

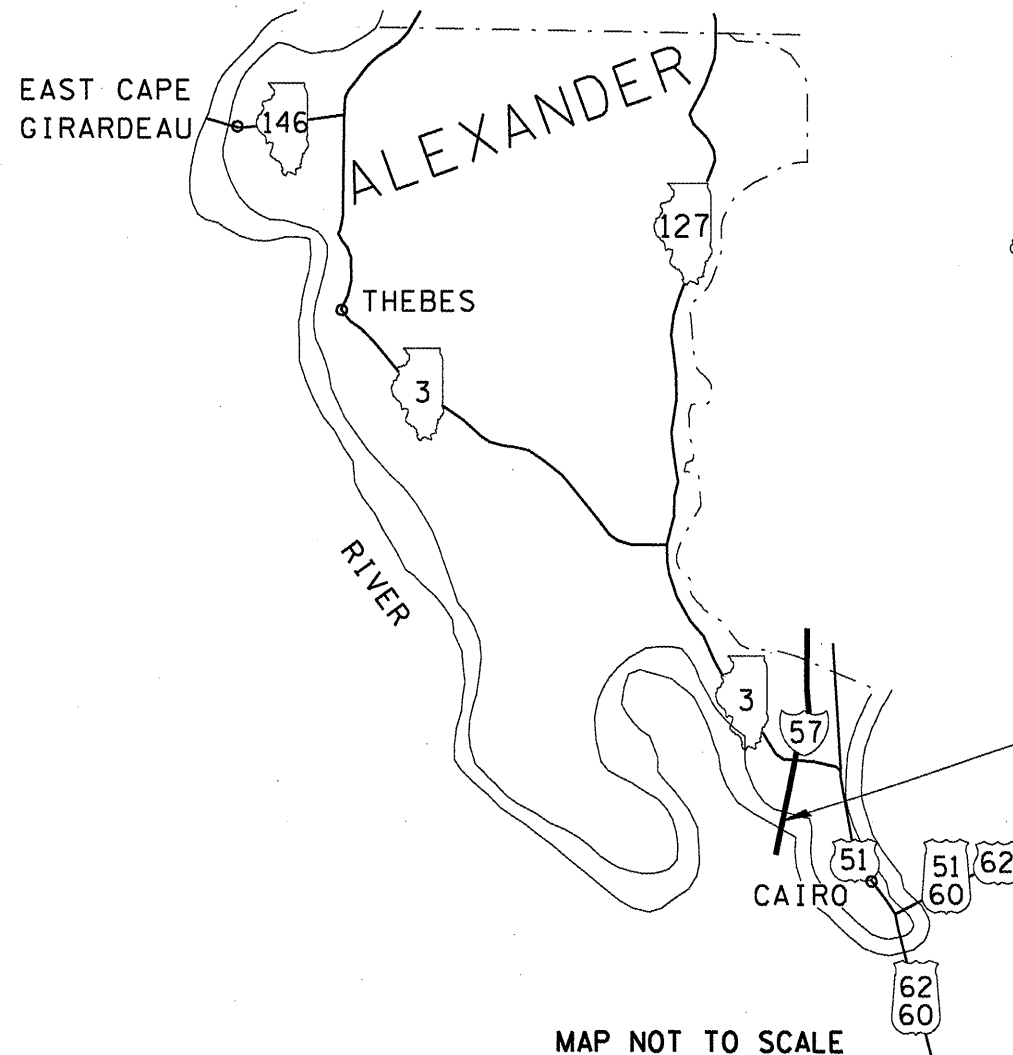
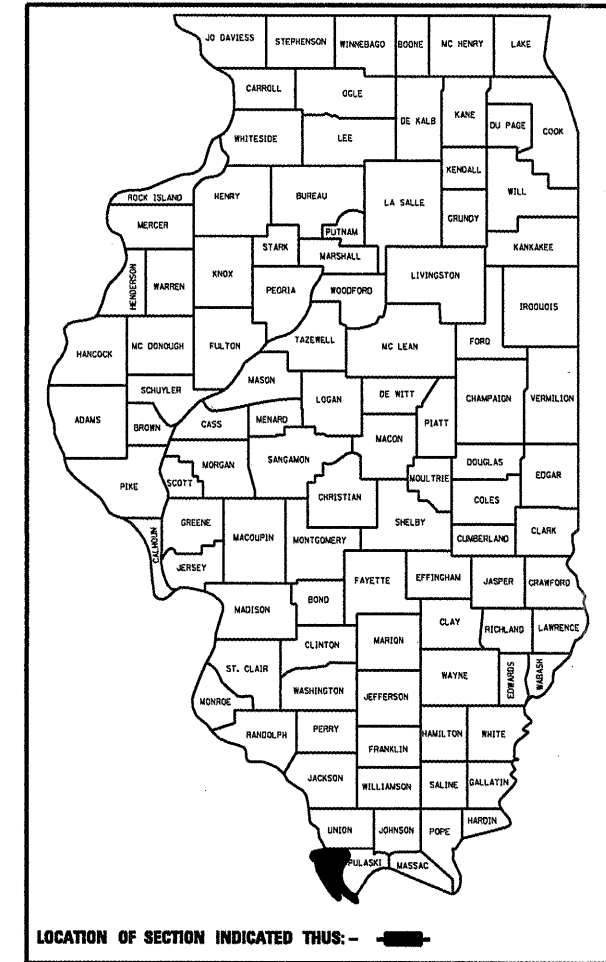
FOR INDEX OF SHEETS, SEE SHEET NO. 2.  
FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 4.

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
**PROPOSED  
HIGHWAY PLANS**

F.A.I. ROUTE 57 (INTERSTATE 57)  
SECTION (02-1B-1) P-1  
ALEXANDER COUNTY, ILLINOIS  
MISSISSIPPI COUNTY, MISSOURI  
C-99-020-08

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 57	•	ALEXANDER, IL MISSISSIPPI, MO	67	1

•(02-1B-1) P-1  
CONTRACT NO. 78040



CAIRO TOWNSHIP  
ADT = 10,500, 46% TRUCKS  
POSTED SPEED = 55 M.P.H.  
INVENTORY RATING HS 22.0  
OPERATING RATING HS 35.1

IMPROVEMENT LOCATION  
STRUCTURE 002-0022  
PAINT STRUCTURAL STEEL  
AT SPECIFIED LOCATIONS

J.U.L.I.E.  
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION  
1-800-892-0123 or www.julielcall.com

**CONTRACT NO. 78040**

MAP NOT TO SCALE

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED \_\_\_\_\_ 20\_\_\_\_

*May C. Ramis*  
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER  
March 21, 20 08

*Eric E. Harnick*  
ENGINEER OF DESIGN AND ENVIRONMENT  
March 21, 20 08

*Christine M. Reed*  
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

**PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS**

PROJECT ENGINEER: CASEY TECKENBROCK PHONE: (618) 549-2171  
SQUAD LEADER: RITA GAUTNEY CENTREX: 782-4554

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 57	.	ALEXANDER, IL MISSISSIPPI, MO	67	2
FED. ROAD DIST. NO. 7	ILLINOIS			

•(02-1B-1)P-1  
CONTRACT NO. 78040

<u>SHEET NO.</u>	<u>DESCRIPTION</u>
1	COVER SHEET
2	INDEX OF SHEETS, STANDARDS, SIGNATURES
3	GENERAL NOTES
4	SUMMARY OF QUANTITIES
5	GENERAL ELEVATION & PLAN SHOWING DECK JOINT LOCATIONS
6	TYPICAL SECTIONS FOR INFORMATION ONLY
7-16	TRUSS DETAILS FOR INFORMATION ONLY
17-18	BEARINGS FOR INFORMATION ONLY
19-25	FRAMING PLANS FOR INFORMATION ONLY
26	SPLICES & STIFFENERS DETAILS FOR INFORMATION ONLY
27-29	CROSS FRAMES & LINKS FOR INFORMATION ONLY
30	TRUSS LAYOUT FOR INFORMATION ONLY
31-32	FLOOR STEEL SPANS 13 & 14 FOR INFORMATION ONLY
33	LIGHT, LADDER, PIER RAILING FOR INFORMATION ONLY
34-35	NAVIGATION LIGHTS FOR INFORMATION ONLY
36	BOTTOM LATERAL BRACING FOR INFORMATION ONLY
37	LINKS SPANS 8A & 9A FOR INFORMATION ONLY
38	EXPANSION GUARD PIERS 11 & 14 FOR INFORMATION ONLY
39	DRAINAGE DETAIL FOR INFORMATION ONLY
40-44	1994 STEEL REPAIR FOR INFORMATION ONLY
45-447	1996 EXPANSION JOINT REPAIR FOR INFORMATION ONLY
448	1996 DRAIN DETAILS FOR INFORMATION ONLY
49	1996 EXPANSION JOINTS FOR INFORMATION ONLY
50-51	1999 NAVIGATION LIGHT REPAIRS FOR INFORMATION ONLY
52-55	1999 PIN & LINK REPAIRS FOR INFORMATION ONLY
56-67	2002 EXPANSION JOINT, DRAIN, STEEL REPAIRS FOR INFORMATION ONLY

STANDARDS

701400-02 APPROACH TO LANE CLOSURE - FREEWAY/EXPRESSWAY  
701401-04 LANE CLOSURE, FREEWAY/EXPRESSWAY  
701901 TRAFFIC CONTROL DEVICES

COMMITMENTS

STATE OF MISSOURI: A CURRENT MISSOURI HIGHWAY PROJECT ENCROACHES ON THE REQUIRED TRAFFIC CONTROL LIMITS OF THIS PROJECT. JUNE 30, 2008 IS THE SCHEDULED COMPLETION DATE FOR THE MISSOURI PROJECT. NO WORK WILL BE PERMITTED PRIOR TO JUNE 30, 2008 UNLESS AN EARLIER START DATE IS APPROVED BY MISSOURI DEPARTMENT OF TRANSPORTATION.

Approved:	<u>May C Lami</u> REGION 5 ENGINEER
	<u>Jan 22 20 08</u> DATE
Prepared By:	<u>Kevin Grammel</u> DISTRICT OPERATIONS ENGINEER
Examined By:	<u>Danny Weston</u> ASSISTANT REGIONAL ENGINEER
Examined By:	<u>James Travis Emery</u> DISTRICT LAND ACQUISITION ENGINEER
Examined By:	<u>Carrie Nelson</u> DISTRICT PROGRAM DEVELOPMENT ENGINEER
Examined By:	<u>Joe Danflewicz</u> DISTRICT STUDIES & PLANS ENGINEER
Examined By:	<u>Joseph Lemir</u> DISTRICT CONSTRUCTION ENGINEER
Examined By:	<u>Samuel ...</u> DISTRICT MATERIALS ENGINEER
Examined By:	<u>Jim ...</u> DISTRICT PROJECT IMPLEMENTATION ENGINEER

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 57	*	ALEXANDER, IL MISSISSIPPI, MO	67	3
FED. ROAD DIST. NO. 7	ILLINOIS			

\*(02-1B-1)P-1  
CONTRACT NO. 78040

The existing steel coating contains lead.

All structural steel which is located at or below the level of the bridge deck and within 5 feet of either side of a deck joint shall be cleaned and painted. Deck joint locations are shown on Sheet 5 of 67.

The color of the final finish coat shall be Interstate Green, Munsell No. 7.5G 4 / 8.

Cleaning and painting shall conform to the requirements of special provision "Cleaning And Painting Existing Steel Structures". Near White Metal Blast Cleaning (SSPC - SP10) and Paint System 1 - OZ / E / U shall be used.

SSPC - QP1 and SSPC - QP2 Painting Contractor Certifications are required.

The Contractor is advised that navigational illumination is present on this structure. All cable or conduit is to remain in service. Any cable or conduit which is damaged as a result of the Contractor's operations shall be replaced by the Contractor at the Contractor's expense. Replacement material and methods shall meet or exceed the original specifications for the wiring. Splicing will not be permitted.

The Contractor shall submit to the Illinois Department of Transportation a work plan that includes a work schedule and containment details for each painting location over water. No work will be permitted prior to approval of the plan by the United States Coast Guard. For questions about the Coast Guard requirements, contact Roger Weibusch at Eighth Coast Guard District, 1222 Spruce Street, St. Louis, Missouri, 63103; telephone (314) 539-3900.

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

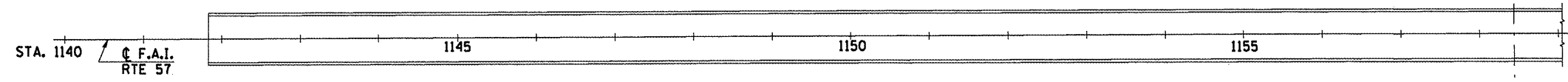
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 57	.	ALEXANDER, IL MISSISSIPPI, MO	67	4
FED. ROAD DIST. NO. 7		ILLINOIS		

\*(02-1B-1) P-1  
CONTRACT NO. 78040

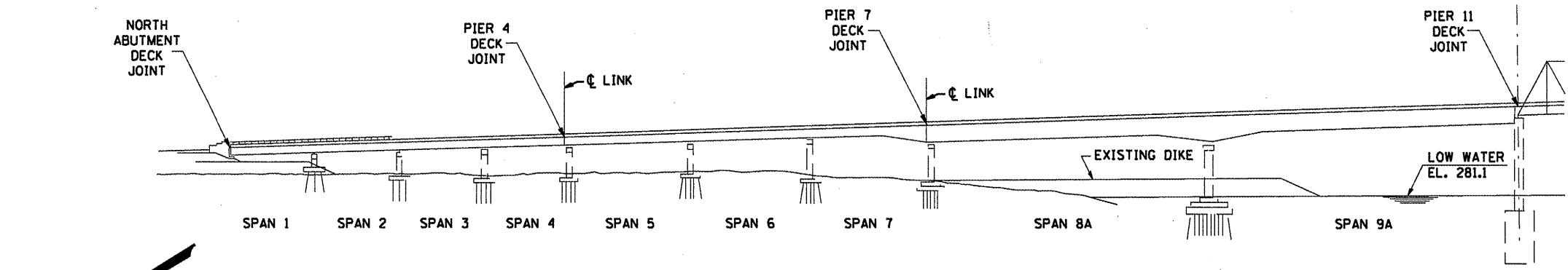
## SUMMARY OF QUANTITIES

CODE NUMBER	ITEM DESCRIPTION	RURAL	
		UNIT	QUANTITY
	50% ILLINOIS                      50% MISSOURI		
	CONSTRUCTION TYPE CODE SFTY-2A		
50600600	CLEANING AND PAINTING STEEL BRIDGE NO. 1	L SUM	1
50606401	CONTAINMENT <sup>AND</sup> DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 1	L SUM	1
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	10
67100100	MOBILIZATION	L SUM	1
70100205	TRAFFIC CONTROL AND PROTECTION, STANDARD 701401	EACH	1
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	1

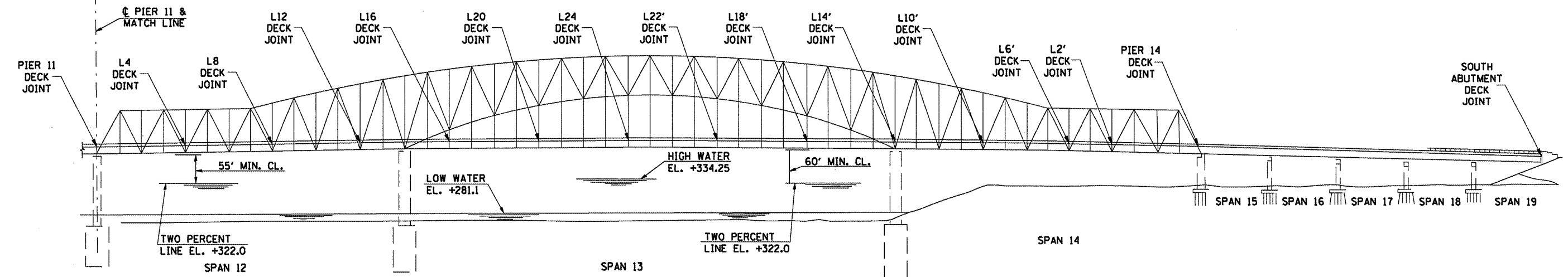
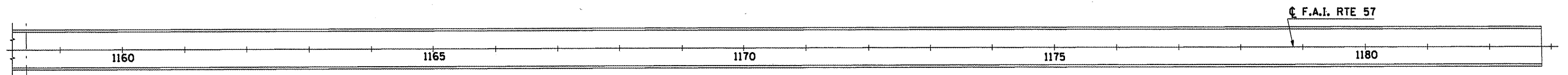
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57		ALEXANDER, IL MISSISSIPPI, MO	67	5
FED. ROAD DIST. NO. 7 ILLINOIS				
*(02-1B-1) P-1				
CONTRACT NO. 78040				



PLAN



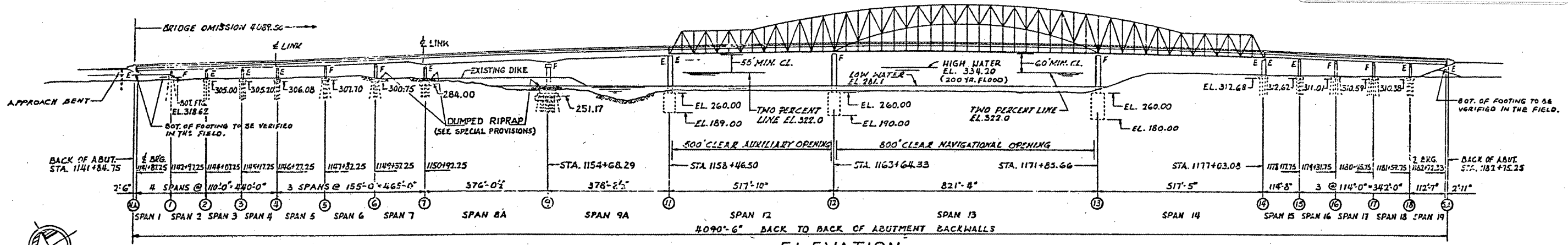
ELEVATION



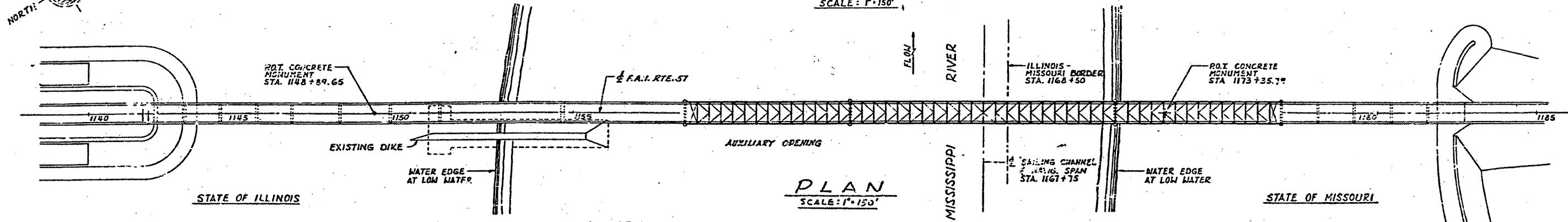
ELEVATION

**BENCH MARKS**  
 CONCRETE MONUMENT WITH BRASS CAP TOP OF BANK MISSISSIPPI RIVER STA. 1148+89.65 ± MEDIAN EL. 317.12  
 CONCRETE MONUMENT WITH BRASS CAP TOP OF BANK MISSISSIPPI RIVER STA. 1173+35.79 ± MEDIAN EL. 319.31

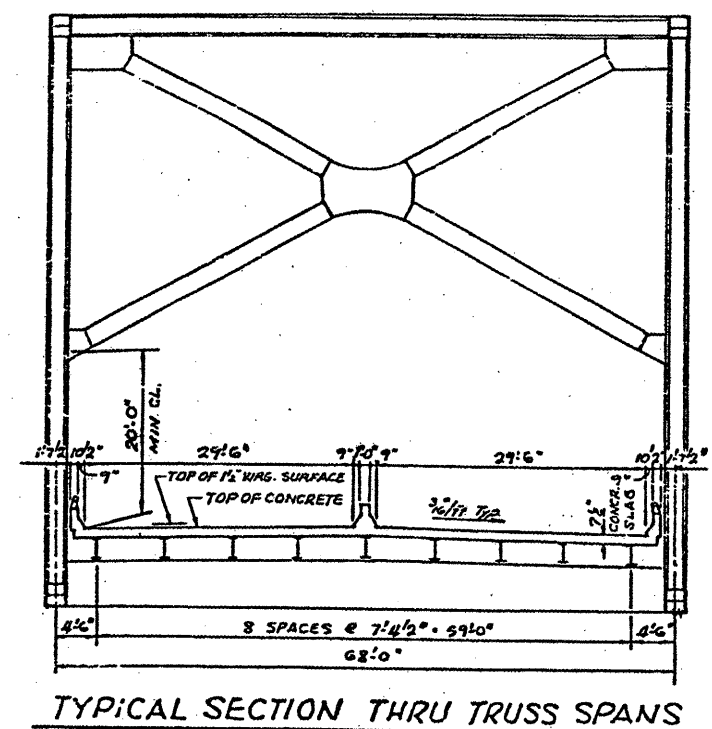
CONTRACT: 78040  
 ROUTE: F.A.I. 57  
 SECTION: (02-1B-1)P-1  
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
 SHEET 6 OF 67  
 FOR INFORMATION ONLY



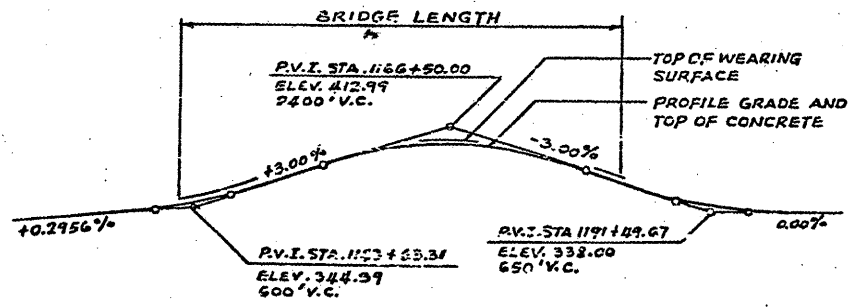
**ELEVATION**  
 SCALE: 1"=150'



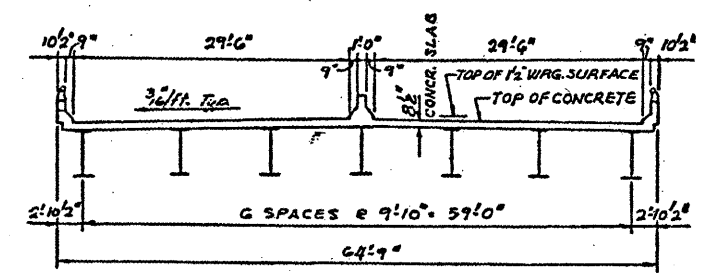
**PLAN**  
 SCALE: 1"=150'



**TYPICAL SECTION THRU TRUSS SPANS**



**PROFILE GRADE - F.A.I. RTE. 57**  
 (4'-0" LT. AND RT. OF 1/2 MEDIAN)



**TYPICAL SECTION THRU GIRDER SPANS**

**INDEX OF SHEETS**

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	GENERAL PLAN AND ELEVATION
3	FRAMING PLAN - SPANS 1, 2, 3 & 4
4	FRAMING PLAN - SPANS 5, 6 & 7
5	FRAMING PLAN - SPANS 8, 9 & 10
6	FRAMING PLAN - SPANS 11, 12 & 13
7	FRAMING PLAN - SPANS 14, 15 & 16
8	FRAMING PLAN - SPANS 17, 18 & 19
9	GIRDER CROSSFRAMES AND LINK DETAILS
10	GIRDER CROSSFRAMES AND BRACING DETAILS
11, 12, 13	STEEL DETAILS - SPANS 8A & 9A
14	FIELD SPICE AND DETAILS - SPANS 1 TO 9A & 15 TO 19
15	BEARING DETAILS - SP. 215 1 TO 7A & 15 TO 19
16, 17	EXPANSION GUARD - PIERS 11 & 14
18	TRUSS LAYOUT & BLOCKING ORDINATES
19	FRAMING PLAN - SPANS 12, 13 & 14
20	FLOOR STEEL DETAILS - SPANS 12, 13 & 14
21	FLOOR BEAMS - SPANS 12, 13 & 14
22	TRUSS DETAILS - L <sub>1</sub> TO L <sub>3</sub> & U <sub>1</sub> TO U <sub>3</sub>
23	TRUSS DETAILS - L <sub>4</sub> TO L <sub>7</sub> & U <sub>4</sub> TO U <sub>7</sub>
24	TRUSS DETAILS - L <sub>8</sub> TO L <sub>10</sub> & U <sub>8</sub> TO U <sub>10</sub>
25	TRUSS DETAILS - L <sub>11</sub> TO L <sub>13</sub> & U <sub>11</sub> TO U <sub>13</sub>
26	TRUSS DETAILS - L <sub>14</sub> , M <sub>14</sub> , N <sub>14</sub> & U <sub>14</sub> TO U <sub>16</sub>
27	TRUSS DETAILS - M <sub>17</sub> TO M <sub>19</sub> & U <sub>17</sub> TO U <sub>19</sub>
28	TRUSS DETAILS - M <sub>20</sub> TO M <sub>22</sub> & U <sub>20</sub> TO U <sub>22</sub>
29	TRUSS DETAILS - M <sub>23</sub> TO M <sub>25</sub> & U <sub>23</sub> TO U <sub>25</sub>
30	TRUSS DETAILS - L <sub>15</sub> TO L <sub>25</sub>
31	TRUSS DETAILS - MISCELLANEOUS
32	SWAY FRAMES - SPANS 12, 13 & 14
33	PORTALS - SPANS 12, 13 & 14
34	TRUSS BEARINGS AT PIERS 12 & 13
35	TRUSS BEARINGS AT PIERS 11 & 14
36	NAVIGATION & AVIATION OBSTRUCTION LIGHTS
37	PIER LIGHT, LADDER & RAILING DETAILS
38	CENTER OF CHANNEL NAVIGATION LIGHT DETAILS
39	AVIATION OBSTRUCTION LIGHT DETAILS
40	DRAINAGE DETAILS

**HIGHWAY CLASSIFICATION**  
 F.A.I. ROUTE 57, D.H.V. 1920, H.P.H. 70, DESIGNATION: B-1 (1987)

**GENERAL NOTES**  
 STRUCTURAL STEEL SHALL BE FIELD PAINTED BY ACCEPTANCE WITH SEC. 507 OF THE STD. SPECS.  
 THE BASIC EPAD SILICO CHROMATE PAINT SYSTEM SHALL BE USED  
 (Quantity of paint of structural steel to be painted = 22,283,460 #)

**SUMMARY OF QUANTITIES**  
 SECTION (02-1B-1)P

QUANTITY	UNIT	ITEM	CODE NO.
1	L. SUM	PAINTING STRUCTURAL STEEL	X50904

BRIDGE NO. 1  
 STRUCTURE NO. 002-0022  
 FOR INFORMATION ONLY

ALFRED BENESCH & COMPANY  
 CONSULTING ENGINEERS  
 10 S. WABASH AVE. CHICAGO, ILLINOIS

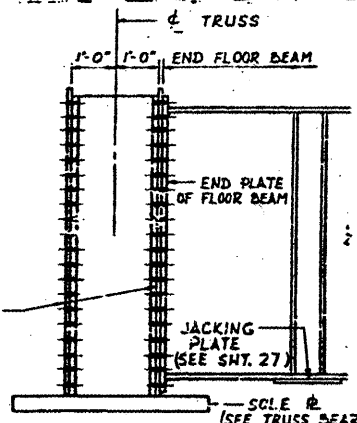
**GENERAL PLAN AND SECTION**  
 F.A.I. RTE. 57 OVER THE MISSISSIPPI RIVER  
 PROJECT 1-57-9 (610)  
 SECTION (02-1B-1)P  
 ALEXANDER COUNTY, ILLINOIS  
 MISSISSIPPI COUNTY, MISSOURI  
 STA. 1141 + 84.75 TO STA. 1182 + 75.25

**GENERAL NOTES ON TRUSS DETAILS**

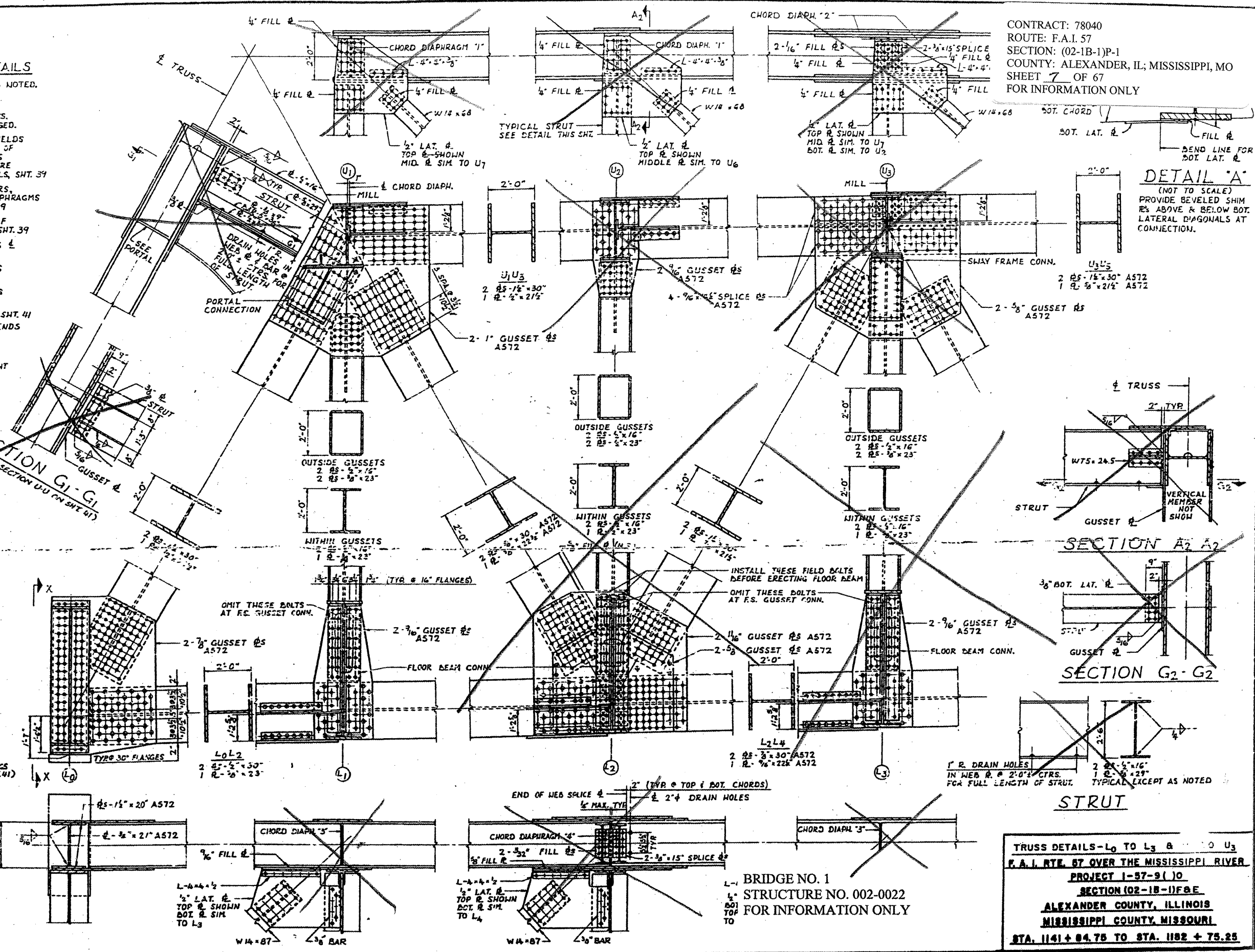
ALL MATERIAL SHALL BE ASTM A36 UNLESS NOTED.  
 ALL SHOP FASTENERS (DENOTED THUS:  $\rightarrow$ ) AND FIELD FASTENERS (DENOTED THUS:  $\rightarrow$ ) SHALL BE 1" ASTM A325 HIGH STRENGTH BOLTS. SHOP & FIELD CONNECTIONS MAY BE INTERCHANGED.  
 FOR DETAILS OF WEB TO FLANGE FILLET WELDS IN TRUSS MEMBERS AND DETAILS AT CHANGE OF SECTION IN TRUSS MEMBERS (WHERE SECTIONS "WITHIN GUSSETS" AND "OUTSIDE GUSSETS" ARE DIFFERENT) SEE MISCELLANEOUS TRUSS DETAILS, SHT. 39  
 FOR DETAILS OF GUSSET PLATE STIFFENERS, GUSSET PLATE DIAPHRAGMS, AND CHORD DIAPHRAGMS SEE MISCELLANEOUS TRUSS DETAILS, SHT. 39  
 FOR TOP LATERAL CONNECTIONS ALONG  $\perp$  OF BRIDGE SEE MISCELLANEOUS TRUSS DETAILS, SHT. 39  
 FOR BOTTOM LATERAL CONNECTIONS ALONG  $\perp$  OF BRIDGE SEE FLOOR BEAMS, SHT. 29  
 FOR DETAILS OF FLOOR BEAM CONNECTIONS SEE SHT. 29  
 FOR DETAILS OF SWAY FRAME CONNECTIONS SEE SHT. 40  
 FOR DETAILS OF PORTAL CONNECTIONS SEE SHT. 41  
 FOR DETAILS OF WEB PLATE CUT-OFF AT ENDS OF DIAGONAL TRUSS MEMBERS, SEE SHT. 37  
 ALL NOMINALLY VERTICAL TRUSS MEMBERS AND THE NOMINALLY VERTICAL  $\perp$  OF ALL FLOOR BEAMS AND  $\perp$  BE PERPENDICULAR TO A STRAIGHT LINE THROUGH PANEL POINTS  $L_0$  AND  $L_0'$ .  
 THE WIDTH OF TRUSS MEMBERS, OUT-TO-OUT OF FLANGES, SHALL BE AS FOLLOWS:  
 CHORDS: 2'-0" (+ $\frac{1}{4}$ , -0)  
 DIAGONALS: 2'-0" (+0, - $\frac{1}{4}$ )  
 VERTICALS: 2'-0" (+0, - $\frac{1}{4}$ )

CONTRACT: 78040  
 ROUTE: F.A.I. 57  
 SECTION: (02-1B-1)P-1  
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
 SHEET 7 OF 67  
 FOR INFORMATION ONLY

**SECTION G<sub>1</sub>-G<sub>1</sub>**  
 ALSO SEE SECTION U-U ON SHT. 41



**SECTION X-X**



**DETAIL 'A'**  
 (NOT TO SCALE)  
 PROVIDE BEVELED SHIM  $\perp$  ABOVE & BELOW BOT. LATERAL DIAGONALS AT CONNECTION.

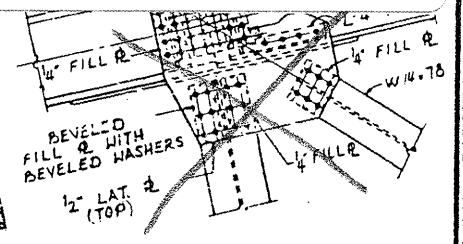
**SECTION A<sub>2</sub>-A<sub>2</sub>**  
**SECTION G<sub>2</sub>-G<sub>2</sub>**

**STRUT**  
 TYPICAL EXCEPT AS NOTED

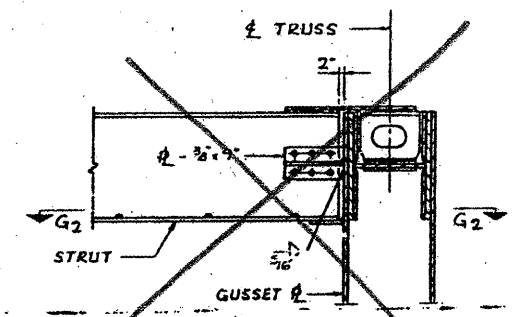
BRIDGE NO. 1  
 STRUCTURE NO. 002-0022  
 FOR INFORMATION ONLY

TRUSS DETAILS -  $L_0$  TO  $L_3$  &  $U_3$   
 F.A.I. RTE. 57 OVER THE MISSISSIPPI RIVER  
 PROJECT 1-97-9(1)O  
 SECTION (02-1B-1)F&E  
 ALEXANDER COUNTY, ILLINOIS  
 MISSISSIPPI COUNTY, MISSOURI  
 STA. 1141 + 84.75 TO STA. 1182 + 75.25

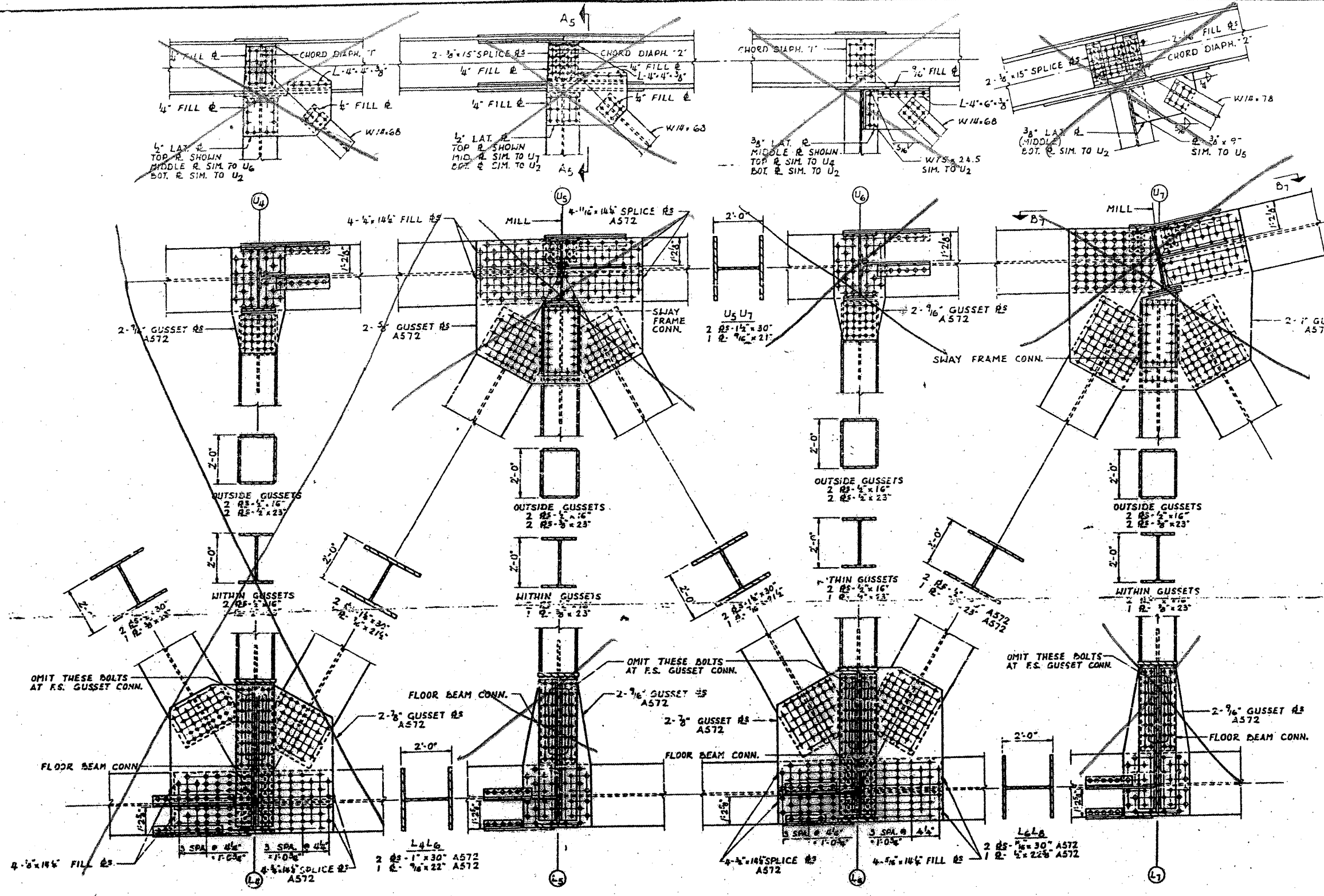
CONTRACT: 78040  
 ROUTE: F.A.I. 57  
 SECTION: (02-1B-1)P-1  
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
 SHEET 8 OF 67  
 FOR INFORMATION ONLY



SECTION B<sub>1</sub>-B<sub>1</sub>



SECTION A<sub>5</sub>-A<sub>5</sub>  
 SWAY FRAME CONNECTION & VERTICAL AND DIAGONAL TRUSS MEMBERS NOT SHOWN



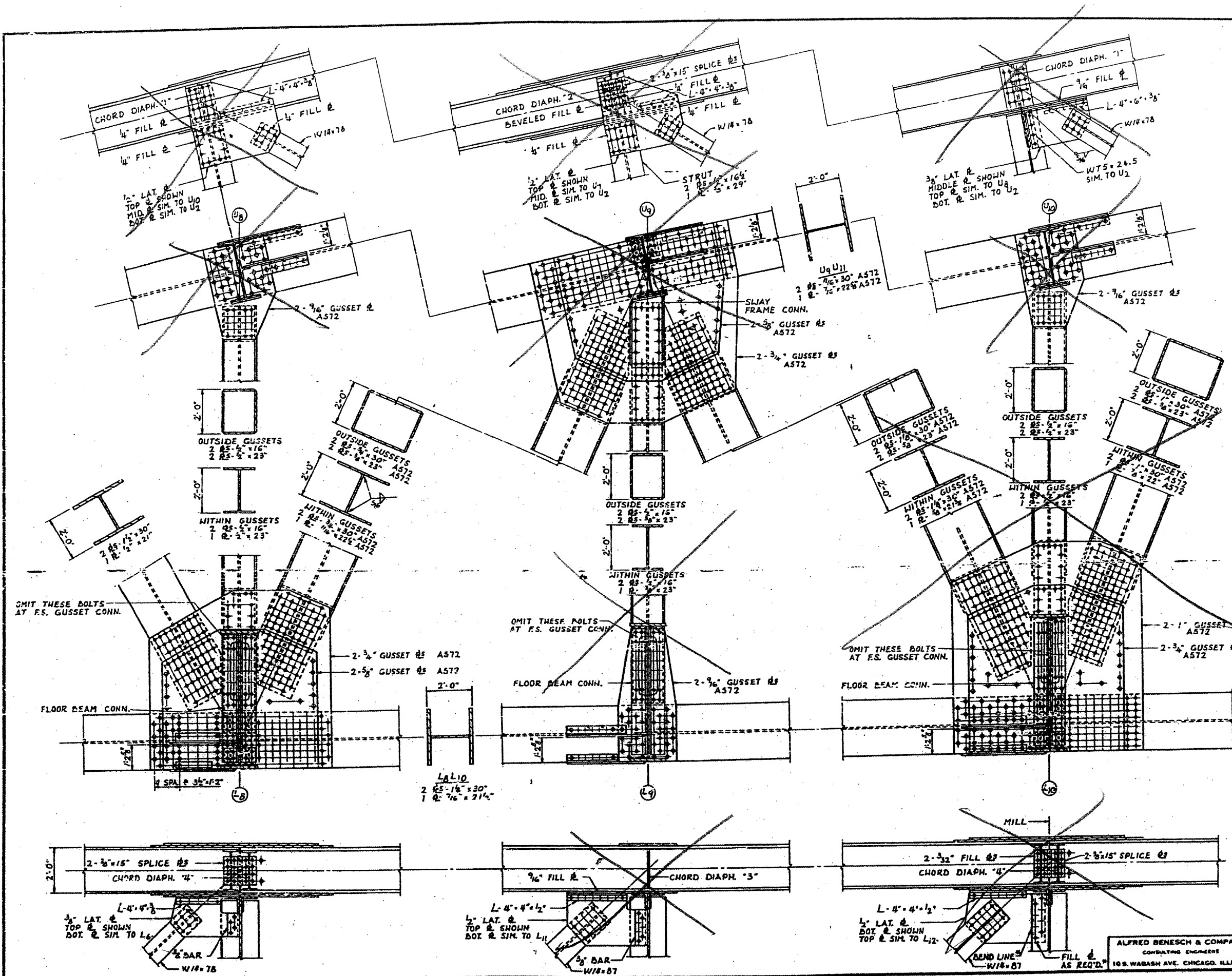
BRIDGE NO. 1  
 STRUCTURE NO. 002-0022  
 FOR INFORMATION ONLY

TRUSS DETAILS - L<sub>4</sub> TO L<sub>7</sub> & L<sub>4</sub> TO U<sub>7</sub>  
 F.A.I. RTE. 57 OVER THE MISSISSIPPI RIVER  
 PROJECT 1-57-91 (10)  
 SECTION (02-1B-0)F&E  
 ALEXANDER COUNTY, ILLINOIS  
 MISSISSIPPI COUNTY, MISSOURI  
 STA. 1141 + 84.75 TO STA. 1182 + 75.25

ALFRED BENESCH & COMPANY  
 CONSULTING ENGINEERS  
 105 WABASH AVE. CHICAGO, ILLINOIS



CONTRACT: 78040  
 ROUTE: F.A.I. 57  
 SECTION: (02-1B-1)P-1  
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
 SHEET 9 OF 67  
 FOR INFORMATION ONLY

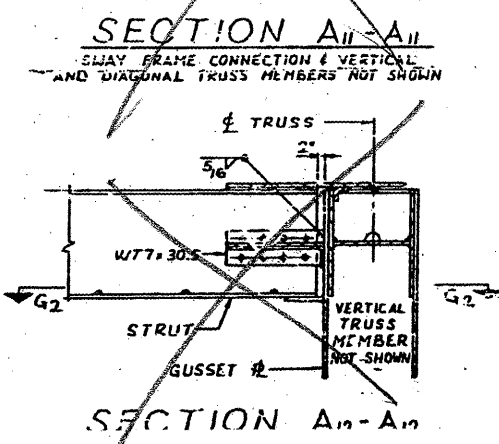
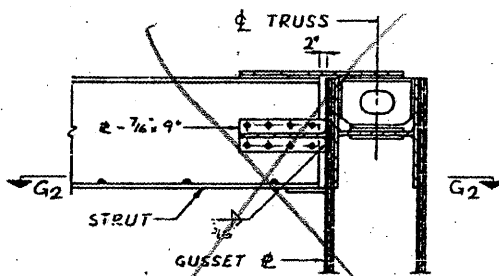
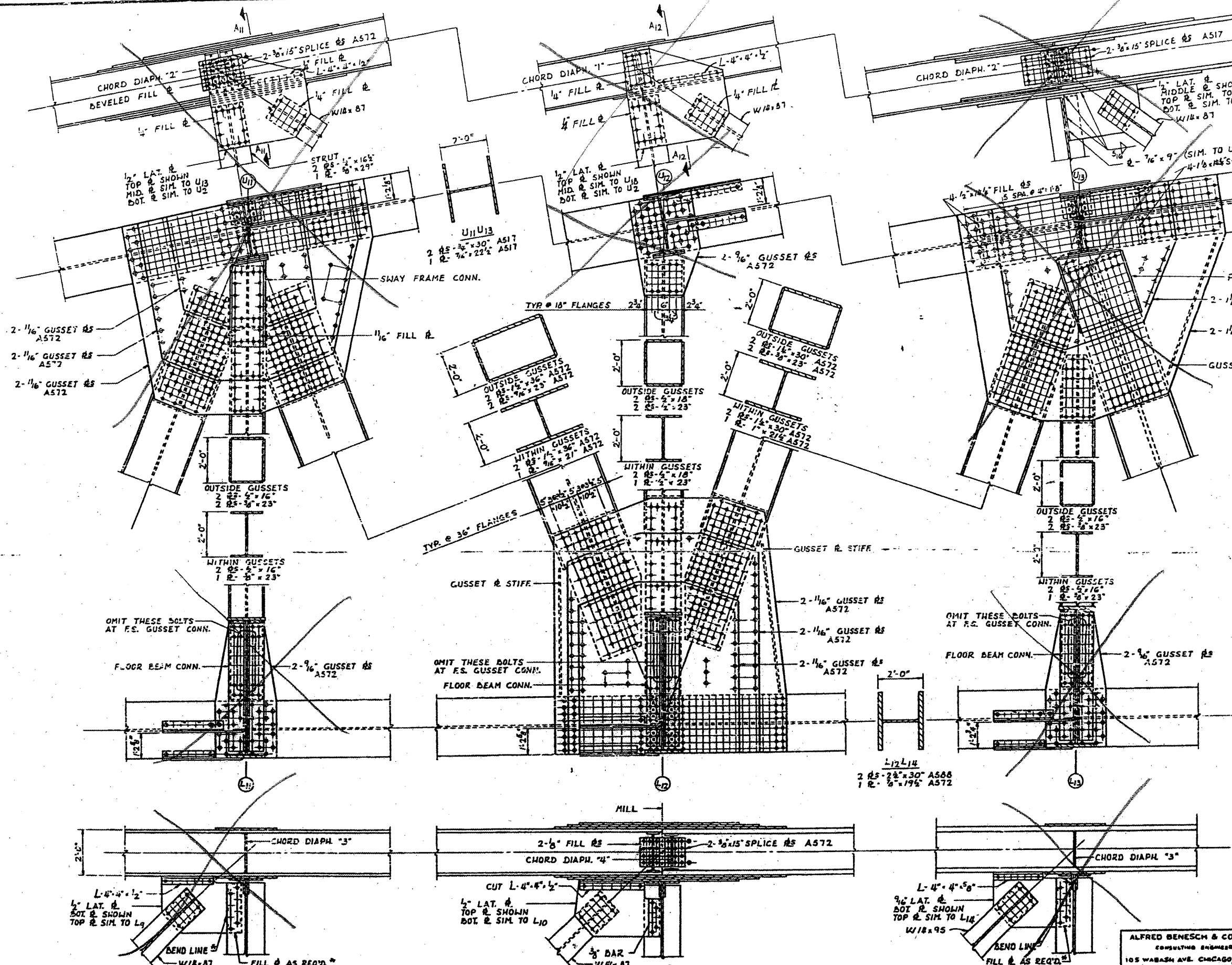


BRIDGE NO. 1  
 STRUCTURE NO. 002-0022  
 FOR INFORMATION ONLY

TRUSS DETAILS - L<sub>8</sub> TO L<sub>10</sub> & TO U<sub>10</sub>  
 F.A.I. RTE. 57 OVER THE MISSISSIPPI RIVER  
 PROJECT 1-57-9(10)  
 SECTION (02-1B-1)F&E  
 ALEXANDER COUNTY, ILLINOIS  
 MISSISSIPPI COUNTY, MISSOURI  
 STA. 1141 + 84.76 TO STA. 1182 + 75.25

ALFRED BENESCH & COMPANY  
 CONSULTING ENGINEERS  
 10 S. WABASH AVE. CHICAGO, ILLINOIS

CONTRACT: 78040  
 ROUTE: F.A.I. 57  
 SECTION: (02-1B-1)P-1  
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
 SHEET 10 OF 67  
 FOR INFORMATION ONLY

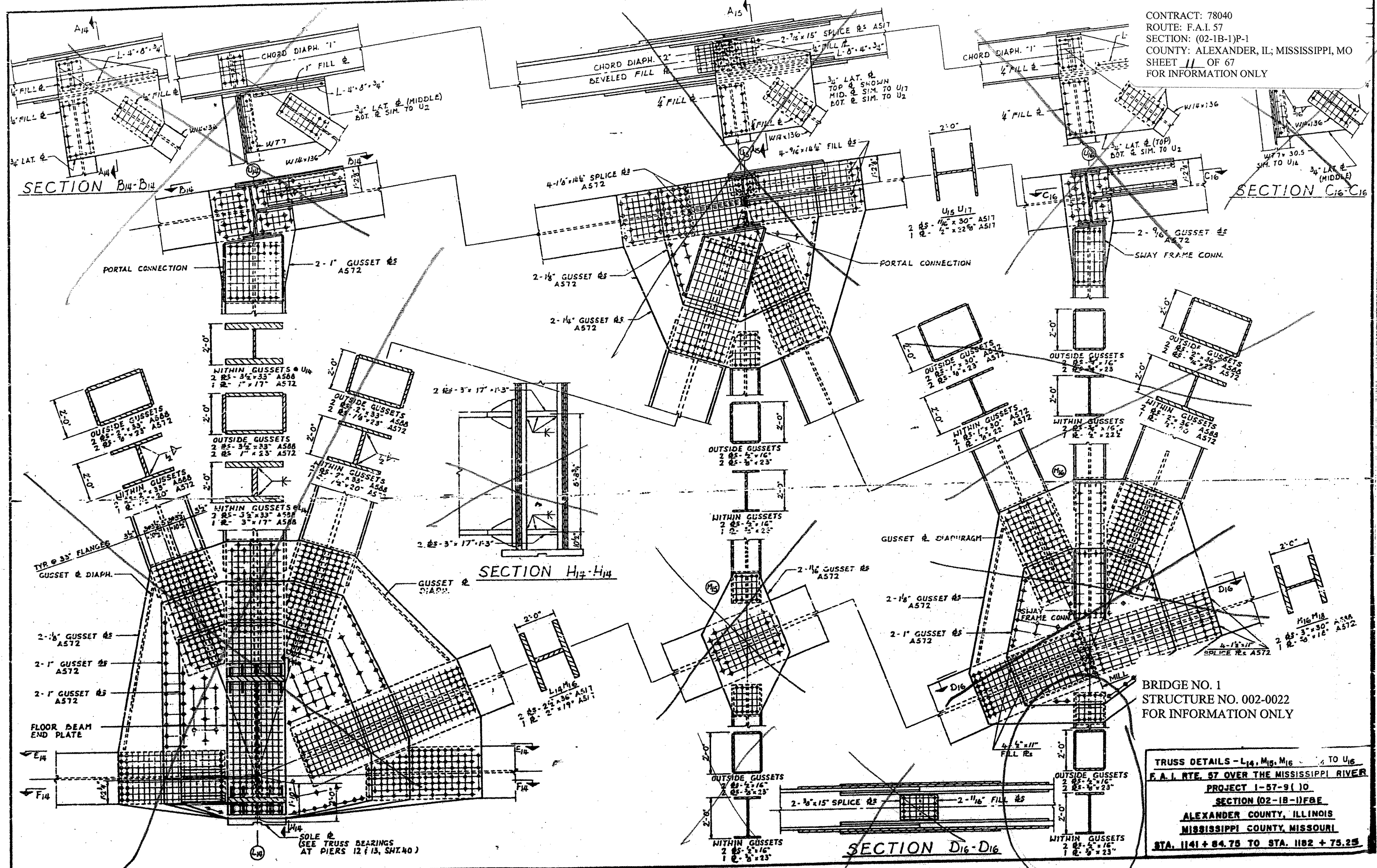


BRIDGE NO. 1  
 STRUCTURE NO. 002-0022  
 FOR INFORMATION ONLY

TRUSS DETAILS - L<sub>11</sub> TO L<sub>13</sub> & U<sub>11</sub>  
 F.A.I. RTE. 57 OVER THE MISSISSIPPI RIVER  
 PROJECT 1-57-9(10)  
 SECTION 02-1B-1(FBE)  
 ALEXANDER COUNTY, ILLINOIS  
 MISSISSIPPI COUNTY, MISSOURI  
 STA. 1141 + 64.75 TO STA. 1182 + 75.25

ALFRED BENESCH & COMPANY  
 CONSULTING ENGINEERS  
 105 WABASH AVE. CHICAGO, ILLINOIS

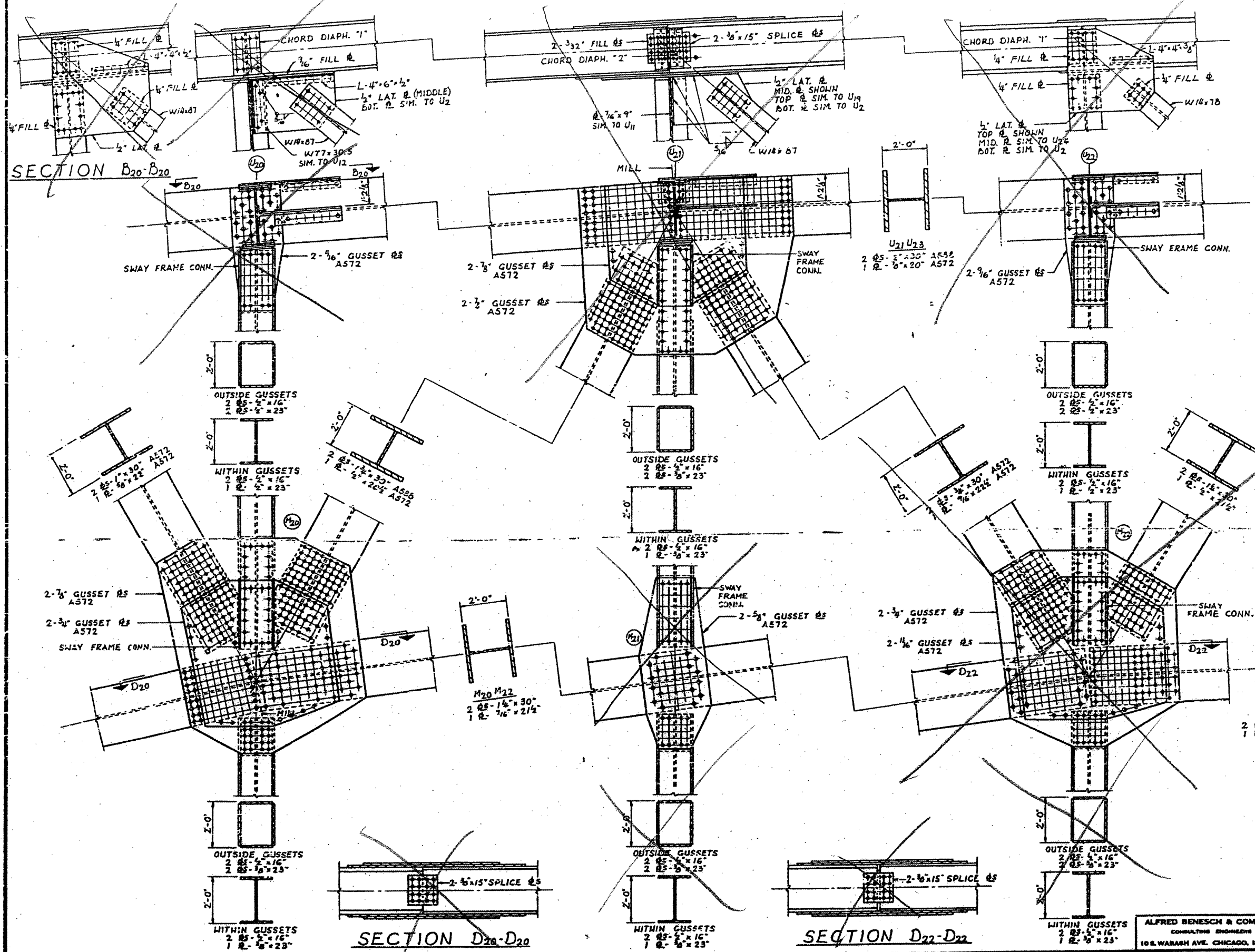
CONTRACT: 78040  
 ROUTE: F.A.I. 57  
 SECTION: (02-1B-1)P-1  
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
 SHEET 11 OF 67  
 FOR INFORMATION ONLY



BRIDGE NO. 1  
 STRUCTURE NO. 002-0022  
 FOR INFORMATION ONLY

TRUSS DETAILS - L14, M15, M16 TO U16  
 F.A.I. RTE. 57 OVER THE MISSISSIPPI RIVER  
 PROJECT 1-57-9(10)  
 SECTION (02-1B-1)P-1  
 ALEXANDER COUNTY, ILLINOIS  
 MISSISSIPPI COUNTY, MISSOURI  
 STA. 1141 + 84.75 TO STA. 1182 + 75.25

CONTRACT: 78040  
 ROUTE: F.A.I. 57  
 SECTION: (02-1B-1)P-1  
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
 SHEET 12 OF 67  
 FOR INFORMATION ONLY

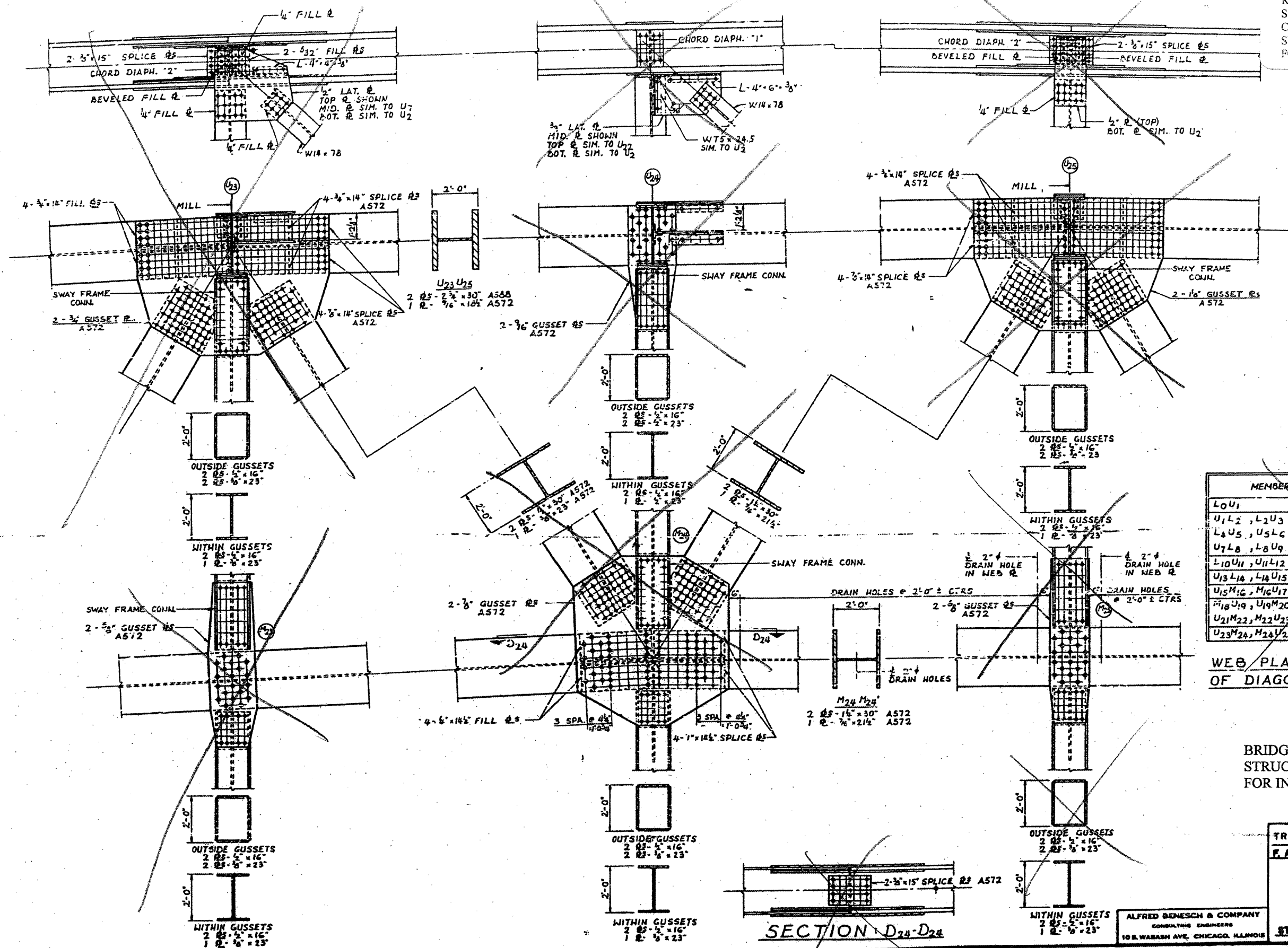


BRIDGE NO. 1  
 STRUCTURE NO. 002-0022  
 FOR INFORMATION ONLY

TRUSS DETAILS - M<sub>20</sub> TO M<sub>22</sub> & U<sub>20</sub> TO U<sub>22</sub>  
 F.A.I. RTE. 57 OVER THE MISSISSIPPI RIVER  
 PROJECT 1-57-9(10)  
 SECTION (02-1B-1)P-1  
 ALEXANDER COUNTY, ILLINOIS  
 MISSISSIPPI COUNTY, MISSOURI  
 STA. 1141 + 64.75 TO STA. 1182 + 75.25

ALFRED BENESCH & COMPANY  
 CONSULTING ENGINEERS  
 105 WARREN AVE. CHICAGO, ILLINOIS

CONTRACT: 78040  
 ROUTE: F.A.I. 57  
 SECTION: (02-1B-1)P-1  
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
 SHEET 13 OF 67  
 FOR INFORMATION ONLY



