

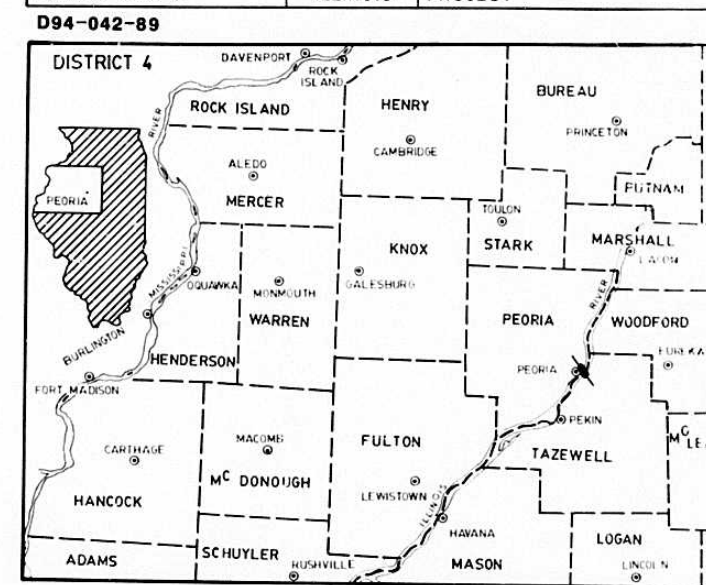
INDEX OF SHEETS

- SHEET # 1 COVER SHEET LIST OF STANDARDS INDEX OF SHEETS
- SHEET # 2 QUANTITY SHEET DETAIL SHEET
- SHEET # 3 - 6 STAGE CONSTRUCTION TRAFFIC CONTROL
- SHEET # 7 - 18 BRIDGE DETAILS

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS PLANS FOR PROPOSED FEDERAL AID HIGHWAY

FA ROUTE 49 (U.S. RTE. 150/U.S. RTE. 24)
SECTION 15B-I-6
PEORIA & TAZWELL COUNTIES
C94-325-89

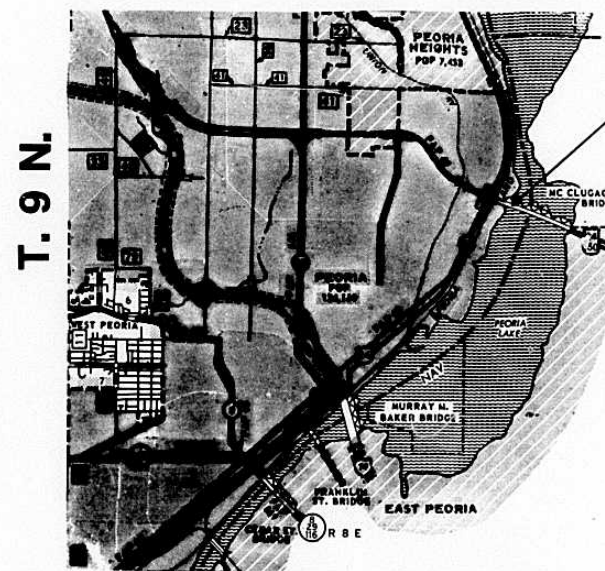
RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 49	15B-I-6	PEORIA & TAZWELL	18	1
F.H.W.A. REG. 4		ILLINOIS	PROJECT	



LOCATION OF SECTION INDICATED THUS: — —

LIST OF STANDARDS

- 2298-7
- 2299-10
- 2300-3
- 2314-4
- 2316-3



IMPROVEMENT EASTBOUND LANE US 150 PIER 7

PROPOSED IMPROVEMENT: CONSISTS OF BEARING REMOVAL AND REPLACEMENT, JOINT, REPAIR ALL ON PIER 7 EASTBOUND LANE US 150 MCCLUGGAGE BRIDGE

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS	
SUBMITTED	3-8 19-90
EXAMINED	3-30 19-90
PASSED	3-30 19-90
APPROVED	3-30 19-90

DISTRICT ENGINEER
ENGINEER OF PLANS AND CONTRACTS
ENGINEER OF DESIGN
DIRECTOR, DIVISION OF HIGHWAYS

SURVEY BOOK NOS. NONE

GROSS LENGTH OF IMPROVEMENT: _____
NET LENGTH OF IMPROVEMENT: _____

FEET: _____
FEET: _____

MILES _____
MILES _____

CONTRACT NO. 88256

DESIGNED BY:

FOR UTILITY INFORMATION
CALL J.U.L.I.E.
PHONE 800-892-0123

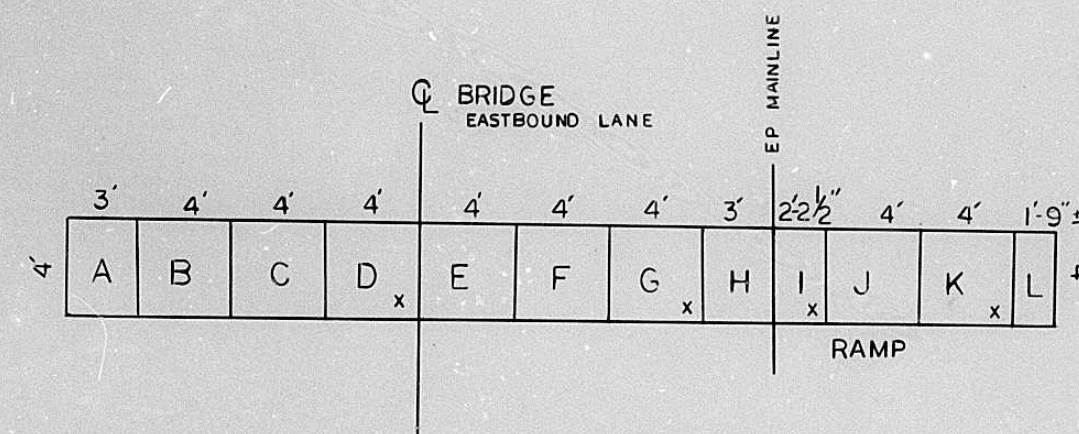
W. OHLSON

DESIGNED BY: D. CURRIER

SUMMARY OF QUANTITIES

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FA 49	15B-I-6	PEO-TAZ	18	2
ILLINOIS		PROJECT		

CODE NO.	ITEM	UNIT	TOTAL
50700705	JACK & REMOVE EXISTING BEARINGS	EACH	8
64800800	TRAFFIC CONTROL AND PROTECTION STANDARD 2310	L. SUM	1
Z0020300	EPOXY CRACK SEALING	LIN. FT.	41.0
Z0032400	JOINT REPAIR	EACH	1
X0435100	STRUCTURAL STEEL	POUND	12550
X0859600	FLOATING BEARING, GUIDED EXPANSION 300K	EACH	3
X0320209	FLOATING BEARING, GUIDED EXPANSION 350K	EACH	5
84700099	TEMPORARY PAVEMENT MARKING	LIN FT	203
T5020200	PAINT PAVEMENT MARKING LINE 4"	LIN FT	204
65000100	MOBILIZATION	L. SUM	1



EXPANSION JOINT PIER 7 EBL

x = REPLACE PANELS D, G, I, K
(SEE SPECIAL PROVISIONS)

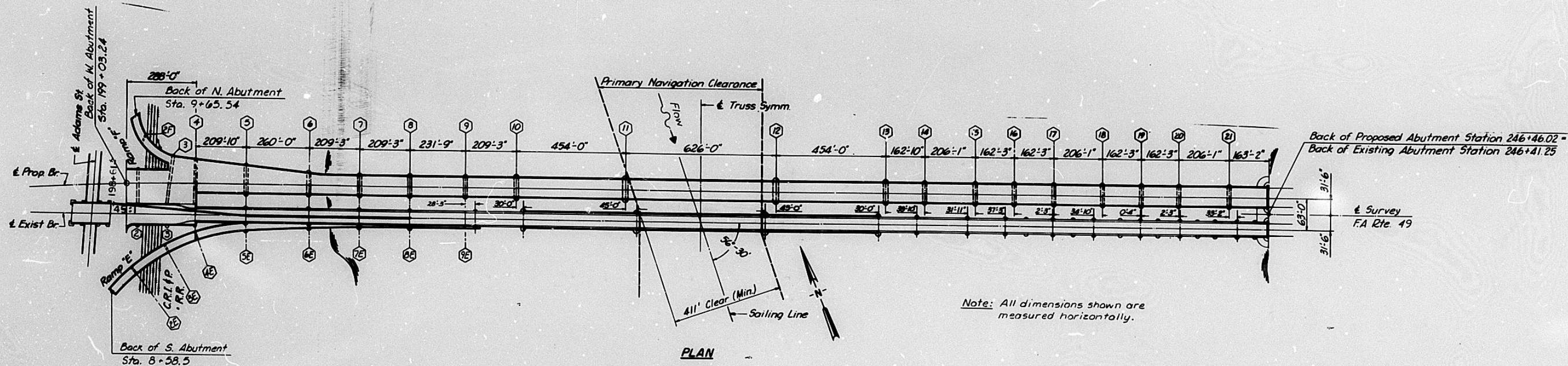
STATE TO SUPPLY TWO PANELS

CONTRACTOR TO FURNISH OTHER TWO PANELS

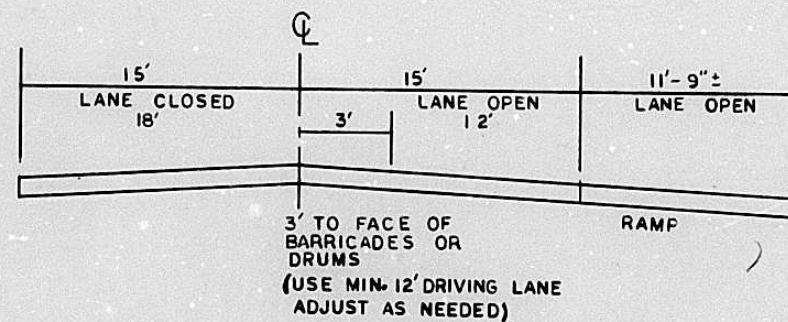
GENERAL NOTES: BRIDGE MUST BE CLOSED TO ALL TRAFFIC DURING STAGE ONE (1) AND STAGE TWO (2) JACKING AND CRIBBING OPERATION. STAGE THREE (3) AND STAGE FOUR (4) TRAFFIC LANE SHALL BE LIMITED TO INSIDE (NORTH) LANE 12' IN WIDTH. USE STAGE TWO (2) TRAFFIC CONTROL DURING THIS PROCEDURE.

SUBMITTED	3/8/90	<i>W. B. B...</i>	DIST. DESIGN ENGR.
EXAMINED	3-8-90	<i>[Signature]</i>	DIST. CONST. ENGR.
EXAMINED	3-8-90	<i>[Signature]</i>	DIST. TRAFFIC ENGR.
EXAMINED			
Entire section inspected and approved as to policy.			
DATE	3-8-90	<i>D. E. R...</i>	DISTRICT ENGINEER

DISTRICT NO. 4 PEORIA
DESIGNED _____
DRAWN _____ DATE _____
CHECKED _____ SCALE _____



○ Denotes Pier No.



**RAMP F
CURVE DATA**

P.I. = 8+74.623
 Δ = 91°-59'-00.68"
 D = 27'-56'-56.98"
 T = 212.223'
 R = 205.0'
 L = 329.110'

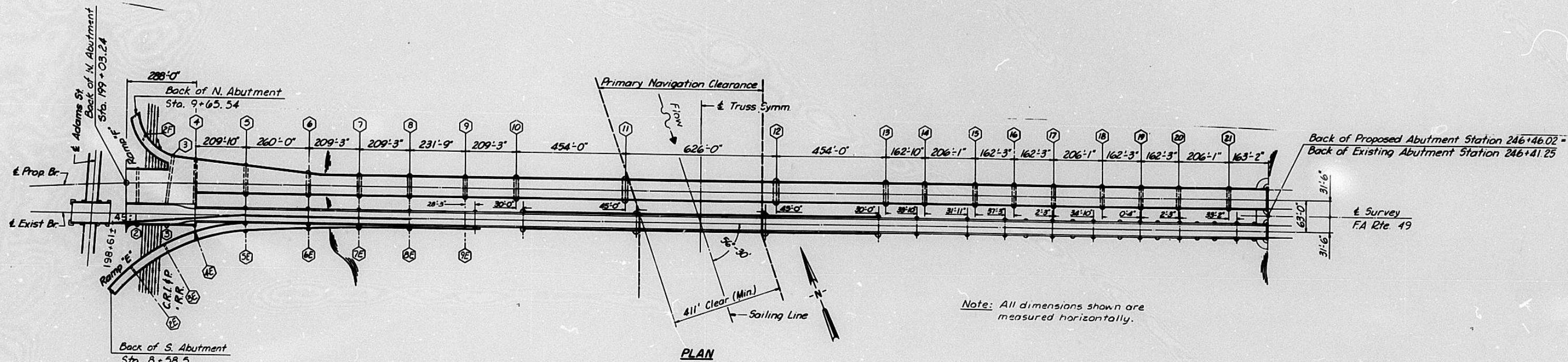
**RAMP E
CURVE DATA**

P.I. = 9+3.15
 Δ = 53°-30'-58.01"
 D = 12'-00'-00"
 T = 240.746'
 R = 477.465'
 L = 445.968'

P.I. = 13+6.99
 Δ = 29°-08'-50.90"
 D = 7'-30'-00"
 T = 198.619'
 R = 763.944'
 L = 388.633'

STAGE I TRAFFIC

DISTRICT NO. 4 PEORIA
 DESIGNED
 DRAWN
 CHECKED
 DATE
 SCALE



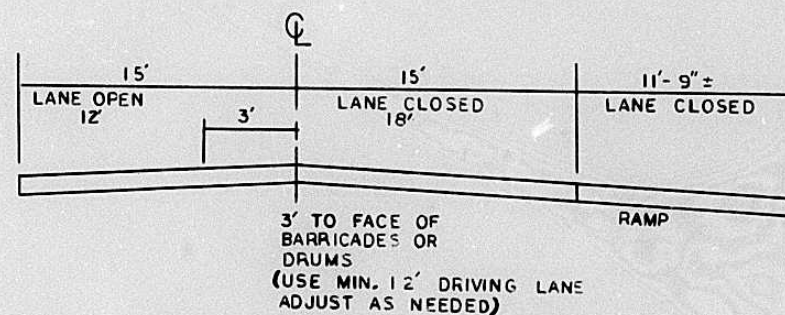
○ Denotes Pier No.

**RAMP F
CURVE DATA**

P.I. = 8+74.623
 Δ = 91°-59'-00.68"
 D = 27'-56"-56.98"
 T = 212.223'
 R = 205.0'
 L = 329.110'

**RAMP E
CURVE DATA**

P.I. = 9+3.15	P.I. = 13+6.99
Δ = 53°-30'-58.01"	Δ = 29°-08'-50.90"
D = 12°-00'-00"	D = 7°-30'-00"
T = 240.746'	T = 198.619'
R = 477.465'	R = 763.944'
L = 445.968'	L = 388.633'



STAGE II TRAFFIC

DISTRICT NO. 4 PEORIA

DESIGNED
 DRAWN
 CHECKED

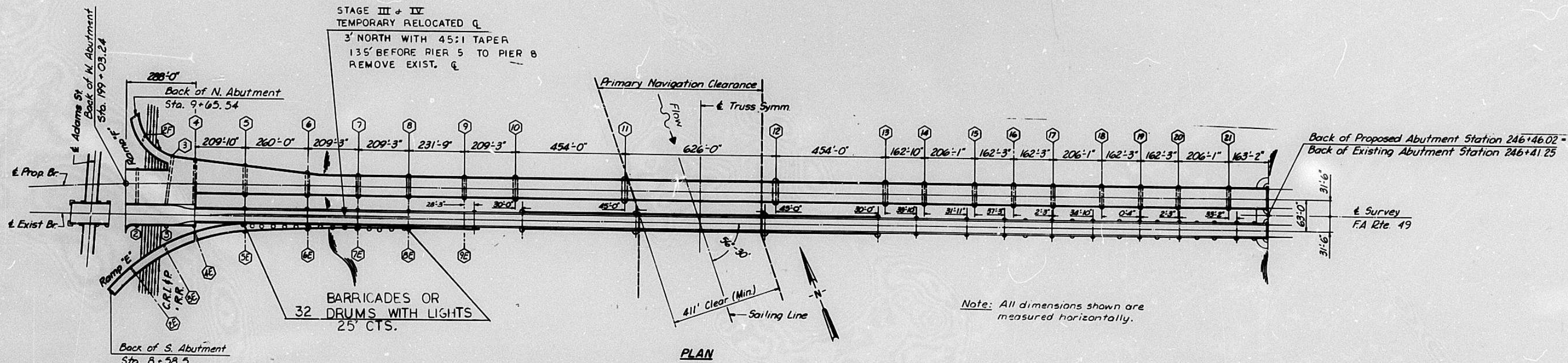
DATE
 SCALE

TEMPORARY PAVEMENT MARKING TAPE 4"

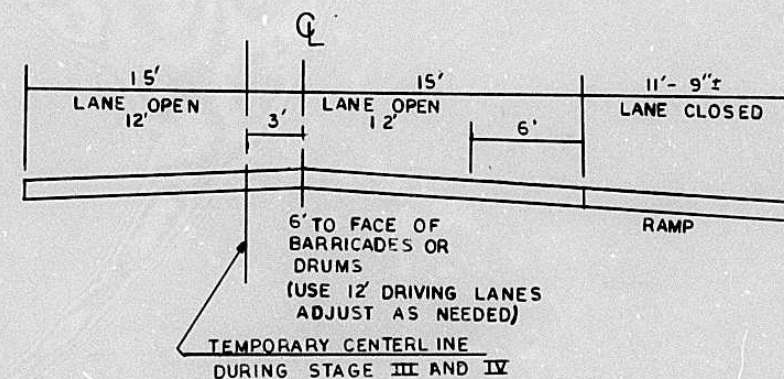
TAPER = 135 L.F.
 40' SKIP 4' TAPE = 68 L.F.
 TOTAL = 203 L.F.

