

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
858	12-B-1	RANDOLPH	90	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 76H81		

FOR INDEX OF SHEETS, SEE SHEET NO. 2

# PLANS FOR PROPOSED HIGHWAY IMPROVEMENT

FAS ROUTE 858 (ROOTS ROAD)  
SECTION 12-B-1  
PROJECT ACRS - 0858 (101)  
RANDOLPH COUNTY

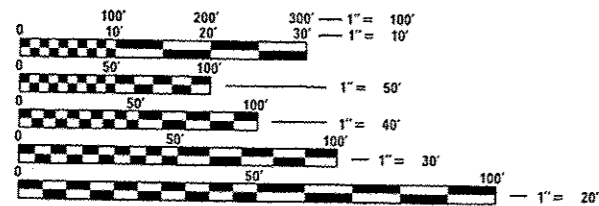
DECK REPLACEMENT

C-98-033-15

SECTION 12-B-1 INCLUDES THE REMOVAL AND REPLACEMENT OF THE EXISTING CONCRETE DECK ON THE EXISTING STEEL BEAMS AND SUBSTRUCTURE UNITS FOR THE STRUCTURE CARRYING ROOTS ROAD OVER THE KASKASKIA RIVER. THIS WORK ALSO INCLUDES RECONSTRUCTION OF THE BRIDGE APPROACH SPANS ON VAULTED ABUTMENTS. THIS WORK ALSO INCLUDES RECONSTRUCTION OF THE BRIDGE APPROACH SLABS.  
STA. 631+60.00  
SN 079-0019

PROJECT BEGINS  
STA 617+03.34

PROJECT ENDS  
STA. 639+53.14



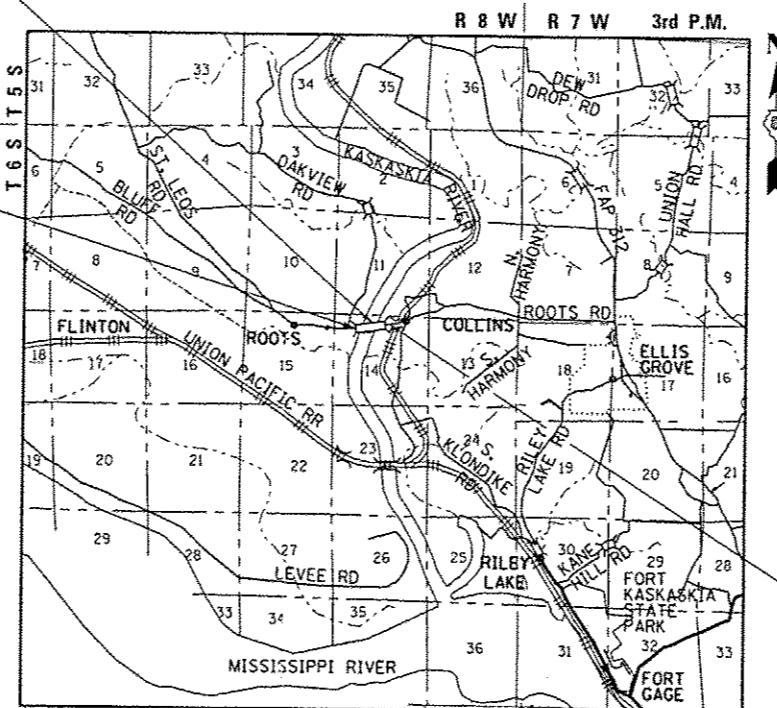
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

PROJECT ENGINEER: TIM PADGETT (618) 346-3325  
SQUAD LEADER: PHIL COPPERNOLL (618) 346-3480

CONTRACT NO. 76H81

ADT: 475 (2012) COLLECTOR  
ADT: 975 (2023)  
13.3% TRUCKS

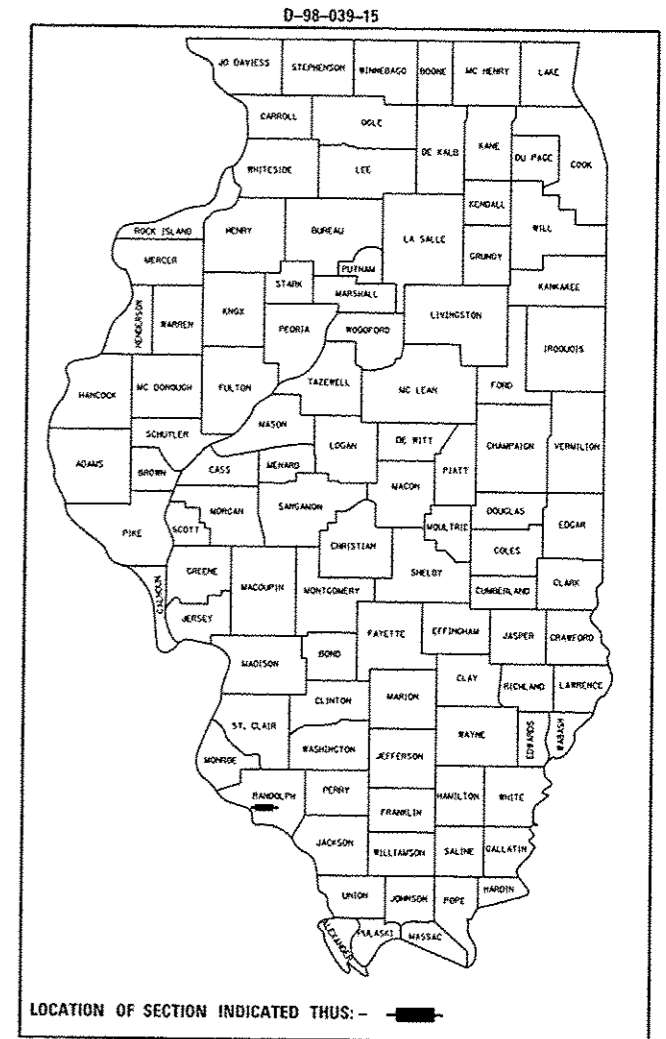


LOCATION MAP  
ELLIS GROVE TOWNSHIP  
GRAPHIC SCALE IN MILES

GROSS PROJECT LENGTH = 2249.80 FEET = 0.426 MILES  
LATITUDE 38°01' 0.13"  
LONGITUDE 89°57' 34.11"  
SN 079-0019



Brian R. Mueller 02-27-2015  
ILLINOIS PROFESSIONAL ENGINEER NO. 062-052018  
EXP. 11-30-2015



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED Feb 27 20 15

*Kevin A. Keenan*  
DEPUTY DIRECTOR OF HIGHWAYS, REGION 5 ENGINEER

*March 20 2015*  
*John D. Baranzelli, PE*  
ENGINEER OF DESIGN AND ENVIRONMENT

*March 20 2015*  
*Omer Osman, PE*  
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

**LOCHMUELLER GROUP**  
1928 S/A BRADLEY R. SMITH DRIVE  
TROY, ILLINOIS 62294  
PHONE (618) 667-1400

PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS



CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				80% FED 20% STATE BRIDGE SN 079-0019 0014	
25000200	SEEDING, CLASS 2	ACRE	0.5	0.5	
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	45	45	
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	45	45	
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	45	45	
25100105	MULCH, METHOD 1	ACRE	0.5	0.5	
28000400	PERIMETER EROSION BARRIER	FOOT	1816	1816	
28000500	INLET AND PIPE PROTECTION	EACH	1	1	
28100107	STONE RIPRAP, CLASS A4	SQ YD	122	122	
28200200	FILTER FABRIC	SQ YD	58	58	
31102100	SUBBASE GRANULAR MATERIAL, TYPE C 4"	SQ YD	36	36	
40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	100	100	
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	190	190	
40603085	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70	TON	33	33	
40603315	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N70	TON	27	27	

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CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				80% FED 20% STATE BRIDGE SN 079-0019 0014	
42001300	PROTECTIVE COAT	SQ YD	18	18	
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	46	46	
44000100	PAVEMENT REMOVAL	SQ YD	67	67	
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	112	112	
44004250	PAVED SHOULDER REMOVAL	SQ YD	39	39	
48101200	AGGREGATE SHOULDERS, TYPE B	TON	7	7	
48203033	HOT-MIX ASPHALT SHOULDERS, 9"	SQ YD	18	18	
48203100	HOT-MIX ASPHALT SHOULDERS	TON	16	16	
50102400	CONCRETE REMOVAL	CU YD	25	25	
50104720	REMOVAL OF EXISTING CONCRETE DECK	EACH	1	1	
50105220	PIPE CULVERT REMOVAL	FOOT	5	5	
50157300	PROTECTIVE SHIELD	SQ YD	2724	2724	
50200100	STRUCTURE EXCAVATION	CU YD	101	101	
50300100	FLOOR DRAINS	EACH	12	12	

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CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				80% FED 20% STATE	
				BRIDGE	
				SN 079-0019	
				0014	
50300225	CONCRETE STRUCTURES	CU YD	25.4	25.4	
50300255	CONCRETE SUPERSTRUCTURE	CU YD	1743.8	1743.8	
50300260	BRIDGE DECK GROOVING	SQ YD	4659	4659	
50300300	PROTECTIVE COAT	SQ YD	6072	6072	
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	48940	48940	
50500505	STUD SHEAR CONNECTORS	EACH	9465	9465	
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	391,920	391,920	
50800515	BAR SPLICERS	EACH	52	52	
51500100	NAME PLATES	EACH	1	1	
52000110	PREFORMED JOINT STRIP SEAL	FOOT	76	76	
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	5	5	
52100020	ELASTOMERIC BEARING ASSEMBLY, TYPE II	EACH	25	25	
52100520	ANCHOR BOLTS, 1"	EACH	80	80	
52100530	ANCHOR BOLTS, 1 1/4"	EACH	88	88	

FILE NAME #	USER NAME # batesj	DESIGNED - ESW	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SUMMARY OF QUANTITIES</b>				F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
#FILE#		DRAWN - PDB	REVISED -		858	12-B-1	RANDOLPH	90	5				
	PLOT SCALE = 10.0000' / 1"	CHECKED - BRM	REVISED -		SCALE: SHEET NO. 3 OF 6 SHEETS STA. TO STA.				<b>CONTRACT NO. 76H81</b>				
	PLOT DATE = 2/27/2015	DATE - 01-26-15	REVISED -		ILLINOIS FED. AID PROJECT								

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CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				80% FED 20% STATE BRIDGE SN 079-0019 0014	
52100560	ANCHOR BOLTS, 2"	EACH	40	40	
54215550	METAL END SECTIONS 15"	EACH	1	1	
59300100	CONTROLLED LOW-STRENGTH MATERIAL	CU YD	226.4	226.4	
60100955	PIPE DRAINS 15"	FOOT	6	6	
60237000	INLETS, TYPE A, TYPE 15 FRAME AND LID	EACH	1	1	
60500060	REMOVING INLETS	EACH	1	1	
60602800	CONCRETE GUTTER, TYPE B	FOOT	45	45	
60605000	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	31	31	
* 63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	135	135	
* 63000003	STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS	FOOT	1312.5	1312.5	
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4	
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4	4	
63200310	GUARDRAIL REMOVAL	FOOT	1605	1605	
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	7	7	

\* SPECIALTY ITEM

FILE NAME =	USER NAME = bokay	DESIGNED - ESW	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SUMMARY OF QUANTITIES</b>				F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
#FILE#		DRAWN - PDB	REVISED -		SCALE:	SHEET NO. 4	OF 6	SHEETS	STA.	TO STA.	858	12-B-1	RANDOLPH	90	6
		CHECKED - BRM	REVISED -						<b>CONTRACT NO. 76H81</b>						
		DATE - 01-26-15	REVISED -						ILLINOIS FED. AID PROJECT						

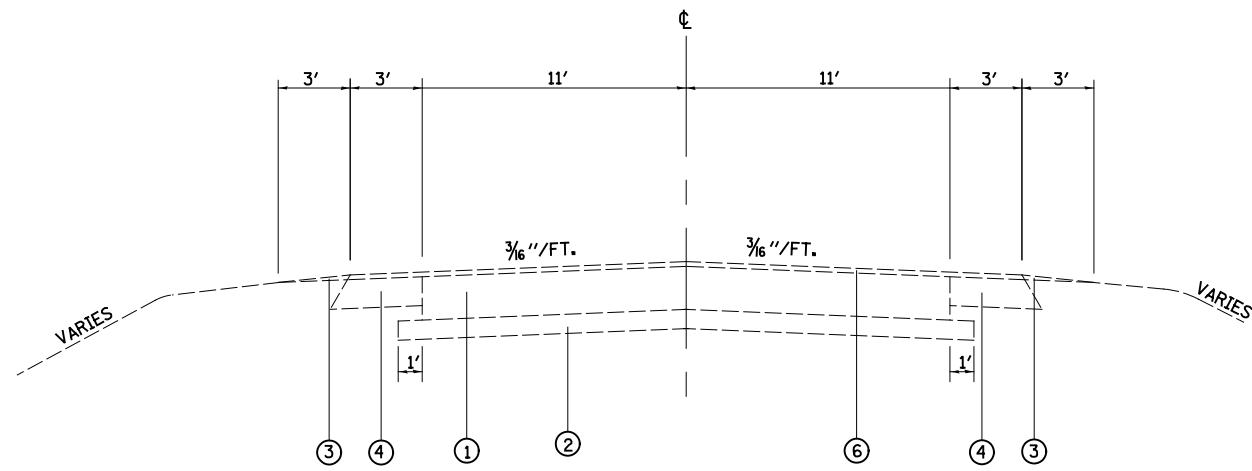
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE		
				80% FED	20% STATE	
				BRIDGE		
				SN 079-0019		
				0014		
67100100	MOBILIZATION	L SUM	1	1		
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1		
70300100	SHORT TERM PAVEMENT MARKING	FOOT	155	155		
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	4218	4218		
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	1458	1458		
78009004	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"	FOOT	4218	4218		
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	3	3		
* 78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	17	17		
* 78200410	GUARDRAIL MARKERS, TYPE A	EACH	16	16		
* 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4		
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	20	20		
* X8260110	NAVIGATION LIGHTING SYSTEM	L SUM	1	1		
XZ193505	VERTICAL CLEARANCE GAUGE	EACH	2	2		
Z0001899	JACK AND REMOVE EXISTING BEARINGS	EACH	30	30		

\* SPECIALTY ITEM

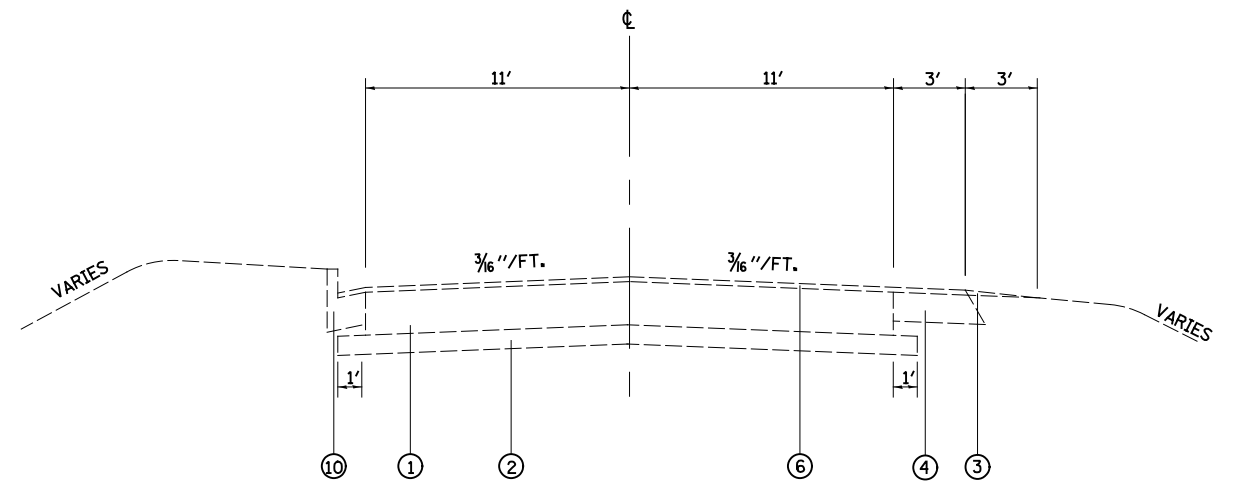
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	PLOT DATE = 2/27/2015	CHECKED - BRM	REVISED -		<b>CONTRACT NO. 76H81</b>								
		DATE - 01-26-15	REVISED -		ILLINOIS FED. AID PROJECT								

2015 12 04

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE		
				80% FED 20% STATE BRIDGE SN 079-0019 0014		
Z0001903	STRUCTURAL STEEL REMOVAL	POUND	19306	19306		
Z0001905	STRUCTURAL STEEL REPAIR	POUND	16010	16010		
Z0004552	APPROACH SLAB REMOVAL	SQ YD	109	109		
Z0007112	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES	L SUM	1	1		
Z0010501	CLEANING AND PAINTING STEEL BRIDGE NO. 1	L SUM	1	1		
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	413	413		
Z0018002	DRAINAGE SCUPPERS, DS-11	EACH	16	16		
Z0034393	MODULAR EXPANSION JOINT 9"	FOOT	72	72		
Z0058668	GRADING AND SHAPING FORESLOPES	SQ YD	1378	1378		

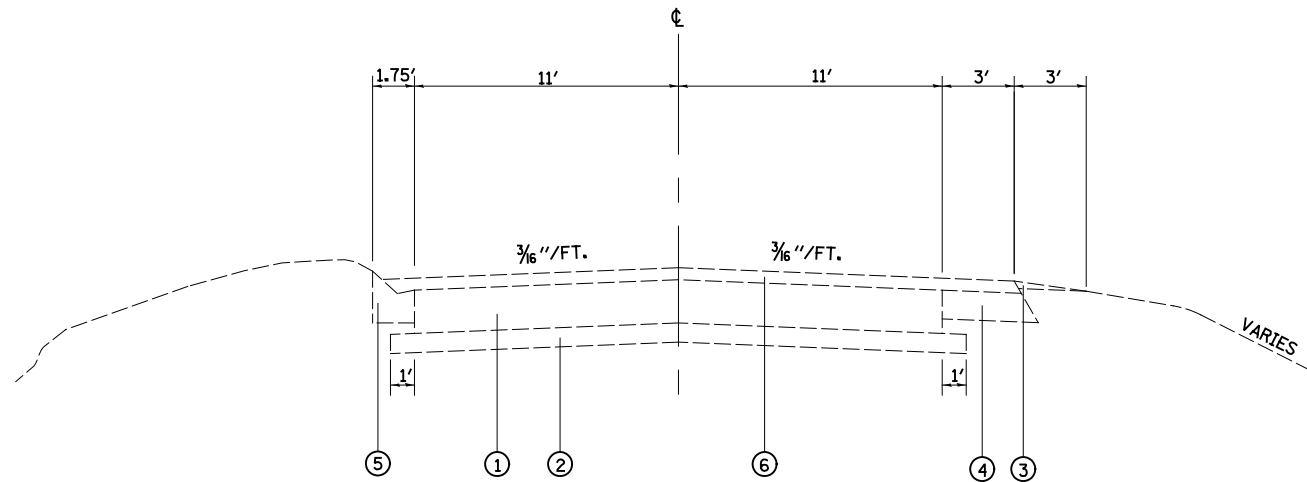


**EXISTING TYPICAL SECTION**  
STA. 623+50.00 TO STA. 624+94.23



**EXISTING TYPICAL SECTION**  
STA. 638+25.97 TO STA. 638+84.70

NOTES:  
STA. 624+94.23 TO STA. 638+25.97 (SN 079-0019)

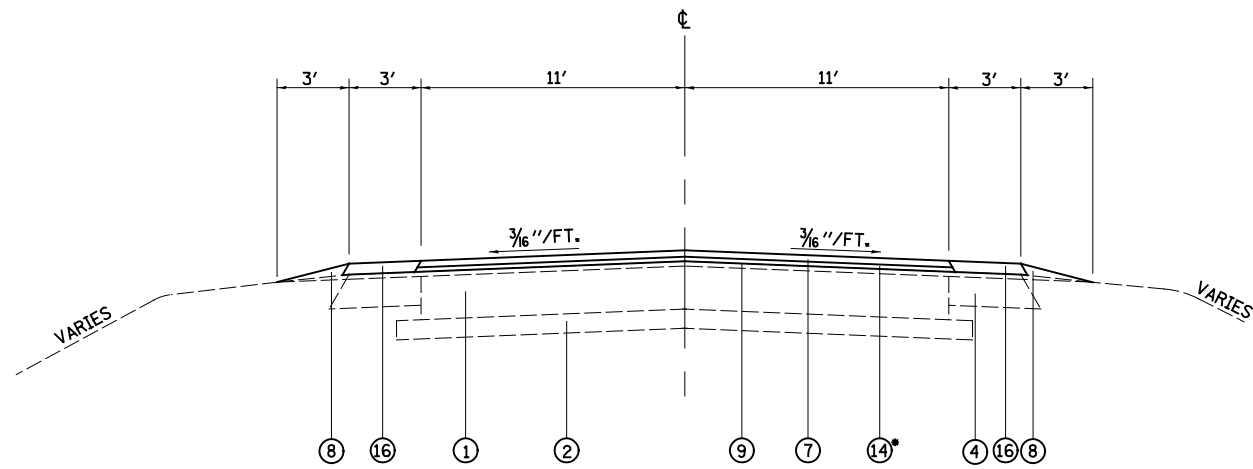


**EXISTING TYPICAL SECTION**  
STA. 638+84.70 TO STA. 639+45.00

**LEGEND**

- ① EXISTING PCC PAVEMENT 9"
- ② EXISTING SUB-BASE GRANULAR MATERIAL TYPE A, 4"
- ③ EXISTING AGGREGATE WEDGE SHOULDERS
- ④ EXISTING HMA SHOULDER 6"
- ⑤ EXISTING CONCRETE GUTTER TYPE B
- ⑥ EXISTING HMA RESURFACING, 2 1/2" AND VARIES
- ⑦ PROPOSED HMA SURFACE COURSE MIX C, N70, 1 1/2" AND VARIES, SEE MISCELLANEOUS DETAILS
- ⑧ PROPOSED AGGREGATE SHOULDER, TYPE B
- ⑨ PROPOSED BITUMINOUS MATERIALS (PRIME COAT)
- ⑩ EXISTING COMBINATION CONCRETE CURB AND GUTTER
- ⑪ PROPOSED HMA SHOULDER, 9"
- ⑫ PROPOSED COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24
- ⑬ PROPOSED SUB-BASE GRANULAR MATERIAL, TYPE C 4"
- ⑭ PROPOSED HOT-MIX BINDER COURSE, IL-19.0, N70, VARIES 2" TO 5 1/2"
- ⑮ PROPOSED CONCRETE GUTTER, TYPE B
- ⑯ PROPOSED HOT-MIX ASPHALT SHOULDERS

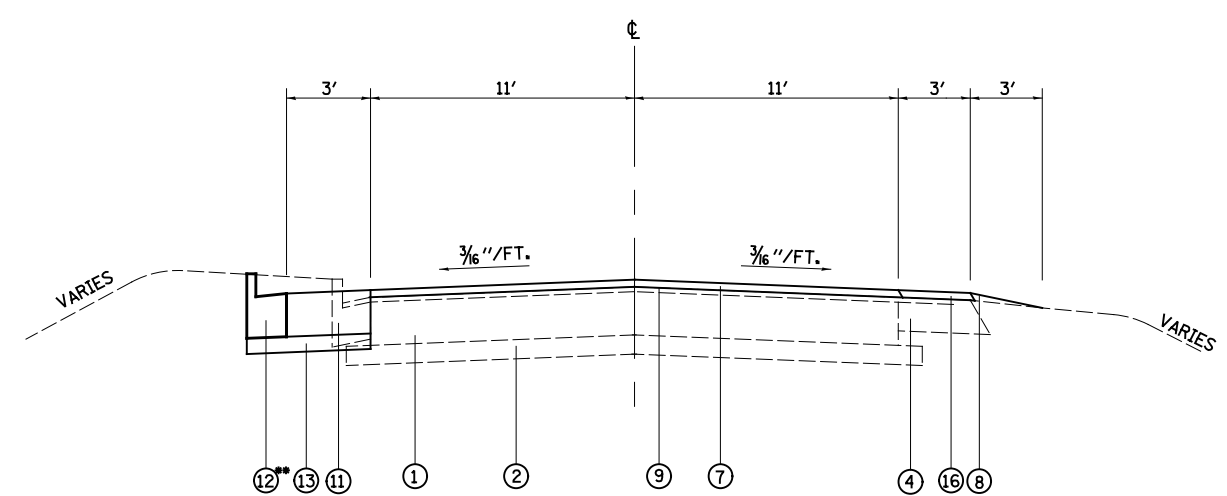
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*FILEL*		DRAWN - PDB	REVISED -		858	12-B-1	RANDOLPH	90	9			
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	PLOT DATE = 2/26/2015	DATE - 01-26-15	REVISED -		SCALE:	SHEET NO. 1 OF 2 SHEETS	STA.	TO STA.				



**PROPOSED TYPICAL SECTION**

STA. 623+50.00 STA. 624+64.23

\*BEGINS STA 623+82.00, SEE MISCELLANEOUS DETAILS

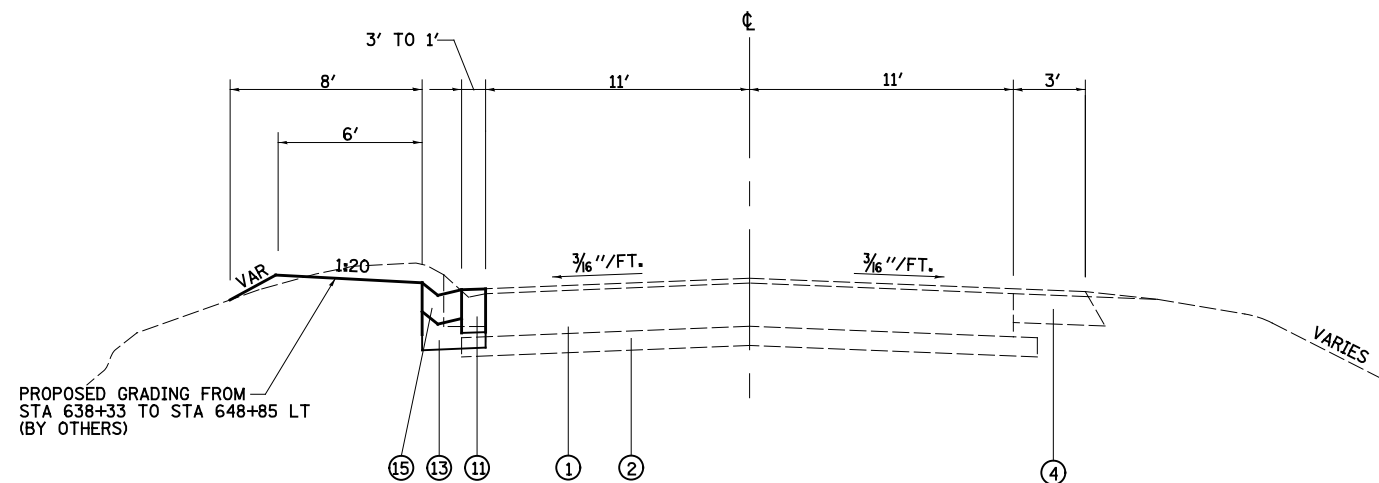


**PROPOSED TYPICAL SECTION**

STA. 638+55.97 TO STA. 639+00.00

\*\*TRANSITION TO GUTTER, TYPE B FROM STA 638+80.00 TO STA 639+00.00

NOTES:  
STA. 624+64.23 TO STA. 638+55.97 (SN 079-0019)



**PROPOSED TYPICAL SECTION**

STA. 639+00.00 TO STA. 639+45.00

**LEGEND**

- ① EXISTING PCC PAVEMENT 9"
- ② EXISTING SUB-BASE GRANULAR MATERIAL TYPE A, 4"
- ③ EXISTING AGGREGATE WEDGE SHOULDERS
- ④ EXISTING HMA SHOULDER 6"
- ⑤ EXISTING CONCRETE GUTTER TYPE B
- ⑥ EXISTING HMA RESURFACING, 2 1/2" AND VARIES
- ⑦ PROPOSED HMA SURFACE COURSE MIX C, N70, 1 1/2" AND VARIES, SEE MISCELLANEOUS DETAILS
- ⑧ PROPOSED AGGREGATE SHOULDER, TYPE B
- ⑨ PROPOSED BITUMINOUS MATERIALS (PRIME COAT)
- ⑩ EXISTING COMBINATION CONCRETE CURB AND GUTTER
- ⑪ PROPOSED HMA SHOULDER, 9"
- ⑫ PROPOSED COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24
- ⑬ PROPOSED SUB-BASE GRANULAR MATERIAL, TYPE C 4"
- ⑭ PROPOSED HOT-MIX BINDER COURSE, IL-19.0, N70, VARIES 2" TO 5 1/2"
- ⑮ PROPOSED CONCRETE GUTTER, TYPE B
- ⑯ PROPOSED HOT-MIX ASPHALT SHOULDERS

FILE NAME =	USER NAME = betsy	DESIGNED - ESW	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PROPOSED TYPICAL SECTIONS</b>			F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
#FILEL#		DRAWN - PDB	REVISED -		858	12-B-1	RANDOLPH	90	10	<b>CONTRACT NO. 76H81</b>		
	PLOT SCALE = 48.0000' / in.	CHECKED - BRM	REVISED -		SCALE:	SHEET NO. 2 OF 2 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT			
	PLOT DATE = 2/27/2015	DATE - 01-26-15	REVISED -									

**SEEDING AND GRADING SCHEDULE**

LOCATION	SEEDING CLASS 2	NITROGEN FERTILIZER NUTRIENT	PHOSPHORUS FERTILIZER NUTRIENT	POTASSIUM FERTILIZER NUTRIENT	MULCH METHOD 1	GRADING AND SHAPING FORESLOPES
STATION TO STATION	SIDE	(ACRE)	(POUND)	(POUND)	(ACRE)	(SQ YD)
STA 617+03 TO STA 624+72	RT	0.13	11.7	11.7	0.13	642.60
STA 617+67 TO STA 624+88	LT	0.15	13.5	13.5	0.15	692.96
STA 638+70 TO STA 639+45	LT	0.01	0.9	0.9	0.01	41.79
	SUBTOTAL	0.29	26.1	26.1	0.29	1377.35
	PAY TOTAL	0.50	45	45	0.50	1378

**PAVING SCHEDULE**

LOCATION	SUBBASE GRANULAR MATERIAL, TYPE C 4"	BITUMINOUS MATERIALS (PRIME COAT)	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N70	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	AGGREGATE SHOULDERS, TYPE B	HOT-MIX ASPHALT SHOULDERS, 9"	HOT-MIX ASPHALT SHOULDERS	CONCRETE GUTTER, TYPE B	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	PROTECTIVE COAT
STATION TO STATION	(SQ YD)	(POUND)	(TON)	(TON)	(SQ YD)	(TON)	(SQ YD)	(TON)	(FOOT)	(FOOT)	(SQ YD)
STA 623+50.00 TO STA 624+64.23		75.76	32.8	21.4	22.6	5.7		14.8			
STA 638+55.97 TO STA 639+45.00	35.5	23.77		5.4	22.6	0.5	17.4	0.9	45.0	30.2	17.3
	SUBTOTAL	35.5	99.53	32.8	26.8	6.2	17.4	15.7	45.0	30.2	17.3
	PAY TOTAL	36	100	33	27	7	18	16	45	31	18

**EROSION CONTROL SCHEDULE**

LOCATION	INLET AND PIPE PROTECTION	PERIMETER EROSION BARRIER
STATION TO STATION	SIDE	(FOOT)
STA 617+65 TO STA 618+70	LT	165
STA 617+00 TO STA 624+75	RT	775
STA 618+85 TO STA 624+90	LT	675
STA 638+00 TO STA 638+60	RT	60
STA 638+14 TO STA 639+55	LT	141
STA 638+75	LT	1
	SUBTOTAL	1816
	TOTAL	1816

**RIPRAP SCHEDULE**

LOCATION	STONE RIPRAP, CLASS A4	FILTER FABRIC
STATION	SIDE	(SQ YD)
STA 638+75	LT	6
	SUBTOTAL	6

\* NOT A TOTAL QUANTITY

**DRAINAGE SCHEDULE**

LOCATION	PIPE CULVERT REMOVAL	METAL END SECTIONS 15"	PIPE DRAINS 15"	INLETS, TYPE A, TYPE 15 FRAME AND LID	REMOVING INLETS
STATION	SIDE	(FOOT)	(EACH)	(EACH)	(EACH)
STA 638+60	LT	5			
STA 638+75	LT		1	6	1
	PAY TOTAL	5	1	6	1

**GUARDRAIL SCHEDULE**

LOCATION	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS	TRAFFIC BARRIER TERMINAL, TYPE 6	TRAFFIC BARRIER TERMINAL, TYPE 1, (SPECIAL) TANGENT	GUARDRAIL REMOVAL	GUARDRAIL MARKERS, TYPE A	TERMINAL MARKER - DIRECT APPLIED
GUARDRAIL STATION	SIDE	(FOOT)	(EACH)	(EACH)	(FOOT)	(EACH)	(EACH)
STA 616+92 TO STA 624+83	RT				791		
STA 617+07 TO STA 618+63	LT				182		
STA 617+69.63	LT	62.5		2		4	2
STA 618+89 TO STA 624+99	LT				632		
STA 624+72.02	RT	675	1	1		6	1
STA 624+87.63	LT	575	1	1		6	1
STA 638+32.57/STA 648+68.80	RT	73.7		1			
STA 638+48.18/STA 649+09.39	LT	61.2		1			
	PAY TOTAL	135	1312.5	4	4	16	4

**TEMPORARY MARKING SCHEDULE**

LOCATION	SHORT TERM PAVEMENT MARKING	WORK ZONE PAVEMENT MARKING REMOVAL	TEMPORARY PAVEMENT MARKING - LINE 4"		
			SOLID WHITE	SOLID YELLOW	SKIP DASH YELLOW
STATION TO STATION	(FOOT)	(SQ FT)	(FOOT)	(FOOT)	(FOOT)
STA 623+50.00 TO STA 631+70.00	82	642.3	1640.0		205.0
STA 631+70.00 TO STA 639+00.00	73	815.2	1460.0	730.0	182.5
	SUBTOTAL	155	1457.5	3100.0	387.5
	PAY TOTAL	155	1458	4218	

**REMOVAL SCHEDULE**

LOCATION	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	PAVEMENT REMOVAL	COMBINATION CURB AND GUTTER REMOVAL	PAVED SHOULDER REMOVAL	APPROACH SLAB REMOVAL
STATION TO STATION	(SQ YD)	(SQ YD)	(FOOT)	(SQ YD)	(SQ YD)
STA 623+50 TO STA 623+66	49.8				
STA 623+82 TO STA 624+00	56.0			25.4	
STA 624+52 TO STA 625+00		33.7			
STA 624+58 TO STA 624+72					54.3
STA 624+72 TO STA 624+94				12.9	
STA 638+20 TO STA 638+56					54.4
STA 638+26 TO STA 638+48			112.0		
STA 638+33 TO STA 639+45					
STA 638+48 TO STA 638+62		33.3			
STA 638+70 TO STA 639+00	84.0				
	SUBTOTAL	189.8	112.0	38.3	108.7
	PAY TOTAL	190	112	39	109

**PAVEMENT MARKING SCHEDULE**

LOCATION	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"			RAISED REFLECTIVE PAVEMENT MARKER	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL
	SOLID WHITE	SOLID YELLOW	SKIP DASH YELLOW			
STATION TO STATION	(FOOT)	(FOOT)	(FOOT)	(EACH)	(EACH)	(EACH)
STA 623+50.00 TO STA 631+70.00	1640.0		205.0	2	9	11
STA 631+70.00 TO STA 639+00.00	1460.0	730.0	182.5	1	8	9
	SUBTOTAL	3100.0	730.0	3	17	20
	PAY TOTAL	4218		3	17	20

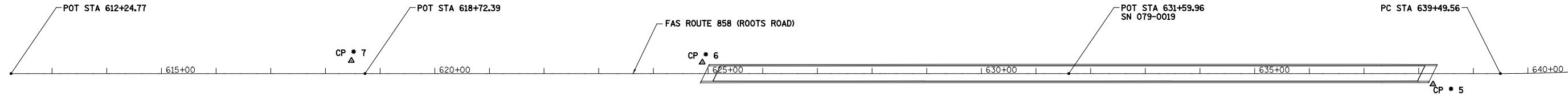
**FAS 858 ROOTS ROAD**

DESCRIPTION	COORDINATE	
	NORTHING	EASTING
POT STA 612+24.77	491588.45	355308.05
POT STA 618+72.39	491625.32	355954.62
POT STA 631+59.96	491698.63	357240.10
PC STA 639+49.56	491743.59	358028.42
PT STA 642+99.99	491763.54	358378.28
PT STA 646+46.95	491867.23	358713.02
POT STA 650+10.50	491974.80	359060.28
POT STA 654+47.21	492104.02	359477.44
POT STA 662+33.97	492336.82	360228.97

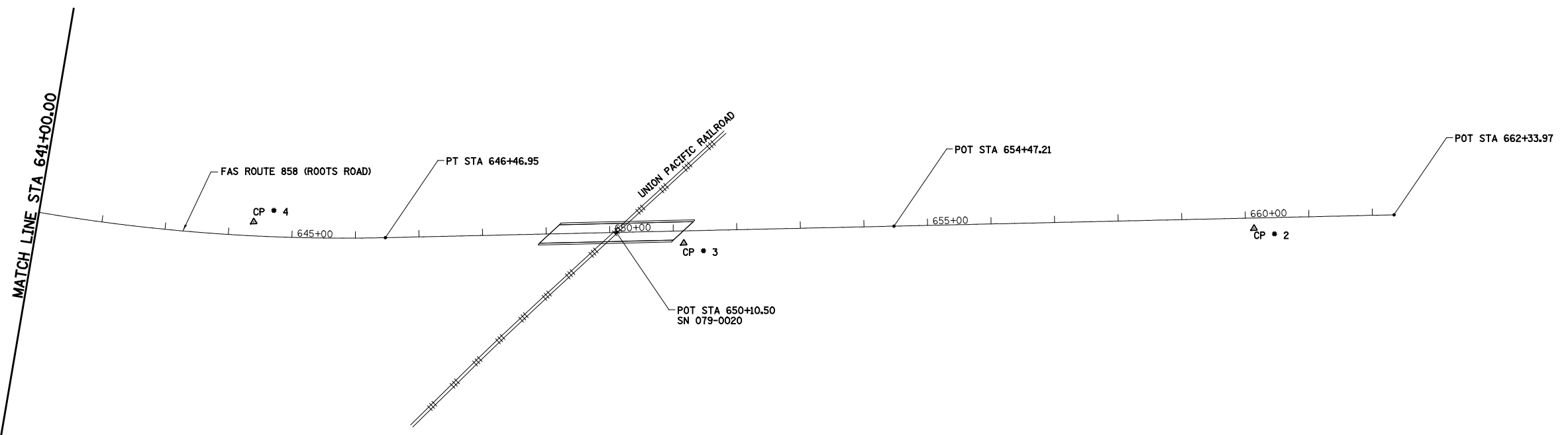
**CONTROL POINTS**

CONTROL POINT	COORDINATE	
	NORTHING	EASTING
CP #2	492256.06	360023.05
CP #3	491987.77	359166.91
CP #4	491834.37	358507.15
CP #5	491117.01	357906.51
CP #6	491681.19	356569.65
CP #7	491647.65	355928.40

EXISTING CURVE C-1  
 PI STA. = 642+99.99  
 $\Delta$  = 13° 56' 50" (LT)  
 D = 2° 00' 00"  
 R = 2,864.90'  
 T = 350.43'  
 L = 697.39'  
 E = 21.35'  
 P.C. STA = 639+49.56  
 P.T. STA = 646+46.95

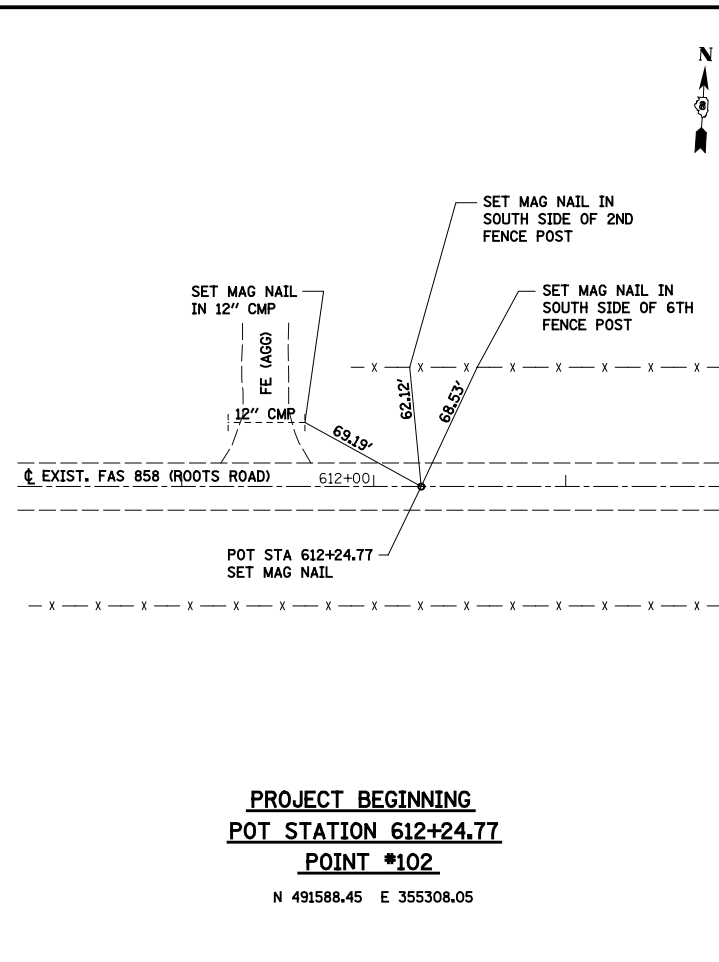


- BENCHMARK \* ROOTS-2      BENCHMARK \* ROOTS-3      BENCHMARK \* ROOTS-4      BENCHMARK \* ROOTS-5
- CUT "□" ON BRIDGE CURB @ N.W. CORNER OF ROOTS ROAD BRIDGE (SN 079-0020) ELEV 429.14
- CUT "□" ON BRIDGE CURB @ N.E. CORNER OF ROOTS ROAD BRIDGE (SN 079-0019) ELEV 420.87
- CUT "□" ON BRIDGE CURB @ N.W. CORNER OF ROOTS ROAD BRIDGE (SN 079-0019) ELEV 412.19
- RAILROAD SPIKE IN POWER POLE ON SOUTH SIDE OF ROOTS ROAD ± 0.33 MILES WEST OF WEST END OF SN 079-0019 ELEV 389.15

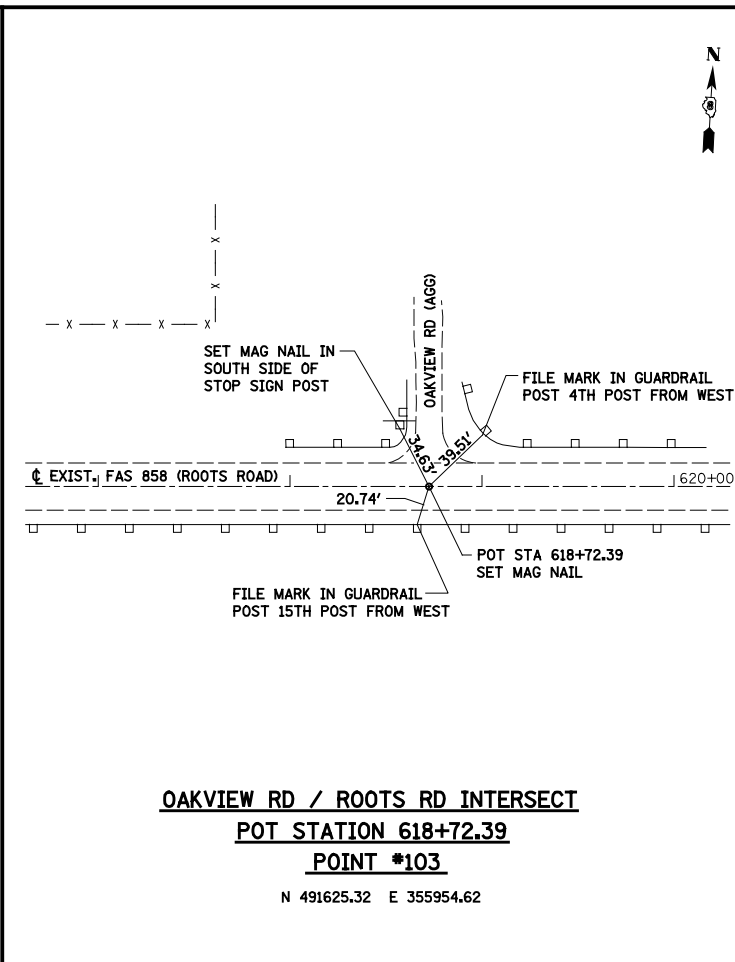


FILE NAME =	USER NAME = betsy	DESIGNED - ESW	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>HORIZONTAL CONTROL &amp; TIE POINTS, FAS 858 (ROOTS ROAD)</b>			F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		DRAWN - PDB	REVISED -		858	12-B-1	RANDOLPH	90	12	<b>CONTRACT NO. 76H81</b>			
		CHECKED - BRM	REVISED -		SCALE: 1"=100'			SHEET NO. 1 OF 2 SHEETS		STA. TO STA.		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	
		DATE - 01-26-15	REVISED -										

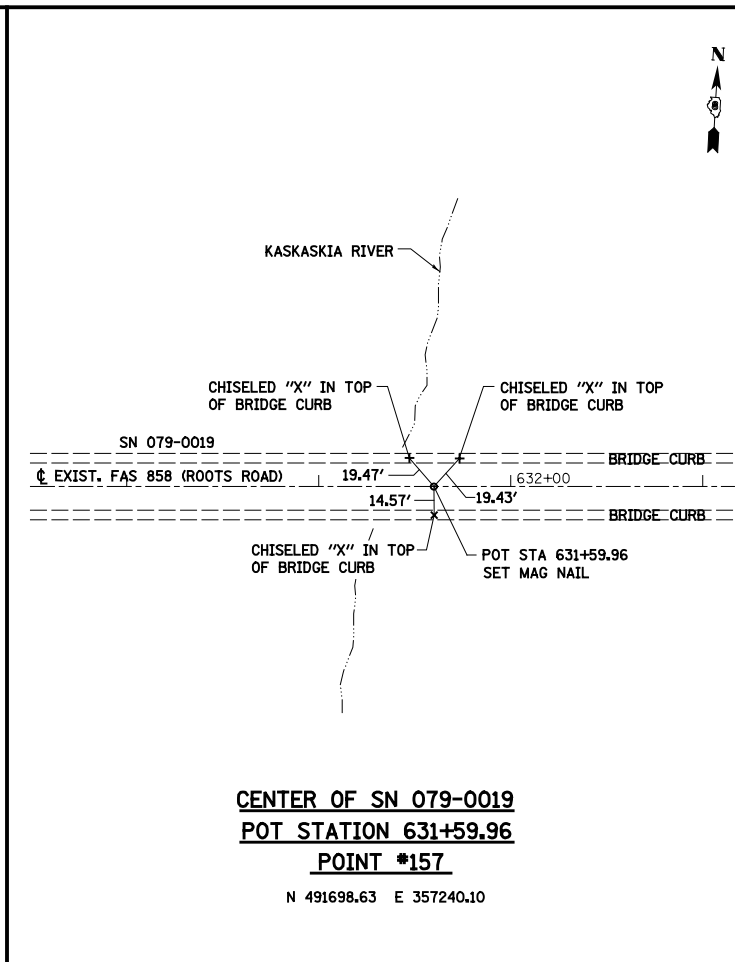




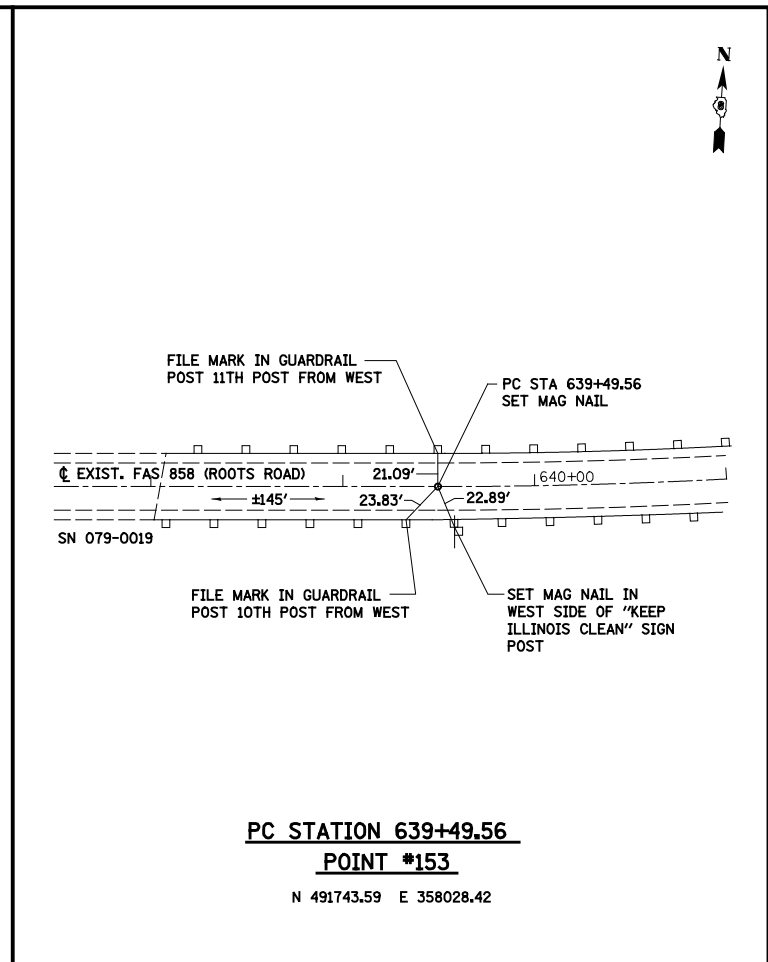
**PROJECT BEGINNING**  
**POT STATION 612+24.77**  
**POINT #102**  
 N 491588.45 E 355308.05



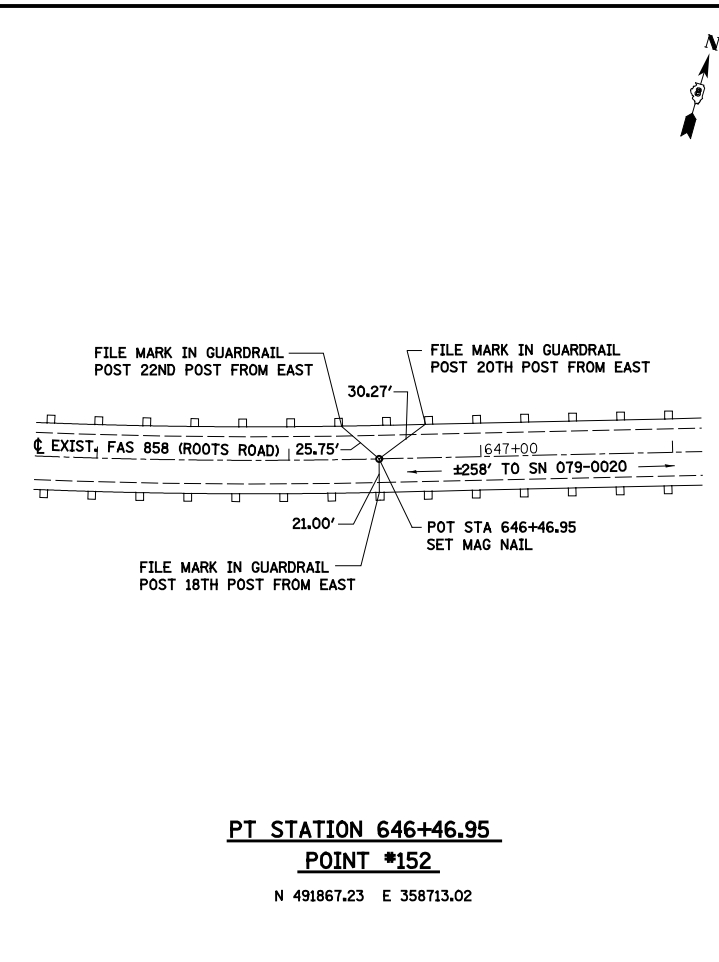
**OAKVIEW RD / ROOTS RD INTERSECT**  
**POT STATION 618+72.39**  
**POINT #103**  
 N 491625.32 E 355954.62



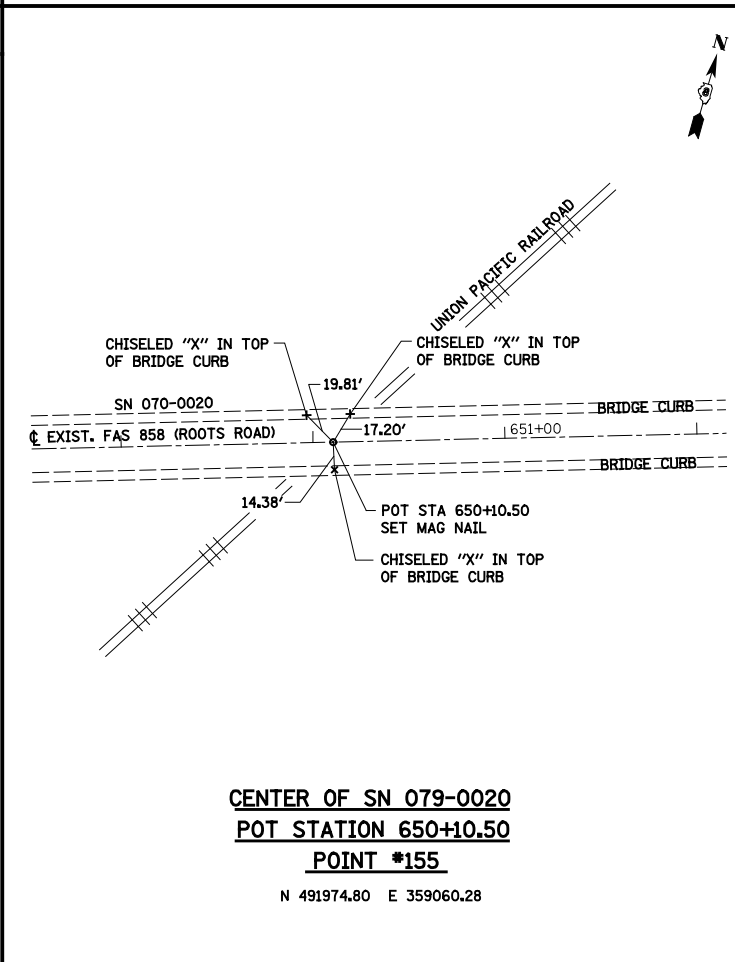
**CENTER OF SN 079-0019**  
**POT STATION 631+59.96**  
**POINT #157**  
 N 491698.63 E 357240.10



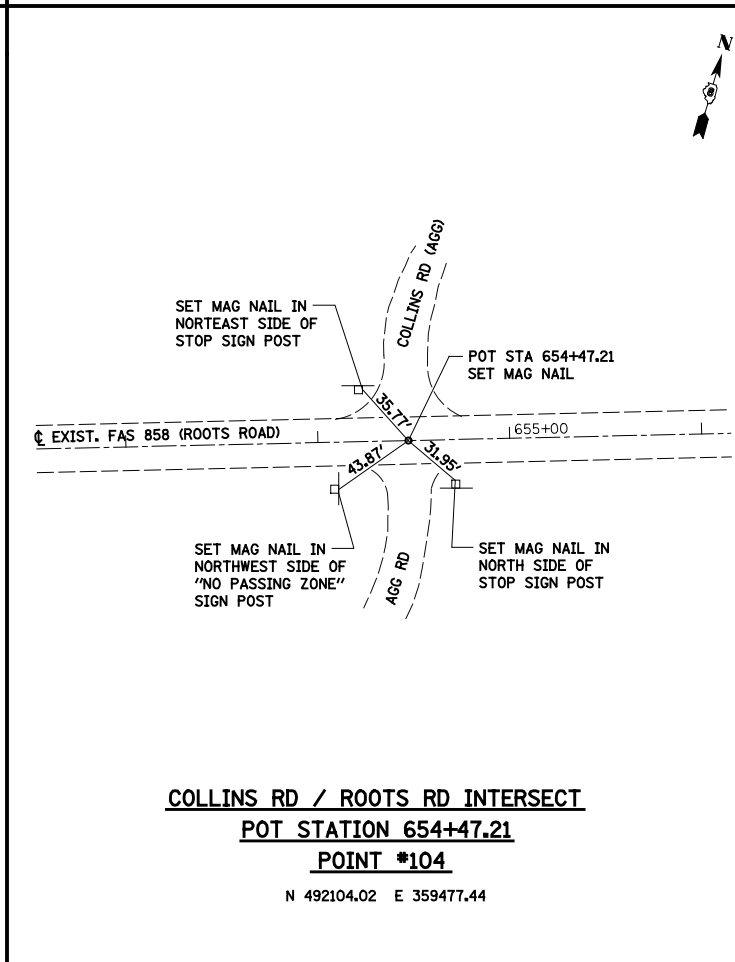
**PC STATION 639+49.56**  
**POINT #153**  
 N 491743.59 E 358028.42



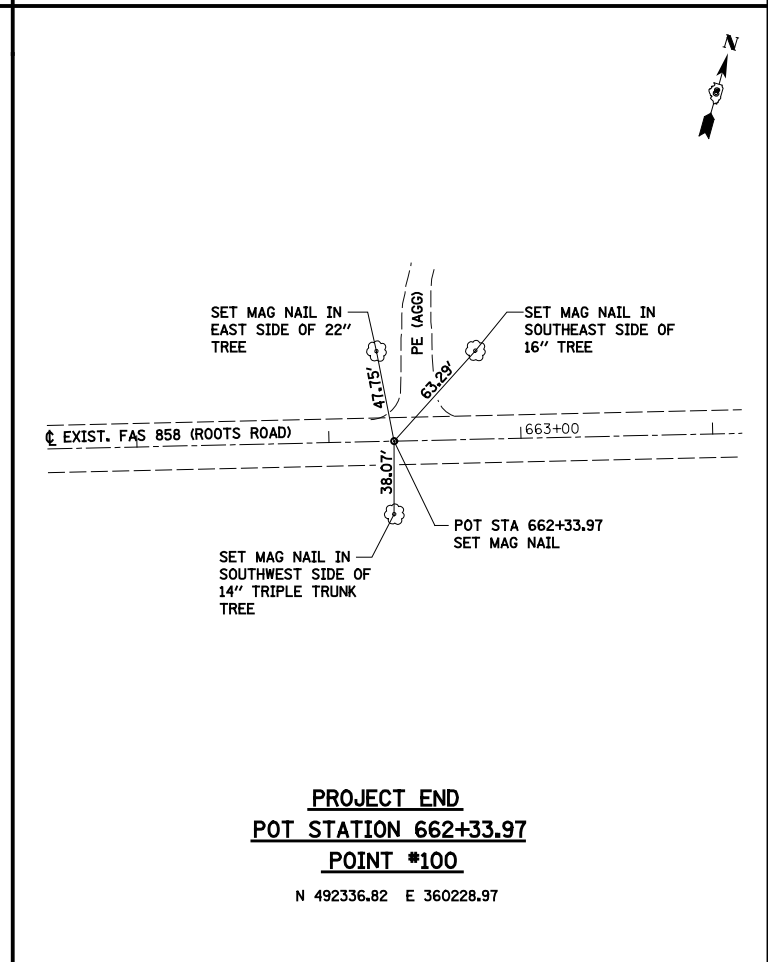
**PT STATION 646+46.95**  
**POINT #152**  
 N 491867.23 E 358713.02



**CENTER OF SN 079-0020**  
**POT STATION 650+10.50**  
**POINT #155**  
 N 491974.80 E 359060.28



**COLLINS RD / ROOTS RD INTERSECT**  
**POT STATION 654+47.21**  
**POINT #104**  
 N 492104.02 E 359477.44

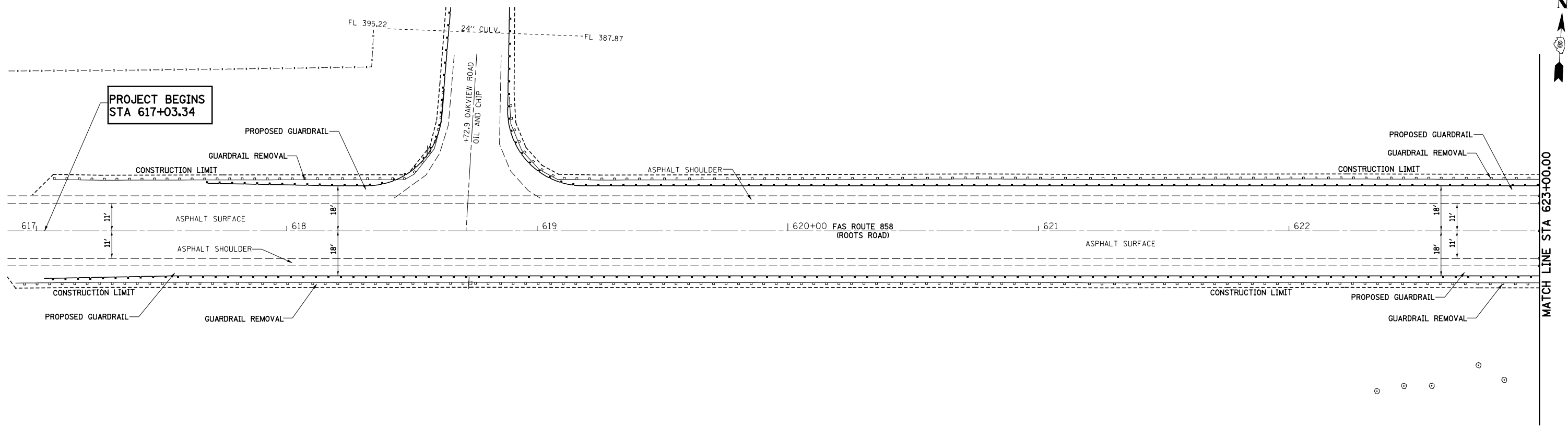


**PROJECT END**  
**POT STATION 662+33.97**  
**POINT #100**  
 N 492336.82 E 360228.97

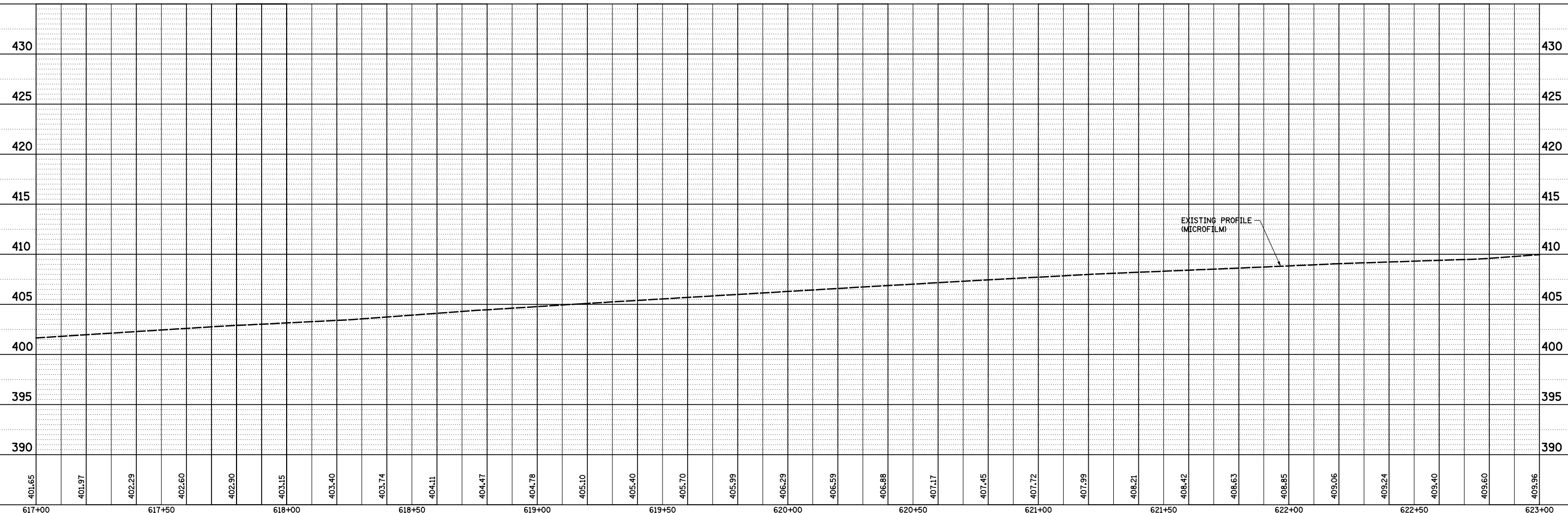
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St:\Projects\410-0022-EHY Roots Rd over	oskaskia River\ dgn\CADD Sheets\D876H81-sht-1	DRAWN - WJS	REVISED -				858	12-B-1	RANDOLPH	90	13
	PLOT SCALE = 200.0000' / 1\"/>										
	PLOT DATE = 2/26/2015	CHECKED - BRM	REVISED -		SCALE: NONE		SHEET NO. 2 OF 2 SHEETS	STA.	TO STA.	CONTRACT NO. 76H81	
		DATE - 01-26-15	REVISED -	ILLINOIS FED. AID PROJECT							

PLAN	SURVEYED EXISTING	BY	DATE
	PLOTTED		
	ALIGNMENT CHECKED		
	STRUCTURE NOT AT THIS CHFD		
	NOTE BOOK NO.		
	CADD FILE NAME		

PROFILE	SURVEYED EXISTING	BY	DATE
	PLOTTED		
	GRADES CHECKED		
	STRUCTURE NOT AT THIS CHFD		
	NOTE BOOK NO.		
	CADD FILE NAME		



NOTE:  
SEE GUARDRAIL DETAIL SHEETS FOR EXISTING AND PROPOSED GUARDRAIL.  
FOR RIGHT OF WAY INFORMATION SEE RIGHT OF WAY PLAN SHEETS

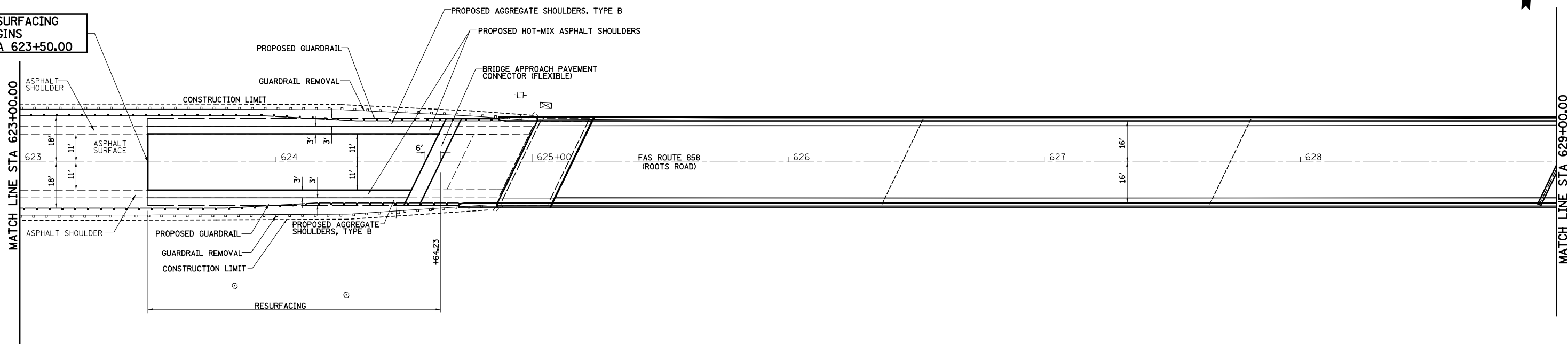


FILE NAME =	USER NAME = betsy	DESIGNED - ESW	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PLAN AND PROFILE</b>			F.A.S. RTE. 858	SECTION 12-B-1	COUNTY RANDOLPH	TOTAL SHEETS 90	SHEET NO. 14
S:\Projects\40-0022-EHY Roots Rd over Kaskaskia River.dgn	CADD Sheets\087681-sh1-plan-profile.dgn	DRAWN - PDB	REVISED -		SCALE: 1"=20'	SHEET NO. 1 OF 4 SHEETS	STA. 620+00.00 TO STA. 623+00.00	<b>CONTRACT NO. 76H81</b>				
		CHECKED - BRM	REVISED -		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT							
		DATE - 01-26-15	REVISED -									



RESURFACING BEGINS STA 623+50.00

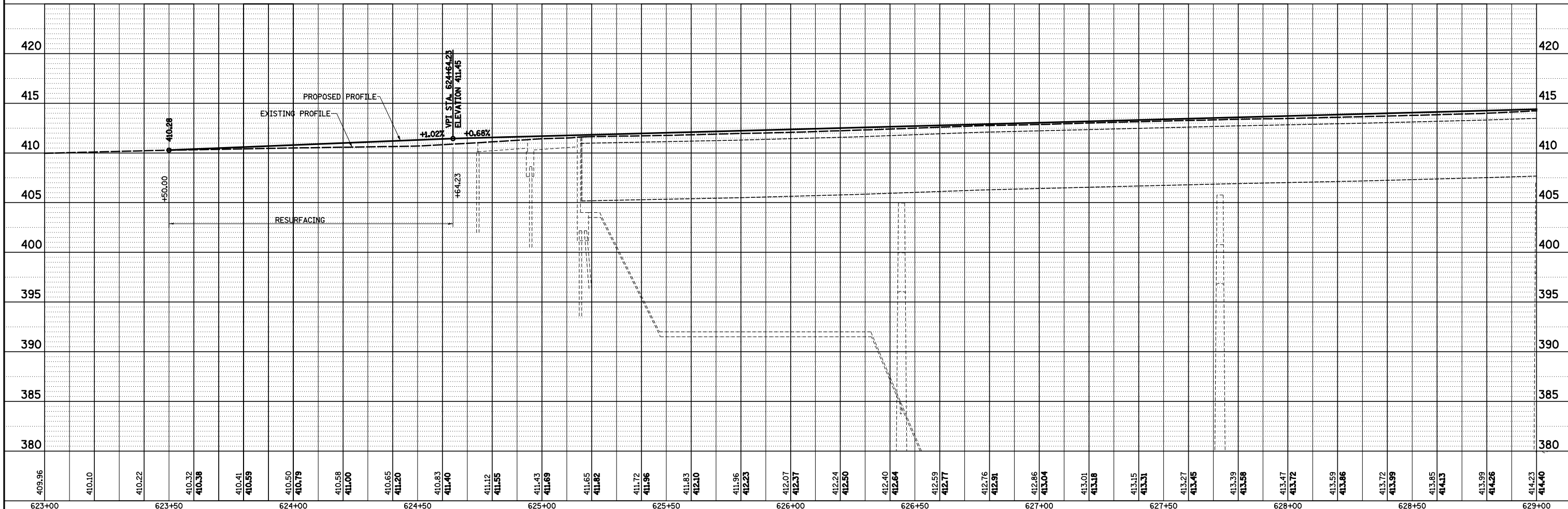
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	PLOTTED	
	ALIGNMENT CHECKED	
	ASPHALT CHECKED	
	ROAD FILE NAME	
	NO.	



NOTE:  
 SEE GUARDRAIL DETAIL SHEETS FOR EXISTING AND PROPOSED GUARDRAIL.  
 FOR RIGHT OF WAY INFORMATION SEE RIGHT OF WAY PLAN SHEETS



PROFILE	SURVEYED EXISTING	DATE
	PLOTTED	
	GRADES CHECKED	
	STRUCTURE NOTATIONS CHECKED	
	NO.	



FILE NAME =	USER NAME = betsy	DESIGNED - ESW	REVISED -
S:\Projects\40-0022-EHY Roots Rd over Kaskaskia River\cadd\Sheets\0876H81-sht-plan-profile.dgn		DRAWN - PDB	REVISED -
		CHECKED - BRM	REVISED -
		DATE - 01-26-15	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE

SCALE: 1"=20' SHEET NO. 2 OF 4 SHEETS STA. 623+00.00 TO STA. 629+00.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
858	12-B-1	RANDOLPH	90	15
CONTRACT NO. 76H81				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

PLAN	SURVEYED EXISTING	BY	DATE
	PLOTTED		
	NOTE BOOK		
	NO.		
	NO.		
	NO.		
	NO.		

PROFILE	SURVEYED EXISTING	BY	DATE
	PLOTTED		
	GRADES CHECKED		
	STRUCTURE		
	NOT AT THIS OFFICE		
	NO.		
	NO.		
	NO.		

