

State

PROJECT NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FA 49	15B-I-3	PEORIA TAZEWELL	15	1
PROJECT U-49(17)				

P-94-100-76

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
**PLANS FOR PROPOSED  
FEDERAL AID HIGHWAY**

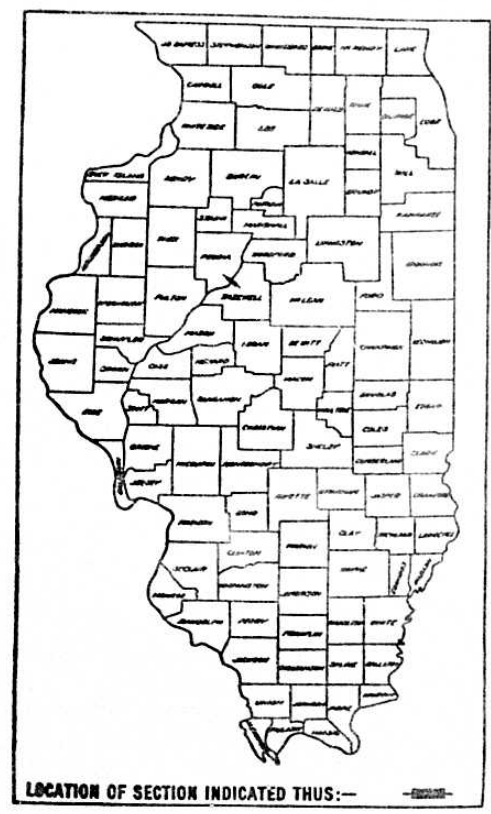
PLAN 1 INCH = 100 FT.  
PROFILE HOR. 1 INCH = 100 FT.  
PROFILE VERT. 1 INCH = 10 FT.  
CROSS-SECTIONS 1 INCH = 5 FT.

F.A. ROUTE 49  
SECTION 15B-I-3  
PEORIA - TAZEWELL COUNTIES  
PROJECT U-49(17)

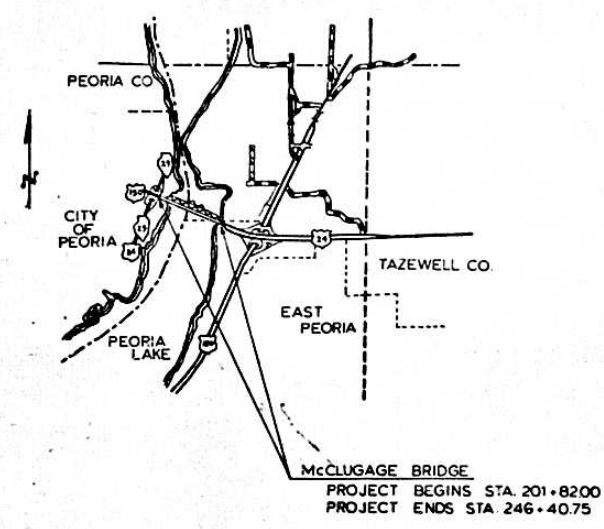
G-94-208-77

INDEX OF SHEET

SHEET NO.	DESCRIPTION
1	COVER SHEET, SUMMARY OF QUANTITIES, INDEX, SIGNATURE BOX
2	GENERAL PLAN AND ELEVATION
3	BEARING REPLACEMENT AT PIERS 4 AND 10
4	BEARING REPLACEMENT AT PIERS 6 AND 8
5	JACKING DETAILS AT PIERS 6 AND 8
6	BEARING REPLACEMENT PIER 7
7	BEARING REPLACEMENT PIER 11
8	BEARING REPLACEMENT PIER 13
9	BEARING REPLACEMENT PIER 15
10	JACKING DETAILS AT PIER 15
11	BEARING REPLACEMENT PIER 16
12-15	DETAILS TRAFFIC CONTROL AND PROTECTION SPECIAL



SUMMARY OF QUANTITIES			
CODE NO.	ITEM	UNIT	TOTAL QUANTITY
501026	EXPANSION BOLTS, 3/4	EACH	24
507001	FURNISH AND ERECT STRUCTURAL STEEL	POUND	24,100
X50113	REMOVE EXISTING BEARINGS	EACH	12
X50114	REMOVE EXISTING ROCKER ASSEMBLIES	EACH	6
X04210	TRAFFIC CONTROL AND PROTECTION SPECIAL	LUMP SUM	1
Z10253	JACKING AND CRIBBING	EACH	18



LENGTH OF PROJECT • 4,458.75 FT. • 0.844 MILES

SUBMITTED April 4, 1977  
 EXAMINED April 11, 1977  
 EXAMINED March 31, 1977  
 EXAMINED March 31, 1977  
 DATE 4-4-77

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
 PROJECT NO. 4-4-77  
 EXAMINED May 5, 1977  
 APPROVED May 5, 1977

DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION  
 APPROVED  
**Jay W. Miller**  
 DIVISION ADMINISTRATOR  
 DATE 6/2/77

CONTRACT NO. 92684

COUNTY PEORIA-SECTION 15B-I-3 F.A.I. ROUTE 31 TAZEWELL

# STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION PLANS FOR PROPOSED FEDERAL AID HIGHWAY

FEDERAL-AID DISTRICT NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FA 49	15-I-3	PEORIA - TAZEWELL	15	1
FED. ROAD DIV. NO. 4		ILLINOIS PROJECT	U-49 (17)	

**P-94-100-76**

## INDEX OF SHEET

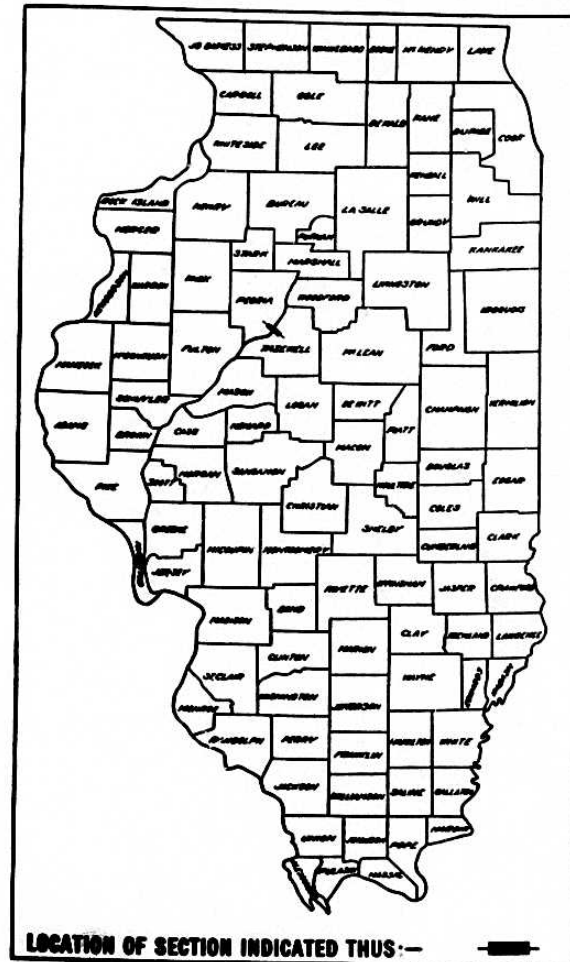
SHEET NO.	DESCRIPTION
1.	COVER SHEET, SUMMARY OF QUANTITIES, INDEX, SIGNATURE BOX
2.	GENERAL PLAN AND ELEVATION
3.	BEARING REPLACEMENT AT PIERS 4 AND 10
4.	BEARING REPLACEMENT AT PIERS 6 AND 8
5.	JACKING DETAILS AT PIERS 6 AND 8
6.	BEARING REPLACEMENT PIER 7
7.	BEARING REPLACEMENT PIER 11
8.	BEARING REPLACEMENT PIER 13
9.	BEARING REPLACEMENT PIER 15
10.	JACKING DETAILS AT PIER 15
11.	BEARING REPLACEMENT PIER 16
12-15.	DETAILS TRAFFIC CONTROL AND PROTECTION SPECIAL

**SCALES**

PLAN	1 INCH	100 FT.
PROFILE, HOR.	1 INCH	100 FT.
PROFILE, VERT.	1 INCH	10 FT.
CROSS-SECTIONS	1 INCH	5 FT.

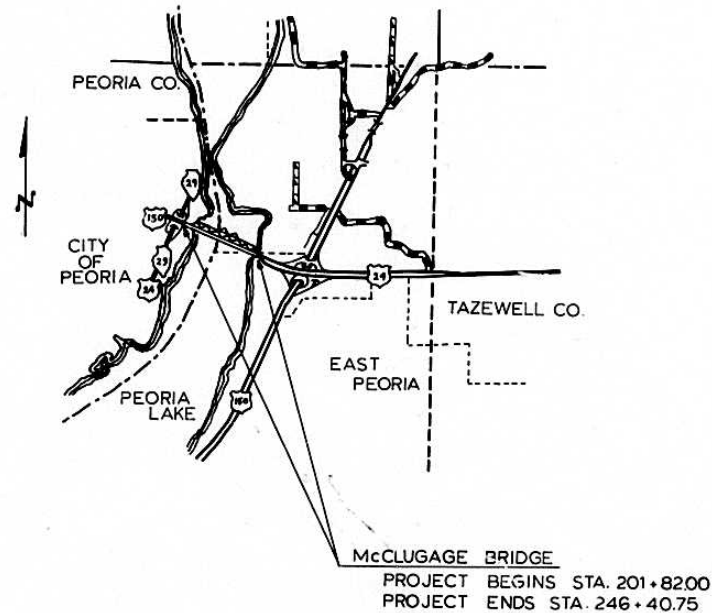
**F. A. ROUTE 49  
SECTION 15B-I-3  
PEORIA - TAZEWELL COUNTIES  
PROJECT U-49 (17)**

**C-94-208-77**



## SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	TOTAL QUANTITY
501026	EXPANSION BOLTS, 3/4	EACH	24
507001	FURNISH AND ERECT STRUCTURAL STEEL	POUND	24,100
X50113	REMOVE EXISTING BEARINGS	EACH	12
X50114	REMOVE EXISTING ROCKER ASSEMBLIES	EACH	6
X04210	TRAFFIC CONTROL AND PROTECTION SPECIAL	LUMPSUM	1
Z10253	JACKING AND CRIBBING	EACH	18



LENGTH OF PROJECT = 4,458.75 FT. = 0.844 MILES

SUBMITTED April 1, 1977  
*J. J. [Signature]*  
 DIST. ENGR.

EXAMINED April 1, 1977  
*S. B. [Signature]*  
 DIST. CONST. ENGR.

EXAMINED March 31, 1977  
*J. C. [Signature]*  
 DIST. MAINT. ENGR.

EXAMINED March 31, 1977  
*E. J. [Signature]*  
 DIST. TRAFFIC ENGR.

Entire section inspected and approved as to policy.

DATE 4-4-77 *J. J. [Signature]*  
 DISTRICT ENGINEER

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUBMITTED 4-4 19 77

EXAMINED May 5 19 77  
*[Signature]*  
 DISTRICT ENGINEER

EXAMINED May 5 19 77  
*[Signature]*  
 DISTRICT ENGINEER

PASSED May 5 19 77  
*[Signature]*  
 DISTRICT ENGINEER

APPROVED May 5 19 77  
*[Signature]*  
 DIRECTOR OF HIGHWAYS

DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION

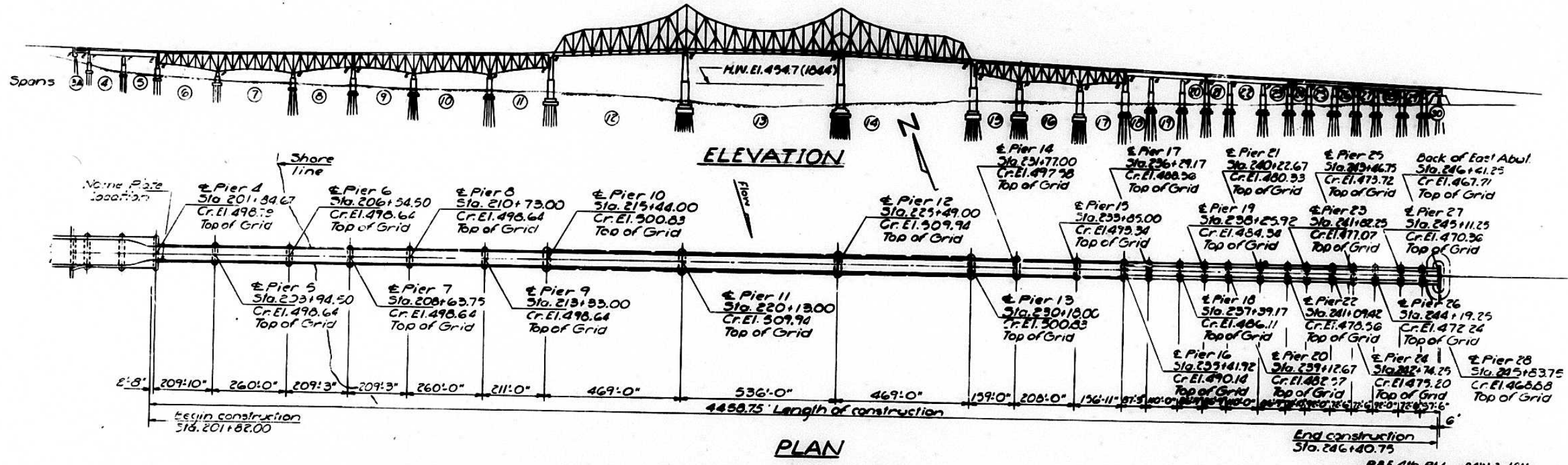
APPROVED \_\_\_\_\_

DIVISION ADMINISTRATOR \_\_\_\_\_ DATE \_\_\_\_\_

**CONTRACT NO. 32684**

JOB NUMBER

PROJECT NO.	SECTION	DATE	SCALE	SHEET NO.	TOTAL SHEETS
49	15B-I-3	Peoria - Tazewell	15	2	10 SHEETS



**GENERAL NOTES**

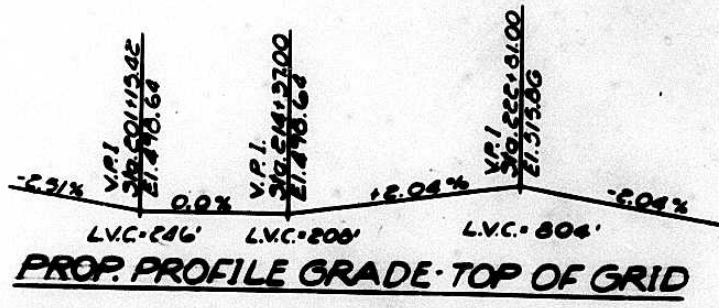
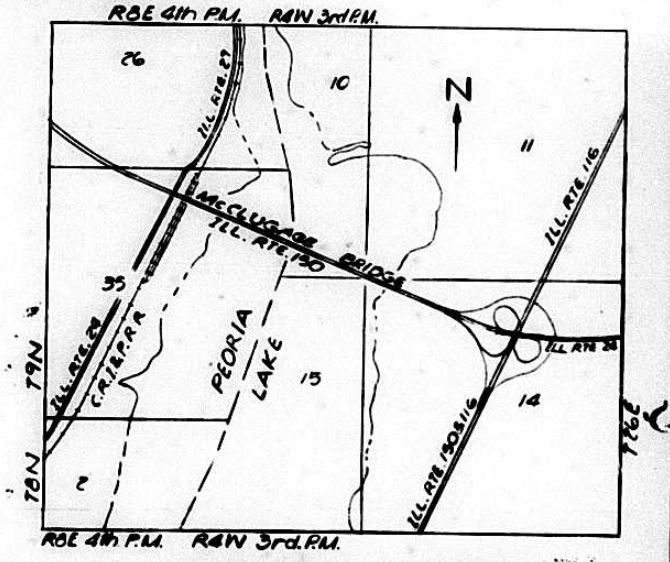
All new struct. steel shall receive one shop coat of red lead paint and two field coats of aluminum paint.

