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# NIEUWBOUW LIGBOXENSTAL MINISTER CREMERSTRAAT 5 ZEIJEN

CONSTRUCTIEBEREKENING

opdrachtgever:

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| | |
|---|---|
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| gecontroleerd door: | ing. J.M. van der Reest |
| projectleider: | ing. R. van Althuis MSEng. RC |
| werknummer: | 15-2158 |
| versie: | 1 |
| status: | definitief |
| datum: | 7 december 2016 |

## Algemeen

Deze berekening omvat de dimensionering van de hoofddraagconstructie ten behoeve van de nieuw te bouwen ligboxenstal aan de Minister Cremerstraat 5 te Zeijen.

## Toegepaste voorschriften en richtlijnen

NEN-EN-1990/NB - Grondslagen
NEN-EN-1991/NB - Belastingen op constructies
NEN-EN-1992/NB - Ontwerp en berekening van betonconstructies
NEN-EN-1993/NB - Ontwerp en berekening van staalconstructies
NEN-EN-1995/NB - Ontwerp en berekening van houtconstructies
NEN-EN-1997/NB - Geotechnisch ontwerp

## Ontwerpcriteria

| gebouwfunctie | ontwerp-levensduur-klasse | gevolg-klasse | betrouw-baarheids-klasse |
|---|---|---|---|
| Industriëel gebouw 1 of 2 verdiepingen | 2 | CC1 | RC1 |

ontwerplevens-duur = 15 jaar
$K_{FI}$ = 0,9

$\gamma_G$ = 1,08 = 1,22 $\gamma_Q$ = 1,35

## Toegepaste materialen

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| staal | walsprofielen | kwaliteit | = | S235 | $f_{y;d}$ | = | 235,00 N/mm$^2$ |
| | kokers | kwaliteit | = | S275 | $f_{y;d}$ | = | 275,00 N/mm$^2$ |
| hout | Gezaagd | kwaliteit | = | C24 | $f_k$ | = | 24,00 N/mm$^2$ |
| | | | | | $\gamma_m$ | = | 1,30 |

$k_{mod}$ conform Tabel 3.1 van NEN/EN 1995-1-1

| klimaat-klasse | belastingduurklasse | | | | |
|---|---|---|---|---|---|
| | blijvend | lang | middellang | kort | zeer kort |
| 1 | 0,60 | 0,70 | 0,80 | 0,90 | 1,10 |
| 2 | 0,60 | 0,70 | 0,80 | 0,90 | 1,10 |
| 3 | 0,50 | 0,55 | 0,65 | 0,70 | 0,90 |

$k_{def}$ conform Tabel 3.2 van NEN/EN 1995-1-1

| klimaatklasse | | |
|---|---|---|
| 1 | 2 | 3 |
| 0,60 | 0,80 | 2,00 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| beton | platen | kwaliteit | = | C20/25 | $f_{cd}$ | = | 13,30 N/mm$^2$ |
| | opstort | kwaliteit | = | C30/37 | $f_{cd}$ | = | 20,00 N/mm$^2$ |
| | wanden (bu.z.) | kwaliteit | = | C30/37 | $f_{cd}$ | = | 20,00 N/mm$^2$ |
| | wanden (bi.z.) | kwaliteit | = | C20/25 | $f_{cd}$ | = | 13,30 N/mm$^2$ |
| | bodem (ond.z.) | kwaliteit | = | C20/25 | $f_{cd}$ | = | 13,30 N/mm$^2$ |
| | bodem (bo.z.) | kwaliteit | = | C20/25 | $f_{cd}$ | = | 13,30 N/mm$^2$ |
| betonstaal | | kwaliteit | = | B500B | $f_s$ | = | 435,00 N/mm$^2$ |

**Betondekking per onderdeel**

| onderdeel: | soort: | milieuklasse(n): | | | | speciaal: | dekking: |
|---|---|---|---|---|---|---|---|
| platen | plaat | XC3 | | | | geen | 25 mm* |
| opstort | balk | XC3 | | | | geen | 30 mm* |
| wanden (bu.z.) | wand | XC4 | Xf3 | | | geen | 25 mm* |
| wanden (bi.z.) | wand | XC4 | XA3 | | | geen | 30 mm* |
| bodem (ond.z.) | plaat | XC2 | | | | geen | 25 mm* |
| bodem (bo.z.) | plaat | XC2 | XA2 | | | geen | 30 mm* |

*dekking t.b.v. brandwerendheid buiten beschouwing gelaten
Toeslagen: indien oncontroleerbaar of nabewerkt oppervlak is de dekking verhoogd met 5 mm.
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**Uitgangspunten**

In deze berekening wordt de hoofddraagconstructie verantwoord. Buiten verantwoording van deze berekening vallen:

- detailberekening van de staalconstructie
- detailberekening van de houtconstructie

sonderingen

- sondeeronderzoek met projectnummer 2016-831 d.d. 28-11-2016 van Koops & Romeijn grondmechanica.

tekeningen

- bouwkundige tekeningen met projectnummer 15-06 d.d. 24-11-2016 van BTA Dwingeloo.

**Constructieopzet**

horizontale draagstructuur

| onderdeel | omschrijving |
|---|---|
| plat dak | houten balklaag |
| hellend dak | stalen spant, houten gordingen, |
| hellend dak | vezelc.golfplaat |
| kelder | gewapend beton |

verticale draagstructuur

| onderdeel | omschrijving |
|---|---|
| kolommen | stalen kolommen |

fundering

Het gebouw is gefundeerd op staal middels gewapende betonnen poeren en een gewapende betonnen kelder. Het gebouw valt binnen de criteria van de Geotechnische Categorie 1 volgens NEN-EN-1997/NB.

stabiliteit

De stabiliteit van het gebouw wordt verzorgd door portaalwerking in de dwarsrichting en stabiliteitsverbanden in de lengterichting.

**Belastingen en gewichten**

verdiepingsvloer bergzolder

| | | | | | | |
|---|---|---|---|---|---|---|
| permanent | Kanaalplaatvloer 200 | | 3,03 | | | |
| | Druklaag 60 mm | | 1,44 | | | |
| | | $G_k$ = | 4,47 kN/m$^2$ | | | |
| veranderlijk | E1 winkels | | 10,00 | $\psi_0$ | $\psi_1$ | $\psi_2$ |
| | | $Q_k$ = | 10,00 kN/m$^2$ | 0,40 | 0,70 | 0,60 |
| | karakteristieke waarde | $Q_k$ = | 14,47 kN/m$^2$ | | | |
| | rekenwaarde 6.10a | $Q_{Ed}$= | 10,83 kN/m$^2$ | | | |
| | rekenwaarde 6,10b | $Q_{Ed}$= | **18,33** kN/m$^2$ | * $\psi_0$ | = | 10,23 kN/m$^2$ |
| | frequente combinatie | $Q_{freq}$= | 11,47 kN/m$^2$ | | | |

verdiepingsvloer kantoor

| | | | | | | |
|---|---|---|---|---|---|---|
| permanent | Kanaalplaatvloer 200 | | 3,03 | | | |
| | Druklaag 60 mm | | 1,44 | | | |
| | | $G_k$ = | 4,47 kN/m$^2$ | | | |
| veranderlijk | B Kantoorruimten | | 2,50 | | | |
| | eigen gewicht ≤ 1,0 kN/m (A) | | 0,50 | $\psi_0$ | $\psi_1$ | $\psi_2$ |
| | | $Q_k$ = | 3,00 kN/m$^2$ | 0,50 | 0,50 | 0,30 |
| | karakteristieke waarde | $Q_k$ = | 7,47 kN/m$^2$ | | | |
| | rekenwaarde 6.10a | $Q_{Ed}$= | 7,46 kN/m$^2$ | | | |
| | rekenwaarde 6,10b | $Q_{Ed}$= | **8,88** kN/m$^2$ | * $\psi_0$ | = | 6,85 kN/m$^2$ |
| | frequente combinatie | $Q_{freq}$= | 5,97 kN/m$^2$ | | | |

plat dak

| | | | | | | |
|---|---|---|---|---|---|---|
| permanent | Houten dak + balken | | 0,50 | | | |
| | | $G_k$ = | 0,50 kN/m$^2$ | | | |
| veranderlijk | H Daken onderhoud en herstel | | 1,00 | $\psi_0$ | $\psi_1$ | $\psi_2$ |
| | | $Q_k$ = | 1,00 kN/m$^2$ | 0,00 | 0,00 | 0,00 |
| sneeuw | $s_{ki}$ = 0,75 x $s_{k50}$ = 0,53 | | | $\psi_0$ | $\psi_1$ | $\psi_2$ |
| | $\mu_1$ = 0,80 | $Q_k$ = | 2,00 kN/m$^2$ | 0,00 | 0,00 | 0,00 |
| | karakteristieke waarde | $Q_k$ = | 2,50 kN/m$^2$ | | | |
| | rekenwaarde 6.10a | $Q_{Ed}$= | 0,61 kN/m$^2$ | | | |
| | rekenwaarde 6,10b | $Q_{Ed}$= | **3,24** kN/m$^2$ | * $\psi_0$ | = | 0,54 kN/m$^2$ |
| | frequente combinatie | $Q_{freq}$= | 0,50 kN/m$^2$ | | | |

hellend dak sandwich

permanent Sandwich + Gordingen 0,20

$G_k$ = 0,20 kN/m²

α = 20 ° → grondvlak $G_k$ = 0,21 kN/m²

| | | | | | |
|---|---|---|---|---|---|
| karakteristieke waarde | $Q_k$ = | 0,62 kN/m² | | | |
| rekenwaarde 6.10a | $Q_{Ed}$ = | 0,24 kN/m² | | | |
| rekenwaarde 6,10b | $Q_{Ed}$ = | **0,78** kN/m² | * $\psi_0$ | = | 0,22 kN/m² |
| frequente combinatie | $Q_{freq}$ = | 0,20 kN/m² | | | |

hellend dak sandwich + zonnepanelen

permanent Sandwich + Gordingen 0,20

zonnepanelen 0,15

$G_k$ = 0,35 kN/m²

α = 20 ° → grondvlak $G_k$ = 0,37 kN/m²

| | | | | | |
|---|---|---|---|---|---|
| karakteristieke waarde | $Q_k$ = | 0,77 kN/m² | | | |
| rekenwaarde 6.10a | $Q_{Ed}$ = | 0,43 kN/m² | | | |
| rekenwaarde 6,10b | $Q_{Ed}$ = | **0,95** kN/m² | * $\psi_0$ | = | 0,38 kN/m² |
| frequente combinatie | $Q_{freq}$ = | 0,35 kN/m² | | | |

**Variabele gevelbelasting door wind**

windbelasting volgens NEN-EN 1991-1-4 gebouwen met rechthoekige plattegrond gesloten

$F = c_s\ c_d \times c_f \times q_p(Z_e) \times A_{ref}$

$c_s\ c_d$ = bouwwerkfactor = 1,0

$c_f$ = krachtcoëficiënt = $C_{pe}/C_{pi}/C_{fr}$

$c_{prob;(wind)}^2$ = 0,84

$A_{ref}$ = referentie oppervlakte

hoogte = 10,6 m

windgebied = gebied 3

terrein = onbebouwd

$q_p(z)$ conform tabel N.B. = 0,71 kN/m²

$q_p(z) \times c_{prob;(wind)}^2$ = 0,60 kN/m²

| | $C_{pe}$ |
|---|---|
| druk = | 0,8 |
| zuiging = | -0,5 |

| | $C_{pi}$ |
|---|---|
| overdruk = | 0,2 |
| onderdruk = | -0,3 |

| | $C_{fr}$ |
|---|---|
| wrijving = | 0,02 |

NEN-EN 1991-1-4/NB 7.2.2.4: Het gebrek aan correlatie van de winddrukken tussen de windzijde en de lijzijde moet bij de beschouwing van de stabiliteit in rekening zijn gebracht door de resulterende kracht met een factor 0,85 te vermenigvuldigen.

## Berekening uitwenidigedrukcoëfficiënt volgens NEN-EN 1991-1-4

### Melktank

| | | | | | |
|---|---|---|---|---|---|
| diameter (b) | = | 3,00 m | l | = | 8,00 m |
| kinematische viscositeit lucht ($v_l$) | = | 0,000015 $m^2/s$ | | | |
| extreme stuwdruk ($q_p$) | = | 0,71 $kN/m^2$ | | | |
| dichtheid lucht ($\rho$) | = | 1,25 $kg/m^3$ | | | |

$$v(z_e) = \sqrt{\left(\frac{2 \times q_p}{\rho}\right)} = \sqrt{\left(\frac{2 \times 710}{1{,}25}\right)} = 33{,}7 \text{ m/s}$$

$$Re = \frac{b \times v(z_e)}{v} = \frac{3 \times 33{,}7}{0{,}000015} = 6{,}74E{+}06$$

Tabel 7.12 — Kenmerkende waarden voor de drukverdeling voor cirkelvormige cilinders voor verschillende reynoldsgetallen en zonder eindeffecten

| Re | $\alpha_{min}$ | $c_{p0,min}$ | $\alpha_A$ | $c_{p0,h}$ |
|---|---|---|---|---|
| $5 \cdot 10^5$ | 85 | -2,2 | 135 | -0,4 |
| $2 \cdot 10^6$ | 80 | -1,9 | 120 | -0,7 |
| $10^7$ | 75 | -1,5 | 105 | -0,8 |

uit de norm volgt: (tabel 7.12)

| | | | |
|---|---|---|---|
| $a_{min}$ | = | 75 | is de positie van de minimale druk in [°] |
| $c_{p0,min}$ | = | -2 | is de waarde van de minimale drukcoëfficiënt |
| $a_A$ | = | 105 | is de positie van de stromingsafscheiding in [°] |
| $c_{p0,h}$ | = | -1 | is de basis druk coëfficient |

De uitwendige drukcoëfficiënt voor cirkelvormige cilinders wordt bepaald : $c_{pe} = c_{p,0} \times \psi_{\lambda a}$
waarin: $c_{p0}$ is de uiwendige drukcoëfficiënt zonder eindeffecten.

$\psi_{\lambda a}$ = 1
$0 \le a \le a_{min}$

$$\psi_{\lambda a} = \psi_\lambda + (1 - \psi_\lambda) \times \cos\left(\frac{\pi}{2} \times \left(\frac{a - a_{min}}{a_a - a_{min}}\right)\right)$$
$a_{min} \le a \le a_a$

$\psi_{\lambda a} = \psi_\lambda$
$a_a \le a \le 180$

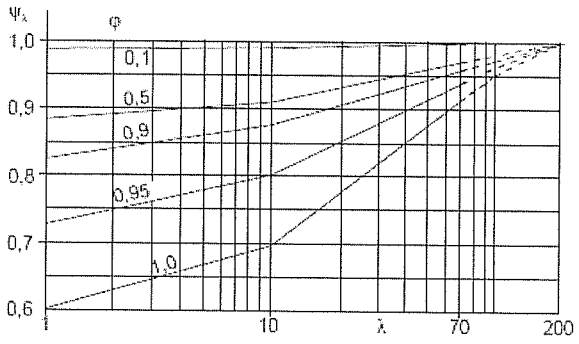
$\varphi$ = 1,0

$\lambda$ = min l/b of 70

= 8,0 / 3,0

= 2,67

$\psi_\lambda$ = 0,675
(zie figuur 7.36)

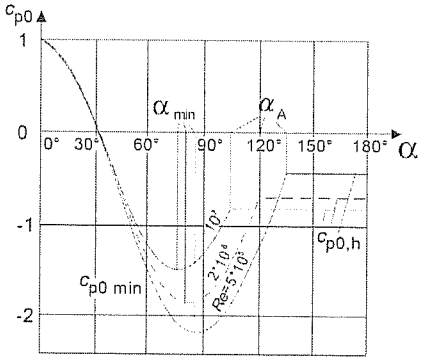



Figuur 7.36 — Indicatieve waarden van de eindeffectfactor $\psi_\lambda$ als functie van volheidsgraden $\varphi$ versus slankheid $\lambda$

voor de volgende waarden van a worden de uitwendige druk coëfficiënten hiermee:

| a | $c_{pe}$ | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | $c_{p0}$ | x | 1 | = | 1,0 | x | 1 | | = | 1,0 |
| 15 | $c_{p0}$ | x | 1 | = | 0,7 | x | 1 | | = | 0,7 |
| 30 | $c_{p0}$ | x | 1 | = | 0,0 | x | 1 | | = | 0,0 |
| 45 | $c_{p0}$ | x | 1 | = | -0,7 | x | 1 | | = | -0,7 |
| 75 | $c_{p0,min}$ | x | $[\psi_\lambda + (1-\psi_\lambda) \times \cos(\frac{\pi}{2} \times (\frac{a - a_{min}}{a_a - a_{min}}))]$ | | | | | | = | -1,5 |
| > 105 | $c_{p0,h}$ | x | $\psi_\lambda$ | = | -0,8 | x | 0,675 | | = | -0,5 |

**Windkrachten**




wrijving ($F_{fr}$) = $c_{fr}$ x $q_p$ x $A_{fr}$

$c_{fr}$ = 0,04
$q_p$ = 0,71
$A_{fr}$ = 2 x l xb + 0,25 x π x $b^2$
= 55,1 $m^2$
$F_{fr}$ = 1,56 kN

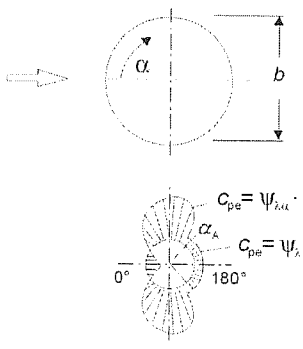
windkracht ($F_{w,fr}$) = $\sum_{elementen} c_{pe}$ x $q_p$ x $A_{ref}$

De drukcoëfficiënt $c_{pe}$ is gegeven als variabel over en loodrecht om de omtrek. Omdat de verdeling symetrisch is, is de component van de resultante loodrecht op de winrichting 0. De componenten in de winrichting worden benaderd door de cpe voor 0<a<45 en voor 135<a<180 mee te rekenen voor 0<a<45 wordt deze zone lineair benaderd. De totale

$$F_{w,e} = [\sum_{a=0}^{45} c_{pe} /45 - \sum_{a=135}^{180} c_{pe} /45 ] \times q_p \times l \times b$$

= 14 kN

$F_w$ = $F_{w,e}$ + $F_{w,fr}$ = 1,56 + 14 = 15,6 kN



## Berekening uitwenidigedrukcoëfficiënt volgens NEN-EN 1991-1-4

### Spuittank

diameter (b) = 3,00 m  l = 12,20 m
kinematische viscositeit lucht ($v_l$) = 0,000015 $m^2/s$
extreme stuwdruk ($q_p$) = 0,71 $kN/m^2$
dichtheid lucht ($\rho$) = 1,25 $kg/m^3$

$$v(z_e) = \sqrt{\left(\frac{2 \times q_p}{\rho}\right)} = \sqrt{\left(\frac{2 \times 710}{1,25}\right)} = 33,7 \text{ m/s}$$

$$Re = \frac{b \times v(z_e)}{v} = \frac{3 \times 33,7}{0,000015} = 6,74E+06$$

Tabel 7.12 — Kenmerkende waarden voor de drukverdeling voor cirkelvormige cilinders voor verschillende reynoldsgetallen en zonder eindeffecten

| Re | $\alpha_{min}$ | $c_{p0,min}$ | $\alpha_A$ | $c_{p0,h}$ |
|---|---|---|---|---|
| $5 \cdot 10^5$ | 85 | -2,2 | 135 | -0,4 |
| $2 \cdot 10^6$ | 80 | -1,9 | 120 | -0,7 |
| $10^7$ | 75 | -1,5 | 105 | -0,8 |

uit de norm volgt: (tabel 7.12)

$\alpha_{min}$ = 75 is de positie van de minimale druk in [°]
$c_{p0,min}$ = -2 is de waarde van de minimale drukcoëfficiënt
$\alpha_A$ = 105 is de positie van de stromingsafscheiding in [°]
$c_{p0,h}$ = -1 is de basis druk coëfficient

De uitwendige drukcoëfficiënt voor cirkelvormige cilinders wordt bepaald ; $c_{pe} = c_{p,0} \times \psi_{\lambda a}$
waarin: $c_{p0}$ is de uiwendige drukcoëfficiënt zonder eindeffecten.

$\psi_{\lambda a}$ = 1
$0 \le a \le a_{min}$

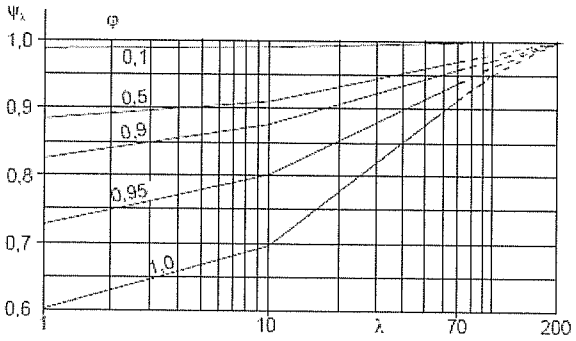
$$\psi_{\lambda a} = \psi_\lambda + (1 - \psi_\lambda) \times \cos\left(\frac{\pi}{2} \times \left(\frac{a - a_{min}}{a_a - a_{min}}\right)\right)$$
$a_{min} \le a \le a_a$

$\psi_{\lambda a} = \psi_\lambda$
$a_a \le a \le 180$

$\varphi$ = 1,0

$\lambda$ = min l/b of 70
= ## / 3,0
= 4,07

$\psi_\lambda$ = 0,675
(zie figuur 7.36)

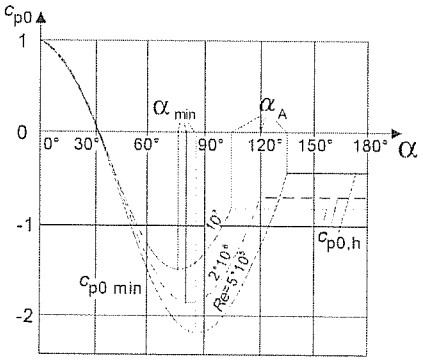



Figuur 7.36 — Indicatieve waarden van de eindeffectfactor $\psi_\lambda$ als functie van volheidsgraden $\varphi$ versus slankheid $\lambda$

voor de volgende waarden van a worden de uitwendige druk coëfficiënten hiermee:

| a | $c_{pe}$ | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | $c_{p0}$ | x | 1 | = | 1,0 | x | 1 | = | 1,0 | | |
| 15 | $c_{p0}$ | x | 1 | = | 0,7 | x | 1 | = | 0,7 | | |
| 30 | $c_{p0}$ | x | 1 | = | 0,0 | x | 1 | = | 0,0 | | |
| 45 | $c_{p0}$ | x | 1 | = | -0,7 | x | 1 | = | -0,7 | | |
| 75 | $c_{p0,min}$ | x | $[\psi_\lambda + (1-\psi_\lambda) \cos(\frac{\pi}{2} \times (\frac{a - a_{min}}{a_a - a_{min}}))]$ | = | -1,5 | | | | | | |
| > 105 | $c_{p0,h}$ | x | $\psi_\lambda$ | = | -0,8 | x | 0,675 | = | -0,5 | | |

**Windkrachten**




wrijving ($F_{fr}$) = $c_{fr}$ x $q_p$ x $A_{fr}$

$c_{fr}$ = 0,04
$q_p$ = 0,71
$A_{fr}$ = 2 x l xb + 0,25 x π x $b^2$
= 80,3 $m^2$
$F_{fr}$ = 2,28 kN

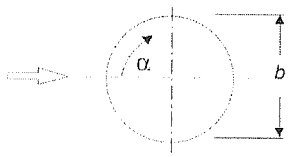
windkracht ($F_{w,fr}$) = $\sum_{elementen} c_{pe}$ x $q_p$ x $A_{ref}$

