

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7BR-P	Whiteside	21	1

+1
22

D-92-074-93

INDEX OF SHEETS
See Sheet No. 2

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

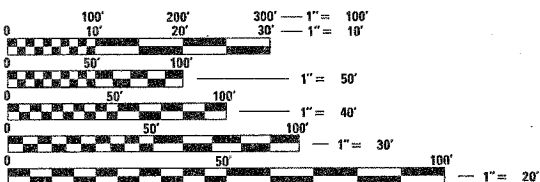
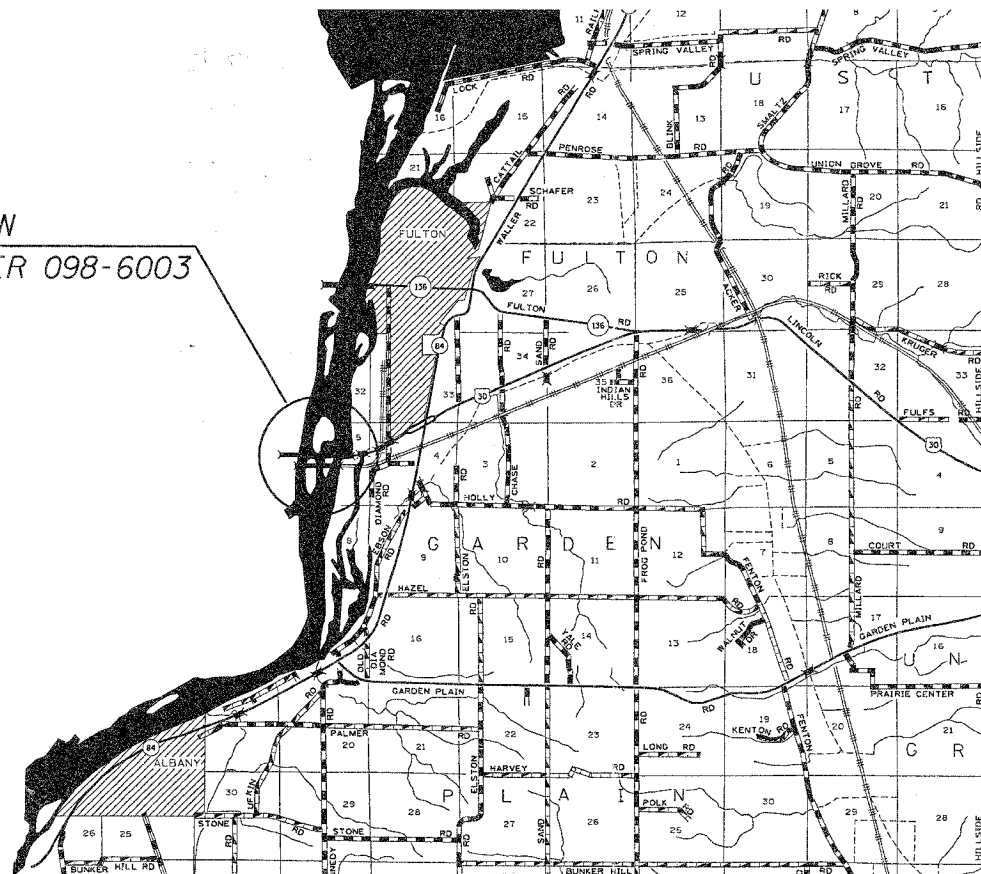
PROPOSED
HIGHWAY PLANS

FAP ROUTE 309 (US 30)
SECTION 7BR-P
WHITESIDE COUNTY, IL. CLINTON COUNTY, IA.
STATE JOB NO. C-92-093-05
R 3 E

STANDARDS

701301-02 Lane Closure, 2L, 2W, Short Time Operations
701316-03 Lane Closure, 2L, 2W Bridge Repair for Speeds > 45 mph
District Standard 99.4 Stop Line for Temporary Signals

PROJECT LOCATION
STRUCTURE NUMBER 098-6003



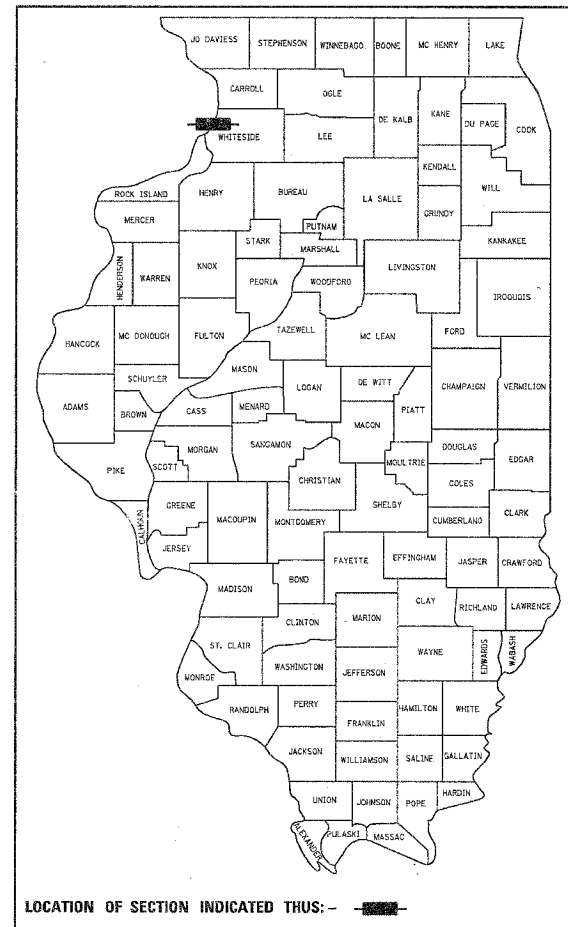
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

Township: Garden Plain
Sections: 4 & 5

Net Length of Project=4165 Ft=0.78 Miles
Gross Length of Project=4165 Ft=0.78 Miles

CONTRACT NO. 84841



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED 8/30 20 05
Gregory Mont
 DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
 October 14, 20 05
Mike Hine
 ENGINEER OF DESIGN AND ENVIRONMENT
 October 14, 20 05
Eric E. Harrell
 DEPUTY DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7BR-P	WHITESIDE	21	2
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____		ILLINOIS		FED. AID PROJECT

INDEX OF SHEETS

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2. Index of Sheets
3. Summary of Quantities
4. General Notes
5. Traffic Control Plan - Iowa Approach
- 5A. STOP LINE SIGN FOR TEMPORARY SIGNALS
6. -21. Bridge Repair Plans
6. -9. General Plan and Elevation
10. Tower Elevation and General Notes
11. Pier, Transverse Stiffener and Bottom Lateral Bracing Repair
12. Replacement of Bearing Plate of Girders 1 & 2 of Span 12 at Pier W3
13. Repair of Main Strut Tower "A"
14. Bottom Strut Ladder Details
15. Top Strut Ladder Details
16. -17. Top Strut Landing Details
18. Main Strut Brackets Elevation
19. Walkway Plan and Connection Details
20. Walkway Details
21. Main Strut Landing and Ladder

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US 30 OVER MISSISSIPPI RIVER
FAP ROUTE 309 (US 30)
SECTION 7BR-P
WHITESIDE COUNTY
STRUCTURE NUMBER 098-6003

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7BR-P	Whiteside	21	3
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

				SFTY-2A
				50% Iowa/50% Illinois
Code Number	Pay Item	Unit	Total Quantity	
50301250	FORMED CONCRETE REPAIR (DEPTH GREATER THAN 5")	SQ FT	32	
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	21280	
50501130	STRUCTURAL STEEL REPAIR	POUND	2030	
*50600300	CLEANING AND PAINTING STEEL BRIDGE	L SUM	1	
*50606400	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES	L SUM	1	
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	19	
67100100	MOBILIZATION	L SUM	1	
70100100	TRAFFIC CONTROL AND PROTECTION, STANDARD 701316	EACH	4	
70106700	TEMPORARY RUMBLE STRIP	EACH	24	
X0323499	JOINT SEAL ^{STRUCTURAL} - STEEL	FOOT	1000**	
X5067500	BRIDGE CLEANING AND PAINTING WARRANTY	L SUM	1	
X7015200	PORTABLE TRAFFIC SIGNALS	L SUM	1	
Z0031300	JACKING AND CRIBBING	L SUM	1	
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1	
* Specialty Items				
** Estimated Quantity				

SUMMARY OF QUANTITIES
US 30 OVER MISSISSIPPI RIVER
FAP ROUTE 309 (US 30)
SECTION 7BR-P
WHITESIDE COUNTY
STRUCTURE NUMBER 098-6003

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7BR-P	Whiteside	21	4
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

GENERAL NOTES

Install a "TO ACTUATE SIGNAL" sign for the traffic signal detector loops. The detail of this sign is included in the plans. This work will be included in the cost of TRAFFIC CONTROL AND PROTECTION STANDARD 701316.

This structure will retain the same number 098-6003.

The contractor shall submit four copies of the required shop drawings for review and approval to the Bureau of Bridges and Structures, 2300 South Dirksen Parkway, Springfield, IL 62764. After approval of initial submittal, the contractor shall submit one set of shop drawings to Eric Harm, Engineer of Materials, 126 East Ash Street, Springfield, IL 62706, and eight (8) sets of shop drawings to be distributed to:

- District 2 District Engineer (1)
- Fabricator (1)
- Contractor (2)
- Resident Engineer (2)
- District 2 Bureau of Materials (2)

Work on this project will be in progress at the same time as work on the US Route 30/Dakin Road and US Route 30/Railroad bridge rehabilitation project 0.5 miles east of this project (Contract # 84883). Work on these projects shall be scheduled to keep interference between all the projects to a minimum. The contractors shall inform each other of progress of the projects and give fair warning to the other contractors when a problem might be encountered.

The Contractor shall be responsible for protecting utility property during construction operations as outlined in Article 107.31 of the Standard Specifications. A minimum of 48 hours advance notice is required for non-emergency work. The JULIE number is 800-892-0123. The following listed utilities located within the project limits or immediately adjacent to the project construction limits are members of JULIE:

- | | | | |
|--|--------------------------------|--|---------------------------|
| Mr. Dennis Jardig
Mediacom
3900 26th Avenue
Moline IL 61265 | CATV
309/7434750 | Mr. Mike Lenox
Commonwealth Edison Company
123 Energy Avenue
Rockford, IL 61109 | Electric
815/490-2869 |
| Mr. David Day
Frontier/Citizens Communications
684 N. Broad/PO Box 12
Lanark, IL 61046 | Communications
815/493-1101 | Mr. R.C. Meagher
US Sprint
5600 N River Road/Mail Stop: ILR0SA0504
Rosemont, IL 60018 | Telephone
847/318-3193 |
| Mr. Justin French
Lightcore
14567 N. Outer Forty Road, Suite 500
Chesterfield, MO 63017 | Communications
314/880-1637 | | |

Following are the known utilities located within the project limits or immediately adjacent to the project construction limits which are not members of JULIE and should be notified individually by the contractor:

- | | |
|---|----------------------|
| Mr. Dennis Schultz
IDOT-Dist 2
819 Depot Ave
Dixon, IL 61021 | GOVT
815/284-5469 |
|---|----------------------|

A Contingency item has been included for Joint Sealant - Steel. Contractor is to repair any damaged or weathered caulking that is no longer providing a seal. All new caulking that is installed shall be placed in a manner to provide positive drainage, i.e. not to entrap moisture behind mating steel surfaces. See Special Provisions.

A minimum of 4 air monitors will be required to monitor abrasive blasting operations at this site, see special provision for "Containment and Disposal of Lead Paint Cleaning Residues."

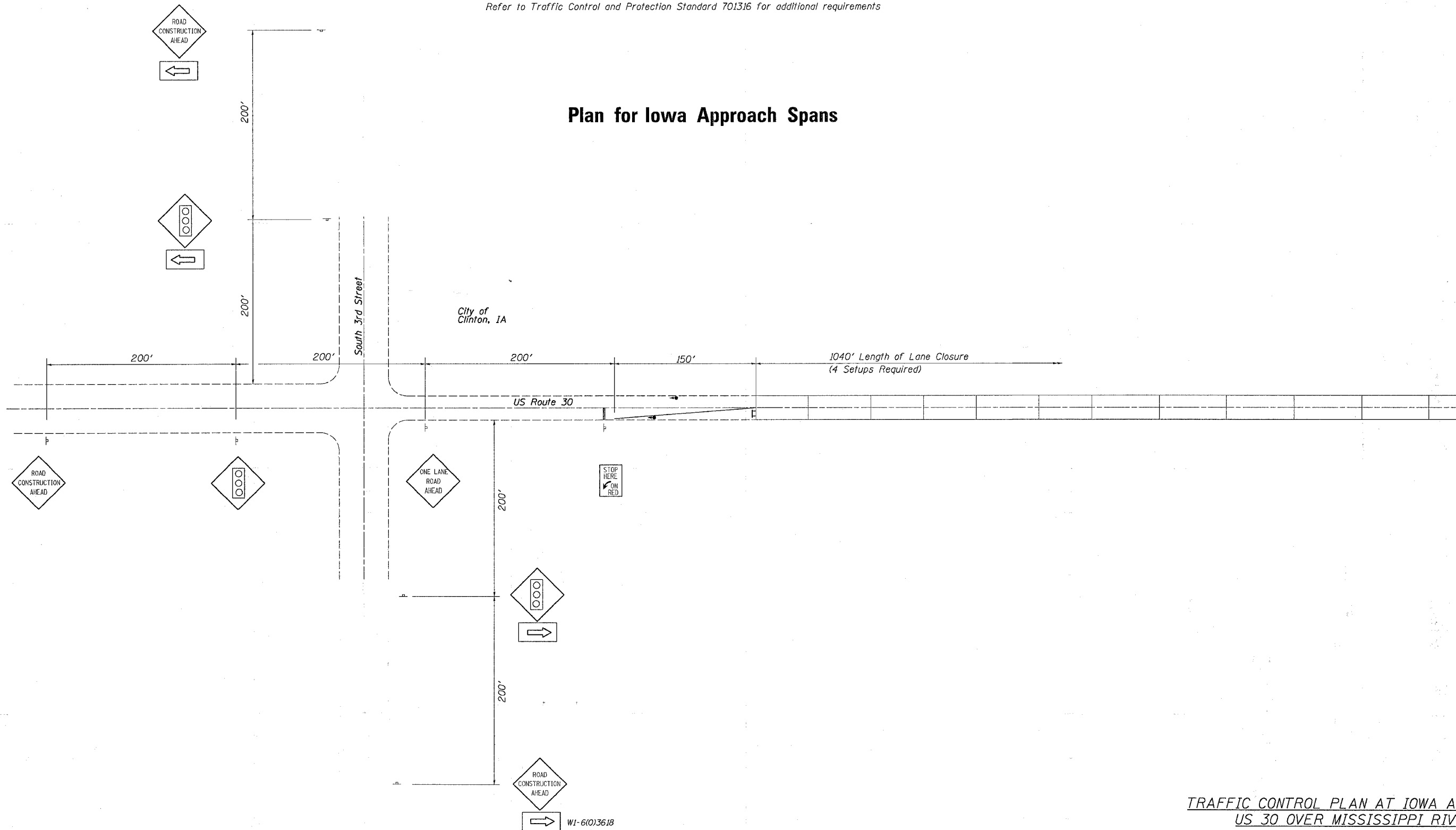
GENERAL NOTES
US 30 OVER MISSISSIPPI RIVER
FAP ROUTE 309 (US 30)
SECTION 7BR-P
WHITESIDE COUNTY
STRUCTURE NUMBER 098-6003

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	7BR-P	Whiteside	21	5
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

TRAFFIC CONTROL PLAN

Refer to Traffic Control and Protection Standard 701316 for additional requirements

Plan for Iowa Approach Spans



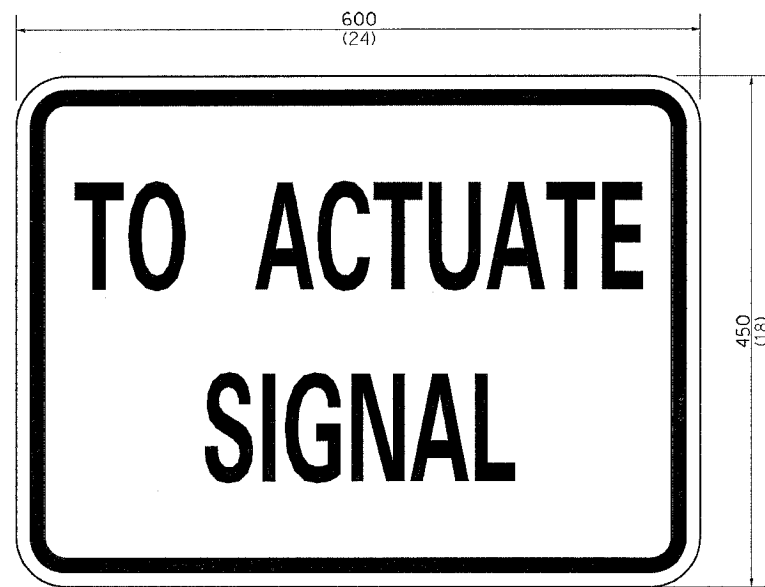
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 USER NAME = ltracy

TRAFFIC CONTROL PLAN AT IOWA APPROACH
 US 30 OVER MISSISSIPPI RIVER
 FAP ROUTE 309 (US 30)
 SECTION 7BR-P
 WHITESIDE COUNTY
 STRUCTURE NUMBER 098-6003

WI-6(0)3618

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
309	788-P	Whiteside		5A
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

STOP LINE SIGN FOR TEMPORARY SIGNALS



SIZE: 600(24) x 450(18)
 100(4) CAPITAL LETTERS - BLACK
 13 (1/2) BORDER - BLACK
 WHITE REFLECTIVE - TYPE B
 ENGINEERING GRADE SHEETING

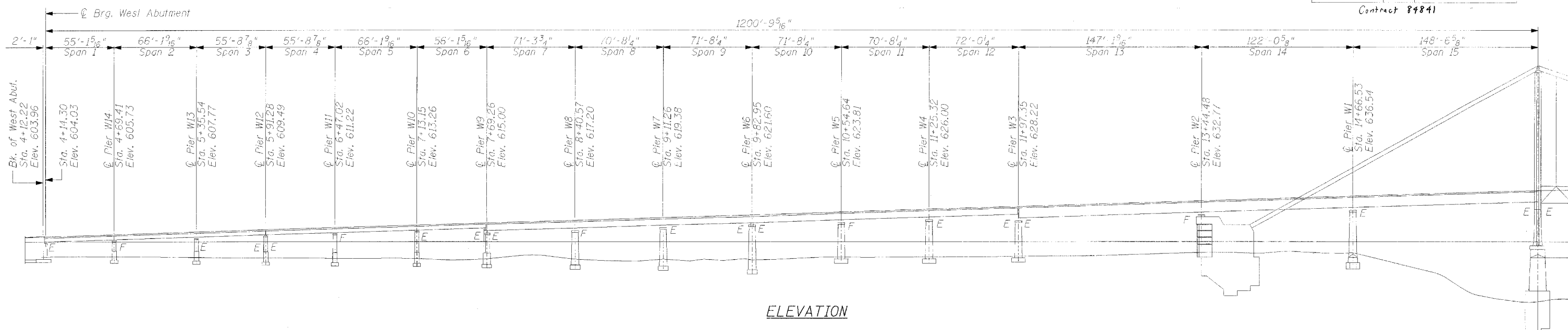
GENERAL NOTE:

THIS SIGN SHALL BE INSTALLED AT THE
 STOP LINE AS DIRECTED BY ENGINEER.
 ALL DIMENSIONS ARE IN MILLIMETERS (INCHES)
 UNLESS OTHERWISE NOTED.

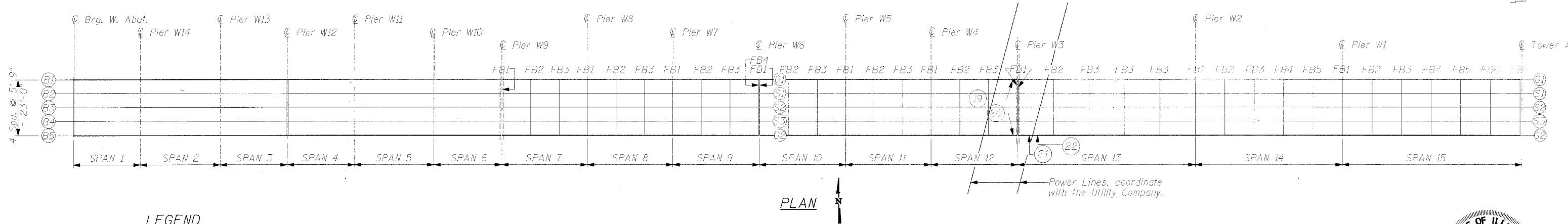
STOP LINE SIGN FOR TEMPORARY SIGNALS 99.4

REVISED 8-7-90

Contract 89841



ELEVATION



PLAN

LEGEND

(XX) = Indicates repair item, see description below.

