

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

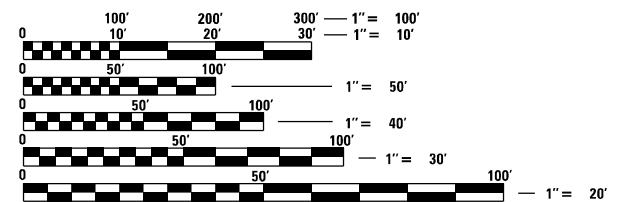
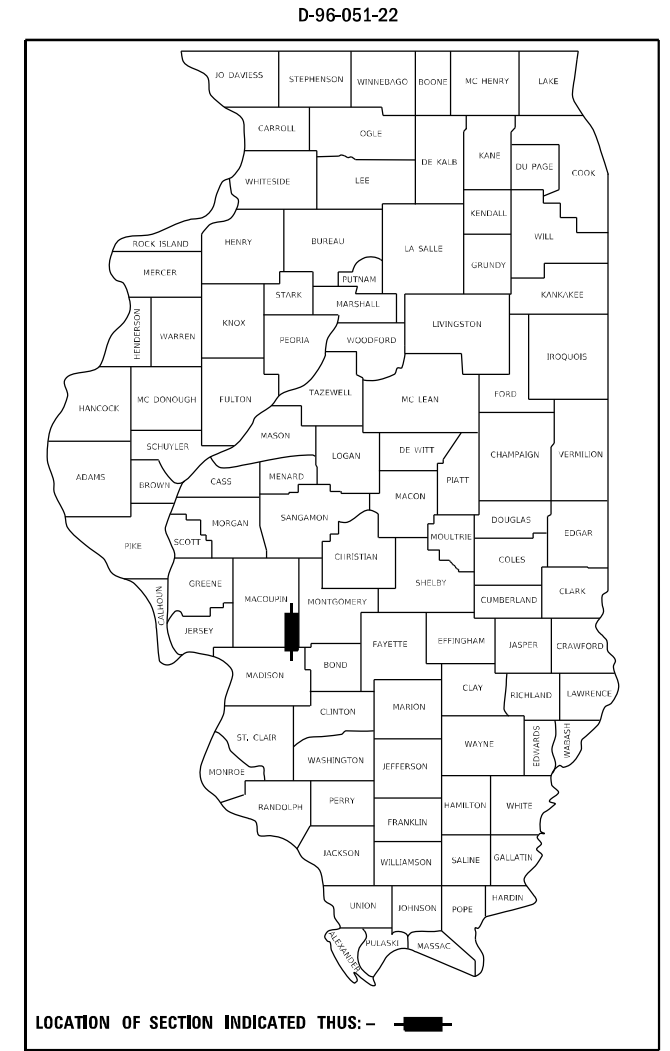
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	D6 BRIDGE PAINTING 2023	MACOUPIN	20	1
		ILLINOIS	CONTRACT NO. 72595	

FOR INDEX OF SHEETS, SEE SHEET NO. 2

PROPOSED
HIGHWAY PLANS

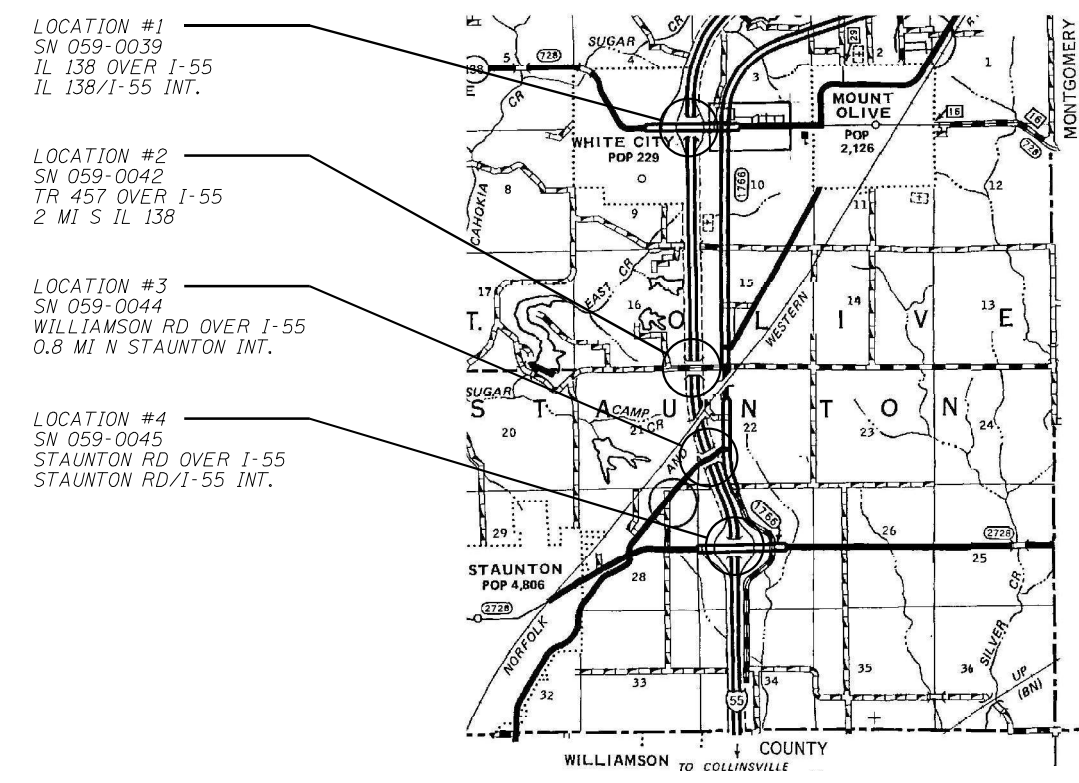
FAI ROUTE 55 (I-55)
SECTION D6 BRIDGE PAINTING 2023
PROJECT NHPP-0IBV(506)
BRIDGE PAINTING
MACOUPIN COUNTY

C-96-069-22



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



BRIDGE MAINTENANCE ENGINEER: BRANDON DUDLEY - (217) 785-9290

GROSS LENGTH = 3.6 MILE
NET LENGTH = 1200 FT. = 0.23 MILE

CONTRACT NO. 72595

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED August 22, 2022

John P. Meyer
REGIONAL ENGINEER

October 14, 2022
Scott A. Etkin
ENGINEER OF DESIGN AND ENVIRONMENT

October 14, 2022
Stephen M. Smith
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

HIGHWAY STANDARDS

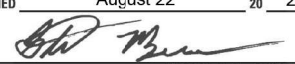

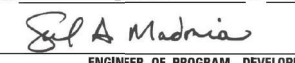
INDEX OF SHEETS

1	COVER SHEET
2	INDEX, STANDARDS, GENERAL NOTES, & SIGNATURES
3-4	SUMMARY OF QUANTITIES
5-8	EXISTING BRIDGE PLANS, SN 059-0039
9-12	EXISTING BRIDGE PLANS, SN 059-0042
13-16	EXISTING BRIDGE PLANS, SN 059-0044
17-20	EXISTING BRIDGE PLANS, SN 059-0045

000001-08
001006
701101-05
701106-02
701400-11
701402-12
701411-09
701428-01
701901-08
704001-08
782006-01

GENERAL NOTES:

1. WORK SHALL CONSIST OF BLASTING AND PAINTING STRUCTURAL STEEL AT LOCATIONS DESCRIBED IN THE SPECIAL PROVISIONS. CLEANING AND PAINTING OF THE EXISTING STRUCTURAL STEEL SHALL BE AS SPECIFIED IN THE SPECIAL PROVISIONS FOR "CLEANING AND PAINTING EXISTING STEEL STRUCTURES". ALL AREAS TO BE PAINTED SHALL BE CLEANED PER NEAR WHITE BLAST CLEANING PER SSPC SP 10. ALL EXISTING STEEL CLEANED SHALL BE PAINTED ACCORDING TO THE REQUIREMENTS OF PAINT SYSTEM 1 - OZ/E/U. THE COLOR OF THE FINAL FINISH COATS SHALL BE AS DESCRIBED IN THE SPECIAL PROVISIONS.
2. THE USE OF AIR MONITORS WILL BE REQUIRED AT LOCATIONS AS CALLED OUT IN THE SPECIAL PROVISIONS.
3. THE SSPC-QP-1 AND SSPC-QP2 PAINTING CONTRACTOR CERTIFICATIONS WILL BE REQUIRED.
4. 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 THE CONTRACTOR'S EXPENSE. RUBBER COMPONENTS SHALL NOT BE PAINTED.
5. UPON COMPLETION OF PAINTING OPERATIONS, THE CONTRACTOR SHALL REMOVE ALL DEBRIS FROM PIER OR ABUTMENT CAPS UPON WHICH PAINTING OPERATIONS TOOK PLACE. FINAL CLEANUP SHALL BE CONSIDERED INCIDENTAL TO THE PAINT PAY ITEM FOR THE RESPECTIVE LOCATION. THE ENGINEER SHALL HAVE THE RIGHT TO WITHHOLD PAYMENT UNTIL SATISFACTORY CLEANUP IS ACHIEVED.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS DISTRICT 6	
EXAMINED	August 22 20 22
	
ENGINEER OF OPERATIONS	
EXAMINED	August 22 20 22
	
ENGINEER OF PROJECT IMPLEMENTATION	
EXAMINED	August 22 20 22
	
ENGINEER OF PROGRAM DEVELOPMENT	

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PLOT DATE = 8/22/2022	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**INDEX OF SHEETS, STANDARDS,
GENERAL NOTES, & SIGNATURES**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	D6 BRIDGE PAINTING 2023	MACOUPIN	20	2
CONTRACT NO. 72595				
ILLINOIS FED. AID PROJECT				

B.M. #42-8" Bolt Spike in Roof of 36" Oak, 434' Lt. Sta. 624131 (M.L.) Elev 657055

Sheet #1 of 14 Sheets

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-55	SPRINGS	MACOUPIN	72	33
STA.		TO STA.	PROJECT	
FD, ROAD DIST. NO. 7		ILLINOIS		

-GENERAL NOTES-

All reinforcement bars shall be spaced 24 diameters unless otherwise shown.