It shall be the responsibility of the Contractor to verify all dimensions and conditions existing in the field prior to construction and ordering of materials.

Expansion bolts shall consist of self-drilling expansion anchors and 3/4"  $\phi$  x 12" hooked bolts.

**TOTAL BILL OF MATERIAL**

ITEM	Unit	Total
Structural Steel	Lbs.	24100
Removal of Existing Bearings	Each	12
Removal of Existing Rocker Assemblies	Each	6
Jacking & Cribbing	Each	18
Expansion Bolts 3/4" $\phi$	Each	24



DESIGNED: *Pandabilla*  
 CHECKED: *Prabhu S. Gid*  
 DRAWN: *J.D.*  
 CHECKED: *Prabhu S. Gid*

EXAMINED: *March 22, 1977*  
 ENGINEER OF DESIGN: *Carl E. Hanson, Jr.*  
 APPROVED: \_\_\_\_\_  
 DIRECTOR OF HIGHWAYS

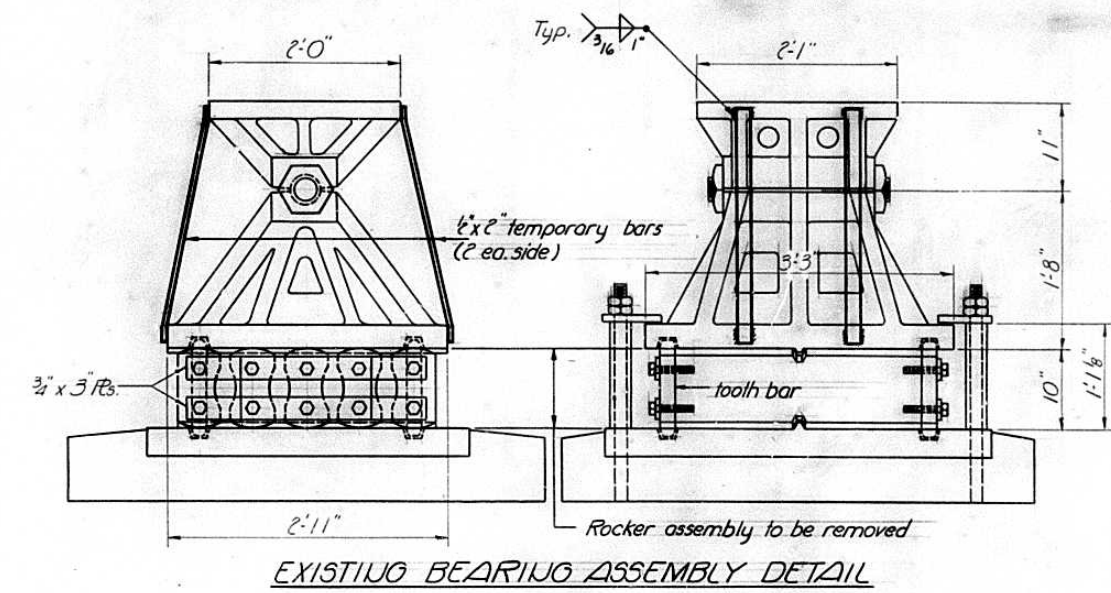
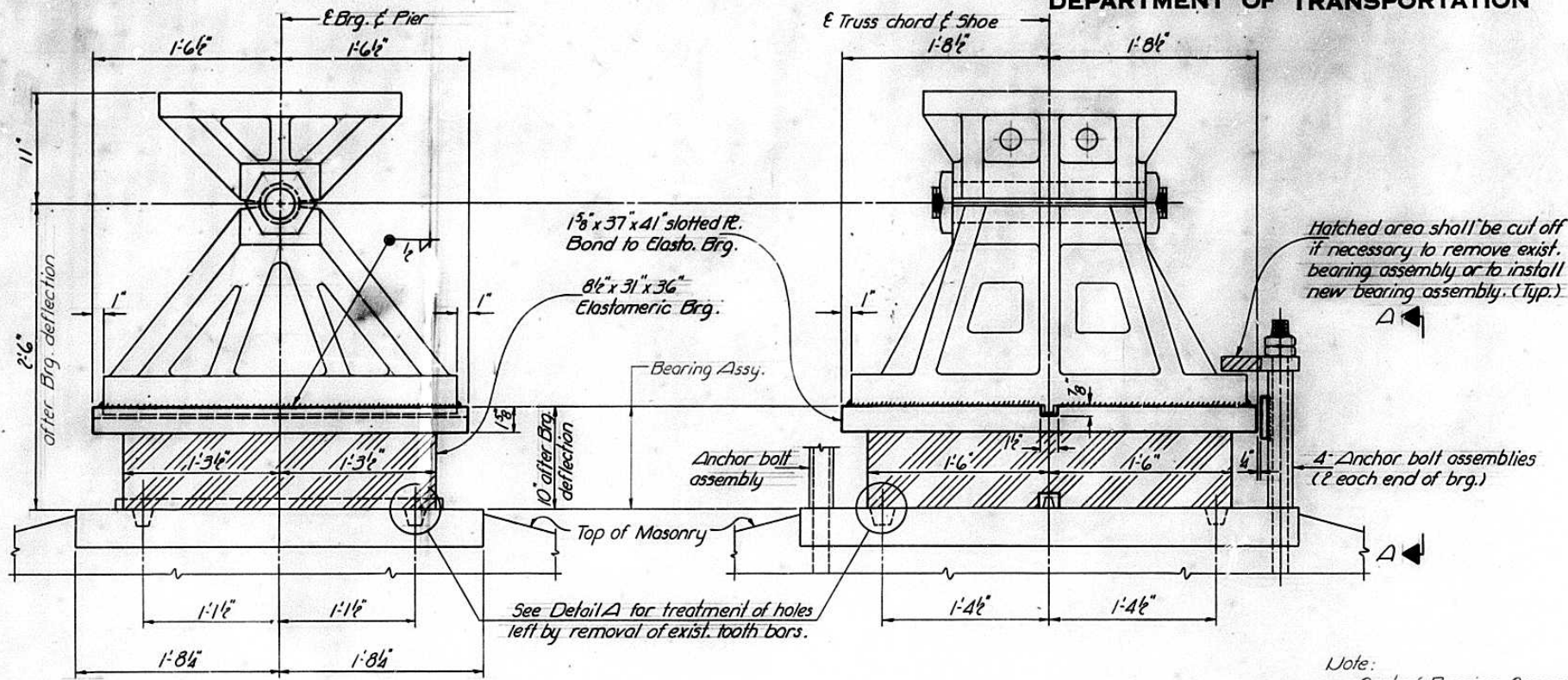


**GENERAL PLAN & ELEVATION  
 EXPANSION BEARING REPAIR  
 McCLUGGAGE BRIDGE REDECKING  
 F.A. ROUTE 31  
 SECTION 15 D-E-F-P.L  
 PEORIA-TAZEWELL CO.**



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

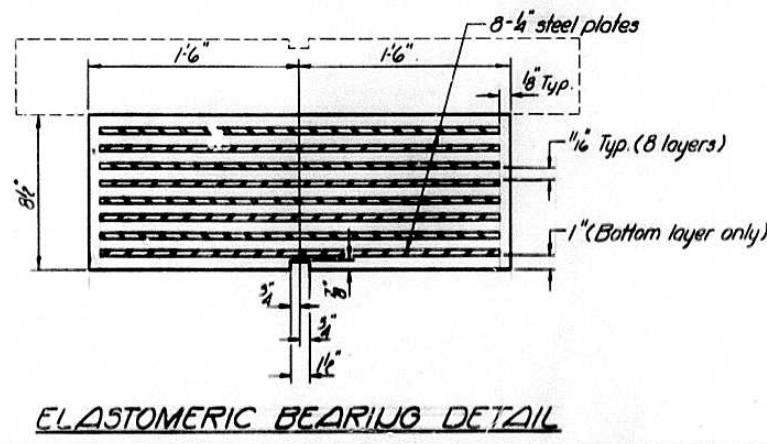
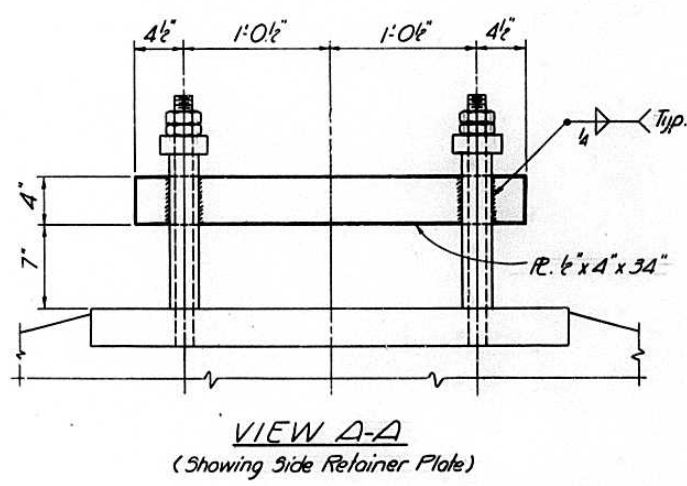
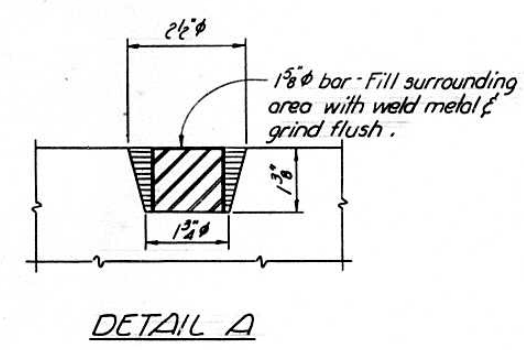
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 3
U.S. 49	5B-I-3	Peoria-Tazewell	15	4	10 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		



Hatched area shall be cut off if necessary to remove exist. bearing assembly or to install new bearing assembly. (Typ.)

Note:  
Cost of Bearing Assemblies is incidental to Structural Steel

- The following enumerated paragraphs describe the procedure to be used for replacing the bearing at Piers 6 & 8. The bearings shall be done one at a time.
- $1/2 \times 2$  Temporary bars shall be attached to the top and bottom shoes as shown on the Existing Bearing Details prior to jacking.
  - The bearing shall then be jacked  $1/2$  max. using the details shown on sh. 4.
  - The existing  $3/4 \times 3/8$  plates on the outside of the rocker cluster assembly shall be removed (by cutting if necessary).
  - The spherical tooth bars shall be cut off as close as possible to the rockers (these tooth bars are only on the outside rockers) and the rockers removed by sliding out.
  - The holes left in the masonry plate from removing the spherical tooth bar shall be filled as shown in Detail A.
  - The bearing surface of the existing masonry plate and bottom shoe plate shall be thoroughly cleaned.
  - The new elastomeric bearing assembly shall then be installed by sliding in place.
  - The jacks shall be removed and the  $1/2 \times 2$  bars removed from the top and bottom shoes.



**FOUR BEARINGS  
BILL OF MATERIAL**

Item	Unit	Total
Structural Steel	Lbs.	300
Removal of Exist. Rocker Assy.	Each	4

DESIGNED *Wanshilton*  
CHECKED *Preker 5. 63*  
DRAWN *J.D.*  
CHECKED *Preker 5. 63*

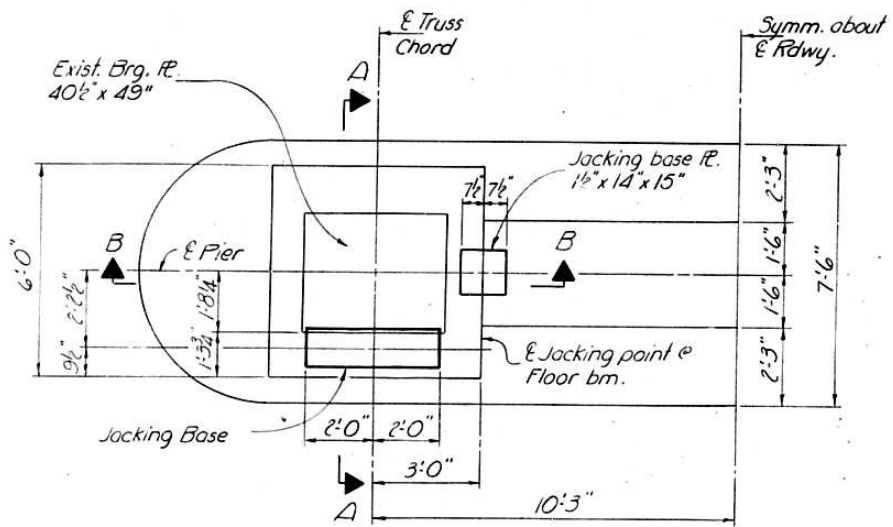
EXAMINED *March 22 1977*  
*Carl E. Thummett*  
DIRECTOR OF BRIDGE AND TRUSS STRUCTURES

PASSED  
APPROVED  
DIRECTOR OF HIGHWAYS

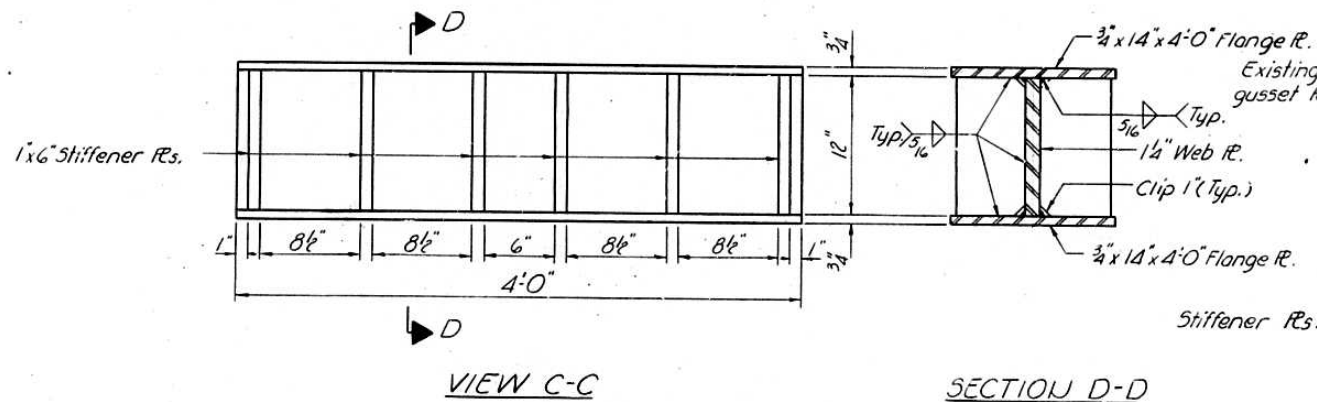
BEARING REPLACEMENT AT PIERS 6 & 8  
I.A. RT. 31 SEC. 15B-I-3  
PEORIA-TAZEVELL COUNTIES

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

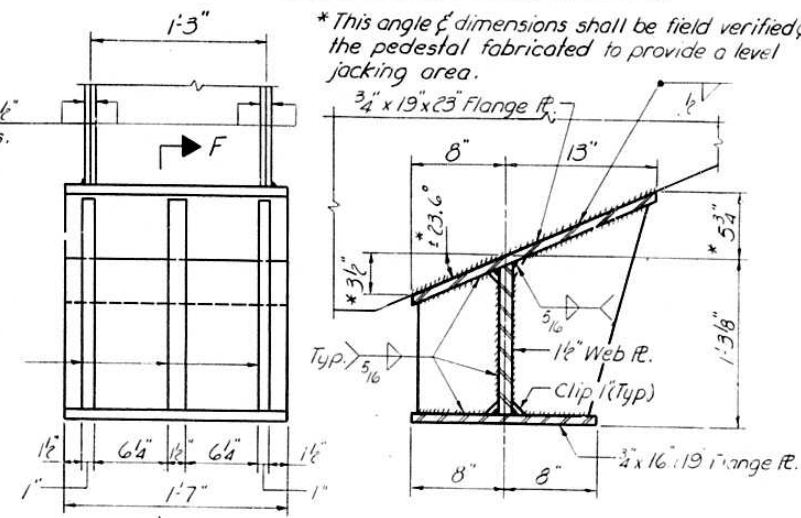
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
A. S. L. P. A. 49	15B-1-3	Peoria- Tazewell	15	5	10 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJ. ACT.			



