

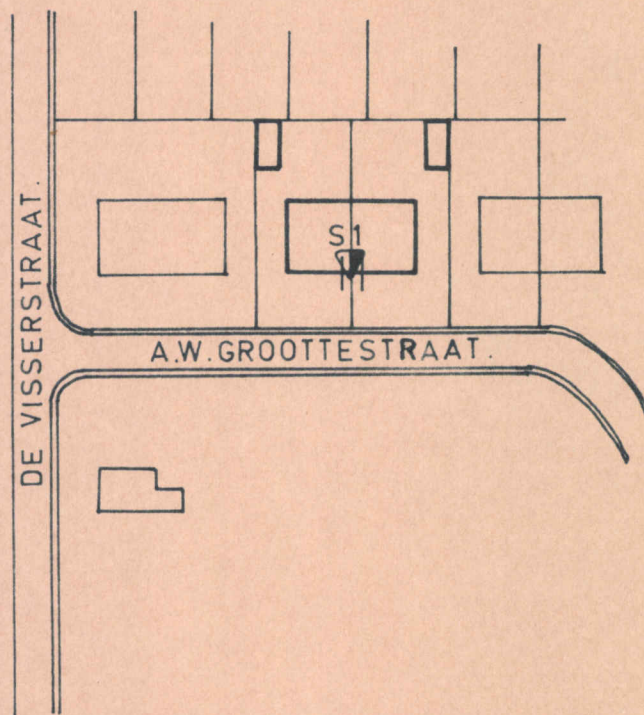
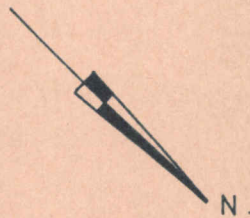
Gemeente Heemskerk

A.W. Grootestraat 12

Bouw woonhuis



1966-049



Benaming SITUATIE BODEMONDERZOEK WONING TE
KERKBEEK GEM. HEEMSKERK.

14 _ 7 _ 1966

Formaat

A4

TJADEN - HAARLEM

Auteursrecht voorbehouden volgens de wet

Schaal 1:1000

Getekend

Gecontroleerd

Gezien

Rangschikmerk S 3065

h. j. tjadèn & zonen n.v.

haarlem

tel. (02500) 153 76 (na 6 uur 56603-55508)
zuid schalkwijkerweg 58 - postbus 84

bankiers: alg. bank nederland, haarlem
postgiro 6 62 12

Uw kenmerk:

Ons kenmerk: PA/RB.

Onderwerp: Bodemonderzoek.

GEMEENTEWERKEN HEEMSKERK	
Ingekomen: No:	1985
18 juli 1966	
BEHAND. EN DEC.	par.
AFGEWERKT/NAAR AFD.	

haarlem, zie poststempel.

Op verzoek van N.V. Bouwfonds Ned. Gemeenten zenden wij U onze sondeer- en boorgegevens betreffende het in uw gemeente verrichten bodemonderzoek.

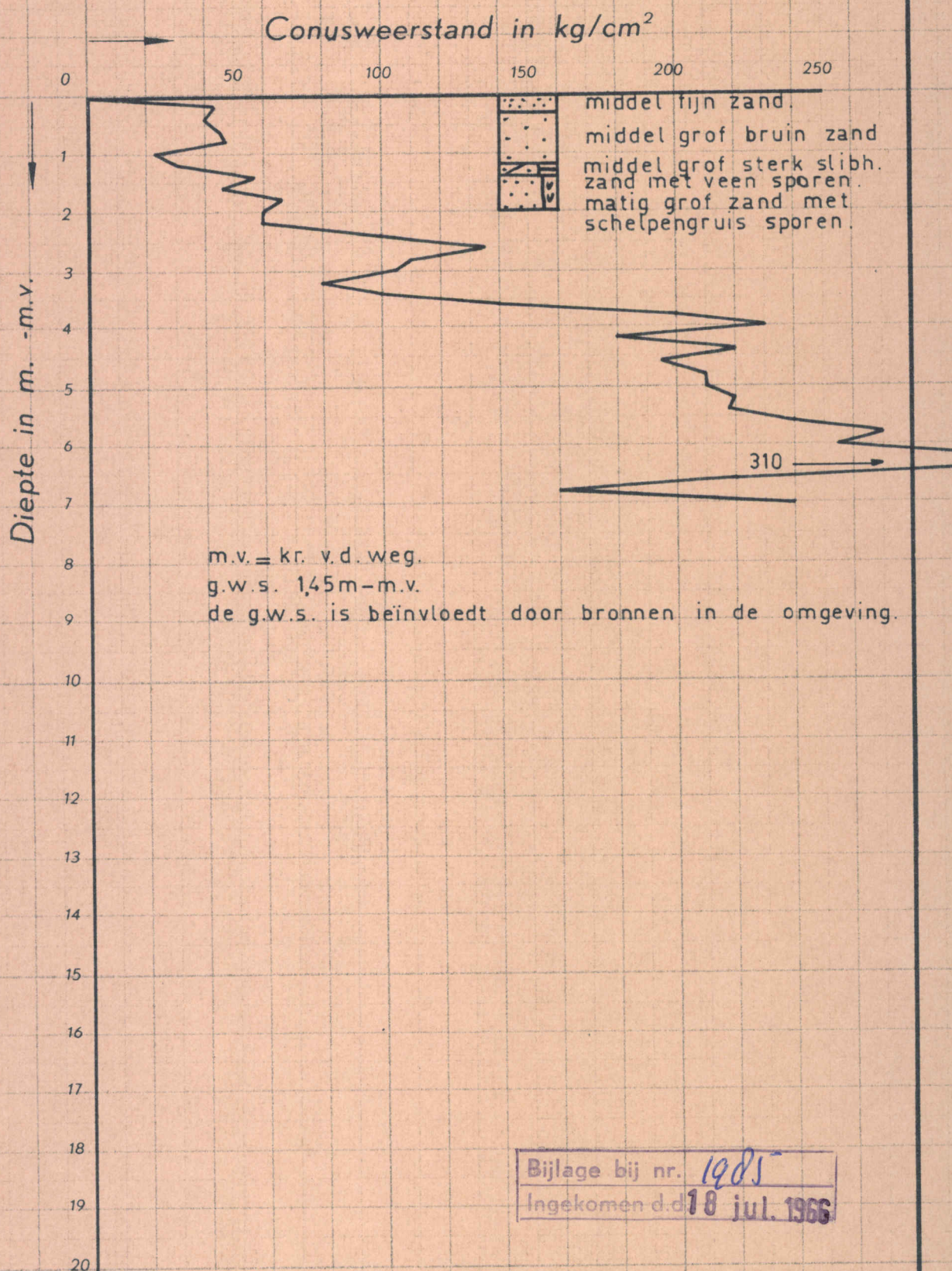
Vertrouwende dat deze gegevens voor U mede van belang zijn voor het verkrijgen van een algemeen overzicht van de bodemgesteldheid ter plaatse, verblijven wij,

Hoogachtend,

H.J. Tjaden & Zonen N.V.
HAARLEM-

WERK:

WONING TE KERKBEEK
GEM. HEEMSKERK.



Let op: m.v. = maaiveld t.p.v. de diepsondering tijdens de uitvoering!

n.v. H. J. Tjaden & Zn
Haarlem 14-7 1966

BLAD No.
S. 3065_1

Gewapend betonwerk

type 10.

t.b.v. dubb. won.

te Heemskerk.

werk no. 7572.

op ^{in acht nemen van de} ~~afk. met~~ ^{van de berekeningen} ~~op blz. 1 en 4~~ ~~en de bladen~~

Afh. met ^{in acht nemen van de op blz.} ^{op te nemen} ~~1 en 4~~ ~~en de bladen~~ ~~10-7 a 107 a~~ ~~de t.b.~~
dayer correctie.

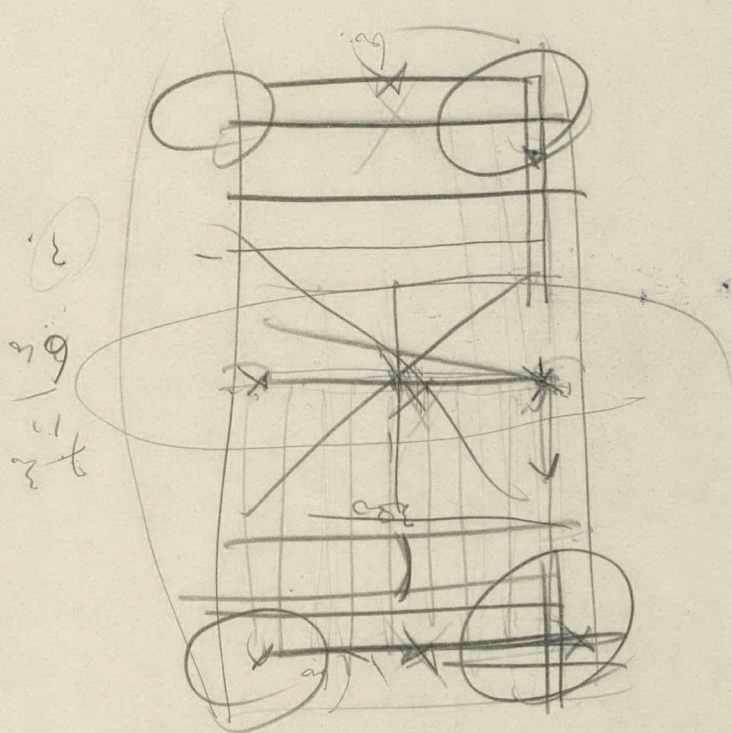
all

Bijlage bij nr. 2942
Ingekomen d.d. 1-7 nov. 1966

~~afk.~~

Architectenbureaux N.V.
F. KLEIN - GRONINGEN
H. A. MAASKANT - ROTTERDAM

de H. de Reur



$\frac{9}{81 \times 9}$

$i\gamma\gamma\gamma$

$\frac{\text{ot}}{\text{des}}$

$\frac{\text{yes}}{\text{yes}}$

out:

[illegible]

2nd 2 = 8' x 6'

$$\frac{n-1}{n^2+1}$$

8/10

8/12/21
~~8/12/21~~

Gewapend betonberekeningen volgens de G.B.V. 1962.
Spanningen σ_y/σ_b maximaal 1400 en 75 kg/cm².
Belastingen volgens de T.G.B. 1955 (N 1055).