PAINT PAVEMENT MARKING LINE 4"

PIER 5 TO PIER 8 = 204 L.F.
 30' SKIP 10' PAINT
 TOTAL = 204 L.F.



PLAN



**RAMP F
 CURVE DATA**

PI. = 8+74.623
 Δ = 91°-59'-00.68"
 D = 27'-56"-56.98"
 T = 212.223'
 R = 205.0'
 L = 329.110'

**RAMP E
 CURVE DATA**

PI. = 9+3.15
 Δ = 53°-30'-58.01"
 D = 12'-00'-00"
 T = 240.746'
 R = 477.465'
 L = 445.968'

PI. = 13+6.99
 Δ = 29°-08'-50.90"
 D = 7'-30'-00"
 T = 198.619'
 R = 763.944'
 L = 388.633'

○ Denotes Pier No.

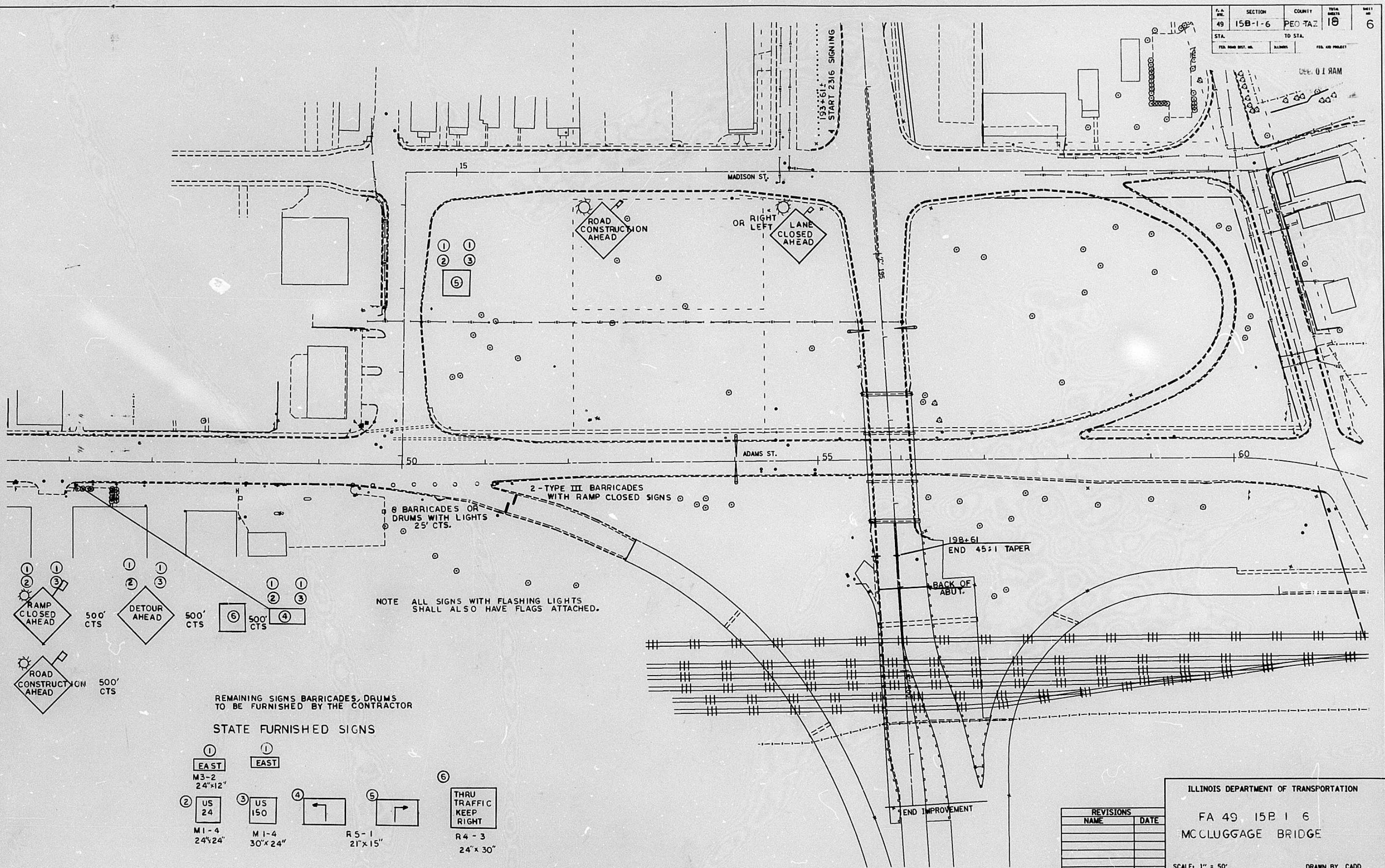
STAGE III IV TRAFFIC

DISTRICT NO. 4 PEORIA

DESIGNED

DRAWN DATE

CHECKED SCALE



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

FA 49 15B 1 6

MCCLUGGAGE BRIDGE

SCALE: 1" = 50'

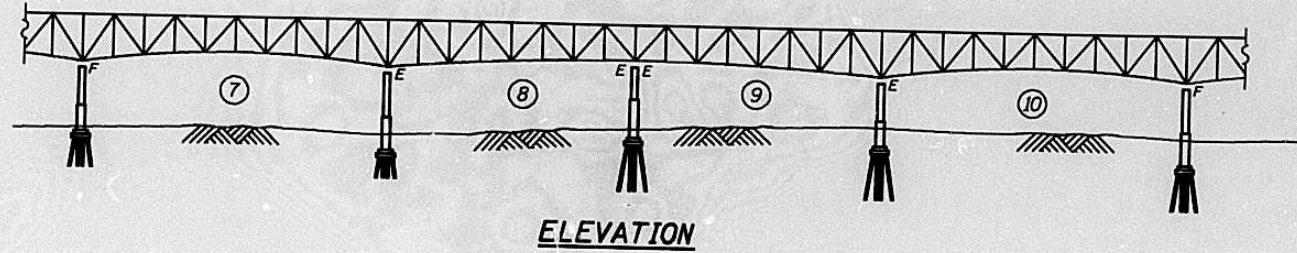
DATE

DRAWN BY CADD

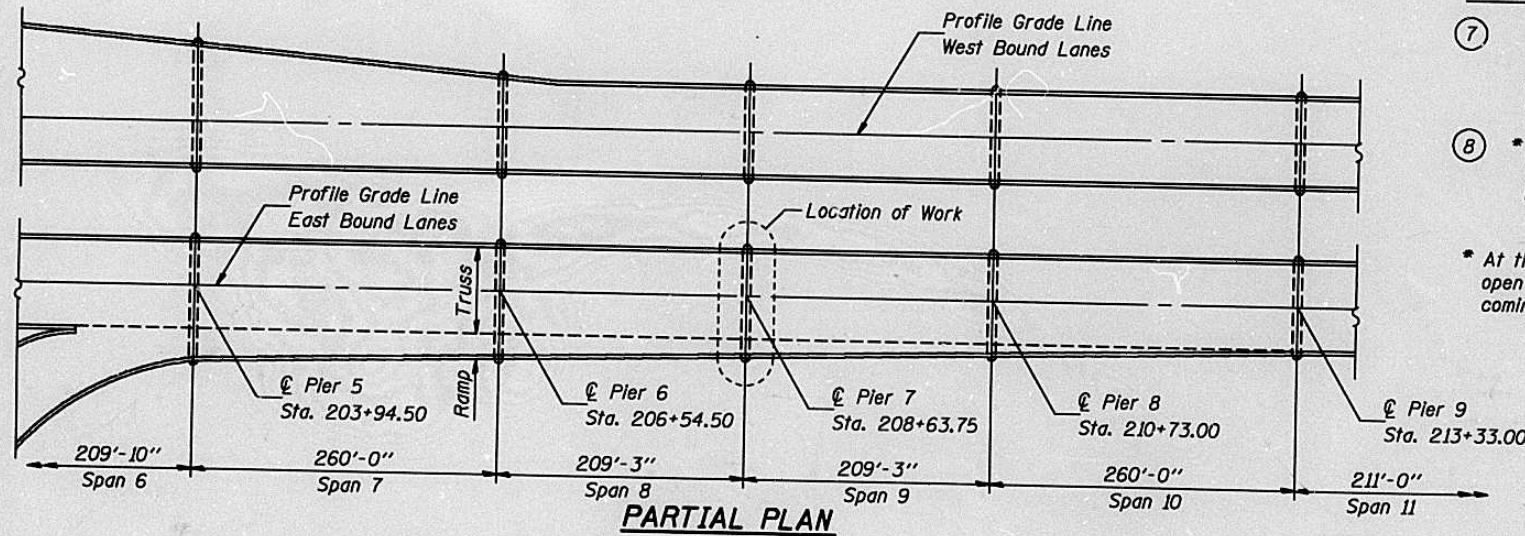
CHECKED BY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEETS	PIER	SHEET NO. 1
P.A. 49	15B-I-6	PEORIA TAZEWELL	18	7	12 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			



ELEVATION



PARTIAL PLAN

CONSTRUCTION SEQUENCE

- ① Pier cap repairs and band assembly attachment shall be completed for each pier cap prior to jacking from that cap. New jacking girders shall be installed between ramp girders at any time before Step 7.
- ② Bearing removal and replacement for Span 8 side of Pier 7 shall be done one bearing at a time. Bearing removal and replacement for Span 9 side of Pier 7 shall be done one bearing at a time.
- ③ Truss and ramp girders shall be raised 1/8" maximum to remove the existing bearing assembly utilizing a jack or a series of jacks with a total minimum capacity as shown in the plans. Recommended jacking and cribbing locations are indicated in the plans. Cribbing shall provide for thermal effects from the respective spans. The Contractor shall submit a jacking and cribbing plan to the Engineer for approval.
- ④ Traffic shall not be allowed on the bridge while the truss is being jacked and cribbing is being installed or removed. While the truss is fully cribbed, traffic shall be allowed on the structure as specified in Steps 5 and 6.

STAGE I CONSTRUCTION:

- ⑤ Traffic shall be directed to the Stage I Traffic Lane on Spans 6 thru 11 for removal and replacement of the North truss bearings.

STAGE II CONSTRUCTION:

- ⑥ Traffic shall be directed to the Stage II Traffic Lane on Spans 6 thru 11 for removal and replacement of the South truss bearings.

STAGE III & IV CONSTRUCTION:

- ⑦ The ramp shall be closed and all traffic shall be directed to one Stage III & IV Traffic Lane (See Cross Section on sheet #2 of 12) while the ramp girders are being jacked and cribbing is being installed or removed. While the girders are fully cribbed, traffic shall be allowed on the structure as specified in Step 8.
- ⑧ *The ramp shall be closed and all traffic shall be directed to the Stage III and IV Traffic Lanes on Spans 6 thru 11 for removal and replacement of the ramp girder bearings.

* At the Contractor's option, while working on Span 9 bearings, the ramp may be left open provided that traffic is directed to the Stage III & IV Traffic Lanes before coming to Pier 5. Traffic shall not be allowed on the ramp in Spans 7 thru 11.

GENERAL NOTES

Fasteners shall be high strength bolts (AASHTO M164 except as noted on new jacking girder details).
Calculated weight of AASHTO M223 Gr. 50 Structural Steel = 10270 Lbs.
Calculated weight of AASHTO M183 Structural Steel = 2280 Lbs.
Field welding of construction accessories will be permitted only when approved by the Engineer.

Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

The three coat lead and chromate free alkyd paint system shall be used for field painting of Existing Structural Steel. The color of the final finish coat shall be Munsell Standard 10Y 7/1 Light Grey.**

The three coat lead and chromate free alkyd paint system shall be used for shop and field painting of New Structural Steel. The color of the final finish coat shall be Munsell Standard 10Y 7/1 Light Grey.

All contact surface areas of new and existing structural steel shall be free of paint or lacquer.

Bearing assemblies and bolsters shall be level prior to tightening new anchor bolts. Grind or dry pack with grout to assure a level surface.

The Contractor will not be allowed to park any equipment or heavy vehicles on the closed lanes during the jacking operation.

** Locations of field painting shall be limited to any damaged areas due to jacking or removing existing bearings and guide bars and any overexposed areas of paint removal. Method of cleaning in these areas shall be by Method I. Cost incidental to "Jack and Remove Existing Bearings."

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Structural Steel	Pound	12550
Floating Bearing, Guided Expansion, 300 ^k	Each	3
Floating Bearing, Guided Expansion, 350 ^k	Each	5
Jack and Remove Existing Bearings	Each	8
Epoxy Crack Sealing	Lin. Ft.	41
Traffic Control & Protection, Std. 2316	L. Sum	1

DESIGN SPECIFICATIONS

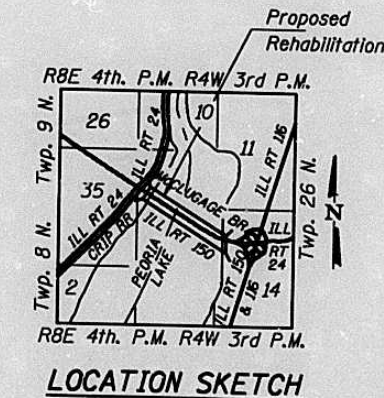
AASHTO (1989)

LOADING HS 20-44

DESIGN STRESSES

f_y = 50,000 psi (AASHTO M223 Grade 50)
f_y = 36,000 psi (AASHTO M183)

* New Construction.



LOCATION SKETCH

GENERAL PLAN

McCLUGAGE BRIDGE (E.B.)
F.A. RT. 49 SEC. 15B-I-6
PEORIA-TAZEWELL COUNTIES
STRUCTURE NUMBER 090-0070

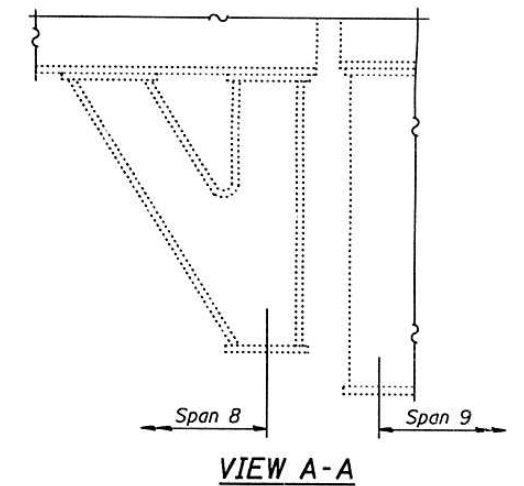
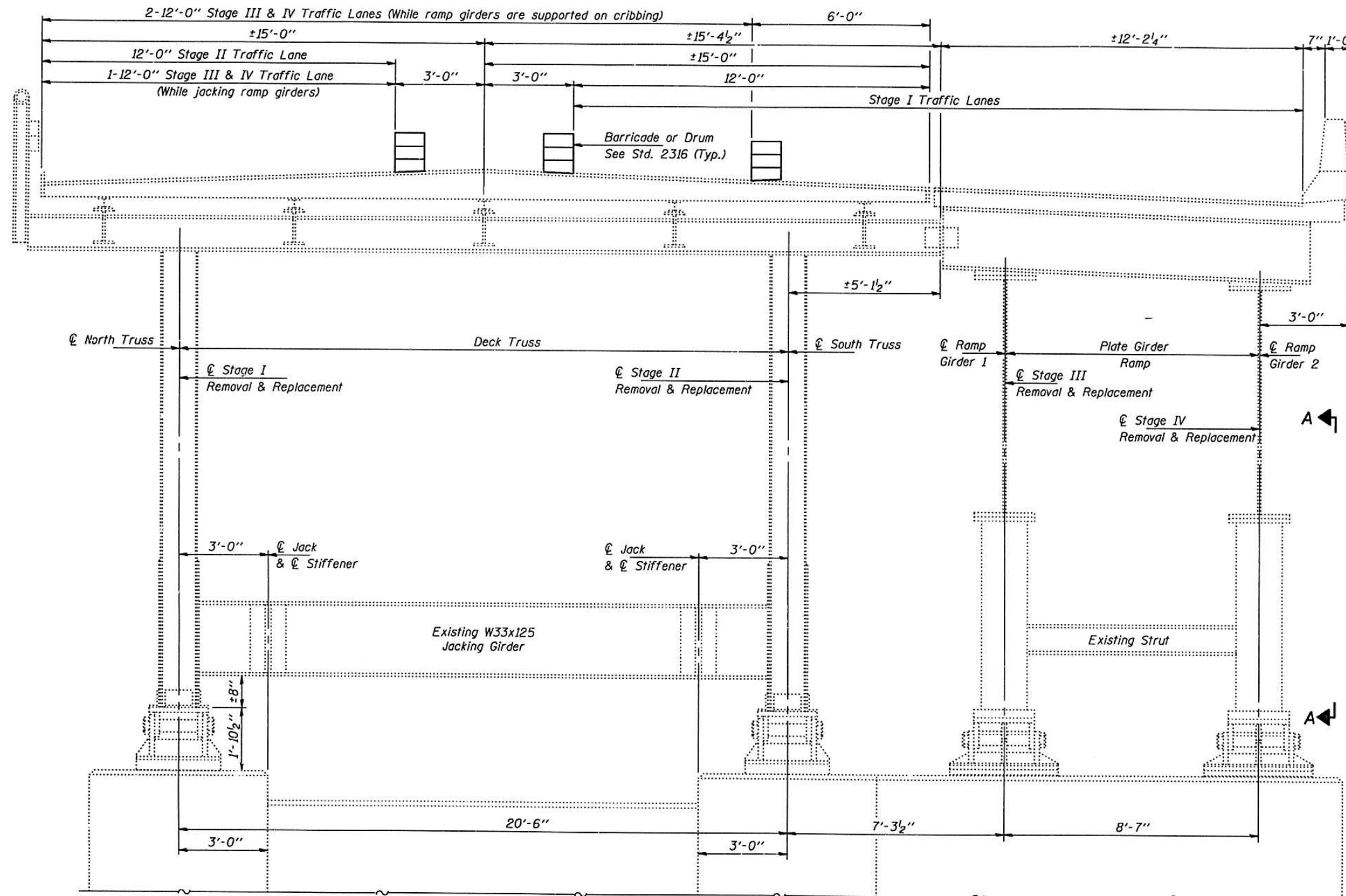
DESIGNED	Shirley E. Morrison
CHECKED	Robert T. Boy
DRAWN	R. Doty
CHECKED	SEM R.T.B.