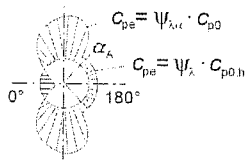
De drukcoëfficiënt $c_{pe}$ is gegeven als variabel over en loodrecht om de omtrek. Omdat de verdeling symetrisch is, is de component van de resultante loodrecht op de winrichting 0. De componenten in de winrichting worden benaderd door de cpe voor 0<a<45 en voor 135<a<180 mee te rekenen voor 0<a<45 wordt deze zone lineair benaderd. De totale

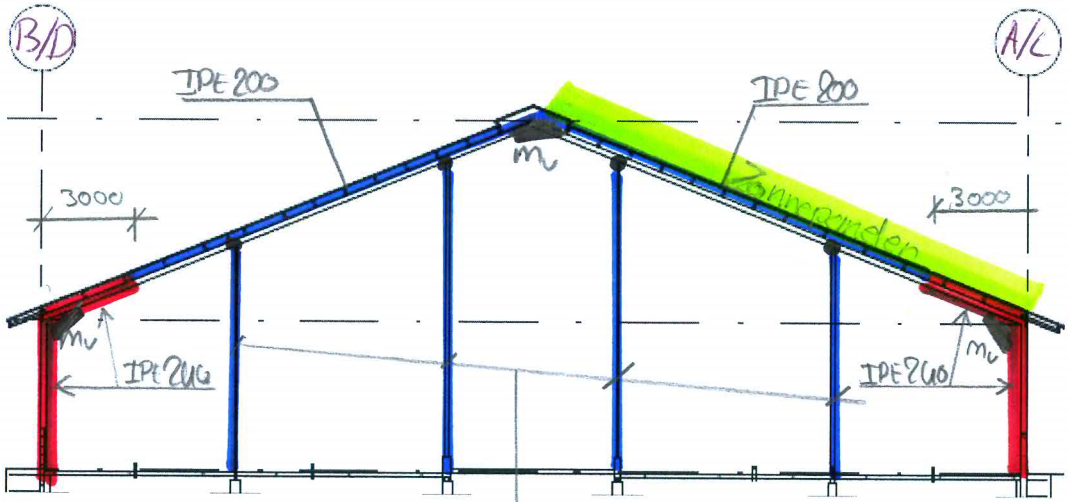
$F_{w,e}$ = $[\sum_{a=0}^{45} c_{pe}\ /45 - \sum_{a=135}^{180} c_{pe}\ /45\ ]$ x $q_p$ x l x b

= 21,4 kN

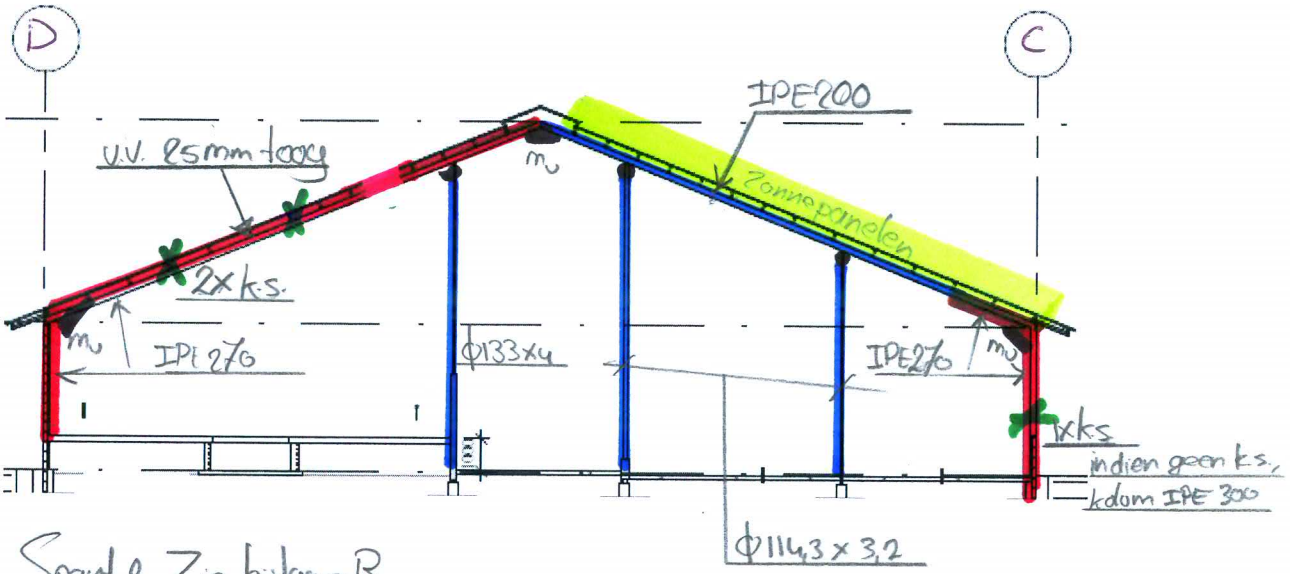
$F_w$ = $F_{w,e}$ + $F_{w,fr}$ = 2,28 + 21,4 = 23,7 kN





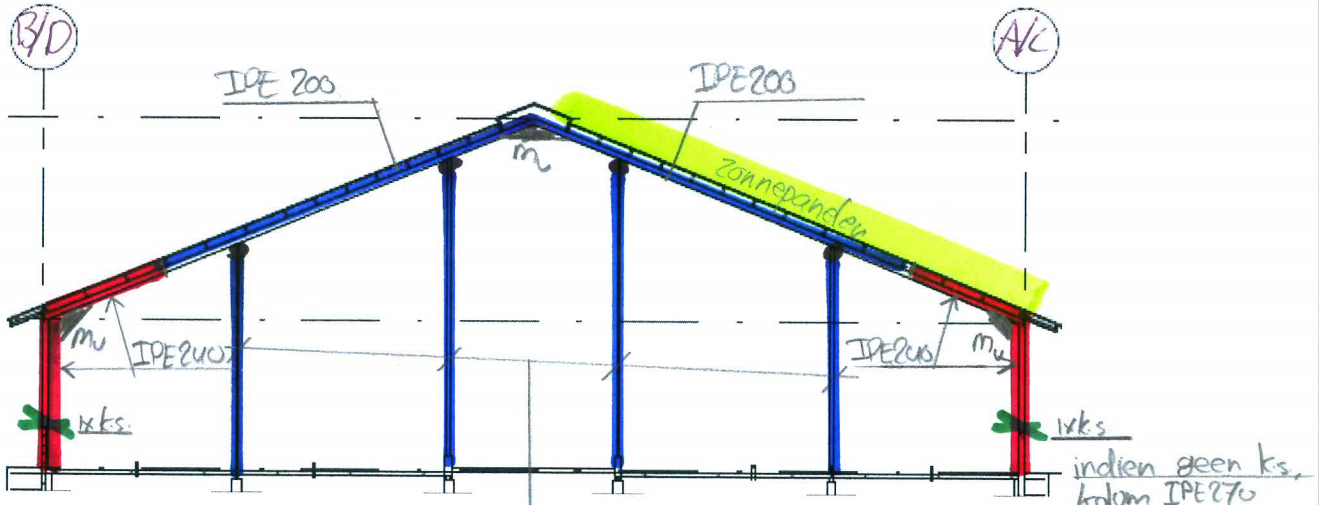

Spant 1. Zie bijlage A
As 2 t/m 11 en 17 t/m 26




Spant 2. Zie bijlage B.
As 2 t/m 11

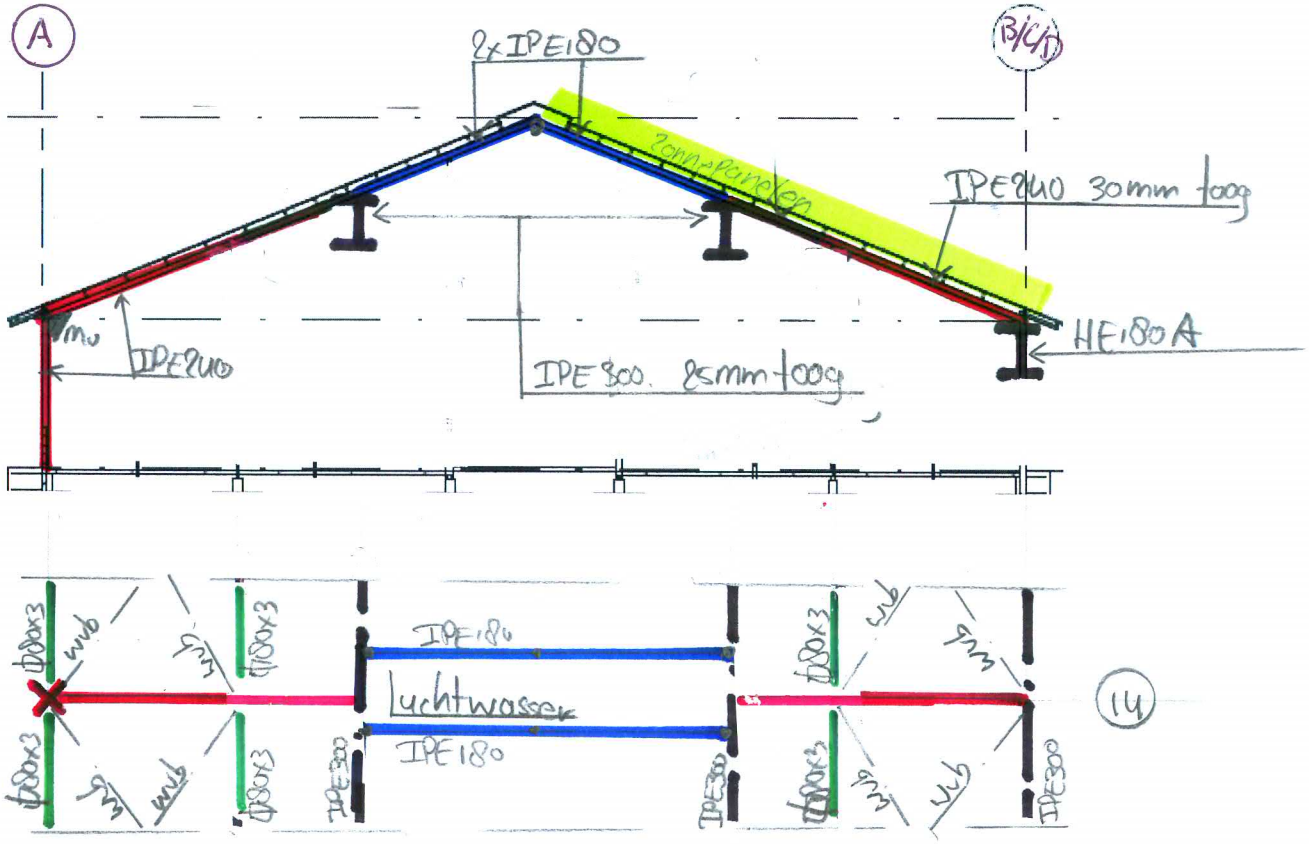
kolom op as C t.p.v. verdieping op as 2
HE 200A.

| | | | | |
|---|---|---|---|---|
| W2N engineers | | Projectnummer | Paraaf | Blad 9<br>Van |



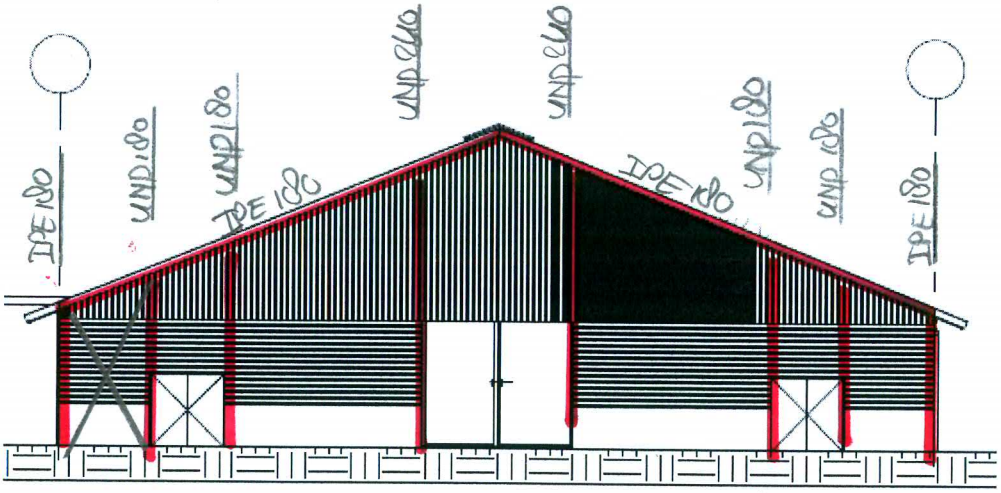

Spant 3 bijlage C
As 12, 13, 15 en 16

Φ133 x4

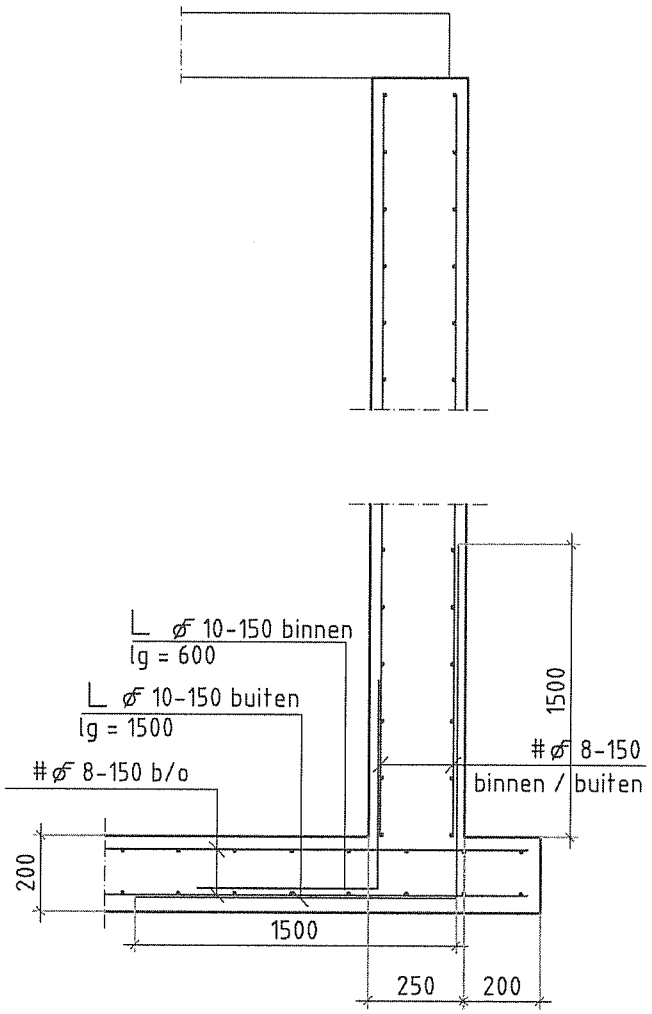



Spant 4. Bijlage D. As 14

## Berekening spanten (vervolg)



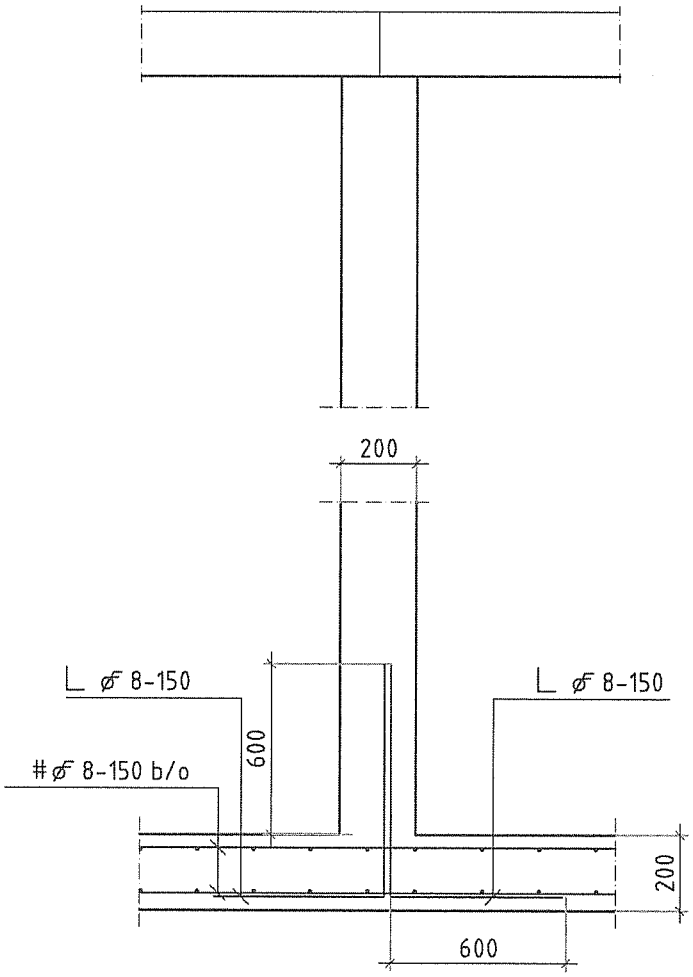
Detail 1




Doorsnede buitenwand

| | | | | |
|---|---|---|---|---|
| W2N engineers | | Projectnummer | Paraaf | Blad 12<br>Van |

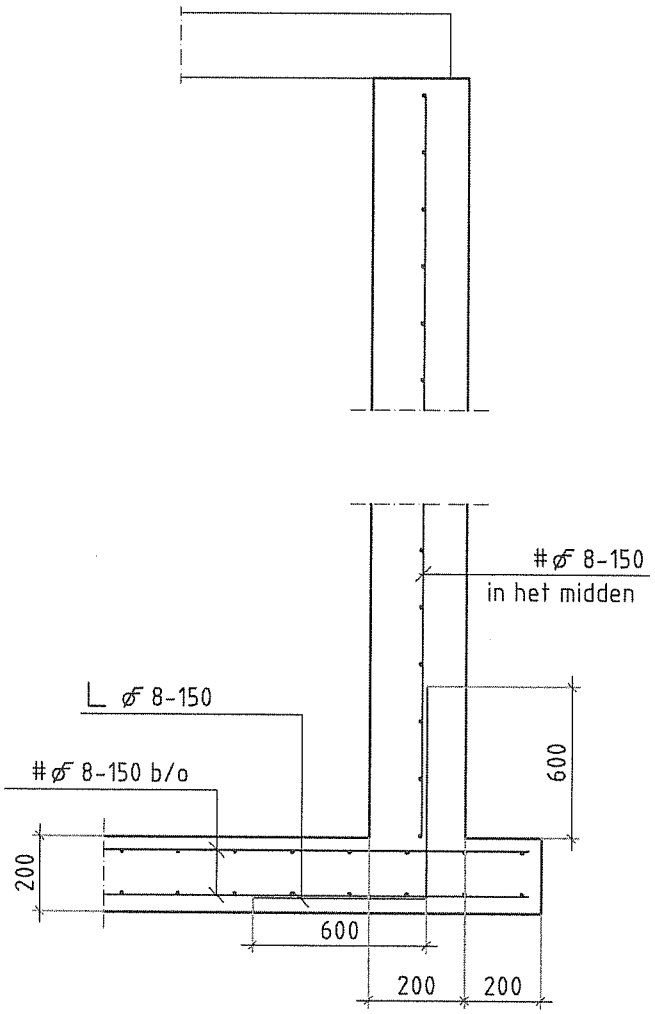
Detail 2




Doorsnede tussenwand

| | | | | |
|---|---|---|---|---|
| W2N engineers | | Projectnummer | Paraaf | Blad 13 |
| | | | | Van |

Detail 3




Doorsnede buitenwand

| | | | | |
|---|---|---|---|---|
| W2N engineers | | Projectnummer | Paraaf | Blad 14 |
| | | | | Van |

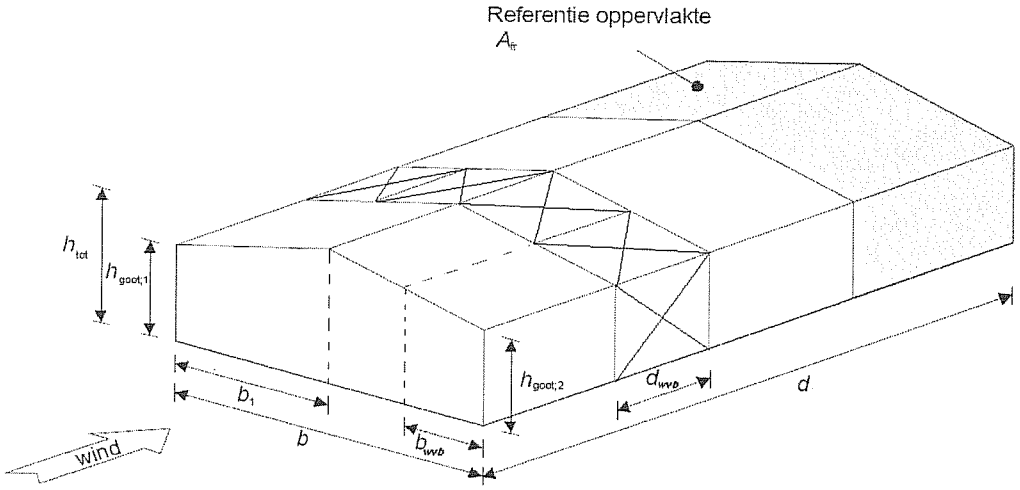
## Berekening stabiliteit in langsrichting

gegevens

| | | |
|---|---|---|
| gebouw functie | = | Industriëel gebouw 1 of 2 verdiepingen |
| ontwerplevensduur | = | 15 jaar |
| gevolgklasse | = | CC1 |
| betrouwbaarheidsklasse | = | RC1 |
| $K_{FI}$ | = | 0,9 |
| gebied | = | gebied 3 |
| bebouwing | = | onbebouwd |
| aantal windbokken (n) | = | 2 |

| | | |
|---|---|---|
| $h_{tot}$ | = | 10,6 m |
| $h_{goot;1}$ | = | 4,4 m |
| $h_{goot;2}$ | = | 4,4 m |
| b | = | 30,0 m |
| $b_1$ | = | 15,0 m |
| d | = | 65,0 m |
| $b_{wvb}$ | = | 5,0 m |
| $d_{wvb}$ | = | 5,0 m |
| $c_{prob;(wind)}^2$ | = | 0,84 |
| a | = | 22 ° |

overzicht




referentie oppervlakte A

| | | | | | | |
|---|---|---|---|---|---|---|
| | d - 2b | = | 65 | - | 60 = | 5,0 m |
| Of: | d - 4h | = | 65 | - | 42 = | 22,6 m |

bepalen winddruk loodrecht op kopgevel volgens NEN-EN 1991-4/NB

F = $c_s\ c_d$ x $c_f$ x $q_p\ (Z_e)$ x $A_{ref}$

$c_s\ c_d$ = 1,00

$q_p\ (z)$ = 0,71 kN/m²

$q_p\ (z)$ ;$_{prob;(wind)}^2$ = 0,6 kN/m²

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| druk | = | 0,80 | * | 0,60 | * | 3,75 | * | 0,85 | = | 1,53 kN/m |
| zuiging | = | 0,50 | * | 0,60 | * | 3,75 | * | 0,85 | = | 0,95 kN/m |
| wrijving dak | = | 0,02 | * | 0,60 | * | 22,6 | * | | = | 0,27 kN/m |
| wrijving gevel | = | 0,02 | * | 0,60 | * | 22,6 | * | | = | 0,27 kN/m + |

totaal $q_{k;dak}$ = 2,75 kN/m $q_{Ed}$ = 3,71 kN/m

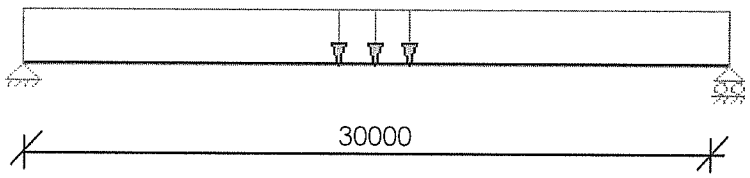
totaal $q_{k;gevel}$ = 0,27 kN/m $q_{Ed}$ = 0,36 kN/m

stabilieitsverband dakvlak S235 ger Ø16

schema

$q_{Ed}$ = 3,71 kN/m

$b_{wvb;dakvlak}$ = 5,39 m






$F_{Ed}$ = 12,5 * 3,7 / 2 = 23,2 kN

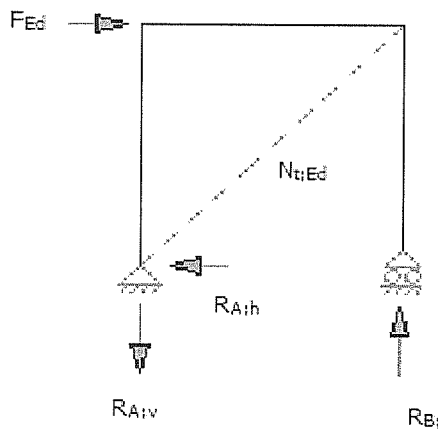
$N_{t;Ed}$ = V(( 23,2 * 5,4 / 5,0 )$^2$ + 23,2 $^2$) = 34,1 kN

