?, about something related to structural steel design or construction, C 's monthly Steel Interchange column is for you!

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I am trying to determine the load-bearing capacity of a roof on a building that is about 100 years old. The steel has been identified as S9×19.75 (purlins) and S15×33 (girders). Is there any way, for purposes of calculations, to determine the yield strength of the members? I'm guessing it's unlikely that the members are ASTM A36 steel. What was standard for the time?

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Table 10-9a of the 13th edition *Manual* appears to incorporate a vertical edge distance of 1¼ in. instead of 1½ in.

I had read that the hole in shear tabs can get rounded up to ¼ in. when the bolt goes into bearing. Also, when the plate is sheared, there is ¼ in. of material that may be "mushed," and not counted as part of the material, which is the reason why you are permitted an edge distance of 1 in. for flame or saw cut edges, as compared to 1¼ in. for sheared edges. If this is true, then the final calculable vertical edge distance for the bottom bolt on these plates will be ¾ in., after removing ¼ in. for the "mush" from the shear, and then ¼ in. for the vertical elongation from the bolt in bearing.

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I have a building in which I used X-braces to transfer the lateral loads to the foundations. In a few bays, I have to move the bottom of the braces up three feet from the finish floor elevation to allow access for doors. This building is in a high seismic area (Seismic Design Category E), and is a one-story building (approx. 18 ft to bottom of steel). Can this still be considered an Ordinary Concentrically Braced Frame?

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Are angle shapes produced in Grade 50 material?

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steel interchange

Steel Interchange is a forum for [illegible] readers to exchange useful and practical professional ideas and information on all phases of steel building and bridge construction. Opinions and suggestions are welcome on any subject covered in this magazine.

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