EXAMINED	March 27 1990	Ralph E. Anderson
PASSED		Ralph E. Anderson
APPROVED		Ralph E. Anderson



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SPANS	SHEET	SHEET NO. 2
F.A. 49	15B-1-6	PEORIA TAZEWELL	18	8	12 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			



CROSS SECTION - PIER 7
(Looking East)

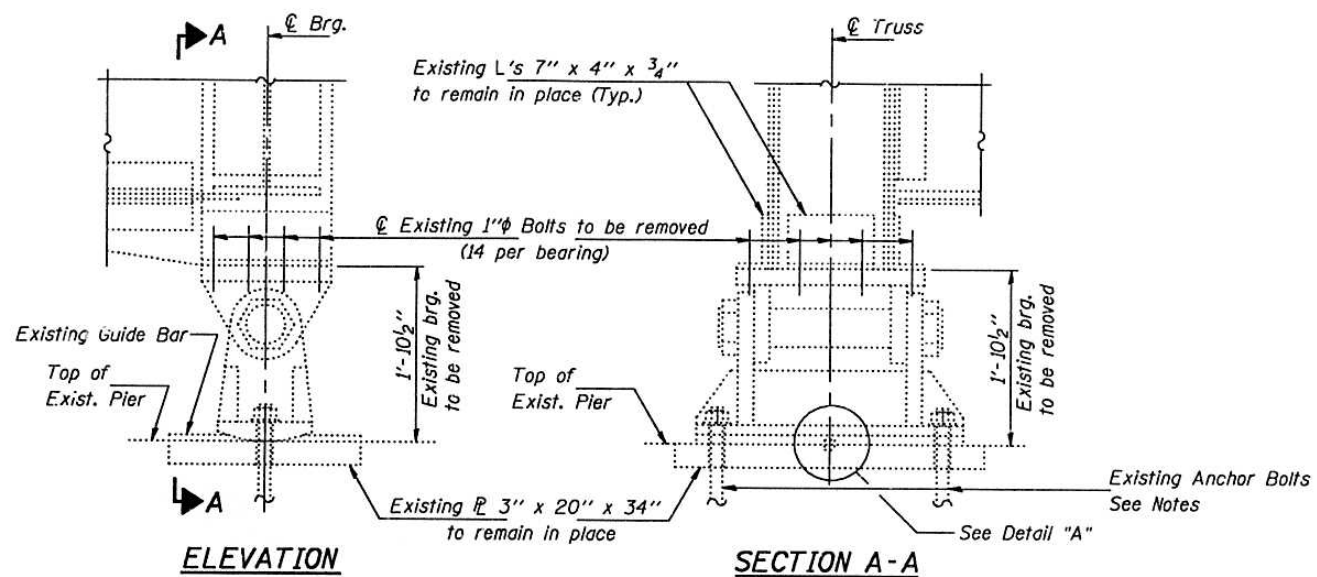
DESIGNED	Shale E. Moynihan
CHECKED	RT Boso
DRAWN	R. Doty
CHECKED	RTB SCM

March 27 1990
 EXAMINED *Raj J. Kaspar*
 ENGINEER OF BRIDGE DESIGN
 PASSED *Ralph E. Anderson*
 ENGINEER OF BRIDGES AND STRUCTURES
 APPROVED _____
 DIRECTOR OF HIGHWAYS

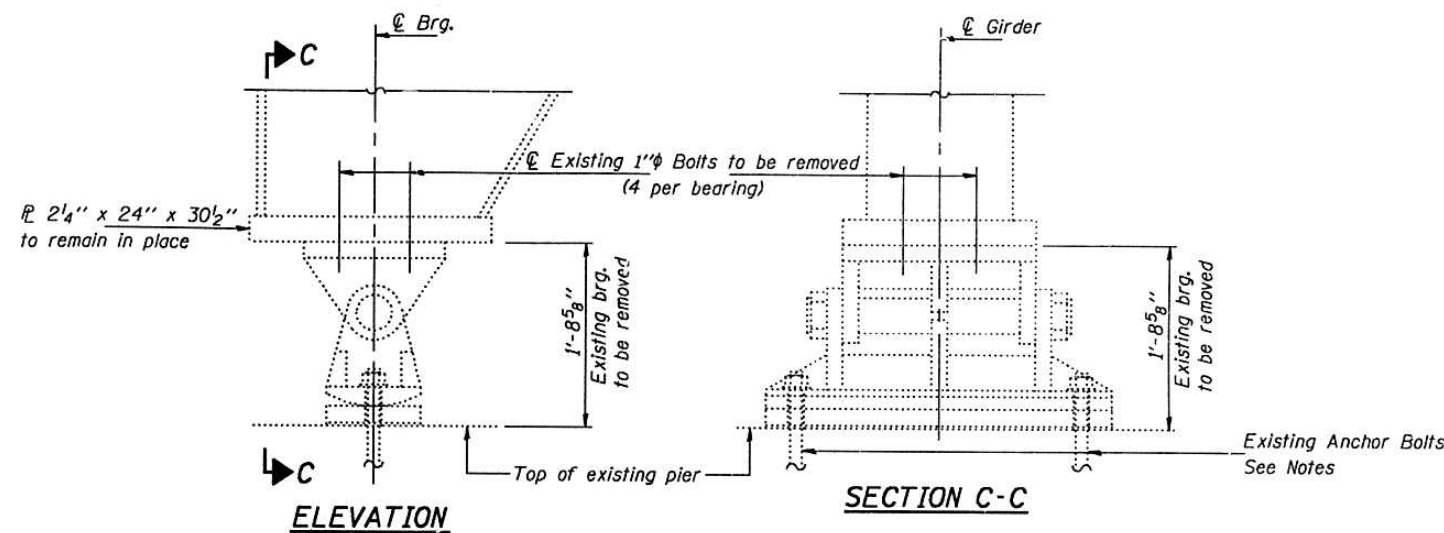
STAGE CONSTRUCTION DETAILS
 F.A. RT. 49 SEC. 15B-1-6
 PEORIA TAZEWELL COUNTIES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

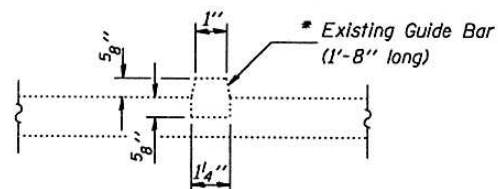
ROUTE NO.	SECTION	COUNTY	SHEETS	SET	SHEET NO. 3
F.A. 49	15B-1-6	PEORIA TAZEVELL	18	9	12 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			



SPANS 8 AND 9 - TRUSS

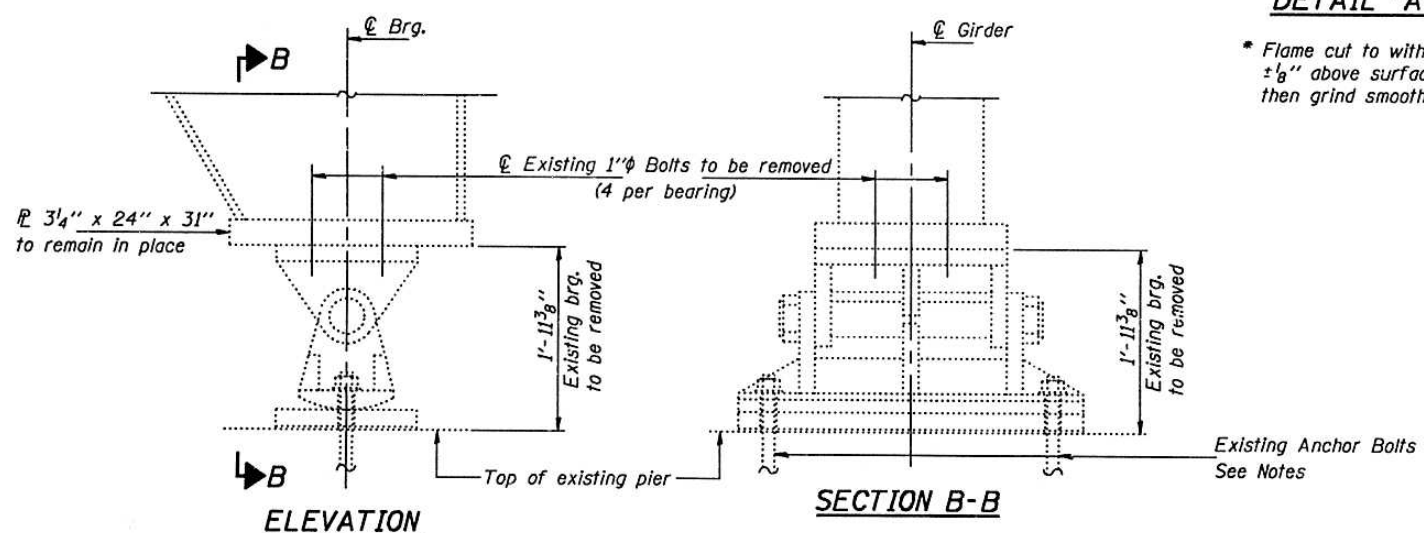


SPAN 9 - RAMP GIRDER 1

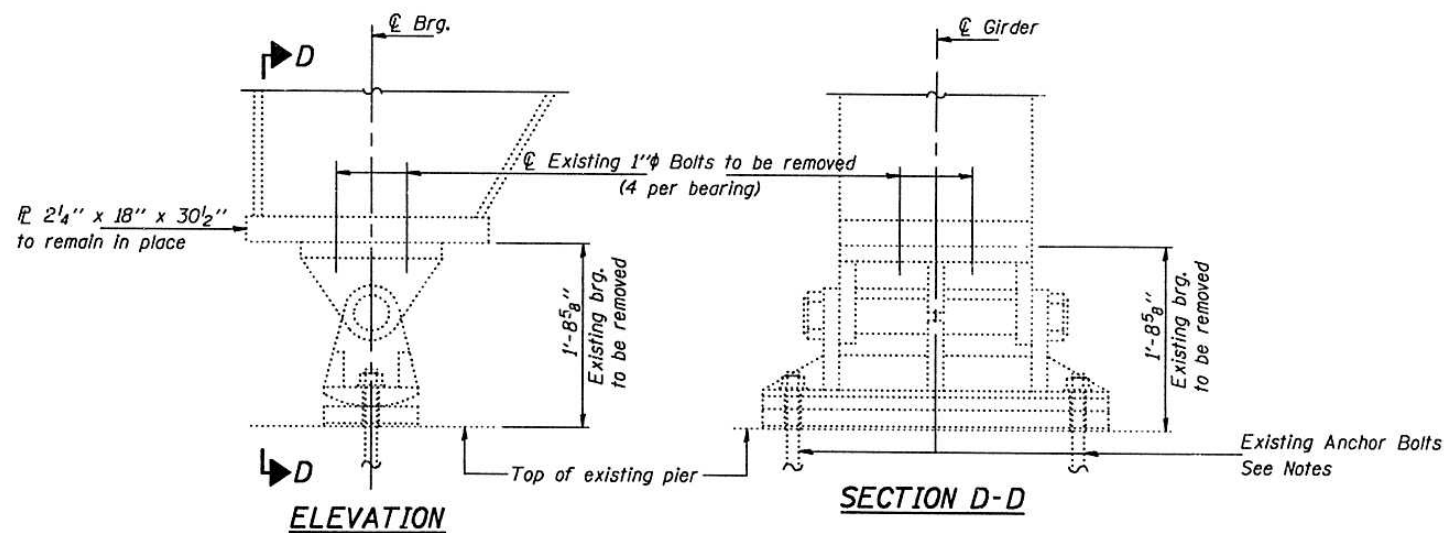


DETAIL "A"

* Flame cut to within $\pm 1/8$ " above surface & then grind smooth.



SPAN 8 - RAMP GIRDERS 1 AND 2



SPAN 9 - RAMP GIRDER 2

DESIGNED <i>Judith E. Moynihan</i>	EXAMINED <i>Dr. J. J. Kaspar</i>	DATE <i>March 27 1990</i>
CHECKED <i>R. T. Boss</i>	PASSED <i>Ralph E. Anderson</i>	
DRAWN <i>R. Doty</i>	APPROVED _____	
CHECKED <i>SEM</i>		DIRECTOR OF HIGHWAYS

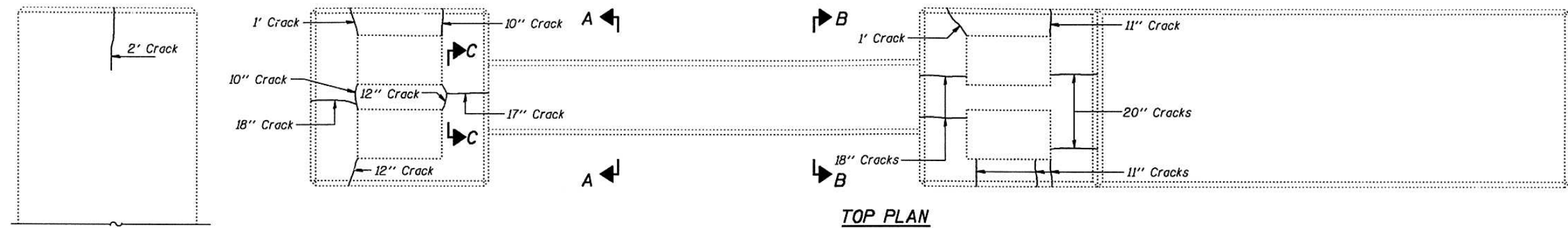
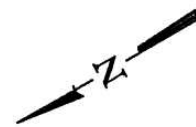
Note: Cut off existing $1/2$ " anchor bolts. For truss bearings, grind bolts level with top of existing 3 " x 20 " x 34 ". For ramp bearings, remove bolts below the concrete surface and dry pack with grout flush with surface. Cost incidental to "Jack and Remove Existing Bearings."

**BEARING REMOVAL DETAILS
AT PIER 7
F.A. RT. 49 SEC. 15B-1-6
PEORIA TAZEVELL COUNTIES**

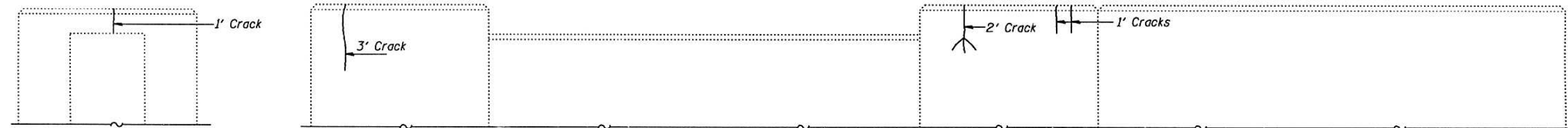
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	POST
F.A. 49	15B-1-6	PEORIA TAZEWELL	18	10
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 4
12 SHEETS

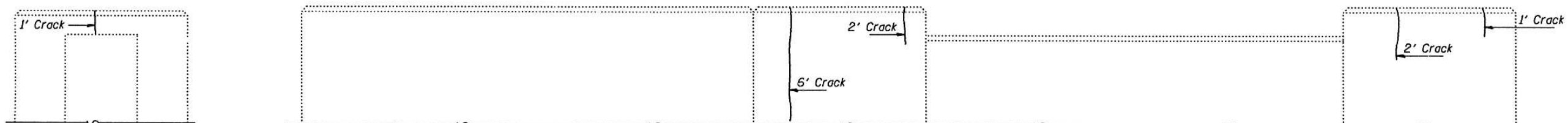


NORTH END VIEW



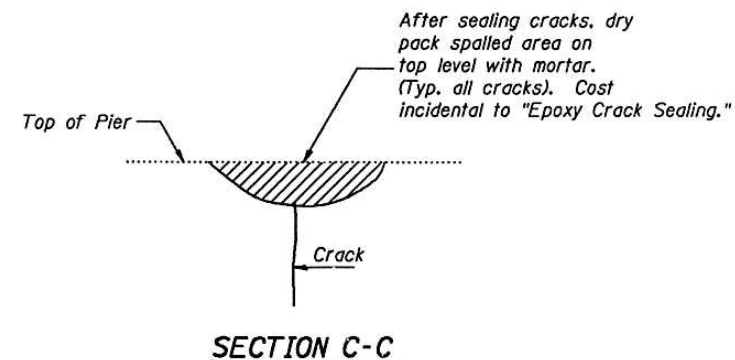
VIEW A-A

ELEVATION
(Looking East)



VIEW B-B

ELEVATION
(Looking West)



SECTION C-C

Note: Cracks shall be filled by epoxy injection.