Field connections shall be bolted using high strength bolts. Bolts 5/8" open no es 1/2" unless otherwise noted.

Calculated weight of Structural Steel = 468,360 lbs.

The Contractor shall drive 2 test piles in a permanent location, one of each Bent Cap as directed by the Engineer before ordering the remainder of the piles.

The Basic Lead Silico Chromate paint system shall be used for shop and field painting of structural steel.

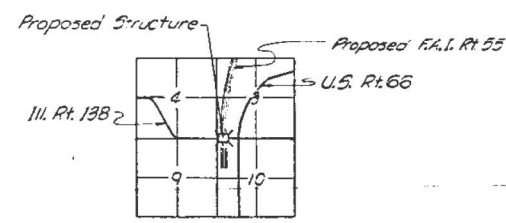
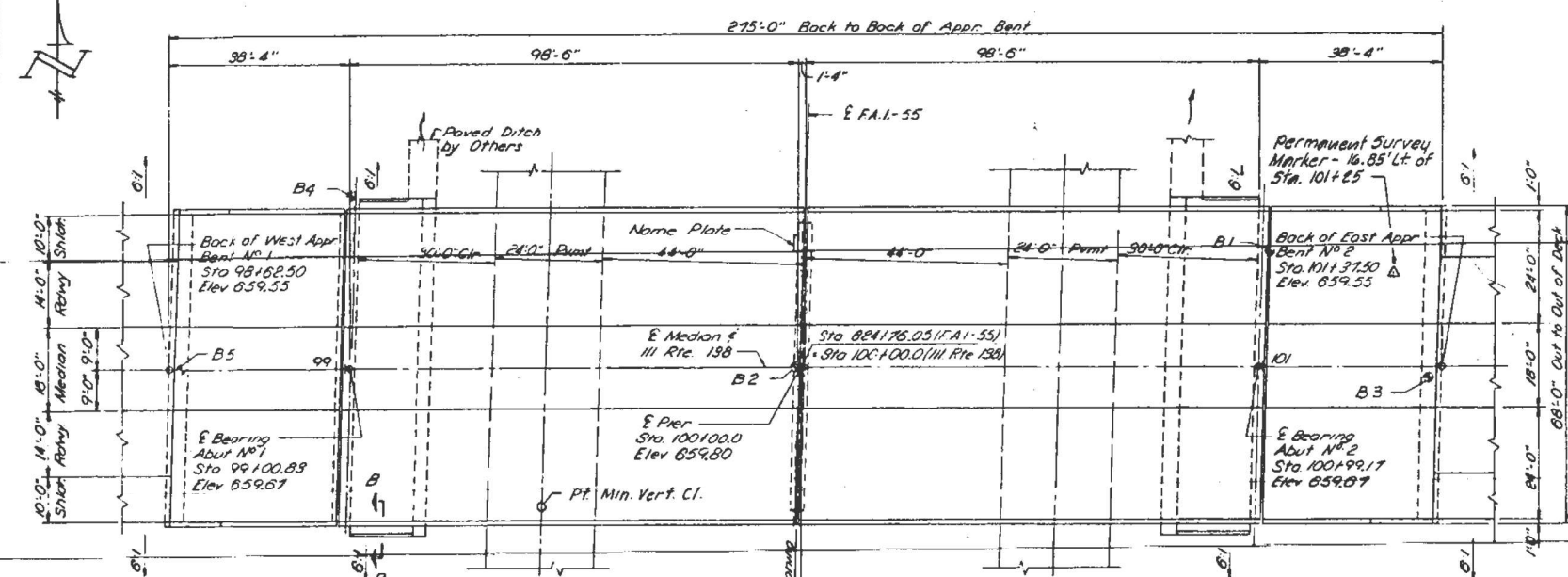
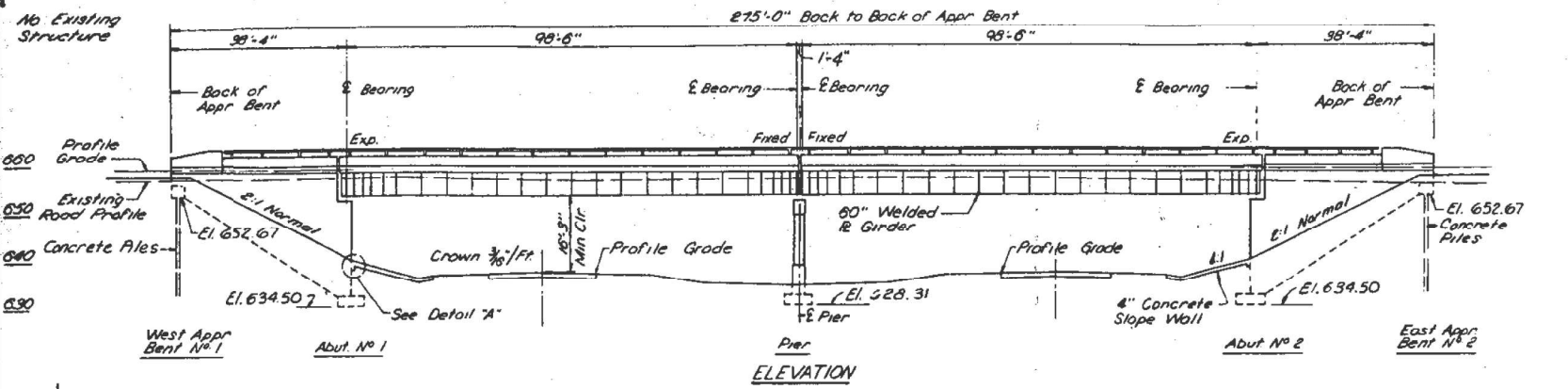
Field welding of construction accessories will not be permitted in the bottom of flange of beams or girders nor to the top flange for a distance equal to one-fourth the span length each way from the Pier supports. Field welding in other areas will be permitted only when approved by the Engineer.

Anchor bolts shall be set before bolting cross frames over supports.

An alternate strand pattern using Extra High Strength Prestressing Strand (270 K.S.I.) is permitted.

The embankment configuration shown shall be the minimum embankment that must be constructed prior to construction of the abutments.

The concrete rail section above the mandatory construction joint at the top of the slab shall be constructed of Class X Concrete, except the aggregates shall conform to the requirements of Hand-rail Concrete.

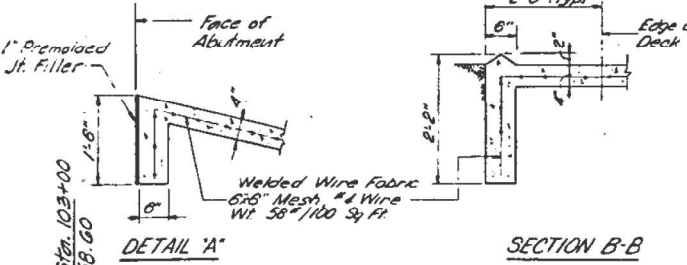
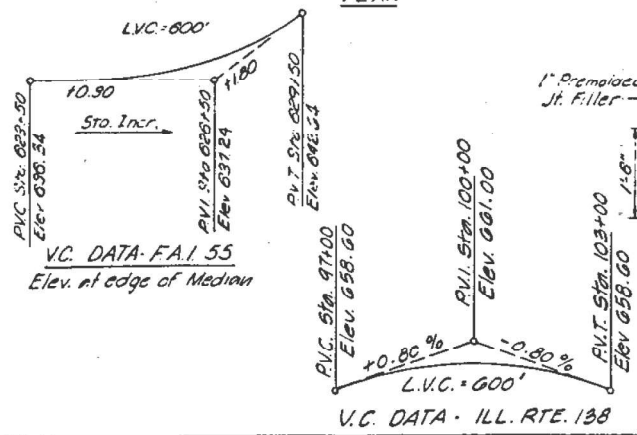


APPROVED
FOR STRUCTURAL ADEQUACY ONLY
C. H. CHASTAIN
Engineer of Bridge & Traffic Structures

DESIGN LOADING
Live HS 20-44 AASHTO 1969 Specifications
Dead Load includes 25' / sq. ft. of Roadway for future wearing surface.

DESIGN STRESSES
f_c = 1400 p.s.i. Substructure
f_c = 1800 p.s.i. Superstructure Slab
f_s = 75 p.s.i. Footing
f_s = 20,000 p.s.i. Reinforcing Steel
f_s = 20,000 p.s.i. Structural Steel (A-36)
n = 10
Live Load Deflection: 1/800 composite construction

PRESTRESSED BEAMS
f_c = 3000 p.s.i.
f_c = 4000 p.s.i.
f_s = 200,000 p.s.i. 1/2" 4 Strands
f_s = 175,000 p.s.i. 3/4" 4 Strands



LOCATION PLAN

STATION 624176.03
BUILT 197 BY
STATE OF ILLINOIS
FAI RT 55 SEC. 59.24B
FA. PROJ. I-55-2(23)
LOADING H5-20

LETTERING FOR NAME PLATE
(See Std 2-13)



Item	UNIT	QUANTITY	UNIT PRICE	TOTAL
Structure Excavation	Cu. Yds.	599	599	599
Precast Prestressed Conc. I-Beam	Lin. Ft.	654	654	654
Class X Concrete	Cu. Yds.	597.6	267.7	1065.3
Structural Steel	Lbs.	468,360	468,360	468,360
Stud Shear Connectors	Each	3672	3672	3672
Aluminum Railing	Lin. Ft.	502	502	502
Reinforcement Bars	Lbs.	127,370	22,550	102,980
Concrete Piles	Lin. Ft.	576	576	576
Test Pile (Concrete)	Each	2	2	2
Preformed Joint Sealer	Lbs.	202	202	202
Protective Coat	Sq. Yds.	2192	2192	2192
Name Plates	Each	1	1	1
Slope Wall 4"	Sq. Yds.	372	372	372
Permanent Survey Marker, Ty. 1	Each	1	1	1

