

CE302 TERM PROJECT

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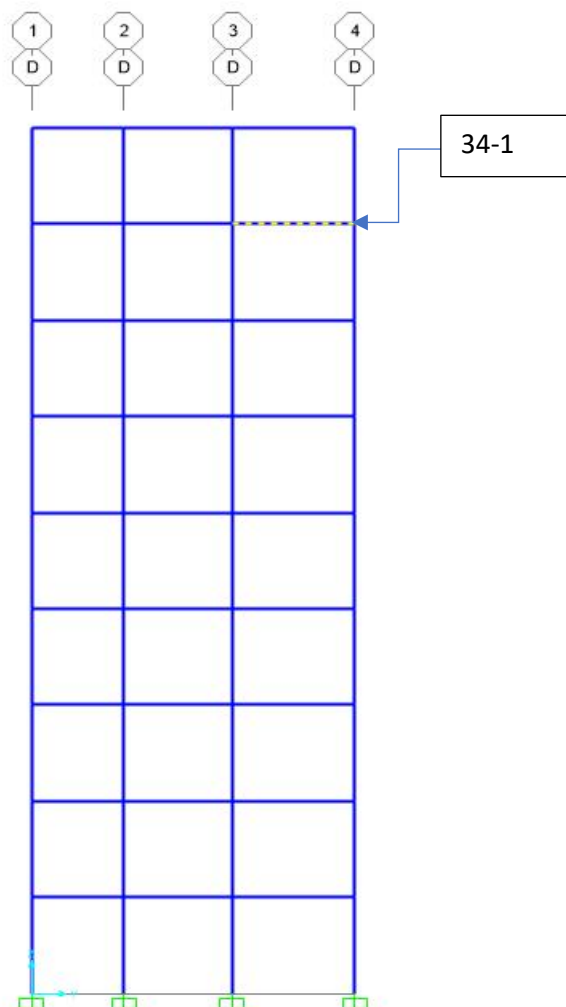
Obtained maximum shear forces and moments for the given load combinations are mentioned along with the members wherein they occur. These values are marked with green in the excel sheet.

Beams: Load combo (a) 1.5(DL+LL)

Magnitude of max shear force: $V_2 = 55.899 \text{ kN}$

Magnitude of max bending moment: $M_3 = 46.5621 \text{ kN-m}$

Both observed in member 34-1. Coordinates: (11,6.5,26.4) to (11,10.5,26.4)

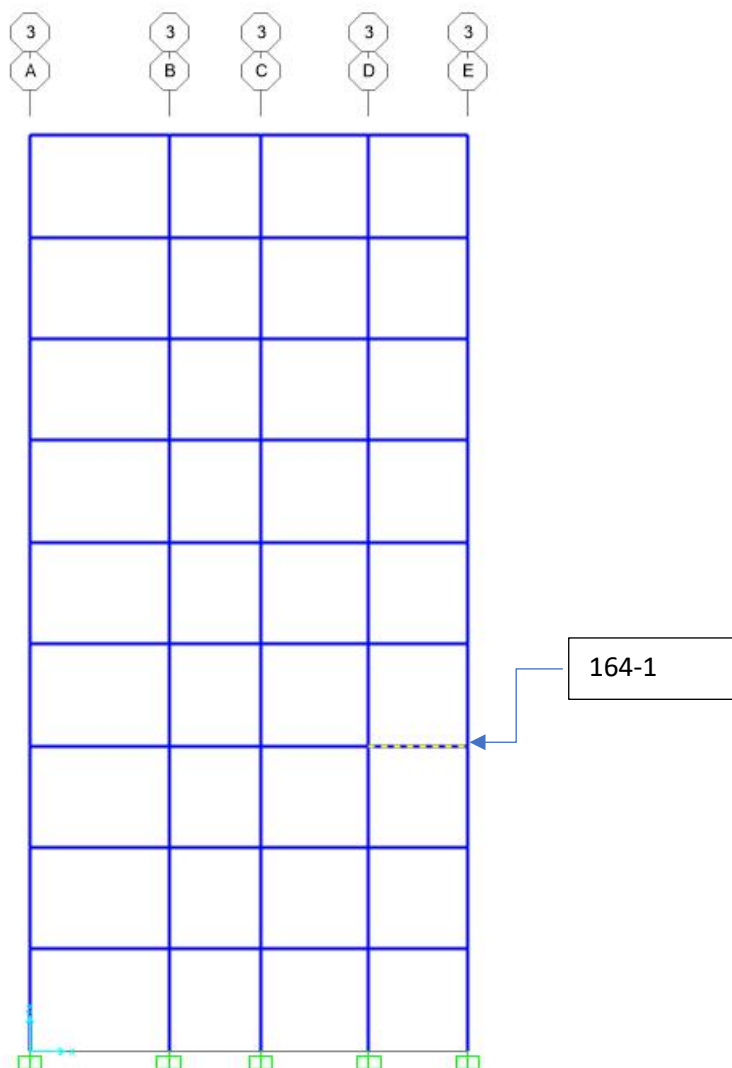


Beams: Load combo (b) 1.2(DL+LL+HL)

