

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

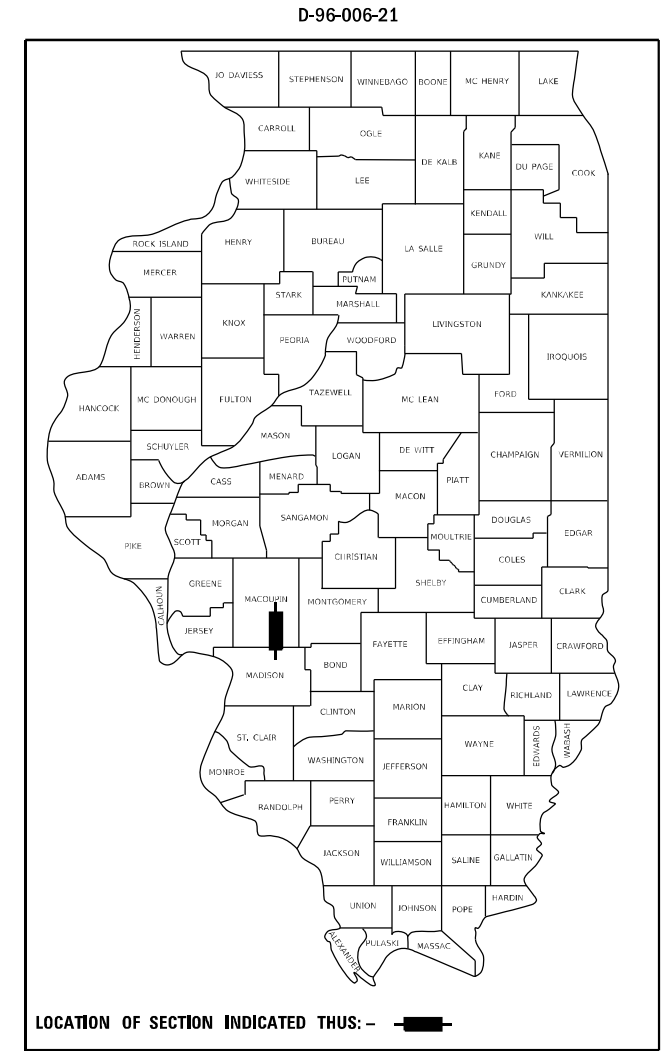
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
067	(J) BP	MACOUPIN	9	1
		ILLINOIS	CONTRACT NO. 72M53	

FOR INDEX OF SHEETS, SEE SHEET NO. 2

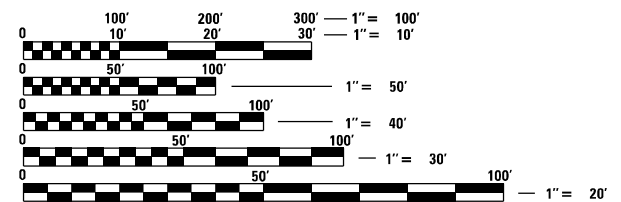
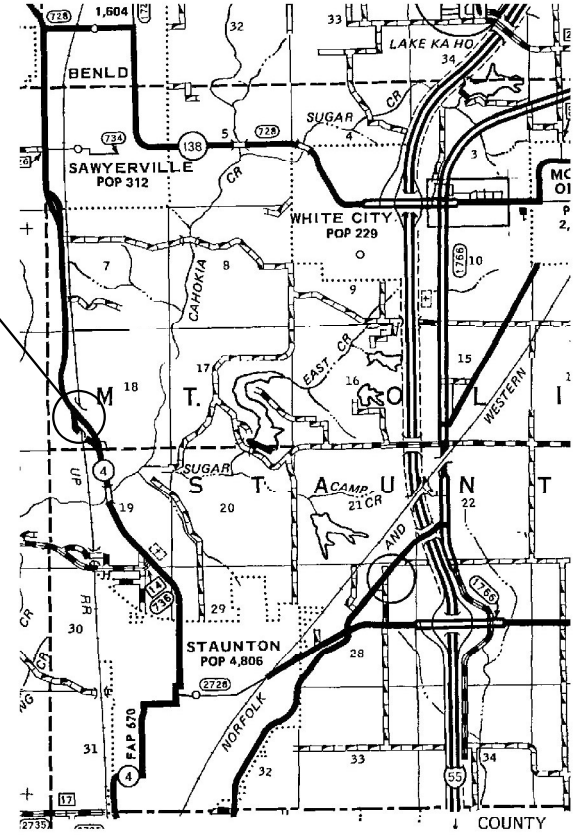
# PROPOSED HIGHWAY PLANS

FAP ROUTE 067 (IL 4)  
SECTION (J) BP  
PROJECT NHPP-NA9U(839)  
BRIDGE PAINTING  
MACOUPIN COUNTY

C-96-019-21



PROJECT LOCATION  
SN 059-0009  
IL 4 OVER UPRR  
2 MI N OF STAUNTON



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 = 227 FT. = 0.04 MILE  
NET LENGTH = 227 FT. = 0.04 MILE

CONTRACT NO. 72M53

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUBMITTED March 22 2023

*John P. Meyer*  
REGIONAL ENGINEER

May 12, 2023 *Scott A. Etk*  
ENGINEER OF DESIGN AND ENVIRONMENT

May 12, 2023 *Stephen M. Smith*  
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

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OF THE STATE OF ILLINOIS

HIGHWAY STANDARDS

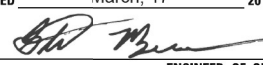


INDEX OF SHEETS

1	COVER SHEET
2	INDEX, STANDARDS, GENERAL NOTES, & SIGNATURES
3	SUMMARY OF QUANTITIES
4	TRAFFIC CONTROL PLAN
5-9	EXISTING BRIDGE PLANS LOCATION #1: SN 059-0009

