

CRACK ARRESTOR HOLE DETAIL

Note:

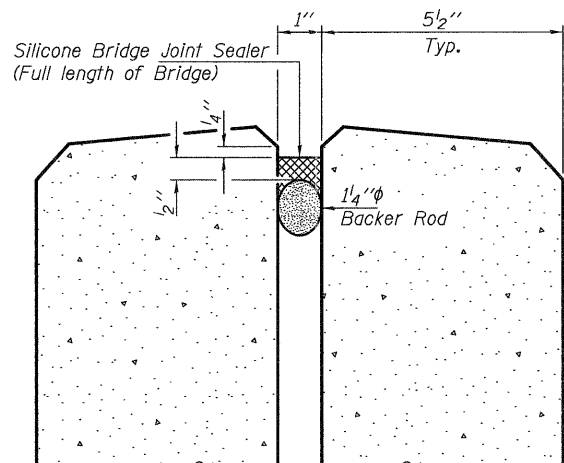
Locate crack tip using liquid dye penetrant or magnetic particle testing. Drill 13/16" min. ϕ Crack Arrestor hole at the crack tip. After crack arrestor hole has been drilled, dye penetrant or magnetic particle testing shall be used to verify that the drilled hole has captured the crack tip.

A high strength bolt with washers shall be installed, when possible, in the crack arrestor hole.

All work and material required to drill the holes shall be included in the pay item "Structural Steel Repair".

TABLE FOR LOCATIONS OF CRACK ARRESTOR HOLE DRILLING

Span	Member	Location	Deficiency
14	F.B. 0	Pier 13, South End	6" Crack, Web to Flange Weld
14	F.B. 0	Pier 13, North End	2 1/2" Crack in Web
14	F.B. 0'	Pier 14, North End	1" Crack in Web
18	Girder J	Pier 17	4 1/2" Crack, Web to Bott. Flange Weld



MEDIAN PARAPET JOINT SEALER DETAILS

Note:

The existing longitudinal joint at the median parapets shall be cleaned and sandblasted prior to the installation of the Backer Rod and the Silicone Bridge Joint Sealer. The new Bridge Joint Sealer shall be installed on the entire length of the bridge. See special provision "Silicone Bridge Joint Sealer".

TABLE FOR LOCATIONS OF SILICONE CAULKING

Span	Member	Location	Deficiency
14	South Arch	Top chamber at splice plate, btwn. T4 & T5	Leaking water causing rust
14	South Tie	2nd & 6th splice plate west to east	Leaking water causing P.R.
14	South Arch	Pier 14, where tie connects to arch	Gap letting water in, plugged drain holes need to be unplugged.

Note:

Surface preparation in advance of silicone caulking shall entail the removal of rust from the surface to be caulked. At a minimum, wire brushes and compressed air shall be utilized to prepare a bondable surface for the silicone caulking. The silicone caulk shall be 100% silicone caulk with a cured color of clear. All drain holes that are plugged shall be unplugged. All work and material necessary to complete the silicone caulking at the locations noted in the table shall be included in the pay item "Structural Steel Repair".

TABLE OF BOLT REPAIRS

Span	Member	Location	Deficiency
9	Girder H	W. Splice, Bott. \bar{P}	1 Loose Bolt
12	Girder J	W. Splice	1 Loose Bolt
13	Cross Girder	Pier 13, below Girder D	1 Missing Bolt
14	Lower Lateral Bracing	FB. 3, below Stringer 6	1 Loose Bolt
14	Lower Lateral Bracing	10' from FB. 7, Pan. 7'	1 Missing Bolt
14	Catwalk	FB. 6', P.P. 5'	1 Missing Bolt
14	FB. 1'	Stringer 2, Pan. 0'	1 Loose Bolt
14	Lower Lateral Bracing	FB. 0', below Stringer 3 T. Conn. \bar{P}	5 Loose Bolts & 1 Missing Nut
14	Wind Bracing Strut	3' N. of \bar{C} of FB. 0' W. Fa. below FB. 0'	1 Broken Bolt at Sliding Connection
15	Cross Frame	3rd C.F. from Pier 14 btwn. Gir. H & J, Gir. H Bott Conn.	3 Loose Bolts
16	Girder G	Splice E. of Pier 15, at Bottom Flange \bar{P}	1 Loose Bolt
16	Cross Frame	3rd C.F. E. of Pier 15 btwn. Girders G & H at Gir. H	3 Loose Bolts
16	Cross Frame	4th C.F. E. of Pier 15 btwn. Girders G & H at Gir. H	3 Loose Bolts
17	Cross Frame	4th C.F. E. of Pier 17 btwn. Girders H & J at Gir. H	2 Loose Bolts
17	Cross Frame	3rd C.F. E. of Pier 17 btwn. Girders H & J at Gir. H	1 Loose Bolt
17	Cross Frame	2nd C.F. E. of Pier 17 btwn. Girders G & H at Gir. H	2 Loose Bolts
18, 19	Bearing	Girder F & G at Pier 18	Missing Bolt conn. Top Sole \bar{P} to Brg.
21	Bearing	Girder J at Pier 20	Missing Shoulder Bolt Nut for Pin
25	Cross Frame	1st C.F. E. of Pier 24 btwn. Girders H & J at Gir. H	6 Loose Bolts (3 top, 3 bott.)

Note:

Loose bolts shall be removed and then replaced with bolts meeting the Standard Specifications. New bolts shall match the diameter and length of the existing bolts. New bolts shall be ASTM 325 High Strength Bolts. All work and material necessary to complete the bolt replacement as noted in the table shall be included in the pay item "Structural Steel Repair".

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Silicone Joint Sealer	Foot	4193
Structural Steel Repair	Pound	90