06-16-2023 LETTING ITEM 177

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VARIOUS	113	1
	ILLINOIS	CONTRACT NO. 68H58		

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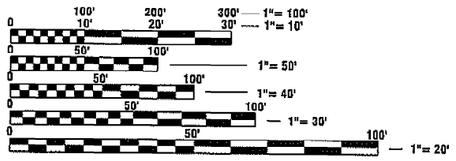
HIGHWAY STANDARDS

000001- 08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
701001-02	OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5 m) AWAY
701006-05	OFF-ROAD OPERATIONS, 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
701101-05	OFF-ROAD OPERATIONS, MULTILANE, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
701106-02	OFF-ROAD OPERATIONS, MULTILANE, MORE THAN 15' (4.5 m) AWAY
701206-05	LANE CLOSURE, 2L, 2W: NIGHT ONLY, FOR SPEEDS > 45 MPH
701321-18	LANE CLOSURE, 2L, 2W: BRIDGE REPAIR WITH BARRIER
701400-11	APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
701402-12	LANE CLOSURE, FREEWAY/EXPRESSWAY, WITH BARRIER
701411-09	LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP, FOR SPEEDS > 45
701423-10	LANE CLOSURE, MULTILANE: WITH BARRIER, FOR SPEEDS > 45 MPH TO 55 MPH
701456-05	PARTIAL EXIT RAMP CLOSURE FREEWAY/EXPRESSWAY
701601-09	URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
701701-10	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701901-06	TRAFFIC CONTROL DEVICES
704001- 08	TEMPORARY, CONCRETE BARRIER



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

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

PROJECT ENGINEER: MARK ECKHOFF (309)573-8753
PROJECT MANAGER: BYRON SMITH (309)573-8753

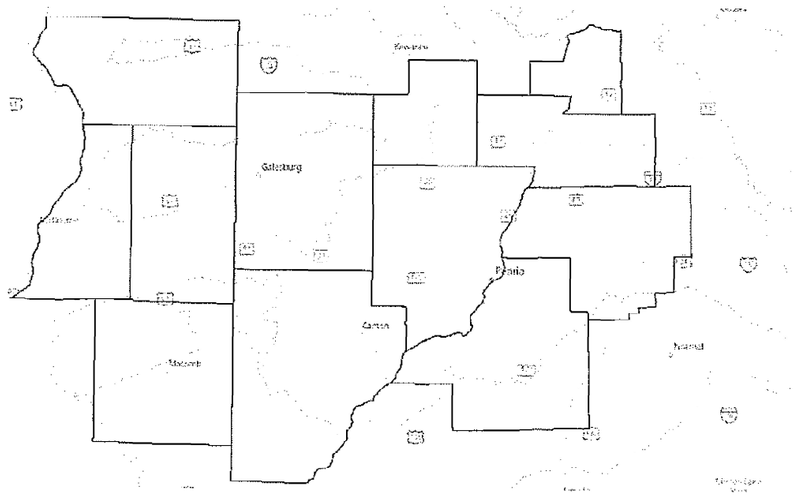
CATELOG NO. 036384-00D
CONTRACT NO. 68H58

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED HIGHWAY PLANS

VARIOUS ROUTES
SECTION D4 BRIDGE PAINTING 2023
PROJECT STP-AEWR(180)
BRIDGE PAINTING
VARIOUS COUNTIES

C-94-041-23



Mark Lee 3/21/2023
MARK C. LEE DATE

REGISTERED PROFESSIONAL ENGINEER
STATE OF ILLINOIS NO. 062-060864
LICENSE EXPIRES NOVEMBER 30, 2023

KLINGNER & ASSOCIATES, P.C.
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www.klingner.com
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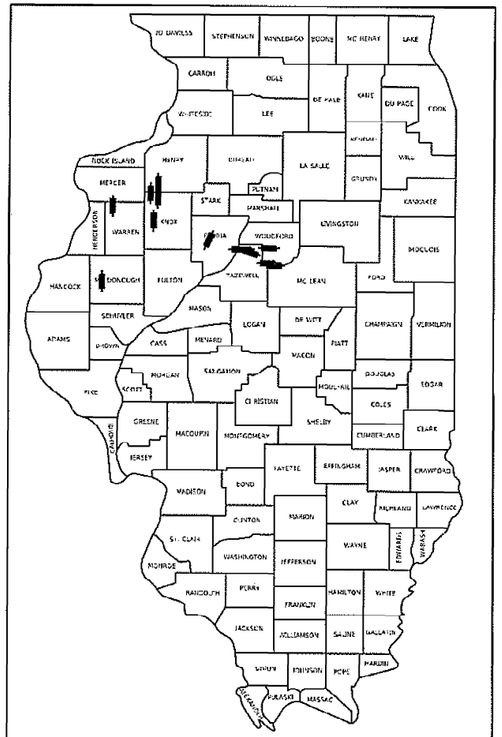
49 North Prairie Street
309.342.4042
Quincy, IL Hannibal, MO
Burlington, IA Pella, IA Columbia, MO
Davenport, IA Carbondale, IL
DESIGN FIRM NO. 184-2738

D-94-035-23



LOCATION OF SECTION INDICATED THUS: -

PROJECT DESCRIPTION:

PAINTING OF VARIOUS STRUCTURES IN DISTRICT 4

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED March 22 20 23
Russell L Barnett
REGIONAL ENGINEER
May 12, 2023
ENGINEER OF DESIGN AND ENVIRONMENT
May 12, 2023
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

REV. 4/28/23

PROJECT SPECIFICS

THE NAME, ADDRESS AND TELEPHONE NUMBER OF THE LOCAL RAILROAD CONTACT IS:

Mr. Greg Beaston
Engineer of Public Improvements
Toledo, Peoria & Western Railway Corporation
1990 East Washington Street
East Peoria, IL. 61611
(904) 999-3378

SPECIAL ATTENTION IS CALLED TO ARTICLE 107.12 REGARDING RAILROAD FLAGGERS. THE NAME, ADDRESS AND TELEPHONE NUMBER OF THE RAILROAD CONTACT PERSON FOR FLAGGERS IS: see note below

FLAGGING WILL BE ASSIGNED BY TOLEDO, PEORIA & WESTERN RAILWAY CORPORATION ONCE THEIR RIGHT OF ENTRY AND INSURANCE REQUIREMENTS HAVE BEEN MET.

SOME RAILROADS REQUIRE CONTRACTORS TO OBTAIN A RIGHT OF ENTRY PERMIT BEORE ENTERING UPON RAILROAD RIGHT OF WAY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN A RAILROAD RIGHT OF ENTRY PERMIT FROM THE RAILROAD IF REQUIRED BY THE RAILROAD.

COOPERATION WITH OTHER CONTRACTORS
A COOPERATIVE EFFORT IS REQUIRED WITH OTHER CONTRACTORS IN COORDINATING TRAFFIC CONTROL SIGNING, TRAFFIC MANAGEMENT AND PROGRESSION, AND WORK AT OR NEAR THE PROJECT.

THE EXISTING STRUCTURAL STEEL COATING CONTAINS LEAD. THE CONTRACTOR SHALL FOLLOW THE GUIDE BRIDGE SPECIAL PROVISIONS FOR "CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES" TO DEAL WITH THE PRESENCE OF LEAD ON THIS PROJECT.

ONLY STRUCTURAL STEEL AND OTHER DESIGNATED SURFACES SHALL BE PAINTED. ALL OTHER SURFACES SHALL BE PROTECTED FROM CONTRACTORS BLASTING AND PAINTING OPERATIONS. ANY AREAS DAMAGED BY BLASTING OR OVERSPRAY WILL BE REMOVED OR REPAIRED AT THE CONTRACTOR'S EXPENSE AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

CARE SHALL BE TAKEN NOT TO DAMAGE RUBBER BEARING OR JOINT COMPONENTS DURING BLASTING AND CLEANING OPERATIONS. ANY DAMAGE TO THESE COMPONENTS SHALL BE REPAIRED AT CONTRACTORS EXPENSE.

THE SSPC-QP1 AND QP2 PAINTING CONTRACTOR CERTIFICATIONS WILL BE REQUIRED FOR THIS CONTRACT.

ALL TRASH AND PAINTING DEBRIS, EXCLUDING WASTE BARRELS OR ROLL-OFF DUMPSTERS, SHALL BE REMOVED BEFORE BEGINNING WORK AT ANOTHER LOCATION.

2 YEAR PAINT WARRANTY REQUIRED FOR ALL STRUCTURES

NO COMMITMENTS

NO COMMITMENTS HAVE BEEN MADE FOR THIS CONTRACT

GENERAL NOTES

REFER TO PROJECT LOCATIONS FOR SPECIFIC JOB REQUIREMENTS
ALL AREAS INDICATED ON THE PLANS SHALL BE PAINTED WITH THE PAINT SYSTEM 1-OZ/E/U. ALL BEAMS, BRACKETS AND ALL OTHER STRUCTURAL STEEL SHALL BE CLEANED PER NEAR WHITE METAL BLASTED CLEANING SSPC-SP10.

G.N.-100
ENGLISH UNITS OF MEASURE SHALL GOVERN OVER AND SUPERSEDE ANY METRIC UNITS SHOWN IN THIS CONTRACT. WHERE INCLUDED, METRIC UNITS ARE FOR INFORMATION ONLY.

G.N.-100A
ELECTRONIC FILES AND/OR ELECTRONIC SURVEY INFORMATION INCLUDING CADD FILES WILL NOT BE AVAILABLE TO THE CONTRACTOR.

GN 105.07C
EXISTING STATE-OWNED AND MAINTAINED UNDERGROUND UTILITY FACILITIES EXIST WITHIN THE ROW. THE DEPARTMENT IS NOT A MEMBER OF JULIE AND DOES NOT LOCATE IT'S OWN FACILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE AT THEIR OWN EXPENSE FOR SECURING AN APPROVED LOCATING FIRM TO LOCATE ALL EXISTING IDOT UNDERGROUND FACILITIES PRIOR TO COMMENCING ANY EXCAVATION, PER THE REQUIREMENTS OF ARTICLE 803 OF THE STANDARD SPECIFICATIONS. UTILITY LOCATES MAY ALSO BE REQUIRED OUTSIDE THE PROJECT LIMITS, SUCH AS FOR TRAFFIC CONTROL SIGNING AND OTHER ITEMS. THE CONTRACTOR MAY OBTAIN, ON REQUEST, PLANS OF EXISTING ELECTRICAL FACILITIES FROM THE DEPARTMENT. FOR FURTHER INFORMATION, THE CONTRACTOR MAY CONTACT THE DISTRICT TRAFFIC OPERATIONS ENGINEER, ANNA GHIDINA AT 309-671-4460.

THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR LOCATING AND PROVIDING PROTECTION FOR FACILITIES DURING ALL PHASES OF CONSTRUCTION. IF, AT ANY TIME, THE FACILITIES ARE DAMAGED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE DEPARTMENT AND MAKE ALL NECESSARY ARRANGEMENTS FOR REPAIR TO THE SATISFACTION OF THE ENGINEER. THIS WORK SHALL BE INCLUDED IN THE CONTRACT BID PRICE AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

PROJECT LOCATIONS

LOCATION 1: S.N. 037-0105 - CH 100N OVER FAI 74 - 1.0 MILE SOUTH WEST OF WOODHULL, IL.
LOCATION 2: S.N. 048-0010 - FAI 74 WB OVER EAST MAIN STREET IN GALESBURG, IL.
LOCATION 3: S.N. 048-0009 - FAI 74 EB OVER EAST MAIN STREET IN GALESBURG, IL.
LOCATION 4: S.N. 048-0026 - SBI-80 (US-150) OVER POPE CREEK - 2.0 MILES SOUTH OF ILL. 17 IN KNOX COUNTY.
LOCATION 5: S.N. 048-0063 - TR 21 OVER FAI 74 - 4.0 MILES SOUTH WEST OF WOODHULL, IL.
LOCATION 6: DELETED
LOCATION 7: S.N. 072-0201 - FAU 1478 (AIRPORT RD.) OVER R.R. AND KICKAPOO TRIBUTARY ON S.W. EDGE OF PEORIA, IL.
LOCATION 8: S.N. 090-0073 - US 24 EB OVER RAMP FROM IL. 116 TO US 150 - 0.8 MI. E. OF ILLINOIS RIVER IN PEORIA, IL.
LOCATION 9: S.N. 090-0074 - US 24 WB OVER RAMP FROM IL. 116 TO US 150 - 0.8 MI. E. OF ILLINOIS RIVER IN PEORIA, IL.
LOCATION 10: S.N. 090-0124 - (US-24 BUS.) McCLUGGAGE ROAD OVER US 24 AT EDGE OF WASHINGTON, IL.
LOCATION 11: DELETED
LOCATION 12: S.N. 102-0012 - IL. RTE 117 OVER FAI 74 SOUTH OF GOODFIELD, IL. IN WOODFORK COUNTY.
LOCATION 13: S.N. 102-0034 - COUNTY 1650E OVER FAI 74 - 2.9 MILES EAST OF IL 117 IN WOODFORD COUNTY.
LOCATION 14: S.N. 102-0046 - F.A. 317 (US-24) OVER RAILROAD 1.6 MILES EAST OF DEE-MACK ROAD NEAR CRUGER, IL.

CURRENT TRAFFIC DATA

LOCATION 1: 15,000 - 2021 (I-74)
LOCATION 2: 4,900 - 2022 (MAIN ST.)
LOCATION 3: 4,900 - 2022 (MAIN ST.)
LOCATION 4: 2,250 - 2021 (US-150)
LOCATION 5: 15,000 - 2021 (I-74)
LOCATION 6: DELETED
LOCATION 7: 9,950 - 2022 (AIRPORT RD)
LOCATION 8: RMP-3500/US24-9600 (2018/2021)
LOCATION 9: RMP-3500/US24-9600 (2018/2021)
LOCATION 10: 13,900 - 2021 (US24)
LOCATION 11: DELETED
LOCATION 12: 26900 OR 5400 - 2021 (I74)/(IL 177)
LOCATION 13: 26,900 - 2021 (I-74)
LOCATION 14: 5,000 - 2021 (US24)

MODEL: Default
FILE NAME: Q:\2files\21361 IDOT - DIST 4 - PTB 201-033\Work Order 15 - FY 2023 Patching\18.Transportation\68H58 (Bridge Painting)\CADD Sheets\002 General Notes.dgn

KLINGNER & ASSOCIATES, P.C.
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309 342
Quincy, IL Hannibal, MO
Burlington, IA Pittsfield, MO
Davenport, IA Chesterfield, IL

USER NAME = rbailey	DESIGNED - RTB	REVISED -	
	DRAWN - RTB	REVISED -	
PLOT SCALE = 100.0000 ' / in.	CHECKED - MCL	REVISED -	
PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	2
		CONTRACT NO. 68H58		
		ILLINOIS	FED. AID PROJECT	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE VAR COUNTIES 80% FEDERAL 20% STATE 0047					
67100100	MOBILIZATION	L SUM	1	1					
70100207	TRAFFIC CONTROL AND PROTECTION, STANDARD 701402	EACH	8	8					
70100325	TRAFFIC CONTROL AND PROTECTION, STANDARD 701423	EACH	7	7					
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	4	4					
70100420	TRAFFIC CONTROL AND PROTECTION, STANDARD 701411	EACH	6	6					
70100825	TRAFFIC CONTROL AND PROTECTION, STANDARD 701456	L SUM	1	1					
70102630	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	1	1					
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1					
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	2	2					
70107025	CHANGEABLE MESSAGE SIGN	CAL DAY	140	140					
70400100	TEMPORARY CONCRETE BARRIER	FOOT	5550	5550					
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	2700	2700					
70600250	IMPACT ATTENUATORS, TEMPORARY (NON-REDACTIVE), TEST LEVEL 3	EACH	18	18					
70600350	IMPACT ATTENUATORS, RELOCATE (NON-REDACTIVE), TEST LEVEL 3	EACH	18	18					
X5060607	CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES NO. 7	L SUM	1	1					

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE					
				VAR					
				COUNTIES					
				80% FEDERAL					
				20% STATE					
				0047					
X5060611	CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES NO. 10	L SUM	1	1					
X5060614	CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES NO. 14	L SUM	1	1					
Z0007101	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 1	L SUM	1	1					
Z0007102	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 2	L SUM	1	1					
Z0007103	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 3	L SUM	1	1					
Z0007104	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 4	L SUM	1	1					
Z0007105	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 5	L SUM	1	1					
Z0007108	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 8	L SUM	1	1					
Z0007109	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 9	L SUM	1	1					
Z0007123	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 12	L SUM	1	1					
Z0007113	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 13	L SUM	1	1					
Z0010501	CLEANING AND PAINTING STEEL BRIDGE NO. 1	L SUM	1	1					
Z0010502	CLEANING AND PAINTING STEEL BRIDGE NO. 2	L SUM	1	1					

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE					
				VAR					
				COUNTIES					
				80% FEDERAL					
				20% STATE					
				0047					
Z0010503	CLEANING AND PAINTING STEEL BRIDGE NO. 3	L SUM	1	1					
Z0010504	CLEANING AND PAINTING STEEL BRIDGE NO. 4	L SUM	1	1					
Z0010505	CLEANING AND PAINTING STEEL BRIDGE NO. 5	L SUM	1	1					
Z0010507	CLEANING AND PAINTING STEEL BRIDGE NO. 7	L SUM	1	1					
Z0010508	CLEANING AND PAINTING STEEL BRIDGE NO. 8	L SUM	1	1					
Z0010509	CLEANING AND PAINTING STEEL BRIDGE NO. 9	L SUM	1	1					
Z0010510	CLEANING AND PAINTING STEEL BRIDGE NO. 10	L SUM	1	1					
Z0010512	CLEANING AND PAINTING STEEL BRIDGE NO. 12	L SUM	1	1					
Z0010513	CLEANING AND PAINTING STEEL BRIDGE NO. 13	L SUM	1	1					
Z0010514	CLEANING AND PAINTING STEEL BRIDGE NO. 14	L SUM	1	1					
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1	1					

TRAFFIC CONTROL & PROTECTION

Location	Structure	Direction	Stage	70100207 TC&P Std. 701402 Each	no pay item TC&P Std. 701400 not measured for payment included with 701402	70400100 Temp Conc Barrier Foot	70400200 Relocate Temp Conc Barrier Foot	70600250 Impact Atten Test Level 3 Each	70600350 Relocate Imp Att, TL 3 Each	70100325 TC&P Std 701423 Each	70100420 TC&P Std 701411 Each	70100825 TC&P Std. 701456 L.Sum	70102630 TC&P Std. 701601 L.Sum	70102635 TC&P Std. 701701 L.Sum	70106500 TC&P Std. 701321 Each	70107025 Changeable Message Sign Cal Day
# 1	037-0105	EB	I	1.0	on I-74 EB	300	-	1.0	-	-	-	-	-	-	-	7 day advance notice
		EB	II	-		-	150	-	1.0	-	-	-	-	-	-	
	037-0105	WB	I	1.0	on I-74 WB	300	-	1.0	-	-	-	-	-	-	-	7 day advance notice
		WB	II	-		-	150	-	1.0	-	-	-	-	-	-	
# 2	048-0010	EB	I	-	on I-74 EB	-	-	-	-	-	-	-	-	-	-	under 048-0009 EB 7 notice
		EB	II	-		-	-	-	-	-	-	-	-	-	-	
	048-0010	WB	I	-	on I-74 WB	300	-	1.0	-	1.0	1.0	1.0	1.0	-	-	7 day advance notice
		WB	II	-		-	150	-	1.0	-	-	1.0	-	-	-	
# 3	048-0009	EB	I	-	on I-74 EB	300	-	1.0	-	2.0	1.0	1.0	-	-	-	7 day advance notice
		EB	II	-		-	150	-	1.0	-	-	1.0	-	-	-	
	048-0009	WB	I	-	on I-74 WB	-	-	-	-	-	-	-	-	-	-	under 048-0010 7 notice
		WB	II	-		-	-	-	-	-	-	-	-	-	-	
# 4	048-0026	NB	I	-	on US 150 NB	-	-	-	-	-	-	-	-	-	-	7 day advance notice
		SB	I	-	on US 150 SB	300	150	1.0	1.0	-	-	-	-	-	2.0	
						-	-	-	-	-	-	-	-	-	-	7 day advance notice
# 5	048-0063	EB	I	1.0	on I-74 EB	300	-	1.0	-	-	-	-	-	-	-	7 day advance notice
		EB	II			-	150	-	1.0	-	-	-	-	-	-	
	048-0063	WB	I	1.0	on I-74 WB	300	-	1.0	-	-	-	-	-	-	-	7 day advance notice
		WB	II			-	150	-	1.0	-	-	-	-	-	-	
# 6			I	-	DELETED					-	-	-	-	-		
# 7	072-0201	EB/WB	I	-	on AIRPORT ROAD.	-	-	-	-	-	-	-	-	1.0	-	7 day advance notice
# 8	090-0073	WB			US 24	600	300	2.0	2.0	1.0	1.0	1.0	-	-	-	2-7 day advance notice
#9	090-0074	EB			US 24	600	300	2.0	2.0	1.0	1.0	1.0	-	-	-	7 day advance notice
#10	090-0124	EB	I		US 24	300	-	1.0	-	1.0	-	-	-	-	-	7 day advance notice
		EB	II			-	150	-	1.0	-	-	-	-	-	-	
	090-0124	WB	I		US 24	300	-	1.0	-	1.0	-	-	-	-	-	7 day advance notice
		WB	II			-	150	-	1.0	-	-	-	-	-	-	
#11			I	-	DELETED											
12	102-0012	EB	I	1.0	on I-74 EB	300	-	-	-	-	-	-	-	-	-	7 day advance notice
		EB	II	-		-	150	1.0	1.0	-	1.0	-	-	-	-	
	102-0012	WB	I	1.0	on I-74 WB	300	-	-	-	-	-	-	-	-	-	7 day advance notice
		WB	II	-		-	150	1.0	1.0	-	1.0	-	-	-	-	
13	102-0034	EB	I	1.0	on I-74 EB	300	-	-	-	-	-	-	-	-	-	7 day advance notice
		EB	II	-		-	150	1.0	1.0	-	-	-	-	-	-	
		WB	I	1.0	on I-74 WB	300	-	-	-	-	-	-	-	-	-	7 day advance notice
		WB	II	-		-	150	1.0	1.0	-	-	-	-	-	-	
14	102-0046	EB/WB	I	-	on US-24	450	150	1.0	1.0	-	-	-	-	-	2.0	2-7 day advance notice
			TOTALS	8.0		5550	2700	18.0	18.0	7.0	6.0	6.0	1.0	1.0	6.0	140 Cal Day

MODEL: Default
FILE NAME: D:\21Files\213081 IDOT - DIST 4 - PTB 201-033\Work Order 15 - FY 2023 Patching\18 Transportation\68H58 IBridge Painting\CADD Sheets\006 Traffic Control Summary.dgn

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Burlington, IA Keokuk, IA Columbia, MO
Davenport, IA Carbondale, IL

USER NAME = rbailey	DESIGNED - RTB	REVISED -	
	DRAWN - RTB	REVISED -	
PLOT SCALE = 100.0000 ' / in.	CHECKED - MCL	REVISED -	
PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL & PROTECTION

SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	6
		CONTRACT NO. 68H58		
	ILLINOIS	FED. AID PROJECT		

SCHEDULE OF QUANTITIES

LOCATION OF WORK:	LOC. #1	LOC. #2	LOC. #3	LOC. #4	LOC. #5	LOC. #6	LOC. #7	LOC. #8	LOC. #9	LOC. #10	LOC. #11	LOC. #12	LOC. #13	LOC. #14
	FAI 74	FAI 74	FAI 74	US 150	FAI 74		FAU 6578	US 24 EB	US 24 WB	US 24		FAI 74	FAI 74	US 24
	S.N. 037-0105	S.N. 048-0010	S.N. 048-0009	S.N. 048-0026	S.N. 048-0063	DELETED	S.N. 072-0201	S.N. 090-0073	S.N. 090-0074	S.N. 090-0124	DELETED	S.N. 102-0012	S.N. 102-0034	S.N. 102-0046
COUNTY:	KNOX	KNOX	KNOX	KNOX	KNOX		PEORIA	TAZEWELL	TAZEWELL	TAZEWELL		WOODFORD	WOODFORD	WOODFORD
	RURAL	RURAL	RURAL	RURAL	RURAL		URBAN	RURAL	RURAL	RURAL		RURAL	RURAL	RURAL

CODE NO.	ITEM	UNIT	TOTAL	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY
67100100	MOBILIZATION	L SUM	1.0	0.1	0.1	0.05	0.05	0.05	0.05	0.05	0.1	0.1	0.10		0.05	0.05	0.1
70100207	TRAFFIC CONTROL AND PROTECTION, STANDARD 701402	EACH	8.0	2.0				2.0							2.0	2.0	
70100325	TRAFFIC CONTROL AND PROTECTION, STANDARD 701423	EACH	7.0		1.0	2.0					1.0	1.0	2.0				
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	4.0				2.0										2.0
70100420	TRAFFIC CONTROL AND PROTECTION, STANDARD 701411	EACH	6.0		1.0	1.0					1.0	1.0			2.0		
70100825	TRAFFIC CONTROL AND PROTECTION, STANDARD 701456	L.SUM	6.0		2.0	2.0					1.0	1.0					
70102630	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L.SUM	1.0										1.0				
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L.SUM	1.0							1.0							
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	2.0				1.0										1.0
70107025	CHANGEABLE MESSAGE SIGN	CAL DA	168	14	7	7	14	14		7	7	7	14		14	14	14
70400100	TEMPORARY CONCRETE BARRIER	FOOT	6150	600	300	300	300	600			600	600	600		600	600	450
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	3000	300	150	150	150	300			300	300	300		300	300	150
70600250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	20.0	2.0	1.0	1.0	1.0	2.0			2.0	2.0	2.0		2.0	2.0	1.0
70600350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	20.0	2.0	1.0	1.0	1.0	2.0			2.0	2.0	2.0		2.0	2.0	1.0
X5060607	CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES NO. 7	L SUM	1.0							1.0							
X5060611	CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES NO. 10	L SUM	1.0										1.0				
X5060612																	
X5060614	CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES NO. 14	L SUM	1.0														1.0
Z0007101	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 1	L SUM	1.0	1.0													
Z0007102	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 2	L SUM	1.0		1.0												
Z0007103	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 3	L SUM	1.0			1.0											
Z0007104	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 4	L SUM	1.0				1.0										
Z0007105	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 5	L SUM	1.0					1.0									

MODEL: Default
FILE NAME: O:\2-files\213081 IDOT - DIST 4 - PTB 201-033\Work Order 15 - FY 2023 Patching\18 Transporation\68H58 (Bridge Painting)\CADD Sheets\007 008 Schedule of Quantities.dgn

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PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

SCALE: NONE | SHEET 1 OF 2 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	7
		CONTRACT NO. 68H58		
	ILLINOIS	FED. AID PROJECT		

SCHEDULE OF QUANTITIES

LOCATION OF WORK:	LOC. #1	LOC. #2	LOC. #3	LOC. #4	LOC. #5	LOC. #6	LOC. #7	LOC. #8	LOC. #9	LOC. #10	LOC. #11	LOC. #12	LOC. #13	LOC. #14
	FAI 74	FAI 74	FAI 74	US 150	FAI 74		FAU 6578	US 24 EB	US 24 WB	US 24		FAI 74	FAI 74	US 24
	S.N. 037-0105	S.N. 048-0010	S.N. 048-0009	S.N. 048-0026	S.N. 048-0063	DEL ETED	S.N. 072-0201	S.N. 090-0073	S.N. 090-0074	S.N. 090-0124	DEL ETED	S.N. 102-0012	S.N. 102-0034	S.N. 102-0046
COUNTY:	KNOX	KNOX	KNOX	KNOX	KNOX		PEORIA	TAZEWELL	TAZEWELL	TAZEWELL		WOODFORD	WOODFORD	WOODFORD
	RURAL	RURAL	RURAL	RURAL	RURAL		URBAN	RURAL	RURAL	RURAL		RURAL	RURAL	RURAL

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY
Z0007108	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 8	L SUM	1.0								1.0						
Z0007109	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 9	L SUM	1.0									1.0					
Z0007123	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 12	L SUM	1.0												1.0		
Z0007113	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 13	L SUM	1.0													1.0	
Z0010501	CLEANING AND PAINTING STEEL BRIDGE NO. 1	L SUM	1.0	1.0													
Z0010502	CLEANING AND PAINTING STEEL BRIDGE NO. 2	L SUM	1.0		1.0												
Z0010503	CLEANING AND PAINTING STEEL BRIDGE NO. 3	L SUM	1.0			1.0											
Z0010504	CLEANING AND PAINTING STEEL BRIDGE NO. 4	L SUM	1.0				1.0										
Z0010505	CLEANING AND PAINTING STEEL BRIDGE NO. 5	L SUM	1.0					1.0									
Z0010507	CLEANING AND PAINTING STEEL BRIDGE NO. 7	L SUM	1.0						1.0								
Z0010508	CLEANING AND PAINTING STEEL BRIDGE NO. 8	L SUM	1.0							1.0							
Z0010509	CLEANING AND PAINTING STEEL BRIDGE NO. 9	L SUM	1.0								1.0						
Z0010510	CLEANING AND PAINTING STEEL BRIDGE NO. 10	L SUM	1.0									1.0					
Z0010512	CLEANING AND PAINTING STEEL BRIDGE NO. 12	L SUM	1.0												1.0		
Z0010513	CLEANING AND PAINTING STEEL BRIDGE NO. 13	L SUM	1.0													1.0	
Z0010514	CLEANING AND PAINTING STEEL BRIDGE NO. 14	L SUM	1.0														1.0
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1.0														1.0

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PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -

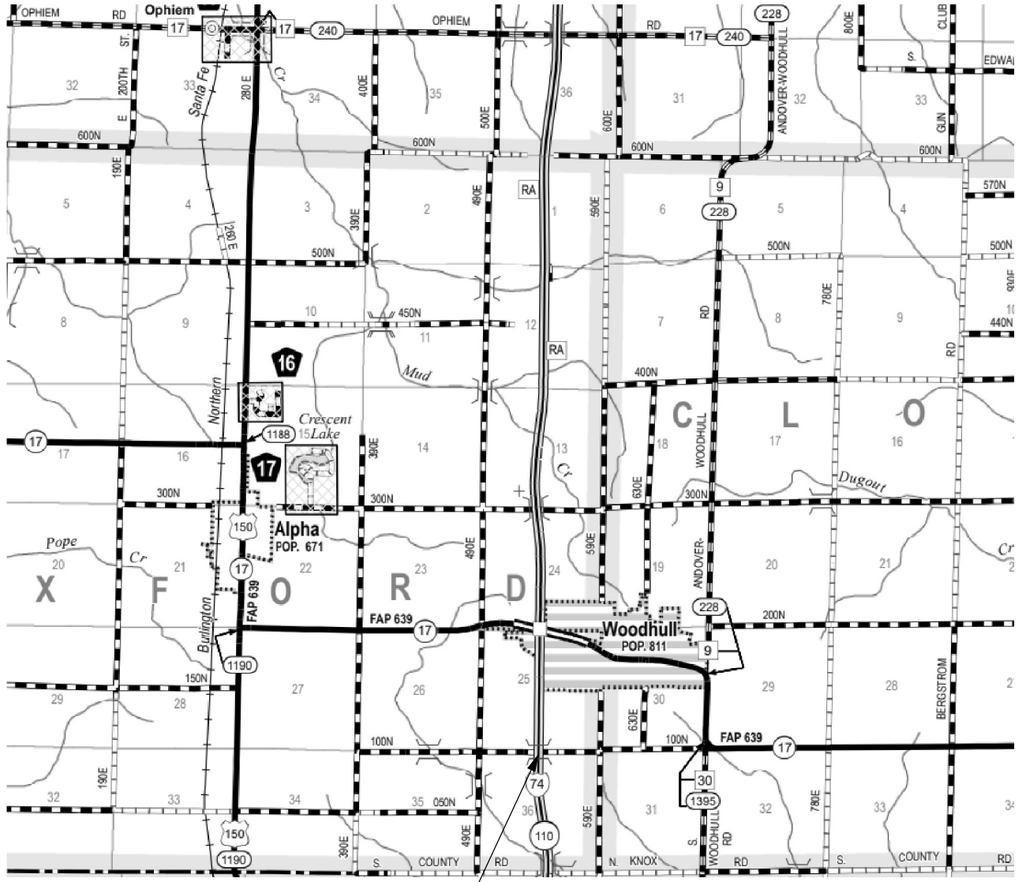
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

SCALE: NONE | SHEET 2 OF 2 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	8
		CONTRACT NO. 68H58		
	ILLINOIS FED. AID PROJECT			

LOCATION MAP FOR LOCATION #1



LOCATION #1
S.N. 037–0105

LOCATION #1
DESCRIPTION

DESCRIPTION:	CH 100N OVER FAI 74 APPROXIMATELY 1.0 MILE SOUTH OF WOODHULL, IL.
COUNTY:	HENRY
ROUTE:	F.A.I. 74
MARKED ROUTE:	I-74
SECTION:	37-24HB
STRUCTURE NO.:	037-0105
TYPE OF STRUCTURE:	4 SPAN CONTINUOUS STEEL 5 BEAMS LINES - BEAM LENGTH ABUT. TO ABUT. = 219.83'

CLEANING AND PAINTING OF THE EXISTING STRUCTURAL STEEL SHALL BE AS SPECIFIED IN THE SPECIAL PROVISIONS FOR "CLEANING AND PAINTING EXISTING STEEL STRUCTURES." ALL BEAMS, BEARINGS AND OTHER STRUCTURAL STEEL SHALL BE CLEANED PER NEAR WHITE BLAST SSPC-SP10.

THE DESIGNATED AREAS CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10 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 AND BOTTOM FLANGE OF THE FASCIA BEAMS SHALL BE BLUE (MUNSELL COLOR NO. 10B 3/6).

A MINIMUM OF TWO (2) HIGH VOLUME AIR MONITORS WILL BE REQUIRED TO MONITOR AIR QUALITY DURING DUST PRODUCING OPERATIONS AT THIS SITE. SEE SPECIAL PROVISIONS FOR "CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES".

THE EXISTING STRUCTURAL STEEL COATING CONTAINS LEAD. THE CONTRACTOR SHALL FOLLOW THE GUIDE BRIDGE SPECIAL PROVISIONS FOR "CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES" TO DEAL WITH THE PRESENCE OF LEAD ON THIS PROJECT.

ALL TRASH AND PAINTING DEBRIS, EXCLUDING WASTE BARRELS OR ROLL-OFF DUMPSTERS, SHALL BE REMOVED BEFORE BEGINNING WORK AT ANOTHER LOCATION.

NOTE: DECK DRAINS TO BE PAINTED AT NO ADDITIONAL COST.

MODEL: Default
FILE NAME: O:\2 Files\21308 | IDOT - DIST 4 - PTB 201-033\Work Order 15 - FY 2023 Patching\18.Transportation\68H58 (Bridge Painting)\CADD Sheets\009_019 Location Maps.dgn

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PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION MAP & DESCRIPTION
LOCATION 1

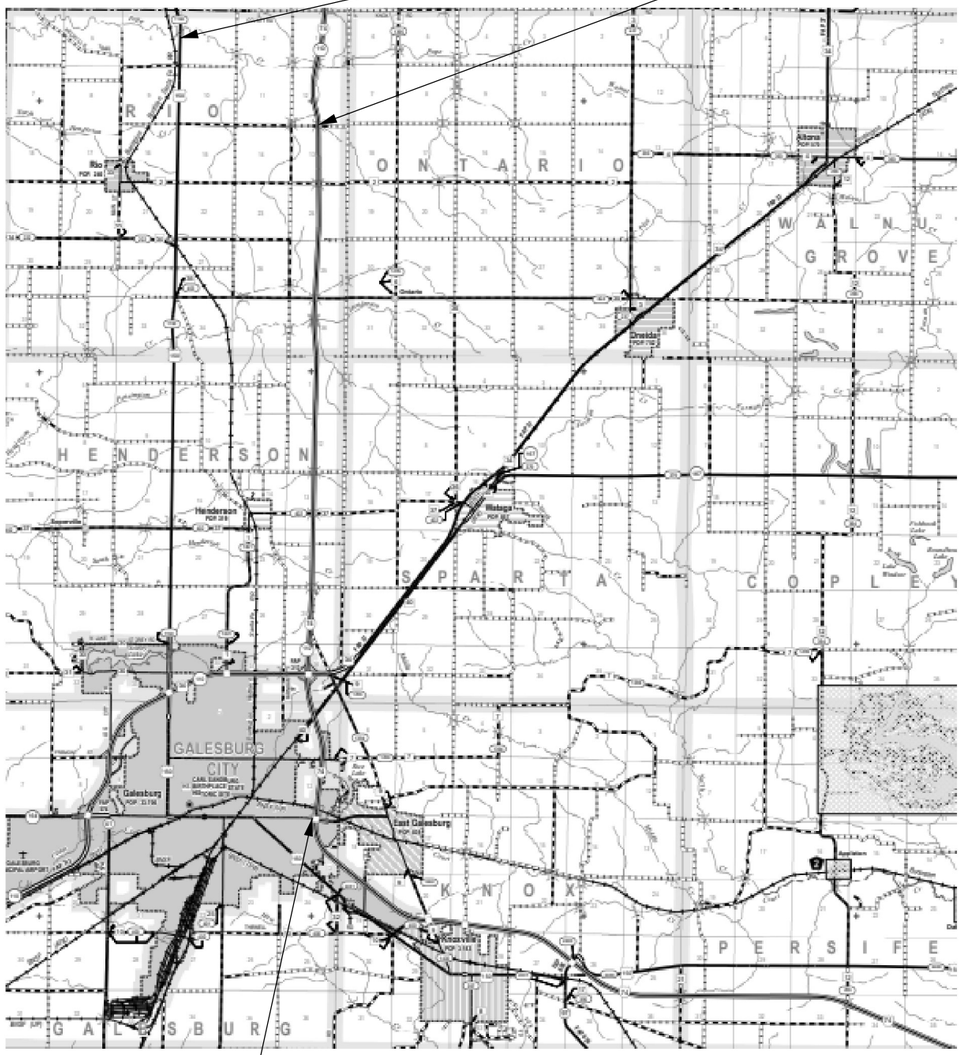
SCALE: NONE | SHEET 1 OF 11 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	9
		CONTRACT NO. 68H58		
	ILLINOIS FED. AID PROJECT			

LOCATION MAP FOR LOCATIONS #2 - #5

LOCATION #4
S.N. 048–0026

LOCATION #5
S.N. 048–0063



LOCATION #2 & #3
S.N. 048–0010
S.N. 048–0009

LOCATION #2
DESCRIPTION

DESCRIPTION:	F.A.I. 74 WB OVER EAST MAIN STREET IN GALESBURG, IL.
COUNTY:	KNOX
ROUTE:	F.A.I. 74
MARKED ROUTE:	I-74
SECTION:	48-27HB
STRUCTURE NO.:	048-0010
TYPE OF STRUCTURE:	4 SPAN CONTINUOUS STEEL 9 BEAMS LINES - BEAM LENGTH ABUT. TO ABUT. - 184.67'

CLEANING AND PAINTING OF THE EXISTING STRUCTURAL STEEL SHALL BE AS SPECIFIED IN THE SPECIAL PROVISIONS FOR "CLEANING AND PAINTING EXISTING STEEL STRUCTURES." ALL BEAMS, BEARINGS AND OTHER STRUCTURAL STEEL SHALL BE CLEANED PER NEAR WHITE BLAST SSPC-SP10.

THE DESIGNATED AREAS CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10 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 AND BOTTOM FLANGE OF THE FASCIA BEAMS SHALL BE BLUE, (MUNSELL COLOR NO. 10B 3/6).

A MINIMUM OF FOUR (4) HIGH VOLUME AIR MONITORS WILL BE REQUIRED TO MONITOR AIR QUALITY DURING DUST PRODUCING OPERATIONS AT THIS SITE. SEE SPECIAL PROVISIONS FOR "CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES".

THE EXISTING STRUCTURAL STEEL COATING CONTAINS LEAD. THE CONTRACTOR SHALL FOLLOW THE GUIDE BRIDGE SPECIAL PROVISIONS FOR "CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES" TO DEAL WITH THE PRESENCE OF LEAD ON THIS PROJECT.

ALL TRASH AND PAINTING DEBRIS, EXCLUDING WASTE BARRELS OR ROLL-OFF DUMPSTERS, SHALL BE REMOVED BEFORE BEGINNING WORK AT ANOTHER LOCATION.

NOTE: DECK DRAINS TO BE PAINTED AT NO ADDITIONAL COST.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION MAP & DESCRIPTION
LOCATION 2 LOCATION 3 & LOCATION 4

SCALE: NONE | SHEET 2 OF 11 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	10
		CONTRACT NO. 68H58		
	ILLINOIS	FED. AID PROJECT		

LOCATION #3
DESCRIPTION

DESCRIPTION:	FAI 74 EB OVER EAST MAIN STREET IN GALESBURG, IL.
COUNTY:	KNOX
ROUTE:	F.A.I. 74
MARKED ROUTE:	I-74
SECTION:	48-27HB
STRUCTURE NO.:	048-0009
TYPE OF STRUCTURE:	4 SPAN CONTINUOUS STEEL 7 BEAMS LINES - BEAM LENGTH ABUT. TO ABUT. = 175.25'

CLEANING AND PAINTING OF THE EXISTING STRUCTURAL STEEL SHALL BE AS SPECIFIED IN THE SPECIAL PROVISIONS FOR "CLEANING AND PAINTING EXISTING STEEL STRUCTURES." ALL BEAMS, BEARINGS AND OTHER STRUCTURAL STEEL SHALL BE CLEANED PER NEAR WHITE BLAST SSPC-SP10.

THE DESIGNATED AREAS CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10 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 AND BOTTOM FLANGE OF THE FASCIA BEAMS SHALL BE BLUE, (MUNSELL COLOR NO. 10B 3/6).

A MINIMUM OF FOUR (4) HIGH VOLUME AIR MONITORS WILL BE REQUIRED TO MONITOR AIR QUALITY DURING DUST PRODUCING OPERATIONS AT THIS SITE. SEE SPECIAL PROVISIONS FOR "CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES".

THE EXISTING STRUCTURAL STEEL COATING CONTAINS LEAD. THE CONTRACTOR SHALL FOLLOW THE GUIDE BRIDGE SPECIAL PROVISIONS FOR "CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES" TO DEAL WITH THE PRESENCE OF LEAD ON THIS PROJECT.

ALL TRASH AND PAINTING DEBRIS, EXCLUDING WASTE BARRELS OR ROLL- OFF DUMPSTERS, SHALL BE REMOVED BEFORE BEGINNING WORK AT ANOTHER LOCATION.

NOTE: DECK DRAINS TO BE PAINTED AT NO ADDITIONAL COST.

LOCATION #4
DESCRIPTION

DESCRIPTION:	US 150 OVER POPE CREEK APPROXIMATELY 2.0 MILES SOUTH OF IL. 17.
COUNTY:	KNOX
ROUTE:	SBI-80 (US 150)
MARKED ROUTE:	SBI-80 (US 150)
SECTION:	123-BR
STRUCTURE NO.:	048-0026
TYPE OF STRUCTURE:	3 SPAN CONTINUOUS STEEL 6 BEAMS LINES - BEAM LENGTH ABUT. TO ABUT. = 132.67'

CLEANING AND PAINTING OF THE EXISTING STRUCTURAL STEEL SHALL BE AS SPECIFIED IN THE SPECIAL PROVISIONS FOR "CLEANING AND PAINTING EXISTING STEEL STRUCTURES." ALL BEAMS, BEARINGS AND OTHER STRUCTURAL STEEL SHALL BE CLEANED PER NEAR WHITE BLAST SSPC-SP10.

THE DESIGNATED AREAS CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10 SHALL BE PAINTED ACCORDING TO THE REQUIREMENTS OF PAINT SYSTEM 1 OZ/E/U. THE COLOR OF THE FINAL FINISH COAT FOR ALL STEEL SURFACES SHALL BE GRAY, (MUNSELL NO. 5B 7/1).

A MINIMUM OF FOUR (4) HIGH VOLUME AIR MONITORS WILL BE REQUIRED TO MONITOR AIR QUALITY DURING DUST PRODUCING OPERATIONS AT THIS SITE. SEE SPECIAL PROVISIONS FOR "CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES".

THE EXISTING STRUCTURAL STEEL COATING CONTAINS LEAD. THE CONTRACTOR SHALL FOLLOW THE GUIDE BRIDGE SPECIAL PROVISIONS FOR "CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES" TO DEAL WITH THE PRESENCE OF LEAD ON THIS PROJECT.

THE STRUCTURE HAS GALVANIZED MEMBERS SUCH AS BEAM END REPAIRS, DIAPHRAGMS, BEARINGS, OR OTHER SECONDARY MEMBERS. THE CONTRACTOR SHALL FOLLOW THE SPECIFICATION FOR ""CLEANING AND PAINTING EXISTING STEEL STRUCTURES""FOR SURFACE PREPARATION AND APPLICATION OF THE PAINT SYSTEM ON GALVANIZED SURFACES.

ALL TRASH AND PAINTING DEBRIS, EXCLUDING WASTE BARRELS OR ROLL- OFF DUMPSTERS, SHALL BE REMOVED BEFORE BEGINNING WORK AT ANOTHER LOCATION.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DESCRIPTION
LOCATION 3 & LOCATION 4

SCALE: NONE | SHEET 3 OF 11 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	11
		CONTRACT NO. 68H58		
	ILLINOIS	FED. AID PROJECT		

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LOCATION #5
DESCRIPTION

DESCRIPTION:	TR 21 OVER FAI 74 APPROXIMATELY 4.0 MILES SOUTHWEST OF WOODHULL, IL.
COUNTY:	KNOX
ROUTE:	F.A.I. 74
MARKED ROUTE:	I-74
SECTION:	48-24HB-1
STRUCTURE NO.:	048-0063
TYPE OF STRUCTURE:	4 SPAN CONTINUOUS STEEL 5 BEAMS LINES - BEAM LENGTH ABUT. TO ABUT. = 220.25'

CLEANING AND PAINTING OF THE EXISTING STRUCTURAL STEEL SHALL BE AS SPECIFIED IN THE SPECIAL PROVISIONS FOR "CLEANING AND PAINTING EXISTING STEEL STRUCTURES." ALL BEAMS, BEARINGS AND OTHER STRUCTURAL STEEL SHALL BE CLEANED PER NEAR WHITE BLAST SSPC-SP10.

THE DESIGNATED AREAS CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10 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 AND BOTTOM FLANGE OF THE FASCIA BEAMS SHALL BE BLUE, (MUNSELL COLOR NO. 10B 3/6).

A MINIMUM OF TWO (2) HIGH VOLUME AIR MONITORS WILL BE REQUIRED TO MONITOR AIR QUALITY DURING DUST PRODUCING OPERATIONS AT THIS SITE. SEE SPECIAL PROVISIONS FOR "CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES".

THE EXISTING STRUCTURAL STEEL COATING CONTAINS LEAD. THE CONTRACTOR SHALL FOLLOW THE GUIDE BRIDGE SPECIAL PROVISIONS FOR "CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES" TO DEAL WITH THE PRESENCE OF LEAD ON THIS PROJECT.

ALL TRASH AND PAINTING DEBRIS, EXCLUDING WASTE BARRELS OR ROLL- OFF DUMPSTERS, SHALL BE REMOVED BEFORE BEGINNING WORK AT ANOTHER LOCATION.

NOTE: DECK DRAINS MAY BE PAINTED AT DISCRETION OF THE ENGINEER AT NO ADDITIONAL COST.

MODEL: Default
FILE NAME: c:\c2 files\21308 IDOT - DIST 4 - PTB 201-033\Work Order 15 - FY 2023 Patching\18.Transportation\68H58 (Bridge Painting)\CADD Sheets\009_019 Location Maps.dgn

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DESCRIPTION
LOCATION 5

SCALE: NONE | SHEET 4 OF 11 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	12
		CONTRACT NO. 68H58		
	ILLINOIS	FED. AID PROJECT		

LOCATION #6

DELETED

LOCATION #6

DELETED

MODEL: Default
FILE NAME: O:\21files\21308 | IDOT - DIST 4 - PTB 201-033\Work Order 15 - FY 2023 Patching\18 Transportation\68H58 (Bridge Painting)\CADD Sheets\009 G19 Location Maps.dgn

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	DRAWN - RTB	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED - MCL	REVISED -
PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -

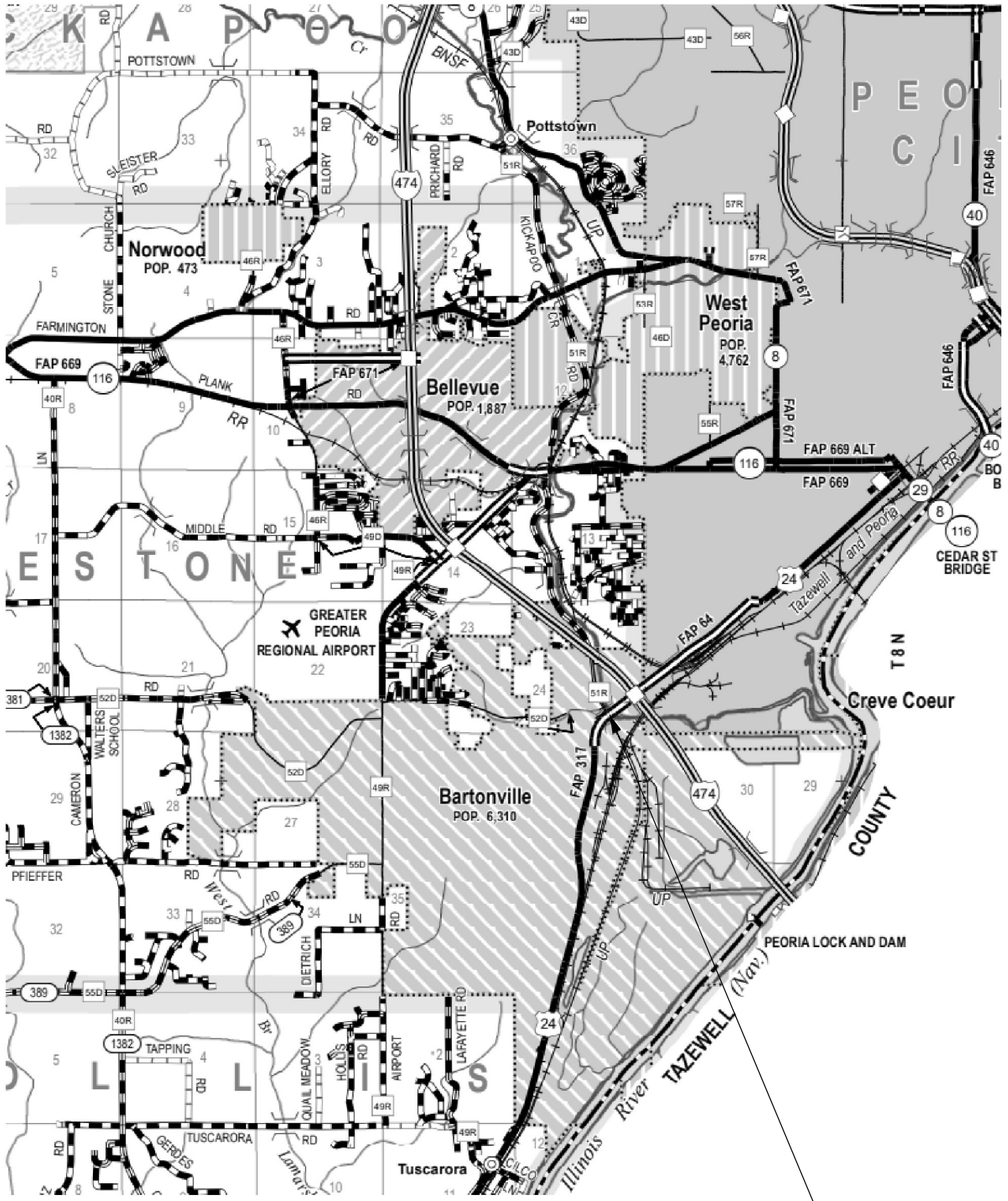
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION MAP & DESCRIPTION
LOCATION 6

SCALE: NONE | SHEET 5 OF 11 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	13
		CONTRACT NO. 68H58		
	ILLINOIS FED. AID PROJECT			

LOCATION MAP FOR LOCATION #7



LOCATION #7
S.N. 072–0201

LOCATION #7
DESCRIPTION

DESCRIPTION:	AIRPORT ROAD OVER RAILROAD AND KICAPOO TRIBUTARY ON SOUTH WEST EDGE OF PEORIA, IL.
COUNTY:	PEORIA
ROUTE:	FAU6578 (AIRPORT RD.)
MARKED ROUTE:	FAU6578 (AIRPORT RD.)
SECTION:	(-R)RS.(1-VC)BR
STRUCTURE NO.:	072-0201
TYPE OF STRUCTURE:	4 SPAN CONTINUOUS WEATHERING STEEL 9 BEAMS LINES - BEAM LENGTH ABUT. TO ABUT. = 326.10'

CLEANING AND PAINTING OF THE EXISTING STRUCTURAL STEEL SHALL BE AS SPECIFIED IN THE SPECIAL PROVISIONS FOR "CLEANING AND PAINTING EXISTING STEEL STRUCTURES." ALL BEAMS, BEARINGS, DIAPHRAGMS AND OTHER STRUCTURAL STEEL MEASURED SIXTY (60) FT. ALONG THE WEST END, AND THREE (3) FT. ALONG THE EAST END OF THE STRUCTURE, INCLUDING THE BEARING AND DIAPHRAGMS, SHALL BE CLEANED PER NEAR WHITE BLAST SSPC-SP10.

THE DESIGNATED AREAS CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10 SHALL BE PAINTED ACCORDING TO THE REQUIREMENTS OF PAINT SYSTEM 1 OZ/E/U. THE COLOR OF THE FINAL FINISH COAT FOR ALL SURFACES SHALL BE GRAY, (MUNSELL NO. 5B 7/1).

THE CONTRACTOR SHALL FOLLOW THE SPECIFICATIONS FOR CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES.

ALL TRASH AND PAINTING DEBRIS, EXCLUDING WASTE BARRELS OR ROLL-OFF DUMPSTERS, SHALL BE REMOVED BEFORE BEGINNING WORK AT ANOTHER LOCATION.

MODEL: Default
FILE NAME: O:\2 Files\213081 IDOT - DIST 4 - PTB 201403\Work Order 15 - FY 2023 Patching\18_Transportation\68H58 (Bridge Painting)\CADD Sheets\009_019 Location Maps.dgn

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Monmouth, IA Carthage, IL

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PLOT SCALE = 100.0000 ' / in.	CHECKED - MCL	REVISED -	
PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -	

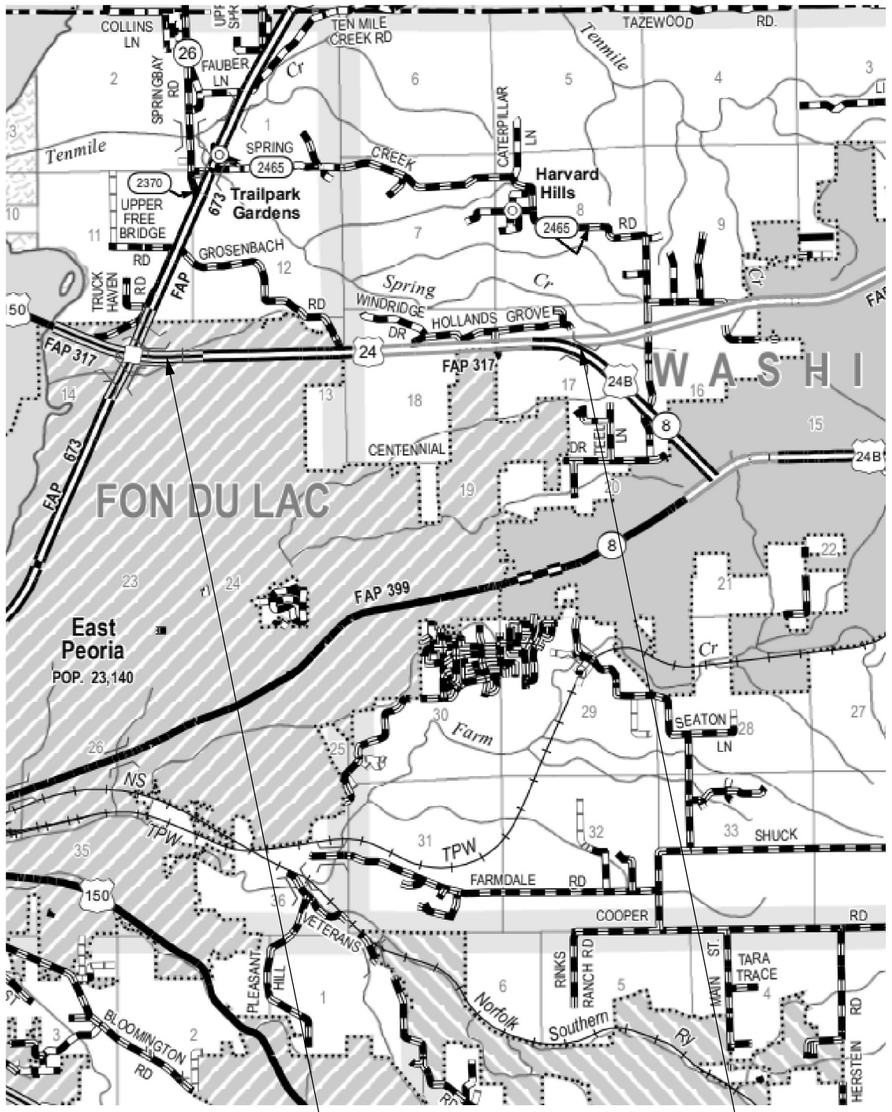
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION MAP & DESCRIPTION
LOCATION 7

SCALE: NONE | SHEET 6 OF 11 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	14
		CONTRACT NO. 68H58		
	ILLINOIS	FED. AID PROJECT		

LOCATION MAP FOR LOCATIONS #8 - #10



LOCATION #8 & #9
S.N. 090–0073
S.N. 090–0074

LOCATION #10
S.N. 090–00124

LOCATION #8
DESCRIPTION

DESCRIPTION:	EB US 24 OVER RAMP FROM IL 116 TO US 150 APPROXIMATELY 0.8 MILES EAST OF ILLINOIS RIVER IN EAST PEORIA, IL.
COUNTY:	TAZEWELL
ROUTE:	SBI-116
MARKED ROUTE:	SBI-116
SECTION:	102HB-1
STRUCTURE NO.:	090-0073
TYPE OF STRUCTURE:	4 SPAN CONTINUOUS STEEL 7 BEAMS LINES - BEAM LENGTH ABUT. TO ABUT. = 107.67'

CLEANING AND PAINTING OF THE EXISTING STRUCTURAL STEEL SHALL BE AS SPECIFIED IN THE SPECIAL PROVISIONS FOR "CLEANING AND PAINTING EXISTING STEEL STRUCTURES." ALL BEAMS, BEARINGS AND OTHER STRUCTURAL STEEL SHALL BE CLEANED PER NEAR WHITE BLAST SSPC-SP10.

THE DESIGNATED AREAS CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10 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 AND BOTTOM FLANGE OF THE FASCIA BEAMS SHALL BE BLUE, (MUNSELL COLOR NO. 10B 3/6).

A MINIMUM OF ONE (1) HIGH VOLUME AIR MONITORS WILL BE REQUIRED TO MONITOR AIR QUALITY DURING DUST PRODUCING OPERATIONS AT THIS SITE. SEE SPECIAL PROVISIONS FOR "CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES".

THE EXISTING STRUCTURAL STEEL COATING CONTAINS LEAD. THE CONTRACTOR SHALL FOLLOW THE GUIDE BRIDGE SPECIAL PROVISIONS FOR "CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES" TO DEAL WITH THE PRESENCE OF LEAD ON THIS PROJECT

ALL TRASH AND PAINTING DEBRIS, EXCLUDING WASTE BARRELS OR ROLL- OFF DUMPSTERS, SHALL BE REMOVED BEFORE BEGINNING WORK AT ANOTHER LOCATION.

NOTE: DECK DRAINS MAY BE PAINTED AT DISCRETION OF THE ENGINEER AT NO ADDITIONAL COST.

MODEL: Default
FILE NAME: O:\2 Files\2 1381 (TDOT - DIST 4 - PTB 201-033\Work Order 15 - FY 2023 Patching\B_Transportation\68H58 (Bridge Painting)\CADD Sheets\009 @19 Location Maps.dgn

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PLOT SCALE = 100.0000 ' / in.	CHECKED - MCL	REVISED -	
PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION MAP & DESCRIPTION
LOCATION 8 LOCATION 9 & LOCATION 10

SCALE: NONE | SHEET 7 OF 11 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	15
		CONTRACT NO. 68H58		
	ILLINOIS FED. AID PROJECT			

LOCATION #9
DESCRIPTION

DESCRIPTION:	WB US 24 OVER RAMP FROM IL 116 TO US 150 APPROXIMATELY 0.8 MILES EAST OF ILLINOIS RIVER IN EAST PEORIA, IL.
COUNTY:	TAZEWELL
ROUTE:	SBI-116
MARKED ROUTE:	SBI-116
SECTION:	102HB-1
STRUCTURE NO.:	090-0074
TYPE OF STRUCTURE:	4 SPAN CONTINUOUS STEEL 7 BEAMS LINES - BEAM LENGTH ABUT. TO ABUT. = 107.67'

CLEANING AND PAINTING OF THE EXISTING STRUCTURAL STEEL SHALL BE AS SPECIFIED IN THE SPECIAL PROVISIONS FOR "CLEANING AND PAINTING EXISTING STEEL STRUCTURES." ALL BEAMS, BEARINGS AND OTHER STRUCTURAL STEEL SHALL BE CLEANED PER NEAR WHITE BLAST SSPC-SP10.

THE DESIGNATED AREAS CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10 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 AND BOTTOM FLANGE OF THE FASCIA BEAMS SHALL BE BLUE, (MUNSELL COLOR NO. 10B 3/6).

A MINIMUM OF ONE (1) HIGH VOLUME AIR MONITORS WILL BE REQUIRED TO MONITOR AIR QUALITY DURING DUST PRODUCING OPERATIONS AT THIS SITE. SEE SPECIAL PROVISIONS FOR "CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES".

THE EXISTING STRUCTURAL STEEL COATING CONTAINS LEAD. THE CONTRACTOR SHALL FOLLOW THE GUIDE BRIDGE SPECIAL PROVISIONS FOR "CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES" TO DEAL WITH THE PRESENCE OF LEAD ON THIS PROJECT.

ALL TRASH AND PAINTING DEBRIS, EXCLUDING WASTE BARRELS OR ROLL- OFF DUMPSTERS, SHALL BE REMOVED BEFORE BEGINNING WORK AT ANOTHER LOCATION.

NOTE: DECK DRAINS MAY BE PAINTED AT DISCRETION OF THE ENGINEER AT NO ADDITIONAL COST.

LOCATION #10
DESCRIPTION

DESCRIPTION:	McCLUGGAGE ROAD OVER US 24 AT EDGE OF WASHINGTON, IL.
COUNTY:	TAZEWELL
ROUTE:	F.A.P. 49 (US-24 BUS.)
MARKED ROUTE:	F.A.P. 49 (US-24 BUS.)
SECTION:	18HB
STRUCTURE NO.:	090-0124
TYPE OF STRUCTURE:	2 SPAN CONTINUOUS STEEL 4 BEAMS LINES - BEAM LENGTH ABUT. TO ABUT. = 245.11'

CLEANING AND PAINTING OF THE EXISTING STRUCTURAL STEEL SHALL BE AS SPECIFIED IN THE SPECIAL PROVISIONS FOR "CLEANING AND PAINTING EXISTING STEEL STRUCTURES." ALL BEAMS, BEARINGS AND OTHER STRUCTURAL STEEL SHALL BE CLEANED PER NEAR WHITE BLAST SSPC-SP10.

THE DESIGNATED AREAS CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10 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 AND BOTTOM FLANGE OF THE FASCIA BEAMS SHALL BE BLUE, (MUNSELL COLOR NO. 10B 3/6).

THE STRUCTURE HAS AN EXISTING ZINC-VINYL PAINT SYSTEM. THE CONTRACTOR SHALL FOLLOW THE SPECIFICATIONS FOR CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES.

ALL TRASH AND PAINTING DEBRIS, EXCLUDING WASTE BARRELS OR ROLL-OFF DUMPSTERS, SHALL BE REMOVED BEFORE BEGINNING WORK AT ANOTHER LOCATION.

NOTE: DECK DRAINS MAY BE PAINTED AT DESCRETION OF THE ENGINEER AT NO ADDITIONAL COST.

LOCATION #11
DELETED

LOCATION #11
DELETED

MODEL: Default
FILE NAME: O:\Files\31081 IDOT - DIST 7 - PTB 201-033\Work Order 15 - FY 2023 Patching\18 Transportation\68H58 (Bridge Painting\CADD Sheets\009 019 Location Maps.dgn

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PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -	

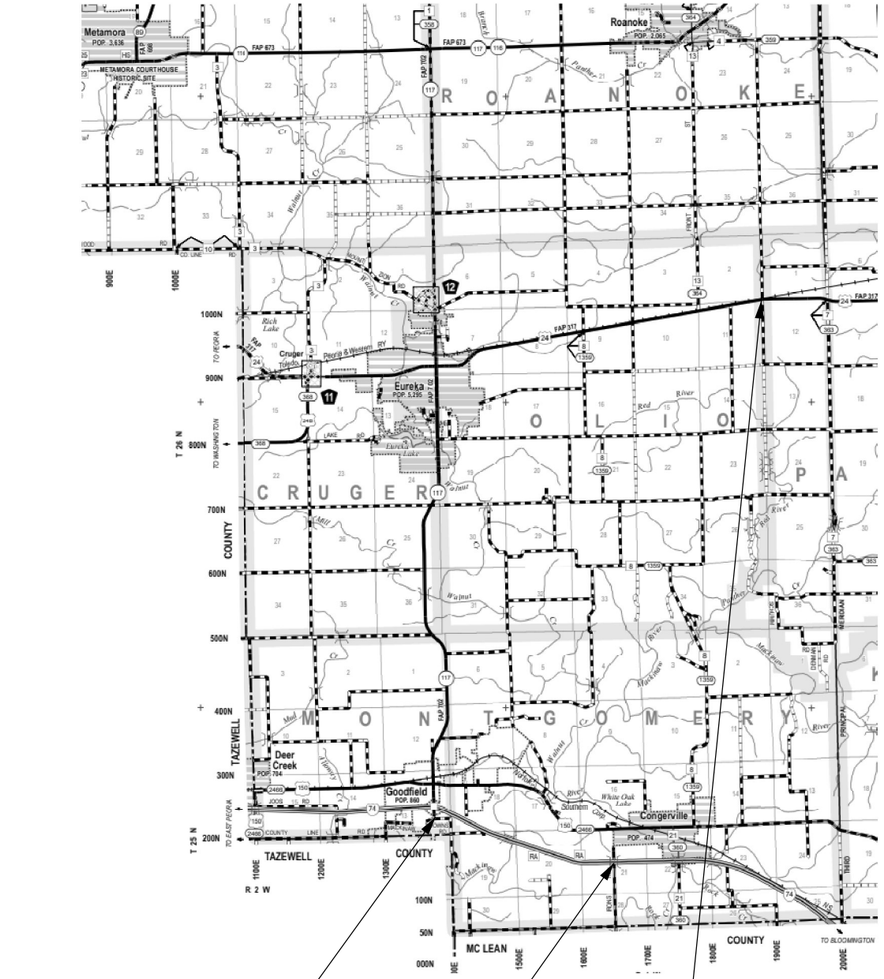
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION MAP & DESCRIPTION
LOCATION 11

SCALE: NONE | SHEET 9 OF 11 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	17
		CONTRACT NO. 68H58		
	ILLINOIS FED. AID PROJECT			

LOCATION MAP FOR LOCATIONS #12 - #14



LOCATION #12
S.N. 102–0012

LOCATION #13
S.N. 102–0034

LOCATION #14
S.N. 102–0046

LOCATION #12
DESCRIPTION

DESCRIPTION:	IL.RTE 117 OVER FAI 74 SOUTH OF GOODFIELD, IL. IN WOODFORD COUNTY.
COUNTY:	WOODFORD
ROUTE:	F.A.I. 74
MARKED ROUTE:	I-74
SECTION:	X3-16HB-1
STRUCTURE NO.:	102-0012
TYPE OF STRUCTURE:	4 SPAN CONTINUOUS STEEL 8 BEAMS LINES - BEAM LENGTH ABUT. TO ABUT. = 224.08'

CLEANING AND PAINTING OF THE EXISTING STRUCTURAL STEEL SHALL BE AS SPECIFIED IN THE SPECIAL PROVISIONS FOR "CLEANING AND PAINTING EXISTING STEEL STRUCTURES." ALL BEAMS, BEARINGS AND OTHER STRUCTURAL STEEL SHALL BE CLEANED PER NEAR WHITE BLAST SSPC-SP10.

THE DESIGNATED AREAS CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10 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 AND BOTTOM FLANGE OF THE FASCIA BEAMS SHALL BE BLUE, (MUNSELL COLOR NO. 10B 3/6).

A MINIMUM OF THREE (3) HIGH VOLUME AIR MONITORS WILL BE REQUIRED TO MONITOR AIR QUALITY DURING DUST PRODUCING OPERATIONS AT THIS SITE. SEE SPECIAL PROVISIONS FOR "CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES".

THE EXISTING STRUCTURAL STEEL COATING CONTAINS LEAD. THE CONTRACTOR SHALL FOLLOW THE GUIDE BRIDGE SPECIAL PROVISIONS FOR "CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES" TO DEAL WITH THE PRESENCE OF LEAD IN THIS PROJECT.

ALL TRASH AND PAINTING DEBRIS, EXCLUDING WASTE BARRELS OR ROLL- OFF DUMPSTERS, SHALL BE REMOVED BEFORE BEGINNING WORK AT ANOTHER LOCATION.

NOTE: DECK DRAINS MAY BE PAINTED AT DISCRETION OF THE ENGINEER AT NO ADDITIONAL COST.

MODEL: Default
FILE NAME: O:\2 Files\21308 IDOT - DIST 4 - PTB 201-033\Work Order 15 - FY 2023 Patching\18_Transportation\68H58 (Bridge Painting)\CADD Sheets\009_019 Location Maps.dgn

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PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION MAP & DESCRIPTION
LOCATION 12 LOCATION 13 & LOCATION 14

SCALE: NONE | SHEET 10 OF 11 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	18
		CONTRACT NO. 68H58		
	ILLINOIS	FED. AID PROJECT		

LOCATION #13
DESCRIPTION

DESCRIPTION:	CH 1650E OVER FAI 74 APPROXIMATELY 2.9 MILES EAST OF IL 117 IN WOODFORD, COUNTY.
COUNTY:	WOODFORD
ROUTE:	F.A.I. 74
MARKED ROUTE:	I-74
SECTION:	X3-17HB
STRUCTURE NO.:	102-0034
TYPE OF STRUCTURE:	4 SPAN CONTINUOUS STEEL 5 BEAMS LINES - BEAM LENGTH ABUT. TO ABUT. = 218.34'

CLEANING AND PAINTING OF THE EXISTING STRUCTURAL STEEL SHALL BE AS SPECIFIED IN THE SPECIAL PROVISIONS FOR "CLEANING AND PAINTING EXISTING STEEL STRUCTURES." ALL BEAMS, BEARINGS AND OTHER STRUCTURAL STEEL SHALL BE CLEANED PER NEAR WHITE BLAST SSPC-SP10.

THE DESIGNATED AREAS CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10 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 AND BOTTOM FLANGE OF THE FASCIA BEAMS SHALL BE BLUE, (MUNSELL COLOR NO. 10B 3/6).

A MINIMUM OF TWO (2) HIGH VOLUME AIR MONITORS WILL BE REQUIRED TO MONITOR AIR QUALITY DURING DUST PRODUCING OPERATIONS AT THIS SITE. SEE SPECIAL PROVISIONS FOR "CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES".

THE EXISTING STRUCTURAL STEEL COATING CONTAINS LEAD. THE CONTRACTOR SHALL FOLLOW THE GUIDE BRIDGE SPECIAL PROVISIONS FOR "CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES" TO DEAL WITH THE PRESENCE OF LEAD ON THIS PROJECT.

ALL TRASH AND PAINTING DEBRIS, EXCLUDING WASTE BARRELS OR ROLL-OFF DUMPSTERS, SHALL BE REMOVED BEFORE BEGINNING WORK AT ANOTHER LOCATION.

NOTE: DECK DRAINS MAY BE PAINTED AT DESCRETION OF THE ENGINEER AT NO ADDITIONAL COST.

LOCATION #14
DESCRIPTION

DESCRIPTION:	US 24 OVER RAILROAD 1.6 MILES EAST OF DEE-MACK ROAD NEAR CRUGER IL.
COUNTY:	WOODFORD
ROUTE:	FA 317 (US-24)
MARKED ROUTE:	FA 317 (US-24)
SECTION:	18-2VB
STRUCTURE NO.:	102-0046
TYPE OF STRUCTURE:	3 SPAN CONTINUOUS STEEL 7 BEAMS LINES - BEAM LENGTH ABUT. TO ABUT. = 232.37'

CLEANING AND PAINTING OF THE EXISTING STRUCTURAL STEEL SHALL BE AS SPECIFIED IN THE SPECIAL PROVISIONS FOR "CLEANING AND PAINTING EXISTING STEEL STRUCTURES." ALL BEAMS, BEARINGS AND OTHER STRUCTURAL STEEL SHALL BE CLEANED PER NEAR WHITE BLAST SSPC-SP10.

THE DESIGNATED AREAS CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10 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 AND BOTTOM FLANGE OF THE FASCIA BEAMS SHALL BE BLUE, (MUNSELL COLOR NO. 10B 3/6).

THE STRUCTURE CURRENTLY HAS AN EXISTING ZINC-VINYL PAINT SYSTEM. THE CONTRACTOR SHALL FOLLOW THE SPECIFICATIONS FOR CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES.

SOME RAILROADS REQUIRE CONTRACTORS TO OBTAIN A RIGHT OF ENTRY PERMIT BEFORE BEFORE ENTERING UPON RAILROAD RIGHT OF WAY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN A RAILROAD RIGHT OF ENTRY PERMIT FROM THE RAILROAD IF IF REQUIRED BY THE RAILROAD(S).

ALL TRASH AND PAINTING DEBRIS, EXCLUDING WASTE BARRELS OR ROLL-OFF DUMPSTERS, SHALL BE REMOVED BEFORE BEGINNING WORK AT ANOTHER LOCATION.

NOTE: DECK DRAINS MAY BE PAINTED AT DESCRETION OF THE ENGINEER AT NO ADDITIONAL COST.