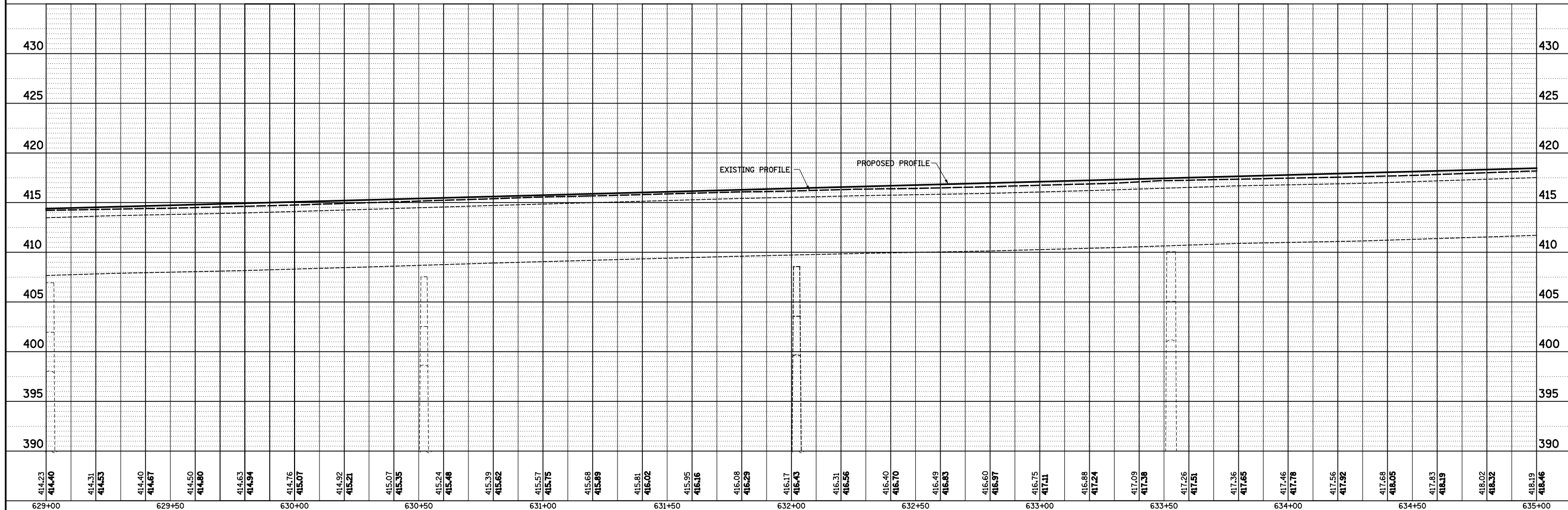
MATCH LINE STA 629+00.00

MATCH LINE STA 635+00.00

SN 079-0019  
STA 631+59.96  
FAS 858

FAS ROUTE 858  
(ROOTS ROAD)

NOTE:  
SEE GUARDRAIL DETAIL SHEETS FOR EXISTING AND PROPOSED GUARDRAIL.  
FOR RIGHT OF WAY INFORMATION SEE RIGHT OF WAY PLAN SHEETS

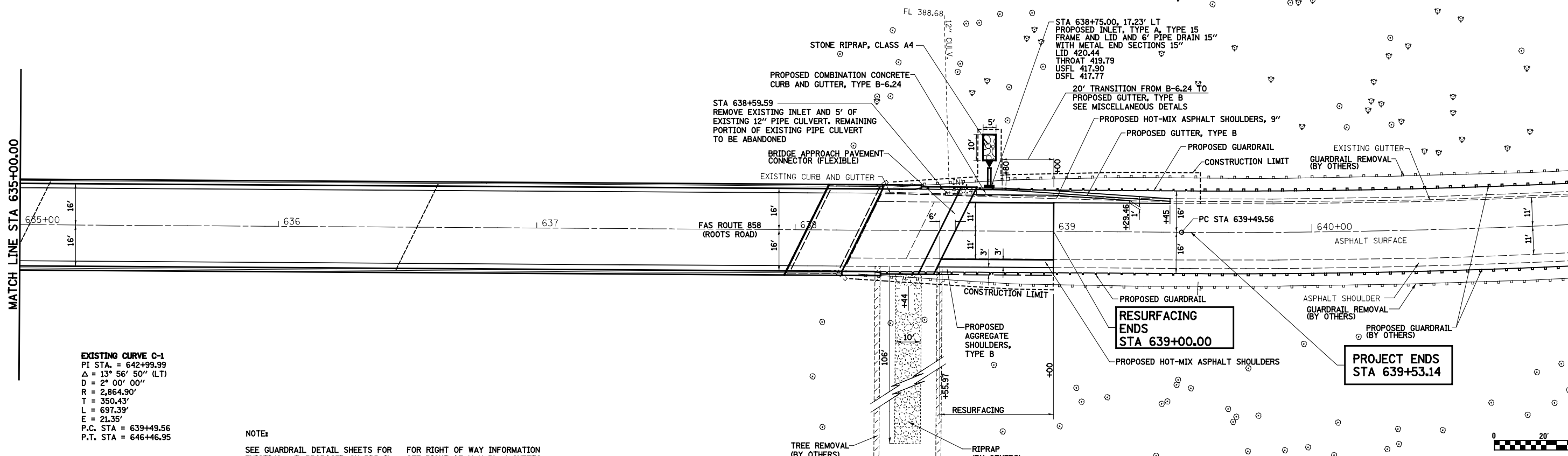


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S:\Projects\40-0022-EHY Roots Rd over Kaskaskia River\cadd\Sheets\0876H81-sh1-plan-profile.dgn	PLOT SCALE = 48.0000' / in.	DRAWN - PDB	REVISED -		SCALE: 1"=20'	SHEET NO. 3 OF 4 SHEETS	STA. 629+00.00 TO STA. 635+00.00	<b>CONTRACT NO. 76H81</b>				
PLOT DATE = 2/26/2015	DATE - 01-26-15	CHECKED - BRM	REVISED -		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT							
		DATE - 01-26-15	REVISED -									

PLAN	SURVEYED EXISTING	BY	DATE
	PLOTTED		
	GRADES CHECKED		
	STRUCTURE NOTATIONS CHECKED		
	NOTE BOOK NO.		
	CARD FILE NAME		

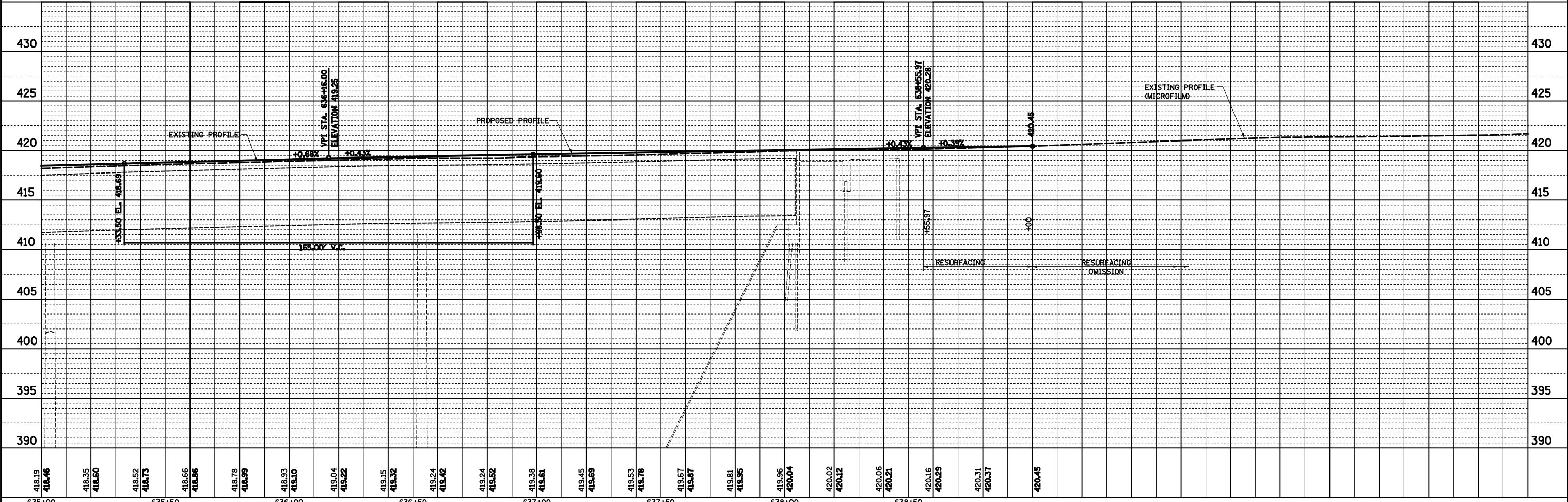
PROFILE	SURVEYED EXISTING	BY	DATE
	PLOTTED		
	GRADES CHECKED		
	STRUCTURE NOTATIONS CHECKED		
	NOTE BOOK NO.		
	CARD FILE NAME		

MATCH LINE STA 635+00.00



EXISTING CURVE C-1  
 PI STA. = 642+99.99  
 $\Delta = 13^\circ 56' 50''$  (LT)  
 $D = 2^\circ 00' 00''$   
 $R = 2,864.90'$   
 $T = 350.43'$   
 $L = 697.39'$   
 $E = 21.35'$   
 P.C. STA = 639+49.56  
 P.T. STA = 646+46.95

NOTE:  
 SEE GUARDRAIL DETAIL SHEETS FOR EXISTING AND PROPOSED GUARDRAIL. FOR RIGHT OF WAY INFORMATION SEE RIGHT OF WAY PLAN SHEETS



FILE NAME =	USER NAME = betsy	DESIGNED - ESW	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>PLAN AND PROFILE</b> SCALE: 1"=20' SHEET NO. 4 OF 4 SHEETS STA. 635+00.00 TO STA. 641+00.00	F.A.S. RTE. 858	SECTION 12-B-1	COUNTY RANDOLPH	TOTAL SHEETS 90	SHEET NO. 17
S:\Projects\40-0022-EHY Roots Rd over Koskaoka River\cadd\Sheet\0876H81-ah-plan-profile.dgn	PLOT SCALE = 48.0000' / in.	DRAWN - PDB	REVISED -			CONTRACT NO. 76H81				
PLOT DATE = 2/27/2015	DATE - 01-26-15	CHECKED - BRM	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
		DATE - 01-26-15	REVISED -							

# EROSION CONTROL & SEDIMENT CONTROL NOTES

ALL EROSION CONTROL PRODUCTS FURNISHED SHALL BE SPECIFICALLY RECOMMENDED BY THE MANUFACTURER FOR THE USE SPECIFIED IN THE EROSION CONTROL PLANS. PRIOR TO APPROVAL AND USE OF THE PRODUCT, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A NOTARIZED CERTIFICATION BY THE PRODUCER STATING THE INTENDED USE OF THE PRODUCT AND THAT THE PHYSICAL PROPERTIES REQUIRED FOR THIS APPLICATION ARE MET OR EXCEEDED. THE CONTRACTOR SHALL PROVIDE THE MANUFACTURER RECOMMENDED INSTALLATION PROCEDURES TO FACILITATE THE ENGINEER IN CONSTRUCTION INSPECTION.

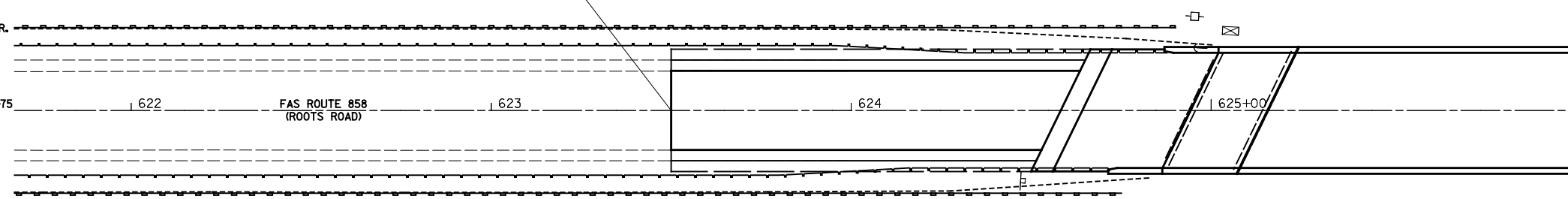
TEMPORARY SEEDING SHALL BE COMPLETED ON A WEEKLY BASIS ON EXPOSED GROUND AND WILL NOT BE PAID FOR SEPARATELY BUT CONSIDERED AS INCLUDED IN THE PERMANENT SEEDING ITEMS.

ALL AREAS DISTURBED FOR ANY REASON SHALL BE PERMANENTLY SEEDED AS DIRECTED BY THE ENGINEER. ALL AREAS DISTURBED BY THE CONTRACTOR OUTSIDE THE PROPOSED CONSTRUCTION LIMITS SHALL BE SEEDED AT THE CONTRACTOR'S EXPENSE.

FINAL SEEDING SHALL BE PERFORMED AS SOON AS POSSIBLE.

QUANTITIES FOR PERIMETER EROSION BARRIER WERE INCLUDED FROM STATION 617+00 TO STATION 624+75 RT, STATION 617+65 TO STATION 618+70 LT, AND STATION 618+85 TO STATION 624+90 LT. SEE SCHEDULES FOR QUANTITIES.

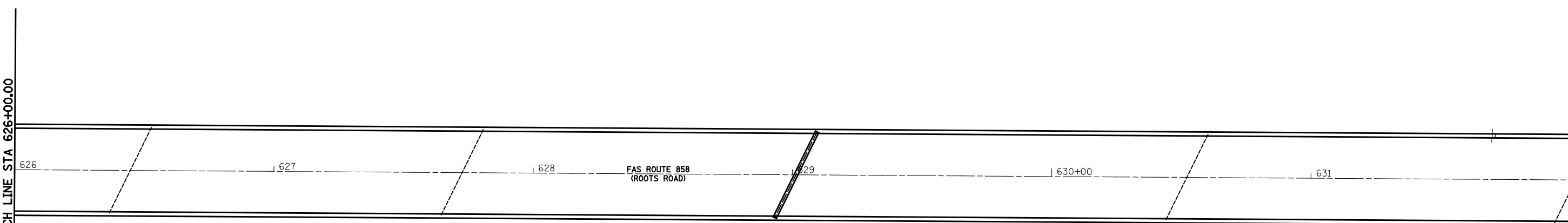
RESURFACING BEGINS STA 623+50.00



FOR RIGHT OF WAY INFORMATION  
SEE RIGHT OF WAY PLAN SHEETS

MATCH LINE STA 626+00.00

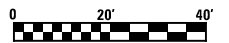
MATCH LINE STA 632+00.00



### LEGEND

ITEM	SYMBOL
TEMPORARY DITCH CHECKS	
PERIMETER EROSION BARRIER	
INLET AND PIPE PROTECTION	
SEDIMENT BASIN	

FOR RIGHT OF WAY INFORMATION  
SEE RIGHT OF WAY PLAN SHEETS



FILE NAME = #FILEL\$	USER NAME = betsy	DESIGNED - ESW	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>EROSION AND SEDIMENT CONTROL PLAN</b>	F.A.S. RTE. 858	SECTION 12-B-1	COUNTY RANDOLPH	TOTAL SHEETS 90	SHEET NO. 18		
	PLOT SCALE = 48.0000' / in.	CHECKED - BRM	REVISED -			SCALE: 1"=20'	SHEET NO. 1 OF 2 SHEETS	STA. 629+00.00 TO STA. 641+00.00		CONTRACT NO. 76H81		
	PLOT DATE = 2/26/2015	DATE - 01-26-15	REVISED -			ILLINOIS FED. AID PROJECT						



MATCH LINE STA 632+00.00

MATCH LINE STA 638+00.00

632 | 633 | 634 | FAS ROUTE 858 (ROOTS ROAD) | 635+00 | 636 | 637

FOR RIGHT OF WAY INFORMATION  
SEE RIGHT OF WAY PLAN SHEETS



MATCH LINE STA 638+00.00

RESURFACING  
ENDS  
STA 639+00.00

PROJECT ENDS  
STA 639+53.14

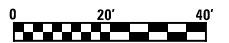
638 | STA 638+14 20' LT | PROPOSED PERIMETER EROSION BARRIER | STA 639+55 20' LT | 639 | FAS ROUTE 858 (ROOTS ROAD) | 640+00 | 641 | 642 | 643

STA 638+00 20' RT  
PROPOSED PERIMETER EROSION BARRIER  
RIPRAP (BY OTHERS)  
STA 638+44, 120' RT  
SEDIMENT BASIN  
5' X 5' (BY OTHERS)

**LEGEND**

ITEM	SYMBOL
TEMPORARY DITCH CHECKS	
PERIMETER EROSION BARRIER	
INLET AND PIPE PROTECTION	
SEDIMENT BASIN	

FOR RIGHT OF WAY INFORMATION  
SEE RIGHT OF WAY PLAN SHEETS



FILE NAME =  
#FILE#

USER NAME = betsy  
PLOT SCALE = 48.0000' / in.  
PLOT DATE = 2/26/2015

DESIGNED - ESW  
DRAWN - PDB  
CHECKED - BRM  
DATE - 01-26-15

REVISED -  
REVISED -  
REVISED -  
REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**EROSION AND SEDIMENT CONTROL PLAN**

SCALE: 1"=20' SHEET NO. 2 OF 2 SHEETS STA. 641+00.00 TO STA. 653+00.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
858	12-B-1	RANDOLPH	90	19
CONTRACT NO. 76H81				
ILLINOIS FED. AID PROJECT				

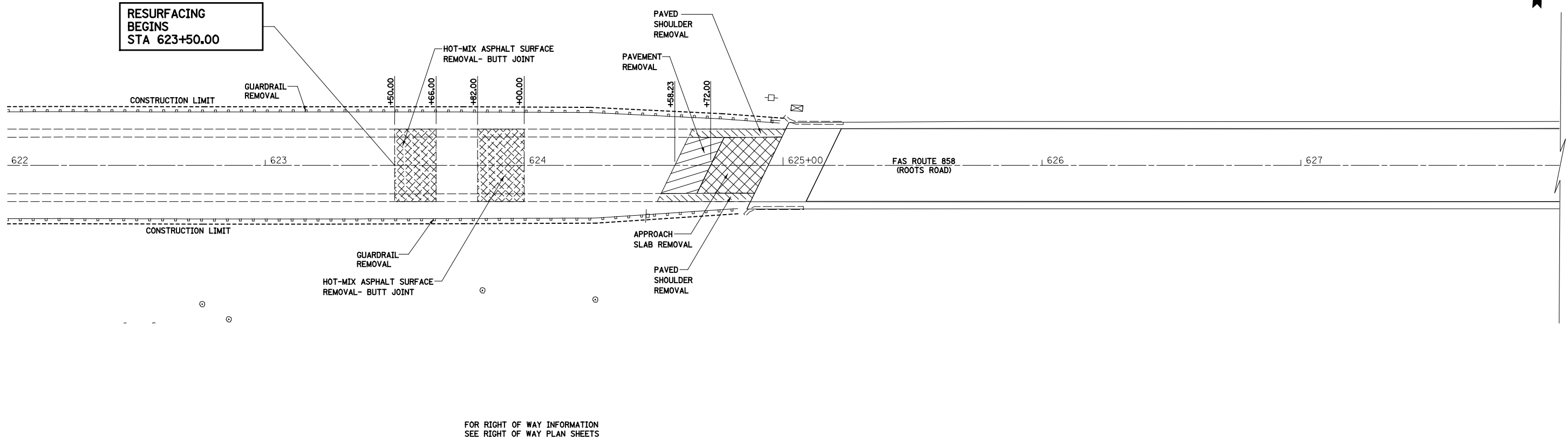




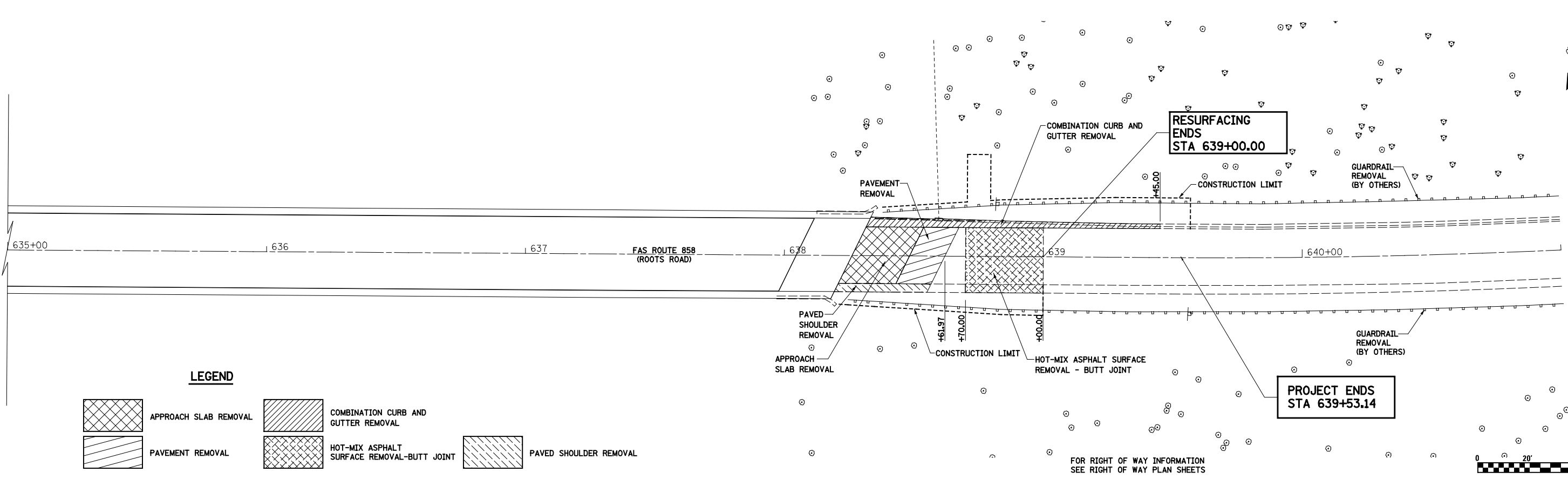




RESURFACING BEGINS STA 623+50.00



FOR RIGHT OF WAY INFORMATION SEE RIGHT OF WAY PLAN SHEETS



**LEGEND**

- APPROACH SLAB REMOVAL
- COMBINATION CURB AND GUTTER REMOVAL
- PAVEMENT REMOVAL
- HOT-MIX ASPHALT SURFACE REMOVAL-BUTT JOINT
- PAVED SHOULDER REMOVAL

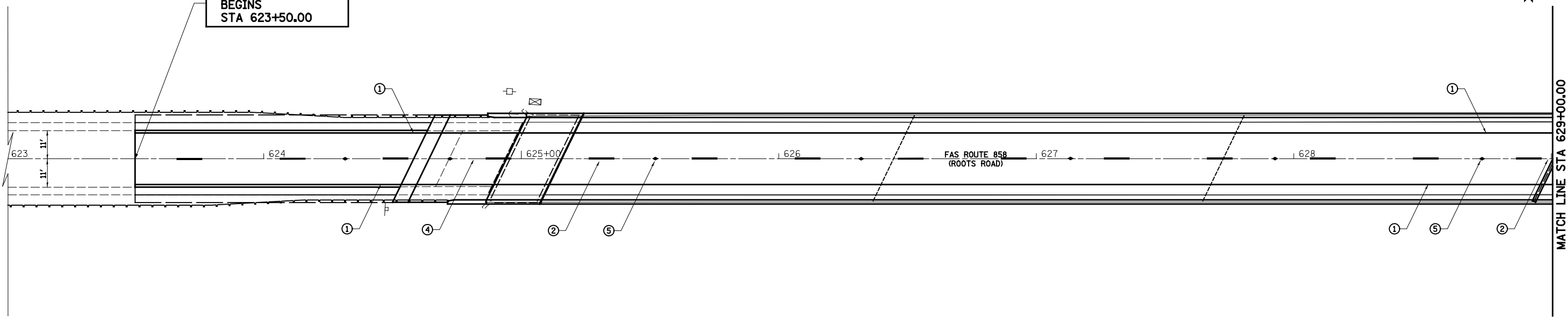
FOR RIGHT OF WAY INFORMATION SEE RIGHT OF WAY PLAN SHEETS



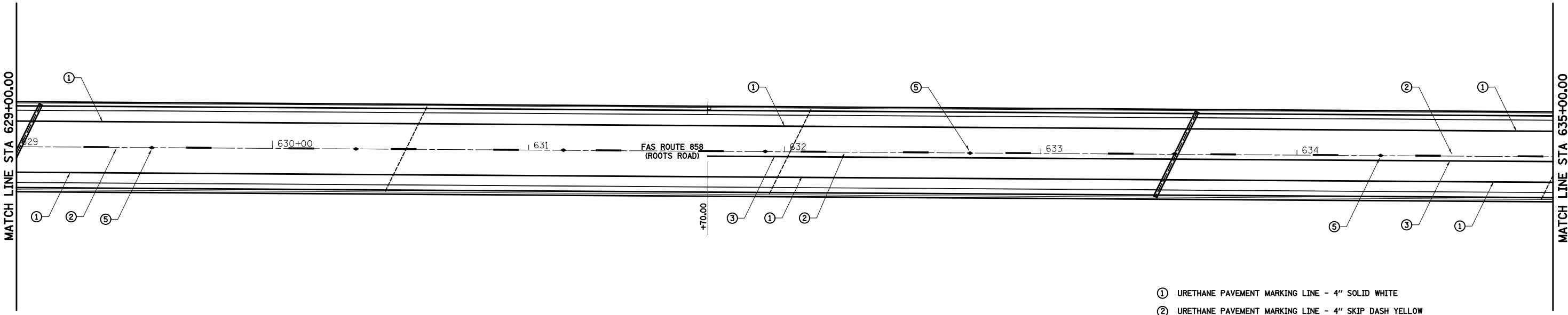
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	PLOT SCALE = 48.0000' / in.	DRAWN - PDB	REVISED -		SCALE: 1"=20'	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	CONTRACT NO. 76H81				
	PLOT DATE = 2/26/2015	CHECKED - BRM	REVISED -		ILLINOIS FED. AID PROJECT							
		DATE - 01-26-15	REVISED -									



RESURFACING  
BEGINS  
STA 623+50.00



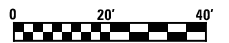
MATCH LINE STA 629+00.00



MATCH LINE STA 629+00.00

MATCH LINE STA 635+00.00

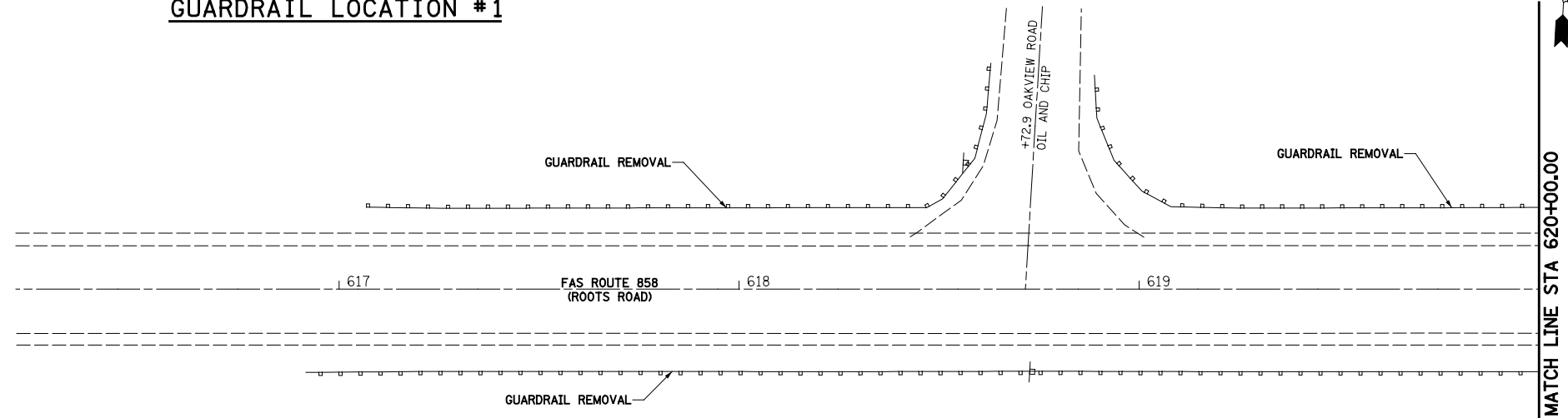
- ① URETHANE PAVEMENT MARKING LINE - 4" SOLID WHITE
- ② URETHANE PAVEMENT MARKING LINE - 4" SKIP DASH YELLOW
- ③ URETHANE PAVEMENT MARKING LINE - 4" SOLID YELLOW
- ④ RAISED REFLECTIVE PAVEMENT MARKERS - AMBER, TWO-WAY
- ⑤ RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE) - AMBER, TWO-WAY



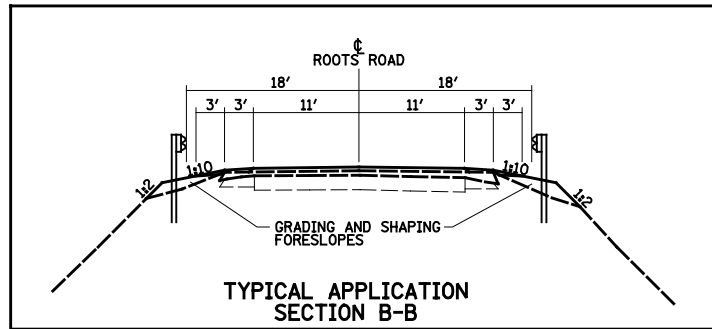
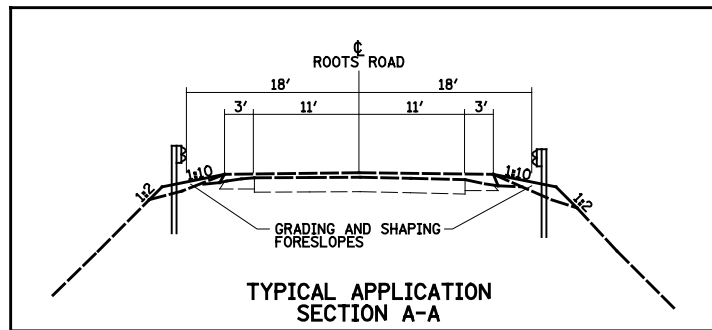
FILE NAME = *FILEL*	USER NAME = betsy	DESIGNED - ESW	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PAVEMENT MARKING - FAS 858 (ROOTS ROAD)</b>		F.A.S. RTE. 858	SECTION 12-B-1	COUNTY RANDOLPH	TOTAL SHEETS 90	SHEET NO. 23	
	PLOT SCALE = 48.0000' / in.	CHECKED - BRM	REVISED -				SCALE: 1"=20'		SHEET NO. 1 OF 2 SHEETS		STA. 623+00.00 TO STA. 635+00.00	
PLOT DATE = 2/26/2015	DATE - 01-26-15	REVISED -			ILLINOIS FED. AID PROJECT							



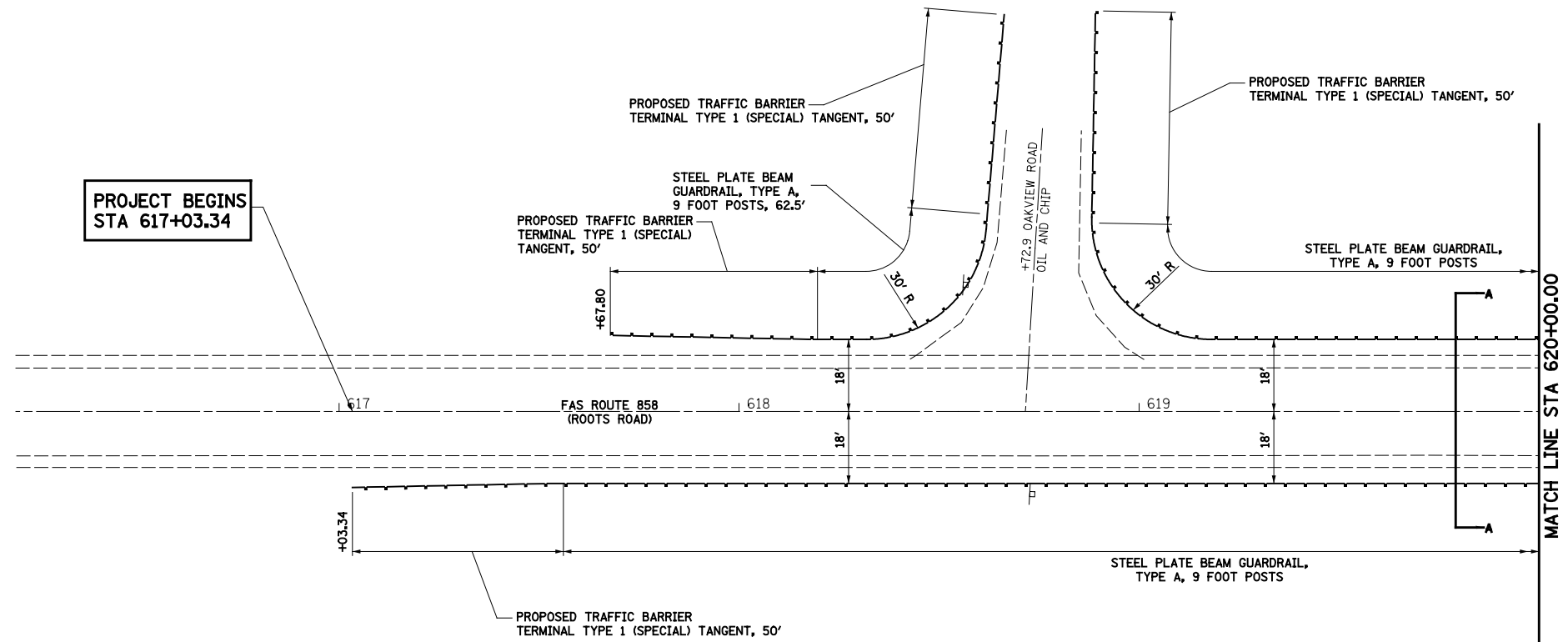
**GUARDRAIL LOCATION #1**



**EXISTING CONDITION**



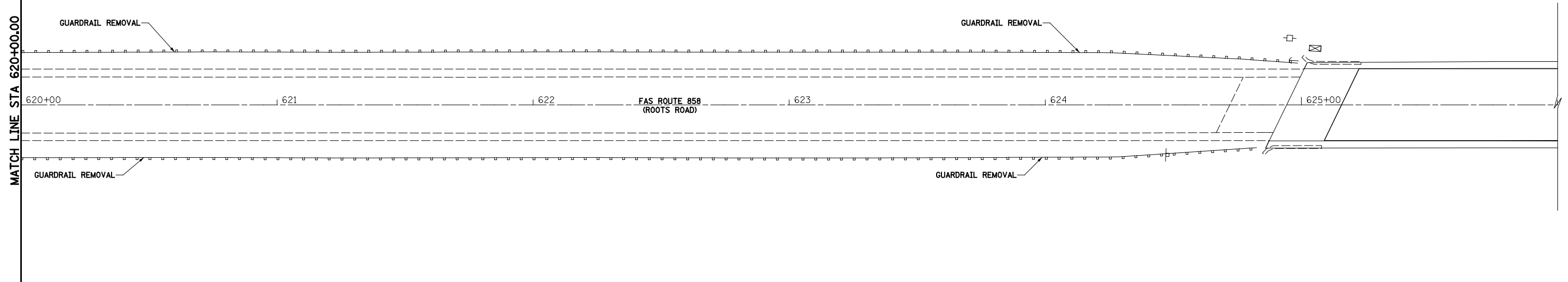
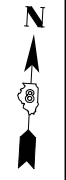
PROJECT BEGINS  
STA 617+03.34



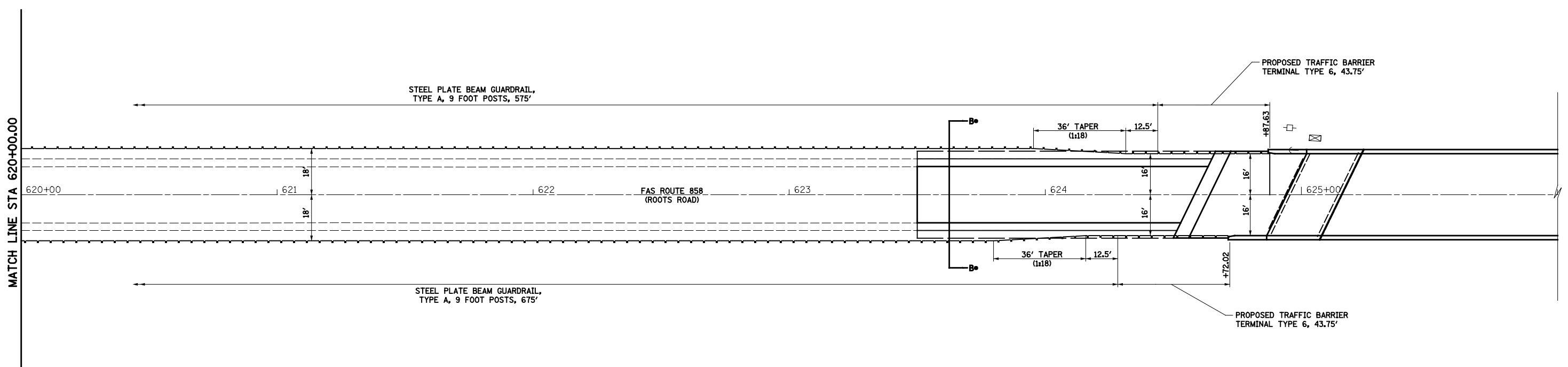
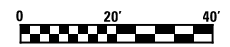
**PROPOSED CONDITION**

FILE NAME = #FILEL#	USER NAME = betsy	DESIGNED - ESW	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>GUARDRAIL DETAILS FAS 858, ROOTS ROAD</b>			F.A.S. RTE. 858	SECTION 12-B-1	COUNTY RANDOLPH	TOTAL SHEETS 90	SHEET NO. 25
	PLOT SCALE = 48.0000' / in.	DRAWN - PDB	REVISED -		SCALE: 1"=20'	SHEET NO. 1 OF 3 SHEETS	STA. 614+00.00 TO STA. 620+00.00	CONTRACT NO. 76H81		ILLINOIS FED. AID PROJECT		
	PLOT DATE = 2/26/2015	CHECKED - BRM	REVISED -									
		DATE - 01-26-15	REVISED -									

**GUARDRAIL LOCATION #1**

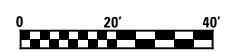


**EXISTING CONDITION**



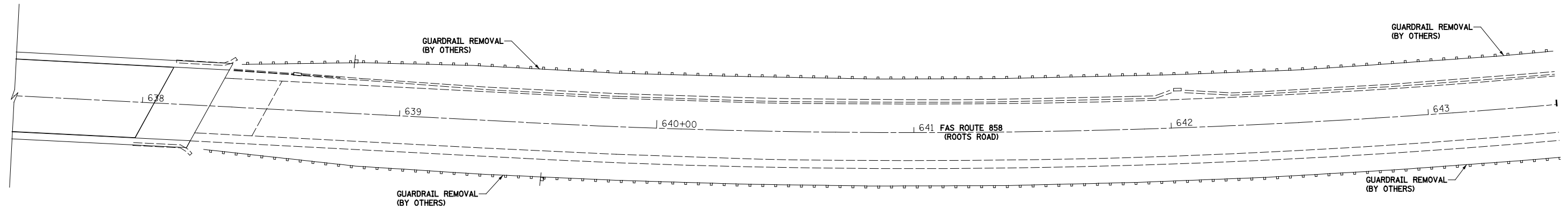
• SEE SHEET 1 OF 3 OF GUARDRAIL DETAILS FOR TYPICAL APPLICATION SECTION B-B

**PROPOSED CONDITION**

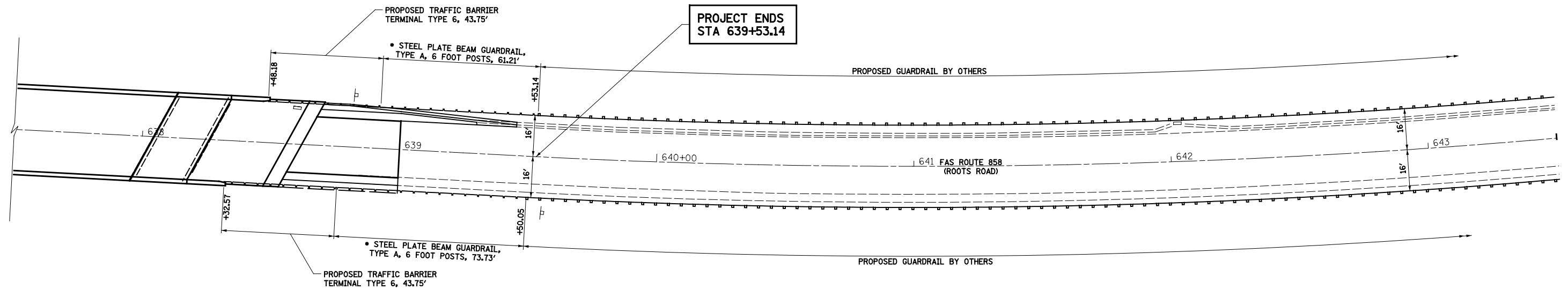
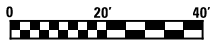


FILE NAME = #FILEL\$	USER NAME = betsy	DESIGNED - ESW	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>GUARDRAIL DETAILS FAS 858, ROOTS ROAD</b>		F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 40.0000' / in.	DRAWN - PDB	REVISED -				858	12-B-1	RANDOLPH	90	26
PLOT DATE = 2/26/2015	CHECKED - BRM	REVISED -	SCALE: 1"=20'		SHEET NO. 2 OF 3 SHEETS		STA. 620+00.00 TO STA. 626+00.00		CONTRACT NO. 76H81		
	DATE - 01-26-15	REVISED -	ILLINOIS FED. AID PROJECT								

## GUARDRAIL LOCATION #2

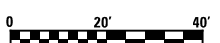


### EXISTING CONDITION

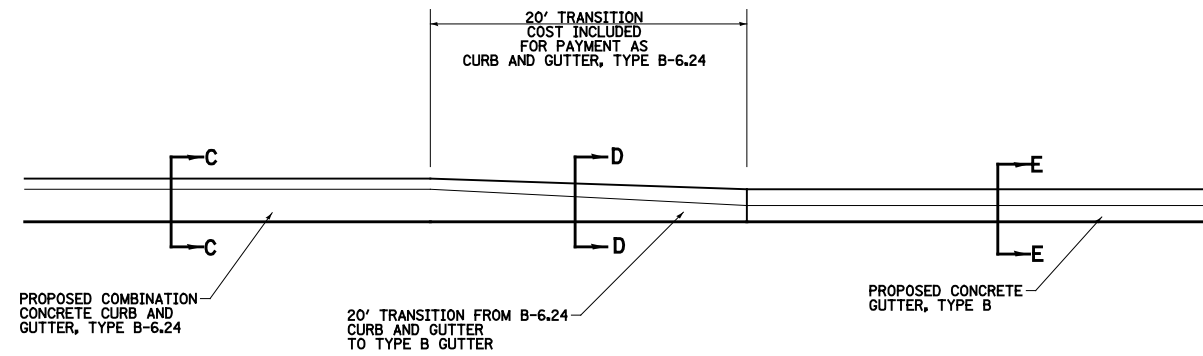


### PROPOSED CONDITION

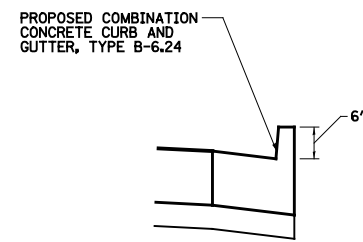
• THIS REACH OF STEEL PLATE BEAM GUARDRAIL, TYPE A REQUIRES AT LEAST ONE SPLICE DETAIL. (SEE MISCELLANEOUS DETAILS)



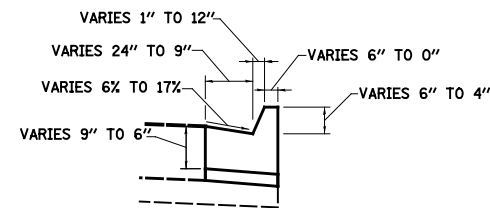
FILE NAME =	USER NAME = betsy	DESIGNED - ESW	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>GUARDRAIL DETAILS FAS 858, ROOTS ROAD</b>	F.A.S. RTE. 858	SECTION 12-B-1	COUNTY RANDOLPH	TOTAL SHEETS 90	SHEET NO. 27	
®FILEL\$		DRAWN - PDB	REVISED -			SCALE: 1"=20'	SHEET NO. 3 OF 3 SHEETS	STA. 637+50.00 TO STA. 643+50.00	CONTRACT NO. 76H81		ILLINOIS FED. AID PROJECT
	PLOT SCALE = 40.0000' / in.	CHECKED - BRM	REVISED -								
	PLOT DATE = 2/26/2015	DATE - 01-26-15	REVISED -								



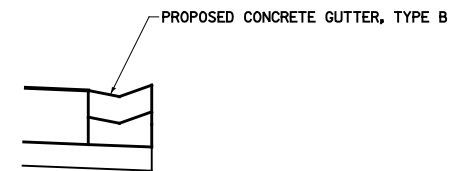
CURB AND GUTTER TRANSITION DETAIL



SECTION C-C



SECTION D-D



SECTION E-E

FILE NAME =	USER NAME = betsy	DESIGNED - ESW	REVISED -
S:\Projects\410-0022-EHY Route Rd over Kaaskalo River\dwg\CADD Sheets\0876H81-sh1-detail.dgn		DRAWN - PDB	REVISED -
	PLOT SCALE = 40.0000' / in.	CHECKED - BRM	REVISED -
	PLOT DATE = 2/26/2015	DATE - 01-26-15	REVISED -

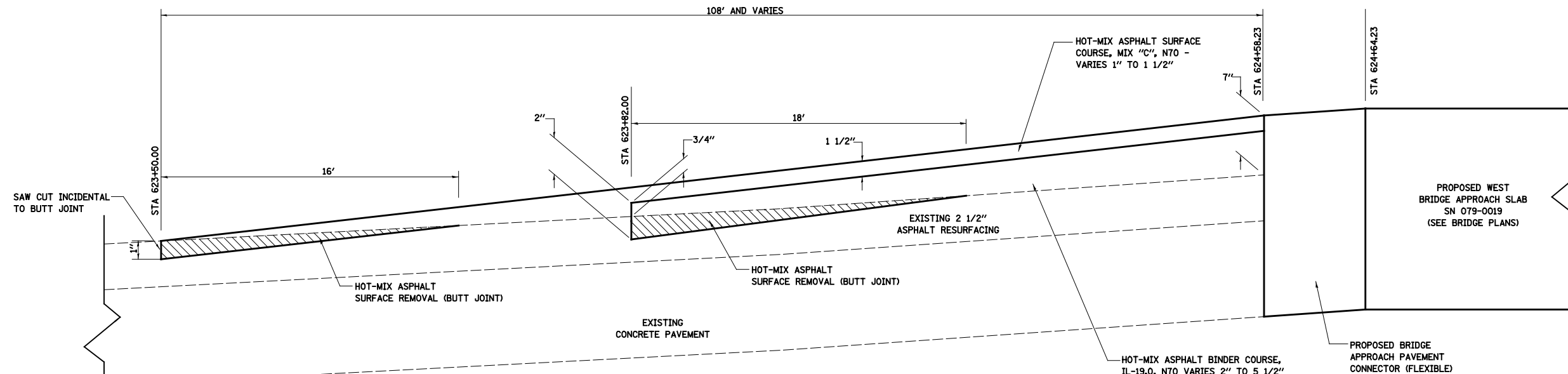
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**MISCELLANEOUS DETAILS**

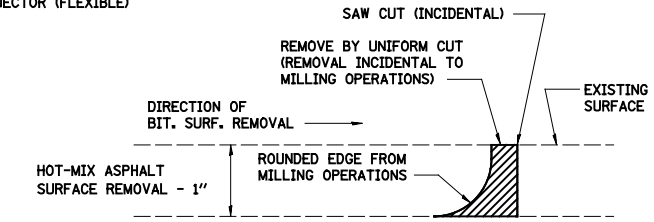
SCALE: 1"=20'      SHEET NO. 1 OF 2 SHEETS      STA.      TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
858	12-B-1	RANDOLPH	90	28
FED. ROAD DIST. NO.      ILLINOIS FED. AID PROJECT			CONTRACT NO. 76H81	



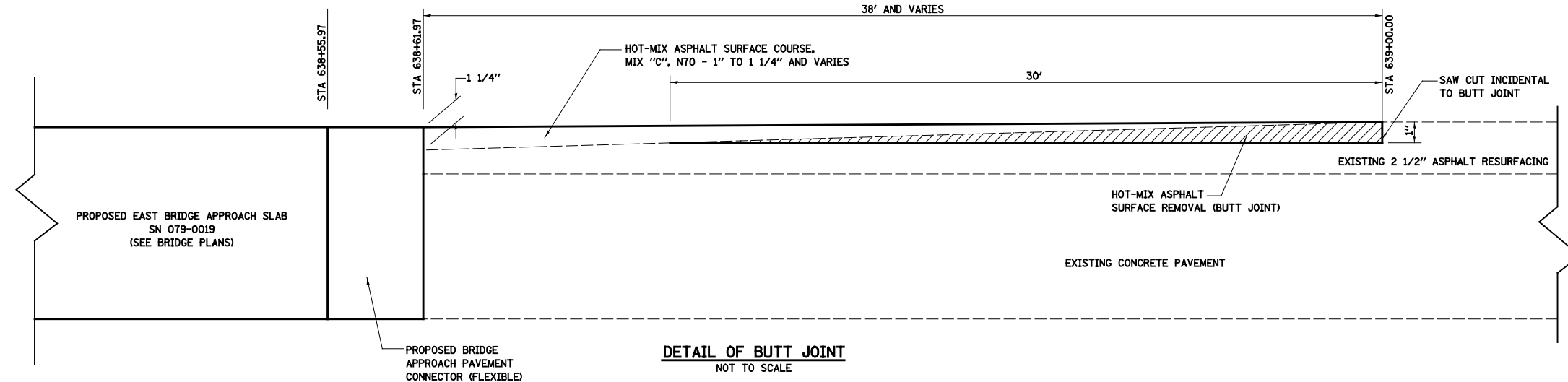


**DETAIL OF BUTT JOINT**  
NOT TO SCALE

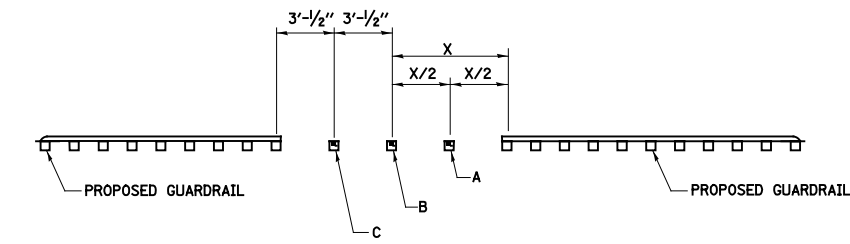


NOTE: WHEN MILLING OPERATIONS PRODUCE A ROUNDED EDGE, THEN A SAW CUT SHALL BE USED TO MANUFACTURE A PERPENDICULAR EDGE AS SHOWN IN THE DETAIL. THE ENGINEER SHALL BE THE SOLE JUDGE CONCERNING THE USE OF THIS DETAIL.

**BITUMINOUS DETAIL AT BUTT JOINTS**  
NOT TO SCALE



**DETAIL OF BUTT JOINT**  
NOT TO SCALE



**GUARDRAIL SPLICE DETAIL**

1. INSTALL POST B HALFWAY BETWEEN POST A AND C.
2. FIELD DRILL RAIL ELEMENT AT B AND A AND ATTACH USING NEW BOLTS, NUTS AND WASHERS. PAINT DRILLED HOLES WITH ZINC-RICH PAINT.
3. INSTALL VARIABLE LENGTH RAIL TO SPAN GAP BETWEEN POST A AND C, USING NEW SPLICE PLATES, BOLTS AND NUTS. ADJUST POST SPACING SO THAT X/2 IS BETWEEN 3'- 1/2" TO 6'- 3"
4. THE COST OF CONNECTING THE PROPOSED GUARDRAIL SHALL BE INCLUDED IN THE COST OF THE ASSOCIATED GUARDRAIL PAY ITEMS.

FILE NAME =	USER NAME = betsy	DESIGNED - ESW	REVISED -
S:\Projects\410-0022-EHY Route Rd over Kaaskaskia River\Drawings\CADD Sheets\087681-sh1-misc.dgn		DRAWN - PDB	REVISED -
	PLOT SCALE = 40.0000' / in.	CHECKED - BRM	REVISED -
	PLOT DATE = 2/26/2015	DATE - 01-26-15	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS DETAILS

SCALE: 1"=20' SHEET NO. 2 OF 2 SHEETS STA. TO STA.

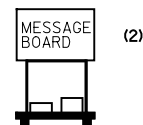
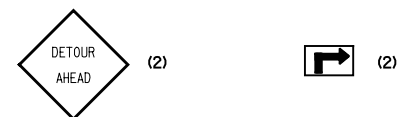
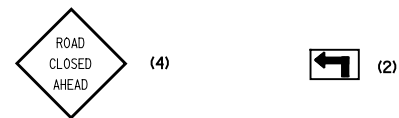
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
858	12-B-1	RANDOLPH	86	29
CONTRACT NO. 76H81				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

**NOTES**

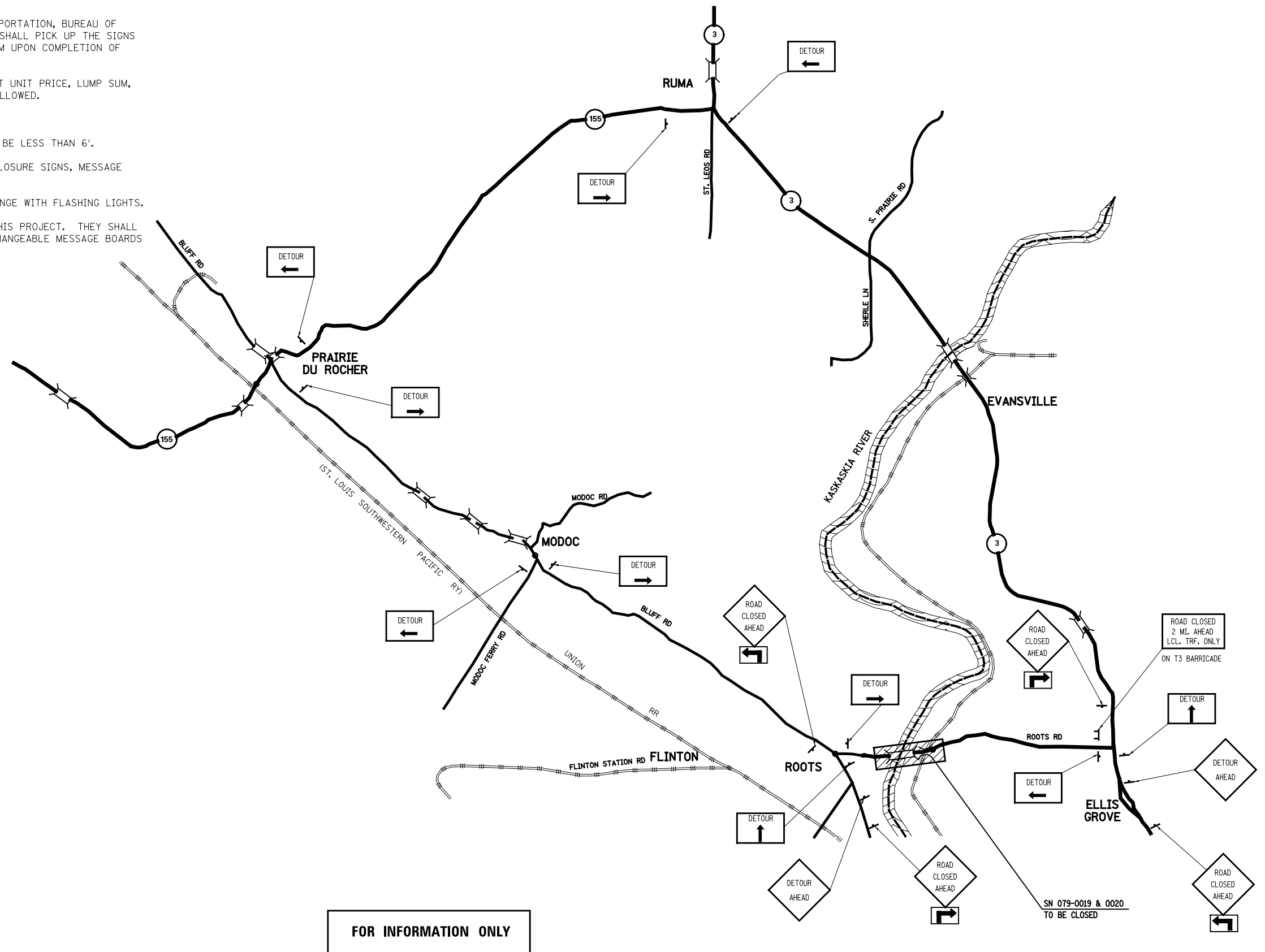
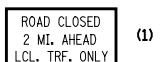
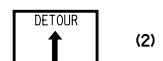
1. DETOUR SIGNS REQUIRED WILL BE SUPPLIED TO THE CONTRACTOR BY I.D.O.T.
2. THE CONTRACTOR SHALL FURNISH THE POSTS AND ERECT SIGNS AT THE LOCATIONS SHOWN ON THIS SHEET, AS DIRECTED BY THE RE/RT. THE POSTS SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.
3. THE CONTRACTOR SHALL GIVE ILLINOIS DEPARTMENT OF TRANSPORTATION, BUREAU OF OPERATIONS TWO WEEKS NOTICE FOR SIGNS. THE CONTRACTOR SHALL PICK UP THE SIGNS AT THE T.M. BUILDING IN FAIRVIEW HEIGHTS, AND RETURN THEM UPON COMPLETION OF THE CONTRACT. CONTACT JEAN SLAPE @ (618) 346-3289.
4. THE ABOVE NOTED WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE, LUMP SUM, FOR DETOUR SIGNING AND NO OTHER COMPENSATION WILL BE ALLOWED.
5. SIGN SPACING WILL BE 400' OR TO FIT FIELD CONDITIONS.
6. THE HEIGHT TO THE BOTTOM OF THE LOWEST SIGN SHALL NOT BE LESS THAN 6'.
7. CONTRACTOR SHALL FURNISH ADVANCE WARNING SIGNS, ROAD CLOSURE SIGNS, MESSAGE BOARDS, AND TYPE 3 BARRICADES
8. ALL ADVANCE WARNING SIGNS SHALL BE 48" FLUORESCENT ORANGE WITH FLASHING LIGHTS.
9. TWO CHANGEABLE MESSAGE BOARDS SHALL BE REQUIRED FOR THIS PROJECT. THEY SHALL BE PLACED TWO WEEKS PRIOR TO ANY ROAD CLOSURE. THE CHANGEABLE MESSAGE BOARDS SHALL BE PLACED AT THE DIRECTION OF THE ENGINEER.

**SIGNS REQUIRED**

TO BE PROVIDED BY CONTRACTOR

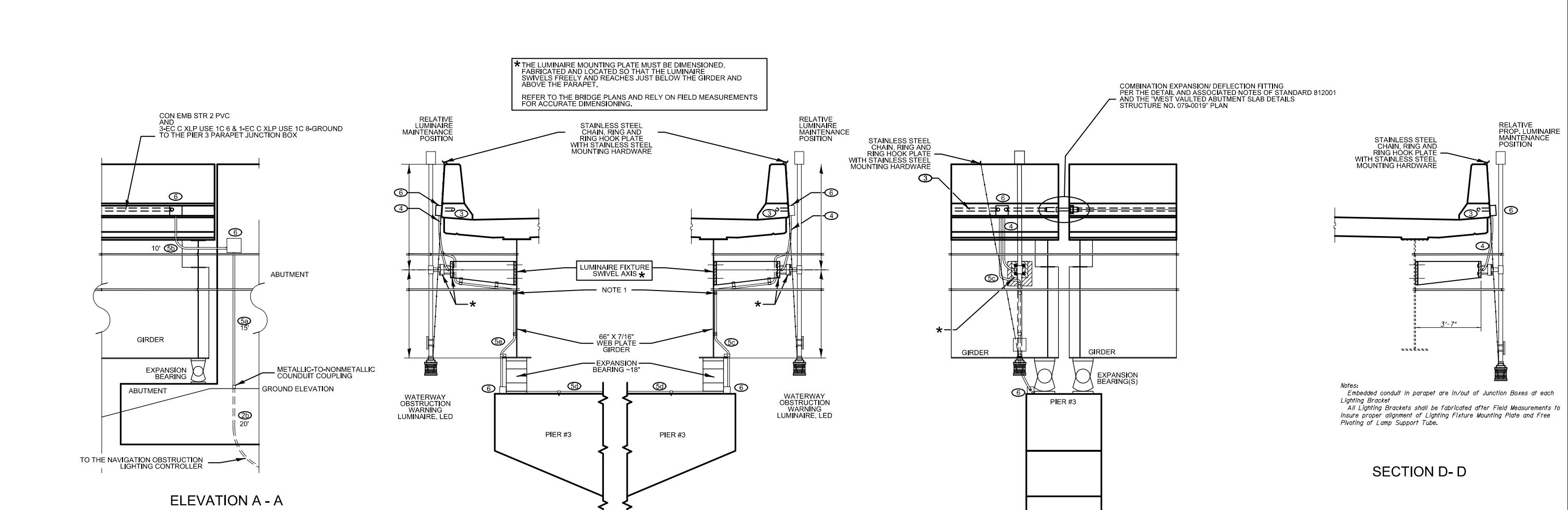
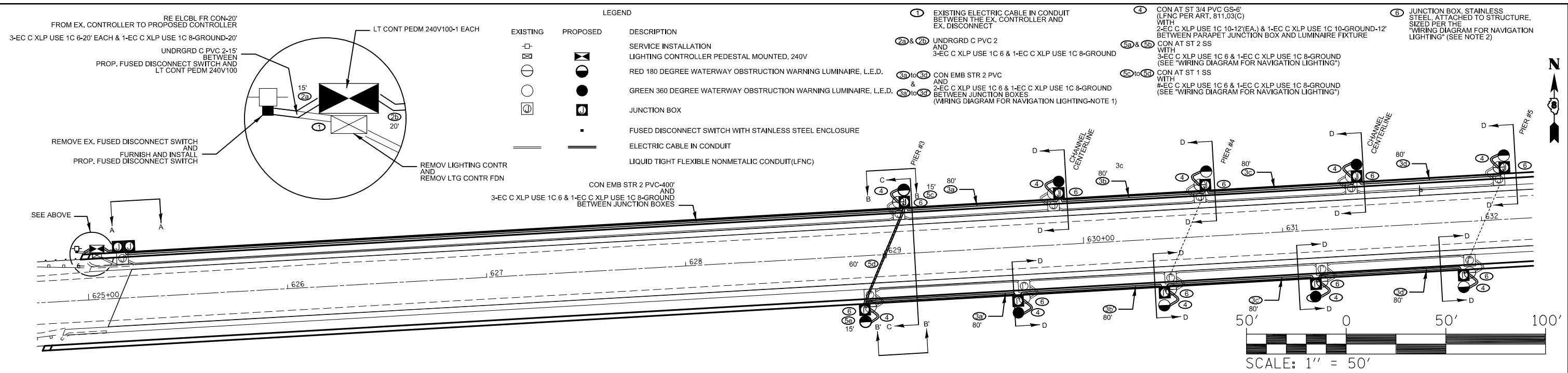


TO BE PROVIDED BY IDOT



FOR INFORMATION ONLY

FILE NAME =	USER NAME = betsy	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DETOUR SIGNING PLAN</b>			F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*FILEL*		DRAWN -	REVISED -		858	12-B-1	RANDOLPH	90	30			
	PLOT SCALE = 100.0000' / 1"	CHECKED -	REVISED -		<b>CONTRACT NO. 76H81</b>							
	PLOT DATE = 2/26/2015	DATE -	REVISED -		ILLINOIS FED. AID PROJECT							
					SCALE: 1" = 50'	SHEET NO. 1 OF 1 SHEETS	STA. _____	TO STA. _____				

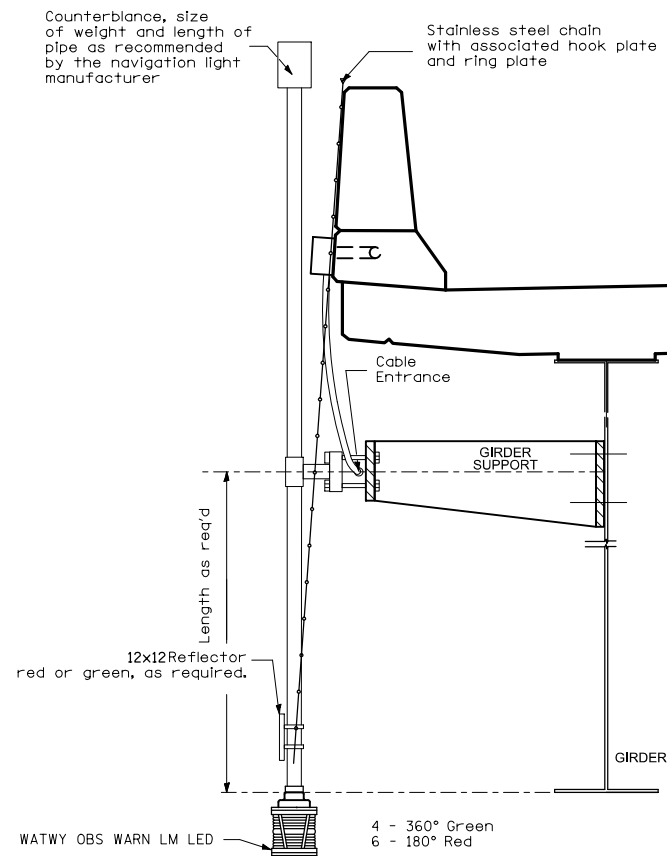


NOTE 1. CONDUIT ATTACHMENT AND ROUTING SHOWN IS DIAGRAMMATIC. THE CONTRACTOR SHALL ROUTE CONDUIT AS NEEDED BASED ON EXISTING FIELD CONDITIONS. CONDUIT ATTACHED TO STRUCTURE SHALL BE SUPPORTED ACCORDING TO NEC REQUIREMENTS.

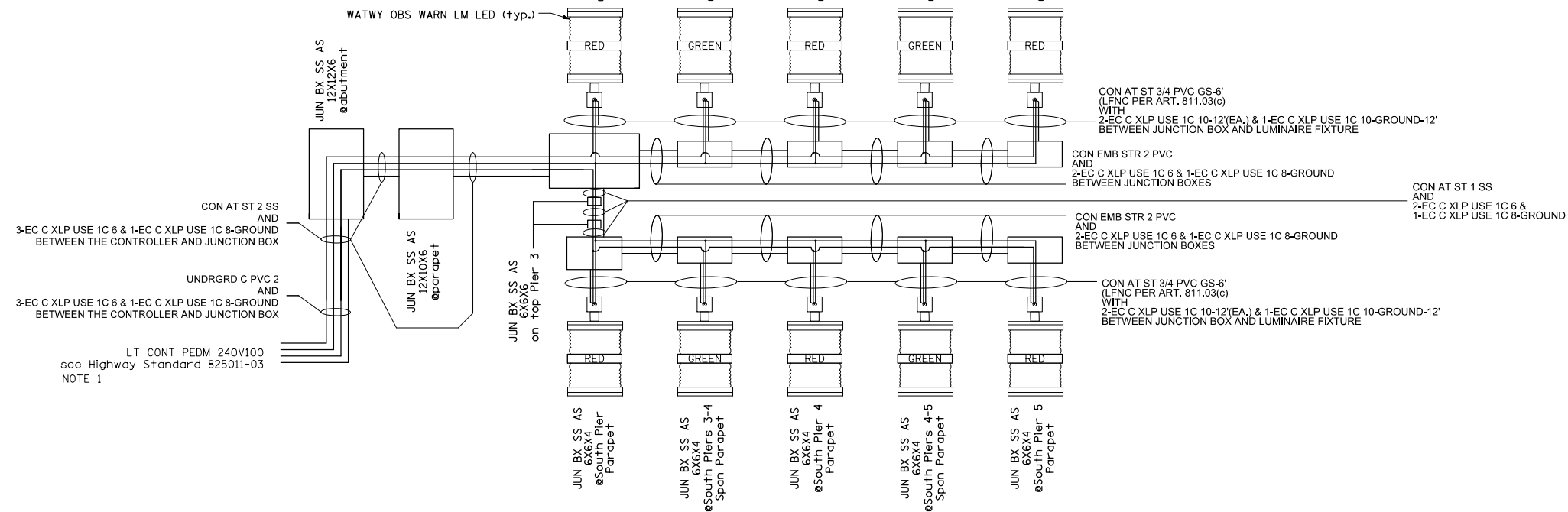
NOTE 2. JUNCTION BOX SIZES ARE MINIMUM AND SHALL BE INCREASED AS NECESSARY TO COMPLY WITH NEC AND TO ACCOMMODATE THE EASE OF WIRE INSTALLATION.

FILE NAME =	USER NAME = prestonme	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>NAVIGATION LIGHTING SYSTEM 1 OF 2</b>			F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
et:\pwork\puidot\prestonme\d0422237\d076h81-11ghtplan.dgn		DRAWN -	REVISED -					858	12-B-1	RANDOLPH	90	31
PLOT SCALE = 100.0000' / 1in.		CHECKED -	REVISED -					CONTRACT NO. 76H81				
PLOT DATE = 2/27/2015		DATE -	REVISED -					FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

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



NAVIGATION LUMINAIRE



WIRING DIAGRAM FOR NAVIGATION LIGHTING

NOTES:

- BRANCH CIRCUITS WIRING SHALL INCLUDE A NEUTRAL CONDUCTOR FED FROM THE NEUTRAL BAR.

SCHEDULE OF QUANTITIES

PAY CODE	DESCRIPTION	UNIT	TOTAL	ABBREVIATION
81028350	UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	35	UNDRGRD C PVC 2
81100220	CONDUIT ATTACHED TO STRUCTURE, 3/4" DIA., PVC COATED GALVANIZED STEEL	FOOT	60	CON AT ST 3/4 PVC GS
81200230	CONDUIT EMBEDDED IN STRUCTURE, 2" DIA., PVC	FOOT	1040	CON EMB STR 2 PVC
81300220	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 6" X 6" X 4"	EACH	9	JUN BX SS AS 6X6X4
81300530	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 12" X 10" X 6"	EACH	2	JUN BX SS AS 12X10X6
81300550	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 12" X 12" X 6"	EACH	1	JUN BX SS AS 12X12X6
81702130	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 6	FOOT	3047	EC C XLP USE 1C 6
81702120	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 8	FOOT	1270	EC C XLP USE 1C 8
81702110	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 10	FOOT	360	EC C XLP USE 1C 10
82200605	WATERWAY OBSTRUCTION WARNING LUMINAIRE, LED	EACH	10	WATWY OBS WARN LM LED
82500335	LIGHTING CONTROLLER, PEDESTAL MOUNTED, 240VOLT, 100AMP	EACH	1	LT CONT PEDM 240V100
84500110	REMOVAL OF LIGHTING CONTROLLER	EACH	1	REMOV LIGHTING CONTR
84500130	REMOVAL OF LIGHTING CONTROLLER FOUNDATION	EACH	1	REMOV LTG CONTR FDN
89502350	REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT	FOOT	20	REM & RE ELCBL FR CON
X8110454	CONDUIT ATTACHED TO STRUCTURE, 1" DIA., STAINLESS STEEL	FOOT	90	CON AT ST 1 SS
X8110458	CONDUIT ATTACHED TO STRUCTURE, 2" DIA., STAINLESS STEEL	FOOT	25	CON AT ST 2 SS

FILE NAME =	USER NAME = prestonme	DESIGNED -	REVISED -
et:\pw\work\p1dot\prestonme\d0422237\d076h81-lightplan.dgn		DRAWN -	REVISED -
	PLOT SCALE = 100.0000' / 1in.	CHECKED -	REVISED -
	PLOT DATE = 2/27/2015	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

NAVIGATION LIGHTING SYSTEM  
2 OF 2

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

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
858	12-B-1	RANDOLPH	90	32
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 76H81	

Bench Mark: Cut "□" on bridge curb at N.E. corner of Kaskaskia River Bridge S.N. 079-0019 Elev. 420.87

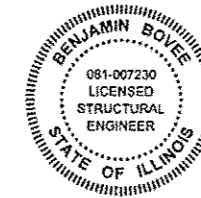
Existing Structure: S.N. 079-0019, originally constructed in 1961 as F.A. Route 182 Sec. 12-D-E-F & P at Station 631+60, using steel girders with 7" concrete deck, nine spans, 1,291'-9" back-to-back of abutments, 33'-8" out-to-out width, vaulted abutments on piles and hammerhead piers with footings on piles. Various repairs and maintenance between 1998 and 2011 including elastomeric bearing replacement, deck drains extended and plugged, beam straightening and deck patching.

Road to be closed and traffic detoured during construction.

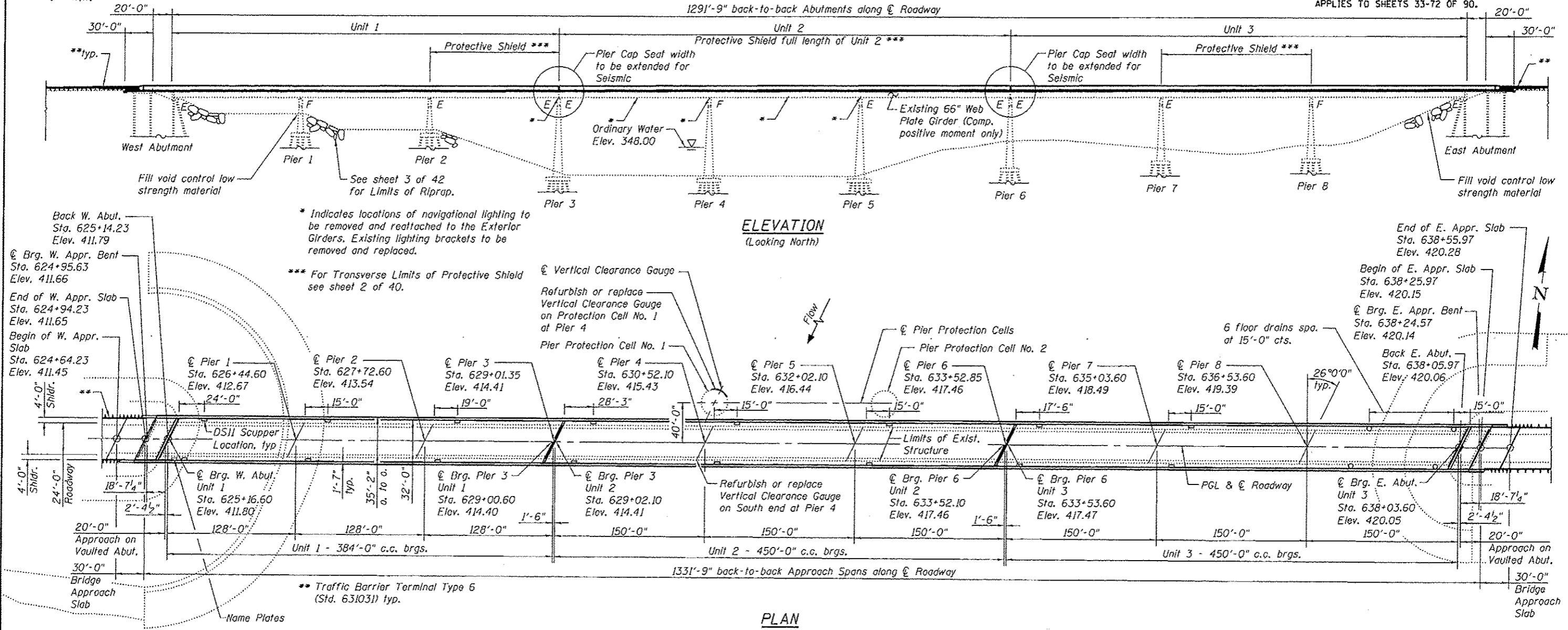
Salvage: None

**APPROVED**  
For Structural Adequacy Only

*Benjamin Bove*  
Engineer of Bridges & Structures

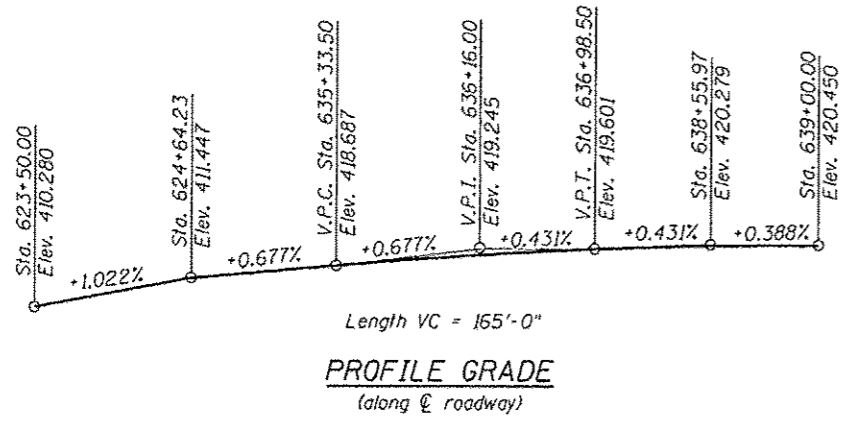


*Benjamin Bove 3/18/15*  
ILLINOIS STRUCTURAL ENGINEER  
NO. 081-007230  
LICENSE EXPIRES: 11-30-2016  
APPLIES TO SHEETS 33-72 OF 90.



**ELEVATION**  
(Looking North)

**PLAN**



**PROFILE GRADE**  
(along  $\hat{c}$  roadway)

**LOADING HS20-44**

Maximum Uniform load from optional metal stay in place forms = 5 psf. No future wearing surface allowed.

**DESIGN SPECIFICATIONS SUPERSTRUCTURE**

2002 AASHTO Standard Specifications 17th Edition  
1995 Seismic Retrofitting Manual of Highway Bridges (Reference only)

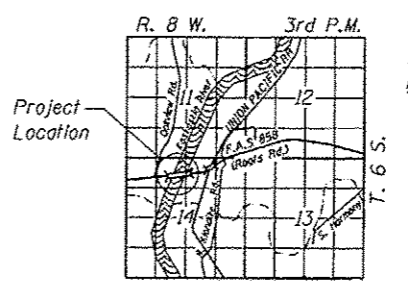
**DESIGN STRESSES**

**EXISTING STRUCTURE**  
f'c = 3,500 psi  
fy = 40,000 psi (Reinforcement)  
fy = 32,000 psi (Structural Steel)

**NEW CONSTRUCTION**  
f'c = 3,500 psi  
fy = 60,000 psi (Reinforcement)  
fy = 50,000 psi (AASHTO M270 Grade 50)  
fy = 36,000 psi (AASHTO M270 Grade 36)

**SEISMIC DATA**

Seismic Performance Category (SPC) = B  
Horizontal Bedrock Acceleration (A) = 0.125g  
Site Coefficient = 1.5

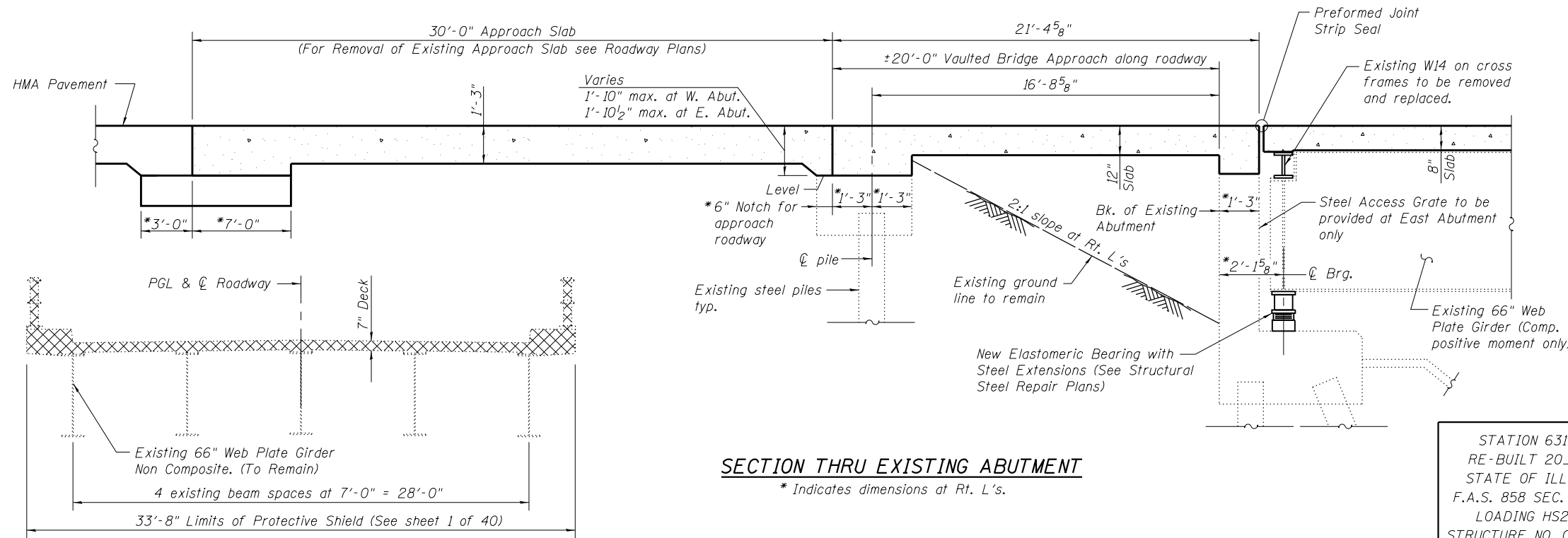


**LOCATION SKETCH**

**GENERAL PLAN & ELEVATION**  
**ROOTS RD. OVER KASKASKIA RIVER**  
(PUBLIC WATER)  
F.A.S. RTE. 858 - SEC. 12-B-1  
RANDOLPH COUNTY  
STATION 631+60  
STRUCTURE NUMBER 079-0019

S:\p\079-0019-0022-EHV Roots Rd. over Kaskaskia River\bridge\plan\Plan\_079-0019-0022-EHV.dwg

<p>LOCHMUELLER GROUP 1171 N. BROADWAY &amp; 8TH ST. SPRINGFIELD, ILLINOIS 62761 PHONE 217-241-1100</p>	USER NAME = 020190	DESIGNED - JD	REVISED -	<p align="center"><b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b></p>	<table border="1"> <tr> <th>F.A.S. RTE.</th> <th>SECTION</th> <th>COUNTY</th> <th>TOTAL SHEETS</th> <th>SHEET NO.</th> </tr> <tr> <td>858</td> <td>12-B-1</td> <td>RANDOLPH</td> <td>90</td> <td>33</td> </tr> <tr> <td align="center" colspan="5">CONTRACT NO. 76H81</td> </tr> <tr> <td align="right" colspan="5">ILLINOIS FED. AID PROJECT</td> </tr> </table>	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	858	12-B-1	RANDOLPH	90	33	CONTRACT NO. 76H81					ILLINOIS FED. AID PROJECT				
	F.A.S. RTE.	SECTION	COUNTY			TOTAL SHEETS	SHEET NO.																		
	858	12-B-1	RANDOLPH			90	33																		
	CONTRACT NO. 76H81																								
ILLINOIS FED. AID PROJECT																									
Illinois Design Firm Number 184,001670	CHECKED - BB	REVISED -																							
PLOT SCALE =	DRAWN - WS	REVISED -																							
PLOT DATE = 2:41:21 PM 3/18/2015	CHECKED - CJF	REVISED -																							



**SECTION THRU EXISTING ABUTMENT**

\* Indicates dimensions at Rt. L's.

