

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	1
ILLINOIS			CONTRACT NO. 72J42	

INDEX OF SHEETS

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PROPOSED  
HIGHWAY PLANS

F.A.I. ROUTE 72 (I-72)  
SECTION (75-6) BDR, BP, BRR, RS-2  
PROJECT NHPP-FWND(995)  
RESURFACING  
PIKE COUNTY



LOCATION OF SECTION INDICATED THUS: -

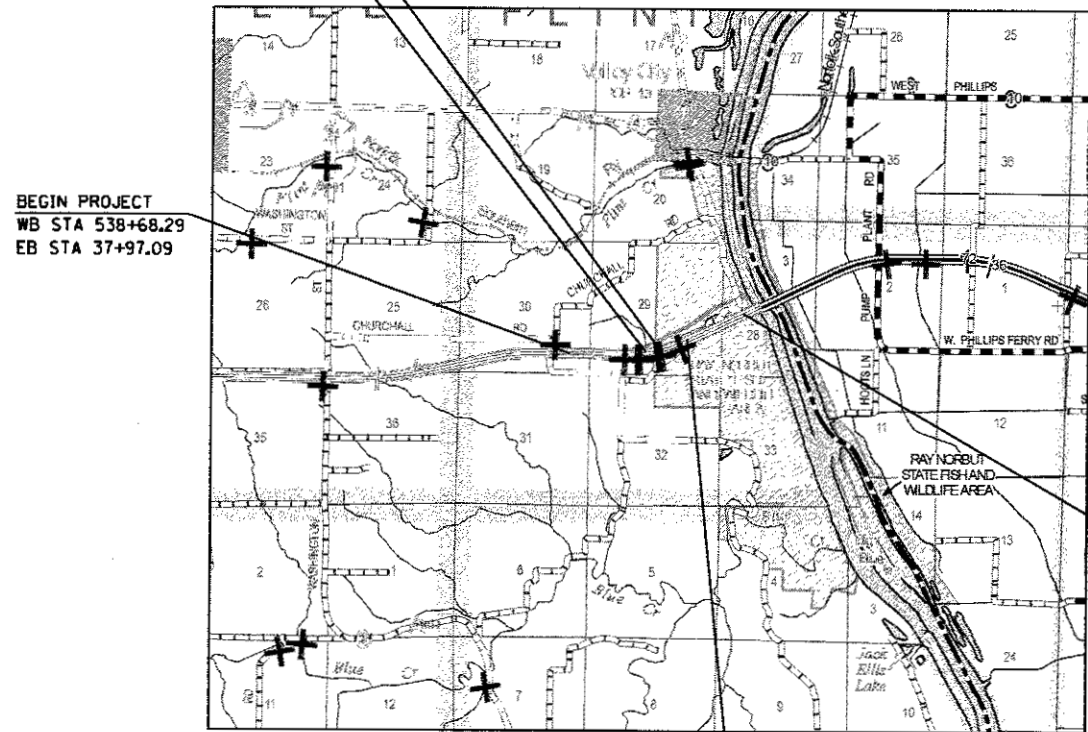
HIGHWAY STANDARDS

000001-06	642001-02
001001-02	701400-09
001006	701401-10
442201-03	701402-12
482011-03	701406-11
630001-11	701901-06
630301-07	704001-08
631006-08	725001-01
631031-15	780001-05
631011-10	781001-04
635001-02	782006

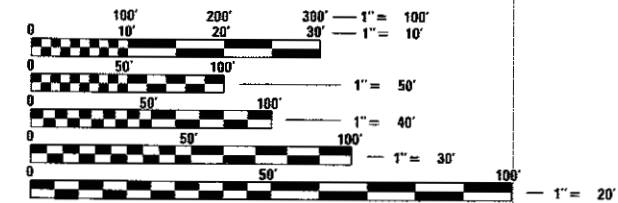
SN 075-0116 (MICROSURFACING BRIDGE REPAIRS: STA 58+59.94 TO STA 62+92.97)  
SN 075-0120 (MICROSURFACING BRIDGE REPAIRS: STA 558+58.48 TO STA 562+02.51)

SN 075-0117 (MICROSURFACING BRIDGE REPAIRS: STA 47+18.49 TO STA 50+07.39)  
SN 075-0119 (MICROSURFACING BRIDGE REPAIRS: STA 543+68.48 TO STA 547+12.51)

C-96-001-17  
R2W



SN 075-0118 (MICROSURFACING BRIDGE REPAIRS: STA 68+50.58 TO STA 74+10.42)  
SN 075-0121 (MICROSURFACING BRIDGE REPAIRS: STA 577+74.41 TO STA 580+38.20)



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



*Bradley E. Riechmann* 8/18/17  
Bradley E. Riechmann, P.E.  
License Expires 11/30/2017  
Date  
GROSS LENGTH = 9,603.06 FT. = 1.819 MILE  
NET LENGTH = 9,603.06 FT. = 1.819 MILE

PLANS PREPARED BY  
HORNER SHIFRIN  
WWW.HORNERSHIFRIN.COM

604 Pierce Boulevard, Suite 300 • O'Fallon, Illinois 62269  
Phone: (618) 622-3040  
Illinois Professional Design Firm No. 184-000435  
License Expires 4/30/2019

FUNCTIONAL CLASSIFICATION  
FAI 72 = INTERSTATE  
ADT=8650 (2015); 8700 (2018)  
P.V.=63.3% S.U.=7.8% M.U.=28.9%

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
SUBMITTED 22 August 2017  
*[Signature]* REGIONAL ENGINEER  
Oct 13 2017  
Nawwan M. Adz P.E. ENGINEER OF DESIGN AND ENVIRONMENT  
Oct 13 2017  
*[Signature]* DIRECTOR OF PROGRAM DEVELOPMENT

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OF THE STATE OF ILLINOIS

PROJECT ENGINEER : JAY WAVERING (217) 785-9046  
PROJECT MANAGER : VICTOR YOUNG (217) 524-0472  
CONTRACT NO. 72J42

USER NAME : jaywavering  
LAST SAVED : 8/17/2017  
PLOT DATE : 8/18/2017  
PLOT TIME : 2:42:58 PM  
PLOT SCALE : 2:0000 / 1"  
PEN TABLE : VB-HSIF.dsh  
PLOT DRIVER : pdfnldr\pds01c01g  
FILE NAME : c:\pds\proj\1820\067242\_ahh.ctb\cover.dgn

**GENERAL NOTES**

- THE STANDARDS AND REVISIONS LISTED APPLY TO THIS PROJECT.
- THE THICKNESS OF HMA MIXTURE SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE HMA MIXTURE IS PLACED.
- "ROAD CONSTRUCTION AHEAD" SIGNS SHALL BE PLACED AT INTERCHANGES, ENTRANCES AND SIDE STREETS WHERE WORK IS BEING CONDUCTED AS DIRECTED BY THE RESIDENT ENGINEER. ALL CONSTRUCTION SIGNS SHALL BE FLORESCENT ORANGE. THIS SHALL BE INCLUDED IN THE COST OF THE TRAFFIC CONTROL AND PROTECTION. THESE SIGNS SHALL BE 48" X 48".
- ALL AREAS DISTURBED BY THE CONTRACTOR OUTSIDE THE PROPOSED CONSTRUCTION LIMITS SHALL BE SEEDED AT THE CONTRACTOR'S EXPENSE.
- FACTORS USED FOR ESTIMATING PLAN QUANTITIES ARE AS FOLLOWS AND SHALL NOT BE USED FOR THE BASIS OF FINAL QUANTITIES:  

HOT-MIX ASPHALT BASE COURSE	0.056	TON/SQ YD/IN
HOT-MIX ASPHALT SURFACE COURSE	0.056	TON/SQ YD/IN
AGGREGATE (SURFACE, BASE, & BACKFILL)	2.05	TON/CU YD

BITUMINOUS MATERIALS:  
TACK COAT:  
- ON PAVEMENT 0.05 LB/SQ YD  
- ON COLD MILLED SURFACE 0.05 LB/SQ YD  
- FOG COAT ON NEW BINDER 0.025 LB/SQ YD  
PRIME COAT:  
- ON AGGREGATE 0.25 LB/SQ YD
- CONNECTING OF NEW OR EXISTING PIPE DRAINS TO NEW OR EXISTING INLETS OR MANHOLES SHALL BE MADE IN A MANNER WHICH RESULTS IN A NEAT AND WATERTIGHT JOINT. WHEN PLACED THROUGH THE WALL OF AN INLET OR MANHOLE, PIPE DRAINS SHALL BE PLACED OR CUT FLUSH WITH THE FACE OF THE WALL AND DRESSED WITH MORTAR TO PROVIDE A SMOOTH ROUNDED OR BEVELED EDGE. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS INCLUDED IN THE CONTRACT UNIT PRICES OF THE PIPE DRAINS OR STRUCTURES INVOLVED.
- IN ADDITION TO THE REQUIREMENTS OF ARTICLE 107.16, THE CONTRACTOR SHALL PROTECT THE SURFACE OF ALL BRIDGE DECKS AND BRIDGE APPROACH PAVEMENTS IN A MANNER SATISFACTORY TO THE ENGINEER BEFORE ANY EQUIPMENT IS ALLOWED TO CROSS THE STRUCTURE. PROTECTION SHALL BE PROVIDED FOR ALL EQUIPMENT AS DEFINED IN ARTICLE 107.16 REGARDLESS IF TRACK MOUNTED OR WHEELED.
- ALL TEMPORARY PAVEMENT MARKING WILL BE PLACED IN SUCH A MANNER SO AS NOT TO INTERFERE WITH THE PLACEMENT OF PERMANENT PAVEMENT MARKINGS.
- ALL NEW TRAFFIC BARRIER TERMINALS SHALL BE CORED. NO DRILLING WILL BE PERMITTED INTO PARAPET WALLS, MEDIANS, PIERS, ETC. ACCORDING TO STANDARD SPECIFICATION 631.07. THE COST WILL BE INCLUDED IN THE TYPE OF TRAFFIC BARRIER TERMINAL BEING CONSTRUCTED. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THIS WORK. ANY DAMAGE TO PARAPET WALLS, MEDIANS, PIERS, ETC. WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR AT HIS/HER EXPENSE.
- ALL CORTEN GUARDRAIL, TRAFFIC BARRIER TERMINALS, ETC. ARE TO BE REPLACED WITH STANDARD GALVANIZED STEEL PLATE BEAM GUARDRAIL. NO CORTEN IS TO BE PLACED ON THIS CONTRACT.
- SHOULDER WIDENING FOR THE TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT SHALL BE INCLUDED IN THE UNIT PRICE OF THE TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT AND CONSTRUCTED ACCORDING TO STANDARD 630301.

- CHANGEABLE MESSAGE SIGNS SHALL BE PLACED AT THE FOLLOWING LOCATIONS, AS DIRECTED BY THE ENGINEER, PRIOR TO PROJECT START-UP:  
I-72 EASTBOUND WEST OF IL 107  
I-72 WESTBOUND EAST OF IL 100  
  
THE CONTRACTOR SHALL MODIFY THE MESSAGE ON EACH SIGN AS DIRECTED BY THE ENGINEER.
- THE JOINTS BETWEEN THE BRIDGE APPROACH SLAB AND WINGWALLS SHALL BE SEALED ACCORDING TO ARTICLE 452 OF THE STANDARD SPECIFICATIONS.
- EXISTING SUPERELEVATION RATES AND TRANSITION LENGTHS SHALL BE RETAINED WITH THE PROPOSED RESURFACING. HIGH SIDE SHOULDER SLOPES SHALL NOT EXCEED 8% BREAKOVER WITH THE PAVEMENT. LOW SIDE SHOULDER SLOPES SHALL MATCH THE SUPERELEVATION RATE IF IT IS GREATER THAN THE NOMINAL SHOULDER SLOPE.
- EXISTING SHOULDER CORE SAMPLES WERE OBTAINED IN THE PROJECT LIMITS. EXISTING THICKNESS RANGES FROM 6.75" TO 9.5". CORE DATA IS SHOWN IN THE TABLES BELOW. THIS IS FOR INFORMATION ONLY.

WEST BOUND LANES		
STATION	SHOULDER	THICKNESS
581+30	OUTSIDE	6.75"
	(A) INSIDE	7.25"
574+78	OUTSIDE	7.5"
	(B) INSIDE	7.5"
566+73	OUTSIDE	7.5"
	(C) INSIDE	9.5"
552+60	OUTSIDE *	7.75"
	(D) INSIDE **	8.5"
541+93	OUTSIDE **	8.5"
	(E) INSIDE **	8.75"

EAST BOUND LANES		
STATION	SHOULDER	THICKNESS
42+64	OUTSIDE	9"
	(F) INSIDE	8.25"
53+91	OUTSIDE	8.75"
	(G) INSIDE	7.25"
65+66	OUTSIDE	7.25"
	(H) INSIDE	8"
75+63	OUTSIDE	8.25"
	(I) INSIDE	8.5"

- \* LOCATION WITH SOIL SUBGRADE.
- \*\* LOCATION WITH UNSTABLE SOIL SUBGRADE.

AT LOCATIONS WHERE SOIL IS ENCOUNTERED BELOW THE EXISTING HMA SHOULDERS, A MINIMUM 6" OF SUBBASE GRANULAR MATERIAL, TYPE B SHALL BE CONSTRUCTED UNDERNEATH ANY FULL DEPTH PAVEMENT SHOULDERS.

- THE CONTRACTOR SHALL NOTIFY THE DISTRICT 6 BUREAU OF OPERATIONS AT (217) 785-7314 THREE WEEKS PRIOR TO IMPLEMENTING ANY TRAFFIC CONTROL.

**COMMITMENTS**

- THE RESIDENT ENGINEER SHALL CONTACT STUDIES AND PLANS CONCERNING ANY MAJOR PLAN CHANGES.

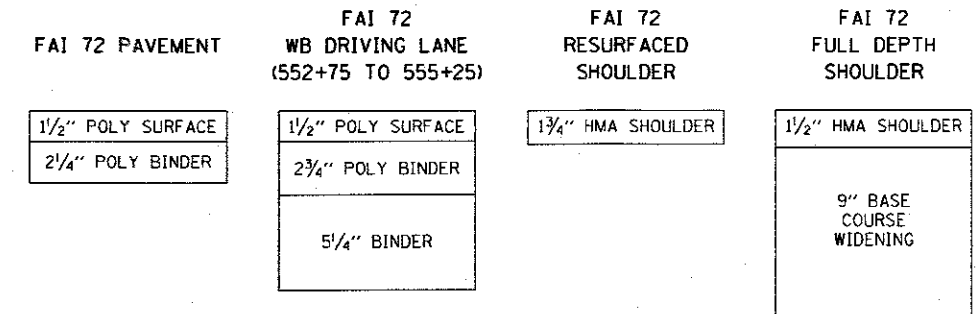
**MIXTURE DESIGNS**

LOCATION(S):	I-72 MAINLINE	I-72 MAINLINE	I-72 MAINLINE, WB LANE
MIXTURE USE(S):	HMA SURFACE	HMA BINDER	HMA BINDER
PG:	SBS PG 70-28	SBS PG 70-28	PG 64-22
DESIGN AIR VOIDS:	4.0% @ N90	4.0% @ N90	4.0% @ N90
MIXTURE COMPOSITION:	IL-9.5	IL-19.0	IL-19.0
FRICTION AGGREGATE:	MIX "D"	N/A	N/A
QUALITY MANAGEMENT:	QCP (NOTE 1)	QCP (NOTE 1)	QC/QA
SUBLOT SIZE:	1000 TONS	1000 TONS	N/A

LOCATION(S):	I-72 SHOULDERS	I-72 SHOULDERS / INCIDENTAL HMA
MIXTURE USE(S):	HMA BASE COURSE	TOP 1.5" OR 2"
PG:	PG 64-22	PG 64-22
DESIGN AIR VOIDS:	4.0% @ N50	4.0% @ N50
MIXTURE COMPOSITION:	IL-19.0	IL-9.5
FRICTION AGGREGATE:	N/A	MIX "C"
QUALITY MANAGEMENT:	QC/QA	QC/QA
SUBLOT SIZE:	N/A	N/A

NOTE 1: THE QCP DENSITY PAY FACTOR WILL BE EQUAL TO 100% FOR SUBLOTS HAVING ALL TEST INTERVAL RESULTS WITHIN ACCEPTABLE LIMITS.

**MIXTURE DIAGRAMS**



<b>DISTRICT SIX</b>	
EXAMINED <u>July 27<sup>th</sup></u> 20 <u>17</u>	
<i>John C. Wynn</i>	
OPERATIONS ENGINEER	
EXAMINED <u>July 25<sup>th</sup></u> 20 <u>17</u>	
<i>John Chalman</i>	
PROJECT IMPLEMENTATION ENGINEER	
EXAMINED <u>August 4</u> 20 <u>17</u>	
<i>Jeffrey P. Meyer</i>	
PROGRAM DEVELOPMENT ENGINEER	

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# SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	TOTAL	CONSTRUCTION CODE								
				6-00787-0000 90% FEDERAL 10% STATE ROADWAY 0004	6-00787-0000 90% FEDERAL 10% STATE BRIDGE 0014	6-00787-0000 90% FEDERAL 10% STATE BRIDGE 0014	6-00787-0000 90% FEDERAL 10% STATE BRIDGE 0014	6-00787-0000 90% FEDERAL 10% STATE BRIDGE 0014	6-00787-0000 90% FEDERAL 10% STATE BRIDGE 0014	6-00787-0000 90% FEDERAL 10% STATE BRIDGE 0014		
				FAI 72	075-0116	075-0117	075-0118	075-0119	075-0120	075-0121		
20200100	EARTH EXCAVATION	CU YD	1955	1955								
20700220	POROUS GRANULAR EMBANKMENT	CU YD	16	16								
28100107	STONE RIPRAP, CLASS A4	SQ YD	83							83		
31101400	SUBBASE GRANULAR MATERIAL, TYPE B 6"	SQ YD	10174	10174								
35501320	HOT-MIX ASPHALT BASE COURSE, 9"	SQ YD	6878	6878								
35600712	HOT-MIX ASPHALT BASE COURSE WIDENING, 9"	SQ YD	3296	3296								
35800100	PREPARATION OF BASE	SQ YD	180	180								
35800200	AGGREGATE BASE REPAIR	TON	82	82								
40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	22891	22891								
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	17436	17436								
<del>40600982</del>	<del>HOT-MIX ASPHALT SURFACE REMOVAL, BUTT JOINT</del>	<del>SQ YD</del>	<del>712</del>	<del>712</del>								
40600990	TEMPORARY RAMP	SQ YD	930	930								
40603090	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N90	TON	98	98								
40603240	POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N90	TON	1925	1925								
40603545	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N90	TON	1625	1625								

• SPECIALTY ITEM

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES**

SCALE: SHEET 1 OF 7 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	3
CONTRACT NO.			72J42	
ILLINOIS FED. AID PROJECT				

0014

# SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	TOTAL	CONSTRUCTION CODE								
				6-00787-0000 90% FEDERAL 10% STATE	6-00787-0000 90% FEDERAL 10% STATE	6-00787-0000 90% FEDERAL 10% STATE	6-00787-0000 90% FEDERAL 10% STATE	6-00787-0000 90% FEDERAL 10% STATE	6-00787-0000 90% FEDERAL 10% STATE	6-00787-0000 90% FEDERAL 10% STATE		
				ROADWAY 0004 FAI 72	BRIDGE 0014 075-0116	BRIDGE 0014 075-0117	BRIDGE 0014 075-0118	BRIDGE 0014 075-0119	BRIDGE 0014 075-0120	BRIDGE 0014 075-0121		
40800050	INCIDENTAL HOT-MIX ASPHALT SURFACING	TON	29	29								
44000151	HOT-MIX ASPHALT SURFACE REMOVAL, 1/2"	SQ YD	10154	10154								
44000155	HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"	SQ YD	95	95								
44000157	HOT-MIX ASPHALT SURFACE REMOVAL, 2"	SQ YD	625	625								
44000158	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/4"	SQ YD	14819	14819								
44000182	HOT-MIX ASPHALT SURFACE REMOVAL, 8"	SQ YD	338	338								
44004250	PAVED SHOULDER REMOVAL	SQ YD	10208	10208								
44201839	CLASS D PATCHES, TYPE II, 16 INCH	SQ YD	50	50								
48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	724	724								
48203100	HOT-MIX ASPHALT SHOULDERS	TON	1448	1448								
50102400	CONCRETE REMOVAL	CU YD	84.7		15.2	15.1	14.5	11.2	11.2		17.5	
50200400	ROCK EXCAVATION FOR STRUCTURES	CU YD	8	8								
50300255	CONCRETE SUPERSTRUCTURE	CU YD	96.7		17.5	17.0	16.6	12.9	12.9		19.8	
50300300	PROTECTIVE COAT	SQ YD	11727		2269	1523	2934	1811	1810		1380	

\* SPECIALTY ITEM

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: SHEET 2 OF 7 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	4
CONTRACT NO. 72J42			ILLINOIS FED. AID PROJECT	

# SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	TOTAL	CONSTRUCTION CODE										
				6-00787-0000 90% FEDERAL 10% STATE ROADWAY 0004 FAI 72	6-00787-0000 90% FEDERAL 10% STATE BRIDGE 0014 075-0116	6-00787-0000 90% FEDERAL 10% STATE BRIDGE 0014 075-0117	6-00787-0000 90% FEDERAL 10% STATE BRIDGE 0014 075-0118	6-00787-0000 90% FEDERAL 10% STATE BRIDGE 0014 075-0119	6-00787-0000 90% FEDERAL 10% STATE BRIDGE 0014 075-0120	6-00787-0000 90% FEDERAL 10% STATE BRIDGE 0014 075-0121				
				50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	9000		1450	1340	1250	1730	1730	1500
				50800515	BAR SPLICERS	EACH	100		12	12	12	26	26	12
52000110	PREFORMED JOINT STRIP SEAL	FOOT	645		119	106	106	93	93	128				
59300100	CONTROLLED LOW-STRENGTH MATERIAL	CU YD	5					5						
* 63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	6087.5	6087.5										
* 63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	1	1										
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	15	15										
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	14	14										
63500105	DELINEATORS	EACH	28	28										
64200116	SHOULDER RUMBLE STRIPS, 16 INCH	FOOT	13859	13859										
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	12	12										
67100100	MOBILIZATION	LSUM	1	1										
70100700	TRAFFIC CONTROL AND PROTECTION, STANDARD 701406	LSUM	1	1										
70100800	TRAFFIC CONTROL AND PROTECTION, STANDARD 701401	LSUM	1	1										

\* SPECIALTY ITEM

14

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SCALE:			SHEET 3 OF 7 SHEETS STA. TO STA.		CONTRACT NO. 72J42 [ILLINOIS] FED. AID PROJECT			

REV

# SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	TOTAL	CONSTRUCTION CODE								
				6-00787-0000 90% FEDERAL 10% STATE ROADWAY 0004 FAI 72	6-00787-0000 90% FEDERAL 10% STATE BRIDGE 0014 075-0116	6-00787-0000 90% FEDERAL 10% STATE BRIDGE 0014 075-0117	6-00787-0000 90% FEDERAL 10% STATE BRIDGE 0014 075-0118	6-00787-0000 90% FEDERAL 10% STATE BRIDGE 0014 075-0119	6-00787-0000 90% FEDERAL 10% STATE BRIDGE 0014 075-0120	6-00787-0000 90% FEDERAL 10% STATE BRIDGE 0014 075-0121		
70300100	SHORT TERM PAVEMENT MARKING	FOOT	2694	2694								
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SO FT	898	898								
70300230	TEMPORARY PAVEMENT MARKING - LINE 5"	FOOT	29712	29712								
70400100	TEMPORARY CONCRETE BARRIER	FOOT	4612.5	4612.5								
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	4313	4313								
70600260	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	6	6								
70600332	IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	6	6								
* 72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	14	14								
* 78004220	PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - INLAID - LINE 5"	FOOT	1758	1758								
* 78009005	MODIFIED URETHANE PAVEMENT MARKING - LINE 5"	FOOT	19096	19096								
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	88	88								
* 78200005	GUARDRAIL REFLECTORS, TYPE A	EACH	94	94								
* 78200011	BARRIER WALL REFLECTORS, TYPE C	EACH	192	192								
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	88	88								

\* SPECIALTY ITEM

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		DRAWN -	REVISED -			72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	6	
		CHECKED -	REVISED -			CONTRACT NO. 72J42					
		PLOT DATE = 8/18/2017 2:45:13 PM	DATE -			SCALE:	SHEET 4 OF 7 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT	

# SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	TOTAL	CONSTRUCTION CODE								
				6-00787-0000 90% FEDERAL 10% STATE	6-00787-0000 90% FEDERAL 10% STATE	6-00787-0000 90% FEDERAL 10% STATE	6-00787-0000 90% FEDERAL 10% STATE	6-00787-0000 90% FEDERAL 10% STATE	6-00787-0000 90% FEDERAL 10% STATE	6-00787-0000 90% FEDERAL 10% STATE		
				ROADWAY 0004 FAI 72	BRIDGE 0014 075-0116	BRIDGE 0014 075-0117	BRIDGE 0014 075-0118	BRIDGE 0014 075-0119	BRIDGE 0014 075-0120	BRIDGE 0014 075-0121		
X0320157	CLEANING UNDERDRAIN OUTLETS	EACH	30	30								
X0327979	PAVEMENT MARKING REMOVAL - GRINDING	SQ FT	6368	6368								
X2503000	MAINTENANCE MOWING	ACRE	9.75	9.75								
X5030250	BRIDGE DECK GROOVING (LONGITUDINAL)	SQ YD	5907		1145	763	1485	911	911	692		
X5060601	CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES NO. 1	LSUM	1		1							
X5060602	CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES NO. 2	LSUM	1			1						
X5060603	CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES NO. 3	LSUM	1				1					
X5060604	CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES NO. 4	LSUM	1					1				
X5060605	CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES NO. 5	LSUM	1						1			
X5060606	CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES NO. 6	LSUM	1								1	
X6320100	GUARDRAIL REMOVAL SPECIAL	FOOT	7401	7401								
X6350120	DELINEATOR REMOVAL	EACH	16	16								
X7010208	TRAFFIC CONTROL AND PROTECTION, STANDARD 701402 (SPECIAL)	EACH	2	2								
X7010410	SPEED DISPLAY TRAILER	CAL MO	12	12								

• SPECIALTY ITEM

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19

FILE NAME =	USER NAME = jepettibone	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SUMMARY OF QUANTITIES</b>	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pwwork\jepettibone\tdms\11520\0672J42\shl-500.dgn		DRAWN -	REVISED -			T2	(75-6) BDR, BP, BRR, RS-2	PIKE	150	7
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PLOT DATE = 8/18/2017 2:45:13 PM		DATE -	REVISED -		SCALE:	SHEET 5 OF 7 SHEETS		STA.	TO STA.	
ILLINOIS FED. AID PROJECT										

# SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	TOTAL	CONSTRUCTION CODE								
				6-00787-0000 90% FEDERAL 10% STATE	6-00787-0000 90% FEDERAL 10% STATE	6-00787-0000 90% FEDERAL 10% STATE	6-00787-0000 90% FEDERAL 10% STATE	6-00787-0000 90% FEDERAL 10% STATE	6-00787-0000 90% FEDERAL 10% STATE	6-00787-0000 90% FEDERAL 10% STATE		
				ROADWAY 0004 FAI 72	BRIDGE 0014 075-0116	BRIDGE 0014 075-0117	BRIDGE 0014 075-0118	BRIDGE 0014 075-0119	BRIDGE 0014 075-0120	BRIDGE 0014 075-0121		
X7015005	CHANGEABLE MESSAGE SIGN	CAL DA	60	60								
X7030005	TEMPORARY PAVEMENT MARKING REMOVAL	SO FT	1032	1032								
X7200201	WIDTH RESTRICTION SIGNING	LSUM	1	1								
X7830072	GROOVING FOR RECESSED PAVEMENT MARKING 6"	FOOT	19036	19036								
Z0000600	ADJUSTING FRAMES FOR INLETS	EACH	9	9								
Z0001800	APPROACH SLAB REPAIR (PARTIAL DEPTH)	SQ YD	23.2		4.4		6.9	4.0	0.9	7.0		
Z0010501	CLEANING AND PAINTING STEEL BRIDGE NO. 1	LSUM	1		1							
Z0010502	CLEANING AND PAINTING STEEL BRIDGE NO. 2	LSUM	1			1						
Z0010503	CLEANING AND PAINTING STEEL BRIDGE NO. 3	LSUM	1				1					
Z0010504	CLEANING AND PAINTING STEEL BRIDGE NO. 4	LSUM	1					1				
Z0010505	CLEANING AND PAINTING STEEL BRIDGE NO. 5	LSUM	1						1			
Z0010506	CLEANING AND PAINTING STEEL BRIDGE NO. 6	LSUM	1								1	
Z0012112	BRIDGE DECK FLY ASH OR GGBF SLAG CONCRETE OVERLAY, 2 3/4"	SQ YD	2748			1248		1500				
Z0012130	BRIDGE DECK SCARIFICATION 3/4"	SQ YD	9709		1884	1248	2452	1500	1500	1125		

\* SPECIALTY ITEM

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES**

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	8
CONTRACT NO. 72J42				
ILLINOIS FED. AID PROJECT				



# SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	TOTAL	CONSTRUCTION CODE						
				6-00787-0000 90% FEDERAL 10% STATE ROADWAY 0004 FAI 72	6-00787-0000 90% FEDERAL 10% STATE BRIDGE 0014 075-0116	6-00787-0000 90% FEDERAL 10% STATE BRIDGE 0014 075-0117	6-00787-0000 90% FEDERAL 10% STATE BRIDGE 0014 075-0118	6-00787-0000 90% FEDERAL 10% STATE BRIDGE 0014 075-0119	6-00787-0000 90% FEDERAL 10% STATE BRIDGE 0014 075-0120	6-00787-0000 90% FEDERAL 10% STATE BRIDGE 0014 075-0121
				Z0012166	BRIDGE DECK MICROSILICA CONCRETE OVERLAY 2 3/4"	SQ YD	6961		1884	
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	25		2	1			14	8
Z0012755	STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES)	SQ FT	118		4	13	38	20	38	5
Z0013798	CONSTRUCTION LAYOUT	LSUM	1	1						
Z0016002	DECK SLAB REPAIR (FULL DEPTH, TYPE II)	SQ YD	89.6		7.2	8.2	49.8	9.8	9.2	5.4
Z0018051	DRAINAGE SCUPPERS TO BE ADJUSTED	EACH	2				2			
Z0029090	DIAMOND GRINDING (BRIDGE SECTION)	SQ YD	9918		1921	1283	2488	1529	1529	1168
Z0033700	LONGITUDINAL JOINT SEALANT	FOOT	5872	5872						
Z0034105	MATERIAL TRANSFER DEVICE	TON	3648	3648						

\* SPECIALTY ITEM

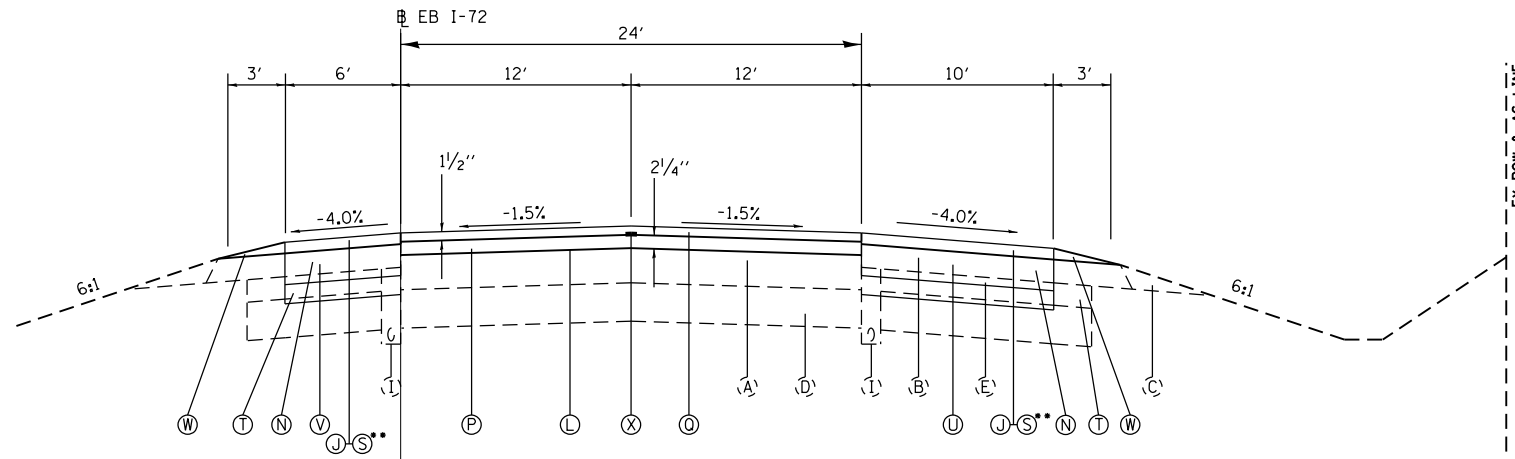
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FILE NAME : USER NAME : jepettibone	DESIGNED - DRAWN - CHECKED - DATE -	REVISED - REVISED - REVISED - REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SUMMARY OF QUANTITIES</b>	F.A.I. RTE. 72	SECTION (75-6) BDR, BP, BRR, RS-2	COUNTY PIKE	TOTAL SHEETS 150	SHEET NO. 9
PLOT SCALE = 100.0000' / in. PLOT DATE = 8/18/2017 2:45:14 PM				SCALE: SHEET 7 OF 7 SHEETS STA. TO STA.		CONTRACT NO. 72J42 ILLINOIS FED. AID PROJECT			



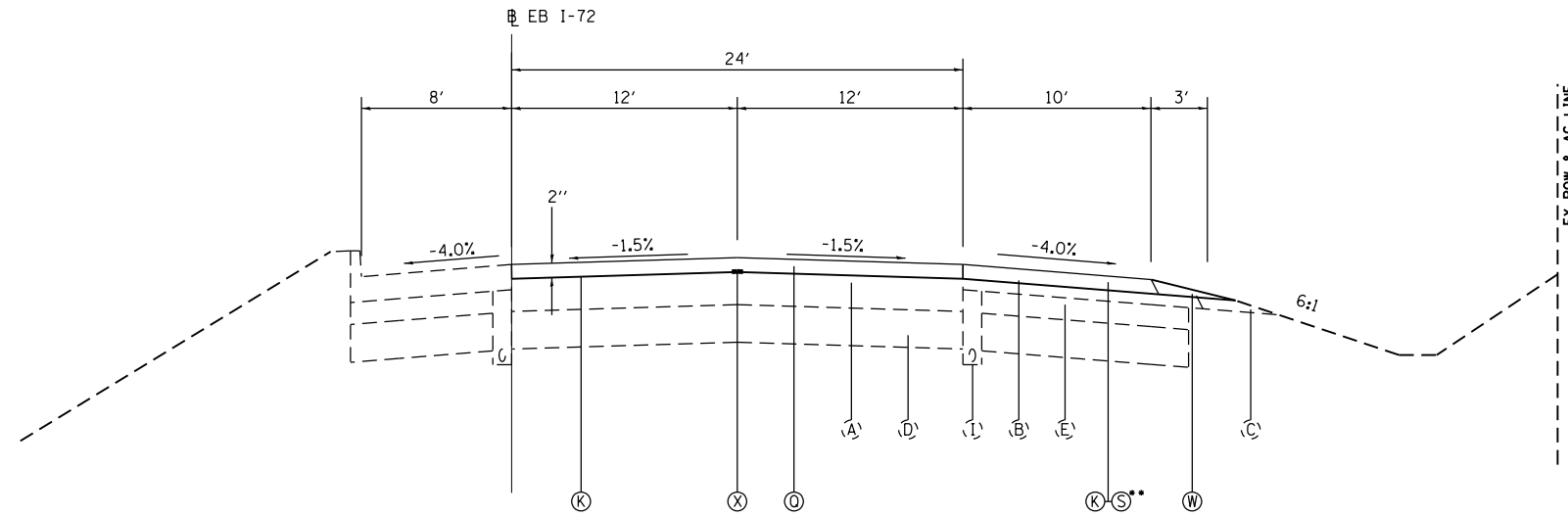






**I-72 TYPICAL TANGENT SECTION - EB**

STA 65+62.36 TO STA 67+43.65  
 STA 75+03.49 TO STA 83+94.36



**I-72 TYPICAL TANGENT SECTION - EB**

STA 83+94.36 TO STA 85+67.18

**LEGEND**

- |   |  |   |   |
|---|--|---|---|
| (A) EXISTING HOT-MIX ASPHALT PAVEMENT 1 5/4"                          | (G) EXISTING PCC BRIDGE APPROACH SHOULDER PAVEMENT   | (M) PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL, 8"                      | (S) PROPOSED HOT-MIX ASPHALT SHOULDERS, 2"            |
| (B) EXISTING HOT-MIX ASPHALT SHOULDER, DEPTH VAIRES - SEE NOTES       | (H) EXISTING COMBINATION CURB & GUTTER               | (N) PROPOSED PAVED SHOULDER REMOVAL                                   | (T) PROPOSED SUBBASE GRANULAR MATERIAL, TYPE B, 6"    |
| (C) EXISTING AGGREGATE SHOULDERS, TYPE B                              | (I) EXISTING PIPE UNDERDRAINS, 4"                    | (O) PROPOSED HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N90              | (U) PROPOSED HOT-MIX ASPHALT BASE COURSE, 9"          |
| (D) EXISTING LIME MODIFIED SOIL, 12"                                  | (J) PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL, 1/2"   | (P) PROPOSED POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N90  | (V) PROPOSED HOT-MIX ASPHALT BASE COURSE WIDENING, 9" |
| (E) EXISTING LIME MODIFIED SOIL OR SUB-BASE GRANULAR MATERIAL, TYPE C | (K) PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL, 2"     | (Q) PROPOSED POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N90 | (W) PROPOSED AGGREGATE WEDGE SHOULDER, TYPE B         |
| (F) EXISTING PCC BRIDGE APPROACH PAVEMENT                             | (L) PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/4" | (R) PROPOSED HOT-MIX ASPHALT SHOULDERS, 1 3/4"                        | (X) PROPOSED LONGITUDINAL JOINT SEALANT               |

•NOTE - SEE RESURFACING ALIGNMENT LAYOUT SHEETS FOR SUPERELEVATION & TRANSITION LOCATIONS  
 •NOTE - TO BE CONSTRUCTED DURING RESURFACING STAGE

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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

<b>I-72 RESURFACING (EASTBOUND) TYPICAL SECTIONS</b>			
SCALE: NTS	SHEET 4	OF 4 SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	13
CONTRACT NO. 72J42			ILLINOIS FED. AID PROJECT	

DELINEATORS				
LOCATION	SIDE	63500105	X6350120	
		DELINEATORS	DELINEATOR REMOVAL	
		EACH	EACH	
FAI ROUTE 72 (WB)				
539+00.00	LT	1		
542+50.00	RT			1
543+00.00	LT	1		
548+00.00	LT	1		
548+00.00	RT	1		
550+85.00	LT			1
550+85.00	RT			1
552+00.00	LT	1		
556+00.00	LT	1		1
562+50.00	LT	1		
562+50.00	RT	1		
563+55.00	LT			1
563+55.00	RT			1
566+50.00	LT	1		
567+25.00	LT			1
570+00.00	LT			1
570+50.00	LT	1		
572+10.00	RT			1
574+50.00	LT	1		
581+00.00	LT	1		
581+00.00	RT	1		
581+40.00	LT			1
582+75.00	LT	1		
583+10.00	LT			1
583+40.00	RT			1
584+50.00	LT	1		
FAI ROUTE 72 (EB)				
42+50.00	RT	1		
44+65.00	RT			1
46+50.00	LT	1		
46+50.00	RT	1		
53+50.00	RT	1		
57+50.00	LT	1		
57+50.00	RT	1		
63+50.00	RT	1		
64+10.00	LT			1
67+50.00	LT	1		
67+50.00	RT	1		
75+00.00	RT	1		
79+00.00	RT	1		
80+60.00	LT			1
83+00.00	LT	1		
83+00.00	RT	1		
84+20.00	RT			1
TOTAL		28		16

ADJUSTING FRAMES FOR INLETS				
LOCATION	Z0000600			TYPE OF INLET
	ADJUSTING FRAMES FOR INLETS			
	EACH			
FAI ROUTE 72 (WB)				
547+31.01	34	LT	1	TYPE D
562+21.35	34	LT	1	TYPE D
580+60.10	6	RT	1	TYPE C
FAI ROUTE 72 (EB)				
44+52.33	6	LT	1	TYPE E
46+91.42	5	LT	1	TYPE C
50+24.38	5	LT	1	TYPE C
63+15.60	7	LT	1	TYPE C
74+06.40	34	RT	1	TYPE D
74+30.04	6	LT	1	TYPE C
TOTAL			9	

EARTHWORK				
LOCATION	20200100	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE (25%)	EMBANKMENT	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
	EARTH EXCAVATION			
	CY			
FAI ROUTE 72 (WB)				
	975	732	0	732
FAI ROUTE 72 (EB)				
	981	736	0	736
TOTAL	1956	1467	0	1467
PAY	1955			

SHOULDER RUMBLE STRIPS				
LOCATION	64200116			
	SHOULDER RUMBLE STRIPS, 16"			
	FOOT			
FAI ROUTE 72 (WESTBOUND)				
538+68.29	TO	543+68.48	LT	500
538+68.29	TO	543+68.48	RT	500
547+12.51	TO	558+58.48	LT	1146
547+12.51	TO	558+58.48	RT	1146
562+02.51	TO	577+74.41	LT	1572
562+02.51	TO	577+74.41	RT	1572
580+02.60	TO	587+01.26	LT	699
580+38.20	TO	587+01.26	RT	663
FAI ROUTE 72 (EB)				
41+64.11	TO	47+18.49	LT	554
41+64.11	TO	47+33.49	RT	569
50+07.39	TO	58+59.87	LT	852
50+25.72	TO	58+41.87	RT	816
62+61.41	TO	68+36.49	RT	575
62+92.97	TO	68+50.58	LT	558
74+10.42	TO	83+94.36	LT	984
73+90.42	TO	85+43.12	RT	1153
TOTAL				13859

MOWING				
LOCATION	X2503000			
	MAINTENANCE MOWING			
	ACRE			
FAI ROUTE 72 (WB)				
538+68.29	TO	543+68.54	LT	0.17
538+68.29	TO	543+70.09	RT	0.17
547+10.62	TO	558+60.96	RT	0.40
547+11.20	TO	558+59.48	LT	0.39
562+02.57	TO	577+96.56	RT	0.55
562+04.38	TO	577+41.71	LT	0.53
579+83.94	TO	587+01.26	LT	0.25
580+45.75	TO	587+01.26	RT	0.22
FAI ROUTE 72 (EB)				
41+64.12	TO	47+50.47	RT	0.20
41+64.17	TO	47+11.11	LT	0.19
49+92.08	TO	58+78.46	LT	0.30
50+25.54	TO	58+32.08	RT	0.28
62+44.28	TO	68+31.19	RT	0.20
62+99.93	TO	68+64.77	LT	0.19
73+78.68	TO	85+67.41	RT	0.41
74+13.35	TO	85+66.91	LT	0.40
				4.84
	# OF MOWINGS			2
	TOTAL			9.67
	PAY			9.75

PATCHES	
LOCATION	44201839
	CLASS D PATCHES, TYPE II, 16 INCH
	SQ YD
FAI ROUTE 72	50
TOTAL	50

\* QUANTITY PROVIDED BY IDOT

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULES OF QUANTITIES			
DELINEATORS, ADJUSTING FRAMES FOR INLETS, EARTHWORK, SHOULDER RUMBLE STRIPS, PATCHES			
SCALE:	SHEET 1 OF 5 SHEETS	STA.	TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	14
CONTRACT NO. 72J42			ILLINOIS FED. AID PROJECT	

**PAVING**

LOCATION	WIDTH	STATION	SIDE	FT	31101400	35501320	35600712	35800100	35800200	40600275	40600290	40600990	40603090	40603545	40603240	408000050	44000151	44000155	44000157	44000158	44000182	44004250	48102100	48203100	Z0033700	Z0034105	
					SUBBASE GRANULAR MATERIAL, TYPE B, 6"	HOT-MIX ASPHALT BASE COURSE		PREPAR-ATION OF BASE	AGGRE-GATE BASE REPAIR	BITUMINOUS MATERIALS		TEMPO-RARY RAMP	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N 90	POLYMERIZED HOT-MIX ASPHALT		INCIDENTAL HOT-MIX ASPHALT SURFACING	HOT-MIX ASPHALT SURFACE REMOVAL,					PAVED SHOULDER REMOVAL	AGGREGATE WEDGE SHOULDER, TYPE B	HOT-MIX ASPHALT SHOULDERS	LONGI-TUDINAL JOINT SEALANT	MATERIAL TRANSFER DEVICE	
						9"	WIDENING, 9"			(PRIME COAT)	(TACK COAT)			SURFACE COURSE, MIX "D", N90	BINDER COURSE, IL-19.0, N90		1/2"	1 1/2"	2"	2 1/4"	8"						
					SQ YD	SQ YD	SQ YD	SQ YD	TON	POUND	POUND	SQ YD	TON	TON	TON	TON	SQ YD	SQ YD	SQ YD	SQ YD	SQ YD	SQ YD	TON	TON	FOOT	TON	
FAI ROUTE 72 (WESTBOUND)																											
538+68.29	TO	538+75.79	-	40								33															
538+68.29	TO	540+68.29	RT	6						60							132						11	15			
538+68.29	TO	542+68.48	-	24						719				89	134					1053					399	224	
538+68.29	TO	542+68.29	LT	10						199							443						24	50			
538+68.29	TO	543+48.48	LT	10	531	531				1194												544					
540+68.29	TO	543+48.48	RT	6	187		187			421	60						133					189	11	15			
542+60.79	TO	542+68.29	-	40								33															
542+68.29	TO	543+68.48	LT	10							50												5	14			
542+68.48	TO	543+68.48	-	24							120			26													26
542+68.38	TO	543+68.48	RT	6							30												5	8			
543+62.48	TO	543+68.48	-	40								27															
547+12.51	TO	547+18.38	-	40								26															
547+12.51	TO	548+12.51	LT	10							50												3	14			
547+12.51	TO	548+12.51	-	24							120			26													26
547+12.51	TO	548+12.51	RT	6							30												3	8			
547+32.51	TO	550+38.58	RT	6	199		199			448	68						150					175	13	17			
547+32.51	TO	558+38.48	LT	10	1219	1219				2743												1246					
548+12.51	TO	548+20.01	-	40								36															
548+12.51	TO	552+75.00	-	24							831			103	155					1222							258
548+12.51	TO	557+58.48	LT	10							472						1048						55	117	945		
550+38.58	TO	555+53.14	RT	6							154						341						28	38			
552+75.00	TO	555+25.00	-	12							224			28	42					325							70
552+75.00	TO	555+25.00	-	12							225		98	28	51												177
555+25.00	TO	557+58.48	-	24							420			52	78					616							131
555+53.14	TO	557+58.48	RT	6	191		191			430	62						137					196	11	15			
557+50.98	TO	557+58.48	-	40								34															
557+58.48	TO	558+58.48	LT	10							49												5	14			
557+58.48	TO	558+58.48	-	24							119			26													26
557+58.48	TO	558+58.48	RT	6							30												4	8			
558+52.35	TO	558+58.48	-	40								28															
562+02.51	TO	562+08.59	-	40								27															
562+02.51	TO	563+02.51	LT	10							50												3	14			
562+02.51	TO	563+02.51	RT	6							30												4	8			
562+02.51	TO	563+02.51	-	24							120			26													26
562+22.51	TO	565+29.60	RT	6	200		200			451	68						151					196	13	17			
562+22.51	TO	567+28.49	LT	10	554	554				1246	212						470					545	27	53			
563+02.51	TO	563+10.76	-	40								35															
563+02.51	TO	576+62.41	-	24							2448			305	457					3611						1360	762
565+29.60	TO	574+63.92	RT	6							280						598						53	70			
567+28.49	TO	572+63.89	LT	10							268						597						33	67			
572+63.89	TO	577+26.41	LT	10	514	514				1156	200						445					517	23	50			
574+63.92	TO	577+56.41	RT	6	195		195			439	60						128					184	11	15			
576+54.91	TO	576+62.41	-	40								33															
576+62.41	TO	577+74.41	LT	10							42												4	12			
576+62.41	TO	577+74.41	-	24							119			26													26
576+62.41	TO	577+74.41	RT	6							34												5	9			
577+50.69	TO	577+58.21	-	40								34															
580+02.60	TO	580+58.20	LT	10							26												1	7			
580+20.01	TO	580+28.12	-	40								36															
580+20.01	TO	587+01.26	LT	10	758	758				1705												767					
580+38.20	TO	580+58.20	RT	6							5																
580+38.20	TO	580+58.20	-	24							38			8													8
580+58.20	TO	580+65.82	-	40								33															
580+58.20	TO	587+01.26	LT	10							324						720						36	81			
580+58.20	TO	587+01.26	-	24							1161			145	217					1764						645	361
580+58.20	TO	587+01.26	RT	6							192						427						36	48			
580+62.65	TO	587+01.26	RT	6	420		420			946												418					
586+93.76	TO	587+01.26	-	40								33															

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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

<b>SCHEDULES OF QUANTITIES</b>			
<b>PAVING</b>			
SCALE:	SHEET 2	OF 5 SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	15
CONTRACT NO. 72J42			ILLINOIS FED. AID PROJECT	

**PAVING**

LOCATION	WIDTH	STATION	SIDE	FT	31101400	35501320	35600712	35800100	35800200	40600275	40600290	40600990	40603090	40603545	40603240	408000050	44000151	44000155	44000157	44000158	44000182	44004250	48102100	48203100	20033700	20034105												
					SUBBASE GRANULAR MATERIAL, TYPE B, 6"	HOT-MIX ASPHALT COURSE		PREPARATION OF BASE	AGGREGATE BASE REPAIR	BITUMINOUS MATERIALS		TEMPORARY RAMP	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N 90	POLYMERIZED HOT-MIX ASPHALT		INCIDENTAL HOT-MIX ASPHALT SURFACING	HOT-MIX ASPHALT SURFACE REMOVAL,					PAVED SHOULDER REMOVAL	AGGREGATE WEDGE SHOULDER, TYPE B	HOT-MIX ASPHALT SHOULDERS	LONGITUDINAL JOINT SEALANT	MATERIAL TRANSFER DEVICE												
						9"	WIDENING, 9"			(PRIME COAT)	(TACK COAT)			SURFACE COURSE, MIX "D", N90	BINDER COURSE, IL-19.0, N90		1/2"	1 1/2"	2"	2 1/4"	8"																	
SQ YD	SQ YD	SQ YD	TON	TON	TON	TON	TON	TON	TON	TON	TON	TON	TON	SQ YD	SQ YD	SQ YD	SQ YD	SQ YD	SQ YD	SQ YD	SQ YD	TON	TON	FOOT	TON													
FAI 72 MEDIAN CROSSOVER								180	82							29								14														
527+29.12	TO	527+75.30	RT										14																									
27+43.73	TO	28+36.62	LT										29																									
FAI ROUTE 72 (EB)																																						
41+64.11	TO	41+71.61	-	40																																		
41+64.11	TO	46+25.42	LT	6	225		225			507	164											364					229						45					
41+64.11	TO	46+25.42	-	24							835			104	156							1226													462	260		
41+64.11	TO	47+17.49	RT	10	613		613			1380	232											515																
44+56.22	TO	46+88.49	LT	6	164		164			369																												
46+17.60	TO	46+25.42	-	40																																		
46+25.42	TO	47+18.49	LT	6																																		
46+25.42	TO	47+18.49	-	24																																		
46+25.42	TO	47+33.49	RT	10																																		
47+23.20	TO	47+29.71	-	40																																		
50+07.39	TO	51+14.32	LT	6																																		
50+07.39	TO	51+14.32	-	24																																		
50+17.28	TO	50+23.58	-	40																																		
50+25.72	TO	51+14.32	RT	10																																		
50+27.39	TO	58+45.87	LT	6	539		539			1212																												
50+47.72	TO	58+11.87	RT	10	850		850			1912																												
51+14.32	TO	51+22.07	-	40																																		
51+14.32	TO	57+49.87	LT	6																																		
51+14.32	TO	57+49.87	-	24																																		
51+14.32	TO	57+49.87	RT	10																																		
57+42.37	TO	57+49.87	-	40																																		
57+49.87	TO	58+41.87	RT	10																																		
57+49.87	TO	58+59.94	-	24																																		
57+49.87	TO	58+59.94	LT	6																																		
58+39.18	TO	58+46.17	-	40																																		
62+61.41	TO	63+82.90	RT	10																																		
62+75.75	TO	62+83.23	-	40																																		
62+92.97	TO	63+82.90	LT	6																																		
62+92.97	TO	63+82.90	-	24																																		
63+82.90	TO	63+90.40	-	40																																		
63+82.90	TO	67+43.65	LT	6																																		
63+82.90	TO	67+43.65	-	24																																		
63+82.90	TO	67+43.65	RT	10																																		
63+82.90	TO	67+43.65	-	24																																		
63+82.90	TO	67+43.65	RT	10																																		
62+83.33	TO	68+12.26	RT	10	586		586			1318																												
63+17.97	TO	68+35.58	LT	6	338		338			760																												
67+35.78	TO	67+43.65	-	40																																		
67+43.65	TO	68+36.49	RT	10																																		
67+43.65	TO	68+50.58	-	24																																		
67+43.65	TO	68+50.58	LT	6																																		
68+33.55	TO	68+40.02	-	40																																		
73+90.42	TO	75+03.49	RT	10																																		
73+99.59	TO	74+06.03	-	40																																		
74+08.49	TO	85+43.06	RT	10	1255		1255			2823																												
74+10.42	TO	75+03.49	LT	6																																		
74+10.42	TO	75+03.49	-	24																																		
74+32.42	TO	83+94.36	LT	6	637		637			1434	265																											
75+03.49	TO	75+11.36	-	40																																		
75+03.49	TO	83+94.36	-	24																																		
75+03.49	TO	83+94.36	RT	10																																		
75+03.49	TO	85+66.98	-	24																																		
83+86.86	TO	83+94.36	-	40																																		
83+94.36	TO	85+67.18	-	24																																		
83+94.36	TO	85+43.22	RT	10																																		
85+59.68	TO	85+67.18	-	40																																		
TOTAL					10174	6878	3296	180	82	22891	17436	930	98	1625	1925	29	10154	95	625	14819	33																	



GUARDRAIL											
LOCATION	SIDE	20700220	50200400	X6320100	63000001	63100045	63100085	63100167	72501000	78200005	78200011
		POROUS GRANULAR EMBANKMENT	ROCK EXCAVATION FOR STRUCTURES	GUARDRAIL REMOVAL SPECIAL	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	TRAFFIC BARRIER TERMINAL,			TERMINAL MARKER - DIRECT APPLIED	GUARDRAIL REFLECTORS, TYPE A	BARRIER WALL REFLECTORS, TYPE C
		CU YD	CU YD	FOOT	FOOT	TYPE 2	TYPE 6	TYPE 1 (SPECIAL) TANGENT	EACH	EACH	EACH
FAI ROUTE 72 (WB)											
542+41.58 TO 543+54.00	RT			113	62.5	1	1			4	
543+54.00 TO 547+26.95	LT										15
543+54.00 TO 547+27.92	RT										15
547+26.95 TO 551+76.59	RT			454	362.5		1	1	1	6	
547+27.92 TO 551+79.98	LT			451	362.5		1	1	1	6	
558+43.75 TO 562+18.40	LT										15
558+44.97 TO 562+17.35	RT										15
562+17.35 TO 572+04.39	RT			991	900.0		1	1	1	8	
562+18.40 TO 571+58.22	LT	8.4	4.2	935	850.0		1	1	1	8	
577+31.35 TO 580+14.38	LT										11
577+61.74 TO 580+57.10	RT										12
580+14.38 TO 583+98.36	LT	4.1	2.03	388	300.0		1	1	1	6	
580+57.10 TO 584+57.81	RT			400	312.5		1	1	1	6	
FAI ROUTE 72 (EB)											
37+97.09 TO 46+98.33	LT			899	812.5		1	1	1	8	
43+37.54 TO 47+22.66	RT			387	300.0		1	1	1	6	
46+98.33 TO 50+21.01	LT										13
47+22.66 TO 50+43.03	RT										13
54+32.16 TO 58+17.34	RT			388	300.0		1	1	1	6	
54+70.37 TO 58+51.11	LT			406	287.5		1	1	1	6	
58+17.34 TO 62+78.44	RT										19
58+51.11 TO 63+11.91	LT										18
64+30.97 TO 68+17.96	RT			387	300.0		1	1	1	6	
64+60.81 TO 68+41.08	LT			401	287.5		1	1	1	6	
68+17.96 TO 74+03.10	RT										23
68+41.08 TO 74+26.51	LT										23
80+19.74 TO 83+94.36	LT			407	287.5		1	1	1	6	
81+02.60 TO 85+49.37	RT	3.36	1.68	394	362.5		1	1	1	6	
TOTAL		16	8	7401	6087.5	1	15	14	14	94	192

TEMPORARY CONCRETE BARRIER					
LOCATION	70400100	70400200	70600260	70600332	
	TEMPORARY CONCRETE BARRIER	RELOCATE TEMPORARY CONCRETE BARRIER	IMPACT ATTENUATORS		
	FOOT	FOOT	TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	RELOCATE (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	
STAGE I					
FAI ROUTE 72 (WB)					
542+62.56 TO 549+63.23	700.0		1		
557+53.13 TO 563+66.22	712.5		1		
576+59.44 TO 582+07.06	550.0		1		
FAI ROUTE 72 (EB)					
44+75.00 TO 51+23.96	650.0		1		
56+00.42 TO 63+86.09	787.5		1		
65+93.71 TO 75+05.55	912.5		1		
STAGE II					
FAI ROUTE 72 (WB)					
542+62.10 TO 550+12.91	50.0	700		1	
557+51.98 TO 565+02.77	37.5	713		1	
576+60.01 TO 582+57.20	50.0	550		1	
FAI ROUTE 72 (EB)					
44+13.93 TO 51+23.81	62.5	650		1	
55+50.88 TO 63+85.78	50.0	788		1	
65+43.82 TO 75+05.58	50.0	913		1	
		4612.5	4313	6	6

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SCHEDULES OF QUANTITIES  
GUARDRAIL, TEMPORARY CONCRETE BARRIER**

SCALE: SHEET 4 OF 5 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	17
CONTRACT NO. 72J42			ILLINOIS FED. AID PROJECT	

TEMPORARY PAVEMENT MARKING /GRINDING						
LOCATION	SIDE	DESCRIPTION	70300230	X7030005	X0327979	
			TEMPORARY PAVEMENT MARKING - LINE 5"	TEMPORARY PAVEMENT MARKING REMOVAL	PAVEMENT MARKING REMOVAL - GRINDING	
			FOOT	SQ FT	SQ FT	
STAGE I						
FAI ROUTE 72 (WB)						
540+68.29 TO 550+38.58	RT	YELLOW SOLID LINE			404	
540+68.29 TO 582+89.84	RT	WHITE SOLID LINE	4223	147		
540+68.52 TO 542+68.52	LT	WHITE SKIP DASH			21	
540+68.52 TO 582+89.54	LT	YELLOW SOLID LINE	4220	147		
548+13.35 TO 557+53.13	LT	WHITE SKIP DASH			98	
555+58.50 TO 565+29.60	RT	YELLOW SOLID LINE			405	
563+03.91 TO 576+64.14	LT	WHITE SKIP DASH			567	
574+63.91 TO 582+89.90	RT	YELLOW SOLID LINE			344	
580+57.83 TO 582+89.54	LT	WHITE SKIP DASH			97	
FAI ROUTE 72 (EB)						
44+00.00 TO 46+25.00	RT	WHITE SKIP DASH			94	
44+00.00 TO 77+02.68	LT	WHITE SOLID LINE	3302	115	1376	
44+00.00 TO 77+02.68	RT	YELLOW SOLID LINE	1305	45		
51+24.10 TO 57+49.56	RT	WHITE SKIP DASH			261	
63+86.09 TO 67+43.22	RT	WHITE SKIP DASH			149	
75+03.08 TO 77+02.45	RT	WHITE SKIP DASH			83	
STAGE II						
FAI ROUTE 72 (WB)						
538+68.29 TO 584+89.54	LT	YELLOW SOLID LINE	4618	160		
538+68.29 TO 584+89.54	LT	WHITE SOLID LINE	4617	160		
538+68.29 TO 540+68.52	LT	WHITE SKIP DASH			21	
538+68.29 TO 543+68.33	LT	WHITE SOLID LINE			208	
547+12.67 TO 558+58.70	LT	WHITE SOLID LINE			478	
562+03.22 TO 567+28.49	LT	WHITE SOLID LINE			219	
572+63.89 TO 577+54.90	LT	WHITE SOLID LINE			205	
580+11.02 TO 584+89.54	LT	WHITE SOLID LINE			199	
582+89.85 TO 584+89.54	LT	WHITE SKIP DASH			21	
FAI ROUTE 72 (EB)						
42+00.00 TO 44+00.00	RT	WHITE SKIP DASH			21	
42+00.00 TO 47+33.49	RT	WHITE SOLID LINE			222	
42+00.00 TO 79+03.35	RT	YELLOW SOLID LINE	3711	129		
42+00.00 TO 79+03.35	LT	WHITE SOLID LINE	3716	129		
50+19.33 TO 58+43.90	RT	WHITE SOLID LINE			344	
62+69.06 TO 68+38.88	RT	WHITE SOLID LINE			237	
73+94.50 TO 79+03.35	RT	WHITE SOLID LINE			212	
77+02.45 TO 79+03.35	RT	WHITE SKIP DASH			84	
TOTAL			TOTAL	29712	1032	6368

SHORT TERM PAVEMENT MARKING					
LOCATION	SIDE	DESCRIPTION	70300100	70300150	
			SHORT TERM PAVEMENT MARKING	SHORT TERM PAVEMENT MARKING REMOVAL	
			FOOT	SQ FT	
FAI ROUTE 72 (WB)					
538+68.29 TO 587+01.26	LT	WHITE 2' SHOULDER LINE	99	33	
538+68.29 TO 587+01.26	LT	WHITE SKIP DASH (4' -40')	1212	404	
538+68.29 TO 587+01.26	RT	YELLOW 2' MEDIAN LINE	99	33	
FAI ROUTE 72 (EB)					
41+64.11 TO 85+67.18	LT	YELLOW 2' MEDIAN LINE	90	30	
41+64.11 TO 85+67.18	RT	WHITE SKIP DASH (4' -40')	1105	368	
41+64.11 TO 85+67.18	RT	WHITE 2' SHOULDER LINE	90	30	
TOTAL			TOTAL	2694	898

PAVEMENT MARKING							
LOCATION	SIDE	78004220	78009005	78100100	78300200	X7830072	X0320157
		PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - INLAID - LINE 5"	MODIFIED URETHANE PAVEMENT MARKING - LINE 5"	RAISED REFLECTIVE PAVEMENT MARKER	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	GROOVING FOR RECESSED PAVEMENT MARKING 6"	CLEANING UNDERDRAIN OUTLETS
		FOOT	FOOT	EACH	EACH	FOOT	EACH
FAI ROUTE 72 (WB)							
538+68.29 TO 543+69.56	LT	125		6	6		
538+68.29 TO 587+01.26	LT		4829			4829	
538+68.29 TO 587+01.26	RT		4833			4833	
541+00.00 OUTLET MARKER	LT		2				1
541+00.00 OUTLET MARKER	RT		2				1
543+48.00 OUTLET MARKER	LT		2				1
543+48.00 OUTLET MARKER	RT		2				1
543+69.56 TO 547+10.96	LT		85			85	
547+10.96 TO 558+60.45	LT	287		14	14		
551+00.00 OUTLET MARKER	LT		2				1
551+00.00 OUTLET MARKER	RT		2				1
555+00.00 OUTLET MARKER	LT		2				1
555+00.00 OUTLET MARKER	RT		2				1
558+38.00 OUTLET MARKER	LT		2				1
558+38.00 OUTLET MARKER	RT		2				1
558+60.45 TO 562+01.90	LT		85			85	
562+01.90 TO 577+66.05	LT	391		20	20		
565+10.00 OUTLET MARKER	LT		2				1
565+10.00 OUTLET MARKER	RT		2				1
569+40.00 OUTLET MARKER	LT		2				1
569+40.00 OUTLET MARKER	RT		2				1
577+23.00 OUTLET MARKER	LT		2				1
577+50.00 OUTLET MARKER	RT		2				1
577+66.05 TO 580+23.54	LT		65			65	
580+23.54 TO 587+01.26	LT	170		8	8		
FAI ROUTE 72 (EB)							
41+64.11 TO 47+27.88	RT	141		7	7		
41+64.11 TO 85+67.18	LT		4408			4408	
41+64.11 TO 85+67.18	RT		4413			4413	
44+00.00 OUTLET MARKER	LT		2				1
44+00.00 OUTLET MARKER	RT		2				1
46+92.00 OUTLET MARKER	LT		2				1
47+16.00 OUTLET MARKER	RT		2				1
47+27.88 TO 50+13.91	RT		72			72	
50+13.91 TO 58+53.18	RT	211		10	10		
54+25.00 OUTLET MARKER	LT		2				1
54+50.00 OUTLET MARKER	RT		2				1
58+09.00 OUTLET MARKER	RT		2				1
58+46.00 OUTLET MARKER	LT		2				1
58+53.18 TO 62+79.83	RT		107			107	
62+79.83 TO 68+45.78	RT	142		7	7		
68+13.00 OUTLET MARKER	RT		2				1
68+36.00 OUTLET MARKER	LT		2				1
68+45.78 TO 74+01.35	RT		139			139	
74+01.35 TO 85+66.98	RT	292		15	15		
77+50.00 OUTLET MARKER	LT		2				1
77+50.00 OUTLET MARKER	RT		2				1
80+75.00 OUTLET MARKER	LT		2				1
80+75.00 OUTLET MARKER	RT		2				1
TOTAL		1758	19096	88	88	19036	30

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

SCHEDULES OF QUANTITIES				F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PAVEMENT MARKING, SHORT TERM PAVEMENT MARKING, TEMPORARY PAVEMENT MARKING / GRINDING				72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	18
SCALE: SHEET 5 OF 5 SHEETS STA. TO STA.				CONTRACT NO. 72J42				
				ILLINOIS FED. AID PROJECT				

● CONTROL POINTS

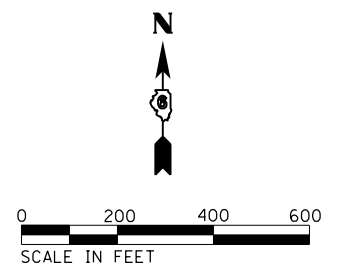
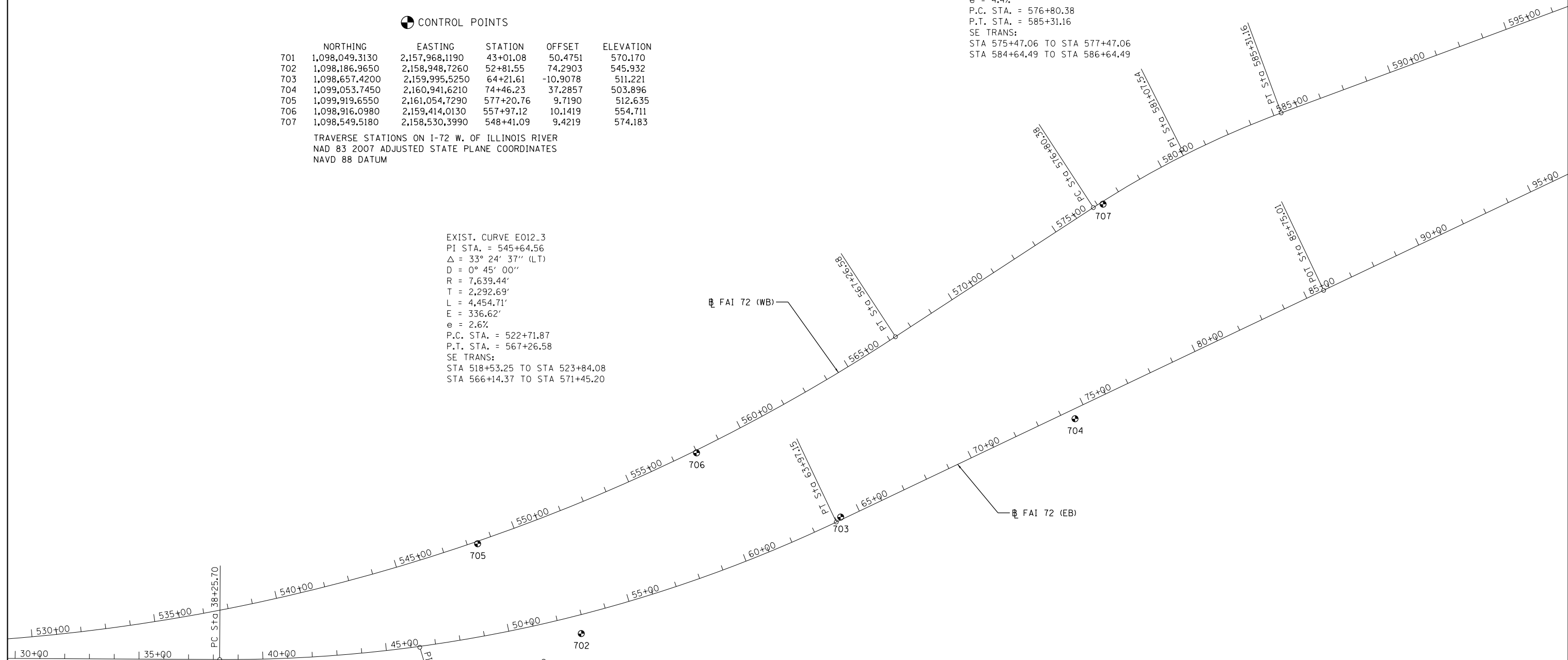
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702	1,098,186.9650	2,158,948.7260	52+81.55	74.2903	545.932
703	1,098,657.4200	2,159,995.5250	64+21.61	-10.9078	511.221
704	1,099,053.7450	2,160,941.6210	74+46.23	37.2857	503.896
705	1,099,919.6550	2,161,054.7290	577+20.76	9.7190	512.635
706	1,098,916.0980	2,159,414.0130	557+97.12	10.1419	554.711
707	1,098,549.5180	2,158,530.3990	548+41.09	9.4219	574.183