19 & 20 = Replace the rusted thru bearing web plate, see S-7.

21 & 22 = Repair the rusted web stiffeners, see S-6.

DESIGN SPECIFICATIONS

2002 AASHTO

LOADING HS-20

DESIGN STRESSES

NEW CONSTRUCTION

$f_c = 4,500$ psi
 $f_y = 60,000$ psi (reinf.)
 $f_y = 50,000$ psi Structural Steel M270 Grade 50
 $f_y = 36,000$ psi Structural Steel M270 Grade 36

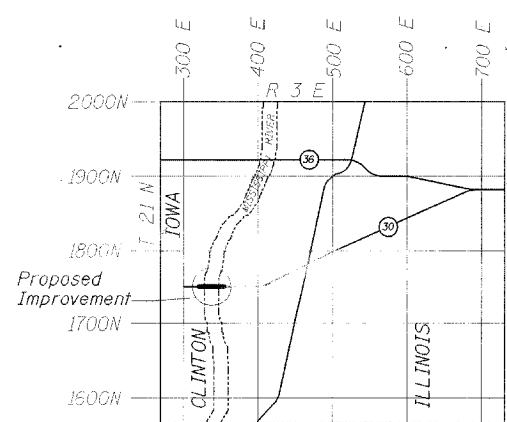
EXISTING STRUCTURE

$f_c = 1,000$ psi
 $f_s = 20,000$ psi (ASTM A305-50T) Reinforcement Steel
 $f_s = 18,000$ psi (ASTM A7-53T)
 $f_s = 24,000$ psi (ASTM A94-50T) (Silicon Steel)
 $f_s = 0.65 F_y = 21,450$ psi (ASTM A7-53T) Floorbeams only
 $f_s = 0.65 F_y = 28,000$ psi (ASTM A94-50T) (Silicon) Floorbeams only

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Furnishing and Erecting Structural Steel	Pound	21,280		21,280
Structural Steel Repair	Pound	2,030		2,030
Jacking and Cribbing	L.S.	1		1
Formed Concrete Repair (Depth greater than 5 inch)	Sq. Ft.		32	32
Cleaning and Painting Steel Bridge	L.S.	1		1
Blasting Residue Containment and Disposal	L.S.	1		1
Bridge Cleaning and Painting Warranty	L.S.	1		1

For Cleaning and Painting requirements see special provisions.



LOCATION SKETCH



Clark Dietz
 Structural Engineer
 Clark Dietz, Inc.
 DATE: 8/18/2005
 License Expires 11-30-06

GENERAL PLAN AND ELEVATION

CLINTON GATEWAY BRIDGE
 OVER MISSISSIPPI RIVER
 F.A. RTE. 309 (U.S. 30)
 SECTION (7B-1D) & 7BR
 WHITESIDE COUNTY
 STRUCTURE NUMBER 098-6003

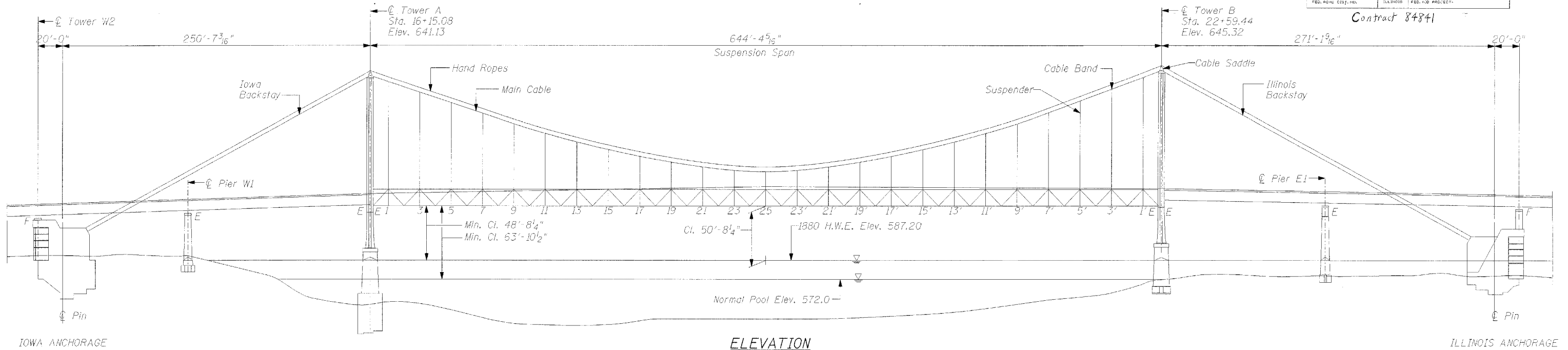
CHAMPAIGN, ILLINOIS
 CHICAGO, ILLINOIS
 EVANSVILLE, INDIANA
 INDIANAPOLIS, INDIANA
 KENOSHA, WISCONSIN
 SPRING GREEN, WISCONSIN

REVISIONS	NAME	DATE

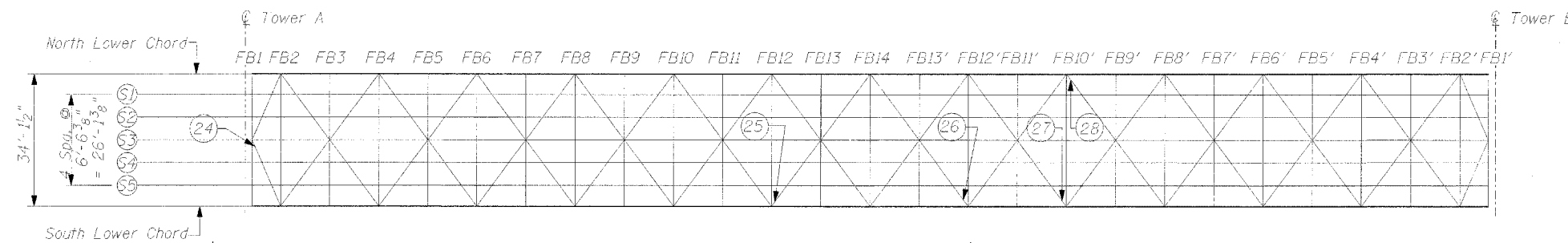
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DRAWING NUMBER

Contract 84841



ELEVATION



PLAN

LEGEND

(XX) = Indicates repair item, see description below.

24 = Repair the rusted bottom cover plate of main strut of Tower A, see S-8.

25 = Repair the rusted bottom lateral bracing member, see S-6.

26, 27 & 28 = Repair the rusted top gusset plate of bottom lateral bracing connection, see S-6.

GENERAL PLAN AND ELEVATION

CLINTON GATEWAY BRIDGE
OVER MISSISSIPPI RIVER
F.A. RTE. 309 (U.S. 30)
SECTION (7B-1D & 7BR
WHITESIDE COUNTY
STRUCTURE NUMBER 098-6003



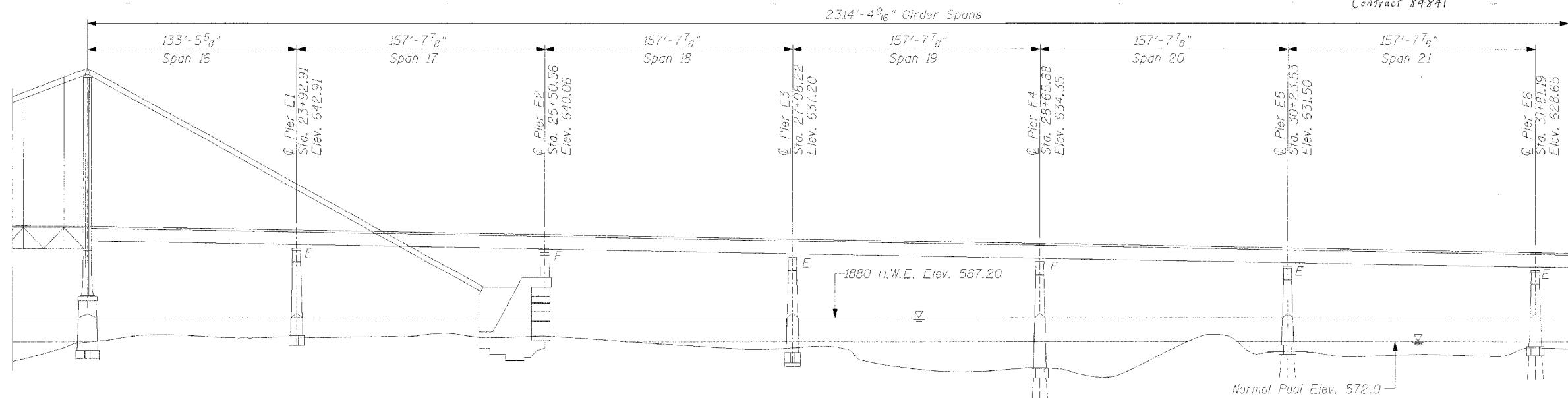
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NAME	DATE		

S-0

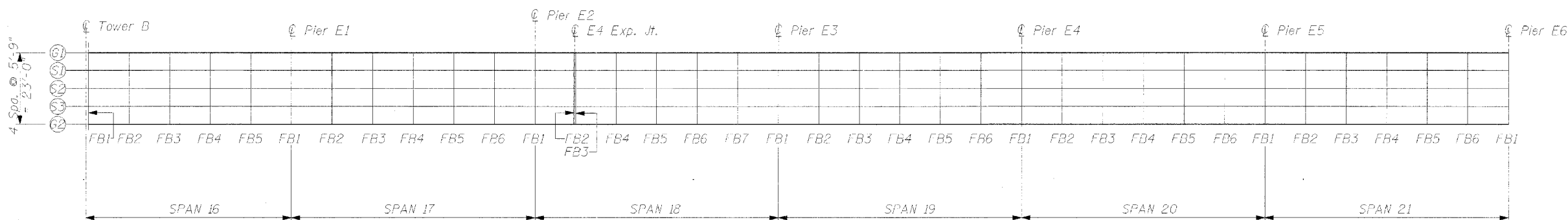
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FED. ROAD DIST. NO.		ILL. DIST. NO.	FED. AID PROJECT NO.	

SHEET NO. 8
SHEETS

Contract 84841



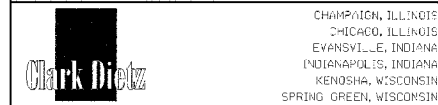
ELEVATION



PLAN

GENERAL PLAN AND ELEVATION

CLINTON GATEWAY BRIDGE
OVER MISSISSIPPI RIVER
F.A. RTE. 309 (U.S. 30)
SECTION (7B-1)D & 7BR
WHITESIDE COUNTY
STRUCTURE NUMBER 098-6003



REVISIONS	
NAME	DATE

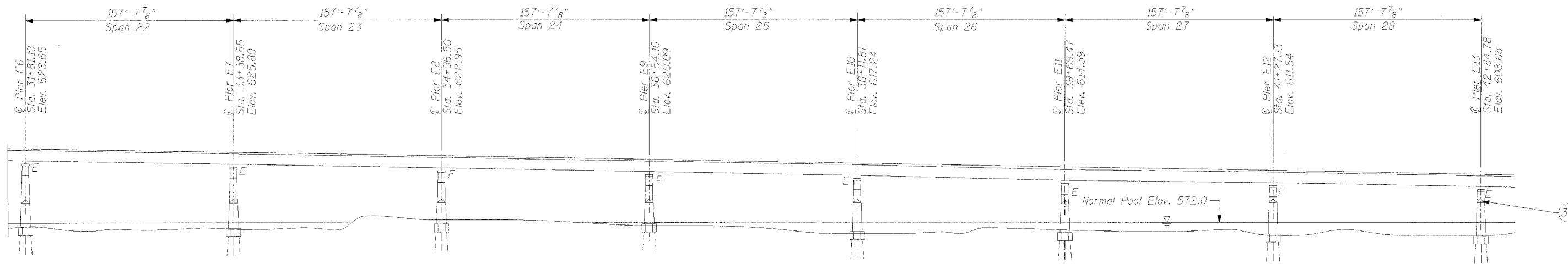
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DESIGNED BY: MBM PROJECT NO: 102289
 DRAWN BY: MEW DATE: 6/25
 CHECKED BY: MBM
 APPROVED BY: SCJ
 ACTIVITY: INTEREST

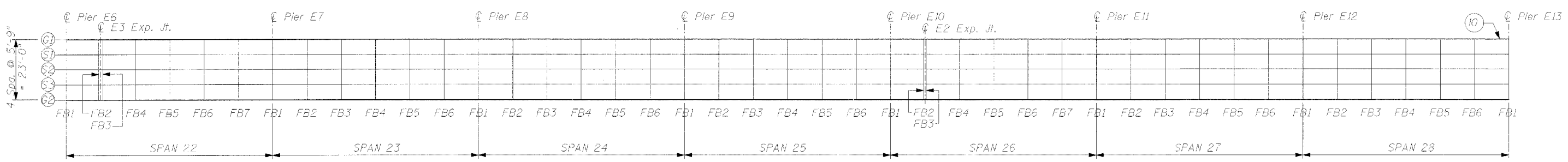
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FED. ROAD DIST. NO.		FED. AID PROJECT		

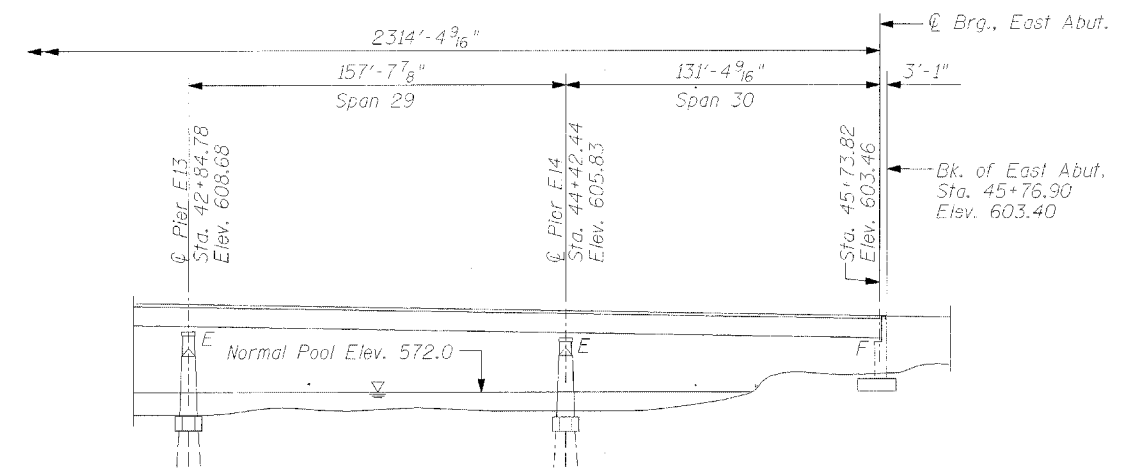
Contract 84841



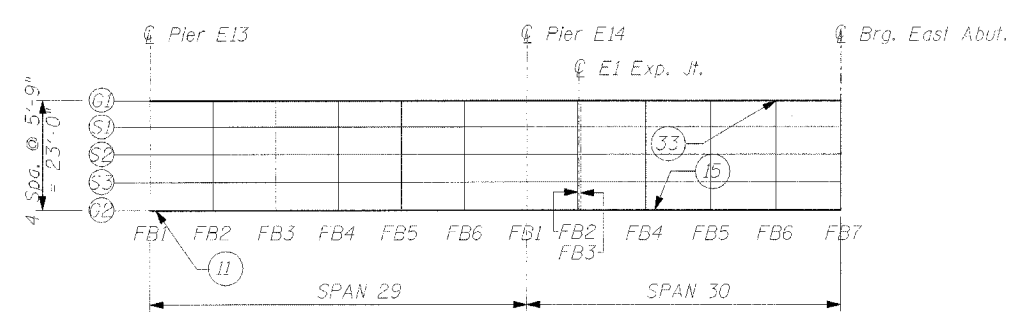
ELEVATION



PLAN



ELEVATION



PLAN

LEGEND

- (XX) = Indicates repair item, see description below.
- 10 & 11 = Repair the rusted web stiffeners, see S-6.
- 15 = Repair the rusted bottom cover plates, see S-7.
- 32 = Repair spalled pier, see S-6.
- 33 = Repair cracked weld, see S-6.

GENERAL PLAN AND ELEVATION

CLINTON GATEWAY BRIDGE
OVER MISSISSIPPI RIVER
F.A. RTE. 309 (U.S. 30)
SECTION (7B-1D) & 7BR
WHITESIDE COUNTY
STRUCTURE NUMBER 098-6003

Clark Dietz

CHAMPAIGN, ILLINOIS
EVANSVILLE, INDIANA
INDIANAPOLIS, INDIANA
KENSISHA, WISCONSIN
SPRING GREEN, WISCONSIN

REVISIONS	
NAME	DATE

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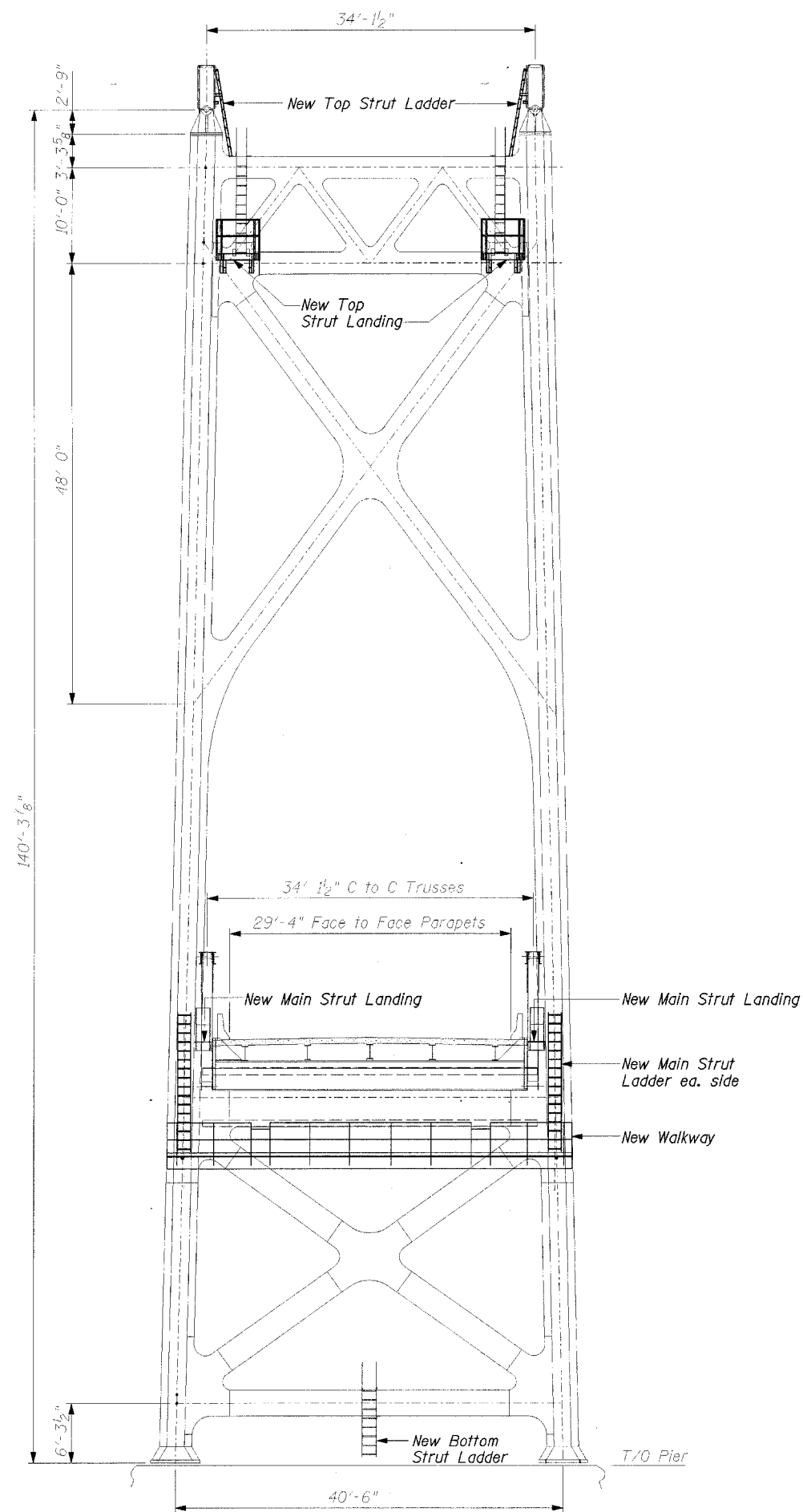
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DRAWN BY: MEW	DATE: 5/05
CHECKED BY: MM	
APPROVED BY: SCJ	