SN 037-0105 (LOCATION 1)

LOC.1

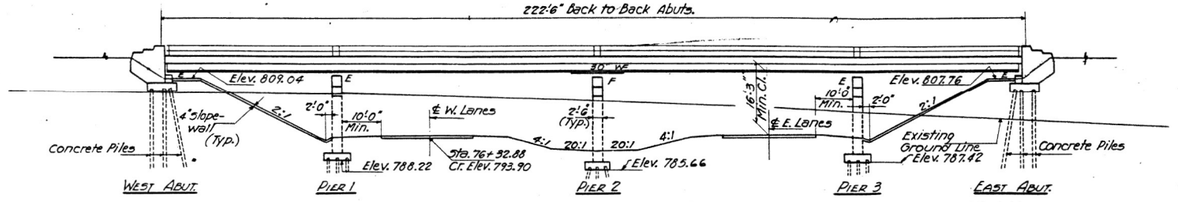
037-0105

B.M.: "S Spike and Washer in 28" Stump 63' Rt. Sta. 76+04 North Side of T.R.399. Elev. 808.006

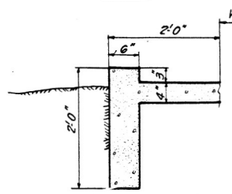
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Various I.R. 74	37 72-4HB	Henry	28	5
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	I-74-2(86)32	

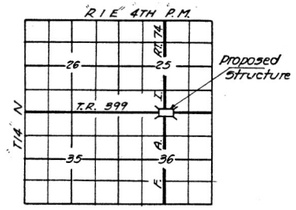
SHEET NO. 1
12 SHEETS



ELEVATION



SECTION A-A

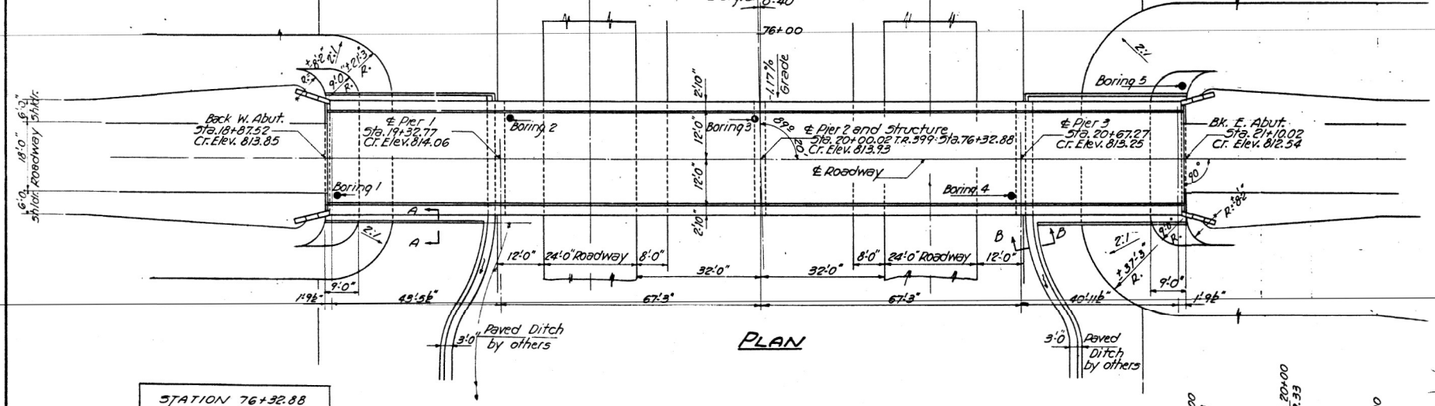


LOCATION PLAN

GENERAL NOTES

Class-X Concrete shall be used throughout.
Coarse aggregate which is to be used in the End Posts must be free of chert flint limonite and soft sandstone.
The conc. floor slab shall be finished in accordance with Art. 5.19 of the Standard Specifications.
Slope walls shall be reinforced with welded wire fabric 6"x6" mesh #4 wires, weighing 58 Lbs. per 100 Sq. ft.
Rivets ⅞" Open holes 15/16, unless noted.

All rockers, bolsters, bearing plates, lead plates, pintles and anchor bolts shall be fabricated and set in accordance with Art. 5.15 of the Standard Specifications and are included in the quantity of Structural Steel.
Estimated Weight = 6335 Lbs.
Anchor Bolts shall be set before riveting diaphragms over supports.
All Steel Handrail Posts shall be vertical.
Except as otherwise provided, all structural steel shall receive one shop coat of red lead paint and two field coats of aluminum paint.
See Arts. 56.1 to 56.5 inclusive of the Standard Specifications.
All paint shall be furnished and applied by the Contractor.
The Contractor shall drive one timber test pile and two concrete test piles as directed by the Engineer, before ordering remainder of piles.
One concrete test pile at the West Abutment, one at the East Abutment, both piles in permanent locations, and one timber test pile near Pier 2.
The piles at the West and East Abutments shall be driven in holes precored through the embankment to the natural ground line in accordance with Art. 60.9(c) of the Standard Specifications.



PLAN

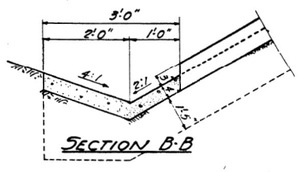
STATION 76+32.88
BUILT BY
STATE OF ILLINOIS
F.A.I. RT. 74-SEC. 37-24 HB
F.A. PROJ. 374-2(86)32
LOADING H15-S12

LETTERING FOR NAME PLATE
See Standard 2113-1

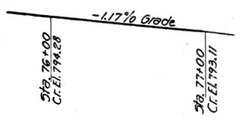
DESIGNED	Mario G. Revilla	
CHECKED	R. Howard	
DRAWN	M.M.R.	M. Miller
CHECKED	R.K.	

Nov. 15 1961

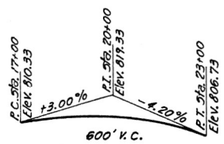
EXAMINED W. E. Dommann, ENGINEER OF BRIDGES AND TRAFFIC STRUCTURES
PASSED
APPROVED, CHIEF HIGHWAY ENGINEER



SECTION B-B



PROFILE GRADE-F.A.I. 74
Stations run South



V.C. DATA-T.R. 399

DESIGN STRESSES
fc - - - 1400 #/□" Super. & Sub
fs - - - 20000 #/□" Reinf.
fs - - - 18000 #/□" Struct. (A 36 steel)
Vc - - - 75 #/□" Footings

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER.	SUBSTR.	TOTAL
Class-A Excavation for Structures	Cu. Yds.		180	180
Structural Steel	Lbs.	166910		166910
Class-X Concrete	Cu. Yds.	193.8	202.1	395.9
Aluminum Handrail	Lin. Ft.	441		441
Reinforcement Bars	Lbs.	36780	14200	50980
Creosoted Piles	Lin. Ft.		1120	1120
Test Piles (Timber)	Each		1	1
Concrete Piles	Lin. Ft.		480	480
Test Piles (Concrete)	Each		2	2
Name Plates	Each		2	2
Slope Wall (4")	Sq. Yds.		370	370
Protective Coat	Sq. Yds.	791		791

Loading H15-S12-44

GENERAL PLAN & ELEVATION
T.R. 399 OVER F.A.I. RT. 74
F.A.I. RT. 74-SEC. 37-24 HB
F.A. PROJ. I-74-2(86)32
HENRY COUNTY
STATION 76+32.88

FOR INFORMATION ONLY

Revised: Bills of Lbs. in "PLAN" and "ELEVATION", removed 60 bolts and all notations in connection with deleted members. Revised: Note No. 1 and Remarks Added. 1-16-62 R.K.

MODEL: Default
FILE NAME: O:\2 Files\213081 IDOT - DIST 4 - PTB 201-033\Work Order 15 - FY 2023 Patching\18 Transportation\68H58 (Bridge Painting)\CADD Sheets\020_113 Old Mtn. Sets.dgn

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USER NAME = rbailey	DESIGNED - RTB	REVISED -	
	DRAWN - RTB	REVISED -	
PLOT SCALE = 100.0000 ' / in.	CHECKED - MCL	REVISED -	
PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 1 OF 4 SHEETS | STA. N/A | TO STA. N/A

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	20
		CONTRACT NO. 68H58		
	ILLINOIS FED. AID PROJECT			

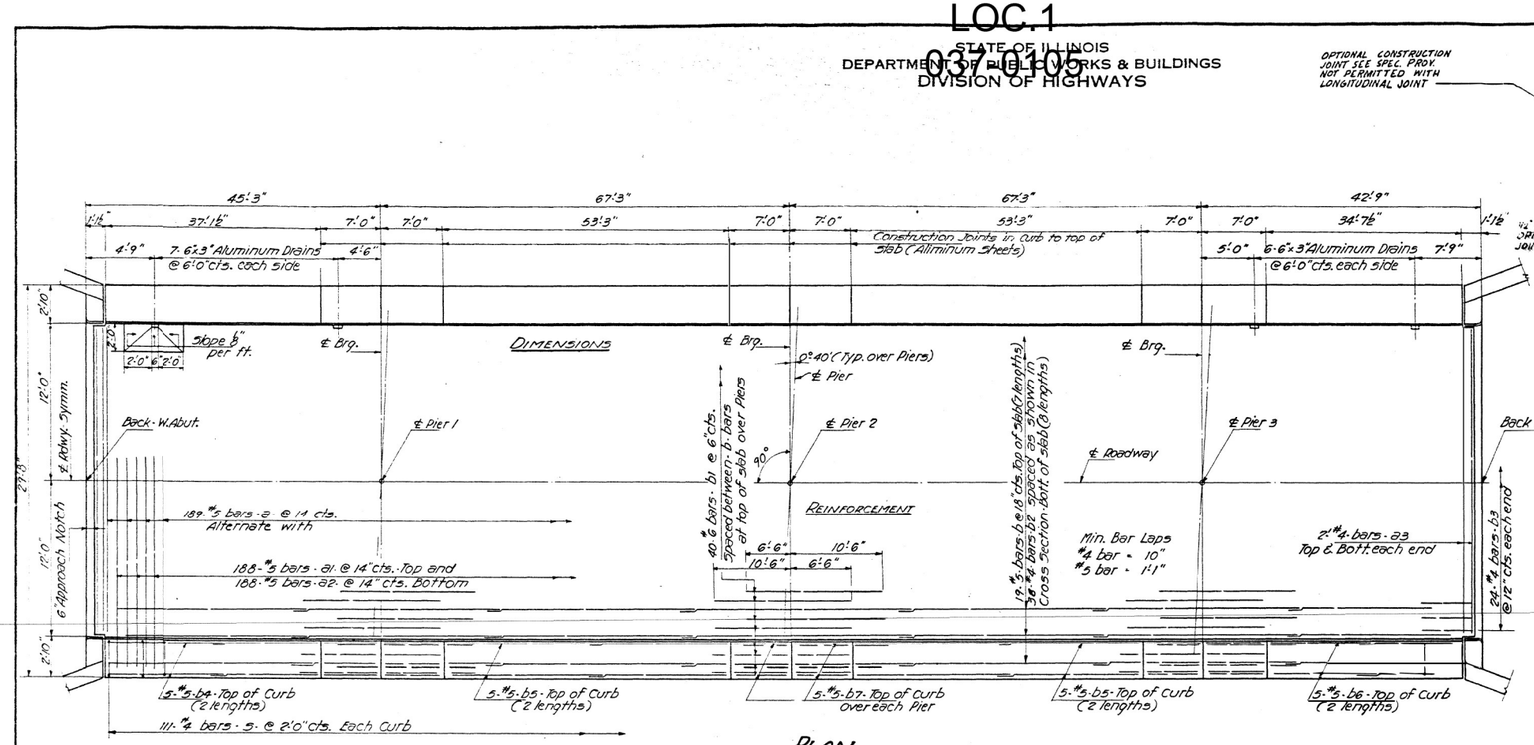
SN 037-0105 (LOCATION 1)

LOC.1
037-0105

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

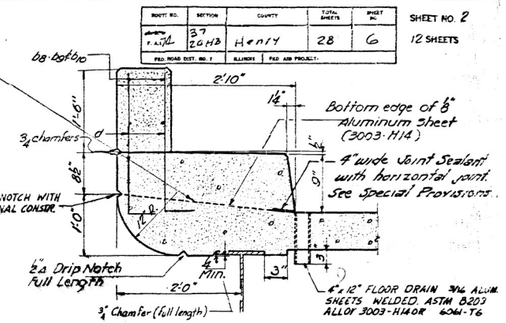
DIST. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4	37 ZGHB	Henry	28	6
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT:		

SHEET NO. 2
12 SHEETS



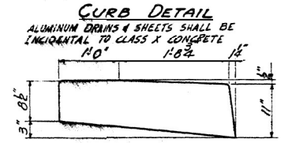
PLAN

OPTIONAL CONSTRUCTION JOINT SEE SPEC. PROV. NOT PERMITTED WITH LONGITUDINAL JOINT

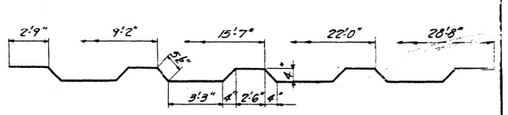


CURB DETAIL

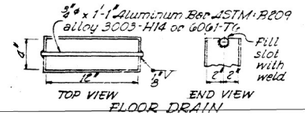
ALUMINUM DRAINS & SHEETS SHALL BE INCIDENTAL TO CLASS X CONCRETE



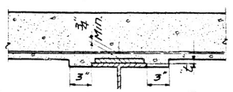
DETAIL OF ALUMINUM SHEET
18 Req'd.
(Cost incidental to Class X Concrete)



BAR a

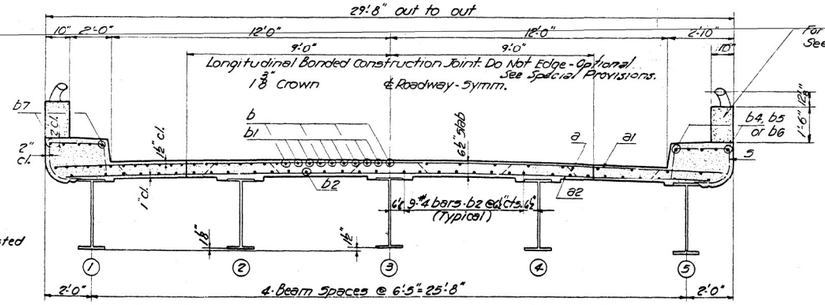


FLOOR DRAIN



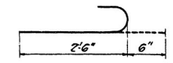
METHOD OF DETERMINING FILLET HEIGHT "t"

After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at the stations shown on sheet 12. These elevations subtracted from the "theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on sheet 12 minus floor thickness equals the fillet height above top of beam.

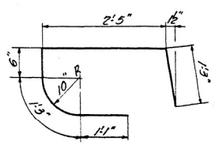


OVER PIERS NEAR ℄ SPANS

CROSS SECTION



BAR b3



BAR 5

BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
a	189	#5	29'-8"	
a1	188	#5	29'-0"	
a2	188	#5	27'-6"	
a3	8	#4	23'-9"	
b	193	#5	32'-9"	
b1	120	#6	11'-0"	
b2	304	#4	28'-3"	
b3	48	#4	3'-0"	
b4	20	#5	19'-0"	
b5	40	#5	27'-0"	
b6	20	#5	17'-9"	
b7	60	#5	6'-9"	
s	222	#4	6'-6"	
Class X Concrete			Cu. Yds.	199.8
Reinforcement Bars			Lbs.	36,780
* Structural Steel			Lbs.	16691.0

* Includes Parapet Reinforcement bilid on sheet 4

DESIGNED	M. G. Gaeta		
CHECKED	R. Kowert		
DRAWN	M.R.	R.F. M. Miller	
CHECKED	R.K.		

Nov. 15 1961

EXAMINED W. R. Swanson, ENGINEER OF BRIDGES AND TRAFFIC STRUCTURES

PASSED [signature], ENGINEER OF DESIGN

APPROVED [signature], CHIEF HIGHWAY ENGINEER

SUPERSTRUCTURE
F.A.I. Rt. 74 - Sec. 37-24-HB
HENRY COUNTY
STATION 76+32.88

FOR INFORMATION ONLY

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FILE NAME: O:\2 Files\21308 IDOT - DIST 4 - PTB 201-033\Work Order 15 - FY 2023 Patching\18.Transportation\68H58 (Bridge Painting)\CADD Sheets\020 - 112 Old Main Section

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USER NAME = rbailey	DESIGNED - RTB		REVISED -
	DRAWN - RTB		REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED - MCL		REVISED -
PLOT DATE = 3/21/2023	DATE - 3/21/2023		REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 2 OF 4 SHEETS | STA. N/A | TO STA. N/A

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	21
		CONTRACT NO. 68H58		
	ILLINOIS	FED. AID PROJECT		

SN 037-0105 (LOCATION 1)

LOC.1
037-0105

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

ROUTE NO.	SECTION	COUNTY	SHEETS	NO.
F.A.P. 74	37 76HB	Henry	28	7

SHEET NO. 3
12 SHEETS

℄ Brg. W. Abut. 43'-5½" | ℄ Brg. Pier 1 67'-3" | ℄ Brg. Pier 2 67'-3" | ℄ Brg. Pier 3 40'-11½" | ℄ Brg. E. Abut.

18'-5½" 25'-0" | 14'-0" 20'-0" 20'-0" | 13'-3" 13'-3" 20'-0" 20'-0" | 14'-0" 25'-0" 15'-11½"

℄ Splice 1 | ℄ Splice 2 | ℄ Splice 3

℄ Rdwy. - Symm.

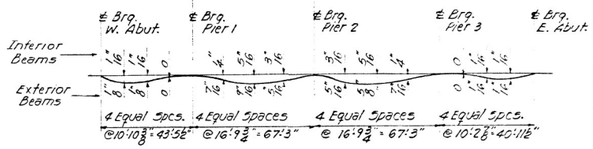
4 Bm. Spcs. @ 6'-5" = 25'-8"

80° 0

5½" | 12'-0" | 11'-0" | 12'-0" | 5½"

55'-11" | 44'-3" | 66'-3" | 53'-5"

219'-10" End to End Beams



DEAD LOAD DEFLECTION DIAGRAM
Includes weight of concrete only

Note: The above deflections are not for use in the field if the Engineer is working from the Theoretical Grade Elevations Adjusted for Dead Load Deflection shown on Sheet 12

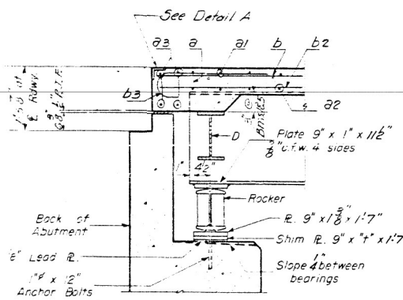
STRUCTURAL STEEL LAYOUT
All beams 30 WF 124

7/16" vent holes @ 1'-0" cts.

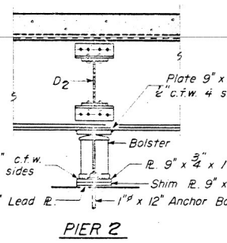
7/16" holes @ 1'-0" cts. for ⅞" ϕ bolts. All bolts shall be removed flush with back of angle after forms are removed.

¾" x 8" CP 1020 Steel flux filled studs - automatically end welded at 1'-0" alternate cts.

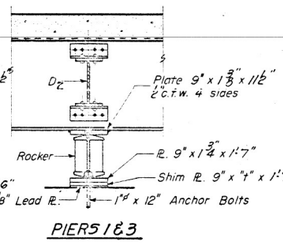
4" x 4" x ½ L - 23'-11½" long



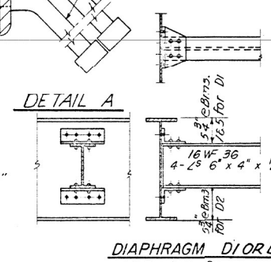
SECTION AT ABUTMENT



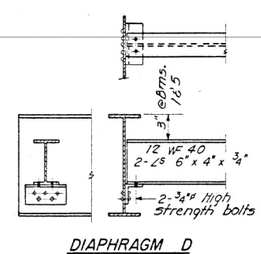
PIER 2



PIERS 1 & 3



DIAPHRAGM D1 OR D2
16 Required - D1
28 Required - D2

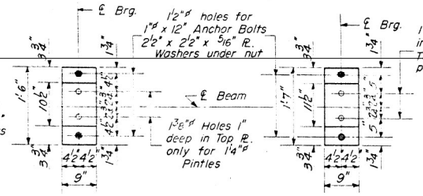


DIAPHRAGM D
8 Required

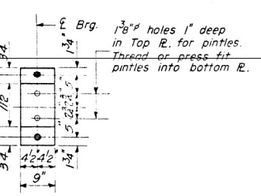
TABLE OF "t" DIMENSIONS

Beam	℄ Brg. W. Abut.	℄ Brg. Pier 1	℄ Brg. Pier 2	℄ Brg. Pier 3	℄ Brg. E. Abut.
1	—	—	—	—	—
2	—	—	—	—	—
3	½"	¾"	¾"	¾"	½"
4	—	—	—	—	—
5	—	—	—	—	—

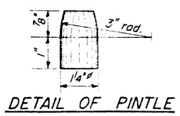
PLAN



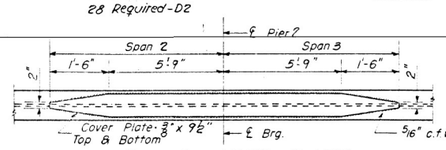
PLAN



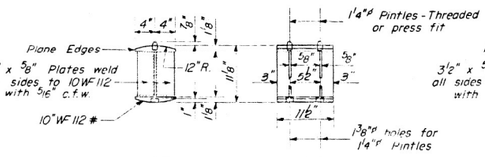
PLAN



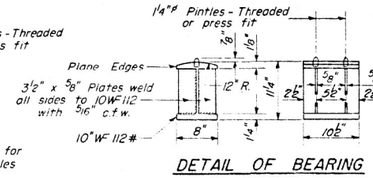
DETAIL OF PINTLE



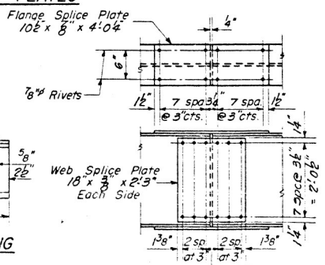
DETAIL OF COVER PLATES



DETAIL OF BEARING AT PIERS 1 & 3 & ABUTS



DETAIL OF BEARING AT PIER 2



DETAIL OF SPLICE

ELEVATIONS - TOP FLANGE OF BEAMS

Beam	℄ Brg. W. Abut.	℄ Pier 1	℄ Splice 1	℄ Splice 2	℄ Pier 2	℄ Splice 3	℄ Pier 3	℄ Brg. E. Abut.
1	813.19	813.43	813.49	813.40	813.30	812.86	812.63	811.91
2	813.28	813.52	813.58	813.49	813.39	812.91	812.72	812.00
3	814.31	813.55	813.61	813.52	813.42	812.94	812.75	812.03
4	813.28	813.52	813.58	813.49	813.39	812.91	812.72	812.00
5	813.19	813.43	813.49	813.40	813.30	812.82	812.63	811.91

DESIGNED: M. G. Gerdes
DETAILED: R. Kincaid, M. M.
TRACED: W. A. Sausaman
CHECKED: R. K.

EXAMINED: Nov. 15 1961 — W. C. Baumann
PASSED: E. E. Cranny
APPROVED: R. V. Bartelsmeyer

I-2 Re-drawn 8-18-59

STRUCTURAL STEEL DETAILS
F.A.I. Rt. 74 - Sec. 37-24 HB
HENRY COUNTY
STATION 76+32.88

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PLOT SCALE = 100.0000 ' / in.	CHECKED - MCL	REVISED -
PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE PLAN SETS

SCALE: NONE | SHEET 3 OF 4 SHEETS | STA. N/A | TO STA. N/A

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	22
		CONTRACT NO. 68H58		
		ILLINOIS	FED. AID PROJECT	

SN 037-0105 (LOCATION 1)

LOC.1

037-0105

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Added 1974	37 74-HB	Henry	28	9
FED. ROAD SHEET NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO 5
12 SHEETS

PILE DATA

Type	Creosoted
Capacity	18 Tons
Est. Length	20 Ft.
No. Req'd.	36 (2 Piers)

Pier # 1
Sta. 19+32.77
Cr. Elev. 814.06

Pier # 3
Sta. 20+67.27
Cr. Elev. 813.25

Elev. 809.72 Pier 1
Elev. 808.92 Pier 3

Elev. 788.22 Pier 1
Elev. 788.42 Pier 3

END VIEW

TOP PLAN

ELEVATION

DIMENSIONS

REINFORCEMENT

Name Plate
(2 Req'd.)
Locate one Name Plate at East face of Pier 1 and one at West face of Pier 3. Each facing F.A.I. Rt. 74.

PILE SPACING

FOOTING PLAN

Note: All edges shall have standard ¾" chamfers except footings.

SECTION A-A

A & B DIMENSIONS

Bar	A	B
s1	2'-2"	1'-11"
s2	2'-2"	2'-8"
s3	2'-2"	3'-2"

s BARS

u BAR

n BAR

PIERS 1 & 3
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h	8	#5	28'-9"	—
h1	8	#5	22'-0"	—
h2	40	#5	11'-6"	—
n	52	#6	4'-9"	⊃
p	8	#11	28'-9"	—
p1	6	#10	28'-9"	—
p2	12	#5	10'-10"	—
s1	32	#5	6'-0"	⊓
s2	76	#5	7'-6"	⊓
s3	20	#5	8'-6"	⊓
t	42	#7	8'-3"	—
u	12	#6	8'-0"	⊏
v	32	#5	17'-6"	—
v1	20	#5	16'-0"	—
w	10	#5	19'-9"	—
Class "X" Concrete			Cu. Yds.	88.1
Reinforcement Bars			Lbs.	6320
Creosoted Piles			Lin. Ft.	720

DESIGNED M. G. Revilla
CHECKED R. Howard
DRAWN W. A. Sousoman
CHECKED R.K.

EXAMINED W. E. Baumann — Nov. 15 1961
PASSED
APPROVED R. K. Bartelsmeyer

P-2 Re-drawn 7-17-59 Rev. 11-25-59

PIERS 1 & 3
F.A.I. RT. 74 SEC. 37.74HB
HENRY COUNTY
STATION 70+32.88

FOR INFORMATION ONLY

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USER NAME = rbailey	DESIGNED - RTB	REVISED -	
	DRAWN - RTB	REVISED -	
PLOT SCALE = 100.0000 ' / in.	CHECKED - MCL	REVISED -	
PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 4 OF 4 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	23
		CONTRACT NO. 68H58		
		ILLINOIS	FED. AID PROJECT	

SN 048-0010 (LOCATION 2)

LOCATION 2

048-0010

Bench Mark: USC & GS Stand. Br. Disk on top of NW parapet wall I-74 E.B. over Main St. (S.N. 048-0009) "Gate RM2" Elev. 801.35

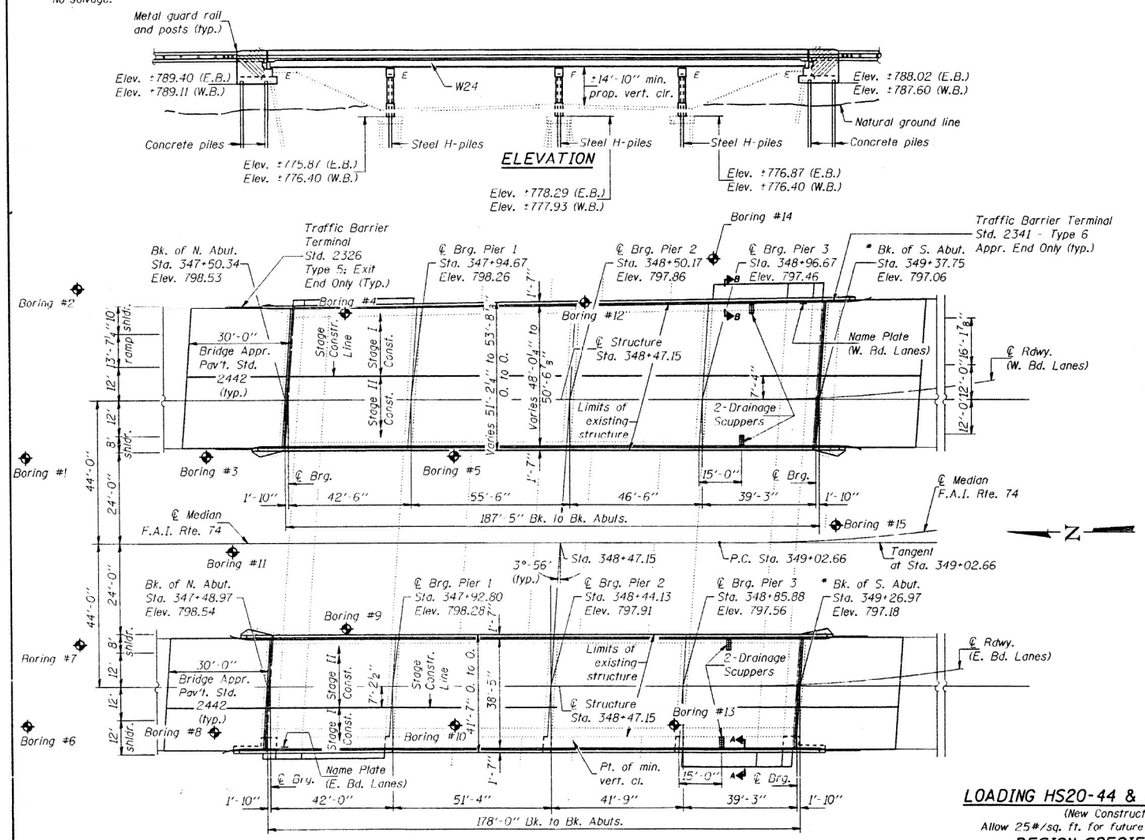
Existing Structure: 048-0009(E.B.) 048-0010(W.B.) Built as F.A.I. Route 74, Sec. 48-27HB in 1963. Superstructure consists of R.C. deck supported on 4-span continuous W.F. beams. The contractor shall remove and replace the existing R.C. deck and exist. str. steel beams and the existing (E.B.) substructure shall be widened to accommodate the new deck. The traffic shall be maintained during rehabilitation of the existing structure utilizing stage construction.
No salvage.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 74	△	KNOX	120	65

SHEET NO. 1
51 SHEETS

△(48-27HB)BY,BY-1



PLAN

* Stations and Elevations are given on tangent. Effect of horizontal curve is negligible.

Note: For Sections A-A and B-B see sheet #2 of 51.

STATION 348+47.15
REBUILT 19 BY
STATE OF ILLINOIS
F.A.I. RT. 74 SEC. (48-27HB)BY,BY-1
F.A.I. PROJECT: ACIM-74-2(113)48
LOADING HS20 & ALT.
STR. NO. 048-0009

NAME PLATE - EAST BOUND LANES
See Std. 2113

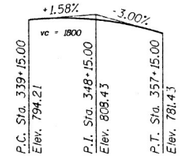
STATION 348+47.15
REBUILT 19 BY
STATE OF ILLINOIS
F.A.I. RT. 74 SEC. (48-27HB)BY,BY-1
F.A.I. PROJECT: ACIM-74-2(113)48
LOADING HS20 & ALT.
STR. NO. 048-0010

NAME PLATE - WEST BOUND LANES
See Std. 2113

Notes: Existing Name Plates to be cleaned and relocated next to the new Name Plate. Cost incidental to "Name Plates".

CURVE DATA

P.I. Sta. = 369+94.62
Δ = 57°-25'-00"
D = 1°-30'-00"
R = 3819.72'
T = 2091.96'
L = 3827.78'
E = 535.83
S.E. = 0.017
Super Elevation attained Sta. 348+31.66 to Sta. 349+73.66
Super Elevation removed Sta. 386+99.44 to Sta. 388+01.44
P.C. Sta. = 349+02.66
P.T. Sta. = 387+30.44



PROFILE GRADE
(along ℄ roadway)

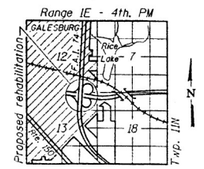
Note: The profile grade is 2½" above the existing structure plan elevations.

LOADING HS20-44 & ALT. LOADING
(New Construction)
Allow 25#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS
1992 AASHTO & 1993 Interim

DESIGN STRESSES
FIELD UNITS
New Construction
f'_c = 3,500 psi
f_y = 60,000 psi (reinforcement)
f_y = 50,000 psi (structural steel-AASHTO M270 GR50)
f_y = 36,000 psi (structural steel-AASHTO M270 GR36)

SEISMIC DATA
S.P.C. - 4
"A" = 4%g
Site Coeff. = 1.2



LOCATION SKETCH

GENERAL PLAN
I-74 OVER
EAST MAIN STREET
F.A.I. RTE. 74-SEC. (48-27HB)BY,BY-1
KNOX COUNTY
STATION 348+47.15
STRUCTURE NO. 048-0009 (EB)
STRUCTURE NO. 048-0010 (WB)

DESIGNED	John Cisna	
CHECKED	Lei-Sheng Hsueh	
DRAWN	R. Daily	
CHECKED	M.C.	L.S.H.

EXAMINED Aug. 30, 1994
Engineer of Bridge Design
PASSED Robert E. Anderson
Engineer of Bridges and Structures

STATE OF ILLINOIS · JAMES E. ANDERSON · 081-004625 · REGISTERED STRUCTURAL ENGINEER

FOR INFORMATION ONLY

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FILE NAME: O:\Files\21308 | IDOT - DIST 4 - PTB 201-033\Work Order 15 - FY 2023 Patching\18_Transportation\68H58 (Bridge Painting)\CADD Sheets\020_112-Old Plan Sets.dgn

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USER NAME = rbailey	DESIGNED - RTB		REVISED -
	DRAWN - RTB		REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED - MCL		REVISED -
PLOT DATE = 3/21/2023	DATE - 3/21/2023		REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE PLAN SETS

SCALE: NONE | SHEET 1 OF 8 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	24
		CONTRACT NO. 68H58		
	ILLINOIS FED. AID PROJECT			

SN 048-0010 (LOCATION 2)

LOCATION 2

048-0010

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 74	△	KNOX	120	70
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 6
51 SHEETS

△(48-27HB)BY,BY-1

℄ BEAM #7

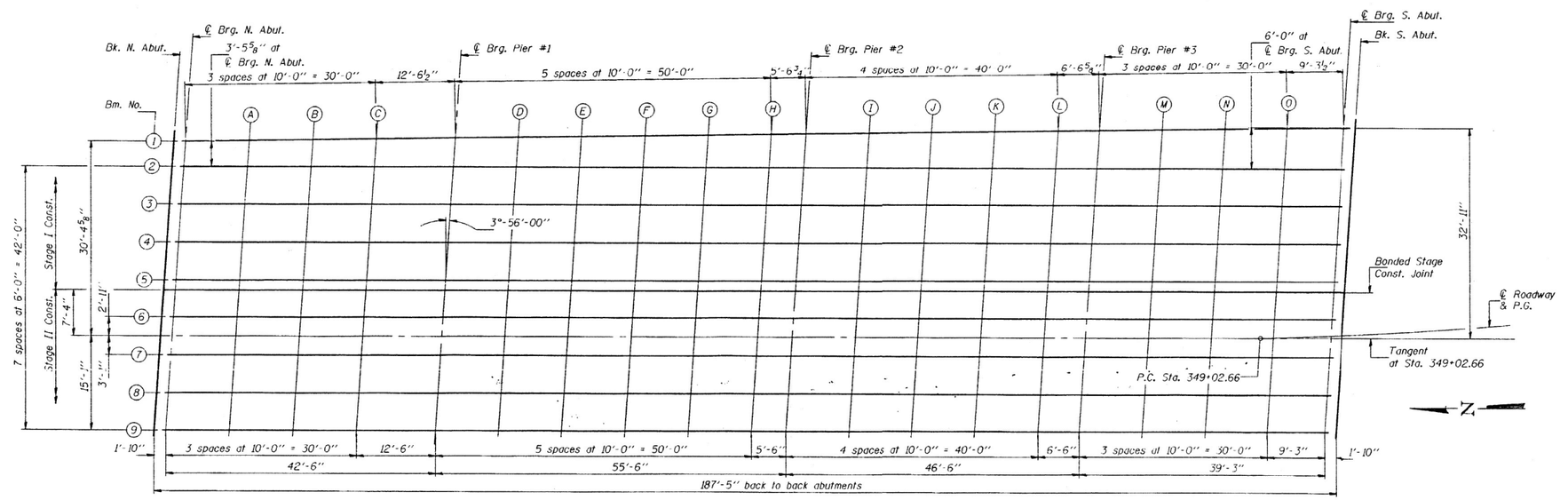
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	34750.128	3.083	798.484	798.484
℄ Brg. N. Abut.	34751.961	3.083	798.474	798.474
A	34761.961	3.083	798.418	798.434
B	34771.961	3.083	798.359	798.379
C	34781.961	3.083	798.298	798.308
℄ Brg. Pier #1	34794.461	3.083	798.217	798.217
D	34804.461	3.083	798.150	798.170
E	34814.461	3.083	798.081	798.116
F	34824.461	3.083	798.009	798.053
G	34834.461	3.083	797.936	797.969
H	34844.461	3.083	797.866	797.878
℄ Brg. Pier #2	34849.961	3.083	797.826	797.826
I	34859.961	3.083	797.752	797.755
J	34869.961	3.083	797.675	797.684
K	34879.961	3.083	797.596	797.604
L	34889.961	3.083	797.514	797.518
℄ Brg. Pier #3	34896.461	3.083	797.460	797.460
M	34906.461	3.083	797.374	797.385
N	34916.461	3.083	797.286	797.306
O	34926.461	3.083	797.195	797.210
℄ Brg. S. Abut.	34935.711	3.083	797.108	797.108
Bk. S. Abut.	34937.545	3.083	797.091	797.091

℄ BEAM #8

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	34749.715	9.083	798.393	798.393
℄ Brg. N. Abut.	34751.549	9.083	798.383	798.383
A	34761.549	9.083	798.326	798.343
B	34771.549	9.083	798.268	798.288
C	34781.549	9.083	798.207	798.217
℄ Brg. Pier #1	34794.049	9.083	798.126	798.126
D	34804.049	9.083	798.060	798.079
E	34814.049	9.083	797.990	798.056
F	34824.049	9.083	797.918	797.962
G	34834.049	9.083	797.848	797.882
H	34844.049	9.083	797.782	797.805
℄ Brg. Pier #2	34849.549	9.083	797.760	797.760
I	34859.549	9.083	797.700	797.703
J	34869.549	9.083	797.637	797.646
K	34879.549	9.083	797.572	797.580
L	34889.549	9.083	797.504	797.507
℄ Brg. Pier #3	34896.049	9.083	797.459	797.459
M	34906.049	9.083	797.387	797.397
N	34916.049	9.083	797.312	797.332
O	34926.049	9.083	797.235	797.250
℄ Brg. S. Abut.	34935.299	9.083	797.161	797.161
Bk. S. Abut.	34937.132	9.083	797.146	797.146

℄ BEAM #9

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	34749.303	15.083	798.285	798.285
℄ Brg. N. Abut.	34751.136	15.083	798.275	798.275
A	34761.136	15.083	798.219	798.236
B	34771.136	15.083	798.161	798.180
C	34781.136	15.083	798.100	798.109
℄ Brg. Pier #1	34793.636	15.083	798.020	798.020
D	34803.636	15.083	797.953	797.972
E	34813.636	15.083	797.883	797.919
F	34823.636	15.083	797.811	797.856
G	34833.636	15.083	797.744	797.777
H	34843.636	15.083	797.703	797.715
℄ Brg. Pier #2	34849.136	15.083	797.679	797.679
I	34859.136	15.083	797.634	797.637
J	34869.136	15.083	797.586	797.595
K	34879.136	15.083	797.536	797.544
L	34889.136	15.083	797.483	797.486
℄ Brg. Pier #3	34895.636	15.083	797.447	797.447
M	34905.636	15.083	797.390	797.401
N	34915.636	15.083	797.331	797.351
O	34925.636	15.083	797.268	797.284
℄ Brg. S. Abut.	34934.886	15.083	797.209	797.209
Bk. S. Abut.	34936.720	15.083	797.197	797.197



PLAN

TOP OF SLAB ELEVATIONS
WEST BOUND LANES
F.A.I. RT. 74 SEC. (48-27HB)BY,BY-1
KNOX COUNTY
STATION 348+47.15

DESIGNED	John Ciccone
CHECKED	LSH
DRAWN	R. Doty
CHECKED	JLC LSH

Aug. 30 1994
EXAMINED Greg D. Kasper
CHIEF ENGINEER IN CHARGE OF DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

E-S 1-6-82

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FILE NAME: C:\2 Files\21308 1 IDOT - DIST 4 - PTB 201-03\Work Order #5 - FY 2023 Patching\8_Transportation\68H58 (Bridge Painting)\CADD Sheets\0206_L12_Old Plan Sets.dgn

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Burlington, IA Pella, IA Columbia, MO
Monmouth, IA Carthage, IL

USER NAME = rbailey	DESIGNED - RTB	REVISED -	
	DRAWN - RTB	REVISED -	
PLOT SCALE = 100.0000 ' / in.	CHECKED - MCL	REVISED -	
PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 2 OF 8 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	25
		CONTRACT NO. 68H58		
		ILLINOIS	FED. AID PROJECT	

SN 048-0010 (LOCATION 2)

LOCATION 2

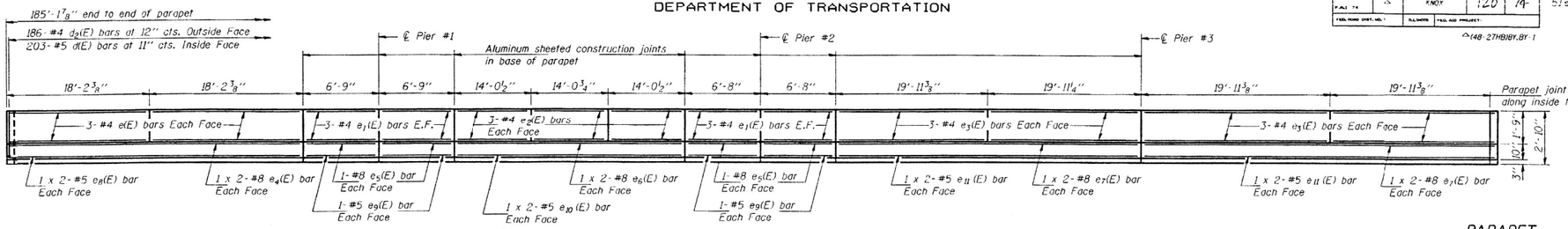
048-0010

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

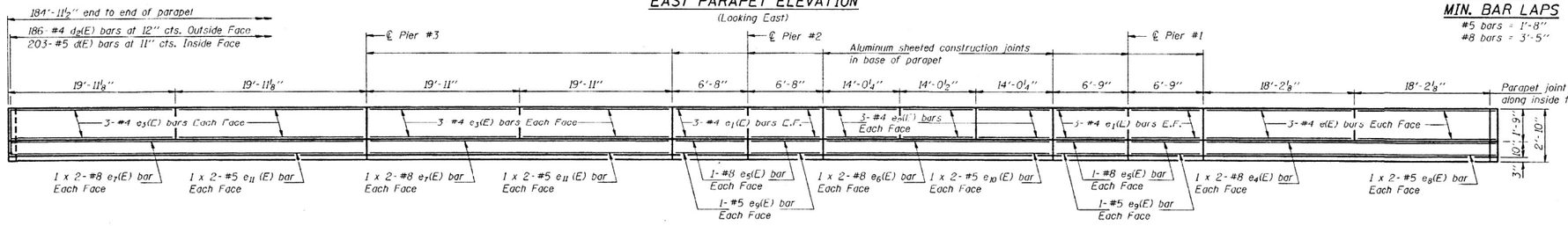
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 74	-D-	KNOX	120	74
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET NO. 10
51 SHEETS

(48-27HB)BY.BY-1



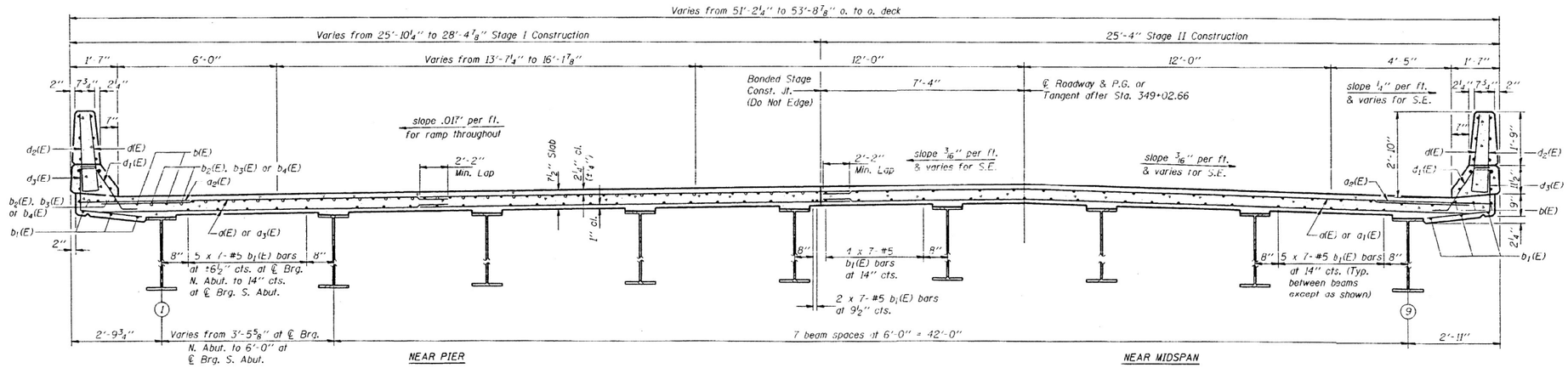
EAST PARAPET ELEVATION
(Looking East)



PARAPET
MIN. BAR LAPS
#5 bars = 1'-8"
#8 bars = 3'-5"

Note: Work this sheet with sheets #9 and #11 of 51.

WEST PARAPET ELEVATION
(Looking West)



NEAR PIER

NEAR MIDSPAN

CROSS SECTION
(Looking South)
(All dimensions are measured perpendicular to tangent)

DESIGNED	John Cicora
CHECKED	LSH
DRAWN	R. Doty
CHECKED	JLC LSH

Aug. 30 1994
EXAMINED Engineer of Bridge Design
PASSED Engineer of Bridges and Structures

SUPERSTRUCTURE DETAILS
WEST BOUND LANES
F.A.I. RT. 74 SEC. (48-27HB)BY.BY-1
KNOX COUNTY
STATION 348+47.15

FOR INFORMATION ONLY

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USER NAME = rbailey	DESIGNED - RTB	REVISED -	
	DRAWN - RTB	REVISED -	
PLOT SCALE = 100.0000 ' / in.	CHECKED - MCL	REVISED -	
PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 3 OF 8 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	26
			CONTRACT NO. 68H58	
		ILLINOIS	FED. AID PROJECT	

SN 048-0010 (LOCATION 2)

LOCATION 2

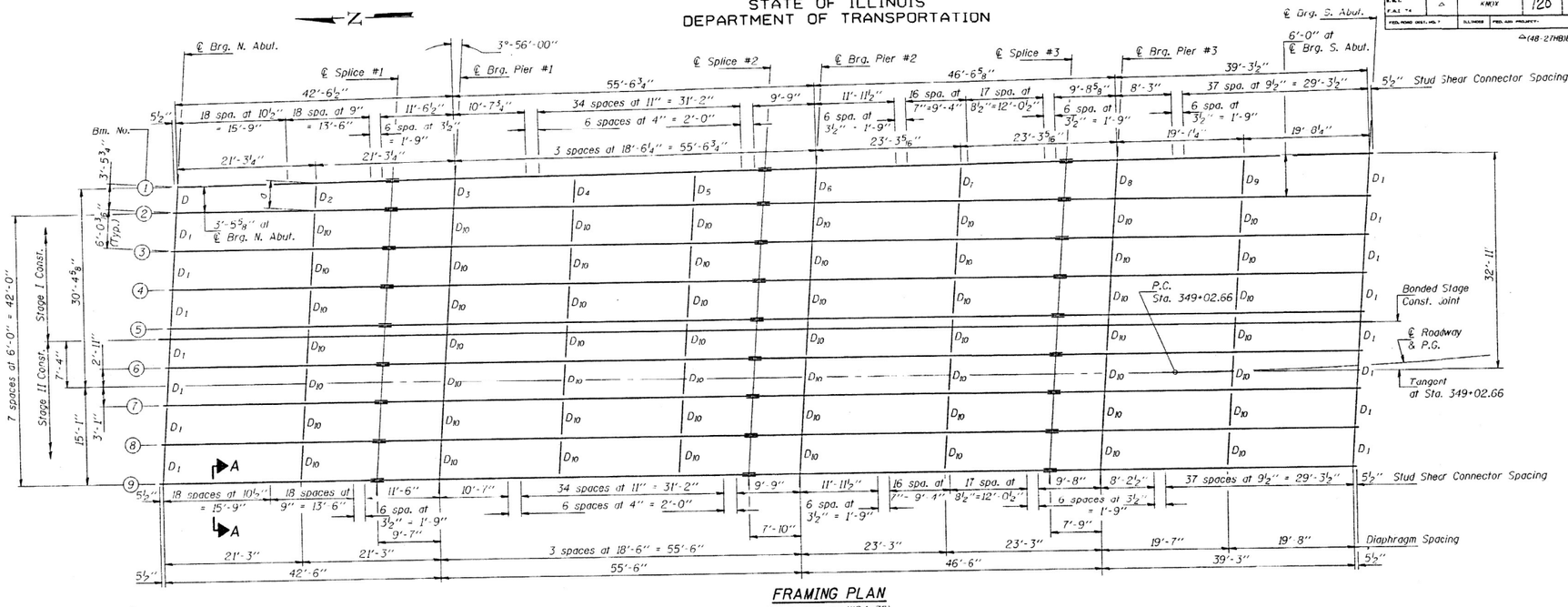
048-0010

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 74	Δ	KNOX	120	91
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

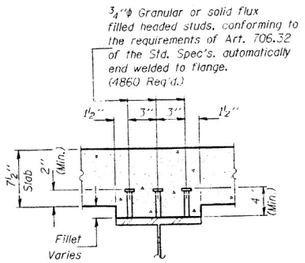
SHEET NO. 17
51 SHEETS

Δ(48-27HB)BY,BY-1

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



FRAMING PLAN
(All beams are W24x76)



SECTION A-A

TABLE OF a DIMENSIONS
(Measured from ℄ Beam #1 to ℄ Beam #2)

Dimension	D_2	D_3	D_4	D_5	D_6	D_7	D_8	D_9
a	3'-9 5/16"	4'-0 13/16"	4'-3 1/8"	4'-6 15/16"	4'-10"	5'-1 3/16"	5'-5 9/16"	5'-8 5/16"

TOP OF BEAM ELEVATIONS

LOCATION	Beam #1	Beam #2	Beam #3	Beam #4	Beam #5	Beam #6	Beam #7	Beam #8	Beam #9
℄ Brg. N. Abut.	797.34	797.40	797.51	797.61	797.71	797.81	797.81	797.72	797.61
℄ Splice #1	797.08	797.15	797.25	797.36	797.46	797.56	797.56	797.46	797.36
℄ Brg. Pier #1	797.01	797.08	797.19	797.29	797.39	797.49	797.49	797.40	797.30
℄ Splice #2	796.66	796.74	796.85	796.95	797.05	797.15	797.16	797.08	796.99
℄ Brg. Pier #2	796.59	796.67	796.78	796.88	796.99	797.08	797.10	797.03	796.95
℄ Splice #3	796.25	796.34	796.45	796.55	796.66	796.76	796.80	796.79	796.77
℄ Brg. Pier #3	796.18	796.28	796.38	796.49	796.59	796.69	796.74	796.74	796.73
℄ Brg. S. Abut.	795.84	795.94	796.05	796.15	796.26	796.36	796.44	796.49	796.54

Top of Beam Elevations are given for fabrication only.

Notes: For remainder of structural steel details see sheet #18 of 51.
All beams are AASHTO M270 Grade 50 and shall meet Notch Toughness Requirements.

DESIGNED	John Tassone	Aug. 30, 1999
CHECKED	L S H	
DRAWN	R. Doty	
CHECKED	JLC L S H	

EXAMINED Greg D. Kaspar
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

STRUCTURAL STEEL
WEST BOUND LANES
F.A.I. RT. 74 SEC. (48-27HB)BY,BY-1
KNOX COUNTY
STATION 348+47.15

FOR INFORMATION ONLY

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USER NAME = rbailey	DESIGNED - RTB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	OLD BRIDGE PLAN SETS
	DRAWN - RTB	REVISED -		
PLOT SCALE = 100.0000 ' / in.	CHECKED - MCL	REVISED -		
PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -		SCALE: NONE SHEET 4 OF 8 SHEETS STA. N/A TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	27
		CONTRACT NO. 68H58		
		ILLINOIS	FED. AID PROJECT	

SN 048-0010 (LOCATION 2)

LOCATION 2

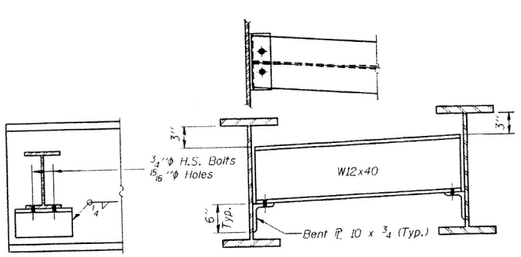
048-0010

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 74	4	KNOX	120	82
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT:		

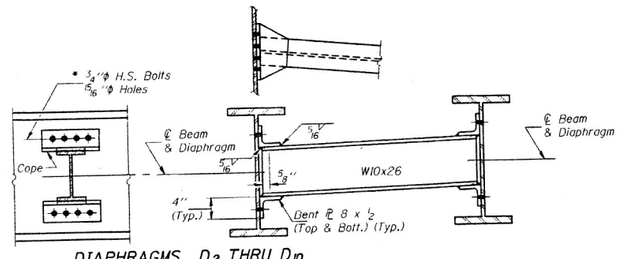
SHEET NO. 18
51 SHEETS

(48-27HB)BY.BY-1



DIAPHRAGMS D & D_1

D = 1 Required
D_1 = 15 Required

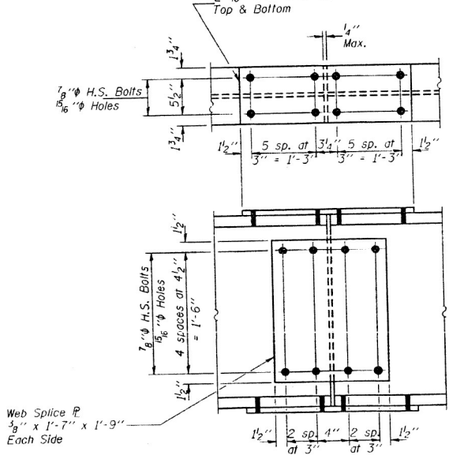


DIAPHRAGMS D_2 THRU D_{10}

D_2 Thru D_9 = 1 Each Required
D_{10} = 56 Required

Note: Two hardened washers shall be required over all oversize holes for diaphragms.
The bolts for slotted holes in angles at Beam #5 shall only be finger tightened prior to the deck slab pouring of Stage II Construction and then be fully tightened after completion of the pouring.

* 1 1/2" vertical x 15/16" slotted holes in top & bottom angles at west side of Beam #5 only.



SPLICE

All splice plates are AASHTO M270 Grade 50 and shall meet Notch Toughness Requirements.

INTERIOR BEAM MOMENT TABLE

		0.4 Sp. #1	Pier #1	0.5 Sp. #2	Pier #2	0.5 Sp. #3	Pier #3	0.6 Sp. #4
Is	(in4)	2100	2100	2100	2100	2100	2100	2100
Ic (n = 9)	(in4)	6667		6667		6667		6667
Ic (n = 27)	(in4)	4973		4973		4973		4973
Ss	(in3)	176	176	176	176	176	176	176
Sc (n = 9)	(in3)	280		280		280		280
Sc (n = 27)	(in3)	253		253		253		253
Z	(in3)							
D	(K/ft.)	0.664	0.905	0.664	0.905	0.664	0.905	0.664
MD	('K)	76.9	212.0	97.4	191.6	47.2	146.6	76.6
sD	(K/ft.)	0.241		0.241		0.241		0.241
MsD	('K)	34.5		49.3		28.2		32.1
ML	('K)	231.7	129.5	286.5	130.7	217.6	105.2	206.0
M (Imp)	('K)	89.3	57.3	79.5	57.2	63.6	51.2	61.8
5/3[ML + M(Imp)]('K)		501.7	278.0	609.1	279.8	468.7	327.3	446.3
Ma	('K)		637.0		612.9		496.1	
** Mu	('K)							
fs@non-comp	(k.s.i.)	5.2	14.5	6.6	13.1	5.2	10.0	5.2
fs@ (comp)	(k.s.i.)	1.6		2.3		1.3		1.5
fs 3(L + I)	(k.s.i.)	21.5	19.0	26.1	19.1	20.1	15.5	19.1
*** fs (Overload)	(k.s.i.)	28.4	33.4	35.1	32.1	24.6	25.5	25.9
fs (Total)	(k.s.i.)	36.9	43.4	45.6	41.8	32.0	33.1	33.6
VR	(K)	42.0		44.9		44.9		41.3

INTERIOR BEAM REACTION TABLE

		N. Abut.	Pier #1	Pier #2	Pier #3	S. Abut.
RD	(K)	14.3	49.7	46.8	41.6	14.0
RL	(K)	29.6	36.2	36.1	35.3	28.9
Imp.	(K)	8.9	10.4	10.3	10.4	8.7
R (Total)	(K)	52.8	96.3	93.2	87.3	51.6

** Compact, braced section.
*** Non-compact section.

Is and Ss are the moment of inertia and section modulus of the steel section used in computing fs (Total & Overload).
Ic(n) and Sc(n) are the moment of inertia and section modulus of the steel section used in computing fs (Total & Overload).
Ic(3n) and Sc(3n) are the moment of inertia and section modulus of the composite section used in computing stresses due to superimposed dead loads. (See AASHTO 10.38).
VR is the maximum live Load + Impact shear range in span.
Z is the plastic section modulus used to determine the Fully Plastic Moments in the non-composite areas.
Ma (Applied Moment) = 1.3[MD + MsD + 5/3 (ML + I)].
The Plastic Moment Capacity (Mu) is computed according to AASHTO 10.48.1 & 10.50.1.1.
fs (Overload) is the sum of the stresses due to MD + MsD + 5/3(ML + I).
fs (Total) (Non-compact section) is the sum of the stresses due to 1.3[MD + MsD + 5/3(ML + I)].
MD - Moment due to dead loads on non-composite section.
MsD - Moment due to dead loads on composite section.
ML - Moment due to live loads on non-composite or composite section.
M (Imp) - Moment due to live loads on non-composite or composite section.

DESIGNED	John Cissna
CHECKED	LSH
DRAWN	R. Doty
CHECKED	JLC LSH

Aug. 30, 1994
EXAMINED Raj D. Kaspar
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

STRUCTURAL STEEL DETAILS
WEST BOUND LANES
F.A.I. RT. 74 SEC. (48-27HB)BY.BY-1
KNOX COUNTY
STATION 348+47.15

FOR INFORMATION ONLY

MODEL: Default
FILE NAME: O:\2 Files\21308 | IDOT - DIST 4 - PTB 201-033\Work Order 15 - FY 2023 Patching\18.Transportation\68H58 (Bridge Painting)\CADD Sheets\020_112 Old Plan Sets.dgn

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Galesburg, IL Peoria, IL Columbia, MO Belleville, IL Peoria, IL Columbia, MO Davenport, IA Carbondale, IL

USER NAME = rbailey	DESIGNED - RTB	REVISED -	
	DRAWN - RTB	REVISED -	
PLOT SCALE = 100.0000 ' / in.	CHECKED - MCL	REVISED -	
PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 5 OF 8 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	28
		CONTRACT NO. 68H58		
	ILLINOIS FED. AID PROJECT			

SN 048-0010 (LOCATION 2)

LOCATION 2

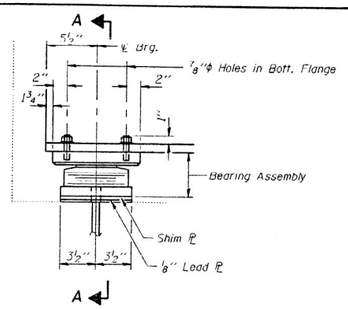
048-0010

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

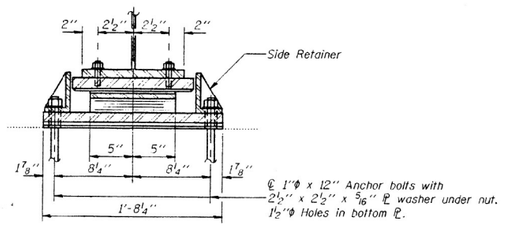
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 74	△	KNOX	120	85
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 21
51 SHEETS

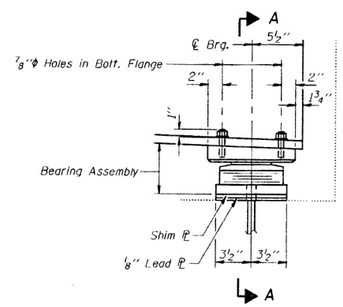
(48-27HB)BY,BY-1



ELEVATION AT N. ABUT.



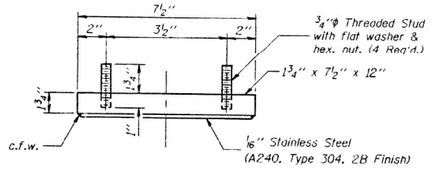
SECTION A-A



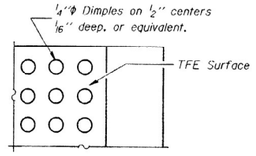
ELEVATION AT S. ABUT.
(16 Required)

TYPE II TFE ELASTOMERIC EXP. BRG.
(16 Required)

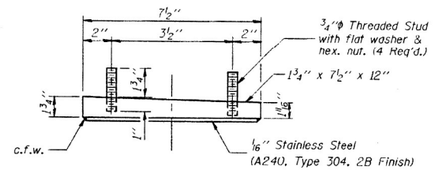
Note: See sheet #39 of 51 for anchor bolt installation.



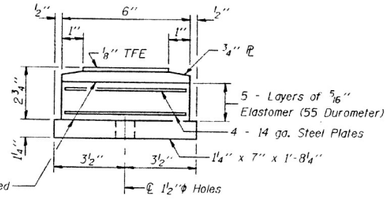
TOP BEARING ASSEMBLY



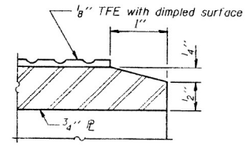
PLAN-TFE SURFACE



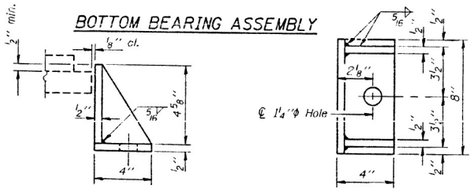
TOP BEARING ASSEMBLY



TOP BEARING ASSEMBLY



SECTION THRU TFE



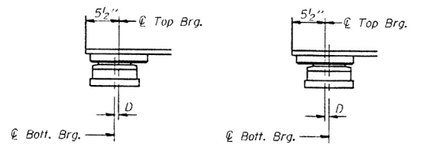
BOTTOM BEARING ASSEMBLY

SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. Weight included with Structural Steel.

Note: The ⅛" TFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.

Bonding of ⅛" TFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.



SETTING ANCHOR BOLTS AT EXP. BRG.

D=⅛" per each 100° of expansion for every 15° temp. change from the normal temp. of 50° F.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type II	Each	32

BEARING DETAILS
EAST & WEST BOUND LANES
F.A.I. RT. 74 SEC. (48-27HB)BY,BY-1
KNOX COUNTY
STATION 348+47.15

DESIGNED	John Cicero		
CHECKED	LSH		
DRAWN	R. Daly		
CHECKED	JLC	LSH	

EXAMINED Aug. 30, 1994
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

I-2-E2 2-26-93

FOR INFORMATION ONLY

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FILE NAME: O:\2 Files\21308 IDOT - DIST 4 - PTB 201-03\Work Order #5 - FY 2023 Patching\18_Transportation\68H58 (Bridge Painting)\CADD Sheets\0206_L12 Old Plan Sets.dgn

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Burlington, IA Pella, IA Columbia, MO
Monmouth, IA Carbondale, IL

USER NAME = rbailey	DESIGNED - RTB	REVISED -
	DRAWN - RTB	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED - MCL	REVISED -
PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 6 OF 8 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	29
		CONTRACT NO. 68H58		
		ILLINOIS	FED. AID PROJECT	

SN 048-0010 (LOCATION 2)

LOCATION 2

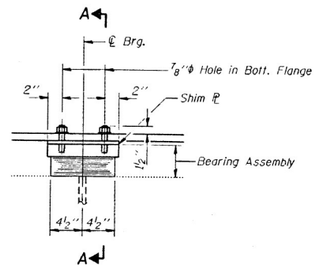
048-0010

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

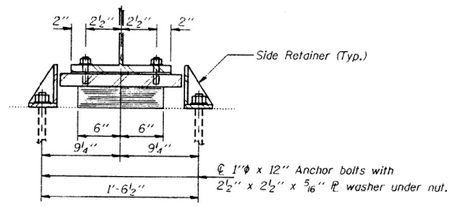
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 74	△	KNOX	120	86
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT:	

SHEET NO. 22
51 SHEETS

△(48-27HBJBY.BY-1

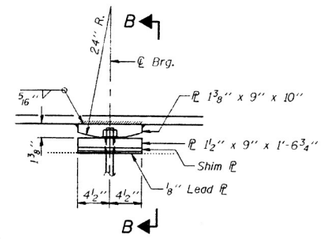


ELEVATION AT PIERS 1 & 3

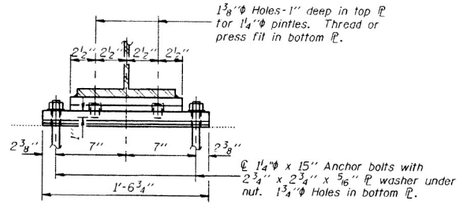


SECTION A-A

TYPE I ELASTOMERIC EXP. BRG.
(32 Required)

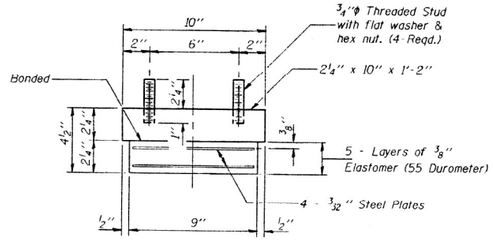


ELEVATION AT PIER 2



SECTION B-B

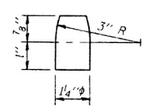
FIXED BEARING
(16 Required)



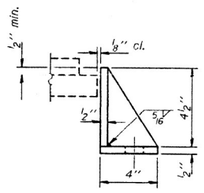
BEARING ASSEMBLY

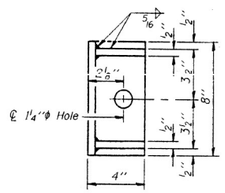
Note: Shim plates shall not be placed under Bearing Assembly.

Notes: Anchor bolts at fixed bearings may be built into the masonry.
See sheet #39 of 51 for anchor bolt installation.



PINTLE





SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. Weight included with Structural Steel.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	32

BEARING DETAILS
EAST & WEST BOUND LANES
F.A.I. RT. 74 SEC. (48-27HB)BY.BY-1
KNOX COUNTY
STATION 348+47.15

DESIGNED	John Cicone	
CHECKED	LSH	
DRAWN	R. Daly	
CHECKED	JLC	LSH

Aug. 30, 1994
EXAMINED Engineer of Bridge Design
PASSED Engineer of Bridges and Structures

I-2-E1 2-26-93

FOR INFORMATION ONLY

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Quincy, Jacksonville, MO
Burlington, IA Pekin, IL Columbia, MO
Davenport, IA Carterville, IL

USER NAME = rbailey	DESIGNED - RTB	REVISED -	
	DRAWN - RTB	REVISED -	
PLOT SCALE = 100.0000 ' / in.	CHECKED - MCL	REVISED -	
PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 7 OF 8 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	30
		CONTRACT NO. 68H58		
	ILLINOIS	FED. AID PROJECT		

SN 048-0010 (LOCATION 2)

LOCATION 2

048-0010

F.A.I. 74 (IB-77) KNOX 32 70

TOP PLAN
SCALE: 3/8"=1'-0"

NOTE: ALL EDGES SHALL HAVE STANDARD 3/4" CHAMFER EXCEPT FOOTINGS.

EAST END

WEST END

ELEVATION

END VIEW

SECTION A-A

SECTION B-B

SECTION C-C

BAR S

BAR U & U1

BAR n

BAR d

A & B DIMENSIONS

BAR	A	B
S_1	2'-6"	3'-10"
S_2	1'-9"	1'-9"
S_3	1'-9"	2'-2"
S_4	1'-9"	1'-6"
S_5	2'-9"	2'-3"
S_6	2'-3"	2'-6"

BARS S_8, S_2, S_3, S_4, S_5, & S_6

PILE DATA:
TYPE: CREOSOTED TIMBER
MIN. CAPACITY: 70 TONS
EST. LENGTH: 26 FT.
NO. REQ'D.: 42 (TOTAL 2 PIERS)

PIERS 1 & 3
BILL OF MATERIALS (2-PIERS)

BAR	NO.	SIZE	LENGTH	SHAPE
d	3	#10	9'-0"	L
n	136	#6	4'-8"	⊓
n_1	60	#9	5'-6"	—
n_2	8	#10	6'-0"	—
S	68	#6	11'-6"	⊓
S_8	68	#6	10'-2"	⊓
S_2	20	#6	8'-3"	⊓
S_3	20	#6	6'-11"	⊓
S_4	68	#6	8'-9"	⊓
S_5	60	#5	6'-9"	⊓
S_6	68	#5	7'-3"	⊓
P	8	#10	19'-0"	—
P_1	8	#9	20'-0"	—
P_2	8	#9	35'-6"	—
P_3	8	#10	35'-6"	—
P_4	16	#10	6'-3"	—
P_5	8	#9	22'-3"	—
P_6	8	#9	26'-0"	—
J	12	#6	8'-3"	⊏
U	20	#5	8'-0"	⊏
V	30	#9	11'-0"	—
V_1	30	#9	11'-6"	—
r	72	#6	8'-3"	—
U	6	#6	26'-3"	—
h	16	#5	20'-6"	—
CLASS X CONCRETE CU YDS				101.9
REINFORCEMENT BARS LBS				10,360
CREOSOTED PILES LIN. FT				1092
CLASS A EXC FOR STR. C.Y				192

PIERS 1&3 WEST STRUCTURE
F.A.I. RTE. 70 - SEC. 08-77 HB
F.A.I. 70 & RAMP OVER MAIN ST, GALESBURG
KNOX COUNTY, ILLINOIS
STA. 308+07.15

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USER NAME = rbailey | DESIGNED - RTB | REVISED -
DRAWN - RTB | REVISED -
PLOT SCALE = 100.0000 ' / in. | CHECKED - MCL | REVISED -
PLOT DATE = 3/21/2023 | DATE - 3/21/2023 | REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 8 OF 8 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	31
		CONTRACT NO. 68H58		
		ILLINOIS	FED. AID PROJECT	

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SN 048-0009 (LOCATION 3)

LOCATION 3

048-0009

Bench Mark: USC & GS Stand. Br. Disk on top of NW parapet wall I-74 E.B. over Main St. (S.N. 048-0009) "Gale RM2" Elev. 801.35

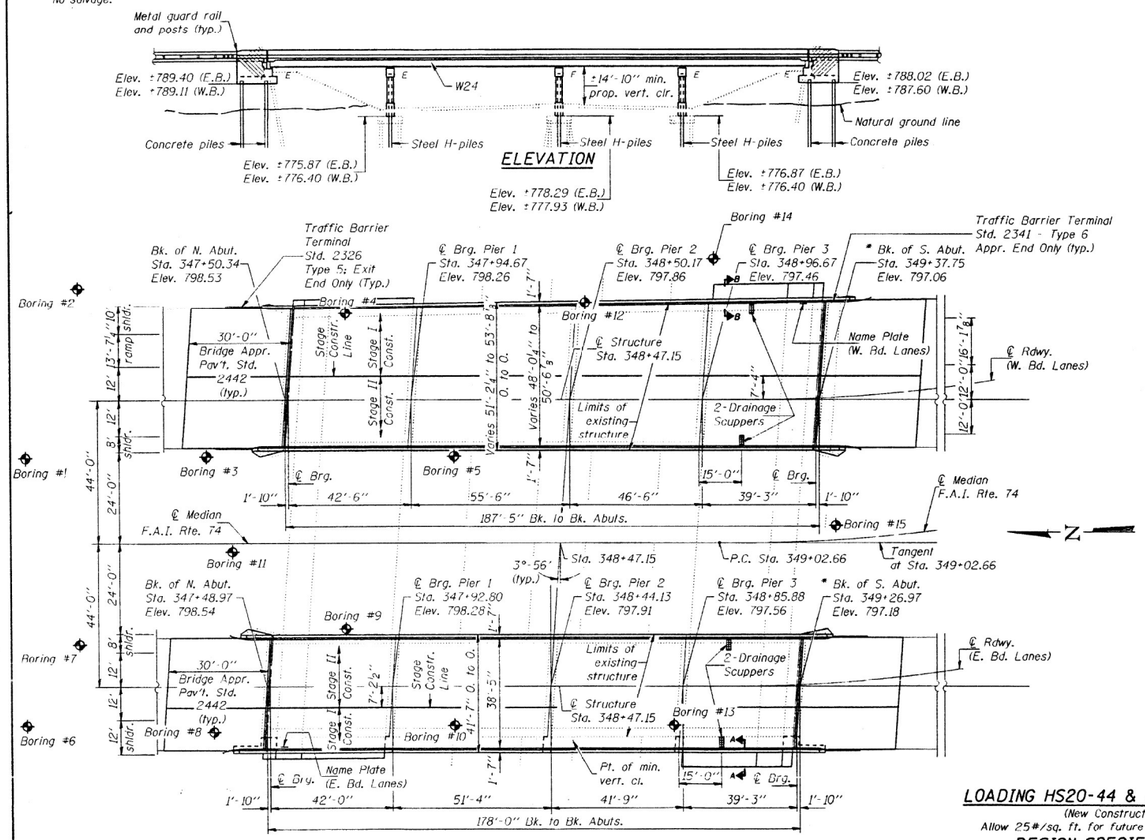
Existing Structure: 048-0009(E.B.) 048-0010(W.B.) Built as F.A.I. Route 74, Sec. 48-27HB in 1963. Superstructure consists of R.C. deck supported on 4-span continuous W.F. beams. The contractor shall remove and replace the existing R.C. deck and exist. str. steel beams and the existing (E.B.) substructure shall be widened to accommodate the new deck. The traffic shall be maintained during rehabilitation of the existing structure utilizing stage construction.
No salvage.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 74	⊘	KNOX	120	65
PROJ. HOMO SHEET NO. ?	ILLINOIS	F.A.I. AND PROJECT		

SHEET NO. 1
51 SHEETS

⊘(48-27HB)BY,BY-1



* Stations and Elevations are given on tangent. Effect of horizontal curve is negligible.

Note: For Sections A-A and B-B see sheet #2 of 51.