BILL OF MATERIAL

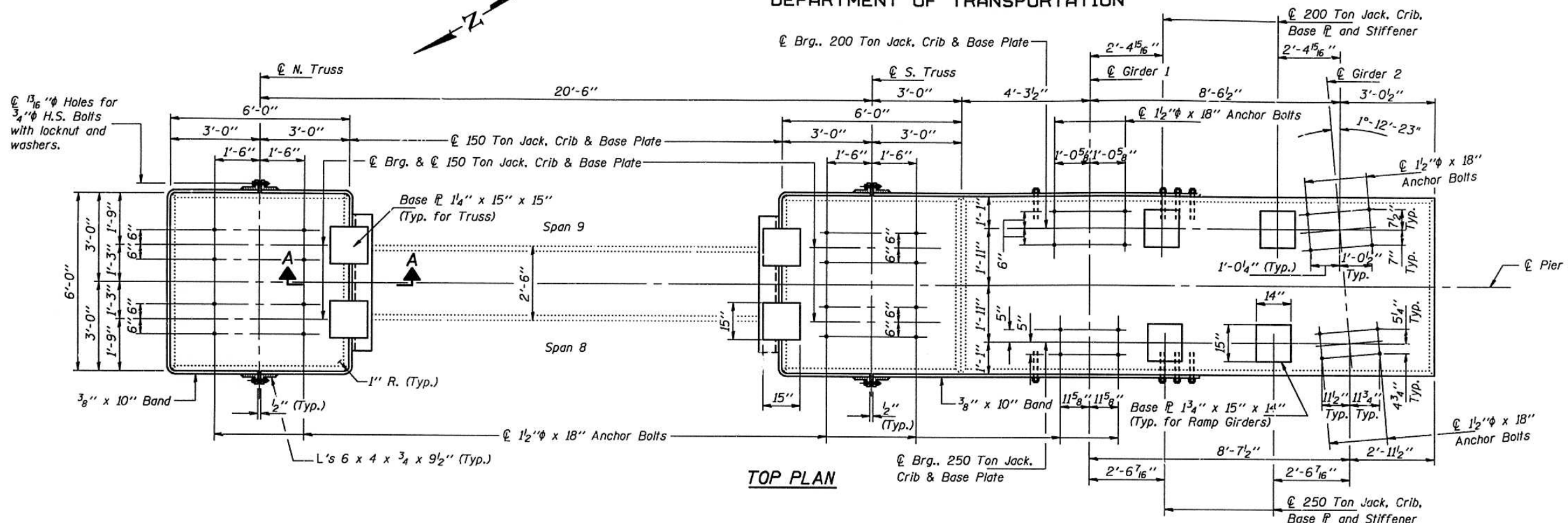
Item	Unit	Total
Epoxy Crack Sealing	Lin. Ft.	41

DESIGNED *Shelby S. Moynihan*
 EXAMINED *Greg J. Kaspar* ENGINEER OF BRIDGE DESIGN
 CHECKED *RTB*
 PASSED *Ralph E. Anderson* ENGINEER OF BRIDGES AND STRUCTURES
 DRAWN *R. Doty*
 APPROVED _____ DIRECTOR OF HIGHWAYS
 CHECKED *SCM* *RTB*
 March 27 1990

PIER REPAIR DETAILS
AT PIER 7
F.A. RT. 49 SEC. 15B-1-6
PEORIA TAZEWELL COUNTIES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

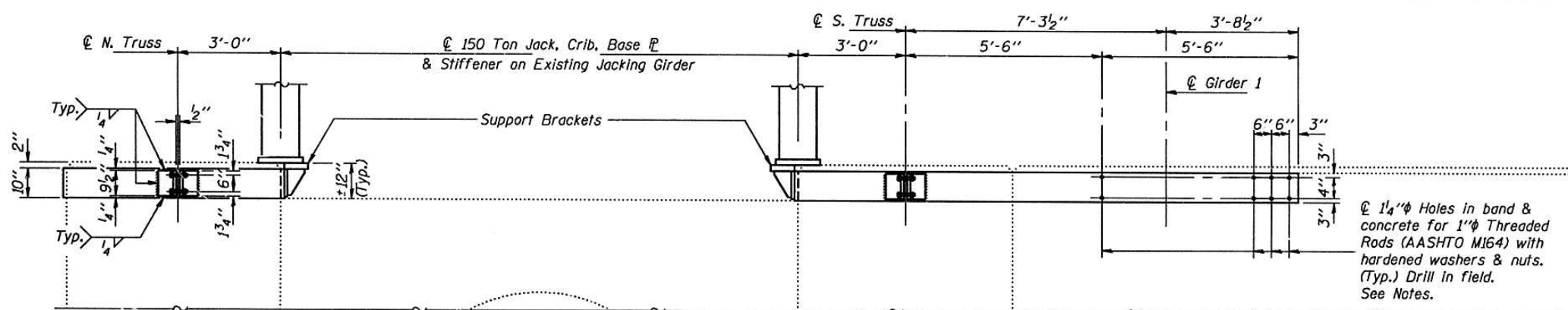
ROUTE NO.	SECTION	COUNTY	SHEETS	POST	SHEET NO. 5
F.A. 49	15B-I-6	PEORIA TAZEWELL	18	11	12 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			



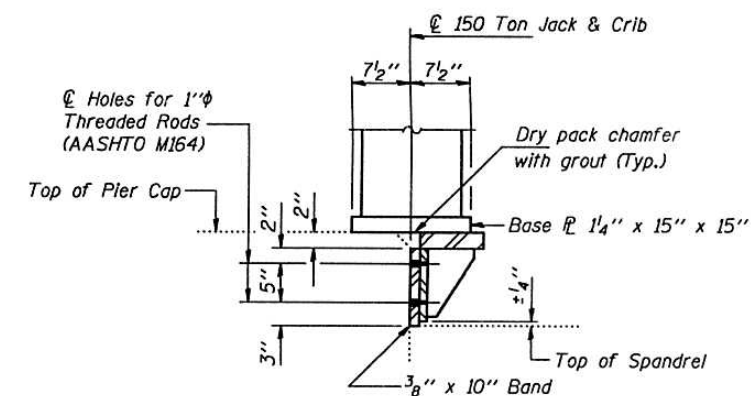
**CALCULATED MAX. CRIB LOADS
(PER CRIB LOCATION)**

Truss = 189^K
Ramp Span 8 = 329^K
Ramp Span 9 = 458^K

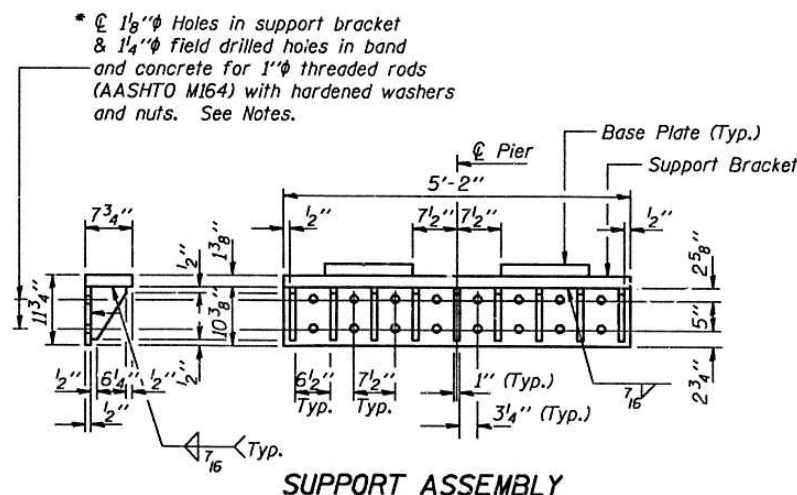
TOP PLAN



ELEVATION
(Looking East)



SECTION A-A



SUPPORT ASSEMBLY
(Cost of support brackets and base plates is incidental to "Jack and Remove Existing Bearings")

* Threaded rods, washers and nuts shall remain in place after removing support bracket. Cost included in "Structural Steel."

Notes: Use support bracket as a template for location of 1 1/4" holes in 3/8" x 10" bands and pier cap.
Epoxy grout 1" threaded rods (AASHTO M164) in 1 1/4" x 9" (Min.) drilled holes. Use a grout approved by the Department or epoxy grout in accordance with BSP-11 (See Special Provisions). The method of grout application shall be approved by the Engineer.
Band assemblies include bands, angles, bolts, threaded rods, hardened washers and nuts. Cost included in "Structural Steel." Band assemblies shall remain in place permanently.
For jacking details on ramp see sheet #6 of 12.
For anchor bolt installation details see sheet #12 of 12.

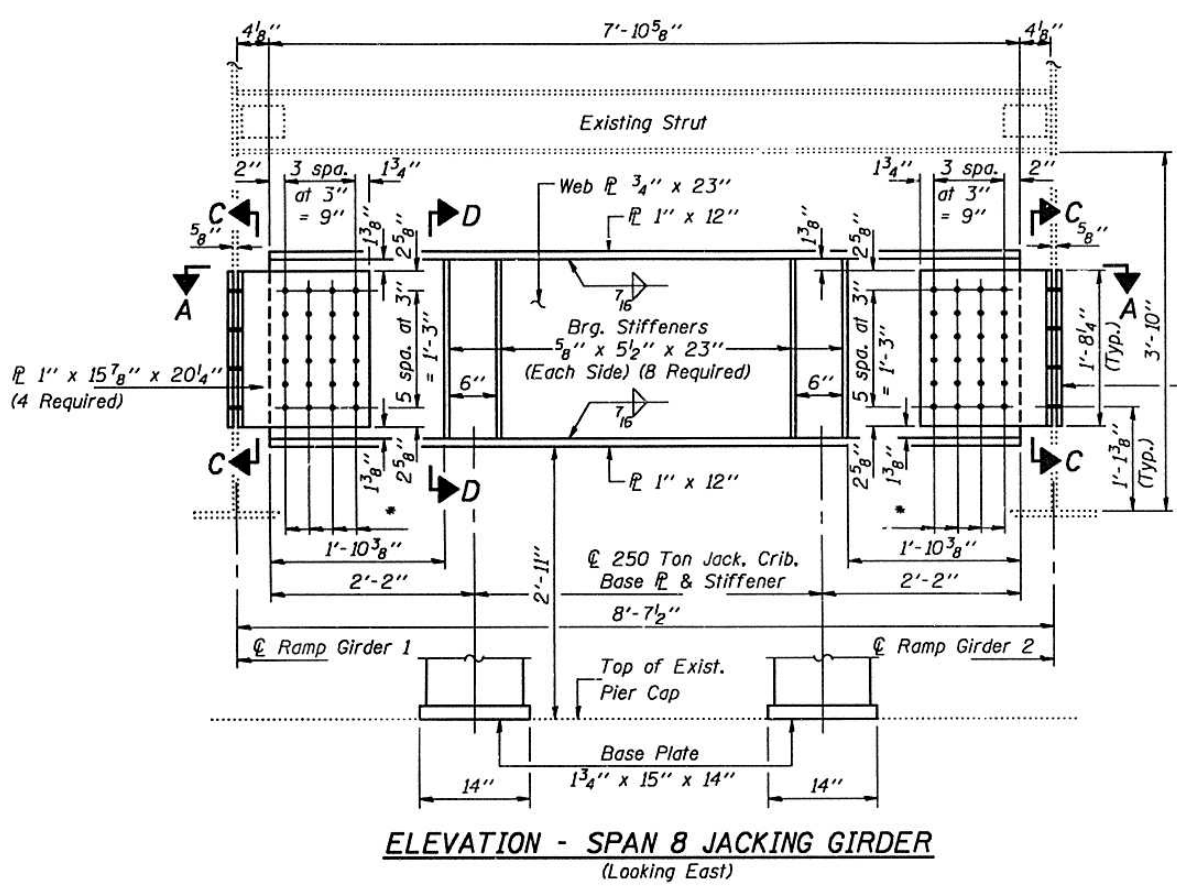
DESIGNED	Shadi E. Moznika
CHECKED	R.T. Bono
DRAWN	R. Doty
CHECKED	SEM R.T.B.

March 27 1990
EXAMINED *Dr. J. D. Kaspar*
PASSED *Ralph E. Anderson*
APPROVED
DIRECTOR OF HIGHWAYS

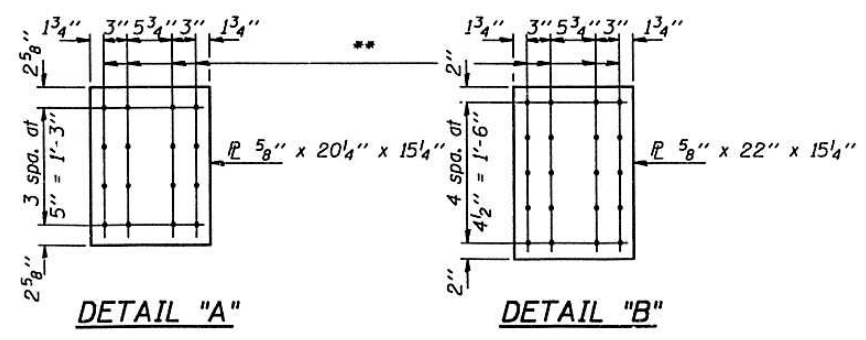
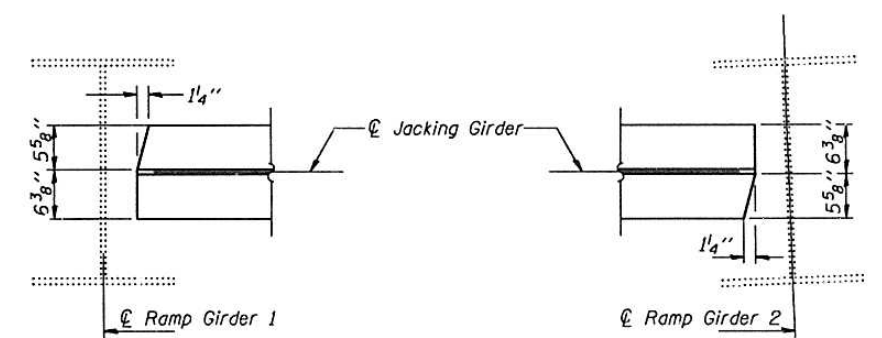
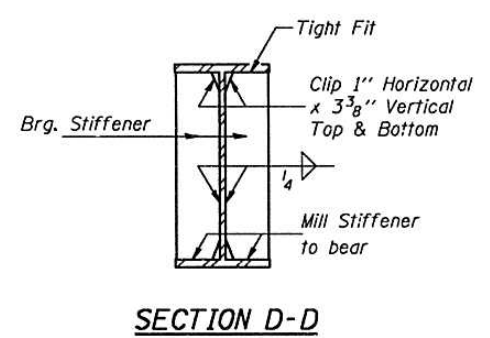
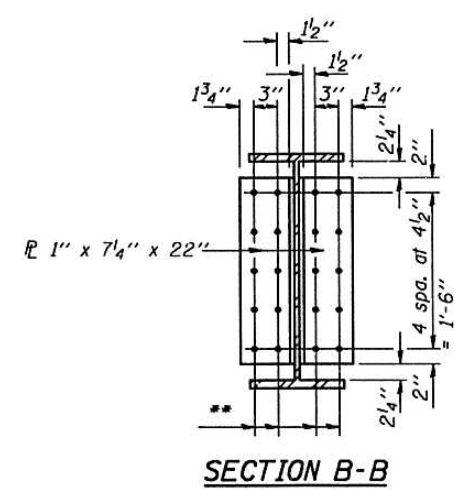
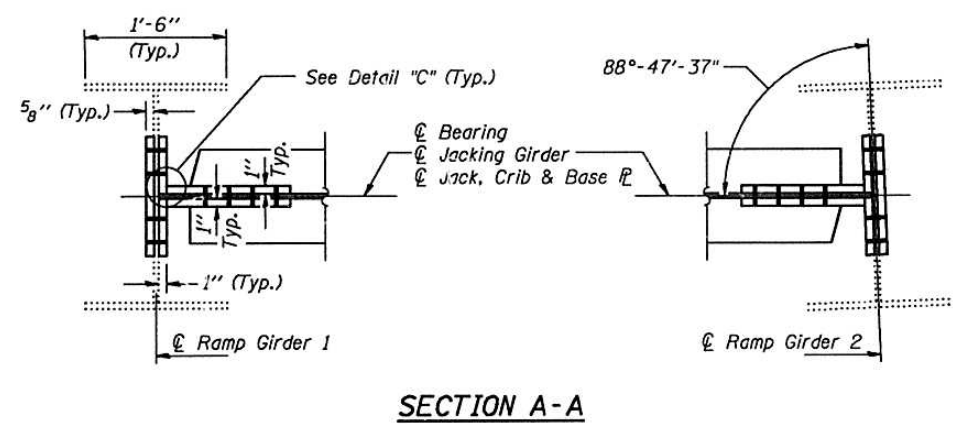
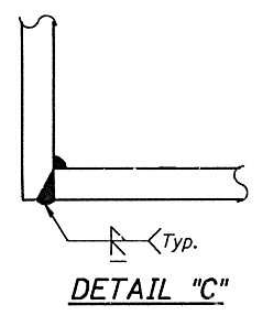
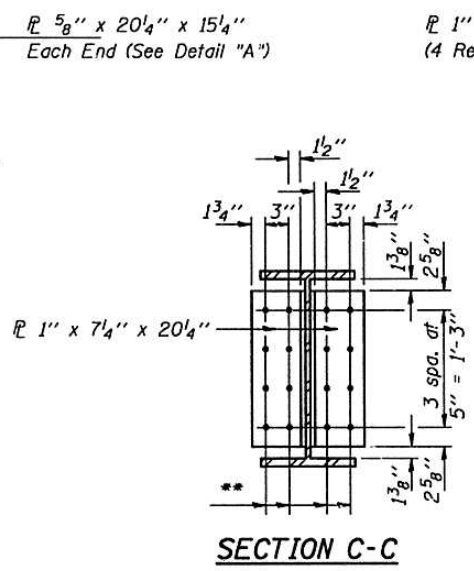
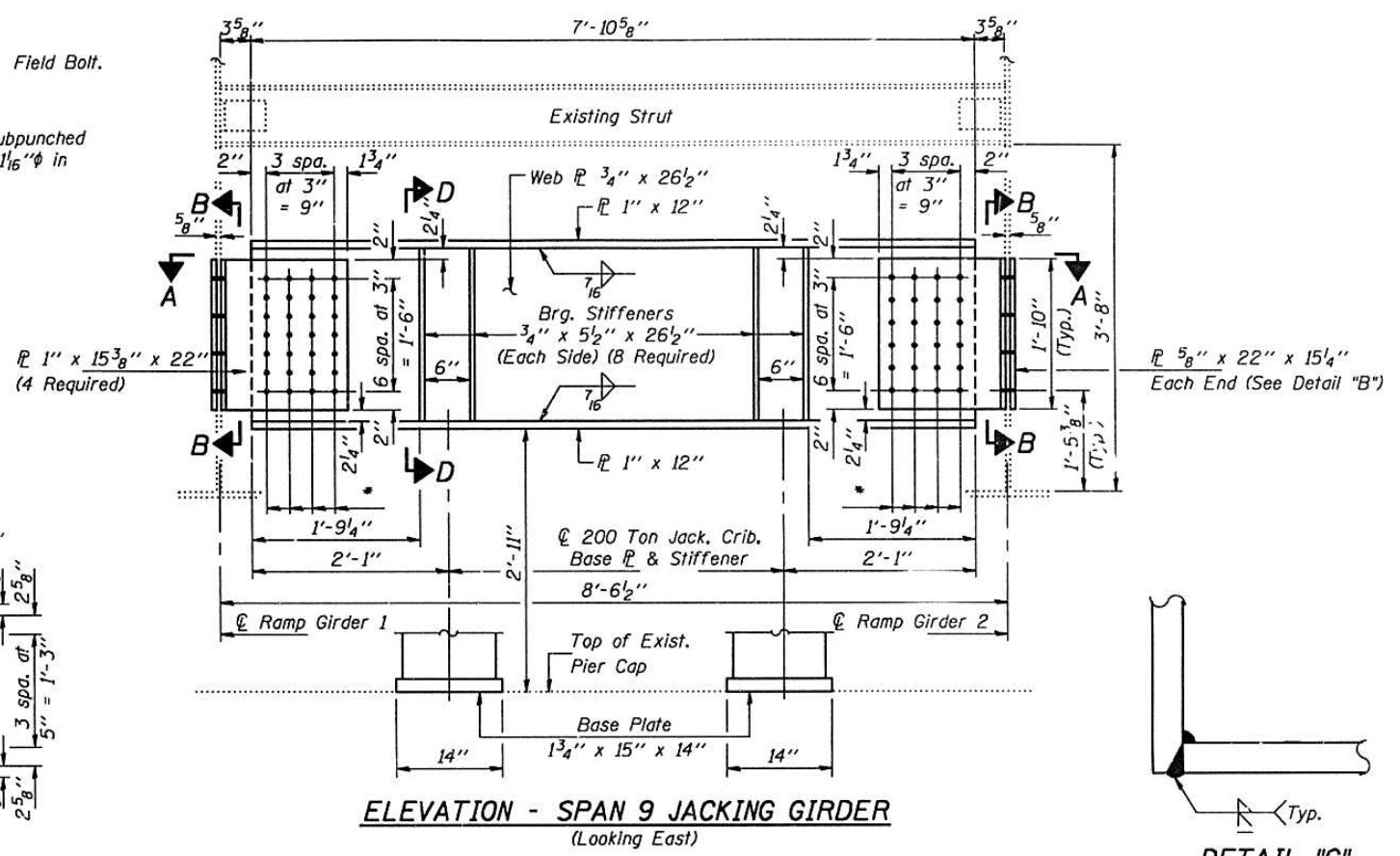
BAND ASSEMBLY & JACKING DETAILS
PIER 7
F.A. RT. 49 SEC. 15B-I-6
PEORIA TAZEWELL COUNTIES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET NO.
S.A.L. P.A. 49	15B-1-6	PEORIA TAZEWELL	18 12	12 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		



