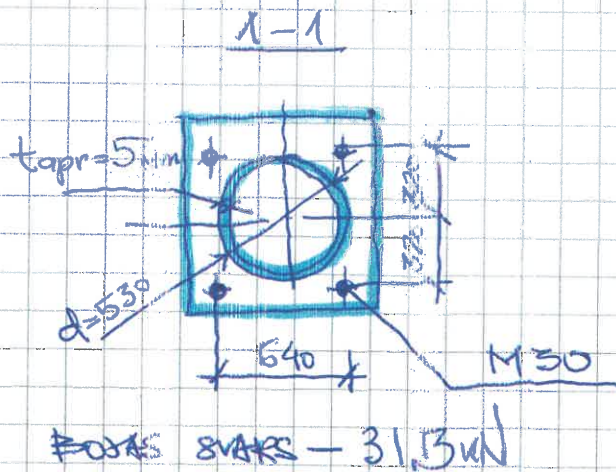
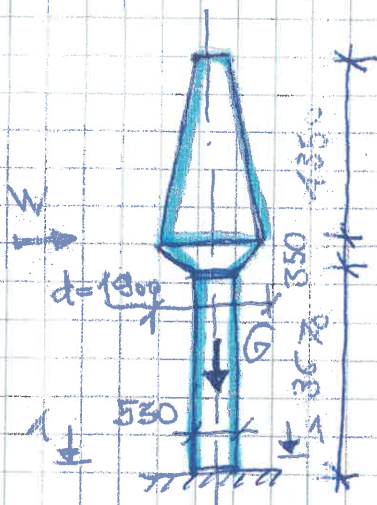


BOJU APREKINS.

1. LATERALS / RAKSTURVIELUMI /



2. SLODĒS

2.1 VĒJA SLODĒS: vērtspīlis; $q_b = 0,40 \text{ kN}$; C - gredius kategorija

$$W_e = q_b \times C_e(z_e) \times C_{pe} = 0,40 \times 2,9 \times 1,0 = 1,16 \text{ kN/m}^2$$

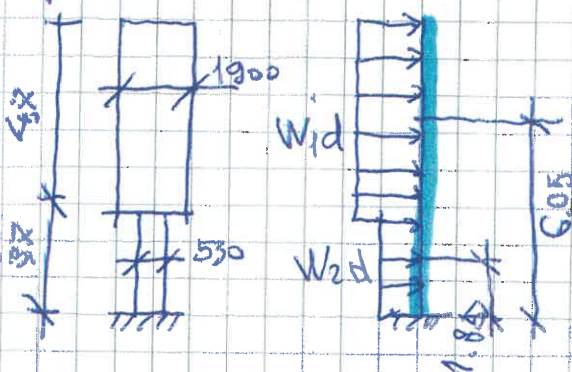
$$W_{ed} = 1,16 \times 1,5 = 1,74 \text{ kN/m}^2$$

2.2. BOJAS SVARS

$$G = 3,13 \text{ t} - \text{pec tehn. datiem}$$

2.3. APREKINS

Emiscentā virsmas nodunības aprēķins
vēja slodze:

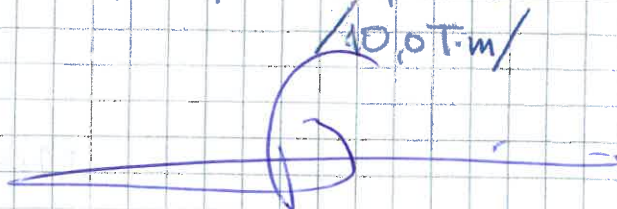


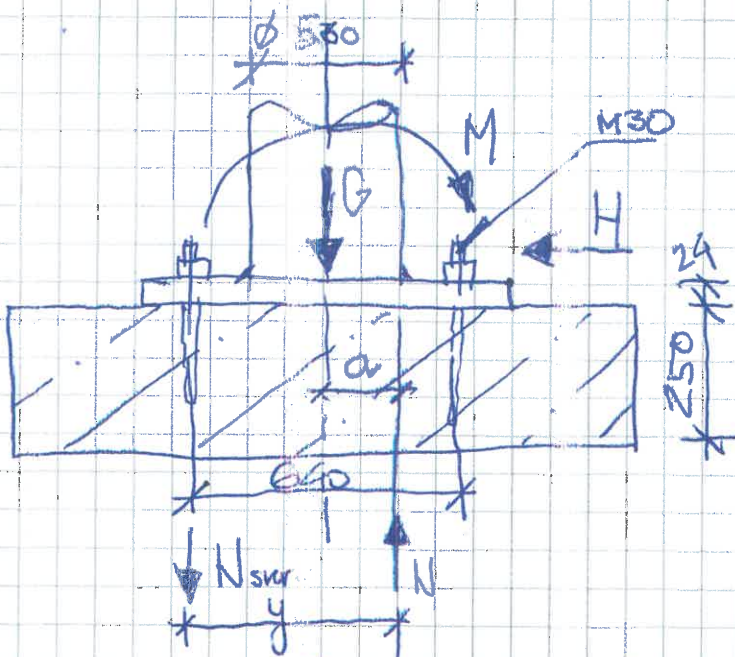
$$W_{1d}^k = (1,9) \times 4,7 \times 1,74 = 15,54 \text{ kN}$$

$$W_{2d}^k = (0,53) \times 3,7 \times 1,74 = 3,41 \text{ kN}$$

$$M_{apd} = 15,54 \times 6,05 + 3,41 \times 1,85 = 100,3 \text{ kN} \cdot \text{m}$$

$$H = 18,95 \text{ kN}$$





$$Z = \frac{M - Gg}{y} = \frac{10000 - 3130 \times 0.265}{0.585} = 15677 \text{ ng} = \underline{156,8 \text{ kN}}$$

Vienas būklės M30 uskėjęs klasei 8.8
striepė:

Šipris ulgė 8.8
Dvorbis ufigicents

1,25

$$f_{yb} = 640 \text{ N/mm}^2$$

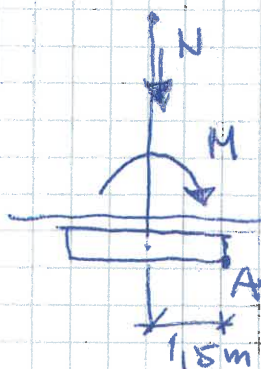
$$f_{ub} = 800 \text{ N/mm}^2$$

$$F_{tRd} = \frac{k_2 \cdot f_{ub} \cdot A_s}{\gamma_{Mb}} = ; k_2 = 0,9 ; A_s = 3,14 \times 30^2 / 4 = 706,5 \text{ mm}^2$$

$$= \frac{0,9 \cdot 800 \times 706,5}{1,25} = 406,944 \text{ N} = 406,9 \text{ kN} = \underline{406,9 \text{ T}}$$

slodai usnam 2 smūtes Ø30; $F_{tRd} = 813,8 \text{ kN}$

2.4. APGABIMAS.



$$M_{ap} = 10,03 \text{ T.m}$$

$$N = G + G_p = 3,13 + 3^2 \times 0,25 \times 2,4 = 14,36 \text{ T}$$

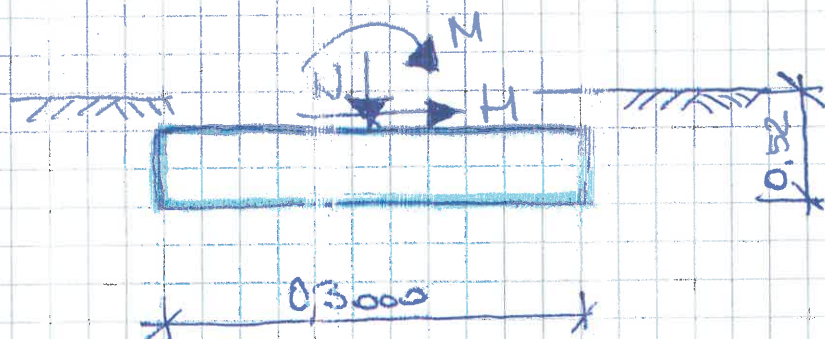
$$M_{tot} 1,5 \times N = 1,5 \times 14,36 = 21,5 \text{ T.m} >$$

$$> M_{ap} = 10,03 \text{ T.m}$$

Boris nodiriba noduoshata 2x!

