

INDIANA DEPARTMENT OF TRANSPORTATION



INTER-DEPARTMENT COMMUNICATION
Standards Section – Room N642



Writer's Direct Line
232-6775

October 12, 2004

DESIGN MEMORANDUM No. 04-13 TECHNICAL ADVISORY

TO: All Design, Operations, District Personnel, and Consultants

FROM: /s/ Anthony L. Uremovich
Anthony L. Uremovich
Design Policy Engineer
Contracts and Construction Division

SUBJECT: Intersecting Welds in Structural Steel Members

EFFECTIVE: January 19, 2005, Letting

Intersecting welds should be avoided. There should be a gap equal to four times the web thickness ($4t_w$), or 50 mm (2 in.), whichever is larger, between vertical and horizontal welds.

Bridges that include intersecting vertical and horizontal welds or that have gaps of less than $4t_w$ or 50 mm (2 in.) are prone to fatigue cracks. The bridge inspector should determine if a steel bridge includes such welds. If it does, it should be noted in the bridge inspection report. The Program Development Division's bridge inspection engineer should be notified in writing.