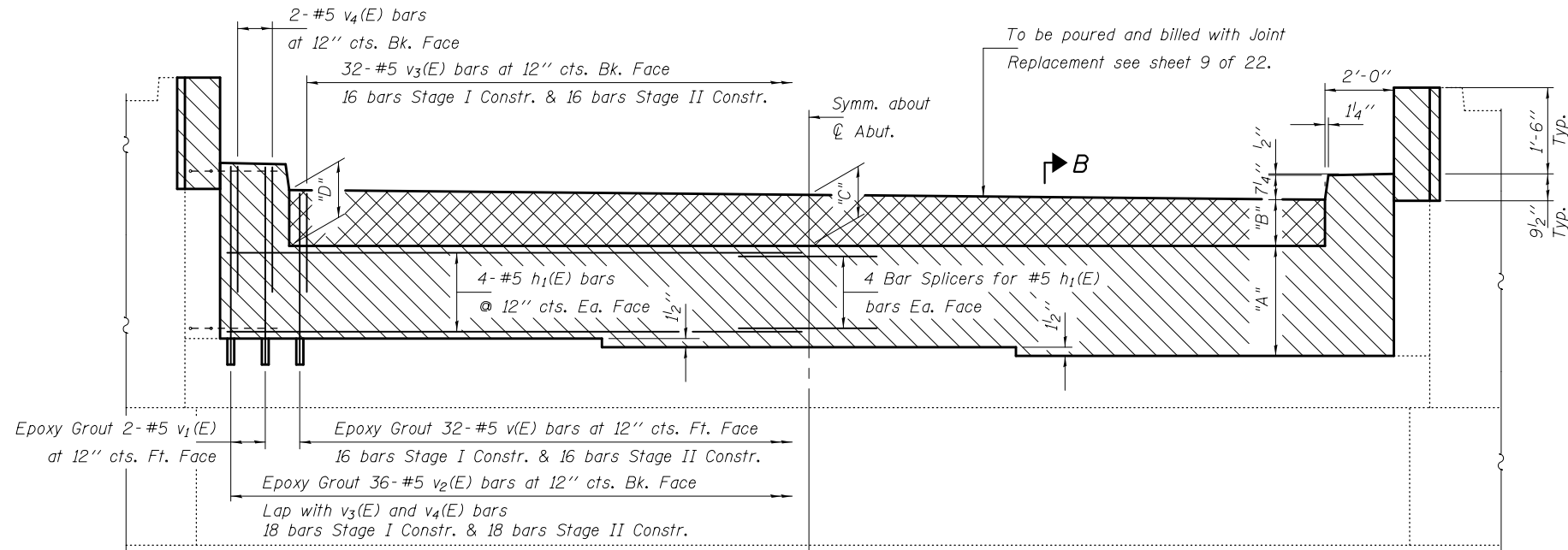
F.A.I. SECTION COUNTY TOTAL SHEETS SHEET NO.
 57 (25-6, 7HS-2) EFFINGHAM 63 37
 CONTRACT NO. 74638

ILLINOIS FED. AID PROJECT

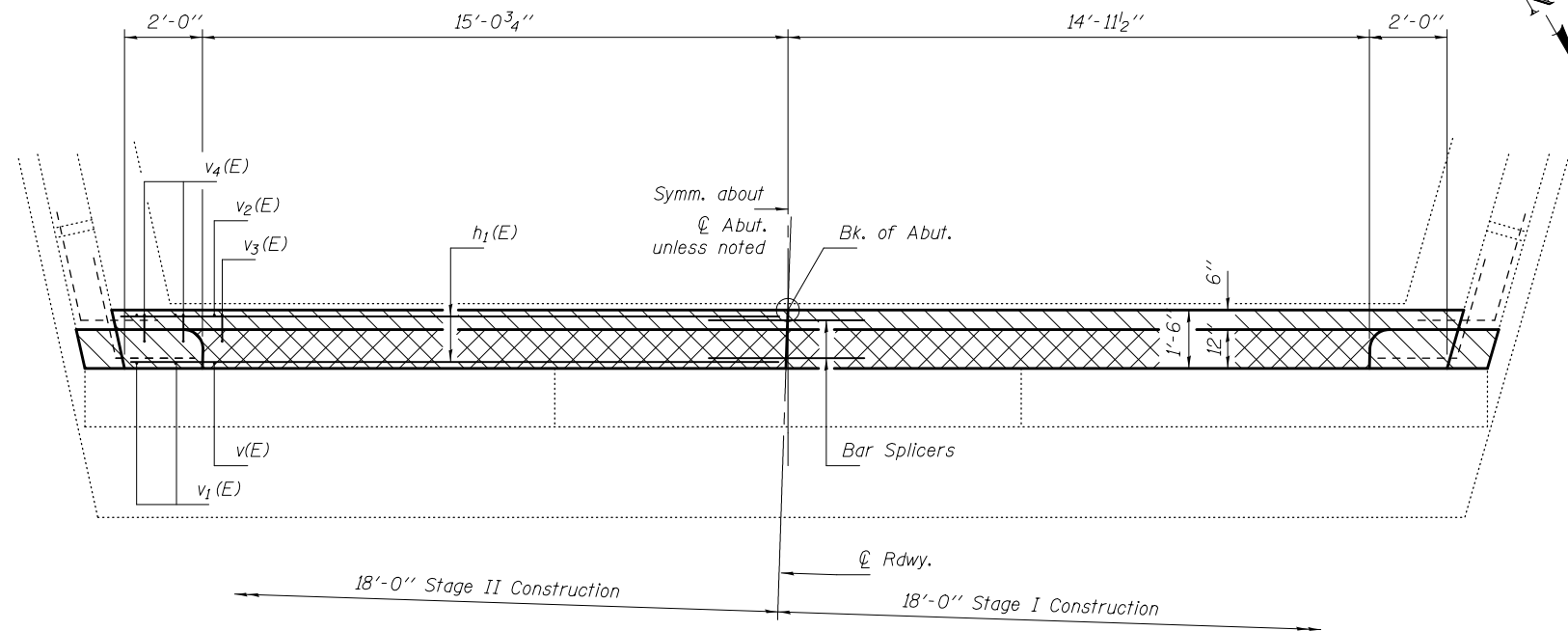
DIMENSIONS "A" THRU "D"

Abutment	"A"	"B"	"C"	"D"
S.E. Abut.	3'-2 1/4"	1'-5 7/8"	1'-7 1/2"	1'-9 1/4"
S.W. Abut.	3'-2 3/4"			
N.E. Abut.	3'-1 5/8"	1'-9 3/4"	1'-8"	1'-6 1/8"
N.W. Abut.	3'-1 3/8"			

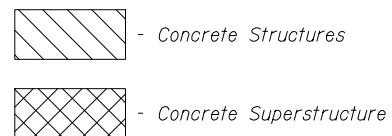
South Abutments shown
North Abutments similar
by rotation.



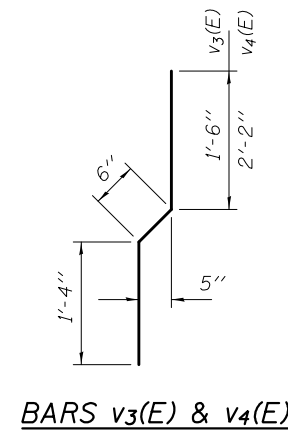
REPLACEMENT ELEVATION



REPLACEMENT PLAN



Notes
For Concrete Removal details and
Section B-B see sheet 11 of 22.



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h1(E)	64	#5	16'-9"	
v(E)	128	#5	5'-2"	
v1(E)	16	#5	5'-9"	
v2(E)	144	#5	3'-8"	
v3(E)	128	#5	3'-4"	
v4(E)	16	#5	4'-0"	
Structure Excavation			Cu. Yd.	60.8
Porous Granular Embankment			Cu. Yd.	60.8
Concrete Structures			Cu. Yd.	24.0
Reinforcement Bars, Epoxy Coated			Pound	2970

DESIGNED SMR	EXAMINED	DATE October 15, 2014
CHECKED CCC	PASSED	
DRAWN J. Schneller		
CHECKED SMR CCC		

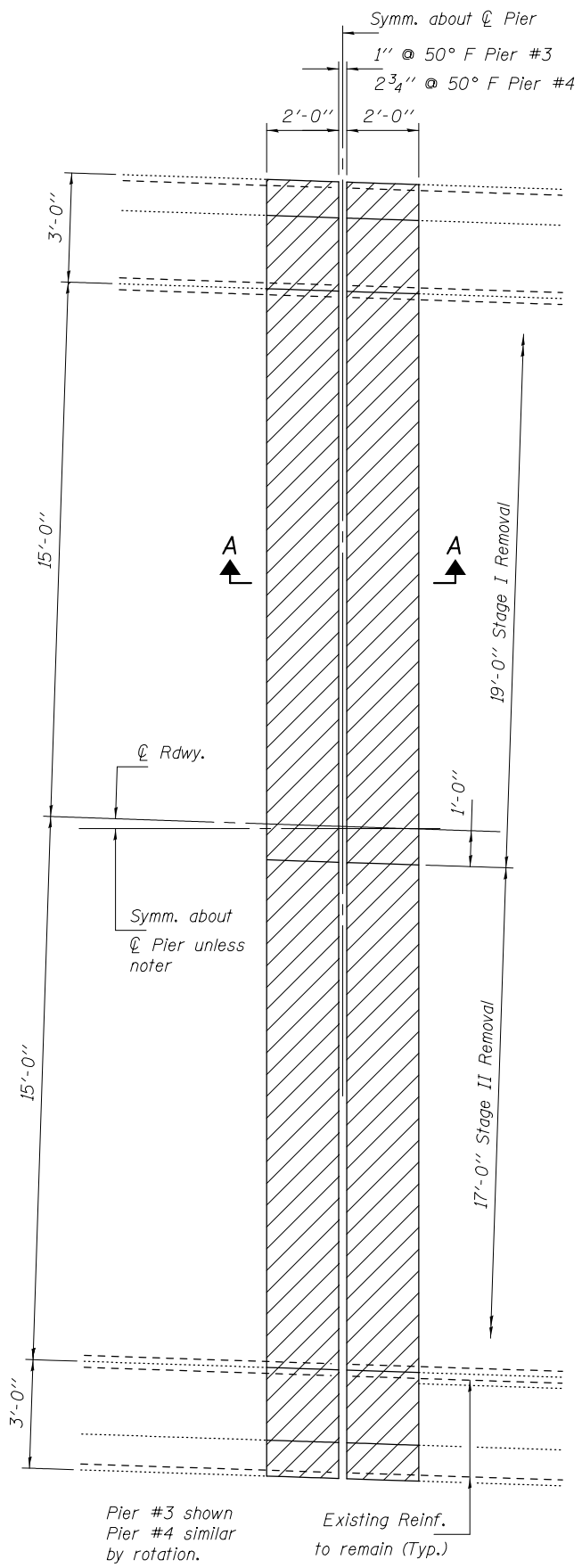
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ABUTMENT WALL REPAIR DETAILS
SN 025-0071 & 025-0072

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(25-6, TRS-2	EFFINGHAM	63	38
CONTRACT NO. 74638				

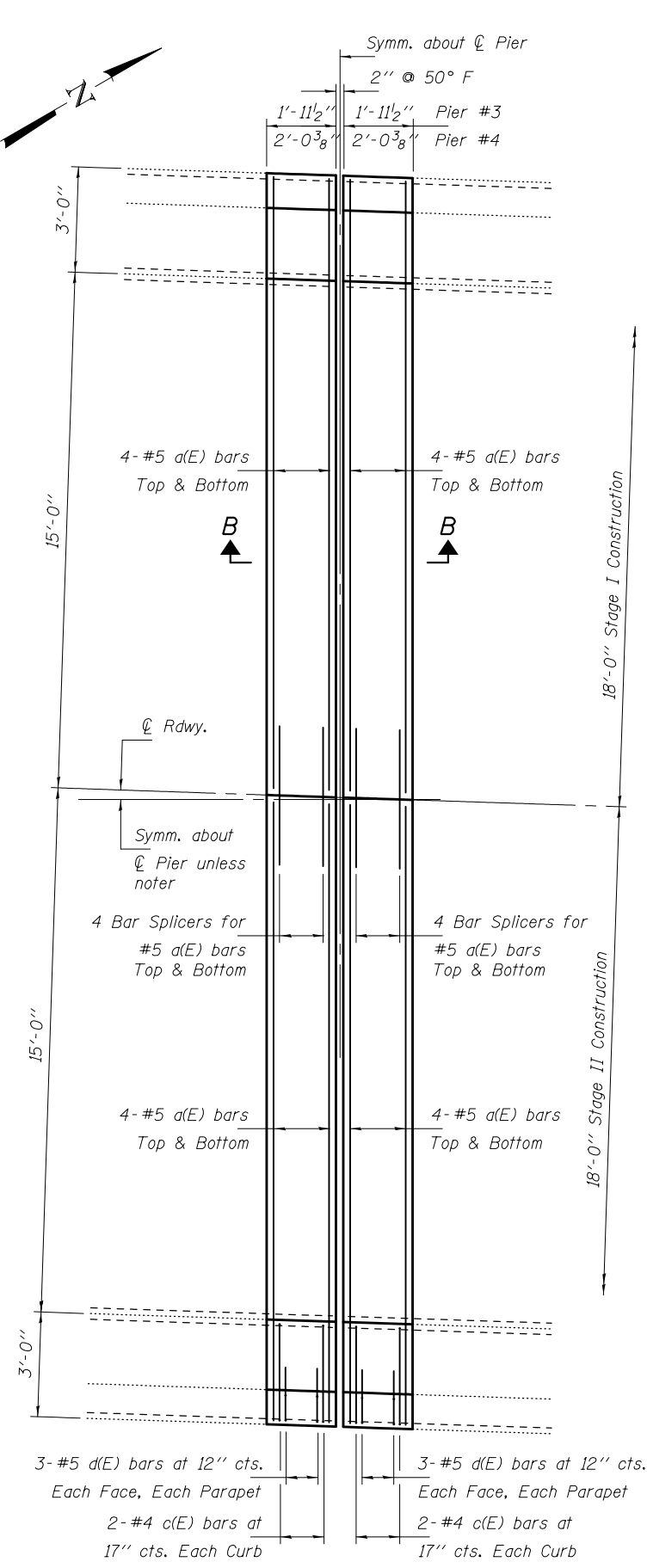
SHEET NO. 10 OF 22 SHEETS

ILLINOIS FED. AID PROJECT

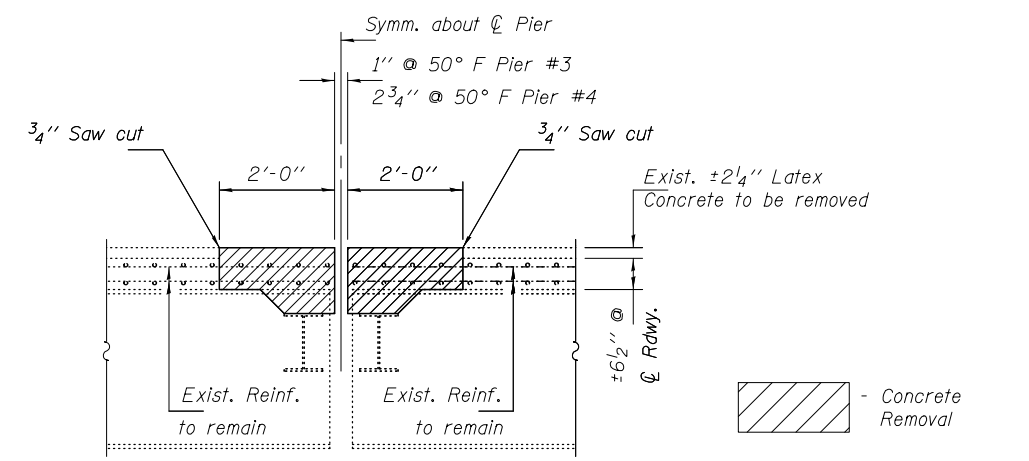


REMOVAL PLAN

Pier #3 shown
Pier #4 similar
by rotation.
Existing Reinf.
to remain (Typ.)

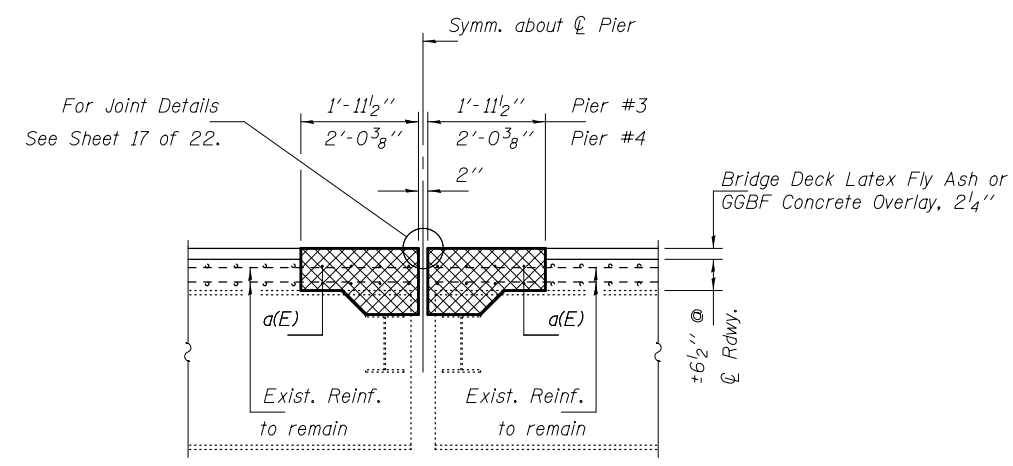


REPLACEMENT PLAN

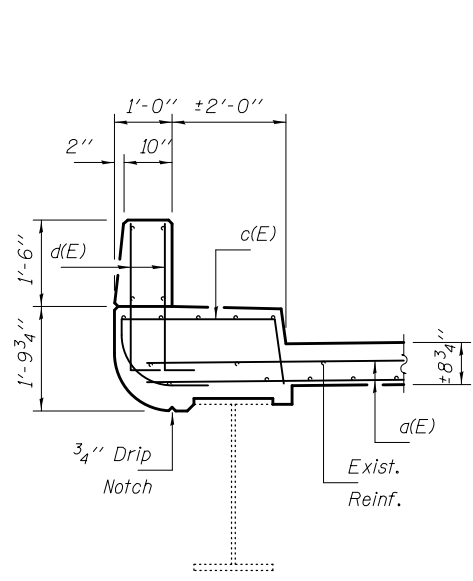


SECTION A-A
(Near \varnothing Rdwy.)

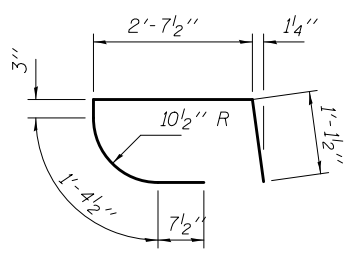
- Concrete Removal
 - Concrete Superstructure



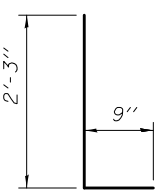
SECTION B-B
(Near \varnothing Rdwy.)



SECTION THRU CURB



BAR c(E)



BAR d(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	128	#5	17'-9"	—
c(E)	32	#4	6'-0"	⌋
d(E)	96	#5	3'-0"	J
Concrete Removal			Cu. Yd.	26.3
Concrete Superstructure			Cu. Yd.	26.3
Reinforcement Bars, Epoxy Coated			Pound	2800

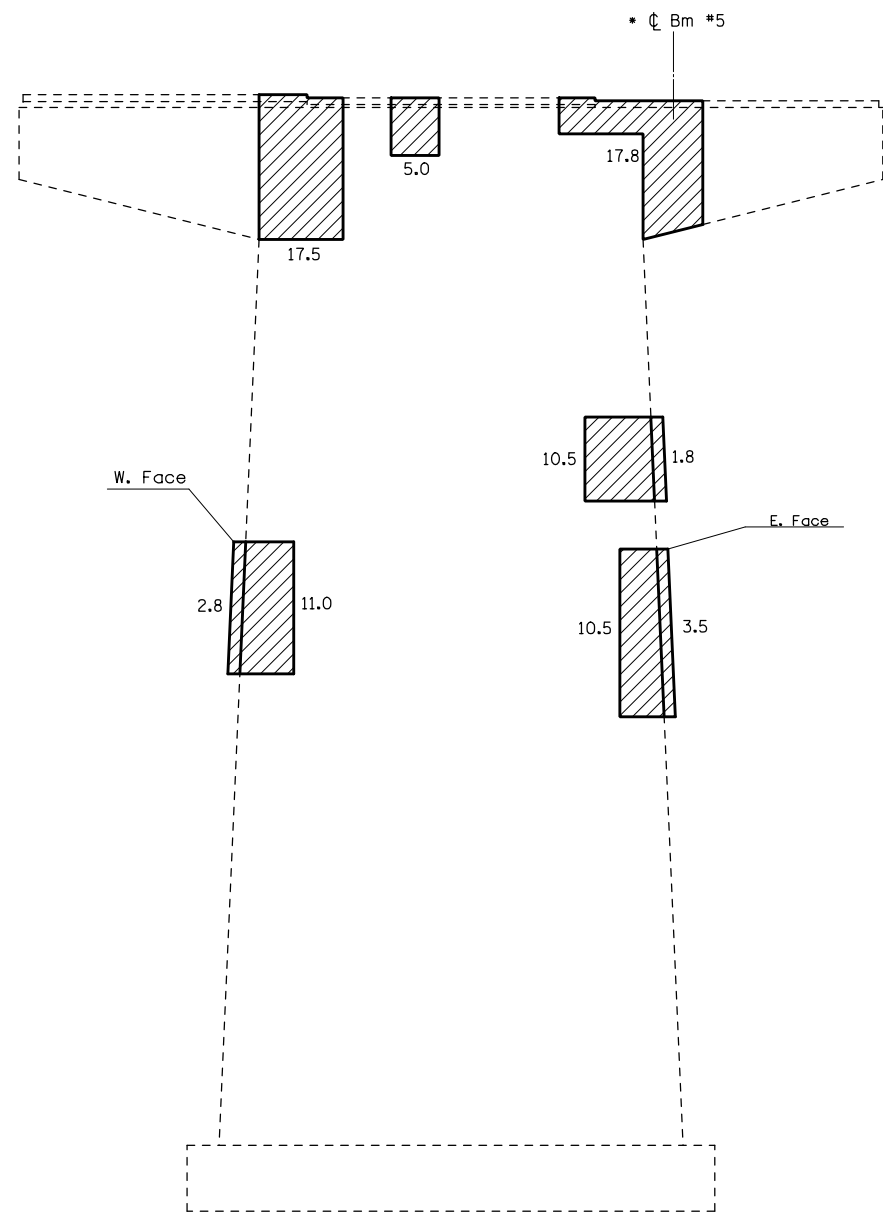
DESIGNED SMR	EXAMINED <i>Timothy A. ...</i>	DATE October 15, 2014
CHECKED CCC	PASSED <i>Carl ...</i>	REVISED
DRAWN J. Schneller	ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED
CHECKED SMR CCC		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

JOINT REPAIR DETAILS PIERS #3 & #4
SN 025-0071 & 025-0072

SHEET NO. 11 OF 22 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(25-6, 7)RS-2	EFFINGHAM	63	39
CONTRACT NO. 74638			ILLINOIS FED. AID PROJECT	



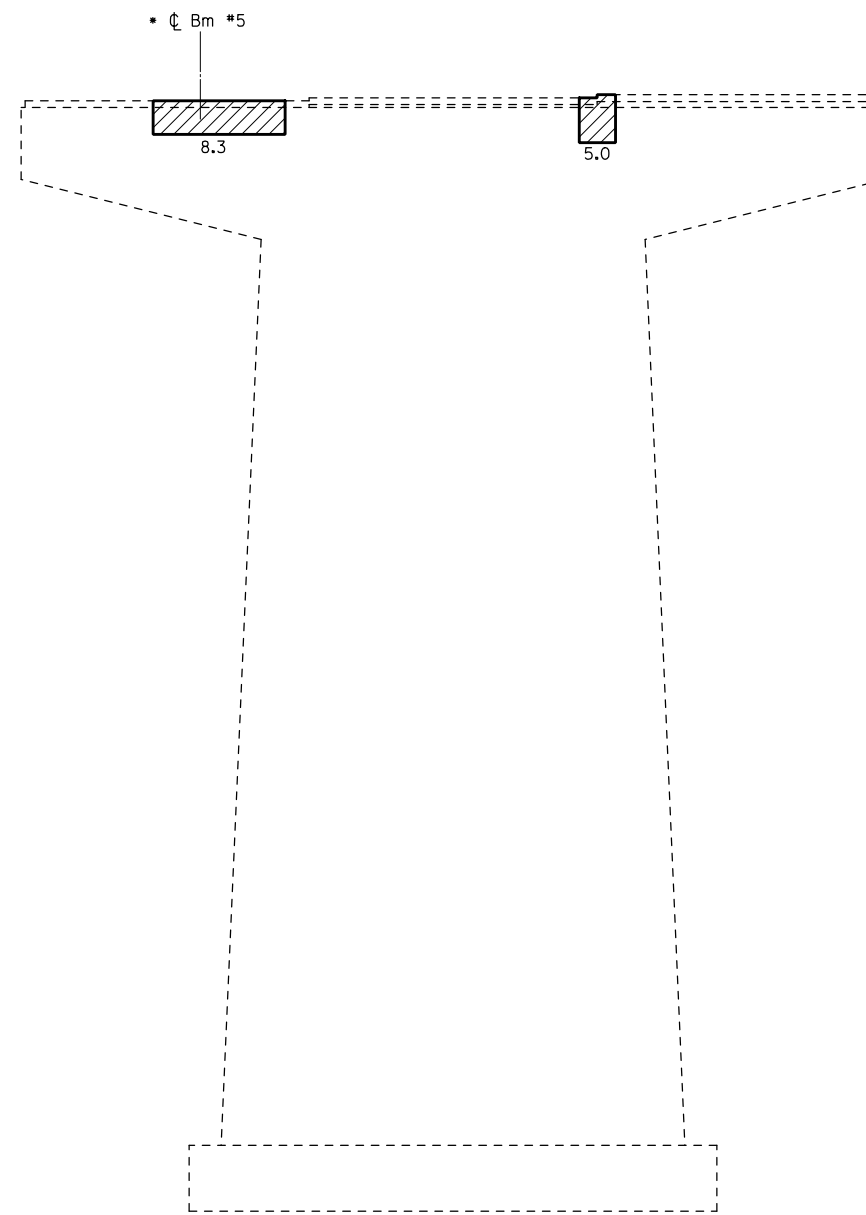
PIER #3 - NORTH FACE

SN 025-0071

• Temporary Shoring and Cribbing required.

BEAM REACTIONS

	South Brg. Pier #3	North Brg. Pier #3
R _D (k)	21.6	42.8
R _L (k)	33.3	37.7
Imp. (k)	9.3	8.7
R _{Total} (k)	64.2	89.2



PIER #3 - SOUTH FACE

SN 025-0071

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Temporary Shoring & Cribbing	Each	2
Structural Repair of Concrete (Depth Equal to or Less than 5")	Sq. Ft.	93.7

NOTE: QUANTITIES ARE ESTIMATED. ACTUAL QUANTITIES TO BE DETERMINED BY THE RESIDENT ENGINEER.

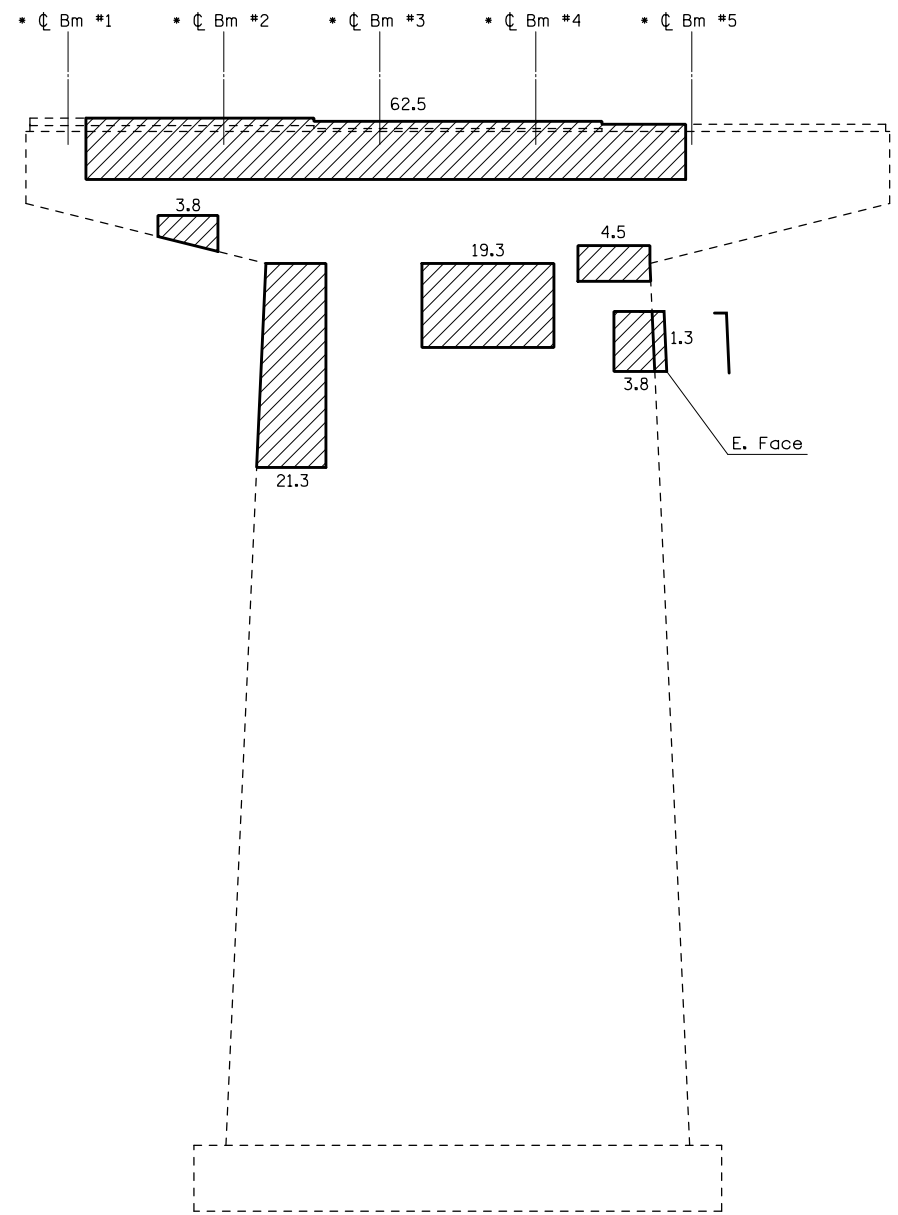
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	PLOT DATE = \$DATE*	DATE - 8/11/2014	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**STRUCTURAL REPAIR OF CONCRETE ≤ 5"
SN 025-0071 (NB)**

SCALE: SHEET 12 OF 22 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(25-6, 7)RS-2	EFFINGHAM	63	40
			CONTRACT NO. 74638	
ILLINOIS FED. AID PROJECT				

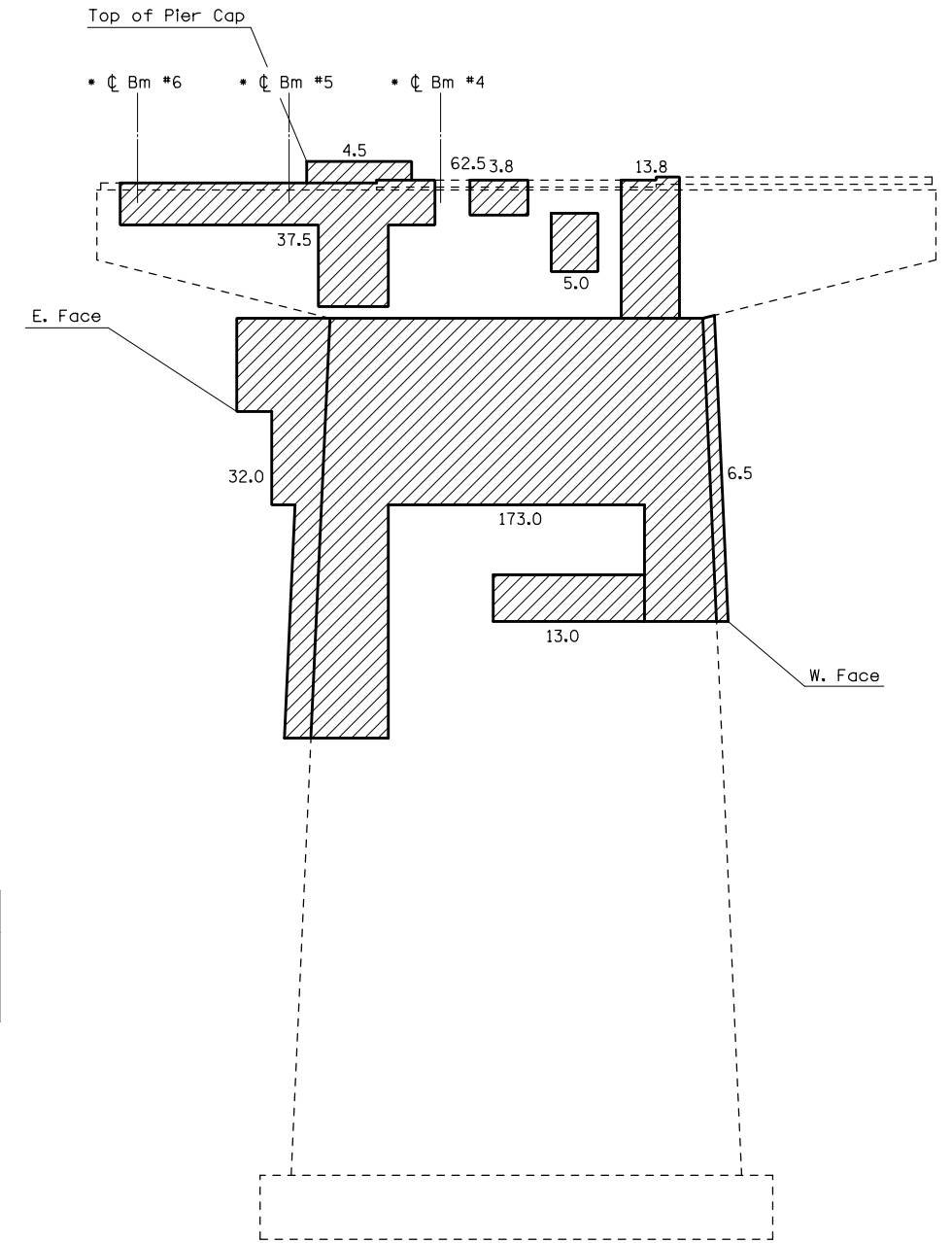


PIER #4 - NORTH FACE
SN 025-0071

* Temporary Shoring and Cribbing required.

BEAM REACTIONS

	South Brg. Pier #4	North Brg. Pier #4
R _Q (k)	42.8	21.6
R _L (k)	37.7	33.3
Imp. (k)	8.7	9.3
R _{Total} (k)	89.2	64.2

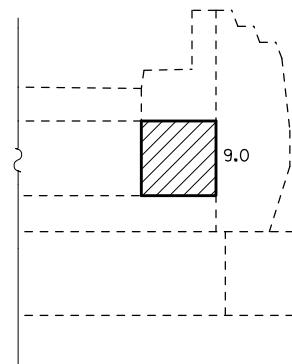


PIER #4 - SOUTH FACE
SN 025-0071

BILL OF MATERIAL

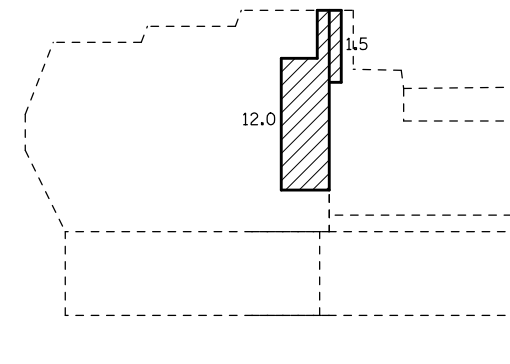
ITEM	UNIT	TOTAL
Temporary Shoring & Cribbing	Each	8
Structural Repair of Concrete (Depth Equal to or Less than 5")	Sq. Ft.	405.6

NOTE: QUANTITIES ARE ESTIMATED. ACTUAL QUANTITIES TO BE DETERMINED BY THE RESIDENT ENGINEER.



NORTHWEST CORNER OF SOUTH ABUTMENT

SN 025-0071



SOUTHWEST CORNER OF NORTH ABUTMENT

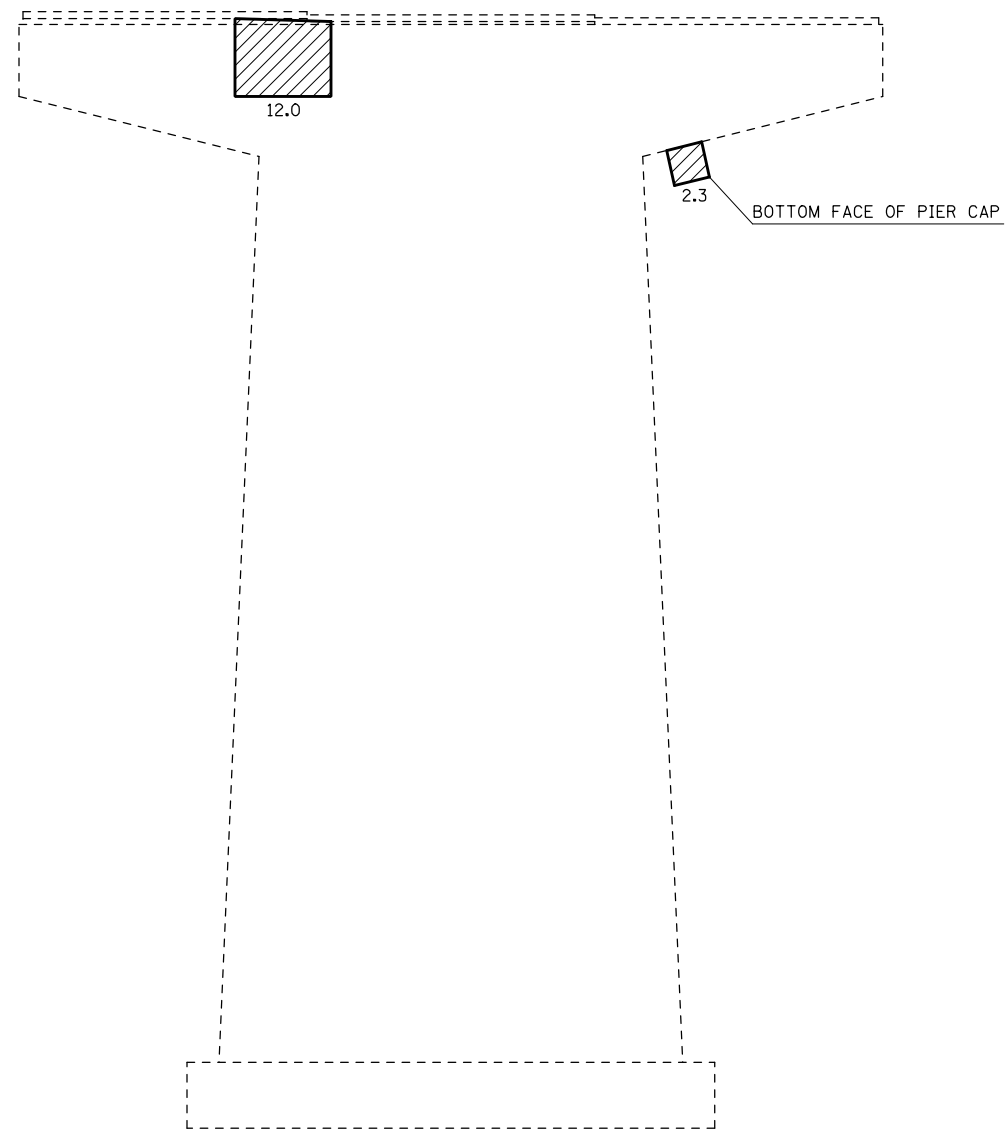
SN 025-0071

NOTE: All quantities in SQ. FT.

TOTAL ABUTMENTS = 22.5 SQ FT

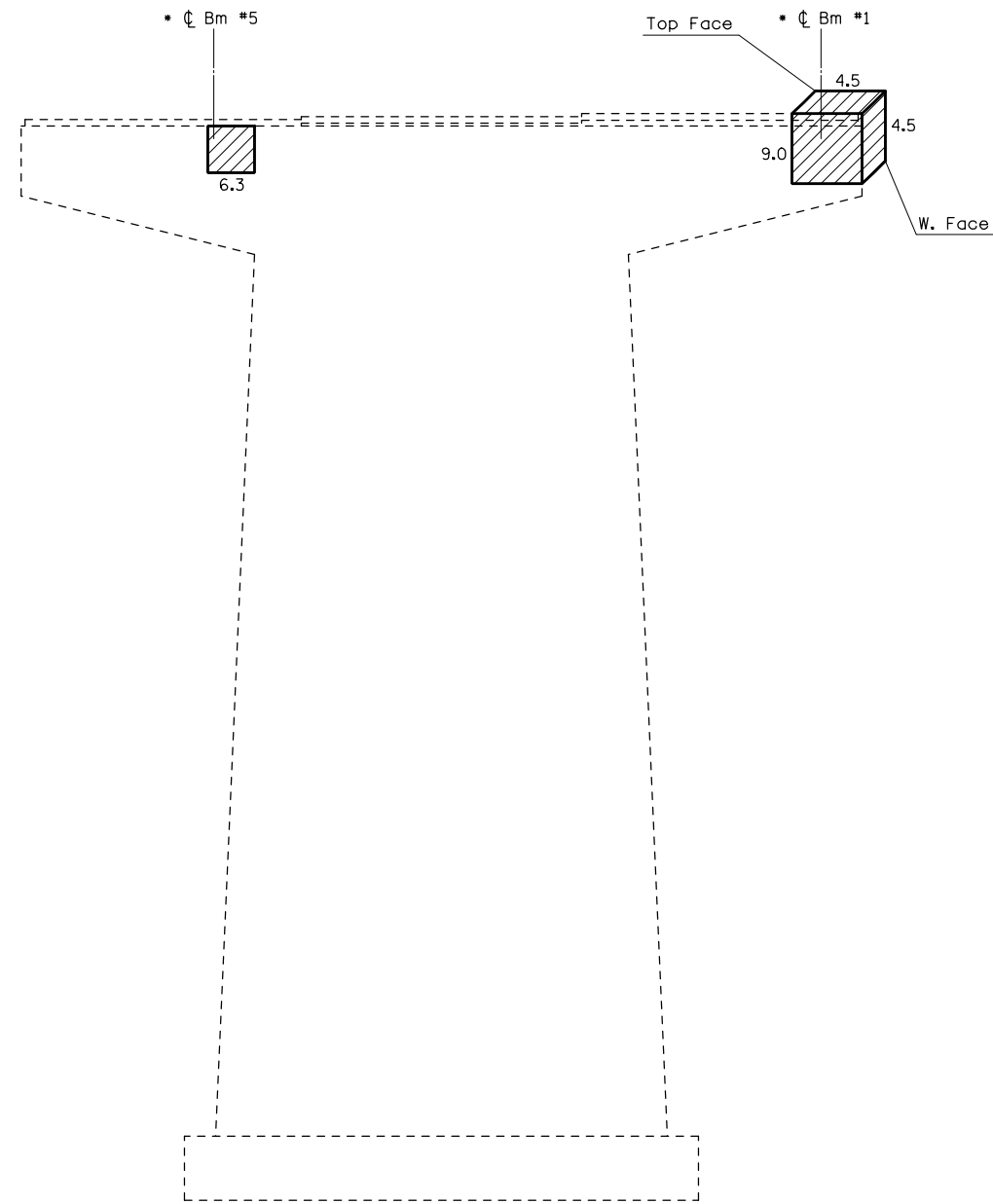
NOTE: QUANTITIES ARE ESTIMATED. ACTUAL QUANTITIES TO BE DETERMINED BY THE RESIDENT ENGINEER.

FILE NAME =	USER NAME = \$USER*	DESIGNED - MEA	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STRUCTURAL REPAIR OF CONCRETE ≤ 5" SN 025-0071 (NB)	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
FILEL		DRAWN - CKT	REVISED -			57	(25-6, 7)RS-2	EFFINGHAM	63	42	
MODELNAME		CHECKED - MEA	REVISED -			CONTRACT NO. 74638		ILLINOIS FED. AID PROJECT			
		DATE - 8/11/2014	REVISED -			SCALE:	SHEET 14 OF 22 SHEETS	STA.	TO STA.		



