

FIGURE A-1. Four-bolt wide end-plate configuration and bolt numbering scheme.

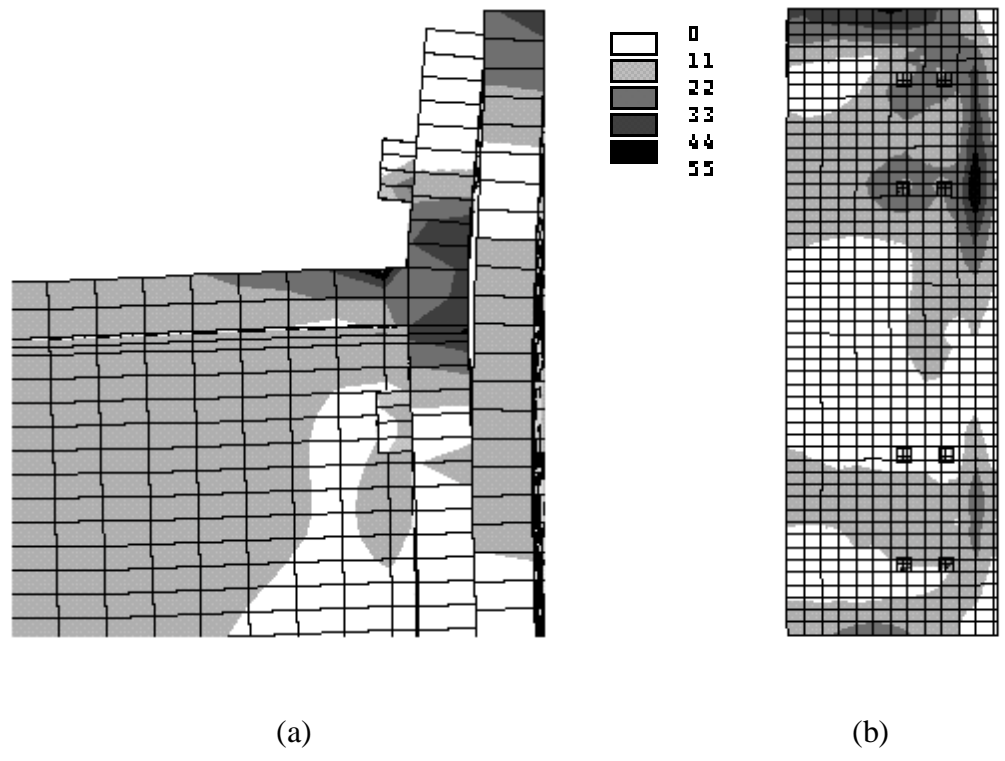


FIGURE A-2. Von Mises stress (ksi) distribution (a) at end-plate-to-column flange intersection and (b) across back of column flange (for $t_{fc} = 1.25$ in.).

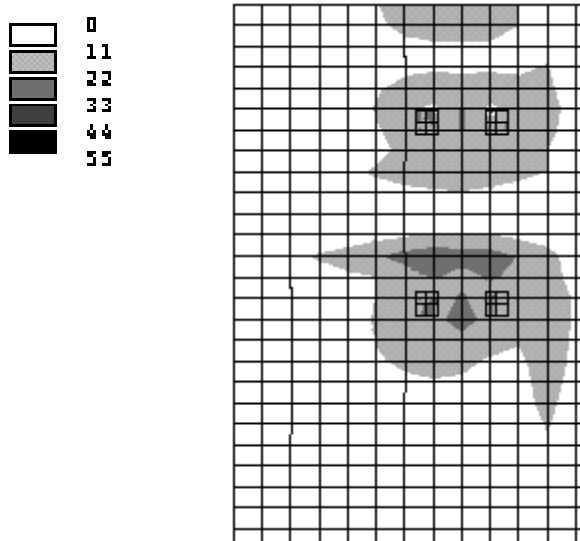


FIGURE A-3. Von Mises stress (ksi) distribution across back of column flange with stiffener included on column side (for $t_{fc} = 1.25$ in.).

