

$$Q_d = 1,35 \times 3,9 = 5,3 \text{ kN/m}^2$$

$$F_g = \text{PENANT} = 1,4 \times 0,4 (2,0 - 0,5) = 0,85 \text{ kN}$$

$$F_d = 1,35 \times 0,85 = 1,2 \text{ kN}$$

$$\text{MOMENT : } +M_d = \frac{1}{8} \times 2,8^2 \times 5,3 + \frac{1}{4} \times 2,8 \times 1,2 = 6,1 \text{ kN}$$

$$\sigma_d = 6,1 \times 10^6 / 79 \times 10^3 = 78 \text{ N/mm}^2$$

KIP DOOR KORTE OVERSP. NIET MAATGEVENDE

$$\text{ZAKKING : } \Delta t = \frac{5}{48} \times 6,1 / 13 \times 10^6 \times 2800^2 / 210000 \times 349 \times 10^6 = 5,2 \text{ mm}$$

$$\Delta t / L = 5,2 / 2800 = 0,0019 \text{ (VOORLOEF)}$$

$$\text{REACTIES : } R_d = 2,8 / 2 \times 5,3 + 1,2 / 2 = 8,0 \text{ kN}$$

OPLEGVCAK : 100 x 100 mm

$$\sigma_d = 8,0 \times \frac{3}{2} \times 10^3 / 100 \times 100 = 1,2 \text{ N/mm}^2$$

$$\begin{array}{l} \text{STEEH : } 150 \text{ N/mm}^2 \\ \text{MORTEL : } 2,5 \text{ " } \end{array} \left. \vphantom{\begin{array}{l} \text{STEEH : } \\ \text{MORTEL : } \end{array}} \right\} f_{\text{rep}} = 30 \text{ N/mm}^2$$

$$f_{\text{ud}} = f_{\text{rep}} / \gamma_m \times \gamma_d = \frac{30}{1,8} \times 1,3 = 2,15 \text{ N/mm}^2 \text{ (VOORLOEF)}$$

PENANT : 400 x 100 mm NAAST VOORDEUR L = 2,5 m

$$\text{BECASTINGEN : } R_d = 8,0 + 1,0 / 2 \times 5,3 = 10,7 \text{ kN}$$

$$\text{KNIK } e_0 = 10 \text{ mm} \quad e_0 / h_t = 10 / 100 = 0,1$$

$$l_c / h_t = 2500 / 100 = 25 \quad C = 0,26$$

$$\sigma_d = 10,7 \times 10^3 / 0,26 \times 400 \times 100 = 1,0 \text{ N/mm}^2 \text{ (VOORLOEF)}$$