MEMBER	AT LOWER END	AT UPPER END
L <sub>0</sub> U <sub>1</sub>	1'-3"	0'-0"
U <sub>1</sub> L <sub>2</sub> , L <sub>2</sub> U <sub>3</sub>		
L <sub>4</sub> U <sub>5</sub> , U <sub>5</sub> L <sub>6</sub> , L <sub>6</sub> U <sub>7</sub>	1'-3"	1'-3"
U <sub>7</sub> L <sub>8</sub> , L <sub>8</sub> U <sub>9</sub> , U <sub>9</sub> L <sub>10</sub>		
L <sub>10</sub> U <sub>11</sub> , U <sub>11</sub> L <sub>12</sub> , L <sub>12</sub> U <sub>13</sub>	1'-6"	1'-6"
U <sub>13</sub> L <sub>14</sub> , L <sub>14</sub> U <sub>15</sub> , U <sub>15</sub> L <sub>16</sub>	0'-0"	0'-0"
U <sub>15</sub> M <sub>16</sub> , M <sub>16</sub> U <sub>17</sub> , U <sub>17</sub> M <sub>18</sub>	1'-6"	1'-6"
M <sub>18</sub> U <sub>19</sub> , U <sub>19</sub> M <sub>20</sub> , M <sub>20</sub> U <sub>21</sub>	1'-3"	1'-3"
U <sub>21</sub> M <sub>22</sub> , M <sub>22</sub> U <sub>23</sub>	1'-0"	1'-0"
U <sub>23</sub> M <sub>24</sub> , M <sub>24</sub> U <sub>25</sub>	1'-0"	1'-0"

WEB PLATE CUT-OFF AT ENDS OF DIAGONAL TRUSS MEMBERS

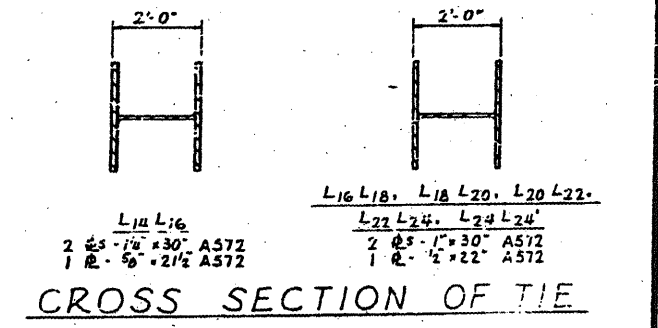
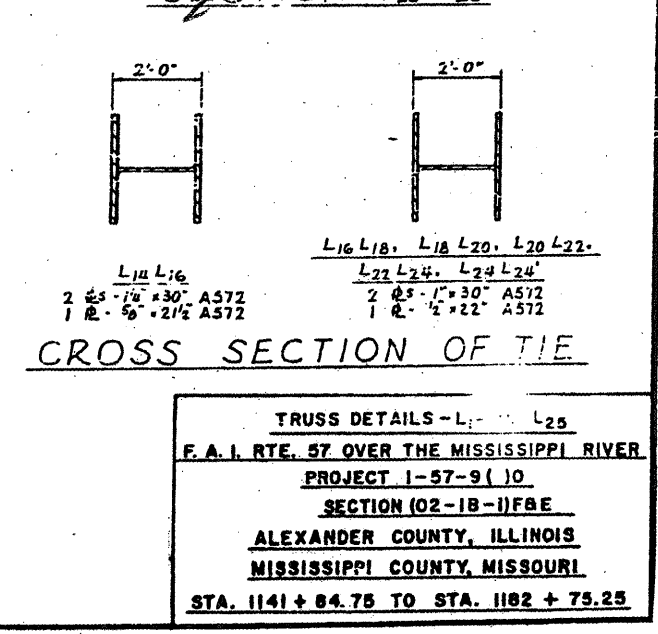
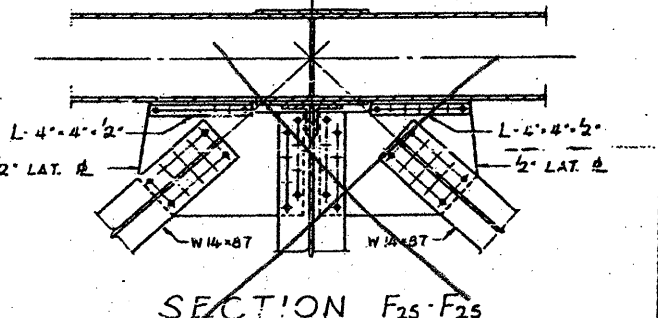
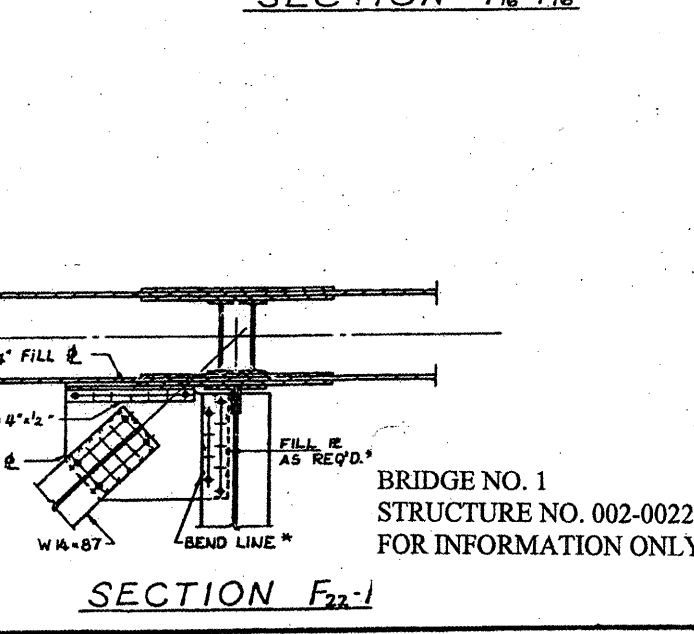
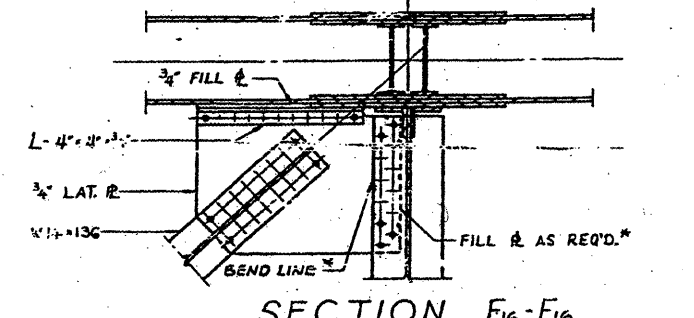
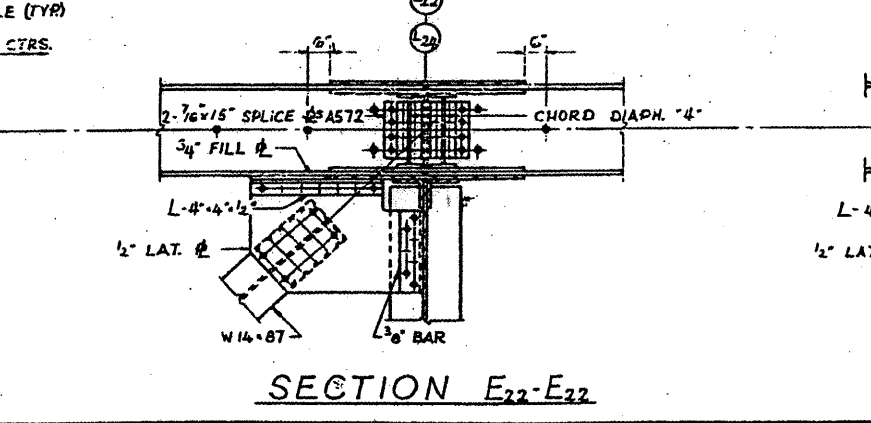
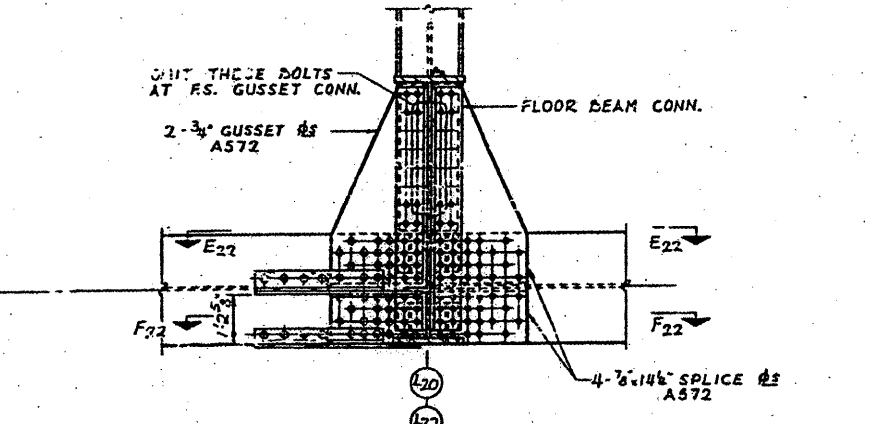
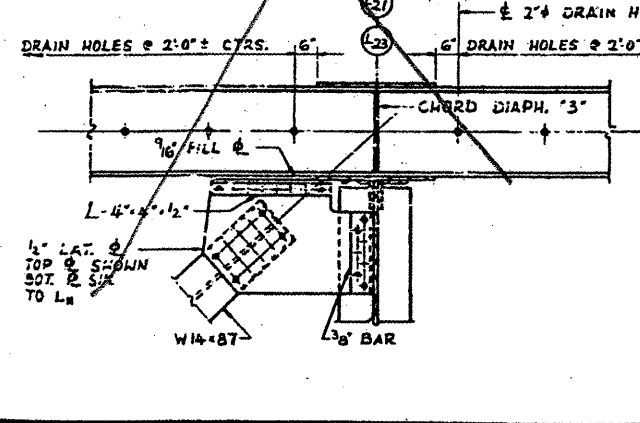
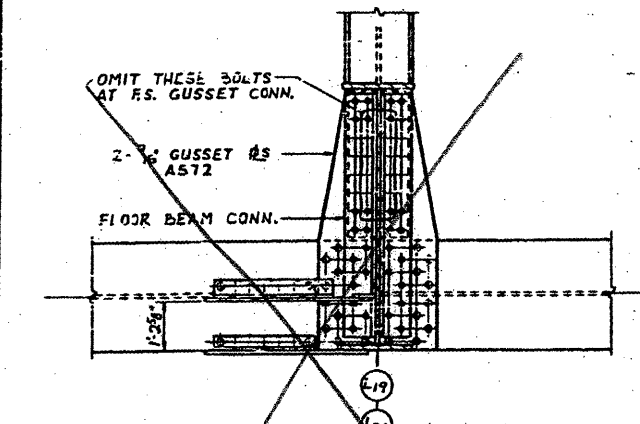
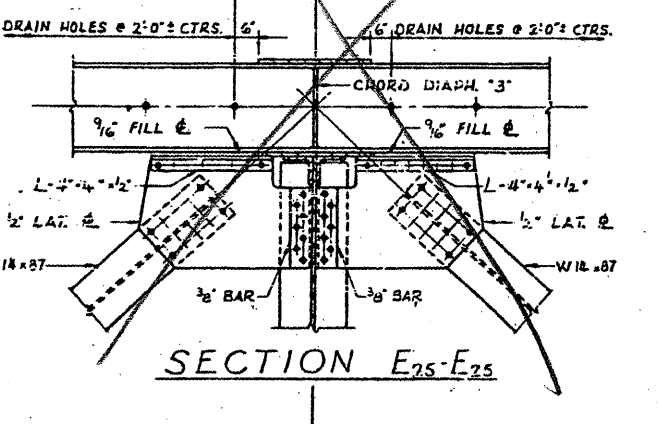
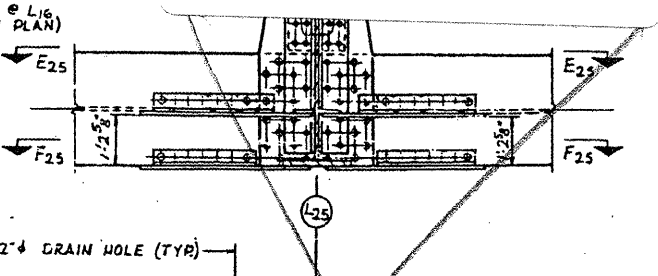
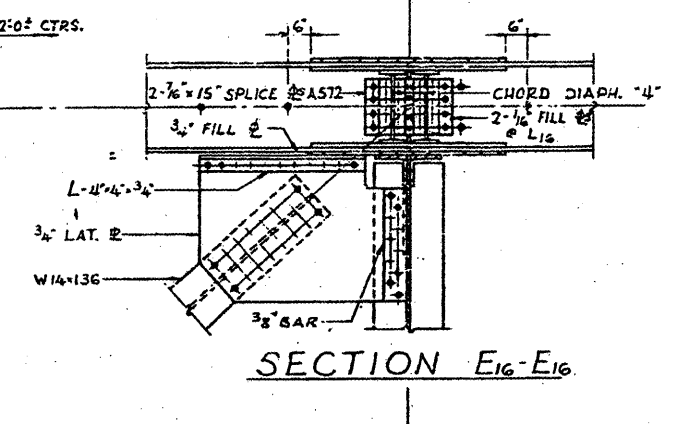
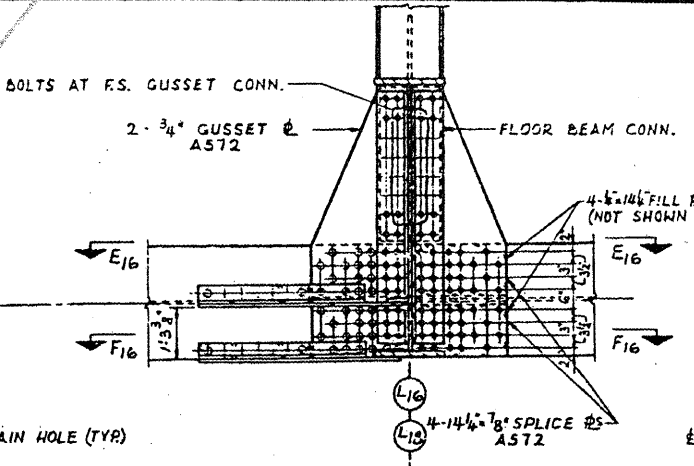
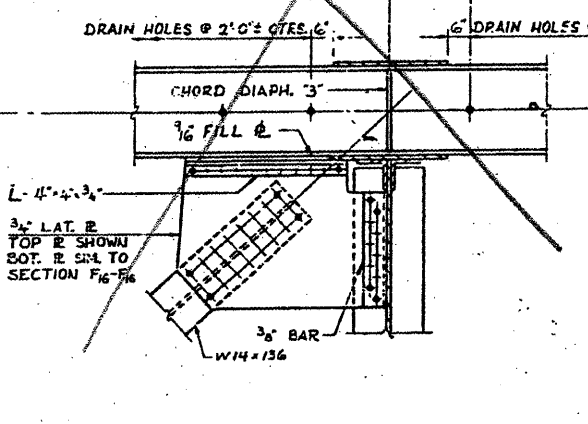
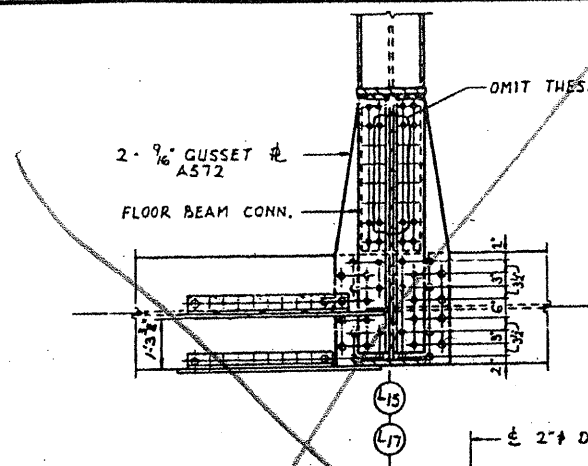
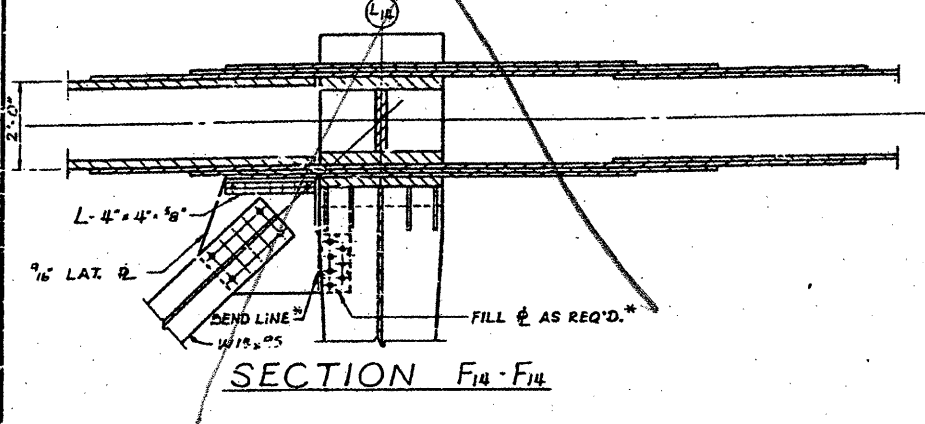
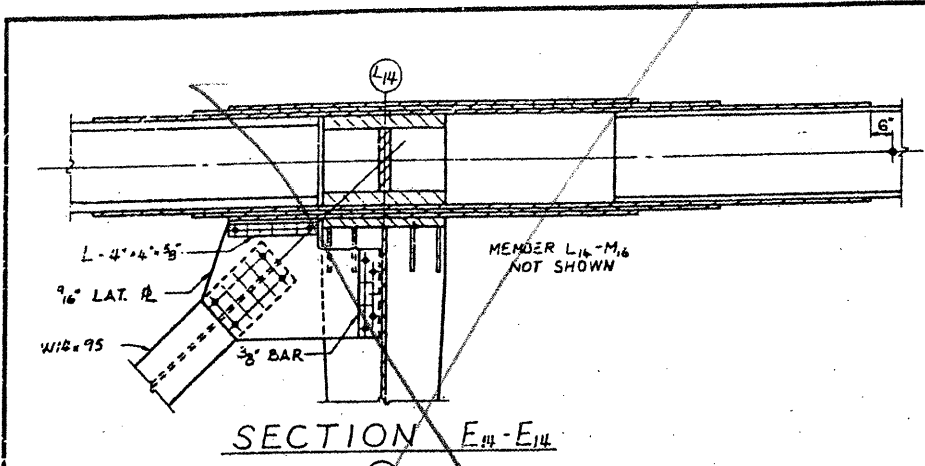
BRIDGE NO. 1  
 STRUCTURE NO. 002-0022  
 FOR INFORMATION ONLY

TRUSS DETAILS - M<sub>23</sub> TO M<sub>25</sub> & U<sub>23</sub> TO  
 F.A.I. RTE. 57 OVER THE MISSISSIPPI RIVER  
 PROJECT 1-97-9(10)  
 SECTION (02-1B-1)F&E  
 ALEXANDER COUNTY, ILLINOIS  
 MISSISSIPPI COUNTY, MISSOURI  
 STA. 1141 + 84.75 TO STA. 1182 + 75.25

ALFRED BENESCH & COMPANY  
 CONSULTING ENGINEERS  
 10 S. WABASH AVE. CHICAGO, ILLINOIS

SECTION D<sub>24</sub>-D<sub>24</sub>

OMIT THESE BOLTS AT F.S. GUSSET  
 CONTRACT: 78040  
 ROUTE: F.A.I. 57  
 SECTION: (02-1B-1)P-1  
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
 SHEET 14 OF 67  
 FOR INFORMATION ONLY

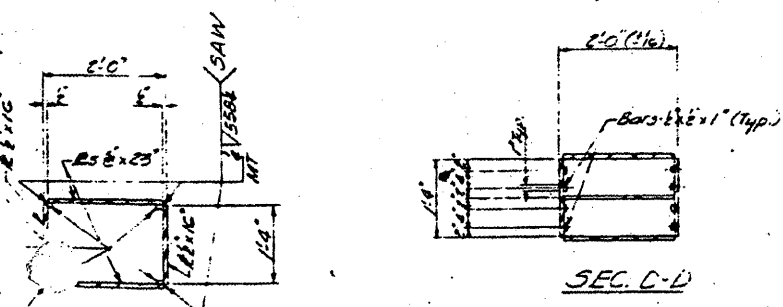
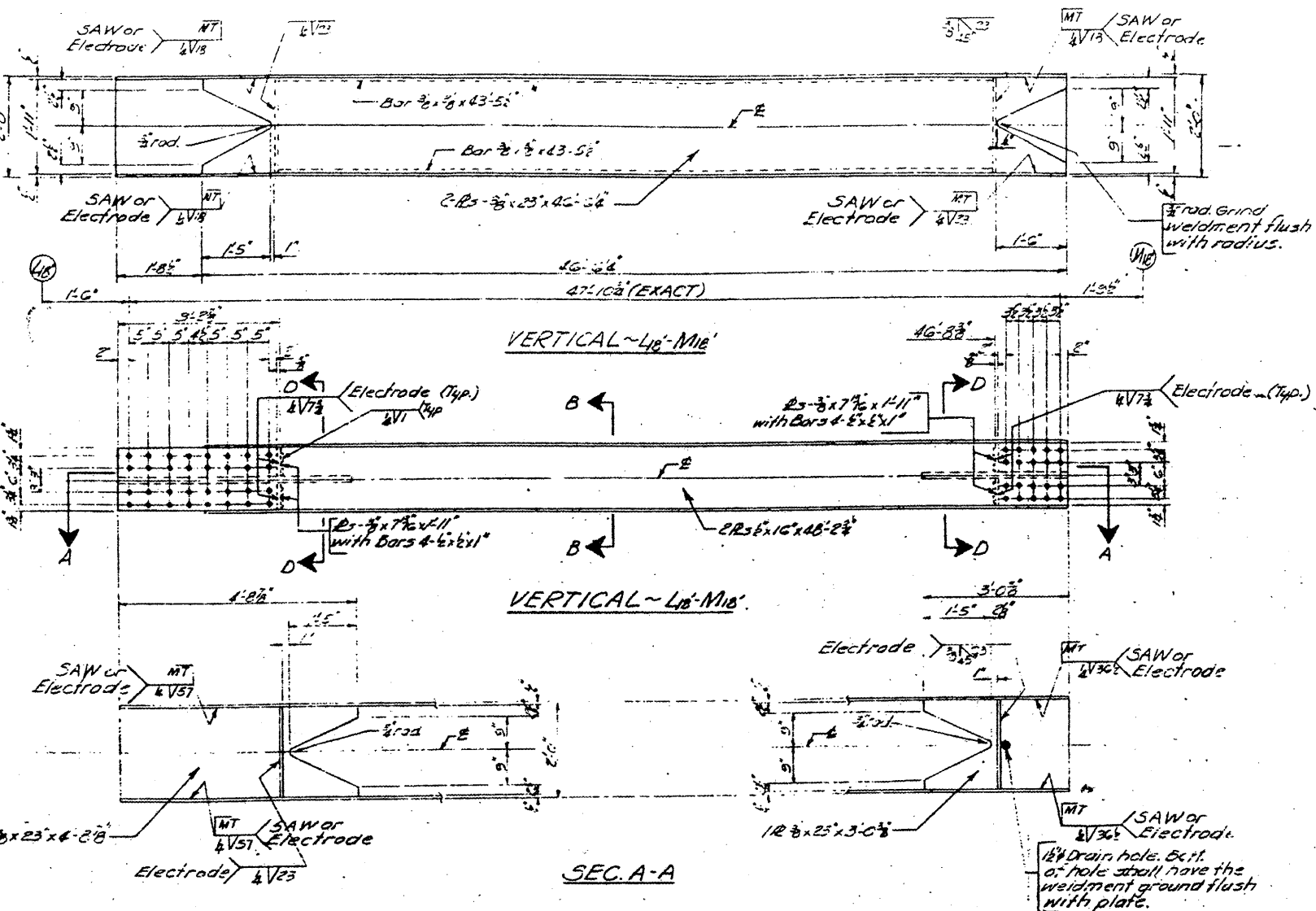


BRIDGE NO. 1  
 STRUCTURE NO. 002-0022  
 FOR INFORMATION ONLY

TRUSS DETAILS - L14 - L26  
 F.A.I. RTE. 57 OVER THE MISSISSIPPI RIVER  
 PROJECT 1-57-9(1)0  
 SECTION (02-1B-1)F&E  
 ALEXANDER COUNTY, ILLINOIS  
 MISSISSIPPI COUNTY, MISSOURI  
 STA. 1141 + 84.75 TO STA. 1182 + 75.25

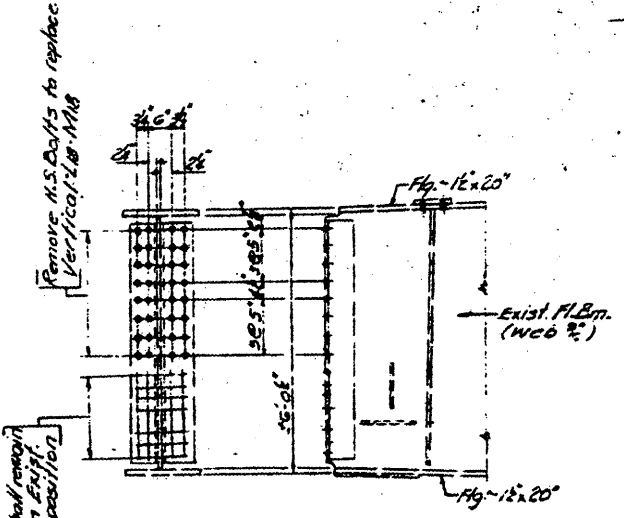
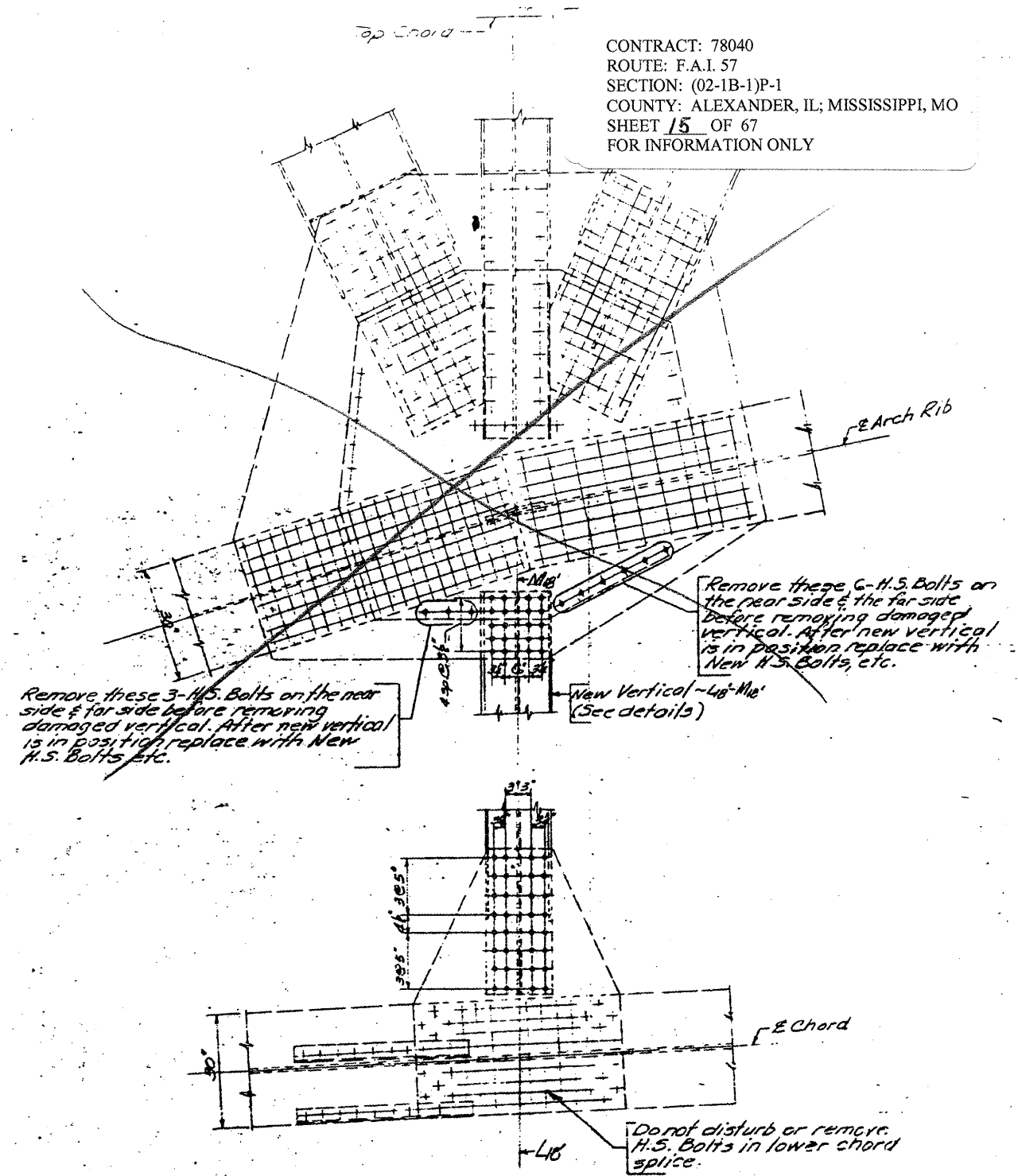
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CONTRACT: 78040  
ROUTE: F.A.I. 57  
SECTION: (02-1B-1)P-1  
COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
SHEET 15 OF 67  
FOR INFORMATION ONLY



- NOTES**
1. All connection holes in vertical L4-M16 shall be subpunched or subdrilled 1 1/2" and reamed in the field to the same dia. as existing holes in gussets (1 1/2"). Use New 1" H.S. Bolts in connection.
  2. Electrodes maybe E 7028 or E 7018.
  3. Member must be square at connections.
  4. Dimensions & Details of L4-M16 are from original contract fabrication plans.

SEC. B-B  
DETAIL A  
Dec 17 1984  
SIGNED ENR  
CHECKED A.P.W.  
EXAMINED O.J. Rohrer  
PASSES  
APPROVED  
DECISION OF BRIDGE INS. STRUCTURES  
DIRECTOR OF HIGHWAYS



These H.S. Bolts shall remain in place to retain existing floor beam in its position.

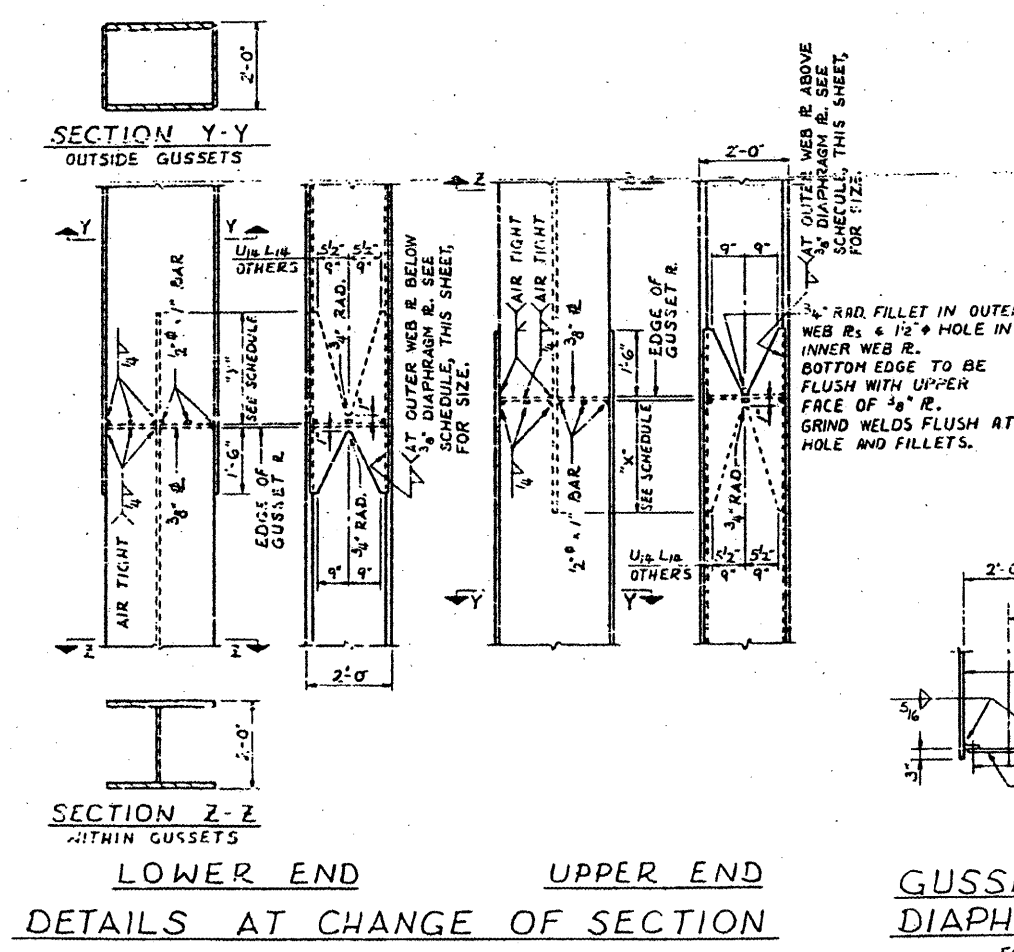
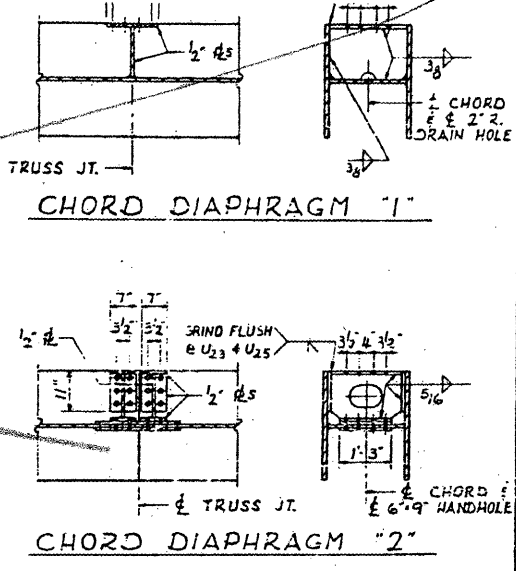
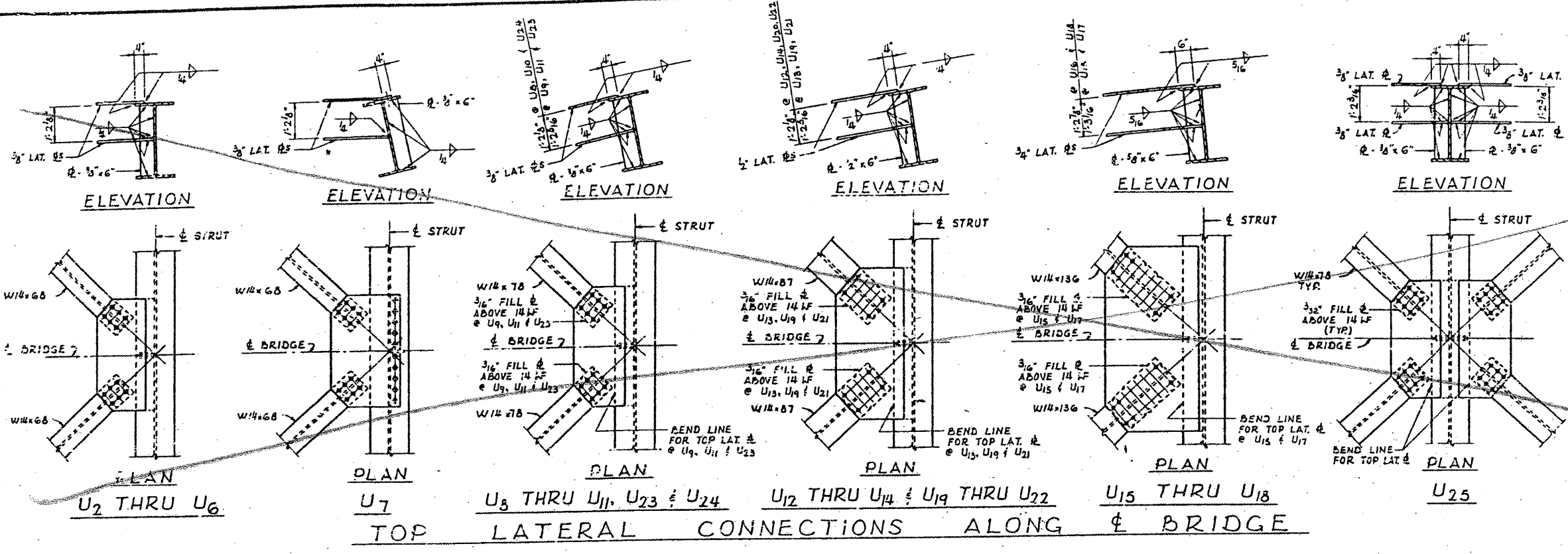
**BILL OF MATERIAL**

Item	Unit	Total
Reinforcing Structural Steel	Lbs.	5,080
Erecting Structural Steel	Lbs.	6,080

BRIDGE NO. 1  
STRUCTURE NO. 002-0022  
FOR INFORMATION ONLY

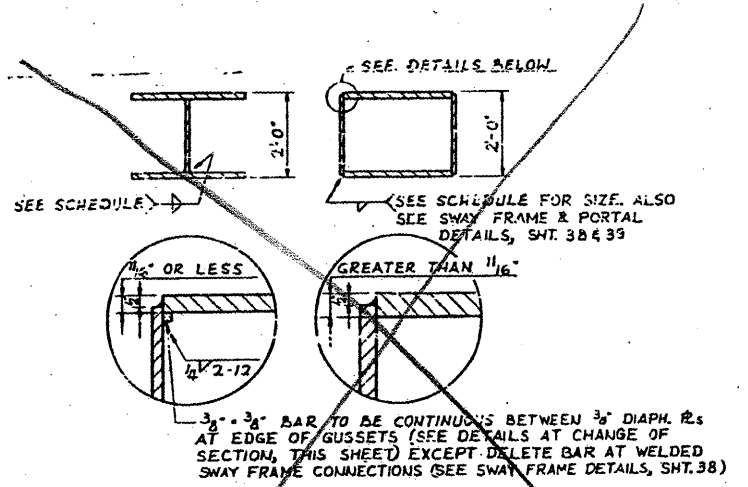
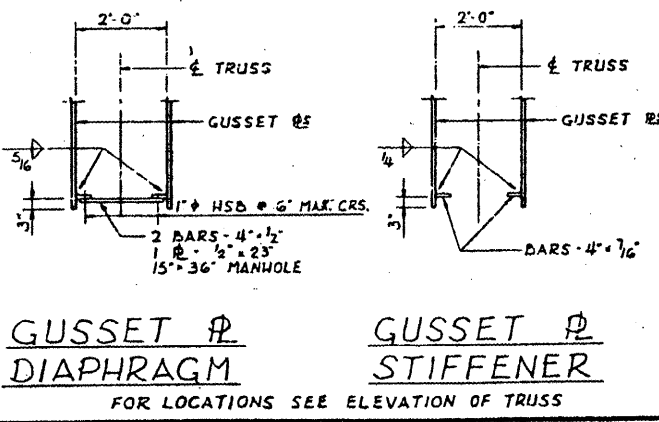
L4-M16 MEMBER & DETAILS  
F.A.I.-57 OVER MISSISSIPPI RIVER  
F.A.I. RT. 57 SEC. 02-1B-1-I-DL-1  
ALEXANDER COUNTY

CONTRACT: 78040  
 ROUTE: F.A.I. 57  
 SECTION: (02-1B-1)P-1  
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
 SHEET 16 OF 67  
 FOR INFORMATION ONLY



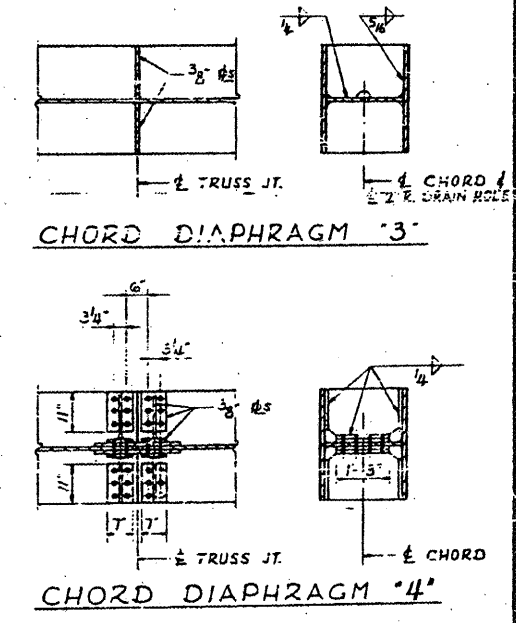
**SCHEDULE OF "X" DIMENSIONS**

MEMBER	"X"
L <sub>2</sub> U <sub>9</sub>	3'-0"
U <sub>9</sub> L <sub>10</sub>	2'-0"
L <sub>10</sub> U <sub>11</sub>	3'-0"
U <sub>11</sub> L <sub>12</sub>	2'-0"
L <sub>12</sub> U <sub>13</sub>	3'-0"
U <sub>13</sub> L <sub>14</sub>	3'-0"
L <sub>14</sub> U <sub>15</sub>	3'-0"
U <sub>15</sub> M <sub>16</sub>	2'-0"
M <sub>16</sub> U <sub>17</sub>	2'-0"
U <sub>17</sub> M <sub>18</sub>	3'-0"
M <sub>18</sub> U <sub>19</sub>	2'-0"
U <sub>19</sub> L <sub>14</sub>	3'-0"
VERTICALS	ALL OTHERS 1'-6"



MATERIAL THICKNESS OF THICKER PART JOINED (IN.)	SIZE OF FILLET WELD (IN.)
TO 3/8" INCL.	1/4
OVER 3/8 TO 1/2	5/16
OVER 1/2 TO 2/4	3/8
OVER 2/4	

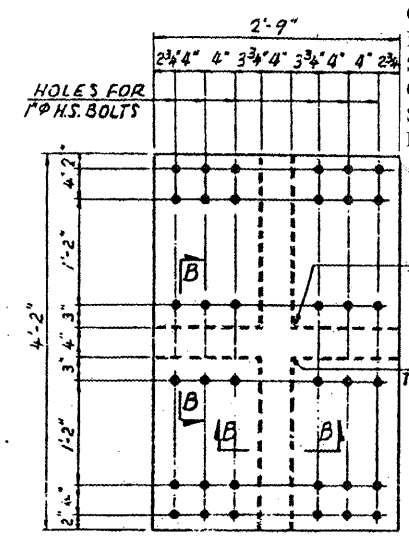
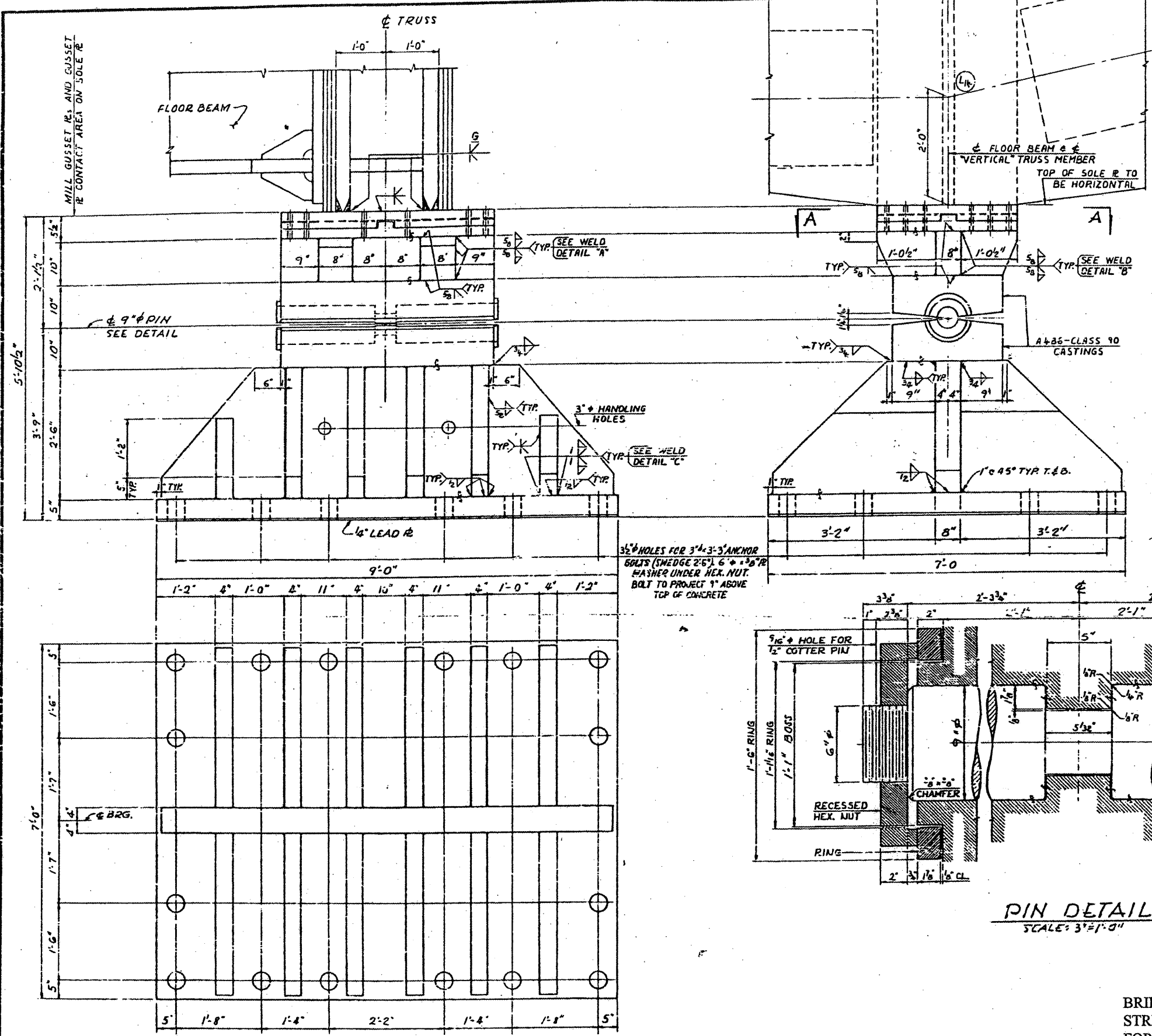
\* UNLESS OTHERWISE  
 WELD D  
 BRIDGE NO. 1  
 STRUCTURE NO. 002-0022  
 FOR INFORMATION ONLY



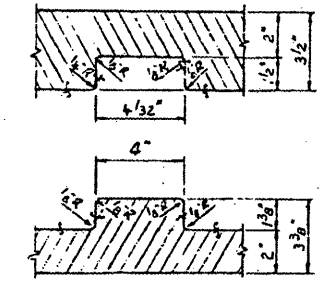
**TRUSS DETAILS - MISCELLANEOUS**  
 F. A. I. RTE. 57 OVER THE MISSISSIPPI RIVER  
 PROJECT 1-57-9(1)O  
 SECTION (02-1B-1)FBE  
 ALEXANDER COUNTY, ILLINOIS  
 MISSISSIPPI COUNTY, MISSOURI  
 STA. 1141 + 84.75 TO STA. 1182 + 75.25



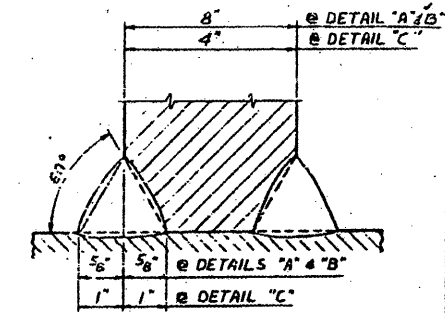
CONTRACT: 78040  
 ROUTE: F.A.I. 57  
 SECTION: (02-1B-1)P-1  
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
 SHEET 17 OF 67  
 FOR INFORMATION ONLY



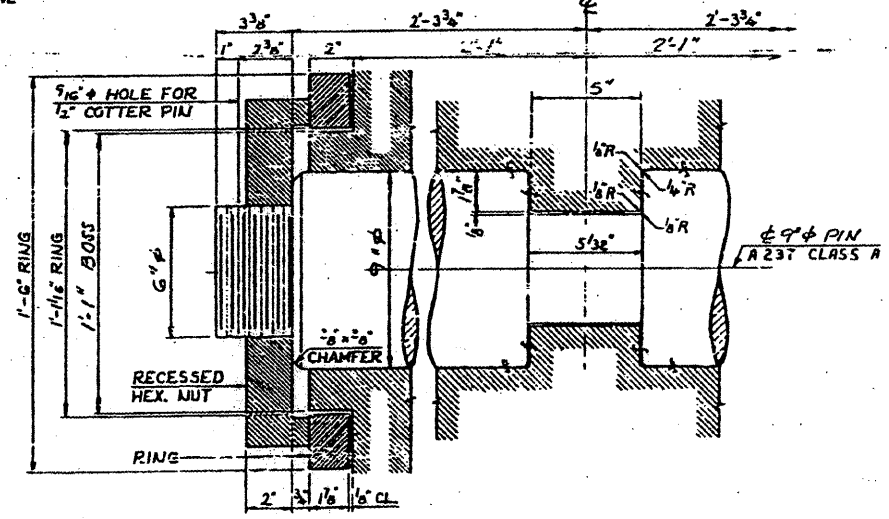
SECTION A-A  
 SCALE: 1"=1'-0"



SECTION B-B  
 SHOWING PLATES SEPARATED  
 SCALE: 3/4"=1'-0"



WELD DETAILS "A", "B" & "C"



PIN DETAIL  
 SCALE: 3/4"=1'-0"

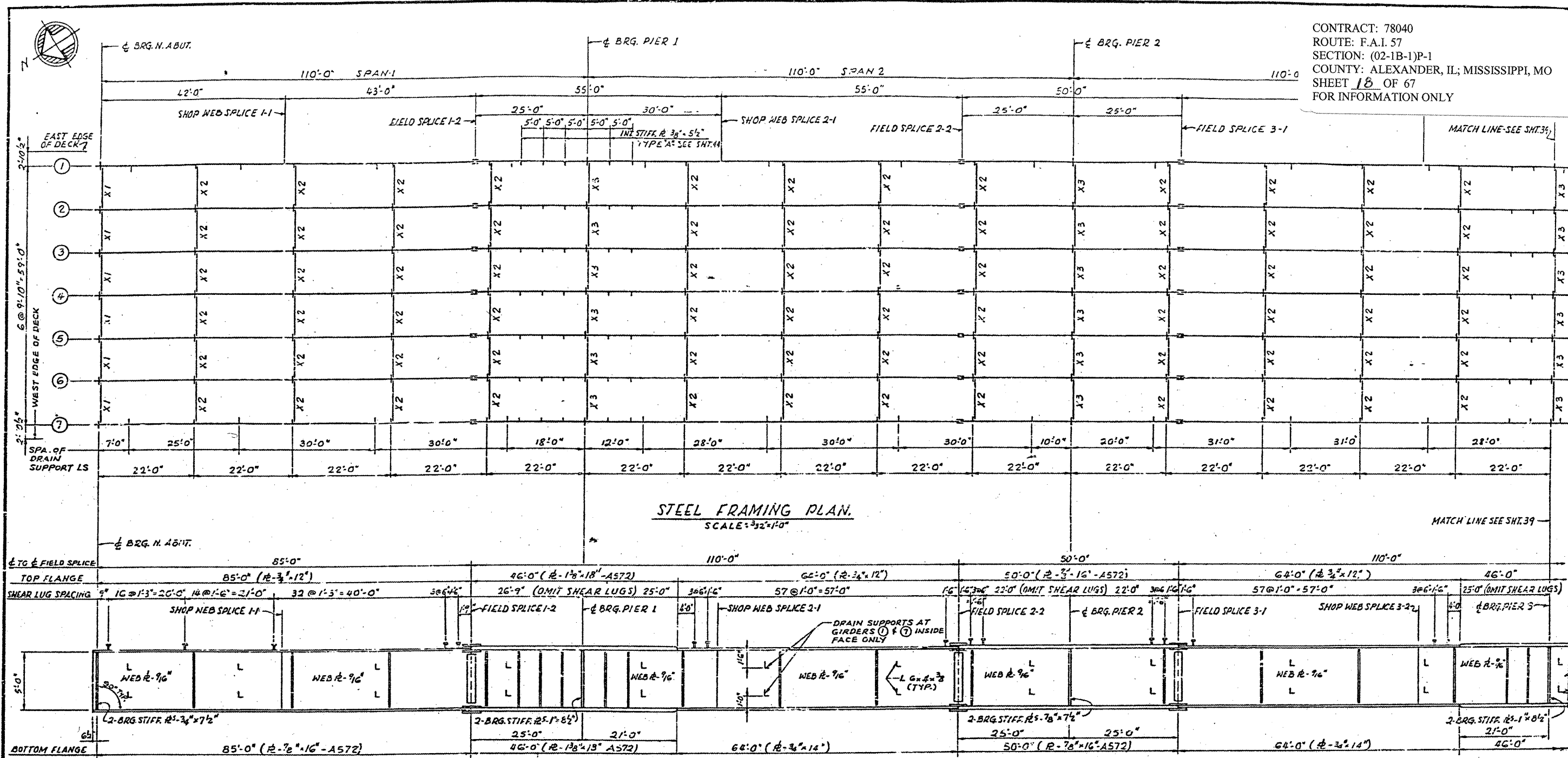
- NOTES:
- ALL MATERIAL ASTM A36 UNLESS NOTED.
  - ALL WELDS SHALL BE BY THE SUBMERGED ARC PROCESS.
  - FINISHES PER USAS1, 8461, PART I.
  - ASTM A486 (CLASS 90) CASTINGS OF EQUAL STRENGTH AND SECTION MAY BE SUBSTITUTED FOR THE WELDMENTS COMPRISING THE BOLSTER AND TOP SHOE.
  - PLATES OF EQUAL STRENGTH AND SECTION MAY BE SUBSTITUTED FOR CASTINGS.

FIXED BEARING AT PIERS 12 & 13

BRIDGE NO. 1  
 STRUCTURE NO. 002-0022  
 FOR INFORMATION ONLY

TRUSS BEARINGS AT PIERS 12 & 13  
 F.A.I. RTE. 57 OVER THE MISSISSIPPI RIVER  
 PROJECT 1-57-9(10)  
 SECTION (02-1B-1)P-1  
 ALEXANDER COUNTY, ILLINOIS  
 MISSISSIPPI COUNTY, MISSOURI  
 STA. 1141 + 84.78 TO STA. 1182 + 75.28

CONTRACT: 78040  
 ROUTE: F.A.I. 57  
 SECTION: (02-1B-1)P-1  
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
 SHEET 18 OF 67  
 FOR INFORMATION ONLY



STEEL FRAMING PLAN.  
 SCALE: 3/32"=1'-0"



ELEVATION  
 NO SCALE  
 GIRDER SHOWN

FILLET WELD TABLE

FLANGE & THICKNESS	WELD SIZE
OVER 1/2" TO 3/4"	1/4"
OVER 3/4" TO 1 1/2"	5/16"

GIRDER ELEVATIONS FOR FABRICATION ONLY

S.W.S. = SHOP WEB SPLICE  
 F.S. = FIELD SPLICE

LOCATION GIRDER	BRG. N. ABUT.	S.W.S. 1-1	F.S. 1-2	PIER 1	S.W.S. 2-1	F.S. 2-2	PIER 2	F.S. 3-1	S.W.S. 3-2	PIER 3	F.S. 4-1	S.W.S. 4-2	CLINK SPAN 4
1	343.026	343.597	343.890	344.197	344.565	345.534	345.996	346.457	347.518	348.252	348.850	350.125	350.877
2	343.180	343.751	344.044	344.350	344.719	345.688	346.150	346.611	347.672	348.411	349.012	350.279	351.031
3	343.334	343.904	344.198	344.504	344.872	345.841	346.304	346.764	347.826	348.565	349.165	350.432	351.184
4	343.487	344.058	344.351	344.658	345.026	345.995	346.457	346.918	347.979	348.718	349.319	350.586	351.338
5	343.334	343.904	344.198	344.504	344.872	345.841	346.304	346.764	347.826	348.565	349.165	350.432	351.184
6	343.180	343.751	344.044	344.350	344.719	345.688	346.150	346.611	347.672	348.411	349.012	350.279	351.031
7	343.026	343.597	343.890	344.197	344.565	345.534	345.996	346.457	347.518	348.252	348.850	350.125	350.877

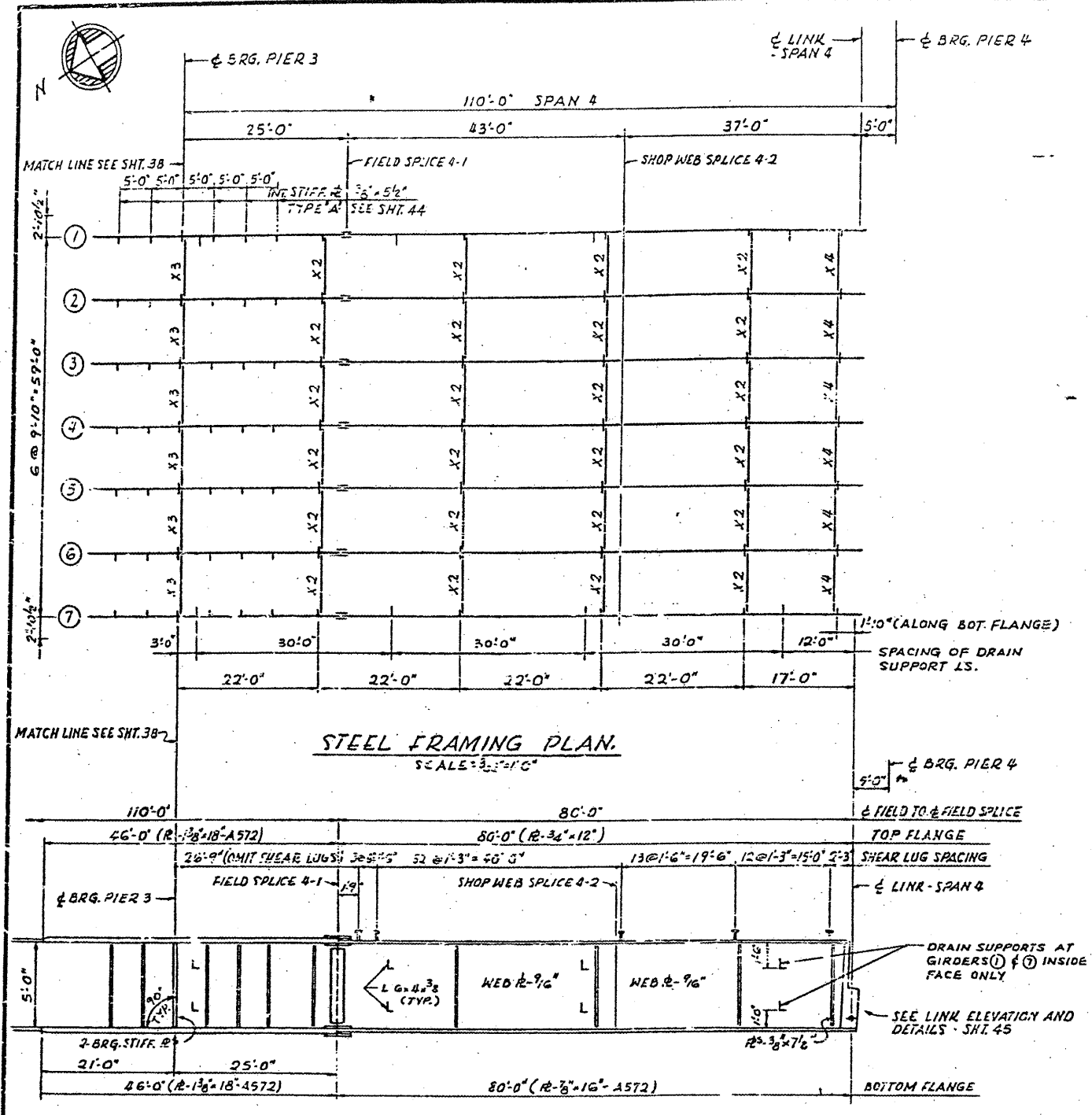
ELEVATIONS ARE GIVEN TO TOP OF GIRDER WEB PLATE.

NOTE: MATERIAL - A36 - EXCEPT AS NOTED. ALL DIMENSIONS SHOWN ARE IN A HORIZONTAL PLANE. SHEAR LUGS ARE TO BE FURNISHED AND INSTALLED UNDER SECTION (02-1B-1) D. SHEAR LUGS ARE TO BE OMITTED AT SCUPPER LOCATIONS.

BRIDGE NO. 1  
 STRUCTURE NO. 002-0022  
 FOR INFORMATION ONLY

FRAMING PLAN - SPANS 1, 2, 3 & 4  
 F. A. I. RTE. 57 OVER THE MISSISSIPPI RIVER  
 PROJECT 1-57-9(5)D  
 SECTION (02-1B-1)D  
 ALEXANDER COUNTY, ILLINOIS  
 MISSISSIPPI COUNTY, MISSOURI  
 STA. 1141 + 84.75 TO STA. 1182 + 75.25

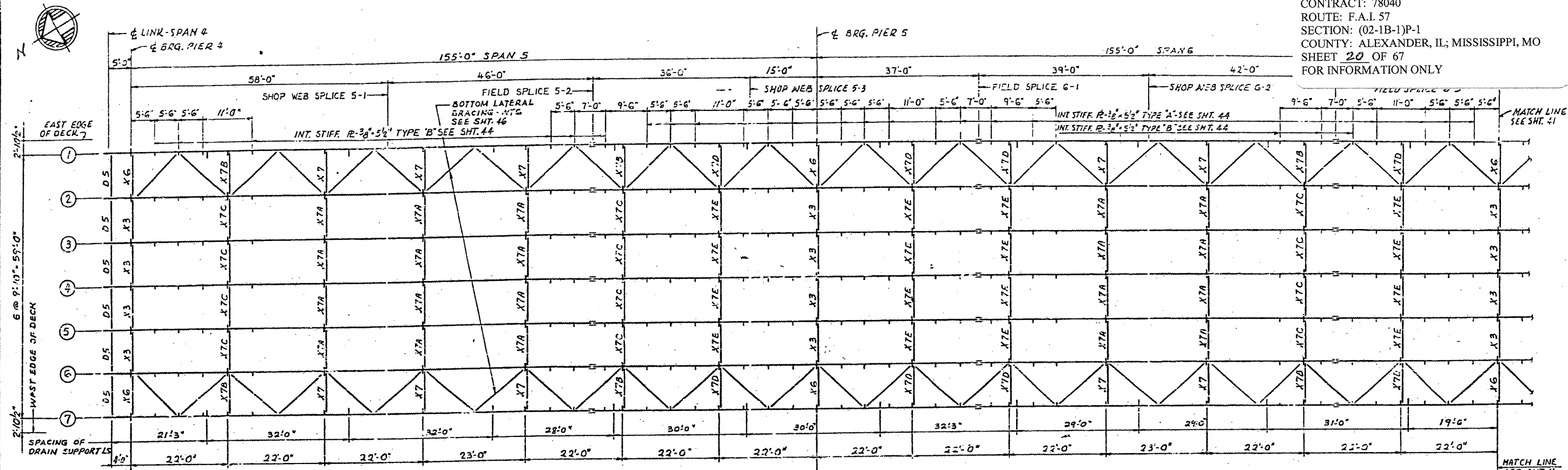
CONTRACT: 78040  
 ROUTE: F.A.I. 57  
 SECTION: (02-1B-1)P-1  
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
 SHEET 19 OF 67  
 FOR INFORMATION ONLY



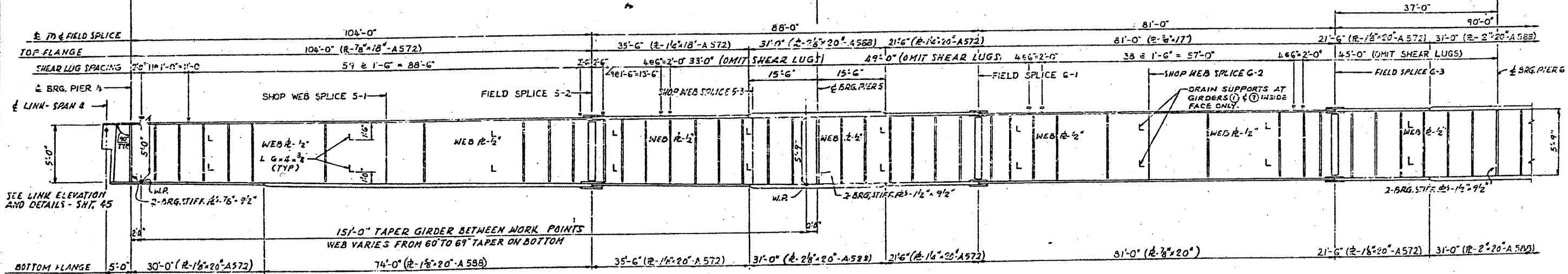
BRIDGE NO. 1  
 STRUCTURE NO. 002-0022  
 FOR INFORMATION ONLY

FRAMING PLAN - SPANS 1, 2, 3 & 4  
 F. A. I. RTE. 57 OVER THE MISSISSIPPI RIVER  
 PROJECT 1-57-9(5)0  
 SECTION (02-1B-1)D  
 ALEXANDER COUNTY, ILLINOIS  
 MISSISSIPPI COUNTY, MISSOURI  
 STA. 1141 + 84.75 TO STA. 1182 + 75.25

CONTRACT: 78040  
 ROUTE: F.A.I. 57  
 SECTION: (02-1B-1)P-1  
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
 SHEET 20 OF 67  
 FOR INFORMATION ONLY



STEEL FRAMING PLAN  
 SCALE: 3/32"=1'-0"



ELEVATION  
 NO SCALE  
 GIRDER @ SHOWN

NOTES:  
 MATERIAL - A36 - EXCEPT AS NOTED.  
 ALL DIMENSIONS SHOWN ARE IN A HORIZONTAL PLANE.  
 SHEAR LUGS ARE TO BE FURNISHED AND INSTALLED UNDER SECTION (02-1B-1) D.