TRAVERSE STATIONS ON I-72 W. OF ILLINOIS RIVER  
 NAD 83 2007 ADJUSTED STATE PLANE COORDINATES  
 NAVD 88 DATUM

EXIST. CURVE E012.6  
 PI STA. = 581+07.54  
 $\Delta$  = 12° 45' 42" (RT)  
 D = 1° 30' 00"  
 R = 3,819.75'  
 T = 427.16'  
 L = 850.79'  
 E = 23.81'  
 e = 4.4%  
 P.C. STA. = 576+80.38  
 P.T. STA. = 585+31.16  
 SE TRANS:  
 STA 575+47.06 TO STA 577+47.06  
 STA 584+64.49 TO STA 586+64.49

EXIST. CURVE E012.3  
 PI STA. = 545+64.56  
 $\Delta$  = 33° 24' 37" (LT)  
 D = 0° 45' 00"  
 R = 7,639.44'  
 T = 2,292.69'  
 L = 4,454.71'  
 E = 336.62'  
 e = 2.6%  
 P.C. STA. = 522+71.87  
 P.T. STA. = 567+26.58  
 SE TRANS:  
 STA 518+53.25 TO STA 523+84.08  
 STA 566+14.37 TO STA 571+45.20

EXIST. CURVE E013.3  
 PI STA. = 51+33.45  
 $\Delta$  = 25° 42' 52" (LT)  
 D = 1° 00' 00"  
 R = 5,729.59'  
 T = 1,307.75'  
 L = 2,571.45'  
 E = 147.35'  
 e = 3.3%  
 P.C. STA. = 38+25.70  
 P.T. STA. = 63+97.15  
 SE TRANS:  
 STA 36+60.49 TO STA 38+74.82  
 STA 63+48.03 TO STA 65+62.36



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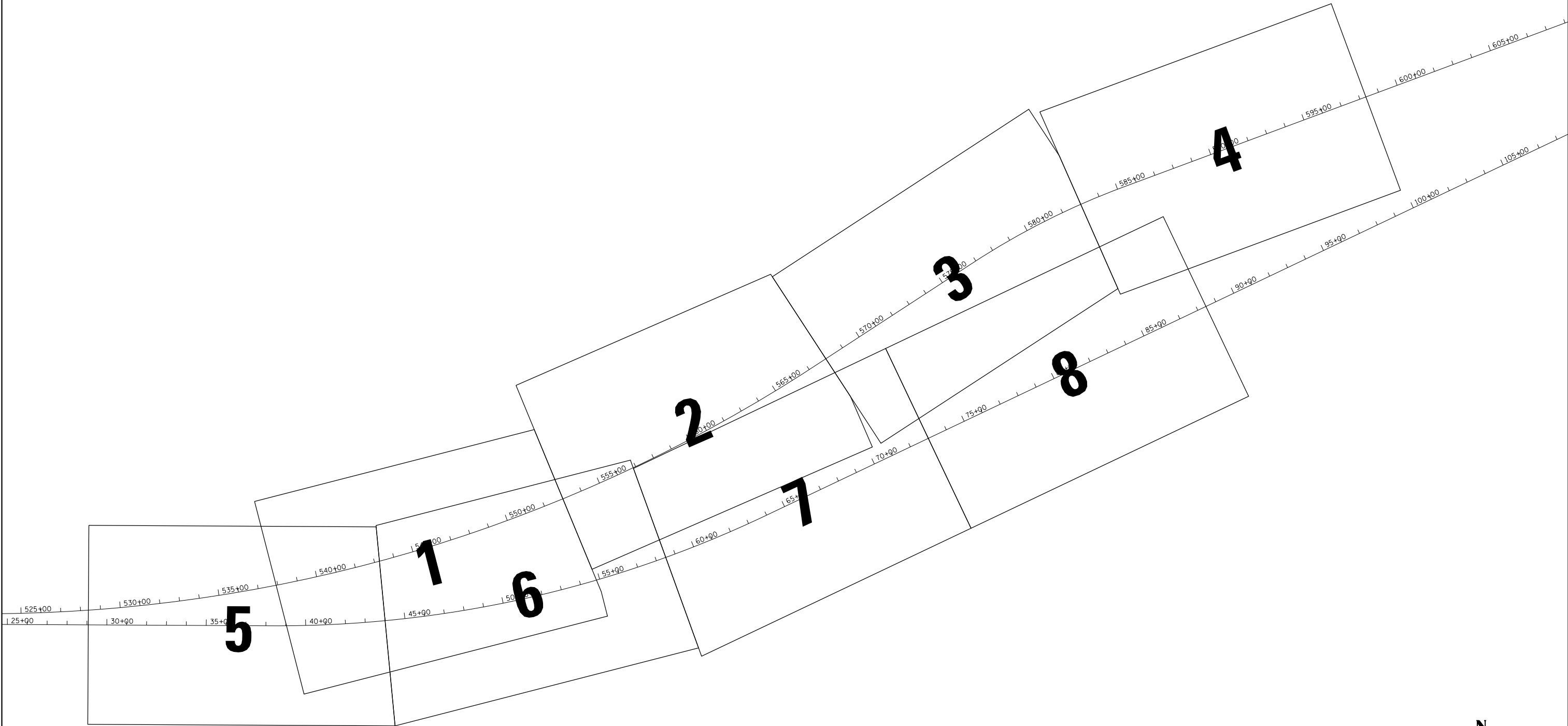
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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**I-72 RESURFACING**  
**ALIGNMENT LAYOUT**

SCALE: 1" = 200'    SHEET 1    OF 1    SHEETS    STA.    TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BJR, BP	PIKE	150	19
CONTRACT NO. 72J42			ILLINOIS FED. AID PROJECT	



LAST SAVED = 4/21/2017  
 PEN TABLE = 1/8, 1/4, 1/4  
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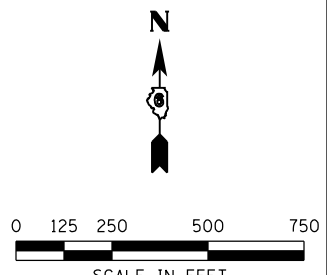
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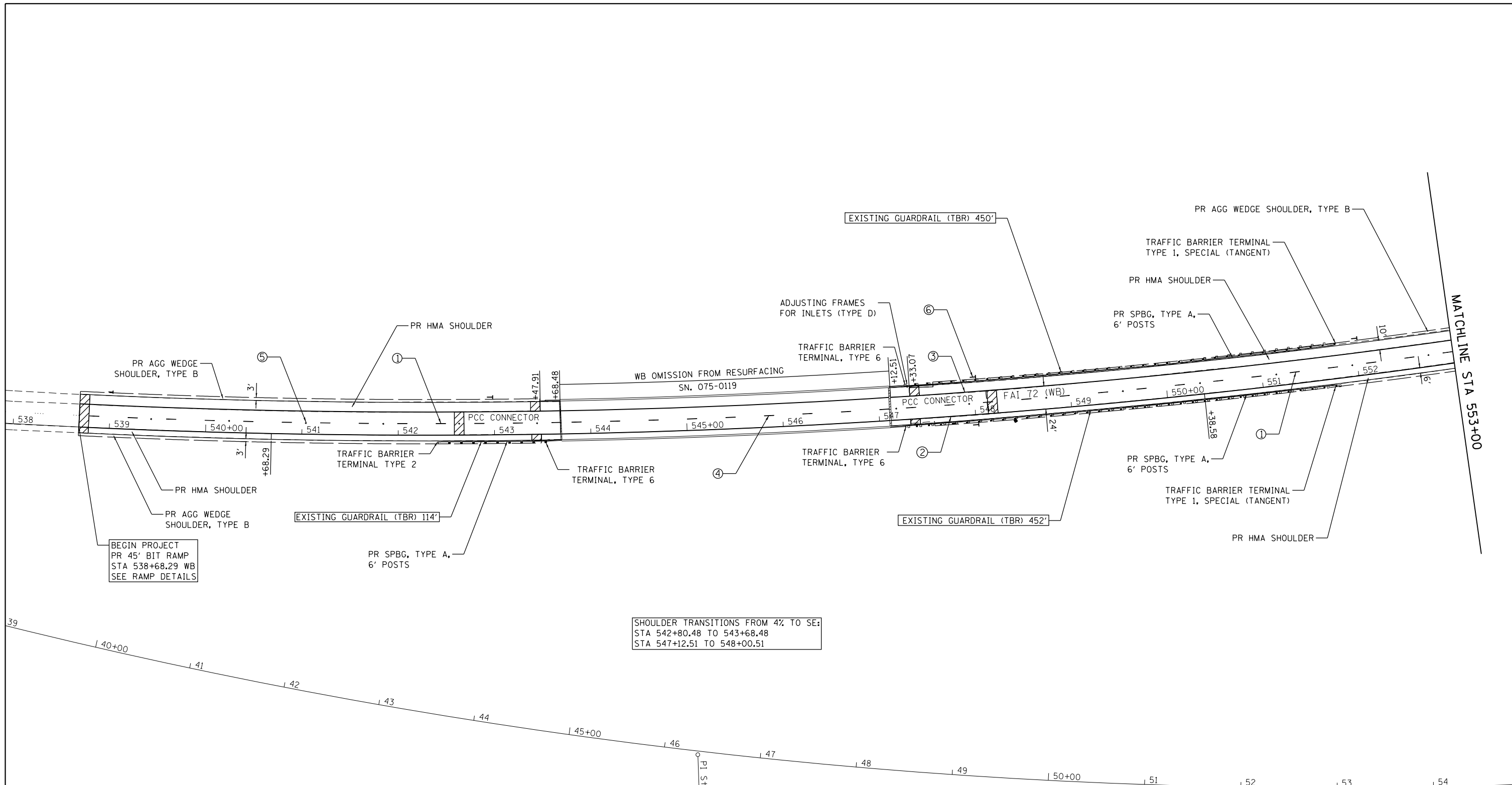
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**I-72 RESURFACING**  
**SHEET LAYOUT**

SCALE: 1" = 250' SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	20
CONTRACT NO. 72J42			ILLINOIS FED. AID PROJECT	





BEGIN PROJECT  
PR 45' BIT RAMP  
STA 538+68.29 WB  
SEE RAMP DETAILS

SHOULDER TRANSITIONS FROM 4% TO SE:  
STA 542+80.48 TO 543+68.48  
STA 547+12.51 TO 548+00.51

**PAVEMENT MARKING LEGEND**

- ① PROPOSED PREFORMED PAVEMENT MARKING, INLAID 5" (30' SKIP, 10' DASH) (SOLID WHITE)
- ② PROPOSED MODIFIED URETHANE PAVEMENT MARKING, LINE 5" (SOLID YELLOW)
- ③ PROPOSED MODIFIED URETHANE PAVEMENT MARKING, LINE 5" (SOLID WHITE)
- ④ PROPOSED MODIFIED URETHANE MARKING, LINE 5" (30' SKIP, 10' DASH) (SOLID WHITE)
- ⑤ RAISED REFLECTIVE PAVEMENT MARKERS (ONE WAY CRYSTAL)
- ⑥ PROPOSED DELINEATOR

▨ 10' BUTT JOINT

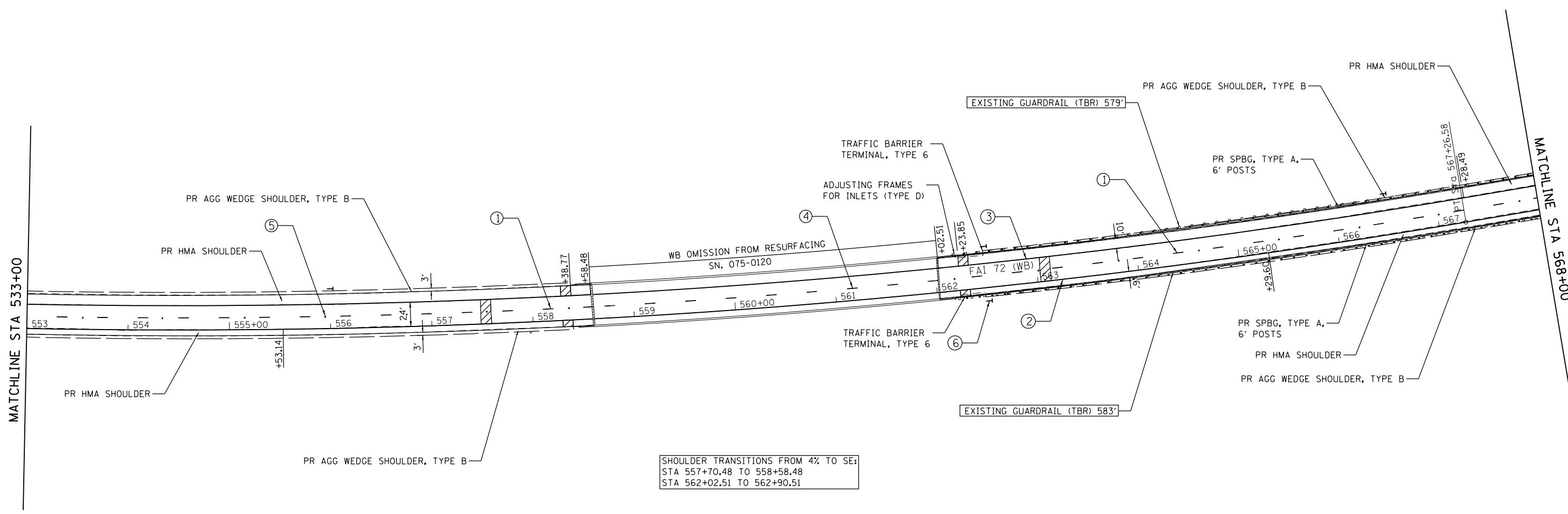
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Default	PLOT DATE = 8/30/2017	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**I-72 RESURFACING (WEST BOUND)  
PLAN SHEET**

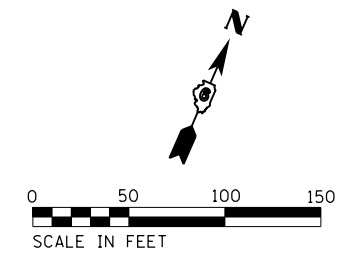
SCALE: 1" = 50' SHEET 1 OF 8 SHEETS STA. 538+00.00 TO STA. 553+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	21
CONTRACT NO. 72J42			ILLINOIS FED. AID PROJECT	



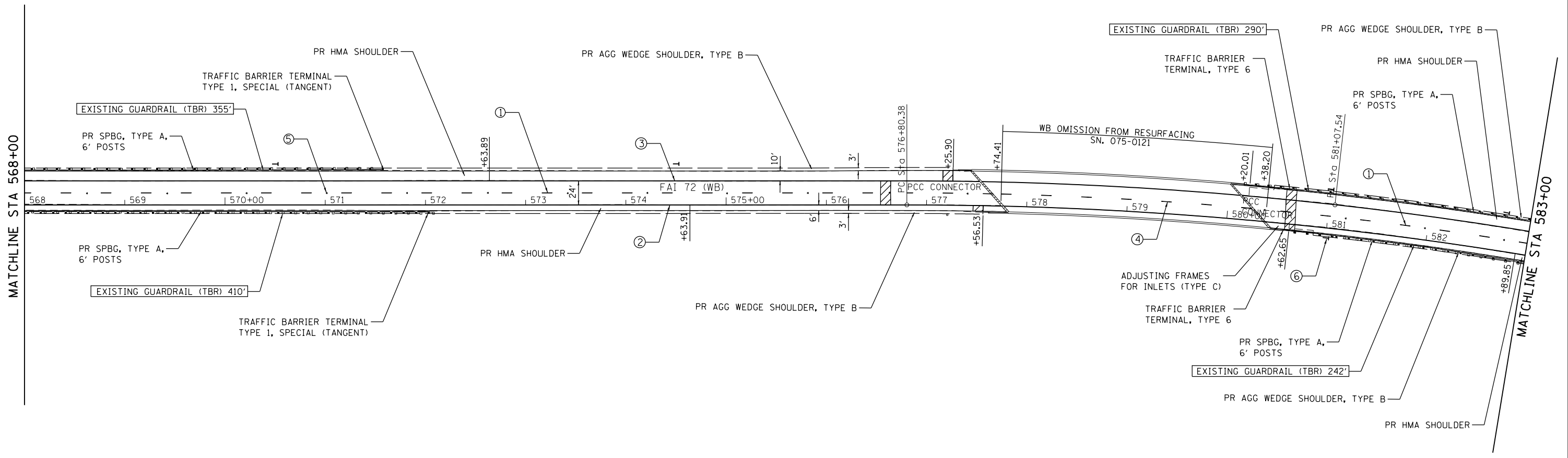
**PAVEMENT MARKING LEGEND**

- ① PROPOSED PREFORMED PAVEMENT MARKING, INLAID 5" (30' SKIP, 10' DASH) (SOLID WHITE)
  - ② PROPOSED MODIFIED URETHANE PAVEMENT MARKING, LINE 5" (SOLID YELLOW)
  - ③ PROPOSED MODIFIED URETHANE PAVEMENT MARKING, LINE 5" (SOLID WHITE)
  - ④ PROPOSED MODIFIED URETHANE MARKING, LINE 5" (30' SKIP, 10' DASH) (SOLID WHITE)
  - ⑤ RAISED REFLECTIVE PAVEMENT MARKERS (ONE WAY CRYSTAL)
  - ⑥ PROPOSED DELINEATOR
- ▨ 10' BUTT JOINT



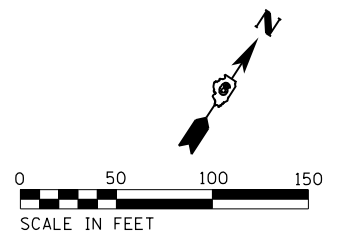
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pw:\IL\084EBIDINTEG\illinois.gov\PIWIDOT\Documents\IDOT Offices\District 6\Projects\0672\Drawings\0672\08 28\0672J2\REVISED.dgn		CHECKED -	REVISED -		SCALE: 1" = 50'	SHEET 2	OF 8 SHEETS	STA. 553+00.00	TO STA. 568+00.00	PIKE	150	22
Default		DATE -	REVISED -					CONTRACT NO. 72J42		ILLINOIS FED. AID PROJECT		

SHOULDER TRANSITIONS FROM 4% TO SE:  
 STA 575+88.41 TO 577+74.41  
 STA 578+34.01 TO 580+20.01 (LT)  
 STA 578+76.65 TO 580+62.65 (RT)



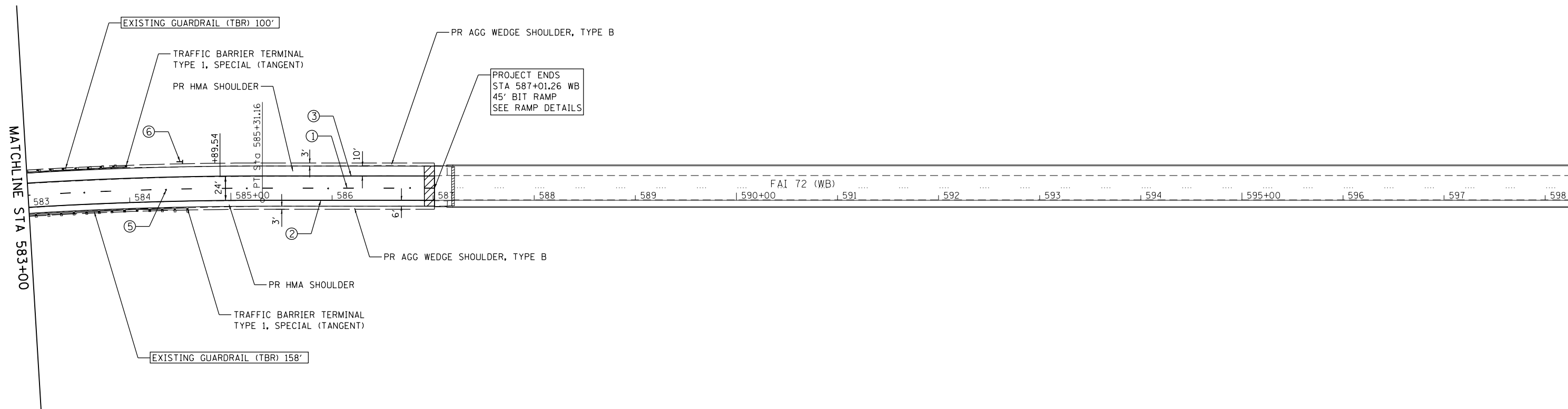
**PAVEMENT MARKING LEGEND**

- ① PROPOSED PREFORMED PAVEMENT MARKING, INLAID 5" (30' SKIP, 10' DASH) (SOLID WHITE)
- ② PROPOSED MODIFIED URETHANE PAVEMENT MARKING, LINE 5" (SOLID YELLOW)
- ③ PROPOSED MODIFIED URETHANE PAVEMENT MARKING, LINE 5" (SOLID WHITE)
- ④ PROPOSED MODIFIED URETHANE MARKING, LINE 5" (30' SKIP, 10' DASH) (SOLID WHITE)
- ⑤ RAISED REFLECTIVE PAVEMENT MARKERS (ONE WAY CRYSTAL)
- ⑥ PROPOSED DELINEATOR
- ▨ 10' BUTT JOINT



FILE NAME =	USER NAME = coxte	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>I-72 RESURFACING (WESTBOUND) PLAN SHEET</b>	F.A.I. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Default		CHECKED -	REVISED -			1-72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	23
		DATE -	REVISED -			CONTRACT NO. 72J42		ILLINOIS FED. AID PROJECT		

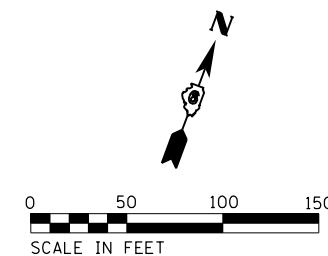
SCALE: 1" = 50' SHEET 3 OF 8 SHEETS STA. 568+00.00 TO STA. 583+00.00



**PAVEMENT MARKING LEGEND**

- ① PROPOSED PREFORMED PAVEMENT MARKING, INLAID 5" (30' SKIP, 10' DASH) (SOLID WHITE)
- ② PROPOSED MODIFIED URETHANE PAVEMENT MARKING, LINE 5" (SOLID YELLOW)
- ③ PROPOSED MODIFIED URETHANE PAVEMENT MARKING, LINE 5" (SOLID WHITE)
- ④ PROPOSED MODIFIED URETHANE MARKING, LINE 5" (30' SKIP, 10' DASH) (SOLID WHITE)
- ⑤ RAISED REFLECTIVE PAVEMENT MARKERS (ONE WAY CRYSTAL)
- ⑥ PROPOSED DELINEATOR

▨ 10' BUTT JOINT



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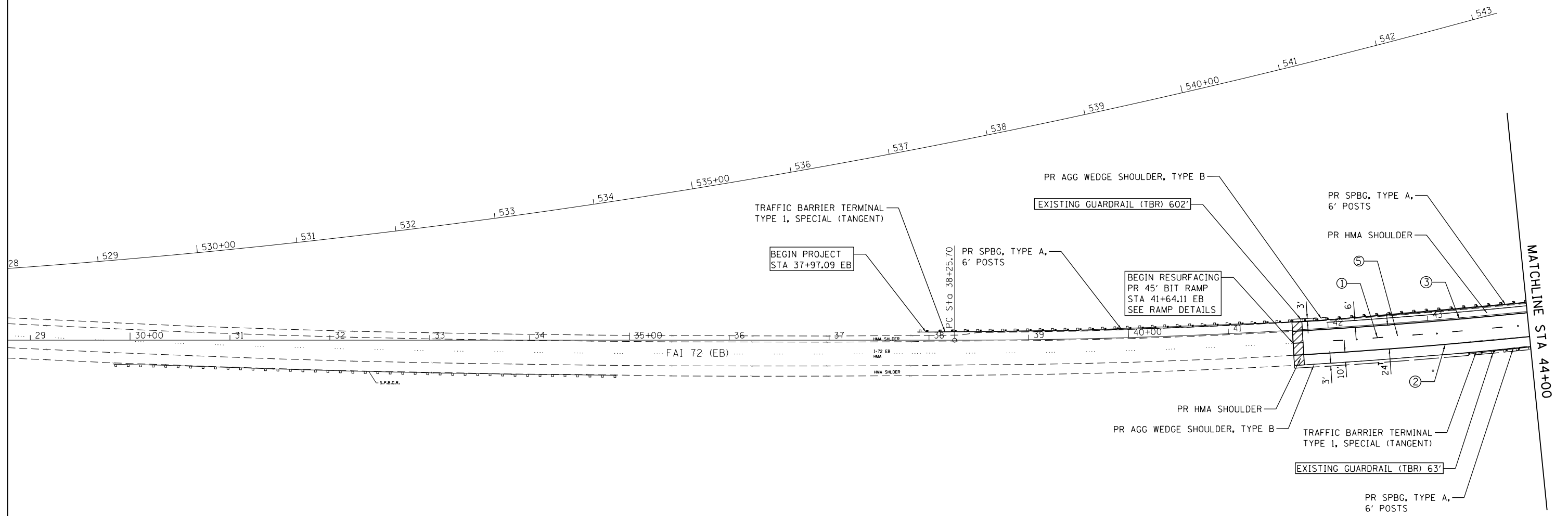
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**I-72 RESURFACING (WESTBOUND)  
PLAN SHEET**

SCALE: 1" = 50' SHEET 4 OF 8 SHEETS STA. 583+00.00 TO STA. 598+00.00

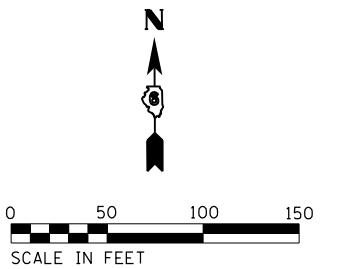
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	24
CONTRACT NO. 72J42			ILLINOIS FED. AID PROJECT	



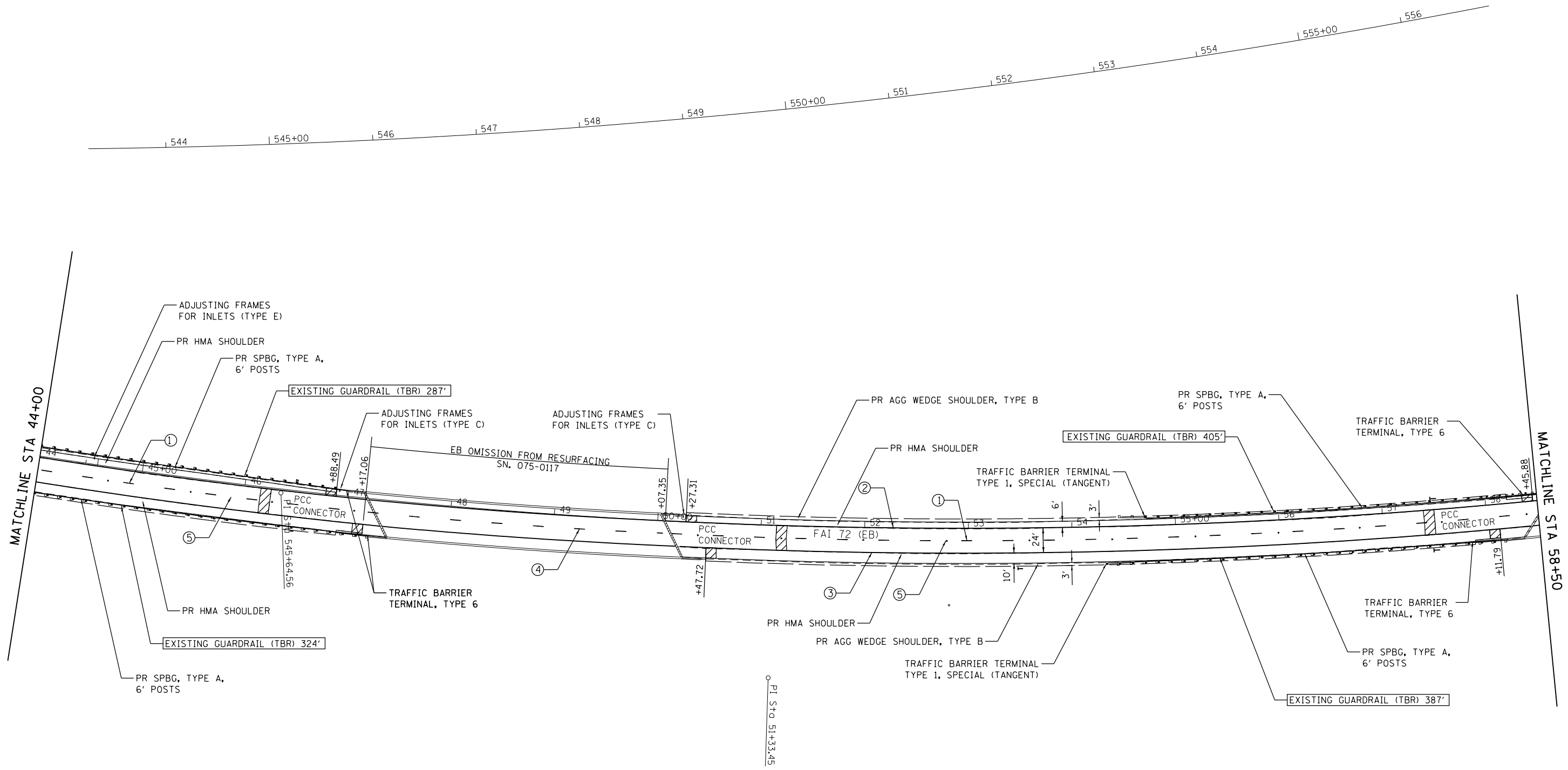


**PAVEMENT MARKING LEGEND**

- ① PROPOSED PREFORMED PAVEMENT MARKING, INLAID 5" (30' SKIP, 10' DASH) (SOLID WHITE)
- ② PROPOSED MODIFIED URETHANE PAVEMENT MARKING, LINE 5" (SOLID YELLOW)
- ③ PROPOSED MODIFIED URETHANE PAVEMENT MARKING, LINE 5" (SOLID WHITE)
- ④ PROPOSED MODIFIED URETHANE MARKING, LINE 5" (30' SKIP, 10' DASH) (SOLID WHITE)
- ⑤ RAISED REFLECTIVE PAVEMENT MARKERS (ONE WAY CRYSTAL)
- ⑥ PROPOSED DELINEATOR
- ▨ 10' BUTT JOINT



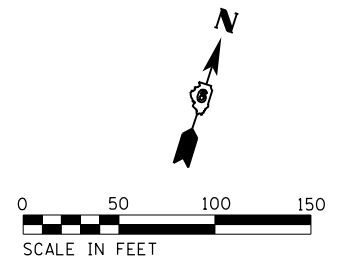
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Default					SCALE: 1" = 50'	SHEET 5	OF 8 SHEETS	STA. 29+00.00	TO STA. 44+00.00	72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	25
											CONTRACT NO. 72J42			
												ILLINOIS FED. AID PROJECT		



**PAVEMENT MARKING LEGEND**

- ① PROPOSED PREFORMED PAVEMENT MARKING, INLAID 5" (30' SKIP, 10' DASH) (SOLID WHITE)
  - ② PROPOSED MODIFIED URETHANE PAVEMENT MARKING, LINE 5" (SOLID YELLOW)
  - ③ PROPOSED MODIFIED URETHANE PAVEMENT MARKING, LINE 5" (SOLID WHITE)
  - ④ PROPOSED MODIFIED URETHANE MARKING, LINE 5" (30' SKIP, 10' DASH) (SOLID WHITE)
  - ⑤ RAISED REFLECTIVE PAVEMENT MARKERS (ONE WAY CRYSTAL)
  - ⑥ PROPOSED DELINEATOR
- ▨ 10' BUTT JOINT

EXIST. CURVE E013.3  
 PI STA. = 51+33.45  
 $\Delta = 25^\circ 42' 52''$  (LT)  
 $D = 1^\circ 00' 00''$   
 $R = 5,729.59'$   
 $T = 1,307.75'$   
 $L = 2,571.45'$   
 $E = 147.35'$   
 P.C. STA. = 38+25.70  
 P.T. STA. = 63+97.15



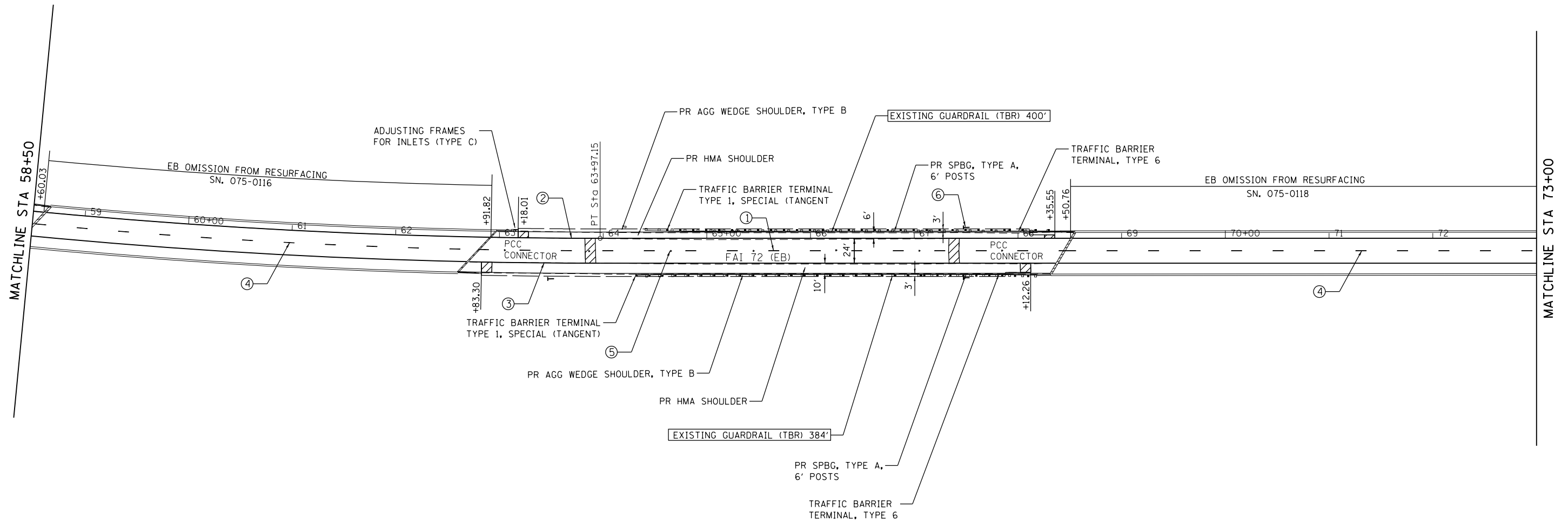
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**I-72 RESURFACING (EASTBOUND)  
PLAN SHEET**

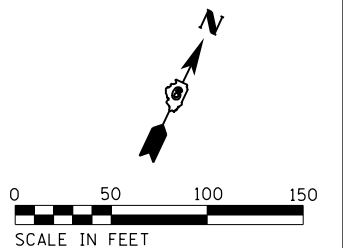
SCALE: 1" = 50' SHEET 6 OF 8 SHEETS STA. 44+00.00 TO STA. 58+50.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	26
CONTRACT NO. 72J42			ILLINOIS FED. AID PROJECT	



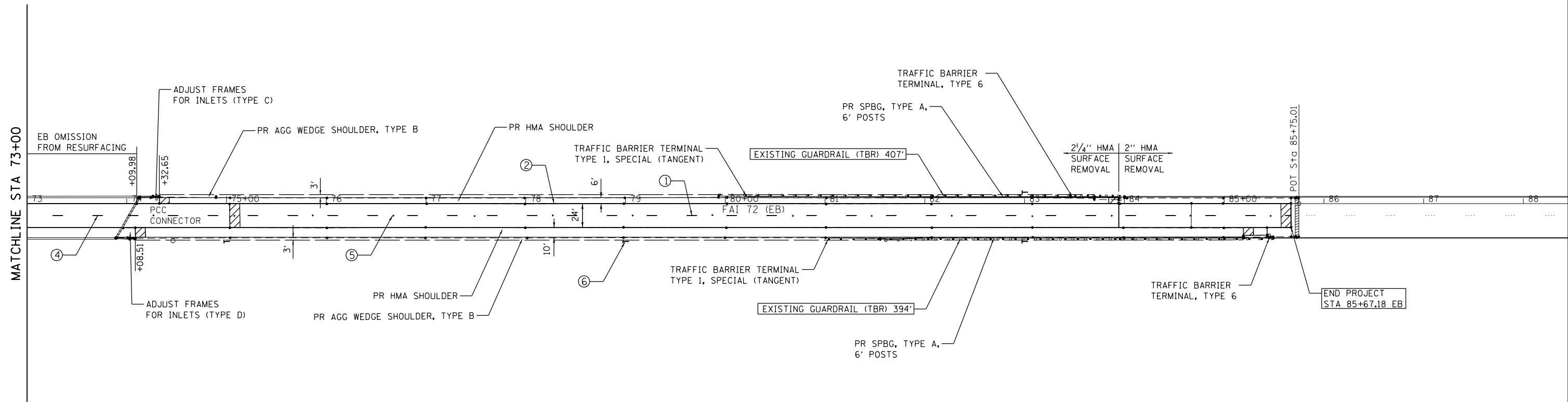
**PAVEMENT MARKING LEGEND**

- ① PROPOSED PERFORMED PAVEMENT MARKING, INLAID 5" (30' SKIP, 10' DASH) (SOLID WHITE)
  - ② PROPOSED MODIFIED URETHANE PAVEMENT MARKING, LINE 5" (SOLID YELLOW)
  - ③ PROPOSED MODIFIED URETHANE PAVEMENT MARKING, LINE 5" (SOLID WHITE)
  - ④ PROPOSED MODIFIED URETHANE MARKING, LINE 5" (30' SKIP, 10' DASH) (SOLID WHITE)
  - ⑤ RAISED REFLECTIVE PAVEMENT MARKERS (ONE WAY CRYSTAL)
  - ⑥ PROPOSED DELINEATOR
- ▨ 10' BUTT JOINT



FILE NAME =	USER NAME = coxte	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>I-72 REFSUFACING (EASTBOUND) PLAN SHEET</b>			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
pw:\IL\084EBIDINTEG\illinois.gov\PIWIDOT\Documents\IDOT Offices\District 6\Projects\0672\Drawings\EA0\Sheets\2017 08 28\0672J2\REVISED.dgn	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -					72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	27
Default	PLOT DATE = 8/30/2017	DATE -	REVISED -					CONTRACT NO. 72J42				

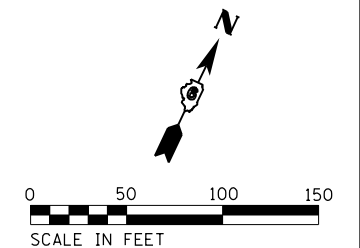
SCALE: 1" = 50'    SHEET 7 OF 8 SHEETS    STA. 58+50.00 TO STA. 73+00.00    ILLINOIS FED. AID PROJECT



**PAVEMENT MARKING LEGEND**

- ① PROPOSED PREFORMED PAVEMENT MARKING, INLAID 5" (30' SKIP, 10' DASH) (SOLID WHITE)
- ② PROPOSED MODIFIED URETHANE PAVEMENT MARKING, LINE 5" (SOLID YELLOW)
- ③ PROPOSED MODIFIED URETHANE PAVEMENT MARKING, LINE 5" (SOLID WHITE)
- ④ PROPOSED MODIFIED URETHANE MARKING, LINE 5" (30' SKIP, 10' DASH) (SOLID WHITE)
- ⑤ RAISED REFLECTIVE PAVEMENT MARKERS (ONE WAY CRYSTAL)
- ⑥ PROPOSED DELINEATOR

▨ 10' BUTT JOINT



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

**I-72 RESURFACING (EASTBOUND)  
PLAN SHEET**

SCALE: 1" = 50' SHEET 8 OF 8 SHEETS STA. 73+00.00 TO STA. 88+00.00

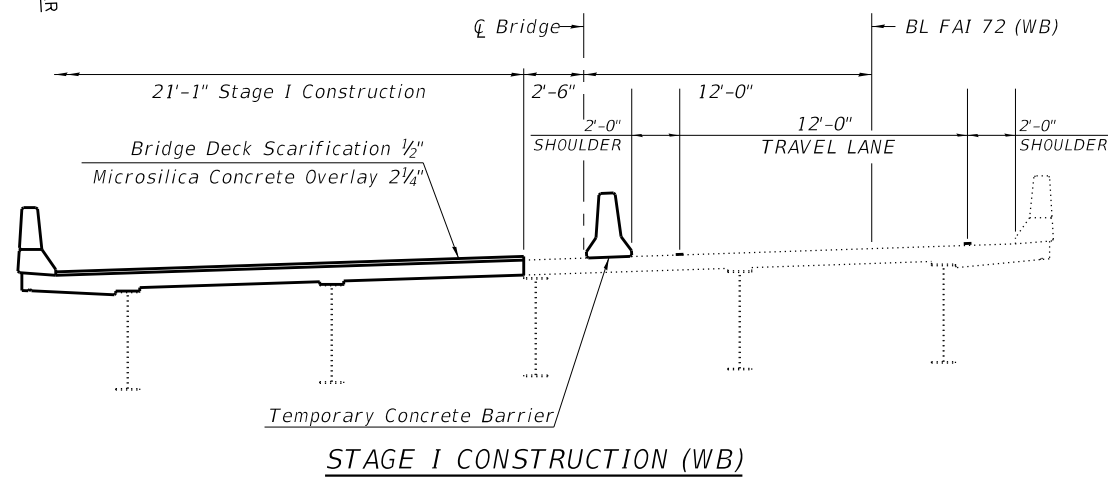
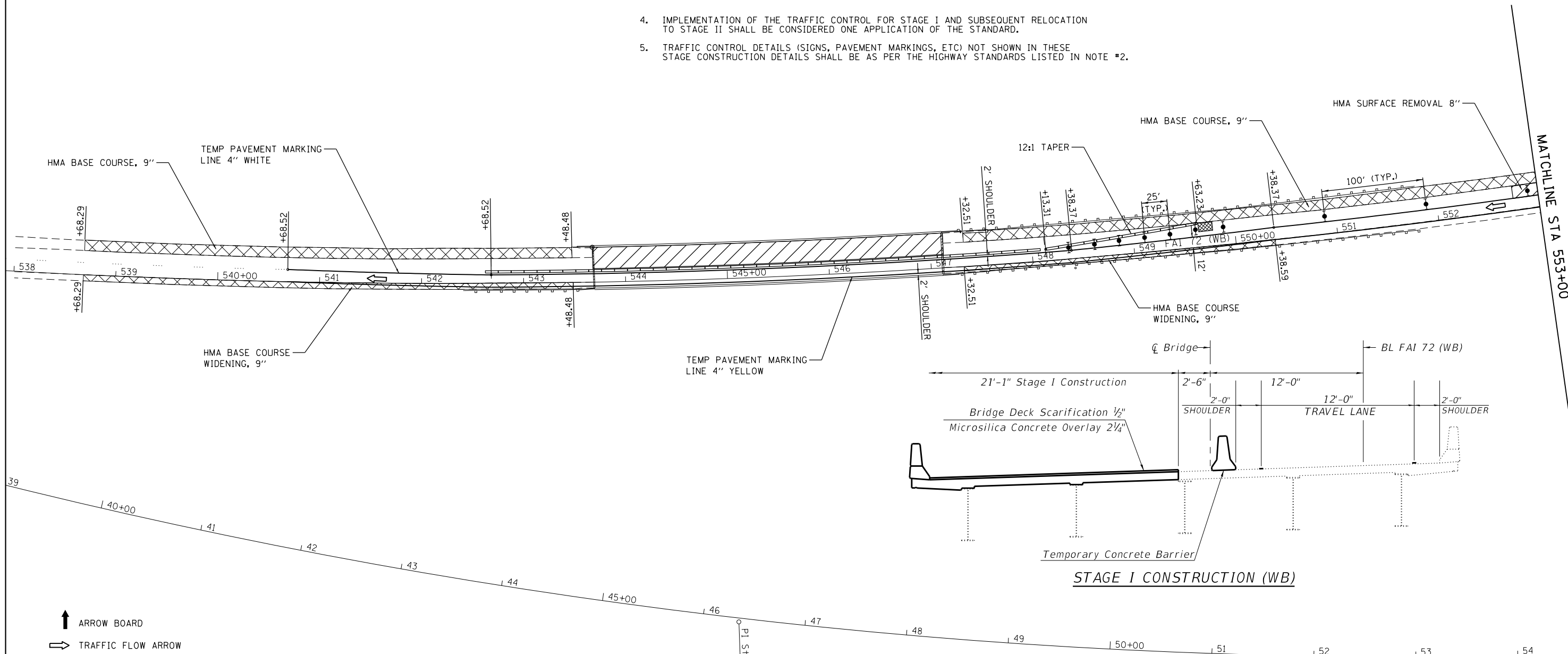
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	28
CONTRACT NO. 72J42			ILLINOIS FED. AID PROJECT	

**TRAFFIC CONTROL PRE-STAGE I**

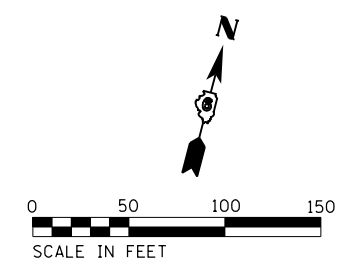
1. REMOVE AND REPLACE SHOULDER FOR STAGE I AND STAGE II TRAFFIC USING STANDARD 701400 & 701401.
2. HIGHWAY STANDARDS USED:  
701400 & 701401
3. TRAFFIC CONTROL FOR PRE-STAGE I PAID FOR AS:  
PER LUMP SUM FOR TRAFFIC CONTROL AND PROTECTION, STANDARD 701401

**TRAFFIC CONTROL STAGE I**

1. INSTALL TRAFFIC CONTROL FOR STAGE I AND SHIFT TRAFFIC AS SHOWN AND USING THE APPLICABLE PORTIONS OF THE HIGHWAY STANDARDS USED.
2. HIGHWAY STANDARDS USED:  
701400, 701402
3. TRAFFIC CONTROL FOR STAGE I PAID FOR AS:  
PER EACH FOR TRAFFIC CONTROL AND PROTECTION, STANDARD 701402 (SPECIAL)
4. IMPLEMENTATION OF THE TRAFFIC CONTROL FOR STAGE I AND SUBSEQUENT RELOCATION TO STAGE II SHALL BE CONSIDERED ONE APPLICATION OF THE STANDARD.
5. TRAFFIC CONTROL DETAILS (SIGNS, PAVEMENT MARKINGS, ETC) NOT SHOWN IN THESE STAGE CONSTRUCTION DETAILS SHALL BE AS PER THE HIGHWAY STANDARDS LISTED IN NOTE #2.



- ↑ ARROW BOARD
- TRAFFIC FLOW ARROW
- ▨ FULL DEPTH SHOULDER RECONSTRUCTION
- ▩ WORK AREA
- ⊥ SIGN
- ↑ DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- ⊥ TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- ▨ TEMPORARY IMPACT ATTENUATOR
- ▬ TEMPORARY CONCRETE BARRIER



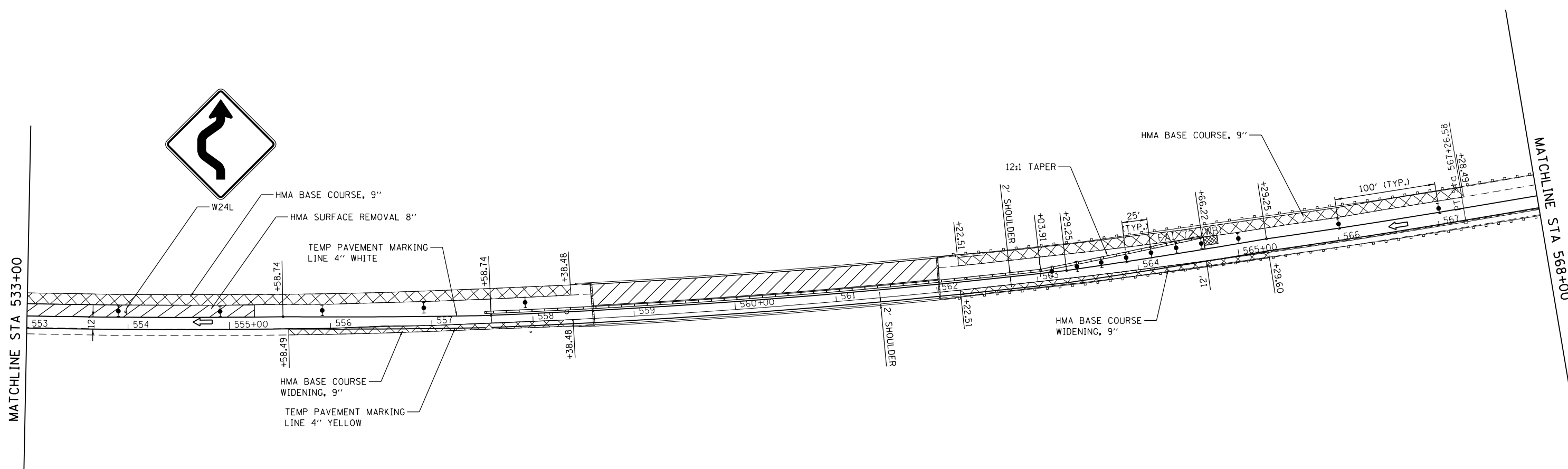
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PLOT DATE = 8/18/2017 2:46:22 PM		DATE -	REVISED -

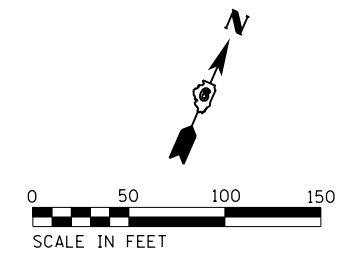
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

<b>STAGE CONSTRUCTION DETAILS</b>			
<b>STAGE I SN. 075-0119</b>			
SCALE: 1" = 50'	SHEET 1	OF 16 SHEETS	STA. 538+00.00 TO STA. 553+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	29
CONTRACT NO. 72J42			ILLINOIS FED. AID PROJECT	



- ARROW BOARD
- TRAFFIC FLOW ARROW
- FULL DEPTH SHOULDER RECONSTRUCTION
- WORK AREA
- SIGN
- DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- TEMPORARY IMPACT ATTENUATOR
- TEMPORARY CONCRETE BARRIER



LAST SAVED = 8/18/2017  
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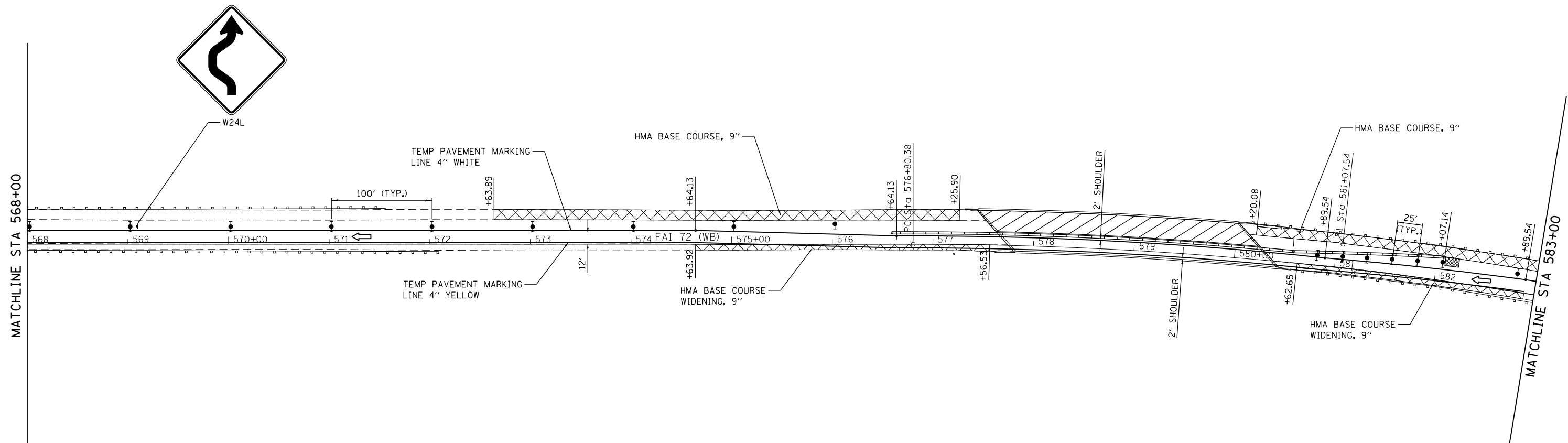
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

STAGE CONSTRUCTION DETAILS			
STAGE I SN. 075-0120			
SCALE: 1" = 50'	SHEET 2	OF 16 SHEETS	STA. 533+00.00 TO STA. 568+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1-72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	30
CONTRACT NO. 72J42				
ILLINOIS FED. AID PROJECT				












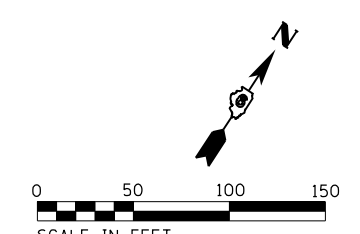
W24L



MATCHLINE STA 568+00

MATCHLINE STA 583+00

-  ARROW BOARD
-  TRAFFIC FLOW ARROW
-  FULL DEPTH SHOULDER RECONSTRUCTION
-  WORK AREA
-  SIGN
-  DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
-  TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
-  TEMPORARY IMPACT ATTENUATOR
-  TEMPORARY CONCRETE BARRIER



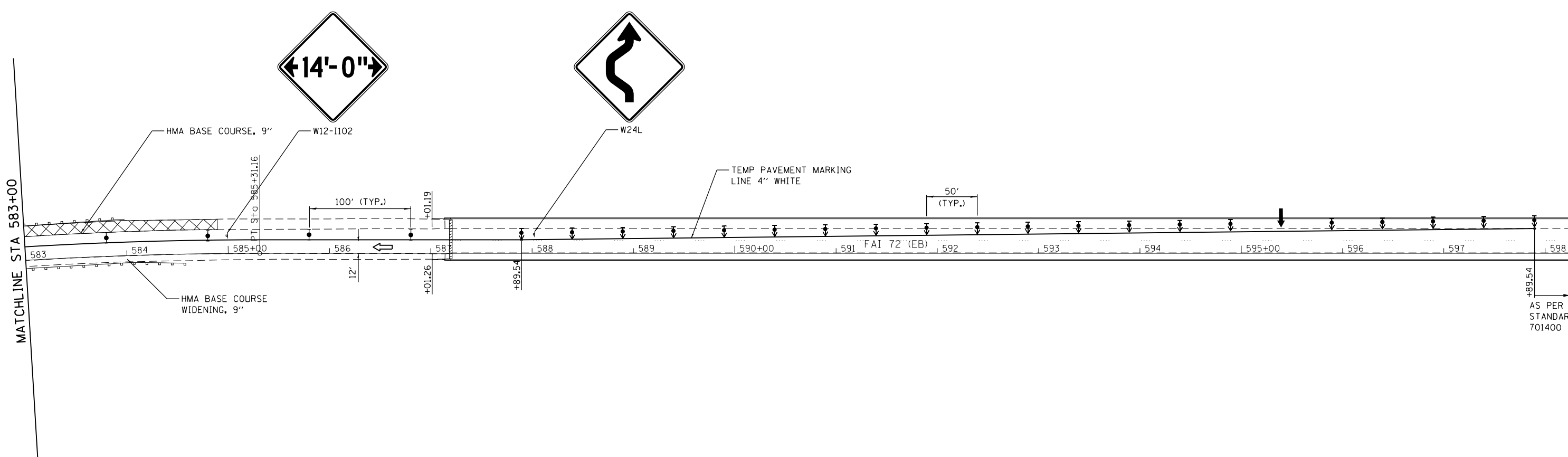
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

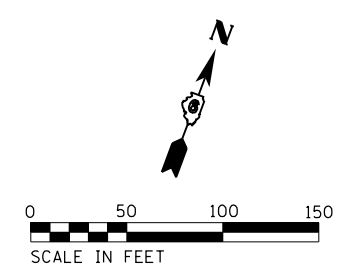
STAGE CONSTRUCTION DETAILS			
STAGE I SN. 075-0121			
SCALE: 1" = 50'	SHEET 3	OF 16 SHEETS	STA. 568+00.00 TO STA. 583+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	31
CONTRACT NO. 72J42			ILLINOIS FED. AID PROJECT	



AS PER STANDARD 701400

- ARROW BOARD
- TRAFFIC FLOW ARROW
- FULL DEPTH SHOULDER RECONSTRUCTION
- WORK AREA
- SIGN
- DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- TEMPORARY IMPACT ATTENUATOR
- TEMPORARY CONCRETE BARRIER



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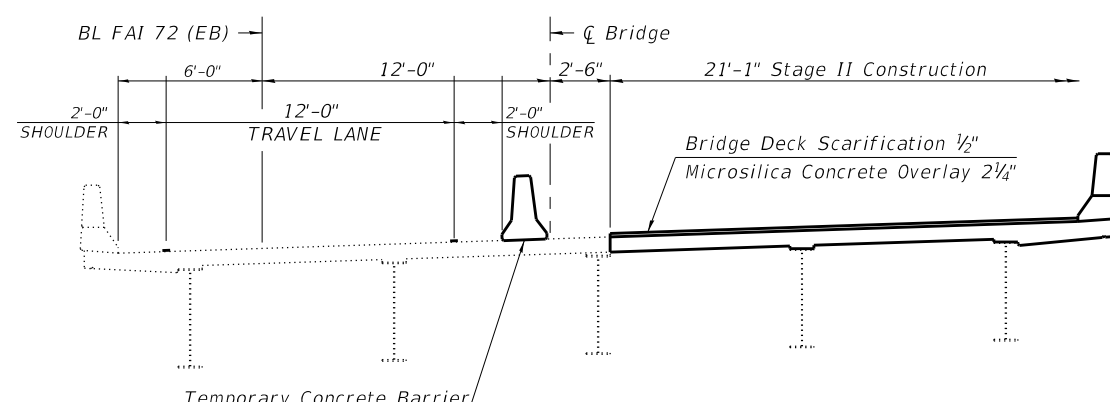
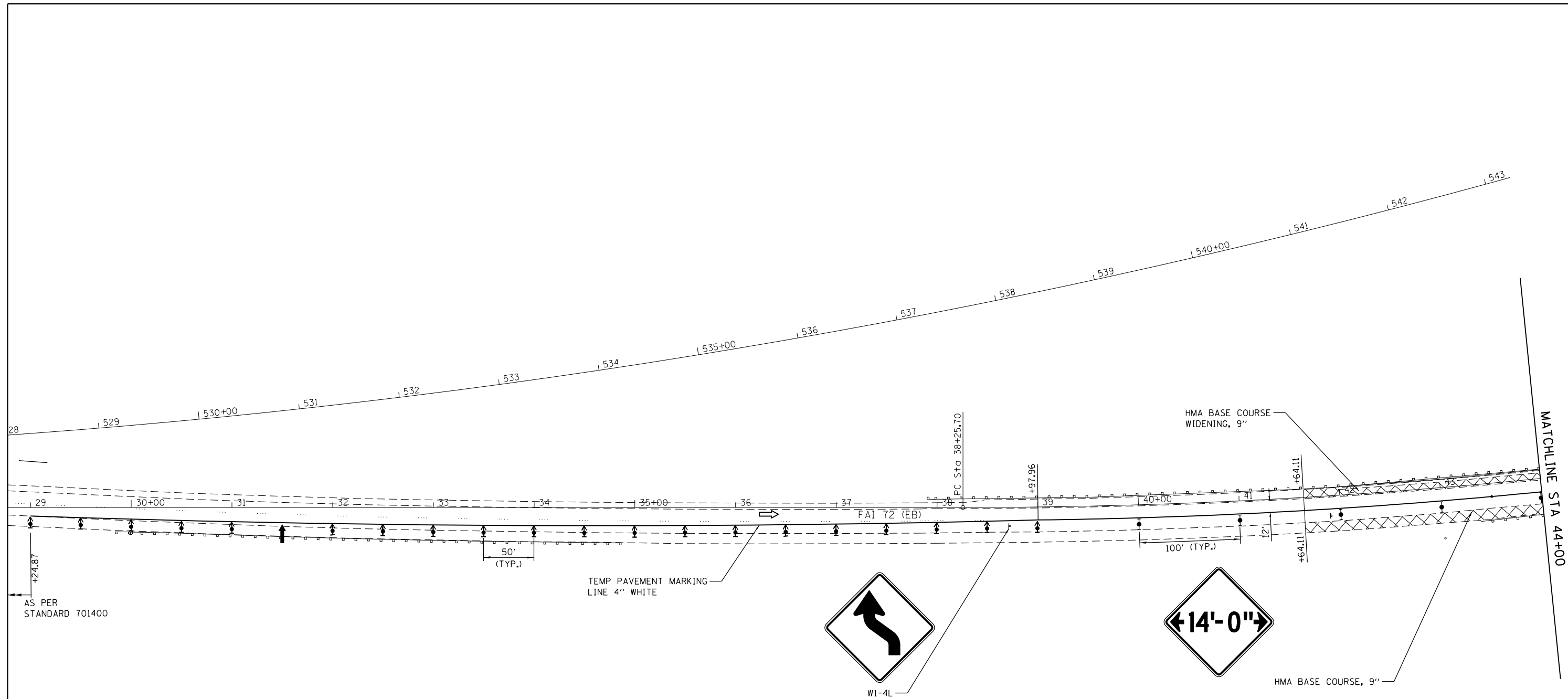
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**STAGE CONSTRUCTION DETAILS  
STAGE I**

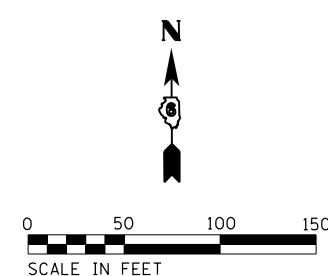
SCALE: 1" = 50'    SHEET 4 OF 16 SHEETS    STA. 583+00.00 TO STA. 598+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1-72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	32
CONTRACT NO. 72J42				
ILLINOIS FED. AID PROJECT				





- ↑ ARROW BOARD
- TRAFFIC FLOW ARROW
- ▨ FULL DEPTH SHOULDER RECONSTRUCTION
- ▩ WORK AREA
- ⊥ SIGN
- ↑ DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- ⊥ TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- ▨ TEMPORARY IMPACT ATTENUATOR
- TEMPORARY CONCRETE BARRIER



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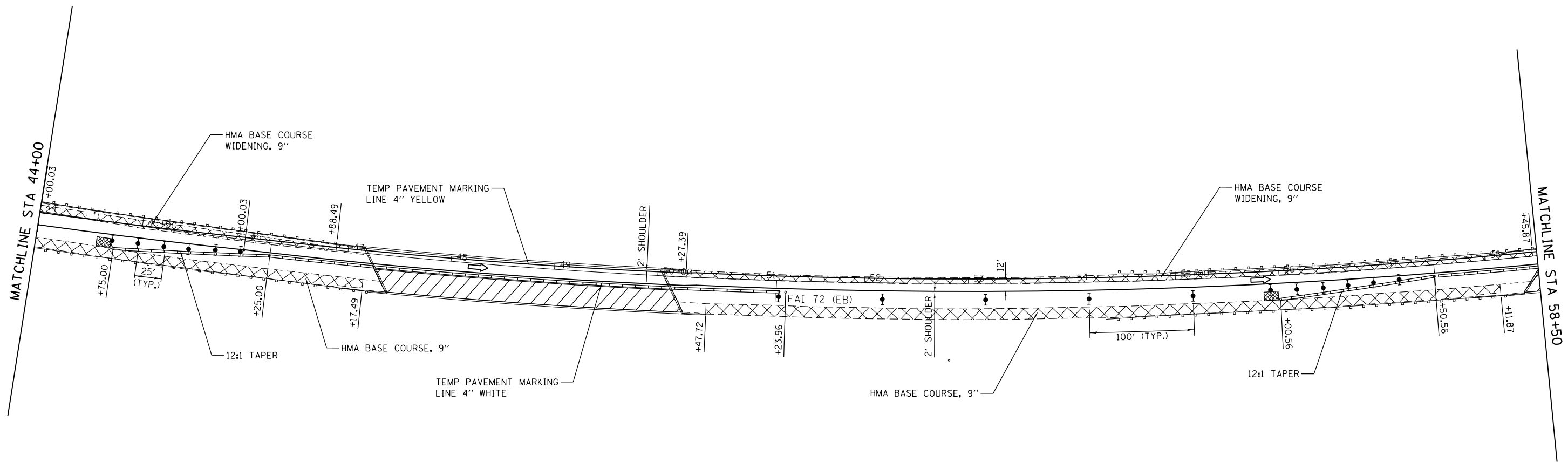
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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

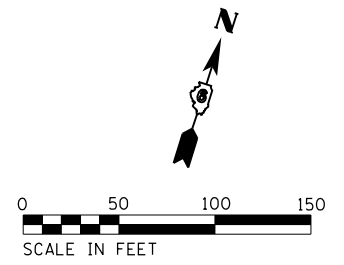
**STAGE CONSTRUCTION DETAILS**  
**STAGE I**

SCALE: 1" = 50'    SHEET 5    OF 16    SHEETS    STA. 29+00.00    TO STA. 44+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	33
CONTRACT NO. 72J42				
ILLINOIS FED. AID PROJECT				



- ↑ ARROW BOARD
- TRAFFIC FLOW ARROW
- ▨ FULL DEPTH SHOULDER RECONSTRUCTION
- ▩ WORK AREA
- ⊥ SIGN
- ↑ DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- ⊥ TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- ▣ TEMPORARY IMPACT ATTENUATOR
- ▬ TEMPORARY CONCRETE BARRIER



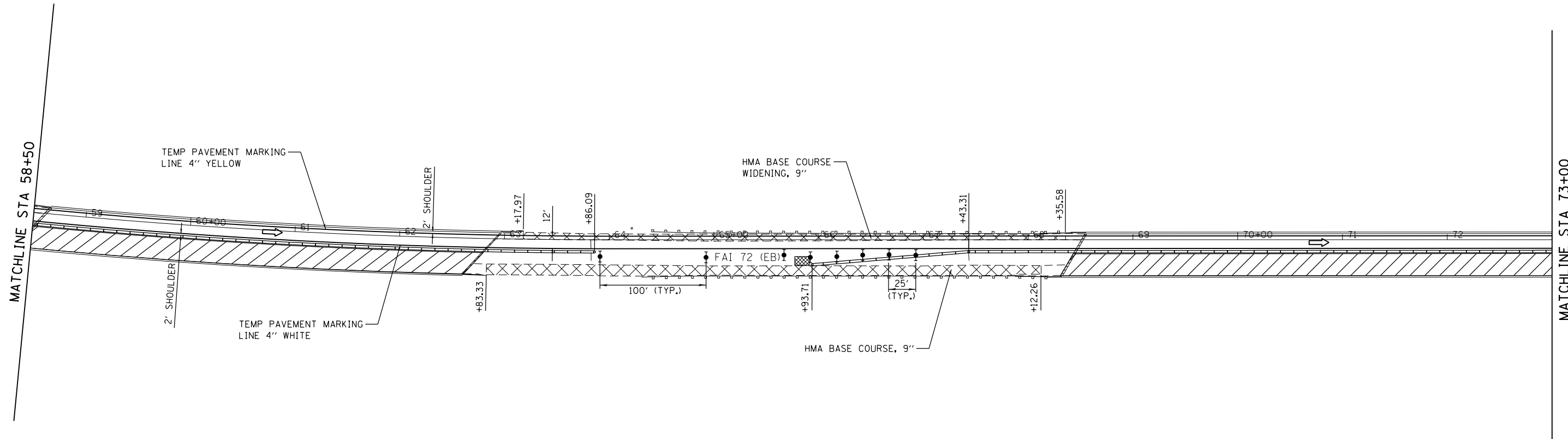
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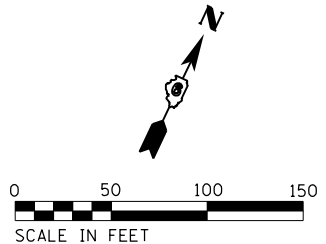
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

<b>STAGE CONSTRUCTION DETAILS</b>			
<b>STAGE I SN. 075-0117</b>			
SCALE: 1" = 50'	SHEET 6	OF 16 SHEETS	STA. 44+00.00 TO STA. 58+50.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	34
CONTRACT NO. 72J42				
ILLINOIS FED. AID PROJECT				



- ↑ ARROW BOARD
- ⇨ TRAFFIC FLOW ARROW
- ▨ FULL DEPTH SHOULDER RECONSTRUCTION
- ▩ WORK AREA
- ⊥ SIGN
- ↑ DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- ⊥ TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- ▨ TEMPORARY IMPACT ATTENUATOR
- ▬ TEMPORARY CONCRETE BARRIER



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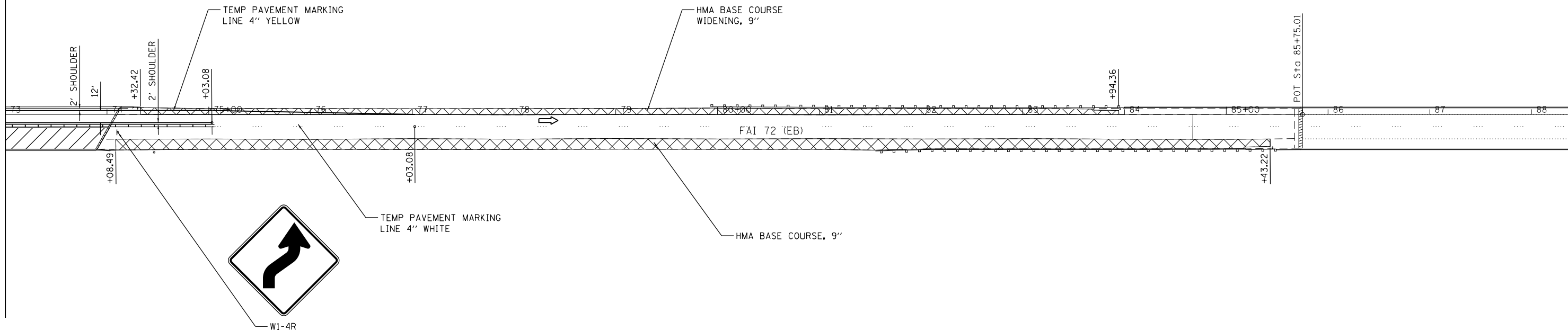
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**STAGE CONSTRUCTION DETAILS**  
**STAGE I SN. 075-0116 & 075-0118**

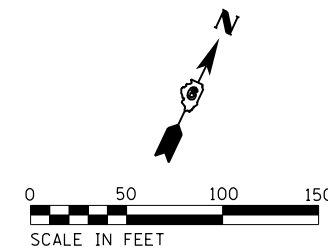
SCALE: 1" = 50'    SHEET 7 OF 16 SHEETS    STA. 58+50.00 TO STA. 73+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	35
CONTRACT NO. 72J42				
ILLINOIS FED. AID PROJECT				

MATCHLINE STA 73+00



- ARROW BOARD
- TRAFFIC FLOW ARROW
- FULL DEPTH SHOULDER RECONSTRUCTION
- WORK AREA
- SIGN
- DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- TEMPORARY IMPACT ATTENUATOR
- TEMPORARY CONCRETE BARRIER



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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

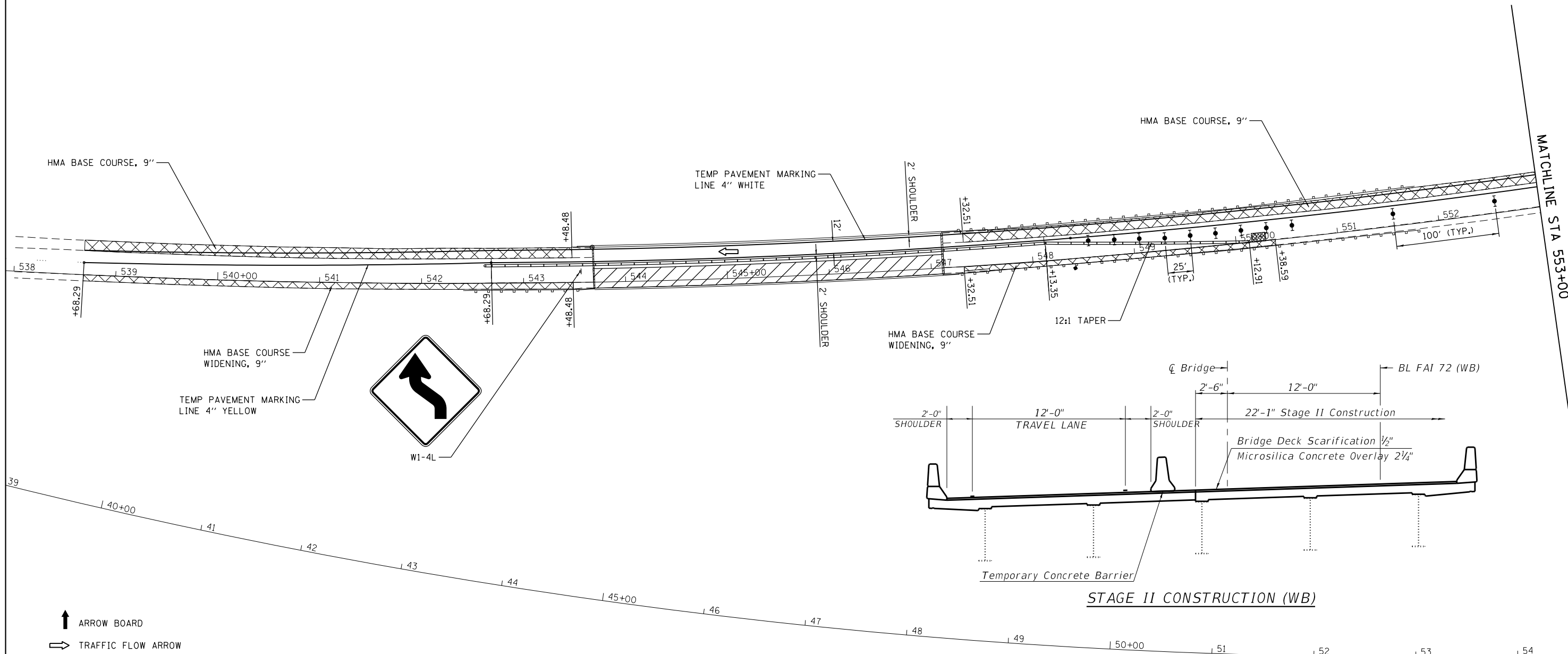
**STAGE CONSTRUCTION DETAILS  
STAGE I SN.075-0118**

SCALE: 1" = 50' SHEET 8 OF 16 SHEETS STA. 73+00.00 TO STA. 88+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	36
CONTRACT NO. 72J42			ILLINOIS FED. AID PROJECT	

**TRAFFIC CONTROL STAGE II**

1. RELOCATE TRAFFIC CONTROL FOR STAGE II AND SHIFT TRAFFIC AS SHOWN AND USING THE APPLICABLE PORTION OF THE HIGHWAY STANDARDS USED.
2. HIGHWAY STANDARDS USED:  
701400, 701402
3. TRAFFIC CONTROL DETAILS (SIGNS, PAVEMENT MARKINGS, ETC) NOT SHOWN IN THESE STAGE CONSTRUCTION DETAILS SHALL BE AS PER THE HIGHWAY STANDARDS LISTED IN NOTE #2.