REVISIONS	DATE	BY	REASON
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

STATE OF ILLINOIS
DIVISION OF HIGHWAYS
ILL. RTE 138 OVER FAI 55
FAI 55 SEC. 59.24B PROJECT I-55 2(23) 44
STA. 624176.03
MACOUPIN CO.
HOMER L. CHASTAIN & ASSOCIATES

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	DATE -	REVISED -

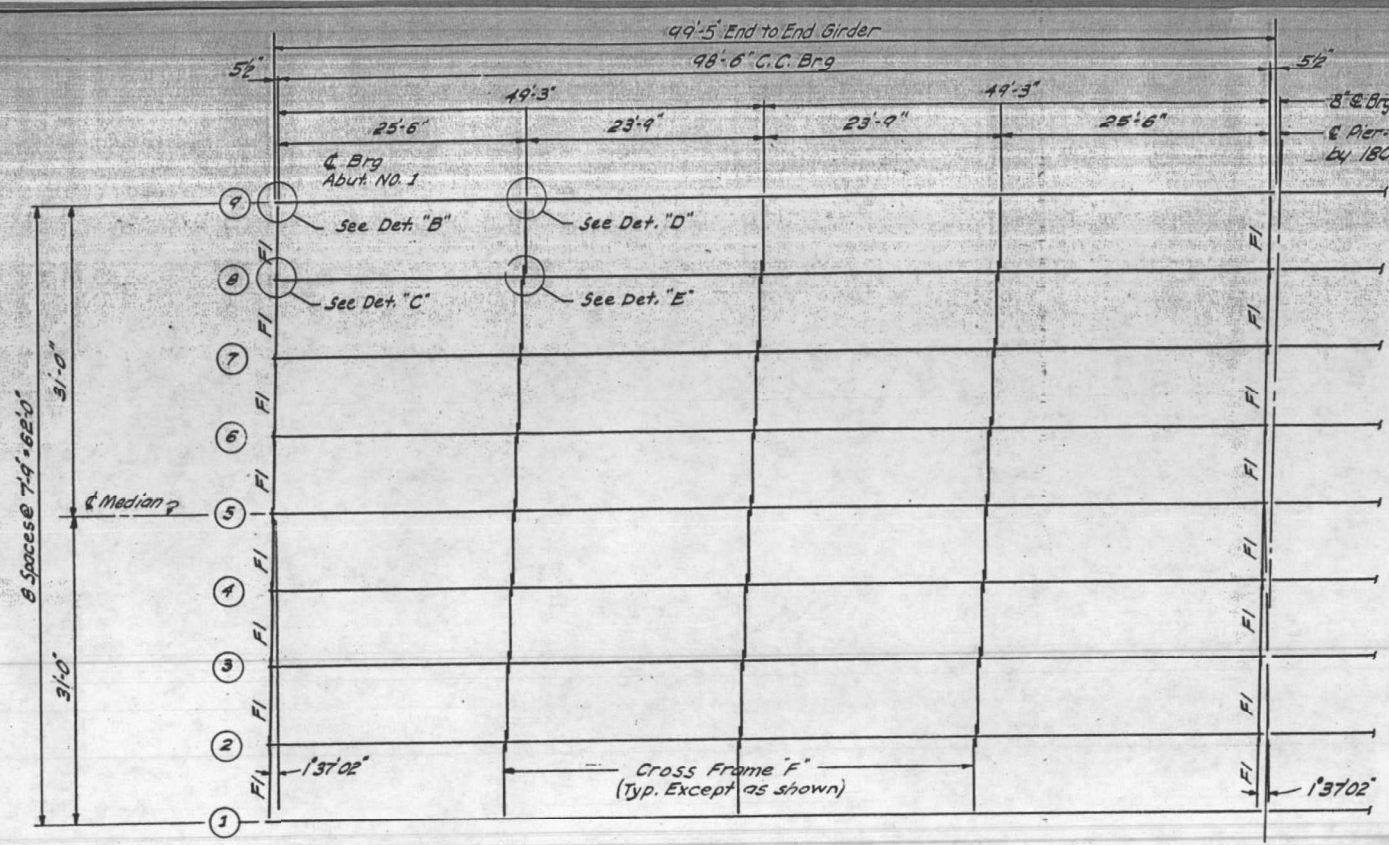
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**EXISTING PLANS - SN 059-0039
(FOR INFORMATION ONLY)**

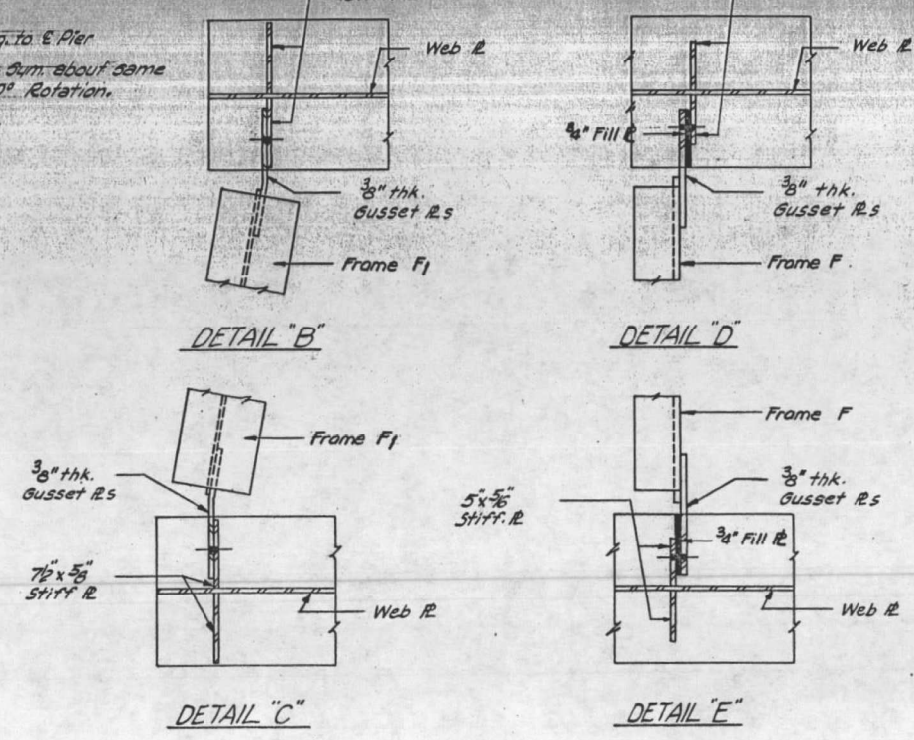
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	D6 BRIDGE PAINTING 2023	MACOUPIN	20	5
				CONTRACT NO. 72595
		ILLINOIS	FED. AID PROJECT	

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FRAMING PLAN



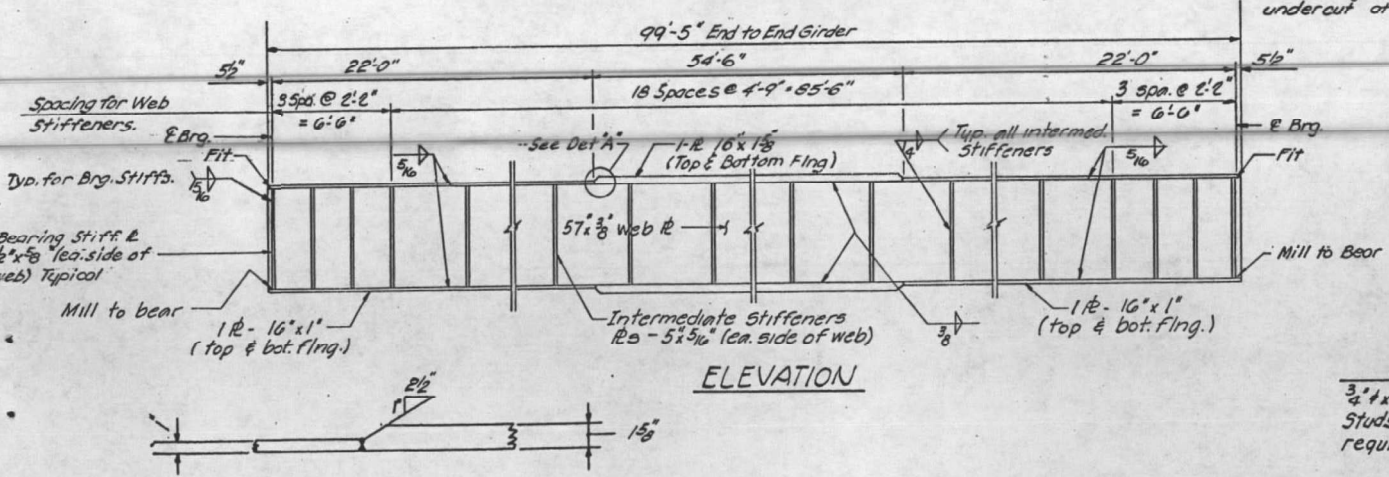
CROSS FRAME CONNS. TO GIRDER
 (See Sheet No. 9 for additional details)

INTERIOR GIRDER
 MOMENT TABLE

Is (in ⁴)	50,387
Ic (in ⁴)	90,687
Is (in ³)	1670
Sc (in ³)	1960
D (k/ft)	1.16
M _o (k)	14.10 (1650)
F _s (ksi)	10.1
S _o (k/ft)	.17
M _s (k)	203
M _t (k)	1055
M _{imp} (k)	235
Total (k)	3123
F _s (ksi)	7.9
F _s Total (ksi)	19.3
VR (k)	56.2

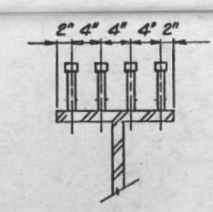
INTERIOR GIRDER
 REACTION TABLE

R _o (k)	Abut.
R _s (k)	57.3
R _t (k)	8.2
Imp. (k)	45.9
R _{total} (k)	10.3
	121.7

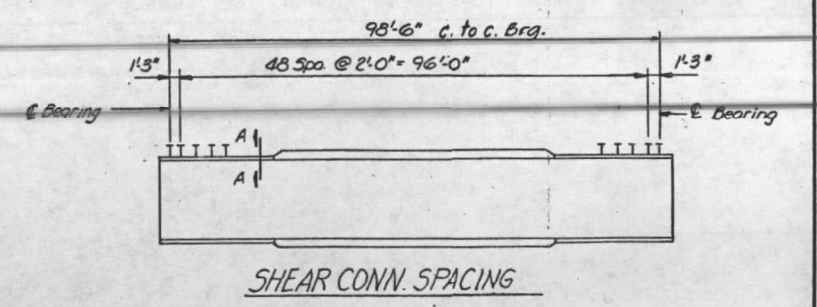


ELEVATION

Note: All intermediate stiffeners shall have a tight fit at the top and 5/8" undercut at the bottom.