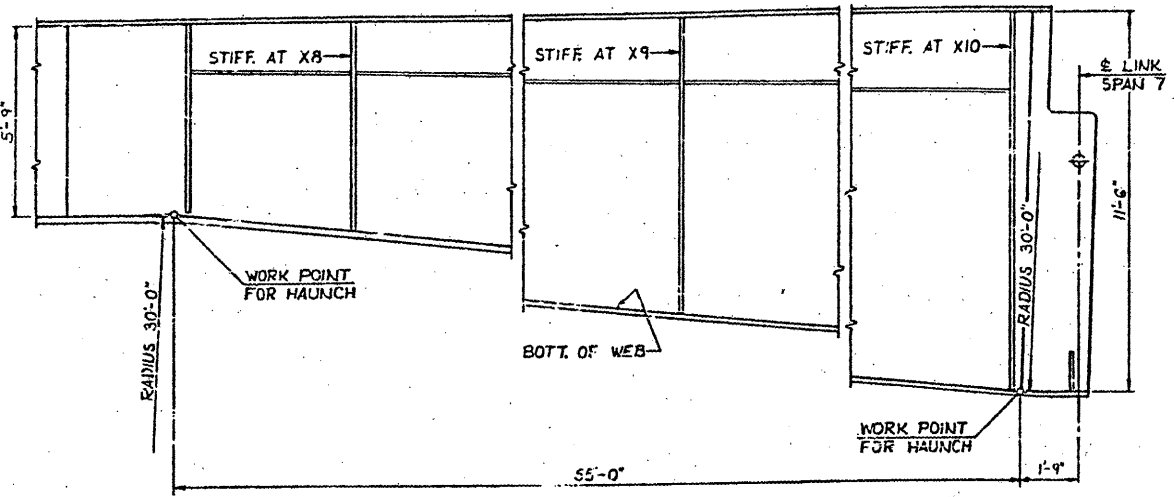
FILLET WELD TABLE

FLANGE & THICKNESS	WELD SIZE
OVER 1/2" TO 3/4"	1/4"
OVER 3/4" TO 1 1/2"	5/16"
OVER 1 1/2" TO 2 1/4"	3/8"

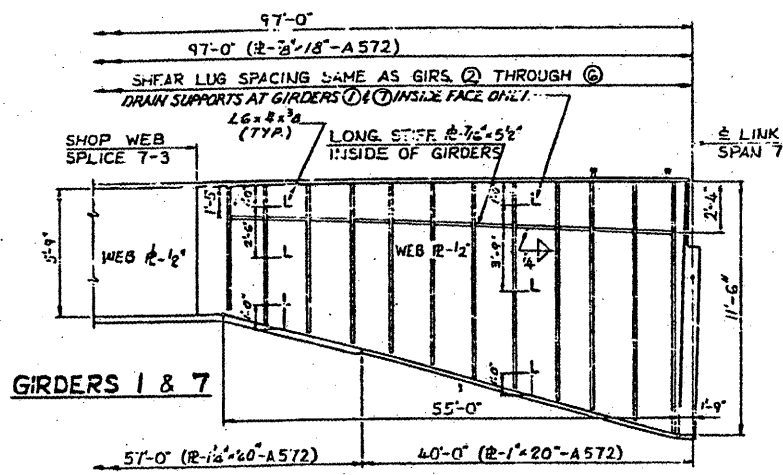
FRAMING PLAN - SPANS 5, 6 AND 7  
 F. A. I. RTE. 57 OVER THE MISSISSIPPI RIVER  
 PROJECT 1-37-9 (510)  
 SECTION (02-1B-1) D  
 ALEXANDER COUNTY, ILLINOIS  
 MISSISSIPPI COUNTY, MISSOURI  
 STA. 1141 + 84.75 TO STA. 1182 + 75.25

BRIDGE NO. 1  
 STRUCTURE NO. 002-0022  
 FOR INFORMATION ONLY

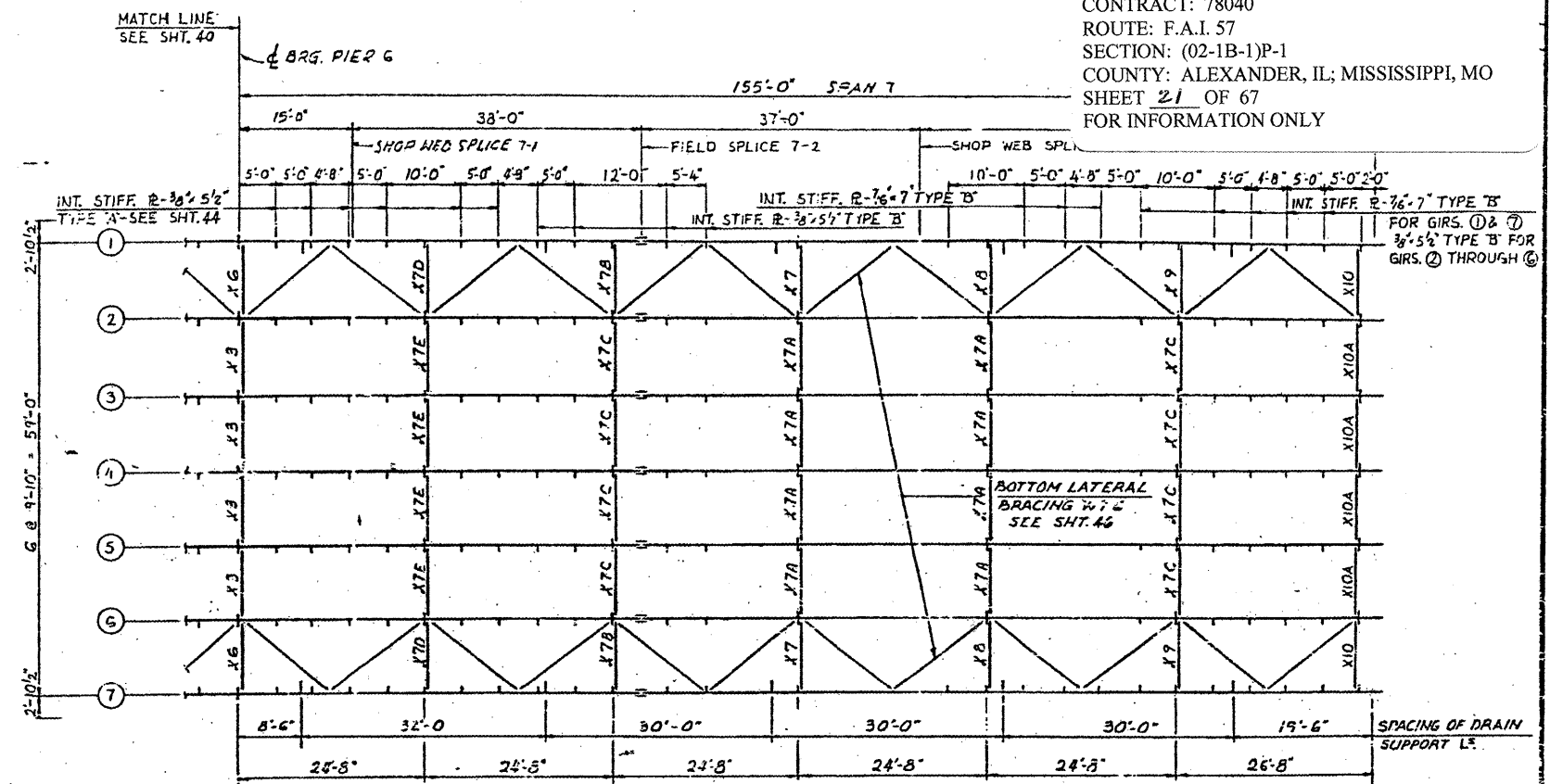
CONTRACT: 78040  
 ROUTE: F.A.I. 57  
 SECTION: (02-1B-1)P-1  
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
 SHEET 21 OF 67  
 FOR INFORMATION ONLY



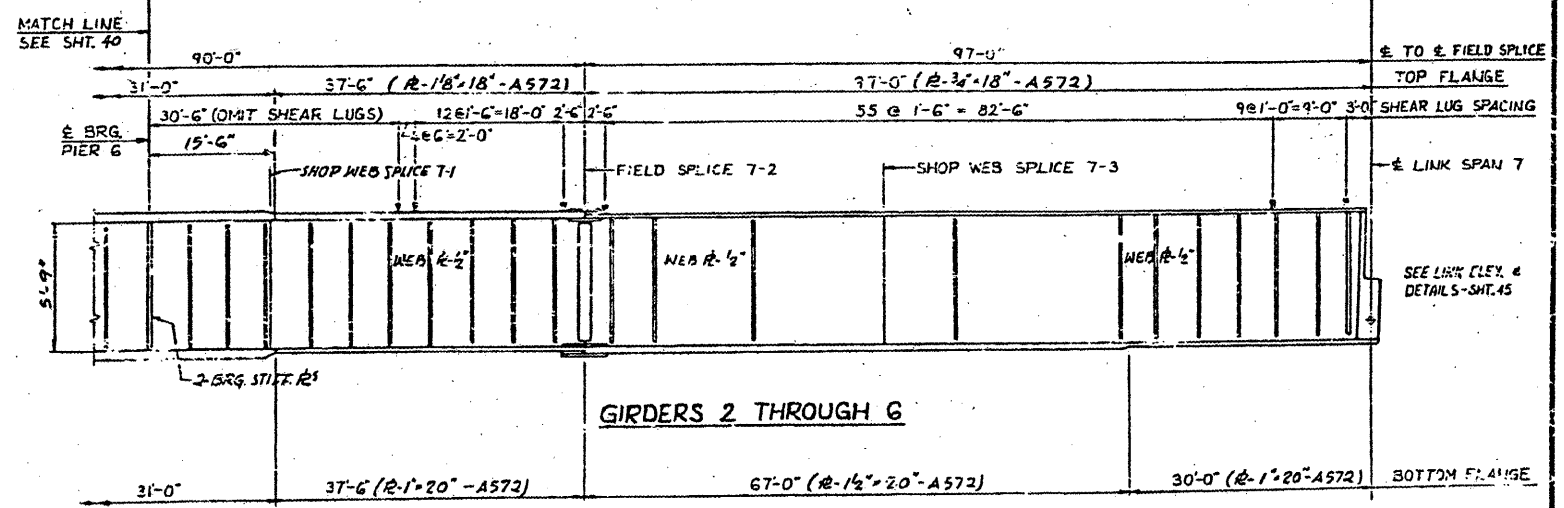
DETAIL OF HAUNCH  
 FOR GIRDERS 1 & 7 ONLY



GIRDERS 1 & 7



STEEL FRAMING PLAN



ELEVATION

GIRDER ELEVATIONS-FOR FABRICATION ONLY

S.W.S.=SHOP WEB SPLICE  
 F.S.=FIELD SPLICE

GIRDER	LOCATION	LINK-SPAN 4	PIER 4	S.W.S. 5-1	F.S. 5-2	S.W.S. 5-3	PIER 5	F.S. 6-1	S.W.S. 6-2	F.S. 6-3	PIER 6	F.S. 7-1	F.S. 7-2	S.W.S. 7-3	LINK-SPAN 7
1		350.871	351.062	353.177	354.391	355.193	355.612	356.646	357.175	359.289	360.267	360.745	362.125	363.328	364.761
2		351.031	351.216	353.331	354.544	355.347	355.766	356.800	358.129	359.242	360.421	360.899	362.279	363.482	364.914
3		351.184	351.370	353.485	354.698	355.500	355.919	356.953	358.283	359.396	360.575	361.052	362.433	363.636	365.068
4		351.338	351.523	353.638	354.852	355.654	356.073	357.107	358.436	359.550	360.728	361.206	362.586	363.789	365.222
5		351.164	351.370	353.485	354.698	355.500	355.919	356.953	358.283	359.396	360.575	361.052	362.433	363.636	365.068
6		351.031	351.216	353.331	354.544	355.347	355.766	356.800	358.129	359.242	360.421	360.899	362.279	363.482	364.914
7		350.871	351.062	353.177	354.391	355.193	355.612	356.646	357.175	359.289	360.267	360.745	362.125	363.328	364.761

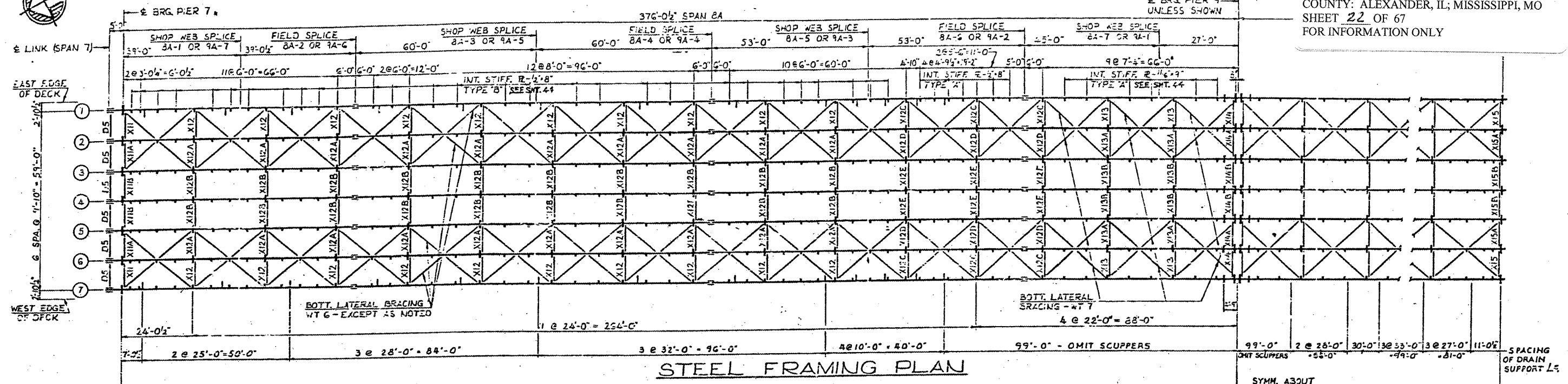
ELEVATIONS ARE GIVEN TO TOP OF GIRDER WEB PLATE

BRIDGE NO. 1  
 STRUCTURE NO. 002-0022  
 FOR INFORMATION ONLY

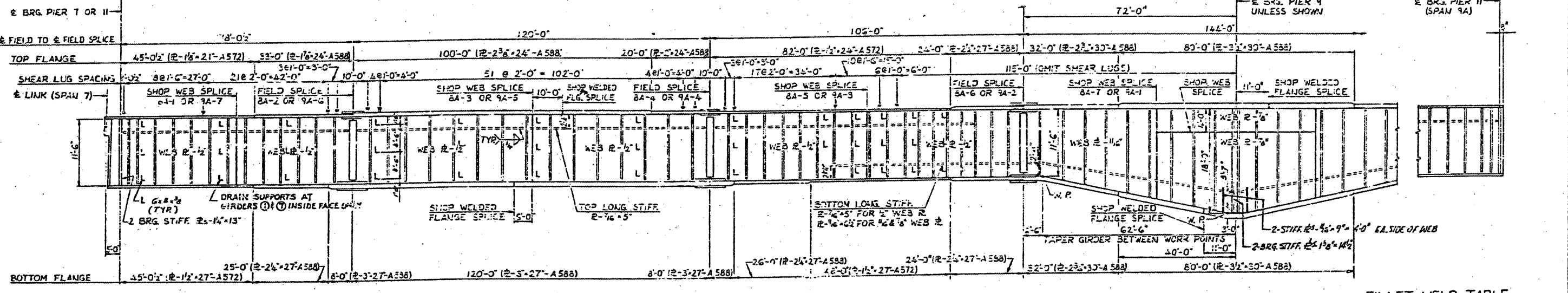
FRAMING PLAN - SPANS 5, 6 AND 7  
 F.A.I. RTE. 57 OVER THE MISSISSIPPI RIVER  
 PROJECT 1-57-9(S)O  
 SECTION (02-1B-1)D  
 ALEXANDER COUNTY, ILLINOIS  
 MISSISSIPPI COUNTY, MISSOURI  
 STA. 1141 + 84.75 TO STA. 1182 + 75.25



CONTRACT: 78040  
 ROUTE: F.A.I. 57  
 SECTION: (02-1B-1)P-1  
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
 SHEET 22 OF 67  
 FOR INFORMATION ONLY



**STEEL FRAMING PLAN**



**ELEVATION**  
 GIRDER 1 SHOWN

**FILLET WELD TABLE**

FLANGE R THICKNESS	WELD SIZE
OVER 3/8" TO 1/2"	5/16"
OVER 1/2" TO 3/4"	3/8"
OVER 3/4" TO 1"	1/2"

**GIRDER ELEVATIONS - FOR FABRICATION ONLY**

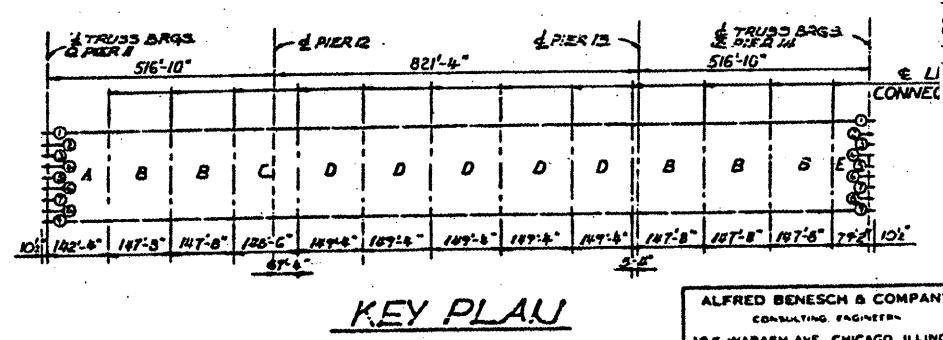
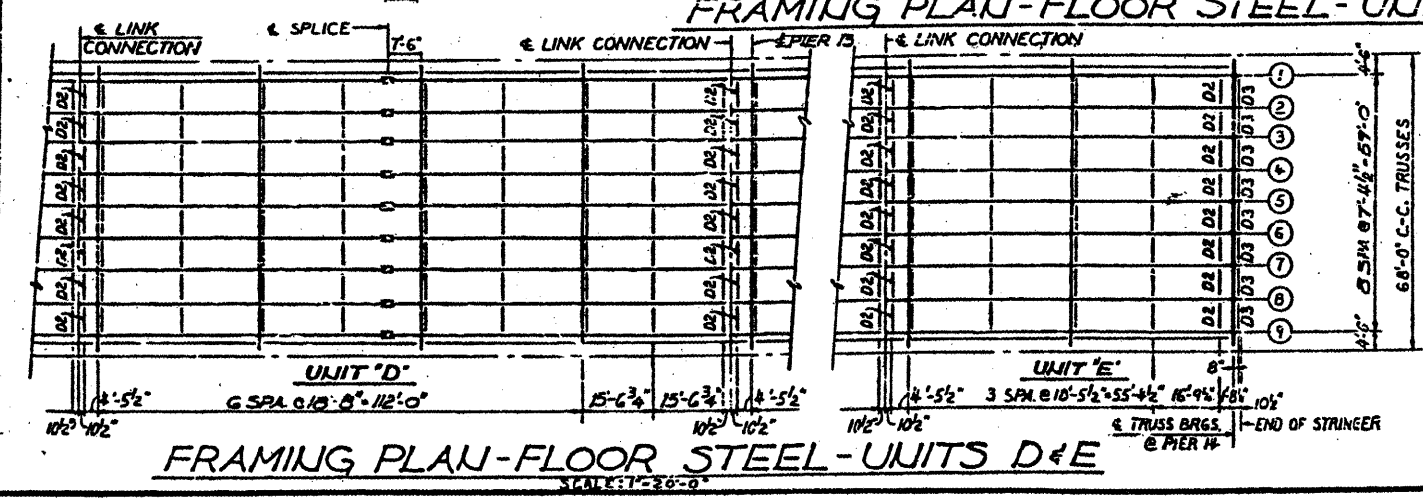
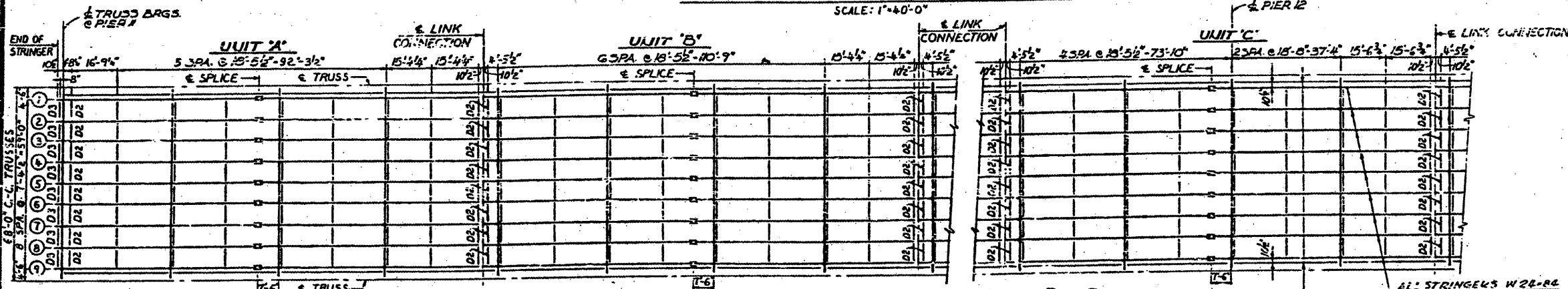
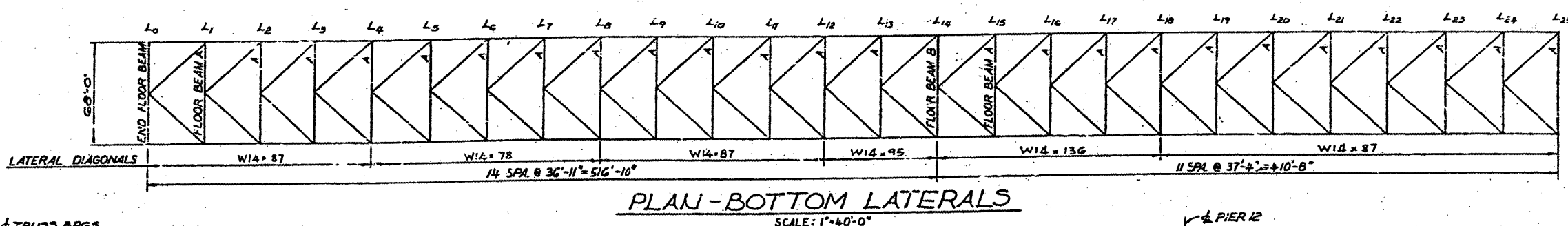
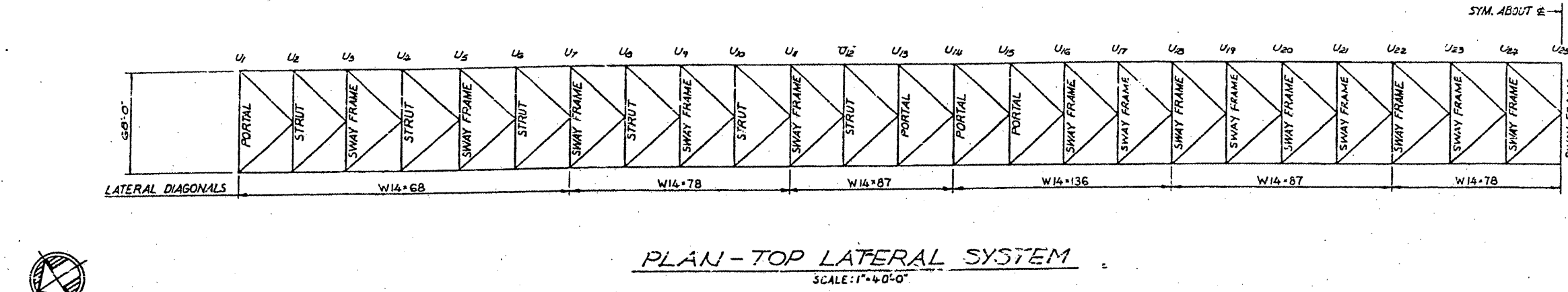
LOCATION GIRDER	LINK SPAN 7	PIER 7	S.W.S. 8A-1	F.S. 8A-2	S.W.S. 8A-3	F.S. 8A-4	S.W.S. 8A-5	F.S. 8A-6	S.W.S. 8A-7	PIER 9	S.W.S. 9A-1	F.S. 9A-2	S.W.S. 9A-3	F.S. 9A-4	S.W.S. 9A-5	F.S. 9A-6	S.W.S. 9A-7	BRG. PIER 11 SPAN 9A
1	364.761	364.964	366.552	367.840	369.939	371.596	372.965	373.981	375.245	376.050	376.854	378.215	380.251	381.908	383.424	385.497	385.203	385.620
2	364.914	365.118	366.706	368.067	370.181	371.832	373.171	374.150	375.398	376.203	377.008	378.364	380.437	382.062	383.671	385.718	385.398	385.773
3	365.068	365.272	366.860	368.221	370.336	371.987	373.325	374.304	375.553	376.357	377.162	378.539	380.591	382.216	383.825	385.872	385.553	385.928
4	365.222	365.425	367.013	368.371	370.489	372.140	373.478	374.459	375.706	376.511	377.315	378.692	380.744	382.369	383.978	385.025	385.706	386.081
5	365.068	365.272	366.860	368.221	370.336	371.987	373.325	374.304	375.553	376.357	377.162	378.539	380.591	382.216	383.825	384.872	385.553	385.928
6	364.914	365.118	366.706	368.067	370.181	371.832	373.171	374.150	375.398	376.203	377.008	378.364	380.437	382.062	383.671	384.718	385.398	385.773
7	364.761	364.964	366.552	367.840	369.939	371.596	372.965	373.981	375.245	376.050	376.854	378.215	380.251	381.908	383.424	384.497	385.203	385.620

ELEVATIONS ARE GIVEN TO TOP OF GIRDER WEB PLATE  
 F. S. = FIELD SPLICE  
 S. W. S. = SHOP WEB SPLICE

**NOTES:**  
 ALL MATERIAL ASTM A36 - EXCEPT AS NOTED.  
 ALL DIMENSIONS SHOWN ARE IN A HORIZONTAL PLANE.  
 SHEAR LUGS ARE TO BE FURNISHED & INSTALLED UNDER SECTION 102-1B-10.  
 LONGH OPPOS  
 SHEAR  
 BRIDGE NO. 1  
 STRUCTURE NO. 002-0022  
 FOR INFORMATION ONLY

**FRAMING PLAN - SPANS 8A AND 9A**  
**F.A.I. RTE. 57 OVER THE MISSISSIPPI RIVER**  
**PROJECT 1-57-9(510)**  
**SECTION (02-1B-1)D**  
**ALEXANDER COUNTY, ILLINOIS**  
**MISSISSIPPI COUNTY, MISSOURI**  
**STA. 1141 + 84.75 TO STA. 1182 + 75.25**

CONTRACT: 78040  
 ROUTE: F.A.I. 57  
 SECTION: (02-1B-1)P-1  
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
 SHEET 23 OF 67  
 FOR INFORMATION ONLY



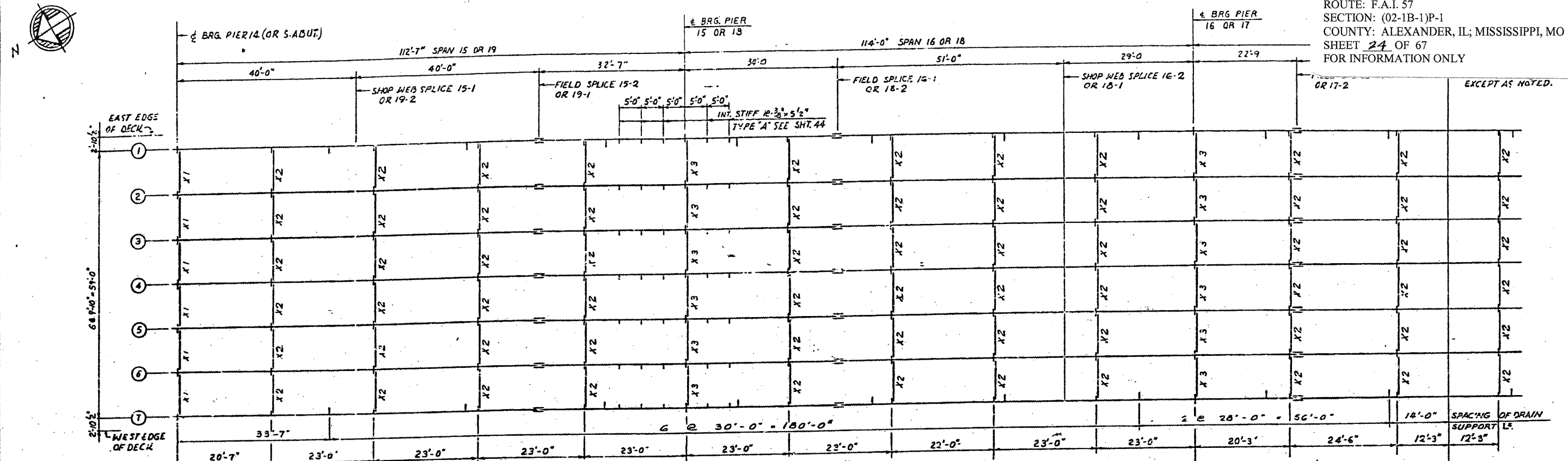
NOTES:  
 ALL DIAPHRAGMS ARE DI UNLESS NOTED.  
 ALL MATERIAL ASTM A36 UNLESS NOTED.  
 ALL DIMENSIONS PERPENDICULAR TO TRUSS ARE HORIZONTAL.

BRIDGE NO. 1  
 STRUCTURE NO. 002-0022  
 FOR INFORMATION ONLY

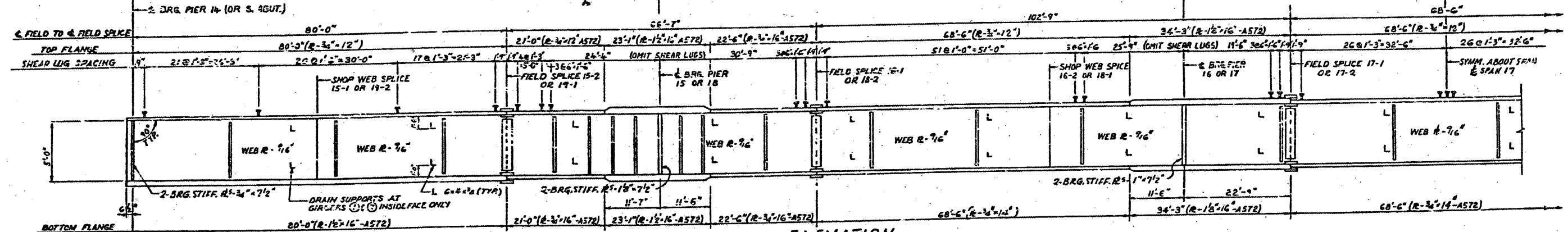
FRAMING PLAN - SPANS 12, 13 & 14  
 F. A. I. RTE. 57 OVER THE MISSISSIPPI RIVER  
 PROJECT 1-57-9(510)  
 SECTION 102-1B-1(D)  
 ALEXANDER COUNTY, ILLINOIS  
 MISSISSIPPI COUNTY, MISSOURI  
 STA. 1141 + 84.75 TO STA. 1182 + 75.25

ALFRED BENESCH & COMPANY  
 CONSULTING ENGINEERS  
 105 WABASH AVE CHICAGO, ILLINOIS

CONTRACT: 78040  
 ROUTE: F.A.I. 57  
 SECTION: (02-1B-1)P-1  
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
 SHEET 24 OF 67  
 FOR INFORMATION ONLY



STEEL FRAMING PLAN.  
 SCALE: 3/32"=1'-0"



ELEVATION  
 NO SCALE  
 GIRDER (1) SHOWN

NOTES:  
 MATERIAL - A36 - EXCEPT AS NOTED.  
 ALL DIMENSIONS SHOWN ARE IN  
 A HORIZONTAL PLANE.  
 SHEAR LUGS ARE TO BE  
 FURNISHED AND INSTALLED  
 UNDER SECTION (02-1B-1) D.  
 SHEAR LUGS ARE TO BE OMITTED AT  
 SCUPPER LOCATIONS.

GIRDER ELEVATIONS-FOR FABRICATION ONLY

GIRDER	LOCATION	S.W.S. = SHOP WEB SPLICE F.S. = FIELD SPLICE															
		BRG. PIER 14	S.W.S. 15-1	F.S. 15-2	PIER 15	F.S. 16-1	S.W.S. 16-2	PIER 16	F.S. 17-1	F.S. 17-2	PIER 17	S.W.S. 18-1	F.S. 18-2	PIER 18	F.S. 19-1	S.W.S. 19-2	BRG. S. ABUT.
1		379.882	379.773	377.697	376.692	375.684	374.169	373.316	372.654	370.599	369.376	369.000	367.410	366.445	365.521	364.516	363.130
2		380.036	379.147	377.851	376.346	375.798	374.314	373.470	372.807	370.752	370.050	369.154	367.564	366.599	365.674	364.669	363.283
3		380.190	379.301	378.004	376.499	375.951	374.467	373.623	372.961	370.906	370.203	369.307	367.717	366.752	365.828	364.823	363.437
4		380.343	379.454	378.157	376.652	376.105	374.621	373.777	373.115	371.060	370.357	369.461	367.871	366.906	365.982	364.977	363.591
5		380.190	379.301	378.004	376.499	375.951	374.467	373.623	372.961	370.906	370.203	369.307	367.717	366.752	365.828	364.823	363.437
6		380.036	379.147	377.851	376.346	375.798	374.314	373.470	372.807	370.752	370.050	369.154	367.564	366.599	365.674	364.669	363.283
7		379.882	378.993	377.697	376.192	375.644	374.160	373.316	372.654	370.599	369.376	369.000	367.410	366.445	365.521	364.516	363.130

ELEVATIONS ARE GIVEN TO TOP OF GIRDER WEB PLATE.

FILLET WELD TABLE

FLANGE R THICKNESS	WELD SIZE
OVER 1/2" TO 3/4"	1/4
OVER 3/4" TO 1 1/2"	5/16

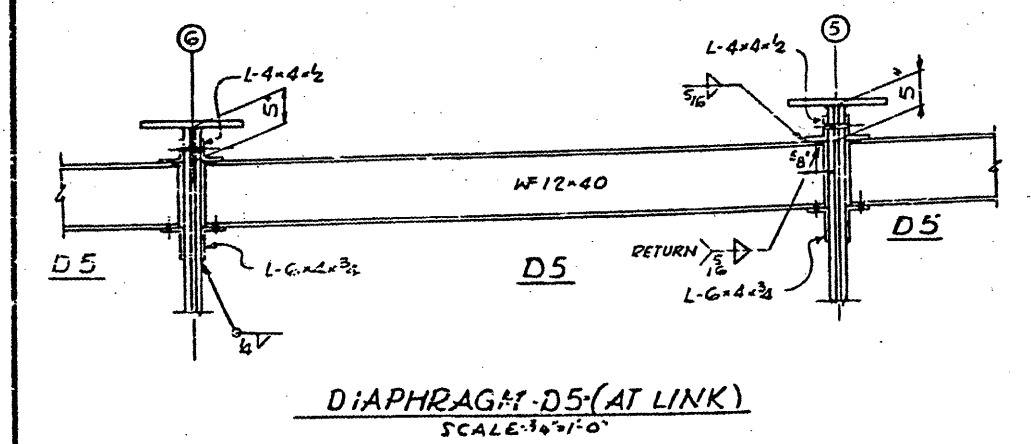
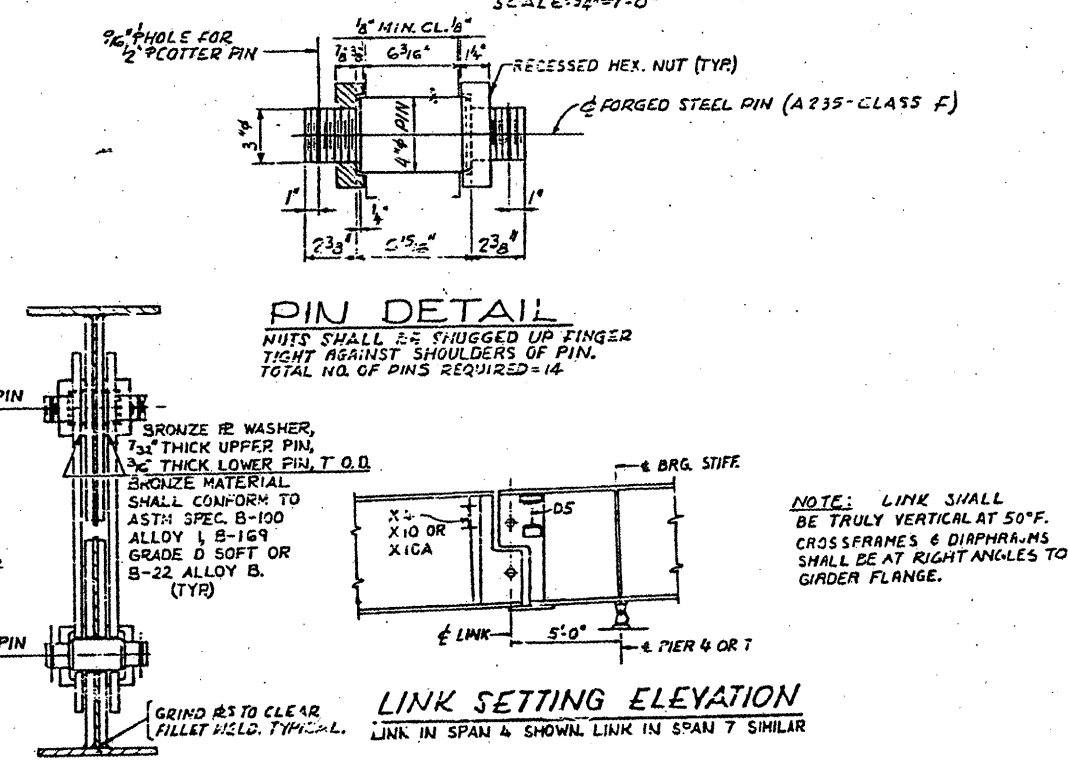
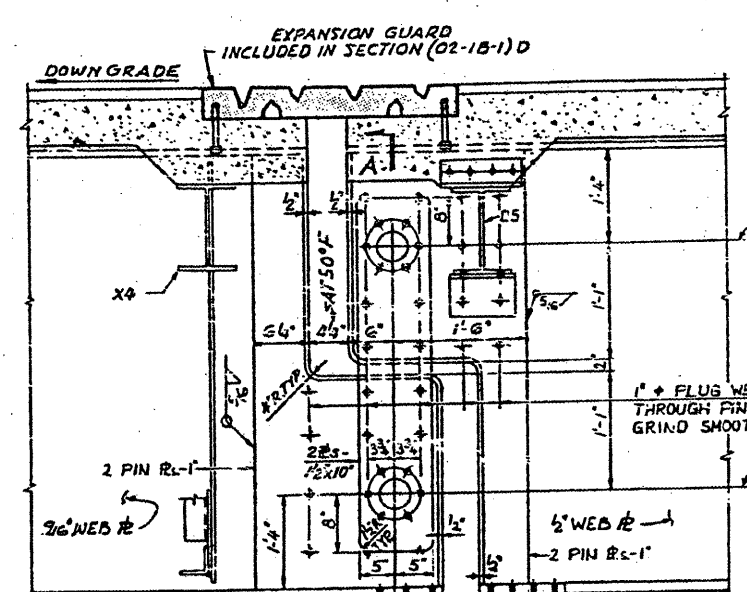
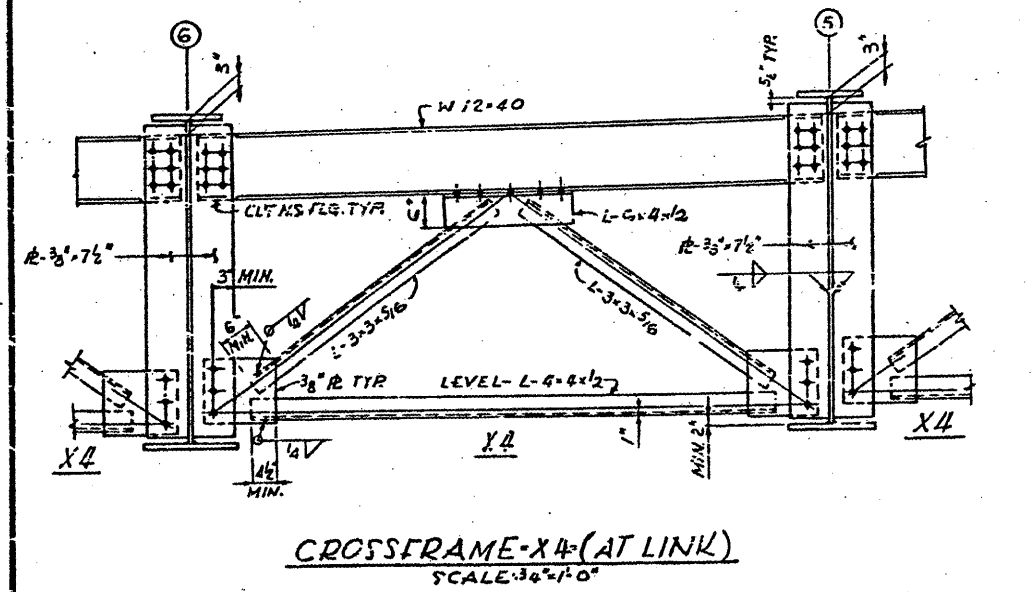
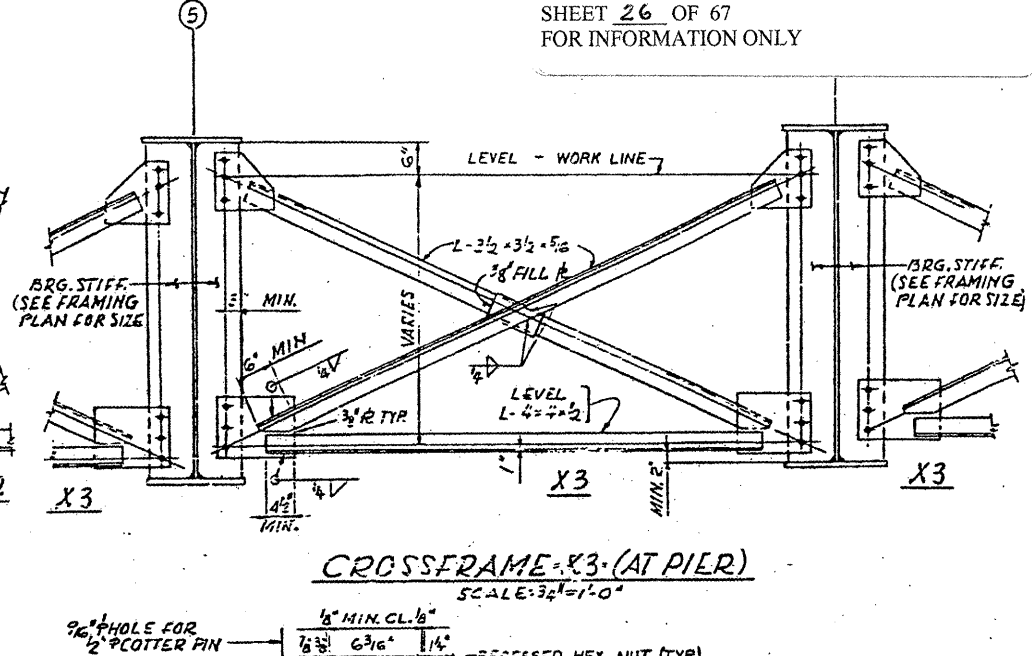
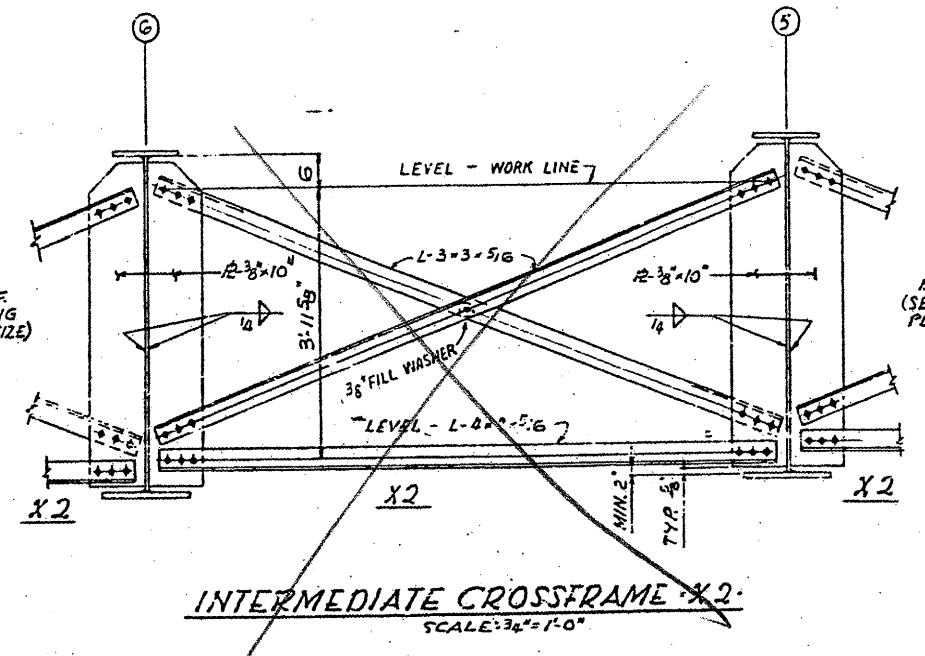
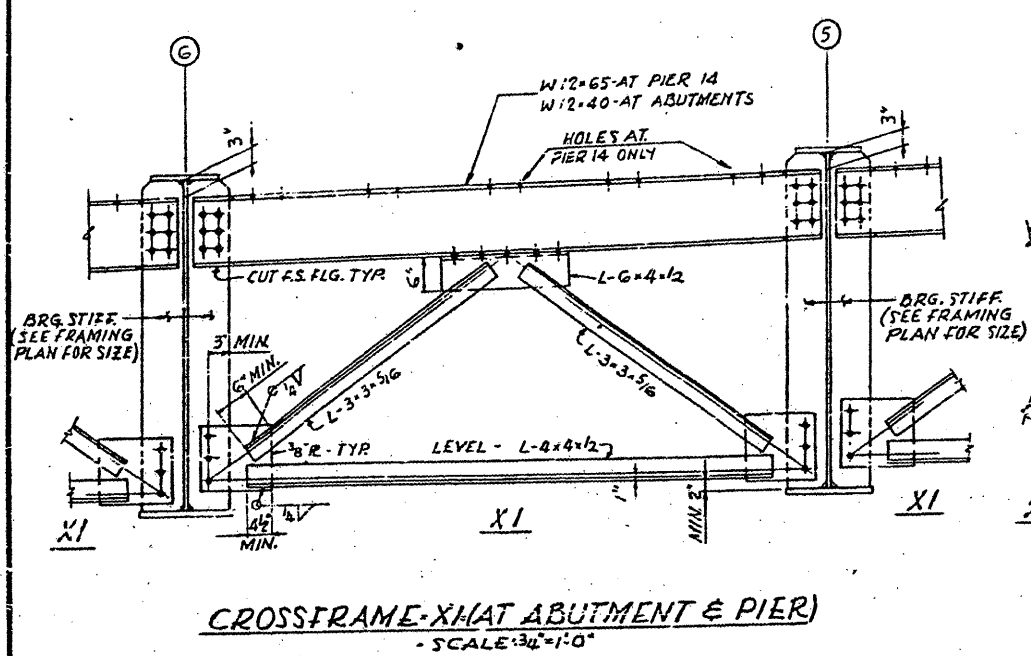
BRIDGE NO. 1  
 STRUCTURE NO. 002-0022  
 FOR INFORMATION ONLY

FRAMING PLAN - SPANS 15 TO 19  
 F. A. I. RTE 57 OVER THE MISSISSIPPI RIVER  
 PROJECT 1-57-9 (5) D.  
 SECTION (02-1B-1) D  
 ALEXANDER COUNTY, ILLINOIS  
 MISSISSIPPI COUNTY, MISSOURI  
 STA. 1141 + 84.75 TO STA. 1182 + 75.25





CONTRACT: 78040  
 ROUTE: F.A.I. 57  
 SECTION: (02-1B-1)P-1  
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
 SHEET 26 OF 67  
 FOR INFORMATION ONLY



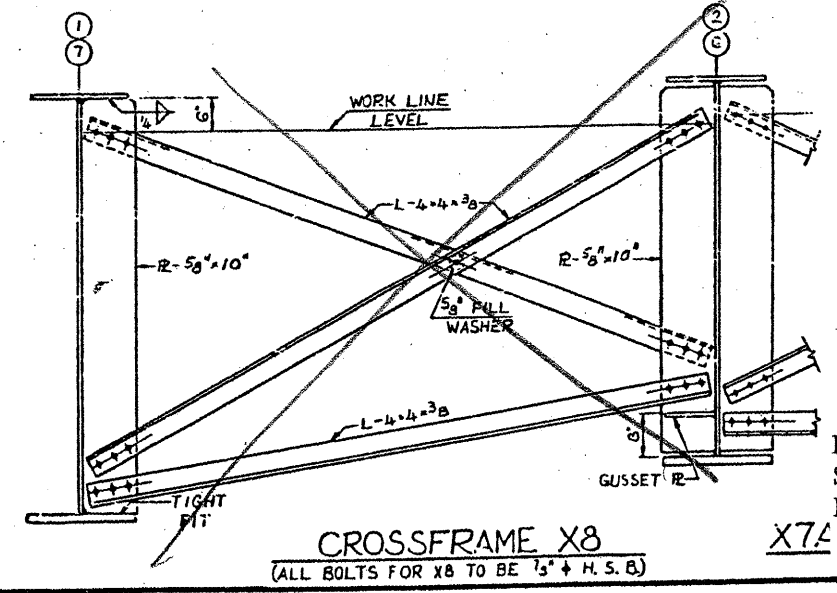
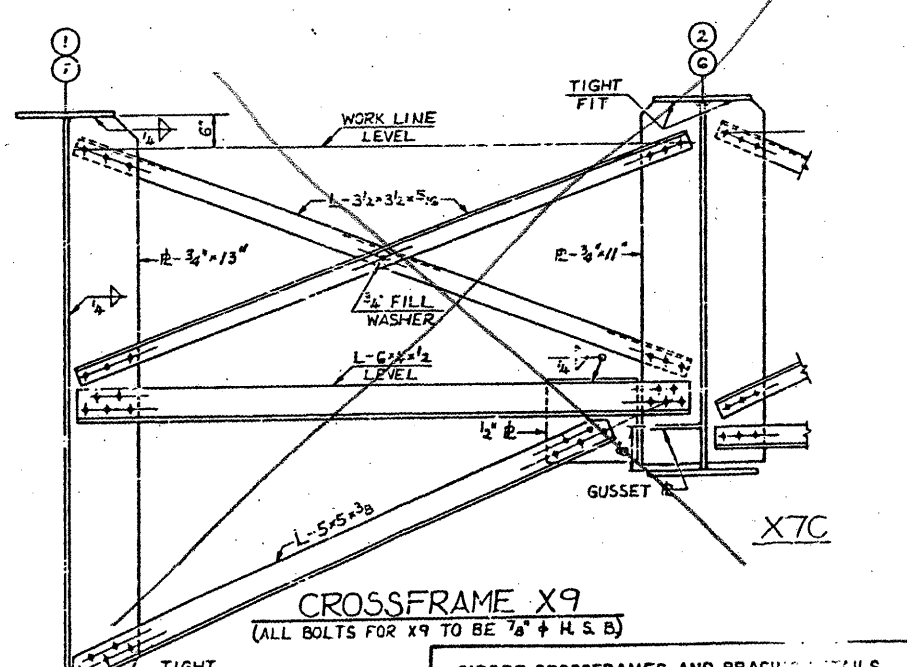
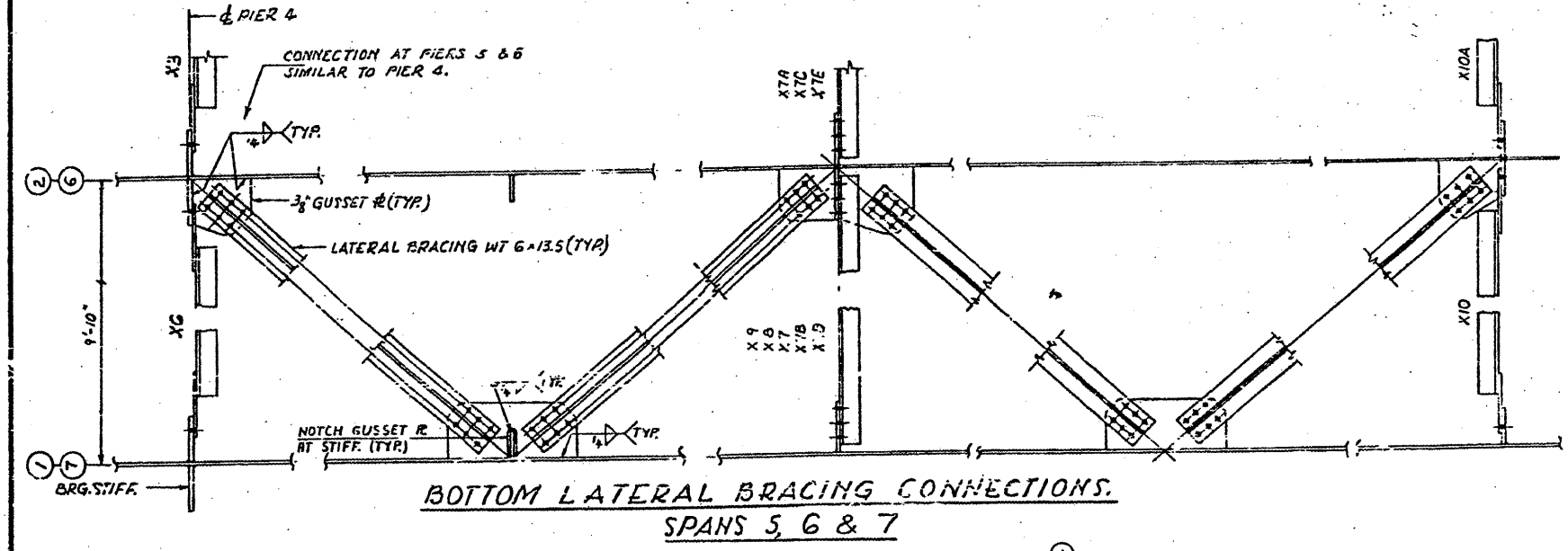
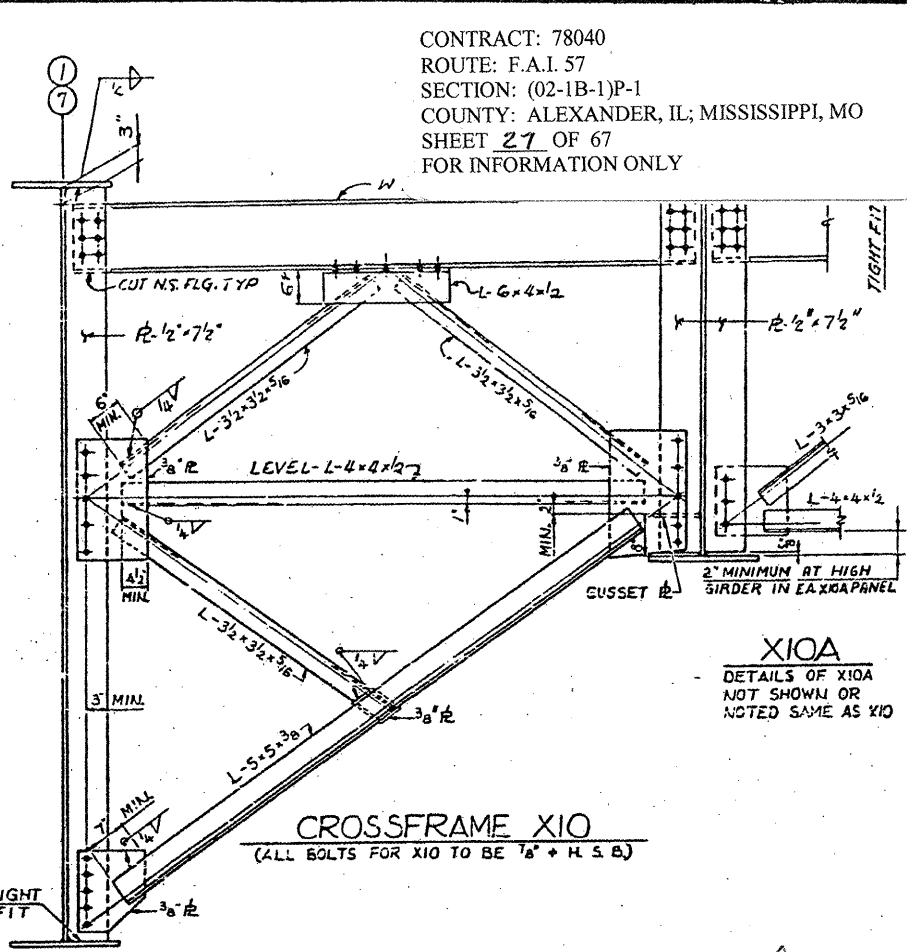
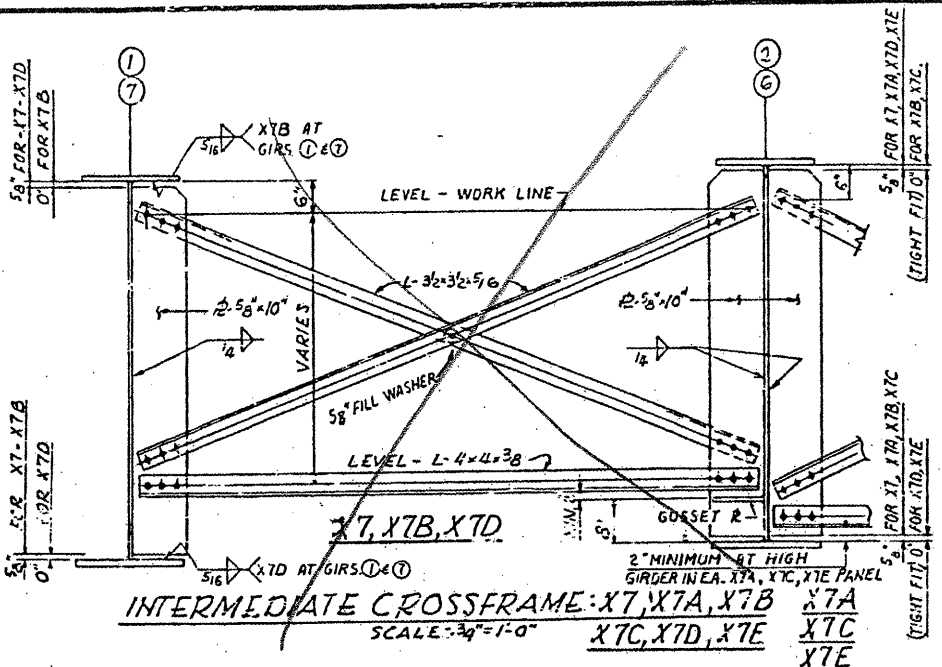
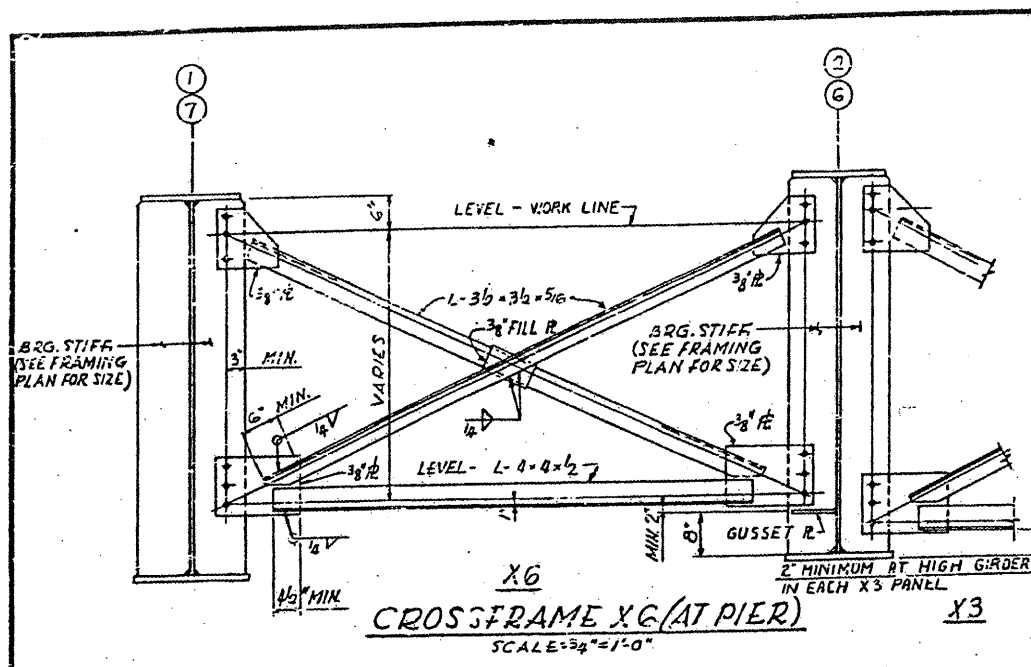
**SECTION A-A**

NOTES: ALL FASTENERS SHALL BE 3/4" ASTM A 325 HIGH STRENGTH BOLTS UNLESS NOTED.

