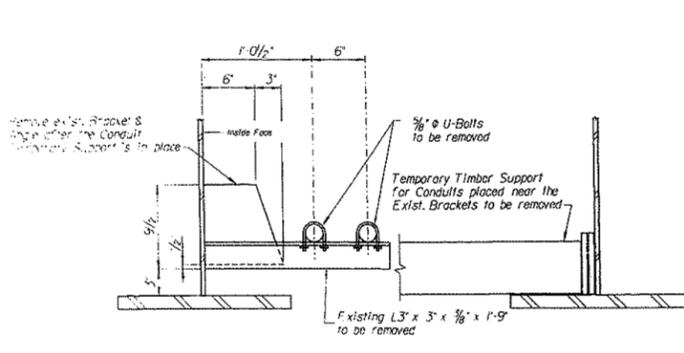
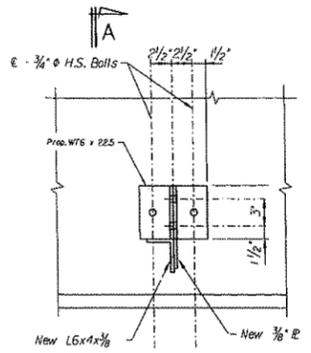


ROUTE NO.	SECTION	DATE	BY	CHKD	SHEET
FAU 2746	2013-038B-R	COOK	SSS	122	122
SHEET NO. 5-12					
SHEETS 5-14					

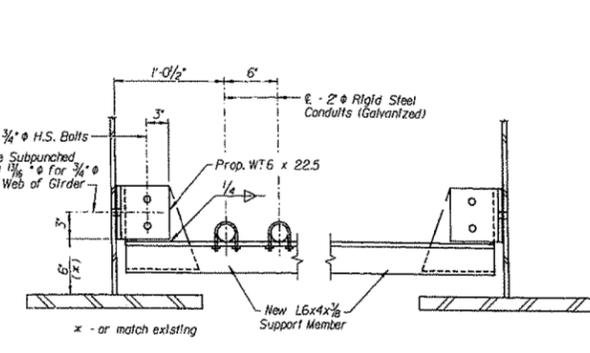


CONDUITS SUPPORT REMOVAL

25 Locations, Southbound Bridge
25 Locations, Northbound Bridge

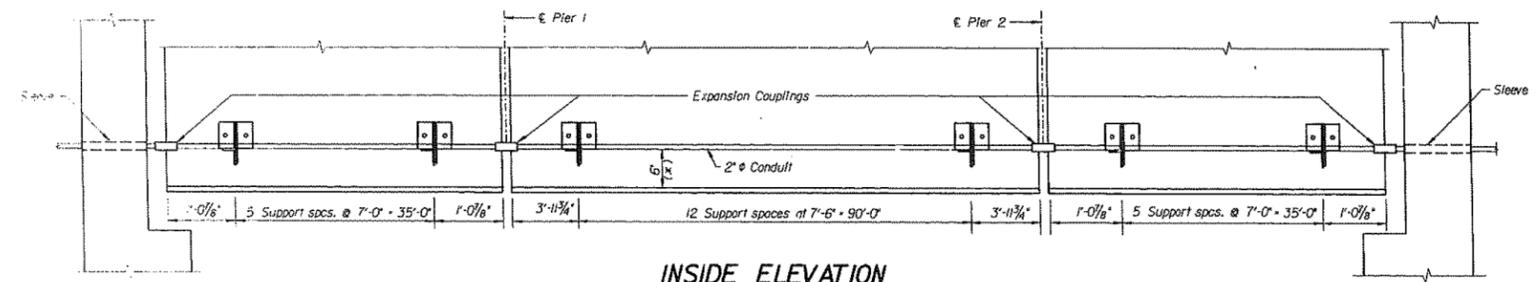


ELEVATION



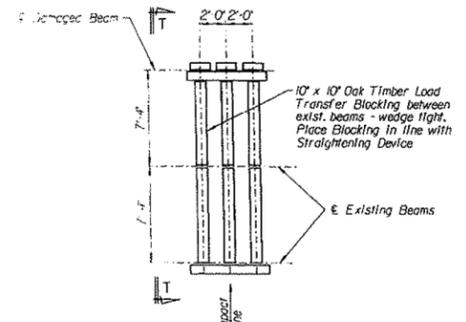
SECTION A - A

CONDUIT SUPPORT RECONSTRUCTION

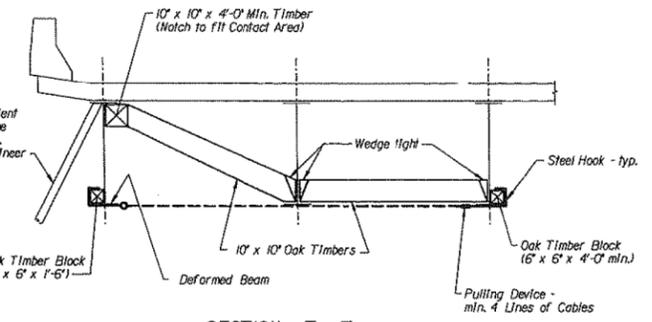


INSIDE ELEVATION

Hanger Location on Inside West Fascia Girder - Southbound Bridge,
Similar for East Fascia Girder - Northbound Bridge.