[Signature]

BOJU PAMATU PĀTHĒS APRĒKINS



$$\begin{aligned} M &= 100,3 \text{ kN}\cdot\text{m} / 10,03 \text{ T}\cdot\text{m} \\ N &= 31,3 \text{ kN} / 3,13 \text{ T} \\ H &= 18,95 \text{ kN} \end{aligned}$$

Saskaņā ar SIA „Inženieru birojs” KURBADA TILT” rīdoto inženierpilotāžas apēti augstā slānī rīdoto novērojuma, uzturēta grunts, smiltis ar līn, būvgraušiem, akmens, vietām ar organiskas piejaukumu. /slānis Nr 3/ Fīnālī-mehānisko īpašību standārisie Cielumi dotajam slānim nav noteikti. Pieņemam grunts aptuvena sāra pretestību $R_0 = 100 \text{ kPa}$

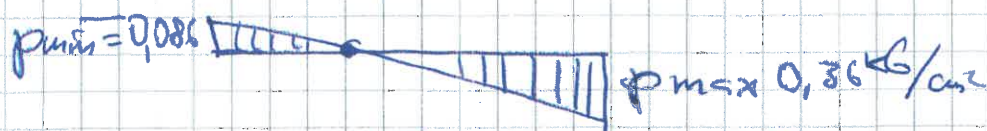
$$p_{\text{max}} = \frac{N_k}{A} \pm \frac{M}{W} = \frac{124}{9} \pm \frac{100,3}{4,5} = 13,7 \pm 22,3$$

$$\text{kur } W = \frac{3^3}{6} = 4,5 \text{ m}^3;$$

$$N_k = 31,3 + 3 \times 3 \times 0,52 \times 20 = 124,9 \text{ kN}; /12,49 \text{ T}/$$

$$p_{\text{min}} = -8,6 \text{ kN/m}^2$$

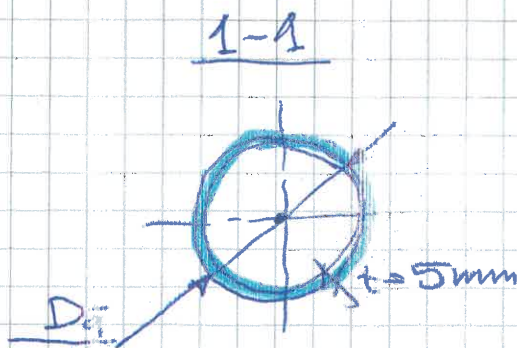
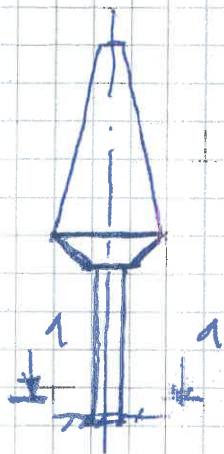
$$p_{\text{max}} = 36 \text{ kN/m}^2$$



$$p_{\text{max}} = 9,56 \text{ kPa} < R_0 = 100 \text{ kPa}$$



2.5. DOKAS STIPKIBAS APREKINS.



$D_a = 530 \text{ mm}$ - kardinolam biam
 $D_a = 400 \text{ mm}$ - kardinalam biam

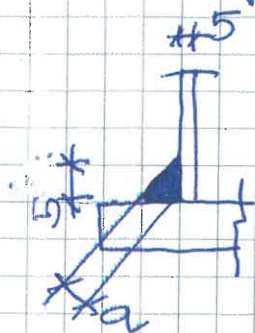
$$J_x = J_y = \frac{\pi D^3}{8} \cdot t$$

$$W_x = W_y = \frac{\pi D^2}{4} \cdot t = \frac{3,14 \cdot 40^2}{4} \cdot 0,5 = 628 \text{ cm}^3$$

Priemam, ka boga piktants no metala
 klases C-3; $R = 280 \text{ N/cm}^2$

Priemam durtas ufreku 0,85:

$$W_{rep} = \frac{M}{R} = \frac{10030 \times 10^2}{0,85 \cdot 2100} = 562 < 628 \text{ cm}^3$$