Magnitude of max shear force: $V_2 = 88.981 \text{ kN}$

Magnitude of max bending moment: $M_3 = 115.9758 \text{ kN-m}$

Both observed in member 164-1. Coordinates: (11,6.5,9.9) to (14.2,6.5,9.9)

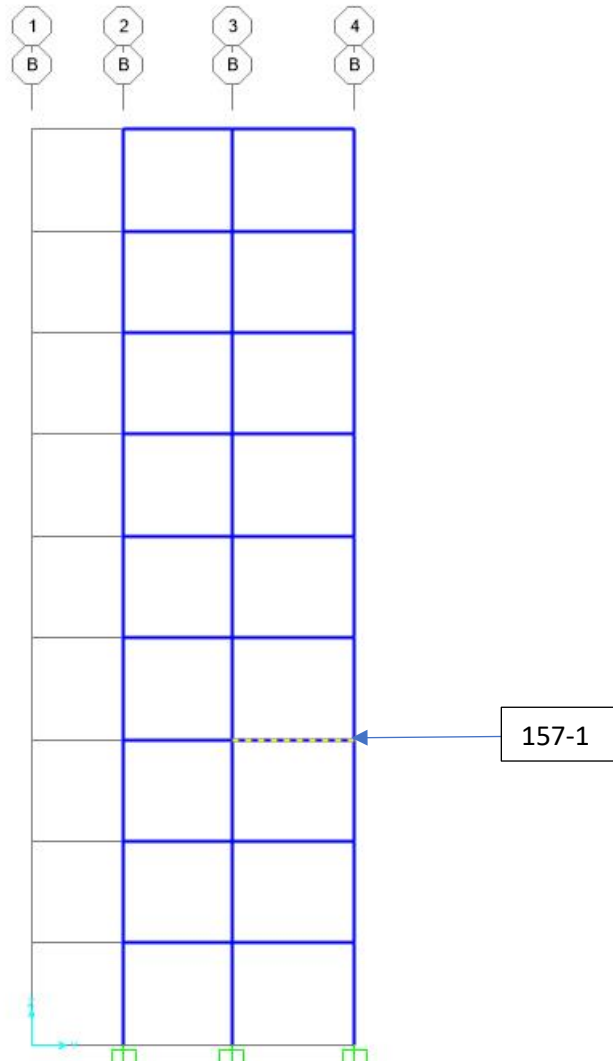


Beams: Load combo (b) $1.2(DL+LL+HL-Y)$

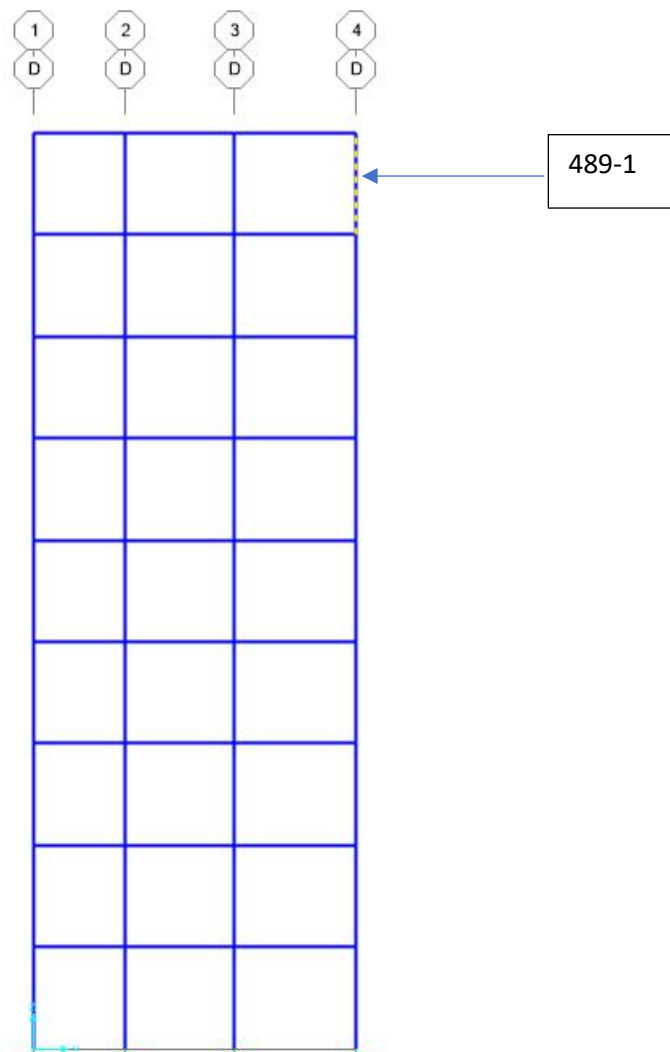
Magnitude of maximum shear force $V_2 = 87.928 \text{ kN}$