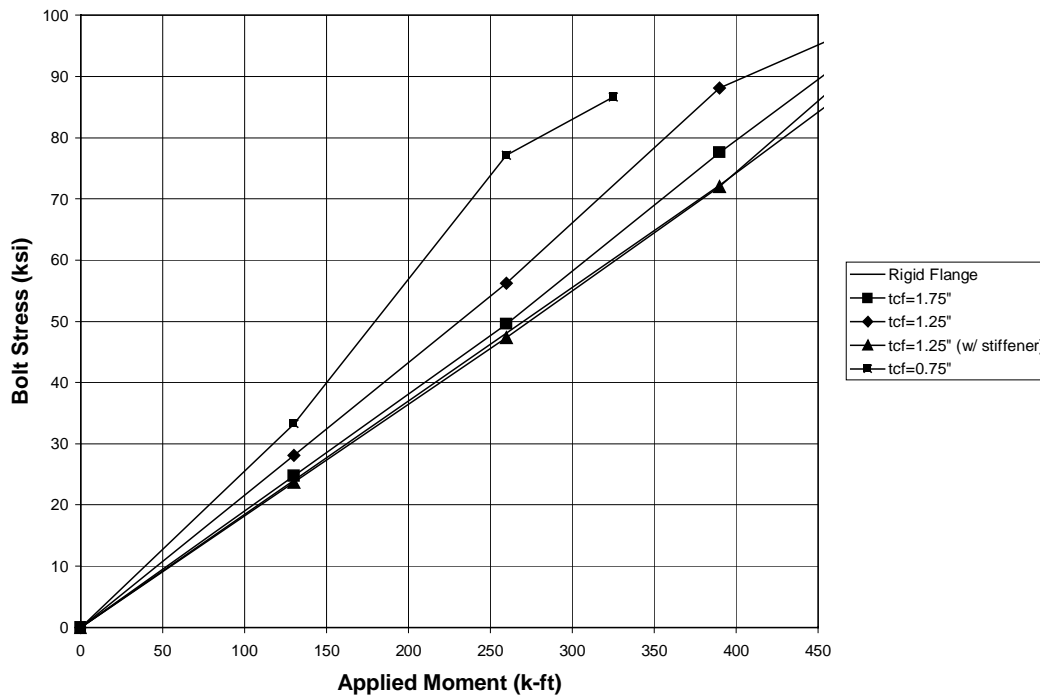


FIGURE A-4. Applied moment at connection vs. bolt stress (bolt #1).