SECTION A-A SHEAR CONN.
 3/4" x 4" CR 1020 Steel, Solid, flux filled headed studs. Automatically end welded. 3672 Studs. required.



SHEAR CONN. SPACING

DETAIL "A"

STRUCTURAL STEEL DETAILS

REVISIONS		STATE OF ILLINOIS		DRAWN BY DATE	
NO.	DATE	INITIALS		RAK	9/68
1				CHECKED BY DATE	F.H.L. 3-72
2				SCALE	
3				PROJECT NO.	1761
4				PROJECT	MACOUPIN CO.
5				SHEET NO.	45
6					
7					
8					
9					
10					

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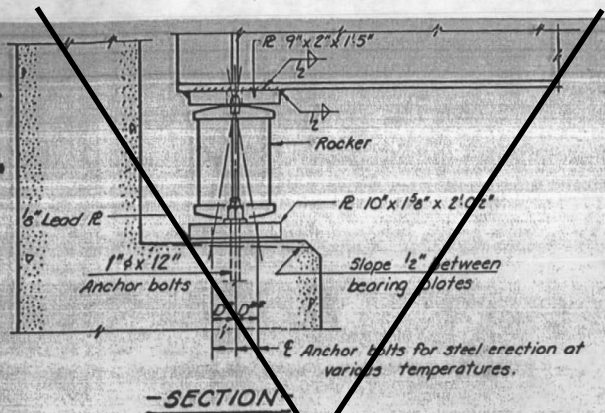
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PLOT DATE = 8/22/2022	DATE -	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

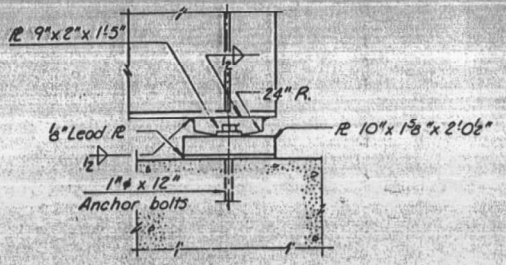
EXISTING PLANS - SN 059-0039
 (FOR INFORMATION ONLY)

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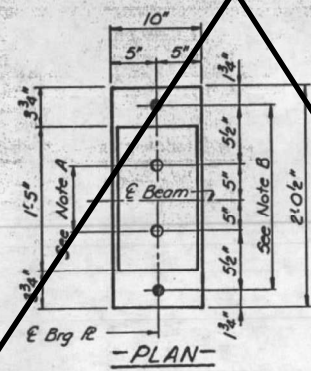
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	D6 BRIDGE PAINTING 2023	MACOUPIN	20	6
			CONTRACT NO. 72595	
			ILLINOIS FED. AID PROJECT	



-SECTION-



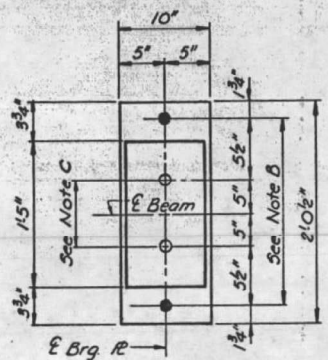
-ELEVATION-



-PLAN-
-AT ABUTMENT-

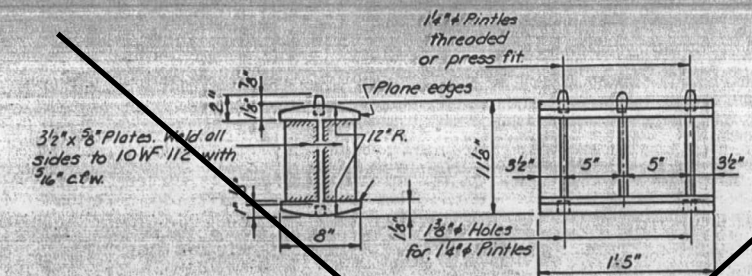
NOTE A
1 1/2" Holes - 1" deep in top R for pintles. Thread or press fit pintles into bottom R.

NOTE B
1 1/2" Holes for 1" anchor bolts. 2 1/2" x 2 1/2" x 5/16" R Washers under nut.

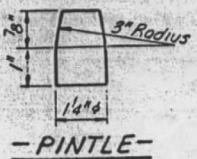


-PLAN-
-AT PIER-

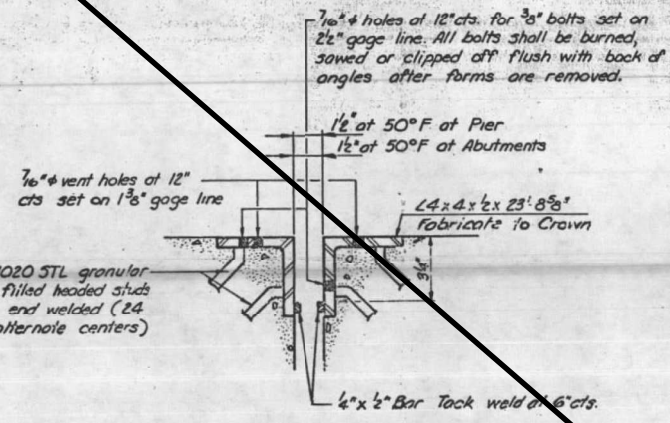
NOTE C
1 1/2" Holes 1" deep in top R only for 1 1/2" pintles.



-ROCKER-



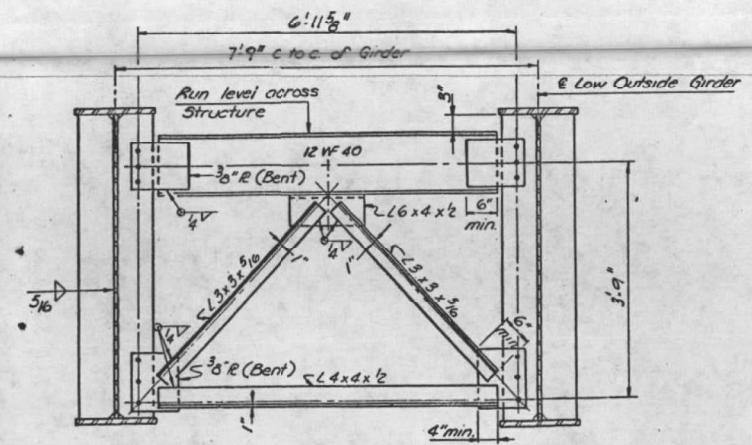
-PINTLE-



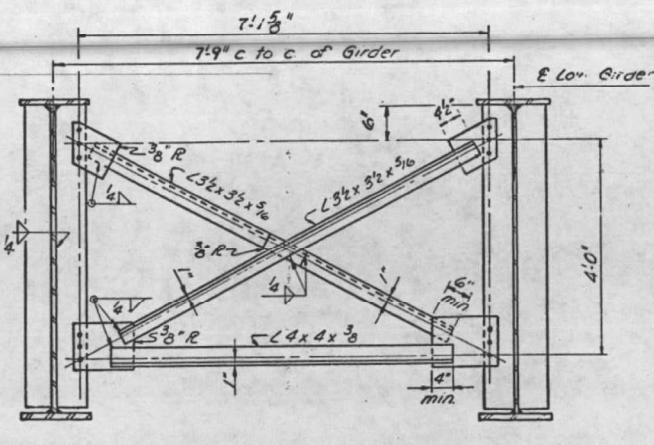
-EXPANSION GUARD-
6 Pairs Required

NOTES ON SETTING OF ANCHOR BOLTS AT EXPANSION BEARINGS

- a) D* (Side of brg away from fixed brg.)
D* = 1/8" per each 100' of expansion for every 15° fall below the normal temperature of 50°F.
- D** (Side of brg toward fixed brg.)
D** = 1/8" per each 100' of expansion for every 15° rise above the normal temperature of 50°F.
- b) After beams have been erected and dimensions D* or D** determined, holes shall be drilled and anchor bolts shall be grouted in place. All fixed anchor bolts may be built into the masonry.