DESIGNED	John Cisna	
CHECKED	Lei-Sheng Hsueh	
DRAWN	R. Daily	
CHECKED	M.C.	L S H

EXAMINED Aug 30, 1994 — Engineer of Bridge Design
PASSED Robert E. Anderson — Engineer of Bridges and Structures

STATE OF ILLINOIS · ROBERT E. ANDERSON · 081-004625 · REGISTERED · LICENSED STRUCTURAL ENGINEER

STATION 348+47.15
REBUILT 19 BY
STATE OF ILLINOIS
F.A.I. RT. 74 SEC. (48-27HB)BY,BY-1
F.A.I. PROJECT: ACIM-74-2(113)48
LOADING HS20 & ALT.
STR. NO. 048-0009

NAME PLATE - EAST BOUND LANES
See Std. 2113

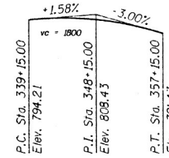
STATION 348+47.15
REBUILT 19 BY
STATE OF ILLINOIS
F.A.I. RT. 74 SEC. (48-27HB)BY,BY-1
F.A.I. PROJECT: ACIM-74-2(113)48
LOADING HS20 & ALT.
STR. NO. 048-0010

NAME PLATE - WEST BOUND LANES
See Std. 2113

Notes: Existing Name Plates to be cleaned and relocated next to the new Name Plate. Cost incidental to "Name Plates".

CURVE DATA

P.I. Sta. = 369+94.62
Δ = 57°-25'-00"
D = 1°-30'-00"
R = 3819.72'
T = 2091.96'
L = 3827.78'
E = 535.83
S.E. = 0.017
Super Elevation attained
Sta. 348+31.66 to Sta. 349+73.66
Super Elevation removed
Sta. 386+99.44 to Sta. 388+01.44
P.C. Sta. = 349+02.66
P.T. Sta. = 387+30.44



PROFILE GRADE
(along ℄ roadway)

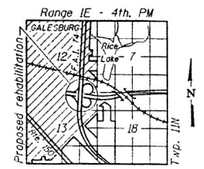
Note: The profile grade is 2½" above the existing structure plan elevations.

LOADING HS20-44 & ALT. LOADING
(New Construction)
Allow 25#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS
1992 AASHTO & 1993 Interim

DESIGN STRESSES
FIELD UNITS
New Construction
f'_c = 3,500 psi
f_y = 60,000 psi (reinforcement)
f_y = 50,000 psi (structural steel-AASHTO M270 GR50)
f_y = 36,000 psi (structural steel-AASHTO M270 GR36)

SEISMIC DATA
S.P.C. - A
"A" = 4%g
Site Coeff. = 1.2



LOCATION SKETCH

GENERAL PLAN
I-74 OVER
EAST MAIN STREET
F.A.I. RTE. 74-SEC. (48-27HB)BY,BY-1
KNOX COUNTY
STATION 348+47.15
STRUCTURE NO. 048-0009 (EB)
STRUCTURE NO. 048-0010 (WB)

FOR INFORMATION ONLY

MODEL: Default
FILE NAME: D:\2 Files\21308 | IDOT - DIST 4 - PTB 201-033\Work Order 15 - FY 2023 Patching\18_Transportation\68H58 (Bridge Painting)\CADD Sheets\020 1 (2 Old Plan Sets).dgn

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	DRAWN - RTB	REVISED -	
PLOT SCALE = 100.0000 ' / in.	CHECKED - MCL	REVISED -	
PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE PLAN SETS

SCALE: NONE | SHEET 1 OF 7 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	32
		CONTRACT NO. 68H58		
	ILLINOIS FED. AID PROJECT			

SN 048-0009 (LOCATION 3)

LOCATION 3
048-0009

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

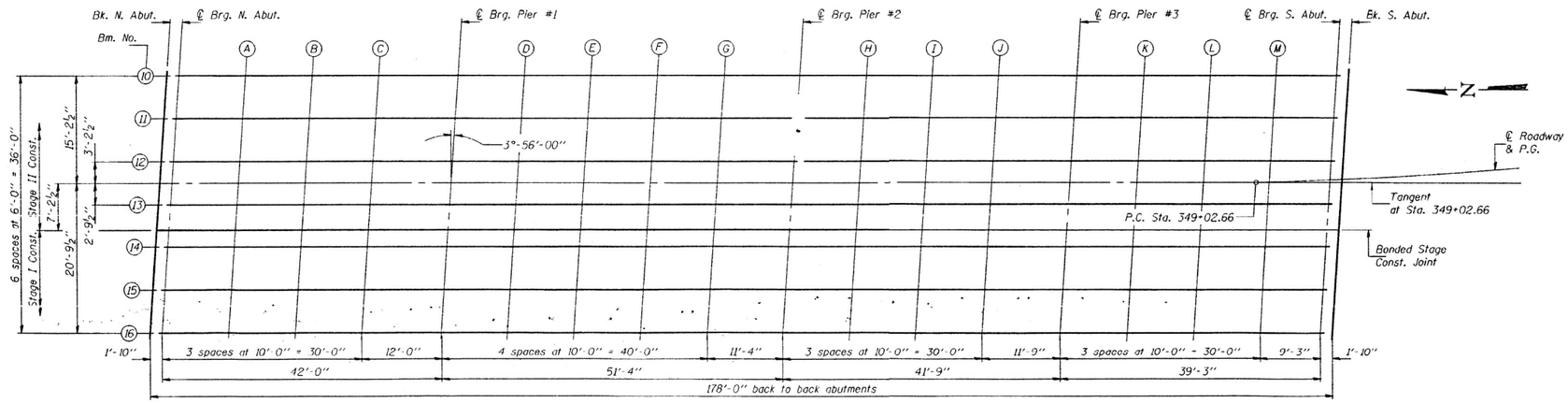
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. F.A.P. 74	Δ	KNOX	120	72
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

SHEET NO. 8
51 SHEETS

Δ(48-27HB)BY,BY-1

℄ BEAM #16

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	34747.540	20.792	798.176	798.176
℄ Brg. N. Abut.	34749.374	20.792	798.166	798.166
A	34759.374	20.792	798.110	798.131
B	34769.374	20.792	798.052	798.077
C	34779.374	20.792	797.991	798.005
℄ Brg. Pier #1	34791.374	20.792	797.915	797.915
D	34801.374	20.792	797.849	797.866
E	34811.374	20.792	797.780	797.812
F	34821.374	20.792	797.709	797.743
G	34831.374	20.792	797.635	797.657
℄ Brg. Pier #2	34842.707	20.792	797.604	797.604
H	34852.707	20.792	797.576	797.577
I	34862.707	20.792	797.545	797.550
J	34872.707	20.792	797.512	797.514
℄ Brg. Pier #3	34884.457	20.792	797.469	797.469
K	34894.457	20.792	797.430	797.445
L	34904.457	20.792	797.389	797.414
M	34914.457	20.792	797.345	797.364
℄ Brg. S. Abut.	34923.707	20.792	797.302	797.302
Bk. S. Abut.	34925.540	20.792	797.293	797.293



PLAN

DESIGNED	John Cerone
CHECKED	LSH
DRAWN	R. Daty
CHECKED	JLC LSH

EXAMINED Aug 30 1994
Engr. of Bridge Design
PASSED Ralph E. Anderson
Engineer of Bridges and Structures

E-S 1-6-82

TOP OF SLAB ELEVATIONS
EAST BOUND LANES
F.A.I. RT. 74 SEC. (48-27HB)BY,BY-1
KNOX COUNTY
STATION 348+47.15

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Greenwich, CT Carterville, IL

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PLOT DATE = 3/21/2023	DATE - 3/21/2023		REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 2 OF 7 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	33
		CONTRACT NO. 68H58		
	ILLINOIS	FED. AID PROJECT		

SN 048-0009 (LOCATION 3)

LOCATION 3

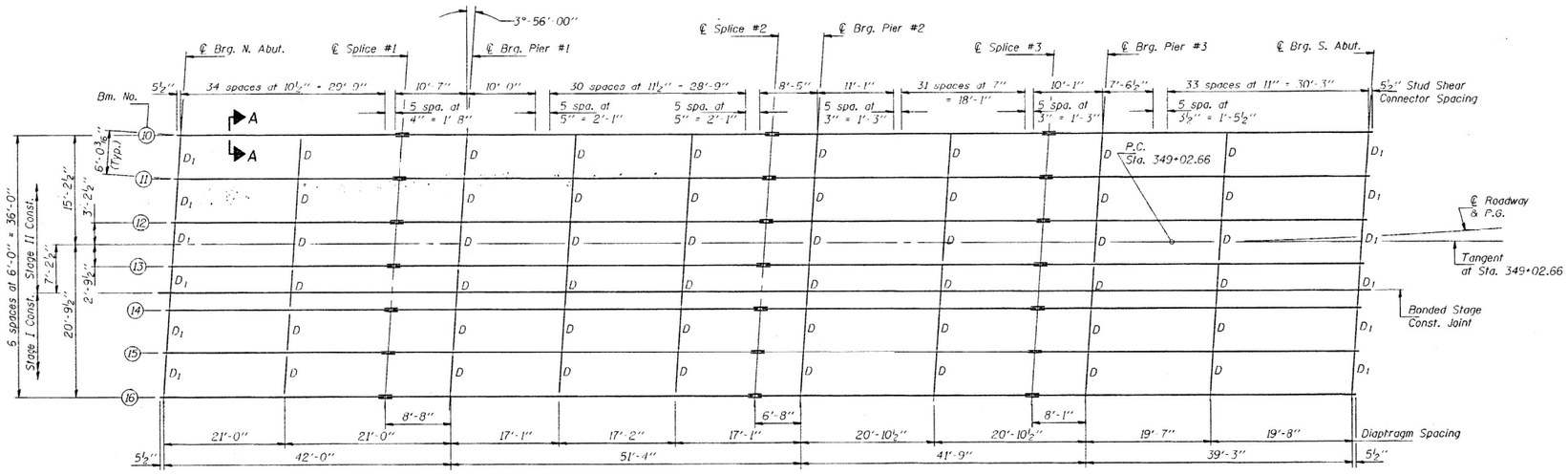
048-0009

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 74	^	KNOX	120	83
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT:		

SHEET NO. 19
51 SHEETS

△(48-27HB)BY,BY-1



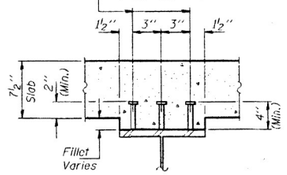
FRAMING PLAN
(All beams are W24x68)

TOP OF BEAM ELEVATIONS

LOCATION	Beam #10	Beam #11	Beam #12	Beam #13	Beam #14	Beam #15	Beam #16
℄ Brg. N. Abut.	797.60	797.71	797.81	797.82	797.73	797.62	797.50
℄ Splice #1	797.36	797.47	797.57	797.58	797.48	797.38	797.26
℄ Brg. Pier #1	797.30	797.41	797.51	797.52	797.43	797.32	797.20
℄ Splice #2	796.98	797.10	797.19	797.21	797.12	797.02	796.91
℄ Brg. Pier #2	796.93	797.04	797.14	797.16	797.08	796.99	796.89
℄ Splice #3	796.65	796.76	796.86	796.90	796.88	796.84	796.79
℄ Brg. Pier #3	796.58	796.69	796.79	796.84	796.82	796.80	796.76
℄ Brg. S. Abut.	796.75	796.36	796.47	796.54	796.58	796.61	796.64

Top of Beam Elevations are given for fabrication only.

¾"Φ Granular or solid flux filled headed studs, conforming to the requirements of Art. 1006.32 of the Std. Spec's. automatically and welded to flange. (3402 Required)



SECTION A-A

Notes: For remainder of structural steel details see sheet #20 of 51.
All beams are AASHTO M270 Grade 50 and shall meet Notch Toughness Requirements.

DESIGNED	John Cicero
CHECKED	LSH
DRAWN	R. Doty
CHECKED	JLC LSH

Aug. 30 1994
EXAMINED Engr. D. Kaspar
ENGINEER OF SOILS & FOUNDATION DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

STRUCTURAL STEEL
EAST BOUND LANES
F.A.I. RT. 74 SEC. (48-27HB)BY,BY-1
KNOX COUNTY
STATION 348+47.15

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PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 3 OF 7 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	34
		CONTRACT NO. 68H58		
		ILLINOIS	FED. AID PROJECT	

SN 048-0009 (LOCATION 3)

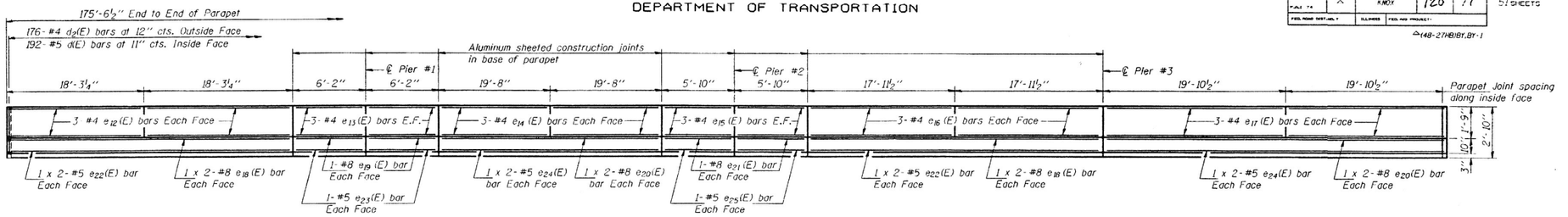
LOCATION 3
048-0009

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

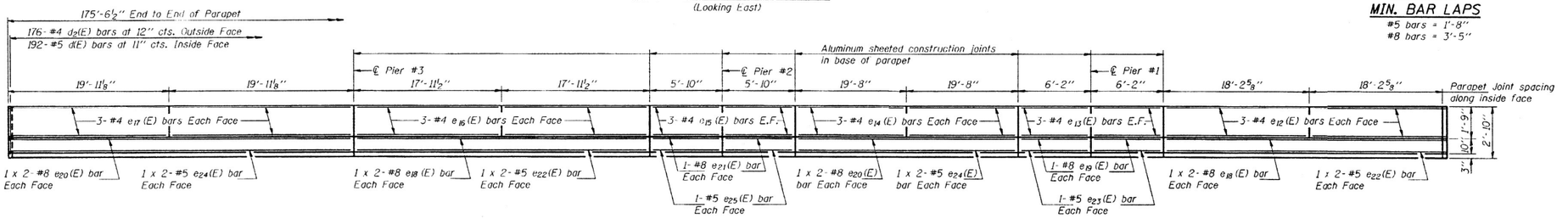
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 74	^	KNOX	120	77
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 13
51 SHEETS

(48-27HB)BY,BY-1



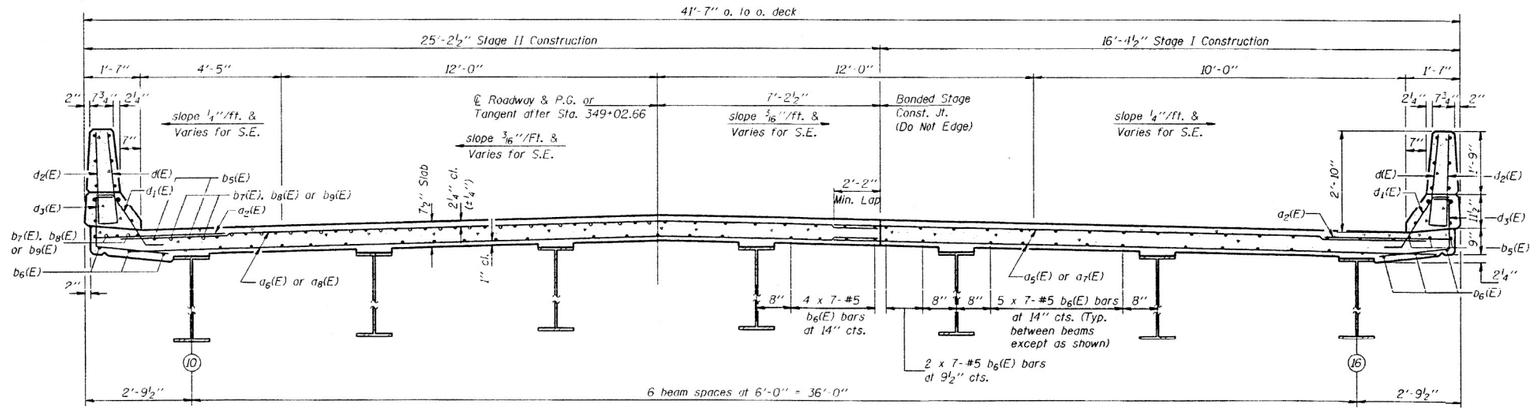
EAST PARAPET ELEVATION
(Looking East)



WEST PARAPET ELEVATION
(Looking West)

PARAPET
MIN. BAR LAPS
#5 bars = 1'-8"
#8 bars = 3'-5"

Note: For Parapet Joint Details see sheet #11 of 51.
Work this sheet with sheets #12 and #14 of 51.



NEAR PIER NEAR MIDSPAN

CROSS SECTION
(Looking South)

DESIGNED	John Cicone
CHECKED	LSH
DRAWN	R. Doty
CHECKED	JLC LSH

Aug. 30, 1994
EXAMINED Greg J. Kaspar ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson ENGINEER OF BRIDGES AND STRUCTURES

SUPERSTRUCTURE DETAILS
EAST BOUND LANES
F.A.I. RT. 74 SEC. (48-27HB)BY,BY-1
KNOX COUNTY
STATION 348+47.15

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PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 4 OF 7 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	35
		CONTRACT NO. 68H58		
	ILLINOIS	FED. AID PROJECT		

SN 048-0009 (LOCATION 3)

LOCATION 3

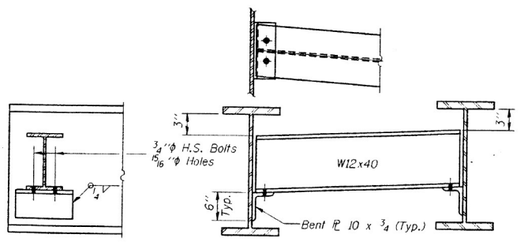
048-0009

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

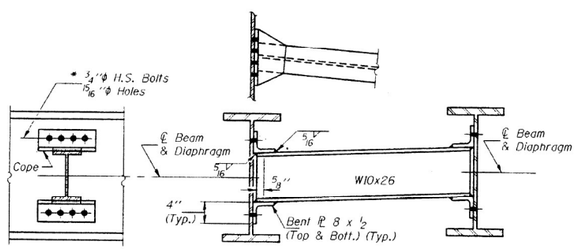
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 74	△	KNOX	120	84
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 20
51 SHEETS

△(48-27HB)BY,BY-1



DIAPHRAGM D1
12 Required



DIAPHRAGM D
48 Required

Note: Two hardened washers shall be required over all oversize holes for diaphragms.
The bolts for slotted holes in angles at Beam #14 shall only be finger tightened prior to the deck slab pouring of Stage II Construction and then be fully tightened after completion of the pouring.

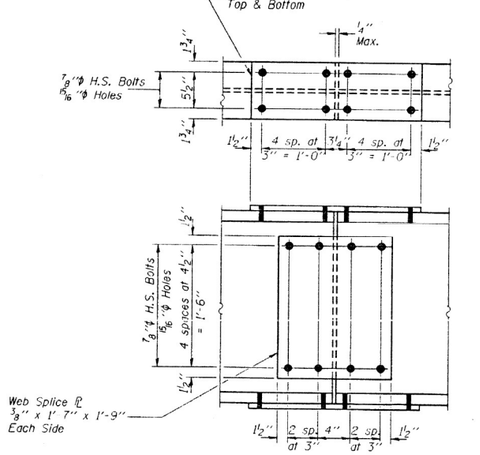
* 1 1/2" vertical x 15/16" slotted holes in top & bottom angles at east side of Beam #14 only.

INTERIOR BEAM MOMENT TABLE								
		0.4 Sp. #1	Pier #1	0.5 Sp. #2	Pier #2	0.5 Sp. #3	Pier #3	0.6 Sp. #4
Is	(in⁴)	1830	1830	1830	1830	1830	1830	1830
Ic (n = 9)	(in⁴)	6021		6021		6021		6021
Ic (n = 27)	(in⁴)	4530		4530		4530		4530
Ss	(in³)	154	154	154	154	154	154	154
Sc (n = 9)	(in³)	251		251		251		251
Sc (n = 27)	(in³)	227		227		227		227
Z	(in³)							
wℓ	(K/ft.)	0.655	0.922	0.655	0.922	0.655	0.922	0.655
MDℓ	('K)	78.2	195.3	81.2	156.2	31.6	135.2	79.4
s wℓ	(K/ft.)	0.267		0.267		0.267		0.267
Msℓ	('K)	38.9		46.8		23.6		37.0
Mℓ	('K)	228.8	117.6	257.1	113.6	184.9	95.9	205.7
M (imp)	('K)	68.4	34.4	73.0	33.2	55.5	28.8	61.7
5/3(Mℓ + M(imp))('K)		495.3	253.3	550.2	244.1	400.7	207.8	445.7
Ma	('K)		583.2		521.1		445.9	
** Mu	('K)							
fs@non-comp	(k.s.i.)	6.1	15.2	6.3	12.2	2.5	10.5	6.2
fs@ (comp)	(k.s.i.)	2.1		2.5		1.2		2.0
fs 5/3(4 + 1)	(k.s.i.)	23.7	19.7	26.3	19.1	19.2	16.2	21.3
fs (Overload)	(k.s.i.)	31.8	35.0	35.1	31.2	22.9	26.7	29.4
*** fs (Total)	(k.s.i.)	41.4	45.4	45.6	40.6	29.7	34.7	38.3
VR	(K)	41.7		44.2		43.8		41.2

INTERIOR BEAM REACTION TABLE						
		N. Abut.	Pier #1	Pier #2	Pier #3	S. Abut.
RDℓ	(K)	14.8	48.4	42.7	40.3	14.7
Rℓ	(K)	29.5	35.9	35.5	34.9	28.9
Imp.	(K)	8.8	10.5	10.4	10.5	8.7
R (Total)	(K)	53.1	94.8	88.6	85.1	52.3

** Compact, braced section.
*** Non-compact section.

Is and Ss are the moment of inertia and section modulus of the steel section used in computing fs (Total & Overload).
Ic(n) and Sc(n) are the moment of inertia and section modulus of the steel section used in computing fs (Total & Overload).
Ic(3n) and Sc(3n) are the moment of inertia and section modulus of the composite section used in computing stresses due to superimposed dead loads. (See AASHTO 10.38).
VR is the maximum live Load + Impact shear range in span.
Z is the plastic section modulus used to determine the Fully Plastic Moments in the non-composite areas.
Ma (Applied Moment) = 1.3[MDℓ + Msℓ + 5/3 (Mℓ + I)].
The Plastic Moment Capacity (Mu) is computed according to AASHTO 10.48.1 & 10.50.1.1.
fs (Overload) is the sum of the stresses due to MDℓ + Msℓ + 5/3(Mℓ + I).
fs (Total) (Non-compact section) is the sum of the stresses due to 1.3[MDℓ + Msℓ + 5/3(Mℓ + I)].
MDℓ - Moment due to dead loads on non-composite section.
Msℓ - Moment due to dead loads on composite section.
Mℓ - Moment due to live loads on non-composite or composite section.
M (Imp) - Moment due to live loads on non-composite or composite section.



SPLICE
All splice plates are AASHTO M270 Grade 50 and shall meet Notch Toughness Requirements.

DESIGNED	John Cicora	Aug. 30, 1994
CHECKED	LSH	
DRAWN	R. Doty	
CHECKED	JLC	LSH

EXAMINED Raj D. Kaspar — ENGINEER OF BRIDGE DESIGN
PASSED Robert E. Anderson — ENGINEER OF BRIDGES AND STRUCTURES

STRUCTURAL STEEL DETAILS
EAST BOUND LANES
F.A.I. RT. 74 SEC. (48-27HB)BY,BY-1
KNOX COUNTY
STATION 348+47.15

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	DRAWN - RTB	REVISED -	
PLOT SCALE = 100.0000 ' / in.	CHECKED - MCL	REVISED -	
PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 5 OF 7 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	36
		CONTRACT NO. 68H58		
		ILLINOIS	FED. AID PROJECT	

SN 048-0009 (LOCATION 3)

LOCATION 3

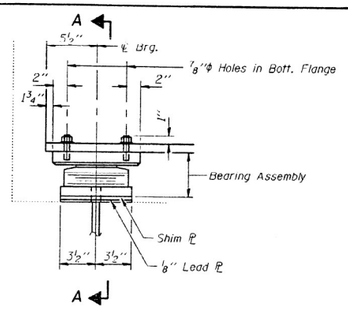
~~048-0009~~

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

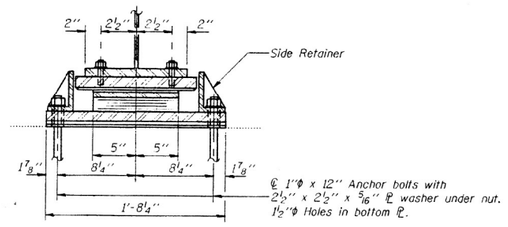
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 74	△	KNOX	120	85
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

SHEET NO. 21
51 SHEETS

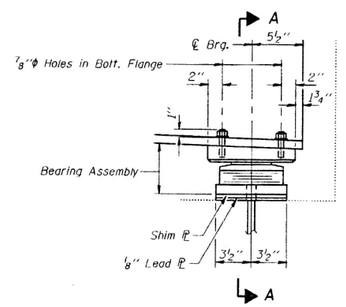
(48-27HB)BY,BY-1



ELEVATION AT N. ABUT.



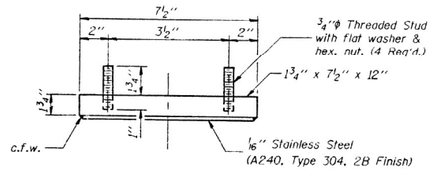
SECTION A-A



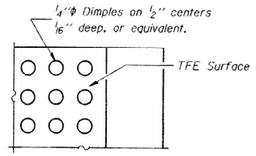
ELEVATION AT S. ABUT.
(16 Required)

TYPE II TFE ELASTOMERIC EXP. BRG.
(16 Required)

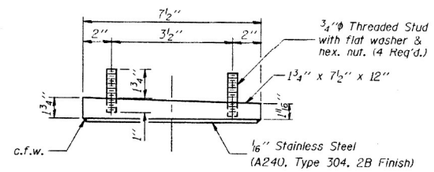
Note: See sheet #39 of 51 for anchor bolt installation.



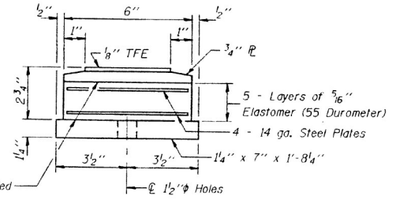
TOP BEARING ASSEMBLY



PLAN-TFE SURFACE



TOP BEARING ASSEMBLY



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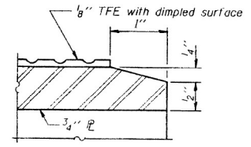
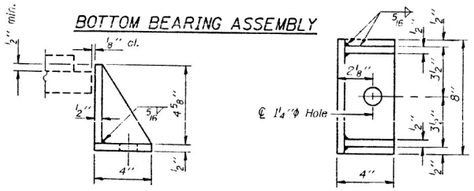


SECTION THRU TFE



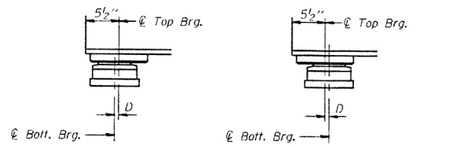
BOTTOM BEARING ASSEMBLY

SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. Weight included with Structural Steel.

Note: The ⅛" TFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.

Bonding of ⅛" TFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.



SETTING ANCHOR BOLTS AT EXP. BRG.

D=⅛" per each 100° of expansion for every 15° temp. change from the normal temp. of 50° F.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type II	Each	32

BEARING DETAILS
EAST & WEST BOUND LANES
F.A.I. RT. 74 SEC. (48-27HB)BY,BY-1
KNOX COUNTY
STATION 348+47.15

DESIGNED	John Cicero		
CHECKED	LSH		
DRAWN	R. Daly		
CHECKED	JLC	LSH	

Aug. 30, 1994
EXAMINED Raj D. Gaspar
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

I-2-E2 2-26-93

FOR ~~INFORMATION ONLY~~

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FILE NAME: O:\2 Files\21308 IDOT - DIST 4 - PTB 201-03\Work Order #5 - FY 2023 Patching\18_Transportation\68H58 (Bridge Painting)\CADD Sheets\0206_L12 Old Plan Sets.dgn

KLINGNER & ASSOCIATES, P.C.
Engineers • Architects • Surveyors
www.klingner.com
Galesburg, Illinois
40 North Prairie Street
309.343.4192
Quincy, IL Hannibal, MO
Burlington, IA Pella, IA Columbia, MO
Monmouth, IA Carthage, IL

USER NAME = rbailey	DESIGNED - RTB	REVISED -
	DRAWN - RTB	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED - MCL	REVISED -
PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 6 OF 7 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	37
		CONTRACT NO. 68H58		
		ILLINOIS	FED. AID PROJECT	

SN 048-0009 (LOCATION 3)

LOCATION 3

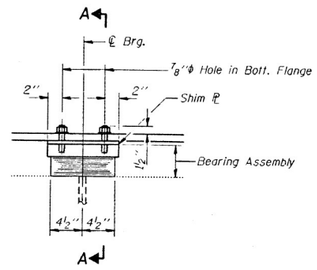
048-0009

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

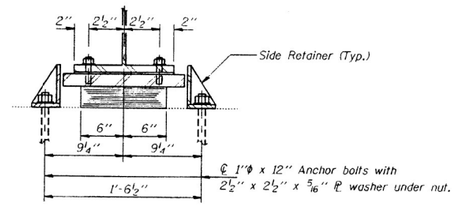
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 74	△	KNOX	120	86
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT:		

SHEET NO. 22
51 SHEETS

△(48-27HBJBY.BY-1

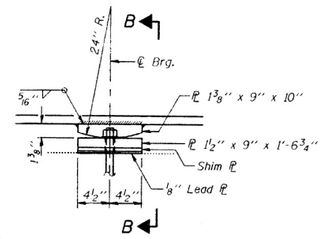


ELEVATION AT PIERS 1 & 3

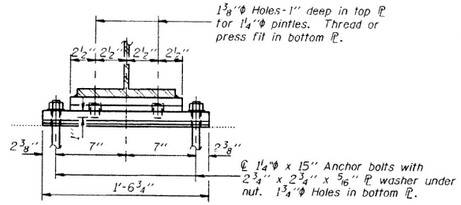


SECTION A-B

TYPE I ELASTOMERIC EXP. BRG.
(32 Required)

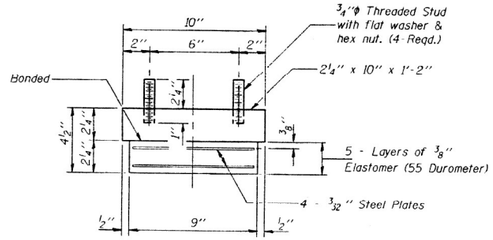


ELEVATION AT PIER 2



SECTION B-B

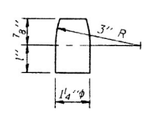
FIXED BEARING
(16 Required)



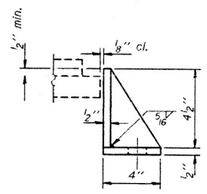
BEARING ASSEMBLY

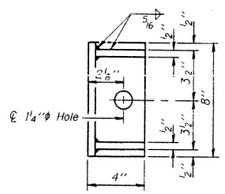
Note: Shim plates shall not be placed under Bearing Assembly.

Notes: Anchor bolts at fixed bearings may be built into the masonry.
See sheet #39 of 51 for anchor bolt installation.



PINTLE





SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. Weight included with Structural Steel.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	32

BEARING DETAILS
EAST & WEST BOUND LANES
F.A.I. RT. 74 SEC. (48-27HB)BY.BY-1
KNOX COUNTY
STATION 348+47.15

DESIGNED	John Cicone	
CHECKED	LSH	
DRAWN	R. Daly	
CHECKED	JLC	LSH

I-2-E1 2-26-93

Aug. 30, 1994
EXAMINED Engineer of Bridge Design
PASSED Engineer of Bridges and Structures

FOR INFORMATION ONLY

MODEL: Default
FILE NAME: O:\2 Files\23081 IDOT - DIST 4 - PTB 201-033\Work Order 15 - FY 2023 Patching\B.Transportation\68H58 (Bridge Painting)\CADD Sheets\020_112 Old Plan Sets.dgn

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Engineers · Architects · Surveyors
www.klingner.com
Galesburg, Illinois
409 North Prairie Street
Bolingbrook, Mt. Vernon, MO
Bettendorf, IA · Carbondale, IL

USER NAME = rbailey	DESIGNED - RTB	REVISED -	
	DRAWN - RTB	REVISED -	
PLOT SCALE = 100.0000 ' / in.	CHECKED - MCL	REVISED -	
PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 7 OF 7 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	38
		CONTRACT NO. 68H58		
	ILLINOIS	FED. AID PROJECT		

SN 048-0026 (LOCATION 4)

LOCATION 4

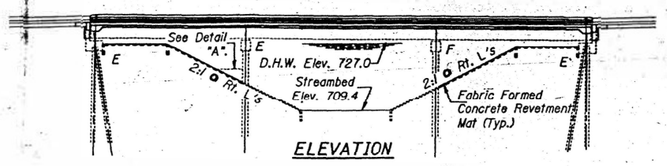
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

048-0026

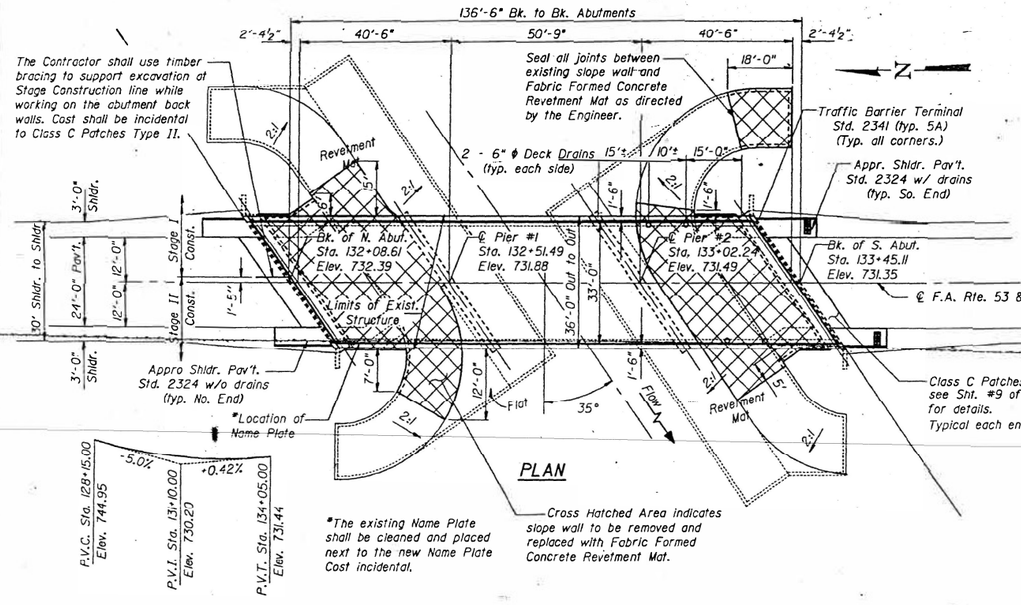
Bench Mark: Chiseled "□" on top of S.E. Wingwall S.N. 048-0026. Elev. 731.79

Existing Structure: #048-0026 is 136'-6" Bk. to Bk. Abuts. with 35'-8" O. to O. of deck. Built as F.A. Route 53, Section 123 B-R at Sta. 132+77.00 in 1951.
The traffic shall be maintained during rehabilitation of existing structure utilizing stage construction.

					SHEET NO. 1
P.N. 60	31294(0)	KNOX	19.	10	9 SHEETS
FED. ROAD DIST. NO. 9		ILLINOIS	FED. AID PROJECT		



ELEVATION



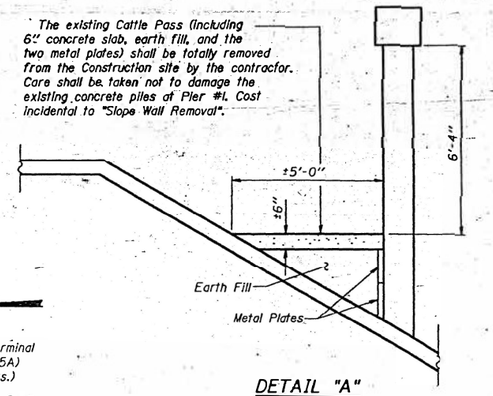
PLAN

*The existing Name Plate shall be cleaned and placed next to the new Name Plate Cost incidental.

Cross Hatched Area indicates slope wall to be removed and replaced with Fabric Formed Concrete Revetment Mat.

PROFILE GRADE S.B.I. RTE. 80

The existing Cattle Pass (including 6" concrete slab, earth fill, and the two metal plates) shall be totally removed from the Construction site by the contractor. Care shall be taken not to damage the existing concrete piles of Pier #1. Cost incidental to "Slope Wall Removal".



DETAIL "A"
(Cattle Pass at Pier #1)

GENERAL NOTES

Fasteners shall be high strength bolts. Bolts $\frac{7}{8}$"ϕ, open holes $\frac{15}{16}$"ϕ, unless otherwise noted.
Calculated weight of Structural Steel = 7350 lb. (W183)
All contact surfaces of joints for the diaphragms shall be free of paint or lacquer.
Field welding of construction accessories will not be permitted to the bottom flange of beams nor to the top flange for a distance equal to one-fourth the span length each way from the pier supports. Field welding in other areas will be permitted only when approved by the Engineer.
Reinforcement bars shall conform to the requirements of AASHTO M-31, M-42 or M-53 Grade 60.
Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field 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 the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
The three coat lead and chromate free alkyd paint system shall be used for field painting of Existing Structural Steel. The color of the finish coat shall be Munsell Standard 10B 3/6 Blue.
The three coat lead and chromate free alkyd paint system shall be used for shop and field painting of New Structural Steel. The color of the finish coat shall be Munsell Standard 10B 3/6 Blue.
The existing Structural Steel shall be cleaned by Method I.
Bridge Seat Sealer shall be applied to seat area of the Abutments.
Est. quantity = 237 Sq. Ft.
Expansion bolts shall consist of approved expansion anchors, providing minimum certified proof load = 4,080 lbs., and $\frac{3}{4}$"ϕ x 12" hooked bolts.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Removal	Cu. Yd.		5.2	5.2
Removal of Existing Concrete Deck	Each	1		1
Structure Excavation	Cu. Yd.		28	28
Floor Drains	Each	4		4
Preformed Joint Seal 2½"	Lin. Ft.	44		44
Preformed Joint Seal 4"	Lin. Ft.	44		44
Class X Concrete Superstructure	Cu. Yd.	137.3		137.3
Protective Coat	Sq. Yd.	67		67
Class X Concrete	Cu. Yd.		7.4	7.4
Structural Steel	Pound	7,350		7,350
Stud Shear Connectors	Each	1,776		1,776
Cleaning and Painting Steel Bridge	L.S.	1		1
Reinforcement Bars, Epoxy Coated	Pound	33,210	2,100	35,310
Name Plates	Each	1		1
Bridge Seat Sealer	L.S.	1		1
Class C Patches, Type II	Sq. Yd.	23		23
Fabric Formed Concrete Revetment Mat	Sq. Yd.		385	385
Slope Wall Removal	Sq. Yd.		385	385
Expansion Bolts ¾"	Each		60	60
Steel Bridge Rail	Lin. Ft.	267		267

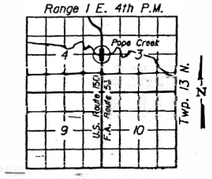
DESIGNED	SHAKER ASFOUR
CHECKED	[illegible]
DRAWN	Paul W. Sweet rw
CHECKED	PMP :A

July 19 1989
EXAMINED Engineer of Bridge Design
PASSED James J. Kaufman, Engineer of Bridges and Structures
APPROVED Director of Highways

STATION 132+77.00
REBUILT 198 BY
STATE OF ILLINOIS
F.A. RTE. 53 SECTION (123B-R)I
LOADING HS20
STR. NO 048-0026

NAME PLATE
(See Std.2113)

DESIGN SPECIFICTIONS
1983 AASHTO, 1984 thru 1988 Interims
(New Construction)
LOADING HS 20-44
Allow 25#/ sq. ft. for future wearing surface.
DESIGN STRESSES
FIELD UNITS
f'c = 3,500 psi
fy = 60,000 psi (Reinf.)
fy = 33,000 psi (Struct. Steel) Existing
fy = 36,000 psi (Struct. Steel W183)



LOCATION SKETCH

GENERAL PLAN
U.S. RTE. 150 OVER POPE CREEK
F.A. RTE. 53 SECTION (123B-R) I
KNOX COUNTY
STATION 132+77.00
STRUCTURE NUMBER 048-0026

FOR INFORMATION ONLY

MODEL: Default
FILE NAME: C:\21files\213081\20T - DIST 4 - PTB 201-033\Work Order 15 - FY 2023 Patching\18.Transportation\68H58 (Bridge Painting)\CADD Sheets\020_1-12 Old Plan Sets.dgn

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Quincy, IL Hannibal, MO — 400 Broadway, Suite 200
Burlington, IA Perry, IA Columbia, MO — 1000 Walnut, Suite 1600
Davenport, IA Carbondale, IL — 1000 Walnut, Suite 1600

USER NAME	= rbailey	DESIGNED - RTB	REVISED -
		DRAWN - RTB	REVISED -
PLOT SCALE	= 100.0000 ' / in.	CHECKED - MCL	REVISED -
PLOT DATE	= 3/21/2023	DATE - 3/21/2023	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 1 OF 5 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	39
		CONTRACT NO. 68H58		
	ILLINOIS FED. AID PROJECT			

SN 048-0026 (LOCATION 4)

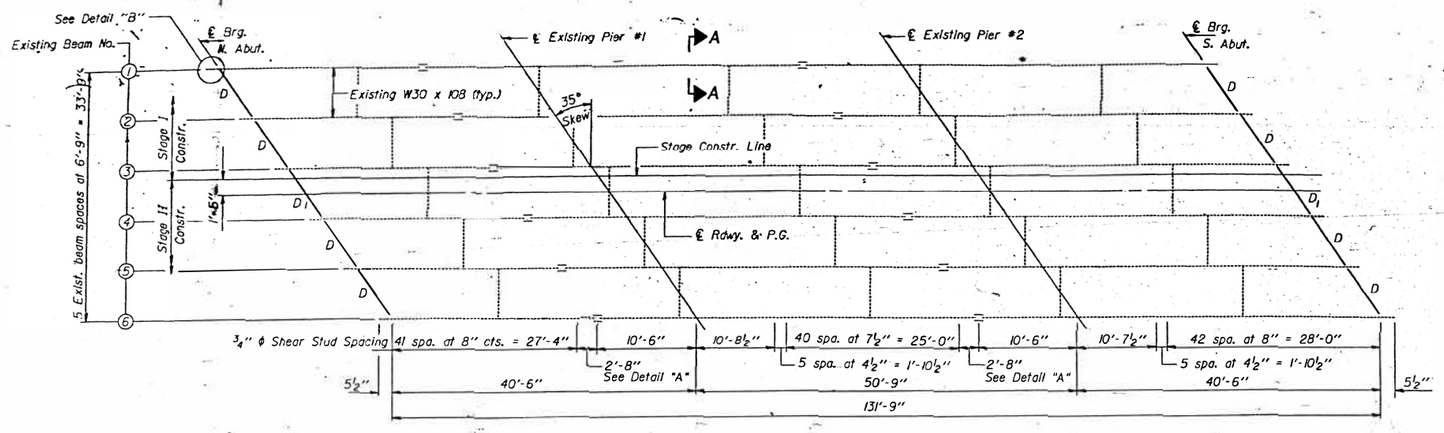
LOCATION 4

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

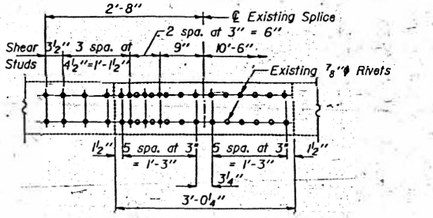
048-0026

ROUTE NO.	SECTION	COUNTY	TOTAL SHEET NO.	SHEET NO.
F.A.P. RTE. 53	(123B-R) I	KNOX	18	17
PROJ. FEDERAL NO.		ILLINOIS FED. AID PROJECT		

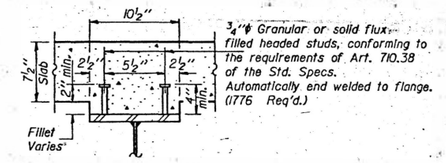
SHEET NO. 8
9 SHEETS



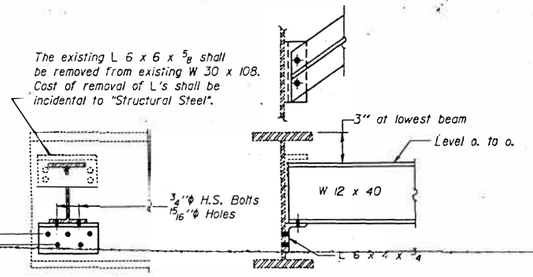
FRAMING PLAN



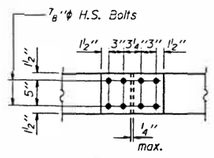
DETAIL "A"



SECTION A-A

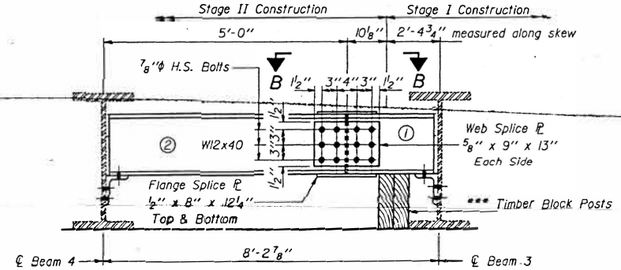


DIAPHRAGM D
8 Required

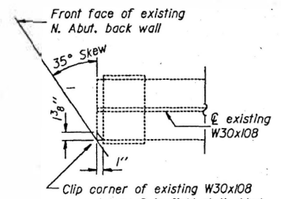


VIEW B-B

*** Cost of Timber Block Posts are Incidental to Structural Steel.



DIAPHRAGM D1
2 Required
(Looking North)
For details of connections to beams see diaphragm D.



Clip corner of existing W30x108 beam 1 thru 6 in field at N. Abut. as shown. Cost incidental to Structural Steel.

DETAIL "B"

DIAPHRAGM D1 CONSTRUCTION SEQUENCE

1.) Order Diaphragm D_1 in two sections with lengths of 3'-2 7/8" and 5'-0" .
2.) Attach section ① of Diaphragm to Beam #3 and top flange splice ℄ during Stage I Construction
3.) Place Timber Block Posts between section ① of diaphragm and abutment bearing seat.
4.) Attach section ② of diaphragm to both Beam #4 and section ① of diaphragm during Stage II Construction with splice plates.
5.) Remove Timber Block Posts.

INTERIOR BEAM MOMENT TABLE				
		0.4 Sp. #1 or 0.6 Sp. #3	Pier #1 or #2	0.5 Sp. #2
Is	(in⁴)	4470	4470	4470
Ic	(in⁴)	10482.3	-	10482.3
Ss	(in³)	299	299	299
Sc	(in³)	364.6	-	364.6
D	(K/ft.)	0.774	1.054	0.774
* MℓL	('K)	86.9	203.2	85.6
sℓ	(K/ft.)	0.28	-	0.28
* MsL	('K)	29.4	-	34.3
* Mℓ	('K)	241.0	144.4	263.9
* M (Imp)	('K)	72.3	43.3	75.0
* S3(Mℓ+I)	('K)	522.3	312.8	564.8
Ma	('K)	830.2	670.8	890.1
Mu	('K)	1572		1572
* fsℓ non-comp(k.s.i.)		3.49	8.2	3.43
* fsℓ (comp)	(k.s.i.)	0.97	-	1.13
* fs S3 (ℓ+I)	(k.s.i.)	17.2	12.6	18.6
fs (Overload)	(k.s.i.)	21.6	20.8	23.14
** fs (Total)	(k.s.i.)	-	27.1	-
* VR	(K)	47.1	-	39.3

* INTERIOR BEAM REACTION TABLE			
		Abuts.	Pier #1 or #2
RL	(K)	15.3	50.9
Rℓ	(K)	32.8	40.7
Imp.	(K)	9.8	12.2
R (Total)	(K)	57.9	103.8

Is and Ss are the moment of inertia and section modulus of the steel section used in computing fs (Total & Overload).
Ic and Sc are the moment of inertia and section modulus of the composite section used in computing fs (Total & Overload).
VR is the maximum Live Load + Impact shear range in span.
Ma (Applied Moment)=1.3[Mℓ + MsL + S3(Mℓ + I)].
Mu is the Full Plastic Moment Capacity for Compact, Braced section.
fs (Overload) is the sum of the stresses due to Mℓ + MsL + S3(Mℓ + I).
Mℓ - Moment due to dead loads on non-composite section.
MsL - Moment due to dead loads on composite section.
Mℓ - Moment due to live loads on non-composite or composite section.
I - Live load impact.
The fully plastic moment capacity (Mu) is computed according to AASHTO 10.48.1 to 10.50.1.1.
* Service Load Values.
** noncompact section

DESIGNED	SHAKER FOUR		
CHECKED	Patrick M Pfister		
DRAWN	Rita Williams		
CHECKED	PMP		

I-2-D 8-30-80

July 19 1982

EXAMINED Engineer of Bridge Design

PASSED Engineer of Bridge and Structures

APPROVED Director of Highways

STRUCTURAL STEEL DETAILS
F.A. RTE. 53 SECTION (123B-R) I
KNOX COUNTY
STATION 132+77.00

FOR INFORMATION ONLY

MODEL: Default
FILE NAME: C:\Files\d213081 IDOT - DIST 4 - FTB 2014-033\Wdot Order 15 - FY 2023 Patching\18.Transportation\68H58 IBridge Painting\CADD Sheets\020_112 Old Plan Sets.dgn

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48 North Prairie Street 309 342 4042
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USER NAME = rbailey	DESIGNED - RTB		REVISED -
	DRAWN - RTB		REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED - MCL		REVISED -
PLOT DATE = 3/21/2023	DATE - 3/21/2023		REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 2 OF 5 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	40
		CONTRACT NO. 68H58		
	ILLINOIS FED. AID PROJECT			

SN 048-0026 (LOCATION 4)

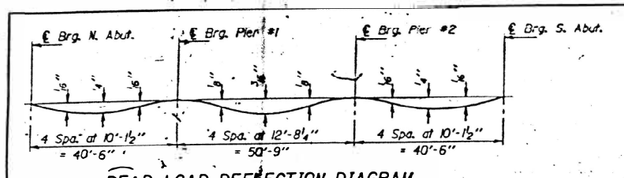
LOCATION 4

048-0026

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	JOB NO.	PROJ. NO.
F.A.S. 80	123B-R(X)	KNOX	18-13	
PROJ. BOND ISSUE NO. ?	ALTERNATE	PROJ. NOT PROGRESSED		

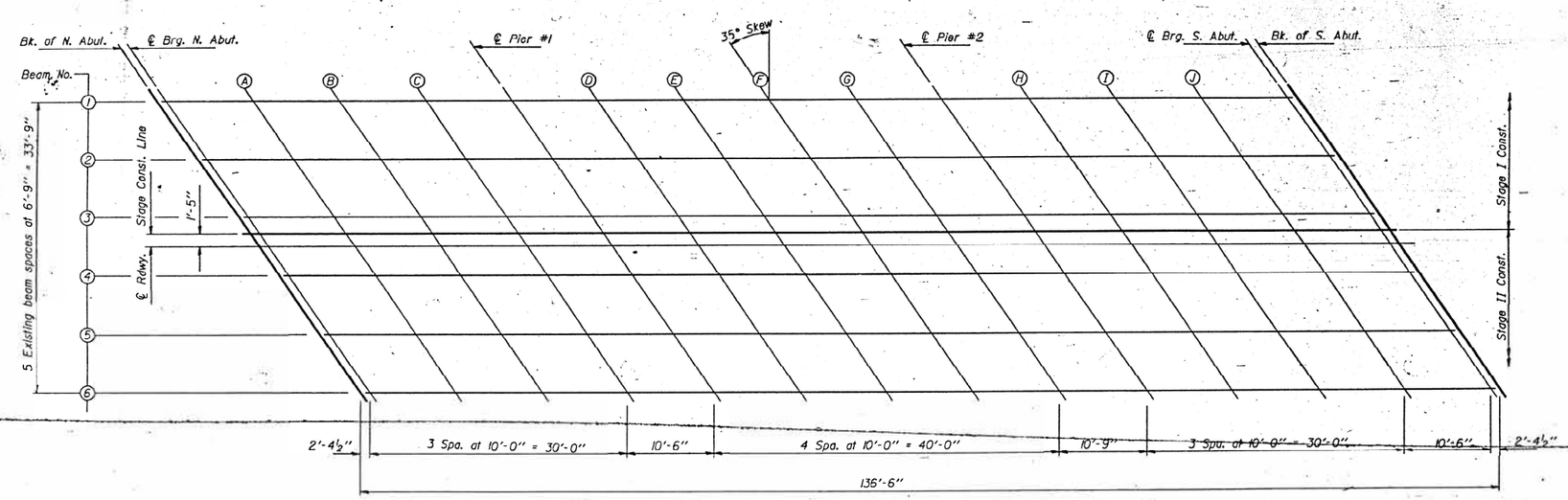
SHEET NO. 4
9 SHEETS



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only)

Note: The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown below.



DESIGNED	SHAKER ALSEOUR
CHECKED	Patrick McPhaire
DRAWN	Rita Williams
CHECKED	PMP , SA

July 19 1989

EXAMINED Engineer of Bridge Design

PASSED James T. Hayhurst, Engineer of Bridge and Structures

APPROVED Director of Highways

TOP OF SLAB ELEVATIONS
F.A. RTE. 53 SECTION (123B-R) I
-KNOX COUNTY
STATION 132+77.00

FOR INFORMATION ONLY

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FILE NAME: O:\21files\213081 IDOT - DIST 4 - PTB 201-033\Work Order 15 - FY 2023 Patching\18 Transportation\68H58 (Bridge Painting)\CADD Sheets\020 112 Old Plan Sets.dgn

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Peoria, IA • Clarksville, IL

USER NAME = rbailey	DESIGNED - RTB	REVISED -	
	DRAWN - RTB	REVISED -	
PLOT SCALE = 100.0000 ' / in.	CHECKED - MCL	REVISED -	
PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 3 OF 5 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	41
		CONTRACT NO. 68H58		
	ILLINOIS	FED. AID PROJECT		

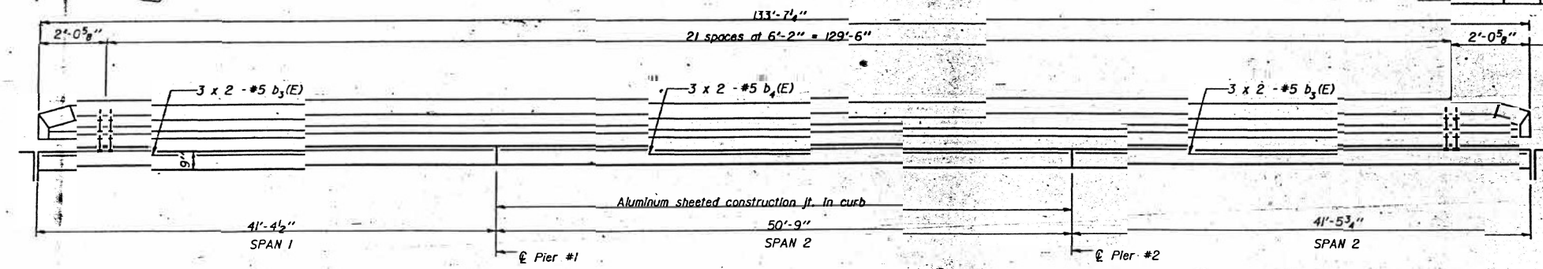
SN 048-0026 (LOCATION 4)

LOCATION 4

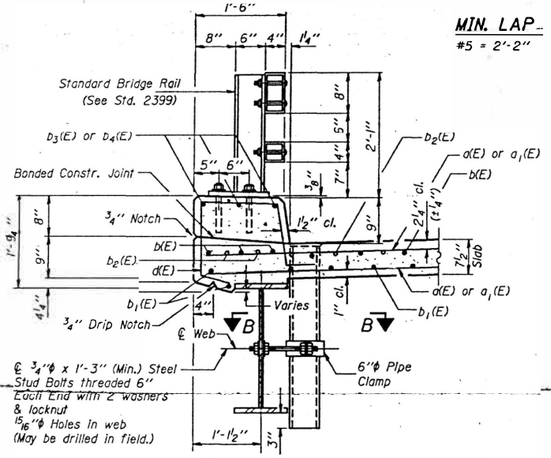
048-0026

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

		COUNTY		SHEET NO. 7
ROUTE RD.	KNOX	18	16	9 SHEETS
DIST. NO. 4	SECTION	FED. AID PROJECT		

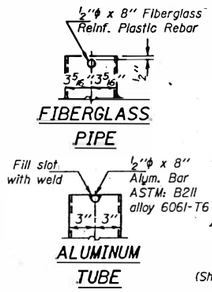


INSIDE ELEVATION OF PARAPET

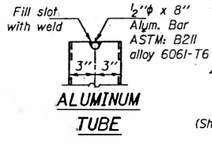


SECTION THRU CURB

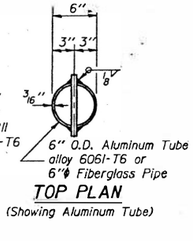
MIN. LAP
#5 = 2'-2"



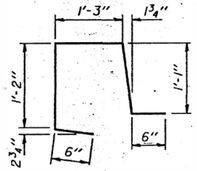
FIBERGLASS PIPE



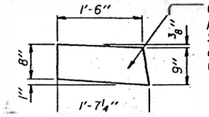
ALUMINUM TUBE



TOP PLAN
(Showing Aluminum Tube)

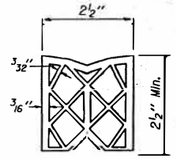


BAR d(E)



Const. Joints at piers. ⅛" Aluminum Sheet ASTM B209 alloy 3003-H Cost Incidental.

CURB JOINT DETAILS

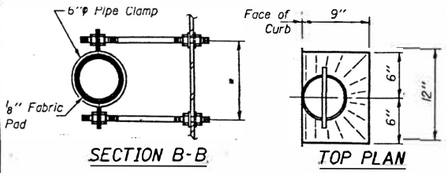


PREFORMED JOINT SEAL (2½")

SUPERSTRUCTURE BILL OF MATERIAL

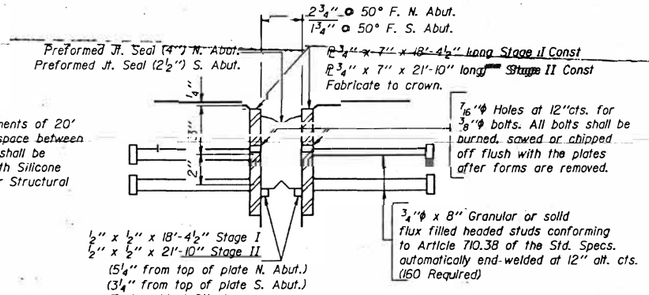
Bar	No.	Size	Length	Shape
d(E)	422	#5	18'-7"	
a1(E)	422	#5	19'-3"	
a2(E)	4	#5	22'-3"	
a3(E)	4	#5	23'-5"	
b(E)	117	#5	45'-11"	
b1(E)	156	#5	35'-0"	
b2(E)	72	#6	26'-0"	
b3(E)	24	#5	21'-8"	
b4(E)	12	#5	26'-4"	
d(E)	294	#5	4'-6"	
Reinforcement Bars (Epoxy Coated)		Lbs.	33,210	
Class X Concrete Superstructure		Cu. Yds.	137.3	

Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 3 x 2-#5 etc. indicates 3 lines of bars with 2 lengths per line.



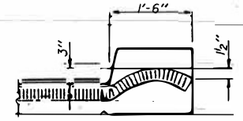
SECTION B-B

TOP PLAN

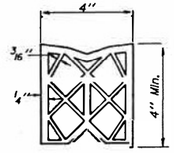


DETAIL A

** Furnish in segments of 20' max. length. Max. space between installed segments shall be 3/16" Seal space with Silicone Sealant suitable for Structural Steel.



END TREATMENT



PREFORMED JOINT SEAL (4")

Notes:
The exterior surfaces of the Floor Drain shall be painted with the final finish coat of the paint system specified for Structural Steel. The exterior surface of the Aluminum tube shall be cleaned and given a washcoat pretreatment in accordance with Steel Structural Painting Council's Spec. SSPC-SP1 & SSPC-Paint 27 prior to painting. Fiberglass to have prewash as per MIL-P-15328 prior to painting.
Fiberglass pipe shall conform to ASTM: D2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum. The surface of the Fiberglass pipe shall be free of bond inhibiting agents.

DESIGNED	SHAKER ASFOUR
CHECKED	Patricia M Bhore
DRAWN	Rita Williams
CHECKED	PMP, SA

July 19 1989
EXAMINED Draj. D. Kaspar ENGINEER OF BRIDGE DESIGN
PASSED James T. Hepburn ENGINEER OF BRIDGES AND STRUCTURES
APPROVED DIRECTOR OF HIGHWAYS

S-2-D 12-31-87

SUPERSTRUCTURE DETAILS
F.A. RTE. 53 SECTION (123B-R) I
KNOX COUNTY
STATION 132+77.00

FOR INFORMATION ONLY

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481 Lynn Prairie Road, Galesburg, IL 61401 Phone: 309.342.4042
Burlington, IA Peru, IA Columbia, MO Hannibal, MO

SESS NAME	= rt baileyl	DESIGNED - RTB	REVISED -
		DRAWN - RTB	REVISED -
PLOT SCALE	= 100.0000 ' / in.	CHECKED - MCL	REVISED -
PLOT DATE	= 3/21/2023	DATE - 3/21/2023	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE PLAN SETS

SCALE: NONE | SHEET 4 OF 5 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	42
		CONTRACT NO. 68H58		
		ILLINOIS	FED. AID PROJECT	

SN 048-0026 (LOCATION 4)

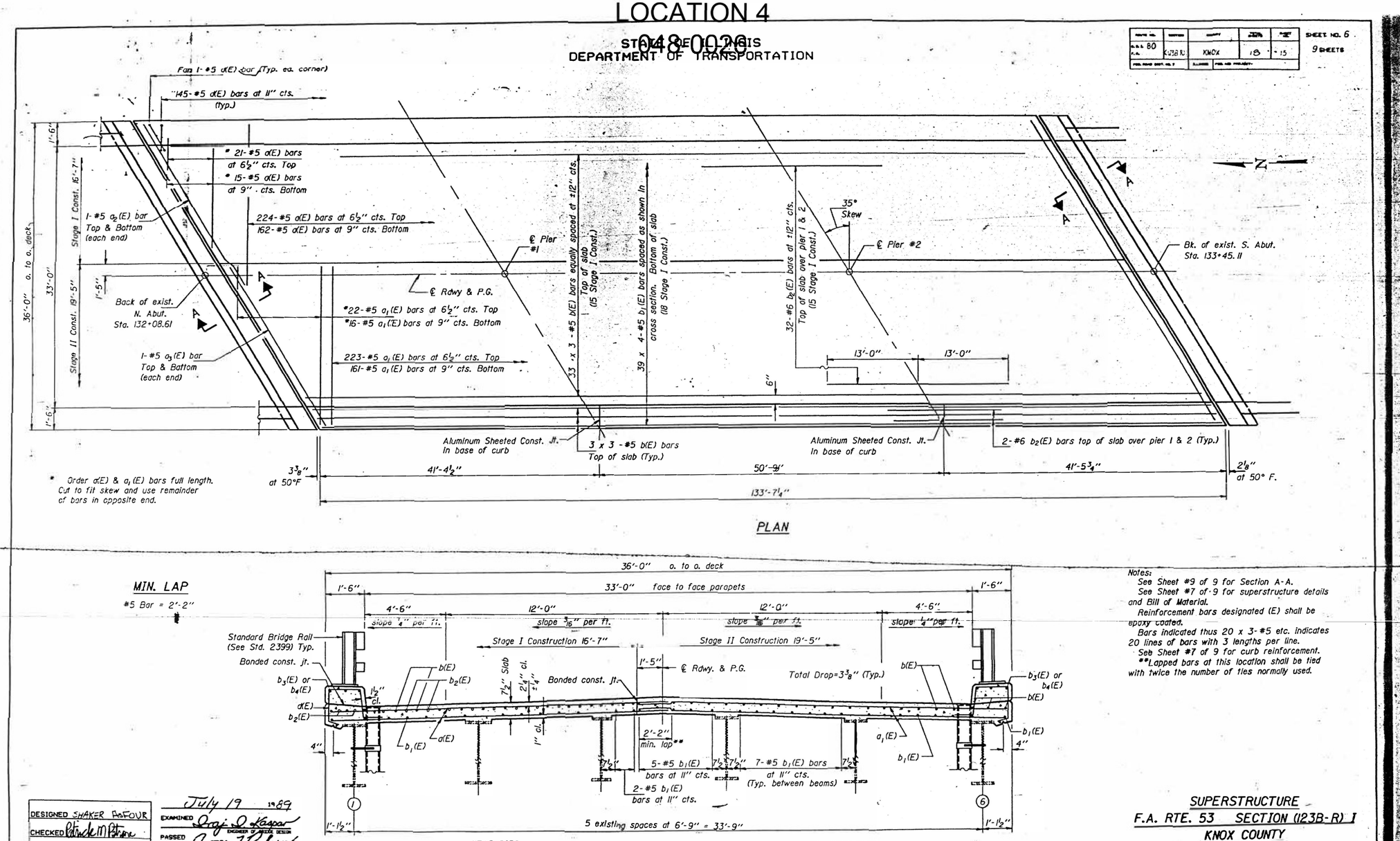
LOCATION 4

048-0026

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 80	(123B-R)	KNOX	18	15
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 6
9 SHEETS



PLAN

MIN. LAP
#5 Bar = 2'-2"

NEAR PIER NEAR MIDSPAN

CROSS SECTION
(Looking South)

Notes:
See Sheet #9 of 9 for Section A-A.
See Sheet #7 of 9 for superstructure details and Bill of Material.
Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
See Sheet #7 of 9 for curb reinforcement.
**Lapped bars at this location shall be tied with twice the number of ties normally used.

DESIGNED	SHAKER RaFOUR
CHECKED	Patricia M Patton
DRAWN	Rita Williams
CHECKED	PMP, SA

S-2-R(30°) 12-31-87

July 19 1989
EXAMINED Raj D Kapur ENGINEER OF BRIDGE DESIGN
PASSED James T Rowburn ENGINEER OF BRIDGES AND STRUCTURES
APPROVED DIRECTOR OF HIGHWAYS

SUPERSTRUCTURE
F.A. RTE. 53 SECTION (123B-R) I
KNOX COUNTY
STATION 132+77.00

FOR INFORMATION ONLY

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FILE NAME: O:\Files\213081 IDOT - DIST 4 - PTB 201-033\Work Order 15 - FY 2023 Painting\18 Transportation\68H58 (Bridge Painting)\CADD Sheets\070_112 Old Plan Sets.dgn

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Galesburg, Illinois 61401 309 342 4042
Davenport, IA Bettendorf, IA Burlington, IA Peoria, IA Columbia, MO Port, IA Carbondale, IL

USER NAME = rbailey	DESIGNED - RTB	REVISED -	
	DRAWN - RTB	REVISED -	
PLOT SCALE = 100.0000 ' / in.	CHECKED - MCL	REVISED -	
PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 5 OF 5 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	43
		CONTRACT NO. 68H58		
		ILLINOIS	FED. AID PROJECT	

SN 048-0063 (LOCATION 5)

LOCATION 5

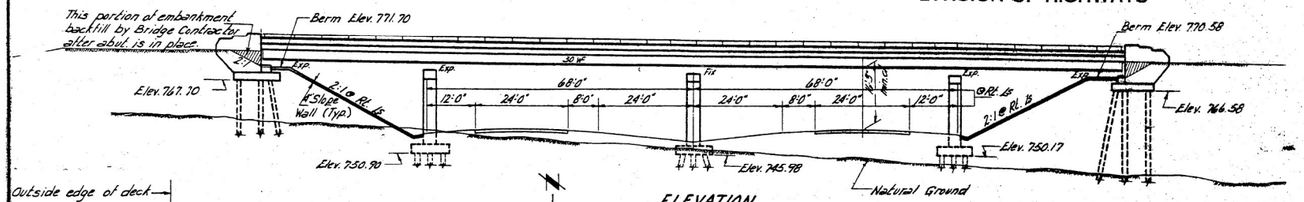
048-0063

B.M. "N" Spike & Washer in Post at E.W. Fence 2.14'± Rt. of ℄ Rt. Lane Sta. 220+25 Elev. 738.551
B.M. "17" Spike & Washer in Post at E.W. Fence 133' Lt. of Rt. Lane Sta. 236+20 El. 753.512

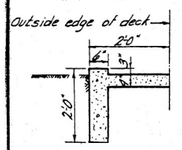
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
U.S.-I. F.A.I.-74	48-24 HB-1	KNOX	34	5
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

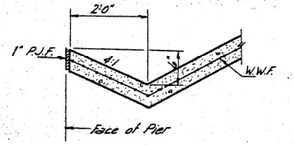
SHEET NO. 1 OF 11 SHEETS



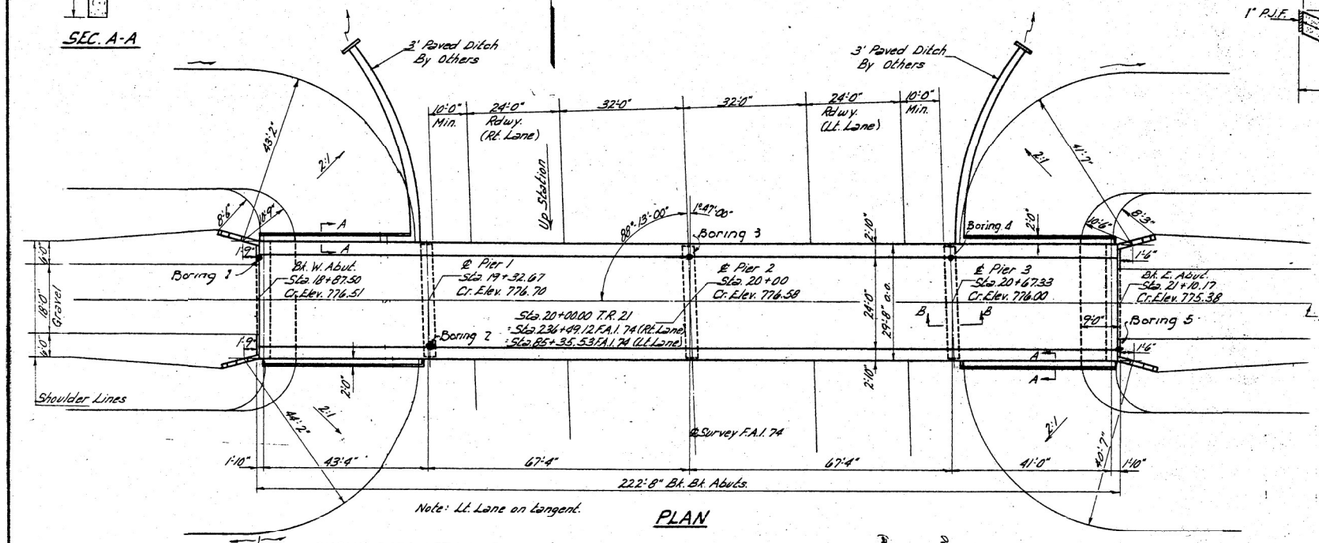
ELEVATION



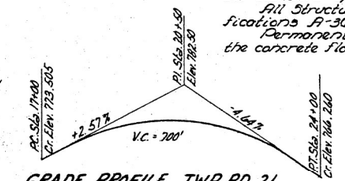
SEC. A-A



SEC. B-B



PLAN



GRADE PROFILE TWP. RD. 21

GENERAL NOTES

Class X Concrete shall be used throughout.

Coarse aggregate which is to be used in end posts and parapet handrails must be free of chert, flint, limonite, lignite and soft sandstone.

The concrete floor slab shall be finished in accordance with Article 51.19 of the Standard Specifications.

Slope wall shall be reinforced with welded fabric 6"x6" mesh, #4 wires, weighing 58# per 100 sq. ft.

Rivets ¾", open holes 1⅛" unless noted.

All bolsters, rockers, bearing plates, lead plates, pintles and anchor bolts shall be fabricated and set in accordance with Article 51.15 of the Standard Specifications and are included in quantity of Structural Steel. Est. Wt. = 6,440#

Anchor bolts shall be set before riveting diaphragms over supports.

The following surfaces of the expansion guards shall be given two shop coats of red lead paint; the backs of the vertical legs of the 4"x4"x½" ∠s.

Expansion guards are included in quantity of Structural Steel. Est. Wt. = 670#

Except as otherwise provided, all structural steel shall receive one shop coat of red lead paint and two field coats of aluminum paint. See Articles 56.1 to 56.5 inclusive of the Standard Specifications.

All paint shall be furnished and applied by the Contractor.

The Contractor shall drive one concrete test pile in a permanent location at the E. Abutment and one timber test pile near Pier 3 as directed by the Engineer before ordering remainder of piles.

Piles at Abutments shall be driven in holes precored to natural ground line in accordance with Article 60.9(c) of the Standard Specifications.

All Structural Steel shall conform to ASTM Specifications A-36 Steel.

Permanent forms will not be permitted in forming the concrete floor.

TOTAL BILL OF MATERIAL

	Item		Super	Sub	Total
*	Class "A" Excav. for Struct.	Cu. Yds.		123	123
	Class X Concrete	Cu. Yds.	206.6	200.9	407.5
	Structural Steel	Lbs.	137200		137200
	Aluminum Handrail	Lin. Ft.	441		441
	Reinforcement Bars	Lbs.	40,150	15,250	55400
	Creosoted Piles	Lin. Ft.		810	810
	Test Piles (Timber)	Each		1	1
	Concrete Piles	Lin. Ft.		635	635
	Test Piles (Concrete)	Each		1	1
	Protective coat	Sq. Yds.	850		850
	Name Plates	Each		2	2
	Slope Wall (4")	Sq. Yds.		381	381

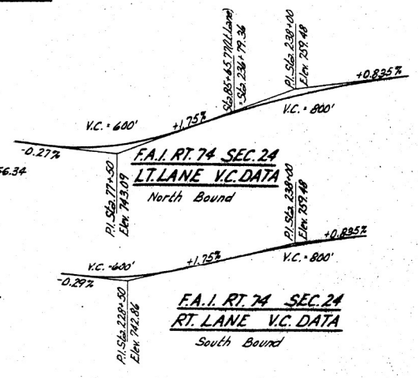
* Includes excavation for Slope Wall

STA. 236+49.12
BUILT 196 BY
STATE OF ILLINOIS
F.A.I. RT. 74 SEC. 48-24 HB-1
F.A. PROJ. I-74-2(43)
LOADING HS-S12

NAME PLATE
See Std. 2113-1

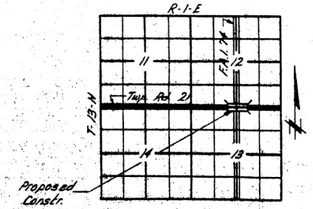
CURVE DATA (RT. LANE ONLY)

P.I. = 231+18.77
Δ = 13°-31'-00"
D = 1°-20'-00"
T = 509.24'
L = 1018.75'
E = 30.01'
R = 4,297.19'
P.C. = 226+09.53
P.T. = 236+23.28
Superelevation = 0.037½ From Sta. 224+72.28 to Sta. 235+56.34
Super Attained Sta. 225+42.28 to Sta. 224+72.28
Super Removed Sta. 235+56.34 to Sta. 236+86.34



F.A.I. RT. 74 SEC. 24
LT. LANE V.C. DATA
North Bound

F.A.I. RT. 74 SEC. 24
RT. LANE V.C. DATA
South Bound



LOCATION SKETCH

DESIGNED	James M. Pence		
CHECKED	Laurence A. Jaumont		
DRAWN	P. Lawler J.N.P.		
CHECKED	Laurence A. Jaumont		

EXAMINED — Dec 27 1961 — H.E. Baumann, ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES
PASSED — ENGINEER OF DESIGN
APPROVED — M.A. Matthews, CHIEF HIGHWAY ENGINEER

DESIGN STRESSES

fc = 1,400 p.s.i. Super
Vc = 75 p.s.i. Flgs.
fs = 20,000 p.s.i. Reinf.
fs = 20,000 p.s.i. Struct. (A-36)
Allowable ℄ Deflection = L/1000
n = 10

LOADING HS-S12-44

GENERAL PLAN & ELEVATION
PROJ. I-74-2 (43) 35
TWP. RD. 21 OVER F.A.I. RT. 74
F.A.I. RT. 74 SEC. 48-24 HB-1
KNOX COUNTY
STA. 236+49.12 F.A.I. 74

FOR INFORMATION ONLY

Revised: 10/20/62 Added Loading HS-S12-44. Changed Conc. Cu. Yds. 394.8 to 407.5 & Struct. Conc. Lbs. 41,390 to 55,400. Added Conc. Parapet J.N.P.