PIER #3 - NORTH FACE

SN 025-0072



PIER #3 - SOUTH FACE

SN 025-0072

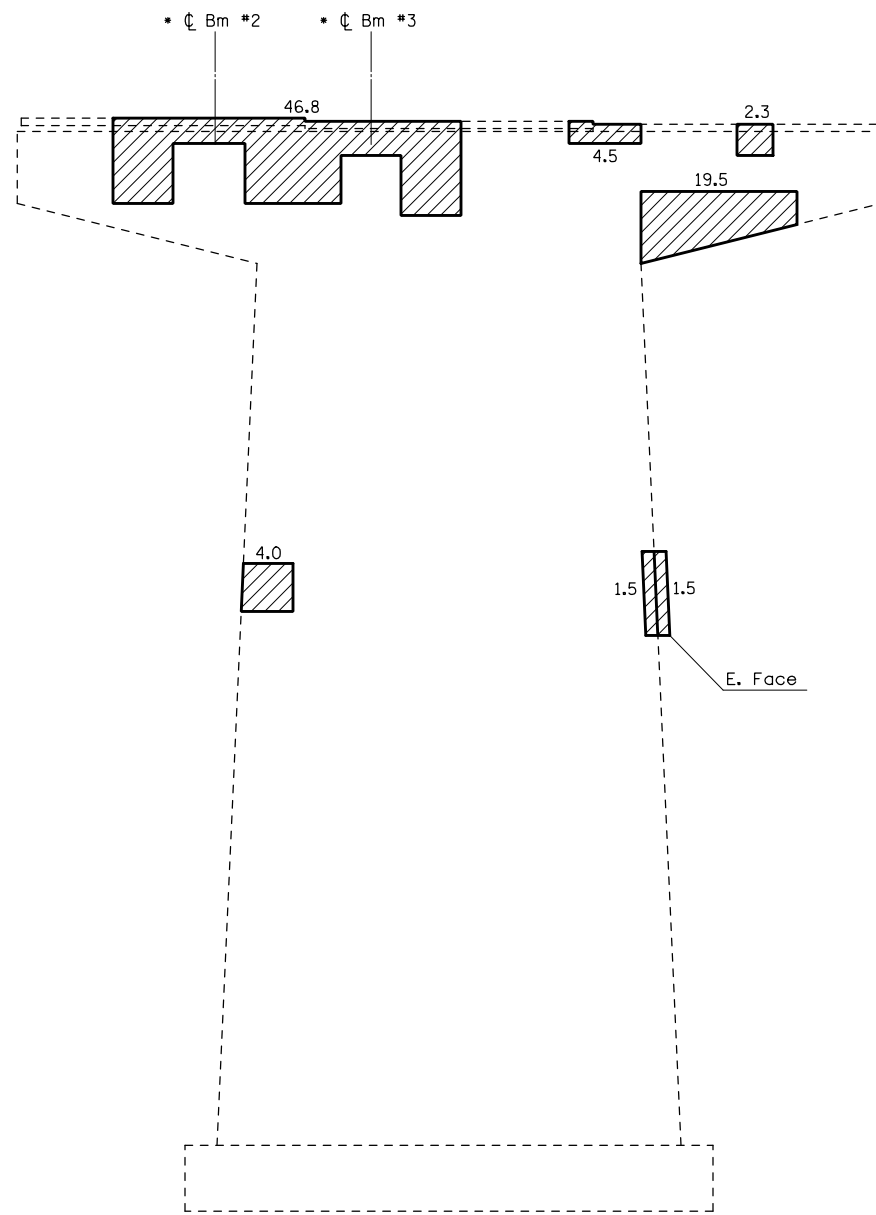
BEAM REACTIONS

	South Brg. Pier #3
R _D (k)	21.6
R _L (k)	33.3
Imp. (k)	9.3
R _{Total} (k)	64.2

NOTE: QUANTITIES ARE ESTIMATED. ACTUAL QUANTITIES TO BE DETERMINED BY THE RESIDENT ENGINEER.

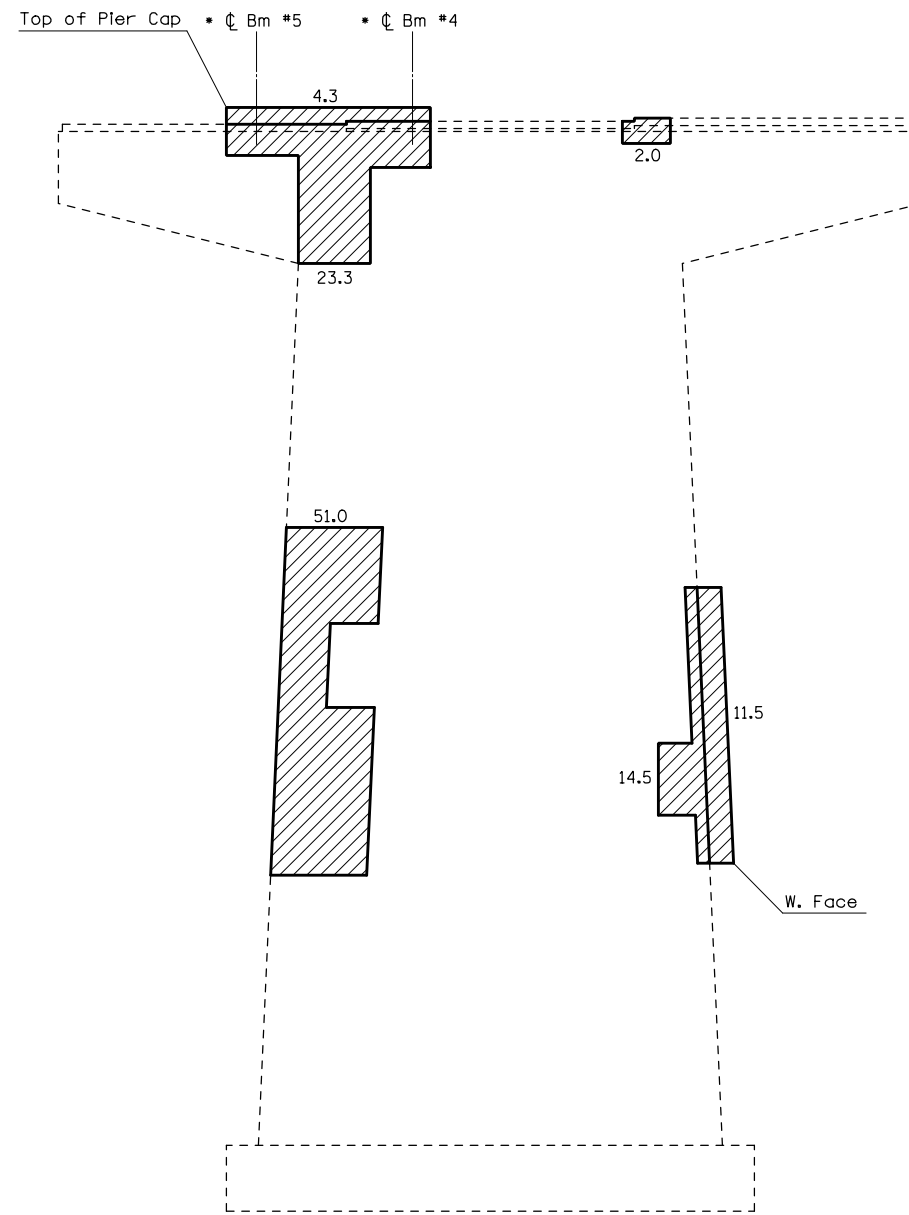
BILL OF MATERIAL

ITEM	UNIT	TOTAL
Temporary Shoring & Cribbing	Each	2
Structural Repair of Concrete (Depth Equal to or Less than 5")	Sq. Ft.	38.6



PIER #4 - NORTH FACE

SN 025-0072



PIER #4 - SOUTH FACE

SN 025-0072

* Temporary Shoring and Cribbing required.

BEAM REACTIONS

	South Brg. Pier #4	North Brg. Pier #4
R _D (k)	21.6	42.8
R _L (k)	33.3	37.7
Imp. (k)	9.3	8.7
R _{Total} (k)	64.2	89.2

NOTE: QUANTITIES ARE ESTIMATED. ACTUAL QUANTITIES TO BE DETERMINED BY THE RESIDENT ENGINEER.

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Temporary Shoring & Cribbing	Each	4
Structural Repair of Concrete (Depth Equal to or Less than 5")	Sq. Ft.	186.7

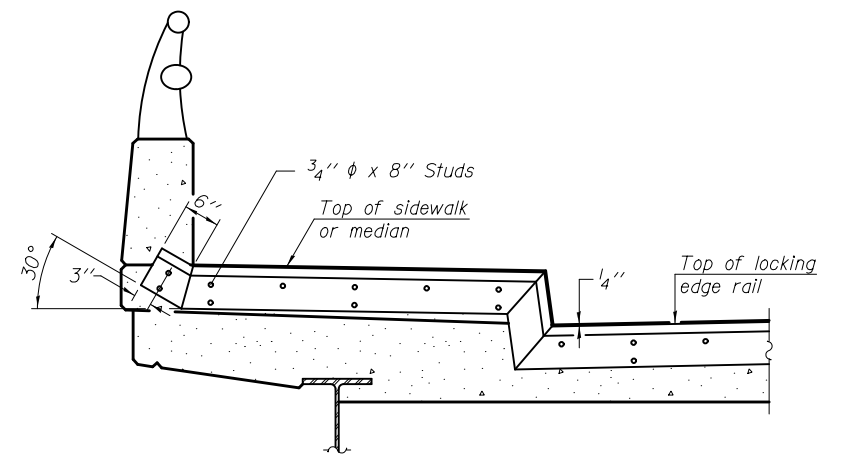
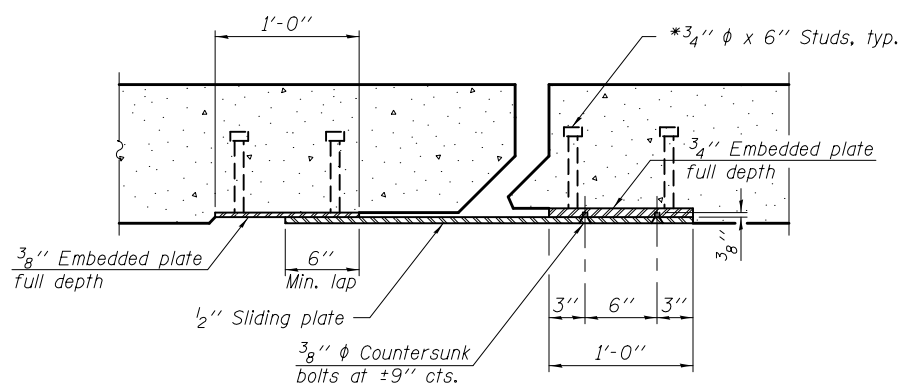
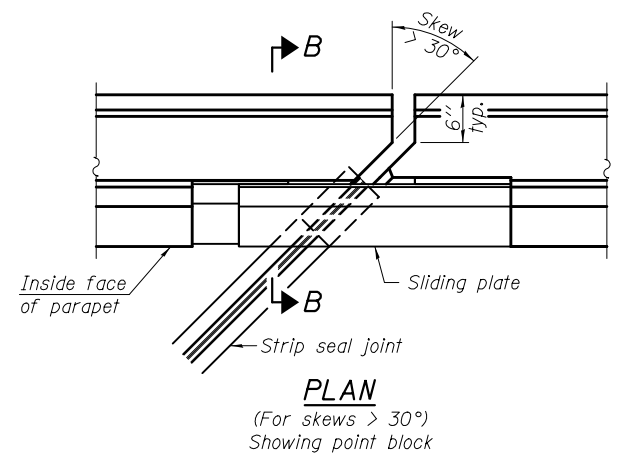
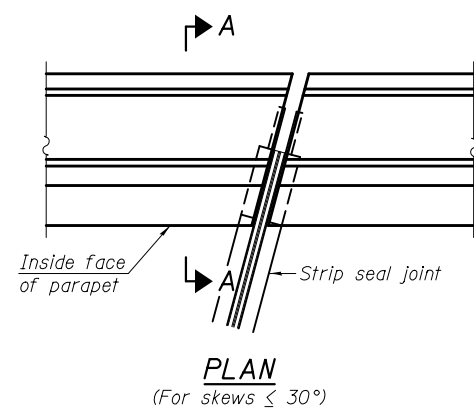
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

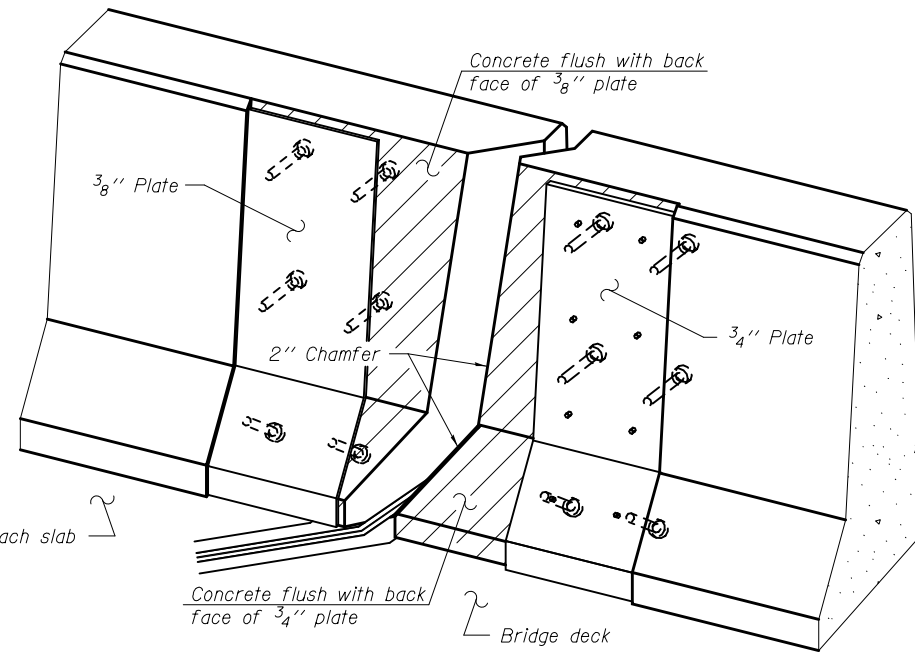
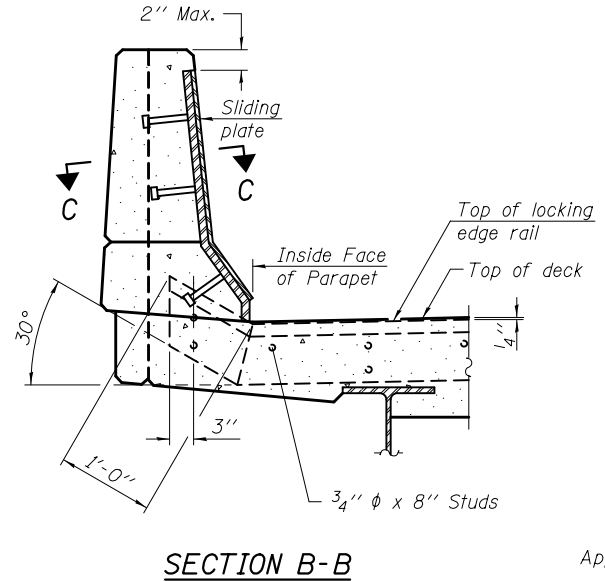
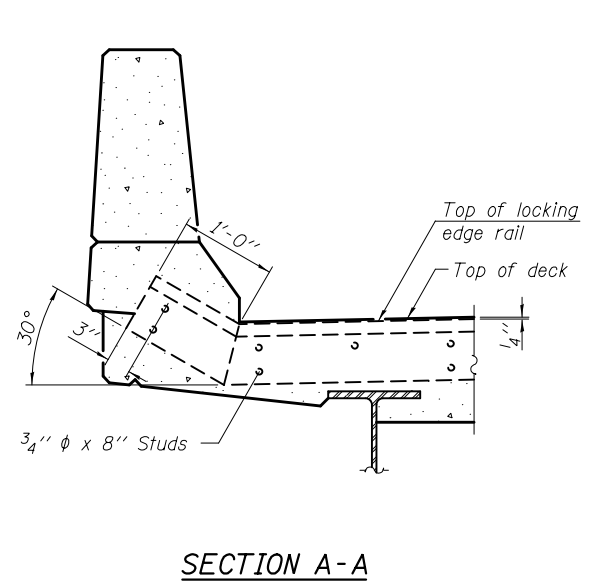
STRUCTURAL REPAIR OF CONCRETE ≤ 5"
SN 025-0072 (SB)

SCALE: SHEET 16 OF 22 SHEETS STA. TO STA.

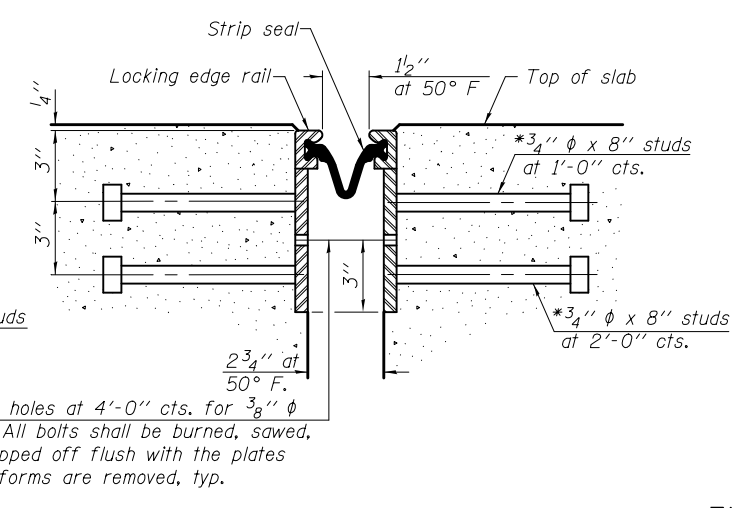
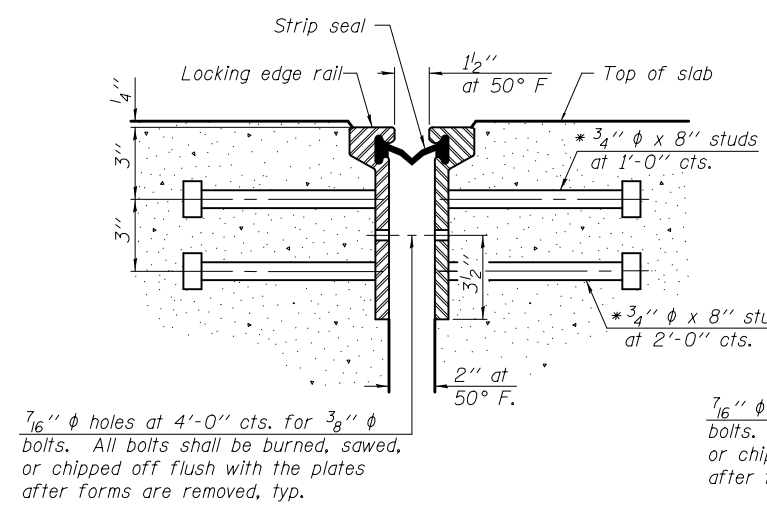
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(25-6, 7)RS-2	EFFINGHAM	63	44
			CONTRACT NO. 74638	
ILLINOIS FED. AID PROJECT				



TYPICAL END TREATMENT AT SIDEWALK OR MEDIAN
 Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.

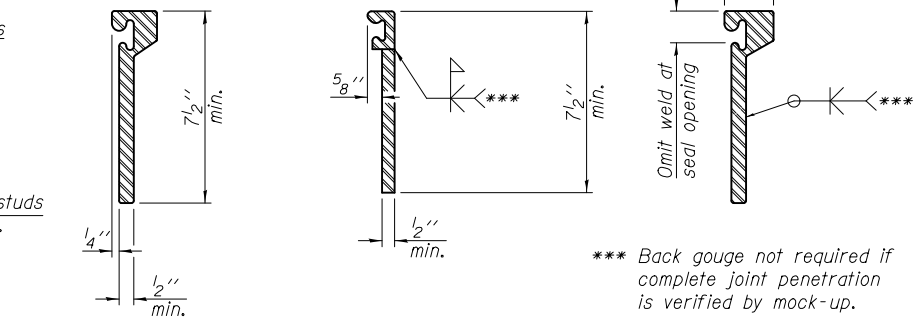


Notes:
 The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.
 The Locking Edge Rails depicted are conceptual only, except for the minimum dimensions shown. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities.
 The manufacturer's recommended installation methods shall be followed.
 The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.
 All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.
 Maximum space between rail segments shall be 3/16", sealed with a suitable sealant. Joints in rails within 10 ft. of curbs shall be welded.
 Parapet plates and anchorage studs for skews > 30 degrees included in the cost of Preformed Joint Strip Seal.



7/16" diameter holes at 4'-0" cts. for 3/8" diameter bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

7/16" diameter holes at 4'-0" cts. for 3/8" diameter bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.



*** 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	296

EJ-SSJ

1-27-12

DESIGNED SMR	EXAMINED	DATE October 15, 2014
CHECKED CCC	PASSED	
DRAWN J. Schneller		
CHECKED SMR CCC		

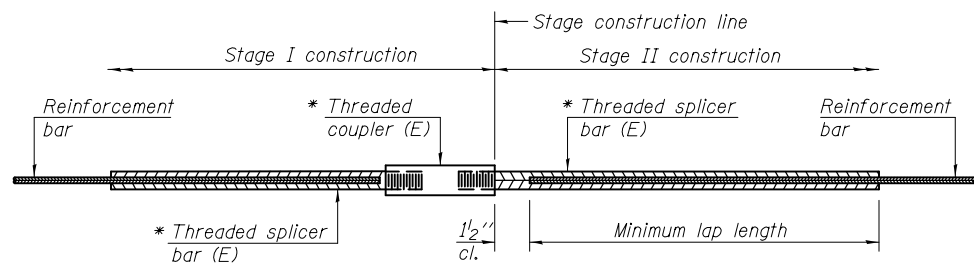
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL
 SN 025-0071 & 025-0072

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(25-6, 7)RS-2	EFFINGHAM	63	45
CONTRACT NO. 74638				

SHEET NO. 17 OF 22 SHEETS

ILLINOIS FED. AID PROJECT



STANDARD BAR SPLICER ASSEMBLY

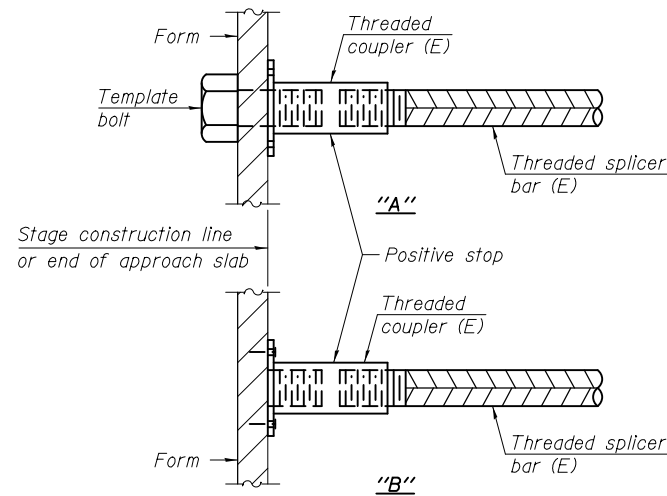
Minimum Lap Lengths						
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-7"	2'-11"
5	1'-9"	2'-5"	2'-7"	2'-11"	3'-3"	3'-8"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-10"	4'-5"
7	2'-9"	3'-10"	4'-2"	4'-8"	5'-2"	5'-10"
8	3'-8"	5'-1"	5'-5"	6'-2"	6'-9"	7'-8"
9	4'-7"	6'-5"	6'-10"	7'-9"	8'-7"	9'-8"

- Table 1: Black bar, 0.8 Class C
- Table 2: Black bar, Top bar lap, 0.8 Class C
- Table 3: Epoxy bar, 0.8 Class C
- Table 4: Epoxy bar, Top bar lap, 0.8 Class C
- Table 5: Epoxy bar, Class C
- Table 6: Epoxy bar, Top bar top, Class C

Threaded splicer bar length = min. lap length + 1/2" + thread length

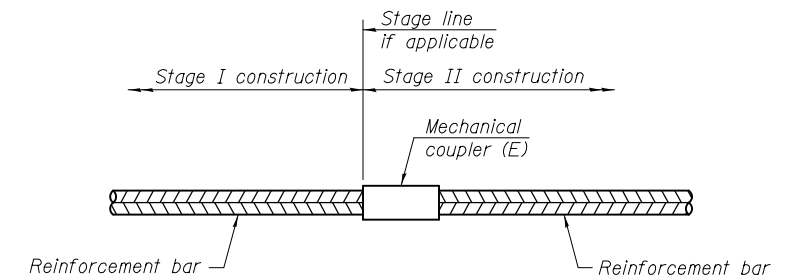
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Abutments	#5	108	3
Piers #3 & #4	#5	64	3



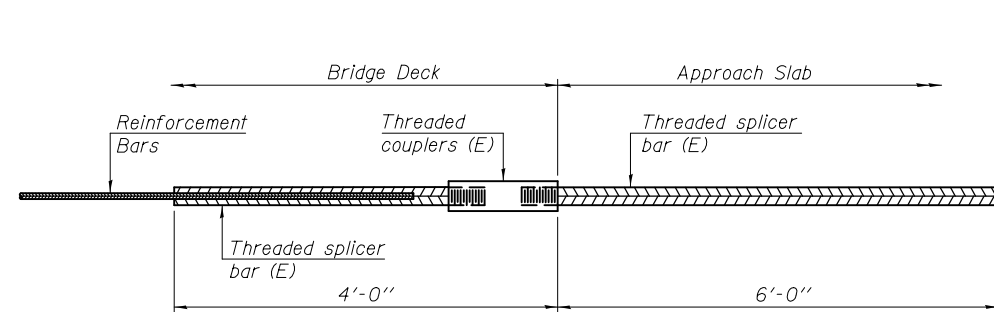
INSTALLATION AND SETTING METHODS

"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.



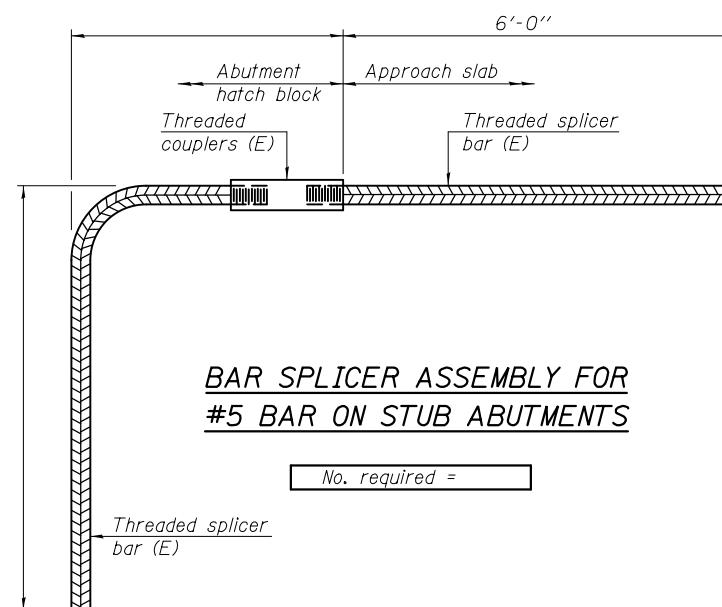
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required
N. Abuts. Approach	#9	80
S. Abuts. Approach	#9	80



BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

No. required =



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. 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

1-27-12

DESIGNED SMR	EXAMINED	DATE October 15, 2014
CHECKED CCC	PASSED	
DRAWN J. Schneller		
CHECKED SMR CCC		

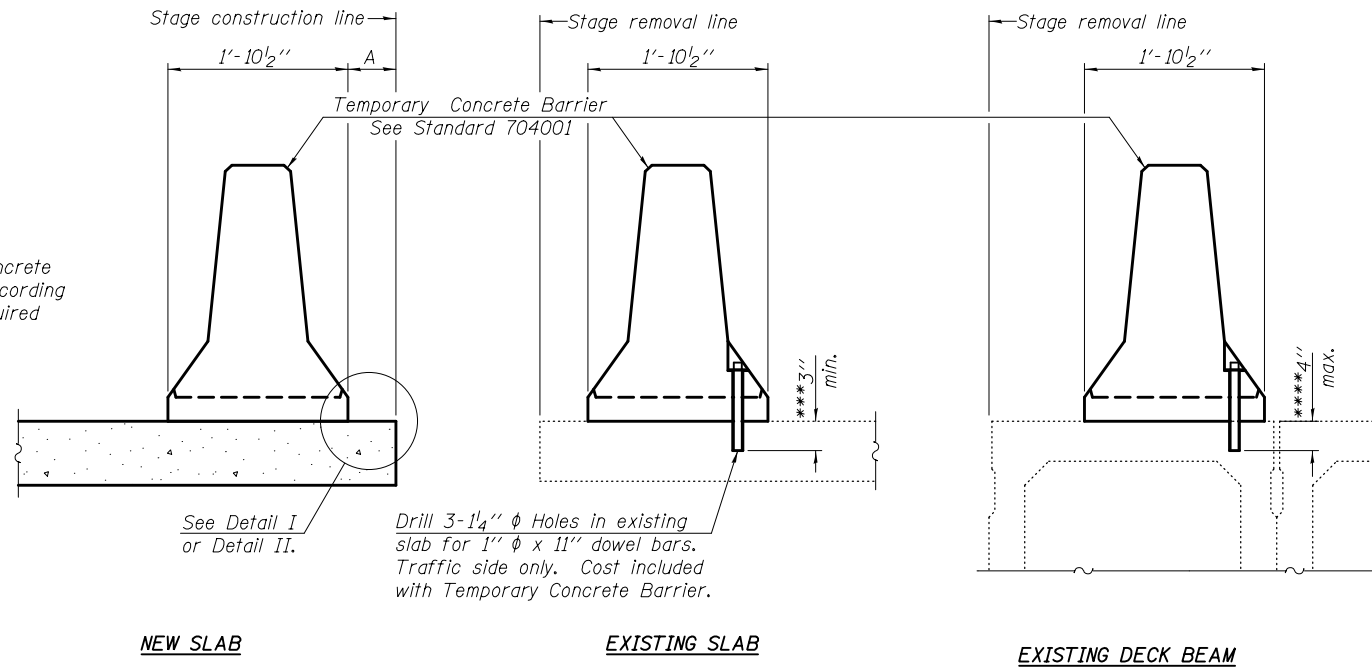
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
SN 025-0071 & 025-0072

SHEET NO. 18 OF 22 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(25-6, 7)RS-2	EFFINGHAM	63	46
ILLINOIS FED. AID PROJECT			CONTRACT NO. 74638	

When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".



SECTIONS THRU SLAB OR DECK BEAM

NOTES

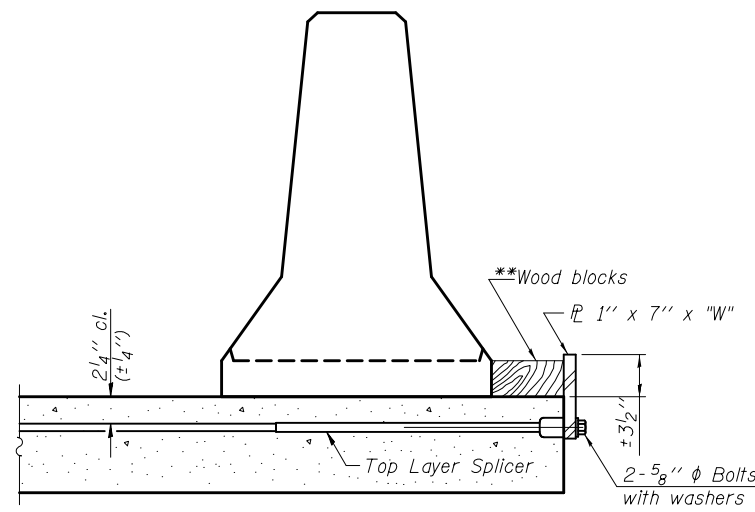
Detail I - With Bar Splicer or Couplers:
Connect one (1) 1" x 7" x "W" steel PL to the top layer of couplers with 2-5/8" φ bolts screwed to coupler at approximate C of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1" x 7" x "W" steel PL to the concrete slab or concrete wearing surface with 2-5/8" φ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate C of each barrier panel.

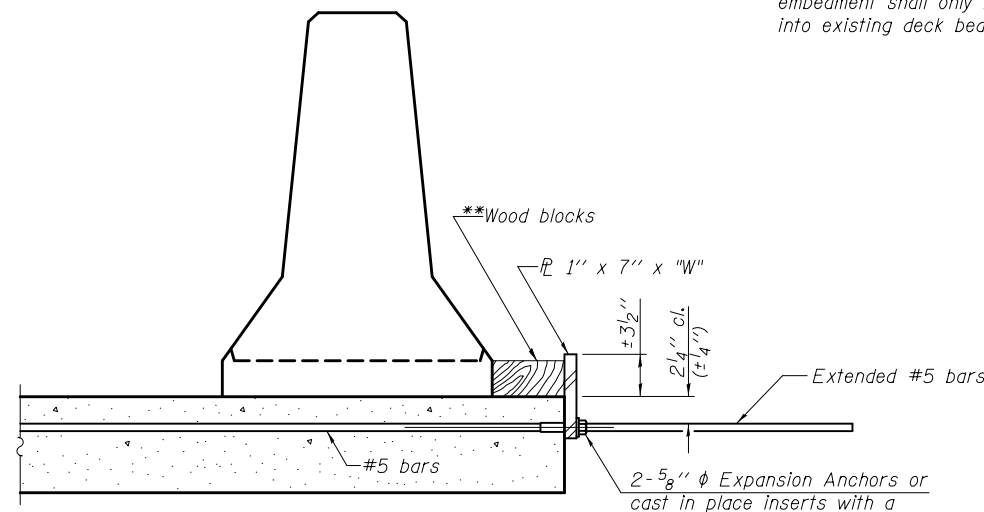
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x "W" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

*** Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

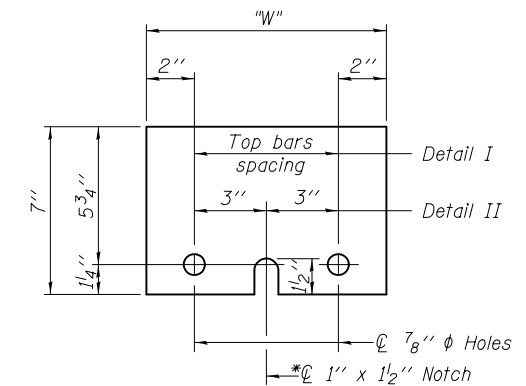
**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER PL 1" x 7" x "W"

* Required only with Detail II

** Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

"W" = Top bars spacing + 4"

R-27 7-1-10

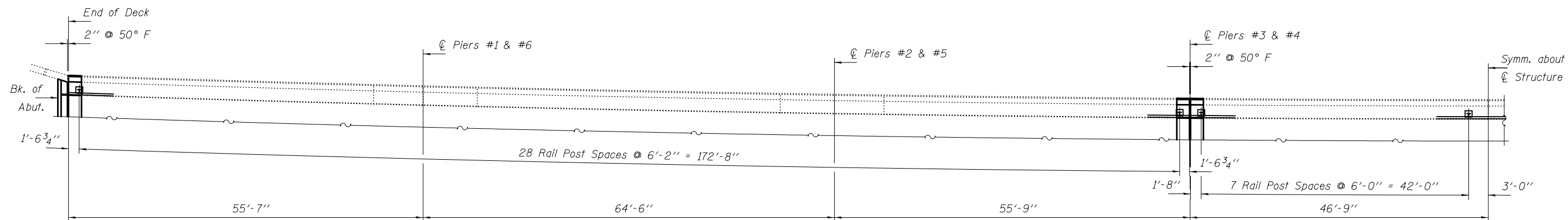
DESIGNED SMR	EXAMINED	DATE
CHECKED CCC	<i>Timothy A. ...</i>	October 15, 2014
DRAWN J. Schneller	PASSED	REVISOR
CHECKED SMR CCC	<i>J. Schneller</i>	REVISOR

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
SN 025-0071 & 025-0072**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(25-6, 7)RS-2	EFFINGHAM	63	47
CONTRACT NO. 74638			ILLINOIS FED. AID PROJECT	

SHEET NO. 19 OF 22 SHEETS



HALF PLAN

Showing West Parapet, East Parapet similar by rotation.

NOTES:

New Railing to be installed on west parapet of the North Bound Lanes SN 025-0071 and each parapet of South Bound Lanes SN 025-0072.

Existing Tri-Beam Rail to be removed and replaced, existing anchor bolts to be cut off flush with concrete and ground smooth.

DESIGNED SMR	EXAMINED	DATE October 15, 2014
CHECKED CCC	<i>Timothy A. Ancelet</i> ACTING ENGINEER OF STRUCTURAL SERVICES	REVISED
DRAWN J. Schneller	PASSED	REVISED
CHECKED SMR CCC	<i>Carl Pinner</i> ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED

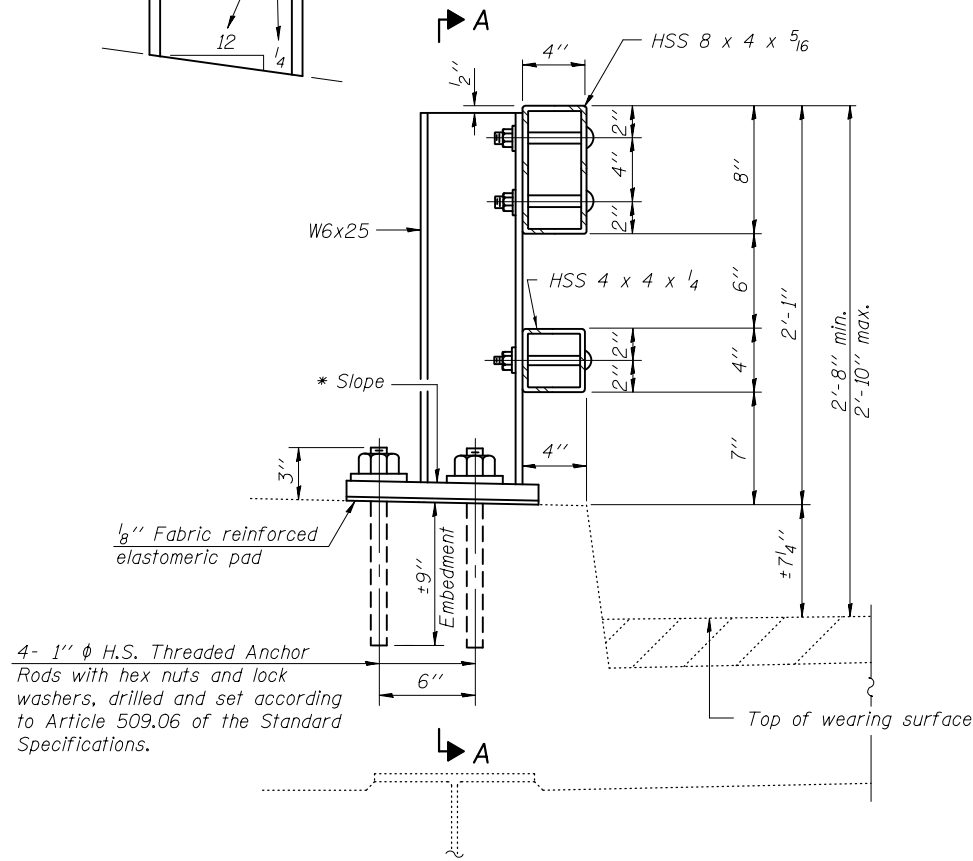
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**STEEL BRIDGE RAIL (2399) DETAILS
SN 025-0071 & 025-0072**

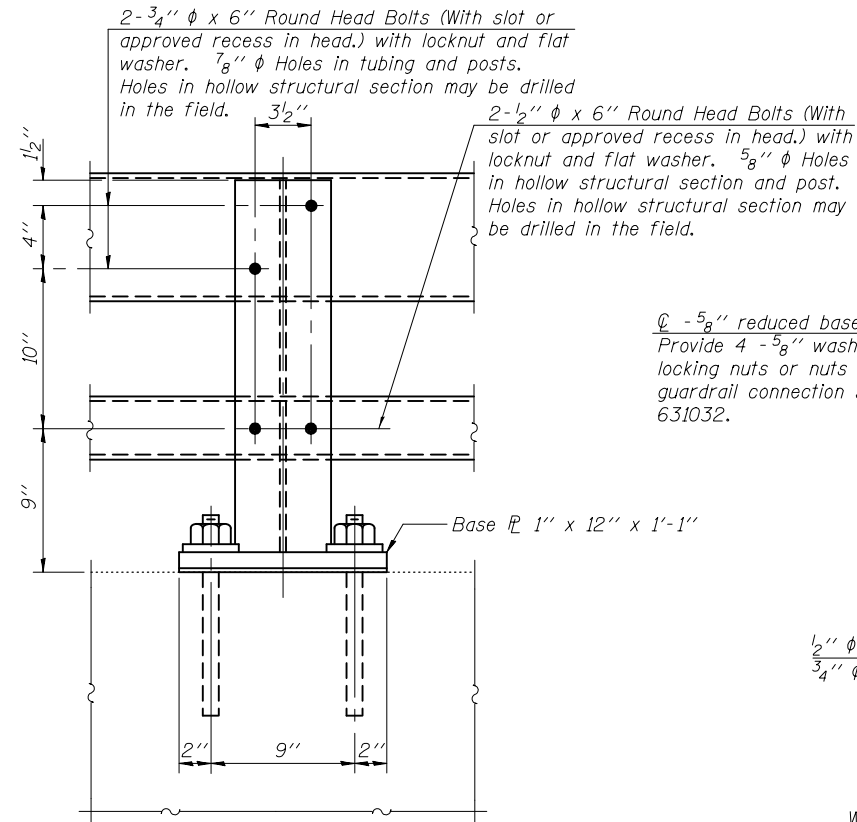
SHEET NO. 20 OF 22 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(25-6, 7)RS-2	EFFINGHAM	63	48
CONTRACT NO. 74638			ILLINOIS FED. AID PROJECT	

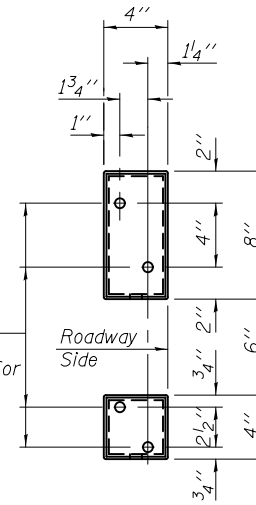
* Cut bottom end of post to curb slope.



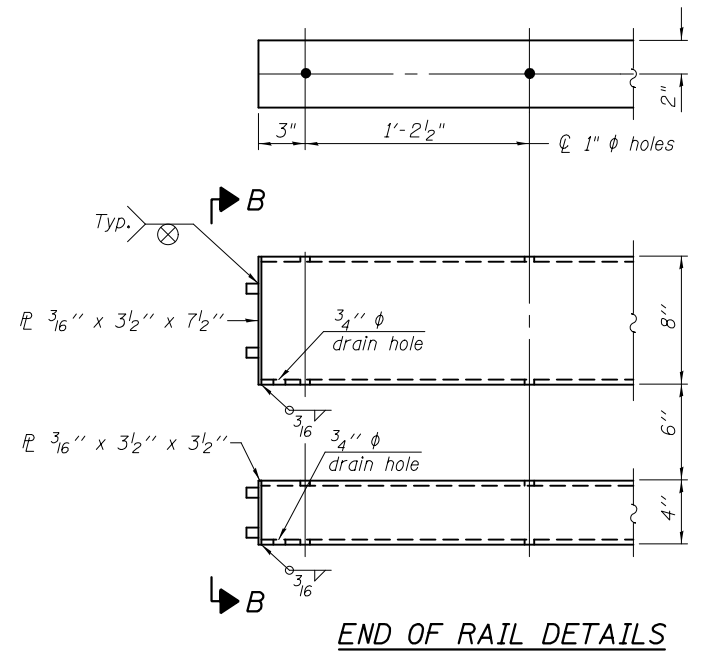
SECTION AT RAIL POST



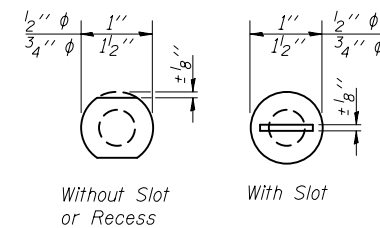
SECTION A-A



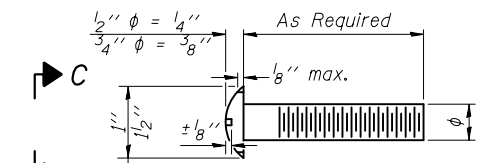
VIEW B-B



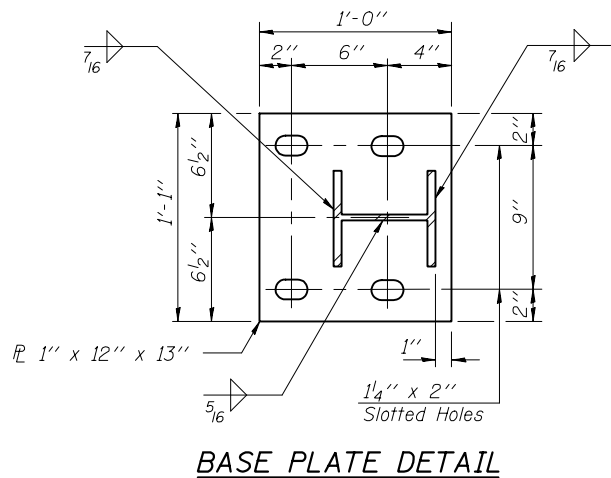
END OF RAIL DETAILS



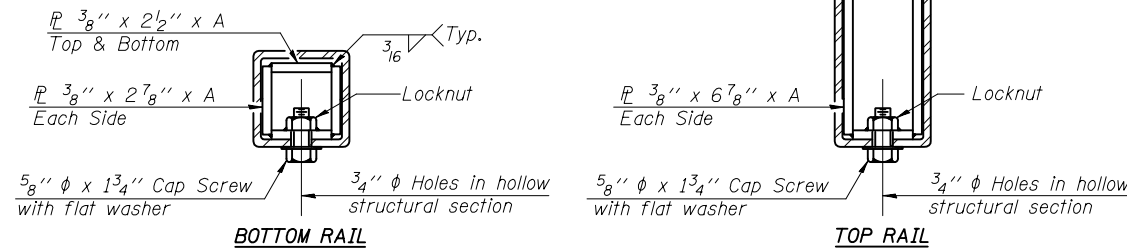
VIEW C-C



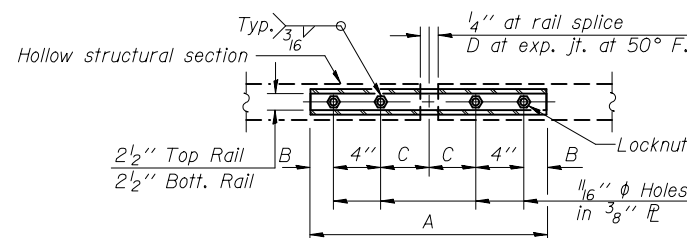
DETAIL OF 1/2" ϕ & 3/4" ϕ ROUND HEAD BOLTS



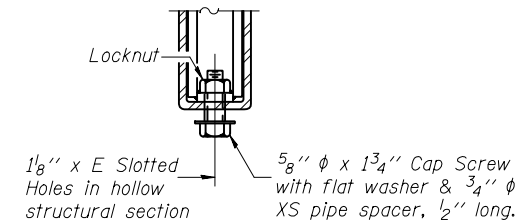
BASE PLATE DETAIL



SECTIONS AT RAIL SPLICE



PLAN-BOTT. SPLICE R TYPICAL



RAIL SPLICE CONNECTION AT EXPANSION JT.