$N_{t;Rd}$ = 40,7 kN

$$\frac{N_{t;Ed}}{N_{t;Rd}} \leq 1{,}00 \longrightarrow \frac{34{,}11}{40{,}70} = 0{,}84 < 1{,}00$$ **akkoord**

stabilieitsverband gevel S235 ger Ø16

schema




$F_{Ed}$ = 15,0 * 3,71 + 2,2 * 0 / 2

= 28,2 kN

$R_{A;v}$ = 24,8 kN

$R_{A;h}$ = 28,2 kN

$R_{B;v}$ = 24,8 kN

$N_{t;Ed}$ = V( 24,8 $^2$ + 28,2 $^2$)

$N_{t;Ed}$ = 37,6 kN

$N_{t;Rd}$ = 40,7 kN

$$\frac{N_{t;Ed}}{N_{t;Rd}} \leq 1{,}00 \longrightarrow \frac{37{,}61}{40{,}70} = 0{,}92 < 1{,}00$$ **akkoord**

stabiliteitsverband kopgevel praktisch: S235 ger Ø16

**Berekening koppelingen**

5000 mm — 80x80x3
kwaliteit: S275
instabiliteitskromme: c

$N_{Ed}$ = 28,2 kN

$$\bar{\lambda} = \frac{L_{cr}}{\lambda_1 * i_y} = \frac{5000}{86,8 * 31,22} = 1,84$$

$\chi$ = 0,23

$N_{Rd}$ = 0,23 * 901 * 275 = 55,9 kN

$$\frac{N_{Ed}}{N_{Rd}} \leq 1,00 \longrightarrow \frac{28,2}{55,9} = 0,51 < 1,00$$ **akkoord**

overige koppelinge 70x70x3

## Berekening kopspant conform NEN-EN-1993

gegevens

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| gebouw functie | = | Industriëel gebouw 1 of 2 verdiepingen | $h_{tot}$ | = | 10,6 | m |
| ontwerplevensduur | = | 15 jaar | $h_{goot}$ | = | 4,4 | m |
| gevolgklasse | = | CC1 | b | = | 30,0 | m |
| betrouwbaarheidsklasse | = | RC1 | d | = | 130,0 | m |
| $K_{FI}$ | = | 0,9 | $b_{wvb}$ | = | 5,0 | m |
| gebied | = | gebied 3 | $d_{wvb}$ | = | 5,0 | m |
| bebouwing | = | onbebouwd | $c_{prob;(wind)}^2$ | = | 0,84 | |

bepalen winddruk loodrecht op kopgevel volgens NEN-EN 1991-4/NB

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| F | = | $c_s$ $c_d$ x $c_f$ x $q_p$ ($Z_e$) x $A_{ref}$ | | | | | | | | |
| $c_s$ $c_d$ | = | 1,00 | | | | | | | | |
| $q_p$ (z) | = | 0,71 | kN/m$^2$ | | | | | | | |
| druk | = | 0,80 | * | 0,71 | * | 1,00 | * | 0,84 | = | 0,48 kN/m$^2$ |
| onderdruk | = | 0,30 | * | 0,71 | * | 1,00 | * | 0,84 | = | 0,18 kN/m$^2$ + |
| | | | | | | | | totaal $q_k$ | = | 0,66 kN/m$^2$ |
| | | | | | | | | $q_{Ed}$ | = | 0,89 kN/m$^2$ |

windverbanden kopgevel praktisch: S235 ger Ø16

## Berekening spant

IPE 180

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| opbouw dak | = | Vezel-golpl + gordingen | | | | | |
| kwaliteit | = | S235 | | $W_{y;el}$ | = | 146 x10$^3$ | mm$^3$ |
| $l_{max}$ | = | 6500 | mm | $I_y$ | = | 1317 x10$^4$ | mm$^4$ |
| h.o.h spanten | = | 5000 | mm | | | | |
| $q_{G,k}$ (dak) | = | 0,27 | kN/m$^2$ | $q_{G,k}$ (ligger) | = | 0,19 kN/m | |
| $q_{Q,k}$ | = | 1,00 | kN/m$^2$ | $q_{Ed}$ | = | 4,31 kN/m | |

$M_{Ed}$ = 1/8 $q_{Ed}$ x $l_{max}^2$ = 22,7 kNm

$$\sigma_s = \frac{M_{Ed}}{W_{y;el}} = 156 \text{ N/mm}^2 < 235 \text{ N/mm}^2$$

**voldoet**

## Berekening kolommen

kolom

IPE 240
*alternatief UNP 240*

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| kwaliteit | = | S235 | | | | | |
| lengte (l) | = | 9000 | mm | $W_{y;el}$ | = | 324 x$10^3$ | $mm^3$ |
| belastingbreedte | = | 5500 | mm | $I_y$ | = | 3892 x$10^4$ | $mm^4$ |
| $q_{Ed}$ | = | 0,89 | $kN/m^2$ | $q_k$ | = | 0,66 $kN/m^2$ | |
| $q_{Ed}$ | = | 4,88 | kN/m | $q_k$ | = | 3,62 kN/m | |

sterkte

$M_{Ed}$ = $1/8\ q_{Ed} \times l^2$ = 49,5 kNm

$$\sigma_s = \frac{M_{Ed}}{W_{y;el}} = 153\ N/mm^2 < 235\ N/mm^2$$

**voldoet**

doorbuiging

$$w_3 = \frac{5 \times q_k \times l_4}{384 \times E \times I_y} = 38\ mm$$

$w_{max}$ l / 150 = 60 mm

**voldoet**

kolom

IPE 180
*alternatief UNP 180*

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| kwaliteit | = | S235 | | | | | |
| lengte (l) | = | 6500 | mm | $W_{y;el}$ | = | 146 x$10^3$ | $mm^3$ |
| belastingbreedte | = | 4500 | mm | $I_y$ | = | 1317 x$10^4$ | $mm^4$ |
| $q_{Ed}$ | = | 0,89 | $kN/m^2$ | $q_k$ | = | 0,66 $kN/m^2$ | |
| $q_{Ed}$ | = | 4,00 | kN/m | $q_k$ | = | 2,96 kN/m | |

sterkte

$M_{Ed}$ = $1/8\ q_{Ed} \times l^2$ = 21,1 kNm

$$\sigma_s = \frac{M_{Ed}}{W_{y;el}} = 145\ N/mm^2 < 235\ N/mm^2$$

**voldoet**

doorbuiging

$$w_3 = \frac{5 \times q_k \times l_4}{384 \times E \times I_y} = 25\ mm$$

$w_{max}$ l / 150 = 43 mm

**voldoet**

**Plat dak ( extra sneeuw )** Categorie H - daken niet toegankelijk

p.b. = 0,50 kN/m² k def = 0,6

v.b. = 2,00 kN/m² $\Psi_0$ = 0,0 $\Psi_1$ = 0,0 $\Psi_2$ = 0,0

balklaag: 71 x 196 h.o.h. zie onderstaande berekeningen

sterkteklasse: C24

belastingen:

- q k = 2,50 kN/m²
- q d = 3,24 ,,
- q Ψ = 0,54 ,,
- q drbg. = 2,80 ,, *doorbuiging:* $[(1,0 + k_{def}) \times p.b.] + [(1,0 + (k_{def} \times \Psi_2)) \times v.b.]$

balklaag h.o.h. 400 mm¹ L max. = 5,00 m¹

- q drbg. = 1,12 kN/m¹
- q d = 1,30 ,,

$M_{Ed} = 1/8 \times q_d \times L^2 = 4,05$ kNm¹

$\sigma = \frac{M_{Ed}}{W_y} = 8,91$ N/mm²

$W_y = 4,55E+05$ mm³

$I_y = 4,45E+07$ mm⁴

$E = 11000$ N/mm²

$u = \frac{5 \times q_{drbg.} \times L^4}{384 \times E \times I_y} = 18,60$ mm¹

controle

| | | | | | |
|---|---|---|---|---|---|
| sterkte | σ = 8,91 N/mm² | / $\sigma_{max}$ = 12,9 N/mm² | u.c. = | 0,69 < | 1,0 |
| doorbuiging | u = 18,60 mm¹ | / $u_{max}$ = 20,0 mm¹ | u.c. = | 0,93 < | 1,0 |

**Onderslagen in/onder de verdieping en plat dak**

IPE 240 L = 7,00 m¹ [1]

sterkteklasse: S235

belastingen:

| | bel. br. | q k | _ q d | Ψ | q k | q d |
|---|---|---|---|---|---|---|
| - plat dak | 2,50 x | 2,50 | _ 3,24 | ( 1,0 ) = | 6,25 kN/m¹ | 8,10 kN/m¹ |
| | | | | | 6,25 kN/m¹ | 8,10 kN/m¹ |

R A = 28,35 kN

R B = 28,35 kN

$M_{Ed} = 1/8 \times q_d \times L^2 = 49,61$ kNm¹

$\sigma = \frac{M_{Ed}}{W_y} = 153,1$ N/mm²

$W_y = 3,24E+05$ mm³

$I_y = 3,89E+07$ mm⁴

$E = 210000$ N/mm²

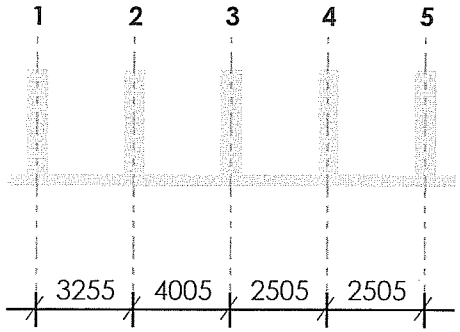
$u = \frac{5 \times q_k \times L^4}{384 \times E \times I_y} = 23,91$ mm¹

controle

| | | | | | |
|---|---|---|---|---|---|
| sterkte | σ = 153,1 N/mm² | / $\sigma_{max}$ = 235,0 N/mm² | u.c. = | 0,65 < | 1,0 |
| doorbuiging | u = 23,9 mm¹ | / $u_{max}$ = 28,0 mm¹ | u.c. = | 0,85 < | 1,0 |

**Overzicht doorsnede mestkelder**

Aantal mestgangen = 4 stuks
Aantal tussenkolommen = 2 stuks




Vloer tussen as:

1 & 2 = prefab roosters
2 & 3 = prefab roosters
3 & 4 = prefab roosters
4 & 5 = prefab roosters

Projectnummer

Paraaf

Blad 2
Van

**Berekening mestkelder op staal**

Uitgangspunten

- Ontgraven tot vaste grondslag.
- Aanvullen met grondverbetering indien nodig.

Gegevens

| | | | | | |
|---|---|---|---|---|---|
| gebouw functie | = | Industriële gebouwen 1 of 2 verdiepingen | | | |
| ontwerplevensduur | = | 15 jaar | betrouwbaarheidsklasse | = | RC1 |
| gevolgklasse | = | CC1 | $K_{FI}$ | = | 0,9 |
| staalkwaliteit | $f_s$ = | 435 N/mm$^2$ | | | |
| betonkwaliteit wand | = | C30/37 | betonkwaliteit vloer | = | C20/25 |
| millieuklasse wand | = | XA3 | millieuklasse vloer | = | XA2 |
| dekking wand | = | 35 mm | dekking bodem | = | 35 mm |
| | $f_{cd}$ = | 20,0 N/mm$^2$ | | $f_{cd}$ = | 13,3 N/mm$^2$ |
| b.k.wand t.ov. Peil | = | 180 mm | dikte bodem | = | 200 mm |
| o.k. kelder t.o.v. Peil | = | 2715 mm | dikte buitenwand | = | 250 mm |
| hoogte wand | = | 2335 mm | dikte binnenwand | = | 200 mm |
| | | | factor hor. druk | = | 0,50 mm |

Belastingen begane grond vloer

a) prefab roosters

| | | | | |
|---|---|---|---|---|
| Plaat-rooster Grootvee | | = | 2,60 kN/m$^2$ | |
| Veranderlijke belasting | E1 Overig | = | 5,00 kN/m$^2$ | $\psi_0$ = 0,8 |

Belastingen eigen gewicht kelderbak

e) kelderbodem = 25,00 x 0,20 = 5,00 kN/m$^2$ mest = 15,00 kN/m$^2$ $\psi_0$ = 1,0
f) buitenwand = 25,00 x 0,25 = 6,25 kN/m$^2$
g) binnenwand = 25,00 x 0,20 = 5,00 kN/m$^2$

Belastingen uit spant spreiden over: 60 ° h.o.h. spanten = 5 m

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| eindkolom 1 | $Q_{G;k}$ | = | 4,2 | kN (vert.) | $Q_{G;k}$ | = | 0,2 | kN (hor.) | wand: | 1 |
| | $Q_{Q;k}$ | = | 2,8 | kN (vert.) | $Q_{Q;k}$ | = | 0,4 | kN (hor.) | $\psi_0$ | = 0,0 |
| tussenkolom 1 | $Q_{G;k}$ | = | 3,4 | kN (vert.) | $Q_{G;k}$ | = | 0,0 | kN (hor.) | wand: | 3 |
| | $Q_{Q;k}$ | = | 6,9 | kN (vert.) | $Q_{Q;k}$ | = | 0,0 | kN (hor.) | $\psi_0$ | = 0,0 |
| tussenkolom 2 | $Q_{G;k}$ | = | 3,1 | kN (vert.) | $Q_{G;k}$ | = | 0,0 | kN (hor.) | wand: | 5 |
| | $Q_{Q;k}$ | = | 5,7 | kN (vert.) | $Q_{Q;k}$ | = | 0,0 | kN (hor.) | $\psi_0$ | = 0,0 |

Belastingen uit grondwater

g.w.s. t.o.v. peil = 1615 mm (aanname)
g.w.s. t.o.v. b.k. wand = 1435 mm

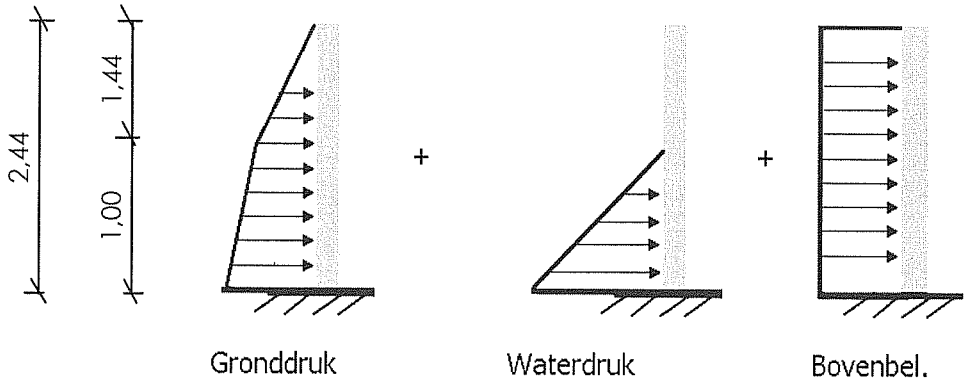
Bepaling beddingsconstante

Zand schoon, matig K = 10000 kN/m$^3$

## Gewichtsberekening doorsnede per m[1]

Horizontale belasting op buitenste wanden

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| gronddruk | = | 20,0 | | | x | 0,50 | x | 1,44 | = 14,35 kN/m |
| | = | ( 20,0 | - | 10,0 ) | x | 0,50 | x | 1,00 | = 5,00 kN/m + |
| | | | | | | | | | 19,35 kN/m |
| waterdruk | = | 10,0 | x | 1,00 | x | 1,00 | | | = 10,00 kN/m |
| bovenbelasting | = | 5,0 | x | 0,50 | | | | | = 2,50 kN/m |




wand 1

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| belasting uit b.g. vloer: | $Q_{G;k}$ = | 1,63 | x | 2,60 | | | | | = | 4,23 kN |
| | $Q_{Q;k}$ = | 1,63 | x | 5,00 | | | | | = | 8,14 kN |

wand 2

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| belasting uit b.g. vloer: | $Q_{G;k}$ = | 1,63 | x | 2,60 | + | 2,00 | x | 2,60 | = | 9,44 kN |
| | $Q_{Q;k}$ = | 1,63 | x | 5,00 | + | 2,00 | x | 5,00 | = | 18,15 kN |

wand 3

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| belasting uit b.g. vloer: | $Q_{G;k}$ = | 2,00 | x | 2,60 | + | 1,25 | x | 2,60 | = | 8,46 kN |
| | $Q_{Q;k}$ = | 2,00 | x | 5,00 | + | 1,25 | x | 5,00 | = | 16,28 kN |

wand 4

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| belasting uit b.g. vloer: | $Q_{G;k}$ = | 1,25 | x | 2,60 | + | 1,25 | x | 2,60 | = | 6,51 kN |
| | $Q_{Q;k}$ = | 1,25 | x | 5,00 | + | 1,25 | x | 5,00 | = | 12,53 kN |

wand 5

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| belasting uit b.g. vloer: | $Q_{G;k}$ = | 1,25 | x | 2,60 | | | | | = | 3,26 kN |
| | $Q_{Q;k}$ = | 1,25 | x | 5,00 | | | | | = | 6,26 kN |

Overzicht belastingen

| Wand | $Q_{G;k;vloer}$ | $Q_{Q;k;vloer}$ | $Q_{G;k;v;spant}$ | $Q_{G;k;h;spant}$ | $Q_{Q;k;v;spant}$ | $Q_{Q;k;h;spant}$ |
|---|---|---|---|---|---|---|
| 1 | 4,23 kN | 8,14 kN | 1,57 kN | 0,09 kN | 1,03 kN | 0,14 kN |
| 2 | 9,44 kN | 18,15 kN | | | | |
| 3 | 8,46 kN | 16,28 kN | 1,27 kN | | 2,54 kN | |
| 4 | 6,51 kN | 12,53 kN | | | | |
| 5 | 3,26 kN | 6,26 kN | 1,13 kN | | 2,13 kN | |
| **totaal** | **31,9** kN | **61,4** kN | **4,0** kN | **0,1** kN | **5,7** kN | **0,1** kN |

**Computer berekening**

Voor computerberekening zie bijlage: F

uitvoer:

| buitenwand | mestscheidende wand | vloer |
|---|---|---|
| $M_{Ed;bui}$ = 37,3 kNm | $M_{Ed;ms}$ = kNm n.v.t. | $M_{Ed;bov}$ = 10,8 kNm<br>$M_{Ed;ond}$ = 37,5 kNm |

## Controle opdrijven kelder

totale breedte doorsnede kelder = 12,3 m

totale gewicht doorsnede kelder = 31,9 + 4,0 + 12,3 x 5,00 + 5 x 2 x 5,00

= 155,6 kN

gewicht per $m^2$ $q_{G;k}$ = 155,6 / 12,3 = 12,7 $kN/m^2$

Maximaal toelaatbare g.w.s.

$q_{G,k}$ x 0,9 = $q_d$

$q_d$ = 11,41 kN/m

$q_d$ / 10 = 1141 mm

Maximaal toelaatbare g.w.s. t.o.v. peil

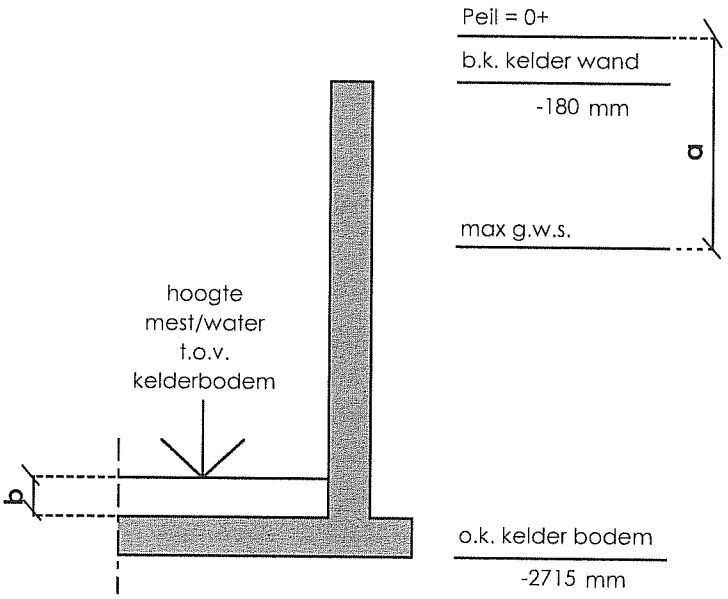
indicatie: 2715 - 1141 = **1574 mm**

aan te houden = **1600 mm**

waterdruk op bak = 1115 mm

Om opdrijven te voorkomen dient bij grondwaterstanden hoger dan: 1600 - peil rekening te worden gehouden met een minimale hoeveelheid mest/water in de mestkelder. Het minimaal aan te houden niveau van de mest staat hieronder aangegeven.

| toelaatbare hoogte g.w.s.t.o.v. peil | hoogte mest/water t.o.v. b.k. kelder bodem |
|---|---|
| **a** | **b** |
| -1800 mm | 0 mm |
| -1700 mm | 0 mm |
| -1600 mm | 0 mm |
| -1500 mm | 100 mm |
| -1400 mm | 200 mm |
| -1300 mm | 300 mm |
| -1200 mm | 400 mm |
| -1100 mm | 500 mm |
| -1000 mm | 600 mm |
| -900 mm | 700 mm |
| -800 mm | 800 mm |
| -700 mm | 900 mm |
| -600 mm | 1000 mm |
| -500 mm | 1100 mm |
| -400 mm | 1200 mm |
| -300 mm | 1300 mm |
| -200 mm | 1400 mm |



## Fundering op staal

Uitgangspunten

- grond ontgraven tot vast ongeroerde grondslag
- elke laag, alsmede het ontgravingniveau, dient in 4 kruislingse en elkaar overlappende gangen te worden verdicht met behulp van een trilplaat met een gewicht van circa 300 à 400 kg
- grondverbetering uitvoeren met goed gegradeerd zand in lagen van 300 mm[1] dikte
- gronddekking op de platen minimaal 200 mm[1]

## Berekening capaciteit grondpakket

Bepaling gewogen hoek van inwendige wrijving

| laag | opbouw | dikte (m1) | hoek van indendige wrijving | hoogte maaiveld t.p.v. N.A.P. |
|---|---|---|---|---|
| 1 | zand schoon, matig | 1 | 30 | - |
| | totaal | 1 | 30,00 | |

Beschouwing capaciteit grondpakket

stroken

$\sigma'_{max;d}$ = ( c'e;d x Nc ) + ( σ'v;z;o;d x Nq ) + ( 0,5 γ'e;d x Bef x Nγ )

poeren

$\sigma'_{max;d}$ = ( c'e;d x Nc x sc ) + ( σ'v;z;o;d x Nq x sq ) + ( 0,5 γ'e;d x Bef x Nγ x sγ )

