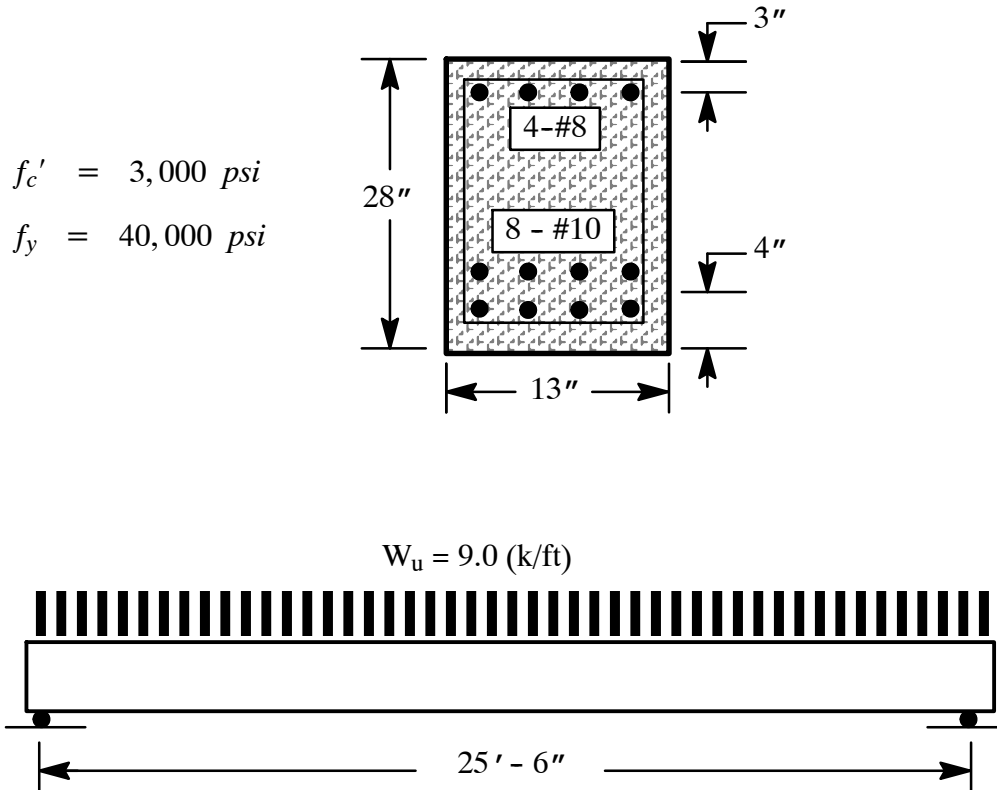


**CIVL 4135
HOMEWORK SET 9**

1. Select the spacing of U-shaped stirrups made of No. 3 bars for the beam shown below. Use Eq. 11-5 of ACI 318 to obtain V_c .



**CIVL 4135
HOMEWORK SET 9**

2. Determine the spacing of vertical U-shaped stirrups made of No. 3 deformed bars at point 6.0 ft from the face of the support for the cantilever beam shown below. Use Equation 11-5 of ACI 318 to determine V_c . The loads shown are **service loads** (load factors have not been applied). The concentrated load is a dead load. Compare the calculations with the maximum spacing.

$$f'_c = 4,000 \text{ psi}$$

$$f_y = 40 \text{ ksi}$$