DRAWING NUMBER
S-4

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 309 (U.S. 30) & 7BR	(7B-1D)	WHITESIDE, IL CLINTON, IA.		10
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET NO.
- SHEETS

Contract 84841



TOWER ELEVATION
(New ladders, walkways and platforms are typical for opposite side of Towers A and B)

GENERAL NOTES

- All fasteners shall be high strength bolts. Holes shall be $\frac{13}{16}$ " dia. for $\frac{3}{4}$ " dia. bolts, unless noted otherwise. Holes shall be $\frac{15}{16}$ " dia. for $\frac{7}{8}$ " dia. bolts, unless noted otherwise. Holes shall be $1\frac{1}{16}$ " dia. for 1" dia. bolts, unless noted otherwise.
- All wide flange structural shapes shall be AASHTO M270 Gr. 50 steel. All other structural steel shall be AASHTO M270 Gr. 35, unless noted otherwise.
- The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These components are the bottom cover plate of main tower strut and all splice plate material except fill plates.
- Before installing each bolt, remove all nicks, burrs, corrosion, scale, paint, and foreign substance from inside the hole with a power tool to ensure proper seating of the nut, bolt head and washer. After tightening, spot prime exposed surfaces of the bolt and surrounding area.
- Copies of the original design plans and shop drawings will be available to the Contractor, at his/her request, from the District 2 office of the Illinois Department of Transportation.
- Bolts shall be installed with heads outward (i.e. placed on the side of the connection most noticeable to the public).
- There are existing utility lines across and along the bridge. Contractor shall coordinate with utility companies.
- All structural steel for platforms and ladders including posts, railing, splices, anchor devices and bent plates shall be galvanized after shop fabrication according to AASHTO M111 and ASTM A385. All bolts, nuts, washers and anchor rods shall be galvanized according to AASHTO M232.
- All new and existing structural steel shall be painted. See Special Provisions.
- All new and existing galvanized steel shall be overcoated. See Special Provisions.
- Field welding of construction accessories will not be permitted to any existing structural steel.
- 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 for the work.
- Field welding of construction accessories will not be permitted to any existing structural steel.
- The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
- The Organic Zinc-Rich/Epoxy/Urethane Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. See Special Provision for Cleaning and Painting New Metal Structures. For this project the Epoxy and Urethane coats will be applied in the field.
- The SSPC-QP1 and SSPC-QP2 Painting Contractor Certifications will be required for this bridge.

TOWER ELEVATION AND GENERAL NOTES

CLINTON GATEWAY BRIDGE
OVER MISSISSIPPI RIVER
F.A. RTE. 309 (U.S. 30)
SECTION (7B-1D) & 7BR
WHITESIDE COUNTY
STRUCTURE NUMBER 098-6003



CHAMPAIGN, ILLINOIS
CHICAGO, ILLINOIS
EVANSVILLE, INDIANA
INDIANAPOLIS, INDIANA
KENOSHA, WISCONSIN
SPRING GREEN, WISCONSIN

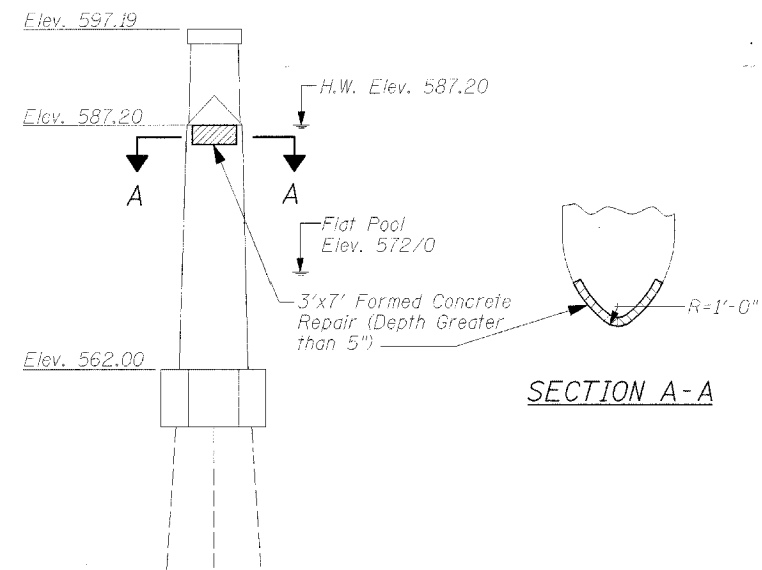
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NAME			

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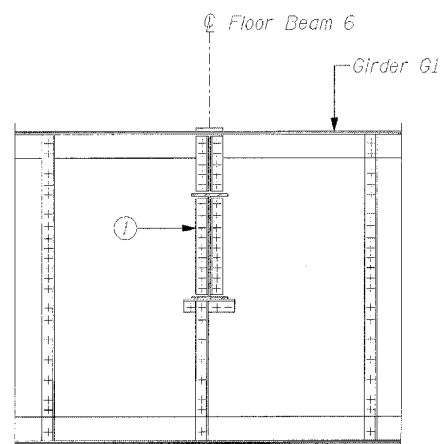
DESIGNED BY: MM PROJECT NO.: 022289
DRAWN BY: MEW DATE: 6/95
CHECKED BY: MM
APPROVED BY: SCJ
ACTIVITY: DETAILS

Contract 84841

- NOTES FOR NEW TRANSVERSE STIFFENERS:**
- The Contractor shall field measure the rivet spacing at the 4th and 8th stiffener from Pier W3 on south side of Girder 2, 5th stiffener west of Pier E13 on north face of Girder 1 and 1st stiffener east of Pier E13 of Girder 2.
 - Remove one existing rivet at the top and bottom of web.
 - Pre-drill holes in new L6x3½x¾x7'-10" and fill plate to match adjacent stiffener rivet spacing.
 - Field drill holes in the web of girder to match the new fill plate and new angle.
 - Install the new fill plate and angle with 1" A325 bolts.
 - All costs associated with this work shall be included in the unit price bid for "Structural Steel Repair".

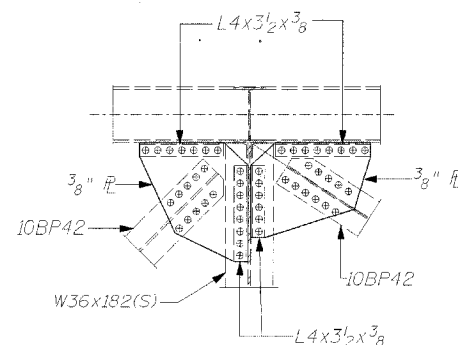


END ELEVATION PIER E13
(ITEM 32)



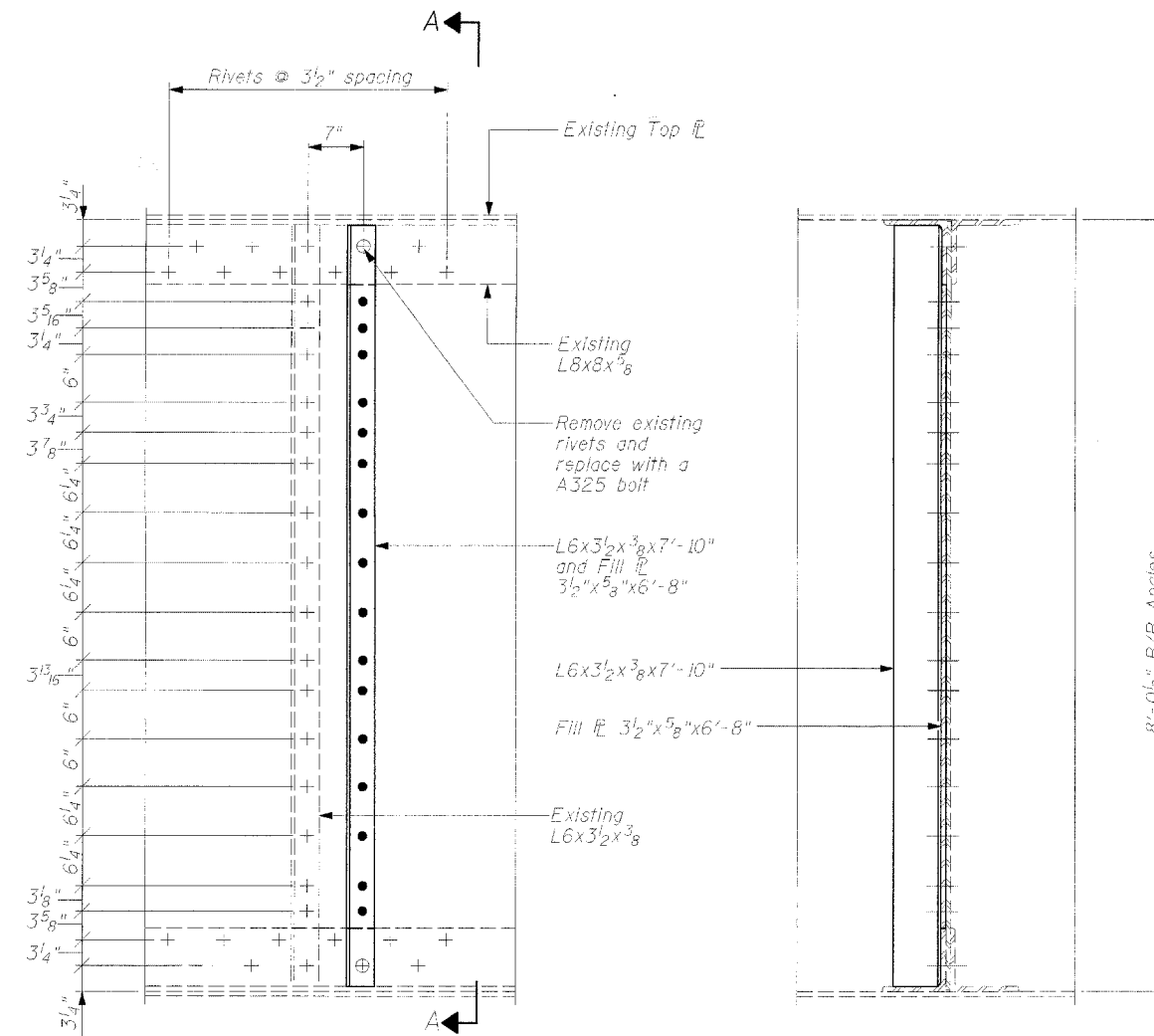
PARTIAL ELEVATION G1
(ITEM 33)

① The existing tack weld is cracked. Remove the crack by grinding off the tack weld. After tack weld is removed, inspect the weld area by magnetic-particle inspection methods for surface and near surface discontinuities. All costs associated with this work shall be included in the unit price bid for "Structural Steel Repair".



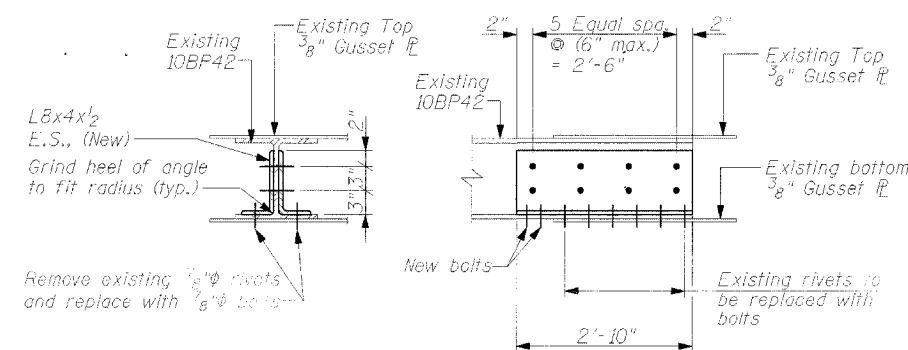
REPLACING TOP GUSSET PLATE OF BOTTOM LATERAL BRACING CONNECTION
(ITEMS 26, 27 & 28)

- NOTE:**
- Contractor shall field measure the size and thickness of the existing gusset plate, number and spacing of rivets on each existing rusted gusset plate.
 - Furnish a new gusset plate with the same size, thickness and number of bolt holes.
 - Remove the existing rivets connecting the gusset plate to the beam. Remove the existing gusset plate and install the new plate and fasten with new bolts.
 - The removal of the existing gusset plate and installation of the new plate shall be done on the same day.
 - All costs associated with this work shall be included in the unit price bid for "Structural Steel Repair".



ELEVATION NEW TRANSVERSE STIFFENER
(ITEMS 10, 11, 21 & 22)

- + Existing Rivet
- Drill new hole & install new bolt
- ⊕ Existing Rivet, replace w/ new bolt



REPAIR OF BOTTOM LATERAL BRACING MEMBER
(ITEM 25)

All costs associated with this work shall be included in the unit price bid for "Structural Steel Repair".

PIER, TRANSVERSE STIFFENER AND BOTTOM LATERAL BRACING REPAIR

CLINTON GATEWAY BRIDGE OVER MISSISSIPPI RIVER
F.A. RTE. 309 (U.S. 30)
SECTION (7B-1D) & 7BR
WHITESIDE COUNTY
STRUCTURE NUMBER 098-6003

CHAMPAIGN, ILLINOIS
CHICAGO, ILLINOIS
EVANSVILLE, INDIANA
INDIANAPOLIS, INDIANA
KENOSHA, WISCONSIN
SPRING GREEN, WISCONSIN

Clark Dietz

REVISIONS		DATE
NAME		

NOTE: DIMENSIONAL DATA IS NOT TO BE OBTAINED BY SCALING ANY PORTION OF THIS DRAWING.

DESIGNED BY: MM	PROJECT NO. 102289
DRAWN BY: MEH	DATE: 6/95
CHECKED BY: MM	
SCALE: 1/8" = 1'-0"	

DRAWING NUMBER: 56

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. - SHEETS
F.A. 309 (U.S. 30)	(7B-1D) & 7BR	WHITESIDE, IL CLINTON, IA.		12	
FED. ROAD DIST. NO.	STATE	FED. AID PROJECT			

Contract 84841

Notes:

1. Field measure and verify the existing plate dimensions and rivet spacing under both girders.

2. Furnish new plates and pre drill bolt holes to match the existing.

3. Provide temporary support under both main girders of span 12 and at both ends of the floor beam over Pier W3. The reactions of the main girder and floor beam at Pier W3 are:

	Main Girder (Each)	Floor Beam
Dead Load	= 72.5 kip	21.1 kip
Live Load	= 84.6 kip	37.3 kip
Impact	= 21.7 kip	11.2 kip

4. Remove the existing rivets as shown on the plans.

5. Replace the existing web plates.

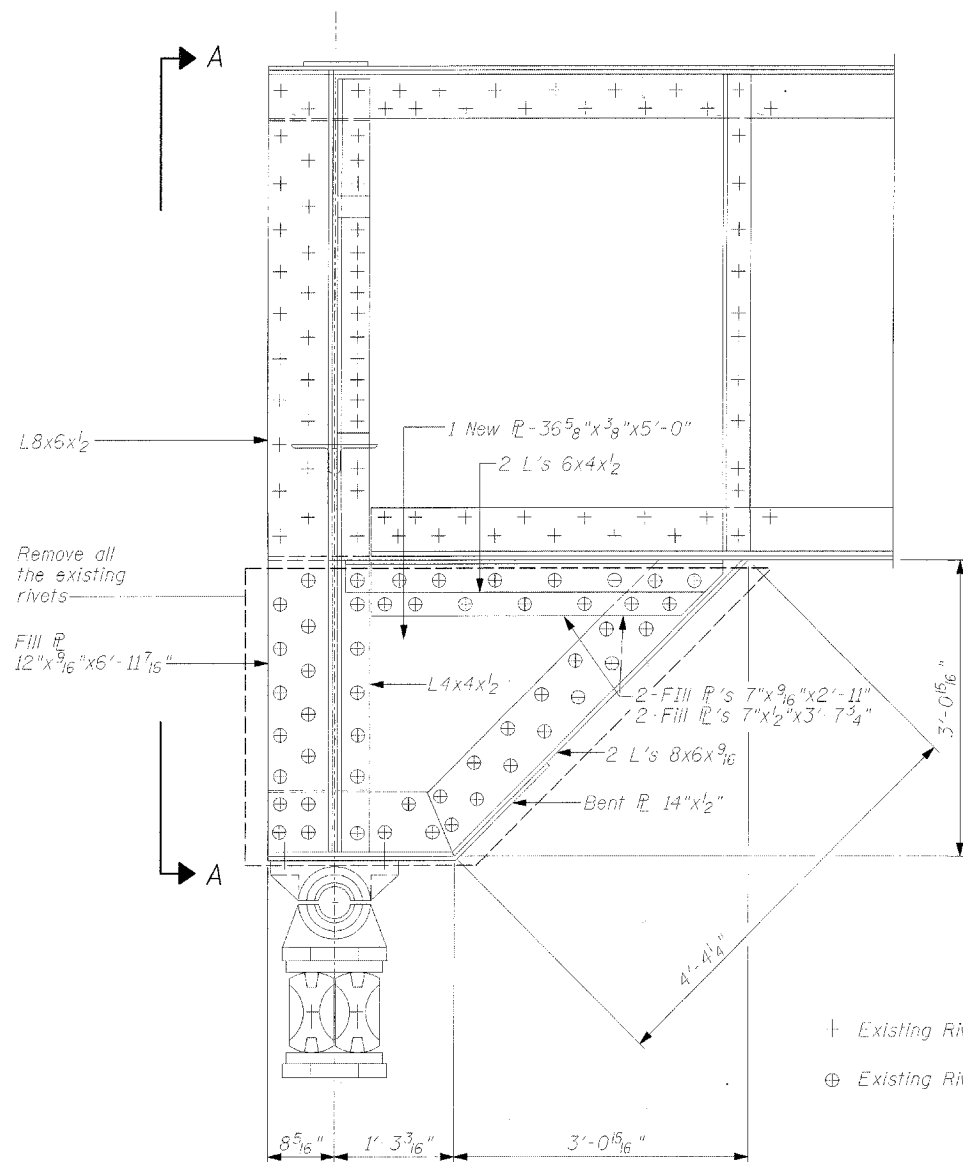
6. Use 7/8" diameter bolts for all connections.

7. Remove the temporary support system.

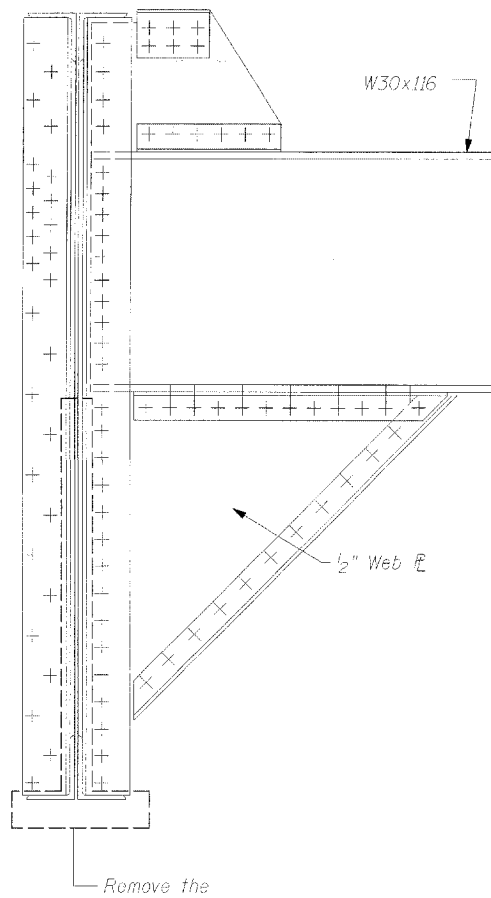
8. Structural steel shall be painted, see Painting Plans.