$\varphi'_{e;d}$ = 30,00 / 1,15 = 26,00 °

$c'_{e;d}$ = 0,00 / 1,15 = 0,00

| | | | | | |
|---|---|---|---|---|---|
| $N_c$ | = | 22,5 | $s_c$ | = | 1,5 |
| $N_q$ | = | 12,1 | $s_q$ | = | 1,4 |
| $N_\gamma$ | = | 11,2 | $s_\gamma$ | = | 0,7 |

gronddekking = 200 mm

$\sigma'_{v;z;o;d}$ = 18 x 0,2 / 1,1 = 3,27 kN/m$^2$

$\gamma'_{e;d}$ = ( 20 / 1,1 ) - 10 = 8,18 kN/m$^3$

poeren

| breedte mm1 | $\sigma'_{max;d}$ kN/m$^2$ | $\sigma'_{max;d}$ kN/poer |
|---|---|---|
| 600 | 76 | 28 |
| 700 | 80 | 39 |
| 800 | 83 | 53 |
| 900 | 86 | 70 |
| 1000 | 89 | 89 |

| breedte mm1 | $\sigma'_{max;d}$ kN/m$^2$ | $\sigma'_{max;d}$ kN/poer |
|---|---|---|
| 1100 | 92 | 112 |
| 1200 | 96 | 138 |
| 1300 | 99 | 167 |
| 1400 | 102 | 200 |
| 1500 | 105 | 237 |

| breedte mm1 | $\sigma'_{max;d}$ kN/m$^2$ | $\sigma'_{max;d}$ kN/poer |
|---|---|---|
| 1600 | 108 | 278 |
| 1700 | 112 | 323 |
| 1800 | 115 | 372 |
| 1900 | 118 | 426 |
| 2000 | 121 | 485 |

**Fundering op poeren volgens NEN-EN 1997-1:2005 en NEN-EN 9997-1:2011**
**Poeren op as A, B, C en D**

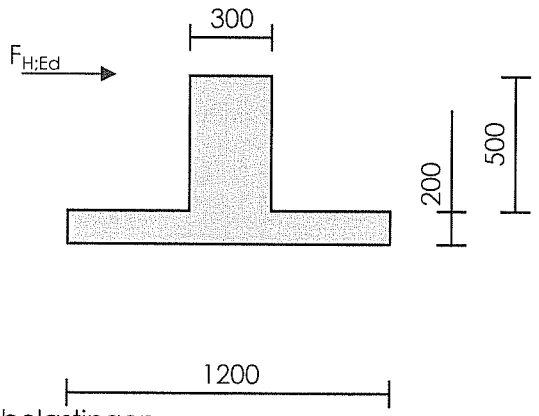
materiaaleigenschappen

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| beton | = | 25,00 | kN/m³ | | $f_{cd}$ | = | 13,3 N/mm² | kwaliteit = C20/25 |
| grond | = | 18,00 | kN/m³ | grond tot b.k. strook | | = | 400 mm | |

afmetingen

| plaat | | | opstort | |
|---|---|---|---|---|
| lengte (l) | = | 1200 mm | lengte (l) | 300 mm |
| breedte (b) | = | 1200 mm | breedte (b) | 300 mm |
| dikte (d) | = | 200 mm | hoogte (h) | 500 mm |
| dekking (c) | = | 30 mm | excentriciteit (e) | 0 mm |
| | | | dekking (c) | 35 mm |

overzicht




belastingen

| | | karakteristiek | | ongunstig | | gunstig | |
|---|---|---|---|---|---|---|---|
| | | | | $\gamma_G$ = 1,08 | | $\gamma_G$ = 0,90 | |
| eigen gewicht gronc | = | 9,72 kN | | 10,50 kN | | 8,75 kN | |
| eigen gewicht plaat | = | 7,20 kN | | 7,78 kN | | 6,48 kN | |
| eigen gewicht opstort | = | 1,13 kN | | 1,22 kN | | 1,01 kN | + |
| totaal | = | 18,05 kN | | 19,49 kN | | 16,24 kN | |
| | | | $F_{V;Ed;kolom;}$ = | 15,06 kN | | 15,06 kN | + |
| | | | | 34,55 kN | | 31,30 kN | |
| Fu.C.8 | | | $F_{H;Ed;kolom;}$ = | 17,32 kN | | 17,32 kN | |
| | | | $M_{Ed;inklemming}$ = | 0,00 kNm | | 0,00 kNm | |
| | | | $M_{H;Ed;kracht}$ = | 10,39 kNm | | 10,39 kNm | |
| | | | $M_{Ed;excentrisch}$ = | 0,00 kNm | | 0,00 kNm | + |
| | | | $M_{Ed;totaal}$ = | 10,39 kNm | | 10,39 kNm | |
| | | | e = | 0,301 m¹ | | 0,332 m¹ | |
| | | | x = | 0,898 m¹ | | 0,804 m¹ | |
| | | | $e_{max}$ = | 0,332 m¹ | ≤ | 0,400 m¹ | akkoord |
| | | | $x_{min}$ = | 0,804 m¹ | ≥ | 0,600 m¹ | akkoord |
| | | | grondspanning = | **64,15** kN/m² | | **64,89** kN/m² | |
| | | | grondspanning excl. e.g. grond | 56,86 kN/m² | | 58,81 kN/m² | |

## Wapeningsberekening plaat volgens NEN-EN-1992

### gegevens plaat

$q_{Ed}$ = 58,81 kN/m$^2$
$M_{Ed}$ = 5,95 kNm

d = 166 mm
$\rho_{;min}$ = 0,13 %
$f_s$ = 435 N/mm$^2$

### wapeningsegevens plaat

onderwapening
$\varnothing_{hoofdwapening}$ = 8 mm
h.o.h$_{hoofdwapeni}$ = 150 mm

bovenwapening
$\varnothing_{hoofdwapening}$ = 8 mm
h.o.h$_{hoofdwapening}$ = 150 mm

### berekening onderwapening plaat

$A_{s;prov}$ = 335 mm$^2$ $A_{s;min}$ = 216 mm$^2$
$N_s$ = 145,8 kN
$N_c$ = - $N_s$ = 0,75 x $X_u$ x 13,3 = 145,8 kN
$X_u$ = 14,6 mm
z = 166 - 0,39 x 14,6 = 160,3 mm
$M_{Rd}$ = 160,3 x 145,8 = 23,37 kNm

### toetsing plaat

$$\frac{M_{Ed}}{M_{Rd}} = \frac{5,95}{23,37} = 0,25 \leq 1,00$$ **voldoet**

$$\frac{A_{s;min}}{A_{s;prov}} = \frac{216}{335} = 0,64 \leq 1,00$$ **voldoet**

## Wapeningsberekening opstort volgens NEN-EN-1992

### gegevens opstort

$M_{Ed}$ = 10,39 kNm
$V_{Ed}$ = 10,39 kN

d = 260 mm
$\rho_{;min}$ = 0,13 %
$f_s$ = 435 N/mm$^2$

### wapeningsegevens opstort/zijde

wapening

$\varnothing_{hoofdwapening}$ = 10 mm
$n_{hoofdwapening}$ = 3 mm

$\varnothing_{beugel}$ = 8 mm
h.o.h$_{beugel}$ = 200 mm

$n_{snedig}$ = 2

### berekening wapening opstort

$A_{s;prov}$ = 236 mm$^2$
$A_{s;min}$ = 101 mm$^2$
$N_s$ = 102,5 kN
$N_c$ = $-N_s$ = 0,75 x $X_u$ x 13,3 = 102,5 kN
$X_u$ = 10,3 mm
z = 260 - 0,39 x 10,3 = 256,0 mm
$M_{Rd}$ = 256,0 x 102,5 = 26,24 kNm

### toetsing wapening opstort

$$\frac{M_{Ed}}{M_{Rd}} = \frac{10,39}{26,24} = 0,40 \leq 1,00$$ **voldoet**

$$\frac{A_{s;min}}{A_{s;prov}} = \frac{101}{236} = 0,43 \leq 1,00$$ **voldoet**

### berekening beugels opstort

$$v_{Ed} = \frac{V_{Ed}}{b \times d} = \frac{10,39}{78000} = 0,13 \text{ N/mm}^2$$

$\Theta$ = 21,8 °
cot$\Theta$ = 2,5

$$A_{s;req} = \frac{v_{Ed} \times b \times s}{f_s \times 0,9 \times \cot\Theta} = 40,8 \text{ mm}^2/\text{m}$$

$A_{s;prov}$ = 503 mm$^2$

### toetsing beugels opstort

$$\frac{A_{s;req}}{A_{s;prov}} = \frac{40,83}{502,65} = 0,08 \leq 1,00$$ **voldoet**

Paar 1: $Q_{d1} = 37{,}2$ kN. (Belastingvlak I 5)

plaat 4000×8000 $\sigma_{gr} = 93$ kN/m². Akkoord.

$M_{Ed} = 37{,}2$ kNm $\quad 0{,}5 \cdot 93 \cdot 0{,}8^2$

$\frac{37{,}2}{0{,}25^2 \cdot 1} = 600 \qquad \rho_0 = 0{,}4\%$

$A_{s\,req} = 0{,}4 \cdot 1000 \cdot 250 \cdot 10^{-2} = 300\ mm^2$

$A_{s\,prov} = \#\phi 10\text{-}150 = 523\ mm^2$

Pons

$V_{Ed} = 37{,}2$ kN

$A_{paal} = 300 \times 300 = 90\,000\ mm^2$

$h_{plaat} = 300$ mm $\quad d = 260$ mm

$\tau_{Ed} = \frac{V_{Ed}}{4 \cdot d} = \frac{37{,}2 \cdot 10^3}{2 \cdot (300+300) + 4 \cdot \pi \cdot 260 \cdot 260} = 0{,}32\ N/mm^2$

$V_{Rdc} = 0{,}46\ N/mm^2$. Geen pons wapening benodigd.

| | | | | |
|---|---|---|---|---|
| W2N engineers | | Projectnummer | Paraaf | Blad 31 |
| | | | | Van |

Paal 2 $Q_d$ = 219 kN (bijlage I 5)

plaat ⌀1500 x 200 $\sigma_{gr}$ = 97,3 kN/m² Akkoord.

$M_{Ed}$ = 17,52 kNm $0,5 \cdot 93,7 \cdot 0,6^2$

Wapening #⌀8-150 onder.

Pons

$V_{Ed}$ = 219 kN

$A_{paal}$ = 300x300 = 90000 mm²

$h_{plaat}$ = 200mm d = 160 mm

$$\gamma_{Ed} = \frac{V_{Ed} \cdot 10^3}{u \cdot d} = \frac{219 \cdot 10^3}{2 \cdot (300+300) + 4 \cdot \pi \cdot 160 \cdot 160} = 0,42 \text{ N/mm}^2$$

Akkoord.

Overige paalen $Q_d$ = 57 kN (bijlage I 6)

plaat ⌀900x150 $\sigma_{gr}$ = 70 kN/m² Akkoord.

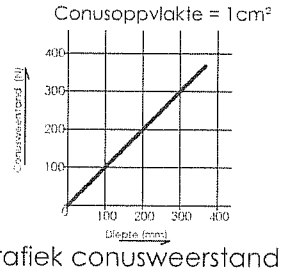
$M_{Ed}$ = 5,6 kNm $\frac{1}{2} \cdot 70 \cdot 0,4^2$

Wapening #⌀8-150 onderin

| | | | | |
|---|---|---|---|---|
| W2N engineers | | Projectnummer | Paraaf | Blad 32 Van |

RENVOOI FUNDEREN OP STAAL

- grondverbetering : verdichten in lagen van max. 0,3 m
  gelijkmatig verdichten in min 4 gangen
  overlappend en kruislings trillen energie trilslede 3/5 kN
  controle grondverbetering middels handsondering zie hiervoor grafiek conusweerstand verdicht zandbed
- ontgraven tot op de vaste grondslag
- ook indien geen grondverbetering nodig is ontgravingsniveau in meerdere gangen aftrillen en verdichten
- grondwaterstand niet hoger dan 0,5 meter onder het te verdichten oppervlak, zonodig tijdelijk de grondwaterstand verlagen
- N O O I T dieper ontgraven dan de eventueel bestaande fundering




grafiek conusweerstand verdicht zandbed

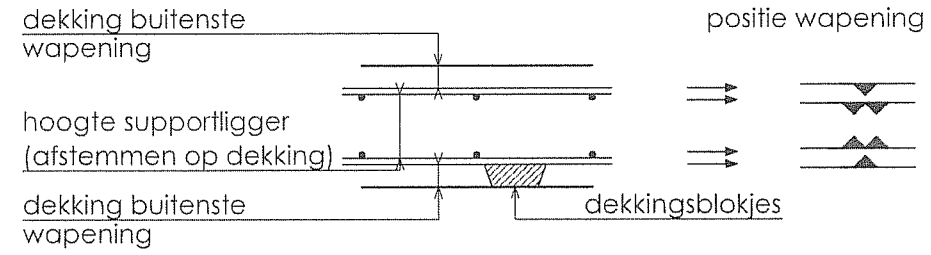
Aanlegbreedte grondverbetering : - mm
Gronddekking op aanlegniveau : - mm

I.H.W. GESTORT BETON

- beton vlgs. NEN-EN 206-1 en NEN 8005
- cement CEM III/B 42,5 LH HS
- wapening uitvoeren vlgs. NEN-EN 1992, NEN-EN 10080 en NEN 6008
- kwaliteit betonstaal B500B
- lassen verspringend aanbrengen
- algemene gegevens:
  eventuele hulpwapening is niet getekend
  werkvloeren minimaal betonkwaliteit C12/15, milieuklasse X0
  voor aanvullende eisen zie bestek
  opgave van alle onderstempelingsvoorzieningen dienen door de aannemer te worden aangeleverd

laslengten en verankeringslengten
(toepassen tenzij er op tekening anders is aangegeven)

| staafdiameter | Ø8 | Ø10 | Ø12 | Ø16 | Ø20 | Ø25 | Ø32 | Ø40 |
|---|---|---|---|---|---|---|---|---|
| min. laslengte | 400 | 500 | 600 | 800 | 1000 | 1250 | 1600 | 2000 |

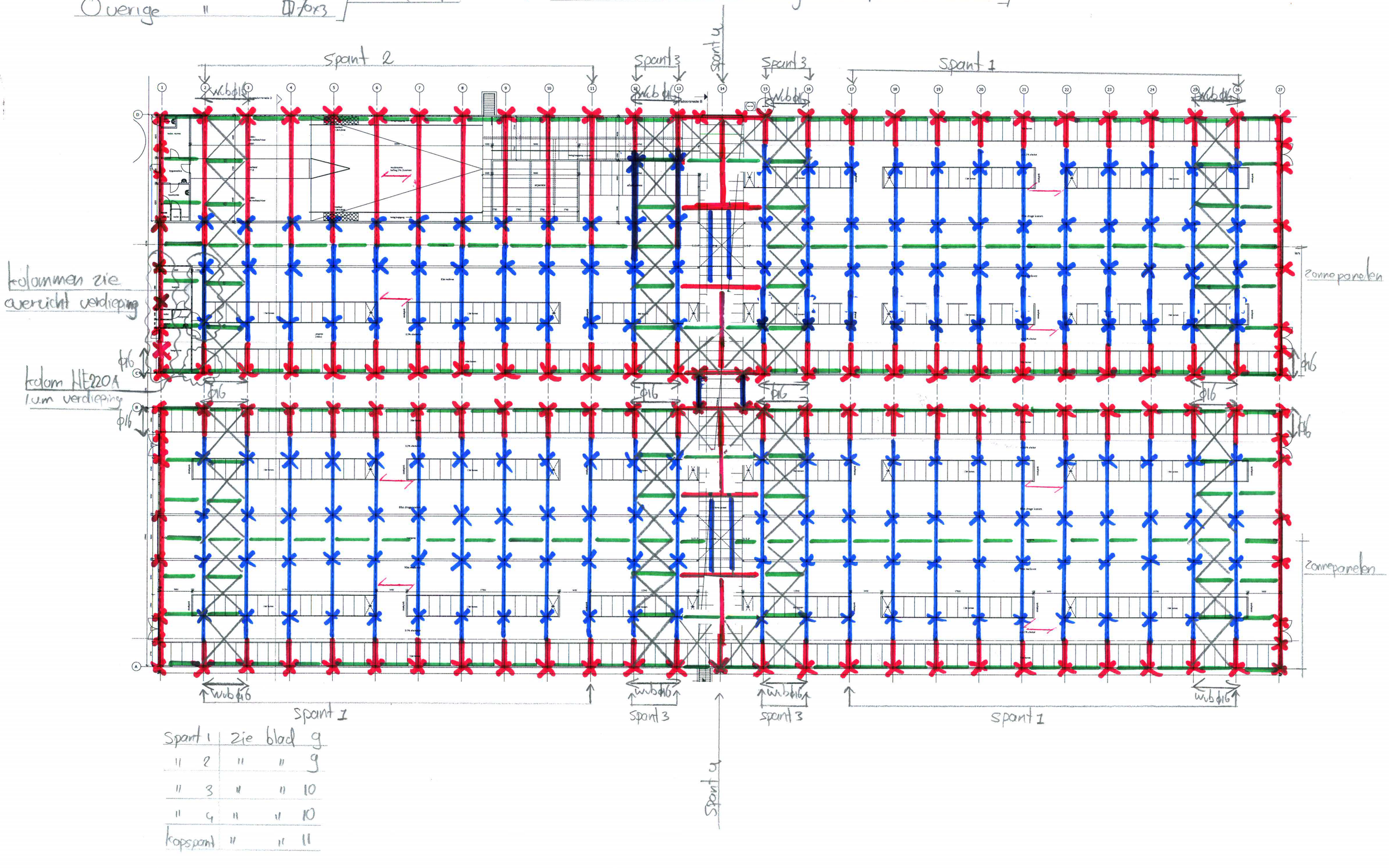



| | | | | |
|---|---|---|---|---|
| W2N engineers | | Projectnummer | Paraaf | Blad 34 Van |

# Overzicht bovenbouw

Wkb ϕ20 + koppelingen ϕ18x3
Overige " ϕ76x3
] Zie blad 15-17

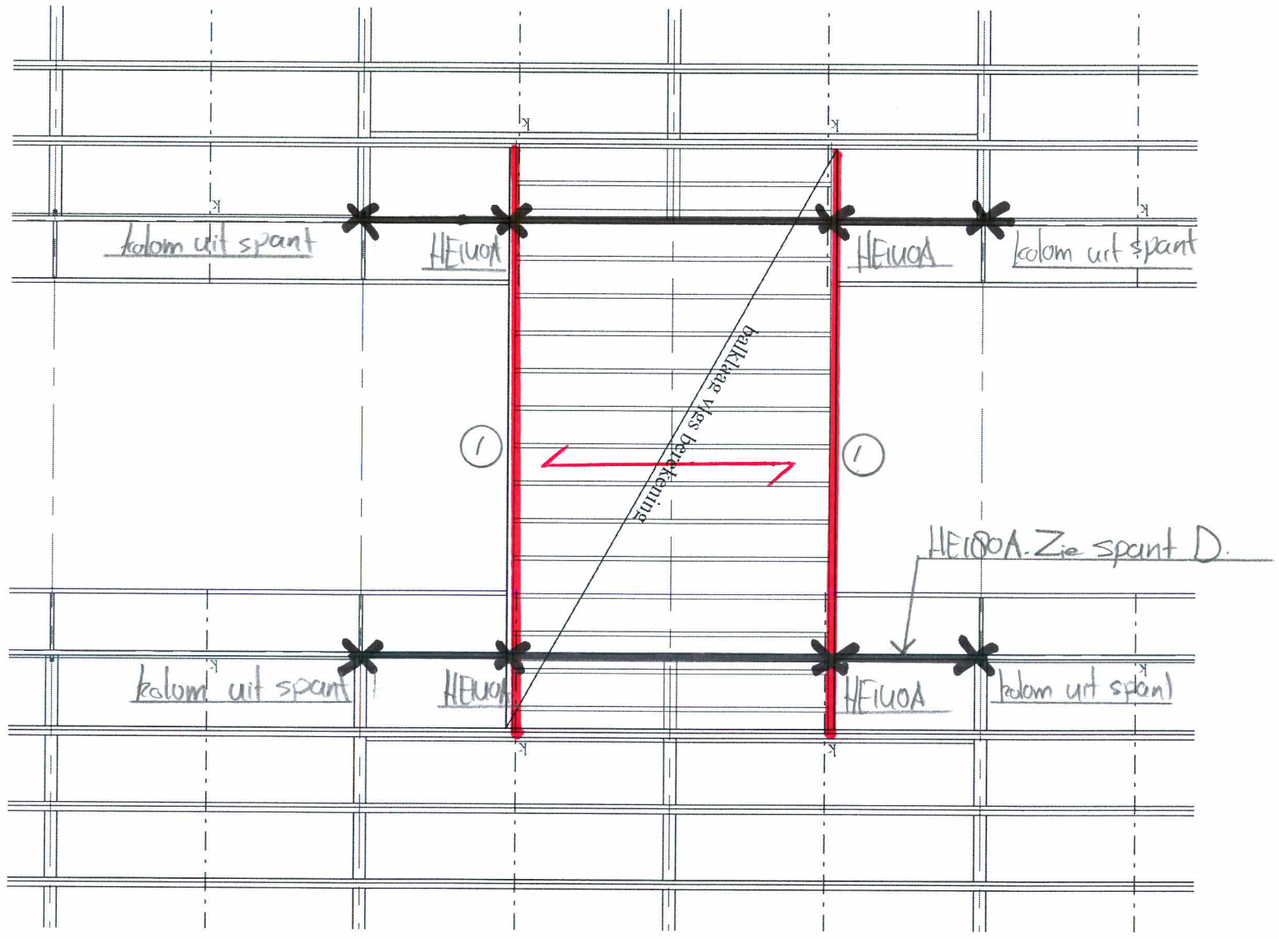
Gordingen met zonnepanelen 71x221 hoh 1700mm C24
" zonder " 71x196 hoh 1700 mm C24
] Zie bijlage E




| | | | | |
|---|---|---|---|---|
| Spant | 1 | zie | blad | 9 |
| " | 2 | " | " | 9 |
| " | 3 | " | " | 10 |
| " | 4 | " | " | 10 |
| kapspant | | " | " | 11 |