MODEL: Default
FILE NAME: G:\2 Files\2 1308 IDOT - DIST 4 - PTB 201-433\Work Order 15 - FY 2023 Patching\18_Transportation\68H58 (Bridge Painting)\CADD Sheets\020_112 Old Rte. Section.dgn

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Quincy, IL · Hannibal, MO · Burlington, IA · Peru, IA · Columbia, MO · Monmouth, IA · Carbondale, IL

USER NAME = rbailey	DESIGNED - RTB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	OLD BRIDGE PLAN SETS	
	DRAWN - RTB	REVISED -			
PLOT SCALE = 100.0000 ' / in.	CHECKED - MCL	REVISED -		SCALE: NONE	SHEET 1 OF 5 SHEETS STA. N/A TO STA. N/A
PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -			

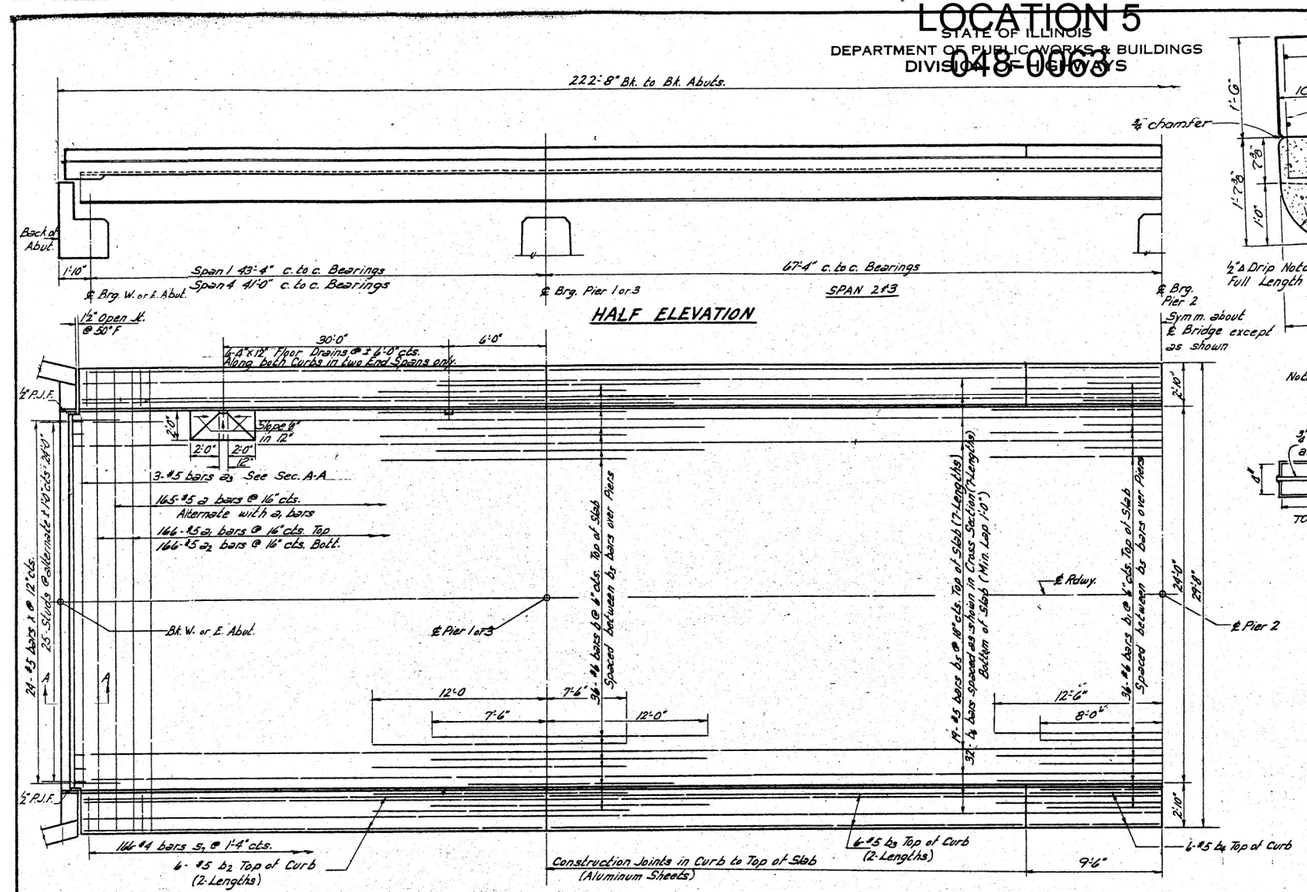
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	44
		CONTRACT NO. 68H58		
	ILLINOIS	FED. AID PROJECT		

SN 048-0063 (LOCATION 5)

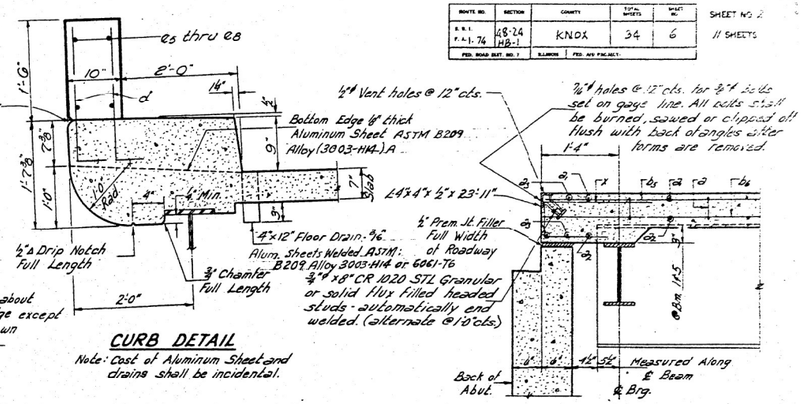
LOCATION 5
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS
048-0063

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 74	48-24 HB-1	KNOX	34	6
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJ. SECT.		

SHEET NO 2
11 SHEETS



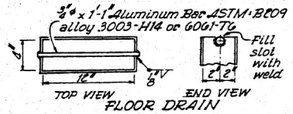
HALF PLAN



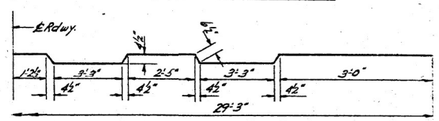
CURB DETAIL

Note: Cost of Aluminum Sheet and drains shall be incidental.

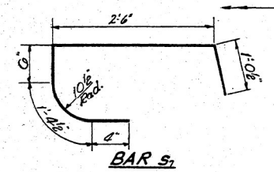
SECTION A-A



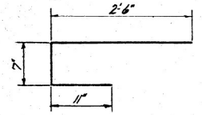
FLOOR DRAIN



BAR a2



BAR s1



BAR x

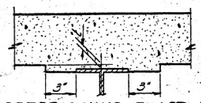
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a	165	#5	30'-7"	
a1	166	#5	29'-3"	
a2	166	#5	28'-3"	
a3	6	#5	23'-2"	
b	72	#4	19'-6"	
b1	36	#4	20'-6"	
b2	48	#5	22'-1"	
b3	48	#5	29'-3"	
b4	24	#5	9'-3"	
b5	133	#5	32'-9"	
b6	224	#5	32'-6"	
s1	332	#4	5'-9"	
x	48	#5	4'-0"	
**	Class X Concrete		Cu. Yds.	202.6
**	Reinforcement Bars		Lbs.	42,150
*	Structural Steel		Lbs.	18,200

*Weight of Bolsters, Rockers, Bearing Plates, Lead Plates and Anchor Bolts included as Structural Steel. Est. Wt. = 644 #
*Weight of Expansion Gwards included as Structural Steel. Est. Wt. = 2,000 #
Note: Min. lap #4 bars 1'-0"
Min. lap #5 bars 1'-3"

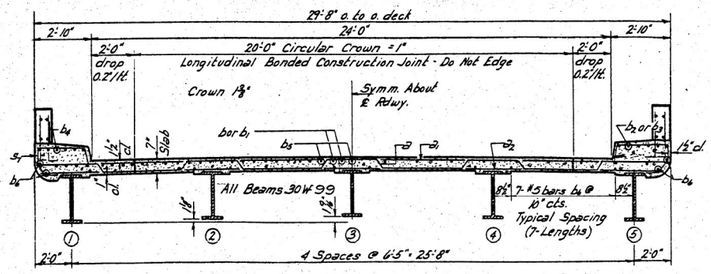
** Includes the quantities of Class X Conc. and Reinf. Bars as shown in the Conc. Parapet on Sheet #4.

METHOD OF DETERMINING FILLET HEIGHT "L"



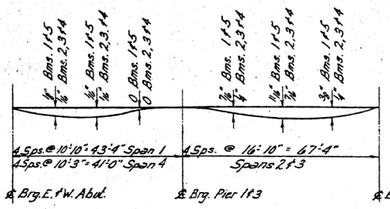
After all Structural Steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown on sheet 9. These elevations subtracted from the "Grade Elevations Adjusted For D.L. Deflections" shown on sheet 9, minus floor thickness, equals the fillet heights above top of beams.

DESIGNED	James N. Pierce	EXAMINED	Dec 27 1961
CHECKED	Lawrence J. Jarrard	PASSED	H.C. Beerman, Engineer of Bridge and Traffic Structures
J.N.P.	A. Lawler	APPROVED	Engineer of Design
DRAWN			Chief Highway Engineer
CHECKED	Lawrence J. Jarrard		



OVER PIERS — TYPICAL

CROSS SECTION



DEAD LOAD DEFLECTION DIAGRAM

(All Beams - For weight of Concrete only)

Note: The above deflections are not for use in the field if the Engineer is working from the Grade Elevations Adjusted for Dead Load Deflection as shown on sh. 9

SUPERSTRUCTURE
F.A.I. RT. 74 SEC. 48-24 HB-1
KNOX COUNTY
STA. 236 + 49.12

FOR INFORMATION ONLY

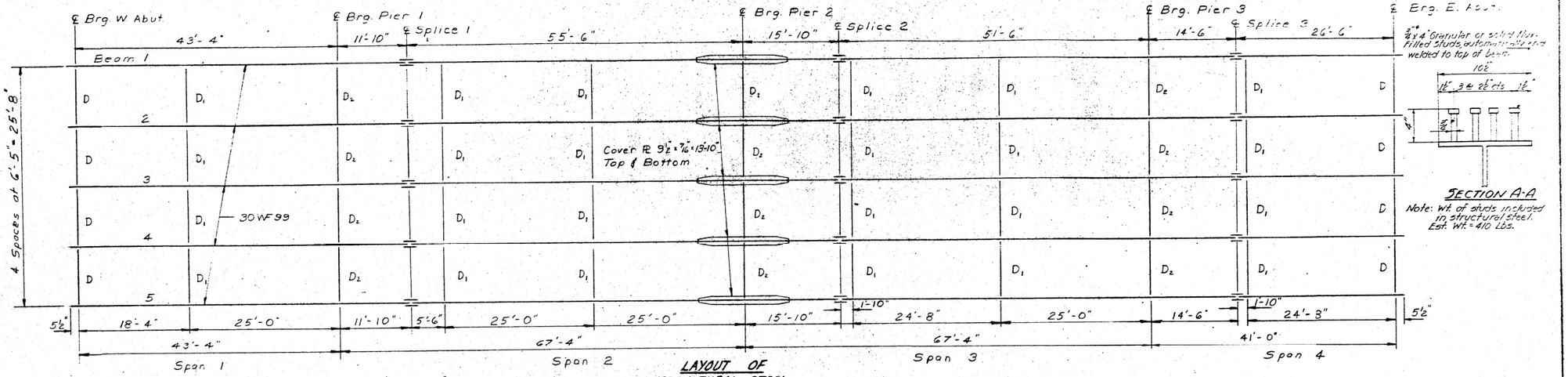
SN 048-0063 (LOCATION 5)

LOCATION 5
048-0063

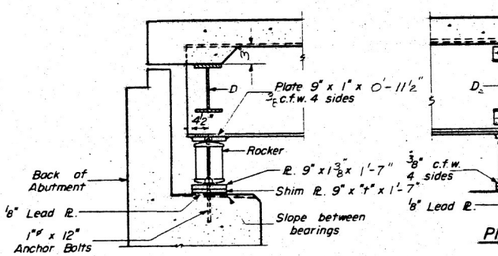
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 7-13-74	48-2A HB-1	KNOX	34	7
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

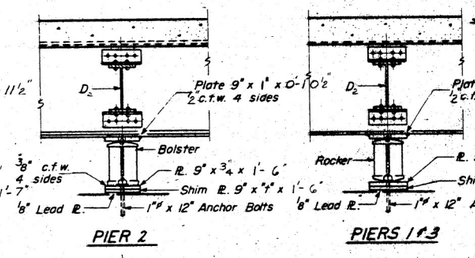
SHEET NO. 3 OF 5 SHEETS



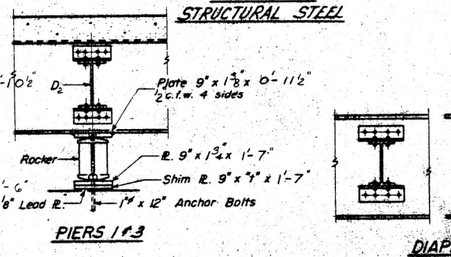
LAYOUT OF STRUCTURAL STEEL



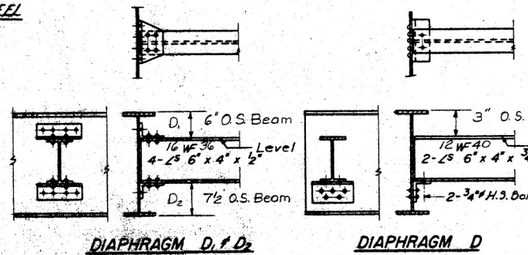
SECTION AT ABUTMENT



PIER 2



PIERS 1 & 3

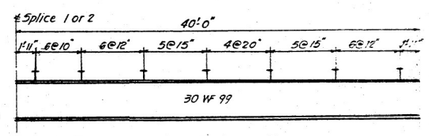


DIAPHRAGM D, & D_2

24 Required D,
12 Required D_2

DIAPHRAGM D

8 Required

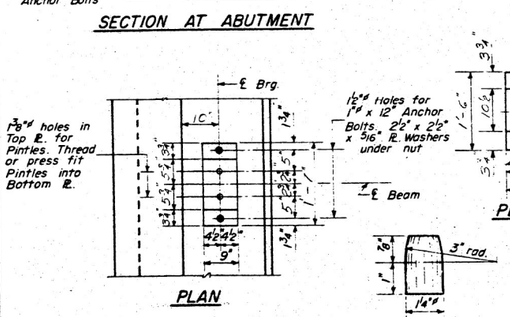


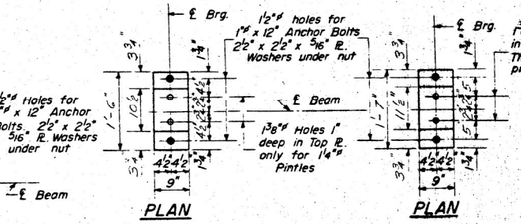
SPACING OF SHEAR CONNECTORS

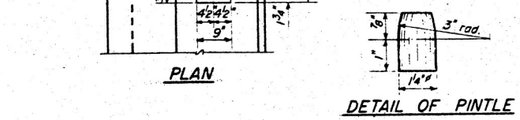
ELEVATION TOP OF BEAMS

These do not include Dead Load Deflection of Steel

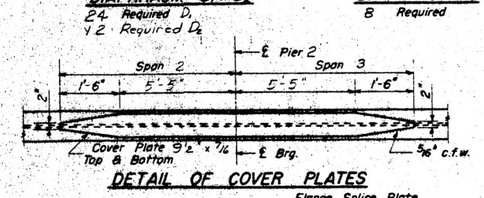
Beam	℄ Brg. W. Abut	℄ Brg. Pier 1	℄ Splice 1	℄ Brg. Pier 2	℄ Splice 2	℄ Brg. Pier 3	℄ Splice 3	℄ Brg. E. Abut
1	775.832	775.926	775.954	775.779	775.729	775.262	775.234	774.713
2	775.923	776.025	776.051	775.876	775.826	775.359	775.151	774.814
3	775.963	776.059	776.085	775.910	775.860	775.393	775.185	774.835
4	775.929	776.025	776.051	775.876	775.826	775.359	775.151	774.814
5	775.832	775.926	775.954	775.779	775.729	775.262	775.234	774.713



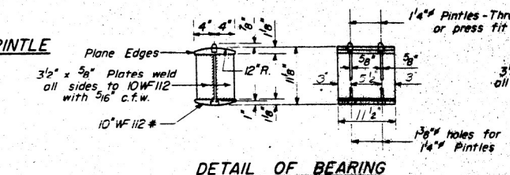




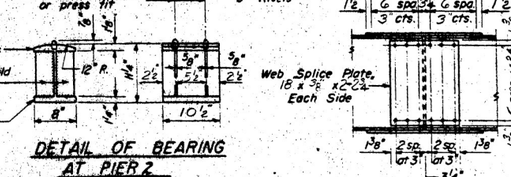
DETAIL OF PINTLE



DETAIL OF COVER PLATES



DETAIL OF BEARING AT PIERS 1, 3 & ABUTS.



DETAIL OF BEARING AT PIER 2

DETAIL OF SPLICE

TABLE OF "t" DIMENSIONS

Location \ Beam	1	2	3	4	5
℄ Brg. W. Abut.	0	0	7/16"	0	0
℄ Brg. Pier 1	0	0	7/16"	0	0
℄ Brg. Pier 2	0	0	7/16"	0	0
℄ Brg. Pier 3	0	0	7/16"	0	0
℄ Brg. E. Abut.	0	0	7/16"	0	0

DESIGNED	James M. Perez	
CHECKED	James A. Zgarrick	
	F. Lester J.N.F.	
DRAWN	W. A. Sausoman	
CHECKED	James A. Zgarrick	

Dec. 27 1961

EXAMINED	W. E. Bauman
PASSED	
APPROVED	M. A. Bartholomew

I-2 Re-drawn 8-18-59

FOR INFORMATION ONLY

MODEL: Default
FILE NAME: O:\2Files\213081 TDOT - DIST 4 - PTB 201-033\Work Order 15 - FY 2023 Patching\18.Transportation\68H58 (Bridge Painting)\CADD Sheets\020_113_Old Plan Sets.dgn

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Burlington, IA · Pella, IA · Columbia, MO
Davenport, IA · Carterville, IL

USER NAME = rbailey	DESIGNED - RTB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	OLD BRIDGE PLAN SETS	
	DRAWN - RTB	REVISED -			
PLOT SCALE = 100.0000 ' / in.	CHECKED - MCL	REVISED -			
PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -		SCALE: NONE	SHEET 3 OF 5 SHEETS STA. N/A TO STA. N/A

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	46
		CONTRACT NO. 68H58		
	ILLINOIS FED. AID PROJECT			

SN 048-0063 (LOCATION 5)

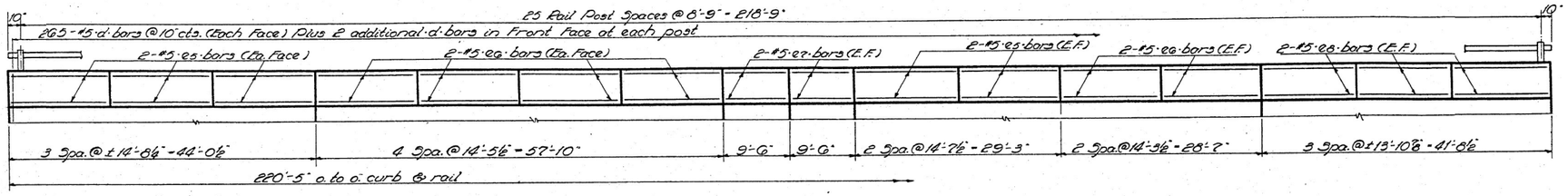
LOCATION 5

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

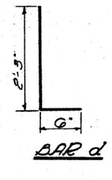
048-0063

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F. A. I. 74	48-24 HB-1	KNOX	34	8
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT:		

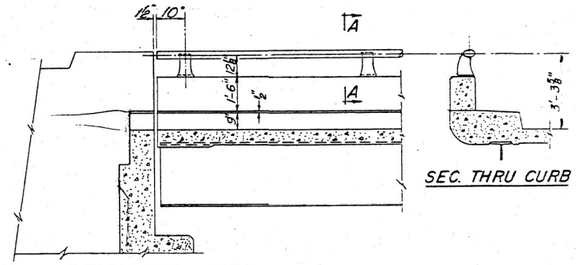
SHEET NO. 4
11 SHEETS



ELEVATION - HANDRAIL

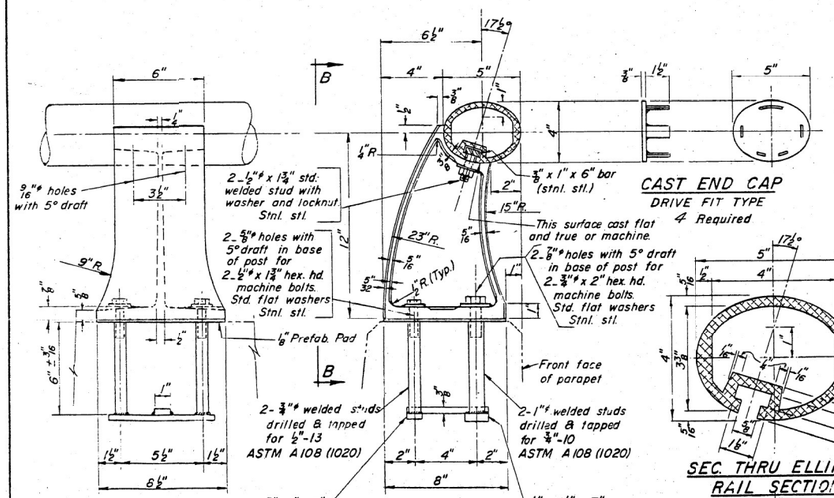


BAR d



SEC. THRU CURB

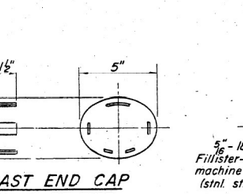
ELEVATION – END POST



VIEW B-B

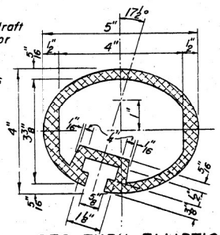
SECTION A-A

RAIL POST DETAILS

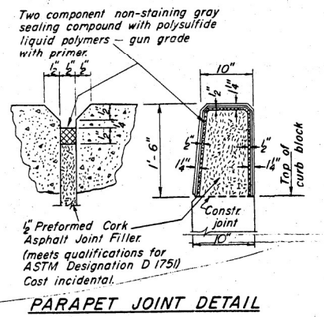


CAST END CAP
DRIVE FIT TYPE
4 Required

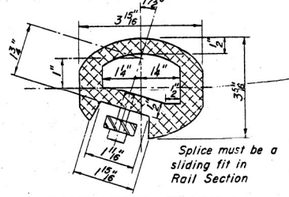
RAIL SPLICE



SEC. THRU ELLIPTICAL RAIL SECTION



PARAPET JOINT DETAIL



SEC. THRU SPLICE

NOTES:

All Posts shall be normal to parapet.

All Aluminum Alloy Extruded Rail shall conform to ASTM specification B-235 alloy 6061-T6, or 6062-T6, and shall extend a minimum of 2 panel lengths (attached to minimum of 3 posts) except at ends or at open joints where a minimum of 1 panel length is required. All joints in railing must be spliced per detail.

See Special Provisions for following Material Specifications:

Cast Aluminum Alloy Bridge Post – Alloy 344-T4.
Stainless Steel Welded Stud Bolts, Washers, and Locknuts.

For material composition of Prefabricated Pad, see Article 54.9(f), (Bearing and Anchorage), of the Standard Specifications.

METHOD of MEASUREMENT: Aluminum handrail shall be measured in lineal feet. The length paid for shall be the over all length along the top longitudinal railing member thru all posts and gaps.

BASIS of PAYMENT: Aluminum handrail shall be paid for at the contract unit price per lineal foot for ALUMINUM HANDRAIL, measured as specified, which price shall be payment in full for all materials, fabrication, transportation, and erection.

Cost of rail splice, end caps, and hardware to be incidental to item ALUMINUM HANDRAIL.

BILL OF MATERIAL

Item	Unit	Quantity
ALUMINUM HANDRAIL	Lin. Ft.	440

BAR LIST

Bar	No.	Size	Length/Shape
d	1164	#5	2'-9"
e5	40	#5	14'-4"
e6	48	#5	14'-0"
e7	16	#5	9'-5"
e8	24	#5	13'-7"

ALUMINUM HANDRAIL

F.A.I. RT 74 - SEC. 48-24 HB-1
KNOX COUNTY
STA. 236 + 49.12

Quantity of Class X Concrete and Reinforcement Bars for Parapet are included in Bill of Material on Sheet #2.

DESIGNED James N. Pence
CHECKED
DRAWN Wm. M. Best
CHECKED J.N.P.

EXAMINED _____ 19
ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES
PASSED _____
ENGINEER OF DESIGN
APPROVED _____
CHIEF HIGHWAY ENGINEER

R-17 Dwn. 5-28-64

FOR INFORMATION ONLY

MODEL: Default
FILE NAME: O:\2 Files\21308 IDOT - DIST 4 - PTB 201-033\Work Order 15 - FY 2023 Patching\18.Transportation\68H58 (Bridge Painting)\CADD Sheets\020_113 Old Plan Sets.dgn

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USER NAME = rbailey	DESIGNED - RTB	REVISED -	
	DRAWN - RTB	REVISED -	
PLOT SCALE = 100.0000 ' / in.	CHECKED - MCL	REVISED -	
PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 4 OF 5 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	47
		CONTRACT NO. 68H58		
	ILLINOIS	FED. AID PROJECT		

SN 048-0063 (LOCATION 5)

LOCATION 5
048-0063

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 74	48-24 HB-1	KNOX	34	11
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 7
11 SHEETS

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

PILE DATA

Type : Creosoted Piles
Capacity : 20 Ton
Est. Length : 15' Pier 1, 25' Pier 3
No. Req'd. : 30 + 1 Test Pile

Pier # 1
Sta. 19+32.67
Cr. Elev. 776.70
Pier # 3
Sta. 20+67.33
Cr. Elev. 776.00

TOP PLAN

ELEVATION

END VIEW

DIMENSIONS

REINFORCEMENT

FOOTING PLAN

SECTION A-A

Note: All edges shall have standard 3/4" chamfers except footings.

A & B DIMENSIONS

Bar	A	B
s_2	2'-2"	1'-11"
s_3	2'-2"	3'-0"
s_4	2'-3"	3'-0"
s_5	2'-3"	2'-3"

s BARS

u_1 BAR

n_1 BAR

BEARING PLATE PLAN

Showing Location of Anchor Bolts

PIER 1 & 3 BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h_2	60	#5	12'-9"	—
h_3	8	#5	21'-6"	—
h_4	8	#5	29'-5"	—
n_1	72	#5	4'-4"	⌒
p_1	20	#5	9'-3"	—
p_2	14	#10	29'-5"	—
s_2	78	#4	6'-0"	□
s_3	20	#4	8'-2"	□
s_4	24	#5	8'-3"	□
s_5	36	#5	6'-9"	□
t_2	60	#5	8'-3"	—
u_1	12	#6	7'-1"	⊏
v_2	72	#5	18'-0"	—
w_2	10	#5	18'-3"	—
Class X Concrete			Cu.Yds.	87.6
Reinforcement Bars			Lbs.	6560
Creosoted Piles			Lin.Ft.	600
Test Piles(Timber)			Each	1
Name Plates			Each	2

PIERS 1 & 3
F.A.I. RT. 74 SEC. 48-24 HB-1
KNOX COUNTY
STA. 236+49.12

DESIGNED	James M. Pence		
CHECKED	Laurence A. Jannuck		
J.N.P.	P. Lawler		
DRAWN	W.A. Sousoman		
CHECKED	Laurence A. Jannuck		

DEC 27 1961

EXAMINED M.G. Bauman — ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES
PASSED
APPROVED — CHIEF HIGHWAY ENGINEER

P-2 Re-drawn 7-17-59 Rev. 11-25-59

FOR INFORMATION ONLY

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FILE NAME: O:\2 Files\213081 IDOT - DIST 4 - PTB 201-033\Work Order 15 - FY 2023 Patching\18.Transportation\68H58 (Bridge Painting)\CADD Sheets\020_112 Old Main Section.dgn

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 5 OF 5 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	48
		CONTRACT NO. 68H58		
	ILLINOIS FED. AID PROJECT			

LOCATION 6
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 1 OF 11 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	49
		CONTRACT NO. 68H58		
	ILLINOIS	FED. AID PROJECT		

LOCATION 6
DELETED

MODEL: Default
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PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 1 OF 11 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	50
		CONTRACT NO. 68H58		
	ILLINOIS	FED. AID PROJECT		

LOCATION 6
DELETED

MODEL: Default
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 1 OF 11 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	51
		CONTRACT NO. 68H58		
	ILLINOIS	FED. AID PROJECT		

LOCATION 6
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MODEL: Default
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 1 OF 11 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	52
		CONTRACT NO. 68H58		
	ILLINOIS	FED. AID PROJECT		

LOCATION 6
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 1 OF 11 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	53
		CONTRACT NO. 68H58		
	ILLINOIS	FED. AID PROJECT		

LOCATION 6
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DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 1 OF 11 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	54
		CONTRACT NO. 68H58		
	ILLINOIS	FED. AID PROJECT		

LOCATION 6
DELETED

MODEL: Default
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DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 1 OF 11 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	55
		CONTRACT NO. 68H58		
	ILLINOIS	FED. AID PROJECT		

LOCATION 6
DELETED

MODEL: Default
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DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 1 OF 11 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	56
		CONTRACT NO. 68H58		
	ILLINOIS	FED. AID PROJECT		

LOCATION 6
DELETED

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 1 OF 11 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	57
		CONTRACT NO. 68H58		
	ILLINOIS	FED. AID PROJECT		

LOCATION 6
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 1 OF 11 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	58
		CONTRACT NO. 68H58		
	ILLINOIS	FED. AID PROJECT		

LOCATION 6
DELETED

SN 072-0201 (LOCATION 7)

LOCATION 7

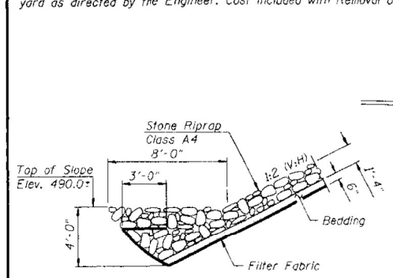
072-0201

Bench Mark: Chiseled "L" on top of southwest corner of the southeast wingwall of existing structure, at Sta. 44+07.88, 33.35' Rt.; Elev. 516.82'.

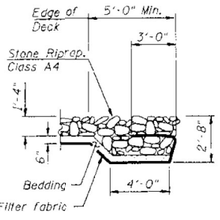
Existing Structure: S.N. 072-0058, originally built in 1934 as F.A.S. 389, Section 1-VC. The existing structure is 36'-0" out to out and measures 341' 10" back to back of abutments. The existing superstructure, replaced and widened in 1970, consists of a six span composite deck supported by continuous wide flange beams. The existing abutments are spill-thru pile bents supported by concrete counterforts on a spread footing. The existing multi-column piers are also supported by spread footings. The existing structure is to be removed and replaced. The north half of the proposed structure is to be built while maintaining traffic on the existing structure. Traffic will then be routed to the newly constructed portion of the proposed bridge while the remaining structure is built.

The existing aluminum handrail shall be salvaged and delivered to the District's maintenance yard as directed by the Engineer. Cost included with Removal of Existing Structures.

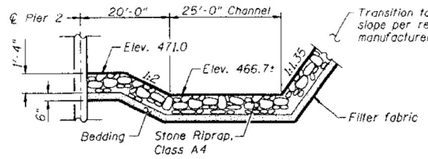
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



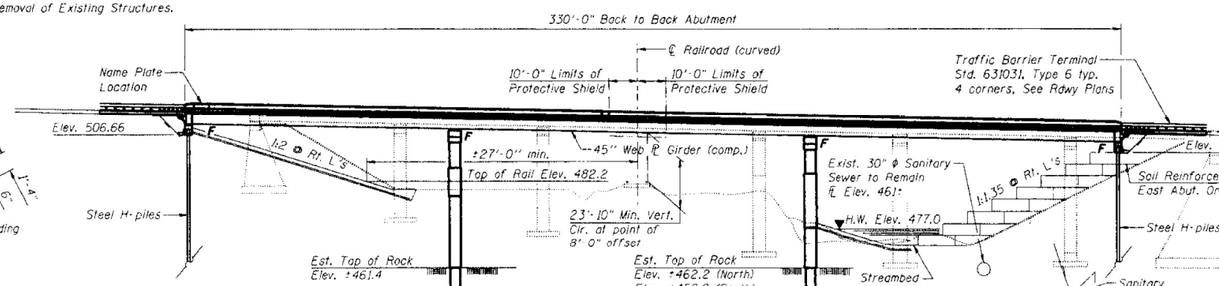
SECTION A-A



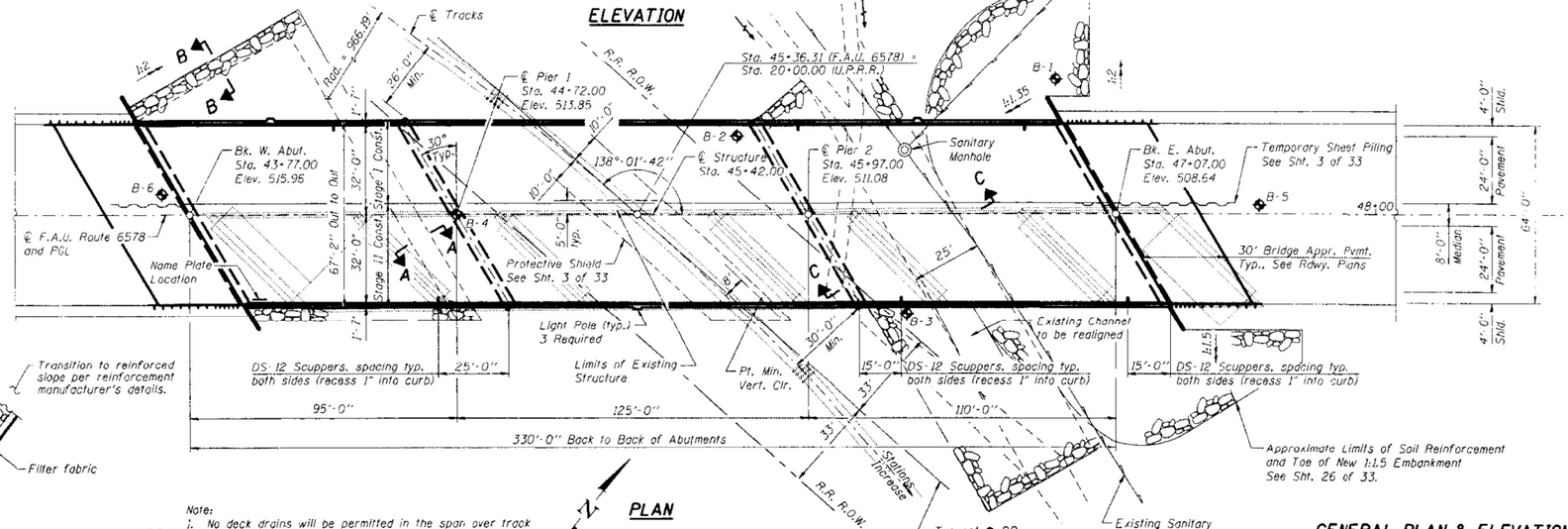
SECTION B-B



SECTION C-C
(Dimensions and slopes at right angles)



ELEVATION



PLAN

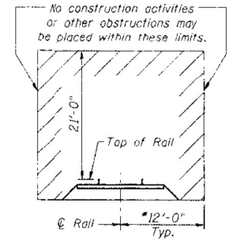
Note:
1. No deck drains will be permitted in the span over track within 10 ft. of a railroad pole line.

Philip J. Lane, Illinois Structural Engineer
No. 4084, Expires 11/30/10[illegible]

12/3/08
Date

APPROVED
For Structural Adequacy Only

Ralph E. Anderson
Engineer of Bridges & Structures



MINIMUM CONSTRUCTION CLEARANCES

*Add 1/2" per degree of track curvature to the horizontal clearance distance.

DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL

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Fax 309.676.5445
IL Design Firm Reg.
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SHEET NO. 1 OF 33 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6578	(1-R)RS(1-VC)BR	PEORIA	142	61
STRUCTURE NO. 072-0201		CONTRACT NO. 68092		
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

GENERAL PLAN & ELEVATION
AIRPORT ROAD OVER U.P.R.R.
AND KICKAPOO CREEK TRIBUTARY
STATION 45+42.00

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 1 OF 7 SHEETS | STA. N/A | TO STA. N/A

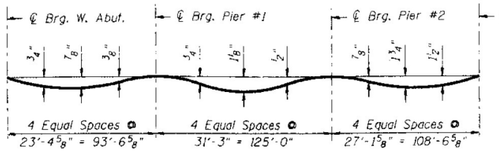
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	60
		CONTRACT NO. 68H58		
	ILLINOIS	FED. AID PROJECT		

SN 072-0201 (LOCATION 7)

LOCATION 7

~~072-0201~~

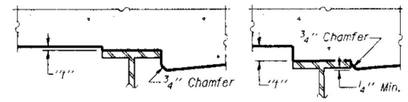
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



DEAD LOAD DEFLECTION DIAGRAM

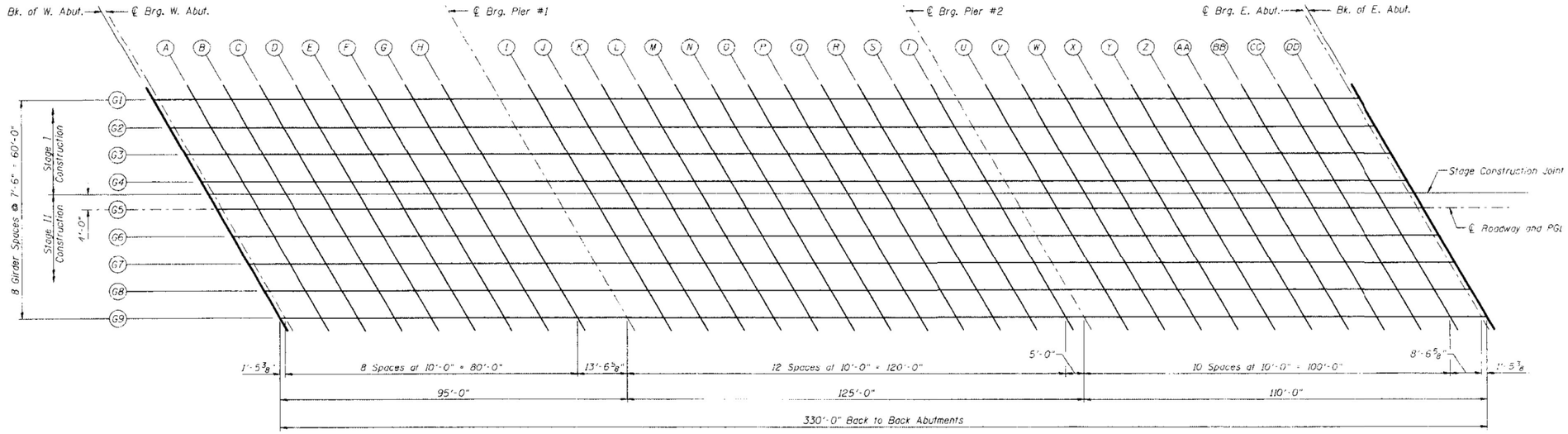
(Includes weight of concrete only.)

Note: The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown below.



To determine "f": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown on Sht. 5, 6, 7, 8, and 9 of 33. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown below, minus slab thickness, equals the fillet heights "f" above top flange of beams.

FILLET HEIGHTS



PLAN LAYOUT FOR TOP OF SLAB ELEVATIONS

N

TOP OF SLAB ELEVATIONS AIRPORT ROAD OVER U.P.R.R. AND KICKAPOO CREEK TRIBUTARY STATION 45+42.00

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CHECKED	LLV
DRAWN	MGM
CHECKED	PJL

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SHEET NO. 4 OF 33 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6578	(1-R)RS(1-VC)BR	PEORIA	142	64
STRUCTURE NO. 072-0201		CONTRACT NO. 68092		
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

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DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

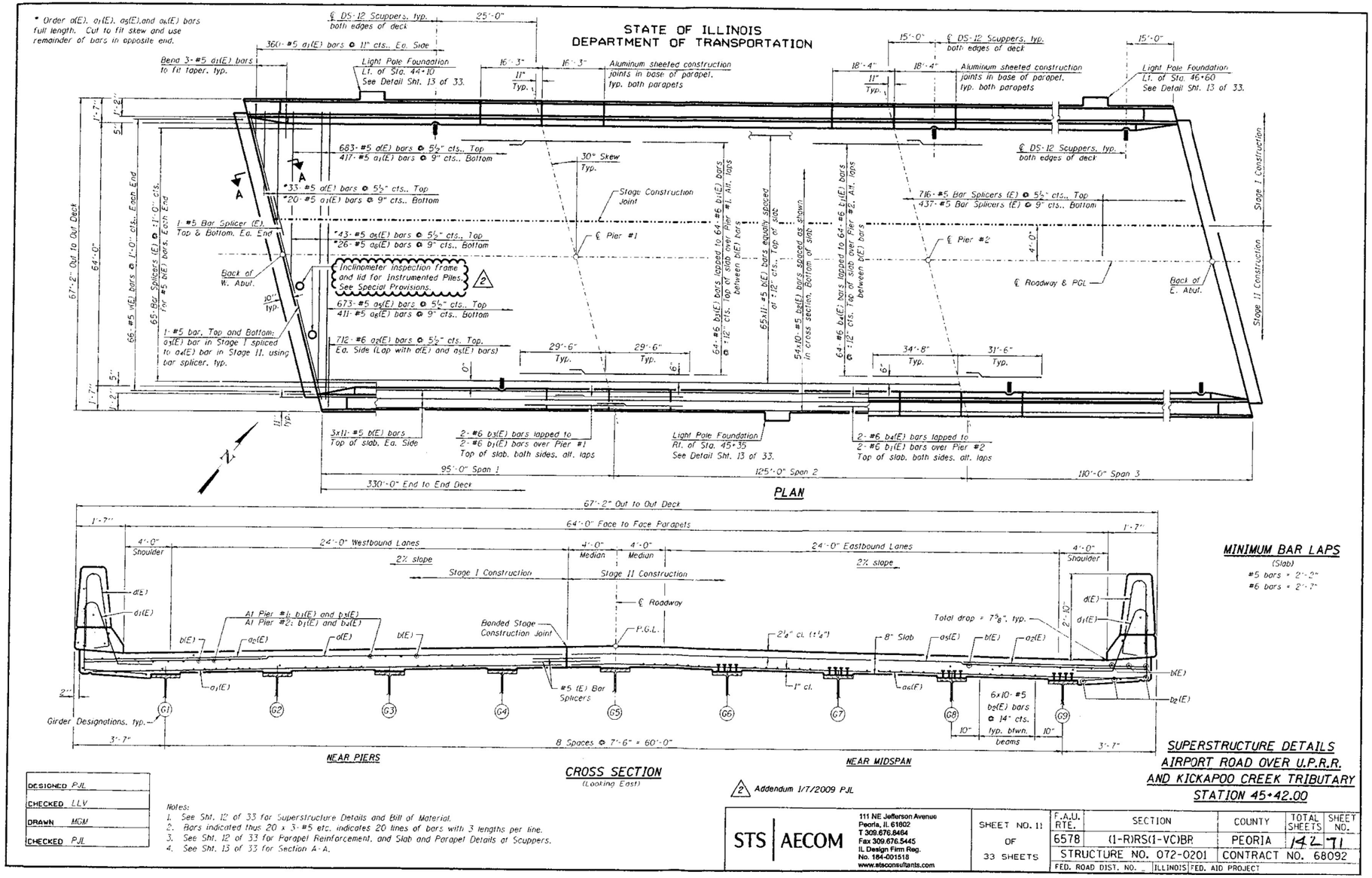
SCALE: NONE | SHEET 2 OF 7 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	61
		CONTRACT NO. 68H58		
	ILLINOIS	FED. AID PROJECT		

SN 072-0201 (LOCATION 7)

LOCATION 7

072-0201



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PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 3 OF 7 SHEETS | STA. N/A | TO STA. N/A

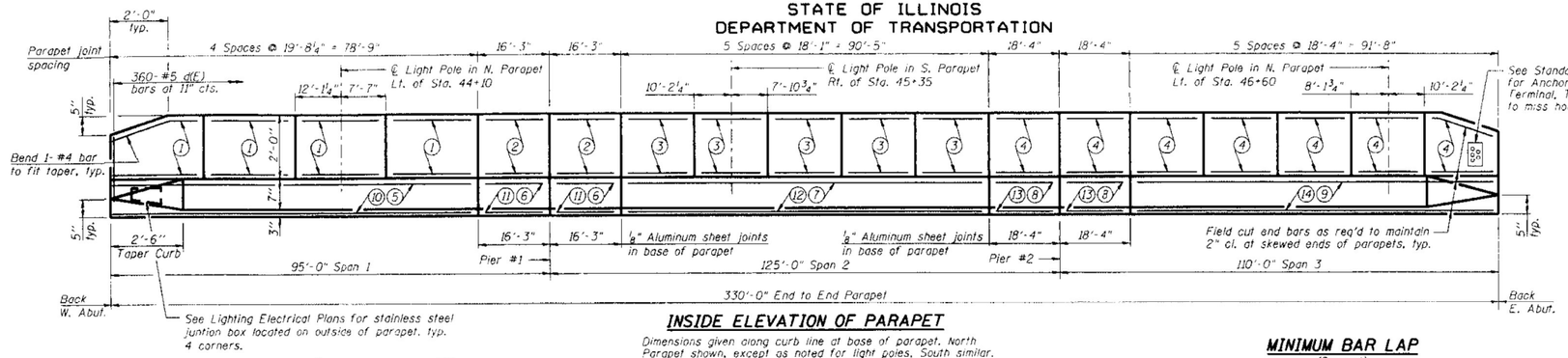
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	62
		CONTRACT NO. 68H58		
	ILLINOIS	FED. AID PROJECT		

SN 072-0201 (LOCATION 7)

LOCATION 7

~~072-0201~~

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



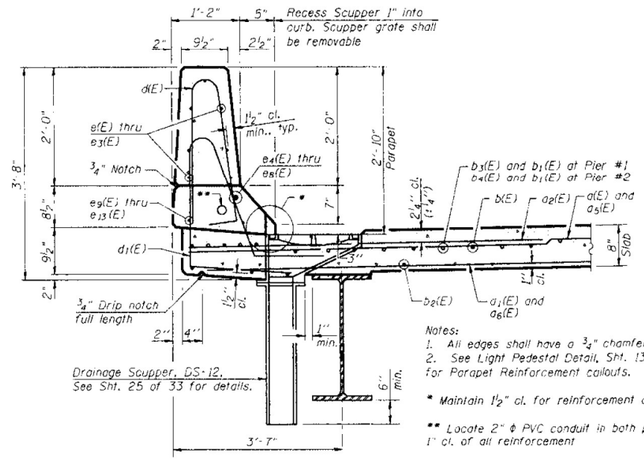
PARAPET HORIZONTAL REINFORCEMENT CALLOUTS

Reinforcement shall not pass thru joints. See Section thru Parapet for placement.

Top of Parapet 7-#4 bars	(1) 7-#4 e(E) bars	Typ. 4 Panels
	(2) 7-#4 e_1(E) bars	Typ. 2 Panels
	(3) 7-#4 e_2(E) bars	Typ. 5 Panels
	(4) 7-#4 e_3(E) bars	Typ. 7 Panels
Front Face Top of Curb 1-#8 bar	(5) 1x3-#8 e_4(E) bars	
	(6) 1-#8 e_5(E) bars	Typ. 2 Panels
	(7) 1x3-#8 e_6(E) bars	
	(8) 1-#8 e_7(E) bars	Typ. 2 Panels
	(9) 1x3-#8 e_8(E) bars	
Back Face Bottom of Curb 1-#4 bar	(10) 1x3-#4 e_9(E) bars	
	(11) 1-#4 e_{10}(E) bars	Typ. 2 Panels
	(12) 1x3-#4 e_{11}(E) bars	
	(13) 1-#4 e_{12}(E) bars	Typ. 2 Panels
	(14) 1x3-#4 e_{13}(E) bars	

INSIDE ELEVATION OF PARAPET

Dimensions given along curb line at base of parapet. North Parapet shown, except as noted for light poles. South similar. See Sht. 13 of 33 for Light Pole Foundation Details.

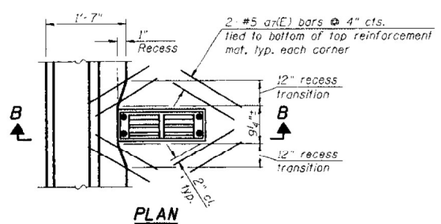


Notes:
1. All edges shall have a 3/4" chamfer.
2. See Light Pedestal Detail, Sht. 13 of 33 for Parapet Reinforcement callouts.

* Maintain 1 1/2" cl. for reinforcement at recess

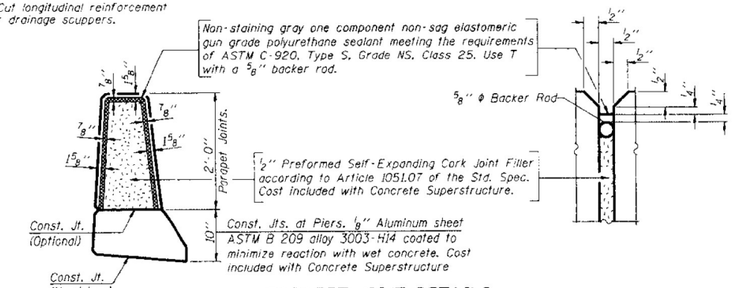
** Locate 2" ϕ PVC conduit in both parapets 1" cl. of all reinforcement

SECTION B-B THRU PARAPET



PLAN

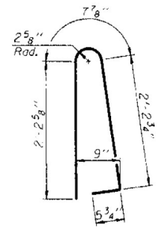
Note: Cut longitudinal reinforcement to clear drainage scuppers.



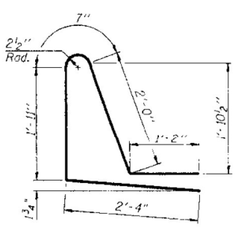
PARAPET JOINT DETAILS

MINIMUM BAR LAP

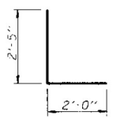
(Parapet)
#4 bar = 1'-4"
#8 bar = 3'-5"



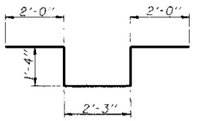
BAR d(E)



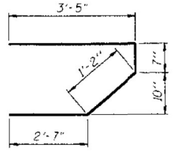
BAR d_1(E)



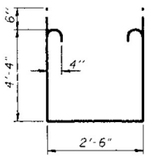
BAR d_2(E)



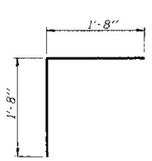
BAR d_3(E)



BAR s(E)



BAR s_1(E)



BAR v(E)

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	716	#5	29'-3"	
a_1(E)	437	#5	28'-10"	
a_2(E)	1424	#6	6'-0"	
a_3(E)	4	#5	32'-3"	
a_4(E)	4	#5	42'-6"	
a_5(E)	716	#5	37'-3"	
a_6(E)	437	#5	36'-10"	
a_7(E)	48	#5	2'-0"	
b(E)	781	#5	32'-0"	
b_1(E)	136	#6	37'-3"	
b_2(E)	540	#5	35'-0"	
b_3(E)	68	#6	24'-4"	
b_4(E)	68	#6	31'-6"	
d(E)	720	#5	5'-7"	
d_1(E)	720	#5	8'-0"	
d_2(E)	9	#6	4'-5"	
d_3(E)	15	#6	8'-11"	
e(E)	56	#4	19'-4"	
e_1(E)	28	#4	15'-11"	
e_2(E)	70	#4	17'-9"	
e_3(E)	98	#4	18'-0"	
e_4(E)	6	#8	28'-5"	
e_5(E)	4	#8	15'-11"	
e_6(E)	6	#8	32'-4"	
e_7(E)	4	#8	18'-0"	
e_8(E)	6	#8	32'-9"	
e_9(L)	6	#4	27'-0"	
e_{10}(E)	4	#4	15'-11"	
e_{11}(E)	6	#4	30'-11"	
e_{12}(E)	4	#4	18'-0"	
e_{13}(E)	6	#4	31'-4"	
m(E)	4	#6	32'-9"	
m_1(E)	6	#6	34'-0"	
m_2(E)	36	#6	11'-2"	
m_3(E)	16	#6	8'-2"	
m_4(E)	4	#6	3'-8"	
m_5(E)	4	#6	42'-2"	
m_6(E)	6	#6	43'-2"	
s(E)	124	#5	7'-9"	
s_1(E)	124	#4	12'-2"	
v(E)	132	#5	3'-4"	
Reinforcement Bars, Epoxy Coated		Pound	172,160	
Concrete Superstructure		Cu. Yds.	704.9	

Bars indicated thus 1 x 3-#5 etc. indicates 1 line of bars with 3 lengths per line.

PARAPET DETAILS
AIRPORT ROAD OVER U.P.R.R. AND KICKAPOO CREEK TRIBUTARY
STATION 45+42.00

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CHECKED	LLV
DRAWN	MGM
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SHEET NO. 12 OF 33 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6578	(1-R)RS(1-VC)BR	PEORIA	142	72
STRUCTURE NO. 072-0201		CONTRACT NO. 68092		
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE PLAN SETS

SCALE: NONE | SHEET 4 OF 7 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	63
		CONTRACT NO. 68H58		
	ILLINOIS	FED. AID PROJECT		

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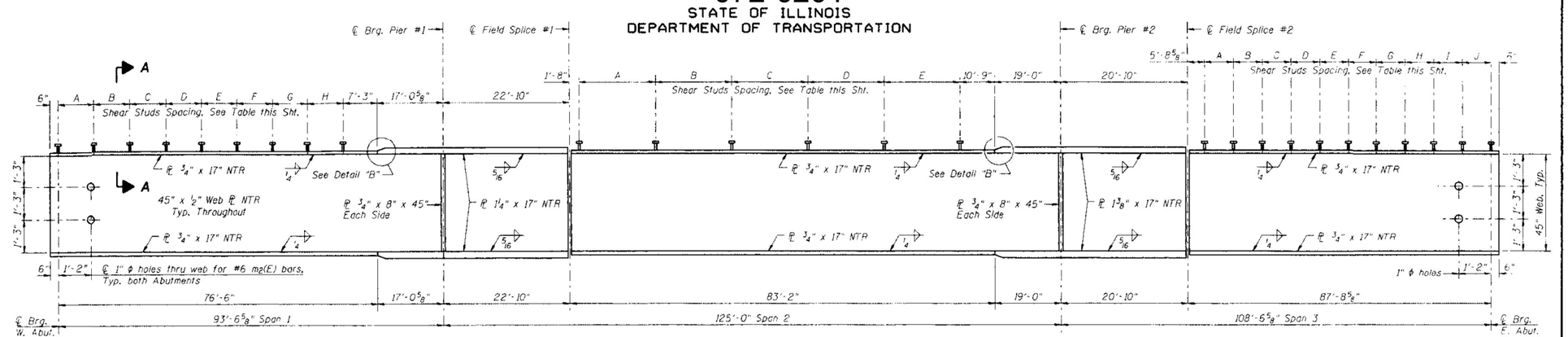
SN 072-0201 (LOCATION 7)

LOCATION 7

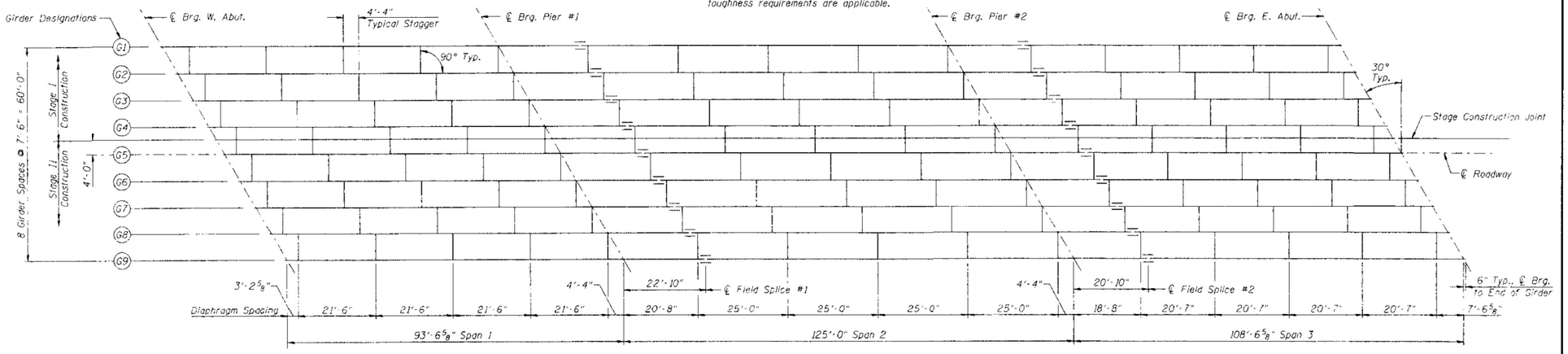
072-0201

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



GIRDER ELEVATION

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

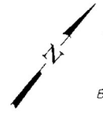


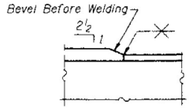
Note:
See Sht. 16 of 33 for Bearing Stiffener, Field Splice, and Diaphragm Details.

SHEAR STUD ROW SPACING (WEST TO EAST)

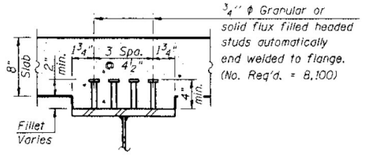
Space	Span 1	Span 2	Span 3
A	3 Spaces @ 9" = 2'-3"	6 Spaces @ 5" = 2'-6"	6 Spaces @ 5" = 2'-6"
B	7 Spaces @ 10" = 5'-10"	11 Spaces @ 12" = 11'-0"	12 Spaces @ 13" = 13'-0"
C	8 Spaces @ 12" = 8'-0"	45 Spaces @ 13" = 48'-9"	12 Spaces @ 14" = 14'-0"
D	5 Spaces @ 14" = 5'-10"	6 Spaces @ 12" = 6'-0"	11 Spaces @ 15" = 13'-9"
E	5 spaces @ 15" = 6'-3"	6 Spaces @ 5" = 2'-6"	8 Spaces @ 14" = 9'-4"
F	7 Spaces @ 16" = 9'-4"		9 Spaces @ 13" = 9'-9"
G	27 Spaces @ 13" = 29'-3"		7 Spaces @ 12" = 7'-0"
H	6 Spaces @ 5" = 2'-6"		6 Spaces @ 11" = 5'-6"
I			5 Spaces @ 10" = 4'-2"
J			4 Spaces @ 9" = 3'-0"
TOTALS	68 Spaces, 69 Rows	74 Spaces, 75 Rows	80 Spaces, 81 Rows

FRAMING PLAN





DETAIL "B"



SECTION A-A

DESIGNED	PJL
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DRAWN	MGM
CHECKED	PJL

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SHEET NO. 14 OF 33 SHEETS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	6578	(1-R)RS(1-VC)BR	PEORIA	142	74
	STRUCTURE NO. 072-0201		CONTRACT NO. 68092		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

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PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 5 OF 7 SHEETS | STA. N/A | TO STA. N/A

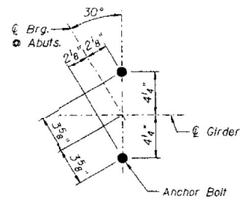
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	64
		CONTRACT NO. 68H58		
	ILLINOIS	FED. AID PROJECT		

SN 072-0201 (LOCATION 7)

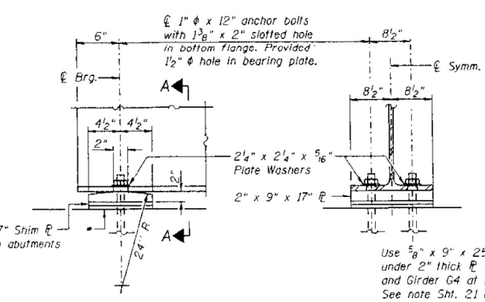
LOCATION 7

072-0201

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



ANCHOR BOLT LAYOUT
(At Abutments)



Use ⅝" x 9" x 17" Shim ℙ at Girder G3 both abutments under 2" thick ℙ

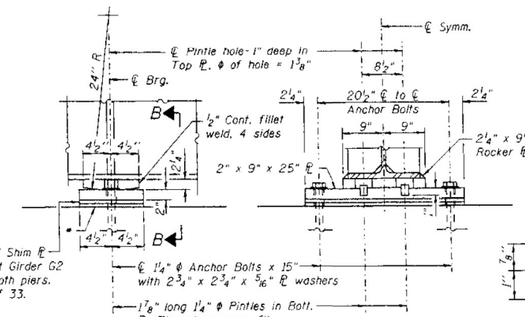
Use ⅝" x 9" x 25" Shim ℙ under 2" thick ℙ at Girder G2 and Girder G4 at both piers. See note Sht. 21 of 33.

ELEVATION

SECTION A-A

FIXED BEARING AT ABUTMENT
(18 Required)

* ⅛" elastomeric neoprene leveling mat according to the material properties of Article 1052.02(a) of the Standard Specifications. Cost included with Structural Steel.

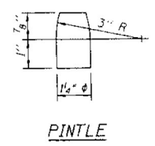


ELEVATION

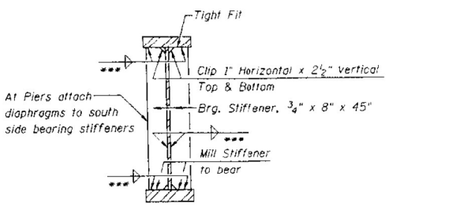
SECTION B-B

FIXED BEARING AT PIERS
(18 Required)

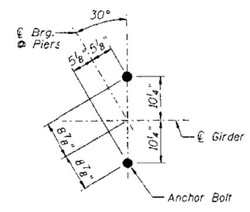
* ⅛" elastomeric neoprene leveling mat according to the material properties of Article 1052.02(a) of the Standard Specifications. Cost included with Structural Steel.



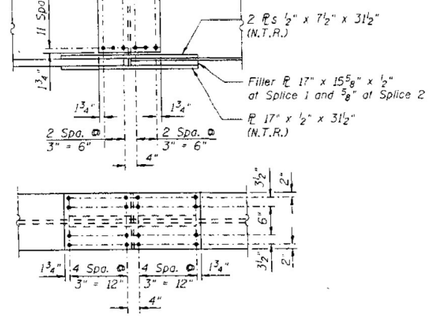
PINTLE



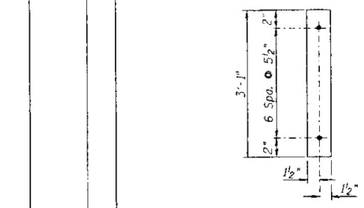
SECTION AT PIERS



ANCHOR BOLT LAYOUT
(At Piers)



FIELD SPLICE DETAIL
(18 Required)



DETAIL A

NOTES FOR DIAPHRAGMS AT STAGE CONSTRUCTION JOINT

1. To accommodate the deflection during Stage II deck placement, use 15/16" wide x 1⅞" tall long slot holes in the ½" x 37" x 10½" plates at both ends of diaphragm. (Right side of Girder G4 and left side of Girder G5).

2. The long slotted holes shall be covered with a 3" wide x 37" tall x ⅜" thick plate washer with 15/16" ϕ holes at 5½" vertical centers. See Detail A.

3. Bolts in slots shall be finger tight until the second stage pour is complete, and position slots so bolts start at one end with no concrete load and finish near the opposite end under deck load, allowing maximum displacement without laterally stressing main members.

4. Use 15/16" ϕ oversized holes with hardened washers in the ½" x 45" x 5" connecting plates.

GENERAL NOTES

1. Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

2. Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.

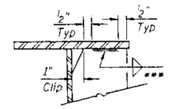
3. Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

4. All cross frames or diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.

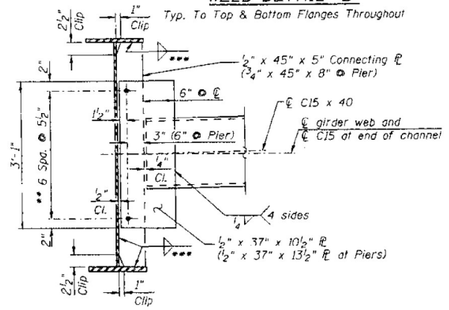
5. Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.

6. ¾" minimum bearing seat step height provide ⅝" thick shim plates at G2 and G4 both piers.

*** Minimum fillet weld sizes for Connection Plates and Bearing Stiffeners per AWS Welding Code: ¼" fillet weld for base metal less than or equal to ¾" thick and 5/16" fillet weld for base metal greater than ¾" thick. See also Weld Detail "B" this sheet.



WELD DETAIL "B"



INTERIOR DIAPHRAGM
(120 Diaphragms Required)

Notes:
1. Two hardened washers required for each set of oversized holes.

** ¾" ϕ HS bolts. 15/16" ϕ holes except as noted at Stage Construction Joint, this sheet.

GIRDER DETAILS
AIRPORT ROAD OVER U.P.R.R.
AND KICKAPOO CREEK TRIBUTARY
STATION 45+42.00

DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL

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Peoria, IL 61602
T 309.676.8484
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SHEET NO. 16 OF 33 SHEETS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	6578	(1-R)RS(1-VC)BR	PEORIA	142	76
	STRUCTURE NO. 072-0201		CONTRACT NO. 68092		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

L:\630566\WO#10_SN 072-0201\DGN\ 072-0201.DGN 12/05/08

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KLINGNER & ASSOCIATES, P.C. Engineers · Architects · Surveyors www.klingner.com Galesburg, Illinois 40 North Public Street 309.342.4062	USER NAME = rbailey	DESIGNED - RTB	REVISED -
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	PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE PLAN SETS

SCALE: NONE | SHEET 6 OF 7 SHEETS | STA. N/A | TO STA. N/A

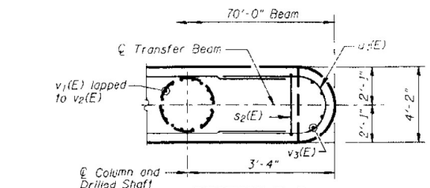
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	65
		CONTRACT NO. 68H58		
	ILLINOIS	FED. AID PROJECT		

SN 072-0201 (LOCATION 7)

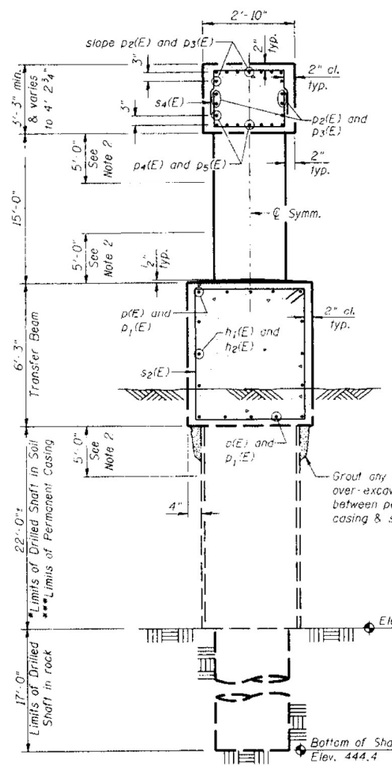
LOCATION 7

~~072-0201~~

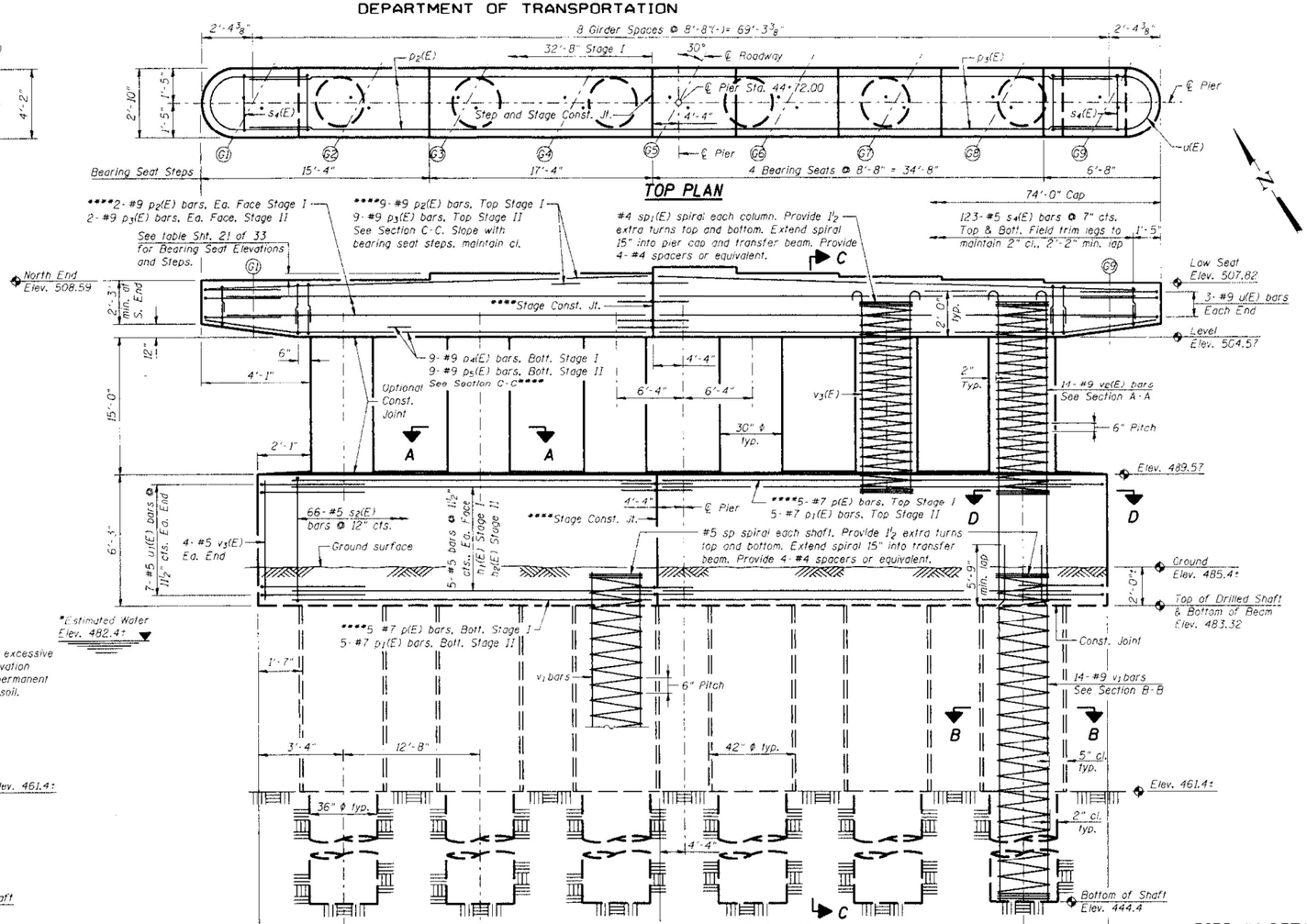
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SECTION D-D
Typ. Both Ends



SECTION C-C



ELEVATION
(Looking East)

PIER #1 DETAILS
AIRPORT ROAD OVER U.P.R.R.
AND KICKAPOO CREEK TRIBUTARY
STATION 45+42.00

* See note, Sht. 21 of 33.

***Contractor is responsible for determining the casing thickness and the actual tip elevation to be used. See Article 516.06(d) of the Standard Specifications. Pay limits for the Permanent Casing shall be based on the minimum length shown.

**** Use Bar Splicers at Stage Construction Joint.

1. See Sht. 21 of 33 for notes, Section A-A, Section B-B, Bar Bends, and Bill of Material.
2. No spiral or vertical bar splices are permitted in these regions

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DRAWN	MGM
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SHEET NO. 19 OF 33 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6578	(1-R)RS(1-VC)BR	PEORIA	192	79
STRUCTURE NO. 072-0201		CONTRACT NO. 68092		
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

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	DRAWN - RTB	REVISED -		
PLOT SCALE = 100.0000 ' / in.	CHECKED - MCL	REVISED -		SCALE: NONE / SHEET 7 OF 7 SHEETS / STA. N/A / TO STA. N/A
PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -		

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	66
		CONTRACT NO. 68H58		
	ILLINOIS	FED. AID PROJECT		

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SN 090-0073 (LOCATION 8)

LOCATION 8

090-0073

B.M. #106
"Q" N. End of E. Abut.
Eastbound structure Sec. (102HB-1) I, I-1
Elev. 548.82

The existing 3-span structures 090-0073, 0074 carry U.S. 24 over the semi-directional ramp and were built in 1961. The deck will be removed and replaced with a wider structure. An additional beam will be added to the outside of each structure. Stage construction will be utilized. The two bridges are identical structures, each having 6 steel wide flange beams prior to adding the new steel beam on each bridge. Prior to construction of a new 7 1/2" noncurved concrete deck to replace the existing 7" deck, shear connectors will be added to the beams in portions of the spans having compression at the top. The substructure will be widened and raised for bearings. The roadway is on a curve. The beams are all straight and continuous over supports. The existing bridges are each 110'-3" Back to Back and 38'-3" Out to Out. Salvage aluminum rail.
See Special Provisions for Salvage Aluminum Rail.