BRIDGE NO. 1  
 STRUCTURE NO. 002-0022  
 FOR INFORMATION ONLY

**GIRDER CROSSFRAMES AND LINK DETAILS**  
 F.A.I. RTE. 57 OVER THE MISSISSIPPI RIVER  
 PROJECT 1-57-9 (S10)  
 SECTION (02-1B-1) D  
 ALEXANDER COUNTY, ILLINOIS  
 MISSISSIPPI COUNTY, MISSOURI  
 STA. 1141 + 84.75 TO STA. 1182 + 75.25

CONTRACT: 78040  
 ROUTE: F.A.I. 57  
 SECTION: (02-1B-1)P-1  
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
 SHEET 27 OF 67  
 FOR INFORMATION ONLY

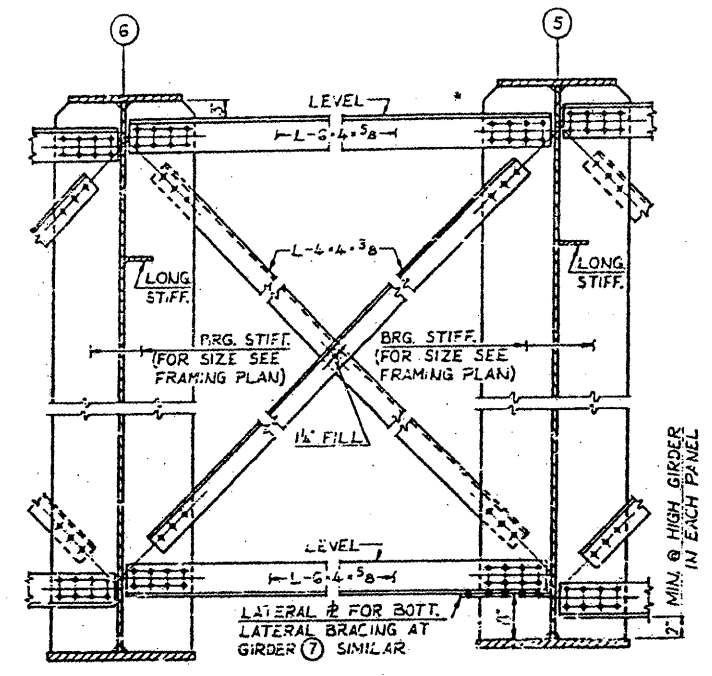


NOTES:  
 ALL MATERIAL ASTM A36 UNLESS NOTED.  
 ALL FASTENERS SHALL BE 3/4" + ASTM A325 HIGH STRENGTH BOLTS UNLESS NOTED.  
 FOR DETAIL OF STIFFENERS, SEE SH. 44

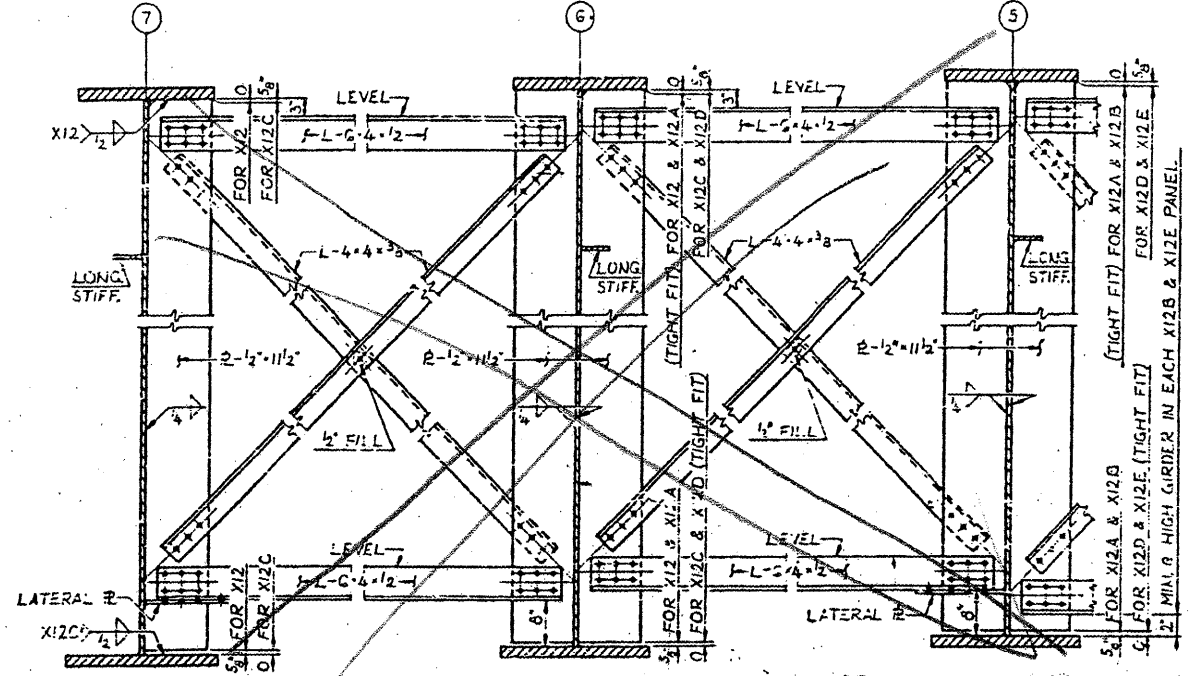
BRIDGE NO. 1  
 STRUCTURE NO. 002-0022  
 FOR INFORMATION ONLY

GIRDER CROSSFRAMES AND BRACING DETAILS  
 F.A.I. RTE. 57 OVER THE MISSISSIPPI RIVER  
 PROJECT 1-57-9 (510)  
 SECTION (02-1B-1)D  
 ALEXANDER COUNTY, ILLINOIS  
 MISSISSIPPI COUNTY, MISSOURI  
 STA. 1141 + 84.75 TO STA. 1182 + 75.25

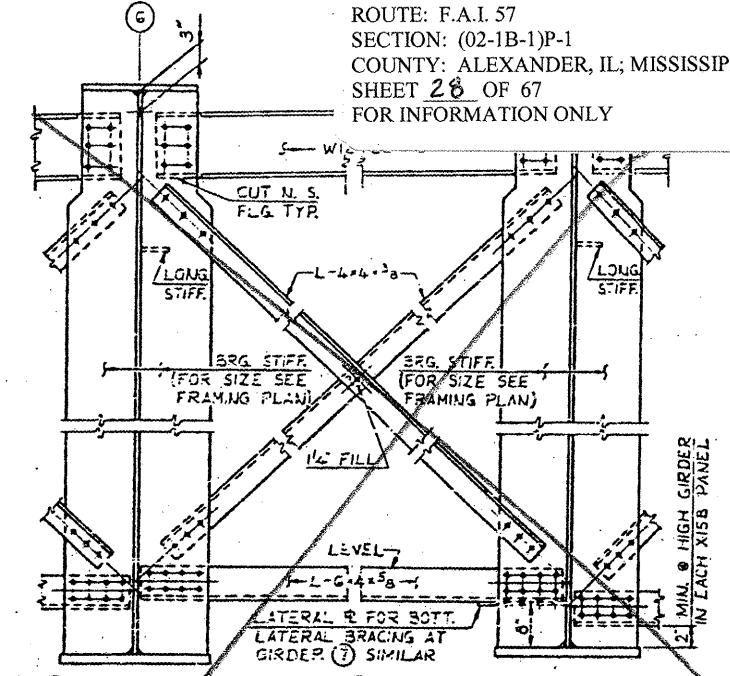
CONTRACT: 78040  
 ROUTE: F.A.I. 57  
 SECTION: (02-1B-1)P-1  
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
 SHEET 28 OF 67  
 FOR INFORMATION ONLY



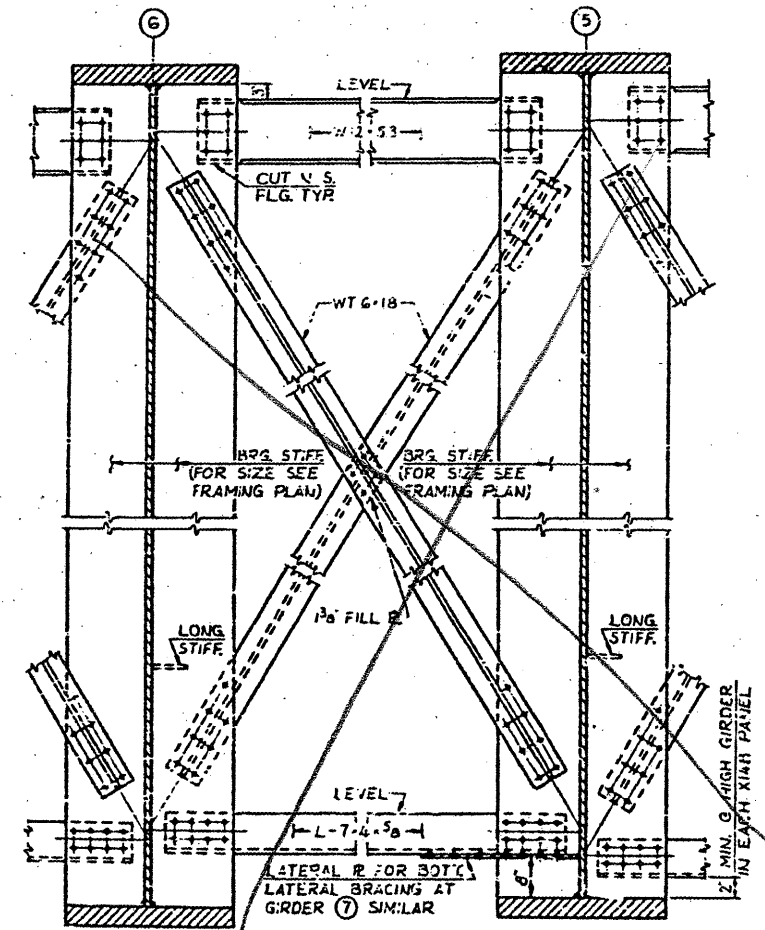
XII X11A X11B  
**CROSSFRAME XII, X11A & X11B**  
 DETAILS OF XII & X11B NOT SHOWN OR NOTED, SIMILAR TO X11A



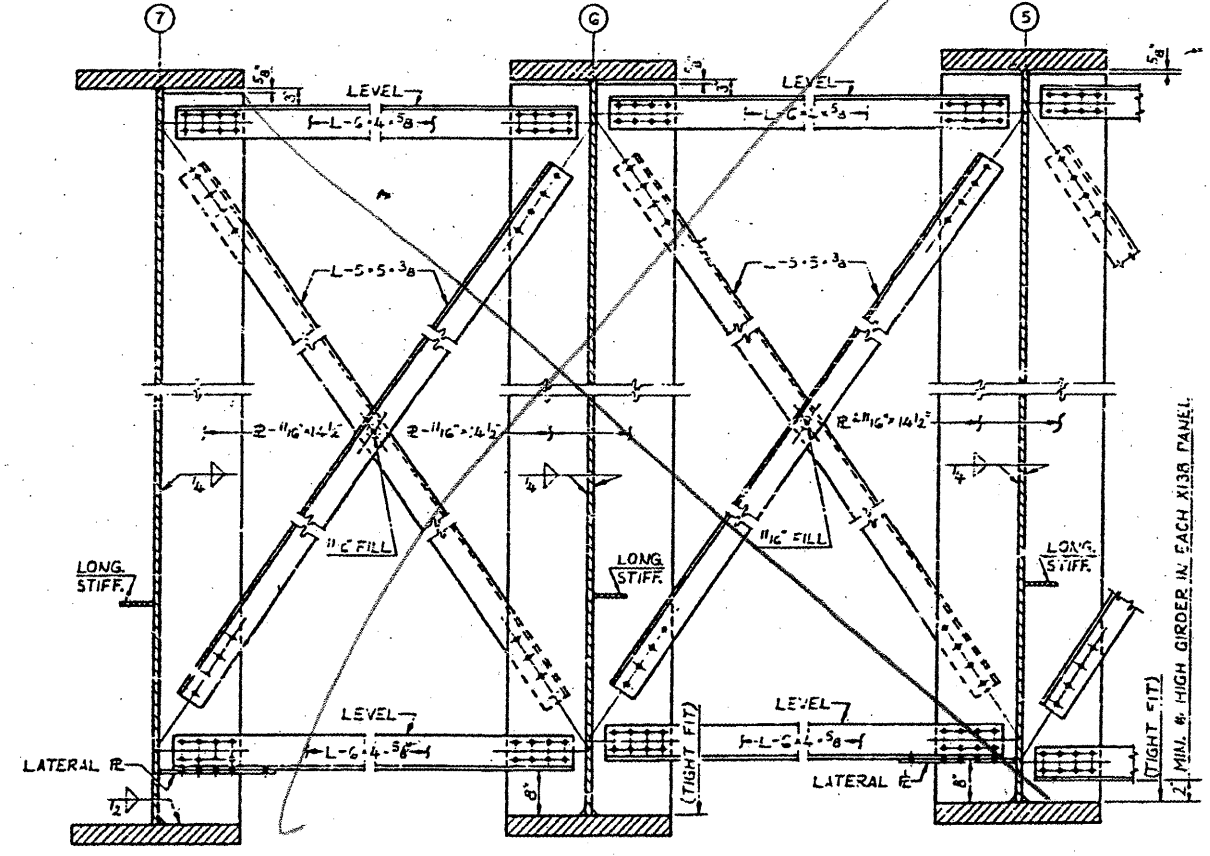
X12 & X12C X12A & X12D X12B & X12E  
**INTERMEDIATE CROSSFRAME X12, X12A, X12B, X12C, X12D & X12E**  
 DETAILS OF X12B & X12E NOT SHOWN OR NOTED, SIMILAR TO X12A & X12D



X15 X15A X15B  
**CROSSFRAME X15, X15A & X15B**  
 DETAILS OF X15 & X15B NOT SHOWN OR NOTED, SIMILAR TO X15A



X14 X14A X14B  
**CROSSFRAME X14, X14A & X14B**  
 DETAILS OF X14 & X14B NOT SHOWN OR NOTED, SIMILAR TO X14A



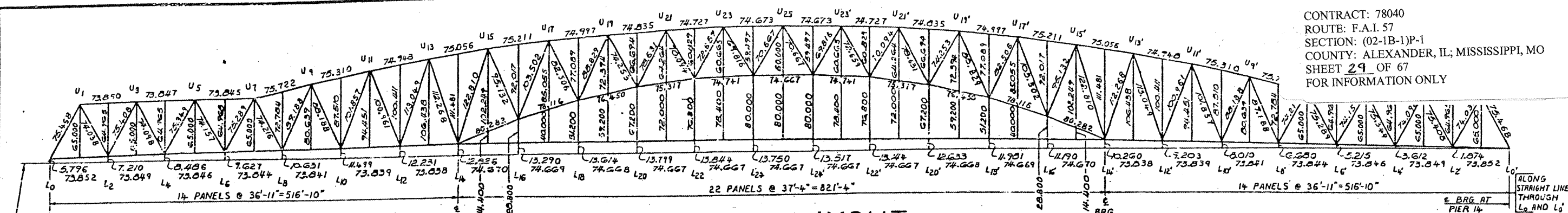
X13 X13A X13B  
**INTERMEDIATE CROSSFRAME X13, X13A & X13B**  
 DETAILS OF X13B NOT SHOWN OR NOTED, SIMILAR TO X13A

NOTES:  
 ALL MATERIAL ASTM A 36 UNLESS NOTED.  
 ALL FASTENERS SHALL BE 7/8\"/>

BRIDGE NO. 1  
 STRUCTURE NO. 002-0022  
 FOR INFORMATION ONLY

STEEL DETAILS - SPANS 8A AND 9A  
 F.A.I. RTE. 57 OVER THE MISSISSIPPI RIVER  
 PROJECT 1-57-9(5)0  
 SECTION (02-1B-1)D  
 ALEXANDER COUNTY, ILLINOIS  
 MISSISSIPPI COUNTY, MISSOURI  
 STA. 1141 + 84.75 TO STA. 1182 + 75.25

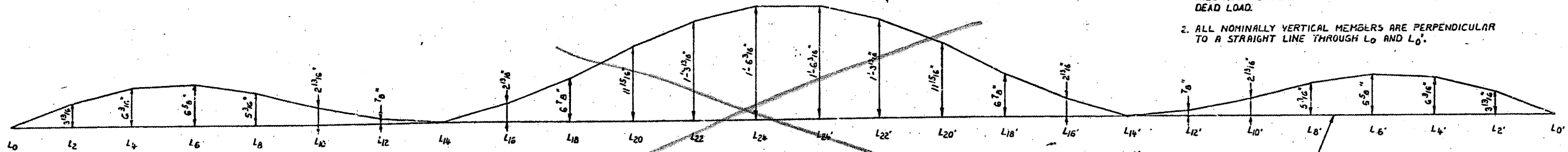
CONTRACT: 78040  
 ROUTE: F.A.I. 57  
 SECTION: (02-1B-1)P-1  
 COUNTY: ALEXANDER, IL, MISSISSIPPI, MO  
 SHEET 29 OF 67  
 FOR INFORMATION ONLY



**TRUSS LAYOUT**

SHOWING THEORETICAL LENGTHS OF MEMBERS AND FINAL POSITION OF BOTTOM CHORD. THIS CONFIGURATION IS TO BE ATTAINED AFTER ALL DEAD LOAD DEFLECTION (EXCEPT THAT CAUSED BY THE WEIGHT OF THE INITIAL WEARING SURFACE) HAS TAKEN PLACE. ALL THE LENGTHS AND OFFSETS SHOWN ARE IN FEET. SCALE: 1"=60'-0"

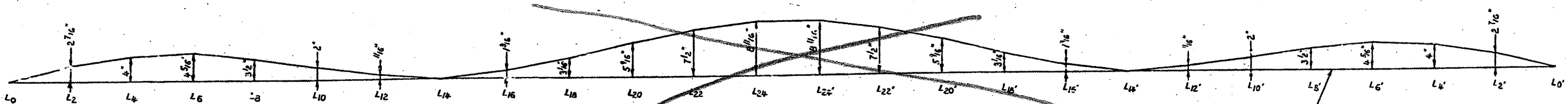
- NOTES:**
1. WITH THE TRUSS IN ITS FINAL POSITION (AFTER DEAD LOAD DEFORMATION HAS TAKEN PLACE), ALL MEMBERS ARE TO BE STRAIGHT. ALL MEMBERS SHALL BE FABRICATED STRAIGHT. THE FABRICATED LENGTHS OF MEMBERS ARE SUCH THAT SOME CHORD MEMBERS WILL HAVE TO BE FORCED INTO A CURVED POSITION DURING ERECTION; THESE MEMBERS WILL RESUME THEIR STRAIGHT SHAPE UPON APPLICATION OF DEAD LOAD.
  2. ALL NOMINALLY VERTICAL MEMBERS ARE PERPENDICULAR TO A STRAIGHT LINE THROUGH L<sub>0</sub> AND L<sub>0</sub>'.



**BLOCKING ORDINATES FOR TOTAL DEAD LOAD \***

ORDINATES ARE SHOWN RELATIVE TO THE FINAL POSITION OF THE BOTTOM CHORD \* EXCLUDING WEIGHT OF INITIAL WEARING SURFACE

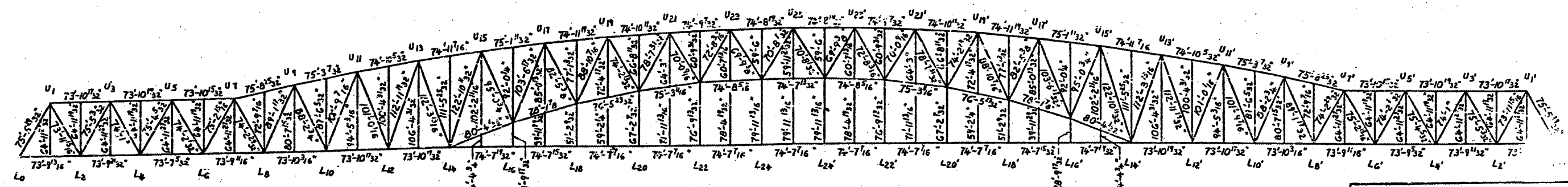
REFERENCE LINE REPRESENTING FINAL POSITION OF BOTTOM CHORD (SHOWN STRAIGHT FOR CONVENIENCE)



**BLOCKING ORDINATES FOR WEIGHT OF DECK CONCRETE**

ORDINATES ARE SHOWN RELATIVE TO THE FINAL POSITION OF THE BOTTOM CHORD

REFERENCE LINE REPRESENTING FINAL POSITION OF BOTTOM CHORD (SHOWN STRAIGHT FOR CONVENIENCE)



**FABRICATED LENGTHS**

THE LENGTHS SHOWN ARE THE THEORETICAL LENGTHS OF MEMBERS CORRECTED FOR DEFORMATION DUE TO DEAD LOAD. SCALE: 1"=60'-0"

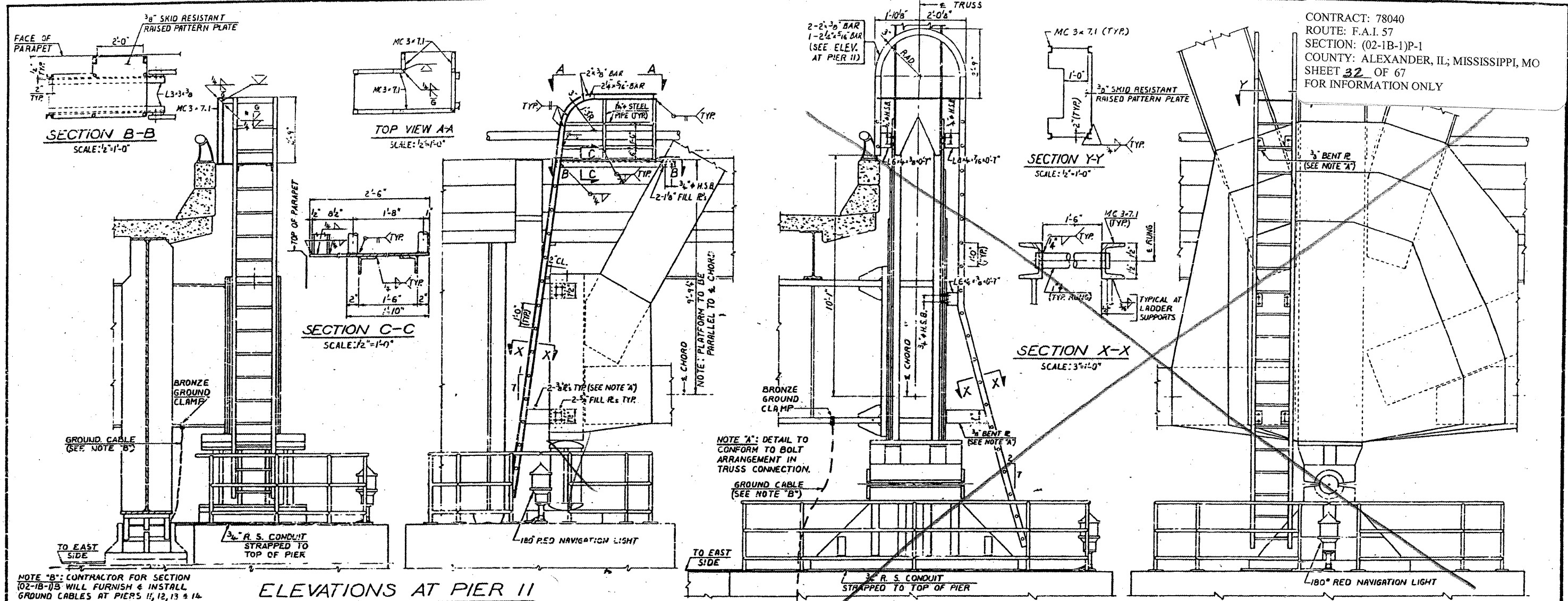
BRIDGE NO 1  
 STRUCTURE NO. 002-0022  
 FOR INFORMATION ONLY

**TRUSS LAYOUT & BLOCKING ORDINATES**  
**F. A. I. RTE. 57 OVER THE MISSISSIPPI RIVER**  
**PROJECT 1-57-9 (5)0**  
**SECTION (02-1B-1)D**  
**ALEXANDER COUNTY, ILLINOIS**  
**MISSISSIPPI COUNTY, MISSOURI**  
**STA. 1141 + 84.75 TO STA. 1182 + 75.25**





CONTRACT: 78040  
 ROUTE: F.A.I. 57  
 SECTION: (02-1B-1)P-1  
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
 SHEET 32 OF 67  
 FOR INFORMATION ONLY



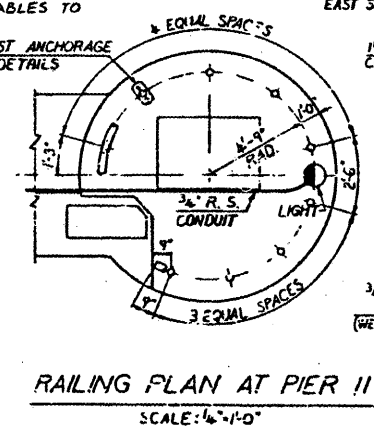
**ELEVATIONS AT PIER II**

**ELEVATIONS AT PIER 12**

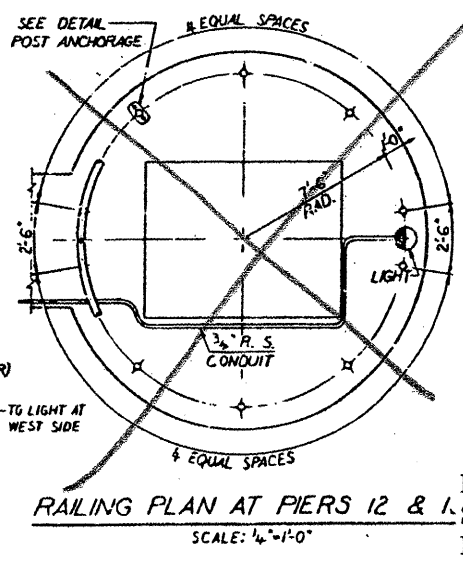
NOTE "B": CONTRACTOR FOR SECTION (02-1B-1)B WILL FURNISH & INSTALL GROUND CABLES AT PIERS 11, 12, 13 & 14 AS SHOWN ON SHTS. 68, 69, 70 & 71. CONTRACTOR FOR SECTION (02-1B-1)D SHALL CONNECT GROUND CABLES TO FLOOR BEAMS.

NOTE "A": DETAIL TO CONFORM TO BOLT ARRANGEMENT IN TRUSS CONNECTION.

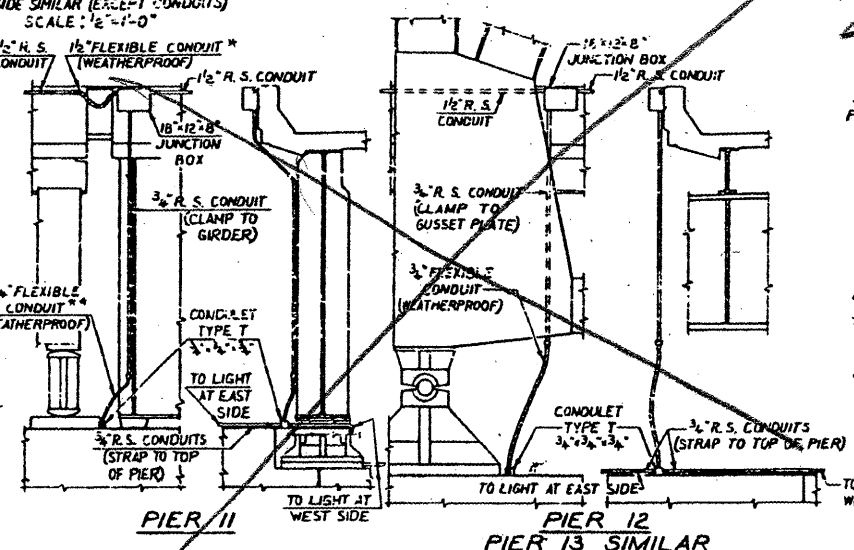
NOTE: AT PIER 14 PROVIDE LADDERS & RAILINGS



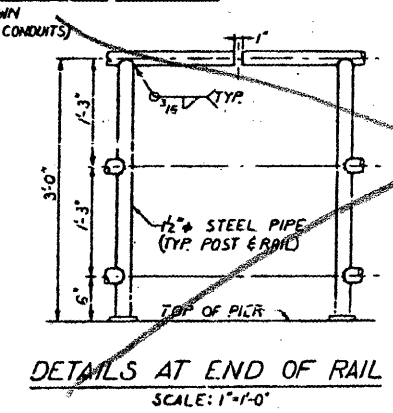
**RAILING PLAN AT PIER II**  
SCALE: 1/4"=1'-0"



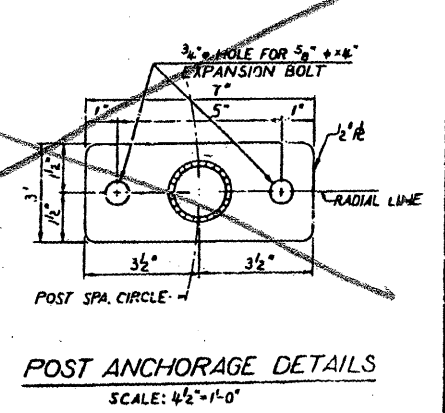
**RAILING PLAN AT PIERS 12 & 13**  
SCALE: 1/4"=1'-0"



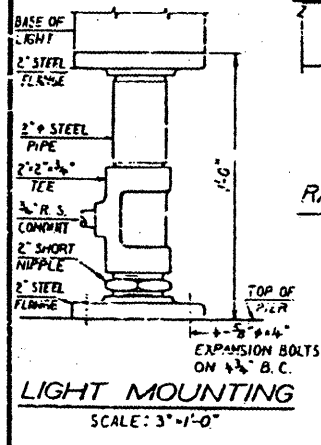
**CONDUITS AT EAST SIDE**  
SCALE: 1/2"=1'-0"



**DETAILS AT END OF RAIL**  
SCALE: 1"=1'-0"



**POST ANCHORAGE DETAILS**  
SCALE: 1/2"=1'-0"



**LIGHT MOUNTING**  
SCALE: 3/4"=1'-0"

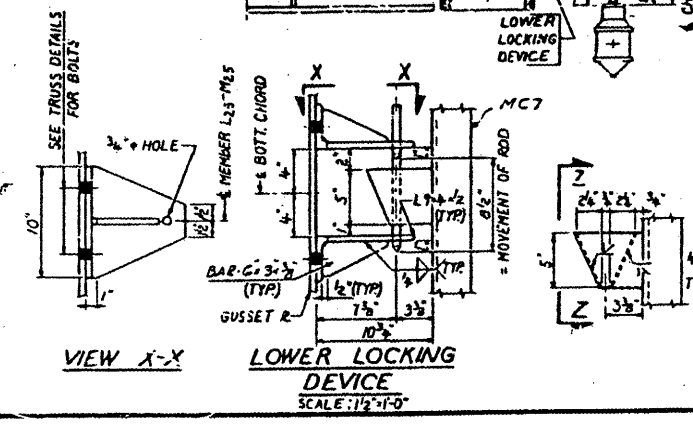
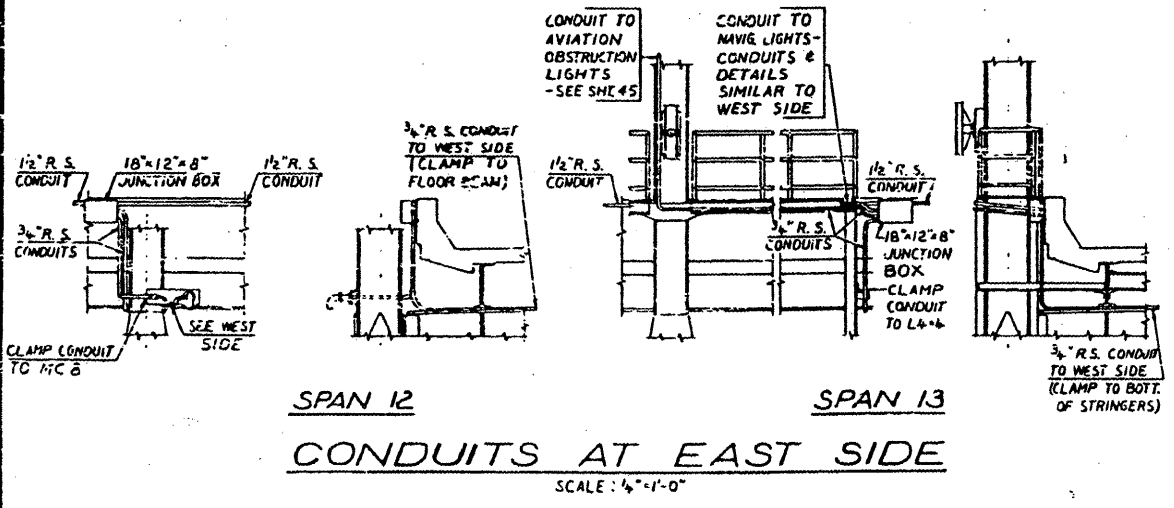
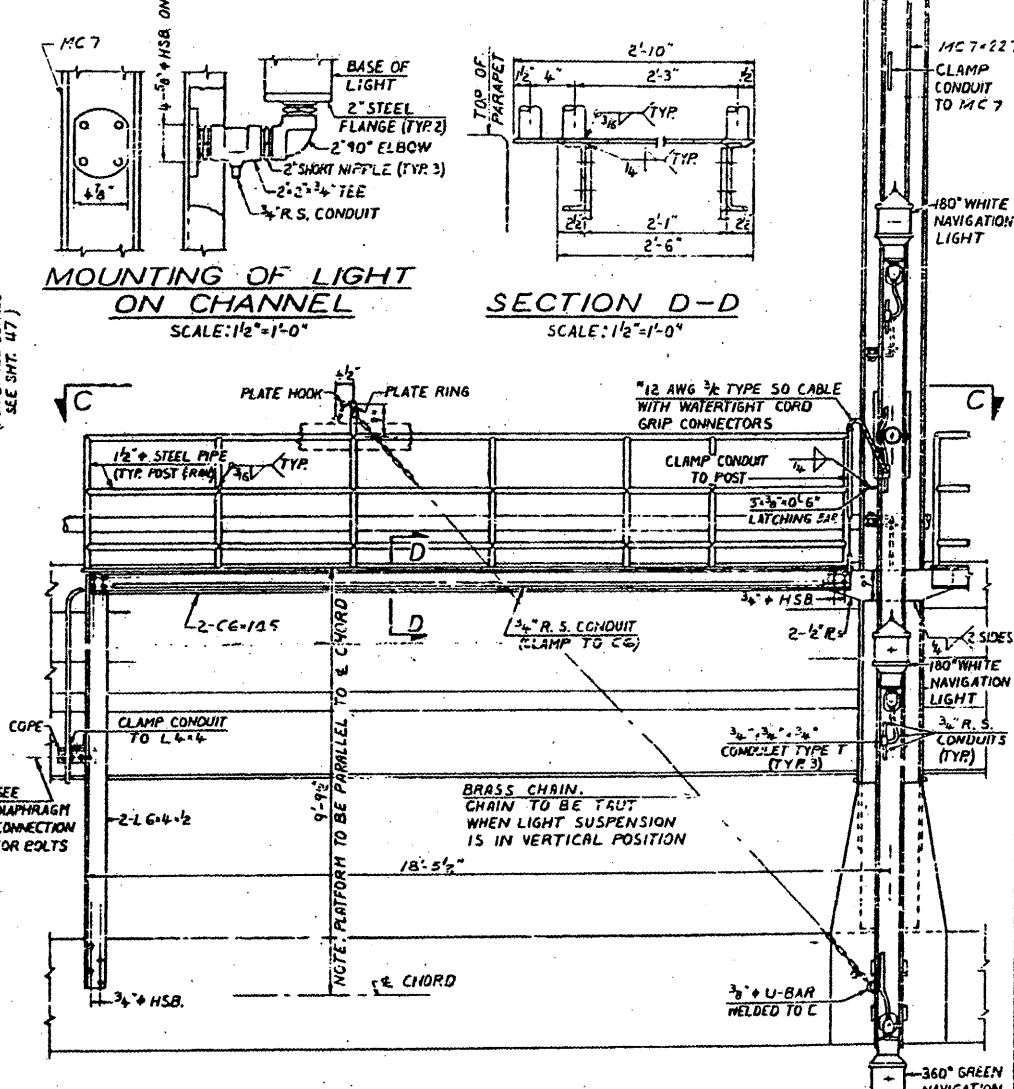
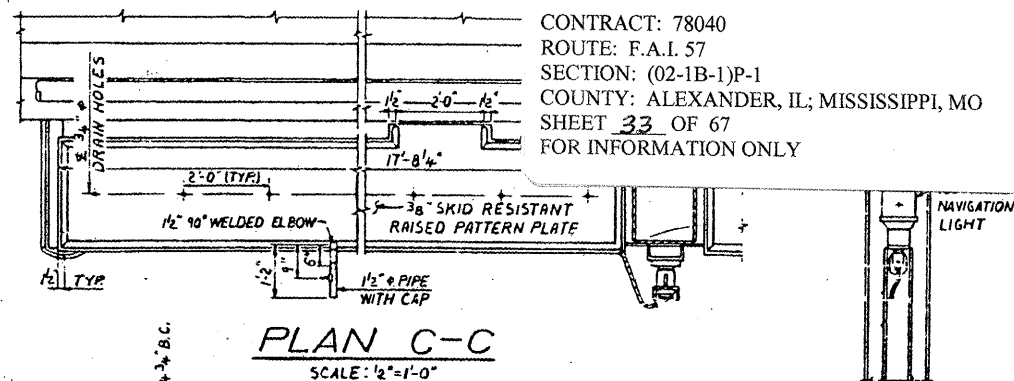
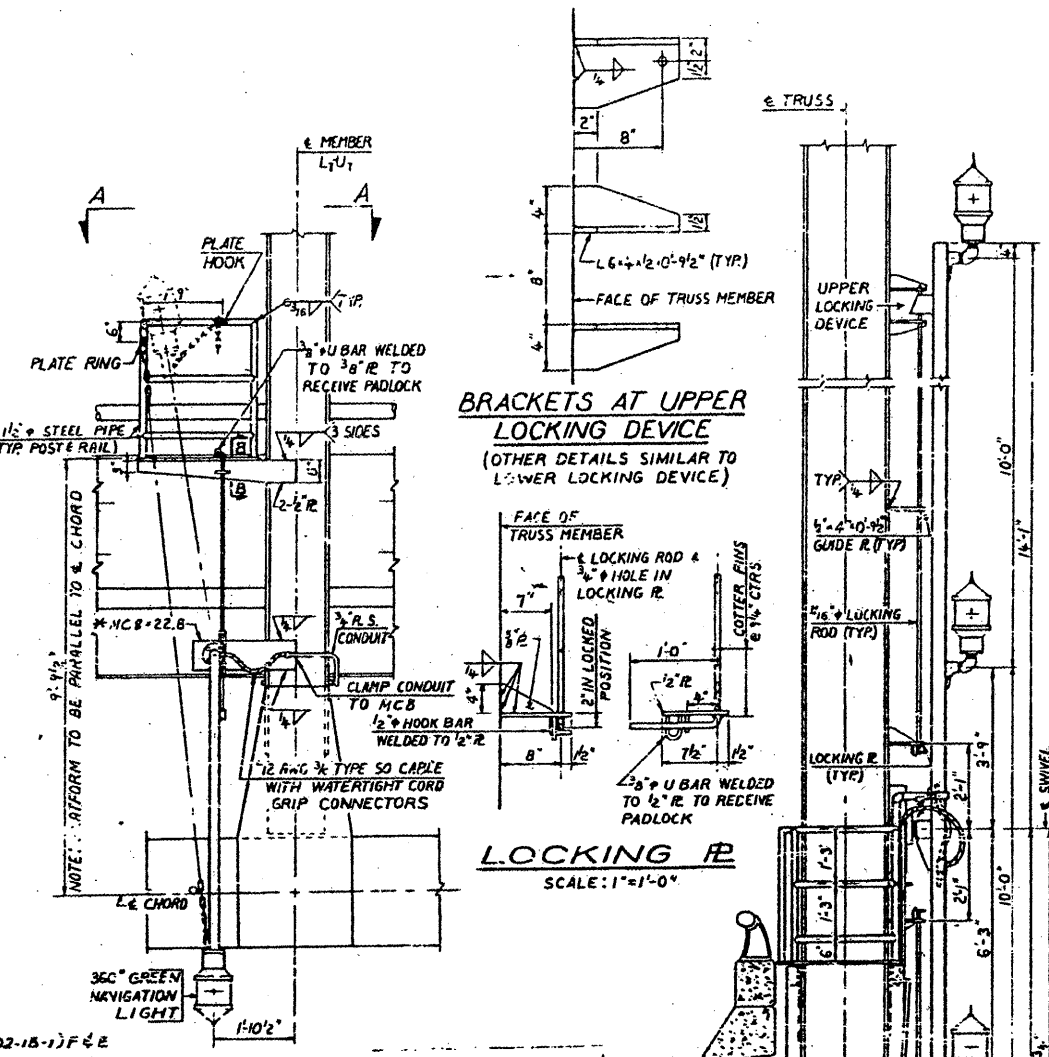
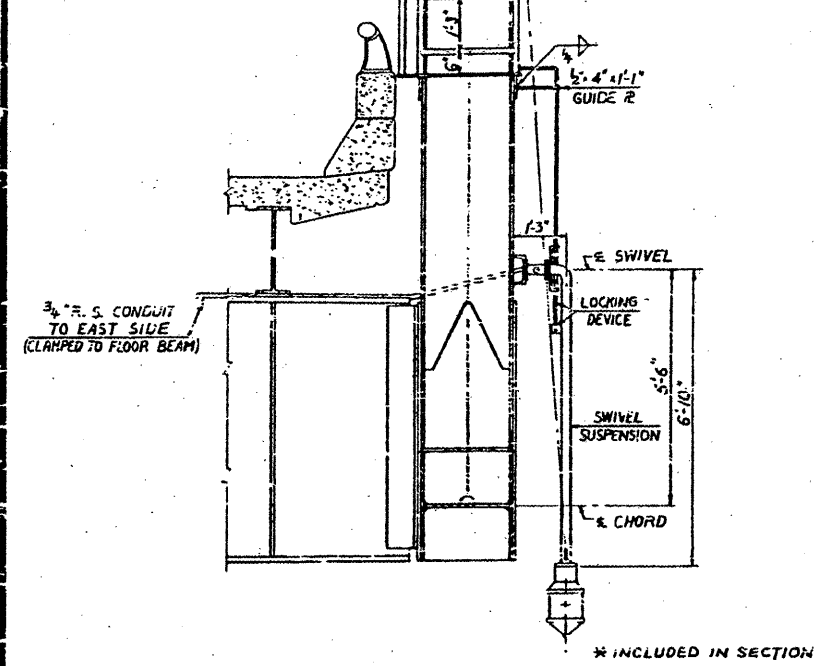
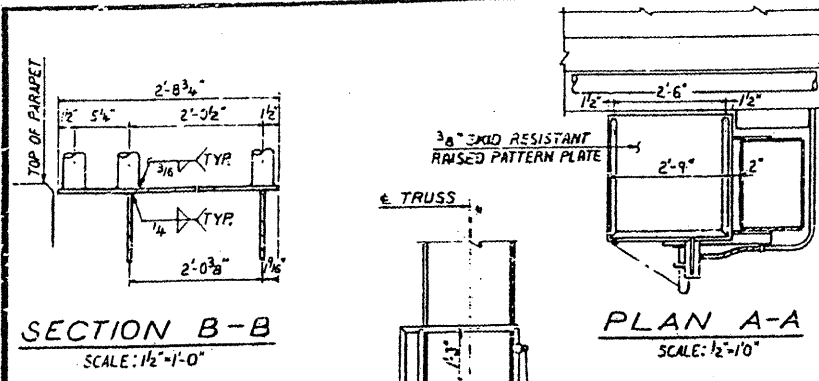
\* MAX. HORIZONTAL MOVEMENT BETWEEN ENDS = 1'-10"  
 \*\* MAX. HORIZONTAL MOVEMENT BETWEEN ENDS = 7"

BRIDGE NO. 1  
 STRUCTURE NO. 002-0022  
 FOR INFORMATION ONLY

**PIER LIGHT, LADDER & RAILING DETAILS**  
 F.A.I. RTE. 97 OVER THE MISSISSIPPI RIVER  
 PROJECT 1-57-91 (10)  
 SECTION (02-1B-1)P-1  
 ALEXANDER COUNTY, ILLINOIS  
 MISSISSIPPI COUNTY, MISSOURI  
 STA. 1141 + 84.78 TO STA. 1182 + 75.25



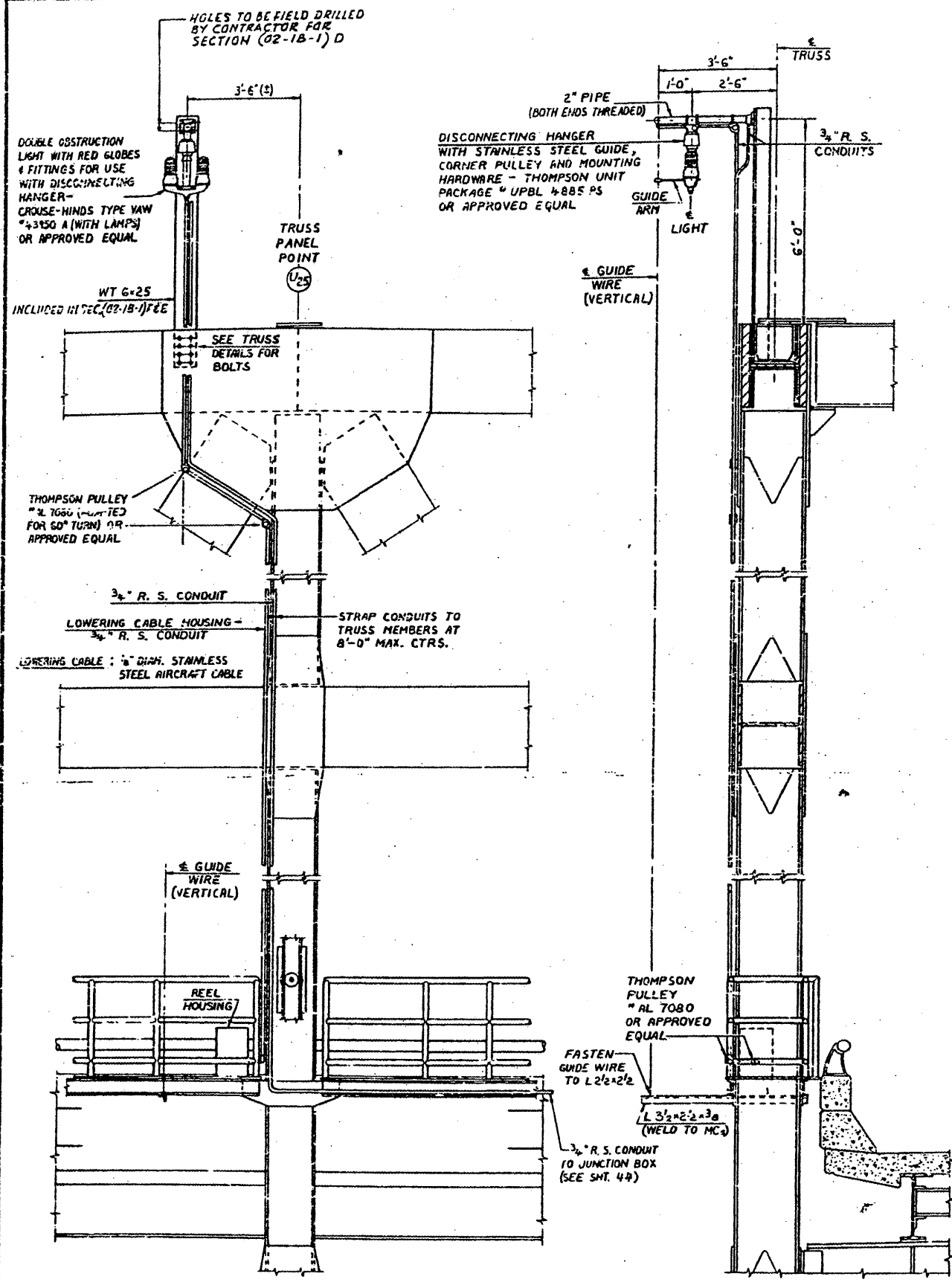
CONTRACT: 78040  
 ROUTE: F.A.I. 57  
 SECTION: (02-1B-1)P-1  
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
 SHEET 33 OF 67  
 FOR INFORMATION ONLY



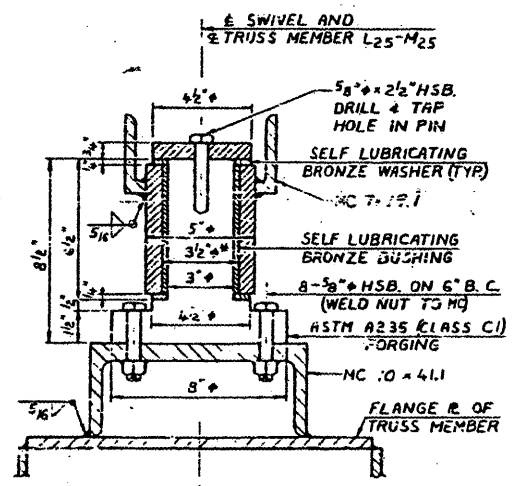
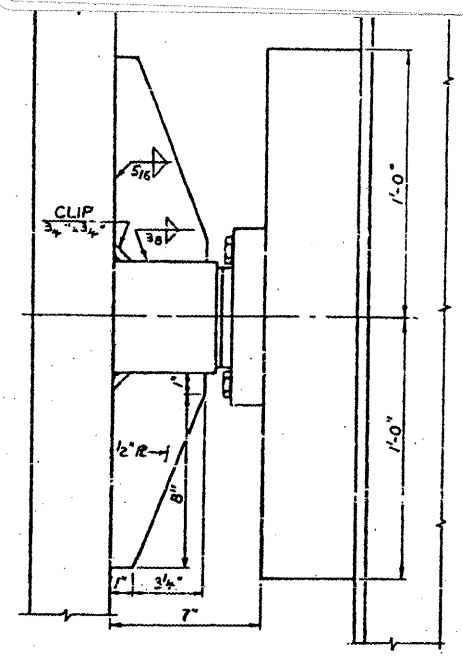
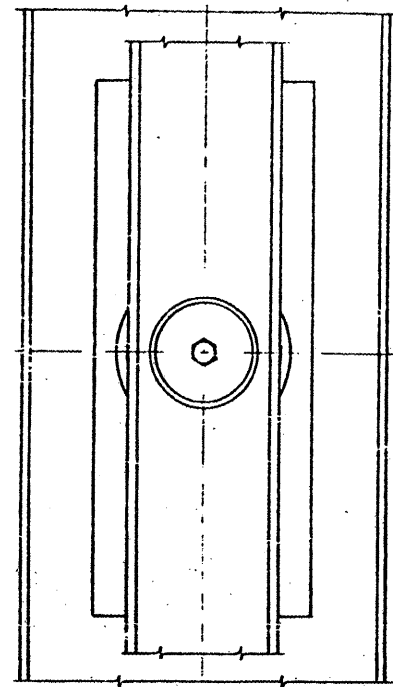
BRIDGE NO. 1  
 STRUCTURE NO. 002-0022  
 FOR INFORMATION ONLY

**CENTER OF CHANNEL NAVIGATION LIGHT DETAILS**  
 F. A. I. RTE. 57 OVER THE MISSISSIPPI RIVER  
 PROJECT 1-57-9 (10)  
 SECTION (02-1B-1)F&E  
 ALEXANDER COUNTY, ILLINOIS  
 MISSISSIPPI COUNTY, MISSOURI  
 STA. 1141 + 84.75 TO STA. 1182 + 75.25

CONTRACT: 78040  
 ROUTE: F.A.I. 57  
 SECTION: (02-1B-1)P-1  
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
 SHEET 34 OF 67  
 FOR INFORMATION ONLY



**AVIATION OBSTRUCTION LIGHTING DETAILS**  
 ON EAST SIDE OF BRIDGE  
 SCALE: 1/2" = 1'-0"



CLEARANCES AND SURFACE FINISHES SHALL BE AS REQUIRED FOR PROPER OPERATION OF THE SELF LUBRICATING BUSHING AND WASHERS

\* INTERFERENCE FIT BETWEEN BUSHING & HOUSING

**SWIVEL FOR NAVIGATION LIGHT SUSPENSION IN SPAN 13**  
 SCALE: 3/4" = 1'-0"

BRIDGE NO. 1  
 STRUCTURE NO. 002-002  
 FOR INFORMATION ONLY

AVIATION OBSTRUCTION LIGHT TAILS  
 F.A.I. RTE. 57 OVER THE MISSISSIPPI RIVER  
 PROJECT 1-57-9(1)0  
 SECTION (02-1B-1)P-1  
 ALEXANDER COUNTY, ILLINOIS  
 MISSISSIPPI COUNTY, MISSOURI  
 STA. 1141 + 84.75 TO STA. 1182 + 75.25



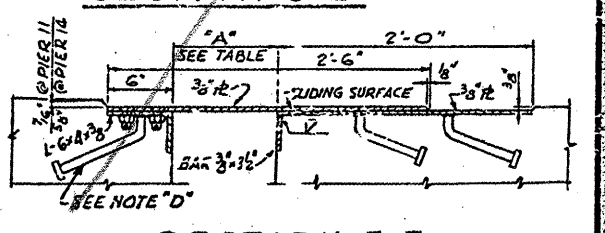
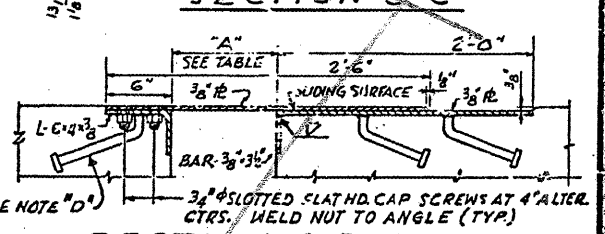
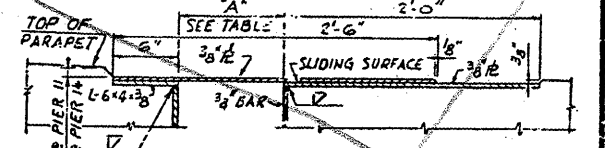


CONTRACT: 78040  
 ROUTE: F.A.I. 57  
 SECTION: (02-1B-1)P-1  
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
 SHEET 37 OF 67  
 FOR INFORMATION ONLY

TABLE OF "A" AND "B" DIMENSIONS

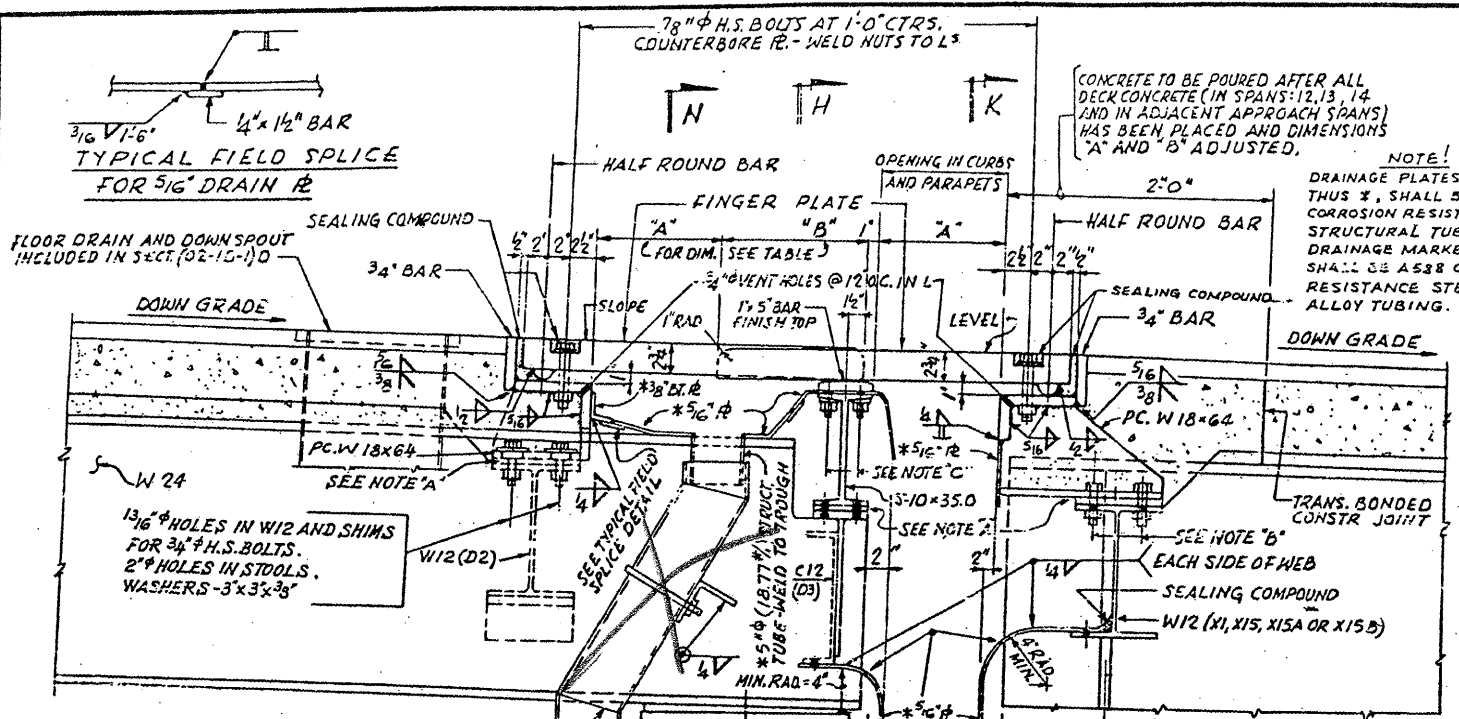
TEMP (°F)	BEFORE DECK CONCRETE IN SPANS 12, 13 & 14 IS POURED		AFTER DECK CONCRETE IN SPANS 12, 13 & 14 IS POURED	
	PIER 11	PIER 14	PIER 11	PIER 14
130	6' 5 1/2"	10' 1 1/2"	6' 1 1/2"	10' 1 1/2"
110	8' 1/4"	16' 3/4"	8' 1/2"	16' 3/4"
90	10' 3/8"	16' 11/16"	10' 3/8"	16' 11/16"
TO 12' 1/2"	12' 1/2"	12' 1/2"	12' 1/2"	12' 1/2"
50	14' 1/2"	11' 1/2"	11' 1/2"	11' 1/2"
30	15' 5/8"	11' 1/2"	11' 1/2"	11' 1/2"
10	17' 1/2"	11' 1/2"	11' 1/2"	11' 1/2"
-10	19' 1/2"	11' 1/2"	11' 1/2"	11' 1/2"
-30	21' 1/2"	11' 1/2"	11' 1/2"	11' 1/2"

\* TEMPERATURE AT TIME OF ADJUSTMENT OF EXPANSION GUARD

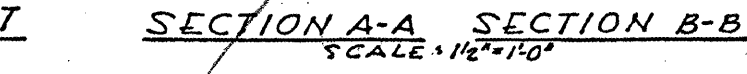
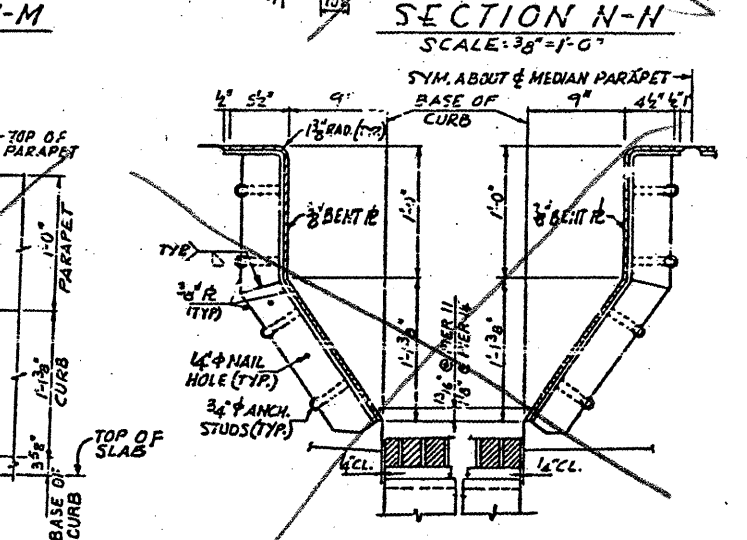
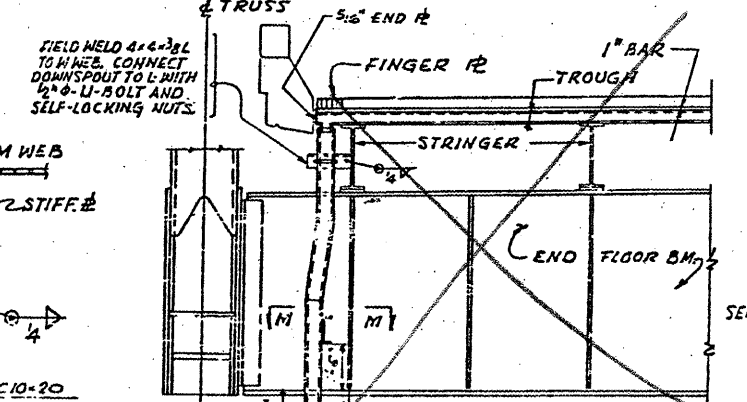
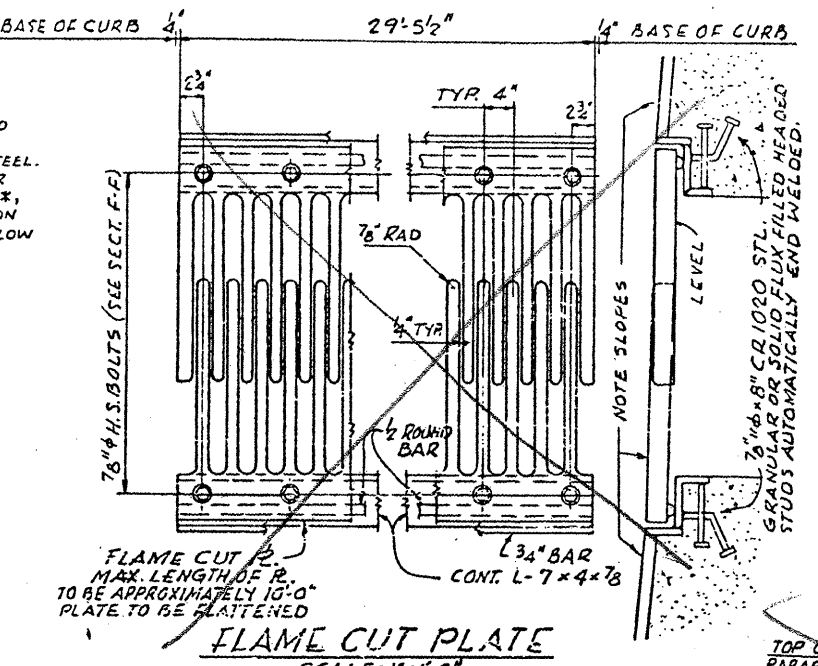
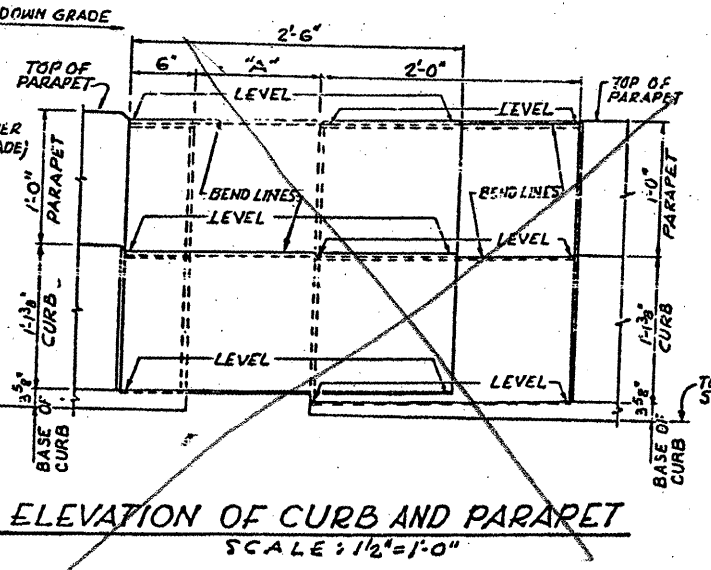
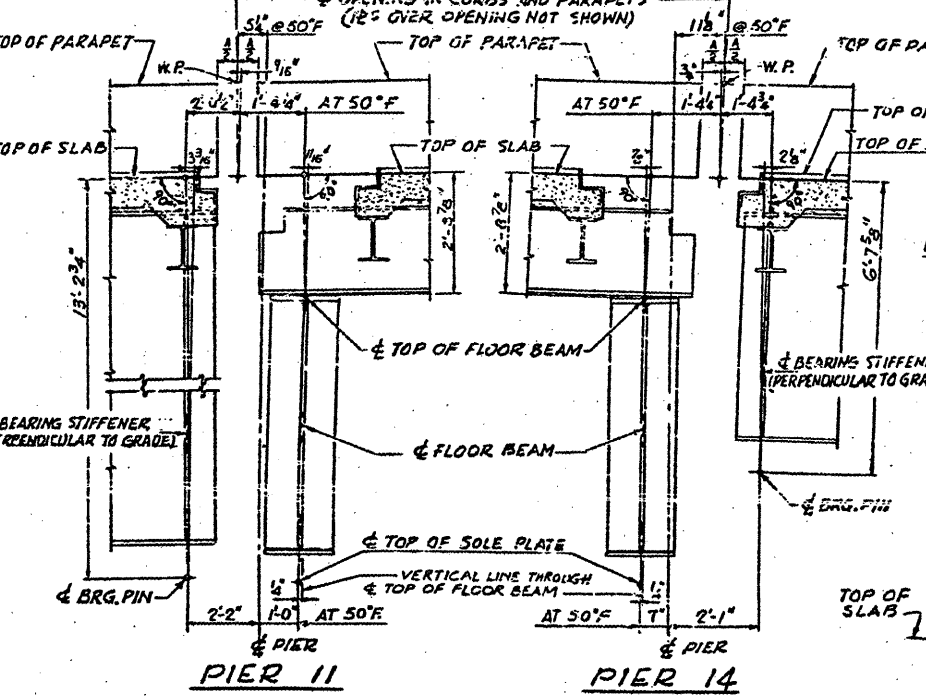


BRIDGE NO 1  
 STRUCTURE NO. 002-0022  
 FOR INFORMATION ONLY

EXPANSION GUARD - PIER 14  
 F.A.I. RTE. 57 OVER THE M. PI RIVER  
 PROJECT 1-57-5  
 SECTION 02-1B-1P  
 ALEXANDER COUNTY, ILLINOIS  
 MISSISSIPPI COUNTY, MISSOURI  
 STA. 1141 + 84.75 TO STA. 1182 + 75.25

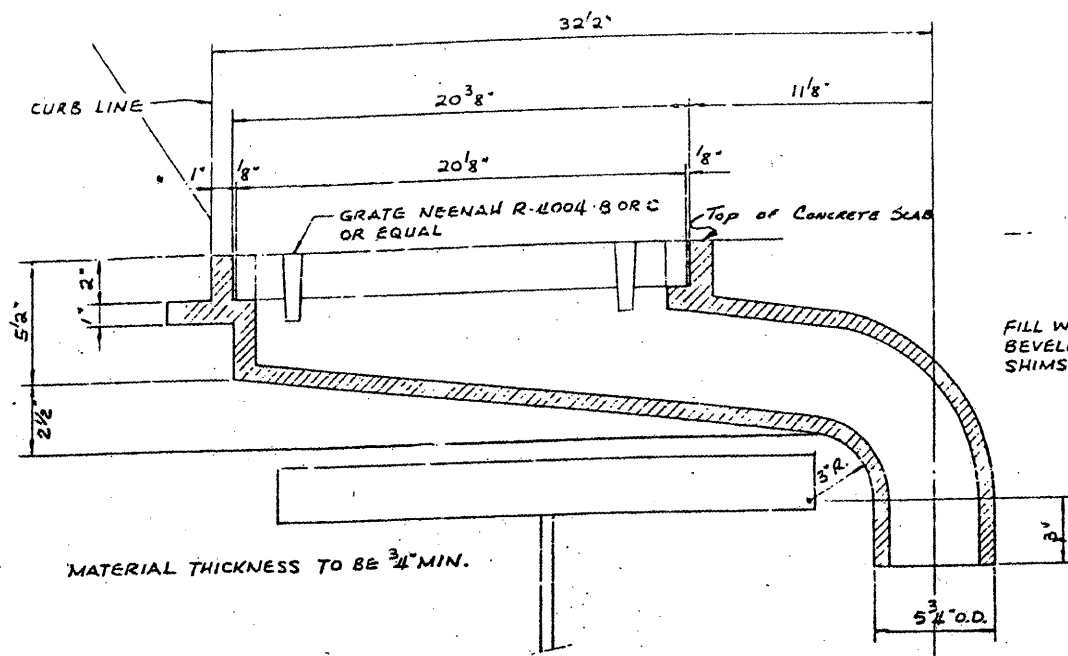


NOTE A: 1/4" NORMAL SHIM IR PLUS ONE 1/8" & 2-1/16" SHIM IR (FOR HEIGHT ADJUSTMENT)  
 NOTE B: SHOP HOLES IN STOODLS & SHIMS FOR 3/4" H.S. BOLTS. FIELD DRILL HOLES IN W12 FLUX FILLED, THREADED STUDS AUTO. END WELDED AT 7/8" ALT. CTRS. 1/16" HOLE IN FLG. OE S10. BEVALED WASHERS AND SELF-LOCK NUTS.  
 NOTE C: 1/2" CR 1020 STL GRANULAR OR SOLID FLUX FILLED HEADED STUDS AUTOMATICALLY END WELDED.  
 NOTE D: 3/4" CR 1020 STL GRANULAR OR SOLID FLUX FILLED HEADED STUDS AUTOMATICALLY END WELDED.

