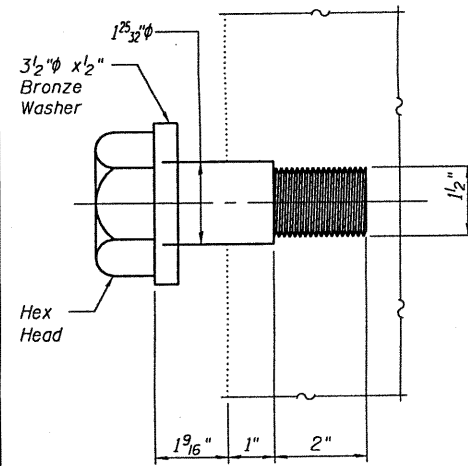


**LOOSE OR MISSING BOLTS - REPAIR (A)**

Structure	Location	No. of Bolts Req'd	Description
060-0036 Eastbound	FBI	1 - 3/4"φ	Span 5, Stringer 6
	L6S	2 - 7/8"φ	Exterior Gusset Ⓡ
	U7N	2 - 7/8"φ	Exterior Gusset Ⓡ
	L9N to U9N	1 - 7/8"φ	East Face ±20'-0" Below U9N
	L9N to L10N	3 - 7/8"φ	±8'-0" from L9N on Exterior
	L10S	2 - 7/8"φ	Exterior Gusset Ⓡ
	FBI1	2 - 3/4"φ	Span 6, Stringer 6
	FBI2	2 - 3/4"φ	Span 6, Stringer 3
	UIOS	1 - 7/8"φ	Inside Gusset Ⓡ and Top Lateral
	U9'N to U8'N	3 - 7/8"φ	Bottom Ⓡ ±20'-0" from U9'N
	FB7'	4 - 3/4"φ	Span 7, Stringer 2
	FB7'	3 - 3/4"φ	Span 7, Stringer 4
	FB7'	4 - 3/4"φ	Span 7, Stringer 5
060-0037 Westbound	FBI'	1 - 3/4"φ	Span 7, Stringer 4
	U2N	4 - 7/8"φ	Top Gusset Ⓡ
	FB2	1 - 3/4"φ	Span 5, Stringer 4
	FB7	4 - 3/4"φ	Span 5, Stringer 2
	U10N	1 - 7/8"φ	Top Exterior Gusset Ⓡ
	FB12' and FB11'	2 - 3/4"φ	Lat. Bracing Hanger Btwn Floorbeams
Pier 7, South Truss	1 - See Detail	Bearing Retainer Bolt Missing	

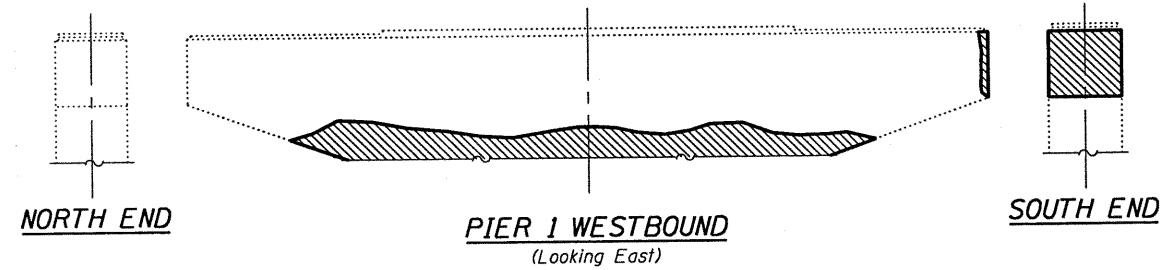


**BEARING RETAINER BOLT DETAIL**

Cost included with Structural Steel Repair.