STATION 631+60  
RE-BUILT 20\_\_ BY  
STATE OF ILLINOIS  
F.A.S. 858 SEC. 12-B-1  
LOADING HS20-44  
STRUCTURE NO. 079-0019

**NAME PLATE**

See Std. 515001  
Existing Name Plate shall be cleaned and relocated next to new Name Plate. Cost included with Name Plates.

**CROSS SECTION**

(Showing Structure Removal)

Indicates Removal of Existing Concrete Deck

**INDEX OF SHEETS**

1. General Plan & Elevation
2. General Data
3. General Information
- 4.-10. Top of Slab Elevations
11. Top of West Vaulted Abut. Slab Elevations
12. Top of East Vaulted Abut. Slab Elevations
13. Top of West Appr. Slab Elevations
14. Top of East Appr. Slab Elevations
- 15.-16. Super Structure Unit 1
- 17.-18. Super Structure Unit 2
- 19.-20. Super Structure Unit 3
21. Vaulted Abut. Slab Removal Details
22. West Vaulted Abut. Slab Details
23. East Vaulted Abut. Slab Details
- 24.-25. Bridge Appr. Slab Details
26. Preformed Joint Strip Seal
- 27.-28. Modular Expansion Joint Details
29. Structural Steel Unit 1
30. Structural Steel Unit 2
31. Structural Steel Unit 3
32. Structural Steel Details
- 33.-34. Seismic Retrofit Details
35. West Vaulted Abut. Details
36. East Vaulted Abut. Details
37. Bar Splicer Assembly Details
38. Drainage Scupper, DS-11
39. Navigational Vertical Clearance Gauge Details
40. Concrete Parapet Slipforming Option

**GENERAL NOTES**

Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts. Bolts 7/8 in. φ, holes 15/16" φ unless otherwise noted.  
Calculated weight of all Structural Steel, including Structural Steel Repair = 31,660 lbs. (Grade 36).  
= 33,290 lbs. (Grade 50).

All steel on sheets 1-40 of 40 shall be Grade 50 while all steel on Repair Plans shall be Grade 36. No field welding is permitted except as specified in the contract documents.  
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.  
As directed by the Engineer, existing construction accessories welded to the top flange of beams shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by qualified personnel approved by the Engineer. Any cracks that cannot be removed by grinding 1/4 in. deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.  
If the Contractor elects to use cantilever forming brackets on the exterior beams or girders, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06(b) of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations. See GBSP 78 "Bridge Deck Construction" for additional information.  
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 work; however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.  
Joint openings shall be adjusted according to Article 520.04 of the Standard Specifications when the deck is poured at an ambient temperature other than 50°F.  
Shop drawings for the bearing seat extensions and Navigational Light Bracket shall be submitted and reviewed for approval according to Article 505.03 of the Standard Specifications.  
The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.  
A minimum of (2) air monitors will be required to monitor abrasive blasting operations at this site. See special provision for "Containment and Disposal of Lead Paint Cleaning Residues".  
Containment of Cleaning Residue is required to control nuisance dust. See Special Provisions.  
The Organic Zinc Rich Primer/Epoxy/Urethane paint system shall be used for painting of new structural steel except where otherwise noted. The entire system shall be shop applied, with the exception that the field installed fasteners, all of which shall be touched up and finish coated in the field. The color of the final finish coat for all steel surfaces shall be Gray, Munsell No. 5B 7/1. See Special Provision for "Cleaning and Painting New Metal Structures".

Cleaning and painting of the existing structural steel shall be as specified in the special provision for "Cleaning and Painting Existing Steel Structures". All beams, bearings and other structural steel within 5 ft. (measured along the beam) of either side of the deck joints shall be cleaned per Near White Blast Cleaning SSPC-SP 10. In addition, the areas of Girders 1, 2, 4 and 5 which are specified on sheet 30 of 40 shall be cleaned per Near White Blast Cleaning SSPC-SP 10 for the full length of the structure.  
The designated areas cleaned per Near White Blast Cleaning and per Commercial Grade Power Tool Cleaning shall be painted according to the requirements of Paint System 1 OZ/E/U. The color of the final finish coat shall be Gray, Munsell No. 5B 7/1.  
All new cantilever navigational lighting brackets shall be shop painted with an inorganic zinc rich primer per AASHTO M 300, Type 1.  
Contact surfaces between Existing and New Structural steel shall be prepared as specified by the special provision "Cleaning and Painting Contact Surface Areas of Existing Structural Steel".  
The layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.  
The Contractor shall obtain a construction permit from the Illinois Department of Natural Resources (IDNR), Office of Water Resources for any temporary construction activity placed in the water except cofferdams. This shall include the placement of material for run-arounds, causeways, etc. Any permit application by the Contractor shall refer to the IDNR 3704 Floodway Construction permit number allowing permanent construction as shown on the Contract Plans.  
Modular expansion joints shall be assembled in their final relative position with the ends in place for shop inspection and acceptance.  
Stay-in-place metal forms cannot exceed 5 psf.  
The Contractor shall retain the services of an engineering firm, prequalified in the IDOT consultant selection category of Highway Bridges Advanced Typical, for preparation of the Structural Assessment Reports.  
Contractor's pre-approval shall not be applicable for this project. See Special Provision.  
Current Ratings on File for Existing Structure  
Inventory: HS 8.8  
Operating: HS 15.0  
Live Load Restrictions: (27 tons)  
Inventory and Operating Ratings and Live Load Restrictions are provided for information only. Inventory and Operating Ratings are based on HS loading and configuration. Live Load Restrictions are based on Illinois legal loads and configurations. The Ratings and Live Load Restrictions are not necessarily representative of capacities to support the Contractor's equipment.  
The Contractor is advised that the existing structure contains members that are in a deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the condition of the existing structure when developing construction procedures for the partial removal of the structure. An Existing Structure Information Package is available upon request as noted in the special provisions

**TOTAL BILL OF MATERIAL**

(Includes quantities from Structural Steel Repair Plans)

ITEM	UNIT	SUPER	SUB	TOTAL
Stone Riprap, Class A4	Sq. Yd.		116	116
Filter Fabric	Sq. Yd.		52	52
Concrete Removal	Cu. Yd.		25	25
Removal of Existing Concrete Deck	Each	1		1
Protective Shield	Sq. Yd.	2724		2724
Floor Drains	Each	12		12
Concrete Structures	Cu. Yd.		25.4	25.4
Concrete Superstructure	Cu. Yd.	1,743.8		1,743.8
Bridge Deck Grooving	Sq. Yd.	4,659		4,659
Protective Coat	Sq. Yd.	6072		6072
Furnishing and Erecting Structural Steel	Pound	35,240	13,700	48,940
Stud Shear Connectors	Each	9465		9465
Reinforcement Bars, Epoxy Coated	Pound	390,760	1,160	391,920
Bar Splicers	Each	52		52
Name Plates	Each	1		1
Preformed Joint Strip Seal	Foot	76		76
Elastomeric Bearing Assembly, Type I	Each	5		5
Elastomeric Bearing Assembly, Type II	Each	25		25
Anchor Bolts, 1"	Each	80		80
Anchor Bolts, 1 1/4"	Each	40	48	88
Anchor Bolts, 2"	Each		40	40
Controlled Low-Strength Material	Cu. Yd.		226.4	226.4
Vertical Clearance Gauge	Each	2		2
Jack and Remove Existing Bearings	Each	30		30
Structural Steel Removal	Pound	19,306		19,306
Structural Steel Repair	Pound	16,010		16,010
Cleaning and Disposal of Lead Paint Cleaning Residues	L. Sum	1		1
Cleaning and Painting Steel Bridge No. 1	L. Sum	1		1
Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)	Sq. Ft.		413	413
Drainage Scuppers, DS-11	Each	16		16
Modular Expansion Joint 9"	Foot	72		72

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Illinois Design Firm Number 184,001670  
PLOT SCALE =  
PLOT DATE = 2/14/22 PM 3/18/2015

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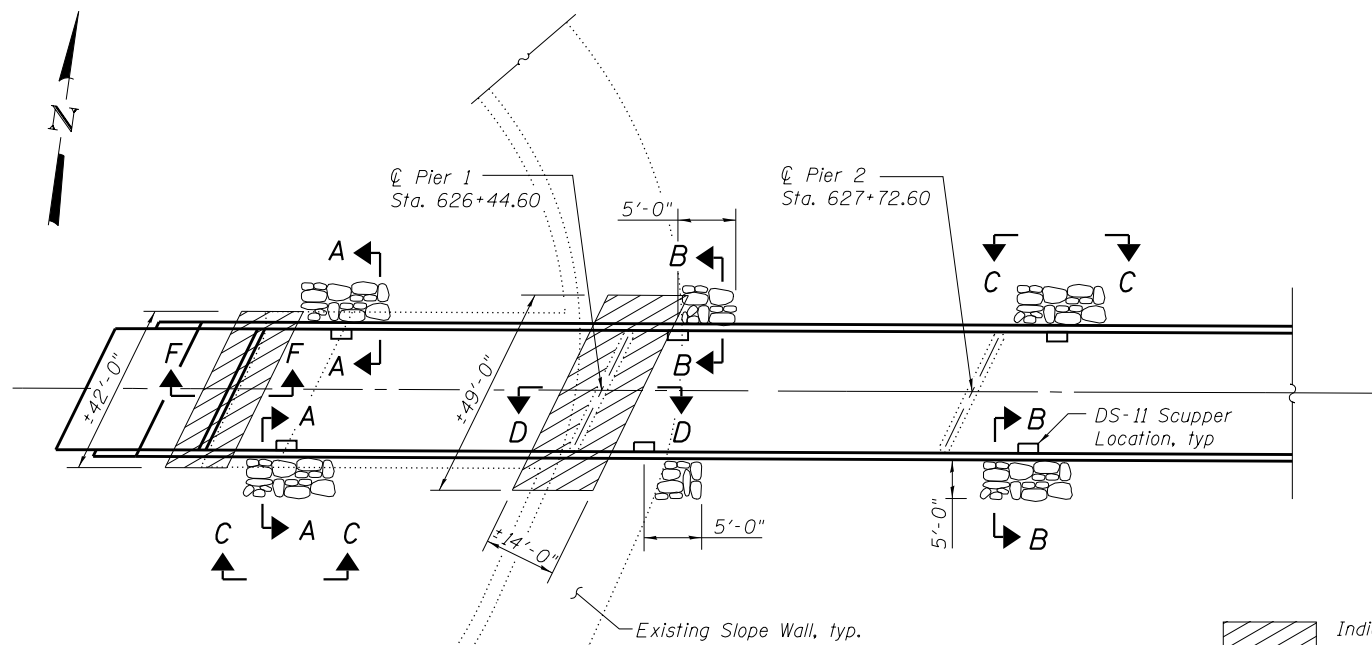
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

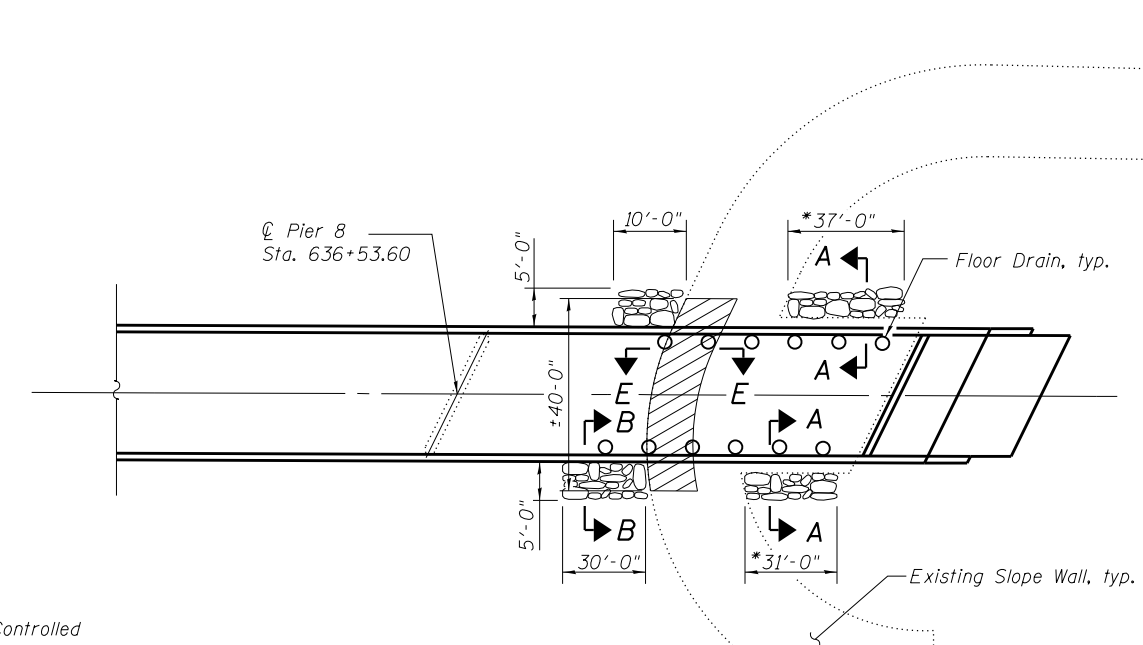
**GENERAL DATA**

SHEET NO. 2 OF 40 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
858	12-B-1	RANDOLPH	90	34
CONTRACT NO. 76H81				
ILLINOIS FED. AID PROJECT				



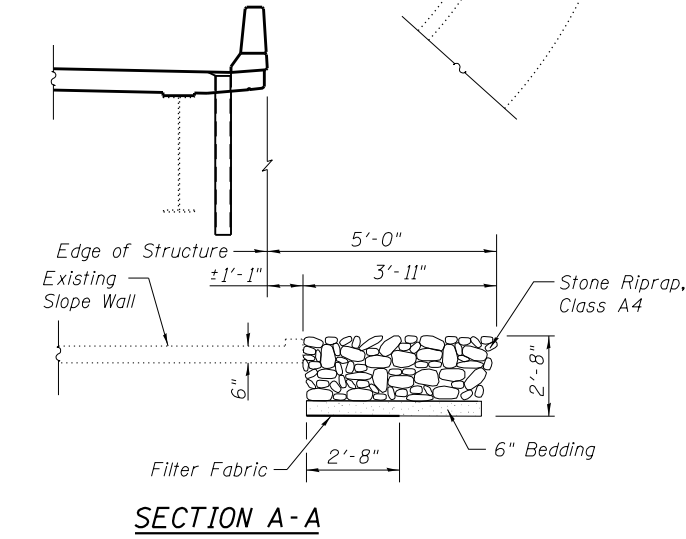
**RIPRAP AT UNIT 1**



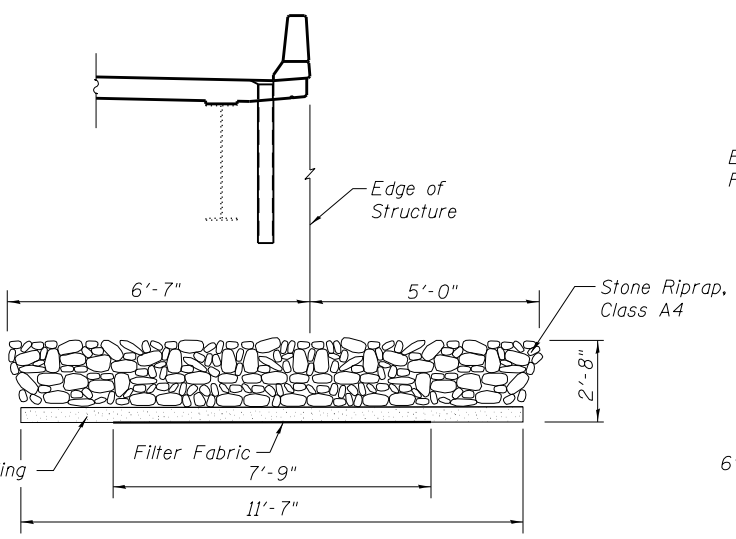
**RIPRAP AT UNIT 3**

\*Extend Riprap to existing Slope Wall

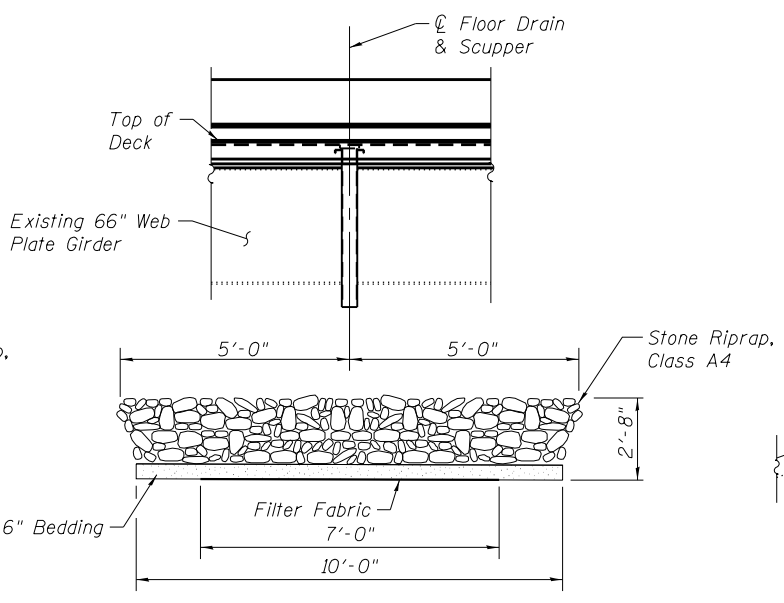
Indicates Limits of Controlled Low Strength Material placement



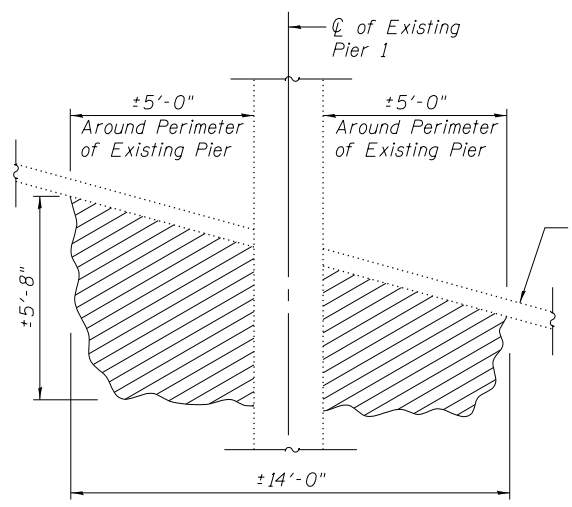
**SECTION A-A**



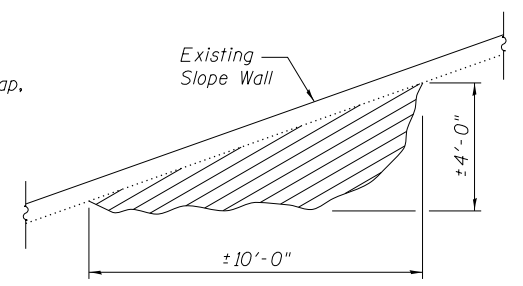
**SECTION B-B**



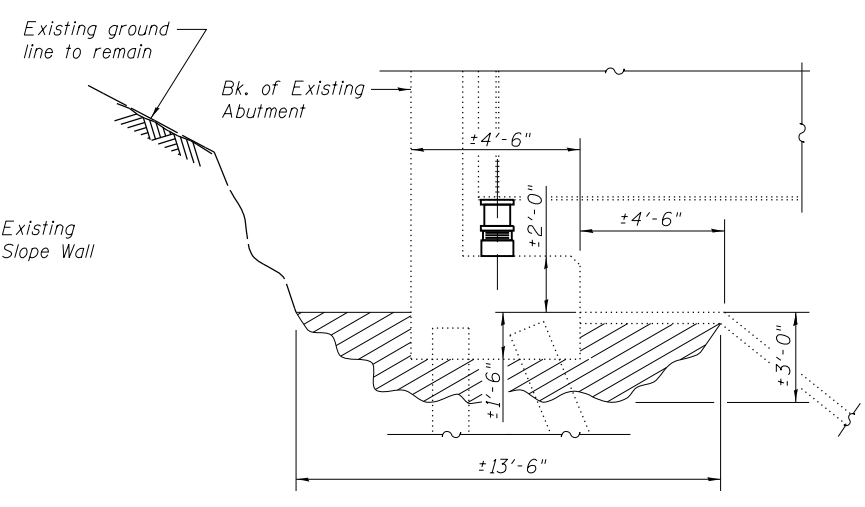
**SECTION C-C**  
(as shown in Plan View)



**SECTION D-D**



**SECTION E-E**



**SECTION F-F**

**BILL OF MATERIAL**

Item	Unit	Total
Stone Riprap, Class A4	Sq Yd	116
Filter Fabric	Sq Yd	52
Controlled Low Strength Material	Cu. Yd.	226.4

See sheet 1 of 40 for Drainage Layout

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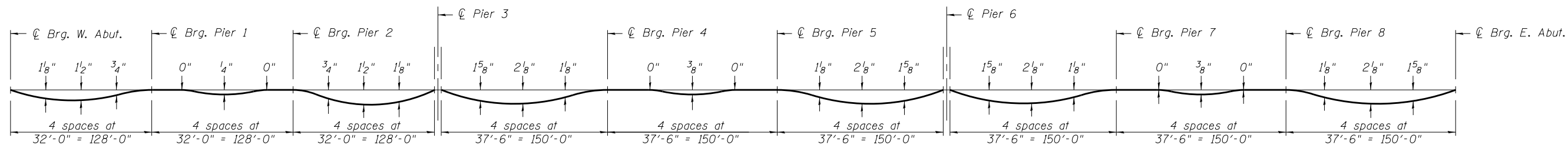
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**GENERAL INFORMATION**

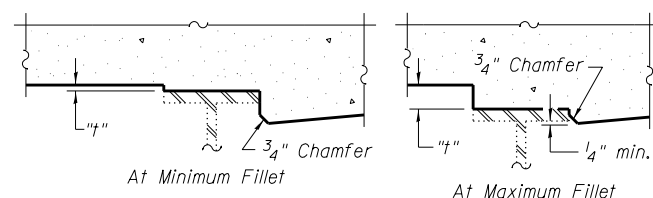
SHEET NO. 3 OF 40 SHEETS

F.A.S. RTE. 858	SECTION 12-B-1	COUNTY RANDOLPH	TOTAL SHEETS 90	SHEET NO. 35
				CONTRACT NO. 76H81
ILLINOIS FED. AID PROJECT				



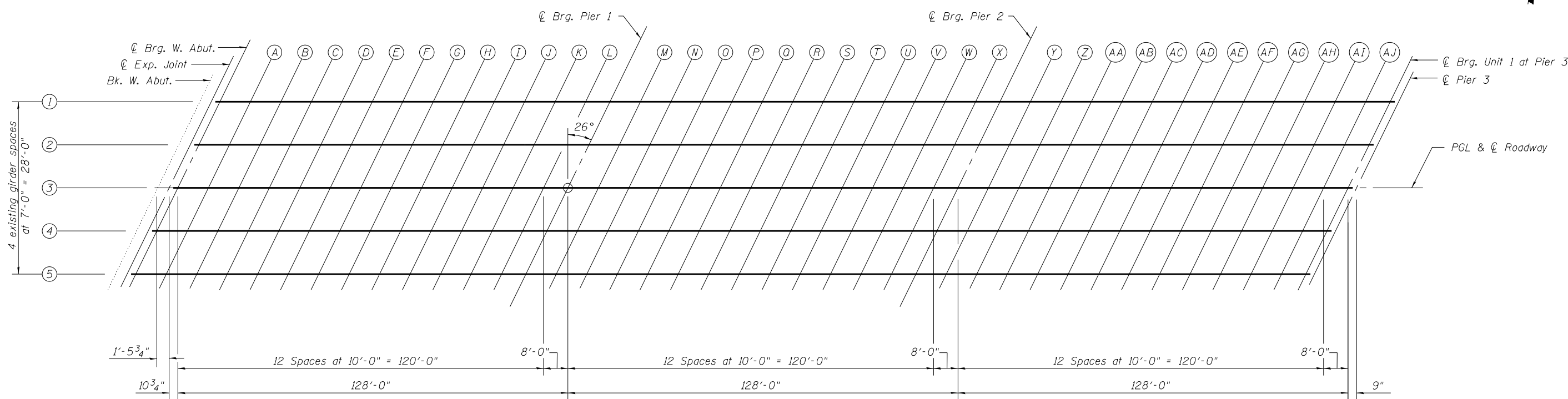
**DEAD LOAD DEFLECTION DIAGRAM**  
(Includes weight of concrete only.)

Note:  
The above deflections are not to be used in the field if the engineer is working from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" as shown on sheets 6 thru 10 of 40.

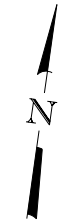


To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown on sheets 6 thru 10 of 40. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on sheets 6 thru 10 of 40, minus slab thickness, equals the fillet heights "t" above top flange of beams.

**FILLET HEIGHTS**



**ELEVATION LOCATION PLAN - UNIT 1**



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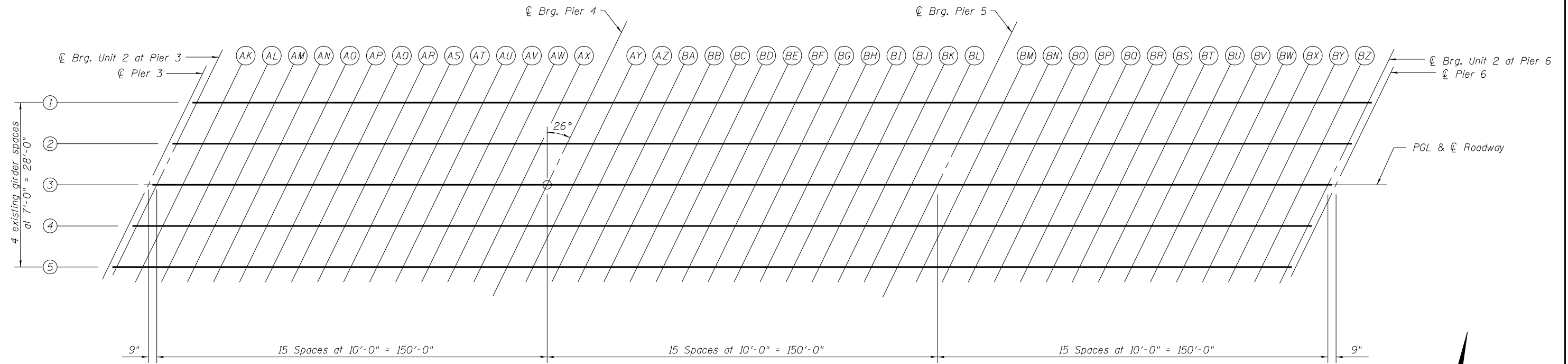
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DEPARTMENT OF TRANSPORTATION

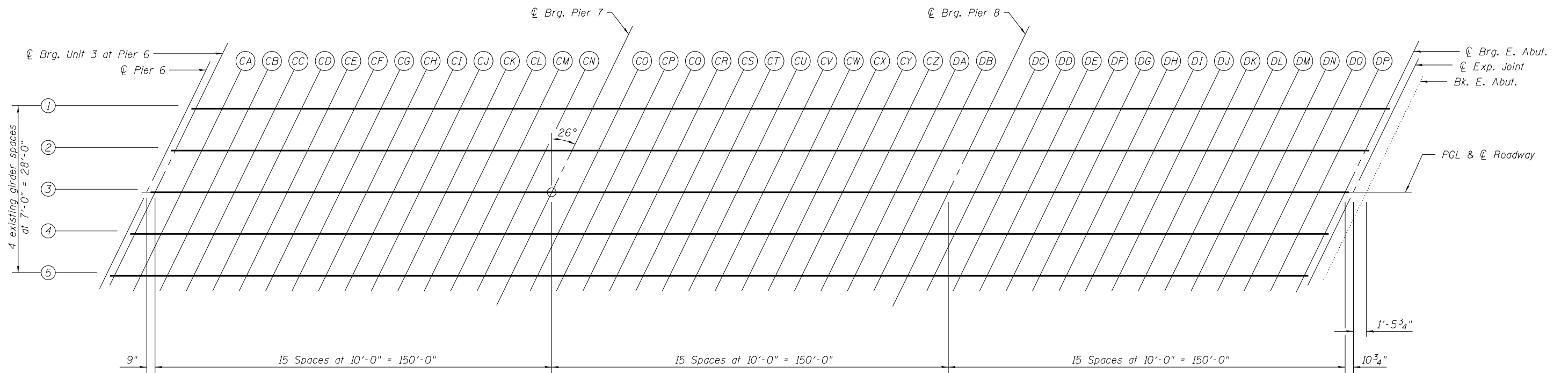
TOP OF SLAB ELEVATIONS  
 STRUCTURE NO. 079-0019  
 SHEET NO. 4 OF 40 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
858	12-B-1	RANDOLPH	90	36
CONTRACT NO. 76H81				
ILLINOIS FED. AID PROJECT				





**ELEVATION LOCATION PLAN - UNIT 2**



**ELEVATION LOCATION PLAN - UNIT 3**

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Illinois Design Firm Number 184,001670	CHECKED - BB	REVISED -
PLOT SCALE =	DRAWN - WS	REVISED -
PLOT DATE = 8/5/14 AM 2/27/2015	CHECKED - CJF	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TOP OF SLAB ELEVATIONS  
STRUCTURE NO. 079-0019**

SHEET NO. 5 OF 40 SHEETS

F.A.S. RTE. 858	SECTION 12-B-1	COUNTY RANDOLPH	TOTAL SHEETS 90	SHEET NO. 37
CONTRACT NO. 76H81				
ILLINOIS FED. AID PROJECT				

**GIRDER LINE 1 - UNIT 1**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of West Abutment	625+21.06	-14.00	411.60	411.60
☉ Expansion Joint	625+22.54	-14.00	411.61	411.61
☉ Bearing West Abutment	625+23.43	-14.00	411.62	411.62
A	625+33.43	-14.00	411.69	411.72
B	625+43.43	-14.00	411.76	411.82
C	625+53.43	-14.00	411.82	411.91
D	625+63.43	-14.00	411.89	411.99
E	625+73.43	-14.00	411.96	412.07
F	625+83.43	-14.00	412.03	412.15
G	625+93.43	-14.00	412.09	412.21
H	626+03.43	-14.00	412.16	412.26
I	626+13.43	-14.00	412.23	412.31
J	626+23.43	-14.00	412.30	412.36
K	626+33.43	-14.00	412.36	412.40
L	626+43.43	-14.00	412.43	412.45
☉ Bearing Pier 1	626+51.43	-14.00	412.49	412.49
M	626+61.43	-14.00	412.55	412.56
N	626+71.43	-14.00	412.62	412.62
O	626+81.43	-14.00	412.69	412.69
P	626+91.43	-14.00	412.76	412.77
Q	627+01.43	-14.00	412.83	412.84
R	627+11.43	-14.00	412.89	412.91
S	627+21.43	-14.00	412.96	412.98
T	627+31.43	-14.00	413.03	413.04
U	627+41.43	-14.00	413.10	413.10
V	627+51.43	-14.00	413.16	413.17
W	627+61.43	-14.00	413.23	413.23
X	627+71.43	-14.00	413.30	413.30
☉ Bearing Pier 2	627+79.43	-14.00	413.35	413.35
Y	627+89.43	-14.00	413.42	413.44
Z	627+99.43	-14.00	413.49	413.53
AA	628+09.43	-14.00	413.56	413.62
AB	628+19.43	-14.00	413.62	413.70
AC	628+29.43	-14.00	413.69	413.79
AD	628+39.43	-14.00	413.76	413.87
AE	628+49.43	-14.00	413.83	413.94
AF	628+59.43	-14.00	413.89	414.00
AG	628+69.43	-14.00	413.96	414.06
AH	628+79.43	-14.00	414.03	414.11
AI	628+89.43	-14.00	414.10	414.15
AJ	628+99.43	-14.00	414.17	414.19
☉ Bearing Pier 3	629+07.43	-14.00	414.22	414.22
☉ Pier 3	629+08.18	-14.00	414.22	414.22

**GIRDER LINE 2 - UNIT 1**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of West Abutment	625+17.64	-7.00	411.70	411.70
☉ Expansion Joint	625+19.12	-7.00	411.71	411.71
☉ Bearing West Abutment	625+20.01	-7.00	411.72	411.72
A	625+30.01	-7.00	411.78	411.81
B	625+40.01	-7.00	411.85	411.91
C	625+50.01	-7.00	411.92	412.01
D	625+60.01	-7.00	411.99	412.09
E	625+70.01	-7.00	412.06	412.17
F	625+80.01	-7.00	412.12	412.24
G	625+90.01	-7.00	412.19	412.30
H	626+00.01	-7.00	412.26	412.35
I	626+10.01	-7.00	412.33	412.40
J	626+20.01	-7.00	412.39	412.45
K	626+30.01	-7.00	412.46	412.50
L	626+40.01	-7.00	412.53	412.55
☉ Bearing Pier 1	626+48.01	-7.00	412.58	412.58
M	626+58.01	-7.00	412.65	412.65
N	626+68.01	-7.00	412.72	412.72
O	626+78.01	-7.00	412.79	412.79
P	626+88.01	-7.00	412.85	412.86
Q	626+98.01	-7.00	412.92	412.94
R	627+08.01	-7.00	412.99	413.01
S	627+18.01	-7.00	413.06	413.08
T	627+28.01	-7.00	413.12	413.14
U	627+38.01	-7.00	413.19	413.20
V	627+48.01	-7.00	413.26	413.26
W	627+58.01	-7.00	413.33	413.33
X	627+68.01	-7.00	413.40	413.40
☉ Bearing Pier 2	627+76.01	-7.00	413.45	413.45
Y	627+86.01	-7.00	413.52	413.54
Z	627+96.01	-7.00	413.59	413.63
AA	628+06.01	-7.00	413.65	413.72
AB	628+16.01	-7.00	413.72	413.80
AC	628+26.01	-7.00	413.79	413.89
AD	628+36.01	-7.00	413.86	413.97
AE	628+46.01	-7.00	413.92	414.04
AF	628+56.01	-7.00	413.99	414.10
AG	628+66.01	-7.00	414.06	414.16
AH	628+76.01	-7.00	414.13	414.21
AI	628+86.01	-7.00	414.19	414.25
AJ	628+96.01	-7.00	414.26	414.29
☉ Bearing Pier 3	629+04.01	-7.00	414.32	414.32
☉ Pier 3	629+04.76	-7.00	414.32	414.32

**☉. PGL & GIRDER LINE 3 - UNIT 1**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of West Abutment	625+14.23	0.00	411.79	411.79
☉ Expansion Joint	625+15.71	0.00	411.80	411.80
☉ Bearing West Abutment	625+16.60	0.00	411.80	411.80
A	625+26.60	0.00	411.87	411.90
B	625+36.60	0.00	411.94	412.00
C	625+46.60	0.00	412.01	412.10
D	625+56.60	0.00	412.07	412.18
E	625+66.60	0.00	412.14	412.25
F	625+76.60	0.00	412.21	412.33
G	625+86.60	0.00	412.28	412.39
H	625+96.60	0.00	412.34	412.44
I	626+06.60	0.00	412.41	412.49
J	626+16.60	0.00	412.48	412.54
K	626+26.60	0.00	412.55	412.59
L	626+36.60	0.00	412.62	412.63
☉ Bearing Pier 1	626+44.60	0.00	412.67	412.67
M	626+54.60	0.00	412.74	412.74
N	626+64.60	0.00	412.81	412.81
O	626+74.60	0.00	412.87	412.88
P	626+84.60	0.00	412.94	412.95
Q	626+94.60	0.00	413.01	413.02
R	627+04.60	0.00	413.08	413.10
S	627+14.60	0.00	413.14	413.16
T	627+24.60	0.00	413.21	413.22
U	627+34.60	0.00	413.28	413.29
V	627+44.60	0.00	413.35	413.35
W	627+54.60	0.00	413.41	413.42
X	627+64.60	0.00	413.48	413.48
☉ Bearing Pier 2	627+72.60	0.00	413.54	413.54
Y	627+82.60	0.00	413.60	413.62
Z	627+92.60	0.00	413.67	413.71
AA	628+02.60	0.00	413.74	413.80
AB	628+12.60	0.00	413.81	413.89
AC	628+22.60	0.00	413.87	413.97
AD	628+32.60	0.00	413.94	414.06
AE	628+42.60	0.00	414.01	414.13
AF	628+52.60	0.00	414.08	414.19
AG	628+62.60	0.00	414.15	414.25
AH	628+72.60	0.00	414.21	414.30
AI	628+82.60	0.00	414.28	414.34
AJ	628+92.60	0.00	414.35	414.37
☉ Bearing Pier 3	629+00.60	0.00	414.40	414.40
☉ Pier 3	629+01.35	0.00	414.41	414.41

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USER NAME = bbovee	DESIGNED - JD	REVISED -
Illinois Design Firm Number 184,001670	CHECKED - BB	REVISED -
PLOT SCALE =	DRAWN - WS	REVISED -
PLOT DATE = 8/5/14 AM 2/27/2015	CHECKED - CJF	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TOP OF SLAB ELEVATIONS  
STRUCTURE NO. 079-0019**

SHEET NO. 6 OF 40 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
858	12-B-1	RANDOLPH	90	38
ILLINOIS FED. AID PROJECT			CONTRACT NO. 76H81	

GIRDER LINE 4 - UNIT 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of West Abutment	625+10.82	7.00	411.65	411.65
☉ Expansion Joint	625+12.30	7.00	411.66	411.66
☉ Bearing West Abutment	625+13.19	7.00	411.67	411.67
A	625+23.19	7.00	411.74	411.77
B	625+33.19	7.00	411.81	411.87
C	625+43.19	7.00	411.87	411.96
D	625+53.19	7.00	411.94	412.04
E	625+63.19	7.00	412.01	412.12
F	625+73.19	7.00	412.08	412.20
G	625+83.19	7.00	412.14	412.26
H	625+93.19	7.00	412.21	412.31
I	626+03.19	7.00	412.28	412.36
J	626+13.19	7.00	412.35	412.41
K	626+23.19	7.00	412.42	412.45
L	626+33.19	7.00	412.48	412.50
☉ Bearing Pier 1	626+41.19	7.00	412.54	412.54
M	626+51.19	7.00	412.60	412.61
N	626+61.19	7.00	412.67	412.67
O	626+71.19	7.00	412.74	412.74
P	626+81.19	7.00	412.81	412.82
Q	626+91.19	7.00	412.88	412.89
R	627+01.19	7.00	412.94	412.96
S	627+11.19	7.00	413.01	413.03
T	627+21.19	7.00	413.08	413.09
U	627+31.19	7.00	413.15	413.15
V	627+41.19	7.00	413.21	413.22
W	627+51.19	7.00	413.28	413.28
X	627+61.19	7.00	413.35	413.35
☉ Bearing Pier 2	627+69.19	7.00	413.40	413.40
Y	627+79.19	7.00	413.47	413.49
Z	627+89.19	7.00	413.54	413.58
AA	627+99.19	7.00	413.61	413.67
AB	628+09.19	7.00	413.67	413.76
AC	628+19.19	7.00	413.74	413.84
AD	628+29.19	7.00	413.81	413.93
AE	628+39.19	7.00	413.88	414.00
AF	628+49.19	7.00	413.95	414.05
AG	628+59.19	7.00	414.01	414.11
AH	628+69.19	7.00	414.08	414.17
AI	628+79.19	7.00	414.15	414.20
AJ	628+89.19	7.00	414.22	414.24
☉ Bearing Pier 3	628+97.19	7.00	414.27	414.27
☉ Pier 3	628+97.94	7.00	414.28	414.28

GIRDER LINE 5 - UNIT 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of West Abutment	625+07.4	14.00	411.51	411.51
☉ Expansion Joint	625+08.88	14.00	411.52	411.52
☉ Bearing West Abutment	625+09.77	14.00	411.53	411.53
A	625+19.77	14.00	411.60	411.63
B	625+29.77	14.00	411.66	411.72
C	625+39.77	14.00	411.73	411.82
D	625+49.77	14.00	411.80	411.90
E	625+59.77	14.00	411.87	411.98
F	625+69.77	14.00	411.93	412.05
G	625+79.77	14.00	412.00	412.11
H	625+89.77	14.00	412.07	412.16
I	625+99.77	14.00	412.14	412.21
J	626+09.77	14.00	412.20	412.26
K	626+19.77	14.00	412.27	412.31
L	626+29.77	14.00	412.34	412.36
☉ Bearing Pier 1	626+37.77	14.00	412.39	412.39
M	626+47.77	14.00	412.46	412.46
N	626+57.77	14.00	412.53	412.53
O	626+67.77	14.00	412.60	412.60
P	626+77.77	14.00	412.67	412.67
Q	626+87.77	14.00	412.73	412.75
R	626+97.77	14.00	412.80	412.82
S	627+07.77	14.00	412.87	412.89
T	627+17.77	14.00	412.94	412.95
U	627+27.77	14.00	413.00	413.01
V	627+37.77	14.00	413.07	413.07
W	627+47.77	14.00	413.14	413.14
X	627+57.77	14.00	413.21	413.21
☉ Bearing Pier 2	627+65.77	14.00	413.26	413.26
Y	627+75.77	14.00	413.33	413.35
Z	627+85.77	14.00	413.40	413.44
AA	627+95.77	14.00	413.46	413.53
AB	628+05.77	14.00	413.53	413.61
AC	628+15.77	14.00	413.60	413.70
AD	628+25.77	14.00	413.67	413.78
AE	628+35.77	14.00	413.73	413.85
AF	628+45.77	14.00	413.80	413.91
AG	628+55.77	14.00	413.87	413.97
AH	628+65.77	14.00	413.94	414.02
AI	628+75.77	14.00	414.01	414.06
AJ	628+85.77	14.00	414.07	414.10
☉ Bearing Pier 3	628+93.77	14.00	414.13	414.13
☉ Pier 3	628+94.52	14.00	414.13	414.13

GIRDER LINE 1 - UNIT 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
☉ Pier 3	629+08.18	-14.00	414.22	414.22
☉ Bearing Pier 3	629+08.93	-14.00	414.23	414.23
AK	629+18.93	-14.00	414.30	414.33
AL	629+28.93	-14.00	414.37	414.44
AM	629+38.93	-14.00	414.43	414.54
AN	629+48.93	-14.00	414.50	414.64
AO	629+58.93	-14.00	414.57	414.72
AP	629+68.93	-14.00	414.64	414.79
AQ	629+78.93	-14.00	414.70	414.87
AR	629+88.93	-14.00	414.77	414.93
AS	629+98.93	-14.00	414.84	414.98
AT	630+08.93	-14.00	414.91	415.03
AU	630+18.93	-14.00	414.97	415.07
AV	630+28.93	-14.00	415.04	415.12
AW	630+38.93	-14.00	415.11	415.16
AX	630+48.93	-14.00	415.18	415.20
☉ Bearing Pier 4	630+58.93	-14.00	415.25	415.25
AY	630+68.93	-14.00	415.31	415.31
AZ	630+78.93	-14.00	415.38	415.38
BA	630+88.93	-14.00	415.45	415.45
BB	630+98.93	-14.00	415.52	415.52
BC	631+08.93	-14.00	415.58	415.59
BD	631+18.93	-14.00	415.65	415.67
BE	631+28.93	-14.00	415.72	415.74
BF	631+38.93	-14.00	415.79	415.81
BG	631+48.93	-14.00	415.85	415.87
BH	631+58.93	-14.00	415.92	415.93
BI	631+68.93	-14.00	415.99	415.99
BJ	631+78.93	-14.00	416.06	416.06
BK	631+88.93	-14.00	416.13	416.13
BL	631+98.93	-14.00	416.19	416.19
☉ Bearing Pier 5	632+08.93	-14.00	416.26	416.26
BM	632+18.93	-14.00	416.33	416.35
BN	632+28.93	-14.00	416.40	416.45
BO	632+38.93	-14.00	416.46	416.54
BP	632+48.93	-14.00	416.53	416.63
BQ	632+58.93	-14.00	416.60	416.72
BR	632+68.93	-14.00	416.67	416.81
BS	632+78.93	-14.00	416.73	416.90
BT	632+88.93	-14.00	416.80	416.97
BU	632+98.93	-14.00	416.87	417.03
BV	633+08.93	-14.00	416.94	417.09
BW	633+18.93	-14.00	417.01	417.14
BX	633+28.93	-14.00	417.07	417.18
BY	633+38.93	-14.00	417.14	417.21
BZ	633+48.93	-14.00	417.21	417.25
☉ Bearing Pier 6	633+58.93	-14.00	417.28	417.28
☉ Pier 6	633+59.68	-14.00	417.28	417.28

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USER NAME = bbovee	DESIGNED - JD	REVISED -
Illinois Design Firm Number 184,001670	CHECKED - BB	REVISED -
PLOT SCALE =	DRAWN - WS	REVISED -
PLOT DATE = 8/5/15 AM 2/27/2015	CHECKED - CJF	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS  
STRUCTURE NO. 079-0019

SHEET NO. 7 OF 40 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
858	12-B-1	RANDOLPH	90	39
ILLINOIS FED. AID PROJECT			CONTRACT NO. 76H81	

GIRDER LINE 2 - UNIT 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
☉ Pier 3	629+04.76	-7.00	414.32	414.32
☉ Bearing Pier 3	629+05.51	-7.00	414.33	414.33
AK	629+15.51	-7.00	414.39	414.43
AL	629+25.51	-7.00	414.46	414.53
AM	629+35.51	-7.00	414.53	414.64
AN	629+45.51	-7.00	414.60	414.74
AO	629+55.51	-7.00	414.67	414.81
AP	629+65.51	-7.00	414.73	414.89
AQ	629+75.51	-7.00	414.80	414.97
AR	629+85.51	-7.00	414.87	415.03
AS	629+95.51	-7.00	414.94	415.08
AT	630+05.51	-7.00	415.00	415.12
AU	630+15.51	-7.00	415.07	415.17
AV	630+25.51	-7.00	415.14	415.21
AW	630+35.51	-7.00	415.21	415.26
AX	630+45.51	-7.00	415.27	415.30
☉ Bearing Pier 4	630+55.51	-7.00	415.34	415.34
AY	630+65.51	-7.00	415.41	415.41
AZ	630+75.51	-7.00	415.48	415.48
BA	630+85.51	-7.00	415.55	415.55
BB	630+95.51	-7.00	415.61	415.62
BC	631+05.51	-7.00	415.68	415.69
BD	631+15.51	-7.00	415.75	415.77
BE	631+25.51	-7.00	415.82	415.84
BF	631+35.51	-7.00	415.88	415.91
BG	631+45.51	-7.00	415.95	415.97
BH	631+55.51	-7.00	416.02	416.03
BI	631+65.51	-7.00	416.09	416.09
BJ	631+75.51	-7.00	416.15	416.16
BK	631+85.51	-7.00	416.22	416.22
BL	631+95.51	-7.00	416.29	416.29
☉ Bearing Pier 5	632+05.51	-7.00	416.36	416.36
BM	632+15.51	-7.00	416.43	416.45
BN	632+25.51	-7.00	416.49	416.54
BO	632+35.51	-7.00	416.56	416.64
BP	632+45.51	-7.00	416.63	416.73
BQ	632+55.51	-7.00	416.70	416.82
BR	632+65.51	-7.00	416.76	416.91
BS	632+75.51	-7.00	416.83	416.99
BT	632+85.51	-7.00	416.90	417.07
BU	632+95.51	-7.00	416.97	417.13
BV	633+05.51	-7.00	417.03	417.18
BW	633+15.51	-7.00	417.10	417.24
BX	633+25.51	-7.00	417.17	417.28
BY	633+35.51	-7.00	417.24	417.31
BZ	633+45.51	-7.00	417.31	417.34
☉ Bearing Pier 6	633+55.51	-7.00	417.37	417.37
☉ Pier 6	633+56.26	-7.00	417.38	417.38

☉. PGL & GIRDER LINE 3 - UNIT 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
☉ Pier 3	629+01.35	0.00	414.41	414.41
☉ Bearing Pier 3	629+02.10	0.00	414.41	414.41
AK	629+12.10	0.00	414.48	414.52
AL	629+22.10	0.00	414.55	414.62
AM	629+32.10	0.00	414.62	414.73
AN	629+42.10	0.00	414.68	414.82
AO	629+52.10	0.00	414.75	414.90
AP	629+62.10	0.00	414.82	414.98
AQ	629+72.10	0.00	414.89	415.05
AR	629+82.10	0.00	414.95	415.12
AS	629+92.10	0.00	415.02	415.16
AT	630+02.10	0.00	415.09	415.21
AU	630+12.10	0.00	415.16	415.26
AV	630+22.10	0.00	415.23	415.30
AW	630+32.10	0.00	415.29	415.34
AX	630+42.10	0.00	415.36	415.39
☉ Bearing Pier 4	630+52.10	0.00	415.43	415.43
AY	630+62.10	0.00	415.50	415.50
AZ	630+72.10	0.00	415.56	415.56
BA	630+82.10	0.00	415.63	415.63
BB	630+92.10	0.00	415.70	415.70
BC	631+02.10	0.00	415.77	415.78
BD	631+12.10	0.00	415.83	415.85
BE	631+22.10	0.00	415.90	415.93
BF	631+32.10	0.00	415.97	416.00
BG	631+42.10	0.00	416.04	416.06
BH	631+52.10	0.00	416.11	416.12
BI	631+62.10	0.00	416.17	416.18
BJ	631+72.10	0.00	416.24	416.24
BK	631+82.10	0.00	416.31	416.31
BL	631+92.10	0.00	416.38	416.38
☉ Bearing Pier 5	632+02.10	0.00	416.44	416.44
BM	632+12.10	0.00	416.51	416.54
BN	632+22.10	0.00	416.58	416.63
BO	632+32.10	0.00	416.65	416.72
BP	632+42.10	0.00	416.71	416.81
BQ	632+52.10	0.00	416.78	416.90
BR	632+62.10	0.00	416.85	416.99
BS	632+72.10	0.00	416.92	417.08
BT	632+82.10	0.00	416.99	417.15
BU	632+92.10	0.00	417.05	417.21
BV	633+02.10	0.00	417.12	417.27
BW	633+12.10	0.00	417.19	417.33
BX	633+22.10	0.00	417.26	417.37
BY	633+32.10	0.00	417.32	417.40
BZ	633+42.10	0.00	417.39	417.43
☉ Bearing Pier 6	633+52.10	0.00	417.46	417.46
☉ Pier 6	633+52.85	0.00	417.46	417.46

GIRDER LINE 4 - UNIT 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
☉ Pier 3	628+97.94	7.00	414.28	414.28
☉ Bearing Pier 3	628+98.69	7.00	414.28	414.28
AK	629+08.69	7.00	414.35	414.38
AL	629+18.69	7.00	414.42	414.49
AM	629+28.69	7.00	414.48	414.59
AN	629+38.69	7.00	414.55	414.69
AO	629+48.69	7.00	414.62	414.77
AP	629+58.69	7.00	414.69	414.84
AQ	629+68.69	7.00	414.75	414.92
AR	629+78.69	7.00	414.82	414.98
AS	629+88.69	7.00	414.89	415.03
AT	629+98.69	7.00	414.96	415.08
AU	630+08.69	7.00	415.03	415.12
AV	630+18.69	7.00	415.09	415.17
AW	630+28.69	7.00	415.16	415.21
AX	630+38.69	7.00	415.23	415.25
☉ Bearing Pier 4	630+48.69	7.00	415.30	415.30
AY	630+58.69	7.00	415.36	415.36
AZ	630+68.69	7.00	415.43	415.43
BA	630+78.69	7.00	415.50	415.50
BB	630+88.69	7.00	415.57	415.57
BC	630+98.69	7.00	415.63	415.65
BD	631+08.69	7.00	415.70	415.72
BE	631+18.69	7.00	415.77	415.80
BF	631+28.69	7.00	415.84	415.86
BG	631+38.69	7.00	415.91	415.92
BH	631+48.69	7.00	415.97	415.98
BI	631+58.69	7.00	416.04	416.04
BJ	631+68.69	7.00	416.11	416.11
BK	631+78.69	7.00	416.18	416.18
BL	631+88.69	7.00	416.24	416.24
☉ Bearing Pier 5	631+98.69	7.00	416.31	416.31
BM	632+08.69	7.00	416.38	416.40
BN	632+18.69	7.00	416.45	416.50
BO	632+28.69	7.00	416.51	416.59
BP	632+38.69	7.00	416.58	416.68
BQ	632+48.69	7.00	416.65	416.77
BR	632+58.69	7.00	416.72	416.86
BS	632+68.69	7.00	416.79	416.95
BT	632+78.69	7.00	416.85	417.02
BU	632+88.69	7.00	416.92	417.08
BV	632+98.69	7.00	416.99	417.14
BW	633+08.69	7.00	417.06	417.20
BX	633+18.69	7.00	417.12	417.23
BY	633+28.69	7.00	417.19	417.26
BZ	633+38.69	7.00	417.26	417.30
☉ Bearing Pier 6	633+48.69	7.00	417.33	417.33
☉ Pier 6	633+49.44	7.00	417.33	417.33

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USER NAME = bbovee	DESIGNED - JD	REVISED -
Illinois Design Firm Number 184,001670	CHECKED - BB	REVISED -
PLOT SCALE =	DRAWN - WS	REVISED -
PLOT DATE = 8/5/15 AM 2/27/2015	CHECKED - CJF	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TOP OF SLAB ELEVATIONS  
STRUCTURE NO. 079-0019**

SHEET NO. 8 OF 40 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
858	12-B-1	RANDOLPH	90	40
ILLINOIS FED. AID PROJECT			CONTRACT NO. 76H81	

GIRDER LINE 5 - UNIT 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
☉ Pier 3	628+94.52	14.00	414.13	414.13
☉ Bearing Pier 3	628+95.27	14.00	414.14	414.14
AK	629+05.27	14.00	414.21	414.24
AL	629+15.27	14.00	414.27	414.35
AM	629+25.27	14.00	414.34	414.45
AN	629+35.27	14.00	414.41	414.55
AO	629+45.27	14.00	414.48	414.62
AP	629+55.27	14.00	414.54	414.70
AQ	629+65.27	14.00	414.61	414.78
AR	629+75.27	14.00	414.68	414.84
AS	629+85.27	14.00	414.75	414.89
AT	629+95.27	14.00	414.81	414.94
AU	630+05.27	14.00	414.88	414.98
AV	630+15.27	14.00	414.95	415.03
AW	630+25.27	14.00	415.02	415.07
AX	630+35.27	14.00	415.09	415.11
☉ Bearing Pier 4	630+45.27	14.00	415.15	415.15
AY	630+55.27	14.00	415.22	415.22
AZ	630+65.27	14.00	415.29	415.29
BA	630+75.27	14.00	415.36	415.36
BB	630+85.27	14.00	415.42	415.43
BC	630+95.27	14.00	415.49	415.50
BD	631+05.27	14.00	415.56	415.58
BE	631+15.27	14.00	415.63	415.65
BF	631+25.27	14.00	415.69	415.72
BG	631+35.27	14.00	415.76	415.78
BH	631+45.27	14.00	415.83	415.84
BI	631+55.27	14.00	415.90	415.90
BJ	631+65.27	14.00	415.97	415.97
BK	631+75.27	14.00	416.03	416.03
BL	631+85.27	14.00	416.10	416.10
☉ Bearing Pier 5	631+95.27	14.00	416.17	416.17
BM	632+05.27	14.00	416.24	416.26
BN	632+15.27	14.00	416.30	416.35
BO	632+25.27	14.00	416.37	416.45
BP	632+35.27	14.00	416.44	416.54
BQ	632+45.27	14.00	416.51	416.63
BR	632+55.27	14.00	416.57	416.72
BS	632+65.27	14.00	416.64	416.80
BT	632+75.27	14.00	416.71	416.88
BU	632+85.27	14.00	416.78	416.94
BV	632+95.27	14.00	416.85	416.99
BW	633+05.27	14.00	416.91	417.05
BX	633+15.27	14.00	416.98	417.09
BY	633+25.27	14.00	417.05	417.12
BZ	633+35.27	14.00	417.12	417.15
☉ Bearing Pier 6	633+45.27	14.00	417.18	417.18
☉ Pier 6	633+46.02	14.00	417.19	417.19

GIRDER LINE 1 - UNIT 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
☉ Pier 6	633+59.68	-14.00	417.28	417.28
☉ Bearing Pier 6	633+60.43	-14.00	417.29	417.29
CA	633+70.43	-14.00	417.35	417.39
CB	633+80.43	-14.00	417.42	417.49
CC	633+90.43	-14.00	417.49	417.60
CD	634+00.43	-14.00	417.56	417.70
CE	634+10.43	-14.00	417.63	417.77
CF	634+20.43	-14.00	417.69	417.85
CG	634+30.43	-14.00	417.76	417.93
CH	634+40.43	-14.00	417.83	417.99
CI	634+50.43	-14.00	417.90	418.04
CJ	634+60.43	-14.00	417.96	418.08
CK	634+70.43	-14.00	418.03	418.13
CL	634+80.43	-14.00	418.10	418.17
CM	634+90.43	-14.00	418.17	418.22
CN	635+00.43	-14.00	418.23	418.26
☉ Bearing Pier 7	635+10.43	-14.00	418.30	418.30
CO	635+20.43	-14.00	418.37	418.37
CP	635+30.43	-14.00	418.44	418.44
CQ	635+40.43	-14.00	418.50	418.51
CR	635+50.43	-14.00	418.57	418.57
CS	635+60.43	-14.00	418.64	418.65
CT	635+70.43	-14.00	418.70	418.72
CU	635+80.43	-14.00	418.76	418.78
CV	635+90.43	-14.00	418.82	418.84
CW	636+00.43	-14.00	418.88	418.90
CX	636+10.43	-14.00	418.94	418.95
CY	636+20.43	-14.00	418.99	418.99
CZ	636+30.43	-14.00	419.04	419.05
DA	636+40.43	-14.00	419.10	419.10
DB	636+50.43	-14.00	419.15	419.15
☉ Bearing Pier 8	636+60.43	-14.00	419.20	419.20
DC	636+70.43	-14.00	419.25	419.27
DD	636+80.43	-14.00	419.29	419.34
DE	636+90.43	-14.00	419.34	419.41
DF	637+00.43	-14.00	419.38	419.48
DG	637+10.43	-14.00	419.42	419.54
DH	637+20.43	-14.00	419.47	419.61
DI	637+30.43	-14.00	419.51	419.67
DJ	637+40.43	-14.00	419.55	419.72
DK	637+50.43	-14.00	419.60	419.75
DL	637+60.43	-14.00	419.64	419.79
DM	637+70.43	-14.00	419.68	419.82
DN	637+80.43	-14.00	419.73	419.83
DO	637+90.43	-14.00	419.77	419.84
DP	638+00.43	-14.00	419.81	419.85
☉ Bearing East Abutment	638+10.43	-14.00	419.85	419.85
☉ Expansion Joint	638+11.32	-14.00	419.86	419.86
Back of East Abutment	638+12.8	-14.00	419.86	419.86

GIRDER LINE 2 - UNIT 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
☉ Pier 6	633+56.26	-7.00	417.38	417.38
☉ Bearing Pier 6	633+57.01	-7.00	417.38	417.38
CA	633+67.01	-7.00	417.45	417.49
CB	633+77.01	-7.00	417.52	417.59
CC	633+87.01	-7.00	417.59	417.70
CD	633+97.01	-7.00	417.65	417.79
CE	634+07.01	-7.00	417.72	417.87
CF	634+17.01	-7.00	417.79	417.95
CG	634+27.01	-7.00	417.86	418.02
CH	634+37.01	-7.00	417.92	418.09
CI	634+47.01	-7.00	417.99	418.13
CJ	634+57.01	-7.00	418.06	418.18
CK	634+67.01	-7.00	418.13	418.23
CL	634+77.01	-7.00	418.20	418.27
CM	634+87.01	-7.00	418.26	418.31
CN	634+97.01	-7.00	418.33	418.36
☉ Bearing Pier 7	635+07.01	-7.00	418.40	418.40
CO	635+17.01	-7.00	418.47	418.47
CP	635+27.01	-7.00	418.53	418.54
CQ	635+37.01	-7.00	418.60	418.60
CR	635+47.01	-7.00	418.67	418.67
CS	635+57.01	-7.00	418.73	418.74
CT	635+67.01	-7.00	418.80	418.81
CU	635+77.01	-7.00	418.86	418.88
CV	635+87.01	-7.00	418.92	418.94
CW	635+97.01	-7.00	418.98	419.00
CX	636+07.01	-7.00	419.04	419.05
CY	636+17.01	-7.00	419.09	419.10
CZ	636+27.01	-7.00	419.15	419.15
DA	636+37.01	-7.00	419.20	419.20
DB	636+47.01	-7.00	419.25	419.25
☉ Bearing Pier 8	636+57.01	-7.00	419.30	419.30
DC	636+67.01	-7.00	419.35	419.37
DD	636+77.01	-7.00	419.40	419.45
DE	636+87.01	-7.00	419.44	419.52
DF	636+97.01	-7.00	419.49	419.59
DG	637+07.01	-7.00	419.53	419.65
DH	637+17.01	-7.00	419.57	419.71
DI	637+27.01	-7.00	419.62	419.78
DJ	637+37.01	-7.00	419.66	419.83
DK	637+47.01	-7.00	419.70	419.86
DL	637+57.01	-7.00	419.74	419.89
DM	637+67.01	-7.00	419.79	419.93
DN	637+77.01	-7.00	419.83	419.94
DO	637+87.01	-7.00	419.87	419.95
DP	637+97.01	-7.00	419.92	419.95
☉ Bearing East Abutment	638+07.01	-7.00	419.96	419.96
☉ Expansion Joint	638+07.9	-7.00	419.96	419.96
Back of East Abutment	638+09.38	-7.00	419.97	419.97

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USER NAME = bbovee	DESIGNED - JD	REVISED -
Illinois Design Firm Number 184,001670	CHECKED - BB	REVISED -
PLOT SCALE =	DRAWN - WS	REVISED -
PLOT DATE = 8/5/16 AM 2/27/2015	CHECKED - CJF	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TOP OF SLAB ELEVATIONS  
STRUCTURE NO. 079-0019**

F.A.S. RTE. 858	SECTION 12-B-1	COUNTY RANDOLPH	TOTAL SHEETS 90	SHEET NO. 41
SHEET NO. 9 OF 40 SHEETS			CONTRACT NO. 76H81	
ILLINOIS FED. AID PROJECT				

☉. PGL & GIRDER LINE 3 - UNIT 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
☉ Pier 6	633+52.85	0.00	417.46	417.46
☉ Bearing Pier 6	633+53.60	0.00	417.47	417.47
CA	633+63.60	0.00	417.54	417.57
CB	633+73.60	0.00	417.60	417.68
CC	633+83.60	0.00	417.67	417.78
CD	633+93.60	0.00	417.74	417.88
CE	634+03.60	0.00	417.81	417.96
CF	634+13.60	0.00	417.88	418.03
CG	634+23.60	0.00	417.94	418.11
CH	634+33.60	0.00	418.01	418.17
CI	634+43.60	0.00	418.08	418.22
CJ	634+53.60	0.00	418.15	418.27
CK	634+63.60	0.00	418.21	418.31
CL	634+73.60	0.00	418.28	418.36
CM	634+83.60	0.00	418.35	418.40
CN	634+93.60	0.00	418.42	418.44
☉ Bearing Pier 7	635+03.60	0.00	418.49	418.49
CO	635+13.60	0.00	418.55	418.55
CP	635+23.60	0.00	418.62	418.62
CQ	635+33.60	0.00	418.69	418.69
CR	635+43.60	0.00	418.76	418.76
CS	635+53.60	0.00	418.82	418.83
CT	635+63.60	0.00	418.88	418.90
CU	635+73.60	0.00	418.95	418.97
CV	635+83.60	0.00	419.01	419.03
CW	635+93.60	0.00	419.07	419.09
CX	636+03.60	0.00	419.13	419.14
CY	636+13.60	0.00	419.18	419.19
CZ	636+23.60	0.00	419.24	419.24
DA	636+33.60	0.00	419.29	419.29
DB	636+43.60	0.00	419.34	419.34
☉ Bearing Pier 8	636+53.60	0.00	419.39	419.39
DC	636+63.60	0.00	419.44	419.47
DD	636+73.60	0.00	419.49	419.54
DE	636+83.60	0.00	419.54	419.61
DF	636+93.60	0.00	419.58	419.68
DG	637+03.60	0.00	419.62	419.74
DH	637+13.60	0.00	419.67	419.81
DI	637+23.60	0.00	419.71	419.87
DJ	637+33.60	0.00	419.75	419.92
DK	637+43.60	0.00	419.80	419.95
DL	637+53.60	0.00	419.84	419.99
DM	637+63.60	0.00	419.88	420.02
DN	637+73.60	0.00	419.93	420.03
DO	637+83.60	0.00	419.97	420.04
DP	637+93.60	0.00	420.01	420.05
☉ Bearing East Abutment	638+03.60	0.00	420.05	420.05
☉ Expansion Joint	638+04.49	0.00	420.06	420.06
Back of East Abutment	638+05.97	0.00	420.06	420.06

GIRDER LINE 4 - UNIT 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
☉ Pier 6	633+49.44	7.00	417.33	417.33
☉ Bearing Pier 6	633+50.19	7.00	417.34	417.34
CA	633+60.19	7.00	417.40	417.44
CB	633+70.19	7.00	417.47	417.55
CC	633+80.19	7.00	417.54	417.65
CD	633+90.19	7.00	417.61	417.75
CE	634+00.19	7.00	417.68	417.82
CF	634+10.19	7.00	417.74	417.90
CG	634+20.19	7.00	417.81	417.98
CH	634+30.19	7.00	417.88	418.04
CI	634+40.19	7.00	417.95	418.09
CJ	634+50.19	7.00	418.01	418.13
CK	634+60.19	7.00	418.08	418.18
CL	634+70.19	7.00	418.15	418.23
CM	634+80.19	7.00	418.22	418.27
CN	634+90.19	7.00	418.28	418.31
☉ Bearing Pier 7	635+00.19	7.00	418.35	418.35
CO	635+10.19	7.00	418.42	418.42
CP	635+20.19	7.00	418.49	418.49
CQ	635+30.19	7.00	418.56	418.56
CR	635+40.19	7.00	418.62	418.63
CS	635+50.19	7.00	418.69	418.70
CT	635+60.19	7.00	418.75	418.77
CU	635+70.19	7.00	418.82	418.84
CV	635+80.19	7.00	418.88	418.90
CW	635+90.19	7.00	418.94	418.96
CX	636+00.19	7.00	419.00	419.01
CY	636+10.19	7.00	419.05	419.06
CZ	636+20.19	7.00	419.11	419.11
DA	636+30.19	7.00	419.16	419.16
DB	636+40.19	7.00	419.22	419.22
☉ Bearing Pier 8	636+50.19	7.00	419.27	419.27
DC	636+60.19	7.00	419.32	419.34
DD	636+70.19	7.00	419.36	419.41
DE	636+80.19	7.00	419.41	419.49
DF	636+90.19	7.00	419.46	419.56
DG	637+00.19	7.00	419.50	419.62
DH	637+10.19	7.00	419.54	419.68
DI	637+20.19	7.00	419.59	419.75
DJ	637+30.19	7.00	419.63	419.80
DK	637+40.19	7.00	419.67	419.83
DL	637+50.19	7.00	419.71	419.86
DM	637+60.19	7.00	419.76	419.90
DN	637+70.19	7.00	419.80	419.91
DO	637+80.19	7.00	419.84	419.92
DP	637+90.19	7.00	419.89	419.92
☉ Bearing East Abutment	638+00.19	7.00	419.93	419.93
☉ Expansion Joint	638+01.08	7.00	419.93	419.93
Back of East Abutment	638+02.56	7.00	419.94	419.94

GIRDER LINE 5 - UNIT 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
☉ Pier 6	633+46.02	14.00	417.19	417.19
☉ Bearing Pier 6	633+46.77	14.00	417.19	417.19
CA	633+56.77	14.00	417.26	417.30
CB	633+66.77	14.00	417.33	417.40
CC	633+76.77	14.00	417.40	417.51
CD	633+86.77	14.00	417.46	417.60
CE	633+96.77	14.00	417.53	417.68
CF	634+06.77	14.00	417.60	417.76
CG	634+16.77	14.00	417.67	417.84
CH	634+26.77	14.00	417.74	417.90
CI	634+36.77	14.00	417.80	417.94
CJ	634+46.77	14.00	417.87	417.99
CK	634+56.77	14.00	417.94	418.04
CL	634+66.77	14.00	418.01	418.08
CM	634+76.77	14.00	418.07	418.12
CN	634+86.77	14.00	418.14	418.17
☉ Bearing Pier 7	634+96.77	14.00	418.21	418.21
CO	635+06.77	14.00	418.28	418.28
CP	635+16.77	14.00	418.35	418.35
CQ	635+26.77	14.00	418.41	418.41
CR	635+36.77	14.00	418.48	418.48
CS	635+46.77	14.00	418.55	418.56
CT	635+56.77	14.00	418.61	418.63
CU	635+66.77	14.00	418.68	418.70
CV	635+76.77	14.00	418.74	418.76
CW	635+86.77	14.00	418.80	418.82
CX	635+96.77	14.00	418.86	418.87
CY	636+06.77	14.00	418.91	418.92
CZ	636+16.77	14.00	418.97	418.97
DA	636+26.77	14.00	419.02	419.03
DB	636+36.77	14.00	419.08	419.08
☉ Bearing Pier 8	636+46.77	14.00	419.13	419.13
DC	636+56.77	14.00	419.18	419.20
DD	636+66.77	14.00	419.23	419.28
DE	636+76.77	14.00	419.28	419.35
DF	636+86.77	14.00	419.32	419.42
DG	636+96.77	14.00	419.36	419.49
DH	637+06.77	14.00	419.41	419.55
DI	637+16.77	14.00	419.45	419.61
DJ	637+26.77	14.00	419.49	419.66
DK	637+36.77	14.00	419.54	419.70
DL	637+46.77	14.00	419.58	419.73
DM	637+56.77	14.00	419.62	419.76
DN	637+66.77	14.00	419.67	419.78
DO	637+76.77	14.00	419.71	419.78
DP	637+86.77	14.00	419.75	419.79
☉ Bearing East Abutment	637+96.77	14.00	419.80	419.80
☉ Expansion Joint	637+97.66	14.00	419.80	419.80
Back of East Abutment	637+99.14	14.00	419.81	419.81

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USER NAME = bbovee	DESIGNED - JD	REVISED -
Illinois Design Firm Number 184,001670	CHECKED - BB	REVISED -
PLOT SCALE =	DRAWN - WS	REVISED -
PLOT DATE = 8/5/17 AM 2/27/2015	CHECKED - CJF	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TOP OF SLAB ELEVATIONS  
STRUCTURE NO. 079-0019**

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
858	12-B-1	RANDOLPH	90	42
CONTRACT NO. 76H81				
ILLINOIS FED. AID PROJECT				

SHEET NO. 10 OF 40 SHEETS

**NORTH EDGE OF SHOULDER**

Location	Station	Offset	Theoretical Grade Elevations
West End of W. Abut. Slab	625+02.03	-16.00	411.43
A1	625+12.03	-16.00	411.50
Bk. of W. Abutment	625+22.03	-16.00	411.57

**NORTH EDGE OF PAVEMENT**

Location	Station	Offset	Theoretical Grade Elevations
West End of W. Abut. Slab	625+00.08	-12.00	411.50
A1	625+10.08	-12.00	411.57
Bk. of W. Abutment	625+20.08	-12.00	411.64

**PGL & C ROADWAY**

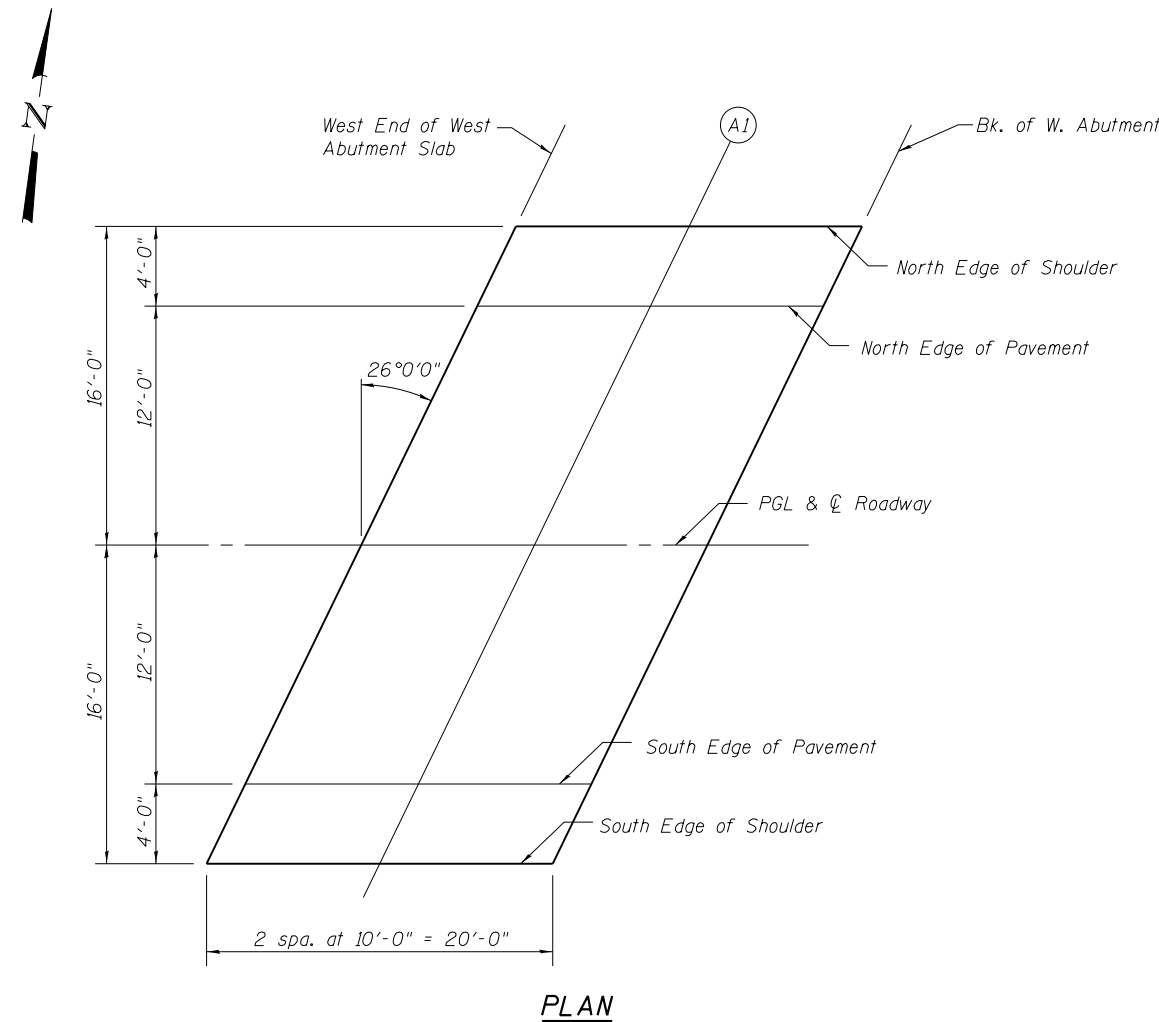
Location	Station	Offset	Theoretical Grade Elevations
West End of W. Abut. Slab	624+94.23	0.00	411.65
A1	625+04.23	0.00	411.72
Bk. of W. Abutment	625+14.23	0.00	411.79

**SOUTH EDGE OF PAVEMENT**

Location	Station	Offset	Theoretical Grade Elevations
West End of W. Abut. Slab	624+88.38	12.00	411.42
A1	624+98.38	12.00	411.49
Bk. of W. Abutment	625+08.38	12.00	411.56

**SOUTH EDGE OF SHOULDER**

Location	Station	Offset	Theoretical Grade Elevations
West End of W. Abut. Slab	624+86.43	16.00	411.33
A1	624+96.43	16.00	411.40
Bk. of W. Abutment	625+06.43	16.00	411.46



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E-AS

7-1-10



USER NAME = bbovee  
 Illinois Design Firm Number 184,001670  
 PLOT SCALE =  
 PLOT DATE = 8/5/18 AM 2/27/2015

DESIGNED - JD  
 CHECKED - BB  
 DRAWN - WS  
 CHECKED - CJF

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**TOP OF WEST VAULTED ABUTMENT SLAB ELEVATIONS  
 STRUCTURE NO. 079-0019**

SHEET NO. 11 OF 40 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
858	12-B-1	RANDOLPH	90	43
CONTRACT NO. 76H81				