-TYPICAL F1 CROSS FRAME-
32 Req'd



-TYPICAL F CROSS FRAME-
48 Req'd

REVISIONS			STATE OF ILLINOIS		DRAWN BY DATE	
1			MLT 370		CHECKED BY DATE	
2			FAI 3-70		BOOK NUMBER	
3			PROJECT NO.		1761	
4			SHEET NO.		46	
5			HOMER L. CHASTAIN & ASSOCIATES			
6			CONSULTING ENGINEERS			
7			DECATUR, ILLINOIS			
8						
9						
10						

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PLOT SCALE = 100,0000' / in.	DRAWN -	REVISED -
PLOT DATE = 8/22/2022	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**EXISTING PLANS - SN 059-0039
(FOR INFORMATION ONLY)**

SCALE: SHEET 3 OF 4 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	D6 BRIDGE PAINTING 2023	MACOUPIN	20	7
ILLINOIS			FED. AID PROJECT	

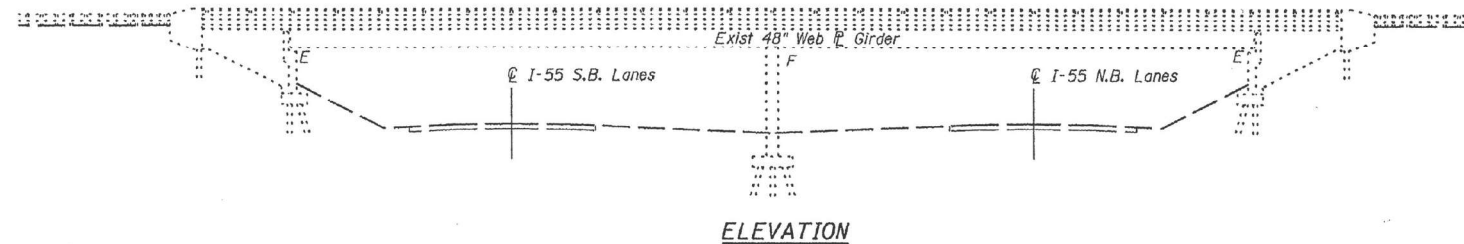
CONTRACT NO. 72595

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Existing Structure: S.N. 059-0042 Built as F.A.I. Rte. 55 - Sec 59-1HB-2 in 1973. The super structure is a R.C. Slab, two-span, steel continuous structure with vaulted sand filled approach spans. The structure length is 249'-8" back-to-back of approach bents and the width is 32' out-to-out. The two steel span lengths are both 102'-10" and the concrete approach slabs are both 21'-6".

Traffic Control & Protection Standard 701201 will be used to replace the expansion joint seal.

No Salvage.

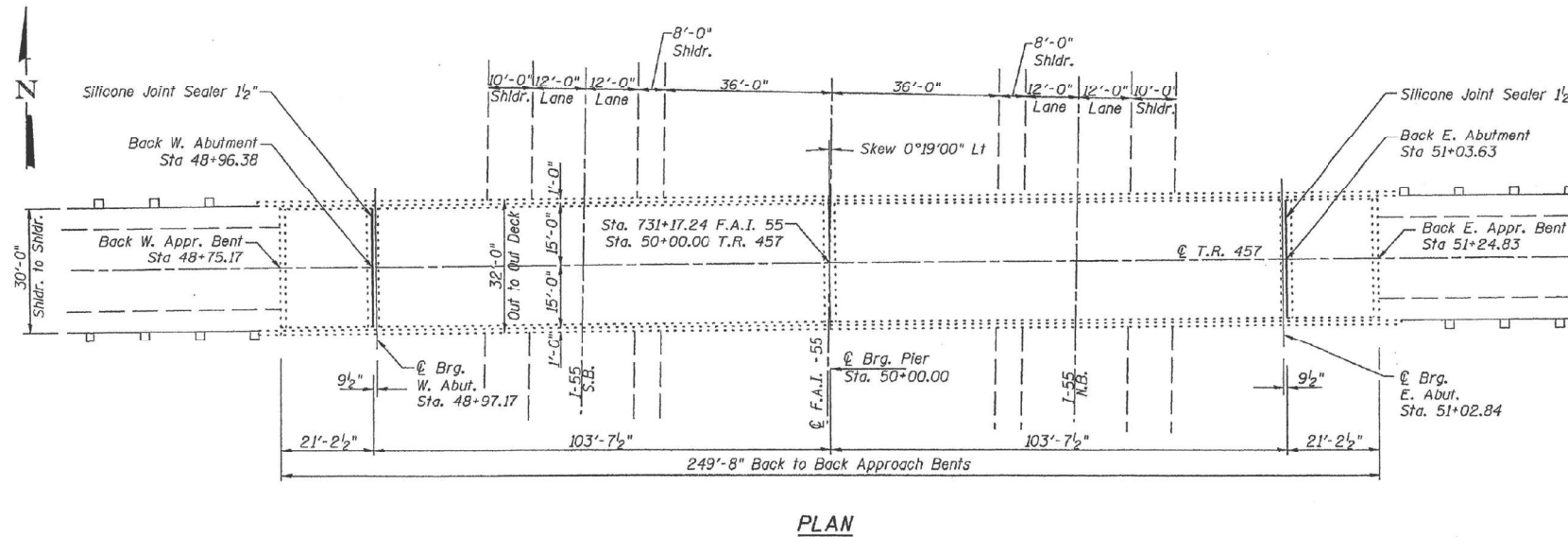


GENERAL NOTES

- Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

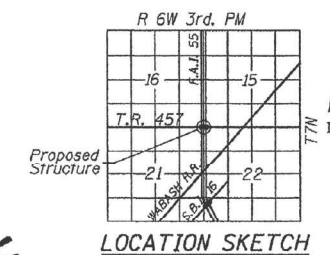
INDEX OF SHEETS

- General Plan
- Expansion Joint Details



TOTAL BILL OF MATERIAL

Item	Unit	Quantity
Silicone Joint Sealer, 1/2"	Foot	60



GENERAL PLAN
T.R. 457 OVER I-55
F.A.I. RTE. 55
SECTION 59RS-2, BR
MACOUPIN COUNTY
STATION 731+17.24
STRUCTURE NO. 059-0042

Peter B. Bayles
Peter B. Bayles, P.E., S.E.
Structural Engineer License No. 081-006042
Expiration Date: 11/30/2010

SHEET NO. 1 2 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	55	59RS-2, BR	Macoupin	100	79
FED. ROAD DIST. NO.			ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 72A60					

BLANK, WESSELINK, COOK & ASSOCIATES ENGINEERS - CONSULTANTS DECATUR, ILLINOIS DESIGN FIRM NO. 184000894

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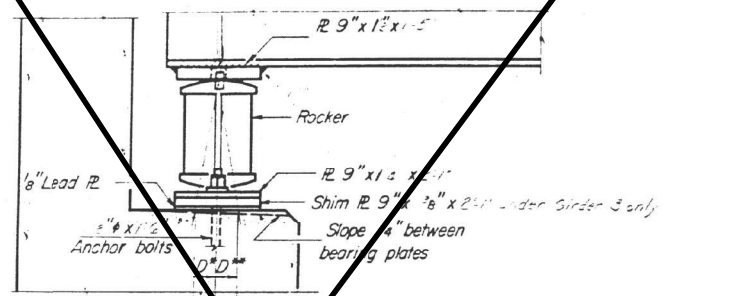
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

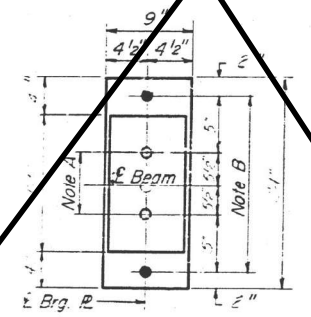
EXISTING PLANS - SN 059-0042
(FOR INFORMATION ONLY)

SCALE: SHEET 1 OF 4 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	D6 BRIDGE PAINTING 2023	MACOUPIN	20	9
CONTRACT NO. 72595				
ILLINOIS			FED. AID PROJECT	



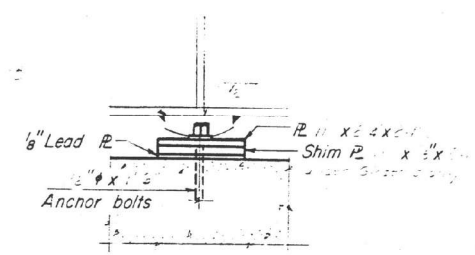
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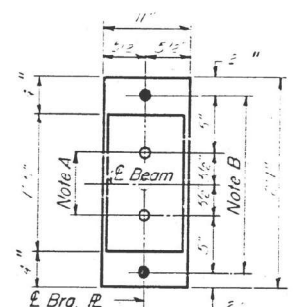
PLAN

AT ABUTMENT

NOTE A
1 3/8" Holes - 1/2" deep in top R.
for pintles. Threaded or press fit
pintles into bottom R.



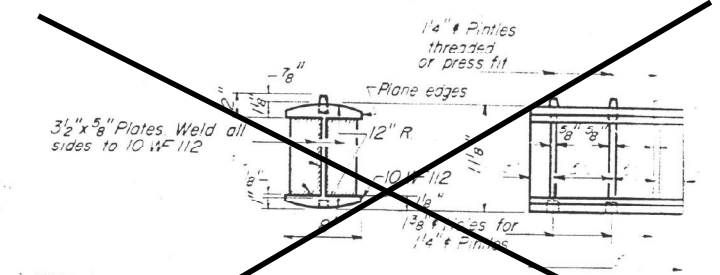
ELEVATION



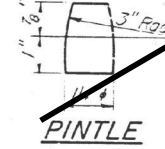
PLAN

AT PIER

NOTE B
1 3/4" Holes for 1/2" anchor bolts.
2 1/2" x 2 1/2" x 5/16" R. Washers
under nut.