HALF PLAN - PIERS 6 & 8



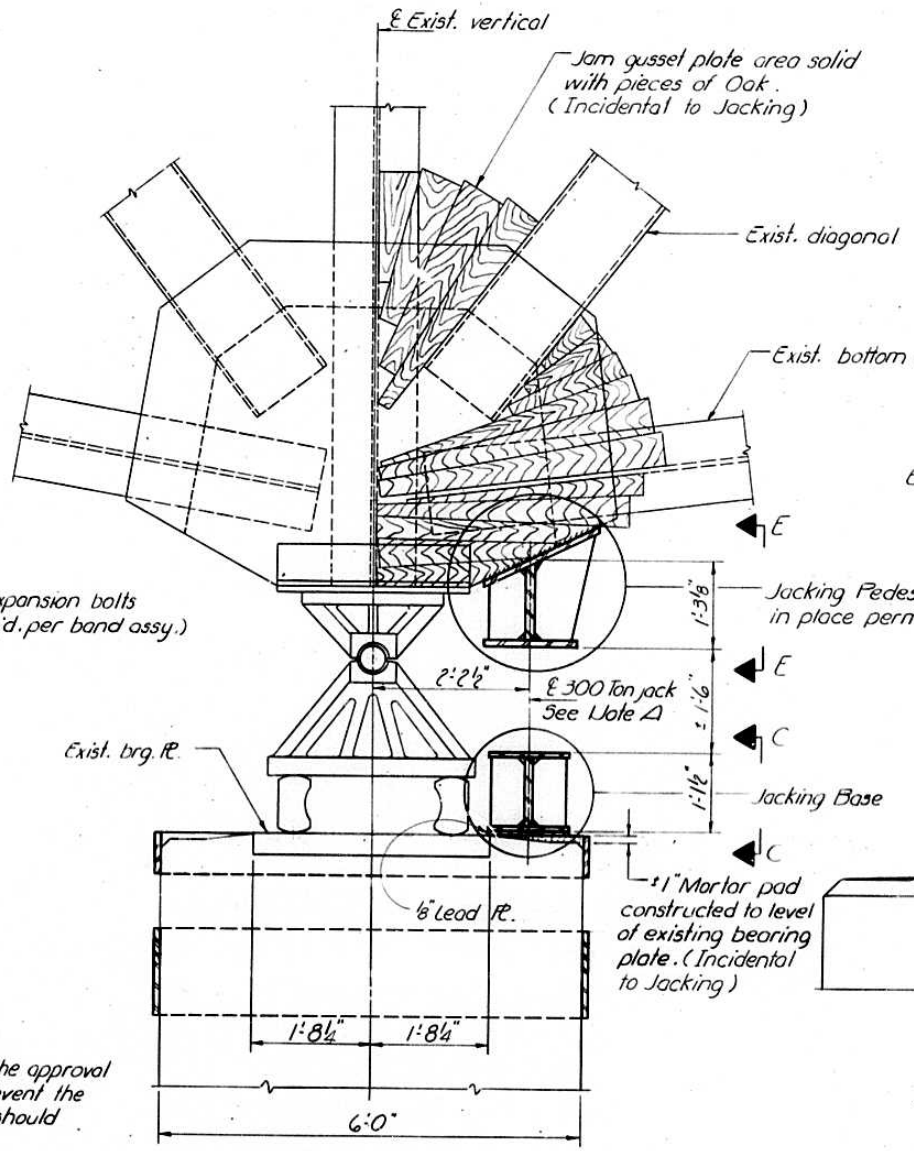
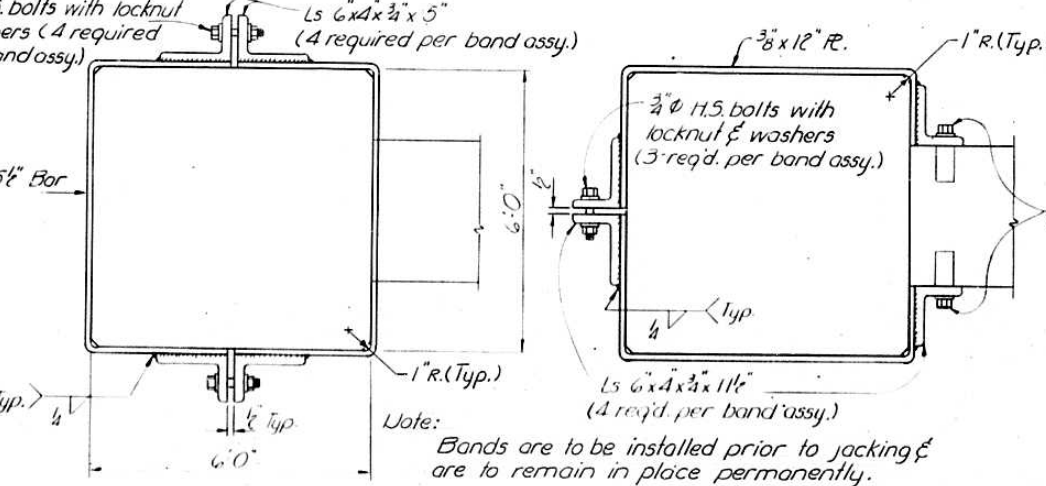
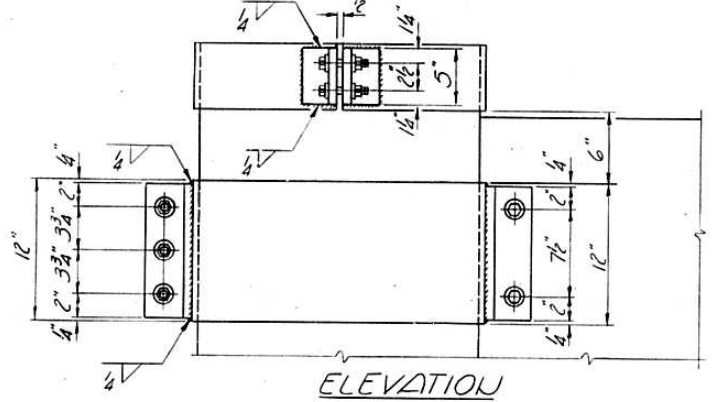
JACKING BASE DETAILS  
(1 Required)



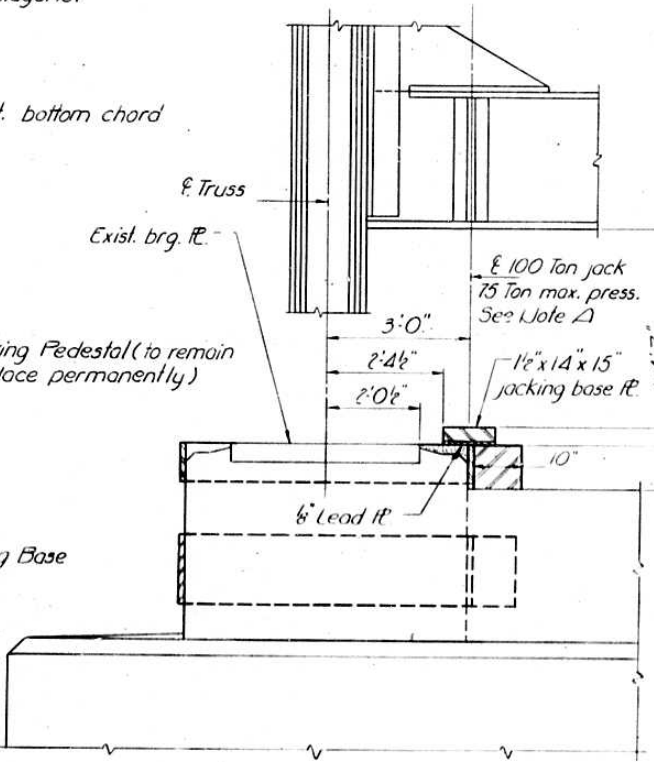
JACKING PEDESTAL DETAILS  
(4 Required)

**BILL OF MATERIAL**

Item	Unit	Total
Structural Steel	Lbs.	5780
Expansion Bolts 3/4"	Each	16
Jacking	Each	4



SECTION A-A



SECTION B-B

A series of steel shim R.s. shall be used to provide a level surface for the jack base R. (R.s. 10" x 18" in plan)

Note A: A jack safety system subject to the approval of the Engineer shall be used to prevent the structure from falling more than 4" should the jack plunger fail.

DESIGNED Van Mulder  
CHECKED Probst S. W.  
DRAWN J.D.  
CHECKED Probst S. W.