9. All costs associated with this work shall be included in the unit price bid for "Structural Steel Repair", except all the work associated with designing, providing, and removing the temporary support shall be included in the lump sum price for **Jacking and Cribbing**.

10. If the analysis submitted by the contractor for the jacking/temporary support system to be used shows temporary stiffeners are required to prevent web crippling or buckling, the stiffeners shall be steel and bolted to the web. If stiffeners are not required, hardwood timbers shall be installed tightly between the top and bottom flange to prevent flange rotation.

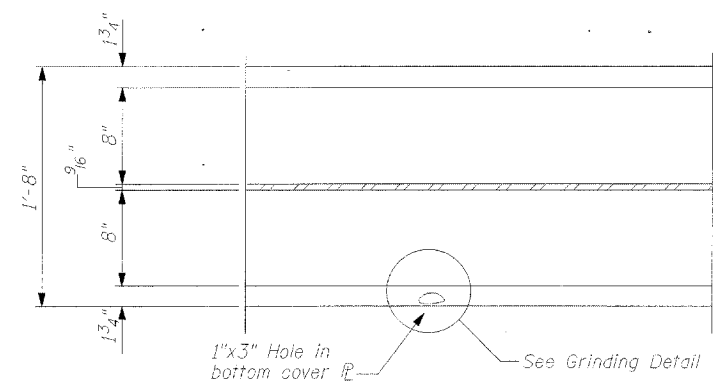


ELEVATION OF GIRDER @ PIER W3
(ITEMS 19 & 20)

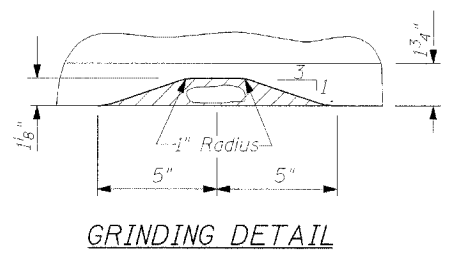


SECTION A-A

⊕ Existing Rivet
⊕ Existing Rivet, replace w/ new bolt



PLAN VIEW
RUSTED THRU HOLE IN THE
BOTTOM COVER PLATE OF
GIRDER 2, SPAN 30
(ITEM 15)



GRINDING DETAIL

Note:
Grind edge of bottom cover plate of the girder 2, at span 30 as shown on the detail to eliminate any sharp or sudden irregularities in the cover plate.
Grinding shall provide a smooth profile as shown on the Plan.
The exposed steel surface shall be painted per Painting Plans.
All the cost associated with this work shall be included in the unit price bid for "Structural Steel Repair".

REPLACEMENT OF BEARING PLATE
OF GIRDERS 1 & 2 OF SPAN 12
AT PIER W3

CLINTON GATEWAY BRIDGE
OVER MISSISSIPPI RIVER
F.A. RTE. 309 (U.S. 30)
SECTION (7B-1D) & 7BR
WHITESIDE COUNTY
STRUCTURE NUMBER 098-6003

CHAMPAIGN, ILLINOIS
CHICAGO, ILLINOIS
EVANSVILLE, INDIANA
INDIANAPOLIS, INDIANA
KENDISHA, WISCONSIN
SPRING GREEN, WISCONSIN



REVISIONS		DRAWING NUMBER
NAME	DATE	
		S-7

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
F.A. 309 (7B-1D) (U.S. 30) & 7BR		WHITESIDE, IL CLINTON, IA.		13	
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT NO.			

Contract 84841

Notes:

- Field measure and verify the existing rivet spacing and access holes in the bottom cover plate for a length of 7'-0" on each side of the center line of the bridge.
- Fabricate and furnish a bottom cover plate (23"x3/8"x12'-11") to match the existing bottom cover plate. There are additional bolts on the new plate, see the repair plans.
- Fabricate and furnish two splice plates 23"x3/8"x2'-4 3/4".
- Provide temporary support for the main girders of approach span 15 to carry the reaction of the main girders at Tower A. The reaction of each beam is:

Dead Load = 170 kip
Live Load = 100 kip
Impact = 18 kip

5. Furnish and install four L3/2x3/2x3/8 inside the strut, connecting the existing web stiffeners of the strut on opposite sides.

6. Remove rivets from the existing bottom cover plate. See drawing.

7. Cut and remove 12'-11" section of the bottom cover plate as shown on the repair plans. Do not cut bottom angles.

8. Install the new bottom cover plate, field drill new holes for the additional bolts. Use 7/8" diameter bolts.

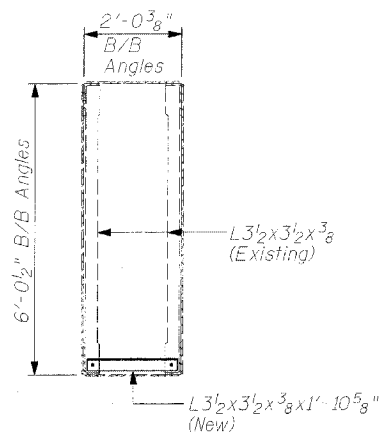
9. Install two new splice plates.

10. Remove the temporary supports of the approach girders.

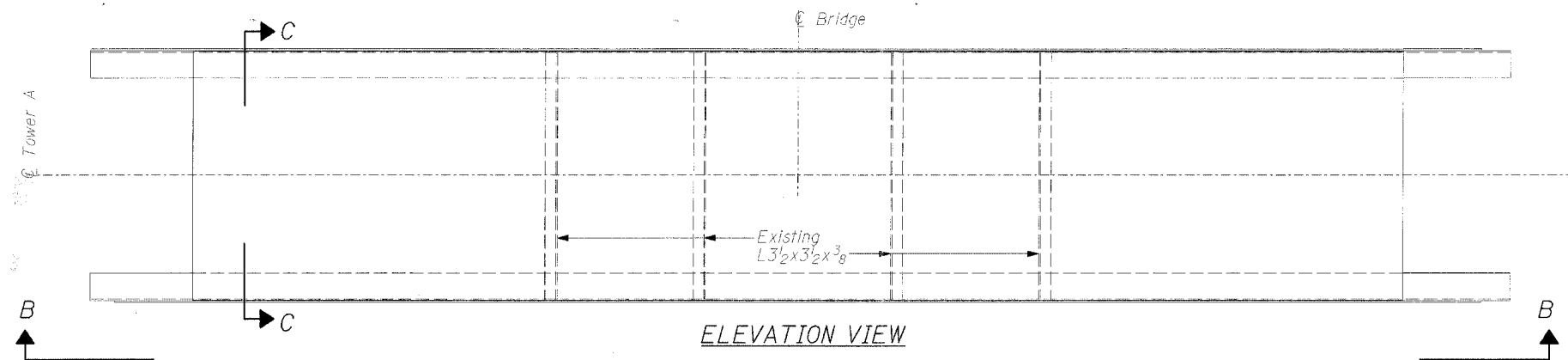
11. Structural steel shall be painted, see Painting Plans.

12. All costs associated with this work shall be included in the unit price bid for "Structural Steel Repair", except all the work associated with designing, providing, and removing the temporary support shall be included in the lump sum price for **Jacking and Cribbing**.

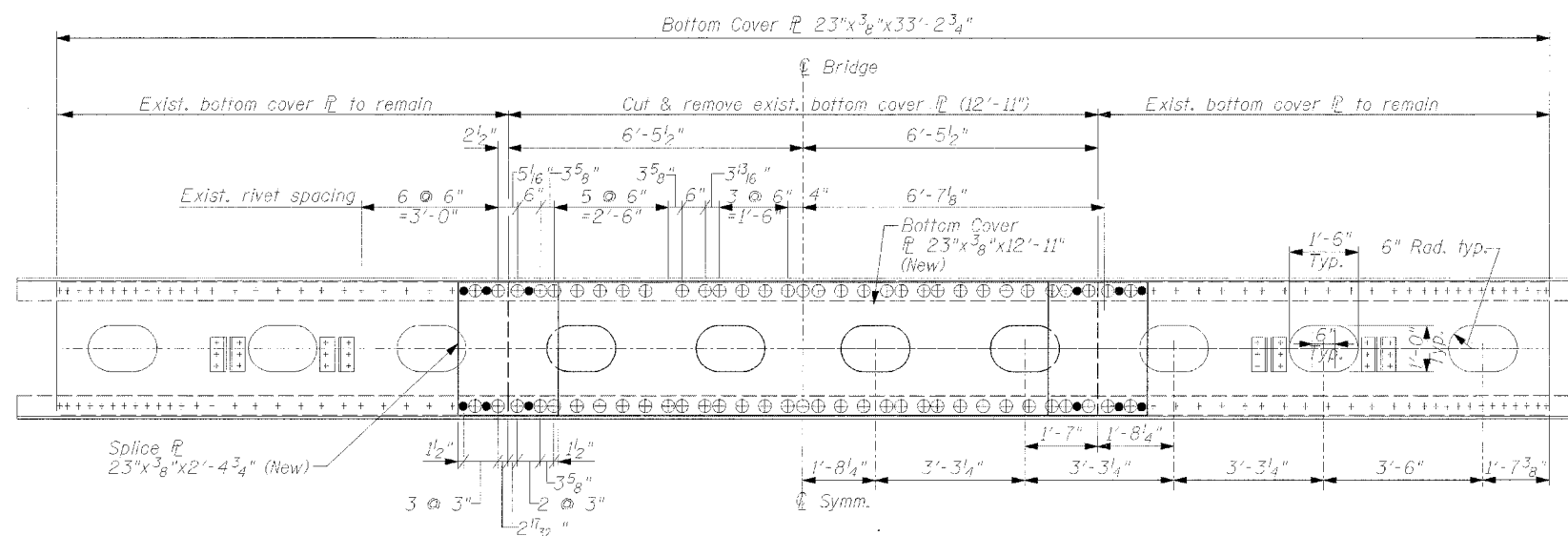
13. If the analysis submitted by the contractor for the jacking/temporary support system to be used shows temporary stiffeners are required to prevent web crippling or buckling, the stiffeners shall be steel and bolted to the web. If stiffeners are not required, hardwood timbers shall be installed tightly between the top and bottom flange to prevent flange rotation.



SECTION C-C

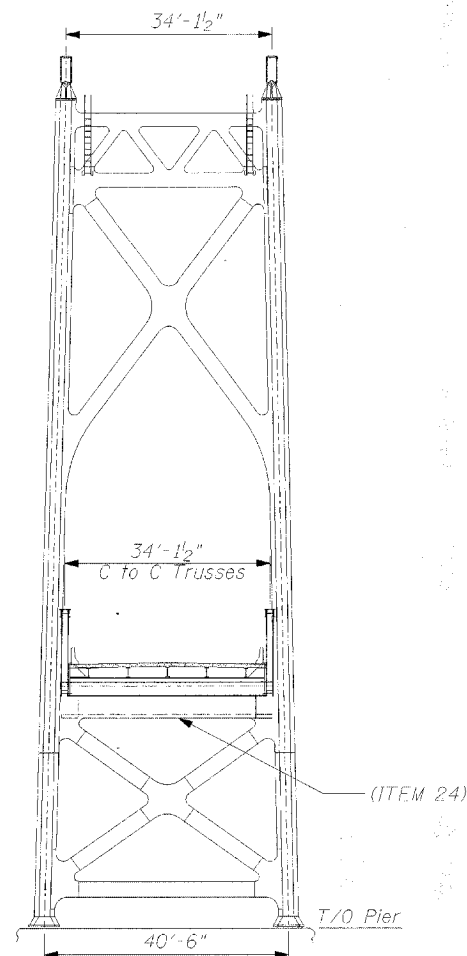


ELEVATION VIEW



SECTION B-B
(ITEM 24)

- + Existing Rivet
- Additional New Bolt
- ⊕ Existing Rivet, replace w/ new bolt



TOWER A

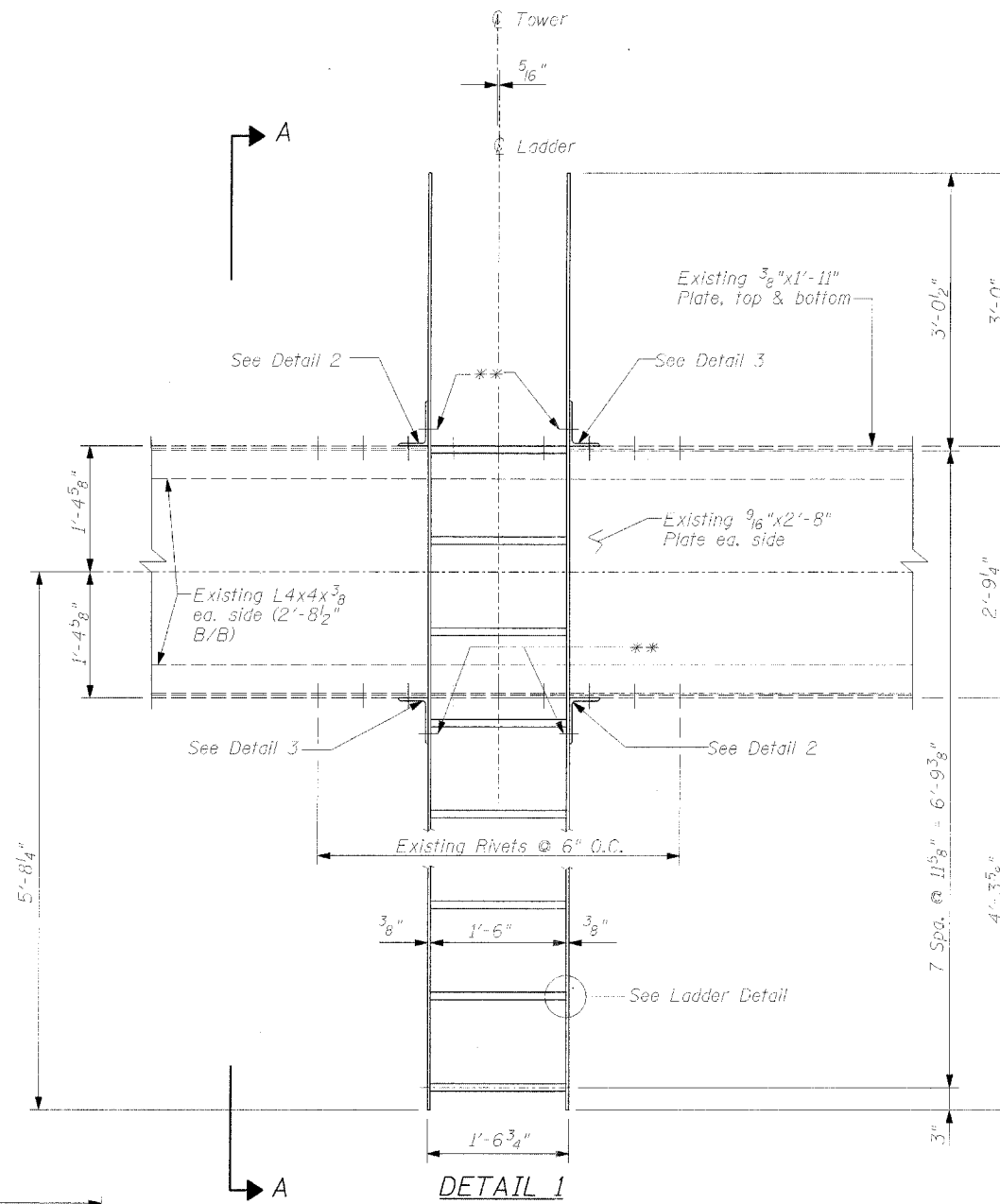
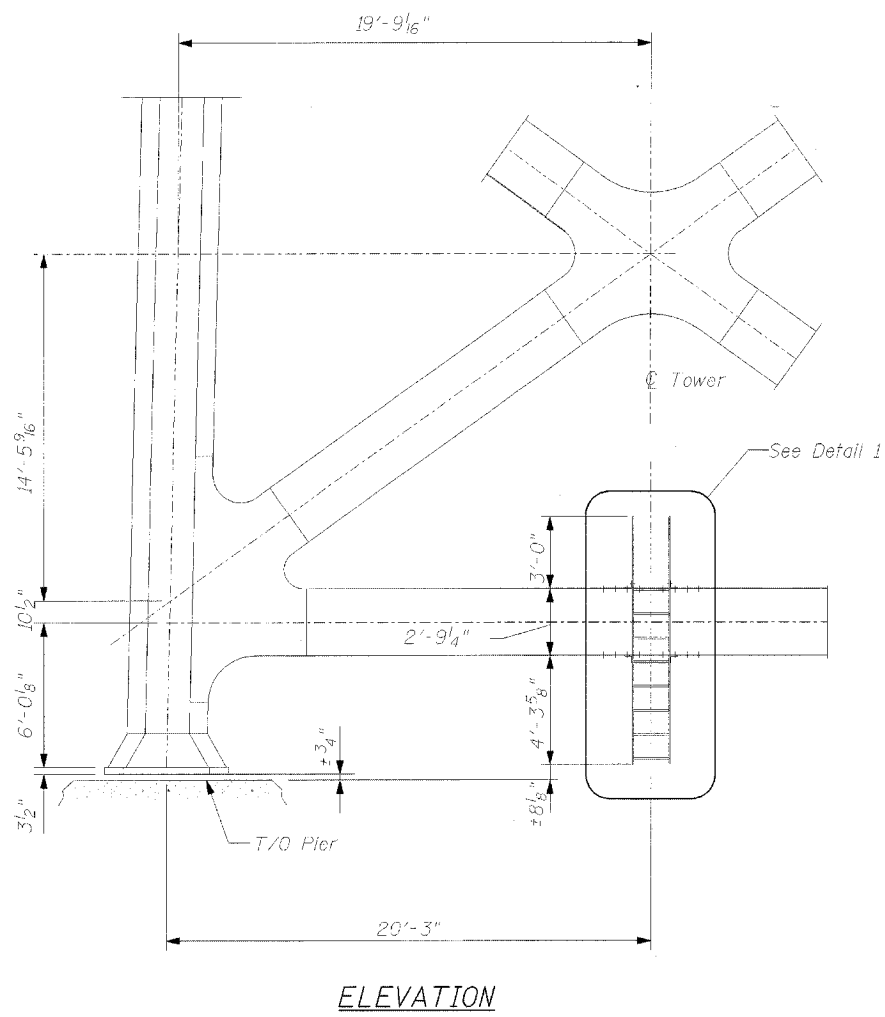
REPAIR OF MAIN STRUT OF TOWER "A"

CLINTON GATEWAY BRIDGE
OVER MISSISSIPPI RIVER
F.A. RTE. 309 (U.S. 30)
SECTION (7B-1D & 7BR)
WHITESIDE COUNTY
STRUCTURE NUMBER 098-6003

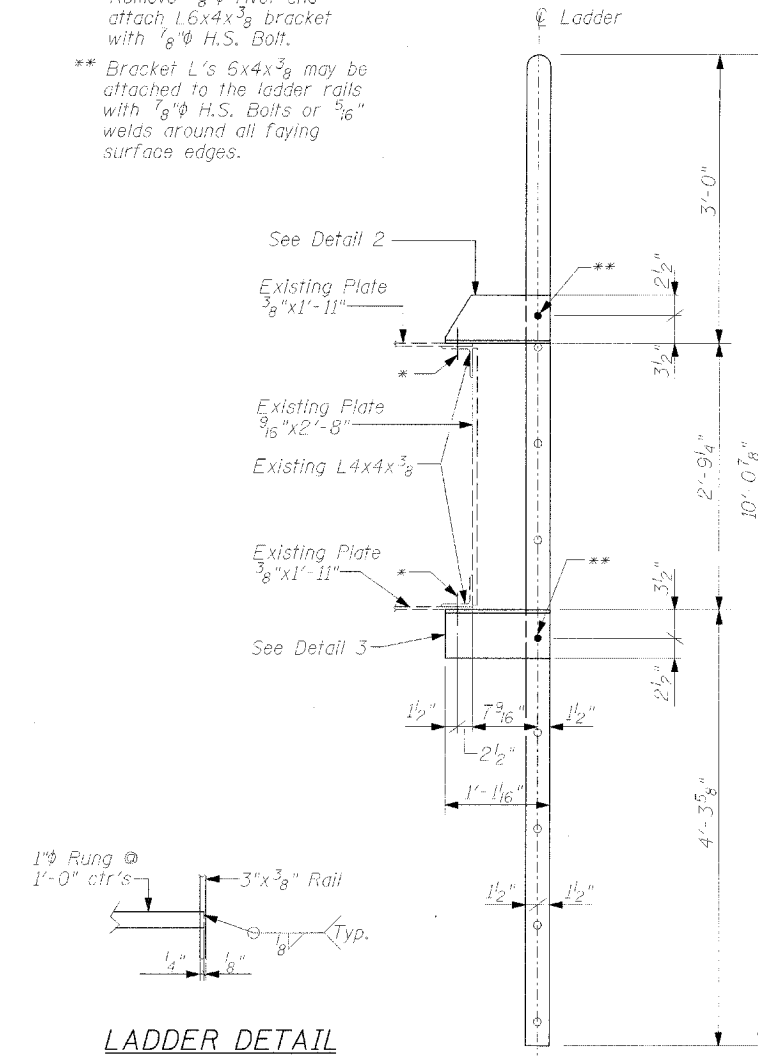
CHAMPAIGN, ILLINOIS
CHICAGO, ILLINOIS
EVANSVILLE, INDIANA
INDIANAPOLIS, INDIANA
KENOSHA, WISCONSIN
SPRING GREEN, WISCONSIN

