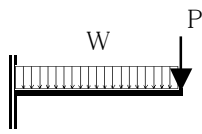
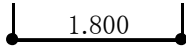


CS1 廊下



$$\begin{aligned}W &= 6.70 \text{ kN/m}^2 \\P &= 4.20 \text{ kN/m (RC手摺)} \\t &= 18.0 \text{ cm}\end{aligned}$$



(1) 応力計算

$$\begin{aligned}M &= 1/2 \cdot W \cdot L^2 + P \cdot L \\&= 1/2 \times 6.70 \times 1.80^2 + 4.20 \times 1.80 = 18.5 \text{ kN}\cdot\text{m}\end{aligned}$$

(2) 断面検定(曲げ応力に対する検討)

$$dt = 4 \text{ cm} \quad d = 18 - 4 = 14 \text{ cm} \quad j = 7/8 \times 14 = 12.25 \text{ cm}$$

$$\begin{aligned}at &= M \times 1.5(\text{応力割増}) / ft \cdot j \\&= 18.5 \times 1.5 \times 100 / 19.5 \cdot 12.25 = 11.62 \text{ cm}^2 \\&\text{配筋: D13@100} \quad (12.70 \text{ cm}^2) \quad \text{検定比} \quad 0.91 < 1.0 \therefore \text{OK}\end{aligned}$$

(3) せん断の検討

$$\begin{aligned}Q &= W \cdot Lx + P = 6.70 \times 1.800 + 4.20 = 16.3 \text{ kN} \\ \tau &= Q \times 1.5 / b \cdot j = 16.3 \times 1.5 / 100 \cdot 12.25 \\ &= 0.020 < 0.08 \text{ kN/cm}^2 \therefore \text{OK}\end{aligned}$$