EXAMINED Carl E. Thiesman  
PASSED  
APPROVED

March 22 1977

JACKING DETAILS  
AT PIERS 6 & 8  
FA. RT. 31 SEC. 15B-1-3  
PEORIA-TAZEVELL COUNTIES

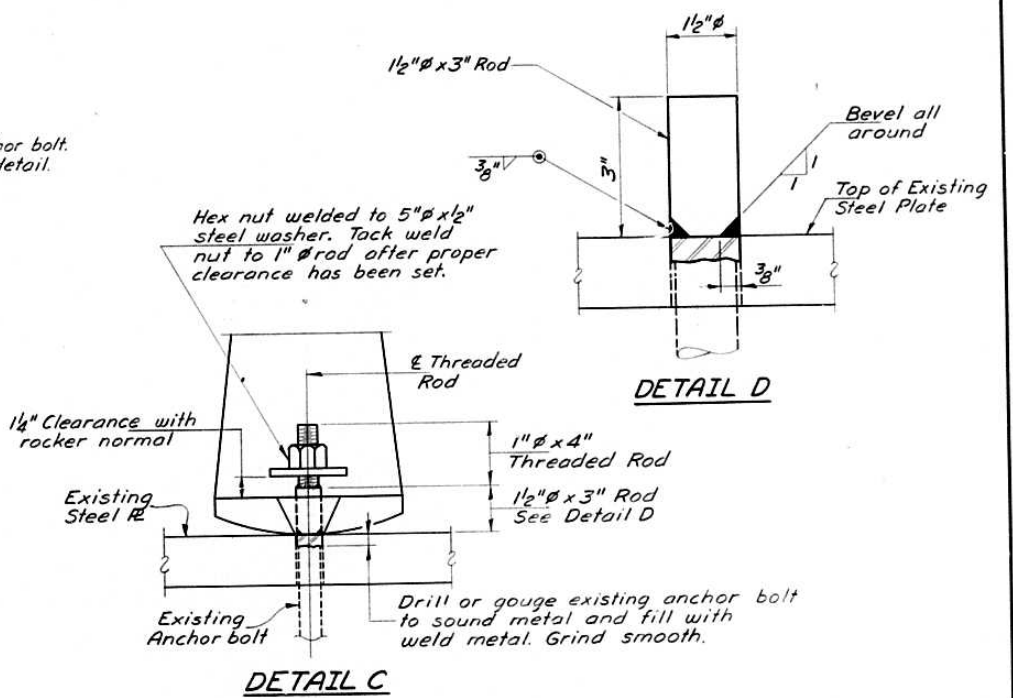
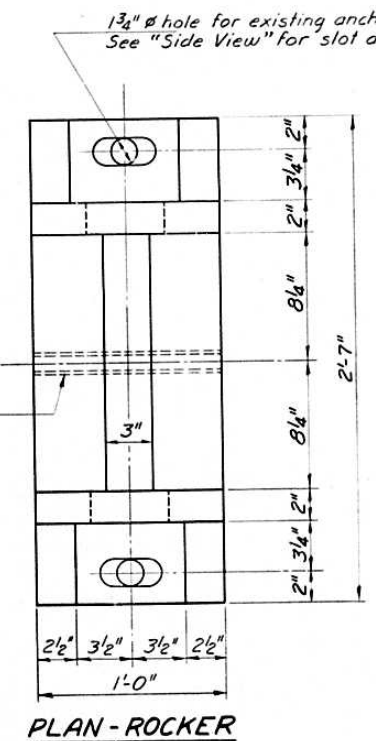
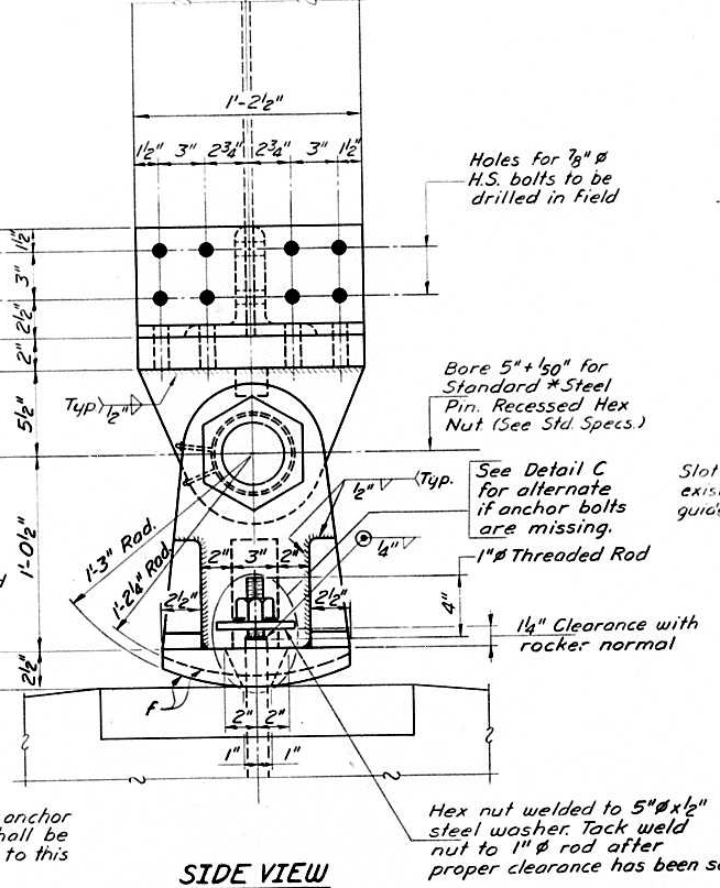
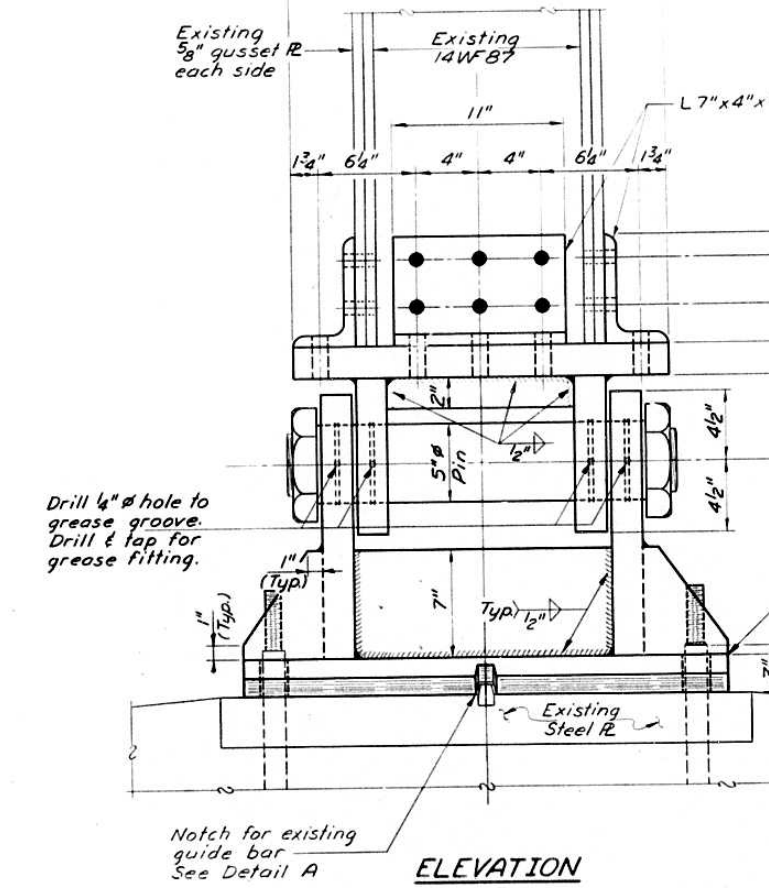
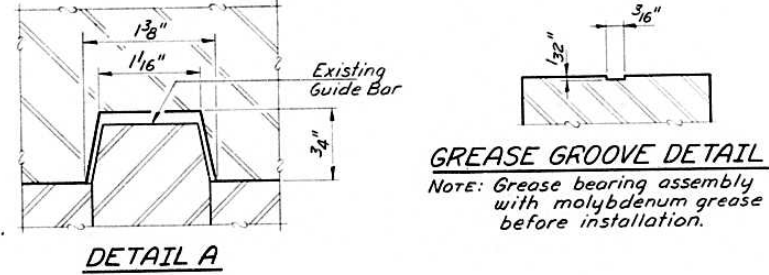
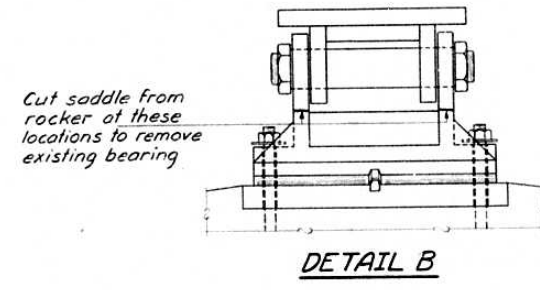
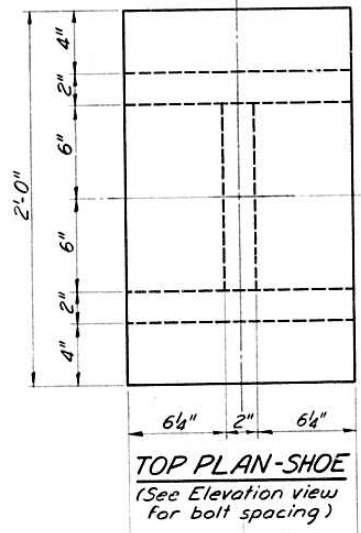
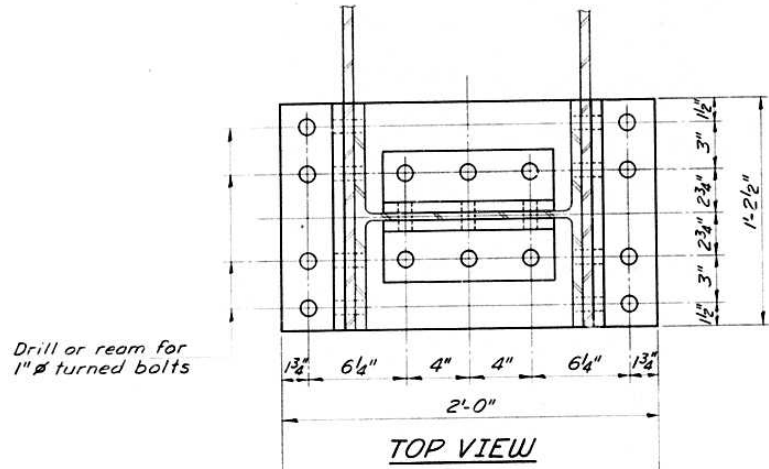
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
158-I-3	158-I-3	Peoria-Tazewell	15	6
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

SHEET NO. 5  
10 SHEETS

The following enumerated paragraphs describe the procedure to be used for replacing the bearings of the deck truss at Pier 7. The bearings shall be done one at a time.

- 1) A temporary support, subject to the Engineers approval, shall be placed under the bottom chord as close as possible to the bearing.
- 2) Member Uo Lo shall be raised 1/2" maximum to remove the bearing assembly utilizing a 100 ton (minimum) jack positioned under the stiffeners of the jacking floor beam.
- 3) The existing bearing assembly shall be removed including the angles attached to the 14WF87. See Detail B.
- 4) The existing anchor bolts shall be cut off to project 3" above the existing steel plate. This is to allow the bolster assembly to be placed without jacking the bottom chord more than 1/2"
- 5) The 15/16"  $\phi$  holes in the 7"x4"x3/4" L's shall then be drilled to match the holes in the existing 14WF87 and the 7/8"  $\phi$  H.S. bolts installed.
- 6) The new bearing shall then be positioned and the angles bolted to the 2"x14 1/2"x24" top bearing plate.
- 7) The 1"  $\phi$  threaded rods shall then be welded to the existing anchor bolts and the nut & washer installed and tack welded in place. The temporary support shall then be removed.



**FOUR BEARINGS  
BILL OF MATERIAL**

Item	Unit	Total
Structural Steel	Lbs.	4600
Removal of Existing Bearings	Each	4
Jacking & Cribbing	Each	4

DESIGNED: *Sam Chilton*  
CHECKED: *Robert S. G.*  
DRAWN: *Robert S. G.*  
CHECKED: *Robert S. G.*

EXAMINED: *Carl E. Shuman*  
PASSED: *Carl E. Shuman*  
APPROVED: \_\_\_\_\_

March 22 1977

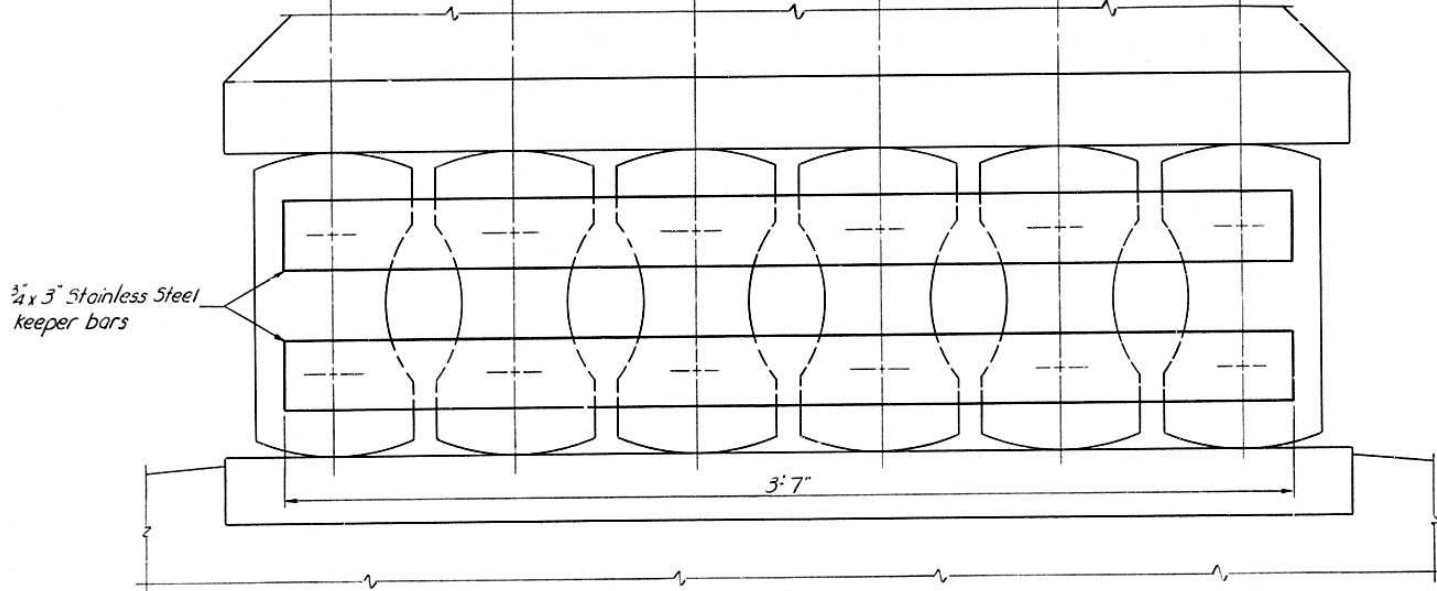
\* Pins shall be S.A.E. 8620 steel, case hardened to a depth of .15" except for threads. Surface hardness 58 HRC.

**BEARING REPLACEMENT AT PIER 7  
F.A. ROUTE 31 - SECTION 158-I-3  
PEORIA-TAZEVELL COUNTIES**

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 6
P.A. 49	5B-1-3	Peoria-Tazewell	15	7	10 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

1 3/8" holes in 3/4 x 3" keeper bars for 1" bolts (Opt. I)  
1 1/8" holes in 3/4 x 3" keeper bars for 1" threaded stud (Opt. II)



BEARING ELEVATION

Notes:

Stainless steel hex. head bolts shall conform to A.S.T.M. 193, Class 1, Grade B8. (AISI Type 304)  
All stainless steel nuts shall conform to A.S.T.M. A194, Grade 8 (AISI Type 304) or Grade 8F (AISI Type 303). The nuts shall be semifinished hex. "locknuts" equivalent to the finished hex. series of the American National Standard.  
Stainless steel bars shall conform to the requirements of A.S.T.M. A-276, Type 1b, 302, Condition B.

Two optional methods of bearing repair are detailed on this sheet. The following enumerated paragraphs describe the options. Each option requires the 3/4 x 3" keeper bars to be replaced one at a time starting with a bottom bar. The Options may not be intermixed on any one bar.

OPTION I

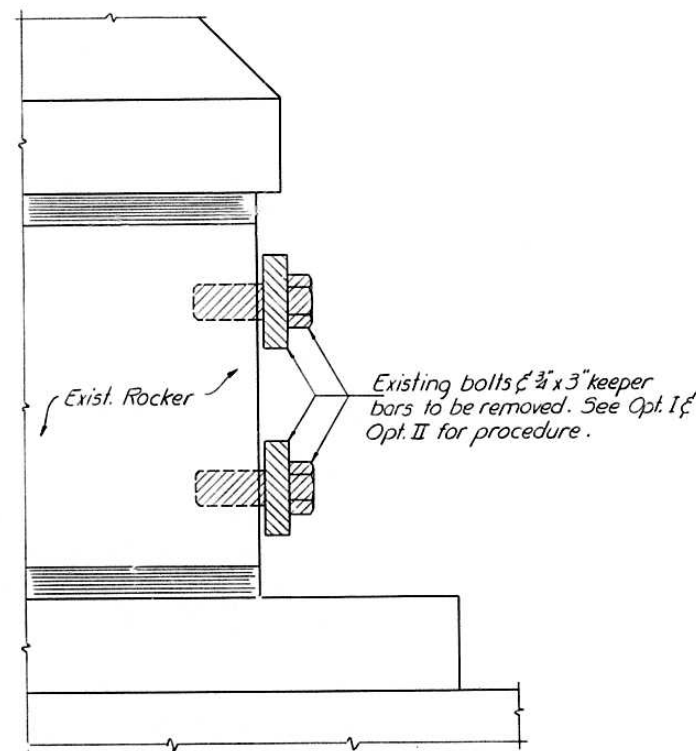
- The existing bolts and keeper bars shall be removed utilizing a method acceptable to the Engineer.
- Utilizing compressed air and probes, any debris existing between the rockers shall be removed.
- The new keeper bars and bolts shall then be installed as shown in Section A-A.

OPTION II

- The existing bolts and keeper bars shall be removed utilizing a method acceptable to the Engineer, the surface ground smooth.
- Utilizing compressed air and probes, any debris existing between the rockers shall be removed.
- In order to insure proper bolt alignment the bolts shall be placed in the keeper bar and snugged down. This assembly shall then be placed against the rockers and the bolt heads tacked in place. The keeper bars shall then be removed and the bolt heads securely welded as shown in Section A-A.
- The new keeper bars shall then be installed as shown in Section A-A.

Note A: Drill 1/4" hole to bolt. Drill 1/8" top for grease fitting.

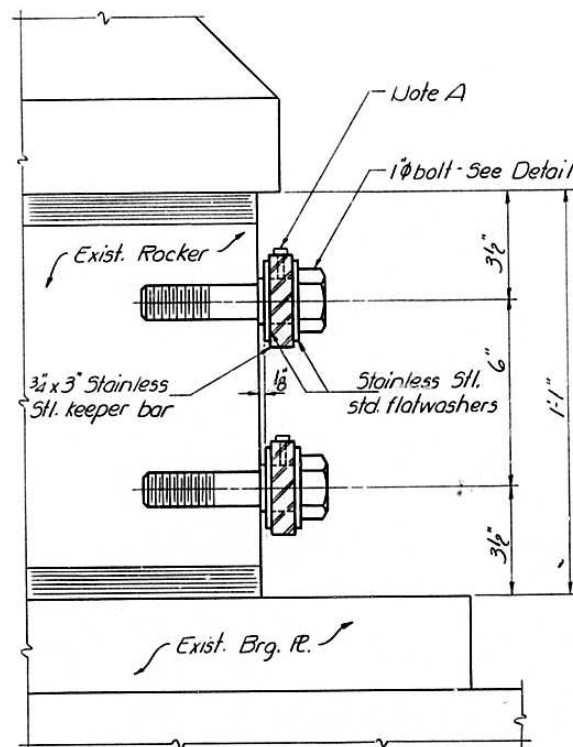
Note B: Weld with electrodes meeting AWS Class E 308-15 or E 308-16.