ILLINOIS FED. AID PROJECT

**NORTH EDGE OF SHOULDER**

Location	Station	Offset	Theoretical Grade Elevations
Bk. of E. Abutment	638+13.77	-16.00	419.83
A2	638+23.77	-16.00	419.87
East End of E. Abut. Slab	638+33.77	-16.00	419.91

**NORTH EDGE OF PAVEMENT**

Location	Station	Offset	Theoretical Grade Elevations
Bk. of E. Abutment	638+11.82	-12.00	419.90
A2	638+21.82	-12.00	419.95
East End of E. Abut. Slab	638+31.82	-12.00	419.99

**PGL & C ROADWAY**

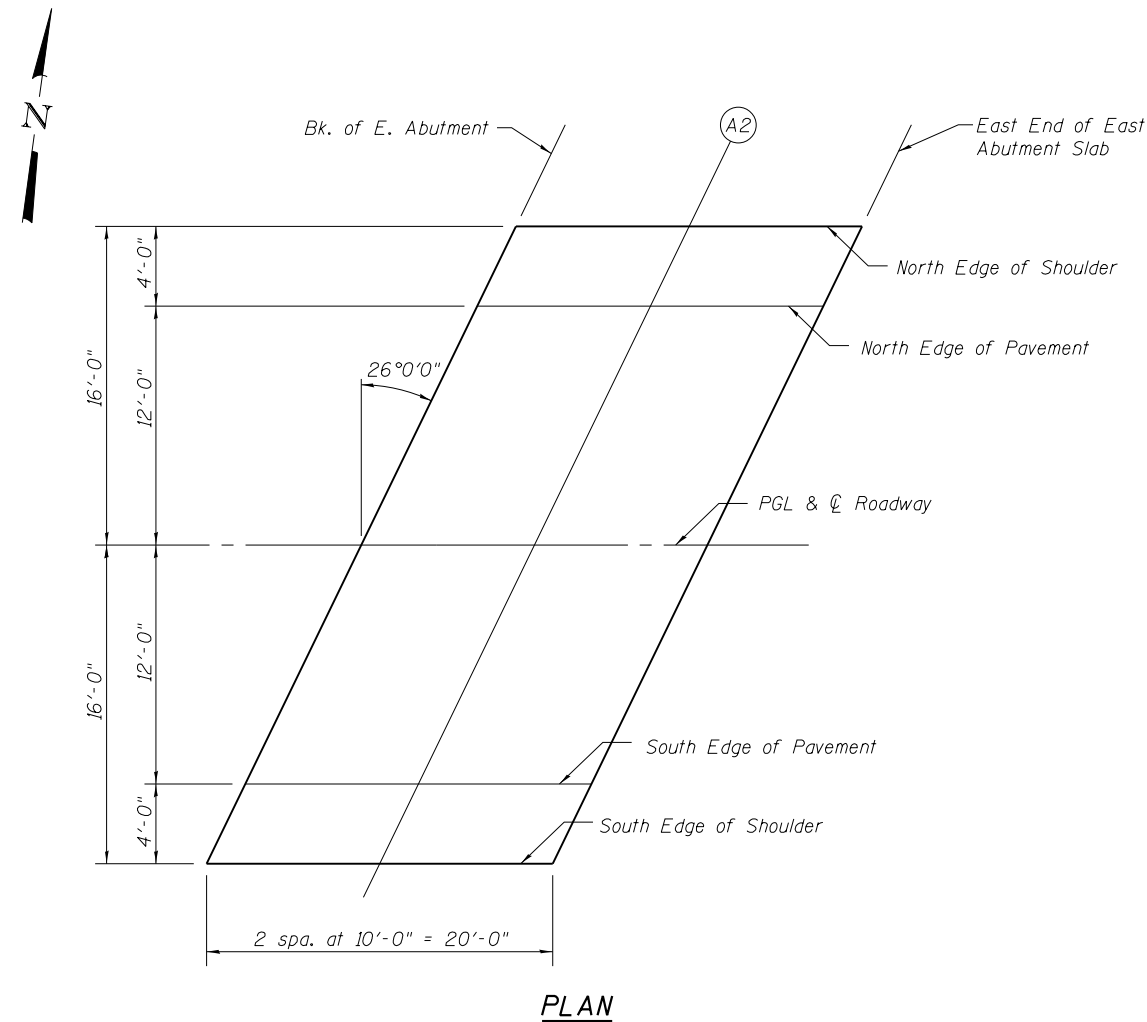
Location	Station	Offset	Theoretical Grade Elevations
Bk. of E. Abutment	638+05.97	0.00	420.06
A2	638+15.97	0.00	420.11
East End of E. Abut. Slab	638+25.97	0.00	420.15

**SOUTH EDGE OF PAVEMENT**

Location	Station	Offset	Theoretical Grade Elevations
Bk. of E. Abutment	638+00.12	12.00	419.85
A2	638+10.12	12.00	419.90
East End of E. Abut. Slab	638+20.12	12.00	419.94

**SOUTH EDGE OF SHOULDER**

Location	Station	Offset	Theoretical Grade Elevations
Bk. of E. Abutment	637+98.17	16.00	419.76
A2	638+08.17	16.00	419.80
East End of E. Abut. Slab	638+18.17	16.00	419.85



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7-1-10

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USER NAME = bbovee  
 Illinois Design Firm Number 184,001670  
 PLOT SCALE =  
 PLOT DATE = 8/5/8 AM 2/27/2015

DESIGNED - JD  
 CHECKED - BB  
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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**TOP OF EAST VAULTED ABUTMENT SLAB ELEVATIONS  
 STRUCTURE NO. 079-0019**

SHEET NO. 12 OF 40 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
858	12-B-1	RANDOLPH	90	44
CONTRACT NO. 76H81				

ILLINOIS FED. AID PROJECT



**NORTH EDGE OF SHOULDER**

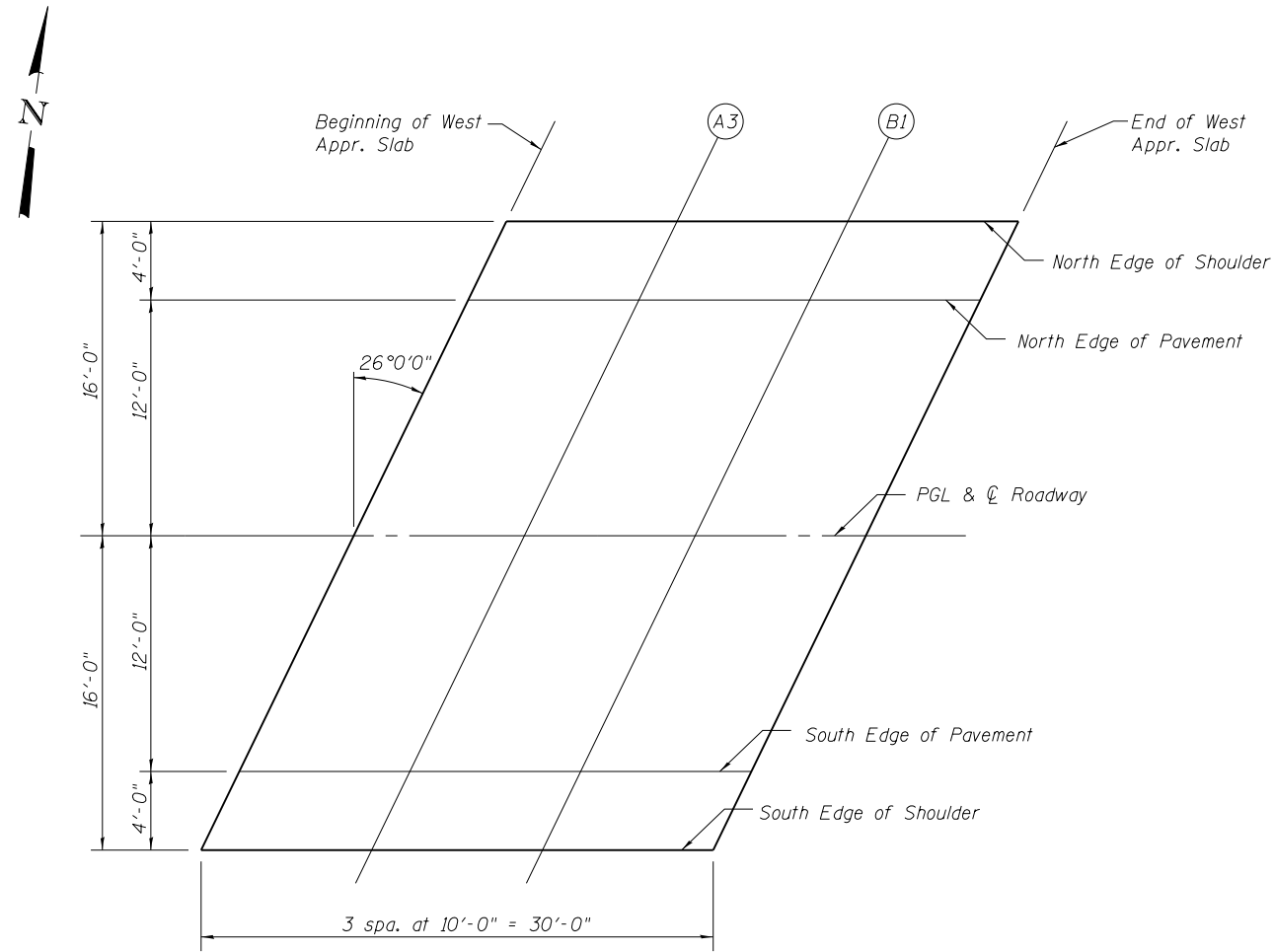
Location	Station	Offset	Theoretical Grade Elevations
Beginning of W. Appr. Slab	624+72.03	-16.00	411.23
A3	624+82.03	-16.00	411.30
B1	624+92.03	-16.00	411.37
End of W. Appr. Slab	625+02.03	-16.00	411.43

**NORTH EDGE OF PAVEMENT**

Location	Station	Offset	Theoretical Grade Elevations
Beginning of W. Appr. Slab	624+70.08	-12.00	411.30
A3	624+80.08	-12.00	411.37
B1	624+90.08	-12.00	411.44
End of W. Appr. Slab	625+00.08	-12.00	411.50

**PGL & C ROADWAY**

Location	Station	Offset	Theoretical Grade Elevations
Beginning of W. Appr. Slab	624+64.23	0.00	411.45
A3	624+74.23	0.00	411.52
B1	624+84.23	0.00	411.58
End of W. Appr. Slab	624+94.23	0.00	411.65



**PLAN**

**SOUTH EDGE OF PAVEMENT**

Location	Station	Offset	Theoretical Grade Elevations
Beginning of W. Appr. Slab	624+58.38	12.00	411.22
A3	624+68.38	12.00	411.29
B1	624+78.38	12.00	411.36
End of W. Appr. Slab	624+88.38	12.00	411.42

**SOUTH EDGE OF SHOULDER**

Location	Station	Offset	Theoretical Grade Elevations
Beginning of W. Appr. Slab	624+56.43	16.00	411.12
A3	624+66.43	16.00	411.19
B1	624+76.43	16.00	411.26
End of W. Appr. Slab	624+86.43	16.00	411.33

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USER NAME = bbove	DESIGNED - JD	REVISED -
Illinois Design Firm Number 184,001670	CHECKED - BB	REVISED -
PLOT SCALE =	DRAWN - WS	REVISED -
PLOT DATE = 8/5/9 AM 2/27/2015	CHECKED - CJF	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TOP OF WEST APPROACH SLAB ELEVATIONS  
STRUCTURE NO. 079-0019**

SHEET NO. 13 OF 40 SHEETS

F.A.S. RTE. 858	SECTION 12-B-1	COUNTY RANDOLPH	TOTAL SHEETS 90	SHEET NO. 45
CONTRACT NO. 76H81				
ILLINOIS FED. AID PROJECT				

**NORTH EDGE OF SHOULDER**

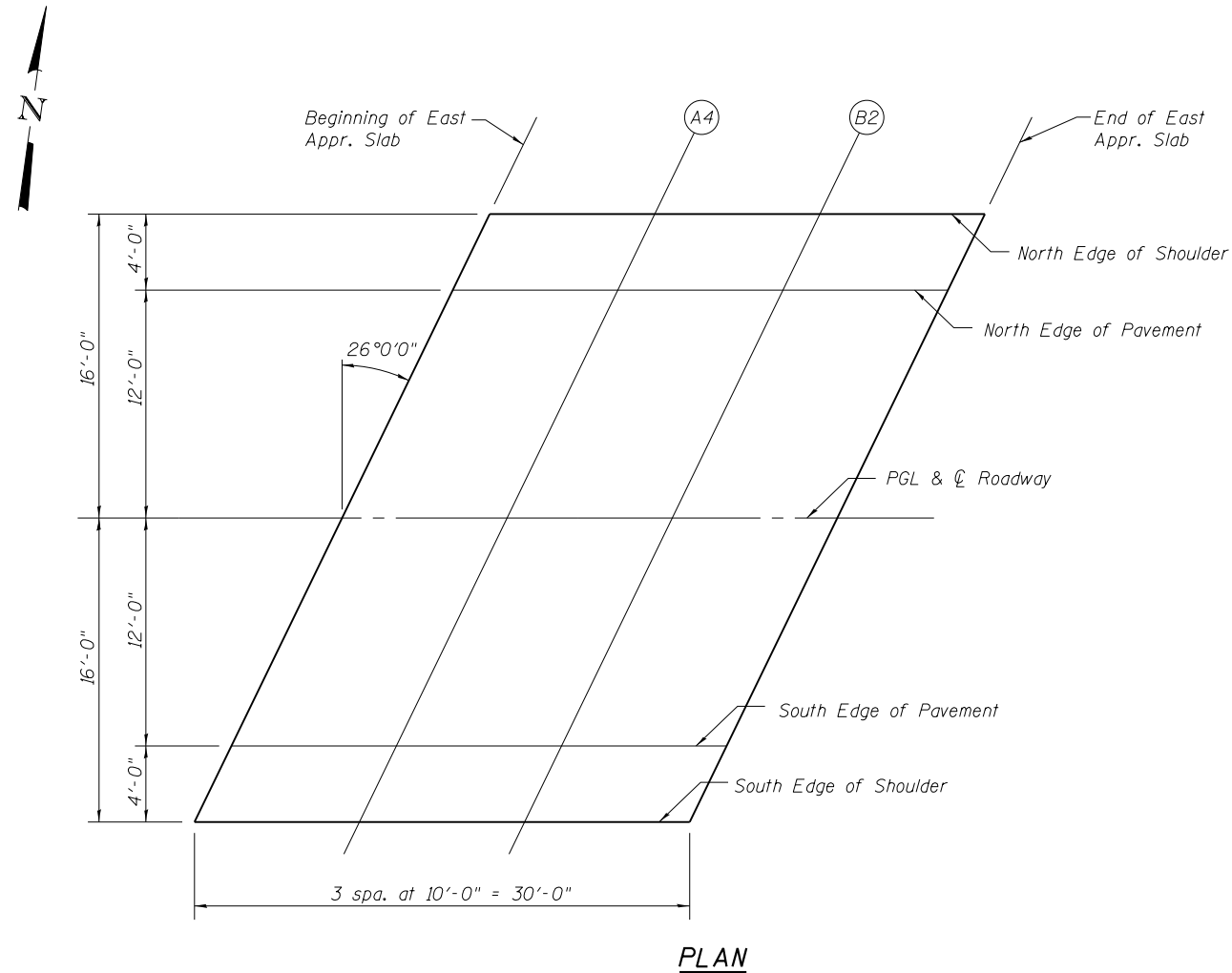
Location	Station	Offset	Theoretical Grade Elevations
Beginning of E. Appr. Slab	638+33.77	-16.00	419.91
A4	638+43.77	-16.00	419.96
B2	638+53.77	-16.00	420.00
End of E. Appr. Slab	638+63.77	-16.00	420.04

**NORTH EDGE OF PAVEMENT**

Location	Station	Offset	Theoretical Grade Elevations
Beginning of E. Appr. Slab	638+31.82	-12.00	419.99
A4	638+41.82	-12.00	420.03
B2	638+51.82	-12.00	420.07
End of E. Appr. Slab	638+61.82	-12.00	420.12

**PGL & C ROADWAY**

Location	Station	Offset	Theoretical Grade Elevations
Beginning of E. Appr. Slab	638+25.97	0.00	420.15
A4	638+35.97	0.00	420.19
B2	638+45.97	0.00	420.24
End of E. Appr. Slab	638+55.97	0.00	420.28



**PLAN**

**SOUTH EDGE OF PAVEMENT**

Location	Station	Offset	Theoretical Grade Elevations
Beginning of E. Appr. Slab	638+20.12	12.00	419.94
A4	638+30.12	12.00	419.98
B2	638+40.12	12.00	420.02
End of E. Appr. Slab	638+50.12	12.00	420.07

**SOUTH EDGE OF SHOULDER**

Location	Station	Offset	Theoretical Grade Elevations
Beginning of E. Appr. Slab	638+18.17	16.00	419.85
A4	638+28.17	16.00	419.89
B2	638+38.17	16.00	419.93
End of E. Appr. Slab	638+48.17	16.00	419.98

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USER NAME = bbove  
 Illinois Design Firm Number 184,001670  
 PLOT SCALE =  
 PLOT DATE = 8/5/9 AM 2/27/2015

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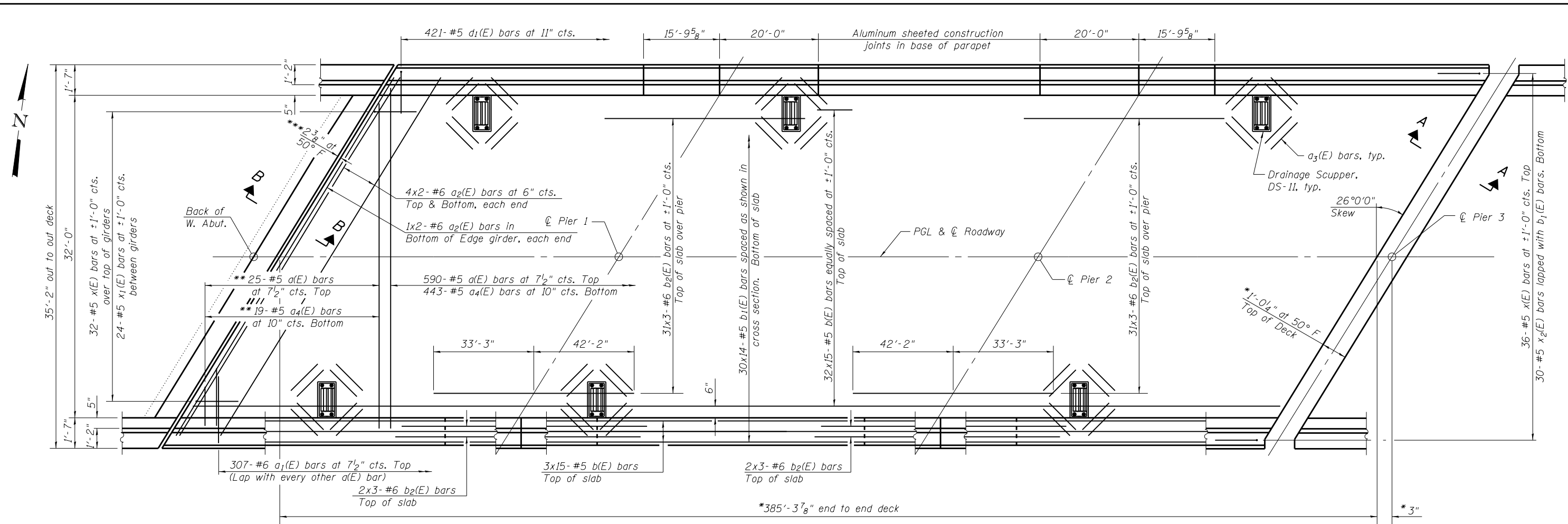
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**TOP OF EAST APPROACH SLAB ELEVATIONS  
 STRUCTURE NO. 079-0019**

SHEET NO. 14 OF 40 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
858	12-B-1	RANDOLPH	90	46
CONTRACT NO. 76H81				
ILLINOIS FED. AID PROJECT				

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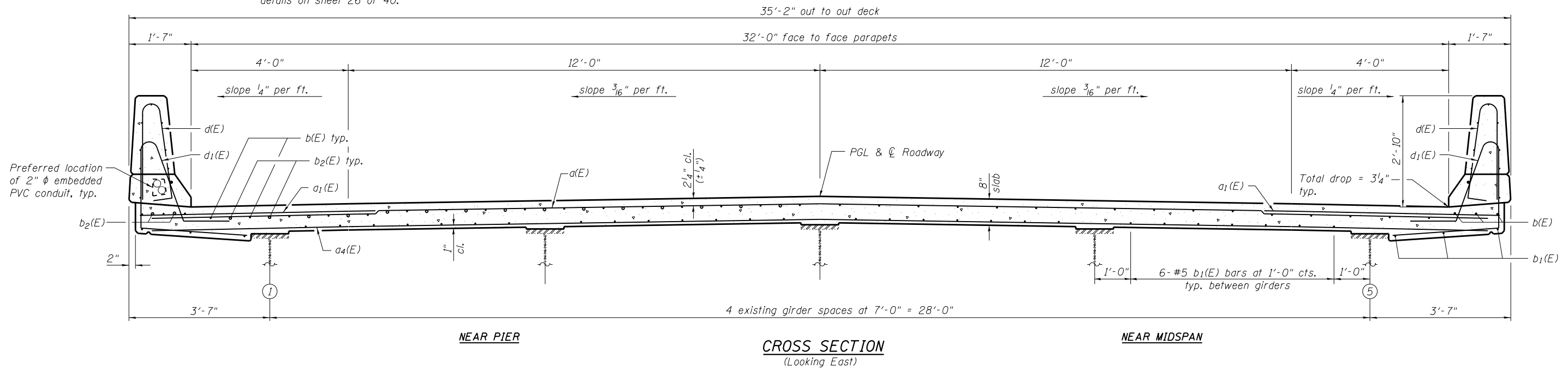
**MINIMUM BAR LAP**

#5 bar = 2'-7"  
#6 bar = 3'-1"

- \* Dimension shown is approximate. The Contractor shall coordinate with the Modular Joint Manufacturer to ensure that the reinforcement bars will not interfere with the joint components. Any necessary adjustments to the reinforcement shall be submitted to the Engineer for approval.
- \*\* Order a(E) & a4(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.
- \*\*\* Dimensions are based on Rolled Rail Strip Seal Joint. If the Contractor elects to use the Welded Rail Strip Seal Joint, deck dimensions may require adjustments to satisfy the details on sheet 26 of 40.

**PLAN**

**Notes:**  
See sheet 16 of 40 for Unit 1 superstructure details and Bill of Material. Bars indicated thus 30x14-#5 etc. indicates 30 lines of #5 bars with 14 lengths per line.  
See sheet 16 of 40 for x(E), x'(E), and parapet reinforcement.  
See sheets 18 and 28 of 40 for Section A-A.  
See sheet 16 of 40 for Section B-B.  
See sheet 1 of 40 for drainage locations.



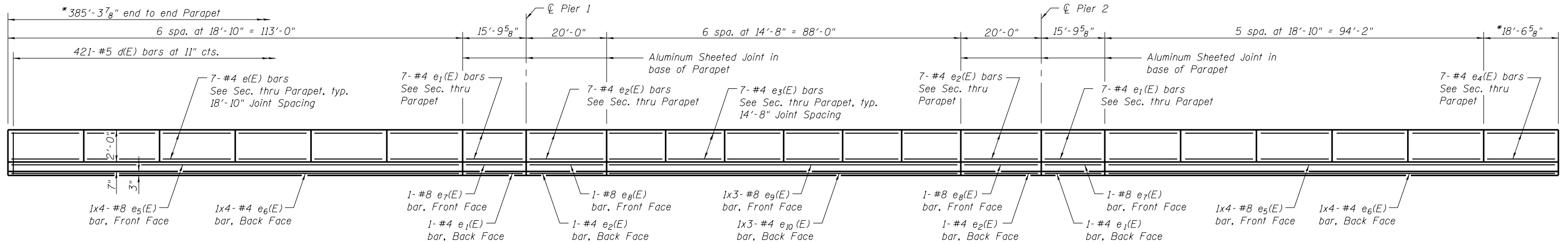
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE UNIT 1  
STRUCTURE NO. 079-0019**  
SHEET NO. 15 OF 40 SHEETS

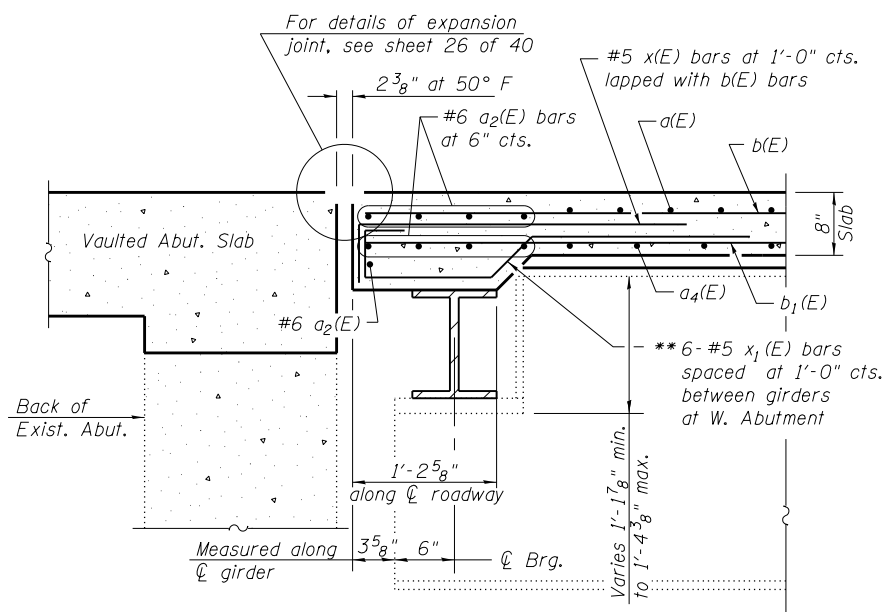
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
858	12-B-1	RANDOLPH	90	47
CONTRACT NO. 76H81				
ILLINOIS FED. AID PROJECT				



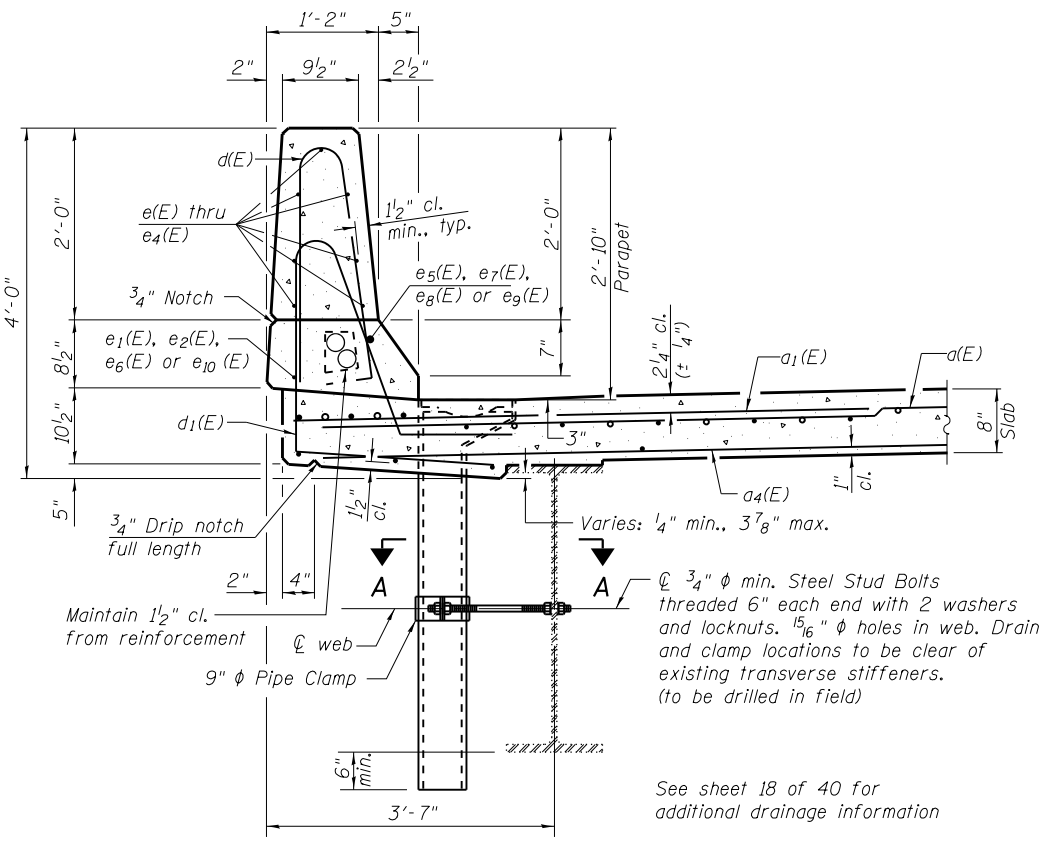
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Illinois Design Firm Number 184,001670	CHECKED - BB	REVISED -
PLOT SCALE =	DRAWN - WS	REVISED -
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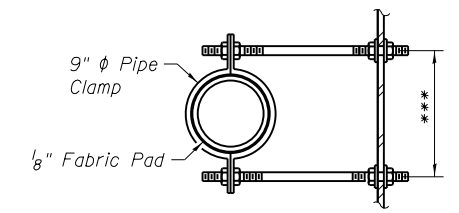
**INSIDE ELEVATION OF PARAPET**  
(North Parapet shown, South Parapet similar)



\*Dimension shown is approximate. The Contractor shall coordinate with the Modular Joint Manufacturer to ensure that the reinforcement bars will not interfere with the joint components. Any necessary adjustments to the reinforcement shall be submitted to the Engineer for approval.



**SECTION THRU PARAPET**



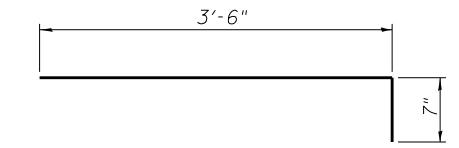
**SECTION A-A**  
\*\*\*Dimension as required by Pipe Clamp

**MINIMUM BAR LAP**  
(Parapet)  
#4 bar = 2'-0"  
#8 bar = 5'-2"

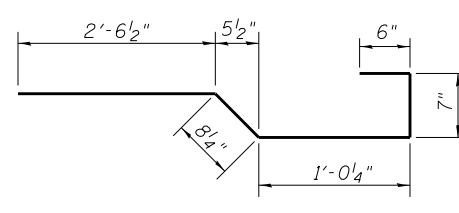
**SUPERSTRUCTURE - UNIT 1**  
**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
d(E)	615	#5	34'-7"	—
a1(E)	614	#6	6'-6"	—
a2(E)	36	#6	20'-10"	—
a3(E)	48	#5	1'-6"	—
a4(E)	462	#5	33'-10"	—
a9(E)	2	#6	2'-9"	—
a10(E)	4	#6	7'-5"	—
b(E)	570	#5	28'-1"	—
b1(E)	420	#5	29'-11"	—
b2(E)	210	#6	27'-3"	—
d(E)	842	#5	5'-7"	—
d1(E)	842	#5	8'-4"	—
e(E)	154	#4	18'-7"	—
e1(E)	32	#4	15'-6"	—
e2(E)	32	#4	19'-9"	—
e3(E)	84	#4	14'-5"	—
e4(E)	14	#4	18'-3"	—
e5(E)	16	#8	32'-1"	—
e6(E)	16	#4	29'-9"	—
e7(E)	4	#8	15'-6"	—
e8(E)	4	#8	19'-9"	—
e9(E)	6	#8	32'-9"	—
e10(E)	6	#4	30'-7"	—
x(E)	68	#5	4'-1"	—
x1(E)	24	#5	5'-4"	—
x2(E)	30	#5	6'-0"	—
Reinforcement Bars, Epoxy Coated			Pound	103,330
Concrete Superstructure			Cu. Yd.	463.8

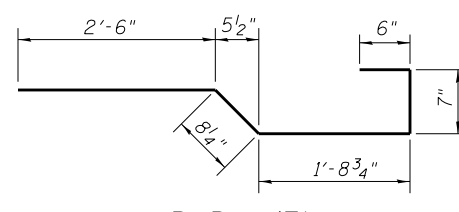
Bars indicated thus 1x3-#8 etc. indicates 1 line of #8 bars with 3 lengths per line. Place x(E), x1(E) and x2(E) bars parallel to girders.



**BAR x(E)**

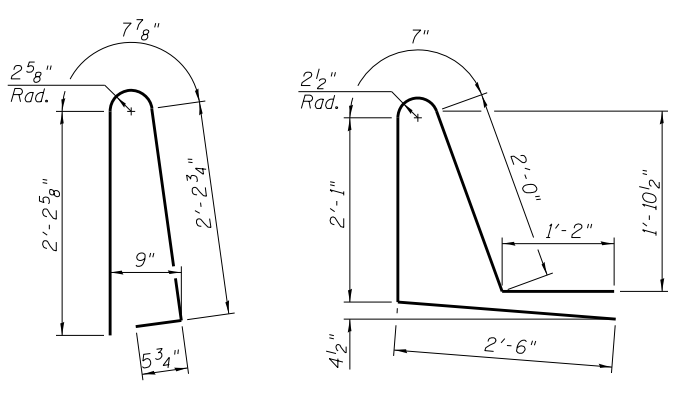


**BAR x1(E)**



**BAR x2(E)**

**SECTION B-B** \*\*Tilt x1(E) bars as required to maintain clearance.



**BAR d(E)**

**BAR d1(E)**

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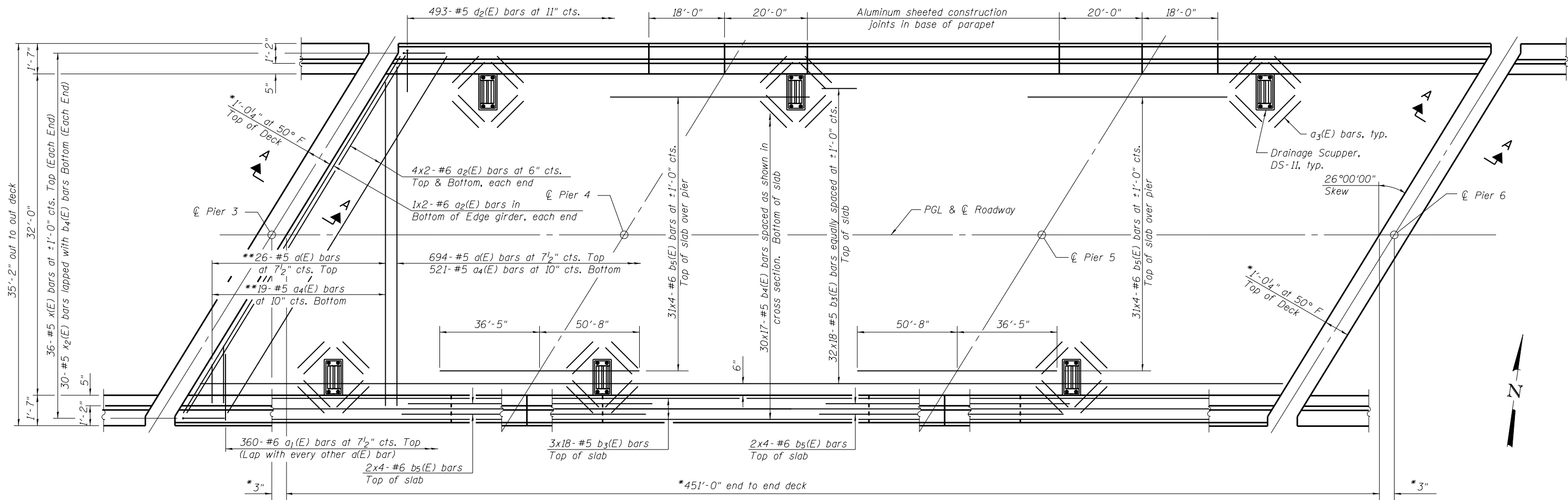


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Illinois Design Firm Number 184,001670	CHECKED - BB	REVISED -
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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE UNIT 1**  
**STRUCTURE NO. 079-0019**  
SHEET NO. 16 OF 40 SHEETS

F.A.S. RT.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
858	12-B-1	RANDOLPH	90	48
CONTRACT NO. 76H81				
ILLINOIS FED. AID PROJECT				



**MINIMUM BAR LAP**

#5 bar = 2'-7"  
#6 bar = 3'-1"

\* Dimension shown is approximate. The Contractor shall coordinate with the Modular Joint Manufacturer to ensure that the reinforcement bars will not interfere with the joint components. Any necessary adjustments to the reinforcement shall be submitted to the Engineer for approval.

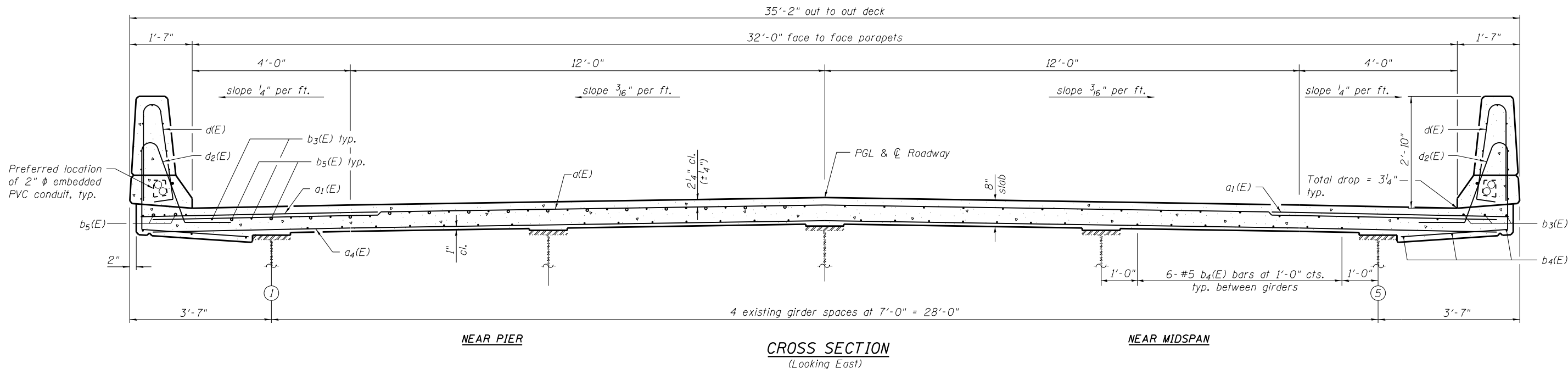
\*\* Order a(E) & a<sub>4</sub>(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.

**PLAN**

**Notes:**

See sheet 18 of 40 for Unit 2 superstructure details and Bill of Material. Bars indicated thus 30x14-#5 etc. indicates 30 lines of #5 bars with 14 lengths per line.

See sheet 18 of 40 for parapet reinforcement.  
See sheets 18 and 28 of 40 for Section A-A.  
See sheet 1 of 40 for drainage locations.



NEAR PIER

**CROSS SECTION**  
(Looking East)

NEAR MIDSPAN

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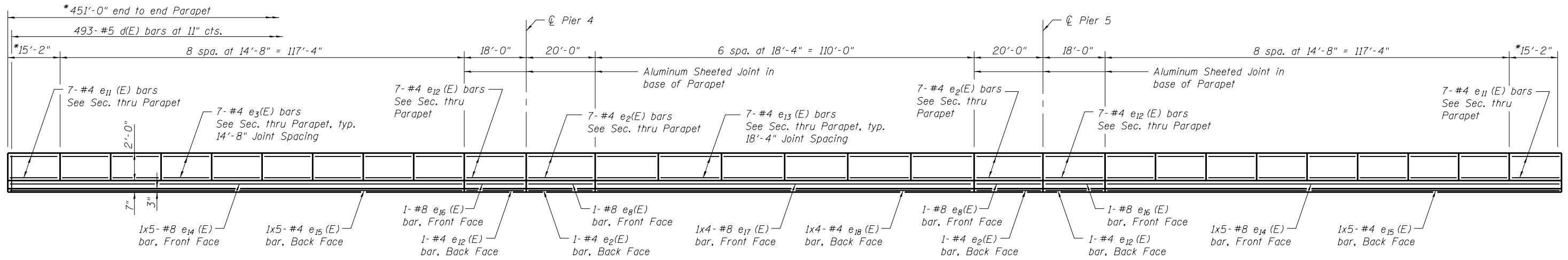
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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE UNIT 2**  
**STRUCTURE NO. 079-0019**

SHEET NO. 17 OF 40 SHEETS

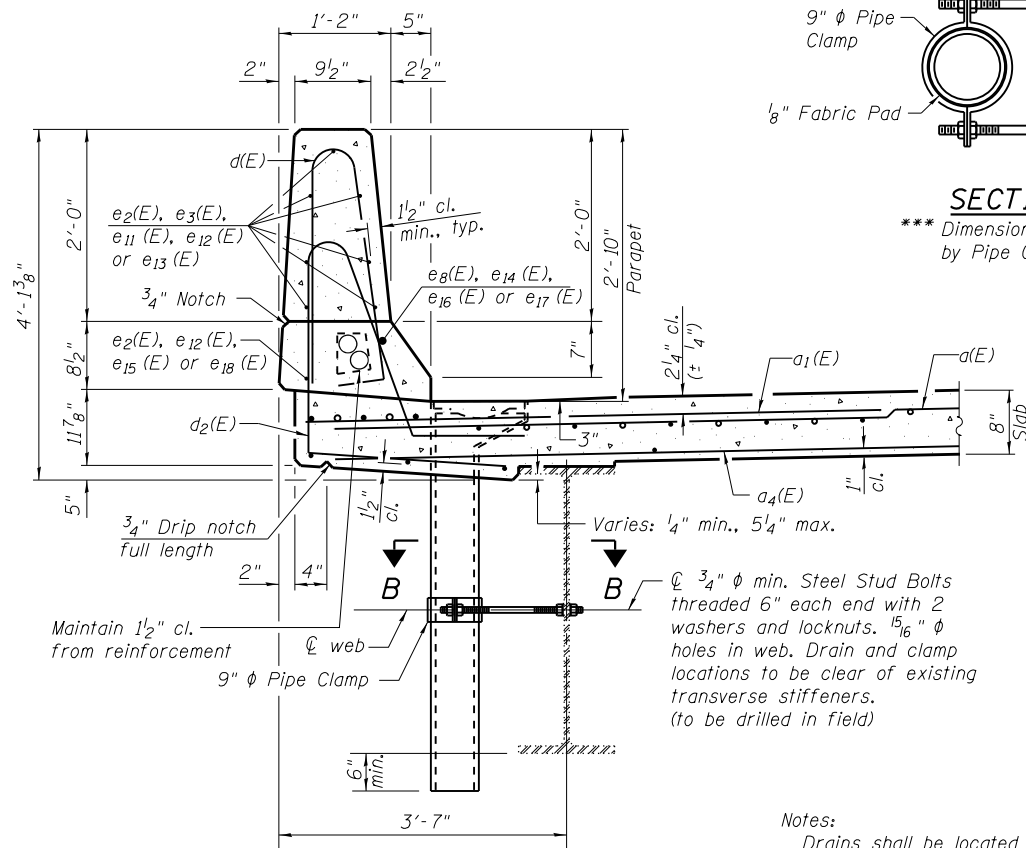
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CONTRACT NO. 76H81				
ILLINOIS FED. AID PROJECT				



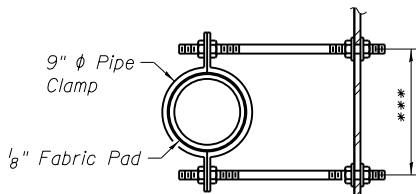
**INSIDE ELEVATION OF PARAPET**  
(North Parapet shown, South Parapet similar)

\* Dimension shown is approximate. The Contractor shall coordinate with the Modular Joint Manufacturer to ensure that the reinforcement bars will not interfere with the joint components. Any necessary adjustments to the reinforcement shall be submitted to the Engineer for approval.

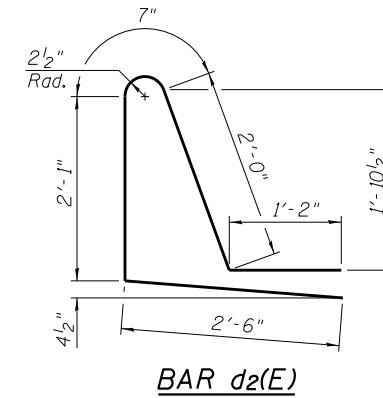
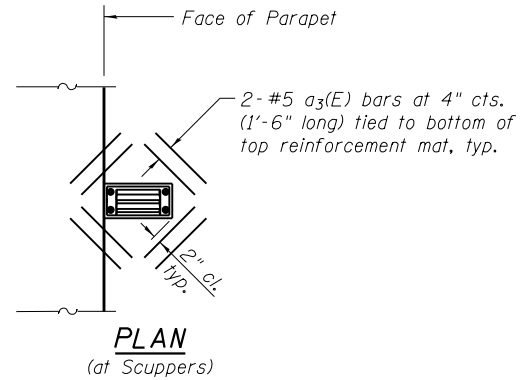
**MINIMUM BAR LAP**  
(Parapet)  
#4 bar = 2'-0"  
#8 bar = 5'-2"



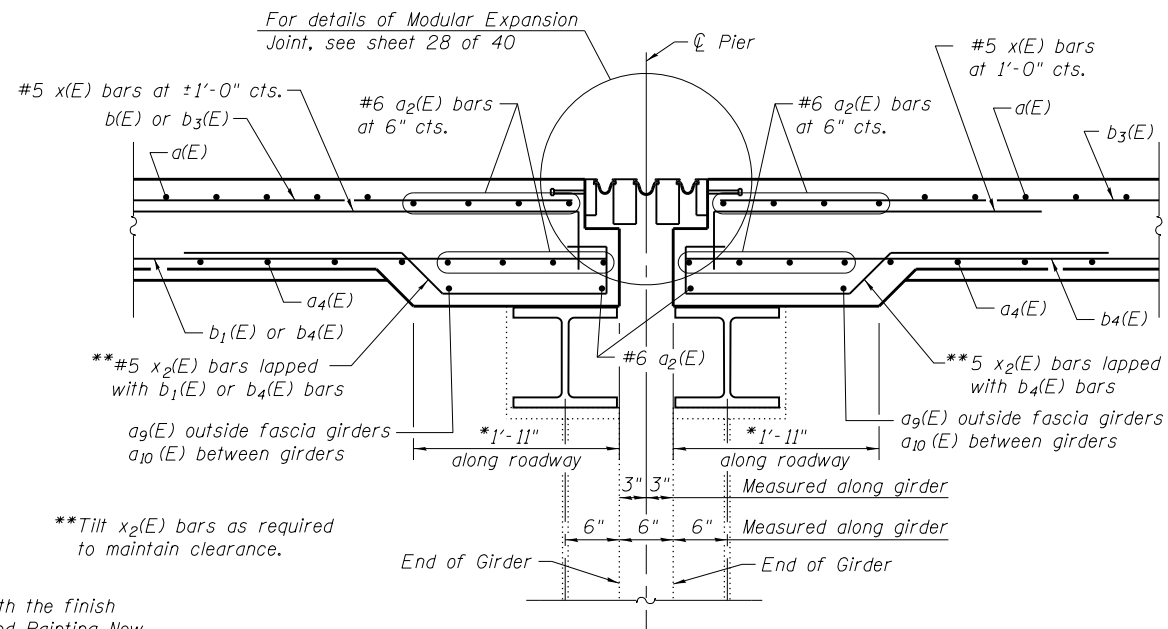
**SECTION THRU PARAPET**



**SECTION B-B**  
\*\*\* Dimension as required by Pipe Clamp



**BAR d2(E)**



**SECTION A-A**

(Edge Beam at Piers 3 & 6 to extend full width of deck)

**SUPERSTRUCTURE - UNIT 2**  
**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
d(E)	720	#5	34'-7"	—
a1(E)	720	#6	6'-6"	—
a2(E)	36	#6	20'-10"	—
a3(E)	48	#5	1'-6"	—
a4(E)	540	#5	33'-10"	—
a9(E)	4	#6	2'-9"	—
a10(E)	8	#6	7'-5"	—
b3(E)	684	#5	27'-6"	—
b4(E)	510	#5	29'-0"	—
b5(E)	280	#6	24'-1"	—
d(E)	986	#5	5'-7"	—
d2(E)	986	#5	8'-4"	—
e2(E)	32	#4	19'-9"	—
e3(E)	224	#4	14'-5"	—
e8(E)	4	#8	19'-9"	—
e11(E)	28	#4	14'-11"	—
e12(E)	32	#4	17'-9"	—
e13(E)	84	#4	18'-1"	—
e14(E)	20	#8	30'-7"	—
e15(E)	20	#4	28'-1"	—
e16(E)	4	#8	17'-9"	—
e17(E)	8	#8	31'-4"	—
e18(E)	8	#4	29'-0"	—
x(E)	72	#5	4'-1"	—
x2(E)	60	#5	6'-0"	—
Reinforcement Bars, Epoxy Coated			Pound	121,020
Concrete Superstructure			Cu. Yds.	548.7

Bars indicated thus 1x3-#8 etc. indicates 1 line of #8 bars with 3 lengths per line. Place x(E) and x2(E) bars parallel to girders. See sheet 16 of 40 for additional Bar Bends.

Notes:  
Drains shall be located clear of all diaphragms. The exterior surfaces of the 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-SPI prior to painting.

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE DETAILS UNIT 2**  
**STRUCTURE NO. 079-0019**

SHEET NO. 18 OF 40 SHEETS

F.A.S. RT.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
858	12-B-1	RANDOLPH	90	50
CONTRACT NO. 76H81				

ILLINOIS FED. AID PROJECT

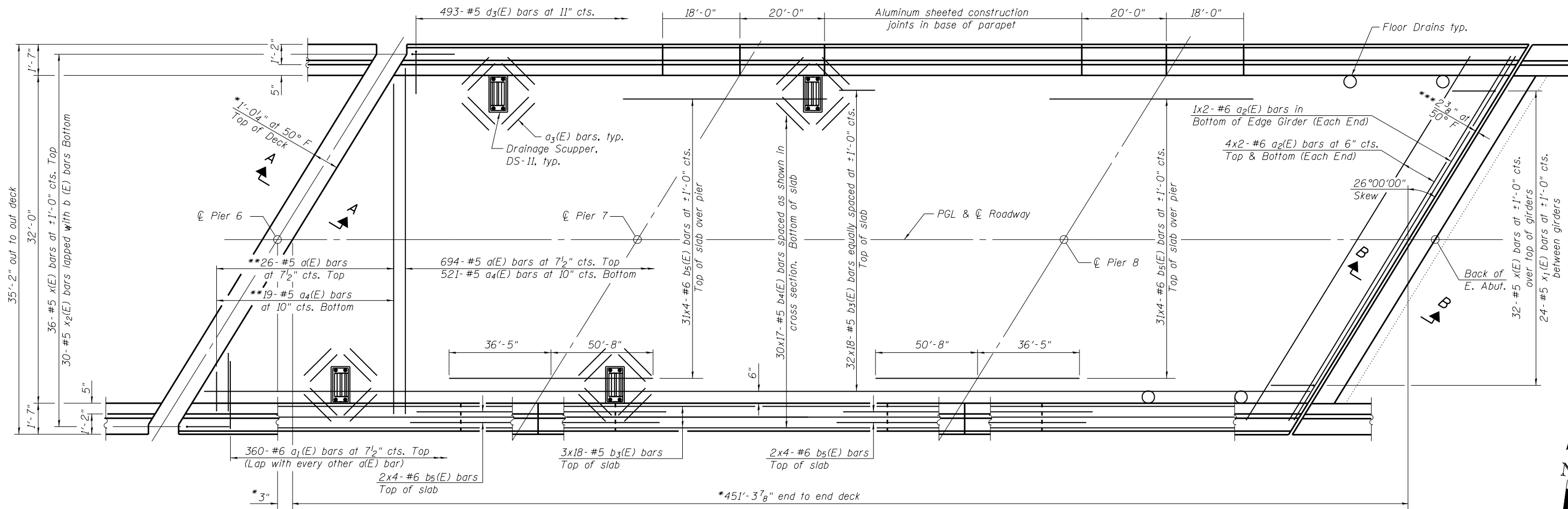
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Illinois Design Firm Number 184,001670  
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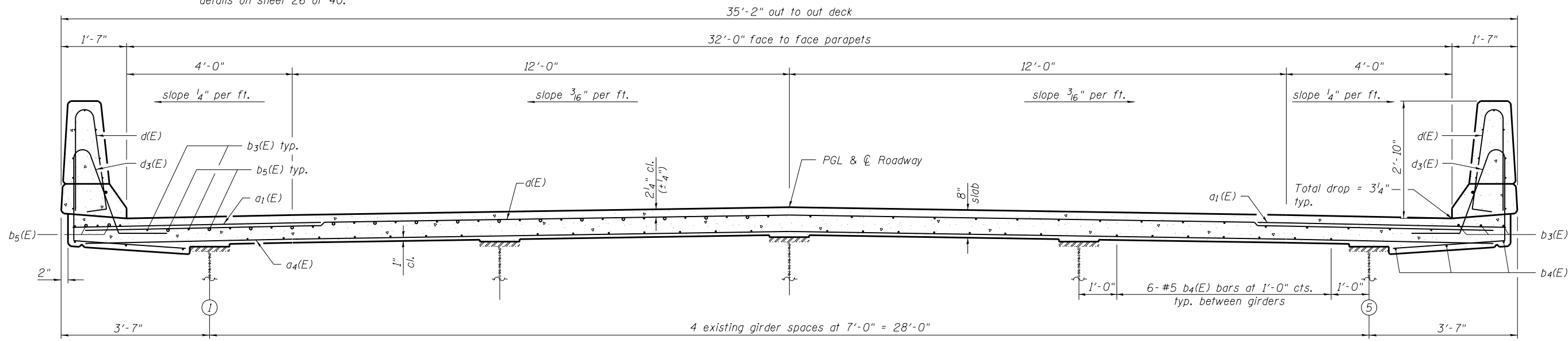
**MINIMUM BAR LAP**

#5 bar = 2'-7"  
 #6 bar = 3'-1"

- \* Dimension shown is approximate. The Contractor shall coordinate with the Modular Joint Manufacturer to ensure that the reinforcement bars will not interfere with the joint components. Any necessary adjustments to the reinforcement shall be submitted to the Engineer for approval.
- \*\* Order a(E) & a4(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.
- \*\*\* Dimensions are based on Rolled Rail Strip Seal Joint. If the Contractor elects to use the Welded Rail Strip Seal Joint, deck dimensions may require adjustments to satisfy the details on sheet 26 of 40.

**PLAN**

Notes:  
 See sheet 20 of 40 for Unit 3 superstructure details and Bill of Material.  
 Bars indicated thus 30x17-#5 etc. indicates 30 lines of #5 bars with 17 lengths per line.  
 See sheet 20 of 40 for x(E), x2(E), and parapet reinforcement.  
 See sheets 18 and 28 of 40 for Section A-A.  
 See sheet 20 of 40 for Section B-B.  
 See sheet 1 of 40 for drainage locations.



NEAR PIER

**CROSS SECTION**  
 (Looking East)

NEAR MIDSPAN

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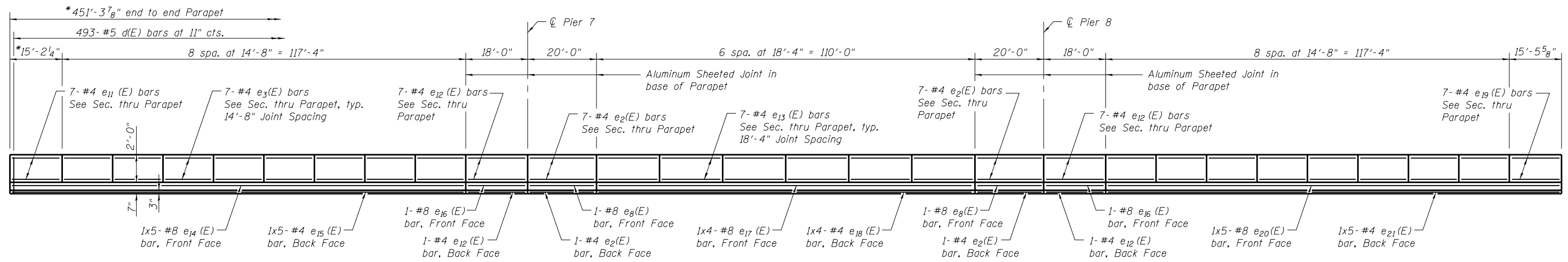
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Illinois Design Firm Number 184,001670	CHECKED - BB	REVISED -
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PLOT DATE = 2:41:37 PM 3/18/2015	CHECKED - CJF	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE UNIT 3**  
**STRUCTURE NO. 079-0019**

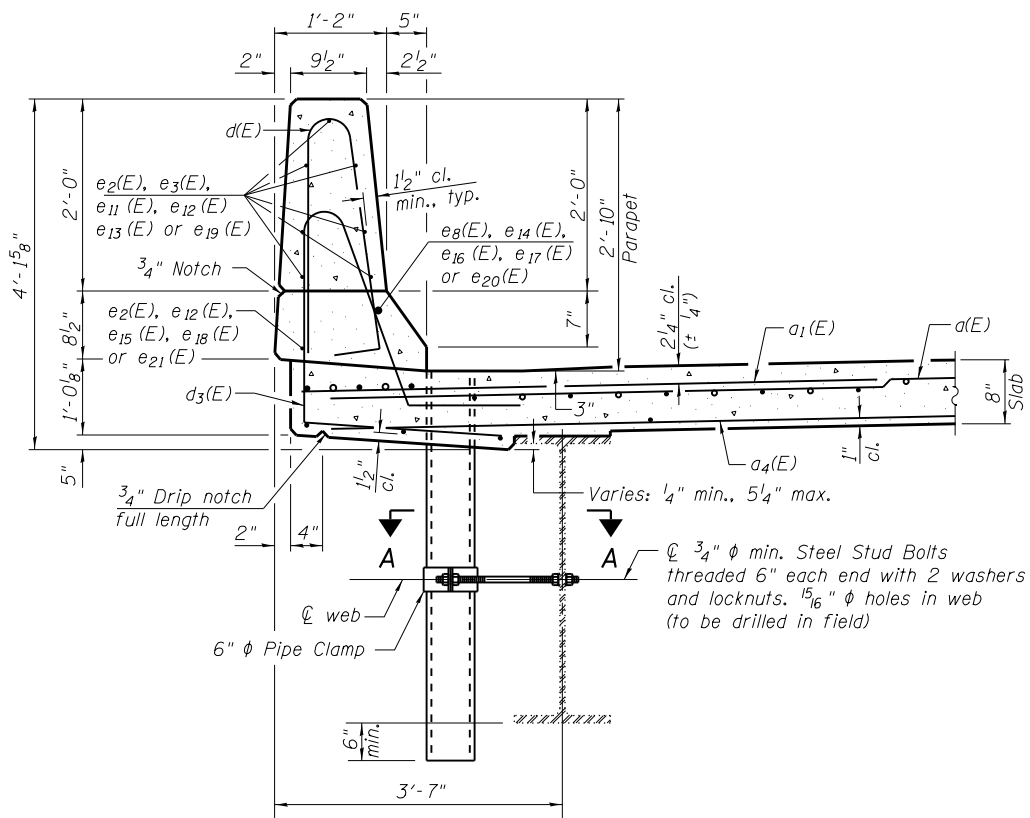
SHEET NO. 19 OF 40 SHEETS

F.A.S. R.E. 858	SECTION 12-B-1	COUNTY RANDOLPH	TOTAL SHEETS 90	SHEET NO. 51
CONTRACT NO. 76H81				
ILLINOIS FED. AID PROJECT				

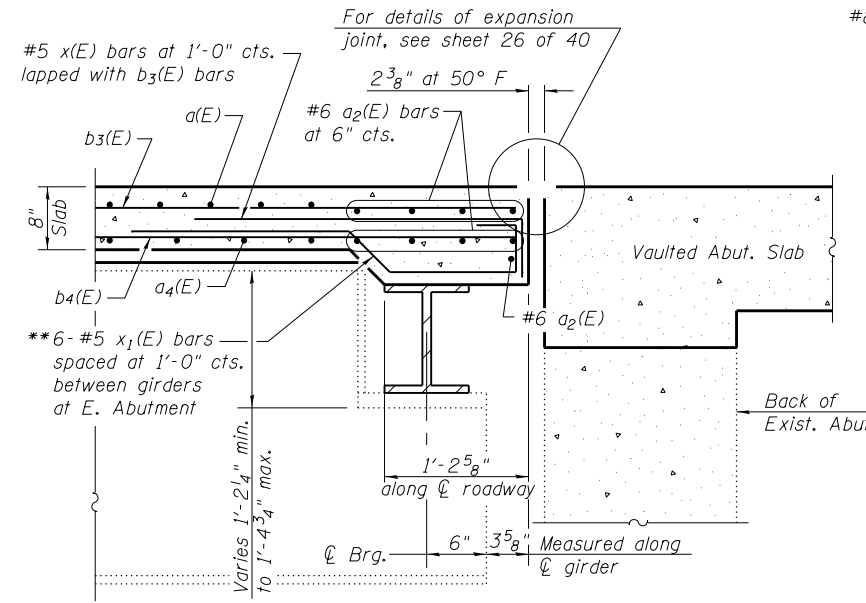


**INSIDE ELEVATION OF PARAPET**  
(North Parapet shown, South Parapet similar)

\* Dimension shown is approximate. The Contractor shall coordinate with the Modular Joint Manufacturer to ensure that the reinforcement bars will not interfere with the joint components. Any necessary adjustments to the reinforcement shall be submitted to the Engineer for approval.



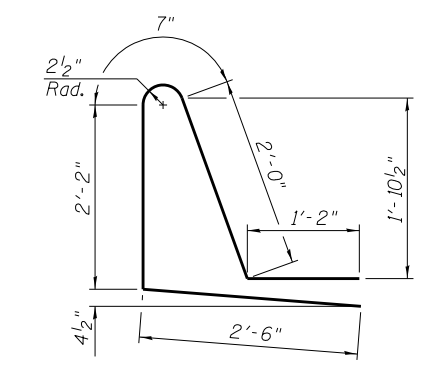
**SECTION THRU PARAPET**  
(Floor drain shown, Scupper similar)



**SECTION B-B**

**MINIMUM BAR LAP**  
(Parapet)  
#4 bar = 2'-0"  
#8 bar = 5'-2"

\*\* Tilt x1(E) bars as required to maintain clearance.



**BAR d3(E)**

**Notes:**  
Drains shall be located clear of all diaphragms. The exterior surfaces of the 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.  
For Scupper Details See sheet 38 of 40.

**SUPERSTRUCTURE - UNIT 3**  
**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a(E)	720	#5	34'-7"	—
a1(E)	720	#6	6'-6"	—
a2(E)	36	#6	20'-10"	—
a3(E)	32	#5	1'-6"	—
a4(E)	540	#5	33'-10"	—
a9(E)	2	#6	2'-9"	—
a10(E)	4	#6	7'-5"	—
b3(E)	684	#5	27'-6"	—
b4(E)	510	#5	29'-0"	—
b5(E)	280	#6	24'-1"	—
d(E)	986	#5	5'-7"	—
d3(E)	986	#5	8'-5"	—
e2(E)	32	#4	19'-9"	—
e3(E)	224	#4	14'-5"	—
e8(E)	4	#8	19'-9"	—
e11(E)	14	#4	14'-11"	—
e12(E)	32	#4	17'-9"	—
e13(E)	84	#4	18'-1"	—
e14(E)	10	#8	30'-7"	—
e15(E)	10	#4	28'-1"	—
e16(E)	4	#8	17'-9"	—
e17(E)	8	#8	31'-4"	—
e18(E)	8	#4	29'-0"	—
e19(E)	14	#4	15'-2"	—
e20(E)	10	#8	30'-8"	—
e21(E)	10	#4	28'-2"	—
x(E)	68	#5	4'-1"	—
x1(E)	24	#5	5'-4"	—
x2(E)	30	#5	6'-0"	—
Reinforcement Bars, Epoxy Coated	Pound		120,960	
Concrete Superstructure	Cu. Yds.		550.0	

Bars indicated thus 1x3- #8 etc. indicates 1 line of #8 bars with 3 lengths per line.  
Place x(E), x1(E) and x2(E) bars parallel to girders.  
See sheet 18 of 40 for Section A-A.  
See sheet 18 of 40 for additional drainage details.  
See sheet 16 of 40 for additional Bar Bends.

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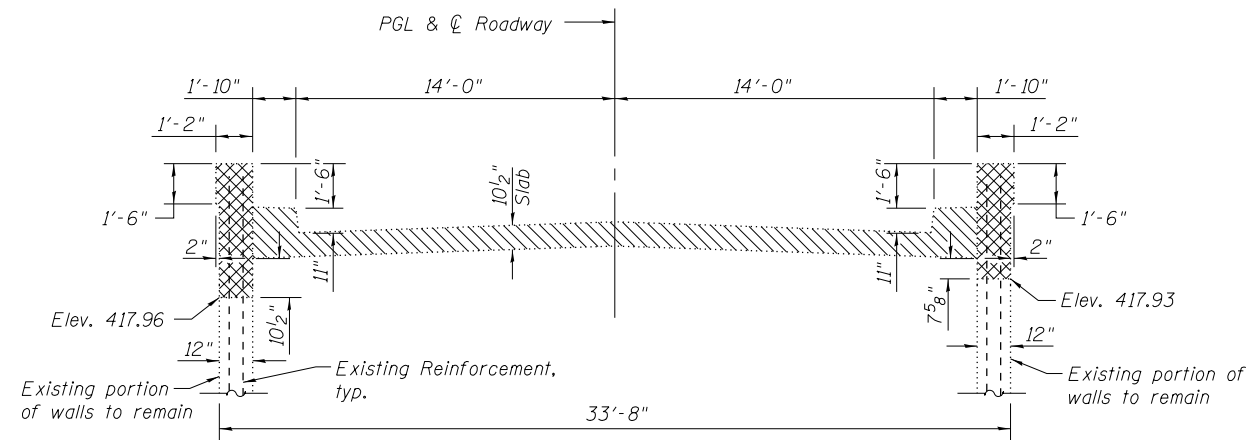
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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE DETAILS UNIT 3**  
**STRUCTURE NO. 079-0019**  
SHEET NO. 20 OF 40 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
858	12-B-1	RANDOLPH	90	52
CONTRACT NO. 76H81				
ILLINOIS FED. AID PROJECT				

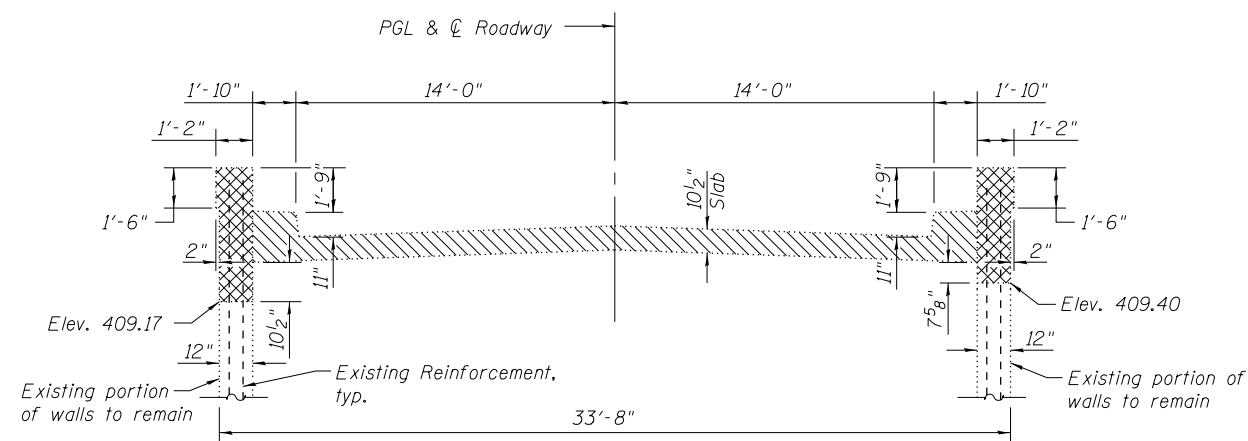




**LIMITS OF REMOVAL FOR EAST VAULTED ABUTMENT SLAB**

(Shown at Rt. L's)  
(Looking West)

- Denotes limits of Removal of Existing Concrete Deck
- Denotes limits of Concrete Removal



**LIMITS OF REMOVAL FOR WEST VAULTED ABUTMENT SLAB**

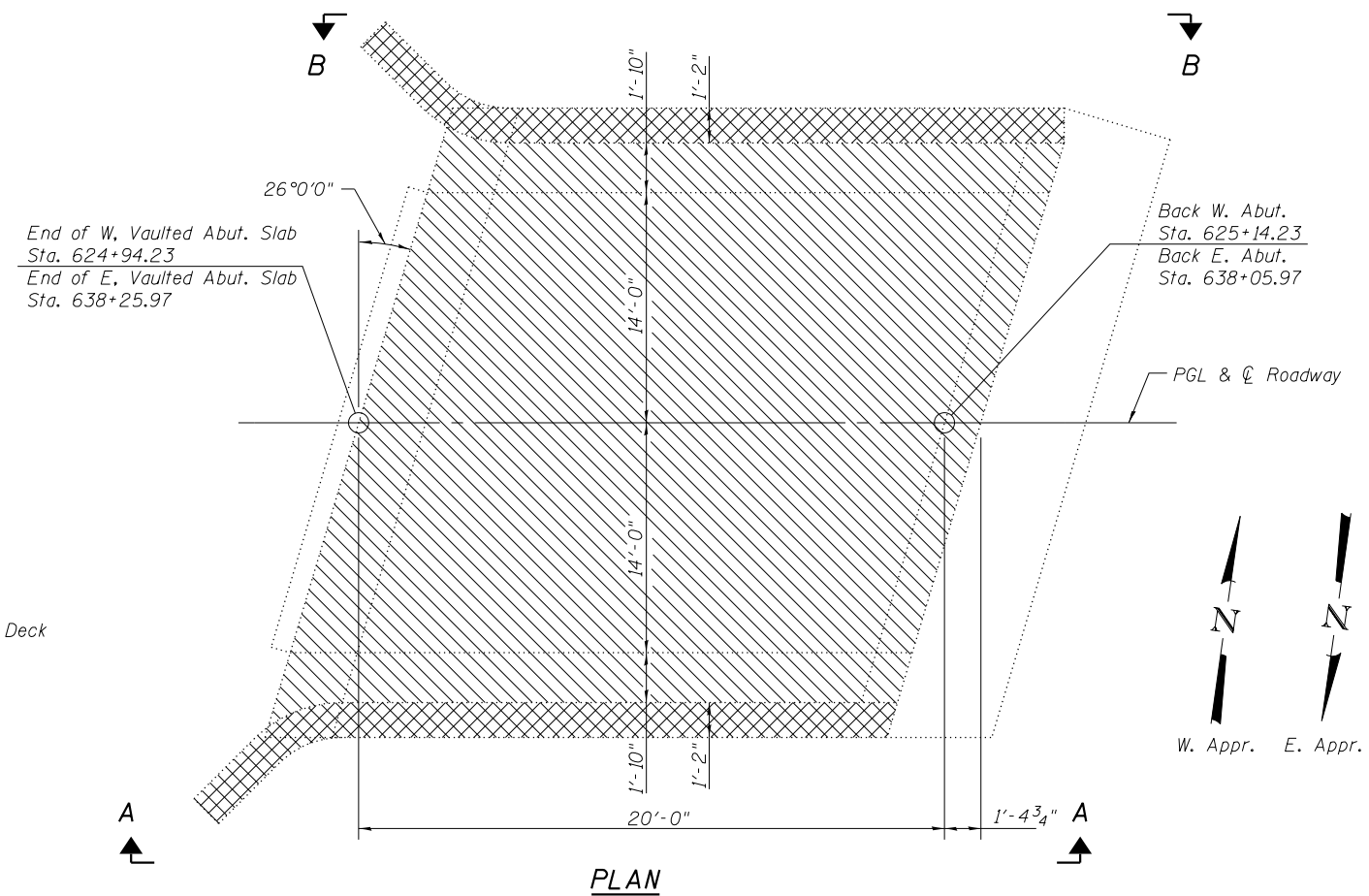
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(Looking West)

**Notes:**

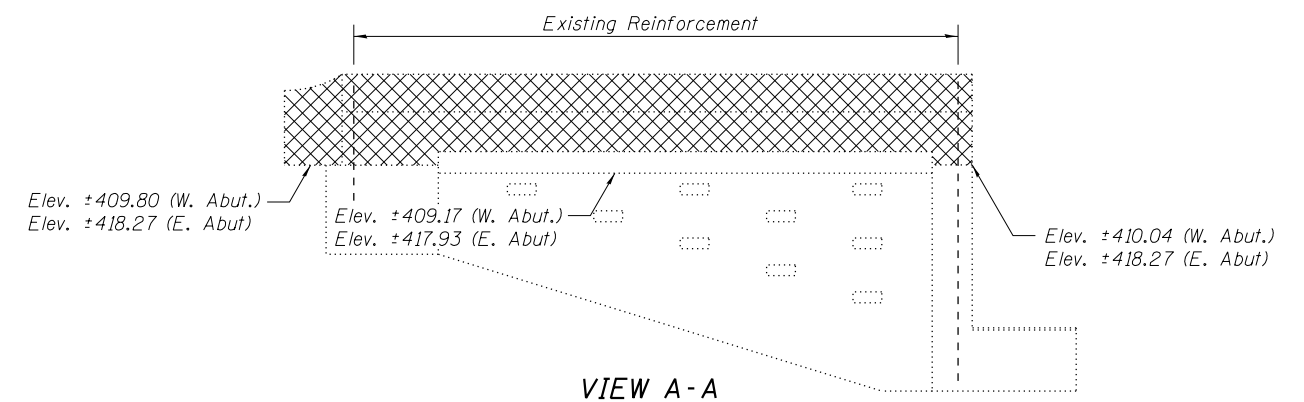
Spalling of concrete due to the cutting of the existing vaulted abutment shall be repaired as "Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)". See sheets 35 and 36 of 40 for quantities.

See Existing Plan details of Vaulted Abutment for additional details and dimensions not shown.

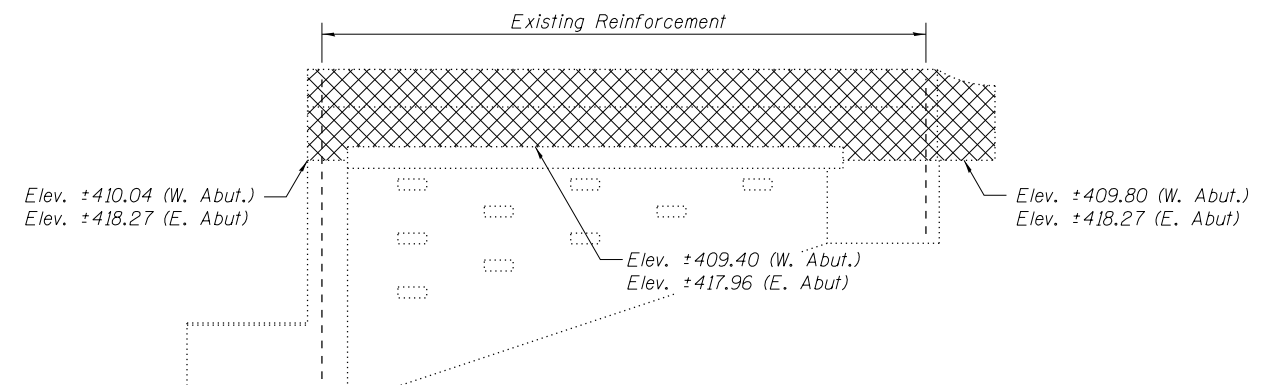
Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.