# Overzicht plat dak

⟷ balklaag 7i x 196 hoh 400mm C24
① IPE 240 (10mm hoog excl. afschot) ki HE140A



# Overzicht verdieping

↔ kanaalpl. A200 u.v. druklaag 60mm
volgs leverancier

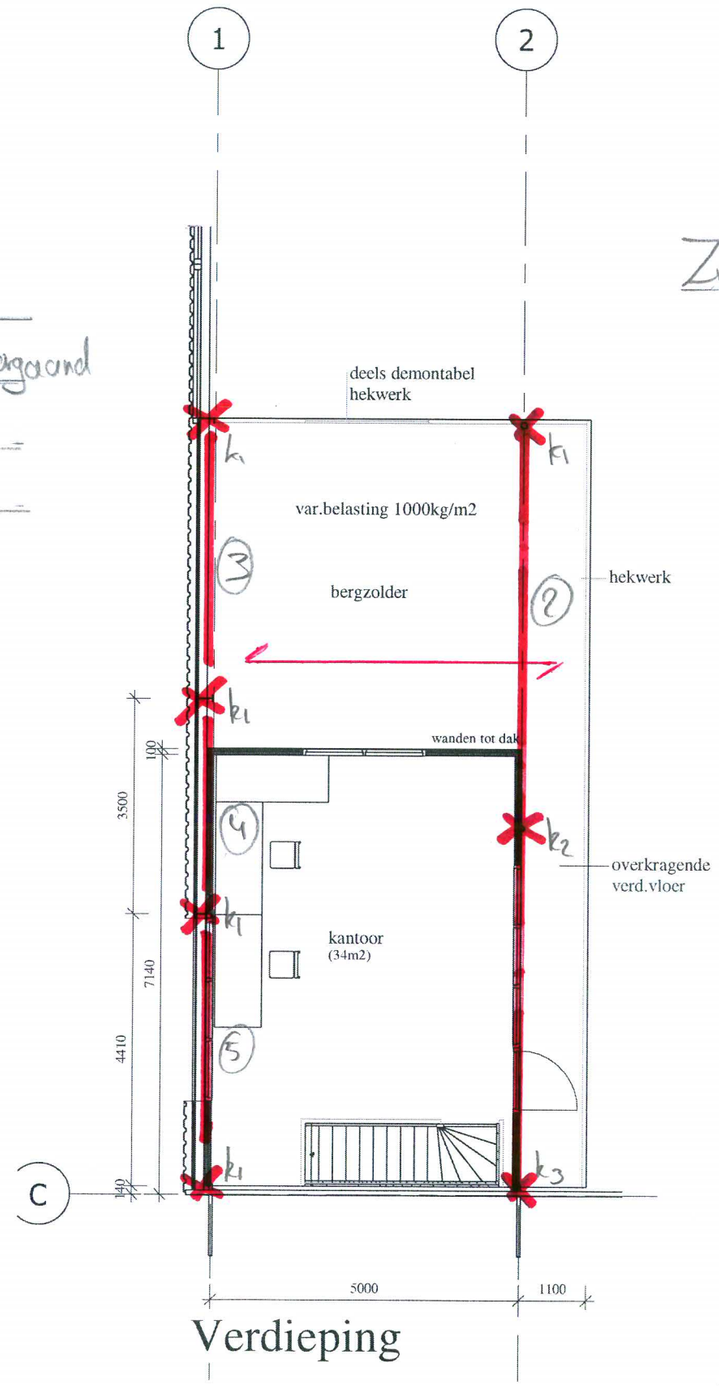
## Liggers

| | |
|---|---|
| ② | HE 280A (doorgaand |
| ③ | IPE 330 |
| ④ | IPE 220 |
| ⑤ | IPE 270 |

## kolommen

| | |
|---|---|
| k1 | HE 180A (doorgaand |
| k2 | HE 200A |
| k3 | HE 220A |

Zie computer uit voer bijlage I




Verdieping

# Overzicht kelder + Poeren

buitenwand 250mm dik #Φ8-150 bi/bu. + LΦ10-150 fg=1500 (gehele lengte)

binnenwand 200mm dik LΦ8-150 2-zijdig

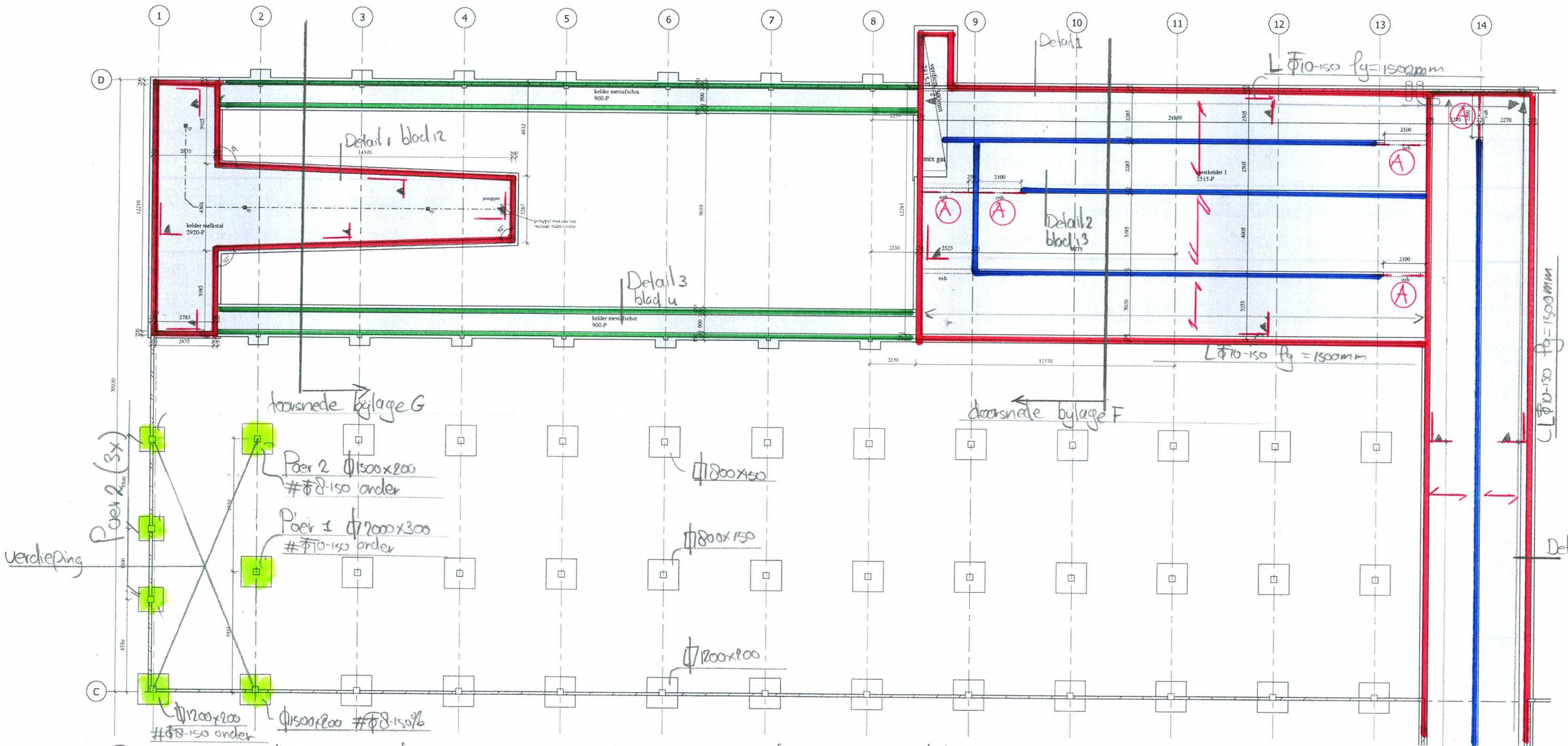
kelderbodem 200mm dik #Φ8-150 % LΦ10-150 fg=1500

buitenwand 200 dik #Φ8-150 in het midden + LΦ8-150

prefab roosters

Prefab stroroosters

(A) 10 tons onderslag

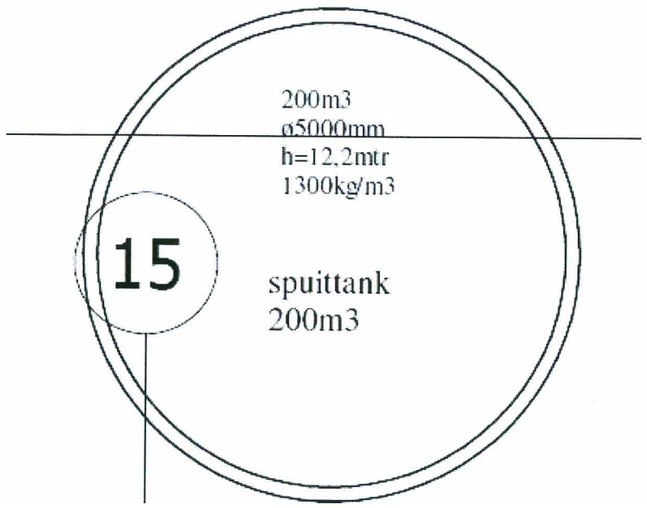



Poeren op as A, B, C en D Φ1200x200 #Φ8-150 %b + opstart Φ300 8Φ10 + bgls Φ8-200

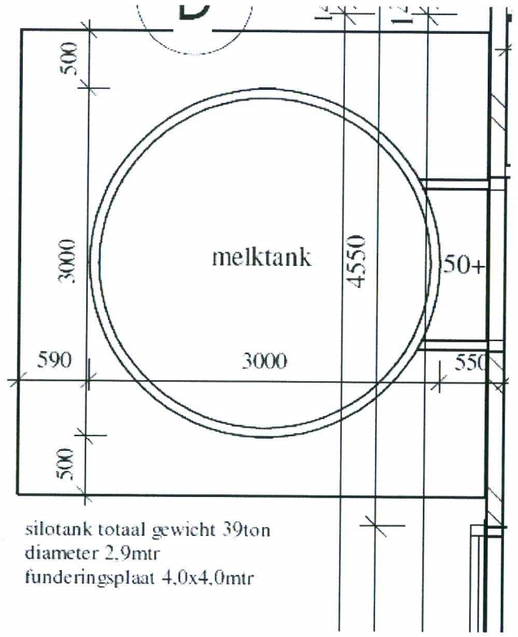
Overige poeren (tussen kolommen) Φ 900x150 #Φ8-150 onder + opstat Φ150 4Φ12 + bgls Φ8-200 (praktisch) + topgevels)

# Overzicht siloplaten

Uitgangspunt Silo rechtstreeks op siloplaat
→ belasting silo rechtstreeks op siloplaat.
Zie computer uitvoer bijlage H



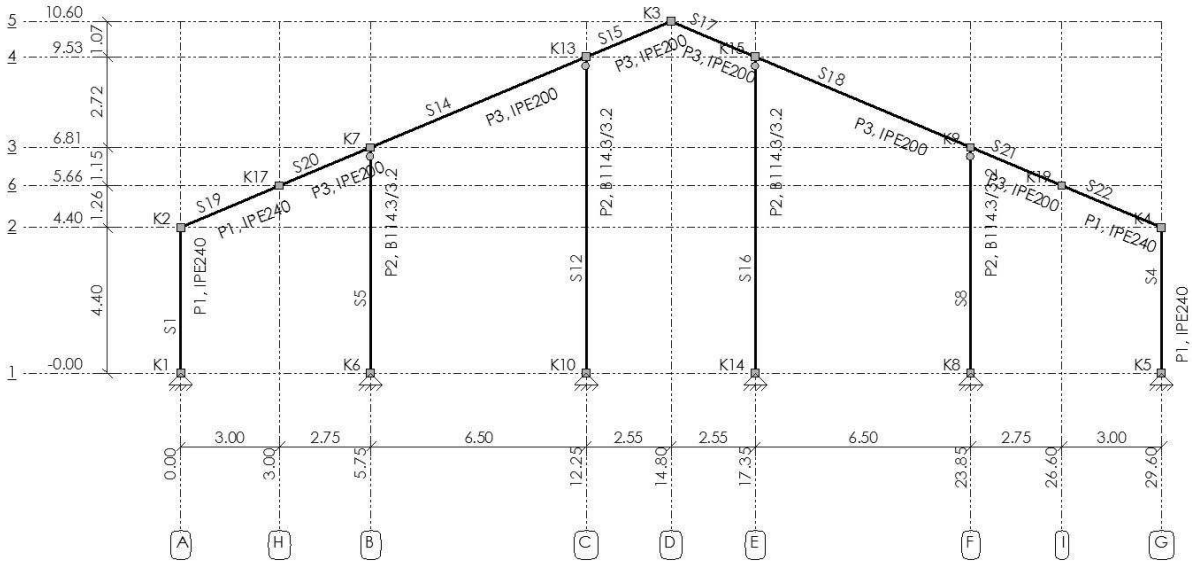

Siloplaat ϕ16000x3000 #Φ 10-150 boven
#Φ10-100 onder




Siloplaat ϕ14000x3000 #Φ10-150%

## Bijlage A

Berekening Spant 1




## STAVEN

| Staaf | Knoop B | B | Scharnier E | Knoop E | Profiel | X-B | Z-B | X-E | Z-E | Lengte |
|---|---|---|---|---|---|---|---|---|---|---|
| S1 | K1 | NVM | NVM | K2 | P1 | 0,000 | 0,000 | 0,000 | -4,400 | 4,400 |
| S4 | K4 | NVM | NVM | K5 | P1 | 29,600 | -4,400 | 29,600 | 0,000 | 4,400 |
| S5 | K6 | NVM | NV- | K7 | P2 | 5,750 | 0,000 | 5,750 | -6,809 | 6,809 |
| S8 | K8 | NVM | NV- | K9 | P2 | 23,850 | 0,000 | 23,850 | -6,809 | 6,809 |
| S12 | K10 | NVM | NV- | K13 | P2 | 12,250 | 0,000 | 12,250 | -9,532 | 9,532 |
| S14 | K7 | NVM | NVM | K13 | P3 | 5,750 | -6,809 | 12,250 | -9,532 | 7,047 |
| S15 | K13 | NVM | NVM | K3 | P3 | 12,250 | -9,532 | 14,800 | -10,600 | 2,765 |
| S16 | K14 | NVM | NV- | K15 | P2 | 17,350 | 0,000 | 17,350 | -9,532 | 9,532 |
| S17 | K3 | NVM | NVM | K15 | P3 | 14,800 | -10,600 | 17,350 | -9,532 | 2,765 |
| S18 | K15 | NVM | NVM | K9 | P3 | 17,350 | -9,532 | 23,850 | -6,809 | 7,047 |
| S19 | K2 | NVM | NVM | K17 | P1 | 0,000 | -4,400 | 3,000 | -5,657 | 3,253 |
| S20 | K17 | NVM | NVM | K7 | P3 | 3,000 | -5,657 | 5,750 | -6,809 | 2,982 |
| S21 | K9 | NVM | NVM | K19 | P3 | 23,850 | -6,809 | 26,600 | -5,657 | 2,982 |
| S22 | K19 | NVM | NVM | K4 | P1 | 26,600 | -5,657 | 29,600 | -4,400 | 3,253 |
| - | - | - | - | - | - | m | m | m | m | m |

## PROFIELEN

| Profiel | Profielnaam | Oppervlakte | Iy | Materiaal | Hoek |
|---|---|---|---|---|---|
| P1 | IPE240 | 3.9116e-03 | 3.8916e-05 | S235 | 0 |
| P2 | B114.3/3.2 | 1.1169e-03 | 1.7247e-06 | S235H(EN10219-1) | 0 |
| P3 | IPE200 | 2.8484e-03 | 1.9432e-05 | S235 | 0 |
| - | - | m2 | m4 | - | ° |

## MATERIALEN

| Materiaal | Dichtheid | E-Modulus | Uitzettingcoeff |
|---|---|---|---|
| S235 | 78.50 | 2.1000e+08 | 12.0000e-06 |
| S235H(EN10219-1) | 78.50 | 2.1000e+08 | 12.0000e-06 |
| - | kN/m3 | kN/m2 | C°m |

## OPLEGGINGEN

| Oplegging | Knoop | X | Z | Yr | HoekYr |
|---|---|---|---|---|---|
| O1 | K1 | vast | vast | vrij | 0 |
| O2 | K5 | vast | vast | vrij | 0 |
| O3 | K6 | vast | vast | vrij | 0 |
| O4 | K10 | vast | vast | vrij | 0 |
| O5 | K14 | vast | vast | vrij | 0 |
| O6 | K8 | vast | vast | vrij | 0 |
| - | - | kN/m | kN/m | kNmrad | ° |

## GEWICHTSBEREKENING

| Index | Staven | Berekening | Waarde | Eenheden |
|---|---|---|---|---|
| | Belastingen en vervormingen | NEN-EN1991 | | |
| Lsys1 | Systeemmaat | 5.00 | 5,00 | [m] |
| Height1 | Totale hoogte van constructie | 10.60 | 10,60 | [m] |
| Width1 | Totale breedte van constructie | 29.60 | 29,60 | [m] |
| **LR1** | | | | |
| | Permanente Belasting | NEN-EN1991-1-1:2011/NB:2011 | | |
| | Hellend dak (S14,S15,S17,S18,S19,S20,S21,S22) | | | |
| Pp1 | Sandwich + gordingen | 0.20 | 0,20 | [kN/m²] |
| q1 | Permanente Belasting | Pp1*Lsys1 | 1,00 | [kN/m] |
| **LR2** | | | | |
| | Windbelasting van Links + Overdruk | NEN-EN1991-1-4:2011/NB:2011 | | |
| Height2 | Totale hoogte (incl. gedeelte boven de grond) (h) | 10.60 | 10,60 | [m] |
| Width2 | Gemiddelde breedte (b) | 5.00 | 5,00 | [m] |
| Width3 | Constructie diepte (d) | 29.60 | 29,60 | [m] |
| A1 | Belast oppervlak (A) | 53.00 | 53,00 | [m²] |
| Co1 | Orthografie factor (C0) | 1.00 | 1,00 | |
| CsCd1 | Constructie factor (CsCd) | 1.00 | 1,00 | |
| Cpe1 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.36) | 0,80 | |
| Cpi1 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe1,Openingen=0.00,Over=True) | 0,20 | |
| Z1 | z=b; (h>2b) voor knopen: K1,K2,K4,K5,K6,K8,K10,K14 | 5.00 | 5,00 | [m] |
| Qp1 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z1,Terrein=Onbebouwd,Regio=3,C0=Co1) | 0,54 | [kN/m²] |
| q2 | Interne druk; Verdeelde element belasting (q) | (Cpi1*Qp1) * Lsys1 | 0,54 | [kN/m] |
| Z2 | z=h-b; (h>2b) | 5.60 | 5,60 | [m] |
| Qp2 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z2,Terrein=Onbebouwd,Regio=3,C0=Co1) | 0,57 | [kN/m²] |
| q3 | Interne druk; Verdeelde element belasting (q) | (Cpi1*Qp2) * Lsys1 | 0,57 | [kN/m] |
| Z3 | z=h; (h>2b) voor knopen: K3,K7,K9,K13,K15,K17,K19 | 10.60 | 10,60 | [m] |
| Qp3 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z3,Terrein=Onbebouwd,Regio=3,C0=Co1) | 0,72 | [kN/m²] |
| q4 | Interne druk; Verdeelde element belasting (q) | (Cpi1*Qp3) * Lsys1 | 0,72 | [kN/m] |
| Cpe2 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.36) | 0,80 | |
| q5 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp1*Cpe2*CsCd1) * Lsys1 | 2,16 | [kN/m] |
| Cpe3 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.36) | -0,50 | |
| C1 | Vertikale wand S1; Druk coefficient (Cpe) incl. correlatiefactor | (Cpe2-Cpe3) * 0.85 | 1,11 | |
| q6 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp1*(Cpe3+C1)*CsCd1) * Lsys1 | 1,64 | [kN/m] |
| q7 | Vertikale wand S4; Verdeelde element belasting (q) | (Qp1*Cpe3*CsCd1) * Lsys1 | -1,35 | [kN/m] |
| q8 | Vertikale wand S4; Verdeelde element belasting (q) | (Qp1*(Cpe2-C1)*CsCd1) * Lsys1 | -0,82 | [kN/m] |
| Cpe4 | Zadeldak S14; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=22.73) | -0,25 | |
| q9 | Zadeldak S14; Verdeelde element belasting (q) | (Qp3*Cpe4*CsCd1) * Lsys1 | -0,89 | [kN/m] |
| Cpe5 | Zadeldak S17; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=22.73) | -0,74 | |
| q10 | Zadeldak S17; Verdeelde element belasting (q) | (Qp3*Cpe5*CsCd1) * Lsys1 | -2,66 | [kN/m] |
| Cpe6 | Zadeldak S17; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=22.73) | -0,40 | |
| q11 | Zadeldak S17; Verdeelde element belasting (q) | (Qp3*Cpe6*CsCd1) * Lsys1 | -1,43 | [kN/m] |
| Cpe7 | Zadeldak S19; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=22.73) | -0,65 | |
| q12 | Zadeldak S19; Verdeelde element belasting (q) | (Qp1*Cpe7*CsCd1) * Lsys1 | -1,75 | [kN/m] |
| q13 | Zadeldak S19; Verdeelde element belasting (q) | (Qp1*Cpe4*CsCd1) * Lsys1 | -0,67 | [kN/m] |
| q14 | Zadeldak S19; Verdeelde element belasting (q) | (Qp2*Cpe4*CsCd1) * Lsys1 | -0,70 | [kN/m] |
| q15 | Zadeldak S22; Verdeelde element belasting (q) | (Qp1*Cpe6*CsCd1) * Lsys1 | -1,08 | [kN/m] |
| q16 | Zadeldak S22; Verdeelde element belasting (q) | (Qp2*Cpe6*CsCd1) * Lsys1 | -1,13 | [kN/m] |
| **LR3** | | | | |
| | Windbelasting van Links + Overdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2011 | | |
| Height3 | Totale hoogte (incl. gedeelte boven de grond) (h) | 10.60 | 10,60 | [m] |
| Width4 | Gemiddelde breedte (b) | 5.00 | 5,00 | [m] |
| Width5 | Constructie diepte (d) | 29.60 | 29,60 | [m] |
| A2 | Belast oppervlak (A) | 53.00 | 53,00 | [m²] |
| Co2 | Orthografie factor (C0) | 1.00 | 1,00 | |
| CsCd2 | Constructie factor (CsCd) | 1.00 | 1,00 | |
| Cpe8 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.36) | 0,80 | |
| Cpi2 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe8,Openingen=0.00,Over=True) | 0,20 | |
| Z4 | z=b; (h>2b) voor knopen: K1,K2,K4,K5,K6,K8,K10,K14 | 5.00 | 5,00 | [m] |