Voor type - 10.

Verdiepingvloer.

Belasting: nuttige belasting = ²⁰⁰~~150~~ kg/m²
afwerking = 25 "
e.g. 11 x 24 = 265 "

⁴⁴⁰~~490~~ kg/m²

env.

Vloer a - 11 cm.

$$l = 7,37 \text{ m}$$

$$b = 3,86 \text{ m}$$

$$m = 0,001 \times 440 \times 3,86^2 = 6,55 \text{ kgm}$$

geval VB

$$m_{vx} = m_x = 89 \times 6,55 = 583 \text{ kgm}$$

$$A = \frac{9,5}{1,93} = 4,92 \text{ cm}^2 \quad b = 44,5 \text{ kg/cm}^2$$

$$m_{vy} = 19 \times 6,55 = 125 \text{ kgm}$$

$$A = \frac{8,5}{7,6} = 1,12 \text{ cm}^2 \quad b = 30 \text{ kg/cm}^2$$

$$A_{\min} = 2,75 \text{ cm}^2$$

Versterkte strook onder klampsteenwanden:

$$\text{Extra belasting} = \frac{2,2 \times 7 \times 126}{2,8 \times 3,75} = 185 \text{ kg/m}^2$$

$$m = 1/8 \times 185 \times 3,86^2 + 583 = 343 + 583 = 926 \text{ kgm}$$

$$A = \frac{9,5}{1,18} = 8,05 \text{ cm}^2 \quad b = 60,5 \text{ kg/cm}^2$$

Vloer b - 11 cm.

$$l = 2,61 \text{ m}$$

$$m = 1/10 \times 440 \times 2,61^2 = 300 \text{ kgm}$$

$$A = \frac{9,5}{3,86} = 2,46 \text{ cm}^2 \quad b = 30 \text{ kg/cm}^2$$

$$A_{\min} = 2,75 \text{ cm}^2$$

Uitkragend gedeelte bij trapgat.

$$m = \frac{1}{2} \times 440 \times 1,5^2 = 495 \text{ kgm}$$

$$A = \frac{9,5}{2,28} = 4,17 \text{ cm}^2 \quad b = 40,5 \text{ kg/cm}^2$$

Latei 1. Afm. 11/43,5 cm $l = 2,22 \text{ m}$.

Belasting: v.d. kap $3,9 \times 130 = 510 \text{ kg/m}^1$

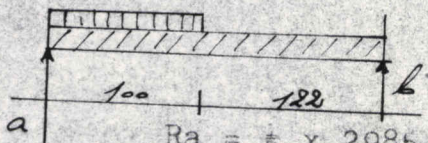
metselw. $4 \times 400 = 1600 \text{ "}$

verd.vl. $1,93 \times 400 = 850 \text{ "}$

eg (meer gew.) = 25 "

2985 kg/m¹

Van versterkte strook: $\frac{1}{2} \times 3,86 \times 185 = 367 \text{ kg/m}^1$



$$R_a = \frac{1}{2} \times 2985 \times 2,22 + 367 \times 1 \times \frac{1,72}{2,22} = 3310 + 285 = 3595 \text{ kg}$$

$$R_b = 3310 + 82 = 3392 \text{ kg}$$

$$m_{\max} = \frac{3392^2}{2 \times 2985} = 1930 \text{ kgm}$$

$$A = 40 \times 0,11 / 1,1 = 4 \text{ cm} \quad \sigma_b = 63 \text{ kg/cm}^2$$

$$Z_a = 3/2 \times 3595 / 11 \times 43,5 = 11,25 \text{ kg/cm}^2$$

$$Z_7 = (3595 - 2180) / 3362 = 45 \text{ cm}$$

$$A = 45 \times 11 \times 18,25 / 2800 = 3,23 \text{ cm}^2$$

$$Z_b = 3/2 \times 3329 / 11 \times 43,5 = 10,6 \text{ kg/cm}^2$$

$$Z_7 = (3392 - 2180) / 2985 = 40,7 \text{ cm}$$

$$A = 40,7 \times 11 \times 17,6 / 2800 = 2,82 \text{ cm}^2$$

Latei 2. Afm. 11 x 37,5 cm

$$l = 2,92 \text{ m}$$

Belasting: van kozijn	= 15 kg/m
metselw. 1,5 x 400	= 600 "
verd.vl. 0,5 x 415	= 207 "
e.g. (meer gew.)	= 15 "
q totaal	= 847 kg/m

$$\text{Belasting: } q_{\max} = 1,35 \times 415 = 560 \text{ kg}$$

$$Q = 1,35 \times 560 = 755 \text{ kg}$$

$$M = 1/8 \times 847 \times 2,92^2 + 1/6 \times 755 \times 2,92 = 900 + 367 = 1267 \text{ kgm}$$

$$A = 34 \times 0,11 / 1,21 = 3,09 \text{ cm}^2 \quad \sigma_b = 59 \text{ kg/cm}^2$$

$$R = 1,46 \times 847 + \frac{1}{2} \times 755 = 1240 + 378 = 1618 \text{ kg}$$

$$Z = 3/2 \times 1618 / 11 \times 37,5 = 5,9 \text{ kg/cm}^2 < 7$$

Latei 3. Afm. 11 x 47 cm

$$l = 2,39 \text{ m}$$

Belasting: v. kap + goot	= 100 kg/m
metselw. 2,6 x 400	= 1040 "
e.g. (meer gew.)	= 25 "
verd. vloer	= 83 "
verl. plafond	= 60 "
q totaal	= 1308 kg/m

$$m = 1/10 \times 1308 \times 2,39^2 = 747 \text{ kgm}$$

$$A = 43 \times 0,11 / 3,47 = 1,36 \text{ cm}^2 \quad \sigma_b = 31,5 \text{ kg/cm}^2$$

$$-m = 5/4 \times 747 = 933 \text{ kgm}$$

$$A = 43 \times 0,11 / 2,75 = 1,72 \text{ cm}^2 \quad \sigma_b = 36,5 \text{ kg/cm}^2$$

Verlaagd plafond. Dik 10 cm

$$l = 2,27 \text{ m}$$

$$M = 1/8 \times 300 \times 2,27^2 = 194 \text{ kgm}$$

$$A = 8,5 / 4,8 = 1,77 \text{ cm}^2$$

$$A_{\min} = 2,5 \text{ cm}^2 \quad \sigma_b = < 30 \text{ kg/cm}^2$$

Werk: v. Gorkum en Nijssen te Heemskerk nr. 7572.

dat. sept. '66 get

Blad nr 3

Latei 4. Afm. 18 x 32,5 cm $l = 2,92$ m

Belasting: van kozijn

van balkon $1,5 \times 0,9 \times 565 = 765$ kg/mverd. vloer $0,5 \times 440$ ^{vac} = 220 "

e.g. 18 x 32,5 x 2,4 = 140 "

 q totaal = 1140 kg/mBelasting van vloer a - 11: ^{vac} $q_{\max} = 1,35 \times 440 = 595$ kg $Q = 1,35 \times 595 = 805$ kg

$$M = 1/8 \times 1140 \times 2,92^2 + 1/6 \times 805 \times 2,92 = 1215 + 392 = 1607 \text{ kgm}$$

$$A = 28,8 \times 0,18 / 1,12 = 4,63 \text{ cm}^2 \quad \sigma_b = 62 \text{ kg/cm}^2$$

$$R = \frac{1}{2} \times 2,92 \times 1140 + \frac{1}{6} \times 805 = 1665 + 409 = 2068 \text{ kg}$$

$$Z = 3/2 \times 2068 / 18 \times 32,5 = 5,3 \text{ kg/cm}^2 < 7$$

Latei 5. Afm. 11/25 cm $l = 2,12$ m

Belasting: van kozijn

= 15 kg/m

metselw. $1,00 \times 400$

= 400 "

e.g. (meer gew.)

= 25 "

440 kg/m

$$M = 1/8 \times 440 \times 2,12^2 = 248 \text{ kgm}$$

$$A = 21 \times 0,11 / 2,45 = 0,95 \text{ cm}^2 \quad \sigma_b = 38,5 \text{ kg/cm}^2 \quad \checkmark$$

Latei 6. Afm. 11 x 57 cm $l = 1,44$ mBelasting: v.d. kap $3,3 \times 200$

= 455 kg/m

metselwerk

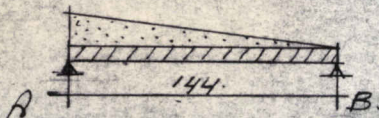
= 660 "

vloer b-11: $\frac{1}{2} \times 2,61 \times 440$

= 575 "

e.g. 11 x 58 x 2,4

= 154 "

 q totaal = 1844 kg/m

$$Q = \frac{440 \times 1,44^2}{4} = 230 \text{ kg}$$

$$M = 1/8 \times 1844 \times 1,44^2 = 480 \text{ kgm}$$

$$M_d = 1/6 \times 230 \times 1,44 = 55 \text{ kgm}$$

$$535 \text{ kgm}$$

$$h = 53 \text{ cm} \quad b = 11 \text{ cm} \quad \sigma_b < 30 \text{ kg/cm}^2$$

$$A = A_{\min} = 1,57 \text{ cm}^2$$

52
52
62
2400 ^{alt}

Balkon d - 10 cm. l uitkr. = 0,9 m

Belasting: nuttige belasting = 300 kg/m²
 afwerking = 25 "
 e.g. 10 x 24 = 240 "
 q totaal = 565 "

voor hekwerk = 30 kg/m

$$M = 1/2 \times 565 \times 0,9^2 + 30 \times 0,9 = 230 + 27 = 257 \text{ kgm}$$

$$A = 8,0 / 3,17 = 2,53 \text{ cm}^2 \quad b = 33,5 \text{ kg/cm}^2$$

Begane grondvloeren:Halvloer e - 10 cm

Belasting: nuttige belasting = 200 kg/m²
 afwerking = 25 "
 e.g. 10 x 24 = 240 kg/m²
 q totaal = 465 kg/m²

$$M = 1/8 \times 465 \times 1,55^2 = 140 \text{ kgm}$$

$$A = 8,5 / 6,7 = 1,27 \text{ cm}^2 \quad b = < 30 \text{ kg/cm}^2 \quad A_{min} = 2,5 \text{ cm}^2$$

$$\text{resp. } M = 1/8 \times 465 \times 2,61^2 = 395 \text{ kgm}$$

$$A = 8,5 / 2,29 = 3,71 \text{ cm}^2 \quad b = 40,5 \text{ kg/cm}^2$$

Schoorsteenplaat f - 10 cm.

prakt. wap. Ø 8 - 20 cm V Ø 6 - 25 cm

Stoeplaat g - 10 cm.