000001-08
001006
701001-02
701006-05
701201-05
701301-04
701316-13
701901-08

GENERAL NOTES:

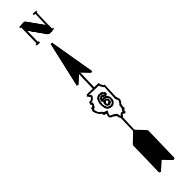
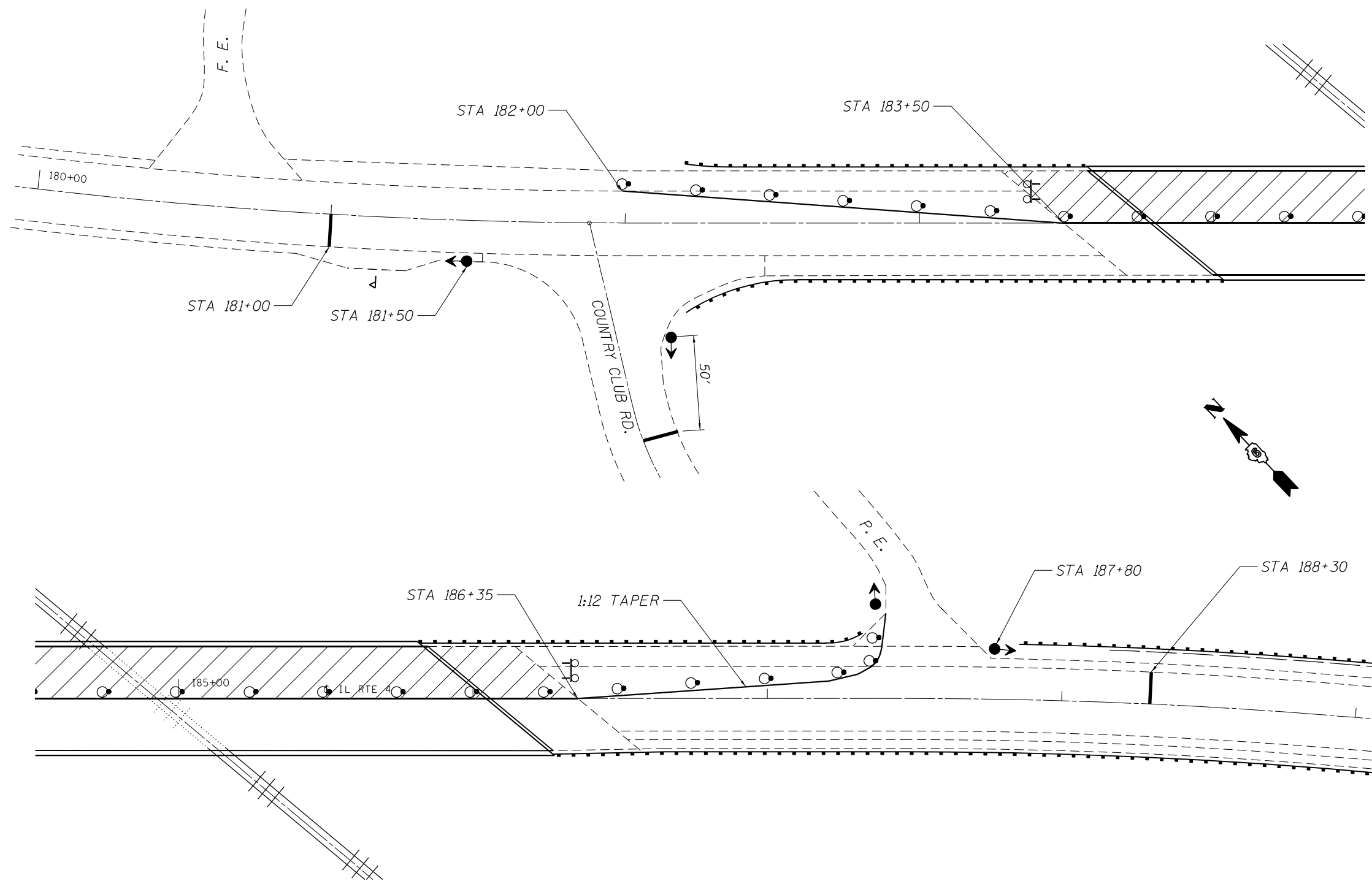
1. WORK SHALL CONSIST OF BLASTING AND PAINTING STRUCTURAL STEEL AT LOCATIONS DESCRIBED IN THE SPECIAL PROVISIONS. CLEANING AND PAINTING OF THE EXISTING STRUCTURAL STEEL SHALL BE AS SPECIFIED IN THE SPECIAL PROVISIONS FOR "CLEANING AND PAINTING EXISTING STEEL STRUCTURES". ALL AREAS TO BE PAINTED SHALL 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.
3. CONTAINMENT OF CLEANING RESIDUE IS REQUIRED TO CONTROL NUISANCE DUST. SEE SPECIAL PROVISIONS.
4. SSPC OP1 (AND SSPC OP2) CERTIFICATION IS REQUIRED FOR THIS CONTRACT.
5. 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.
6. 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.

<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS DISTRICT 6</b>	
EXAMINED	March, 17 20 23
	
ENGINEER OF OPERATIONS	
EXAMINED	March, 21 20 23
	
ENGINEER OF PROJECT IMPLEMENTATION	
EXAMINED	March, 21 20 23
	
ENGINEER OF PROGRAM DEVELOPMENT	





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	USER NAME = Brandon.Dudley DESIGNED - DRAWN - PLOT SCALE = 100,0000 ' / in. CHECKED - PLOT DATE = 3/22/2023 DATE -	REVISED - REVISED - REVISED - REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>INDEX OF SHEETS, STANDARDS, GENERAL NOTES, &amp; SIGNATURES</b>	F.A.P. RTE. 067 SECTION (J) BP COUNTY MACOUPIN TOTAL SHEETS 9 SHEET NO. 2	CONTRACT NO. 72M53 ILLINOIS FED. AID PROJECT
SCALE:	SHEET	OF	SHEETS	STA.	TO	STA.





