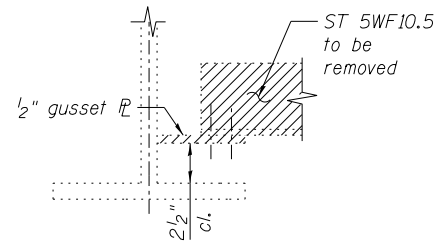
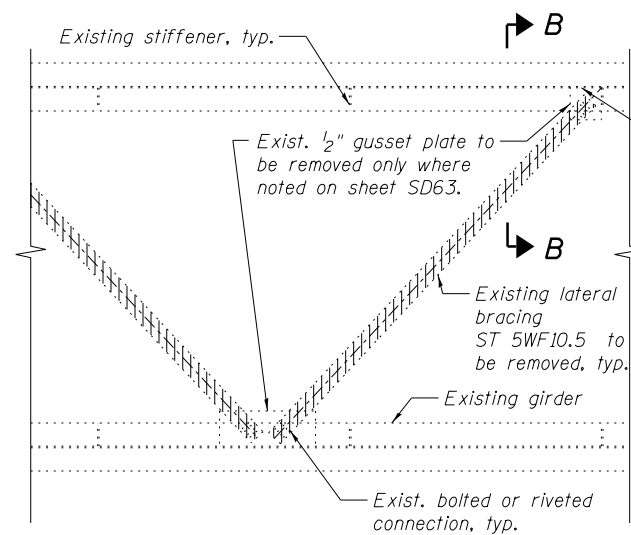


**COVER PLATE RETROFIT EMBEDMENT**

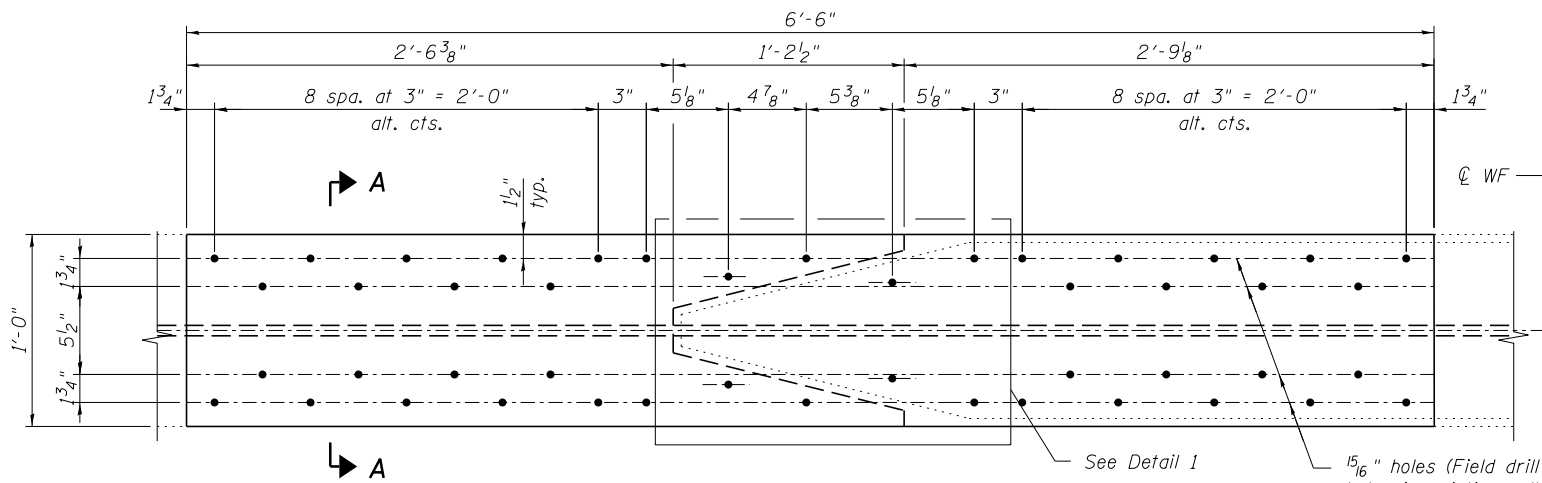


**SECTION B-B**



**WIND BRACING REMOVAL**

(Removal of lateral bracing and gusset plates paid for as "Structural Steel Removal")  
(24 angles to be removed)  
(8 gusset plates to be removed)