- ↑ ARROW BOARD
- TRAFFIC FLOW ARROW
- ▨ FULL DEPTH SHOULDER RECONSTRUCTION
- ▩ WORK AREA
- ⊥ SIGN
- ↑ DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- ⊥ TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- ▨ TEMPORARY IMPACT ATTENUATOR
- ▬ TEMPORARY CONCRETE BARRIER

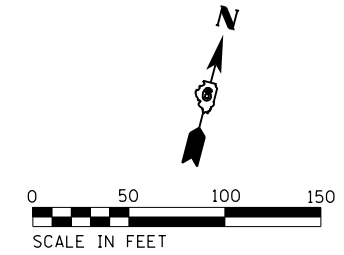
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

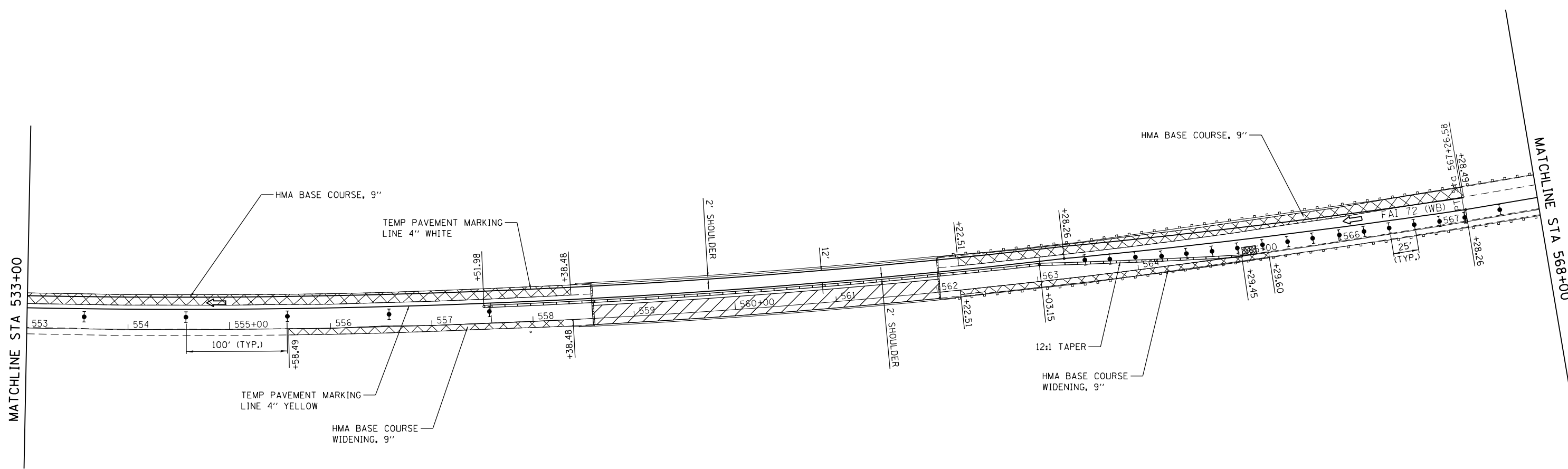
**STAGE CONSTRUCTION DETAILS  
STAGE II SN. 075-0019**










SCALE: 1" = 50'    SHEET 9 OF 16 SHEETS    STA. 538+00.00 TO STA. 553+00.00

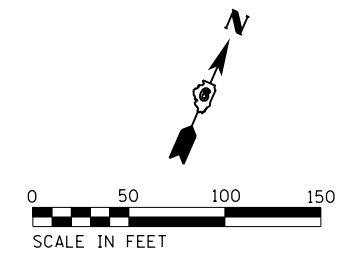
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	37
CONTRACT NO. 72J42			ILLINOIS FED. AID PROJECT	



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-  ARROW BOARD
-  TRAFFIC FLOW ARROW
-  FULL DEPTH SHOULDER RECONSTRUCTION
-  WORK AREA
-  SIGN
-  DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
-  TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
-  TEMPORARY IMPACT ATTENUATOR
-  TEMPORARY CONCRETE BARRIER



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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**STAGE CONSTRUCTION DETAILS  
STAGE II SN. 075-0120**

SCALE: 1" = 50'    SHEET 10 OF 16 SHEETS    STA. 533+00.00 TO STA. 568+00.00

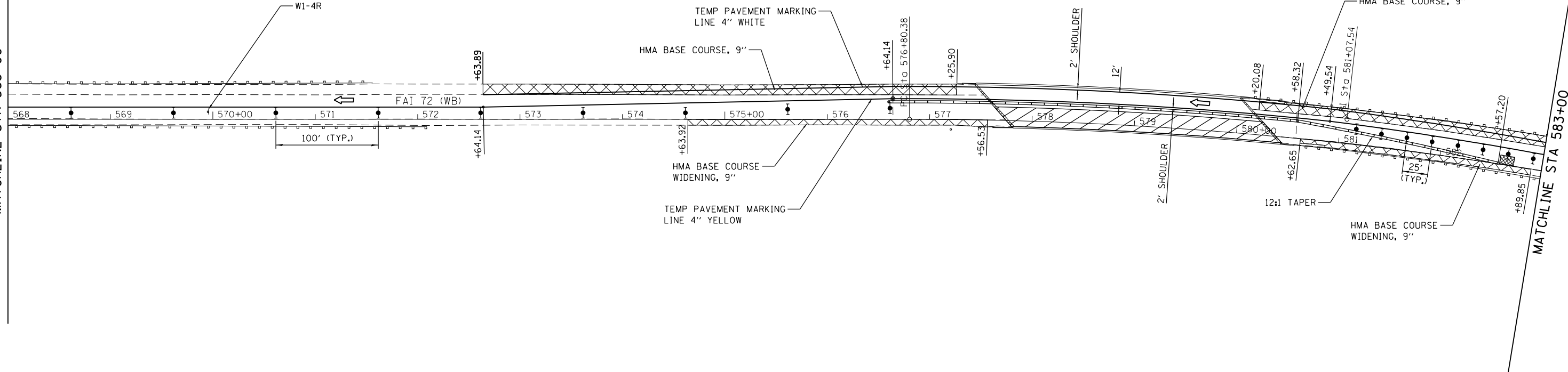
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	38
CONTRACT NO.			72J42	
ILLINOIS FED. AID PROJECT				



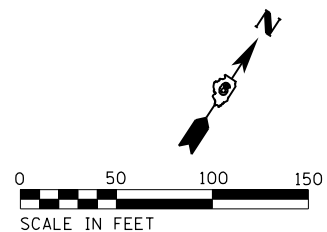
W1-4R

MATCHLINE STA 568+00

MATCHLINE STA 583+00



- ARROW BOARD
- TRAFFIC FLOW ARROW
- FULL DEPTH SHOULDER RECONSTRUCTION
- WORK AREA
- SIGN
- DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- TEMPORARY IMPACT ATTENUATOR
- TEMPORARY CONCRETE BARRIER



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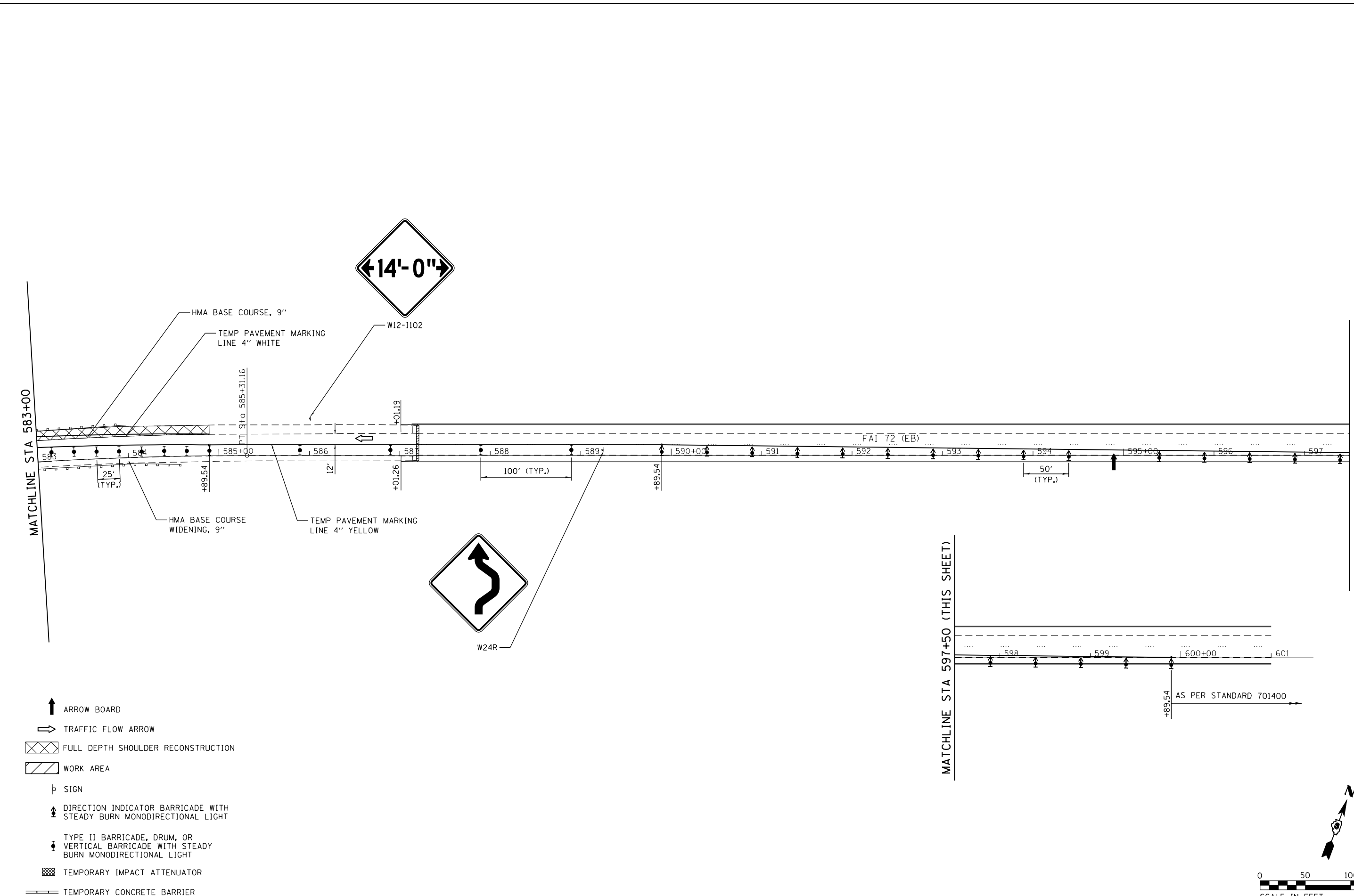
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**STAGE CONSTRUCTION DETAILS  
 STAGE II SN. 075-0121**

SCALE: 1" = 50' SHEET 11 OF 16 SHEETS STA. 568+00.00 TO STA. 583+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1-72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	39
CONTRACT NO. 72J42			ILLINOIS FED. AID PROJECT	

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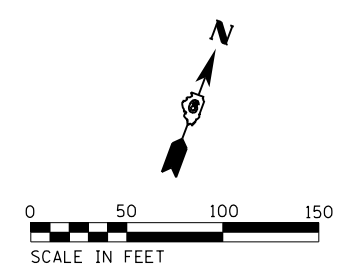


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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

<b>STAGE CONSTRUCTION DETAILS STAGE II</b>			
SCALE: 1" = 50'	SHEET 12	OF 16 SHEETS	STA. 583+00.00 TO STA. 598+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	40
CONTRACT NO. 72J42			ILLINOIS FED. AID PROJECT	



MATCHLINE STA 583+00

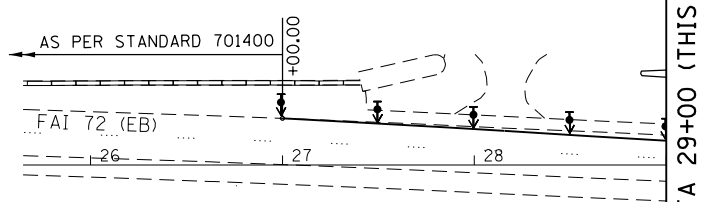
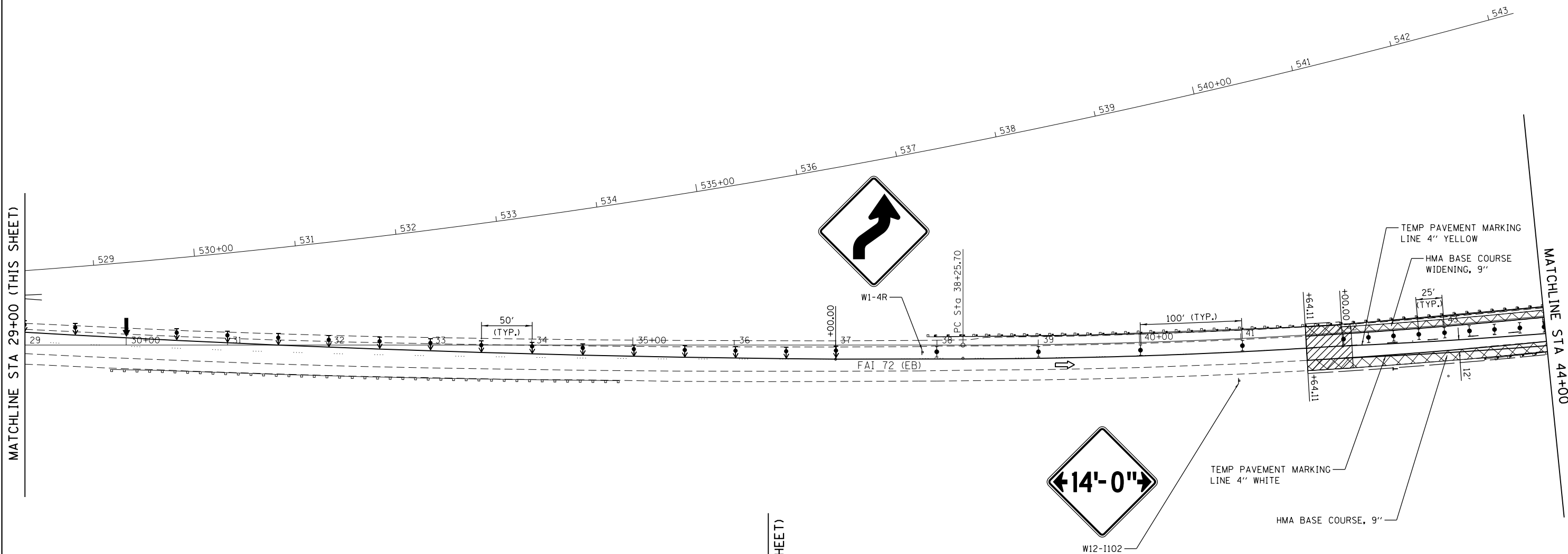
MATCHLINE STA 597+50 (THIS SHEET)

MATCHLINE STA 597+50 (THIS SHEET)



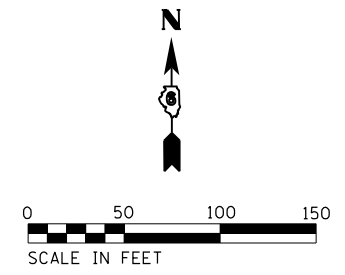
MATCHLINE STA 29+00 (THIS SHEET)

MATCHLINE STA 44+00



MATCHLINE STA 29+00 (THIS SHEET)

- ARROW BOARD
- TRAFFIC FLOW ARROW
- FULL DEPTH SHOULDER RECONSTRUCTION
- WORK AREA
- SIGN
- DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- TEMPORARY IMPACT ATTENUATOR
- TEMPORARY CONCRETE BARRIER



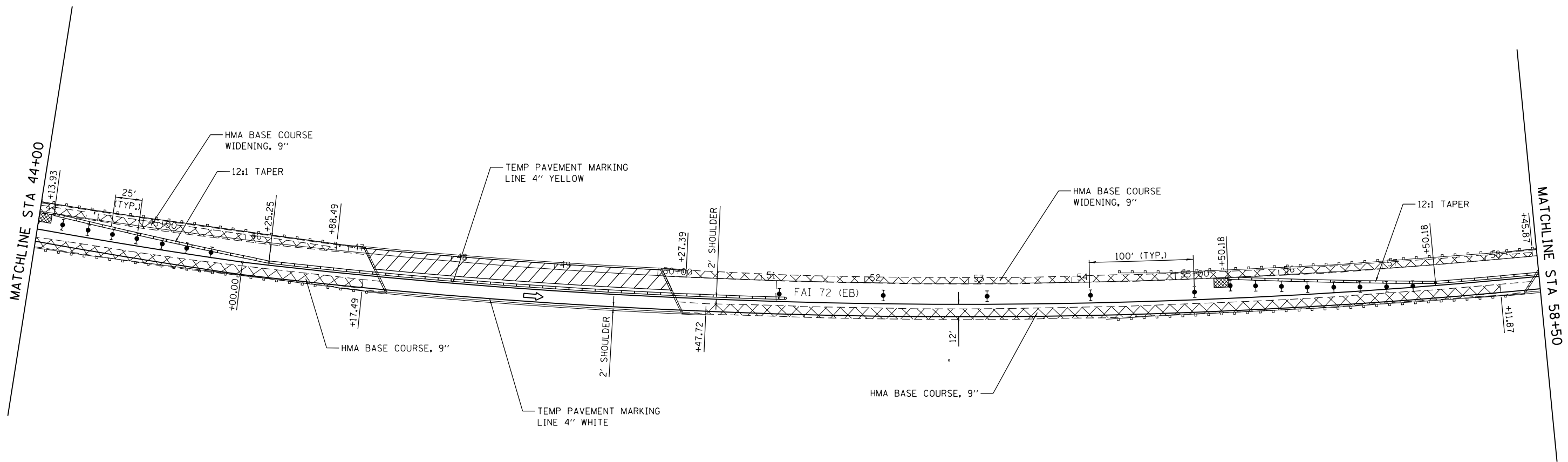
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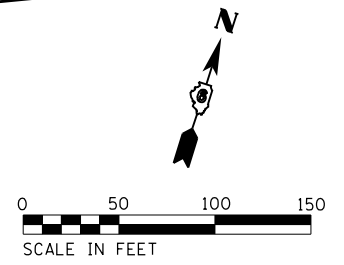
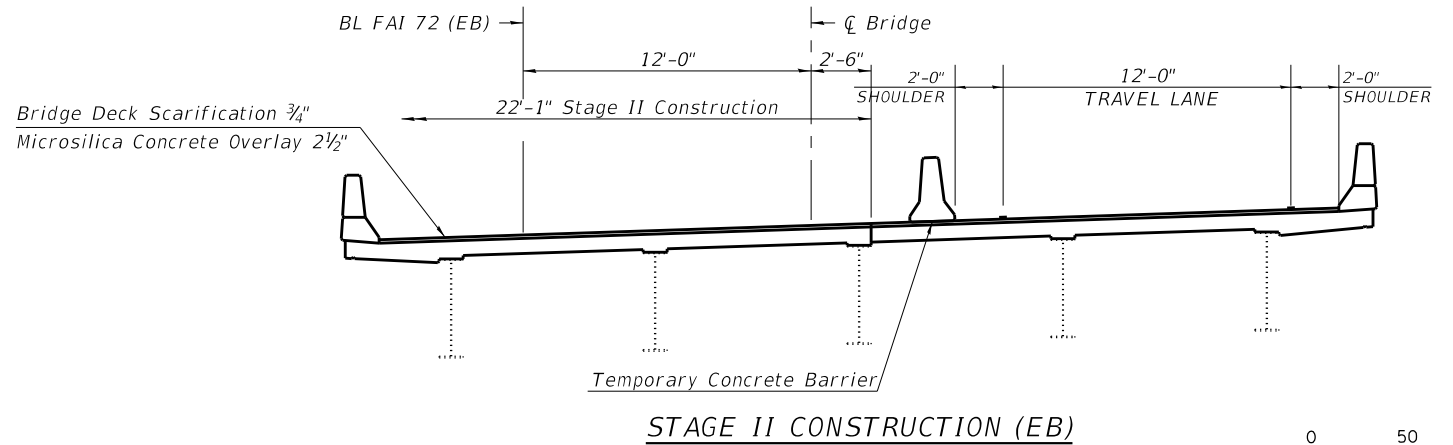
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

STAGE CONSTRUCTION DETAILS			
STAGE II			
SCALE: 1" = 50'	SHEET 13	OF 16 SHEETS	STA. 29+00.00 TO STA. 44+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	41
CONTRACT NO. 72J42			ILLINOIS FED. AID PROJECT	



- ↑ ARROW BOARD
- TRAFFIC FLOW ARROW
- ▨ FULL DEPTH SHOULDER RECONSTRUCTION
- ▩ WORK AREA
- ⊥ SIGN
- ↑ DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- ⊥ TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- ▨ TEMPORARY IMPACT ATTENUATOR
- TEMPORARY CONCRETE BARRIER



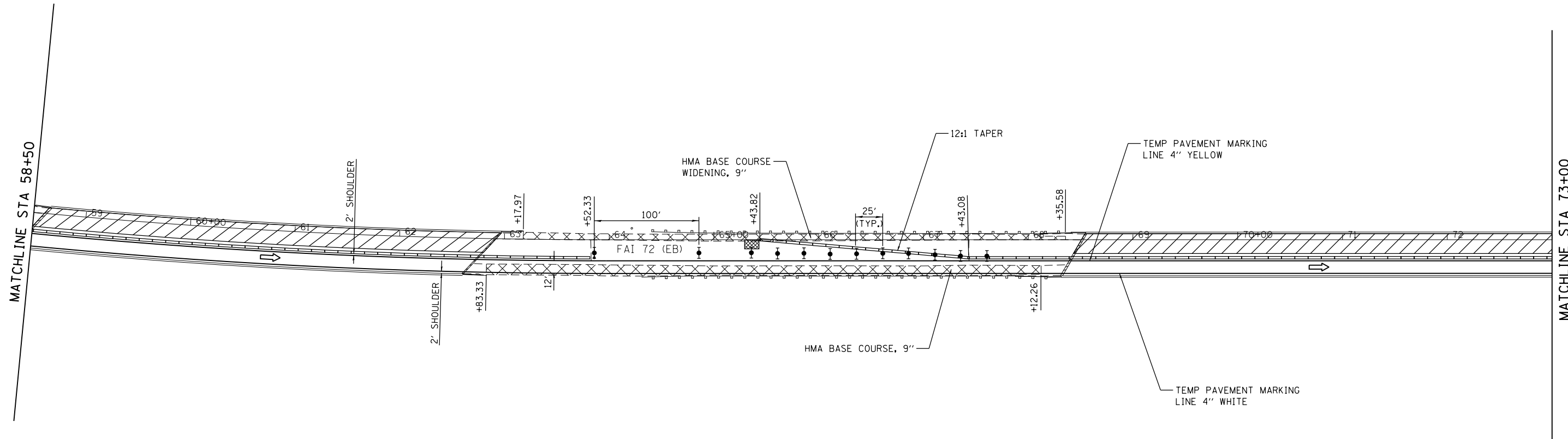
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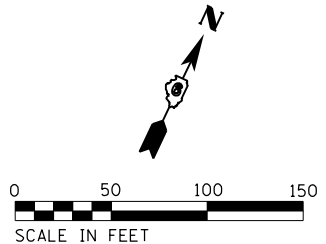
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

<b>STAGE CONSTRUCTION DETAILS</b>			
<b>STAGE II SN. 075-0117</b>			
SCALE: 1" = 50'	SHEET 14	OF 16 SHEETS	STA. 44+00.00 TO STA. 58+50.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	42
CONTRACT NO. 72J42			ILLINOIS FED. AID PROJECT	



- ↑ ARROW BOARD
- ⇨ TRAFFIC FLOW ARROW
- ▨ FULL DEPTH SHOULDER RECONSTRUCTION
- ▩ WORK AREA
- ⊥ SIGN
- ↑ DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- ⊥ TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- ▣ TEMPORARY IMPACT ATTENUATOR
- TEMPORARY CONCRETE BARRIER



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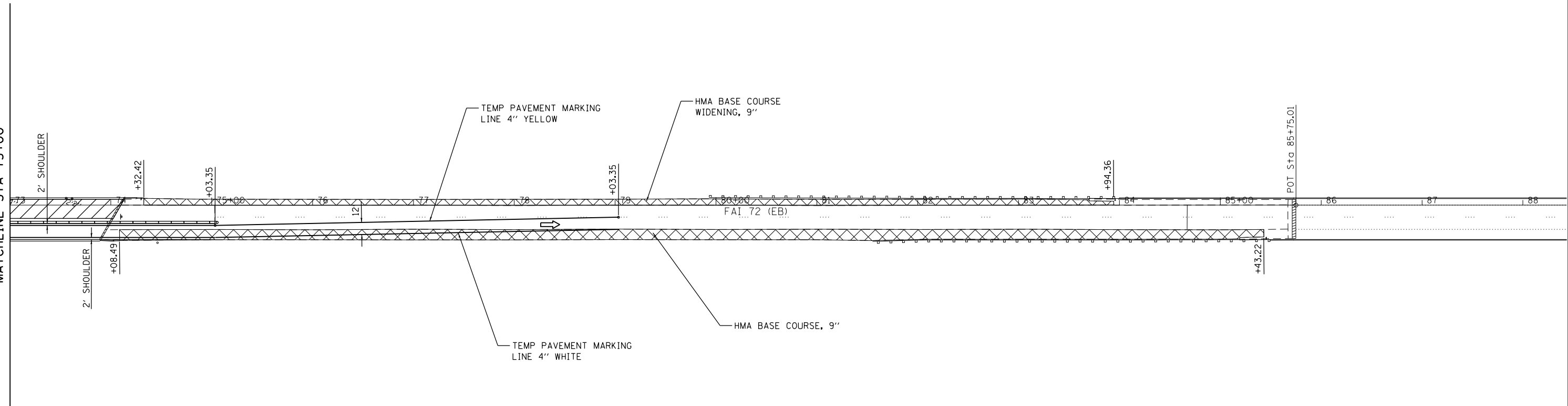
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**









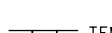
**STAGE CONSTRUCTION DETAILS**  
**STAGE II SN.075-0116**

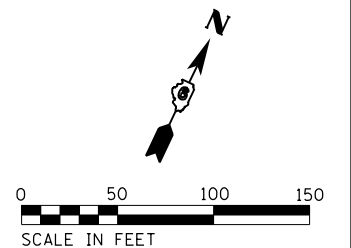
SCALE: 1" = 50'    SHEET 15 OF 16 SHEETS    STA. 58+50.00 TO STA. 73+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	43
CONTRACT NO. 72J42				
ILLINOIS FED. AID PROJECT				

MATCHLINE STA 73+00



-  ARROW BOARD
-  TRAFFIC FLOW ARROW
-  FULL DEPTH SHOULDER RECONSTRUCTION
-  WORK AREA
-  SIGN
-  DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
-  TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
-  TEMPORARY IMPACT ATTENUATOR
-  TEMPORARY CONCRETE BARRIER



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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>STAGE CONSTRUCTION DETAILS</b>			
<b>STAGE II SN 075-0118</b>			
SCALE: 1" = 50'	SHEET 16	OF 16 SHEETS	STA. 73+00.00 TO STA. 88+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	44
CONTRACT NO. 72J42			ILLINOIS FED. AID PROJECT	

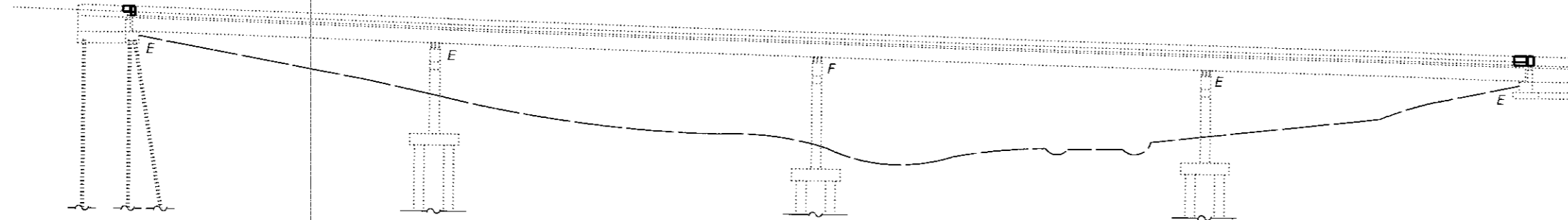
**INDEX OF SHEETS**

1. General Plan
2. General Data
3. Stage Construction Details
4. Deck Patching Removal
5. Removal Details
6. Superstructure Repair Details
7. Preformed Joint Strip Seal
8. West Abutment Details
9. East Abutment Details
10. Abutment Details
11. Bar Splicer & Mechanical Splicer Details
- 12-17. Existing Framing Plan and Bearing Sheets

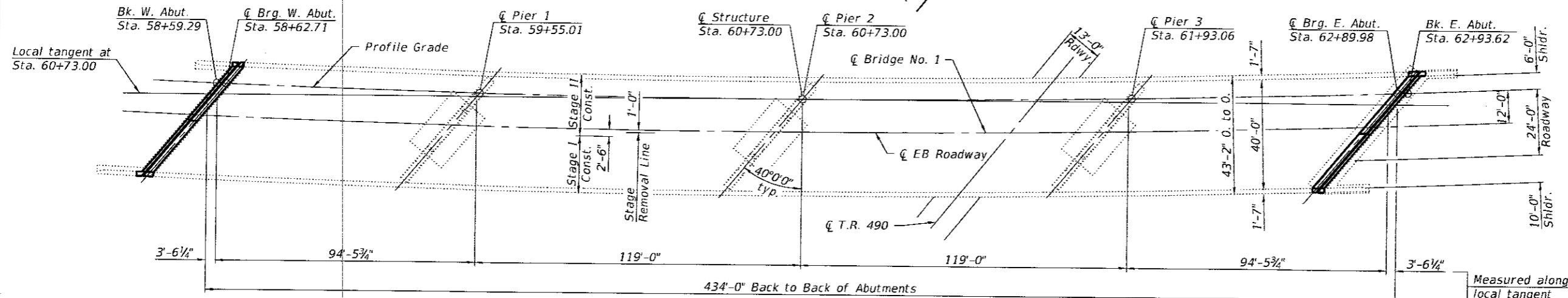
**SCOPE OF WORK**

1. Replace expansion joints.
2. Deck and approach patching.
3. Hydroscarification and placement of microsilica concrete overlay.
4. Perform diamond grinding and apply protective coat.
5. Blasting and painting of beam ends, end diaphragms, and abutment bearings.
6. Substructure repair.

**ELEVATION**



**PLAN**



*Eric Lagemann* 8/18/17  
Expires 11/30/2018 Date

**GENERAL PLAN**  
**I-72 OVER**  
**NAPOLEON HOLLOW DRAW & T.R. 490**  
**F.A.I. ROUTE 72**  
**SECTION (75-6) BDR, BP, BRR, RS-2**  
**PIKE COUNTY**  
**STATION 60+73.00**  
**STRUCTURE NO. 075-0116**

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

SHEET NO. 1 OF 17 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	45
CONTRACT NO.				72J42

ILLINOIS FED. AID PROJECT



DESIGNED - TIM FRIEDERICH	REVISED -
CHECKED - ERIC M. LAGEMANN	REVISED -
DRAWN - TIM FRIEDERICH	REVISED -
CHECKED - ERIC M. LAGEMANN	REVISED -

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**GENERAL NOTES**

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 and girders 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 can not 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.

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.

Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.

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 the length (measured along beam) shown in the GIRDER PAINTING LIMITS TABLE, of either side of deck joints, shall be cleaned per Near White Blast Cleaning - SSPC-SP10. The exterior surfaces and bottom of the bottom flange of the fascia beams shall be cleaned per Commercial Grade Power Tool Cleaning - SSPC - SP15. 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 for all interior steel surfaces shall be Gray, Munsell No. 5B 7/1. The color of the final finish coat for all exterior steel surfaces shall be Reddish Brown, Munsell No. 2.5YR 3/4.

A flagger shall be required for T.R. 490 for any full depth deck slab repair that occurs over T.R. 490. The cost shall be included in the pay item Deck Slab Repair (Full Depth, Type II).

Joint plates and attached bars shall be shop painted with the inorganic zinc rich primer. No field paint required.

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.

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Removal	Cu. Yd.	14.9	0.3	15.2
Concrete Superstructure	Cu. Yd.	17.2	0.3	17.5
Protective Coat	Sq. Yd.	2,269		2,269
Reinforcement Bars, Epoxy Coated	Pound	510	940	1,450
Bar Splicers	Each	12		12
Preformed Joint Strip Seal	Foot	119.0		119.0
Bridge Deck Grooving (Longitudinal)	Sq. Yd.	1,145		1,145
Containment and Disposal of Non-Lead Paint Cleaning Residues No. 1	L Sum			1
Approach Slab Repair (Partial Depth)	Sq. Yd.			4.4
Cleaning and Painting Steel Bridge No. 1	L Sum			1
Bridge Deck Scarification 3/4"	Sq. Yd.	1,884		1,884
Bridge Deck Microsilica Concrete Overlay 2 3/4"	Sq. Yd.	1,884		1,884
Structural Repair of Concrete (Depth Equal to or Less than 5 inches)	Sq. Ft.		2	2
Structural Repair of Concrete (Depth Greater than 5 inches)	Sq. Ft.		4	4
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	7.2		7.2
Diamond Grinding (Bridge Section)	Sq. Yd.	1,921		1,921

\* Quantity includes overlay and face of parapets.

**GIRDER PAINTING LIMITS TABLE**

Girder No.	Span 1	Span 2	Span 3	Span 4
1	70'-0"	---	---	10'-0"
2	70'-0"	---	---	10'-0"
3	70'-0"	---	---	10'-0"
4	70'-0"	---	---	10'-0"
5	70'-0"	---	---	10'-0"

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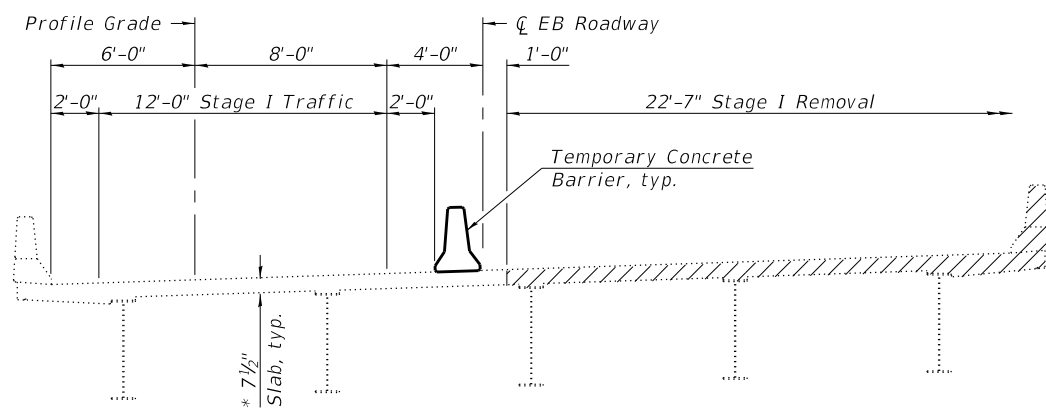
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PLOT SCALE = NTS	CHECKED - ERIC M. LAGEMANN	REVISED -
PLOT DATE = 8/17/2017	DRAWN - TIM FRIEDERICH	REVISED -
	CHECKED - ERIC M. LAGEMANN	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

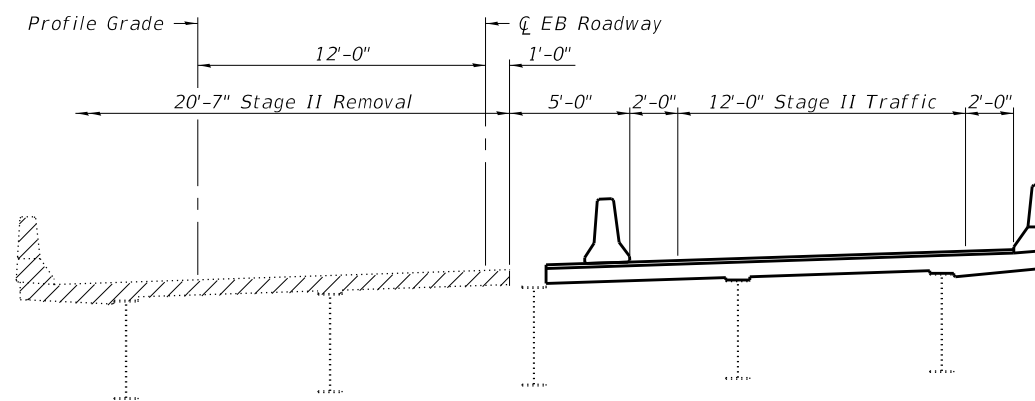
**GENERAL DATA  
STRUCTURE NO. 075-0116**

SHEET NO. 2 OF 17 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	46
CONTRACT NO.			72J42	
ILLINOIS FED. AID PROJECT				

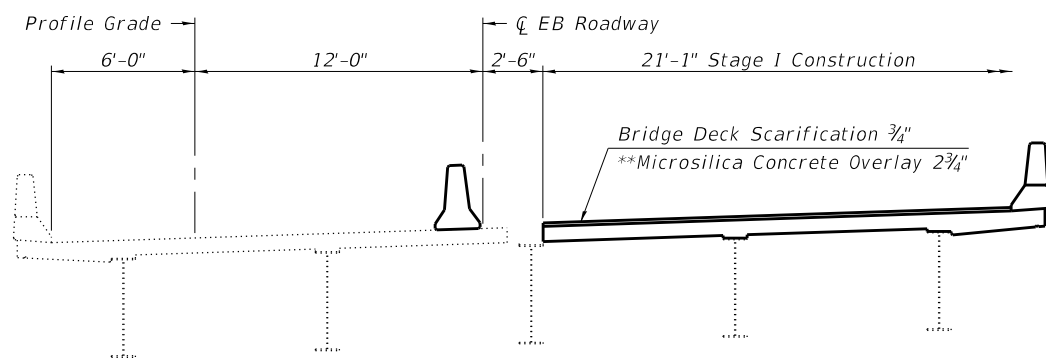


STAGE I REMOVAL



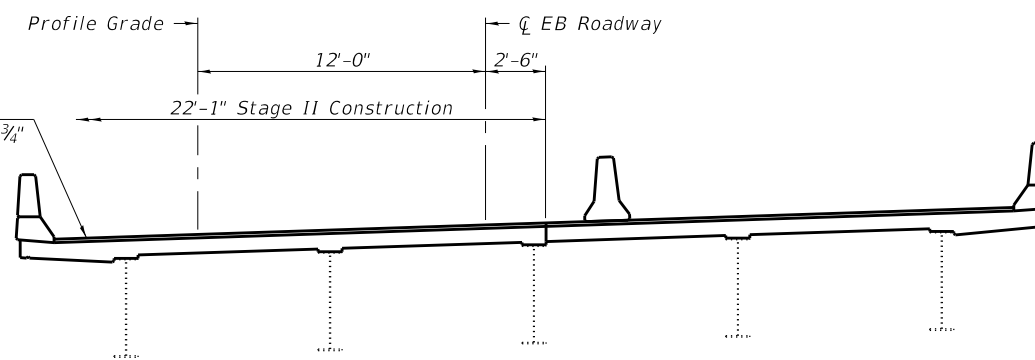
STAGE II REMOVAL

\* Prior to Scarification  
 \*\* Prior to Grinding



STAGE I CONSTRUCTION

Bridge Deck Scarification  $\frac{3}{4}$ "  
 \*\*Microsilica Concrete Overlay  $2\frac{3}{4}$ "



STAGE II CONSTRUCTION

Notes:  
 All sections are looking east.  
 For quantity of Temporary Concrete Barrier, see Roadway Plans.  
 Hatched areas indicate Concrete Removal.

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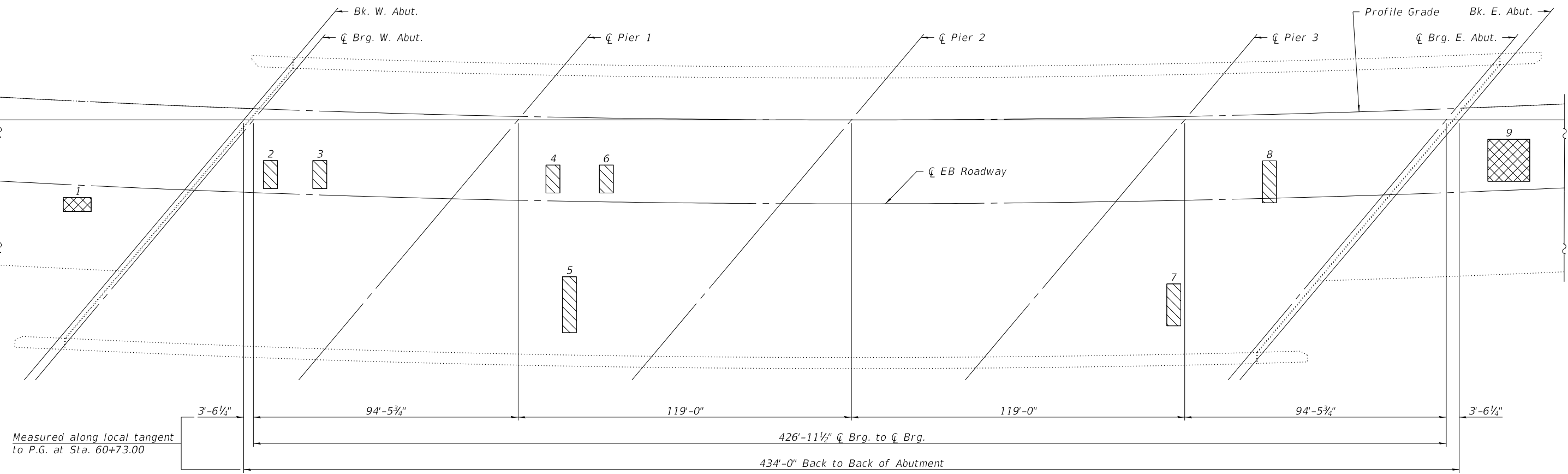
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CHECKED - ERIC M. LAGEMANN	REVISED -
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PLOT SCALE = NTS	
PLOT DATE = 8/17/2017	

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**STAGE CONSTRUCTION DETAILS  
 STRUCTURE NO. 075-0116**

SHEET NO. 3 OF 17 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	47
CONTRACT NO.			72J42	
ILLINOIS FED. AID PROJECT				



**DECK REPAIR PLAN**

**ANTICIPATED DECK SLAB REPAIR  
(FULL DEPTH, TYPE II)**

Patch No.	Length (ft.)	Width (ft.)	Area (sq. yd.)
2	2	4	0.9
3	2	4	0.9
4	2	4	0.9
5	2	8	1.8
6	1	5	0.6
7	1	6	0.7
8	2	6	1.4
Total =			7.2

**ANTICIPATED APPROACH  
SLAB REPAIR (PARTIAL DEPTH)**

Patch No.	Length (ft.)	Width (ft.)	Area (sq. yd.)
1	3	1	0.4
9	6	6	4.0
Total =			4.4

**BILL OF MATERIAL**

Item	Unit	Total
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	7.2
Approach Slab Repair (Partial Depth)	Sq. Yd.	4.4

Quantities and repair area shown are estimated. Actual areas to be determined by the Resident Engineer and recorded on the As-Built Plans.



**LEGEND**

- Deck Slab Repair (Full Depth, Type II)
- Approach Slab Repair (Partial Depth)

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DRAWN - TIM FRIEDERICH	REVISED -
CHECKED - ERIC M. LAGEMANN	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DECK PATCHING REMOVAL  
STRUCTURE NO. 075-0116**

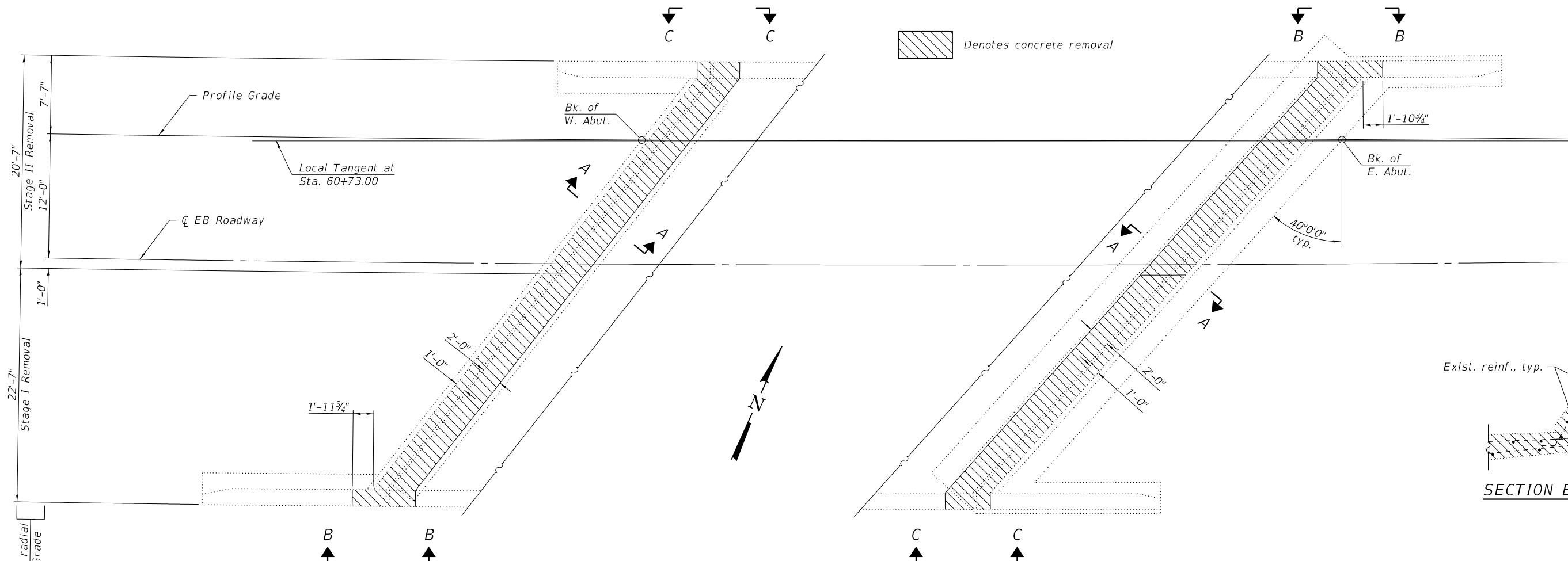
SHEET NO. 4 OF 17 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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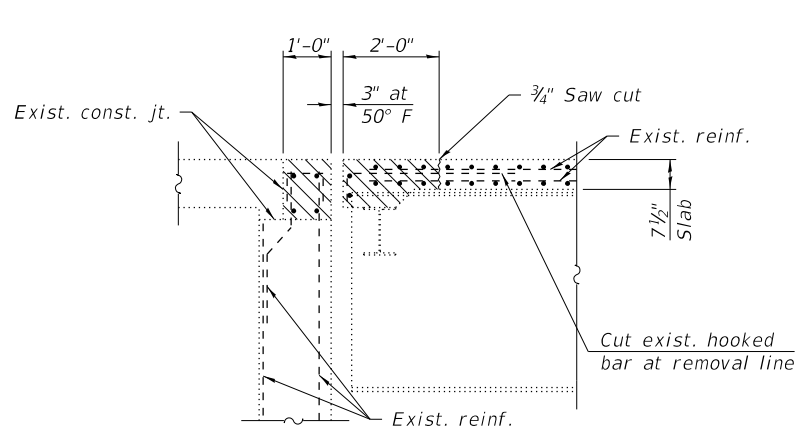
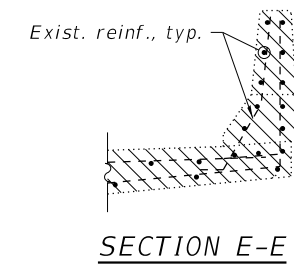
CONTRACT NO. 72J42

ILLINOIS FED. AID PROJECT

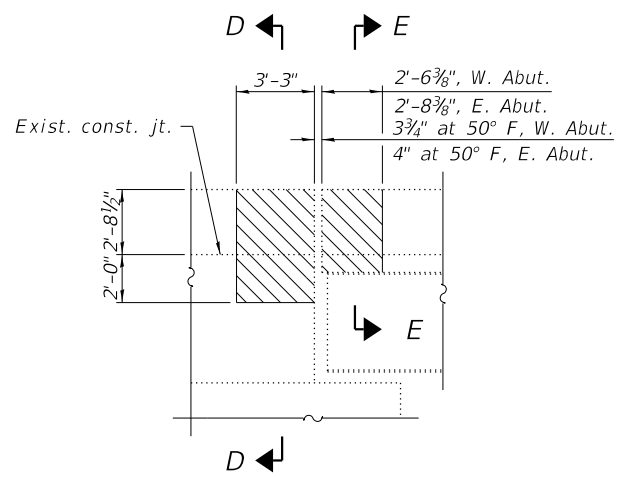




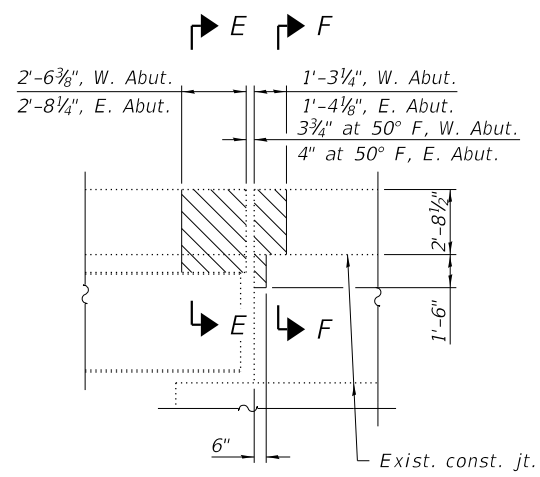
PLAN OF REMOVAL DETAIL



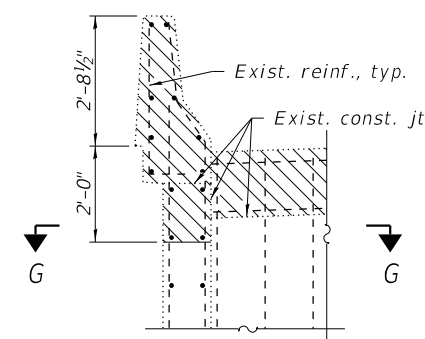
SECTION A-A  
(Horiz. dim. at right L's)



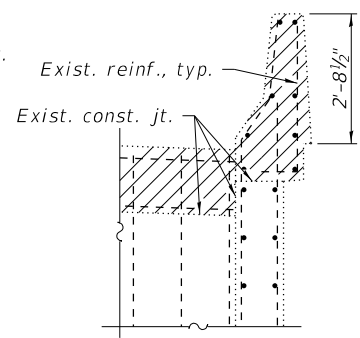
VIEW B-B



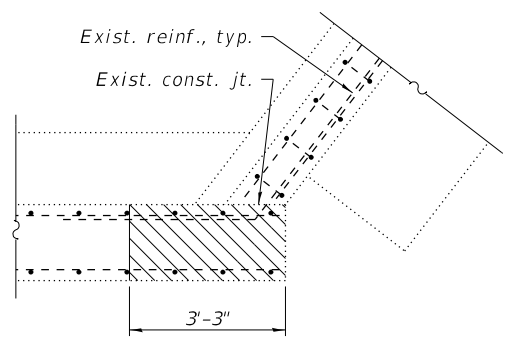
VIEW C-C



SECTION D-D



SECTION F-F



SECTION G-G

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PLOT SCALE = NTS	CHECKED - ERIC M. LAGEMANN	REVISED -
PLOT DATE = 8/17/2017	DRAWN - TIM FRIEDERICH	REVISED -
	CHECKED - ERIC M. LAGEMANN	REVISED -

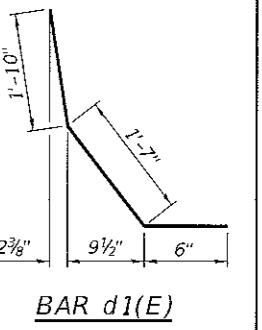
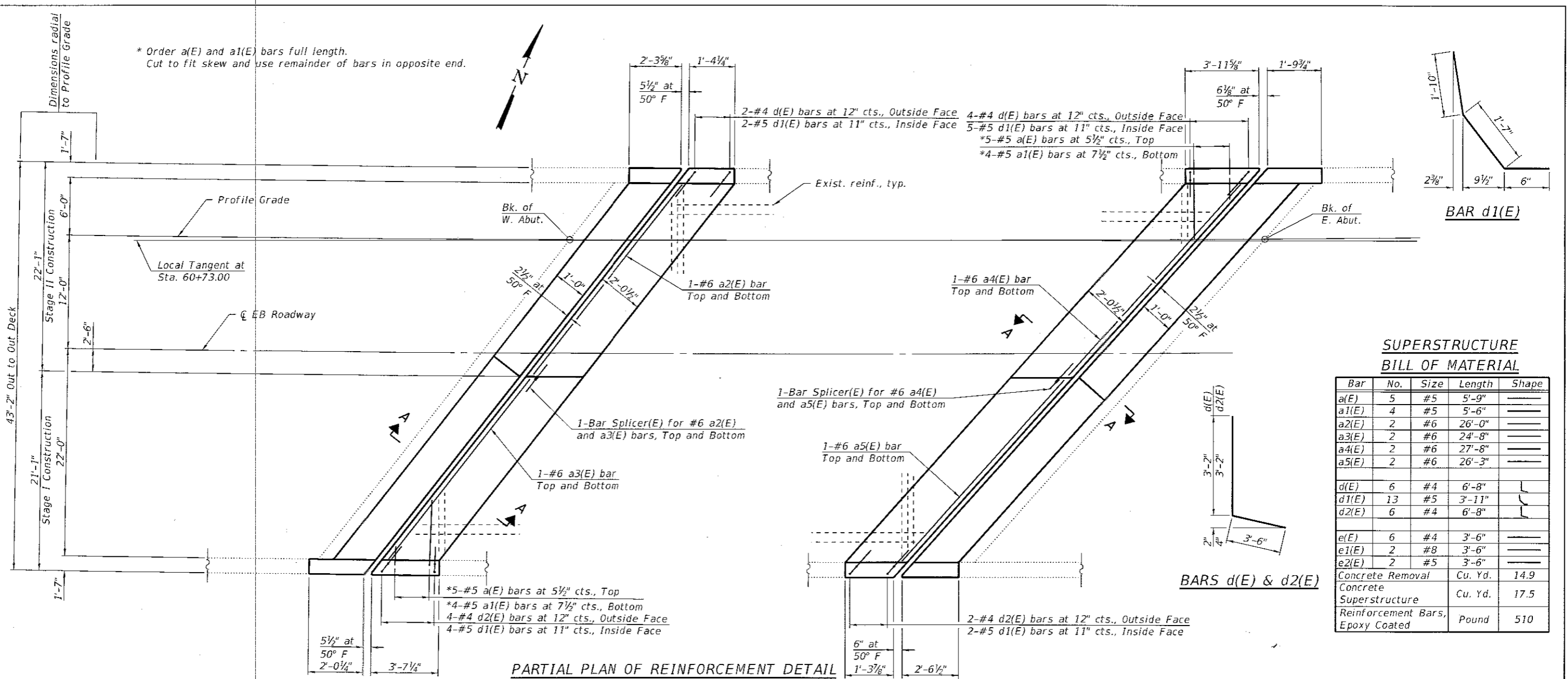
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REMOVAL DETAILS  
STRUCTURE NO. 075-0116

SHEET NO. 5 OF 17 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	49
CONTRACT NO.			72J42	
ILLINOIS FED. AID PROJECT				

\* Order a(E) and a1(E) bars full length.  
Cut to fit skew and use remainder of bars in opposite end.

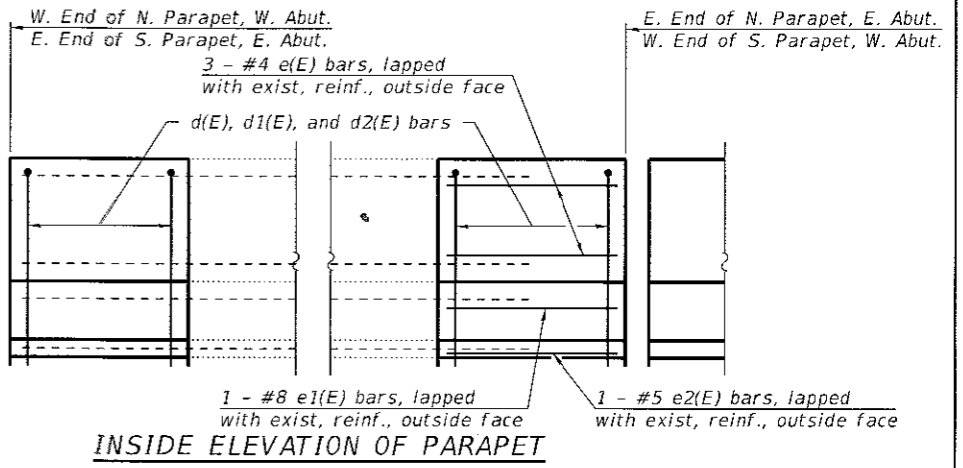
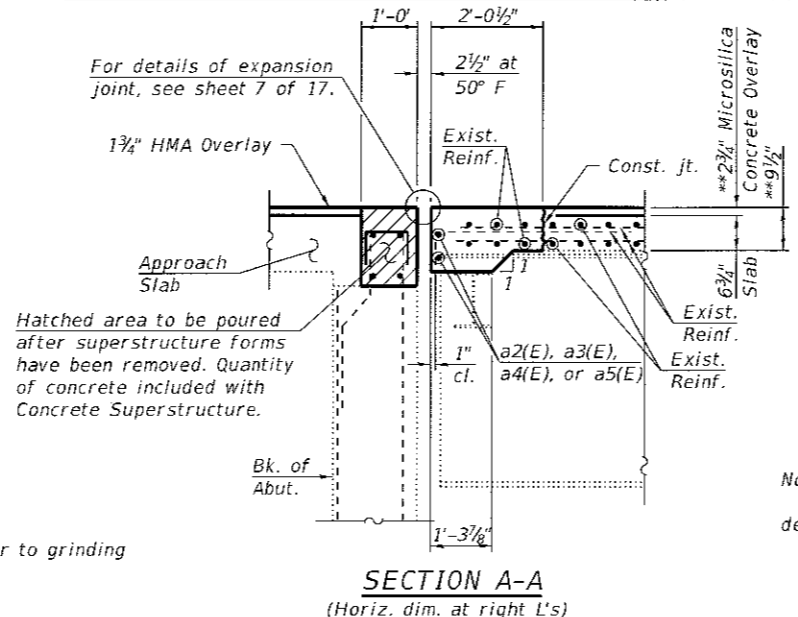


**SUPERSTRUCTURE BILL OF MATERIAL**

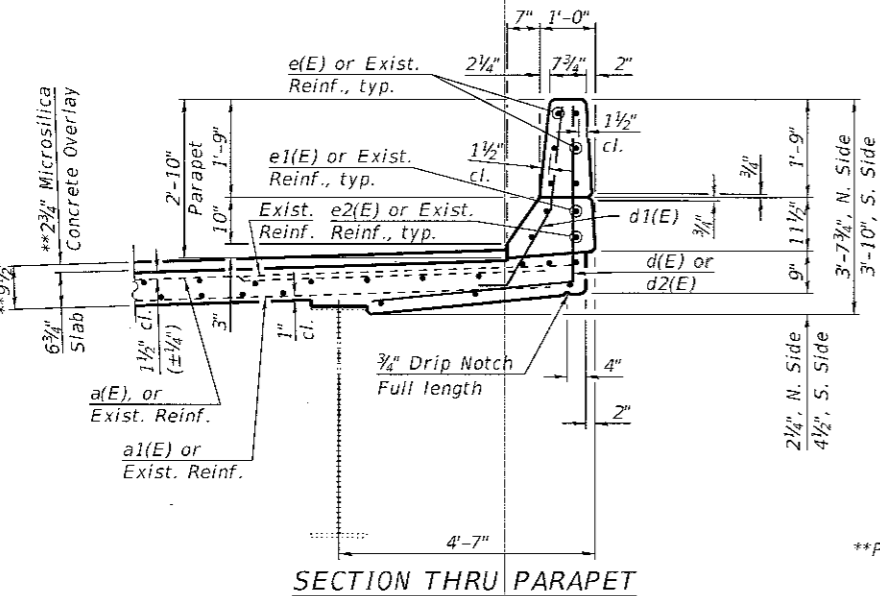
Bar	No.	Size	Length	Shape
a(E)	5	#5	5'-9"	
a1(E)	4	#5	5'-6"	
a2(E)	2	#6	26'-0"	
a3(E)	2	#6	24'-8"	
a4(E)	2	#6	27'-8"	
a5(E)	2	#6	26'-3"	
d(E)	6	#4	6'-8"	
d1(E)	13	#5	3'-11"	
d2(E)	6	#4	6'-8"	
e(E)	6	#4	3'-6"	
e1(E)	2	#8	3'-6"	
e2(E)	2	#5	3'-6"	
Concrete Removal		Cu. Yd.	14.9	
Concrete Superstructure		Cu. Yd.	17.5	
Reinforcement Bars, Epoxy Coated		Pound	510	

BARS d(E) & d2(E)

**PARTIAL PLAN OF REINFORCEMENT DETAIL**



**Notes:**  
Dimensions are based on a 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 7 of 17.  
Cut ends of existing reinforcement bars extending into new construction to maintain 1 1/2" minimum clearance.  
For details of Bar Splicers, see sheet 11 of 17.  
For Superstructure Concrete Removal Details, see sheet 5 of 17.