**SYMBOLS**

-  TRAFFIC SIGNAL
-  DRUM WITH STEADY BURNING LIGHT
-  TYPE III BARRICADE WITH FLASHING LIGHTS
-  WORK AREA

**TRAFFIC CONTROL NOTES:**

1. TRAFFIC CONTROL DEVICES NOT SHOWN IN THIS DETAIL SHALL BE PER STANDARD 701316. DEVICES AND TEMPORARY PAVEMENT MARKINGS SHOWN IN THIS DETAIL SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION, STANDARD 701316. RUMBLE STRIPS AND TEMPORARY TRAFFIC SIGNALS SHALL BE PAID SEPARATELY.
2. ALL EXISTING STOP SIGNS INSIDE THE WORK ZONE SHALL BE COVERED WHILE TRAFFIC SIGNALS ARE ACTIVE.
3. STOP BARS SHOWN SHALL BE 24" WIDE.
4. TRAFFIC CONTROL DEVICES SHALL NOT ENCROACH BEYOND CENTERLINE AND A MINIMUM 17' 6" OPENING SHALL BE MAINTAINED FOR TRAFFIC AT ALL TIMES.
5. ALL WORK SHALL BE ACCOMPLISHED IN ONE TRAFFIC STAGE.

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC CONTROL PLAN**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
067	(J) BP	MACOUPIN	9	4
CONTRACT NO. 72M53				
ILLINOIS FED. AID PROJECT				



Existing Structure - Single bridge built in 1959. Structure No 059-0009 at Sta 6+710.01. The structure is a three span, wide flange steel beam bridge with open stub concrete abutments and concrete piers. 69.34 m back to back of abutments, 8.534 m roadway width and 50° Rt Ah skew.

The following shall be removed from the existing structure:

- Concrete Gutter
- Concrete deck, curb & rail
- End diaphragms, expansion rockers, backwall and approach pavement ledge at South and North abutments
- Wingwalls and wingwall footings

Traffic will be maintained by using stage construction according to STD 701321 (special). No salvage.

BM #TA-51 - Chiseled "□" on southwest concrete wingwall. Structure Number 059-0009 at Sta 6+667.4 5 m LT on IL 4 Elev 191.725

STATION 6+710.01  
REBUILT 199\_ BY  
STATE OF ILLINOIS  
F.A.P. RT. 670 SEC. (R,J) VBR  
PROJECT ACBHF-670 (20)  
LOADING MS18  
STR. NO. 059-0009  
**NAME PLATE**  
See Std. 515001

**GENERAL NOTES**

Fasteners shall be high strength bolts. Bolts M20, open holes 22 mm φ, unless otherwise noted.  
Painting of the existing structural steel will be done under a separate painting contract.  
All new structural steel shall be shop painted with the inorganic zinc rich primer per AASHTO M300, Type 1.  
Prior to pouring the new concrete for the deck, all loose rust, loose mill scale, and all other loose, detrimental foreign material shall be removed from the portions of the flanges of beams in contact with concrete. The removal shall be accomplished in accordance with the requirements of the SSPC Surface Preparation Specifications SP-2 for hand tool cleaning or SP-3 for power tool cleaning. Cost included with Conc. Superstr.  
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 pier supports. Field welding in other areas will be permitted only when approved by the Engineer.

(Notes continued)

Anchor bolts shall be set before bolting diaphragms over supports.  
Reinforcement bars shall conform to the requirements of AASHTO M-31M, M-42M or M-53M Grade 400.

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 variation 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.