Belasting: nuttige belasting = 300 kg/m²
 afwerking = 100 "
 e.g. 10 x 24 = 240 "

q totaal = 640 kg/m²

$$M = 1/8 \times 640 \times 2,30^2 = 423 \text{ kgm}$$

$$A = 8 / 1,87 = 4,28 \text{ cm}^2 \quad b = 45,5 \text{ kg/cm}^2$$

Keldervloer dik 15 cm.Bepaling van de belastingen:

Kelderwand gangkant: halvl. 0,78 x 465 = 360 kg/m
 kelderw. 0,75 x 526 = 395 "
 q1 totaal = 755 kg/m

Kelderwand w.c. kant: klampst. wand 5x126 = 630 kg/m
 kelderw. 0,75 x 526 = 395 "
 q2 totaal = 1025 kg/m

Kelderwand spouwmuur: v.d. kap 3 x 130 = 390 kg/m
 metselw. 6,5 x 400 = 2600 kg/m
 kelderw. 0,75 x 526 = 395 kg/m
 q3 totaal = 3385 kg/m

Kelderwand keukenkant: van kanaal = 440 kg/m
 metselw. 5 x 200 = 1000 "
 kelderw. 0,75 x 526 = 395 "
 q4 totaal = 1835 kg/m

Totaalbelasting:

2 x 3,4 x 755 + 2 x 1025 + 2 x 1835 =
 5120 + 11500 + 2050 + 3670 = 22340 kg
 nuttige bel. 2 x 2,8 x 0,8 x 200, = 900 kg
 e.g. 2,6 x 3,6 x 360 = 3360 kg
 samen = 26600 kg

Omgerekend: $26600 / 2,6 \times 3,6 = 2840 \text{ kg/m}^2$
 af e.g. = 360 "
 q berek. = 2480 kg/m²

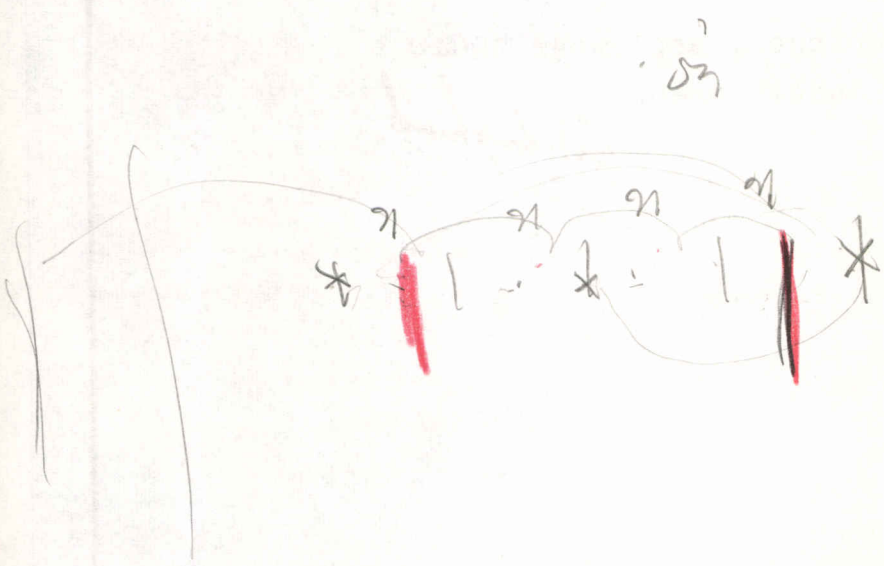
$M = 1/8 \times 2480 \times 1,00^3 = 310 \text{ kgm}$
 $A = 12,5 / 6,57 = 1,90 \text{ cm}^2$ $b = < 30 \text{ kg/cm}^2$
 $A_{\text{min}} = 3,75 \text{ cm}^2$

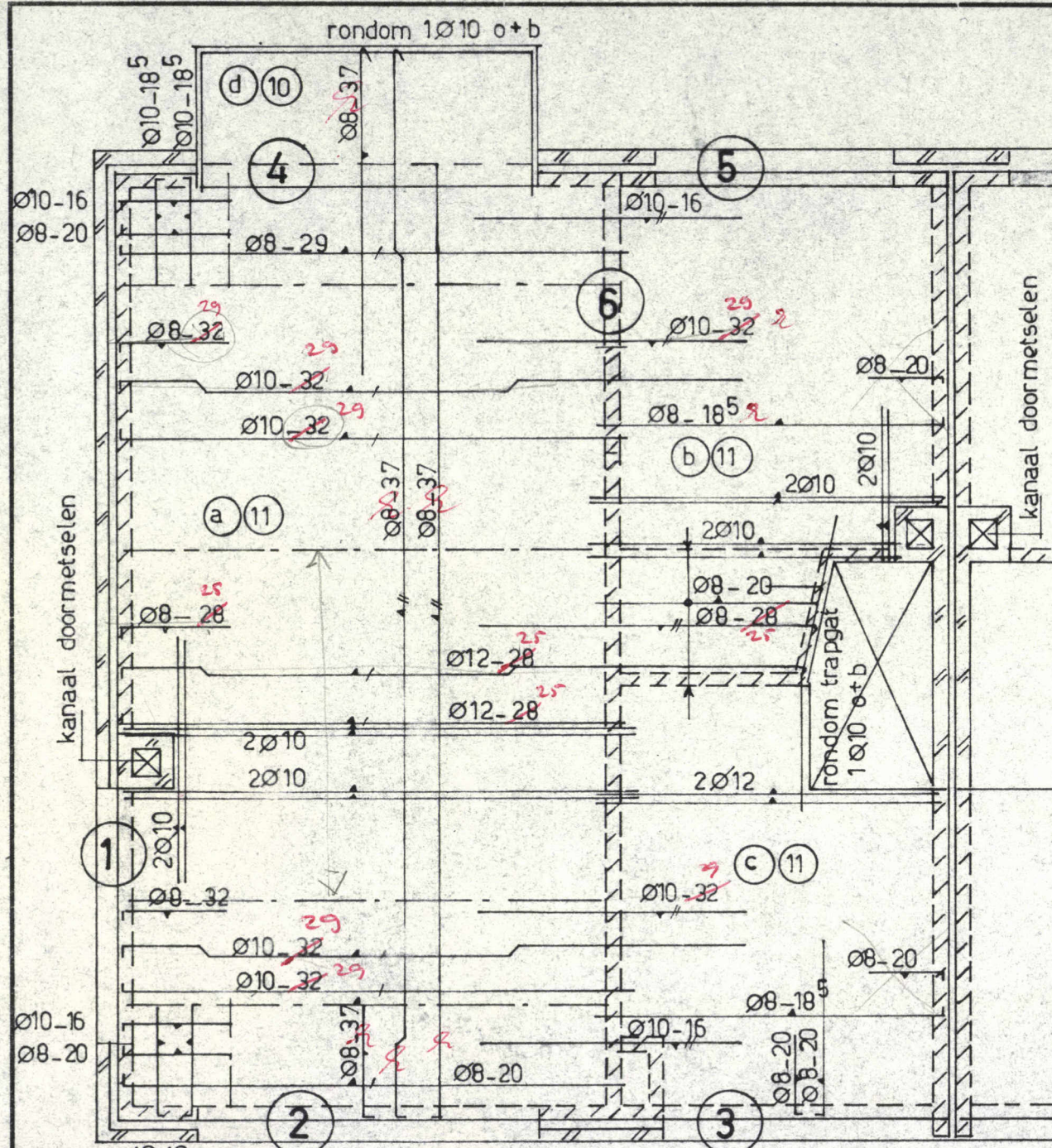
Groningen, september 1964

De constructeur :

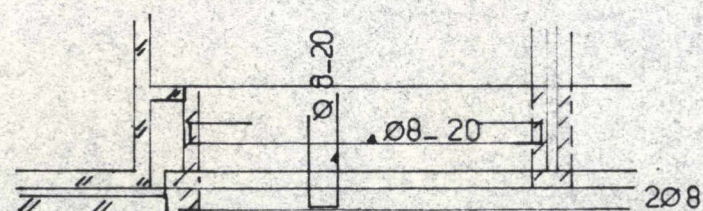
*Scherphuis**betonnen constructie → alle*