ROCKER

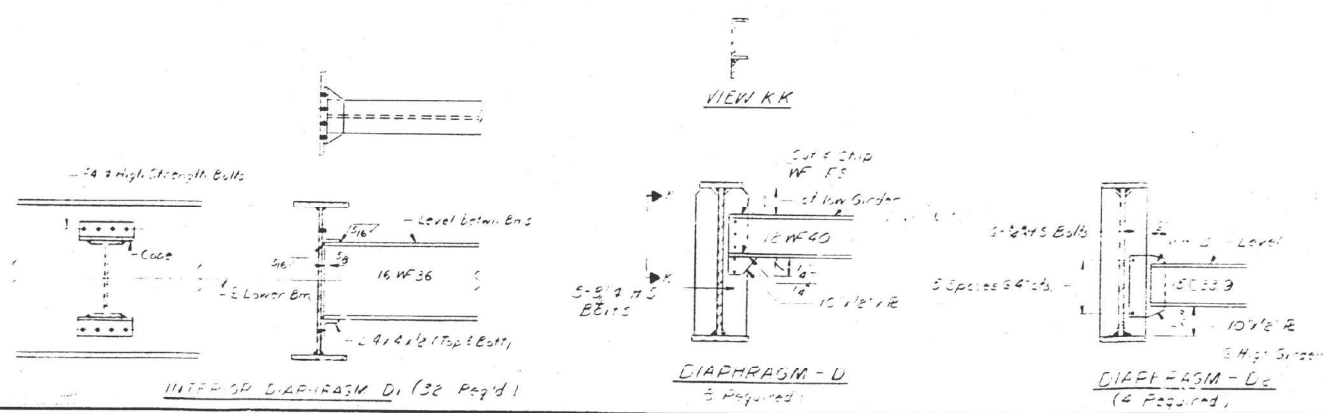


PINTLE

NOTES ON SETTING OF ANCHOR BOLTS AT EXP. BRGS.

- a) D* (Side of brg away from fixed brg)
D* = 1/8" per each 100' of expansion for every 15° fall below the normal temp. of 50°F.
- D** (Side of brg. toward fixed brg)
D** = 1/8" per each 100' of expansion for every 15° rise above the normal temp. of 50°F.
- b) After beams have been erected and dimensions D* or D** determined, holes shall be drilled and anchor bolts shall be grouted in place. All fixed anchor bolts may be built into the masonry.

BEARING ASSEMBLY DETAILS



DESIGNED	EXAMINED
CHECKED	PASSED
DRAWN P.G. Barnett	APPROVED
CHECKED	

I-2-B 9-1-55

DIAPHRAGMS &
BEARING DETAILS
FAI RT 55 SEC 59-1-3-2
MACOUPIN COUNTY
STA 731+17.24

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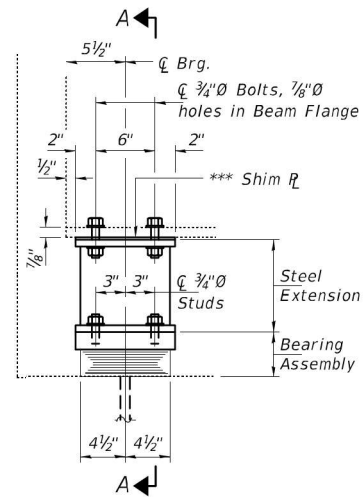
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PLOT SCALE = 100,0000' / in.	DRAWN -	REVISED -
PLOT DATE = 8/22/2022	CHECKED -	REVISED -
	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

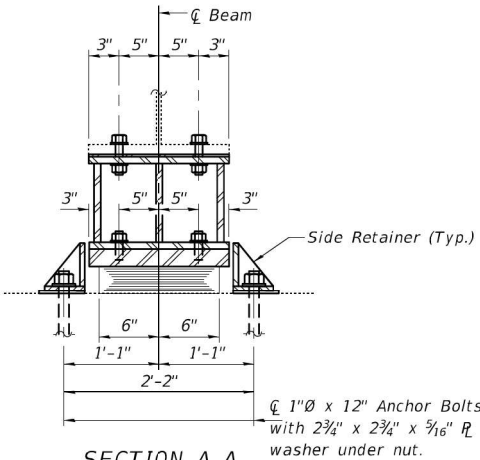
EXISTING PLANS - SN 059-0042
(FOR INFORMATION ONLY)

SCALE: SHEET 3 OF 4 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	D6 BRIDGE PAINTING 2023	MACOUPIN	20	11
ILLINOIS FED. AID PROJECT			CONTRACT NO. 72595	



ELEVATION AT ABUTMENT



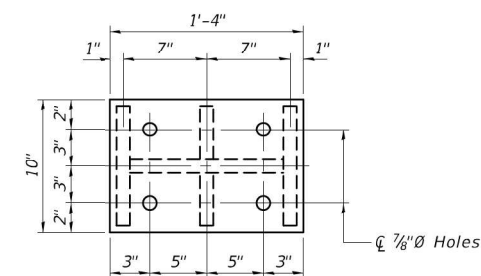
SECTION A-A

BEAM REACTIONS

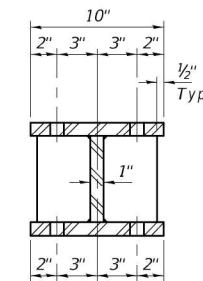
R _φ	(K)	39.7
R _L	(K)	28.4
Imp.	(K)	6.2
R (Total)	(K)	74.3

Notes:
 Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.
 New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel.
 Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Adjustment must account for deck heave due to pack rust (if present).
 Min. jack capacity = 43 Tons.
 Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

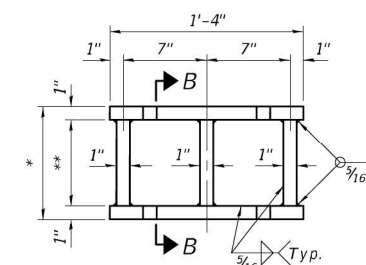
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
 Cost of Side retainers and Stainless Steel plates shall be included in the cost of Elastomeric Bearing Assembly, Type I.
 The contractor shall correct elevation differences in the profile grade across the existing expansion joints at the ends of the deck. This shall be accomplished by adjusting the vertical dimension of the proposed steel bearing extensions. The contractor shall field verify the existing dimensions and propose all vertical adjustments to the Engineer prior to ordering materials. The allowable elevation tolerances between the two sides of the expansion joints shall be ±1/4". Recording accurate measurements and ordering properly sized bearing extensions shall be the sole responsibility of the contractor.



PLAN TOP AND BOTTOM PLATE

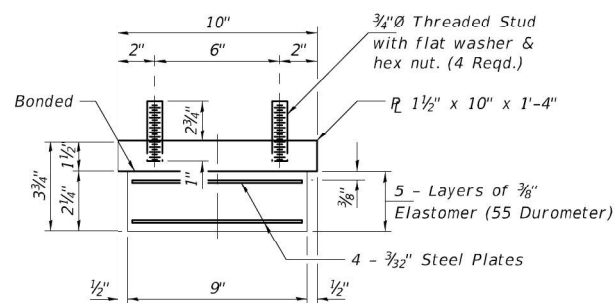


SECTION B-B



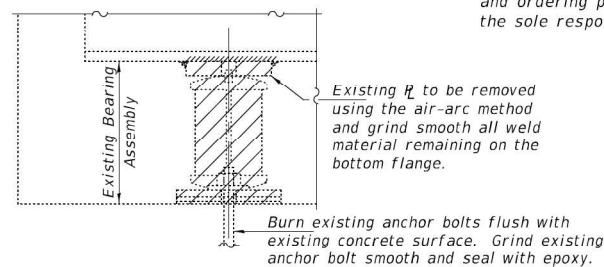
STEEL EXTENSION DETAIL

* 10" - W. Abut.
 10 5/8" - E. Abut.
 ** 8" - W. Abut.
 8 5/8" - E. Abut.



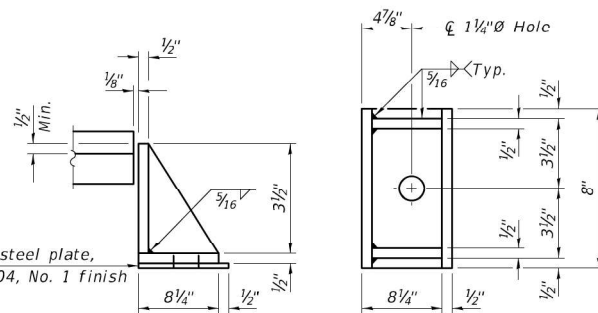
BEARING ASSEMBLY

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



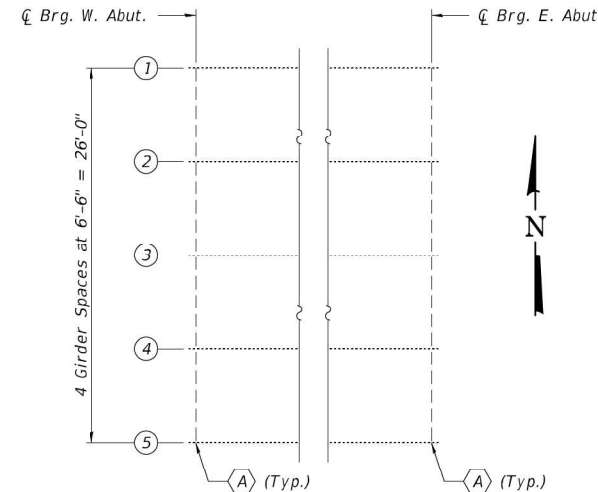
EXISTING BEARING REMOVAL DETAIL

Cost included with Jack and Remove Existing Bearings.