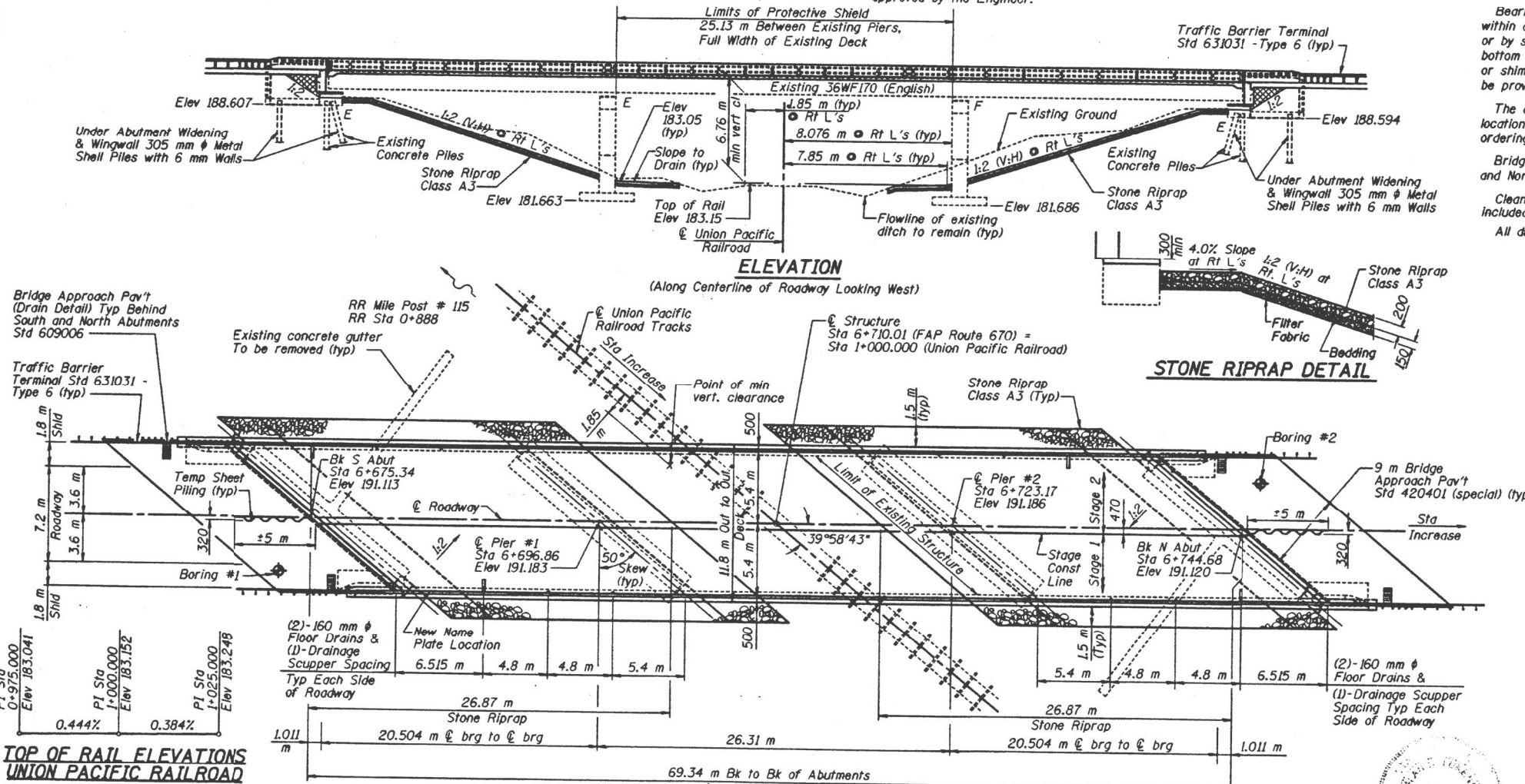
Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 3 mm. Adjustment shall be made either by grinding the surface or by shimming the bearing. Two 3 mm adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing 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.

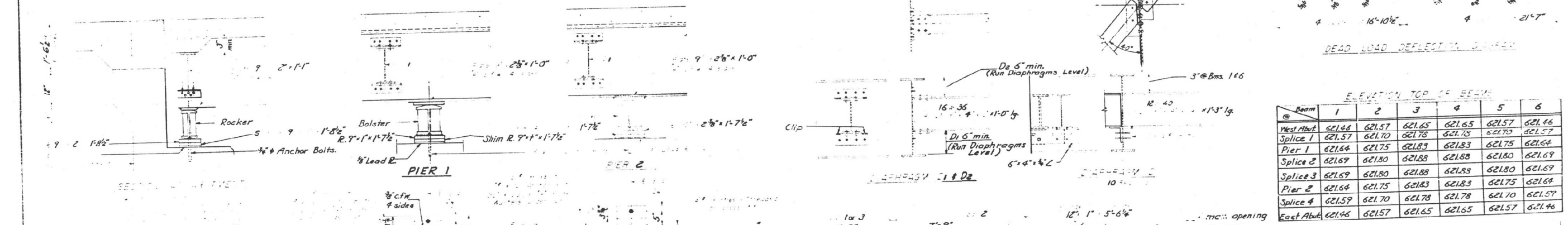
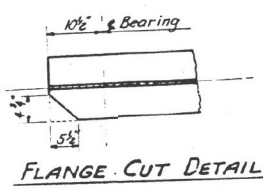
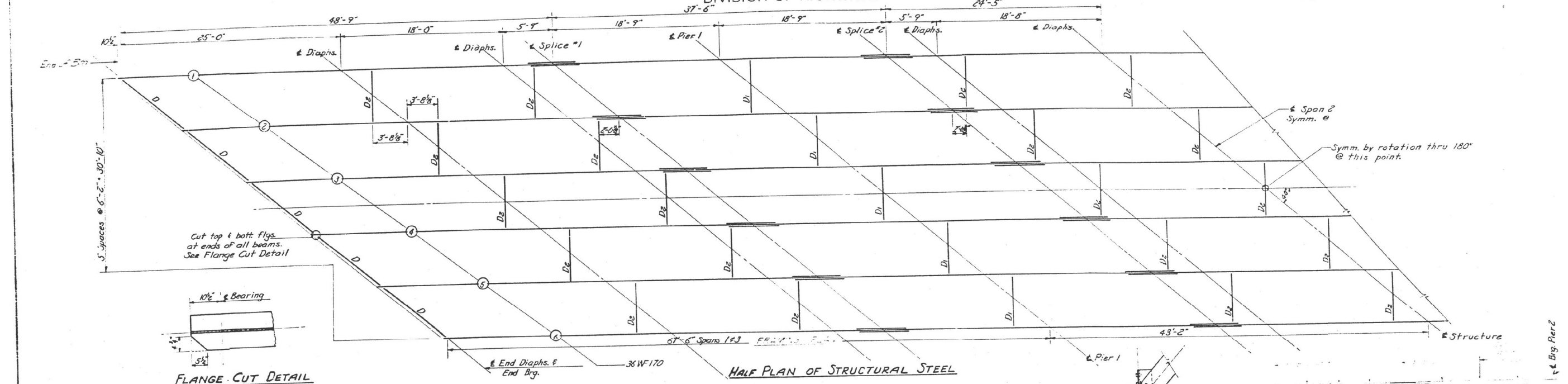
The contractor shall drive one (1) test pile (305 mm φ Metal Shell Pile) in a permanent location at the South Abutment and North Abutment, as directed by the Engineer before ordering the remainder of piles.

