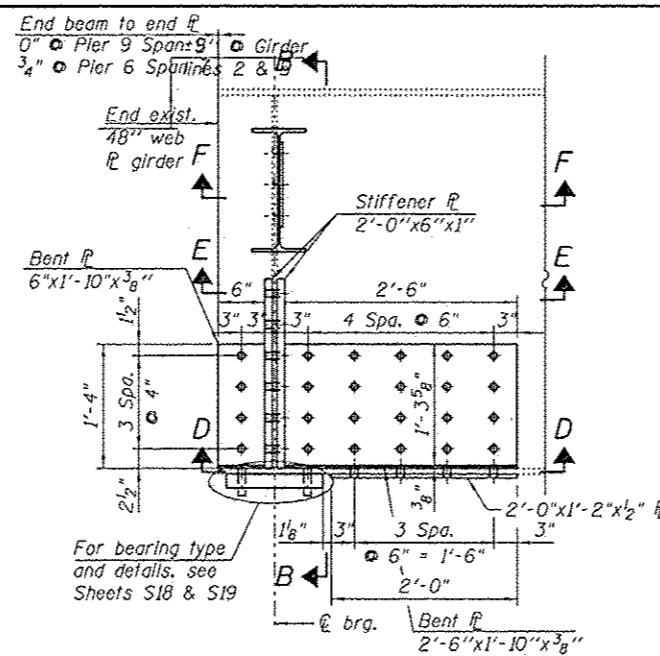


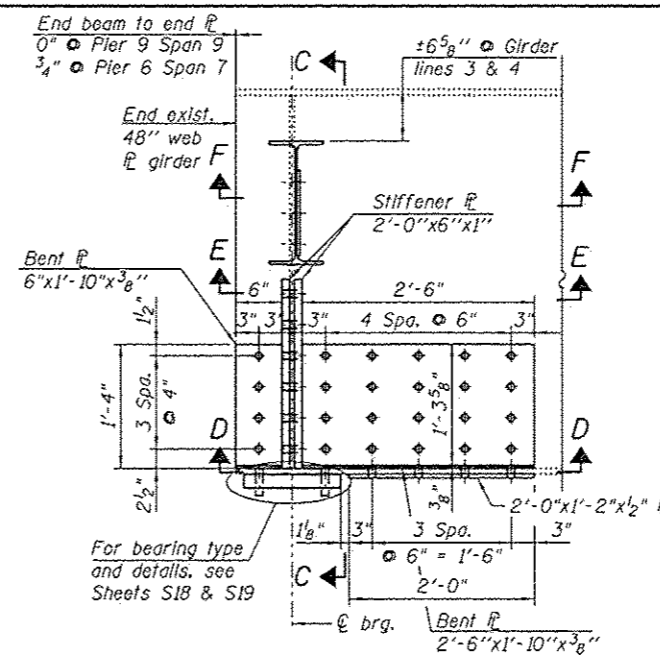
**DIAPHRAGM AND GIRDER REPAIR
DETAIL (GIRDER LINES 1 & 6)**

At Pier 6 - Span 7
and Pier 9 - Span 9



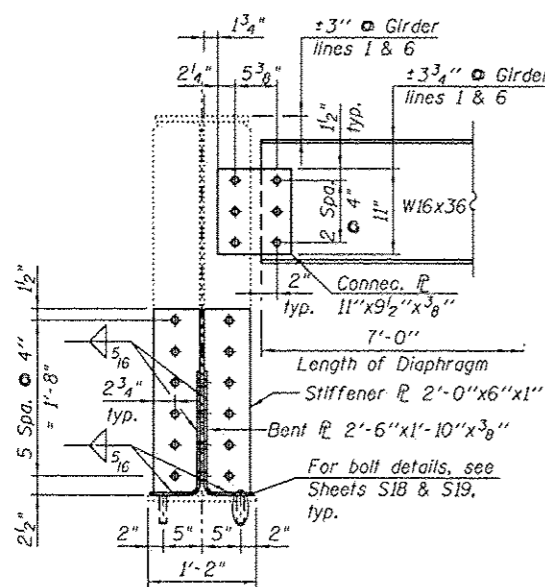
**DIAPHRAGM AND GIRDER REPAIR
DETAIL (GIRDER LINES 2 & 5)**

At Pier 6 - Span 7
and Pier 9 - Span 9

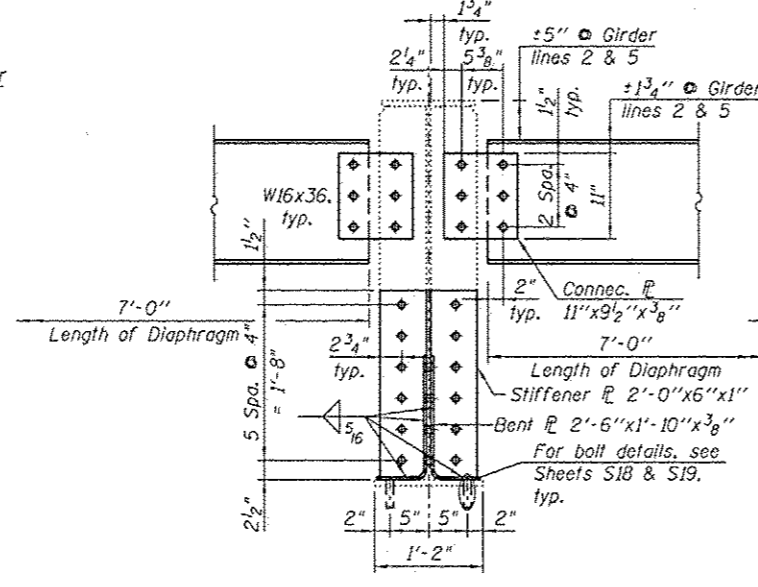


**DIAPHRAGM AND GIRDER REPAIR
DETAIL (GIRDER LINES 3 & 4)**

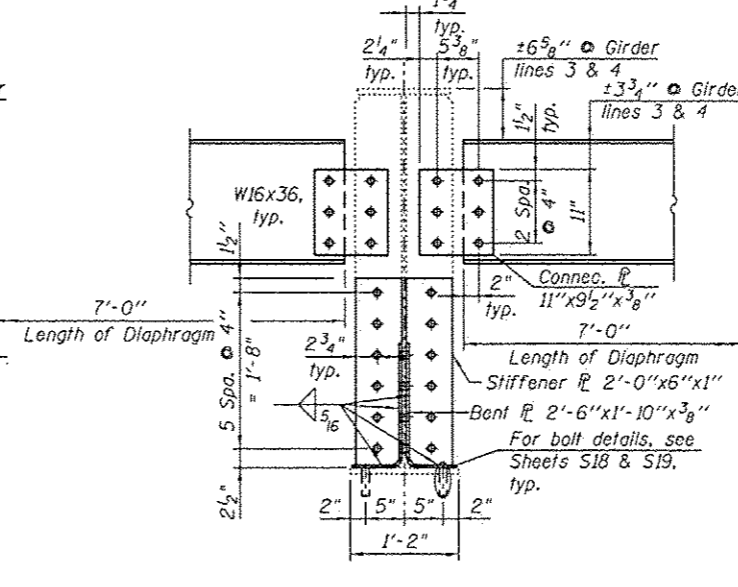
At Pier 6 - Span 7
and Pier 9 - Span 9



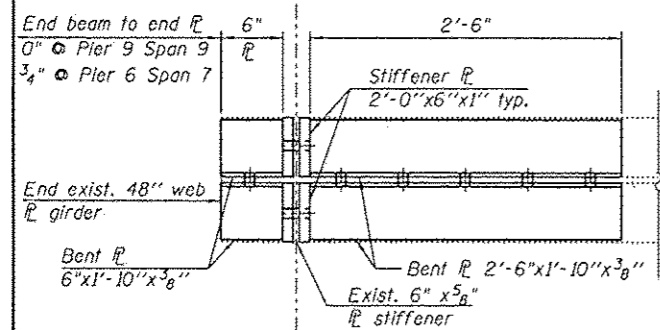
SECTION A-A



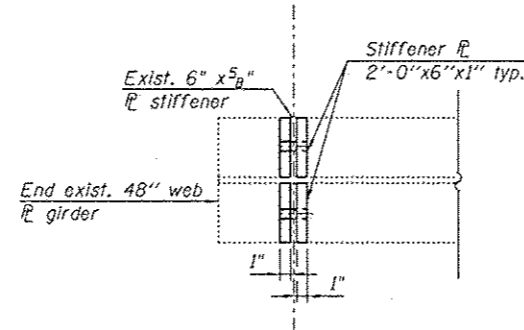
SECTION B-B



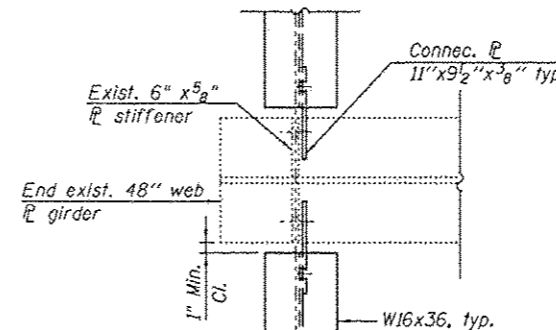
SECTION C-C



SECTION D-D



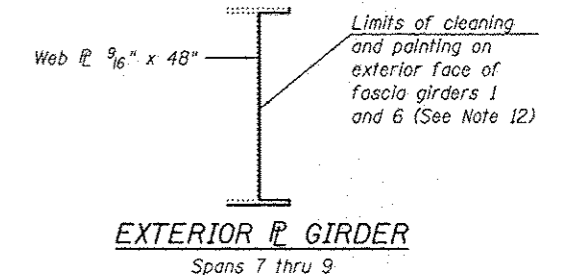
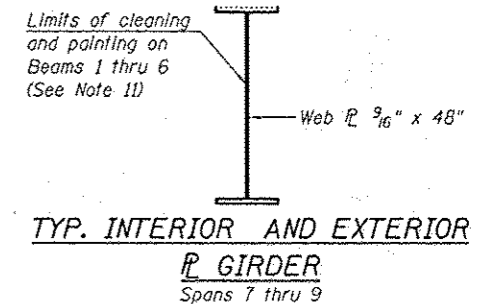
SECTION E-E



SECTION F-F

NOTES:

1. For locations of Diaphragm Repairs, see Framing plan Sheet S15.
2. All contact surfaces of joints for the diaphragms shall be free of paint or lacquer.