Magnitude of maximum bending moment $M_3 = 125.2423 \text{ kN-m}$

Both observed in member 157-1. Coordinates: (4.5,6.5,9.9) to (4.5,10.5,9.9)

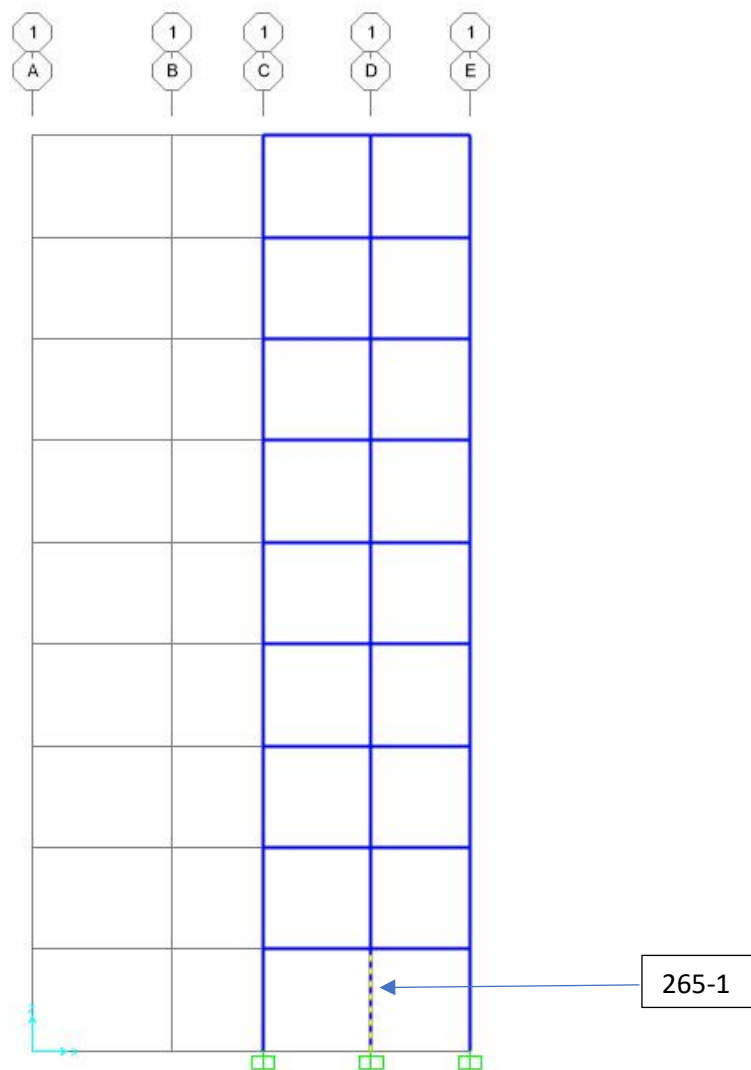


Both observed in member 489-1. Coordinates: (11,10.5,26.4) to (11,10.5,29.7)