Clark Dietz

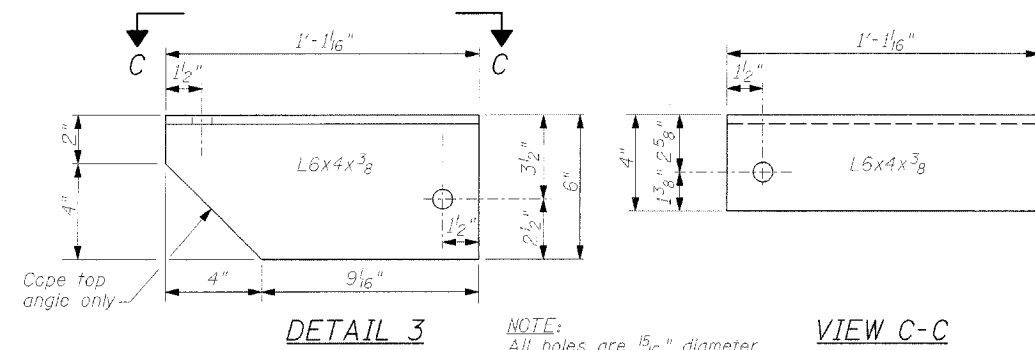
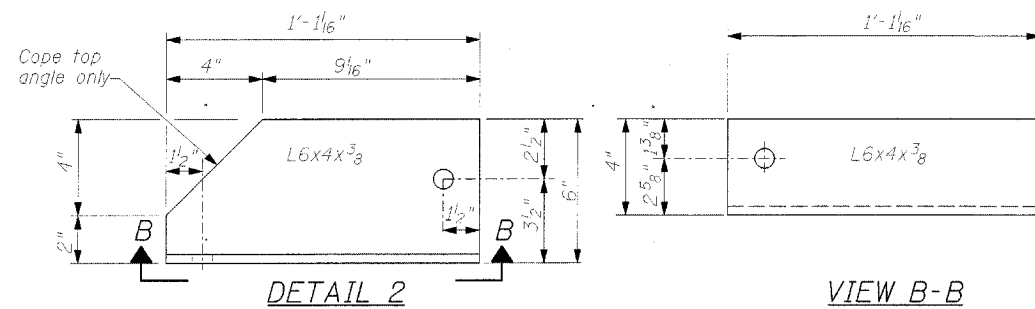
REVISIONS		NOTE: DIMENSIONS, DATA IS NOT TO BE OBTAINED BY SCALING ANY PORTION OF THIS DRAWING.	DRAWING NUMBER
NAME	DATE		
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		DRAWN BY: MEW DATE: 6/05	
		CHECKED BY: MM	
		APPROVED BY: INITIALS	
		ACTIVITY: INITIALS	



* Remove 7/8" φ rivet and attach L6x4x3/8 bracket with 7/8" φ H.S. Bolt.
 ** Bracket L's 6x4x3/8 may be attached to the ladder rails with 7/8" φ H.S. Bolts or 5/16" welds around all faying surface edges.



SECTION A-A



NOTE: All holes are 15/16" diameter.

NOTES:

- All material shall be galvanized after fabrication. See General Notes.
- Weight of tower bottom strut ladders (326 lbs.) is included in the estimated quantity for "Furnishing and Erecting Structural Steel".
- All rivets removed shall be replaced with new 7/8" φ H.S. Bolts. All costs associated with this work shall be included in the unit price bid for "Furnishing and Erecting Structural Steel".

2 Ladders required
(1 on each Tower)

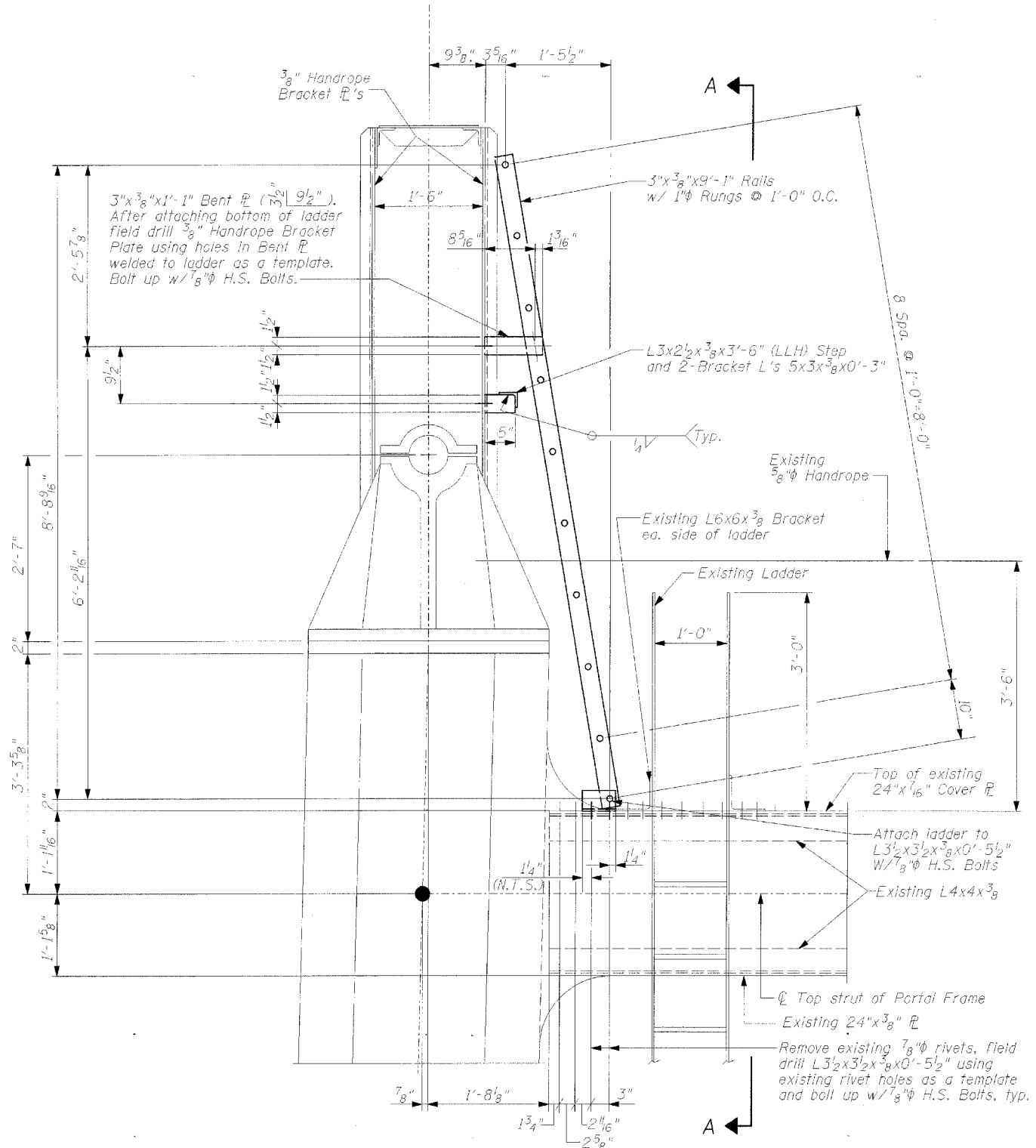
BOTTOM STRUT LADDER DETAILS

CLINTON GATEWAY BRIDGE
 OVER MISSISSIPPI RIVER
 F.A. RTE. 309 (U.S. 30)
 SECTION (7B-1D & 7BR)
 WHITESIDE COUNTY
 STRUCTURE NUMBER 098-6003

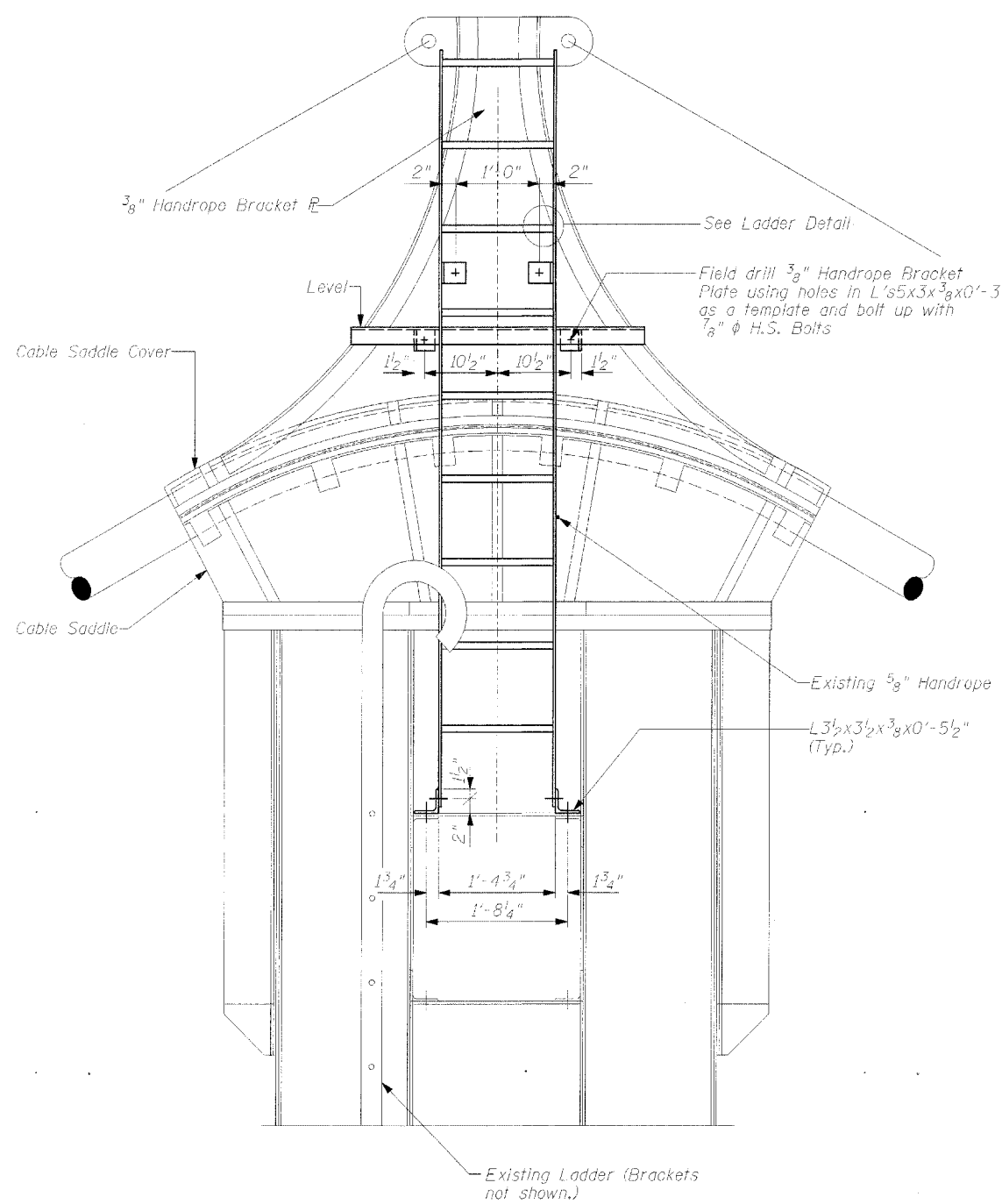


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NAME	DATE	DATE	SCALE

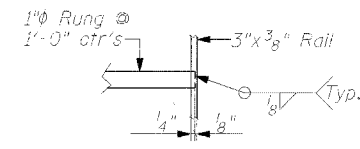
Contract 84841



LIGHT BRACKET DETAIL



SECTION A-A



LADDER DETAIL

NOTES

- All material shall be galvanized after fabrication. See General Notes.
- All rivets removed shall be replaced with new 7/8 inch H.S. Bolts. All costs associated with this work shall be included in the unit price bid for "Furnishing and Erecting Structural Steel".
- Weight of Top Strut Ladders and Steps (643 lbs) is included in the estimated quantity for "Furnishing and Erecting Structural Steel".

4 Ladders and
4 Steps Required

TOP STRUT LADDER DETAILS

CLINTON GATEWAY BRIDGE
OVER MISSISSIPPI RIVER
F.A. RTE. 309 (U.S. 30)
SECTION (7B-1D) & 7BR
WHITESIDE COUNTY
STRUCTURE NUMBER 098-6003

CHAMPAIGN, ILLINOIS
CHICAGO, ILLINOIS
EVANSVILLE, INDIANA
INDIANAPOLIS, INDIANA
KENOSHA, WISCONSIN
SPRING GREEN, WISCONSIN

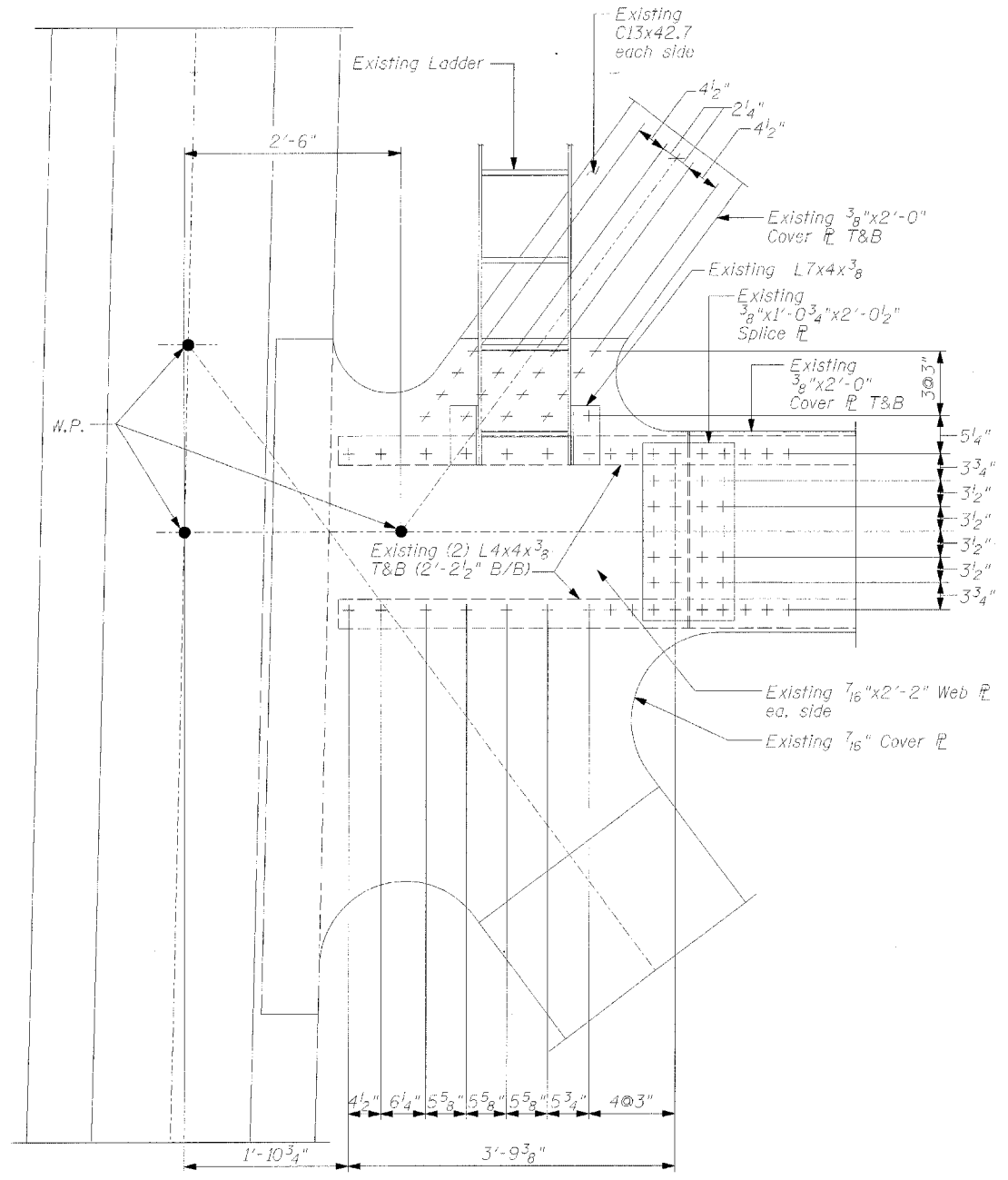
Clark Dietz

REVISIONS	NAME	DATE

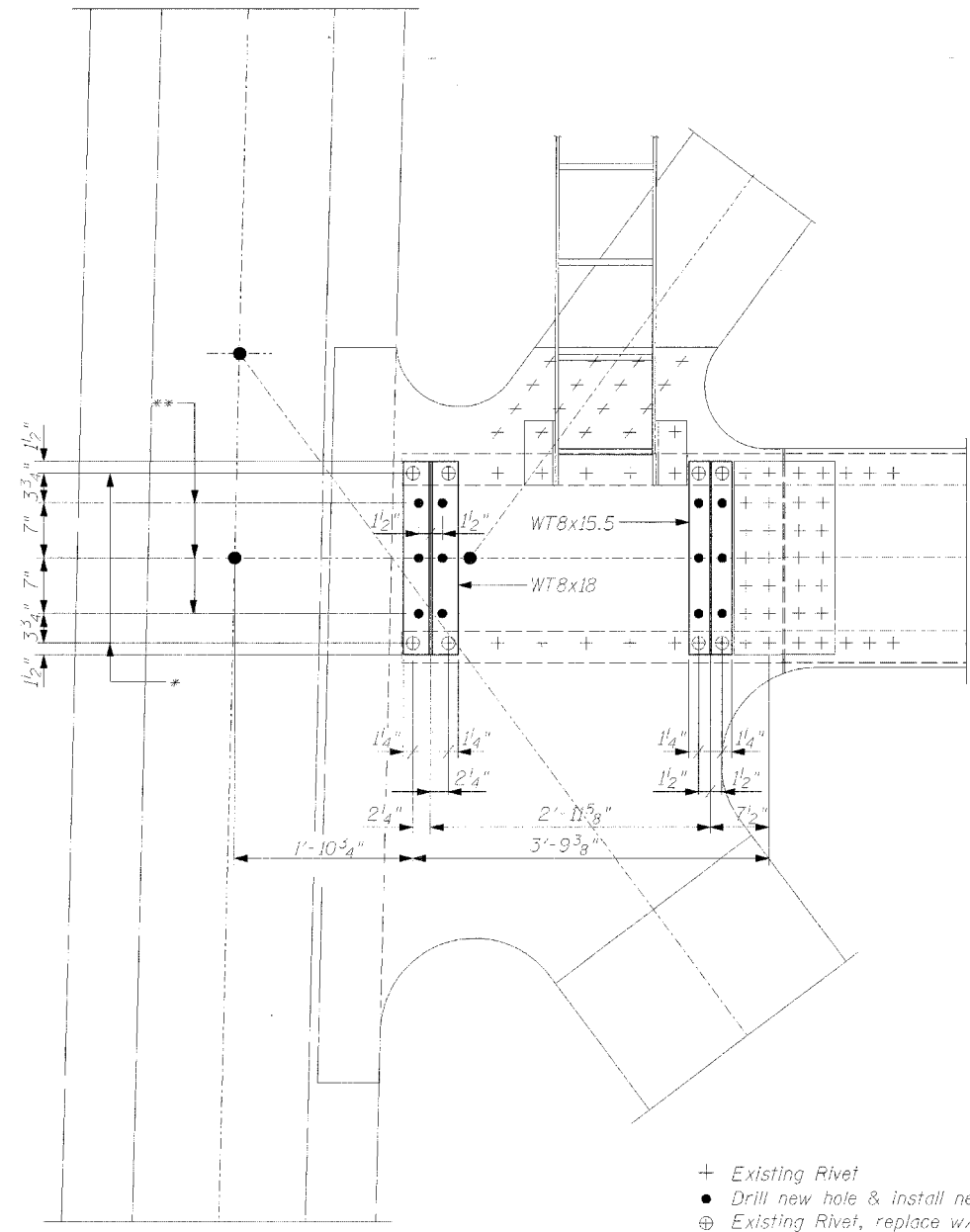
NOTE: DIMENSIONAL DATA IS NOT TO BE OBTAINED BY SCALING ANY PORTION OF THIS DRAWING.