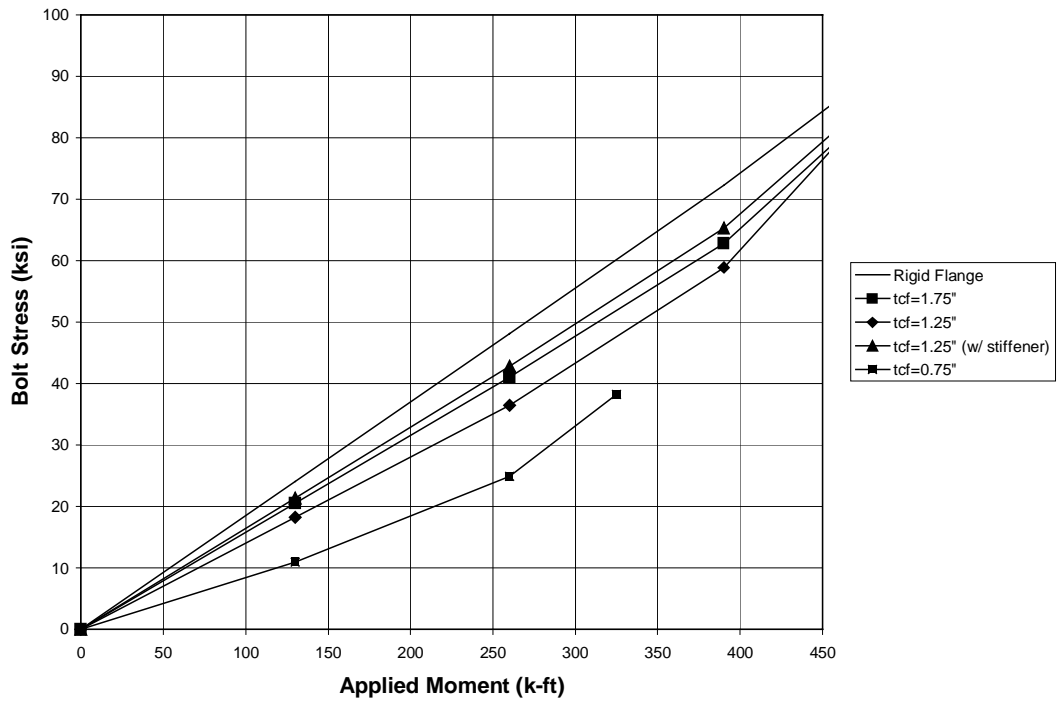


FIGURE A-5. Applied moment at connection vs. bolt stress (bolt #2).

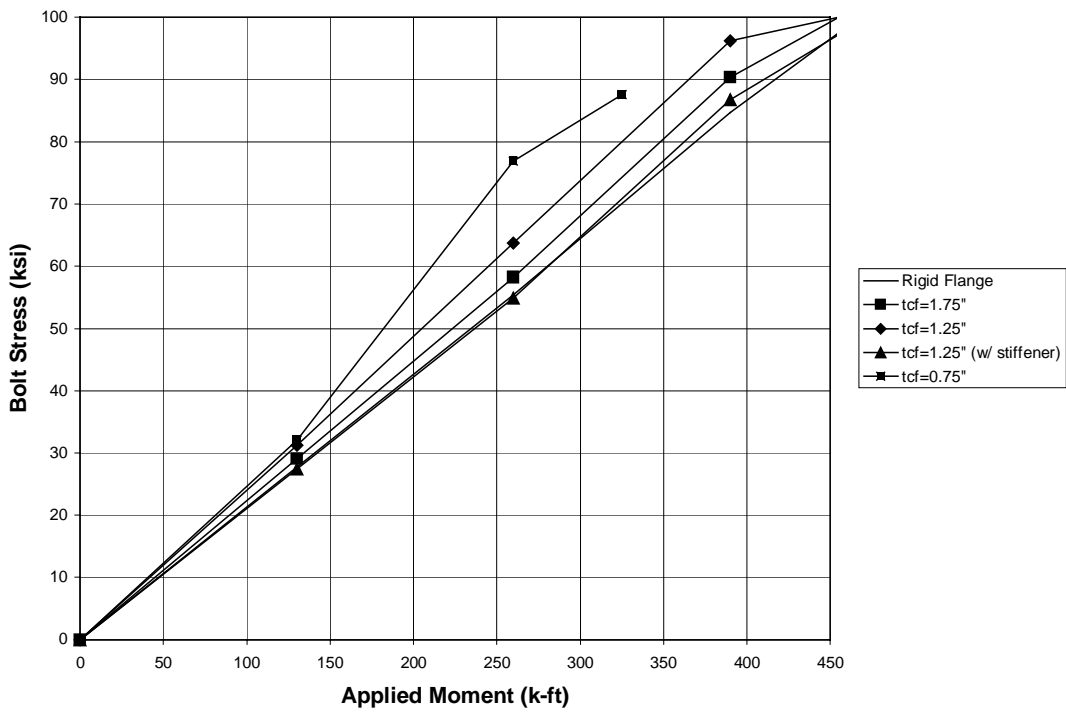


FIGURE A-6. Applied moment at connection vs. bolt stress (bolt #3).