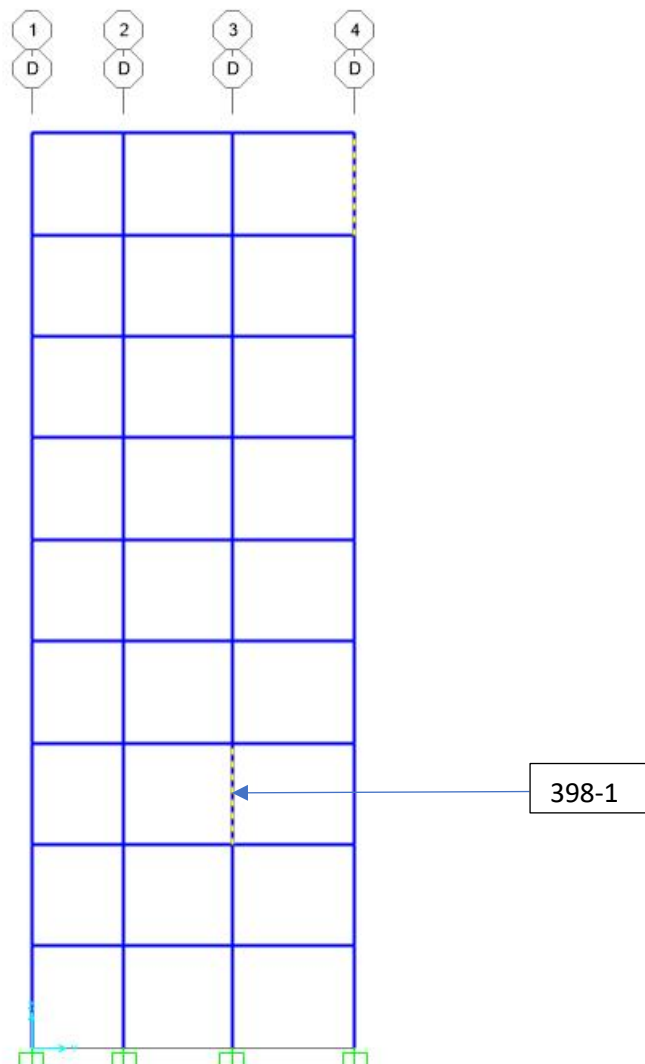


Columns: Load combo (b) 1.2(DL+LL+HL)

Magnitude of max bending moment: $M_3 = 140.4528$ kN-m, observed in member 265-1. Coordinates: (11,0,0) to (11,0,3.3)

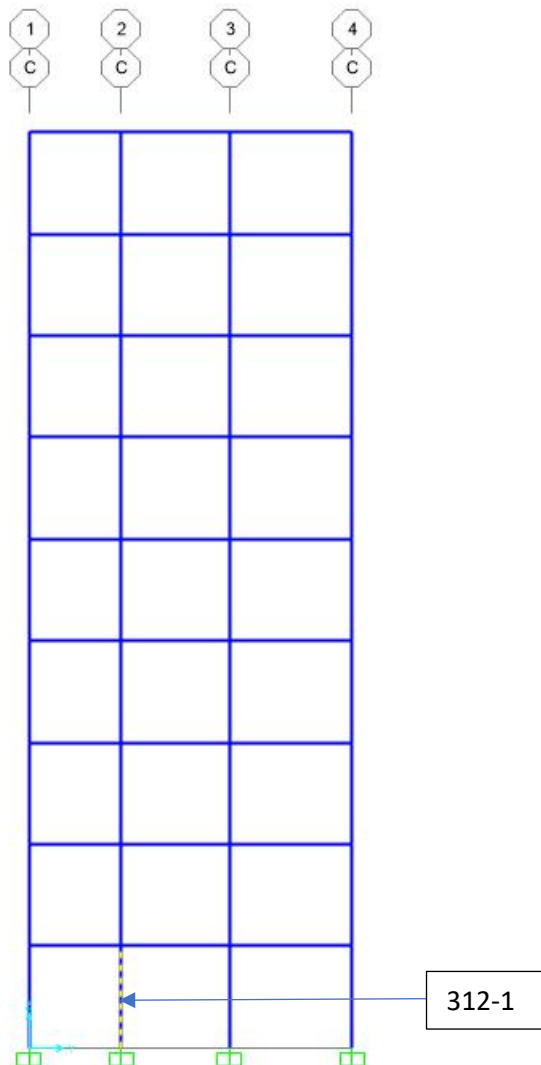


Magnitude of max shear force: $V_2 = 60.133$ kN, observed in member 398-1. Coordinates: (11,6.5,6.6) to (11,6.5,9.9)



Columns: Load combo (b) 1.2(DL+LL+HL-Y)

Magnitude of maximum bending moment M_3 observed is 146.615 kN-m in member 312-1. Coordinates: (7.5,3,0) to (7.5,3,3.3)



Magnitude of max shear force: $V_2 = 60.098$ kN, observed in member 313-1. Coordinates: (7.5,3,3.3) to (7.5,3,6.6)