Notes:

All field drilled holes shall be coated with an approved zinc rich paint before erection.
 Posts shall not be located closer than 1'-3" to an existing bridge expansion joint or end of bridge.
 Steel Bridge Rail expansion joint shall be provided between any two (2) posts which span a bridge expansion joint. Bolts located at expansion joint shall be provided with locknuts and shall be tightened only to a point that will allow railing movement.
 Provide one 1/8" and two 1/16" steel shims for 25% of the posts. Shims shall be similar to base plates in size and holes.
 All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.

SPLICE DIMENSIONS

T	D	A	B	C	E
≤4"	2 1/2"	1'-8"	2"	4"	2 1/2"
>4" ≤6 1/2"	3 3/4"	2'-0"	2 1/2"	5 1/2"	3 1/2"
>6 1/2" ≤9"	5"	2'-4"	3 1/2"	6 1/2"	9"
>9" ≤13"	7"	2'-10"	4 1/2"	8 1/2"	11"
Rail Splice	4"	1'-8"	2"	4"	—

T = Total movement at expansion joint as shown on the design plans.

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type 2399	Foot	1344

R-31

7-1-10

(6'-3" Maximum Post Spacing)

DESIGNED SMR
 CHECKED CCC
 DRAWN J. Schneller
 CHECKED SMR CCC

EXAMINED
 PASSED
 ACTING ENGINEER OF STRUCTURAL SERVICES
 ACTING ENGINEER OF BRIDGES AND STRUCTURES

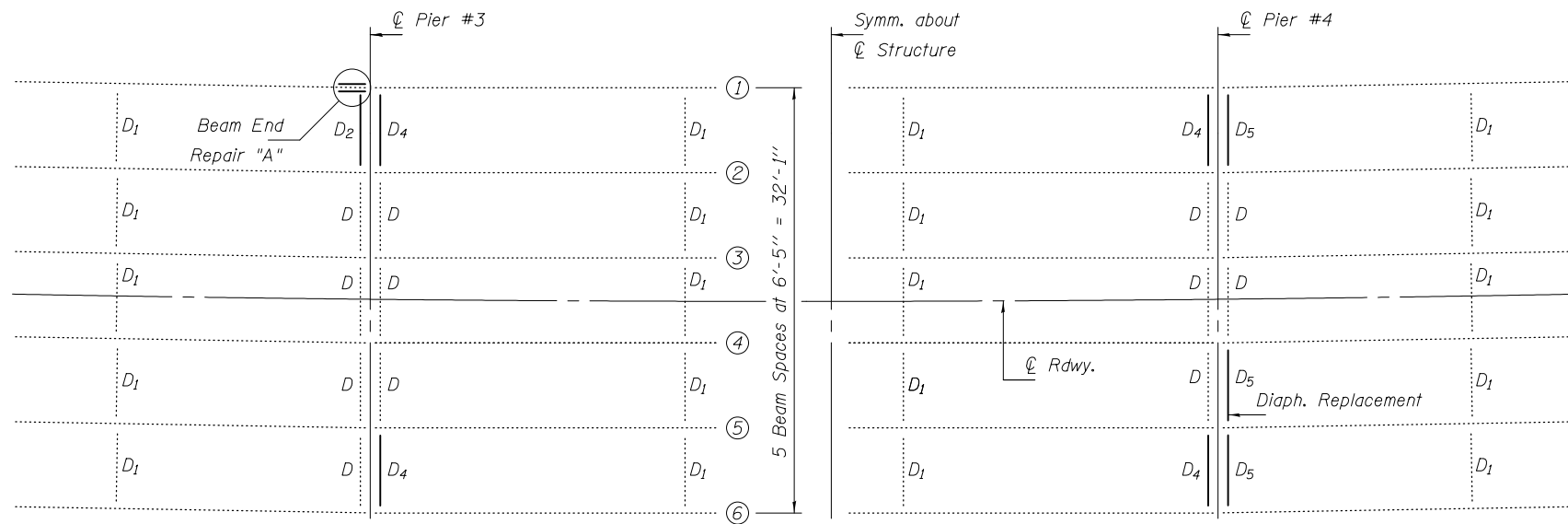
DATE October 15, 2014
 REVISED
 REVISED

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

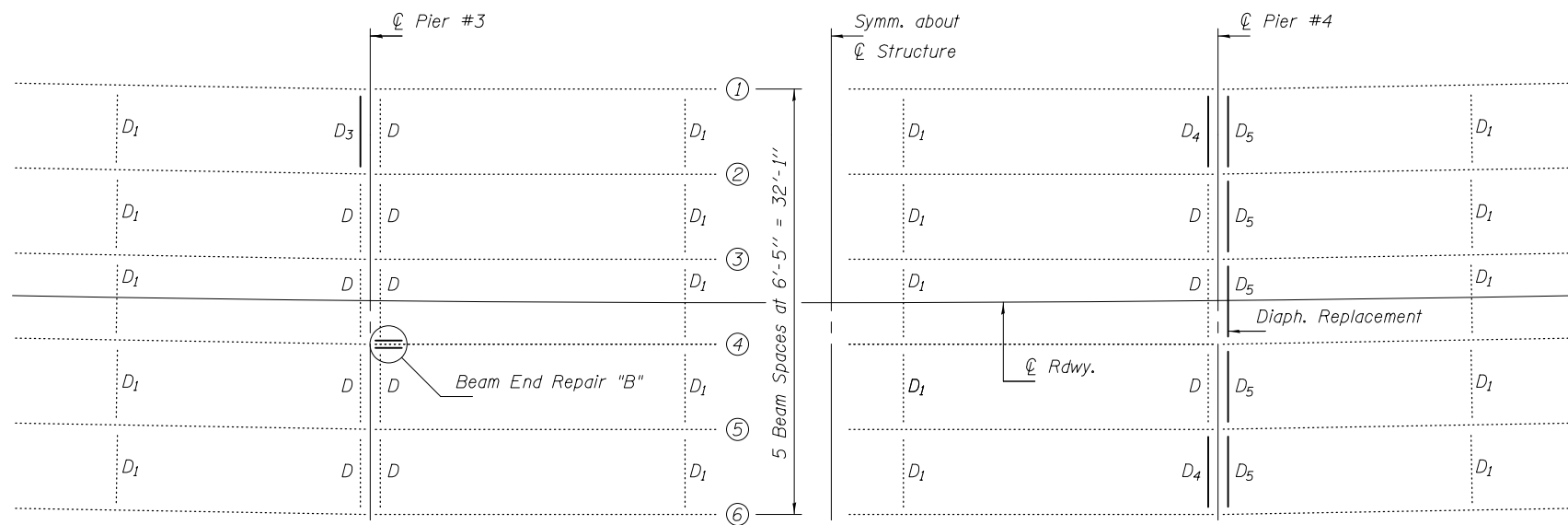
STEEL BRIDGE RAIL (2399) DETAILS
 SN 025-0071 & 025-0072

SHEET NO. 21 OF 22 SHEETS

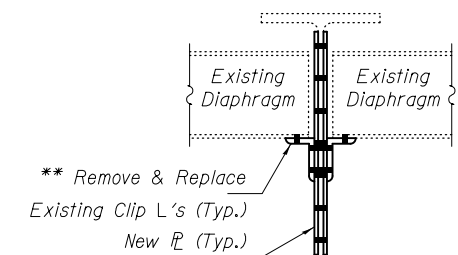
F.A.I. RTE. SECTION COUNTY TOTAL SHEETS SHEET NO.
 57 (25-6, 7)RS-2 EFFINGHAM 63 49
 CONTRACT NO. 74638
 ILLINOIS FED. AID PROJECT



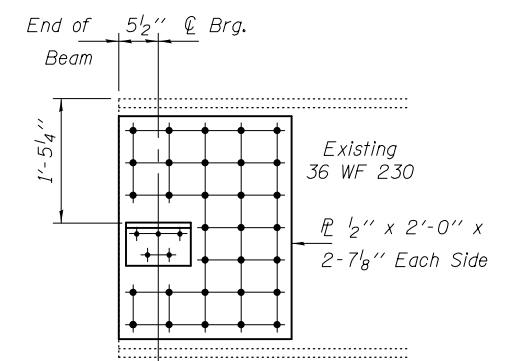
**PLAN STRUCTURAL STEEL REPAIR
SOUTH BOUND LANES SN 025-0072**



**PLAN STRUCTURAL STEEL REPAIR
NORTH BOUND LANES SN 025-0071**

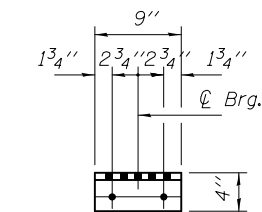


END VIEW



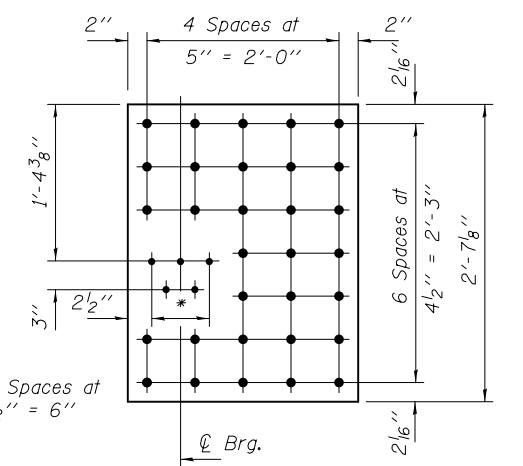
BEAM END REPAIR "B"

Cost included with Structural Steel Repair.



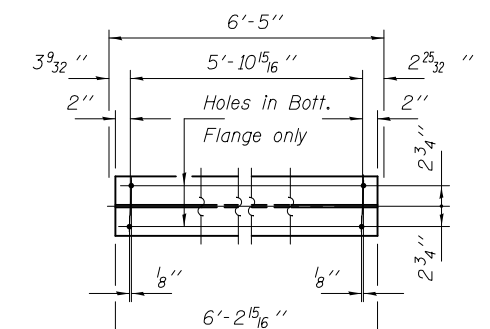
CLIP ANGLE "B"

(No. Req'd. = 2)



REPAIR PLATE "B"

(No. Req'd. = 2)



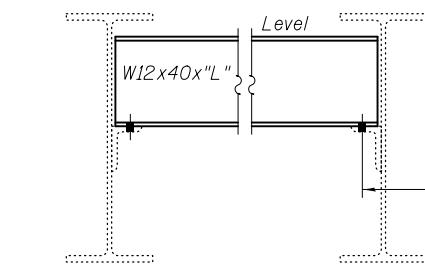
DIAPHRAGM D2

(No. Req'd. = 1)

Notes:
Field drill holes in new diaphragms using existing clip L's as template.
(Strengthening Web Plates not shown)

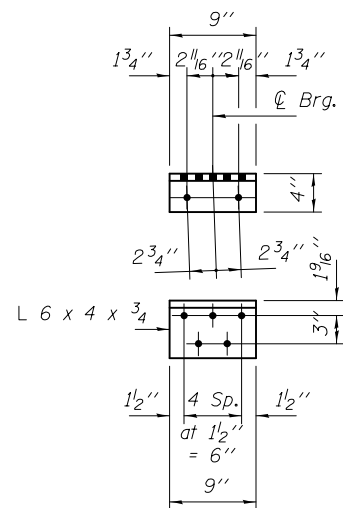
DIMENSION "L"

Diaph.	"L"	No. Req'd.
D3	6'-3 7/16"	1
D4	6'-3 7/16"	6
D5	6'-3 1/4"	8



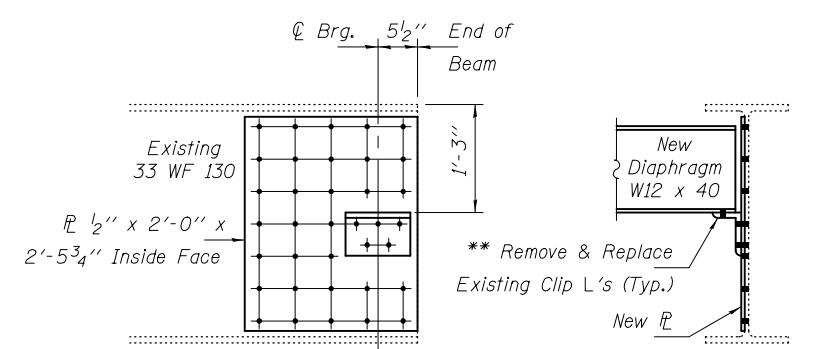
DIAPHRAGM REPLACEMENT DETAIL

Using existing holes in existing clip angles as template, field drill holes in New Diaphragms at locations where strengthening PL's are not used.



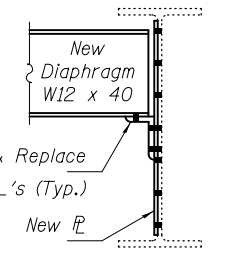
CLIP ANGLE "A"

(No. Req'd. = 1)

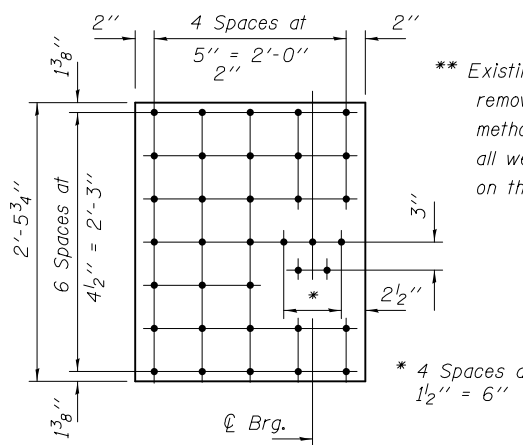


BEAM END REPAIR "A"

Cost included with Structural Steel Repair.



END VIEW



REPAIR PLATE "A"

(No. Req'd. = 1)

** Existing Clip Angles to be removed using the air-arc method and grind smooth all weld material remaining on the web.

DESIGNED SMR	EXAMINED <i>Timothy A. ...</i>	DATE October 15, 2014
CHECKED CCC	PASSED <i>ACTING ENGINEER OF STRUCTURAL SERVICES</i>	REVISED
DRAWN J. Schneller	<i>ACTING ENGINEER OF BRIDGES AND STRUCTURES</i>	REVISED
CHECKED SMR CCC		

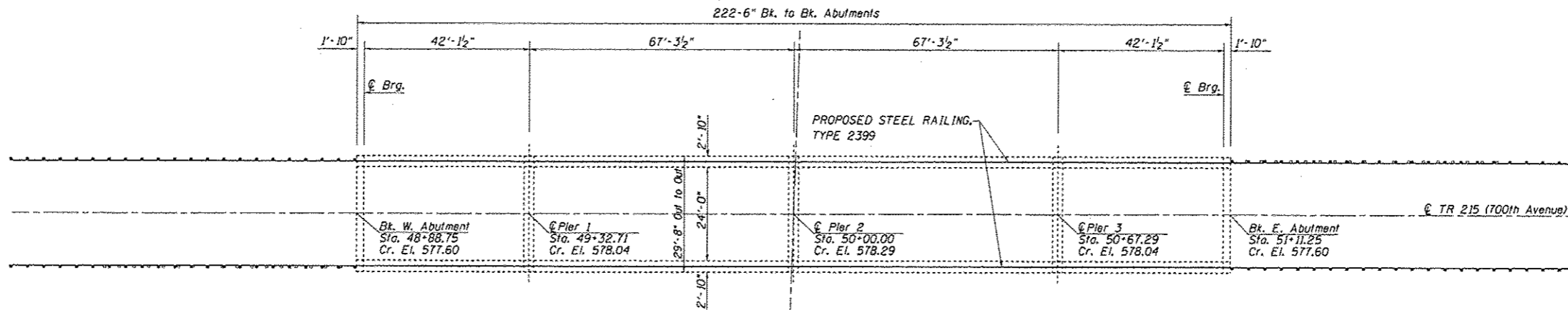
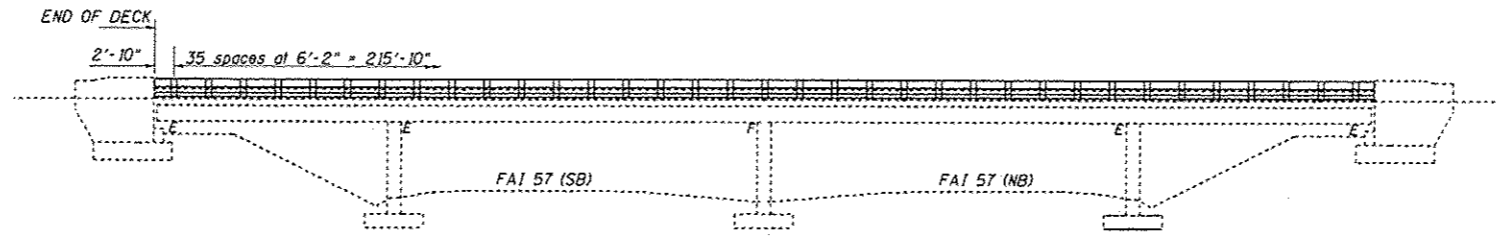
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**STRUCTURAL STEEL DETAILS
SN 025-0071 & 025-0072**

SHEET NO. 22 OF 22 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(25-6, 7)RS-2	EFFINGHAM	63	49A
CONTRACT NO. 74638				
ILLINOIS FED. AID PROJECT				

The existing four span continuous steel multi-beam structure was constructed in 1962 as TR-215 section 25-7HB of Sta. 4726+61.05, SN 025-0061 carriers TR-215 (700th Avenue). The proposed project consists of Steel Railing, Type 2399.



DESIGN STRESSES
 $f_c = 1,400$ p.s.i. Super & Sub
 $v_c = 75$ p.s.i. Footings
 $f_s = 20,000$ p.s.i. Reinf.
 $f_s = 18,000$ p.s.i. Struct.
 $n = 10$



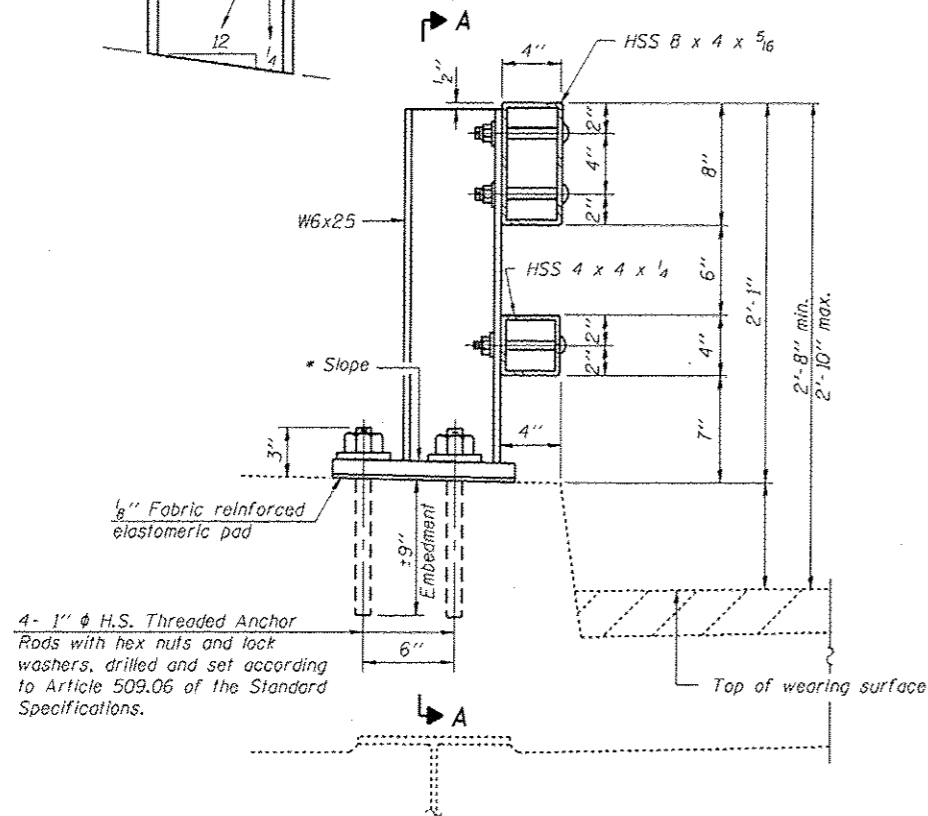
David Carl Puzey 10/20/14
 Expires 11/30/14

BILL OF MATERIAL

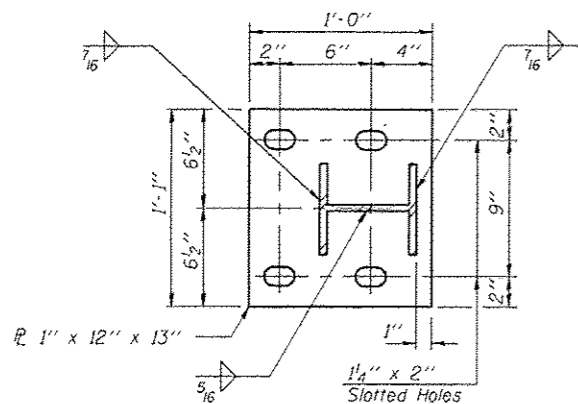
Item	Unit	Quantity
Steel Railing, Type 2399	Foot	442

FILE NAME =	USER NAME = staffennk	DESIGNED - MAD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN & ELEVATION SN 025-0061			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
cr:\p\work\p\uidot\staffennk\02401616\07	4628-4ht-detailed.dgn	DRAWN -	REVISED -		57	(25-6, 7)RS-2	EFFINGHAM	63	493			
Default	PLT SCALE = 1/8" = 1'-0"	CHECKED - VHV	REVISED -		SCALE: N/A			SHEET 1 OF 1 SHEETS	CONTRACT NO. 74638			
	PLT DATE = 9/8/2014	DATE -	REVISED -		TO STA.			[ILLINOIS] FED. AID PROJECT				

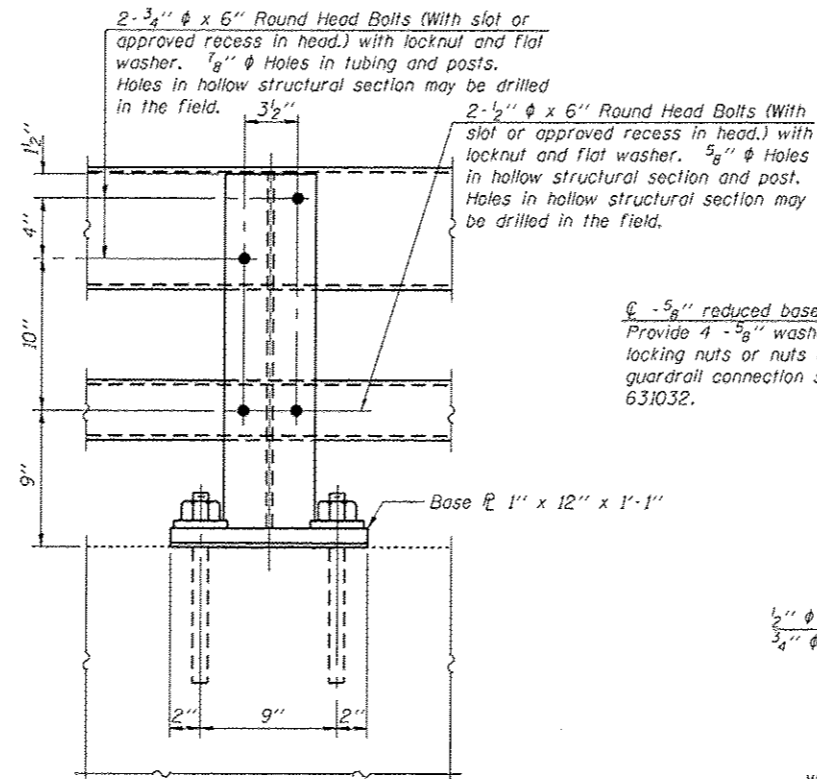
* Cut bottom end of post to curb slope.



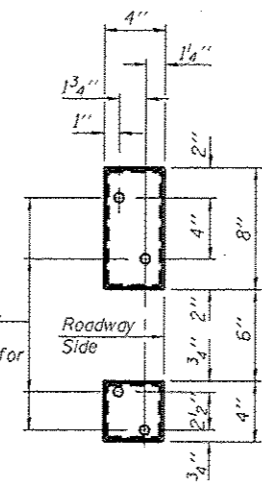
SECTION AT RAIL POST



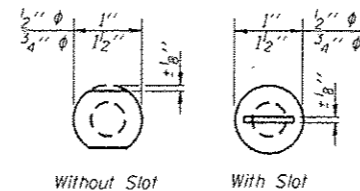
BASE PLATE DETAIL



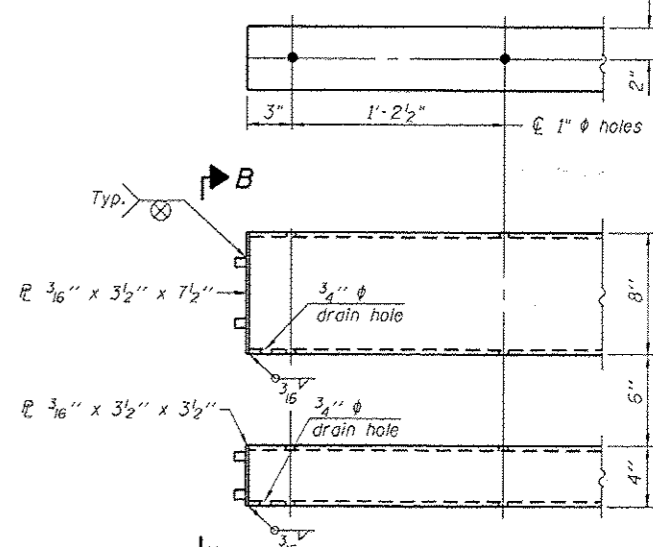
SECTION A-A



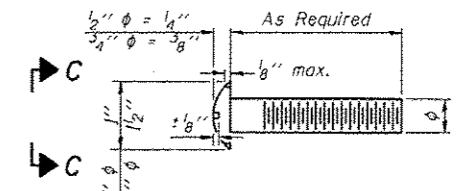
VIEW B-B



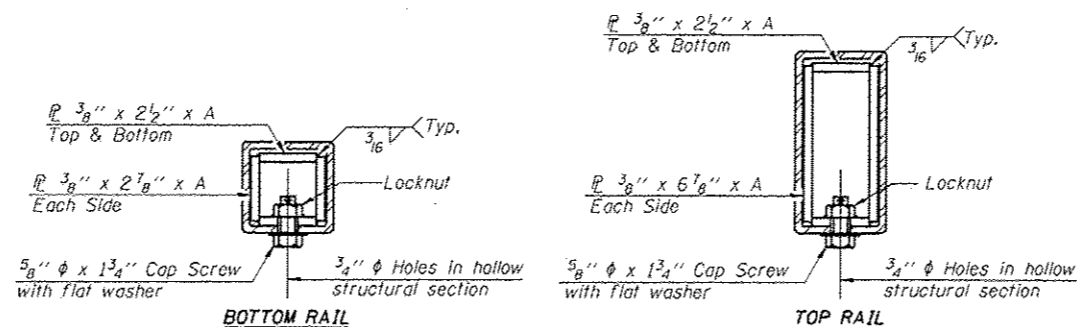
VIEW C-C



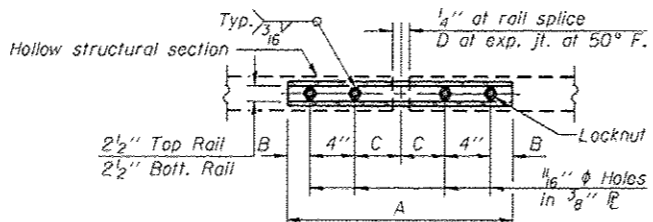
END OF RAIL DETAILS



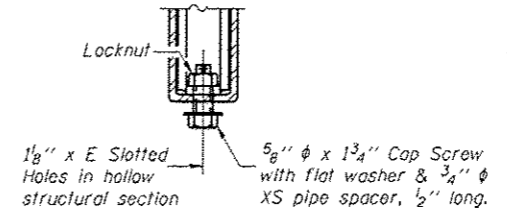
DETAIL OF 1/2" & 3/4" ROUND HEAD BOLTS



SECTIONS AT RAIL SPLICE



PLAN-BOTT. SPLICE TYPICAL



RAIL SPLICE CONNECTION AT EXPANSION JT.

Notes:
 All field drilled holes shall be coated with an approved zinc rich paint before erection.
 Posts shall not be located closer than 1'-3" to an existing bridge expansion joint or end of bridge.
 Steel Bridge Rail expansion joint shall be provided between any two (2) posts which span a bridge expansion joint. Bolts located at expansion joint shall be provided with locknuts and shall be tightened only to a point that will allow railing movement.
 Provide one 1/8" and two 1/16" steel shims for 25% of the posts. Shims shall be similar to base plates in size and holes.
 All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.

SPLICE DIMENSIONS

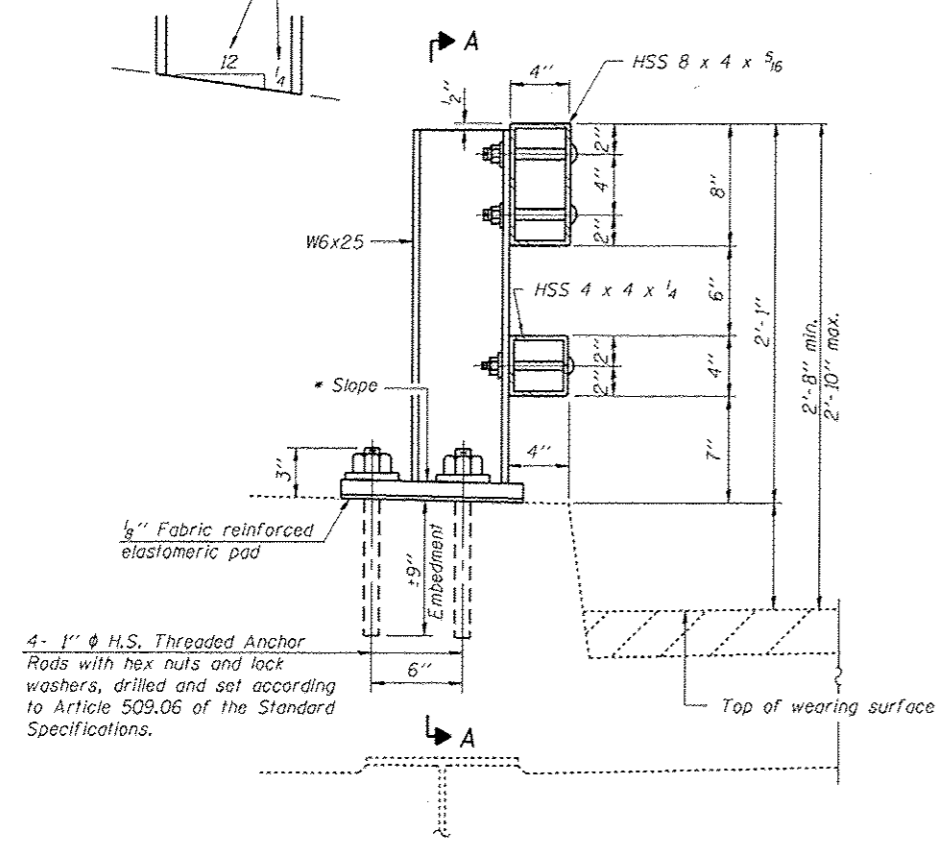
T	D	A	B	C	E
≤ 4"	2 1/2"	1'-8"	2"	4"	2 1/2"
> 4" ≤ 6 1/2"	3 3/4"	2'-0"	2 1/2"	5 1/2"	3 1/2"
> 6 1/2" ≤ 9"	5"	2'-4"	3 1/2"	6 1/2"	9"
> 9" ≤ 13"	7"	2'-10"	4 1/2"	8 1/2"	11"
Rail Splice	1 1/2"	1'-8"	2"	4"	-

T = Total movement at expansion joint as shown on the design plans.

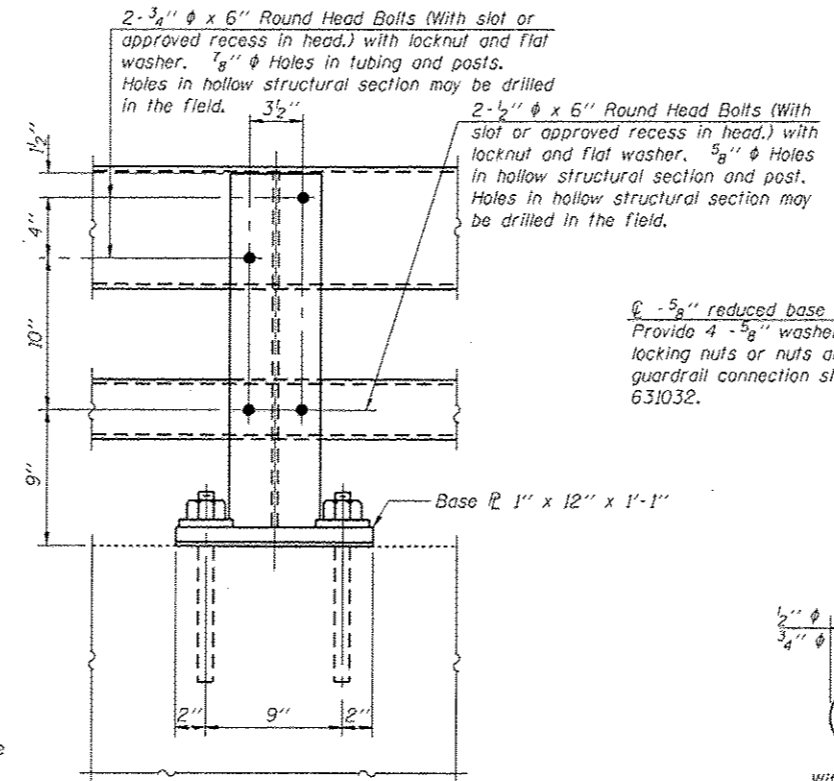
BILL OF MATERIAL

Structure	Item	Unit	Quantity
SN 025-0061	Steel Railing, Type 2399	Foot	442

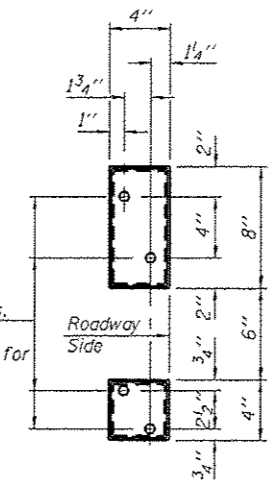
* Cut bottom end of post to curb slope.



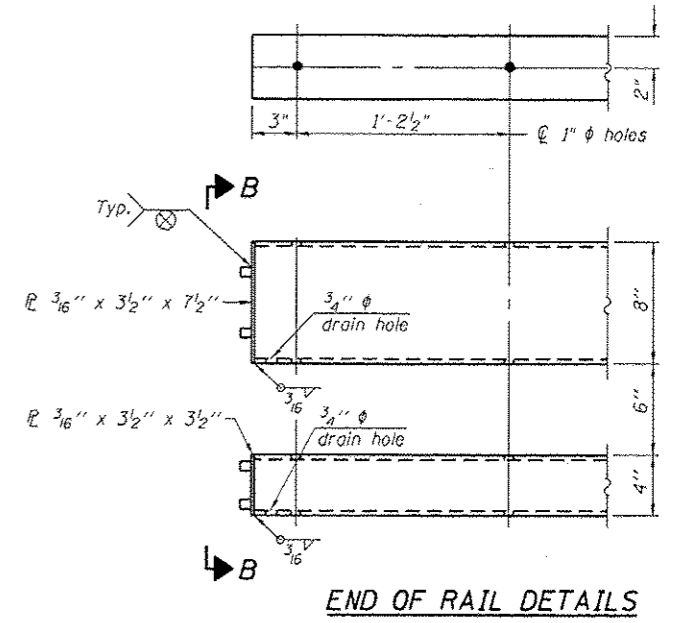
SECTION AT RAIL POST



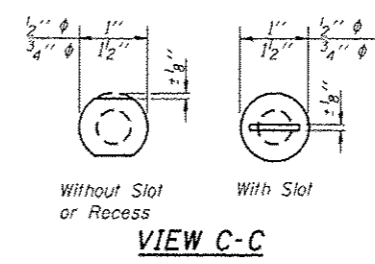
SECTION A-A



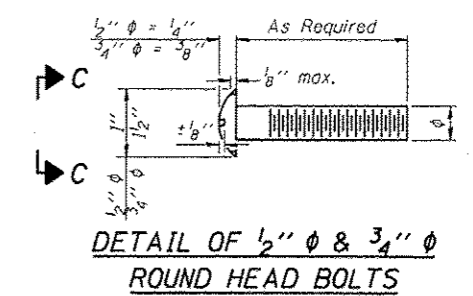
VIEW B-B



END OF RAIL DETAILS



VIEW C-C



DETAIL OF 1/2" Ø & 3/4" Ø ROUND HEAD BOLTS

4- 1" Ø H.S. Threaded Anchor Rods with hex nuts and lock washers, drilled and set according to Article 509.06 of the Standard Specifications.

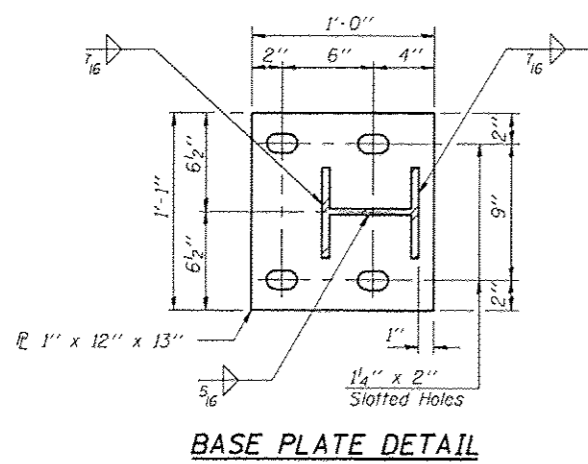
2- 3/4" Ø x 6" Round Head Bolts (With slot or approved recess in head.) with locknut and flat washer. 7/8" Ø Holes in tubing and posts. Holes in hollow structural section may be drilled in the field.

2- 1/2" Ø x 6" Round Head Bolts (With slot or approved recess in head.) with locknut and flat washer. 5/8" Ø Holes in hollow structural section and post. Holes in hollow structural section may be drilled in the field.

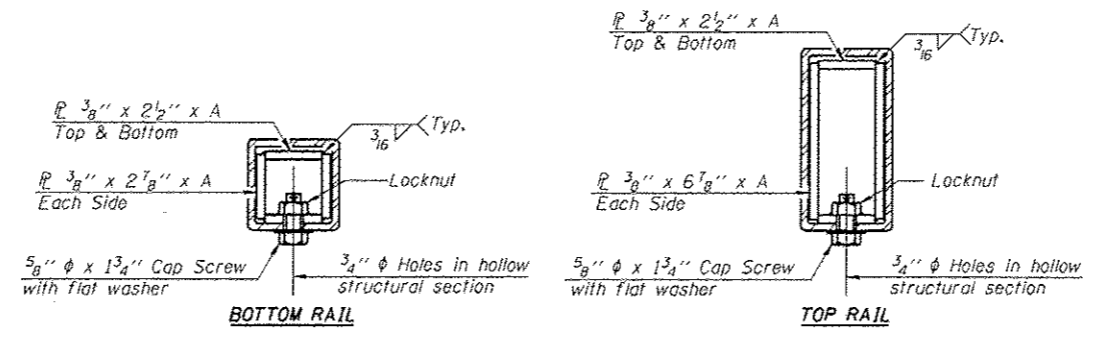
4- 5/8" reduced base welded studs. Provide 4- 5/8" washers and self-locking nuts or nuts and jam nuts for guardrail connection shown on Std. 631032.

Base 1" x 12" x 1"

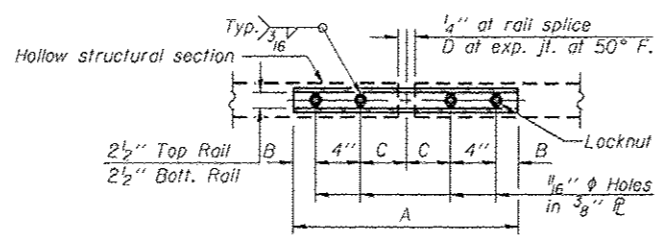
Notes:
 All field drilled holes shall be coated with an approved zinc rich paint before erection.
 Posts shall not be located closer than 1'-3" to an existing bridge expansion joint or end of bridge.
 Steel Bridge Rail expansion joint shall be provided between any two (2) posts which span a bridge expansion joint. Bolts located at expansion joint shall be provided with locknuts and shall be tightened only to a point that will allow railing movement.
 Provide one 1/8" and two 1/16" steel shims for 25% of the posts. Shims shall be similar to base plates in size and holes.
 All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.



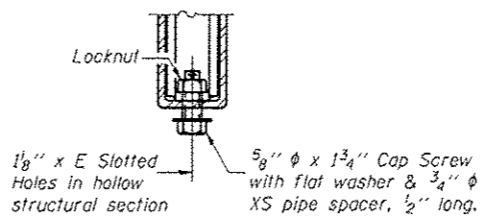
BASE PLATE DETAIL



SECTIONS AT RAIL SPLICE



PLAN-BOTT. SPLICE TYPICAL



RAIL SPLICE CONNECTION AT EXPANSION JT.

SPLICE DIMENSIONS

T	D	A	B	C	E
≤ 4"	2 1/2"	1'-8"	2"	4"	2 1/2"
> 4" ≤ 6 1/2"	3 1/2"	2'-0"	2 1/2"	5 1/2"	3 1/2"
> 6 1/2" ≤ 9"	5"	2'-4"	3 1/2"	6 1/2"	9"
> 9" ≤ 13"	7"	2'-10"	4 1/2"	8 1/2"	11"
Rail Splice	1/2"	1'-8"	2"	4"	—

T = Total movement at expansion joint as shown on the design plans.

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type 2399	Foot	440

R-31

7-1-10

(6'-3" Maximum Post Spacing)

FILE NAME	USER NAME	DESIGNED	REVISED
ar:\pwork\p\p\dot\st\off\enak\d0401615\07	st\off\enak	-	-
		DRAWN	REVISED
		CHECKED	REVISED
		DATE	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

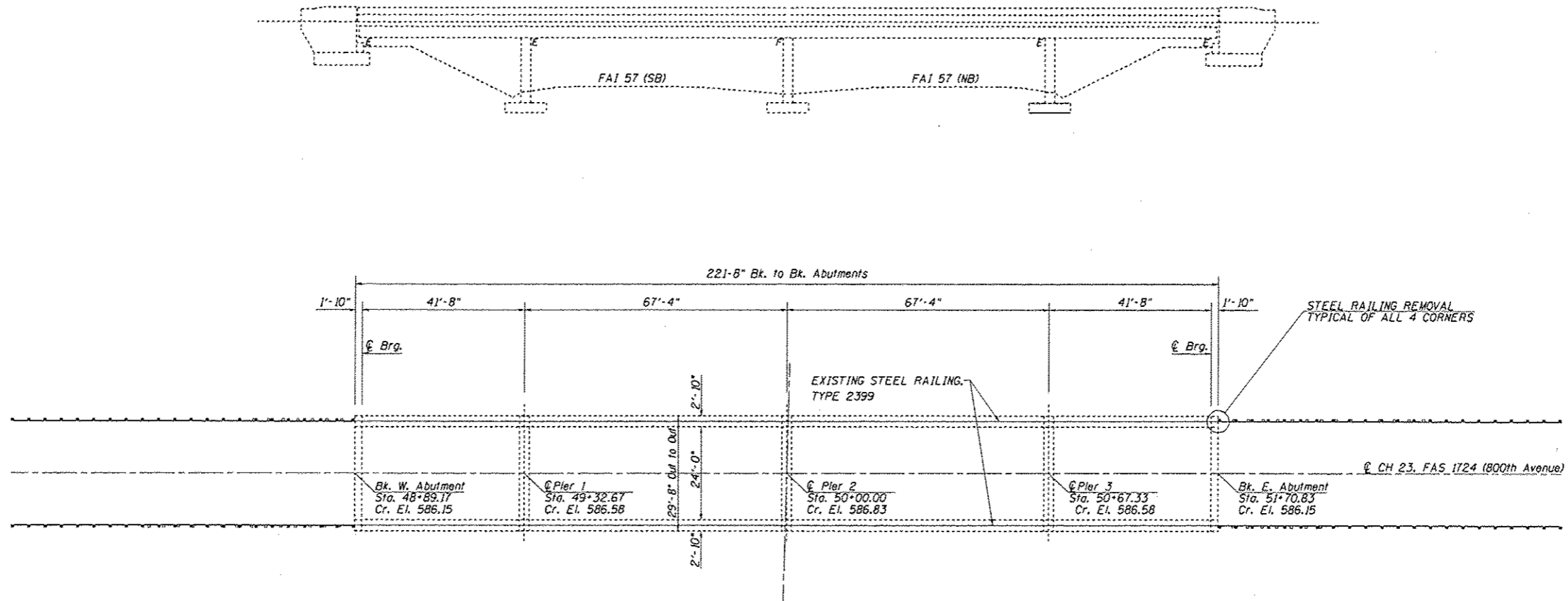
STEEL RAILING, TYPE 2399
STRUCTURE NO. 025-0060

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(25-6,7)RS-2	EFFINGHAM	63	496

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

ILLINOIS FED. AID PROJECT

The existing four span continuous steel multi-beam structure was constructed in 1962 as CH 23 section 25-7HB-1 at Sta. 4780+17.28. SN 025-0053 carries CH 23, FAS 1724 (800th Avenue). The proposed project consists of removing the tapered ends on the existing Steel Railing, Type 2399 to be able to attach Traffic Barrier Terminal Type 6A.