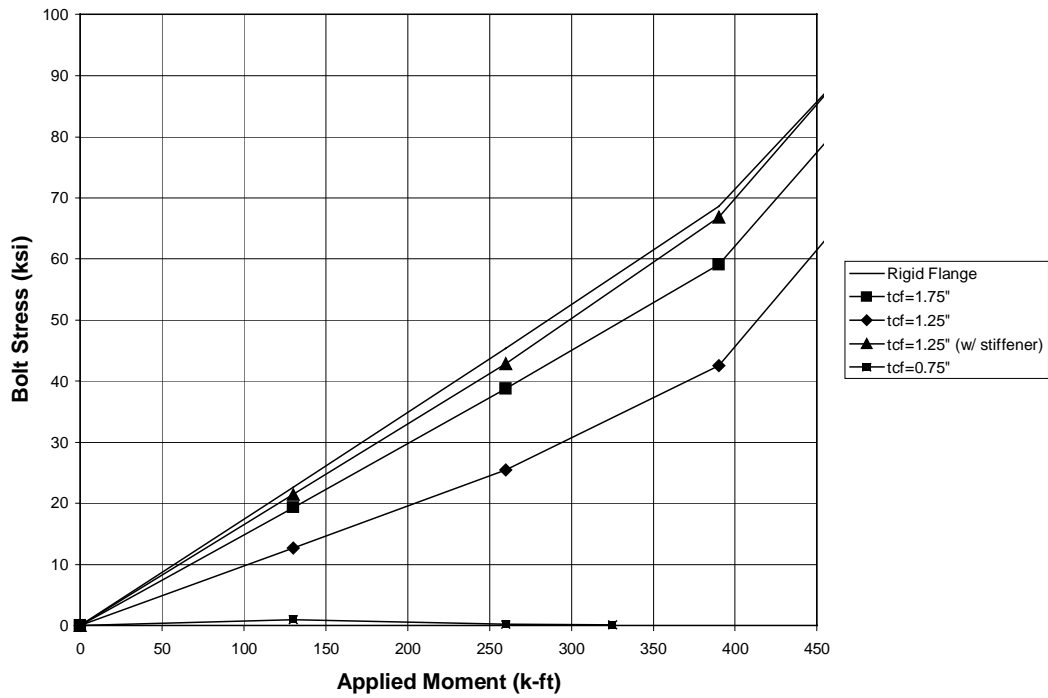


FIGURE A-7. Applied moment at connection vs. bolt stress (bolt #4).