**FORMED CONCRETE REPAIR - REPAIR (B)**

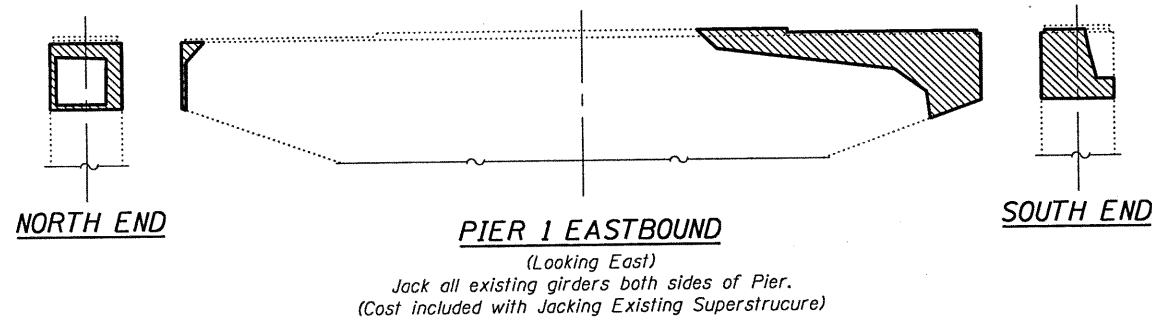
Structure	Location	Approximate Area	Description
060-0036 Eastbound	Pier 1	±26 Sq. Ft.	Along Cap at South End and North End
	Pier 4	4" x 4" Void	South End and East Face
	Pier 4	±108 Sq. Ft.	Along Cap
060-0037 Westbound	Pier 1	±22 Sq. Ft.	East Face and South End of Cap
	Pier 4	±29 Sq. Ft.	South End and East Face
	Pier 7	±3 Sq. Ft.	S. Brg. Seat at W. Face



**NORTH END**

**PIER 1 WESTBOUND**  
(Looking East)

**SOUTH END**

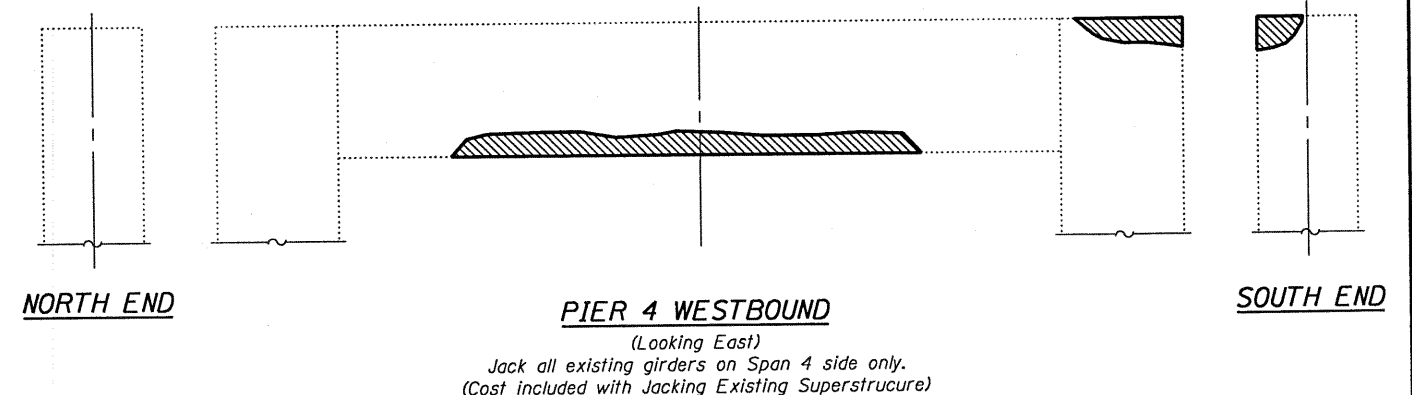


**NORTH END**

**PIER 1 EASTBOUND**  
(Looking East)

**SOUTH END**

Jack all existing girders both sides of Pier.  
(Cost included with Jacking Existing Superstructure)