PULLING DEVICE - PARTIAL PLAN



SECTION T - T

SUGGESTED BEAM STRAIGHTENING METHOD

Estimated Length of Beam Straightening = 33 feet.

NOTES FOR BEAM STRAIGHTENING

- All new fasteners shall be high strength bolts. Holes shall be subpunched or subdrilled 13/16 inch and reamed in the field to 1/2 inch for 3/4 inch high strength bolts (except as noted on the plans) after new structural steel sections are properly fitted into position.
- After the beam straightening operations have been completed, the field Engineer shall check to see that the top flange is tight against the slab. If not, the Contractor shall inject epoxy between the existing concrete deck and the top flange of the beam. Cost to be incidental to "Beam Straightening". See Special Provisions.
- The beam straightening as described on the plans shall be performed by mechanical means only. The use of heat will not be allowed to facilitate the straightening process. See Special Provisions.
- If the method of straightening differs from that shown on the plans, it shall be approved by the Engineer prior to ordering materials and installation.
- All materials used in the straightening of the beam shall be included in the pay item "Beam Straightening".
- When noted by the field Engineer, the Contractor shall grind all cracked welds parallel to the direction of the existing weld and not perpendicular to the weld (no live load on beams). The weld shall then be replaced.
- Grind existing nicks, gouges and shallow cracks in the damaged beam. Ground surfaces shall be inspected for cracks using liquid dye penetrant prior to initiating any beam straightening operations. Cost is incidental to "Beam Straightening". Any cracks that cannot be removed by grinding approximately 1/4 inch deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition.
- Oil and all loose paint shall be removed from the damaged beam in the area of impact.

NOTES FOR CONDUIT BRACKET REMOVAL AND REPLACEMENT

- All new structural steel shall conform to AASHTO Classification M-270 Grade 56.
- All new fasteners shall be high strength bolts. Holes shall be subpunched or subdrilled 13/16 inch and reamed in the field to 1/2 inch for 3/4 inch high strength bolts (except as noted on the plans) after new structural steel sections are properly fitted into position.
- The Contractor shall provide support and/or shoring systems in the area of existing bracket removal. The support and/or shoring systems shall be approved by the Engineer. Such approval will not relieve the Contractor of responsibility for the safety of the structure. See Special Provisions.
- After the brackets have been removed, the girder web shall be ground smooth.
- The Contractor shall grind all welds, that connect existing bracket to web, parallel to the direction of the existing weld and not perpendicular to the weld.
- Grind existing nicks, gouges and shallow cracks in the web of the beam. Ground surfaces shall be inspected for cracks using liquid dye penetrant. Cost is incidental to "Structural Steel Repair". Any cracks that can not be removed by grinding approximately 1/4 inch deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition.
- Calculated weight of new structural steel = 6600 lbs. including bolts.
- All contact surfaces of joints for the brackets shall be free of paint or rust.
- Holes shall be subpunched or subdrilled and reamed in the field as noted on the plans.
- All areas of paint damage in the repair areas shall be cleaned and painted as specified by "Cleaning and Painting Existing Steel Structures, Partial removal (Modify SSPC SP3) Surface Preparation".

QUANTITIES	
Conduit Bracket Removal	L. SUM
Furnishing and Erecting Structural Steel	POUND 6633
Structural Steel Repair	POUND 249

BEAM STRAIGHTENING & CONDUIT BRACKET REPLACEMENT
 BRIDGE REHABILITATION ILLINOIS ROUTE 171
 NORTHBOUND & SOUTHBOUND
 OVER 47TH STREET
 FAU 2746 SECTION 102-683 HBK
 STATION 104+82.77
 COOK COUNTY

STRUCTURE NO. 016-1001 N.B.
 STRUCTURE NO. 016-1000 S.B.

BOWMAN, BARRETT & ASSOCIATES INC.
 CONSULTING ENGINEERS
 222 N. MICHIGAN AVENUE SUITE 2800 CHICAGO, ILLINOIS 60601
 JOB NO. 124

DESIGNED: LM
 CHECKED: ELD
 DRAWN: JAA
 CHECKED: ELD

benesch
 engineers - scientists - planners
 Alfred Benesch & Company
 205 North Michigan Avenue, Suite 2400
 Chicago, Illinois 60601
 312-565-0450 Job No. 10093

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		CHECKED - RMM	REVISD -
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

EXISTING PLAN INFORMATION (23 OF 25)
 STRUCTURE NO. 016-1000/1001

SHEET NO. SAX23 OF SAX25 SHEETS

FOR INFORMATION ONLY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
372	2013-038B-R	COOK	821	311
CONTRACT NO. 60J16				
ILLINOIS FED. AID PROJECT				

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