STATE OF ILLINOIS
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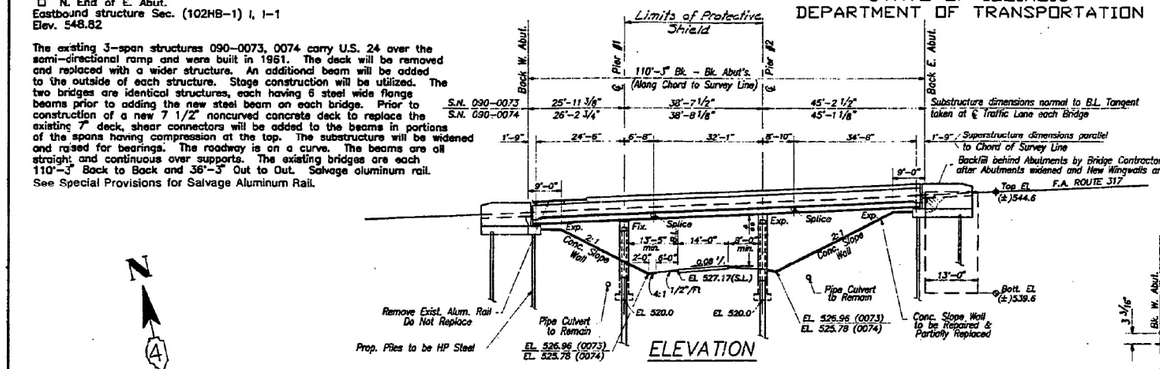
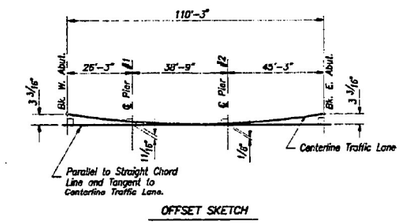
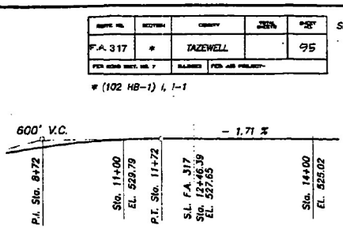
NOTES:
Superstructure Beams and Concrete Deck are straight, parallel to the Surveyline (FA 317) Chord and Chord to Centerline Traffic Lane.
Substructure Piers and Abutments are parallel to the Baseline (Ramp) Tangent at Surveyline intersection.
Existing Name Plates on each bridge to be removed and reinstalled on new deck parapet in conformance with Std. 2113. Cost incidental to Name Plate
Existing Steel shall be jacked up ± 2" (Eastbound) and ± 3" (Westbound).
For General Notes, see sheet 2.

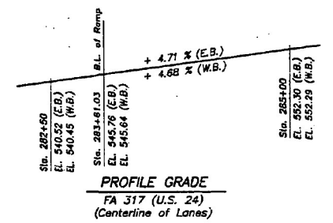
SHEET NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 317	*	TAZEWELL	95	SHEET NO.1
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		31 SHEETS

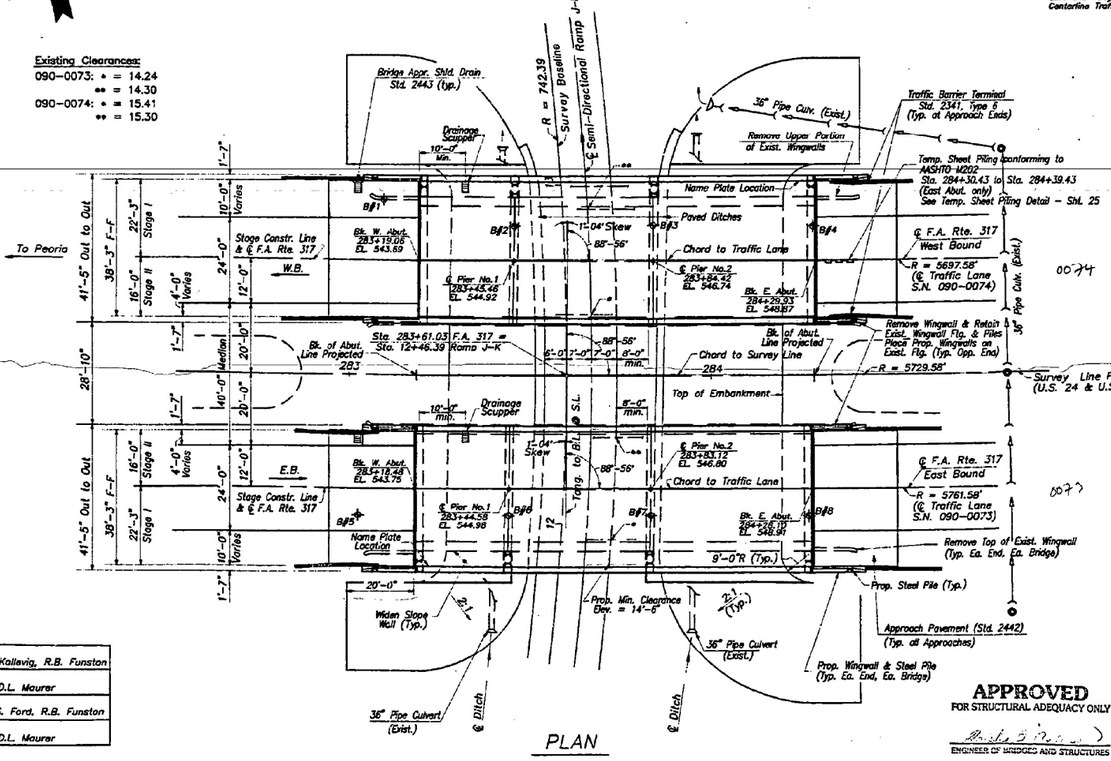
* (102 HB-1) I, I-1











PLAN

DESIGN SPECIFICATIONS

1992 AASHTO, 1993 & 1994 Interims
Seismic Retrofitting Guidelines for Highway Bridges (FHWA / RD 83-007)

SEISMIC DATA	NEW MATERIAL DESIGN STRESSES	OLD MATERIAL DESIGN STRESSES
S.P.C. = A	fc' = 3,500 p.s.i.	fc = 1,400 p.s.i. (Concrete)
A = 0.04g	fs = 24,000 p.s.i. (Reinforcing Steel)	fc = 1,000 p.s.i. (Substructure)
S = 1.0	Fb = 20,000 p.s.i. (Structural Steel)	Fb = 18,000 p.s.i. (Struct.)
		n = 10

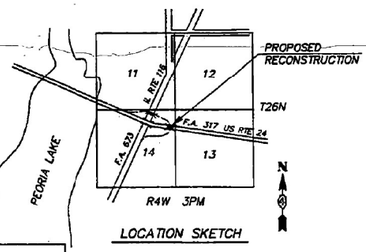
LOADING HS 20-44
Allow 25 p.s.f. for future wearing surface

F.A. RTE. 317 HORIZONTAL CURVE DATA

P.I. Sta.	275+22.60
I =	23°-34'
D =	1°-00'
R =	5729.58'
L =	2356.67'
T =	1195.23'
E =	123.3'
P.C.C. Sta.	263+27.35
P.T. Sta.	286+84.02
SE =	0.02 ft./ft.

RAMP J-K HORIZONTAL CURVE DATA

P.I. Sta.	11+69.11
I =	88°-38'
D =	7°-43.1'
R =	742.39'
L =	1148.44'
T =	724.89'
E =	295.20'
P.C.C. Sta.	15+92.66
P.T. Sta.	4+44.22
SE =	0.08 ft./ft.



LOCATION SKETCH

STATION BUILT 19 BY STATE OF ILLINOIS F.A. Rte. 317 See (102 HB-1) I, I-1 LOADING HS20 * STR. NO. 090-0073

STATION BUILT 19 BY STATE OF ILLINOIS F.A. Rte. 317 See (102 HB-1) I, I-1 LOADING HS20 * STR. NO. 090-0074

NAME PLATE
See Std. 2113

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
ENGINEER OF BRIDGES AND STRUCTURES

DAVID L MAURER 3921 PEORIA, IL LICENSED STRUCTURAL ENGINEER
DAVID L. MAURER S.E., NO. 3921
EXP. 11/96
6/13/96

DESIGN	G. Kallevig, R.B. Funston
CHECKED	D.L. Maurer
DRAWING	S. Ford, R.B. Funston
CHECKED	D.L. Maurer

R.A.N. CONSULTANTS, INC.

GENERAL PLAN AND ELEVATION
F.A. 317 (IL. 116 / U.S. 24)
STATION 283+61.03
SECTION (102 HB-1)I, I-1
TAZEWELL COUNTY

STRUCTURE NO. 090-0073,74

FOR INFORMATION ONLY

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		DRAWN - RTB	REVISED -		
PLOT SCALE = 100.0000 ' / in.		CHECKED - MCL	REVISED -		SCALE: NONE | SHEET 1 OF 7 SHEETS | STA. N/A | TO STA. N/A
PLOT DATE = 3/21/2023		DATE - 3/21/2023	REVISED -		

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	67
		CONTRACT NO. 68H58		
	ILLINOIS	FED. AID PROJECT		

SN 090-0073 (LOCATION 8)

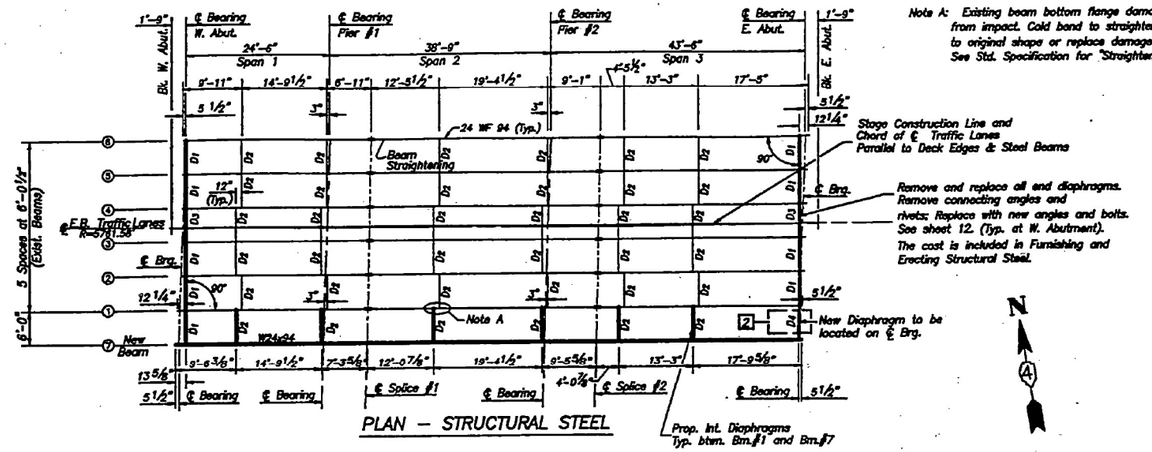
LOCATION 8

090-0073

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

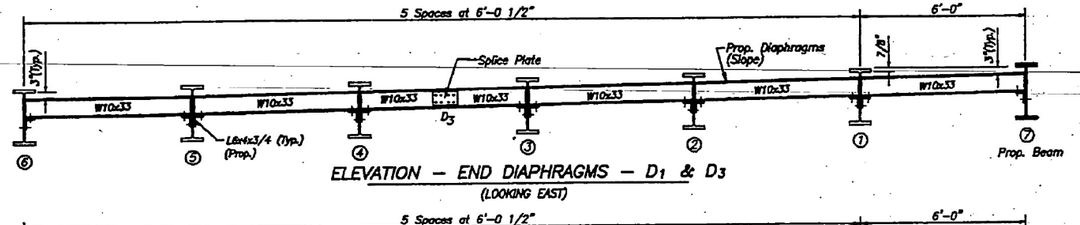
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 317	*	TAZEWELL	104	SHEET NO.10 31 SHEETS

* (102 HB-1) I, I-1

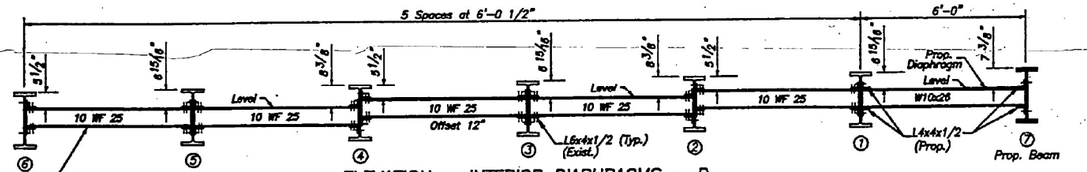


PLAN — STRUCTURAL STEEL

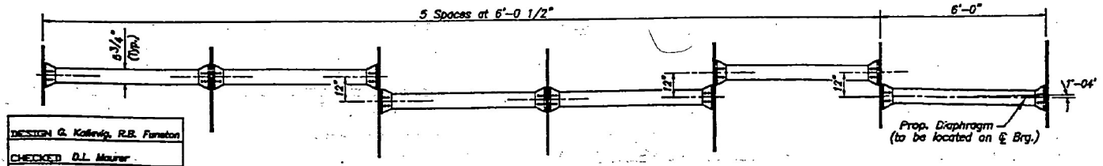
Note A: Existing beam bottom flange damaged from impact. Cold bend to straighten flange to original shape or replace damaged section. See Std. Specification for "Straightening Bent Material".



ELEVATION — END DIAPHRAGMS — D_1 & D_3
(LOOKING EAST)



ELEVATION — INTERIOR DIAPHRAGMS — D_2
(LOOKING EAST)



PLAN — INTERIOR DIAPHRAGMS

DESIGN	G. Kollevig, R.B. Fanston
CHECKED	D.L. Maurer
DRAWING	S.P. Ford
CHECKED	D.L. Maurer

INTERIOR GIRDER MOMENT TABLE

		.36 SPAN 1	PIER 1	.44 SPAN 2	PIER 2	.60 SPAN 3
I_S	(in^4)	2,700	2,700	2,700	2,700	2,700
I_C (n)	(in^4)	8,403	—	8,403	—	8,403
I_C (3n)	(in^4)	6,129	—	6,129	—	6,129
S_{SB}	(in^3)	222	222	222	222	222
S_{CB} (n)	(in^3)	354	—	354	—	354
S_C (3n)	(in^3)	318	—	318	—	318
DL	(k/ft)	0.892	0.892	0.892	0.892	0.892
M DL	(ft-k)	27	50	37	133	104
f_B DL (non-comp)	(ksi)	1.5	3.2	2.0	7.2	5.6
s DL	(k/ft)	0.380	0.380	0.380	0.380	0.380
M s DL	(ft-k)	15	29	28	57	65
f_B DL (comp)	(ksi)	0.8	1.8	1.1	3.1	2.4
M (LL)	(ft-k)	99	85	163	103	241
M (IMP)	(ft-k)	30	26	48	30	72
f_B (LL+Imp)	(ksi)	4.4	8.0	7.2	7.2	10.6
f_B (total)	(ksi)	6.5	10.8	10.3	17.5	15.8
VR	(ksi)	36.5	—	43.2	—	42.2

INTERIOR GIRDER REACTION TABLE

		W. ABUT.	PIER #1	PIER #2	E. ABUT.
R DL	(k)	9.6	34.8	51.1	18.9
R LL	(k)	24.1	32.5	34.5	20.0
IMP	(k)	7.1	9.6	10.2	5.9
R (total)	(k)	40.8	76.9	95.5	57.8

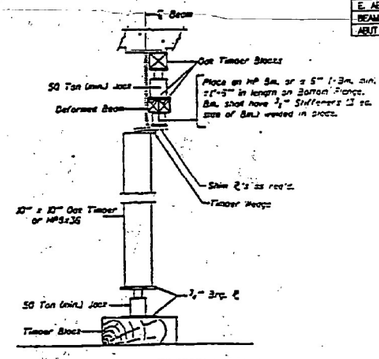
TOP OF BEAM ELEVATIONS

℄ BEAM	C.L. BRG. WEST ABUT.	C.L. PIER #1	C.L. SPLICE #1	C.L. PIER #2	C.L. SPLICE #2	C.L. BRG. EAST ABUT.
1	543.454	544.534	544.910	546.331	546.828	548.452
2	543.338	544.418	544.795	546.216	546.713	548.337
3	543.223	544.303	544.679	546.100	546.597	548.221
4	543.108	544.187	544.564	545.984	546.481	548.106
5	542.992	544.072	544.448	545.868	546.365	547.990
6	542.876	543.956	544.333	545.753	546.250	547.875
7	543.569	544.649	545.025	546.446	546.943	548.567

NOTE: For fabrication use only. Elevations at splices are given to the top of the splice plate.

STRUCTURAL STEEL (NEW MEMBERS)

LOCATION	ITEM	QUANTITY
W. ABUT. DIAPHRAGMS (D1)	W10X33	5
INTERIOR DIAPHRAGMS (D2)	W10x26	6
E. ABUT. DIAPHRAGMS (D1)	W10x33	5
BEAM #7	W24x94	1
ABUT DIAPHRAGMS (D3)	W10X33	2



VERTICAL STRAIGHTENING DETAIL

GENERAL NOTES

1.) Existing bridge and beams are straight and parallel to chord.

FRAMING PLAN
F.A. 317 (IL. 116 / U.S. 24)
SECTION (102 HB-1) I, I-1
TAZEWELL COUNTY
STRUCTURE NO. 090-0073

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	PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -	

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 2 OF 7 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	68
		CONTRACT NO. 68H58		
	ILLINOIS FED. AID PROJECT			

SN 090-0073 (LOCATION 8)

LOCATION 8

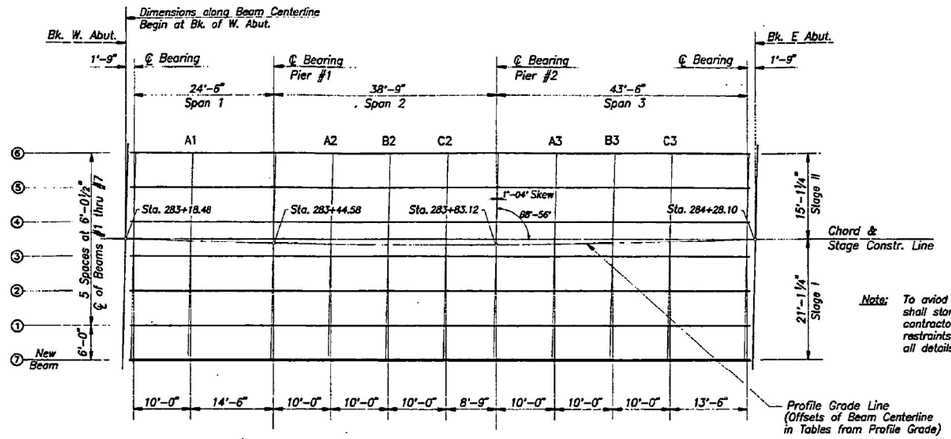
090-0073

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SECTION	COUNTY	SHEET NO.
*	TAZEWELL	97

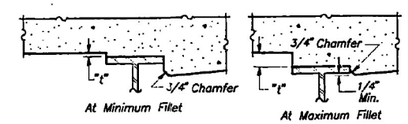
SHEET NO.3
31 SHEETS

* (102 HB-1) I, I-1



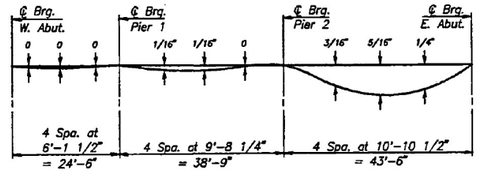
PLAN

Note: To avoid uplift at West Abutment, the pouring of the deck shall start at the West Abutment and proceed east. If the contractor elects to pour from the East Abutment, sufficient restraints shall be provided at the West Abutment and Pier #1, all details shall be submitted to the Engineer for his approval.



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown below, minus slab thickness, equals the fillet heights "t" above top flange of beams. (See elevations and locations in tables below.)

FILLET HEIGHTS



DEAD LOAD DEFLECTION DIAGRAM

(includes weight of concrete only)

Note: The above deflections are typical for all beams. The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown above.

GENERAL NOTES:

1. For framing plan, see sheet 10 of 31.
2. Stations shown in tables are along the chord of each bridge, not along the chord to Survey Line.

BEAM #7

Location	Station	Offset To PG	Theo. Grade	Theo. Grade Adj. For DL
Bk W Abut	28318.09	21.100	544.154	544.154
CL Brg	28319.84	21.084	544.236	544.236
A1	28329.84	21.000	544.705	544.707
CL Pier 1	28344.19	20.909	545.379	545.379
A2	28354.19	20.857	545.849	545.853
B2	28364.19	20.843	546.320	546.324
C2	28374.19	20.836	546.791	546.791
CL Pier 2	28382.73	20.845	547.193	547.193
A3	28392.73	20.871	547.665	547.670
B3	28402.73	20.914	548.136	548.162
C3	28412.73	20.974	548.609	548.632
CL Brg	28425.96	21.084	549.234	549.234
Bk E Abut	28427.71	21.100	549.317	549.317

BEAM #1

Location	Station	Offset To PG	Theo. Grade	Theo. Grade Adj. For DL
Bk W Abut	28318.20	15.100	544.039	544.039
CL Brg	28319.95	15.084	544.121	544.121
A1	28329.95	15.000	544.590	544.592
CL Pier 1	28344.30	14.909	545.264	545.264
A2	28354.30	14.857	545.734	545.739
B2	28364.30	14.843	546.205	546.210
C2	28374.30	14.836	546.676	546.677
CL Pier 2	28382.84	14.845	547.078	547.078
A3	28392.84	14.871	547.550	547.564
B3	28402.84	14.914	548.022	548.049
C3	28412.84	14.974	548.494	548.520
CL Brg	28426.07	15.084	549.119	549.119
Bk E Abut	28427.82	15.100	549.202	549.202

BEAM #2

Location	Station	Offset To PG	Theo. Grade	Theo. Grade Adj. For DL
Bk W Abut	28318.31	9.060	543.923	543.923
CL Brg	28320.06	9.044	544.005	544.005
A1	28330.06	8.960	544.475	544.477
CL Pier 1	28344.42	8.859	545.149	545.149
A2	28354.42	8.807	545.619	545.623
B2	28364.42	8.803	546.090	546.095
C2	28374.42	8.796	546.561	546.561
CL Pier 2	28382.96	8.805	546.963	546.963
A3	28392.96	8.831	547.435	547.449
B3	28402.96	8.874	547.906	547.934
C3	28412.96	8.934	548.379	548.404
CL Brg	28426.18	9.044	549.004	549.004
Bk E Abut	28427.93	9.060	549.086	549.086

BEAM #3

Location	Station	Offset To PG	Theo. Grade	Theo. Grade Adj. For DL
Bk W Abut	28318.42	3.020	543.808	543.808
CL Brg	28320.17	3.004	543.890	543.890
A1	28330.17	2.920	544.359	544.361
CL Pier 1	28344.52	2.829	545.033	545.033
A2	28354.52	2.787	545.503	545.507
B2	28364.52	2.763	545.974	545.979
C2	28374.52	2.756	546.445	546.445
CL Pier 2	28383.06	2.765	546.847	546.847
A3	28393.06	2.791	547.319	547.333
B3	28403.06	2.834	547.790	547.818
C3	28413.06	2.894	548.263	548.288
CL Brg	28426.29	3.004	548.888	548.888
Bk E Abut	28428.04	3.020	548.971	548.971

PROFILE GRADE LINE

Location	Station	Offset To PG	Theo. Grade	Theo. Grade Adj. For DL
Bk W Abut	28318.48	0.000	543.750	543.750
CL Brg	28320.23	0.000	543.832	543.832
A1	28330.23	0.000	544.303	544.306
CL Pier 1	28344.58	0.000	544.979	544.979
A2	28354.58	0.000	545.450	545.454
B2	28364.58	0.000	545.921	545.926
C2	28374.58	0.000	546.392	546.393
CL Pier 2	28383.12	0.000	546.795	546.795
A3	28393.12	0.000	547.266	547.280
B3	28403.12	0.000	547.737	547.764
C3	28413.12	0.000	548.208	548.233
CL Brg	28425.35	0.000	548.831	548.831
Bk E Abut	28428.10	0.000	548.913	548.913

STAGE CONSTRUCTION LINE

Location	Station	Offset To PG	Theo. Grade	Theo. Grade Adj. For DL
Bk W Abut	28318.48	0.000	543.750	543.750
CL Brg	28320.23	-0.017	543.832	543.832
A1	28330.23	-0.100	544.301	544.304
CL Pier 1	28344.58	-0.191	544.975	544.975
A2	28354.58	-0.233	545.446	545.450
B2	28364.58	-0.257	545.916	545.921
C2	28374.58	-0.264	546.387	546.388
CL Pier 2	28383.12	-0.255	546.789	546.789
A3	28393.12	-0.229	547.261	547.276
B3	28403.12	-0.186	547.733	547.760
C3	28413.12	-0.126	548.205	548.231
CL Brg	28425.35	-0.017	548.830	548.830
Bk E Abut	28428.10	0.000	548.913	548.913

BEAM #4

Location	Station	Offset To PG	Theo. Grade	Theo. Grade Adj. For DL
Bk W Abut	28318.54	-3.020	543.692	543.692
CL Brg	28320.29	-3.037	543.775	543.775
A1	28330.29	-3.120	544.244	544.246
CL Pier 1	28344.63	-3.211	544.917	544.917
A2	28354.63	-3.253	545.388	545.392
B2	28364.63	-3.277	545.858	545.863
C2	28374.63	-3.284	546.329	546.330
CL Pier 2	28383.17	-3.275	546.731	546.731
A3	28393.17	-3.249	547.203	547.218
B3	28403.17	-3.206	547.675	547.702
C3	28413.17	-3.146	548.147	548.173
CL Brg	28426.41	-3.037	548.772	548.773
Bk E Abut	28428.16	-3.020	548.856	548.856

BEAM #5

Location	Station	Offset To PG	Theo. Grade	Theo. Grade Adj. For DL
Bk W Abut	28318.64	-9.060	543.576	543.576
CL Brg	28320.40	-9.077	543.659	543.659
A1	28330.40	-9.160	544.128	544.130
CL Pier 1	28344.75	-9.251	544.802	544.802
A2	28354.75	-9.293	545.272	545.277
B2	28364.75	-9.317	545.743	545.748
C2	28374.75	-9.324	546.214	546.215
CL Pier 2	28383.28	-9.315	546.616	546.616
A3	28393.28	-9.289	547.087	547.102
B3	28403.28	-9.246	547.559	547.587
C3	28413.28	-9.186	548.031	548.057
CL Brg	28426.52	-9.077	548.657	548.657
Bk E Abut	28428.27	-9.060	548.748	548.748

BEAM #6

Location	Station	Offset To PG	Theo. Grade	Theo. Grade Adj. For DL
Bk W Abut	28318.76	-15.100	543.461	543.461
CL Brg	28320.51	-15.117	543.543	543.543
A1	28330.51	-15.200	544.013	544.015
CL Pier 1	28344.86	-15.291	544.687	544.687
A2	28354.86	-15.333	545.157	545.161
B2	28364.86	-15.357	545.627	545.632
C2	28374.86	-15.364	546.098	546.099
CL Pier 2	28383.40	-15.355	546.501	546.501
A2	28393.40	-15.329	546.972	546.986
B3	28403.40	-15.286	547.444	547.469
C3	28413.40	-15.226	547.916	547.940
CL Brg	28426.63	-15.117	548.548	548.548
Bk E Abut	28428.38	-15.100	548.624	548.624

DESIGN	G. Kottevig, K. Fields
CHECKED	D.L. Maurer
DRAWING	S. Ford
CHECKED	D.L. Maurer

TOP OF SLAB ELEVATIONS
F.A. 317 (IL. 116 / U.S. 24)
SECTION (102 HB-1)I, I-1
TAZEWELL COUNTY

R.A.N. CONSULTANTS, INC.

FOR INFORMATION ONLY

STRUCTURE NO. 090-0073

MODEL: Default
FILE NAME: O:\2 Files\213081 IDOT - DIST 4 - PTB 201-033\Work Order 15 - FY 2023 Patching\18.Transportation\68H58 (Bridge Painting)\CADD Sheets\020_113_Old Plan Sets.dgn

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Galesburg, IL Hannibal, MO
Burlington, IA Pittsfield, IL Columbia, MO
Davenport, IA Carterville, IL

USER NAME = rbailey	DESIGNED - RTB	REVISED -	
	DRAWN - RTB	REVISED -	
PLOT SCALE = 100.0000 ' / in.	CHECKED - MCL	REVISED -	
PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 3 OF 7 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	69
		CONTRACT NO. 68H58		
	ILLINOIS FED. AID PROJECT			

SN 090-0073 (LOCATION 8)

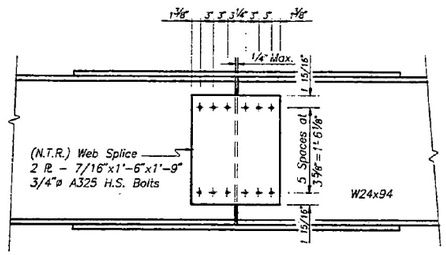
LOCATION 8

090-0073

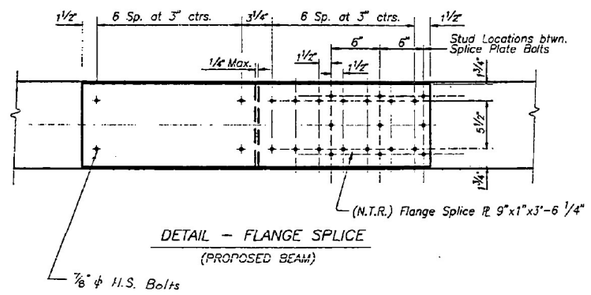
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 317	*	TAZEWELL	106	SHEET NO.12
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		31 SHEETS

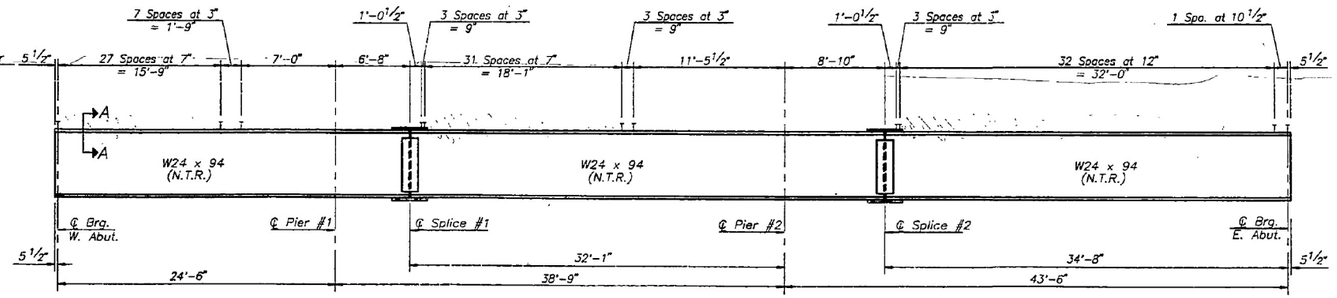
* (102 HB-1) I, I-1



DETAIL – WEB SPLICE
(PROPOSED BEAM)

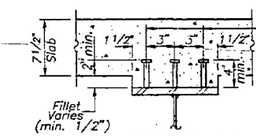


DETAIL – FLANGE SPLICE
(PROPOSED BEAM)



BEAM #7 ELEVATION
(LOOKING NORTH)

Note: Existing beams shall have studs at the same locations as prop. Beam #7.



SECTION A–A

3/4" Granular or solid flux filled headed studs Automatically end welded to flange. (5292 Req'd.)

DESIGN	G. Kallevig, R.B. Funston
CHECKED	D.L. Maurer
DRAWING	S. Ford
CHECKED	D.L. Maurer

Notes: N.T.R. refers to Notch Toughness Requirements (Zone 2).

STEEL DETAILS
F.A. 317 (IL. 116 / U.S. 24)
SECTION (102 HB-1)I, I-1
TAZEWELL COUNTY

R.A.N. CONSULTANTS, INC.

STRUCTURE NO. 090-0073,74

FOR INFORMATION ONLY

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Davenport, IA Carbondale, IL

USER NAME = rbailey	DESIGNED - RTB	REVISED -	
	DRAWN - RTB	REVISED -	
PLOT SCALE = 100.0000 ' / in.	CHECKED - MCL	REVISED -	
PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 4 OF 7 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	70
		CONTRACT NO. 68H58		
	ILLINOIS FED. AID PROJECT			

SN 090-0073 (LOCATION 8)

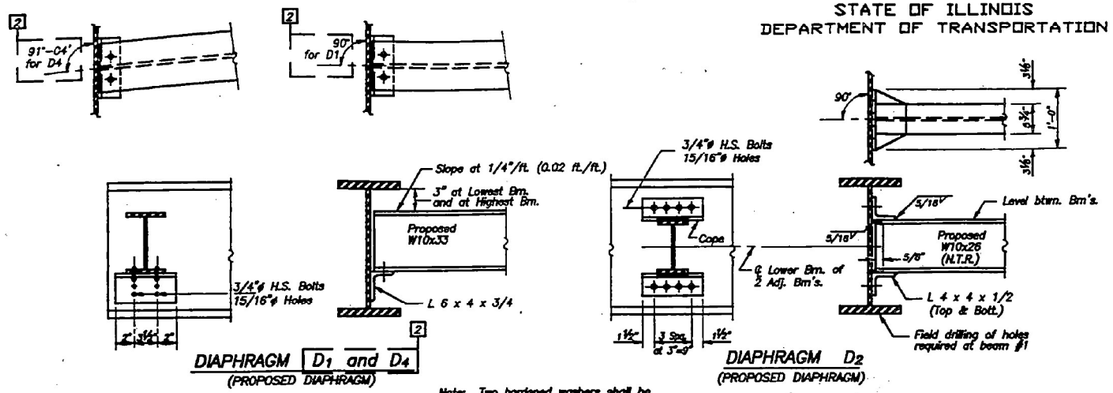
LOCATION 8

090-0073

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A. 673	*	TAZEWELL			SHEET NO. 13 OF 71 SHEETS

* (102 HB-1) I, I-1



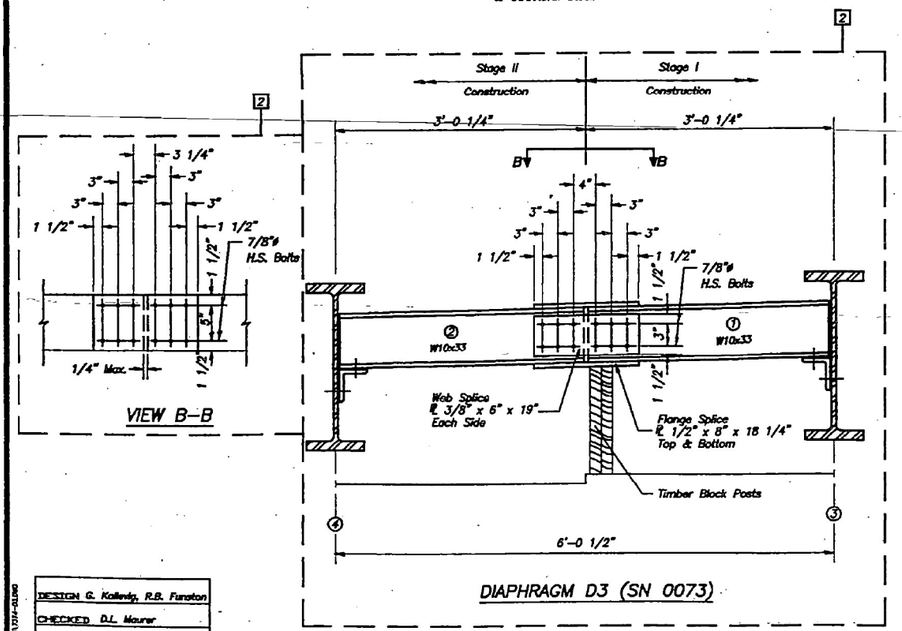
Note: Two hardened washers shall be required over all 15/16"ø holes. All contact surfaces of joints shall be free of paint or lacquer. Field Drilling of holes incidental to Structural Steel.

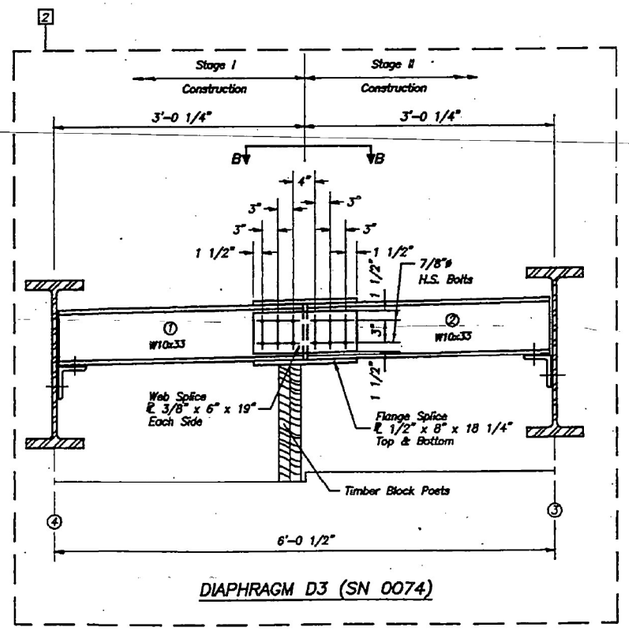
Diaphragm D3 Construction Sequence --

1. Order Diaphragm D3 in two sections with lengths of 2'-11 1/2".
2. Attach section ① of Diaphragm to the beam and top flange splice plate during Stage I Construction.
3. Place timber block posts between section ① of Diaphragm and abutment bearing seat.
4. Attach section ② of Diaphragm to both the beam & top flange splice plate during Stage II Construction.
5. Attach web splice plates to sections ① & ② of Diaphragms.
6. Remove timber block posts.
7. Attach bottom flange splice plate to sections ① & ② of Diaphragms.

Diaphragm D3 General Notes --

1. Cost of timber block posts is incidental to Structural Steel.
2. For details of connections to beams see Diaphragm D1.





DESIGN	G. Kolleviy, R.B. Funston
CHECKED	D.L. Maurer
DRAWING	S. Ford
CHECKED	D.L. Maurer

A1201(U33)7/17/2014-SL060

DIAPHRAGM DETAILS
F.A. 673 (IL. 116 / U.S. 24)
SECTION (102 HB-1)I, I-1
TAZEWELL COUNTY

STRUCTURE NO. 090-0073,74

R.A.N. CONSULTANTS, INC.

2 REV. 1/21/98 DLM

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USER NAME = rbailey		DESIGNED - RTB		REVISED -	
		DRAWN - RTB		REVISED -	
PLOT SCALE = 100.0000 ' / in.		CHECKED - MCL		REVISED -	
PLOT DATE = 3/21/2023		DATE - 3/21/2023		REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE PLAN SETS

SCALE: NONE | SHEET 5 OF 7 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	71
		CONTRACT NO. 68H58		
	ILLINOIS	FED. AID PROJECT		

SN 090-0073 (LOCATION 8)

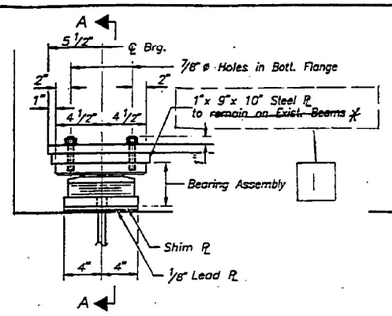
LOCATION 8
090-0073

** 9/16" at beams 2,3,4+6 @ west abut. S.N. 090-0073

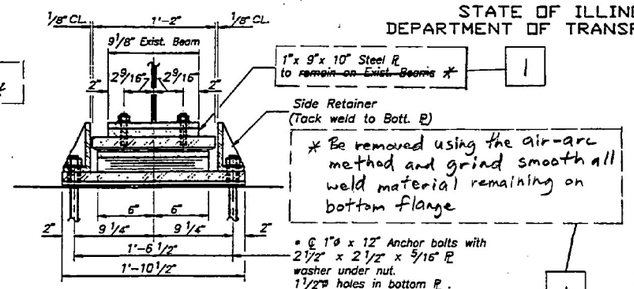
*** 1 7/16" at beams 2,3,4+6 @ west abut. S.N. 090-0073

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

					SHEET NO.
F.A. 317	*	TAZEWELL		108	31 SHEETS
* (102 HB-1) L T-1					



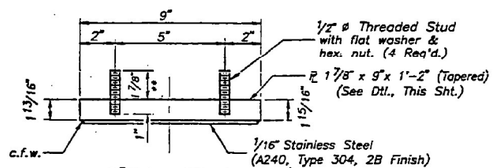
ELEVATION AT E. ABUT.



SECTION A–A

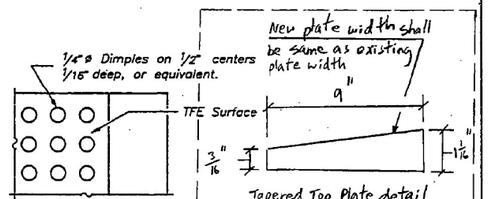
* Be removed using the air-arc method and grind smooth all weld material remaining on bottom flange

TYPE II TFE ELASTOMERIC EXP. BRG.
(EAST ABUTMENT)

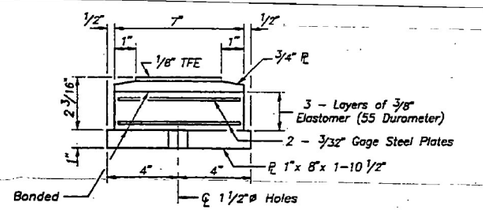


** 2 7/8" for existing beams.

TOP BEARING ASSEMBLY



PLAN – TFE SURFACE

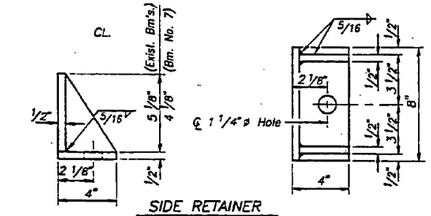


BOTTOM BEARING ASSEMBLY

SECTION THRU TFE

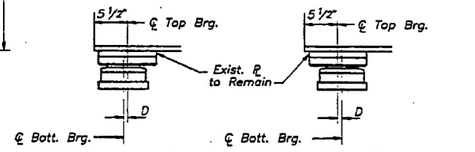
Note: The 1/8" TFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM–A–134, Type I. The bond agent shall be applied on the full area of the contact surfaces.

Banding of 1/8" TFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.



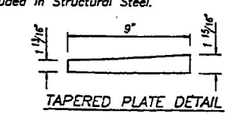
SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. Weight included in Structural Steel.



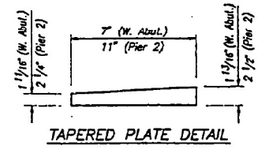
SETTING ANCHOR BOLTS AT EXP. BRG.

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

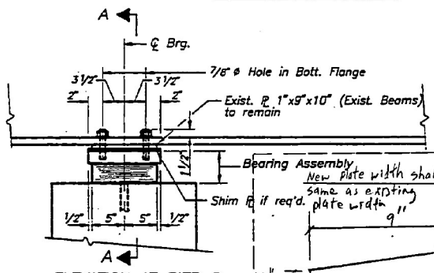


TAPERED PLATE DETAIL

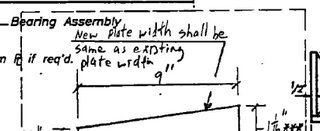
DESIGN	B. Funston, K. Fields
CHECKED	D.L. Maurer
DRAWING	S. Ford
CHECKED	D.L. Maurer

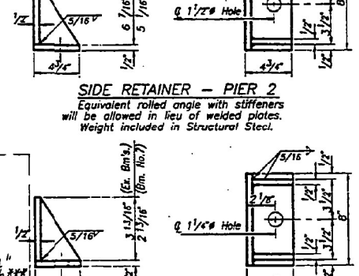


TAPERED PLATE DETAIL



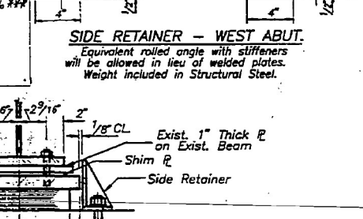
ELEVATION AT PIER 2





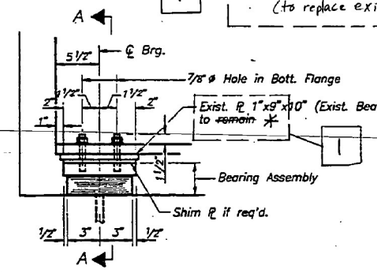
SIDE RETAINER – PIER 2

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. Weight included in Structural Steel.

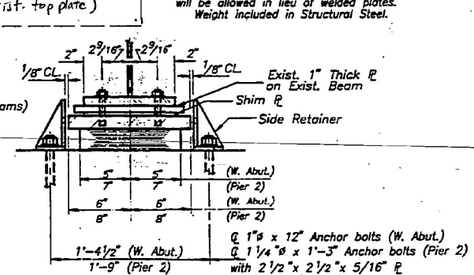


SIDE RETAINER – WEST ABUT.

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. Weight included in Structural Steel.

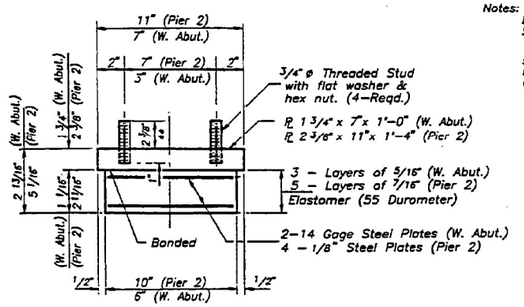


ELEVATION AT W. ABUT.



SECTION A–A

TYPE I ELASTOMERIC EXP. BRG.



BEARING ASSEMBLY

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

** 3 3/8" for existing beams.

Notes:
1. Anchor bolts at fixed bearings may be built into the masonry. See sheet #14 for Anchor Bolt installation.
2. The existing bridge beams have a 1" thick steel plate above each rocker. This plate shall remain in place and be drilled for the new elastomeric bearings.
3. Remove and replace all steel bearings w/new.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	28
Elastomeric Bearing Assembly Type II	Each	14

Note: Quantities above reflect total for both structures.

BEARING DETAILS
F.A. 317 (IL. 116 / U.S. 24)
SECTION (102 HB-1)I, I-1
TAZEWELL COUNTY

R.A.N. CONSULTANTS, INC.

FOR INFORMATION ONLY

STRUCTURE NO. 090–0073,74

MODEL: Default
FILE NAME: D:\2 Files\3 1308 IDOT - DIST 4 - PTB 201433\Work Order 15 - FY 2023 Patching\18_Transportation\68H58 (Bridge Painting)\CADD Sheets\020_112 Old Plan Sets.dgn

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USER NAME = rbailey	DESIGNED - RTB		REVISED -
	DRAWN - RTB		REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED - MCL		REVISED -
PLOT DATE = 3/21/2023	DATE - 3/21/2023		REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE PLAN SETS

SCALE: NONE | SHEET 6 OF 7 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	72
		CONTRACT NO. 68H58		
		ILLINOIS	FED. AID PROJECT	

SN 090-0073 (LOCATION 8)

LOCATION 8

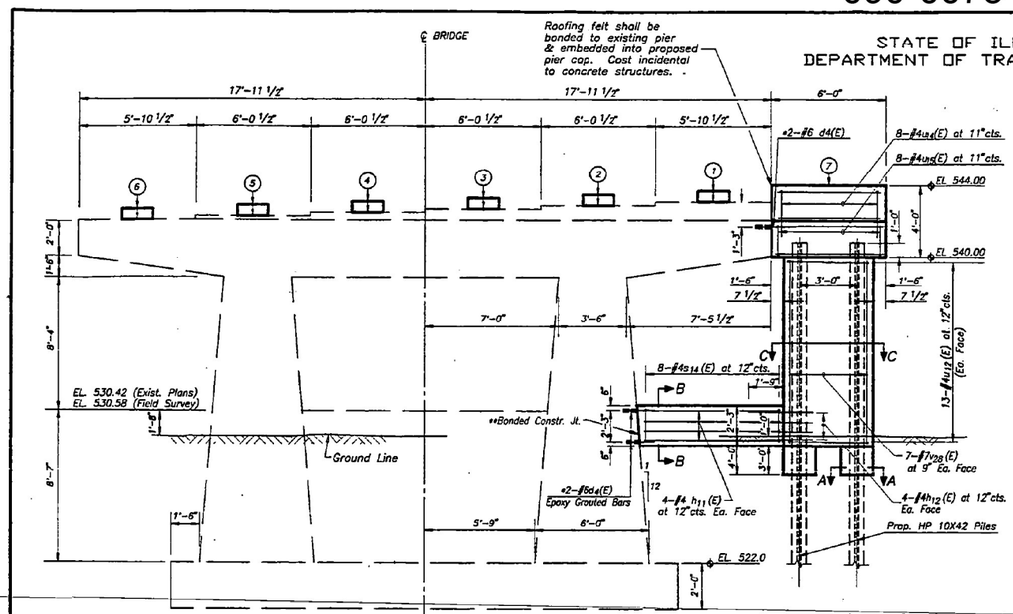
090-0073

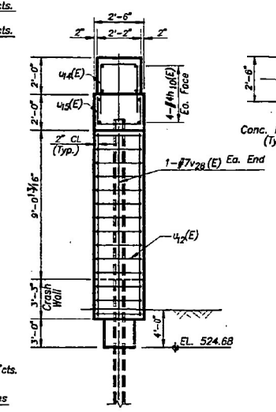
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

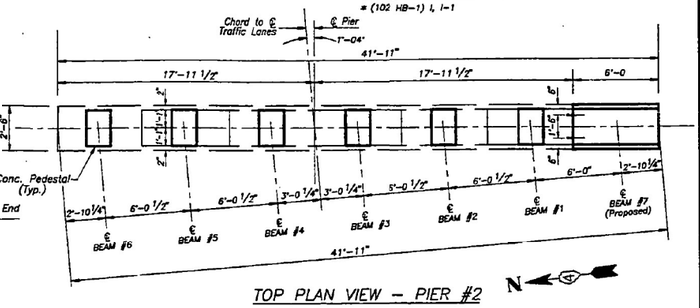
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 317	*	TAZEWELL		117
FEDERAL ROJ. #		PLANNED	FED. AID PROJECT	

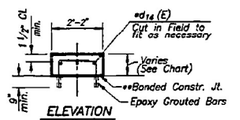
SHEET NO. 23
31 SHEETS

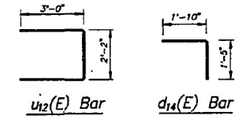
* (102 HB-1) I, I-1

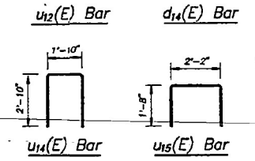


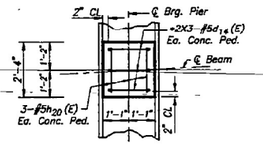


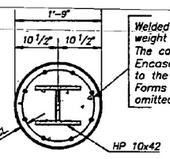


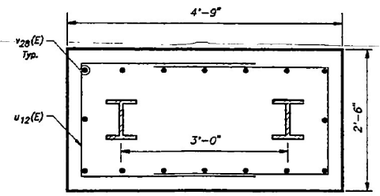


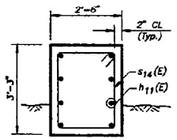












PILE DATA

Type	Steel HP10X42
Capacity	24 TON
Length	26'
No. Required	1+1 Test Pile

BRIDGE BEARING SEAT ELEVATION

Location	Exist. Elev.	Prop. Elev.	Ped. Ht.
6	± 542.41	543.22	9 3/4"
5	± 542.52	543.34	9 13/16"
4	± 542.63	543.45	9 13/16"
3	± 542.76	543.57	9 3/4"
2	± 542.88	543.69	9 3/4"
1	± 542.98	543.80	9 13/16"
7	—	544.00	—

Existing Elevations shown are surveyed in field. Existing bridge plan elevations indicate a lower elevation by approx. 0.15 ft.

BAR LAP

#4 Bar 1'–4"
#5 Bar 1'–8"
#6 Bar 2'–0"
#7 Bar 2'–9"
(Unless Otherwise Shown)

BILL OF MATERIAL – PIER 2

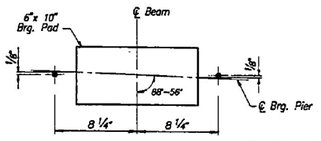
Bar	No.	Size	Length	Shape
d4 (E)	4	#6	2'–9"	—
d14 (E)	36	#5	3'–3"	⌐
h10 (E)	8	#4	5'–8"	—
h11 (E)	8	#4	7'–0"	—
h12 (E)	8	#4	4'–0"	—
h20 (E)	18	#5	2'–0"	—
s14 (E)	6	#4	10'–11"	□
u12 (E)	26	#4	8'–2"	⊏
u14 (E)	8	#4	7'–6"	⊓
u15 (E)	8	#4	5'–6"	⊓
v28 (E)	16	#7	12'–0"	—
Structure Excavation		Cu. Yd.	8.3	
Furnishing Steel Piles HP10X42		Lin. Ft.	26	
Driving Steel Piles		Lin. Ft.	26	
Reinforcement Bars, Epoxy Ct.		Lbs.	930	
Concrete Structures		Cu. Yd.	10.8	
Test Pile, Steel 10HPX42		Ea.	1	

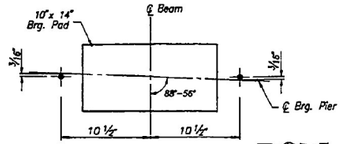
GENERAL NOTES

1. All Edges Shall have Standard 3/4" Chamfer except as noted

* Epoxy Grouted Bars in drilled holes. The grout and method of application shall be approved by the Department. Epoxy Grouted Bars include the following: d4(E), d14(E).

** Bonded Construction Joint in accordance with Art. 503.09 (a)(2) of the Standard Specifications.





DESIGN	G. Kallevig, R.B. Funston
CHECKED	D.L. Maurer
DRAWING	S. Ford
CHECKED	D.L. Maurer

R.A.N. CONSULTANTS, INC.

FOR INFORMATION ONLY

PIER 2
F.A. 317 (IL. 116 / U.S. 24)
SECTION (102 HB-1)I, I-1
TAZEWELL COUNTY

STRUCTURE NO. 090-0073

MODEL: Default
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	DRAWN - RTB	REVISED -		
PLOT SCALE = 100.0000 ' / in.	CHECKED - MCL	REVISED -		
PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 7 OF 7 SHEETS | STA. N/A | TO STA. N/A

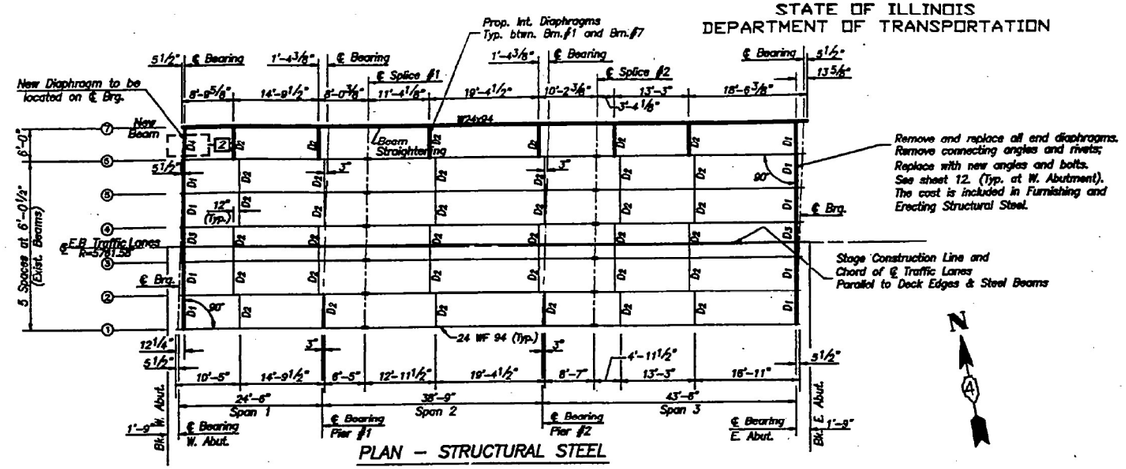
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	73
		CONTRACT NO. 68H58		
		ILLINOIS	FED. AID PROJECT	

SN 090-0074 (LOCATION 9)

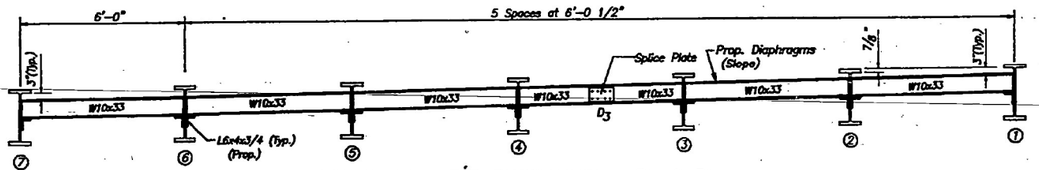
LOCATION 9

090-0074

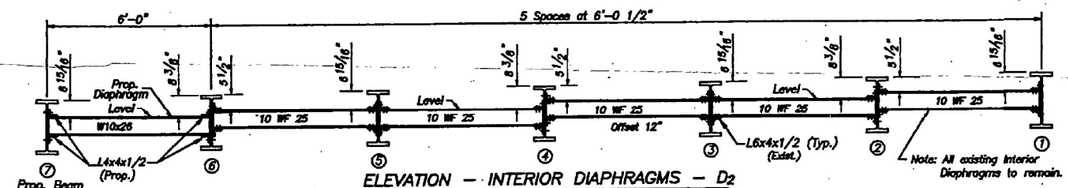
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



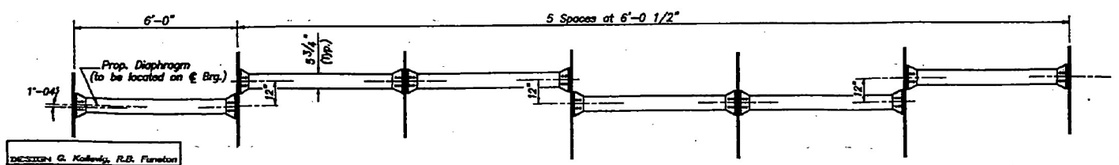
PLAN – STRUCTURAL STEEL



ELEVATION – END DIAPHRAGMS – D_1 & D_3
(LOOKING EAST)



ELEVATION – INTERIOR DIAPHRAGMS – D_2
(LOOKING EAST)



PLAN – INTERIOR DIAPHRAGMS

DESIGN	G. Kollenda, R.B. Funston
CHECKED	D.L. Maurer
DRAWING	S.P. Ford
CHECKED	D.L. Maurer

R.A.N. CONSULTANTS, INC.

F.A. 317	*	TAZEWELL		105

* (102 HB-1) I, I-1

SHEET NO.11
31 SHEETS

INTERIOR GIRDER MOMENT TABLE

		.36 SPAN 1	PIER 1	.44 SPAN 2	PIER 2	.80 SPAN 3
Io	(in^4)	2,700	2,700	2,700	2,700	2,700
Ic (n)	(in^4)	8,403	—	8,403	—	8,403
Ic (3n)	(in^4)	6,129	—	6,129	—	6,129
Sb	(in^3)	222	222	222	222	222
Sc (n)	(in^3)	384	—	384	—	384
Sc (3n)	(in^3)	318	—	318	—	318
DL	(k/ft)	0.692	0.692	0.692	0.692	0.692
M DL	(ft-k)	27	59	37	133	104
fb DL (non-comp)	(ksi)	1.5	3.2	2.0	7.2	5.6
g DL	(k/ft)	0.380	0.380	0.380	0.380	0.380
Mg DL	(ft-k)	16	29	29	57	83
fb DL (comp)	(ksi)	0.6	1.8	1.1	3.1	2.4
M (LL)	(ft-k)	99	85	163	103	241
M (IMP)	(ft-k)	30	28	48	30	72
fb (LL+IMP)	(ksi)	4.4	6.0	7.2	7.2	10.6
fb (total)	(ksi)	6.5	10.8	10.3	17.5	18.6
VR	(ksi)	35.5	—	43.2	—	42.2

INTERIOR GIRDER REACTION TABLE

		W. ABUT.	PIER #1	PIER #2	E. ABUT.
R DL	(k)	9.6	34.8	51.1	18.9
R LL	(k)	24.1	32.5	34.2	30.0
IMP	(k)	7.1	9.8	10.2	8.9
R (total)	(k)	40.6	76.9	95.5	57.8

TOP OF BEAM ELEVATIONS

℄ BEAM	C.L. BRG. WEST ABUT.	C.L. PIER #1	C.L. SPLICE #1	C.L. PIER #2	C.L. SPLICE #2	C.L. BRG. EAST ABUT.
1	543.393	544.477	544.855	546.281	546.779	548.418
2	543.278	544.361	544.739	546.165	546.663	548.303
3	543.162	544.245	544.623	546.049	546.548	548.187
4	543.047	544.130	544.508	545.934	546.432	548.072
5	542.931	544.014	544.392	545.818	546.316	547.956
6	542.816	543.899	544.277	545.703	546.202	547.841
7	542.701	543.785	544.163	545.589	546.087	547.726

NOTE: For fabrication use only. Elevations at splices are given to the top of the splice plate.

STRUCTURAL STEEL (NEW MEMBERS)

LOCATION	ITEM	QUANTITY
W. ABUT. DIAPHRAGMS (D1)	W10x33	5
INTERIOR DIAPHRAGMS (D2)	W10x26	6
E. ABUT. DIAPHRAGMS (D1)	W10x33	5
BEAM #7	W24x94	1
ABUT. DIAPHRAGMS (D3)	W10x33	2

GENERAL NOTES

1.) Existing bridge and beams are straight and parallel to chord.

FRAMING PLAN
F.A. 317 (IL. 116 / U.S. 24)
SECTION (102 HB-1) I, I-1
TAZEWELL COUNTY

STRUCTURE NO. 090-0074

2 REV. 1/21/98 DLM

FOR INFORMATION ONLY

MODEL: Default
FILE NAME: c:\2 Files\21308 IDOT - DIST 4 - PTB 201-133\Work Order 15 - FY 2023 Patching\18.Transportation\68H58 (Bridge Painting)\CADD Sheets\020_112 Old Plan Sets.dgn

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USER NAME = rbailey	DESIGNED - RTB	REVISED -	
	DRAWN - RTB	REVISED -	
PLOT SCALE = 100.0000 ' / in.	CHECKED - MCL	REVISED -	
PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 1 OF 6 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	74
		CONTRACT NO. 68H58		
	ILLINOIS FED. AID PROJECT			

SN 090-0074 (LOCATION 9)

LOCATION 9

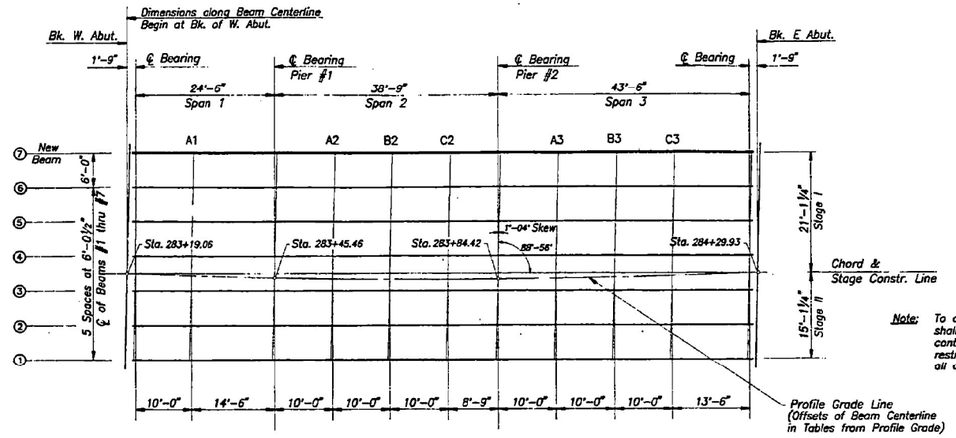
090-0074

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 317 *	TAZEWELL	95	

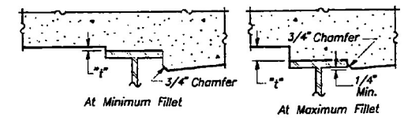
SHEET NO.4
31 SHEETS

* (102 HB-1) I, I-1



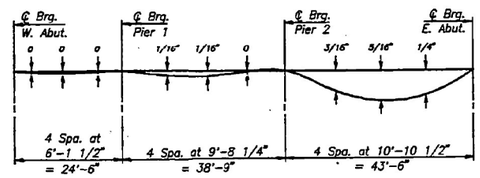
PLAN

Note: To avoid uplift at West Abutment, the pouring of the deck shall start at the West Abutment and proceed east. If the contractor elects to pour from the East Abutment, sufficient restraints shall be provided at the West Abutment and Pier #1, all details shall be submitted to the Engineer for his approval.



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown below, minus slab thickness, equals the fillet heights "t" above top flange of beams. (See elevations and locations in tables below.)

FILLET HEIGHTS



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only)

Note: The above deflections are typical for all beams. The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown above.

BEAM #1

Location	Station	Offset To PG	Theo. Grade	Theo. Grade Adj. For DL
Bk W Abut	28318.78	15.100	543.979	543.979
CL Brg	28320.53	15.083	544.060	544.060
A1	28330.53	14.999	544.527	544.529
CL Pier 1	28345.18	14.907	545.211	545.211
A2	28355.18	14.865	545.678	545.682
B2	28365.18	14.840	546.145	546.150
C2	28375.18	14.833	546.613	546.614
CL Pier 2	28384.13	14.842	547.032	547.032
A3	28394.13	14.868	547.501	547.515
B3	28404.13	14.912	547.970	547.997
C3	28414.13	14.973	548.439	548.464
CL Brg	28427.90	15.083	549.085	549.085
Bk E Abut	28429.65	15.100	549.168	549.168

BEAM #2

Location	Station	Offset To PG	Theo. Grade	Theo. Grade Adj. For DL
Bk W Abut	28318.89	9.060	543.863	543.748
CL Brg	28320.64	9.043	543.945	543.945
A1	28330.64	8.959	544.411	544.413
CL Pier 1	28345.29	8.867	545.095	545.095
A2	28355.29	8.825	545.562	545.566
B2	28365.29	8.800	546.030	546.034
C2	28375.29	8.793	546.497	546.498
CL Pier 2	28384.25	8.802	546.917	546.917
A3	28394.25	8.828	547.385	547.400
B3	28404.25	8.872	547.854	547.882
C3	28414.25	8.933	548.324	548.349
CL Brg	28428.01	9.043	548.970	548.970
Bk E Abut	28429.76	9.060	549.052	549.052

BEAM #3

Location	Station	Offset To PG	Theo. Grade	Theo. Grade Adj. For DL
Bk W Abut	28319.00	3.020	543.748	543.748
CL Brg	28320.75	3.003	543.829	543.829
A1	28330.75	2.919	544.295	544.298
CL Pier 1	28345.40	2.827	544.979	544.979
A2	28355.40	2.785	545.446	545.451
B2	28365.40	2.760	545.914	545.919
C2	28375.40	2.753	546.382	546.382
CL Pier 2	28384.36	2.762	546.801	546.801
A3	28394.36	2.788	547.270	547.285
B3	28404.36	2.832	547.739	547.766
C3	28414.36	2.893	548.208	548.234
CL Brg	28428.12	3.003	548.854	548.854
Bk E Abut	28429.87	3.020	548.936	548.936

PROFILE GRADE LINE

Location	Station	Offset To PG	Theo. Grade	Theo. Grade Adj. For DL
Bk W Abut	28319.06	0.000	543.690	543.690
CL Brg	28320.81	0.000	543.772	543.772
A1	28330.81	0.000	544.240	544.242
CL Pier 1	28345.46	0.000	544.926	544.926
A2	28355.46	0.000	545.394	545.397
B2	28365.46	0.000	545.862	545.866
C2	28375.46	0.000	546.330	546.330
CL Pier 2	28384.42	0.000	546.749	546.749
A3	28394.42	0.000	547.217	547.230
B3	28404.42	0.000	547.685	547.710
C3	28414.42	0.000	548.153	548.176
CL Brg	28428.18	0.000	548.797	548.797
Bk E Abut	28429.93	0.000	548.879	548.879

STAGE CONSTRUCTION LINE

Location	Station	Offset To PG	Theo. Grade	Theo. Grade Adj. For DL
Bk W Abut	28319.06	0.000	543.690	543.690
CL Brg	28320.81	-0.017	543.772	543.772
A1	28330.81	-0.102	544.239	544.240
CL Pier 1	28345.46	-0.194	544.922	544.922
A2	28355.46	-0.236	545.389	545.393
B2	28365.46	-0.260	545.856	545.861
C2	28375.46	-0.267	546.324	546.325
CL Pier 2	28384.42	-0.259	546.744	546.744
A3	28394.42	-0.232	547.212	547.227
B3	28404.42	-0.188	547.681	547.708
C3	28414.42	-0.127	548.150	548.176
CL Brg	28428.18	-0.017	548.796	548.796
Bk E Abut	28429.93	0.000	548.879	548.879

BEAM #4

Location	Station	Offset To PG	Theo. Grade	Theo. Grade Adj. For DL
Bk W Abut	28319.12	-3.020	543.632	543.632
CL Brg	28320.87	-3.037	543.714	543.714
A1	28330.87	-3.122	544.180	544.182
CL Pier 1	28345.51	-3.214	544.864	544.864
A2	28355.51	-3.256	545.331	545.335
B2	28365.51	-3.280	545.798	545.803
C2	28375.51	-3.287	546.266	546.267
CL Pier 2	28384.47	-3.278	546.686	546.686
A3	28394.47	-3.252	547.154	547.169
B3	28404.47	-3.208	547.623	547.650
C3	28414.47	-3.147	548.092	548.118
CL Brg	28428.24	-3.037	548.739	548.739
Bk E Abut	28429.99	-3.020	548.821	548.821

BEAM #5

Location	Station	Offset To PG	Theo. Grade	Theo. Grade Adj. For DL
Bk W Abut	28319.23	-9.060	543.517	543.517
CL Brg	28320.98	-9.077	543.598	543.598
A1	28330.98	-9.162	544.065	544.067
CL Pier 1	28345.62	-9.254	544.748	544.748
A2	28355.62	-9.296	545.213	545.219
B2	28365.62	-9.320	545.682	545.688
C2	28375.62	-9.327	546.150	546.151
CL Pier 2	28384.58	-9.318	546.570	546.570
A3	28394.58	-9.292	547.038	547.053
B3	28404.58	-9.248	547.507	547.535
C3	28414.58	-9.187	547.977	548.002
CL Brg	28428.35	-9.077	548.623	548.623
Bk E Abut	28430.10	-9.060	548.705	548.705

BEAM #6

Location	Station	Offset To PG	Theo. Grade	Theo. Grade Adj. For DL
Bk W Abut	28319.34	-15.100	543.401	543.401
CL Brg	28321.09	-15.117	543.483	543.483
A1	28331.09	-15.200	543.949	543.951
CL Pier 1	28345.74	-15.294	544.633	544.633
A2	28355.74	-15.336	545.100	545.104
B2	28365.74	-15.360	545.567	545.572
C2	28375.74	-15.367	546.035	546.036
CL Pier 2	28384.71	-15.359	546.455	546.455
A3	28394.71	-15.338	546.924	546.938
B3	28404.71	-15.288	547.393	547.420
C3	28414.71	-15.227	547.862	547.888
CL Brg	28428.46	-15.117	548.508	548.508
Bk E Abut	28430.21	-15.100	548.590	548.590

BEAM #7

Location	Station	Offset To PG	Theo.Grade	Theo.Grade Adj. for DL
Bk W Abut	28319.45	-21.100	543.286	543.286
CL Brg	28321.20	-21.117	543.368	543.368
A1	28331.20	-21.202	543.834	543.836
CL Pier 1	28345.86	-21.294	544.516	544.518
A2	28355.86	-21.336	544.986	544.989
B2	28365.86	-21.360	545.453	545.458
C2	28375.86	-21.367	545.921	545.922
CL Pier 2	28384.82	-21.358	546.340	546.340
A3	28394.82	-21.332	546.809	546.822
B3	28404.82	-21.288	547.278	547.303
C3	28414.82	-21.227	547.747	547.771
CL Brg	28428.57	-21.117	548.393	548.393
Bk E Abut	28430.32	-21.100	548.475	548.475

GENERAL NOTES:

1. For framing plan, see sheet 11 of 31.
2. Stations shown in tables are along the chord of each bridge, not along the chord to Survey Line.

DESIGN	G. Kallevig, K. Fields
CHECKED	D.L. Maurer
DRAWING	S. Ford
CHECKED	D.L. Maurer

R.A.N. CONSULTANTS, INC.

FOR INFORMATION ONLY

TOP OF SLAB ELEVATIONS
F.A. 317 (IL. 116 / U.S. 24)
SECTION (102 HB-1)I, I-1
TAZEWELL COUNTY

STRUCTURE NO. 090-0074

MODEL: Default
FILE NAME: c:\2 Files\21308 IDOT - DIST 4 - PTB 201-033\Work Order 15 - FY 2023 Patching\8.Transportation\68H58 (Bridge Painting)\CADD Sheets\020_112 Old Plan Sets.dgn

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USER NAME = rbailey	DESIGNED - RTB	REVISED -
	DRAWN - RTB	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED - MCL	REVISED -
PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 2 OF 6 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	75
		CONTRACT NO. 68H58		
		ILLINOIS	FED. AID PROJECT	

SN 090-0074 (LOCATION 9)

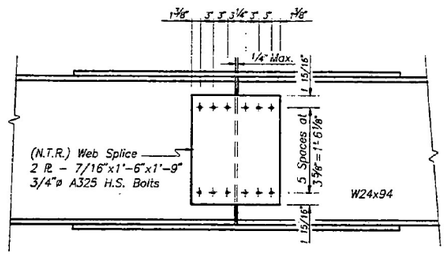
LOCATION 9

090-0074

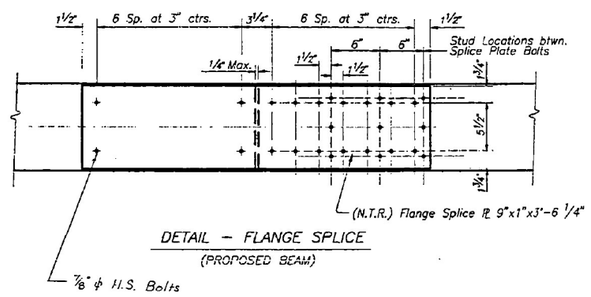
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

	SECTION	COUNTY		SHEET NO.	SHEET NO.12
F.A. 317	*	TAZEWELL		106	31 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

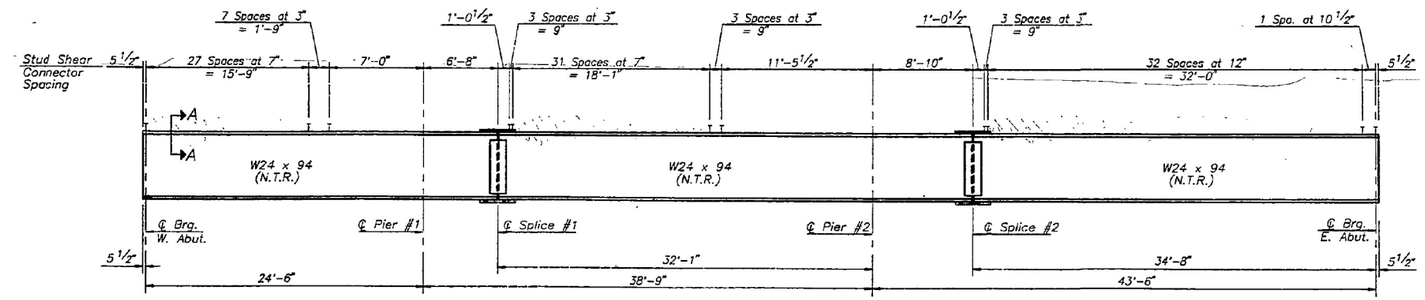
* (102 HB-1) I, I-1



DETAIL – WEB SPLICE
(PROPOSED BEAM)

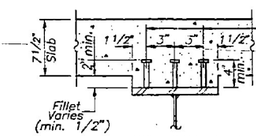


DETAIL – FLANGE SPLICE
(PROPOSED BEAM)



BEAM #7 ELEVATION
(LOOKING NORTH)

Note: Existing beams shall have studs at the same locations as prop. Beam #7.