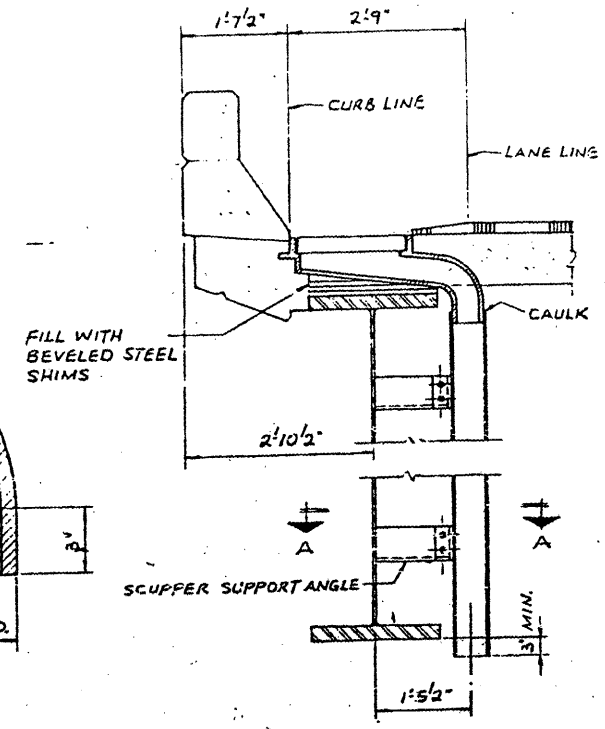


ALFRED BENESCH & COMPANY  
 CONSULTING ENGINEERS  
 10 S. WABASH AVE. CHICAGO, ILLINOIS

CONTRACT: 78040  
 ROUTE: F.A.I. 57  
 SECTION: (02-1B-1)P-1  
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
 SHEET 38 OF 67  
 FOR INFORMATION ONLY



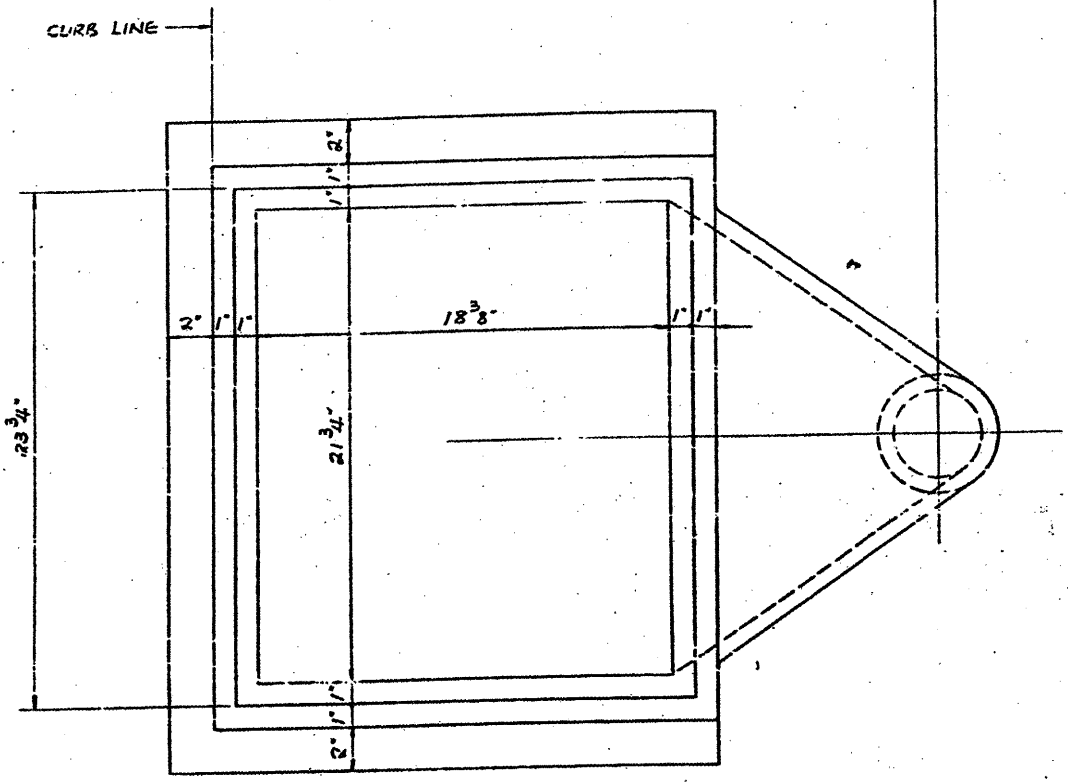
MATERIAL THICKNESS TO BE 3/4" MIN.



**SECTION A-A**

**DETAIL AT GIRDER SPANS  
 SPANS 1 TO 9A & 15 TO 19**

**NOTES:**  
 FOR LOCATION OF SCUPPERS SEE FRAMING PLAN.  
 SCUPPER SUPPORT ANGLES ARE TO BE FURNISHED  
 AND ERECTED BY CONTRACTOR FOR SECTION (02-1B-1) P & E.  
 ALL OTHER MATERIAL SHOWN ON THIS SHEET IS TO BE  
 FURNISHED AND ERECTED BY CONTRACTOR FOR SECTION (02-1B-1) D.



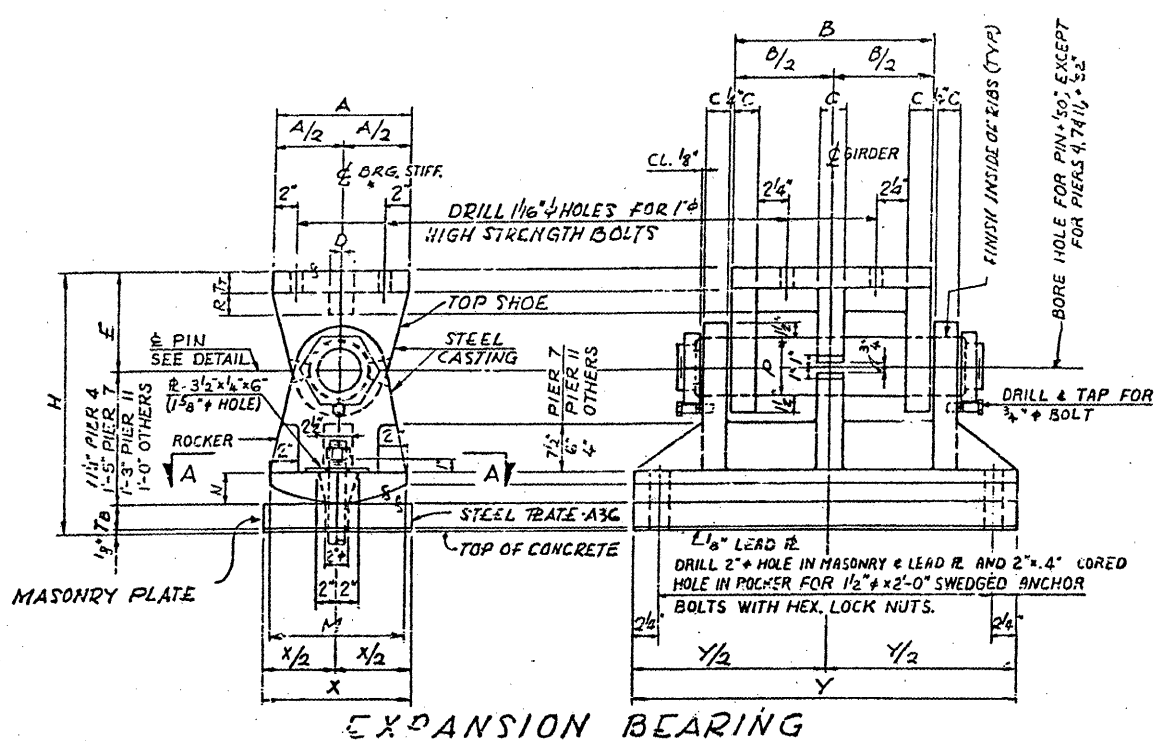
**DETAILS OF SCUPPER**

BRIDGE NO 1  
 STRUCTURE NO. 002-0022  
 FOR INFORMATION ONLY

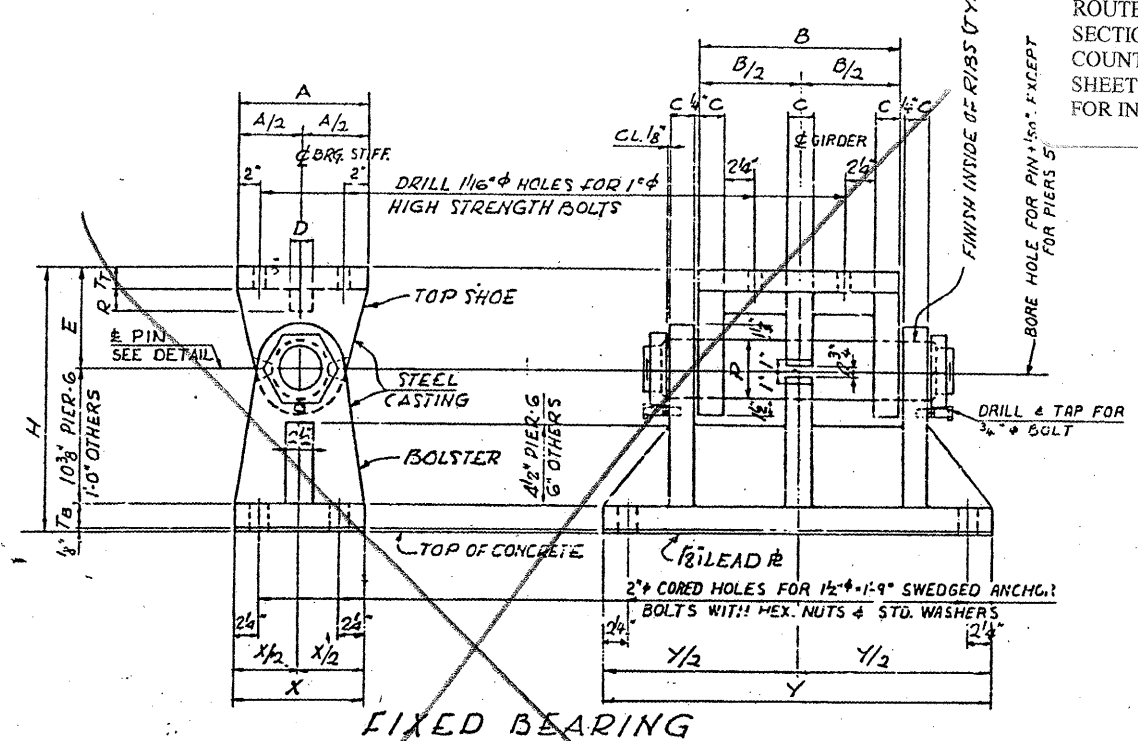
ALFRED BENESCH & COMPANY  
 CONSULTING ENGINEERS  
 10 S. WABASH AVE. CHICAGO, ILLINOIS

**DRAINAGE DETAILS**  
 F.A.I. RTE. 57 OVER THE MISSISSIPPI RIVER  
 PROJECT 1-57-9 (C.C.)  
 SECTION (02-1B-1) P  
 ALEXANDER COUNTY, ILLINOIS  
 MISSISSIPPI COUNTY, MISSOURI  
 STA. 1141 + 84.75 TO STA. 1182 + 75.25

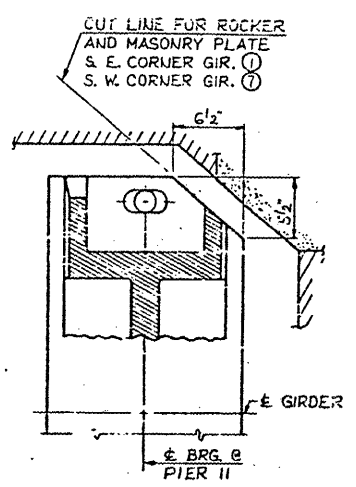
CONTRACT: 78040  
 ROUTE: F.A.I. 57  
 SECTION: (02-1B-1)P-1  
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
 SHEET 39 OF 67  
 FOR INFORMATION ONLY



EXPANSION BEARING



FIXED BEARING

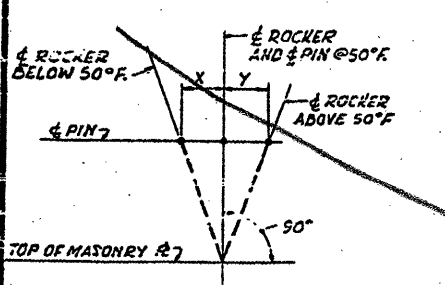


SECTION A-A  
 FOR GIRDERS ① & ⑦ @ PIER 11 ONLY

LOCATION	TOP SHOE				PIN φ	ROCKER	MASONRY PLATE		TB	H
	A	B	Tt	C			X	Y		
NORTH ABUTMENT	1'-0"	1'-4"	1'-2"	1'-2"	9"	2"	3 1/2"	1'-0"	2'-7"	1'-10 5/8"
PIER 2	1'-0"	1'-4"	2"	2 1/4"	9"	2"	5"	1'-0"	2'-9"	1'-11 1/8"
PIER 3	1'-0"	1'-6"	2"	2 1/4"	9"	2"	5"	1'-0"	2'-11"	1'-11 3/8"
PIER 4	1'-3"	1'-8"	2"	2 1/2"	9"	2 1/2"	5 3/4"	1'-0"	3'-2"	1'-10 5/8"
PIER 7	1'-3"	2'-3"	2 1/2"	3 1/4"	10 1/2"	4 1/4"	6 1/4"	1'-3"	4'-0"	2'-7 1/8"
PIER 11-SPAN 9A	1'-3"	2'-0"	2"	2 1/2"	9"	3 1/2"	5 3/4"	1'-3"	3'-7"	2'-2 7/8"
PIER 14-SPAN 15	1'-0"	1'-4"	1'-2"	1'-2"	9"	2"	3 1/2"	1'-0"	2'-7"	1'-10 5/8"
PIER 15	1'-0"	1'-4"	2"	2 1/4"	9"	2"	5"	1'-0"	2'-9"	1'-11 1/8"
PIER 18	1'-0"	1'-4"	2"	2 1/4"	9"	2"	5"	1'-0"	2'-9"	1'-11 1/8"
SOUTH ABUTMENT	1'-0"	1'-4"	1'-2"	1'-2"	9"	2"	3 1/2"	1'-0"	2'-7"	1'-10 5/8"

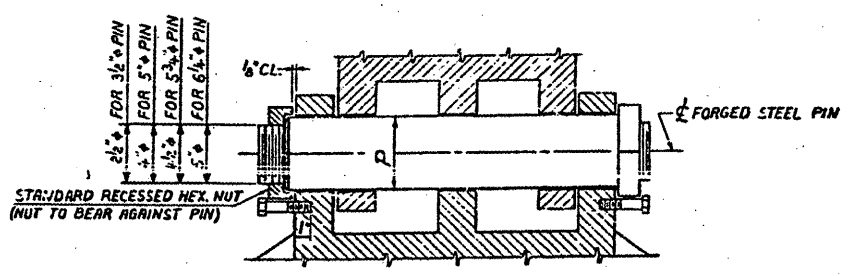
LOCATION	TOP SHOE				PIN φ	BOLSTER	TB	H			
	A	B	Tt	C					X	Y	
PIER 1	1'-0"	1'-6"	2"	2 1/4"	9"	2"	5"	1'-2"	2'-11"	2 1/2"	1'-11 5/8"
PIER 5	1'-3"	1'-8"	2"	2 1/4"	9"	2 1/2"	5 3/4"	1'-3"	3'-2"	2 3/4"	1'-11 1/8"
PIER 6	1'-3"	1'-8"	2"	2 1/4"	9"	2 1/2"	5 3/4"	1'-3"	3'-2"	2 3/4"	1'-10 1/4"
PIER 16	1'-0"	1'-4"	2"	2 1/4"	9"	2"	5"	1'-2"	2'-9"	2 1/2"	1'-11 5/8"
PIER 17	1'-0"	1'-4"	2"	2 1/4"	9"	2"	5"	1'-2"	2'-9"	2 1/2"	1'-11 5/8"

NOTES:  
 FOR DETAILS OF FIXED BEARING AT PIER 9 SEE SHT. 12  
 CAST STEEL SHALL CONFORM TO A. S. T. M. A486-65, CLASS 70, NORMALIZED.  
 FORGED STEEL SHALL CONFORM TO A. S. T. M. A235-65, CLASS F.  
 ALL OTHER MATERIAL SHALL CONFORM TO A. S. T. M. A36 EXCEPT AS OTHERWISE NOTED.  
 STRUCTURAL STEEL MEMBERS OF EQUAL SECTION AND STRENGTH MAY BE SUBSTITUTED FOR THE CASTINGS SUBJECT TO APPROVAL OF ENGINEER.  
 CASTINGS, BEARING PLATES, LEAD PLATES, ANCHOR BOLTS AND MISCELLANEOUS ITEMS SHALL BE FABRICATED AND SET IN ACCORDANCE WITH SECTION 507 OF THE STANDARD SPECIFICATIONS AND ARE INCLUDED IN THE QUANTITY OF STRUCTURAL STEEL. PLAN WEIGHT OF BEARINGS IS 189,785 POUNDS WHICH INCLUDES 131,740 POUNDS OF CAST STEEL.



CORRECTION FOR TEMPERATURE-ROCKER SETTING

LOCATION	X		Y	
	-10°F	10°F	30°F	50°F
N. ABUT.	1/2"	3/8"	3/16"	0"
PIER 2	1/2"	3/8"	3/16"	0"
PIER 3	1"	3/4"	3/8"	0"
PIER 4	1 1/2"	3/4"	3/8"	0"
PIER 7	1 3/4"	1 1/2"	3/8"	0"
PIER 11-SPAN 9A	1 1/2"	1 1/2"	3/8"	0"
PIER 14-SPAN 15	1 1/2"	3/4"	3/8"	0"
PIER 15	1 1/2"	3/4"	3/8"	0"
PIER 18	1 1/2"	3/4"	3/8"	0"
S. ABUT.	1 1/2"	3/8"	3/16"	0"



PIN DETAIL

BRIDGE NO. 1  
 STRUCTURE NO. 002-0022  
 FOR INFORMATION ONLY

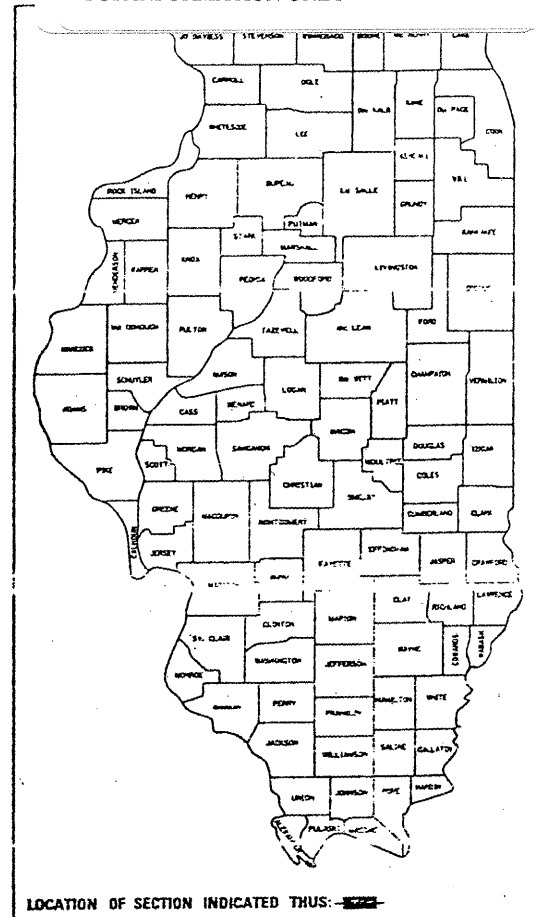
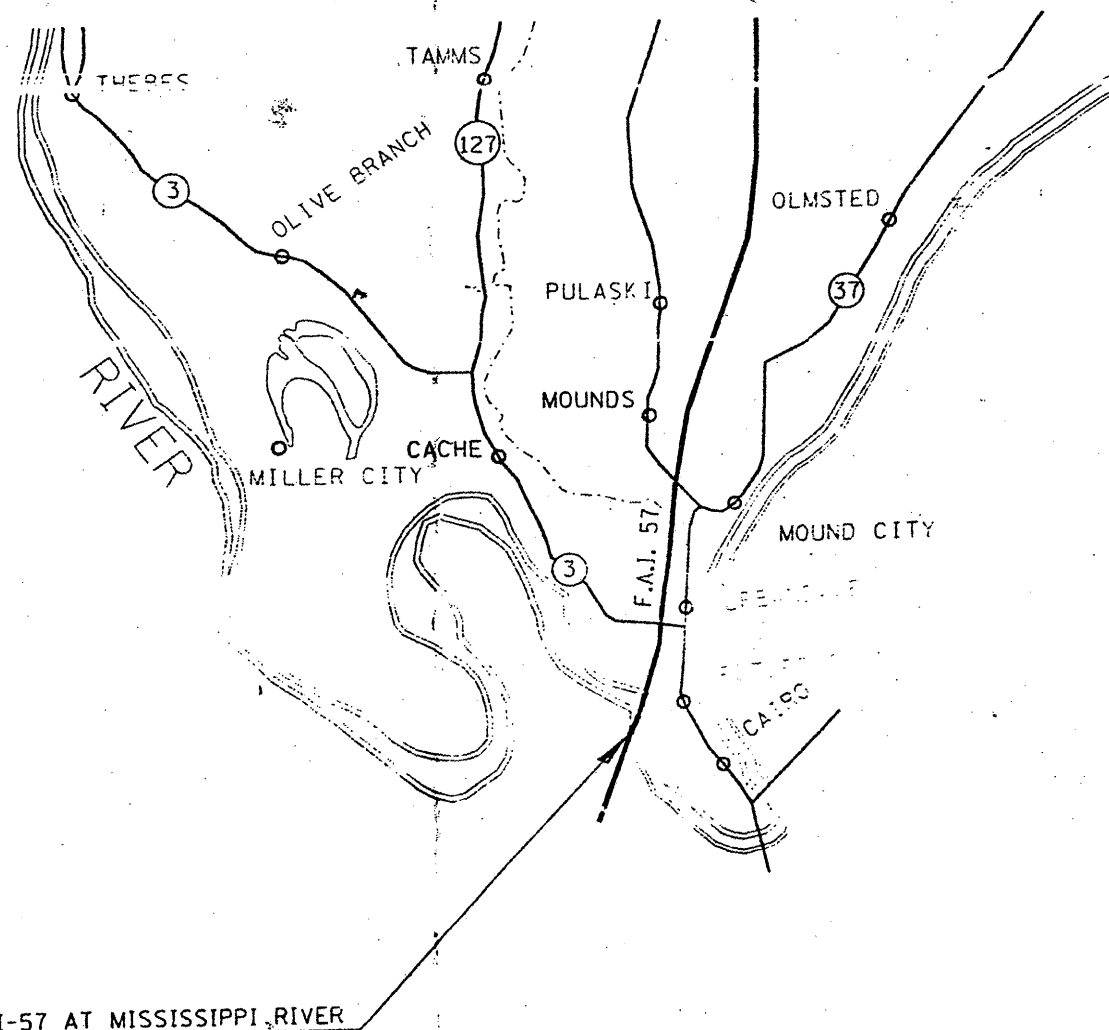
ALFRED BENESCH & COMPANY  
 CONSULTING ENGINEERS  
 105 WABASH AVE. CHICAGO, ILLINOIS

BEARING DETAILS - SPANS 1 TO 9A & 19  
 F. A. I. RTE. 57 OVER THE MISSISSIPPI RIVER  
 PROJECT 1-57-9(610)  
 SECTION (02-1B-1)P  
 ALEXANDER COUNTY, ILLINOIS  
 MISSISSIPPI COUNTY, MISSOURI  
 STA. 1141 + 84.75 TO STA. 1182 + 75.25

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
**PLANS FOR PROPOSED  
 PROJECT NO. 94G902**

CONTRACT: 78040  
 ROUTE: F.A.I. 57  
 SECTION: (02-1B-1)P-1  
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
 SHEET 40 OF 67  
 FOR INFORMATION ONLY

ROUTE: I-57  
 COUNTY: ALEXANDER  
 STRUCTURE NO.: 002-0022  
 FLOOR BEAM REPAIR



STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS

PREPARED BY: Bill Stuntz  
 DISTRICT OPERATIONS ENGINEER

EXAMINED BY: C. H. Bergquist  
 DISTRICT PROJECT DEVELOPMENT ENGINEER

EXAMINED BY: H. P. [Signature]  
 DISTRICT PROJECT IMPLEMENTATION ENGINEER

APPROVED: April 16, 1995  
Paul [Signature]  
 DISTRICT ENGINEER

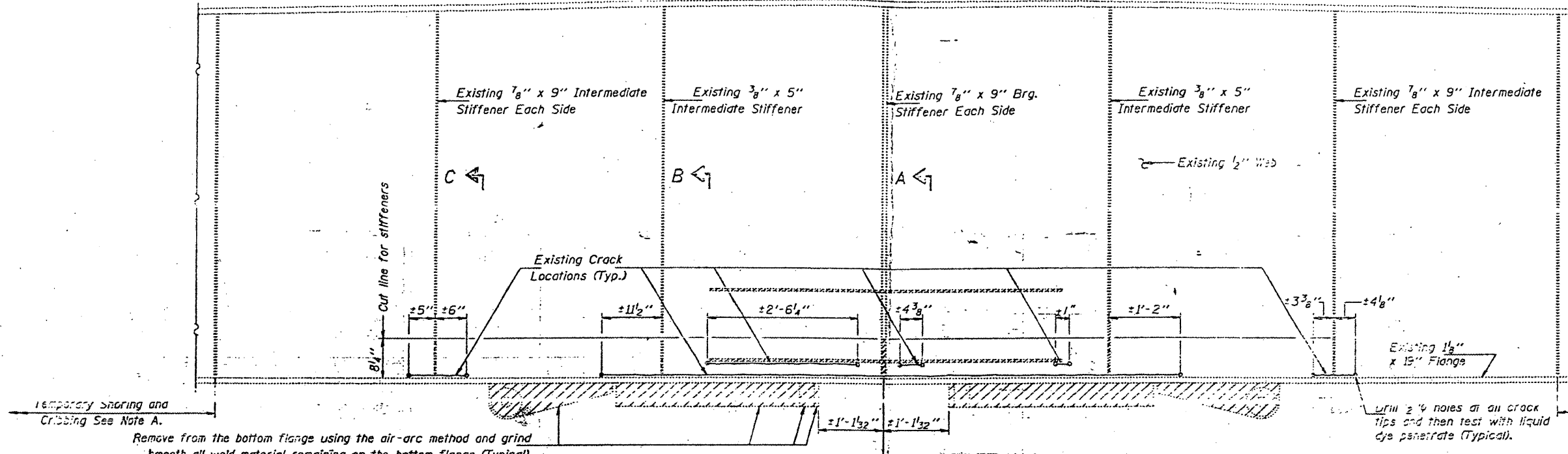
IMPROVEMENT LOCATION I-57 AT MISSISSIPPI RIVER  
 STATION 1168+50

BRIDGE NO. 1  
 STRUCTURE NO. 002-0022  
 FOR INFORMATION ONLY

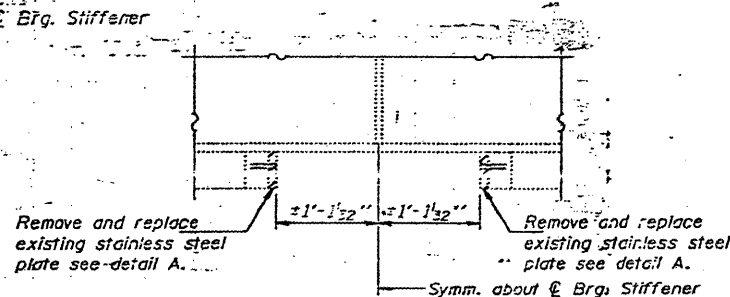


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CONTRACT: 78040  
ROUTE: F.A.I. 57  
SECTION: (02-1B-1)P-1  
COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
SHEET 41 OF 67  
FOR INFORMATION ONLY

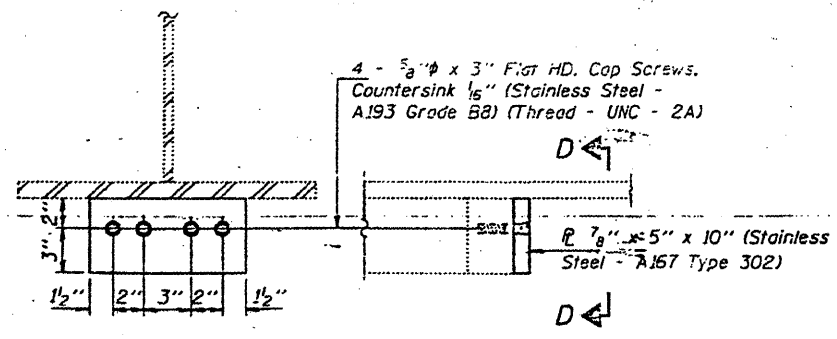
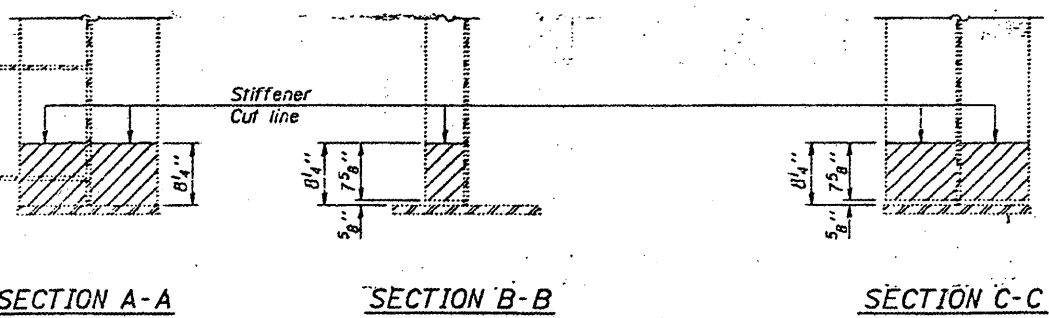


**PARTIAL ELEVATION  
NORTH END FLOOR BEAM  
AT PIER 11**  
Hatched areas indicate removal.



**PARTIAL ELEVATION  
SOUTH END FLOOR BEAM  
AT PIER 14**

Remove existing 1/2" gusset E's from the web using the air-arc method and grind smooth all weld material remaining on the web.



**SECTION D-D DETAIL A**  
Note: Cost of 5/8" x 3" Flat HD Cap Screws (Stainless Steel - A193 Grade B8) shall be incidental to Furnishing and Erecting Structural Steel.

Note A: At Pier 11, Temporary Shoring and Cribbing shall be placed between the existing floorbeam and the top of the pier during repair operations and traffic shall be restricted to lanes which are not directly over the area of the floorbeam being repaired.

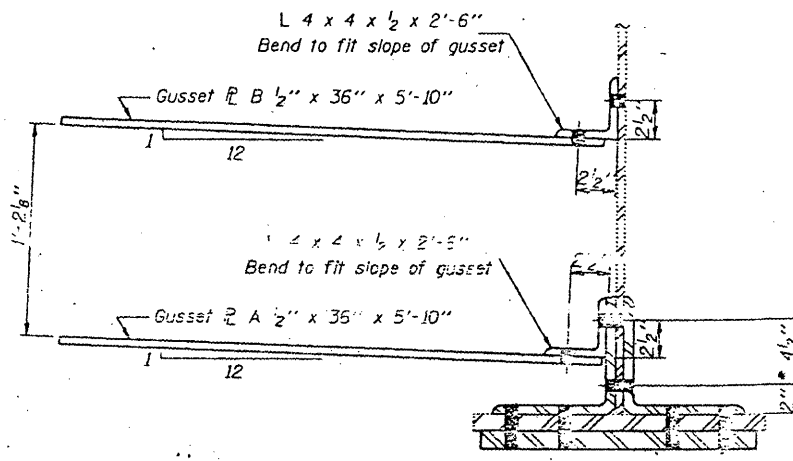
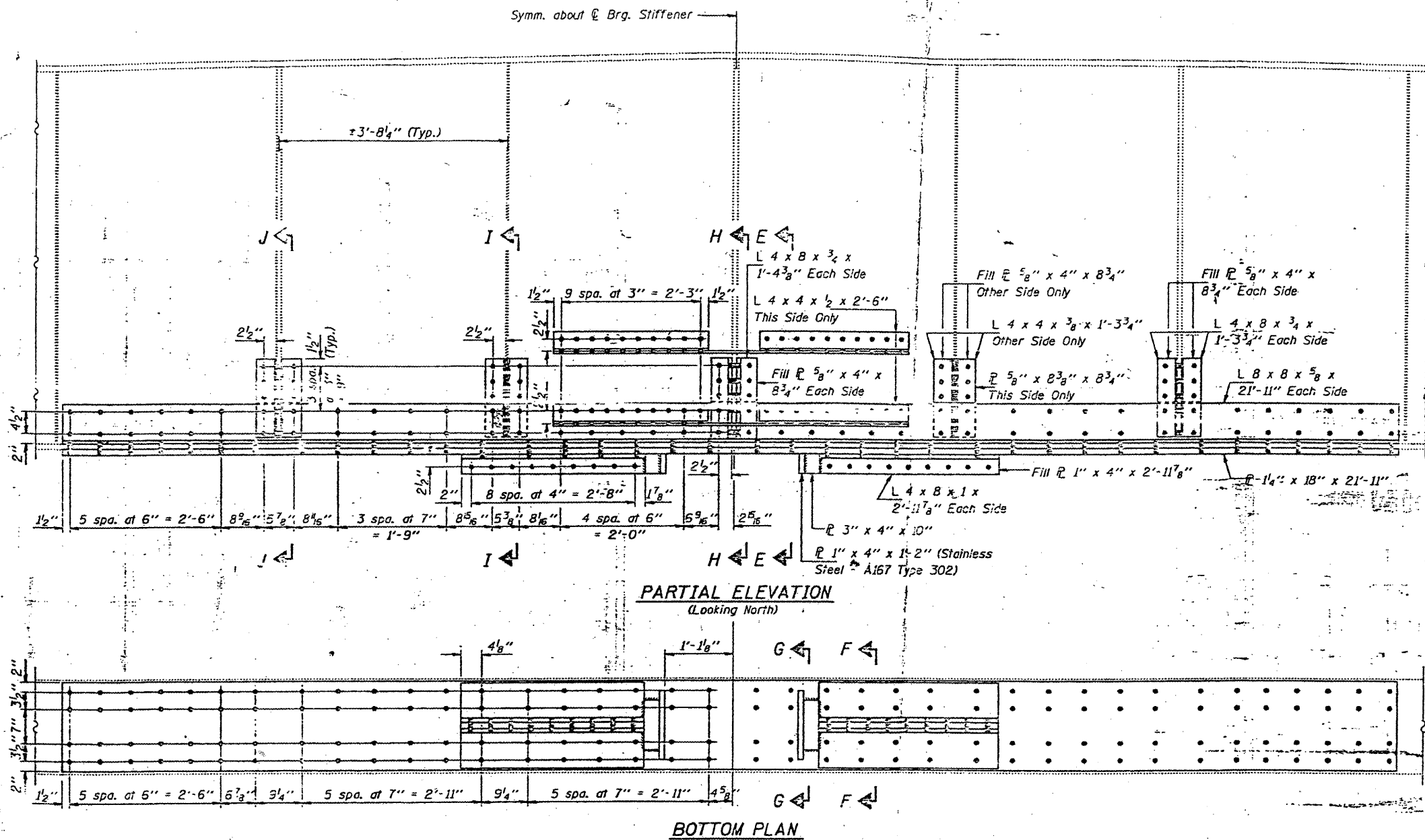
BRIDGE NO. 1  
STRUCTURE NO. 002-0022  
FOR INFORMATION ONLY

**FLOOR BEAM REPAIRS**  
F.A.I. RT. 57 SEC. (02-1B-1) (DL-93)  
ALEXANDER COUNTY  
STA. 1168+50  
STR. No. 002-0022

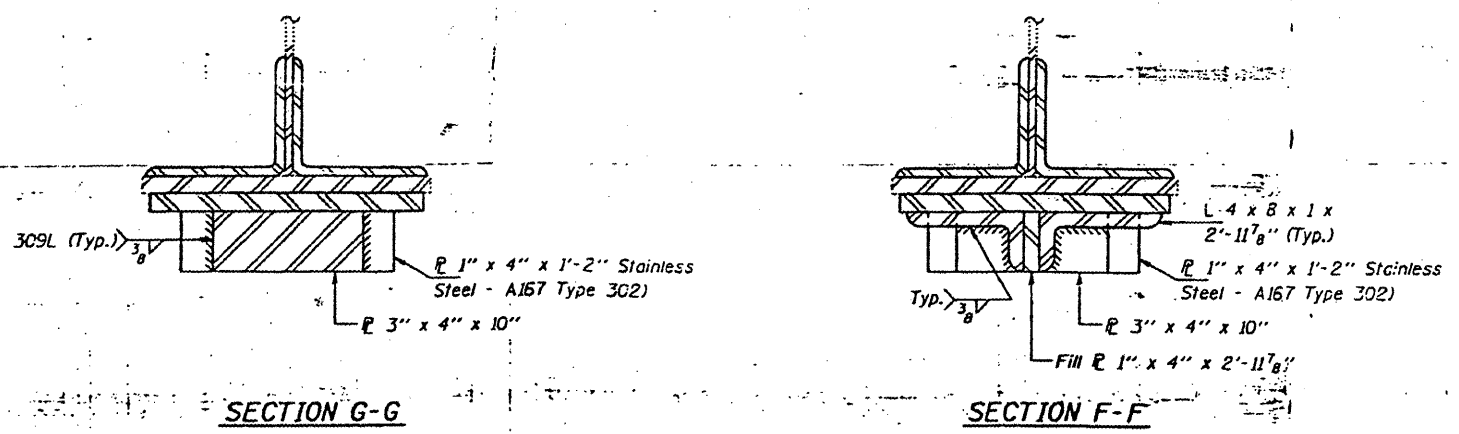
DESIGNED <i>Hennrich P. Stult</i>	March 8 1993
CHECKED <i>CHM</i>	EXAMINED <i>Joseph E. Adams</i>
DRAWN <i>Paul Summer</i>	PASSED
CHECKED <i>KPS</i>	APPROVED

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CONTRACT: 78040  
ROUTE: F.A.I. 57  
SECTION: (02-1B-1)P-1  
COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
SHEET 42 OF 67  
FOR INFORMATION ONLY



SECTION E-E  
For details of Gusset plates see Sheet 5.  
Dimensions would be as specified to match existing Gusset Plate location.



BRIDGE NO. 1  
STRUCTURE NO. 002-0022  
FOR INFORMATION ONLY

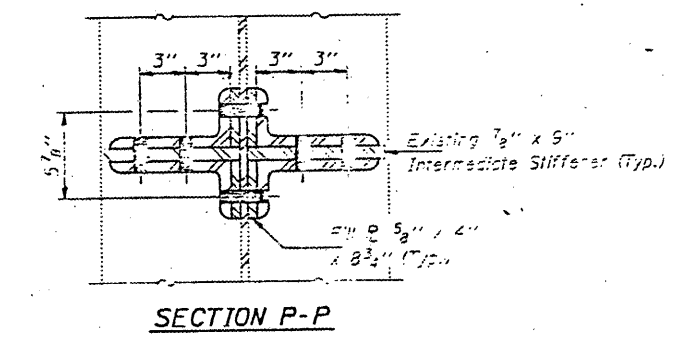
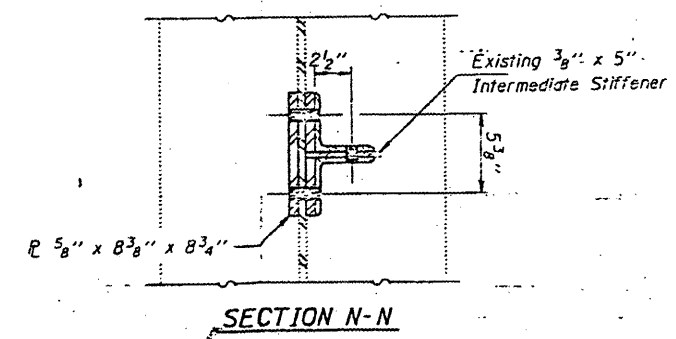
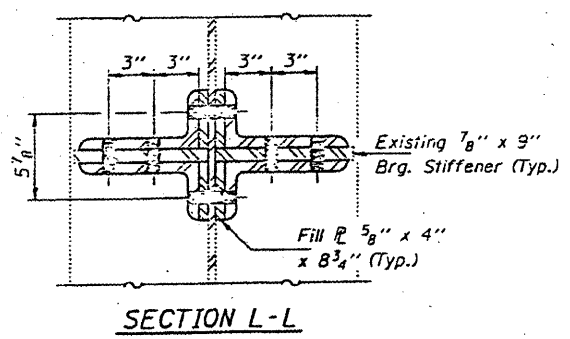
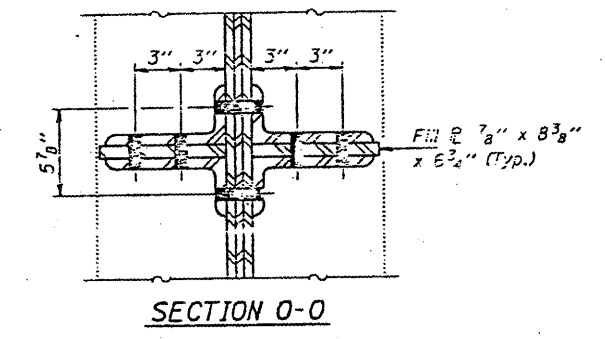
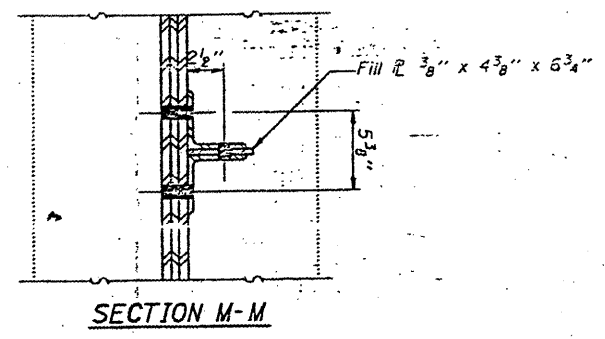
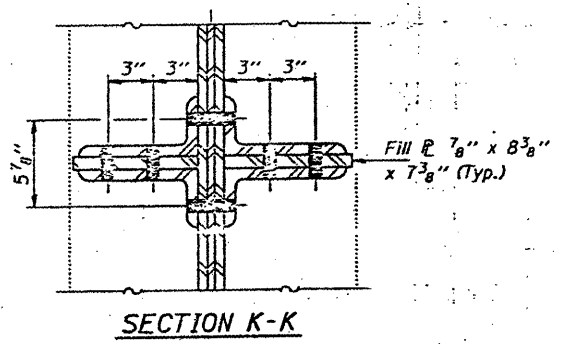
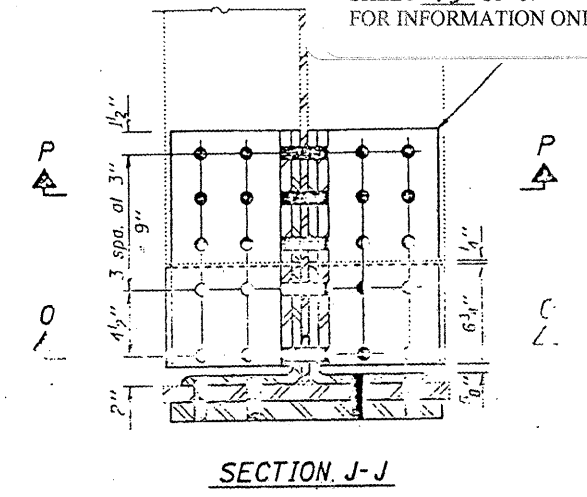
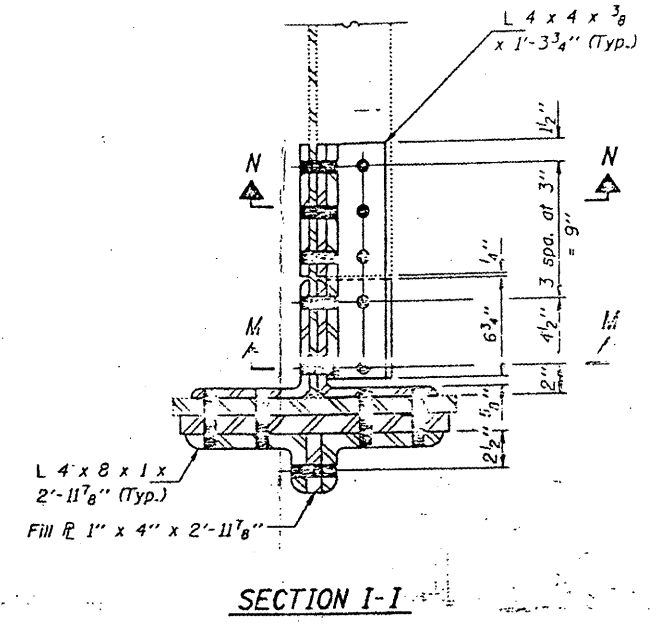
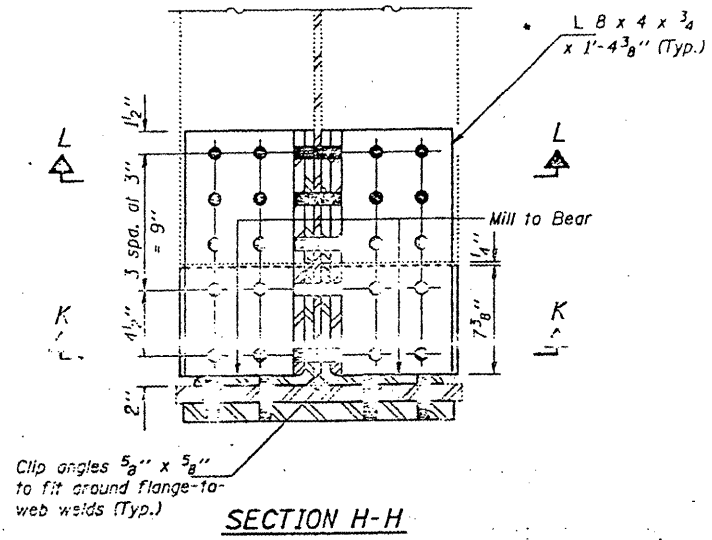
FLOOR BEAM REPAIRS  
F.A.I. RT. 57 SEC. (02-1B-1) (DL-93)  
ALEXANDER COUNTY  
STA. 1168+50  
STR. No. 002-0022

DESIGNED <i>Kenneth P. Stutts</i>	March 8 19 93
CHECKED <i>CHM</i>	EXAMINED <i>Joseph E. Adams</i>
DRAWN <i>Paul Summer</i>	PASSED
CHECKED <i>KPI</i> <i>CHM</i>	APPROVED

ENGINEER OF STRUCTURAL SERVICES  
ENGINEER OF BRIDGES AND STRUCTURES  
DIRECTOR OF HIGHWAYS

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CONTRACT: 78040  
ROUTE: F.A.I. 57  
SECTION: (02-1B-1)P-1  
COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
SHEET 43 OF 67  
FOR INFORMATION ONLY



DESIGNED <i>Kenneth P. Smith</i>	EXAMINED <i>Todd E. Adams</i>
CHECKED <i>CHM</i>	PASSED
DRAWN <i>Paul Summer</i>	APPROVED
CHECKED <i>KPS</i>	<i>CHM</i>

March 8 1923

*Todd E. Adams*  
ENGINEER OF STRUCTURAL SERVICES

*Paul Summer*  
DESIGNER OF BRIDGES AND STRUCTURES

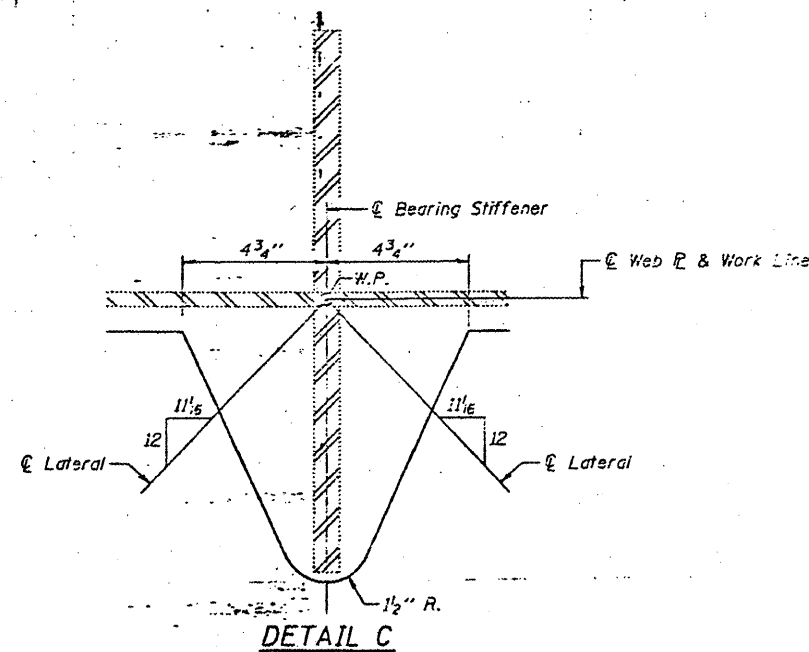
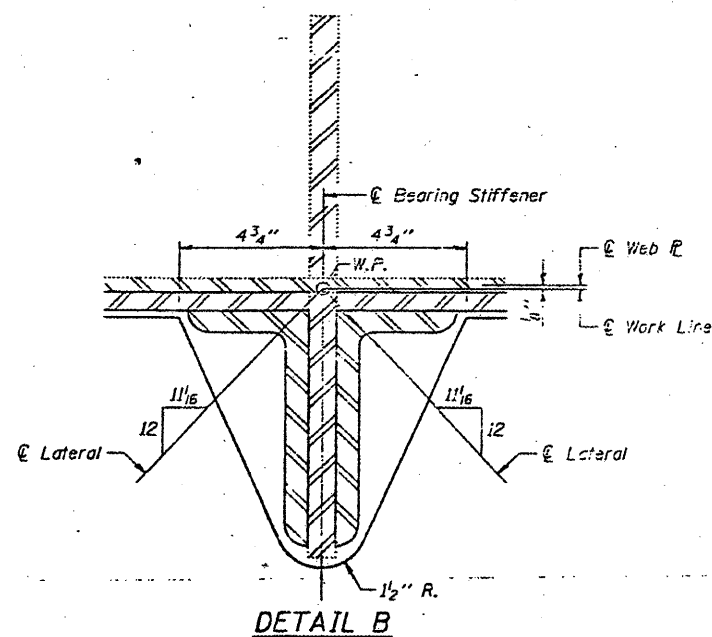
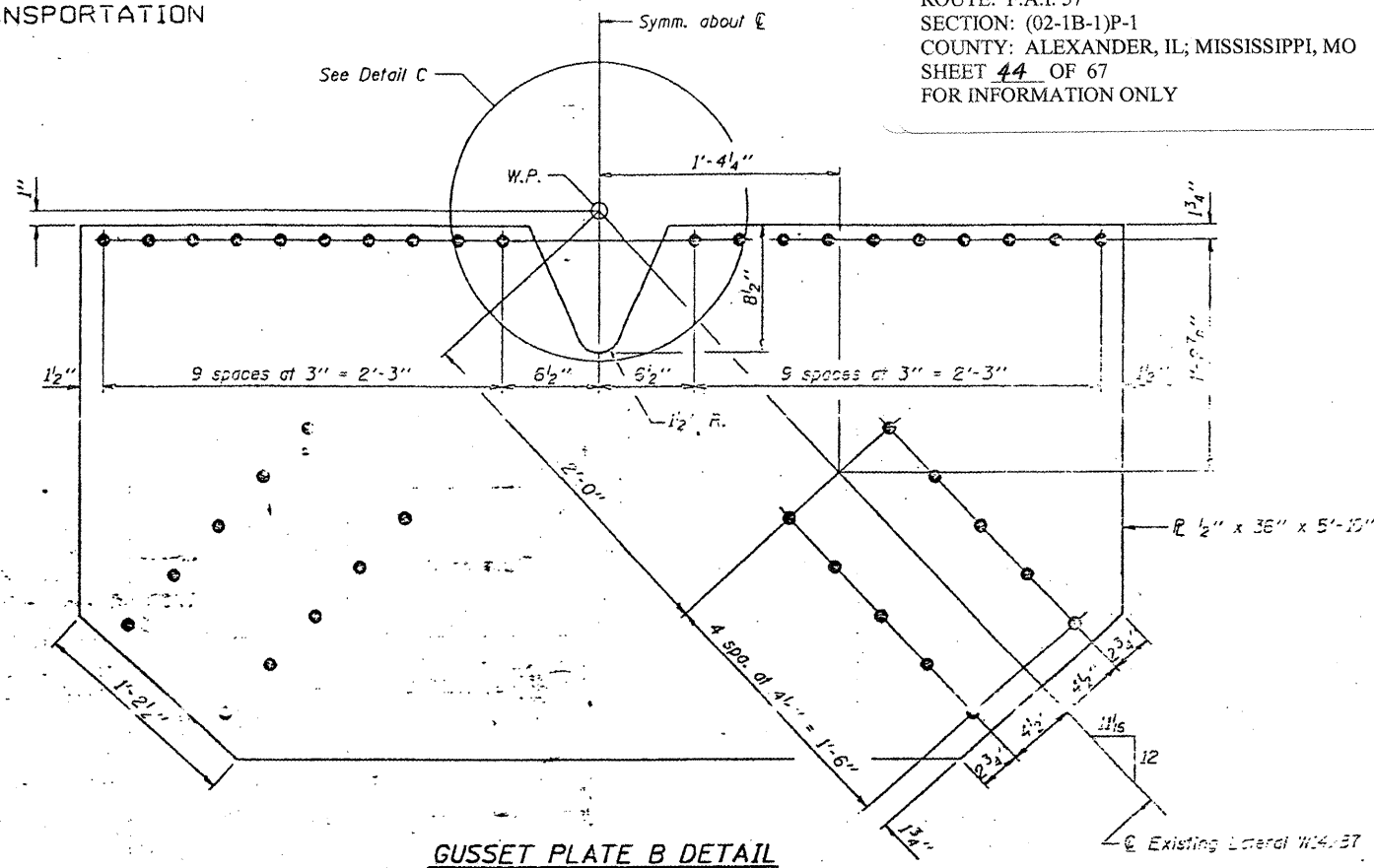
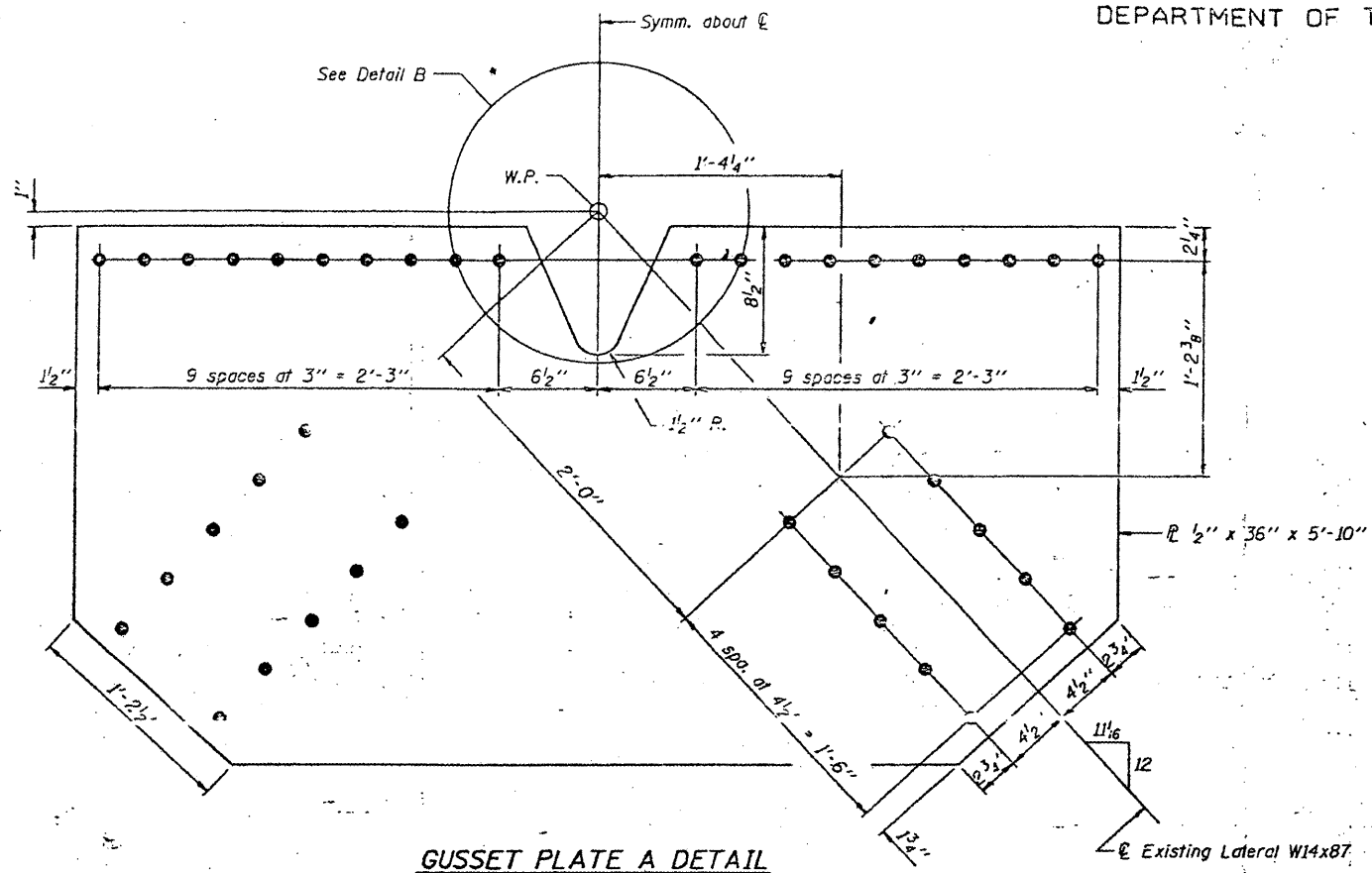
*CHM*  
DIRECTOR OF HIGHWAYS

BRIDGE NO. 1  
STRUCTURE NO. 002-0022  
FOR INFORMATION ONLY

FLOOR BEAM REPAIRS  
F.A.I. RT. 57 SEC. (02-1B-1) (DL-65)  
ALEXANDER COUNTY  
STA. 1168+50  
STR. No. 002-0022

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CONTRACT: 78040  
ROUTE: F.A.I. 57  
SECTION: (02-1B-1)P-1  
COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
SHEET 44 OF 67  
FOR INFORMATION ONLY



DESIGNED <i>Kenneth P. Stutz</i>	EXAMINED <i>John E. Adams</i>
CHECKED <i>CHM</i>	PASSED
DRAWN <i>Paul Summer</i>	APPROVED
CHECKED <i>KPS</i>	<i>CHM</i>

March 8 1923

ENGINEER OF STRUCTURAL SERVICES

ENGINEER OF BRIDGES AND STRUCTURES

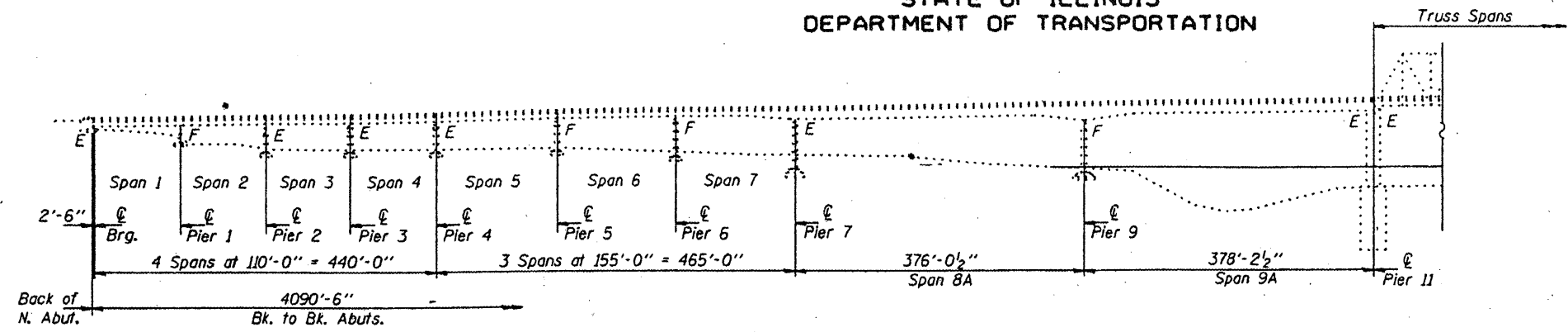
DIRECTOR OF HIGHWAY

BRIDGE NO. 1  
STRUCTURE NO. 002-0022  
FOR INFORMATION ONLY

FLOOR BEAM REPAIRS  
F.A.I. RT. 57 SEC. (02-1B-1) (DL-93)  
ALEXANDER COUNTY  
STA. 1168+50  
STR. No. 002-0022

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

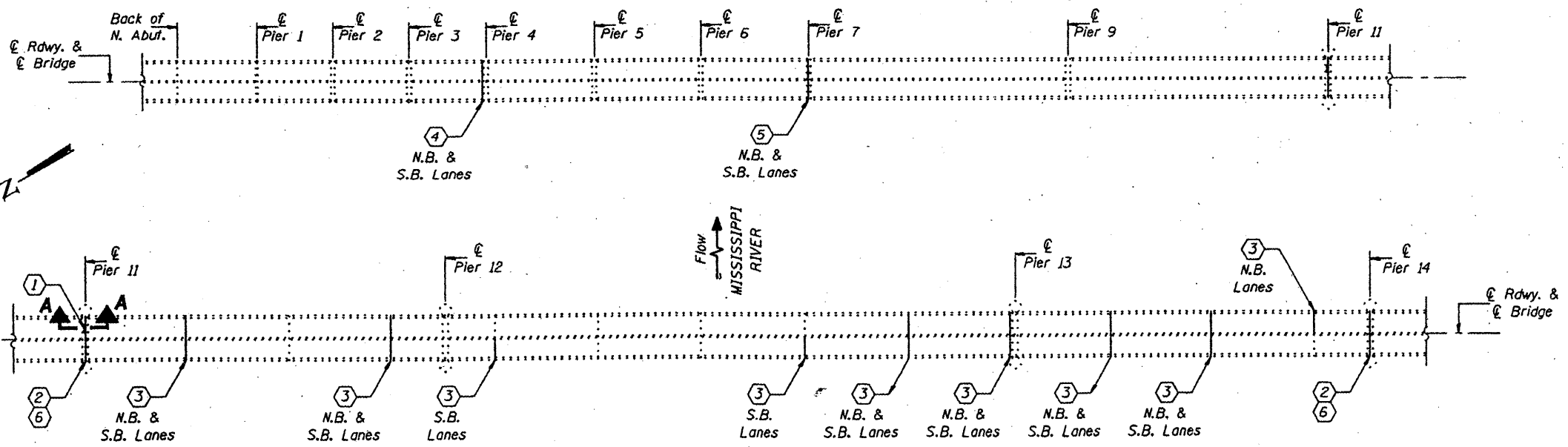
CONTRACT: 78040  
ROUTE: F.A.I. 57  
SECTION: (02-1B-1)P-1  
COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
SHEET 45 OF 67  
FOR INFORMATION ONLY



- 1 All new structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.
- All new fasteners shall be high strength bolts. Holes shall be subpunched or subdrilled  $\frac{1}{16}$ " and reamed in the field to  $\frac{1}{16}$ " for  $\frac{3}{4}$ " high strength bolts (except as noted on the plans) after new structural steel sections are properly fitted into position.
- The Inorganic zinc rich primer/acrylic/acrylic paint system shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the acrylic finish coat shall be Interstate Green, Munsell No. 7.5G 4/B. See Special Provisions "Cleaning and Painting Metal Structures".
- 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.
- Existing Structural steel shall only be cleaned and painted as required by the Special Provision "Cleaning and Painting Adjacent Areas of Existing Steel Structures".
- Traffic control shall be determined by the District.