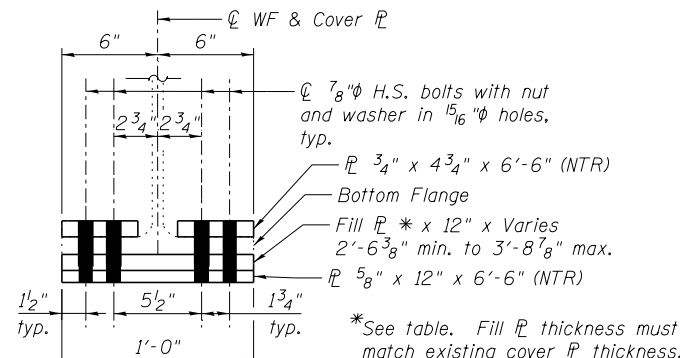
**COVER PLATE RETROFIT**

(46 bolts per retrofit)  
(154 Locations, 98 Top & 56 Bottom)  
(See Note 2)

Note: Locations of Cover plate retrofit are symmetrical about the centerline of the existing cover plate.

**EXISTING COVER PLATE THICKNESS**

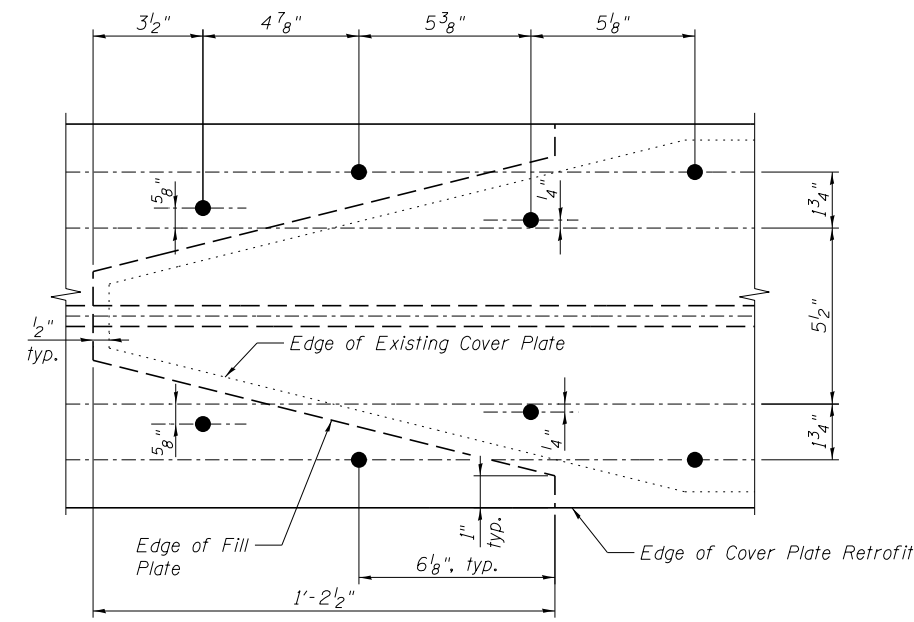
Cover Plate Location	Thick.
Span 4 Beams R6 & C1-C6	5/8"
Span 4 Beam R7	3/4"
Span 5 Beam R1	3/4"
Span 5 Beams R2-R3	1/2"
Span 5 Beams R4 & C1-C6	5/8"
Span 6 Beams R1-R3	7/16"
Span 6 Beams C1-C6	5/8"
Span 7 Beams R1-R2 & C1	11/16"
Span 7 Beams C2-C6	5/8"
Span 8 Beams E1-E8	7/16"
Pier 12 Beams E1-E8	5/8"
Pier 13 Beams E1-E8	7/16"
Pier 14 Beams E1-E8	7/16"
Pier 15 Beams E1-E3	13/16"
Pier 15 Beams E4-E8	3/4"
Span 12 Beams E1-E3	7/16"
Span 12 Beams E4-E8	11/16"



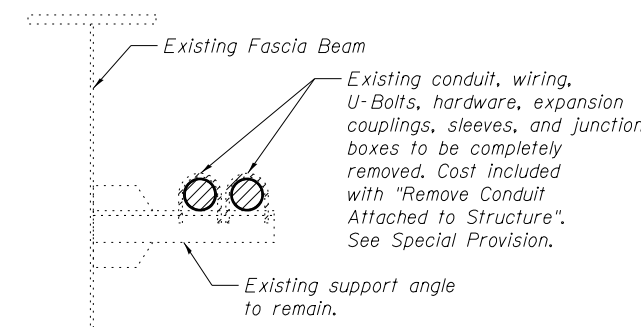
**SECTION A-A**

(Bottom shown, Top similar)

\*See table. Fill plate thickness must match existing cover plate thickness. Contractor to field verify thickness prior to ordering new materials.

