

Ohio Department of Transportation Prebid Questions

Project No. 085000

Sale Date - 2/13/2008

Question Submitted: 2/22/2008

Question Number: 1

I believe the intent of the plans is to require welding when the area of the flange removed is greater than 2% of the original. 98% of the area of the flange is undisturbed. Sheet 7/7 of the plans refers to specification 849. Specification 849.14 gives an example of a notch in a beam that can be repaired by grinding (does not need complete penetration welding). The arithmetic shows $(11.8125^2/12^2)*100 = 98.44\%$. I get 96.90%. My arithmetic shows welding. The plans use a method that does not address the length of the notch (although the details show the notch extending 3/4 of the way across the flange).

District Response: The contractor is correct in their understanding of the plan intentions. As per 849.14 when the remaining cross sectional area of the flange is greater than 98% of the original area; grinding is the preferred repair method. **District Response:** There are two issues in the above statement. First there is some confusion on the arithmetic shown in the example of SS 894.14. The math used in the example could be shown as the following: $\text{Area(remaining)} = 12\text{in} \times (1\text{in} - 3/16\text{in}) = 12\text{in} \times 13/16\text{in} = 11.8125\text{ sq.in.}$ $\text{Area(original)} = 12\text{in} \times 1\text{in} = 12\text{ sq.in.}$ $\text{Ratio} = \text{Area(remaining)} / \text{Area(original)} = 11.8125\text{ sq.in.} / 12\text{ sq.in.} = 98.44\%$ However, this is just an example. The math for the project specific beam shown on sheet 7 of 7 is the following: $\text{Area(original)} = 12\text{in} \times 13/16\text{in} = 9.75\text{ sq. in.}$ The contractor's attention is now called to plan sheet 3 of 7 and the general note titled "Existing Structure Verification". The pre-bid examination of the structure should include measurements of the scrapes and gouges to determine the remaining cross sectional area. Then the appropriate bid can be placed. The District staff has estimated the amount of Grinding, Full Penetration Welding and Fillet Welding believed to be needed to conform to SS 849. Those quantities are shown on sheet 2 of 7. **District Response:** The contractor will be required to repair all notches scrapes and gouges as per SS 849 as stated in notes 3 and 4 on plan sheet 7 of 7. The contractor's attention is now called to plan sheet 3 of 7 and the general note titled "Existing Structure Verification". The pre-bid examination of the structure should include measurements of the scrapes and gouges to determine the remaining cross sectional area. Then the appropriate bid can be placed. The District staff has estimated the amount of Grinding, Full Penetration Welding and Fillet Welding believed to be needed to conform to SS 849. Those quantities are shown on sheet 2 of 7.

All prospective bidders, subcontractors, suppliers, materialmen and all others who have an interest in these prebid questions and answers are advised that these items are being provided for informational purposes only and are not part of the bidding documents. If a question warrants a clarification, the Department will issue an addenda addressing the request for clarification to all plan holders. If the Department believes that the bidding documents adequately address the request, the contractor will be advised accordingly.