SECTION THRU PARAPET

SECTION A-A  
(Horiz. dim. at right L's)

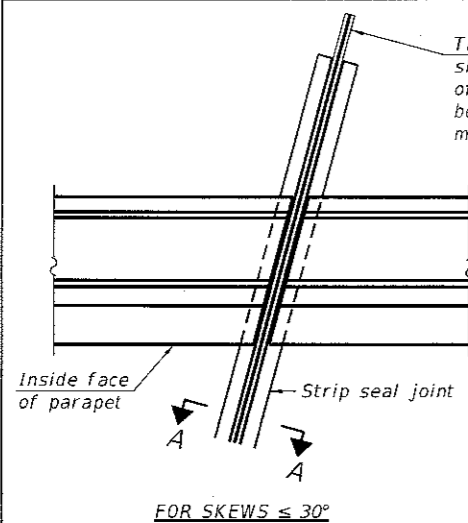


DESIGNED - TIM FRIEDERICH	REVISOR -
CHECKED - ERIC M. LAGEMANN	REVISOR -
DRAWN - TIM FRIEDERICH	REVISOR -
CHECKED - ERIC M. LAGEMANN	REVISOR -

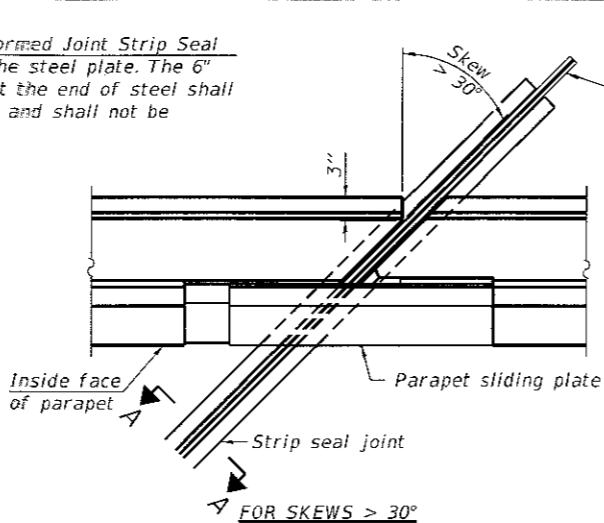
**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE REPAIR DETAILS  
STRUCTURE NO. 075-0116**

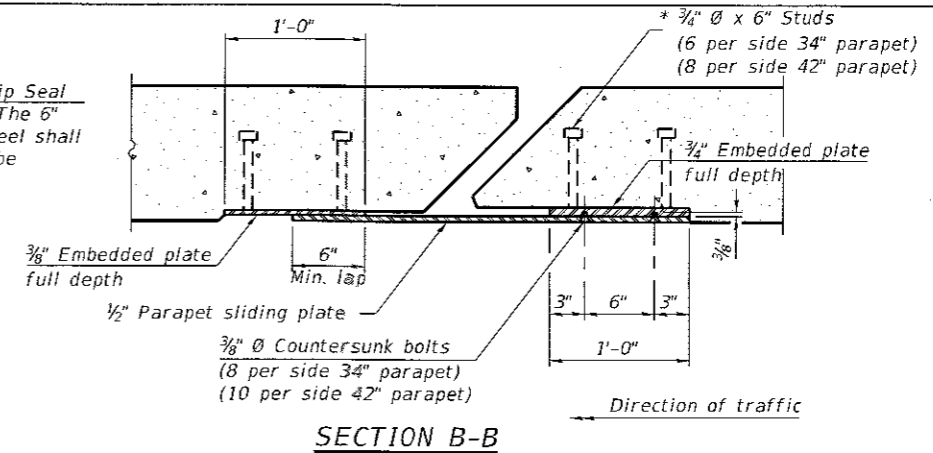
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	50
CONTRACT NO. 72J42			ILLINOIS FED. AID PROJECT	



The pay limits for Preformed Joint Strip Seal shall be to the end of the steel plate. The 6" of rubber extending past the end of steel shall be considered incidental and shall not be measured for payment.

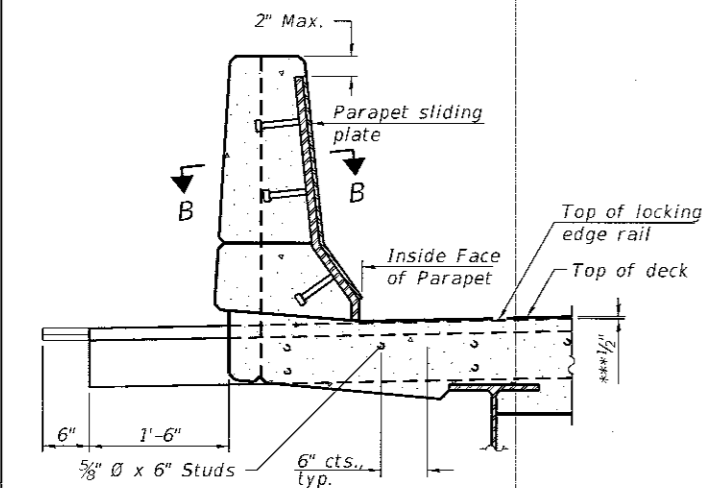


The pay limits for Preformed Joint Strip Seal shall be to the end of the steel plate. The 6" of rubber extending past the end of steel shall be considered incidental and shall not be measured for payment.



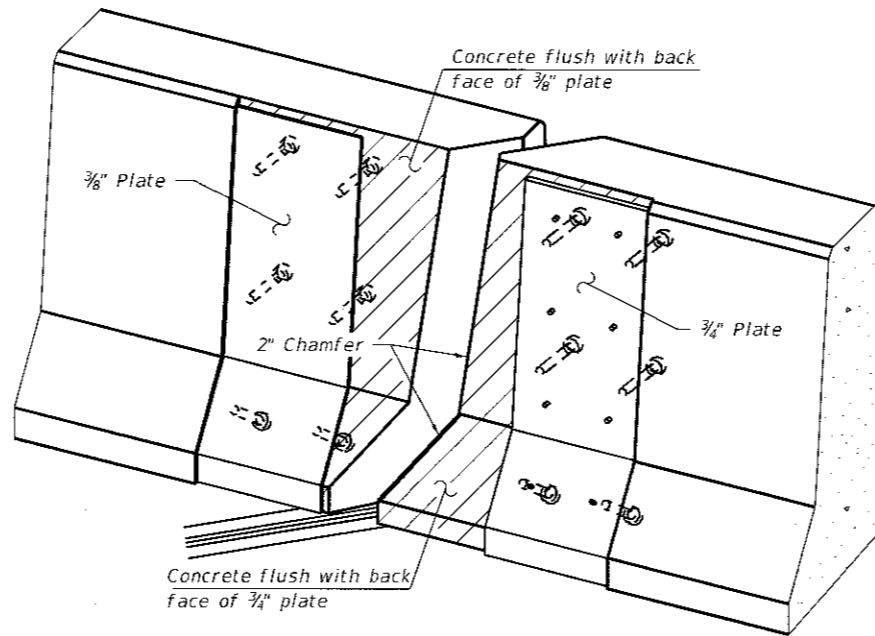
SECTION B-B

PLAN AT PARAPET



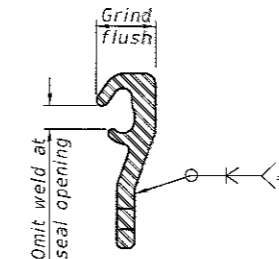
ELEVATION AT PARAPET

(Skews > 30° shown. Skews ≤ 30° similar except as shown in plan view.)



TRIMETRIC VIEW

(Showing embedded plates only)



LOCKING EDGE RAIL SPLICE

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

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

The manufacturer's recommended installation methods shall be followed.

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

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

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

34" F-shape barrier shown, 42" F-shape similar as noted.

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

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 PLOT DATE = 9/21/2017  
 USER NAME = tsfriederich  
 PLOT SCALE = NTS  
 DESIGNED - TIM FRIEDERICH  
 CHECKED - ERIC M. LAGEMANN  
 DRAWN - TIM FRIEDERICH  
 CHECKED - ERIC M. LAGEMANN  
 REVISED -  
 REVISED -  
 REVISED -  
 REVISED -  
 STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION  
 PREFORMED JOINT STRIP SEAL  
 STRUCTURE NO. 075-0116  
 SHEET NO. 7 OF 17 SHEETS  
 SECTION (75-6) BDR, BP, BRR, RS-2  
 COUNTY PIKE  
 TOTAL SHEETS 150  
 SHEET NO. 51  
 CONTRACT NO. 72J42  
 ILLINOIS FED. AID PROJECT



DESIGNED - TIM FRIEDERICH  
 CHECKED - ERIC M. LAGEMANN  
 DRAWN - TIM FRIEDERICH  
 CHECKED - ERIC M. LAGEMANN  
 REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL  
 STRUCTURE NO. 075-0116  
 SHEET NO. 7 OF 17 SHEETS

SECTION (75-6) BDR, BP, BRR, RS-2  
 COUNTY PIKE  
 TOTAL SHEETS 150  
 SHEET NO. 51  
 CONTRACT NO. 72J42  
 ILLINOIS FED. AID PROJECT

Item	Unit	Total
Prefomed Joint Strip Seal	Foot	119.0

\* 3/8" Ø x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)

3/8" Ø threaded rods in 7/16" Ø holes at ±4'-0" cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.

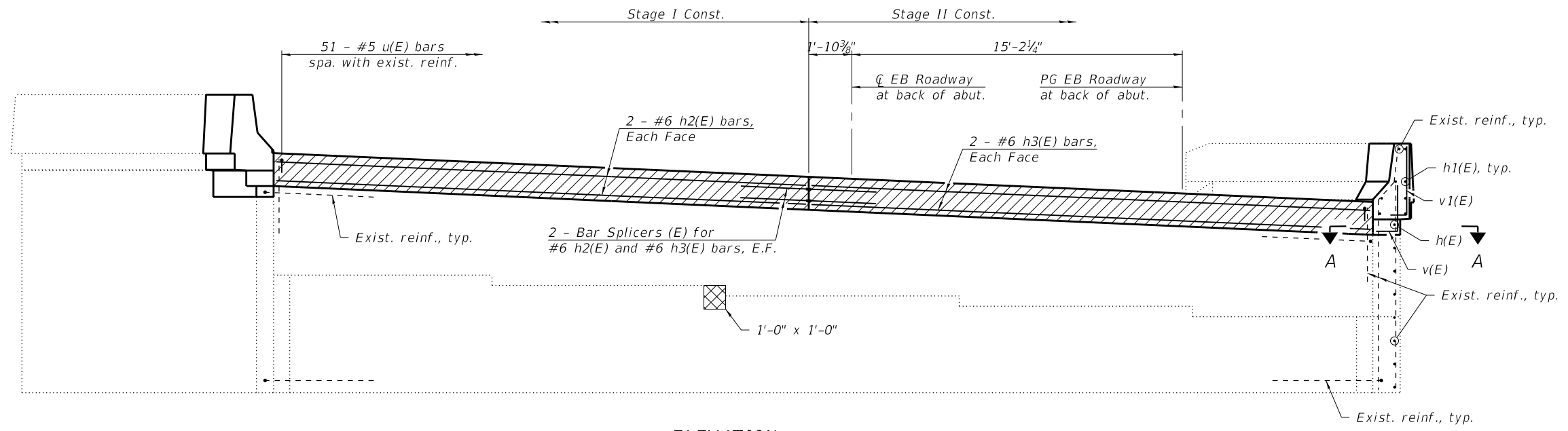
SHOWING ROLLED RAIL JOINT

SHOWING WELDED RAIL JOINT

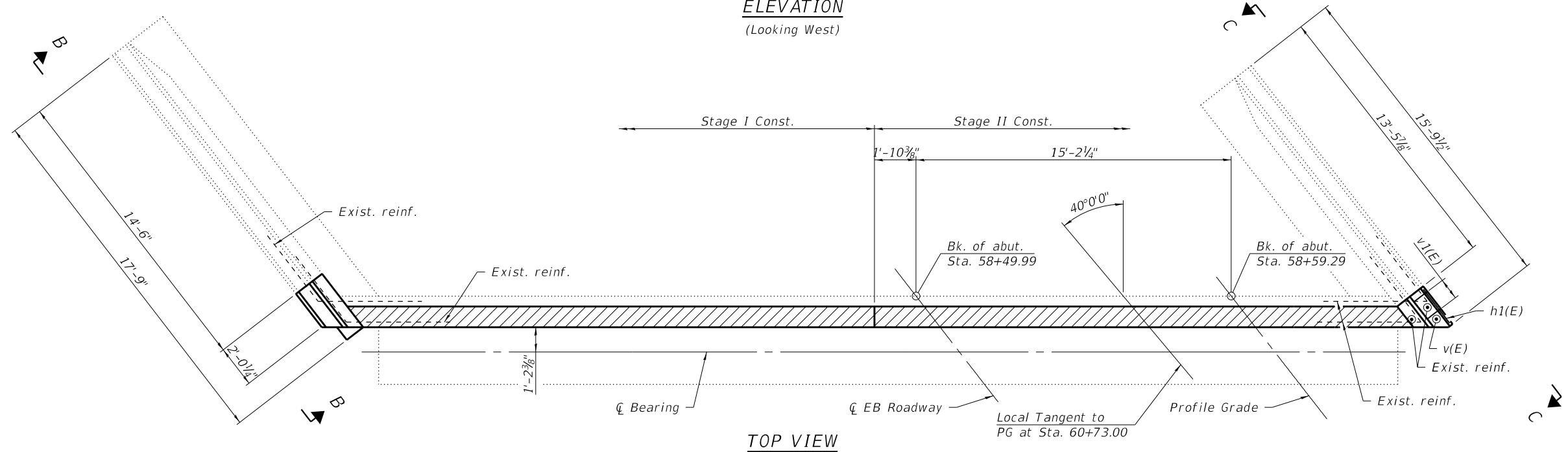
SECTION A-A

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

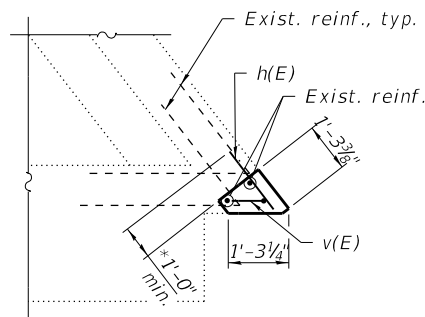
\*\*\* Prior to grinding.



**ELEVATION**  
(Looking West)



**TOP VIEW**



**SECTION A-A**

**LEGEND**

- Structural Repair of Concrete (Depth Equal to or Less than 5 inches)
- Structural Repair of Concrete (Depth Greater than 5 inches)

\*Drill and epoxy grout reinforcement according to Section 584 of the Standard Specifications.

Note:  
For Views B-B and C-C, see sheet 10 of 17.

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DESIGNED - TIM FRIEDERICH	REVISED -
CHECKED - ERIC M. LAGEMANN	REVISED -
DRAWN - TIM FRIEDERICH	REVISED -
CHECKED - ERIC M. LAGEMANN	REVISED -
USER NAME = tsfriederich	
PLOT SCALE = NTS	
PLOT DATE = 8/17/2017	

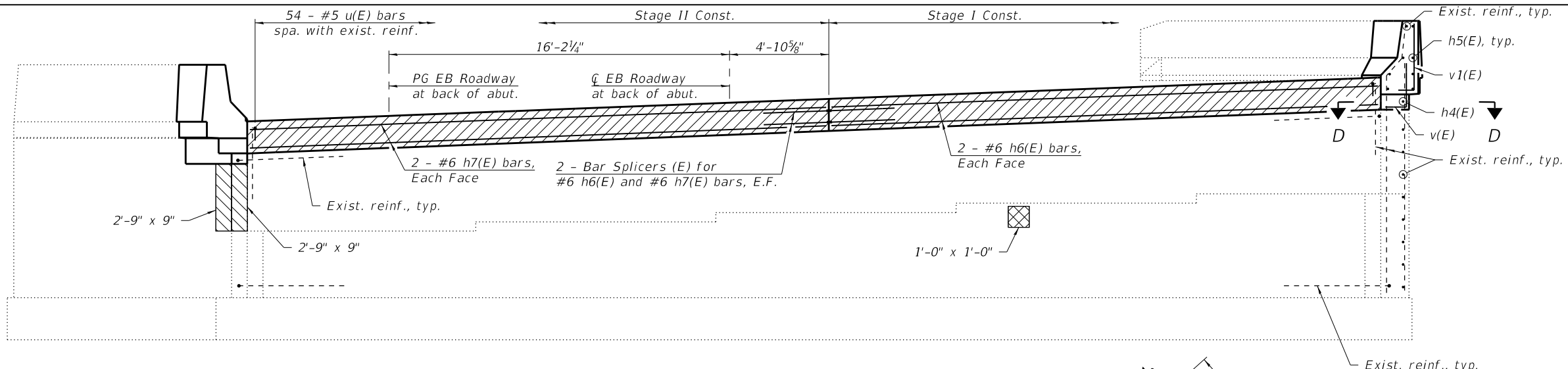
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**WEST ABUTMENT DETAILS**  
**STRUCTURE NO. 075-0116**

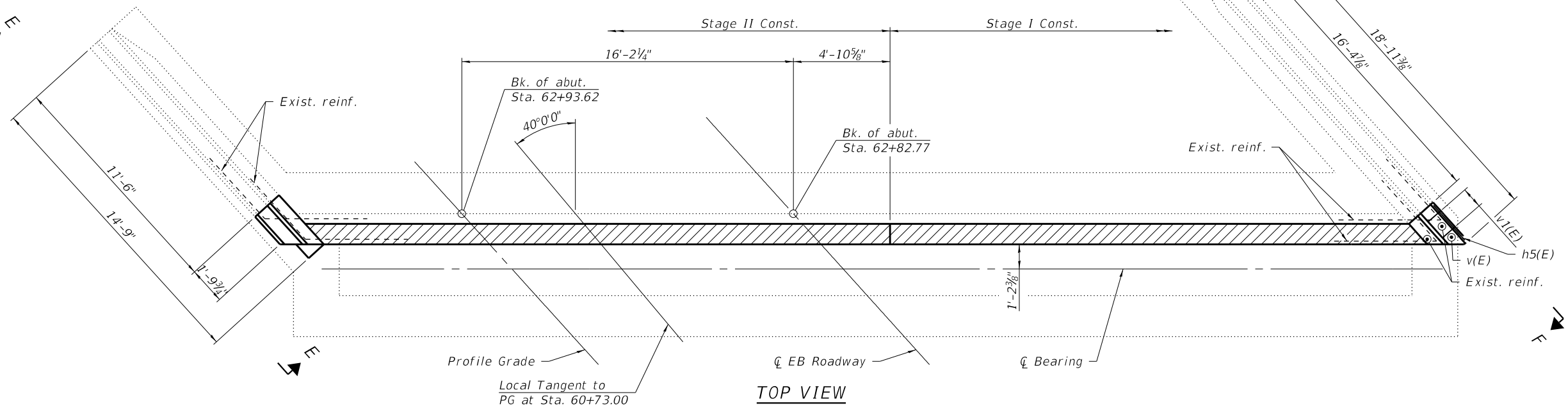
SHEET NO. 8 OF 17 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	52
CONTRACT NO.			72J42	

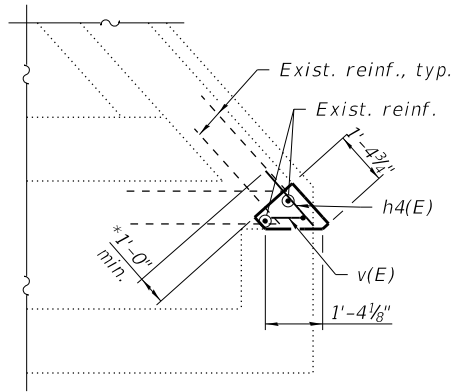
ILLINOIS FED. AID PROJECT



**ELEVATION**  
(Looking East)



**TOP VIEW**



**SECTION D-D**

\*Drill and epoxy grout reinforcement according to Section 584 of the Standard Specifications.

Note:  
For Views E-E and F-F,  
see sheet 10 of 17.

**LEGEND**

- Structural Repair of Concrete (Depth Equal to or Less than 5 inches)
- Structural Repair of Concrete (Depth Greater than 5 inches)

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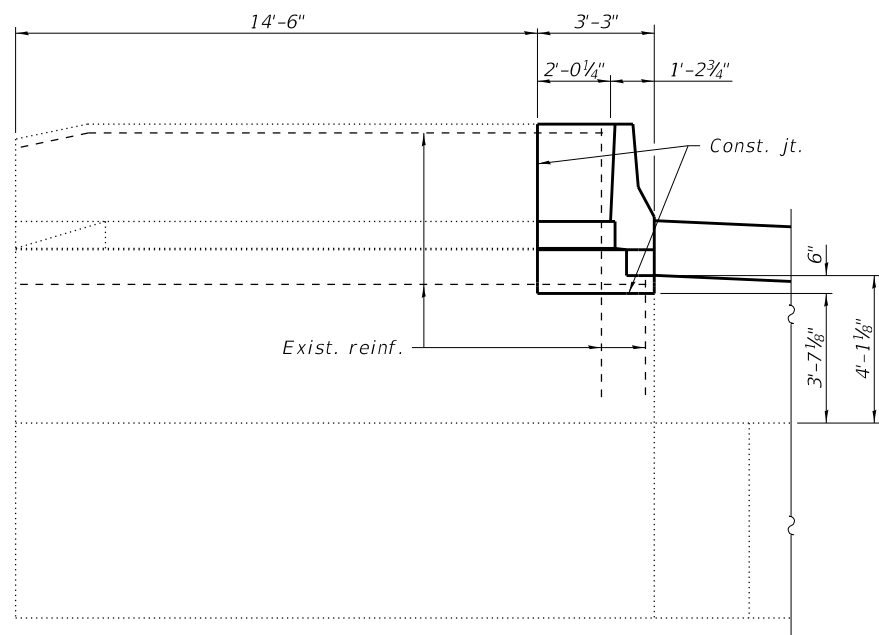
DESIGNED - TIM FRIEDERICH	REVISED -
CHECKED - ERIC M. LAGEMANN	REVISED -
DRAWN - TIM FRIEDERICH	REVISED -
CHECKED - ERIC M. LAGEMANN	REVISED -
USER NAME = tsfriederich	
PLOT SCALE = NTS	
PLOT DATE = 8/17/2017	

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

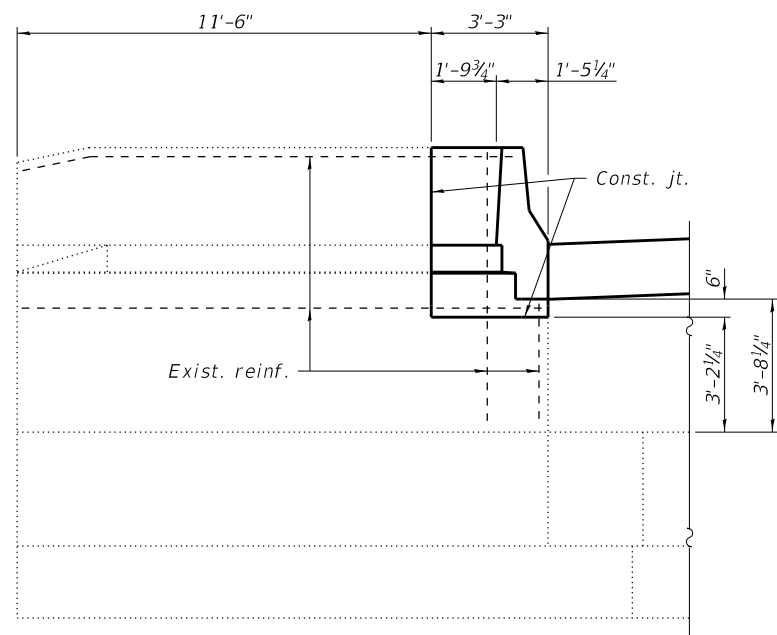
**EAST ABUTMENT DETAILS**  
**STRUCTURE NO. 075-0116**  
SHEET NO. 9 OF 17 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	53
CONTRACT NO.			72J42	

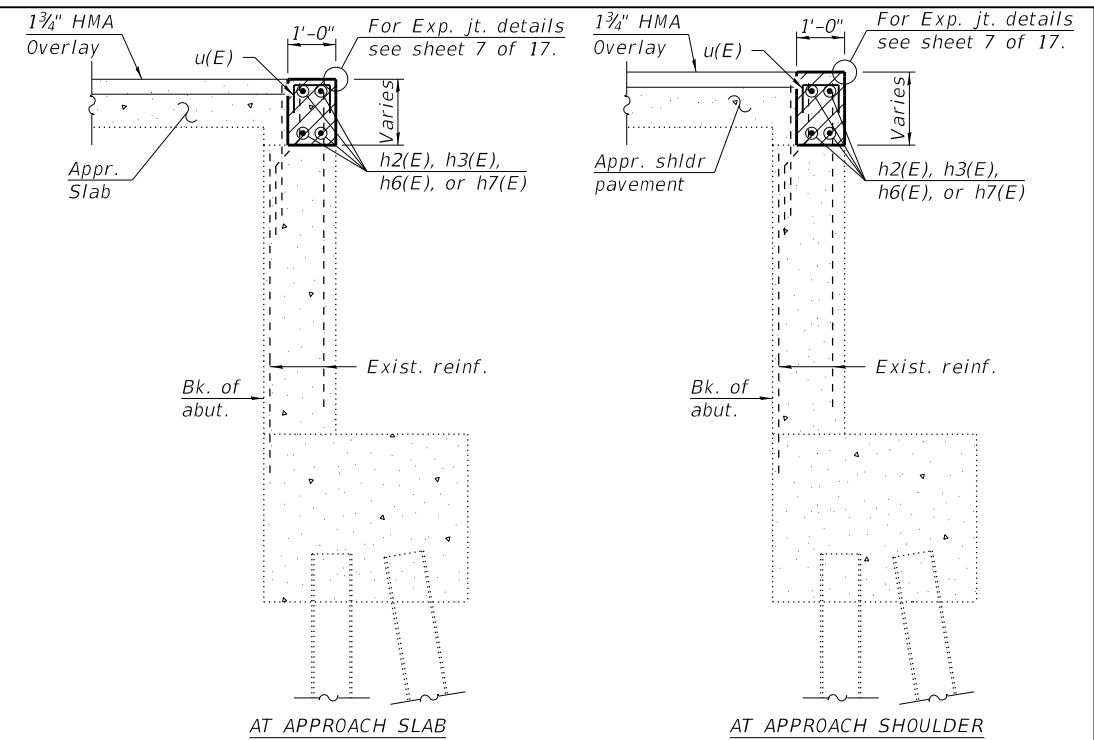
ILLINOIS FED. AID PROJECT



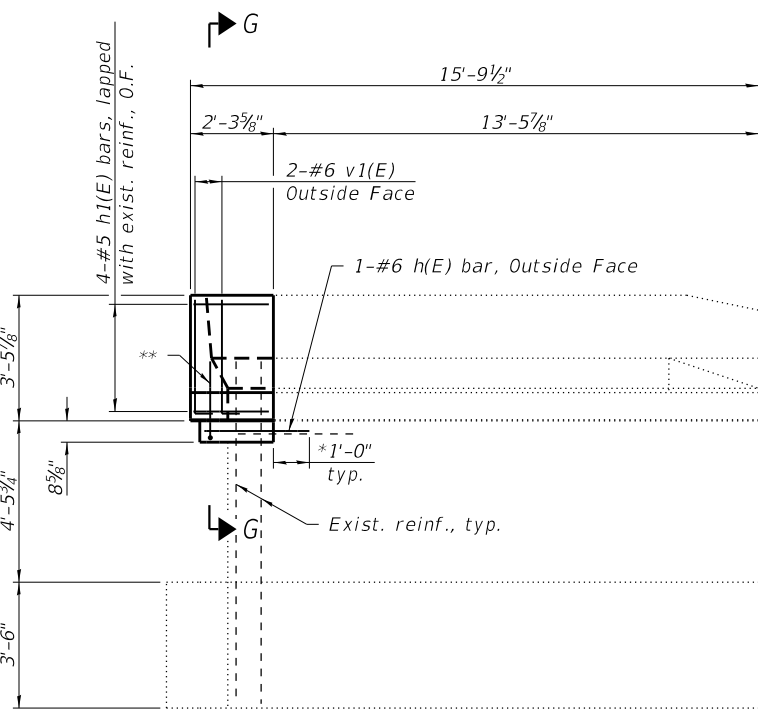
VIEW B-B



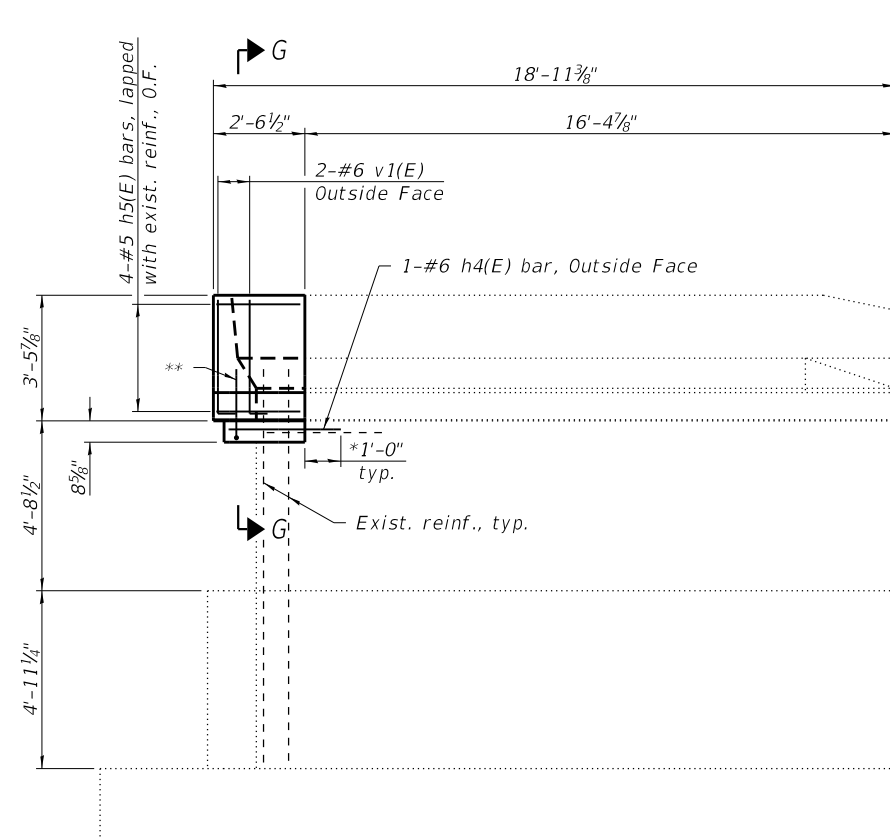
VIEW E-E



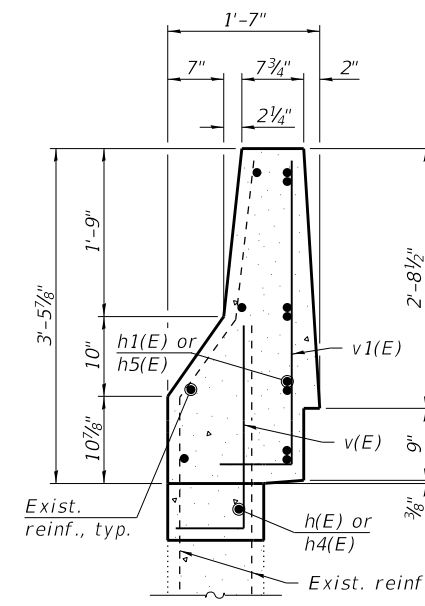
SECTION THRU ABUTMENT



VIEW C-C



VIEW F-F

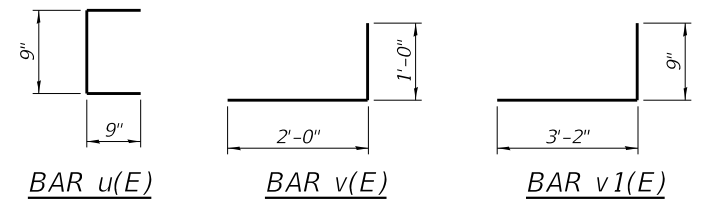


SECTION G-G

**BOTH ABUTMENTS  
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h(E)	1	#6	1'-11"	—
h1(E)	4	#5	1'-8"	—
h2(E)	4	#6	25'-9"	—
h3(E)	4	#6	26'-1"	—
h4(E)	1	#6	2'-0"	—
h5(E)	4	#5	1'-11"	—
h6(E)	4	#6	26'-3"	—
h7(E)	4	#6	28'-11"	—
u(E)	105	#5	2'-3"	┌
v(E)	2	#6	3'-0"	└
v1(E)	4	#6	3'-11"	└
Concrete Removal			Cu. Yd.	0.3
Reinforcement Bars, Epoxy Coated			Pound	940
Structural Repair of Concrete (Depth Equal to or Less than 5 inches)			Sq. Ft.	2
Structural Repair of Concrete (Depth Greater than 5 inches)			Sq. Ft.	4

Notes:  
 All new concrete is included with Concrete Superstructure.  
 For Locations of Views B-B and C-C, see sheet 8 of 17.  
 For Location of Views E-E and F-F, see sheet 9 of 17.  
 Cut existing reinforcement to maintain a 1 1/2" minimum clearance.



\* Drill and grout reinforcement  
 \*\* 1-#6 v(E) bar, Outside Face

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USER NAME = tsfriederich  
 PLOT SCALE = NTS  
 PLOT DATE = 8/17/2017

DESIGNED - TIM FRIEDERICH  
 CHECKED - ERIC M. LAGEMANN  
 DRAWN - TIM FRIEDERICH  
 CHECKED - ERIC M. LAGEMANN

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

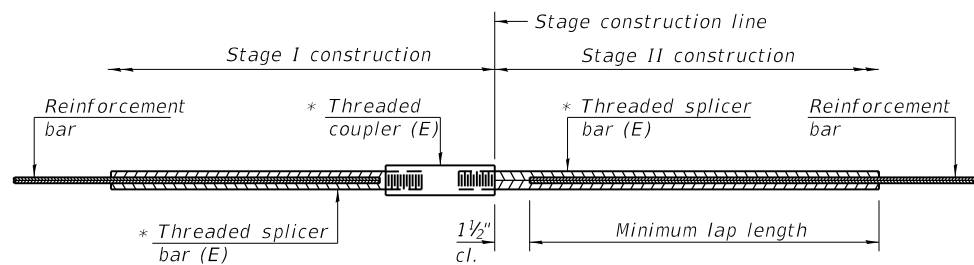
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**ABUTMENT DETAILS  
 STRUCTURE NO. 075-0116**

SHEET NO. 10 OF 17 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	54
CONTRACT NO.			72J42	

ILLINOIS FED. AID PROJECT

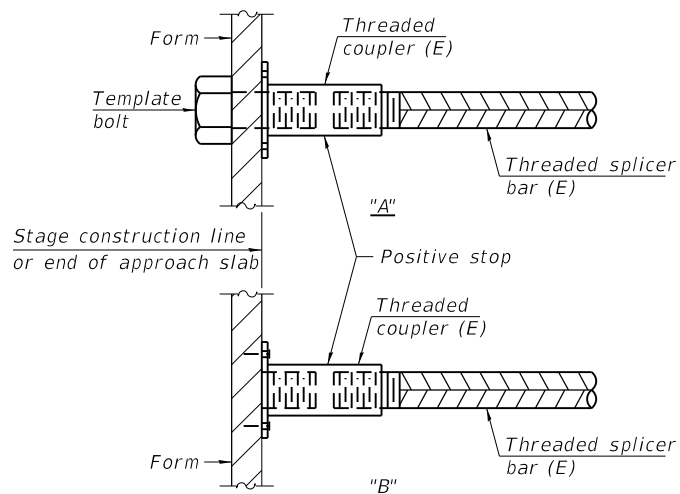


**STANDARD BAR SPLICER ASSEMBLY**

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

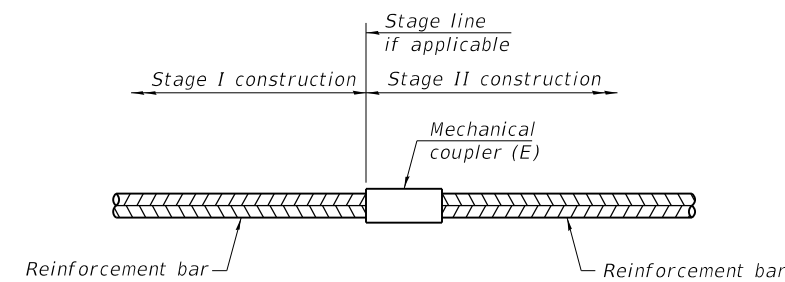
\* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
Deck	#6	4	3'-0"
West Abutment	#6	4	3'-0"
East Abutment	#6	4	3'-0"



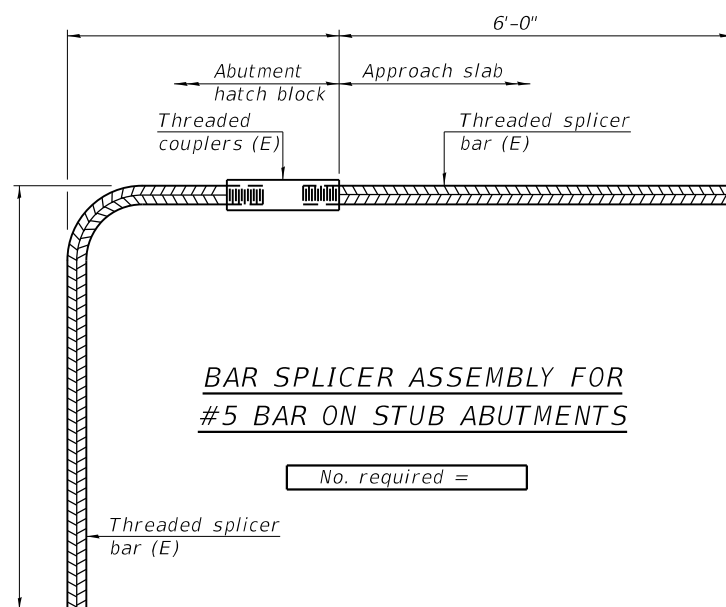
**INSTALLATION AND SETTING METHODS**

"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

2-17-2017



DESIGNED - TIM FRIEDERICH	REVISED -
CHECKED - ERIC M. LAGEMANN	REVISED -
DRAWN - TIM FRIEDERICH	REVISED -
CHECKED - ERIC M. LAGEMANN	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS  
STRUCTURE NO. 075-0116

SHEET NO. 11 OF 17 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	55
CONTRACT NO.			72J42	

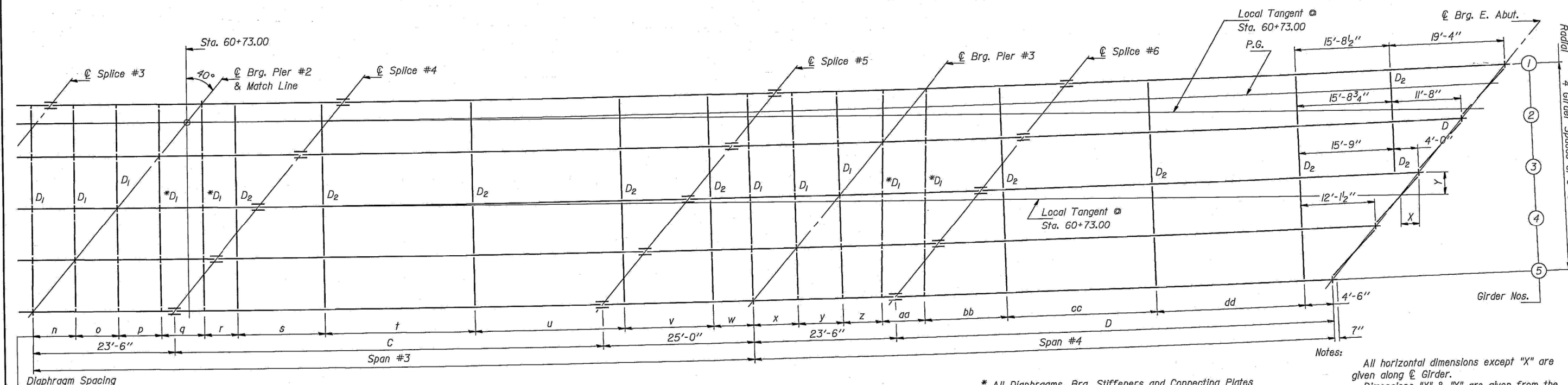
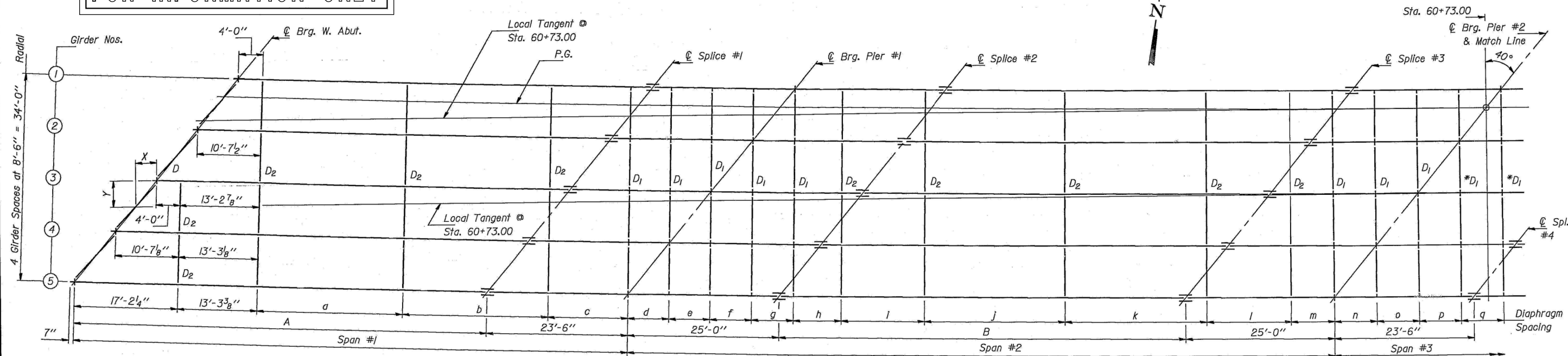
ILLINOIS FED. AID PROJECT

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
75-6HB-3	PIKE	PIKE	511	216
SHEET NO. 9				
22 SHEETS				

FOR INFORMATION ONLY



FRAMING PLAN

\* All Diaphragms, Brg. Stiffeners and Connecting Plates are placed Radial except where Diaphragm D<sub>1</sub> has an asterisk.

Notes:  
All horizontal dimensions except "X" are given along  $\bar{C}$  Girder.  
Dimensions "X" & "Y" are given from the respective Local Tangent of each Girder at Sta. 60+73.00.  
All dimensions are along the curve except as noted.  
Work this sheet with sheet #10 & #11 of 22. Girders shall be fabricated to their respective radii.

LAYOUT DIMENSIONS

Loc.	C Brg. W. Abut.		C Splice #1		C Brg. Pier #1		C Splice #2		C Splice #3		C Brg. Pier #2		C Splice #4		C Splice #5		C Brg. Pier #3		C Splice #6		C Brg. E. Abut.	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
#1	3'-2"	3'-9 1/4"	1'-5"	1'-8 1/4"	11 3/4"	1'-2"	7 1/4"	8 5/8"	1 1/2"	1 1/2"	0	0	5 1/8"	3 1/4"	8 3/8"	10"	1'-1 1/4"	1'-3 3/4"	1'-6 3/4"	1'-10 3/8"	3'-6 3/8"	4'-2 1/2"
#2	3'-4 1/2"	4'-0 1/4"	1'-6 3/4"	1'-10 1/4"	1'-1 1/8"	1'-3 3/4"	8 3/8"	10"	3 1/4"	7 1/8"	0	0	1 1/4"	3 1/8"	7 1/8"	8 1/2"	11 3/4"	1'-1 1/8"	1'-4 1/8"	1'-8 1/8"	3'-3 1/2"	3'-11 1/8"
#3	3'-7 1/8"	4'-3 3/8"	1'-8 1/2"	2'-0 1/2"	1'-2 3/4"	1'-5 1/2"	9 5/8"	11 3/8"	1 1/4"	1 3/8"	1 1/8"	1 1/8"	1 1/8"	1 1/8"	6 1/8"	7 1/4"	10 1/4"	1'-0 1/4"	1'-3 1/8"	1'-6 1/8"	3'-0 3/4"	3'-7 1/8"
#4	3'-9 3/4"	4'-6 1/2"	1'-10 3/8"	2'-2 3/4"	1'-4 3/8"	1'-7 1/2"	10 1/8"	11 1/8"	1 1/2"	2"	1 1/4"	3 1/8"	0	0	5"	6"	8 1/8"	10 5/8"	1'-1 1/2"	1'-4 1/2"	2'-10 1/2"	3'-4 5/8"
#5	4'-0 1/2"	4'-9 3/4"	2'-0 3/8"	2'-5"	1'-6"	1'-9 1/2"	1'-0 1/4"	1'-2 5/8"	2 1/4"	2 3/4"	5 1/8"	3 1/4"	0	0	4 1/8"	4 1/8"	7 5/8"	9 1/8"	1'-0"	1'-2 1/4"	2'-7 5/8"	3'-1 5/8"

DESIGNED *Ch R. Oswald*  
CHECKED *Patrick M. ...*  
DRAWN *John F. Schneller Jr.*  
CHECKED *GRA PMP*

EXAMINED *Draj D. Kaspar*  
PASSED *James J. ...*  
APPROVED *...*  
DIRECTOR OF HIGHWAYS

Sept. 11, 1987



USER NAME = tsfriederich  
PLOT SCALE = NTS  
PLOT DATE = 8/17/2017

DESIGNED - TIM FRIEDERICH  
CHECKED - ERIC M. LAGEMANN  
DRAWN - TIM FRIEDERICH  
CHECKED - ERIC M. LAGEMANN

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING FRAMING PLAN AND BEARING SHEETS  
STRUCTURE NO. 075-0116  
SHEET NO. 12 OF 17 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	56
CONTRACT NO.				72J42

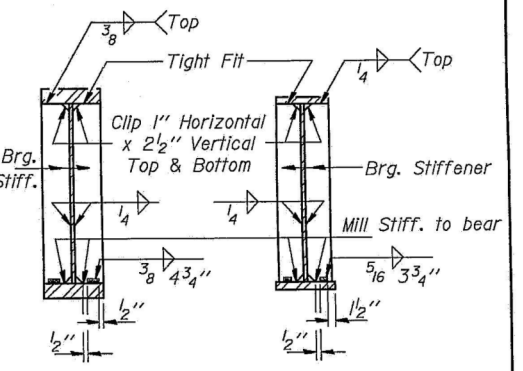
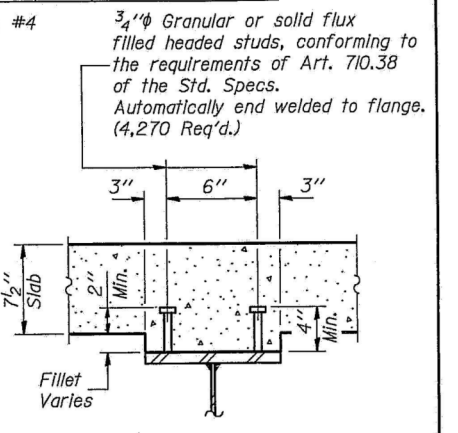
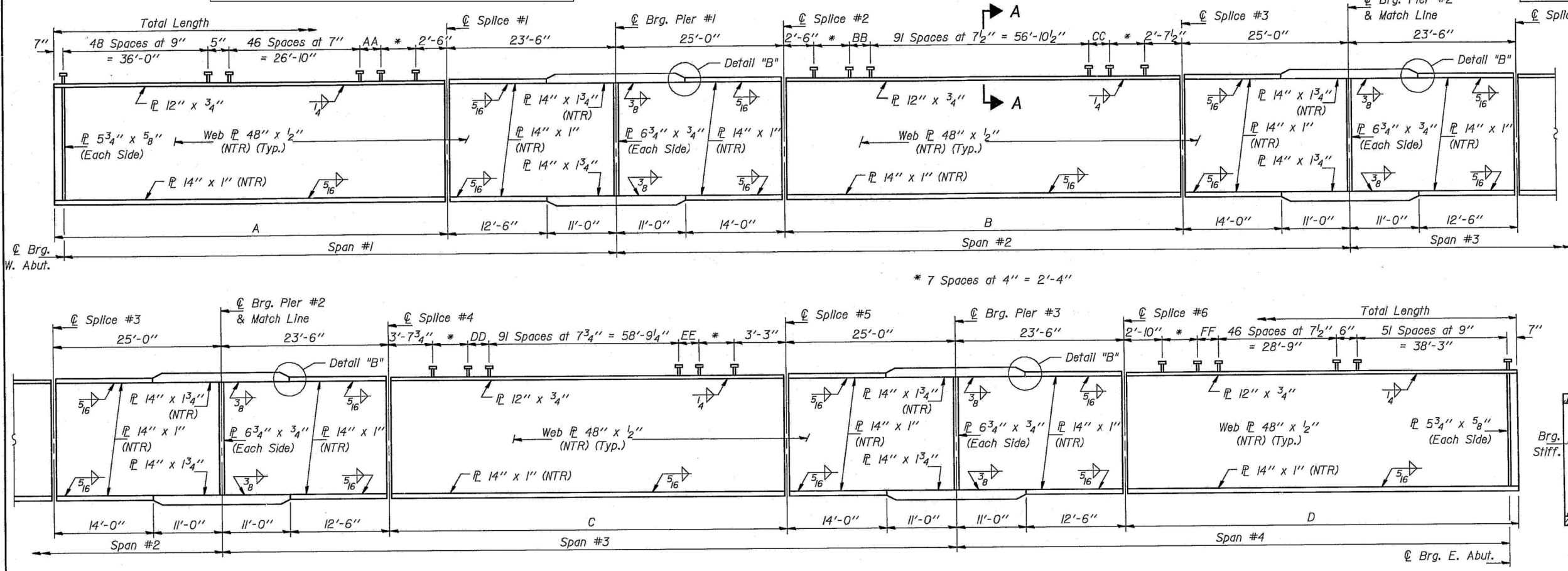
ILLINOIS FED. AID PROJECT



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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.		ILLINOIS	22 SHEETS	10a



GIRDER ELEVATION

"NTR" denotes plates to which notch toughness requirements are applicable.

DIAPHRAGM SPACING

Loc.	Gir.	#1	#2	#3	#4	#5	Loc.	Gir.	#1	#2	#3	#4	#5
a	23'-11 3/8"	23'-11 3/8"	24'-0 1/4"	24'-0 5/8"	24'-1"		p	7'-2 1/2"	7'-1 1/4"	7'-0"	6'-10 1/8"	6'-9 5/8"	
b	23'-11 3/8"	23'-11 3/8"	24'-0 1/4"	24'-0 5/8"	24'-1"		q	7'-0 1/8"	7'-0 1/8"	7'-0"	6'-11 1/8"	6'-11 1/8"	
c	13'-3 3/4"	13'-3 3/4"	13'-3 3/4"	13'-4"	13'-4 1/4"		r	5'-7 1/8"	5'-9 1/2"	5'-11 1/4"	6'-0 3/4"	6'-2 3/8"	
d	6'-9"	6'-9 3/8"	6'-9 1/4"	6'-9 3/4"	6'-9 1/2"		s	14'-3 3/8"	14'-3 3/8"	14'-3 3/8"	14'-3 3/8"	14'-4 1/8"	
e	6'-9 3/8"	6'-9 3/8"	6'-9 3/8"	6'-9 3/4"	6'-9 3/8"		t	24'-8 5/8"	24'-9 1/8"	24'-9 1/2"	24'-10"	24'-10 3/8"	
f	6'-9 3/8"	6'-9 3/4"	6'-9 3/8"	6'-10"	6'-10 1/8"		u	24'-8 5/8"	24'-9 1/8"	24'-9 1/2"	24'-9 1/8"	24'-10 3/8"	
g	6'-10"	6'-10 1/8"	6'-10 1/4"	6'-10 3/8"	6'-10 1/2"		v	14'-8 1/8"	14'-8 3/8"	14'-8 5/8"	14'-8 1/8"	14'-9 1/8"	
h	7'-10 3/8"	7'-10 3/4"	7'-10 1/2"	7'-11"	7'-11 1/8"		w	6'-6 3/8"	6'-6 1/2"	6'-6 3/8"	6'-6 3/4"	6'-6 3/8"	
i	13'-8 1/8"	13'-8 1/2"	13'-8 5/8"	13'-8 3/4"	13'-9 1/8"		x	7'-4 1/8"	7'-4 1/2"	7'-4 3/8"	7'-4 1/2"	7'-4 5/8"	
j	23'-4 3/4"	23'-5 1/8"	23'-5 1/2"	23'-6"	23'-6 3/8"		y	7'-4 1/2"	7'-4 5/8"	7'-4 3/4"	7'-4 3/8"	7'-5"	
k	23'-4 3/4"	23'-5 1/8"	23'-5 1/2"	23'-6"	23'-6 3/8"		z	7'-9 1/2"	7'-4 3/4"	7'-0"	6'-7 1/8"	6'-2 3/8"	
l	14'-0 3/4"	14'-1 1/4"	14'-1 1/4"	14'-1 3/8"	14'-1 3/4"		aa	7'-0 1/2"	7'-0 1/4"	7'-0 1/8"	7'-0"	6'-11 3/4"	
m	7'-3 1/2"	7'-3 5/8"	7'-3 3/4"	7'-3 1/2"	7'-4"		bb	12'-3 3/4"	12'-9 1/8"	13'-2 5/8"	13'-8 1/8"	14'-1 1/2"	
n	7'-0 1/2"	7'-0 5/8"	7'-0 3/4"	7'-0 1/8"	7'-1"		cc	24'-9 5/8"	24'-10"	24'-10 1/2"	24'-10 1/8"	24'-11 3/8"	
o	7'-0 3/4"	7'-0 1/8"	7'-1 1/8"	7'-1 1/4"	7'-1 3/8"		dd	24'-9 5/8"	24'-10"	24'-10 1/2"	24'-10 1/8"	24'-11 3/8"	

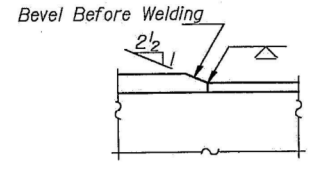
GIRDER DIMENSIONS

Gir. Loc.	Radius	A	Span #1	B	Span #2	C	Span #3	D	Span #4	Total Length
#1	5726.58'	69'-5"	92'-4"	68'-0 3/8"	118'-0 3/8"	71'-7 3/8"	120'-1 3/8"	74'-0 1/2"	96'-11 1/2"	428'-7 1/4"
#2	5735.08'	69'-3 1/8"	92'-2 1/8"	67'-11"	117'-11"	71'-5 3/4"	119'-1 3/4"	73'-11 1/8"	96'-10 1/8"	428'-13 1/2"
#3	5743.58'	69'-2 1/8"	92'-1 1/8"	67'-9 1/2"	117'-9 1/2"	71'-4 1/4"	119'-10 1/4"	73'-9 3/4"	96'-8 3/4"	427'-8 3/8"
#4	5752.08'	69'-1 1/8"	92'-0 1/8"	67'-8 1/8"	117'-8 1/8"	71'-2 5/8"	119'-8 5/8"	73'-8 3/8"	96'-7 3/8"	427'-3"
#5	5760.58'	69'-0 1/8"	91'-11 1/8"	67'-6 3/4"	117'-6 3/4"	71'-1 1/8"	119'-7 1/8"	73'-7"	96'-6"	426'-9 3/4"

TOP OF WEB ELEVATIONS

Loc.	@ Brg. W. Abut.	@ Splice #1	@ Brg. Pier #1	@ Splice #2	@ Splice #3	@ Brg. Pier #2	@ Splice #4	@ Splice #5	@ Brg. Pier #3	@ Splice #6	@ Brg. E. Abut.
#1	525.17	523.03	522.29	521.58	519.65	518.93	518.35	516.54	515.90	515.39	513.84
#2	525.65	523.51	522.77	522.07	520.12	519.41	518.82	517.00	516.38	515.84	514.29
#3	526.13	524.00	523.26	522.55	520.60	519.88	519.29	517.46	516.81	516.30	514.73
#4	526.61	524.48	523.74	523.04	521.08	520.35	519.76	517.92	517.27	516.75	515.17
#5	527.08	524.96	524.22	523.52	521.56	520.83	520.23	518.39	517.73	517.21	515.62

Top of web elevations at Splices have been Adjusted for Camber. For Fabrication only.



DETAIL "B"

VALUES OF AA THRU FF

Gir. Loc.	AA	BB	CC	DD	EE	FF
#1	9"	8 3/8"	8"	7 1/2"	7 1/8"	9 1/2"
#2	7 1/8"	7 1/2"	7 1/2"	6 3/4"	7"	8 1/8"
#3	6 1/2"	6 3/4"	6 3/4"	6"	6 1/4"	6 3/4"
#4	5 1/8"	6"	6"	5 1/4"	5 3/8"	5 3/8"
#5	4 1/8"	5 3/8"	5 3/8"	4 1/2"	4 5/8"	4"

Notes: All dimensions are along the curve except as noted. Work this sheet with sheets #9 & #11 of 22. All flanges, webs, bearing stiffeners and splice plate materials shall be AASHTO M-223, Grade 50. All other Structural Steel shall be AASHTO M-183.

AS REVISED  
11-20-87 G.R.A.  
STRUCTURAL STEEL  
F.A. RT. 408 SEC. 75-6HB-3  
PIKE COUNTY  
STA. 60+73.00

DESIGNED: *John F. Schneller Jr.*  
CHECKED: *Patrick M. Petrone*  
DRAWN: *John F. Schneller Jr.*  
NOV. 20, 1987  
EXAMINED: *Eric M. Lagemann*  
PASSED: *James J. Reuber*  
APPROVED: *Eric M. Lagemann*  
DIRECTOR OF HIGHWAYS

G-1 4-1-79



DESIGNED - TIM FRIEDERICH	REVISER -
CHECKED - ERIC M. LAGEMANN	REVISER -
DRAWN - TIM FRIEDERICH	REVISER -
CHECKED - ERIC M. LAGEMANN	REVISER -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING FRAMING PLAN AND BEARING SHEETS  
STRUCTURE NO. 075-0116

SHEET NO. 13 OF 17 SHEETS

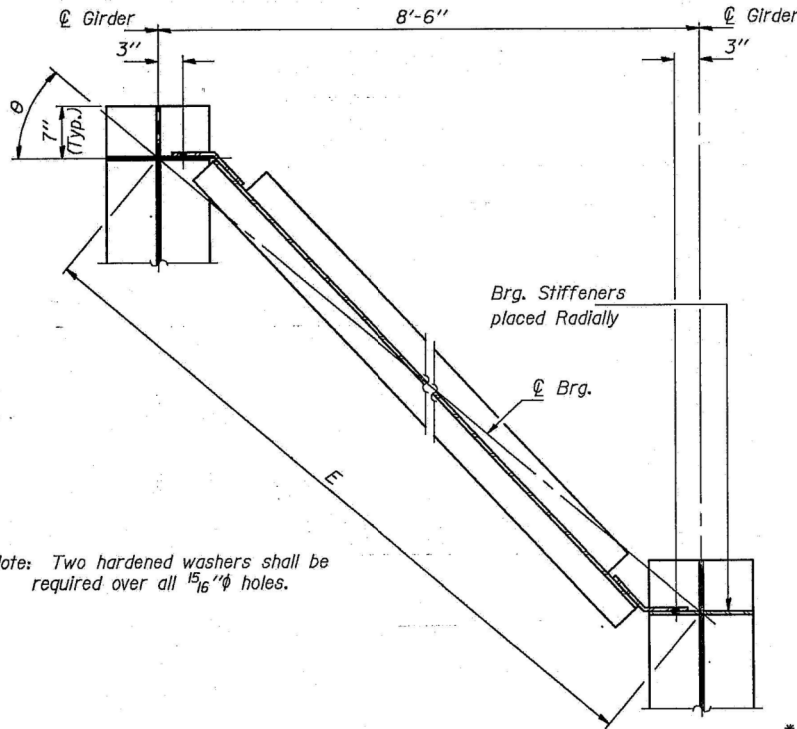
F.A. I. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	57
			CONTRACT NO.	72J42
ILLINOIS FED. AID PROJECT				

VALUE OF  $\theta$

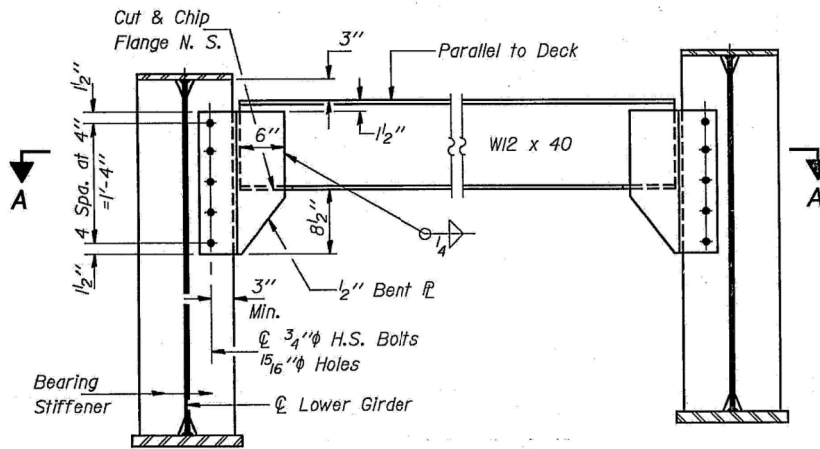
Loc.	Gir.	#1	#2	#3	#4	#5
⊙ Brg. W. Abut.		37°-55'-14"	37°-51'-16"	37°-47'-19"	37°-43'-22"	37°-39'-27"
⊙ Brg. E. Abut.		42°-11'-49"	42°-07'-12"	42°-02'-36"	41°-58'-02"	41°-53'-28"

DIMENSIONS E

Loc.	Gir.	Between Girders #1 & #2	Between Girders #2 & #3	Between Girders #3 & #4	Between Girders #4 & #5
⊙ Brg. W. Abut.		10'-9 1/2"	10'-9 1/2"	10'-9"	10'-8 1/2"
⊙ Brg. E. Abut.		11'-5 3/8"	11'-5 3/8"	11'-5 1/4"	11'-5 1/8"



SECTION A-A

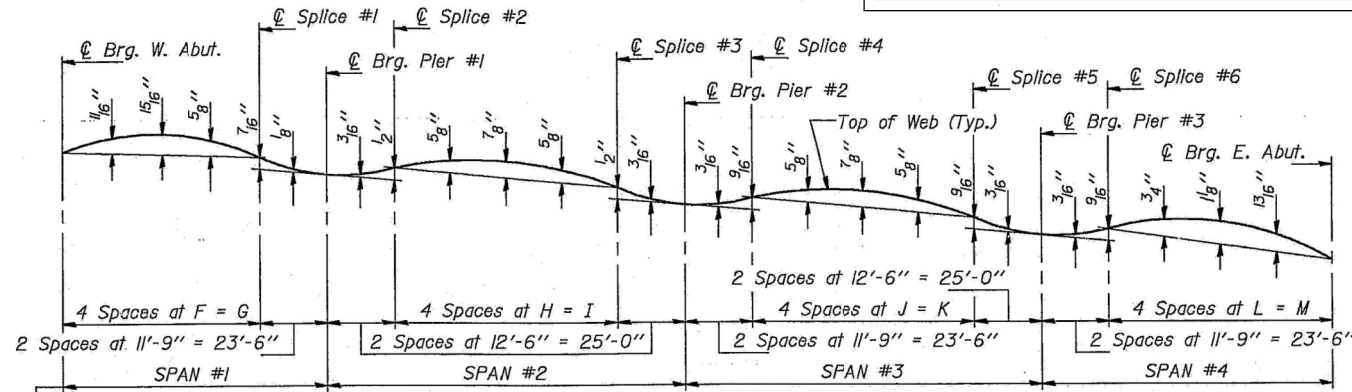


DIAPHRAGM D

(8 Required)

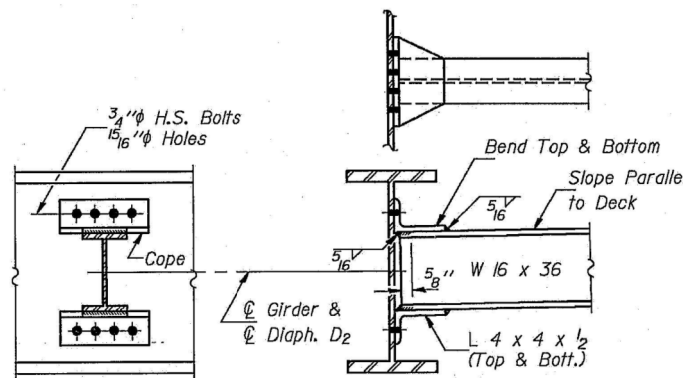
DESIGNED: *Ed R. Church*  
CHECKED: *Patricia M. Stone*  
DRAWN: *John F. Schnell Jr.*  
CHECKED: *GRA PMP*

EXAMINED: *Eric M. Lagemann*  
PASSED: *James J. Reynolds*  
APPROVED: \_\_\_\_\_  
DIRECTOR OF HIGHWAYS



CAMBER DIAGRAM

See Span Length from Girder Dimension table on sheet #10 of 22



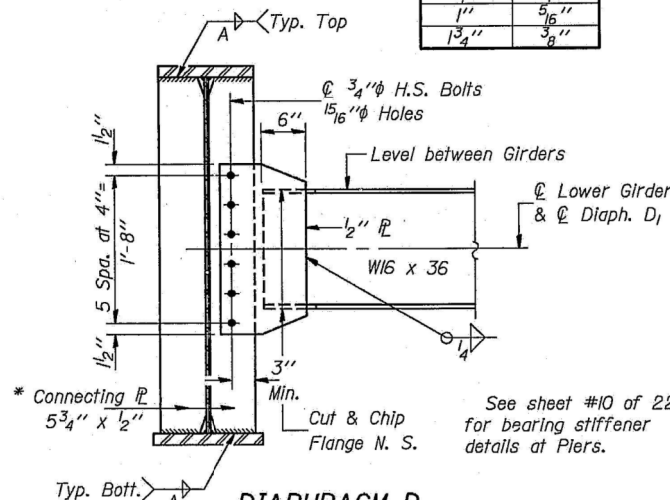
DIAPHRAGM D2

(68 Required)

FILLET WELD DIMENSION A

Flange Thickness	A
3/4"	1/4"
1"	3/8"
1 1/4"	5/8"

\* Omit connecting  $\bar{r}$  at exterior side of exterior Girders.



DIAPHRAGM D1

(Showing connecting plate) (60 Required)

Fb - Maximum allowable stress, Fbu or Fby, computed according to AASHTO [Guide Specifications for Horizontally Curved Highway Bridges Section 2.12(B) & 2.16].

	0.4 Sp. #1 or 0.6 Sp. #4	Pier #1 or Pier #3	.5 Sp. #2 or .5 Sp. #3	Pier #2
Is	18,035.2	34,940.0	18,035.2	34,940.0
Ic	47,818.7		47,818.7	
Ss	806.2	1,356.9	806.2	1,356.9
Sc	1,137.6		1,137.6	
Sbi	32.7	57.2	32.7	57.2
ϕ	1.015	1.397	1.024	1.397
M $\bar{r}$	598.1	1,762.9	508.1	1,727.6
s $\bar{r}$	0.377		0.377	
Ms $\bar{r}$	262.4		267.3	
M $\bar{t}$	994.2	883.7	1,046.6	943.4
M (Imp.)	218.2	185.5	209.7	189.0
M $\bar{t}$ + I	2,020.7	1,782.0	2,093.8	1,887.3
Ma	3,745.6	4,608.4	3,730.0	4,699.4
Mbi	8.3	2.9	8.2	1.3
f $\bar{s}$ non-comp	8.9	15.6	7.6	15.3
f $\bar{s}$ (comp)	2.8		2.8	
f $\bar{s}$ <sup>5</sup> ( $\bar{t}$ +I)	21.3	15.8	22.1	16.7
f $\bar{w}$	3.0	0.6	3.0	0.3
f $\bar{s}$ + f $\bar{w}$ (Overload)	35.3	31.9	34.8	32.2
f $\bar{s}$ (Total)	42.9	40.8	42.3	41.6
f $\bar{s}$ (Total) + f $\bar{w}$	45.9		45.3	
VR	66.9		57.9	
Fb	48.2	46.5	48.2	49.0

INTERIOR GIRDER REACTION TABLE

	Abuts.	Pier #1 or #3	Pier #2
R $\bar{r}$	49.2	169.9	167.1
R $\bar{t}$	51.7	87.2	89.7
Imp.	11.3	18.3	19.7
R (Total)	112.2	275.4	276.5

Is and Ss are the moment of inertia and section modulus of the steel section used in computing f $\bar{s}$  (Total & Overload).

Ic and Sc are the moment of inertia and section modulus of the composite section used in computing f $\bar{s}$  (Total & Overload).

VR is the maximum Live Load + Impact shear range in span.

Ma (Applied Moment) = 1.3IM $\bar{r}$  + Ms $\bar{r}$  +  $\bar{s}_3$ (M $\bar{t}$  + I).

f $\bar{s}$  + f $\bar{w}$  (Overload) is the sum of the stresses due to M $\bar{r}$  + Ms $\bar{r}$  +  $\bar{s}_3$ (M $\bar{t}$  + I) + (Mbi / 1.3).

f $\bar{s}$  (Total) (Non-compaction section) is the sum of the stresses due to 1.3IM $\bar{r}$  + Ms $\bar{r}$  +  $\bar{s}_3$ (M $\bar{t}$  + I).

M $\bar{r}$  - Moment due to dead loads on non-composite section.

Ms $\bar{r}$  - Moment due to dead loads on composite section.

M $\bar{t}$  - Moment due to live loads on non-composite or composite section.