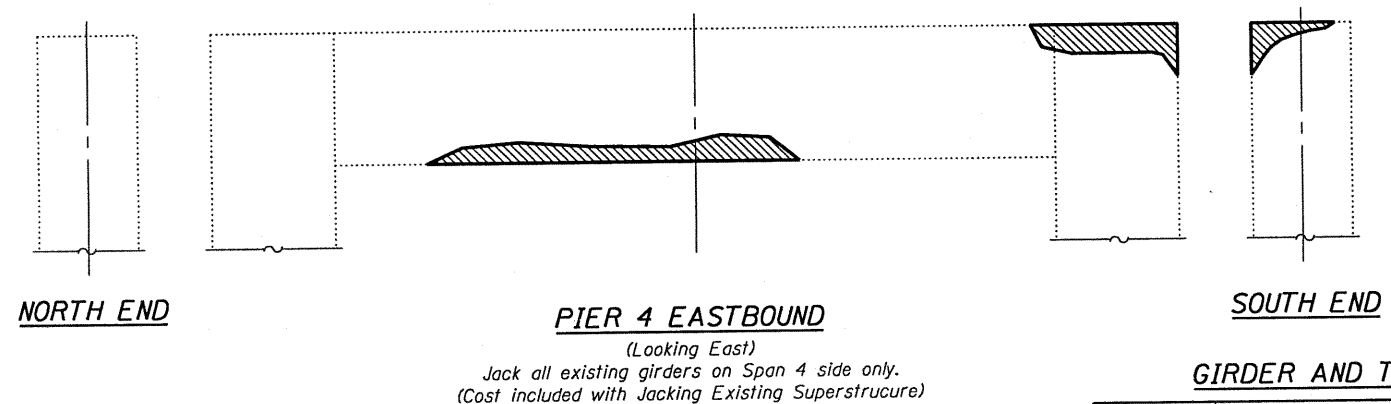


**NORTH END**

**PIER 4 WESTBOUND**  
(Looking East)

**SOUTH END**

Jack all existing girders on Span 4 side only.  
(Cost included with Jacking Existing Superstructure)

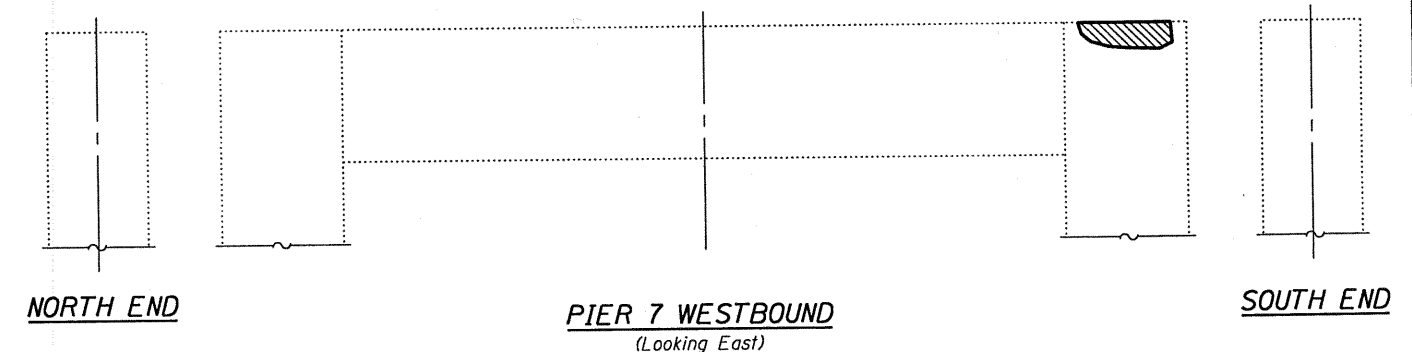


**NORTH END**

**PIER 4 EASTBOUND**  
(Looking East)

**SOUTH END**

Jack all existing girders on Span 4 side only.  
(Cost included with Jacking Existing Superstructure)



**NORTH END**

**PIER 7 WESTBOUND**  
(Looking East)

**SOUTH END**

**GIRDER AND TRUSS REACTIONS**

	Pier 1		Pier 4		Pier 7	
	Span 1	Span 2	Span 4	*Span 5	*Span 7	Span 8
DL (kips)	65.2	58.5	58.5	171	171	56.5
LL (kips)	47.1	46.6	46.6	116	116	46.9
I (kips)	10.8	10.1	10.1	17	17	9.8
Total (kips)	123.1	115.2	115.2	304	304	113.2

\*For Information Only

Structural Repair of Concrete

DESIGNED - A.T.H.  
CHECKED - M.K.C.  
DRAWN - Drew Christopher  
CHECKED - A.T.H. M.K.C.

EXAMINED - *Carl P. ...*  
PASSED - *Ralph E. Anderson*  
DATE - NOVEMBER 22, 2010

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DETAILS  
SN 060-0036 & 0037  
SHEET NO. 4 OF 6 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
270	60-1B-I-4	Madison	9	7
CONTRACT NO. 76E58			ILLINOIS FED. AID PROJECT	