DESIGN STRESSES
 $f_c = 1,400$ p.s.i. Super
 $v_c = 75$ p.s.i. Footings
 $f_s = 20,000$ p.s.i. Reinf.
 $f_s = 18,000$ p.s.i. Struct.
 $n = 10$

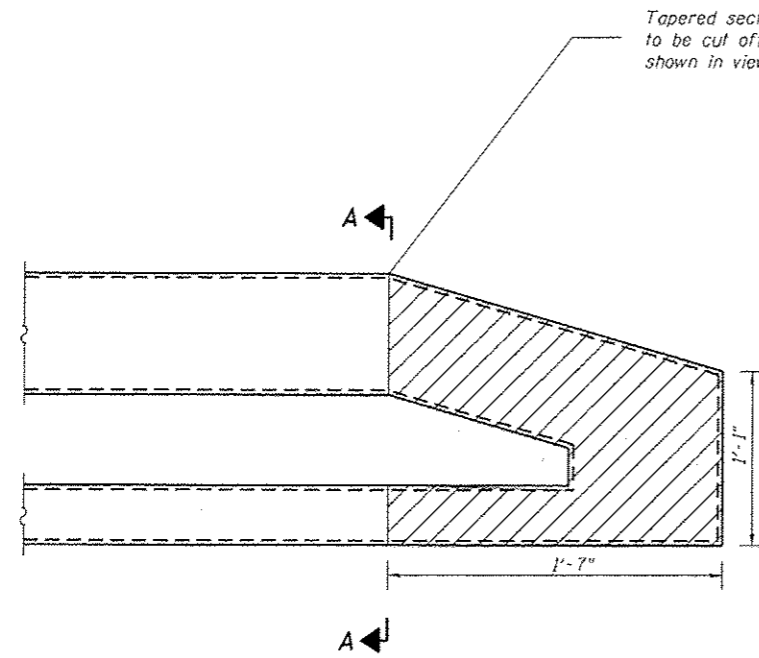


David Carl Puzey 10/20/14
 Expires 11/30/14

BILL OF MATERIAL

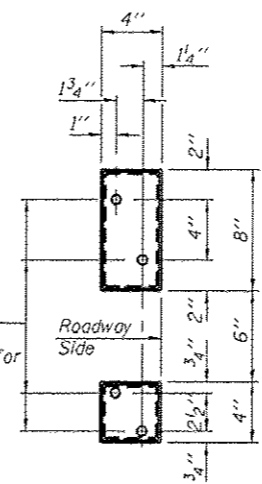
Item	Unit	Quantity
Steel Railing, Removal	Foot	6.3

FILE NAME =	USER NAME = staffcar	DESIGNED - KAD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN & ELEVATION SN 025-0053			F.A.I. RTE. =	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
Default	4630-ehi-details.dgn	DRAWN -	REVISED -		SCALE: N/A	SHEET 1 OF 1 SHEETS	STA.	TO STA.	57	(25-6, 7RS-2)	EFFINGHAM	63	492
	PLOT SCALE = 100.0000' / in.	CHECKED - VHV	REVISED -								CONTRACT NO. 74638		
	PLOT DATE = 9/8/2014	DATE -	REVISED -								(ILLINOIS) FED. AID PROJECT		

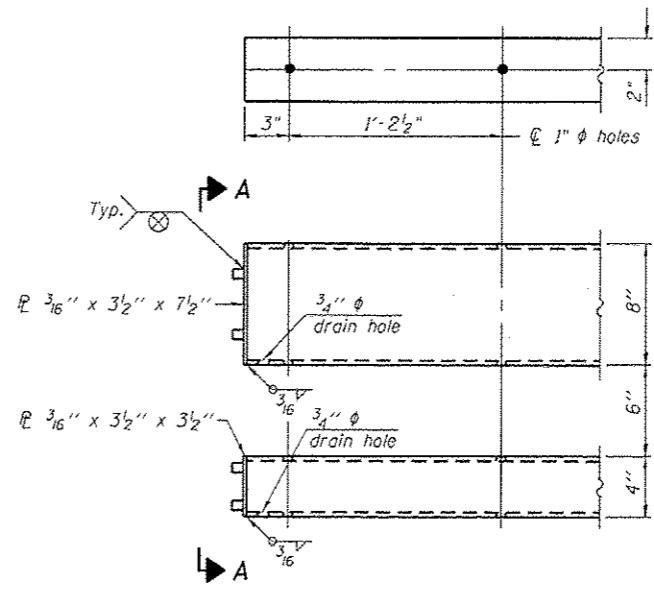


Tapered section of existing Steel Railing, Type 2399 to be cut off and a plate is to be field welded as shown in view A-A and end of rail details.

Ø .5" reduced base welded studs. Provide 4 .5" washers and self-locking nuts or nuts and jam nuts for guardrail connection shown on Std. 631032.

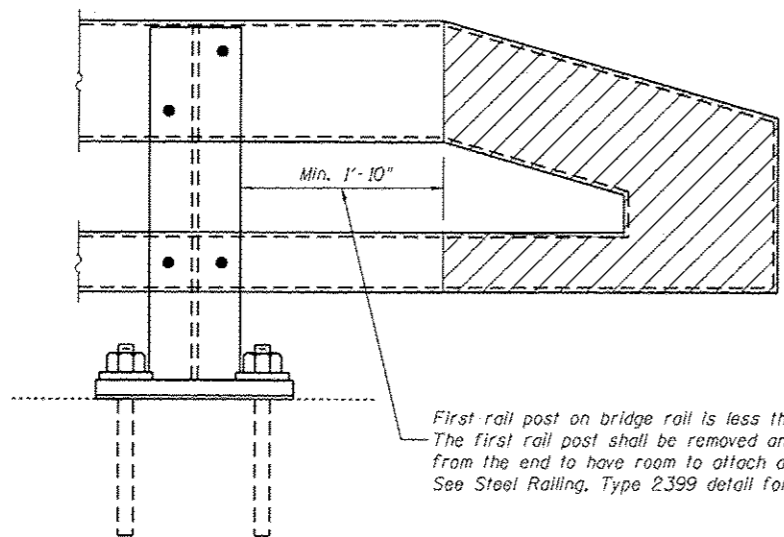


VIEW A-A



END OF RAIL DETAILS

X0326519 STEEL RAILING REMOVAL (FOOT)	
LOCATION	
SN 025-0053, 800th AVE	6.3
SN 025-0042, IL 37 RAMPS	3.2
TOTAL	9.5



First rail post on bridge rail is less than 1'-10" from the tapered section. The first rail post shall be removed and re-installed at a minimum of 1'-10" from the end to have room to attach a Traffic Barrier Terminal Type 6A. See Steel Railing, Type 2399 detail for how to attach post to curb.

Z0042505 POST REMOVAL AND REPLACEMENT (EACH)	
LOCATION	
SN 025-0042, IL 37 RAMPS	2.0

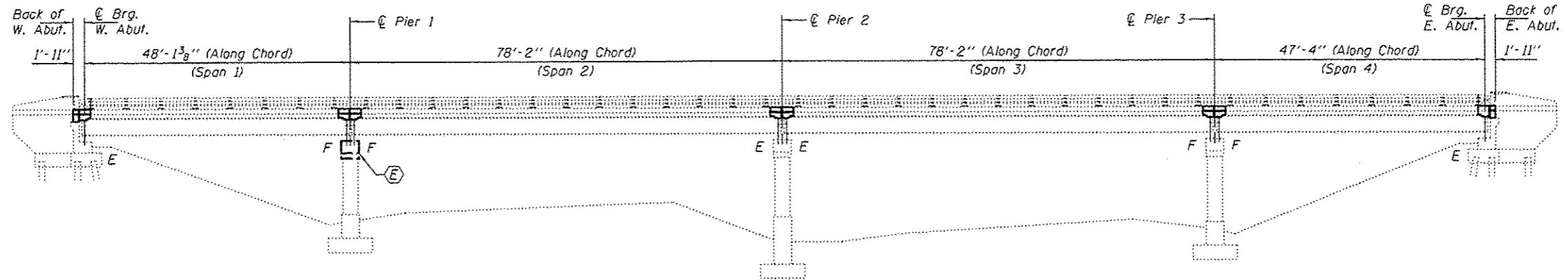
FILE NAME : c:\p\work\p\p\doc\steffen\109481616\07	USER NAME : steffenk	DESIGNED -	REVISED -
	463B-shr-details.dgn	DRAWN -	REVISED -
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
Default	PLOT DATE = 9/8/2014	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

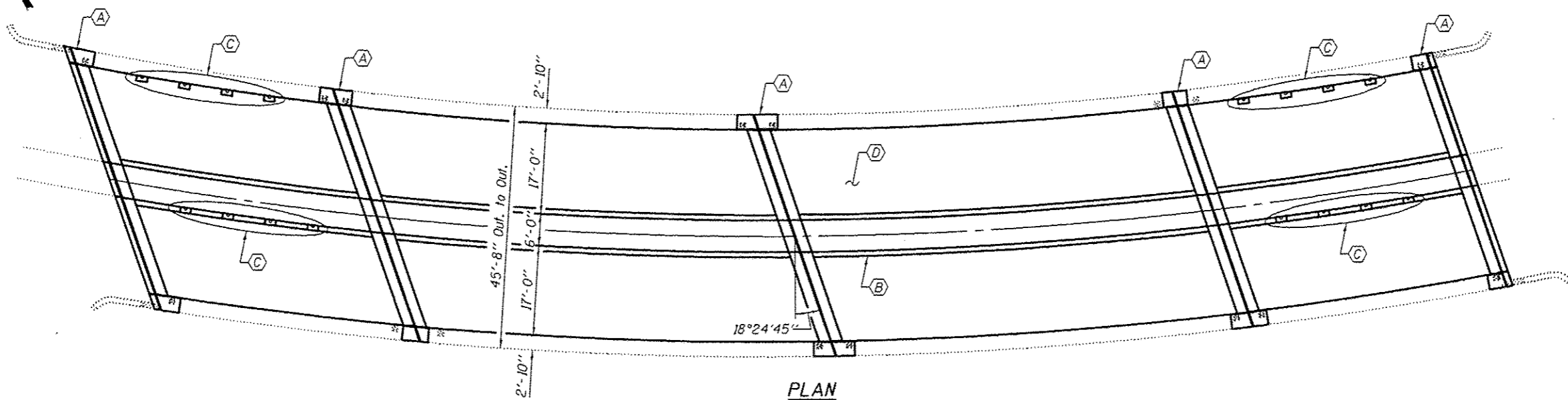
STEEL RAILING ADJUSTMENT DETAILS

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(25-6.7)RS-2	EFFINGHAM	63	49/63
				CONTRACT NO. 7403b
ILLINOIS FED. AID PROJECT				



ELEVATION



PLAN

- (A) - Replace existing Joints with Preformed Joint Strip Seal.
- (B) - Remove & Replace existing Median (full length of structure)
- (C) - Remove & Replace existing Drains with 6"φ Drains. (16 Locations)
- (D) - Remove & Replace existing Concrete Wearing Surface.
- (E) - Repair Pier Cap

GENERAL NOTES

All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.

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.

Reinforcement bars designated (E) 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.

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.

The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat shall be Interstate Green, Munsell No. 7.5G 4/B.

Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the GBSP "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".

Diaphragm connection holes shall be 1 5/16"φ for 3/4"φ bolts. Two hardened washers shall be required at diaphragm connections.

Fasteners shall be high strength bolts. Flange splice holes shall be 1 5/16"φ for 7/8"φ bolts. Web splice holes shall be 1 1/16"φ for 3/4"φ bolts.

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.

Work to be completed under structure closure.

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	122.5
Concrete Superstructure	Cu. Yd.	120.3
Concrete Structures	Cu. Yd.	16.1
Preformed Joint Strip Seal, 1 1/2"	Foot	244
Reinforcement Bars, Epoxy Coated	Pound	17140
Mechanical Splicers	Each	14
Protective Coat	Sq. Yd.	750
Floor Drains	Each	16
Structural Steel Removal	Pound	7690
Furnishing and Erecting Structural Steel	Pound	7690
Structural Steel Repair	Pound	2740
Temporary Shoring and Cribbing	Each	19
Bridge Deck Scarification, 2 1/4"	Sq. Yd.	870
Bridge Deck Fly Ash or GGBF Slag Concrete Overlay, 2 1/4"	Sq. Yd.	870
Bridge Deck Grooving	Sq. Yd.	850
Deck Slab Repair (Full Depth Type I)	Sq. Yd.	4.0
Deck Slab Repair (Full Depth Type II)	Sq. Yd.	13.0
Structural Repair of Concrete ≤ 5"	Sq. Ft.	490.1

* Apply to new concrete at front & top face of Curb, Joint locations and Median.



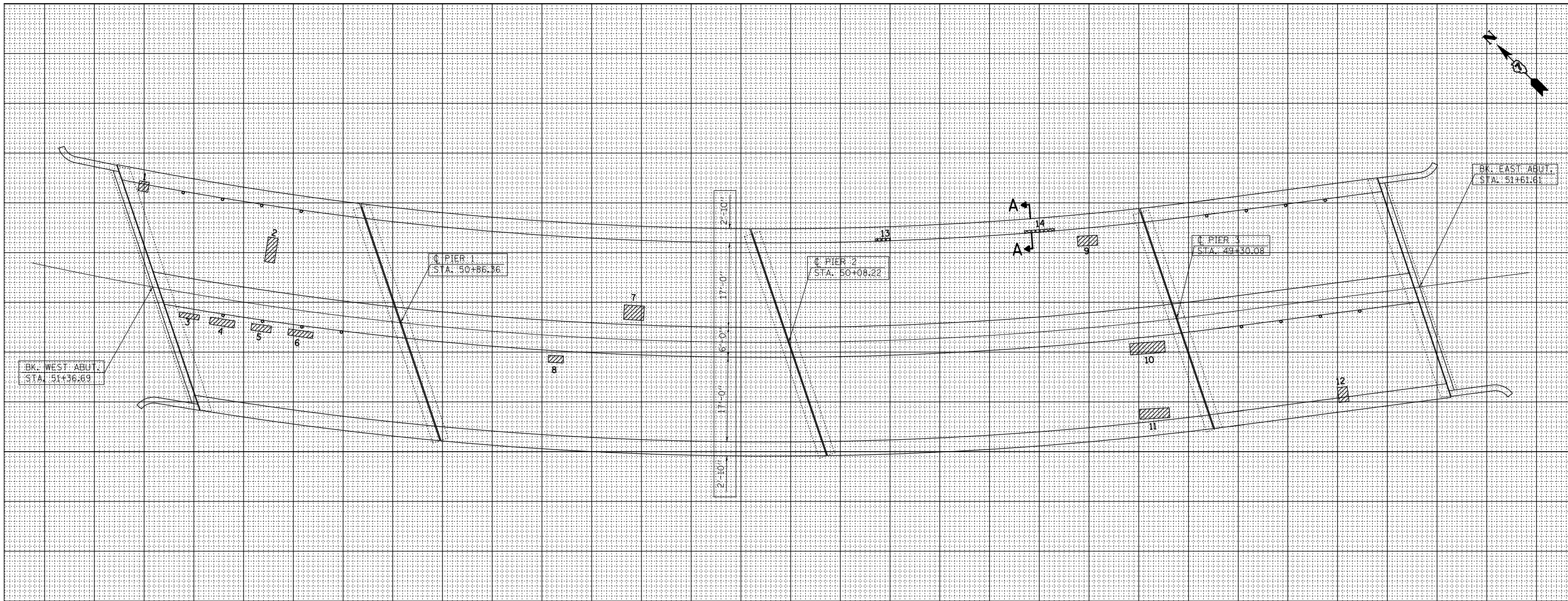
EXPIRES 11-30-2014

DESIGNED <i>John Clark</i>	EXAMINED <i>Timothy A. Dault</i>	DATE <u>OCTOBER 16, 2014</u>
CHECKED <i>Harlan T. Halloway</i>	PASSED <i>David Carl Puzey</i>	REVISED
DRAWN <i>Steffen/balivg</i>	ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED
CHECKED <i>TLC ATH</i>		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND ELEVATION
FAS 2701 OVER FAI 57
SN 025-0042
SHEET NO. 1 OF 20 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	025-6,7R5-2	EFFINGHAM	63	50
CONTRACT NO. 74638			ILLINOIS FED. AID PROJECT	



PATCH NO.	SIZE	DECK SLAB REPAIR (PART DEPTH)		
		SQ FT	SQ FT	SQ FT
1	2.0 x 2.0		4.0	
2	2.0 x 5.0			10.0
3	4.0 x 0.6			2.4
4	5.0 x 1.4			7.0
5	4.0 x 1.33			5.3
6	5.0 x 1.22			6.1
7	4.0 x 2.9			11.6
8	3.0 x 1.42			4.3
9	4.0 x 2.0			8.0
10	7.0 x 2.25			42.0
11	6.0 x 2.0			12.0
12	2.0 x 3.0			6.0

PATCH NO.	SIZE	DECK SLAB REPAIR (PART DEPTH)		
		SQ FT	SQ FT	SQ FT
	PARTIAL DEPTH			
	0 / 9 =	0		
	USE	0	SQ YD	
	FULL DEPTH, TYPE 1			
	4 / 9 =	0.44		
	USE	0.5	SQ YD	
	FULL DEPTH, TYPE 2			
	114.7 / 9 =	12.7		
	USE	13	SQ YD	

PATCH NO.	SIZE	STRUCTURAL REPAIR OF CONCRETE <5"	
		SQ FT	
13	3.0 x 1.4	4.2	
14	6.0 x 1.4	8.4	
	TOTAL	12.6	
	USE	13.0	SQ FT

Note: Face of curb is included in size of patch.

Actual dimensions of the Structural Repair of Concrete $\leq 5"$ shall be determined by the Engineer based on the extent of deterioration.

Removal and replacement of the existing bridge rail and posts may be necessary to complete the Structural Repair of Concrete. All mounting hardware is to be reused. This work and all materials shall be included in the contract unit price for Structural Repair of Concrete $\leq 5"$.

THE LOCATIONS AND SIZES SHOWN GRAPHICALLY ABOVE ARE APPROXIMATE. SEE THIS TABLE FOR ACTUAL SIZES.

PATCHING LEGEND

- PARTIAL DEPTH (FOR INFORMATION ONLY)
- FULL DEPTH
- REPLACED FLOOR DRAIN SEE SHEET 7 OF 20.
- STRUCTURAL REPAIR OF CONCRETE <5"

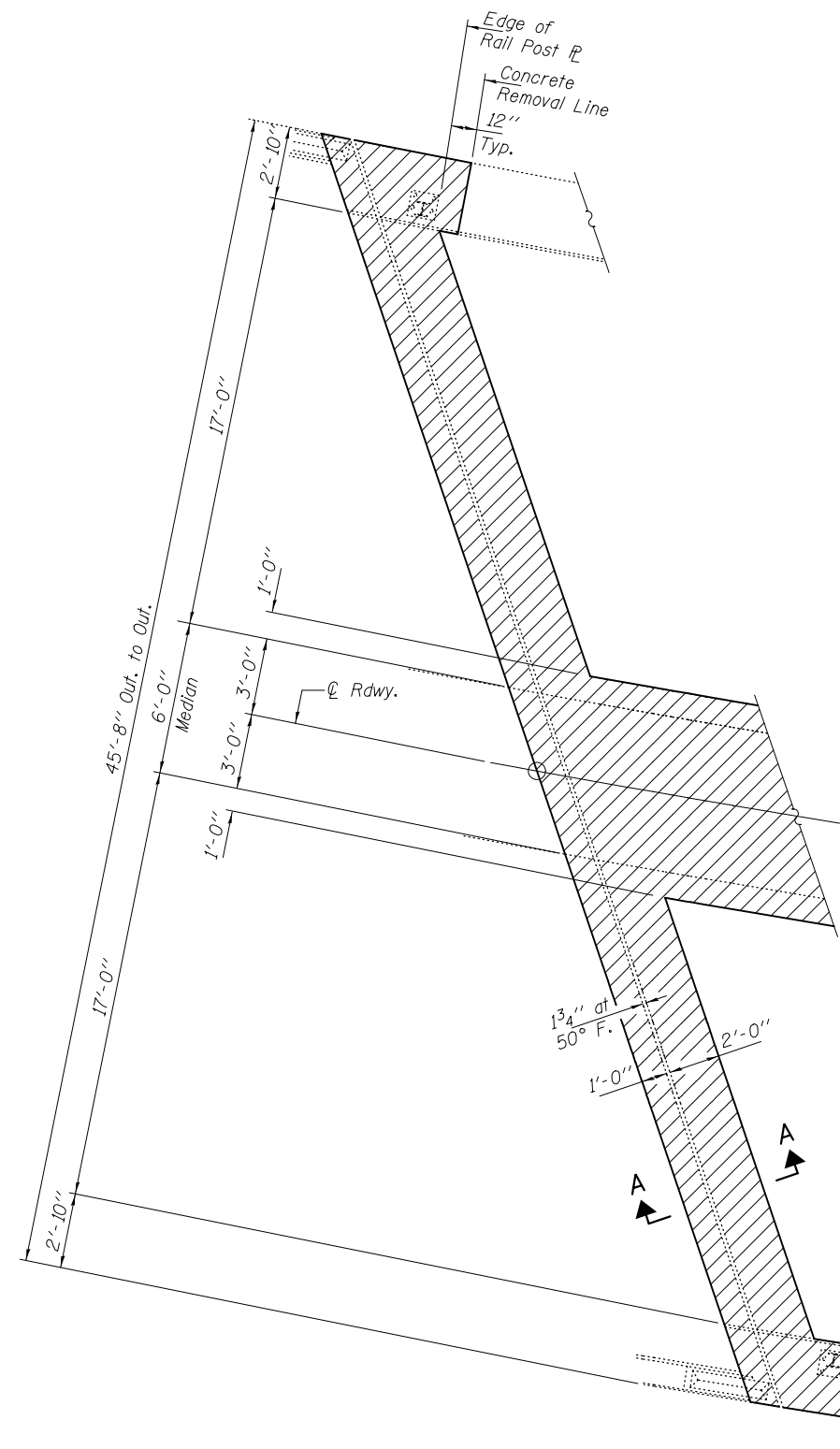
DATE OF SURVEY: 8/1/14
 SURVEY BY: M. ALLEN
 METHOD OF SURVEY: VISUAL

BRIDGE DECK PATCHING
 EFFINGHAM COUNTY
 FAI ROUTE 57
 WATSON INTERCHANGE

SN 025-0042

SECTION A-A
 (Dimensions at RT L's to end of deck)

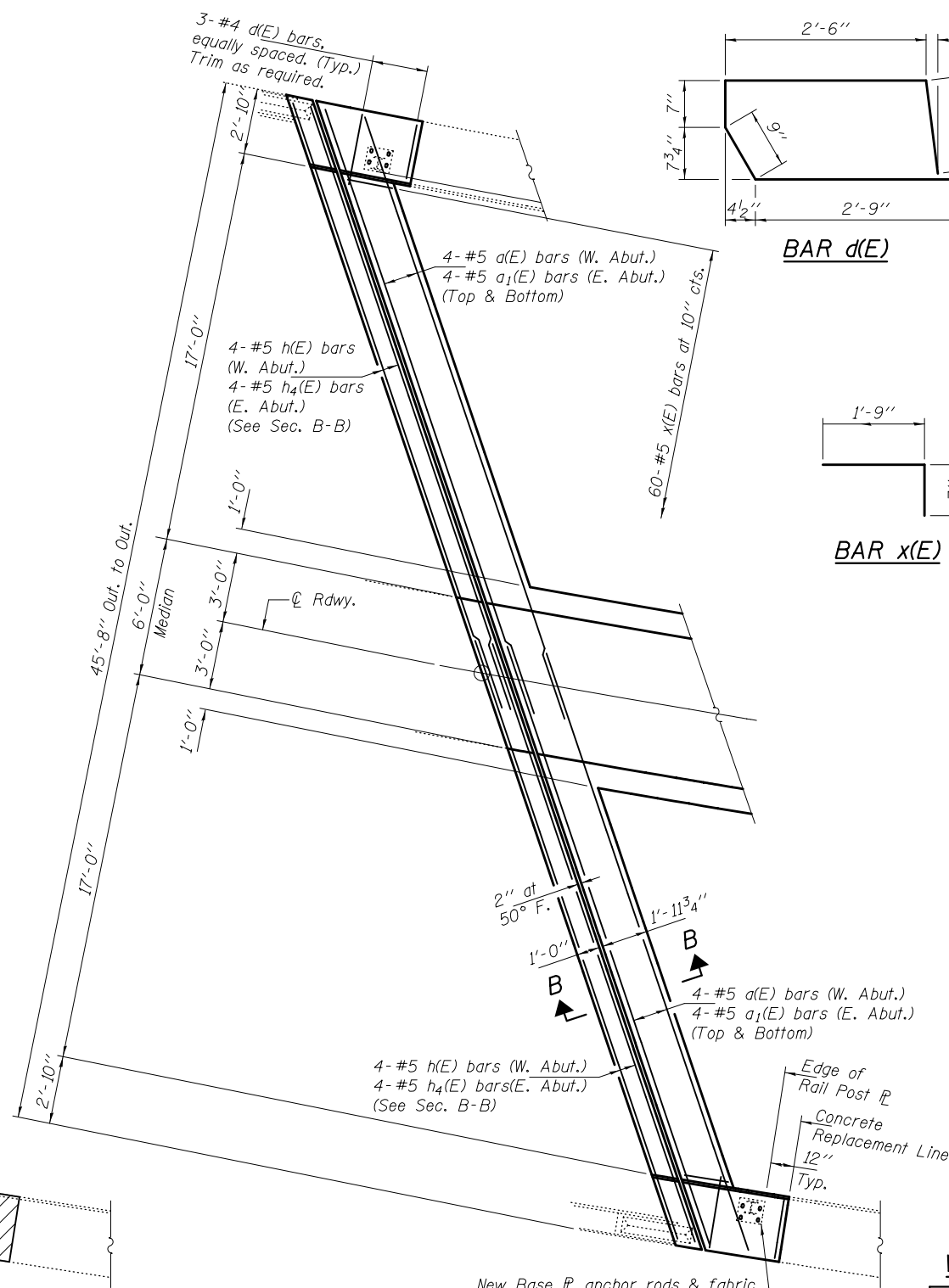
042



CONCRETE REMOVAL AT ABUTMENTS

Dimensions measured perpendicular to C Roadway.
(W. Abut. shown, E. Abut. similar by 180° rotation)

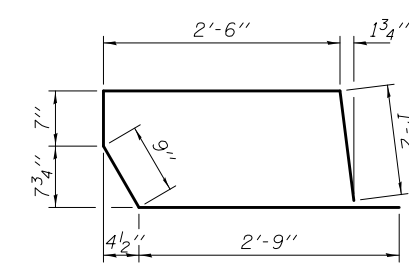
Existing permanent protective shield under C of structure to be removed and disposed of. Cost included with Concrete Removal.



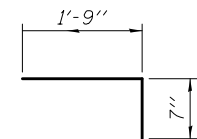
CONCRETE REPLACEMENT AT ABUTMENTS

Dimensions measured perpendicular to C Roadway.
(W. Abut. shown, E. Abut. similar by 180° rotation)

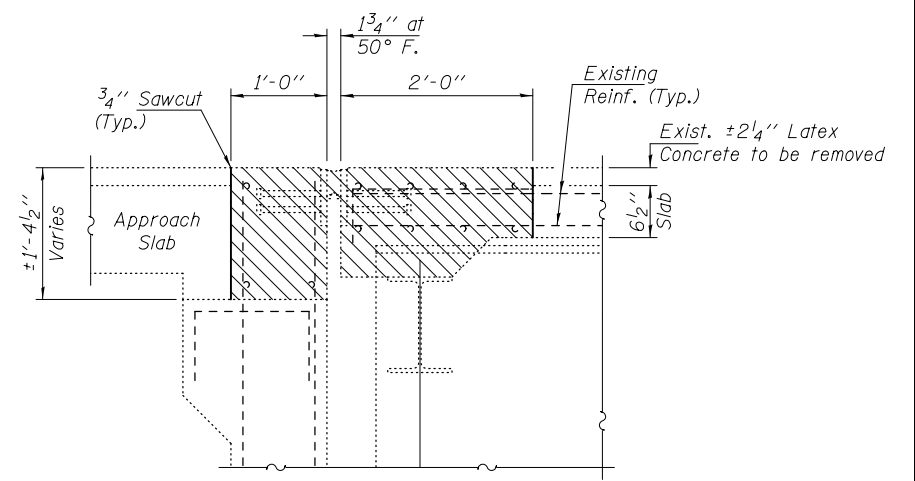
New Base C anchor rods & fabric pad. Typ. See sheet 7 of 20.



BAR d(E)

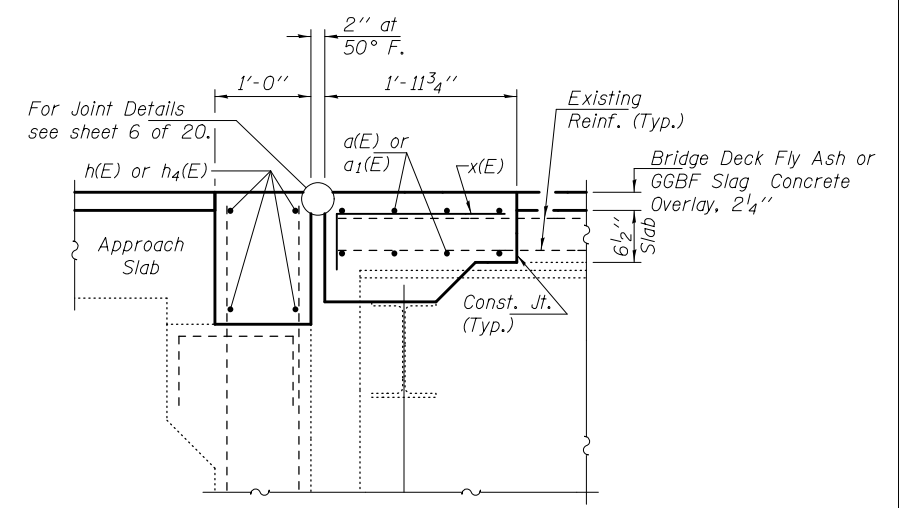


BAR x(E)



SECTION A-A

Dims. at Rt. L to Abutments



SECTION B-B

Dims. at Rt. L to Abutments

Note:
Hatched areas indicate Concrete Removal.
For Median & Curb reinforcement and details see sheet 7 of 20.

MIN. BAR LAP

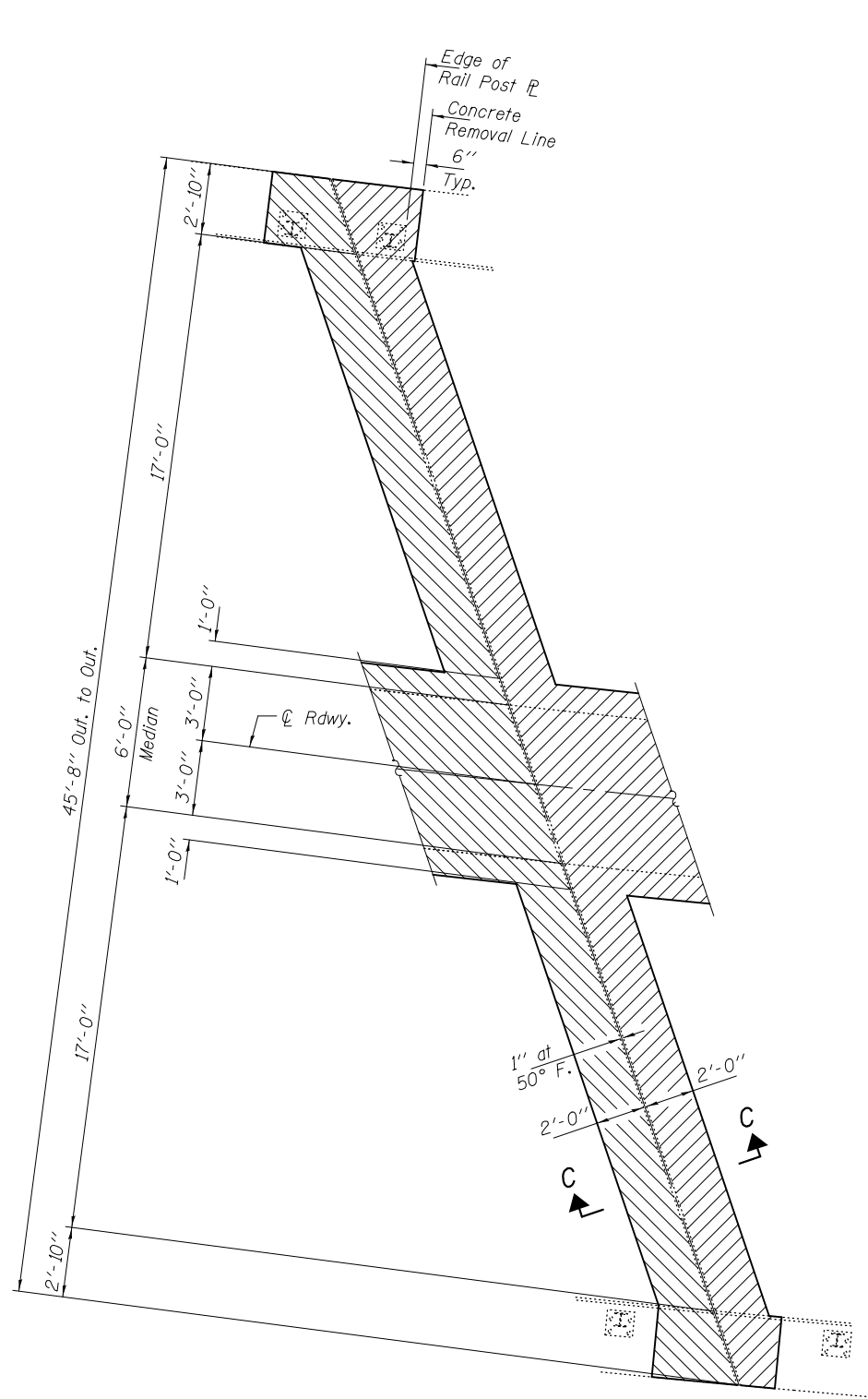
#5 Bars = 2'-7"

W. ABUT. BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	16	#5	27'-6"	—
d(E)	6	#4	7'-9"	□
h(E)	8	#5	27'-6"	—
x(E)	60	#5	2'-4"	┌
Concrete Removal			Cu. Yd.	7.0
Concrete Superstructure			Cu. Yd.	7.0
Reinforcement Bars, Epoxy Coated			Pounds	870

E. ABUT. BILL OF MATERIAL

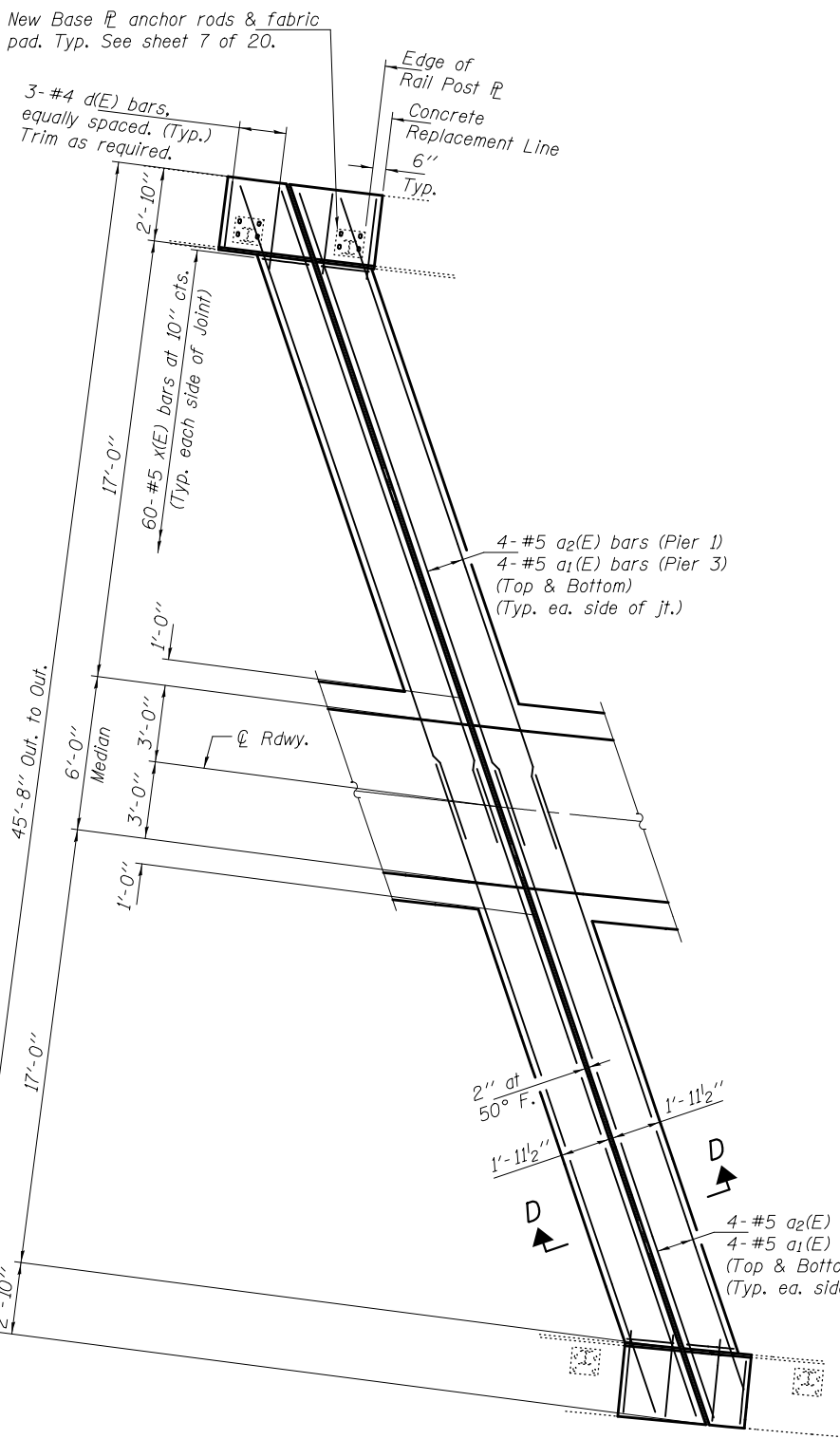
Bar	No.	Size	Length	Shape
a1(E)	16	#5	24'-8"	—
d(E)	6	#4	7'-9"	□
h4(E)	8	#5	24'-8"	—
x(E)	60	#5	2'-4"	┌
Concrete Removal			Cu. Yd.	6.0
Concrete Superstructure			Cu. Yd.	6.0
Reinforcement Bars, Epoxy Coated			Pounds	800



CONCRETE REMOVAL AT PIERS 1 & 3

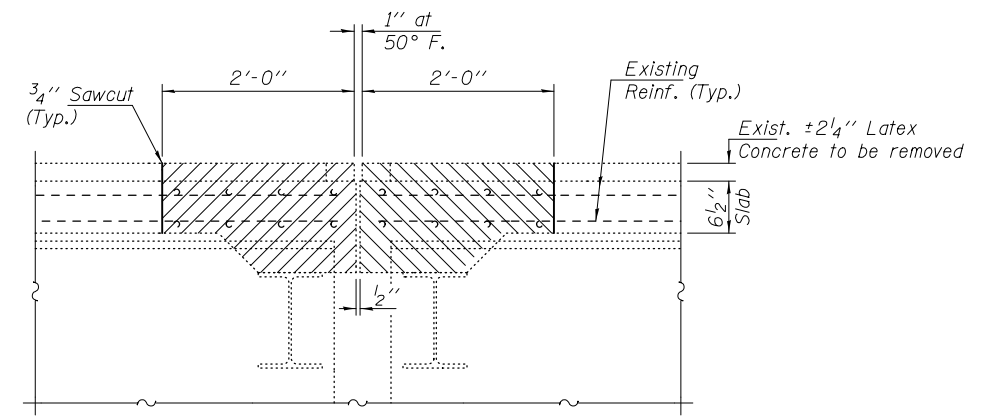
Dimensions measured perpendicular to \perp Roadway.
Pier 1 shown. Pier 3 similar by rotation.

Note:
Hatched areas indicate Concrete Removal.
For Median & Curb reinforcement and details
see sheet 7 of 20.



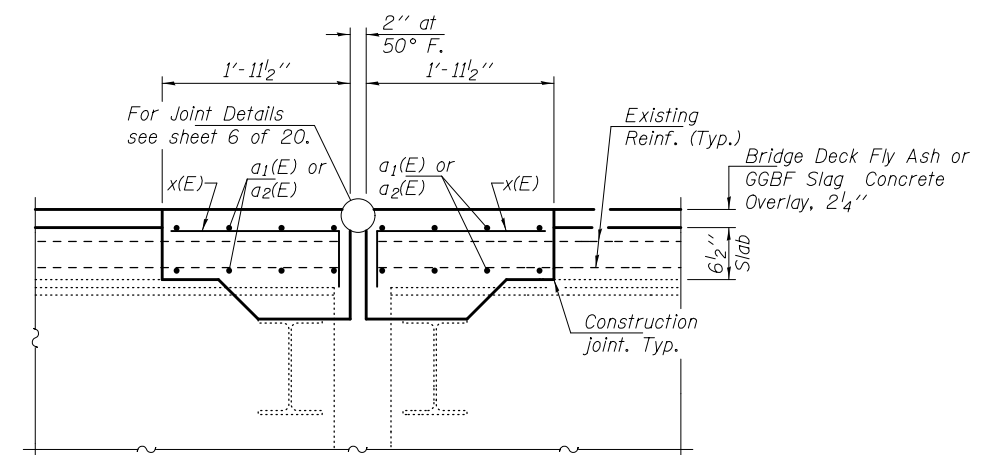
CONCRETE REPLACEMENT AT PIERS 1 & 3

Dimensions measured perpendicular to \perp Roadway.
Pier 1 shown. Pier 3 similar by rotation.