Bridge Seat Sealer shall be applied to the seat area of the South Abutment and North Abutment.

Clean and relocate existing name plate adjacent to new plate. Cost is included with "Name Plate".

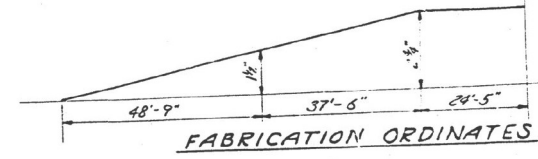
All dimensions are in millimeters (mm) except as noted.





ELEVATION TOP OF BEAMS

Beam	1	2	3	4	5	6
West Abut	621.68	621.57	621.65	621.65	621.57	621.66
Splice 1	621.57	621.70	621.78	621.78	621.70	621.57
Pier 1	621.64	621.75	621.83	621.83	621.75	621.64
Splice 2	621.69	621.80	621.88	621.88	621.80	621.69
Splice 3	621.69	621.80	621.88	621.88	621.80	621.69
Pier 2	621.64	621.75	621.83	621.83	621.75	621.64
Splice 4	621.59	621.70	621.78	621.78	621.70	621.59
East Abut	621.66	621.57	621.65	621.65	621.57	621.66



Structural Steel 262,000 lbs.  
Includes 716 lbs for Brg., Rs., Rockers, Bolsters, Lead Rs. and anchor bolts.

FRAMING & BEARING DETAILS  
CHICAGO & NORTHWESTERN R.R.  
S.B.I. Rt. 4 - SECTION (R) - VB.  
MACOUPIN COUNTY  
STA. 184 + 91.9

OCT. 17 57  
W. Romine  
E. J. Study  
R. R. Butcher

TABLE OF 'x' DIMENSIONS

Beam	1	2	3	4	5	6
W. Abut.	0	1/4	0	0	1/4	0
Pier 1	0	1/4	0	0	1/4	0
Pier 2	0	1/4	0	0	1/4	0
E. Abut.	0	1/4	0	0	1/4	0