**PARTIAL ELEVATION**  
(Looking East)

- Notes:
- 1 Replace center broken section of existing Finger  $\mathcal{R}$  on Approach side of expansion joint, N.B. Lanes. (For Section A-A, see Sheet 2)
  - 2 Install new catch drains and elastomeric mat, full length, under existing Finger Joints.
  - 3 Remove existing 2 1/2" PJS and replace with new 2 1/2" PJS. (Removal shall be incidental to Preformed Joint Seal 2 1/2".)
  - 4 Remove existing Finger  $\mathcal{R}$  expansion device and replace with new 9" Waboflex Model SR9 neoprene expansion joint. Removal shall be incidental to Neoprene Expansion Joint (9").
  - 5 Remove existing 9" neoprene joint and replace with new 9" Waboflex Model SR9. (Removal shall be incidental to Neoprene Expansion Joint (9").)
  - 6 Remove existing Finger  $\mathcal{R}$  sections on each side of expansion joint, N.B. & S.B. Lanes, as necessary for height adjustment and re-install existing Finger  $\mathcal{R}$  sections.



**PARTIAL DECK PLAN**

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
Furnishing and Erecting Structural Steel	Pound	3,900
Traffic Control	L.S.	1
Reinf. Neoprene Expansion Jt. Treatment	Foot	127
Preformed Joint Seal 2 1/2"	Foot	490
Neoprene Expansion Joint (9")	Foot	130
Drain System	L.S.	1
Finger Plate Adjustment	L.S.	1

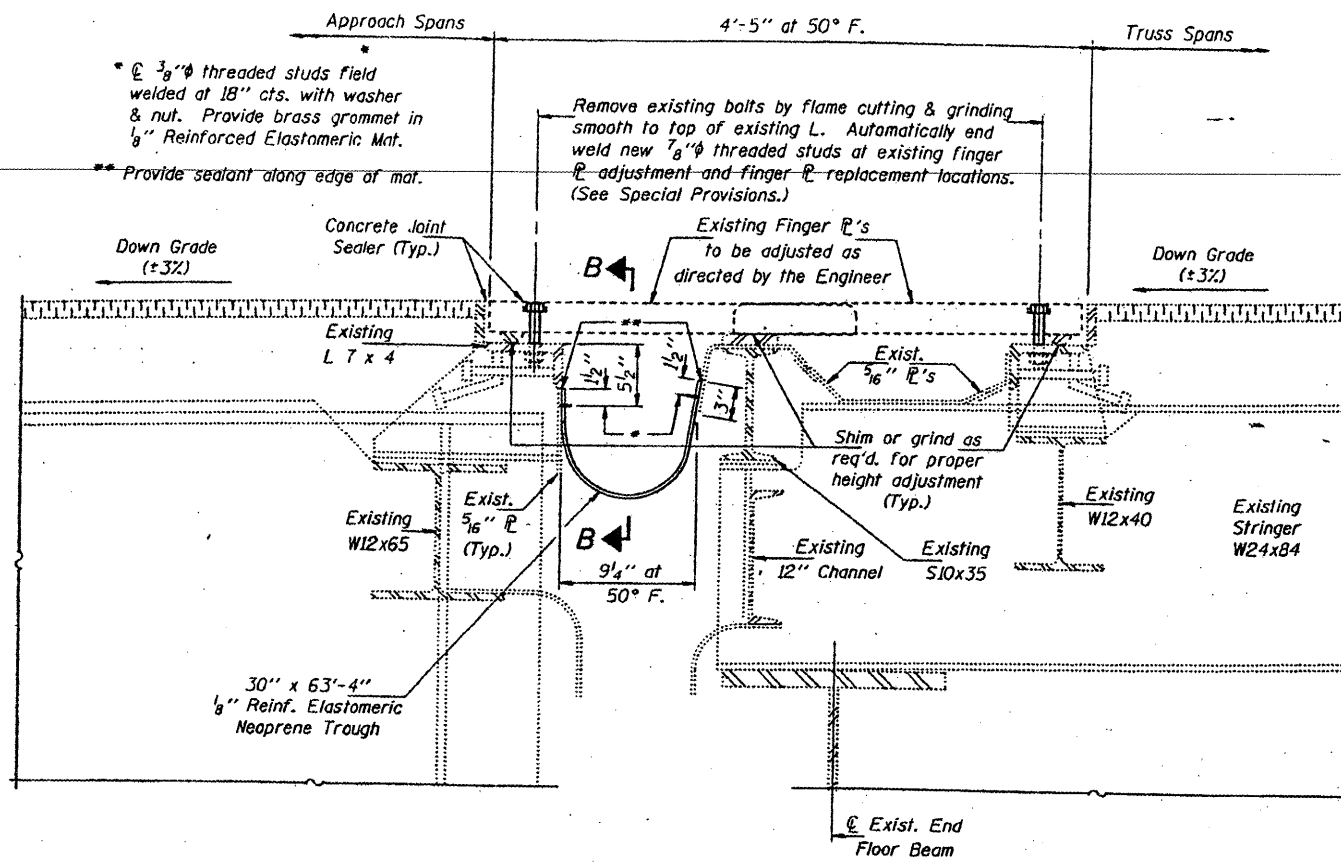
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CHECKED	NJS	EXAMINED	
DRAWN	DHerbert	ENGINEER OF STRUCTURAL SERVICES	
CHECKED	NJS KPS	PASSED	
		ENGINEER OF BRIDGES AND STRUCTURES	

BRIDGE NO. 1  
STRUCTURE NO. 002-0022  
FOR INFORMATION ONLY

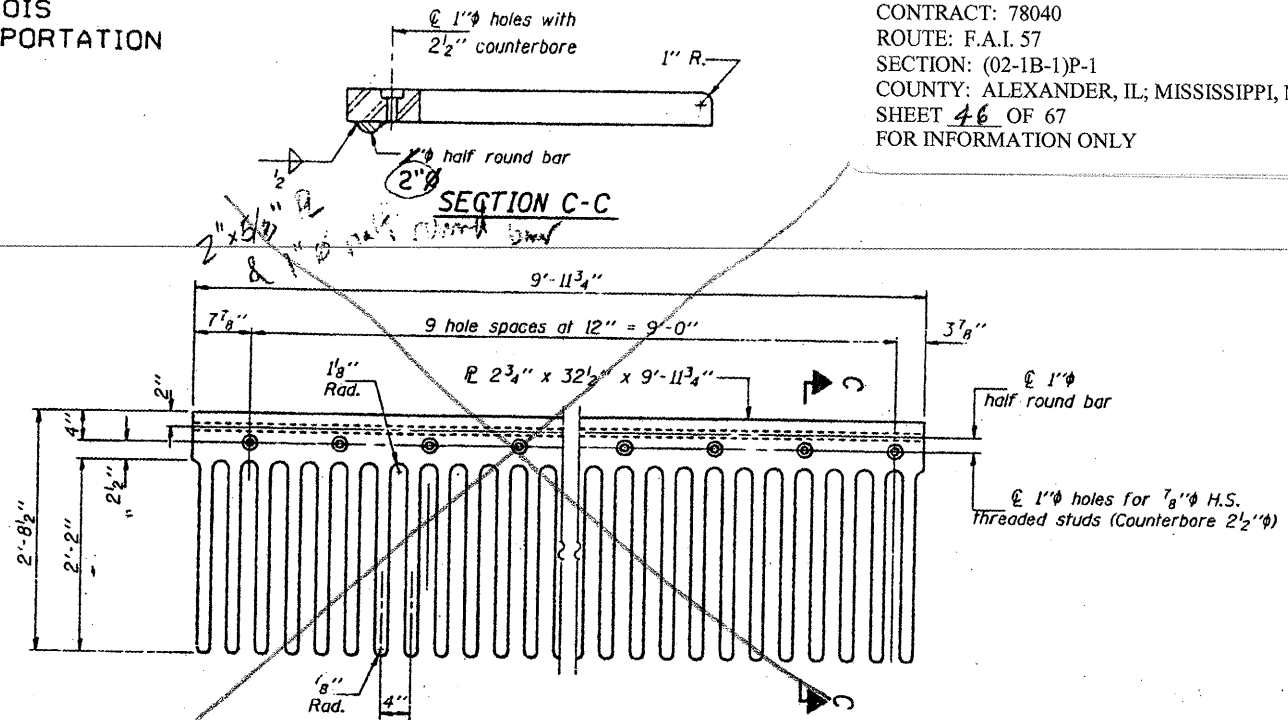
**BRIDGE REPAIRS**  
**F.A.I. 57 OVER MISSISSIPPI RIVER**  
**SEC. 02-1B-1**  
**ALEXANDER COUNTY**  
**S.N. 002-0022**

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

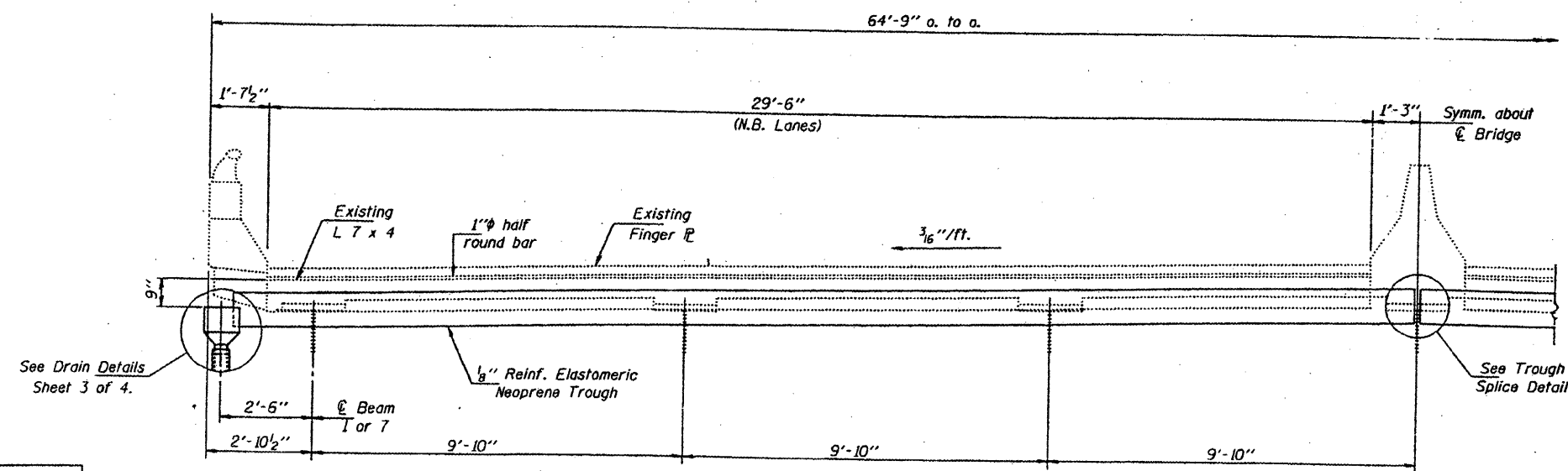
CONTRACT: 78040  
ROUTE: F.A.I. 57  
SECTION: (02-1B-1)P-1  
COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
SHEET 46 OF 67  
FOR INFORMATION ONLY



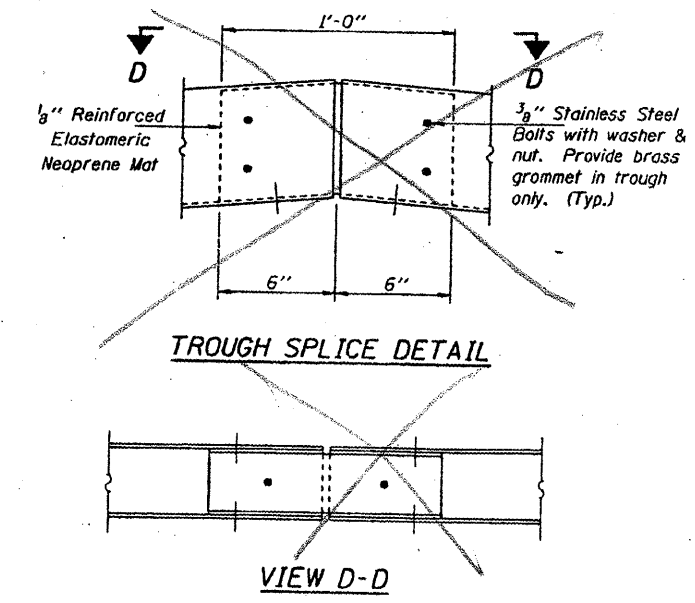
**SECTION A-A**  
Pier II shown; Pier I4 similar



**FINGERPLATE REPLACEMENT DETAIL**  
Req'd.: One (1) at Pier II, center section of N.B. Lane  
Note: Field measure to verify dimensions before fabricating.



**SECTION B-B**



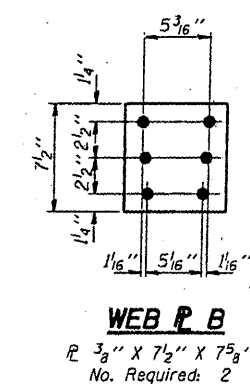
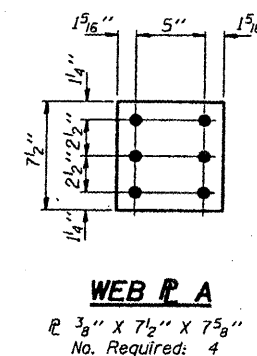
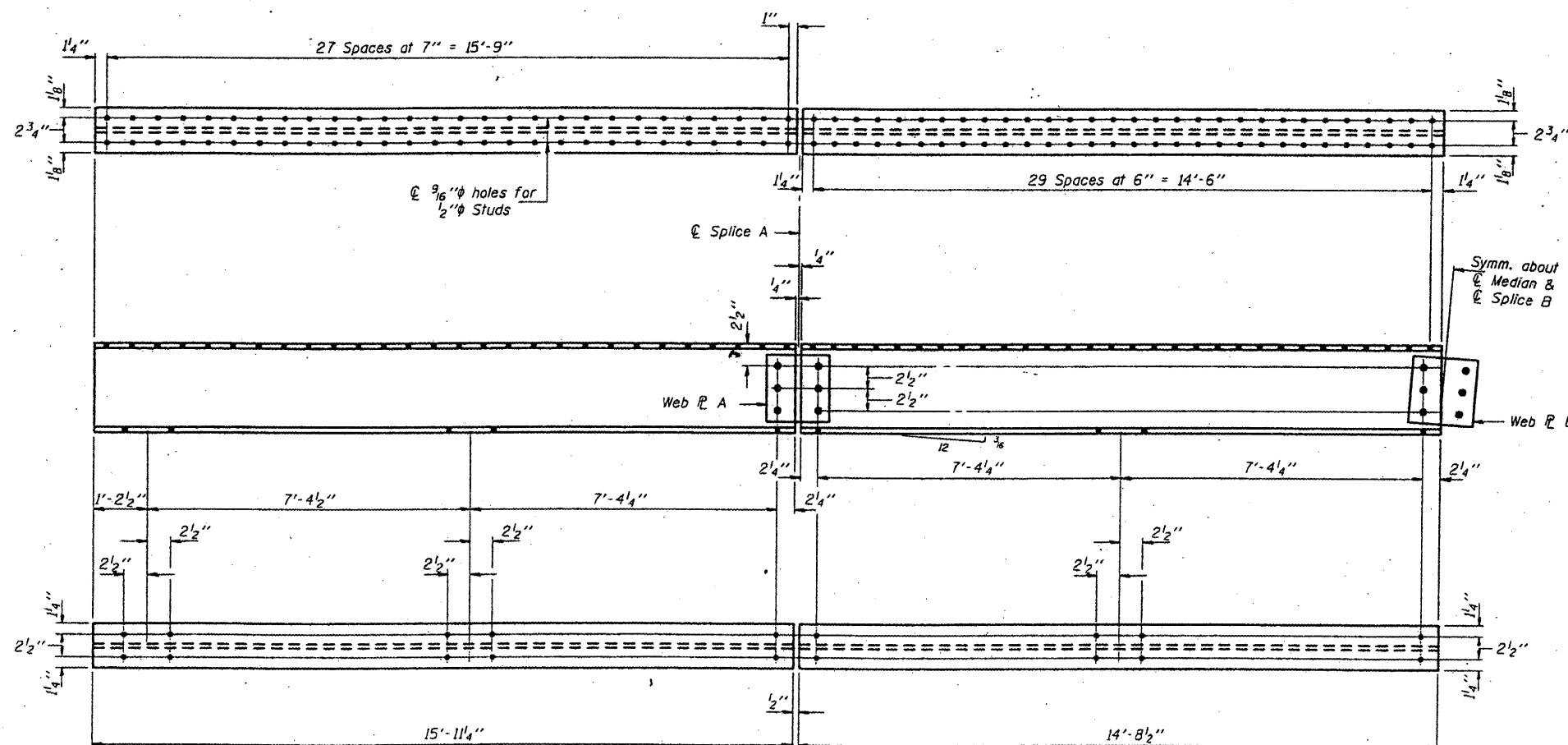
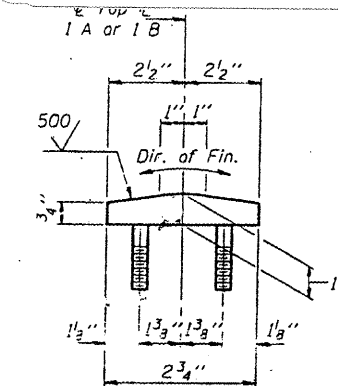
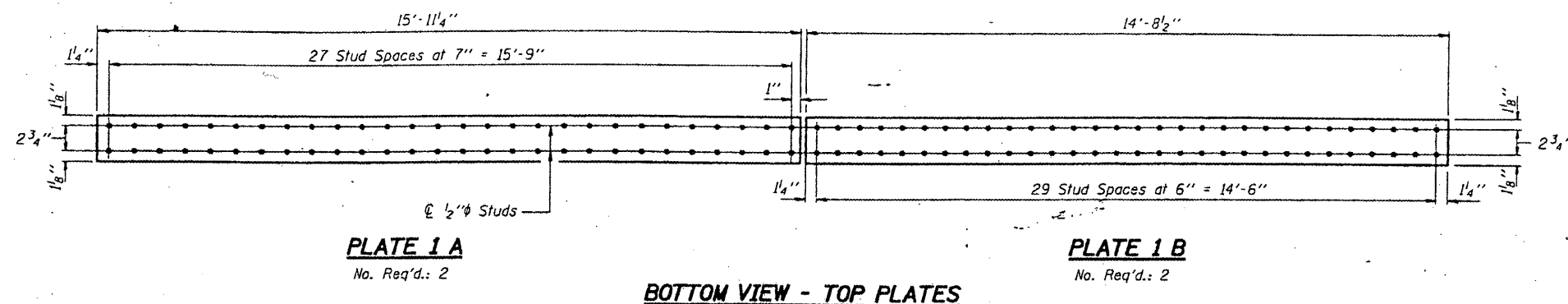
DESIGNED	KPS	AUGUST 21	1996
CHECKED	NJS	EXAMINED	<i>John E. Adams</i>
DRAWN	D-herbert	PASSED	
CHECKED	NJS KPS		

BRIDGE NO. 1  
STRUCTURE NO. 002-0022  
FOR INFORMATION ONLY

**BRIDGE REPAIRS**  
F.A.I. 57 OVER MISSISSIPPI RIVER  
SEC. 02-1B-1  
ALEXANDER COUNTY  
S.N. 002-0022

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CONTRACT: 78040  
ROUTE: F.A.I. 57  
SECTION: (02-1B-1)P-1  
COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
SHEET 47 OF 67  
FOR INFORMATION ONLY



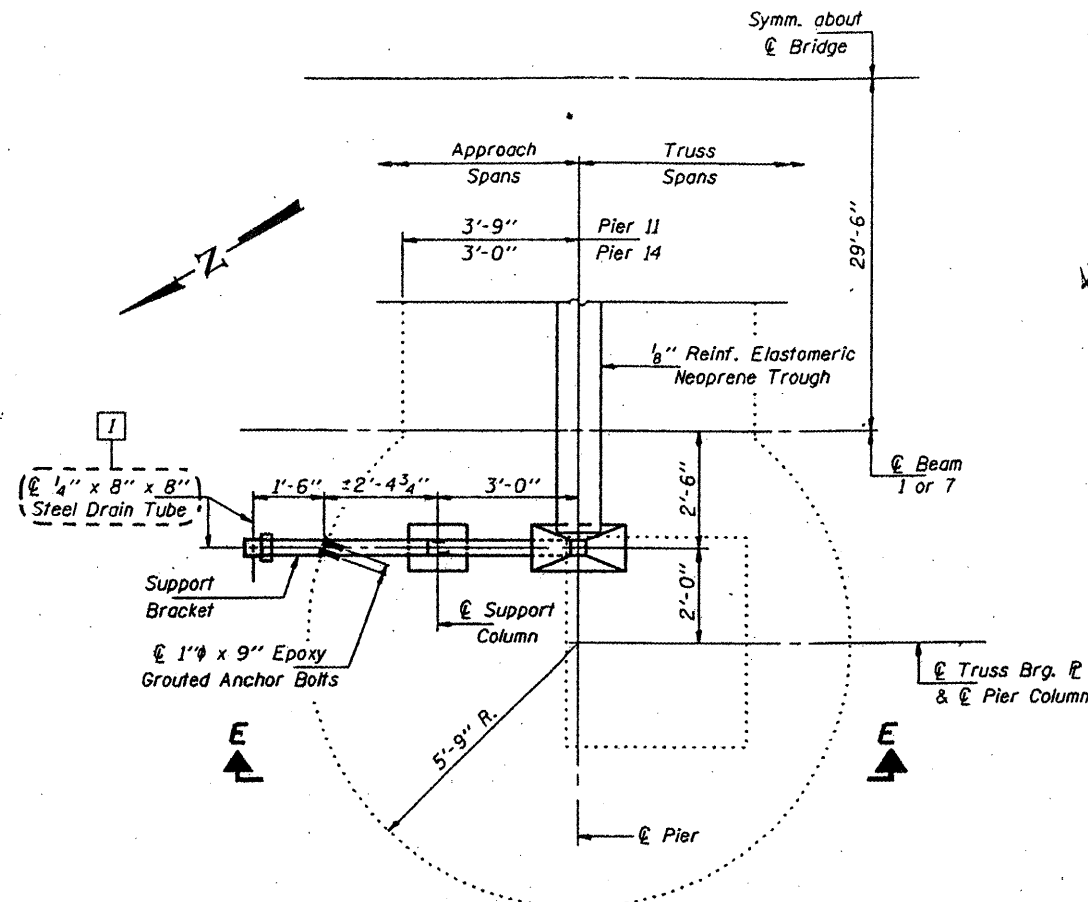
DESIGNED	C.M.E.	APRIL 22	1997
CHECKED	V.H.V.	EXAMINED	<i>John E. Adams</i> ENGINEER OF STRUCTURAL SERVICES
DRAWN	D-Herbert	PASSED	ENGINEER OF BRIDGES AND STRUCTURES
CHECKED	R.P.S. C.M.E.		

BRIDGE NO. 1  
STRUCTURE NO. 002-0022  
FOR INFORMATION ONLY

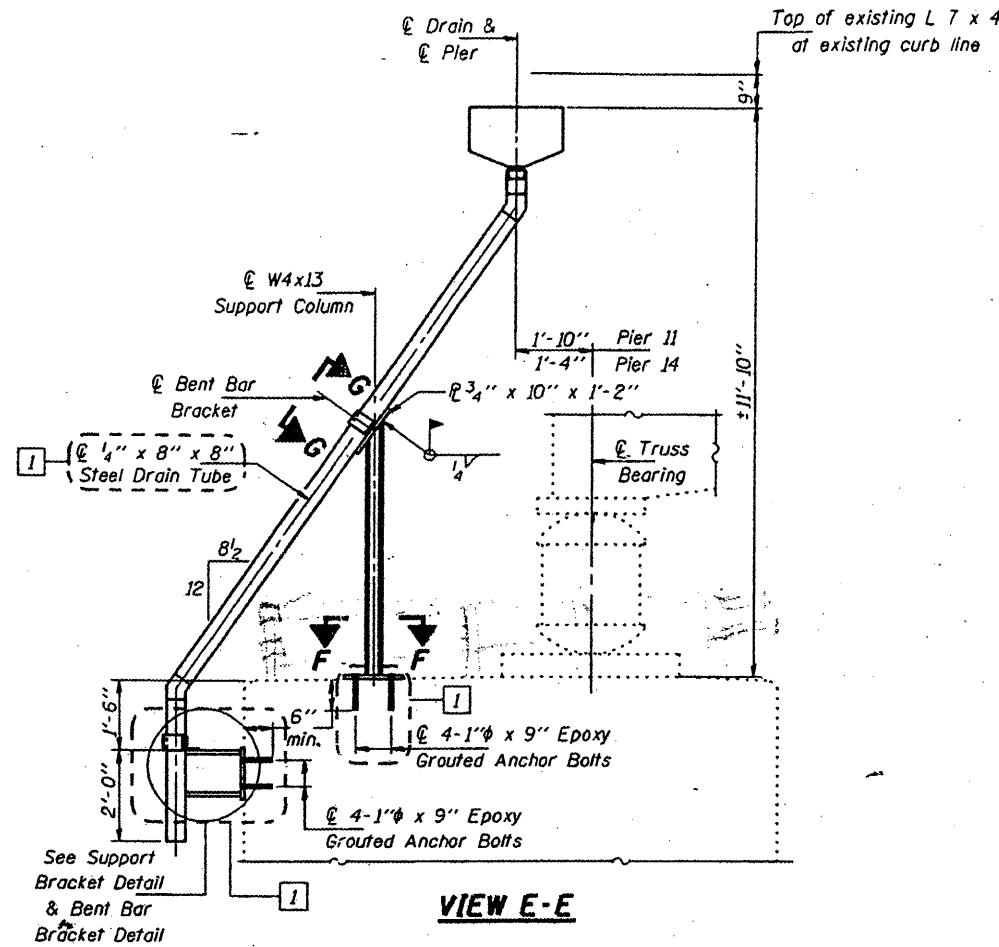
**BRIDGE REPAIRS**  
**F.A.I. 57 OVER MISSISSIPPI RIVER**  
**SEC. 02-1B-1**  
**ALEXANDER COUNTY**  
**S.N. 002-0022**

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

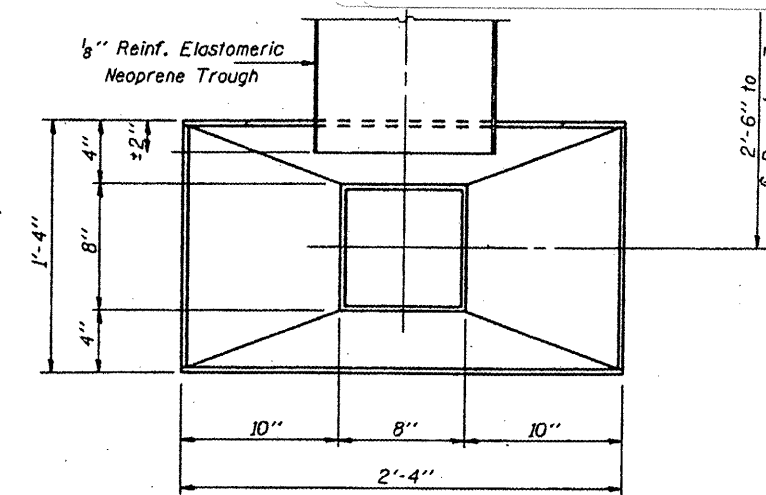
CONTRACT: 78040  
ROUTE: F.A.I. 57  
SECTION: (02-1B-1)P-1  
COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
SHEET 48 OF 67  
FOR INFORMATION ONLY



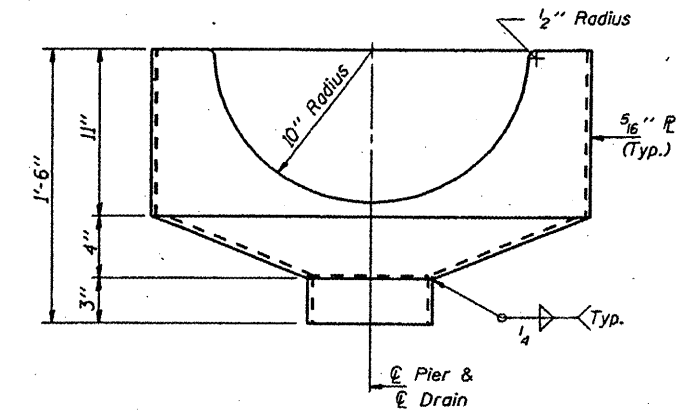
**PARTIAL PLAN - PIER II**  
(Pier 14 similar by rotation of 180°)



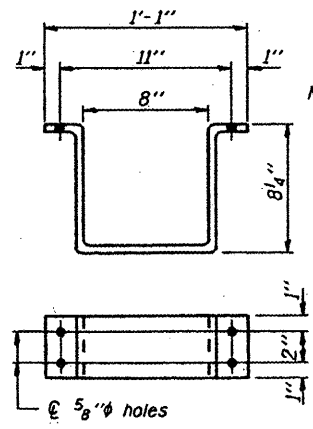
**VIEW E-E**



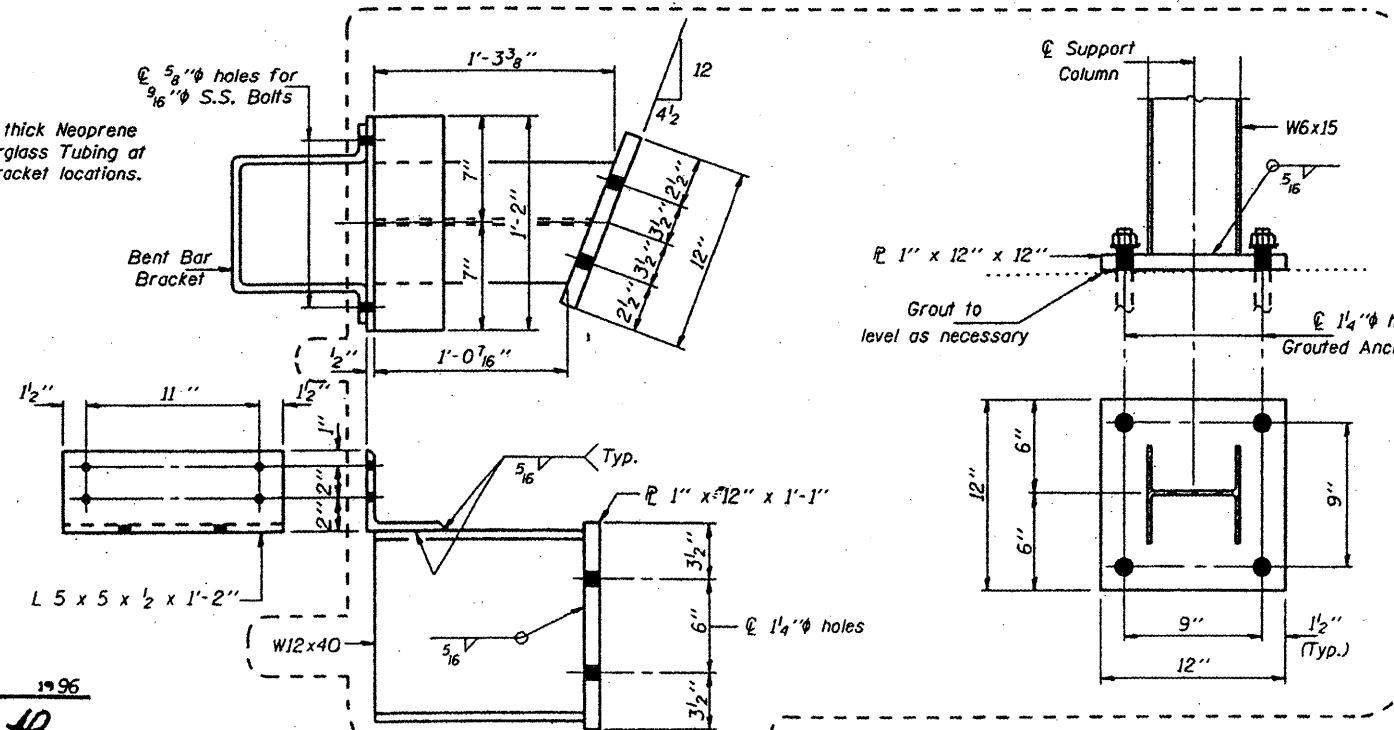
**TOP VIEW**



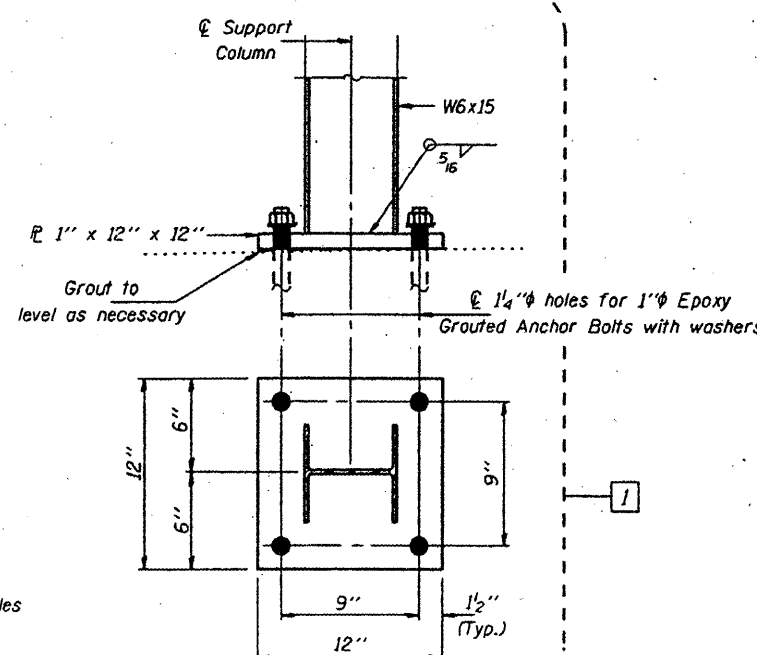
**DRAIN ELEVATION**  
(Looking out from Bridge)  
Total No. Req'd.: 4



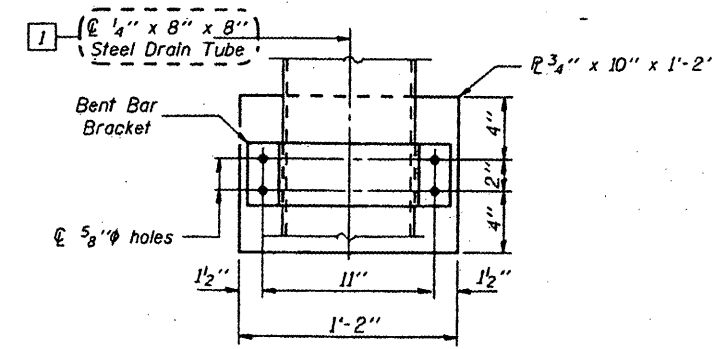
**BENT BAR BRACKET  
DETAIL**  
R 1/4 x 4 x 2'-4 1/2"  
Total No. Req'd.: 8



**SUPPORT BRACKET**  
Total No. Req'd.: 4



**SECTION F-F**  
Total No. Req'd.: 4



**VIEW G-G**

**DRAIN DETAILS**  
F.A.I. 57 OVER MISSISSIPPI RIVER  
SEC. 02-1B-1  
ALEXANDER COUNTY  
S.N. 002-0022

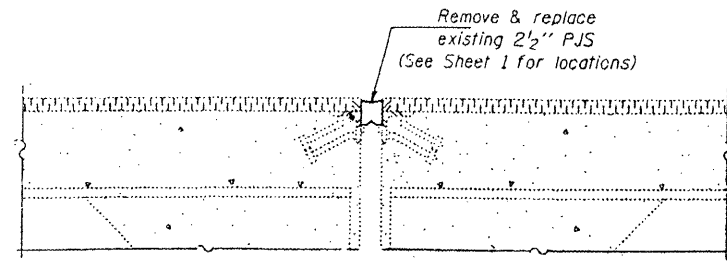
DESIGNED	DAH KPS	AUGUST 21	1996
CHECKED	NJS	EXAMINED	<i>John E. Adams</i> ENGINEER OF STRUCTURAL SERVICES
DRAWN	D-terbert	PASSED	ENGINEER OF BRIDGES AND STRUCTURES
CHECKED	NJS KPS		

BRIDGE NO. 1  
STRUCTURE NO. 002-0022  
FOR INFORMATION ONLY

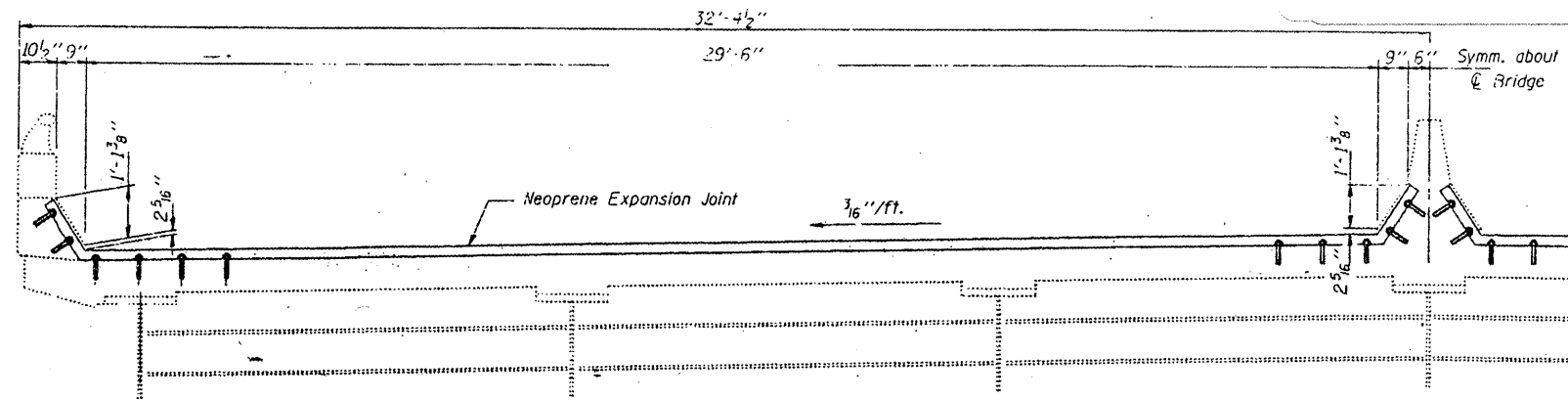


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

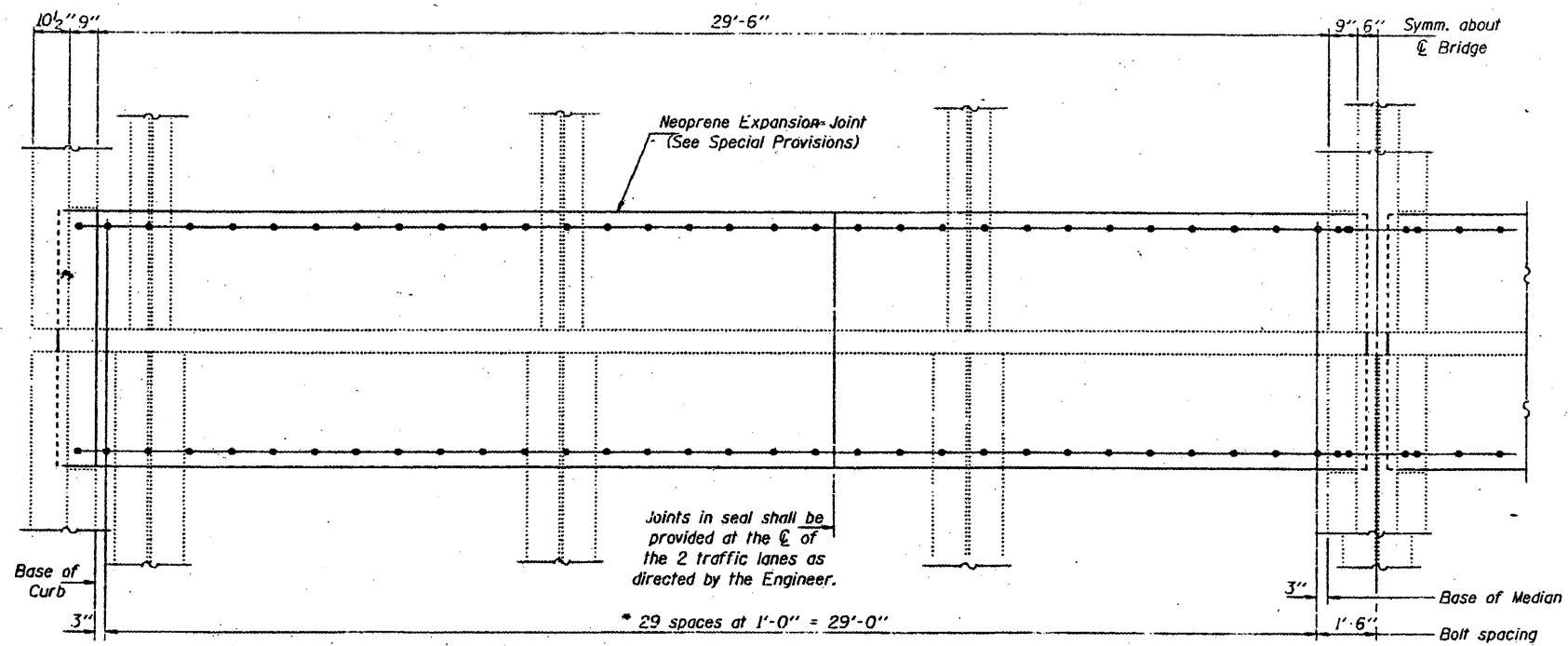
CONTRACT: 78040  
ROUTE: F.A.I. 57  
SECTION: (02-1B-1)P-1  
COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
SHEET 49 OF 67  
FOR INFORMATION ONLY



SECTION THRU PJS JOINTS

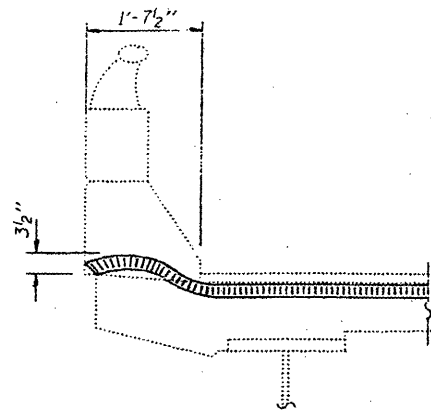


ELEVATION

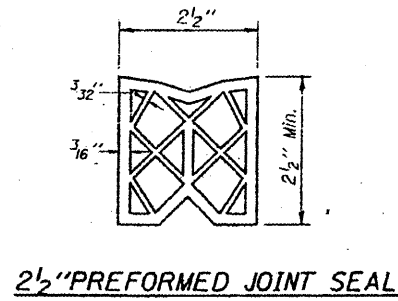


PLAN  
EXPANSION GUARD - SPANS 4 & 6  
(Piers 4 & 7)

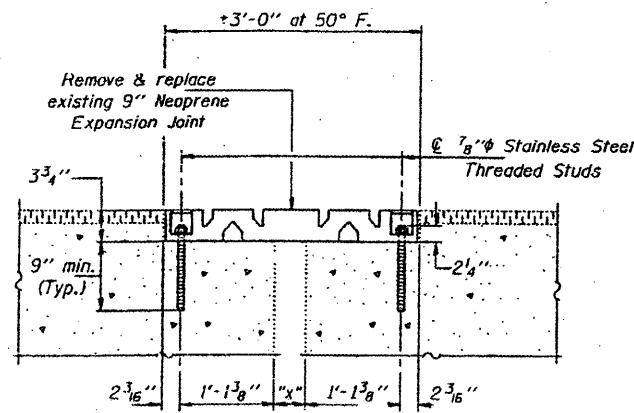
\* Remove existing 7/8"  $\phi$  studs by flame cutting and grind flush with top of concrete. Epoxy grout new 7/8"  $\phi$  Stainless Steel threaded studs in 1 1/8"  $\phi$  x 9" (min.) drilled holes.



END OF SEAL TREATMENT



2 1/2" PREFORMED JOINT SEAL



SECTION THRU NEOPRENE EXP. JT. (9'')

Temp. (°F.)	Dim. "x"
130	3 1/2"
110	4 1/8"
90	4 1/2"
70	5 1/8"
50	5 3/4"
30	6 1/4"
10	6 3/4"
-10	7 1/8"
-30	7 3/4"

DESIGNED	KPS	AUGUST 21	1996
CHECKED	NJS	EXAMINED	<i>John E. Adams</i> ENGINEER OF STRUCTURAL SERVICES
DRAWN	D-terbert	PASSED	
CHECKED	NJS KPS		ENGINEER OF BRIDGES AND STRUCTURES

BRIDGE NO. 1  
STRUCTURE NO. 002-0022  
FOR INFORMATION ONLY

BRIDGE REPAIRS  
F.A.I. 57 OVER MISSISSIPPI RIVER  
SEC. 02-1B-1  
ALEXANDER COUNTY  
S.N. 002-0022

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS

**PLANS FOR PROPOSED  
 HIGHWAY**

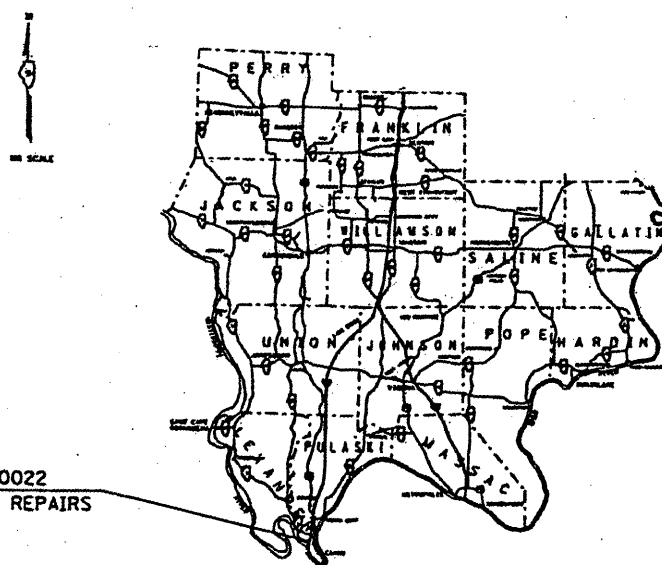
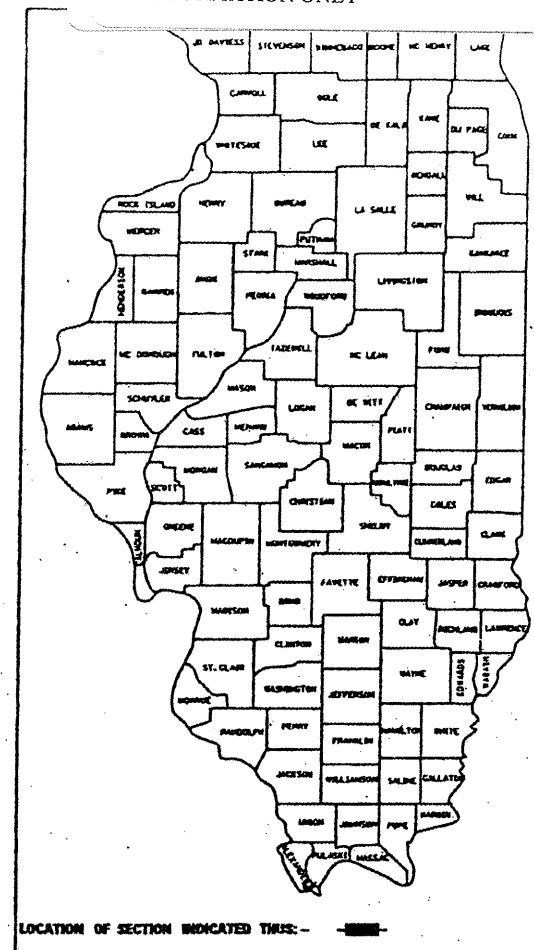
**FAI ROUTE 57 (I-57)  
 SECTION: (02-1B-1)I-4  
 NAVIGATION LIGHT REPAIRS  
 ALEXANDER CO., IL. & MISSISSIPPI CO., MO.  
 C-99-013-00**

CONTRACT: 78040  
 ROUTE: F.A.I. 57  
 SECTION: (02-1B-1)P-1  
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
 SHEET 50 OF 67  
 FOR INFORMATION ONLY

FOR INDEX OF SHEETS, SEE SHEET NO. 2  
 FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 2

TRAFFIC DATA

STR. NO.	ADT.	M. U. Z.
002-0022	9,300	37



STRUCTURE NO. 002-0022  
 NAVIGATIONAL LIGHT REPAIRS

GROSS LENGTH OF PROJECT = WITHIN EXISTING LIGHTING SYSTEM

BRIDGE NO. 1  
 STRUCTURE NO. 002-0022  
 FOR INFORMATION ONLY

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.

JULIE  
 JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION  
 1-800-892-0123

CONTRACT NO.

**002-0022**

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS

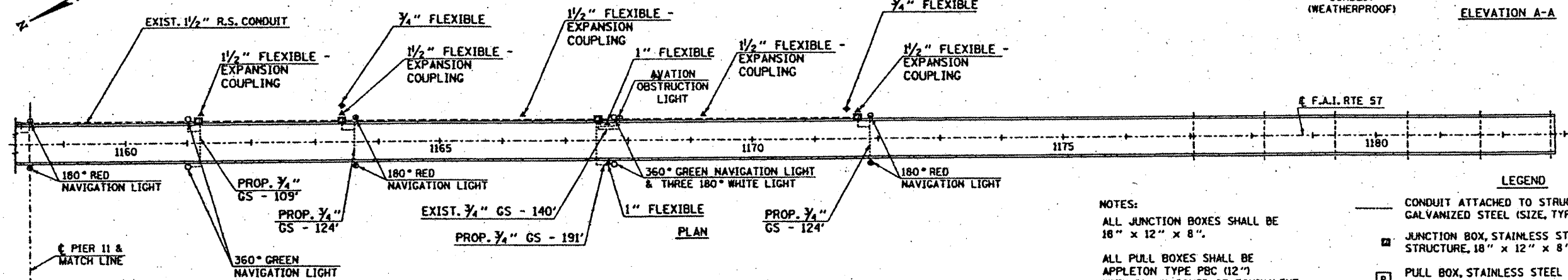
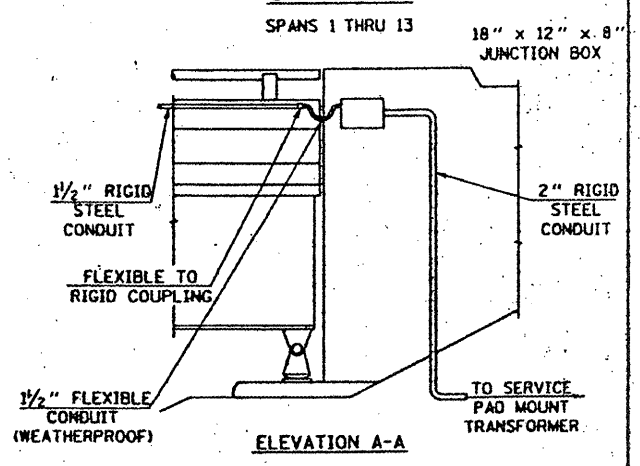
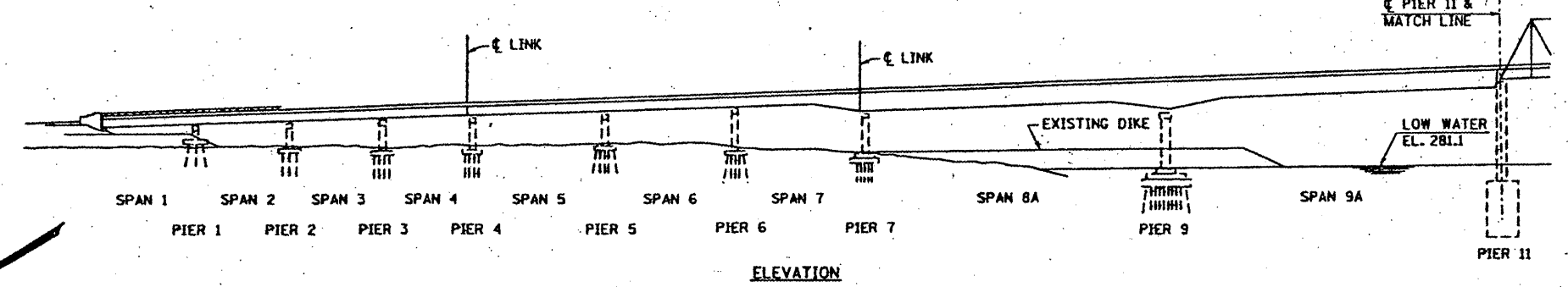
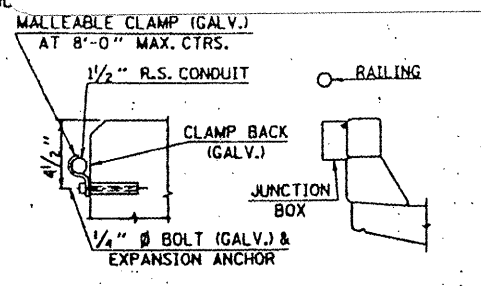
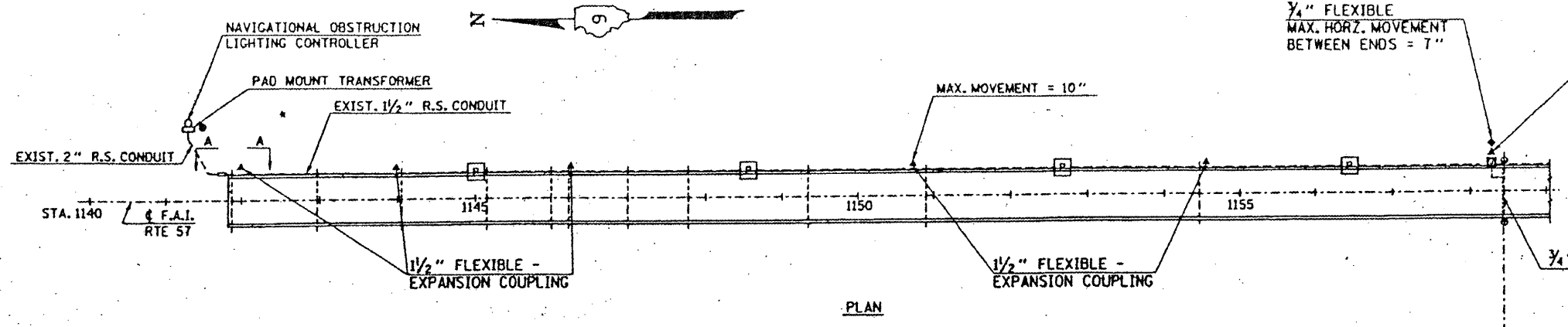
SUBMITTED Aug 24, 1999  
Ralph R. Kutzma  
 DISTRICT ENGINEER

October 1, 1999  
Bill Penley  
 ENGINEER OF DESIGN AND ENVIRONMENT

October 1, 1999  
James P. Stiles  
 DIRECTOR, DIVISION OF HIGHWAYS

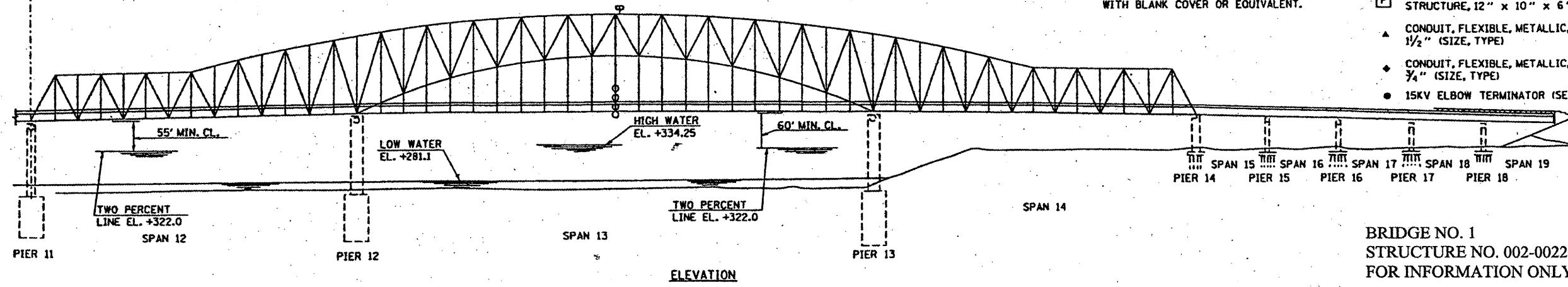
PRINTED BY THE AUTHORITY  
 OF THE STATE OF ILLINOIS

CONTRACT: 78040  
 ROUTE: F.A.I. 57  
 SECTION: (02-1B-1)P-1  
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
 SHEET 51 OF 67  
 FOR INFORMATION ONLY



NOTES:  
 ALL JUNCTION BOXES SHALL BE 18" x 12" x 8".  
 ALL PULL BOXES SHALL BE APPLETON TYPE PBC (12") WITH BLANK COVER OR EQUIVALENT.

- LEGEND**
- CONDUIT ATTACHED TO STRUCTURE, 3/4" DIA., GALVANIZED STEEL (SIZE, TYPE, LENGTH)
  - ▣ JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 18" x 12" x 8"
  - ▢ PULL BOX, STAINLESS STEEL ATTACHED TO STRUCTURE, 12" x 10" x 6"
  - ▲ CONDUIT, FLEXIBLE, METALLIC, WEATHERPROOF, 1/2" (SIZE, TYPE)
  - ◆ CONDUIT, FLEXIBLE, METALLIC, WEATHERPROOF, 3/4" (SIZE, TYPE)
  - 15KV ELBOW TERMINATOR (SEE PAGE 8)



BRIDGE NO. 1  
 STRUCTURE NO. 002-0022  
 FOR INFORMATION ONLY

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CONTRACT: 78040  
ROUTE: F.A.I. 57  
SECTION: (02-1B-1)P-1  
COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
SHEET 52 OF 67  
FOR INFORMATION ONLY

**GENERAL NOTES**

All new structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.  
The Contractor shall provide support and/or shoring systems for the beam in the area of existing pin and link plate replacement. See Special Provision "Temporary Support System."  
The inorganic zinc rich primer/acrylic/acrylic paint system shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the acrylic finish coat shall be Interstate Green, Munsell No. 7.5G 4/8. See Special Provisions "Cleaning and Painting New Metal Structures". Cost shall be included in the cost of "Pin and Link Plate Replacement".  
Existing Structural steel shall be cleaned and painted as required by the Special Provision "Cleaning and Painting Adjacent Areas of Existing Steel Structures". Cost shall be included in the cost of "Pin and Link Plate Replacement".  
All existing steel surfaces behind link plates shall be cleaned and primed before installation of new link plates. Cost shall be included in the cost of "Pin and Link Plate Replacement".  
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, except the pin diameters, 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 Pins and Link Plates shall conform to the minimum Charpy V-Notch Toughness of 25 ft.-lbs. at 40° F.  
The pins, link plates, bushings, nuts, Set Bolts, Neoprene Pad and silicone sealant are the items included in "Pin and Link Plate Replacement".  
The existing structural steel coating contains lead. The Contractor should take appropriate precautions to deal with the presence of lead on this project.

