

Vertical Bracing Connections  
Session 2: Uniform Force Method, Part 1  
April 12, 2022

To be submitted by 8:00 a.m. EDT May 10, 2022 – Submit through online form



Night School 28 – Vertical Bracing Connections  
Quiz 2

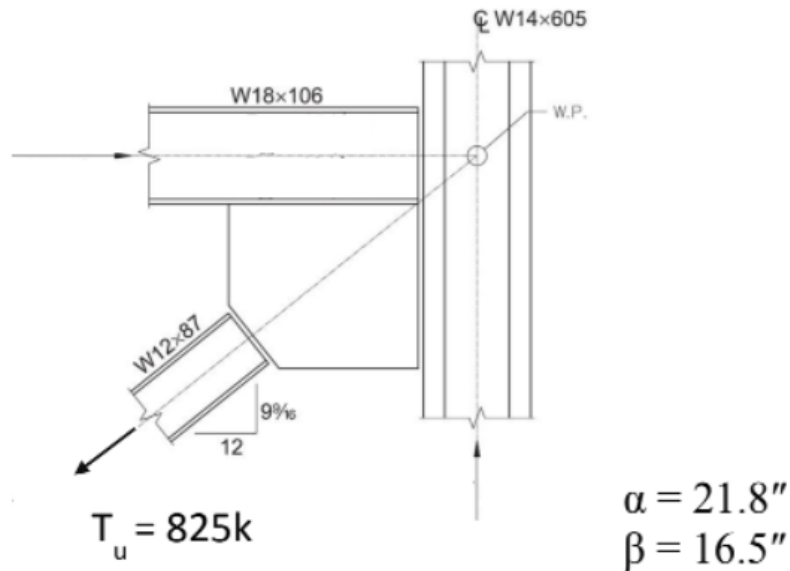
1. True or False: The fundamental idea behind the Uniform Force Method (UFM) is that the gusset forces can be reduced to a coincident set of forces.
  - a. True
  - b. False
  
2. True or False: The use of X – type bolts always requires extra field inspection.
  - a. True
  - b. False
  
3. True or False: The UFM is the only acceptable method for vertical brace connection design.
  - a. True
  - b. False
  
4. True or False: The column and beam control points are essential parts of the UFM.
  - a. True
  - b. False
  
5. True or False: The quantity  $H_c$  is the horizontal force component between the gusset and the column. It also needs to be applied in the opposite sense to the beam to column connection.
  - a. True
  - b. False
  
6. True or False: In Special Case IV, connections to column webs are treated as though they are to a column flange.
  - a. True
  - b. False



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7. True or False: The admissible force field chosen establishes the load path through the connection.
  - a. True
  - b. False
  
8. True or False: Non-orthogonal connections can always be reliably treated with an orthogonal method.
  - a. True
  - b. False

**Connection for problems 9 and 10.**



9. Which of the following are the vertical and horizontal forces at the gusset plate-to-beam flange connection if the Uniform Force Method is used to determine the forces?
  - a. 187, 435 kips
  - b. 150, 350 kips
  - c. 212, 415 kips
  - d. None of the above.

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10. Which of the following are the vertical and horizontal forces at the gusset plate-to-column connection if the Uniform Force Method is used to determine the forces?
- a. 212, 415 kips
  - b. 329, 209 kips
  - c. 118, 225 kips
  - d. None of the above.