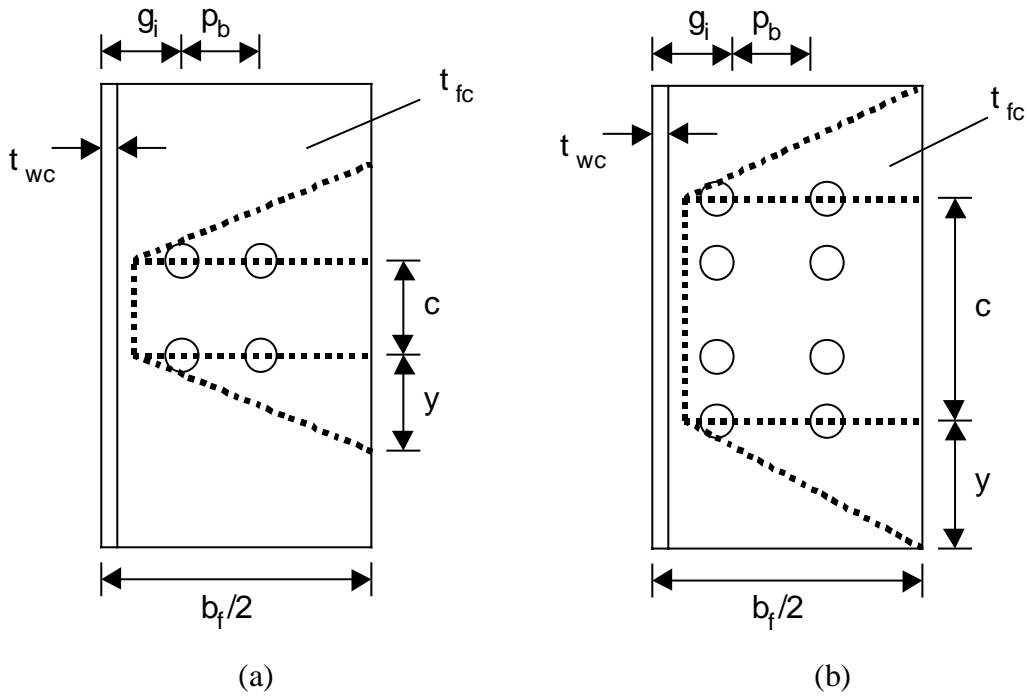


FIGURE A-8. Column flange bending yield line patterns for (a) four-bolt wide and (b) 16ES moment end-plate connections.

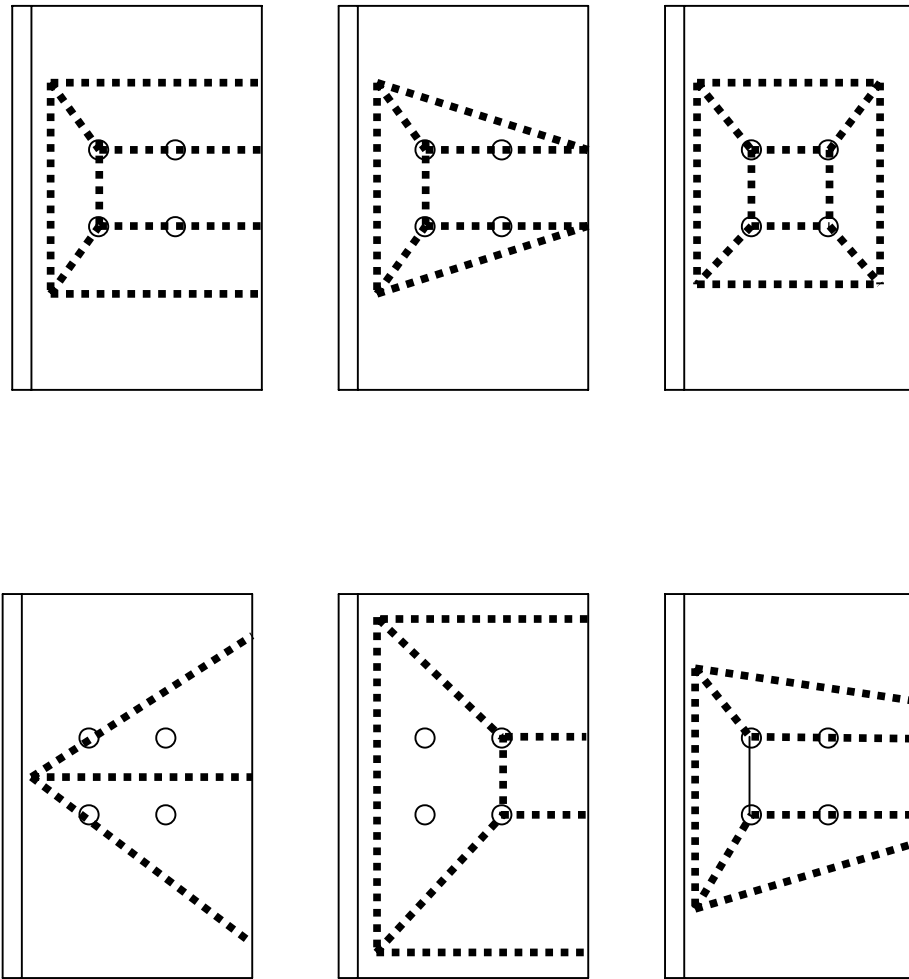


FIGURE A-9. Sample yield line patterns used to determine lower bound for column flange bending strength