I - Live load impact.

Sbi is the section modulus for one flange plate for lateral flange bending.

Mbi is the lateral bending moment for flange plate (factored).

f $\bar{w}$  is the calculated normal stress at the edge of flange due to lateral flange bending (factored).

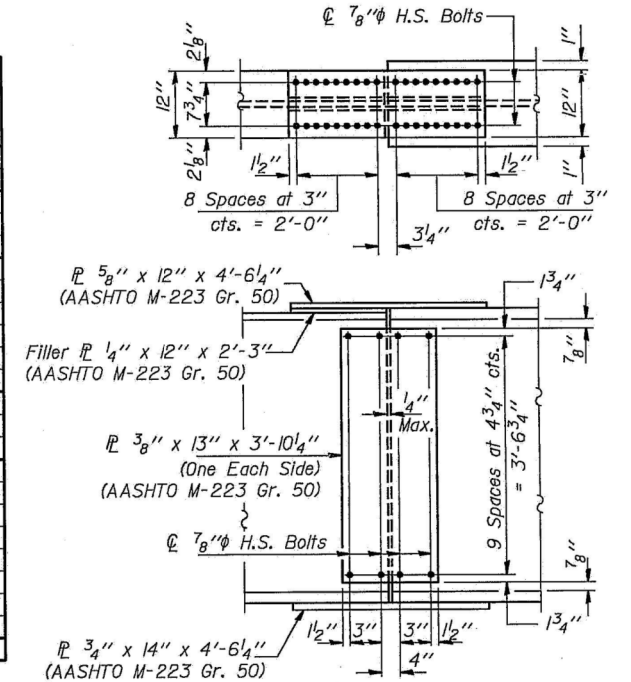
M $\bar{t}$  and R $\bar{t}$  have been increased due to effect of centrifugal force and superelevation.

CAMBER DIAGRAM DIMENSIONS F THRU M

Gir.	Loc.	F	G	H	I
#1		±17'-2 1/2"	68'-10"	±17'-0 1/8"	68'-0 3/8"
#2		±17'-2 1/4"	68'-8 1/8"	±16'-11 3/4"	67'-11"
#3		±17'-2"	68'-7 1/8"	±16'-11 3/8"	67'-9 1/2"
#4		±17'-1 3/4"	68'-6 1/8"	±16'-11"	67'-8 1/2"
#5		±17'-1 1/2"	68'-5 1/8"	±16'-10 1/8"	67'-6 3/4"

Gir.	Loc.	J	K	L	M
#1		±17'-10 1/8"	71'-7 3/8"	±18'-4 3/8"	73'-5 1/2"
#2		±17'-10 1/16"	71'-5 3/8"	±18'-4"	73'-4 1/8"
#3		±17'-10 1/8"	71'-4 1/8"	±18'-3 1/8"	73'-2 3/4"
#4		±17'-9 5/8"	71'-2 5/8"	±18'-3 3/8"	73'-1 3/8"
#5		±17'-9 1/4"	71'-1 1/8"	±18'-3"	73'-0"



FIELD SPLICE DETAIL

Notch Toughness Requirements are required for all splice plates except filler plates. Filler plates shall be placed on the West side of splice #1, #3, #5 and on the East side of splice #2, #4, #6.

All flanges, webs, bearing stiffeners and splice plate materials shall be AASHTO M-223, Grade 50.

All other Structural Steel shall be AASHTO M-183.

STRUCTURAL STEEL

F.A. RT. 408 SEC. 75-6HB-3

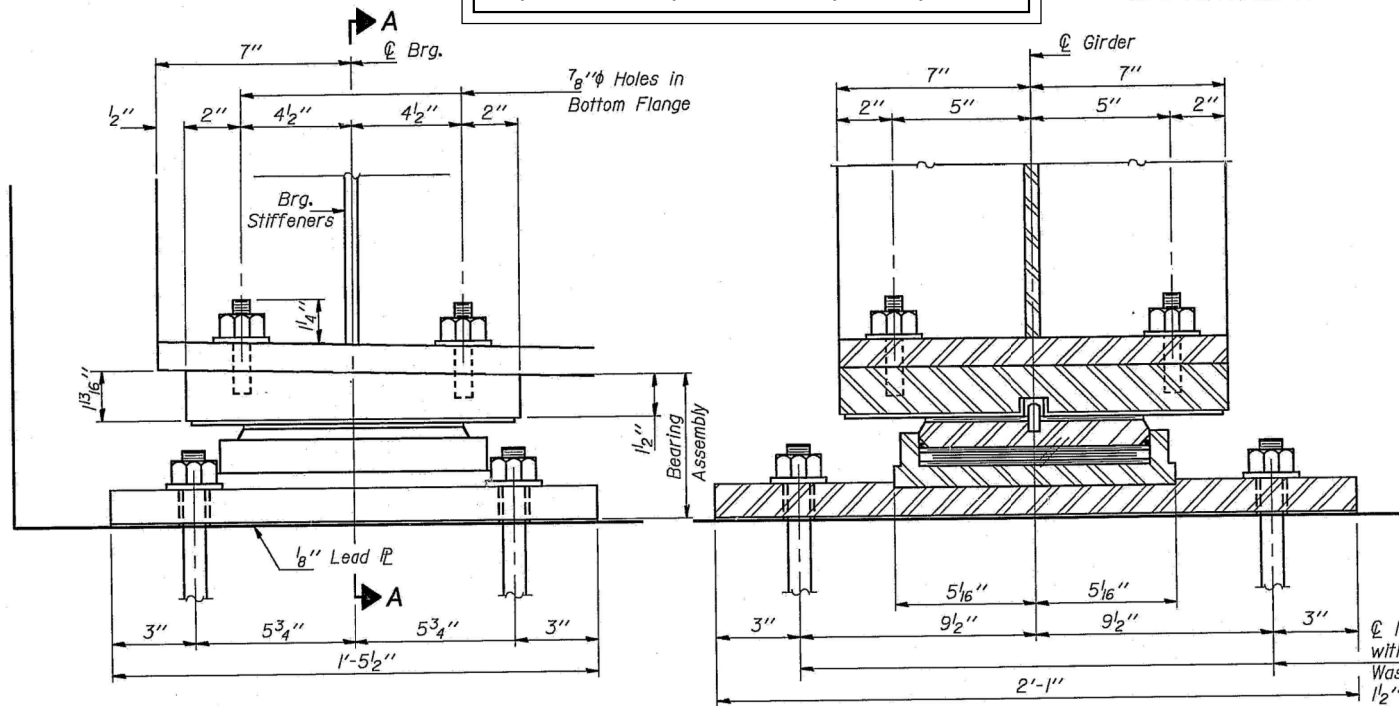
PIKE COUNTY

STA. 60+73.00

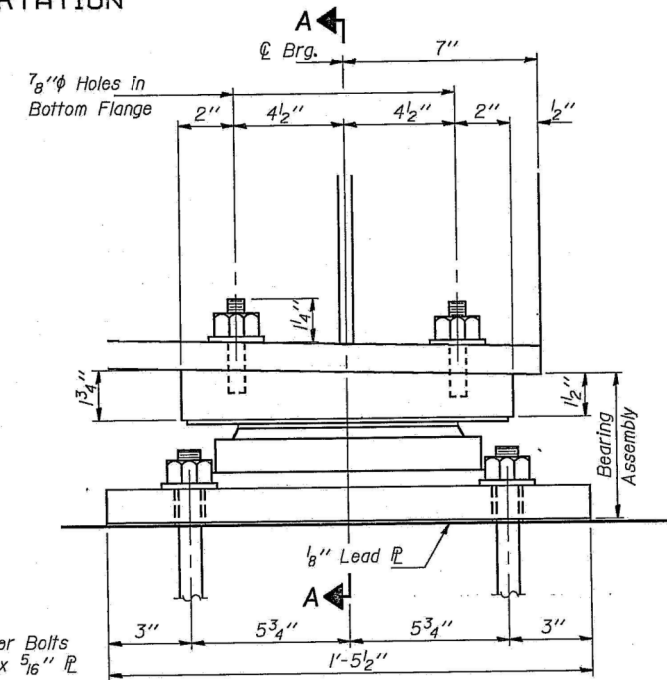
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FOR INFORMATION ONLY

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



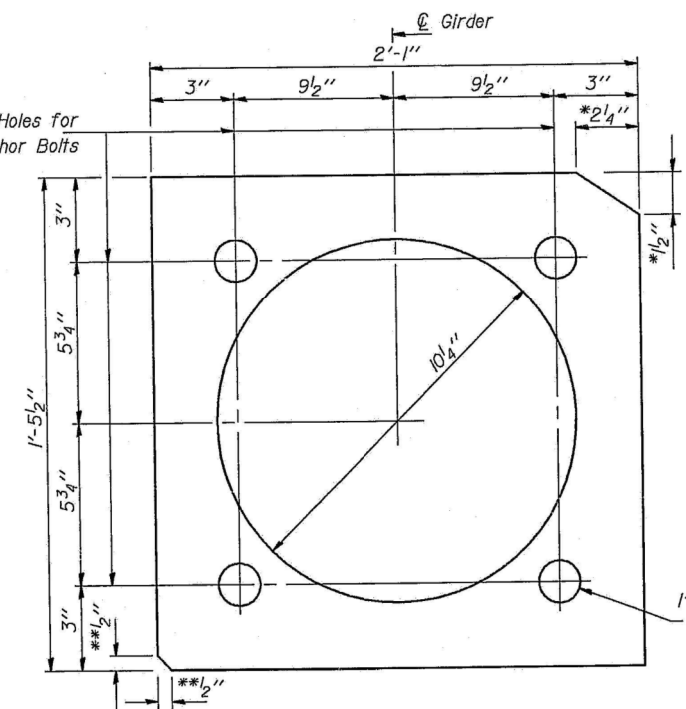
ELEVATION AT WEST ABUTMENT



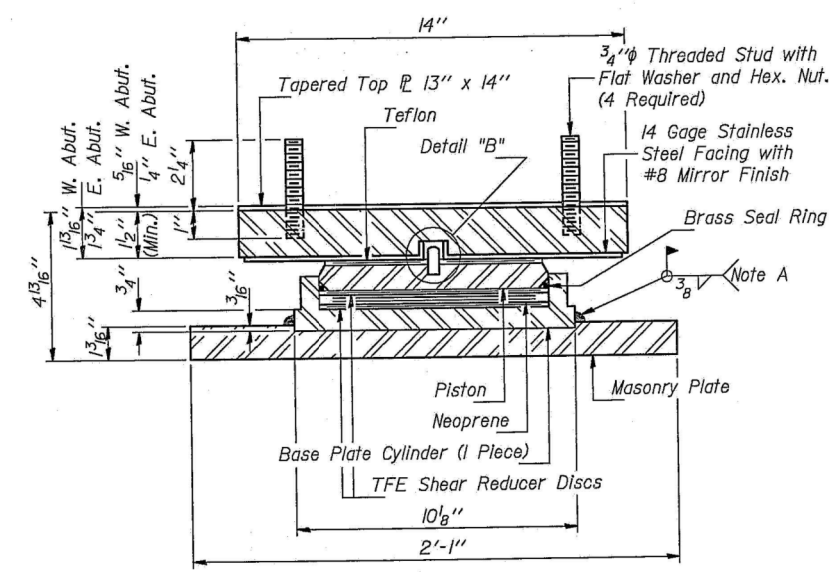
ELEVATION AT EAST ABUTMENT

BEARING DATA	
R @	49.2 k
R L	51.7 k
R I	11.3 k
R Total	112.2 k
Expansion Length	210 Ft.

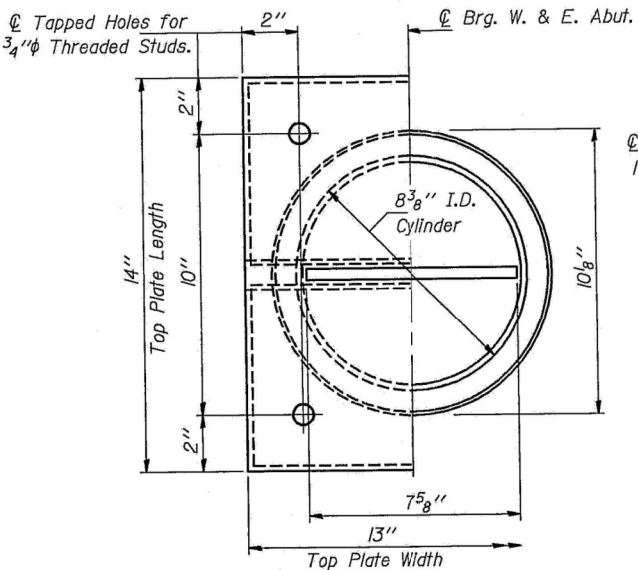
SECTION A-A  
EXPANSION FLOATING BEARING  
(10 Required)



MASONRY PLATE DETAIL



BEARING ASSEMBLY  
(For both Abutments.)



CUT-AWAY PLAN  
(Half of Top Plate shown)

DESIGNED: [Signature]  
CHECKED: [Signature]  
DRAWN: Paul W. Sweet  
CHECKED: [Signature] pmp

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

Sept 11, 1987

\*Clip corner of masonry plate as shown above.

Note: The plates of the Bearing Assembly shall be AASHTO M223 Gr. 50 See Sheet #15 of #22 for drilled Anchor Bolt Details

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.

BILL OF MATERIAL

Item	Unit	Total
Floated Bearings, Guided Expansion 150°	Each	10

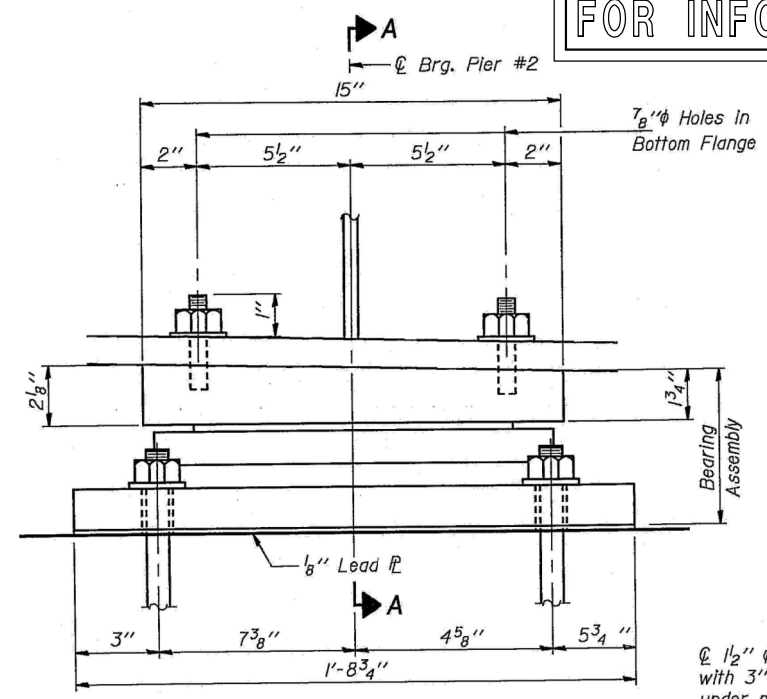
BEARING DETAILS  
EAST & WEST ABUTMENT  
F.A. RT. 408 SEC. 75-6HB-3  
PIKE COUNTY  
STA. 60+73.00

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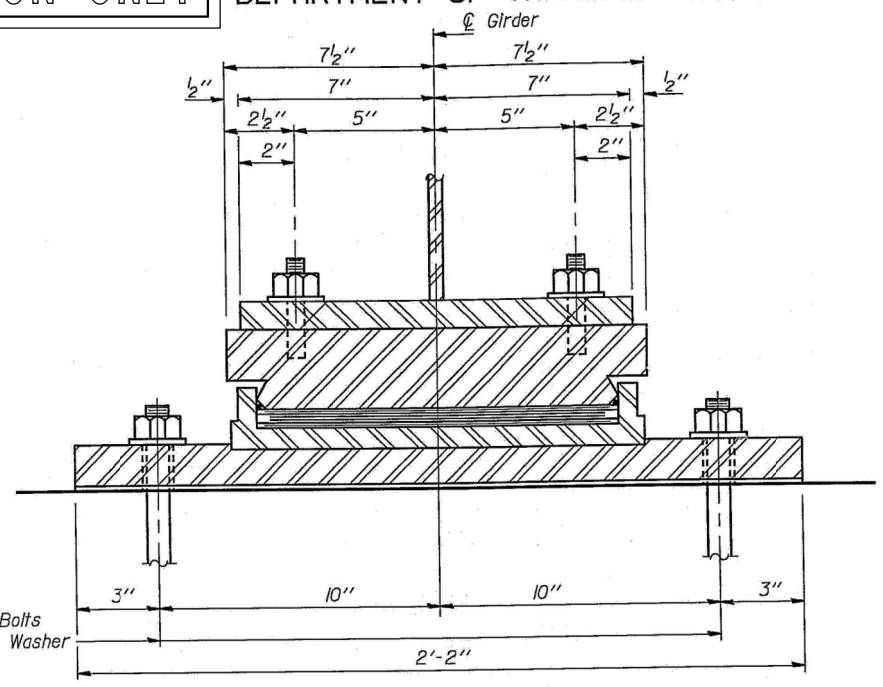


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

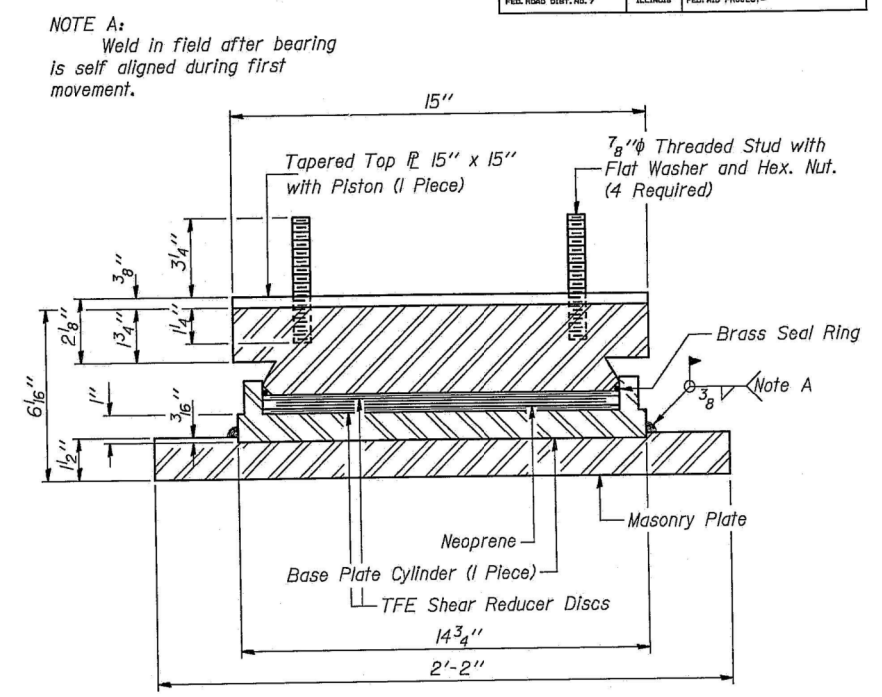
FOR INFORMATION ONLY



**ELEVATION AT PIER #2**  
(Looking North)

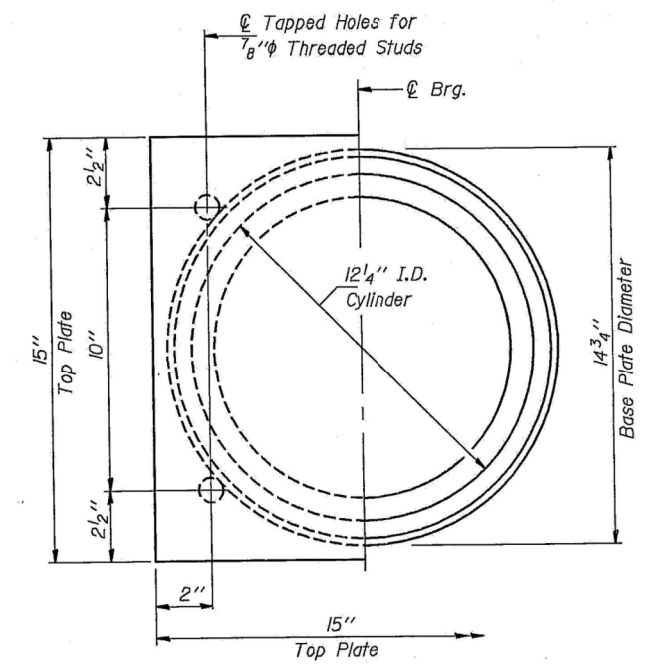


**FIXED FLOATING BEARING**  
(5 Required)

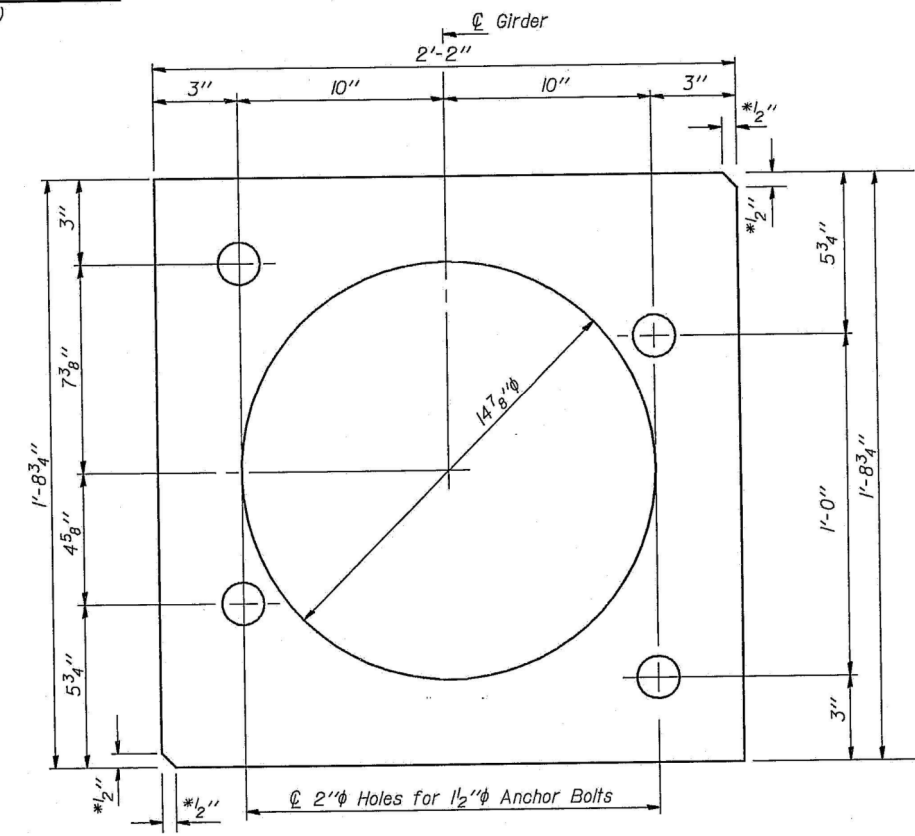


**BEARING ASSEMBLY**

NOTE A:  
Weld in field after bearing is self aligned during first movement.



**CUT-AWAY PLAN**  
(Half of Top Plate shown)



**MASONRY PLATE DETAIL**  
\* Clip 1/2" @ two corners of Masonry Plate as shown above.

Pier #2 Bearing Data	
R <sub>L</sub>	167.1 k
R <sub>R</sub>	89.7 k
R <sub>I</sub>	19.7 k
R <sub>TOTAL</sub>	276.5 k
R <sub>Lat</sub>	7.7 k

Notes: The plates of the Bearing Assembly shall be AASHTO M223, Grade 50. For anchor bolt installation details see sheet #15 of 22.

**BILL OF MATERIAL**

Item	Unit	Total
Floating Bearings, Fixed 350 <sup>k</sup>	Each	5

**BEARING DETAILS PIER #2**  
F.A. RT. 408 SEC. 75-6HB-3  
PIKE COUNTY  
STA. 60+73.00

DESIGNED *[Signature]*  
CHECKED *[Signature]*  
DRAWN Paul W. Sweet  
CHECKED *[Signature]*

Sept. 11, 1987  
EXAMINED *[Signature]*  
PASSED *[Signature]*  
APPROVED *[Signature]*  
DIRECTOR OF HIGHWAYS

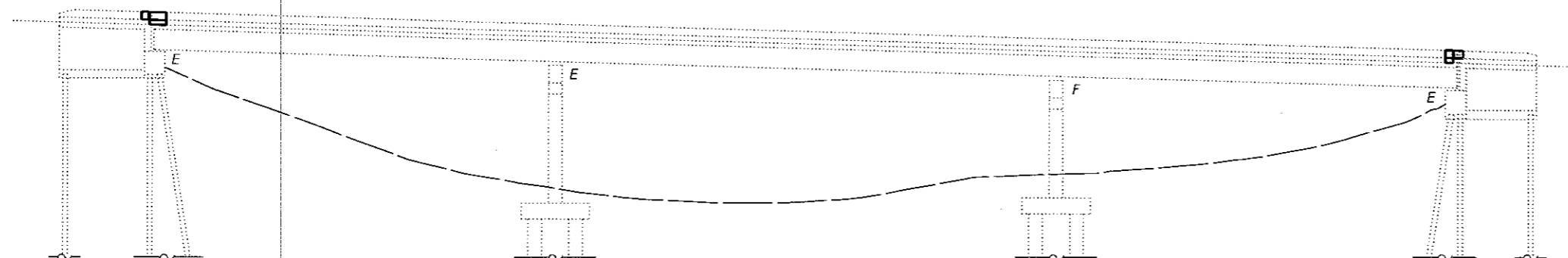
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**INDEX OF SHEETS**

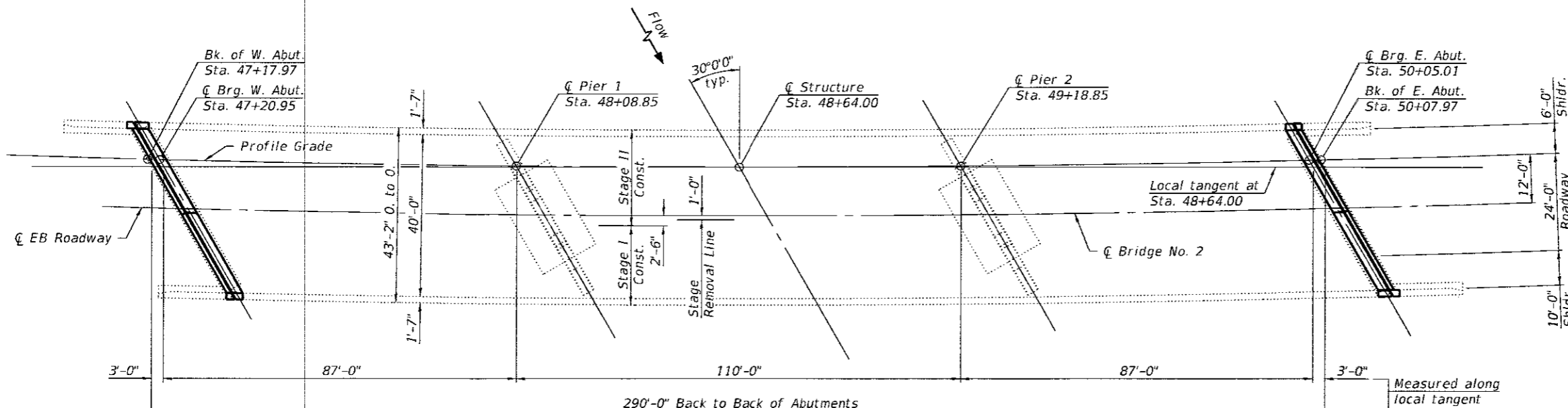
1. General Plan
2. General Data
3. Stage Construction Details
4. Deck Patching Removal
5. Removal Details
6. Superstructure Repair Details
7. Preformed Joint Strip Seal
8. West Abutment Details
9. East Abutment Details
10. Abutment Details
11. Bar Splicer & Mechanical Splicer Details
- 12-17. Existing Framing Plan and Bearing Sheets

**SCOPE OF WORK**

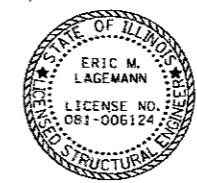
1. Replace expansion joints.
2. Deck and approach patching.
3. Hydroscarification and placement of fly ash or GGBF slag concrete overlay.
4. Perform diamond grinding and apply protective coat.
5. Blasting and painting of beam ends, end diaphragms, and abutment bearings.
6. Substructure repair.



**ELEVATION**



**PLAN**



*Eric Lagemann* 8/18/17  
Expires 11/30/2018 Date

**GENERAL PLAN**  
**I-72 OVER NAPOLEON HOLLOW DRAW**  
**F.A.I. ROUTE 72**  
**SECTION (75-6) BDR, BP, BRR, RS-2**  
**PIKE COUNTY**  
**STATION 48+64.00**  
**STRUCTURE NO. 075-0117**

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DESIGNED - TIM FRIEDERICH	REVISED -
CHECKED - ERIC M. LAGEMANN	REVISED -
DRAWN - TIM FRIEDERICH	REVISED -
CHECKED - ERIC M. LAGEMANN	REVISED -

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

SHEET NO. 1 OF 17 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	62
CONTRACT NO. 72J42			ILLINOIS FED. AID PROJECT	

GENERAL NOTES

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 and girders 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 can not 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.

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.

Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.

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 the length (measured along beam) shown in the GIRDER PAINTING LIMITS TABLE, of either side of deck joints, shall be cleaned per Near White Blast Cleaning - SSPC-SP10. The exterior surfaces and bottom of the bottom flange of the fascia beams shall be cleaned per Commercial Grade Power Tool Cleaning - SSPC - SP15. 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 for all interior steel surfaces shall be Gray, Munsell No. 5B 7/1. The color of the final finish coat for all exterior steel surfaces shall be Reddish Brown, Munsell No. 2.5YR 3/4.

Joint plates and attached bars shall be shop painted with the inorganic zinc primer. No field paint required.

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.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Removal	Cu. Yd.	14.8	0.3	15.1
Concrete Superstructure	Cu. Yd.	16.7	0.3	17.0
Protective Coat	Sq. Yd.	1,523		1,523
Reinforcement Bars, Epoxy Coated	Pound	500	840	1,340
Bar Splicers	Each	12		12
Preformed Joint Strip Seal	Foot	105.5		105.5
Bridge Deck Grooving (Longitudinal)	Sq. Yd.	763		763
Containment and Disposal of Non-Lead Paint Cleaning Residues No. 2	L Sum			1
Cleaning and Painting Steel Bridge No. 2	L Sum			1
Bridge Deck Fly Ash or GGBF Slag Concrete Overlay 2 3/4"	Sq. Yd.	1,248		1,248
Bridge Deck Scarification 3/4"	Sq. Yd.	1,248		1,248
Structural Repair of Concrete (Depth Equal to or Less than 5 inches)	Sq. Ft.		1	1
Structural Repair of Concrete (Depth Greater than 5 inches)	Sq. Ft.	8	5	13
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	8.2		8.2
Diamond Grinding (Bridge Section)	Sq. Yd.	1,283		1,283

\* Quantity includes overlay and face of parapets.

GIRDER PAINTING LIMITS TABLE

Girder No.	Span 1	Span 2	Span 3
1	10'-0"	---	10'-0"
2	10'-0"	---	10'-0"
3	10'-0"	---	10'-0"
4	10'-0"	---	10'-0"
5	10'-0"	---	10'-0"

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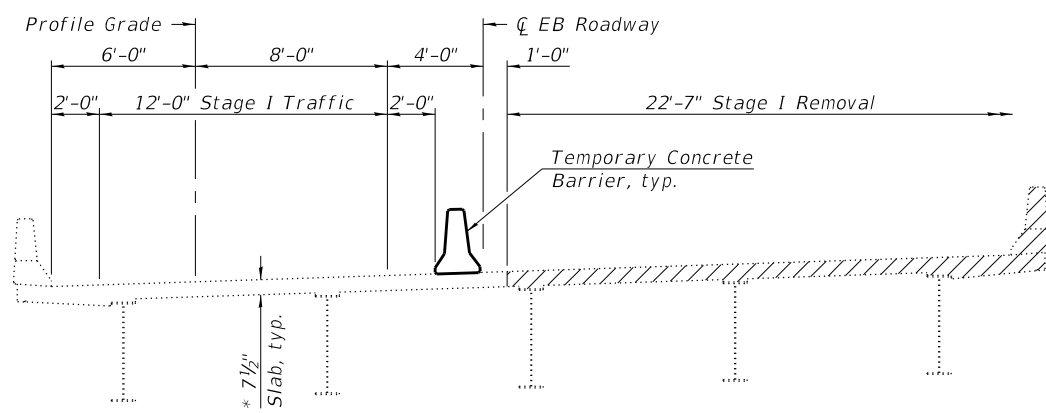
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PLOT SCALE = NTS	CHECKED - ERIC M. LAGEMANN	REVISED -
PLOT DATE = 8/17/2017	DRAWN - TIM FRIEDERICH	REVISED -
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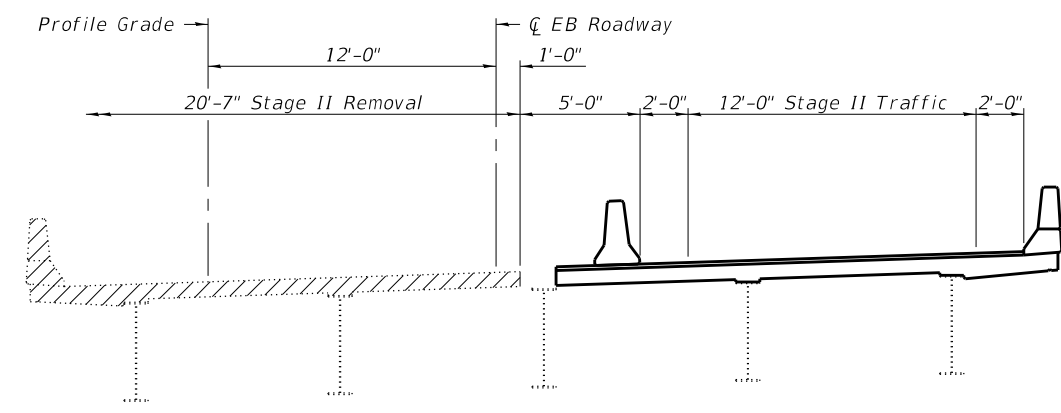
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STRUCTURE NO. 075-0117**

SHEET NO. 2 OF 17 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	63
CONTRACT NO.			72J42	
ILLINOIS FED. AID PROJECT				

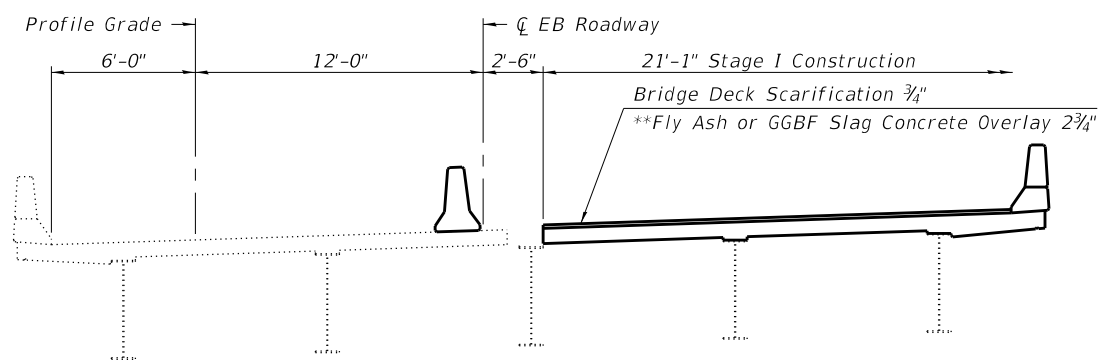


STAGE I REMOVAL



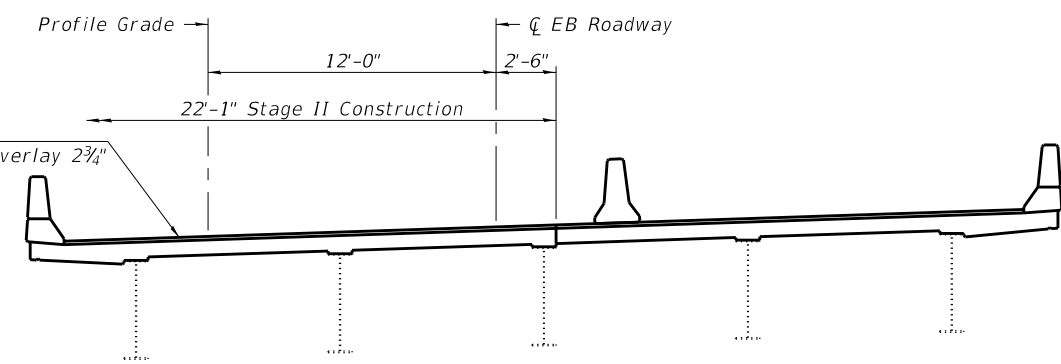
STAGE II REMOVAL

\* Prior to Scarification  
 \*\* Prior to Grinding



STAGE I CONSTRUCTION

Bridge Deck Scarification 3/4"  
 \*\*Fly Ash or GGBF Slag Concrete Overlay 2 3/4"



STAGE II CONSTRUCTION

Notes:  
 All sections are looking east.  
 For quantity of Temporary Concrete Barrier, see Roadway Plans.  
 Hatched areas indicate Concrete Removal.

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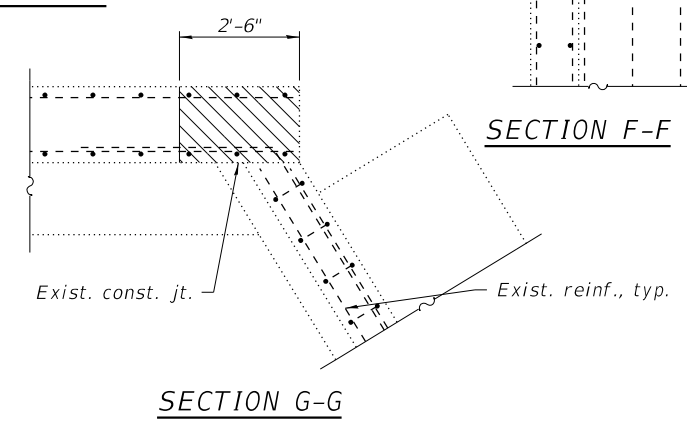
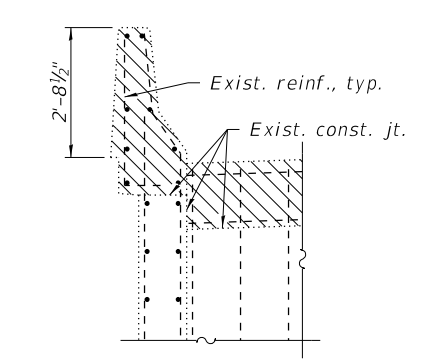
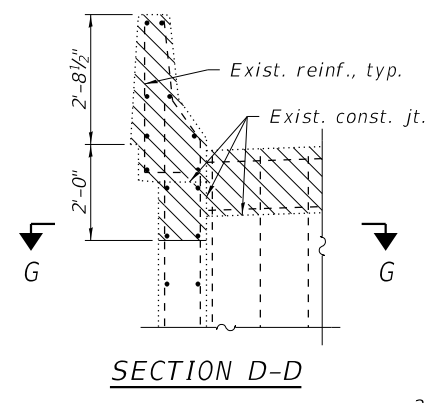
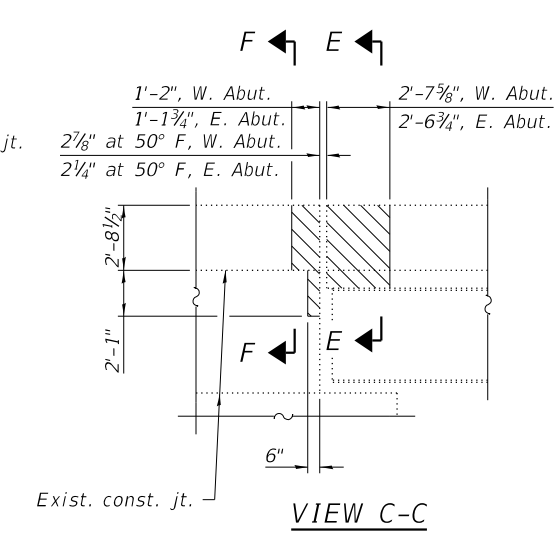
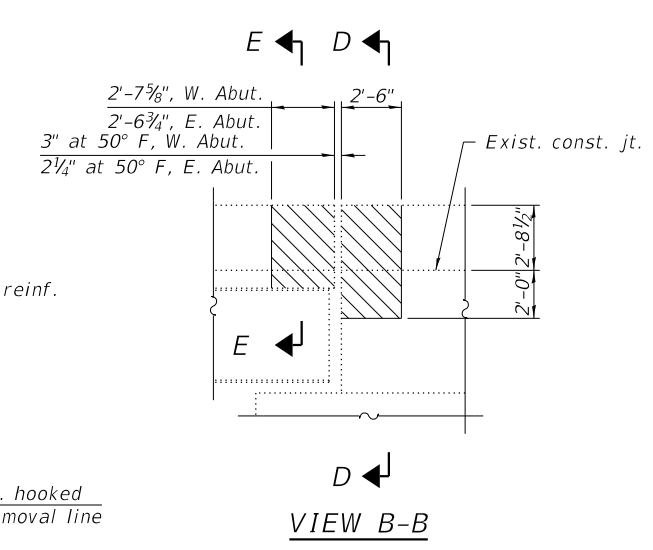
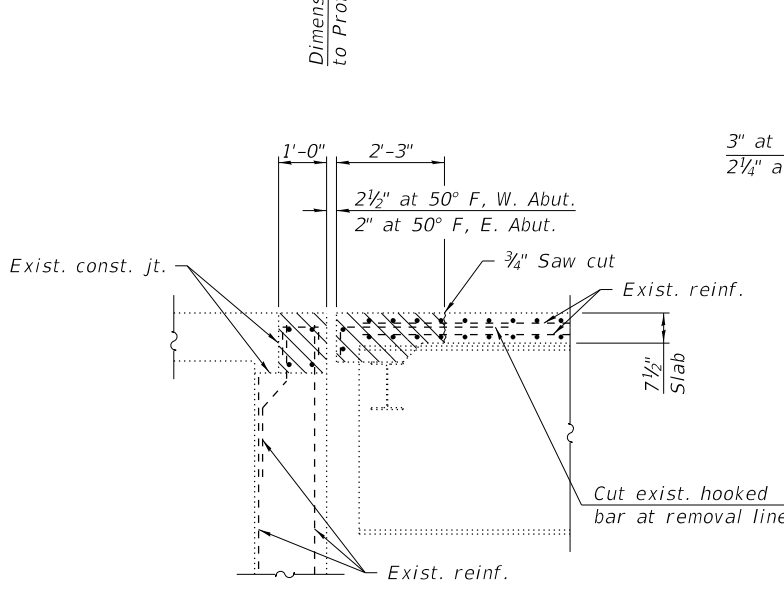
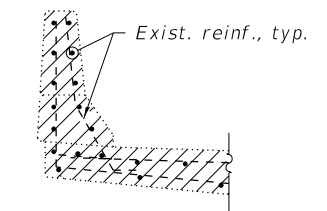
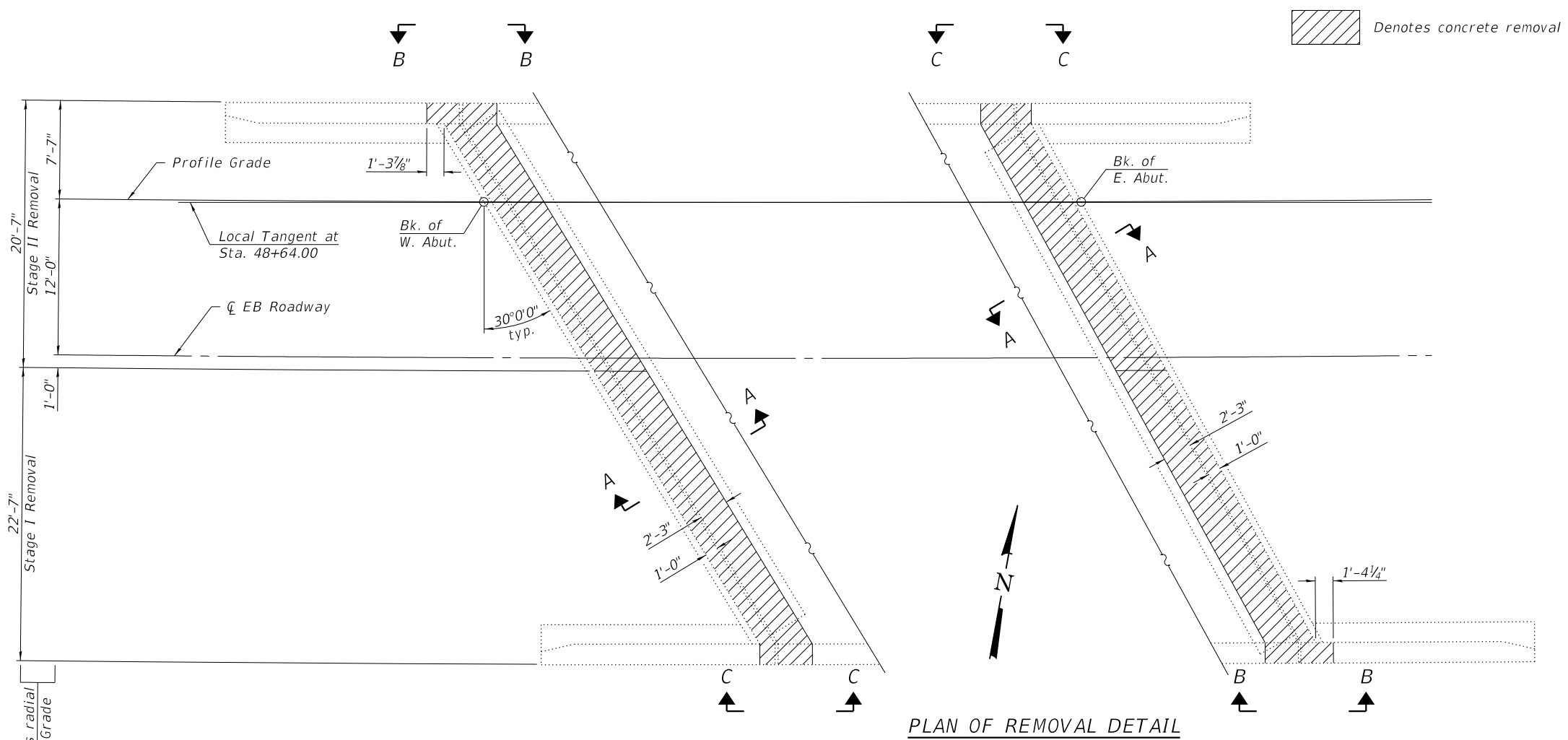
**STAGE CONSTRUCTION DETAILS  
 STRUCTURE NO. 075-0117**

SHEET NO. 3 OF 17 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	64
CONTRACT NO.			72J42	
ILLINOIS FED. AID PROJECT				







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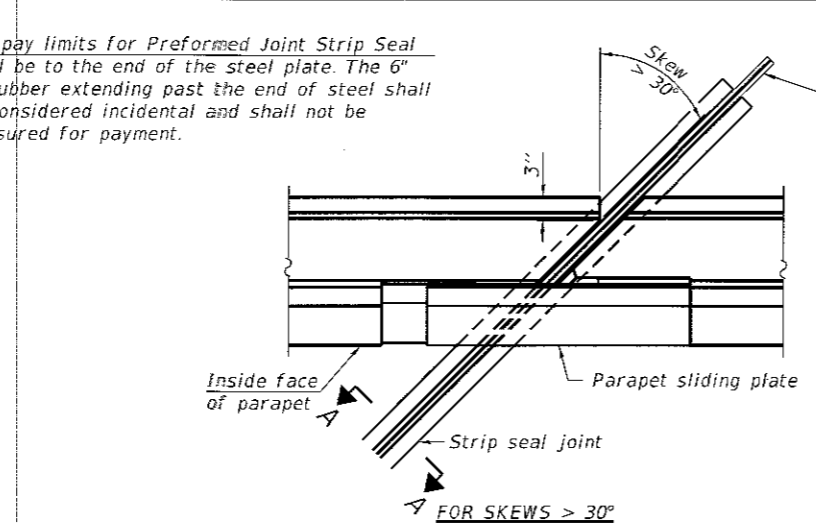
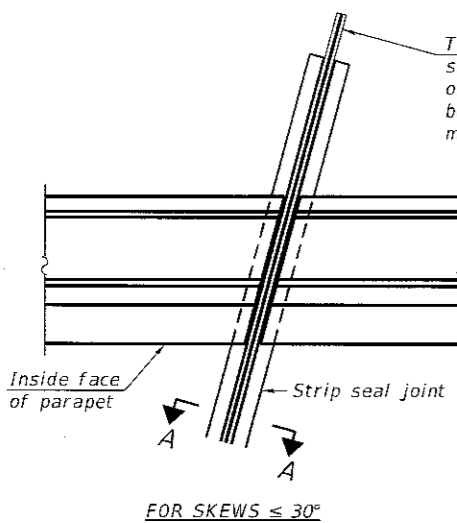
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

REMOVAL DETAILS  
 STRUCTURE NO. 075-0117  
 SHEET NO. 5 OF 17 SHEETS

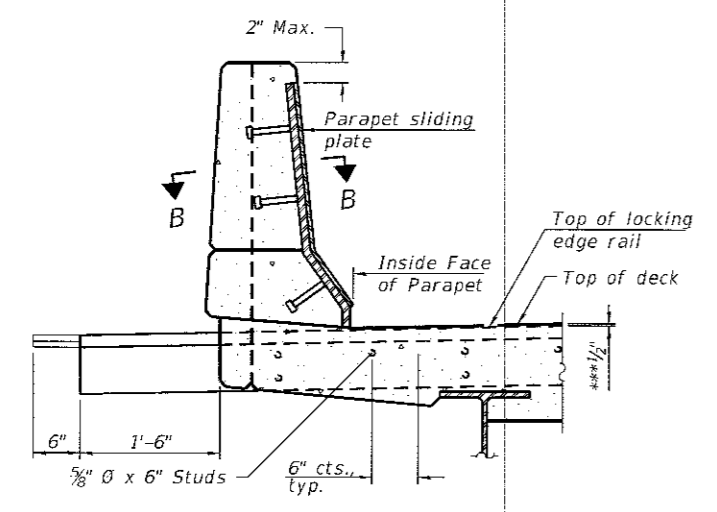
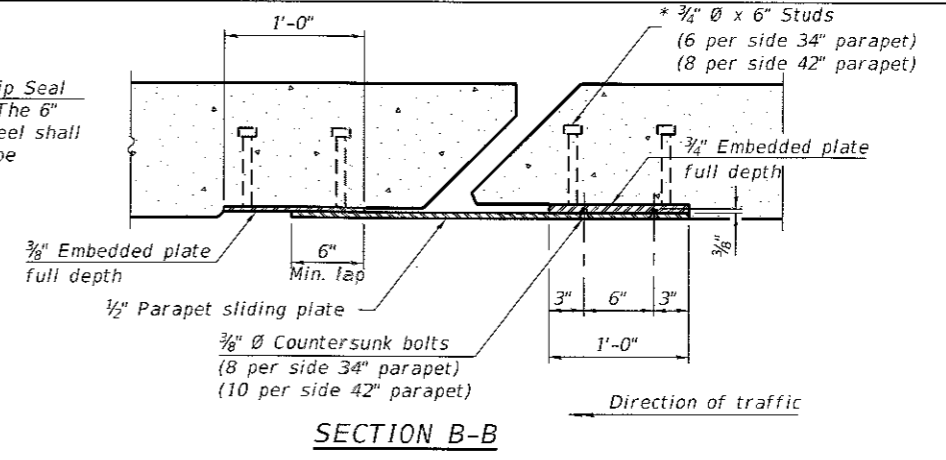
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	66
CONTRACT NO.			72J42	

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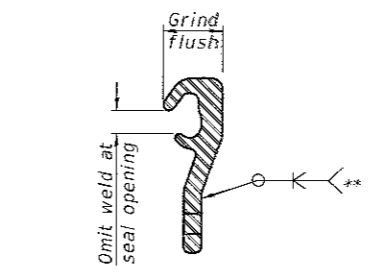
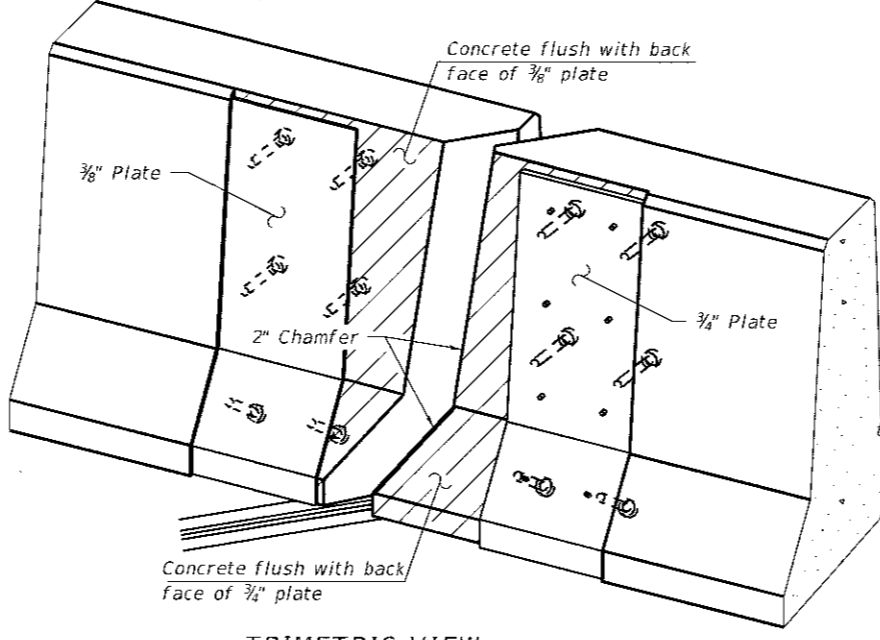




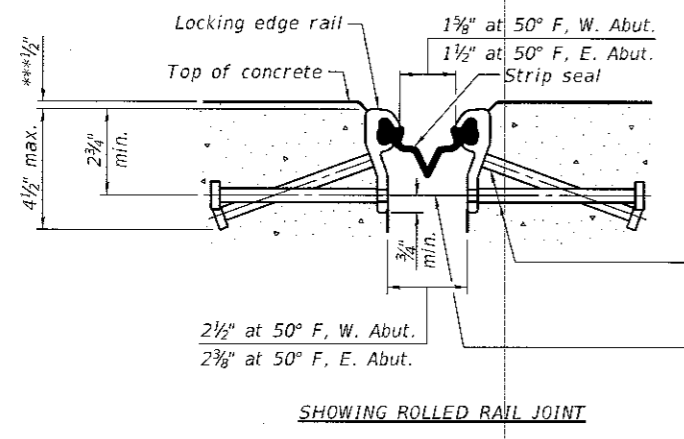
PLAN AT PARAPET



(Skews  $> 30^\circ$  shown. Skews  $\leq 30^\circ$  similar except as shown in plan view.)



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



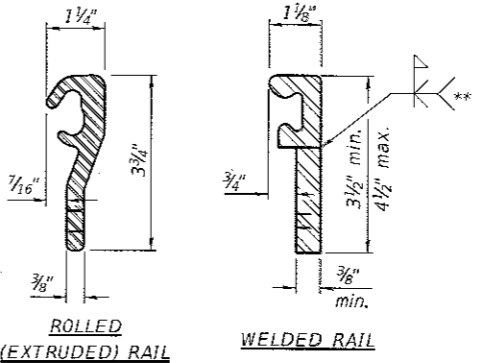
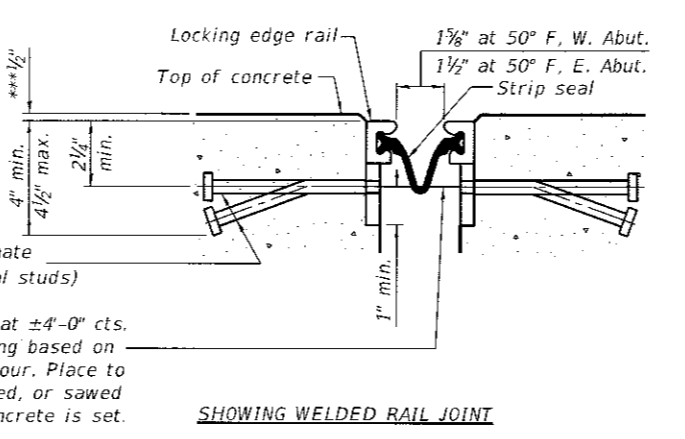
\* 3/8"  $\emptyset$  x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)

3/8"  $\emptyset$  threaded rods in 3/16"  $\emptyset$  holes at  $\pm 4-0$ " cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.

SECTION A-A

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

\*\*\* Prior to grinding.



LOCKING EDGE RAILS

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

The manufacturer's recommended installation methods shall be followed.

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

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

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

34" F-shape barrier shown, 42" F-shape similar as noted.

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

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	105.5



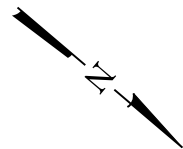
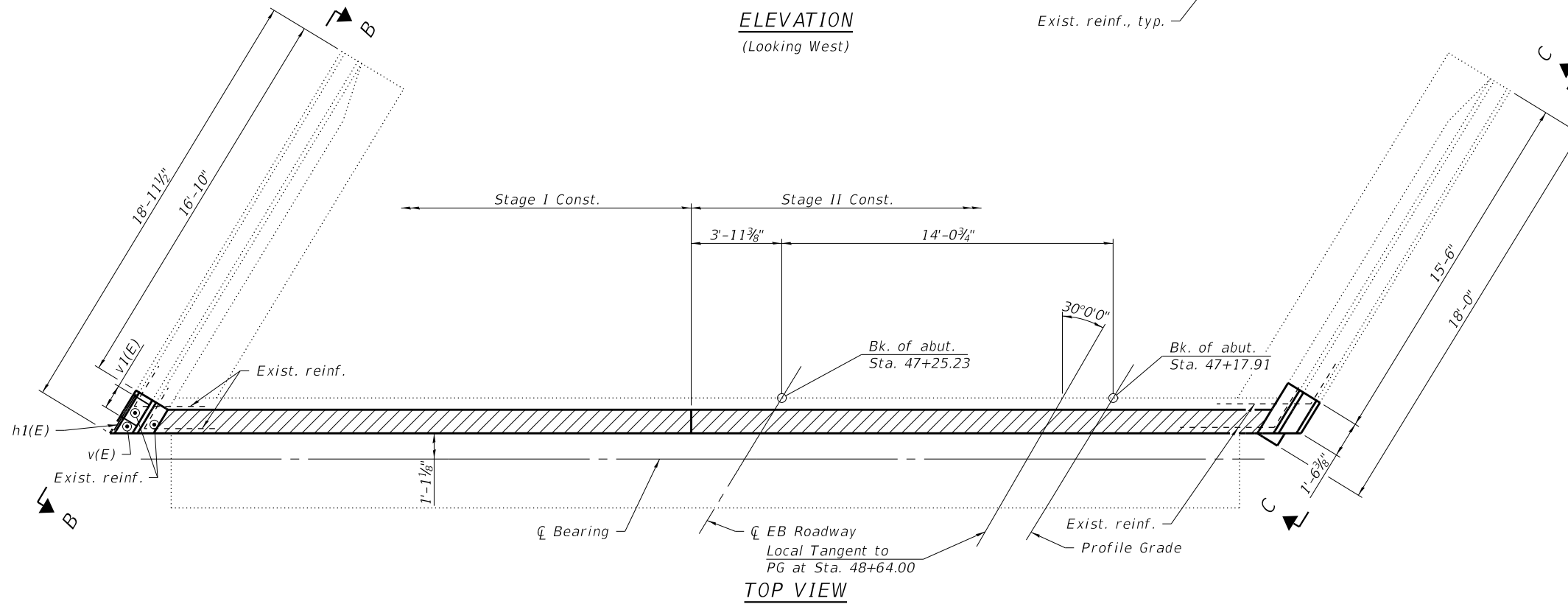
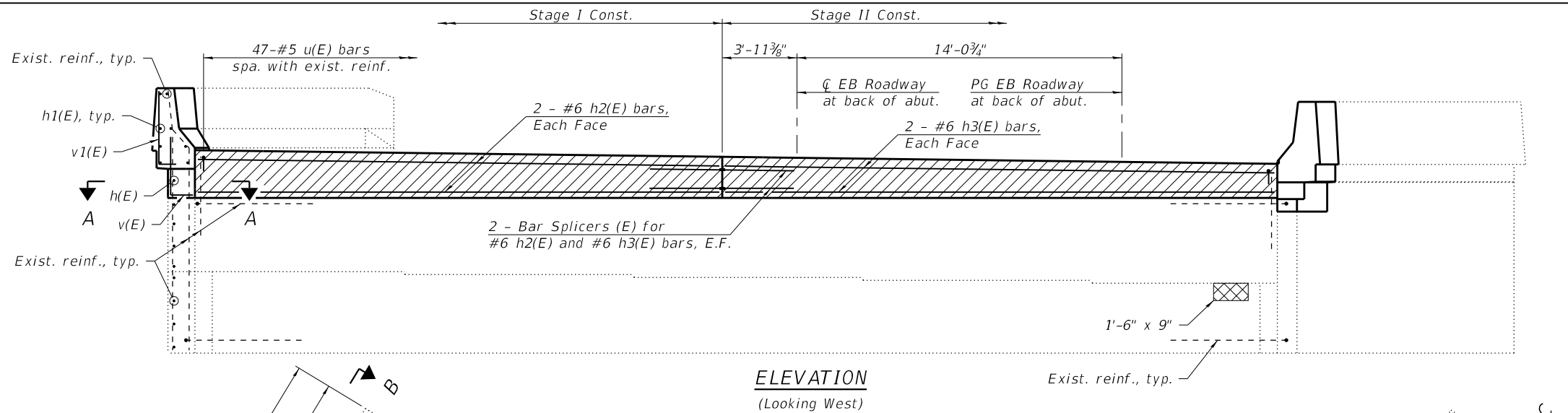
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PREFORMED JOINT STRIP SEAL  
 STRUCTURE NO. 075-0117  
 SHEET NO. 7 OF 17 SHEETS

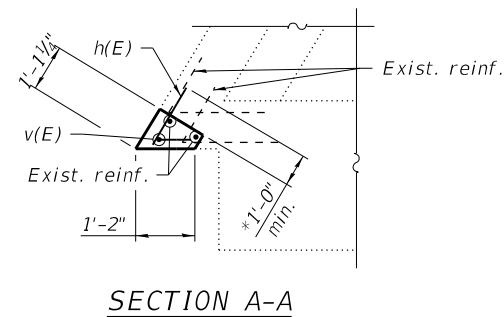
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	68
CONTRACT NO.				72J42
ILLINOIS FED. AID PROJECT				



\*Drill and epoxy grout reinforcement according to Section 584 of the Standard Specifications.

**LEGEND**

- Structural Repair of Concrete (Depth Equal to or Less than 5 inches)
- Structural Repair of Concrete (Depth Greater than 5 inches)



Note:  
For Section B-B and C-C, see sheet 10 of 17.

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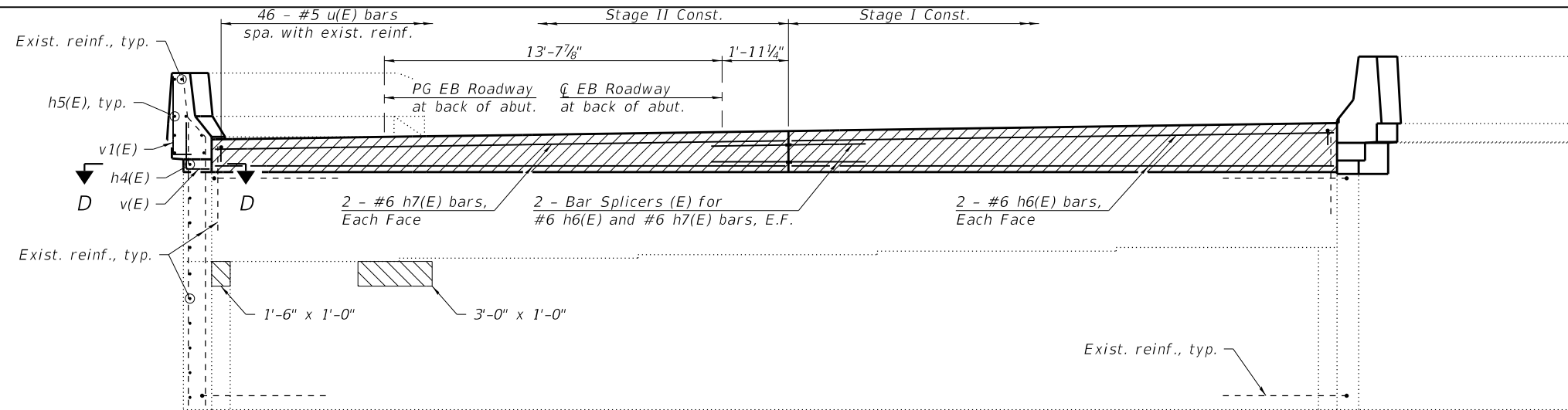
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DEPARTMENT OF TRANSPORTATION**

**WEST ABUTMENT DETAILS  
STRUCTURE NO. 075-0117**

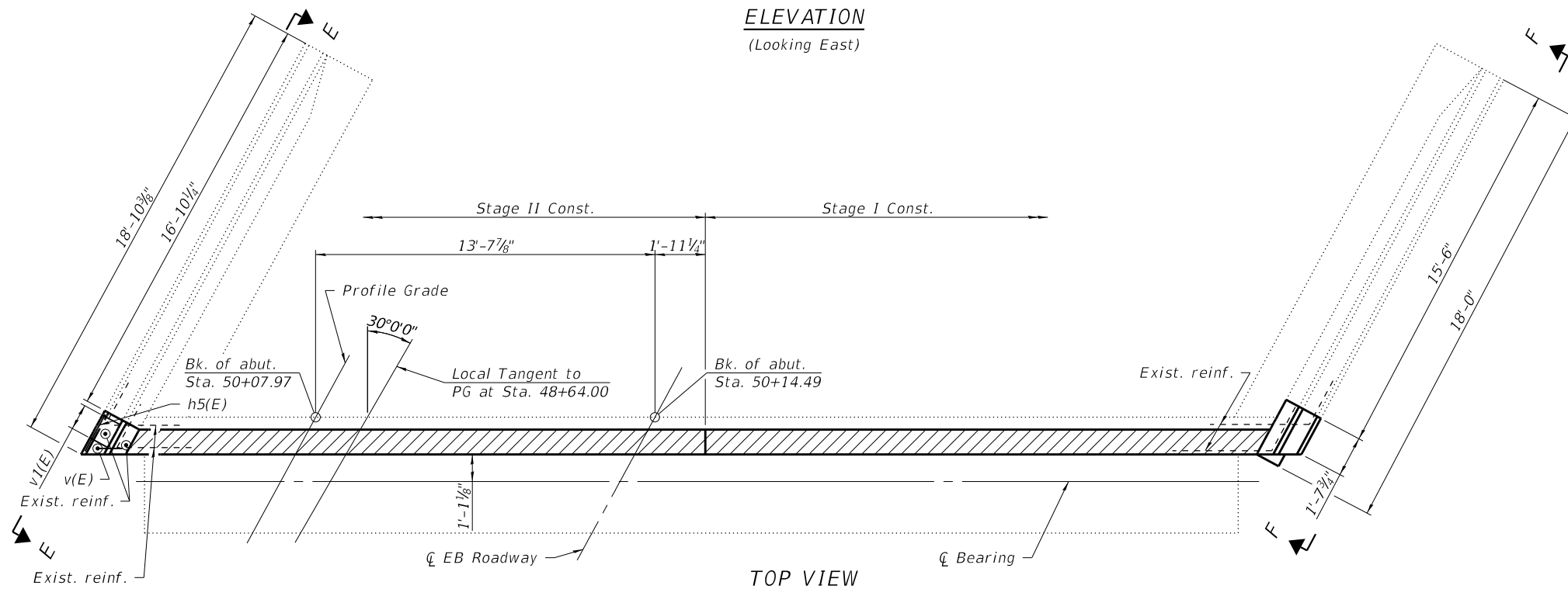
SHEET NO. 8 OF 17 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	69
CONTRACT NO.			72J42	

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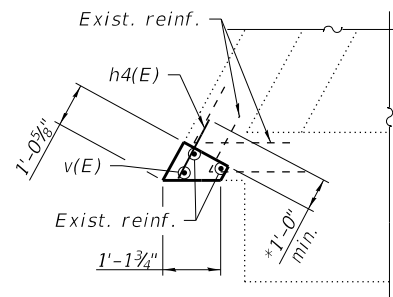


**ELEVATION**  
(Looking East)



**TOP VIEW**

\*Drill and epoxy grout reinforcement according to Section 584 of the Standard Specifications.



**SECTION D-D**

Note:  
For Views E-E and F-F,  
see sheet 10 of 17.