**PLAN**



**VIEW A-A**



**VIEW B-B**

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**VAULTED ABUTMENT SLAB REMOVAL  
STRUCTURE NO. 079-0019**

SHEET NO. 21 OF 40 SHEETS

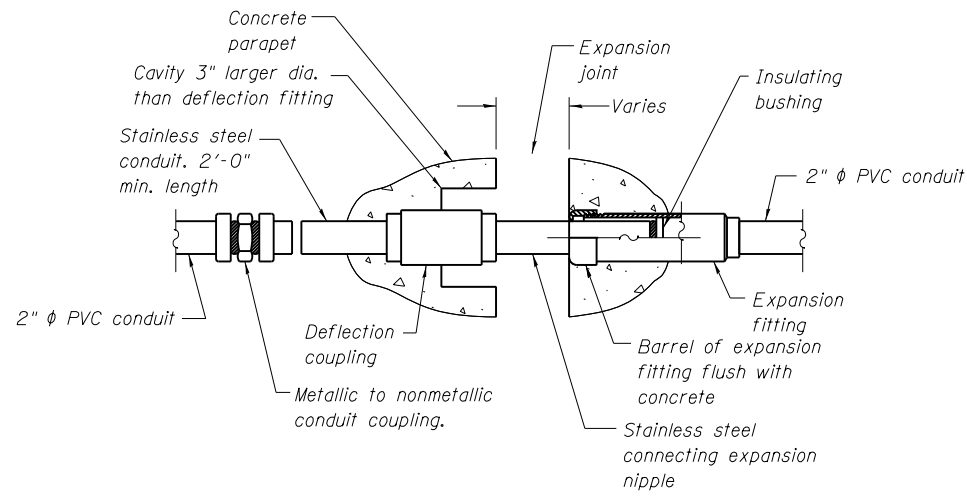
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858	12-B-1	RANDOLPH	90	53
CONTRACT NO. 76H81				

ILLINOIS FED. AID PROJECT

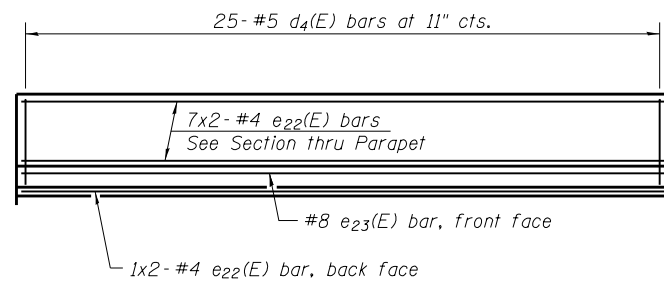
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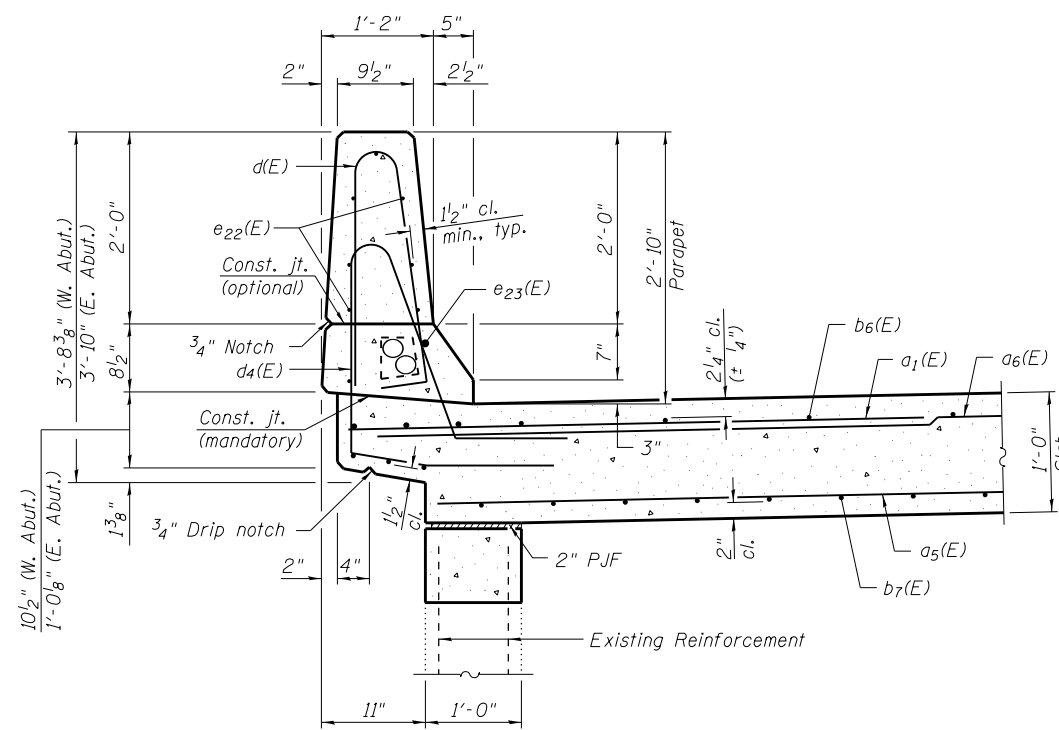
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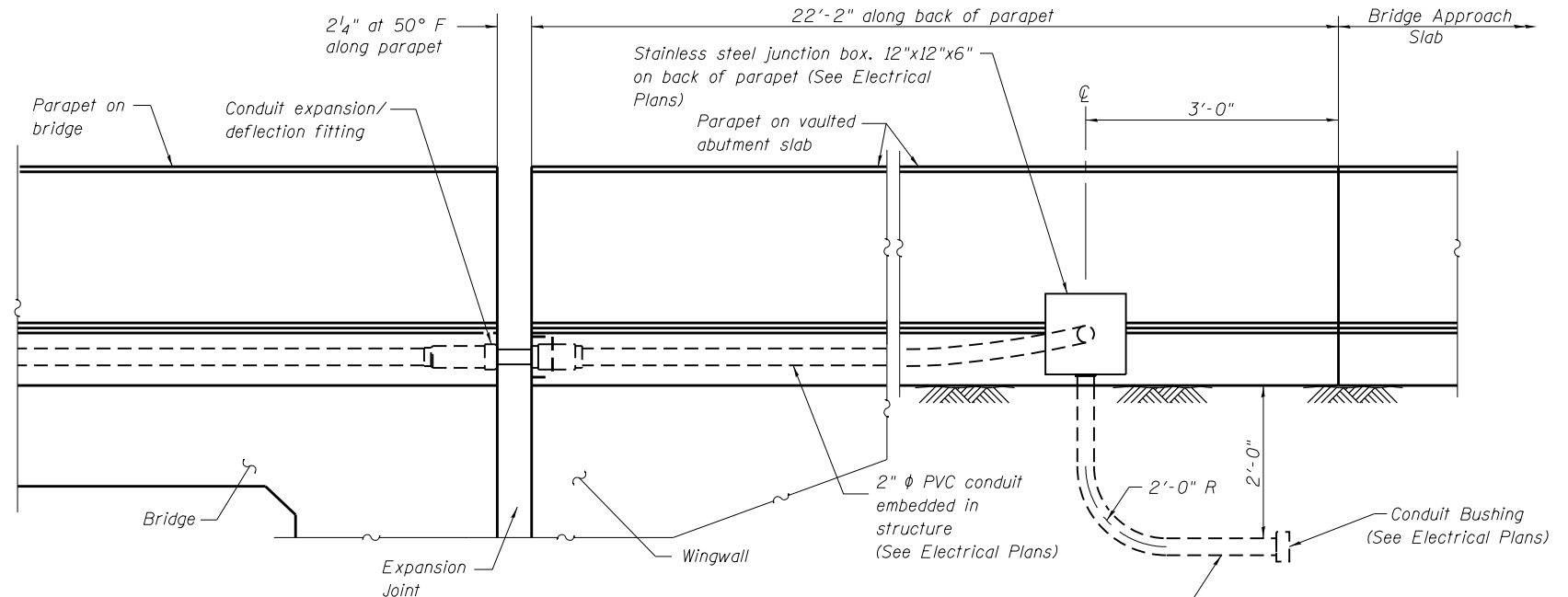
**COMBINATION EXPANSION / DEFLECTION FITTING**



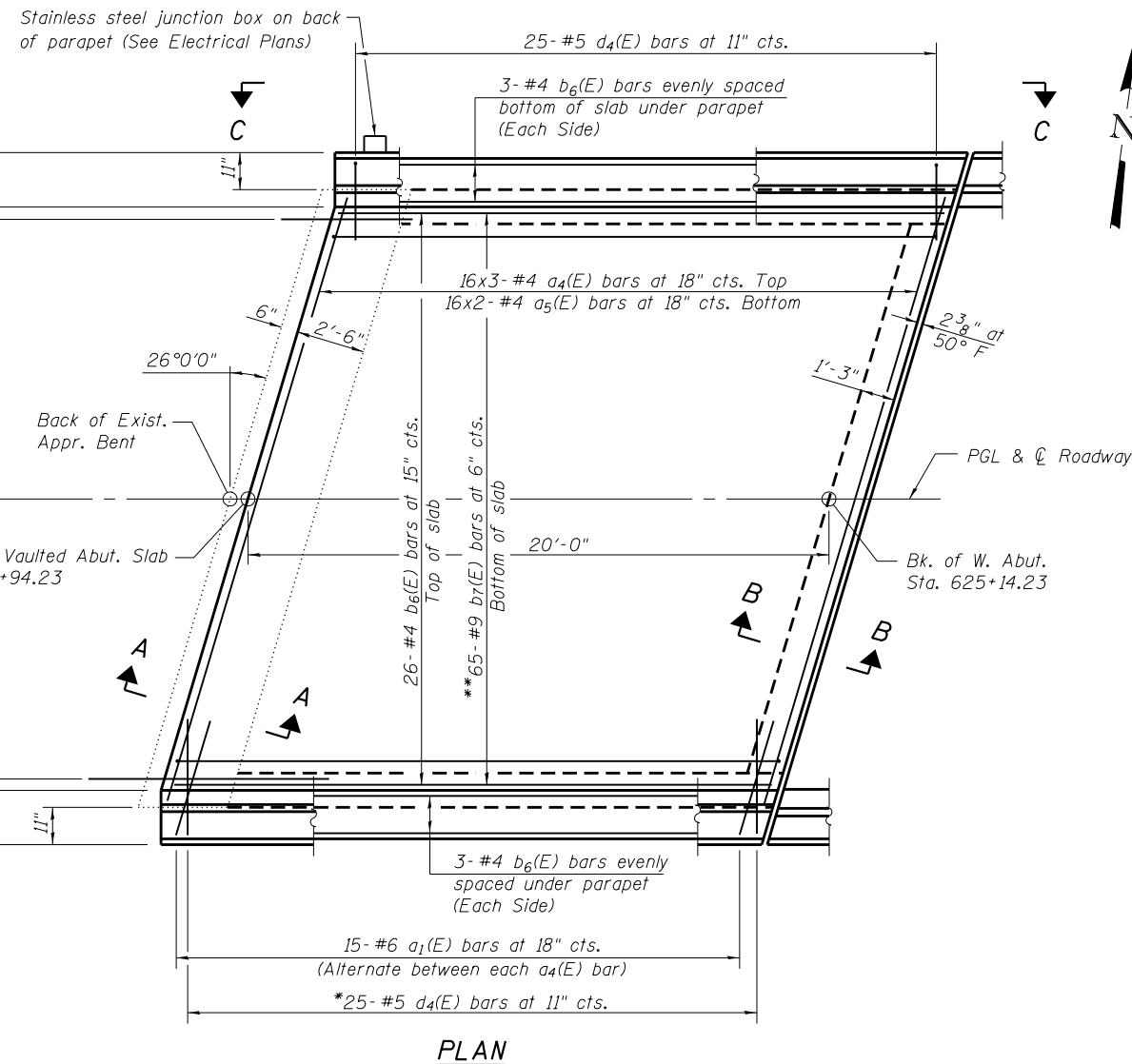
**INSIDE ELEVATION OF PARAPET**



**SECTION THRU PARAPET**



**View C-C**



**PLAN**

**MINIMUM BAR LAP**

#4 bar = 2'-0"

\* Place d4(E) bars at end of Parapet along skew.

\*\* Tilt #9-b7(E) bars as required to maintain clearance

**Notes:**

See sheet 23 of 40 for Bar Bends and Bill of Materials.

See sheet 23 of 40 for Sections A-A and B-B.

See sheet 37 of 40 for Bar Splicer details.

The barrel in the expansion fitting shall be fully embedded in the concrete on one side of the expansion joint. One half the length of the deflection fitting shall be embedded in the concrete on the other side of the expansion joint.

The Contractor shall install combination expansion deflection fittings at all bridge expansion joints.

With the approval of the Engineer, the Contractor may substitute two 12"x12"x6" min. stainless steel junction boxes attached to the back of the parapets and connected with liquidtight flexible nonmetallic conduit for all expansion joints.

The Contractor shall make allowance for the deflection of forms, shrinkage and settlement of falsework, in addition to allowance for dead load deflection. Forms for deck slab shall be removed prior to placement of bridge approach slab.

During removal of falsework, the Contractor shall follow all requirements set forth by OSHA regarding confined spaces.

Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.

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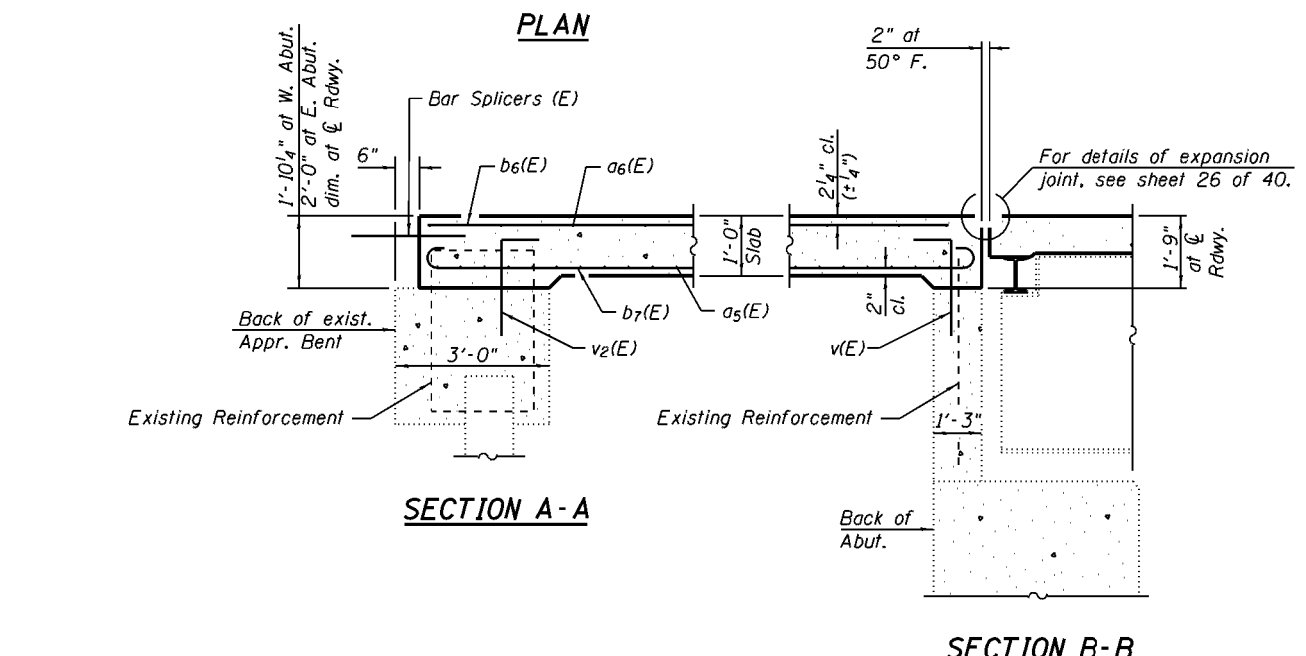
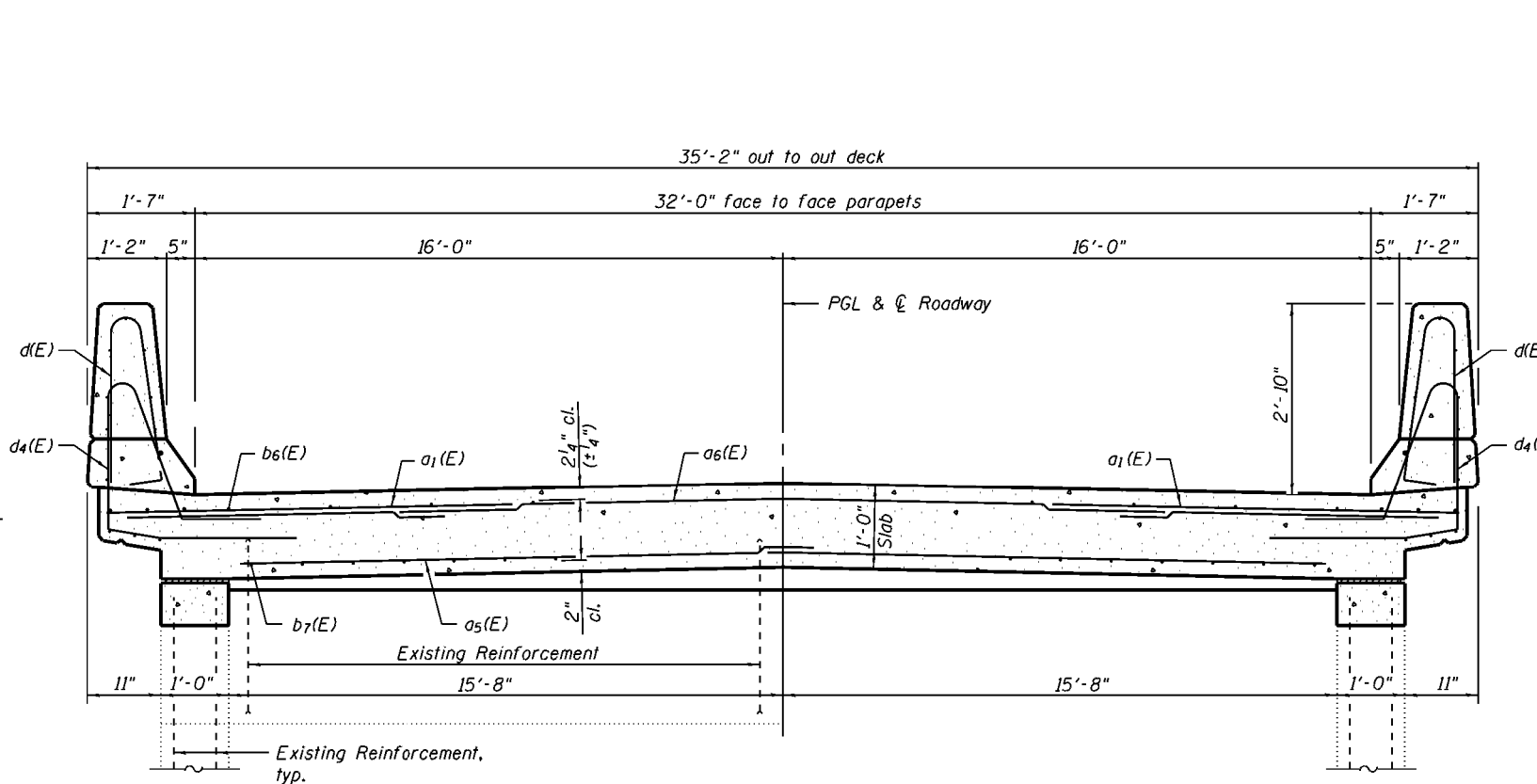
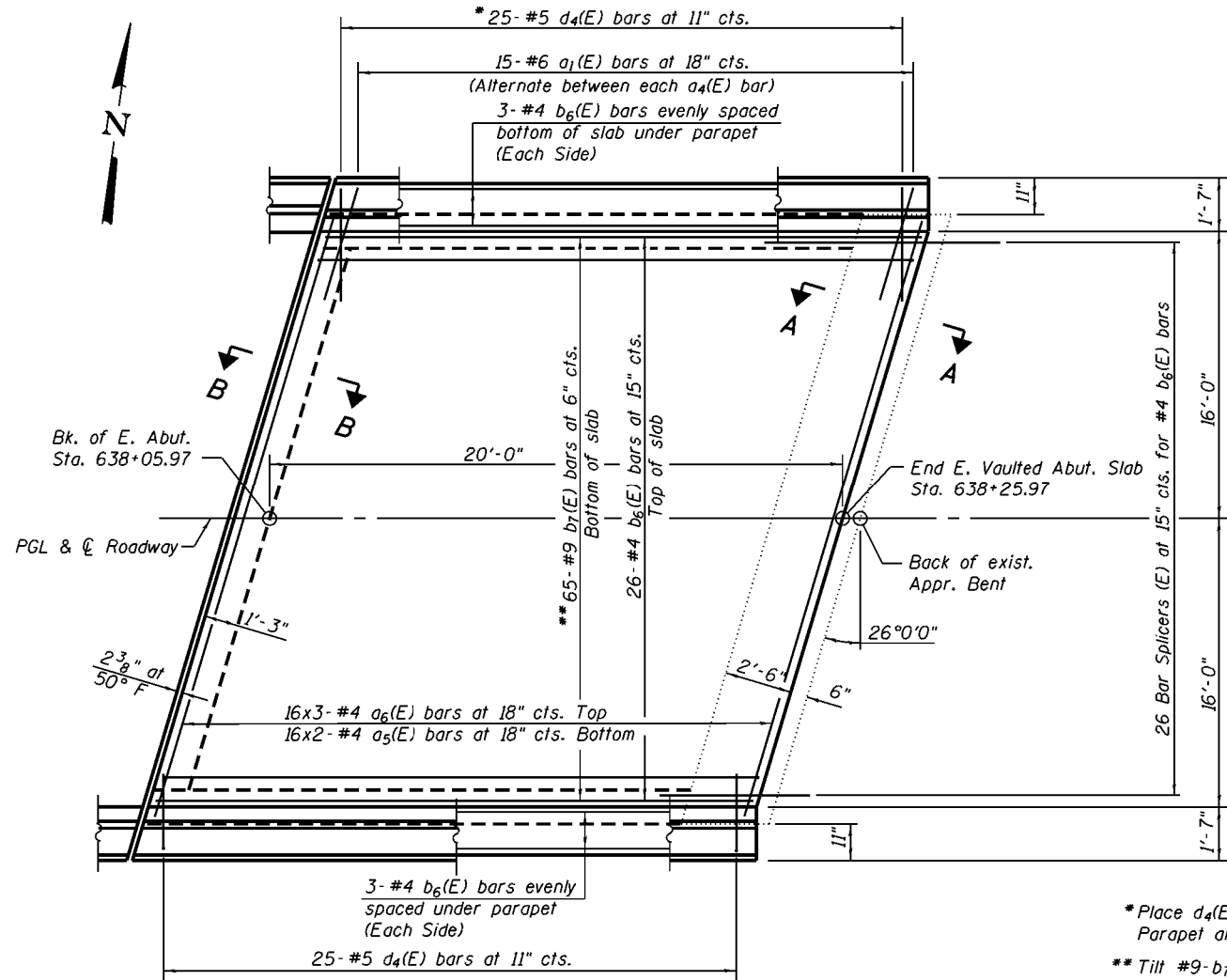
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**WEST VAULTED ABUTMENT SLAB DETAILS  
 STRUCTURE NO. 079-0019**

SHEET NO. 22 OF 40 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
858	12-B-1	RANDOLPH	90	54
CONTRACT NO. 76H81				

ILLINOIS FED. AID PROJECT



**NEAR APPR. BENT** **CROSS SECTION** **NEAR ABUTMENT**

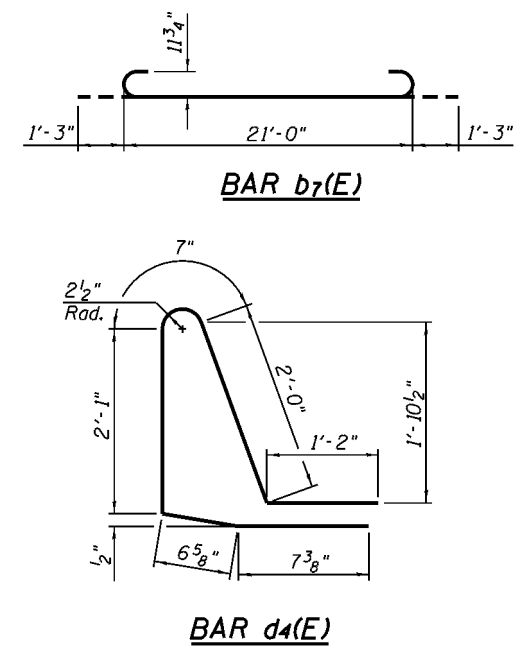
\* Place d<sub>4</sub>(E) bars at end of Parapet along skew.  
 \*\* Tilt #9-b<sub>7</sub>(E) bars as required to maintain clearance

**MINIMUM BAR LAP**  
 #4 bar = 2'-0"

**TWO VAULTED ABUT. SLABS**  
**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape	
a <sub>1</sub> (E)	60	#6	6'-6"	—	
a <sub>5</sub> (E)	64	#4	20'-3"	—	
a <sub>6</sub> (E)	96	#4	14'-2"	—	
b <sub>6</sub> (E)	76	#4	20'-9"	—	
b <sub>7</sub> (E)	130	#9	23'-6"	⌋	
d(E)	100	#5	5'-7"	⌋	
d <sub>4</sub> (E)	100	#5	7'-0"	⌋	
e <sub>22</sub> (E)	64	#4	12'-0"	—	
e <sub>23</sub> (E)	4	#8	21'-1"	—	
Reinforcement Bars, Epoxy Coated				Pound	15,860
Concrete Superstructure				Cu. Yd.	73.8

**Notes:**  
 See sheet 37 of 40 for Bar Splicer details.  
 See sheet 35 and 36 of 40 for abutment details.  
 See sheet 22 of 40 for Inside Elevation of Parapet and Section Thru Parapet.  
 The Contractor shall make allowance for the deflection of forms, shrinkage and settlement of falsework, in addition to allowance for dead load deflection. Forms for deck slab shall be removed prior to placement of bridge approach slab.  
 During removal of falsework, the Contractor shall follow all requirements set forth by OSHA regarding confined spaces.  
 Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.



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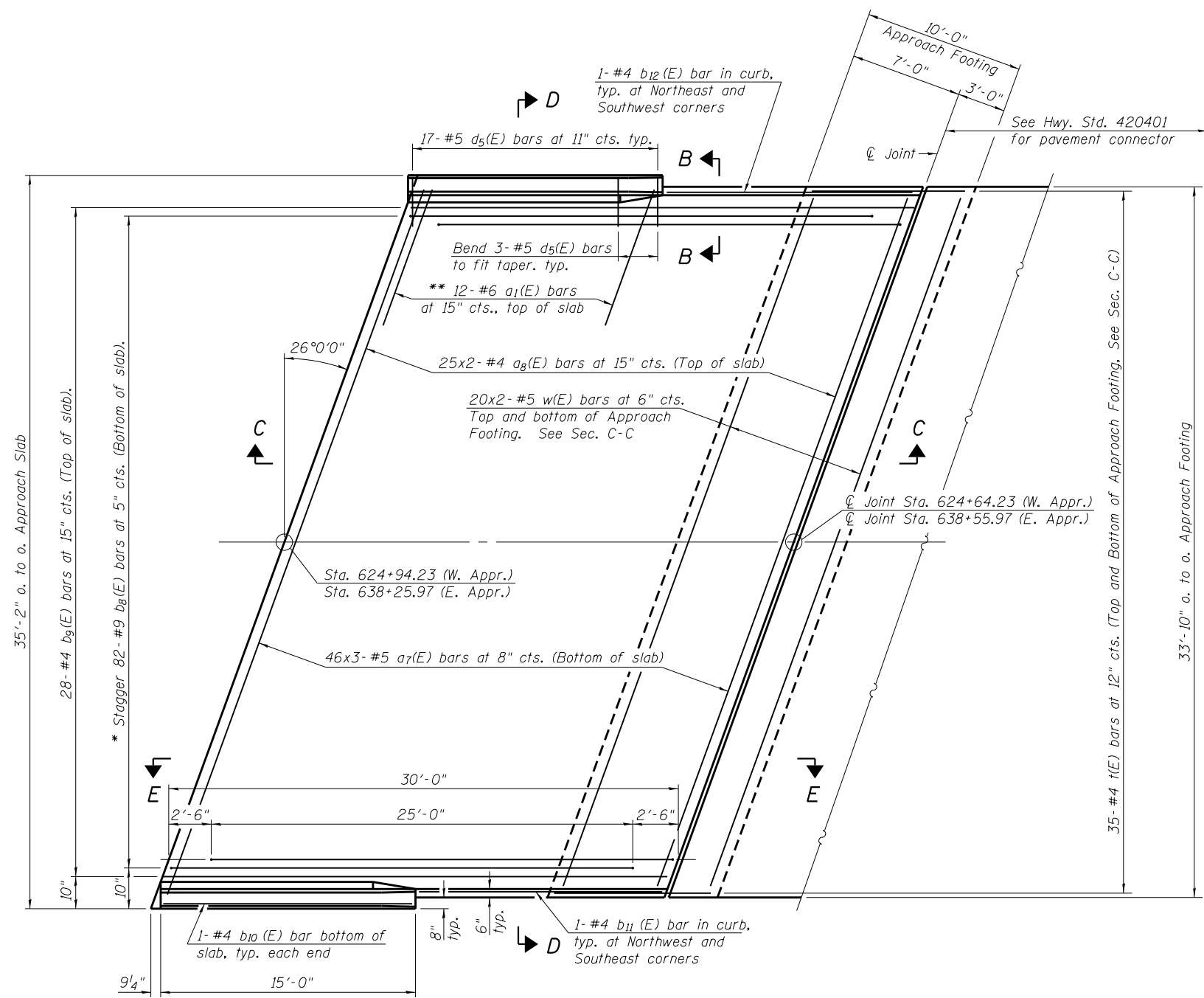
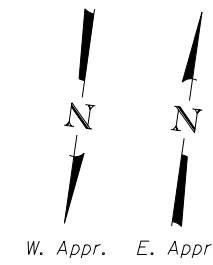
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**EAST VAULTED ABUTMENT SLAB DETAILS**  
**STRUCTURE NO. 079-0019**

SHEET NO. 23 OF 40 SHEETS

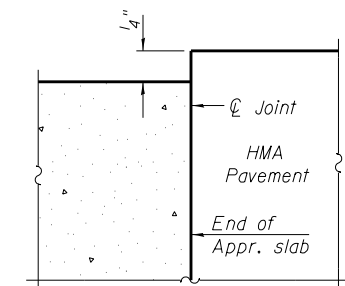
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
858	12-B-1	RANDOLPH	90	55
CONTRACT NO. 76H81				
ILLINOIS FED. AID PROJECT				

Note:  
See sheet 25 of 40 for Sections C-C & D-D and View E-E.  
a<sub>7</sub>(E) and a<sub>8</sub>(E) bar spacings measured along  $\phi$  Roadway



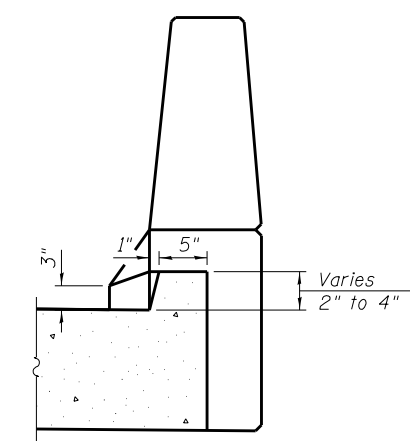
PLAN

\* Tilt #9 b<sub>8</sub>(E) bars as required to maintain clearance.  
\*\* Space between a<sub>6</sub>(E) bars, typ. each parapet.



FLEXIBLE PAVEMENT  
DETAIL A

**MINIMUM BAR LAP**  
#4 bar = 2'-0"  
#5 bar = 2'-6"



VIEW B-B

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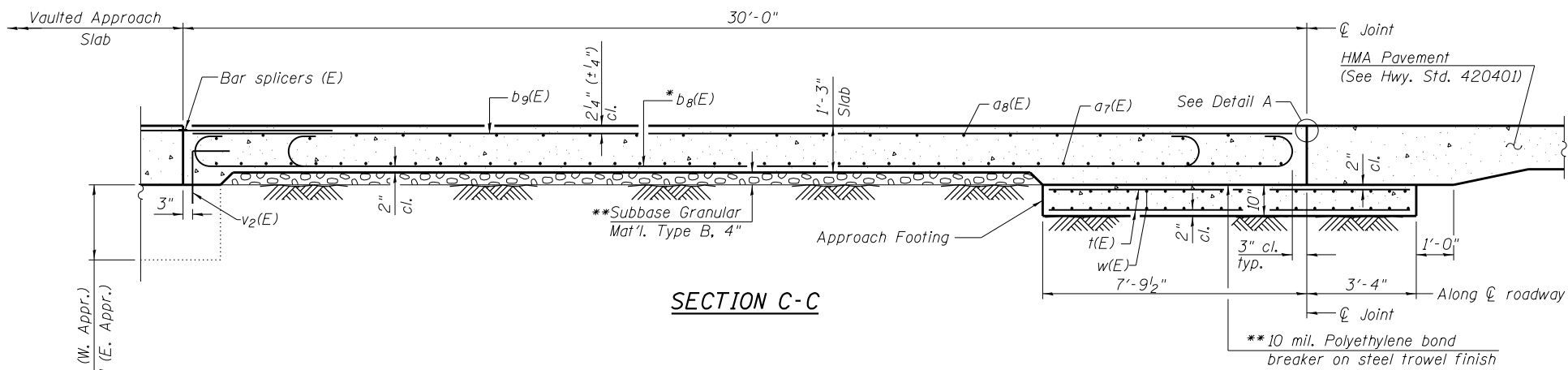
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS  
STRUCTURE NO. 079-0019

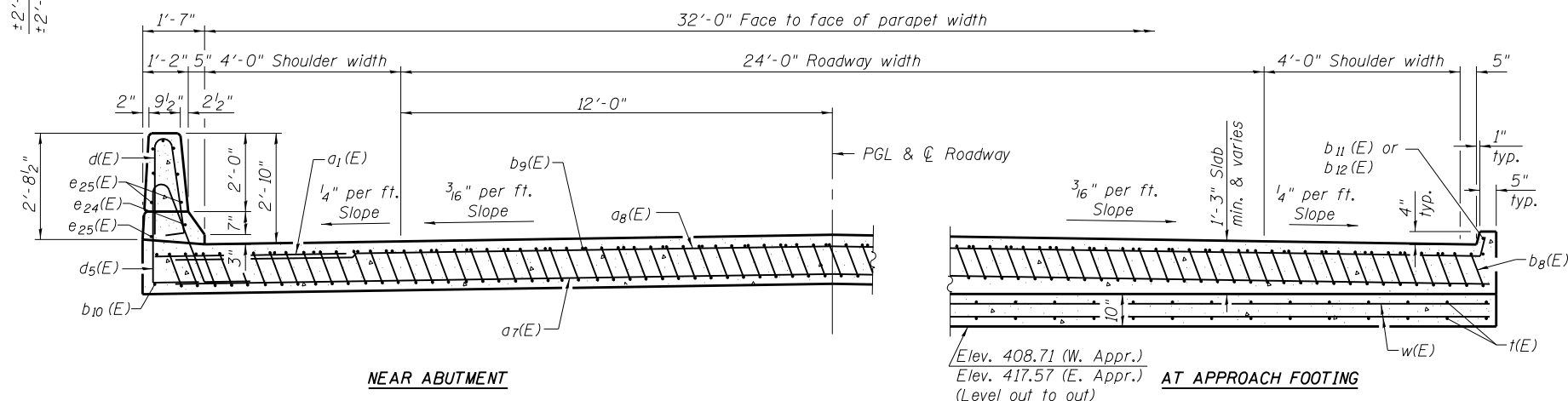
SHEET NO. 24 OF 40 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
858	12-B-1	RANDOLPH	90	56
CONTRACT NO. 76H81				

ILLINOIS FED. AID PROJECT



SECTION C-C

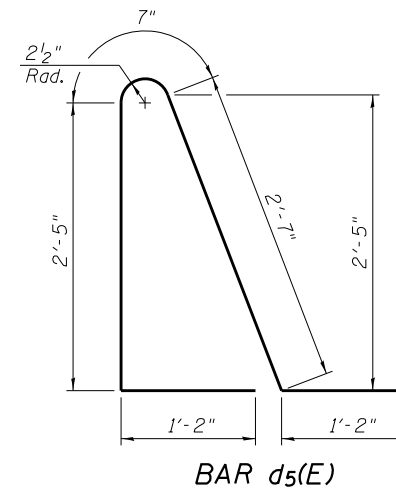


NEAR ABUTMENT

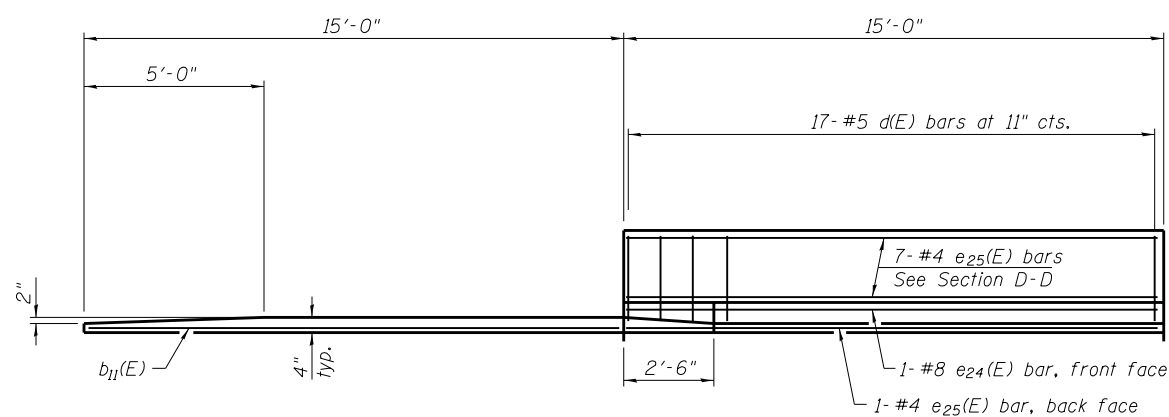
SECTION D-D

(See Plan for dimensions not shown)

Elev. 408.71 (W. Appr.)  
Elev. 417.57 (E. Appr.)  
(Level out to out) AT APPROACH FOOTING



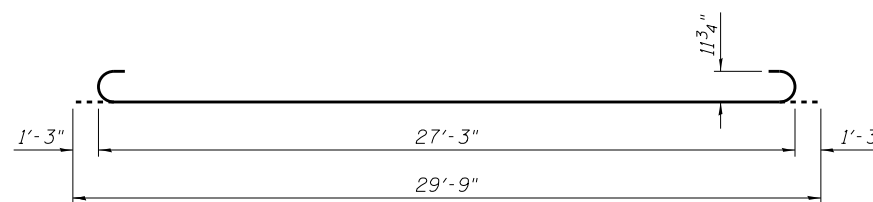
BAR d5(E)



VIEW E-E



BAR a8(E)



BAR b8(E)

Notes:

See sheet 24 of 40 for Detail A.  
Approach slab and parapet concrete shall be paid for as Concrete Superstructure.  
Approach footing concrete shall be paid for as Concrete Structures.  
Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.  
For v2(E) bar details, see sheets 35 and 36 of 40.  
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.  
For bar splicer details, see sheet 37 of 40.  
Cost of excavation for approach footing included with Concrete Structures.

TWO APPROACHES  
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a1(E)	48	#6	6'-6"	—
a7(E)	276	#5	14'-8"	—
a8(E)	100	#4	19'-11"	—
b8(E)	164	#9	29'-9"	—
b9(E)	56	#4	29'-9"	—
b10(E)	4	#4	14'-9"	—
b11(E)	2	#4	14'-3"	—
b12(E)	2	#4	15'-2"	—
d(E)	68	#5	5'-7"	—
d5(E)	68	#5	7'-11"	—
e24(E)	4	#8	14'-9"	—
e25(E)	32	#4	14'-9"	—
t(E)	140	#4	10'-10"	—
w(E)	160	#5	20'-0"	—
Concrete Superstructure		Cu. Yd.	107.5	
Concrete Structures		Cu. Yd.	23.2	
Reinforcement Bars, Epoxy Coated		Pound	29,590	

\* Tilt #9 b8(E) bars as required to maintain clearance.

\*\* Cost included with Concrete Superstructure.

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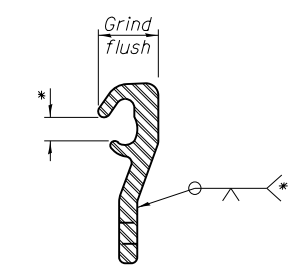
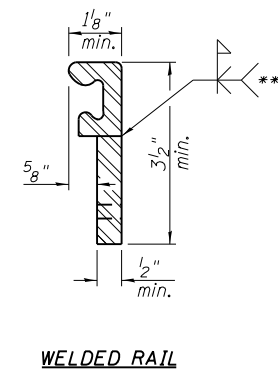
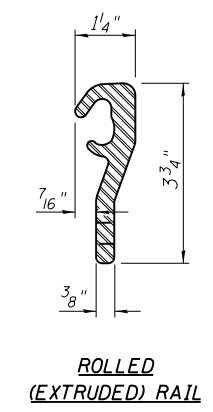
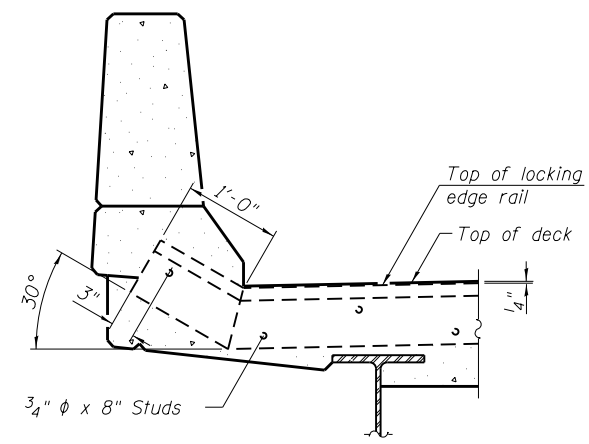
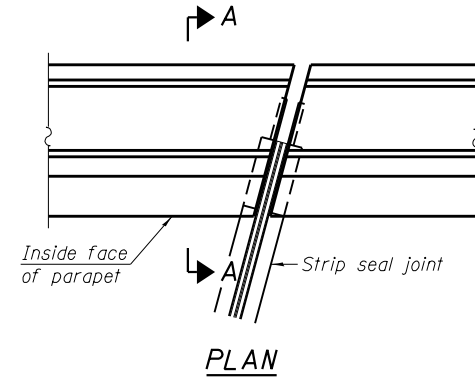
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BRIDGE APPROACH SLAB DETAILS  
STRUCTURE NO. 079-0019

SHEET NO. 25 OF 40 SHEETS

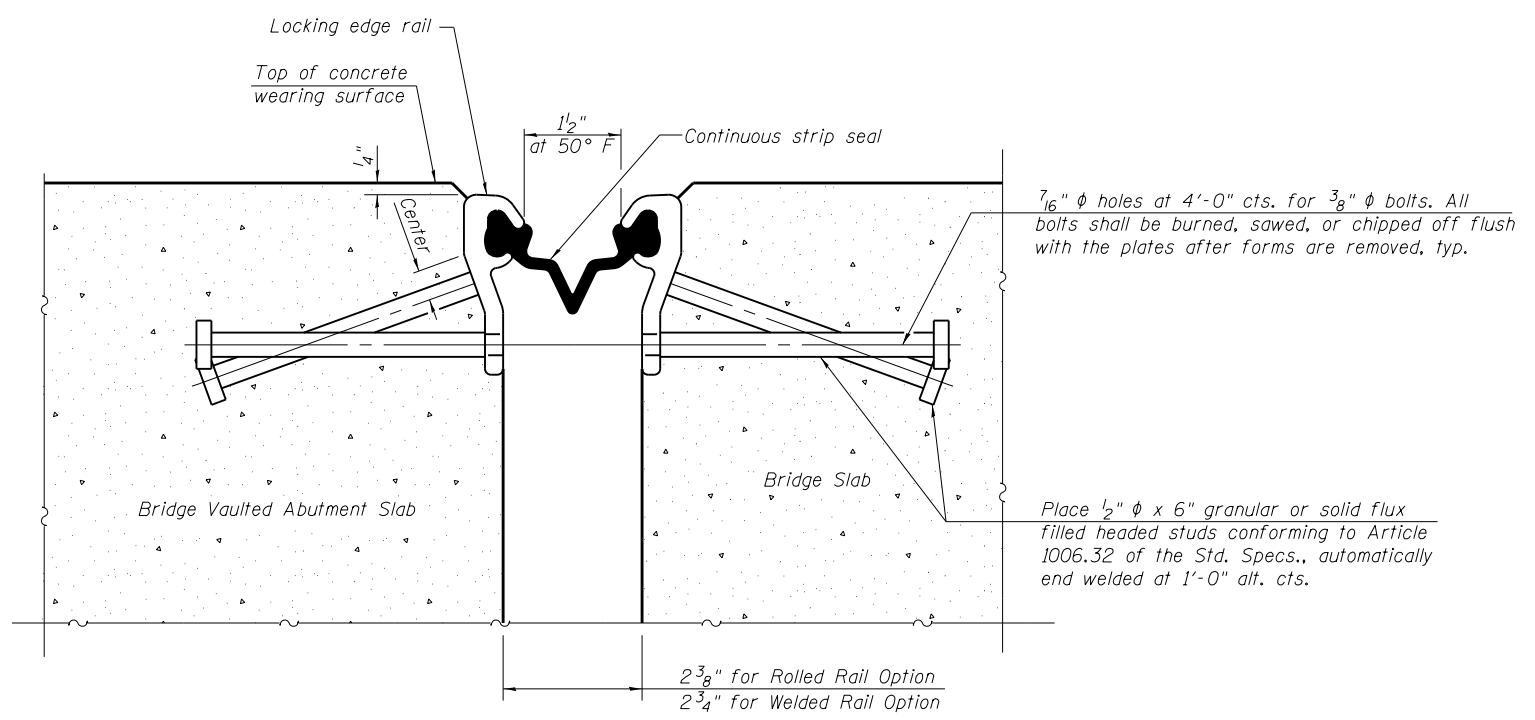
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858	12-B-1	RANDOLPH	90	57
CONTRACT NO. 76H81				
ILLINOIS FED. AID PROJECT				



Roller rail shown, welded rail similar.

**LOCKING EDGE RAIL**

- \* Omit weld at seal opening.
- \*\* Back gouge not required if complete joint penetration is verified by mock-up.



**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.  
 The inside of the Locking Edge Rail groove shall be free of weld residue.

**BILL OF MATERIAL**

Item	Unit	Total
Preformed Joint Strip Seal	Foot	76.0

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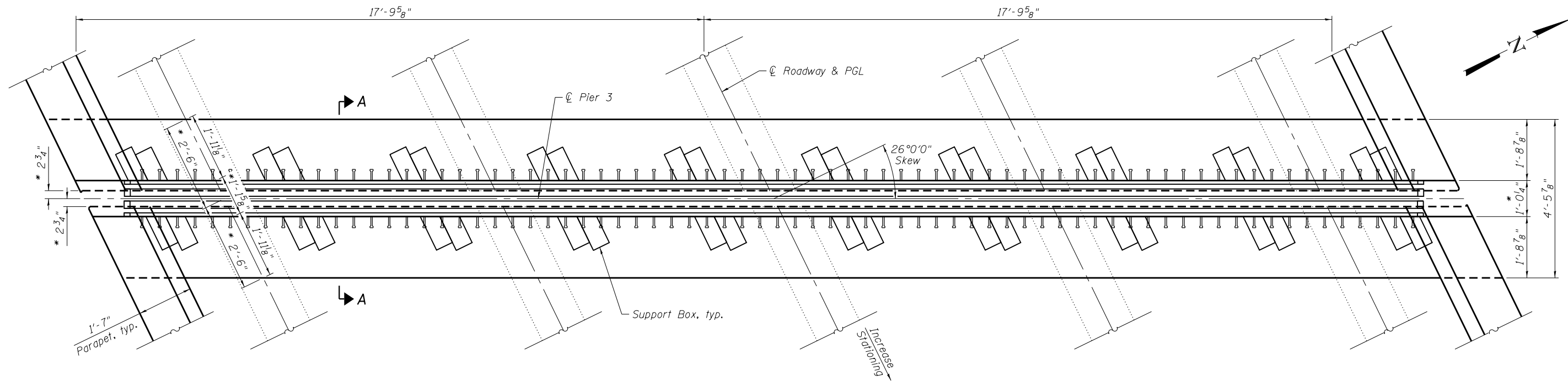
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**PREFORMED JOINT STRIP SEAL  
STRUCTURE NO. 079-0019**

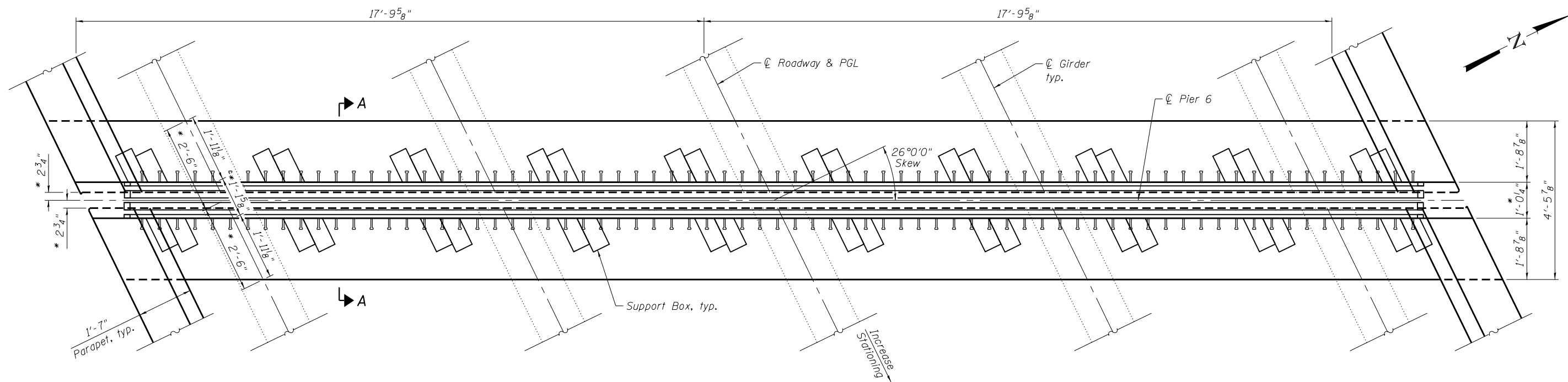
SHEET NO. 26 OF 40 SHEETS

F.A.S. RTE. 858	SECTION 12-B-1	COUNTY RANDOLPH	TOTAL SHEETS 90	SHEET NO. 58
CONTRACT NO. 76H81				
ILLINOIS FED. AID PROJECT				



PLAN AT PIER 3

\* Dimensions are at 50° F



PLAN AT PIER 6

Note:  
For Section A-A, see sheet 28 of 40.

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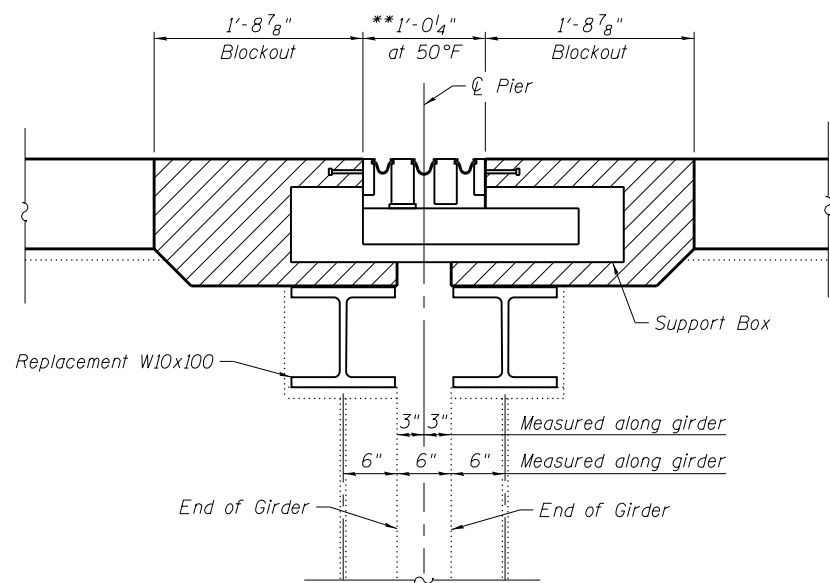
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 DEPARTMENT OF TRANSPORTATION

MODULAR EXPANSION JOINT DETAILS  
 STRUCTURE NO. 079-0019

SHEET NO. 27 OF 40 SHEETS

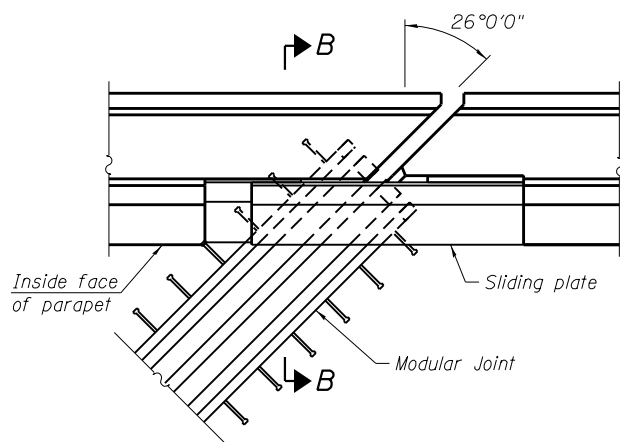
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
858	12-B-1	RANDOLPH	90	59
CONTRACT NO. 76H81				

ILLINOIS FED. AID PROJECT

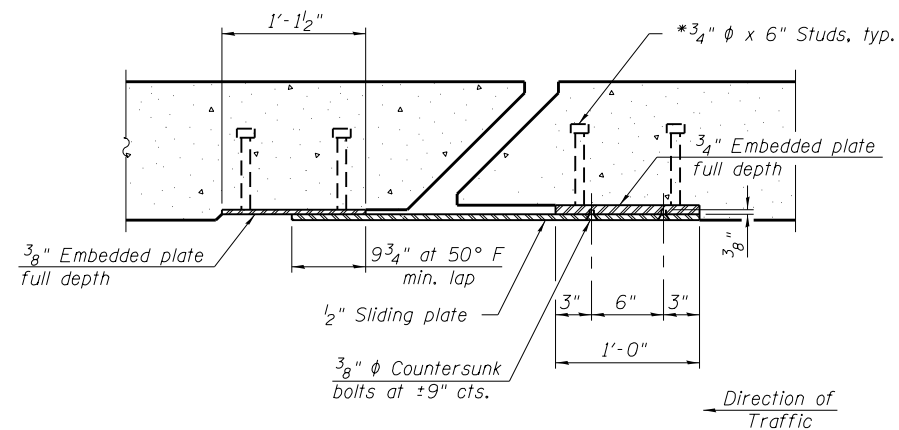


**SECTION A-A**

\*\* Number of rails determined by Manufacturer



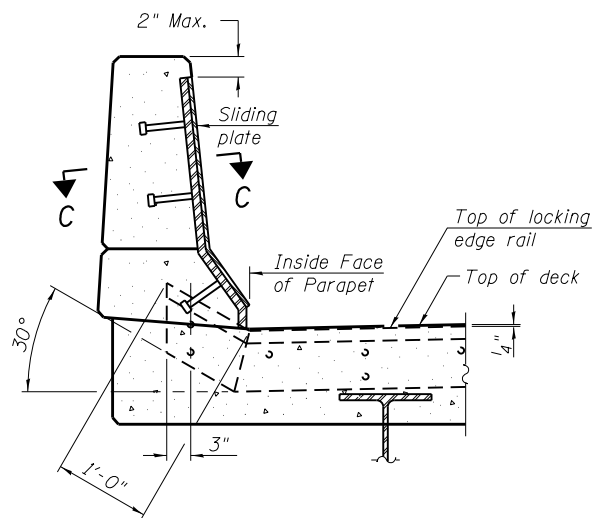
**PLAN AT SLIDING PLATE**



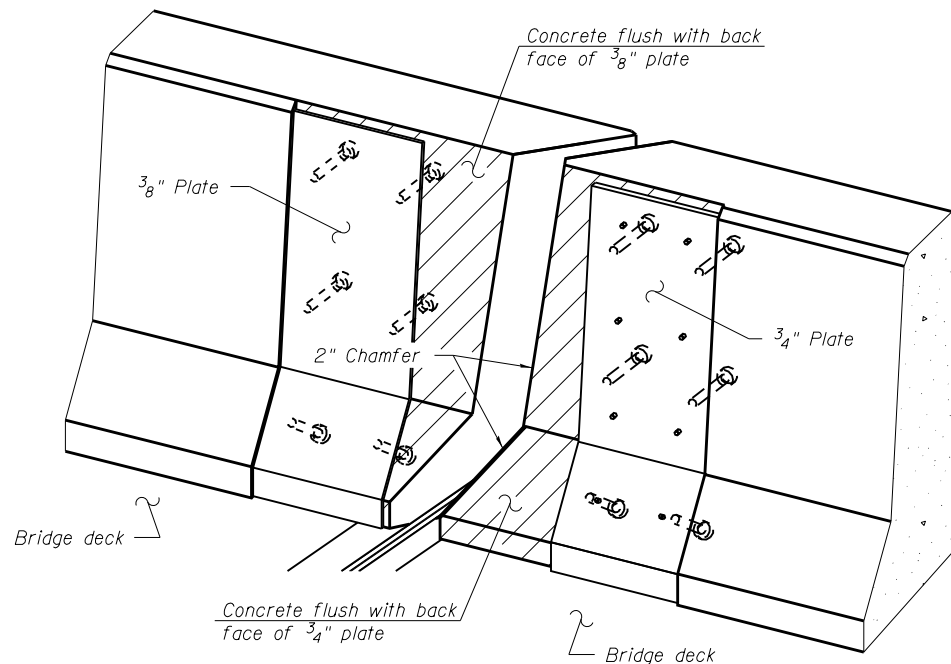
**SECTION C-C**

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

**Notes:**  
 The manufacturer's recommended installation methods shall be followed.  
 All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.  
 Parapet plates and anchorage studs included in the cost of "Modular Expansion Joint 9".  
 Support Boxes shall be rigidly attached to cross frames and girders by adjustable brackets, stools or shims. Cost of attachment included in "Modular Expansion Joint 9".  
 The number, location and orientation of support boxes shall be determined by the manufacturer. All boxes shall be located to miss the top flanges of the girders.  
 Modular expansion joints shall be assembled in their final relative position with the ends in place for inspection and acceptance.  
 Prior to the placement of the joint block-out, the Contractor shall coordinate with the Modular Joint Manufacturer to ensure that the joint will be properly supported and that the reinforcement bars will not interfere with the joint components. Any necessary adjustments to the reinforcement layout shall be submitted to the Engineer for approval.  
 For location of Section A-A, see sheet 27 of 40.



**SECTION B-B**



**TRIMETRIC VIEW**  
 (Showing back plates only)

**BILL OF MATERIAL**

Item	Unit	Total
Modular Expansion Joint 9"	Foot	72.0

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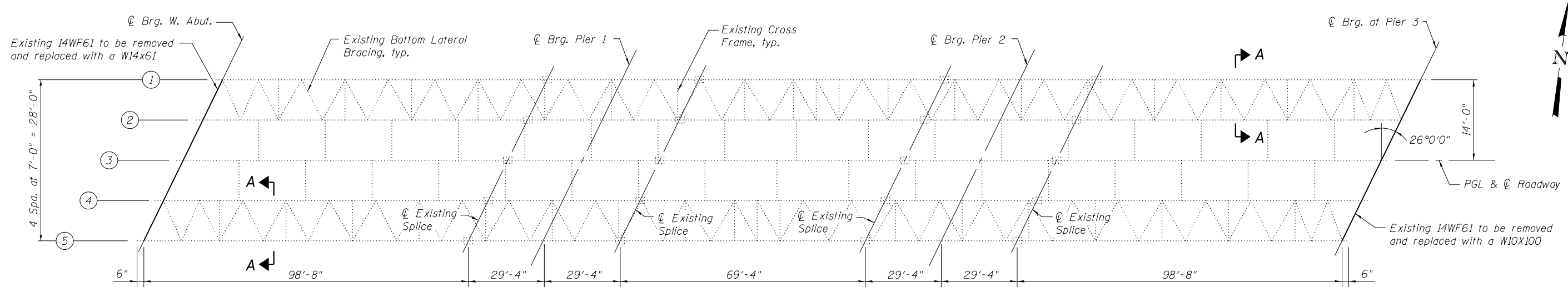
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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

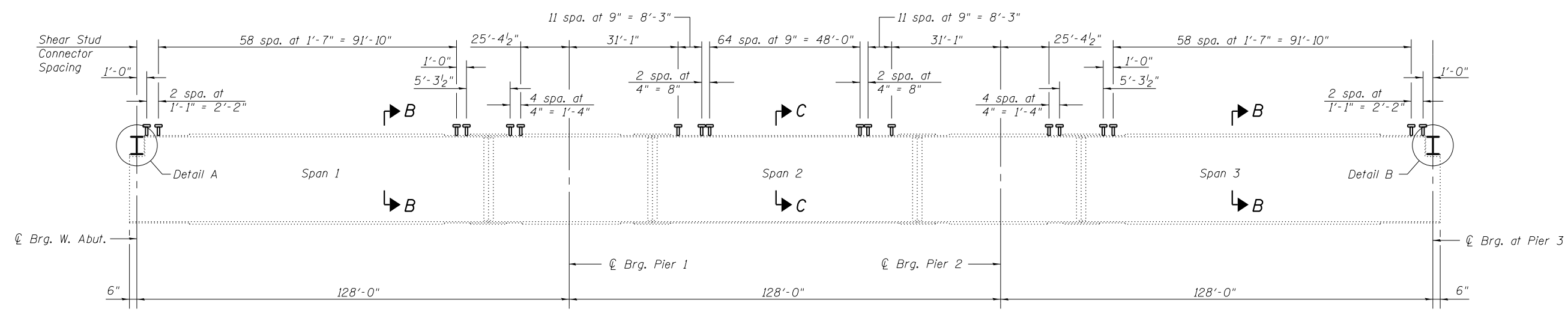
**MODULAR EXPANSION JOINT DETAILS**  
**STRUCTURE NO. 079-0019**  
 SHEET NO. 28 OF 40 SHEETS

F.A.S. RTE. 858	SECTION 12-B-1	COUNTY RANDOLPH	TOTAL SHEETS 90	SHEET NO. 60
				CONTRACT NO. 76H81
ILLINOIS FED. AID PROJECT				

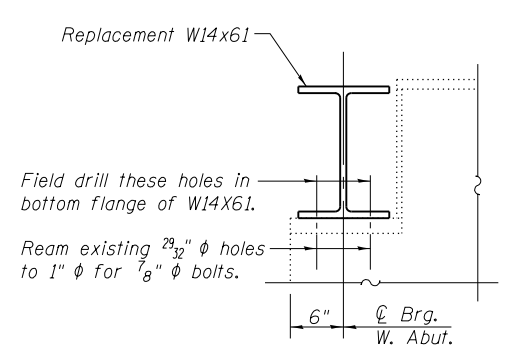




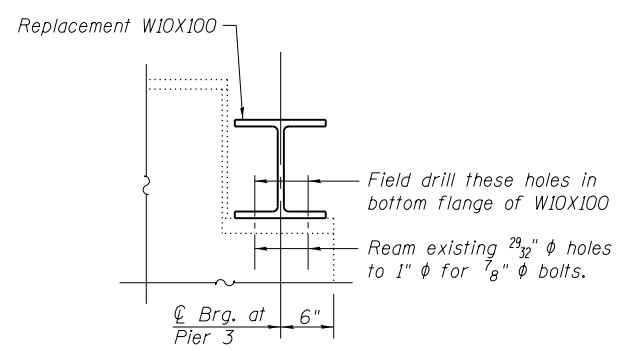
**FRAMING PLAN**



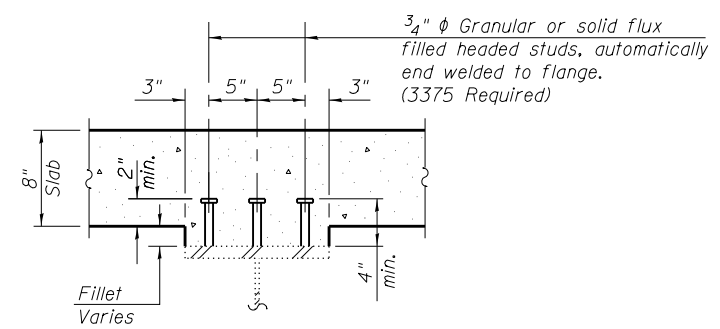
**BEAM ELEVATION**



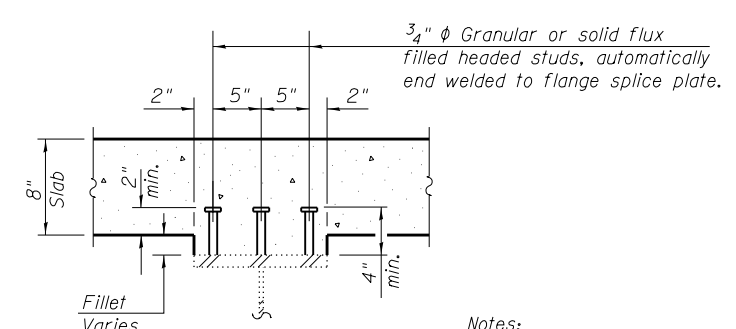
**DETAIL A**



**DETAIL B**



**SECTION B-B**



**SECTION C-C**

**Notes:**  
 See sheet 30 of 40 for Section A-A showing limits of painting on Girder Lines 1, 2, 4 & 5.  
 All holes to be drilled in field and reaming of existing holes to be included in Cost of "Furnishing and Erecting Structural Steel".

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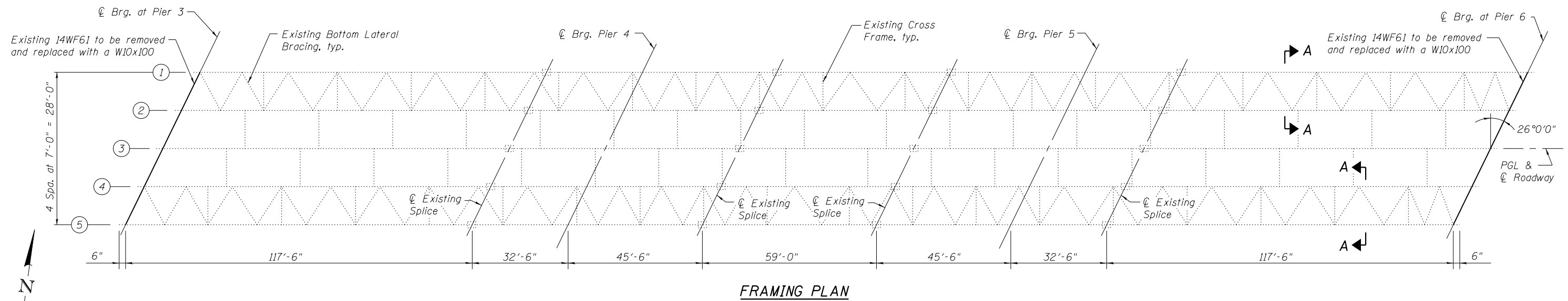
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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

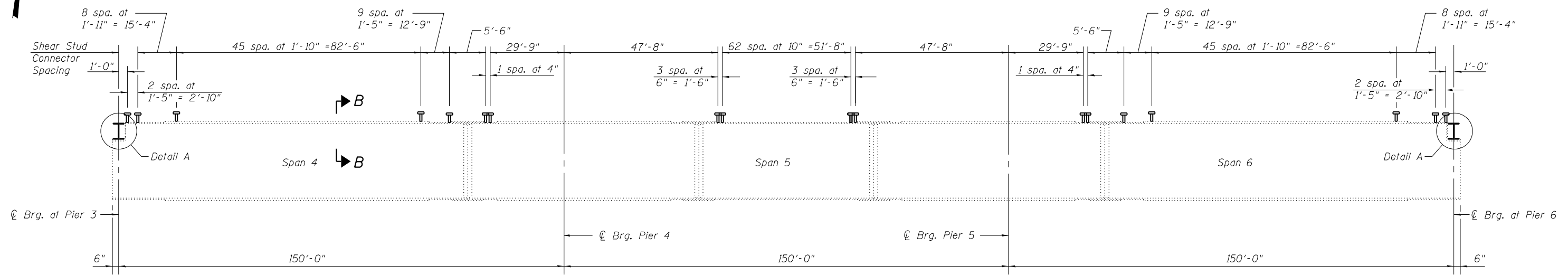
**STRUCTURAL STEEL DETAILS UNIT 1  
 STRUCTURE NO. 079-0019**

SHEET NO. 29 OF 40 SHEETS

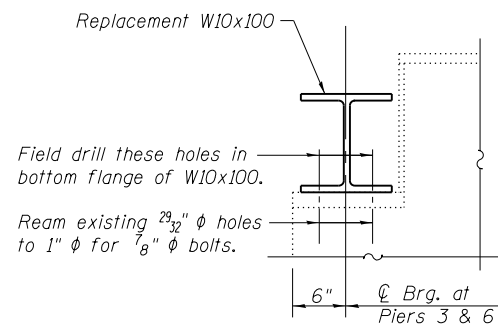
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CONTRACT NO. 76H81				
ILLINOIS FED. AID PROJECT				



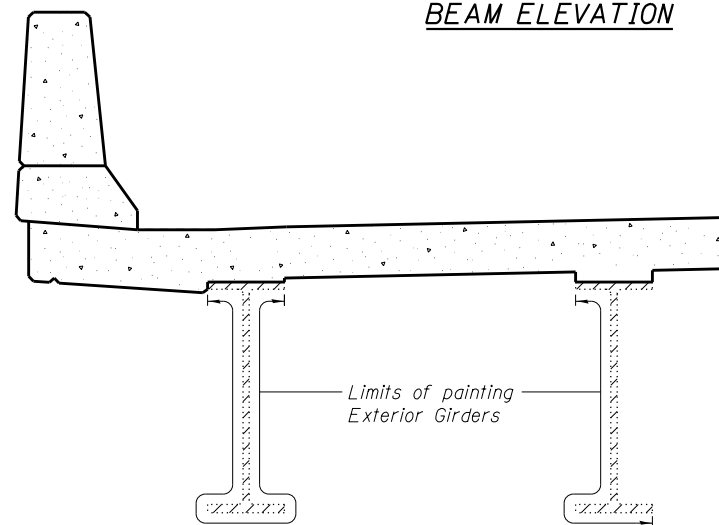
**FRAMING PLAN**



**BEAM ELEVATION**

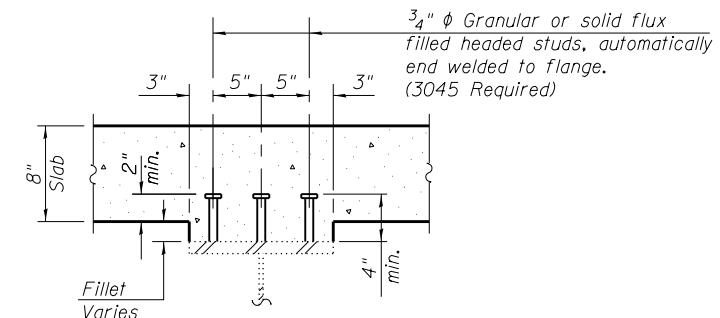


**DETAIL A**



**SECTION A-A**

(full length of girders)  
 (See General Notes & Structural Repair Plans for additional Painting Requirements & Limits of additional Painting)



**SECTION B-B**

**Note:**  
 All holes to be drilled in field and reaming of existing holes to be included in Cost of "Furnishing and Erecting Structural Steel". Existing Navigational Lighting Brackets shall be removed and replaced. Cost included with Furnishing and Erecting Structural Steel.  
 For approximate locations of Navigational Lighting Brackets see Electrical Plans.  
 For Navigational Lighting Bracket Details, see sheet 32 of 40.

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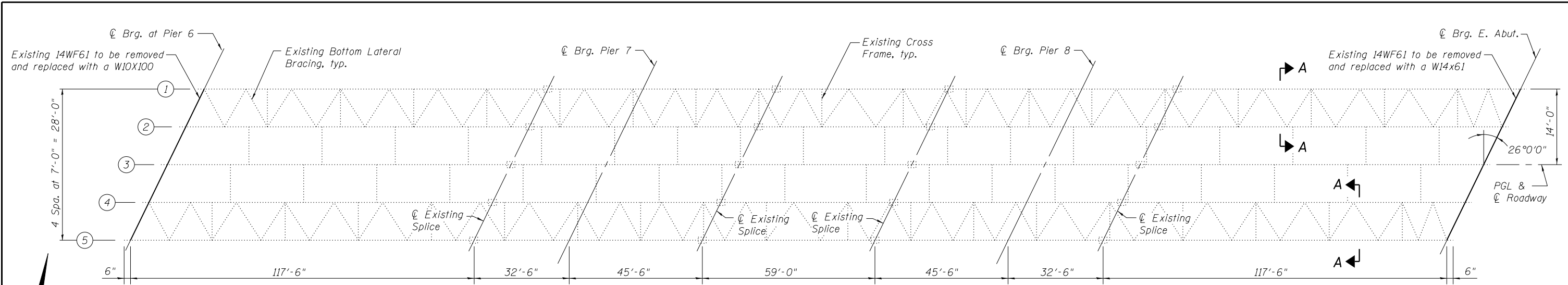
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**STRUCTURAL STEEL DETAILS UNIT 2  
 STRUCTURE NO. 079-0019**

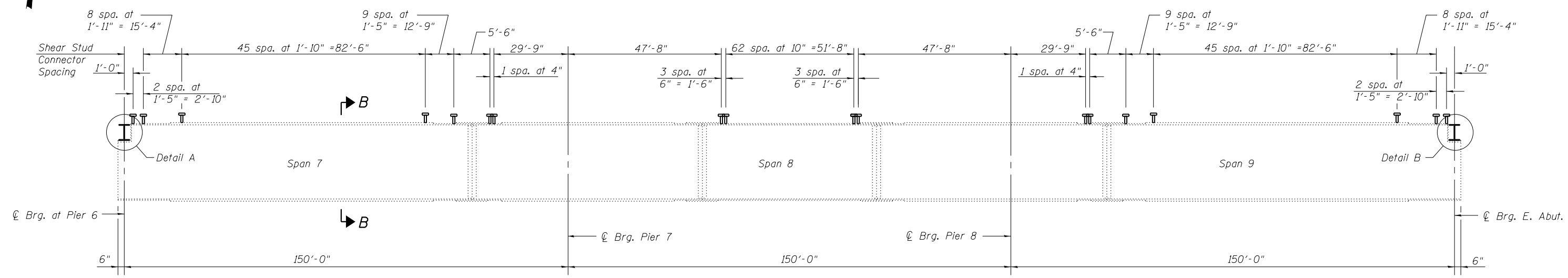
SHEET NO. 30 OF 40 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 76H81				

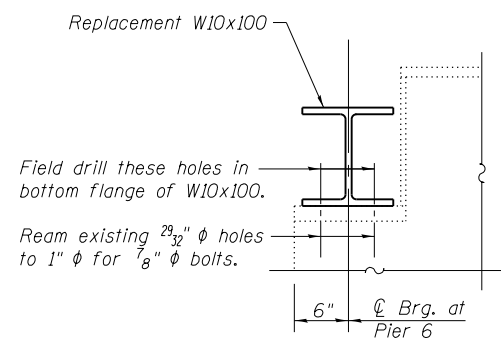
ILLINOIS FED. AID PROJECT



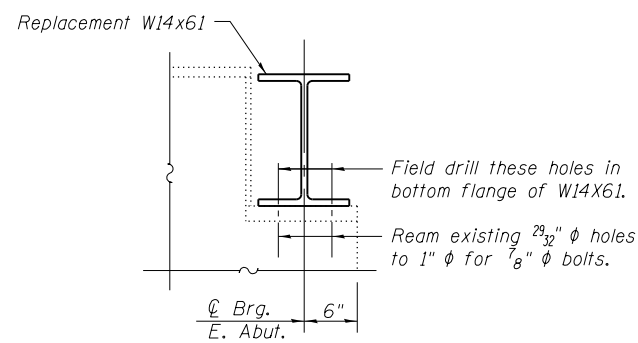
**FRAMING PLAN**



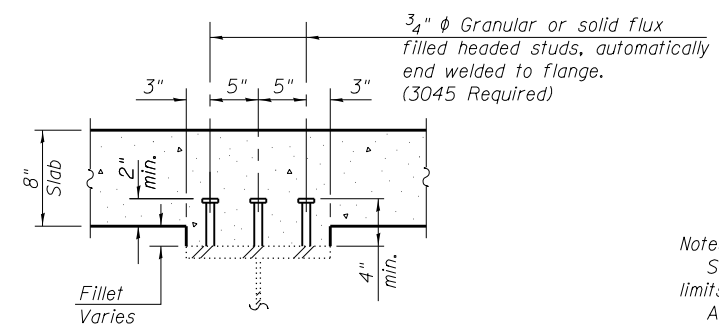
**BEAM ELEVATION**



**DETAIL A**



**DETAIL B**



**SECTION B-B**

Notes:  
 See sheet 30 of 40 for Section A-A showing limits of painting on Girder Lines 1, 2, 4 & 5.  
 All holes to be drilled in field and reaming of existing holes to be included in Cost of "Furnishing and Erecting Structural Steel".

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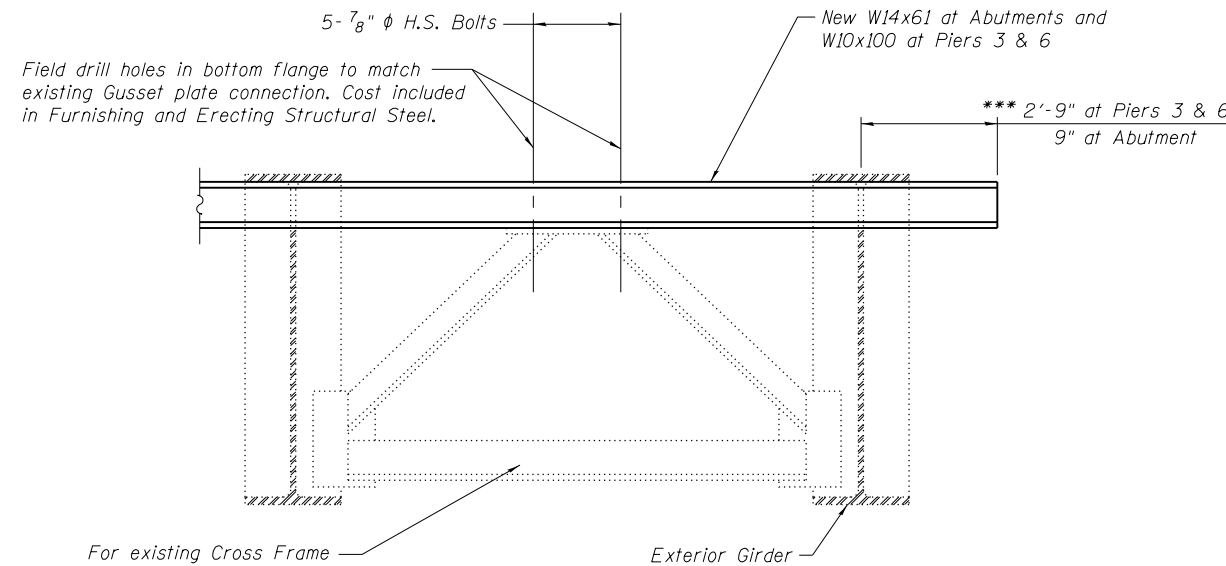
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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**STRUCTURAL STEEL DETAILS UNIT 3  
 STRUCTURE NO. 079-0019**  
 SHEET NO. 31 OF 40 SHEETS

F.A.S. RTE. 858	SECTION 12-B-1	COUNTY RANDOLPH	TOTAL SHEETS 90	SHEET NO. 63
CONTRACT NO. 76H81				
ILLINOIS FED. AID PROJECT				

UNIT 1



TYPICAL CROSS FRAME REPAIR

\*\*\* Final length of W10x100 at Piers 3 & 6 shall be coordinated with Modular Joint Manufacturer to ensure adequate support of the joint.