SIDE RETAINER

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



PARTIAL FRAMING PLAN

ⓐ - Bearing Replacement

*** The Contractor shall correct elevation differences in the profile grade across the existing expansion joints at the ends of the deck. This shall be accomplished by adding shim plates at locations shown on the plans. No more than two shim plates shall be added to each bearing location. The Contractor shall field verify the existing dimensions and propose all vertical adjustments to the Engineer prior to ordering the extra shims. The allowable elevation tolerances between the two sides of the expansion joints shall be ±1/4". Recording accurate measurements and ordering properly sized shims shall be the sole responsibility of the Contractor. Cost included with Furnishing and Erecting Structural Steel.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	10
Jack and Remove Existing Bearings	Each	10
Furnishing and Erecting Structural Steel	Pound	1890
Anchor Bolts, 1"Ø	Each	20

TYI/REPS 5-17-2018

DESIGNED - Victor H. Veliz	EXAMINED - <i>Timothy A. Daulton</i>	DATE - DECEMBER 3, 2021
CHECKED - Stephen M. Ryan	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - daburdell	PASSED - <i>Carl Perry</i>	REVISED -
CHECKED - VHV SMR	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

BEARING DETAILS
 T.R. 457 OVER I55
 SN 059-0042

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(59-1)B-2)BRR	MACOUPIN	5	5
				CONTRACT NO. 72N50

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	DRAWN -	REVISED -
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PLOT DATE = 8/22/2022	DATE -	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

EXISTING PLANS - SN 059-0042
 (FOR INFORMATION ONLY)

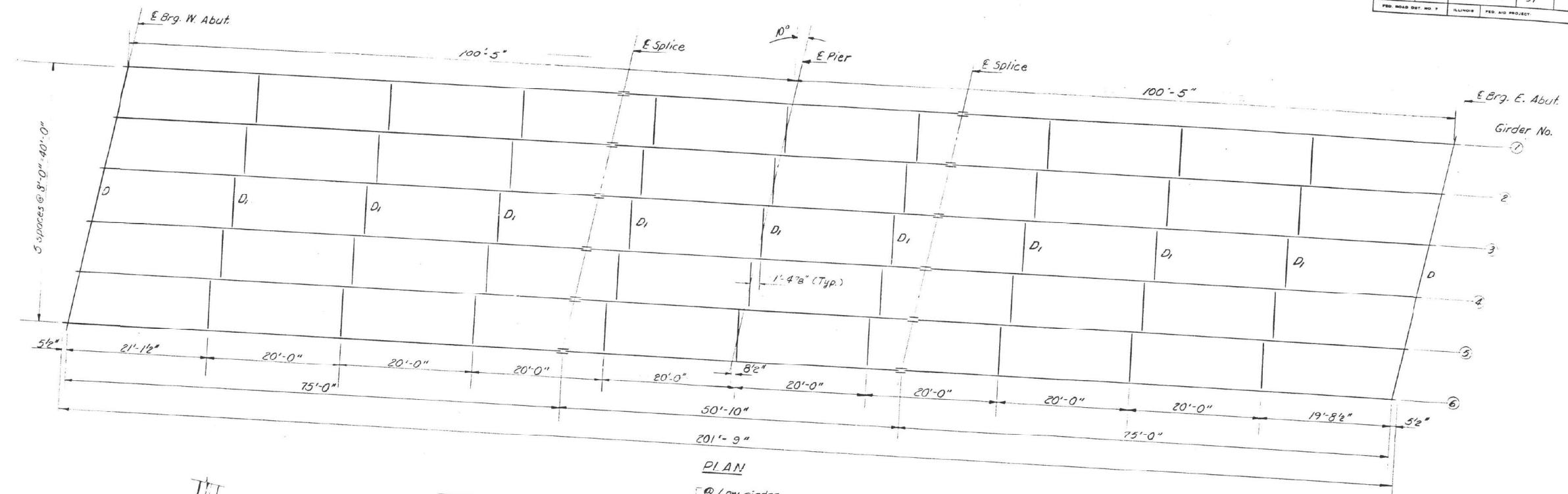
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	D6 BRIDGE PAINTING 2023	MACOUPIN	20	12
				CONTRACT NO. 72595

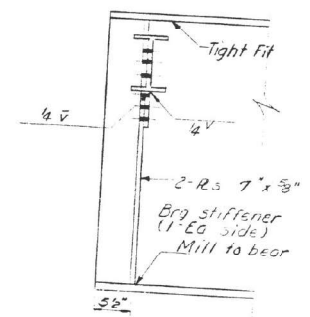
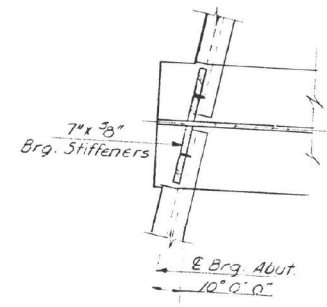
ILLINOIS FED. AID PROJECT

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

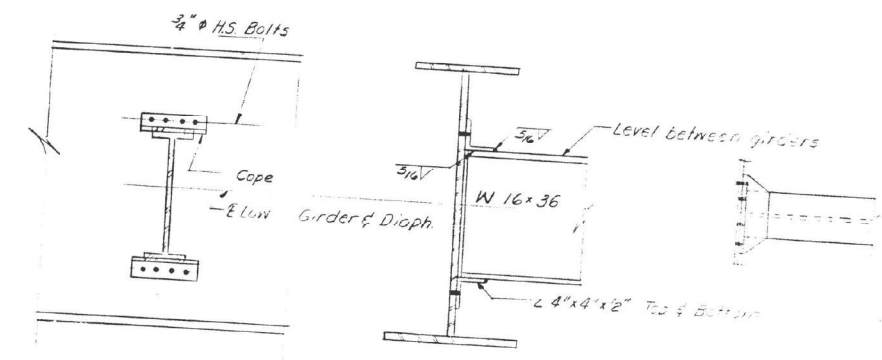
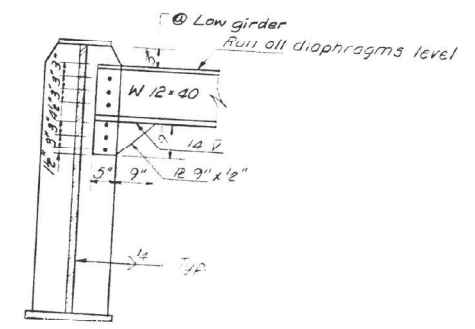
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 55	D6-1HB-1	Macoupin	37	17
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		17 SHEETS



PLAN



EXT. DIAPHRAGM D
10 Req'd



INTERIOR DIAPHRAGM D
45 Req'd

DESIGNED	JHEN TAIFA	EXAMINED	DEALS 1970
CHECKED	Mark S (a)	PASSED	[Signature]
DRAWN	REV. ROBINSON	APPROVED	[Signature]
CHECKED	S.T. JSL		

DIAPHRAGM LAYOUT
DETAILS
F.A.I. SEC 55-1HB-1
MACOUPIN COUNTY
STA. 10+00 TO 10+20

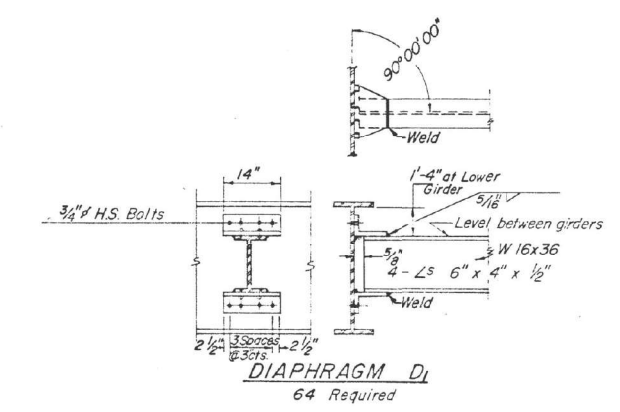
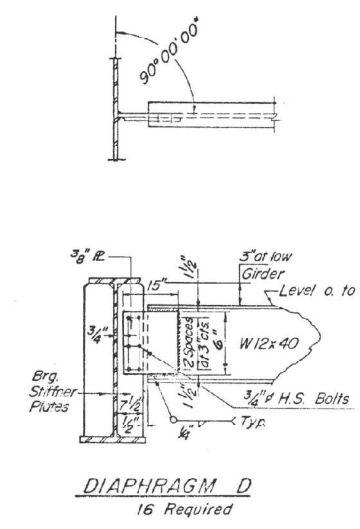
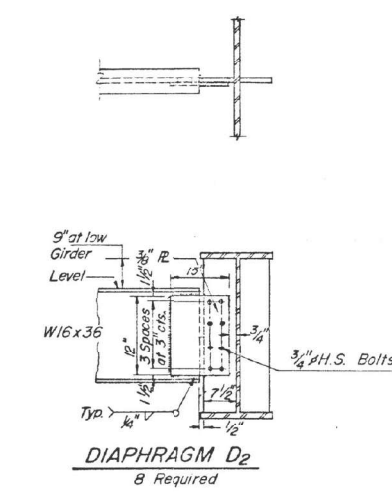
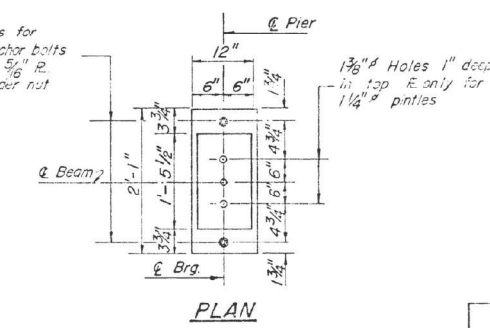
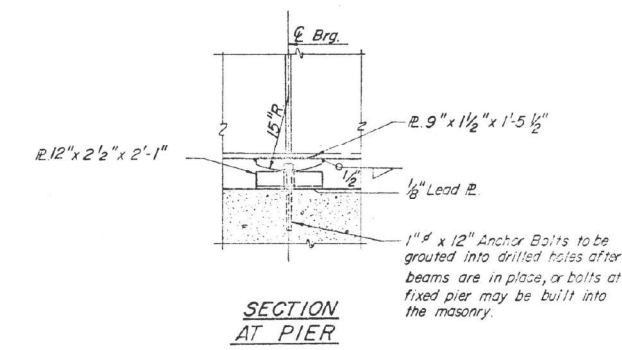
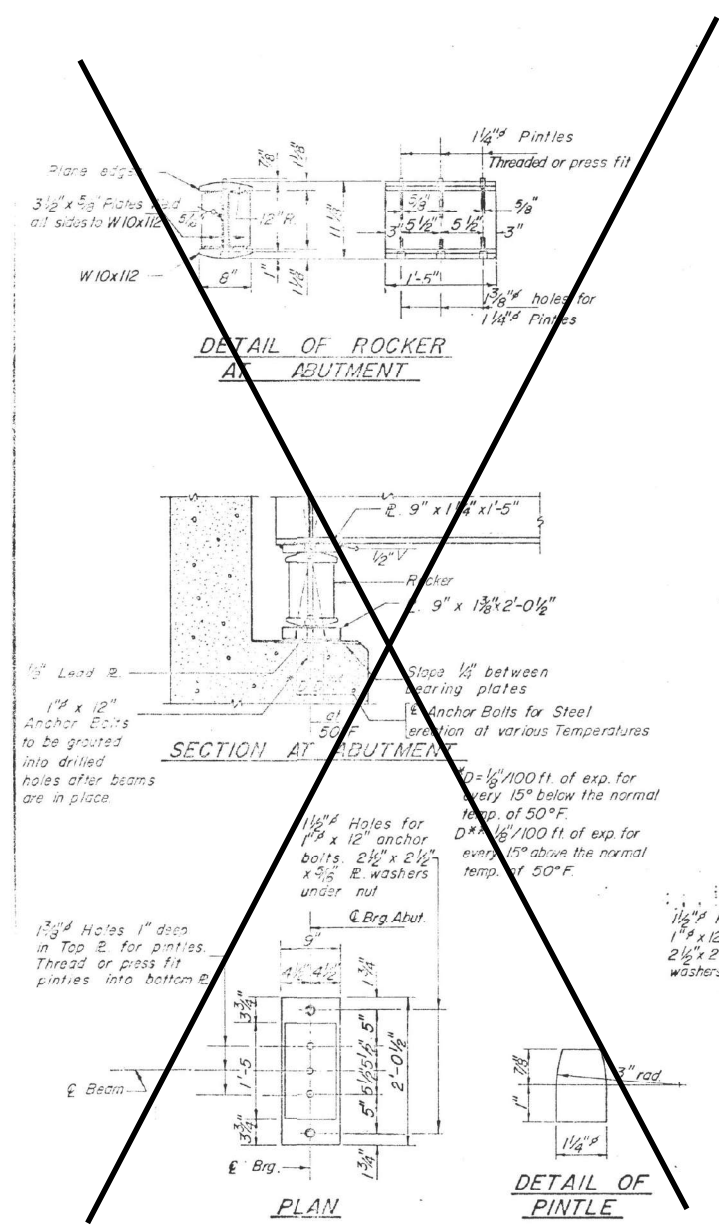
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PLOT SCALE = 100,000' / in.	DRAWN -	REVISED -
PLOT DATE = 8/22/2022	CHECKED -	REVISED -
	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS - SN 059-0044 (FOR INFORMATION ONLY)			
SCALE:	SHEET 2	OF 4 SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	D6 BRIDGE PAINTING 2023	MACOUPIN	20	14
			CONTRACT NO. 72595	
ILLINOIS FED. AID PROJECT				