**LEGEND**

- Structural Repair of Concrete  
(Depth Equal to or Less than 5 inches)
- Structural Repair of Concrete  
(Depth Greater than 5 inches)



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PLOT DATE = 8/17/2017	

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**EAST ABUTMENT DETAILS**  
**STRUCTURE NO. 075-0117**

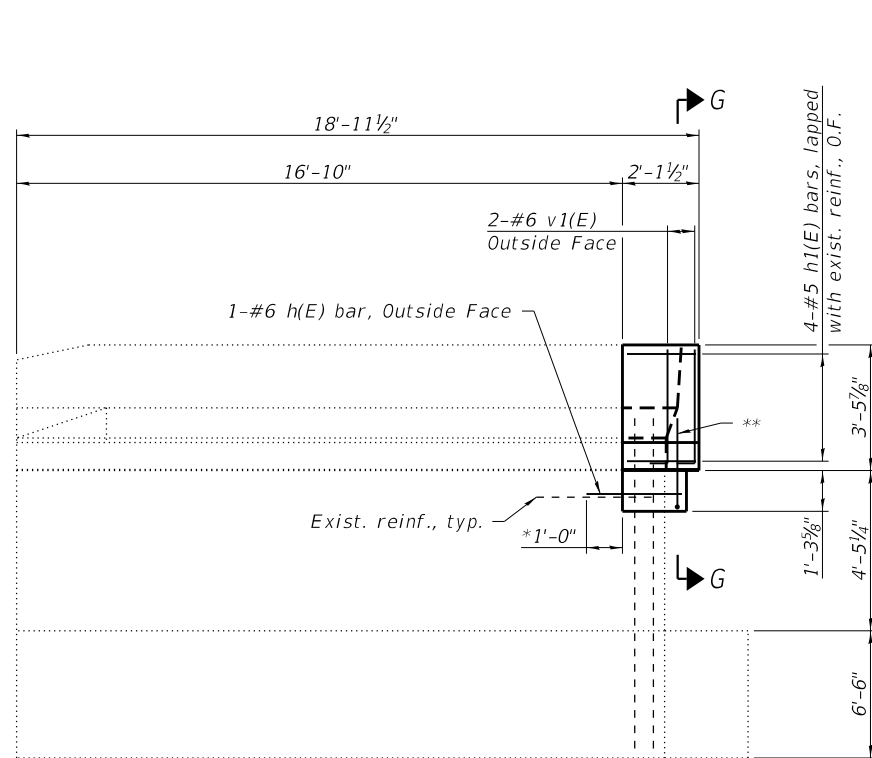
SHEET NO. 9 OF 17 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	70
CONTRACT NO.			72J42	

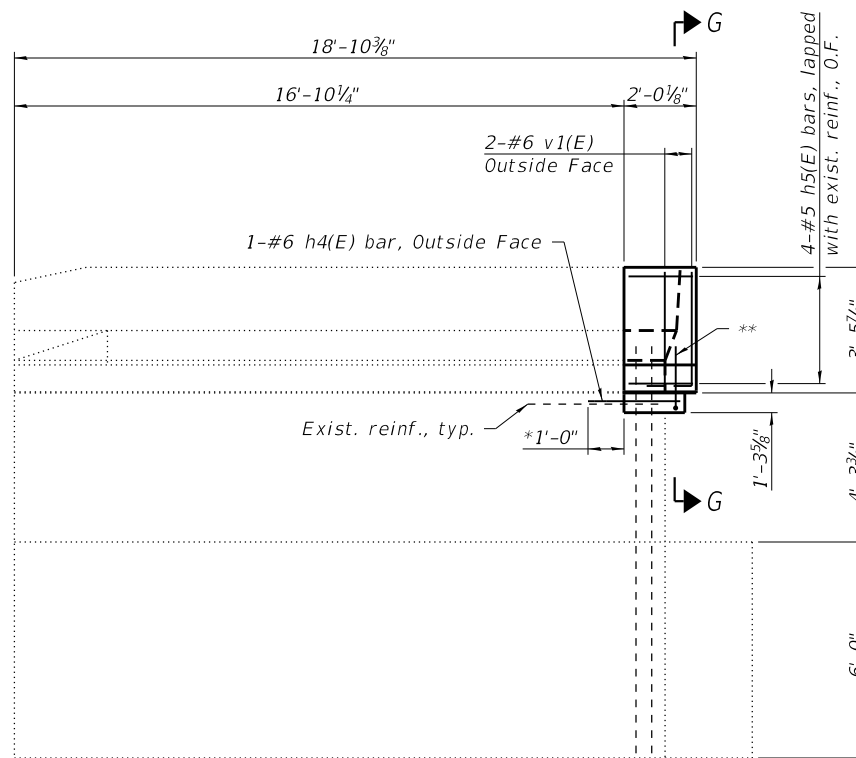
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\*\* 1-#6 v(E) bar, Outside Face

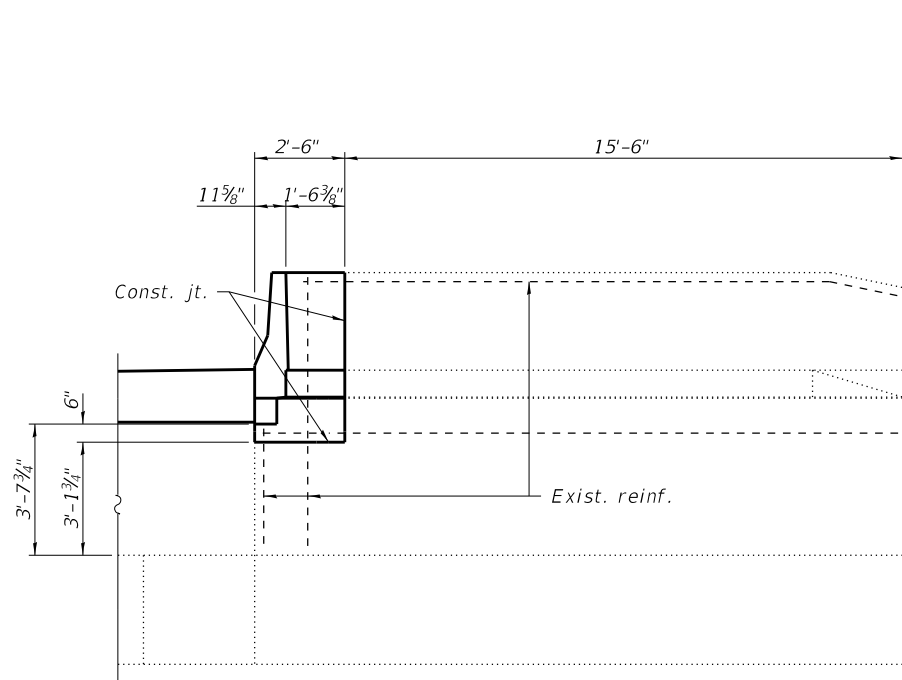


VIEW B-B

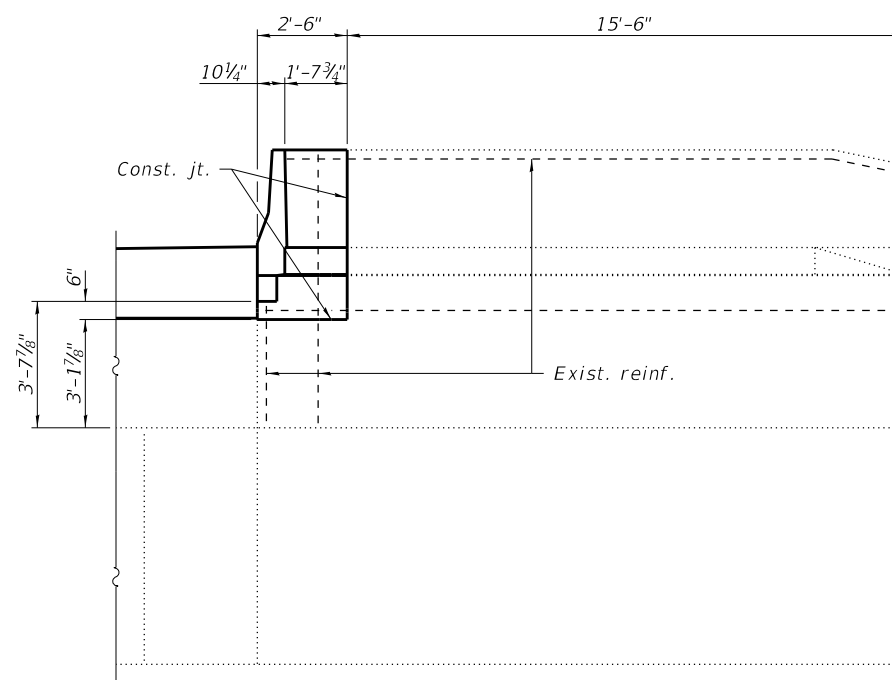


VIEW E-E

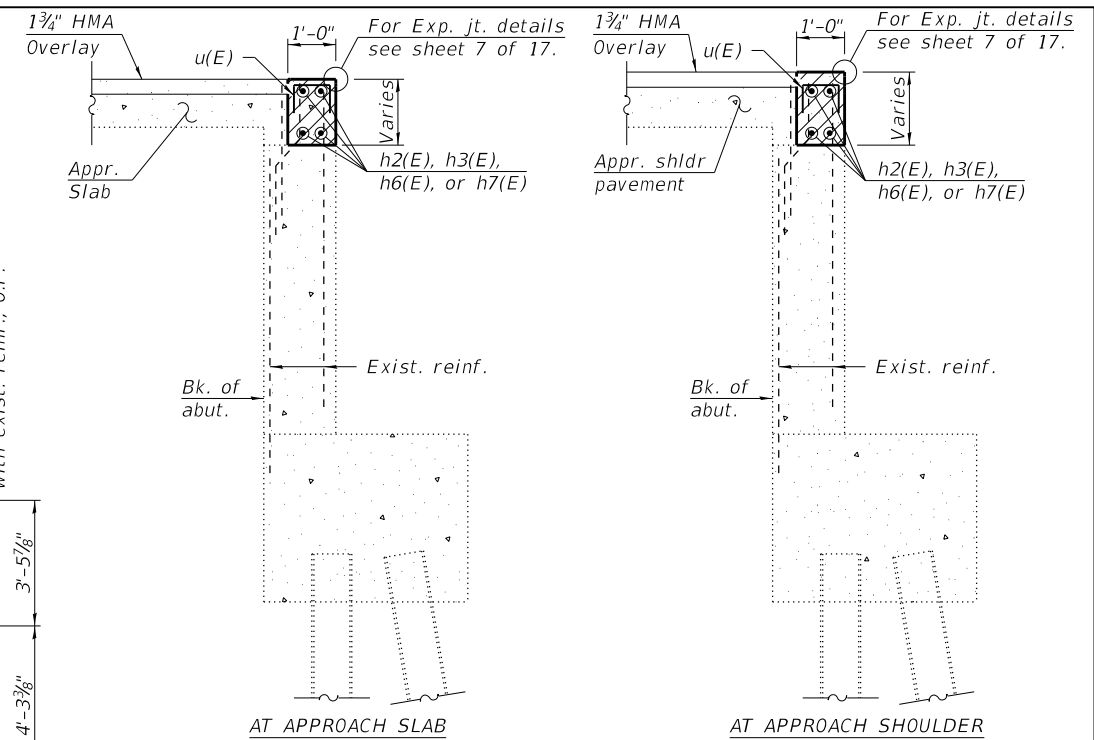
\*Drill and grout reinforcement.



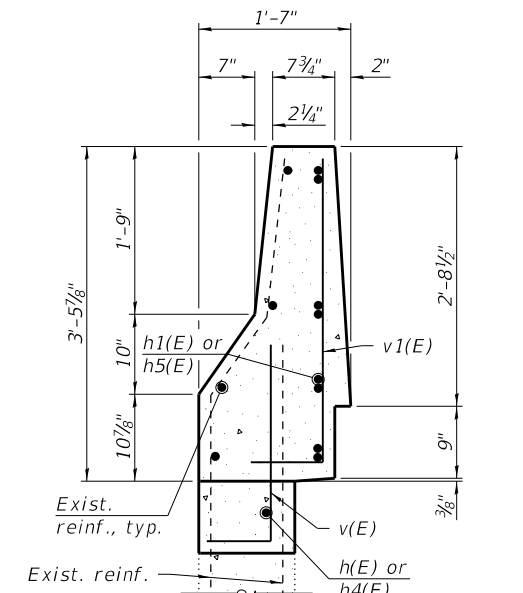
VIEW C-C



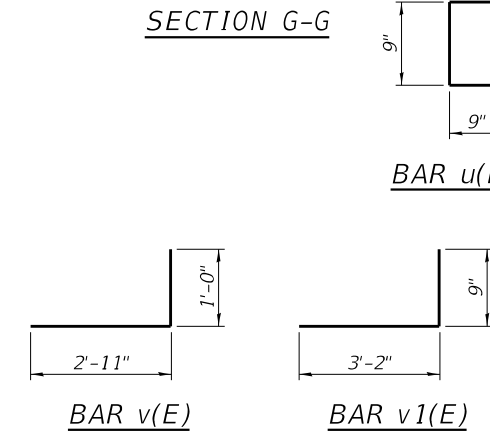
VIEW F-F



SECTION THRU ABUTMENT



SECTION G-G



**BOTH ABUTMENTS  
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h(E)	1	#6	1'-10"	—
h1(E)	4	#5	1'-7"	—
h2(E)	4	#6	22'-10"	—
h3(E)	4	#6	25'-3"	—
h4(E)	1	#6	1'-9"	—
h5(E)	4	#5	1'-6"	—
h6(E)	4	#6	23'-2"	—
h7(E)	4	#6	23'-5"	—
u(E)	93	#5	2'-3"	U
v(E)	2	#6	3'-11"	V
v1(E)	4	#6	3'-11"	V
Concrete Removal			Cu. Yd.	0.3
Reinforcement Bars, Epoxy Coated			Pound	840
Structural Repair of Concrete (Depth Equal to or Less than 5 inches)			Sq. Ft.	1
Structural Repair of Concrete (Depth Greater than 5 inches)			Sq. Ft.	5

Notes:  
 All new concrete is included with Concrete Superstructure.  
 For Locations of Views B-B and C-C, see sheet 8 of 17.  
 For Location of Views E-E and F-F, see sheet 9 of 17.  
 Cut existing reinforcement to maintain a 1/2" minimum clearance.

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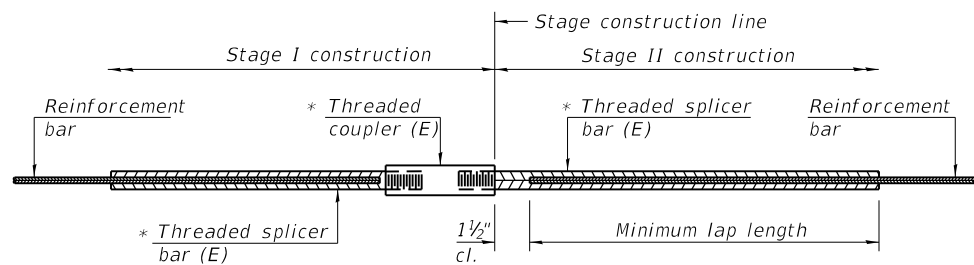
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**ABUTMENT DETAILS  
STRUCTURE NO. 075-0117**

SHEET NO. 10 OF 17 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	71
CONTRACT NO.			72J42	

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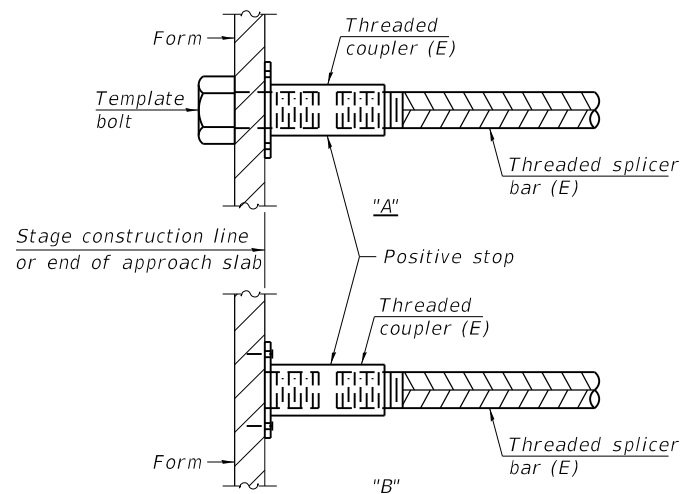


**STANDARD BAR SPLICER ASSEMBLY**

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

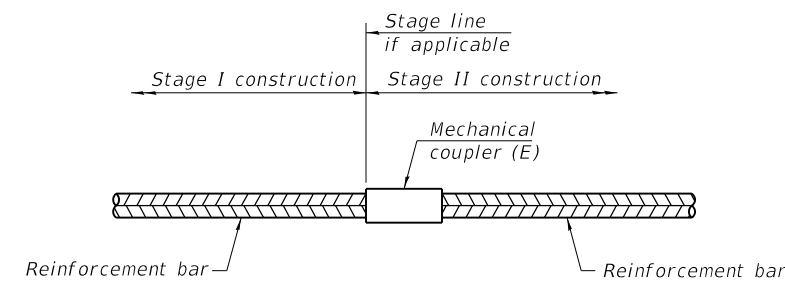
\* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
Deck	#6	4	3'-0"
West Abutment	#6	4	3'-0"
East Abutment	#6	4	3'-0"



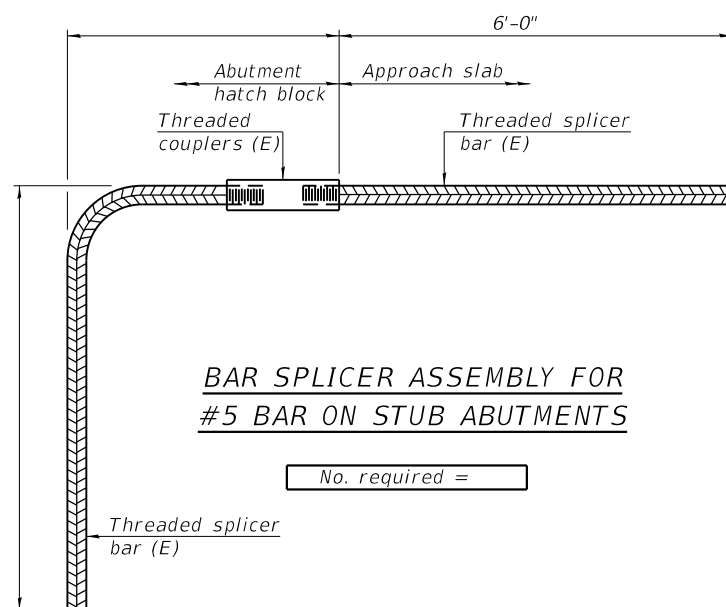
**INSTALLATION AND SETTING METHODS**

"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

2-17-2017



DESIGNED - TIM FRIEDERICH	REVISED -
CHECKED - ERIC M. LAGEMANN	REVISED -
DRAWN - TIM FRIEDERICH	REVISED -
CHECKED - ERIC M. LAGEMANN	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS  
STRUCTURE NO. 075-0117**

SHEET NO. 11 OF 17 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	72
CONTRACT NO.			72J42	

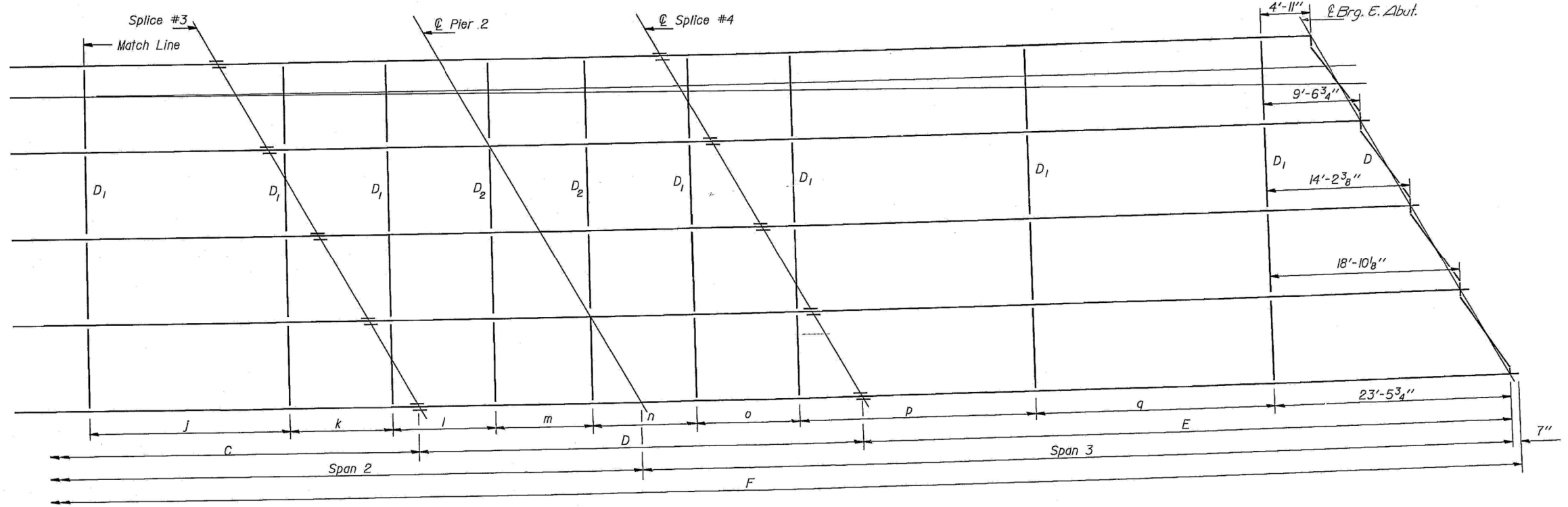
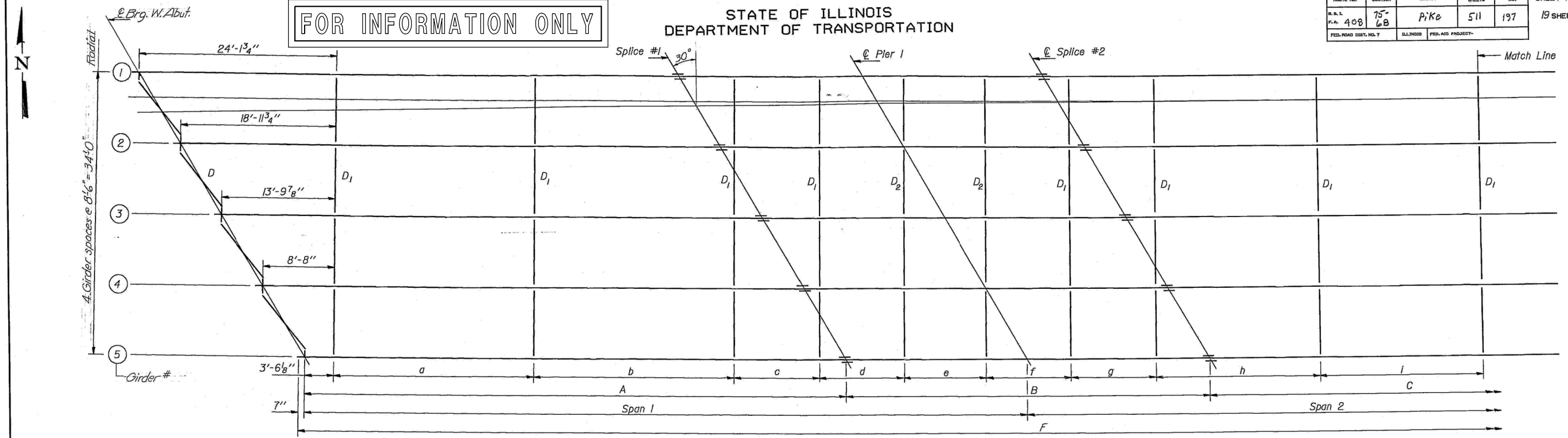
ILLINOIS FED. AID PROJECT

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



Notes: All girders shall be fabricated following the curvature given by their respective radii.  
 All horizontal dimensions are given along  $\text{\textcircled{C}}$  Girder except "x".  
 All vertical dimensions are given radially except "y".  
 Dimensions "x" & "y" are given from the respective Local Tangent of each Girder at Station 48+64.00.  
 For Girder dimensions, "x" & "y" dimensions and diaphragm spacing see sh.#9 of 19.  
 Diaphragms  $D_1$  &  $D_2$  shall be placed radially.

**STRUCTURAL STEEL**  
**F.A. RT. 408 SECTION 75-6B**  
**PIKE COUNTY**  
**STATION 48+64.00**

FRAMING PLAN

DESIGNED	<i>James J. Roman</i>	EXAMINED	<i>Eric J. Kaspar</i>
CHECKED	<i>Lee Sheng Houch</i>	PASSED	<i>James J. Kaspar</i>
DRAWN	J.T. Downing	APPROVED	<i>Eric M. Lagemann</i>
CHECKED	<i>GR</i>		

Sept 15 1987  
 DIRECTOR OF HIGHWAYS

p:\p\shifrin\shifrin.com\Transportation\Eng Documents\10197208-PTB1571\em037408 V01.Cadd\Bridges\Struct\0750117-42928-012.dgn



DESIGNED -	TIM FRIEDERICH	REVISED -	
CHECKED -	ERIC M. LAGEMANN	REVISED -	
DRAWN -	TIM FRIEDERICH	REVISED -	
CHECKED -	ERIC M. LAGEMANN	REVISED -	

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING FRAMING PLAN AND BEARING SHEETS  
 STRUCTURE NO. 075-0117  
 SHEET NO. 12 OF 17 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	73
CONTRACT NO.			72J42	
ILLINOIS FED. AID PROJECT				

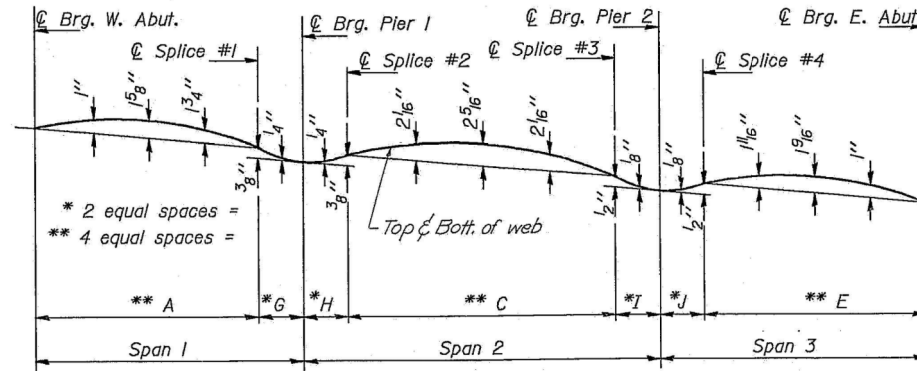


VALUE OF  $\theta$

Loc.	Gir.	#1	#2	#3	#4	#5
Brig. W. Abut.		31°26'56"	31°23'49"	31°20'43"	31°17'37"	31°14'32"
Brig. E. Abut.		28°36'23"	28°33'36"	28°30'50"	28°28'04"	28°25'19"

DIMENSIONS "L"

Loc.	Gir.	Between Gir. #1 & #2	Between Gir. #2 & #3	Between Gir. #3 & #4	Between Gir. #4 & #5
Brig. W. Abut.		9'-11 1/2"	9'-11 1/2"	9'-11 3/8"	9'-11 3/8"
Brig. E. Abut.		9'-8 1/8"	9'-8 1/8"	9'-8"	9'-8"



CAMBER DIAGRAM

See sh. #9 of 19 for dimensions.

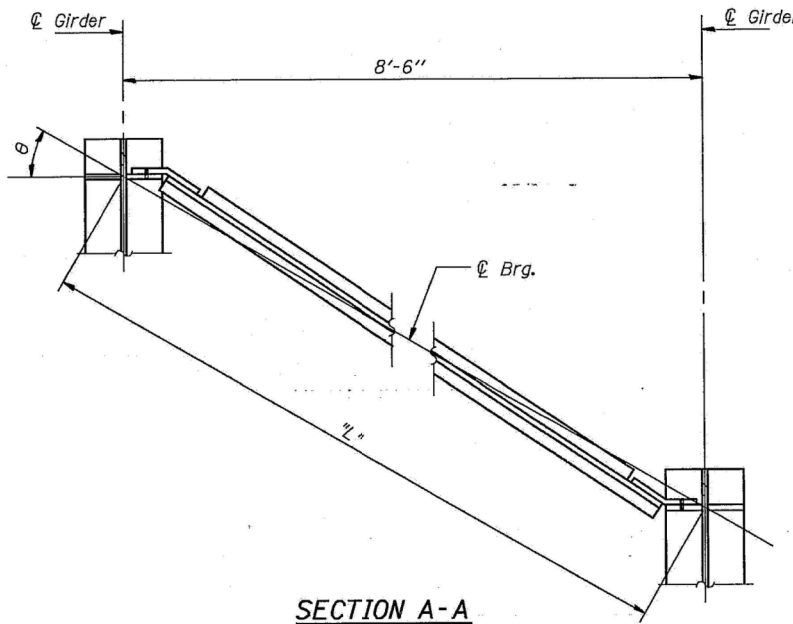
TOP OF WEB ELEVATIONS

(For fabrication only)

Loc.	Gir.	#1	#2	#3	#4	#5
West Abut.		559.536	559.662	559.786	559.912	560.039
Splice #1		557.479	557.608	557.737	557.866	557.997
Pier #1		556.773	556.904	557.034	557.165	557.297
Splice #2		556.153	556.285	556.417	556.549	556.682
Splice #3		554.174	554.310	554.445	554.581	554.718
Pier #2		553.471	553.608	553.744	553.882	554.021
Splice #4		552.848	552.987	553.124	553.263	553.403
East Abut.		551.009	551.151	551.292	551.434	551.578

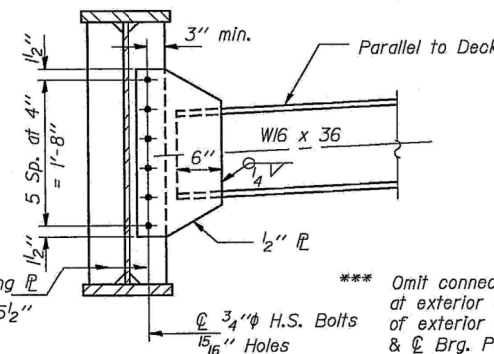
Elevations of splices have been adjusted for camber.

Notes: All diaphragms, connection angles and plates shall be AASHTO M183 Structural Steel. All splice plates and filler plates for splices shall be AASHTO M223 Grade 50 Structural Steel (N.T.R.).



SECTION A-A

Notes: Two hardened washers shall be required over all 1 1/2\"/>



DIAPHRAGM D2

16 Required

INTERIOR GIRDER MOMENT TABLE			
	0.4 Sp. #1 or 0.6 Sp. #3	Piers	0.5 Sp. #2
$I_s$	(in <sup>4</sup> ) 16495	23264	16495
$I_c$	(in <sup>4</sup> ) 38950		38950
$S_s$	(in <sup>3</sup> ) 701.91	969.33	701.91
$S_c$	(in <sup>3</sup> ) 958.33		958.33
$S_{bl}$	(in <sup>3</sup> ) 24		24
$\phi$	(K/ft.) 1.03	1.41	1.03
$M\phi$	(K) 512.45	1443.06	461.62
$s\phi$	(K/ft.) 0.38		0.38
$M_s\phi$	(K) 217.82		242.83
$M\phi$	(K) 863.21	695.13	917.04
$M$ (Imp)	(K) 200.93	153.93	191.75
$\phi_3(M\phi + I)$	(K) 173.57	1415.10	1847.98
$M_a$	(K) 3244.38	3707.37	3307.42
$M_{bl}$	(K) 7.70	1.27	7.85
$f_s\phi$ non-comp (k.s.i.)	8.76	18.28	7.89
$f_s\phi$ (comp) (k.s.i.)	2.73		3.04
$f_s\phi_3$ (k.s.i.)	22.10	17.44	23.03
$f_w$ (k.s.i.)	3.85	0.42	3.93
$f_s$ (Overload) (k.s.i.)	33.59	35.72	33.96
$f_s$ (Total) (k.s.i.)	43.68	46.44	44.15
$f_s + f_w$ (k.s.i.)	47.52	46.86	48.08
$VR$	(K) 67.21		68.53
$F_b$	(k.s.i.) 50	47.22	50

INTERIOR GIRDER REACTION TABLE		
	Abuts.	Piers
$R\phi$	(K) 45.51	156.05
$R\phi$	(K) 49.33	77.68
Imp.	(K) 11.58	17.34
$R$ (Total)	(K) 106.42	251.07

$I_s$  and  $S_s$  are the moment of inertia and section modulus of the steel section used in computing  $f_s$  (Total & Overload).

$I_c$  and  $S_c$  are the moment of inertia and section modulus of the composite section used in computing  $f_s$  (Total & Overload).

$VR$  is the maximum Live Load + Impact shear range in span.

$M_a$  (Applied Moment) =  $1.3LM\phi + Ms\phi + \phi_3(M\phi + I)$ .

$F_b$  - Maximum allowable stress,  $F_{bu}$  or  $F_{bu}$ , computed according to AASHTO [Guide Specifications for Horizontally Curved Highway Bridges Sec. 2.12(B) & 2.16].

$f_s$  (Overload) is the sum of the stresses due to  $M\phi + Ms\phi + \phi_3(M\phi + I)$ .

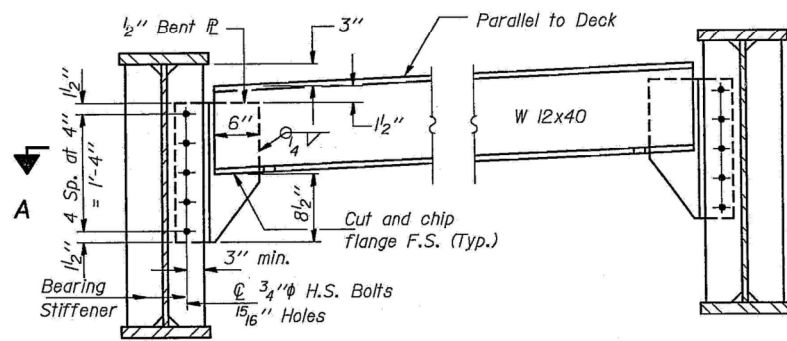
$f_s$  (Total) (Non-compact section) is the sum of the stresses due to  $1.3LM\phi + Ms\phi + \phi_3(M\phi + I)$ .

$S_{bl}$  is the section modulus for one flange plate for lateral flange bending.

$M_{bl}$  is the lateral bending moment for flange plate (factored).

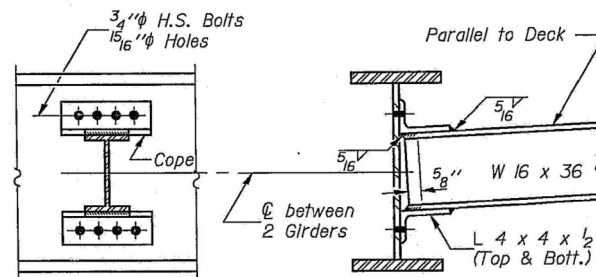
$f_w$  is the calculated normal stress at the edge of flange due to lateral flange bending (factored).

$VR$ ,  $M\phi$  and  $R\phi$  have been increased due to effect of centrifugal force and superelevation.



DIAPHRAGM D

8 Required

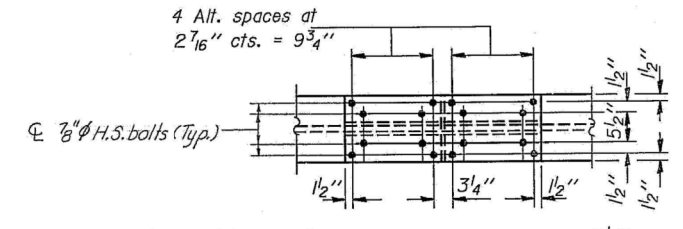


DIAPHRAGM D1

56 Required

DESIGNED	Eric M. Lagemann
CHECKED	Eric M. Lagemann
DRAWN	J.T. Downing
CHECKED	J.T. Downing

EXAMINED	Eric M. Lagemann
PASSED	Eric M. Lagemann
APPROVED	Eric M. Lagemann



FIELD SPLICE DETAIL

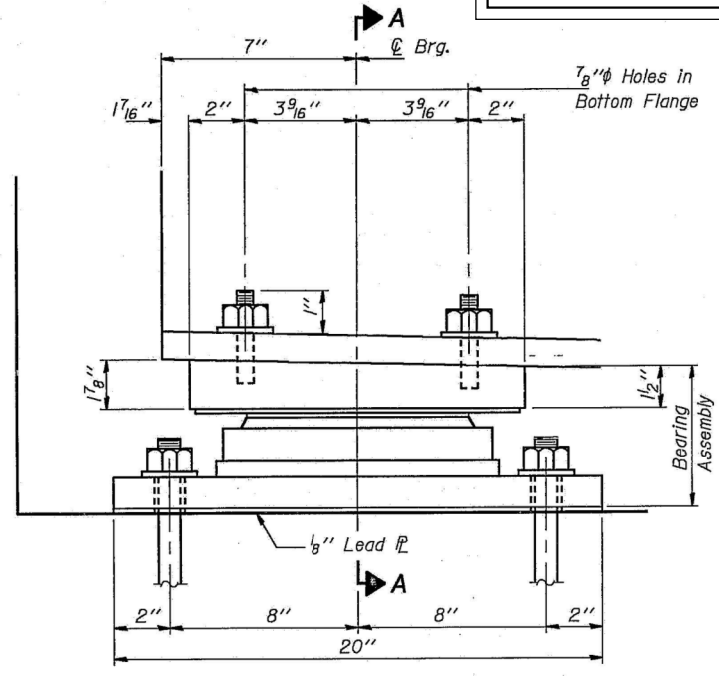
STRUCTURAL STEEL  
F.A. RT. 408 SECTION 75-6B  
PIKE COUNTY  
STATION 48+64.00

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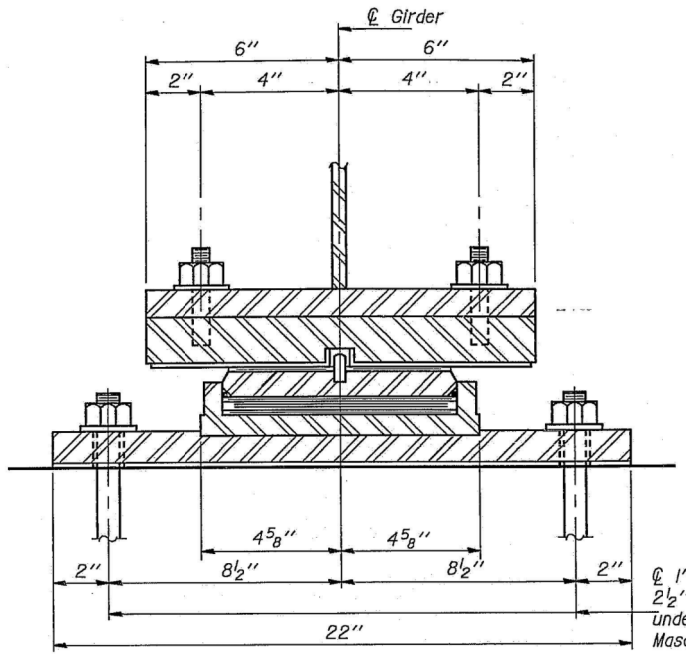
FOR INFORMATION ONLY

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

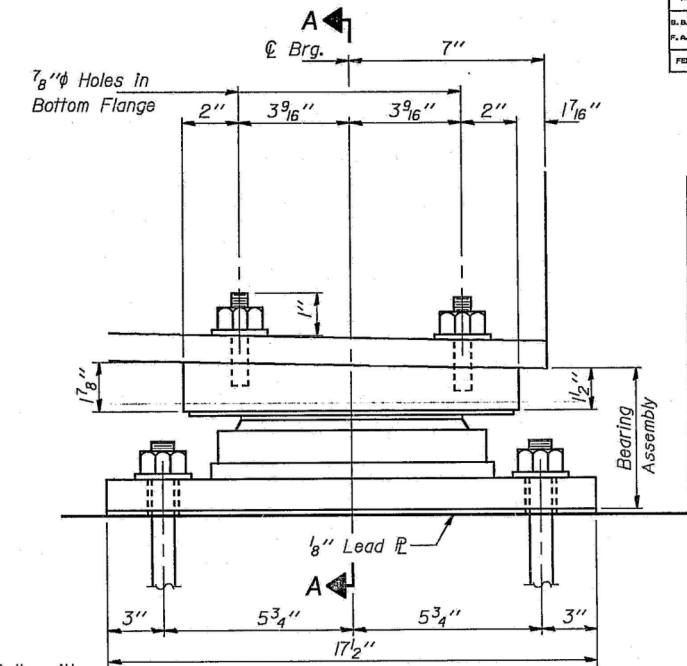
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
408	75-6B	Pike	511	200
SHEET NO. 11 18 SHEETS				



ELEVATION AT WEST ABUTMENT



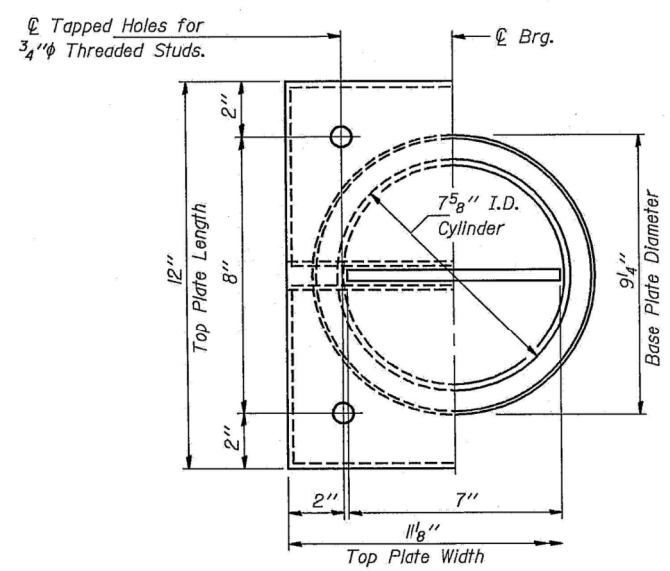
SECTION A-A  
EXPANSION FLOATING BEARING  
(10 Required)



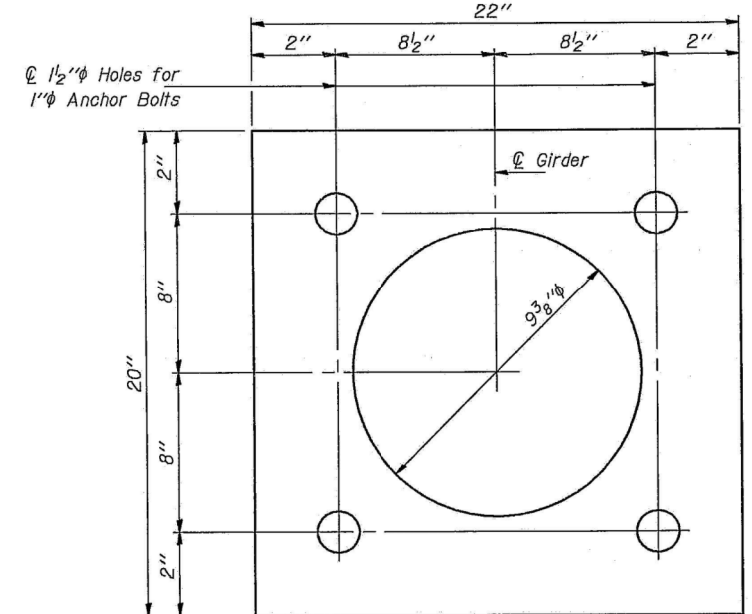
ELEVATION AT EAST ABUTMENT

BEARING DATA	
R <sub>2</sub>	45.5 k
R <sub>4</sub>	49.3 k
R <sub>1</sub>	11.6 k
R <sub>TOTAL</sub>	106.4 k
Lateral Load	2.7 k
Expansion Length	W. 197'-0"
	E. 87'-0"

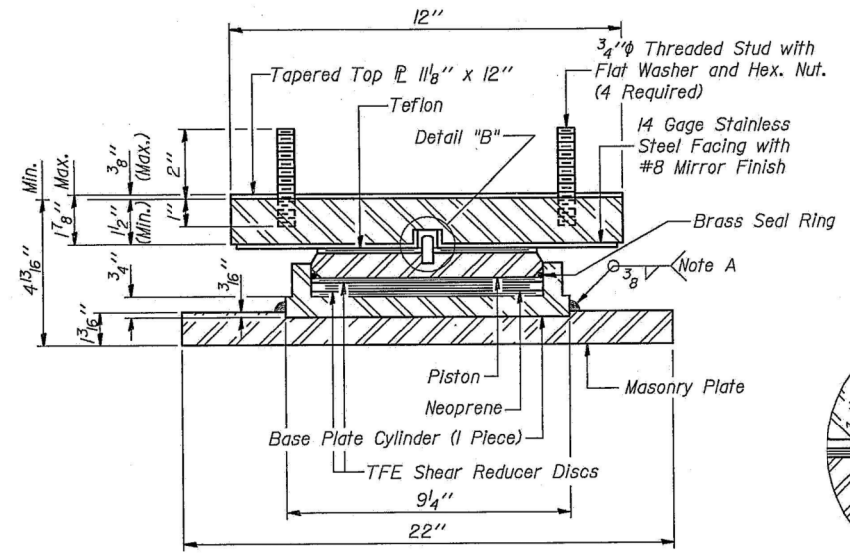
R<sub>4</sub> and R<sub>1</sub> have been increased due to the effect of superelevation and centrifugal force.



CUT-AWAY PLAN  
(Half of Top Plate shown)

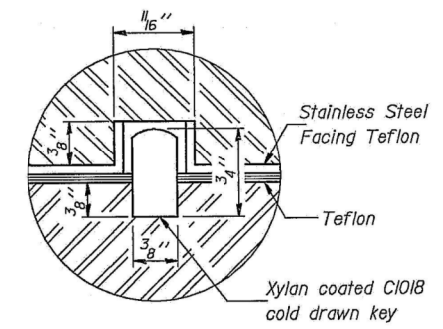


MASONRY PLATE DETAIL



BEARING ASSEMBLY  
(For both abutments)

NOTE A:  
Weld in field after bearing is self aligned during first movement.

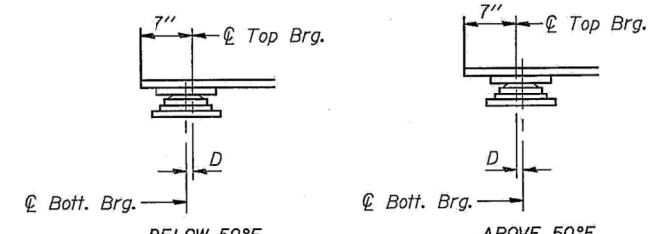


DETAIL "B"

BILL OF MATERIAL

Item	Unit	Total
Floating Bearings, Guided Expansion 150 k	Each	10

BEARING DETAILS  
EAST & WEST ABUTMENTS  
F.A. RT. 408 SEC. 75-6B  
PIKE COUNTY  
STA. 579+04.00



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

SETTING ANCHOR BOLTS AT EXP. BRG.

Note: For anchor bolt details see sheet #18 of 18.  
The plates of the Bearing Assembly shall be AASHTO M223 Grade 50. (Move bott. brg. away from fixed brg.) (Move bott. brg. toward fixed brg.)

DESIGNED: *Tim Friederich*  
CHECKED: *Eric M. Lagemann*  
DRAWN: *R. Doty* *J.T. Downing*  
CHECKED: *GR*

EXAMINED: *Sept 15 1987*  
*Eric M. Lagemann*  
PASSED: *James J. Johnson*  
APPROVED: *Director of Highways*

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USER NAME = tsfriederich  
PLOT SCALE = NTS  
PLOT DATE = 8/17/2017

DESIGNED - TIM FRIEDERICH  
CHECKED - ERIC M. LAGEMANN  
DRAWN - TIM FRIEDERICH  
CHECKED - ERIC M. LAGEMANN

REVISED -  
REVISED -  
REVISED -  
REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

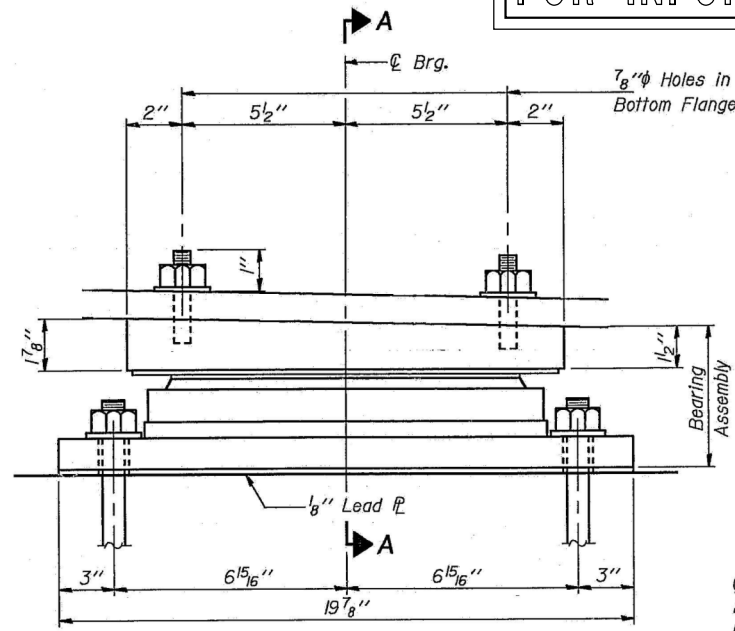
EXISTING FRAMING PLAN AND BEARING SHEETS  
STRUCTURE NO. 075-0117

SHEET NO. 15 OF 17 SHEETS

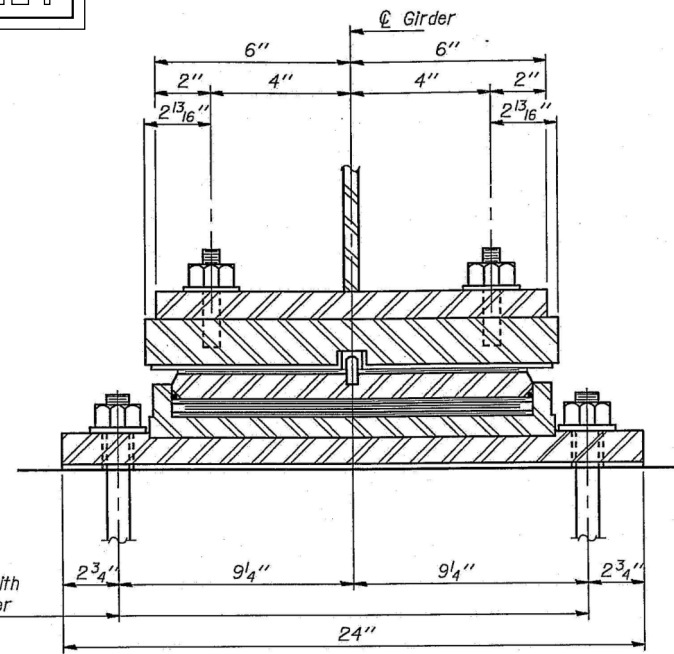
F.A. I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BR, RS-2	PIKE	150	76
CONTRACT NO.				72J42
ILLINOIS FED. AID PROJECT				

FOR INFORMATION ONLY

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

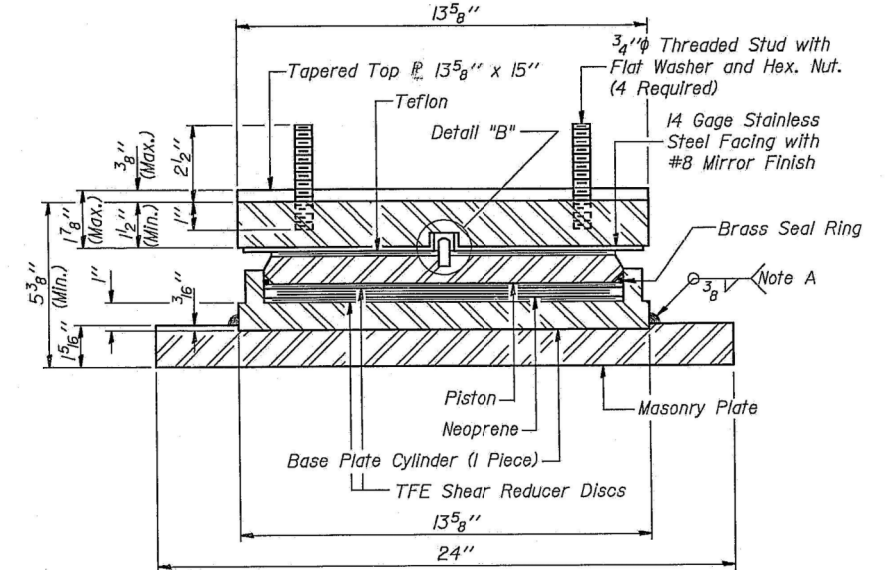


ELEVATION AT PIER #1



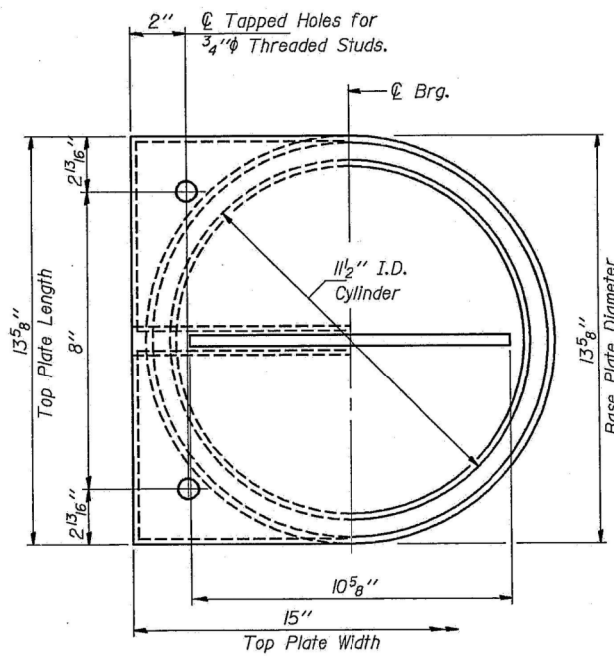
SECTION A-A

NOTE A:  
Weld in field after bearing  
is self aligned during first  
movement.

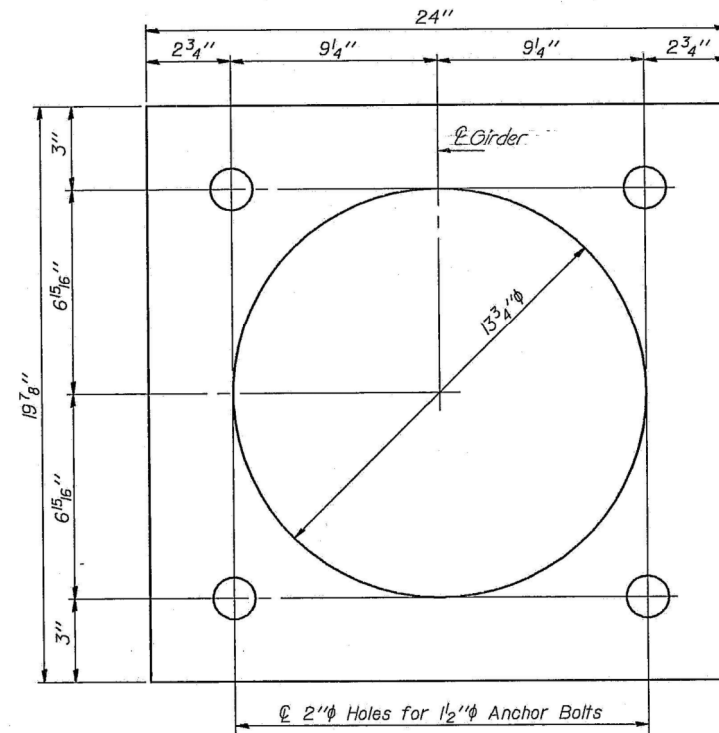


BEARING ASSEMBLY

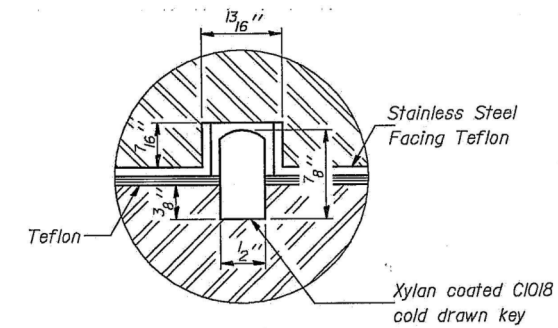
EXPANSION FLOATING BEARING  
(5 Required)



CUT-AWAY PLAN  
(Half of Top Plate shown)



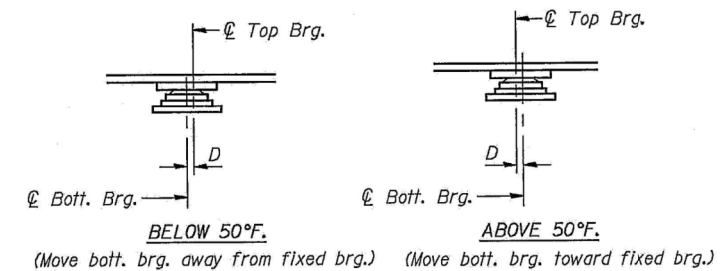
MASONRY PLATE DETAIL



DETAIL "B"

Pier #1 Bearing Data	
R <sub>L</sub>	156.1 k
R <sub>T</sub>	77.7 k
R <sub>I</sub>	17.3 k
R <sub>TOTAL</sub>	251.1 k
Lateral Load	5.6 k
Expansion Length	110'-0"

R<sub>L</sub> and R<sub>I</sub> have been increased due to the effect of superelevation and centrifugal force.



SETTING ANCHOR BOLTS AT EXP. BRG.

D = 1/2" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.

BILL OF MATERIAL

Item	Unit	Total
Floating Bearings, Fixed 300 k	Each	5

BEARING DETAILS

PIER #1  
F.A. RT. 408 SEC. 75-6B  
PIKE COUNTY  
STA. 579+04.00

DESIGNED: *Perman Ransaw*  
CHECKED: *Leo Sheng Hou*  
DRAWN: R. Doty  
CHECKED: *[Signature]*

EXAMINED: *Eric M. Lagemann*  
PASSED: *James T. Kasper*  
APPROVED: *[Signature]*  
DIRECTOR OF HIGHWAYS

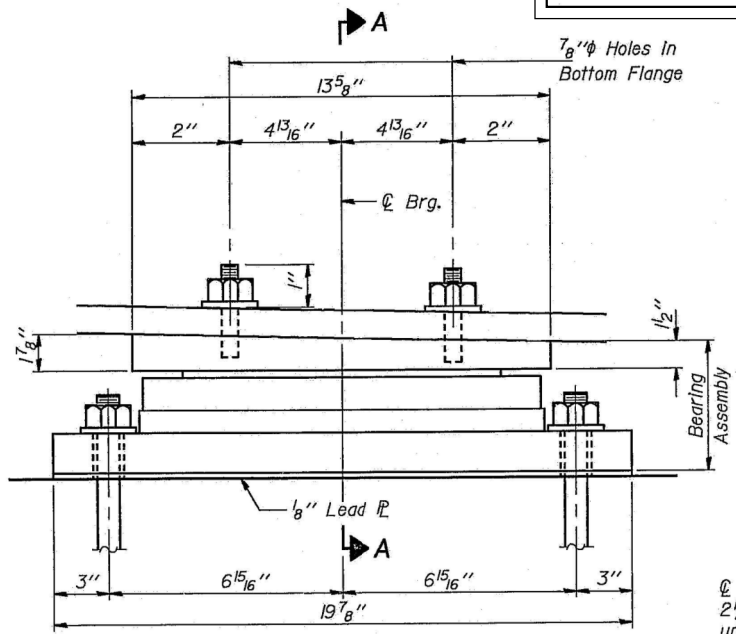
Note: For anchor bolt installation details see sheet #19 of 19.  
The plates of the Bearing Assembly shall be AASHTO M-223 Grade 50.

FOR INFORMATION ONLY

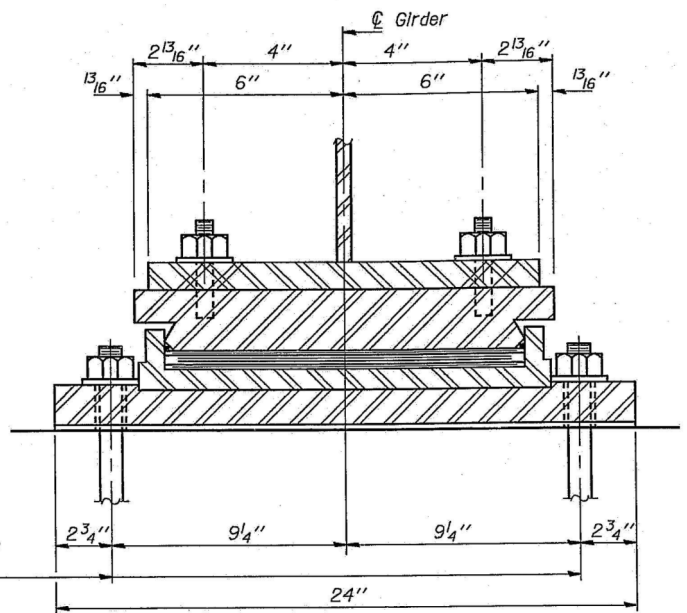
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 13 19 SHEETS
F.A. 408	75-6B	PIKE	511	202	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

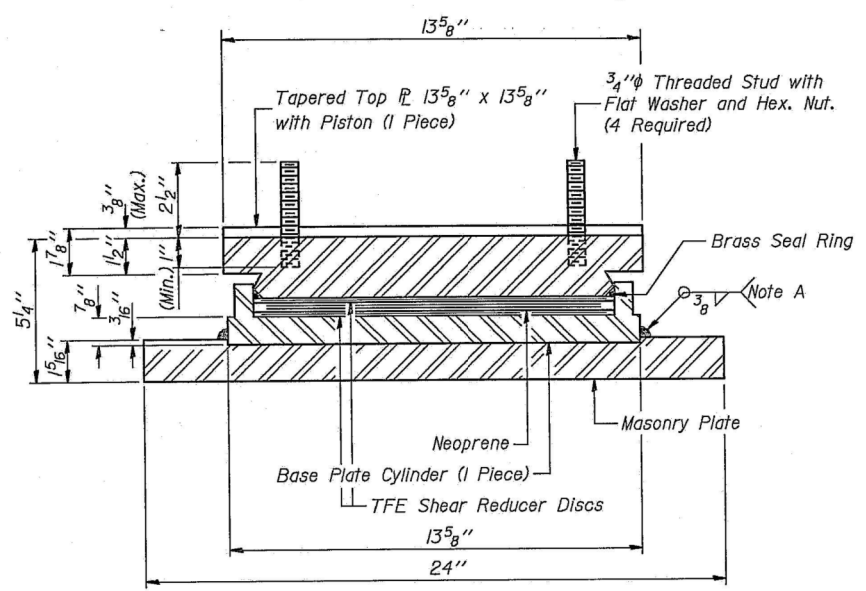
NOTE A:  
Weld in field after bearing  
is self aligned during first  
movement.



ELEVATION AT PIER #2



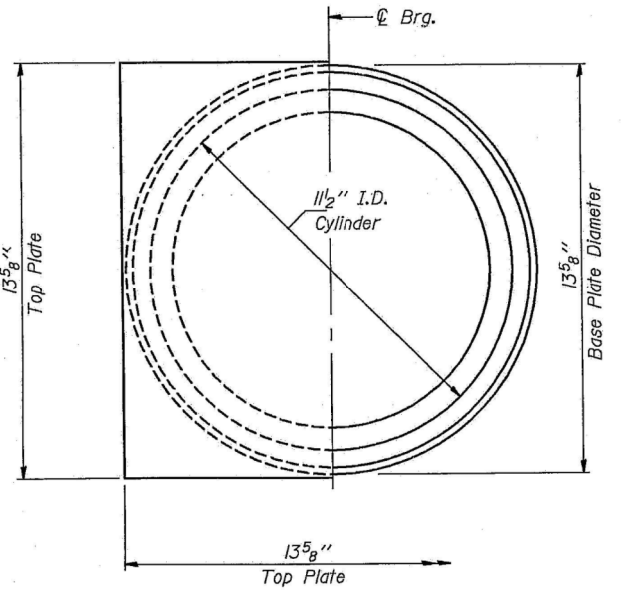
SECTION A-A



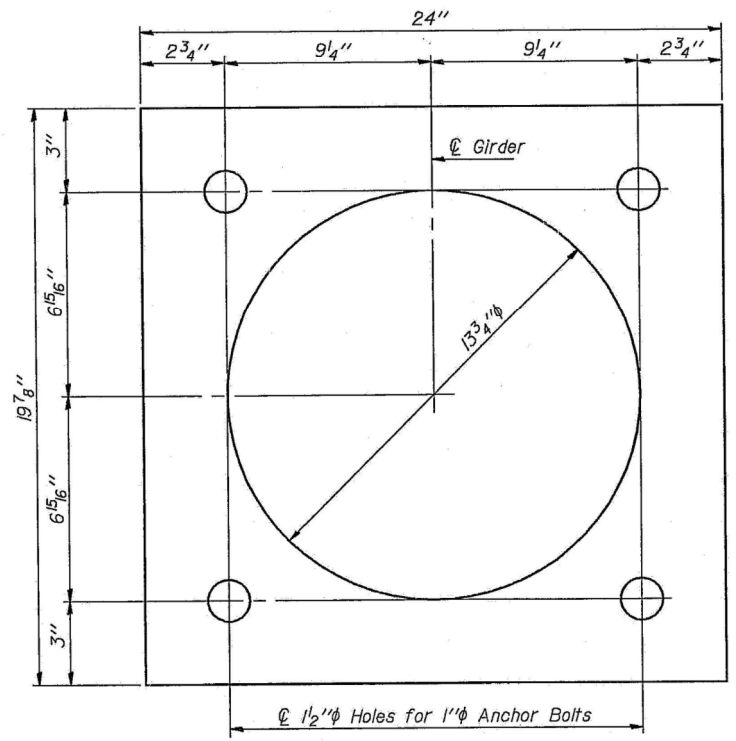
BEARING ASSEMBLY

5  $\varnothing$  1"  $\phi$  x 16" Anchor Bolts with  
2 1/2" x 2 1/2" x 5/16"  $\varnothing$  Washer  
under nut. 1 1/2"  $\phi$  Holes in  
Masonry  $\varnothing$ .

FIXED FLOATING BEARING  
(5 Required)



CUT-AWAY PLAN  
(Half of Top Plate shown)



MASONRY PLATE DETAIL

Pier #2 Bearing Data	
R <sub>L</sub>	156.1 k
R <sub>T</sub>	77.7 k
R <sub>I</sub>	17.3 k
R <sub>TOTAL</sub>	251.1 k
Lateral Load	12 k

R<sub>L</sub> and R<sub>I</sub> have been increased due to the  
effect of superelevation and centrifugal force.

Notes: For anchor bolt installation details see sheet #19 of 19.  
The plates of the Bearing Assembly shall be AASHTO M223 Grade 50.

BILL OF MATERIAL

Item	Unit	Total
Floating Bearings, Guided Expansion 300 k	Each	5

BEARING DETAILS

PIER #2  
F.A. RT. 408 SEC. 75-6B  
PIKE COUNTY  
STA. 579+04.00

DESIGNED	<i>Justin Romancus</i>	EXAMINED	<i>Greg J. Kaspar</i>
CHECKED	<i>Lee Sheng Hou</i>	PASSED	<i>James J. Kuybura</i>
DRAWN	R. Doty	APPROVED	<i>J.T.D.</i>
CHECKED	<i>GR</i>		

Sept 15 1987  
DIRECTOR OF HIGHWAYS

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USER NAME = tsfriederich  
PLOT SCALE = NTS  
PLOT DATE = 8/17/2017

DESIGNED - TIM FRIEDERICH  
CHECKED - ERIC M. LAGEMANN  
DRAWN - TIM FRIEDERICH  
CHECKED - ERIC M. LAGEMANN

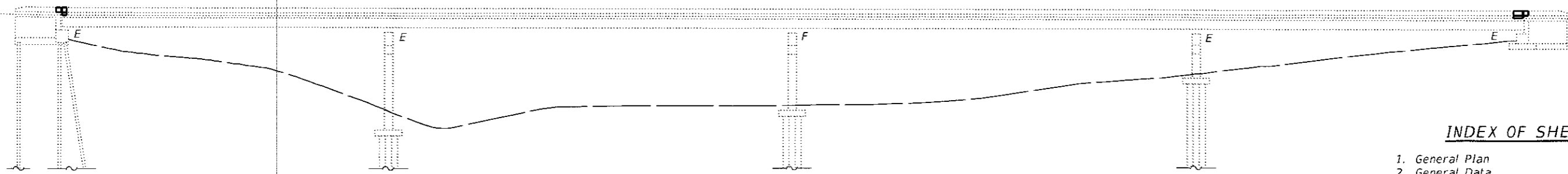
REVISED -  
REVISED -  
REVISED -  
REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING FRAMING PLAN AND BEARING SHEETS  
STRUCTURE NO. 075-0117

SHEET NO. 17 OF 17 SHEETS

F.A. I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	78
CONTRACT NO. 72J42				
ILLINOIS FED. AID PROJECT				



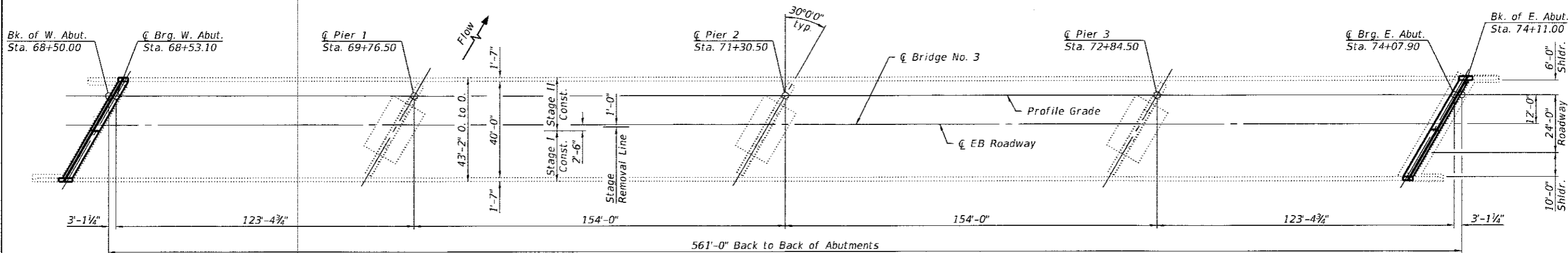
ELEVATION

INDEX OF SHEETS

1. General Plan
2. General Data
3. Stage Construction Details
4. Deck Patching Removal
5. Removal Details
6. Superstructure Repair Details
7. Preformed Joint Strip Seal
8. Adjusting Existing Scupper
9. West Abutment Details
10. East Abutment Details
11. Abutment Details
12. Bar Splicer & Mechanical Splicer Details
- 13-17. Existing Framing Plan and Bearing Sheets

SCOPE OF WORK

1. Replace expansion joints.
2. Deck and approach patching.
3. Hydroscarification and placement of microsilica concrete overlay.
4. Perform diamond grinding and apply protective coat.
5. Blasting and painting of beam ends, end diaphragms, and abutment bearings.
6. Adjust existing scuppers.
7. Substructure repair.