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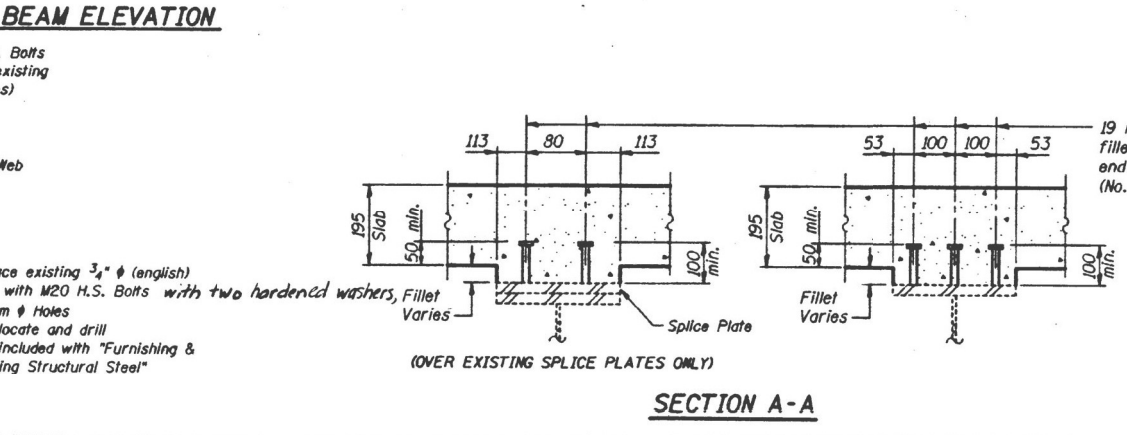
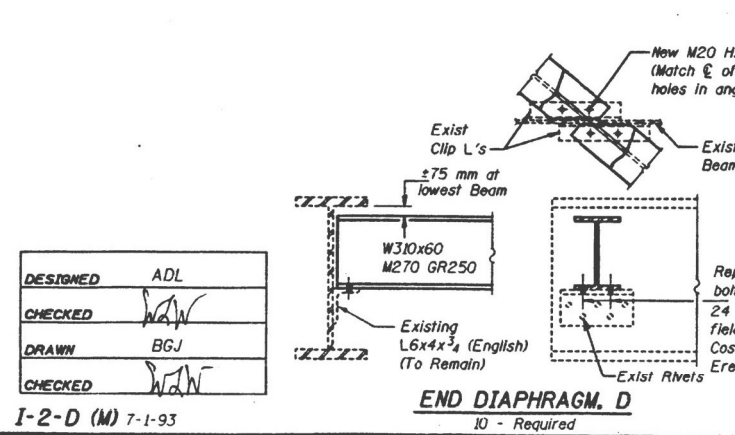
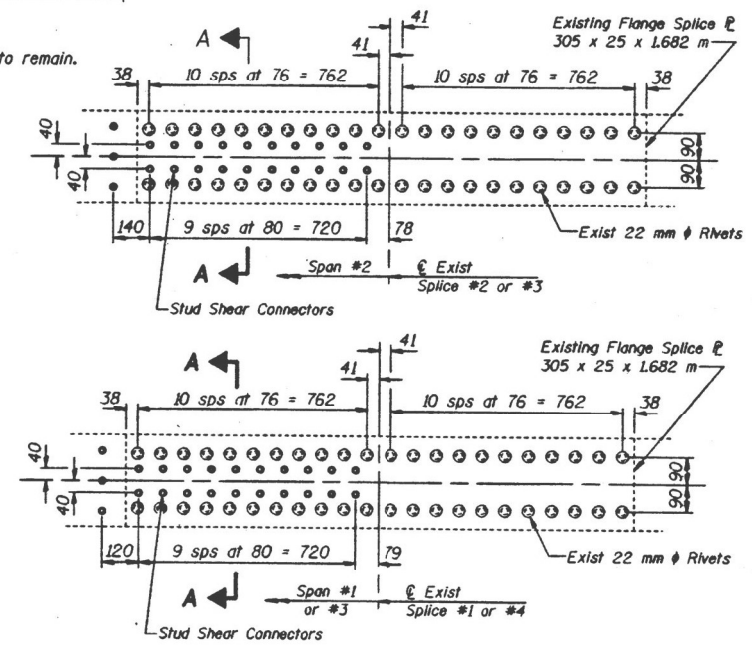
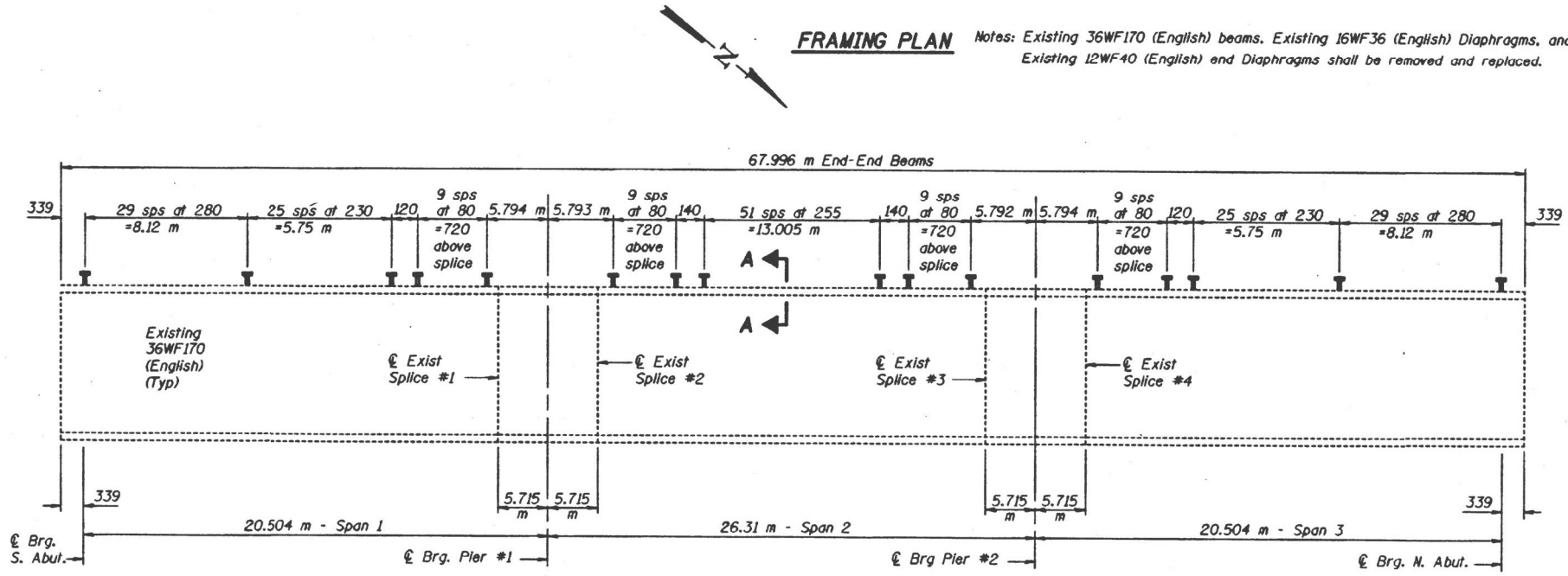
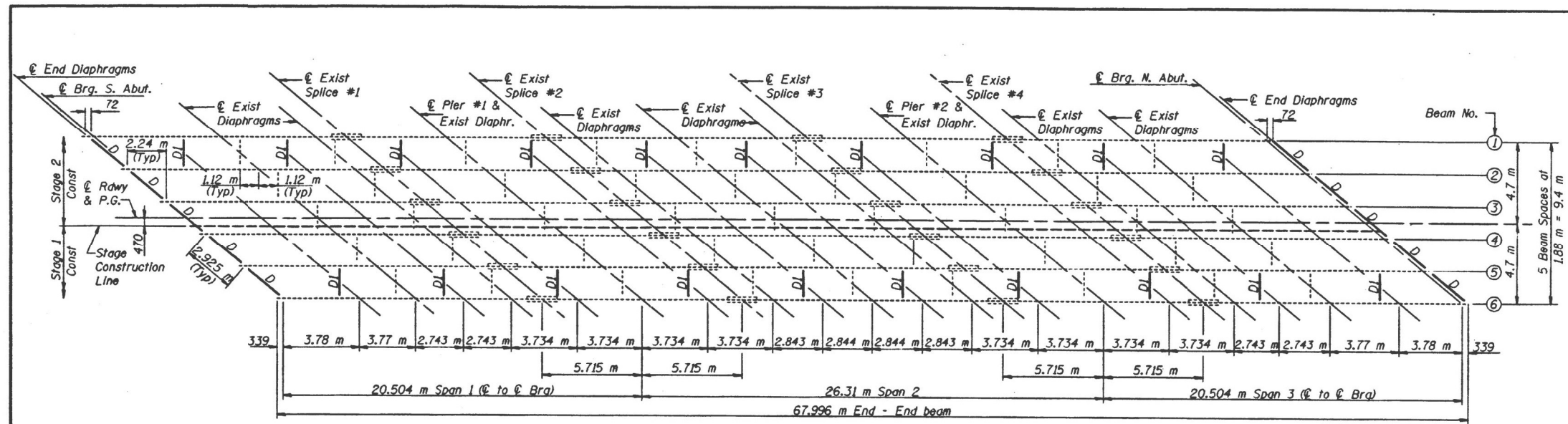
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS, SN 059-0009  
(FOR INFORMATION ONLY)

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE. 067	SECTION (J) BP	COUNTY MACOUPIN	TOTAL SHEETS 9	SHEET NO. 6
ILLINOIS FED. AID PROJECT			CONTRACT NO. 72M53	

PROJECT NO.	SECTION	SHEET	TOTAL SHEETS	SHEET NO.
A.A.A. 670	(R,J) VBR	MACOUPIN	44	24
20 SHEETS				



Notes: Two hardened washers shall be required over all oversize holes for diaphragms.

