

REPLACE DEFECTIVE OR MISSING FASTENERS		
09/16/13 NBIS Inspection Deficiency Item No.	Location	No. of Bolts
103	Span X, between Stringer 1 and Stringer 2 at Midspan	1
104	Span X, between Stringer 3 and Stringer 4 at Midspan	1
106	Bent 1 at Stringer 6	2
107	Bent 1 at Stringer 4	1
108	Span 2, Stringer 7, 5' from Bent 1, 5' from Bent 2, and at Bent 2	5
109	Span 2, Stringer 1 at Bent 2	3
119	Bent 7 at Stringer 4	2
371	Bent 7 at South Column Long. Bracing	1
311	Span 9, Stringer 7, 6' East of Floorbeam 0	2
125	Span 9, Floorbeam 1 at Stringer 3	1
48	Span 10, Floorbeam 18 between Stringer 1 and Stringer 2	5
177	Span 10, Floorbeam 24' at Stringer 2	1
181	Span 10, Floorbeam 23' at Stringer 3	1
182	Span 10, Floorbeam 23' at Stringer 4	1
183	Span 10, Floorbeam 23' at Stringer 4	1
187	Span 10, Floorbeam 21' at Stringer 2	1
190	Span 10, Lower Lateral Connection at L15'N	2
192	Span 10/11, L14'N, outside Gusset Plate	3
361	Span 11, L11'N inside Gusset Plate	2
362	Span 11, L11'S inside Gusset Plate	2
200	Span 11, Stringer 2 at L11'	1
207	Span 11, Floorbeam 8' at L8'N	1
60	Span 11, Floorbeam 5', North end	-
214	Span 11, L4'N - U4'N, at L4'N	2
220	Span 11, Floorbeam 4' at Stringer 7	1
221	Span 11, L4'S - U4'S, at L4'S	2
62	Span 11, Floorbeam 3' at North end	-
247	Span 12, U0'S - U1'S at U0'S	1
339	Span 13, U3N - L4N at 5' from U3N	2
341	Span 13, Floorbeam 2' at South end	1
32	Span 21, Stringer 1 at West Splice	1
33	Bent 22 Tower Bracing	1
284	Bent 22 at Stringer 2	1
289	Bent 23 Cap at South end	1
367	Span 23, Stringer 1 at Bent 23	1
346	Span 23, Stringer 7 at Midspan	2
348	Span 30, Stringer 6 at Bent 30	2

Notes:

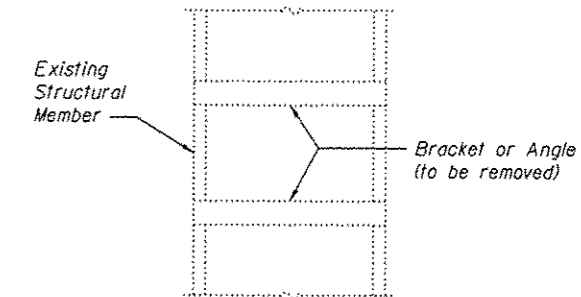
Replace defective fasteners and fill empty holes with H.S. bolts of appropriate diameter as noted in table. Additional defective or missing fasteners encountered during construction shall be replaced with H.S. bolts of appropriate diameter as directed by the Engineer. Cost of replacement is included with Structural Steel Repair.

REPLACE DEFECTIVE OR MISSING TIE RODS TO CONCRETE MEDIAN BARRIER		
09/16/13 NBIS Inspection Deficiency Item No.	Location	No. of Tie Rods
349	Span X, 12' East of Bent W	-
-	Span Y, 12' West of Bent Y	1
-	Span 7, at Bent 7	1
-	Span 8, 24' West of Pier 8	4
-	Span 10, at Panel 22	1

Notes:

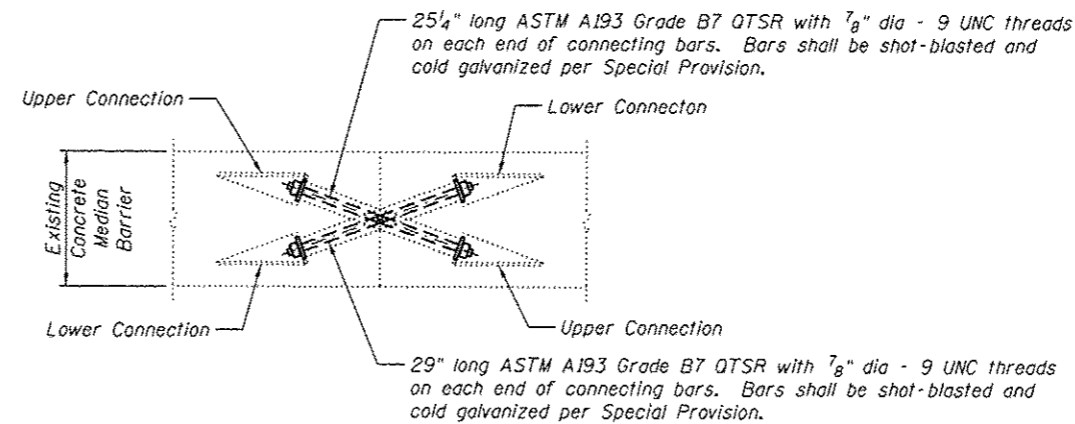
Replace defective tie rods and fill empty holes with 7/8" dia. tie rods (per detail) as noted in table. Additional defective or missing tie rods encountered during construction shall be replaced with 7/8" dia. tie rods (per detail) as directed by the Engineer. Cost of replacement is included with Concrete Barrier Repair.

REMOVE MISCELLANEOUS STEEL WELDED TO STRUCTURAL MEMBERS		
09/16/13 NBIS Inspection Deficiency Item No.	Location	Welded Pieces
-	Bent W, 6' above base of North Column	1
-	Bent 1, 4' above base of North Column	2
-	Bent 1, 4' above base of South Column	1
-	Bent 3, South Column	5
66	Bent 3, North Column	4
-	Bent 4, North Column	6
-	Bent 6, North Column	6
-	Bent 6, South Column	4
41	Span 9, L4N - U4N, 4' and 20' above Deck	2
-	Span 9, L4S - U4S, 4' above Deck	2
-	Span 9, L10S - U10S, 4' above Deck	2
75	Span 9/10, M14N - M14S, 20' above Deck	1
-	Span 10, L18S - U18S, 4' and 30' above Deck	4
50	Span 10, L23N - U23N, 4' above Deck	2
51	Span 10, L23N - U23N, 25' above Deck	1
21	Span 10, L23'S - U23'S, 30' above Deck	2
-	Span 10, L21'N - M21'N, 12' above Deck	1
-	Span 10, M19'N, outside Gusset Plate	1
-	Span 10, L18'N - U18'N, 4' and 25' above Deck	4
-	Span 11, L13'S - M13'S, 4' above Deck	2
54	Span 11, L13'S - M13'S, 40' above Deck	2
-	Span 11, L10'N - U10'N, 4' and 30' above Deck	4
-	Span 11, L4'S - U4'S, 4' above Deck	2
61	Span 11, L4'S - U4'S, 30' above Deck	1



MISCELLANEOUS STEEL REMOVAL DETAIL

Notes:
Remove existing brackets or angles welded to the structure and grind smooth to an ANSI 250 finish. Cost of removal is included with Structural Steel Repair. See table for specific repair locations.



TOP VIEW OF CONCRETE MEDIAN BARRIER SHOWING SIDE LEAVE OUTS FOR TIE RODS

Tie Rod Installation:

Torque the hardened ASTM A563 Grade D or DH heavy hex nuts, galvanized to ASTM B695 Class 55, to 50-70 Ft-Lbs. Round hardened steel washers meeting ASTM F436, galvanized to ASTM B695 Class 55, shall be placed between the cold galvanized 3"x3"x3/8" plate washer (15/16" dia. hole) and the nut. Field clean threads by stiff brush. Field apply two coats by swab of cold galvanizing compound meeting MIL-P-46105 or DOD-P-21035 to the exposed threads after nuts are torqued. Allow galvanizing to cure. Field apply an IDOT approved non-shrink grout and cure. Field apply linseed oil emulsion over grout. typ. Cost included with Concrete Barrier Repair.

BILL OF MATERIAL

Item	Unit	Total
Concrete Barrier Repair	Lump Sum	1