$\frac{16^2}{242}$
 $\frac{252}{242}$

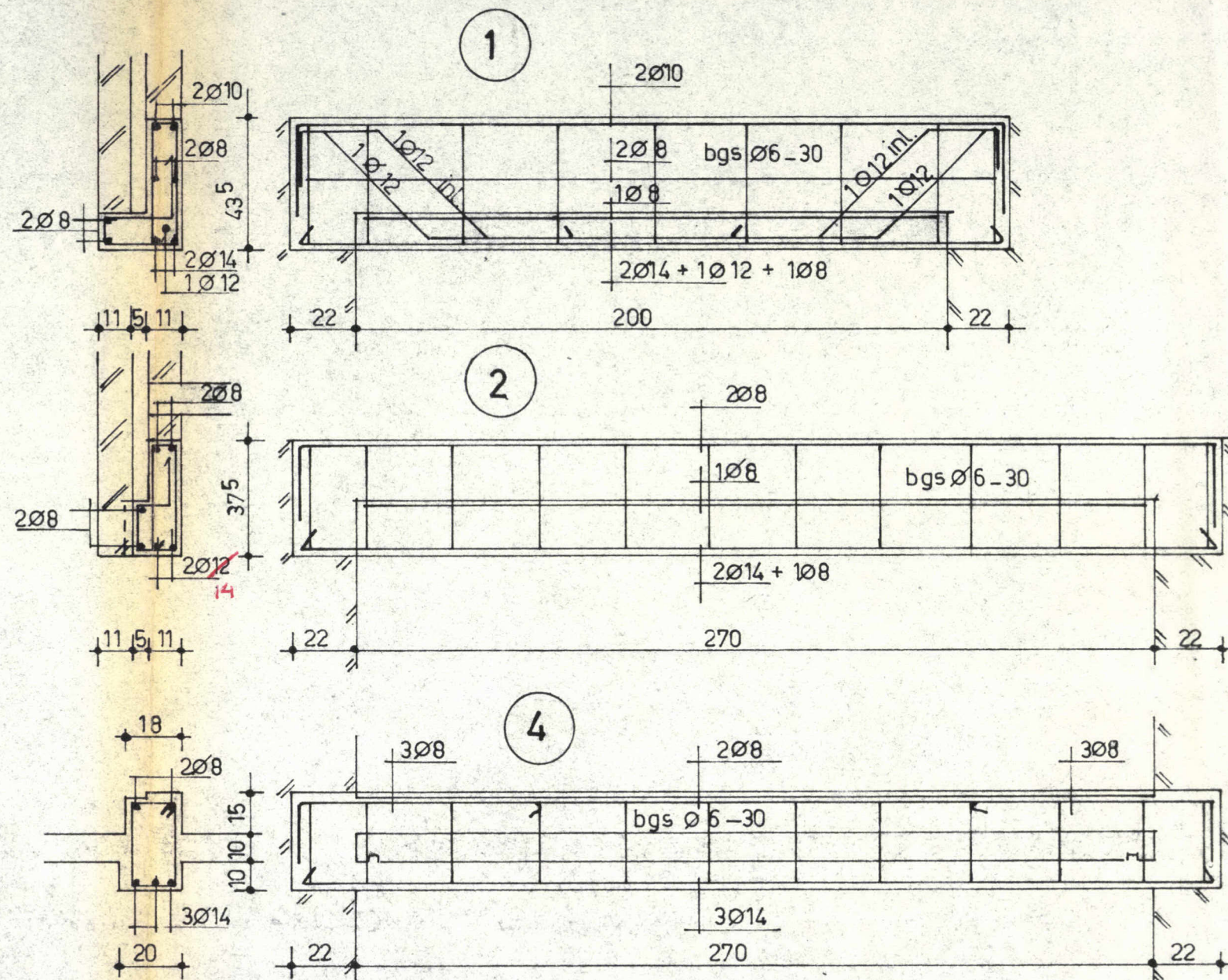




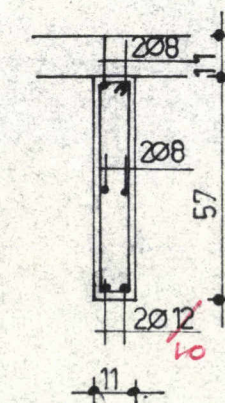
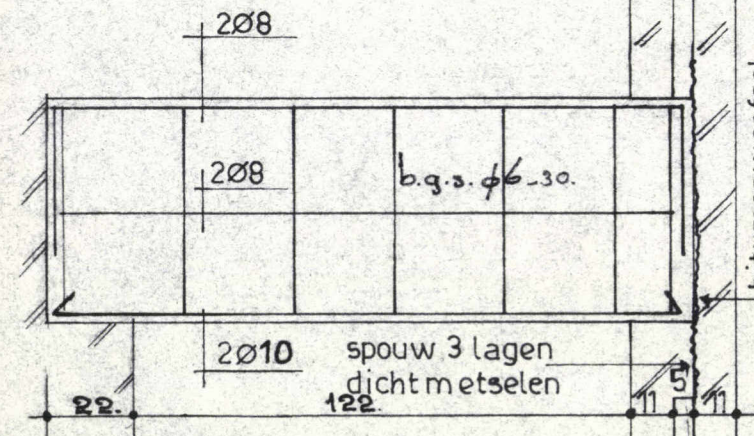
VERDIEPINGVLOER dik 11 cm
waar niet anders is aangegeven te verwerken VØ6-25



VERLAAGD PLAFOND dik 10 cm

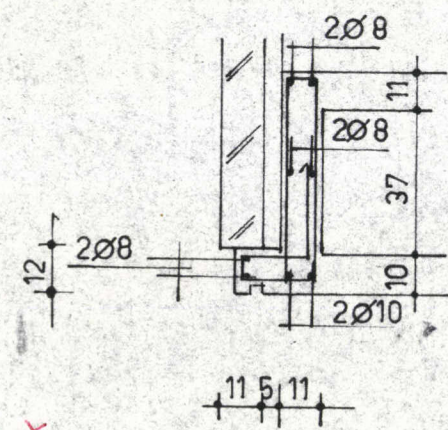
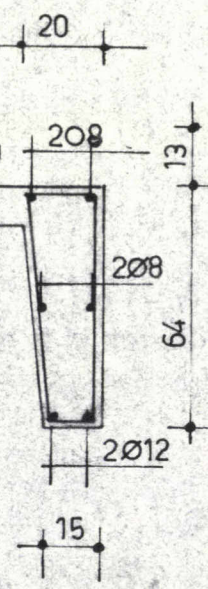


6 alleen in woning v. Gorkum



GBV-'62

staal QR 24 beton K 225	BETONDEKKING OP DE BUITENSTE WAPENING					per m ³ beton 325 kg cement	kubusv. na 28 d 225 kg/cm ²	150	ARCHITECTENBUREAUX F. KLEIN - GRONINGEN H. A. MAASKANT - ROTTERDAM	WERK: v. Gorkum en Nijssen te Heemskerk.			
		vloeren	wanden	balken	kolommen					SCHAAL:	AFM.: A 3	WERK NO.	BLAD:
	binnenwerk	1 cm	1.5 cm	2 cm	2.5 cm					1: 50-20.	GER: sept. '66		10-7 ^a
	buitenwerk	1.5 "	2 "	2.5 "	3 "								
	controle onmogelijk	2 "	2.5 "	3 "	3.5 "								


$$\begin{array}{r} 10 \\ 10 \\ \hline 638 \end{array}$$


GBV. 62

SCHAAL:	AFM.: A 3	WERK NO.	BLAD:
1:50-20.	GER. sept. '66		10-7

Gew. betonberekeningen volgens de G.B.V. '62.

Staal: SR24. Beton: K225

Belastingen volgens de T.G.B. 1955 (N1055).

Berekening van een strokenfundering met een max. grondspanning van 0.5 kg/cm^2

Enige aangenomen belastingen t.b.v. de fundering

dakbelasting $\rightarrow 150 \text{ kg/m}^2$ (hoz.)

vlieringvloer $\rightarrow 200 \text{ kg/m}^2$

verdvloer: $265 + 25 + 150 = 440 \text{ kg/m}^2$ ($265 + 200 = 465$)

beg.gr.vloer: $240 + 200 + 25 = 465 \text{ kg/m}^2$ (beton) $240 + 200 = 440$

beg.gr.vloer: $40 + 200 = 240 \text{ kg/m}^2$ (hout)

~~465~~

405

905

Bepaling v.d. belastingen en strooksbreedten.

Bet. v.d. wapening volgens de breukmethode

Lijgevel.

afm. v. rib: $27 \times 45 \text{ cm}$

Belasting: 4 g. rib

v. vliering: $375 + 200 = 575 \text{ kg/m}$

4 g. st. 100/5 = 305 " "

metsekw: $400 \times 7.1 = 2840 \text{ " "}$

v. dak: $\frac{3.75}{2} \times 150 = 280 \text{ " "}$

v. dakoverstek: $150 \times 0.3 = 45 \text{ " "}$

v. verdvloer: $\frac{3.86}{2} \times 440 = 850 \text{ " "}$

beg.gr.vl: $\frac{3.75}{2} \times 240 = 450 \text{ " "}$

Totaal = 5440 kg/m

$45 \times 27 = 122$
 $83 \times 12 = 122$
 $\frac{122}{222} \rightarrow 552$

Extra belasting v.d. schoorsteenkanalen

5 schoorsteenmantel = 1000 kg

beg.gr.vl: $1.32 \times 2.80 \times 200 = 740 \text{ "}$

verdvloer: $0.88 \times 3.50 \times 200 = 615 \text{ "}$

bovendaks: $0.22 \times 1.50 \times 200 = 65 \text{ "}$

$2.25 \times 1.50 \times 320 = 1080 \text{ "}$

Totaal = 3500 kg

Bijlage bij nr.

Ingekomen d.d. 12 apr. 1967

Heemstede

Werk: Gorkum en v. Nijssen

nr: 7572

dat.: apr. 67

get.: Bvd

Blad nr: 2

Belasting, gespreid over 7.53 m. $\rightarrow \frac{3500}{7.53} = 470 \text{ kg/m}$

Belasting totaal: $5440 + 470 = 5910 \text{ kg/m}$

Ben. strooksbreedte: $\frac{5910}{0.5 \times 100} = 119 \text{ cm}$ (Uitv: 120 cm)

Luitht: $\frac{120 - 27}{2} + 4 = 0.505 \text{ cm}$

- Muurht: $\frac{1}{2} \times 5000 \times 0.505^2 = 640 \text{ kgm}$ ht = 12 cm

h = 9.5 cm k = 0.376 Wo = 0.563 A = 5.38 cm²

C K

Wand tussen woonkamer en keuken, c.g. hall.

rib afm: 22 x 45 cm.