3. All diaphragms shall conform to AASHTO Classification M-270 Gr 36. All repair plates, fill plates, stiffener angles, connection plates and connection angles shall conform to AASHTO Classification M-270 Gr 50.
4. Diaphragm connection holes shall be 15/16" φ for 3/4" φ bolts. Two hardened washers shall be required at diaphragm connection.
5. Hardened washers shall be required over all oversized holes.
6. Cost of field drilling is included with Furnishing and Erecting Structural Steel.
7. Unless otherwise noted in the plans or specifications, field bolted connections shall use 3/4" φ high strength bolts with 15/16" φ holes.
8. All connection bolts and fasteners shall be incidental to Furnish and Erect Structural Steel and Structural Steel Repair areas.
9. Existing diaphragm and clip angle removal shall be paid for as Structural Steel Removal.
10. New diaphragm and clip angles shall be paid for as Furnishing and Erecting Structural Steel.
11. Structural steel within the 10'-0" limits, near bearings, shall be cleaned according to SSPC-SP10 (for cleaning and painting limits see Sheet S15).
12. Structural steel for fascia beams outside the 10'-0" limits, near bearings, shall be cleaned according to SSPC-SP15 (for cleaning and painting limits see Sheet S15).



BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Furnishing and Erecting Structural Steel	Pound	3,020
Structural Steel Removal	Pound	2,980
Structural Steel Repair	Pound	5,010

HBM
HARRISON BRIDGE MAINTENANCE
CONSULTING & DESIGN
INSPECTION & RATING
RESEARCH & TESTING

4415 WEST HARRISON ST.
SUITE 231
KILGORE, IL 60142
PHONE: (708) 234-0900
FAX: (708) 234-0902

DESIGNED - WM, JJS, LAB	6/4/2013 VHV
CHECKED - MI	REVISED -
DRAWN - WM, JJS, LAB	REVISED -
CHECKED - MAL, MI	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL REPAIR SECTIONS & DETAILS (SHEET II OF II)
EB US ROUTE 20 OVER PECATONICA RIVER STRUCTURE NO. 089-0042

F.A.P. R.T.E. 0301	SECTION (117-4B-11M)	COUNTY STEPHENSON	TOTAL SHEETS 43	SHEET NO. 34
SHEET NO. S17 OF S26 SHEETS			CONTRACT NO. 64J24	
ILLINOIS FED. AID PROJECT				

DATE - 03/13/2013