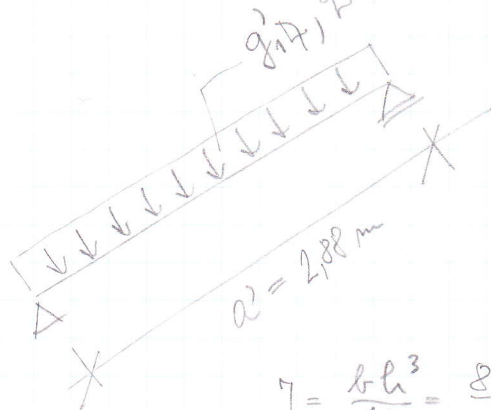


• DIMENZIONIRANJE MSU !

— KONTROLA POVBRA $q'_{1A}, q'_{2A}, q'_{vA}$ (POMIKA)

$$b/h = 8/12$$



$$q'_{1A} = 0,364 \text{ kN/m} = 0,00364 \frac{\text{kN}}{\text{cm}}$$

$$q'_{2A} = 1,195 \text{ kN/m} = 0,01195 \frac{\text{kN}}{\text{cm}}$$

$$q'_{vA} = 0,20 \text{ kN/m} = 0,0020 \frac{\text{kN}}{\text{cm}}$$

$$\psi_0(\text{refer}) = 0,6$$

$$J = \frac{bh^3}{12} = \frac{8 \cdot 12^3}{12} = 1152 \text{ cm}^4$$

— Poves v začetnem času Winst. Dobimo po se konstenzično kombinacija vplivov:

$$W_{\text{inst}} = W_{\text{inst}}(q'_{1A}) + W_{\text{inst}}(q'_{2A}) + W_{\text{inst}}(\psi_0 \cdot q'_{vA})$$

$$= \frac{5 \cdot a'^4}{384 \cdot E_{\text{gmean}} \cdot J} (q'_{1A} + q'_{2A} + \psi_0 \cdot q'_{vA})$$

$$= \frac{5 \cdot 2,88^4}{384 \cdot 1200 \cdot 1152} (0,00364 + 0,01195 + 0,6 \cdot 0,0020) = 1,09 \text{ cm}$$

$$W_{\text{inst}} = 1,09 \text{ cm} \leq W_{\text{inst, lim}} = \frac{a'}{300} = \frac{288}{300} = 0,96 \text{ cm} //$$

→ povečam preseg:

$$J_{\text{potr}} \geq \frac{5 \cdot a'^4 \cdot (q'_{1A} + q'_{2A} + \psi_0 \cdot q'_{vA}) \cdot 300}{384 \cdot E_{\text{gmean}} \cdot a'}$$

$$J_{\text{potr}} \geq \frac{5 \cdot 2,88^4 \cdot (0,00364 + 0,01195 + 0,6 \cdot 0,0020) \cdot 300}{384 \cdot 1200 \cdot 2,88} = 1305,6 \text{ cm}^4$$

$$\frac{h}{b} = \sqrt{2} \Rightarrow b = \frac{h}{\sqrt{2}}$$

$$\frac{b \cdot h^3}{12} = J_{\text{potr}} \Rightarrow \frac{h^4}{12 \sqrt{2}} = J_{\text{potr}} \Rightarrow h = \sqrt[4]{J_{\text{potr}} \cdot 12 \cdot \sqrt{2}}$$

$$h = \sqrt[4]{1305,6 \cdot 12 \cdot \sqrt{2}} = 12,2 \text{ cm} \rightarrow b = \frac{13,4}{\sqrt{2}} = 8,6 \text{ cm}$$

Izberem $b/h = 10/14 \text{ cm}$ ($J_{\text{obj}} = \frac{10 \cdot 14^3}{12} = 2286,67 \text{ cm}^4$)

— Poves v končnem točku w_{fin} oz. $w_{net,fin}$

$$w_{net,fin} = w_{fin,g} + w_{fin,q_s} + w_{fin,q_v} = 0,64 \text{ cm} \leq \overset{288}{\underset{a}{\frac{288}{250}}} = 1,15 \text{ cm} \checkmark$$

$$w_{fin,g} = w_{inst,g} \cdot (1 + k_{def}) = \frac{5 \cdot 288^4 \cdot 0,00364}{384 \cdot 1200 \cdot 2286,67} (1 + 0,8) = 0,21 \text{ cm}$$

$$w_{fin,q_s} = w_{inst,q_s} \cdot (1 + \psi_2 \cdot k_{def}) = \frac{5 \cdot 288^4 \cdot 0,01195}{384 \cdot 1200 \cdot 2286,67} (1 + 0,8) = 0,39 \text{ cm}$$

$$w_{fin,q_v} = w_{inst,q_v} (\psi_0 + \psi_2 \cdot k_{def}) = \frac{5 \cdot 288^4 \cdot 0,0020}{384 \cdot 1200 \cdot 2286,67} (0,6 + 0,8) = 0,04 \text{ cm}$$

Dimenzije spirorce $b/h = 10/14 \text{ cm}$