Max belasting: a.g. rib = 240 kg/m

a.g. strook = 360 "

metselw: 200 x 7.1 = 1420 "

beg. g.v.d.: $\rightarrow$ = 450 "

" " $\frac{2.61}{2} \times 465$ = 610 "

v.a.d.u.l.: $\rightarrow$ = 850 "

" " $1.5 \times (1.5 \times 440)$ = 990 "

v.d.a.k: $\frac{6.36}{2} \times 150$ = 480 "

v.v.l.i.x.i.n.g.: $\frac{6.36}{2} \times 200$ = 636 "

Totaal = 6036 kg/m

Ben. strooksbreedte: $\frac{6036}{0.5 \times 100} = 122 \text{ m}$ (Uitv: 125 m)

Luitht: $\frac{125 - 22}{2} + 4 = 55.5 \text{ cm}$

- Muurht: $\frac{1}{2} \times 5000 \times 0.555^2 = 770 \text{ kgm}$ ht = 12 cm

h = 9.5 cm k = 0.342 Wo = 0.687 A = 6.51 cm²

C K

Bouwmuur tussen 2 woningen.

rib afm: 27 x 45 cm.

Bel. t.p.v. twee keukens.

a.g. rib + strook = 600 kg/m

beg. g.v.d.: 240×2.50 = 600 "

Transport = 1200 kg/m

$$\begin{aligned}
 \text{transport} &\rightarrow 1200 \text{ kg/m} \\
 \text{metselw: } 400 \times 7.1 &= 2840 \text{ " " } \\
 \text{v.dak: } 150 \times 2.50 &= 375 \text{ " " } \\
 \text{v.vlistering: } 200 \times 2.50 &= 500 \text{ " " } \\
 \text{v.aardulst: } 440 \times 2.61 &= 1150 \text{ " " } \\
 \text{v.kanalen} &\rightarrow = 470 \text{ " " } \\
 \text{Totaal} &= 6535 \text{ kg/m}
 \end{aligned}$$

$$\text{Ben.strooksbreedte: } \frac{6535}{0.5 \times 100} = 130 \text{ cm}$$

$$\text{Pluithr: } \frac{130 - 0.27 \times 4}{2} = 0.555 \text{ cm}$$

$$\text{Muitthr: } \frac{1}{2} \times 5000 \times 0.555^2 = 770 \text{ kgm} \quad \text{ht} = 12 \text{ cm}$$

$$h = 9.5 \text{ cm} \quad k = 0.242 \quad W_0 = 0.687 \quad \underline{\underline{H = 6.51 \text{ cm}^2}}$$

$$\begin{aligned}
 \text{Belasting f.p.v. W.C.'s en stoepplaat:} \\
 \text{g.g.t.b. + strooks} &= 600 \text{ kg/m} \\
 \text{metselw} &\rightarrow = 2840 \text{ " " } \\
 \text{v.dak + vlistering: } 375 + 500 &= 875 \text{ " " } \\
 \text{v.aardul:} &\rightarrow = 1150 \text{ " " } \\
 \text{v.kanalen} &\rightarrow = 470 \text{ " " } \\
 \text{beg.grut: } 2.61 \times 640 &= 1670 \text{ " " } \\
 \text{Totaal} &= 7605 \text{ kg/m}
 \end{aligned}$$

$$\text{Ben.strooksbreedte: } \frac{7605}{0.5 \times 100} = 150 \text{ cm}$$

$$\text{Pluithr: } \frac{150 - 0.27 \times 4}{2} = 0.656 \text{ cm}$$

$$\text{Muitthr: } \frac{1}{2} \times 0.656^2 \times 5000 = 1075 \text{ kgm} \quad \text{ht} = 12 \text{ cm}$$

$$h = 9.5 \text{ cm} \quad k = 0.290 \quad W_0 = 0.989 \quad \underline{\underline{H = 9.40 \text{ cm}^2}}$$

Kelder: Voor de totale belasting, zie de standaardbet. van een won. type 10, blad 5, van sept. '64. $\rightarrow P = 26600 \text{ kg}$.

$$\text{Ben: opp: } \frac{26600}{0.25} = 53220 \text{ cm}^2 \quad L = \text{---} + 3 \text{ m}$$

$$\text{Ben. breedte: } \frac{53220}{3} = 17740 \text{ cm} \quad \text{De wap. in de kelderplaat} \rightarrow A = A_{\min} = 2.75 \text{ cm}^2 \quad \text{ht} = 15 \text{ cm}$$

Blad nr: 4

Berekening v/h. prefabbalkje tussen hall en keukens.
 $lt = 1.365 + 0.22 = 1.585 \text{ m}$

afm: $15 \times 25 \text{ cm}$

Bel. metselw: $200 \times 2.7 = 540 \text{ kg/m}$

toev. v. vloeren = 200 " "

g.g. balk $\rightarrow = 90 \text{ " "}$

Totaal = 830 kg/m

$R = \frac{1}{2} \times 1.585 \times 830 = 660 \text{ kg}$

$M_u = \frac{1}{8} \times 1.585^2 \times 830 = 260 \text{ kgm}$

$h = 20 \text{ cm}$ $b = 15 \text{ cm}$ $k = 0.480$ $W_b = 0.338$ $A = 1.02 \text{ cm}^2$

$W_{op} = 2 \phi_{10} (a+b)$

$\sigma = 2 \phi_{10} \text{ kg/cm}^2$

Berekening v.d. gar. en schuurfundering.

Langs zijgevels.

afm. v. rib: 22 cm

$ht = 12 \text{ cm}$

$\frac{45}{45}$

Belasting: g.g. rib = 240 kg/m

g.g. strooks = 160 " "

metselw. $200 \times 3 = 600 \text{ " "}$

v. dak: $\frac{3.00}{2} \times 150 = 225 \text{ " "}$

Totaal = 1225 kg/m

Ben. strookbreedte: $\frac{1225}{0.306} = 40 \text{ cm}$

$A = A_{min} = 3.10 \text{ cm}^2$

We zijn hier uit gegaan van een strookbreedte van 40 cm. Hierbij vonden we een grondspanning van 0.306 kg/cm^2 . Deze grondspanning hadden we nu aan voor de fund. van de schuif- en

Rechterwand. en tussenwand

gar.

afm. v. rib: 22 cm

$\frac{45}{45}$

Belasting: g.g. rib + strooks = 400 kg/m

metselw: $\rightarrow = 600 \text{ " "}$

toev. v. dak = 50 " "

Totaal = 1050 kg/m

Ben. strookbreedte: $\frac{1050}{0.306} = 35 \text{ cm}$ $A = A_{min} = 3.10 \text{ cm}^2$

Voorgeval.

afm. v. rib: 22/45.

