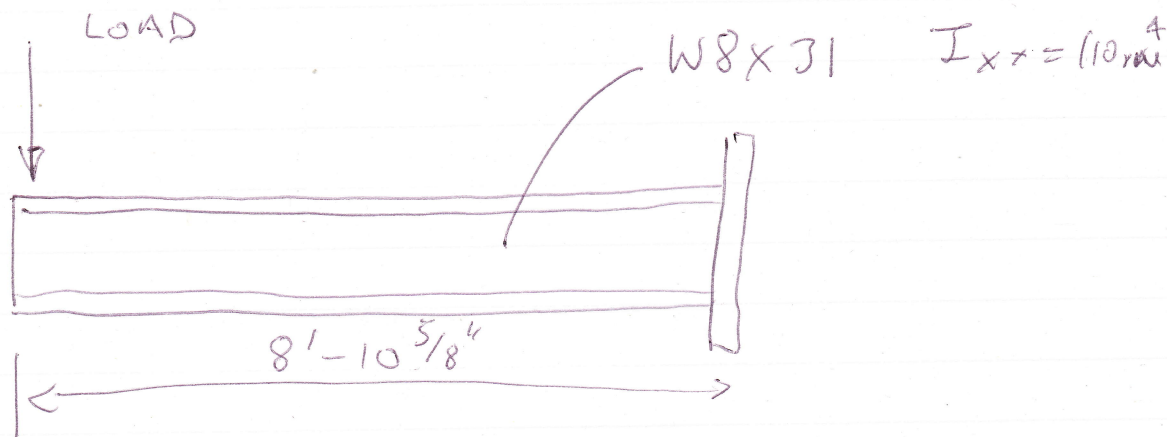
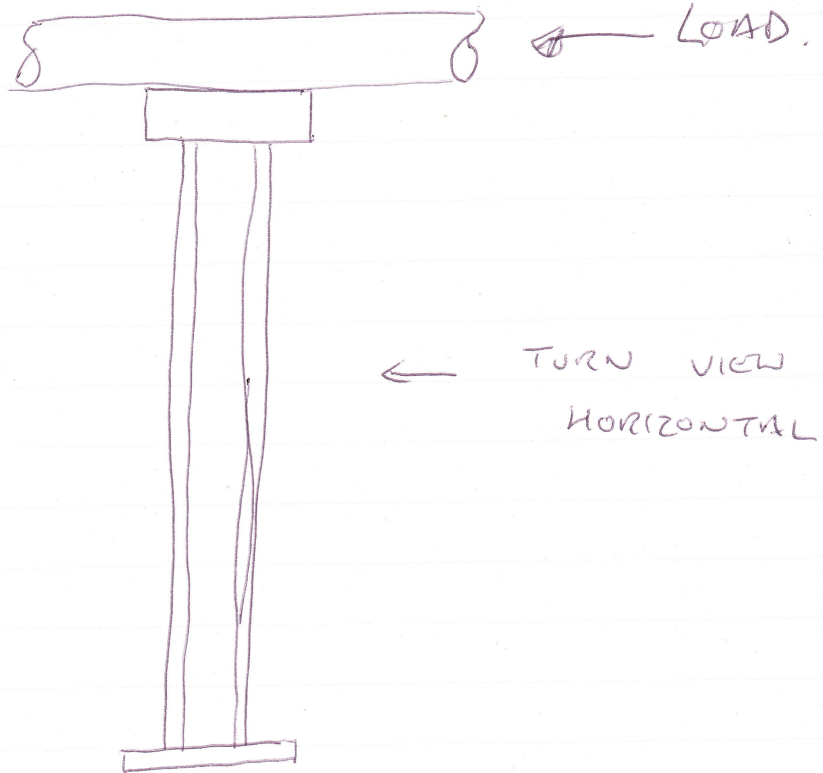
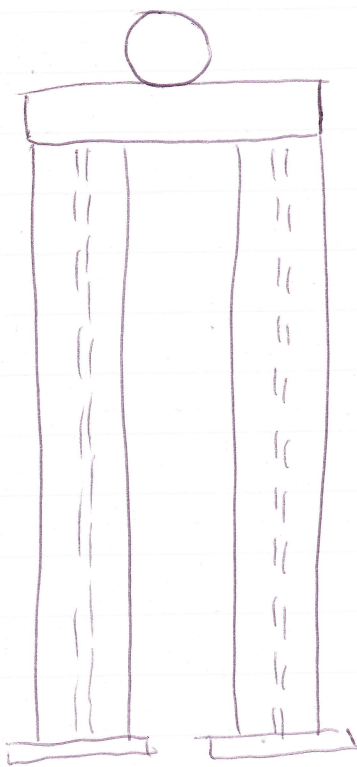


1.



CONSIDER ONE BEAM ONLY.

DEFLECTION FOR CANTILEVER BEAM =  $\Delta = \frac{WL^3}{3EI}$

1. 
$$1'' = \frac{W \times (106.625)^3}{3 \times 30 \times 10^6 \times 110} =$$

TRANSPOSE TO FIND LOAD W

$$\therefore \frac{1'' \times 3 \times 30 \times 10^6 \times 110}{(106.625)^3} = W =$$

$\therefore$  LOAD TO DEFLECT I BEAM  $1'' = W = 8166.915 \text{ lbs}$

So Your Structure At Present As 2 BEAMS

$\therefore$  STIFFNESS OF STRUCTURE  $= 2 \times 8166.915 \text{ lb}$

$$= 16,333.831 \frac{\text{lb}}{\text{IN.}}$$