SECTION A–A

Notes: N.T.R. refers to Notch Toughness Requirements (Zone 2).

DESIGN	G. Kallevig, R.B. Funston
CHECKED	D.L. Maurer
DRAWING	S. Ford
CHECKED	D.L. Maurer

STEEL DETAILS
F.A. 317 (IL. 116 / U.S. 24)
SECTION (102 HB-1)I, I-1
TAZEWELL COUNTY

R.A.N. CONSULTANTS, INC.

STRUCTURE NO. 090-0073,74

FOR INFORMATION ONLY

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USER NAME = rbailey	DESIGNED - RTB	REVISED -	
	DRAWN - RTB	REVISED -	
PLOT SCALE = 100.0000 ' / in.	CHECKED - MCL	REVISED -	
PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 3 OF 6 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	76
		CONTRACT NO. 68H58		
	ILLINOIS	FED. AID PROJECT		

SN 090-0074 (LOCATION 9)

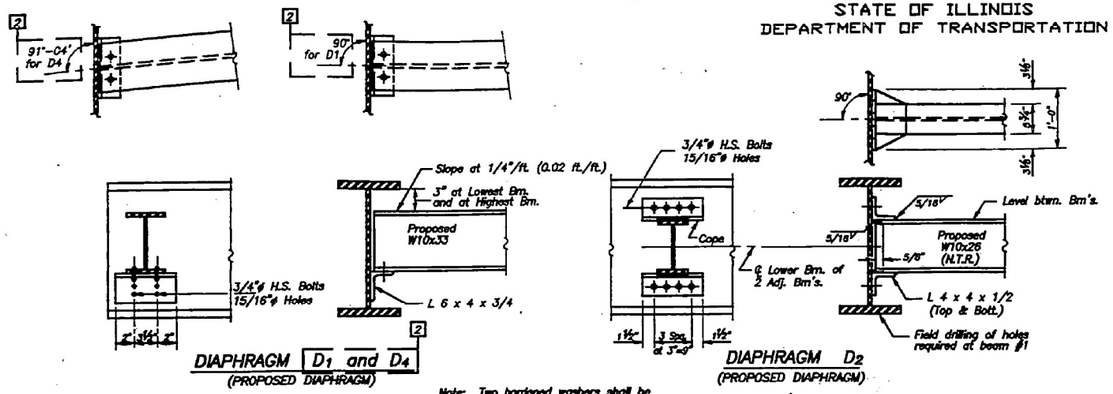
LOCATION 9

090-0074

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A. 673	*	TAZEWELL			SHEET NO. 13 OF 31 SHEETS

* (102 HB-1) I, I-1



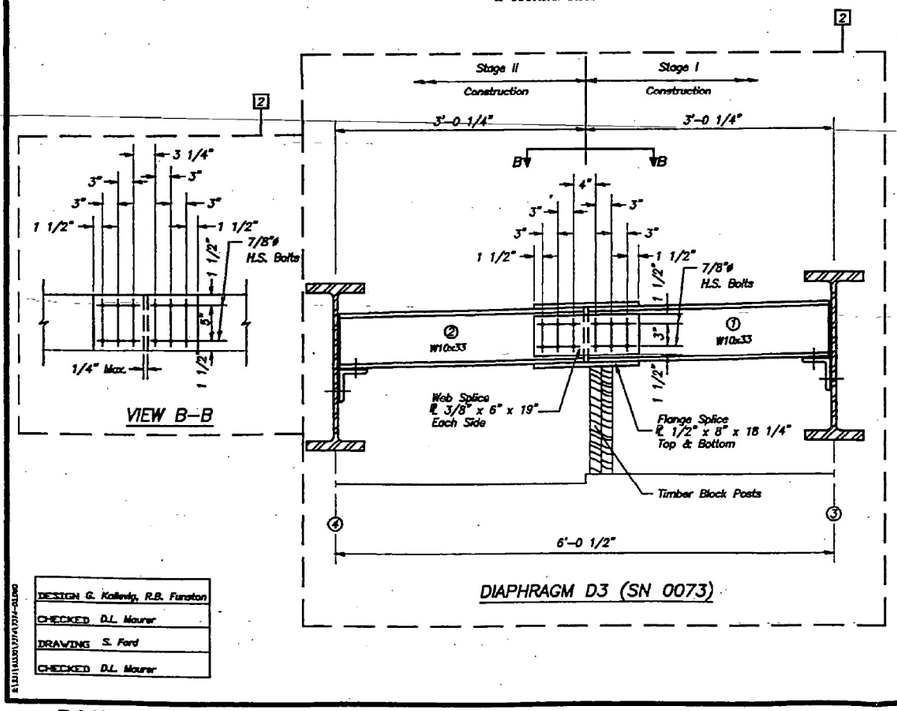
Note: Two hardened washers shall be required over all 15/16"ø holes. All contact surfaces of joints shall be free of paint or lacquer. Field Drilling of holes incidental to Structural Steel.

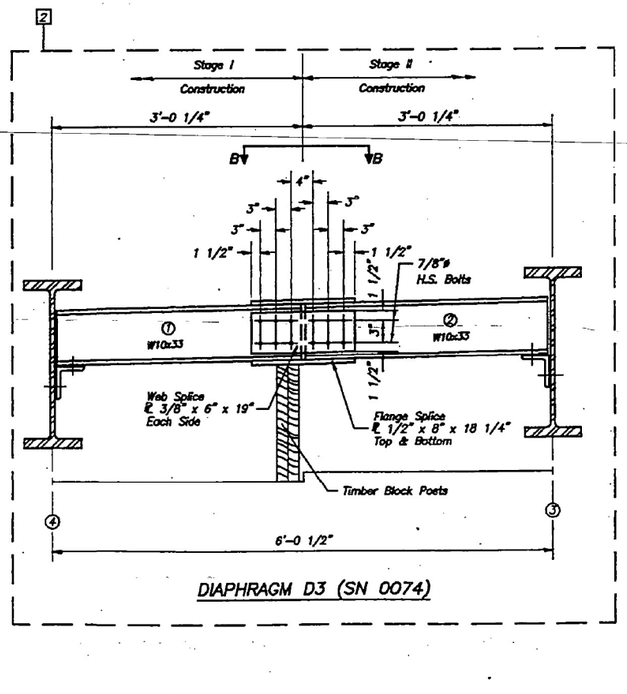
Diaphragm D3 Construction Sequence --

1. Order Diaphragm D3 in two sections with lengths of 2'-11 1/2".
2. Attach section ① of Diaphragm to the beam and top flange splice plate during Stage I Construction.
3. Place timber block posts between section ① of Diaphragm and abutment bearing seat.
4. Attach section ② of Diaphragm to both the beam & top flange splice plate during Stage II Construction.
5. Attach web splice plates to sections ① & ② of Diaphragms.
6. Remove timber block posts.
7. Attach bottom flange splice plate to sections ① & ② of Diaphragms.

Diaphragm D3 General Notes --

1. Cost of timber block posts is incidental to Structural Steel.
2. For details of connections to beams see Diaphragm D1.





DESIGN	G. Kolkevig, R.B. Funston
CHECKED	D.L. Maurer
DRAWING	S. Ford
CHECKED	D.L. Maurer

A1201(LUS)7/7/2014-SLD60

DIAPHRAGM DETAILS
F.A. 673 (IL. 116 / U.S. 24)
SECTION (102 HB-1)I, I-1
TAZEWELL COUNTY

STRUCTURE NO. 090-0073,74

R.A.N. CONSULTANTS, INC.

2 REV. 1/21/98 DLM

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USER NAME = rbailey		DESIGNED - RTB		REVISED -	
		DRAWN - RTB		REVISED -	
PLOT SCALE = 100.0000 ' / in.		CHECKED - MCL		REVISED -	
PLOT DATE = 3/21/2023		DATE - 3/21/2023		REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE PLAN SETS

SCALE: NONE | SHEET 4 OF 6 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	77
		CONTRACT NO. 68H58		
	ILLINOIS	FED. AID PROJECT		

SN 090-0074 (LOCATION 9)

LOCATION 9
090-0074

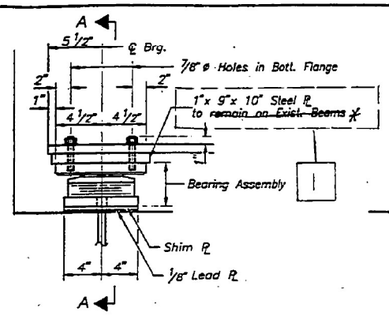
** 9/16" at beams 2,3,4+6 @ west abut. S.N. 090-0073

*** 1 3/16" at beams 2,3,4+6 @ west abut. S.N. 090-0073

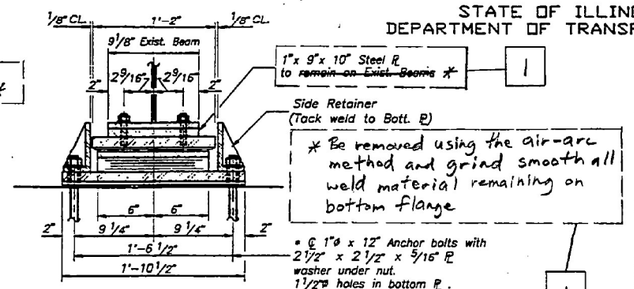
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A. 317	*	TAZEWELL		108	SHEET NO. 14 31 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

* (102 HB-1) L T-1



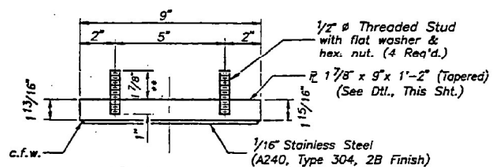
ELEVATION AT E. ABUT.



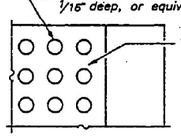
SECTION A–A

* Be removed using the air-arc method and grind smooth all weld material remaining on bottom flange

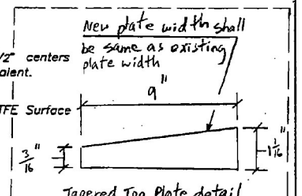
TYPE II TFE ELASTOMERIC EXP. BRG.
(EAST ABUTMENT)

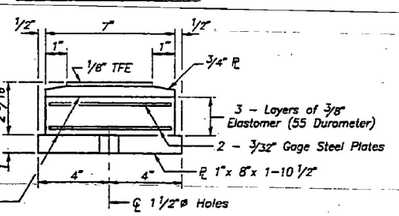


TOP BEARING ASSEMBLY

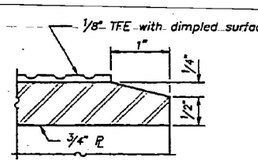


PLAN – TFE SURFACE





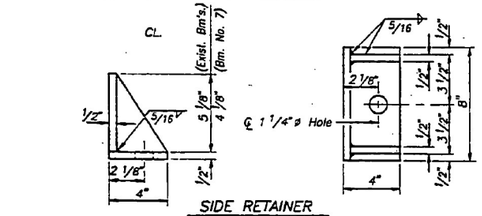
BOTTOM BEARING ASSEMBLY



SECTION THRU TFE

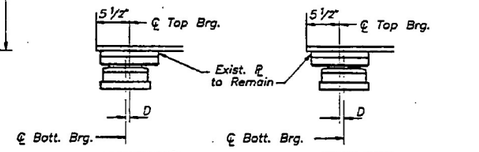
Note: The 1/8" TFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM–A–134, Type I. The bond agent shall be applied on the full area of the contact surfaces.

Banding of 1/8" TFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.



SIDE RETAINER

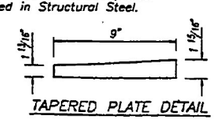
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. Weight included in Structural Steel.



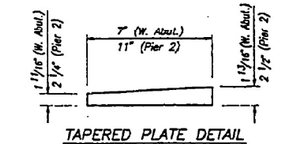
SETTING ANCHOR BOLTS AT EXP. BRG.

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

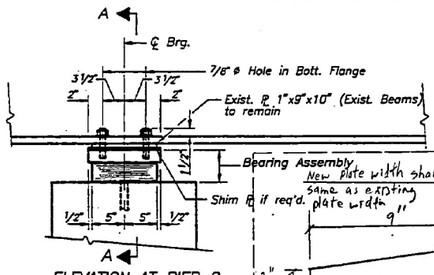
DESIGN	B. Funston, K. Fields
CHECKED	D.L. Maurer
DRAWING	S. Ford
CHECKED	D.L. Maurer



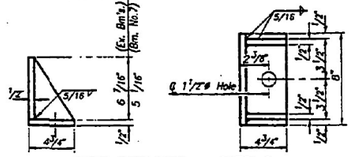
TAPERED PLATE DETAIL



TAPERED PLATE DETAIL

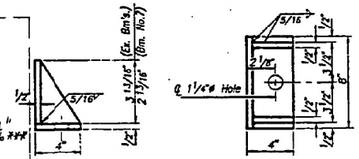


ELEVATION AT PIER 2



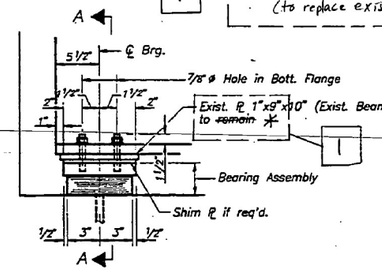
SIDE RETAINER – PIER 2

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. Weight included in Structural Steel.

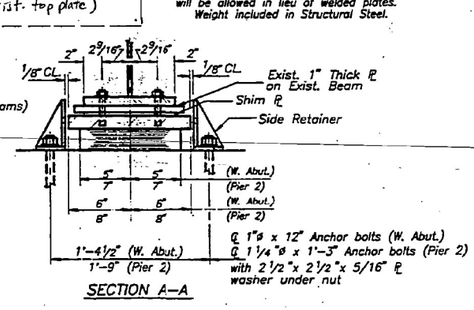


SIDE RETAINER – WEST ABUT.

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. Weight included in Structural Steel.

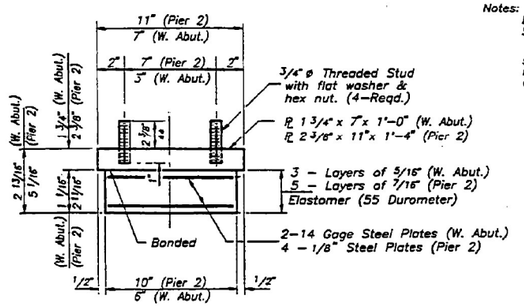


ELEVATION AT W. ABUT.



SECTION A–A

TYPE I ELASTOMERIC EXP. BRG.



BEARING ASSEMBLY

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

** 3 3/8" for existing beams.

Notes:
1. Anchor bolts at fixed bearings may be built into the masonry. See sheet #14 for Anchor Bolt installation.
2. The existing bridge beams have a 1" thick steel plate above each rocker. This plate shall remain in place and be drilled for the new elastomeric bearings.
3. Remove and replace all steel bearings w/new.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	28
Elastomeric Bearing Assembly Type II	Each	14

Note: Quantities above reflect total for both structures.

BEARING DETAILS
F.A. 317 (IL. 116 / U.S. 24)
SECTION (102 HB–1)I, I–1
TAZEWELL COUNTY

R.A.N. CONSULTANTS, INC.

FOR INFORMATION ONLY

STRUCTURE NO. 090–0073,74

MODEL: Default
FILE NAME: D:\2 Files\2 1308 IDOT - DIST 4 - PTB 201433\Work Order 15 - FY 2023 Patching\18_Transportation\68H58 (Bridge Painting)\CADD Sheets\020_112 Old Plan Sets.dgn

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Engineers · Architects · Surveyors
www.klingner.com
Galesburg, Illinois
40 South Public Street, 309.342.4192
Quincy, IL · Hannibal, MO
Burlington, IA · Perry, IA · Columbia, MO
Brentwood, IA · Carbondale, IL

USER NAME = rbailey	DESIGNED - RTB		REVISED -
	DRAWN - RTB		REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED - MCL		REVISED -
PLOT DATE = 3/21/2023	DATE - 3/21/2023		REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE PLAN SETS

SCALE: NONE | SHEET 5 OF 6 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	78
		CONTRACT NO. 68H58		
		ILLINOIS	FED. AID PROJECT	

SN 090-0074 (LOCATION 9)

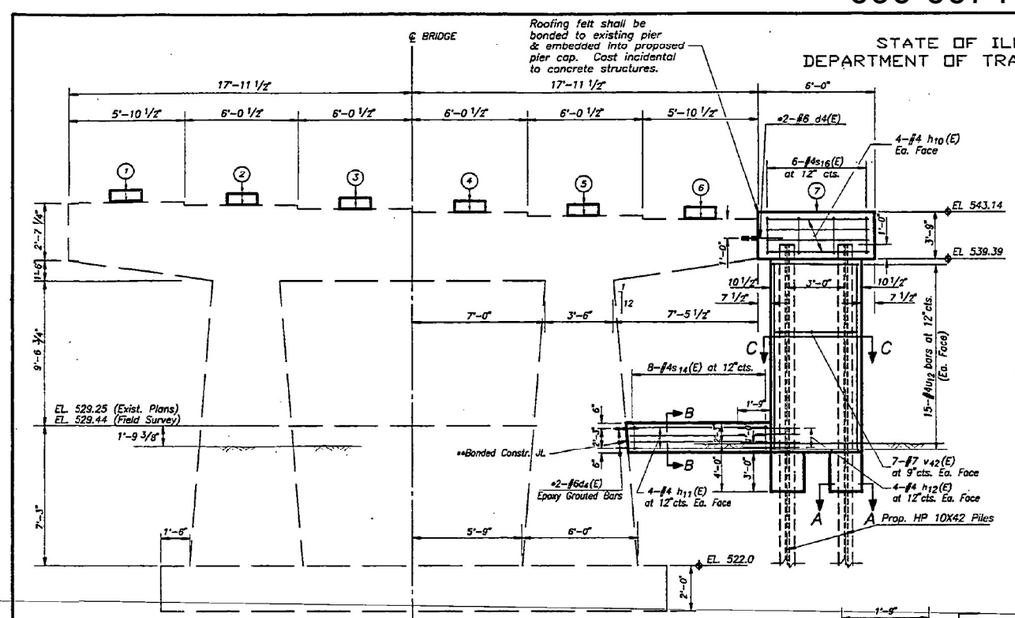
LOCATION 9

090-0074

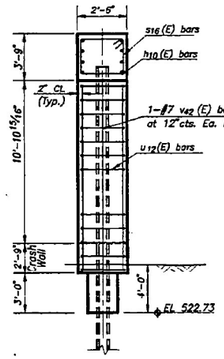
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 317	TAZEWELL	118	SHEET NO. 24
			31 SHEETS

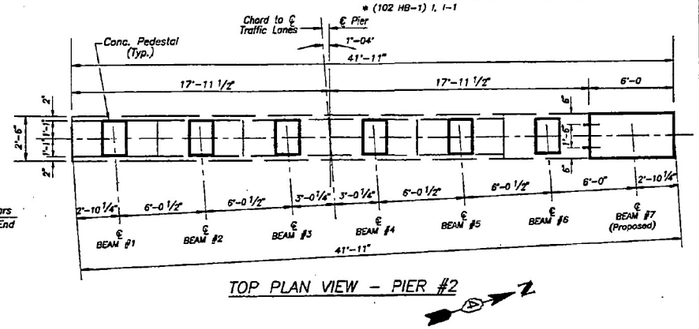
Roofing felt shall be bonded to existing pier & embedded into proposed pier cap. Cost incidental to concrete structures.



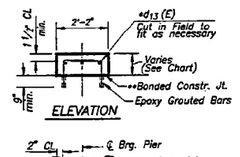
ELEVATION PIER #2
(LOOKING WEST)



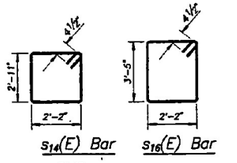
END VIEW PIER #2

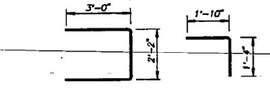


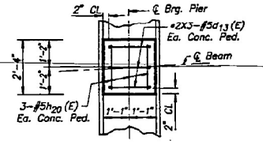
TOP PLAN VIEW – PIER #2



ELEVATION

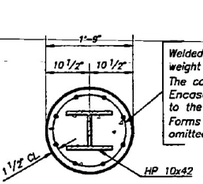






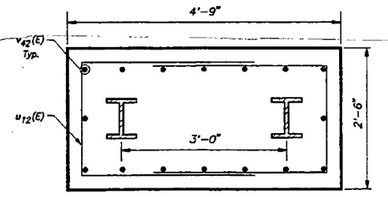
PLAN

CONCRETE PEDESTAL

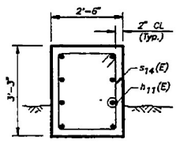


Welded wire fabric 6x6 – W4.0 x W4.0 weight 58#/100 sq. ft.
The cost of Excavation, Concrete Encasement and Reinforcement is incidental to the cost of Furnishing Steel Piles HP10X42.
Forms for encasement may be omitted when soil conditions will permit.

SECTION A–A



SECTION C–C



SECTION B–B

PILE DATA

Type	Steel HP10X42
Capacity	24 TON
Length	26'
No. Required	2

BRIDGE BEARING SEAT ELEVATION

Location	Exist. Elev.	Prop. Elev.	Ped. Ht.
7	———	543.14	———
6	± 542.51	543.17	7 15/16"
5	± 542.62	543.29	8 1/16"
4	± 542.74	543.40	7 15/16"
3	± 542.83	543.52	8 1/4"
2	± 542.94	543.63	8 1/4"
1	± 543.06	543.75	8 1/4"

Existing Elevations shown are surveyed in field. Existing bridge plan elevations indicate a lower elevation by approx. 0.15 ft.

BAR LAP

#4 Bar 1'-4"
#5 Bar 1'-8"
#6 Bar 2'-0"
#7 Bar 2'-9"
(Unless Otherwise Shown)

GENERAL NOTES

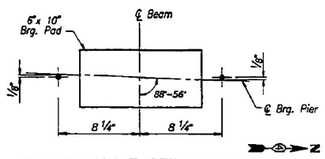
1. All Edges Shall have Standard 3/4" Chamfer except as noted

BILL OF MATERIAL – PIER 2

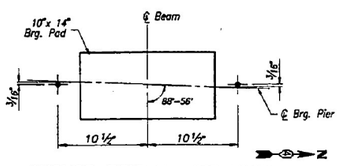
Bar	No.	Size	Length	Shape
d4 (E)	4	#6	2'-9"	
d13 (E)	36	#5	3'-2"	
h10 (E)	8	#4	5'-8"	
h11 (E)	8	#4	7'-0"	
h12 (E)	8	#4	4'-0"	
h20 (E)	18	#5	2'-0"	
s14 (E)	8	#4	9'-11"	
s16 (E)	6	#4	10'-4"	
u12 (E)	30	#4	8'-2"	
v42 (E)	16	#7	13'-4"	
Structure Excavation		Cu. Yd.	8.3	
Furnishing Steel Piles HP10X42		Lin. Ft.	52	
Driving Steel Piles		Lin. Ft.	52	
Reinforcement Bars, Epoxy. Ct.		Lbs.	960	
Concrete Structures		Cu. Yd.	7.8	

* Epoxy Grouted Bars in drilled holes. The grout and method of application shall be approved by the Department. Epoxy Grouted Bars include the following: d4(E), d13(E).

** Bonded Construction Joint in accordance with Art. 503.09 (a)(2) of the Standard Specifications.



ANCHOR BOLT SETTING PLAN
WEST ABUTMENT



ANCHOR BOLT SETTING PLAN
PIER 2

DESIGN	G. Kallevig, R.B. Funston
CHECKED	D.L. Maurer
DRAWING	S. Ford
CHECKED	D.L. Maurer

PIER 2
F.A. 317 (IL. 116 / U.S. 24)
SECTION (102 HB-1)I, I-1
TAZEWELL COUNTY

R.A.N. CONSULTANTS, INC.

STRUCTURE NO. 090-0074

FOR INFORMATION ONLY

KLINGNER & ASSOCIATES, P.C.
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Quincy, IL Hannibal, MO Burlington, IA Keokuk, IA Columbia, MO Davenport, IA Carbondale, IL

USER NAME = rbailey	DESIGNED - RTB	REVISED -	
	DRAWN - RTB	REVISED -	
PLOT SCALE = 100.0000 ' / in.	CHECKED - MCL	REVISED -	
PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 6 OF 6 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	79
		CONTRACT NO. 68H58		
		ILLINOIS	FED. AID PROJECT	

MODEL: Default
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SN 090-0124 (LOCATION 10)

LOCATION 10

090-0124

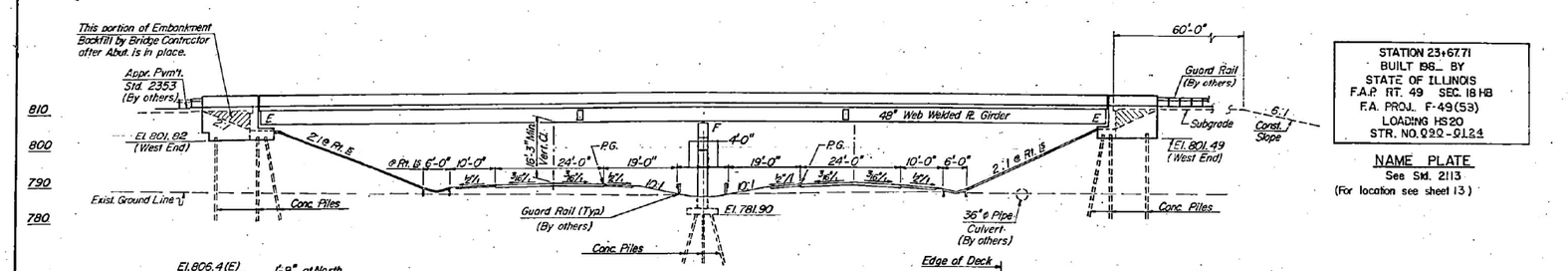
T.B.M.. NO. 2 Chiseled Square — Top of Headwall
Rt. Sta. 431+50 (O.R. 24)
450' Rt. Sta. 20+00 (F.A.P. 49), Elev. 783.58

No Existing Structure.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
U. S. / F. A. P. 49	18 HB	TAZEWELL	32	7
FED. ROAD DIST. NO. 9		ILLINOIS	FED. AID PROJECT	

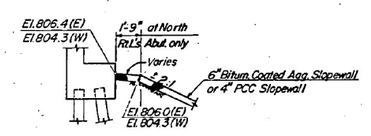
SHEET NO. 1
15 SHEETS



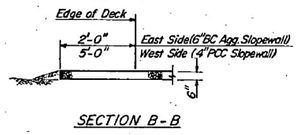
ELEVATION

STATION 23+67.71
BUILT 19G.. BY
STATE OF ILLINOIS
F.A.P. RT. 49 SEC. 18 HB
F.A. PROJ. F-49(53)
LOADING HS20
STR. NO. 090-0124

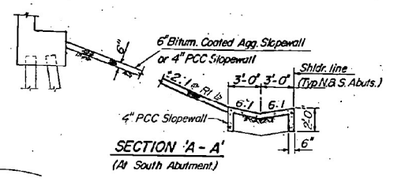
NAME PLATE
See Std. 2113
(For location see sheet 13)



SECTION A-A (At North Abut.)

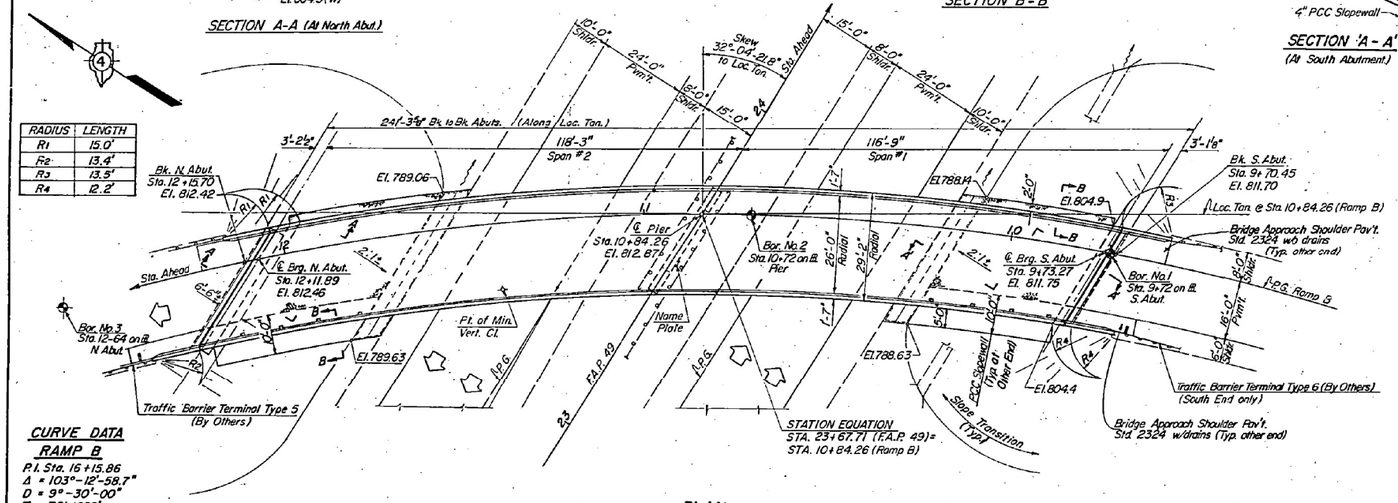


SECTION B-B



SECTION 'A-A'
(At South Abutment)

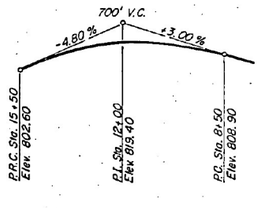
RADIUS	LENGTH
R1	15.0'
R2	13.4'
R3	13.5'
R4	12.2'



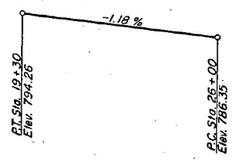
PLAN

STATION EQUATION
STA. 23+67.71 (F.A.P. 49) =
STA. 10+84.26 (Ramp B)

CURVE DATA
RAMP B
P.I. Sta. 16+15.86
Δ = 103°-12'-58.7"
D = 9°-30'-00"
T = 761.1623'
R = 603.1135'
L = 1086.4875'
E = 368.03'
P.C. Sta. 8+54.70
P.T. Sta. 19+41.19
S.E. = 0.080%



PROPOSED PROFILE GRADE
RAMP B



PROPOSED PROFILE GRADE
F.A.P. RTE. 49 (Median Edge of Pvmt.)

DESIGN STRESSES
f'c = 3,500 p.s.i.
fy = 60,000 p.s.i. (Reinf.)
fy = 50,000 p.s.i. (M-223 Grade 50, or M-222 Struct. Steel)
fy = 36,000 p.s.i. (M-183, Struct. Steel)
Allow 25 p.s.f. for Future Wearing Surface
Loading HS-20-44
Design Specifications - 1983 AASHTO Specifications with 1984 & 1985 Interims.
1980 AASHTO Guide Specifications with 1981 & 1982 Interims for Horizontally Curved Highway Bridges
ILLINOIS DEPARTMENT OF TRANSPORTATION

LOCATION SKETCH

GENERAL NOTES

See Proposal for boring data.

Fasteners shall be high strength bolts ⅞" ø, open holes 15/16" ø, unless otherwise noted.

Calculated weight of Structural Steel = 15,430 Lbs. (M-222)
145,060 Lbs. (M-223 Gr. 50)
107,700 Lbs. (M-183)

The Zinc-Silicate and vinyl paint system shall be used for shop and field painting of structural steel except where otherwise noted.

PCC Slopewall shall be reinforced with welded wire fabric, 6"x6" - W4.0 x W4.0, weighing 58 lbs. per 100 sq. ft.

Field welding of construction accessories will not be permitted to the bottom flange of the girders nor to the top flange for a distance equal to one-fourth the span length each way from the pier supports. Field welding in other areas will be permitted only when approved by the Engineer.

Anchor bolts shall be set before bolting diaphragms over supports.

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of ⅛". Adjustment shall be made either by grinding the surfaces or by shimming the bearing. Two ⅛" adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims. For Type I Elastomeric Bearings, shims of the dimensions of the top plate shall be provided and placed as detailed.

The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These Components are the tension flanges, webs, and all splice plate material of the steel girders & diaphragms as designated on the plans.
Reinforcement bars shall conform to the requirements of AASHTO M-31 or M-53 Grade 60.

The embankment configuration shown shall be the minimum embankment that must be constructed prior to construction of the abutments.

The contractor shall drive 2 Concrete Test Piles in permanent locations, one at the North Abutment and one at the South Abutment as directed by the Engineer before ordering the remainder of piles.

Concrete piles at abutments shall be driven in holes precored through the embankment in accordance with Article 513.09 (C) of the Standard Specifications.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Structure Excavation	Cu. Yds.		205	205
Class X Concrete	Cu. Yds	226.8	162.1	387.9
Structural Steel	L.S.	1		1
Reinforcement Bars	Lbs.		16,160	16,160
Reinforcement Bars (Epoxy Coated)	Lbs.	56,590		56,590
Concrete Piles	Lin. Ft.		1952	1952
Test Piles (Concrete)	Each		2	2
Slopewall (4")	Sq. Yds.		216	216
Bituminous Coated Aggregate Slopewall(6")	Sq. Yds.		264	264
Floor Drains	Each	8		8
Protective Coat	Sq. Yds.	916		916
Stud Shear Connectors	Each	1778		1778
Neoprene Exp. Joint (2")	Lin. Ft.	71		71
Elastomeric Brg. Assembly Type I	Each	8		8
Name Plate	Each		1	1

*Refer to Special Provisions

APPROVED
FOR STRUCTURES

James T. Rayburn

GENERAL PLAN & ELEVATION
RAMP B - O.R. 24 OVER F.A.P. 49
F.A.P. ROUTE 49 SEC. 18 HB
TAZEWELL COUNTY
STA. 23+67.71 F.A.P. 49
STA. 10+84.26 RAMP B
STRUCTURE NO. 090-0124

STATE OF ILLINOIS
GREGORY E. POLES
31-3312
REGISTERED STRUCTURAL ENGINEER

Gregory E. Poles

DESIGNED	D.V.K.	
CHECKED	G.E.P.	
DRAWN	J.T.	
CHECKED	D.V.K.	12/85

FOR INFORMATION ONLY

KLINGNER & ASSOCIATES, P.C. Engineers · Architects · Surveyors www.klingner.com Galesburg, Illinois 49 North Public Street 309.342.4062	USER NAME = rbailey	DESIGNED - RTB	REVISED -
		DRAWN - RTB	REVISED -
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	PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 1 OF 8 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	80
		CONTRACT NO. 68H58		
		ILLINOIS	FED. AID PROJECT	

MODEL: Default
FILE NAME: O:\2Files\213081 IDOT - DIST 4 - PTB 201-033\Work Order 15 - FY 2023 Patching\18.Transportation\68H58 (Bridge Painting)\CADD Sheets\020_113_Old Plan Sets.dgn

SN 090-0124 (LOCATION 10)

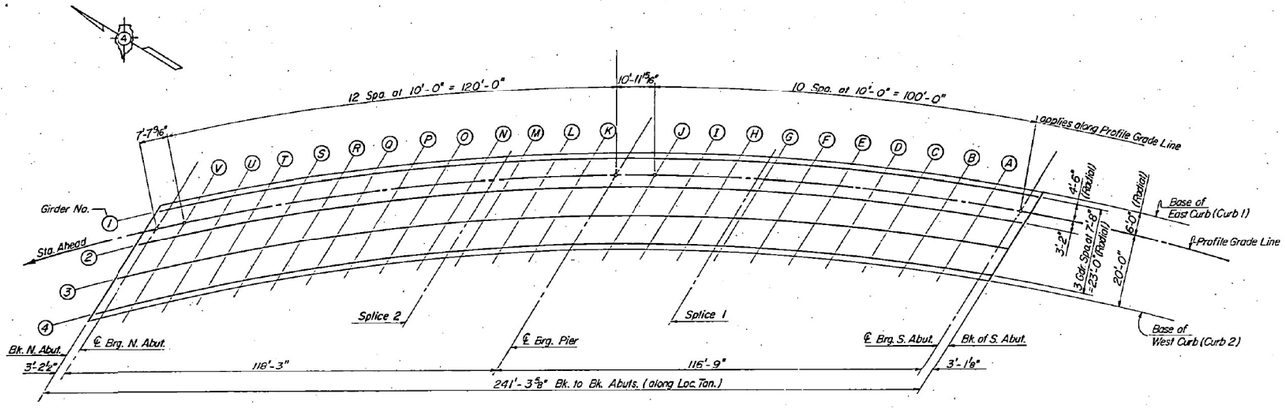
LOCATION 10

090-0124

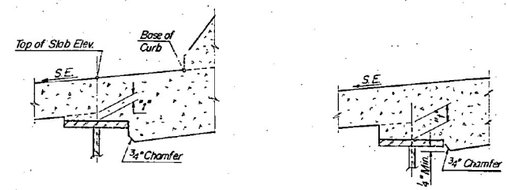
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. R. I. F. A. P. 49	18 HB	TAZEWELL	32	9
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 3
15 SHEETS

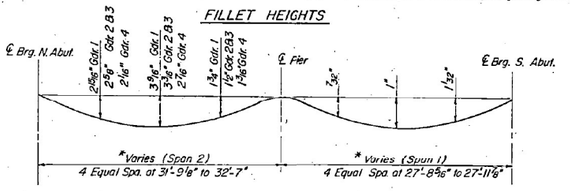


PLAN



To determine 'f': After all structural steel has been erected, elevations at the top flanges of the girders shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflections" shown below, minus slab thickness, equals the fillet height "f" above the top flanges of girders.

FILLET HEIGHTS



DEAD LOAD DEFLECTION DIAGRAM
(Includes weight of slab and parapets)

CURB NO. 1

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
BK. S. ABUT	968.710	-4.500	813.036	813.036
℄ BRG. S. ABUT.	971.505	-4.500	813.083	813.083
A	981.431	-4.500	813.241	813.280
B	991.357	-4.500	813.387	813.458
C	1001.283	-4.500	813.523	813.614
D	1011.209	-4.500	813.648	813.744
E	1021.135	-4.500	813.762	813.849
F	1031.061	-4.500	813.865	813.933
G	1040.987	-4.500	813.957	813.992
SPLICE 1	1042.754	-4.500	813.973	813.007
H	1050.913	-4.500	813.038	813.051
I	1060.839	-4.500	813.108	813.101
J	1070.765	-4.500	813.168	813.154
℄ PIER	1081.445	-4.500	813.219	813.219
K	1091.391	-4.500	813.255	813.298

GIRDER NO. 1

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
L	1101.317	-4.500	813.381	813.345
M	1111.243	-4.500	813.395	813.437
SPLICE 2	1115.213	-4.500	813.398	813.443
N	1121.169	-4.500	813.398	813.502
O	1131.095	-4.500	813.391	813.559
P	1141.021	-4.500	813.373	813.569
Q	1150.947	-4.500	813.342	813.557
R	1160.873	-4.500	813.301	813.512
S	1170.799	-4.500	813.250	813.434
T	1180.724	-4.500	813.088	813.317
U	1190.650	-4.500	813.014	813.168
V	1200.576	-4.500	812.930	812.996
℄ BRG. N. ABUT.	1211.313	-4.500	812.826	812.826
BK. N. ABUT.	1207.563	-4.500	812.864	812.864

The above deflections are not to be used in the field if the Engineer is working from the grade elevations adjusted for dead load deflections as shown in tabular form.

*Refer to Sheet 8 for girder lengths.

TOP OF SLAB ELEVATIONS
RAMP B - O.R. 24 OVER F.A.P. 49
F.A.P. ROUTE 49 SEC. 18 HB
TAZEWELL COUNTY
STA. 23 + 67.71 F.A.P. 49
STA. 10 + 84.26 RAMP B

DESIGNED	B.M.S.
CHECKED	G.E.P.
DRAWN	J.T.
CHECKED	G.E.P.

FOR INFORMATION ONLY

MODEL: Default
FILE NAME: C:\2Files\21381 IDOT - DIST 4 - PTB 201-033\Work Order 15 - FY 2023 Patching\18_Transportation\68H58 (Bridge Painting)\CADD Sheets\020_112 Old Rbn Sets.dgn

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 2 OF 8 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	81
		CONTRACT NO. 68H58		
	ILLINOIS	FED. AID PROJECT		

SN 090-0124 (LOCATION 10)

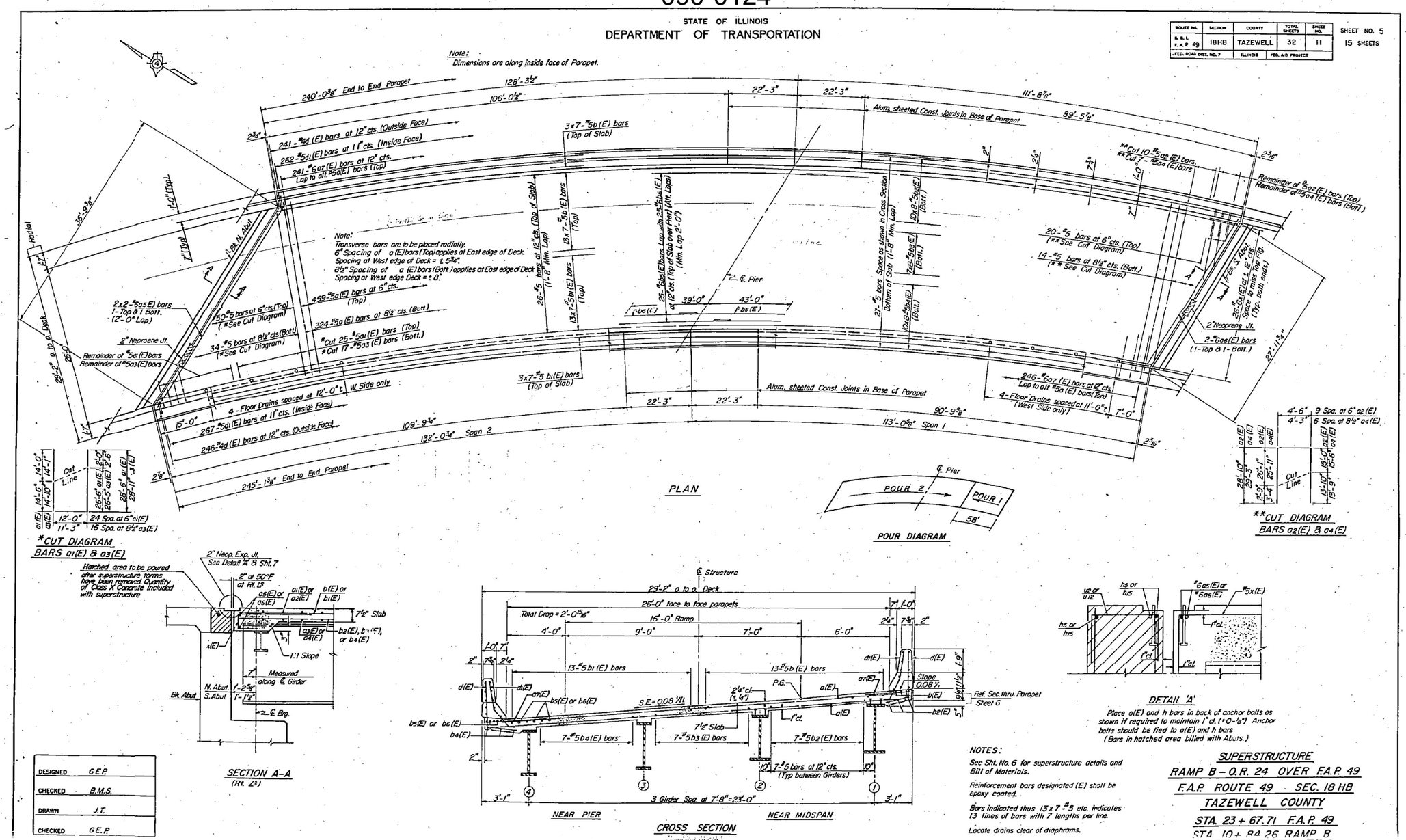
LOCATION 10

090-0124

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. F. A. P. 49	18HB	TAZEWELL	32	11
*FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 5
15 SHEETS



DESIGNED	G.E.P.
CHECKED	B.M.S.
DRAWN	J.T.
CHECKED	G.E.P.

NOTES:

See Sht. No. 6 for superstructure details and Bill of Materials.

Reinforcement bars designated (E) shall be epoxy coated.

Bars indicated thus 13 x 7 - #5 etc. indicates 13 lines of bars with 7 lengths per line.

Locate drains clear of diaphrams.

SUPERSTRUCTURE

RAMP B - O.R. 24 OVER F.A.P. 49

F.A.P. ROUTE 49 - SEC. 18 HB

TAZEWELL COUNTY

STA. 23 + 67.71 F.A.P. 49

STA. 10 + 84.26 RAMP B

FOR INFORMATION ONLY

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PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 3 OF 8 SHEETS | STA. N/A | TO STA. N/A

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	82
		CONTRACT NO. 68H58		
	ILLINOIS FED. AID PROJECT			

SN 090-0124 (LOCATION 10)

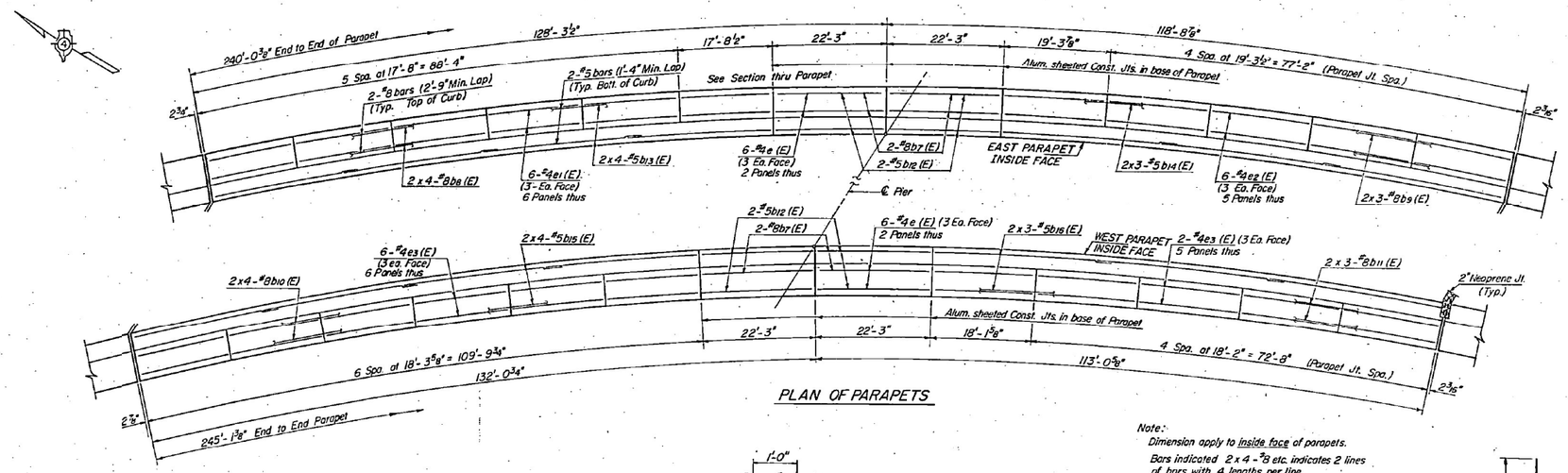
LOCATION 10

090-0124

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

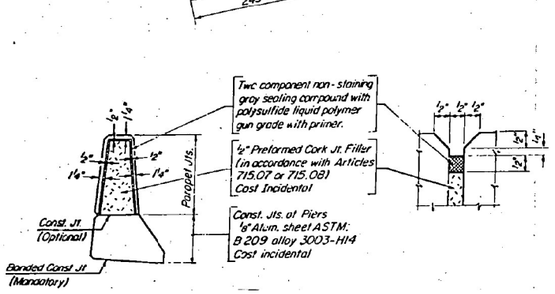
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. F. A. P. 49	18HB	TAZEWELL	32	12
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 6
15 SHEETS

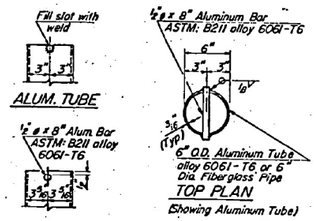


PLAN OF PARAPETS

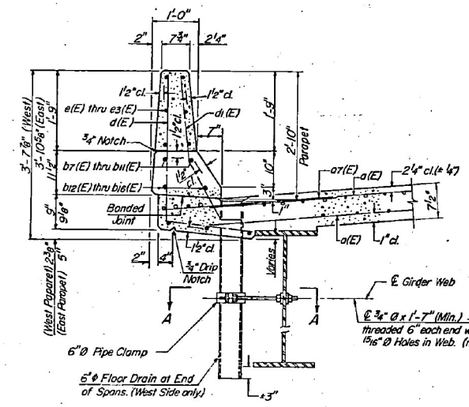
Note:
Dimension apply to inside face of parapets.
Bars indicated 2 x 4 - #8 etc. indicates 2 lines of bars with 4 lengths per line.



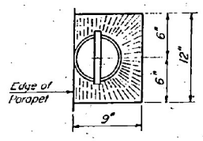
PARAPET JOINT DETAILS



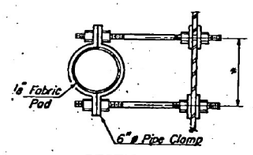
FLOOR DRAIN DETAILS
(See General Plan for Spacing)



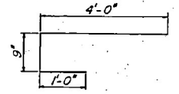
SECTION THRU PARAPET
(West Parapet Shown)



TOP PLAN

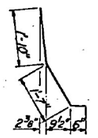


SECTION A-A
* Dimensions as required by Pipe-Clamp



BAR x(E)

BAR d



BAR d1 (E)

NOTE:
The exterior surfaces of the Floor Drain shall be painted with the vinyl enamel coat painting specified for Structural Steel. The exterior surfaces of the Aluminum tube shall be cleaned and given a washcoat pretreatment in accordance with Steel Structures Painting Council's Spec. SSPC - SP1 & SSPC - Paint 27 prior to painting.
Fiberglass pipe shall conform to ASTM D2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum. The surface of the Fiberglass pipe shall be free of bond inhibiting agents.

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a (E)	783	#5	27'-3"	—
a1(E)	25	#5	28'-6"	—
a2(E)	10	#5	28'-10"	—
a3(E)	17	#5	28'-11"	—
a4(E)	7	#5	29'-3"	—
a5(E)	4	#6	19'-10"	—
a6(E)	2	#6	29'-0"	—
a7(E)	487	#6	4'-0"	—
b (E)	112	#5	36'-0"	—
b1(E)	112	#5	36'-5"	—
b2(E)	80	#5	31'-8"	—
b3(E)	56	#5	31'-10"	—
b4(E)	80	#5	32'-1"	—
b5(E)	31	#6	45'-0"	—
b6(E)	31	#6	39'-0"	—
br(E)	8	#8	22'-0"	—
b8(E)	8	#8	28'-3"	—
b9(E)	6	#8	33'-11"	—
b10(E)	8	#8	29'-6"	—
b11(E)	6	#8	32'-0"	—
b12(E)	8	#5	22'-0"	—
b13(E)	8	#5	25'-5"	—
b14(E)	6	#5	33'-0"	—
b15(E)	8	#5	28'-5"	—
b16(E)	6	#5	31'-1"	—
d (E)	487	#4	5'-1"	⌐
d1(E)	529	#5	3'-11"	⌐
e (E)	24	#4	22'-0"	—
e1 (E)	36	#4	17'-5"	—
e2(E)	30	#4	19'-0"	—
e3(E)	66	#4	15'-0"	—
x(E)	52	#5	5'-9"	⊏
Class X Concrete			Cu Yds.	226.8
Reinf. Bars (Epoxy Coated)			Lbs.	56,590
Neoprene Exp. Jt. (2")			Lin. Ft.	71
Floor Drains			Ea.	8

SUPERSTRUCTURE DETAILS
RAMP B - O.R. 24 OVER F.A.P. 49
F.A.P. ROUTE 49 SEC. 18 HB
TAZEWELL COUNTY
STA. 23 + 67.71 F.A.P. 49
STA. 10 + 84.26 RAMP B

DESIGNED	G.E.P.
CHECKED	B.M.S.
DRAWN	J.T.
CHECKED	G.E.P.

FOR INFORMATION ONLY

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PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 4 OF 8 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	83
		CONTRACT NO. 68H58		
	ILLINOIS	FED. AID PROJECT		

SN 090-0124 (LOCATION 10)

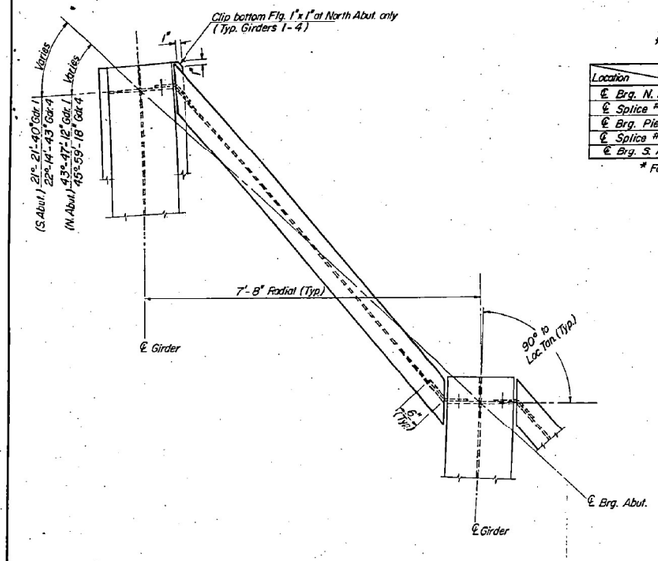
LOCATION 10

090-0124

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 49	18HB	TAZEWELL	32	15
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 9
15 SHEETS



*TOP OF WEB ELEVATIONS

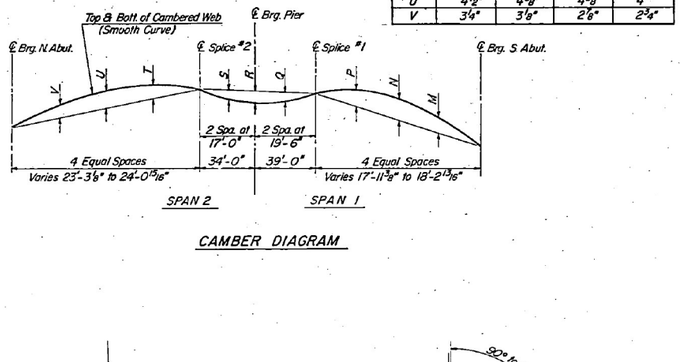
Location \ Girder	Girder #1	Girder #2	Girder #3	Girder #4
℄ Brg. N. Abut.	812.06	811.38	810.67	809.96
℄ Splice #1	812.11	811.54	810.97	810.40
℄ Brg. Pier	812.30	811.70	811.10	810.48
℄ Splice #2	812.56	811.93	811.30	810.65
℄ Brg. S. Abut.	811.22	810.72	810.15	809.59

* For Fabrication Only

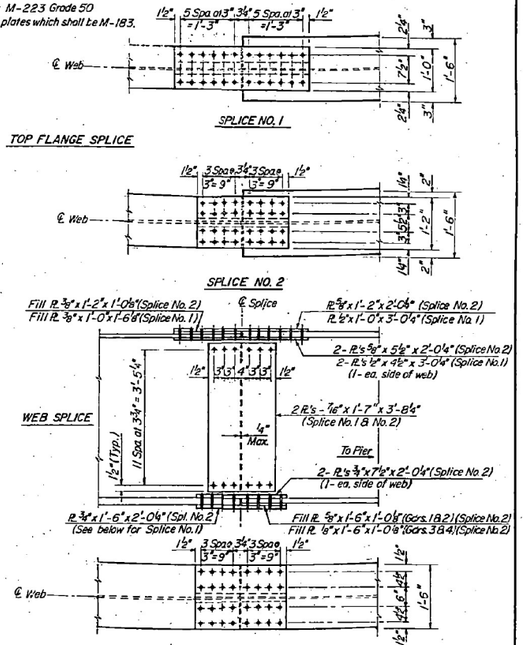
TABLE OF DIMENSIONS

	GIRDER 1	GIRDER 2	GIRDER 3	GIRDER 4
M	1'-9"	1'-8"	1'-8"	1'-8"
N	2'-9"	2'-9"	2'-9"	2'-9"
P	1'-4"	1'-8"	1'-3"	1'-2"
Q	5/8"	1/2"	3/8"	0"
R	3/4"	5/8"	1/2"	0"
S	5/8"	1/2"	3/8"	0"
T	3'-0"	3'-3/4"	2'-6"	2'-8"
U	4'-1/2"	4'-3/8"	4'-3/8"	4"
V	3'-4"	3'-1/8"	2'-6"	2'-8"

All bolts in splices are 7/8" ϕ High Strength, open holes shall be 15/16" ϕ.
All splice plates shall be M-223 Grade 50 Steel (N.T.R.) except fill plates which shall be M-183.



CAMBER DIAGRAM



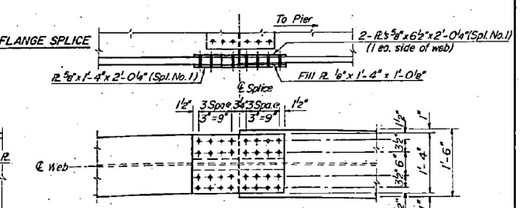
SPLICE NO. 1

TOP FLANGE SPLICE

SPLICE NO. 2

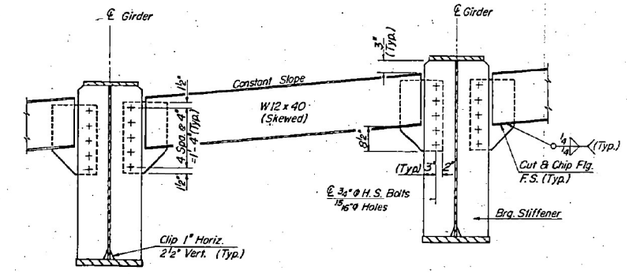
SPLICE NO. 2

BOTTOM FLANGE SPLICE

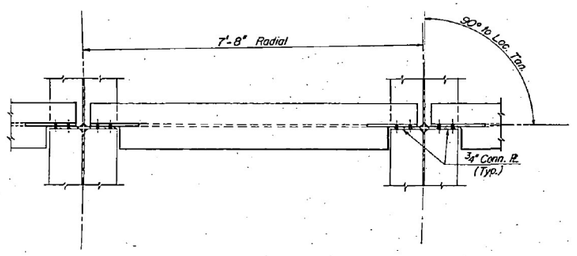


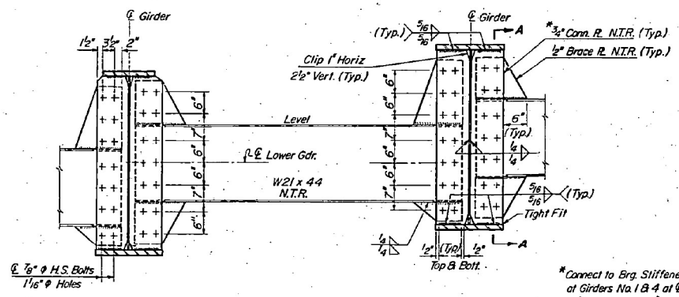
SPLICE NO. 1

FIELD SPLICE DETAILS
Splice No. 1 - 4 Req'd.
Splice No. 2 - 4 Req'd. as noted



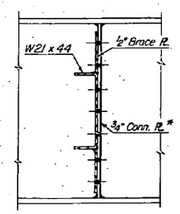
DIAPHRAGM D1 or D2





(NEAR MIDSPAN) DIAPHRAGM D (NEAR PIER)

(Welding Details Typ. for all locations.)



*Connect to Brg. Stiffener at Girders No. 1 & 4 at ℄ Pier 8 1/2" width for 18" Flg's. 7 1/2" width for 16" Flg's.

SECTION A-A

Diaphragms D, D1, D2, and Diaphram's D1 & D2 Connection Plates shall be M-183 Steel.

Diaphragm's D Connection Plates shall be M-223 Grade 50 Steel.

Two hardened washers shall be required over all diaphragm connections.

DESIGNED	BMS / D.V.K.
CHECKED	GEP
DRAWN	JT
CHECKED	GEP

STRUCTURAL STEEL DETAILS
RAMP B - O.R. 24 OVER F.A.P. 49
F.A.P. ROUTE 49 SEC. 18 HB
TAZEWELL COUNTY
STA. 23+67.71 F.A.P. 49
STA. 10+84.26 RAMP B

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PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 5 OF 8 SHEETS | STA. N/A | TO STA. N/A

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	84
		CONTRACT NO. 68H58		
	ILLINOIS FED. AID PROJECT			

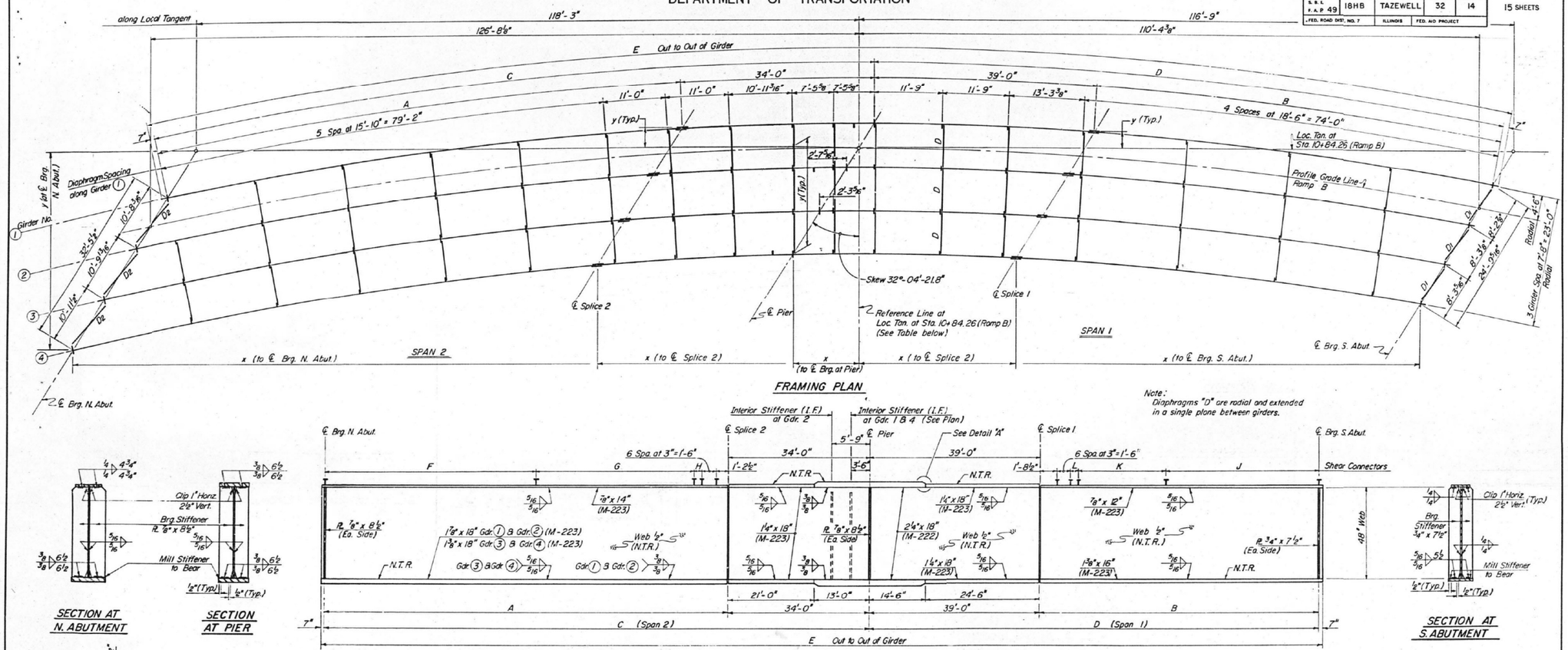
SN 090-0124 (LOCATION 10)

LOCATION 10
090-0124

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. R. S. F. A. P. 49	18HB	TAZEWELL	32	14
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 8
15 SHEETS



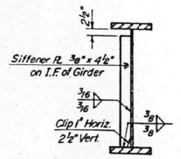
FRAMING PLAN

Note:
Diaphragms "D" are radial and extended in a single plane between girders.

SECTION AT N. ABUTMENT

SECTION AT PIER

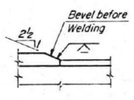
SECTION AT S. ABUTMENT



SECTION AT INTERIOR STIFFENER

Top Flanges and Bottom Flanges shall be M-223 Grade 50 or M-222 Steel.
Web, Bearing Stiffeners, and Special Diaphragms to be M-183 Steel.
N.T.R. denotes plates to which Notch Toughness Requirements are applicable.

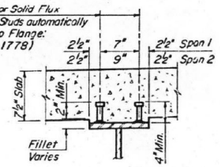
GIRDER ELEVATION



DETAIL "A"

TABLE OF DIMENSIONS				
	GIRDER 1	GIRDER 2	GIRDER 3	GIRDER 4
Radius	607.61	599.95	592.28	584.61
A	93'-0 7/16"	94'-0 3/8"	95'-1 5/16"	96'-3 1/16"
B	71'-9 3/8"	72'-1 3/8"	72'-6 3/8"	72'-11 1/4"
C	127'-0 7/16"	128'-0 3/4"	129'-1 5/16"	130'-3 1/16"
D	110'-9 3/8"	111'-1 3/8"	111'-6 5/16"	111'-11 1/4"
E	238'-11 13/16"	240'-1 9/16"	241'-10 7/16"	243'-5 1/16"
F	55 Spa. at 11"=50'-5"	53 Spa. at 11"=48'-7"	55 Spa. at 11"=50'-5"	56 Spa. at 11"=51'-4"
G	47 Spa. at 10"=39'-2"	51 Spa. at 10"=42'-6"	50 Spa. at 10"=41'-8"	50 Spa. at 10"=41'-8"
H	6 15/16"	3 1/4"	4 5/16"	7 5/16"
J	53 Spa. at 10"=44'-2"	53 Spa. at 10"=44'-2"	53 Spa. at 10"=44'-2"	53 Spa. at 10"=44'-2"
K	48 Spa. at 6"=24'-0"	49 Spa. at 6"=24'-6"	49 Spa. at 6"=24'-6"	50 Spa. at 6"=25'-0"
L	4 1/8"	3 1/4"	7 1/8"	6 3/4"

LAYOUT DIMENSIONS (in feet)												
Girder	N. Abut.		Spl. 2		Pier		Spl. 1		S. Abut.	
	X	Y	X	Y	X	Y	X	Y	X	Y
1	123'-4 3/8"	8'-1 7/8"	31'-2"	3'-3 3/8"	2'-9 3/8"	4'-5 7/8"	41'-9 3/8"	3'-0 3/4"	112'-11 1/4"	6'-1"
2	129'-0 3/8"	17'-2 5/8"	35'-1 5/8"	4'-3"	1'-11 7/8"	3'-2"	36'-11 7/8"	4'-3 3/4"	108'-6 3/4"	13'-0 7/8"
3	134'-9 1/4"	26'-4 5/8"	40'-9 5/8"	12'-2 7/8"	6'-9 3/8"	10'-10 5/8"	32'-2"	11'-8 1/2"	104'-2 5/8"	20'-0 3/4"
4	140'-7 5/8"	35'-7 3/8"	45'-7 1/2"	20'-3 3/8"	11'-8"	18'-7 1/8"	27'-3 7/8"	19'-1 5/8"	99'-9 3/8"	27'-1"



SECTION THRU SLAB

STRUCTURAL STEEL DETAILS
RAMP B - O.R. 24 OVER F.A.P. 49
F.A.P. ROUTE 49 SEC. 18 HB
TAZEWELL COUNTY
STA. 23+67.71 F.A.P. 49
STA. 10+84.26 RAMP B

DESIGNED	B.M.S / D.V.K.
CHECKED	G.E.P.
DRAWN	J.T.
TRACED	

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PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 6 OF 8 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	85
		CONTRACT NO. 68H58		
		ILLINOIS	FED. AID PROJECT	

MODEL: Default
FILE NAME: O:\2Files\213081 IDOT - DIST 4 - PTB 201-033\Work Order 15 - FY 2023 Patching\B_Transcription\68H58 (Bridge Painting)\CADD Sheets\020_L12_Old P&in. Sets.dgn

SN 090-0124 (LOCATION 10)

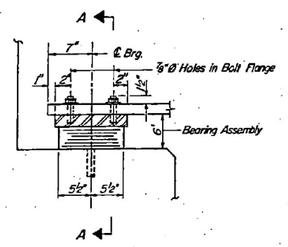
LOCATION 10

090-0124

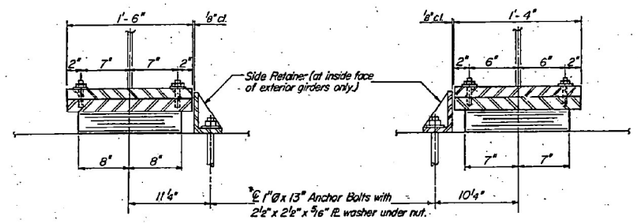
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. F. A. R. 49	18HB	TAZEWELL	32	16
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 10
15 SHEETS

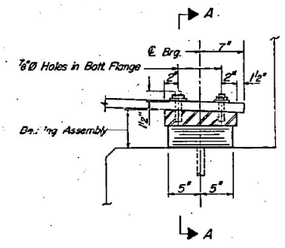


N. ABUT. EXP. BRG.



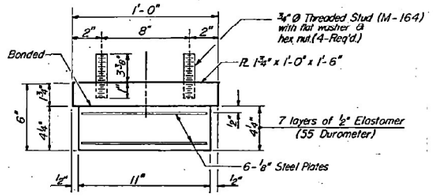
SECTION A-A

SECTION A-A



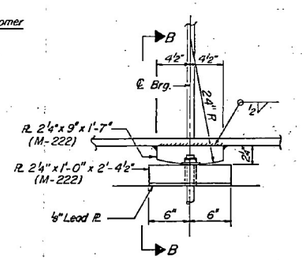
S. ABUT. EXP. BRG.

*Note: After girders have been erected holes at expansion bearings shall be drilled and anchor bolts grouted in place. Anchor bolts at fixed bearings may be built into the masonry.

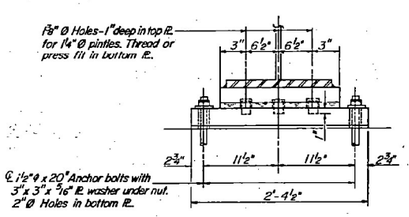


N. ABUT. BRG. ASSEMBLY

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

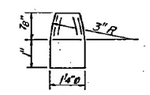


ELEVATION AT PIER

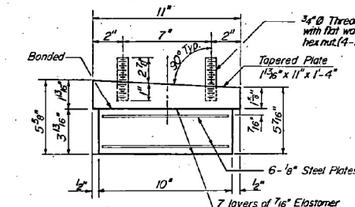


SECTION B-B

FIXED BEARINGS



PINTLE

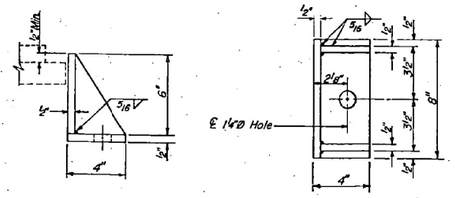


S. ABUT. BRG. ASSEMBLY

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

EXTERIOR GIRDER MOMENT TABLE			
	0.4 Sp 1	Pier	0.6 Sp 2
Is (in⁴)	22,838	55,775	28,722
Ic (in⁴)	59,778	——	76,972
Ss (in³)	1,125	2,125	1,584
Sc (in³)	1,513	——	2,084
℄ (K/I)	0.97	1.49	0.99
# M ℄ (K)	615	3,050	1,421
# s ℄ (K/I)	0.368	——	0.368
# Ms ℄ (K)	308	——	581
# M L (K)	1,091	1,012	1,362
M Imp (K)	231	208	270
⅔ (M L + I) (K)	2,203	2,033	2,720
Ma (K)	4,064	6,608	6,140
# fs ℄ non-comp (k.s.i.)	6.6	17.2	10.8
# fs ℄ comp (k.s.i.)	27	——	3.6
# fs ⅔ (M L + I) (k.s.i.)	17.5	11.5	15.7
## fw warping (k.s.i.)	7.3	2.9	4.7
* fs Overload (k.s.i.)	34.1	31.6	34.8
* fs Total (k.s.i.)	34.8	37.3	39.1
VR (K)	62.8	——	61.0

Includes effect of secondary forces.
Factored normal warping stress due to curvature.
* Includes stress due to secondary forces & centrifugal loads.
Is and Ss are the moment of inertia and section modulus of the steel section used in computing fs (Overload & Total).
Ic and Sc are the moment of inertia and section modulus of the composite section used in computing fs (Overload & Total).
VR is the maximum L + Impact shear range in span.
Ma (Applied Moment) = 1.3 [M ℄ + Ms ℄ + ⅔ (M L + I + centrifugal)]
fs (Overload) is the sum of stresses due to M ℄ + Ms ℄ + ⅔ (M L + I + centrifugal)
fs (Total) is the sum of the flexural stresses due to 1.3 [M ℄ + Ms ℄ + ⅔ (M L + I + centrifugal)].



SIDE RETAINER

Note:
An equivalent rolled angle with welded triangular R's. will be allowed in lieu of the welded R. assembly.

NOTES:
All bearing plates shall conform to the requirements of AASHTO M-223 Grade 50 unless otherwise noted.