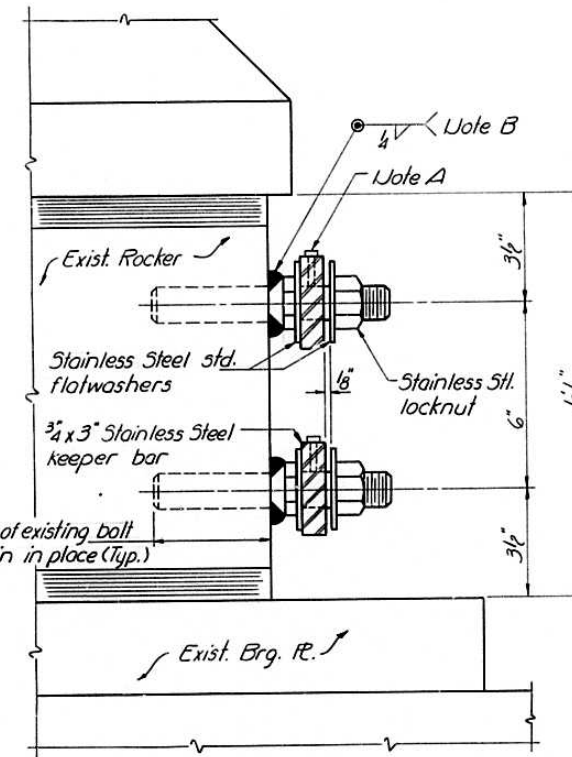
SECTION A-A

(Showing bolt & keeper bar removal)

Existing bolts & 3/4 x 3" keeper bars to be removed. See Opt. I & Opt. II for procedure.



SECTION A-A  
OPTION I



SECTION A-A  
OPTION II

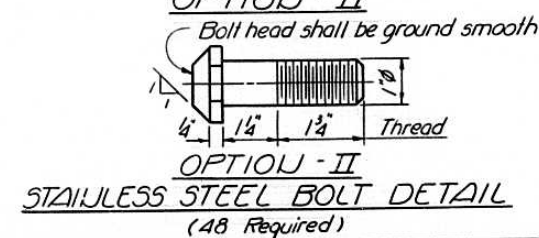
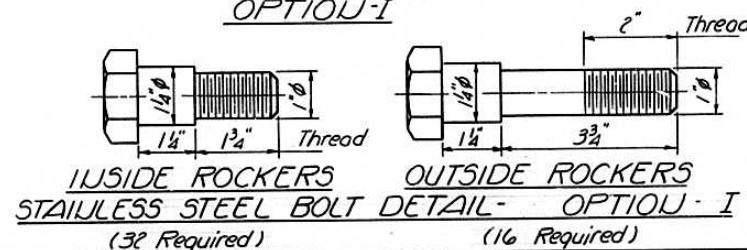
This portion of existing bolt must remain in place (Typ.)

TWO BEARINGS  
BILL OF MATERIAL

Item	Unit	Total
Structural Steel	Lbs.	350

DESIGNED	Stan. Mullin
CHECKED	Prabir S. G.
DRAWN	JD
CHECKED	Prabir S. G.

EXAMINED	March 22 1977 Carl E. Hummer
PASSED	
APPROVED	

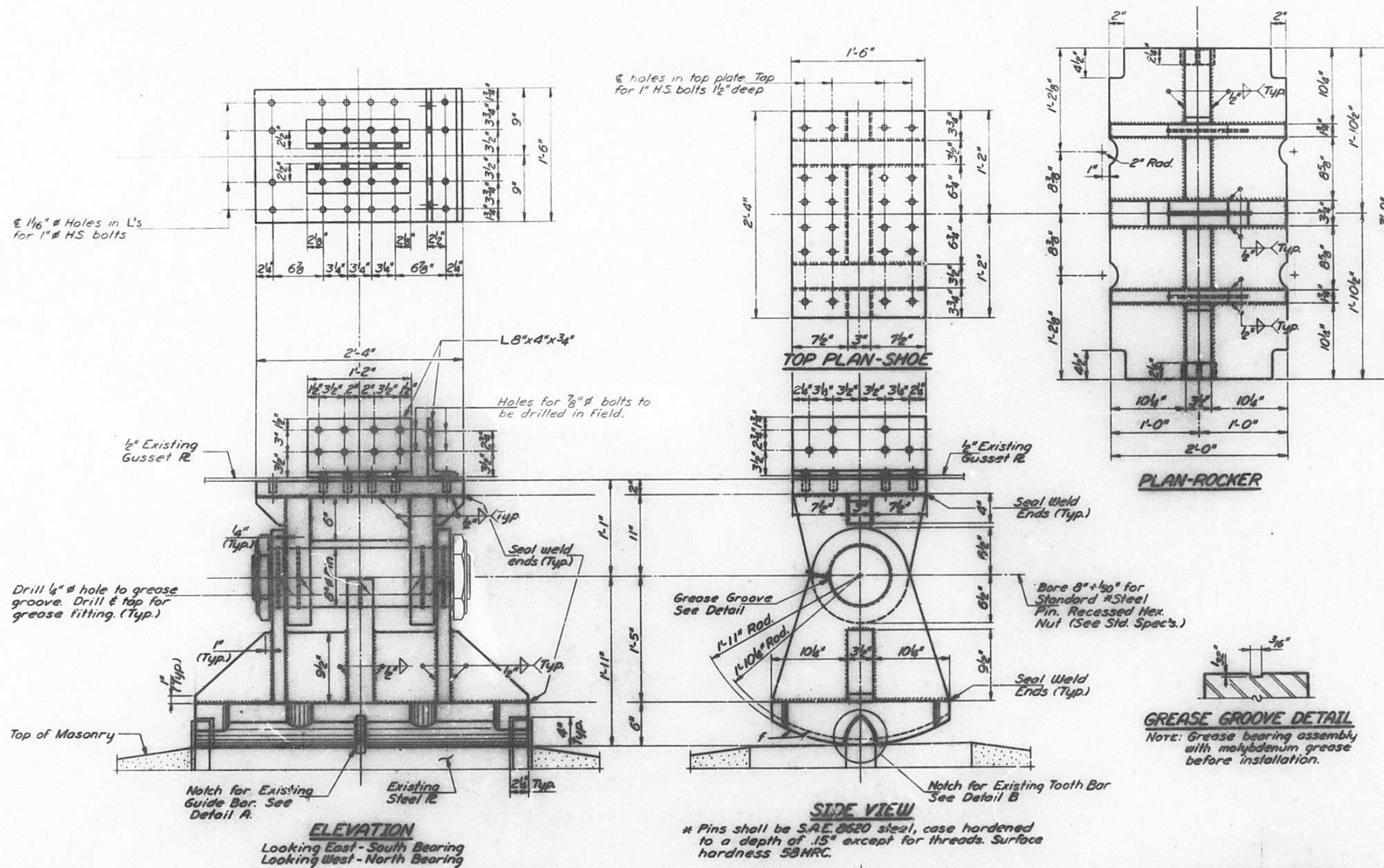


BEARING REPLACEMENT AT PIER 11  
P.A. RT. 31 SEC. 15 B-1-3  
PEORIA-TAZEWELL COUNTIES



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	POST MILE	POST NO.	SHEET NO. 7
P.A. 49	5B-1-3	Peoria-Tazewell	15	8	10 SHEETS
FED. ROAD DIST. NO. 7		PLANES	FED. AID PROJECT		



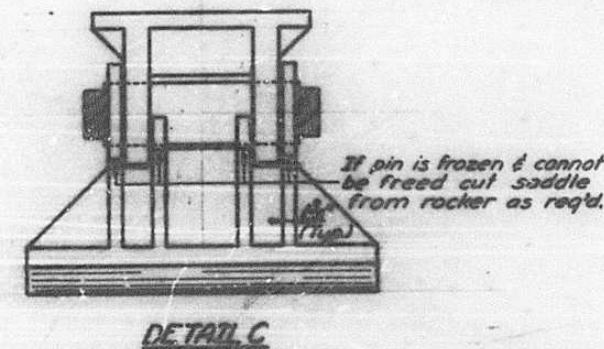
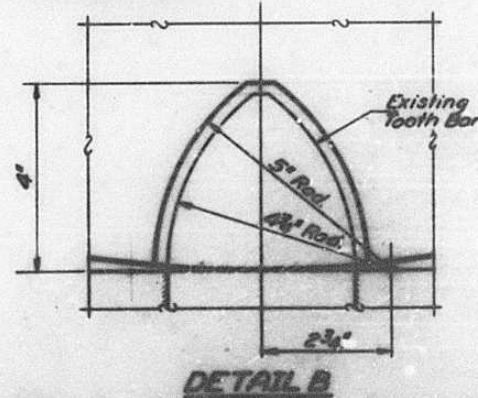
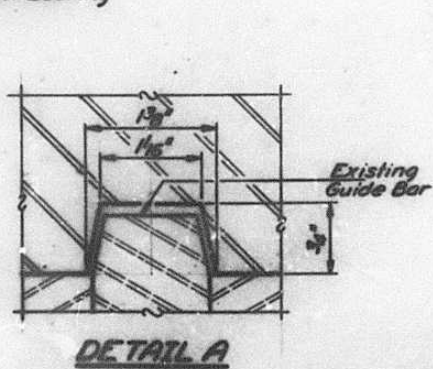
- The following enumerated paragraphs describe the procedure to be used for replacing the Thru Truss bearings at Pier 13. The bearings shall be done one at a time.
- 1) A temporary support subject to the Engineers approval shall be placed under the bottom chord as close as possible to the bearing.
  - 2) Member Lo U<sub>1</sub> shall be raised 1/2" Max. to remove the bearing assembly utilizing a 300 Ton (min.) jack positioned under the jacking floor beam.
  - 3) The existing bearing assembly shall be removed including the existing angles which attach the truss to the bearing. See Detail C.
  - 4) The new angles shall then be matched to the truss member and the 15/16" # holes drilled & the 7/8" # bolts installed.
  - 5) The new bearing shall then be positioned and bolted to the truss member.
  - 6) The temporary support under the chord shall then be removed and utilized for the North bearing replacement where the same replacement procedure shall be followed.

**TWG BEARINGS  
BILL OF MATERIAL**

Item	Unit	Total
Structural Steel	Lbs.	7480
Removal of Existing Bearings	Each	2
Jacking & Cribbing	Each	2

Plan: [Signature]  
[Signature]  
G.H.R. [Signature]  
R.J.L.

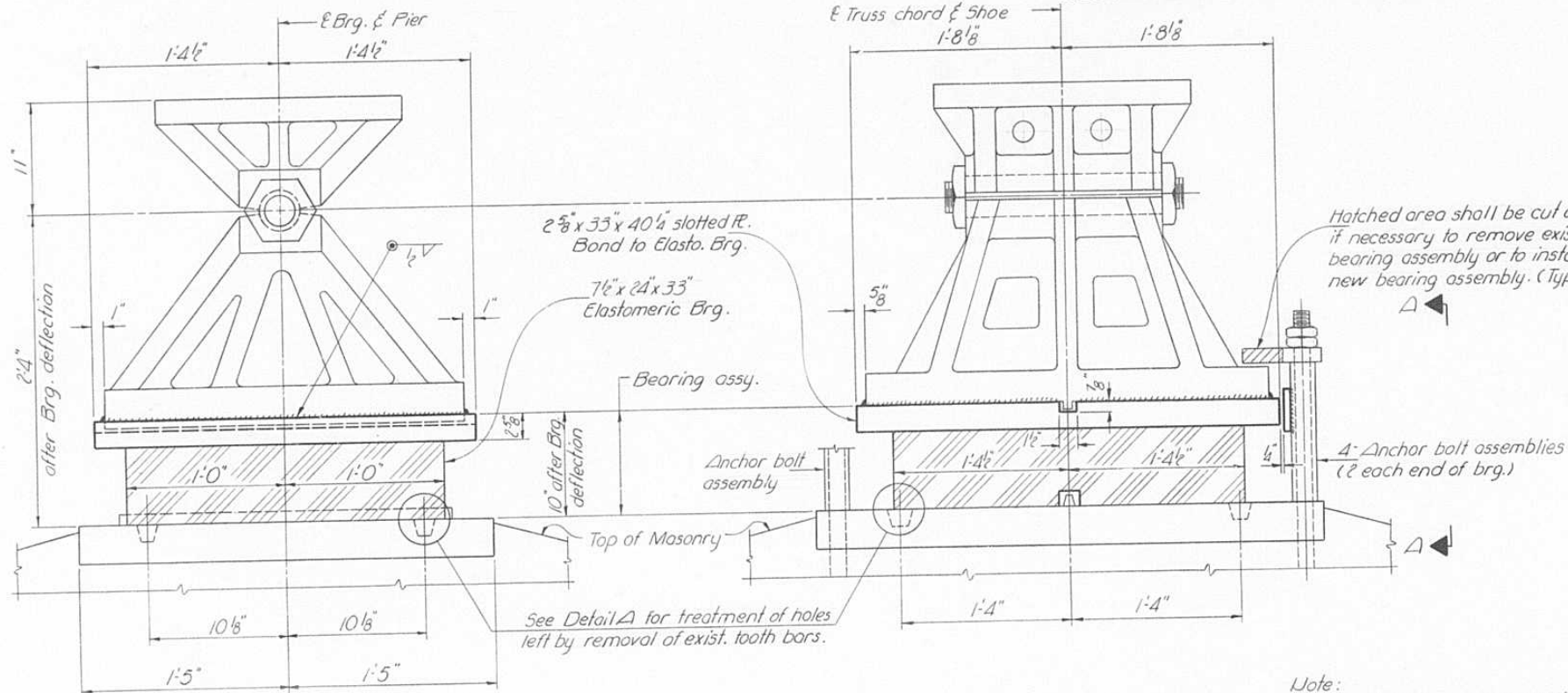
March 27 77  
Carl E. [Signature]  
[Signature]



**BEARING REPLACEMENT AT  
PIER 13 - THRU TRUSS SPAN  
F.A. ROUTE 31  
SECTION 15B-1-3  
PEORIA - TAZEVELL COUNTIES**

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

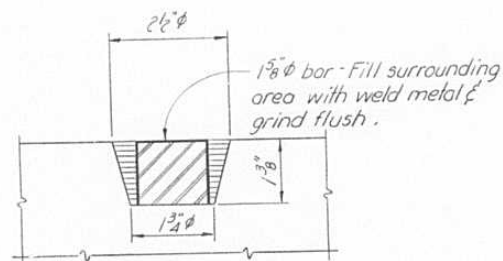
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 8 10 SHEETS
P.A. 49	5B-I-3	Peoria-Tazewell	15	9	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			