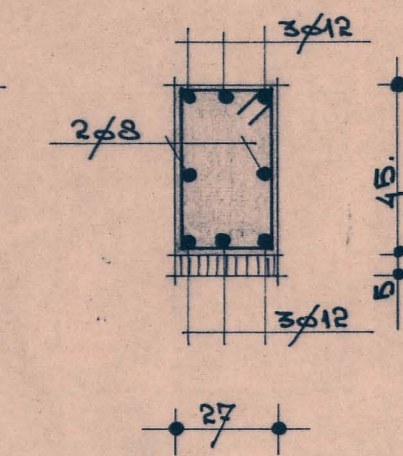
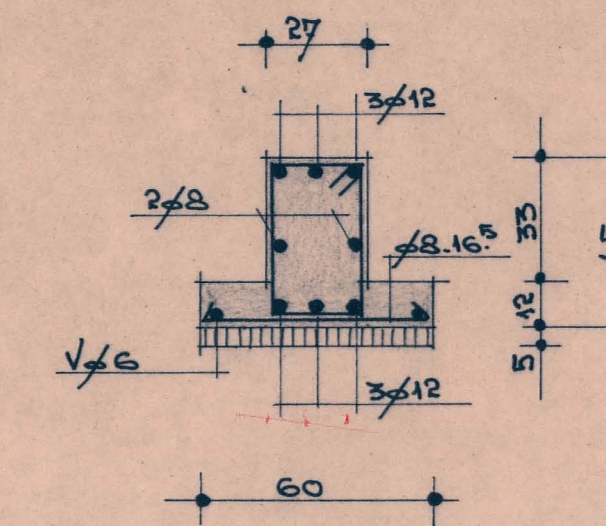
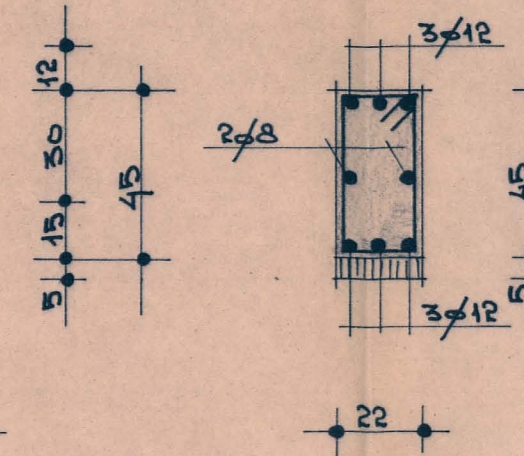
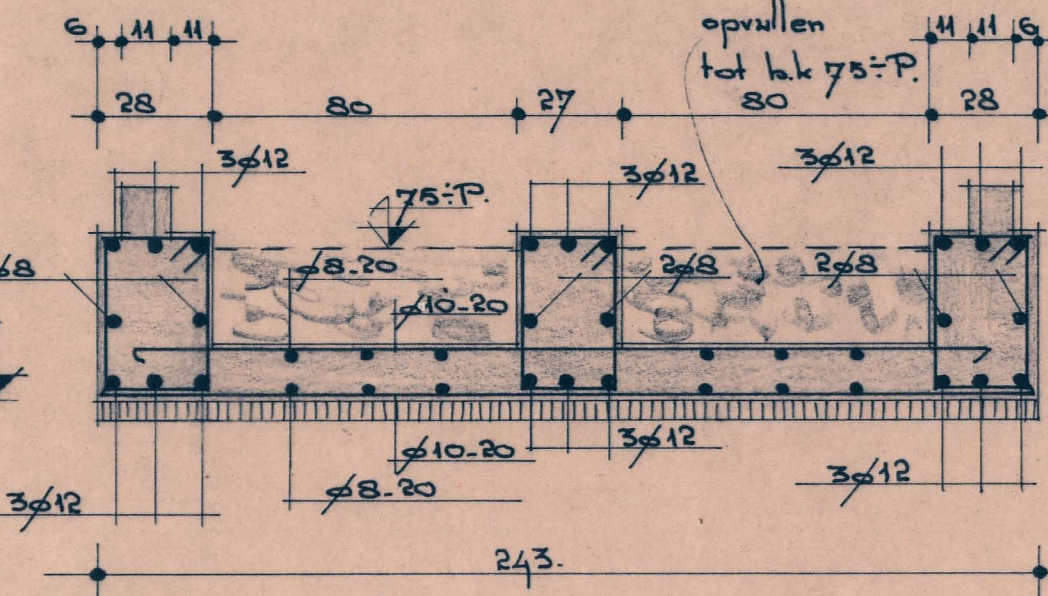
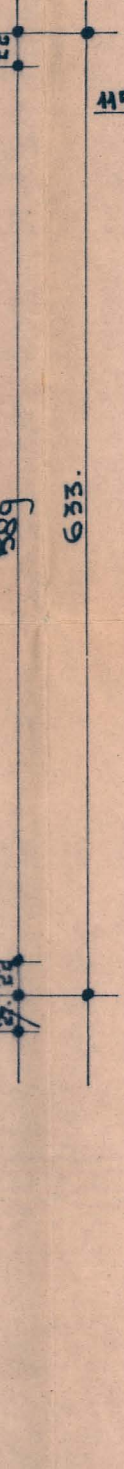
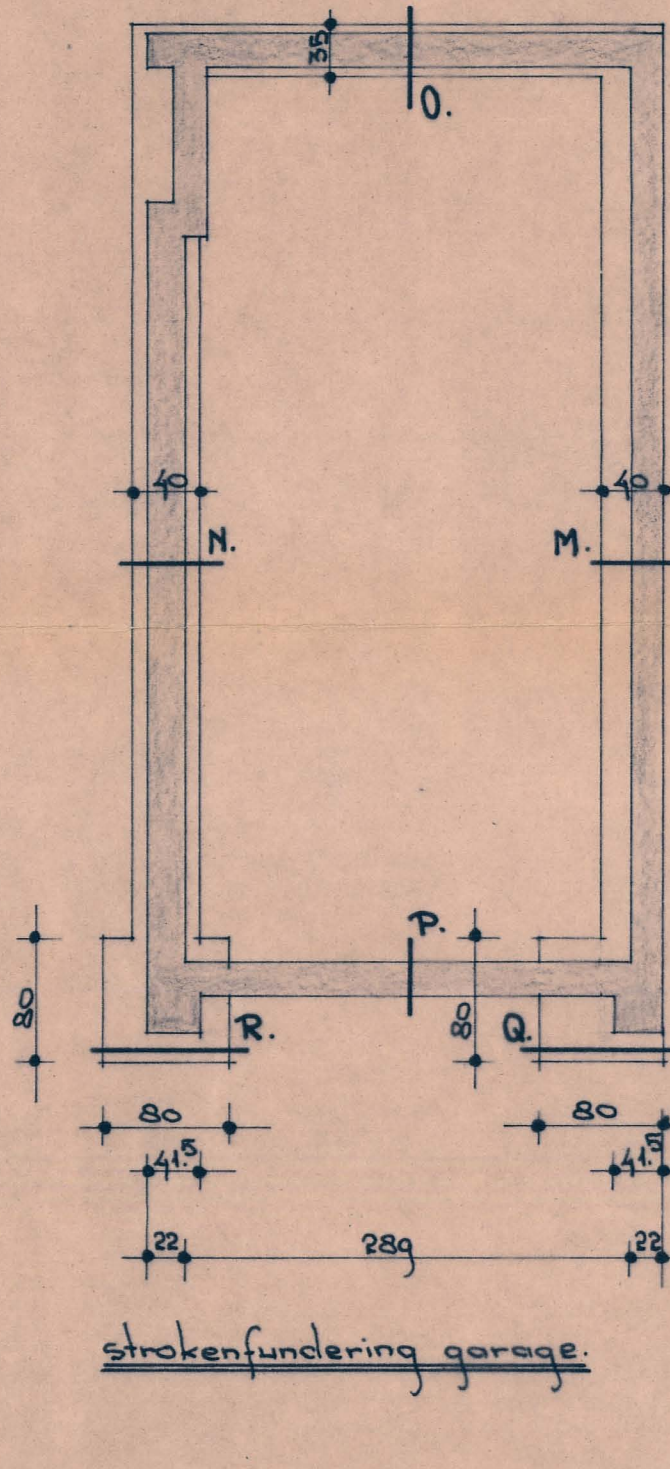
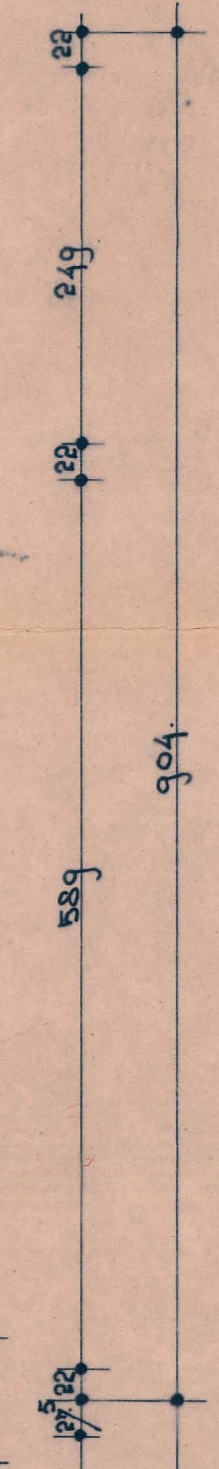
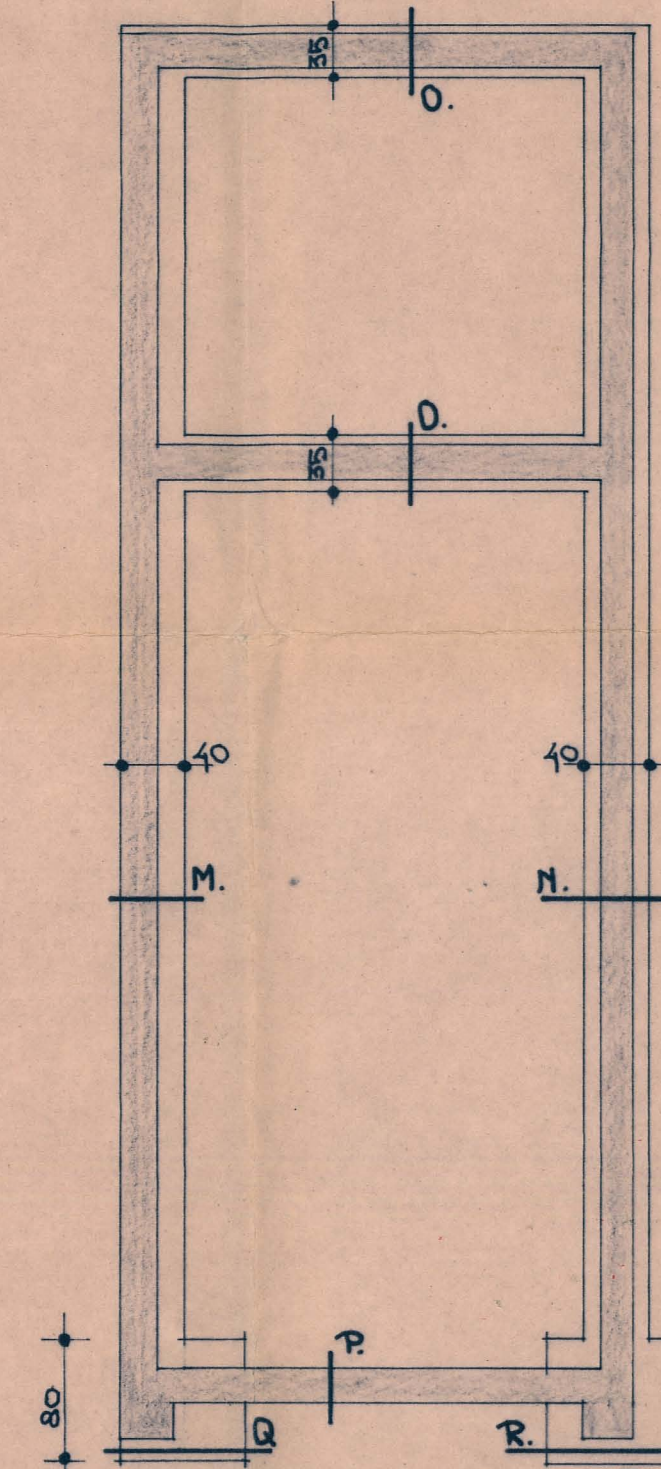
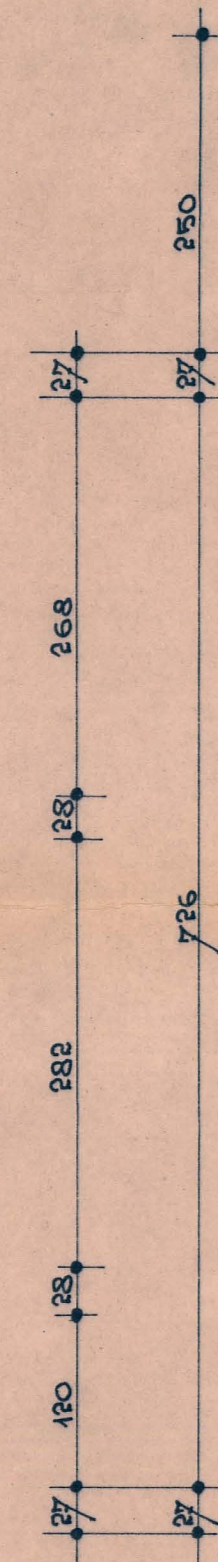
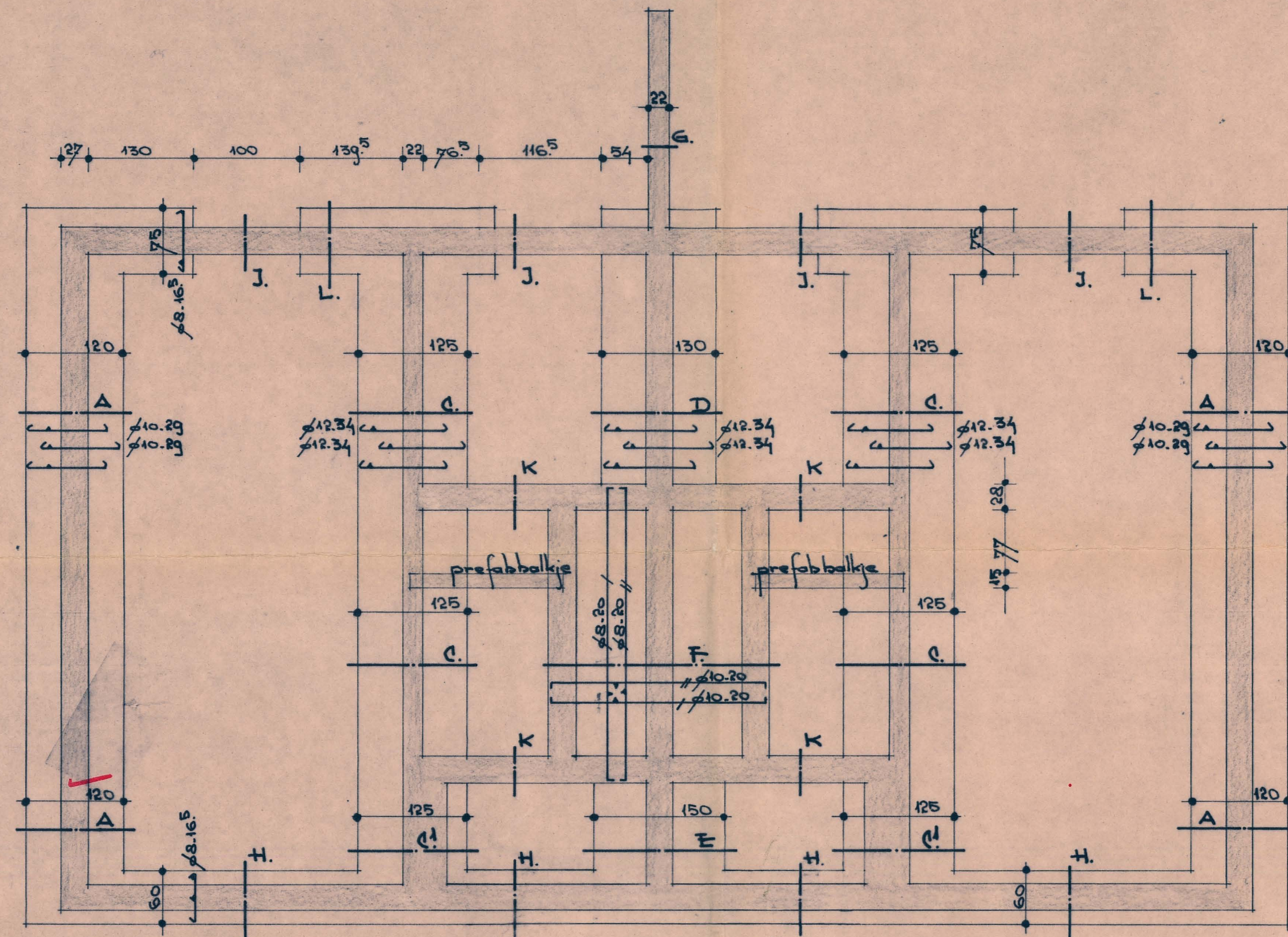
De rib onder de ingang, houden
we vrijdragend.Reactie tw. 2. van ingang van de rib-
belasting: $q.g.rib: \frac{2.72}{4} \times 240 = 330 \text{ kg}$ v. overstijgende auto: $\frac{500}{2} = 250 \text{ "}$ 8 v. deuren: $\frac{2.72}{2} \times 50 = 70 \text{ "}$ metselw: $\frac{2.72}{2} \times (200 \times 0.70) = 140 \text{ "}$ v. dakoverstak: $\frac{2.72}{2} \times (150 \times 0.50) = 100 \text{ "}$