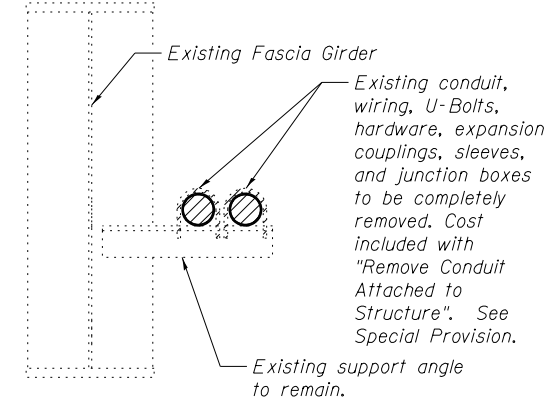


**DETAIL 1**



**CONDUIT REMOVAL DETAIL**

(Wide Flange Detail)

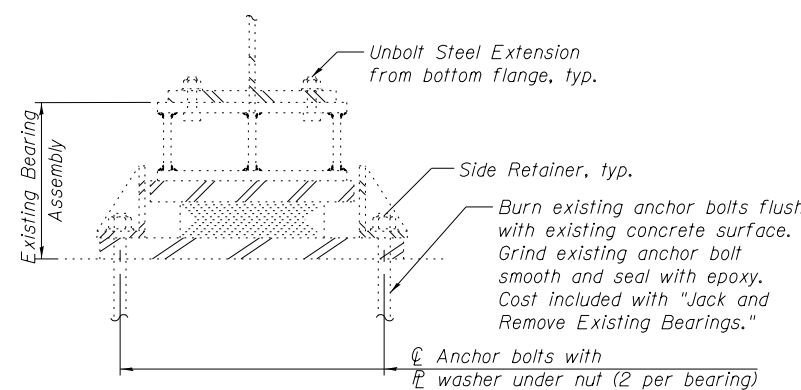


**CONDUIT REMOVAL DETAIL**

(Plate Girder Detail)

**NOTES:**

- See Sheets SD63 thru SD65 for locations of cover plate retrofits.
- Cost of furnishing all labor, equipment, and materials necessary to furnish and install the cover plate retrofit detail shall be included with "Structural Steel Repair". See Special Provision. Quantity listed below is calculated for gross section of plate with voids for bolts holes not accounted for.
- Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.
- Structural Steel Plates for cover plate retrofit shall conform to the requirements of AASHTO M270 Grade 50.
- Cost of field drilling included with "Structural Steel Repair".



**BEARING REMOVAL DETAIL**

(North Side of Pier 11)

- See special provision for "Jack and Remove Existing Bearings."
- Jacking shall not commence until the deck has been removed entirely. The service steel dead load reaction for each bearing location at Pier 11 is 6.0 kips. Minimum jack capacity = 4.5 tons.
- Contractor shall avoid conduit in front of bearing or coordinate with utility companies before jacking bearing.

**BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Structural Steel Removal	Pound	27,220
Remove Conduit Attached to Structure	Foot	3,008
Structural Steel Repair	Pound	62,730
Jack and Remove Existing Bearings	Each	7

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

FILE NAME =	USER NAME = ksnider	DESIGNED - DTS	REVISED -
		CHECKED - TPS	REVISED -
0162457.60J16.066.Steel.Repair.Details.dgn	PLOT SCALE =	DRAWN - KMS	REVISED -
	PLOT DATE = 12/20/2013	CHECKED - TPS	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**STRUCTURAL STEEL REPAIR DETAILS (1 OF 3)  
STRUCTURE NO. 016-2457**

SHEET NO. SD66 OF SD83 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
372	2013-038B-R	COOK	821	441
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60J16	

Y:\chicago\100005\100093\Eng\_Docs\Phase 11\SN 016-2456-2457-1st-Ave-over-Des-Plaines-River\_Valley\Final\0162457-60J16-066-Steel.Repair-Details.dgn 3:51:04 PM 8/6/2014