* \varnothing 1/16" Holes for 1" H.S. Bolts (AASHTO M253). Shop drill holes. Field Bolt.
 ** \varnothing 1/16" Holes for 1" H.S. Bolts (AASHTO M253). Holes shall be subpunched or subdrilled 3/16" and reamed to 1/16" in the field.



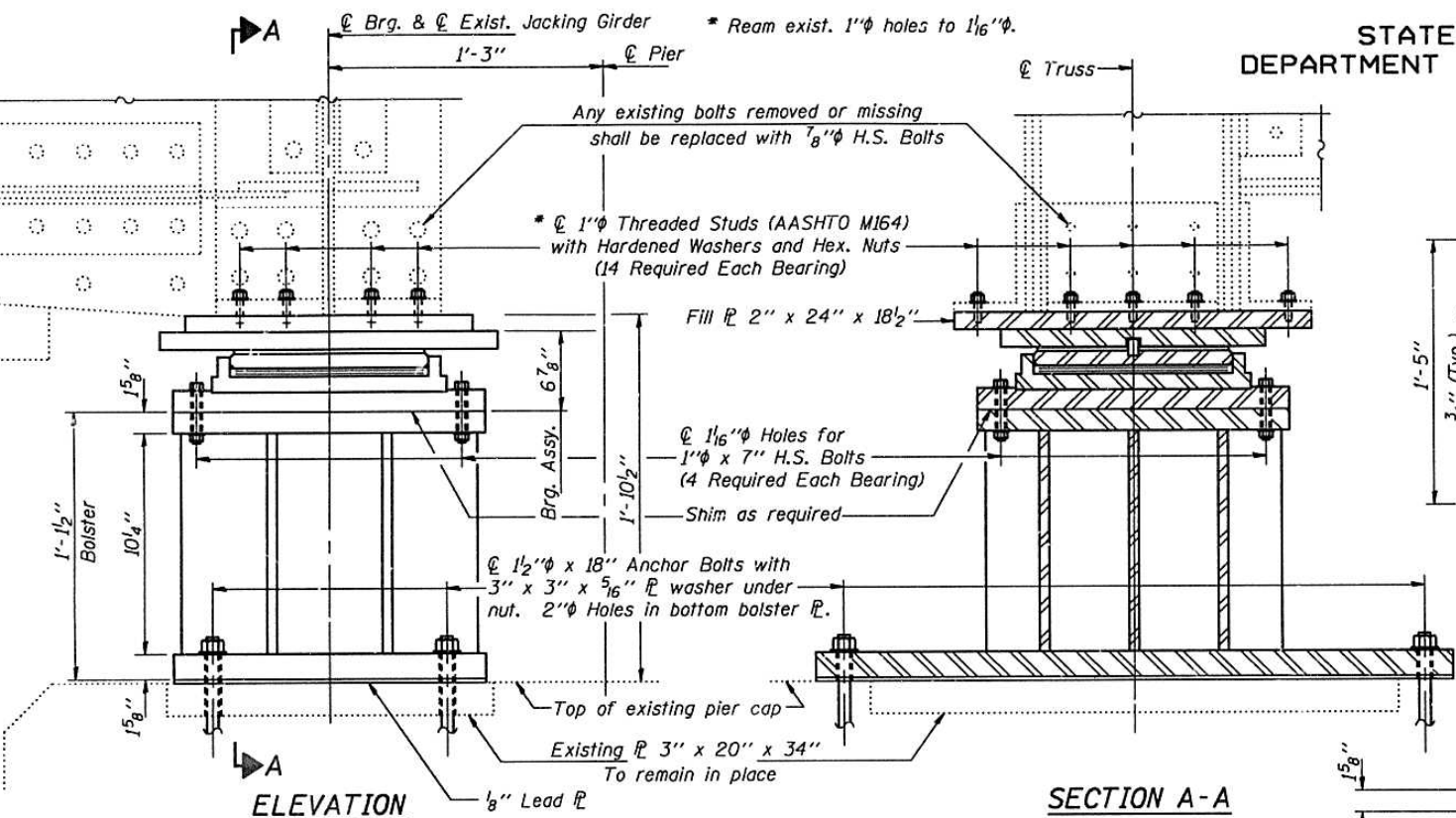
Notes: All plates of the jacking girders, bearing stiffeners and connection plates shall be AASHTO M223, Grade 50.
 No more than one hole shall be drilled through an existing ramp girder at a time. The bolt shall be installed and fully tightened prior to drilling another hole.
 For location of base plates see sheet #5 of 12.
 Cost of base plates is incidental to "Jack and Remove Existing Bearings."
 Jacking girders, connection plates and bolts shall remain in place permanently.
 Cost is included in "Structural Steel."

DESIGNED <i>Sheila E. Moynihan</i>	EXAMINED <i>Greg J. Kaspar</i>	DATE <i>March 27 1990</i>
CHECKED <i>R.T. Bow</i>	PASSED <i>Ralph E. Anderson</i>	
DRAWN <i>R. Doty</i>	APPROVED	
CHECKED <i>SEH RTB</i>		

**JACKING DETAILS - RAMP
PIER 7**
F.A. RT. 49 SEC. 15B-1-6
PEORIA TAZEWELL COUNTIES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

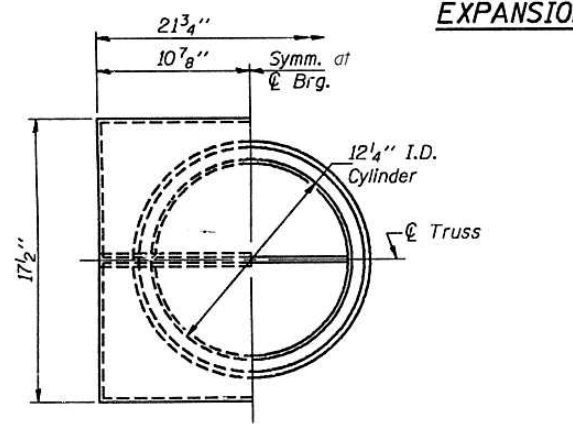
ROUTE NO.	SECTION	COUNTY	DATE	SHEET	SHEET NO. 7 12 SHEETS
P.A. 49	15B-1-6	PEORIA TAZEWELL	18	13	
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		



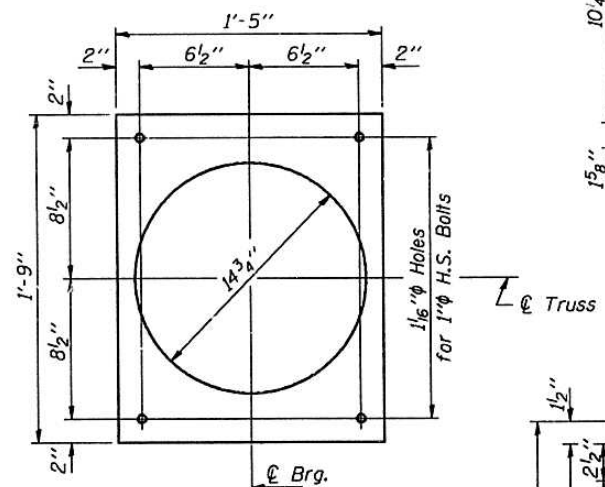
ELEVATION

SECTION A-A

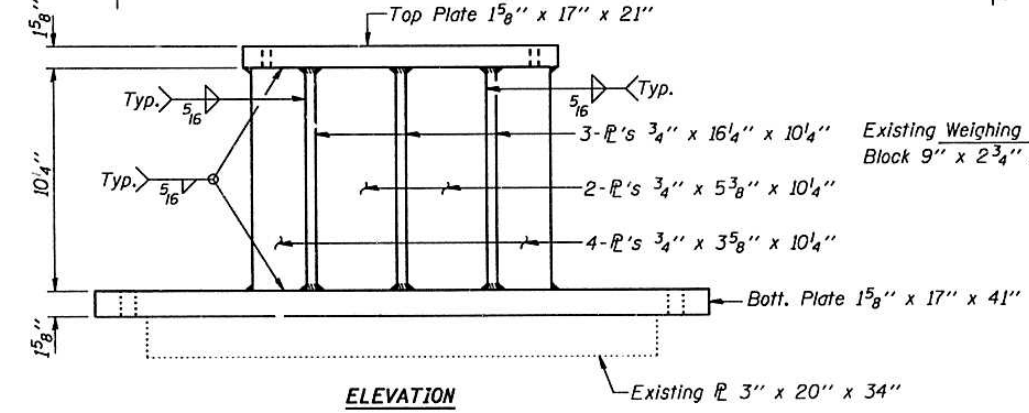
EXPANSION FLOATING BEARING



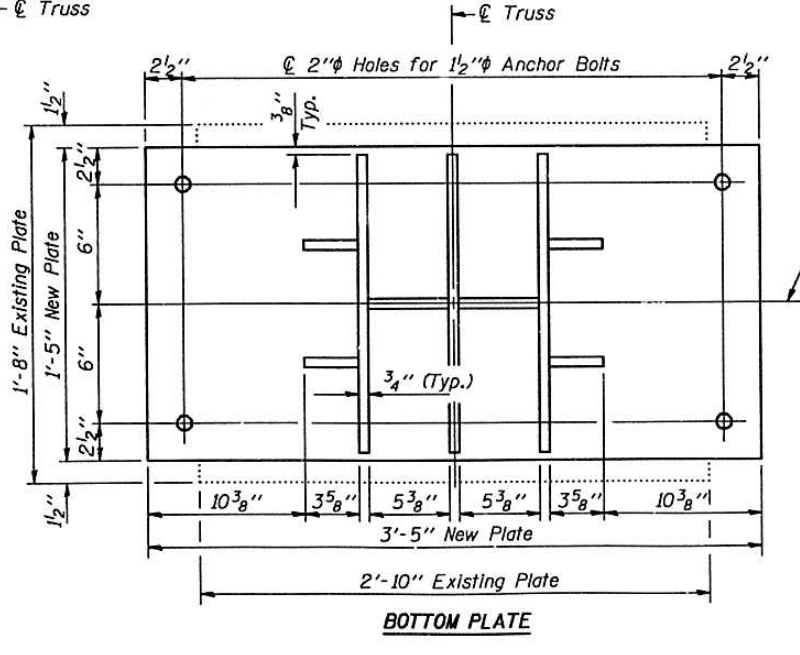
CUT-AWAY PLAN



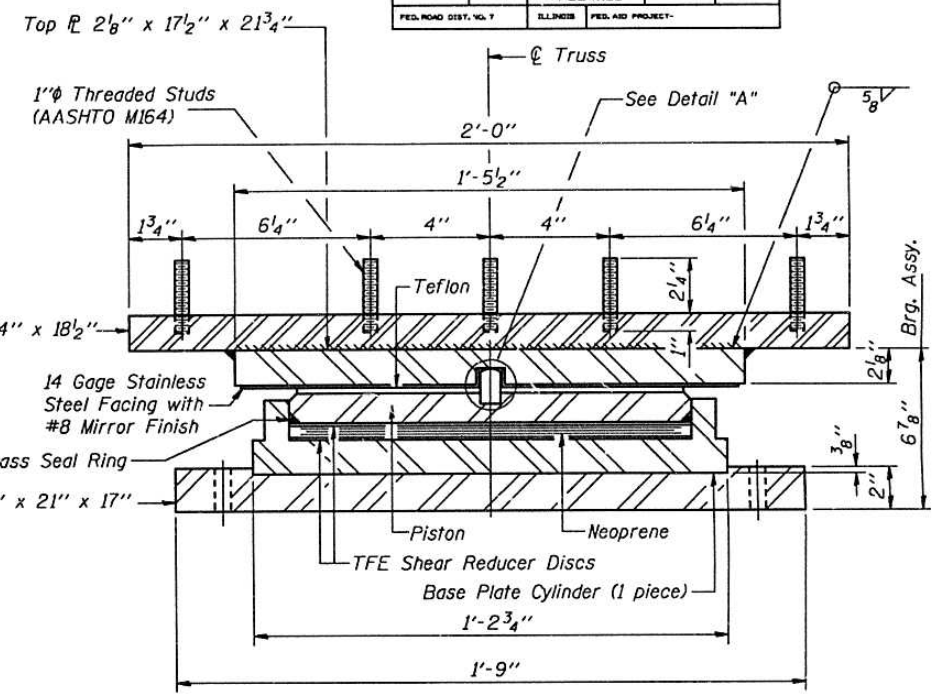
BOTTOM BRG. PLATE PLAN



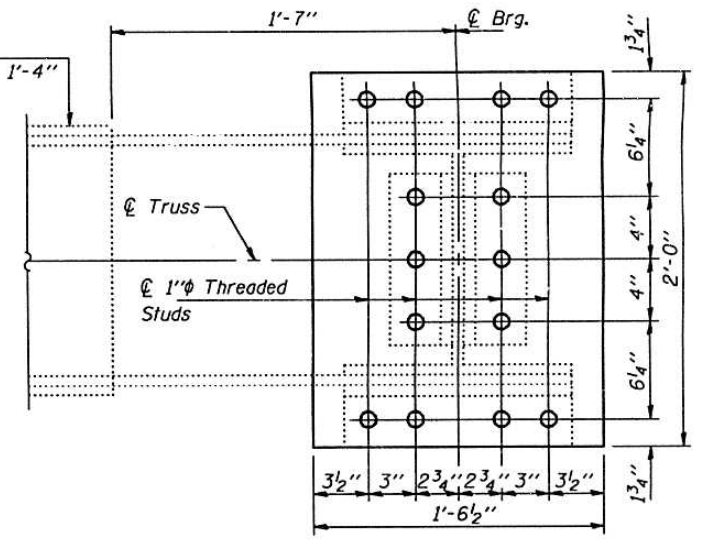
ELEVATION



BOLSTER DETAILS



BEARING ASSEMBLY & FILL PLATE



FILL PLATE PLAN

BILL OF MATERIAL

Item	Unit	Total
Floating Bearings, Guided Expansion 350K	Each	4

BEARING DATA

Vertical Load		
RR	(K)	161
RL	(K)	115.1
RIMP	(K)	17.3
RR+1	(K)	293.4
Exp. Length (ft.)		468'

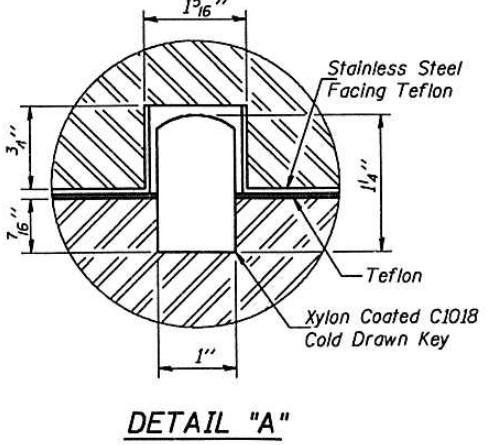
Transverse Load		
Wind	(K)	45.3

Notes: All plates of the Bearing Assembly, Bolster and Fill PL shall be AASHTO M223, Grade 50. Provide 2- 8" x 17" x 21" adjusting shims per bearing. For anchor bolt installation details see sheet #12 of 12.

