



Digging Through the Rubble, Part 1

The discussion on welding for seismic applications continues...

LAST MONTH WE PROVIDED a glimpse of what seismic welding is all about, discussing the historical perspective of

be fabricated free of unacceptable notches and gouges that may serve as stress concentrators, in accordance with the fabrication requirements specified in AWS D1.8

The complete joint penetration (CJP) groove welds between the beam bottom flange and the column flange using weld access holes are sequenced according to Section 6.14 of AWS D1.8. The provision includes that each layer of weld must be completed across the full length of the flange before beginning the next layer.

Weld Tab

Weld tabs are normally permitted to be left in place for building construction, but for high-seismic applications, weld tab removal is typically required, including for the prequalified connections in AISC 358-05. This eliminates potential harmful effects that discontinuities on the weld tab may cause. AWS D1.8 explains the methods and surface roughness requirements for weld tab removal.

The removal of steel backing is not treated the same as the removal of weld tabs in AWS D1.1; if direct removal of one, you have not directed removal of both. This is as expected because the removal of backing is a much more costly process.

Making the Grade

Additional testing requirements are placed upon those welders that are required

to make demand-critical welds that join the bottom beam flange to column flange by welding through a weld access hole in the beam web. Not only do they need to meet AWS D1.1 testing requirements, the welders performing this task on seismic jobs must also pass the Supplemental Welder Qualification for Restricted Access Welding as prescribed in AWS D1.8.

the Supplemental the Supan 8(3>BDC BT712 Span 8