See Sheet #10 of 20 for Jack and Remove Existing Bearing details and Diaphragm, DI details

All dimensions are in millimeters (mm) except as noted.

**STRUCTURAL STEEL DETAILS**

ILLINOIS ROUTE 4 OVER UNION PACIFIC RAILROAD (FORMERLY C & NW RAILROAD) FAP ROUTE 670 SECTION (R,J) VBR MACOUPIN COUNTY STATION 6+710.01 STRUCTURE NUMBER 059-0009

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DRAWN	BGJ
CHECKED	[Signature]

REVISIONS	NAME	DATE

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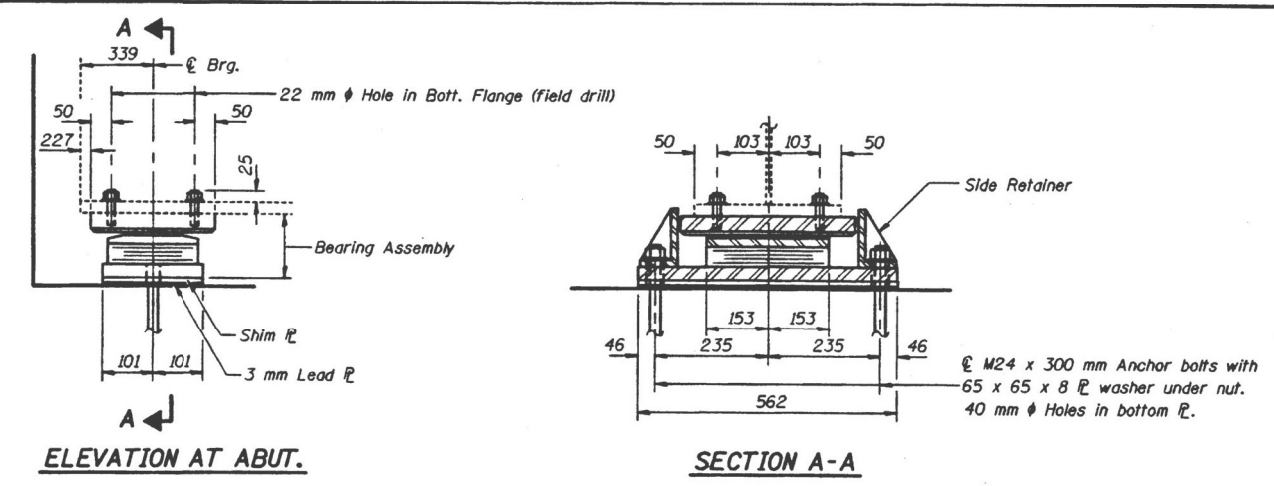
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SCALE:	SHEET	OF SHEETS	STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
067	(J) BP	MACOUPIN	9	7
CONTRACT NO. 72M53				
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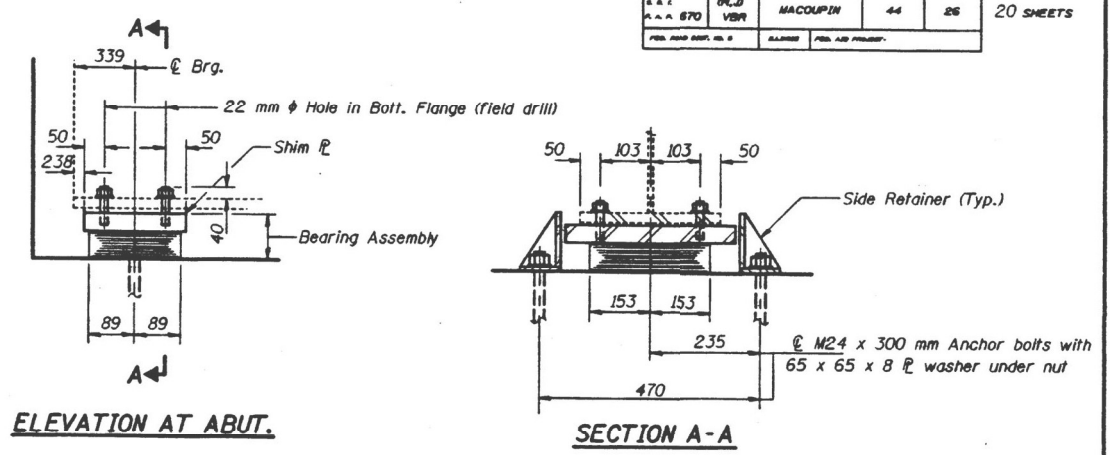
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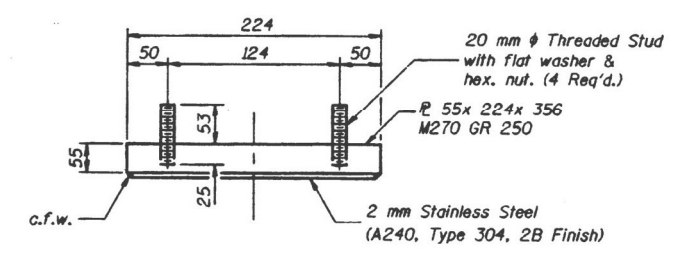




