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7701

Section

B

Submitted to

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exam

mid term

Subject

introd to structure Dynamics
and earth quiks engineering.

Figure No.: 1

The Deterioration in the pic is due to discontinues of Shear wall.

Solution:

* The solution for this pic is to provide shear wall.

* The purpose of shear wall is collect diaphragm loads at each floor and transmit them as directly and efficiently as possible as foundation.

Q2 figure #2

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

* Solution.

The solution for this pic is to provide more column & bracing.

* Soft stories are less stiff, or more flexible than the story above weak store has less strength.

Figure #3

3

The deterioration in this pic is due to entrant corners.

Solution:

The solution for this pic is to provide good corners which avoid moment

There are two basic alternative approaches to the the problem of entrant-corner form- Sep structure to separate the building in to the simpler shape or tie the building together more strength with element.

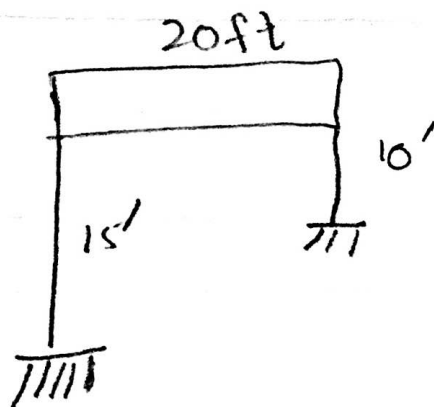
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problem

$$E = 9000 \text{ ksi}$$

$$I = 1200 \text{ in}^2$$

$$\text{load} = 7701 \text{ lb/ft}$$



Solution

(4)

$$K_{eq} = K_1 + K_2$$

$$K = \frac{12EI}{h_1^3} + \frac{12EI}{h_2^3}$$

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

$$K = 313.29 \text{ k/in}$$

$$K = 37.59 \text{ k/ft}$$

$$m = \frac{w}{g} = \frac{7701 \times 20}{32.2 \text{ ft/sec}^2}$$

$$m = 4.783 \text{ lb/sec}^2$$

$$p_t = K \cdot t \cdot m$$

putting value.

$$p(t) = 4768373759 \times 10^6$$