Basis bēda savienojums
 ar balsta plātni:

Stāvēs stāvēs projektā, ar gamma vērsta

$$F_{WRd} = f_{wRd} \cdot a$$

$$a = 5 \cdot 0,035 = 3,53 \text{ mm}$$

$$f_{wRd} = \frac{f_y / \sqrt{3}}{\beta_w \gamma_{wR}} = \frac{230 \sqrt{3}}{0,8 \cdot 1,25} = 398 \text{ N/mm}^2$$

$$F_{WRd} = 398 \times 3,53 = 1405 \text{ N/mm}$$

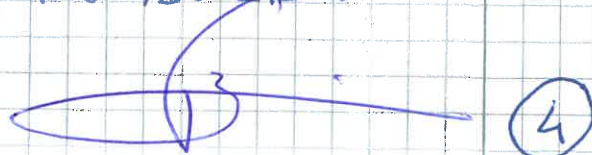
$$\text{Mēķēķis stāvēs gamma} L = 0,92 \pi R =$$

$$= 0,9 \times 2 \times 3,14 \times 200 = 1130 \text{ mm}$$

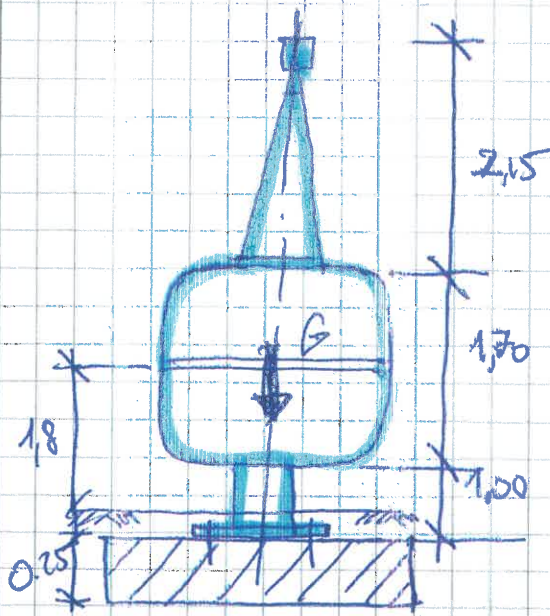
Stāvēs bēķis projektā:

$$V_{WRd} = F_{WRd} \times L = 1405 \times 1130 = 1588212 \text{ N} =$$

$$= 1588 \text{ kN} / 1588 \text{ kN}$$

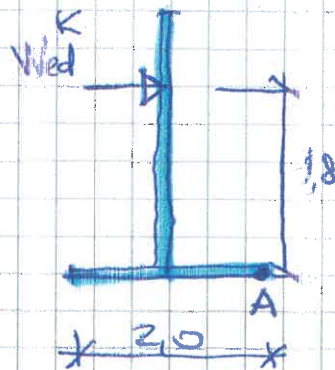


KARDIG SAS BOJA BALIST.



VEA SLOBDE — $W_{ed} = 179 \text{ kN/m}^2$

APREKINGA SUMA



$$\frac{(4.0 \times 4.0)}{2.0 \times 2.0}$$

$$W_{ed}^x = W_{ed} \times 1.7^2 = 5.0 \text{ kN}$$

$$G = 1.2 \text{ t} = 12 \text{ kN}$$

$$M_{\text{Arc}}^A = 5.0 \times 1.8 = 9.0 \text{ kN} \cdot \text{m}$$

$$M_{\text{NOT.}} = 2 \times 2 \times 0.25 \times 24 \times 1.0 + 1.2 \times 1.0 = 25.2 \text{ kN} \cdot \text{m} > 9.0 \text{ kN} \cdot \text{m} = M_{\text{Arc}}^A$$