DRAWING NUMBER
S-10

Contract 84841



EXISTING TOP STRUT LANDING SITUATION



FRONT ELEVATION VIEW
(Showing WT's Bracket Attachment)

- * Remove existing 7/8"φ rivets. Using the 15/16"φ holes as a template field drill 15/16"φ holes in the WT's and bolt to the top strut with 7/8"φ H.S. Bolts.
- ** Using the shop drilled 15/16"φ holes in the WT's as a template field drill 15/16"φ holes in the existing top strut and bolt with 7/8"φ H.S. Bolts.

NOTES:
 1. All rivets removed shall be replaced with new 7/8"φ H.S. Bolts. All costs associated with this work shall be included in the unit price bid for "Furnishing and Erecting Structural Steel".
 2. See Design Sheet S-12 for notes and additional Details.

TOP STRUT LANDING DETAILS
 CLINTON GATEWAY BRIDGE
 OVER MISSISSIPPI RIVER
 F.A. RTE. 309 (U.S. 30)
 SECTION (7B-1D) & 7BR
 WHITESIDE COUNTY
 STRUCTURE NUMBER 098-6003

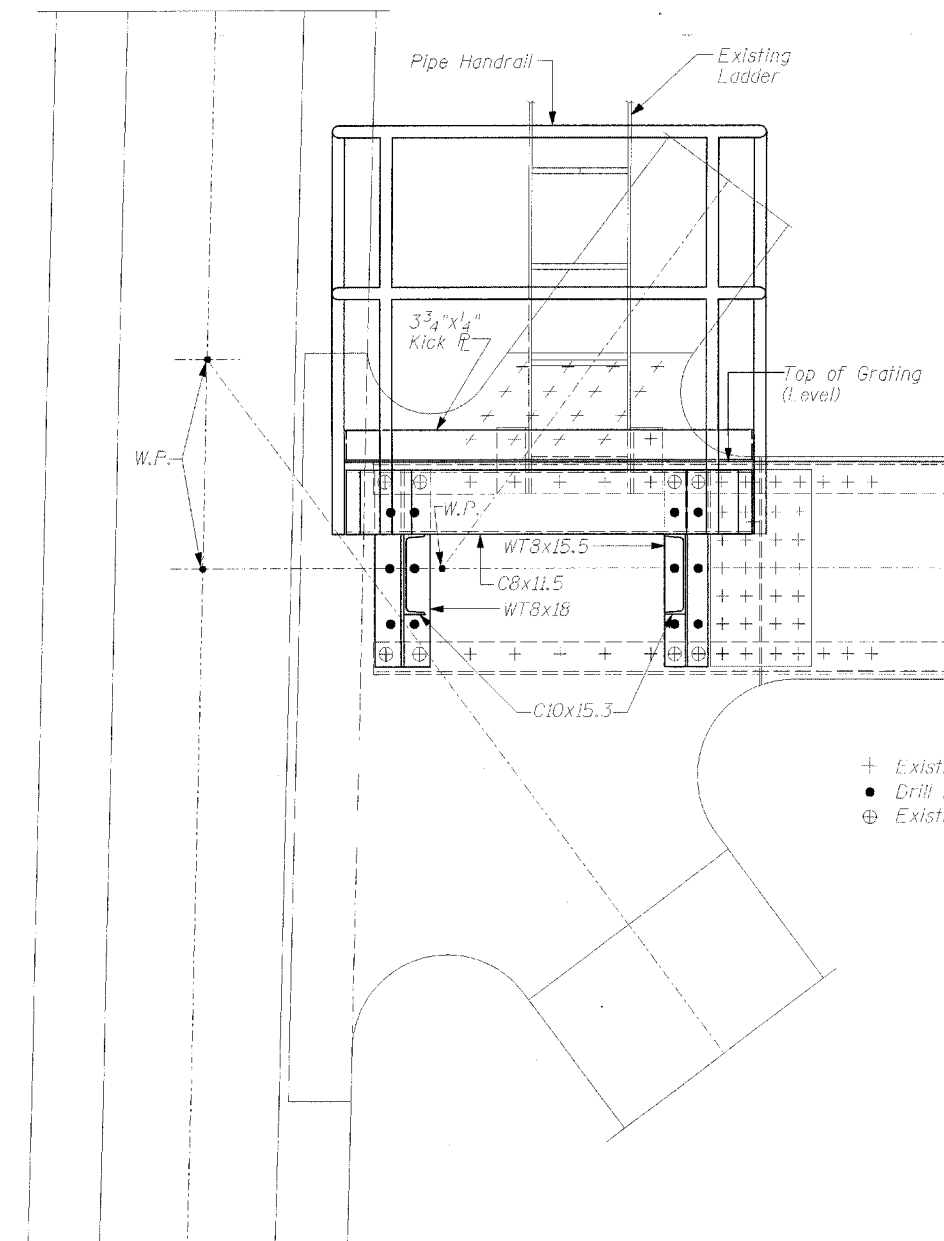
Clark Dietz
 CHAMPAIGN, ILLINOIS
 CHICAGO, ILLINOIS
 EVANSVILLE, INDIANA
 INDIANAPOLIS, INDIANA
 KENOSHA, WISCONSIN
 SPRING GREEN, WISCONSIN

REVISIONS		DATE	DRAWING NUMBER
NAME			
			S-11

NOTE: DIMENSIONAL DATA IS NOT TO BE OBTAINED BY SCALING ANY PORTION OF THIS DRAWING.

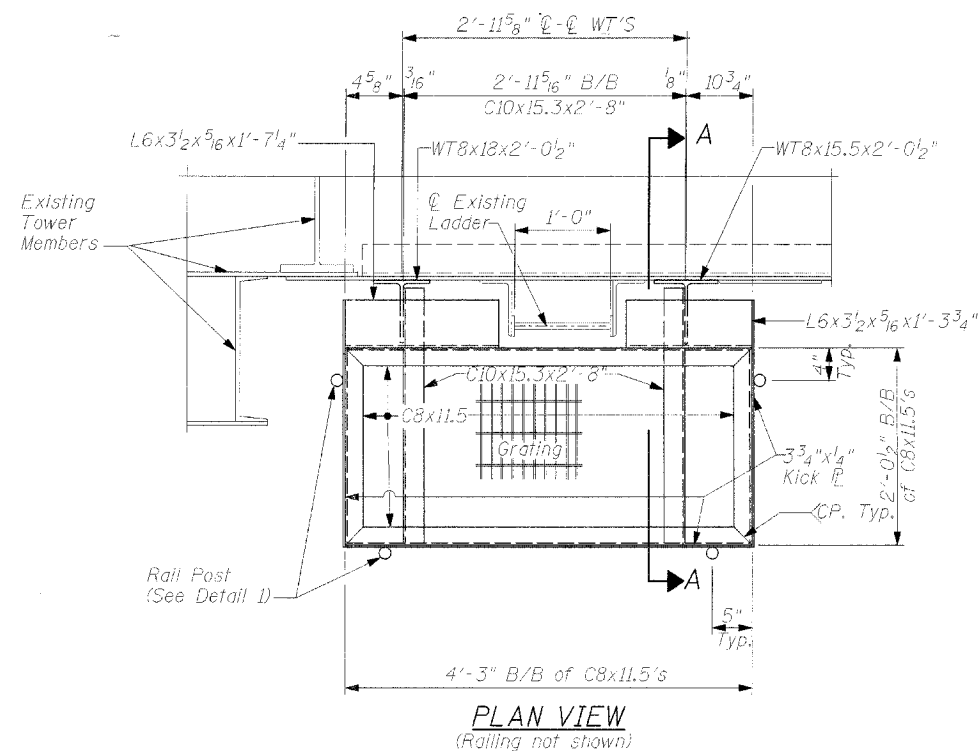
DESIGNED BY:	PS	PROJECT NO.:	1022891
DRAWN BY:	MEW	DATE:	6/05
CHECKED BY:	PS		
APPROVED BY:	SCJ		
ACTIVITY:	INITIALS		

Contract 84841

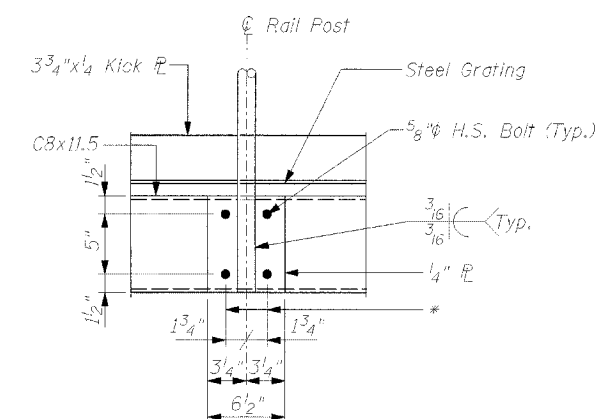


FRONT ELEVATION VIEW

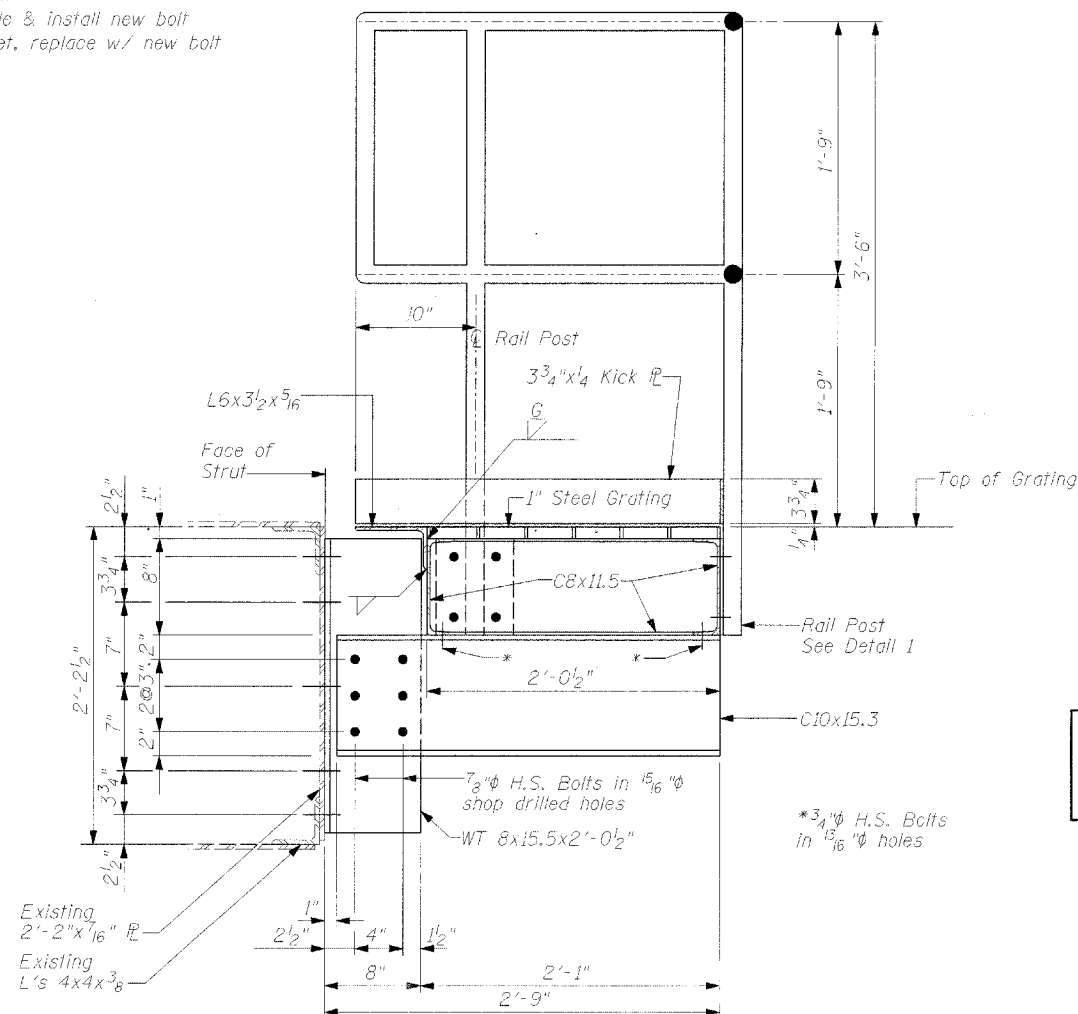
- + Existing Rivet
- Drill new hole & install new bolt
- ⊕ Existing Rivet, replace w/ new bolt



PLAN VIEW
(Railing not shown)



DETAIL 1
(Showing Rail Post Connection to Channel)



SECTION A-A

4 Platforms Required
(2 as shown on approach side of Tower A, 2 on approach side of Tower B)

NOTES

1. Pipe handrail shall conform to A.S.T.M. A53, Grade B 1/2" Dia. Extra Strong Pipe. Weld pipe using standard fabrication practice and grind smooth.
2. Steel grating to be rectangular design, Type WB as manufactured by IKG Industries, a division of Harsco Corp. or an approved equal. Bearing bars shall be 1"x3/16" spaced at 1 3/16" centers. Cross bars shall be rectangular and spaced at 4" centers. All grating shall have banded ends, same size as bearing bars.
3. Grating shall be secured in place using manufacturers saddle clip. 4 minimum per grating panel.
4. All material shall be galvanized after fabrication. See General Notes.
5. Weight of Tower Top Strut landings (2,465 lbs. including 257 lbs. of grating, and 740 lbs. of railing) is included in the estimated quantity for "Furnishing and Erecting Structural Steel".
6. See Design Sheet S-11 for notes and additional Details.

TOP STRUT LANDING DETAILS

CLINTON GATEWAY BRIDGE
OVER MISSISSIPPI RIVER
F.A. RTE. 309 (U.S. 30)
SECTION (7B-1D & 7BR)
WHITESIDE COUNTY
STRUCTURE NUMBER 098-6003

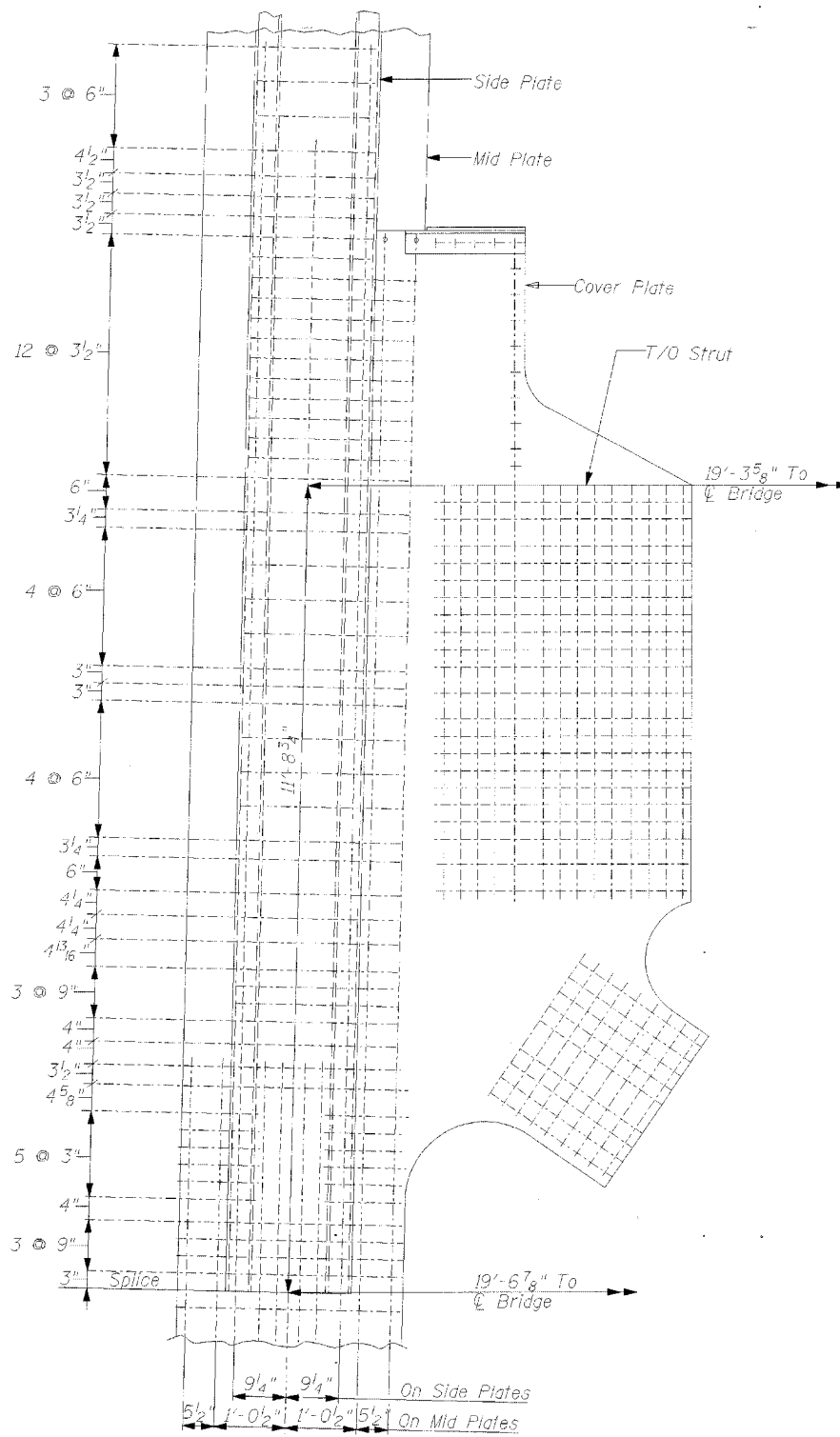


REVISIONS		DATE
NAME		

DESIGNED BY: PS	PROJECT NO.: 102289
DRAWN BY: MEW	DATE: 6/05
CHECKED BY: PS	
APPROVED BY: SCJ	
ACTIVITY: DETAILS	

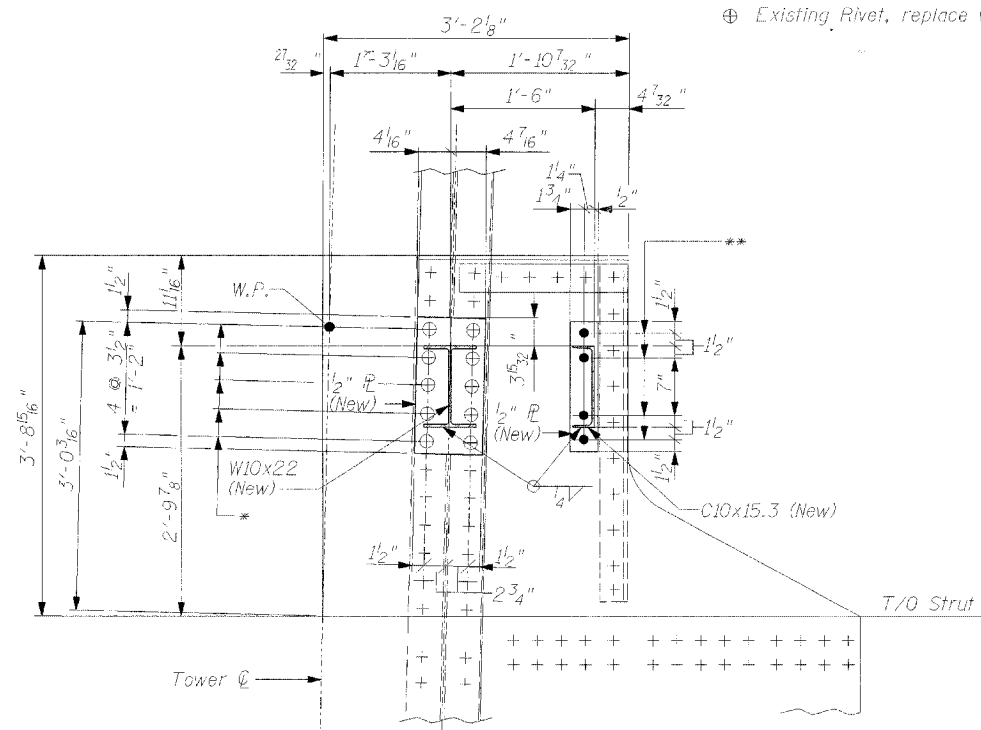
Contract 84841

- + Existing Rivet
- Drill new hole & install new bolt
- ⊕ Existing Rivet, replace w/ new bolt