| Index | Staven | Berekening | Waarde | Eenheden |
|---|---|---|---|---|
| **LR3** | | | | |
| Qp4 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z4,Terrein=Onbebouwd,Regio=3,C0=Co2) | 0,54 | [kN/m²] |
| q17 | Interne druk; Verdeelde element belasting (q) | (Cpi2*Qp4) * Lsys1 | 0,54 | [kN/m] |
| Z5 | z=h-b; (h>2b) | 5.60 | 5,60 | [m] |
| Qp5 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z5,Terrein=Onbebouwd,Regio=3,C0=Co2) | 0,57 | [kN/m²] |
| q18 | Interne druk; Verdeelde element belasting (q) | (Cpi2*Qp5) * Lsys1 | 0,57 | [kN/m] |
| Z6 | z=h; (h>2b) voor knopen: K3,K7,K9,K13,K15,K17,K19 | 10.60 | 10,60 | [m] |
| Qp6 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z6,Terrein=Onbebouwd,Regio=3,C0=Co2) | 0,72 | [kN/m²] |
| q19 | Interne druk; Verdeelde element belasting (q) | (Cpi2*Qp6) * Lsys1 | 0,72 | [kN/m] |
| Cpe9 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.36,Eerst=False) | 0,80 | |
| q20 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp4*Cpe9*CsCd2) * Lsys1 | 2,16 | [kN/m] |
| Cpe10 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.36,Eerst=False) | -0,50 | |
| C2 | Vertikale wand S1; Druk coefficient (Cpe) incl. correlatiefactor | (Cpe9-Cpe10) * 0.85 | 1,11 | |
| q21 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp4*(Cpe10+C2)*CsCd2) * Lsys1 | 1,64 | [kN/m] |
| q22 | Vertikale wand S4; Verdeelde element belasting (q) | (Qp4*Cpe10*CsCd2) * Lsys1 | -1,35 | [kN/m] |
| q23 | Vertikale wand S4; Verdeelde element belasting (q) | (Qp4*(Cpe9-C2)*CsCd2) * Lsys1 | -0,82 | [kN/m] |
| Cpe11 | Zadeldak S14; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=22.73,Eerst=False) | 0,30 | |
| q24 | Zadeldak S14; Verdeelde element belasting (q) | (Qp6*Cpe11*CsCd2) * Lsys1 | 1,09 | [kN/m] |
| Cpe12 | Zadeldak S17; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=22.73,Eerst=False) | 0,00 | |
| q25 | Zadeldak S17; Verdeelde element belasting (q) | (Qp6*Cpe12*CsCd2) * Lsys1 | 0,00 | [kN/m] |
| Cpe13 | Zadeldak S17; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=22.73,Eerst=False) | 0,00 | |
| q26 | Zadeldak S17; Verdeelde element belasting (q) | (Qp6*Cpe13*CsCd2) * Lsys1 | 0,00 | [kN/m] |
| Cpe14 | Zadeldak S19; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=22.73,Eerst=False) | 0,46 | |
| q27 | Zadeldak S19; Verdeelde element belasting (q) | (Qp4*Cpe14*CsCd2) * Lsys1 | 1,24 | [kN/m] |
| q28 | Zadeldak S19; Verdeelde element belasting (q) | (Qp4*Cpe11*CsCd2) * Lsys1 | 0,82 | [kN/m] |
| q29 | Zadeldak S19; Verdeelde element belasting (q) | (Qp5*Cpe11*CsCd2) * Lsys1 | 0,86 | [kN/m] |
| q30 | Zadeldak S22; Verdeelde element belasting (q) | (Qp4*Cpe13*CsCd2) * Lsys1 | 0,00 | [kN/m] |
| q31 | Zadeldak S22; Verdeelde element belasting (q) | (Qp5*Cpe13*CsCd2) * Lsys1 | 0,00 | [kN/m] |
| **LR4** | | | | |
| | Windbelasting van Links + Onderdruk | NEN-EN1991-1-4:2011/NB:2011 | | |
| Height4 | Totale hoogte (incl. gedeelte boven de grond) (h) | 10.60 | 10,60 | [m] |
| Width6 | Gemiddelde breedte (b) | 5.00 | 5,00 | [m] |
| Width7 | Constructie diepte (d) | 29.60 | 29,60 | [m] |
| A3 | Belast oppervlak (A) | 53.00 | 53,00 | [m²] |
| Co3 | Orthografie factor (C0) | 1.00 | 1,00 | |
| CsCd3 | Constructie factor (CsCd) | 1.00 | 1,00 | |
| Cpe15 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.36) | -0,50 | |
| Cpi3 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe15,Openingen=0.00,Over=False) | -0,30 | |
| Z7 | z=b; (h>2b) voor knopen: K1,K2,K4,K5,K6,K8,K10,K14 | 5.00 | 5,00 | [m] |
| Qp7 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z7,Terrein=Onbebouwd,Regio=3,C0=Co3) | 0,54 | [kN/m²] |
| q32 | Interne druk; Verdeelde element belasting (q) | (Cpi3*Qp7) * Lsys1 | -0,81 | [kN/m] |
| Z8 | z=h-b; (h>2b) | 5.60 | 5,60 | [m] |
| Qp8 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z8,Terrein=Onbebouwd,Regio=3,C0=Co3) | 0,57 | [kN/m²] |
| q33 | Interne druk; Verdeelde element belasting (q) | (Cpi3*Qp8) * Lsys1 | -0,85 | [kN/m] |
| Z9 | z=h; (h>2b) voor knopen: K3,K7,K9,K13,K15,K17,K19 | 10.60 | 10,60 | [m] |
| Qp9 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z9,Terrein=Onbebouwd,Regio=3,C0=Co3) | 0,72 | [kN/m²] |
| q34 | Interne druk; Verdeelde element belasting (q) | (Cpi3*Qp9) * Lsys1 | -1,07 | [kN/m] |
| Cpe16 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.36) | 0,80 | |
| q35 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp7*Cpe16*CsCd3) * Lsys1 | 2,16 | [kN/m] |
| Cpe17 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.36) | -0,50 | |
| C3 | Vertikale wand S1; Druk coefficient (Cpe) incl. correlatiefactor | (Cpe16-Cpe17) * 0.85 | 1,11 | |
| q36 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp7*(Cpe17+C3)*CsCd3) * Lsys1 | 1,64 | [kN/m] |
| q37 | Vertikale wand S4; Verdeelde element belasting (q) | (Qp7*Cpe17*CsCd3) * Lsys1 | -1,35 | [kN/m] |
| q38 | Vertikale wand S4; Verdeelde element belasting (q) | (Qp7*(Cpe16-C3)*CsCd3) * Lsys1 | -0,82 | [kN/m] |

| Index | Staven | Berekening | Waarde | Eenheden |
|---|---|---|---|---|
| **LR4** | | | | |
| Cpe18 | Zadeldak S14; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=22.73) | -0,25 | |
| q39 | Zadeldak S14; Verdeelde element belasting (q) | (Qp9*Cpe18*CsCd3) * Lsys1 | -0,89 | [kN/m] |
| Cpe19 | Zadeldak S17; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=22.73) | -0,74 | |
| q40 | Zadeldak S17; Verdeelde element belasting (q) | (Qp9*Cpe19*CsCd3) * Lsys1 | -2,66 | [kN/m] |
| Cpe20 | Zadeldak S17; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=22.73) | -0,40 | |
| q41 | Zadeldak S17; Verdeelde element belasting (q) | (Qp9*Cpe20*CsCd3) * Lsys1 | -1,43 | [kN/m] |
| Cpe21 | Zadeldak S19; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=22.73) | -0,65 | |
| q42 | Zadeldak S19; Verdeelde element belasting (q) | (Qp7*Cpe21*CsCd3) * Lsys1 | -1,75 | [kN/m] |
| q43 | Zadeldak S19; Verdeelde element belasting (q) | (Qp7*Cpe18*CsCd3) * Lsys1 | -0,67 | [kN/m] |
| q44 | Zadeldak S19; Verdeelde element belasting (q) | (Qp8*Cpe18*CsCd3) * Lsys1 | -0,70 | [kN/m] |
| q45 | Zadeldak S22; Verdeelde element belasting (q) | (Qp7*Cpe20*CsCd3) * Lsys1 | -1,08 | [kN/m] |
| q46 | Zadeldak S22; Verdeelde element belasting (q) | (Qp8*Cpe20*CsCd3) * Lsys1 | -1,13 | [kN/m] |
| **LR5** | | | | |
| | Windbelasting van Links + Onderdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2011 | | |
| Height5 | Totale hoogte (incl. gedeelte boven de grond) (h) | 10.60 | 10,60 | [m] |
| Width8 | Gemiddelde breedte (b) | 5.00 | 5,00 | [m] |
| Width9 | Constructie diepte (d) | 29.60 | 29,60 | [m] |
| A4 | Belast oppervlak (A) | 53.00 | 53,00 | [m²] |
| Co4 | Orthografie factor (C0) | 1.00 | 1,00 | |
| CsCd4 | Constructie factor (CsCd) | 1.00 | 1,00 | |
| Cpe22 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.36) | -0,50 | |
| Cpi4 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe22,Openingen=0.00,Over=False) | -0,30 | |
| Z10 | z=b; (h>2b) voor knopen: K1,K2,K4,K5,K6,K8,K10,K14 | 5.00 | 5,00 | [m] |
| Qp10 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z10,Terrein=Onbebouwd,Regio=3,C0=Co4) | 0,54 | [kN/m²] |
| q47 | Interne druk; Verdeelde element belasting (q) | (Cpi4*Qp10) * Lsys1 | -0,81 | [kN/m] |
| Z11 | z=h-b; (h>2b) | 5.60 | 5,60 | [m] |
| Qp11 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z11,Terrein=Onbebouwd,Regio=3,C0=Co4) | 0,57 | [kN/m²] |
| q48 | Interne druk; Verdeelde element belasting (q) | (Cpi4*Qp11) * Lsys1 | -0,85 | [kN/m] |
| Z12 | z=h; (h>2b) voor knopen: K3,K7,K9,K13,K15,K17,K19 | 10.60 | 10,60 | [m] |
| Qp12 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z12,Terrein=Onbebouwd,Regio=3,C0=Co4) | 0,72 | [kN/m²] |
| q49 | Interne druk; Verdeelde element belasting (q) | (Cpi4*Qp12) * Lsys1 | -1,07 | [kN/m] |
| Cpe23 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.36,Eerst=False) | 0,80 | |
| q50 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp10*Cpe23*CsCd4) * Lsys1 | 2,16 | [kN/m] |
| Cpe24 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.36,Eerst=False) | -0,50 | |
| C4 | Vertikale wand S1; Druk coefficient (Cpe) incl. correlatiefactor | (Cpe23-Cpe24) * 0.85 | 1,11 | |
| q51 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp10*(Cpe24+C4)*CsCd4) * Lsys1 | 1,64 | [kN/m] |
| q52 | Vertikale wand S4; Verdeelde element belasting (q) | (Qp10*Cpe24*CsCd4) * Lsys1 | -1,35 | [kN/m] |
| q53 | Vertikale wand S4; Verdeelde element belasting (q) | (Qp10*(Cpe23-C4)*CsCd4) * Lsys1 | -0,82 | [kN/m] |
| Cpe25 | Zadeldak S14; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=22.73,Eerst=False) | 0,30 | |
| q54 | Zadeldak S14; Verdeelde element belasting (q) | (Qp12*Cpe25*CsCd4) * Lsys1 | 1,09 | [kN/m] |
| Cpe26 | Zadeldak S17; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=22.73,Eerst=False) | 0,00 | |
| q55 | Zadeldak S17; Verdeelde element belasting (q) | (Qp12*Cpe26*CsCd4) * Lsys1 | 0,00 | [kN/m] |
| Cpe27 | Zadeldak S17; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=22.73,Eerst=False) | 0,00 | |
| q56 | Zadeldak S17; Verdeelde element belasting (q) | (Qp12*Cpe27*CsCd4) * Lsys1 | 0,00 | [kN/m] |
| Cpe28 | Zadeldak S19; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=22.73,Eerst=False) | 0,46 | |
| q57 | Zadeldak S19; Verdeelde element belasting (q) | (Qp10*Cpe28*CsCd4) * Lsys1 | 1,24 | [kN/m] |
| q58 | Zadeldak S19; Verdeelde element belasting (q) | (Qp10*Cpe25*CsCd4) * Lsys1 | 0,82 | [kN/m] |
| q59 | Zadeldak S19; Verdeelde element belasting (q) | (Qp11*Cpe25*CsCd4) * Lsys1 | 0,86 | [kN/m] |
| q60 | Zadeldak S22; Verdeelde element belasting (q) | (Qp10*Cpe27*CsCd4) * Lsys1 | 0,00 | [kN/m] |
| q61 | Zadeldak S22; Verdeelde element belasting (q) | (Qp11*Cpe27*CsCd4) * Lsys1 | 0,00 | [kN/m] |
| **LR6** | | | | |
| | Sneeuwbelasting | NEN-EN1991-1-3:2011/NB:2011 | | |
| Sk1 | Karakteristiek waarde van de sneeuwlast op de grond (Sk) | NEN-EN1991-1-3#4.1(Zone=1) | 0,70 | [kN/m²] |
| Ce1 | De milieucoefficient (Ce) | NEN-EN1991-1-3#5.2.7() | 1,00 | |
| Ct1 | De thermische coefficient (Ct) | NEN-EN1991-1-3#5.2.8() | 1,00 | |
| | Zadeldak, Mu1 Hoek: 22.73; S14,S15,S17,S18,S19,S20,S21,S22 | | | |

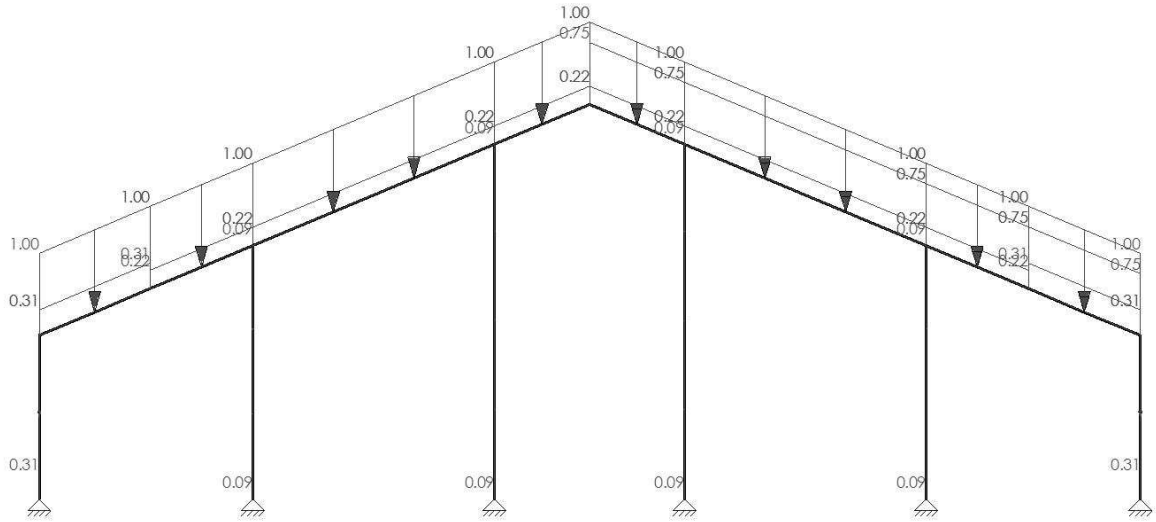
| Index | Staven | Berekening | Waarde | Eenheden |
|---|---|---|---|---|
| **LR6** | | | | |
| Mu1 | Mu1; Sneeuwbelasting coefficient (Mu) | EN1991-1-3#5.3(Dak=Hellend,Hoek=22.73,Mu=Mu1,Sk=Sk1) | 0,80 | |
| q62 | Verdeelde element belasting (q) | (Sk1*Ce1*Ct1*Mu1) * Lsys1 | 2,80 | [kN/m] |
| q63 | Verdeelde element belasting (q) | q62*0.50 | 1,40 | [kN/m] |

## BELASTINGSGEVALLEN TYPEN

| Oplegg. | Staven | B.G.Type | Gunstig/Ong. | Element | Niveau | Veld | Psi0 | Psi1 | Psi2 | Cprob |
|---|---|---|---|---|---|---|---|---|---|---|
| B.G.1 | Permanente Belasting | Permanent | - | | N.v.t. | N.v.t. | | | | |
| B.G.2 | Windbelasting van Links + Overdruk | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.3 | Windbelasting van Links + Overdruk (2e Cpe) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.4 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.5 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.6 | Windbelasting van Links + Overdruk (2e corr. factor) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.7 | Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.8 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.9 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.10 | Windbelasting van Links + Onderdruk | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.11 | Windbelasting van Links + Onderdruk (2e Cpe) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.12 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.13 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.14 | Windbelasting van Links + Onderdruk (2e corr. factor) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.15 | Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.16 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.17 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.18 | Sneeuwbelasting 1 | Sneeuwbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,75 |
| B.G.19 | Sneeuwbelasting 2 | Sneeuwbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,75 |
| B.G.20 | Sneeuwbelasting 3 | Sneeuwbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,75 |
| B.G.21 | Kniklengte (Assymetrisch) | Kniklengte | | | N.v.t. | N.v.t. | | | | |
| B.G.22 | Kniklengte (Symmetrisch) | Kniklengte | | | N.v.t. | N.v.t. | | | | |

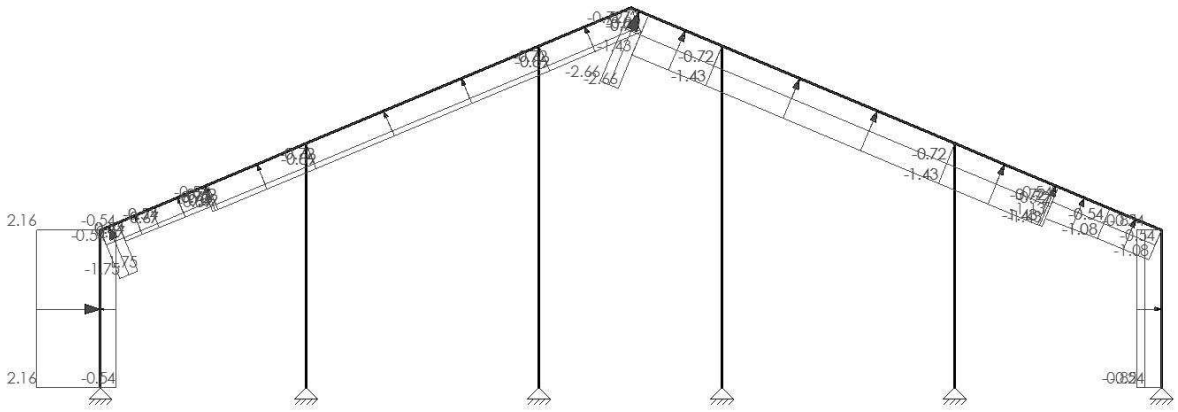
## B.G.1: PERMANENTE BELASTING

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.1: Permanente Belasting** | | | | | | |
| qG | 0,31 (1.00x) | 0,31 (1.00x) | 0,000 | 4,400(L) | Z' | S1,S4 |
| qG | 0,09 (1.00x) | 0,09 (1.00x) | 0,000 | 6,809(L) | Z' | S5,S8 |
| qG | 0,09 (1.00x) | 0,09 (1.00x) | 0,000 | 9,532(L) | Z' | S12,S16 |
| qG | 0,22 (1.00x) | 0,22 (1.00x) | 0,000 | 7,047(L) | Z' | S14,S18 |
| qG | 0,22 (1.00x) | 0,22 (1.00x) | 0,000 | 2,765(L) | Z' | S15,S17 |
| qG | 0,31 (1.00x) | 0,31 (1.00x) | 0,000 | 3,253(L) | Z' | S19,S22 |
| qG | 0,22 (1.00x) | 0,22 (1.00x) | 0,000 | 2,982(L) | Z' | S20-S21 |
| q | 1,00 (q1) | 1,00 (q1) | 0,000 | 7,047(L) | Z' | S14-S15,S17-S22 |
| q | 0,75 | 0,75 | 0,000 | 2,765(L) | Z' | S17-S18,S21-S22 |
| **Som lasten** | **X: 0,00** | **kN Z: 57,41** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



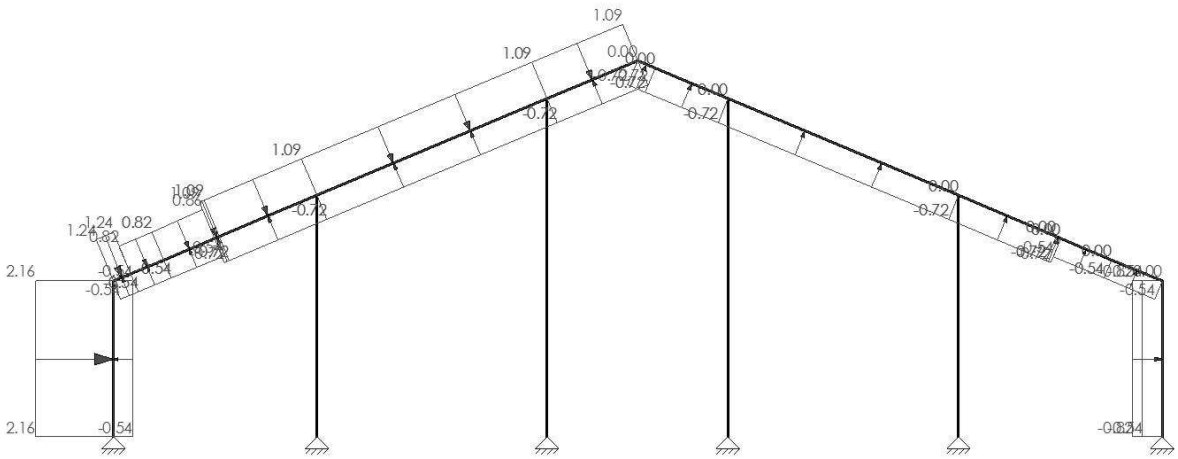

## B.G.2: WINDBELASTING VAN LINKS + OVERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.2: Windbelasting van Links + Overdruk** | | | | | | |
| q | 2,16 (q5) | 2,16 (q5) | 0,000 | 4,400(L) | | Z' S1 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | -0,82 (q8) | -0,82 (q8) | 0,000 | 4,400(L) | | Z' S4 |
| q | -0,89 (q9) | -0,89 (q9) | 0,000 | 7,047(L) | | Z' S14-S15,S20 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 7,047(L) | | Z' S14-S15,S18,S20-S21 |
| q | -2,66 (q10) | -2,66 (q10) | 0,000 | 0,542 | | Z' S17 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 0,542 | | Z' S17 |
| q | -1,43 (q11) | -1,43 (q11) | 0,542 | 2,765(L) | | Z' S17 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,542 | 2,765(L) | | Z' S17 |
| q | -1,43 (q11) | -1,43 (q11) | 0,000 | 7,047(L) | | Z' S18,S21 |
| q | -1,75 (q12) | -1,75 (q12) | 0,000 | 0,542 | | Z' S19 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,000 | 0,542 | | Z' S19 |
| q | -0,67 (q13) | -0,67 (q13) | 0,542 | 1,553 | | Z' S19 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,542 | 1,553 | | Z' S19 |
| q | -0,89 (q9) | -0,89 (q9) | 3,106 | 3,253(L) | | Z' S19 |
| q | -0,72 (-q4) | -0,72 (-q4) | 3,106 | 3,253(L) | | Z' S19 |
| q | -0,67 (q13) | -0,70 (q14) | 1,553 | 3,106 | | Z' S19 |
| q | -0,54 (-q2) | -0,54 (-q2) | 1,553 | 3,106 | | Z' S19 |
| q | -1,08 (q15) | -1,08 (q15) | 1,700 | 3,253(L) | | Z' S22 |
| q | -0,54 (-q2) | -0,54 (-q2) | 1,700 | 3,253(L) | | Z' S22 |
| q | -1,43 (q11) | -1,43 (q11) | 0,000 | 0,147 | | Z' S22 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 0,147 | | Z' S22 |
| q | -1,13 (q16) | -1,08 (q15) | 0,147 | 1,700 | | Z' S22 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,147 | 1,700 | | Z' S22 |
| **Som lasten** | **X: 16,39** | **kN Z: -54,14** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