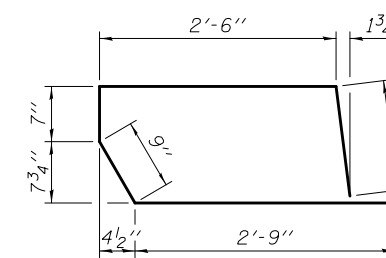
SECTION C-C

Dims. at Rt. L to Abutments

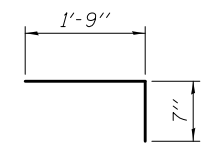


SECTION D-D

Dims. at Rt. L to Abutments



BAR d(E)



BAR x(E)

MIN. BAR LAP

#5 Bars = 2'-7"

PIER 1 BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a ₂ (E)	32	#5	26'-6"	—
d(E)	12	#4	7'-9"	□
x(E)	120	#5	2'-4"	┌
Concrete Removal			Cu. Yd.	7.9
Concrete Superstructure			Cu. Yd.	7.9
Reinforcement Bars, Epoxy Coated			Pounds	1240

PIER 3 BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a ₁ (E)	32	#5	24'-8"	—
d(E)	12	#4	7'-9"	□
x(E)	120	#5	2'-4"	┌
Concrete Removal			Cu. Yd.	7.0
Concrete Superstructure			Cu. Yd.	7.0
Reinforcement Bars, Epoxy Coated			Pounds	1180

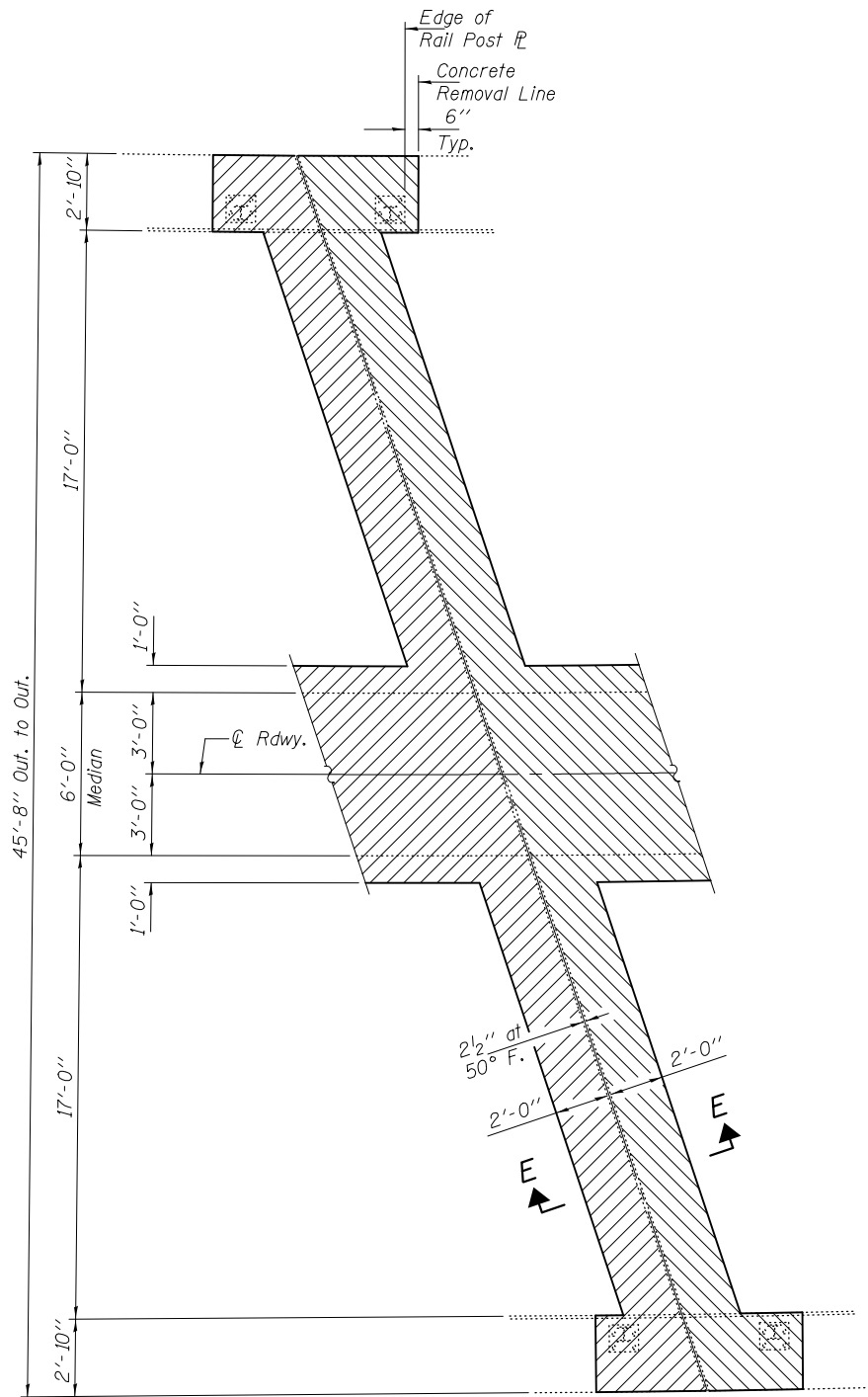
DESIGNED TLC	EXAMINED <i>Timothy A. [Signature]</i>	DATE OCTOBER 16, 2014
CHECKED ATH	PASSED <i>[Signature]</i>	REVISIONS
DRAWN Steffen/baliva	ACTING ENGINEER OF BRIDGES AND STRUCTURES	
CHECKED TLC ATH		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

JOINT REMOVAL & REPLACEMENT AT PIERS 1 & 3
SN 025-0042

SHEET NO. 4 OF 20 SHEETS

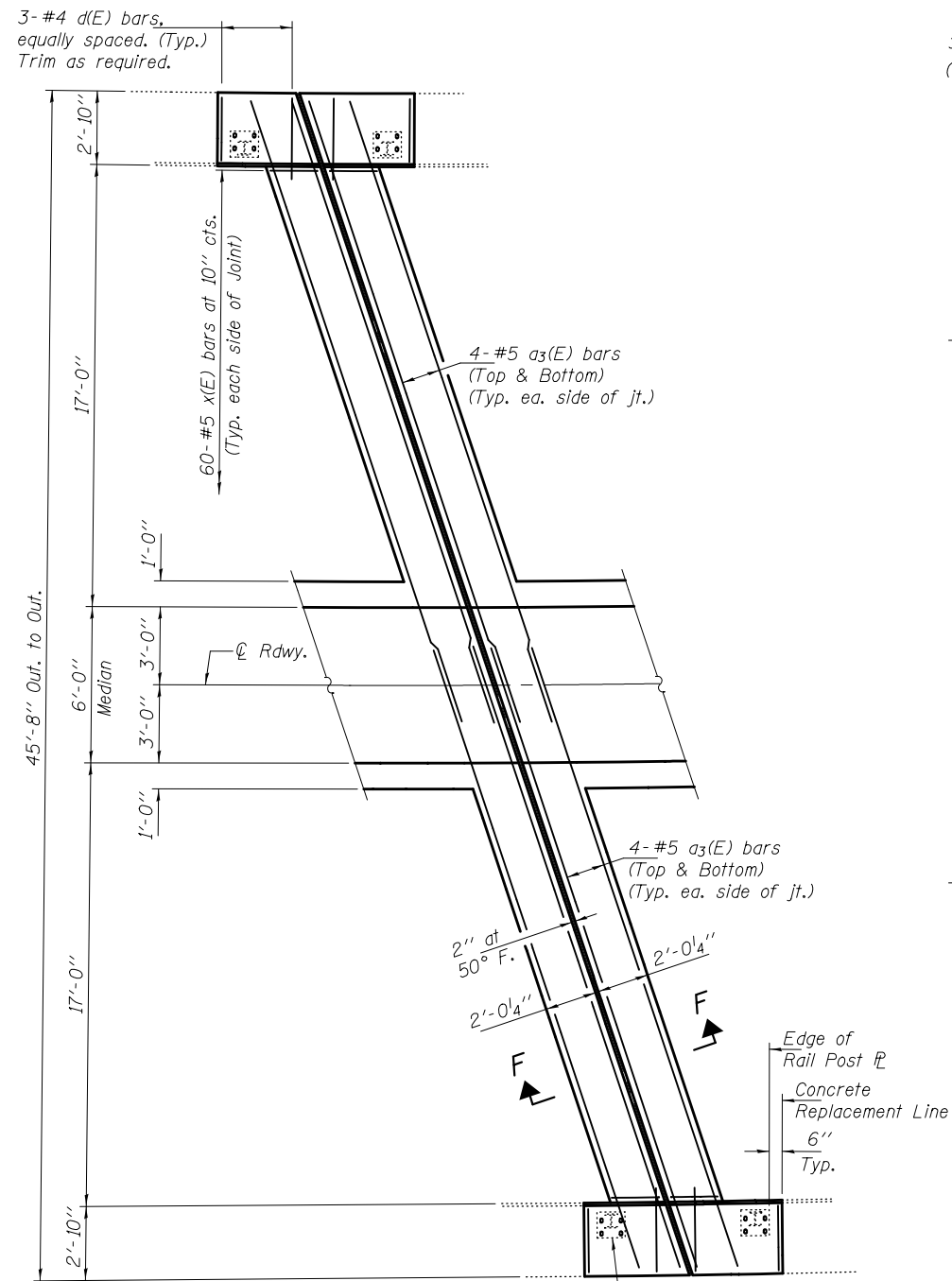
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(25-6,7)RS-2	EFFINGHAM	63	53
CONTRACT NO. 74638			ILLINOIS FED. AID PROJECT	



CONCRETE REMOVAL AT PIER 2

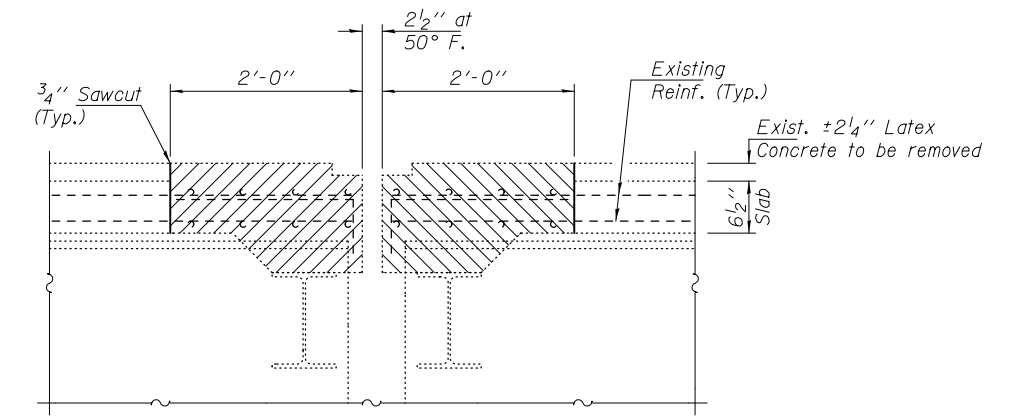
Dimensions measured perpendicular to \varnothing Roadway.

Note:
Hatched areas indicate Concrete Removal.
For Median & Curb reinforcement and details
see sheet 7 of 20.



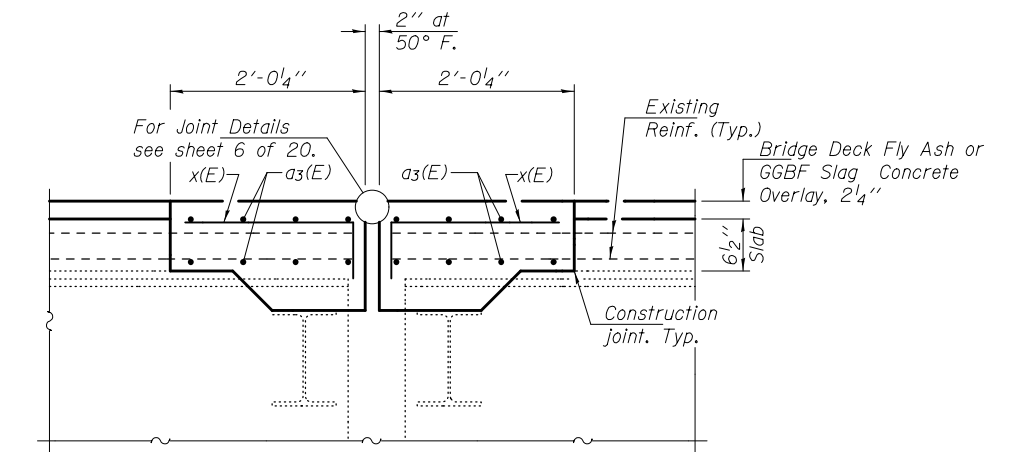
CONCRETE REPLACEMENT AT PIER 2

Dimensions measured perpendicular to \varnothing Roadway.



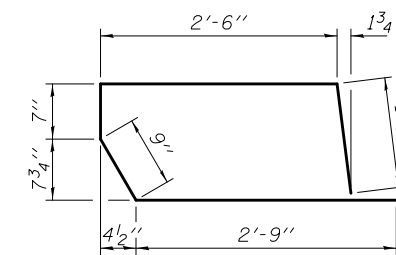
SECTION E-E

Dims. at Rt. L to Abutments

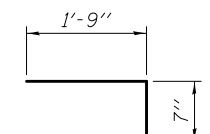


SECTION F-F

Dims. at Rt. L to Abutments



BAR d(E)



BAR x(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a3(E)	32	#5	25'-6"	—
d(E)	12	#4	7'-9"	⊏
x(E)	120	#5	2'-4"	⊏
Concrete Removal			Cu. Yd.	7.4
Concrete Superstructure			Cu. Yd.	7.4
Reinforcement Bars, Epoxy Coated			Pounds	1210

MIN. BAR LAP

#5 Bars = 2'-7"

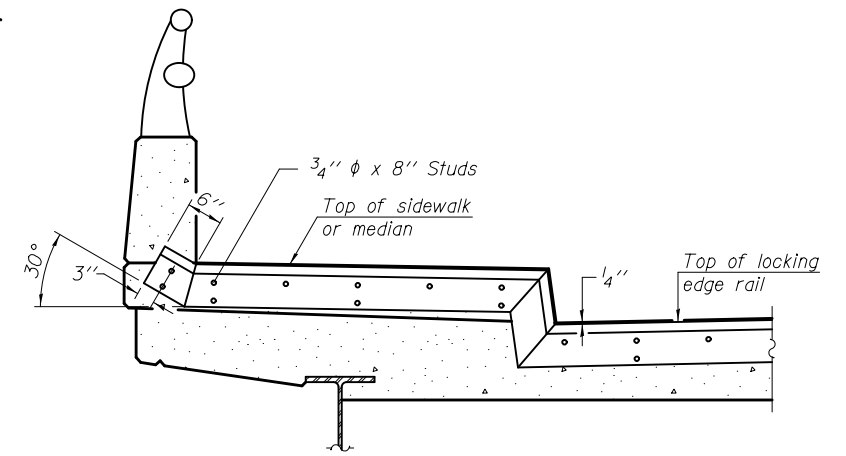
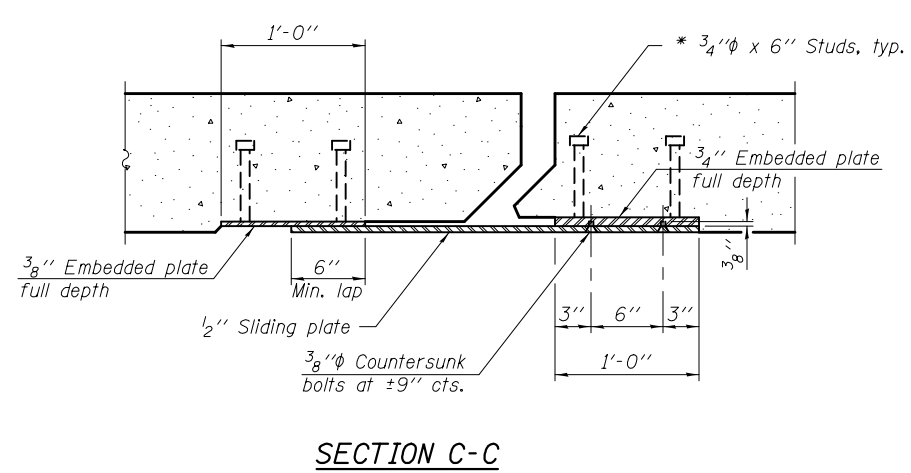
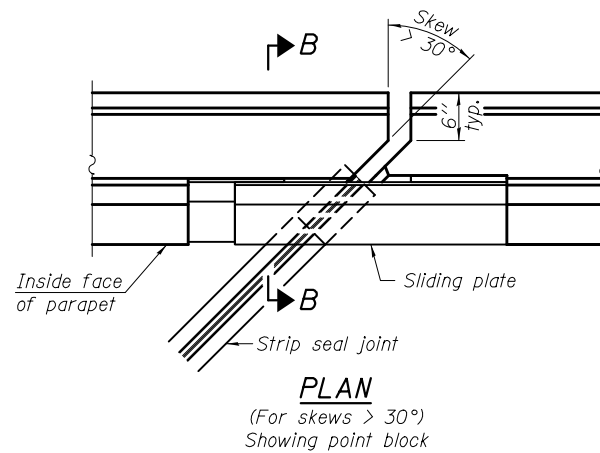
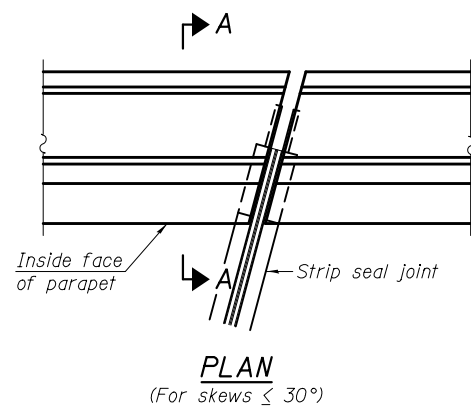
DESIGNED <i>TLC</i>	EXAMINED <i>Timothy A. ...</i>	DATE <i>OCTOBER 16, 2014</i>
CHECKED <i>ATH</i>	PASSED <i>ACTING ENGINEER OF STRUCTURAL SERVICES</i>	REVISED
DRAWN <i>Steffen / baliva</i>	ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED
CHECKED <i>TLC ATH</i>		

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**JOINT REMOVAL & REPLACEMENT AT PIER 2
SN 025-0042**

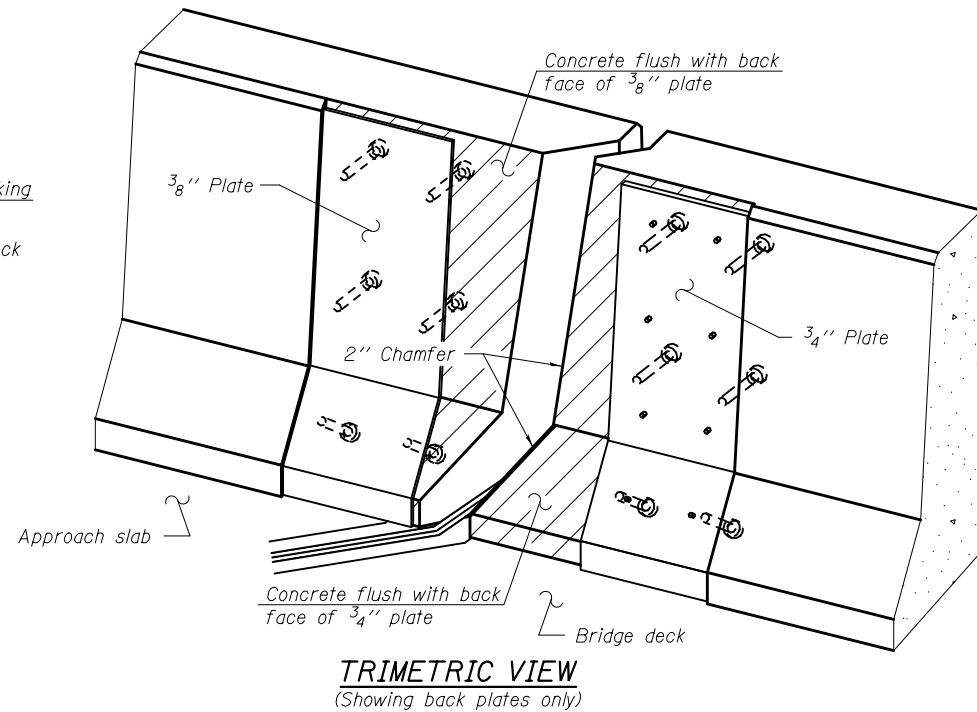
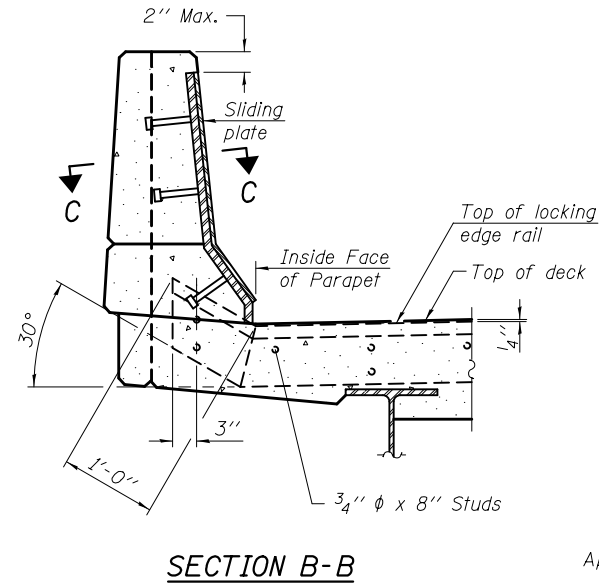
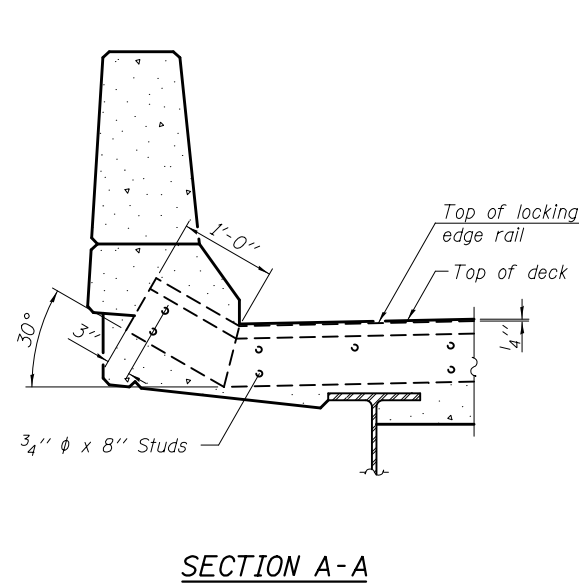
SHEET NO. 5 OF 20 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(25-6,7)RS-2	EFFINGHAM	63	54
ILLINOIS FED. AID PROJECT			CONTRACT NO. 74638	



TYPICAL END TREATMENT AT SIDEWALK OR MEDIAN

Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.



Notes:

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

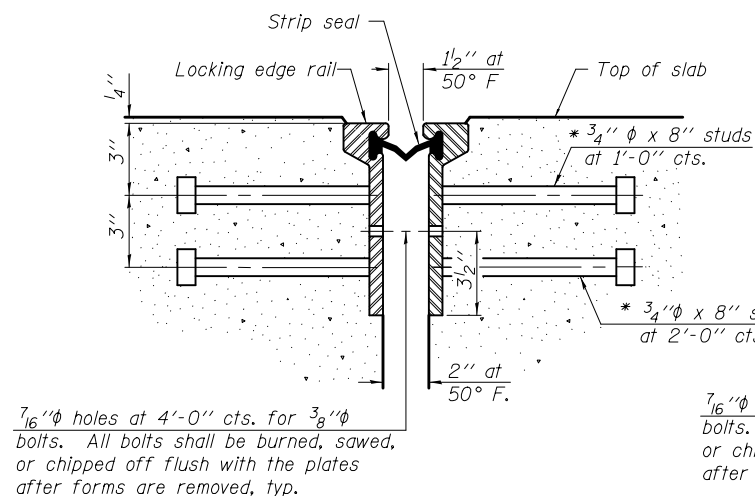
The manufacturer's recommended installation methods shall be followed.

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

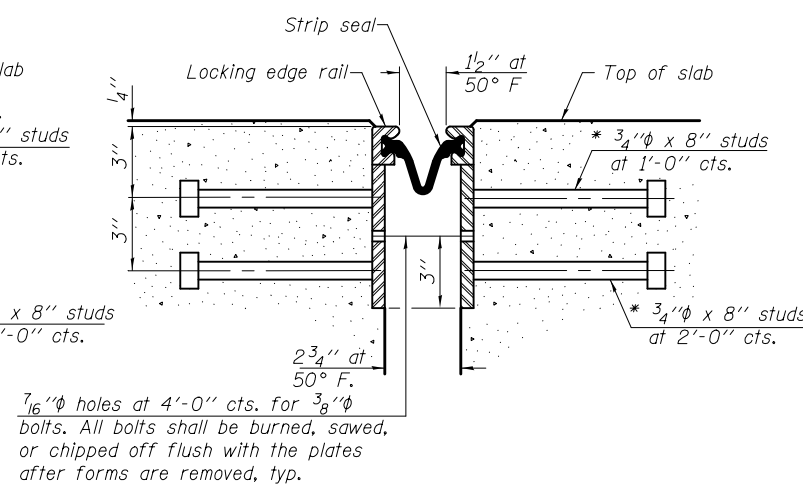
All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

Maximum space between rail segments shall be 3/16", sealed with a suitable sealant. Joints in rails within 10 ft. of curbs shall be welded.

Parapet plates and anchorage studs for skews $> 30^\circ$ included in the cost of Preformed Joint Strip Seal.



7/16" ϕ holes at 4'-0" cts. for 3/8" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.



7/16" ϕ holes at 4'-0" cts. for 3/8" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

ROLLED EXTRUDED RAIL

WELDED RAIL

LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue.

Rolled rail shown, welded rail similar.

LOCKING EDGE RAILS

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	244

* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.

EJ-SSJ

1-27-12

DESIGNED	TLC
CHECKED	ATH
DRAWN	Steffen
CHECKED	TLC ATH

EXAMINED	<i>Timothy A. ...</i>	DATE	OCTOBER 16, 2014
PASSED	ACTING ENGINEER OF STRUCTURAL SERVICES	REVISED	
	<i>Carl ...</i>	REVISED	
	ACTING ENGINEER OF BRIDGES AND STRUCTURES		

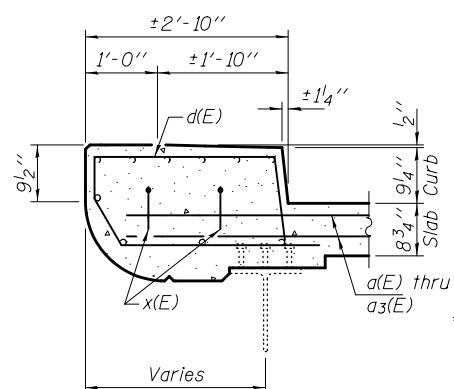
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL
SN 025-0042

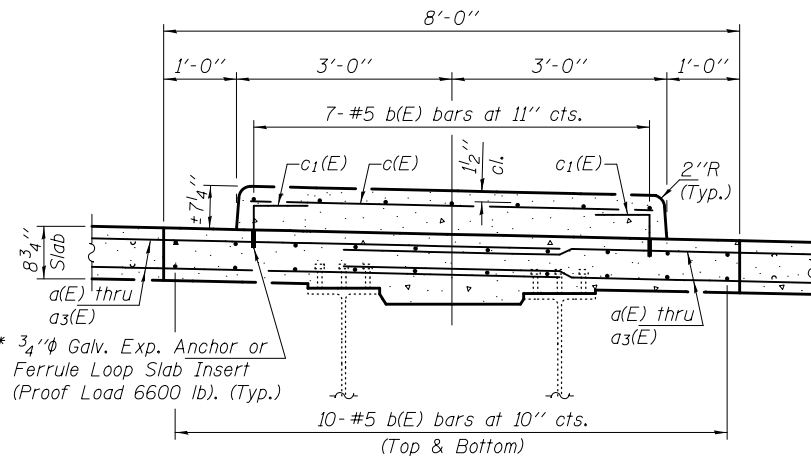
SHEET NO. 6 OF 20 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(25-6,7RS-2	EFFINGHAM	63	55
ILLINOIS FED. AID PROJECT			CONTRACT NO. 74638	

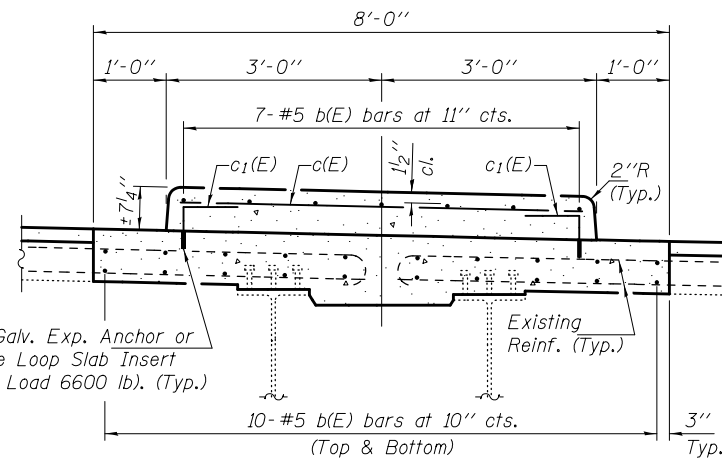
** The cost of expansion anchors/inserts is included in the cost of Reinforcement Bars, Epoxy Coated.



CURB DETAIL



MEDIAN DETAIL AT JOINTS

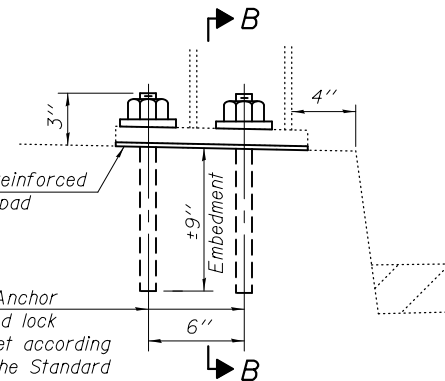


MEDIAN DETAIL AT MIDSPAN

Bridge Deck Fly Ash or GGBF Slag Concrete Overlay, 2 1/4"

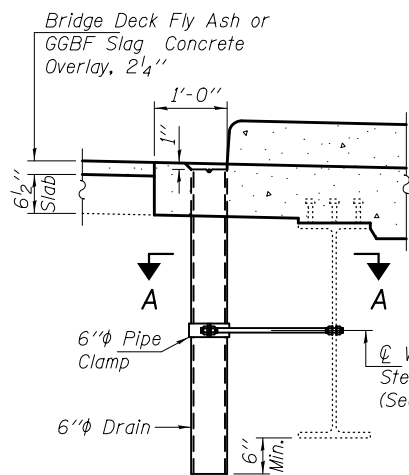
1/8" Fabric reinforced elastomeric pad

4-1"φ H.S. Threaded Anchor Rods with hex nuts and lock washers, drilled and set according to Article 509.06 of the Standard Specifications.



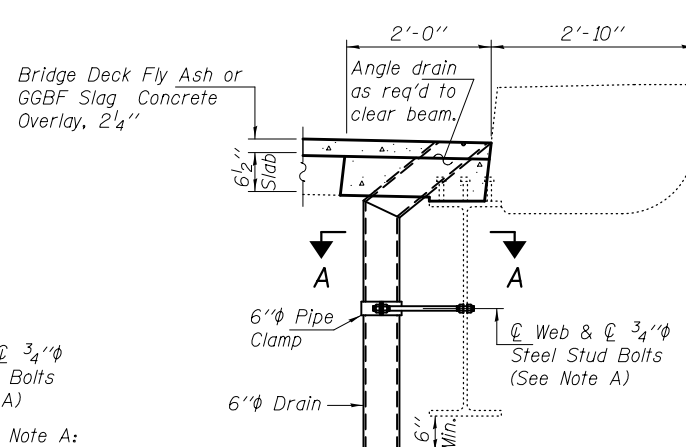
SECTION AT RAIL POST

Cost of Fabric Reinforced Elastomeric Pad and Threaded Anchor Rods is included with Concrete Removal.



DRAIN DETAIL AT MEDIAN

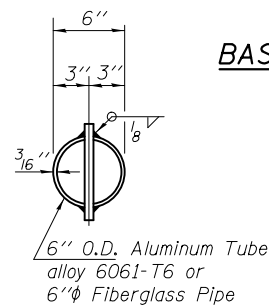
Removal included with Concrete Removal.



DRAIN DETAIL AT CURB

Removal included with Deck Slab Repair (Full Depth Type I).

Note A:
Threaded 6" each end with 2 washers and locknuts. Field drill 1 5/16"φ holes in web.

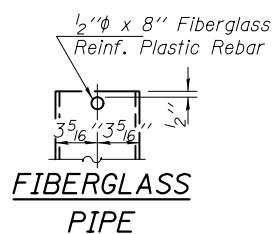


TOP PLAN

(Showing Aluminum Tube)

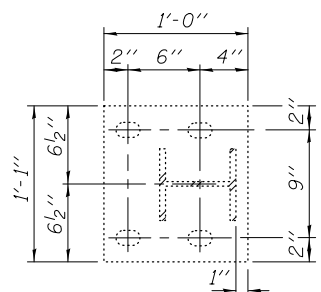
Fill slot with weld
1/2"φ x 8" Alum. Bar ASTM B 211 alloy 6061-T6

ALUMINUM TUBE



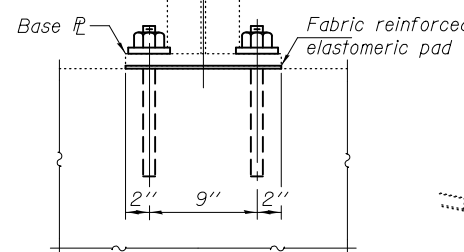
MIN. BAR LAP

#5 Bars = 2'-7"



BASE PLATE DETAIL

1" x 12" x 13"

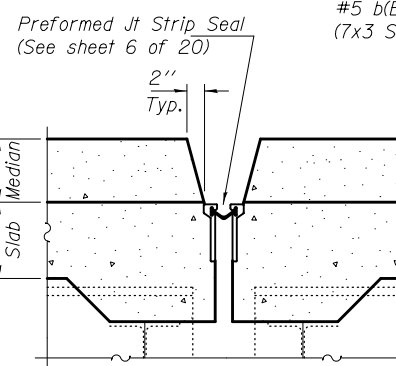


SECTION B-B

#5 b(E) bars at 10" cts. (Top & bott. of Slab)
(10x3 Spans 1 & 4, 10x5 Spans 2 & 3)

#5 b(E) bars at 11" cts. (Top of Median)
(7x3 Spans 1 & 4, 7x5 Spans 2 & 3)

* Order c(E) bars full length, field cut to fit skew and use remainder of bar in opposite end of span.



TYPICAL SECTION THRU JOINT AT MEDIAN

BAR c1(E)

PARTIAL PLAN OF MEDIAN REPLACEMENT

(Showing Reinforcement only)
(For dimensions see Median Details)

BILL OF MATERIAL (MEDIAN)

Bar	No.	Size	Length	Shape
b(E)	432	#5	18'-6"	—
c(E)	255	#4	5'-7"	—
c1(E)	510	#4	1'-7"	┌
Concrete Removal			Cu. Yd.	85
Concrete Superstructure			Cu. Yd.	85
Reinforcement Bars, Epoxy Coated			Pounds	9830

Notes:
Drains shall be located clear of all diaphragms.
The exterior surfaces of the floor drains shall be painted with the finish coat as specified in the special provisions for Cleaning and Painting New Metal Structures. The exterior surfaces of the drains shall be cleaned according to the Society of Protective Coating's Spec. SSPC-SP1 prior to painting.
Fiberglass pipe shall conform to ASTM D 2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.
Galvanize clamping device according to AASHTO M232. Cost of clamping device and inserts is included with Floor Drains.

DESIGNED TLC
CHECKED ATH
DRAWN Steffen
CHECKED TLC ATH

EXAMINED
PASSED
ACTING ENGINEER OF STRUCTURAL SERVICES
ACTING ENGINEER OF BRIDGES AND STRUCTURES

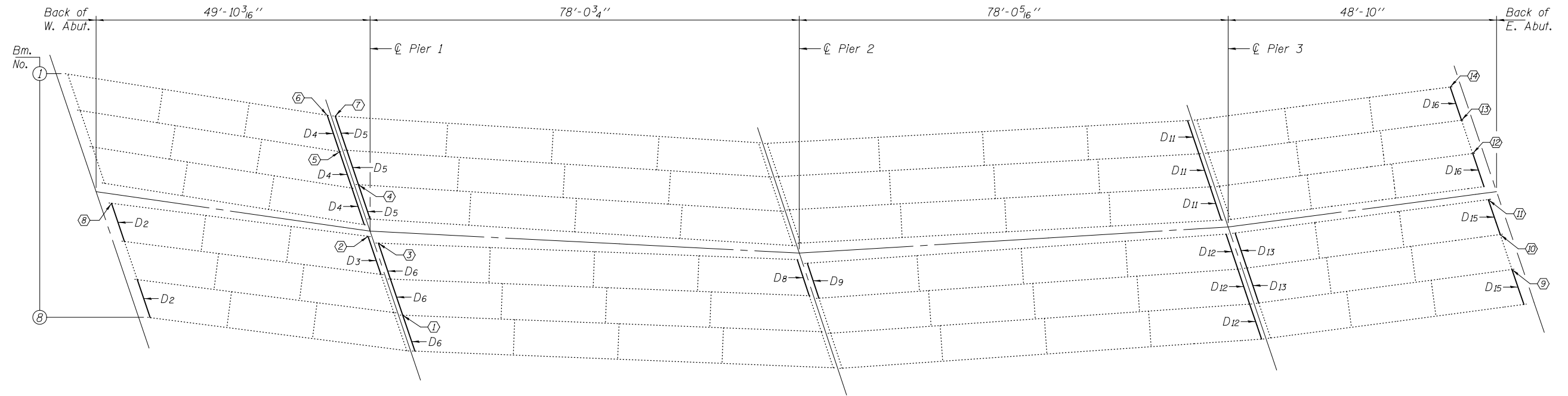
DATE OCTOBER 16, 2014
REVISED
REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REPAIR DETAILS
SN 025-0042

SHEET NO. 7 OF 20 SHEETS

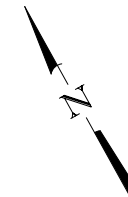
F.A.I. RTE. SECTION COUNTY TOTAL SHEETS SHEET NO.
57 (25-6,7RS-2) EFFINGHAM 63 56
CONTRACT NO. 74638
ILLINOIS FED. AID PROJECT



Notes:
 All new bent PL's and diaphragms to be paid for as Furnishing & Erecting Structural Steel.
 All new bolts and beam end repairs to be paid for as Structural Steel Repair.
 Removal of bent PL's and diaphragms to be paid for as Structural Steel Removal.

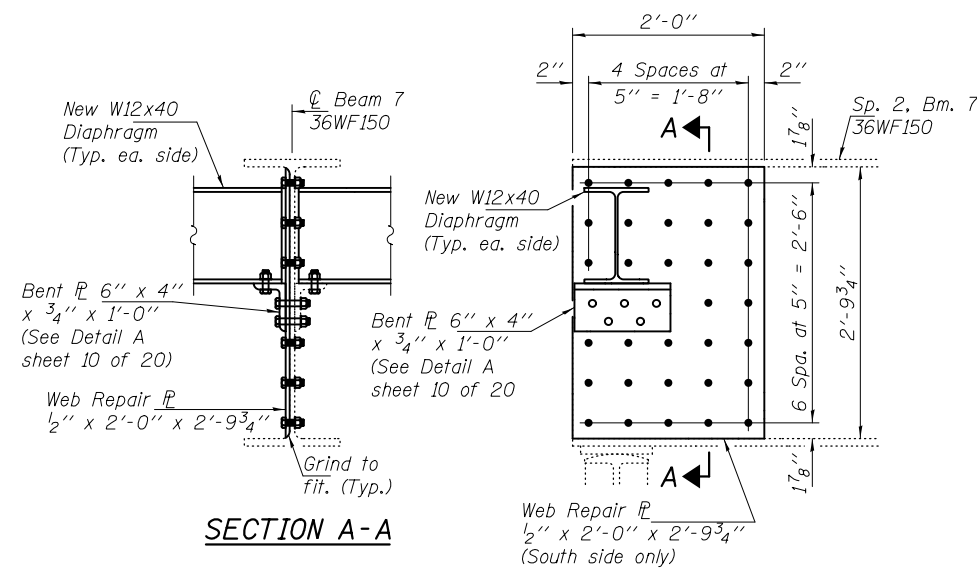
FRAMING PLAN

Dx - Diaphragm replacement
 ◻ - Beam end repair

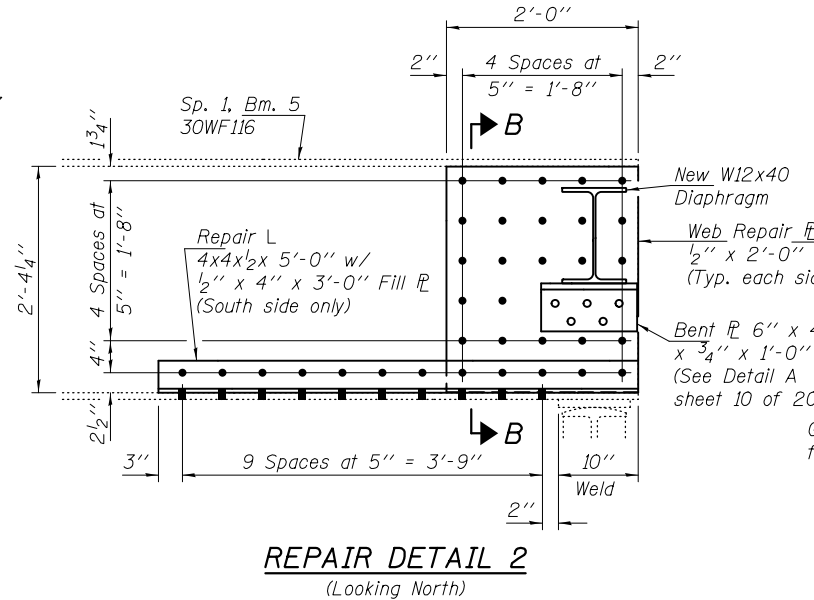


BOLT HOLE LEGEND

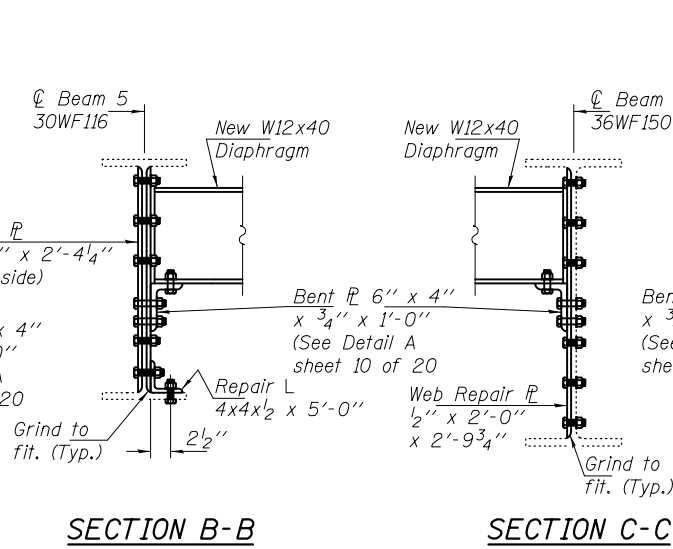
● - Holes to be shop drilled.
 ○ - Holes to be field drilled.