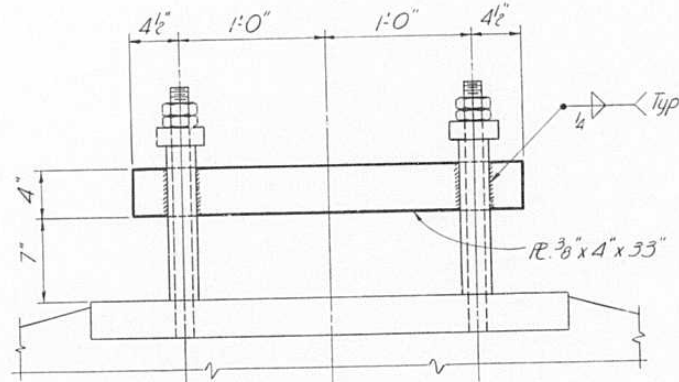
SIDE VIEW

ELEVATION

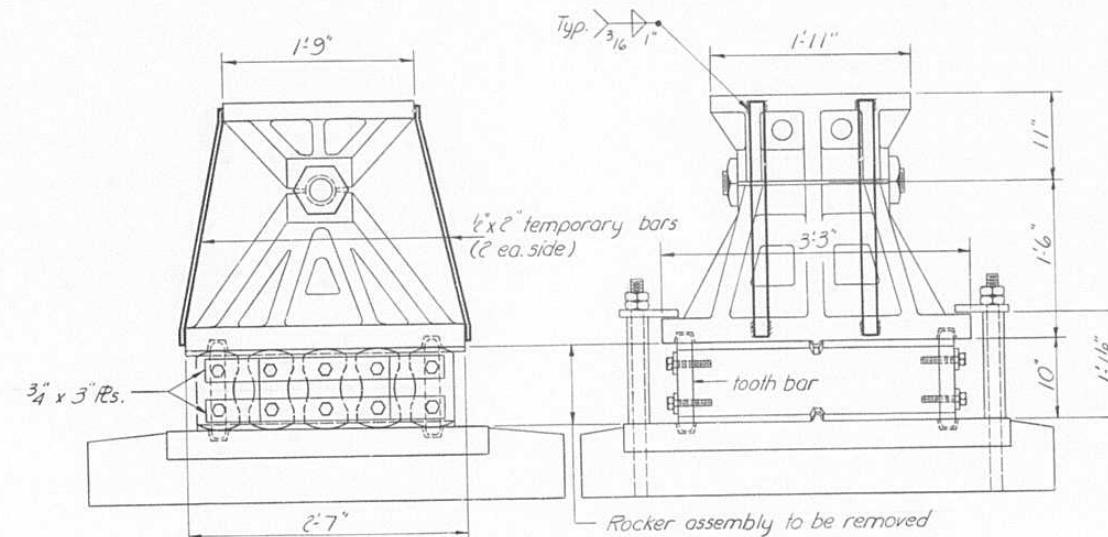
Note:  
Cost of Bearing Assemblies is incidental to Structural Steel.



DETAIL A



VIEW A-A  
(Showing Side Retainer Plate)



EXISTING BEARING ASSEMBLY DETAIL

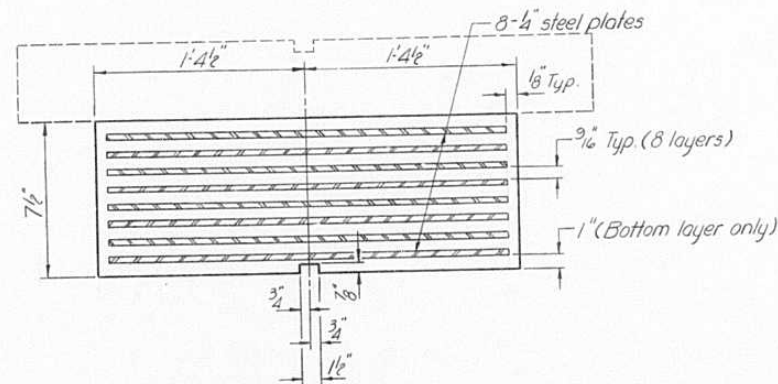
The following enumerated paragraphs describe the procedure to be used for replacing the bearing at Pier 15. The bearings shall be done one at a time.

1. 1/2" x 2" temporary bars shall be attached to the top and bottom shoes as shown on the Existing Bearing Details prior to jacking.
2. The bearing shall then be jacked 1/2" max. using the details shown on sh. #9.
3. The existing 3/4" x 3" plates on the outside of the rocker cluster assembly shall be removed (by cutting if necessary).
4. The spherical tooth bars shall be cut off as close as possible to the rockers (these tooth bars are only on the outside rockers) and the rockers removed by sliding out.
5. The holes left in the masonry plate from removing the spherical tooth bar shall be filled as shown in Detail A.
6. The bearing surface of the existing masonry plate and bottom shoe plate shall be thoroughly cleaned.
7. The new elastomeric bearing assembly shall then be installed by sliding in place.
8. The jacks shall be removed and the 1/2" x 2" bars removed from the top and bottom shoes.

TWO BEARINGS  
BILL OF MATERIAL

Item	Unit	Total
Structural Steel	Lbs.	120
Removal of Exist. Rocker Assy.	Each	2

BEARING REPLACEMENT AT PIER 15  
F.A. RT. 31 SEC. 15B-I-3  
PEORIA-TAZEWELL COUNTIES



ELASTOMERIC BEARING DETAIL

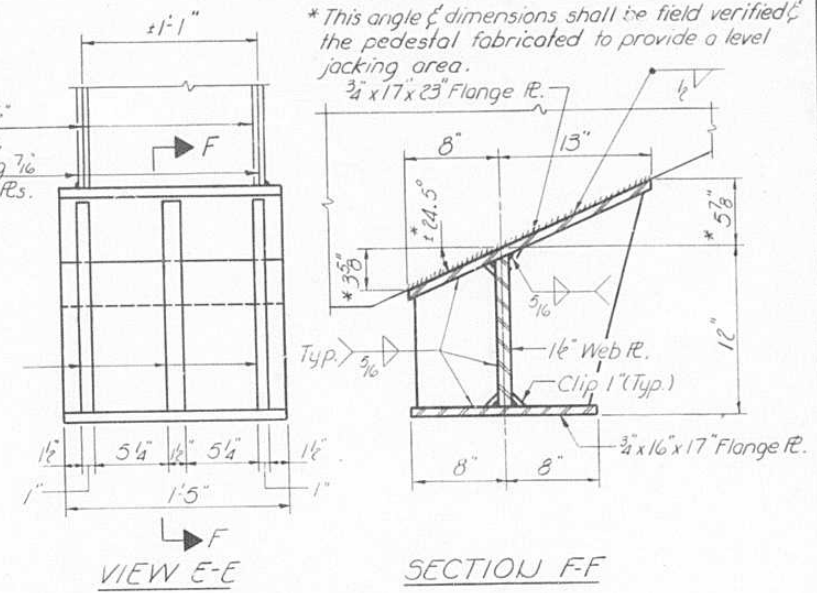
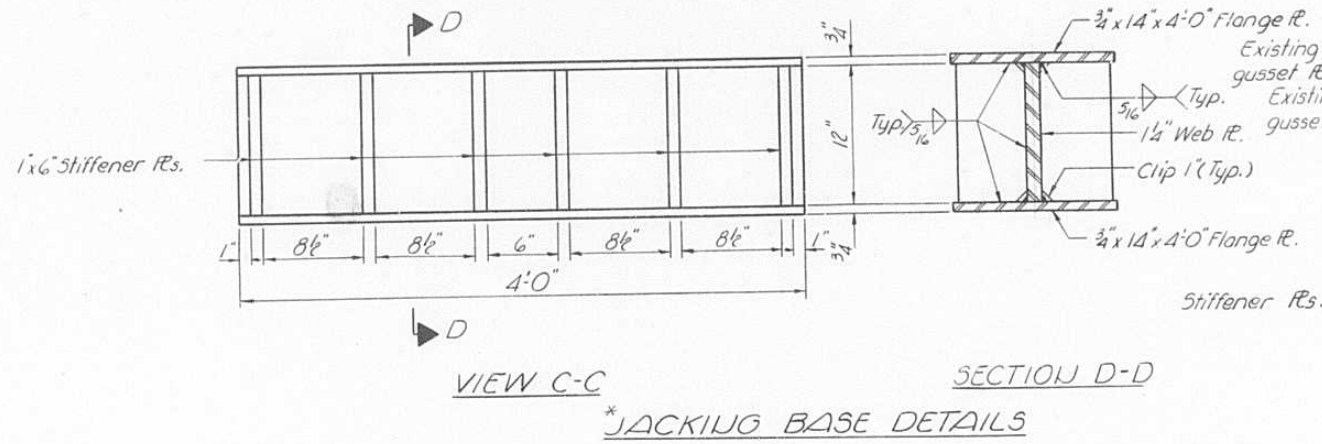
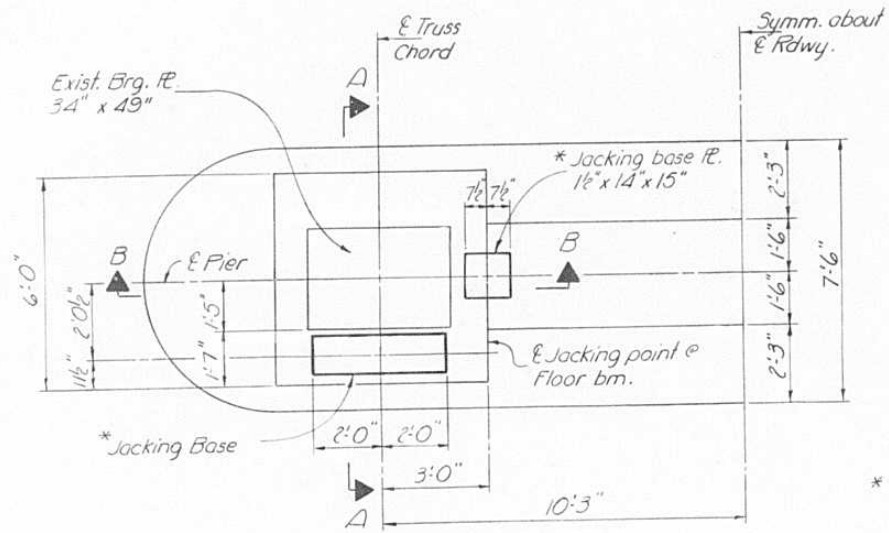
DESIGNED *Harold S. G.*  
CHECKED *Richard S. G.*  
DRAWN *J.D.*  
CHECKED *Richard S. G.*

EXAMINED *March 22 1977*  
*Carl E. Thompson*  
PASSED  
APPROVED  
DIRECTOR OF HIGHWAYS

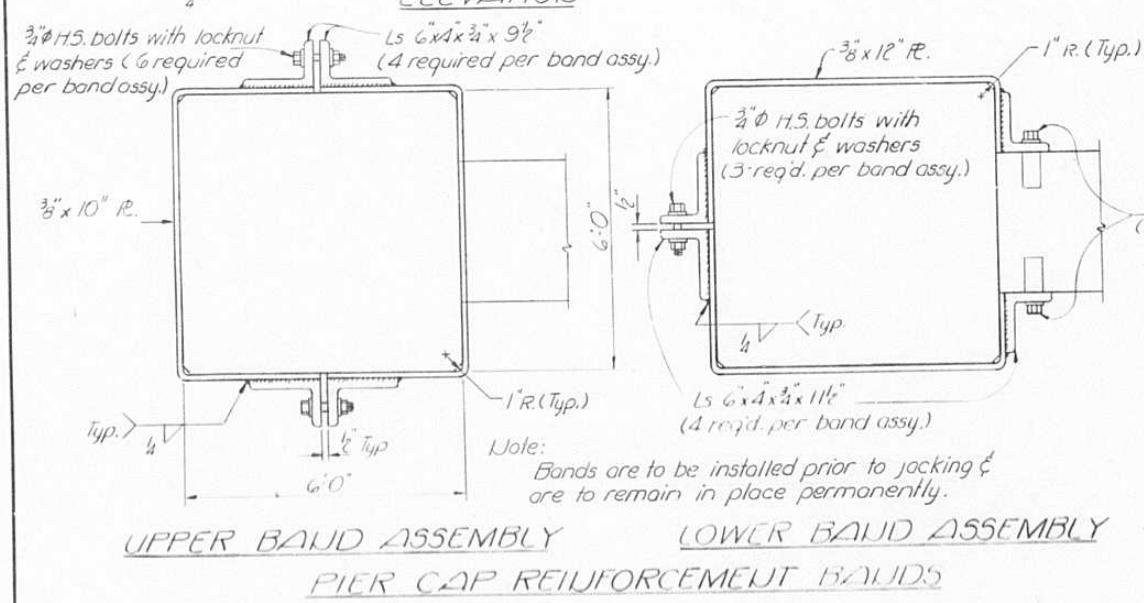
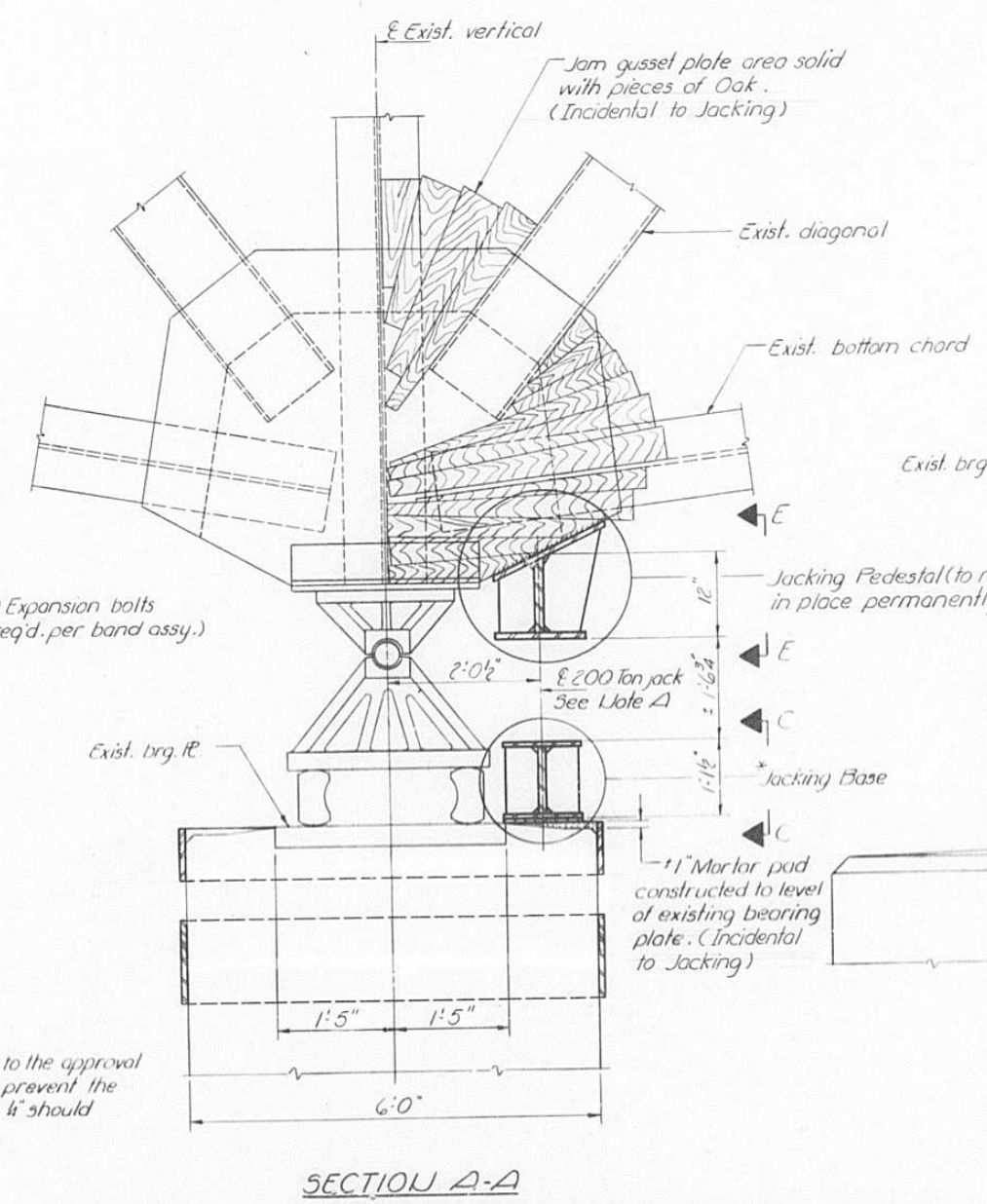
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
A. 49	2B-3	Peoria-Tazewell	15	10

10 SHEETS



\* Included in Bill of Material on sh. #4



BILL OF MATERIAL

Item	Unit	Total
Structural Steel	Lbs.	2430
Expansion Bolts 3/4"	Each	8
Jacking & Cribbing	Each	2

DESIGNED: *Handwritten signature*

CHECKED: *Prubak S. G.D.*

DRAWN: J.D.