* ELEVATION TOP OF WEB

	Girder No.1	Girder No.2	Girder No.3	Girder No.4	Girder No.5	Girder No.6	Girder No.7	Girder No.8	Girder No.9
E BRG. W. ASUT.	661.550	661.670	661.791	661.912	662.032	661.912	661.791	661.669	661.549
E SPLICE No.1	661.600	661.720	661.840	661.962	662.083	661.962	661.841	661.719	661.700
E PIER	661.550	661.570	661.792	661.913	662.033	661.913	661.792	661.570	661.550
E SPLICE No.2	661.600	661.720	661.840	661.962	662.083	661.962	661.841	661.719	661.700
E BRG. E. ASUT.	661.550	661.669	661.791	661.912	662.032	661.912	661.792	661.670	661.550

† For Fabrication Only

DESIGNED	H.R.	JOB NO.	6714
DRAWN	L.E.M.	FILE	
CHECKED		SCALE	
APPROVED		DATE	

RODNESTER, BODDELL, HOLLAND & CO. ENGINEERS INCORPORATED
BOX 371 SALEM, ILLINOIS 62381

T.R. 481 OVER FAI ROUTE 55 BEARINGS AND DIAPHRAGMS

SECTION 59-1 HB
MACOUPIN COUNTY
STATION 164+86.78

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PLOT DATE = 8/22/2022	CHECKED -	REVISED -
	DATE -	REVISED -

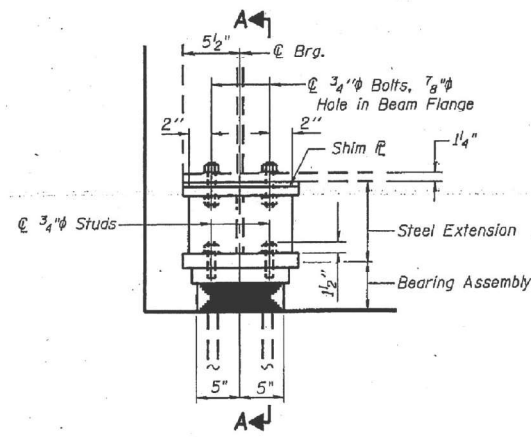
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**EXISTING PLANS - SN 059-0045
(FOR INFORMATION ONLY)**

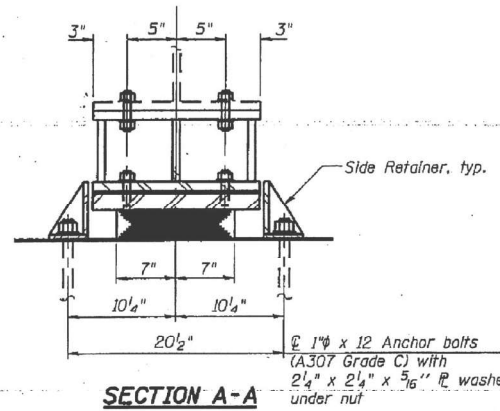
SCALE: SHEET 3 OF 4 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	D6 BRIDGE PAINTING 2023	MACOUPIN	20	19
CONTRACT NO. 72595				
ILLINOIS FED. AID PROJECT				

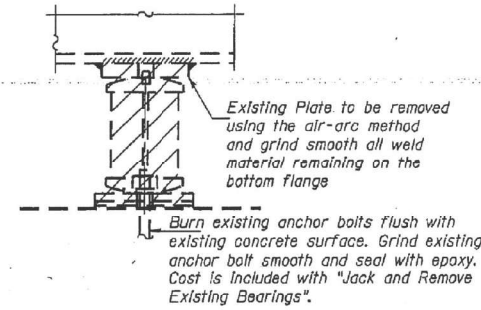
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



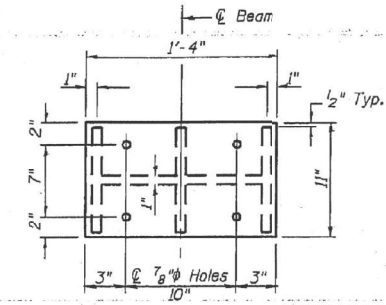
ELEVATION AT ABUT.



SECTION A-A

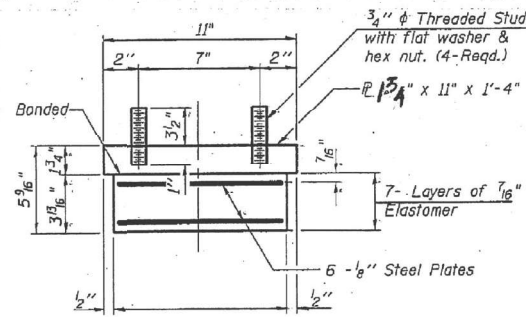


EXISTING BEARING REMOVAL DETAIL



PLAN STEEL EXTENSION

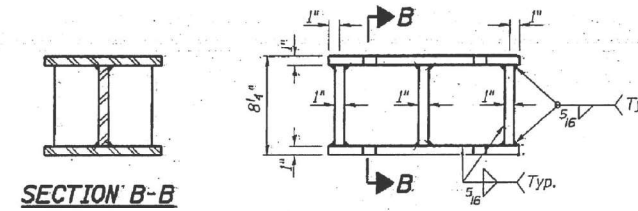
TYPE I ELASTOMERIC EXP. BRG.



BEARING ASSEMBLY

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

Notes:
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
Side retainers and other steel members required for the bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.
Steel Extensions, Shims and Bolts shall be included in the cost of Furnishing and Erecting Structural Steel.
Prior to ordering any material for shims or extensions, the contractor shall verify in the field all bearing height and shim thickness dimensions.
Painting of steel shall be according to Article 506.05 of the Standard Specifications.
Provide two 1/8" shims for each bearing location. Adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.
Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts. Bolts 3/4" in 1/8" holes, unless otherwise noted.



SECTION B-B

ELEVATION STEEL EXTENSION

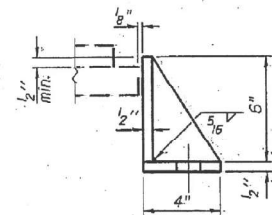
BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	18
Anchor Bolts, 1"	Each	72
Jack & Remove Exist. Bearings	Each	18
Furnishing & Erecting Structural Steel	Pound	3470

BEAM REACTIONS

R _D (k)	47.1
R _L (k)	45.4
Imp. (k)	5.9
R (Total)(k)	102.4

Min. Jack capacity = 60 Tons



SIDE RETAINER

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

BEARING DETAILS
STRUCTURE NO. 059-0045

SHEET NO. 6:	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
10 SHEETS:	55:	59RS-2, BR	Macoupin	100	96:
			CONTRACT NO. 72A60		
FED. ROAD. DIST. NO.:		ILLINOIS FED. AID. PROJECT			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS - SN 059-0045
(FOR INFORMATION ONLY)

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	D6 BRIDGE PAINTING 2023	MACOUPIN	20	20
CONTRACT NO. 72595				
ILLINOIS FED. AID PROJECT				

USER NAME = Brandon.Dudley	DESIGNED -	REVISED -
PLOT SCALE = 100,0000' / in.	DRAWN -	REVISED -
PLOT DATE = 8/22/2022	CHECKED -	REVISED -
	DATE -	REVISED -