REPAIR DETAIL 1
 (Looking North)

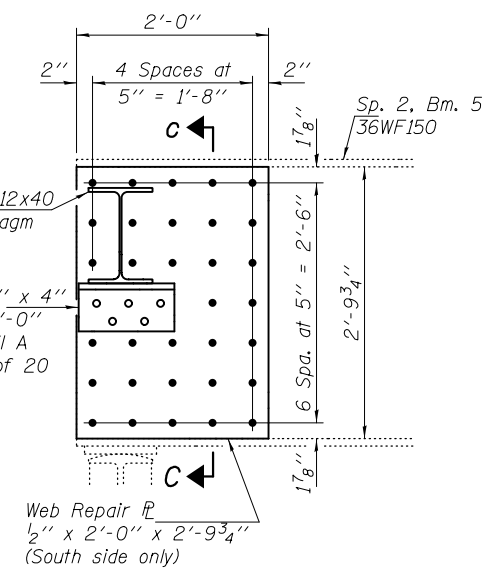


REPAIR DETAIL 2
 (Looking North)

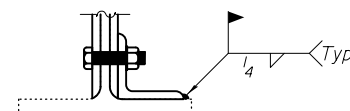


SECTION B-B

SECTION C-C



REPAIR DETAIL 3
 (Looking North)



TYPICAL WELD DETAIL

Cost of weld included with Structural Steel Repair

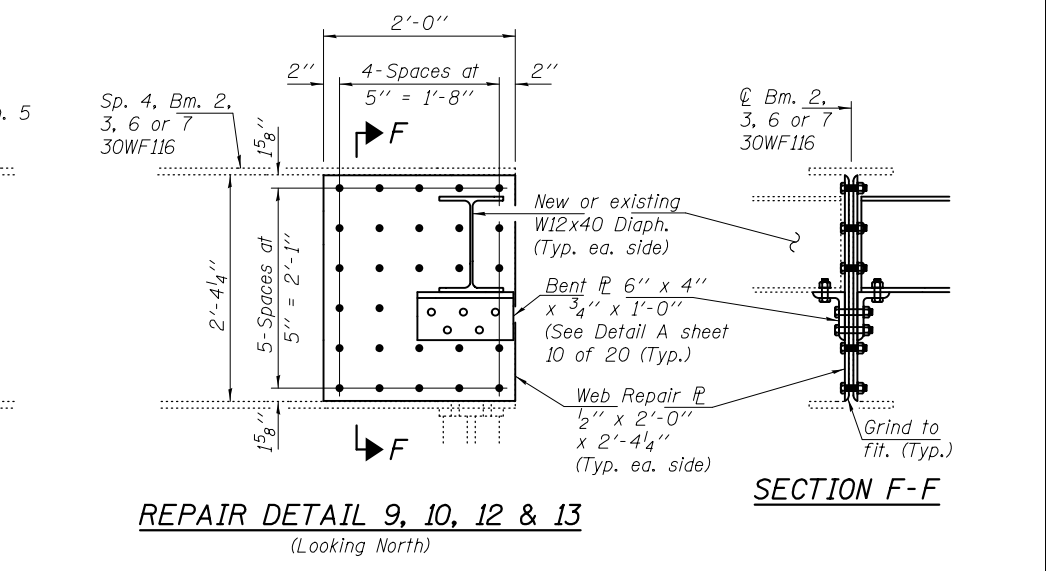
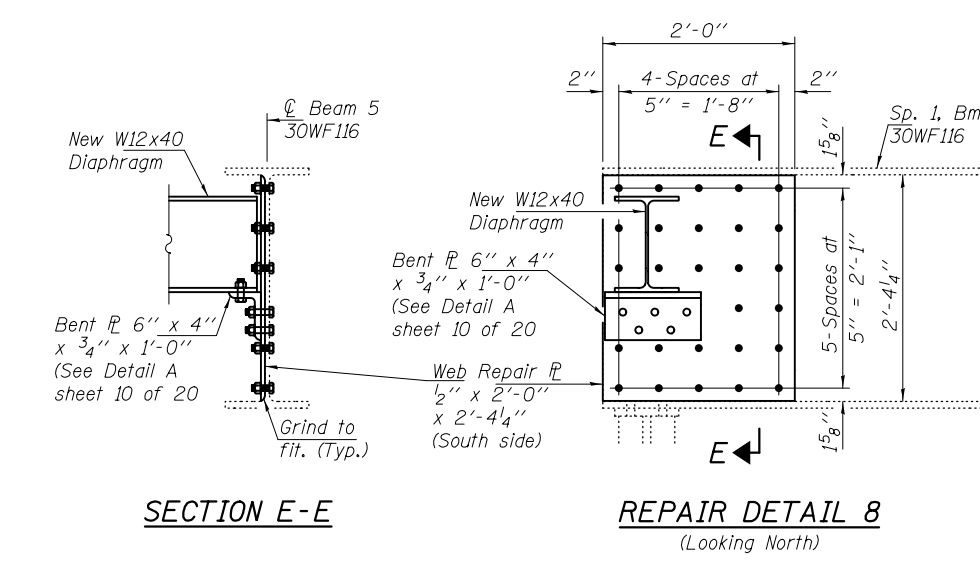
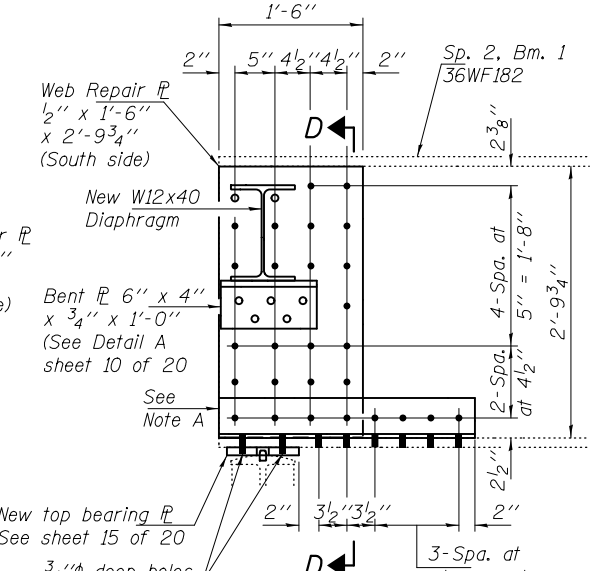
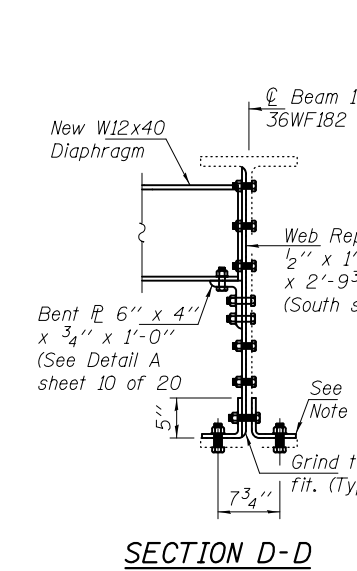
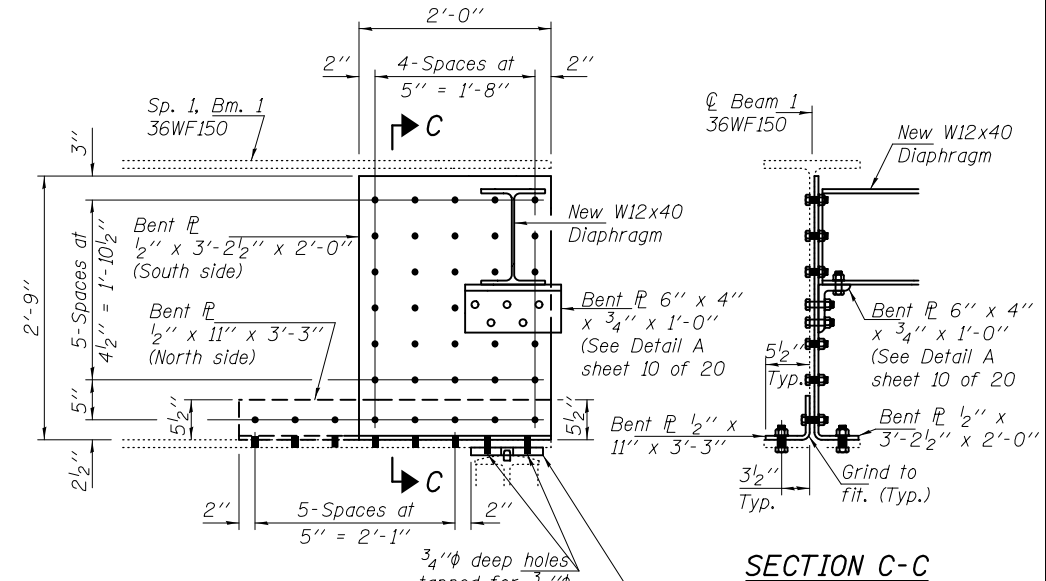
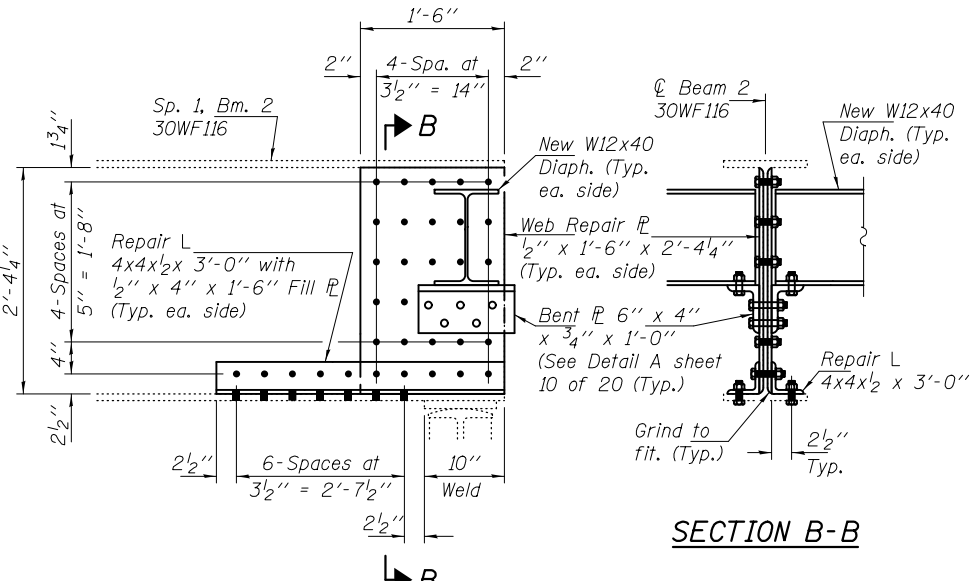
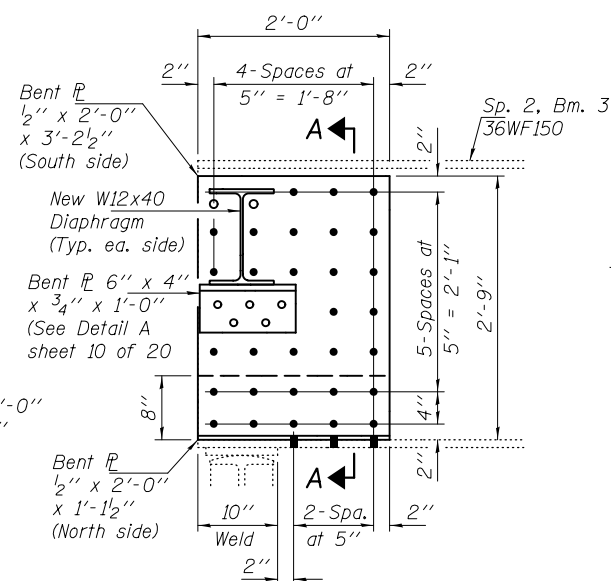
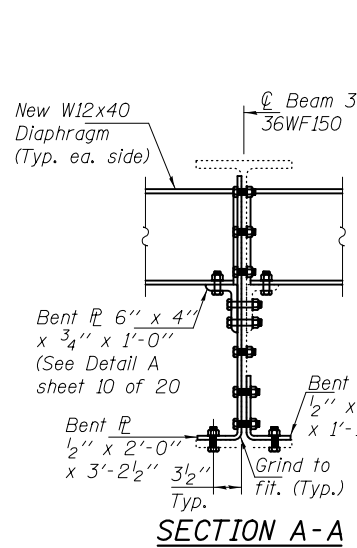
DESIGNED <i>TLC</i>	EXAMINED <i>Timothy A. [Signature]</i>	DATE <i>OCTOBER 16, 2014</i>
CHECKED <i>ATH</i>	PASSED <i>[Signature]</i>	REVISOR
DRAWN <i>Steffen</i>	ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISION
CHECKED <i>TLC ATH</i>		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

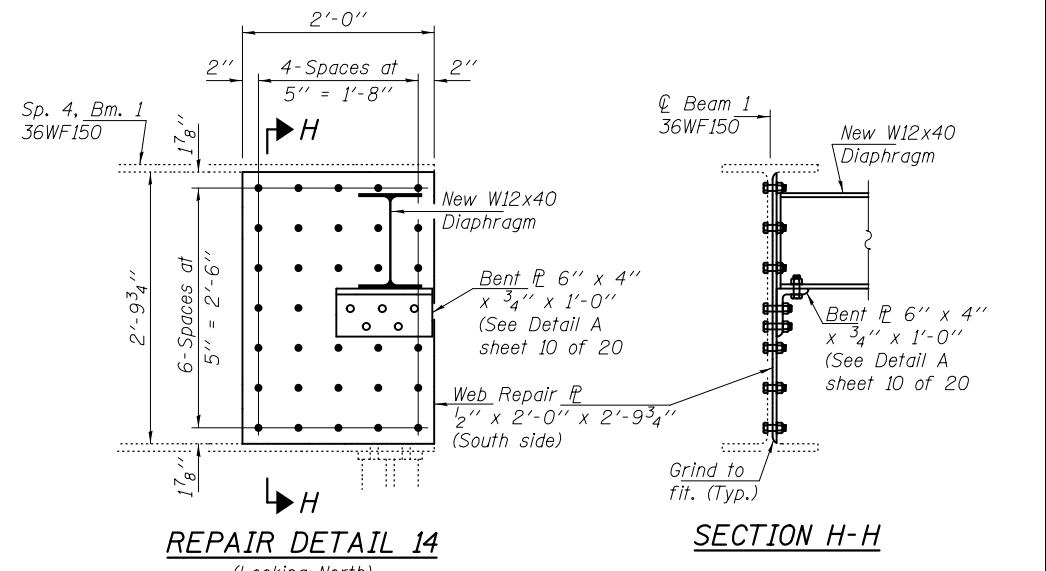
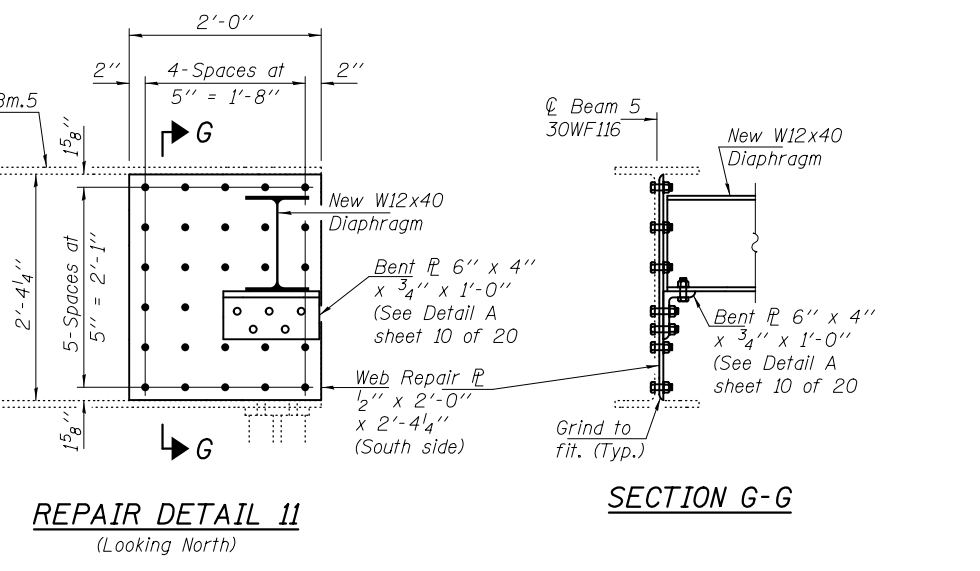
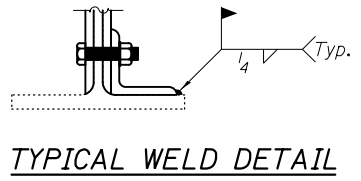
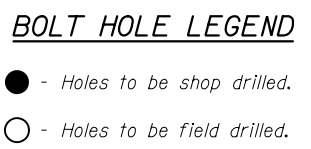
BEAM END REPAIRS
SN 025-0042

SHEET NO. 8 OF 20 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(25-6,7)RS-2	EFFINGHAM	63	57
CONTRACT NO. 74638			ILLINOIS FED. AID PROJECT	



Note A:
 Bent PL 1/2" x 10 1/2" x 2'-8" (North side)
 L5x5x1/2 x 2'-8" with Fill PL 1/2" x 5" x 1'-2" (South side)

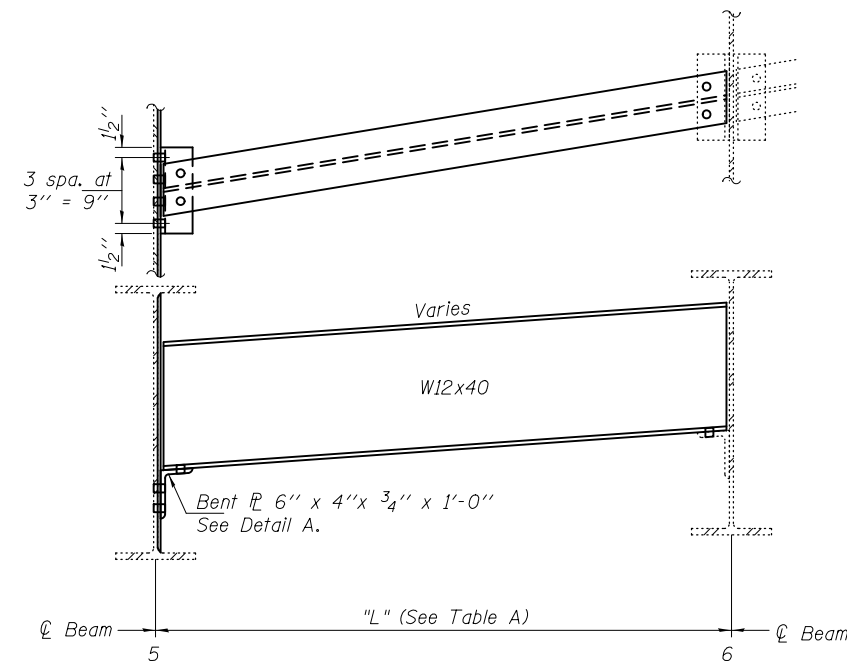


DESIGNED TLC	EXAMINED <i>Timothy A. [Signature]</i>	DATE OCTOBER 16, 2014
CHECKED ATH	PASSED <i>[Signature]</i>	REVISOR
DRAWN Steffen	ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISOR
CHECKED TLC ATH		

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

BEAM END REPAIRS
 SN 025-0042
 SHEET NO. 9 OF 20 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(25-6,7RS-2	EFFINGHAM	63	58
CONTRACT NO. 74638				
ILLINOIS FED. AID PROJECT				

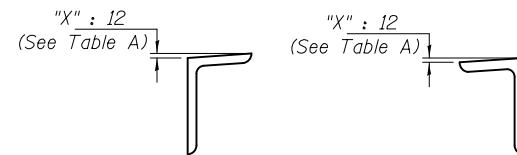


DIAPHRAGM REPLACEMENT DETAIL

West abutment (D2) & Pier 1, Span 1 (D3)

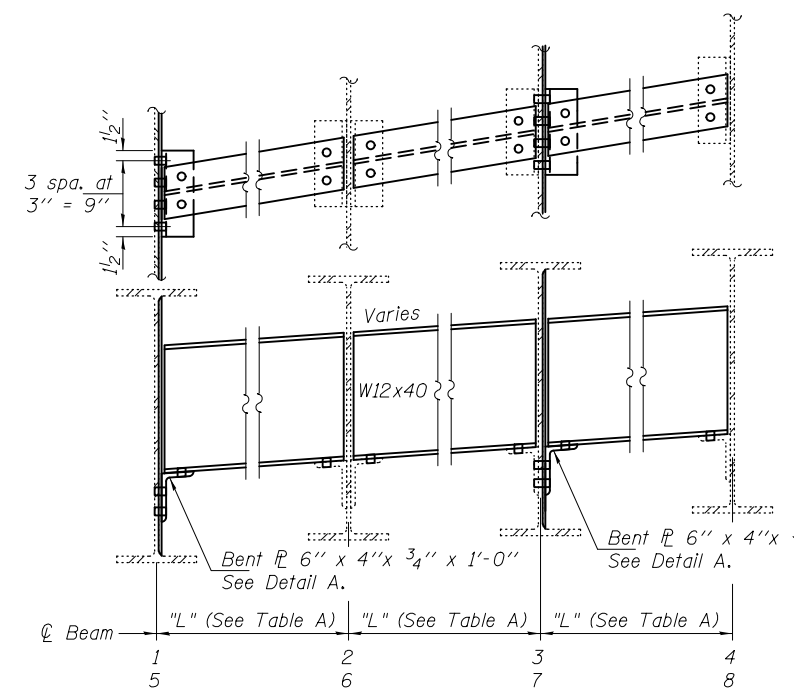
TABLE A

Diaphragm	L	X
D2	6'-6 ¹⁵ / ₁₆ "	1"
D3	6'-6 ¹⁵ / ₁₆ "	1"
D4	6'-2 ³ / ₈ "	1"
D5	6'-1 ³ / ₁₆ "	1"
D6	6'-5 ⁹ / ₁₆ "	1"
D8	6'-5 ⁹ / ₁₆ "	0
D9	6'-6"	0
D11	6'-1 ³ / ₄ "	1/2"
D12	6'-6"	9/16"
D13	6'-7 ¹ / ₈ "	1 ³ / ₈ "
D15	6'-7 ¹ / ₈ "	1 ³ / ₈ "
D16	6'-3 ¹ / ₈ "	1 ³ / ₈ "



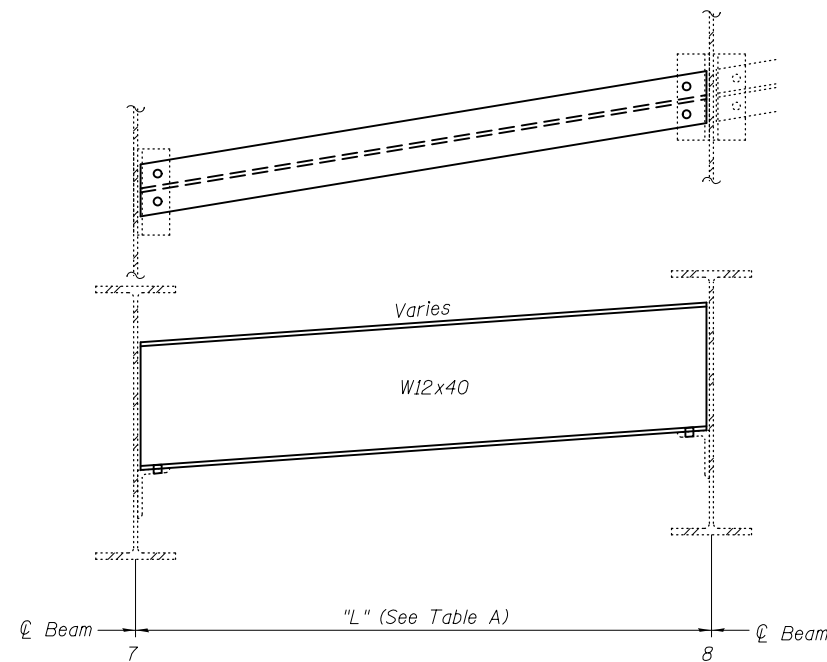
DETAIL A

Notes:
 All views are looking East.
 All dimensions are typical except as noted.
 Some beam end repairs not shown for clarity.
 For beam end repairs, see sheets 8 & 9 of 20.
 Field drill all holes for diaphragm locations to match existing.



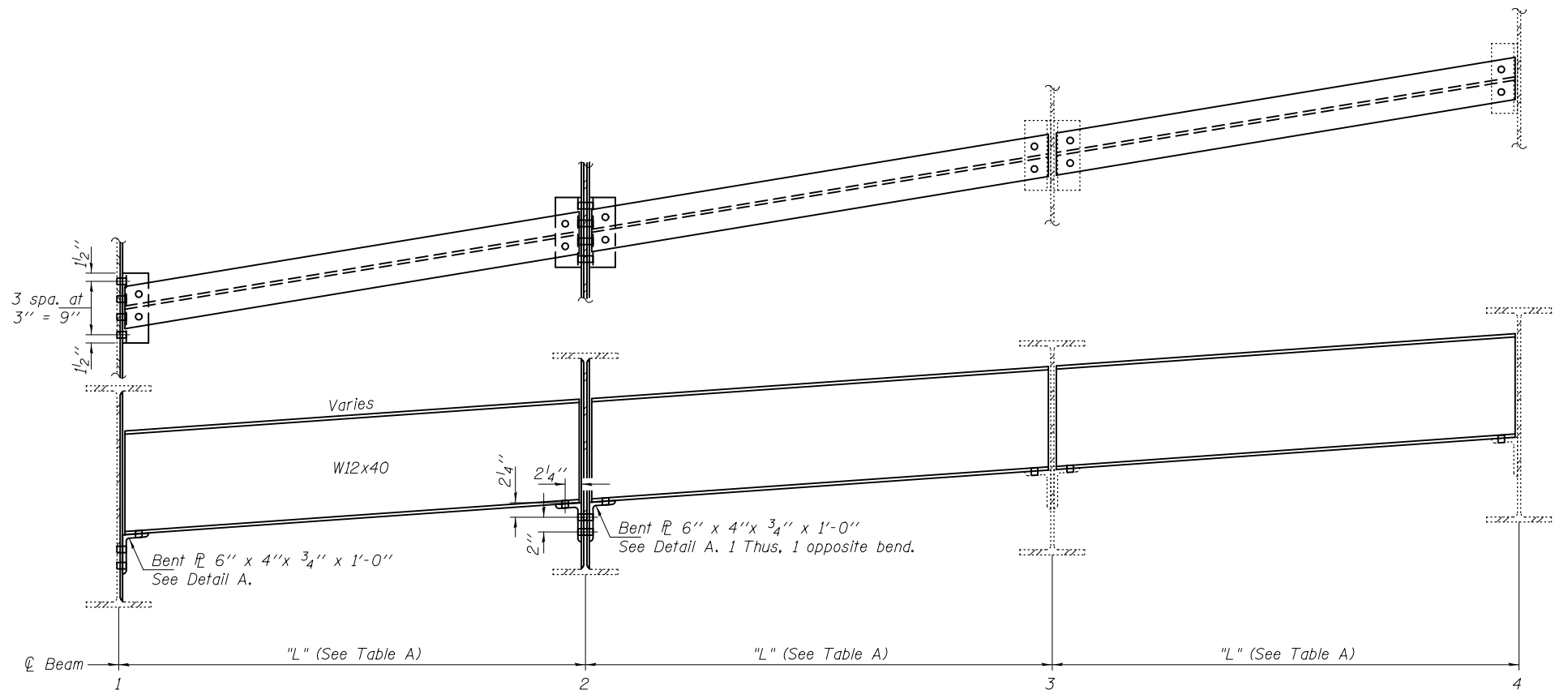
DIAPHRAGM REPLACEMENT DETAIL

Pier 1, Span 2 (D5 Beams 1 thru 4) (D6 Beams 5 thru 8)



DIAPHRAGM REPLACEMENT DETAIL

West abutment (D2)



DIAPHRAGM REPLACEMENT DETAIL

Pier 1, Span 1 (D4)

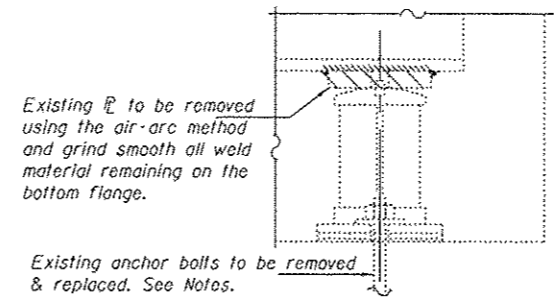
DESIGNED TLC	EXAMINED <i>Timothy A. [Signature]</i>	DATE OCTOBER 16, 2014
CHECKED ATH	PASSED <i>[Signature]</i>	REVISIONS
DRAWN Steffen/baliva	ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISIONS
CHECKED TLC ATH	ACTING ENGINEER OF STRUCTURAL SERVICES	

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

DIAPHRAGM REPLACEMENT DETAILS
 SN 025-0042

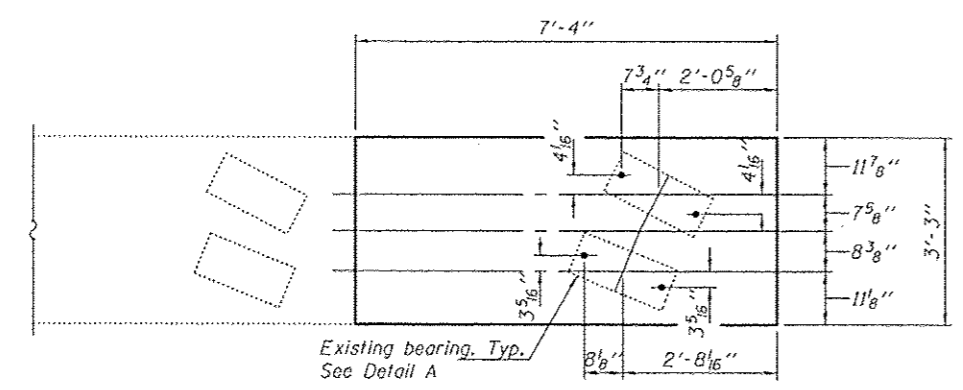
SHEET NO. 10 OF 20 SHEETS

F.A.I. RTE. 57	SECTION (25-6,7)RS-2	COUNTY EFFINGHAM	TOTAL SHEETS 63	SHEET NO. 58A
CONTRACT NO. 74638			ILLINOIS FED. AID PROJECT	

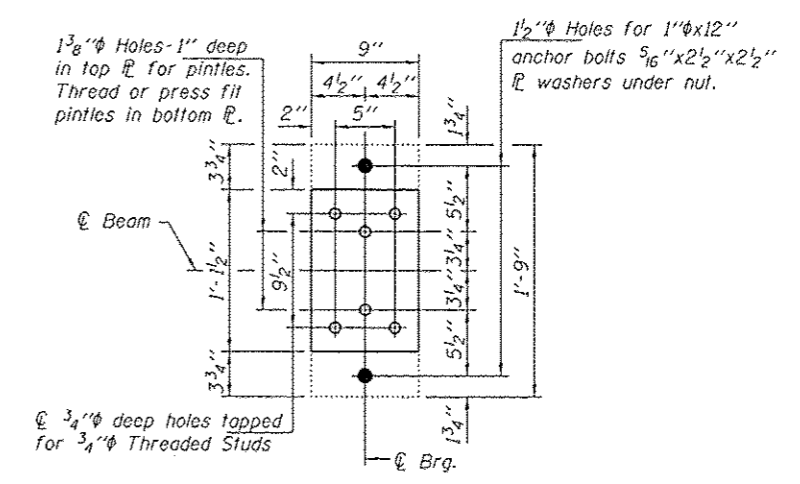


TOP PLATE REMOVAL DETAIL
Cost Included with Concrete Removal.

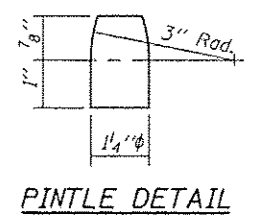
Notes:
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
Anchor bolts to be installed in holes drilled after the bearing is in place.
Anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.



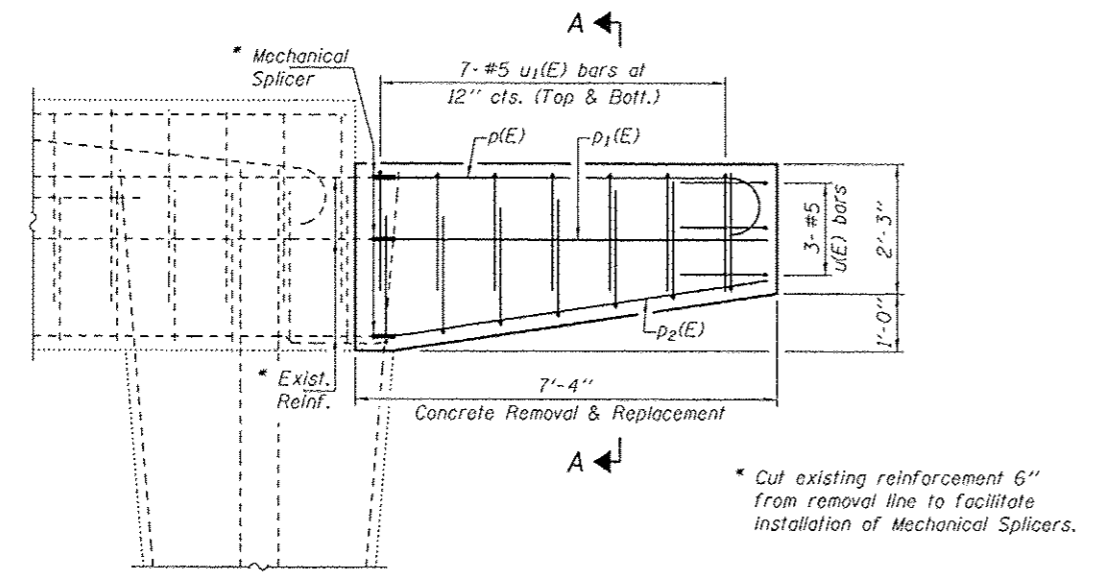
PIER 1 REPAIR PLAN



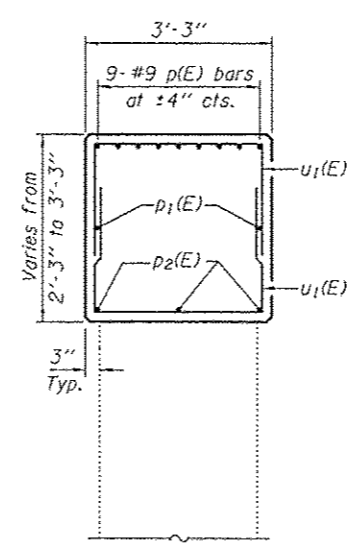
DETAIL A
Cost included with Structural Steel Repair.



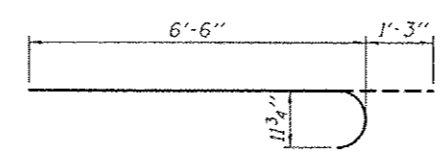
PINTLE DETAIL



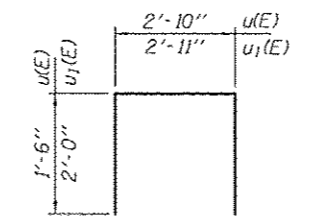
PIER 1 REPAIR DETAIL



SECTION A-A



BAR p(E)

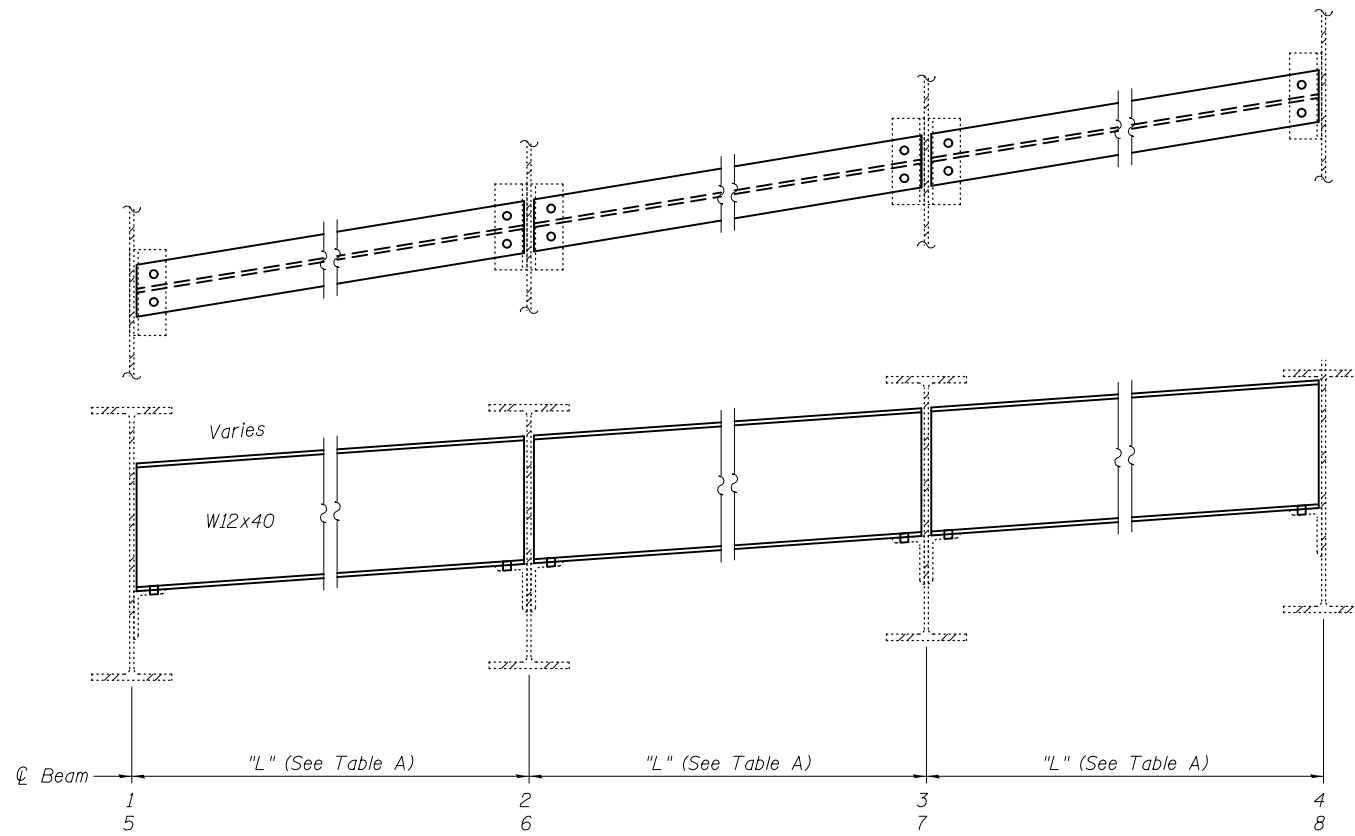


BARS u(E) & u1(E)

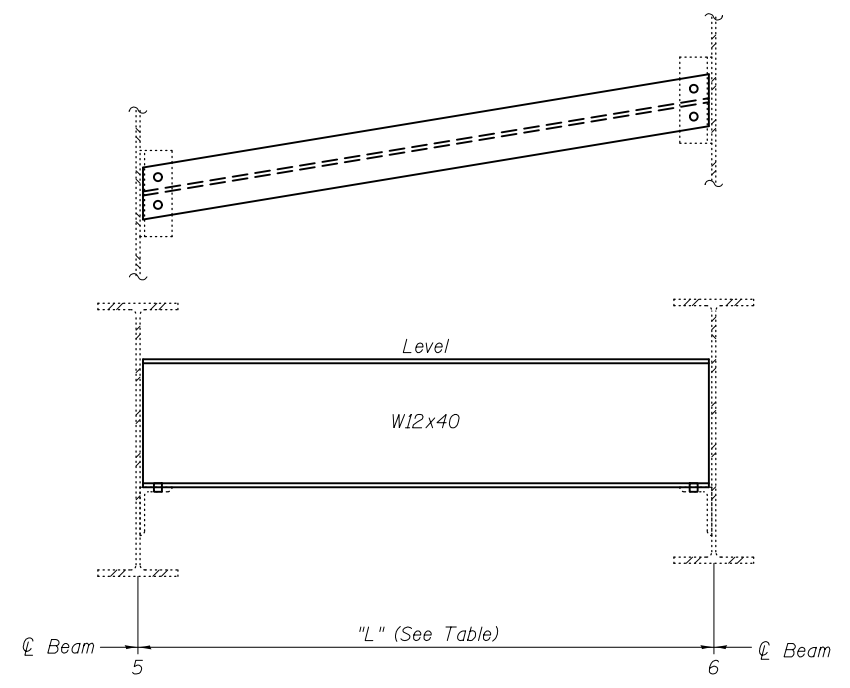
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
p(E)	9	#9	7'-9"	—
p1(E)	2	#5	6'-8"	—
p2(E)	3	#5	6'-8"	—
u(E)	3	#5	5'-10"	□
u1(E)	14	#6	6'-11"	□
Concrete Removal			Cu. Yd.	2.2
Concrete Structures			Cu. Yd.	2.2
Mechanical Splicers			Each	14
Reinforcement Bars, Epoxy Coated			Pounds	400

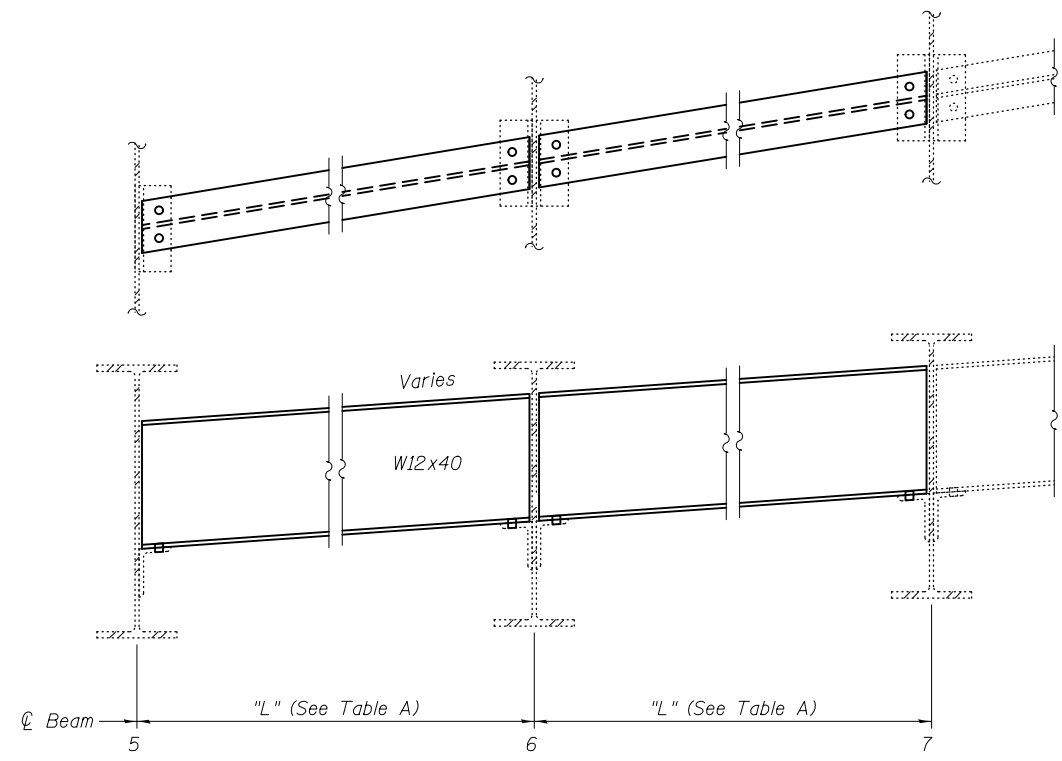
For additional pier repairs, see sheet 12 & 16 of 20.



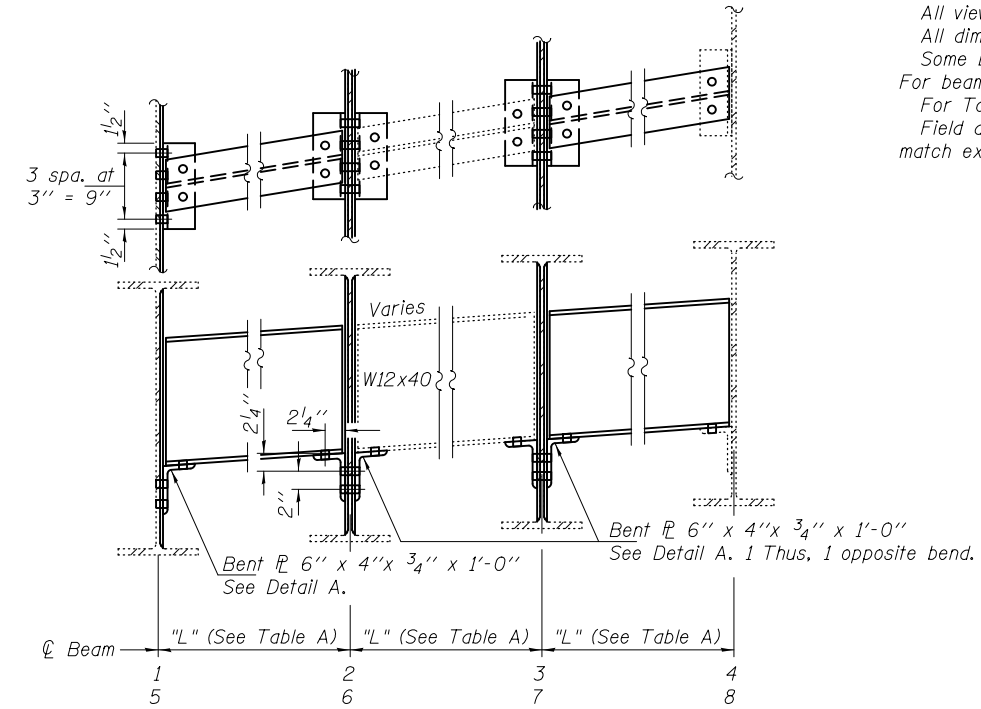
DIAPHRAGM REPLACEMENT DETAIL
Pier 3, Span 2 (D11 Beams 1 thru 4) (D12 Beams 5 thru 8)



DIAPHRAGM REPLACEMENT DETAIL
Pier 2 (D8 Span 2) (D9 Span 3)



DIAPHRAGM REPLACEMENT DETAIL
Pier 3, Span 3 (D13)



DIAPHRAGM REPLACEMENT DETAIL
East Abutment (D16 Beams 1 thru 4) (D15 Beams 5 thru 8)

Notes:
All views are looking East.
All dimensions are typical except as noted.
Some beam end repairs not shown for clarity.
For beam end repairs, see sheets 8 & 9 of 20.
For Table A & Detail A, see sheet 10 of 20.
Field drill all holes for diaphragm locations to match existing.

DESIGNED <i>TLC</i>	EXAMINED <i>Timothy A. [Signature]</i>	DATE <i>OCTOBER 16, 2014</i>
CHECKED <i>ATH</i>	PASSED <i>[Signature]</i>	REVISOR
DRAWN <i>Steffen / baliva</i>	ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISOR
CHECKED <i>TLC ATH</i>		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

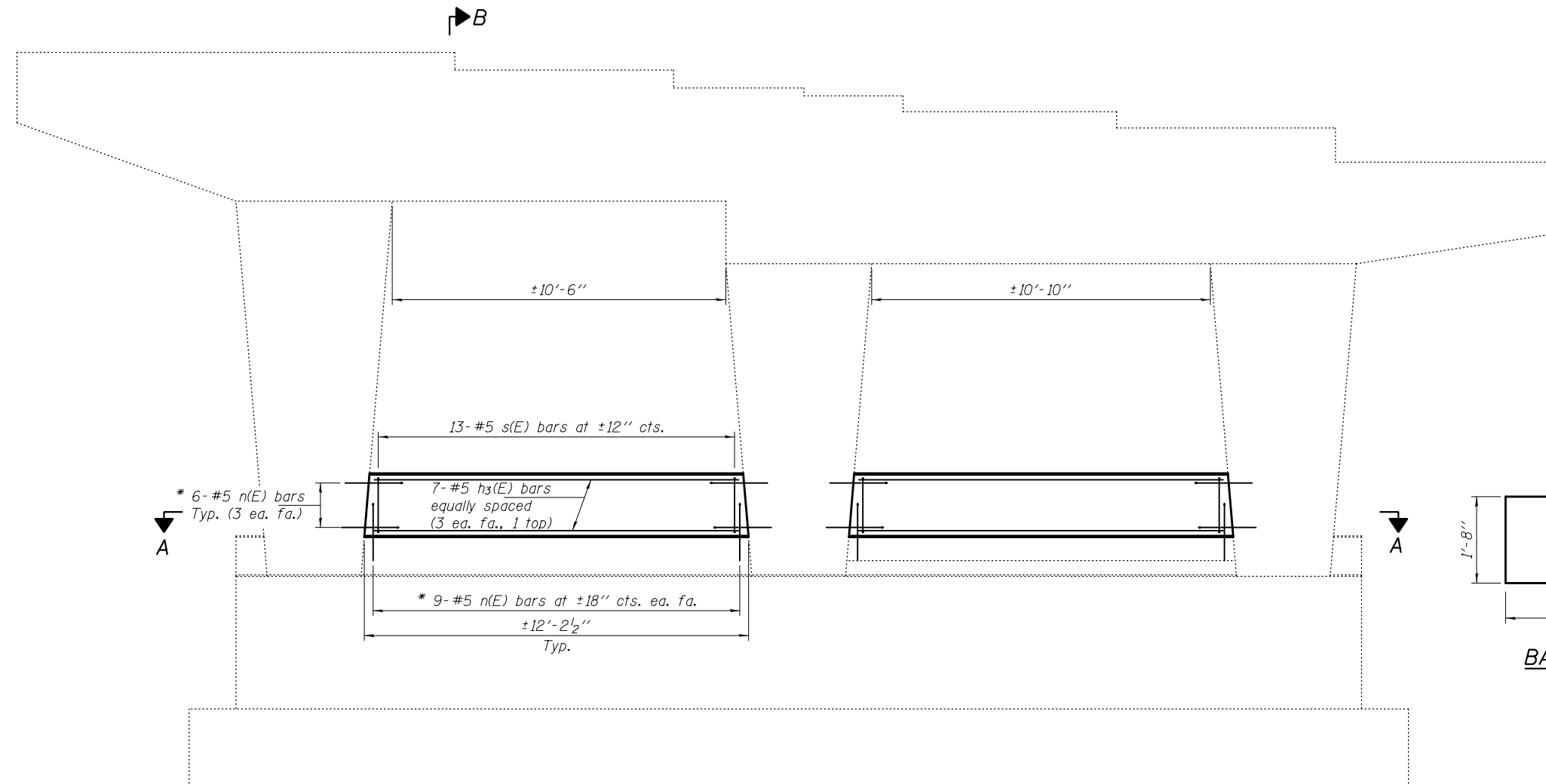
DIAPHRAGM REPLACEMENT DETAILS
SN 025-0042

SHEET NO. 11 OF 20 SHEETS

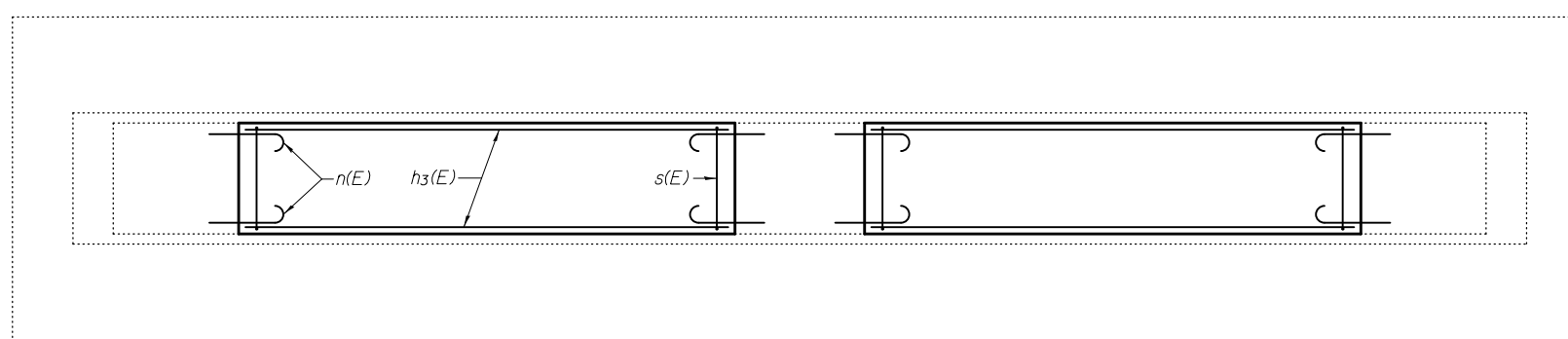
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(25-6,7)RS-2	EFFINGHAM	63	58B
CONTRACT NO. 74638			ILLINOIS FED. AID PROJECT	

NOTES

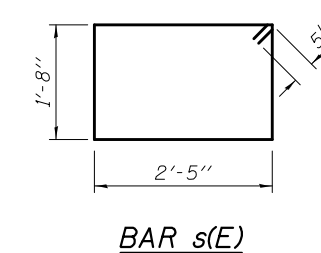
The cost of epoxy grouting threaded rods shall be included with Reinforcement Bars, Epoxy Coated.