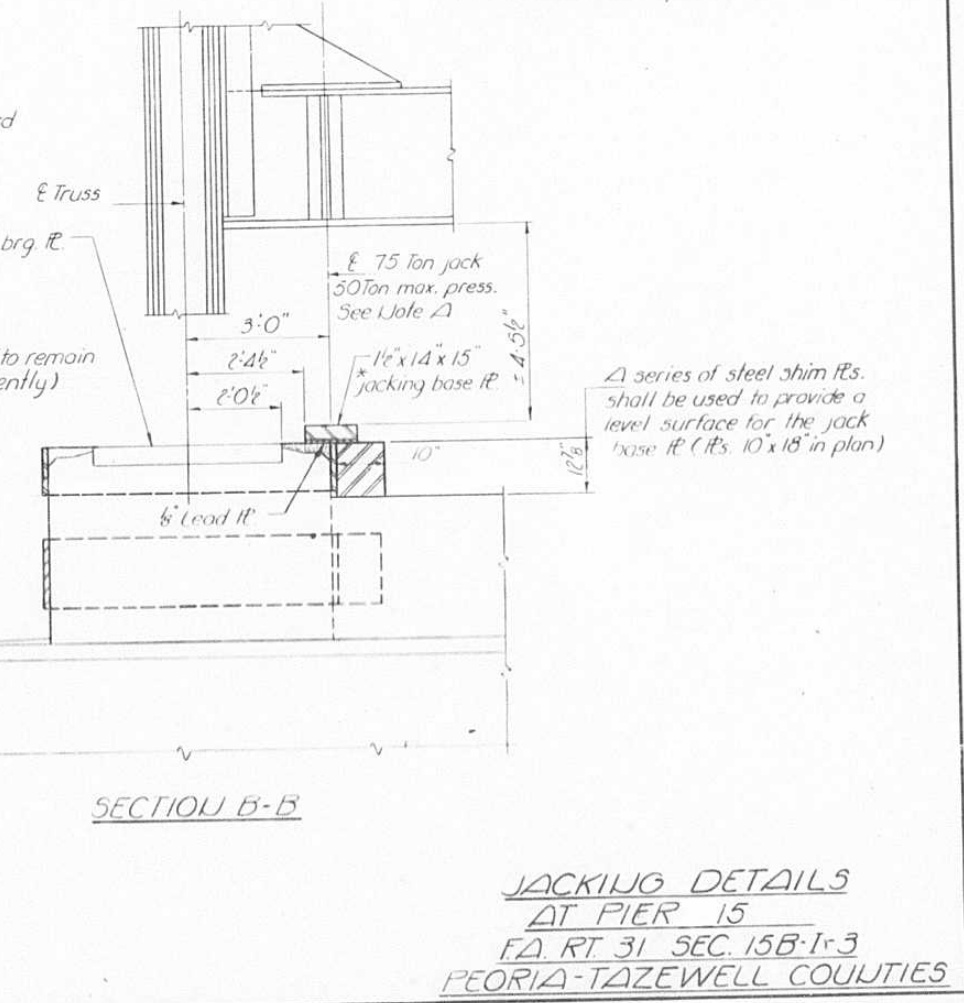
CHECKED: *Prubak S. G.D.*

EXAMINED: *March 22 1977*

PASSED: *Handwritten signature*

APPROVED: *Handwritten signature*

Note A: A jack battery system subject to the approval of the Engineer should be used to prevent the structure from falling more than 4" should the jack plunger fail.



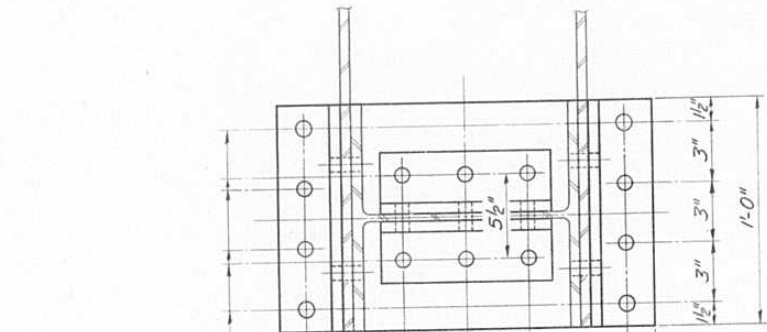
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
P.A. 49	15B-I-3	Peoria-Tazewell	15	11
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

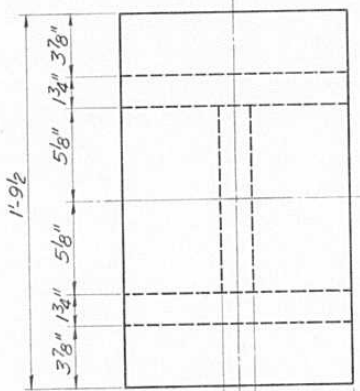
SHEET NO. 10  
10 SHEETS

The following enumerated paragraphs describe the procedure to be used for replacing the bearings of the deck truss at Pier 16. The bearings shall be done one at a time.

- 1) A temporary support, subject to the Engineers approval, shall be placed under the bottom chord as close as possible to the bearing.
- 2) Member Uo Lo shall be raised 1/2" maximum to remove the bearing assembly utilizing a 100 ton (minimum) jack positioned under the stiffeners of the jacking floor beam.
- 3) The existing bearing assembly shall be removed including the angles attached to the 12WF40. See Detail B.
- 4) The existing anchor bolts shall be cut off to project 3/4" above the existing steel plate. This is to allow the bolster assembly to be placed without jacking the bottom chord more than 1/2".
- 5) The 1 5/16"  $\phi$  holes in the 7"x4"x3/4" & 4"x4"x3/4" Ls shall then be drilled to match the holes in the existing 12WF40 and the 7/8"  $\phi$  H.S. bolts installed.
- 6) The new bearing shall then be positioned and the angles bolted to the 1 1/2"x12"x21 1/2" top bearing plate.
- 7) The 1"  $\phi$  threaded rods shall then be welded to the existing anchor bolts and the nut & washer installed and tack welded in place. The temporary support shall then be removed.

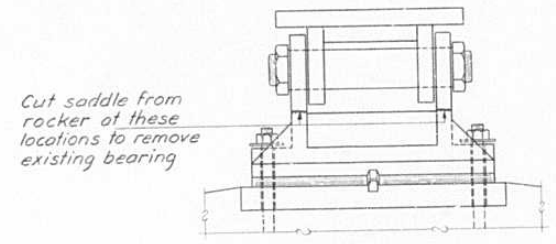


TOP VIEW

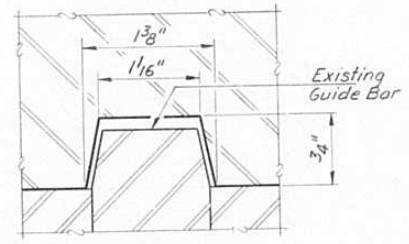


TOP PLAN-SHOE

(See Elevation view for bolt spacing)

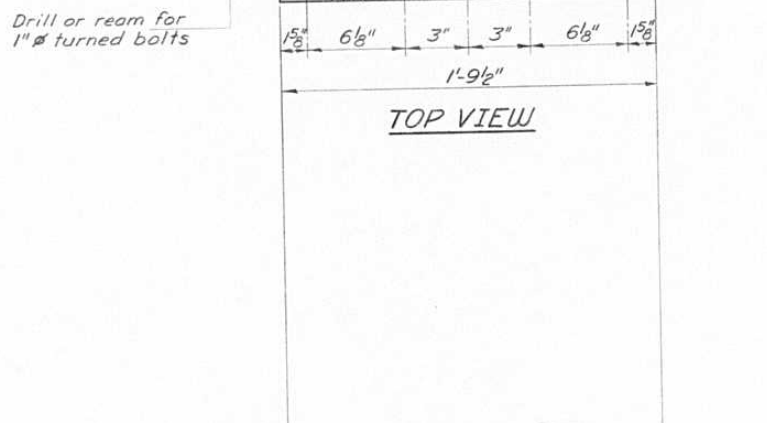


DETAIL B

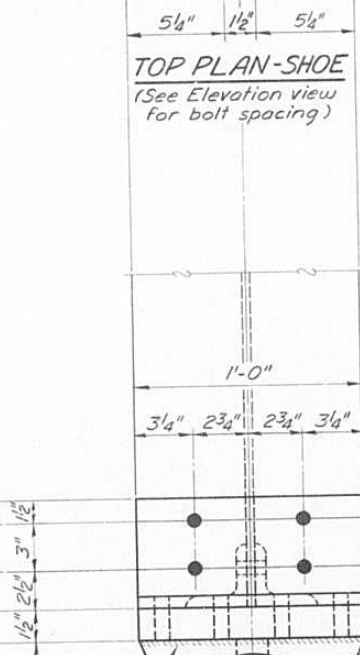


DETAIL A

GREASE GROOVE DETAIL  
NOTE: Grease bearing assembly with molybdenum grease before installation.



ELEVATION



SIDE VIEW

Holes for 7/8"  $\phi$  H.S. bolts to be drilled in field

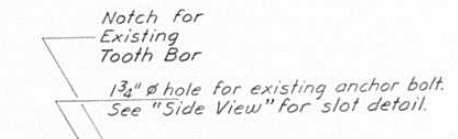
Bore 4 1/2" x 1/50" for Standard # Steel Pin. Recessed Hex Nut (See Std. Specs.)

1"  $\phi$  Threaded Rod

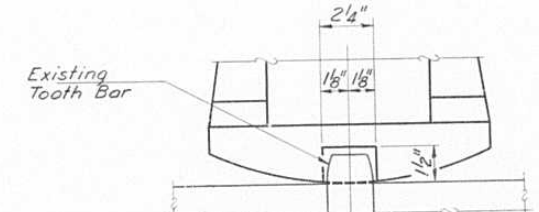
1/4" Clearance with rocker normal

See Detail C on Sht. #5 for alternate if anchor bolts are missing.

Hex nut welded to 5"  $\phi$  x 1/2" steel washer. Tack weld nut to 1"  $\phi$  rod after proper clearance has been set.

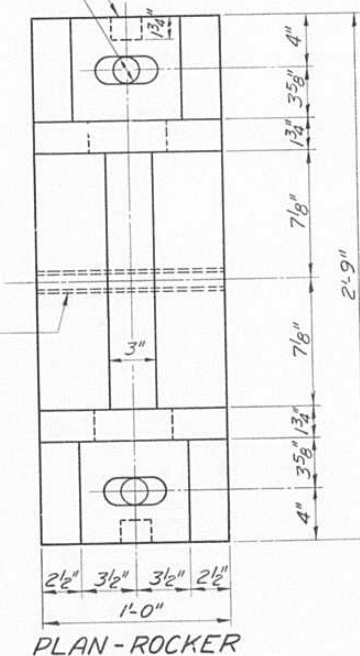


TOOTH BAR NOTCH DETAIL



TWO BEARINGS  
BILL OF MATERIAL

Item	Unit	Total
Structural Steel	Lbs.	1880
Removal of Existing Bearings	Each	2
Jacking & Cribbing	Each	2



PLAN-ROCKER

DESIGNED G. M. Kitchin  
CHECKED Richard S. Co  
DRAWN G. M. Kitchin  
CHECKED Richard S. Co

EXAMINED March 22 1977  
Carl E. Thurman  
PASSED  
APPROVED

\* Pins shall be S.A.E. 8620 steel, case hardened to a depth of .15" except for threads. Surface hardness 58 HRC.

NOTE: Notch for existing tooth bar not shown in SIDE VIEW. See TOOTH BAR NOTCH DETAIL.