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Elastomeric Bearing Assembly Type I	Each	8

EXTERIOR GIRDER REACTION TABLE			
	N. Abut	Pier	S. Abut
R ℄ (K)	66.1	209.2	49.7
R L (K)	42.6	77.4	41.8
Imp (K)	8.4	15.9	8.9
R Total (K)	117.1	302.5	100.4
R Secondary (K)	16.0	-2.8	5.7
R Total (K)	133.1	299.7	106.1

BEARING ASSEMBLY DETAILS
RAMP B - O.R. 24 OVER F.A.P. 49
F.A.P. ROUTE 49 SEC. 18 HB
TAZEWELL COUNTY
STA. 23 + 67.71 F.A.P. 49
STA. 10 + 84.26 RAMP B

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DRAWN	T.A.H.
CHECKED	B.M.S.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE PLAN SETS

SCALE: NONE | SHEET 7 OF 8 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	86
		CONTRACT NO. 68H58		
	ILLINOIS FED. AID PROJECT			

SN 090-0124 (LOCATION 10)

LOCATION 10

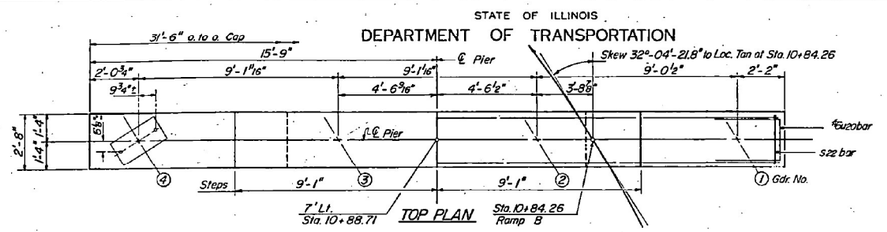
090-0124

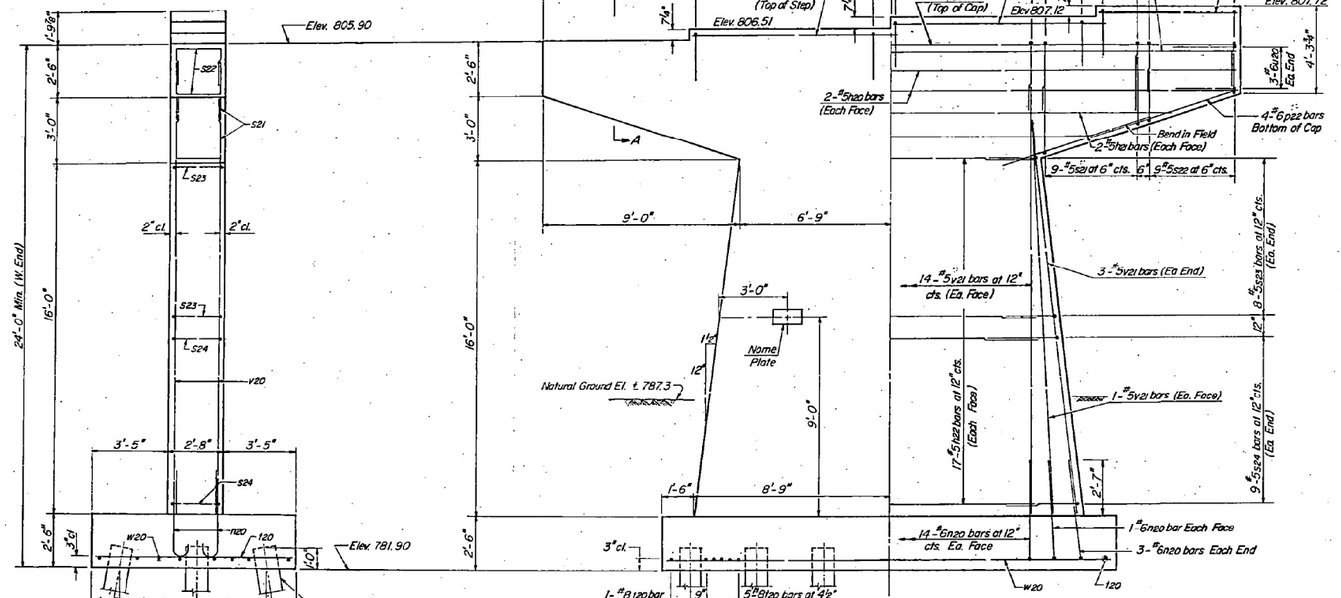
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

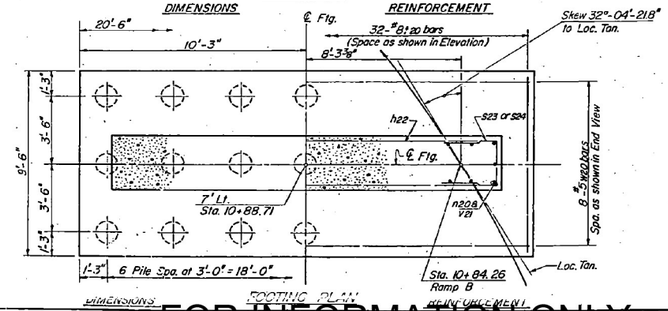
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. F.A.P. 49	18HB	TAZEWELL	32	19
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

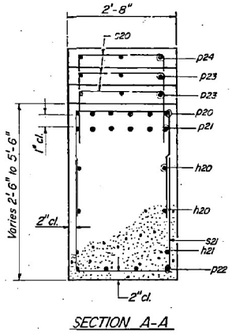
SHEET NO. 13
15 SHEETS

NOTES:
Space reinforcement in cap to miss anchor bolts.
All edges shall have standard ¾" chamfers except as noted.
Pour steps monolithically with cap.

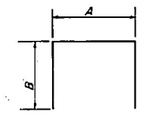








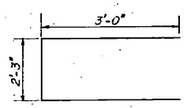
SECTION A-A



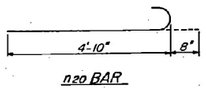
A&B DIMENSIONS

Bar	A	B
s20	2'-0"	2'-0"
s21	2'-4"	3'-1"
s22	2'-4"	2'-2"
s23	2'-4"	2'-6"
s24	2'-4"	3'-6"

s BARS



u20 BAR



n20 BAR

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h20	4	#5	31'-2"	——
h21	4	#5	26'-2"	——
h22	34	#5	13'-2"	——
n20	38	#6	5'-6"	⊃
p20	6	#10	31'-2"	——
p21	6	#9	31'-2"	——
p22	8	#6	11'-3"	——
p23	6	#5	9'-0"	——
p24	3	#5	6'-5"	——
s20	25	#5	6'-0"	⊓
s21	50	#5	8'-6"	⊓⊓
s22	36	#5	6'-8"	⊓⊓
s23	16	#5	7'-4"	⊓⊓
s24	18	#5	9'-4"	⊓⊓
t20	32	#8	9'-2"	——
u20	6	#6	8'-3"	⊏
v20	28	#5	19'-2"	——
v21	10	#5	18'-0"	——
w20	8	#5	20'-2"	——
Class X Concrete		Cu Yds.	598	
Reinforcement Bars		Lbs.	5590	
Concrete Piles		Lin. Ft.	924	

PILE DATA
Type Concrete
Capacity 42 T
Est. Length 44'
No. Req'd. 21

DESIGNED	G.E.P.
CHECKED	B.M.S.
DRAWN	J.T.
CHECKED	B.M.S.

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RAMP B – O.R. 24 OVER F.A.P. 49
F.A.P. ROUTE 49 SEC. 18 HB
TAZEWELL COUNTY
STA. 23+67.71 F.A.P. 49
STA. 10+84.26 RAMP B

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DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 8 OF 8 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	87
		CONTRACT NO. 68H58		
		ILLINOIS	FED. AID PROJECT	

LOCATION 11
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 1 OF 11 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	88
		CONTRACT NO. 68H58		
	ILLINOIS	FED. AID PROJECT		

LOCATION 11
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DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 1 OF 11 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	89
		CONTRACT NO. 68H58		
	ILLINOIS	FED. AID PROJECT		

LOCATION 11
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DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 1 OF 11 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	90
		CONTRACT NO. 68H58		
	ILLINOIS	FED. AID PROJECT		

LOCATION 11
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 1 OF 11 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	91
		CONTRACT NO. 68H58		
	ILLINOIS	FED. AID PROJECT		

LOCATION 11
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 1 OF 11 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	92
		CONTRACT NO. 68H58		
	ILLINOIS	FED. AID PROJECT		

LOCATION 11
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	DRAWN - RTB	REVISED -	
PLOT SCALE = 100.0000 ' / in.	CHECKED - MCL	REVISED -	
PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 1 OF 11 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	93
		CONTRACT NO. 68H58		
	ILLINOIS	FED. AID PROJECT		

LOCATION 11
DELETED

MODEL: Default
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KLINGNER & ASSOCIATES, P.C.
Engineers • Architects • Surveyors
www.klingner.com
Galesburg, Illinois
49 South Prairie Street
309 342 4042
Columbia, IL | Hannibal, MO
Burlington, IA Perry, IA Columbia, MO
Joliet, IA Carbondale, IL

USER NAME = rbailey	DESIGNED - RTB	REVISED -	
	DRAWN - RTB	REVISED -	
PLOT SCALE = 100.0000 ' / in.	CHECKED - MCL	REVISED -	
PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 1 OF 11 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	94
		CONTRACT NO. 68H58		
	ILLINOIS	FED. AID PROJECT		

SN 102-0012 (LOCATION 12)

LOCATION 12

102-0012

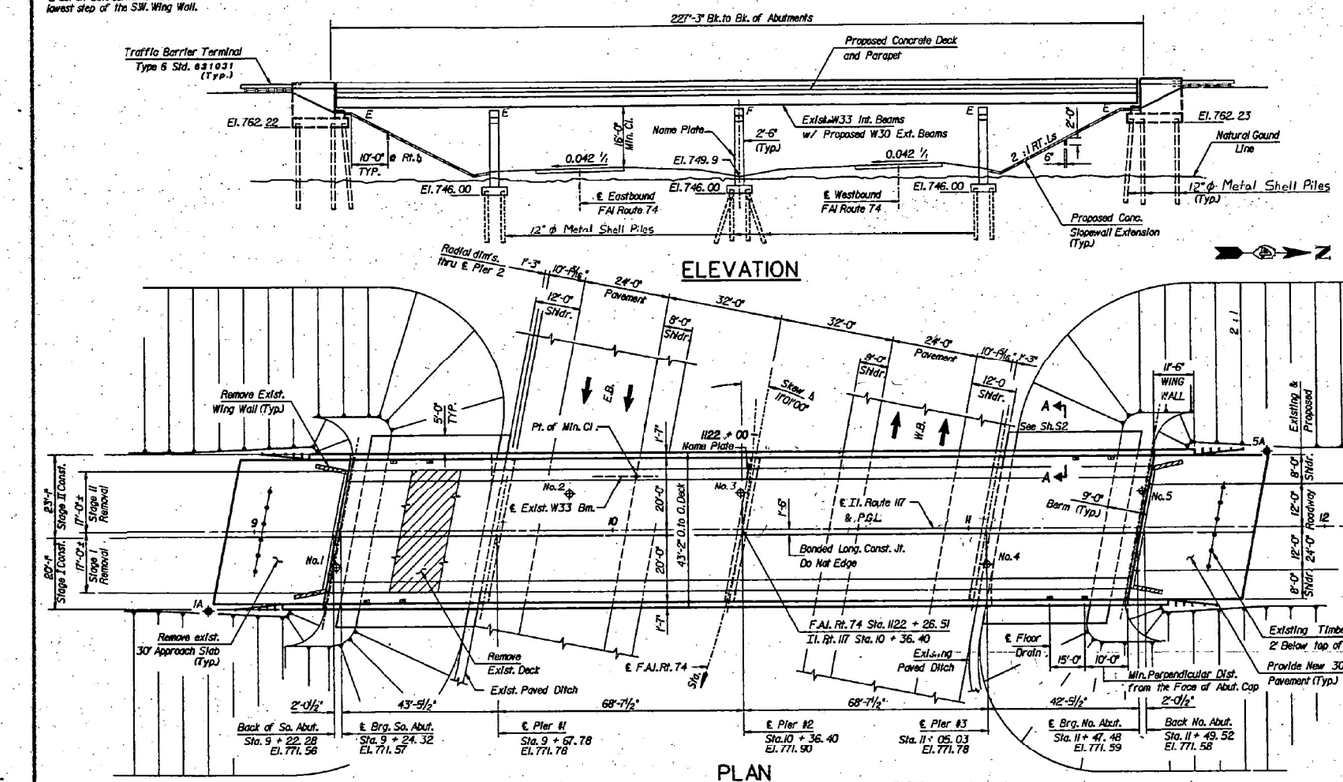
		COUNTY		SHEET NO.
S.N.S.H.P.	03-16	WOODFORD		12
F.A.	HB-1BY			
PROJ. PRINT CERT. NO.	PLANNING	PROJ. ASS. PROJECT		

SHEET NO. 51 OF S21 SHEETS

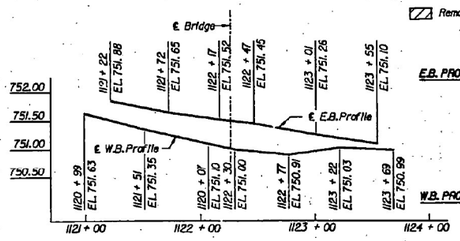
Bench Mark:

B.M. # 1 El. 772.93
"d" cut on S.W. corner of the lowest step of the S.W. Wing Wall.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



PLAN



PROFILE GRADE LINE
F.A.I. ROUTE 74 (LOOKING NORTH)

LEGEND
- New Boring Location
- Original Boring Location
- Removal of Existing Concrete Deck

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
SANDOR FERENCZI
81-3253
CHICAGO
LICENSED STRUCTURAL ENGINEER
License Expires: 11-30-96
Date: 07-09-96

EXISTING STRUCTURE DESCRIPTION:

The existing structure is a four span continuous wide flange multi-stringer and concrete deck.
The total length back to back of abutments is 227.25'. The spans are 43'-5½", 2 @ 68'-7½" and 42'-5½".
The out to out dimension of the structure is 34'-0".
The abutments are pile bent type.
The two-column piers are supported on timber piles.
No salvage.

STAGING INSTRUCTION:

One lane of traffic will be open. Staging will be accomplished by using traffic activated signals.

HORIZONTAL CURVE DATA ALONG ℄ F.A.I. ROUTE 74

P.I. Sta. = 112 + 22.65
= 26°-04'-34"
D = 1°-30'
R = 3819.72
T = 884.52
L = 1738.41
E = 101.08
P.C. Sta. = 111 + 38.13
P.T. Sta. = 1130 + 76.54
S.E. = .042 Ft/Ft.

DESIGN SPECIFICATIONS

1992 AASHTO and 1993 Interims
Seismic Retrofitting Guidelines for Highway Bridges FHWA/RD-83/007
Applies only at new bearing locations

LOADING HS20

Allow 25#/sq. ft. for future wearing surface.

DESIGN STRESSES

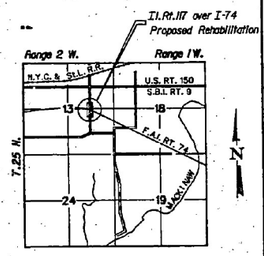
NEW DECK & REHAB. STRUCTURE
f'_c = 3,500 psi
f_y = 60,000 psi (Reinf.)
f_s = 20,000 psi (New Beams)
(M270 Grade 36 Structural Steel)

EXISTING STRUCTURE
f_c = 1,400 psi (Super. & Sub. No Earth Pre.)
f_c = 1,000 psi (Sub. with Earth Pre.)
n = 10
f'_s = 20,000 psi Reinf.
f'_s = 20,000 psi Struct. (A.S.T.M. A36)

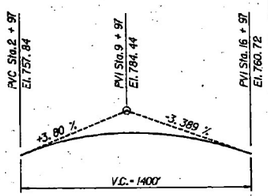
SEISMIC DATA

S.P.C. = "A"
A = 0.043
S = 1.0

BOWMAN, BARRETT & ASSOCIATES INC.
CONSULTING ENGINEERS
233 N. MICHIGAN AVENUE
CHICAGO, ILLINOIS 60601
JOB NO. 149



LOCATION SKETCH



PROFILE GRADE LINE
IL. ROUTE 117 (LOOKING WEST)
ALONG ℄ ROADWAY

SCOPE OF WORK

Replace deck.
Add one line of beams each side.
Replace all Abutment Bearings with Std. Elastomeric Bearings on new individual Pedestals.
Widen piers, abutments and slope walls.
Construct now wing walls.

STATION 1122 + 26.51
REBUILT 199_ BY
STATE OF ILLINOIS
F.A.I. RT. 74 SEC. (X3-16HB-1BY
F.A. PROJ.
LOADING HS20
STR. NO. 102-0012

NAME PLATE
See Std. 515001

NOTE: Existing name plates on piers 1 & 3 shall remain.

GENERAL PLAN
IL. RTE. 117 SEC. (X3-16HB-1) BY
WOODFORD COUNTY
STATION 10+36.40
S.N. 102-0012

SCALE: NOT TO SCALE
DATE: 12-06-93
REVISED: 04-08-94
DRAWN BY: EBP & CSL
CHECKED BY: RDC

FOR INFORMATION ONLY

MODEL: Default
FILE NAME: D:\2 Files\21308 | IDOT - DIST 4 - PTB 201-033\Work Order 15 - FY 2023 Patching\18.Transportation\68H58 (Bridge Painting)\CADD Sheets\020_112 Old Main Section.dgn
J:\proj\48\vr117\bpe70.dgn pr1, dd1: 07-09-96

KLINGNER & ASSOCIATES, P.C. Engineers • Architects • Surveyors www.klingner.com Galesburg, Illinois 309/343-4063	USER NAME = rbailey	DESIGNED - RTB	REVISED -
		DRAWN - RTB	REVISED -
	PLOT SCALE = 100.0000 ' / in.	CHECKED - MCL	REVISED -
	PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

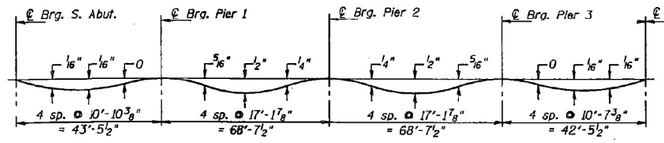
SCALE: NONE | SHEET 1 OF 7 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	95
		CONTRACT NO. 68H58		
		ILLINOIS	FED. AID PROJECT	

SN 102-0012 (LOCATION 12)

LOCATION 12

102-0012

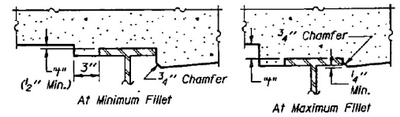


DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only)

Note: The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown below.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



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

FILLET HEIGHTS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.	(X3-16 HB-1)BY	WOODFORD	15	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 84 OF S21 SHEETS

W. GUTTER LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	926.17	-20.000	771.231	771.231
℄ Brg. S. Abut.	928.21	-20.000	771.243	771.243
A	938.21	-20.000	771.296	771.300
B	948.21	-20.000	771.344	771.348
C	958.21	-20.000	771.387	771.388
℄ Pier 1	971.67	-20.000	771.437	771.437
D	981.67	-20.000	771.468	771.477
E	991.67	-20.000	771.494	771.514
F	1001.67	-20.000	771.515	771.541
G	1011.67	-20.000	771.531	771.555
H	1021.67	-20.000	771.541	771.557
I	1031.67	-20.000	771.546	771.552
℄ Pier 2	1040.29	-20.000	771.547	771.547
J	1050.29	-20.000	771.543	771.548
K	1060.29	-20.000	771.533	771.550
L	1070.29	-20.000	771.519	771.544
M	1080.29	-20.000	771.499	771.525
N	1090.29	-20.000	771.474	771.494
O	1100.29	-20.000	771.444	771.453
℄ Pier 3	1108.92	-20.000	771.414	771.414
P	1118.92	-20.000	771.375	771.374
Q	1128.92	-20.000	771.330	771.333
R	1138.92	-20.000	771.281	771.284
℄ Brg. N. Abut.	1151.37	-20.000	771.211	771.211
Bk. N. Abut.	1153.41	-20.000	771.199	771.199

BEAM 1

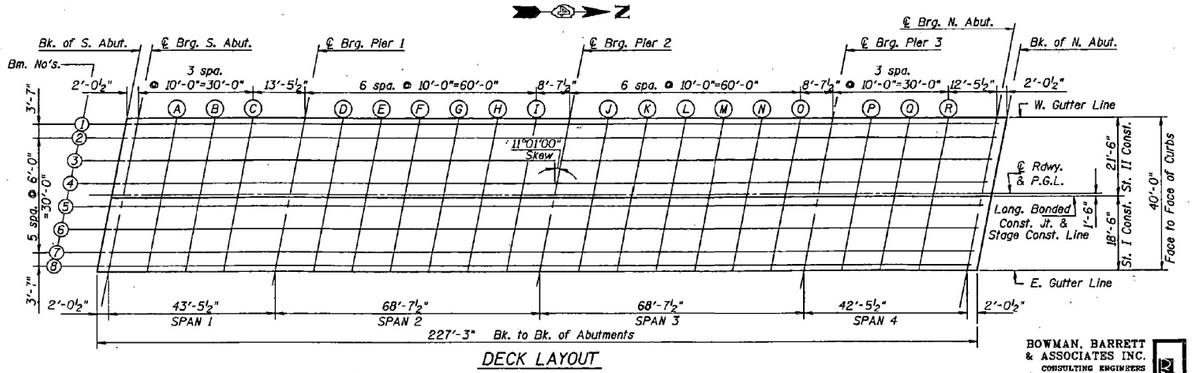
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	925.90	-18.583	771.259	771.259
℄ Brg. S. Abut.	927.94	-18.583	771.271	771.271
A	937.94	-18.583	771.324	771.328
B	947.94	-18.583	771.373	771.376
C	957.94	-18.583	771.416	771.417
℄ Pier 1	971.40	-18.583	771.466	771.466
D	981.40	-18.583	771.497	771.505
E	991.40	-18.583	771.523	771.542
F	1001.40	-18.583	771.544	771.570
G	1011.40	-18.583	771.560	771.584
H	1021.40	-18.583	771.570	771.586
I	1031.40	-18.583	771.576	771.581
℄ Pier 2	1040.02	-18.583	771.576	771.576
J	1050.02	-18.583	771.572	771.578
K	1060.02	-18.583	771.563	771.580
L	1070.02	-18.583	771.549	771.574
M	1080.02	-18.583	771.529	771.556
N	1090.02	-18.583	771.504	771.524
O	1100.02	-18.583	771.475	771.483
℄ Pier 3	1108.65	-18.583	771.445	771.445
P	1118.65	-18.583	771.406	771.405
Q	1128.65	-18.583	771.361	771.363
R	1138.65	-18.583	771.311	771.315
℄ Brg. N. Abut.	1151.10	-18.583	771.243	771.243
Bk. N. Abut.	1153.14	-18.583	771.231	771.231

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	924.03	-15.000	771.330	771.330
℄ Brg. S. Abut.	927.24	-15.000	771.342	771.342
A	937.24	-15.000	771.395	771.399
B	947.24	-15.000	771.444	771.448
C	957.24	-15.000	771.488	771.488
℄ Pier 1	970.70	-15.000	771.538	771.538
D	980.70	-15.000	771.570	771.578
E	990.70	-15.000	771.596	771.615
F	1000.70	-15.000	771.617	771.643
G	1010.70	-15.000	771.633	771.658
H	1020.70	-15.000	771.644	771.660
I	1030.70	-15.000	771.650	771.656
℄ Pier 2	1039.32	-15.000	771.651	771.651
J	1049.32	-15.000	771.647	771.653
K	1059.32	-15.000	771.639	771.655
L	1069.32	-15.000	771.624	771.650
M	1079.32	-15.000	771.605	771.632
N	1089.32	-15.000	771.581	771.601
O	1099.32	-15.000	771.552	771.560
℄ Pier 3	1107.95	-15.000	771.522	771.522
P	1117.95	-15.000	771.483	771.483
Q	1127.95	-15.000	771.439	771.441
R	1137.95	-15.000	771.390	771.393
℄ Brg. N. Abut.	1150.40	-15.000	771.321	771.321
Bk. N. Abut.	1152.44	-15.000	771.309	771.309

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	924.03	-9.000	771.433	771.433
℄ Brg. S. Abut.	926.07	-9.000	771.444	771.444
A	936.07	-9.000	771.499	771.502
B	946.07	-9.000	771.548	771.552
C	956.07	-9.000	771.592	771.593
℄ Pier 1	969.53	-9.000	771.644	771.644
D	979.53	-9.000	771.676	771.684
E	989.53	-9.000	771.703	771.722
F	999.53	-9.000	771.724	771.750
G	1009.53	-9.000	771.741	771.766
H	1019.53	-9.000	771.753	771.769
I	1029.53	-9.000	771.759	771.765
℄ Pier 2	1038.15	-9.000	771.761	771.761
J	1048.15	-9.000	771.757	771.763
K	1058.15	-9.000	771.749	771.766
L	1068.15	-9.000	771.736	771.761
M	1078.15	-9.000	771.717	771.744
N	1088.15	-9.000	771.694	771.713
O	1098.15	-9.000	771.665	771.673
℄ Pier 3	1106.78	-9.000	771.636	771.636
P	1116.78	-9.000	771.597	771.597
Q	1126.78	-9.000	771.554	771.556
R	1136.78	-9.000	771.505	771.509
℄ Brg. N. Abut.	1149.23	-9.000	771.438	771.438
Bk. N. Abut.	1151.27	-9.000	771.426	771.426



DECK LAYOUT

BOWMAN, BARRETT & ASSOCIATES INC.
CONSULTING ENGINEERS
233 N. MICHIGAN AVENUE
CHICAGO, ILLINOIS 60601
JOB NO. 149

DECK ELEVATIONS 1 OF 2

IL. RTE. 117, SEC. (X3-16HB-1) BY
WOODFORD COUNTY
STATION 10+36.40
S.N. 102-0012

SCALE: NOT TO SCALE — DRAWN BY: CSL
DATE: 12-06-93 — CHECKED BY: RDC & SF
REVISED: 04-08-94

FOR INFORMATION ONLY

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KLINGNER & ASSOCIATES, P.C.					
Engineers · Architects · Surveyors	USER NAME = rbailey	DESIGNED - RTB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	OLD BRIDGE PLAN SETS
Galesburg, Illinois		DRAWN - RTB	REVISED -		SCALE: NONE — SHEET 2 OF 7 SHEETS — STA. N/A — TO STA. N/A
	PLOT SCALE = 100.0000 ' / in.	CHECKED - MCL	REVISED -		
	PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -		

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	96
		CONTRACT NO. 68H58		
		ILLINOIS	FED. AID PROJECT	

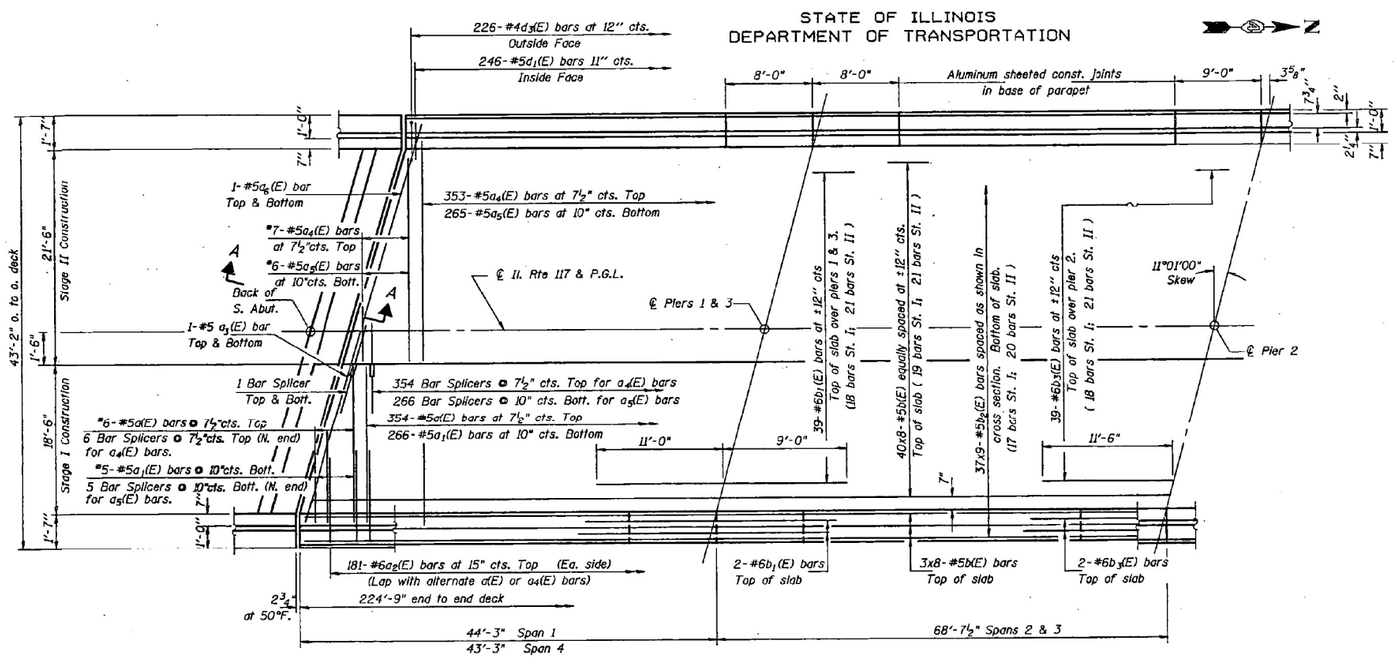
SN 102-0012 (LOCATION 12)

LOCATION 12

~~102-0012~~

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

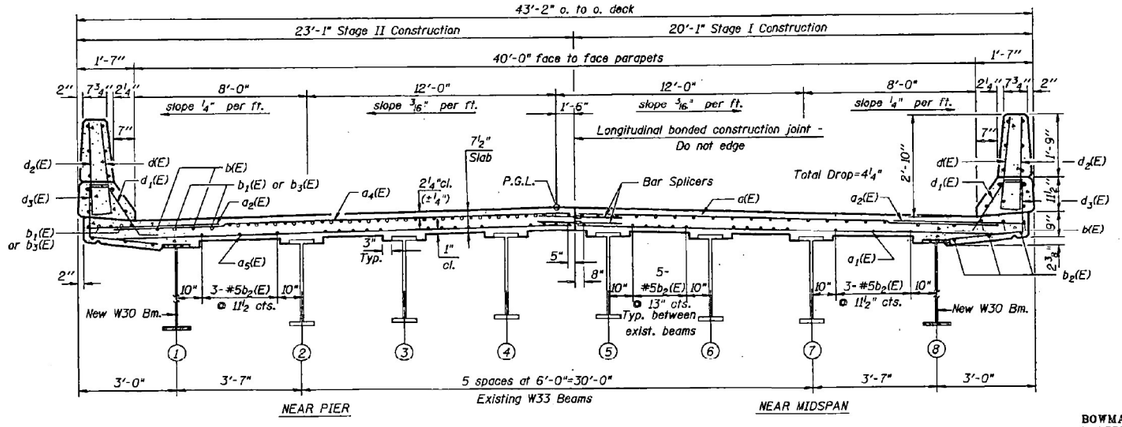
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P.	063-1HB	WOODFORD	11	SHEET NO. S6 OF S21 SHEETS
P.A.	HB-10DY			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		



* Order a(E), a_1(E) a_4(E) & a_5(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.

HALF PLAN

Showing S. half of Slab, North half similar by rotating about ℄ pier 2 except stage construction line and related details are different.



CROSS SECTION

(Looking North)

Notes: See Sheet S7 for superstructure details and Bill of Material.
Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 40x8-#5 etc. indicates 40 lines of bars with 8 lengths per line.
See Sheet S7 for parapet reinforcement.
Minimum bar lap for #5 to #5 reinforcement bars shall be 2'-2".

SUPERSTRUCTURE PLAN
IL. RTE. 117, SEC. (X3-16HB-1) BY
WOODFORD COUNTY
STATION 10+36.40
S.N. 102-0012

BOWMAN, BARRETT & ASSOCIATES INC.
CONSULTING ENGINEERS
130 E. RANDOLPH
CHICAGO, ILLINOIS 60601
JOB NO. 149

SCALE: NOT TO SCALE DRAWN BY: CSL
DATE: 12-06-93 CHECKED BY: LM
REVISED: 07-30-97

~~FOR INFORMATION ONLY~~

JOB\149\R117\149BDP70.DGN PRI. DATE 07-30-97

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KLINGNER & ASSOCIATES, P.C.
Engineers • Architects • Surveyors
www.klingner.com
Galesburg, Illinois
309.342.4042

USER NAME = rbailey	DESIGNED - RTB	REVISED -	
	DRAWN - RTB	REVISED -	
PLOT SCALE = 100.0000 ' / in.	CHECKED - MCL	REVISED -	
PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE PLAN SETS

SCALE: NONE | SHEET 3 OF 7 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	97
		CONTRACT NO. 68H58		
	ILLINOIS	FED. AID PROJECT		

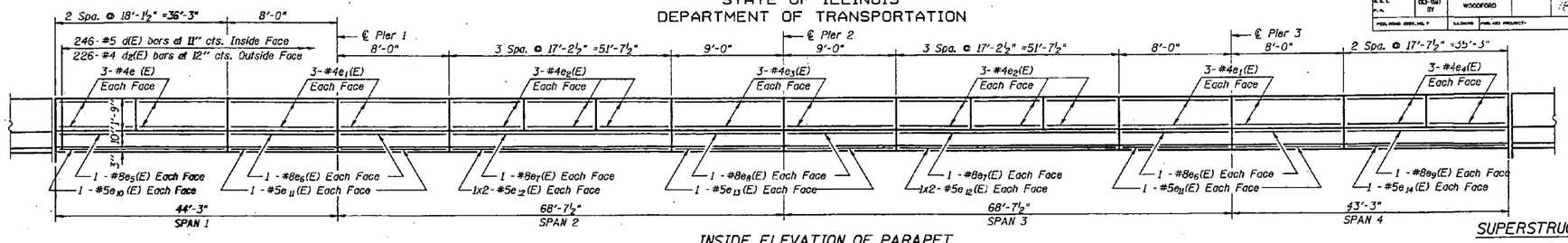
SN 102-0012 (LOCATION 12)

LOCATION 12

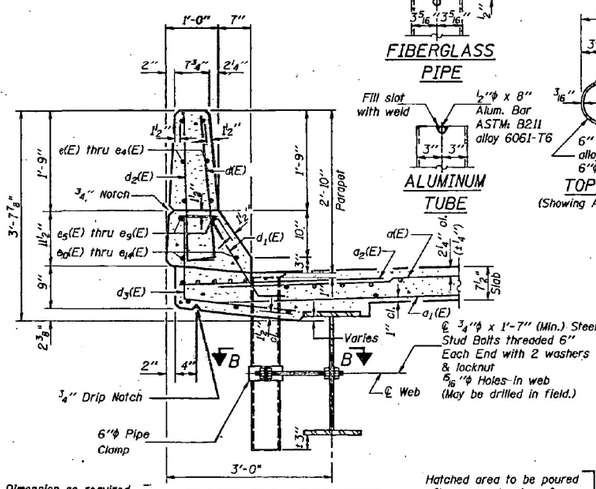
102-0012

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S.	(D3-1981) BY	WOODFORD		SHEET NO. 57 OF
F.A.				S21 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

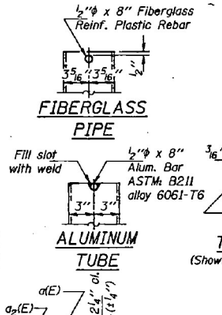
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

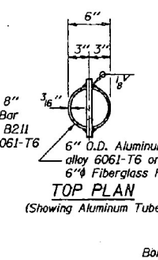


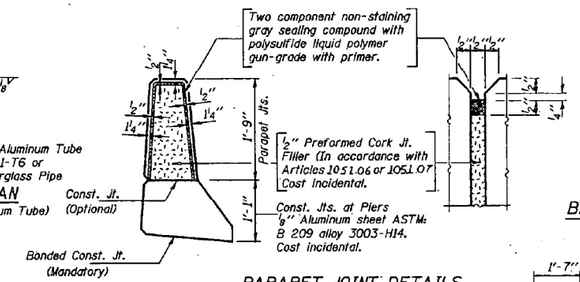
INSIDE ELEVATION OF PARAPET
WEST PARAPET SHOWN; EAST PARAPET SIMILAR



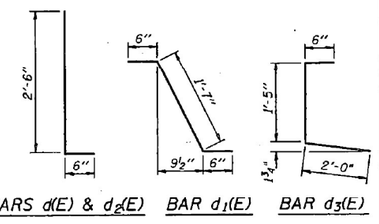
SECTION THRU PARAPET





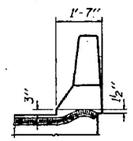


PARAPET JOINT DETAILS

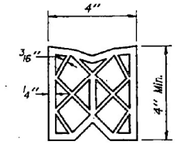


BARS d(E) & d2(E) BAR d1(E) BAR d3(E)

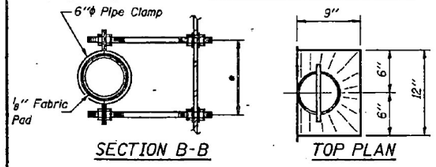
Notes:
The exterior surfaces of the Floor Drain shall be painted with the finish coat as specified in the Special Provisions for "Cleaning and Painting New Metal Structures".
The exterior surfaces of the drain shall be cleaned and given a washcoat pretreatment in accordance with Steel Structures Painting Council's Spec. SSPC-SP1 & SSPC-Paint 27 prior to painting.
Fiberglass pipe shall conform to ASTM: D2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum. The surface of the Fiberglass pipe shall be free of bond inhibiting agents.



END TREATMENT



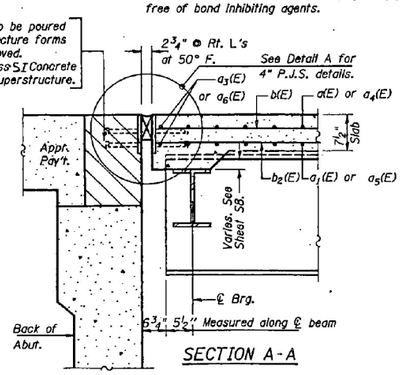
PREFORMED JOINT SEAL (4")



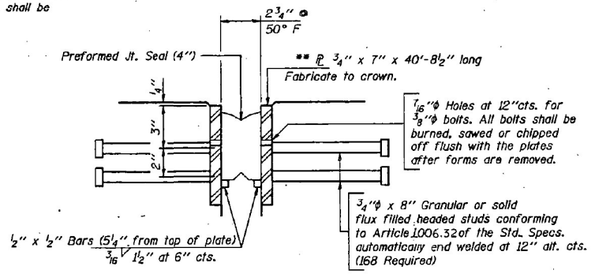
SECTION B-B

TOP PLAN

Hatched area to be poured after superstructure forms have been removed. Quantity of Class SI Concrete included with superstructure.



SECTION A-A



DETAIL A

** Furnish in segments of 20 ft. maximum length. Maximum space between installed segments shall be ⅛". Seal space with Silicone Sealant suitable for Structural Steel.

SUPERSTRUCTURE
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	360	#5	19'-4"	
a1(E)	271	#5	19'-0"	
a2(E)	362	#6	4'-0"	
a3(E)	4	#5	19'-8"	
a4(E)	361	#5	22'-5"	
a5(E)	272	#5	22'-1"	
a6(E)	4	#5	22'-10"	
b (E)	368	#5	30'-0"	
b1(E)	86	#6	20'-0"	
b2(E)	333	#5	26'-11"	
b3(E)	43	#6	23'-0"	
d (E)	492	#5	3'-0"	
d1(E)	492	#5	2'-7"	
d2(E)	452	#4	3'-0"	
d3 (E)	452	#4	3'-11"	
e (E)	24	#4	17'-9"	
e1(E)	48	#4	7'-8"	
e2(E)	72	#4	16'-10"	
e3(E)	24	#4	8'-8"	
e4(E)	24	#4	17'-3"	
e5(E)	4	#8	35'-11"	
e6(E)	16	#8	7'-8"	
e7(E)	8	#8	51'-3"	
e8(E)	8	#8	8'-8"	
e9(E)	4	#8	34'-11"	
e10(E)	4	#5	35'-11"	
e11(E)	16	#5	7'-8"	
e12(E)	16	#5	26'-9"	
e13(E)	8	#5	8'-8"	
e14(E)	4	#5	34'-11"	
Reinforcement Bars, Epoxy Coated			Lbs.	64,640
Concrete Superstructure			Cu. Yds.	201.0
Protective Coat			Sq. Yds.	201

Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 1 x 2-#5 etc. indicates 1 line of bars with 2 lengths per line.
Work this sheet with Sheet S6.

SUPERSTRUCTURE DETAILS
IL. RTE. 117, SEC. (X3-16HB-1) BY
WOODFORD COUNTY
STA. 10+36.40
S.N. 102-0012

BOWMAN, BARRETT & ASSOCIATES INC.
CONSULTING ENGINEERS
130 E. RANDOLPH
CHICAGO, ILLINOIS 60601
JOB NO. 149

SCALE: NOT TO SCALE DRAWN BY: CSL
DATE: 12-06-93 CHECKED BY: LM
REVISED: 07-30-97

FOR INFORMATION ONLY

JOB: 149 SHEET: 7 DGN: 149D078.DGN PRT. DATE: 07-30-97

MODEL: Default
FILE NAME: c:\2Files\213081 TDOT - DIST 4 - PTB 201-033\Work Order 15 - FY 2023 Patching\18.Transcription\68H58 (Bridge Painting)\CADD Sheets\020_112 Old Plan Sets.dgn

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USER NAME = rbailey	DESIGNED - RTB	REVISED -
	DRAWN - RTB	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED - MCL	REVISED -
PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 4 OF 7 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	98
		CONTRACT NO. 68H58		
	ILLINOIS	FED. AID PROJECT		

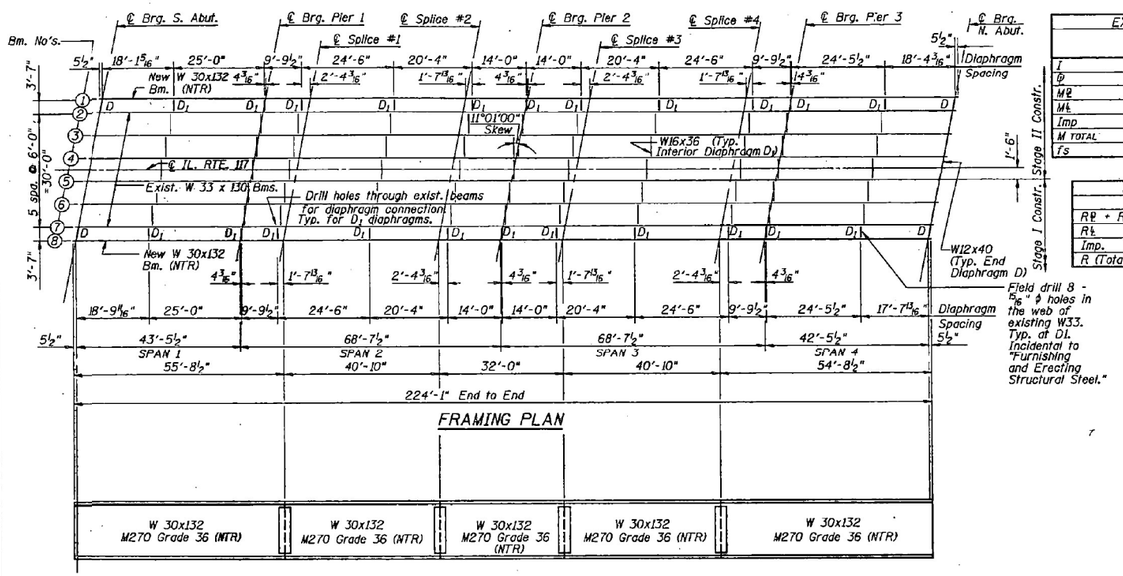
SN 102-0012 (LOCATION 12)

LOCATION 12

~~102-0012~~

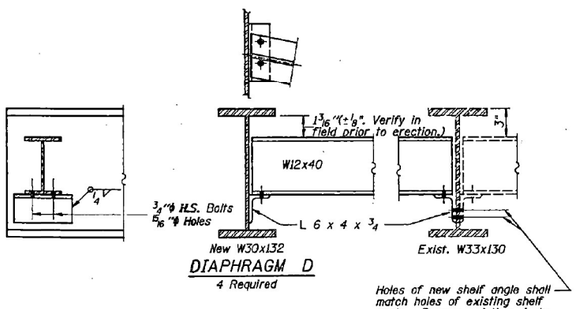
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 117 F.A.	(X3-16HB -1) BY	WOODFORD	19	SHEET NO. 58 OF 521 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



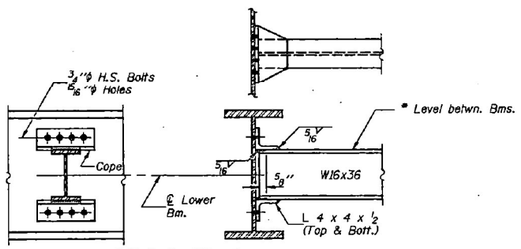
BEAM ELEVATION

NTR denotes "Notch Toughness Requirements Zone 2".



DIAPHRAGM D
4 Required

Holes of new shelf angle shall match holes of existing shelf angle. Remove existing rivets. Ream if necessary. Provide 5 new bolts. Typical.



DIAPHRAGM D1
22 Required

Note: Two hardened washers shall be required over all oversize holes for diaphragms. See sheet S3 for procedure to jack and remove existing abutment expansion bearings.

EXIST. INTERIOR GIRDER MOMENT TABLE - W33x130					
		0.4 Sp. 1 or 0.6 Sp.4	Pier 1 or 3	0.5 Sp. 2 or 0.5 Sp.3	Pier 2
I	(in4)	6710	6710	6710	8916
Q	(K/ft.)	.948	.948	.948	.948
MR	('K)	95.5	302	200	424
ML	('K)	230	237	313	289
Imp	('K)	68.3	65.4	80.8	74.6
M TOTAL	('K)	394	604	594	788
fs	(k.s.i.)	11.7	17.9	17.6	17.9

NEW EXTERIOR BEAM MOMENT TABLE - W30x132 *					
		0.4 Sp. 1 or 0.6 Sp.4	Pier 1 or 3	0.5 Sp. 2 or 0.5 Sp.3	Pier 2
I	(in4)	5770	5770	5770	5770
Q	(K/ft.)	.844	.844	.844	.844
MR	('K)	83.8	273	182	365
ML	('K)	177	183	243	215
Imp	('K)	52.6	50.5	62.7	55.5
M TOTAL	('K)	313	507	488	636
fs	(k.s.i.)	9.9	16.0	15.4	20.0

EXIST. INTERIOR BEAM REACTION TABLE - W33x130						
		S. Abut.	Pier 1	Pier 2	Pier 3	N. Abut.
RR + RSR	(K)	13.8	58.7	69.2	58.3	13.2
RL	(K)	33.3	41.7	41.4	41.9	33.2
Imp.	(K)	9.9	11.5	10.7	11.6	9.8
R (Total)	(K)	57.0	111.9	121.3	111.8	56.2

NEW EXTERIOR BEAM REACTION TABLE - W30x132 *						
		S. Abut.	Pier 1	Pier 2	Pier 3	N. Abut.
RR + RSR	(K)	12.2	52.6	61.2	52.2	11.7
RL	(K)	25.3	33.2	34.8	33.3	25.2
Imp.	(K)	7.5	9.2	9.0	9.2	7.5
R (Total)	(K)	45.0	95.0	105.0	94.7	44.4

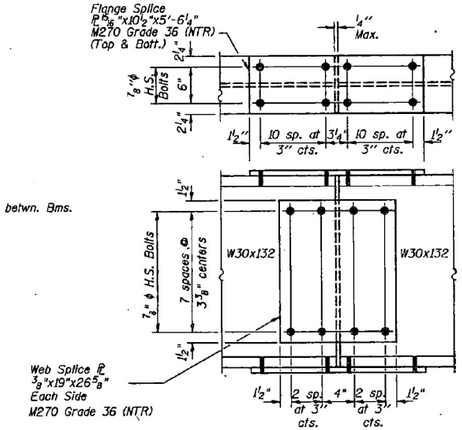
* New Exterior Beam designed to carry design loads of adjacent Interior Beam.
Above moment and reaction table values reflect actual design loads of New Exterior Beam.

I is the moment of inertia of the steel section used in computing fs.

TOP OF BEAM ELEVATIONS

	BM. #1	BM. #2	BM. #3	BM. #4	BM. #5	BM. #6	BM. #7	BM. #8
℄ Brg. S. Abut.	770.58	770.65	770.73	770.79	770.78	770.71	770.61	770.54
℄ Pier 1	770.73	770.83	770.92	770.98	770.97	770.91	770.81	770.71
℄ Splice #1	770.77	770.88	770.97	771.03	771.02	770.96	770.86	770.75
℄ Splice #2	770.84	770.95	771.04	771.10	771.10	771.04	770.95	770.83
℄ Pier 2	770.83	770.95	771.04	771.10	771.10	771.04	770.95	770.83
℄ Splice #3	770.83	770.95	771.04	771.10	771.10	771.04	770.95	770.84
℄ Splice #4	770.75	770.87	770.96	771.03	771.03	770.97	770.88	770.77
℄ Pier 3	770.71	770.82	770.91	770.98	770.98	770.92	770.83	770.73
℄ Brg. N. Abut.	770.55	770.63	770.72	770.79	770.80	770.74	770.66	770.60

For Fabrication only



SPLICE

FRAMING PLAN, BEAM ELEVATIONS & DETAILS
IL. RTE. 117 SEC. (X3-16HB-1) BY
WOODFORD COUNTY
STATION 10+36.40
S.N. 102-0012

BOWMAN, BARRETT & ASSOCIATES INC.
CONSULTING ENGINEERS
233 N. MICHIGAN AVENUE
CHICAGO, ILLINOIS 60601
JOB NO. 149

SCALE: NOT TO SCALE
DATE: 12-08-93
DRAWN BY: CSL
CHECKED BY: RDC
REVISED: 04-08-94

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Burlington, IA Pittsfield, IL Columbia, MO
Brunswick, GA Carbondale, IL

USER NAME = rbailey	DESIGNED - RTB	REVISED -	
	DRAWN - RTB	REVISED -	
PLOT SCALE = 100.0000 ' / in.	CHECKED - MCL	REVISED -	
PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 5 OF 7 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	99
		CONTRACT NO. 68H58		
	ILLINOIS	FED. AID PROJECT		

SN 102-0012 (LOCATION 12)

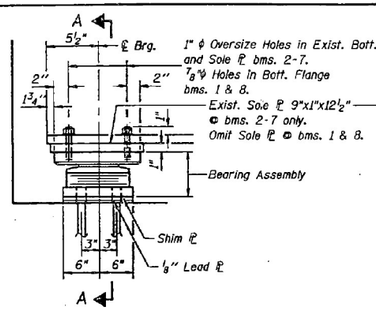
LOCATION 12

~~102-0012~~

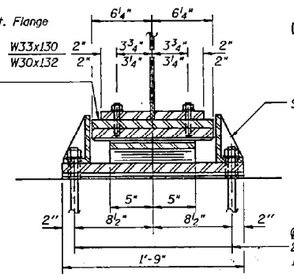
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. NO.	(X3-16	WOODFORD		20
F.A.	HB-118Y)			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

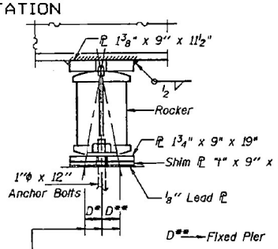
SHEET NO. S9 OF S21 SHEETS



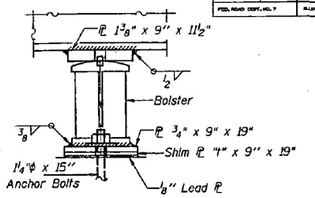
ELEVATION AT ABUT.



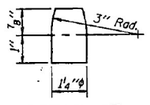
SECTION A-A



PIERS 1 & 3
AT BEAMS 1 & 8



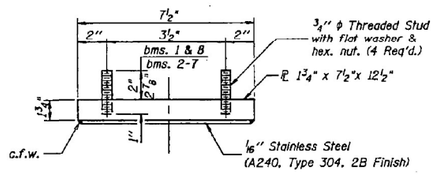
PIER 2
AT BEAMS 1 & 8



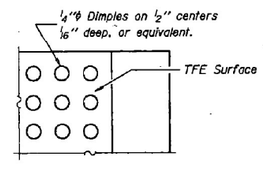
DETAIL OF PINTLE

Note:
See sheet S19 for Anchor Bolt Installation.

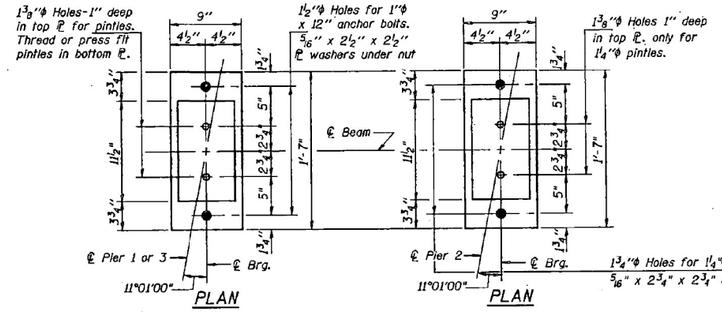
TYPE II TFE ELASTOMERIC EXP. BRG.



TOP BEARING ASSEMBLY

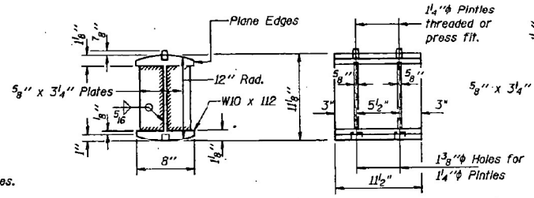


PLAN-TFE SURFACE

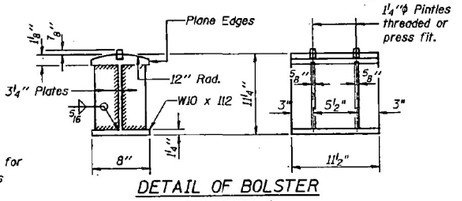


PLAN

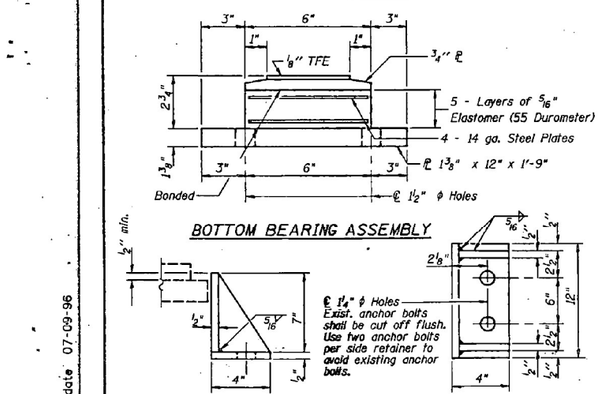
PLAN

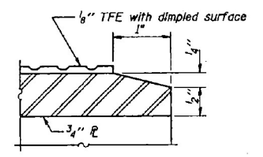


DETAIL OF ROCKER
AT PIERS 1 & 3
(No. Required 4)
New rockers required at new beams 1 & 8 only.
Weight included with Structural Steel.



DETAIL OF BOLSTER
AT PIER 2
(No. Required 2)
New bolsters required at new beams 1 & 8 only.
Weight included with Structural Steel.





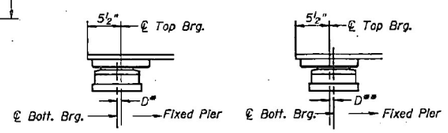
SECTION THRU TFE

Note: The ⅛" TFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.

Bonding of ⅛" TFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.

BOTTOM BEARING ASSEMBLY

SIDE RETAINER
(No. Required 32)
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.
Weight included with Structural Steel.



SETTING ANCHOR BOLTS AT EXP. BRG.

a.) *D=1/8"/100 ft. of exp. for every 15° below the normal temp. of 50°F. **D=1/8"/100 ft. of exp. for every 15° above the normal temp. of 50°F.	b.) After girders have been erected and dimensions D* & D** determined, holes shall be drilled and anchor bolts shall be installed as shown on Sheet S19. All fixed anchor bolts may be built into the masonary.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type II	Each	16

BEARING DETAILS
IL. RTE. 117, SEC. (X3-16HB-1) BY
WOODFORD COUNTY
STATION 10+36.40
S.N. 102-0012

BOWMAN, BARRETT & ASSOCIATES INC.
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233 N. MICHIGAN AVENUE
CHICAGO, ILLINOIS 60601
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	DRAWN - RTB	REVISED -	
PLOT SCALE = 100.0000 ' / in.	CHECKED - MCL	REVISED -	
PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 6 OF 7 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	100
		CONTRACT NO. 68H58		
	ILLINOIS FED. AID PROJECT			

SN 102-0012 (LOCATION 12)

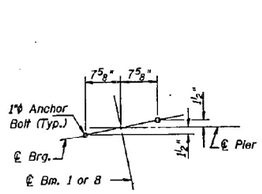
LOCATION 12

~~102-0012~~

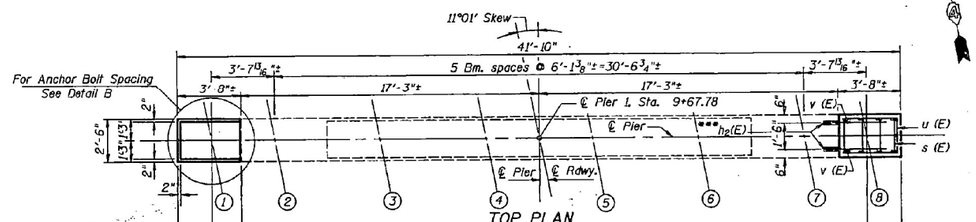
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA RTE. 117	(X3-16 HB-1)BY	WOODFORD		25
PROJ. FUND SECT. NO. 7	SUBMITTED	PROJ. AND PROJECT		

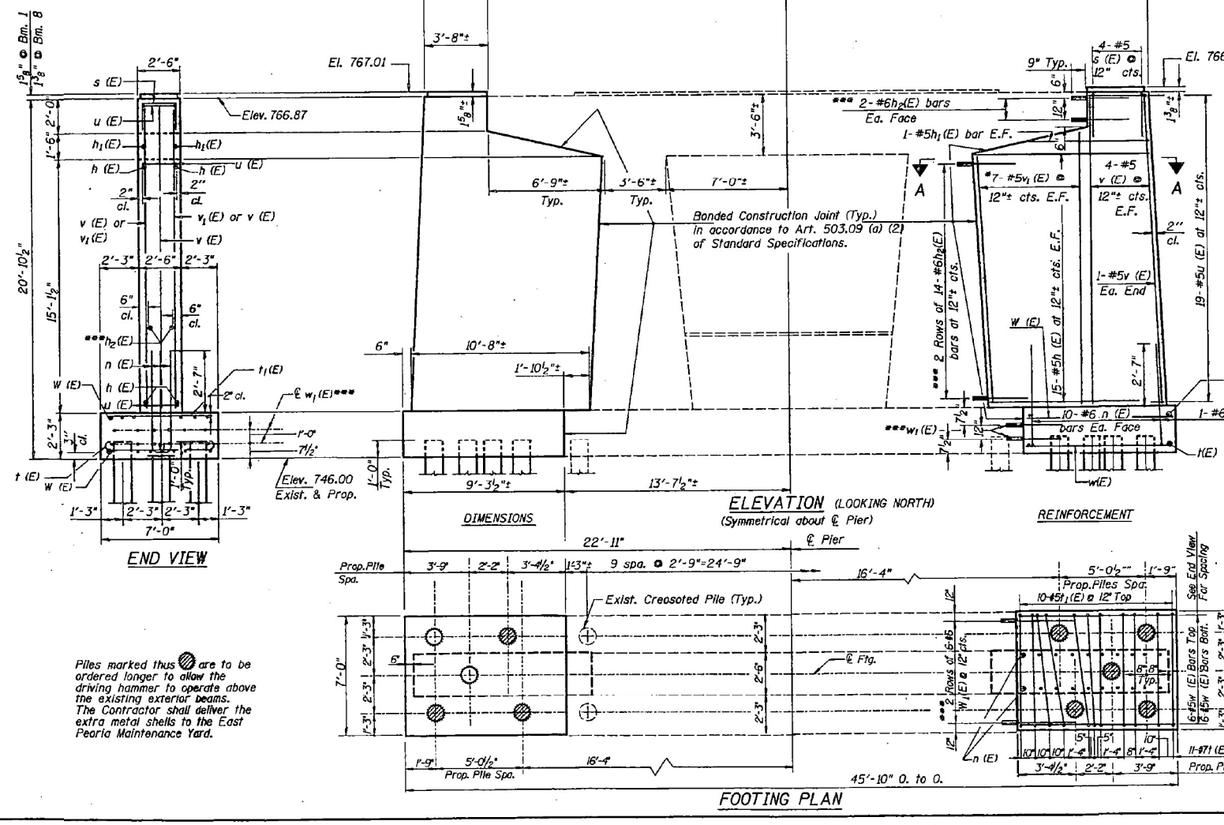
SHEET NO. 514 OF 521 SHEETS



DETAIL B



TOP PLAN



END VIEW

DIMENSIONS

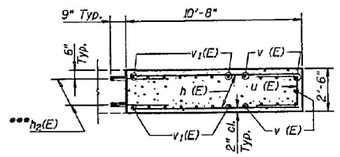
ELEVATION (LOOKING NORTH)
(Symmetrical about ℄ Pier)

REINFORCEMENT

FOOTING PLAN

Piles marked thus ⊘ are to be ordered longer to allow the driving hammer to operate above the existing exterior beams. The Contractor shall deliver the extra metal shells to the East Peoria Maintenance Yard.

Notes:
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
All edges shall have standard ¾" chamfers except as noted.

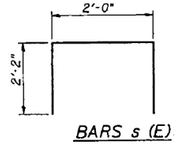


SECTION A-A

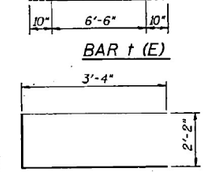
*Order v1 (E) bars full length. Cut to fit and use remainder in opposite end of pier.

*** Epoxy grout h2(E) and w1(E) bars in 1"ϕx9" min. drilled holes. The grout and the method of application shall be approved by the Department. (See Sec. 584 of Std. Specs.).

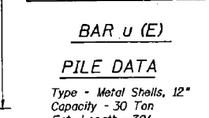
± Indicates dimensions taken from existing plans may vary.



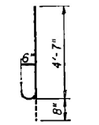
BARS s (E)



BAR t (E)



BAR u (E)



BAR n (E)

PILE DATA

Type - Metal Shells, 12"
Capacity - 30 Ton
Est. Length -32'
No. Req'd -10
Test Piles -None

BILL OF MATERIAL

	Bar	No.	Size	Length	Shape
	h (E)	60	#5	10'- 2"	
	h1(E)	4	#5	6'- 8"	
***	h2(E)	64	#6	3'- 4"	
	n(E)	42	#6	5'- 3"	
	s (E)	8	#5	6'- 4"	
	t (E)	22	#7	8'- 2"	
	t1(E)	20	#5	6'- 6"	
	u (E)	38	#5	8'-10"	
	v (E)	18	#5	18'- 4"	
	v1(E)	14	#5	31'- 0"	
	w (E)	24	#5	8'-11"	
***	w1(E)	24	#6	3'- 1"	
	Furnishing Metal Pile Shells, 12"		Lin. Ft.	416	
	Driving and Filling Shells		Lin. Ft.	320	
	Structure Excavation		Cu. Yd.	37	
	Concrete Structures		Cu. Yd.	43.3	
	Reinforcement Bars, Epoxy Coated		Lbs.	3,350	

Reinforcement Bars designated (E) shall be epoxy coated.

Drill & Grout Dowel Bars = 88 Each

PIER 1
IL. RTE. 117, SEC. (X3-16HB-1)BY
WOODFORD COUNTY
STATION 10+36.40
S.N. 102-0012

BOWMAN, BARRETT & ASSOCIATES INC.
CONSULTING ENGINEERS
130 E. RANDOLPH
CHICAGO, ILLINOIS 60601
JOB NO. 149

SCALE: NOT TO SCALE
DATE: 12-06-93
DRAWN BY: CSL
CHECKED BY: SF
REVISED: 08-07-97

FOR INFORMATION ONLY

r:\proj\149\r117\bpi71.dgn prt. date 08-07-97

MODEL: Default
FILE NAME: O:\Files\213081 IDOT - DIST 4 - PTB 201-033\Work Order 15 - FY 2023 Patching\18.Transportation\68H58 (Bridge Painting)\CADD Sheets\020_112 Old Plan Sets.dgn

KLINGNER & ASSOCIATES, P.C.
Engineers · Architects · Surveyors
www.klingner.com
Galesburg, Illinois
40 North Public Street
309.342.4042
Quincy, IL · Hannibal, MO
DuBoigne, IL · Pittsfield, IL · Columbia, MO
Davenport, IA · Carbondale, IL

USER NAME = rbailey	DESIGNED - RTB	REVISED -
	DRAWN - RTB	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED - MCL	REVISED -
PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 7 OF 7 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	101
		CONTRACT NO. 68H58		
	ILLINOIS FED. AID PROJECT			

SN 102-0034 (LOCATION 13)

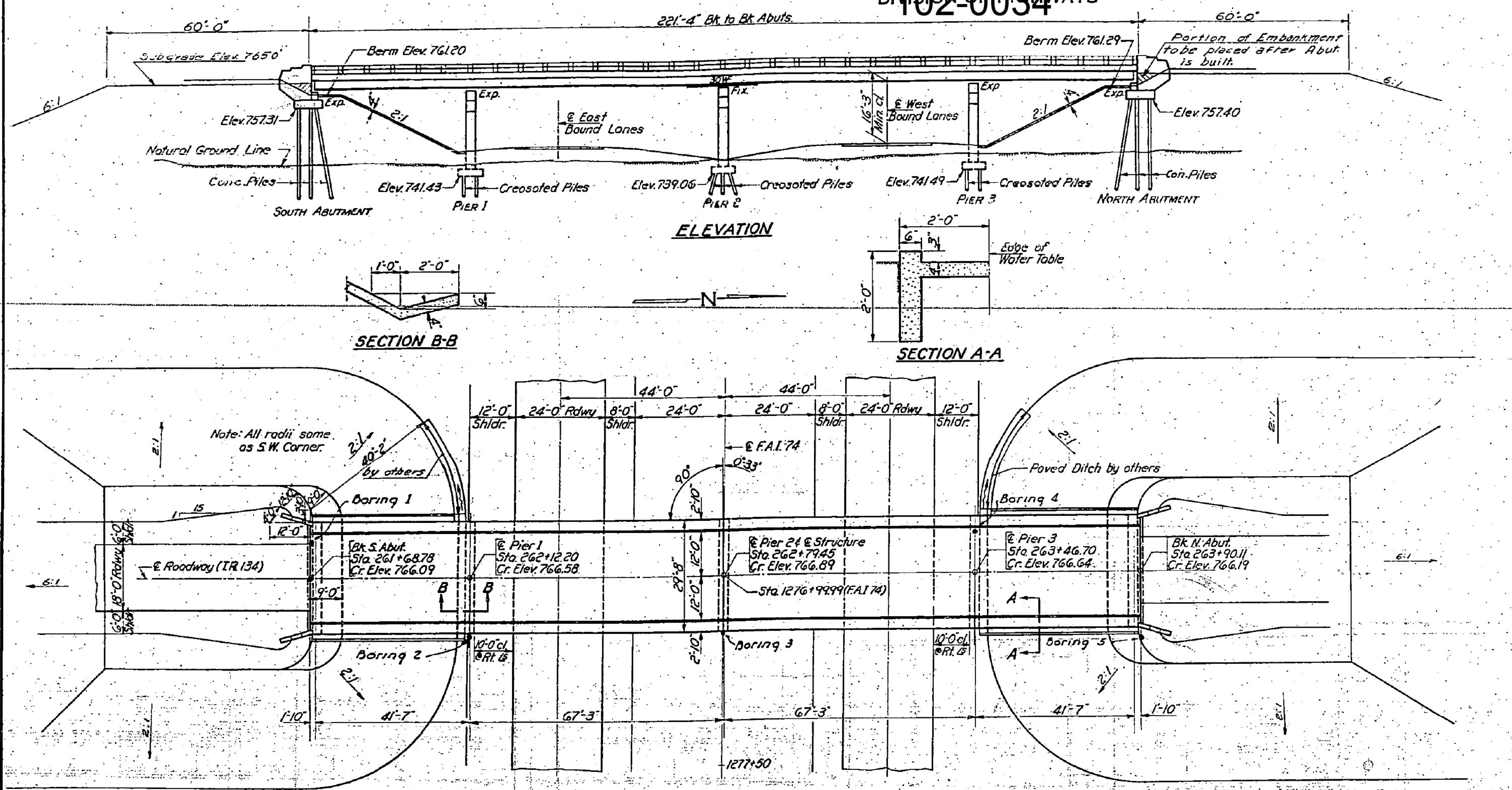
LOCATION 13
102-0034

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. F.A.I. 74	X3-17 HB	WOODFORD	25	5
FED. ROAD DIST. NO. 7		ILLINOIS / FED. AID PROJECT-		

SHEET NO. 1
12 SHEETS

B.M.: U.S.C.&G.S. Benchmark "Cong"
17.4 Ft. Lt. TR 134 Sta. 274+99 Elev. 742.63



GENERAL NOTES

Class X concrete shall be used throughout.

Coarse aggregate which is to be used in end posts must be free of chert, flint, limonite, lignite and soft sandstone.

The concrete floor slab shall be finished in accordance with Article 51.19 of the Standard Specifications.

Slope wall shall be reinforced with welded wire fabric 6"x 6" mesh, #4 wires, weighing 58# per 100 sq. ft.

Rivets 3/4" ϕ, Open holes 13/16" ϕ, unless noted.

A-36 steel will be used throughout

All bolsters, rockers, bearing plates, lead plates, shim plates, pintles and anchor bolts shall be fabricated and set in accordance with Article 51.15 of the Standard Specifications, and are included in the quantity of Structural Steel. Est. Wt. = 6,428#

Anchor bolts shall be set before riveting diaphragms over supports.

Expansion guards shall be fabricated and erected in accordance with Article 51.13 (d) of the Standard Specifications and are included in the quantity of Structural Steel.

Except as otherwise provided, all structural steel shall receive one shop coat of red lead paint and two field coats of aluminum paint. See Articles 56.1 to 56.5 inclusive of the Standard Specifications.

All paint shall be furnished and applied by the Contractor.

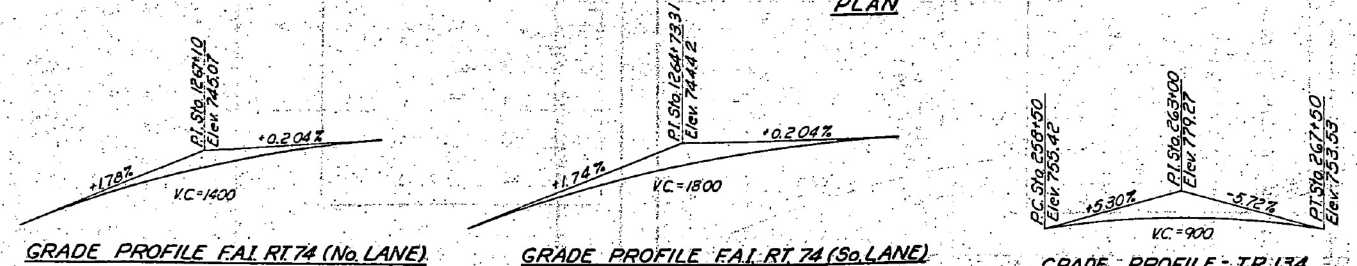
The metal handrail shall be painted in accordance with Article 55.3 of the Standard Specifications.

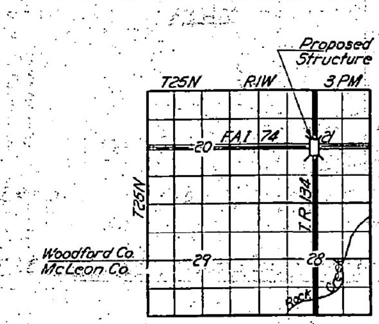
Piles at abutments shall be driven in holes precored to natural ground line in accordance with Article 60.9 (c) of the Standard Specifications.

The Contractor shall drive one concrete test pile in a permanent location at No. Abutment and one timber test pile in the vicinity of Pier 2 before ordering remainder of piles.