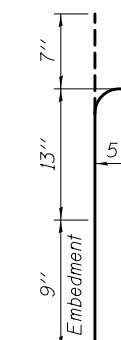
ELEVATION



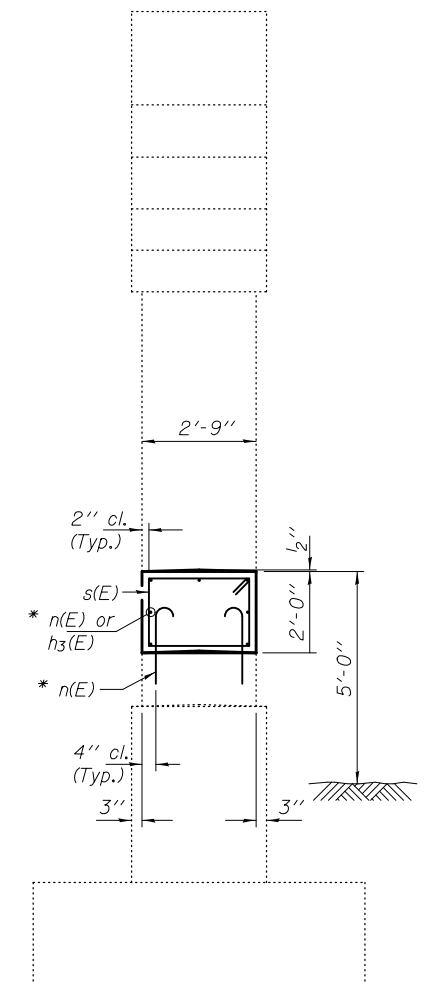
SECTION A-A



BAR s(E)



BAR n(E)



SECTION B-B

* Epoxy grout n(E) bars in 9" min. holes according to Article 584 of the Standard Specifications.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h3(E)	14	#5	11'-8"	—
n(E)	60	#5	2'-5"	⌒
s(E)	26	#5	9'-1"	□
Concrete Structures			Cu. Yd.	4.9
Reinforcement Bars, Epoxy Coated			Pound	570

For additional pier repairs, see sheets 15 & 16 of 20.

DESIGNED <i>TLC</i>	EXAMINED <i>Timothy A. [Signature]</i>	DATE <i>OCTOBER 16, 2014</i>
CHECKED <i>ATH</i>	PASSED <i>[Signature]</i>	REVISIONS
DRAWN <i>Steffen/baliva</i>	ACTING ENGINEER OF BRIDGES AND STRUCTURES	
CHECKED <i>TLC ATH</i>		

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PIER 1 CRASHWALL EXTENSION
SN 025-0042**

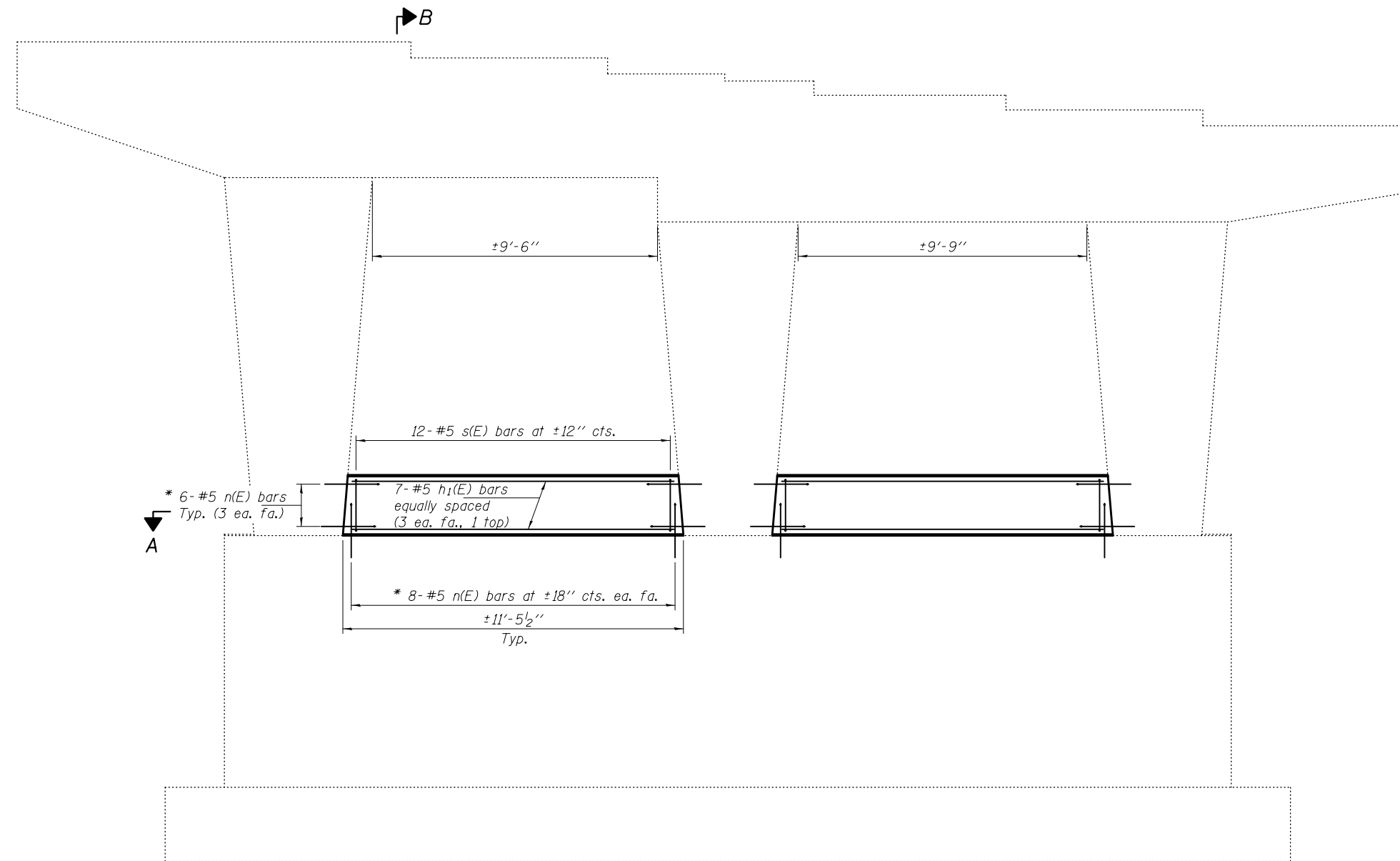
SHEET NO. 12 OF 20 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(25-6,7)RS-2	EFFINGHAM	63	58C
CONTRACT NO. 74638				

ILLINOIS FED. AID PROJECT

NOTES

The cost of epoxy grouting threaded rods shall be included with Reinforcement Bars, Epoxy Coated.



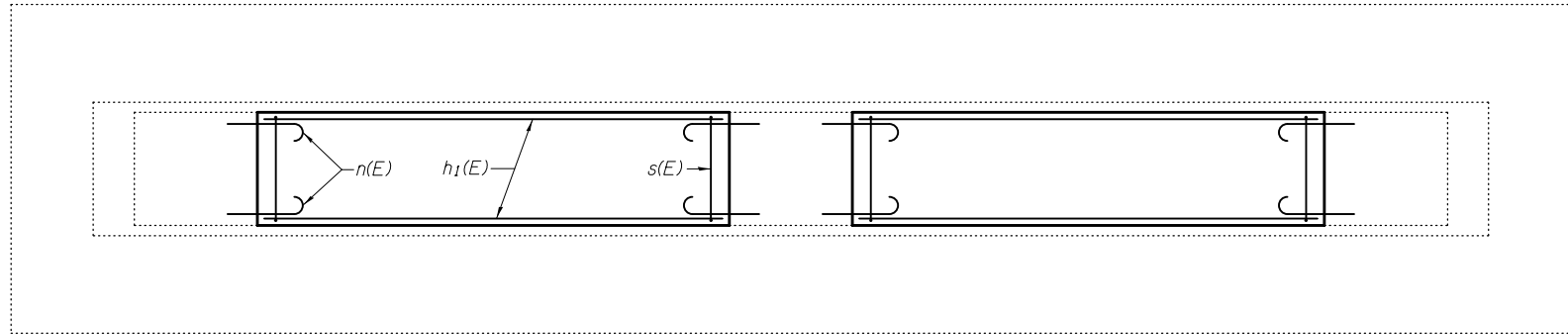
* 6-#5 n(E) bars
Typ. (3 ea. fa.)

7-#5 h₁(E) bars
equally spaced
(3 ea. fa., 1 top)

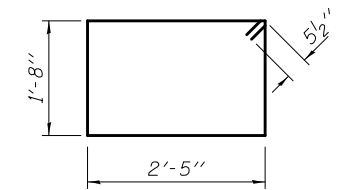
* 8-#5 n(E) bars at ±18" cts. ea. fa.
±11'-5 1/2"
Typ.

B

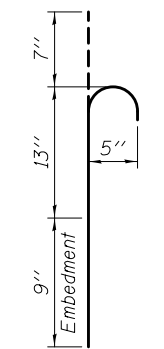
ELEVATION



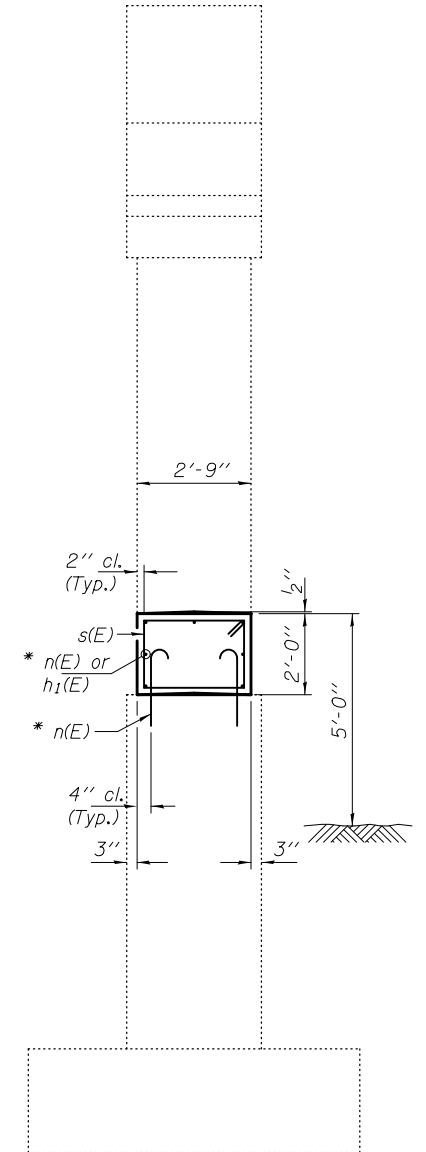
SECTION A-A



BAR s(E)



BAR n(E)



SECTION B-B

* Epoxy grout n(E) bars in 9" min. holes according to Article 584 of the Standard Specifications.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h ₁ (E)	14	#5	10'-10"	—
n(E)	56	#5	2'-5"	⌒
s(E)	24	#5	9'-1"	□
Concrete Structures			Cu. Yd.	4.6
Reinforcement Bars, Epoxy Coated			Pound	530

For additional pier repairs, see sheet 17 of 20.

DESIGNED <i>TLC</i>	EXAMINED <i>Timothy A. ...</i>	DATE <i>OCTOBER 16, 2014</i>
CHECKED <i>ATH</i>	PASSED <i>...</i>	REVISED
DRAWN <i>Steffen / baliva</i>	ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED
CHECKED <i>TLC ATH</i>		

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

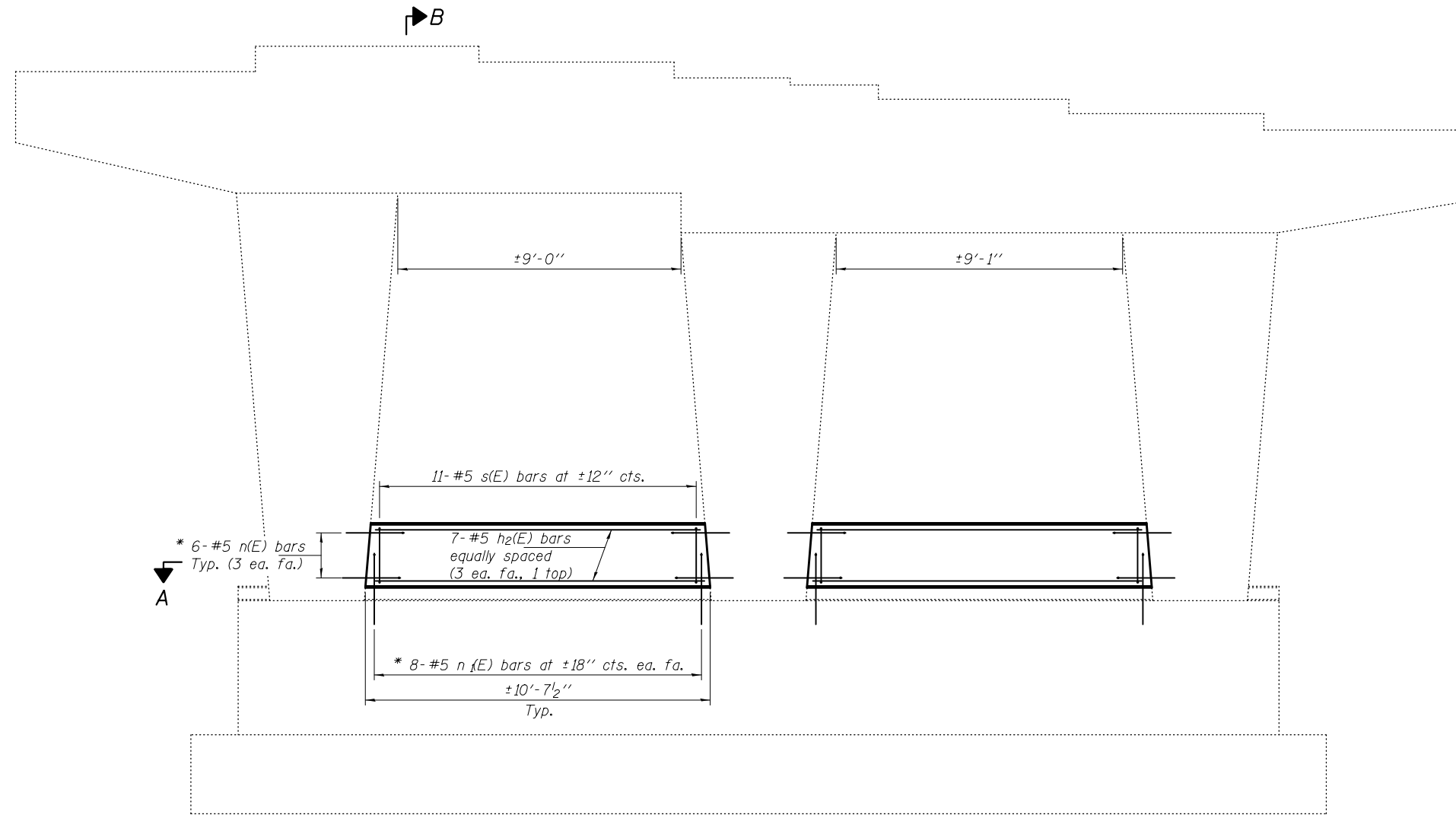
**PIER 2 CRASHWALL EXTENSION
SN 025-0042**

SHEET NO. 13 OF 20 SHEETS

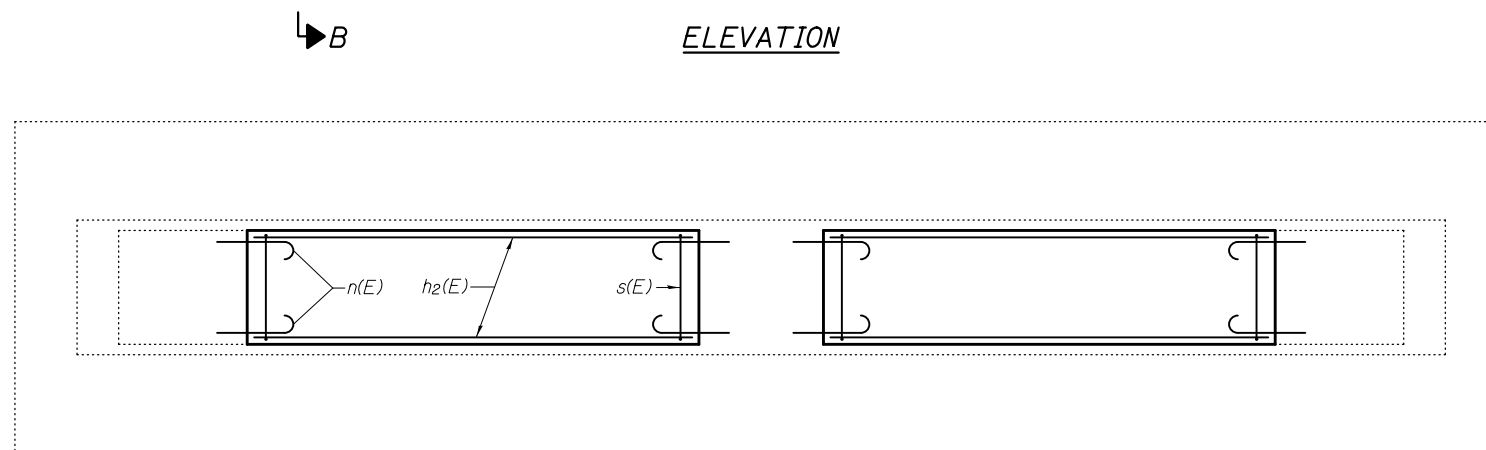
F.A.I. RTE. 57	SECTION (25-6,7)RS-2	COUNTY EFFINGHAM	TOTAL SHEETS 63	SHEET NO. 58D
CONTRACT NO. 74638			ILLINOIS FED. AID PROJECT	

NOTES

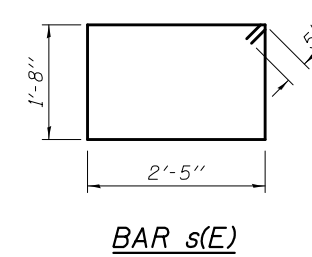
The cost of epoxy grouting threaded rods shall be included with Reinforcement Bars, Epoxy Coated.



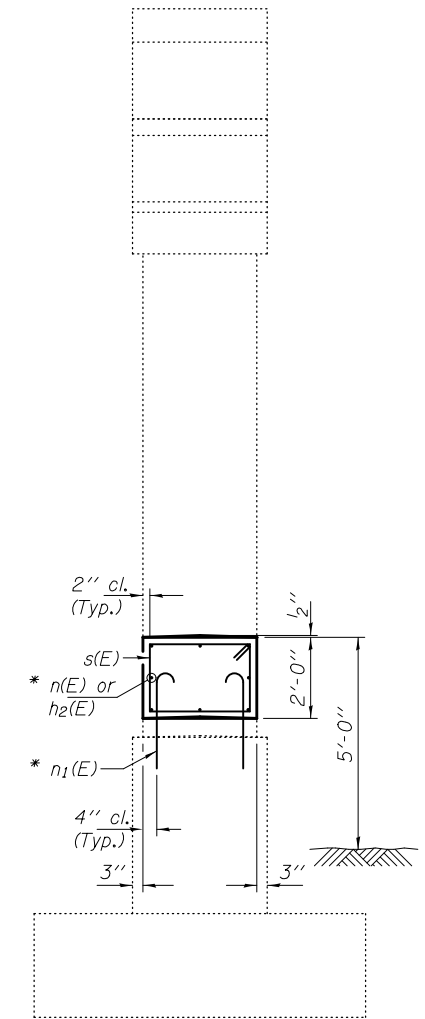
ELEVATION



SECTION A-A



BAR s(E)

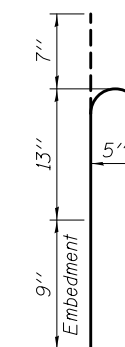


SECTION B-B

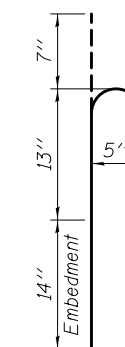
* Epoxy grout n(E) & n1(E) bars in 9" min. holes according to Article 584 of the Standard Specifications.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h2(E)	14	#5	10'-3"	—
n(E)	24	#5	2'-5"	⌋
n1(E)	32	#5	2'-10"	⌋
s(E)	22	#5	9'-1"	□
Concrete Structures			Cu. Yd.	4.4
Reinforcement Bars, Epoxy Coated			Pound	510



BAR n(E)



BAR n1(E)

For additional pier repairs, see sheet 18 of 20.

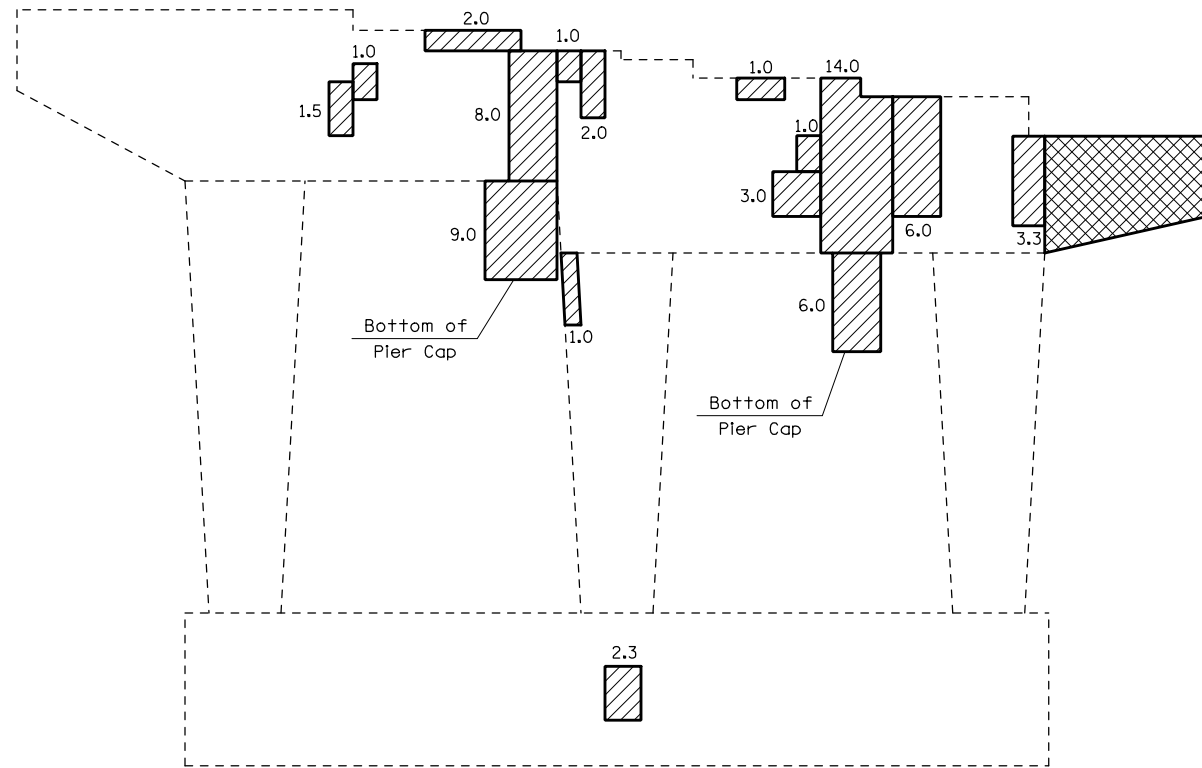
DESIGNED <i>TLC</i>	EXAMINED <i>Timothy A. [Signature]</i>	DATE <i>OCTOBER 16, 2014</i>
CHECKED <i>ATH</i>	PASSED <i>[Signature]</i>	REVISIONS
DRAWN <i>Steffen/baliva</i>	ACTING ENGINEER OF BRIDGES AND STRUCTURES	
CHECKED <i>TLC ATH</i>		

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PIER 3 CRASHWALL EXTENSION
SN 025-0042**

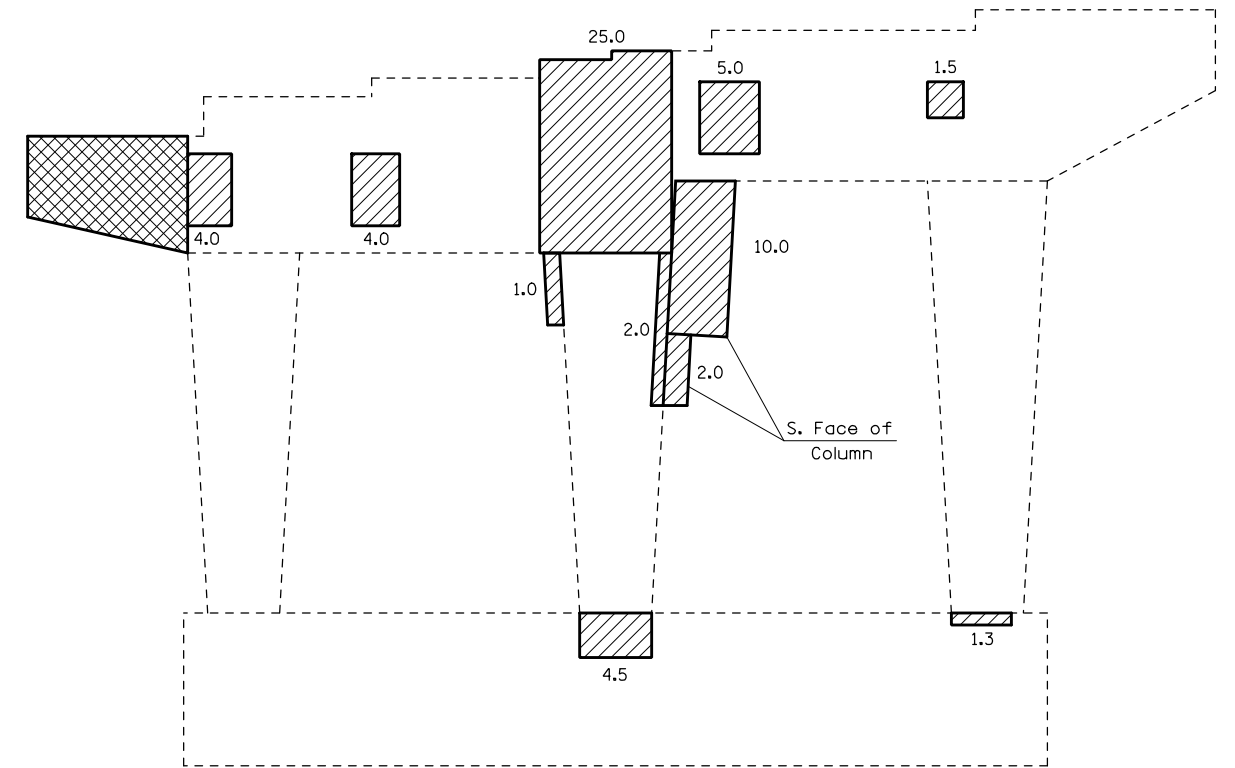
SHEET NO. 14 OF 20 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(25-6,7)RS-2	EFFINGHAM	63	58E
CONTRACT NO. 74638			ILLINOIS FED. AID PROJECT	



PIER #1 - EAST FACE

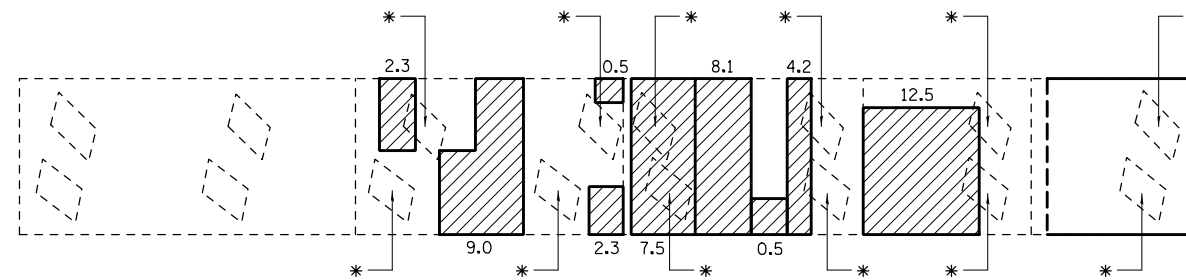
SN 025-0042



PIER #1 - WEST FACE

SN 025-0042

NOTE: All quantities in SQ. FT.



PIER #1 - TOP VIEW

SN 025-0042

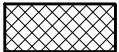

* Temporary Shoring and Cribbing required.

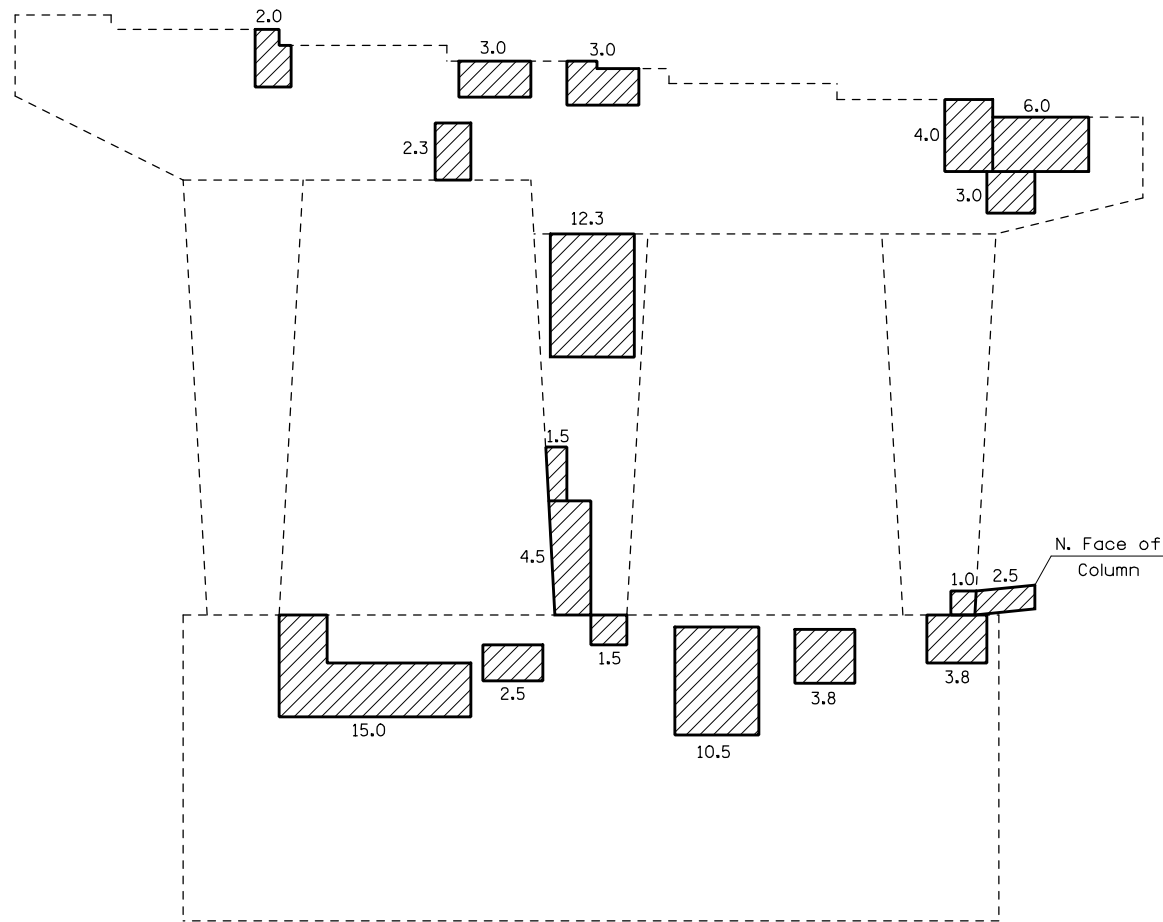
STRUCTURAL REPAIR OF CONCRETE (DEPTH ≤ 5")
TOTAL PIER 1 = 169.3 SQ FT

REACTION TABLE AT TEMPORARY SHORING		
	Span 1	Span 2
Q (k)	27.2	44.9
L (k)	34.6	37.4
Imp. (k)	10.0	9.3
Total (k)	71.8	91.6

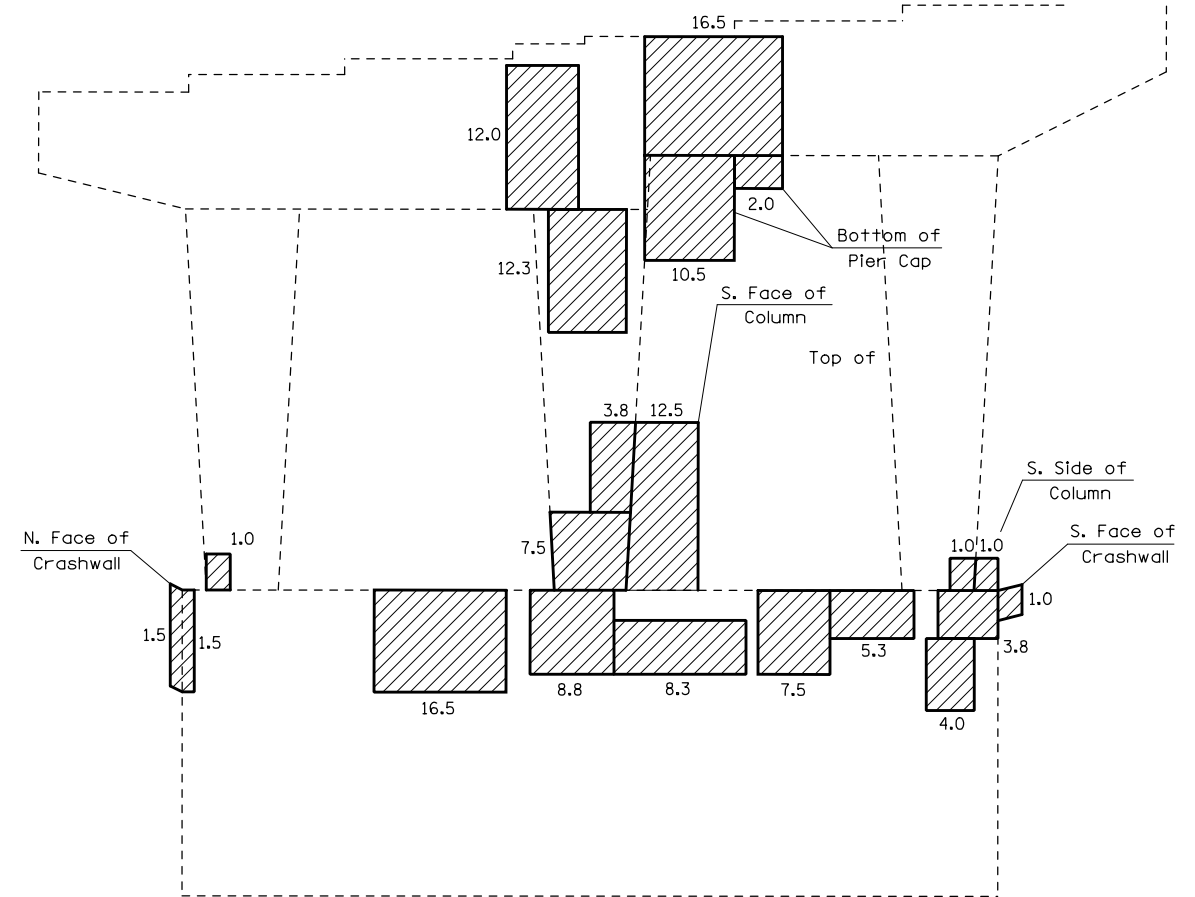
SEE SHEETS 12 & 15 OF 20
 FOR ADDITIONAL REPAIR DETAILS

NOTE: QUANTITIES ARE ESTIMATED. ACTUAL QUANTITIES TO BE DETERMINED BY THE RESIDENT ENGINEER.

 Concrete Removal and Replacement
 Structural Repair of Concrete (Depth ≤ 5")

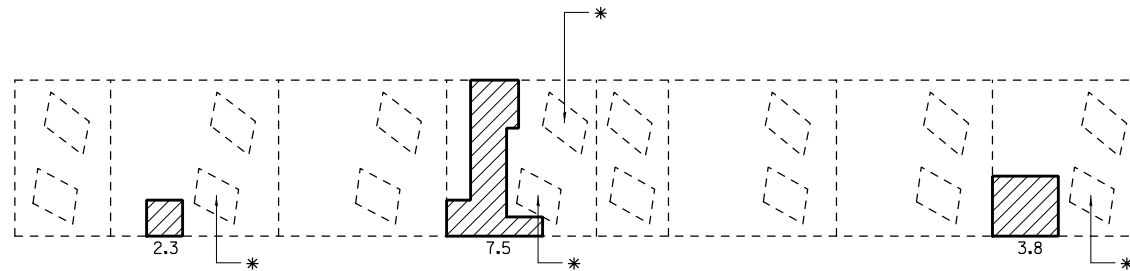


PIER #2 - EAST FACE
SN 025-0042



PIER #2 - WEST FACE
SN 025-0042

NOTE: All quantities in SQ. FT.



PIER #2 - TOP VIEW
SN 025-0042

• Temporary Shoring and Cribbing required.

REACTION TABLE AT TEMPORARY SHORING	
Q (k)	44.9
L (k)	37.4
Imp. (k)	9.3
Total (k)	91.6

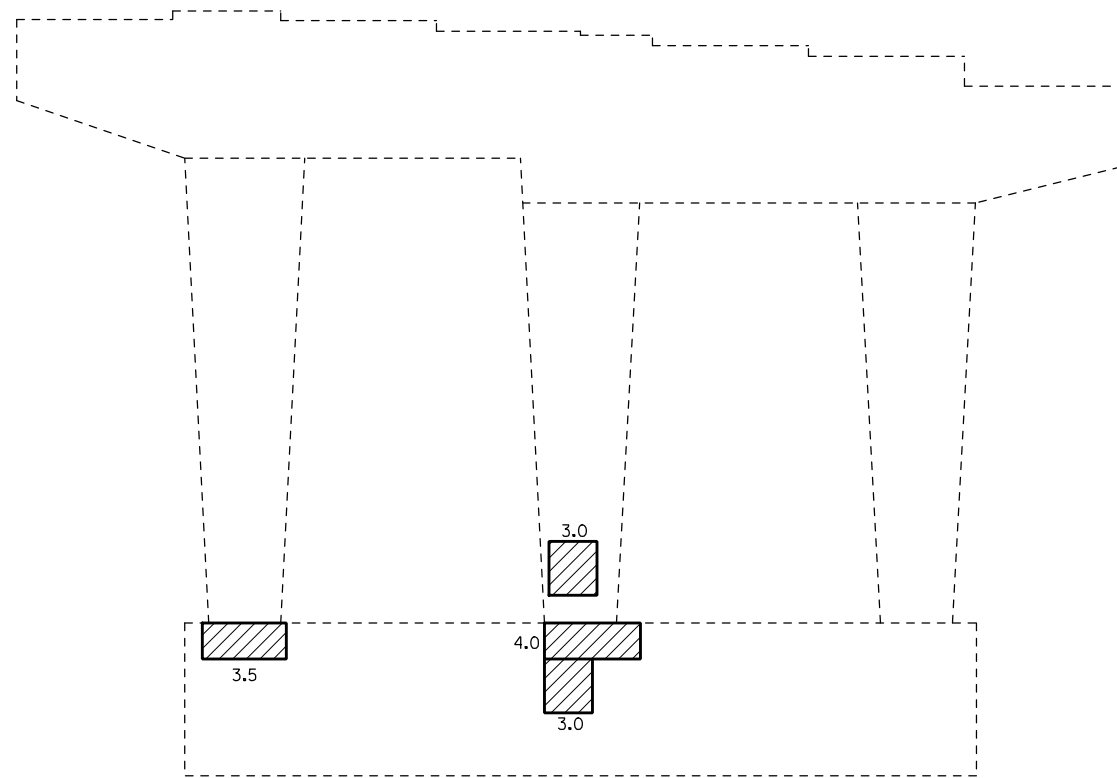
STRUCTURAL REPAIR OF CONCRETE (DEPTH \leq 5")
TOTAL PIER 2 = 234.1 SQ FT

NOTE: QUANTITIES ARE ESTIMATED. ACTUAL QUANTITIES TO BE DETERMINED BY THE RESIDENT ENGINEER.

SEE SHEET 13 OF 20 FOR ADDITIONAL REPAIR DETAILS

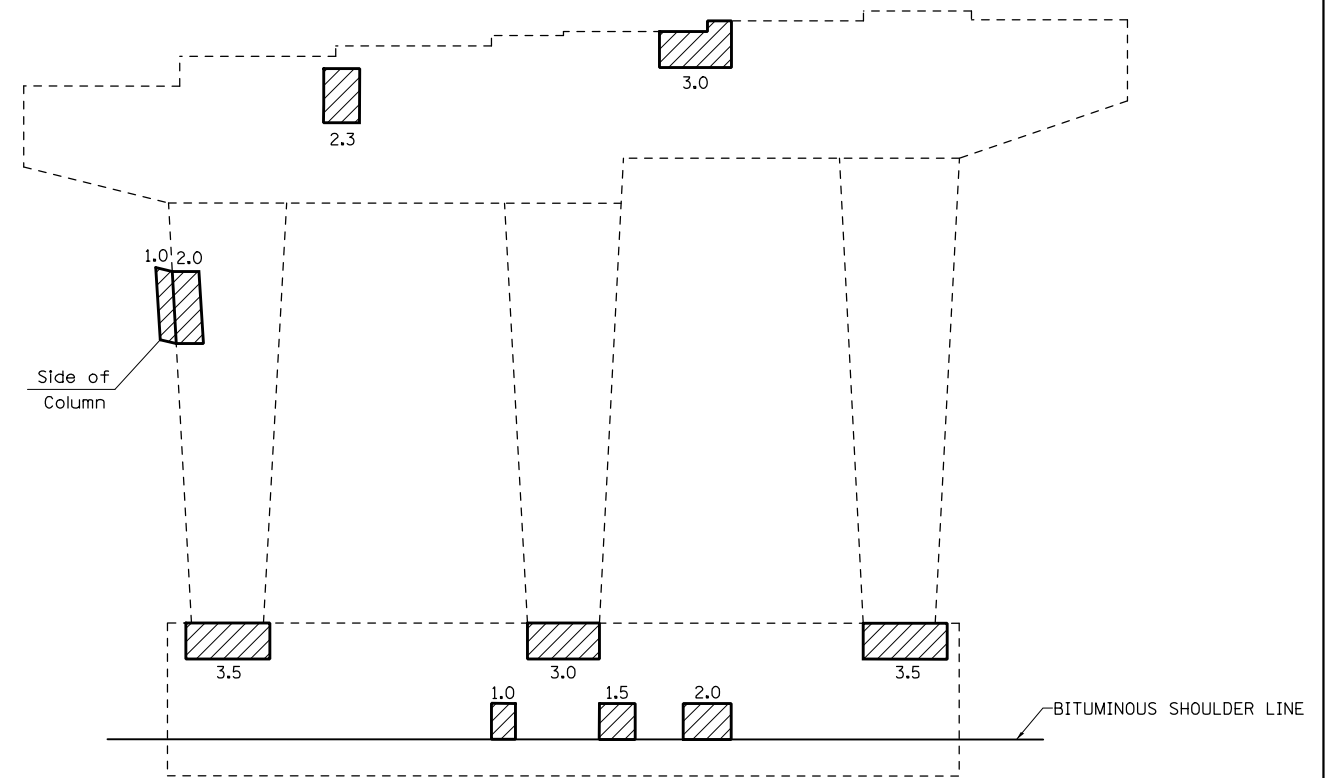
 Structural Repair of Concrete (Depth \leq 5")

FILE NAME =	USER NAME = #USER*	DESIGNED - MEA	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STRUCTURAL REPAIR OF CONCRETE \leq 5"			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
#FILEL#		DRAWN - CKT	REVISED -		SN 025-0042			57	(25-6, 7)RS-2	EFFINGHAM	63	58H
#MODELNAME#		CHECKED - MEA	REVISED -		SCALE: SHEET NO. 17 OF 20 SHEETS STA. TO STA.			CONTRACT NO. 74638				
		DATE - 10/16/2014	REVISED -		ILLINOIS FED. AID PROJECT							



PIER #3 - EAST FACE

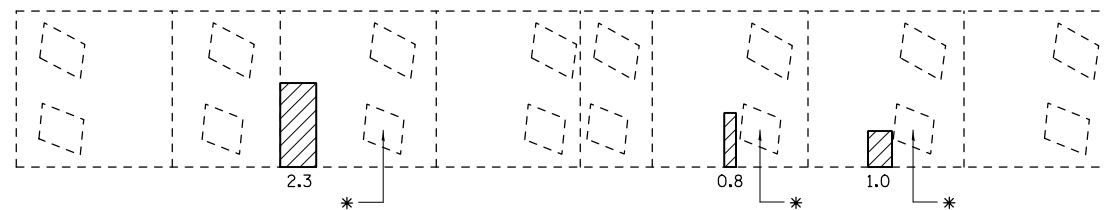
SN 025-0042



PIER #3 - WEST FACE

SN 025-0042

NOTE: All quantities in SQ. FT.