TRUSS BEARING DETAILS
PIER 7
F.A. RT. 49 SEC. 15B-1-6
PEORIA TAZEWELL COUNTIES

BELOW 50° F. (Move bott. brg. away from fixed brg.)
ABOVE 50° F. (Move bott. brg. toward fixed brg.)
SETTING ANCHOR BOLTS AT EXP. BRG.
D = 1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50° F.

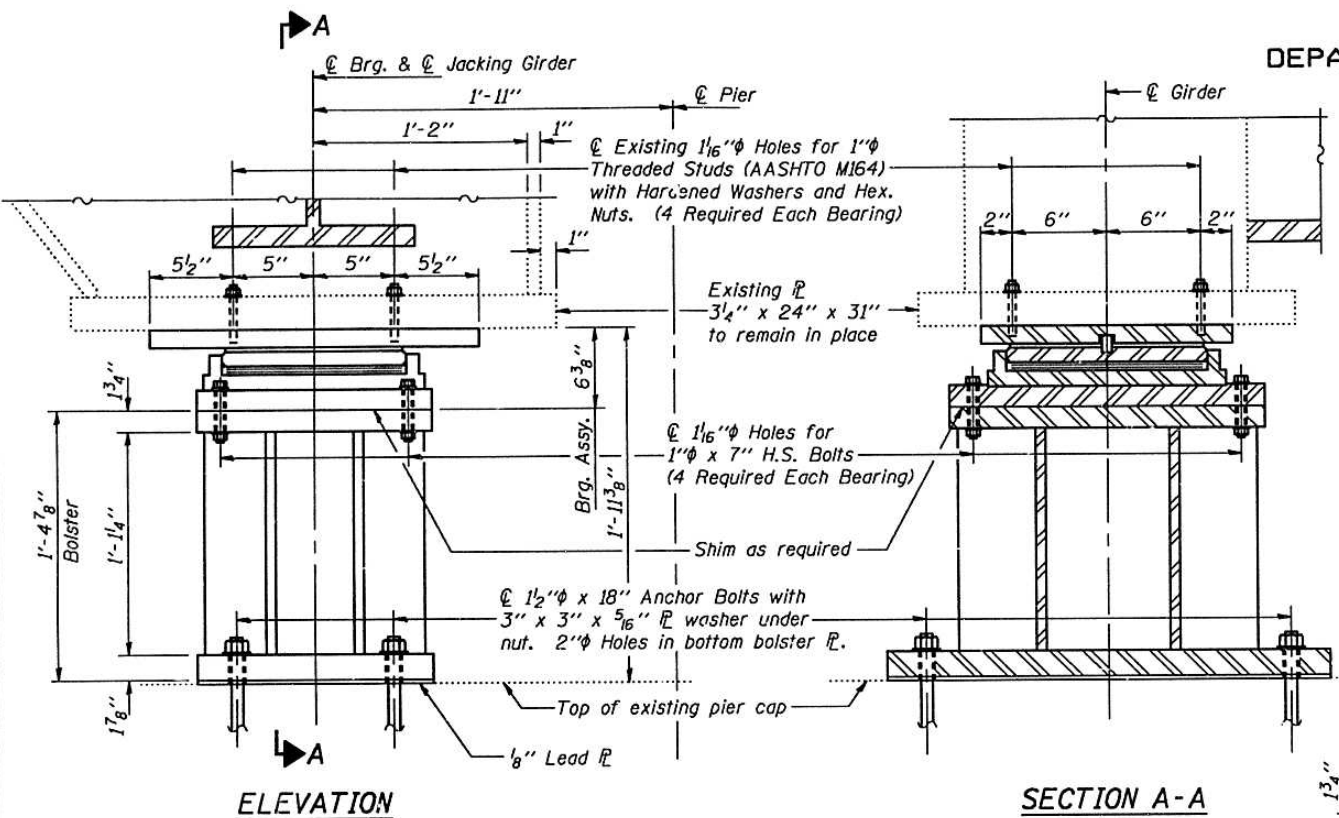
DESIGNED Sheila E. Moynihan
CHECKED RTB
DRAWN R. Doty
CHECKED SOM RTB
EXAMINED Dr. J. Kaspar
PASSED Ralph E. Anderson
APPROVED
MARCH 27 1990
DIRECTOR OF HIGHWAYS



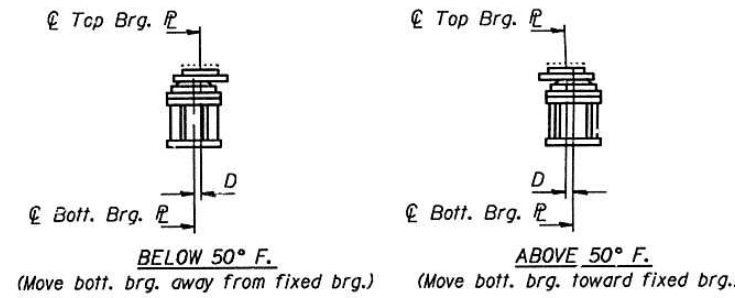
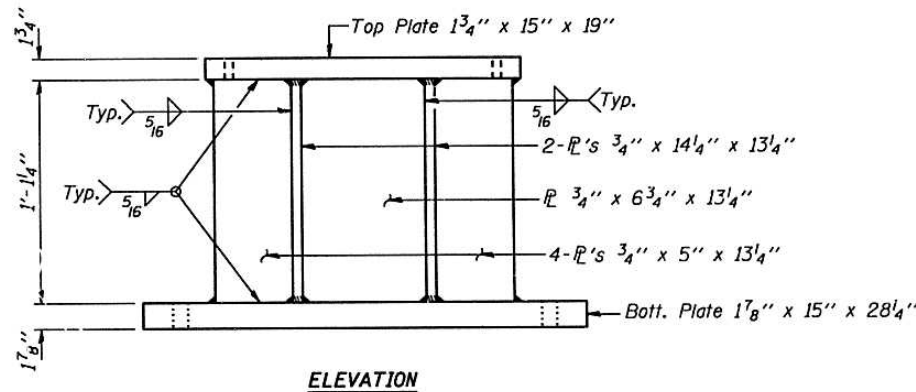
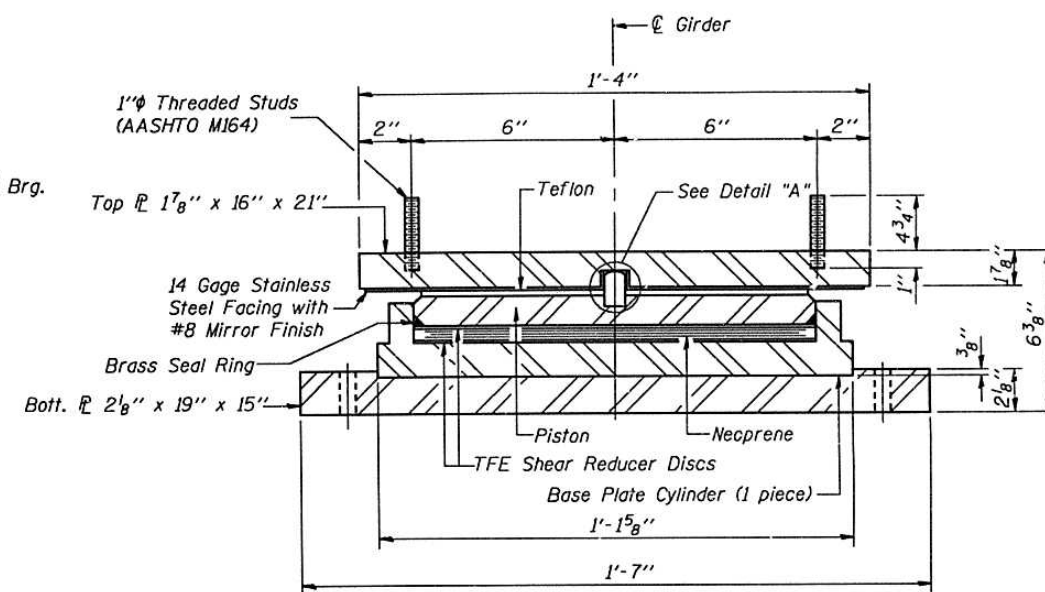
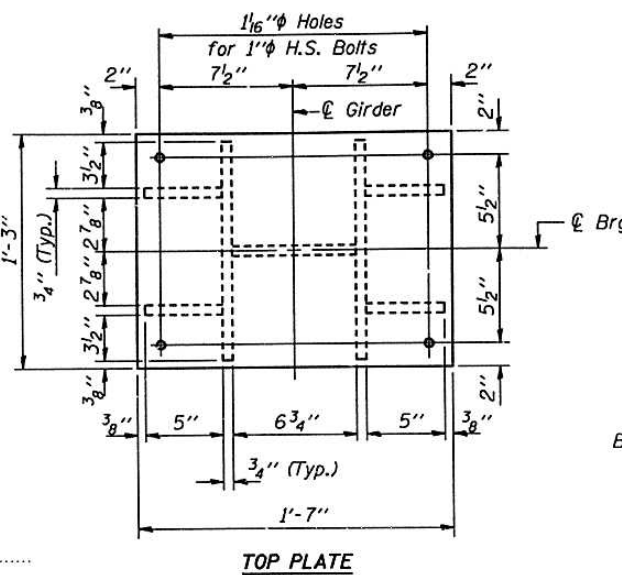
DETAIL "A"

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

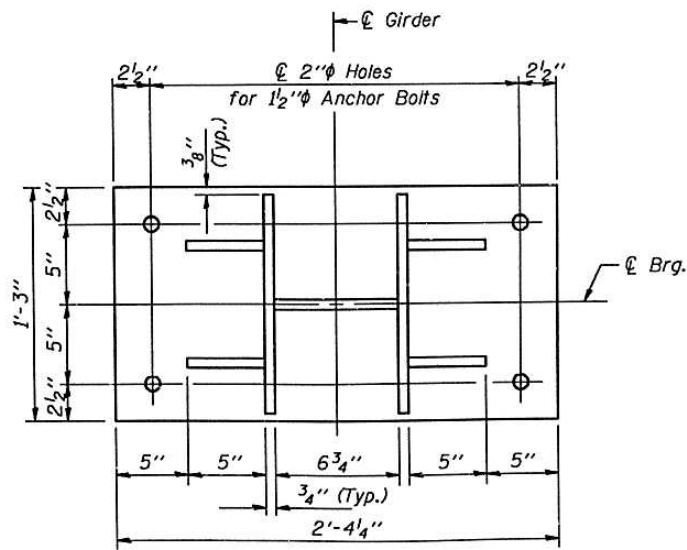
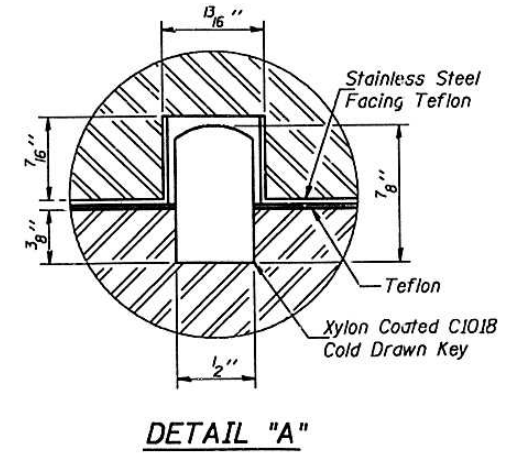
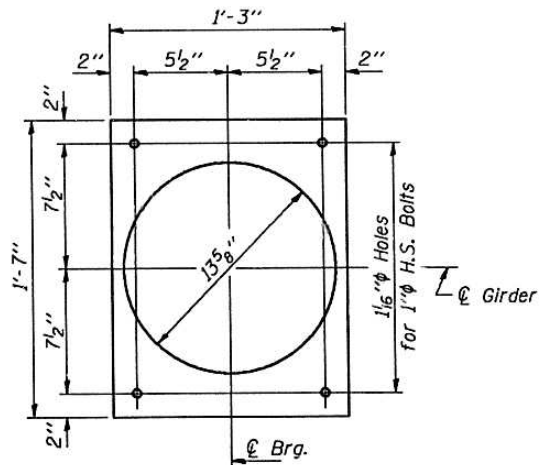
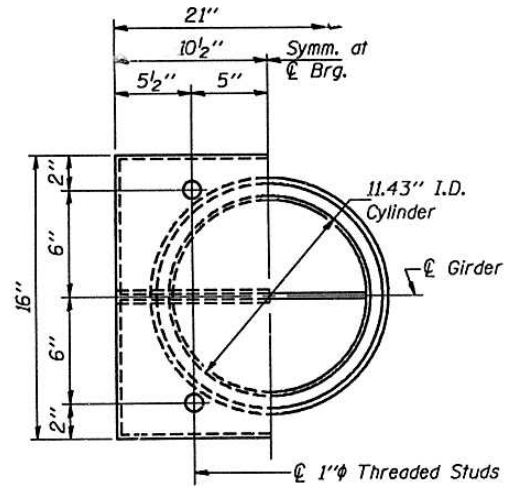
ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET	SHEET NO. 8 12 SHEETS
F.A. 49	15B-1-6	PEORIA TAZEWELL	18	14	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			



EXPANSION FLOATING BEARING



SETTING ANCHOR BOLTS AT EXP. BRG.
D = 1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50° F.



BILL OF MATERIAL

Item	Unit	Total
Floating Bearings, Guided Expansion 300K	Each	2

BEARING DATA

Vertical Load	
R _P	(K) 195.0
R _L	(K) 74.3
R _{IMP}	(K) 11.1
R _{P-t+1}	(K) 280.4
Exp. Length (ft.)	468'

Transverse Load	
Wind	(K) 26.3

Notes: All plates of the Bearing Assembly and Bolster shall be AASHTO M223, Grade 50. Provide 2-1/8" x 15" x 19" adjusting shims per bearing. For anchor bolt installation details see sheet #12 of 12.

BEARING DETAILS
RAMP SPAN 8 - GIRDERS 1 AND 2
PIER 7
F.A. RT. 49 SEC. 15B-1-6
PEORIA TAZEWELL COUNTIES

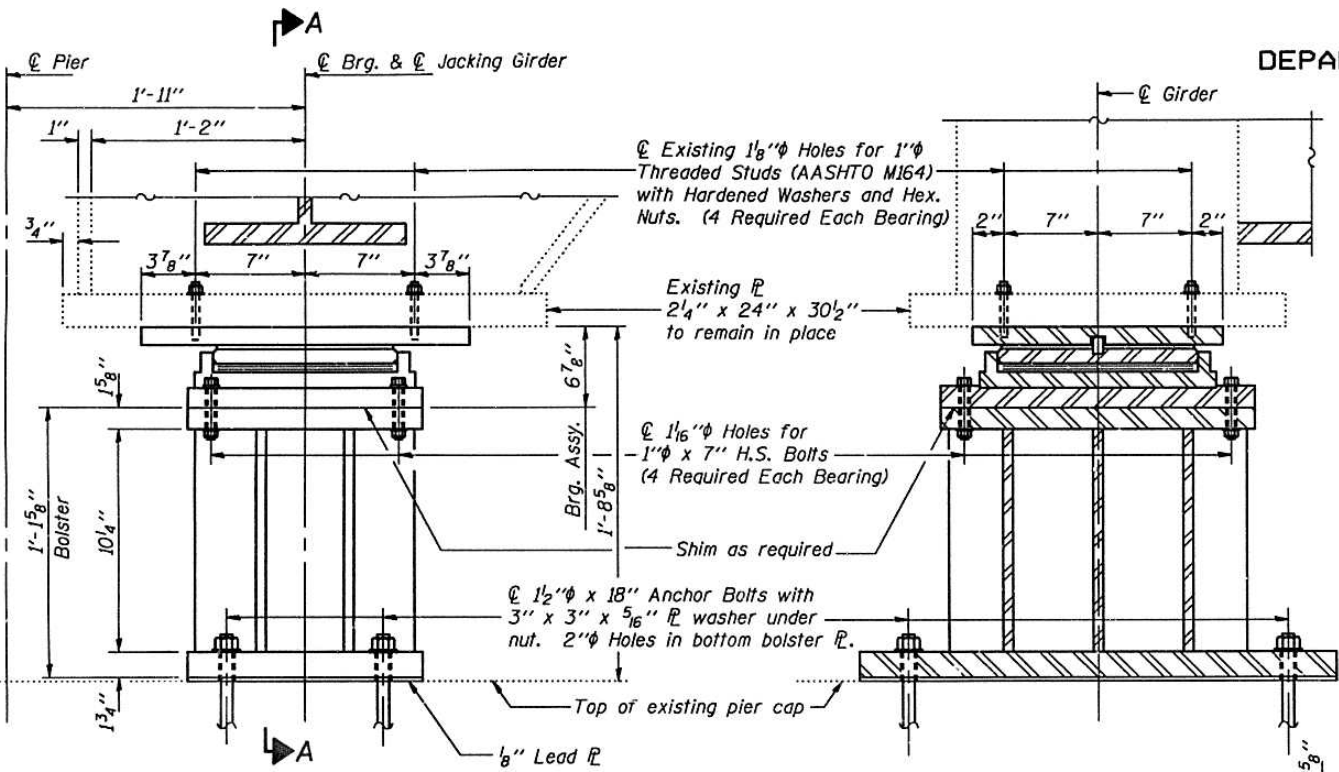
DESIGNED *Sheldon Morgan*
CHECKED *R.T. Boy*
DRAWN *R. Doty*
CHECKED *SDM* *R.T.B.*

EXAMINED *Dr. J. Kaspar*
PASSED *Ralph E. Anderson*
APPROVED _____
DIRECTOR OF HIGHWAYS