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub	Total
Class A Excavation for Structures	Cu. Yds.	–	112	112
Class X Concrete	Cu. Yds.	181.7	165.5	347.2
Structural Steel	Lbs.	151,980		151,980
Metal Handrail	Lin. Ft.	438		438
Reinforcement Bars	Lbs.	34,540	14,360	48,900
Creosoted Piles, 20.1 to 38'	Lin. Ft.		1610	1610
Test Piles (Timber)	Each		1	1
Concrete Piles	Lin. Ft.		715	715
Test Piles (Concrete)	Each		1	1
Name Plates	Each		2	2
Slope Wall (4")	Sq. Yds.		376	376
Protective Coat	Sq. Yds.		770	770





DESIGNED	Eugene Beatty
CHECKED	[signature]
DRAWN	J.L. Armstrong
CHECKED	Eugene Beatty

MAY 17 1961
EXAMINED [signature] ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES
PASSED [signature]
APPROVED [signature]

STATION 1276+99.99
BUILT 196 BY
STATE OF ILLINOIS
F.A.I. RT. 74 SEC. X3-17HB
F.A. PROJ. I-74-4 (83)
LOADING H15-S12

NAME PLATE LETTERING
See Standard 2113

DESIGN STRESSES
fc = 1400 psi. Super & Sub
vc = 75 psi. Ftgs.
fs = 20,000 psi. Reinf.
fs = 20,000 p.s.i. Struct. Steel (A36)
n = 10
LOADING H15-S12-44

PROJ. I-74-4 (83)
GENERAL PLAN & ELEVATION
T.R. 134 OVER F.A.I. RT. 74
F.A.I. RT. 74 SEC. X3-17HB
WOODFORD COUNTY
STA. 1276+99.99

Rev. 2-16-62 W.L.P. Removed the Embankment & Borrow Exc. Quan. from Plans. Changed Length of Embankment from 20'-0" to 60'-0". Rev. Paved Ditch & the Grade Profiles of F.A.I. Rt. 74. Changed Name Pl. F.A. Proj. I-74-4(2)118 to F.A. Proj. I-74-4(83). T. Bill of Mat. Added to Item (Creosoted Piles) & (4"). Rev. Reinf. Bars from 35950 (Which was carried wrong) to 34540 & changed 50,290# to 48,900#

FOR INFORMATION ONLY

SN 102-0034 (LOCATION 13)

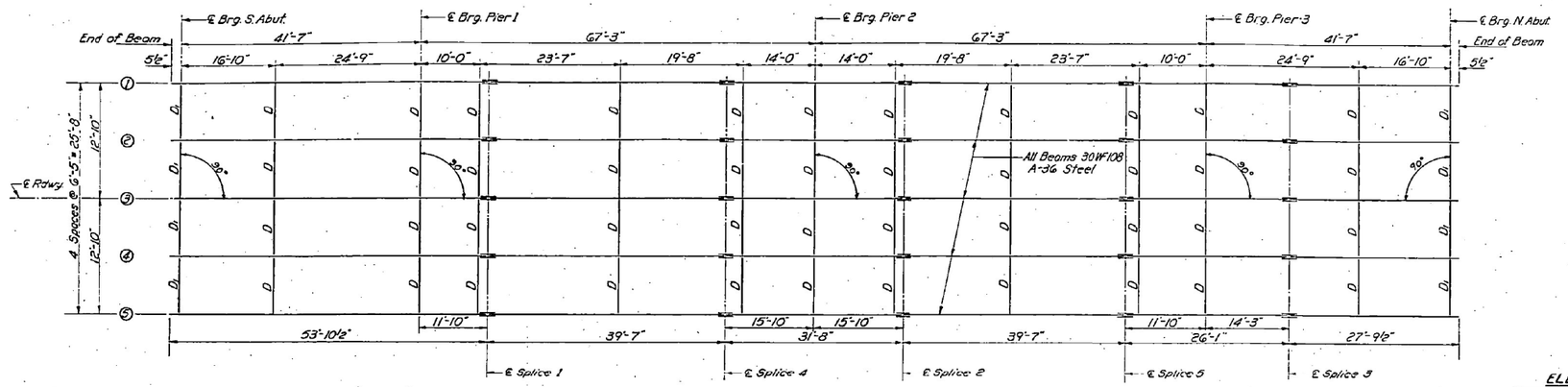
LOCATION 13

102-0034

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

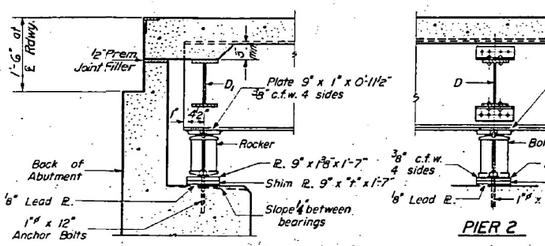
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. RTE. 74	X3-17HB	WOODFORD	28	7
I.B.R.S.		ILLINOIS	FED. AID PROJECT	

SHEET NO 3
12 SHEETS

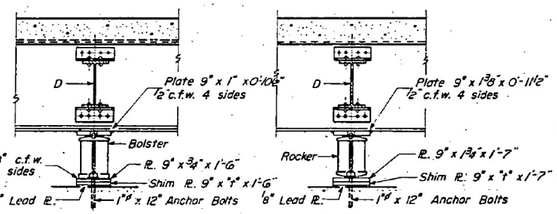


FRAMING PLAN

ELEVATIONS TOP OF BEAM FLANGE				
Location ℄ Station / Beams		1 ℄ 5	2 ℄ 4	3
℄ Brg. S. Abut.	261+70.61	765.45	765.55	765.58
℄ Brg. Pier 1	262+12.80	763.97	763.97	764.00
Splice 1	262+24.03	765.99	766.09	766.12
Splice 4	262+63.62	766.18	766.28	766.31
℄ Brg. Pier 2	262+79.45	766.18	766.28	766.31
Splice 2	262+95.28	766.19	766.29	766.32
Splice 5	263+34.87	766.03	766.13	766.16
℄ Brg. Pier 3	263+46.70	765.93	766.03	766.06
Splice 3	263+60.95	765.81	765.91	765.94
℄ Brg. N. Abut.	263+88.28	765.54	765.64	765.67

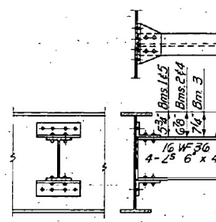


SECTION AT ABUTMENT

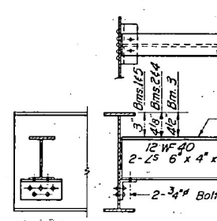


PIER 2

PIERS 1 & 3

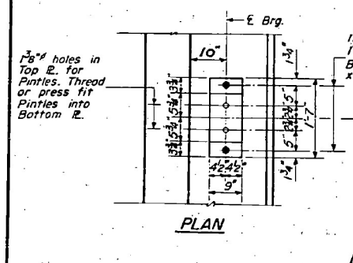


DIAPHRAGM D
44 Required

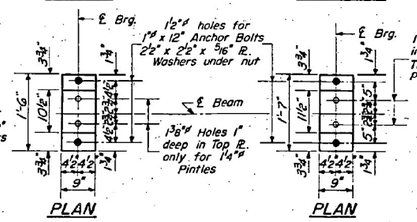


DIAPHRAGM D1
8 Required

TABLE OF "f" DIMENSIONS			
Location / Beam	1 ℄ 5	2 ℄ 4	3
S. Abut.	0	0	3⅜"
Pier 1	0	0	3⅜"
Pier 2	0	0	3⅜"
Pier 3	0	0	3⅜"
N. Abut.	0	0	3⅜"



PLAN



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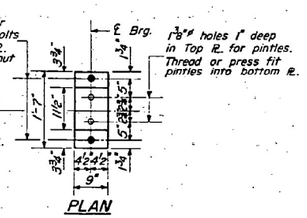
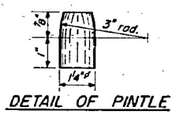
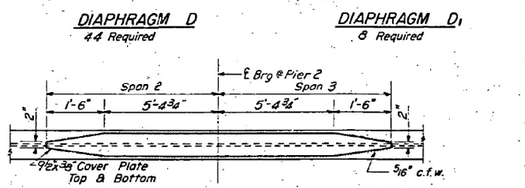


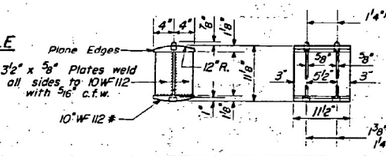
PLAN



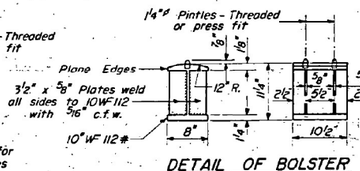
DETAIL OF PINTLE



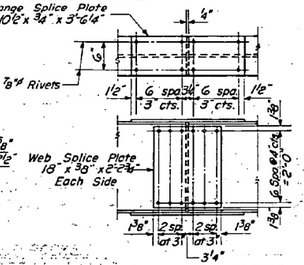
DETAIL OF COVER PLATES AT PIER 2
10 Required
A-36 Steel



DETAIL OF ROCKER AT PIERS 1 & 3 & ABUT.



DETAIL OF BOLSTER AT PIER 2



DETAIL OF SPLICE

DESIGNED	Eugene Beatty
CHECKED	Eugene Beatty
DRAWN	J.L. Armstrong, W.A. Sausaman
CHECKED	Eugene Beatty

MAY 17 1961
EXAMINED
PASSED
APPROVED

I-2 Re-drawn 8-18-59

STRUCTURAL STEEL
T.R. 134 OVER F.A.I. RT. 74
F.A.I. RT. 74 SEC. X3-17HB
WOODFORD COUNTY
STA. 1276 + 99.99

FOR INFORMATION ONLY

SN 102-0034 (LOCATION 13)

LOCATION 13

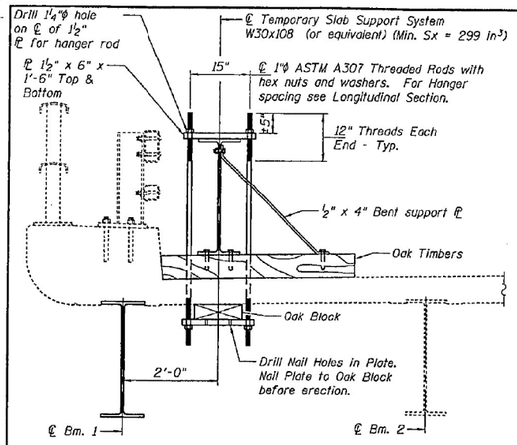
102-0034

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

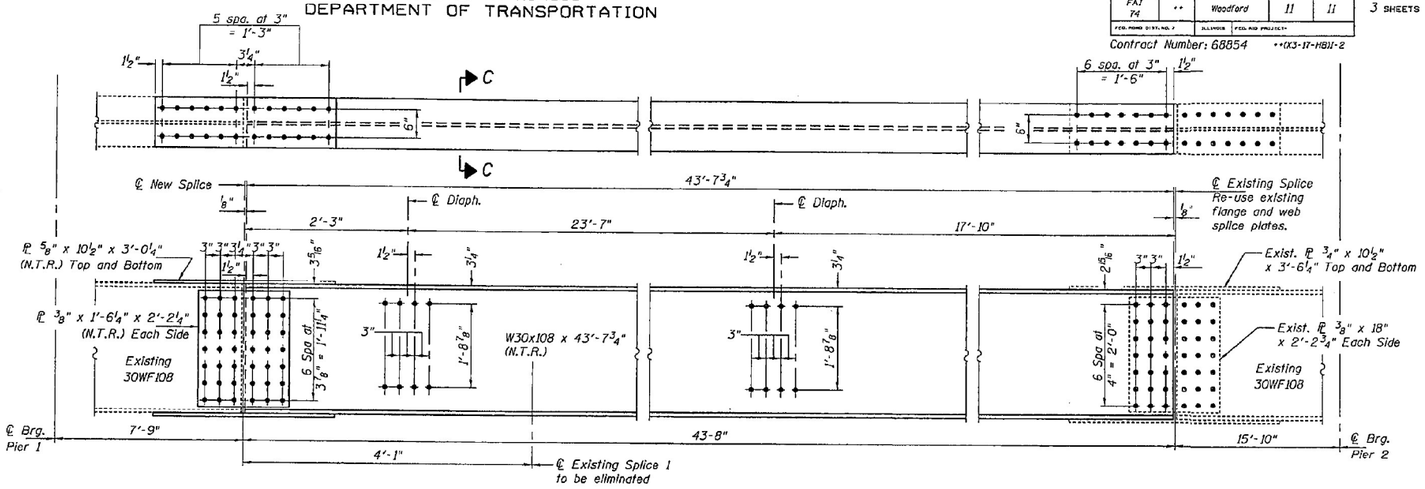
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 74	--	Woodford	11	11
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT=		

SHEET NO. 3
3 SHEETS

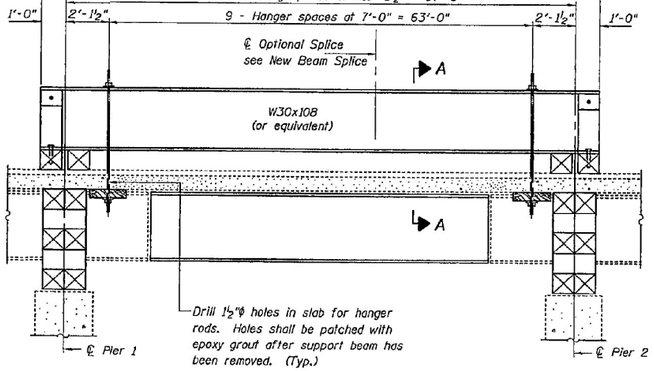
Contract Number: 68854 **(X3-17-HBII-2



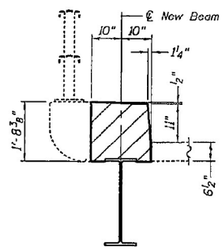
SECTION A-A



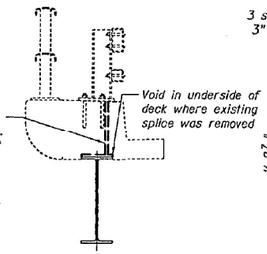
* These dimensions may vary for available beams in stock.
**Wood blocking between piers to be placed after support beam deflects under its own weight.



LONGITUDINAL SECTION
SUGGESTED TEMPORARY SLAB SUPPORT SYSTEM

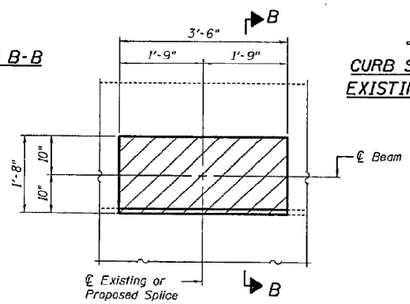


SECTION B-B



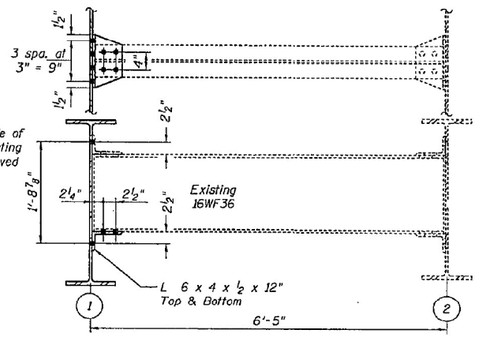
1"ϕ hole drilled into void before beam is installed to pump void full of grout. Space to miss existing rail post. Cost of drilling and grout included with Furnishing and Erecting Structural Steel.

CURB SECTION AT EXISTING SPLICE 1

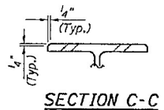


TYPICAL CONCRETE REMOVAL AND REPLACEMENT

Hatched areas indicate concrete sections to be removed and replaced. Perimeters of concrete removal areas shall be saw cut ¾" prior to the removal of concrete.
Reinforcement shall be cut only if required for fitting bolts. Cut reinforcement shall be spliced as directed by the Engineer. Cost shall be included with Concrete Removal.



CLIP ANGLE REPLACEMENT DETAIL
Use holes in existing diaphragm as a template to field drill new clip angles.



SECTION C-C

BEAM REPLACEMENT DETAILS
F.A.I. RT. 74
WOODFORD COUNTY
SN 102-0034

DESIGNED	V.H.V.
CHECKED	D.A.B.
DRAWN	Drew Christopher
CHECKED	V.H.V. D.A.B.

REP-2 1-27-2000

March 9, 2009
EXAMINED — ENGINEER OF STRUCTURAL REVIEWS
PASSED — ENGINEER OF BRIDGES AND STRUCTURES

SLT-94-001-08

1020034.dgn 3/9/2009 11:41:38 AM

FOR INFORMATION ONLY

MODEL: Default
FILE NAME: C:\2 Files\21308 IDOT - DIST 4 - PTB 201-133\Work Order 15 - FY 2023 Patching\18.Transportation\68H58 (Bridge Painting)\CADD Sheets\020_112 Old Plan Sets.dgn

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40 North Public Street
309.342.4062
Quincy, IL · Hannibal, MO
Burlington, IA Peru, IA Columbia, MO
Brunswick, IA Carbondale, IL

USER NAME = rbailey	DESIGNED - RTB	REVISED -	
	DRAWN - RTB	REVISED -	
PLOT SCALE = 100.0000 ' / in.	CHECKED - MCL	REVISED -	
PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE PLAN SETS

SCALE: NONE | SHEET 3 OF 4 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	104
		CONTRACT NO. 68H58		
		ILLINOIS	FED. AID PROJECT	

SN 102-0034 (LOCATION 13)

LOCATION 13

102-0034

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

F.A.P. 74	8-17HB WOODFORD	26	9	SHEET NO. 5
				12 SHEETS

PILE DATA

Type Creosoted Timber
Capacity 20 Tons
Est. Length 35 Ft.
No. Req'd. 18

Pier #2
Sta. 262+79.45
Cr. Elev. 766.89

Elev. 762.56

Elev. 739.06

Note: Batter outside piles 12

END VIEW

TOP PLAN

STIRRUP SPACING

	Bar	Size	No.	Spacing
A	s_1	#5	4	3 Sp. @ 7" = 1'-9"
B	s_2	#5	5	4 Sp. @ 7½" = 2'-6"
C	s_3	#5	4	3 Sp. @ 8" = 2'-0"
D	s_4	#5	3	2 Sp. @ 4" = 0'-8"

Note: All edges shall have standard ¾" chamfers except footings.

SECTION A-A

ELEVATION

DIMENSIONS — REINFORCEMENT

FOOTING PLAN

A & B DIMENSIONS

Bar	A	B
s_1	1'-8"	1'-8"
s_2	1'-8"	1'-11"
s_3	1'-8"	2'-4"
s_4	1'-8"	2'-6"
s_5	1'-8"	3'-6"
s_6	1'-8"	2'-10"
s_7	1'-8"	1'-9"

s BARS

u BAR

n BAR

PIER 2
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h	8	#5	28'-10"	—
h_1	36	#4	11'-4"	—
n	34	#6	4'-5"	⊃
p	5	#11	28'-10"	—
p_1	5	#9	28'-10"	—
p_2	6	#5	10'-3"	—
s_1	16	#5	5'-0"	⊓
s_2	20	#5	5'-6"	⊓
s_3	16	#4	6'-4"	⊓
s_4	12	#5	6'-8"	⊓
s_5	13	#5	8'-8"	⊓
s_6	18	#4	7'-4"	⊓
s_7	16	#4	5'-2"	⊓
t	37	#7	8'-2"	—
u	6	#6	7'-7"	⊏
v	34	#6	18'-8"	—
w	7	#5	18'-0"	—
Class X Concrete			Cu.Yds.	394
Reinforcement Bars			Lbs.	4370
Creosoted Piles			Lin.Ft.	630
Test Piles (Timber)			Each	1

DESIGNED	Eugene Beatty
CHECKED	
DRAWN	W.A. Sausaman
CHECKED	Eugene Beatty

EXAMINED: H.E. Baumann — May 17 1961
PASSED: C.P. Stucki
APPROVED: D.P. Batchelor

P-2 Re-drawn 7-17-59 Rev. 11-25-59

PIER 2
TR 134 OVER F.A.I. RT. 74
F.A.I. RT. 74 SEC. X3-17HB
WOODFORD COUNTY
STA. 1276+99.99

FOR INFORMATION ONLY

SN 102-0046 (LOCATION 14)

LOCATION 14

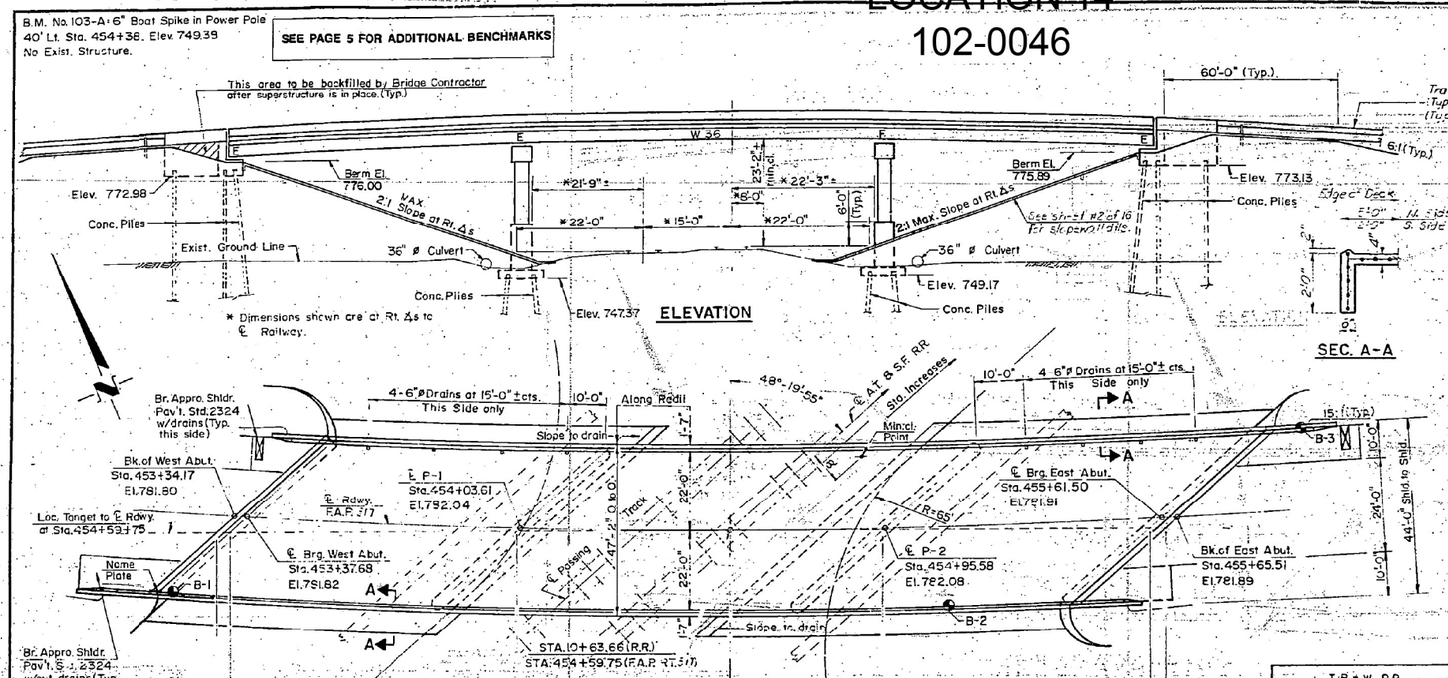
102-0046

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
F.A.P. 317	18-2VB	WOODFORD	35	12
FED ROAD DIST NO?	ILLINOIS	PROJECT: NHF-317(4)		

SHEET 1 OF 16

B.M. No. 103-A: 6" Boat Spike in Power Pole
40' Lt. Sta. 454+38. Elev. 749.39
No Exist. Structure.

SEE PAGE 5 FOR ADDITIONAL BENCHMARKS



GENERAL NOTES

Fasteners shall be high strength bolts. Bolts 7/8" ø, oversize holes 1" ø, unless otherwise noted.

Calculated weight of AASHTO M223 Grade 50 Structural Steel = 258,740 Lbs.

Calculated weight of AASHTO M183 Structural Steel = 31,390 Lbs.

The Zinc-silicate and vinyl paint system shall be used for shop and field painting of Structural Steel except where otherwise noted. The color of the vinyl finish coat shall be Munsell No. 10 B 3/6 blue.

Field welding of construction accessories will not be permitted to the bottom flange of beams nor to the top flange, for a distance equal to one-fourth the span length each way from the pier supports. Field welding in other areas will be permitted only when approved by the Engineer.

Anchor bolts shall be set before bolting diaphragms over supports.

The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These Components are the wide flange beams, diaphragms and all splice plate material of the wide flange beams.

Reinforcement bars shall conform to the requirements of AASHTO M-31, M-42 or M-53 Grade 60.

The embankment configuration shown shall be the minimum embankment that must be constructed prior to construction of the abutments.

Concrete piles at abutments shall be driven in holes precored through the embankment in accordance with Article 513.09(c) of the Standard Specifications.

The contractor shall drive 4 concrete test piles in a permanent location: One each at the West Abutment, Pier 1, Pier 2 and East Abutment as directed by the Engineer before ordering the remainder of piles.

The concrete for bridge floors finished in accordance with Article 503.15 of the Standard Specifications, shall be placed and compacted parallel to the skew in uniform increments along centerline of the bridge. The finishing machine, when required, shall be set parallel to the skew for striking off and screeding the concrete.

Bars indicated thus 31 x 5 = 5 etc. indicates 31 lines of bars with 5 lengths per line.

Slope wall shall be reinforced with welded wire fabric, 6" x 6" - W4.0 x W4.0, weighing 58 lbs. per 100 sq. ft.

The top surfaces of the abutments shall receive Bridge Seat Sealer Treatment. Estimated Quantity = 371 Sq. Ft.

TOTAL BILL OF MATERIAL

	ITEM	UNIT	SUPER	SUB	TOTAL
	Structure Excavation	Cu.Yds.		488	488
*	Protective Coat	Sq.Yds.	1300		1300
	Floor Drains	Each	8		8
	Class X Concrete	Cu.Yds.		384.2	384.2
	Furnishing & Erecting Structural Steel	L. Sum	1		1
	Stud Shear Connectors	Each	3438		3438
△	Class X Conc. Superstructure (Type I Cement)	Cu.Yds.	315.8		315.8
	Reinforcement Bars (Epoxy Coated)	Lbs.	73,670	44,580	118,250
	Concrete Piles	Lin.Ft.		3804	3804
	Test Piles (Concrete)	Each		4	4
	Name Plates	Each	1		1
	Neoprene Expansion Joint 2"	Lin.Ft.	137		137
	Slopewall 4"	Sq.Yds.		551	551
△	Elastomeric Bearing Assembly, Type 1	Each	14		14
△	Elastomeric Bearing Assembly, Type 2	Each	7		7
	Bridge Deck Grooving	Sq.Yds.	1057		1057
	Bridge Seat Sealer	L. Sum	1		1

* Includes deck surface and projects.

WASHINGTON BYPASS OVER A.T. & S.F. R.R.
GENERAL PLAN & ELEVATION
F.A.P. RT. 317 SEC. 18-2VB
WOODFORD CO.
STA. 454+59.75 F.A.P. RT. 317
STA. 10+63.66 A.T. & S.F. R.R.

HSIONG ASSOCIATES LTD.
DESIGNED W.H. CHECKED D.R.B.
DRAWN R.H.H. DATE NO.

STRUCTURE NO. 102-0046

△ Revised

FOR INFORMATION ONLY

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40 North Prairie Street 309.342.6462
Quincy, IL Hannibal, MO Burlington, IA Pittsfield, IL Columbia, MO Greenwich, IA Carthage, IL

USER NAME = rbailey	DESIGNED - RTB	REVISED -	
	DRAWN - RTB	REVISED -	
PLOT SCALE = 100.0000 ' / in.	CHECKED - MCL	REVISED -	
PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 1 OF 8 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	106
		CONTRACT NO. 68H58		
		ILLINOIS	FED. AID PROJECT	

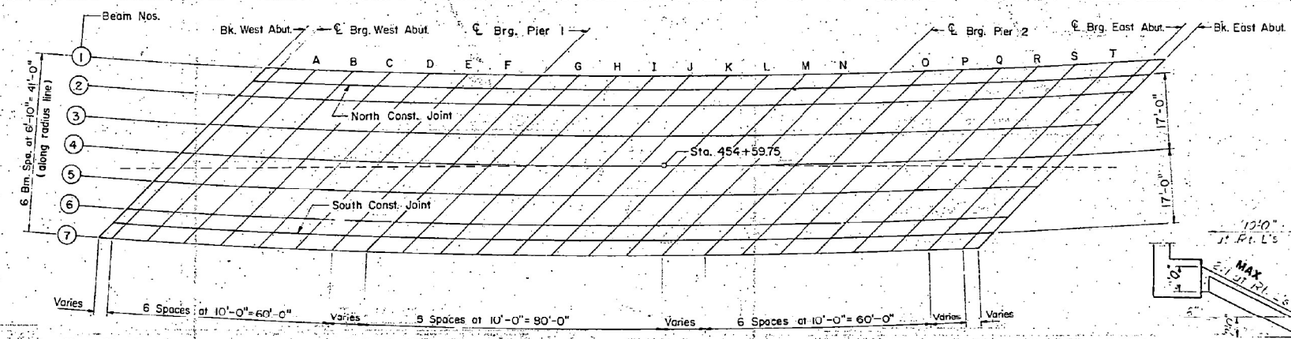
SN 102-0046 (LOCATION 14)

LOCATION 14

102-0046

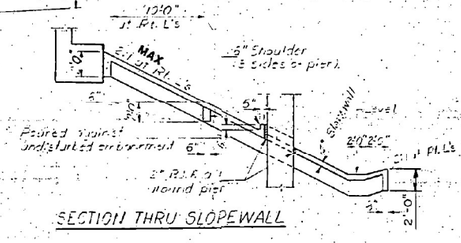
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P.317	18-2VB	WOODFORD	35	13
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT F-317(35)		

SHEET 2 of 16



PLAN

Horizontal dimensions are taken along ℄ of individual beam.



SECTION THRU SLOPEWALL

BEAM NO. ①

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevs. Adjusted for Dead Load Deflection
BK. W. ABUT	453+54.69	-20.5000	780.662	780.662
C.L. BRG. W. ABUT	453+59.25	-20.5000	780.676	780.676
A	453+68.39	-20.5000	780.713	780.729
B	453+78.50	-20.5000	780.745	780.773
C	453+88.60	-20.5000	780.774	780.803
D	453+98.71	-20.5000	780.800	780.820
E	454+08.82	-20.5000	780.821	780.830
F	454+18.93	-20.5000	780.838	780.842
C.L. BRG. P-1	454+25.70	-20.5000	780.848	780.848
G	454+35.81	-20.5000	780.859	780.879
H	454+45.92	-20.5000	780.866	780.906
I	454+56.03	-20.5000	780.870	780.925
J	454+66.14	-20.5000	780.869	780.939
K	454+76.25	-20.5000	780.865	780.939
L	454+86.35	-20.5000	780.857	780.917
M	454+96.46	-20.5000	780.845	780.891
N	455+06.57	-20.5000	780.829	780.856
C.L. BRG. P-2	455+19.94	-20.5000	780.803	780.803
O	455+30.05	-20.5000	780.778	780.783
P	455+40.16	-20.5000	780.750	780.762
Q	455+50.26	-20.5000	780.717	780.742
R	455+60.32	-20.5000	780.681	780.709
S	455+70.49	-20.5000	780.641	780.668
T	455+80.59	-20.5000	780.597	780.609
C.L. BRG. E. ABUT	455+87.67	-20.5000	780.564	780.564
BK. E. ABUT	455+91.79	-20.5000	780.544	780.544

NORTH CONST. JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevs. Adjusted for Dead Load Deflection
BK. W. ABUT	453+51.14	-17.0000	780.858	780.858
C.L. BRG. W. ABUT	453+54.72	-17.0000	780.872	780.872
A	453+64.80	-17.0000	780.910	780.926
B	453+74.89	-17.0000	780.944	780.972
C	453+84.98	-17.0000	780.974	781.003
D	453+95.07	-17.0000	781.001	781.022
E	454+05.16	-17.0000	781.024	781.033
F	454+15.25	-17.0000	781.042	781.046
C.L. BRG. P-1	454+21.88	-17.0000	781.053	781.053
G	454+31.97	-17.0000	781.065	781.085
H	454+42.06	-17.0000	781.076	781.116
I	454+52.15	-17.0000	781.079	781.134
J	454+62.24	-17.0000	781.080	781.150
K	454+72.33	-17.0000	781.077	781.151
L	454+82.42	-17.0000	781.071	781.151
M	454+92.51	-17.0000	781.060	781.105
N	455+02.60	-17.0000	781.046	781.072
C.L. BRG. P-2	455+15.72	-17.0000	781.022	781.022
O	455+25.81	-17.0000	780.999	781.004
P	455+35.90	-17.0000	780.972	780.984
Q	455+45.99	-17.0000	780.941	780.956
R	455+56.08	-17.0000	780.905	780.935
S	455+66.17	-17.0000	780.865	780.896
T	455+76.25	-17.0000	780.827	780.837
C.L. BRG. E. ABUT	455+83.13	-17.0000	780.800	780.800
BK. E. ABUT	455+87.23	-17.0000	780.776	780.776

BEAM NO. ②

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevs. Adjusted for Dead Load Deflection
BK. W. ABUT	453+47.28	-13.6667	781.044	781.044
C.L. BRG. W. ABUT	453+51.34	-13.6667	781.059	781.059
A	453+61.41	-13.6667	781.098	781.114
B	453+71.48	-13.6667	781.133	781.160
C	453+81.56	-13.6667	781.165	781.192
D	453+91.63	-13.6667	781.192	781.213
E	454+01.70	-13.6667	781.216	781.225
F	454+11.77	-13.6667	781.236	781.240
C.L. BRG. P-1	454+18.26	-13.6667	781.247	781.247
G	454+28.33	-13.6667	781.261	781.281
H	454+38.40	-13.6667	781.271	781.311
I	454+48.47	-13.6667	781.277	781.333
J	454+58.55	-13.6667	781.280	781.350
K	454+68.62	-13.6667	781.279	781.355
L	454+78.69	-13.6667	781.273	781.333
M	454+88.76	-13.6667	781.264	781.310
N	454+98.83	-13.6667	781.252	781.277
C.L. BRG. P-1	455+11.72	-13.6667	781.230	781.230
O	455+21.79	-13.6667	781.208	781.213
P	455+31.87	-13.6667	781.183	781.196
Q	455+41.94	-13.6667	781.154	781.179
R	455+52.01	-13.6667	781.121	781.149
S	455+62.08	-13.6667	781.085	781.112
T	455+72.15	-13.6667	781.044	781.055
C.L. BRG. E. ABUT	455+78.83	-13.6667	781.015	781.015
BK. E. ABUT	455+82.92	-13.6667	780.997	780.997

SLOPEWALL 4 INCH
W. ABUT. 429 Sq.yd.
E. ABUT. 422 Sq.yd.
TOTAL 851 Sq.yd.

DECK ELEVATIONS
F.A.P. RT. 317 SEC. 18-2VB
WOODFORD CO.
STA. 454+59.75

HSJONG ASSOCIATES LTD.

DESIGNED: W.H. CHECKED: D.R.B.
DRAWN: R.H.H. DATE: NO.

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Galesburg, Illinois
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USER NAME = rbailey	DESIGNED - RTB		REVISED -
	DRAWN - RTB		REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED - MCL		REVISED -
PLOT DATE = 3/21/2023	DATE - 3/21/2023		REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE PLAN SETS

SCALE: NONE | SHEET 2 OF 8 SHEETS | STA. N/A | TO STA. N/A

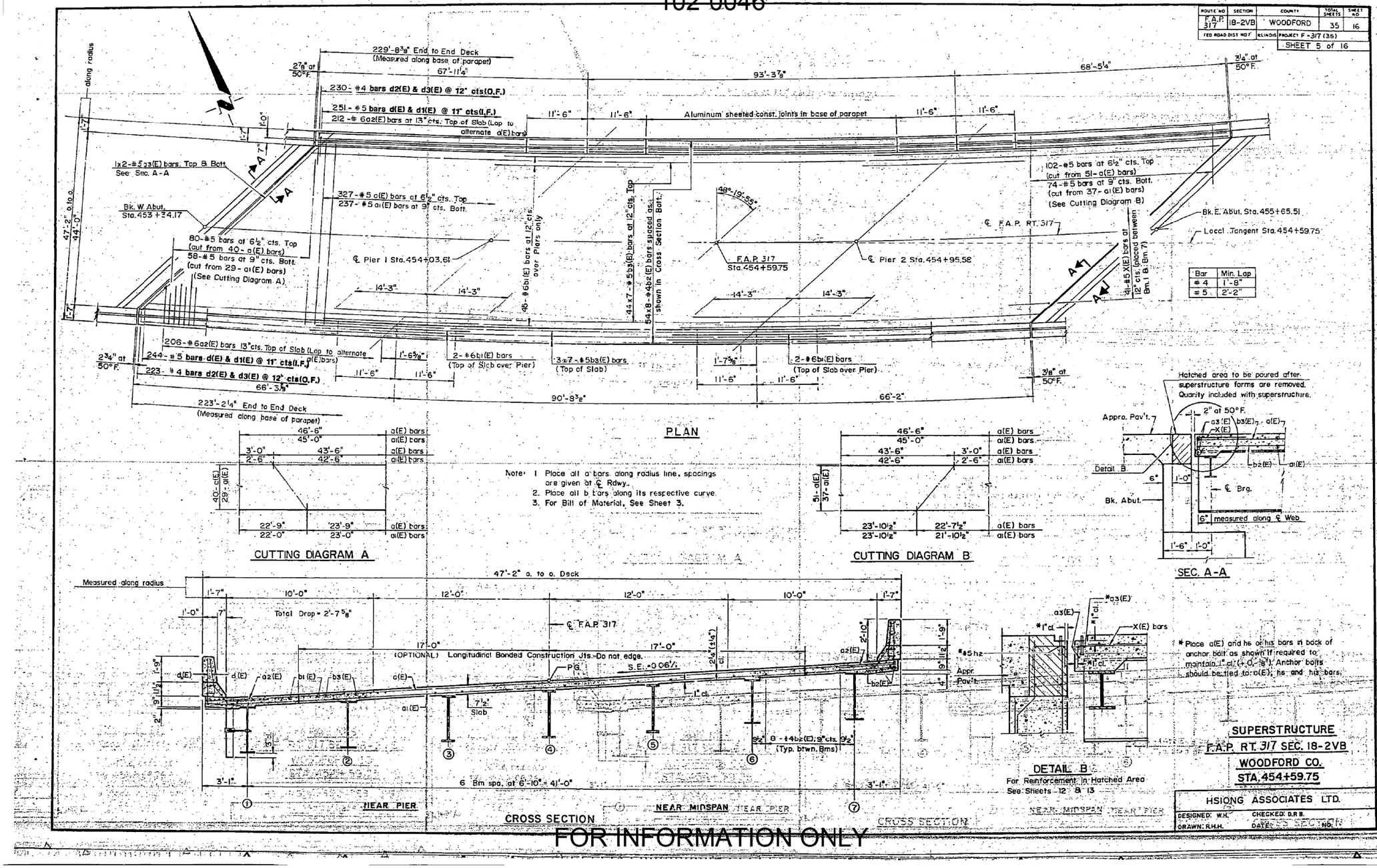
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	107
		CONTRACT NO. 68H58		
	ILLINOIS	FED. AID PROJECT		

SN 102-0046 (LOCATION 14)

LOCATION 14

~~102 0046~~

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
F.A.P. 317	18-2VB	WOODFORD	35	16
FED ROAD DIST NO?	ILLINOIS	PROJECT F-317 (35)		
SHEET 5 of 16				



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KLINGNER & ASSOCIATES, P.C.			
Engineers · Architects · Surveyors	USER NAME = rbailey	DESIGNED - RTB	REVISED -
www.klingner.com		DRAWN - RTB	REVISED -
Galesburg, Illinois	PLOT SCALE = 100.0000 ' / in.	CHECKED - MCL	REVISED -
40 North Prairie Street 309.343.4192	PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 3 OF 8 SHEETS | STA. N/A | TO STA. N/A

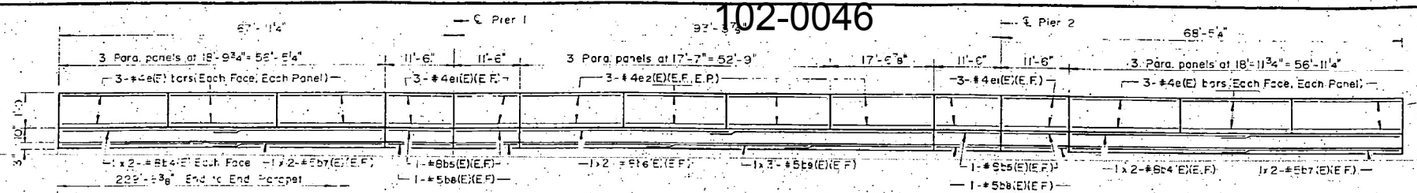
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	108
		CONTRACT NO. 68H58		
		ILLINOIS	FED. AID PROJECT	

SN 102-0046 (LOCATION 14)

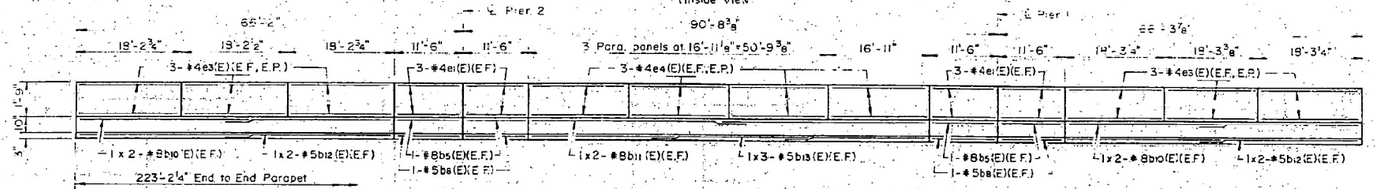
LOCATION 14

102-0046

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
F.A.P. 317	18-2VB	WOODFORD	35	17
FED ROAD DIST NO 7	ILLINOIS	PROJECT F-317(55)		
		SHEET 6 of 16		

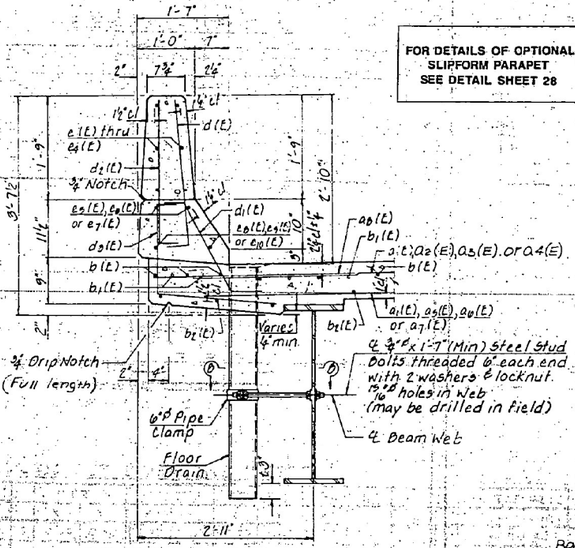


NORTH PARAPET ELEVATION
(Inside View)

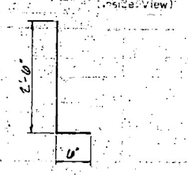


SOUTH PARAPET ELEVATION
(Inside View)

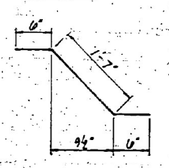
FOR DETAILS OF OPTIONAL SLIPFORM PARAPET SEE DETAIL SHEET 28



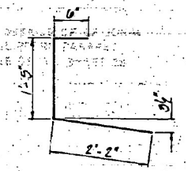
SECTION THRU PARAPET



BARS d(E) & d2(E)



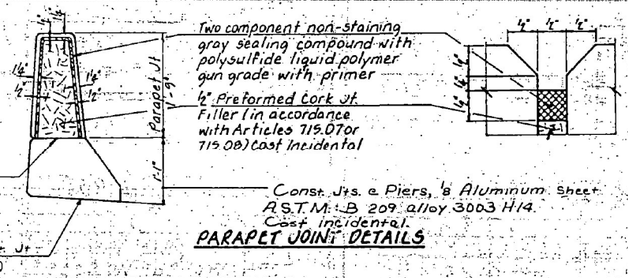
BAR d1(E)



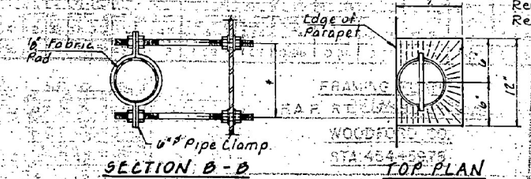
BAR d3(E)

MIN. BAR LAP

#5	2'-2"
#8	4'-6"



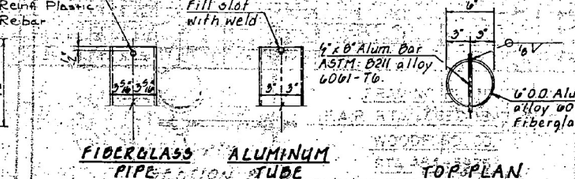
PARAPET JOINT DETAILS



SECTION B-B

TOP PLAN

* Dimension as required by Pipe Clamp



FIBERGLASS PIPE SECTION

ALUMINUM TUBE TOP PLAN
(Showing Alum Tube)

FLOOR DRAIN DETAILS

NOTES:
See sheet 1 for floor drain spacing. Spacing shall be adjusted to locate drain clear of diaphragms. Surface of the fiberglass pipe shall be free of bond inhibiting agents.
Fiberglass Pipe shall conform to ASTM D2996 with short time rupture strength hoop tensile stress of 30,000 psi minimum.
The exterior surfaces of the floor drains shall be painted with blue vinyl enamel coat (Munsell No 10B 3/4).
The exterior surface of the aluminum tube shall be cleaned and given a washcoat pretreatment in accordance with Steel Structures Painting Council's Spec. SSPC-SP 7/8. SSPC-Paint 27 prior to painting. Fiberglass to have prewash as per MIL-P-15328.

SUPERSTRUCTURE
BILL OF MATERIALS

BAR	NO.	SIZE	LENGTH	SHAPE
a3 (E)	418	# 5	46'-6"	
a5 (E)	303	# 5	45'-0"	
a2 (E)	418	# 6	4'-0"	
a3 (E)	8	# 5	37'-0"	
b1 (E)	98	# 6	28'-6"	
b2 (E)	432	# 4	30'-3"	
b3 (E)	350	# 5	24'-6"	
b4 (E)	8	# 8	30'-9"	
b5 (E)	16	# 8	11'-3"	
b6 (E)	4	# 8	37'-3"	
b7 (E)	8	# 5	29'-6"	
b8 (E)	16	# 5	11'-3"	
b9 (E)	6	# 5	25'-0"	
b10 (E)	8	# 8	29'-9"	
b11 (E)	4	# 8	36'-3"	
b12 (E)	8	# 5	28'-6"	
b13 (E)	6	# 5	24'-0"	
d (E)	495	# 5	3'-0"	L
d1 (E)	495	# 5	2'-7"	
d2 (E)	453	# 4	3'-0"	CL
d3 (E)	453	# 4	4'-1"	
e (E)	36	# 4	18'-6"	
e1 (E)	48	# 4	11'-3"	
e2 (E)	24	# 4	17'-3"	
e3 (E)	36	# 4	18'-0"	
e4 (E)	24	# 4	16'-6"	
X (E)	82	# 5	4'-1"	
Class X Concrete Superstructure (Type K Cement)		Cu Yd	313.8	
Reinforcement Bars, Epoxy Coated		Lbs.	73,670	

Reinforcement bars designated (E) shall be epoxy-coated.

RAILINGS
F.A.P. RT. 317 SEC. 18-2VB
WOODFORD CO.
STA. 454+59.75.

HSIONG ASSOCIATES LTD.
DESIGNED WH. CHECKED D.R.B.
DRAWN R.H.H. DATE NO.

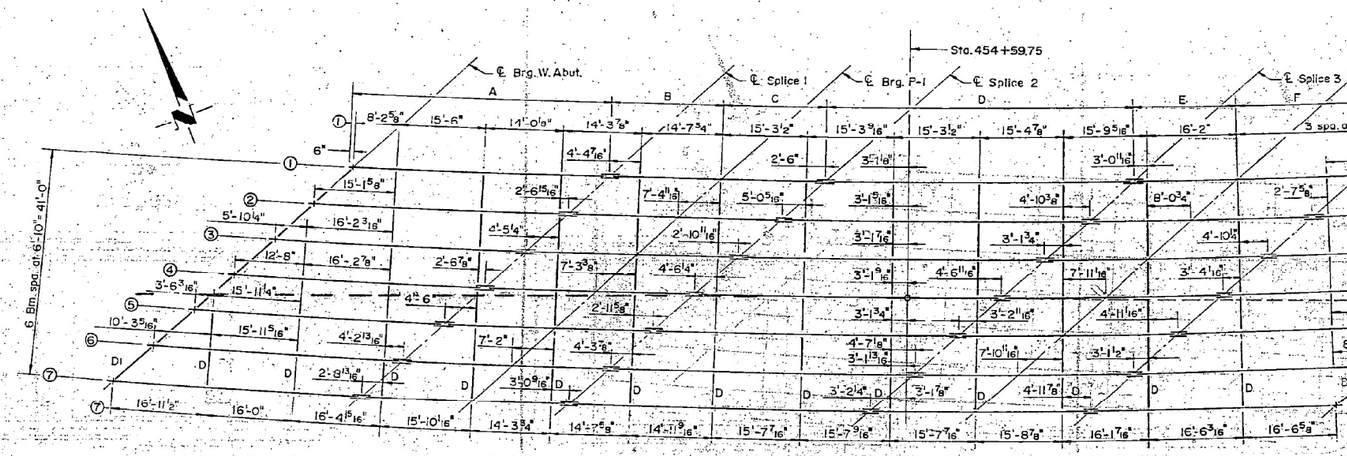
FOR INFORMATION ONLY

SN 102-0046 (LOCATION 14)

LOCATION 14

102-0046

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
FAP 317	18-2VB	WOODFORD	35	18
FED ROAD DIST NO?	ILLINOIS	PROJECT F-317 (35)		
		SHEET 7 OF 16		



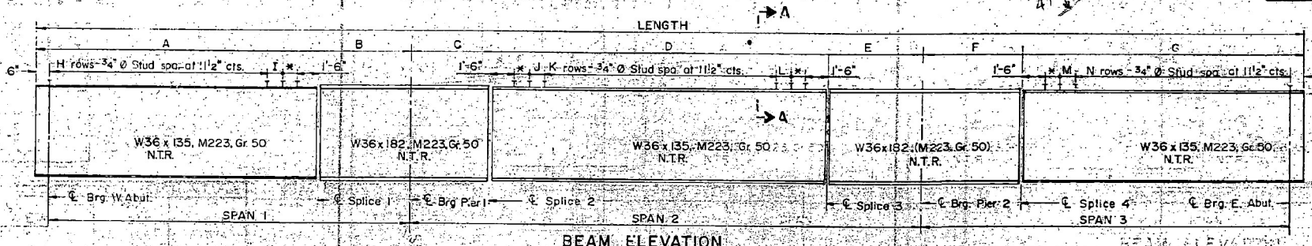
NOTE: Beam spacing is 6'-10" radially. Beams shall be fabricated to their respective radii.
All horizontal dimensions except "X" are given along ℄ Beam.
"X" & "Y" dimensions are given from the respective local tangent of each Beam at Sta. 454+59.75.

ELEVATIONS - TOP OF W.

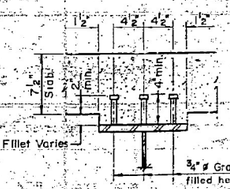
(For Fabrication Only)

	℄ Brg. W. A.	Splice 1	℄ Brg. Pier	Splice 2	Splice 3	℄ Brg. Pier 2	Splice 4	℄ Brg. E. A.
Bm. 1	780.01	780.07	780.10	780.12	780.09	780.05	780.00	779.90
Bm. 2	780.39	780.46	780.49	780.52	780.51	780.47	780.43	780.35
Bm. 3	780.77	780.85	780.89	780.92	780.93	780.90	780.86	780.80
Bm. 4	781.15	781.24	781.28	781.32	781.34	781.32	781.29	781.24
Bm. 5	781.53	781.63	781.68	781.72	781.76	781.74	781.72	781.68
Bm. 6	781.91	782.02	782.07	782.12	782.17	782.16	782.14	782.12
Bm. 7	782.28	782.41	782.46	782.51	782.58	782.57	782.56	782.55

Elevations at splices are given to the top of W36 x 182



N.T.R. indicates Notch Toughness Requirements



SEC. A-A

BEAM DIMENSIONS

BEAM	RADIUS	A	B	C	D	E	F	G	LENGTH
1	1889.36'	48'-2 5/16"	19'-0 3/16"	17'-9 1/2"	56'-2 9/16"	19'-2 1/16"	21'-4 5/16"	46'-1 1/16"	227'-11 5/8"
2	1896.19'	48'-0"	18'-11 7/8"	17'-8 15/16"	55'-11 7/8"	19'-1 9/16"	21'-2 5/16"	45'-10 5/8"	226'-10 3/8"
3	1903.03'	47'-9 7/8"	18'-10 3/16"	17'-7 11/16"	55'-8 5/8"	19'-0 1/16"	21'-1 3/8"	45'-7 5/8"	225'-10"
4	1909.86'	47'-7 3/4"	18'-9 1/16"	17'-6 13/16"	55'-5 3/8"	18'-11 5/16"	21'-0 3/8"	45'-4 11/16"	224'-9 3/4"
5	1916.69'	47'-5 11/16"	18'-8 3/16"	17'-6"	55'-2 1/8"	18'-10 1/2"	20'-11 1/16"	45'-1 7/8"	223'-10"
6	1923.53'	47'-3 3/8"	18'-7 11/16"	17'-5 1/8"	54'-11 3/8"	18'-9 5/16"	20'-9 5/8"	44'-11 1/16"	222'-10 3/8"
7	1930.36'	47'-1 5/8"	18'-6 7/8"	17'-4 1/16"	54'-8 1/8"	18'-8 1/16"	20'-8 3/4"	44'-8 5/8"	221'-11"

VALUE OF H thru N

	H	J	K	L	M	N
Bm. 1	47"	1'-1 3/16"	8 1/4"	53"	8 5/16"	11 11/16"
Bm. 2	47"	10"	6 3/4"	53"	1'-6 11/16"	8 5/16"
Bm. 3	47"	8" 7/8"	5 3/16"	53"	5 5/8"	5'-6"
Bm. 4	47"	6 3/4"	3 11/16"	53"	3 11/16"	1'-2 3/16"
Bm. 5	47"	4 11/16"	2 1/8"	52"	1'-8"	11 13/16"
Bm. 6	46"	1'-2 5/8"	6 9/16"	52"	6 9/16"	8 9/16"
Bm. 7	46"	1'-0 1/8"	5 3/16"	52"	5 3/16"	5 7/8"

BEAM SPACING AT ABUTMENT

	W Abut	E Abut
Bm. 1 - Bm. 2	9'-8 3/8"	11" 1/4"
Bm. 2 - Bm. 3	9'-7 7/8"	11'-0 1/2"
Bm. 3 - Bm. 4	9'-7 5/8"	10'-11 3/8"
Bm. 4 - Bm. 5	9'-7 5/8"	10'-11"
Bm. 5 - Bm. 6	9'-6 3/8"	10'-10 1/4"
Bm. 6 - Bm. 7	9'-6 3/8"	10'-9 5/8"

BEAM DIMENSION LAYOUT DIMENSIONS IN FEET

BEAM	WEST ABUT.		SPLICE 1		PIER 1		SPLICE 2		SPLICE 3		PIER 2		SPLICE 4		EAST ABUT.	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
1	3.00	2.67	0.83	0.73	0.34	0.30	0.07	0.06	0.49	0.43	1.05	0.94	1.95	1.73	4.76	4.24
2	3.43	3.05	1.07	0.95	0.50	0.45	0.16	0.15	0.32	0.28	0.79	0.70	1.57	1.40	4.14	3.68
3	3.89	3.47	1.35	1.20	0.70	0.62	0.28	0.25	0.18	0.16	0.56	0.50	1.24	1.10	3.57	3.18
4	4.38	3.90	1.65	1.47	0.93	0.82	0.44	0.39	0.08	0.07	0.38	0.34	0.95	0.85	3.04	2.71
5	4.89	4.36	1.98	1.77	1.18	1.05	0.62	0.55	0.02	0.02	0.23	0.20	0.70	0.62	2.57	2.28
6	5.43	4.83	2.34	2.09	1.47	1.31	0.84	0.74	0.00	0.00	0.12	0.11	0.49	0.44	2.13	1.90
7	5.99	5.33	2.73	2.43	1.79	1.59	1.08	0.96	0.01	0.01	0.05	0.04	0.32	0.29	1.74	1.55

FRAMING PLAN
F.A.P. RT. 317 SEC. 18-2VB
WOODFORD CO.
STA. 454+59.75

HSIONG ASSOCIATES LTD.

DESIGNED: W.H. CHECKED: D.R.B.
DRAWN: R.H.H. DATE: NO.

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MODEL: Default
FILE NAME: D:\2 Files\213081 IDOT - DIST 4 - PTB 201-03\Work Order 15 - FY 2023 Patching\18_Transportation\68H58 (Bridge Painting)\CADD Sheets\020 1_12 Old #8n Sets.dgn

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PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE PLAN SETS

SCALE: NONE | SHEET 5 OF 8 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	110
		CONTRACT NO. 68H58		
		ILLINOIS	FED. AID PROJECT	

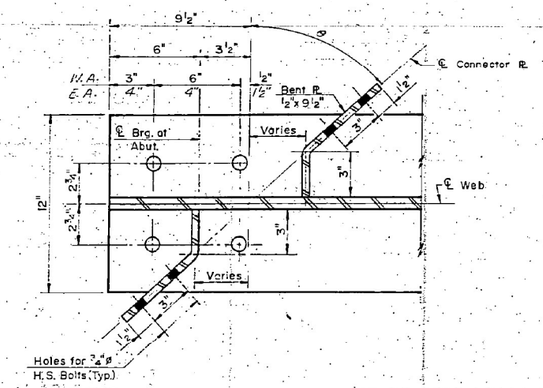
SN 102-0046 (LOCATION 14)

LOCATION 14

102-0046

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 317	18-2VB	WOODFORD	35	19
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT F-317(35)		

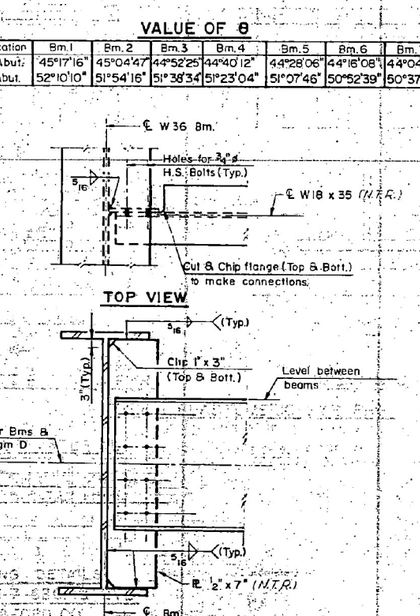
SHEET 8 OF 16



DETAIL A

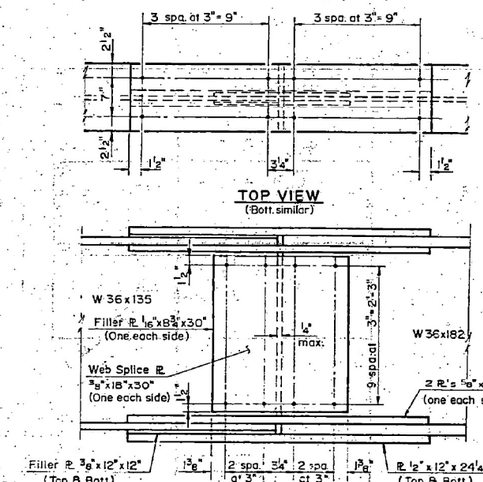
VALUE OF θ

Location	Bm.1	Bm.2	Bm.3	Bm.4	Bm.5	Bm.6	Bm.7
W. Abut.	45°17'16"	45°04'47"	44°52'25"	44°40'12"	44°28'06"	44°16'08"	44°04'18"
E. Abut.	52°10'10"	51°54'16"	51°38'34"	51°23'04"	51°07'46"	50°52'39"	50°37'44"



DETAIL OF DIAPHRAGM D

(77 required)



ELEVATION

FIELD SPLICE DETAILS

(Typ. All Splices)

(Flange Splice Fasteners shall be ⅞"ø H.S. Bolts with open hole 15/16" ø)

All Splice plates shall be M223, Gr. 50 steel & shall conform to Notch Toughness Requirments.

INTERIOR GIRDER MOMENT TABLE			
	0.4 Sp.1 & 3	Pier 1 & 2	0.5 Sp. 2
Is (in.⁴)	7800	11300	7800
Ic (in.⁴)	20,000		20,000
Ss (in.³)	439	623	439
Sc (in.³)	634.7		634.7
Sbi(in.³)	18.8	28.7	18.8
℄ (K/I)	.85	.85	.85
M℄('K)	202.5	606.5	307.1
s℄ (K/I)	.28	.28	.28
Ms℄('K)	85.0	164.6	139.9
M℄('K)	454.5	367.2	549.6
Mimp.('K)	159.7	119.1	178.3
S_s(M℄+I)('K)	1023.7	810.5	1213.2
Mbi('K)	6.2	8.3	7.9
Ma('K)	1704.6	2056.1	2158.3
fs℄non-comp(ksi)	5.4	11.0	8.4
fs℄(comp)(k.s.i.)	1.3	3.3	2.0
$f_s$$S_s$(℄+I)(k.s.i.)	19.4	15.6	22.7
fw (k.s.i.)	4.0	3.5	5.0
fs(Overload)(ksi)	30.1	33.4	38.1
** fs(Total)(k.s.i.)	39.1	43.4	49.5
VR (K)	52.8		53.8

INTERIOR GIRDER REACTION TABLE		
	Abut.	Pier
R℄ (K)	24.5	98.5
R ℄ (K)	416	57.4
Imp.(K)	10.9	14.3
R TOTAL (K)	77	170.2

** Non-compact section

Ma(Applied Moment = 1.3 [M℄ + Ms℄ + S_s(M℄ + I)]

fw = Calculated normal stress at the edge of the flange due to lateral flange bending. (Unfactored)

Sbi = Section Modulus for one flange plate for lateral flange bending.

Mbi = Lateral bending moment for flange plate.

fs (Total) is the sum of the stresses due to 1.3 [M℄ + Ms℄ + S_s(℄ + I)]

Is and Ss are the moment of inertia and section modulus of the steel section used in computing fs (Total and Overload)

Ic and Sc are the moment of inertia and section modulus of the composite section used in computing fs (Total and Overload)

VR is the maximum ℄ + impact shear range in span.

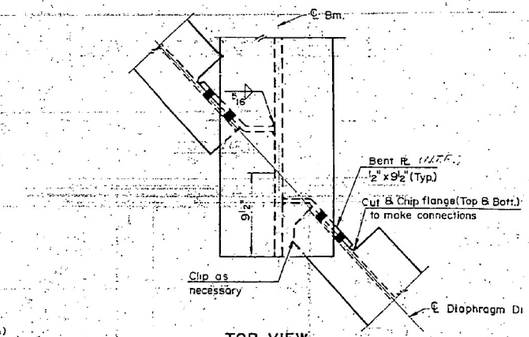
fs (Overload) is the sum of the stresses due to M℄ + Ms ℄ + S_s(M℄ + I).

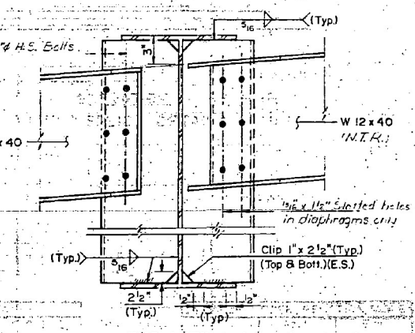
M℄ Moment due to dead loads on non-composite section.

Ms℄ Moment due to dead loads on composite section.

M℄ Moment due to live load on composite section.

I Live load impact.





DETAIL OF DIAPHRAGM D1

(12 Required)

N.T.R. indicates Notch Toughness Requirments.

SPLICE & DIAPHRAGM DETAILS

F.A.P. RT. 317, SEC. 18-2VB

WOODFORD CO.

STA. 454+59.75

HSIONG ASSOCIATES LTD.

DESIGNED: W.H. CHECKED: D.R.B.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE PLAN SETS

SCALE: NONE | SHEET 6 OF 8 SHEETS | STA. N/A | TO STA. N/A

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	111
		CONTRACT NO. 68H58		
		ILLINOIS	FED. AID PROJECT	

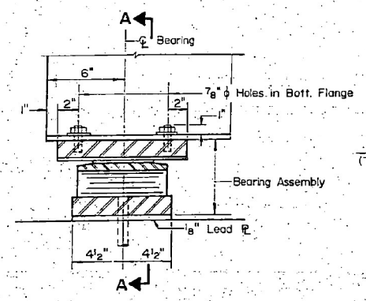
SN 102-0046 (LOCATION 14)

LOCATION 14

102-0046

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 317	18-2VB	WOODFORD	35	20
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT F-317(35)		

SHEET 9 OF 16



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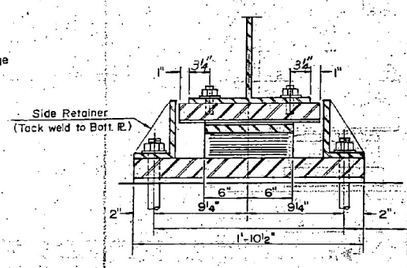
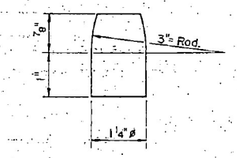
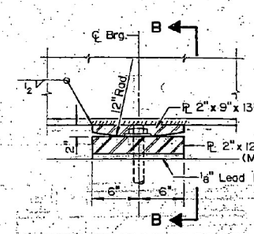


SECTION A-A



PINTLE



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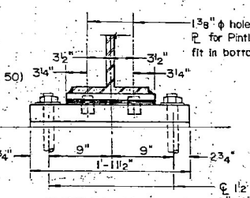


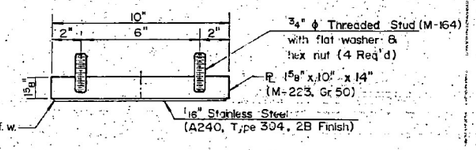
SECTION B-B

℄ 1½" ϕ x 18" Anchor bolts with
3"x3"x⅝" ℙ washer under nut.
2" ϕ Holes in bottom ℙ.

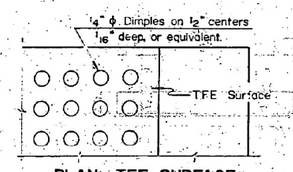
NOTE: After girders have been erected, holes at expansion bearings shall be drilled and anchor bolts grouted in place. Anchor bolts at fixed bearings may be built into the masonry.

TYPE II TFE ELASTOMERIC EXP BRG.

(At W. Abutments)



TOP BEARING ASSEMBLY

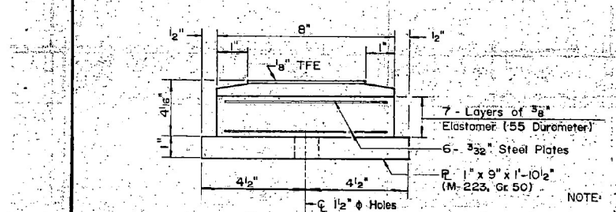


PLAN - TFE SURFACE

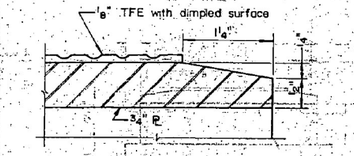
NOTE:

Bearing seat surfaces shall be constructed or adjusted to the designated elevs. within a tolerance of ⅛ inch. Adjustment shall be made either by grinding the surface or by shimming the bearing. Two ⅛ inch adjusting shims, of the dimensions of the bottom bearing ℙ, shall be provided for each bearing in addition to all other ℙ's or shims. (For Type I Elastomeric Bearings, shims of the dimensions of top ℙ shall be provided and placed as detailed.

See Sheet 3 of 16 for Hold Down Detail at Abuts.

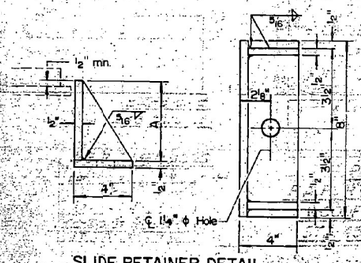


BOTTOM BEARING ASSEMBLY



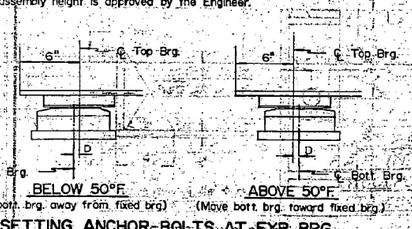
SECTION THRU TFE

NOTE: The ⅛" TFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.
Bonding of ⅛" TFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.



SLIDE RETAINER DETAIL

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

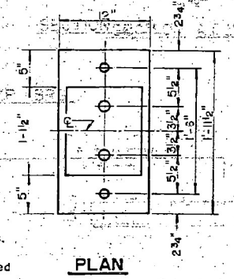


SETTING ANCHOR BOLTS AT EXP. BRG.

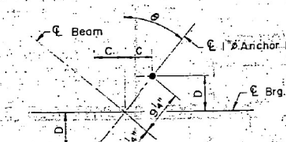
D= ⅛" per each 100° of expansion for every 15° temp. change from the normal temp. of 50°F.

FIXED BEARING

(Pier # 2)

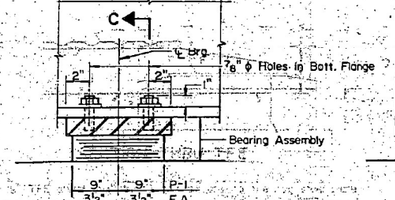


PLAN

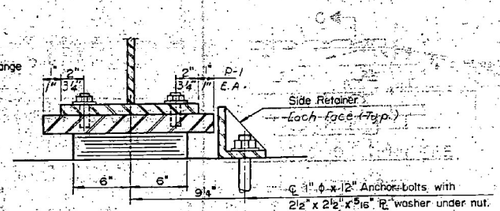


ANCHOR BOLT LOCATION AT ABUT.

W.A.	Bm 1	Bm.2	Bm.3	Bm.4	Bm.5	Bm.6	Bm.7
θ	45°17'16"	45°04'47"	44°52'25"	44°40'12"	44°28'06"	44°16'08"	44°04'18"
C	6⅝"	6½"	6½"	6½"	6½"	6½"	6⅜"
D	6½"	6½"	6½"	6⅝"	6⅝"	6⅝"	6⅝"
E.A.	Bm.1	Bm.2	Bm.3	Bm.4	Bm.5	Bm.6	Bm.7
θ	52°10'10"	51°54'16"	51°38'34"	51°23'04"	51°07'46"	50°52'39"	50°37'44"
C	7¼"	7¼"	7¼"	7¼"	7¼"	7⅛"	7⅛"
D	5⅝"	5¾"	5¾"	5¾"	5¾"	5⅞"	5⅞"



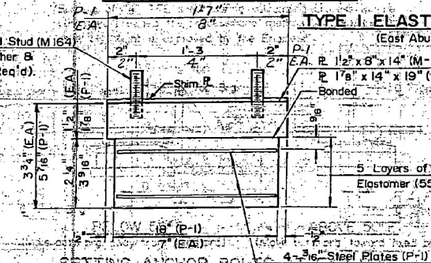
SECTION AT E. ABUT & PIER I



SECTION C - C

TYPE I ELASTOMERIC EXP BRG.

(East Abut. & Pier I)



SETTING ANCHOR BOLTS

4 - ⅜" Steel Plates (E.A.)
4 - ⅝" Steel Plates (P-I)

BEARING ASSEMBLY

Tp = ⅜" at E.A.
Tp = ⅝" at P-I

BILL OF MATERIAL

Item	Unit	Quantity
Elasto. Brg. Assembly (Type I)	Each	14
Elasto. Brg. Assembly (Type II)	Each	7

BEARING DETAILS

F.A.P. RT. 317 SEC. 18-2VB

WOODFORD CO.

STA. 454+59.75

HSIONG, ASSOCIATES LTD.

DESIGNED: W.H. CHECKED: C.H.S.

DRAWN: R.H.H. DATE: NO.

FOR INFORMATION ONLY

SN 102-0046 (LOCATION 14)

LOCATION 14

102-0046

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
F.A.P.317	18-2VB	WOODFORD	35	21
FED ROAD DIST NO.	ILLINOIS	PROJECT F-317(35)		

SHEET 10 of 16

NOTES:

Space Reinforcement in cap to miss anchor bolts.
All edges shall have standard ¾" chamfer except as noted.
Pour steps monolithically with cap.
4 in Spiral @ 1½ turns.
For location of Anchor bolts, see sheet 9 of 16.

2'-3"

n or v

1½" cl.

4 sc. spiral (24" core diameter, @ 3" pitch)

SEC. B-B

66'-3"

9'-1½" | 16'-0" | 8'-0" | 33'-1½"

Sta. 454+03.61

℄ Pier 1 | ℄ Pier 2 Brg.

p6 or h3

s1

1'-3" R (Typ.)

2'-6"

1'-3"

1'-3"

3'-2⅝" | 10'-2⅛" | 9'-11⅜" | 9'-11¼" | 9'-10⅜" | 9'-10¼" | 3'-3⅝"

Bin #1 | Bin #7

TOP PLAN

50-#4 s bars at 12" cts.

10-#4 s1 at 1'-3" cts. Top & Bott. Each End

5-#11 p6 bars Top (2 lengths)

2-#11 p7 Each End

3-#5 h3 bars Ea. Face (2 lengths)

5-#5 p8 bars Bottom Each End

5-#10 p8 bars Bottom (3 lengths)

11-#9 v bars Each Column See Sec. B-B

5-#5 h4 bars Top (3 lengths)

11-#9 n bars Ea. Column See Sec. B-B

50-#5 s5 bars at 12" cts.

50-#6 s3 bars at 12" cts.

3-#6 n1 bars Ea. End

10-#4 v1 bars at 12" cts. Ea. End

3-#5 v2 bars Each End

64 spirals Each Column

Elev. 754.0 ± (Top of Slopewall)

Elev. 747.37

Elev. 776.62

Elev. 776.98

Elev. 778.59

Elev. 777.41

Elev. 777.0

Elev. 776.23

See Step Elevation for Details above this line

Elev. 776.62

2'-6" | 2'-9" | 2'-9"

5.31 tons 2" per 1:-1

1'-3" | 5'-6" | 1'-3"

8'-0"

END VIEW

PILE DATA		MIN. LAPS	
Type	Concrete	#5	2'-2"
Capacity	36 Tons	#10	7'-4"
Est. Length	44'	#11	9'-0"
No. Required	22		

66'-3"

8'-0" | 5 at 10'-0" = 50'-0"

57-#4 s4 bars at 12" cts.

4-#9 p11

4-#9 p12 (Type Each Step Except as noted)

1'-0"

1'-3"

STEP ELEVATION

℄ Brg.

ELEVATION

1'-3" | 11 piles Spaced at 5'-0" cts. = 50'-0"

1'-4½" | 1'-2⅞"

26'-3"

64-#6 t bars at ± 12" (Place 6 bars between piles & 2 bars Each End)

48°19'55"

1'-3" R (Typ.)

n1 or v2

℄ Pier 1

℄ Fig

s3 or s5

STA. 454+03.61

h5

7-#5 w1 bars at 12" cts. Bottom (2 lengths)

52'-6"

℄ Pier 1

℄ Rdwy.

Local Tangent at STA. 454+59.75

FOOTING PLAN

FOR SOIL BORING LOGS SEE SHEET 29

FOR SOIL BORING LOGS

8'-0" | 4'-6" | 1'-3" | 8'-0"

BARS n & n1

8'-0"

1'-6"

BAR p9

2" | 2'-2" | 2"

2'-0"

p10 or p11

p6

p7 or p12

s4

s

4'-6"

n3

p8

2" cl.

2'-6"

SEC. A-A

3'-0" | 3'-0"

1'-6"

3'-6"

BARS u & u1

20°

4'-2"

2'-2"

BAR s

A

B

BARS s1 & s3 thru s5

A & B DIMENSIONS		
Bar	A	B
s1	2'-2"	2'-9"
s3	2'-2"	4'-6"
s4	1'-10"	3'-9"
s5	2'-2"	3'-3"

* Vertical height, wt. includes 3 lb. per ft. of spiral for spacers.

** Bill of material [illegible]

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h3	12	# 5	33'-0"	—
h4	15	# 6	18'-0"	—
h5	36	# 5	25'-6"	—
n	44	# 9	9'-3"	U
n1	6	# 6	5'-2"	U
p6	10	# 11	36'-6"	—
p7	4	# 11	13'-0"	—
p8	15	# 10	21'-9"	—
p9	10	# 5	9'-6"	—
p10	20	# 9	12'-0"	—
p11	4	# 9	6'-9"	—
s	50	# 4	13'-5"	□
s1	40	# 4	7'-8"	U
s3	50	# 6	11'-2"	U
s4	57	# 4	9'-4"	U
s5	50	# 5	20'-8"	□
sp	4	# 4	#13'-5"	∿∿∿
t	64	# 6	7'-9"	—
u	8	# 6	9'-6"	U
u1	20	# 5	9'-6"	U
v	44	# 9	16'-0"	—
v2	6	# 5	9'-3"	—
w1	14	# 5	27'-3"	—
Reinforcement bars, Epoxy Coated			Lbs.	15,740
Class X Concrete			Cu. Yds.	119.5
Concrete Piles			Lin. Ft.	924
Test Pile Concrete			Ea.	1
Structure Excavation			Cu. Yds.	117

PIER 1

F.A.P. RT. 317 SEC. 18-2VB

WOODFORD CO.

STA. 454+59.75

HSIONG ASSOCIATES LTD.

DESIGNED: W.H. CHECKED: D.R.B

DRAWN: R.H.H. DATE: PLANS NO. 3 OF 11

FOR INFORMATION ONLY

MODEL: Default
FILE NAME: C:\2 Files\23081 TDOT - DIST 4 - PTB 201-033\Work Order 15 - FY 2023 Patching\18.Transportation\68H58 (Bridge Painting)\CADD Sheets\020_112 Old Rtn Section

KLINGNER & ASSOCIATES, P.C. Engineers · Architects · Surveyors www.klingner.com Galesburg, Illinois 40 North Public Street 309.342.4142 Quincy, IL · Hannibal, MO Burlington, IA · Mt. Pleasant, IA · Carrollton, IL	USER NAME = rbailey	DESIGNED - RTB	REVISED -
		DRAWN - RTB	REVISED -
	PLOT SCALE = 100.0000 ' / in.	CHECKED - MCL	REVISED -
	PLOT DATE = 3/21/2023	DATE - 3/21/2023	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OLD BRIDGE
PLAN SETS

SCALE: NONE | SHEET 8 OF 8 SHEETS | STA. N/A | TO STA. N/A

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D-4 BRIDGE PAINTING 2023	VAR	113	113
		CONTRACT NO. 68H58		
	ILLINOIS	FED. AID PROJECT		