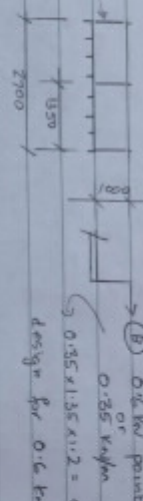


2/12/20

8

2/2

- 10 VIEW POINT RD MCRAE

baluster
@ 1350 cts

0.6 kN point
or
0.35 kN/m
0.35 x 1.35 x 1.2 = 0.57 kN point
design for 0.6 kN point



$$Z = \frac{bh^2}{6} = \frac{0.092^3}{6} = 1.3 \times 10^{-4}$$

$$\sigma = \frac{M}{Z} = \frac{0.6 \times 1.0}{1.3 \times 10^{-4}} = 4.6 \text{ MPa}$$

Baluster
92 x 92 F7

handrail



(A) = 0.9 kN point

$$M_A = \frac{5}{16} (0.9) \times 0.68 = 0.2 \text{ kNm}$$

$$M_A = \frac{P_L}{4} = 0.3 \text{ kNm}$$



$$Z = \frac{bh^2}{6} = \frac{0.116 \times 0.042^3}{6} = 8.4 \times 10^{-5}$$

$$\sigma = \frac{M}{Z} = \frac{0.3 \text{ (max)}}{8.4 \times 10^{-5}} = 3.6 \text{ MPa}$$

Handrail
116 x 42 F8

footings (x2)

$$LL = 4 \text{ kPa}$$

$$DL = 0.35 \text{ kPa}$$

2 for 1st page "loading"
" "

$$\text{Area per column} = (1.74 \text{ m} \times 1.35 \text{ m}) \times 4.35 \text{ kPa} = 10.2 \text{ kN}$$

$$\phi 500 \text{ base concrete pier, } A = \pi r^2 = 0.196 \text{ m}^2 \quad \sigma = 52 \text{ kPa}$$

footing
500 ϕ