PIER #3 - TOP VIEW

SN 025-0042

• Temporary Shoring and Cribbing required.

REACTION TABLE AT TEMPORARY SHORING		
	Span 3	Span 4
Q	(k) 44.9	27.2
L	(k) 37.4	34.6
Imp.	(k) 9.3	10.0
Total	(k) 91.6	71.8

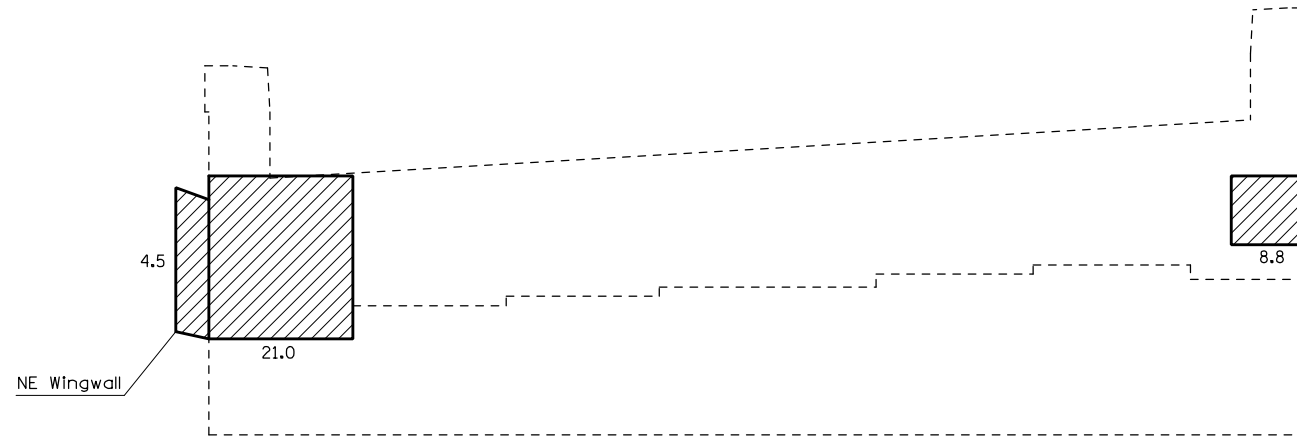
SEE SHEET 14 OF 20 FOR
ADDITIONAL REPAIR DETAILS

STRUCTURAL REPAIR OF CONCRETE (DEPTH \leq 5")
TOTAL PIER 3 = 40.4 SQ FT

NOTE: QUANTITIES ARE ESTIMATED. ACTUAL
QUANTITIES TO BE DETERMINED BY
THE RESIDENT ENGINEER.

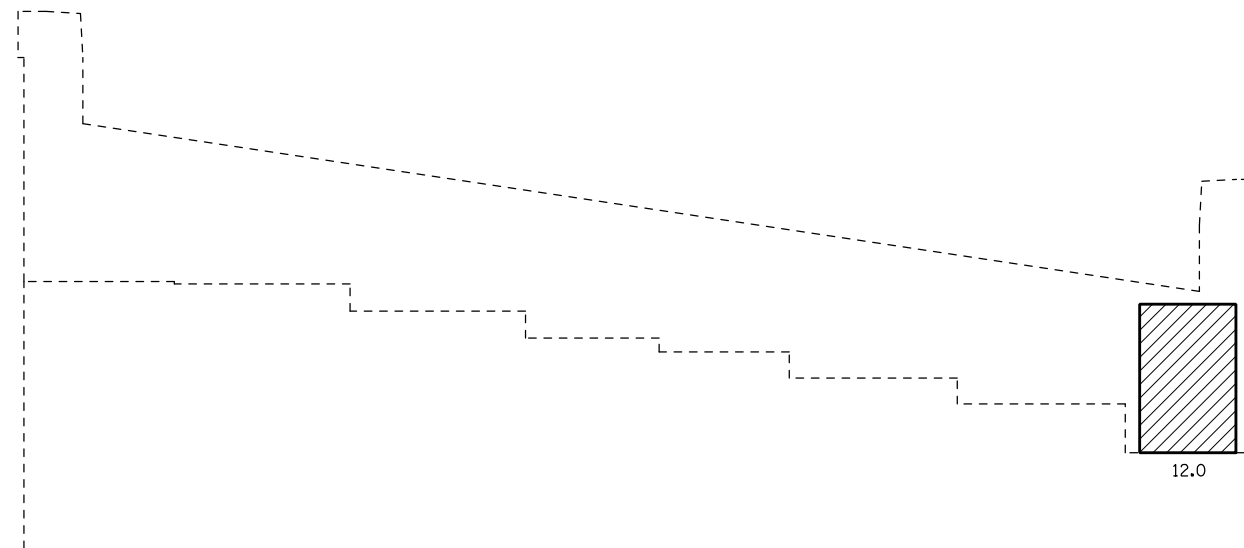
 Structural Repair of Concrete (Depth \leq 5")

FILE NAME = *FILEL*	USER NAME = *USER*	DESIGNED - MEA	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STRUCTURAL REPAIR OF CONCRETE \leq 5"			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - CKT	REVISED -		SN 025-0042			57	(25-6, 7)RS-2	EFFINGHAM	63	581
		CHECKED - MEA	REVISED -		SCALE: SHEET NO. 18 OF 20 SHEETS STA. TO STA.			CONTRACT NO. 74638				
		DATE - 10/16/2014	REVISED -		ILLINOIS FED. AID PROJECT							



EAST ABUTMENT

NOTE: All quantities in SQ. FT.



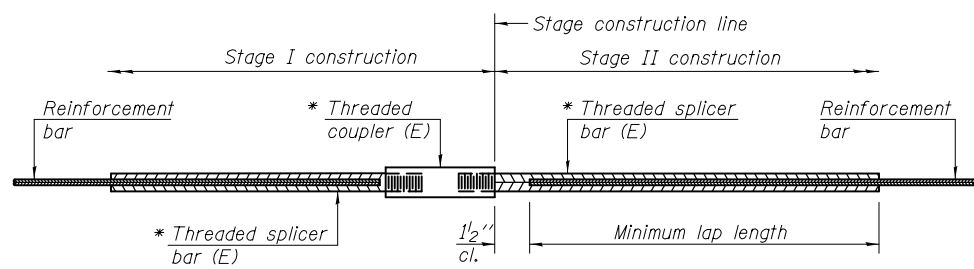
WEST ABUTMENT

STRUCTURAL REPAIR OF CONCRETE (DEPTH ≤ 5")
TOTAL ABUTMENTS = 46.3 SQ FT

NOTE: QUANTITIES ARE ESTIMATED. ACTUAL QUANTITIES TO BE DETERMINED BY THE RESIDENT ENGINEER.

 Structural Repair of Concrete (Depth ≤ 5")

FILE NAME =	USER NAME = \$USER*	DESIGNED - MEA	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STRUCTURAL REPAIR OF CONCRETE ≤ 5"			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FILEL		DRAWN - CKT	REVISED -		SN 025-0042			57	(25-6, 7)RS-2	EFFINGHAM	63	58J
MODELNAME		CHECKED - MEA	REVISED -					CONTRACT NO. 74638				
		DATE - 10/16/2014	REVISED -		SCALE:	SHEET NO. 19 OF 20 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT			



STANDARD BAR SPLICER ASSEMBLY

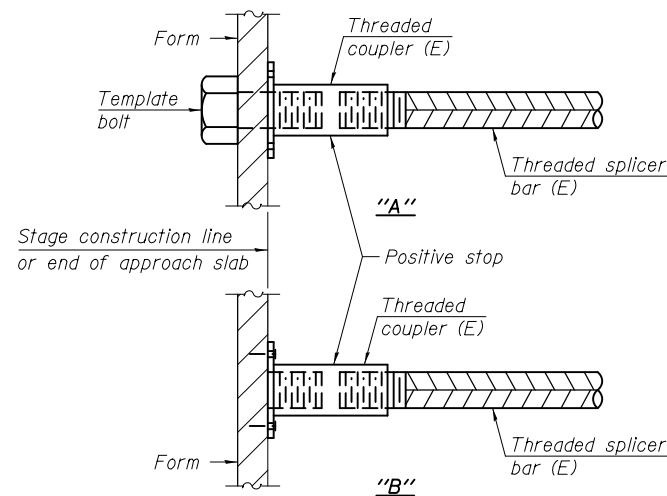
Minimum Lap Lengths						
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-7"	2'-11"
5	1'-9"	2'-5"	2'-7"	2'-11"	3'-3"	3'-8"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-10"	4'-5"
7	2'-9"	3'-10"	4'-2"	4'-8"	5'-2"	5'-10"
8	3'-8"	5'-1"	5'-5"	6'-2"	6'-9"	7'-8"
9	4'-7"	6'-5"	6'-10"	7'-9"	8'-7"	9'-8"

- Table 1: Black bar, 0.8 Class C
- Table 2: Black bar, Top bar lap, 0.8 Class C
- Table 3: Epoxy bar, 0.8 Class C
- Table 4: Epoxy bar, Top bar lap, 0.8 Class C
- Table 5: Epoxy bar, Class C
- Table 6: Epoxy bar, Top bar top, Class C

Threaded splicer bar length = min. lap length + 1/2" + thread length

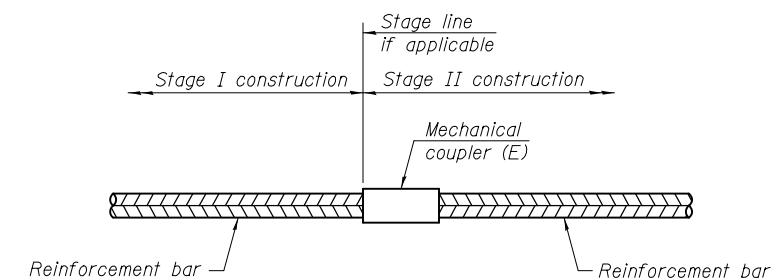
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length



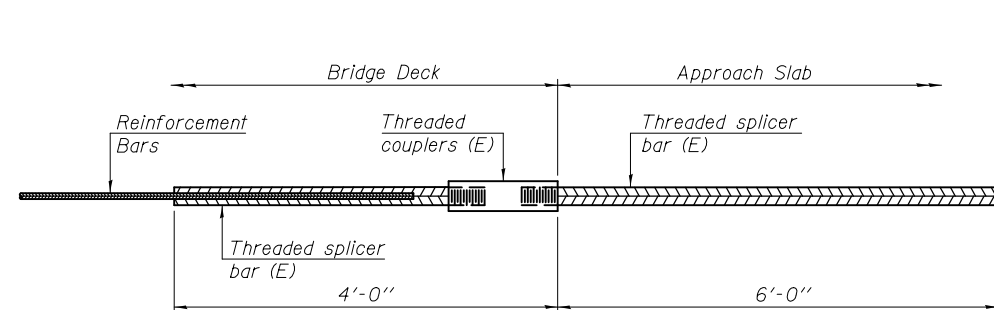
INSTALLATION AND SETTING METHODS

"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.



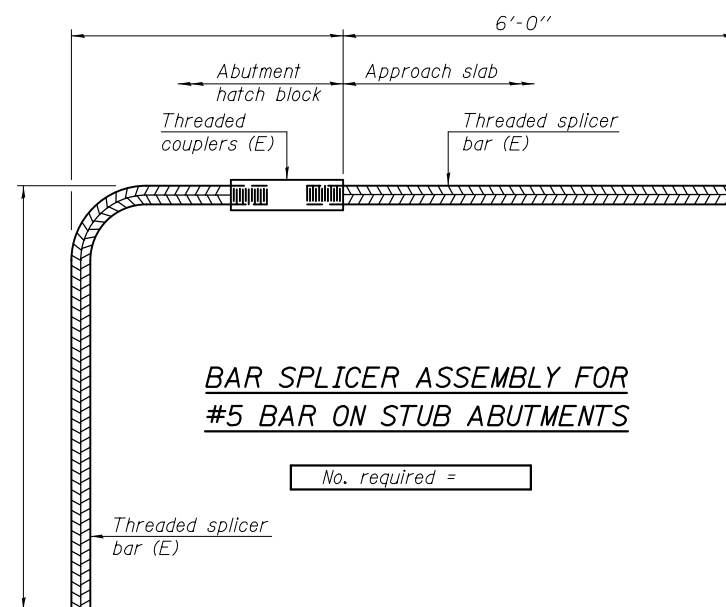
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required
Pier 1 cap	#9	9
Pier 1 cap	#5	5



BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

No. required =



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. 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 1-27-12

DESIGNED TLC	EXAMINED	DATE OCTOBER 16, 2014
CHECKED ATH	<i>Timothy A. ...</i>	ACTING ENGINEER OF STRUCTURAL SERVICES
DRAWN Steffen	PASSED	<i>Carl ...</i>
CHECKED TLC ATH	ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

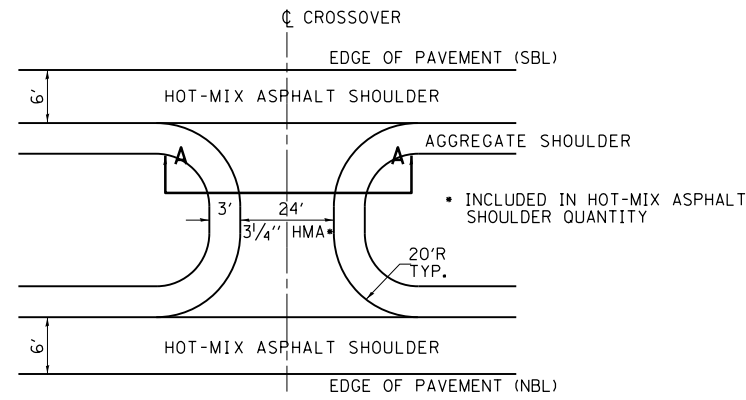
BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
SN 025-0042

SHEET NO. 20 OF 20 SHEETS

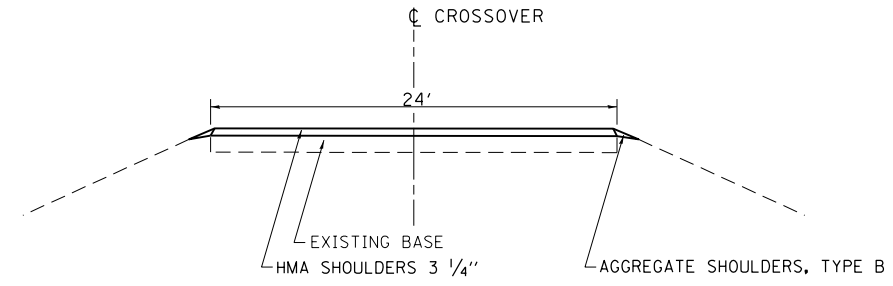
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(25-6.7)RS-2	EFFINGHAM	63	58K
ILLINOIS FED. AID PROJECT			CONTRACT NO. 74638	

DETAIL OF MEDIAN CROSSOVER

STATION 4698+10
 STATION 4810+15
 STATION 4941+90



DETAIL OF MEDIAN CROSSOVER



NOTE: ALL DRAWINGS NOT TO SCALE

FILE NAME =	USER NAME = steffenmk	DESIGNED -	REVISED -
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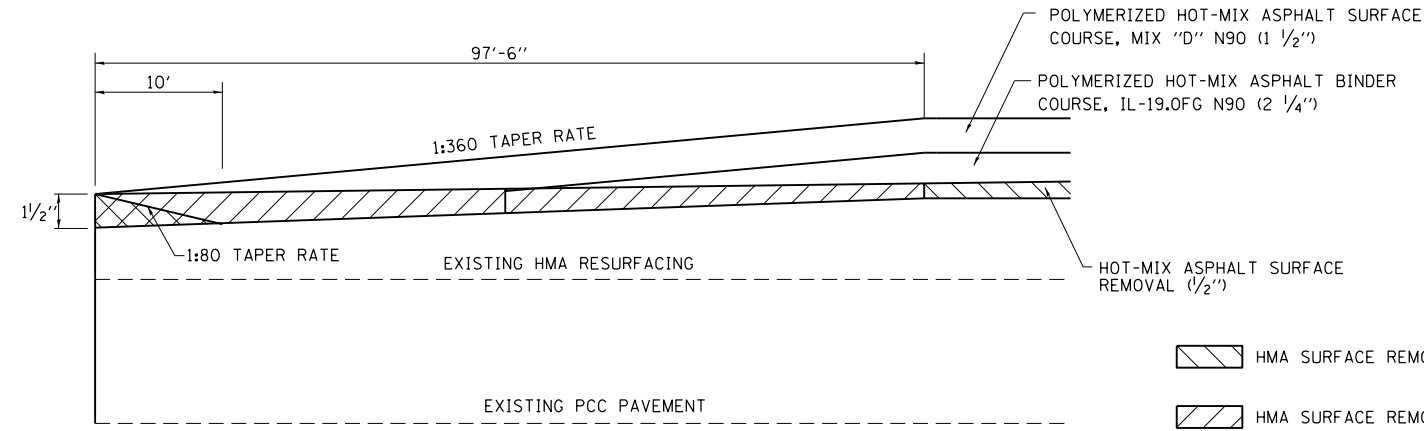
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

CROSSOVER DETAIL

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

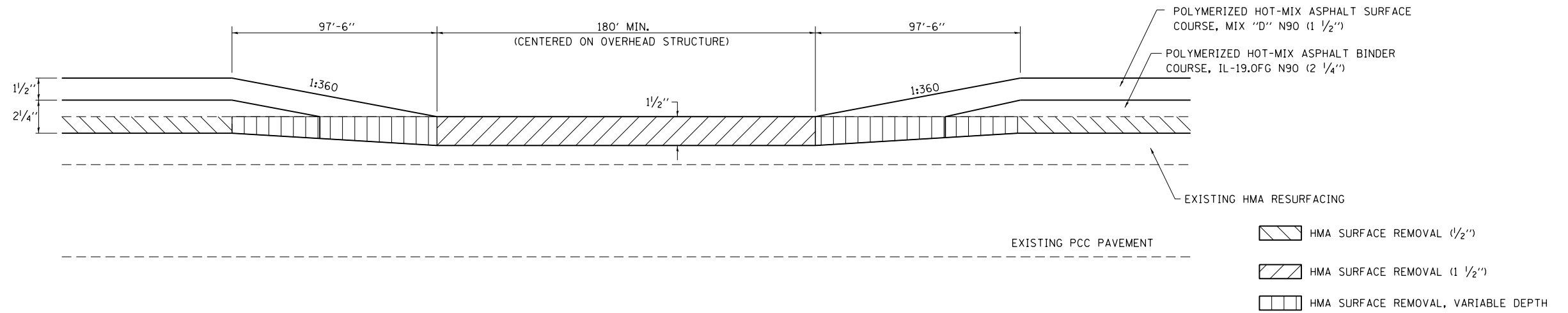
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(25-6,7)RS-2	EFFINGHAM	63	59
				CONTRACT NO. 74638
ILLINOIS FED. AID PROJECT				

BUTT JOINT DETAIL

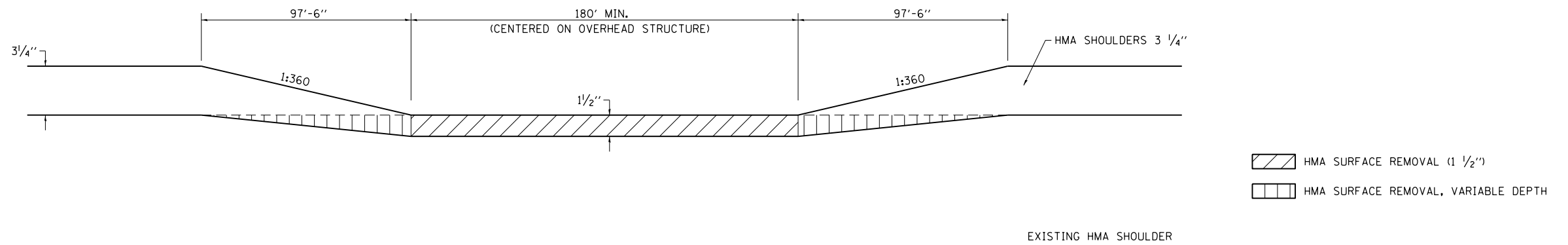


NOTE: USE THIS BUTT JOINT DETAIL FOR MILLING TRANSITION FROM HMA SURFACE REMOVAL 1/2" TO 1 1/2" AT ILL 37 SPUR CONNECTION/RAMP AB. NO TEMPORARY RAMP NEEDED.

DETAIL AT OVERHEAD STRUCTURES (MAINLINE) TO MAINTAIN CLEARANCE



DETAIL AT OVERHEAD STRUCTURES (SHOULDERS) TO MAINTAIN CLEARANCE



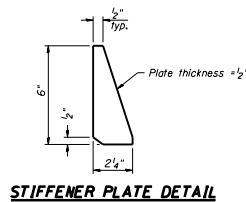
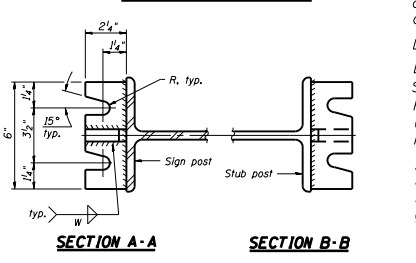
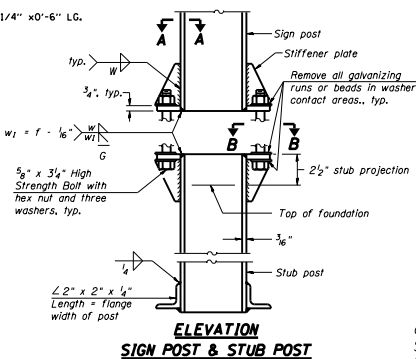
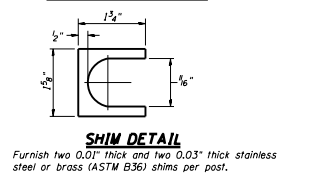
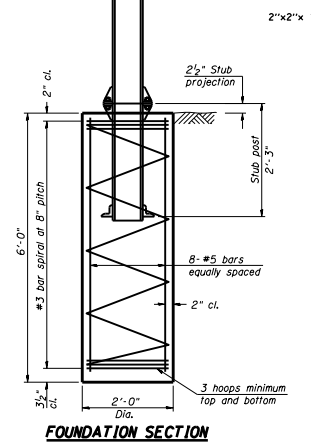
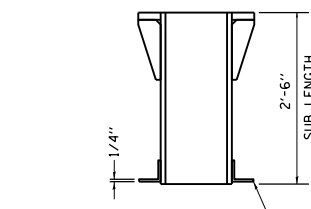
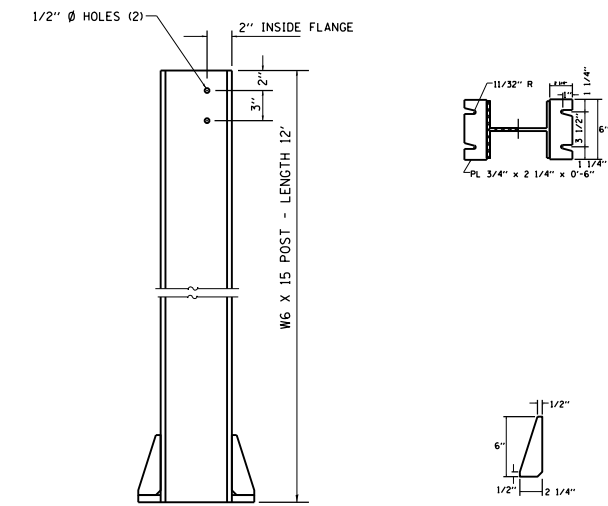
NOTE: HMA SURFACE REMOVAL 1 1/2" & HMA SURFACE REMOVAL, VARIABLE DEPTH USED UNDERNEATH THE OVERHEAD STRUCTURES SHALL BE INCLUDED WITH HMA SURFACE REMOVAL 1/2"

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	PLOT DATE = 9/8/2014	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BUTT JOINT AND OVERHEAD DETAILS			
SCALE: N/A	SHEET 1	OF 1 SHEETS	STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(25-6,7)RS-2	EFFINGHAM	63	60
CONTRACT NO. 74638				
ILLINOIS FED. AID PROJECT				



GENERAL NOTES

Posts shall be plumbed by using shims with post-to-stub post connection bolts snug tight only. Final tightening of all High Strength Bolts shall be in accordance with Article 727.05 and threads at the junction of the bolt and nut shall be burred or center punched to prevent the nut from loosening.

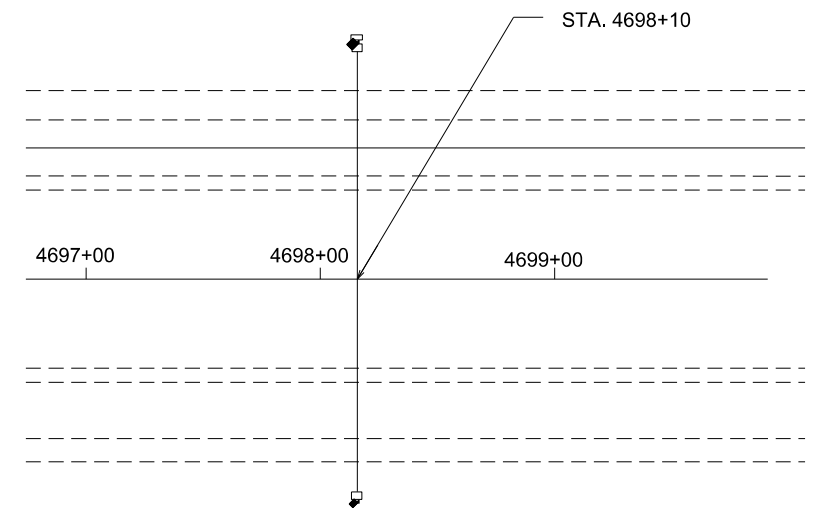
LOADING: 80 m.p.h. wind with 30% gust factor, normal to sign.

DESIGN STRESSES:
 Structural steel - 20,000 p.s.i.
 Reinforcing steel - 20,000 p.s.i.
 Concrete - 1,400 p.s.i.
 Footing soil pressure - 2,000 p.s.f.

After fabrication, the post and upper 6", min. of the stub post shall be hot-dip galvanized in accordance with AASHTO M111. All bolts, nuts and washers shall be hot-dip galvanized in accordance with AASHTO M232.

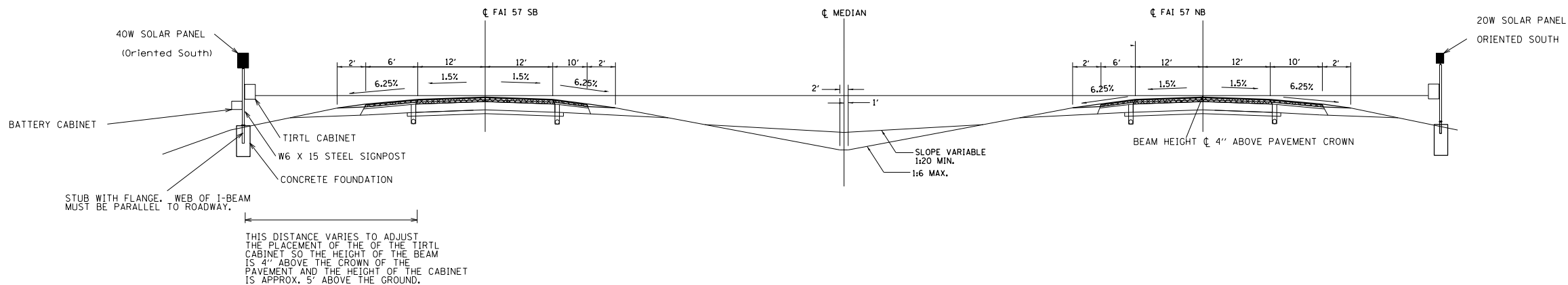
- NOTES:
1. SYSTEM CONSISTS OF TWO W6 X 15 I-BEAM SIGNPOSTS WITH CONCRETE FOUNDATION AND A FLANGE WITH BREAKAWAY BOLTS
 2. THE I-BEAMS ARE 12' LONG AND DRILLED AS PER THE I-BEAM DETAIL TO ACCOMMODATE A PIPE TO ALLOW THE MOUNTING OF THE SOLAR PANEL.
 3. THE WEB OF THE I-BEAM IS TO BE PLACED PARALLEL TO THE LANES.
 4. THE TWO POSTS MUST BE PLACED DIRECTLY ACROSS FROM EACH OTHER AND PERPENDICULAR TO THE LANES.
 5. TWO POSTS ARE REQUIRED LOCATED AS PER THE DRAWING.
 6. THE CABINETS ARE ATTACHED TO THE I-BEAM USING 8" GALVANIZED J-BOLTS.
 7. THE BOTTOM OF THE CABINET HEIGHT MUST BE NO LOWER 4' ABOVE THE GROUND AND BE ABLE TO VIEW ACROSS ALL LANES AT THE CROWN OF THE PAVEMENT.
 8. THE IDOT OFFICE OF PLANNING AND PROGRAMMING DATA MANAGEMENT LAB (RAMON TAYLOR or RICH MARX 217-782-2065) SHALL BE NOTIFIED TWO WEEKS PRIOR TO THE LAYOUT AND SHALL BE PRESENT DURING THE PLACEMENT OF THE POST FOUNDATIONS.

TIRTL TRAFFIC COUNTER SCHEDULE OF QUANTITIES (FOR INFORMATION ONLY)			
CODE NO.	ITEM	UNIT	QUANTITY
	CONCRETE FOUNDATION W/STUB AND I-BEAM FLANGE (SPECIAL)	EACH	2
	12' I-BEAM POST (SPECIAL) W/BREAKAWAY BOLTS	EACH	2
	Sierra Wireless LS300 EVDO Rev. A VZW	EACH	1
	PHANTOM DUAL BAND ANTENNA P/N RF-ART18305SP/281	EACH	1
	TIRTL CABINET 15" X 27" X 16"	EACH	2
	BATTERY CABINET 16.5" X 16" X 11.5" BBA1Mw/ #2 Police Lock	EACH	1
	SOLAR PANEL 40 W 12 VDC	EACH	1
	SOLAR PANEL 20 W 12 VDC	EACH	1
	SOLAR CHARGE REGULATOR 6 AMP 12 VDC	EACH	2
	BATTERY - 33 AH ABSORBED ELECTROLYTE 8" X 5.5 X 7" (DEEP CYCLE)	EACH	1
	BATTERY - 80 AH ABSORBED ELECTROLYTE 10" X 6" X 8" (DEEP CYCLE)	EACH	1
50800105	REINFORCEMENT BARS	POUND	156
73400100	CONCRETE FOUNDATIONS	CU YD	1.4
72700100	STRUCTURAL STEEL SIGN SUPPORT - BREAKAWAY	POUND	256.6
X0323388	TRAFFIC COUNTER	EACH	1
NOTES:	Possible sources are listed on separate sheet.		
	12' W6 - 15 I-Beam specs are listed on separate sheet.		



BREAK-AWAY WIDE FLANGE STEEL POST DETAILS

INTERSTATE 57 - NORMAL SECTION

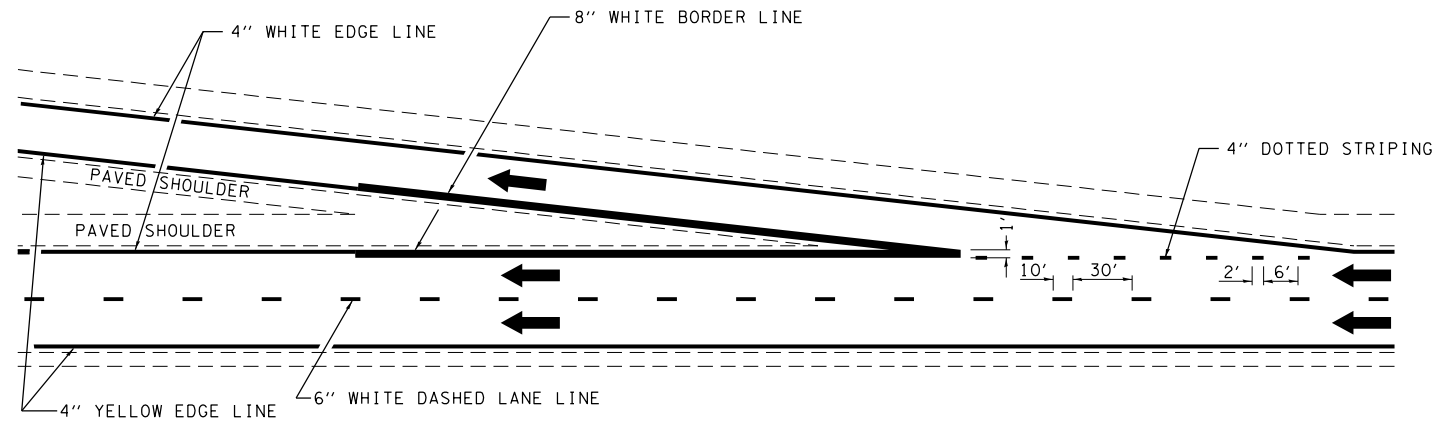


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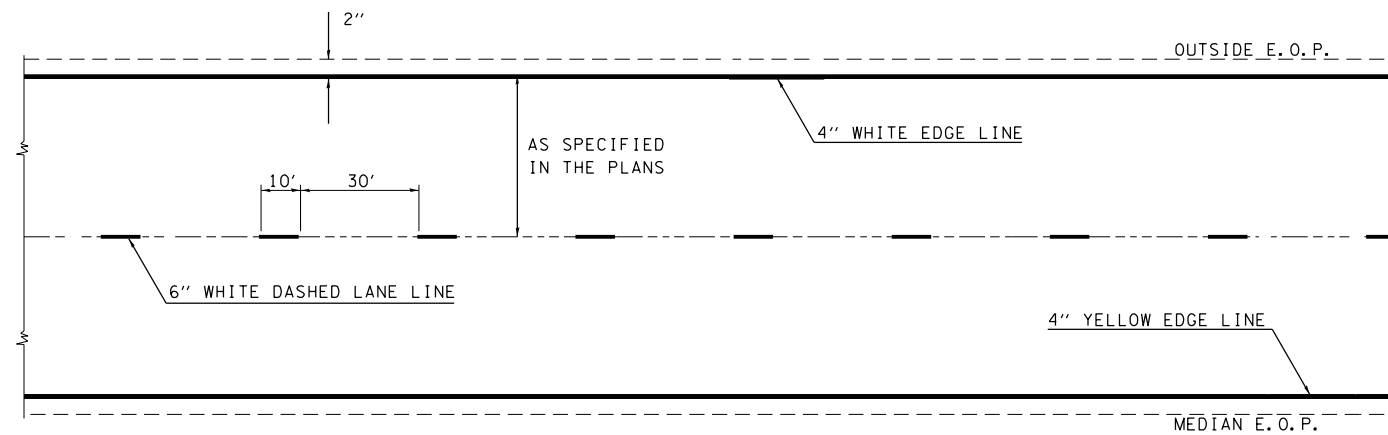
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

TIRTL TRAFFIC COUNTER DETAIL			
SCALE: N/A	SHEET 1	OF 1 SHEETS	STA. TO STA.

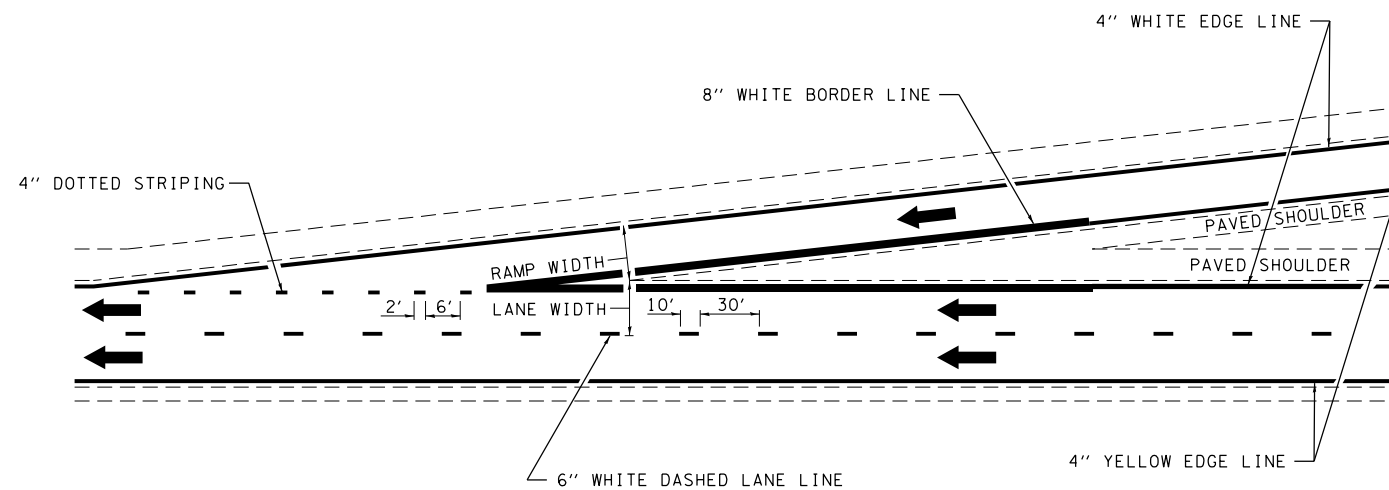
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(25-6,7)RS-2	EFFINGHAM	63	61
CONTRACT NO. 74638				
ILLINOIS FED. AID PROJECT				



TYPICAL EXIT RAMP MARKING



TYPICAL CENTERLINE & EDGELINE MARKINGS



TYPICAL ENTRANCE RAMP MARKING

NOT TO SCALE

FILE NAME =	USER NAME = steffenmk	DESIGNED -	REVISED - DRM 08-04
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	PLOT DATE = 9/8/2014	DATE -	REVISED - DRM 12-10

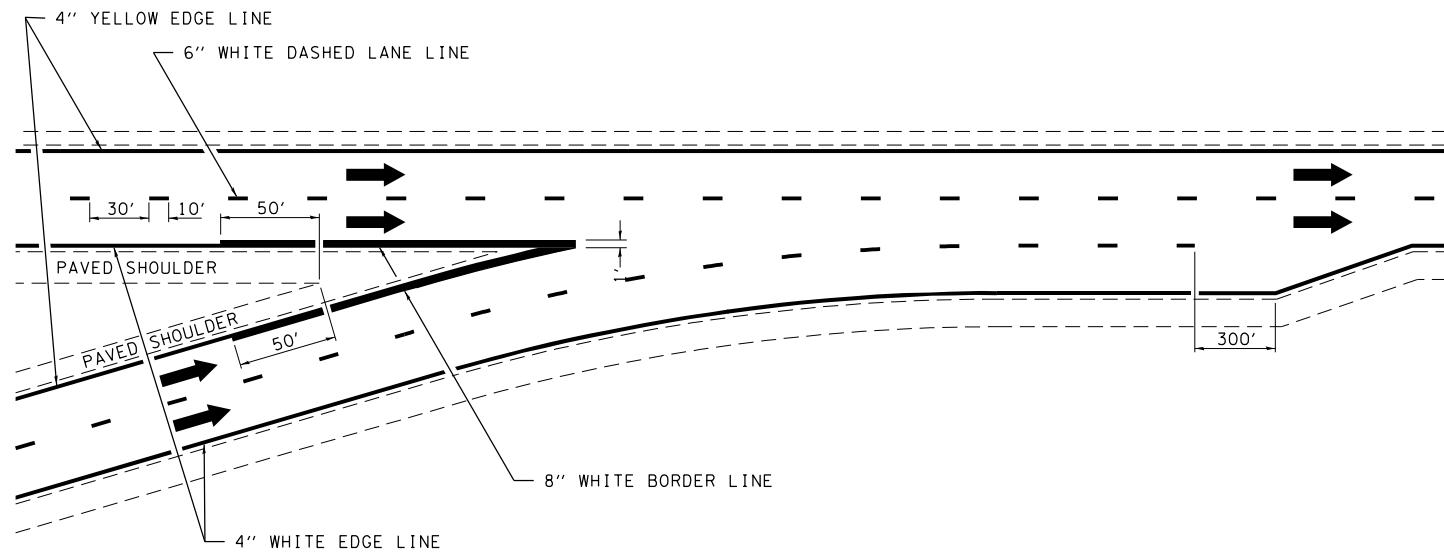
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL APPLICATIONS OF INTERSTATE PAVEMENT MARKING

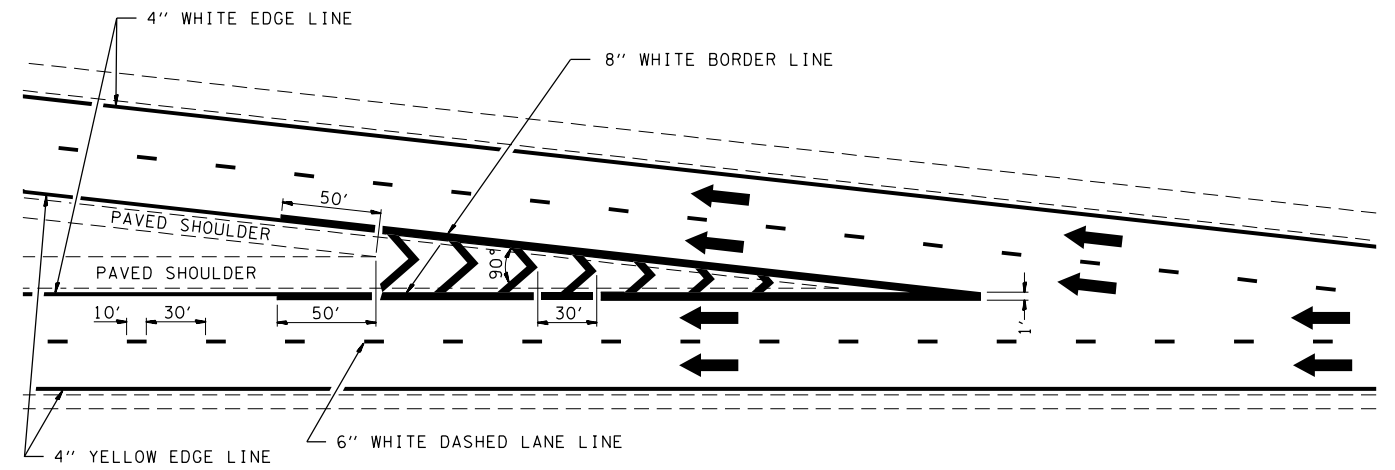
SCALE: N/A SHEET NO. 1 OF 2 SHEETS STA. TO STA.

DISTRICT 7 DETAIL NO. 7800002

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(25-6,7)RS-2	EFFINGHAM	63	62
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 74638	

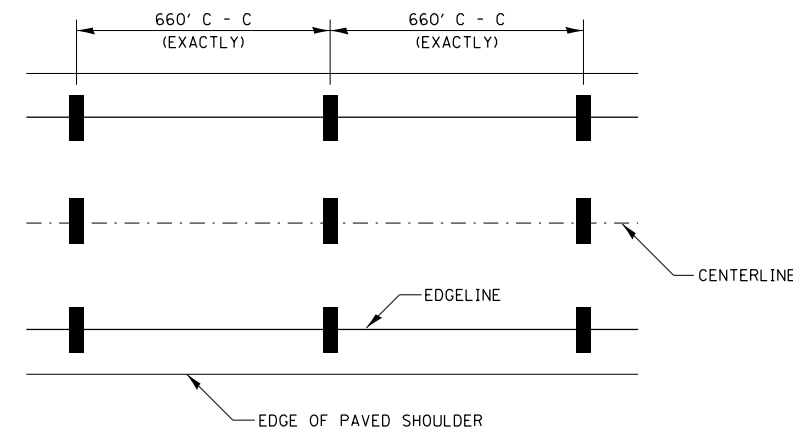


TYPICAL CONVERGENCE MARKING

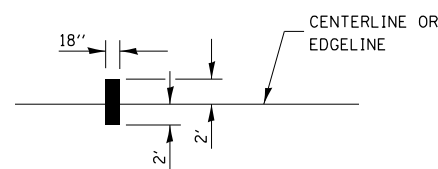


TYPICAL DIVERGENCE MARKING

AERIAL SPEED CHECK ZONES



IT WILL BE NECESSARY TO HAVE A REPRESENTATIVE OF THE STATE POLICE PRESENT SO THAT THE ACCURACY OF MEASUREMENT CAN BE ATTESTED TO IN COURT.



NOT TO SCALE

DISTRICT 7 DETAIL NO. 7800002

FILE NAME =	USER NAME = steffenmk	DESIGNED -	REVISED - MMO 12-99
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	PLOT DATE = 9/8/2014	DATE -	REVISED - DRM 01-09

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL APPLICATIONS OF INTERSTATE PAVEMENT MARKING

SCALE: N/A SHEET NO. 2 OF 2 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(25-6,7)RS-2	EFFINGHAM	63	63
CONTRACT NO. 74638				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				