TABLE OF REPAIRS

NBIS Item #	Location	Stringer No.	Span	Problem	Shim Plate Thickness	Crack Length
10	Bent W	S2	X	Gap	2"	-
7	Bent W	S3	W	Gap	1 ₄ "	-
9	Bent W	S4	X	Gap	/ <u>4</u> "	-
6	Bent W	S5	W	Gap, Weld Crack	[/] 4"	29"
8	Bent W	S6	X	Gap	16 "	-
101	Bent W	S7	W	Weld Crack	-	29"
110	Bent 2	S3	2	Weld Crack	-	7"
11	Bent 2	S4	2	Gap	¹ 2"	-
115	Bent 2	S4	3	Gap	³ /6 "	-
363	Bent 17	S2	17	Gap	3 ₄ "	-
366	Bent 17	S3	18	Gap	[/] 4"	-
31	Bent 17	S6	17	Gap	3 ₄ "	-
34	Bent 22	S2	22	Gap	4"	-
300	Bent 27	S4	28	Gap	8"	-



SHIM PLATES AT BENT W (5 Req'd)

10¹2"

SHIM PLATES AT BENT 2 AND 27 (3 Rea[']d)

NBIS Item #	Location	Problem					
120	Bent 7 North and South Column	Clean Bearing Surfaces at Column Bases					
363	Bent 17 at Stringers 2 on Span 17	Remove Pack Rust (Prior to Shimming)					
31	Bent 17 at Stringers 6 on Span 17	Remove Pack Rust (Prior to Shimming)					
280	Bent 18 North Column Base	Clean Bearing Surfaces at Column Bases					
280	Bent 18 North Column Base	Remove Pack Rust					
290	Bent 23, North Column at Footing	Clean Bearing Surfaces at Column Bases					
290	Bent 23, North Column at Footing	Remove Pack Rust					
302	Bent 28, North Column at Footing	Clean Bearing Surfaces at Column Bases					
302	Bent 28, North Column at Footing	Remove Pack Rust					

* Typical procedure for shim placement.

- 1.) Jack stringer l_8 " from bearing and sand blast gap between sole plate
- 2.) Measure opening (Thickness, Width, Length, Slope)
- 3.) Place shim plate
- 4.) Lower stringers and weld
- ** Typical Crack Repair

Existing crack shall be removed using the air-arc method and grind smooth all weld material remaining on the bottom flange. After removal of the weld, the base metal shall be checked for cracks using dye penetrant (PT), magnetic particle (MT), or other approved testing method performed by the qualified personnel approved by the Engineer. If cracks are found, report them to the Bureau of Bridges and Structures for disposition. The cost of testing is included with Adjust and Reposition Bearings. The cost of crack repair in the base metal if necessary will be paid with Adjust and Reposition Bearings. If no cracks are present then the removed weld of the same size and type shall be replaced.

Clean and paint bearing repair areas in accordance with the special provision for Cleaning and Painting Contact Surface Areas of Existing Steel Structures. Cost included with Adjust and Reposition Bearings.

Notes:

The Contractor is to verify the existing dimensions and submit a report of the measured opening sizes prior to fabricating the shim plates. It is intended to keep the existing beams at their current elevation.

Cost of shim plates, anchor bolts, welding, sand blasting and grinding of existing welds shall be included in the pay item Adjust and Reposition Bearings.

Clean and paint areas requiring pack rust removal in accordance with the special provision for Cleaning and Painting Existing Steel Structures. Cost included with Cleaning and Painting Steel Bridge No. 1.

(Sheet 2 USER NAME = DESIGNED - JJA REVISED -BEARING REP LIN ENGINEERING, LTD. STATE OF ILLINOIS FILE NAME = CHECKED - TBP REVISED -Consulting Engineers S.N. 082-6001 MLK BRIDGE OV PLOT SCALE = DRAWN – AJF REVISED **DEPARTMENT OF TRANSPORTATION** Springfield, Illinois PLOT DATE = 05/02/2014 CHECKED - VPT SHEET NO. SO90 OF S REVISED -



SHIM PLATES AT BENT 17 AND 22

CLEANING AND PACK RUST REMOVAL

BILL OF MATERIAL

Item	Unit	Total	
Adjust and Reposition Bearings	Each	14	

of 2)					
PAIRS		SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VER MISSISSIPPI RIVER	799	1BR, DRS-2	ST. CLAIR	156	108
			CONTRACT	NO. 7	6B03
S138 SHEETS	ILLINOIS FED. AID PROJECT				