

From January 6, 2015 Steel Section Loss Policy and Steel Superstructure Condition Rating

When corrosion section loss is present in steel superstructures but does not significantly affect bridge load capacity the following policy is allowed.

Corrosion and the resulting steel section loss at beam ends, truss floorbeam ends, truss stringer ends and other isolated areas of steel superstructure elements, typically under expansion joints, can cause the Superstructure Condition Rating (Item 59) to be reduced according to the Structure Information and Procedure (SIP) Manual.

A Superstructure Condition Rating of 4 or less will initiate a Load Rating Inspection (LRI). If the subsequent load rating analysis indicates the inventory rating factor is 1.0 or greater, then the remaining section is adequate for the design loads.

If desired, the Superstructure Condition Rating may be adjusted for these specific locations provided that the locations are thoroughly cleaned and painted to halt the ongoing deterioration within a reasonable period of time after the Load Rating Inspection.

The remaining section thickness (after documented section loss) will be the new adjusted “as built” baseline for future section loss measurements. The Superstructure Condition Rating can be revised according to the Structure Information and Procedure (SIP) Manual to reflect a new adjusted “as built” section. This new adjusted “as built” section will also be used to determine the Superstructure Element Level Condition States with the inclusion of the appropriate steel damaged element.

This policy only applies to isolated areas of section loss when the remaining steel superstructure is in Fair Condition or better (condition rating of 5 or better). It does not apply to large areas (greater than 10% of steel superstructure area) of corrosion or section loss.

Documentation of the steel section loss, the Load Rating Inspection report and the documentation of cleaning and painting of the corroded areas shall be maintained in the bridge file.

This policy is effective as of the date of this notification. This policy will be incorporated in the next edition of the Illinois Structural Services Manual.