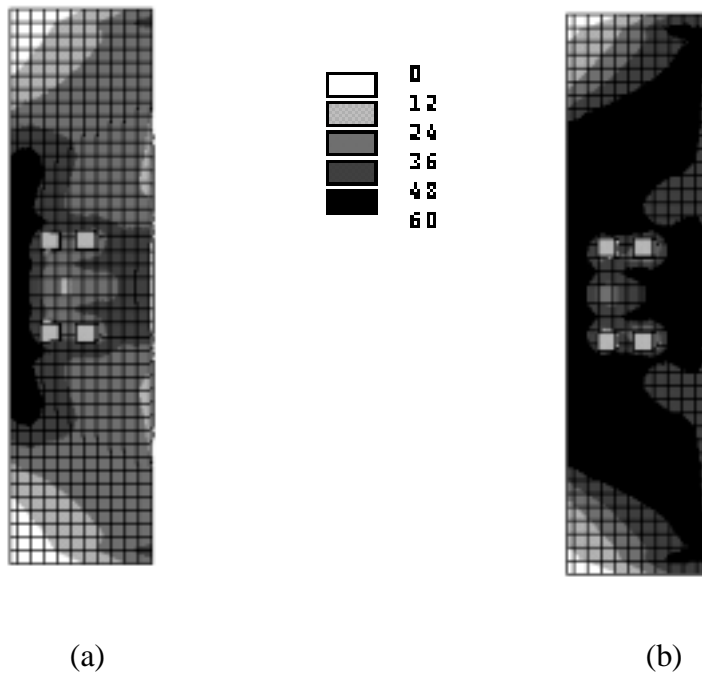


FIGURE A-10. Von Mises stress (ksi) distribution across column flange for four-bolt wide moment end-plate connection at (a) significant yielding and (b) collapse.

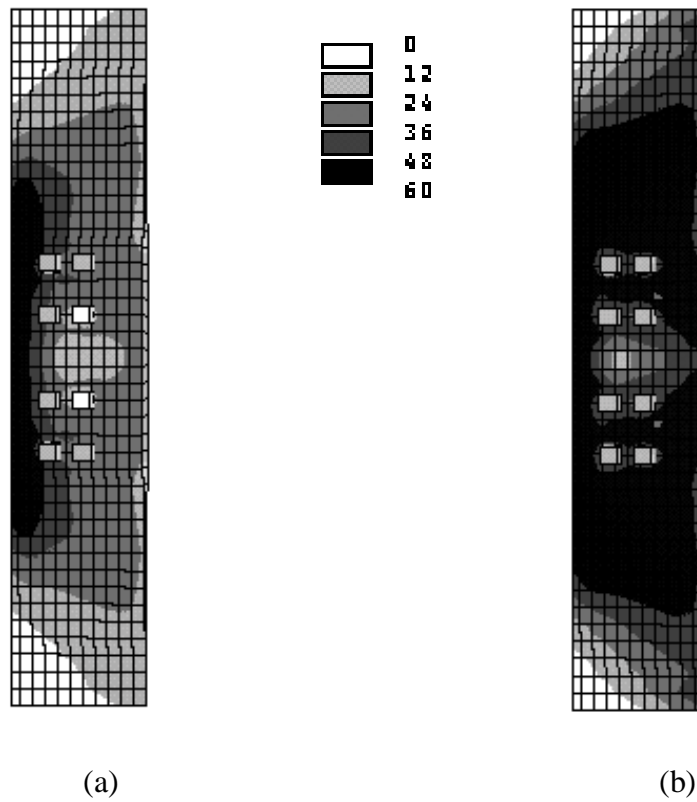


FIGURE A-11. Von Mises stress (ksi) distribution across column flange for 16ES moment end-plate connection at (a) significant yielding and (b) collapse.