890 kg

metselw. v. penanten: $3 \times 200 \times 1.16 = 700 \text{ "}$ extra v. fundering $\rightarrow = 240 \text{ "}$ Total $= 1830 \text{ kg}$ Ben. opp: $\frac{1830}{0.306} = 6000 \text{ cm}^2 \rightarrow 80 \times 80 \text{ cm}$

ht = 12 cm.

 $A = A_{min} = 312 \text{ cm}^2$

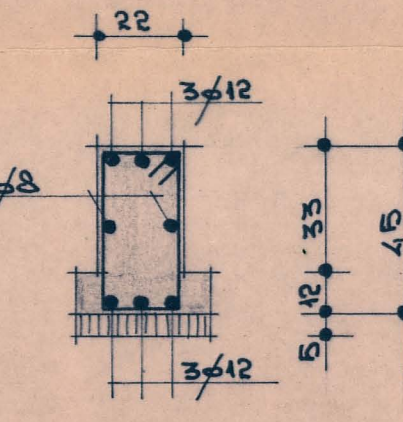
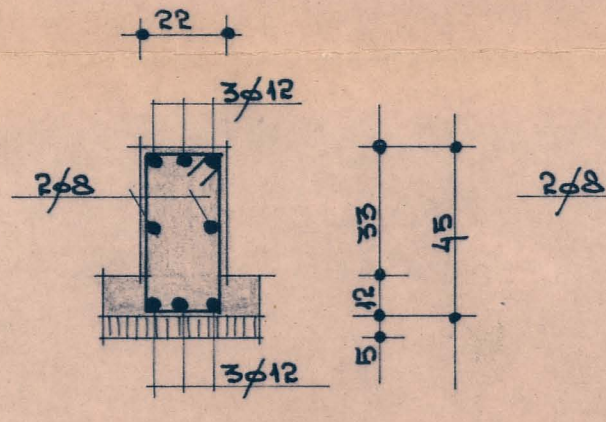
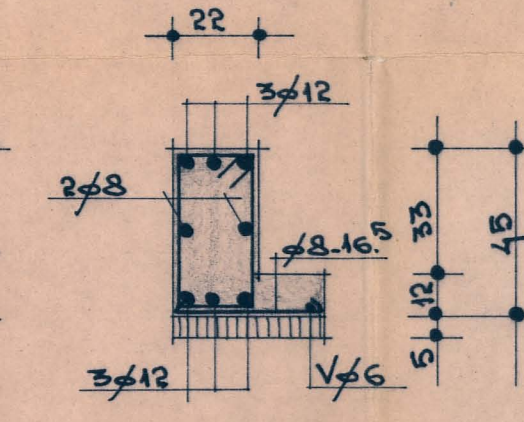
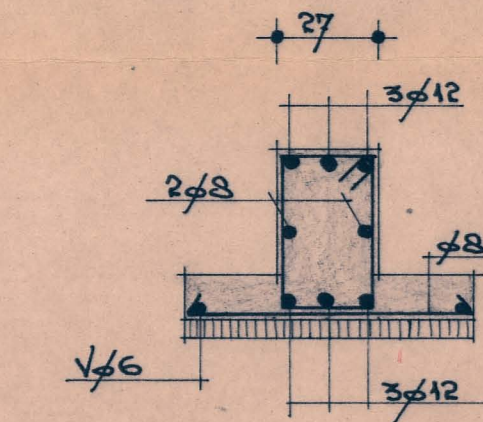
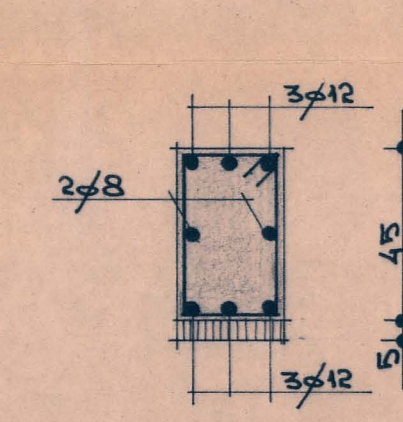


doorsnede F.

doorsnede G.

doorsnede H.

doorsnede J.



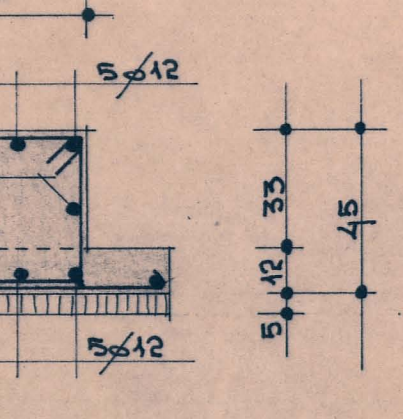
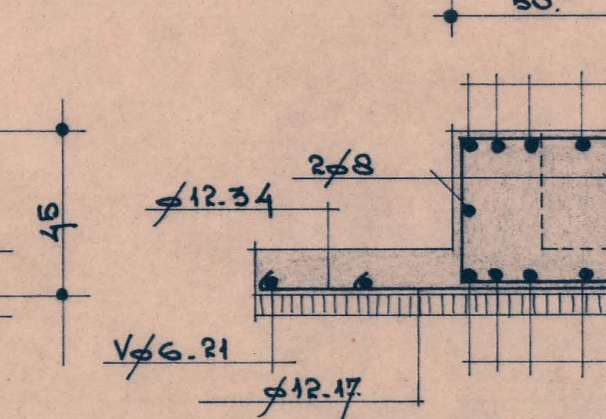
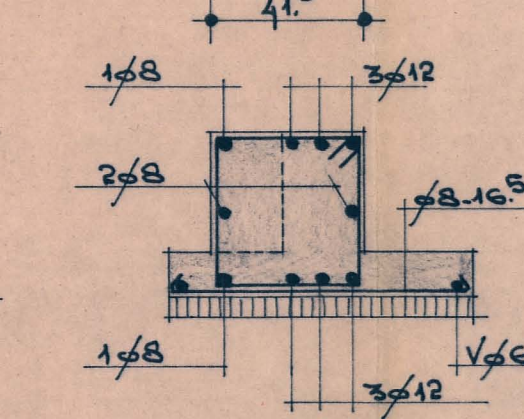
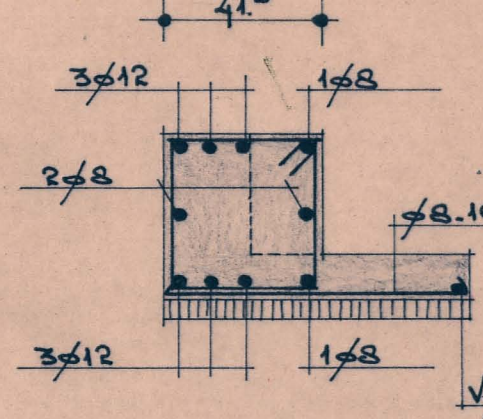
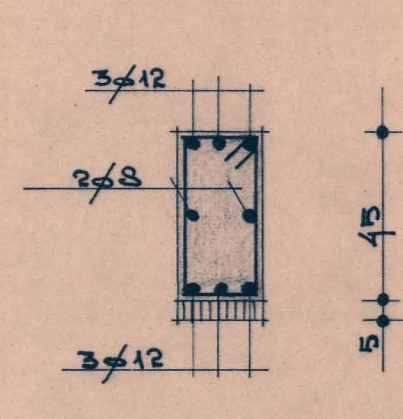
doorsnede K.

doorsnede L.

doorsnede M.

doorsnede N.

doorsnede O.

