



1. In the flow of work that arises while working toward Issue For Fabrication shop drawings in delegated connection design, it is best practice for which of the following parties to be involved?
 - a) The fabricator and the licensed engineer working for the fabricator
 - b) The SEoR, fabricator, and detailer
 - c) The SEoR, fabricator, delegated connection designer, and the contractor
 - d) The SEoR, fabricator, delegated connection designer, detailer, contractor, and erector

2. In the event that a set of sample connection design calculations, prepared by the fabricator's engineer, are rejected by the SEoR...
 - a) The contractor will settle the dispute.
 - b) The SEoR and connection designer should be permitted to speak with each other directly with the contractor and fabricator present to record any possible deviations from the contract documents.
 - c) The SEoR and connection designer should be permitted to speak with each other directly without the fabricator's input.
 - d) The SEoR and connection designer should be permitted to speak with each other directly without the contractor's input.

3. According to the speaker, a complete and readily reviewable set of connection design calculations should be prepared for the SEoR's review...
 - a) For every individual connection on the project.
 - b) For every type of shear connection designed for a different load.
 - c) One for each type of shear connection regardless of load, and one for every one-off type of connection.
 - d) After shop drawings have been approved by the SEoR.

4. True or False: Requiring shear connections to be designed for the capacity of the members (UDL) always leads to the safest and most economical connections.
 - a) True
 - b) False

5. Shear connections should be designed as slip-critical joints...
 - a) Because slip is always a concern.
 - b) Only when it is absolutely needed for the desired performance.
 - c) Because it requires no more additional surface preparation or inspection than a snug tight joint.
 - d) Because it's the only way to ensure inspection.



Connection Design: Tips, Tricks & Lessons Learned

Quiz for Session 3: Shear Connections – February 25, 2019

Due: March 18, 8:00 a.m. EDT – Submit through the online form

6. The upper limit on bolt pretension for a bolt in a snug tight joint...
 - a) Can be found in Table J3.1 of the AISC *Specification*.
 - b) Is a function of the bolt diameter.
 - c) Is not prescribed in either AISC or RCSC.
 - d) Is inspected by QA/QC.

7. Which of the following references can used to evaluate the number of passes that may be required for a given weld?
 - a) AWS D1.1, Table 3-6
 - b) AISC *Steel Construction Manual*, Table 8-12
 - c) Consulting with the fabricator
 - d) All of the above

8. If a 5/16" fillet weld can be achieved in a single pass, a multi-pass weld that requires 6 passes
 - a) Increases the strength of the weld by six times that of a single pass weld.
 - b) Increases the strength of the weld by a factor of two while increasing the cost by a factor as much as six times, relative to a single pass weld.
 - c) Is two times as expensive as a single pass weld.
 - d) Takes the weld twice as long compared to a single pass weld.

9. When a particular type of connection is not permitted on a project...
 - a) The shop drawing review process is the time to make that first known to the fabricator.
 - b) A dispute may arise if the exclusion is not clearly identified in the construction documents.
 - c) The delegated connection designer has the authority to override that exclusion.
 - d) The fabricator may use that type of connection at joints with relatively large loads.

10. True or False: Grinding the surface of the radius in the web of a coped beam and applying a minimum two-sided fillet weld along the profile of the radius reduces the probability of cracking during the galvanizing process.
 - a) True
 - b) False