March 27 1970

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

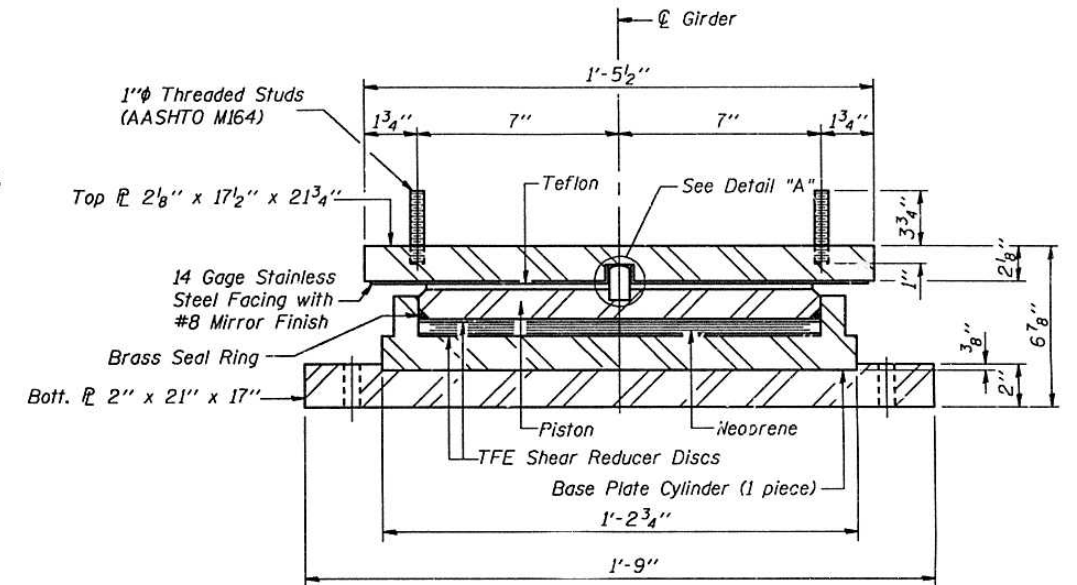
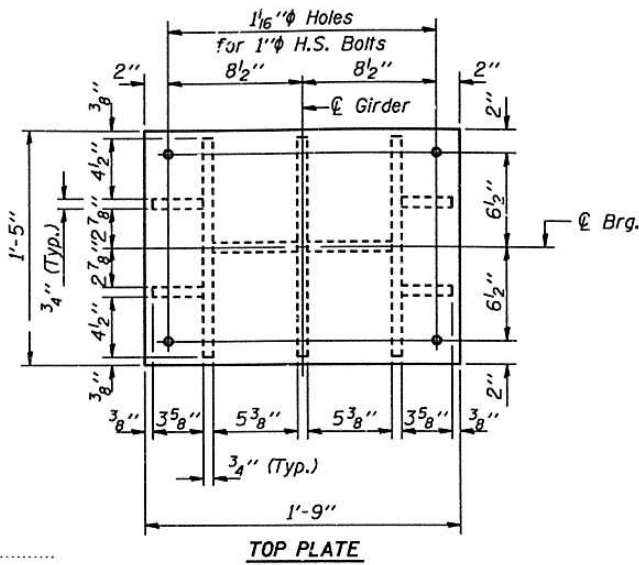
ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET	SHEET NO. 9 12 SHEETS
F.A. 49	15B-1-6	PEORIA TAZEWELL	18	15	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			



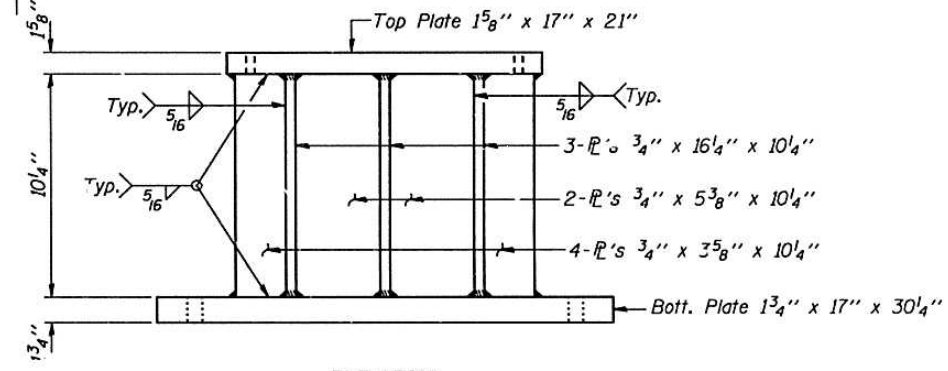
ELEVATION

SECTION A-A

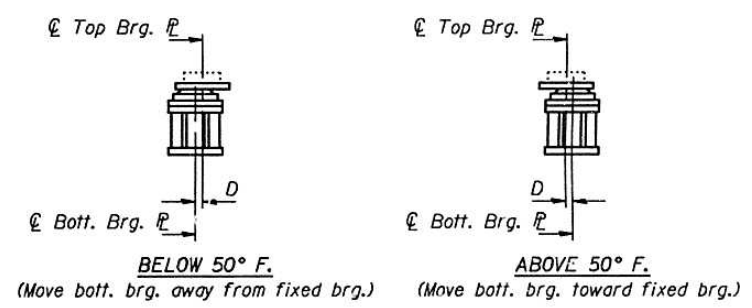
EXPANSION FLOATING BEARING



BEARING ASSEMBLY

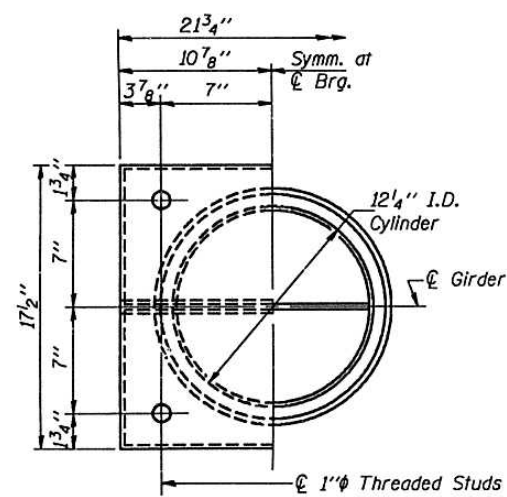


ELEVATION



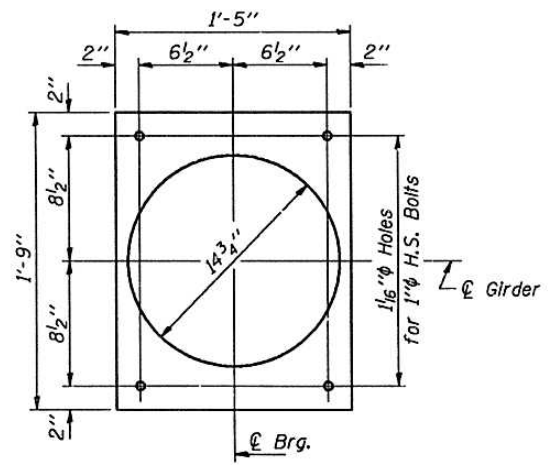
SETTING ANCHOR BOLTS AT EXP. BRG.

$D = \frac{1}{8}$ " per each 100' of expansion for every 15° temp. change from the normal temp. of 50° F.

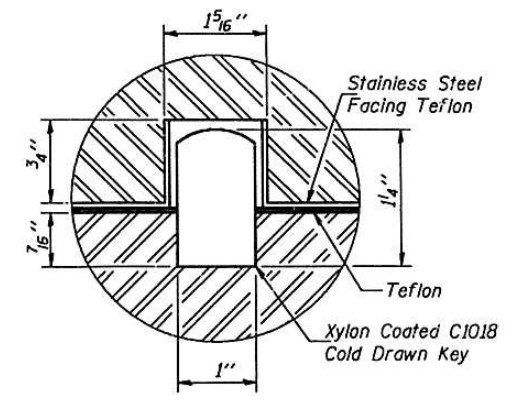


CUT-AWAY PLAN

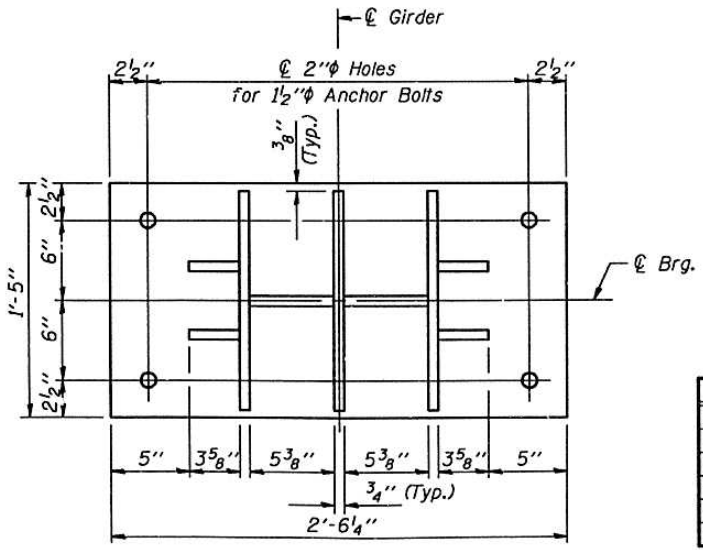
(Half of Top Plate Shown)



BOTTOM BRG. PLATE PLAN



DETAIL "A"



BOTTOM PLATE

BOLSTER DETAILS

BEARING DATA

Vertical Load		
R \bar{P}	(K)	176.5
R \bar{L}	(K)	43.7
RIMP	(K)	6.2
R $\bar{P}+1$	(K)	226.4
RWIND + \bar{P}	(K)	329
Exp. Length (ft.)		468'

Transverse Load		
Wind	(K)	55.2

BILL OF MATERIAL

Item	Unit	Total
Floating Bearings, Guided Expansion 350K	Each	1

Notes: All plates of the Bearing Assembly and Bolster shall be AASHTO M223, Grade 50. Provide $2\frac{1}{8}$ " x 17 " x 21 " adjusting shims per bearing. For anchor bolt installation details see sheet #12 of 12.

BEARING DETAILS
RAMP SPAN 9 - GIRDER 1

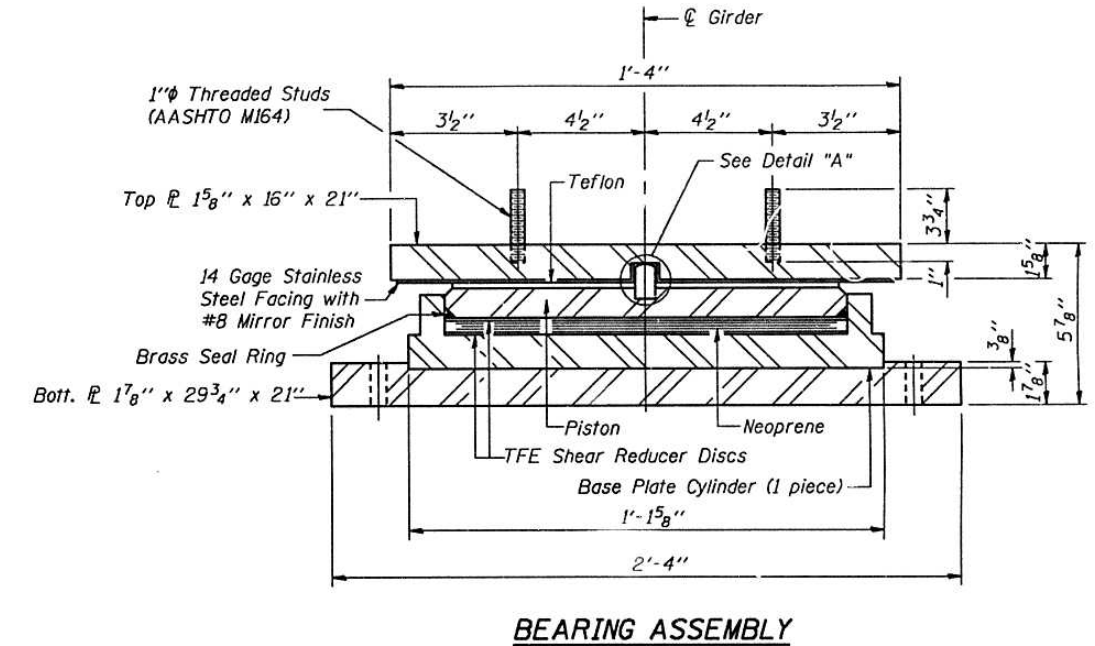
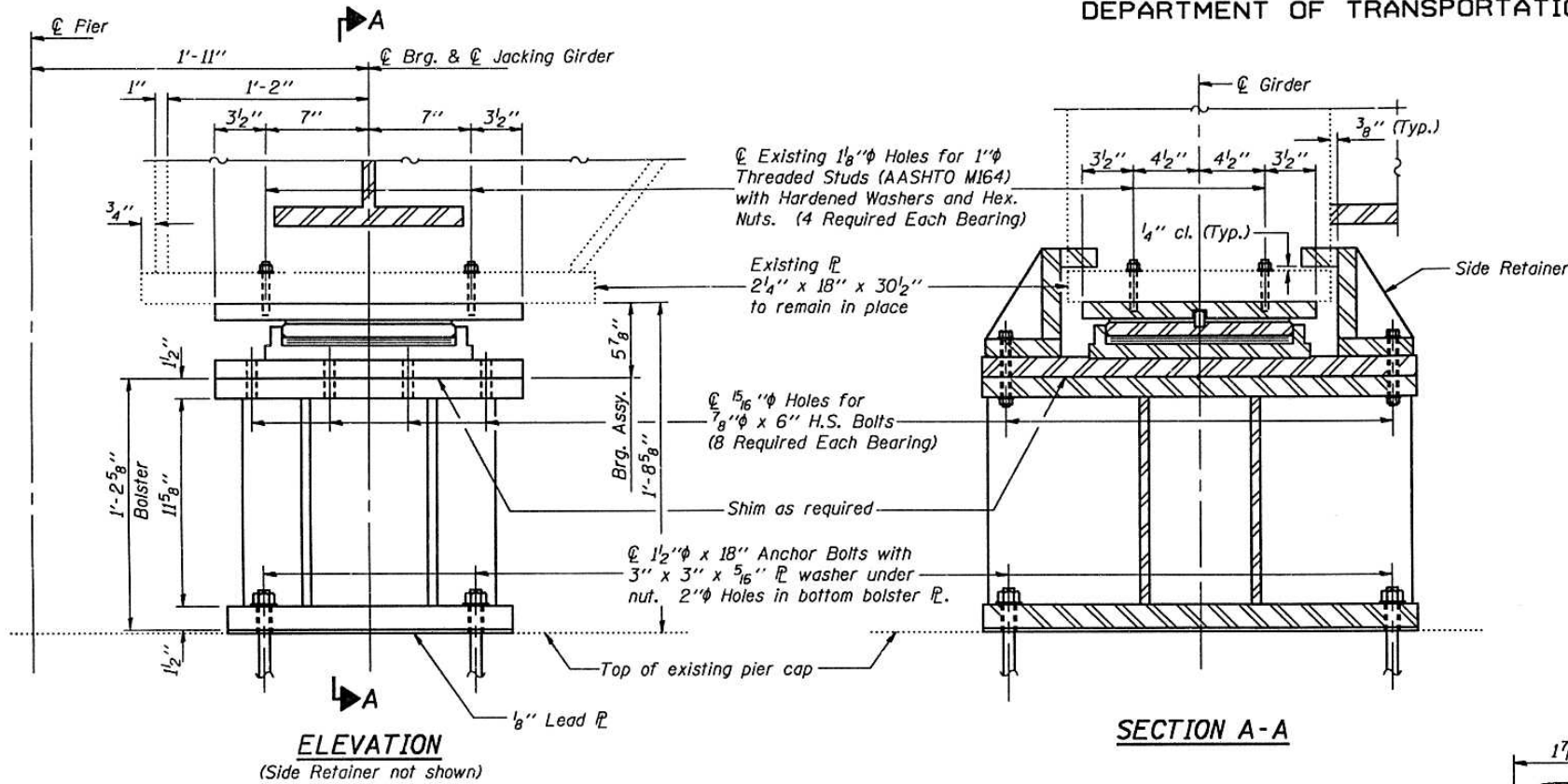
PIER 7
F.A. RT. 49 SEC. 15B-1-6
PEORIA TAZEWELL COUNTIES

DESIGNED *Shale E. Morrison* EXAMINED *Greg J. Kasper*
 CHECKED *R.T. Bova* PASSED *Ralph E. Anderson*
 DRAWN *R. Doty* APPROVED _____
 CHECKED *SEM* *R.T.B.*