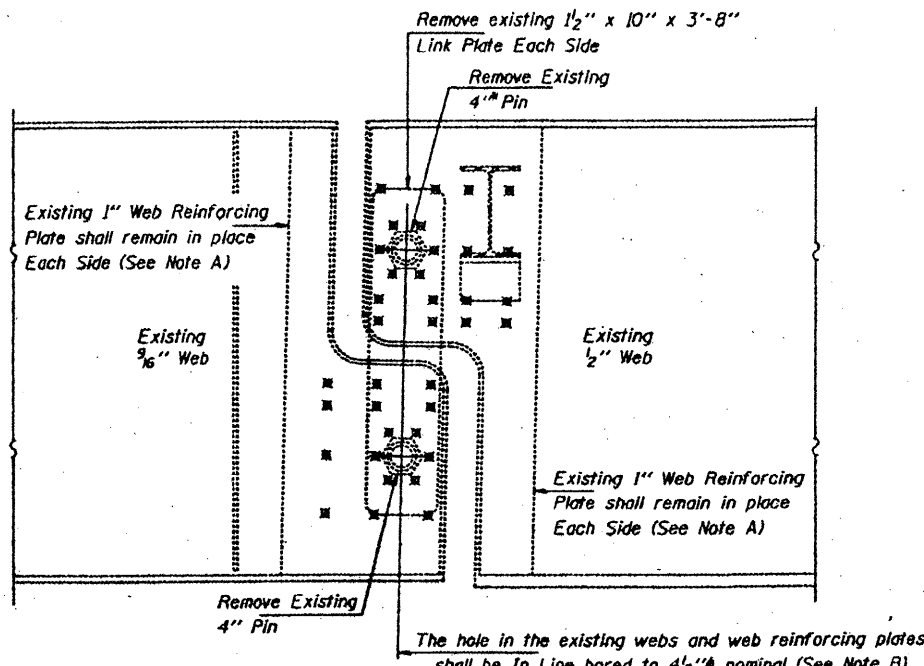
Notes: For notes A thru G see sheet 2 of 13.  
⊗ Indicates existing Plug Welds (See Note G)

BRIDGE NO. 1  
STRUCTURE NO. 002-0022  
FOR INFORMATION ONLY

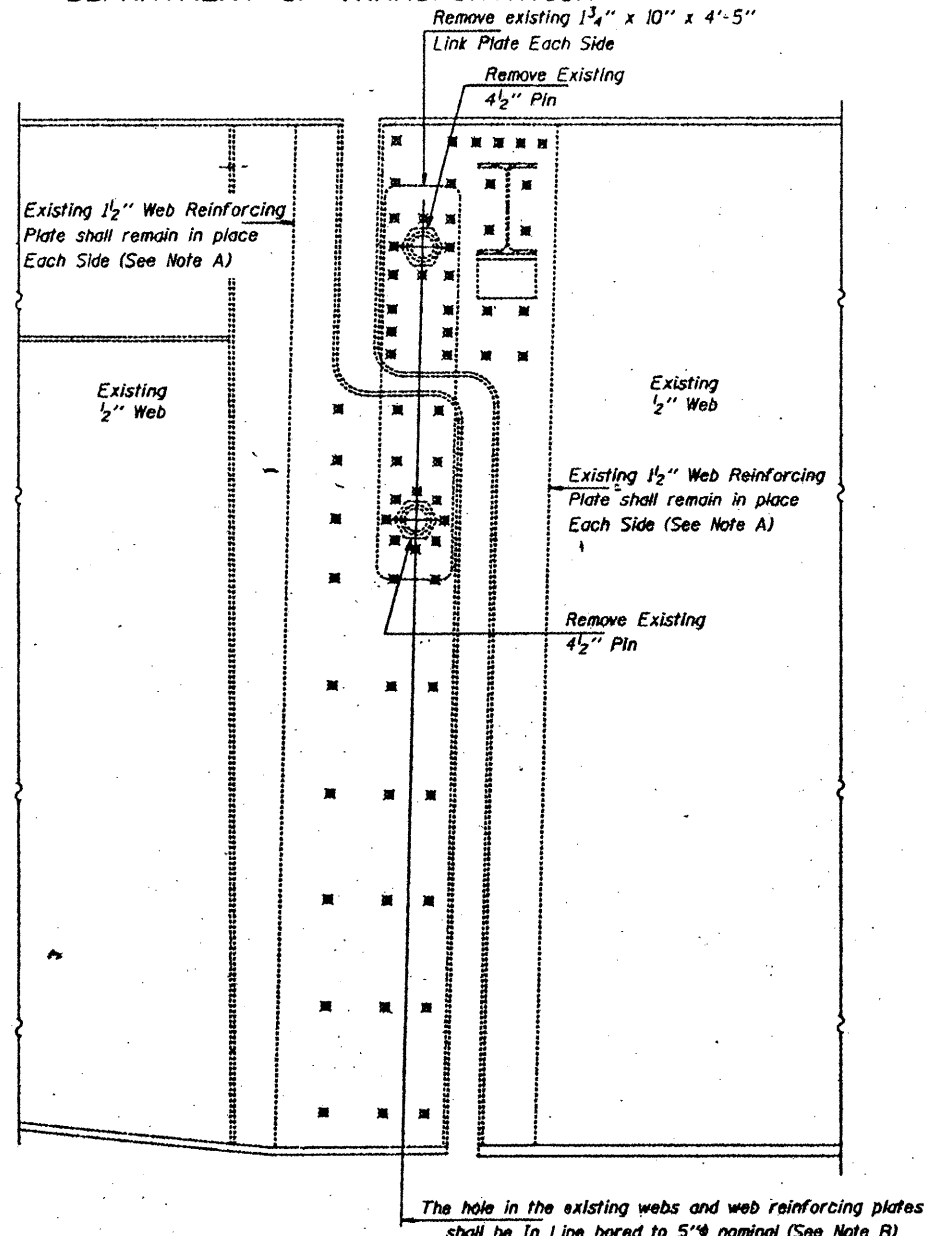
**TOTAL BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
Temporary Support System	Each	122
Pin and Link Plate Replacement	Each	122

**PIN AND LINK PLATE REPLACEMENT**  
SPANS 4 AND 7  
F.A.I. ROUTE 57 SEC. 02-1B-1  
ALEXANDER COUNTY  
STA. 1168+50  
STR. No. 002-0022

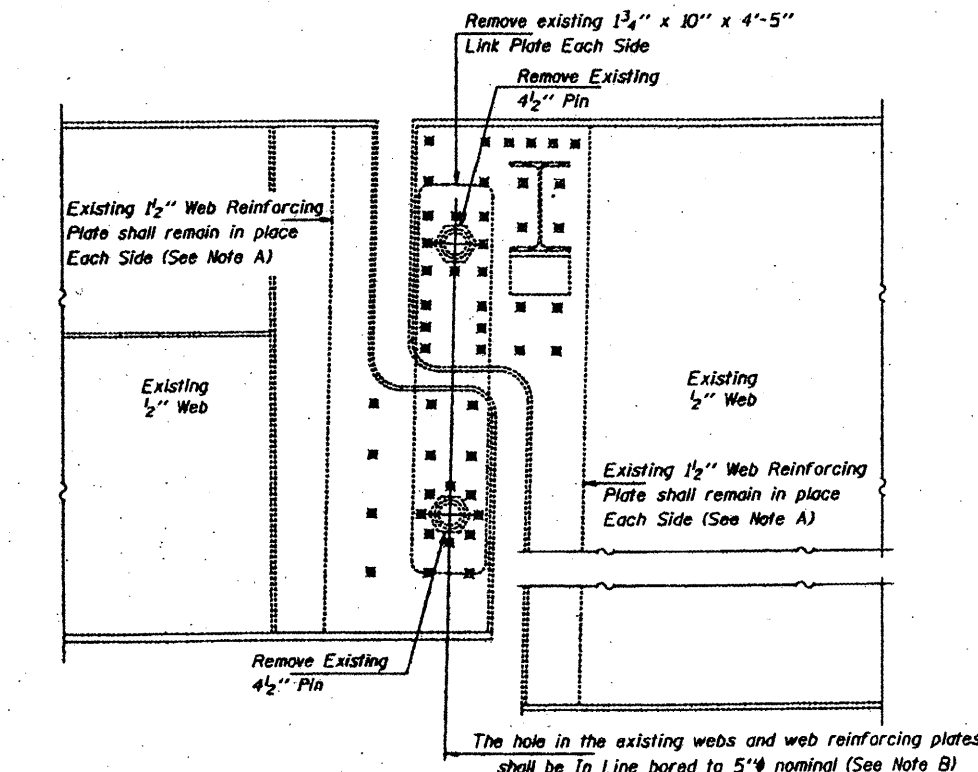


**ELEVATION AT EXISTING PIN ASSEMBLY SPAN 4**



**ELEVATION AT EXISTING PIN ASSEMBLY SPAN 7 GIRDERS 1 AND 7**

Any Pins that can be easily removed without damage to the pin shall be salvaged and the Bridge Engineer shall be contacted for disposition. Cost of salvage is included in "Pin and Link Plate Replacement".



**ELEVATION AT EXISTING PIN ASSEMBLY SPAN 7 GIRDERS 2 THRU 6**

DESIGNED VICTOR H. VELITZ FEBRUARY 19, 1998  
CHECKED Paul M. Egan EXAMINED Todd E. Ahrens  
DRAWN Paul Sumner PASSED  
CHECKED VHV CME ENGINEER OF STRUCTURAL SERVICES  
ENGINEER OF BRIDGES AND STRUCTURES

**MAXIMUM REACTIONS  
AT PIN SPAN 4**

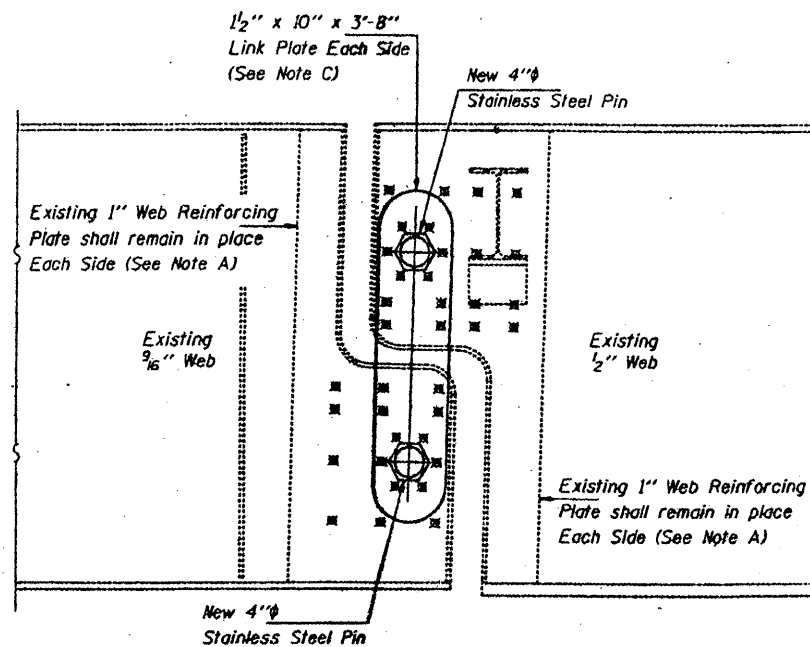
RP	(K)	60.5
RL	(K)	60.8
Imp.	(K)	13.0
R (Total)	(K)	134.3

**MAXIMUM REACTIONS  
AT PIN SPAN 7**

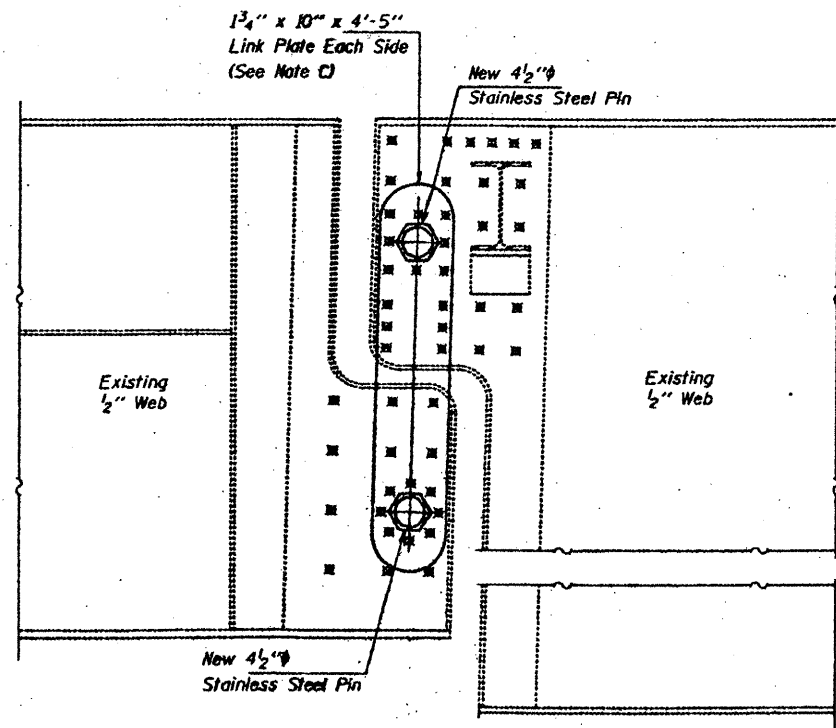
RP	(K)	101.5
RL	(K)	61.7
Imp.	(K)	13.3
R (Total)	(K)	176.5

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

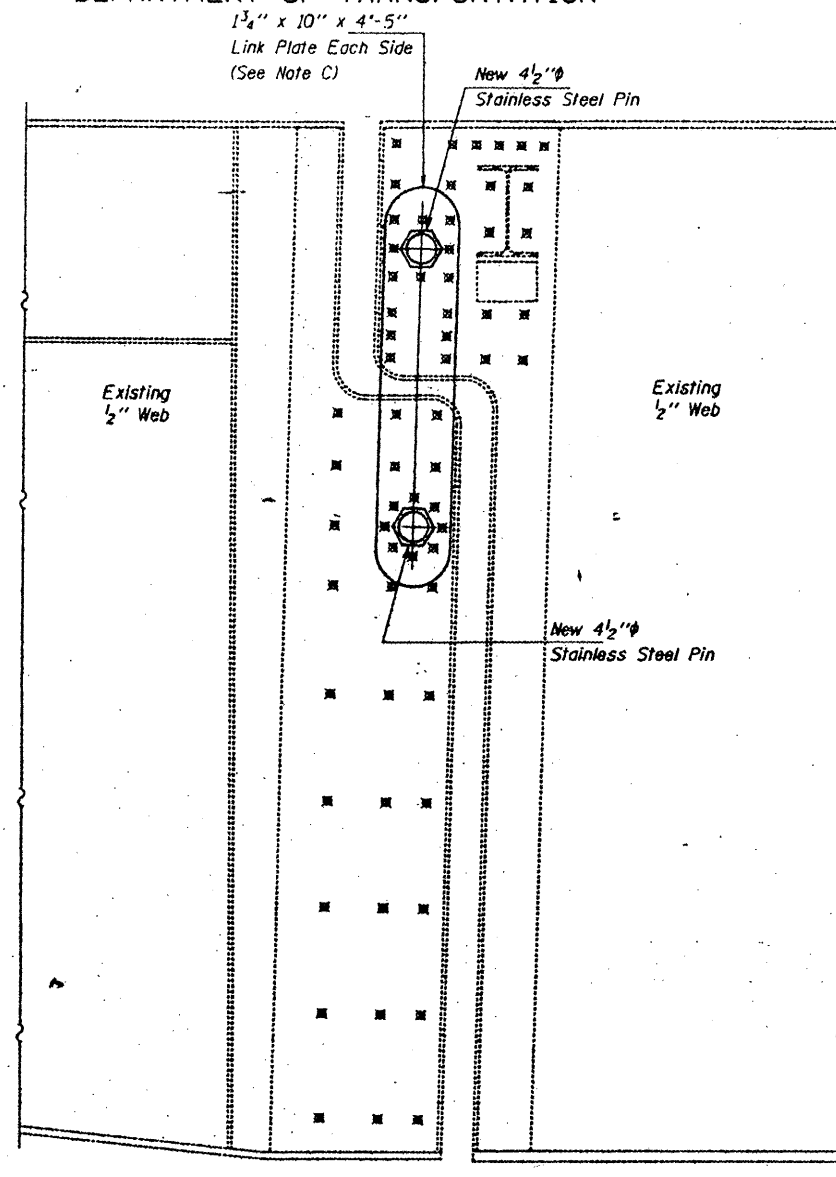
CONTRACT: 78040  
ROUTE: F.A.I. 57  
SECTION: (02-1B-1)P-1  
COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
SHEET 53 OF 67  
FOR INFORMATION ONLY



ELEVATION AT NEW PIN ASSEMBLY SPAN 4



ELEVATION AT NEW PIN ASSEMBLY SPAN 7 GIRDERS 2 THRU 6



ELEVATION AT NEW PIN ASSEMBLY SPAN 7 GIRDERS 1 AND 7

Note A:  
Existing welds penetrant or mag shall be identified and reported to the Bureau of Bridges and Structures for further disposition. Clean and paint before installing new link plates.

Note B:  
Bore diameter for bushing in link plate, existing webs and web reinforcement plates shall correspond to bushing manufacturer's allowable tolerances for proper functioning. Hole diameter may be adjusted to allow use of stock bushings.

Note C:  
Inside face of new link plates shall receive first field coat in shop. The primer shall pass the M.E.K. Rub Test before the first field coat is applied.

Note D:  
Actual bushing thickness per manufacturer's specifications. 1/4" is approximate. Bushings shall be a self lubricating filament wound epoxy matrix backed Duralon Bearing, metal backed Fiber Glide Bearing or equivalent. No primer or grease shall be allowed on bushings. Bushings shall be suitable for dynamic loads of 20,000 psi.

Note E:  
Tighten inside nuts to bring all bushings into firm contact, then back off 1/4 turn and tighten outer nuts and set bolts.

Note F:  
Apply 3/8" bead to face of the web reinforcing plates approximately 1/2" from bushing immediately before installing new link plates. Place sealant around nuts after installation. Sealant shall be suitable for prolonged exterior exposure without losing flexibility or adhesion to painted steel surfaces. Proposed products shall be subject to Department's acceptance based on documented testing or other evidence.

Note G:  
Welds shall be inspected for cracks using liquid dye penetrant or magnetic particle testing. Any cracks that are found that cannot be removed by grinding approximately 1/4" shall be identified and reported to the Bureau of Bridges and Structures for further disposition. Clean and paint before installing new link plates.

Notes: For Pin and Link Plate Details see sheet 3 of 13.

BRIDGE NO. 1  
STRUCTURE NO. 002-0022  
FOR INFORMATION ONLY

PIN AND LINK PLATE REPLACEMENT

SPANS 4 AND 7

F.A.I. ROUTE 57 SEC. 02-1B-1

ALEXANDER COUNTY

STA. 1168+50

STR. No. 002-0022

DESIGNED	VHV
CHECKED	CME
DRAWN	Paul Summer
CHECKED	VHV CME

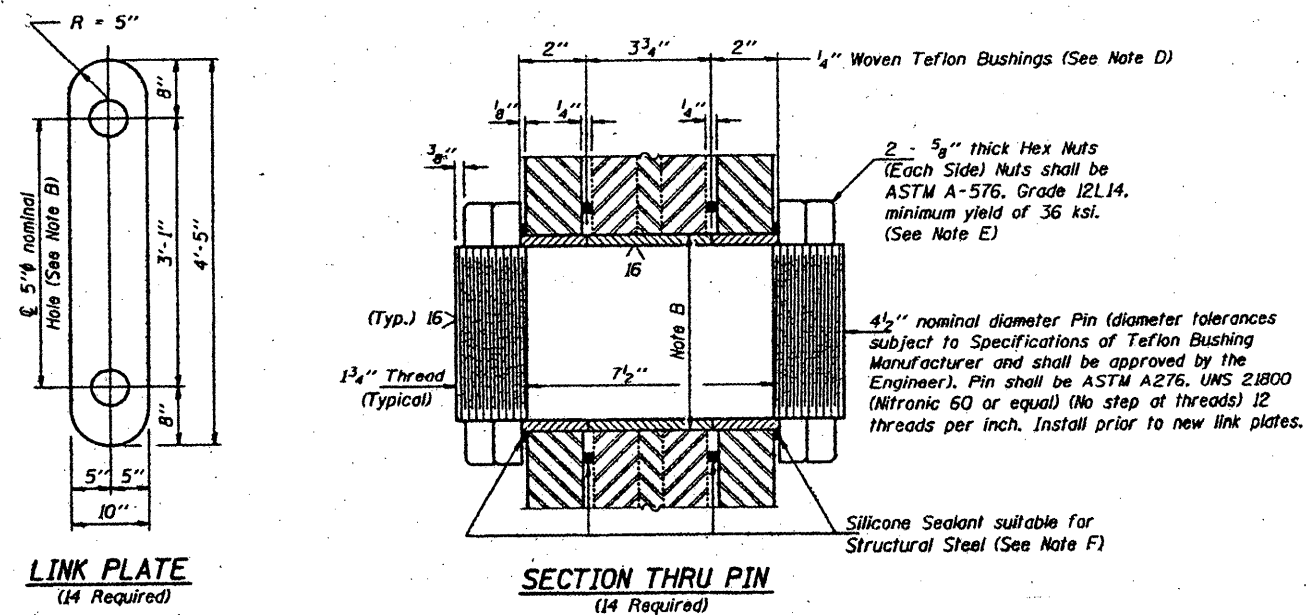
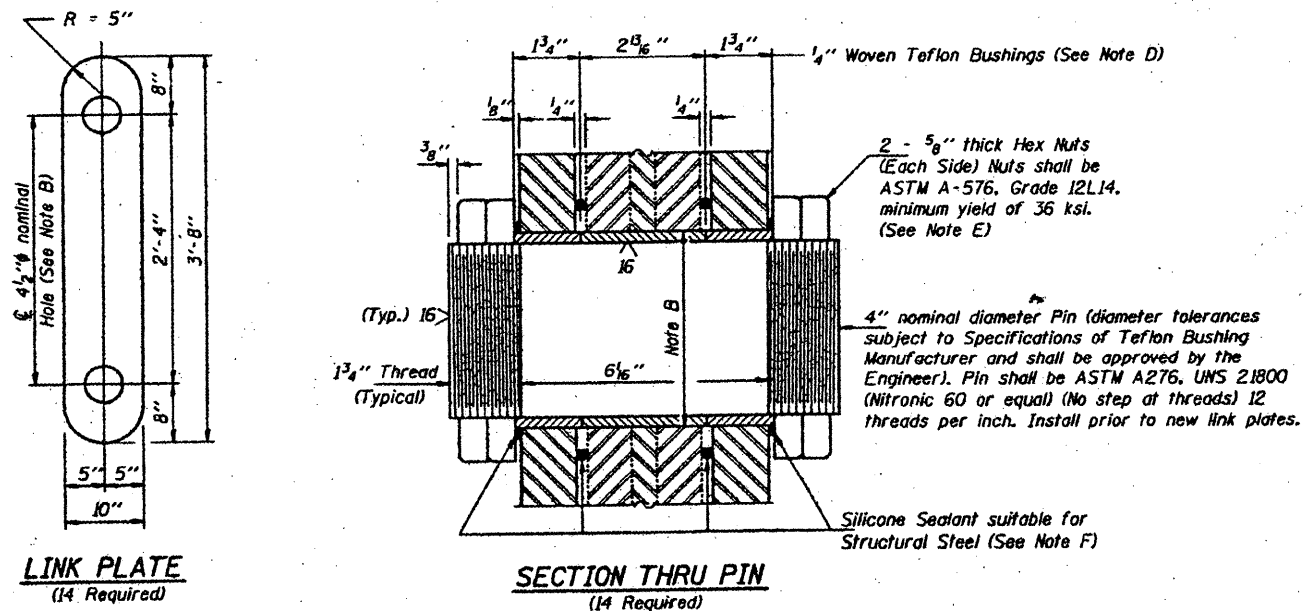
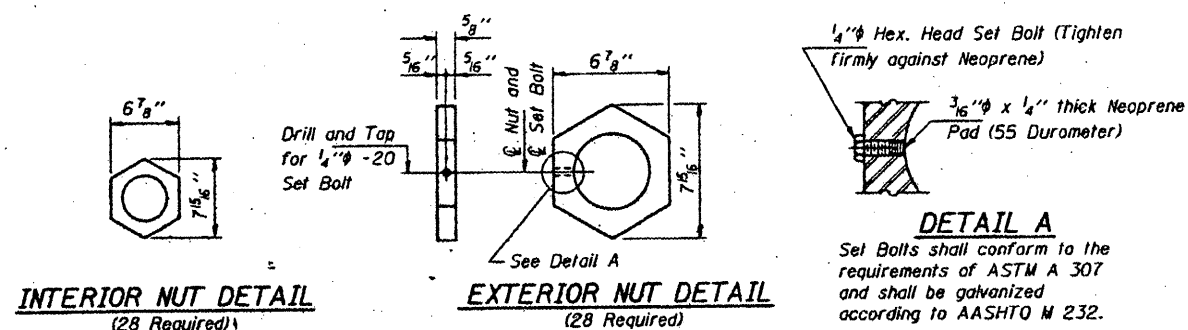
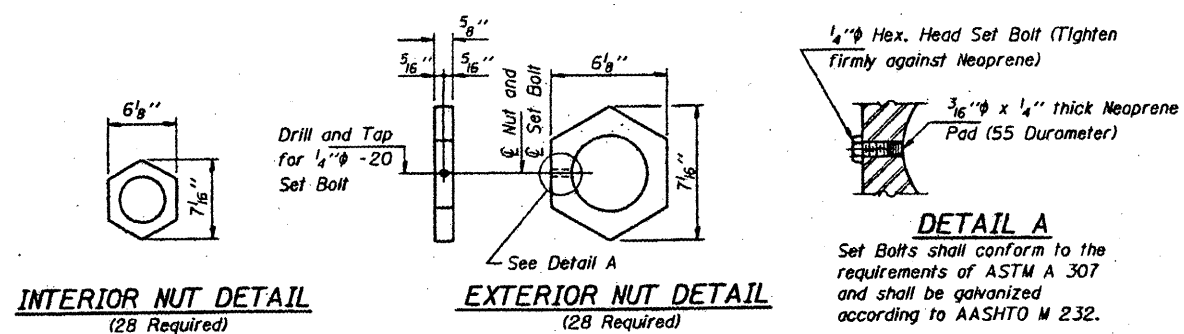
FEBRUARY 19, 1998

EXAMINED *John E. Adams*  
ENGINEER OF STRUCTURAL SERVICES

PASSED  
ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CONTRACT: 78040  
ROUTE: F.A.I. 57  
SECTION: (02-1B-1)P-1  
COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
SHEET 54 OF 67  
FOR INFORMATION ONLY



**PIN ASSEMBLY SPAN 4**

**PIN ASSEMBLY SPAN 7**

Notes: For notes A thru G see sheet 2 of 13.

DESIGNED	VHV
CHECKED	CME
DRAWN	Paul Summer
CHECKED	VHV CME

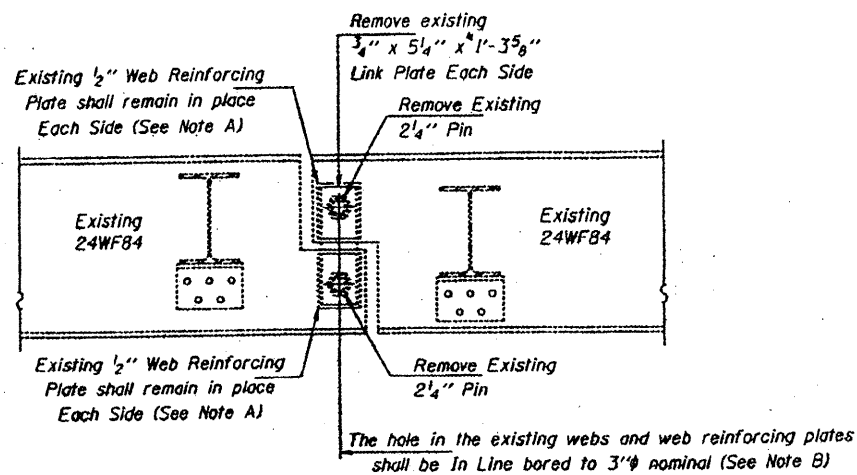
FEBRUARY 19, 1998  
EXAMINED *Joseph E. Adams*  
PASSED  
ENGINEER OF BRIDGES AND STRUCTURES

BRIDGE NO. 1  
STRUCTURE NO. 002-0022  
FOR INFORMATION ONLY

**PIN AND LINK PLATE REPLACEMENT**  
**SPANS 4 AND 7**  
**F.A.I. ROUTE 57 SEC. 02-1B-1**  
**ALEXANDER COUNTY**  
**STA. 1168+50**  
**STR. No. 002-0022**

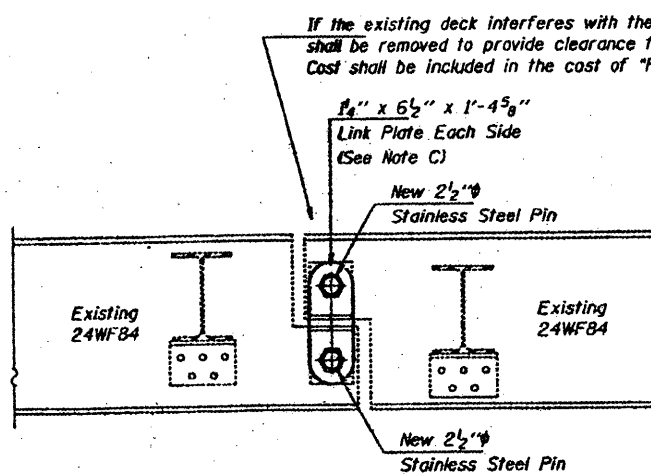
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CONTRACT: 78040  
ROUTE: F.A.I. 57  
SECTION: (02-1B-1)P-1  
COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
SHEET 55 OF 67  
FOR INFORMATION ONLY



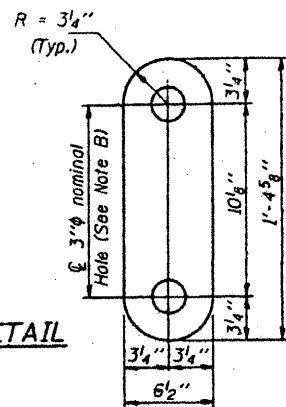
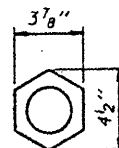
**ELEVATION AT EXISTING PIN ASSEMBLY**  
SPANS 12, 13 AND 14

Any Pins that can be easily removed without damage to the pin shall be salvaged and the Bridge Engineer shall be contacted for disposition. Cost of salvage is included in "Pin and Link Plate Replacement".

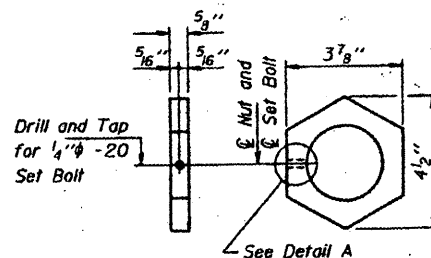


**ELEVATION AT NEW PIN ASSEMBLY**  
SPANS 12, 13 AND 14

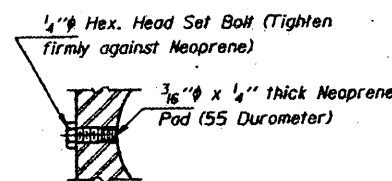
**INTERIOR NUT DETAIL**  
(432 Required)



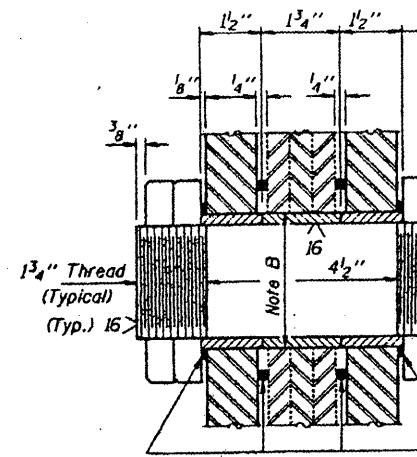
**LINK PLATE DETAIL**  
(216 Required)



**EXTERIOR NUT DETAIL**  
(432 Required)



**DETAIL A**  
Set Bolts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.



**SECTION THRU PIN**  
(216 Required)

2 -  $\frac{5}{8}''$  thick Hex Nuts (Each Side) Nuts shall be ASTM A-576, Grade 12L14, minimum yield of 36 ksi. (See Note E)  
2  $\frac{1}{2}''$  nominal diameter Pin (diameter tolerances subject to Specifications of Teflon Bushing Manufacturer and shall be approved by the Engineer). Pin shall be ASTM A276, UNS 21800 (Nitronic 60 or equal) (No step at threads) 12 threads per inch. Install prior to new link plates.  
Silicone Sealant suitable for Structural Steel (See Note F)

Notes: For notes A thru F see sheet 2 of 13.

**MAXIMUM REACTIONS AT PIN**

RP	(K)	12.9
Rt	(K)	36.9
Imp.	(K)	11.0
R (Total)	(K)	60.8

BRIDGE NO. 1  
STRUCTURE NO. 002-0022  
FOR INFORMATION ONLY

**PIN AND LINK PLATE REPLACEMENT**  
SPANS 12, 13 AND 14  
F.A.I. ROUTE 57 SEC. 02-1B-1  
ALEXANDER COUNTY  
STA. 1168+50  
STR. No. 002-0022

DESIGNED	VHV
CHECKED	CME
DRAWN	Paul Sumner
CHECKED	VHV CME

FEBRUARY 19, 1998  
EXAMINED *Joseph E. Hamm*  
ENGINEER OF STRUCTURAL SERVICES  
PASSED  
ENGINEER IN CHARGE AND STRUCTURES

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS

**PLANS FOR PROPOSED**

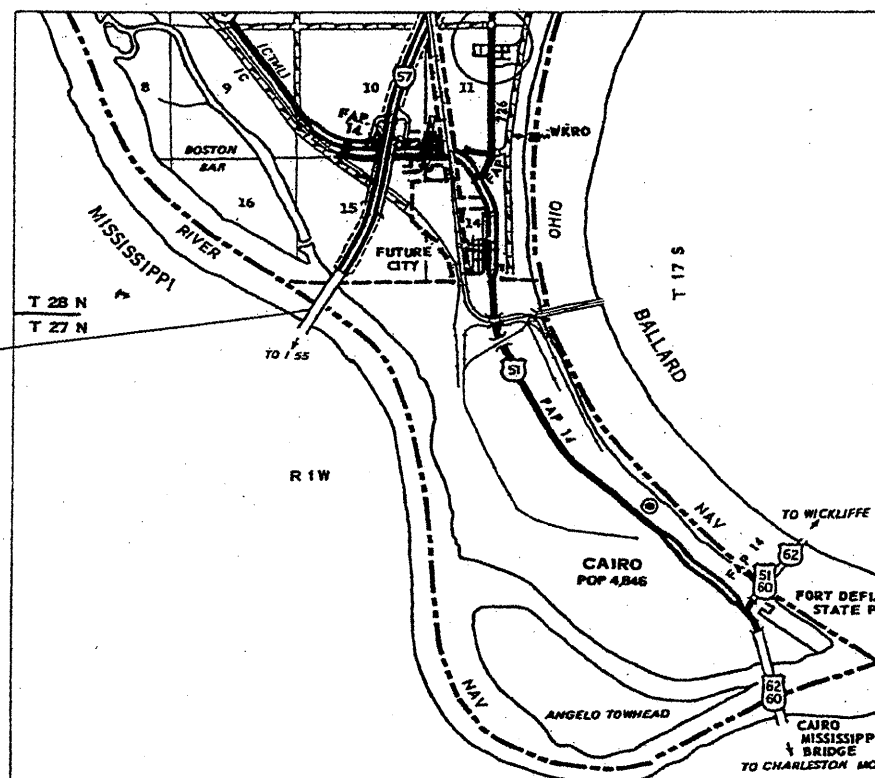
F.A.I. 57 (I-57)  
 SECTION (02-1B-1) I-5

ALEXANDER COUNTY, IL & MISSISSIPPI COUNTY, MO  
 C-99-085-01

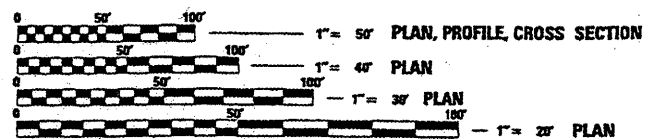
FOR INDEX OF SHEETS, SEE SHEET NO. 2  
 FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 3

I-57 TRAFFIC DATA  
 2000 ADT 10,300  
 WYATT TOWNSHIP

CONTRACT: 78040  
 ROUTE: F.A.I. 57  
 SECTION: (02-1B-1)P-1  
 COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
 SHEET 56 OF 67  
 FOR INFORMATION ONLY



PROPOSED IMPROVEMENT SN 002-0022



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 EXCAVATION  
 1-800-892-0123  
 www.julie1call.com

THE PROPOSED IMPROVEMENT IS ON S.N. 002-0022 WHICH CARRIES INTERSTATE 57 OVER THE MISSISSIPPI RIVER IN ALEXANDER COUNTY. THE PROPOSED IMPROVEMENT CONSISTS OF THE REMOVAL OF THE EXISTING BITUMINOUS WEARING SURFACE AND WATERPROOFING, DECK SLAB REPAIRS, SCARIFICATION OF THE BRIDGE DECK AND PLACEMENT OF A MICROSILICA CONCRETE OVERLAY. OTHER IMPROVEMENTS CONSIST OF JOINT RECONSTRUCTION, STRUCTURAL STEEL REPAIRS, REMOVAL AND REPLACEMENT OF ONE BEARING AND PIER CAP SEAT SEALING.

BRIDGE NO. 1  
 STRUCTURE NO. 002-0022  
 FOR INFORMATION ONLY

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS

SUBMITTED Jan 10, 20 02  
Paul W. Rabenstein  
 DISTRICT ENGINEER

February 1, 20 02  
Michael Rhin  
 ENGINEER OF DESIGN AND ENVIRONMENT

February 1, 20 02  
James L. P. P. P.  
 DIRECTOR, DIVISION OF HIGHWAYS

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 OF THE STATE OF ILLINOIS

CONTRACT NO. 98636

002-0022

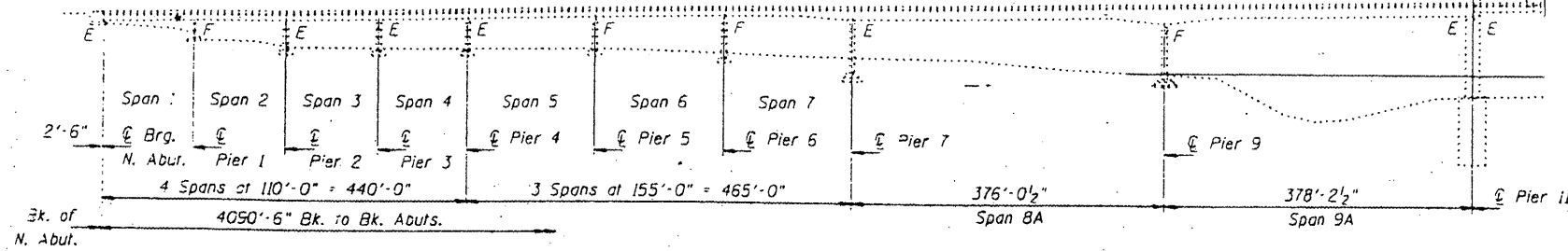
NET LENGTH OF PROJECT = 4090'-6"

9-173

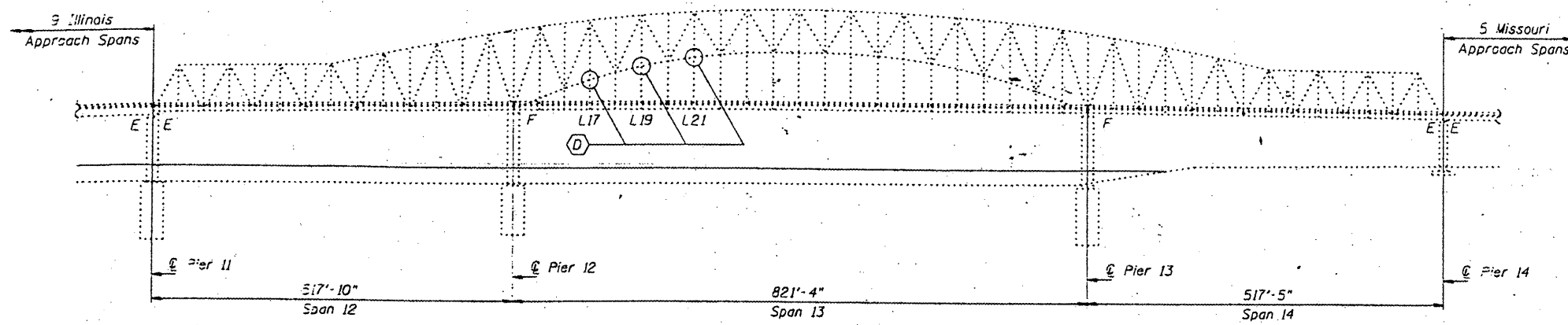


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

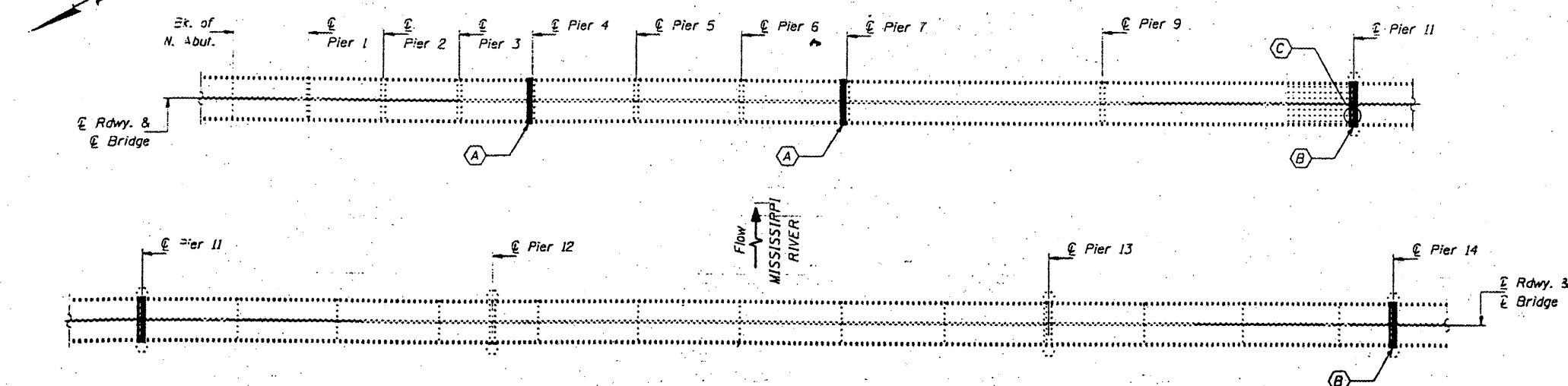
CONTRACT: 78040  
ROUTE: F.A.I. 57  
SECTION: (02-1B-1)P-1  
COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
SHEET 57 OF 67  
FOR INFORMATION ONLY



All new structural steel Gr. 36, unless otherwise noted.  
Calculated weight of AASHTO M-270, Grade 36  
Structural Steel = 137,170 Lbs.  
Calculated weight of AASHTO M-270, Grade 50  
Structural Steel = 84,310 Lbs.  
Fasteners shall be high strength bolts. Bolts 3/4", open holes 1/8".  
Reinforcement bars shall conform to the requirements of AASHTO M-31, M-42 or M-53 Grade 60.  
Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.  
Finger Plate Expansion Joints shall be assembled in the proper position with the ends in place and shall be left assembled for shop inspection. The finger plates shall be flame cut as provided in Article 505.04(k) of the Standard Specifications.  
Joint openings shall be adjusted according to Article 503.10(c) of the Standard Specifications when the deck is poured at an ambient temperature other than 50° F.  
Prior to pouring the new concrete deck, all loose rust, loose mill scale and other loose potentially detrimental foreign material shall be removed from the surfaces of the beams or girders in contact with concrete. The cost of this work will be included in the pay item covering removal of the existing concrete. All heavy rust and other tightly adhered potentially detrimental foreign matter shall also be removed from the surfaces of the beams or girders in contact with concrete. Tightly adhered paint may remain unless otherwise noted. This removal shall be accomplished by methods that will not damage the steel. The cost of this work will be paid for according to Article 109.04 of the Standard Specifications.  
Existing structural steel shall only be cleaned and painted as required by the Special Provision "Cleaning and Painting Adjacent Areas of Existing Steel Structures".  
The existing structural steel coating contains lead. The Contractor should take appropriate precautions to deal with the presence of lead on this project. The inorganic zinc rich primer/acrylic/acrylic paint system shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the acrylic finish coat shall be Interstate Green, Munsell No. 7.5G 4/8. See Special Provision for "Cleaning and Painting New Metal Structures".  
The SSPC-QP1 Painting Contractor Certification will not be required for this bridge.



**PARTIAL ELEVATION**  
(Looking East)



**PARTIAL DECK PLAN**

- (A) Remove existing Modular Joint and replace with new Neoprene Expansion Joint. North & South Bound Lanes.
- (B) Remove existing Finger Plate Joint and replace with new Finger Plate Joint. Replace existing transverse members and install new transverse members for support of the new finger plate stools. North & South Bound Lanes.
- (C) Repair 5" crack in Girder G6 & replace Bearing at Girder 6, Span 9A.
- (D) Sway Frame Repair Locations.

**BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
Concrete Removal	-Cu. Yd.	52.1
Concrete Superstructures	Cu. Yd.	54.0
Reinforcement Bars, Epoxy Coated	Pound	14,880
Mechanical Splice	Each	1,232
Furnishing and Erecting Structural Steel	L.S.	1
Structural Steel Repair	Pound	800
Neoprene Expansion Joint (9")	Foot	130
Fabric Reinforced Elastomeric Trough	Foot	127
Drainage System	L.S.	1
Protective Coat	Sq. Yd.	90
Jack and Remove Existing Bearing	Each	1
Structural Steel Removal	Pound	9860

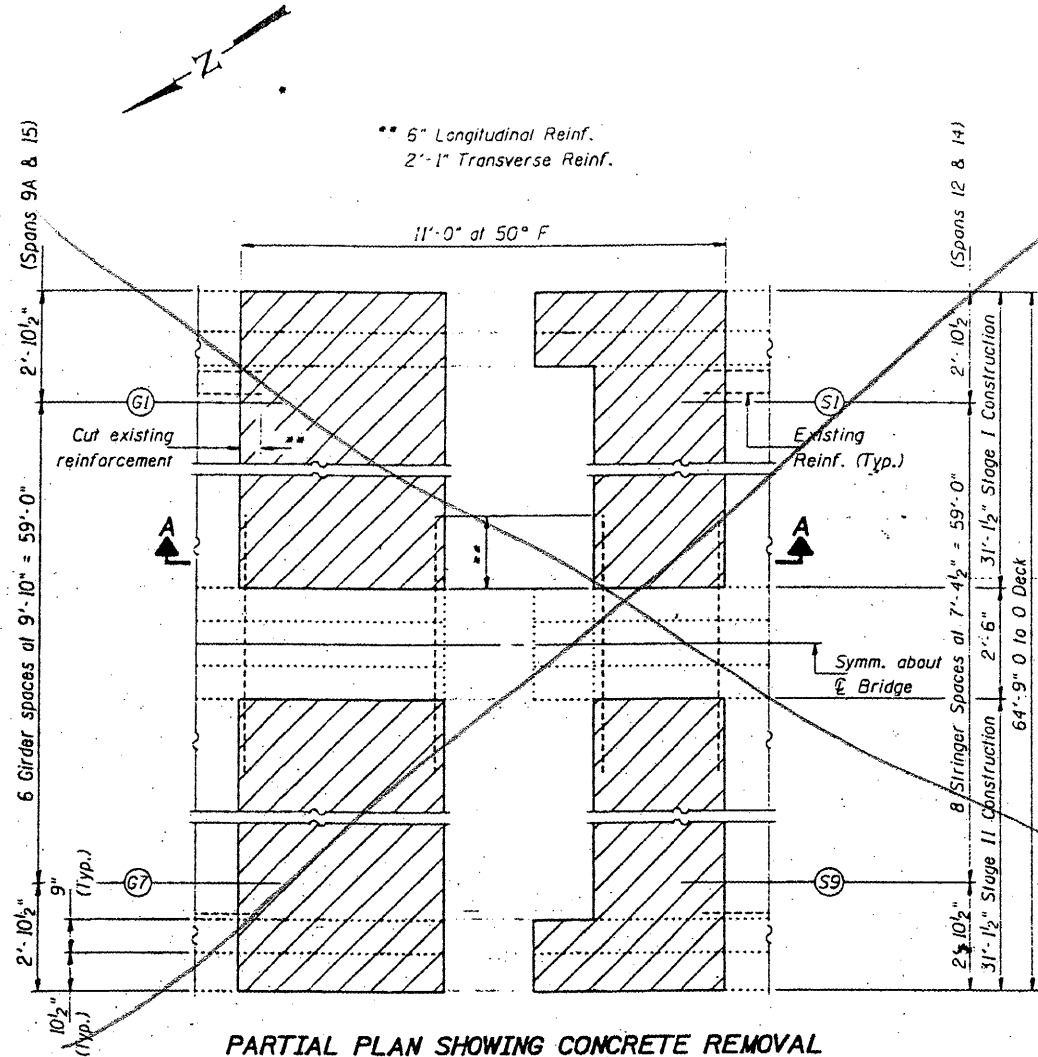
DESIGNED V.H.V. P.S.J. A.T.H.  
CHECKED V.H.V. A.T.H. P.S.J.  
DRAWN John P. Schaeffer Jr.  
CHECKED V.H.V. A.T.H. P.S.J.  
FEBRUARY 4, 2002  
EXAMINED John A. Morris  
PASSED

BRIDGE NO. 1  
STRUCTURE NO. 002-0022  
FOR INFORMATION ONLY

**PLAN & ELEVATION**  
**F.A.I. 57 OVER MISSISSIPPI RIVER**  
**ALEXANDER COUNTY**  
**S.N. 002-0022**

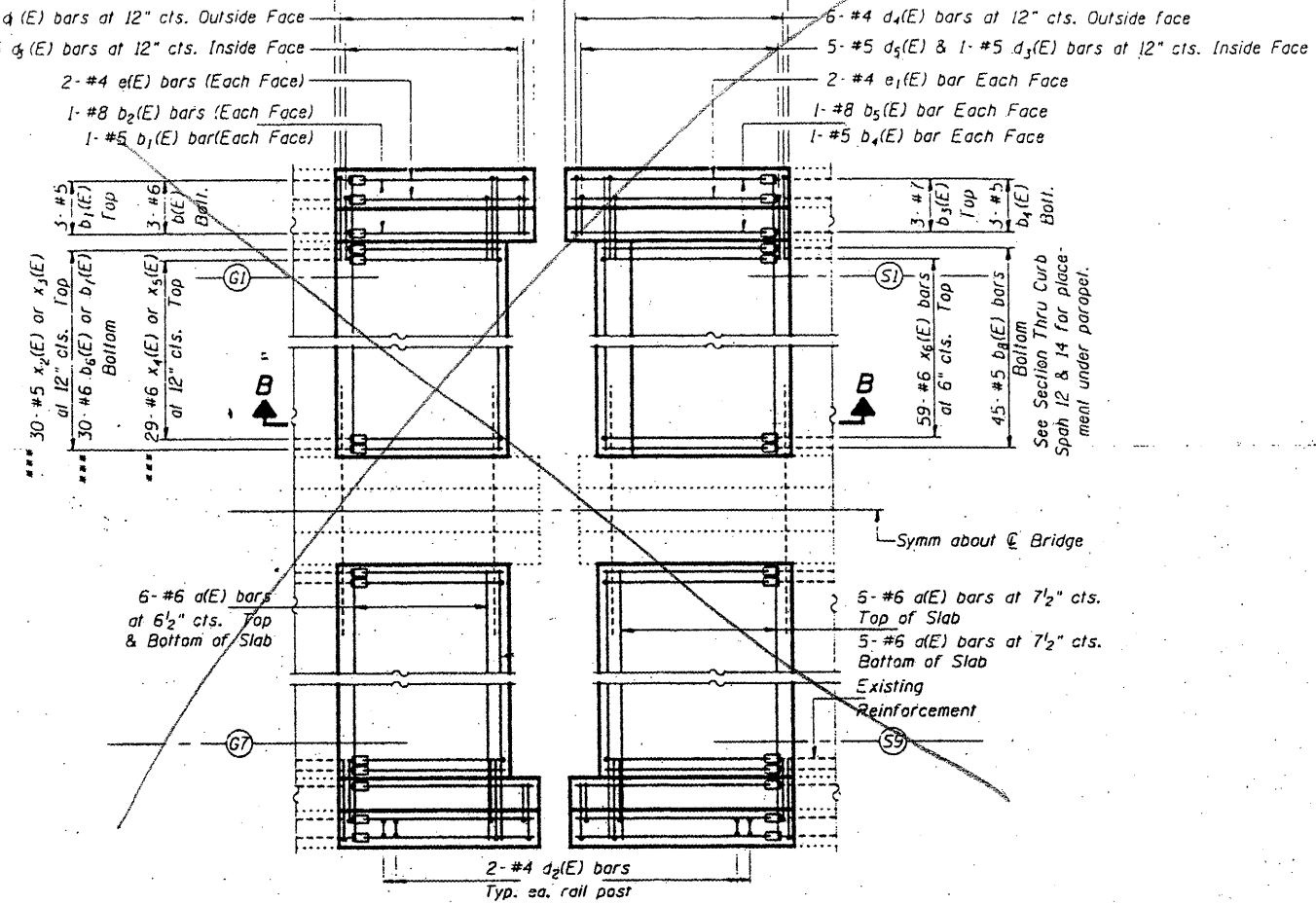
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CONTRACT: 78040  
ROUTE: F.A.I. 57  
SECTION: (02-1B-1)P-1  
COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
SHEET 58 OF 67  
FOR INFORMATION ONLY



**PARTIAL PLAN SHOWING CONCRETE REMOVAL**  
(Pier 11 Shown, Pier 14 Similar)

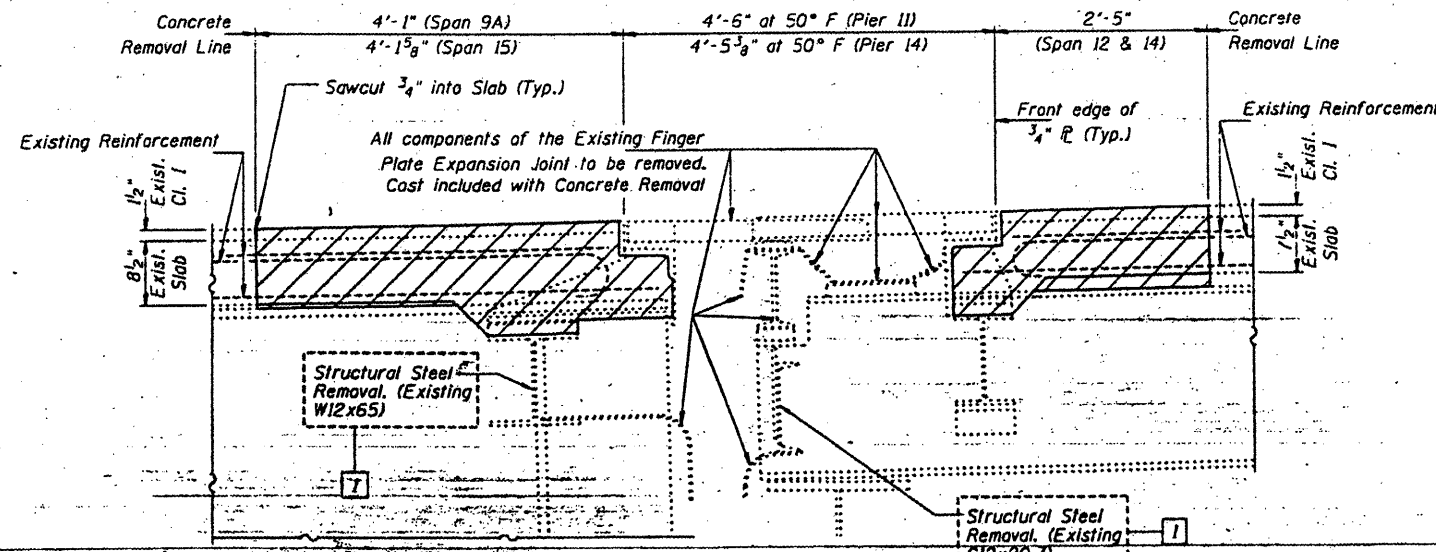
\*\*\* Span 9A:  $b_6(E)$ ,  $x_2(E)$ , &  $x_4(E)$   
Span 15:  $b_7(E)$ ,  $x_3(E)$ , &  $x_5(E)$



**PARTIAL PLAN SHOWING CONCRETE REPLACEMENT**  
(Pier 11 Shown, Pier 14 Similar)

Notes:  
Hatched areas indicates "Concrete Removal".  
Existing reinforcement to which new bars are to be lapped or mechanically spliced shall be cleaned, straightened, and incorporated into the new construction. Any such reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.  
For Section B-B, Section Thru Parapets, Bar Details and Bill of Material see sheet 6 of 14.  
For Rail Post Anchor Device Detail, see Sheet 4 of 14.

Notes: New transverse d(E) bars shall be lapped with existing bars.  
All new longitudinal (d.e. & x) bars shall be joined to existing reinforcement with Mechanical Splicers, except for the  $x_4(E)$  &  $x_5(E)$  bars. Alternate  $x_4(E)$  &  $x_5(E)$  bars with  $x_2(E)$  &  $x_3(E)$  bars, respectively.



**SECTION A-A**

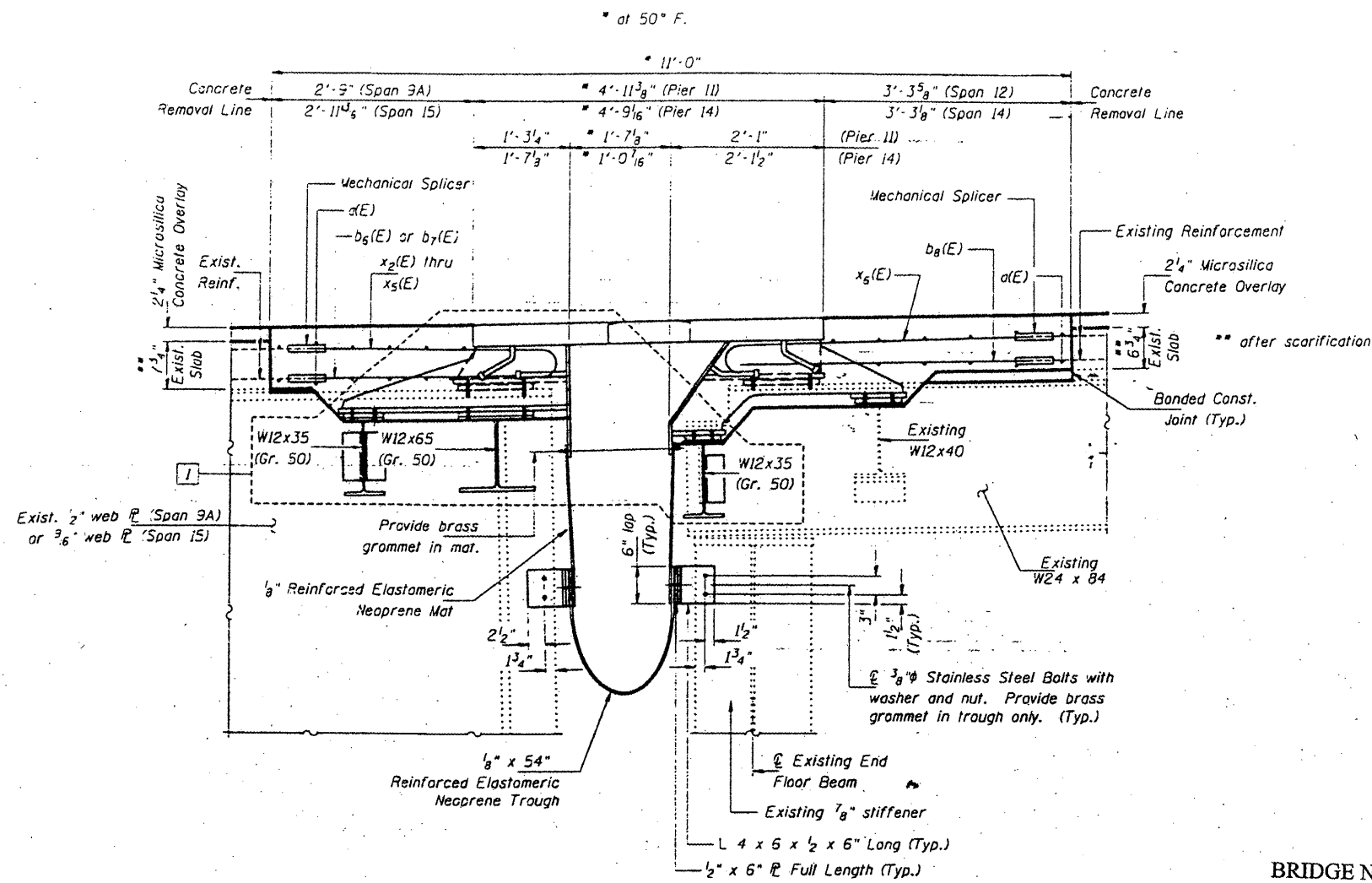
BRIDGE NO. 1  
STRUCTURE NO. 002-0022  
FOR INFORMATION ONLY

**EXPANSION JOINT DETAILS-- PIER 11 & 14**  
**F.A.I. 57 OVER MISSISSIPPI RIVER**  
**ALEXANDER COUNTY**  
**S.N. 002-0022**

DESIGNED	P.S.J.	FEBRUARY 4, 2002
CHECKED	A.T.H.	EXAMINED <i>John A. Morris</i>
DRAWN	John F. Schneller Jr.	ENGINEER OF STRUCTURAL SERVICES
CHECKED	A.T.H. P.S.J.	PASSED
		CHIEF OF BRIDGES AND STRUCTURES

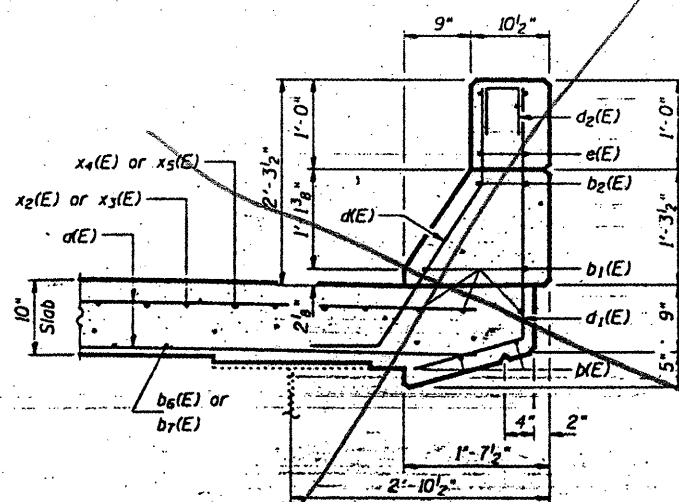
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CONTRACT: 78040  
ROUTE: F.A.I. 57  
SECTION: (02-1B-1)P-1  
COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
SHEET 59 OF 67  
FOR INFORMATION ONLY

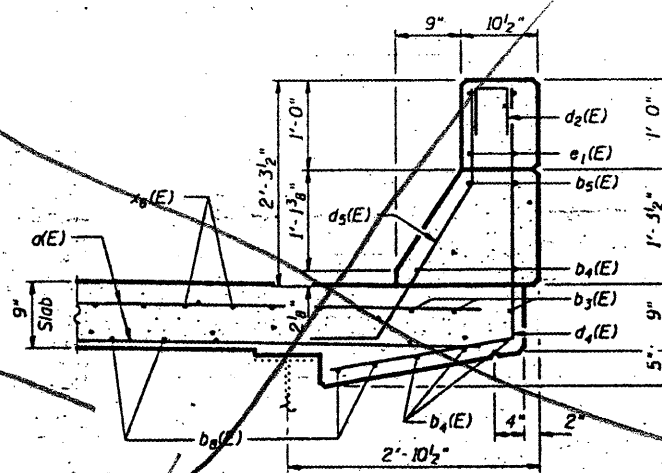


**SECTION B-B**  
Pier II shown; Pier 14 similar

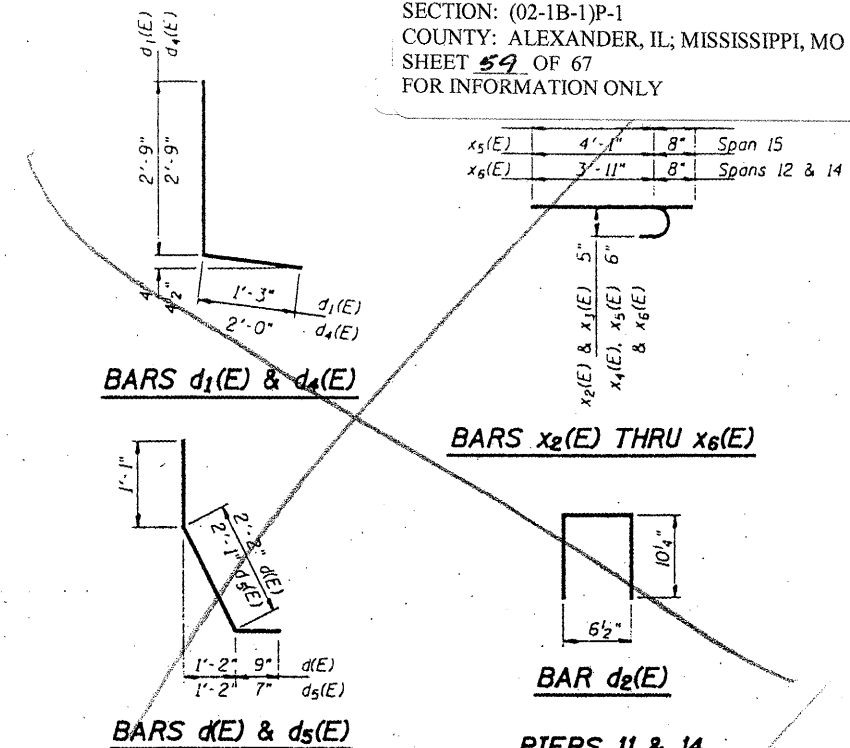
BRIDGE NO. 1  
STRUCTURE NO. 002-0022  
FOR INFORMATION ONLY



**SECTION THRU CURB - SPAN 9A & 15**



**SECTION THRU CURB - SPAN 12 & 14**



**PIERS 11 & 14  
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a(E)	92	#6	29'-10"	—
b(E)	12	#6	4'-2"	—
b1(E)	20	#5	4'-2"	—
b2(E)	8	#8	4'-2"	—
b3(E)	12	#7	4'-8"	—
b4(E)	20	#5	4'-8"	—
b5(E)	8	#8	4'-8"	—
b6(E)	60	#6	3'-3"	—
b7(E)	50	#6	3'-9"	—
b8(E)	180	#5	4'-0"	—
d(E)	16	#5	4'-0"	L
d1(E)	20	#4	4'-0"	L
d2(E)	16	#4	2'-3"	n
d3(E)	8	#5	3'-3"	L
d4(E)	24	#4	4'-9"	L
d5(E)	20	#5	3'-9"	L
e(E)	16	#4	4'-2"	—
e1(E)	16	#4	4'-8"	—
x2(E)	60	#5	3'-10"	—
x3(E)	60	#5	4'-2"	—
x4(E)	58	#6	4'-5"	—
x5(E)	58	#6	4'-9"	—
x6(E)	236	#6	4'-7"	—
Reinforcement Bars, Epoxy Coated	Pound		9410	
Concrete Superstructure	Cu. Yds.		33.6	
Concrete Removal	Cu. Yds.		31.7	
Mechanical Splice	Each		768	

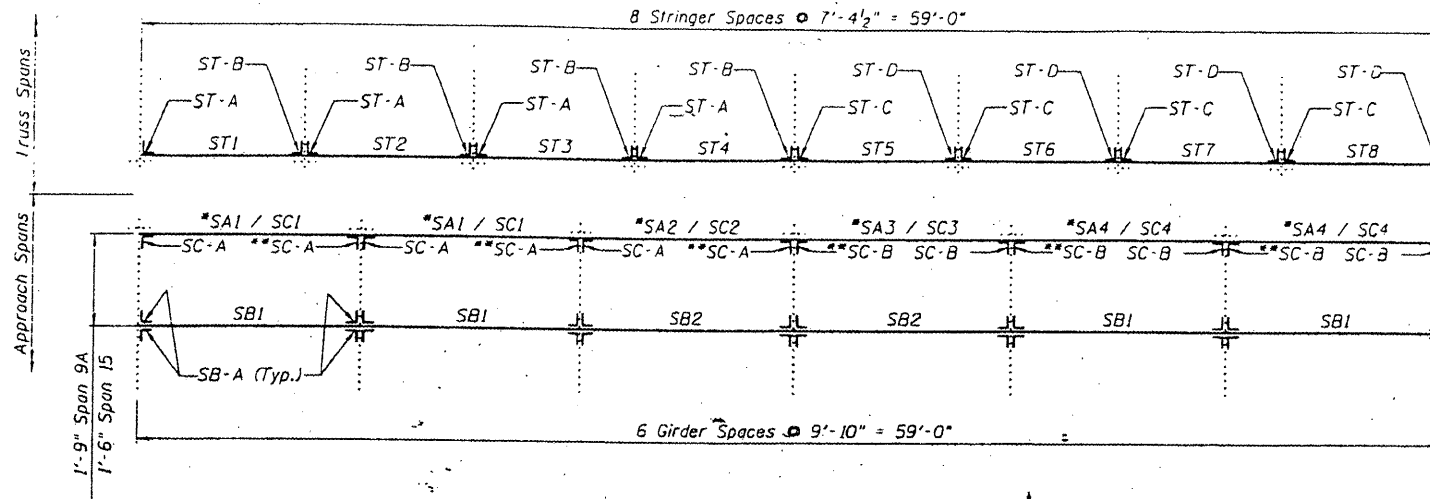
Reinforcement bars designated (E) shall be epoxy coated.