PLAN



*Eric Lagemann* 8/18/17  
Expires 11/30/2018 Date

**GENERAL PLAN**  
**1-72 OVER NAPOLEON HOLLOW DRAW**  
**F.A.I. ROUTE 72**  
**SECTION (75-6) BDR, BP, BRR, RS-2**  
**PIKE COUNTY**  
**STATION 71+30.50**  
**STRUCTURE NO. 075-0118**



USER NAME = tsfriederich  
 PLOT SCALE = NTS  
 PLOT DATE = 8/17/2017

DESIGNED - TJM FRIEDERICH  
 CHECKED - ERIC M. LAGEMANN  
 DRAWN - TJM FRIEDERICH  
 CHECKED - ERIC M. LAGEMANN

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

SHEET NO. 1 OF 17 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	79
CONTRACT NO.			72J42	

ILLINOIS FED. AID PROJECT

**GENERAL NOTES**

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 and girders 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 can not 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.

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.

Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.

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 the length (measured along beam) shown in the GIRDER PAINTING LIMITS TABLE, of either side of deck joints, shall be cleaned per Near White Blast Cleaning - SSPC-SP10. The exterior surfaces and bottom of the bottom flange of the fascia beams shall be cleaned per Commercial Grade Power Tool Cleaning - SSPC - SP15. 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 for all interior steel surfaces shall be Gray, Munsell No. 5B 7/1. The color of the final finish coat for all exterior steel surfaces shall be Reddish Brown, Munsell No. 2.5YR 3/4.

Joint plates and attached bars shall be shop painted with the inorganic zinc primer. No field paint required.

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.

Synthetic fibers shall be added to the Bridge Deck Concrete Overlay. See Special Provisions.

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Removal	Cu. Yd.	14.2	0.3	14.5
Concrete Superstructure	Cu. Yd.	16.3	0.3	16.6
* Protective Coat	Sq. Yd.	2,934		2,934
Reinforcement Bars, Epoxy Coated	Pound	410	840	1,250
Bar Splicers	Each	12		12
Preformed Joint Strip Seal	Foot	105.5		105.5
Bridge Deck Grooving (Longitudinal)	Sq. Yd.	1,485		1,485
Containment and Disposal of Non-Lead Paint Cleaning Residues No. 3	L Sum			1
Approach Slab Repair (Partial Depth)	Sq. Yd.			6.9
Cleaning and Painting Steel Bridge No. 3	L Sum			1
Bridge Deck Scarification 3/4"	Sq. Yd.	2,452		2,452
Bridge Deck Microsilica Concrete Overlay 2 3/4"	Sq. Yd.	2,452		2,452
Structural Repair of Concrete (Depth Greater than 5 inches)	Sq. Ft.	30	8	38
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	49.8		49.8
Drainage Scuppers to be Adjusted	Each	2		2
Diamond Grinding (Bridge Section)	Sq. Yd.	2,488		2,488

\* Quantity includes overlay and face of parapets.

**GIRDER PAINTING LIMITS TABLE**

Girder No.	Span 1	Span 2	Span 3	Span 4
1	10'-0"	---	---	10'-0"
2	10'-0"	---	---	10'-0"
3	10'-0"	---	---	10'-0"
4	10'-0"	---	---	10'-0"
5	10'-0"	---	---	10'-0"

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DESIGNED - TIM FRIEDERICH	REVISED -
CHECKED - ERIC M. LAGEMANN	REVISED -
DRAWN - TIM FRIEDERICH	REVISED -
CHECKED - ERIC M. LAGEMANN	REVISED -

USER NAME = tsfriederich
PLOT SCALE = NTS
PLOT DATE = 8/17/2017

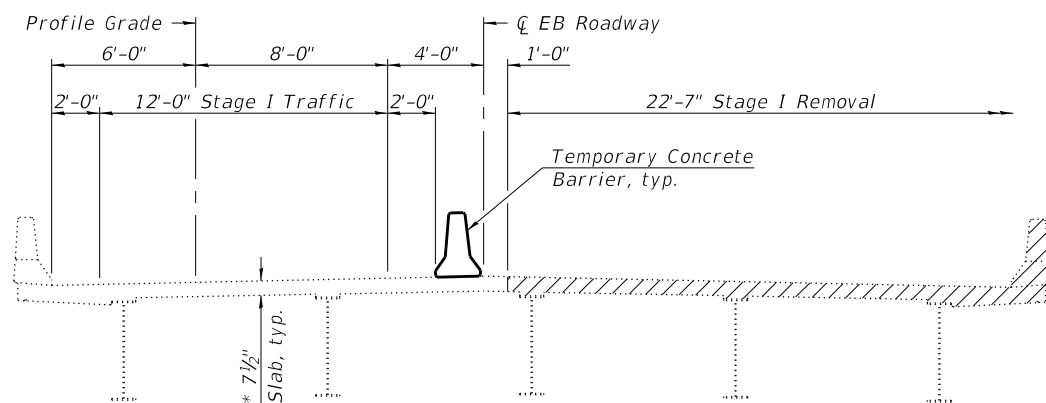
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DEPARTMENT OF TRANSPORTATION**

**GENERAL DATA  
STRUCTURE NO. 075-0118**

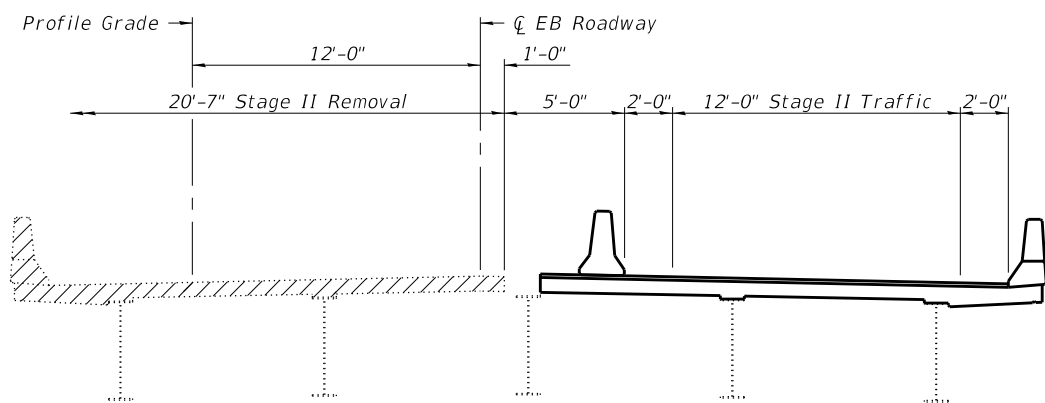
SHEET NO. 2 OF 17 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	80
CONTRACT NO.			72J42	
ILLINOIS FED. AID PROJECT				



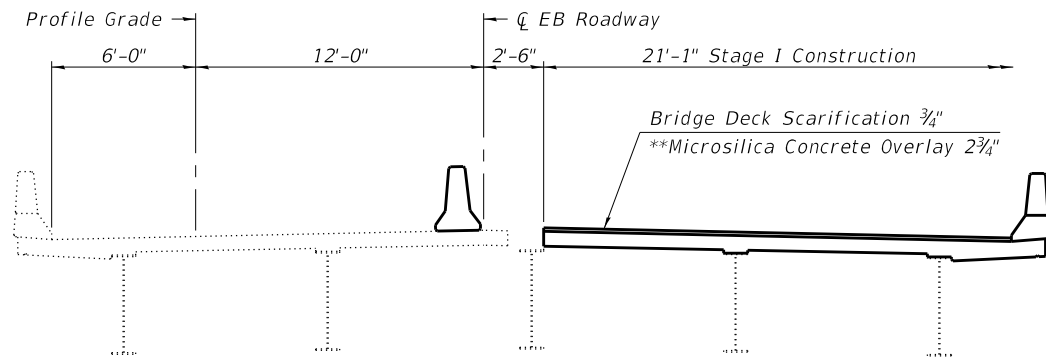


STAGE I REMOVAL



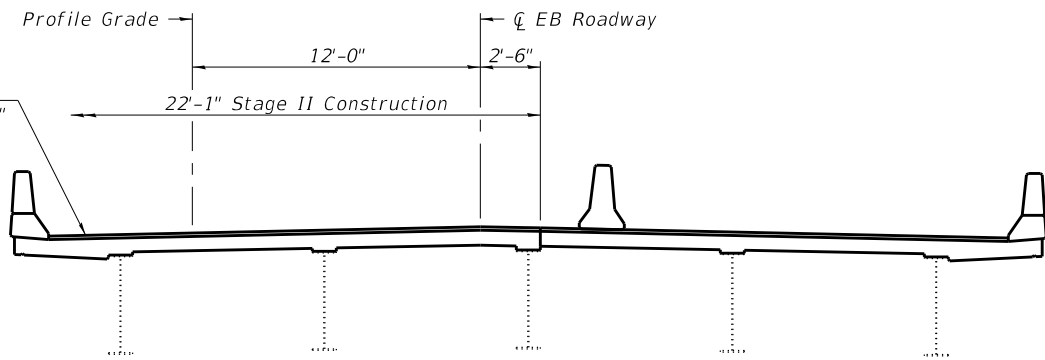
STAGE II REMOVAL

\* Prior to Scarification  
\*\* Prior to Grinding



STAGE I CONSTRUCTION

Bridge Deck Scarification 3/4"  
\*\*Microsilica Concrete Overlay 2 3/4"



STAGE II CONSTRUCTION

Notes:  
All sections are looking east.  
For quantity of Temporary Concrete Barrier, see Roadway Plans.  
Hatched areas indicate Concrete Removal.

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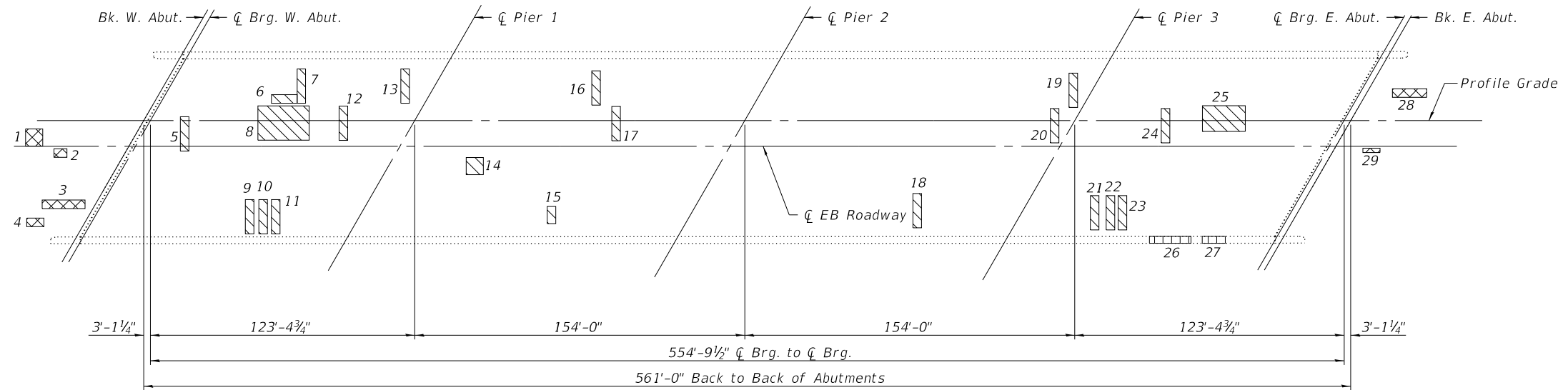
DESIGNED - TIM FRIEDERICH	REVISED -
CHECKED - ERIC M. LAGEMANN	REVISED -
DRAWN - TIM FRIEDERICH	REVISED -
CHECKED - ERIC M. LAGEMANN	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION DETAILS  
STRUCTURE NO. 075-0118

SHEET NO. 3 OF 17 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	81
CONTRACT NO.			72J42	
ILLINOIS FED. AID PROJECT				



**ANTICIPATED DECK SLAB REPAIR  
(FULL DEPTH, TYPE II)**

Patch No.	Length (ft.)	Width (ft.)	Area (sq. yd.)
5	2	8	1.8
6	6	2	1.2
7	2	8	1.8
8	12	8	10.6
9	2	8	1.8
10	2	8	1.8
11	2	8	1.8
12	2	8	1.8
13	2	8	1.8
14	4	4	1.8
15	2	4	0.8
16	2	8	1.8
17	2	8	1.8
18	2	8	1.8
19	2	8	1.8
20	2	8	1.8
21	2	8	1.8
22	2	8	1.8
23	2	8	1.8
24	2	8	1.8
25	10	6	6.6
<b>Total = 49.8</b>			

**ANTICIPATED APPROACH SLAB REPAIR  
(PARTIAL DEPTH)**

Patch No.	Length (ft.)	Width (ft.)	Area (sq. yd.)
1	4	2	0.9
2	3	2	0.7
3	10	2	2.2
4	4	2	0.9
28	8	2	1.8
29	4	1	0.4
<b>Total = 6.9</b>			

**STRUCTURAL REPAIR OF CONCRETE  
(DEPTH GREATER THAN 5 INCHES)**

Patch No.	Area (sq. ft.)
26	20
27	10
<b>Total = 30</b>	

**BILL OF MATERIAL**

Item	Unit	Total
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	49.8
Structural Repair of Concrete (Depth Greater than 5 inches)	Sq. Ft.	30
Approach Slab Repair (Partial Depth)	Sq. Yd.	6.9



**LEGEND**

- Deck Slab Repair (Full Depth, Type II)
- Approach Slab Repair (Partial Depth)
- Structural Repair of Concrete (Depth Greater than 5 inches)

Quantities and repair area shown are estimated. Actual areas to be determined by the Resident Engineer and recorded on the As-Built Plans.

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USER NAME = tsfriederich  
PLOT SCALE = NTS  
PLOT DATE = 8/17/2017

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CHECKED - ERIC M. LAGEMANN

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REVISED -  
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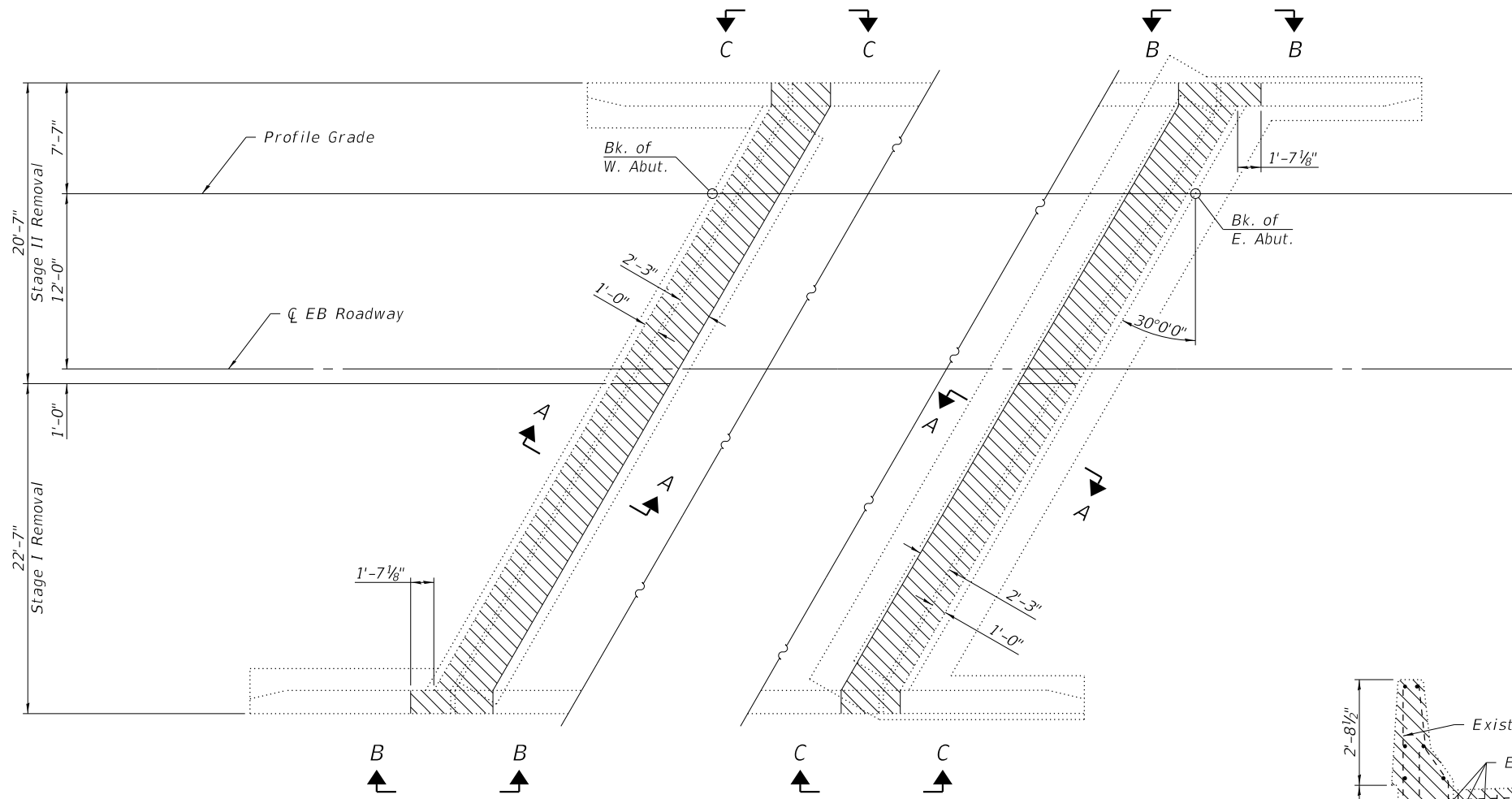
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DECK PATCHING REMOVAL  
STRUCTURE NO. 075-0118**

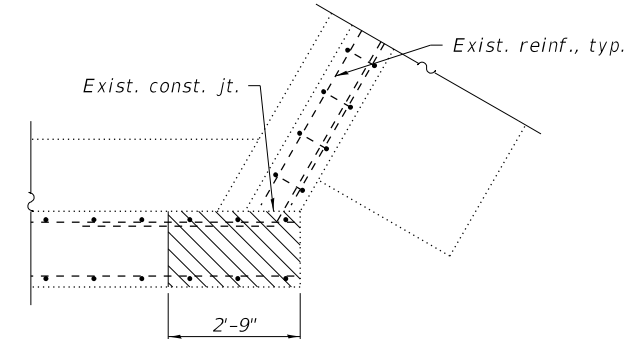
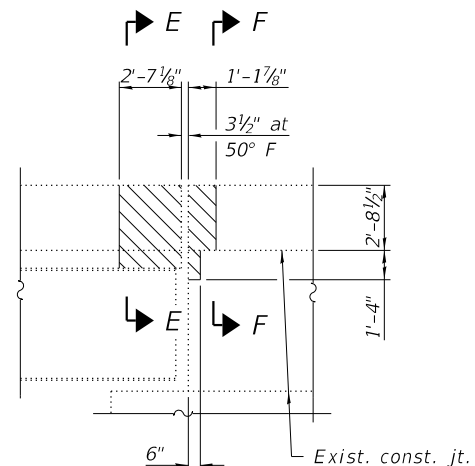
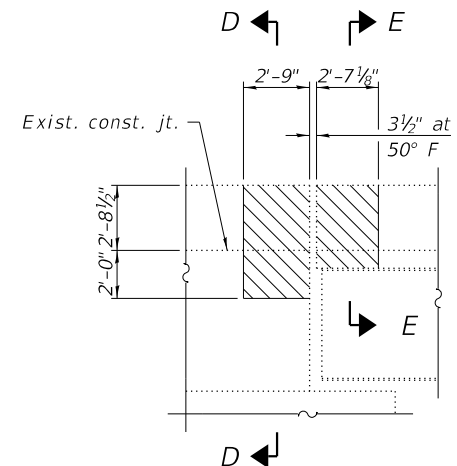
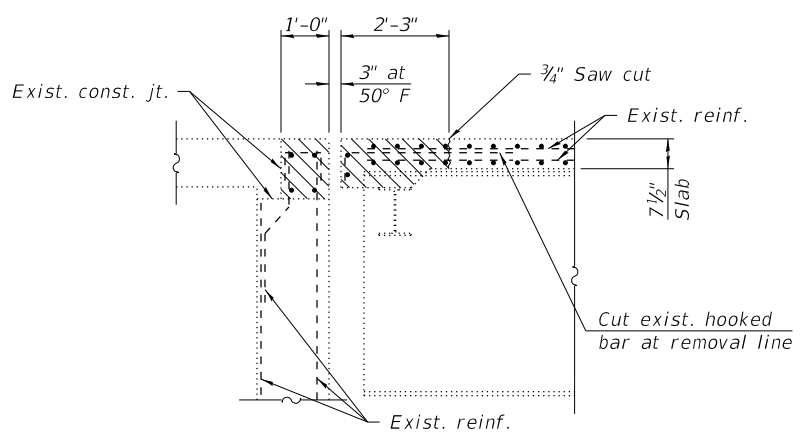
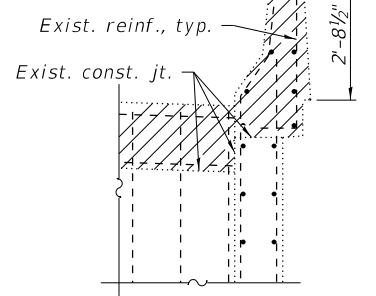
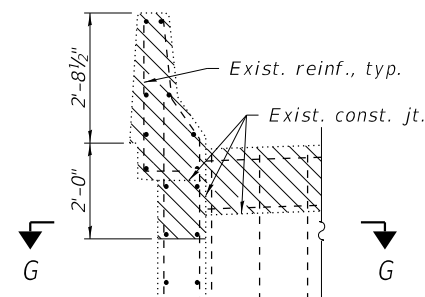
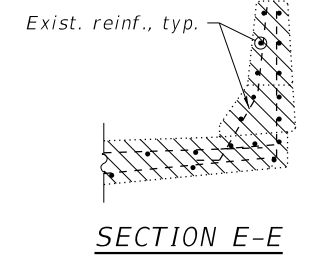
SHEET NO. 4 OF 17 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	82

CONTRACT NO. 72J42  
ILLINOIS FED. AID PROJECT



Denotes concrete removal



**SECTION A-A**  
(Horiz. dim. at right L's)

**VIEW B-B**

**VIEW C-C**

**SECTION D-D**

**SECTION F-F**

**SECTION G-G**

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DESIGNED - TIM FRIEDERICH	REVISED -
CHECKED - ERIC M. LAGEMANN	REVISED -
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CHECKED - ERIC M. LAGEMANN	REVISED -
USER NAME = tsfriederich	
PLOT SCALE = NTS	
PLOT DATE = 8/17/2017	

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

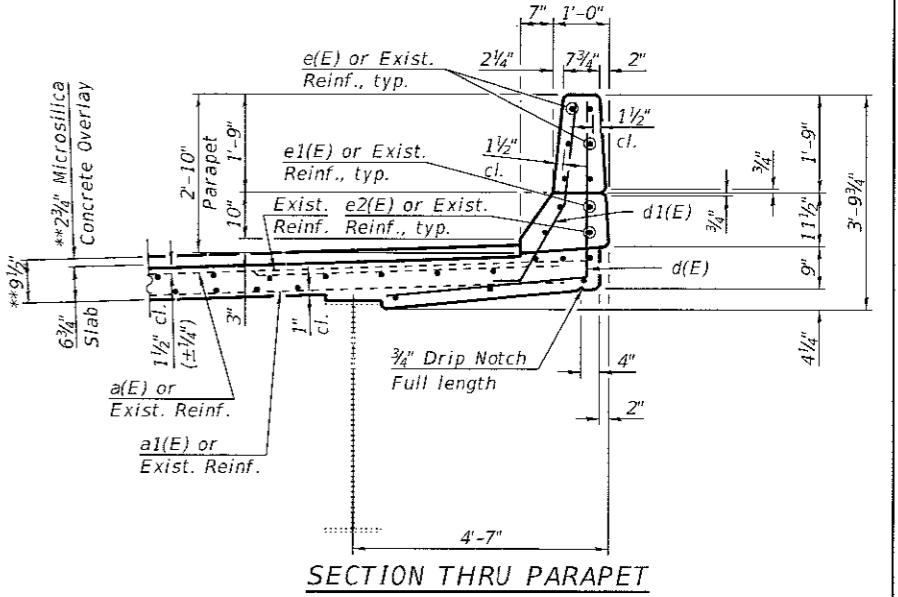
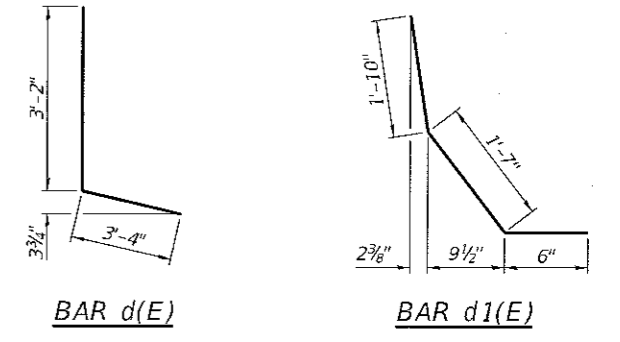
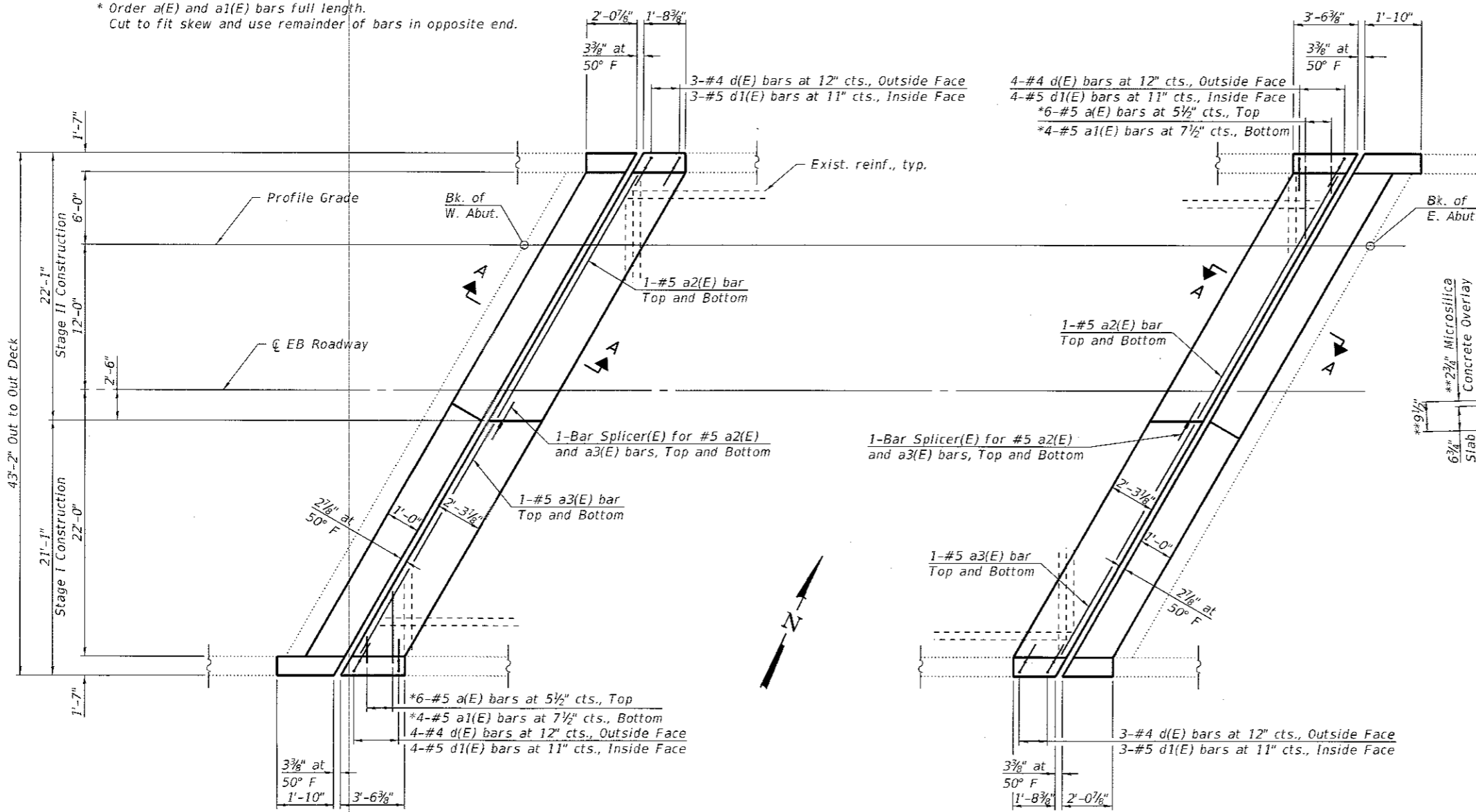
**REMOVAL DETAILS**  
**STRUCTURE NO. 075-0118**

SHEET NO. 5 OF 17 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	83
CONTRACT NO. 72J42				

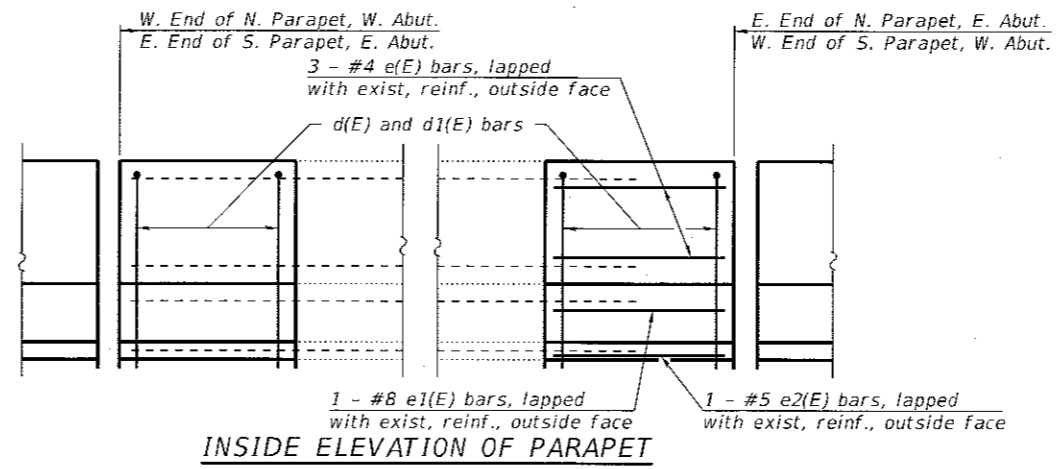
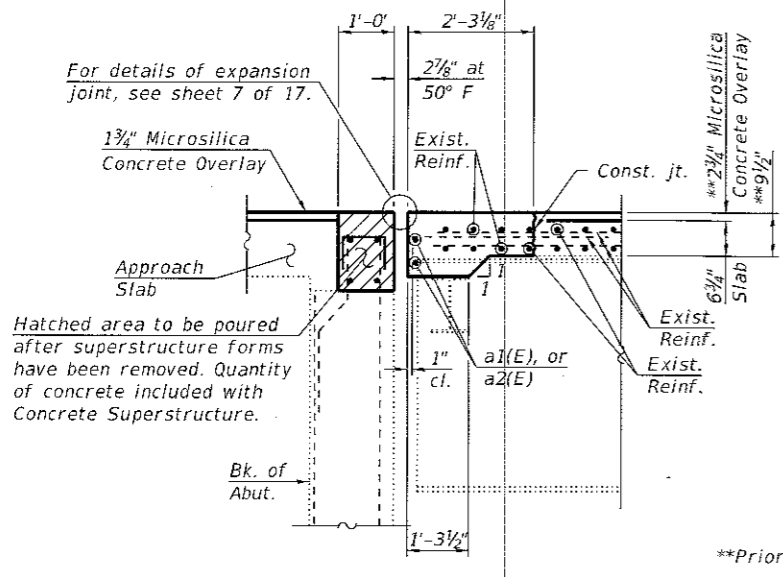
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\* Order a(E) and a1(E) bars full length.  
Cut to fit skew and use remainder of bars in opposite end.



**SUPERSTRUCTURE  
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a(E)	6	#5	6'-5"	—
a1(E)	4	#5	6'-4"	—
a2(E)	4	#5	23'-2"	—
a3(E)	4	#5	22'-0"	—
d(E)	14	#4	6'-6"	L
d1(E)	14	#5	3'-11"	L
e(E)	6	#4	3'-3"	—
e1(E)	2	#8	3'-3"	—
e2(E)	2	#5	3'-3"	—
Concrete Removal			Cu. Yd.	14.2
Concrete Superstructure			Cu. Yd.	16.6
Reinforcement Bars, Epoxy Coated			Pound	410



Notes:  
Dimensions are based on a 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 7 of 17.  
Cut ends of existing reinforcement bars extending into new construction to maintain 1 1/2" minimum clearance.  
For details of Bar Splicers, see sheet 12 of 17.  
For Superstructure Concrete Removal Details, see sheet 5 of 17.

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USER NAME = tfriederich  
 PLOT SCALE = NTS  
 PLOT DATE = 9/21/2017

DESIGNED - TIM FRIEDERICH  
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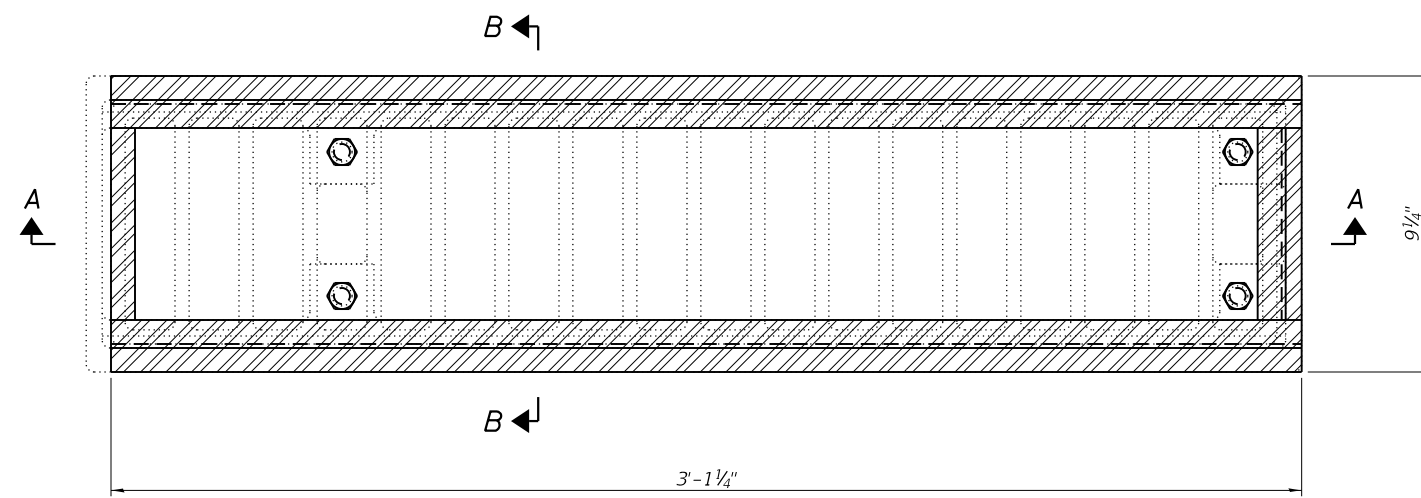
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE REPAIR DETAILS  
 STRUCTURE NO. 075-0118

F.A.I. R.I.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	64

CONTRACT NO. 72J42





PLAN

**GENERAL NOTES**

All structural steel shall be AASHTO M270 Grade 36. The adjusting scupper ring and 3/4" Ø pipe sleeve spacers shall be galvanized.

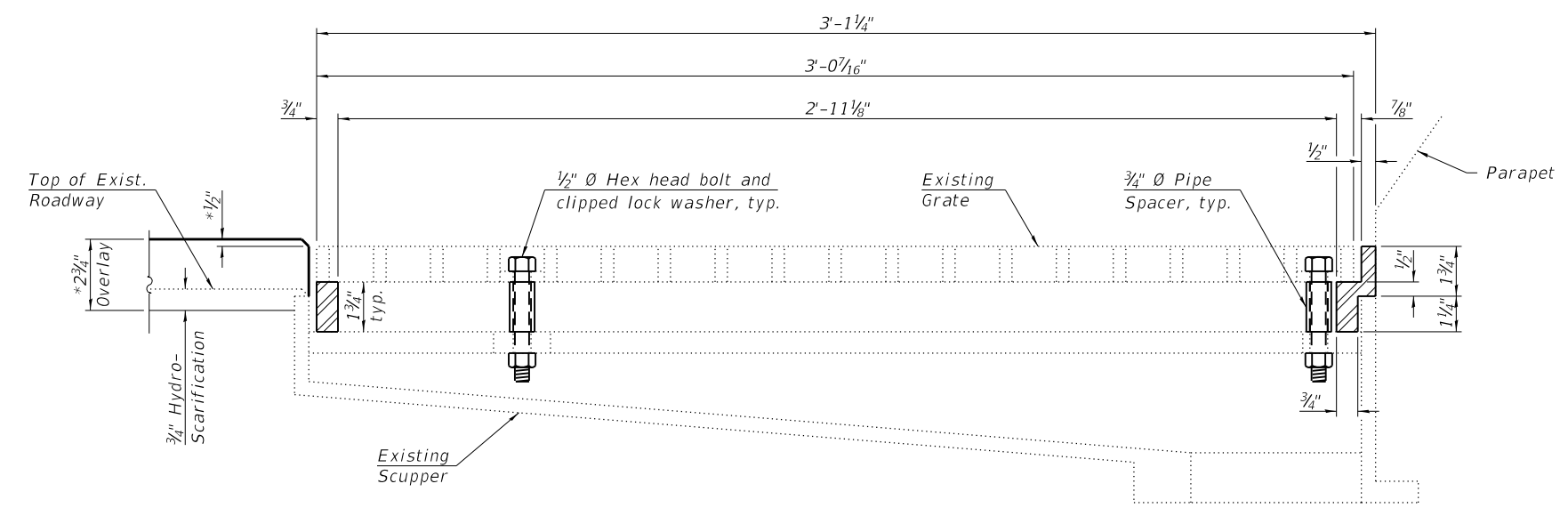
Bolts shall be 1/2" Ø AASHTO M164 Type 1, mechanically galvanized.

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 change in scope of the work, however, the Contractor will be paid for the Quantity actually furnished based at the unit price bid for the work.

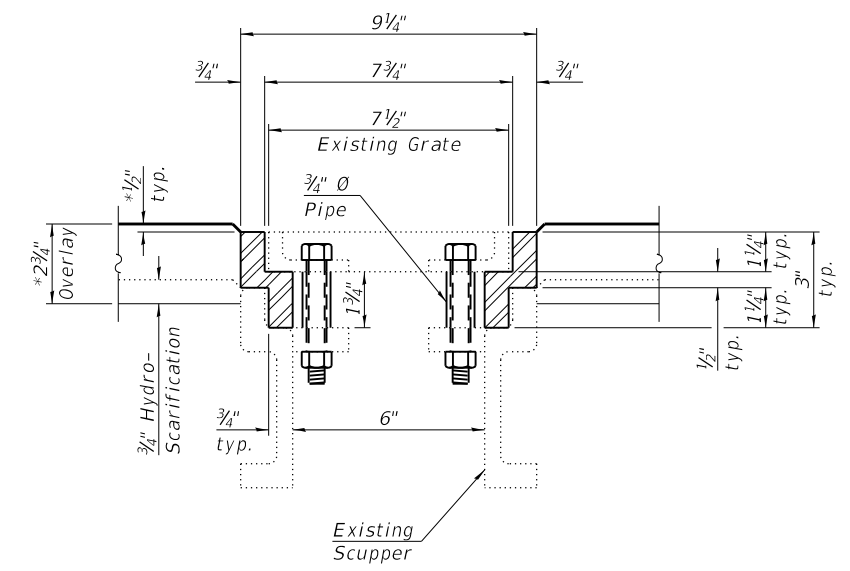
Shop plans for proposed adjusting scupper ring shall be submitted for approval prior to fabrication.

Contractor shall ensure that no damage is done to existing grates to be reused.

Cost of all labor and materials necessary to remove existing grates, clean existing scuppers, install adjusting scupper rings and reinstalling grates is included in the cost per unit each for Drainage Scuppers to be Adjusted.



SECTION A-A



SECTION B-B

\*Prior to grinding

**BILL OF MATERIAL**

Item	Unit	Total
Drainage Scuppers to be Adjusted	Each	2

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USER NAME = tsfriederich  
 PLOT SCALE = NTS  
 PLOT DATE = 8/17/2017

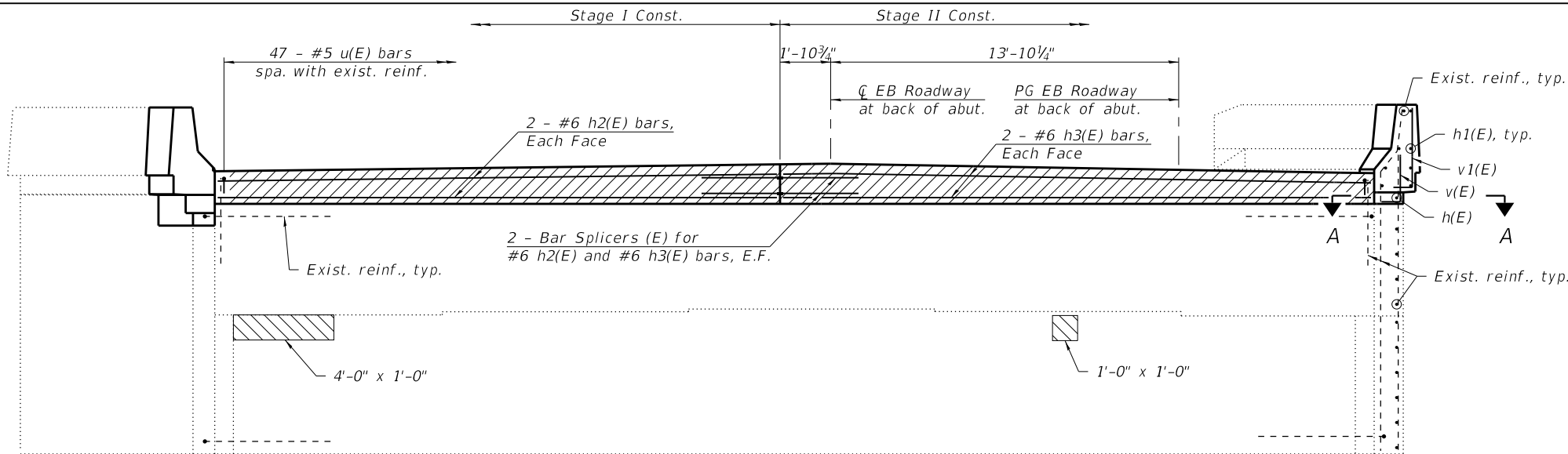
DESIGNED - TIM FRIEDERICH  
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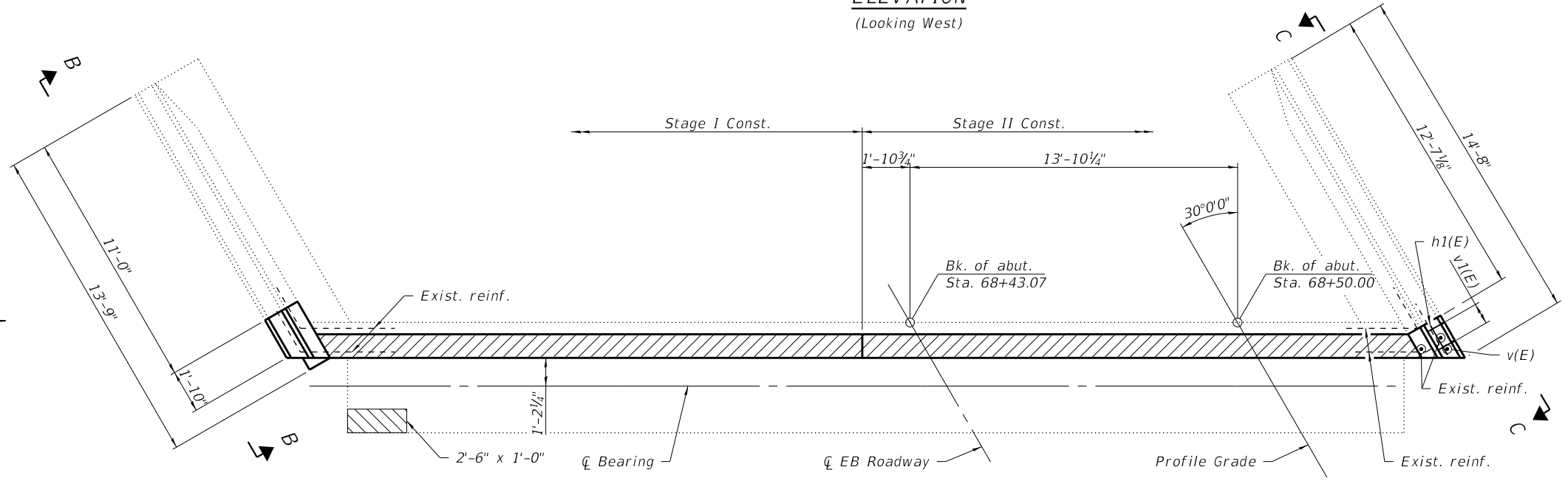
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**ADJUSTING EXISTING SCUPPER**  
**STRUCTURE NO. 075-0118**  
 SHEET NO. 8 OF 17 SHEETS

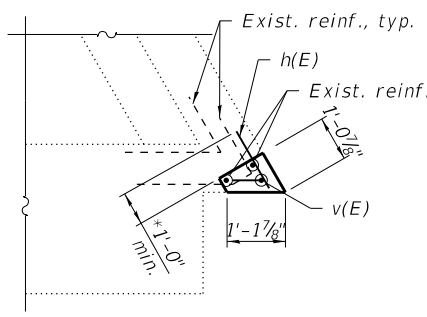
F.A.I R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	86
CONTRACT NO.			72J42	
ILLINOIS FED. AID PROJECT				



**ELEVATION**  
(Looking West)



**TOP VIEW**



**SECTION A-A**

\*Drill and epoxy grout reinforcement according to Section 584 of the Standard Specifications.

Note:  
For Views B-B and C-C, see sheet 11 of 17.

**LEGEND**

- Structural Repair of Concrete (Depth Equal to or Less than 5 inches)
- Structural Repair of Concrete (Depth Greater than 5 inches)

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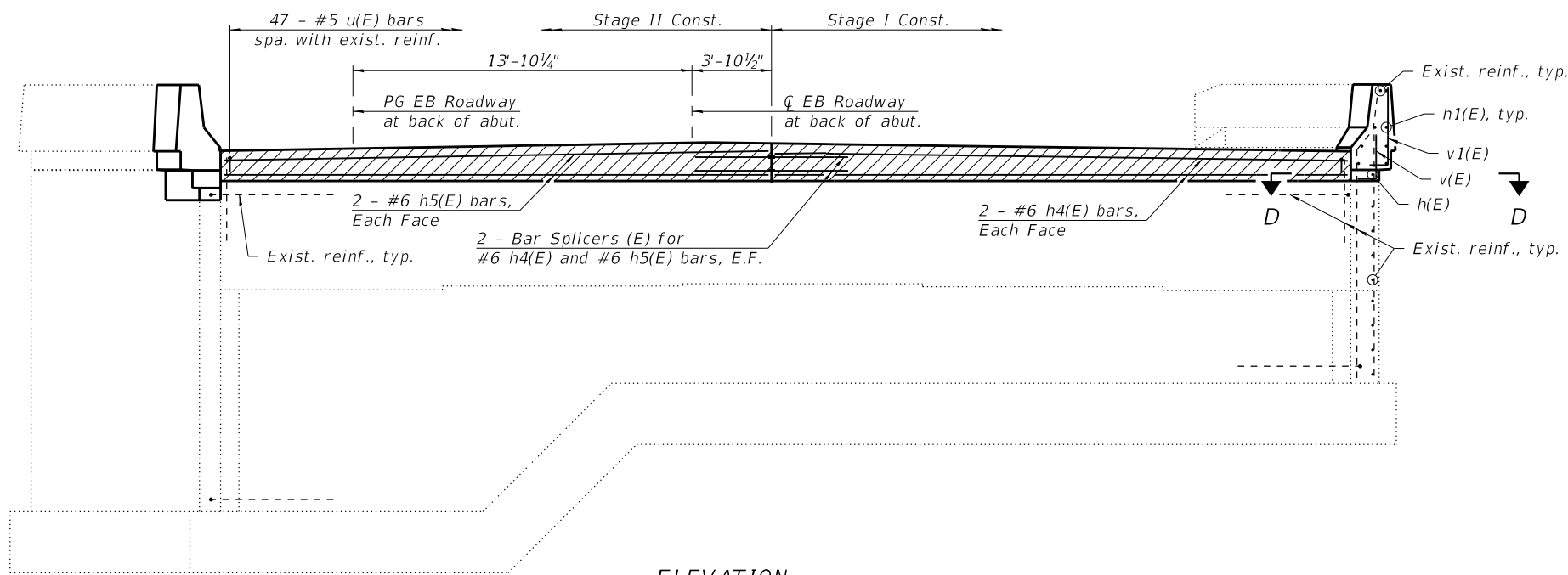
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**WEST ABUTMENT DETAILS**  
**STRUCTURE NO. 075-0118**

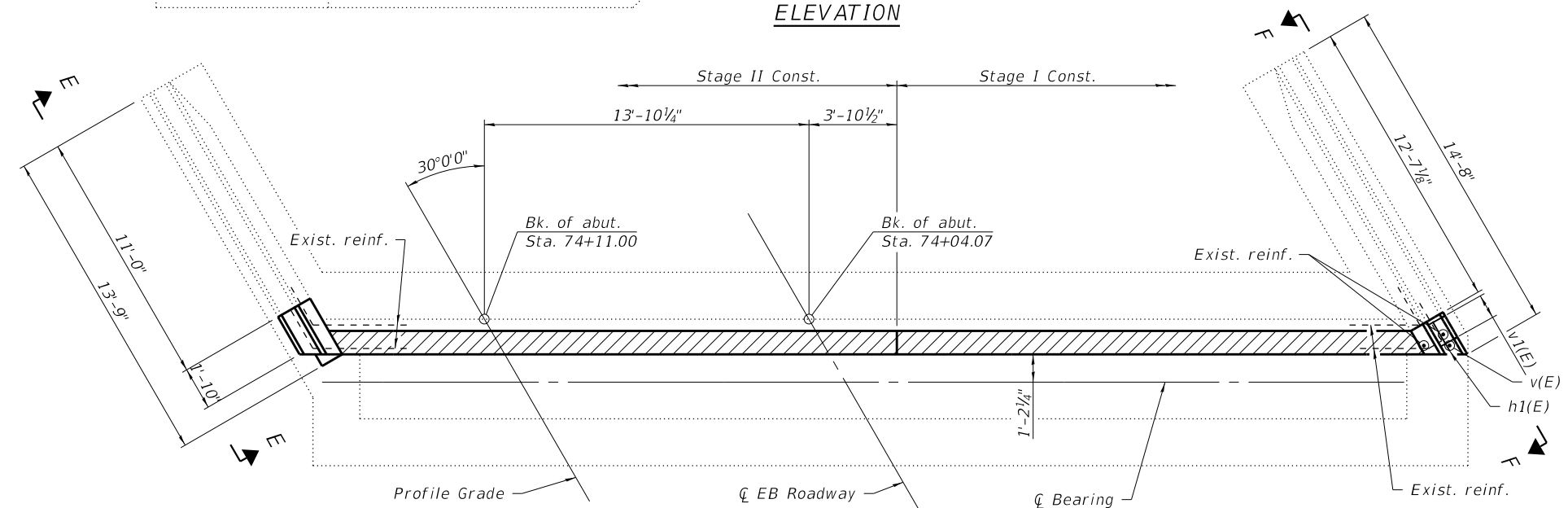
SHEET NO. 9 OF 17 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	87
CONTRACT NO.			72J42	

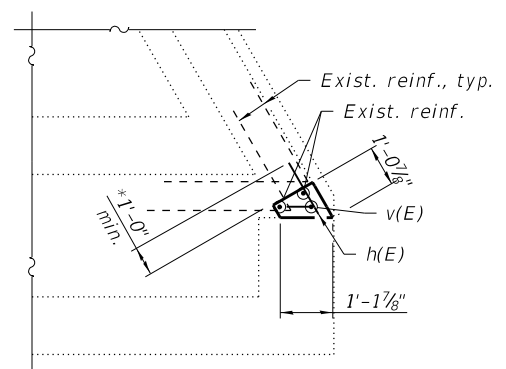
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ELEVATION

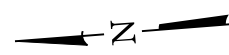


TOP VIEW



SECTION D-D

\*Drill and epoxy grout reinforcement according to Section 584 of the Standard Specifications.



LEGEND

- Structural Repair of Concrete (Depth Equal to or Less than 5 inches)
- Structural Repair of Concrete (Depth Greater than 5 inches)

Note:  
For Views E-E and F-F,  
see sheet 11 of 17.

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CHECKED - ERIC M. LAGEMANN	REVISED -
DRAWN - TIM FRIEDERICH	REVISED -
CHECKED - ERIC M. LAGEMANN	REVISED -
USER NAME = tsfriederich	
PLOT SCALE = NTS	
PLOT DATE = 8/17/2017	

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DEPARTMENT OF TRANSPORTATION

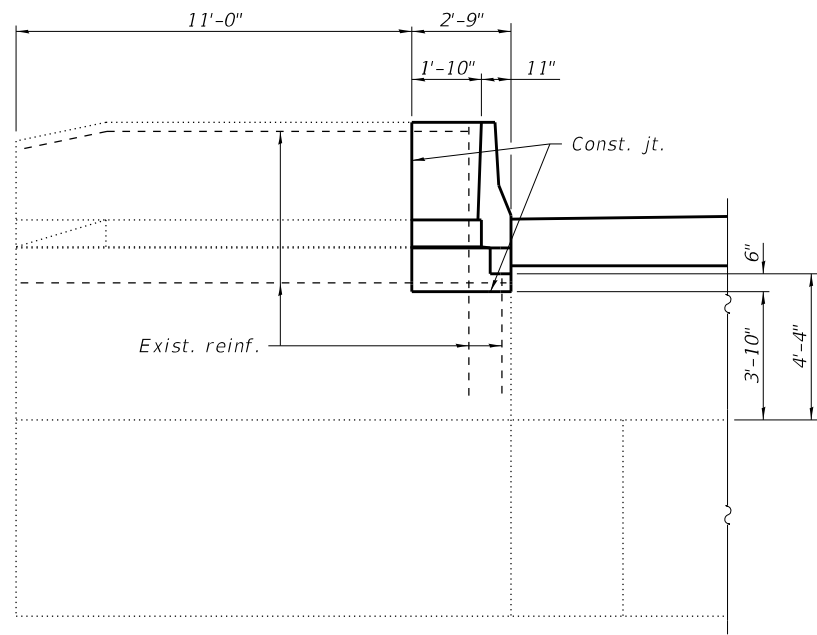
EAST ABUTMENT DETAILS  
STRUCTURE NO. 075-0118

SHEET NO. 10 OF 17 SHEETS

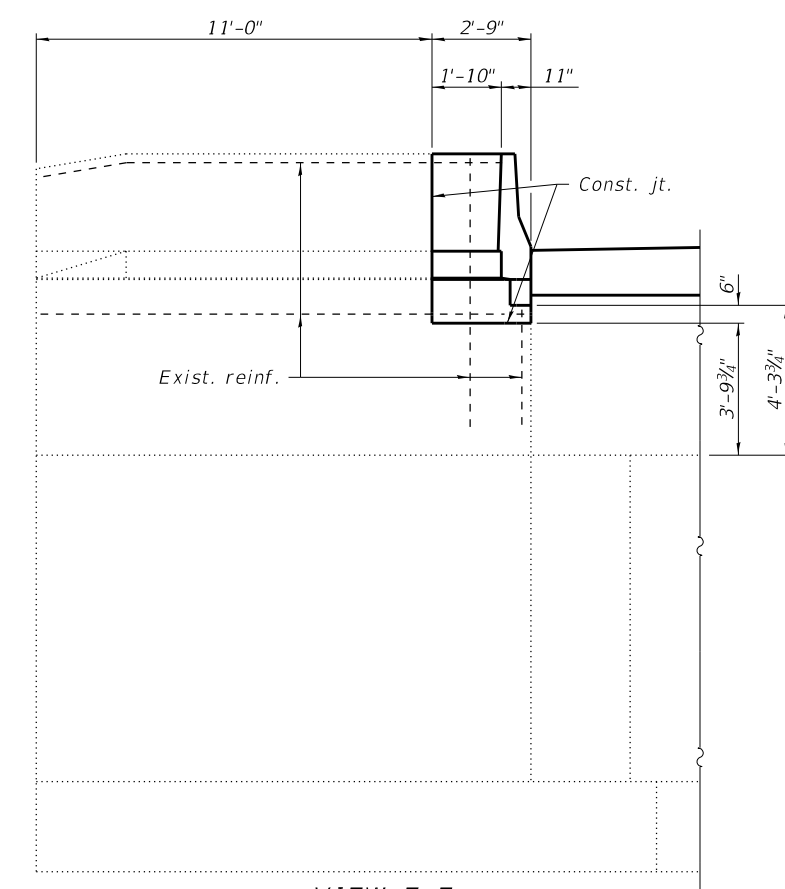
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	88
CONTRACT NO.			72J42	

ILLINOIS FED. AID PROJECT

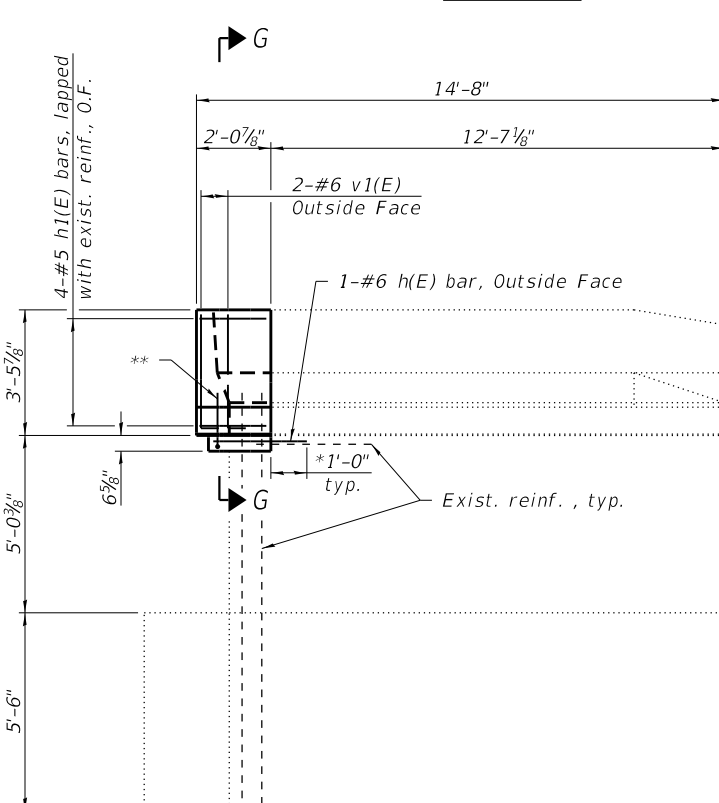




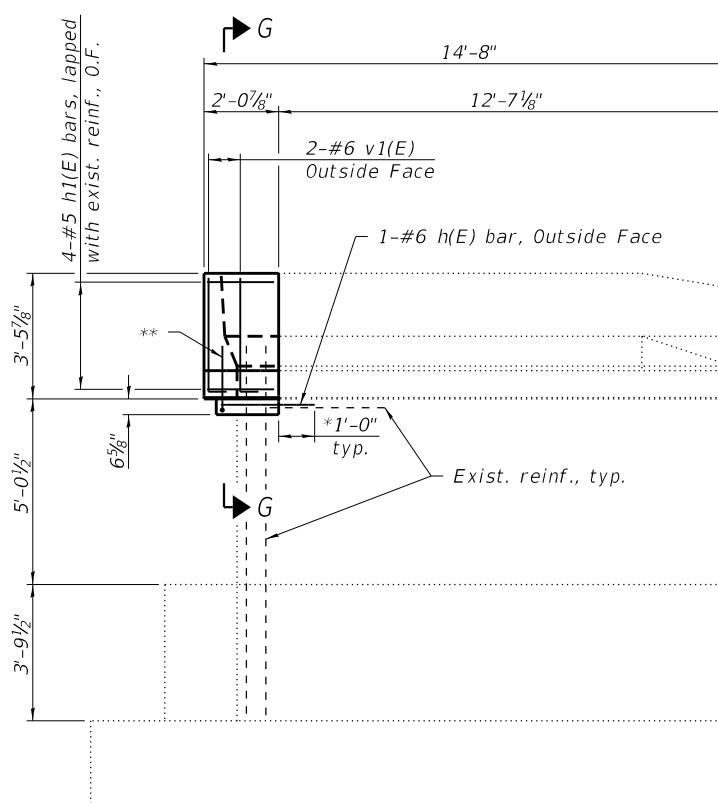
VIEW B-B



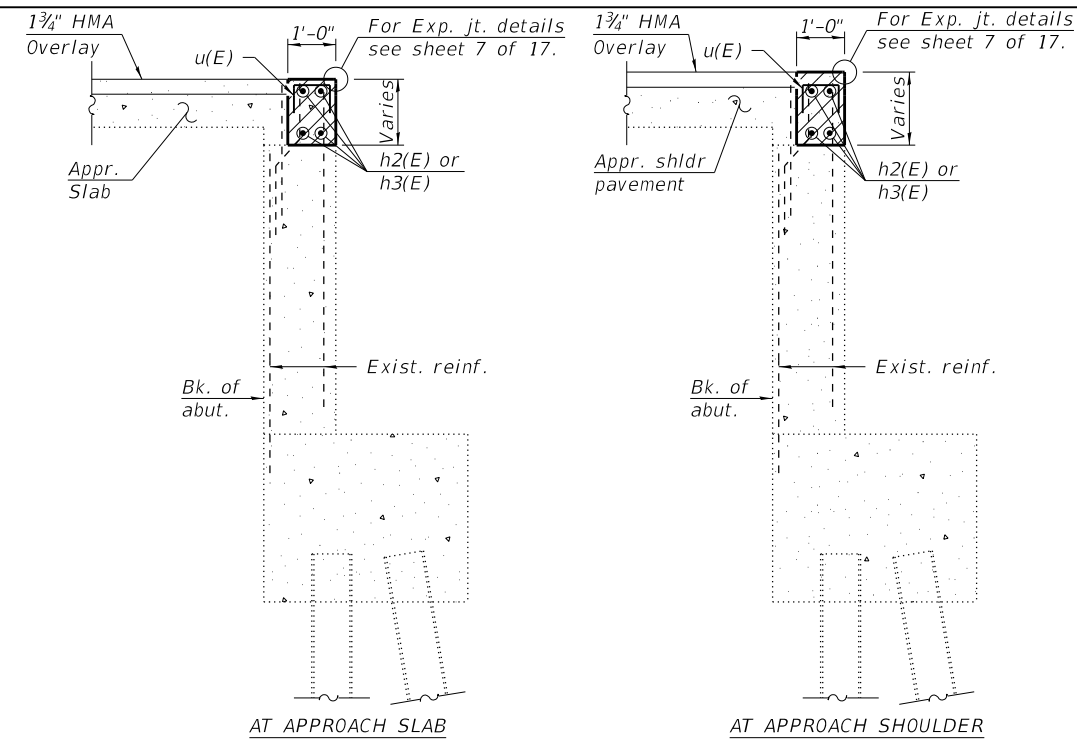
VIEW E-E



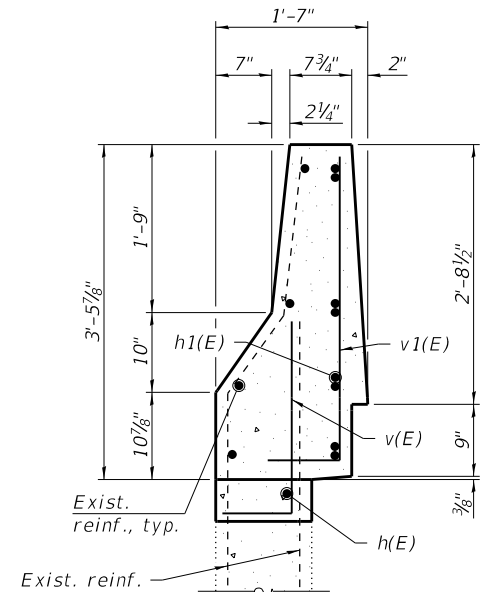
VIEW C-C



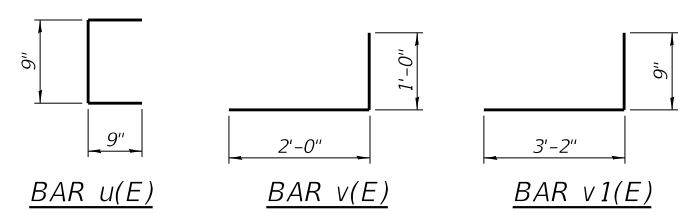
VIEW F-F



SECTION THRU ABUTMENT



SECTION G-G



BAR u(E) BAR v(E) BAR v1(E)

**BOTH ABUTMENTS  
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h(E)	2	#6	1'-9"	—
h1(E)	8	#5	1'-7"	—
h2(E)	4	#6	23'-6"	—
h3(E)	4	#6	23'-10"	—
h4(E)	4	#6	22'-8"	—
h5(E)	4	#6	24'-8"	—
u(E)	94	#5	2'-3"	U
v(E)	2	#6	3'-0"	L
v1(E)	4	#6	3'-11"	L
Concrete Removal			Cu. Yd.	0.3
Reinforcement Bars, Epoxy Coated			Pound	840
Structural Repair of Concrete (Depth Greater than 5 inches)			Sq. Ft.	8

Notes:  
 All new concrete is included with Concrete Superstructure.  
 For Locations of Views B-B and C-C, see sheet 9 of 17.  
 For Location of Views E-E and F-F, see sheet 10 of 17.  
 Cut existing reinforcement to maintain a 1 1/2" minimum clearance.