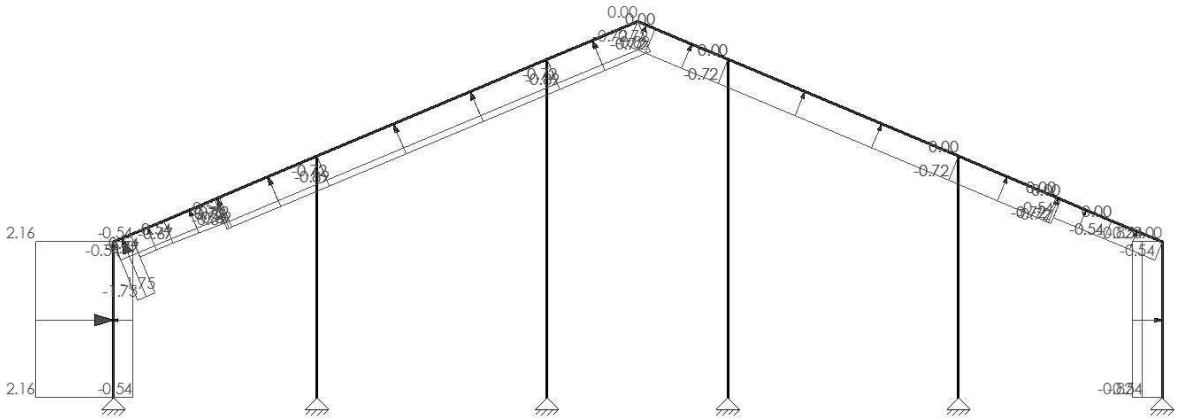

## B.G.3: WINDBELASTING VAN LINKS + OVERDRUK (2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.3: Windbelasting van Links + Overdruk (2e Cpe)** | | | | | | |
| q | 2,16 (q20) | 2,16 (q20) | 0,000 | 4,400(L) | Z' | S1 |
| q | -0,54 (-q17) | -0,54 (-q17) | 0,000 | 4,400(L) | Z' | S1,S4 |
| q | -0,82 (q23) | -0,82 (q23) | 0,000 | 4,400(L) | Z' | S4 |
| q | 1,09 (q24) | 1,09 (q24) | 0,000 | 7,047(L) | Z' | S14-S15,S20 |
| q | -0,72 (-q19) | -0,72 (-q19) | 0,000 | 7,047(L) | Z' | S14-S15,S18,S20-S21 |
| q | 0,00 (q25) | 0,00 (q25) | 0,000 | 0,542 | Z' | S17 |
| q | -0,72 (-q19) | -0,72 (-q19) | 0,000 | 0,542 | Z' | S17 |
| q | 0,00 (q26) | 0,00 (q26) | 0,542 | 2,765(L) | Z' | S17 |
| q | -0,72 (-q19) | -0,72 (-q19) | 0,542 | 2,765(L) | Z' | S17 |
| q | 0,00 (q26) | 0,00 (q26) | 0,000 | 7,047(L) | Z' | S18,S21 |
| q | 1,24 (q27) | 1,24 (q27) | 0,000 | 0,542 | Z' | S19 |
| q | -0,54 (-q17) | -0,54 (-q17) | 0,000 | 0,542 | Z' | S19 |
| q | 0,82 (q28) | 0,82 (q28) | 0,542 | 1,553 | Z' | S19 |
| q | -0,54 (-q17) | -0,54 (-q17) | 0,542 | 1,553 | Z' | S19 |
| q | 1,09 (q24) | 1,09 (q24) | 3,106 | 3,253(L) | Z' | S19 |
| q | -0,72 (-q19) | -0,72 (-q19) | 3,106 | 3,253(L) | Z' | S19 |
| q | 0,82 (q28) | 0,86 (q29) | 1,553 | 3,106 | Z' | S19 |
| q | -0,54 (-q17) | -0,54 (-q17) | 1,553 | 3,106 | Z' | S19 |
| q | 0,00 (q30) | 0,00 (q30) | 1,700 | 3,253(L) | Z' | S22 |
| q | -0,54 (-q17) | -0,54 (-q17) | 1,700 | 3,253(L) | Z' | S22 |
| q | 0,00 (q26) | 0,00 (q26) | 0,000 | 0,147 | Z' | S22 |
| q | -0,72 (-q19) | -0,72 (-q19) | 0,000 | 0,147 | Z' | S22 |
| q | 0,00 (q31) | 0,00 (q30) | 0,147 | 1,700 | Z' | S22 |
| q | -0,54 (-q17) | -0,54 (-q17) | 0,147 | 1,700 | Z' | S22 |
| **Som lasten** | **X: 19,66** | **kN Z: -4,66** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



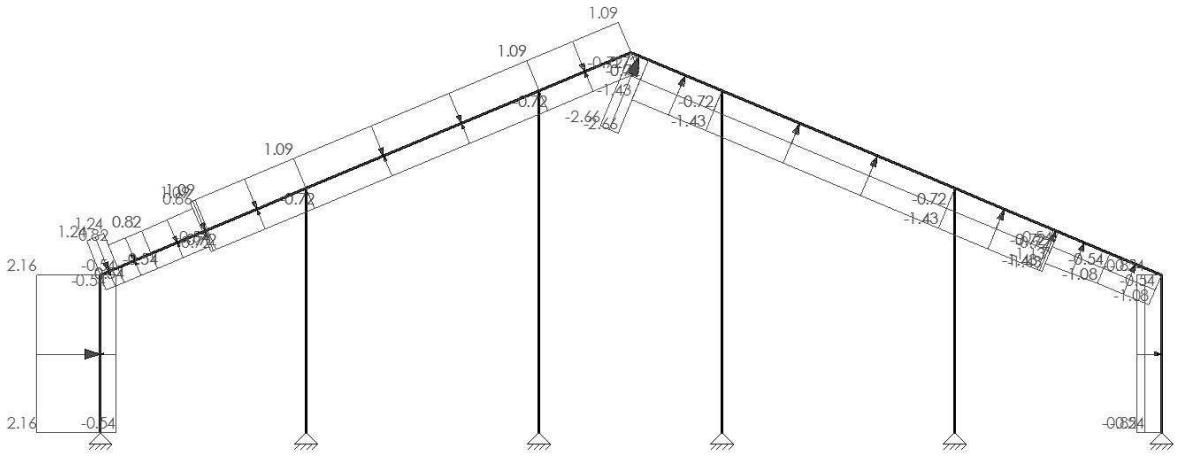

## B.G.4: WINDBELASTING VAN LINKS + OVERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.4: Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe)** | | | | | | |
| q | 2,16 (q5) | 2,16 (q5) | 0,000 | 4,400(L) | | Z' S1 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | -0,82 (q8) | -0,82 (q8) | 0,000 | 4,400(L) | | Z' S4 |
| q | -0,89 (q9) | -0,89 (q9) | 0,000 | 7,047(L) | | Z' S14-S15,S20 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 7,047(L) | | Z' S14-S15,S18,S20-S21 |
| q | 0,00 (q25) | 0,00 (q25) | 0,000 | 0,542 | | Z' S17 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 0,542 | | Z' S17 |
| q | 0,00 (q26) | 0,00 (q26) | 0,542 | 2,765(L) | | Z' S17 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,542 | 2,765(L) | | Z' S17 |
| q | 0,00 (q26) | 0,00 (q26) | 0,000 | 7,047(L) | | Z' S18,S21 |
| q | -1,75 (q12) | -1,75 (q12) | 0,000 | 0,542 | | Z' S19 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,000 | 0,542 | | Z' S19 |
| q | -0,67 (q13) | -0,67 (q13) | 0,542 | 1,553 | | Z' S19 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,542 | 1,553 | | Z' S19 |
| q | -0,89 (q9) | -0,89 (q9) | 3,106 | 3,253(L) | | Z' S19 |
| q | -0,72 (-q4) | -0,72 (-q4) | 3,106 | 3,253(L) | | Z' S19 |
| q | -0,67 (q13) | -0,70 (q14) | 1,553 | 3,106 | | Z' S19 |
| q | -0,54 (-q2) | -0,54 (-q2) | 1,553 | 3,106 | | Z' S19 |
| q | 0,00 (q30) | 0,00 (q30) | 1,700 | 3,253(L) | | Z' S22 |
| q | -0,54 (-q2) | -0,54 (-q2) | 1,700 | 3,253(L) | | Z' S22 |
| q | 0,00 (q26) | 0,00 (q26) | 0,000 | 0,147 | | Z' S22 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 0,147 | | Z' S22 |
| q | 0,00 (q31) | 0,00 (q30) | 0,147 | 1,700 | | Z' S22 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,147 | 1,700 | | Z' S22 |
| **Som lasten** | **X: 7,66** | **kN Z:** | **-33,30** | **kN** | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



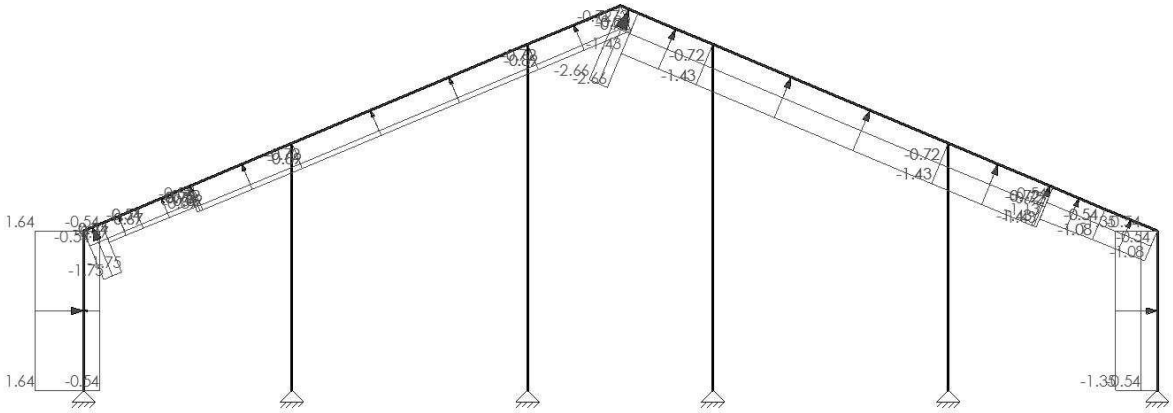

## B.G.5: WINDBELASTING VAN LINKS + OVERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.5: Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe)** | | | | | | |
| q | 2,16 (q5) | 2,16 (q5) | 0,000 | 4,400(L) | | Z' S1 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | -0,82 (q8) | -0,82 (q8) | 0,000 | 4,400(L) | | Z' S4 |
| q | 1,09 (q24) | 1,09 (q24) | 0,000 | 7,047(L) | | Z' S14-S15,S20 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 7,047(L) | | Z' S14-S15,S18,S20-S21 |
| q | -2,66 (q10) | -2,66 (q10) | 0,000 | 0,542 | | Z' S17 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 0,542 | | Z' S17 |
| q | -1,43 (q11) | -1,43 (q11) | 0,542 | 2,765(L) | | Z' S17 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,542 | 2,765(L) | | Z' S17 |
| q | -1,43 (q11) | -1,43 (q11) | 0,000 | 7,047(L) | | Z' S18,S21 |
| q | 1,24 (q27) | 1,24 (q27) | 0,000 | 0,542 | | Z' S19 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,000 | 0,542 | | Z' S19 |
| q | 0,82 (q28) | 0,82 (q28) | 0,542 | 1,553 | | Z' S19 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,542 | 1,553 | | Z' S19 |
| q | 1,09 (q24) | 1,09 (q24) | 3,106 | 3,253(L) | | Z' S19 |
| q | -0,72 (-q4) | -0,72 (-q4) | 3,106 | 3,253(L) | | Z' S19 |
| q | 0,82 (q28) | 0,86 (q29) | 1,553 | 3,106 | | Z' S19 |
| q | -0,54 (-q2) | -0,54 (-q2) | 1,553 | 3,106 | | Z' S19 |
| q | -1,08 (q15) | -1,08 (q15) | 1,700 | 3,253(L) | | Z' S22 |
| q | -0,54 (-q2) | -0,54 (-q2) | 1,700 | 3,253(L) | | Z' S22 |
| q | -1,43 (q11) | -1,43 (q11) | 0,000 | 0,147 | | Z' S22 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 0,147 | | Z' S22 |
| q | -1,13 (q16) | -1,08 (q15) | 0,147 | 1,700 | | Z' S22 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,147 | 1,700 | | Z' S22 |
| **Som lasten** | **X: 28,39** | **kN Z: -25,50** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



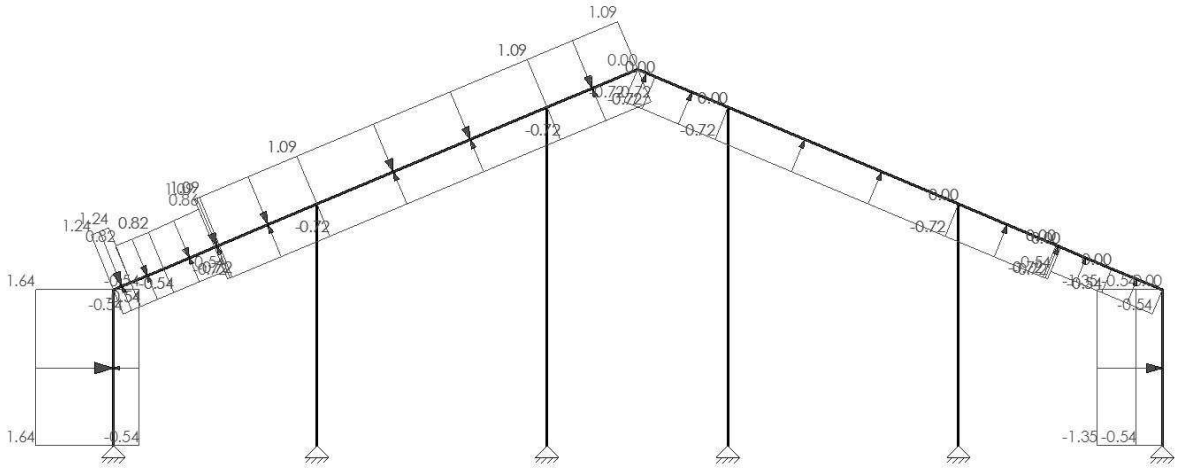

## B.G.6: WINDBELASTING VAN LINKS + OVERDRUK (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.6: Windbelasting van Links + Overdruk (2e corr. factor)** | | | | | | |
| q | 1,64 (q6) | 1,64 (q6) | 0,000 | 4,400(L) | | Z' S1 |
| q | -1,35 (q7) | -1,35 (q7) | 0,000 | 4,400(L) | | Z' S4 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | -0,89 (q9) | -0,89 (q9) | 0,000 | 7,047(L) | | Z' S14-S15,S20 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 7,047(L) | | Z' S14-S15,S18,S20-S21 |
| q | -2,66 (q10) | -2,66 (q10) | 0,000 | 0,542 | | Z' S17 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 0,542 | | Z' S17 |
| q | -1,43 (q11) | -1,43 (q11) | 0,542 | 2,765(L) | | Z' S17 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,542 | 2,765(L) | | Z' S17 |
| q | -1,43 (q11) | -1,43 (q11) | 0,000 | 7,047(L) | | Z' S18,S21 |
| q | -1,75 (q12) | -1,75 (q12) | 0,000 | 0,542 | | Z' S19 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,000 | 0,542 | | Z' S19 |
| q | -0,67 (q13) | -0,67 (q13) | 0,542 | 1,553 | | Z' S19 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,542 | 1,553 | | Z' S19 |
| q | -0,89 (q9) | -0,89 (q9) | 3,106 | 3,253(L) | | Z' S19 |
| q | -0,72 (-q4) | -0,72 (-q4) | 3,106 | 3,253(L) | | Z' S19 |
| q | -0,67 (q13) | -0,70 (q14) | 1,553 | 3,106 | | Z' S19 |
| q | -0,54 (-q2) | -0,54 (-q2) | 1,553 | 3,106 | | Z' S19 |
| q | -1,08 (q15) | -1,08 (q15) | 1,700 | 3,253(L) | | Z' S22 |
| q | -0,54 (-q2) | -0,54 (-q2) | 1,700 | 3,253(L) | | Z' S22 |
| q | -1,43 (q11) | -1,43 (q11) | 0,000 | 0,147 | | Z' S22 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 0,147 | | Z' S22 |
| q | -1,13 (q16) | -1,08 (q15) | 0,147 | 1,700 | | Z' S22 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,147 | 1,700 | | Z' S22 |
| **Som lasten** | **X: 16,39** | **kN Z: -54,14** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



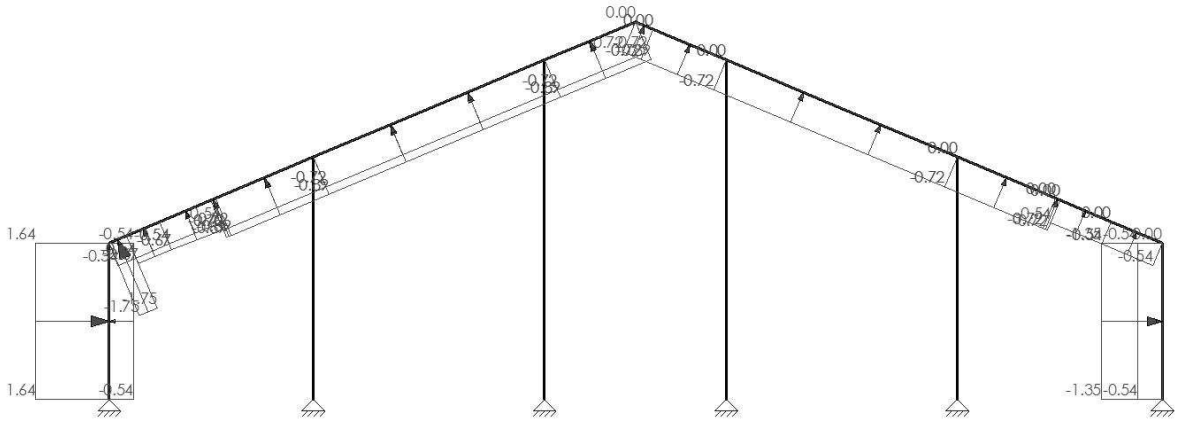

## B.G.7: WINDBELASTING VAN LINKS + OVERDRUK (2E CPE) (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.7: Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor)** | | | | | | |
| q | 1,64 (q21) | 1,64 (q21) | 0,000 | 4,400(L) | | Z' S1 |
| q | -1,35 (q22) | -1,35 (q22) | 0,000 | 4,400(L) | | Z' S4 |
| q | -0,54 (-q17) | -0,54 (-q17) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | 1,09 (q24) | 1,09 (q24) | 0,000 | 7,047(L) | | Z' S14-S15,S20 |
| q | -0,72 (-q19) | -0,72 (-q19) | 0,000 | 7,047(L) | | Z' S14-S15,S18,S20-S21 |
| q | 0,00 (q25) | 0,00 (q25) | 0,000 | 0,542 | | Z' S17 |
| q | -0,72 (-q19) | -0,72 (-q19) | 0,000 | 0,542 | | Z' S17 |
| q | 0,00 (q26) | 0,00 (q26) | 0,542 | 2,765(L) | | Z' S17 |
| q | -0,72 (-q19) | -0,72 (-q19) | 0,542 | 2,765(L) | | Z' S17 |
| q | 0,00 (q26) | 0,00 (q26) | 0,000 | 7,047(L) | | Z' S18,S21 |
| q | 1,24 (q27) | 1,24 (q27) | 0,000 | 0,542 | | Z' S19 |
| q | -0,54 (-q17) | -0,54 (-q17) | 0,000 | 0,542 | | Z' S19 |
| q | 0,82 (q28) | 0,82 (q28) | 0,542 | 1,553 | | Z' S19 |
| q | -0,54 (-q17) | -0,54 (-q17) | 0,542 | 1,553 | | Z' S19 |
| q | 1,09 (q24) | 1,09 (q24) | 3,106 | 3,253(L) | | Z' S19 |
| q | -0,72 (-q19) | -0,72 (-q19) | 3,106 | 3,253(L) | | Z' S19 |
| q | 0,82 (q28) | 0,86 (q29) | 1,553 | 3,106 | | Z' S19 |
| q | -0,54 (-q17) | -0,54 (-q17) | 1,553 | 3,106 | | Z' S19 |
| q | 0,00 (q30) | 0,00 (q30) | 1,700 | 3,253(L) | | Z' S22 |
| q | -0,54 (-q17) | -0,54 (-q17) | 1,700 | 3,253(L) | | Z' S22 |
| q | 0,00 (q26) | 0,00 (q26) | 0,000 | 0,147 | | Z' S22 |
| q | -0,72 (-q19) | -0,72 (-q19) | 0,000 | 0,147 | | Z' S22 |
| q | 0,00 (q31) | 0,00 (q30) | 0,147 | 1,700 | | Z' S22 |
| q | -0,54 (-q17) | -0,54 (-q17) | 0,147 | 1,700 | | Z' S22 |
| **Som lasten** | **X: 19,66** | **kN Z: -4,66** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | | **- -** |



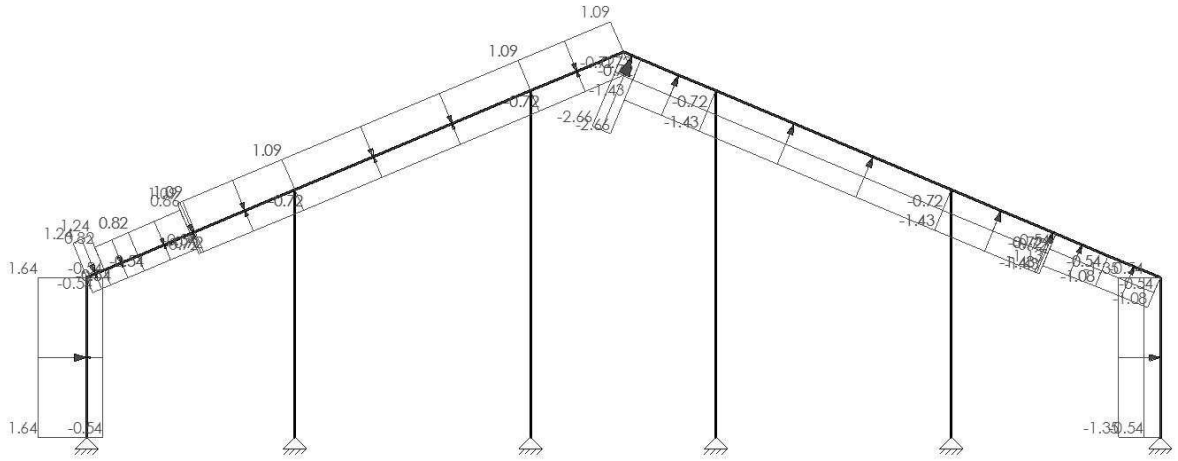

## B.G.8: WINDBELASTING VAN LINKS + OVERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE) (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.8: Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor)** | | | | | | |
| q | 1,64 (q6) | 1,64 (q6) | 0,000 | 4,400(L) | | Z' S1 |
| q | -1,35 (q7) | -1,35 (q7) | 0,000 | 4,400(L) | | Z' S4 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | -0,89 (q9) | -0,89 (q9) | 0,000 | 7,047(L) | | Z' S14-S15,S20 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 7,047(L) | | Z' S14-S15,S18,S20-S21 |
| q | 0,00 (q25) | 0,00 (q25) | 0,000 | 0,542 | | Z' S17 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 0,542 | | Z' S17 |
| q | 0,00 (q26) | 0,00 (q26) | 0,542 | 2,765(L) | | Z' S17 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,542 | 2,765(L) | | Z' S17 |
| q | 0,00 (q26) | 0,00 (q26) | 0,000 | 7,047(L) | | Z' S18,S21 |
| q | -1,75 (q12) | -1,75 (q12) | 0,000 | 0,542 | | Z' S19 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,000 | 0,542 | | Z' S19 |
| q | -0,67 (q13) | -0,67 (q13) | 0,542 | 1,553 | | Z' S19 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,542 | 1,553 | | Z' S19 |
| q | -0,89 (q9) | -0,89 (q9) | 3,106 | 3,253(L) | | Z' S19 |
| q | -0,72 (-q4) | -0,72 (-q4) | 3,106 | 3,253(L) | | Z' S19 |
| q | -0,67 (q13) | -0,70 (q14) | 1,553 | 3,106 | | Z' S19 |
| q | -0,54 (-q2) | -0,54 (-q2) | 1,553 | 3,106 | | Z' S19 |
| q | 0,00 (q30) | 0,00 (q30) | 1,700 | 3,253(L) | | Z' S22 |
| q | -0,54 (-q2) | -0,54 (-q2) | 1,700 | 3,253(L) | | Z' S22 |
| q | 0,00 (q26) | 0,00 (q26) | 0,000 | 0,147 | | Z' S22 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 0,147 | | Z' S22 |
| q | 0,00 (q31) | 0,00 (q30) | 0,147 | 1,700 | | Z' S22 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,147 | 1,700 | | Z' S22 |
| **Som lasten** | **X: 7,66** | **kN Z:** | **-33,30** | **kN** | | |
| **-** | **-** | **-** | | **m** | **m** | **- -** |