**EXPANSION JOINT DETAILS - PIER 11 & 14**  
**F.A.I. 57 OVER MISSISSIPPI RIVER**  
**ALEXANDER COUNTY**  
**S.N. 002-0022**

DESIGNED	P.S.J.	FEBRUARY 4, 2002
CHECKED	A.T.H.	EXAMINED <i>John DeMorris</i>
DRAWN	John F. Schmitter Jr.	ENGINEER OF STRUCTURAL SERVICES
CHECKED	A.T.H. P.S.J.	ENGINEER OF BRIDGES AND STRUCTURES

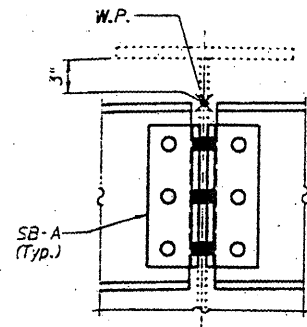
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CONTRACT: 78040  
ROUTE: F.A.I. 57  
SECTION: (02-1B-1)P-1  
COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
SHEET 60 OF 67  
FOR INFORMATION ONLY

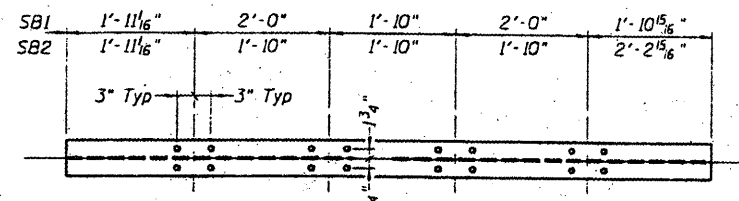


**PARTIAL FRAMING PLAN AT PIERS 11 AND 14**

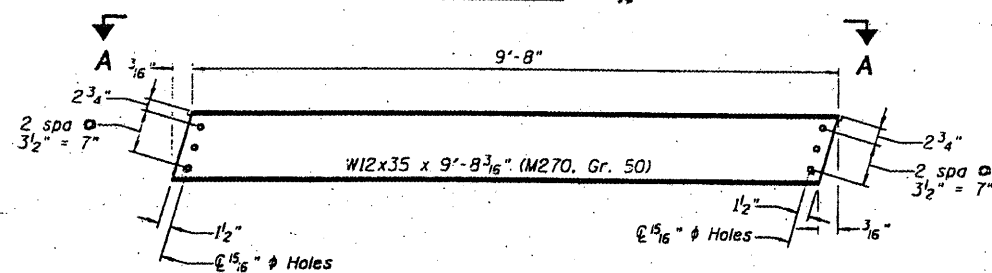
\* SA# at Span 9A (no clip angles req'd), SC# at Span 15  
\*\* Inverted top for bottom from detail shown on Sheet 6B of 14.



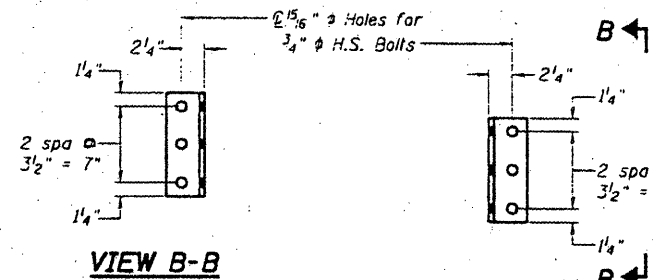
**DETAIL A**



**VIEW A-A**

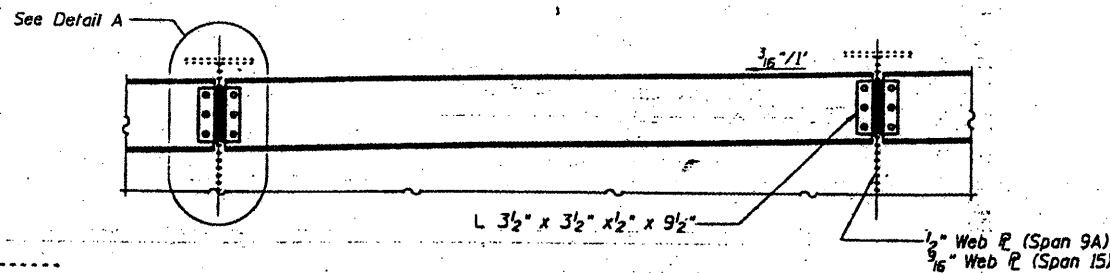


**SBI AND SB2**  
(SBI 8 Req'd, SB2 4 Req'd)



**VIEW B-B**

**SB-A**  
(48 Req'd)



Work this sheet with Sheets 6B and 6C.

Cost of required field drilling is included with  
Furnishing and Erecting Structural Steel.

Hardened washers will be required at  
all oversized hole locations.

DESIGNED	P.S.J.
CHECKED	A.T.H.
DRAWN	Drew Christopher
CHECKED	A.T.H. P.S.J.

EXAMINED *John A. Morris*  
ENGINEER OF STRUCTURAL SERVICES  
PASSED  
ENGINEER OF BRIDGES AND STRUCTURES

**BACK STOOL SUPPORT - SPANS 9A AND 15**

BRIDGE NO. 1  
STRUCTURE NO. 002-0022  
FOR INFORMATION ONLY

**STOOL SUPPORT DETAILS**  
**F.A.I. 57-OVER-MISSISSIPPI RIVER**  
**ALEXANDER COUNTY**  
**S.N. 002-0022**

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

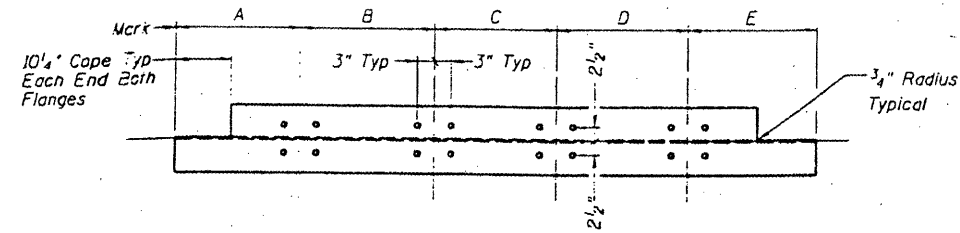
CONTRACT: 78040  
ROUTE: F.A.I. 57  
SECTION: (02-1B-1)P-1  
COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
SHEET 61 OF 67  
FOR INFORMATION ONLY

FRONT STOOL SUPPORT SPAN 9A

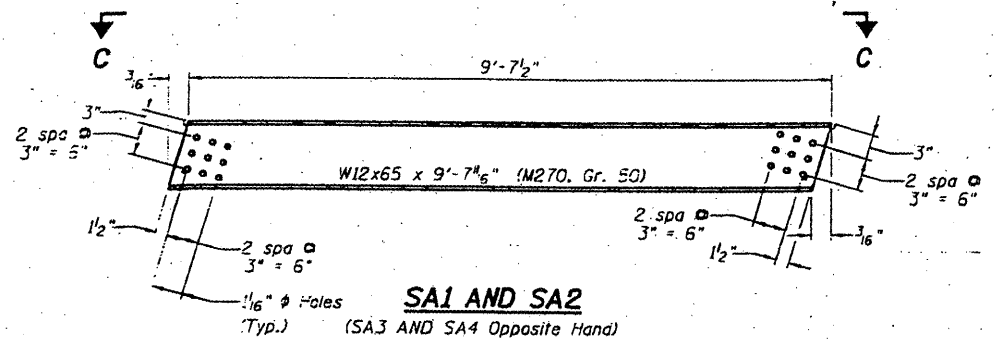
Mark	A	B	C	D	E	No. Req'd
SA1	1'-10 <sup>3</sup> / <sub>8</sub> "	2'-0"	1'-10"	2'-0"	1'-10 <sup>11</sup> / <sub>16</sub> "	2
SA2	1'-10 <sup>1</sup> / <sub>4</sub> "	1'-10"	1'-10"	1'-10"	2'-2 <sup>1</sup> / <sub>8</sub> "	1
SA3	2'-2 <sup>1</sup> / <sub>8</sub> "	1'-10"	1'-10"	1'-10"	1'-10 <sup>1</sup> / <sub>4</sub> "	1
SA4	1'-10 <sup>1</sup> / <sub>4</sub> "	2'-0"	1'-10"	2'-0"	1'-10 <sup>1</sup> / <sub>4</sub> "	2

FRONT STOOL SUPPORT SPAN 15

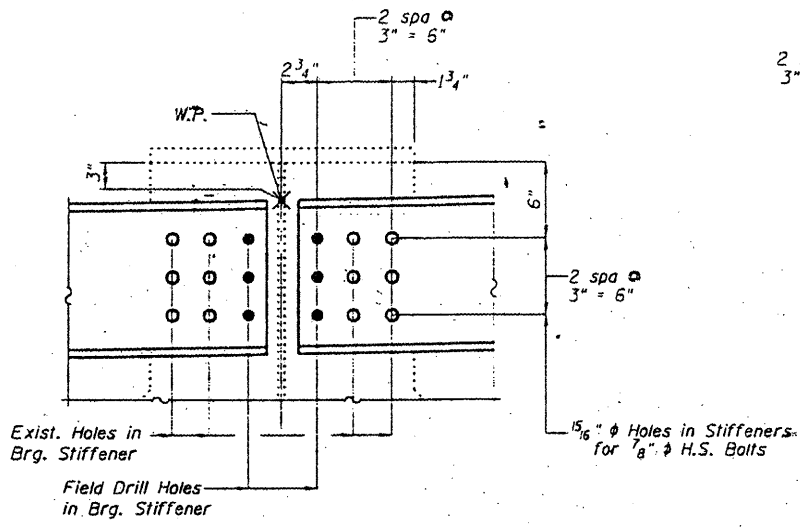
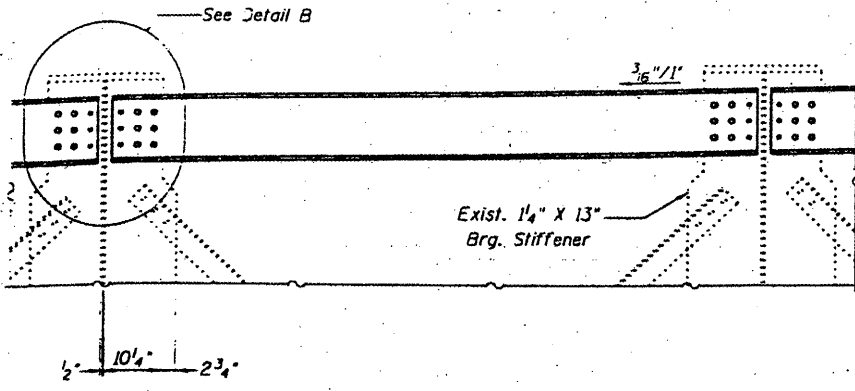
Mark	F	G	H	J	K	No. Req'd
SC1	1'-10 <sup>3</sup> / <sub>8</sub> "	2'-0"	1'-10"	2'-0"	1'-10 <sup>3</sup> / <sub>8</sub> "	2
SC2	1'-10 <sup>1</sup> / <sub>4</sub> "	1'-10"	1'-10"	1'-10"	2'-2 <sup>1</sup> / <sub>8</sub> "	1
SC3	2'-2 <sup>1</sup> / <sub>8</sub> "	1'-10"	1'-10"	1'-10"	1'-10 <sup>1</sup> / <sub>4</sub> "	1
SC4	1'-10 <sup>3</sup> / <sub>8</sub> "	2'-0"	1'-10"	2'-0"	1'-10 <sup>3</sup> / <sub>8</sub> "	2



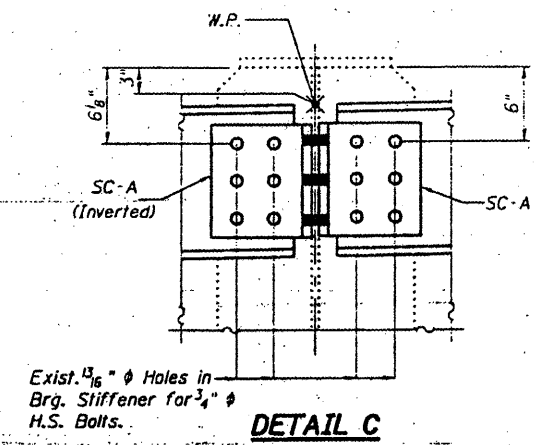
VIEW C-C  
(No opposite hand required)



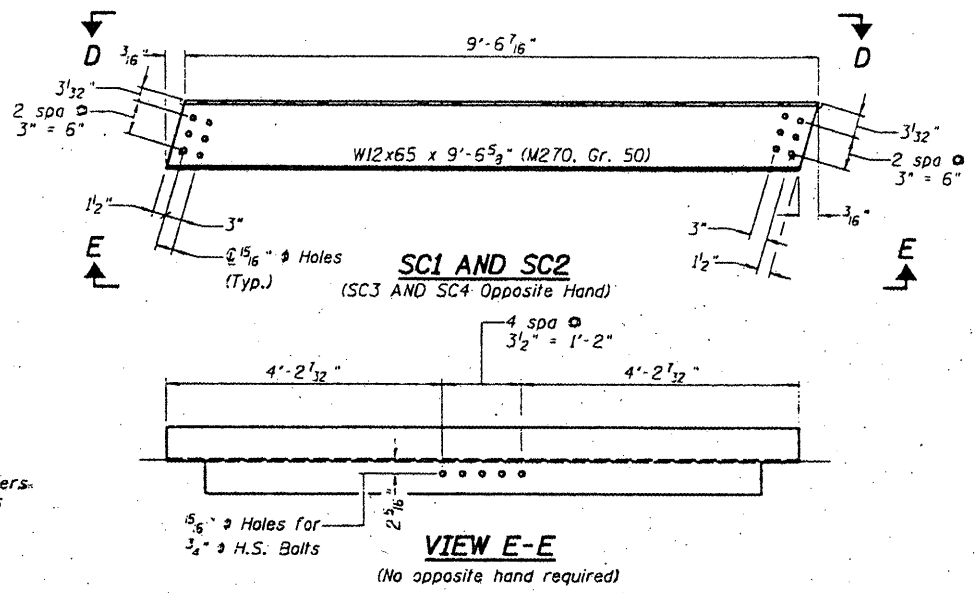
SA1 AND SA2  
(SA3 AND SA4 Opposite Hand)



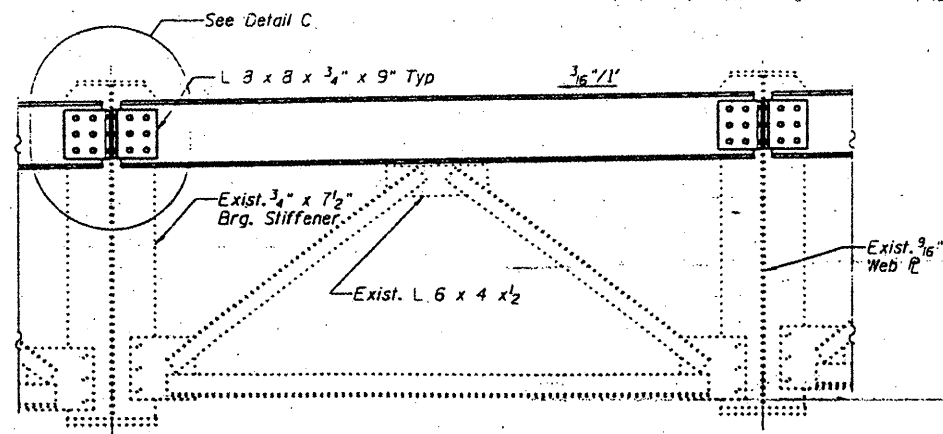
DETAIL B



DETAIL C

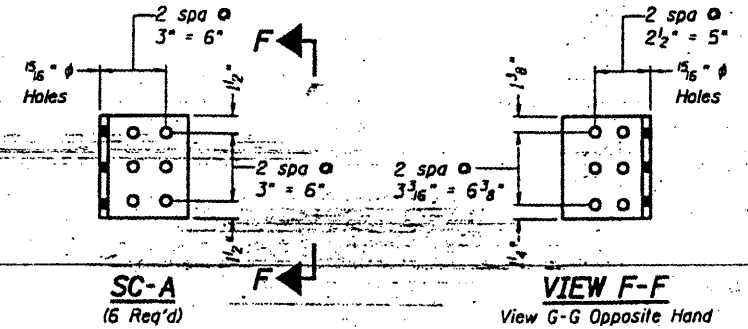


SC1 AND SC2  
(SC3 AND SC4 Opposite Hand)



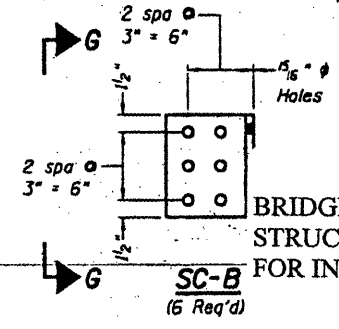
VIEW E-E  
(No opposite hand required)

FRONT STOOL SUPPORT - SPAN 9A



SC-A  
(6 Req'd)

VIEW F-F  
View G-G Opposite Hand



SC-B  
(6 Req'd)

FRONT STOOL SUPPORT - SPAN 15

DESIGNED P.S.J.  
CHECKED A.T.H.  
DRAWN Christopher  
CHECKED A.T.H. P.S...

EXAMINED John A. Morris  
PASSED  
ENGINEER OF BRIDGES AND STRUCTURES

BRIDGE NO. 1  
STRUCTURE NO. 002-0022  
FOR INFORMATION ONLY

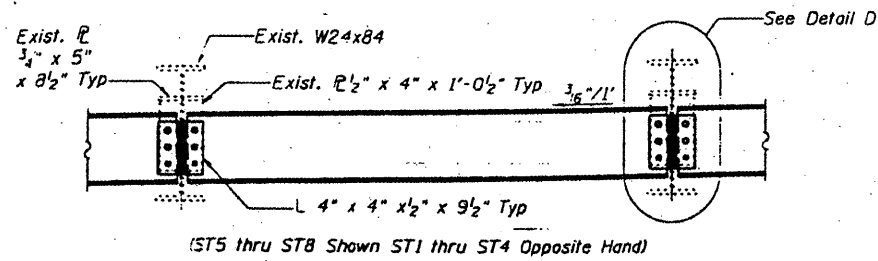
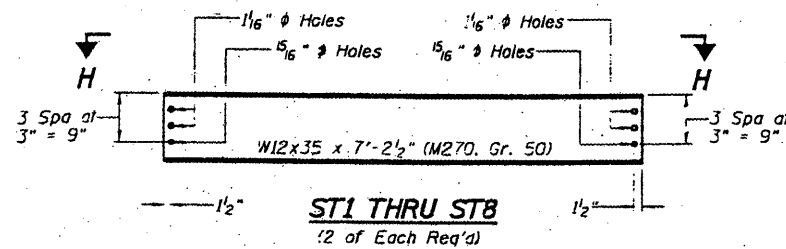
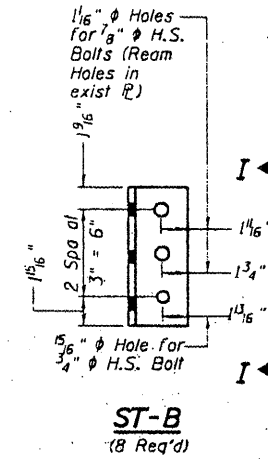
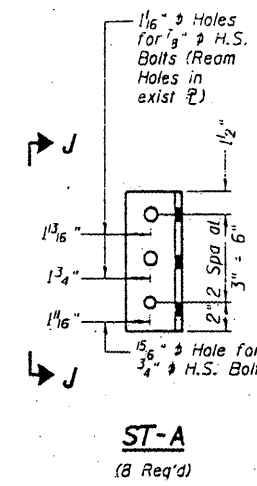
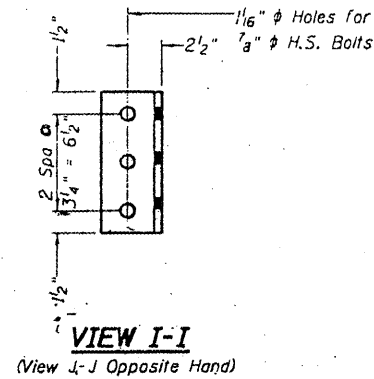
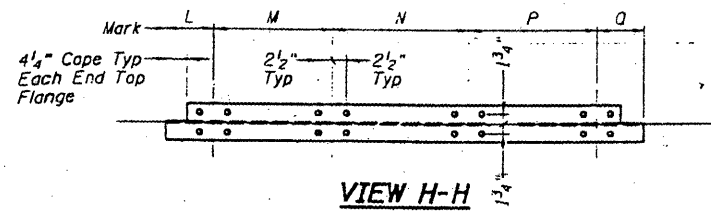
STOOL SUPPORT DETAILS  
F.A.I. 57 OVER MISSISSIPPI RIVER  
ALEXANDER COUNTY  
S.N. 002-0022

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

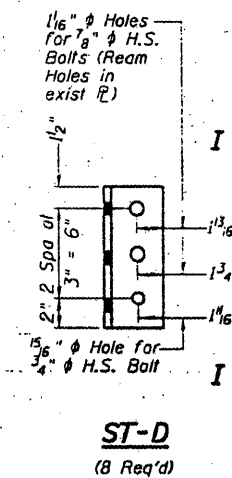
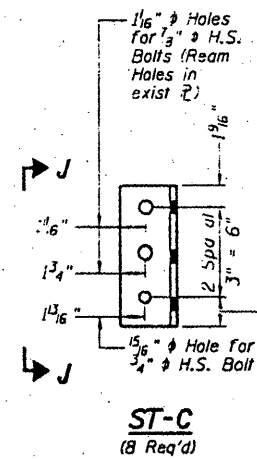
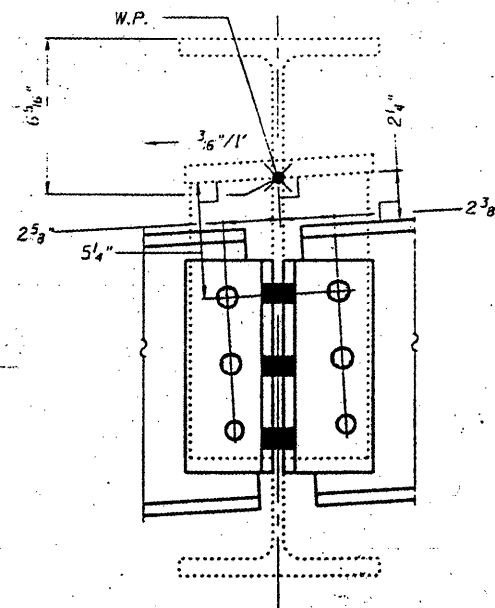
CONTRACT: 78040  
ROUTE: F.A.I. 57  
SECTION: (02-1B-1)P-1  
COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
SHEET 62 OF 67  
FOR INFORMATION ONLY

FRONT STOOL SUPPORT

Mark	L	M	N	P	Q
ST1	1'-1"	1'-6 1/4"	1'-11 1/4"	1'-6 1/4"	1'-1 3/4"
ST2	9"	1'-9 1/4"	2'-0"	1'-11 1/2"	8 3/4"
ST3	1'-1"	1'-6 1/4"	1'-11 1/4"	1'-11 1/4"	8 3/4"
ST4	1'-7 1/4"	1'-7 1/2"	1'-7 1/2"	1'-7 3/4"	8 1/2"
ST5	8 1/2"	1'-7 3/4"	1'-7 1/2"	1'-7 1/2"	1'-7 1/4"
ST6	8 3/4"	1'-11 1/4"	1'-11 1/4"	1'-6 1/4"	1'-1"
ST7	8 3/4"	1'-11 1/2"	2'-0"	1'-9 1/4"	9"
ST8	1'-1 3/4"	1'-6 1/4"	1'-11 1/4"	1'-6 1/4"	1'-1"



FRONT STOOL SUPPORT - SPANS 12 AND 14



DESIGNED P.S.J.  
CHECKED A.T.H.  
DRAWN Draw Christopher  
CHECKED P.S.J. A.T.H.

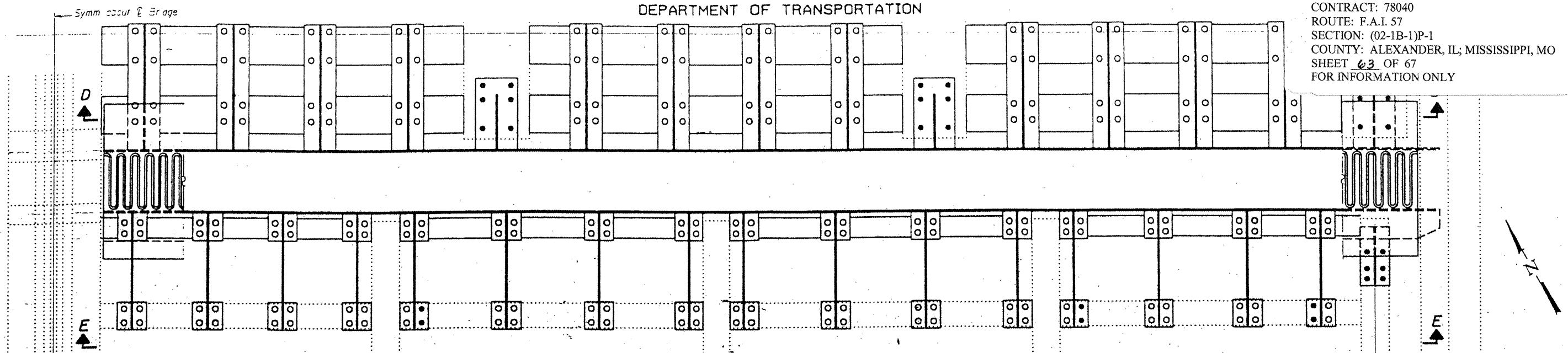
EXAMINED *John A. Morris*  
PASSED  
ENGINEER OF BRIDGES AND STRUCTURES

BRIDGE NO. 1  
STRUCTURE NO. 002-0022  
FOR INFORMATION ONLY

STOOL SUPPORT DETAILS  
F.A.I. 57 OVER MISSISSIPPI RIVER  
ALEXANDER COUNTY  
S.N. 002-0022

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CONTRACT: 78040  
ROUTE: F.A.I. 57  
SECTION: (02-1B-1)P-1  
COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
SHEET 03 OF 67  
FOR INFORMATION ONLY



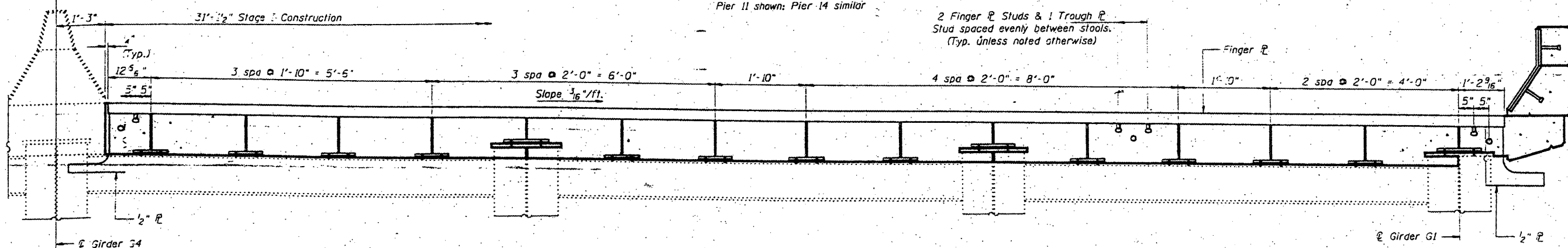
**PLAN**

Pier 11 shown; Pier 14 similar

○ Indicates use of holes in new or existing member.  
● Indicates field drilled holes in existing member.

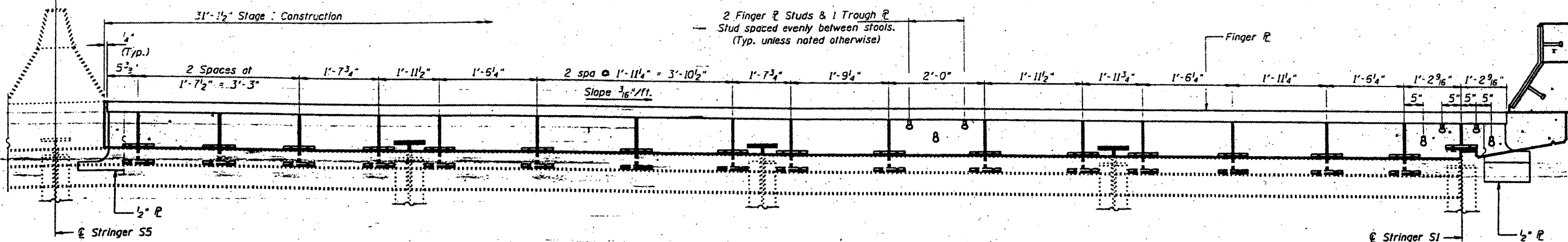
Stringer S1

2 Finger  $\sigma$  Studs & 1 Trough  $\sigma$   
Stud spaced evenly between stools.  
(Typ. unless noted otherwise)



**SECTION D-D**

2 Finger  $\sigma$  Studs & 1 Trough  $\sigma$   
Stud spaced evenly between stools.  
(Typ. unless noted otherwise)



**SECTION E-E**

Notes:  
For Parapet Plate Assembly see sheet 10 of 14.

DESIGNED	P.S.J.
CHECKED	A.T.H.
DRAWN	John F. Schneller, Jr.
CHECKED	A.T.H. P.S.J.

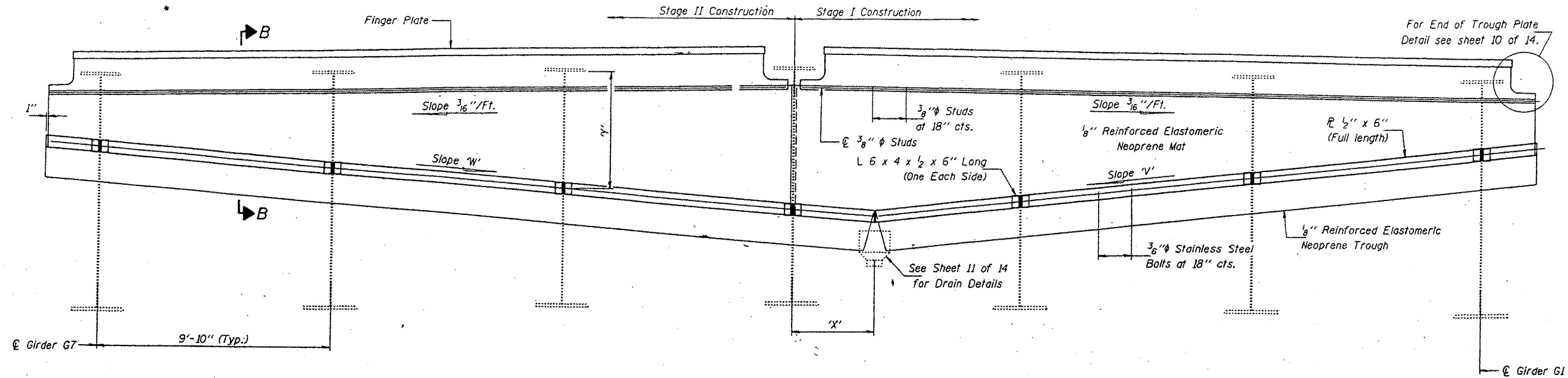
FEBRUARY 4, 2002  
EXAMINED *John DeMorris*  
ENGINEER OF STRUCTURAL SERVICES  
PASSED  
ENGINEER OF BRIDGES AND STRUCTURES

BRIDGE NO. 1  
STRUCTURE NO. 002-0022  
FOR INFORMATION ONLY

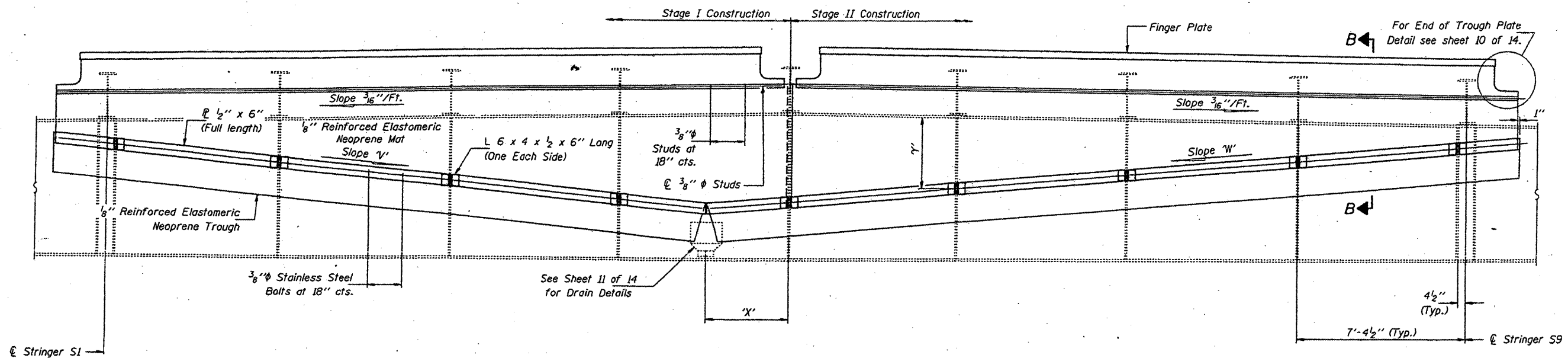
**EXPANSION JOINT DETAILS - PIER 11 & 14**  
**F.A.I. 57 OVER MISSISSIPPI RIVER**  
**ALEXANDER COUNTY**  
**S.N. 002-0022**

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CONTRACT: 78040  
ROUTE: F.A.I. 57  
SECTION: (02-1B-1)P-1  
COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
SHEET 4 OF 67  
FOR INFORMATION ONLY



**ELEVATION - APPROACH SPAN**  
(Looking North)



**ELEVATION - TRUSS SPAN**  
(Looking South)

DESIGNED	P.S.J.	FEBRUARY 4, 2002
CHECKED	A.T.H.	EXAMINED <i>John A. Morris</i>
DRAWN	John F. Schneller Jr.	PASSED
CHECKED	P.S.J. A.T.H.	ENGINEER OF BRIDGES AND STRUCTURES

Notes:  
Showing Pier II; Pier 14 similar.  
For Section B-B see sheet 6 of 14.  
For slopes 'V' & 'W' and dimensions 'X' & 'Y', see Sheet 10 of 14.  
Dimension 'Y' is measured from the underside of the top flange of the girders (Approach Spans) or Floor Beam (Truss Spans) to the center of the connection for the  $\frac{1}{2}$ " x 6" R.

BRIDGE NO. 1  
STRUCTURE NO. 002-0022  
FOR INFORMATION ONLY

**TROUGH DETAILS - PIER 11 & 14**  
**F.A.I. 57 OVER MISSISSIPPI RIVER**  
**ALEXANDER COUNTY**  
**S.N. 002-0022**

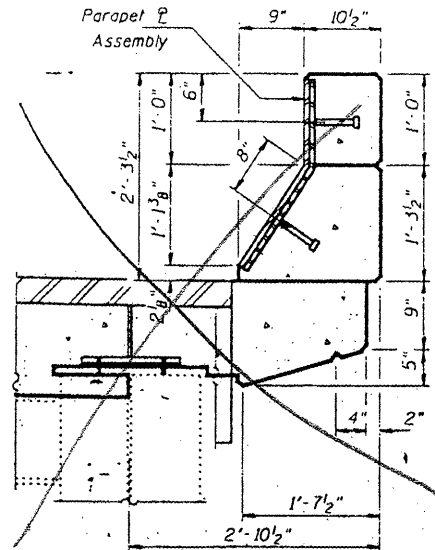


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

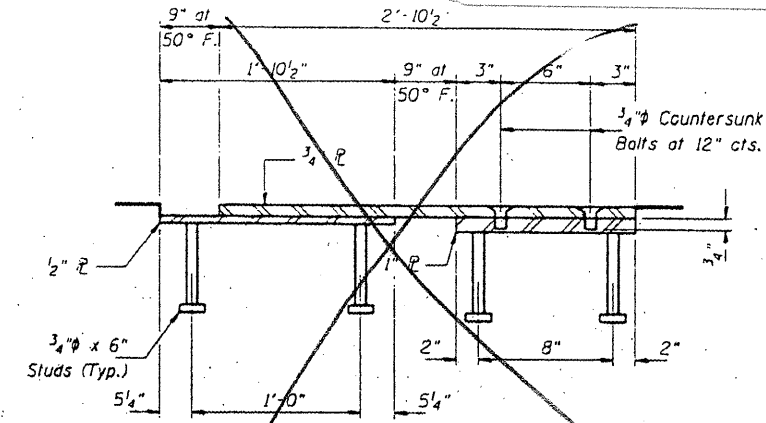
CONTRACT: 78040  
ROUTE: F.A.I. 57  
SECTION: (02-1B-1)P-1  
COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
SHEET 65 OF 67  
FOR INFORMATION ONLY

TROUGH DIMENSIONS

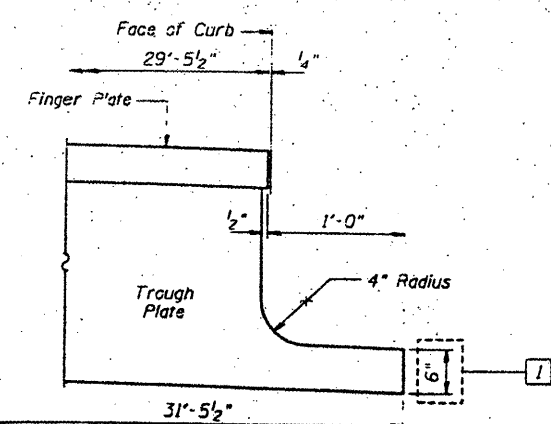
SLCPE/ DIMENSION	Pier 11	Pier 14
'V'	1 1/4" / ft.	7/8" / ft.
'W'	1" / ft.	5/8" / ft.
'X'	3'-6 3/4"	4'-10 1/2"
γ Approach Span	G1	3'-0 1/2"
	G2	4'-2 5/8"
	G3	5'-4 1/5"
	G4	5'-10 5/8"
	G5	4'-11 1/4"
	G6	3'-11 5/8"
	G7	2'-11 5/8"
γ Truss Span	S1	1'-0 1/4"
	S2	1'-10 5/8"
	S3	2'-8 5/8"
	S4	3'-7 1/2"
	S5	3'-10 1/8"
	S6	3'-1 3/8"
	S7	2'-4 3/8"
	S8	1'-7 7/8"
	S9	11 3/8"



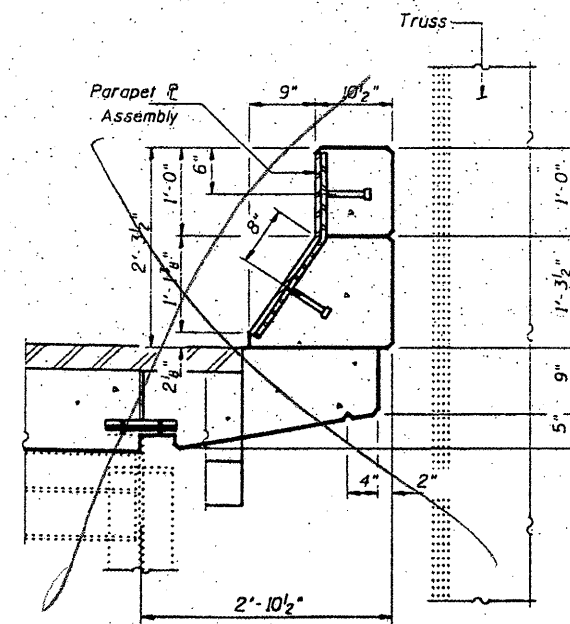
SECTION THRU CURB - SPANS 9A & 15



PARAPET PLATE ASSEMBLY DETAIL



TYPICAL END OF TROUGH PLATE DETAIL



SECTION THRU CURB - SPANS 12 & 14

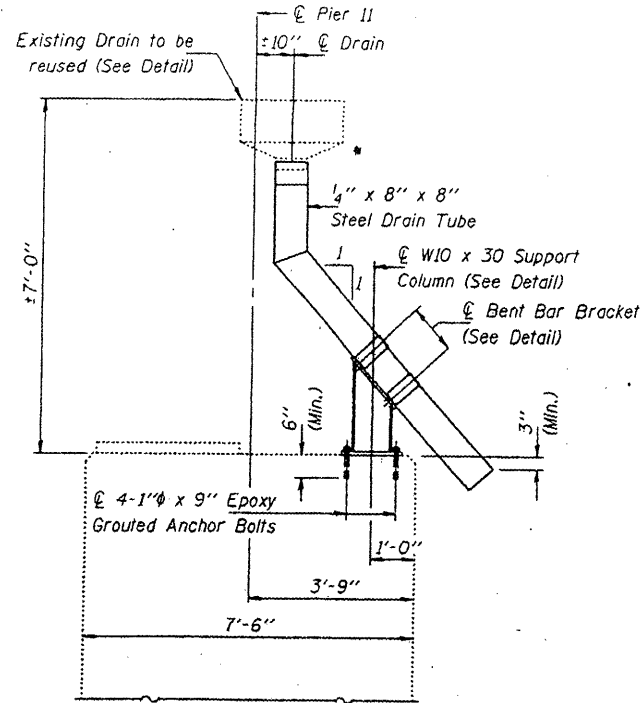
DESIGNED	P.S.J.	FEBRUARY 4, 2002
CHECKED	A.T.H.	EXAMINED <i>John A. Morris</i>
DRAWN	John F. Scheller, Jr.	ENGINEER OF STRUCTURAL SERVICES
CHECKED	A.T.H. P.S.J.	PASSED
		MEMBER OF BRIDGES AND STRUCTURES

BRIDGE NO. 1  
STRUCTURE NO. 002-0022  
FOR INFORMATION ONLY

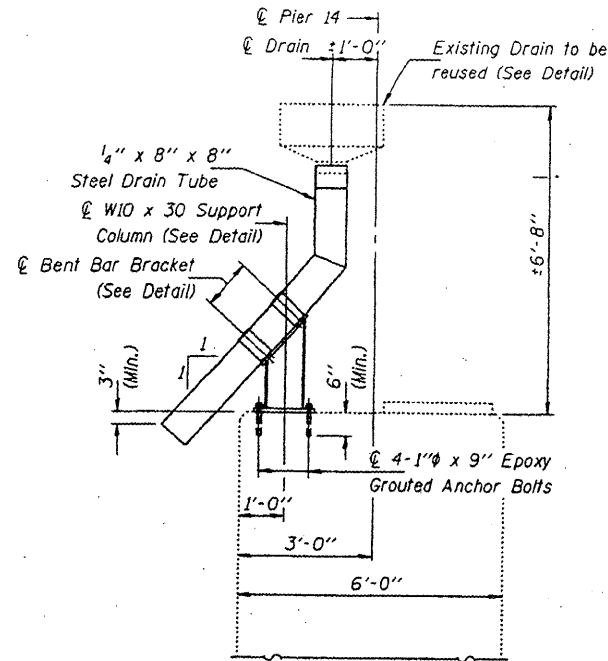
**EXPANSION JOINT DETAILS - PIER 11 & 14**  
**F.A.I. 57 OVER MISSISSIPPI RIVER**  
**ALEXANDER COUNTY**  
**S.N. 002-0022**

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

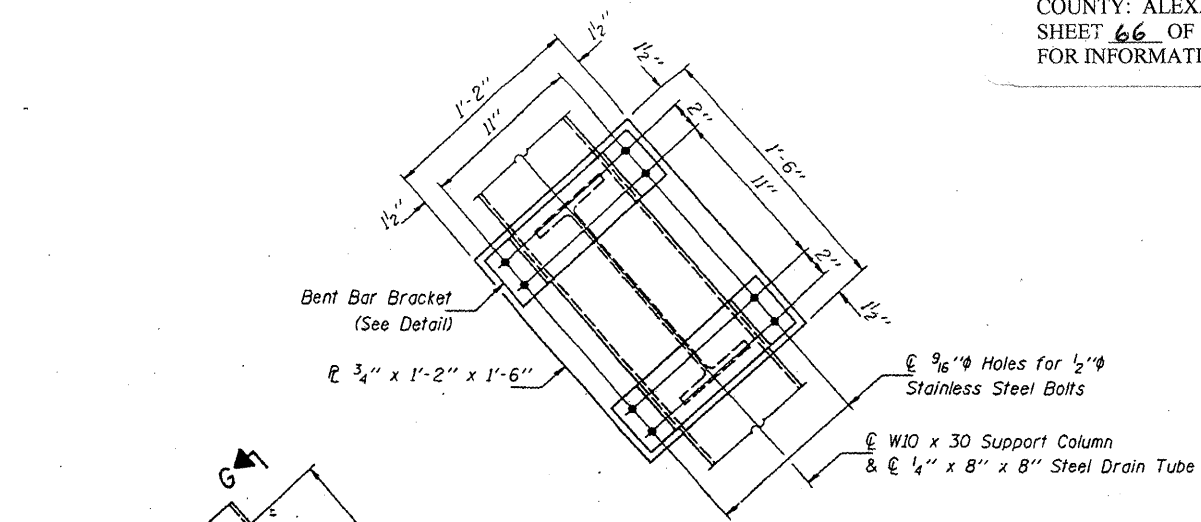
CONTRACT: 78040  
ROUTE: F.A.I. 57  
SECTION: (02-1B-1)P-1  
COUNTY: ALEXANDER, IL; MISSISSIPPI, MO  
SHEET 66 OF 67  
FOR INFORMATION ONLY



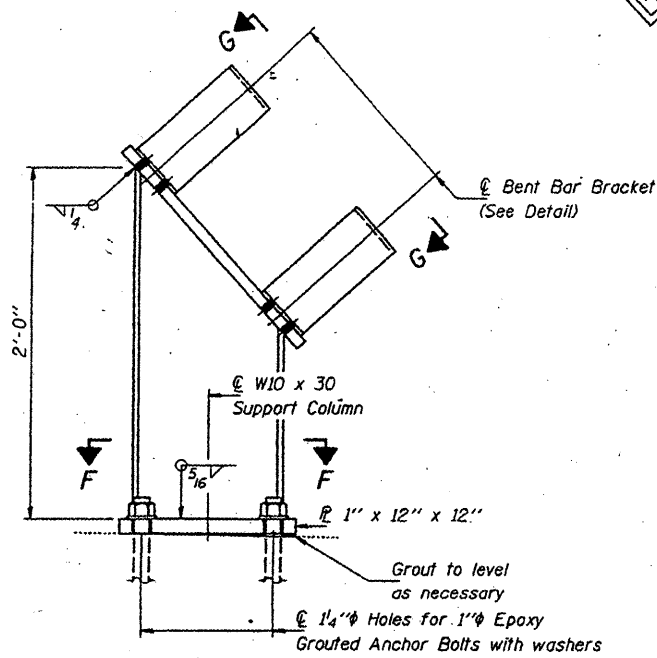
ELEVATION - PIER 11



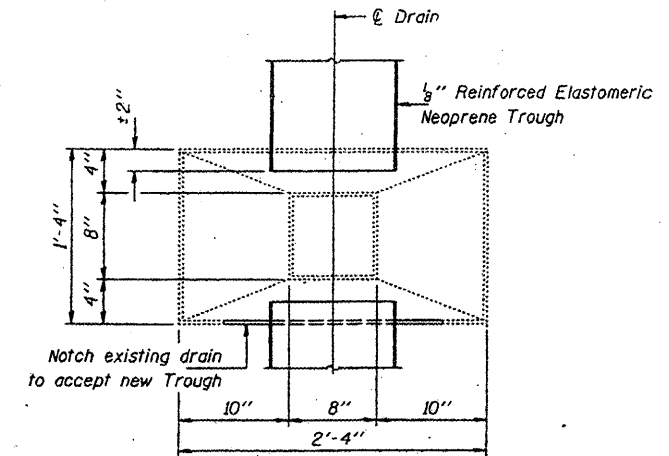
ELEVATION - PIER 14



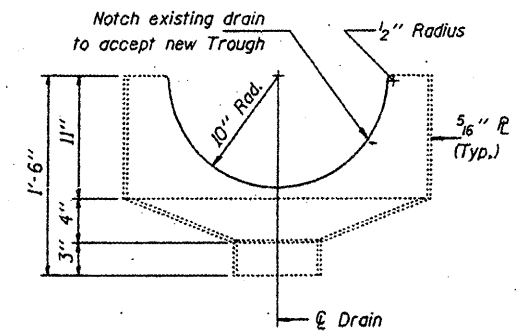
VIEW G-G



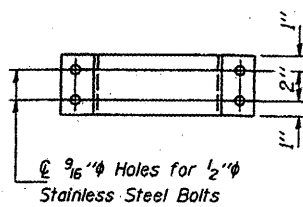
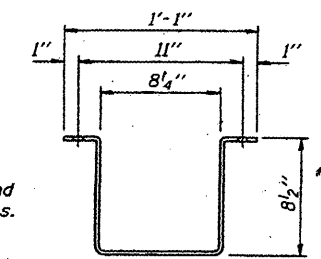
SUPPORT COLUMN  
(No. Req'd. = 2)



TOP VIEW

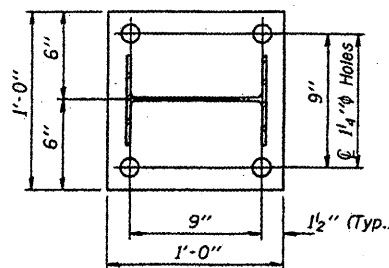


DRAIN ELEVATION



BENT BAR BRACKET  
DETAIL

1/4" x 4" x 2'-5"  
(No. Req'd. = 4)



SECTION F-F

Note: Place 1/8" thick Neoprene around Drain Tube at Bracket locations.

Notes:  
The 1/4" x 8" x 8" Structural Steel Tubing shall conform to the requirements of ASFM designation A-500, Grade B, Structural Steel Tubing.  
Steel tubing shall be galvanized in accordance with AASHTO M111 and ASTM A-385. Cost included with Drain System.  
Existing 1/4" x 8" x 8" Steel Drain Tubes may be re-used for new Drainage System, as directed by the Engineer.

DESIGNED	P.S.J.
CHECKED	A.T.H.
DRAWN	John F. Schneller Jr.
CHECKED	P.S.J. A.T.H.

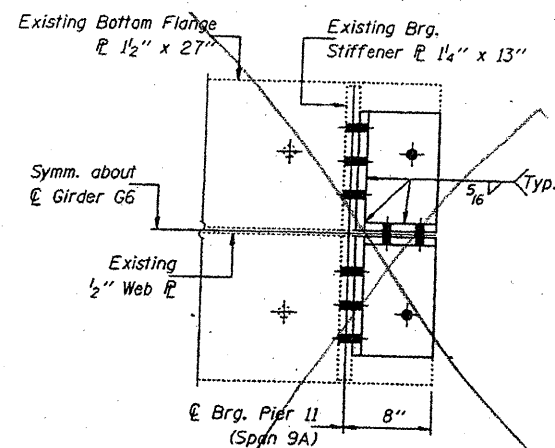
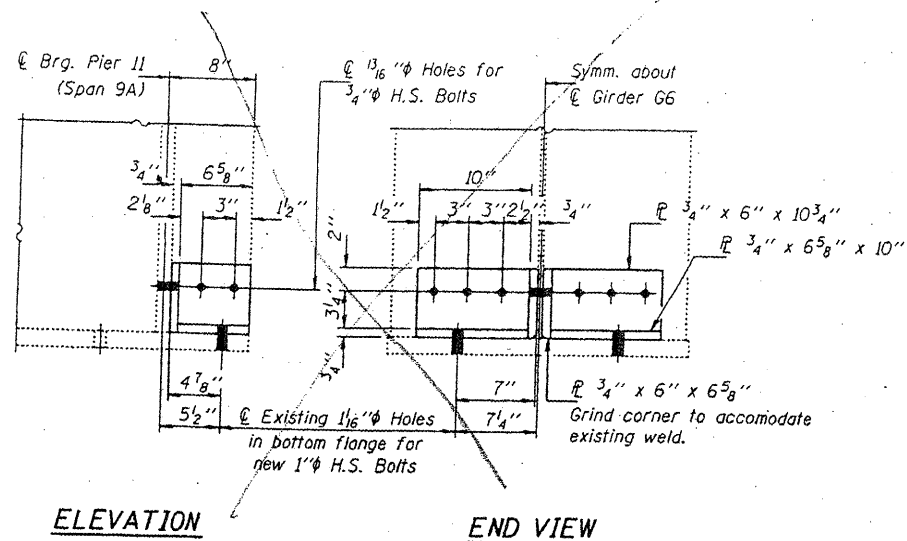
FEBRUARY 4, 2002  
EXAMINED *John A. Morris*  
PASSED  
ENGINEER OF STRUCTURAL SERVICES  
DESIGNER OF BRIDGES AND STRUCTURES

BRIDGE NO. 1  
STRUCTURE NO. 002-0022  
FOR INFORMATION ONLY

DRAIN SYSTEM - PIER 11 & 14  
F.A.I. 57 OVER MISSISSIPPI RIVER  
ALEXANDER COUNTY  
S.N. 002-0022

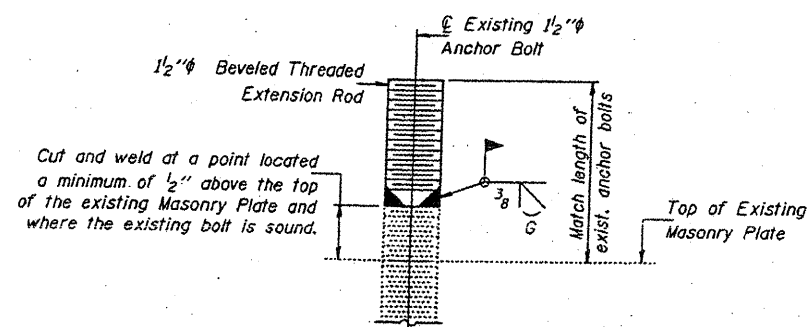
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CONTRACT: 78040  
ROUTE: F.A.I. 57  
SECTION: (02-1B-1)P1  
COUNTY: ALEXANDER, IL, MISSISSIPPI, MO  
SHEET 67 OF 67  
FOR INFORMATION ONLY



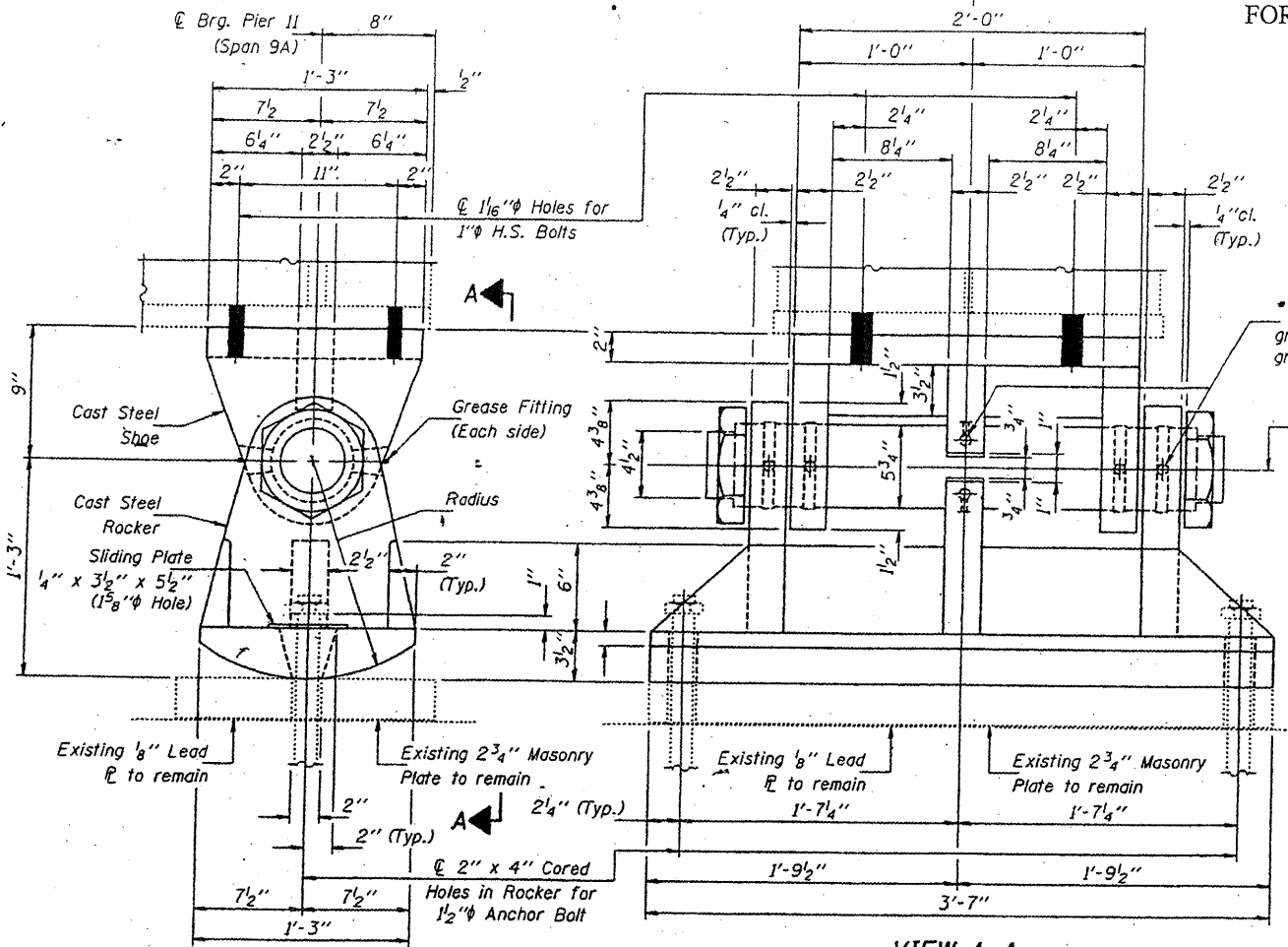
**GIRDER G6 CRACK REPAIR**

Notes:  
The cost of all field drilling required for installation of the steel members is included with Furnishing and Erecting Structural Steel.  
Estimated weight of Structural Steel for this repair = 80 Lbs.



**ANCHOR BOLT REPAIR DETAIL**

The cost of furnishing and installation of required Anchor Bolt Extensions included with Furnishing and Erecting Structural Steel.



**ELEVATION**

**VIEW A-A**

**GREASE GROOVE ON SADDLE**

\* Note:  
Grease bearing assembly with molybdenum grease before installation.

\* Drill 1/4 inch Holes to grease groove. Drill and tap for grease fitting. (Typ.)

Bore 5 3/4 inch + 1/32 inch for Standard Steel Case Hardened Pin (See Standard Specifications) Recessed Hex. Nut

REACTION TABLE	
D	(k) 276.3
L	(k) 115.9
Imp.	(k) 11.6
Total	(k) 403.8

Minimum Jack Capacity = 255 Tons.

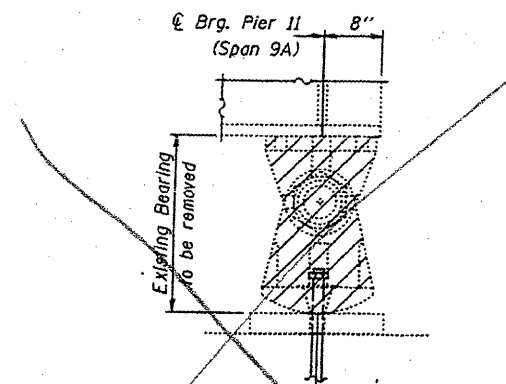
Notes:  
Cast Steel shall conform to A.S.T.M. A486-64, Class 70, normalized.  
Forged Steel shall conform to A.S.T.M. A235-64, Class F.  
All other material shall conform to A.S.T.M. A36 except as otherwise noted.

Structural Steel weldments of equal section and strength may be substituted for the castings subject to approval of Engineer.

Fillet or partial penetration weld shall be used for weldments. Minimum weld size shall be 1/4 the thickness of plate being welded, except maximum size of weld need not exceed 3/4 inch.

The estimated weight of Structural Steel for the bearing replacement = 1090 Lbs.

Cost included with Furnishing & Erecting Structural Steel. Prior to ordering any material, the Contractor shall verify in the field all bearing heights and shim thickness dimensions.



\* Existing 1/2 inch Anchor Bolt Existing nut on anchor bolt to be removed. If nut can not be removed cut anchor bolt, see Anchor Bolt Repair Detail.

**EXISTING BEARING REMOVAL DETAIL**

BRIDGE NO. 1  
STRUCTURE NO. 002-0022  
FOR INFORMATION ONLY

**GIRDER CRACK REPAIR  
& BEARING REPLACEMENT  
GIRDER 6 - SPAN 9A  
F.A.I. 57 OVER MISSISSIPPI RIVER  
ALEXANDER COUNTY  
S.N. 002-0022**

DESIGNED	V.H.V.
CHECKED	P.S.J.
DRAWN	John F. Schneller Jr.
CHECKED	V.H.V. P.S.J.

FEBRUARY 4, 2002

EXAMINED *John A. Morris*  
PASSED  
ENGINEER OF STRUCTURAL SERVICES  
ENGINEER OF BRIDGES AND STRUCTURES