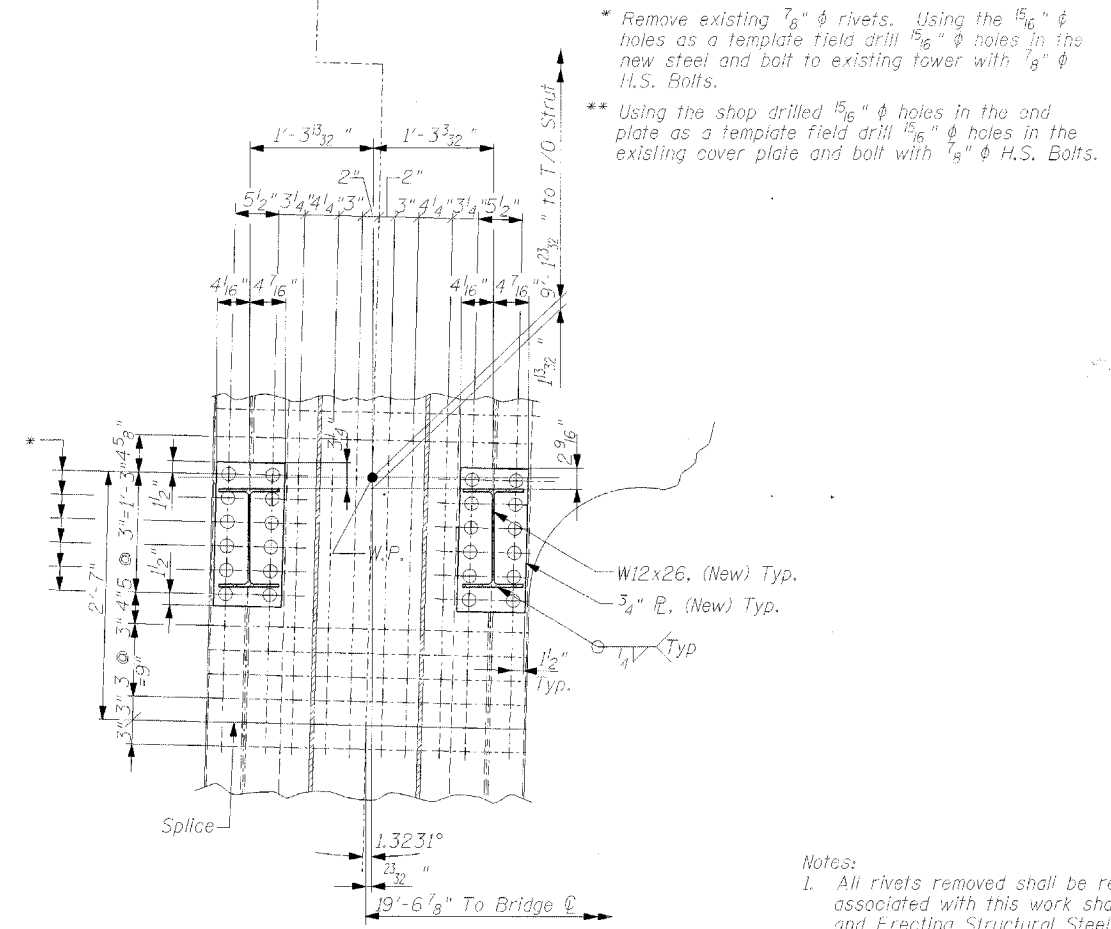


EXISTING MAIN STRUT SITUATION

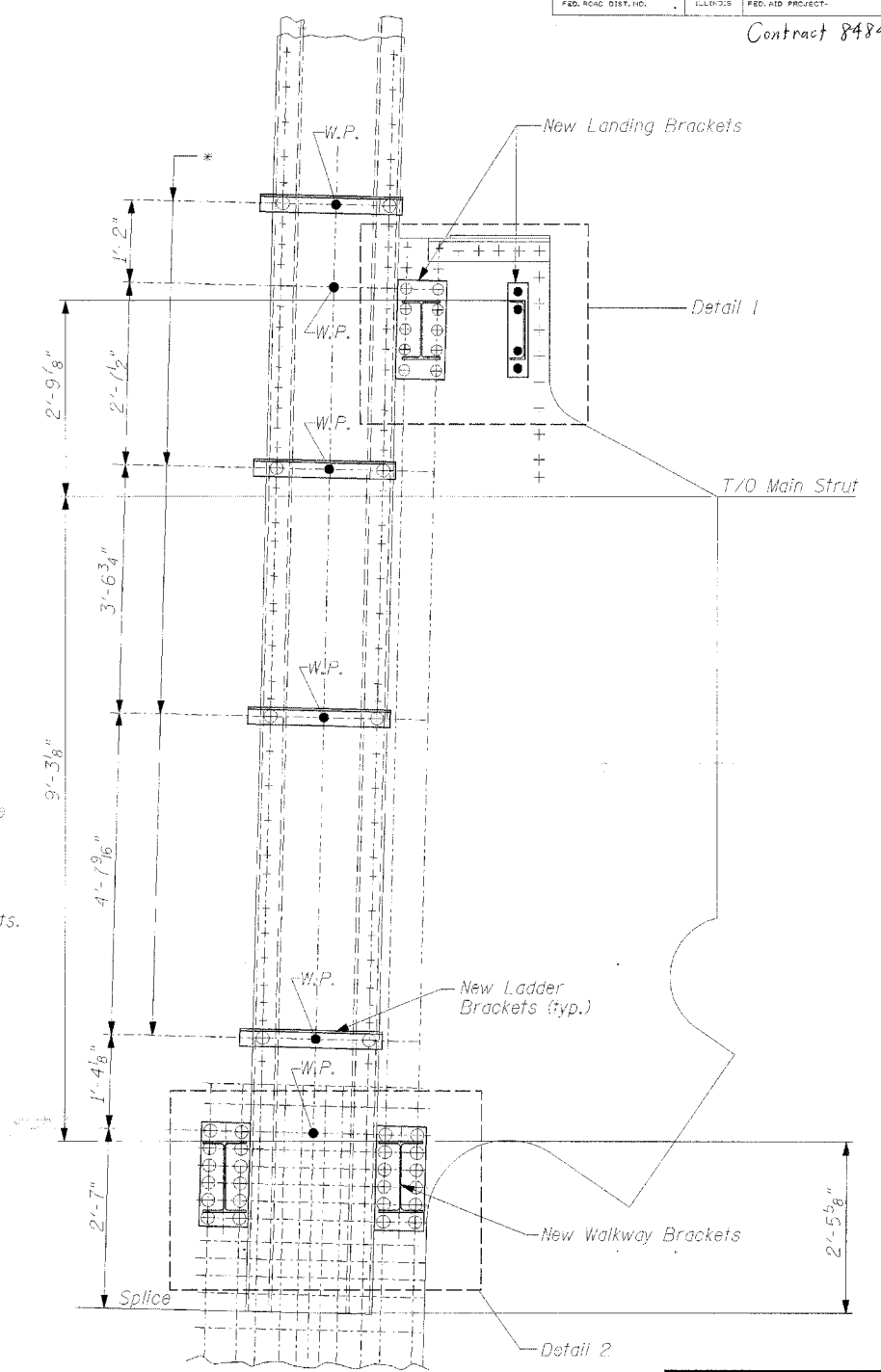
(Showing location & spacing of the existing rivets)



DETAIL 1 - NEW MAIN STRUT LANDING BRACKETS



DETAIL 2 - NEW WALKWAY BRACKETS



FRONT ELEVATION VIEW

(Showing Brackets Attachments)

MAIN STRUT BRACKETS ELEVATION

CLINTON GATEWAY BRIDGE
OVER MISSISSIPPI RIVER
F.A. RTE. 309 (U.S. 30)
SECTION (7B-ID & 7BR)
WHITESIDE COUNTY
STRUCTURE NUMBER 098-6003

CHAMPAIGN, ILLINOIS
CHICAGO, ILLINOIS
EVANSVILLE, INDIANA
INDIANAPOLIS, INDIANA
KENOSHA, WISCONSIN
SPRING GREEN, WISCONSIN



- Notes:
- All rivets removed shall be replaced with new 7/8" H.S. Bolts. All costs associated with this work shall be included in unit price bid for "Furnishing and Erecting Structural Steel".
 - See Design Sheet S-14 for notes.
 - See Design Sheet S-14 and S-15 for Walkway Details.
 - See Design Sheet S-16 for Landing and Ladder Details.

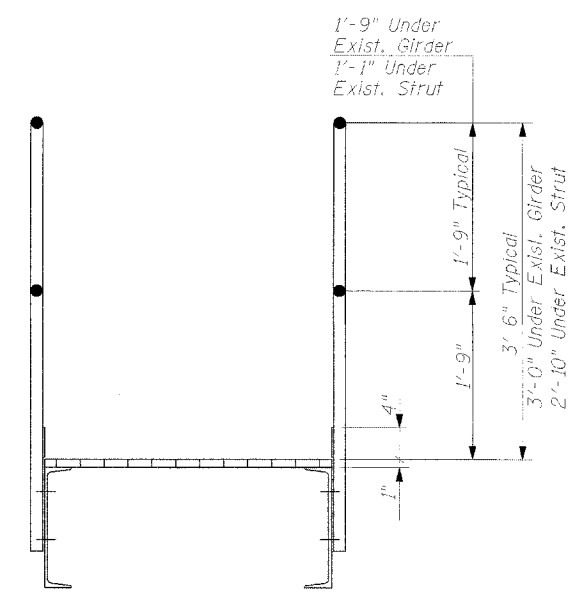
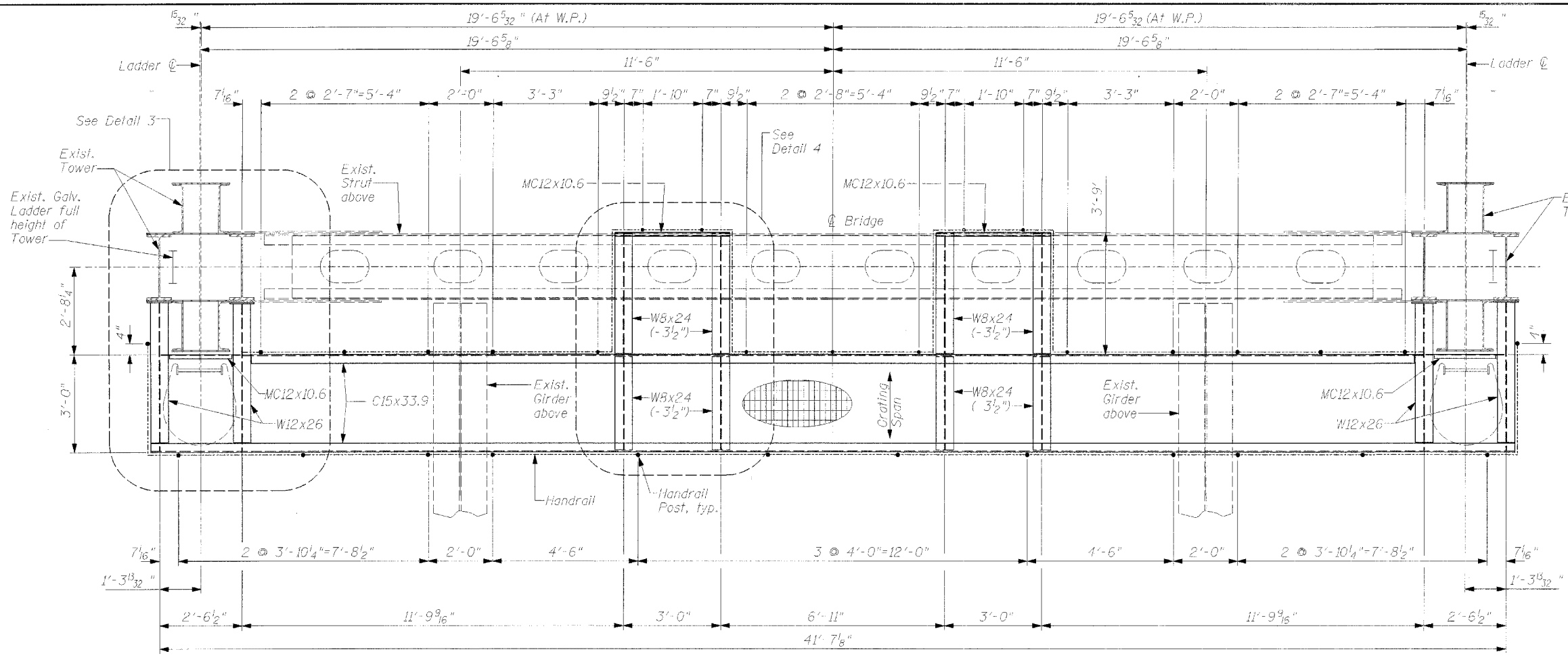
REVISIONS	
NAME	DATE

DESIGNED BY: PS	PROJECT NO: 102289
DRAWN BY: MEW	DATE: 6/05
CHECKED BY: PS	
APPROVED BY: SCJ	
ACTIVITY: DETAILS	

DRAWING NUMBER
S-13

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 309 (U.S. 30)	(7B-1D & 7BR	WHITESIDE, IL CLINTON, IA.	19	19
FED. ROAD DIST. NO.		SHEETS		

Contract = 84841



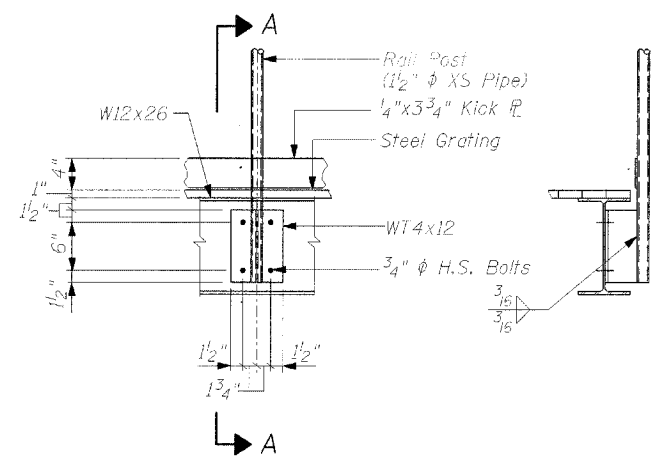
TYPICAL SECTION

WALKWAY AND RAILING LAYOUT PLAN

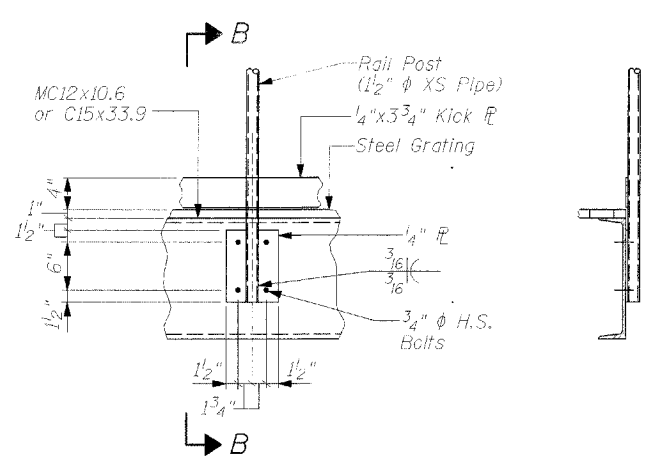
2 Walkways Required
(1 on each approach
side of Towers)

NOTES

1. Pipe handrail shall conform to A.S.T.M. A53, Grade B 1/2" Dia. Extra Strong Pipe. Weld pipe using standard fabrication practice and grind smooth.
2. Steel grating to be rectangular design, Type WB as manufactured by IKG Industries, a division of Harsco Corp. or an approved equal. Bearing bars shall be 1"x3/16" spaced at 13/16" centers. Cross bars shall be rectangular and spaced at 4" centers. All grating shall have banded ends, same size as bearing bars.
3. Grating shall be secured in place using manufacturers saddle clip; 4 minimum per grating panel.
4. All material shall be galvanized after fabrication. See General Notes.
5. Weight of Inspection Walkways, Landings and Ladders (17,849 lbs. including 2,448 lbs. of grating and 2,588 lbs. of railing) is included in the estimated quantity for "Furnishing and Erecting Structural Steel".
6. See Design Sheets S-13 and S-15 for notes and additional Details.



VIEW



VIEW

SECTION A-A

SECTION B-B

RAILING CONNECTION DETAILS

WALKWAY PLAN AND CONNECTION DETAILS

CLINTON GATEWAY BRIDGE
OVER MISSISSIPPI RIVER
F.A. RTE. 309 (U.S. 30)
SECTION (7B-1D) & 7BR
WHITESIDE COUNTY
STRUCTURE NUMBER 098-6003

CHAMPAIGN, ILLINOIS
CHICAGO, ILLINOIS
EVANSVILLE, INDIANA
INDIANAPOLIS, INDIANA
KENOSHA, WISCONSIN
SPRING GREEN, WISCONSIN



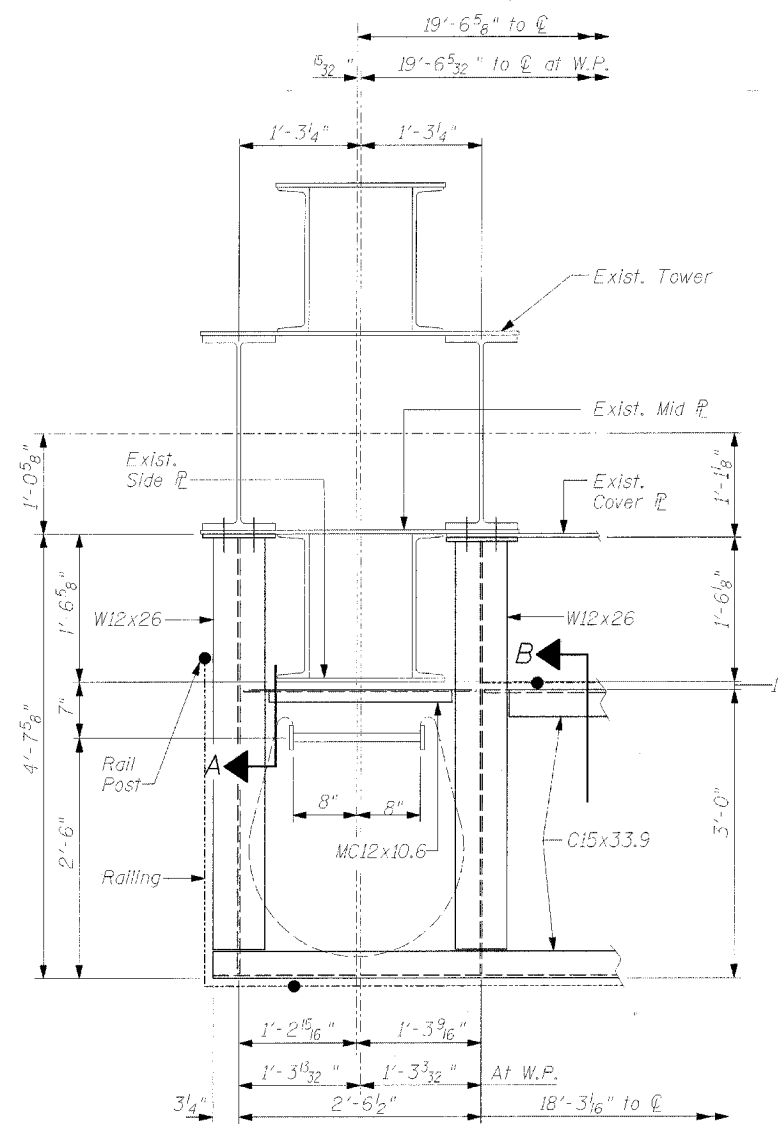
REVISIONS		DATE	DRAWING NUMBER
NAME			

ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET NO.
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FED. ROAD DIST. NO.	LAINDER	FED. AID PROJECT		

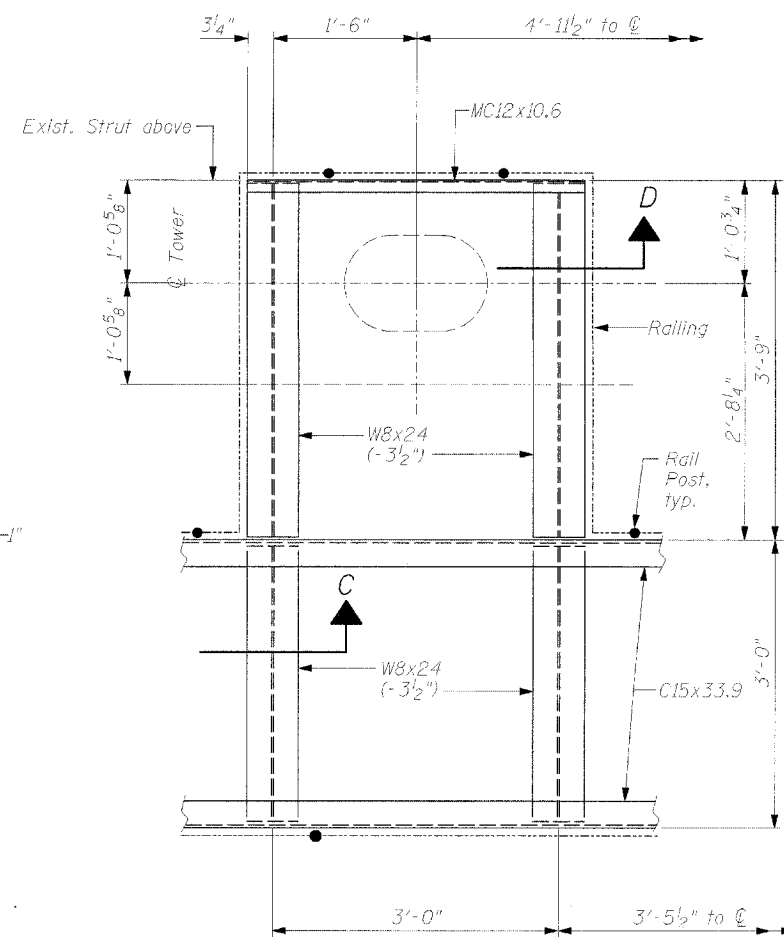
SHEET NO. 20
SHEETS

NOTE:
1. See Design Sheets S-13 and S-14 for notes and additional details.

