

Figure no 1:

The deterioration in the pic is due to discontinuous shear wall.

Solutions:-

The solution for this is to provide the shear walls.

Figure no 2:

The deterioration in the pic is due to soft soil effect.

Solutions:

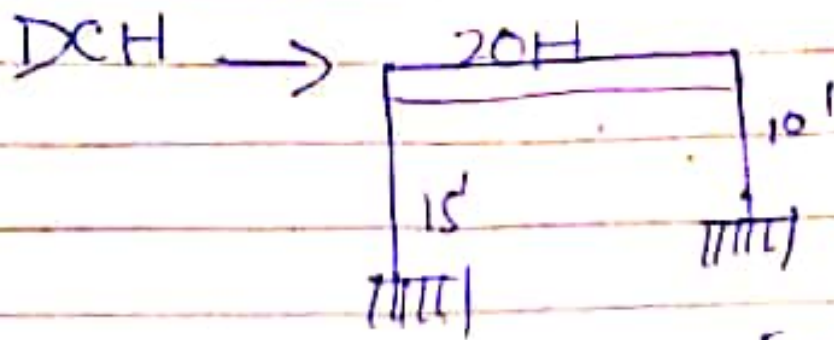
The solution for this pic is to provide more columns and bracings

Figure no: 3

The deterioration in fig 3 is due to entrant corner.

Solutions:

The solution for this fig 3 is to provide good corners which avoid moment.



$$E = 29000 \text{ ksi}$$

$$I = 1200 \text{ in}^4$$

$$\text{load} = 778 \text{ lb/ft}^2$$

Sol:-

$$K = K_1 + K_2$$

$$K = 12EI \left[\frac{1}{(15 \times 12)^2} + \frac{1}{(10 \times 12)^2} \right]$$

$$K = 31329 \text{ k/in}$$

$$K = 3759 \text{ k/ft}$$

$$m = \omega/g = \frac{7.701 \times 20}{32.2 \text{ ft/sec}^2}$$

$$m = 4.783 \text{ ksec}^2/\text{ft}$$

$$m = 4783 \text{ lb sec}^2/\text{ft}$$

$$P(t) = ku + m\ddot{u}$$

Put values

$$P(t) = 47684 + 3759 \times 10^6$$