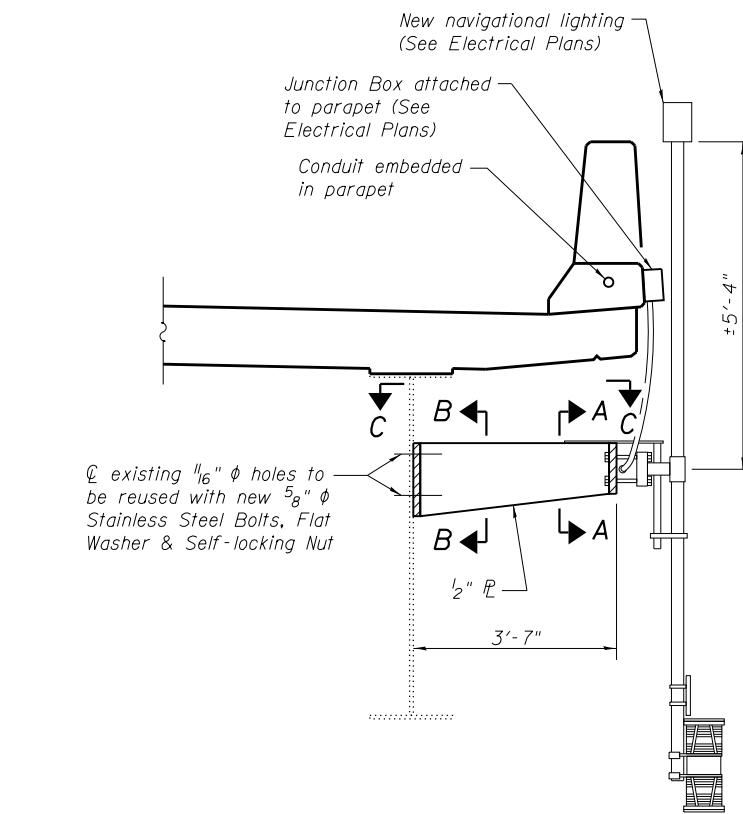
- $I_s, S_s$ : Non-composite moment of inertia and section modulus of the steel section used for computing  $f_s$  (Total and Overload) due to non-composite dead loads ( $in^4$  and  $in^3$ ).
- $I_c(n), S_c(n)$ : Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing  $f_s$  (Total and Overload) due to short-term composite live loads ( $in^4$  and  $in^3$ ).
- $I_c(3n), S_c(3n)$ : Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing  $f_s$  (Total and Overload) due to long-term composite (superimposed) dead loads ( $in^4$  and  $in^3$ ).
- Z: Plastic Section Modulus of the steel section in non-composite areas ( $in^3$ ).
- $\phi$ : Un-factored non-composite dead load (kips/ft.).
- $M\phi$ : Un-factored moment due to non-composite dead load (kip-ft.).
- $s\phi$ : Un-factored long-term composite (superimposed) dead load (kips/ft.).
- $M_s\phi$ : Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).
- $M_L$ : Un-factored live load moment (kip-ft.).
- $M_I$ : Un-factored moment due to impact (kip-ft.).
- $M_a$ : Factored design moment (kip-ft.).  
 $1.3 [M\phi + M_s\phi + \frac{5}{3} (M_L + M_I)]$
- $M_u$ : Compact composite moment capacity according to AASHTO LFD 10.50.1.1 or compact non-composite moment capacity according to AASHTO LFD 10.48.1 (kip-ft.).
- $f_s$  (Overload): Sum of stresses as computed from the moments below (ksi).  
 $M\phi + M_s\phi + \frac{5}{3} (M_L + M_I)$
- $f_s$  (Total): Sum of stresses as computed from the moments below on non-compact section (ksi).  
 $1.3 [M\phi + M_s\phi + \frac{5}{3} (M_L + M_I)]$
- VR: Maximum  $L +$  impact shear range within the composite portion of the span for stud shear connector design (kips).

INTERIOR GIRDER MOMENT TABLE				
		0.4 Sp. 1 or 0.6 Sp. 3	Piers 1 & 2	0.5 Sp. 2
$I_s$	( $in^4$ )	62789	74757	27927
$I_c(n)$	( $in^4$ )	120908		71503
$I_c(3n)$	( $in^4$ )	91886		53005
$S_s$	( $in^3$ )	1823	2151	832
$S_c(n)$	( $in^3$ )	2233		1226
$S_c(3n)$	( $in^3$ )	2073		1107
Z	( $in^3$ )			
$\phi$	( $k/ft$ )	0.97	1.20	0.92
$M\phi$	( $k$ )	1259	1985	276
$s\phi$	( $k/ft$ )	0.25		0.25
$M_s\phi$	( $k$ )	328		116
$M_L$	( $k$ )	1106	944	793
$M_I$	( $k$ )	219	187	157
$^5_3 [M_L + M_I]$	( $k$ )	2208	1885	1583
$M_a$	( $k$ )	4934	5031	2568
$M_u$	( $k$ )	6236		3971
$f_s \phi$ non-comp	(ksi)	8.29	11.08	3.98
$f_s \phi$ (comp)	(ksi)	1.90		1.26
$f_s ^5_3 [M_L + M_I]$	(ksi)	11.87	10.52	15.49
$f_s$ (Overload)	(ksi)	22.05	21.59	20.73
$f_s$ (Total)	(ksi)		28.07	
VR	( $k$ )	61		63

INTERIOR GIRDER REACTION TABLE				
	W. Abut.	Piers 1 & 2	Pier 3	
$R\phi$	( $k$ )	62.0	167.3	62.0
$R_L$	( $k$ )	46.7	77.3	46.7
$R_I$	( $k$ )	9.2	15.3	9.2
$R_{Total}$	( $k$ )	117.2	259.9	117.2

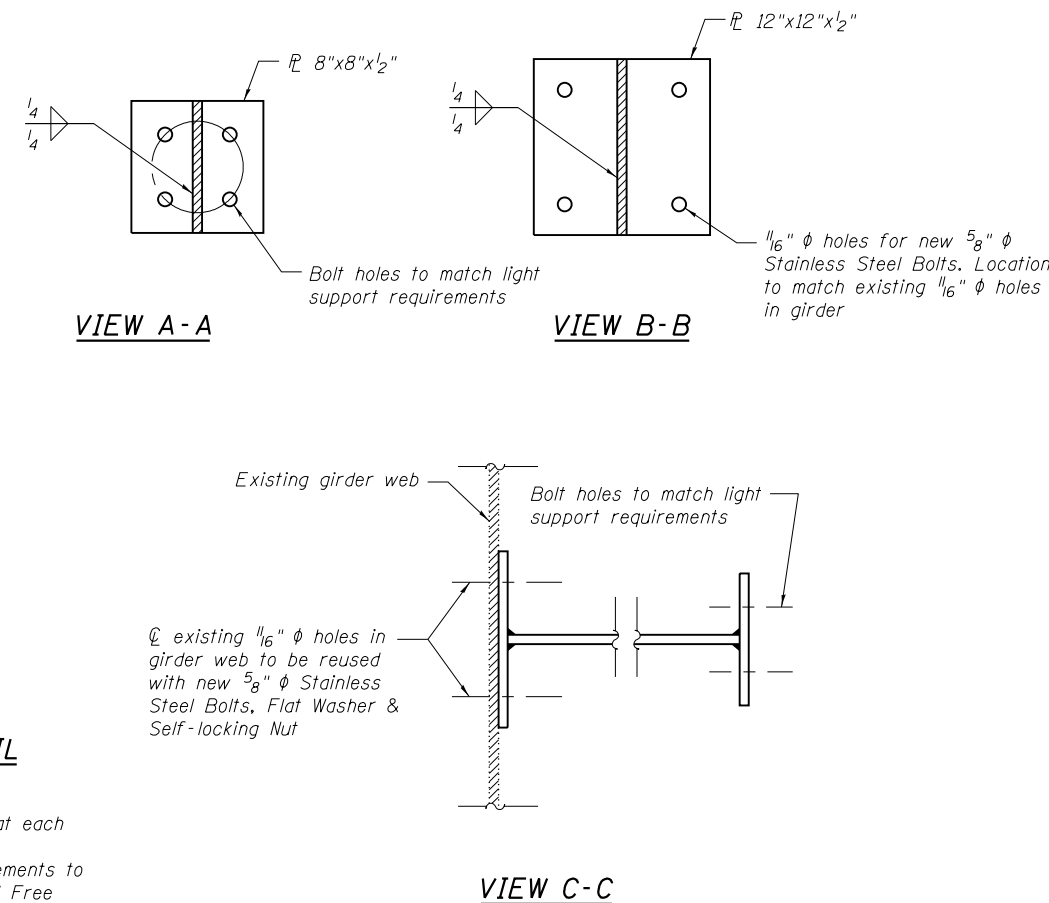
\* Compact section  
\*\* Braced non-compact and partially braced section

UNITS 2 & 3



NAVIGATIONAL LIGHTING BRACKET DETAIL

Notes:  
Embedded conduit in parapet are in/out of Junction Boxes at each Lighting Bracket  
All Lighting Brackets shall be fabricated after Field Measurements to insure proper alignment of Lighting Fixture Mounting Plate and Free Pivoting of Lamp Support Tube.



INTERIOR GIRDER MOMENT TABLE				
		0.4 Sp. 4 & 7 or 0.6 Sp. 6 & 9	Piers 4, 5, 7 & 8	0.5 Sp. 5 & 8
$I_s$	( $in^4$ )	84487		37216
$I_c(n)$	( $in^4$ )	150699	104368	86982
$I_c(3n)$	( $in^4$ )	115957		64655
$S_s$	( $in^3$ )	2414	2940	1103
$S_c(n)$	( $in^3$ )	2851		1517
$S_c(3n)$	( $in^3$ )	2666		1381
Z	( $in^3$ )			
$\phi$	( $k/ft$ )	1.03	1.25	0.97
$M\phi$	( $k$ )	1842	2885	376
$s\phi$	( $k/ft$ )	0.25		0.25
$M_s\phi$	( $k$ )	445		148
$M_L$	( $k$ )	1347	1288	939
$M_I$	( $k$ )	245	234	171
$^5_3 [M_L + M_I]$	( $k$ )	2653	2529	1850
$M_a$	( $k$ )	6422	7038	3086
$M_u$	( $k$ )	7917		4830
$f_s \phi$ non-comp	(ksi)	9.16	11.78	4.09
$f_s \phi$ (comp)	(ksi)	2.00		1.29
$f_s ^5_3 [M_L + M_I]$	(ksi)	11.17	10.32	14.63
$f_s$ (Overload)	(ksi)	22.33	22.10	20.01
$f_s$ (Total)	(ksi)		28.73	
VR	( $k$ )	65		67

INTERIOR GIRDER REACTION TABLE				
	Pier 6 or E. Abut.	Piers 4 & 5 or 7 & 8	Pier 3 or 6	
$R\phi$	( $k$ )	76.3	205.7	76.3
$R_L$	( $k$ )	47.2	88.2	47.2
$R_I$	( $k$ )	8.6	16.1	8.6
$R_{Total}$	( $k$ )	132.1	310.0	132.1

\* Compact section  
\*\* Braced non-compact and partially braced section

STATE OF ILLINOIS  
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STRUCTURAL STEEL DETAILS  
STRUCTURE NO. 079-0019

SHEET NO. 32 OF 40 SHEETS

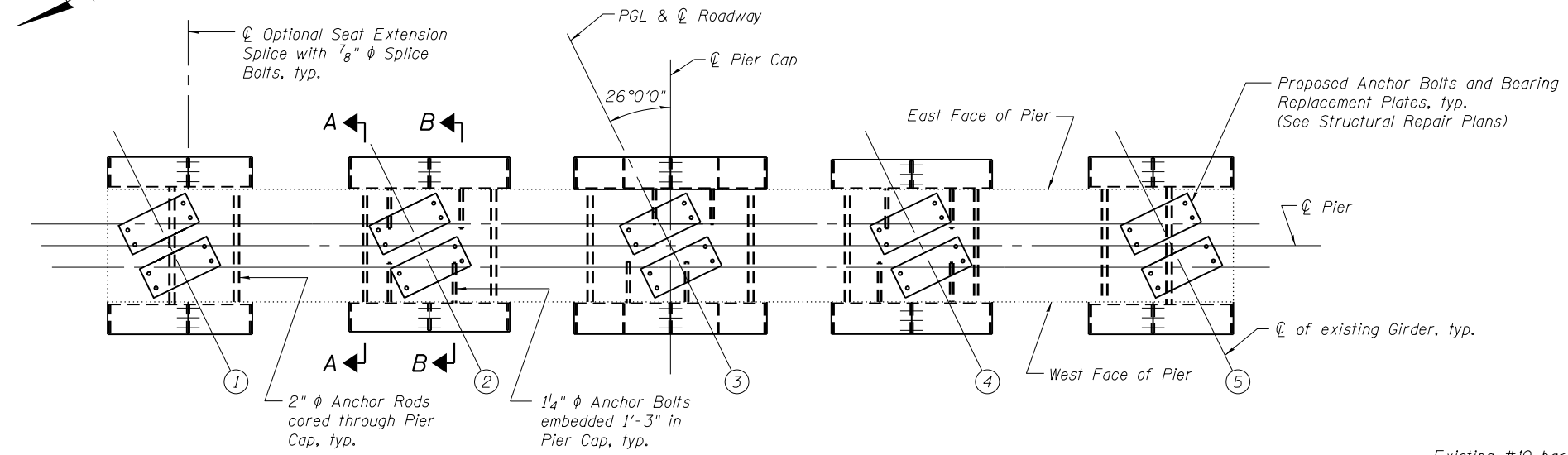
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858	12-B-1	RANDOLPH	90	64
CONTRACT NO. 76H81				

ILLINOIS FED. AID PROJECT

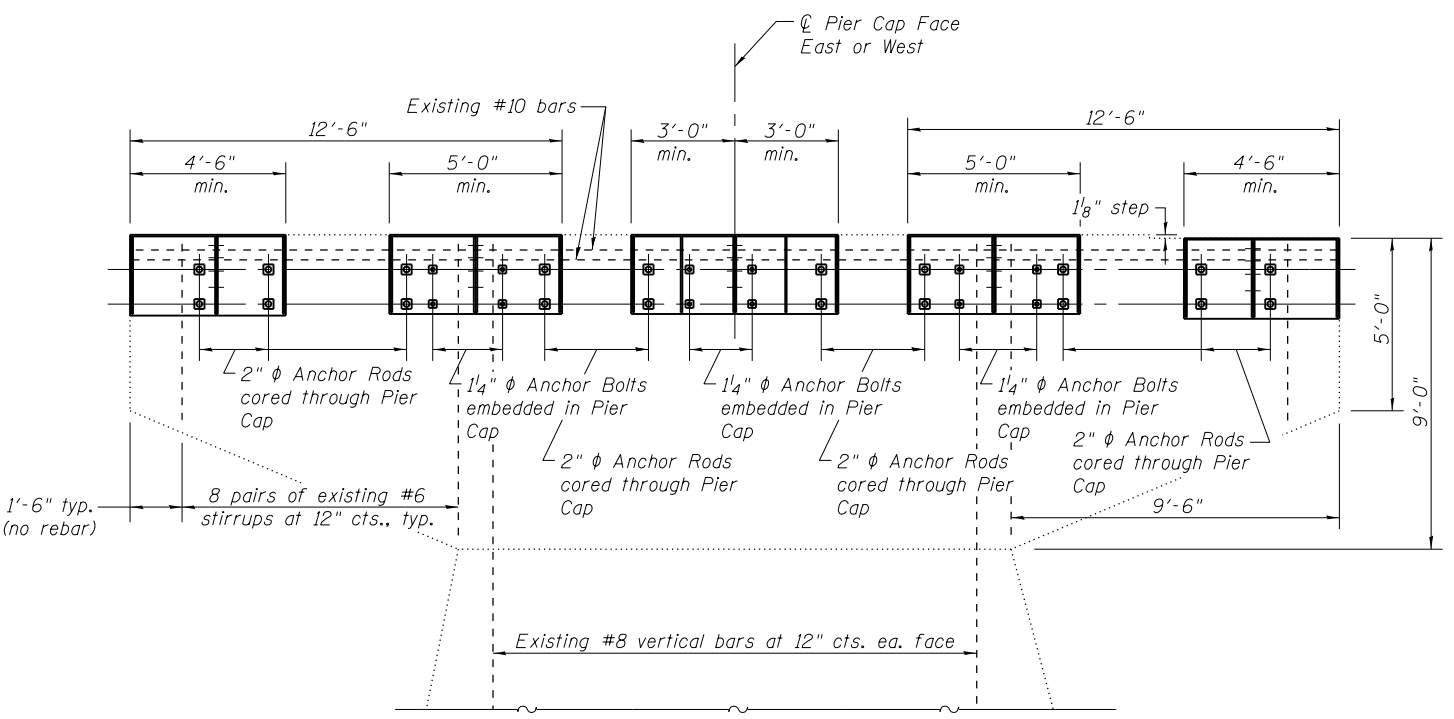
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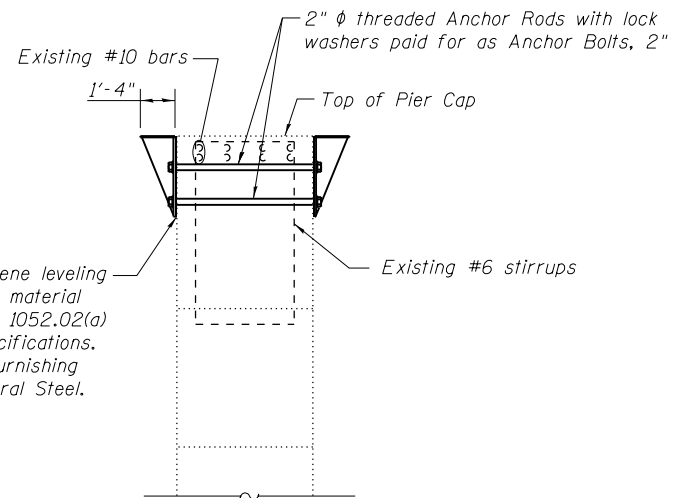
**PLAN**



**ELEVATION**

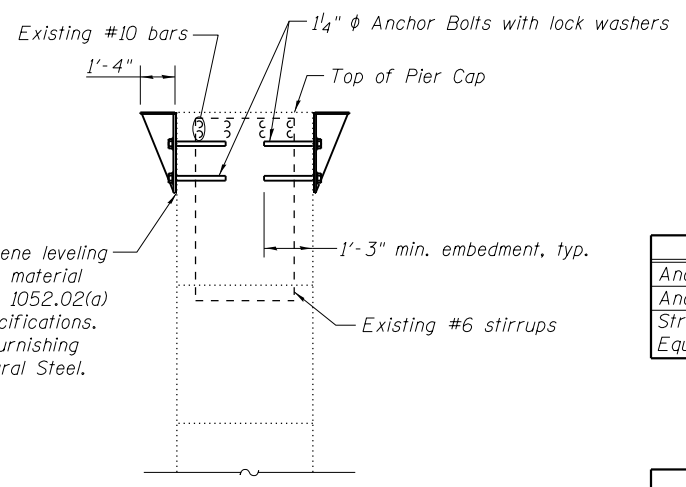
West Face (Looking East)  
East Face (Looking West)  
All dimensions taken from face of Pier Cap

**Notes:**  
Core holes and anchor holes to miss existing reinforcement, existing anchor bolts and new anchor bolts.  
Anchor Bolts shall be ASTM F1554 Grade 55 of diameters specified.  
Prior to ordering materials for the seat extensions the core holes and anchor holes on the pier cap shall be located. The contractor shall coordinate the location of the pier cap holes on the steel seat extensions.  
No core holes or anchoring is allowed in unreinforced portions of the pier cap. The existing rebar as shown has been taken from existing plan data.  
The edge of core holes or anchor holes shall not be less than 1/2 inches from the edge of an existing rebar or proposed anchor bolt locations.  
All bolts, nuts and washers shall be galvanized according to section 1006.08 of the standard specifications.  
The cost of existing rebar locating, coring and anchor installation shall be included with anchor bolts of the diameters specified.  
Spalling of concrete pier caps due to the coring of holes shall be repaired as "Structural Repair of Concrete (Depth Equal or Less than 5 Inches)". The quantity indicated on the total Bill of Materials is estimated.  
The installation of the seismic seat extensions shall be paid for as "Furnishing and Erecting Structural Steel".  
See Special Provisions for Installation of Seat Extensions for additional requirements.



**SECTION A-A**

(Typical Section with 2" φ Anchor Rods cored through Pier Cap)



**SECTION B-B**

(Typical Section with 1/4" φ Anchor Bolts embedded in Pier Cap)

**BILL OF MATERIAL - PIER 3**

Item	Unit	Total
Anchor Bolts, 1/4"	Each	24
Anchor Bolts, 2"	Each	20
Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)	Sq. Ft.	164.5

**BILL OF MATERIAL - PIER 6**

Item	Unit	Total
Anchor Bolts, 1/4"	Each	24
Anchor Bolts, 2"	Each	20
Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)	Sq. Ft.	164.5

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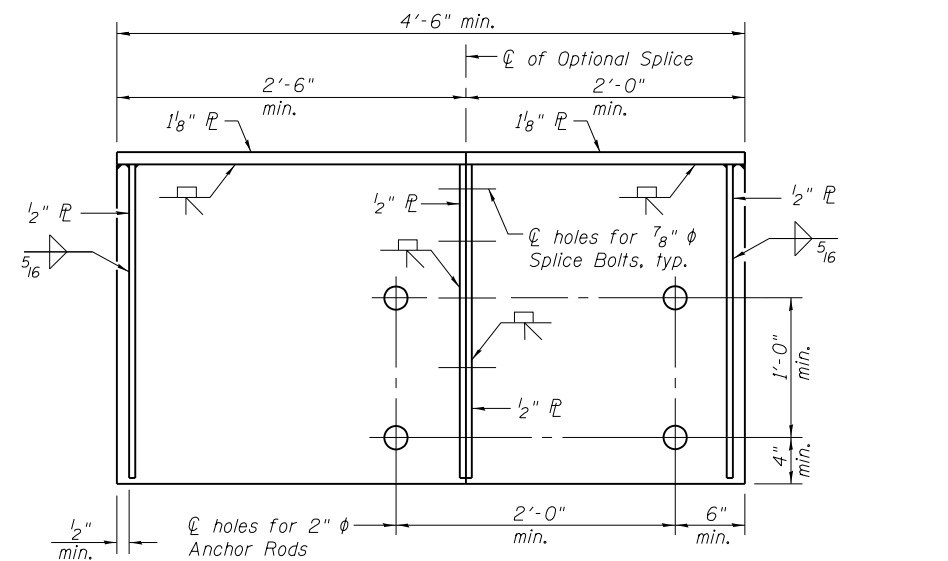
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**STATE OF ILLINOIS  
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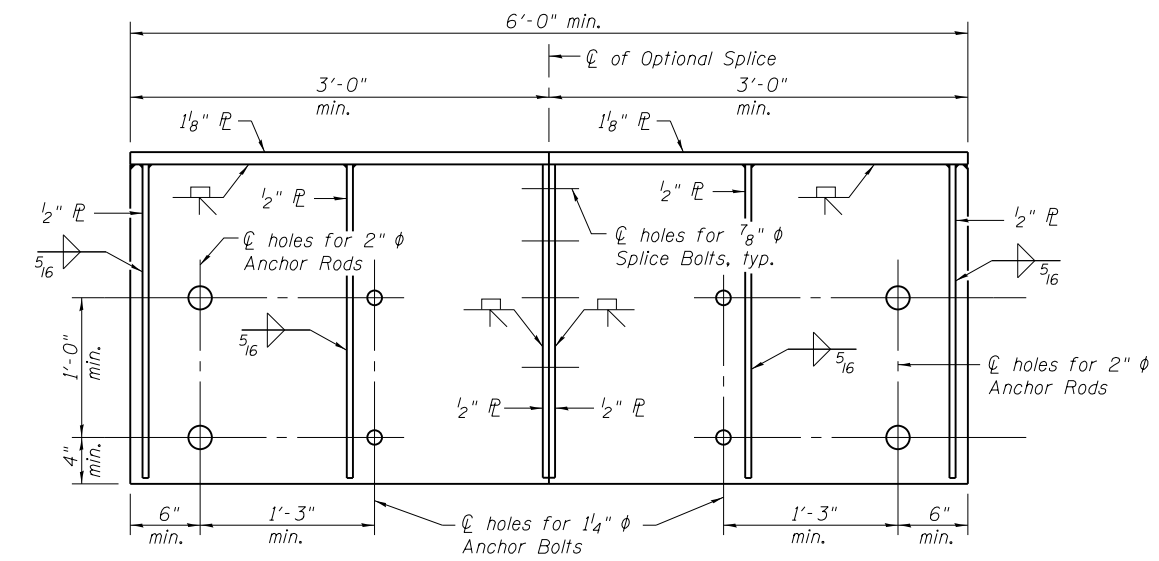
**SEISMIC RETROFIT DETAILS PIERS 3 & 6  
STRUCTURE NO. 079-0019**

SHEET NO. 33 OF 40 SHEETS

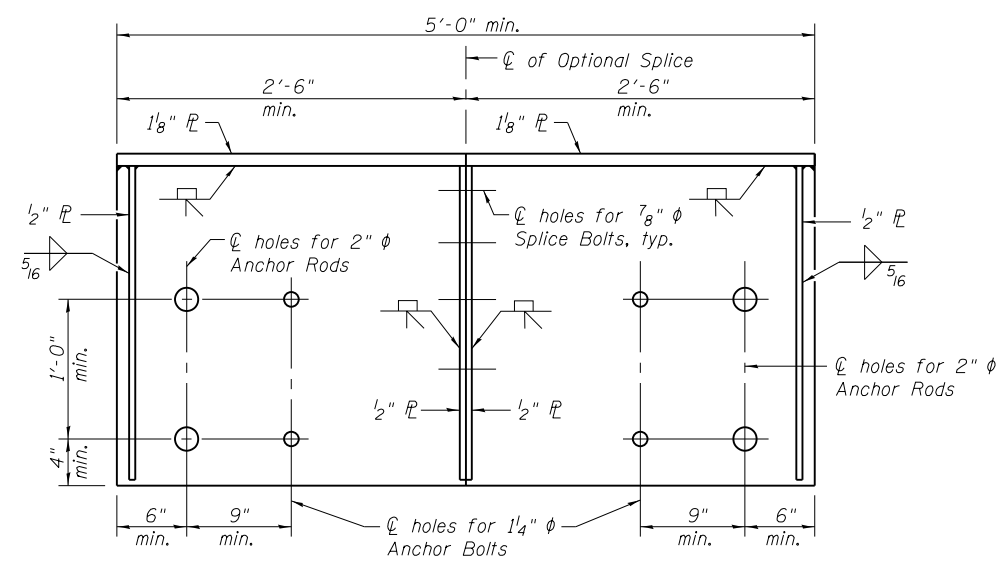
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
858	12-B-1	RANDOLPH	90	65
CONTRACT NO. 76H81				
ILLINOIS FED. AID PROJECT				



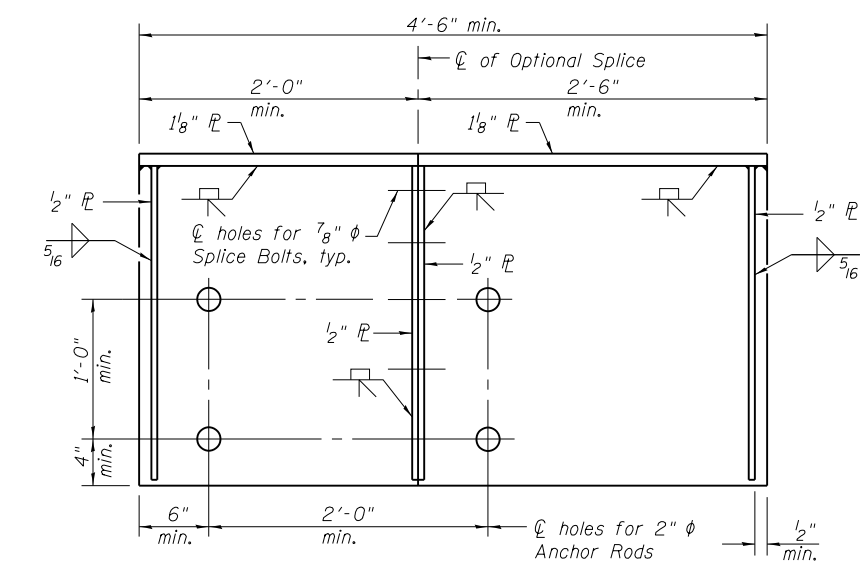
SEAT EXTENSION GIRDER 1 WEST FACE & GIRDER 5 EAST FACE



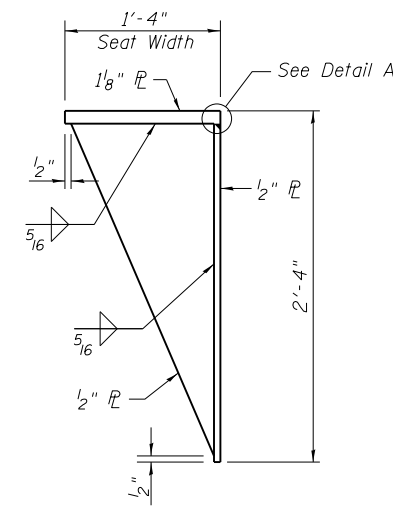
SEAT EXTENSION GIRDER 3



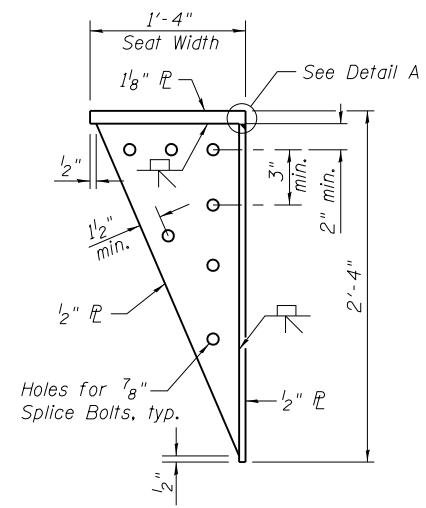
SEAT EXTENSION GIRDERS 2 & 4



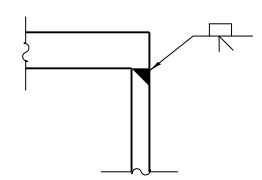
SEAT EXTENSION GIRDER 5 WEST FACE & GIRDER 1 EAST FACE



STANDARD GUSSET (side view)



SPICE GUSSET (side view)



DETAIL A

Notes:  
 Seismic Seat Extensions shall be paid for as "Furnishing and Erecting Structural Steel".  
 Structural steel for the seat extensions shall be hot-dipped galvanized after fabrication according to AASHTO M-111. Cost included with "Furnishing and Erecting Structural Steel".  
 The Fabricator shall adjust the hole diameters as needed to accommodate galvanizing.  
 The Fabricator shall coordinate final locations of anchor bolt and anchor rod holes with the Contractor's "as measured" field locations of holes and anchor holes on the pier cap.  
 The Contractor may omit the as detailed splice with a single unit seat extension of equal length for the minimum seat width detailed. If omitted, a standard gusset plate shall replace the splice gusset combination.  
 Shop drawings for the steel extensions are required according to Section 505.03 of the Standard Specifications.  
 Each oversized hole for the optional splice shall receive two (2) hardened washers.  
 Location of optional splice may be modified as needed for fabrication and required bolt clearances.

BILL OF MATERIAL - PIER 3

Item	Unit	Total
Furnishing and Erecting Structural Steel	Pound	6850

BILL OF MATERIAL - PIER 6

Item	Unit	Total
Furnishing and Erecting Structural Steel	Pound	6850

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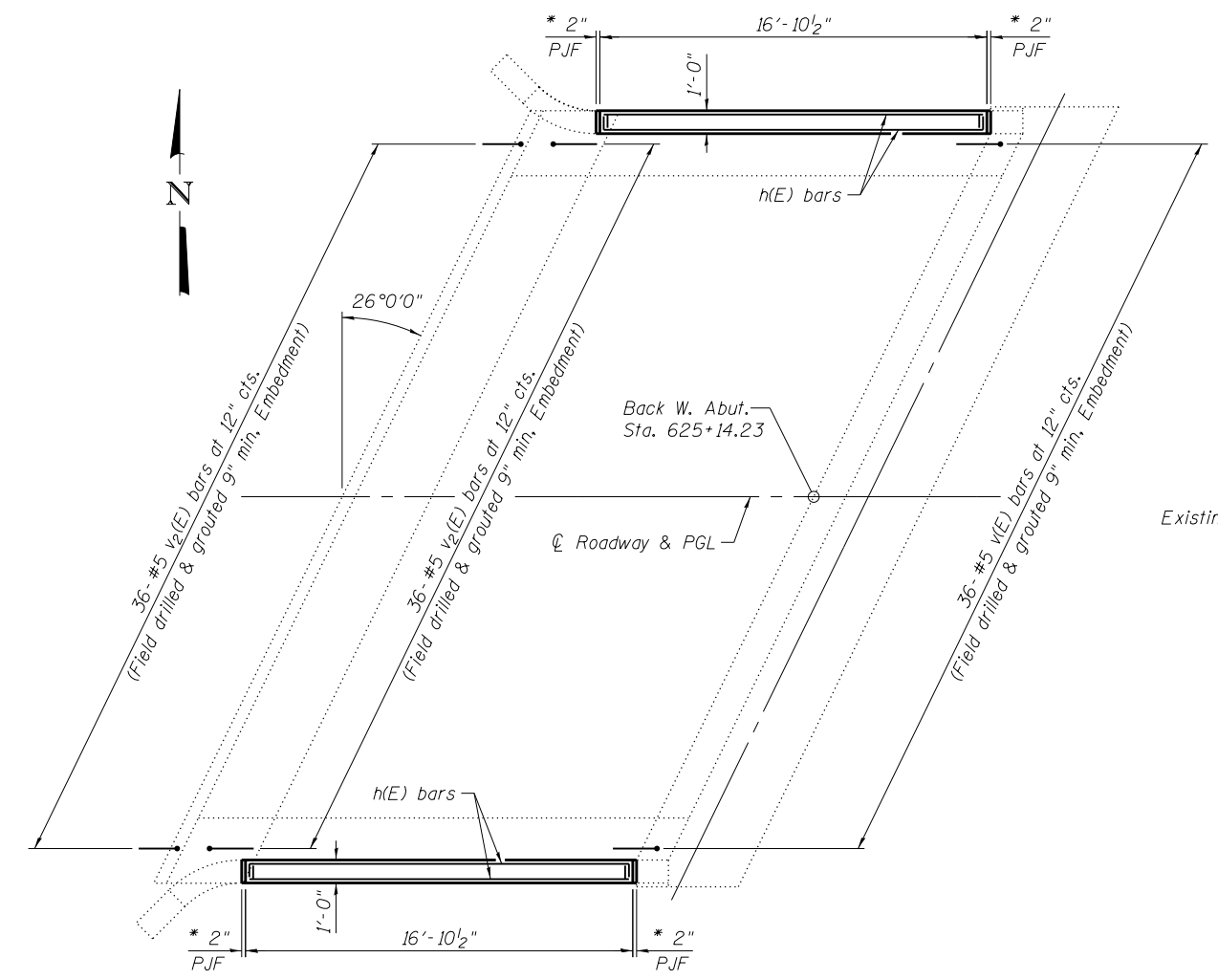
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Illinois Design Firm Number 184,001670	CHECKED - BB	REVISED -
PLOT SCALE =	DRAWN - WS	REVISED -
PLOT DATE = 8/5/35 AM 2/27/2015	CHECKED - CJF	REVISED -

STATE OF ILLINOIS  
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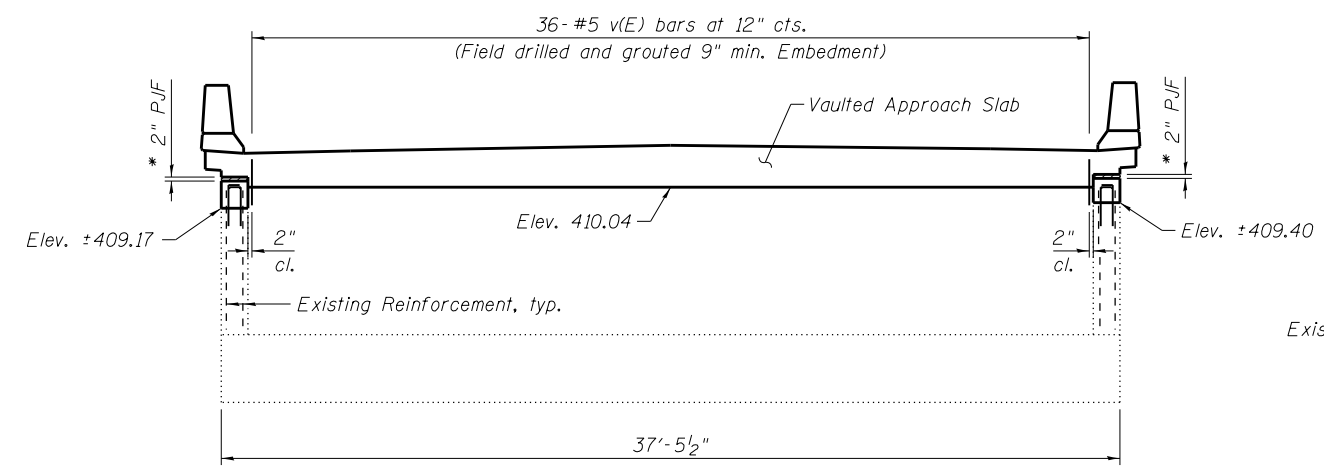
SEISMIC RETROFIT DETAILS PIERS 3 & 6  
 STRUCTURE NO. 079-0019  
 SHEET NO. 34 OF 40 SHEETS

F.A.S. RTE. 858	SECTION 12-B-1	COUNTY RANDOLPH	TOTAL SHEETS 90	SHEET NO. 66
CONTRACT NO. 76H81				
ILLINOIS FED. AID PROJECT				

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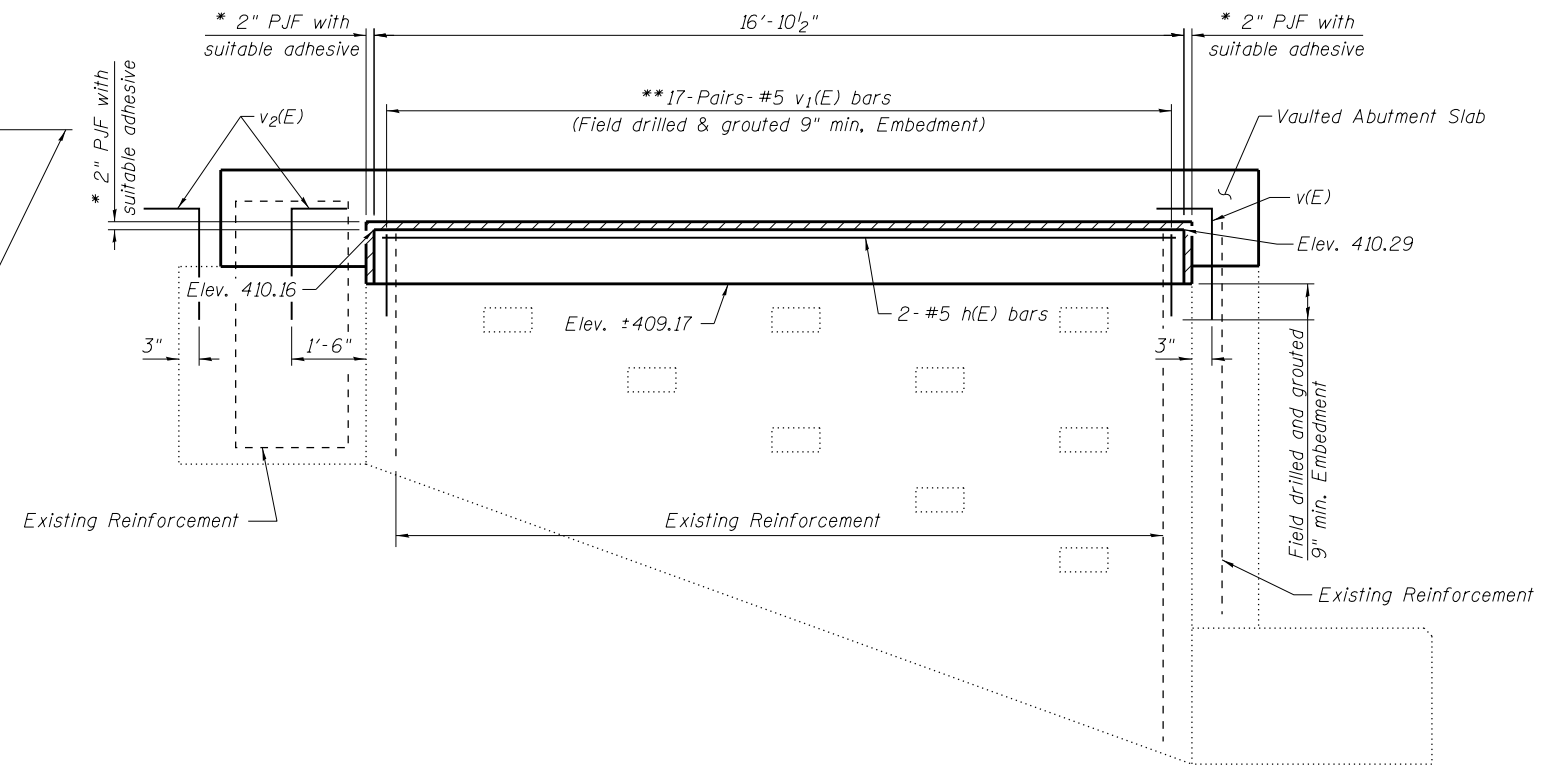


**WEST VAULTED ABUTMENT PLAN**

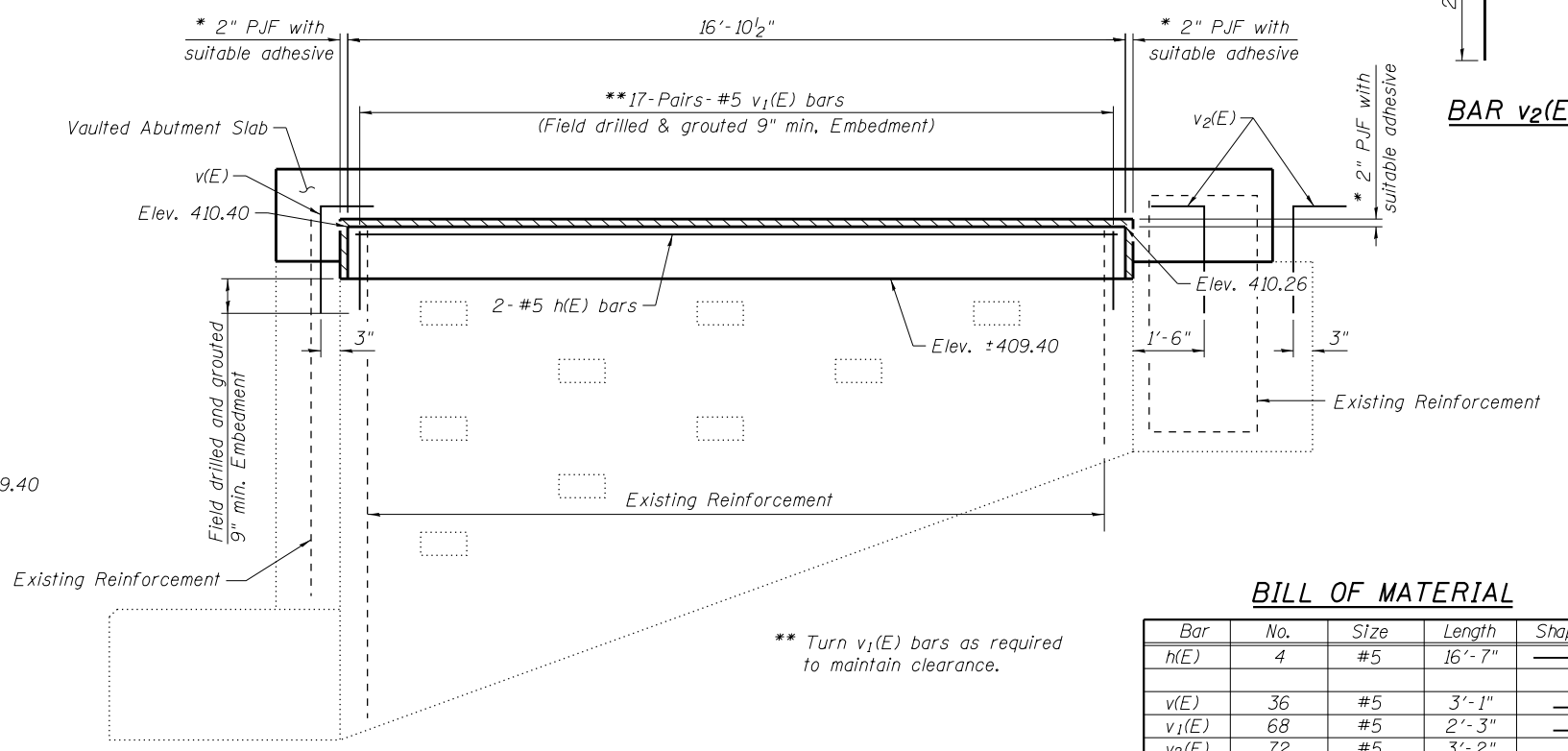


**WEST ABUTMENT ELEVATION**

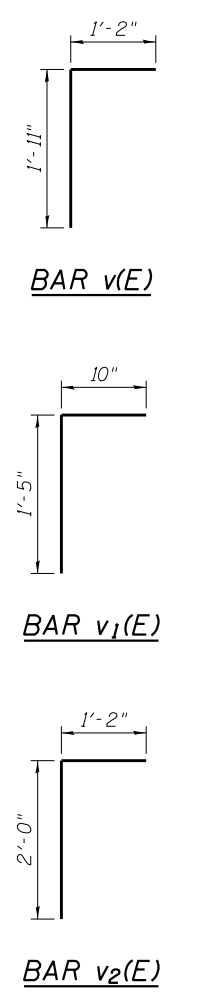
\* A suitable adhesive must be compatible with preformed joint filler material and concrete. Surface preparation shall be conducted in accordance with the manufacturer's guidelines.



**SOUTH WING WALL ELEVATION**



**NORTH WING WALL ELEVATION**



Notes:  
 See sheets 22 and 23 of 40 for Vaulted Abutment Slab details.  
 Cost of PJF included with cost of Concrete structures.  
 Spalling of the existing concrete walls and backwall during construction shall be repaired as "Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)". The quantity indicated in the Bill of Material is estimated.  
 Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape	
h(E)	4	#5	16'-7"	—	
v(E)	36	#5	3'-1"	┘	
v1(E)	68	#5	2'-3"	┘	
v2(E)	72	#5	3'-2"	┘	
Reinforcement Bars, Epoxy Coated				Pound	590
Concrete Structures				Cu. Yds.	1.3
Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)				Sq. Ft.	42

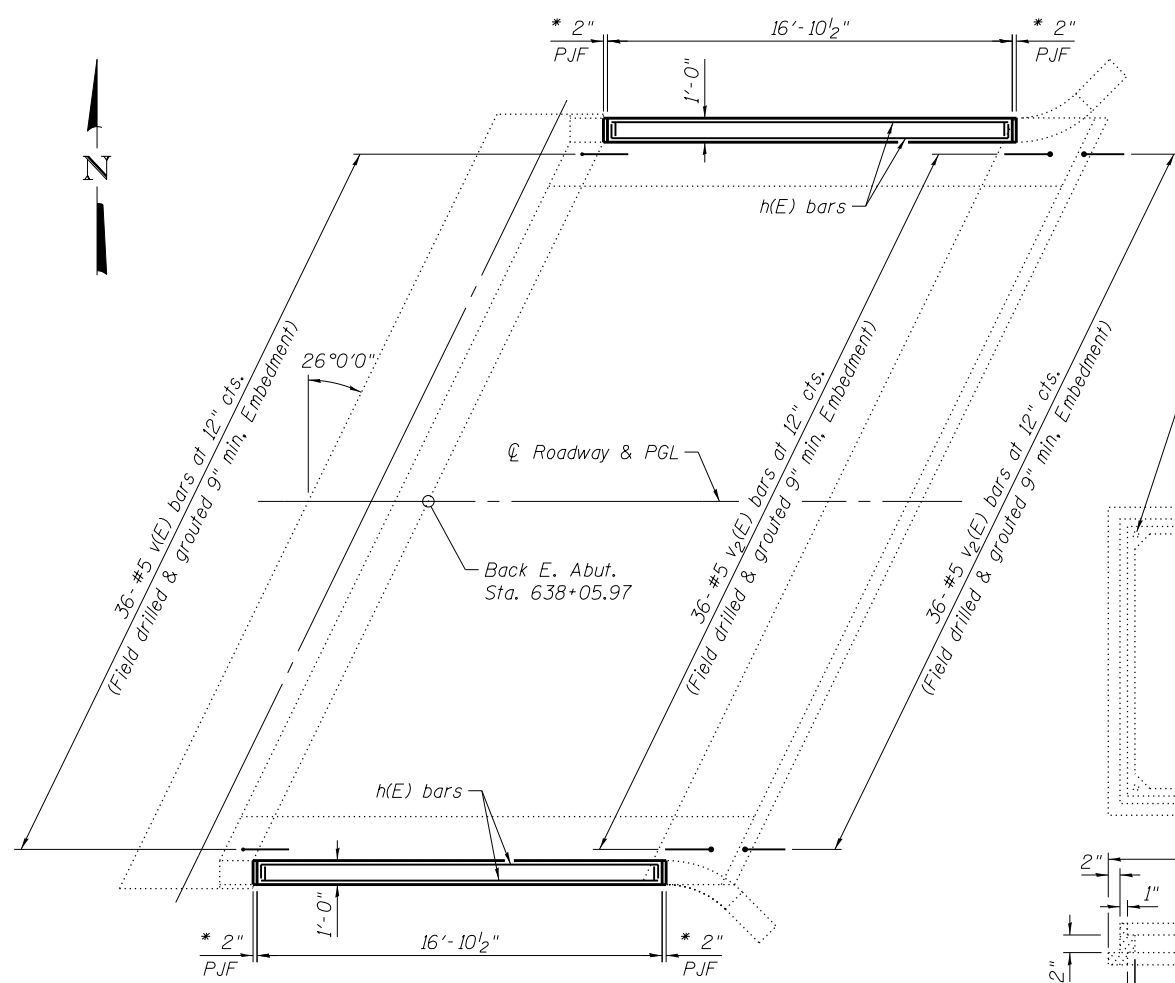


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Illinois Design Firm Number 184,001670	CHECKED - BB	REVISED -
PLOT SCALE =	DRAWN - EW	REVISED -
PLOT DATE = 2:41:47 PM 3/18/2015	CHECKED - CJF	REVISED -

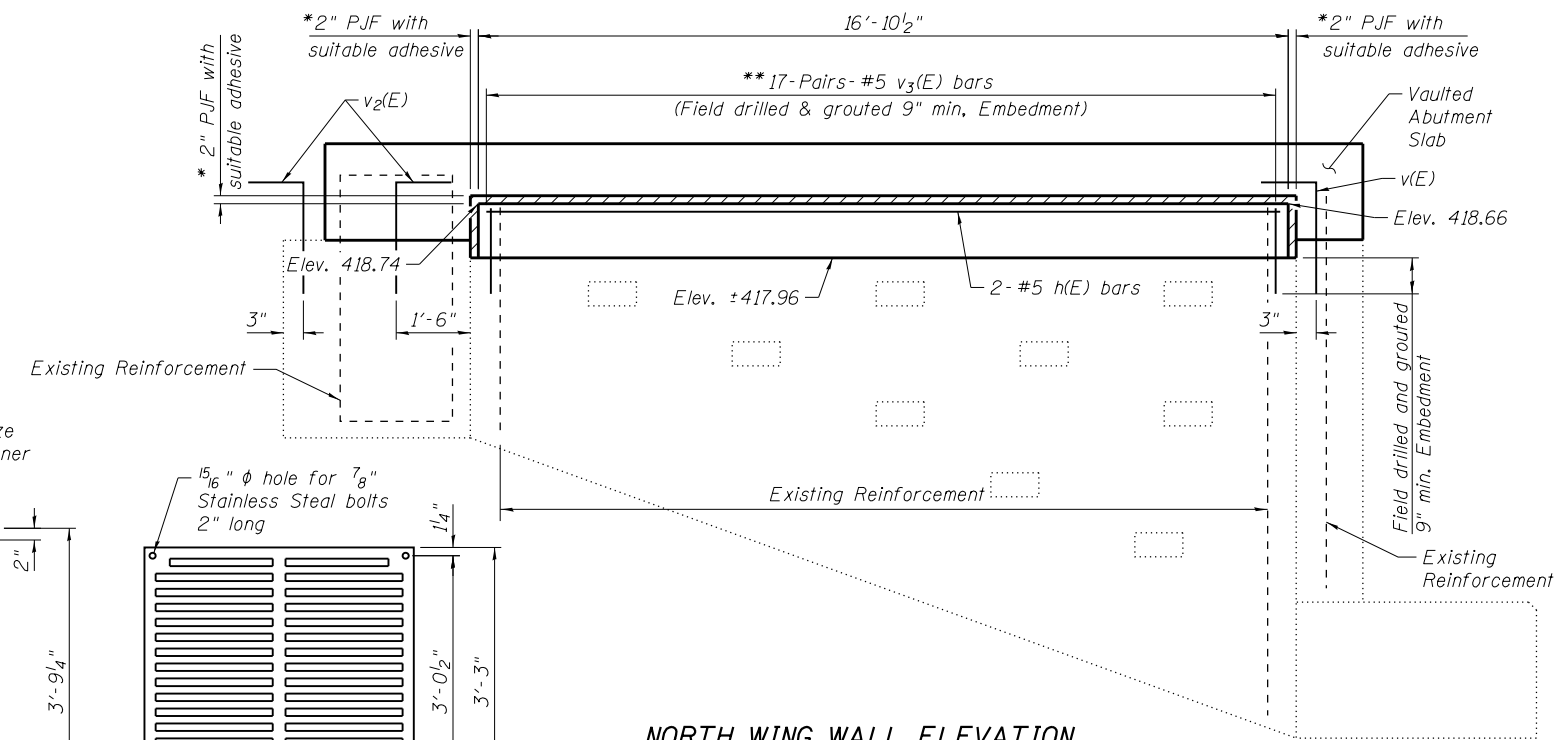
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**WEST VAULTED ABUTMENT DETAILS  
 STRUCTURE NO. 079-0019**  
 SHEET NO. 35 OF 40 SHEETS

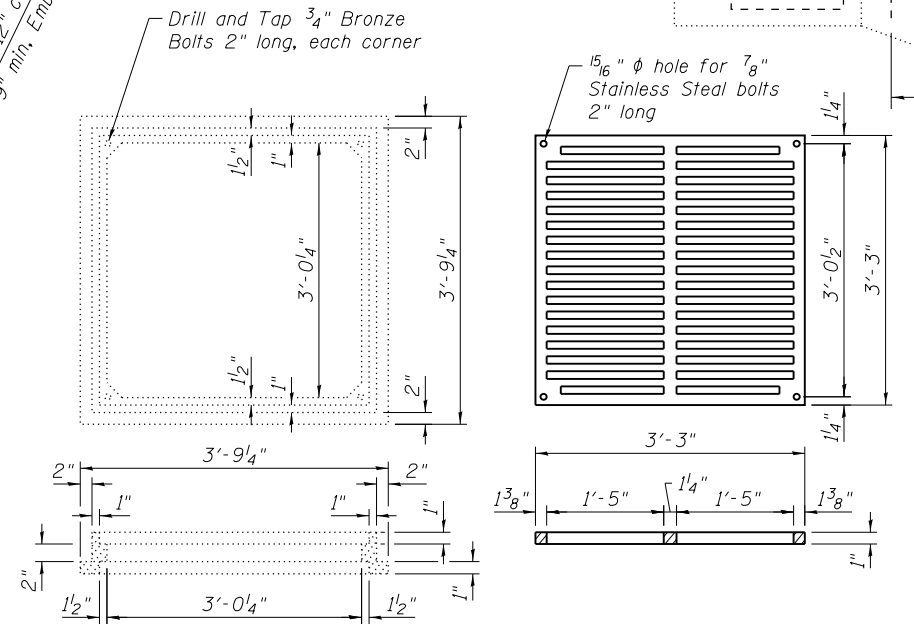
F.A.S. RTE. 858	SECTION 12-B-1	COUNTY RANDOLPH	TOTAL SHEETS 90	SHEET NO. 67
CONTRACT NO. 76H81				ILLINOIS FED. AID PROJECT



**EAST VAULTED ABUTMENT PLAN**

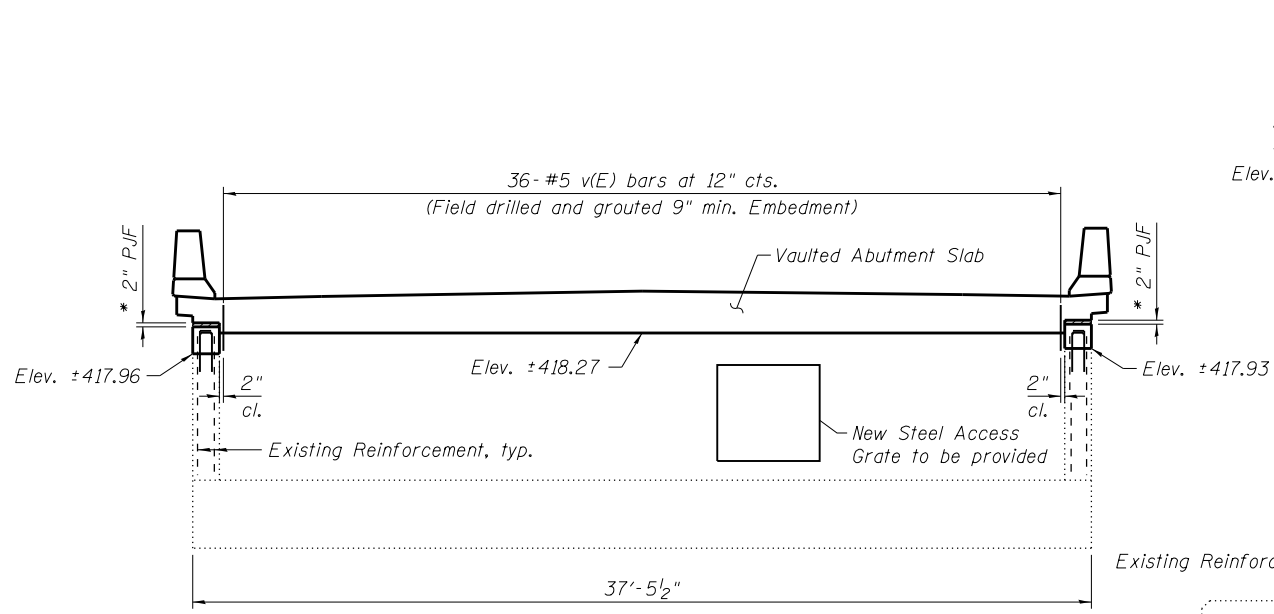


**NORTH WING WALL ELEVATION**

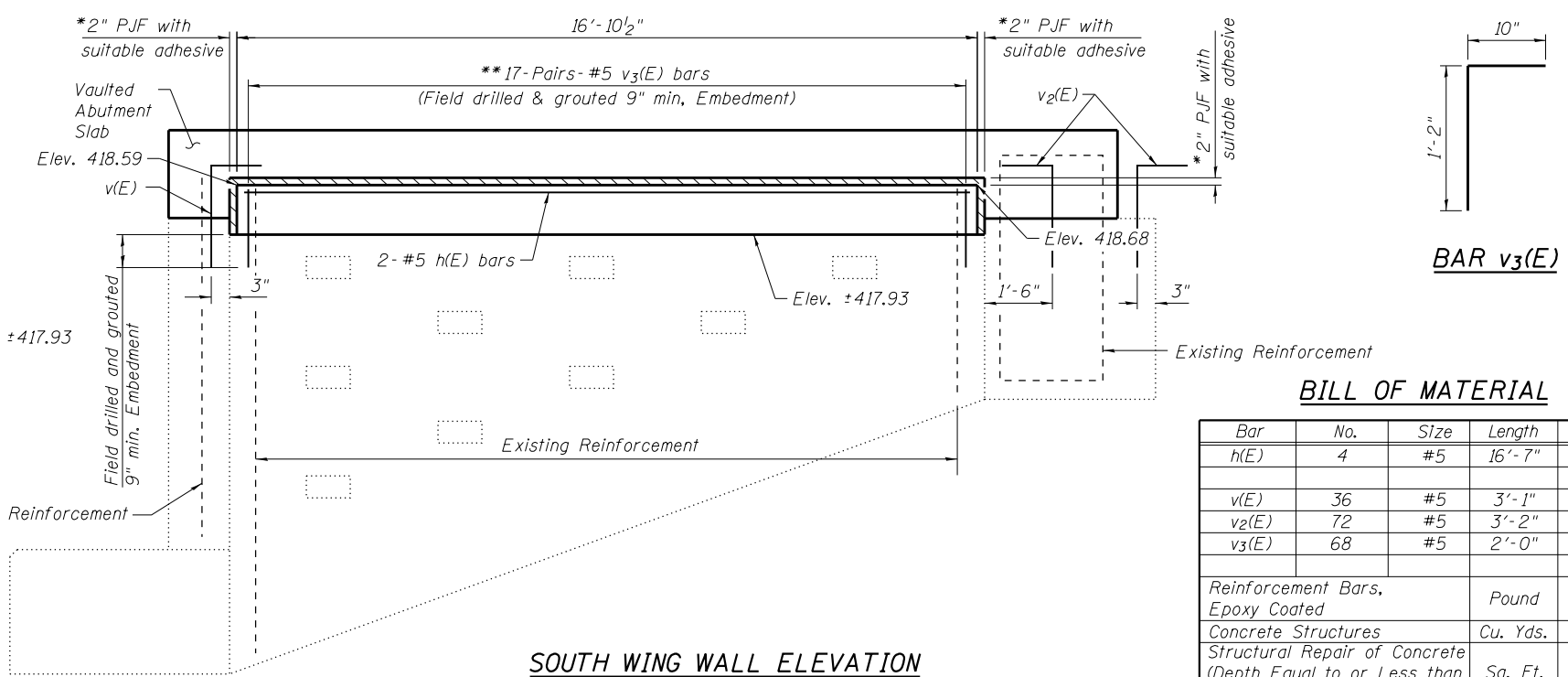


**DETAIL OF STEEL ACCESS GRATE**  
(Cost included with Concrete Structures)

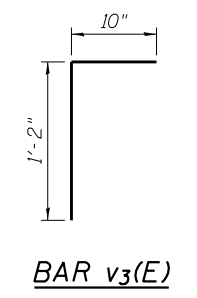
\* A suitable adhesive must be compatible with preformed joint filler material and concrete. Surface preparation shall be conducted in accordance with the manufacturer's guidelines.  
 \*\* Turn v3(E) bars as required to maintain clearance.  
 Notes:  
 See sheets 22 and 23 of 40 for Vaulted Abutment Slab details.  
 Cost of P/JF included with cost of Concrete Structures.  
 See sheet 35 of 40 for additional Bar Bends.  
 Spalling of the existing concrete walls and backwall shall be repaired as "Structural Repair of Concrete (Depth Equal to or Less than 5 Inches). The quantity indicated in the Bill of Material is estimated.  
 Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.



**EAST ABUTMENT ELEVATION**



**SOUTH WING WALL ELEVATION**



**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h(E)	4	#5	16'-7"	—
v(E)	36	#5	3'-1"	┘
v2(E)	72	#5	3'-2"	┘
v3(E)	68	#5	2'-0"	┘
Reinforcement Bars, Epoxy Coated			Pound	570
Concrete Structures			Cu. Yds.	0.9
Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)			Sq. Ft.	42

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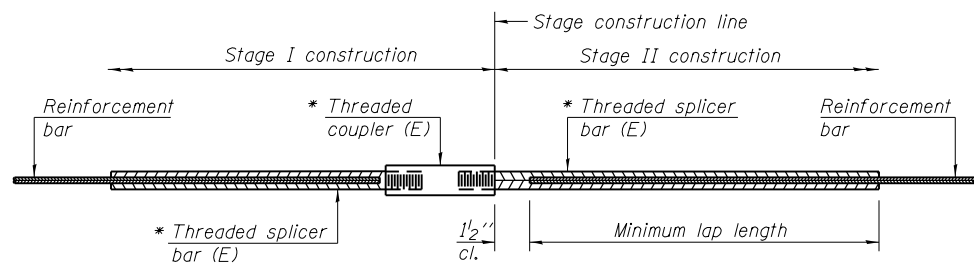
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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**EAST VAULTED ABUTMENT DETAILS**  
**STRUCTURE NO. 079-0019**  
SHEET NO. 36 OF 40 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
858	12-B-1	RANDOLPH	90	68
CONTRACT NO. 76H81				
ILLINOIS FED. AID PROJECT				





**STANDARD BAR SPLICER ASSEMBLY**

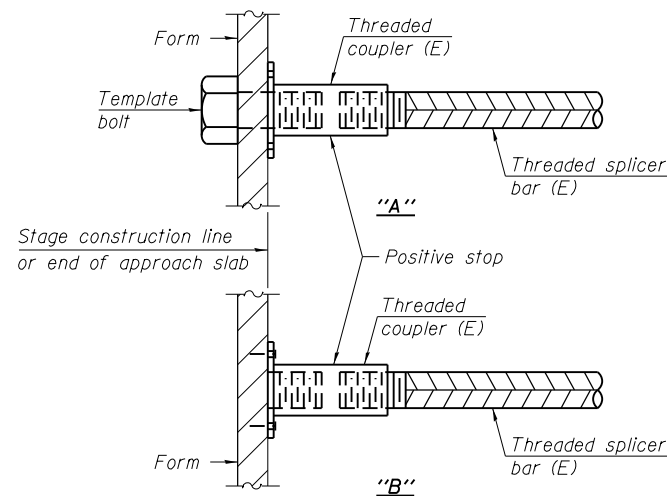
Minimum Lap Lengths						
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-7"	2'-11"
5	1'-9"	2'-5"	2'-7"	2'-11"	3'-3"	3'-8"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-10"	4'-5"
7	2'-9"	3'-10"	4'-2"	4'-8"	5'-2"	5'-10"
8	3'-8"	5'-1"	5'-5"	6'-2"	6'-9"	7'-8"
9	4'-7"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

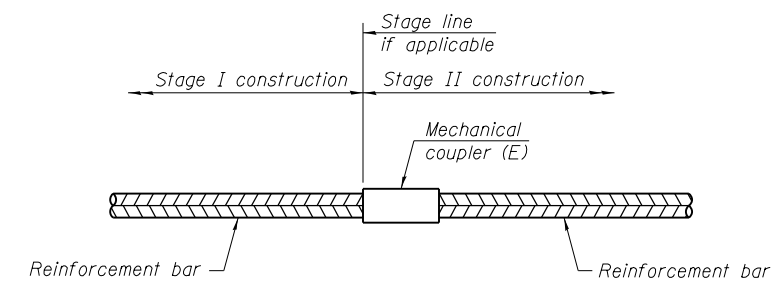
\* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
W. Appr. Slab	#4	26	TABLE 5
E. Appr. Slab	#4	26	TABLE 5



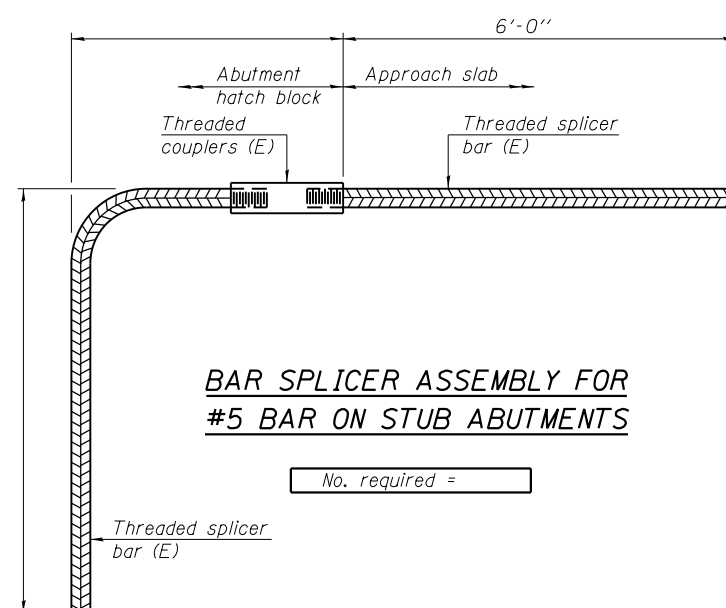
**INSTALLATION AND SETTING METHODS**

"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



**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

8-31-12



USER NAME = bbovee	DESIGNED - JD	REVISED -
Illinois Design Firm Number 184,001670	CHECKED - BB	REVISED -
PLOT SCALE =	DRAWN - WS	REVISED -
PLOT DATE = 8/5/37 AM 2/27/2015	CHECKED - CJF	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

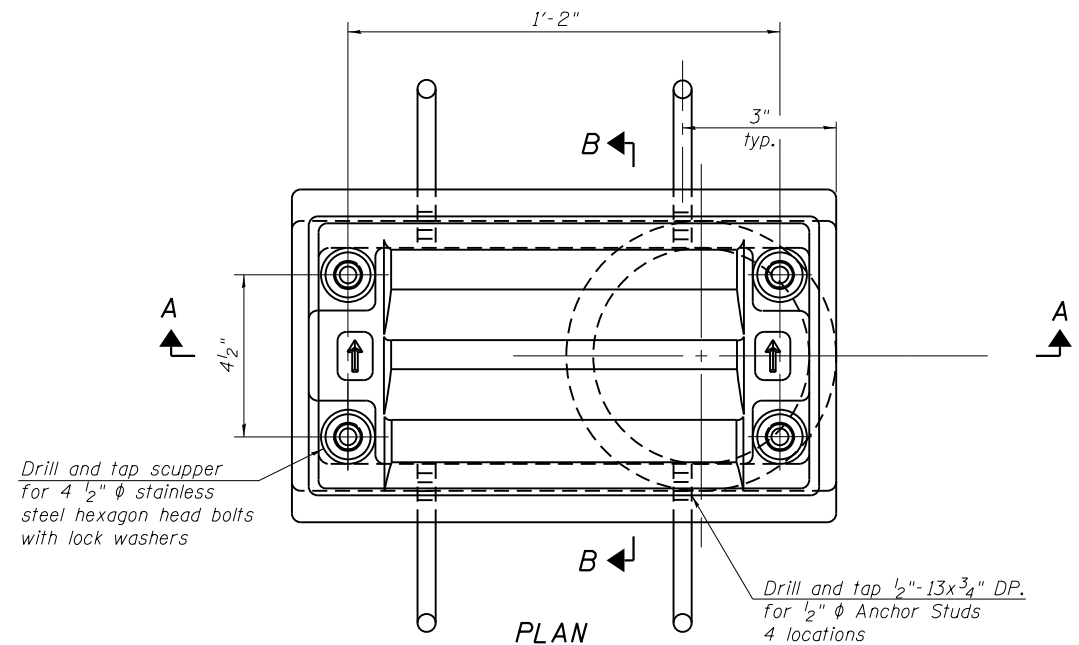
BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS  
STRUCTURE NO. 079-0019

SHEET NO. 37 OF 40 SHEETS

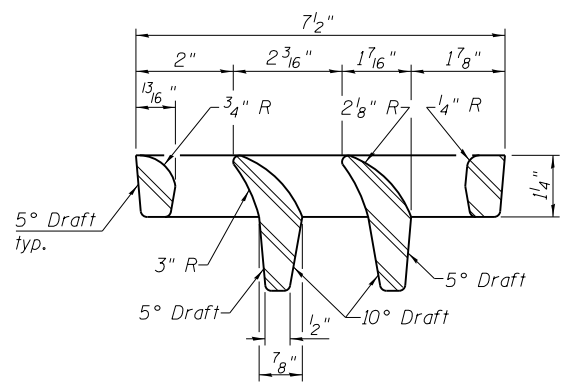
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
858	12-B-1	RANDOLPH	90	69
CONTRACT NO. 76H81				

ILLINOIS FED. AID PROJECT

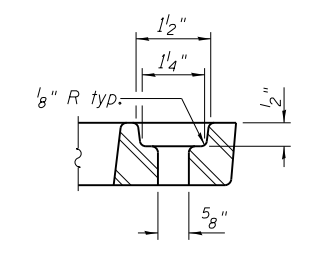
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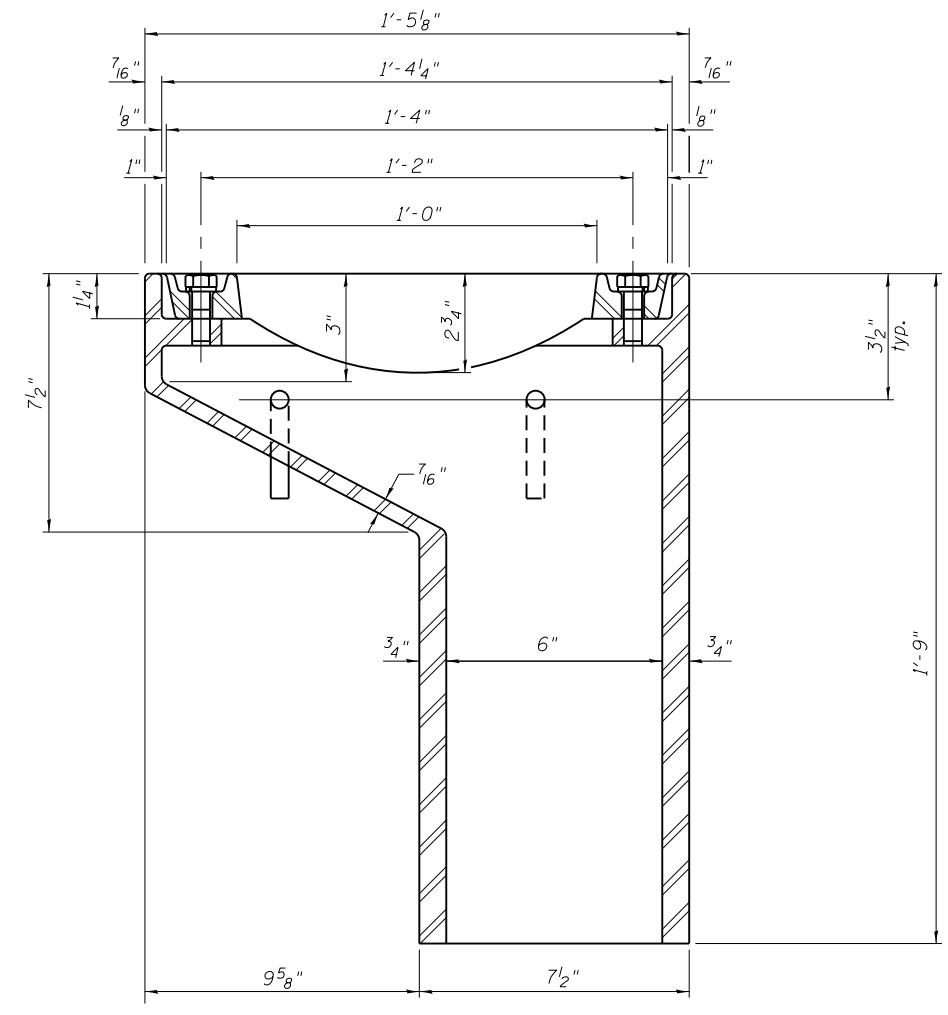
**PLAN**



**VANE GRATE DETAIL**

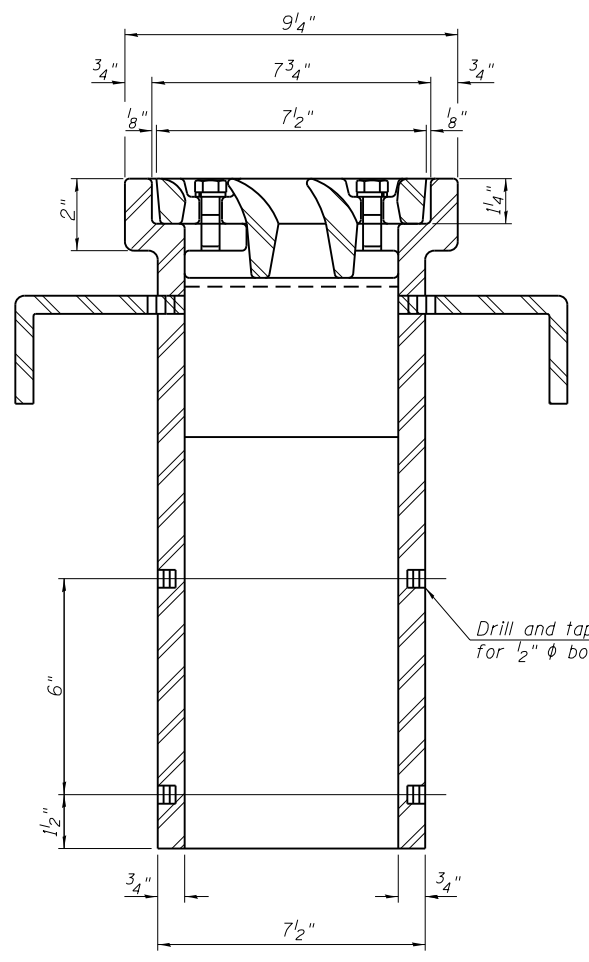


**BOLT HOLE DETAIL**

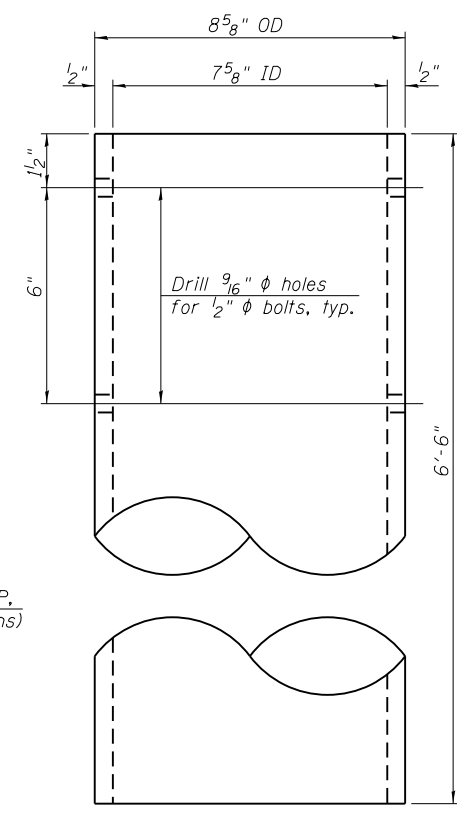


**SECTION A-A**

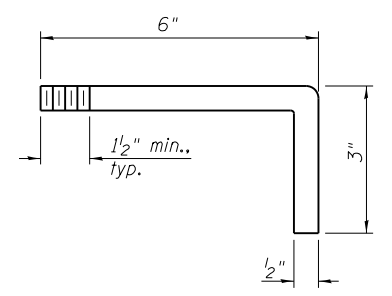
See sheet of for scupper location relative to parapet.