**BEARING REPLACEMENT AT PIER 16**  
**F.A. ROUTE 31 - SECTION 15B-I-3**  
**PEORIA-TAZEVELL COUNTIES**

TRAFFIC CONTROL and PROTECTION SPECIAL



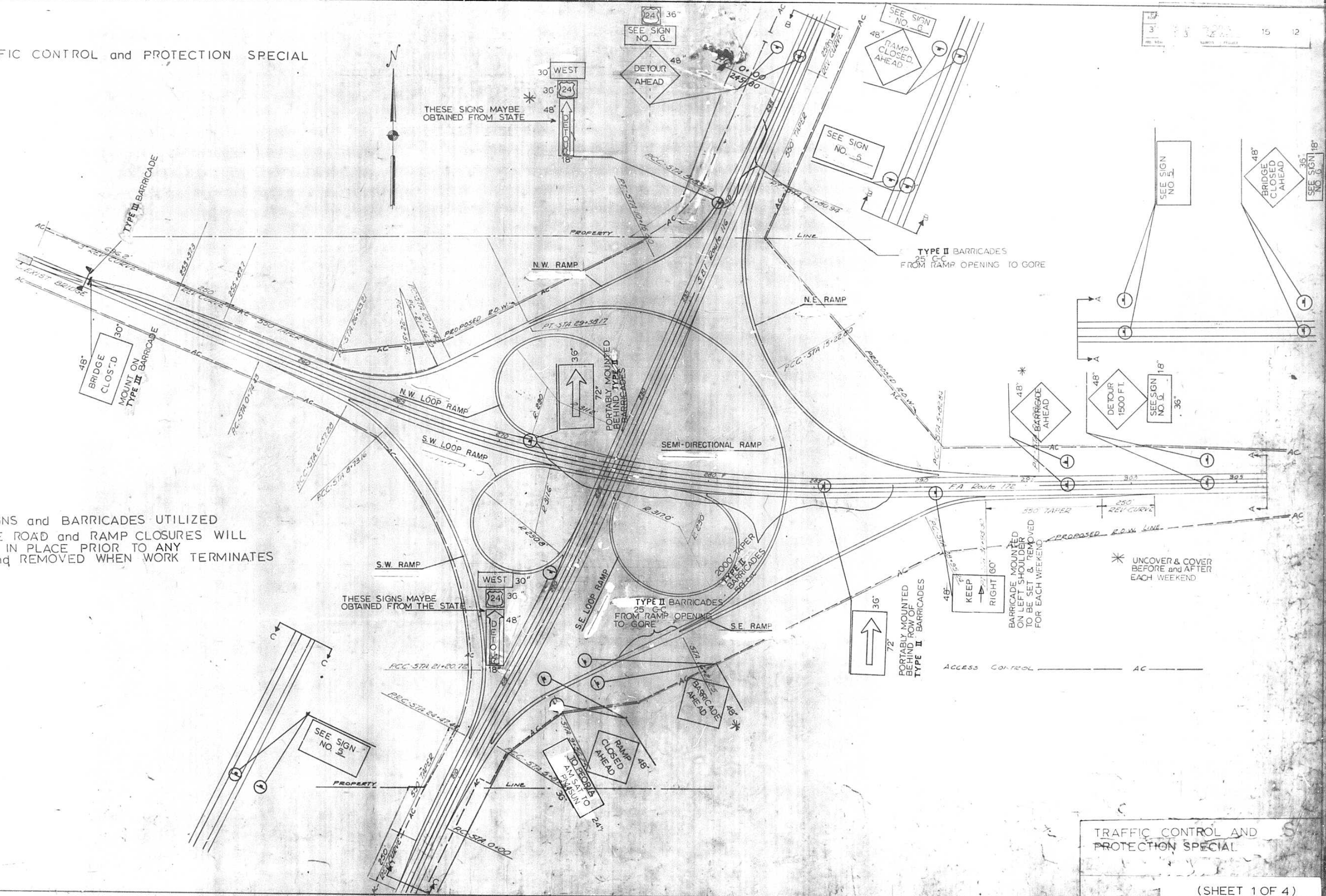
THESE SIGNS MAYBE OBTAINED FROM STATE

ALL SIGNS and BARRICADES UTILIZED FOR THE ROAD and RAMP CLOSURES WILL BE SET IN PLACE PRIOR TO ANY WORK and REMOVED WHEN WORK TERMINATES

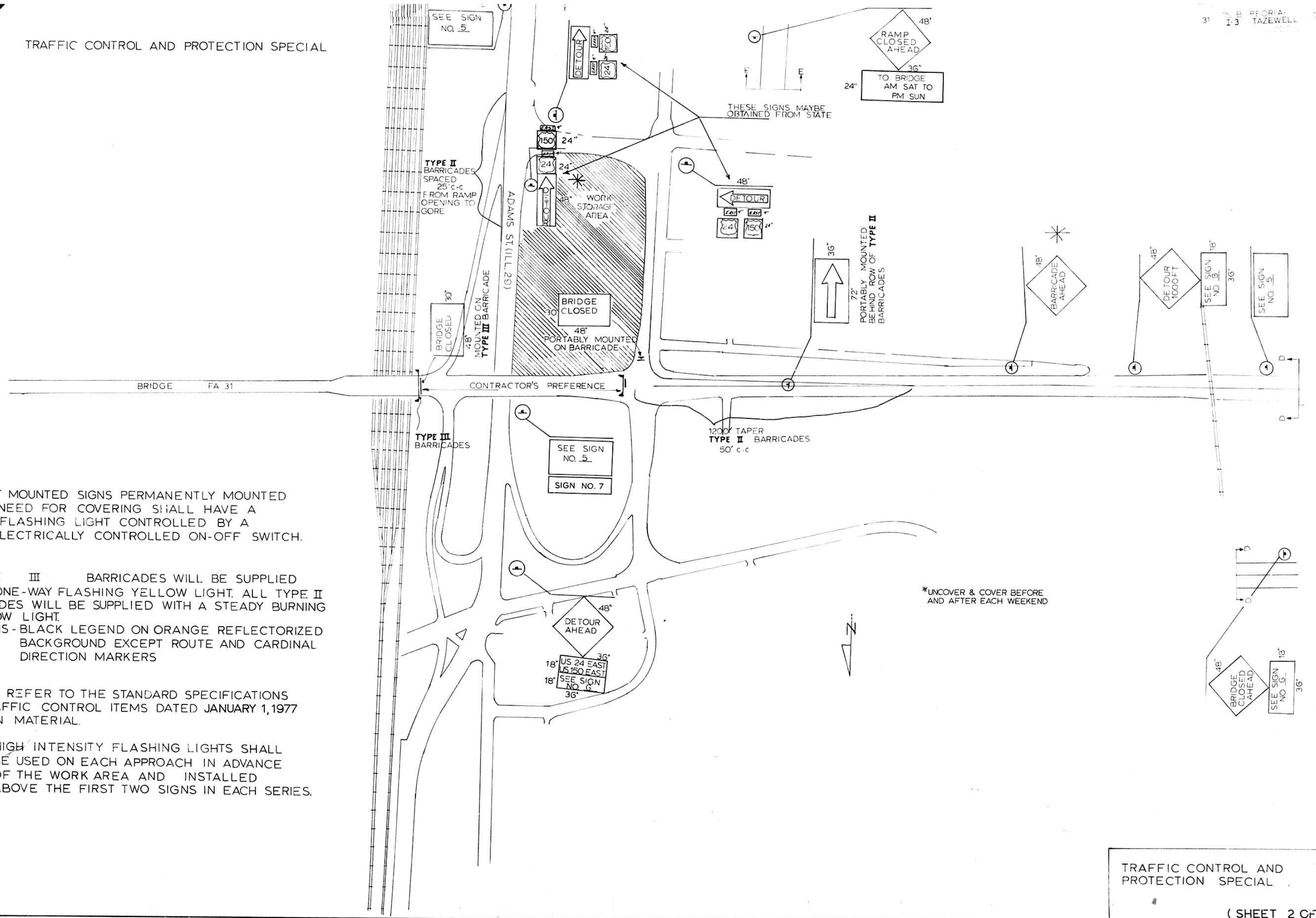
THESE SIGNS MAYBE OBTAINED FROM THE STATE

\* UNCOVER & COVER BEFORE and AFTER EACH WEEKEND

TRAFFIC CONTROL AND PROTECTION SPECIAL



TRAFFIC CONTROL AND PROTECTION SPECIAL



ALL POST MOUNTED SIGNS PERMANENTLY MOUNTED WITH NO NEED FOR COVERING SHALL HAVE A YELLOW FLASHING LIGHT CONTROLLED BY A PHOTO-ELECTRICALLY CONTROLLED ON-OFF SWITCH.

ALL TYPE III BARRICADES WILL BE SUPPLIED WITH A ONE-WAY FLASHING YELLOW LIGHT. ALL TYPE II BARRICADES WILL BE SUPPLIED WITH A STEADY BURNING YELLOW LIGHT.  
 ALL SIGNS - BLACK LEGEND ON ORANGE REFLECTORIZED BACKGROUND EXCEPT ROUTE AND CARDINAL DIRECTION MARKERS

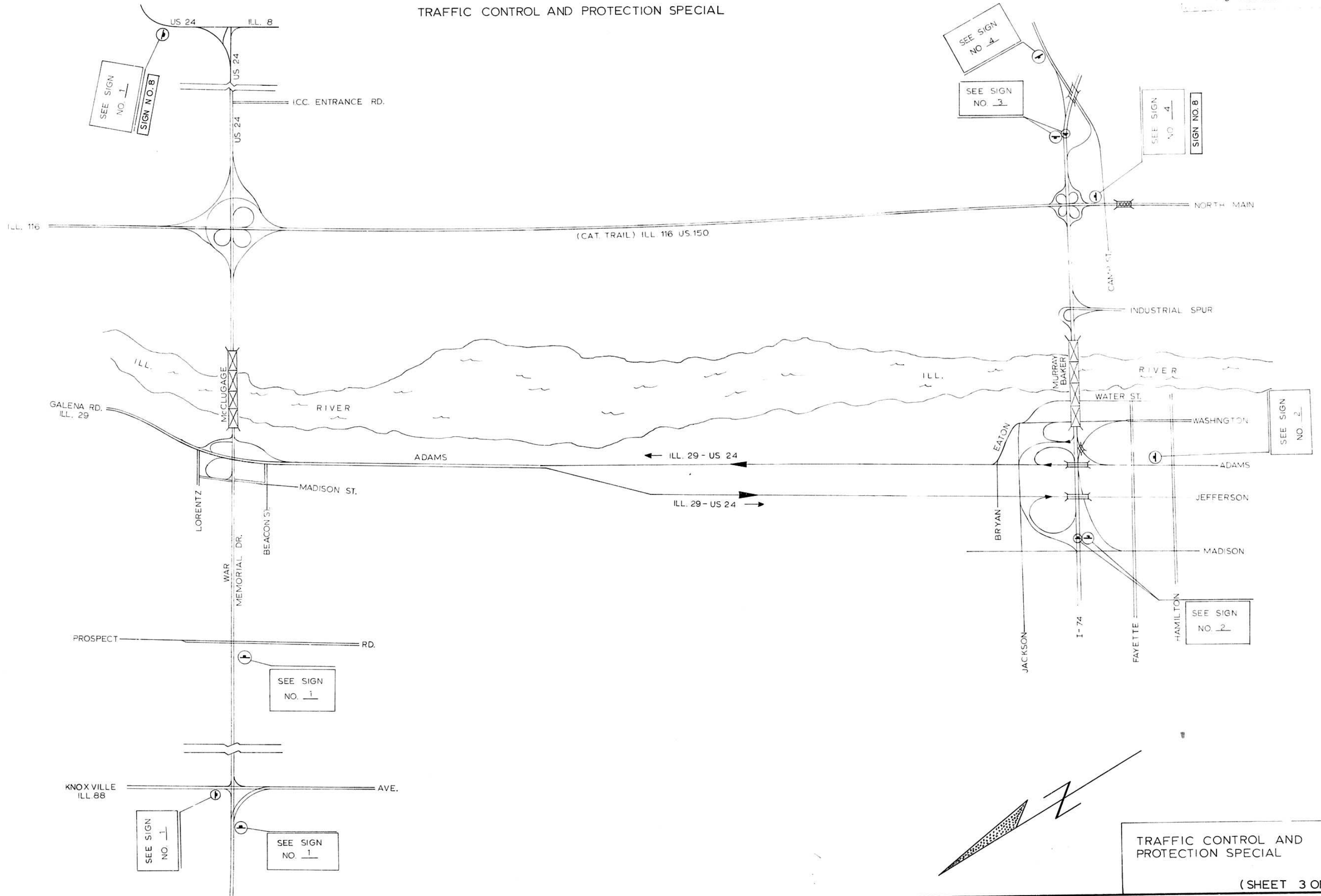
NEED TO REFER TO THE STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL ITEMS DATED JANUARY 1, 1977 FOR SIGN MATERIAL.

HIGH INTENSITY FLASHING LIGHTS SHALL BE USED ON EACH APPROACH IN ADVANCE OF THE WORK AREA AND INSTALLED ABOVE THE FIRST TWO SIGNS IN EACH SERIES.

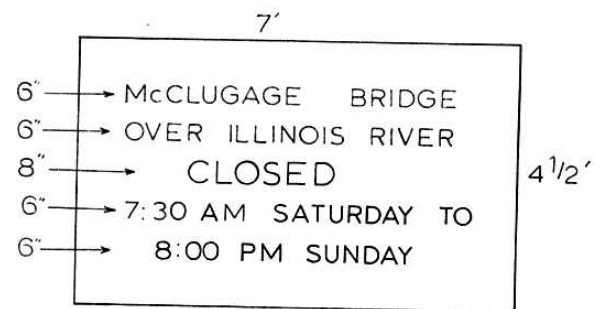
\*UNCOVER & COVER BEFORE AND AFTER EACH WEEKEND

REV 3-1-77

TRAFFIC CONTROL AND PROTECTION SPECIAL



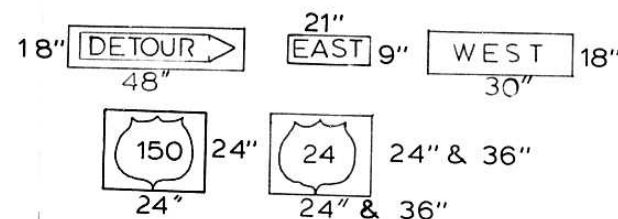
SIGN NO. 1



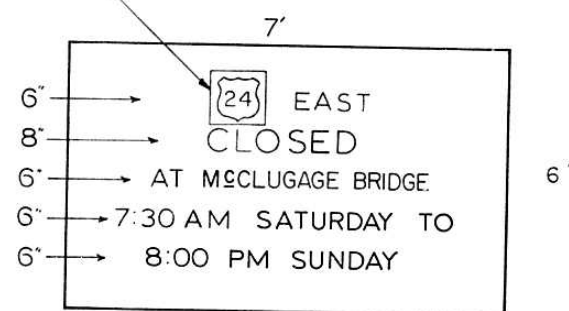
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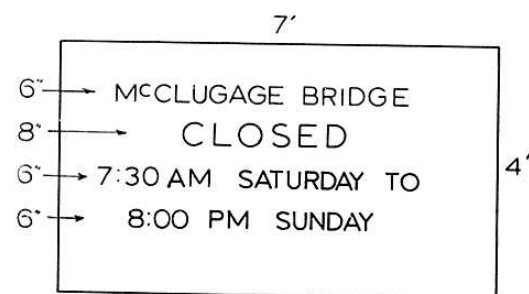
THESE SIGNS MAY BE OBTAINED FROM THE STATE



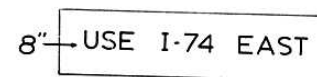
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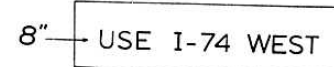
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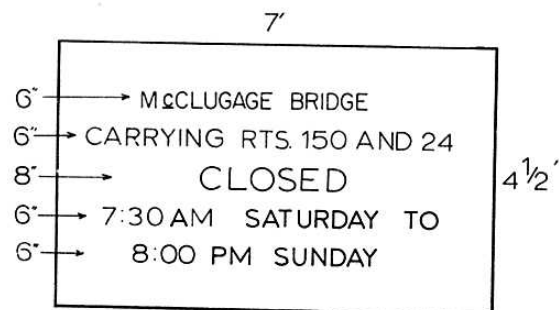
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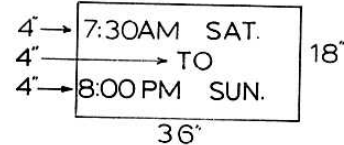
SIGN NO. 8



SIGN NO. 3



SIGN NO. 6



NOTE:

1. ALL SIGNS IN UPPER CASE LETTERING
2. DURATION OF BRIDGE CLOSURE TO BE DETERMINED BY THE CONTRACTOR, AND MESSAGE TO BE ALTERED ACCORDINGLY. SEE SPECIAL PROVISIONS.