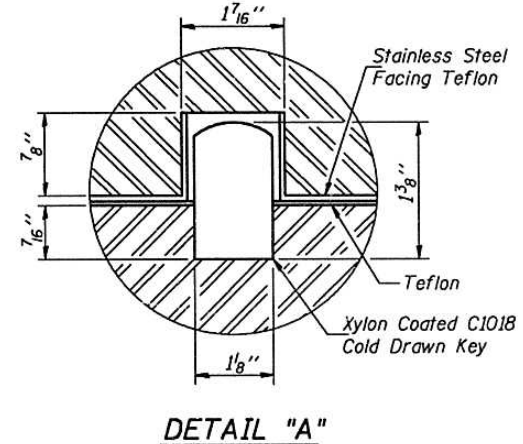
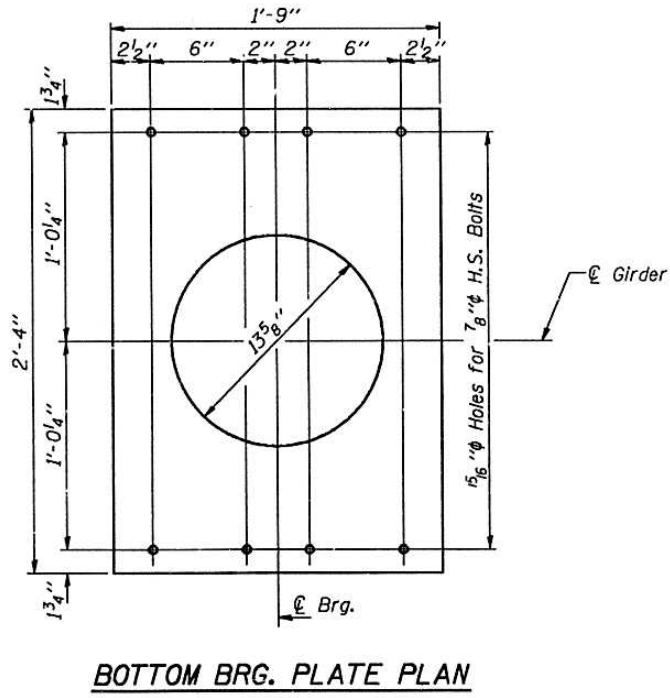
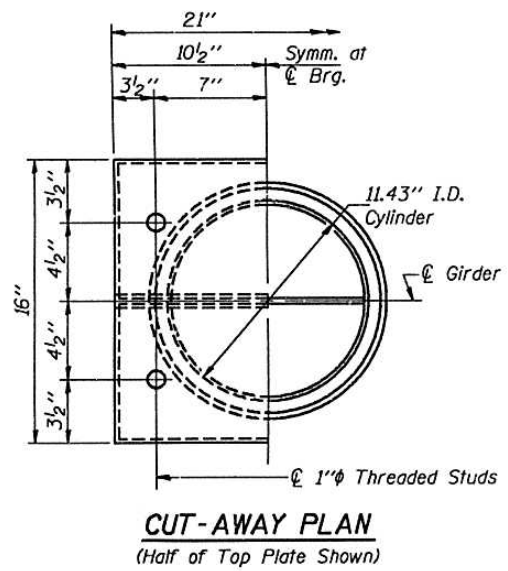
March 27 1990
 DIRECTOR OF HIGHWAYS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	DATE	SHEET NO. 10
P.A. 49	15B-1-6	PEORIA TAZEWELL	18	16	12 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			



EXPANSION FLOATING BEARING



BEARING DATA

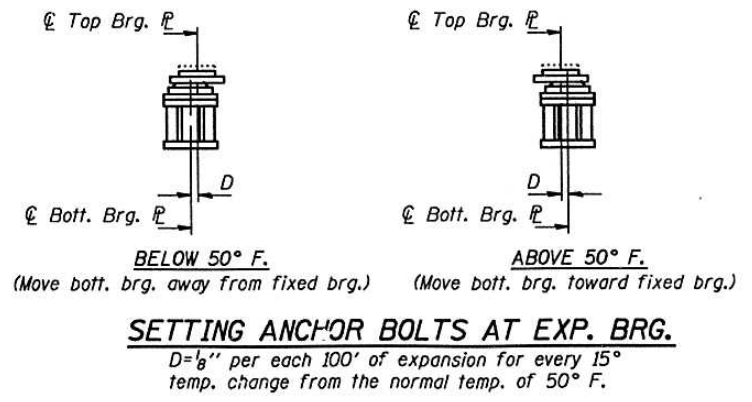
Vertical Load		
R $\frac{1}{2}$	(K)	105.9
R $\frac{1}{4}$	(K)	41.8
R $\frac{1}{8}$	(K)	5.8
R $\frac{1}{2}$ -1	(K)	153.5
Exp. Length (ft.)		468'

Transverse Load		
Wind	(K)	55.2

BILL OF MATERIAL

Item	Unit	Total
Floating Bearings, Guided Expansion 300K	Each	1

Notes: All plates of the Bearing Assembly, Bolster and Side Retainer shall be AASHTO M223, Grade 50. Provide 2- $\frac{1}{8}$ " x 21" x 28" adjusting shims per bearing. For anchor bolt installation details see sheet #12 of 12. Work this sheet with sheet #11 of 12.



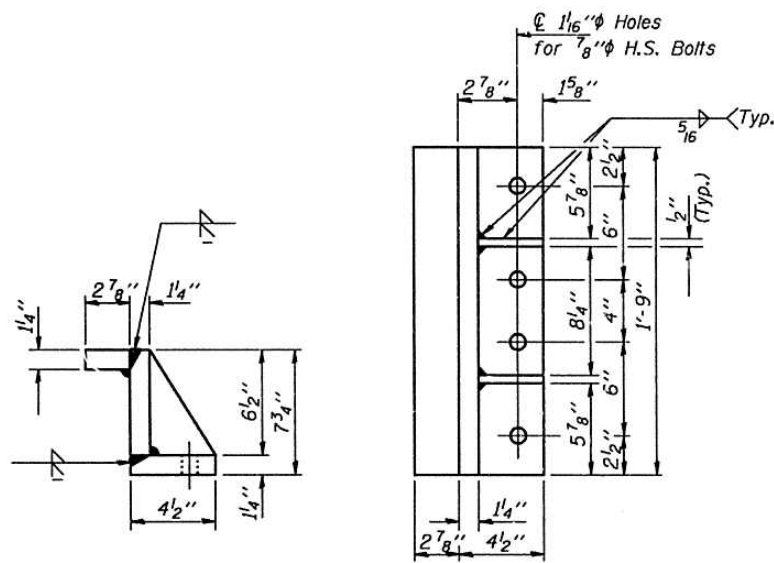
BEARING DETAILS
RAMP SPAN 9 - GIRDER 2
PIER 7
F.A. RT. 49 SEC. 15B-1-6
PEORIA TAZEWELL COUNTIES

DESIGNED *Shirley E. Mizgach*
EXAMINED *Dr. J. J. Kaspar*
CHECKED *R.T. 200*
DRAWN *R. Doty*
APPROVED *Ralph E. Anderson*
DIRECTOR OF HIGHWAYS

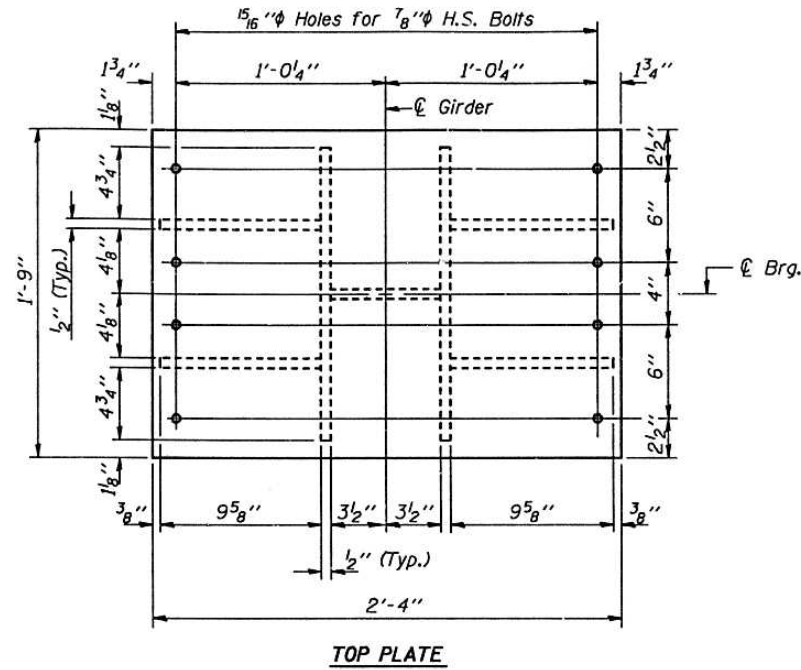
March 27 1990

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

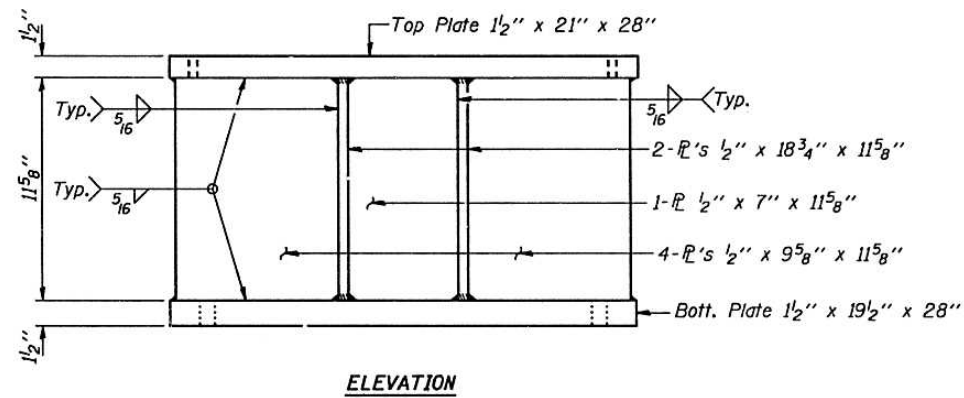
ROUTE NO.	SECTION	COUNTY	SHEET	SHEET NO.
F.A. 49	15B-1-6	PEORIA TAZEWELL	18 17	11
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		12 SHEETS



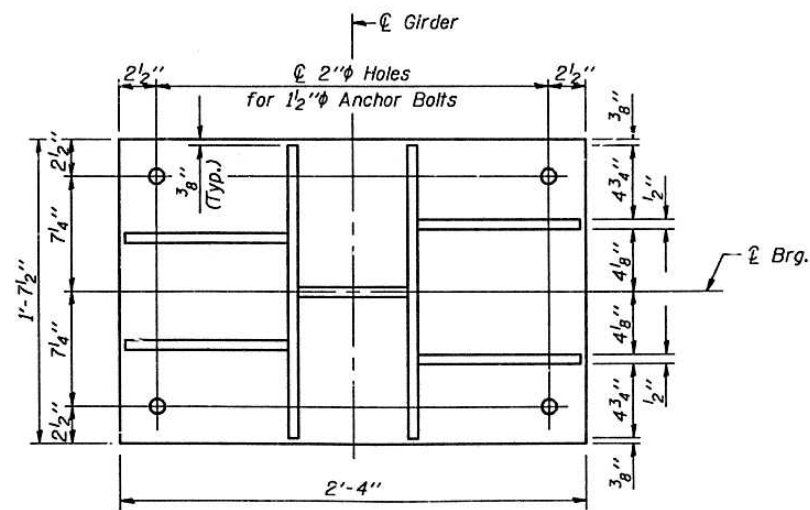
SIDE RETAINER



TOP PLATE



ELEVATION



BOTTOM PLATE
BOLSTER DETAILS

DESIGNED	Shelby E. Morgan
CHECKED	R. Boro
DRAWN	R. Doty
CHECKED	SDM RJB

EXAMINED	Dr. J. D. Kasper	March 27 1970
PASSED	Ralph E. Anderson	
APPROVED		

ENGINEER OF BRIDGE DESIGN
ENGINEER OF BRIDGES AND STRUCTURES
DIRECTOR OF HIGHWAYS

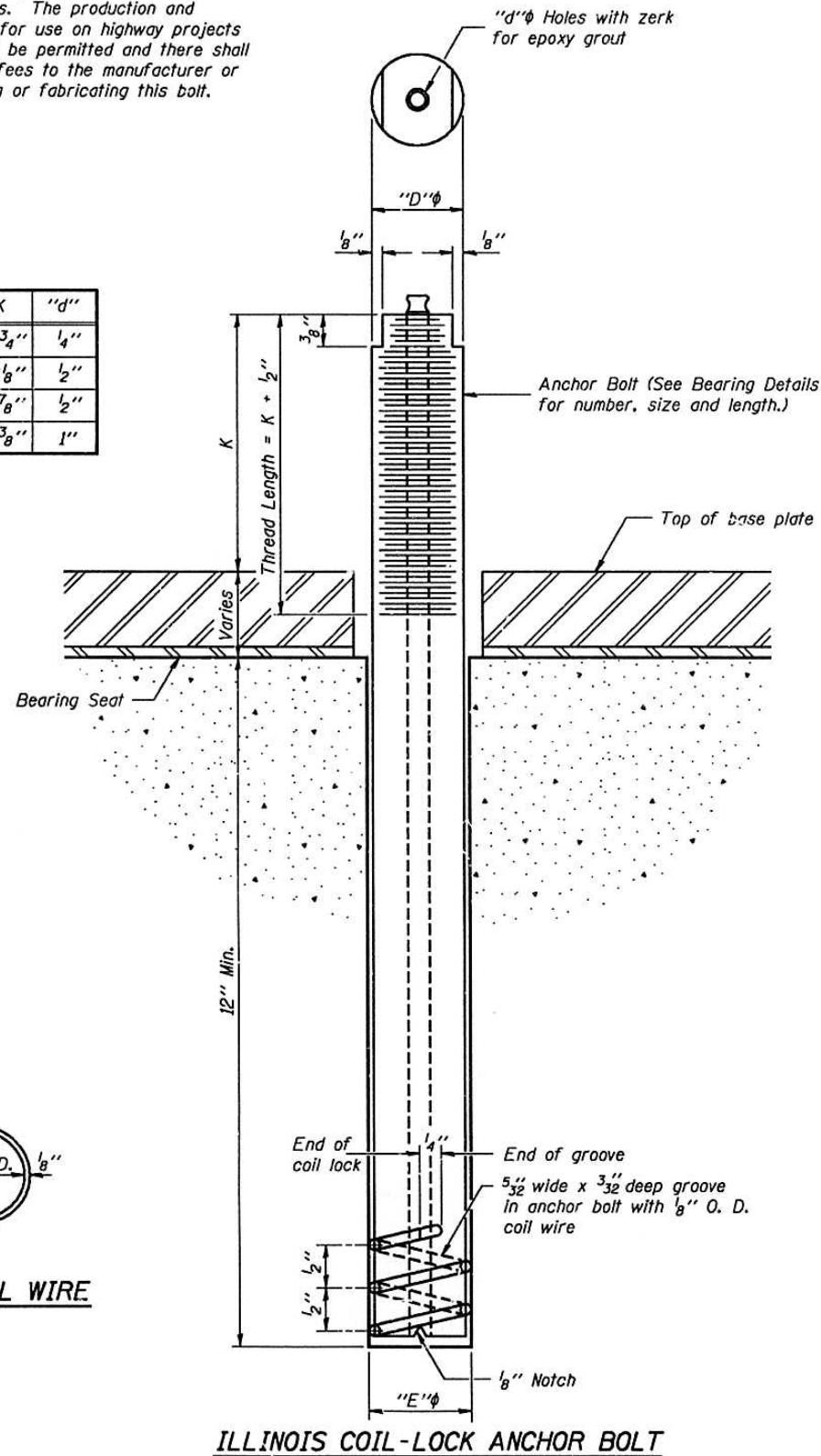
BEARING DETAILS
RAMP SPAN 9 - GIRDER 2
PIER 7
F.A. RT. 49 SEC. 15B-1-6
PEORIA TAZEWELL COUNTIES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	POST MILES	SHEET	SHEET NO. 12
F.A. 49	15B-1-6	PEORIA TAZEWELL	18	18	12 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

The Illinois Coil-Lock Anchor Bolt is a proprietary item which is the property of the Illinois Department of Transportation. Use, reproduction or disclosure without express written permission is prohibited and protected under Federal copyright laws. The production and the fabrication of this bolt for use on highway projects in the State of Illinois shall be permitted and there shall be no incurred charges or fees to the manufacturer or the fabricator for producing or fabricating this bolt.

D	E	H	K	"d"
1"	1 1/8"	1 3/16"	1 3/4"	1/4"
1 1/2"	1 5/8"	1 5/16"	2 1/8"	1/2"
2"	2 1/8"	1 13/16"	2 7/8"	1/2"
2 1/2"	2 5/8"	2 5/16"	3 3/8"	1"



MATERIALS FOR ILLINOIS COIL-LOCK ANCHOR BOLT

The anchor bolt shall be fabricated from cold drawn or hot finished seamless carbon steel mechanical tubing conforming to ASTM A519, Grade 1026 and supplied with hexagonal nuts and cut washers.

The coil wire shall be made of any suitable soft steel wire.

The finished anchor bolt shall be cleaned of rust and other foreign materials and wrapped or packaged to prevent contamination until they are installed. The epoxy grout shall be a two-component, epoxy resin bonding system conforming to ASTM C881, Type I, Grade 1 and of a Class suitable for the temperature at installation.

INSTALLATION PROCEDURE for the ILLINOIS COIL-LOCK ANCHOR BOLT

1. With the coil wire in place, the bolt shall be inserted into the hole and turned clockwise to a snug fit in the hole. Nut and washer shall be placed on the bolt. The nut shall be tensioned until the steel base plates are held securely to the concrete bearing seat.
2. Epoxy grout shall be pumped through the zerk fitting with a pressure gun. Pumping shall continue until the epoxy overflows the hole around the bolt shank. After pumping is discontinued, excess epoxy shall be immediately wiped off.

ALTERNATE ANCHOR BOLTS

The Contractor may use, at his option, the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes in accordance with the manufacturer's recommendations and procedures.

The capsule or the adhesive cartridge type anchor rods shall be a two part system composed of:

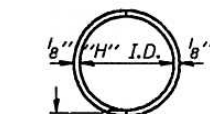
1. A threaded rod stud with nut and washer conforming to ASTM A307.
2. A sealed glass capsule or a sealed glass adhesive cartridge containing premeasured amounts of the adhesive chemical.

GENERAL NOTES

Holes in the masonry for anchor bolts shall be drilled through the base plates to the diameter and depth shown or in accordance with the manufacturer's recommendation after beams or girders have been erected and adjusted.

Prior to setting the bolts, the holes shall be dry and all dust and loose particles shall be removed by the use of compressed air or vacuuming.

The anchor bolts, furnished and installed and including the epoxy grout or capsules shall not be paid for separately but shall be included in the unit bid price for "Furnishing and Erecting Structural Steel".



1/16" at Bottom of coil
PLAN-COIL WIRE

ILLINOIS COIL-LOCK ANCHOR BOLT

DESIGNED	Sheila E. Mayhew
CHECKED	RT Boco
DRAWN	R. Doty
CHECKED	SEM RTB

March 27 1990
 EXAMINED *Draj D. Kaspar*
 ENGINEER OF BRIDGE DESIGN
 PASSED *Ralph E. Anderson*
 ENGINEER OF BRIDGES AND STRUCTURES
 APPROVED _____
 DIRECTOR OF HIGHWAYS