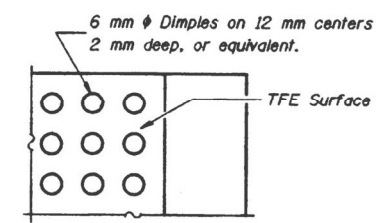
**ELEVATION AT ABUT.**  
**SECTION A-A**  
**TYPE II ELASTOMERIC EXP. BRG. AT SOUTH ABUTMENT**



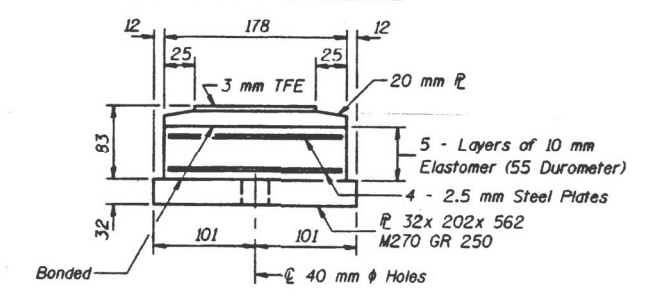
**ELEVATION AT ABUT.**  
**SECTION A-A**  
**TYPE I ELASTOMERIC EXP. BRG. AT NORTH ABUTMENT**



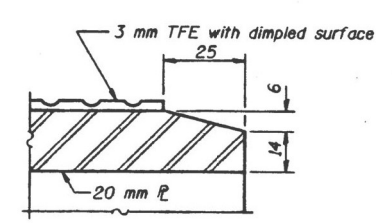
**TOP BEARING ASSEMBLY**



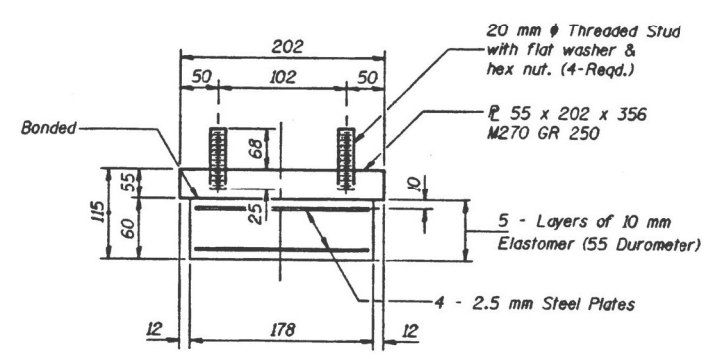
**PLAN-TFE SURFACE**



**BOTTOM BEARING ASSEMBLY**

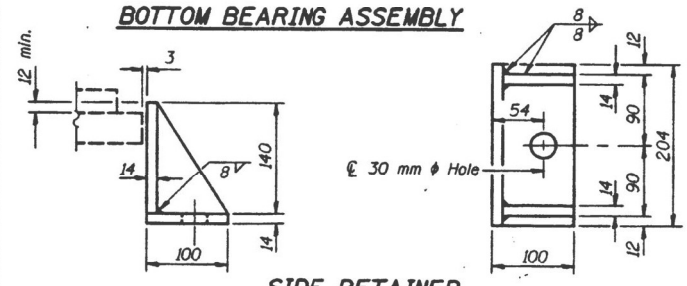


**SECTION THRU TFE**



**BEARING ASSEMBLY**

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

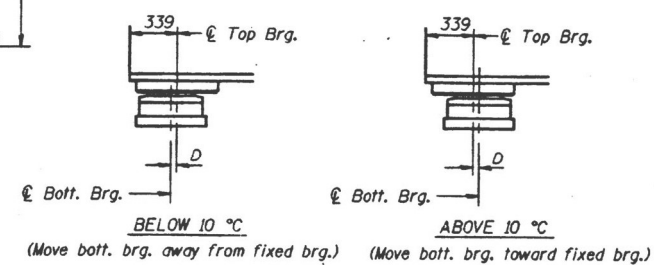


**SIDE RETAINER**

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

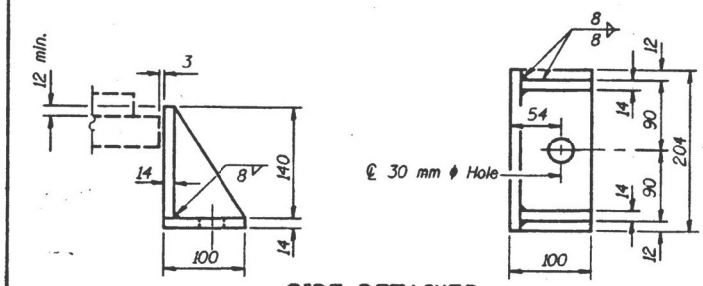
Note: The 3 mm TFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.

Bonding of 3 mm 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 = 1 mm per each 10 m of expansion for every 8 °C temp. change from the normal temp. of 10 °C.



**SIDE RETAINER**

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

Notes: See sheet #12 of 20 for Anchor Bolt installation. All dimensions are in millimeters (mm) except as noted.

**BILL OF MATERIAL**

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	6
Elastomeric Bearing Assembly Type II	Each	6

**TYPE I & TYPE II ELASTOMERIC BEARINGS**  
**ILLINOIS ROUTE 4 OVER UNION PACIFIC RAILROAD (FORMERLY C & NW RAILROAD)**  
**FAP ROUTE 670 SECTION (R,J) VBR MACOUPIN COUNTY**  
**STATION 6+710.01**  
**STRUCTURE NUMBER 059-0009**

REVISIONS	
NAME	DATE

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