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USER NAME = tsfriederich  
 PLOT SCALE = NTS  
 PLOT DATE = 8/17/2017

DESIGNED - TIM FRIEDERICH  
 CHECKED - ERIC M. LAGEMANN  
 DRAWN - TIM FRIEDERICH  
 CHECKED - ERIC M. LAGEMANN

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

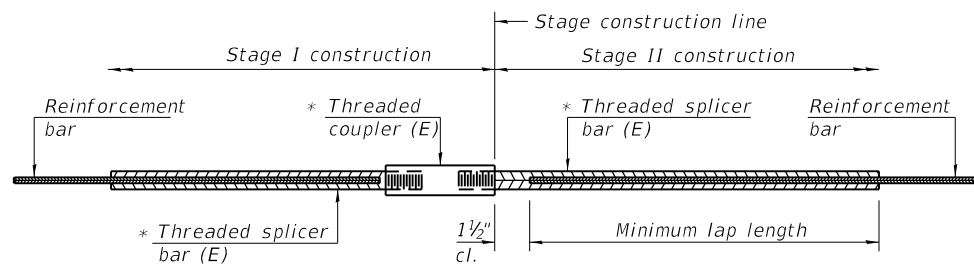
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**ABUTMENT DETAILS  
 STRUCTURE NO. 075-0118**

SHEET NO. 11 OF 17 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	89
CONTRACT NO.			72J42	

ILLINOIS FED. AID PROJECT

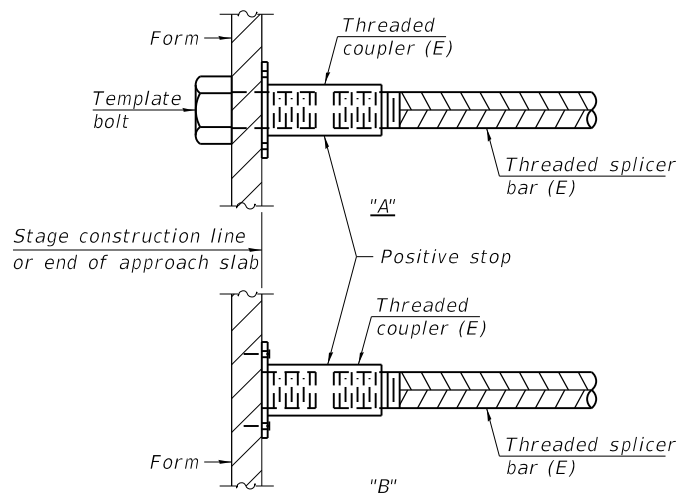


**STANDARD BAR SPLICER ASSEMBLY**

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

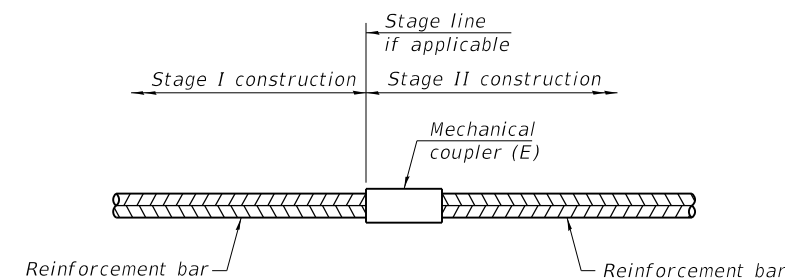
\* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
Deck	#5	4	2'-6"
West Abutment	#6	4	3'-0"
East Abutment	#6	4	3'-0"



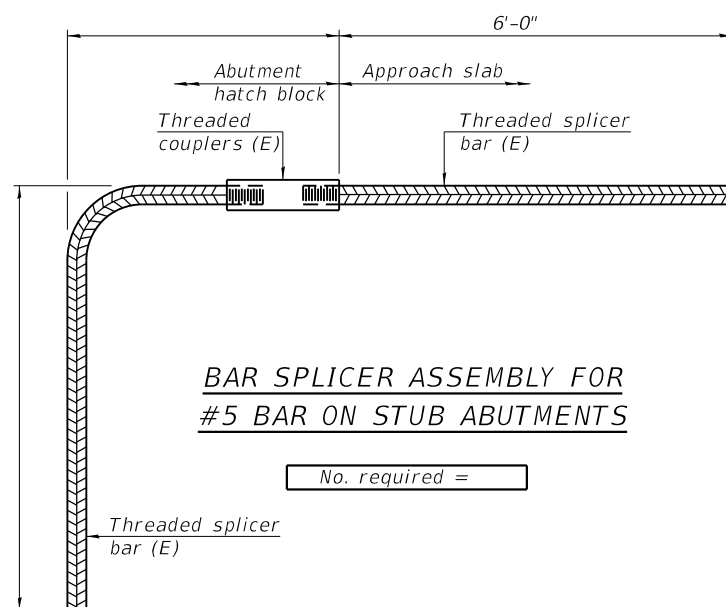
**INSTALLATION AND SETTING METHODS**

"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

2-17-2017



DESIGNED - TIM FRIEDERICH	REVISED -
CHECKED - ERIC M. LAGEMANN	REVISED -
DRAWN - TIM FRIEDERICH	REVISED -
CHECKED - ERIC M. LAGEMANN	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

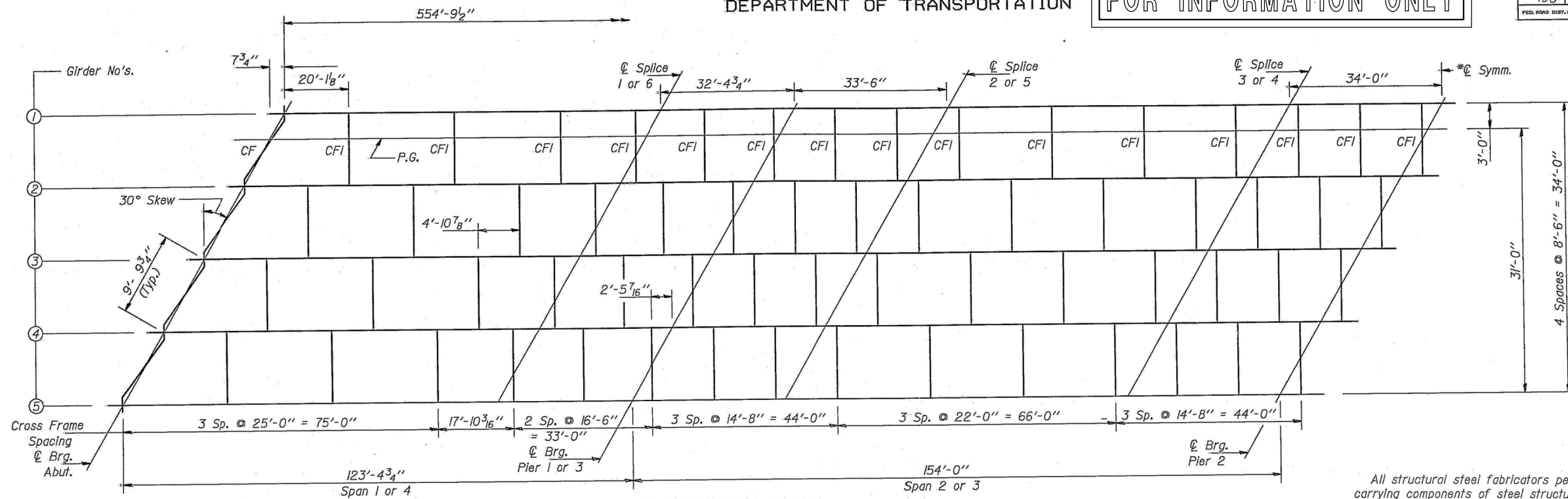
BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS  
STRUCTURE NO. 075-0118

SHEET NO. 12 OF 17 SHEETS

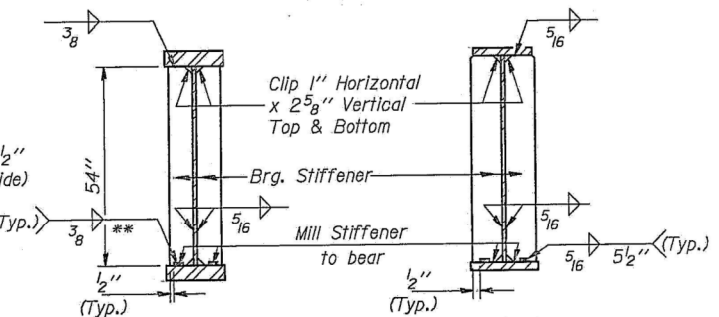
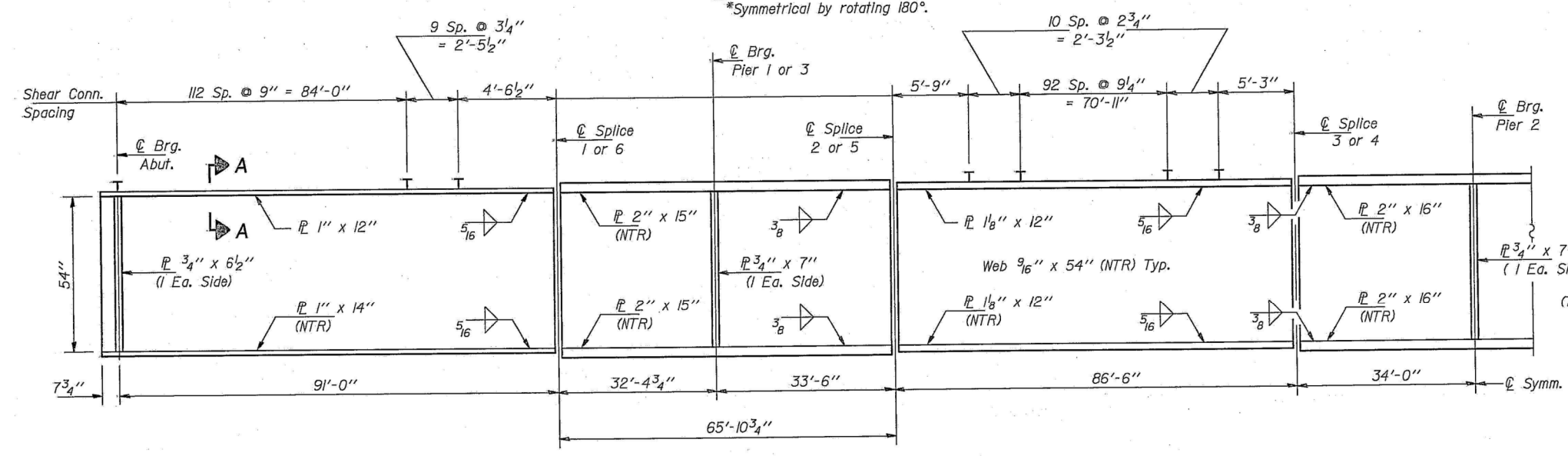
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	90
CONTRACT NO.			72J42	

ILLINOIS FED. AID PROJECT

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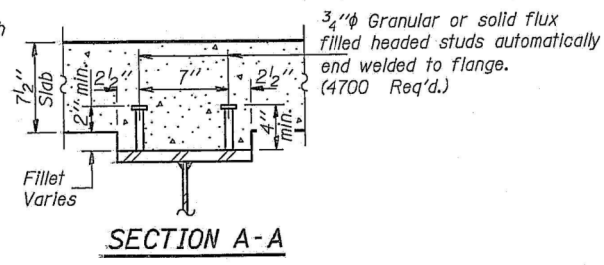


All structural steel fabricators performing work on the main load carrying components of steel structures shall be certified under Category III (AISC) of the Quality Certification Program.



"NTR" denotes plates to which notch toughness are applicable.

All plates shall be AASHTO M 223, Grade 50 except cross frames and connecting plates which are AASHTO M 183.



DESIGNED *Dominic Bolina*  
CHECKED *Shaker Asfour*  
DRAWN *Joe Sutherland*  
CHECKED *Shaker Asfour*

EXAMINED *Eric M. Lagemann*  
PASSED *James J. Reynolds*  
APPROVED *Eric M. Lagemann*  
DIRECTOR OF HIGHWAYS

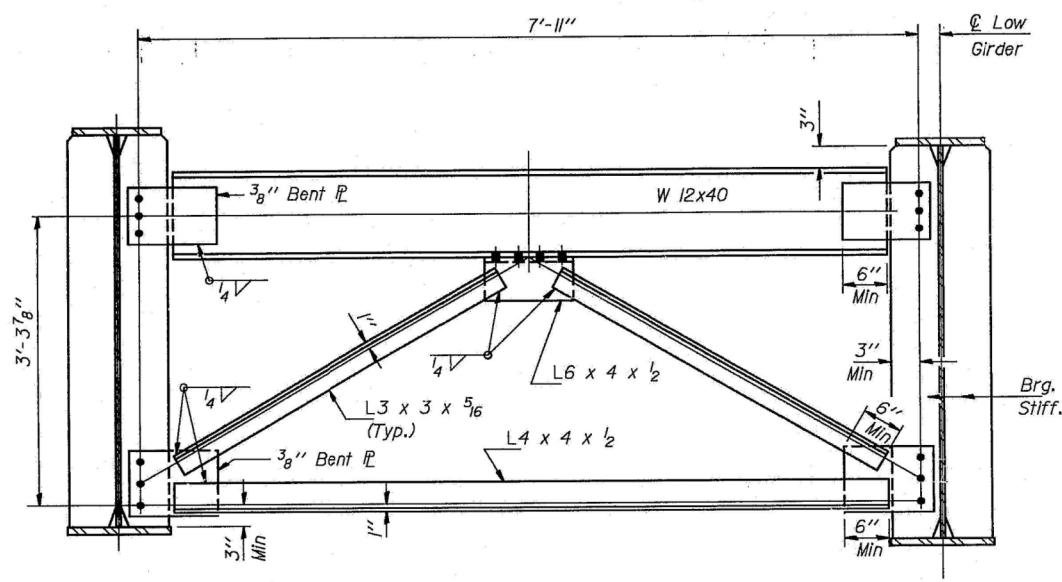
Sept 11 1987

**FRAMING PLAN**  
F.A. RT. 408 SEC. 75-6B-1  
PIKE COUNTY  
STATION 71+30.50

FOR INFORMATION ONLY

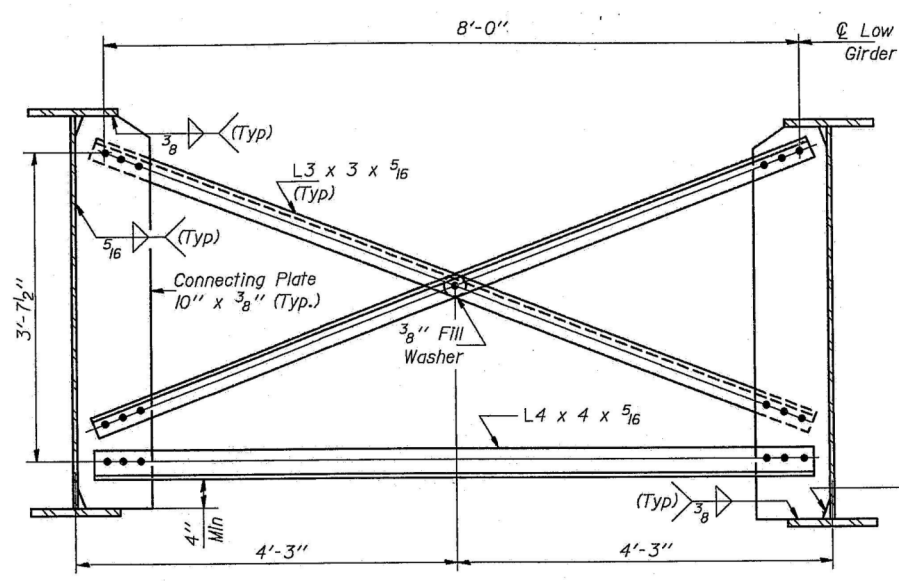
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
75-6B-1	PIKE	511	242	23
SHEET NO. 13				
23 SHEETS				



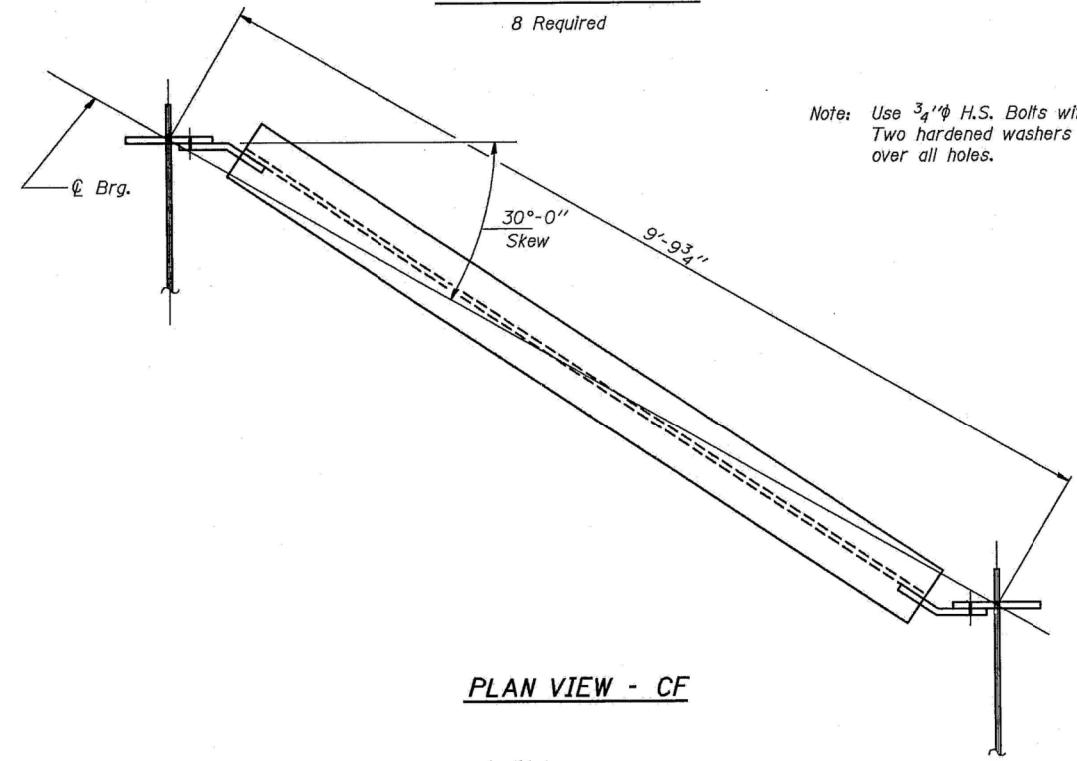
CROSS FRAME - CF

8 Required



CROSS FRAME - CFI

116 Required



PLAN VIEW - CF

Note: Use 3/4" H.S. Bolts with 15/16" holes. Two hardened washers shall be required over all holes.

**TOP OF WEB ELEVATIONS**

Location	Girder	1	2	3	4	5
Brig. W. Abut.		506.32	506.50	506.60	506.49	506.35
Splice 1		505.83	506.00	506.09	505.97	505.82
Brig. Pier 1		505.64	505.81	505.89	505.77	505.62
Splice 2		505.62	505.79	505.87	505.75	505.60
Splice 3		505.36	505.53	505.61	505.49	505.34
Brig. Pier 2		505.17	505.33	505.42	505.30	505.15
Splice 4		505.16	505.32	505.41	505.29	505.14
Splice 5		504.90	505.06	505.14	505.03	504.88
Brig. Pier 3		504.72	504.88	504.96	504.84	504.69
Splice 6		504.72	504.88	504.96	504.84	504.69
Brig. E. Abut.		504.51	504.67	504.75	504.64	504.48

For fabrication purposes only. Elevations at splices have been adjusted for camber.

Clip 1" Horizontal x 2 5/8" Vertical (Typ.) Top & Bottom.

**INTERIOR GIRDER MOMENT TABLE**

	0.4 Sp. #1 or 0.6 Sp. #4	Pier 1 or Pier 3	.5 Sp. #2 or .5 Sp. #3	Pier 2
$I_s$ (in <sup>4</sup> )	26992	54441	27896	57578
$I_c$ (in <sup>4</sup> )	63409	-	62847	-
$S_s$ (in <sup>3</sup> )	999	1877	992	1985
$S_c$ (in <sup>3</sup> )	1374	-	1348	-
$\phi$ (K/ft.)	1.064	1.494	1.095	1.459
$M\phi$ (K)	970	3130	810	3154
$s\phi$ (K/ft.)	.364	-	.364	-
$M_s\phi$ (K)	392	-	372	-
$M_t$ (K)	1242	1431	1267	1585
$M$ (Imp) (K)	250	272	227	284
$S_3(M_t + I)$ (K)	2487	2839	2490	3116
$M_a$ (K)	5004	7760	4774	8151
$f_s\phi$ non-comp (k.s.i.)	11.7	20.0	9.8	19.1
$f_s\phi$ (comp) (k.s.i.)	3.4	-	3.3	-
$f_s S_3 (t + I)$ (k.s.i.)	21.7	18.2	22.2	18.8
$f_s$ (Overload) (k.s.i.)	36.8	38.2	35.3	37.9
$f_s$ (Total) (k.s.i.)	47.8	49.6	45.9	49.3
VR (K)	67.7	-	66.1	-

$I_s$  and  $S_s$  are the moment of inertia and section modulus of the steel section used in computing  $f_s$  (Total & Overload).  
 $I_c$  and  $S_c$  are the moment of inertia and section modulus of the composite section used in computing  $f_s$  (Total & Overload).  
 VR is the maximum Live Load + Impact shear range in span.  
 $M_a$  (Applied Moment) =  $1.3IM\phi + Ms\phi + S_3(M_t + I)$ .  
 $f_s$  (Overload) is the sum of the stresses due to  $M\phi + Ms\phi + S_3(M_t + I)$ .  
 $f_s$  (Total) (Non-compact section) is the sum of the stresses due to  $1.3IM\phi + Ms\phi + S_3(M_t + I)$ .  
 $M\phi$  - Moment due to dead loads on non-composite section.  
 $M_s\phi$  - Moment due to dead loads on non-composite section.  
 $M_t$  - Moment due to live loads on non-composite or composite section.  
 I - Live load impact.

**INTERIOR GIRDER REACTION TABLE**

	Abuts.	Pier 1 or 3	Pier 2
$R\phi$ (K)	62.9	225.7	225.0
$R_t$ (K)	50.5	102.3	106.2
Imp. (K)	10.2	19.5	19.0
$R$ (Total) (K)	123.6	347.5	350.2

DESIGNED *Shaker Asfour*  
 CHECKED *Shaker Asfour*  
 DRAWN *Joe Sutherland*  
 CHECKED *Shaker Asfour*

EXAMINED *Eric M. Lagemann*  
 PASSED *James J. Sutherland*  
 APPROVED *Eric M. Lagemann*

Sept 11 19 87

STRUCTURAL STEEL DETAILS  
 F.A. RT. 408 SEC. 75-6B-1  
 PIKE COUNTY  
 STATION 71+30.50

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DESIGNED - TIM FRIEDERICH  
 CHECKED - ERIC M. LAGEMANN  
 DRAWN - TIM FRIEDERICH  
 CHECKED - ERIC M. LAGEMANN

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING FRAMING PLAN AND BEARING SHEETS  
 STRUCTURE NO. 075-0118

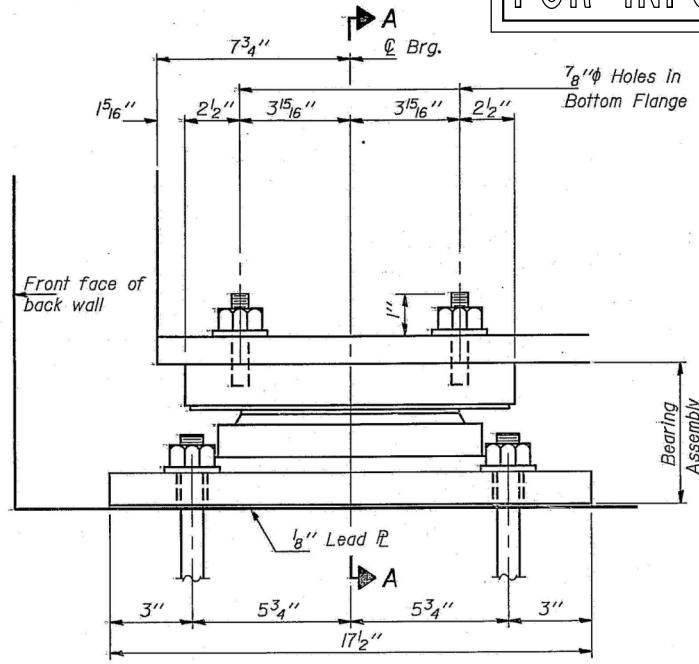
SHEET NO. 14 OF 17 SHEETS

F.A.1 RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	92
CONTRACT NO.			72J42	
ILLINOIS FED. AID PROJECT				

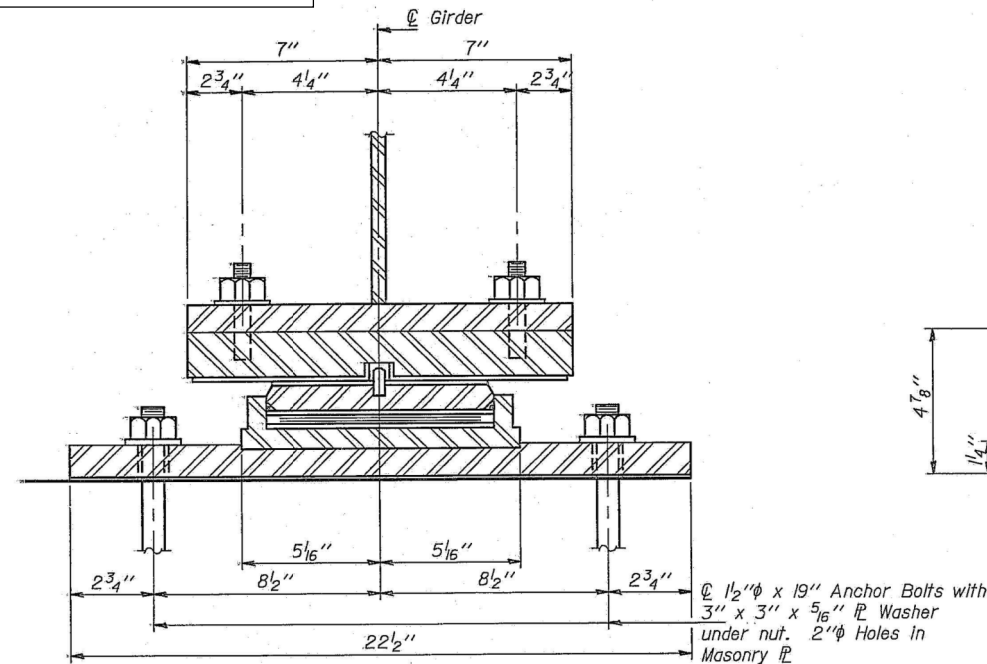
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DEPARTMENT OF TRANSPORTATION

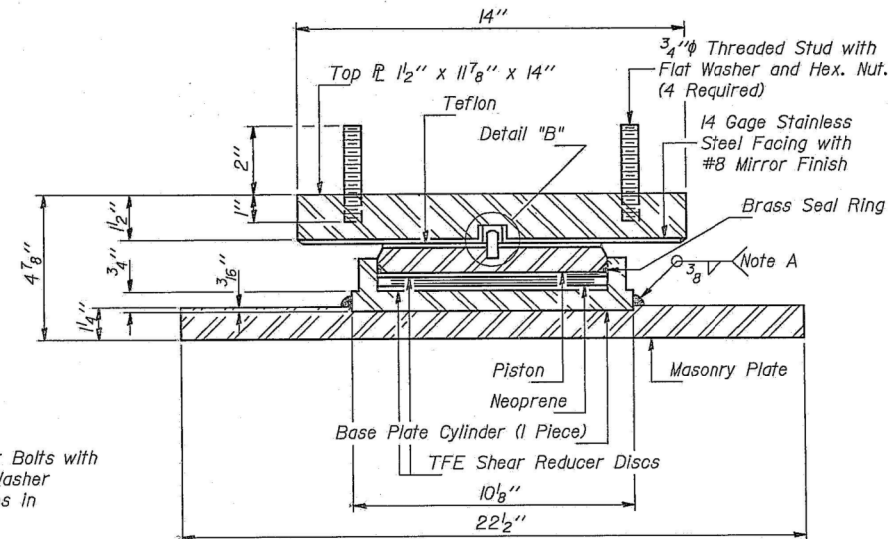
ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET NO.
75-408	6B-1	PIKE	511	243
SHEET NO. 14				
23 SHEETS				



ELEVATION AT BOTH ABUTMENTS

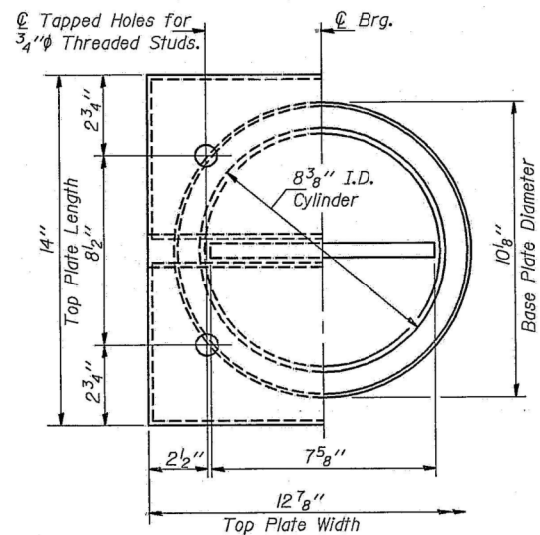


SECTION A-A

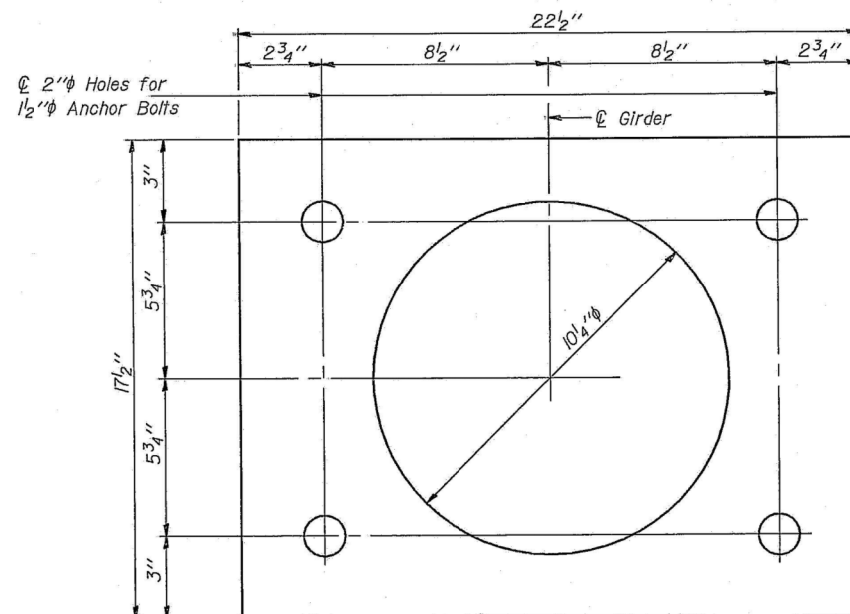


BEARING ASSEMBLY

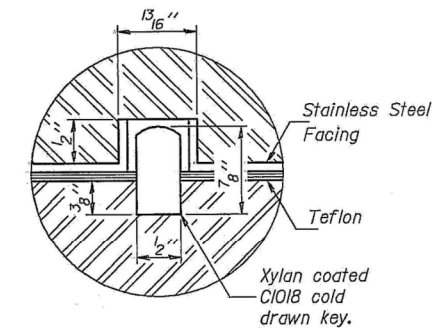
Note A: Weld in field after bearing is self aligned during first movement.



CUT-AWAY PLAN  
(Half of Top Plate shown)



MASONRY PLATE DETAIL



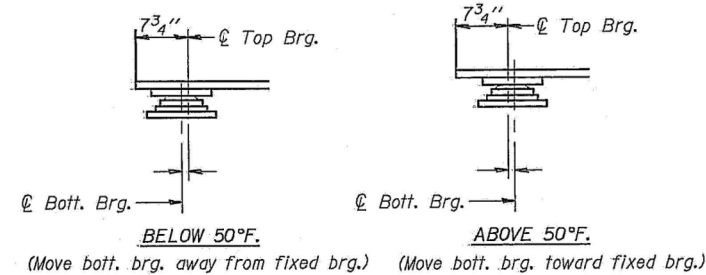
DETAIL "B"

BEARING DATA			
R <sub>1</sub>	(k)	62.9	
R <sub>2</sub>	(k)	50.5	
Imp.	(k)	10.2	
R Total	(k)	123.6	
Expansion Lengths		277'-4 3/4"	

BILL OF MATERIAL  
FOR BOTH ABUTMENTS

Item	Unit	Total
Floating Bearings, Guided Expansion, 150K	Each	10

BEARING DETAILS  
EAST & WEST ABUTMENTS  
F.A. RT. 408 SEC. 75-6B-1  
PIKE COUNTY  
STA. 71+30.50



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.

Note: The plates of the Bearing Assembly shall be AASHTO M 223, Grade 50. For anchor bolt installation details see sheet 17 of 23.

DESIGNED	<i>Dominic Balis</i>	EXAMINED	<i>Eric M. Lagemann</i>
CHECKED	<i>Shaker Asfour</i>	PASSED	<i>James J. Kuyumjian</i>
DRAWN	<i>Joe Sutherland</i>	APPROVED	<i>Eric M. Lagemann</i>
CHECKED	<i>Shaker Asfour</i>		

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USER NAME = tsfriederich  
PLOT SCALE = NTS  
PLOT DATE = 8/17/2017

DESIGNED - TIM FRIEDERICH  
CHECKED - ERIC M. LAGEMANN  
DRAWN - TIM FRIEDERICH  
CHECKED - ERIC M. LAGEMANN

REVISED -  
REVISED -  
REVISED -  
REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

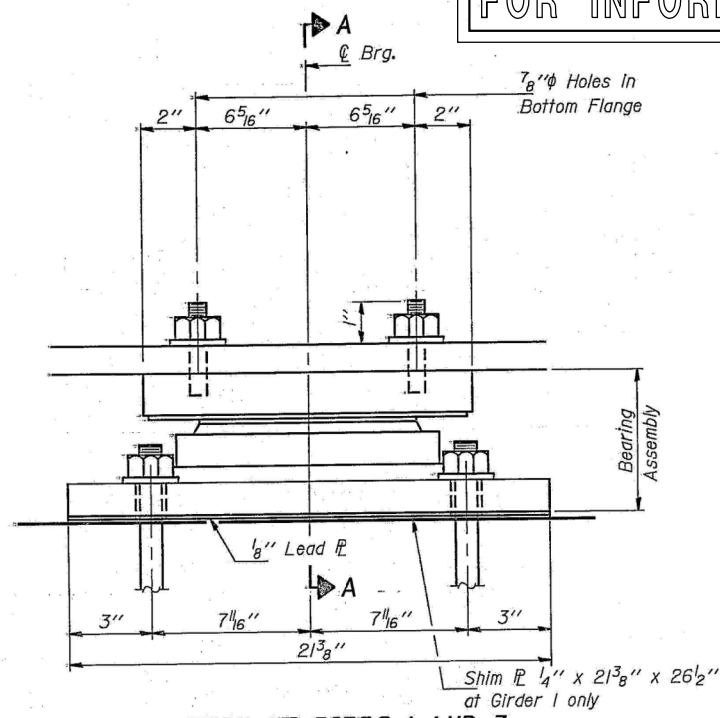
EXISTING FRAMING PLAN AND BEARING SHEETS  
STRUCTURE NO. 075-0118

SHEET NO. 15 OF 17 SHEETS

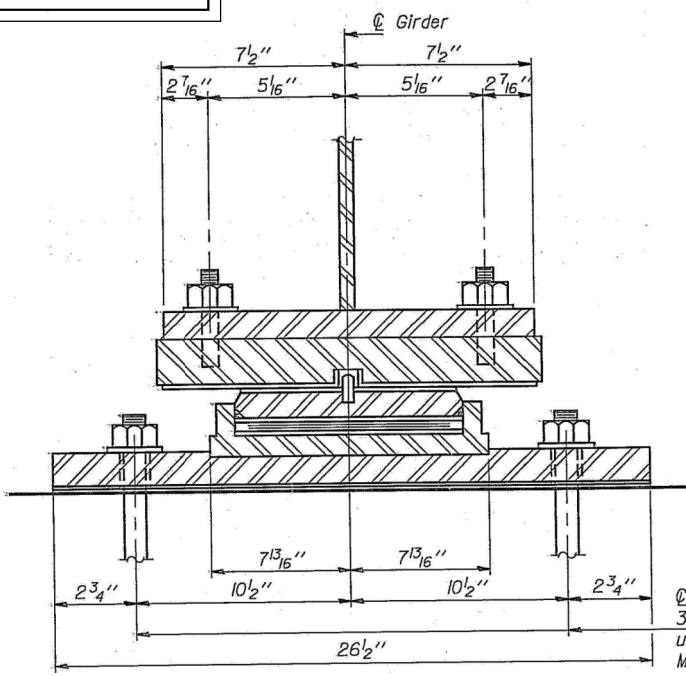
F.A.1 RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	93
CONTRACT NO.				72J42
ILLINOIS FED. AID PROJECT				

FOR INFORMATION ONLY

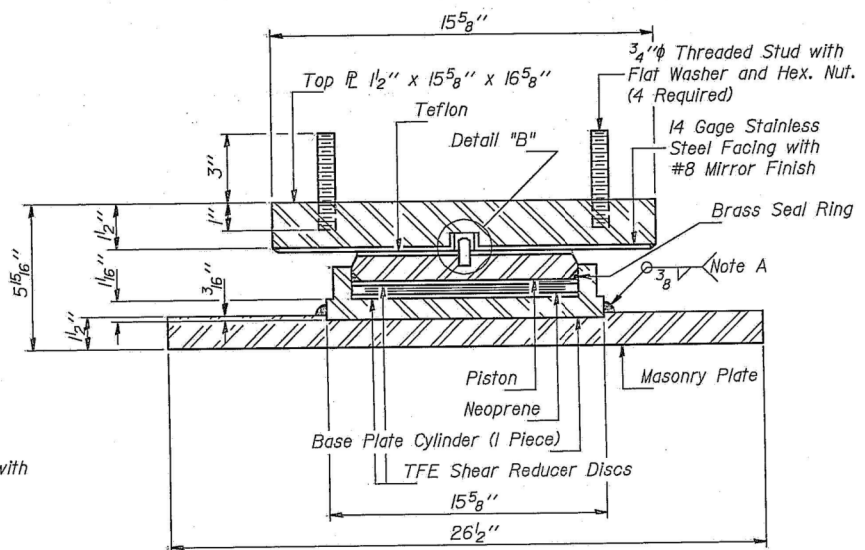
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



ELEVATION AT PIERS 1 AND 3  
(Looking North)

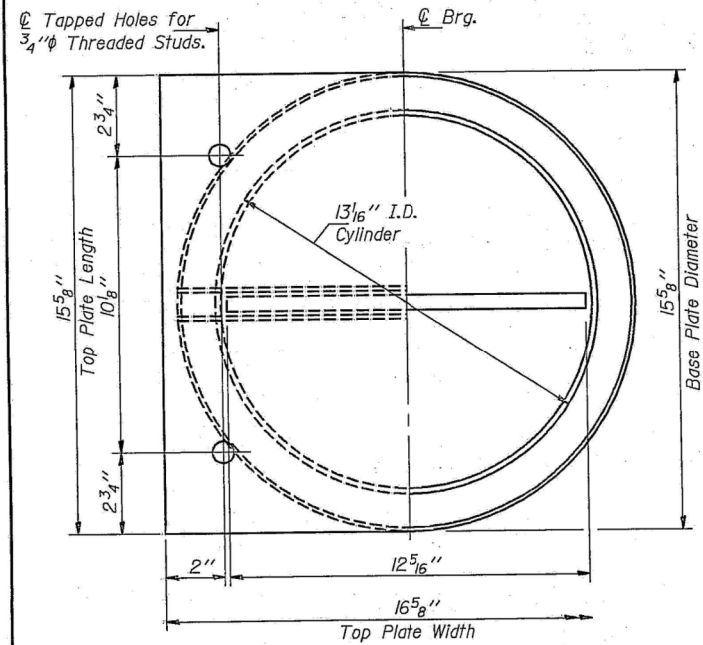


SECTION A-A

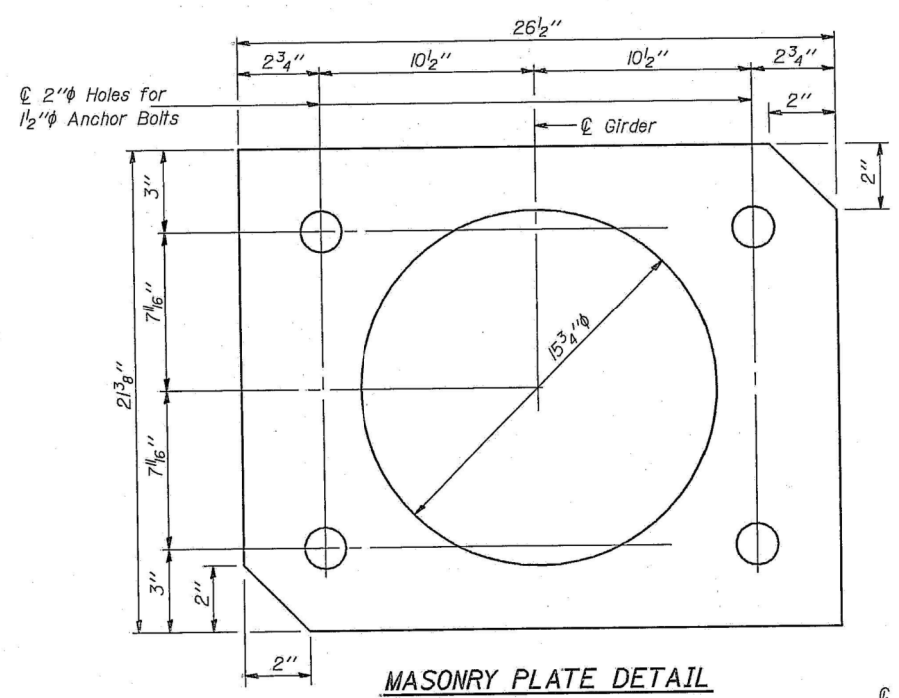


BEARING ASSEMBLY

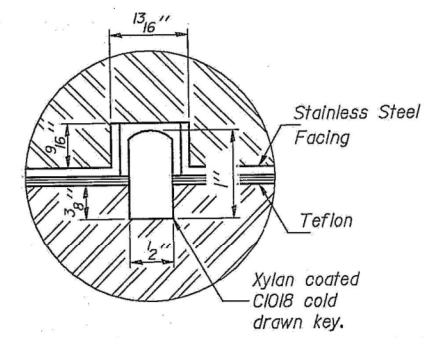
Note A: Weld in field after bearing is self aligned during first movement.



CUT-AWAY PLAN  
(Half of Top Plate shown)

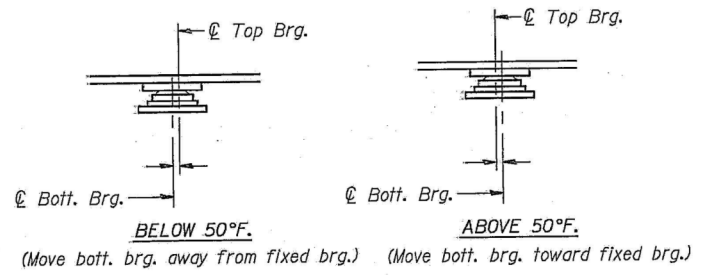


MASONRY PLATE DETAIL



DETAIL "B"

BEARING DATA		
R	(k)	225.7
R	(k)	102.3
Imp.	(k)	19.5
R Total	(k)	347.5
Expansion Lengths		154'-0"



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.

BILL OF MATERIAL  
FOR PIERS 1 AND 3

Item	Unit	Total
Floating Bearings, Guided Expansion, 400K	Each	10

BEARING DETAILS  
PIERS 1 AND 3

F.A. RT. 408 SEC. 75-6B-1  
PIKE COUNTY  
STA. 71+30.50

DESIGNED *Tim Friederich*  
CHECKED *Shaker Asfour*  
DRAWN *Joe Sutherland*  
CHECKED *Shaker Asfour*

EXAMINED *Eric M. Lagemann*  
PASSED *James T. Reynolds*  
APPROVED *Eric M. Lagemann*

Sept 11 1987

Note: The plates of the Bearing Assembly shall be AASHTO M 223, Grade 50. For anchor bolt installation details see sheet 17 of 23.

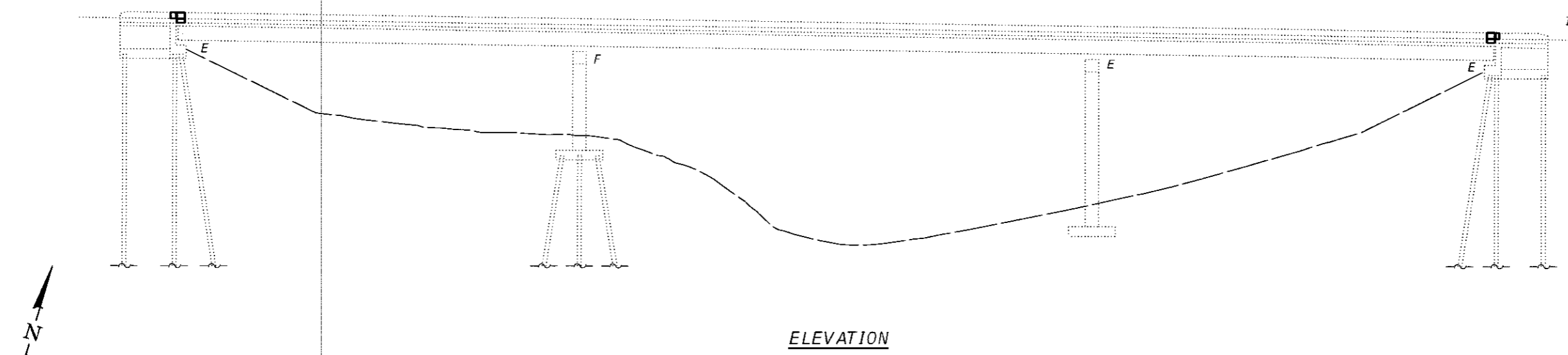


**INDEX OF SHEETS**

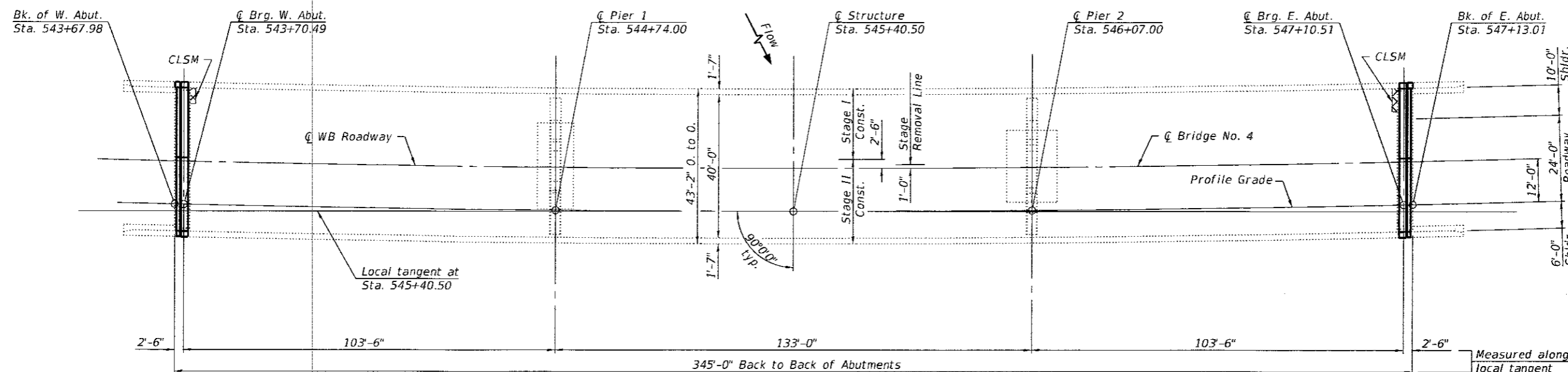
1. General Plan
2. General Data
3. Stage Construction Details
4. Deck Patching Removal
5. Removal Details
6. Superstructure Repair Details
7. Performed Joint Strip Seal
8. West Abutment Details
9. East Abutment Details
10. Bar Splicer & Mechanical Splicer Details
- 11-15. Existing Framing Plan and Bearing Sheets

**SCOPE OF WORK**

1. Replace expansion joints.
2. Deck and approach patching.
3. Hydroscarification and placement of fly ash or GGBF slag concrete overlay.
4. Perform diamond grinding and apply protective coat.
5. Blasting and painting of beam ends, end diaphragms, and abutment bearings.
6. Substructure repair.
7. Fill void under abutments with CLSM



**ELEVATION**



**PLAN**

⊗ Limits of CLSM



*Eric Lagemann* 8/18/17  
Expires 11/30/2018 Date

**GENERAL PLAN**  
**1-72 OVER NAPOLEON HOLLOW DRAW**  
**F.A.I. ROUTE 72**  
**SECTION (75-6) BDR, BP, BRR, RS-2**  
**PIKE COUNTY**  
**STATION 545+40.50**  
**STRUCTURE NO. 075-0119**

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USER NAME = tafriederich	DESIGNED - TIM FRIEDERICH	REVISED -
PLOT SCALE = NTS	CHECKED - ERIC M. LAGEMANN	REVISED -
PLOT DATE = 8/17/2017	DRAWN - TIM FRIEDERICH	REVISED -
	CHECKED - ERIC M. LAGEMANN	REVISED -

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

SHEET NO. 1 OF 15 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	96
			CONTRACT NO. 72J42	
ILLINOIS FED. AID PROJECT				



GENERAL NOTES

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 and girders 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 can not 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.

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.

Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.

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 the length (measured along beam) shown in the GIRDER PAINTING LIMITS TABLE, of either side of deck joints, shall be cleaned per Near White Blast Cleaning - SSPC-SP10. The exterior surfaces and bottom of the bottom flange of the fascia beams shall be cleaned per Commercial Grade Power Tool Cleaning - SSPC - SP15. 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 - 0Z/E/U. The color of the final finish coat for all interior steel surfaces shall be Gray, Munsell No. 5B 7/1. The color of the final finish coat for all exterior steel surfaces shall be Reddish Brown, Munsell No. 2.5YR 3/4.

Joint plates and attached bars shall be shop painted with the inorganic zinc primer. No field paint required.

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.

Synthetic fibers shall be added to the Bridge Deck Concrete Overlay. See Special Provisions.

GIRDER PAINTING LIMITS TABLE

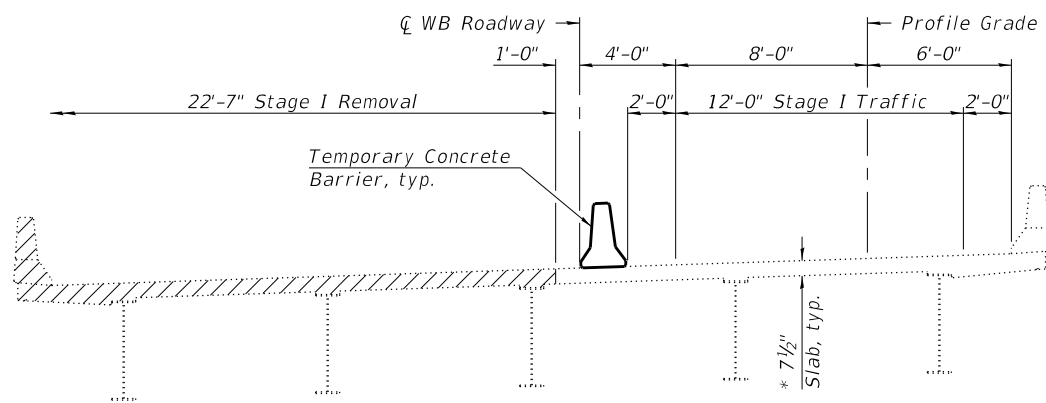
Girder No.	Span 1	Span 2	Span 3
1	100'-0"	---	10'-0"
2	100'-0"	---	10'-0"
3	100'-0"	---	10'-0"
4	100'-0"	---	10'-0"
5	100'-0"	---	10'-0"

TOTAL BILL OF MATERIAL

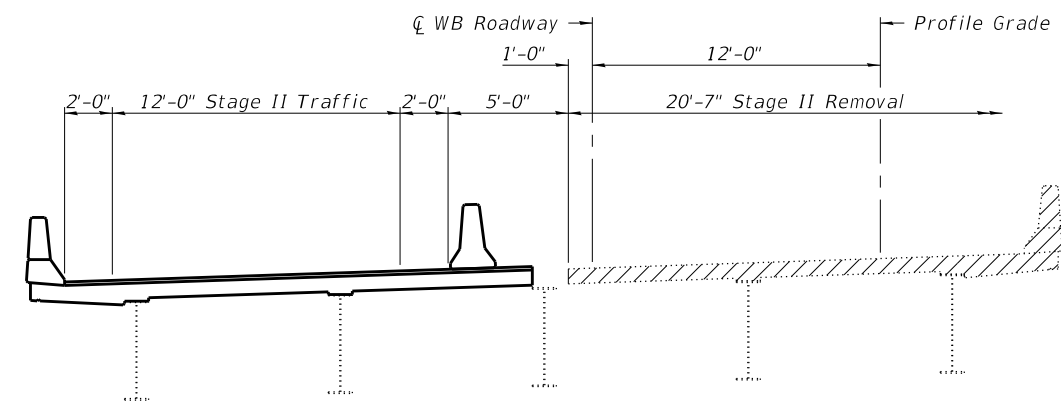
ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Removal	Cu. Yd.	11.2		11.2
Concrete Superstructure	Cu. Yd.	12.9		12.9
Protective Coat	Sq. Yd.	1,811		1,811
Reinforcement Bars, Epoxy Coated	Pound	1,000	730	1,730
Bar Splicers	Each	26		26
Preformed Joint Strip Seal	Foot	92.5		92.5
Controlled Low-Strength Material	Cu. Yd.		5.0	5.0
Bridge Deck Grooving (Longitudinal)	Sq. Yd.	911		911
Containment and Disposal of Non-Lead Paint Cleaning Residues No. 4	L Sum			1
Approach Slab Repair (Partial Depth)	Sq. Yd.			4.0
Cleaning and Painting Steel Bridge No. 4	L Sum			1
Bridge Deck Fly Ash or GGBF Slag Concrete Overlay 2 3/4"	Sq. Yd.	1,500		1,500
Bridge Deck Scarification 3/4"	Sq. Yd.	1,500		1,500
Structural Repair of Concrete (Depth Greater than 5 inches)	Sq. Ft.	15	5	20
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	9.8		9.8
Diamond Grinding (Bridge Section)	Sq. Yd.	1,529		1,529

\* Quantity includes overlay and face of parapets.

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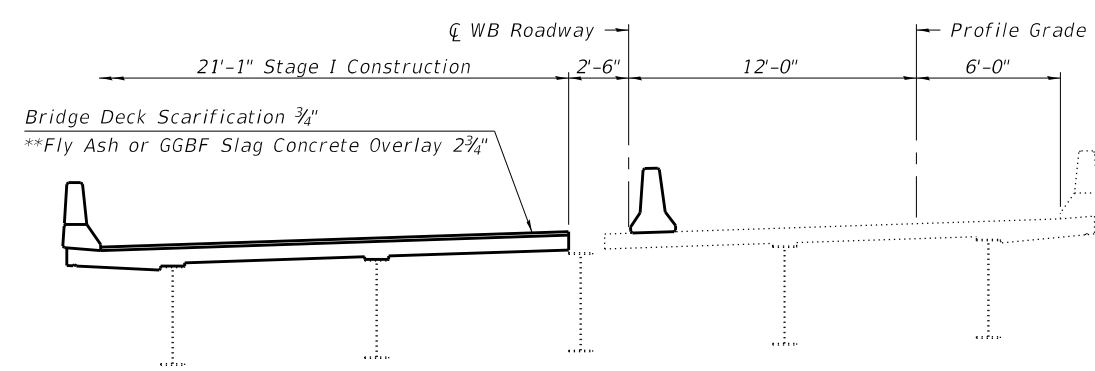


STAGE I REMOVAL

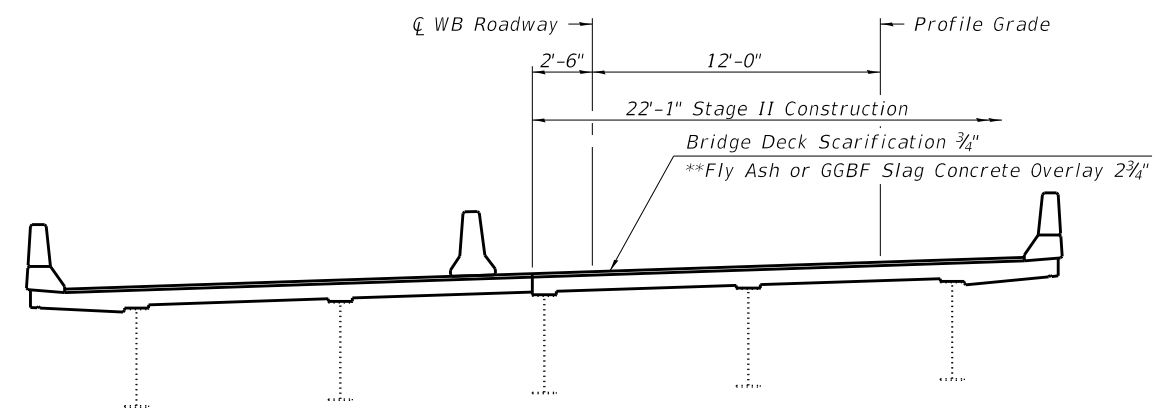


STAGE II REMOVAL

\* Prior to scarification  
 \*\* Prior to grinding



STAGE I CONSTRUCTION



STAGE II CONSTRUCTION

Notes:  
 All sections are looking east.  
 For quantity of Temporary Concrete Barrier, see Roadway Plans.  
 Hatched areas indicate Concrete Removal.

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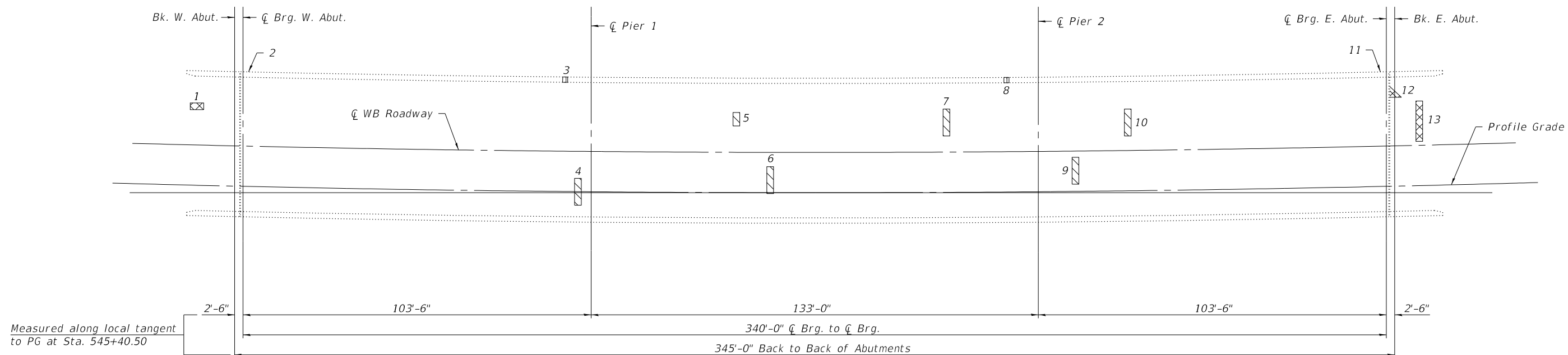
DESIGNED - TIM FRIEDERICH	REVISED -
CHECKED - ERIC M. LAGEMANN	REVISED -
DRAWN - TIM FRIEDERICH	REVISED -
CHECKED - ERIC M. LAGEMANN	REVISED -
USER NAME = tsfriederich	
PLOT SCALE = NTS	
PLOT DATE = 8/17/2017	

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**STAGE CONSTRUCTION DETAILS  
 STRUCTURE NO. 075-0119**

SHEET NO. 3 OF 15 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	98
CONTRACT NO.			72J42	
ILLINOIS FED. AID PROJECT				



**DECK REPAIR PLAN**

**ANTICIPATED DECK SLAB REPAIR  
(FULL DEPTH, TYPE II)**

Patch No.	Length (ft.)	Width (ft.)	Area (sq. yd.)
4	2	8	1.8
5	2	4	0.8
6	2	8	1.8
7	2	8	1.8
9	2	8	1.8
10	2	8	1.8
Total =			9.8

**STRUCTURAL REPAIR OF CONCRETE  
(DEPTH GREATER THAN 5 INCHES)**

Patch No.	Area (sq. ft.)	
2	8	
3	1	
8	1	
11	5	
Total =		15

**ANTICIPATED APPROACH  
SLAB REPAIR (PARTIAL DEPTH)**

Patch No.	Length (ft.)	Width (ft.)	Area (sq. yd.)
1	3	2	0.7
12	3	2	0.7
13	2	12	2.6
Total =			4.0

**LEGEND**

- Deck Slab Repair (Full Depth, Type II)
- Approach Slab Repair (Partial Depth)
- Structural Repair of Concrete (Depth Greater than 5 inches)

**BILL OF MATERIAL**

Item	Unit	Total
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	9.8
Approach Slab Repair (Partial Depth)	Sq. Yd.	4.0
Structural Repair of Concrete (Depth Greater than 5 inches)	Sq. Ft.	15

Quantities and repair area shown are estimated. Actual areas to be determined by the Resident Engineer and recorded on the As-Built Plans.

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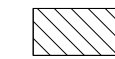
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CHECKED - ERIC M. LAGEMANN	REVISED -
DRAWN - TIM FRIEDERICH	REVISED -
CHECKED - ERIC M. LAGEMANN	REVISED -

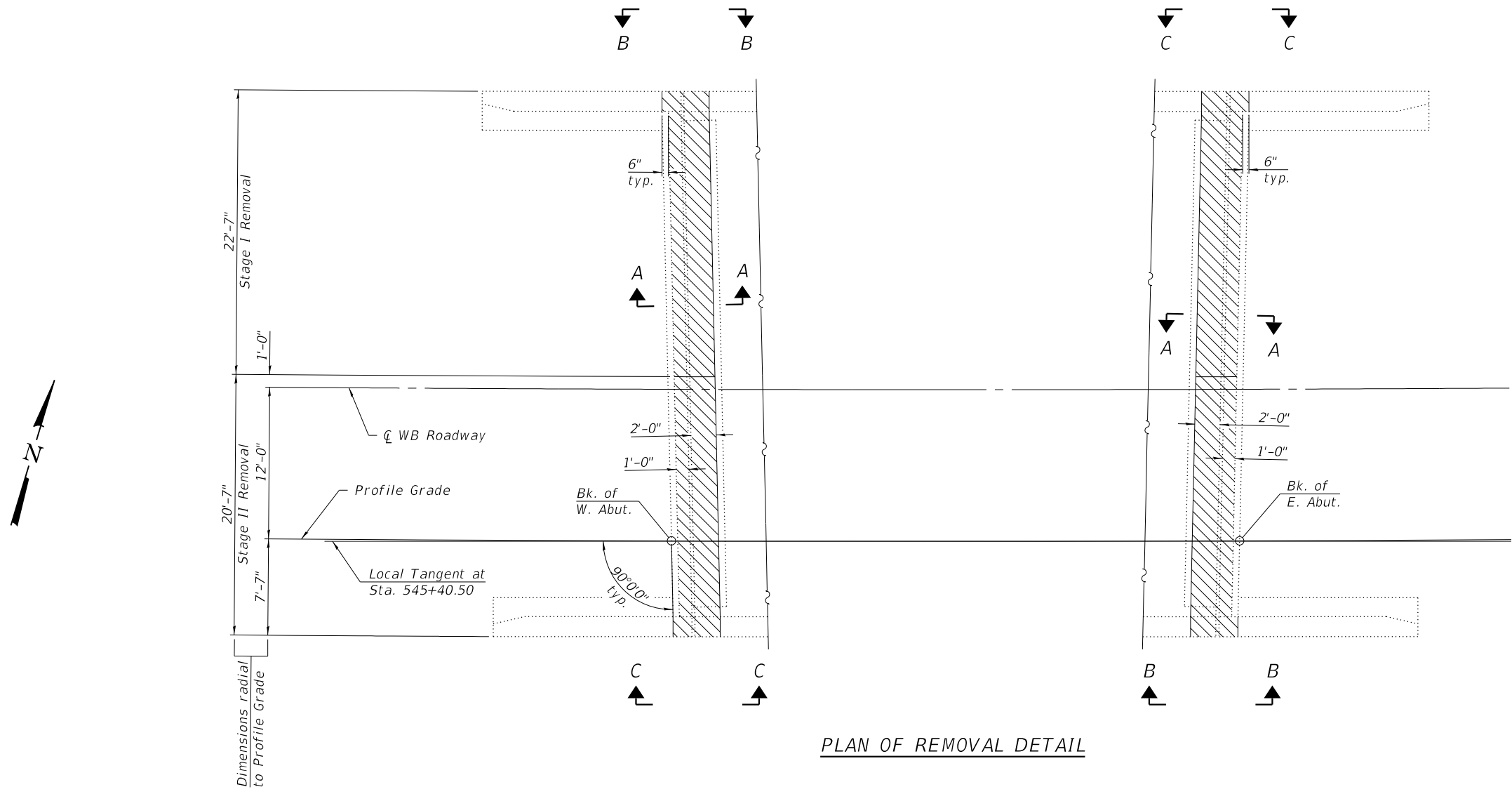
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DECK PATCHING REMOVAL  
STRUCTURE NO. 075-0119**  
SHEET NO. 4 OF 15 SHEETS

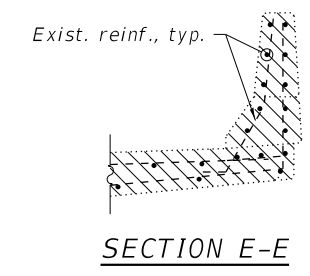
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	99
CONTRACT NO.			72J42	

ILLINOIS FED. AID PROJECT

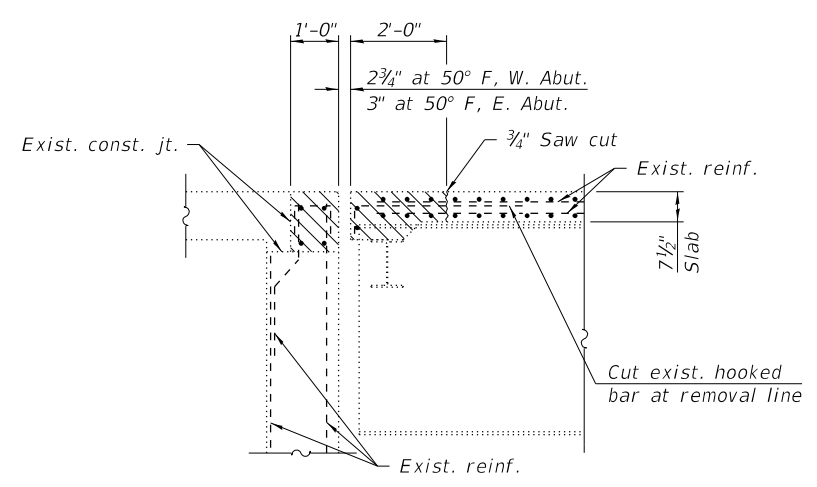
 Denotes concrete removal



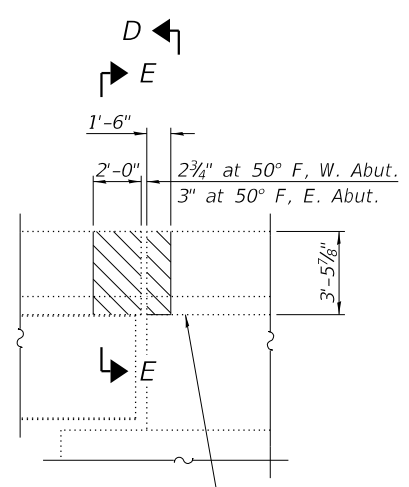
PLAN OF REMOVAL DETAIL



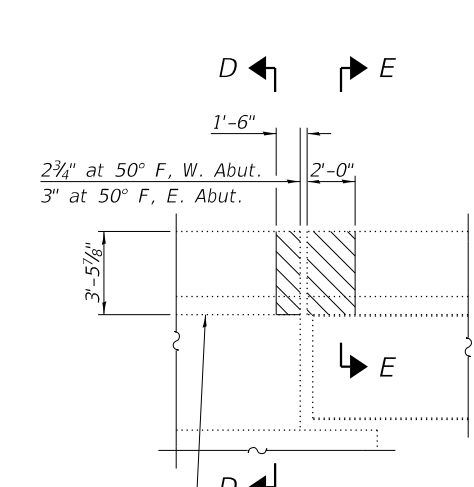
SECTION E-E



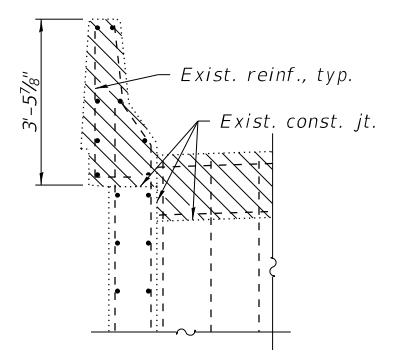
SECTION A-A  
(Horiz. dim. at right L's)



VIEW B-B



VIEW C-C



SECTION D-D

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USER NAME = tsfriederich  
PLOT SCALE = NTS  
PLOT DATE = 8/17/2017

DESIGNED - TIM FRIEDERICH  
CHECKED - ERIC M. LAGEMANN  
DRAWN - TIM FRIEDERICH  
CHECKED - ERIC M. LAGEMANN

REVISED -  
REVISED -  
REVISED -  
REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

REMOVAL DETAILS  
STRUCTURE NO. 075-0119

SHEET NO. 5 OF 15 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(75-6) BDR, BP, BRR, RS-2	PIKE	150	100
CONTRACT NO.			72J42	

ILLINOIS FED. AID PROJECT