Spiedens uz grunts priedus:

$$p_{\text{max}}^{\text{min}} = \frac{N}{A} \pm \frac{M}{W} = \frac{3600}{2.2} \pm \frac{0.900}{1.33} = 0.9 \pm 0.67 \text{ T/m}^2$$

$$\text{unv } N = G + G_p = 12 + 0.25 \times 2 \times 2 \times 24 =$$

$$= 36 \text{ kN}$$

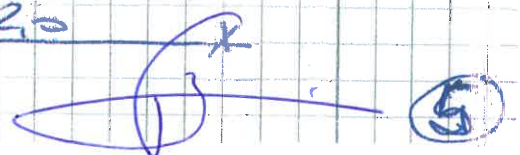
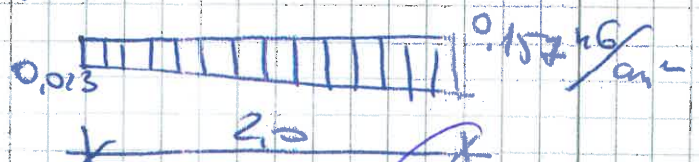
$$M = 9.0 \text{ kN} \cdot \text{m}$$

$$W = \frac{b \cdot l^2}{6} = \frac{2^3}{6} = 1.33 \text{ m}^3 = 0.5 \text{ m}^3$$

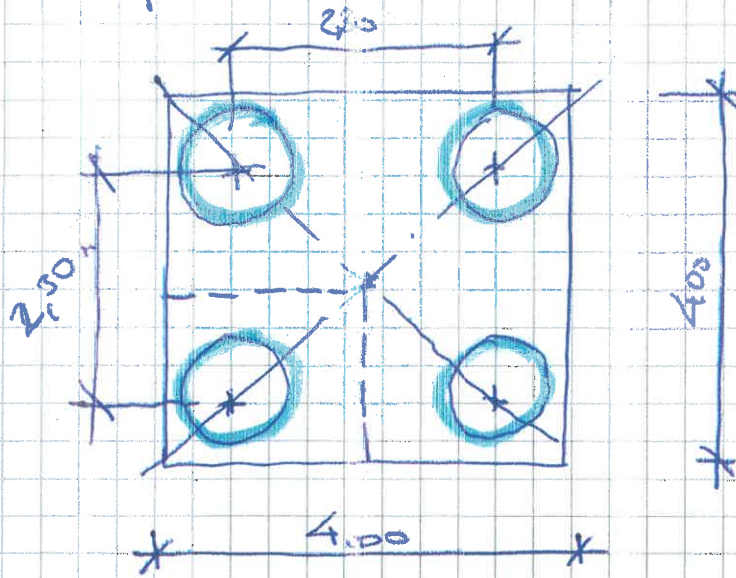
$$p_{\text{max}} = 1.57 \text{ T/m}^2 = 0.157 \text{ kg/cm}^2 < 1.0 \text{ kg/cm}^2 = R_0$$

$$p_{\text{min}} = 0.23 \text{ T/m}^2 = 0.023 \text{ kg/cm}^2$$

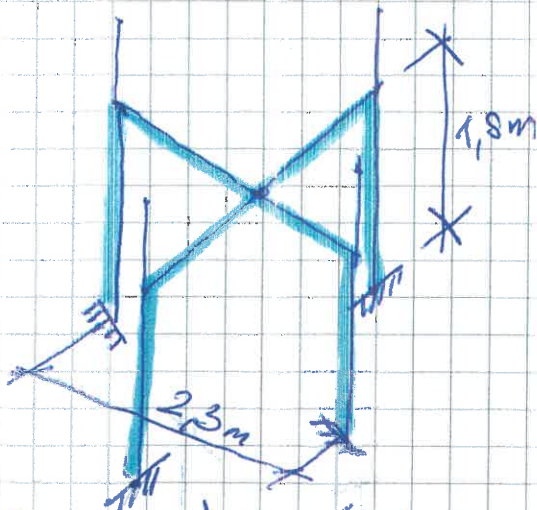
Spiediens epura



Aprēķini veidi kā stāvējoši stāvoši viens
kopā, bet fūrtisveids stāvoši ir cetur
kopu norāda:



TEĻRISĻĀ APRĒĶINĀ SHĒMA:



Aprēķināt 4 kopas un tās samērā ar
sautā, divi mērošmāki noturība un
Ciecas momentu samērā ar bāstā
vāgā.

6