**SECTION B-B**



**DOWNSPOUT**



**ANCHOR STUD DETAIL**

**Notes:**  
 All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.  
 Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.  
 Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam.  
 As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.  
 Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frame. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval. Structural steel weldments shall not be substituted for the cast iron scupper grate. Structural steel frames and downspouts shall be galvanized according to AASHTO M111.  
 The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.  
 Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scuppers, DS-11.  
 Alternate fiberglass downspout conforming to ASTM D 2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. may be used in lieu of the cast iron or steel equivalent.

**BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
Drainage Scuppers, DS-11	Each	16

DS-11

7-1-10



USER NAME = bbovee	DESIGNED - JD	REVISED -
Illinois Design Firm Number 184,001670	CHECKED - BB	REVISED -
PLOT SCALE =	DRAWN - WS	REVISED -
PLOT DATE = 8/5/37 AM 2/27/2015	CHECKED - CJF	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

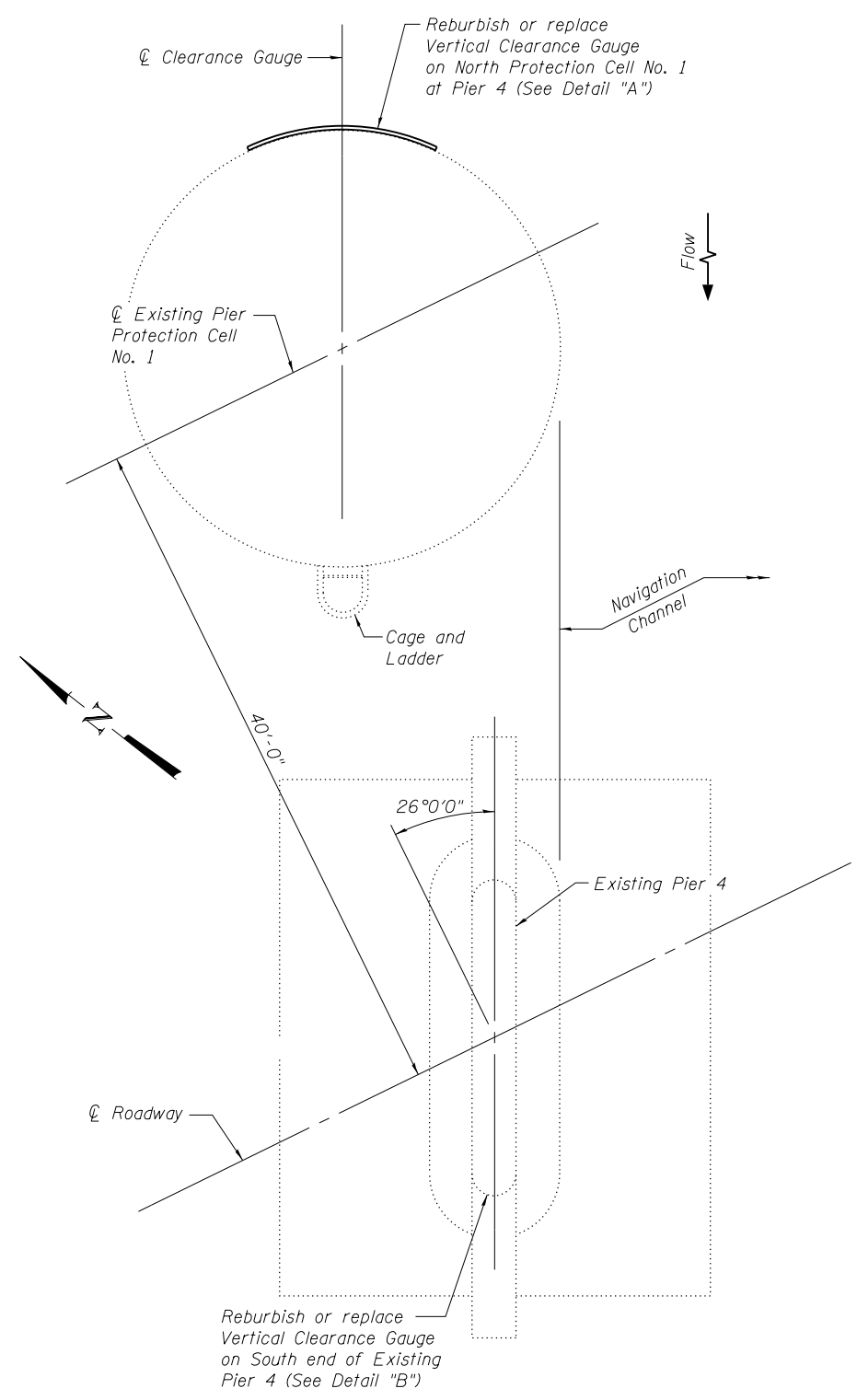
**DRAINAGE SCUPPER, DS-11  
 STRUCTURE NO. 079-0019**

SHEET NO. 38 OF 40 SHEETS

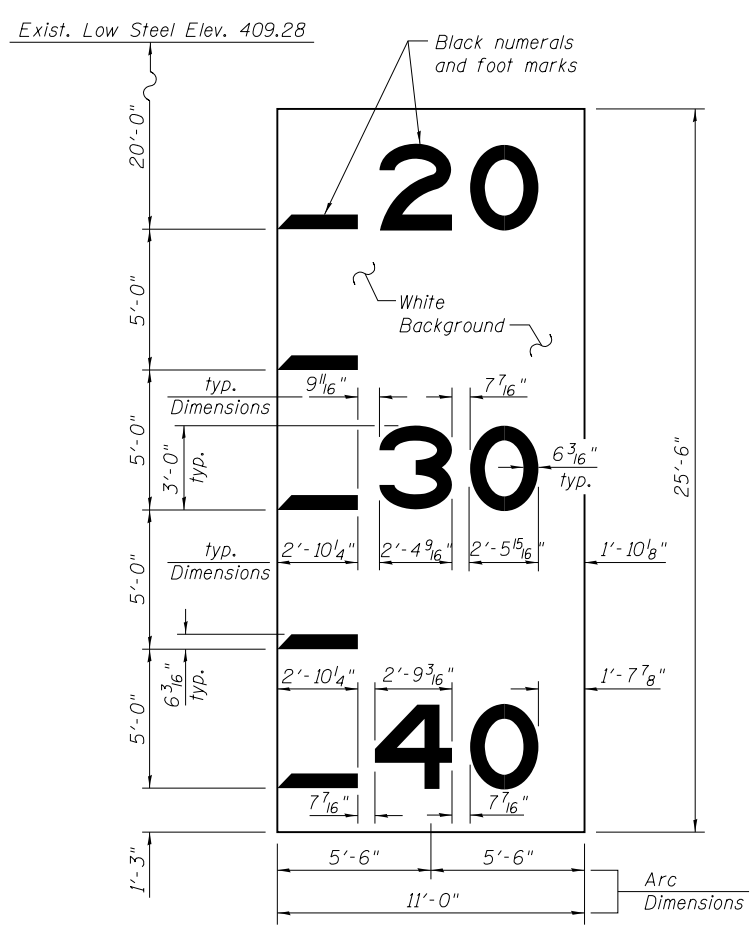
F.A.S. RTE. 858	SECTION 12-B-1	COUNTY RANDOLPH	TOTAL SHEETS 90	SHEET NO. 70
				CONTRACT NO. 76H81
ILLINOIS FED. AID PROJECT				

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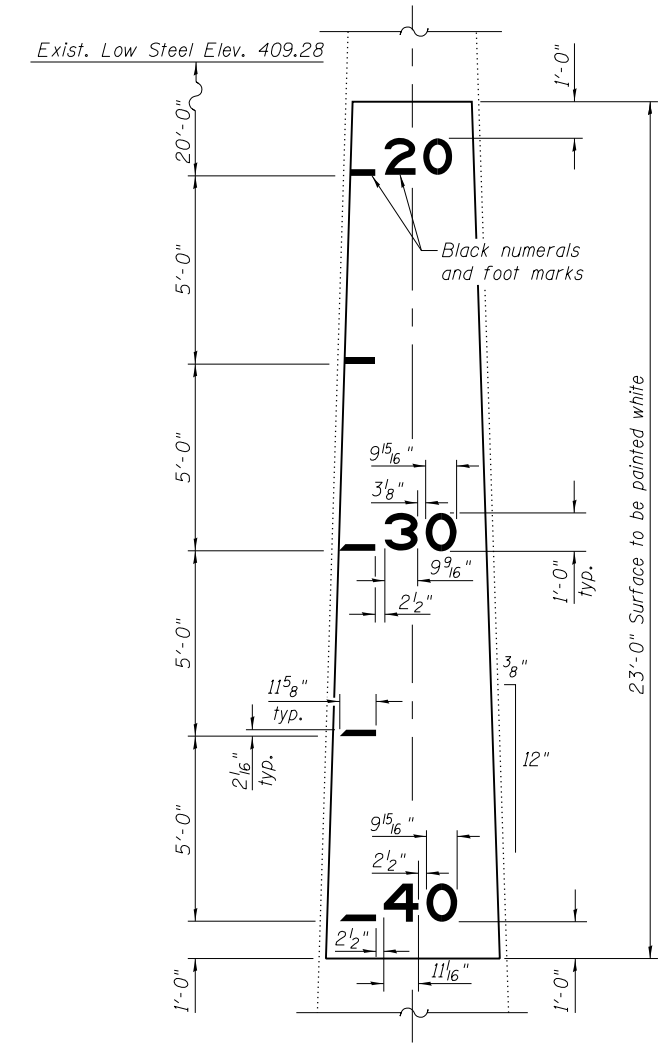
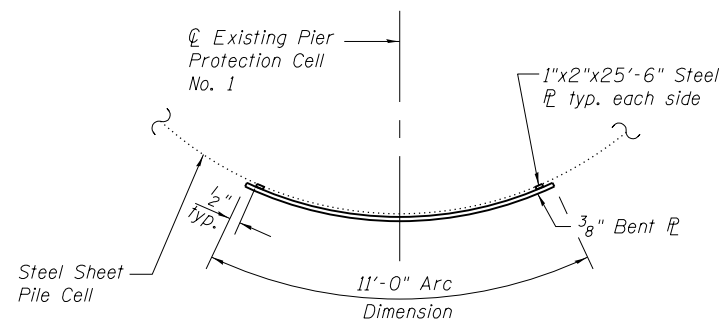
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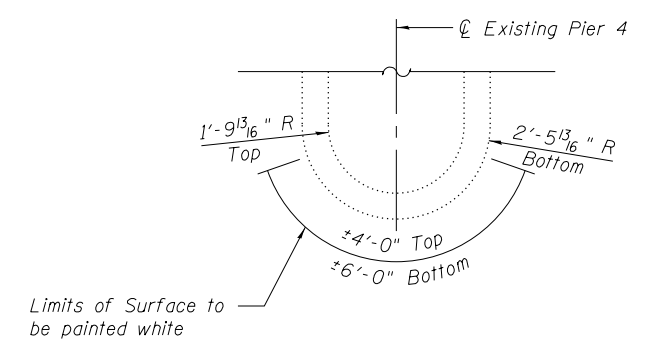
**PLAN AT PIER 4**  
See Special Provisions



**DETAIL "A"**  
**EXISTING PIER**  
**PROTECTION CELL NO. 1**  
**GAUGE DETAILS**  
See Special Provisions



**DETAIL "B"**  
**EXISTING PIER 4**  
**GAUGE DETAILS**  
See Special Provisions



USER NAME = bbovee	DESIGNED - JD	REVISED -
Illinois Design Firm Number 184,001670	CHECKED - BB	REVISED -
PLOT SCALE =	DRAWN - WS	REVISED -
PLOT DATE = 8/5/38 AM 2/27/2015	CHECKED - CJF	REVISED -

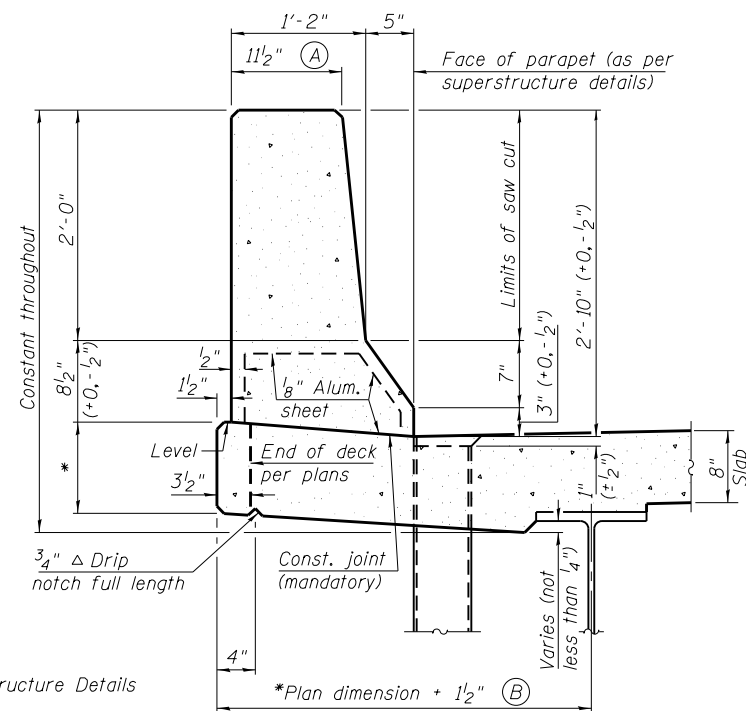
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**NAVIGATIONAL VERTICAL CLEARANCE GAUGE DETAILS**  
**STRUCTURE NO. 079-0019**  
SHEET NO. 39 OF 40 SHEETS

F.A.S. R.T.E. = 858	SECTION = 12-B-1	COUNTY = RANDOLPH	TOTAL SHEETS = 90	SHEET NO. = 71
CONTRACT NO. 76H81				
ILLINOIS FED. AID PROJECT				

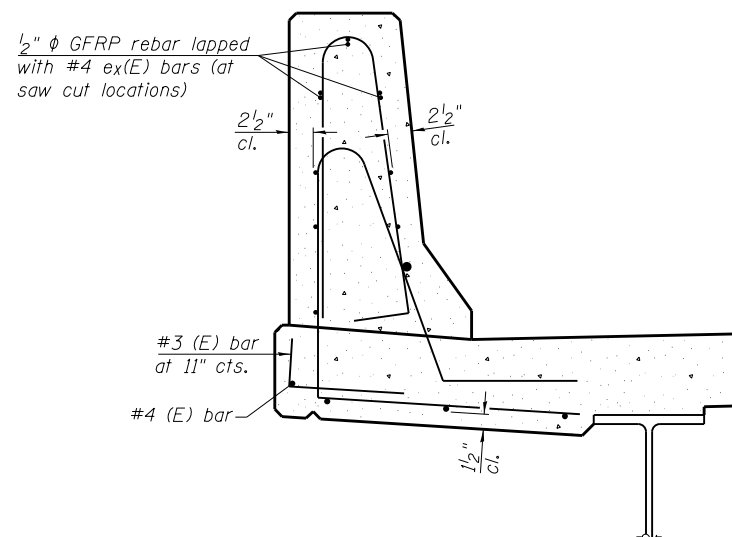
**GENERAL NOTES**

All dimensions shall remain the same as shown on superstructure details, except dimensions A and B which are to be revised as shown to provide additional clearance. Additional concrete needed to revise dimension A and B = 0.0165 cu. yds./ft. for 34" parapet or = 0.0223 cu. yds./ft. for 42" parapet. Place aluminum sheet in curb portion at and near piers. Full thickness saw cut at all joint locations in lieu of cork joint filler. Steel superstructure shown. Other superstructure types similar.



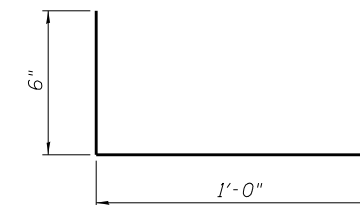
**34" F SHAPE PARAPET SECTION**  
(Showing dimensions)

\*See Superstructure Details

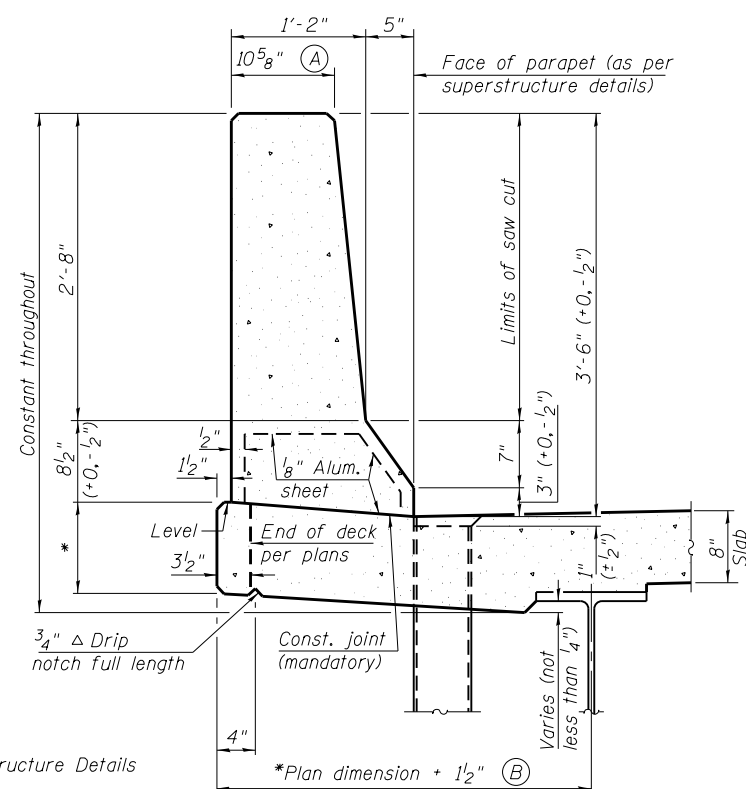


**SECTION**

(34" parapet shown - 42" parapet similar)  
(Showing reinforcement clearances for slip forming and additional reinforcement bars)

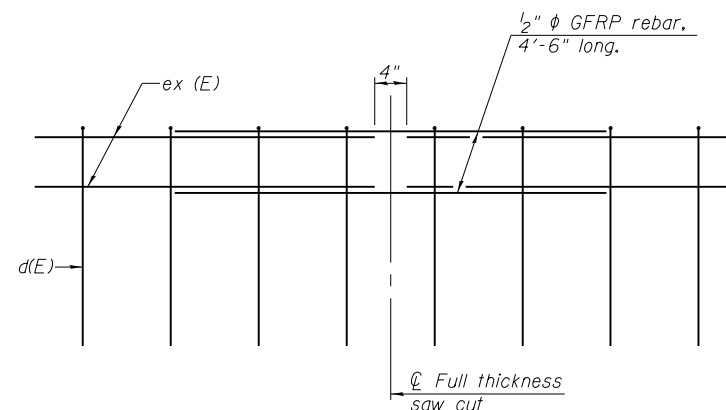


**#3 (E) BAR**



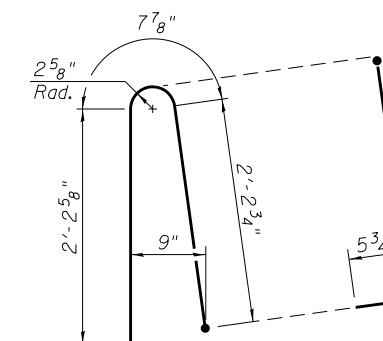
**42" F SHAPE PARAPET SECTION**  
(Showing dimensions)

\*See Superstructure Details

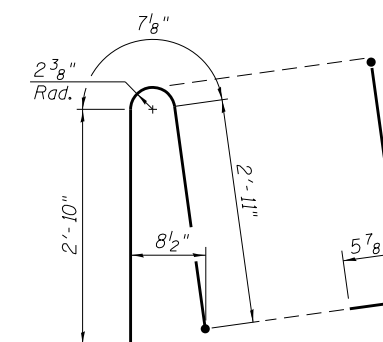


**GFRP REBAR STIFFENING DETAIL**

(Place as shown in parapet section at each parapet joint location.)



**ALTERNATE BAR d(E)**  
(For 34" parapet when conduit is present)



**ALTERNATE BAR d(E)**  
(For 42" parapet when conduit is present)

SFP 34-42

8-16-12



USER NAME = bbovee  
Illinois Design Firm Number 184,001670  
PLOT SCALE =  
PLOT DATE = 8/15/38 AM 2/27/2015

DESIGNED - JD  
CHECKED - BB  
DRAWN - WS  
CHECKED - CJF

REVISED -  
REVISED -  
REVISED -  
REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CONCRETE PARAPET SLIPFORMING OPTION  
STRUCTURE NO. 079-0019**

SHEET NO. 40 OF 40 SHEETS

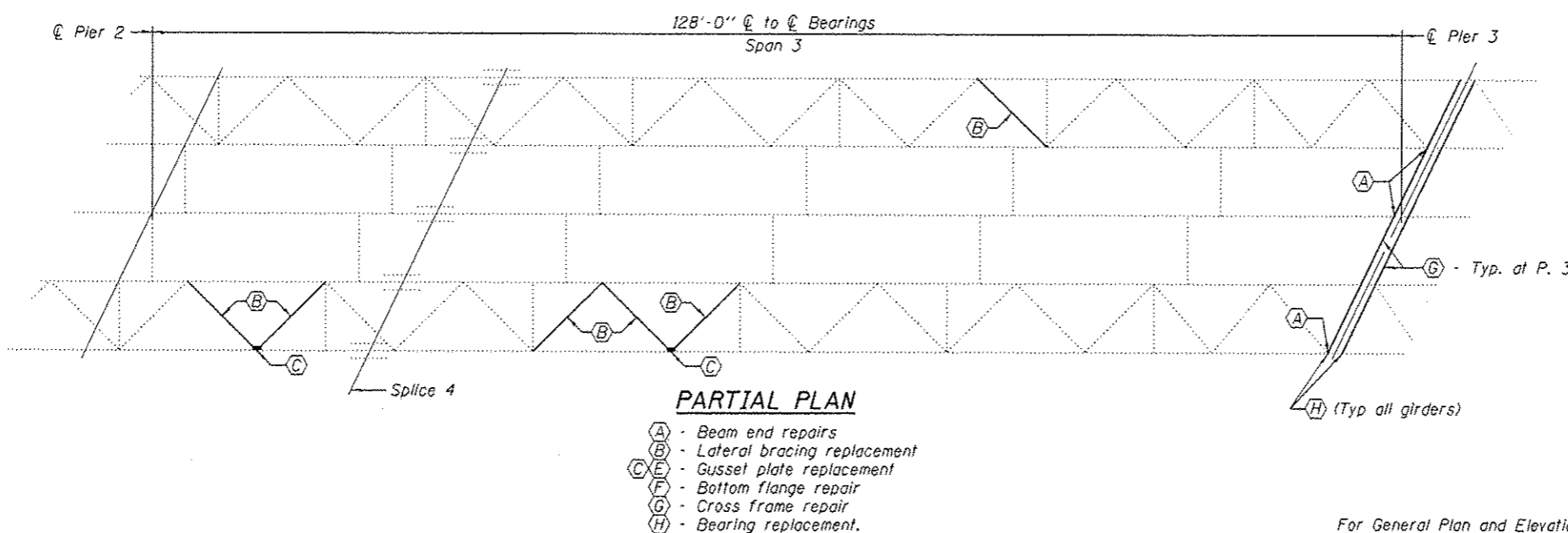
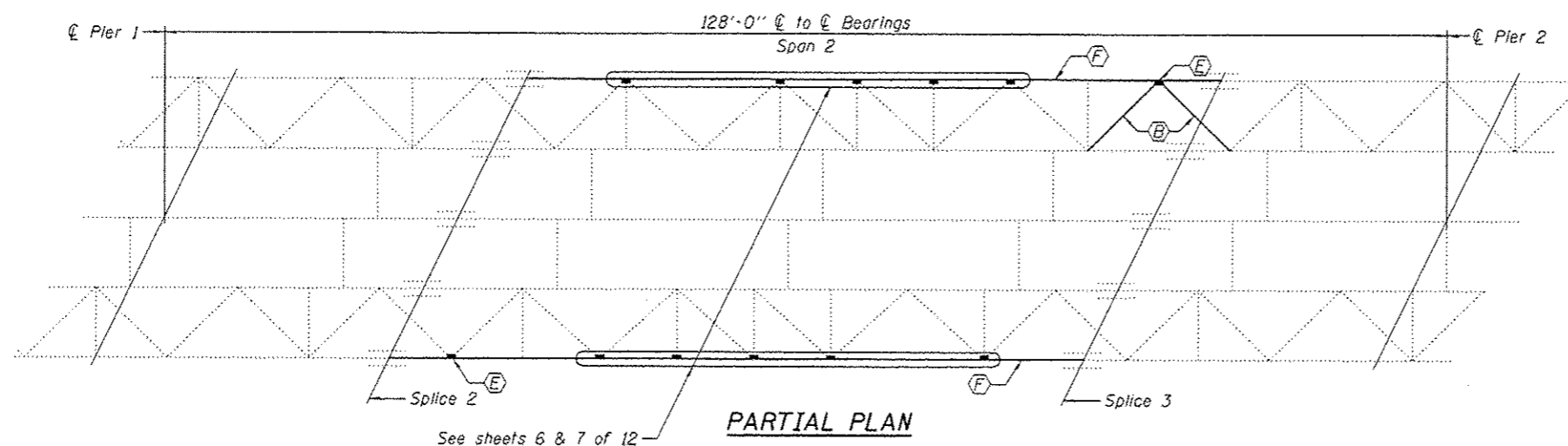
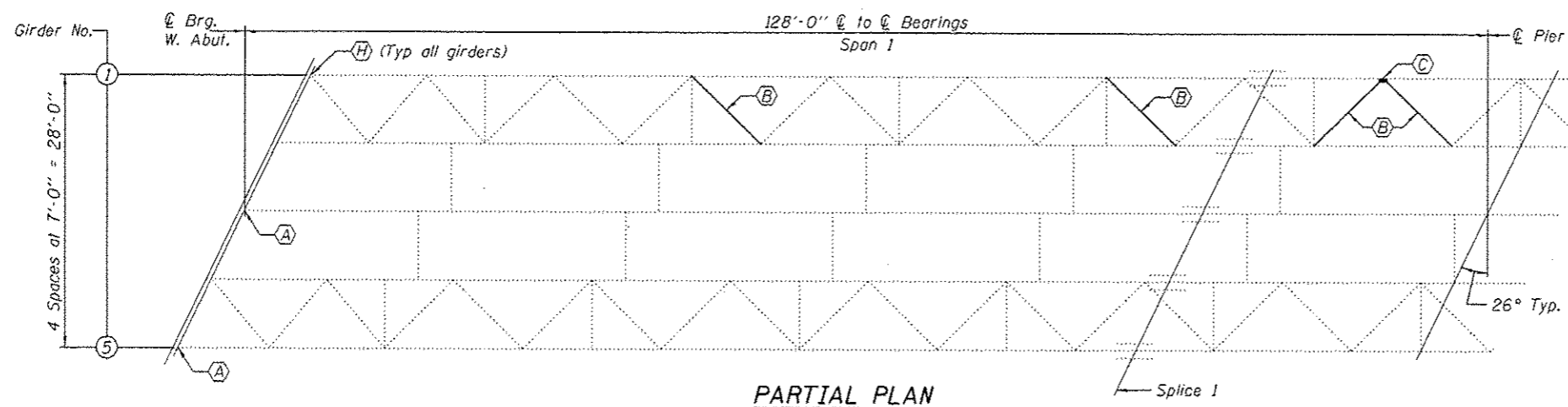
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
858	12-B-1	RANDOLPH	90	72
CONTRACT NO. 76H81			ILLINOIS FED. AID PROJECT	

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**NOTES**

\*\* All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.  
 The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.  
 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".  
 The Organic Zinc Rich Primer / Epoxy / Urethane 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 Gray, Munsell No. 5B 7/1.  
 Fasteners shall be high strength bolts. Bolts 7/8"φ, open holes 15/16"φ, 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.  
 New WT5X11 lateral bracings are included with Furnishing and Erecting Structural Steel.

\*\* For steel work shown on sheets 73 thru 84 of 90.



**\* BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
Structural Steel Removal	Lbs.	6600
Structural Steel Repair	Lbs.	16010
Furnishing and Erecting Structural Steel	Lbs.	15650
Jack and Remove Existing Bearings	Each	30
Elastomeric Bearing Assembly, Type I	Each	5
Elastomeric Bearing Assembly, Type II	Each	25
Anchor Bolts 1"φ	Each	80
Anchor Bolts 1 1/4"φ	Each	40

\* Quantities included in Total Bill of Material on sheet 34 of 90.

For General Plan and Elevation, see sheet 33 of 90.



EXPIRES 11-30-2016  
(Seal applies to sheets 73 thru 84 of 90)

DESIGNED <i>John P. ...</i>	EXAMINED <i>Frank J. ...</i>	DATE MARCH 10, 2015
CHECKED <i>...</i>	PASSED <i>...</i>	REVISED
DRAWN <i>baliva</i>		REVISED
CHECKED <i>TLC</i>		

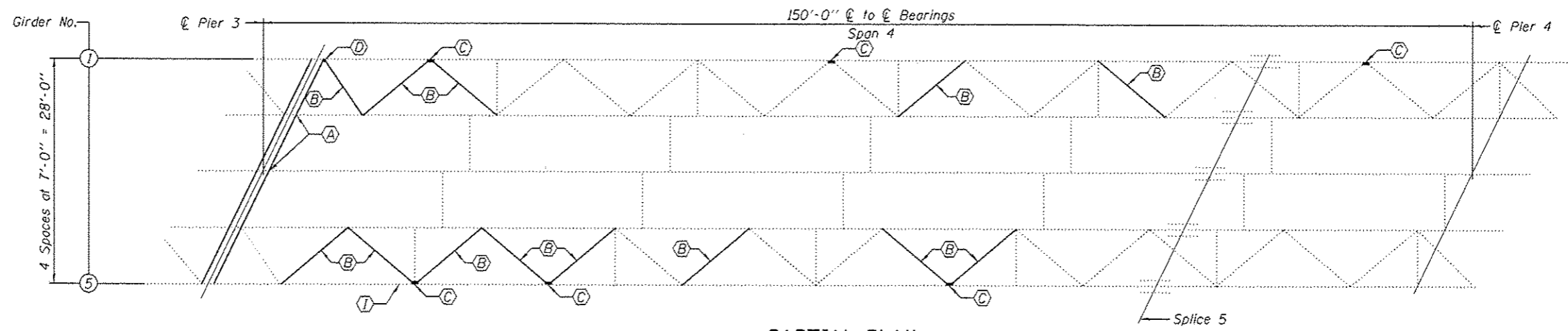
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

FRAMING PLAN UNIT 1  
FAS 858 OVER THE KASKASKIA RIVER  
SN 079-0019

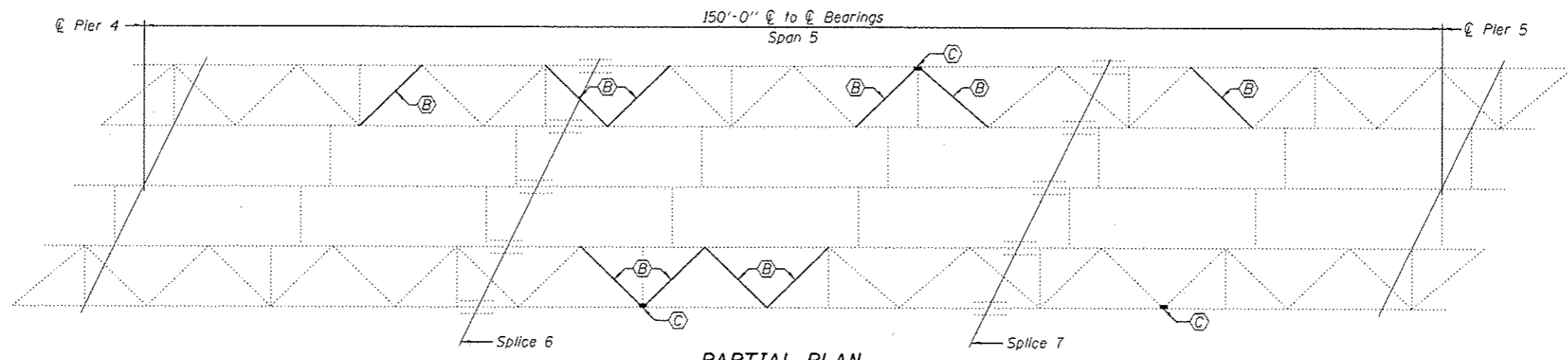
SHEET NO. 1 OF 12 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
858	12-0-1	RANDOLPH	90	73

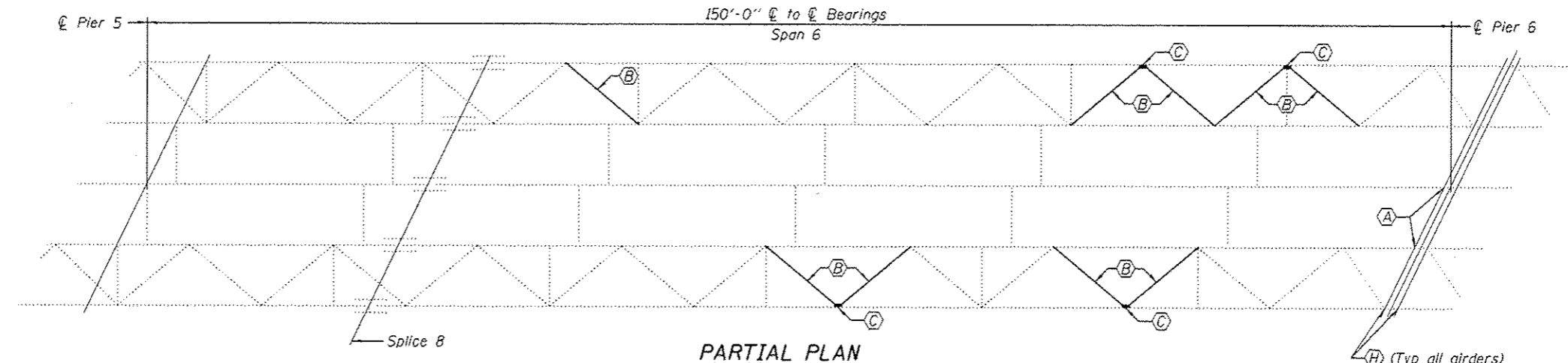
CONTRACT NO. 76H81  
ILLINOIS FED. AID PROJECT



**PARTIAL PLAN**



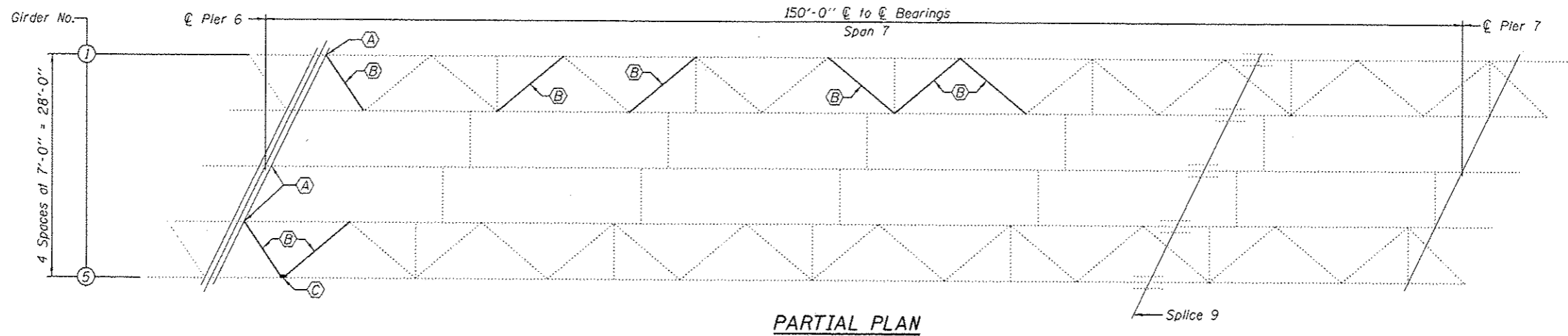
**PARTIAL PLAN**



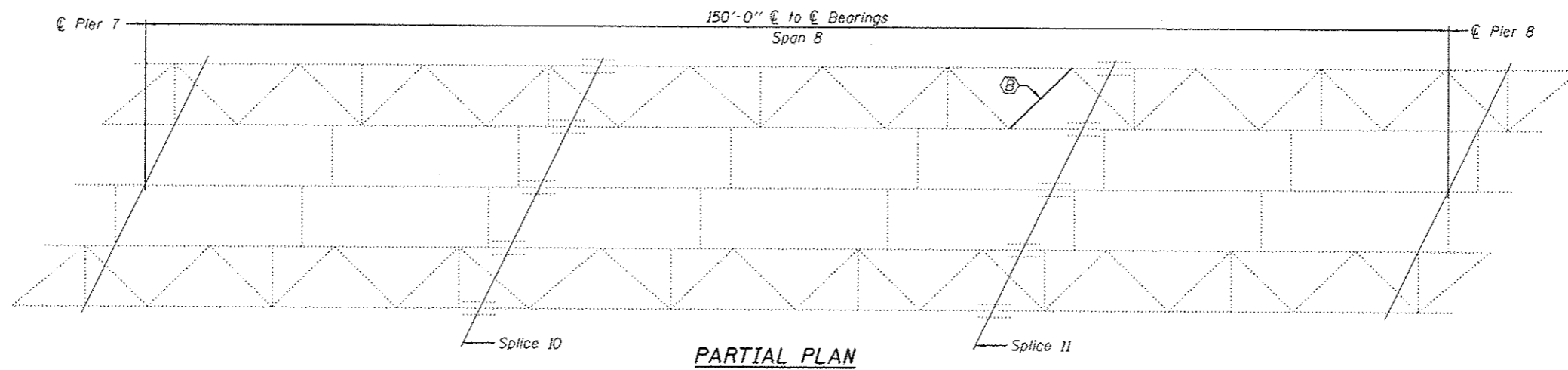
**PARTIAL PLAN**

- (A) - Beam end repairs
- (B) - Lateral bracing replacement
- (C) - Gusset plate replacement
- (D) - Bottom flange repair
- (H) - Bearing replacement.

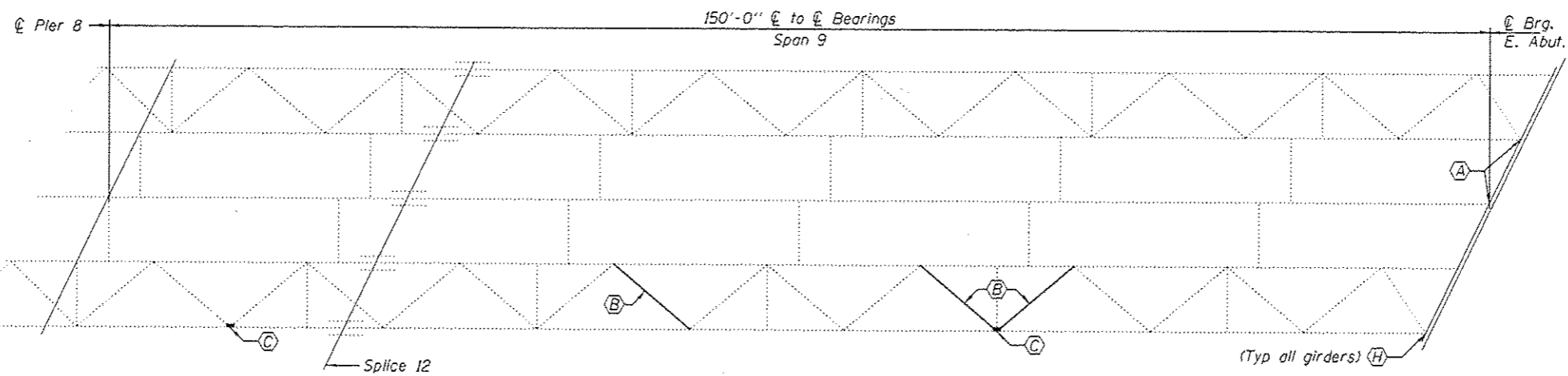
DESIGNED <i>TLC</i>	EXAMINED <i>Timothy A. Anelli</i>	DATE <u>MARCH 10, 2015</u>	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>FRAMING PLAN UNIT 2 SN 079-0019</b>		F.A.S. RTE. 858	SECTION 12-B-1	COUNTY RANDOLPH	TOTAL SHEETS 90	SHEET NO. 74	
CHECKED <i>CCC</i>	PASSED <i>Carl Perry</i>	REVISED		SHEET NO. 2 OF 12 SHEETS		CONTRACT NO. 76H81		ILLINOIS FED. AID PROJECT			
DRAWN <i>balva</i>	ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED									
CHECKED <i>TLC CCC</i>	ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED									



**PARTIAL PLAN**



**PARTIAL PLAN**



**PARTIAL PLAN**

- (A) - Beam end repairs
- (B) - Lateral bracing replacement
- (C) - Gusset plate replacement
- (H) - Bearing replacement.

DESIGNED *TLC*  
 CHECKED *CCC*  
 DRAWN *baliva*  
 CHECKED *TLC CCC*

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

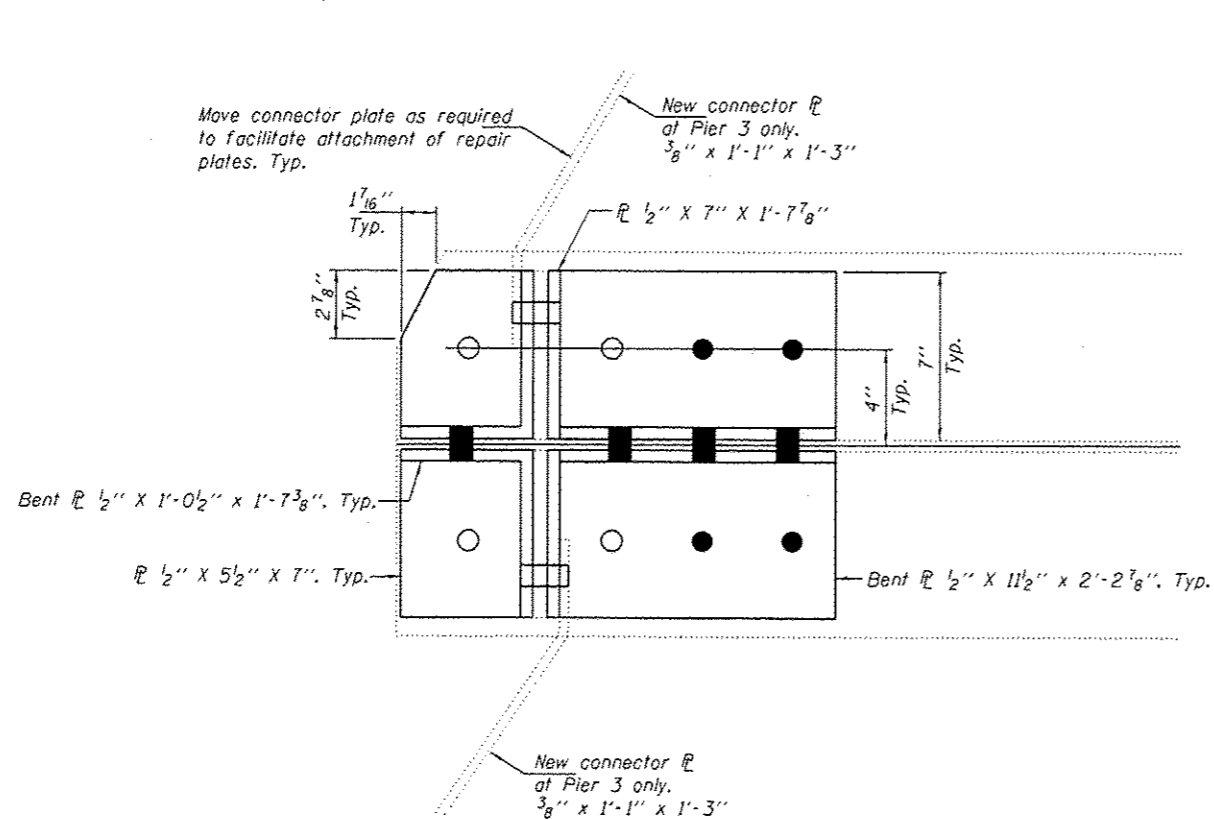
DATE *MARCH 10, 2015*  
 REVISED  
 REVISED

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

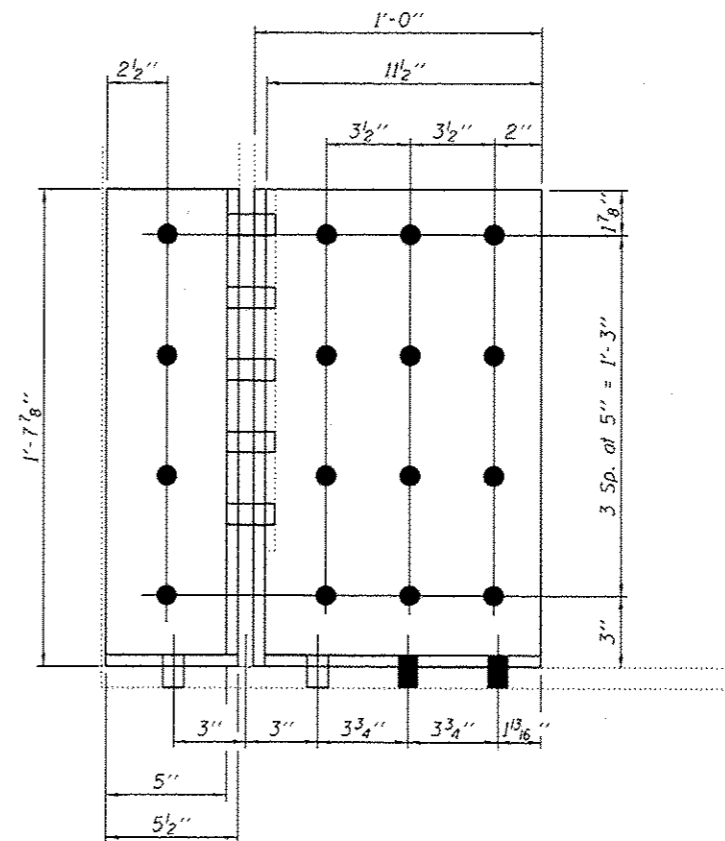
FRAMING PLAN UNIT 3  
 SN 079-0019

SHEET NO. 3 OF 12 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
85B	12-B-1	RANDOLPH	90	75
CONTRACT NO. 76H81				
ILLINOIS FED. AID PROJECT				



**PLAN**



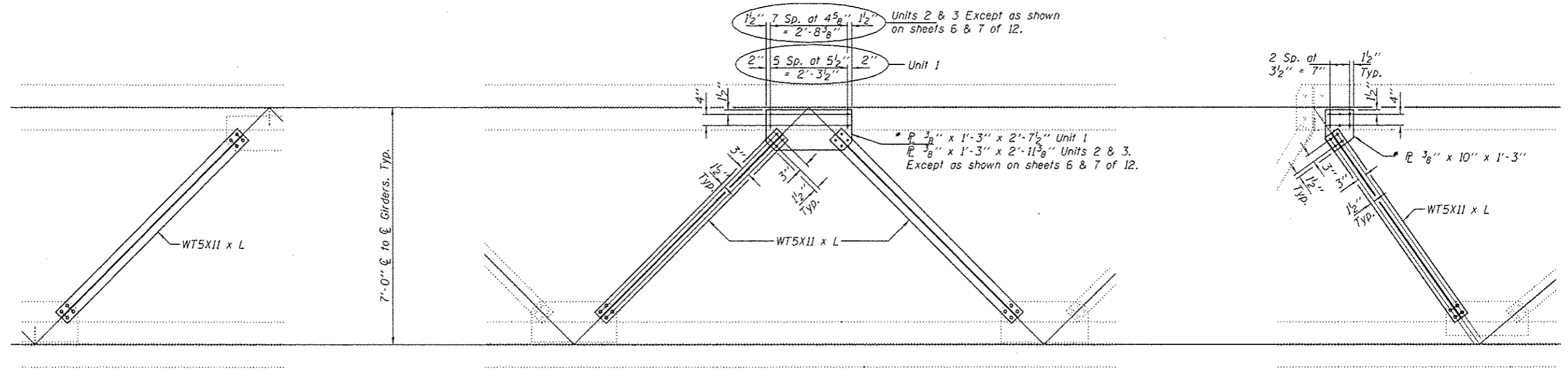
**END ELEVATION**

**LEGEND**

- - Holes to be field drilled in existing  $\bar{L}$  using new  $\bar{L}$  as template.
- - Holes to be field drilled in new  $\bar{L}$  & L using existing holes as template.

DESIGNED <i>TLC</i>	EXAMINED <i>Timothy A. Daulton</i>	DATE <u>MARCH 10, 2015</u>	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>REPAIR A SN 079-0019</b>	F.A.S. RTE. <u>85B</u>	SECTION <u>12-9-1</u>	COUNTY <u>RANDOLPH</u>	TOTAL SHEETS <u>90</u>	SHEET NO. <u>76</u>	
CHECKED <i>CCC</i>	PASSED <i>Carl Perry</i>	REVISED _____			CONTRACT NO. <u>76H81</u>					
DRAWN <i>baliva</i>	ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED _____			ILLINOIS FED. AID PROJECT					
CHECKED <i>TLC CCC</i>	ACTING ENGINEER OF STRUCTURAL SERVICES	REVISED _____			SHEET NO. 4 OF 12 SHEETS					



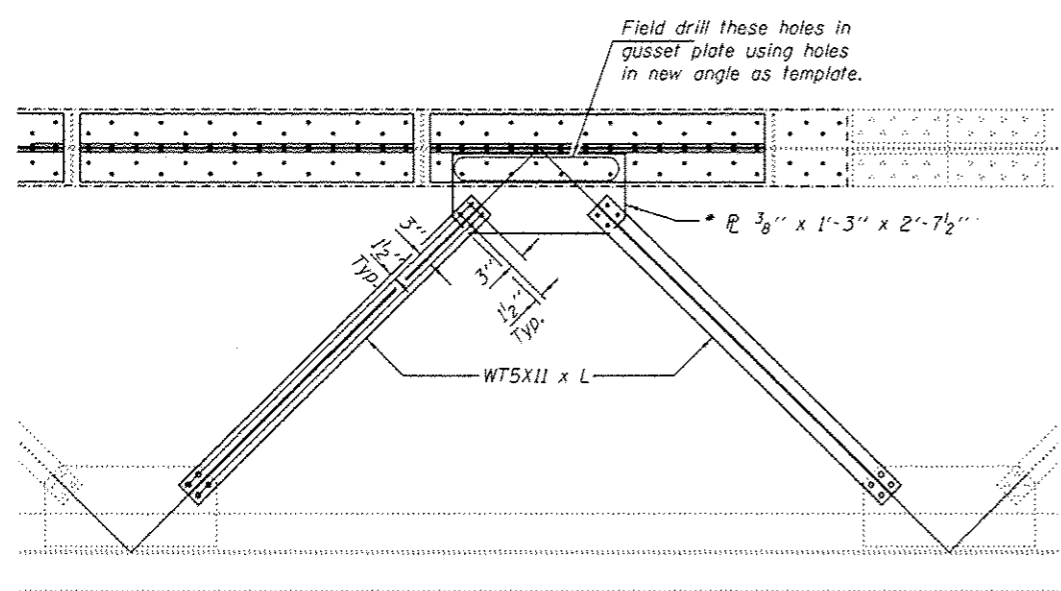


**REPAIR B**

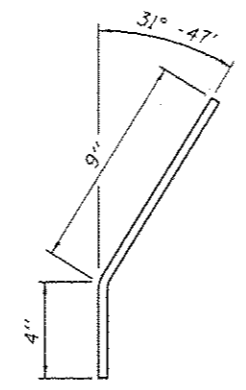
**REPAIR B & C**

**REPAIR B & D**

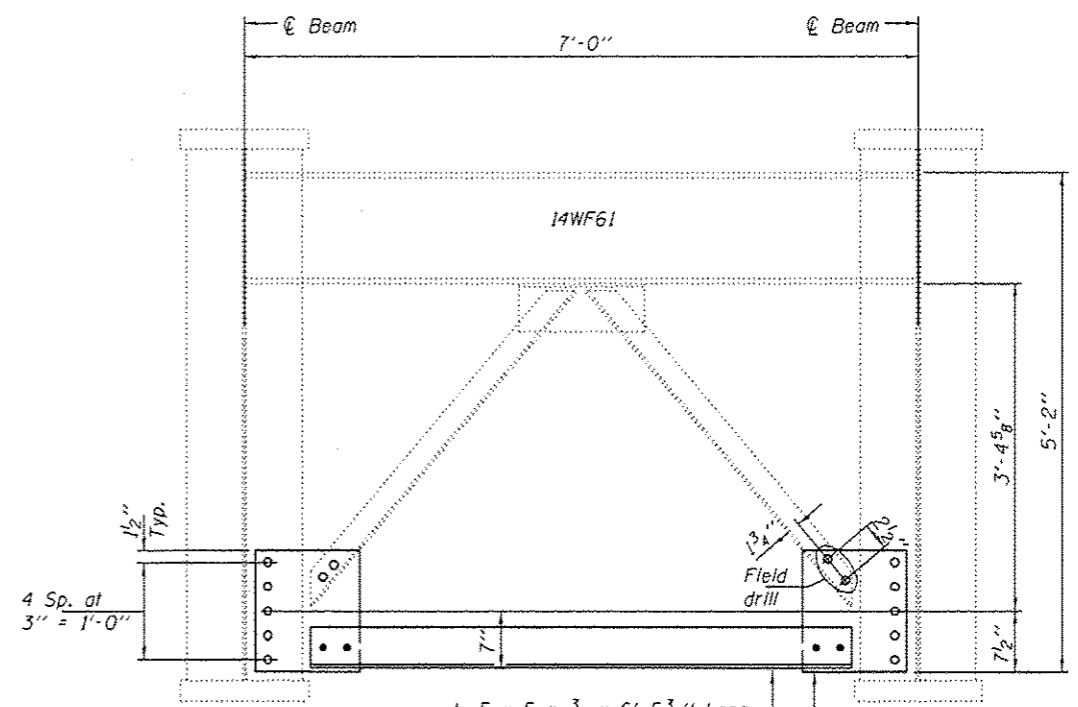
L = ±10'-1" for Unit 1  
 L = ±10'-10 1/2" for Units 2 & 3  
 (Match existing length)



**REPAIR B & E**



**DETAIL A**  
 Bent  $\angle$  3/8" x 1'-1" x 1'-3"



**REPAIR G**  
 (8 Required)

\* Existing gusset  $\angle$  is welded to the flange. Existing  $\angle$  to be removed using the air-arc method and grind smooth all weld material remaining on the bottom flange. New  $\angle$  to be placed on top of new bottom flange angle. Field drill all holes.

○ - Use holes in existing steel as template.  
 ● - Use holes in new steel as template.

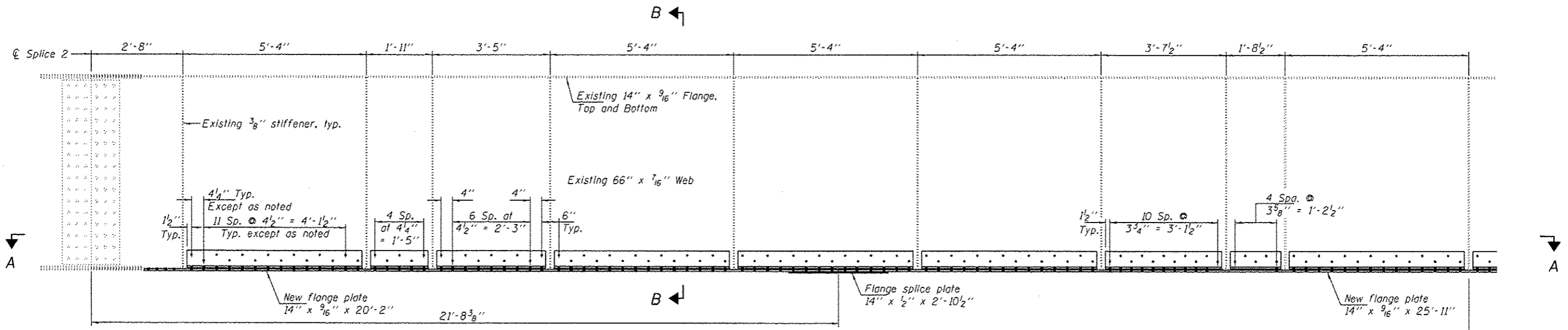
DESIGNED <i>TLC</i>	EXAMINED
CHECKED <i>CCC</i>	PASSED
DRAWN <i>baliva</i>	
CHECKED <i>TLC CCC</i>	

<i>Timothy A. Daulton</i> ACTING ENGINEER OF STRUCTURAL SERVICES	DATE <u>MARCH 10, 2015</u>
<i>Carl Long</i> ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED
	REVISED

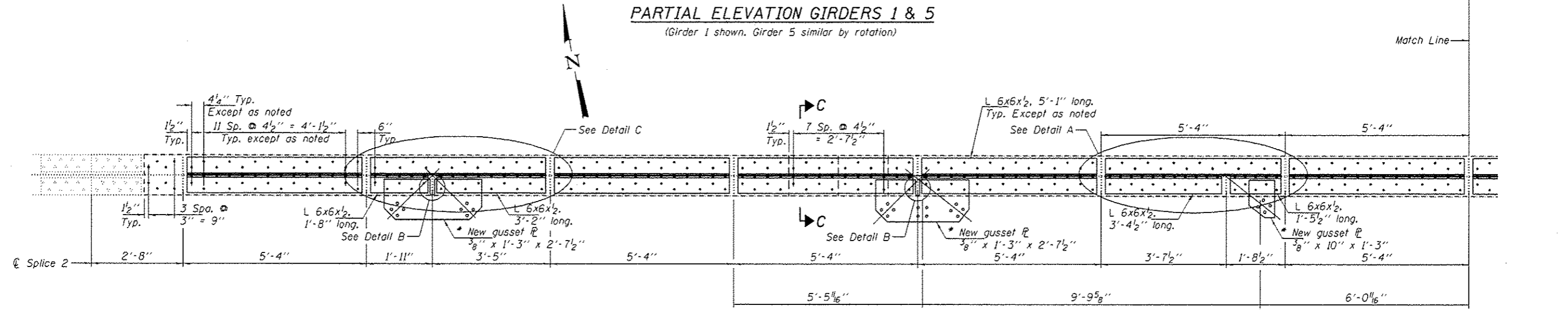
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**REPAIRS B, C, D, E & G**  
**SN 079-0019**  
 SHEET NO. 5 OF 12 SHEETS

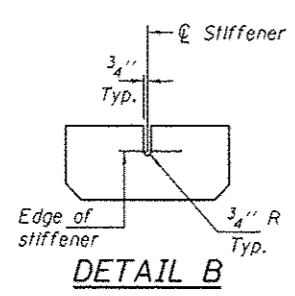
F.A.S. RTE. 858	SECTION 12-B-1	COUNTY RANDOLPH	TOTAL SHEETS 90	SHEET NO. 77
CONTRACT NO. 76H81				ILLINOIS FED. AID PROJECT



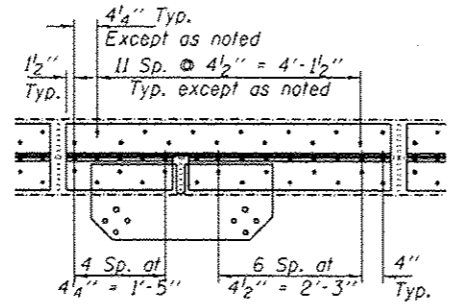
**PARTIAL ELEVATION GIRDERS 1 & 5**  
(Girder 1 shown, Girder 5 similar by rotation)



**SECTION A-A**

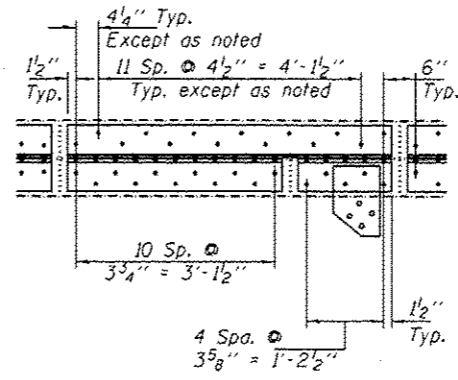


**DETAIL B**



**DETAIL C**

\* Existing gusset PL is welded to the flange. Existing PL to be removed using the air-arc method and grind smooth all weld material remaining on the bottom flange. New PL to be placed on top of new bottom flange angle. Field drill all holes.

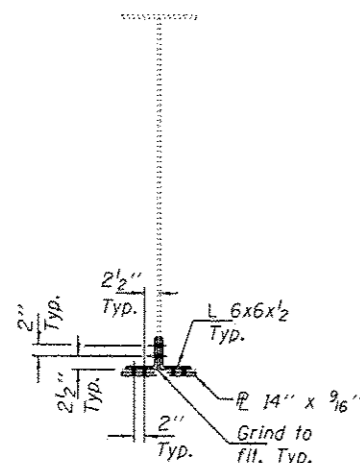


**DETAIL A**

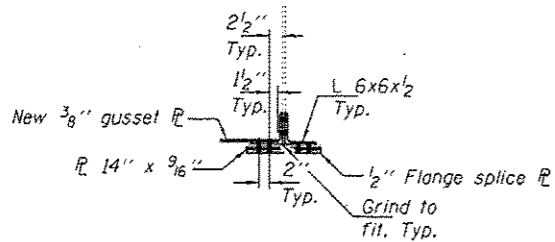
- - Use holes in existing steel as template.
- - Use holes in new steel as template.

See Sheet 7 of 12 for Sections B-B & C-C

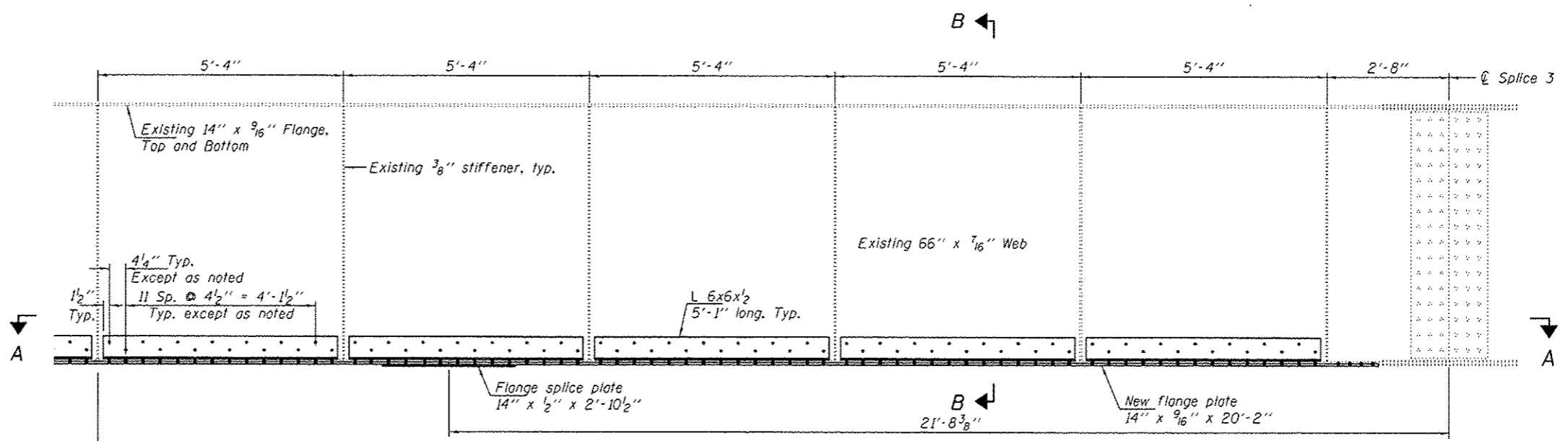
DESIGNED <i>TLC</i>	EXAMINED <i>Timothy A. A. [Signature]</i>	DATE <i>MARCH 10, 2015</i>	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>REPAIR F SN 079-0019</b>	F.A.S. RTE. 858	SECTION 12-B-1	COUNTY RANDOLPH	TOTAL SHEETS 90	SHEET NO. 78	
CHECKED <i>CCC</i>	PASSED <i>[Signature]</i>	REVISED			CONTRACT NO. 76H81					
DRAWN <i>baliva</i>	ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED			SHEET NO. 6 OF 12 SHEETS					
CHECKED <i>TLC CCC</i>	ACTING ENGINEER OF STRUCTURAL SERVICES	REVISED			ILLINOIS FED. AID PROJECT					



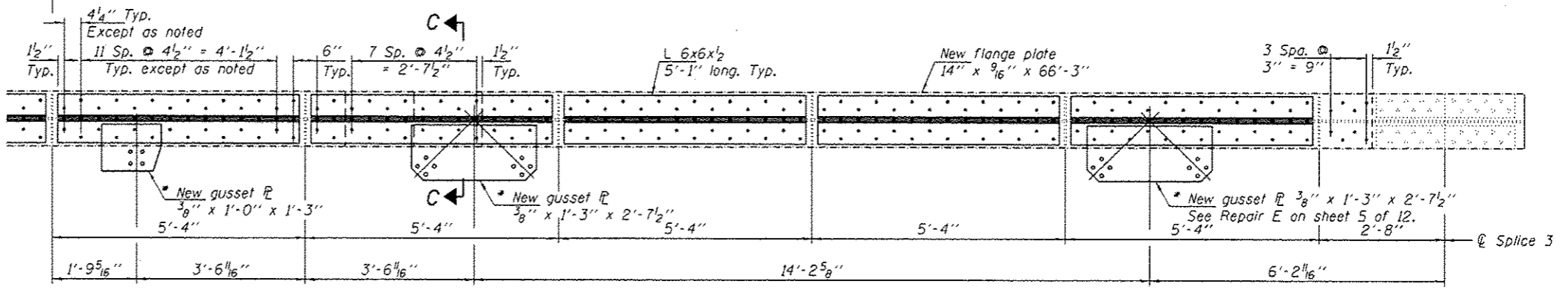
SECTION B-B



SECTION C-C

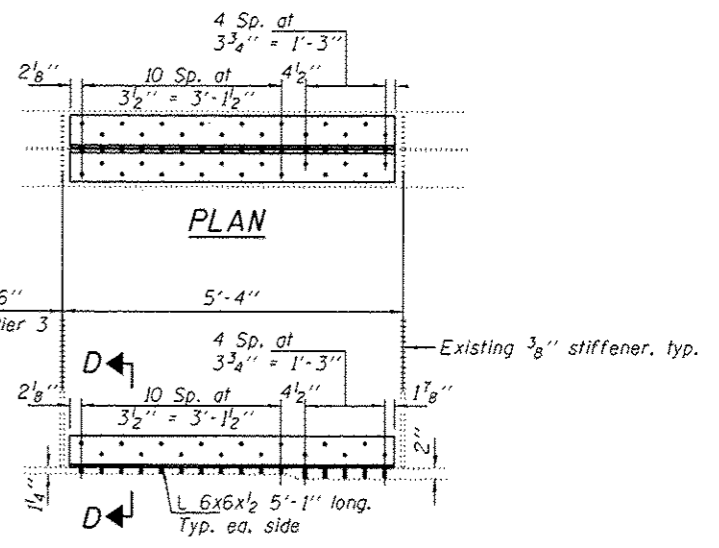


PARTIAL ELEVATION GIRDERS 1 & 5  
(Girder 1 shown, Girder 5 similar by rotation)

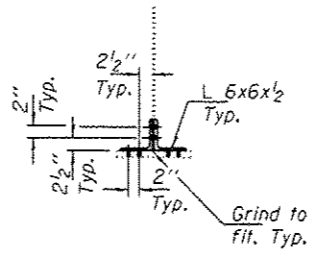


SECTION A-A

\* Existing gusset  $\angle$  is welded to the flange. Existing  $\angle$  to be removed using the air-arc method and grind smooth all weld material remaining on the bottom flange. New  $\angle$  to be placed on top of new bottom flange angle. Field drill all holes.



ELEVATION REPAIR I



SECTION D-D

- - Use holes in existing steel as template.
- - Use holes in new steel as template.

DESIGNED	TLC
CHECKED	CCC
DRAWN	baliva
CHECKED	TLC CCC

EXAMINED	<i>Timothy A. ...</i>
PASSED	<i>...</i>

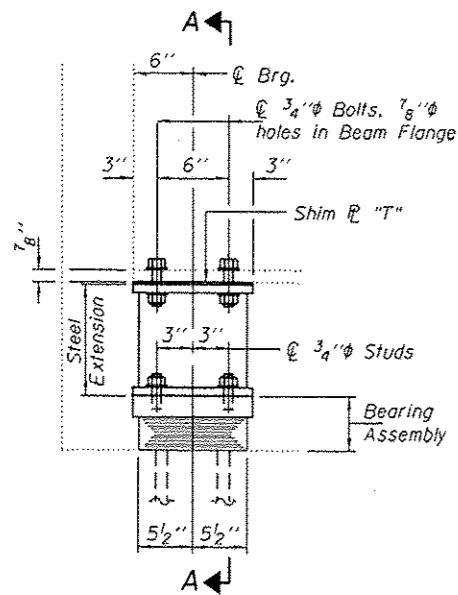
DATE	MARCH 10, 2015
REVISED	
REVISED	

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

REPAIR F & I  
SN 079-0019

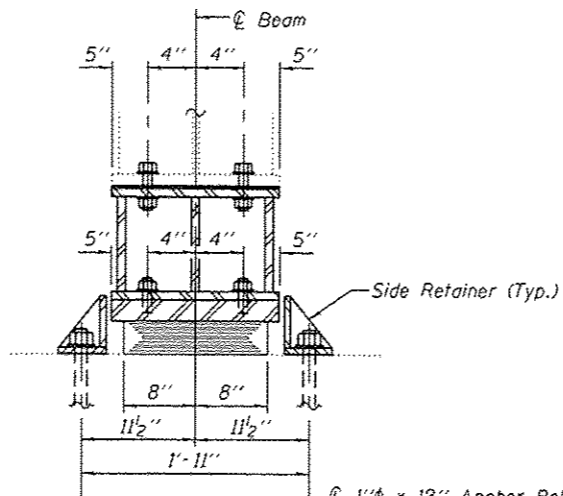
SHEET NO. 7 OF 12 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
850	12-0-1	RANDOLPH	90	79
CONTRACT NO. T6H81			[ILLINOIS] FED. AID PROJECT	



ELEVATION

TYPE I ELASTOMERIC EXP. BRG.



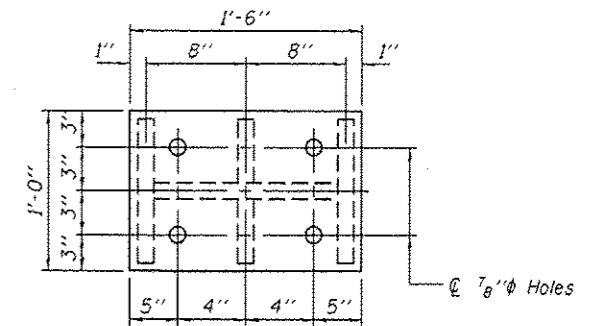
SECTION A-A

1" x 12" Anchor Bolts with 2 3/4" x 2 3/4" x 5/16" R washer under nut.

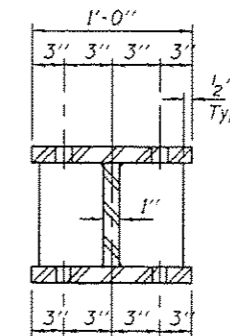
BEAM REACTIONS

R <sub>l</sub> + S <sub>R</sub> (K)	70.9
R <sub>l</sub> (K)	40.4
Imp. (K)	8.0
R (Total) (K)	119.3

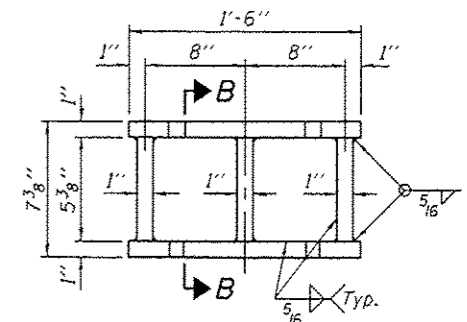
Notes:  
 Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.  
 New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel.  
 Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Min. jack capacity = 70 Tons.  
 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 (F<sub>y</sub>=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.  
 Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.  
 Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.  
 Side retainers shall be included in the cost of Elastomeric Bearing Assembly, Type I.



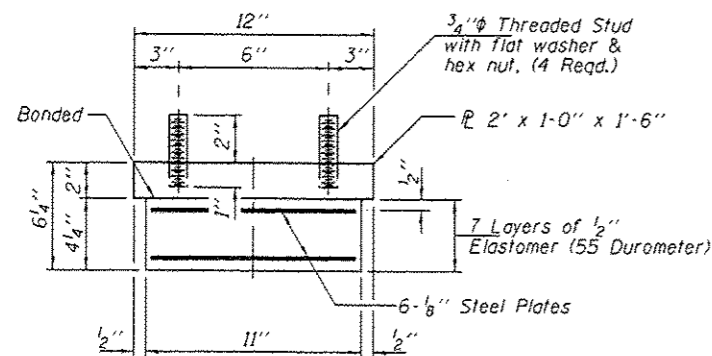
PLAN TOP AND BOTTOM PLATE



SECTION B-B



STEEL EXTENSION DETAIL

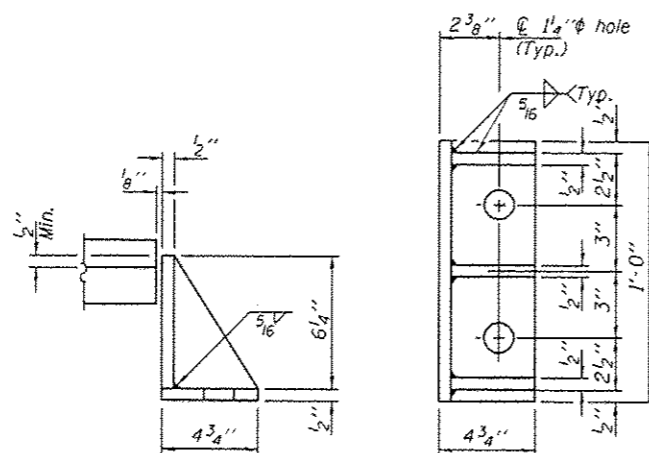


BEARING ASSEMBLY

Note:  
 Shim plates shall not be placed under Bearing Assembly.

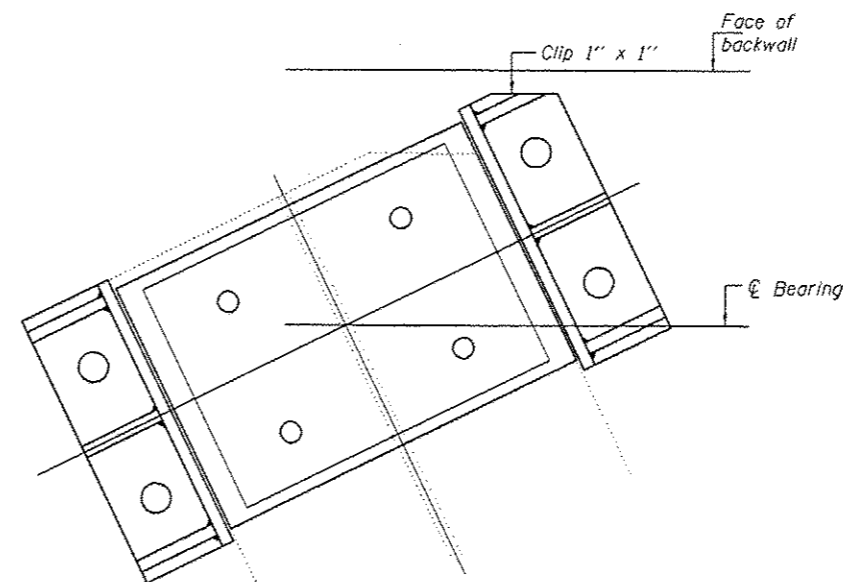
SHIM PLATE "T"

Girders 1 & 5	0
Girder 2	1 1/8"
Girder 3	1 3/8"
Girder 4	5/8"

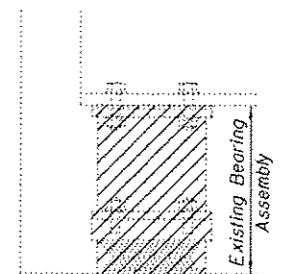


SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



RETAINER LAYOUT



Burn existing anchor bolts flush with existing concrete surface. Grind existing anchor bolt smooth and seal with epoxy.