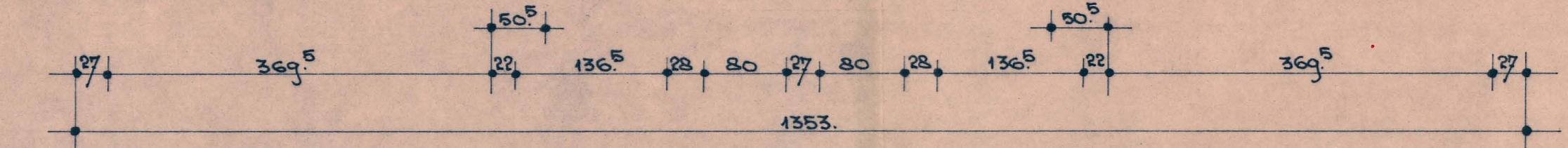


doorsnede P.

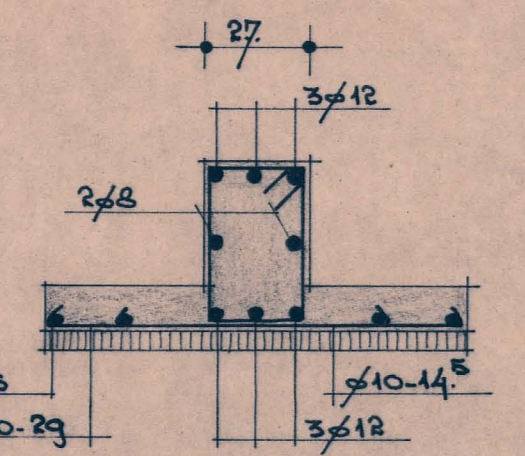
doorsnede Q.

doorsnede R.

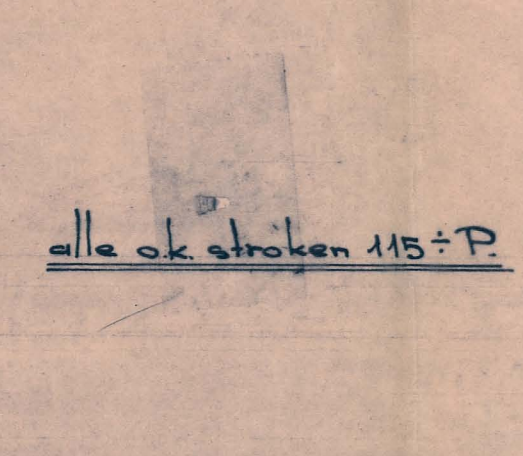
doorsnede C'.



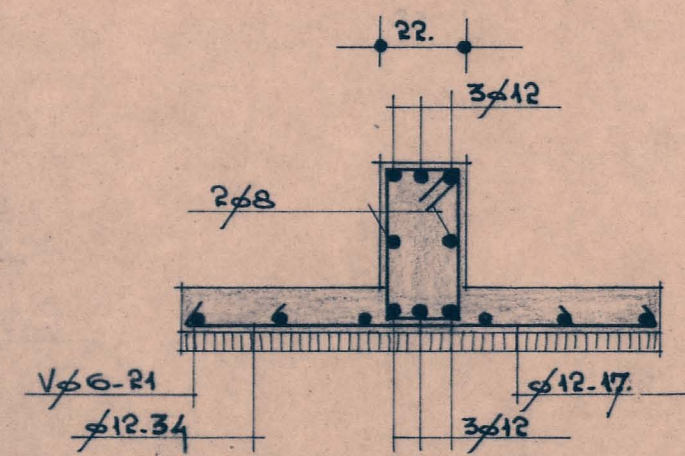
strokenfundering.



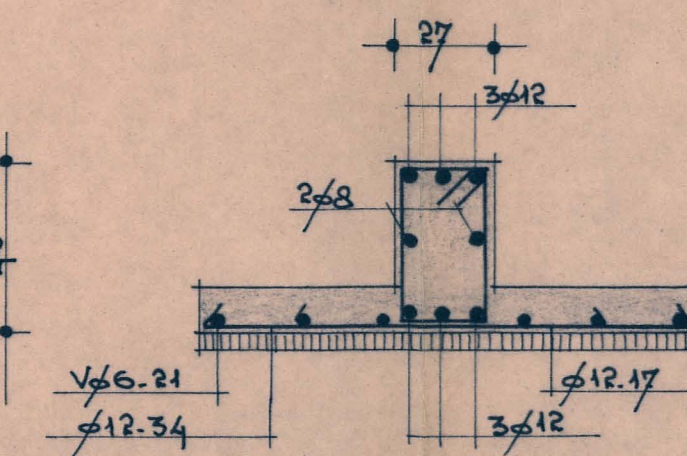
doorsnede A.



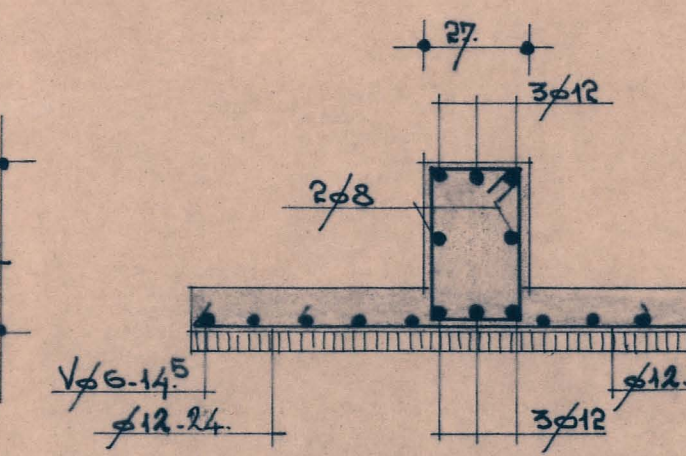
doorsnede B.



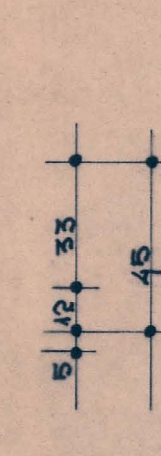
doorsnede C.



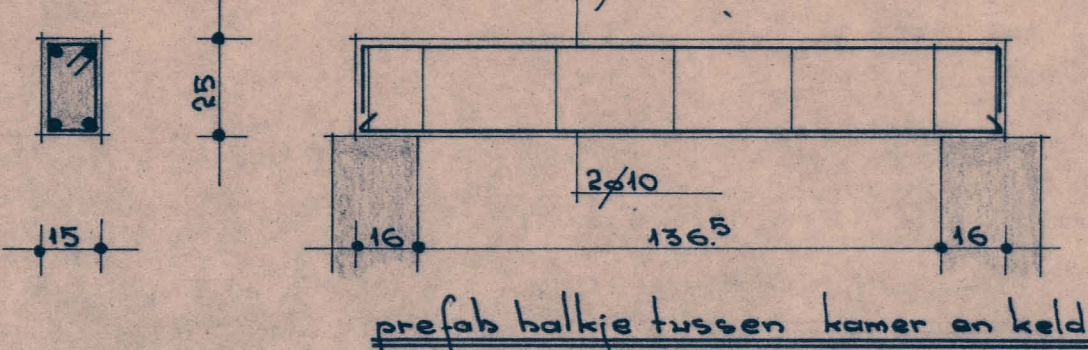
doorsnede D.



doorsnede E.



doorsnede F.



prefab balkje tussen kamer en kelder.

alle gewapende betonconstructies die niet op bekisting worden gestort, voorzien van een werkvloer dik 5cm (stampbeton). in de ribben te verwerken beugels $\phi 6.30$ cm.

RAADGEVEND INGENIEURS BUREAU FOEKENS GRONINGEN TEL. 05900-31848				
ADVISEURS VOOR GEWAPEND BETON, STAAL, HOUT, EN FUNDERINGSKONSTRUKTIES				
ARCHITECT	bureau Klein N.V. Groningen.			
WERK	hr. v. Gorkum en Nijssen te Heemskerk		NR:	7572
ONDERDEEL	funderingsplan (stroken $\Sigma g = 0.5 \text{ kg/cm}^2$)		BLAD:	G.B.1.
schaal: 1:50	20	formaat: 45x105	get.: k.b.	VOLGNR.: 3720
d.d.: 5.4.67				
GEW.	DATUM	betondekking op buitenste wapening		
		binnen	buiten	onzichtbaar
		Platen	1 cm.	1.5 cm.
		Wanden	1.5 cm.	2 cm.
		Balken	2 cm.	2.5 cm.
		Kolommen	2.5 cm.	3 cm.
min 325 kg. cement / m ³		kubusvastheid na 28 d. 22.5 kg/cm ²		betonstaalkwaliteit: A.R. 24.

Bijlage bij nr.
Ingekomen d.d. 12 apr. 1967