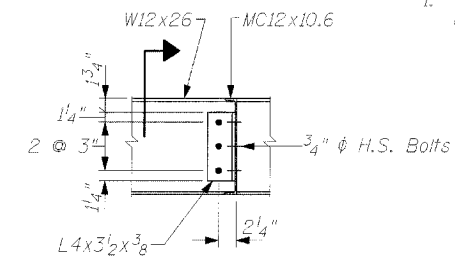
Contract 84841



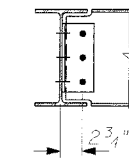
DETAIL 3



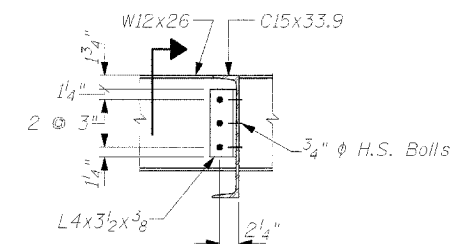
DETAIL 4



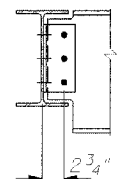
SECTION A



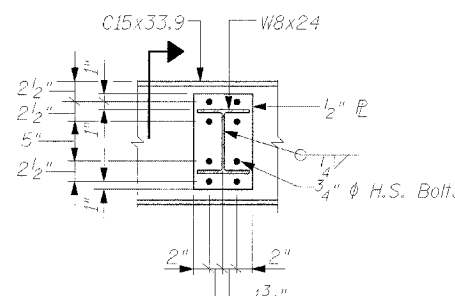
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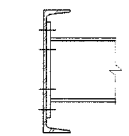
SECTION B



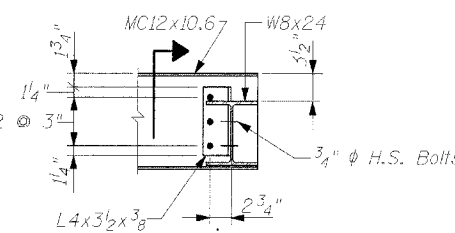
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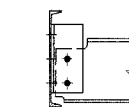
SECTION C



SECTION



SECTION D



SECTION

WALKWAY CONNECTION DETAILS

WALKWAY DETAILS
CLINTON GATEWAY BRIDGE
OVER MISSISSIPPI RIVER
F.A. RTE. 309 (U.S. 30)
SECTION (7B-1)D & 7BR
WHITESIDE COUNTY
STRUCTURE NUMBER 098-6003

CHAMPAIGN, ILLINOIS
CHICAGO, ILLINOIS
EVANSVILLE, INDIANA
INDIANAPOLIS, INDIANA
KENSASHA, WISCONSIN
SPRING GREEN, WISCONSIN

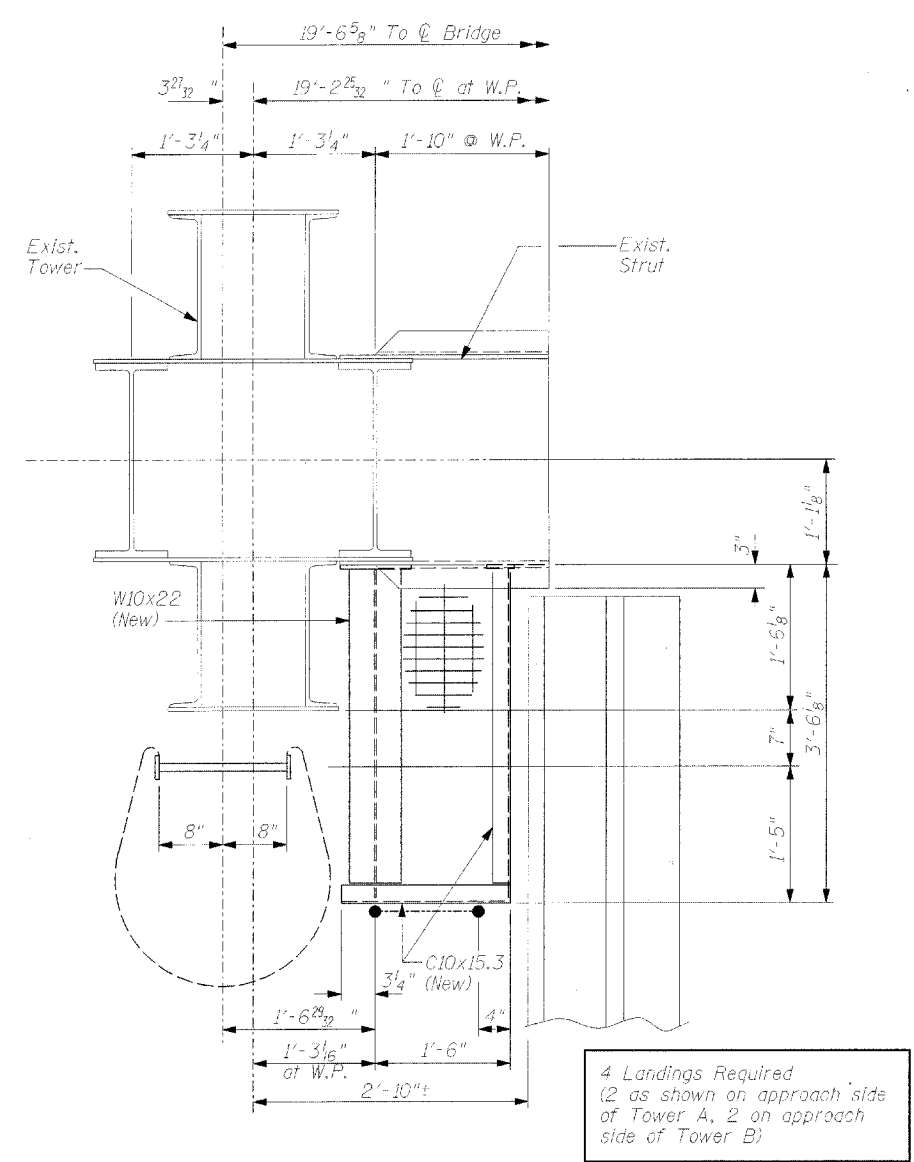
DESIGNED BY: PS	PROJECT NO: 182289
DRAWN BY: MEW	DATE: 6/19/84
CHECKED BY: PS	
APPROVED BY: SCJ	
ACTIVITY: INITIALS	

REVISIONS	
NAME	DATE

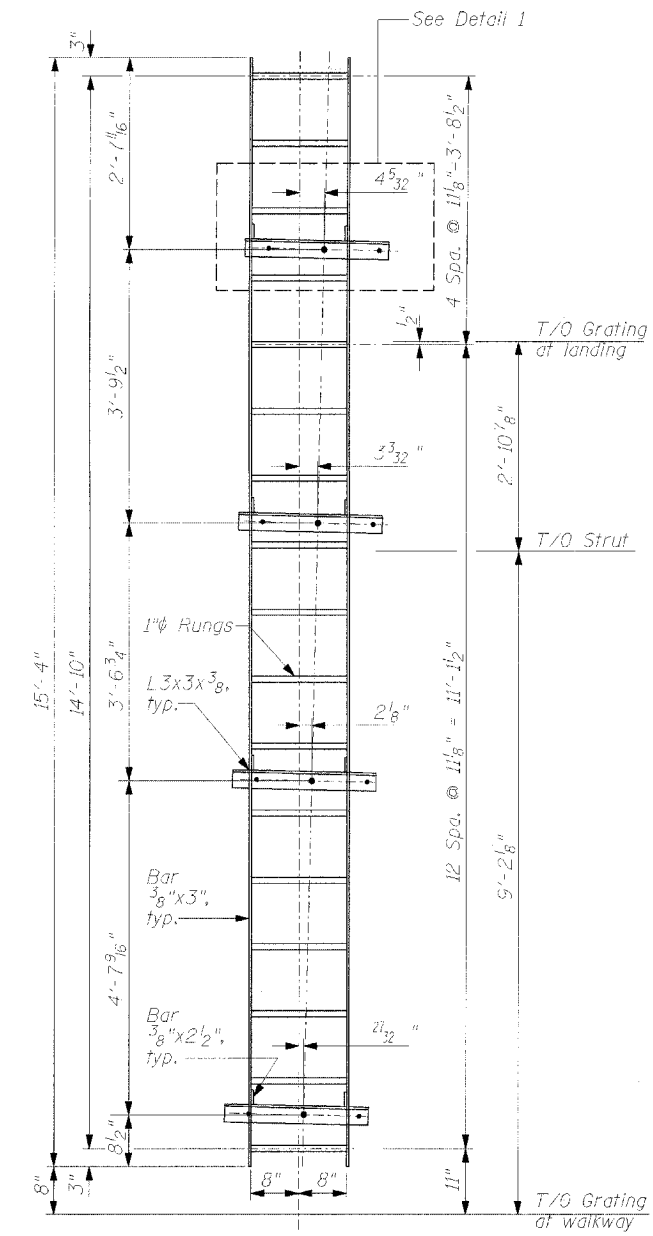
DRAWING NUMBER
S-15

ROUTE NO.	SECTION	COUNTY	TOWNSHIP	SHEET NO.	SHEET NO. - - SHEETS
F.A. 309 (U.S. 30)	(7B-1D & 7BR	WHITESIDE, IL CLINTON, IA.		21	
PROJ. NO. DIST. NO.	SUNSHINE		CONTRACT 84841		

NOTES:
1. See Design Sheets S-14 and S-15 for notes and additional details.

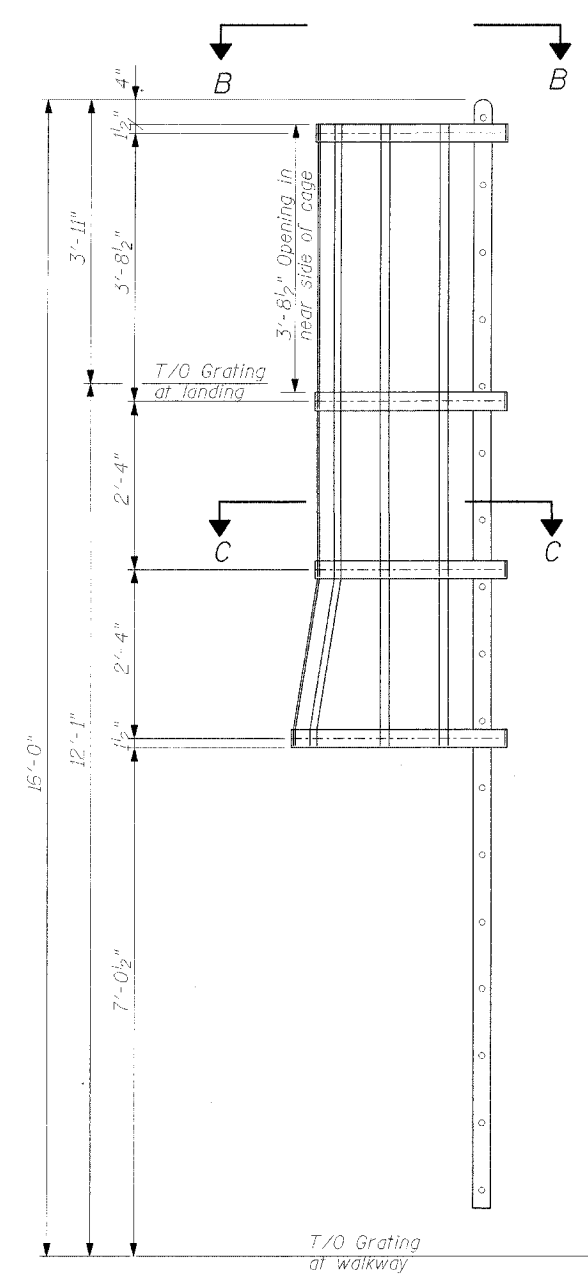


LANDING LAYOUT PLAN

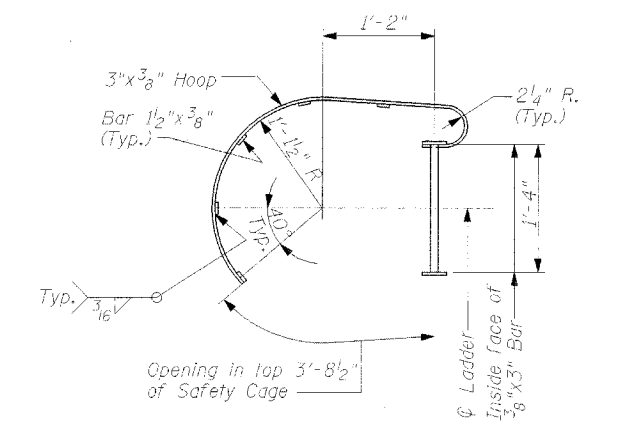


LADDER ELEVATION

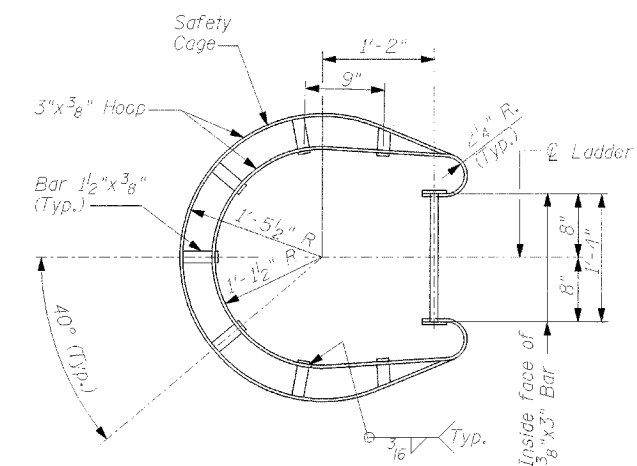
4 Ladders Required
(2 as shown on approach side of Tower A, 2 on approach side of Tower B)



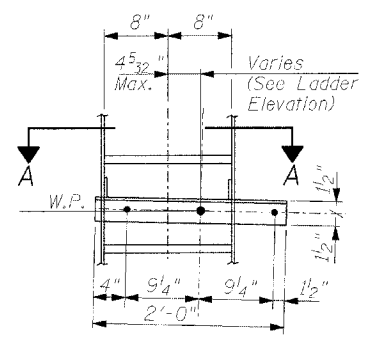
LADDER CAGE - SIDE VIEW



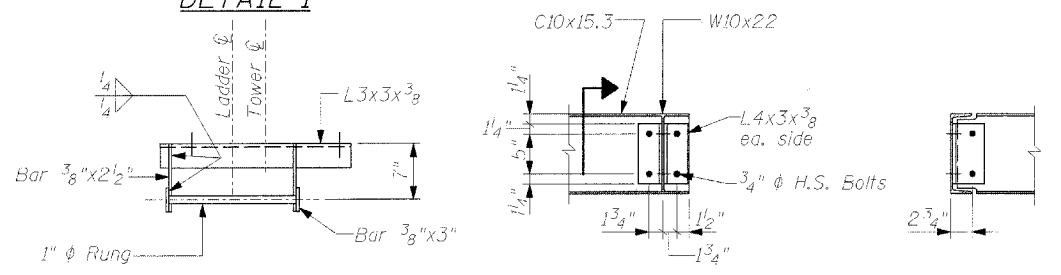
SECTION B-B



SECTION C-C



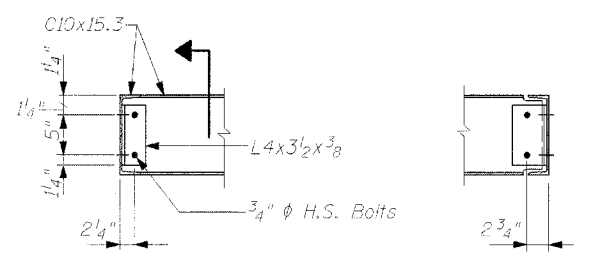
DETAIL 1



SECTION A-A

VIEW

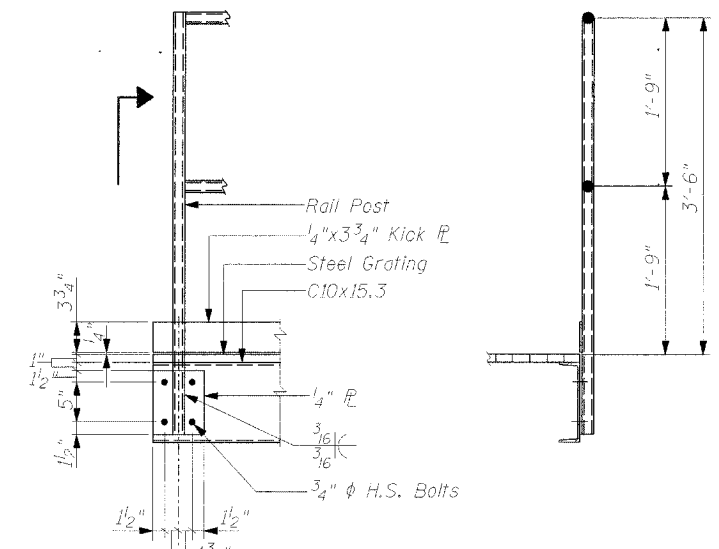
SECTION



VIEW

SECTION

LANDING CONNECTION DETAILS



VIEW

SECTION

MAIN STRUT LANDING AND LADDER
CLINTON GATEWAY BRIDGE
OVER MISSISSIPPI RIVER
F.A. RTE. 309 (U.S. 30)
SECTION (7B-1D & 7BR)
WHITESIDE COUNTY
STRUCTURE NUMBER 098-6003

CHAMPAIGN, ILLINOIS
CHICAGO, ILLINOIS
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INDIANAPOLIS, INDIANA
KENOSHA, WISCONSIN
SPRING GREEN, WISCONSIN



REVISIONS		DRAWING NUMBER
NAME	DATE	
		S-16