EXISTING BEARING REMOVAL DETAIL

Cost included with Jack and Remove Existing Bearings.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	5
Jack and Remove Existing Bearings	Each	5
Furnishing and Erecting Structural Steel	Pound	1190
Anchor Bolts 1"φ	Each	20

TYI/REPS 12-03-2008

DESIGNED TLC  
 CHECKED CCC  
 DRAWN baliva  
 CHECKED TLC CCC

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

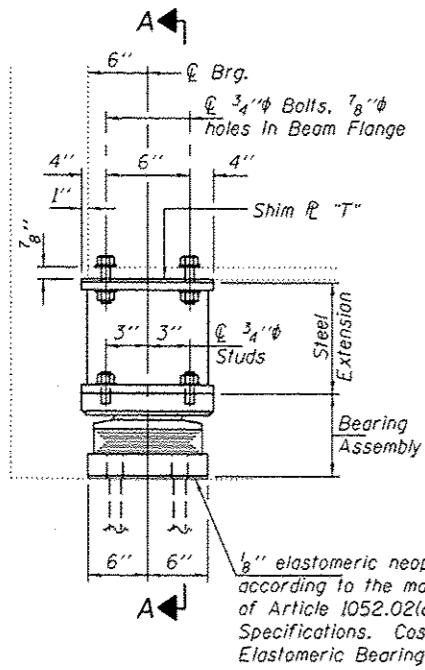
DATE MARCH 10, 2015  
 REVISED  
 REVISED

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

WEST ABUTMENT BEARINGS  
 SN 079-0019

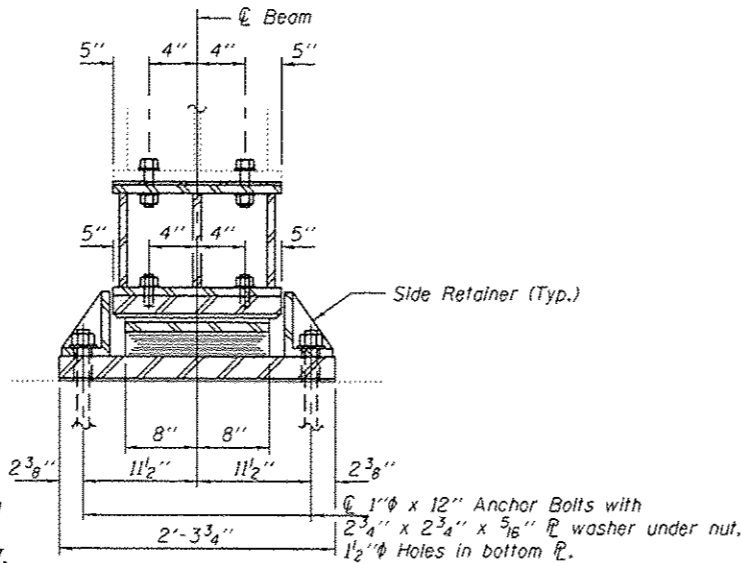
SHEET NO. 8 OF 12 SHEETS

F.A.S. RTE. 858	SECTION 12-B-1	COUNTY RANDOLPH	TOTAL SHEETS 90	SHEET NO. 80
CONTRACT NO. 76H81				
ILLINOIS FED. AID PROJECT				



ELEVATION

TYPE II TFE ELASTOMERIC EXP. BRG.



SECTION A-A

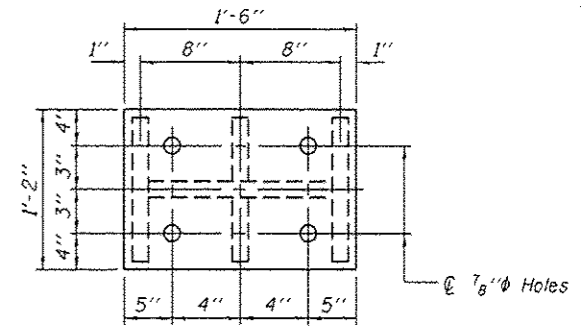
SHIM PLATE "T"

Girders 1 & 5	0
Girder 2	1 $\frac{1}{8}$ "
Girder 3	1 $\frac{3}{8}$ "
Girder 4	2 $\frac{3}{8}$ "

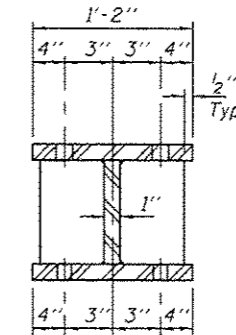
BEAM REACTIONS

RP + SP (K)	70.9
RL (K)	40.4
Imp. (K)	8.0
R (Total) (K)	119.3

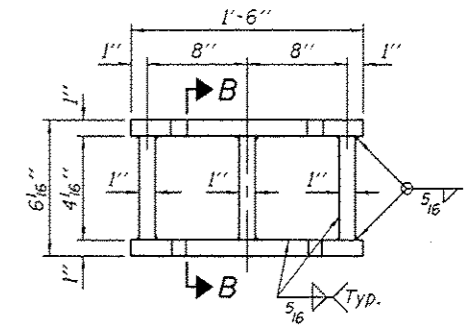
Notes:  
 Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.  
 New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel.  
 Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Min. jack capacity = 70 Tons.  
 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 at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.  
 Anchor bolts for Type II bearings shall be placed in holes drilled through the bottom bearing plate after members are in place. Side retainers shall be placed after bolts are installed.  
 Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.  
 Side retainers shall be included in the cost of Elastomeric Bearing Assembly, Type II.  
 The  $\frac{1}{8}$ " PTFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.  
 Bonding of  $\frac{1}{8}$ " PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.



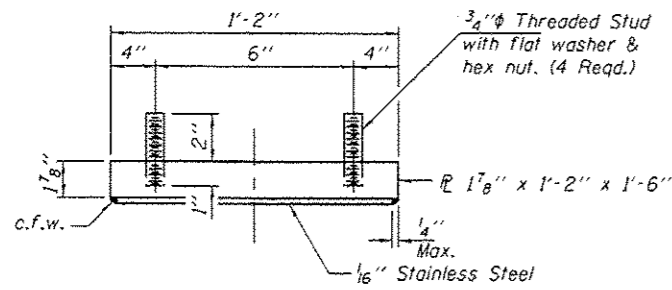
PLAN TOP AND BOTTOM PLATE



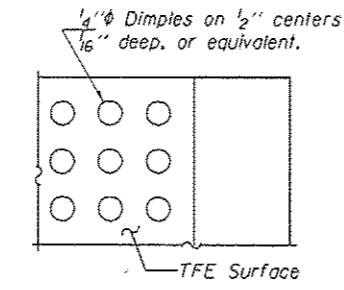
SECTION B-B



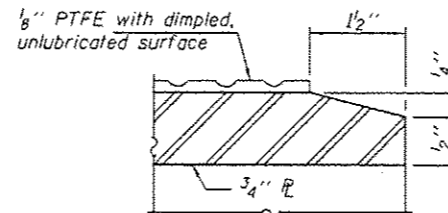
STEEL EXTENSION DETAIL



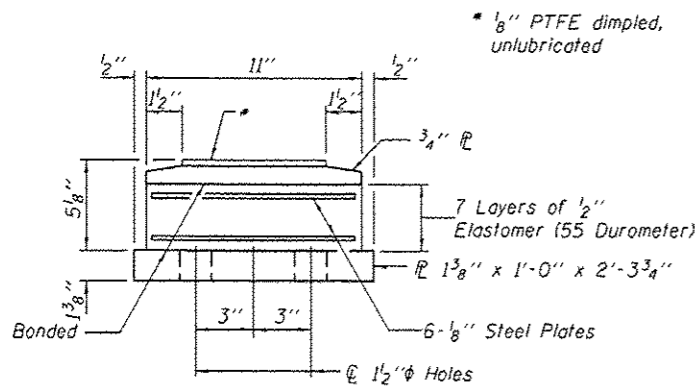
TOP BEARING ASSEMBLY



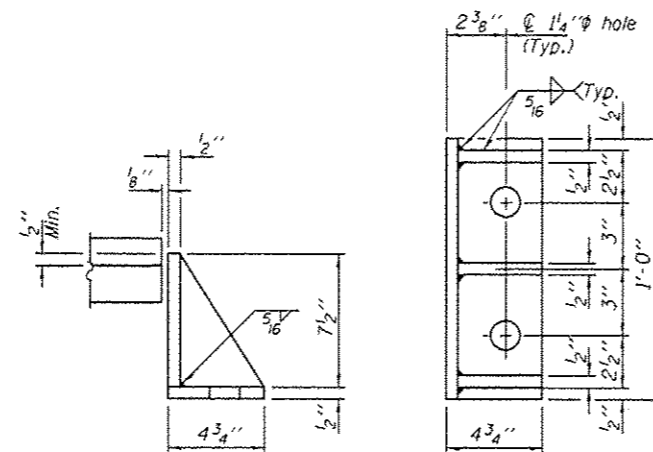
PLAN-PTFE SURFACE



SECTION THRU PTFE

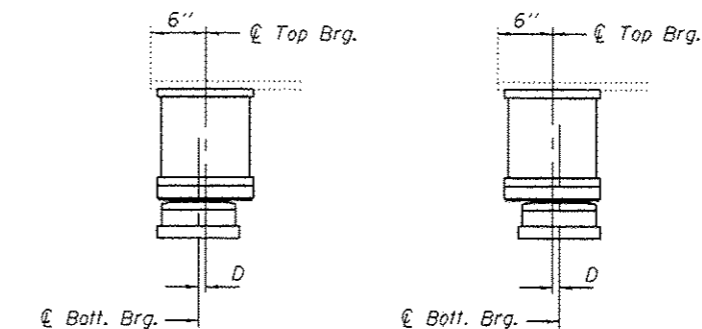


BOTTOM BEARING ASSEMBLY



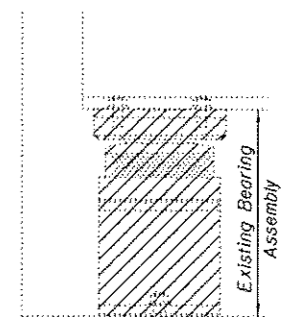
SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



SETTING ANCHOR BOLTS AT EXP. BRG.

D =  $\frac{1}{8}$ " per each 100' of expansion for every 15 $\varnothing$  temp. change from the normal temp. of 50 $\varnothing$ F.



EXISTING BEARING REMOVAL DETAIL

Cost included with Jack and Remove Existing Bearings.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type II	Each	5
Jack and Remove Existing Bearings	Each	5
Furnishing and Erecting Structural Steel	Pound	1270
Anchor Bolts 1" $\varnothing$	Each	20

TYII/REPS 12-03-2008

DESIGNED TLC  
 CHECKED CCC  
 DRAWN ballva  
 CHECKED TLC CCC

EXAMINED  
 PASSED  
 Timothy A. Ballva  
 ACTING ENGINEER OF STRUCTURAL SERVICES  
 Carl Pinner  
 ACTING ENGINEER OF BRIDGES AND STRUCTURES

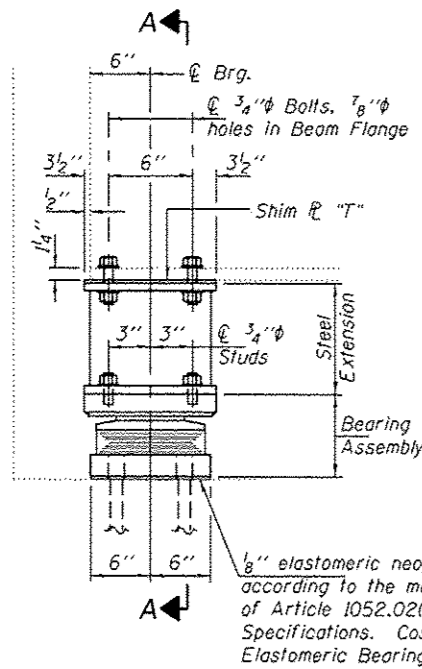
DATE MARCH 10, 2015  
 REVISED  
 REVISED

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

PIER 3, SPAN 3 BEARINGS  
 SN 079-0019

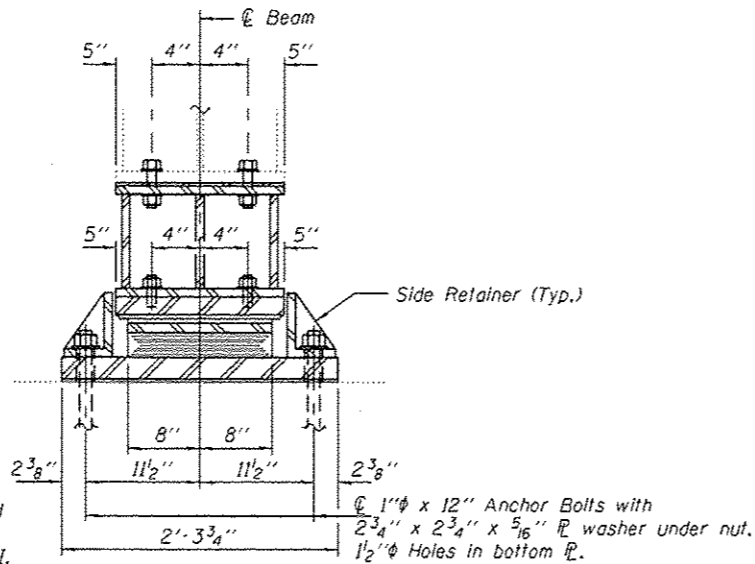
SHEET NO. 9 OF 12 SHEETS

F.A.S. RTE. 858  
 SECTION 12-B-1  
 COUNTY RANDOLPH  
 TOTAL SHEETS 90  
 SHEET NO. 81  
 CONTRACT NO. 76H81  
 ILLINOIS FED. AID PROJECT



**ELEVATION**

**TYPE II TFE ELASTOMERIC EXP. BRG.**



**SECTION A-A**

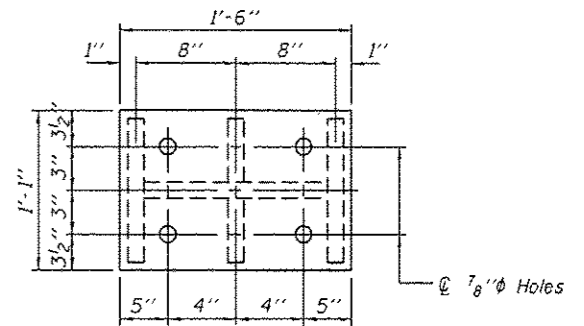
**SHIM PLATE "T"**

Girders 1 & 5	0
Girder 2	1 1/8"
Girder 3	1 3/8"
Girder 4	5/8"

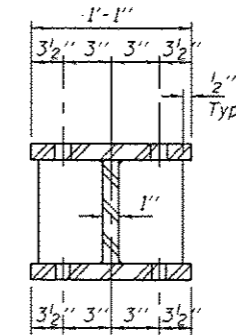
**BEAM REACTIONS**

R <sub>P</sub> + S <sub>P</sub> (K)	87.1
R <sub>L</sub> (K)	44.5
Imp. (K)	8.1
R (Total) (K)	139.7

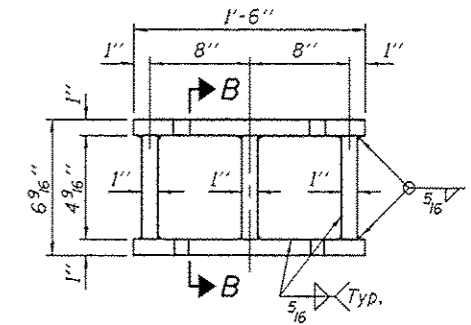
**Notes:**  
 Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.  
 New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel.  
 Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Min. jack capacity = 85 Tons.  
 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 at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.  
 Anchor bolts for Type II bearings shall be placed in holes drilled through the bottom bearing plate after members are in place. Side retainers shall be placed after bolts are installed.  
 Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.  
 Side retainers shall be included in the cost of Elastomeric Bearing Assembly, Type II.  
 The 1/8" PTFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.  
 Bonding of 1/8" PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.



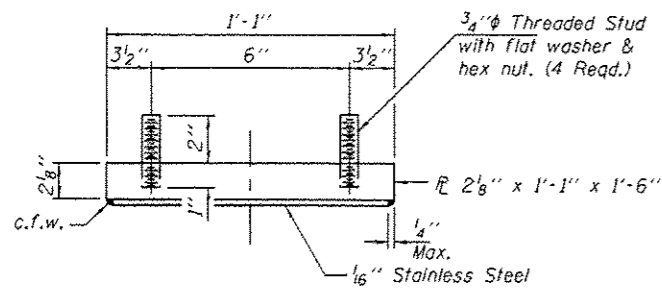
**PLAN TOP AND BOTTOM PLATE**



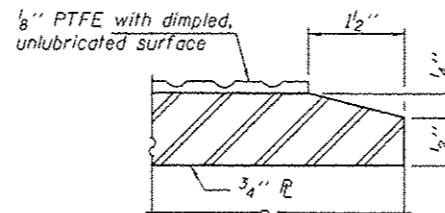
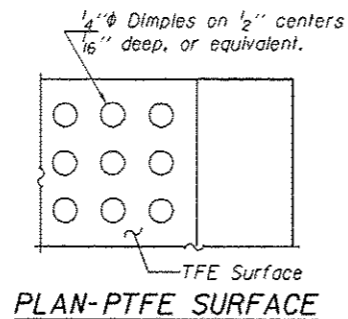
**SECTION B-B**



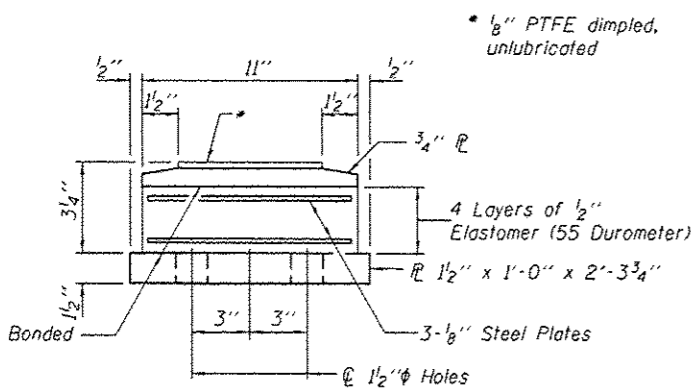
**STEEL EXTENSION DETAIL**



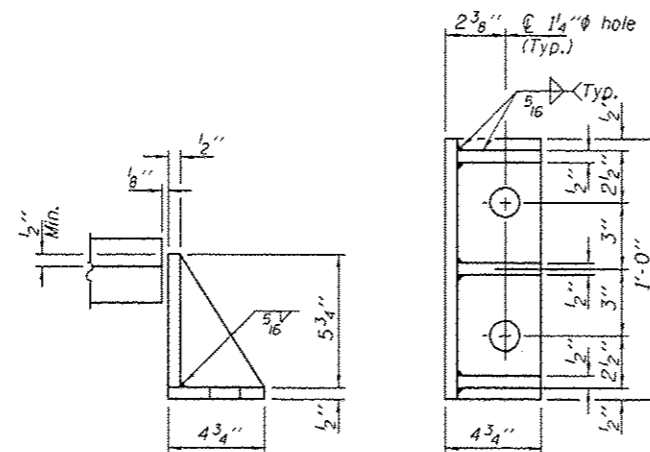
**TOP BEARING ASSEMBLY**



**SECTION THRU PTFE**

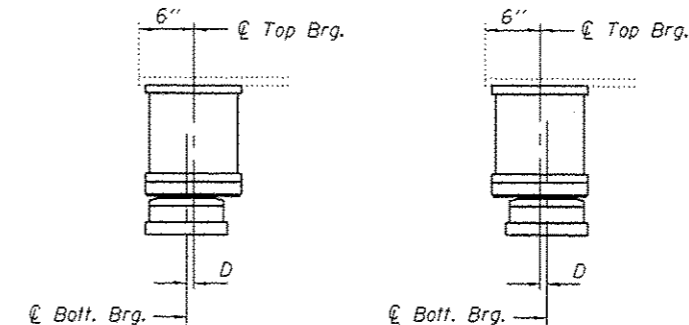


**BOTTOM BEARING ASSEMBLY**



**SIDE RETAINER**

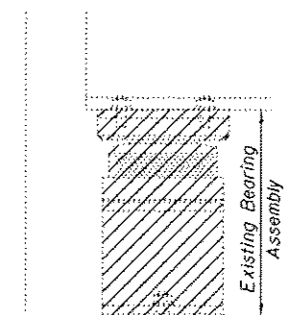
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



**BELOW 50° F.** (Move bolt. brg. away from fixed brg.)  
**ABOVE 50° F.** (Move bolt. brg. toward fixed brg.)

**SETTING ANCHOR BOLTS AT EXP. BRG.**

D = 1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.



Burn existing anchor bolts flush with existing concrete surface. Grind existing anchor bolt smooth and seal with epoxy.

**EXISTING BEARING REMOVAL DETAIL**  
 Cost Included with Jack and Remove Existing Bearings.

**BILL OF MATERIAL**

Item	Unit	Total
Elastomeric Bearing Assembly, Type II	Each	5
Jack and Remove Existing Bearings	Each	5
Furnishing and Erecting Structural Steel	Pound	1210
Anchor Bolts 1" ∅	Each	20

TYII/REPS 12-03-2008

DESIGNED	TLC
CHECKED	CCC
DRAWN	baliva
CHECKED	TLC CCC

EXAMINED	Timothy A. Anelli	DATE	MARCH 10, 2015
PASSED	ACTING ENGINEER OF STRUCTURAL SERVICES	REVISED	
	ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED	

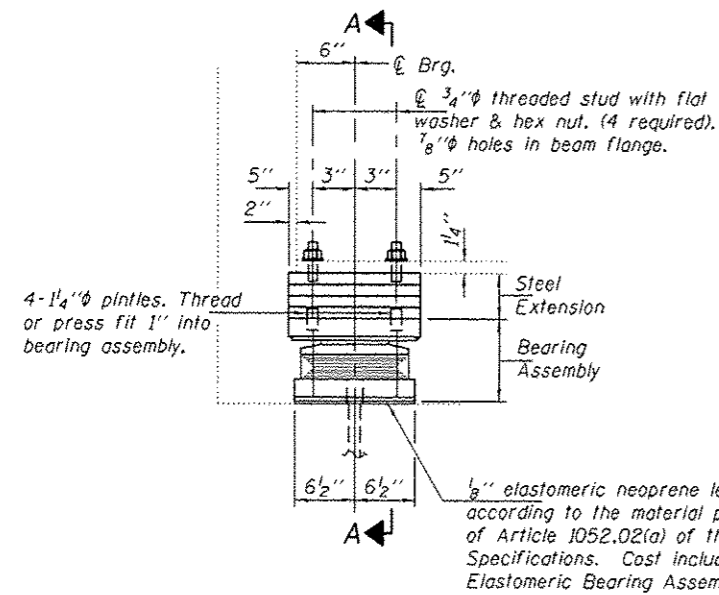
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

PIER 3, SPAN 4 BEARINGS  
 SN 079-0019

SHEET NO. 10 OF 12 SHEETS

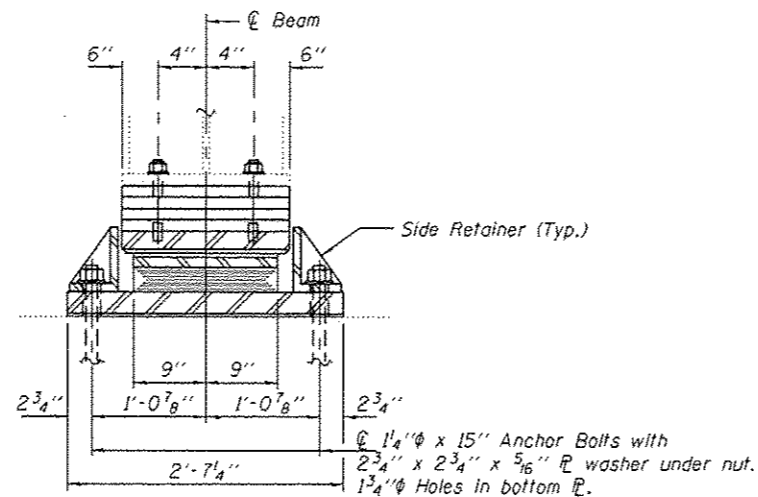
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
BSB	12-B-1	RANDOLPH	90	82
CONTRACT NO. 76H81			ILLINOIS FED. AID PROJECT	





ELEVATION

TYPE II TFE ELASTOMERIC EXP. BRG.



ELEVATION AT ABUTMENTS

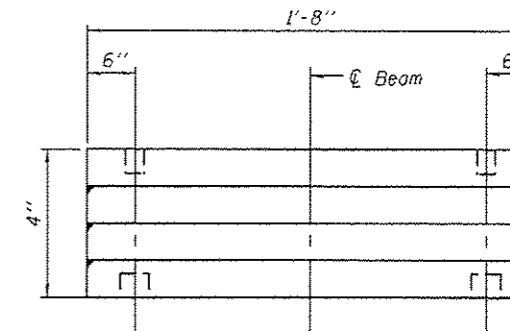
SHIM PLATE "T"

Girders 1 & 5	0
Girder 2	1 1/8"
Girder 3	1 3/8"
Girder 4	5/8"

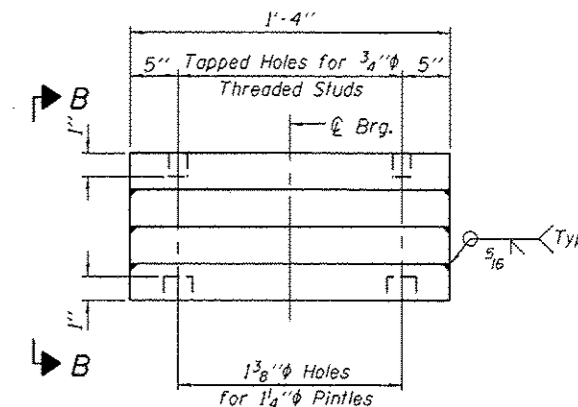
BEAM REACTIONS

RP + SP (K)	87.1
R <sub>L</sub> (K)	44.5
Imp. (K)	8.1
R (Total) (K)	139.7

Notes:  
 Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.  
 New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel.  
 Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Min. jack capacity = 85 Tons.  
 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 at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.  
 Anchor bolts for Type II bearings shall be placed in holes drilled through the bottom bearing plate after members are in place. Side retainers shall be placed after bolts are installed.  
 Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.  
 Side retainers shall be included in the cost of Elastomeric Bearing Assembly, Type II.  
 The 1/8" PTFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.  
 Bonding of 1/8" PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.

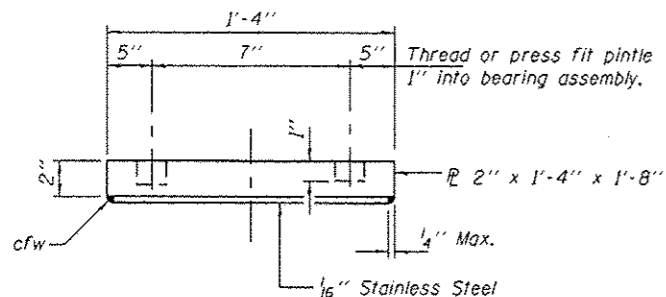


VIEW B-B

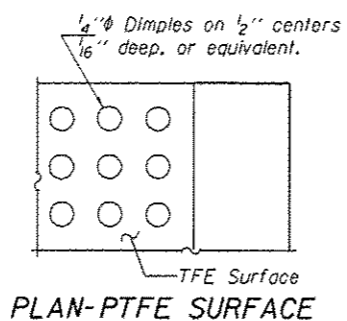


STEEL EXTENSION DETAIL

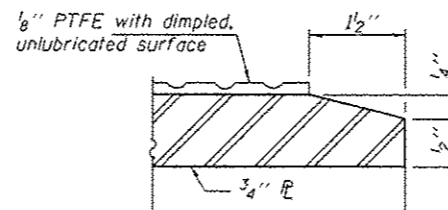
One or more  $\varnothing$ 's may be used. Number of individual  $\varnothing$ 's to be determined by fabricator. Minimum thickness of individual  $\varnothing$ 's shall be 1".



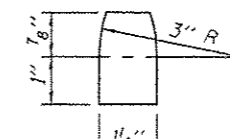
TOP BEARING ASSEMBLY



PLAN-PTFE SURFACE

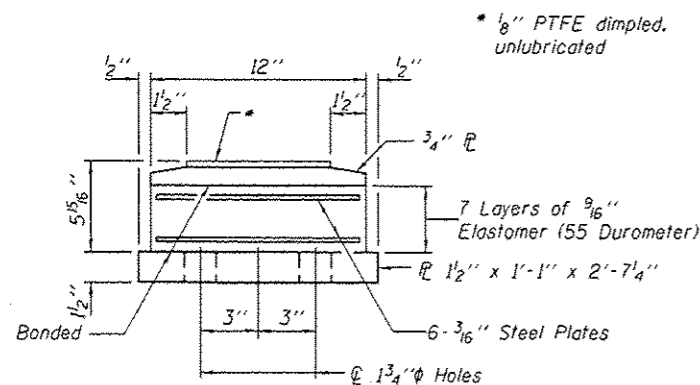


SECTION THRU PTFE



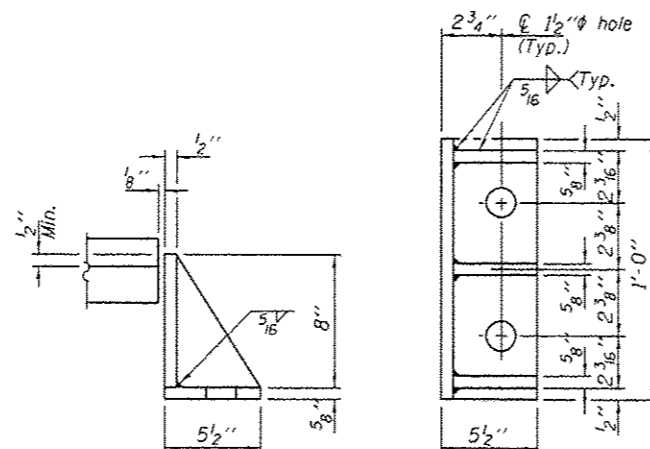
PINTLE

Cost of pintles is included in the cost of Elastomeric Bearing Assembly, Type II.



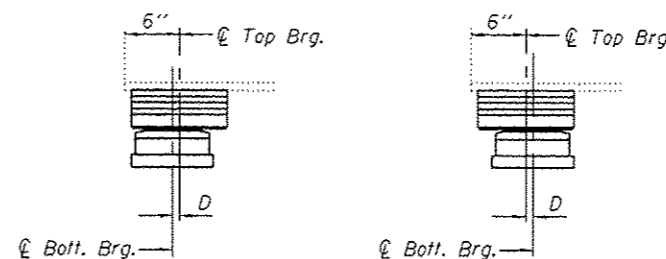
BOTTOM BEARING ASSEMBLY

\* 1/8" PTFE dimpled, unlubricated



SIDE RETAINER

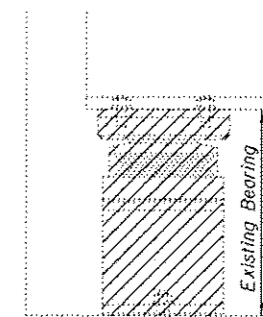
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



BELOW 50° F. (Move bott. brg. away from fixed brg.)  
 ABOVE 50° F. (Move bott. brg. toward fixed brg.)

SETTING ANCHOR BOLTS AT EXP. BRG.

D = 1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.



EXISTING BEARING REMOVAL DETAIL

Cost included with Jack and Remove Existing Bearings.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type II	Each	10
Jack and Remove Existing Bearings	Each	10
Furnishing and Erecting Structural Steel	Pound	3970
Anchor Bolts 1 1/4" $\varnothing$	Each	40

TYII/REPS 12-03-2008

DESIGNED TLC  
 CHECKED CCC  
 DRAWN ballva  
 CHECKED TLC CCC

EXAMINED  
 PASSED  
 Timothy A. Ballva  
 ACTING ENGINEER OF STRUCTURAL SERVICES  
 Carl Pinner  
 ACTING ENGINEER OF BRIDGES AND STRUCTURES

DATE MARCH 10, 2015  
 REVISED  
 REVISED

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

PIER 6 BEARINGS  
 SN 079-0019

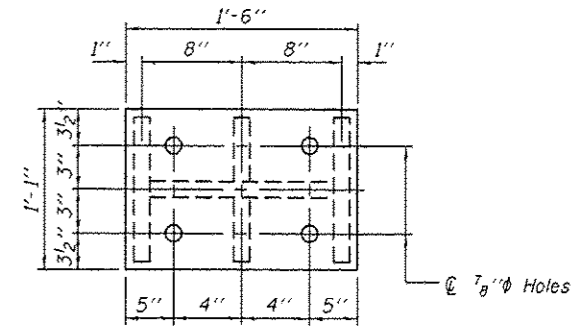
SHEET NO. 11 OF 12 SHEETS

F.A.S. RTE. SECTION COUNTY TOTAL SHEET NO.  
 R59 12-B-1 RANDOLPH 90 83  
 CONTRACT NO. 76H81  
 ILLINOIS FED. AID PROJECT

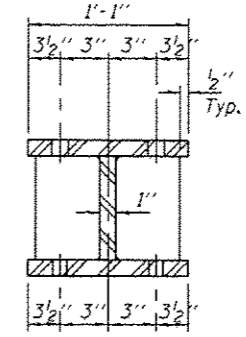
**BEAM REACTIONS**

RR + SR (K)	87.1
R <sub>L</sub> (K)	44.5
Imp. (K)	8.1
R (Total) (K)	139.7

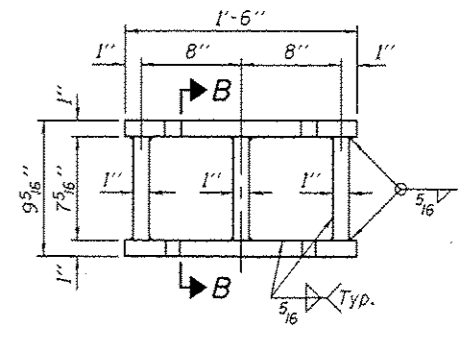
Notes:  
 Diaphragm removal and installation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.  
 New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel.  
 Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Min. Jack capacity = 85 Tons.  
 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.  
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 Anchor bolts for Type II bearings shall be placed in holes drilled through the bottom bearing plate after members are in place. Side retainers shall be placed after bolts are installed.  
 Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.  
 Side retainers shall be included in the cost of Elastomeric Bearing Assembly, Type II.  
 The 1/8" PTFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.  
 Bonding of 1/8" PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.



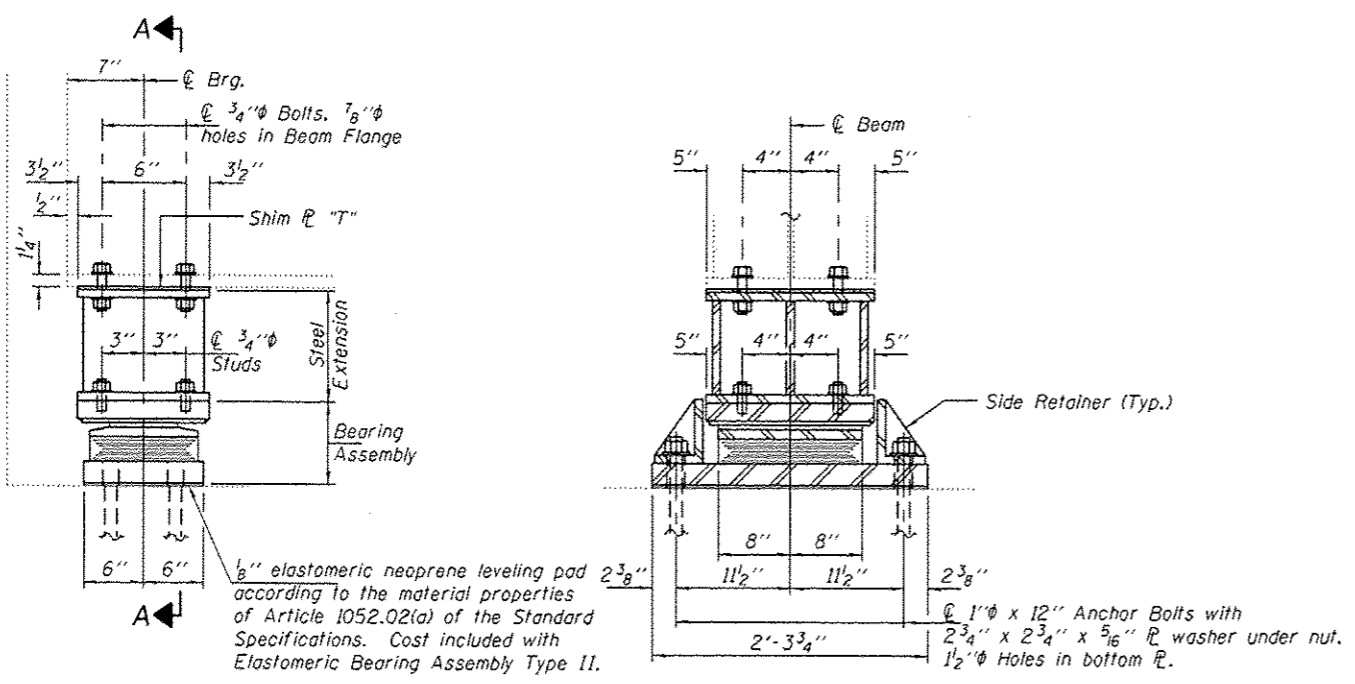
**PLAN TOP AND BOTTOM PLATE**



**SECTION B-B**



**STEEL EXTENSION DETAIL**



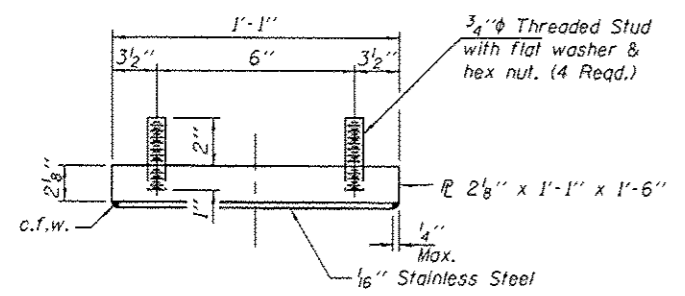
**ELEVATION**

**SECTION A-A**

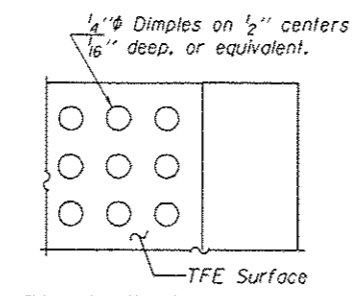
**TYPE II TFE ELASTOMERIC EXP. BRG.**

**SHIM PLATE "T"**

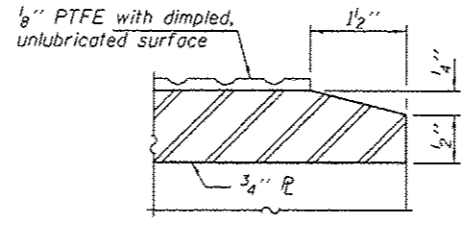
Girders 1 & 5	0
Girder 2	1 1/8"
Girder 3	1 3/8"
Girder 4	5/8"



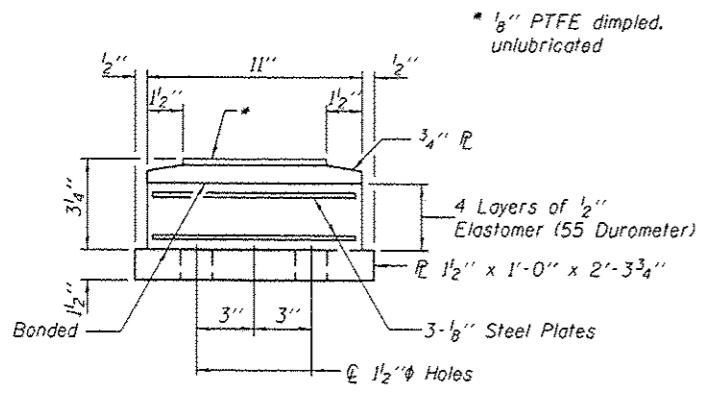
**TOP BEARING ASSEMBLY**



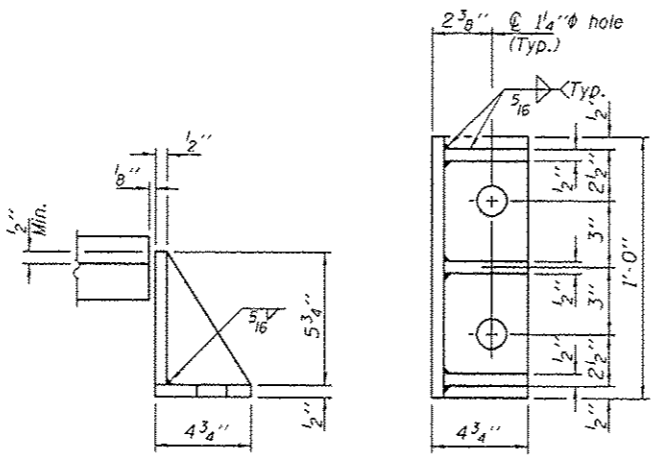
**PLAN-PTFE SURFACE**



**SECTION THRU PTFE**



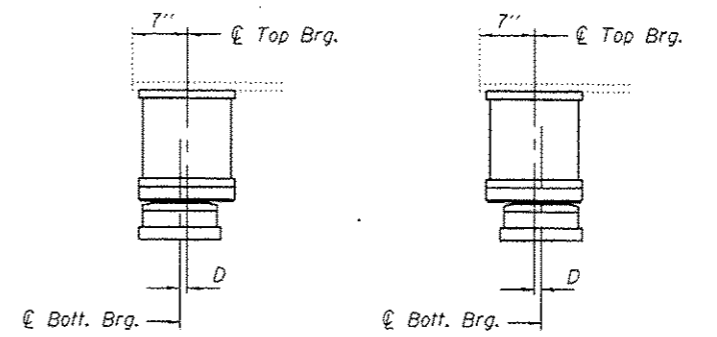
**BOTTOM BEARING ASSEMBLY**



**\* SIDE RETAINER**

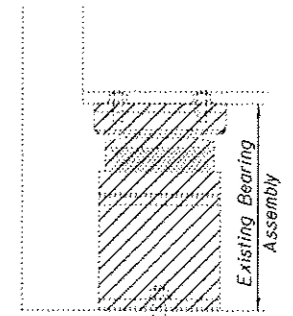
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

\* See sheet 8 of 12 for retainer layout.



**SETTING ANCHOR BOLTS AT EXP. BRG.**

D = 1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.



**EXISTING BEARING REMOVAL DETAIL**

Cost included with Jack and Remove Existing Bearings.

**BILL OF MATERIAL**

Item	Unit	Total
Elastomeric Bearing Assembly, Type II	Each	5
Jack and Remove Existing Bearings	Each	5
Furnishing and Erecting Structural Steel	Pound	1410
Anchor Bolts 1"φ	Each	20

TYII/REPS 12-03-2008

DESIGNED	TLC
CHECKED	CCC
DRAWN	balliva
CHECKED	TLC CCC

EXAMINED	<i>Timothy A. Balli</i>	DATE	MARCH 10, 2015
PASSED	<i>Carl Perry</i>	REVISED	
		REVISED	

DATE	MARCH 10, 2015
REVISED	
REVISED	

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

EAST ABUTMENT BEARINGS  
 SN 079-0019

SHEET NO. 12 OF 12 SHEETS

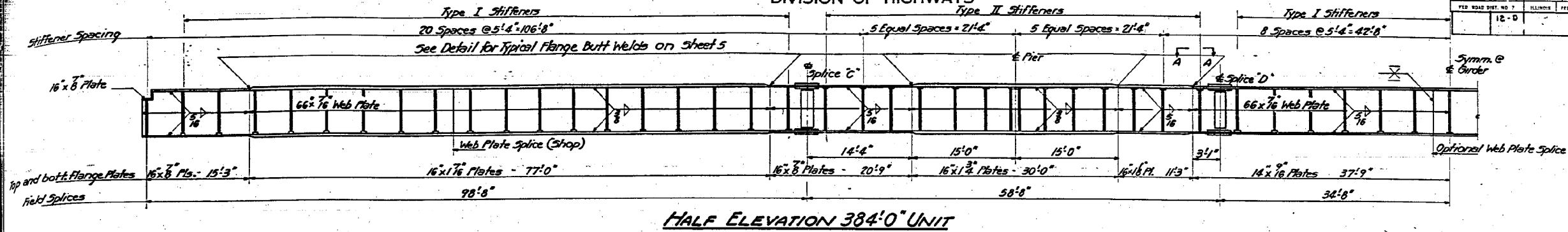
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
85B	12-8-1	RANDOLPH	90	84
CONTRACT NO. 76H81				
ILLINOIS FED. AID PROJECT				



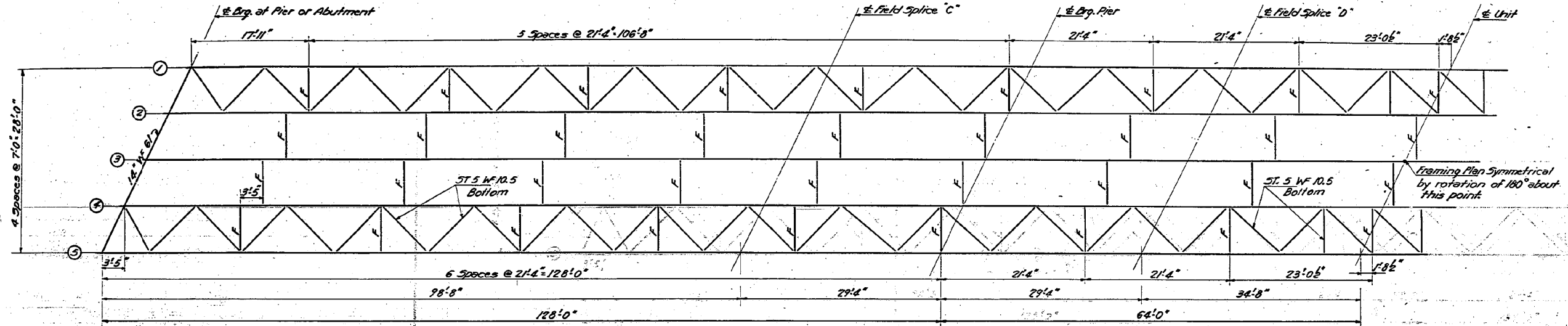
STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS & BUILDINGS  
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
182	12-B	Randolph	29	7
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	15	9
12-D				

SHEET NO. 4  
8 SHEETS



HALF ELEVATION 384'0" UNIT

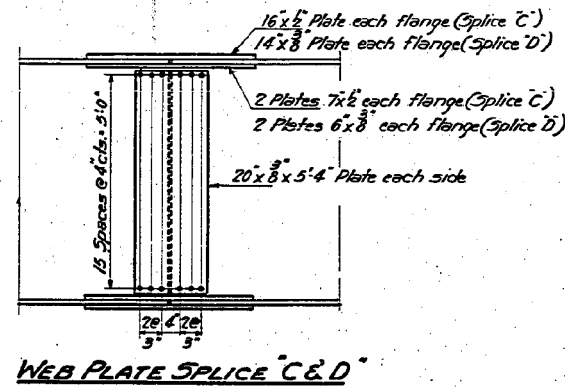


FRAMING PLAN - 384'0" GIRDERS

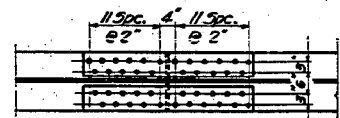
TOP OF GIRDER ELEVATIONS

ELEVATION AT	UNIT 1			UNIT 2			UNIT 3					
	± Brg. W. Abut.	± Brg. Pier 1	± Brg. Pier 2	± Brg. Pier 3	± Brg. Pier 3	± Brg. Pier 4	± Brg. Pier 5	± Brg. Pier 6	± Brg. Pier 6	± Brg. Pier 7	± Brg. Pier 8	± Brg. E. Abut.
Girder 1	411.39	412.33	413.18	413.96	413.94	415.06	416.07	416.96	416.97	418.09	419.10	419.99
Girder 2	411.48	412.42	413.27	414.05	414.03	415.15	416.16	417.05	417.06	418.18	419.19	420.08
Girder 3	411.50	412.44	413.29	414.07	414.05	415.17	416.18	417.07	417.08	418.20	419.21	420.10
Girder 4	411.44	412.38	413.23	414.01	413.99	415.11	416.12	417.01	417.02	418.14	419.15	420.04
Girder 5	411.29	412.23	413.08	413.86	413.84	414.96	415.97	416.86	416.87	417.99	419.00	419.89

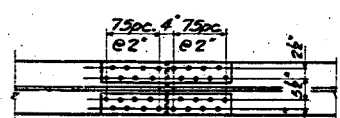
Note: End and support details, stiffeners and bracing are identical to 450'0" unit, unless noted.



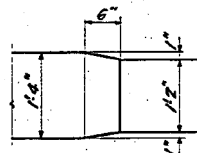
WEB PLATE SPLICE C & D



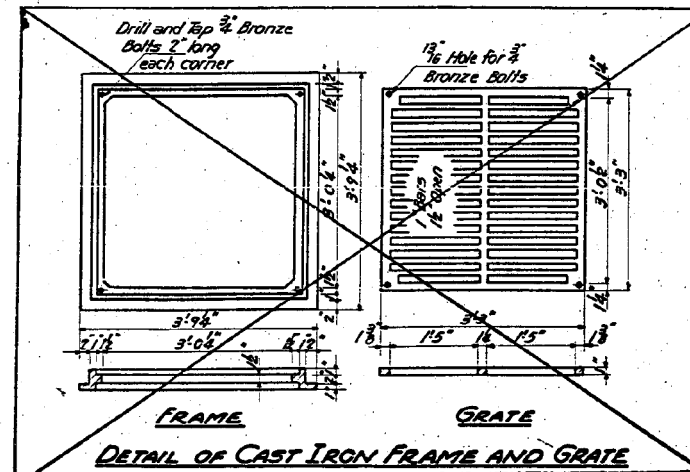
FLANGE PLATE SPLICE C



FLANGE PLATE SPLICE D



VIEW A-A



DETAIL OF CAST IRON FRAME AND GRATE

UNIT 1  
DETAILS OF 384' GIRDER  
F.A. RTE. 182-SEC. 12-D-E-F-G-P  
RANDOLPH COUNTY  
STATION 631+60

DESIGNED	ESW	EXAMINED	W. Beysman
CHECKED	ashwall	PASSED	ashwall
DRAWN	M. Miller	APPROVED	R.H. Bartelme
CHECKED			

JAN 13 1961

Revised 7/11/62 in Field "TOP OF GIRDER ELEVATIONS" changed - Elev & Brg. Pier 3 - Unit 2, Girder 1 from 413.03 to 414.04; Elev & Brg. Pier 3 - Unit 2, Girder 3 changed from 413.05 to 414.05, and changed Elev & Brg. Pier 6 - Units 1, Girder 4 from 417.07 to 416.87. P.S.

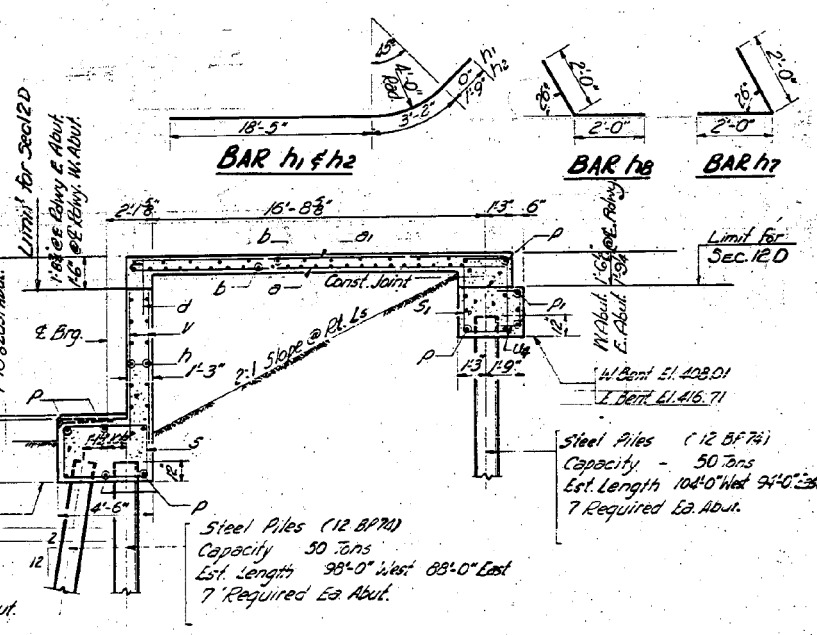
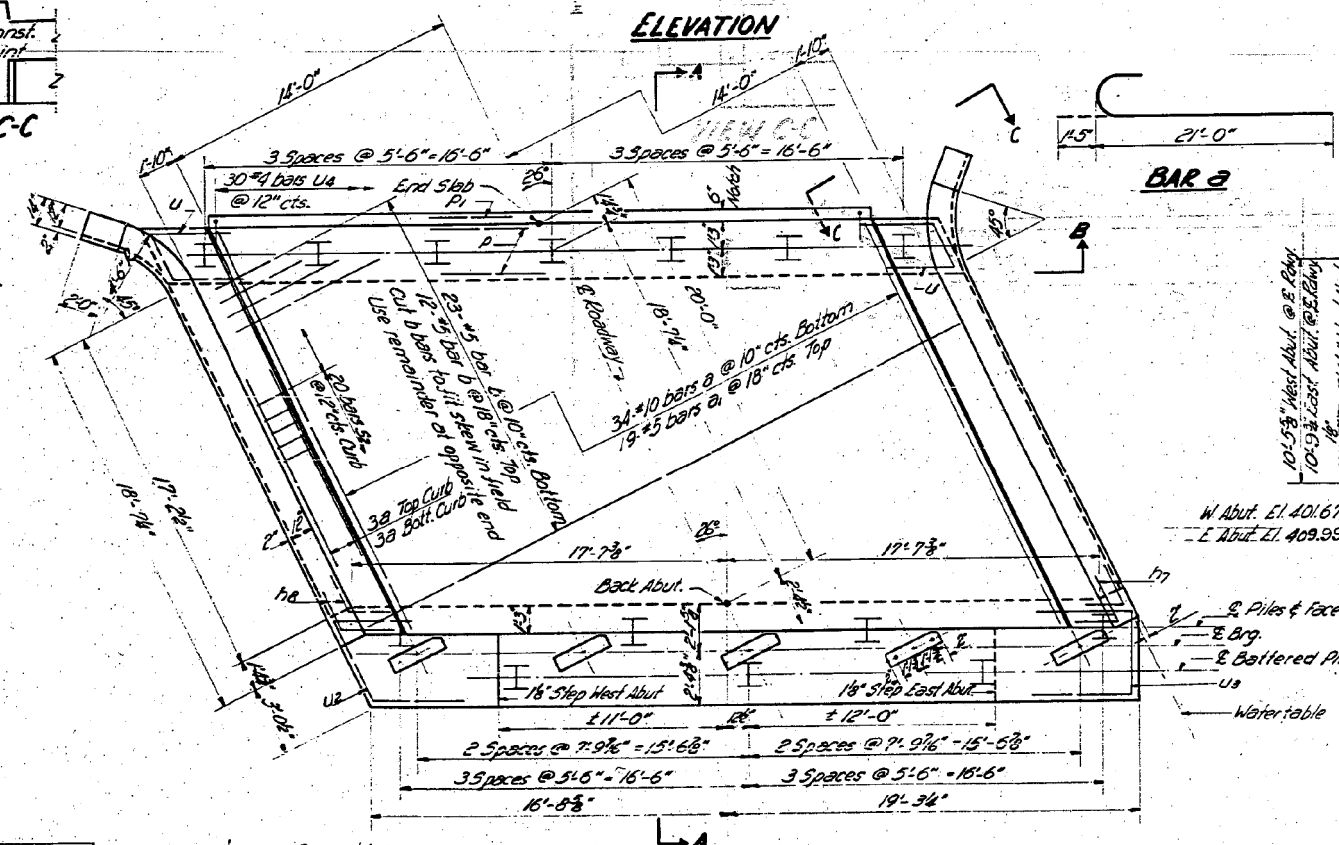
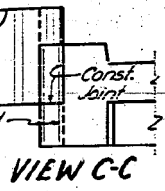
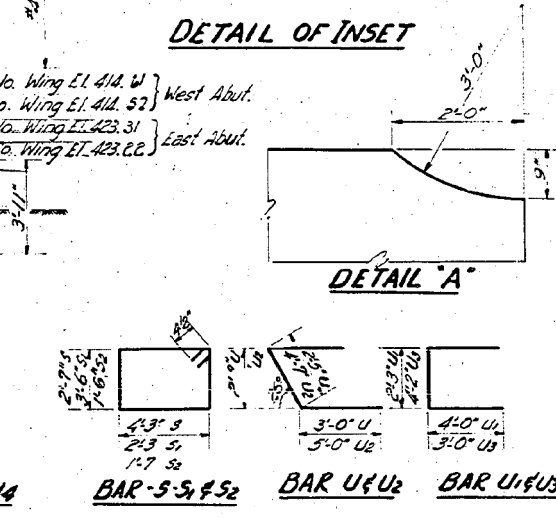
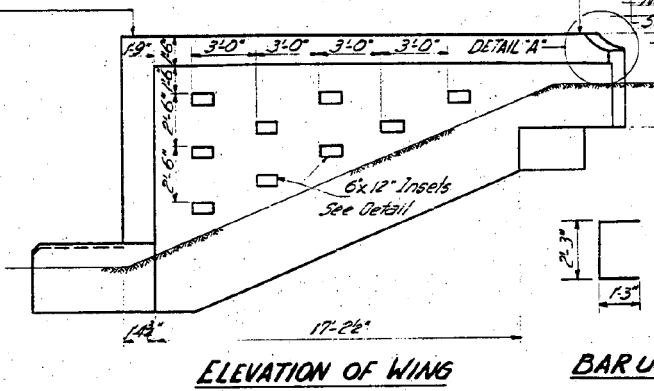
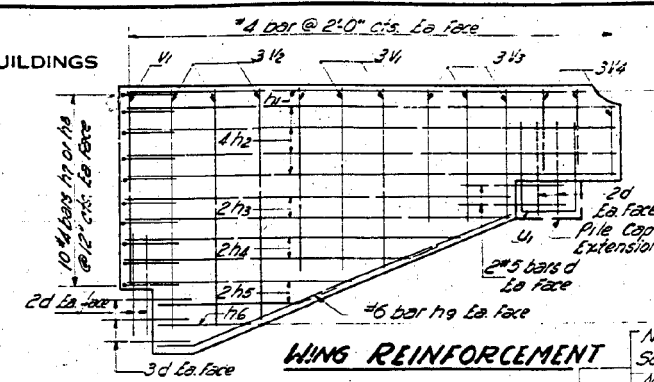
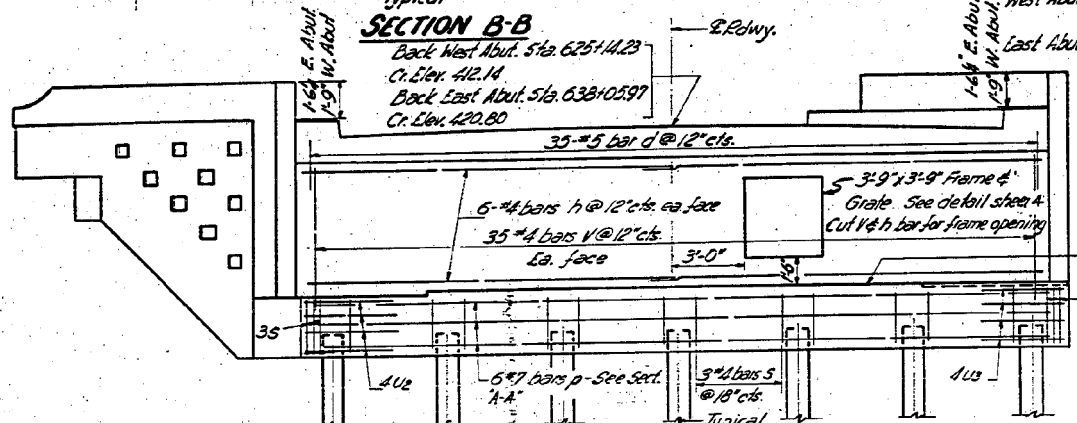
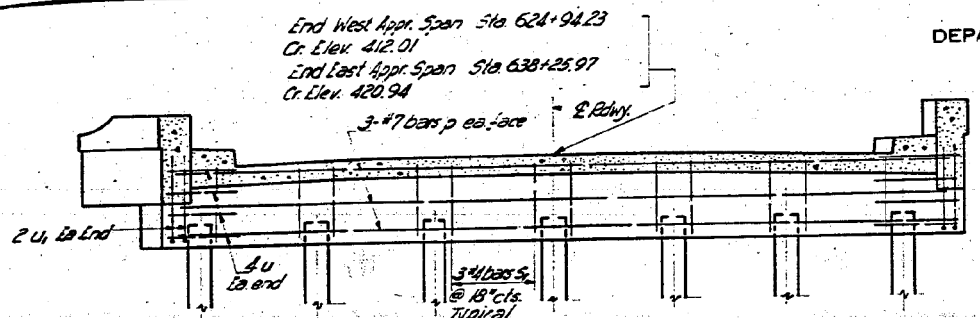




STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS & BUILDINGS  
DIVISION OF HIGHWAYS

PROJECT NO.	SECTION	COUNTY	DATE	SHEET NO.
102	12-D	Randolph	15 13	8

8 SHEETS



**BILL OF MATERIAL**  
Two Abutment Slabs

BAR	No.	SIZE	LENGTH	SHAPE
a	92	#10	22'-5"	U
a1	38	#5	2'-0"	—
b	70	#5	3'-0"	—
s2	30	#4	6'-11"	□

Class-X Concrete Cu.Yds. 55.5  
Reinforcement Bars Lbs. 11970

DESIGNED: ROKwest  
CHECKED: [Signature]  
DRAWN: A Barroza  
CHECKED: [Signature]

EXAMINED: [Signature]  
PASSED: [Signature]  
APPROVED: [Signature]

JAN 13 1961

PLAN ABUTMENT

SECTION A-A

Sec. 12-D includes slab only

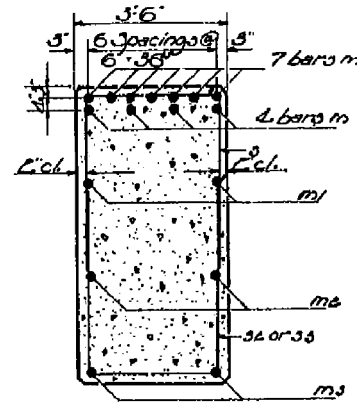
SECTION THRU SLAB & WINGS

**ABUTMENT SLABS**  
F.A. RT. 102 SEC. 12-D  
RANDOLPH COUNTY  
STA. 631+60

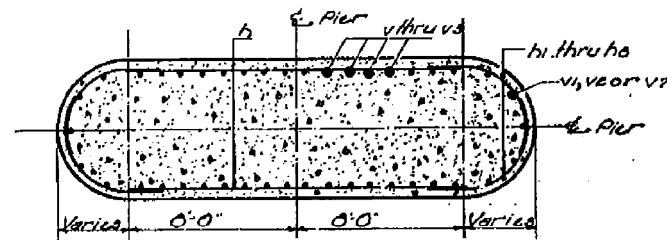
Rev Curb Height to 11' & Class X Conc. Quantity 1-25-60  
Revised detail for having wing wall elevation lowered 0.75'  
Reinforcing dimension changed 2'

STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS & BUILDINGS  
DIVISION OF HIGHWAYS

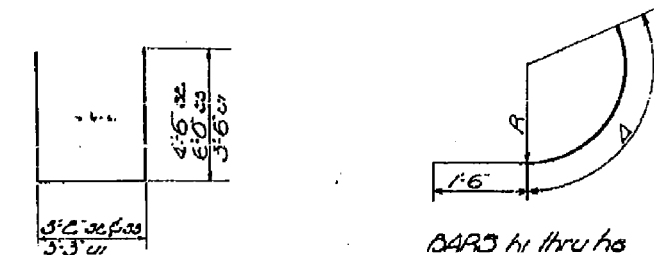
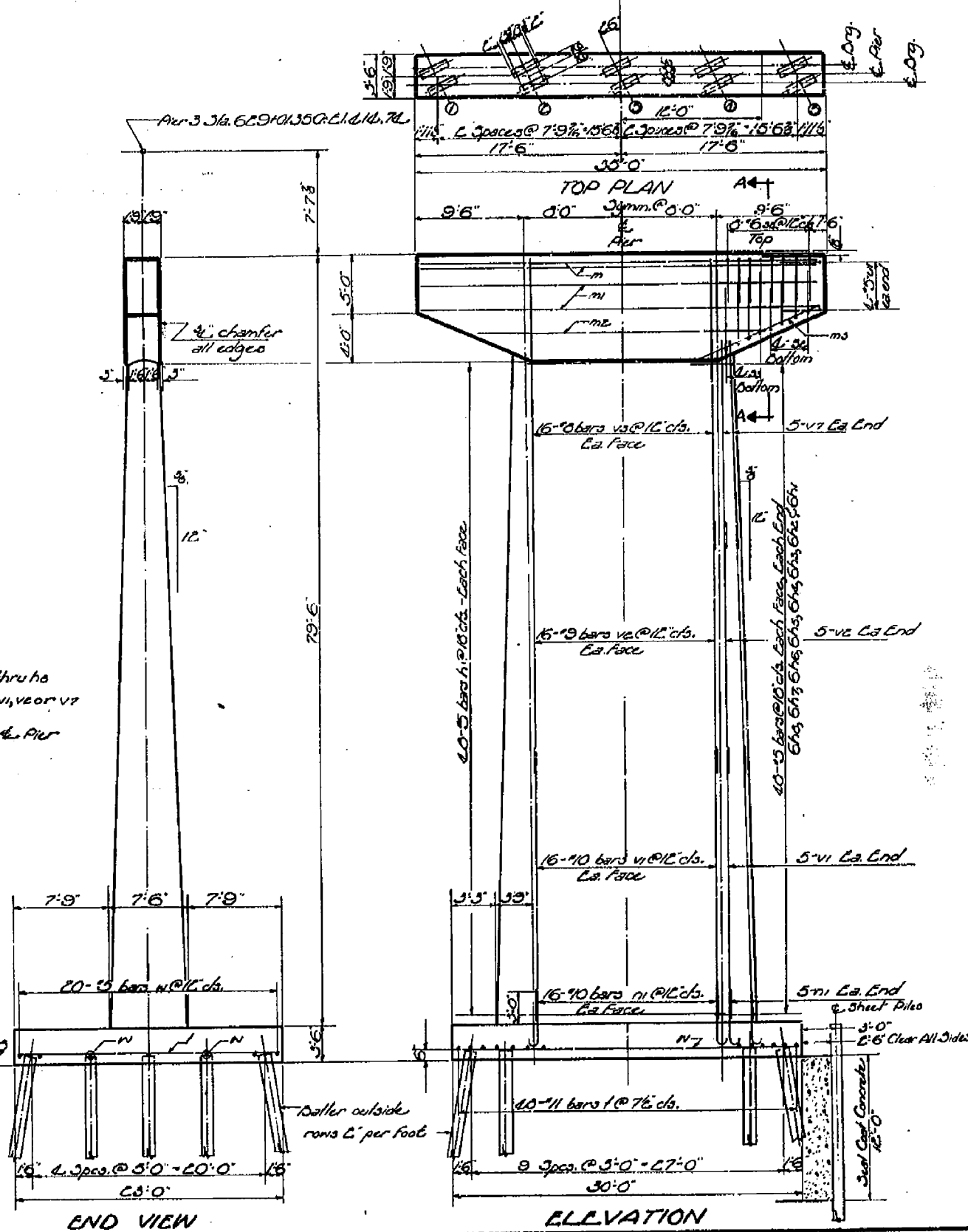
DATE	DRAWN	CHECKED	SCALE	SHEET NO.
12/8	Randolph	25	13	10 SHEETS



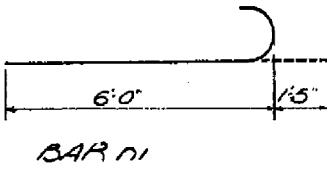
SECTION A-A



TYPICAL SECTION THRU STEM



BAR 32, 33, 34



BAR n1

TABLE OF h BARS

Bar	A	A
h1	1'-6"	3'-3"
h2	1'-9"	3'-9"
h3	2'-0"	4'-3"
h4	2'-4"	4'-9"
h5	2'-7"	5'-3"
h6	2'-11"	5'-9"
h7	3'-2"	6'-0"
h8	3'-5"	6'-6"

BILL OF MATERIAL  
PIER 3

Bar	No.	Type	Length	Shape
h	36	13	16'-0"	
h1	24	15	4'-9"	
h2	24	15	5'-3"	
h3	24	15	5'-9"	
h4	24	15	6'-3"	
h5	24	15	6'-9"	
h6	24	15	7'-0"	
h7	24	15	7'-6"	
h8	24	15	8'-0"	
v1	42	10	27'-9"	
v2	42	9	27'-9"	
v3	36	9	27'-9"	
v7	10	8	20'-0"	
m	11	10	34'-0"	
m1	4	15	34'-0"	
m2	4	15	25'-3"	
m3	4	15	17'-0"	
l	40	11	22'-9"	
n	20	15	23'-9"	
n1	42	10	7'-5"	
32	24	15	1'-5"	
33	0	15	1'-5"	
34	0	15	10'-3"	

PILE DATA  
Type Steel (A572) 40 Ton  
Capacity  
Est'd Length 34.5 ft.  
No. Reqt. 30

PIER 3  
F.A. RT. 102+36.12 B  
RANDOLPH COUNTY  
STA. 631+60

REVISED 3-11-60 Cofferdam & Seal Coat added to Elevation  
F.A.R.

DESIGNED R. A. Kowal  
CHECKED C. A. Brown  
DRAWN W. L. Jacobs  
CHECKED C. A. Brown

EXAMINED M. J. ...  
APPROVED R. H. ...

Aug. 26 1959



STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS & BUILDINGS  
DIVISION OF HIGHWAYS

PROJECT NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
102	12 B	Randolph	25	15
TOTAL SHEETS 10 SHEETS				

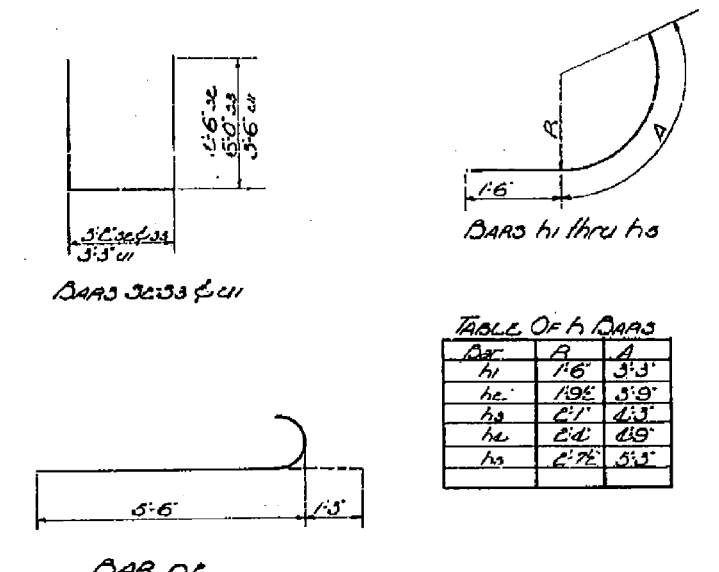
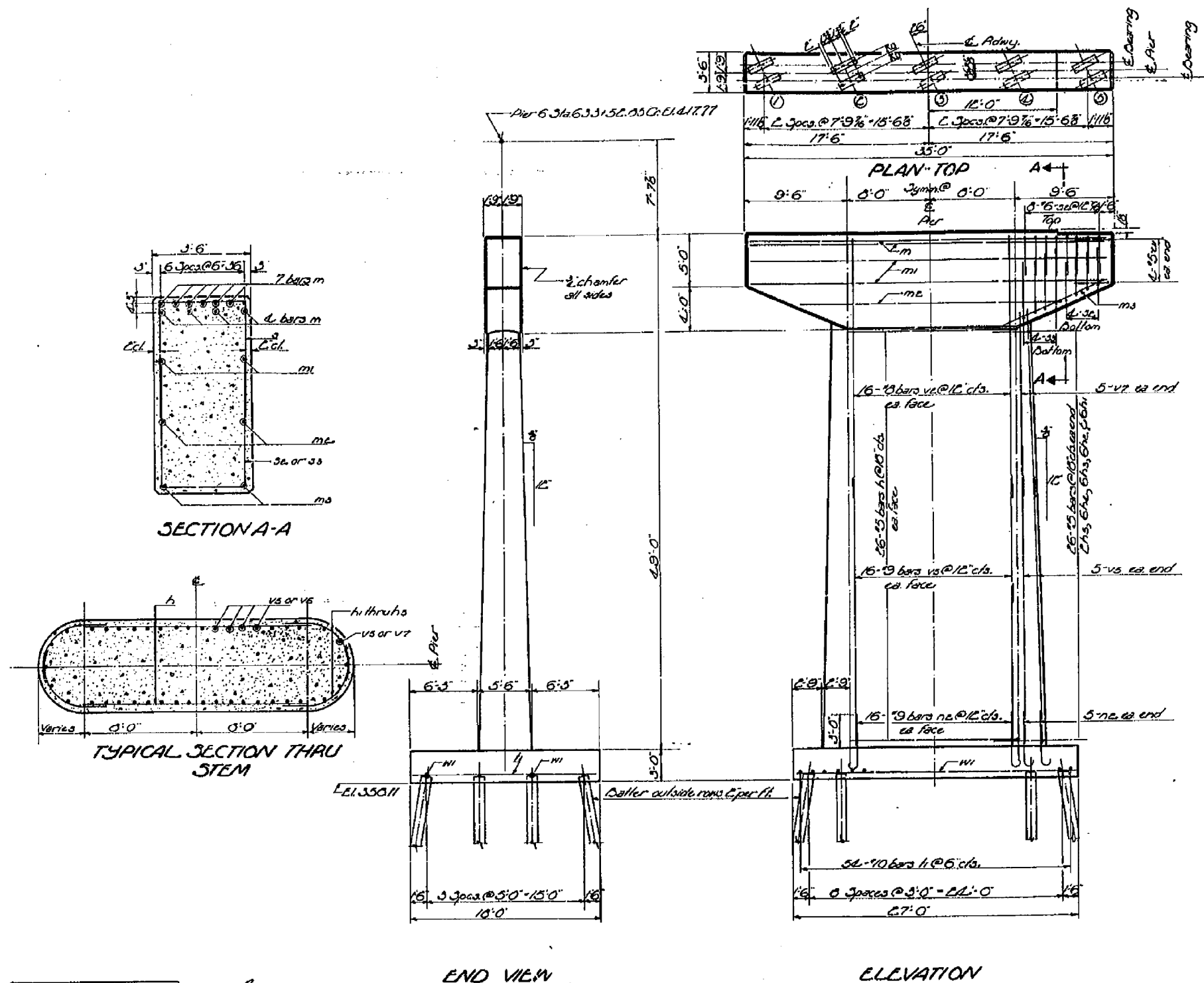


TABLE OF A BARS

Bar	R	A
h1	1'6"	3'3"
h2	1'9"	3'9"
h3	2'1"	4'3"
h4	2'4"	4'9"
h5	2'7"	5'3"

BILL OF MATERIALS  
PIER 6

Bar	No.	Size	Length	Shape
h1	5L	#5	16'0"	—
h2	5L	#5	4'9"	—
h3	5L	#5	5'9"	—
h4	5L	#5	6'3"	—
h5	5L	#5	6'9"	—
vs	4L	#7	25'6"	—
vt	10L	#7	25'6"	—
vt	10L	#7	20'0"	—
nl	4L	#7	6'9"	—
se	4L	#5	12'0"	—
sa	4L	#5	16'0"	—
ul	4L	#5	10'3"	—
m	11L	#10	34'0"	—
mi	4L	#5	34'0"	—
me	4L	#5	23'3"	—
ms	4L	#5	11'0"	—
h	4L	#5	17'9"	—
mi	4L	#5	26'9"	—
Class Concrete Cu. Yds. 416.3				
Reinforcement Bars Lbs. 15620				
Steel Piles Lin. Ft. 2196				

PILE DATA  
Type Steel (A36)  
Capacity 40 Tons  
Est'd Length 61'0"  
No. Piles 35

DESIGNED: P. K. Koenig  
CHECKED: J. A. Smith  
DRAWN BY: W. L. Jacobs  
CHECKED: [Signature]  
DATE: AUG. 26 11-57

PIER 6  
F.A. RT. 102 - SEC. 12 B  
RANDOLPH CO.  
STATION 63160