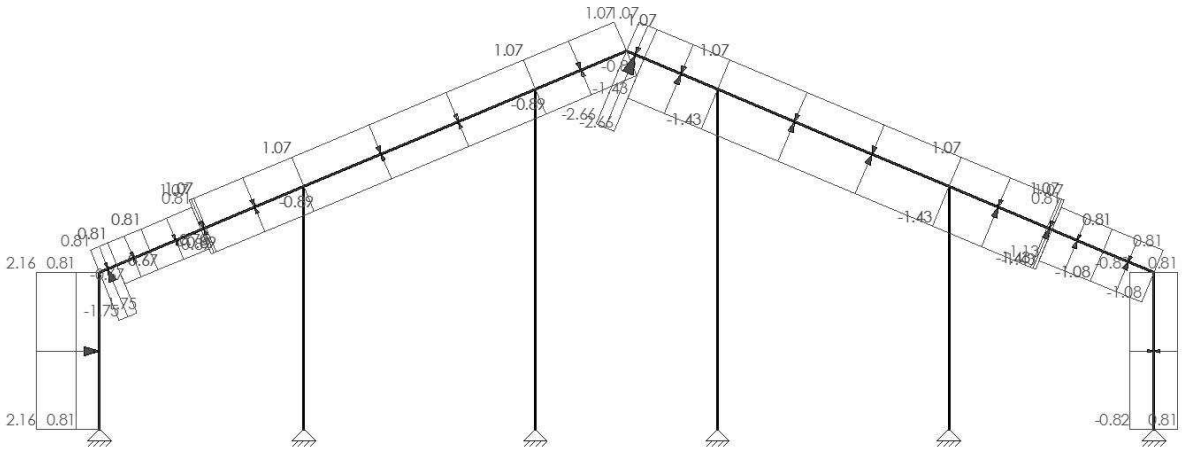

## B.G.9: WINDBELASTING VAN LINKS + OVERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE) (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.9: Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor)** | | | | | | |
| q | 1,64 (q6) | 1,64 (q6) | 0,000 | 4,400(L) | | Z' S1 |
| q | -1,35 (q7) | -1,35 (q7) | 0,000 | 4,400(L) | | Z' S4 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | 1,09 (q24) | 1,09 (q24) | 0,000 | 7,047(L) | | Z' S14-S15,S20 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 7,047(L) | | Z' S14-S15,S18,S20-S21 |
| q | -2,66 (q10) | -2,66 (q10) | 0,000 | 0,542 | | Z' S17 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 0,542 | | Z' S17 |
| q | -1,43 (q11) | -1,43 (q11) | 0,542 | 2,765(L) | | Z' S17 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,542 | 2,765(L) | | Z' S17 |
| q | -1,43 (q11) | -1,43 (q11) | 0,000 | 7,047(L) | | Z' S18,S21 |
| q | 1,24 (q27) | 1,24 (q27) | 0,000 | 0,542 | | Z' S19 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,000 | 0,542 | | Z' S19 |
| q | 0,82 (q28) | 0,82 (q28) | 0,542 | 1,553 | | Z' S19 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,542 | 1,553 | | Z' S19 |
| q | 1,09 (q24) | 1,09 (q24) | 3,106 | 3,253(L) | | Z' S19 |
| q | -0,72 (-q4) | -0,72 (-q4) | 3,106 | 3,253(L) | | Z' S19 |
| q | 0,82 (q28) | 0,86 (q29) | 1,553 | 3,106 | | Z' S19 |
| q | -0,54 (-q2) | -0,54 (-q2) | 1,553 | 3,106 | | Z' S19 |
| q | -1,08 (q15) | -1,08 (q15) | 1,700 | 3,253(L) | | Z' S22 |
| q | -0,54 (-q2) | -0,54 (-q2) | 1,700 | 3,253(L) | | Z' S22 |
| q | -1,43 (q11) | -1,43 (q11) | 0,000 | 0,147 | | Z' S22 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 0,147 | | Z' S22 |
| q | -1,13 (q16) | -1,08 (q15) | 0,147 | 1,700 | | Z' S22 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,147 | 1,700 | | Z' S22 |
| **Som lasten** | **X: 28,39** | **kN Z: -25,50** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



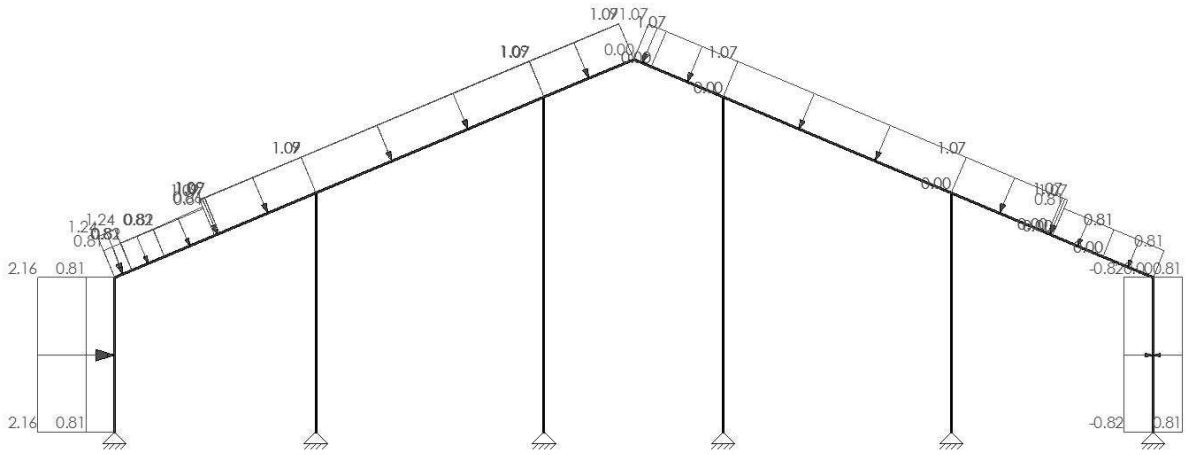

## B.G.10: WINDBELASTING VAN LINKS + ONDERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.10: Windbelasting van Links + Onderdruk** | | | | | | |
| q | 2,16 (q35) | 2,16 (q35) | 0,000 | 4,400(L) | | Z' S1 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | -0,82 (q38) | -0,82 (q38) | 0,000 | 4,400(L) | | Z' S4 |
| q | -0,89 (q39) | -0,89 (q39) | 0,000 | 7,047(L) | | Z' S14-S15,S20 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,000 | 7,047(L) | | Z' S14-S15,S18,S20-S21 |
| q | -2,66 (q40) | -2,66 (q40) | 0,000 | 0,542 | | Z' S17 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,000 | 0,542 | | Z' S17 |
| q | -1,43 (q41) | -1,43 (q41) | 0,542 | 2,765(L) | | Z' S17 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,542 | 2,765(L) | | Z' S17 |
| q | -1,43 (q41) | -1,43 (q41) | 0,000 | 7,047(L) | | Z' S18,S21 |
| q | -1,75 (q42) | -1,75 (q42) | 0,000 | 0,542 | | Z' S19 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,000 | 0,542 | | Z' S19 |
| q | -0,67 (q43) | -0,67 (q43) | 0,542 | 1,553 | | Z' S19 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,542 | 1,553 | | Z' S19 |
| q | -0,89 (q39) | -0,89 (q39) | 3,106 | 3,253(L) | | Z' S19 |
| q | 1,07 (-q34) | 1,07 (-q34) | 3,106 | 3,253(L) | | Z' S19 |
| q | -0,67 (q43) | -0,70 (q44) | 1,553 | 3,106 | | Z' S19 |
| q | 0,81 (-q32) | 0,81 (-q32) | 1,553 | 3,106 | | Z' S19 |
| q | -1,08 (q45) | -1,08 (q45) | 1,700 | 3,253(L) | | Z' S22 |
| q | 0,81 (-q32) | 0,81 (-q32) | 1,700 | 3,253(L) | | Z' S22 |
| q | -1,43 (q41) | -1,43 (q41) | 0,000 | 0,147 | | Z' S22 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,000 | 0,147 | | Z' S22 |
| q | -1,13 (q46) | -1,08 (q45) | 0,147 | 1,700 | | Z' S22 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,147 | 1,700 | | Z' S22 |
| **Som lasten** | **X: 16,39** | **kN Z: -3,66** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



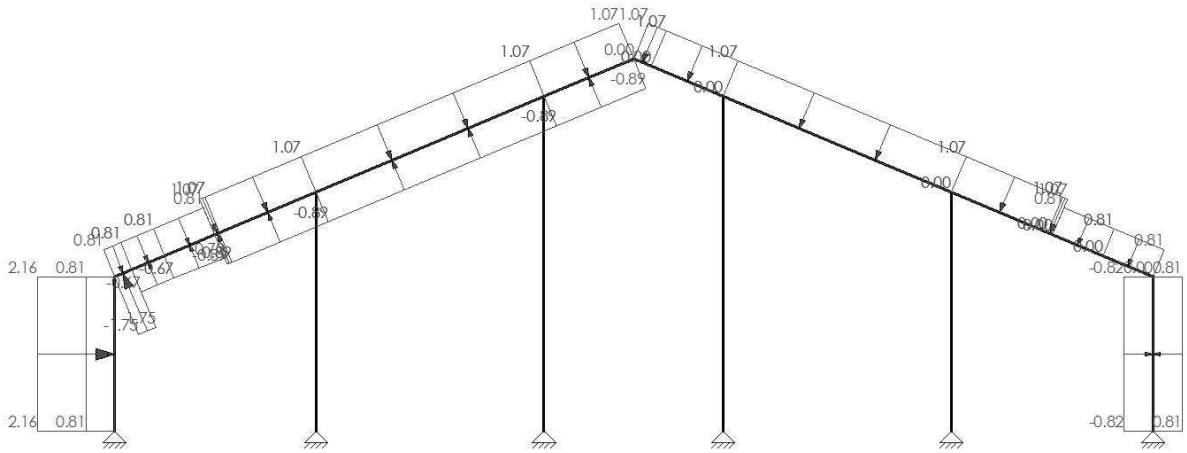

## B.G.11: WINDBELASTING VAN LINKS + ONDERDRUK (2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.11: Windbelasting van Links + Onderdruk (2e Cpe)** | | | | | | |
| q | 2,16 (q50) | 2,16 (q50) | 0,000 | 4,400(L) | | Z' S1 |
| q | 0,81 (-q47) | 0,81 (-q47) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | -0,82 (q53) | -0,82 (q53) | 0,000 | 4,400(L) | | Z' S4 |
| q | 1,09 (q54) | 1,09 (q54) | 0,000 | 7,047(L) | | Z' S14-S15,S20 |
| q | 1,07 (-q49) | 1,07 (-q49) | 0,000 | 7,047(L) | | Z' S14-S15,S18,S20-S21 |
| q | 0,00 (q55) | 0,00 (q55) | 0,000 | 0,542 | | Z' S17 |
| q | 1,07 (-q49) | 1,07 (-q49) | 0,000 | 0,542 | | Z' S17 |
| q | 0,00 (q56) | 0,00 (q56) | 0,542 | 2,765(L) | | Z' S17 |
| q | 1,07 (-q49) | 1,07 (-q49) | 0,542 | 2,765(L) | | Z' S17 |
| q | 0,00 (q56) | 0,00 (q56) | 0,000 | 7,047(L) | | Z' S18,S21 |
| q | 1,24 (q57) | 1,24 (q57) | 0,000 | 0,542 | | Z' S19 |
| q | 0,81 (-q47) | 0,81 (-q47) | 0,000 | 0,542 | | Z' S19 |
| q | 0,82 (q58) | 0,82 (q58) | 0,542 | 1,553 | | Z' S19 |
| q | 0,81 (-q47) | 0,81 (-q47) | 0,542 | 1,553 | | Z' S19 |
| q | 1,09 (q54) | 1,09 (q54) | 3,106 | 3,253(L) | | Z' S19 |
| q | 1,07 (-q49) | 1,07 (-q49) | 3,106 | 3,253(L) | | Z' S19 |
| q | 0,82 (q58) | 0,86 (q59) | 1,553 | 3,106 | | Z' S19 |
| q | 0,81 (-q47) | 0,81 (-q47) | 1,553 | 3,106 | | Z' S19 |
| q | 0,00 (q60) | 0,00 (q60) | 1,700 | 3,253(L) | | Z' S22 |
| q | 0,81 (-q47) | 0,81 (-q47) | 1,700 | 3,253(L) | | Z' S22 |
| q | 0,00 (q56) | 0,00 (q56) | 0,000 | 0,147 | | Z' S22 |
| q | 1,07 (-q49) | 1,07 (-q49) | 0,000 | 0,147 | | Z' S22 |
| q | 0,00 (q61) | 0,00 (q60) | 0,147 | 1,700 | | Z' S22 |
| q | 0,81 (-q47) | 0,81 (-q47) | 0,147 | 1,700 | | Z' S22 |
| **Som lasten** | **X: 19,66** | **kN Z: 45,83** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



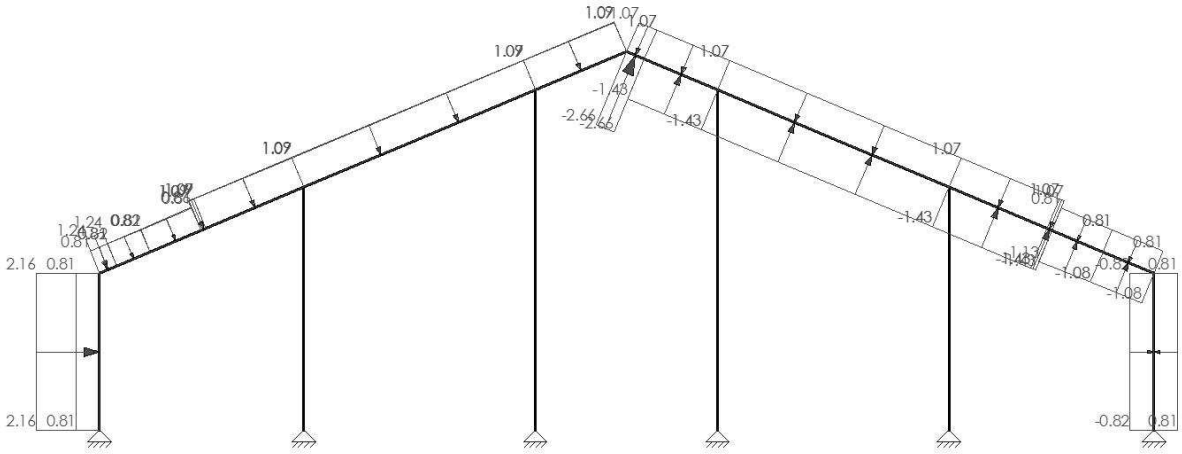

## B.G.12: WINDBELASTING VAN LINKS + ONDERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.12: Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe)** | | | | | | |
| q | 2,16 (q35) | 2,16 (q35) | 0,000 | 4,400(L) | | Z' S1 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | -0,82 (q38) | -0,82 (q38) | 0,000 | 4,400(L) | | Z' S4 |
| q | -0,89 (q39) | -0,89 (q39) | 0,000 | 7,047(L) | | Z' S14-S15,S20 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,000 | 7,047(L) | | Z' S14-S15,S18,S20-S21 |
| q | 0,00 (q55) | 0,00 (q55) | 0,000 | 0,542 | | Z' S17 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,000 | 0,542 | | Z' S17 |
| q | 0,00 (q56) | 0,00 (q56) | 0,542 | 2,765(L) | | Z' S17 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,542 | 2,765(L) | | Z' S17 |
| q | 0,00 (q56) | 0,00 (q56) | 0,000 | 7,047(L) | | Z' S18,S21 |
| q | -1,75 (q42) | -1,75 (q42) | 0,000 | 0,542 | | Z' S19 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,000 | 0,542 | | Z' S19 |
| q | -0,67 (q43) | -0,67 (q43) | 0,542 | 1,553 | | Z' S19 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,542 | 1,553 | | Z' S19 |
| q | -0,89 (q39) | -0,89 (q39) | 3,106 | 3,253(L) | | Z' S19 |
| q | 1,07 (-q34) | 1,07 (-q34) | 3,106 | 3,253(L) | | Z' S19 |
| q | -0,67 (q43) | -0,70 (q44) | 1,553 | 3,106 | | Z' S19 |
| q | 0,81 (-q32) | 0,81 (-q32) | 1,553 | 3,106 | | Z' S19 |
| q | 0,00 (q60) | 0,00 (q60) | 1,700 | 3,253(L) | | Z' S22 |
| q | 0,81 (-q32) | 0,81 (-q32) | 1,700 | 3,253(L) | | Z' S22 |
| q | 0,00 (q56) | 0,00 (q56) | 0,000 | 0,147 | | Z' S22 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,000 | 0,147 | | Z' S22 |
| q | 0,00 (q61) | 0,00 (q60) | 0,147 | 1,700 | | Z' S22 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,147 | 1,700 | | Z' S22 |
| **Som lasten** | **X: 7,66** | **kN Z: 17,19** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



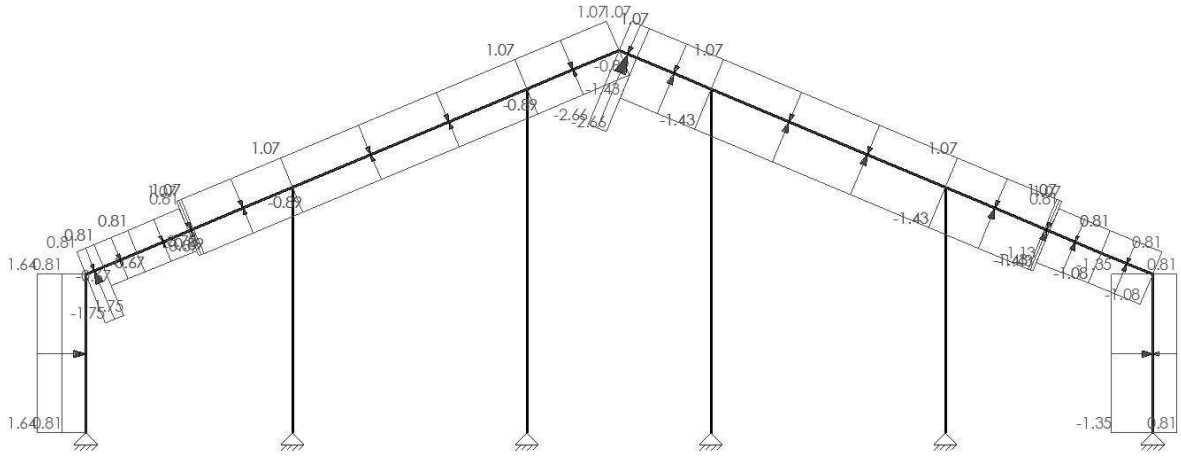

## B.G.13: WINDBELASTING VAN LINKS + ONDERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting Staaf of knoop |
|---|---|---|---|---|---|
| **B.G.13: Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe)** | | | | | |
| q | 2,16 (q35) | 2,16 (q35) | 0,000 | 4,400(L) | Z' S1 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,000 | 4,400(L) | Z' S1,S4 |
| q | -0,82 (q38) | -0,82 (q38) | 0,000 | 4,400(L) | Z' S4 |
| q | 1,09 (q54) | 1,09 (q54) | 0,000 | 7,047(L) | Z' S14-S15,S20 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,000 | 7,047(L) | Z' S14-S15,S18,S20-S21 |
| q | -2,66 (q40) | -2,66 (q40) | 0,000 | 0,542 | Z' S17 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,000 | 0,542 | Z' S17 |
| q | -1,43 (q41) | -1,43 (q41) | 0,542 | 2,765(L) | Z' S17 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,542 | 2,765(L) | Z' S17 |
| q | -1,43 (q41) | -1,43 (q41) | 0,000 | 7,047(L) | Z' S18,S21 |
| q | 1,24 (q57) | 1,24 (q57) | 0,000 | 0,542 | Z' S19 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,000 | 0,542 | Z' S19 |
| q | 0,82 (q58) | 0,82 (q58) | 0,542 | 1,553 | Z' S19 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,542 | 1,553 | Z' S19 |
| q | 1,09 (q54) | 1,09 (q54) | 3,106 | 3,253(L) | Z' S19 |
| q | 1,07 (-q34) | 1,07 (-q34) | 3,106 | 3,253(L) | Z' S19 |
| q | 0,82 (q58) | 0,86 (q59) | 1,553 | 3,106 | Z' S19 |
| q | 0,81 (-q32) | 0,81 (-q32) | 1,553 | 3,106 | Z' S19 |
| q | -1,08 (q45) | -1,08 (q45) | 1,700 | 3,253(L) | Z' S22 |
| q | 0,81 (-q32) | 0,81 (-q32) | 1,700 | 3,253(L) | Z' S22 |
| q | -1,43 (q41) | -1,43 (q41) | 0,000 | 0,147 | Z' S22 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,000 | 0,147 | Z' S22 |
| q | -1,13 (q46) | -1,08 (q45) | 0,147 | 1,700 | Z' S22 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,147 | 1,700 | Z' S22 |
| **Som lasten** | **X: 28,39** | **kN Z: 24,99** | **kN** | | |
| **-** | **-** | **-** | **m** | **m** | **- -** |



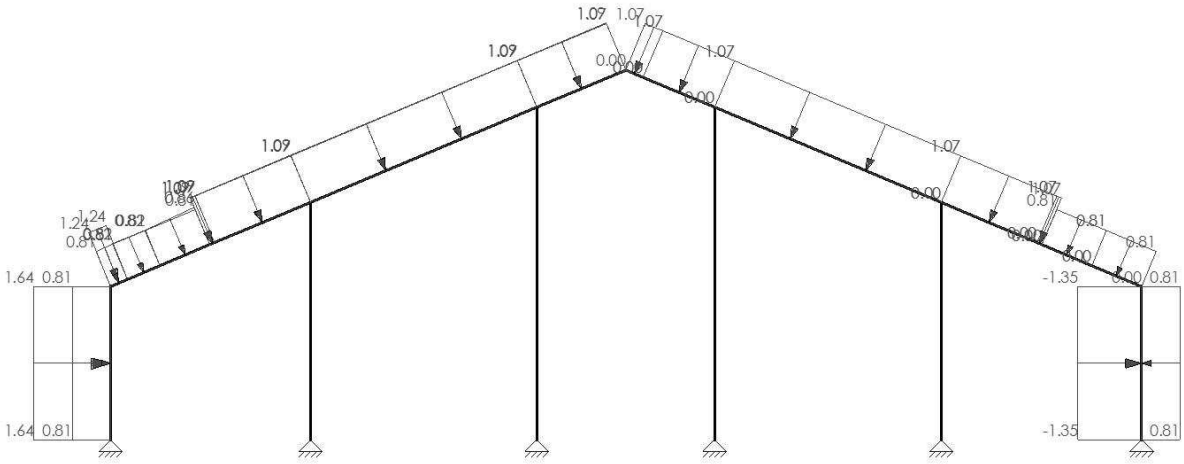

## B.G.14: WINDBELASTING VAN LINKS + ONDERDRUK (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.14: Windbelasting van Links + Onderdruk (2e corr. factor)** | | | | | | |
| q | 1,64 (q36) | 1,64 (q36) | 0,000 | 4,400(L) | | Z' S1 |
| q | -1,35 (q37) | -1,35 (q37) | 0,000 | 4,400(L) | | Z' S4 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | -0,89 (q39) | -0,89 (q39) | 0,000 | 7,047(L) | | Z' S14-S15,S20 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,000 | 7,047(L) | | Z' S14-S15,S18,S20-S21 |
| q | -2,66 (q40) | -2,66 (q40) | 0,000 | 0,542 | | Z' S17 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,000 | 0,542 | | Z' S17 |
| q | -1,43 (q41) | -1,43 (q41) | 0,542 | 2,765(L) | | Z' S17 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,542 | 2,765(L) | | Z' S17 |
| q | -1,43 (q41) | -1,43 (q41) | 0,000 | 7,047(L) | | Z' S18,S21 |
| q | -1,75 (q42) | -1,75 (q42) | 0,000 | 0,542 | | Z' S19 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,000 | 0,542 | | Z' S19 |
| q | -0,67 (q43) | -0,67 (q43) | 0,542 | 1,553 | | Z' S19 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,542 | 1,553 | | Z' S19 |
| q | -0,89 (q39) | -0,89 (q39) | 3,106 | 3,253(L) | | Z' S19 |
| q | 1,07 (-q34) | 1,07 (-q34) | 3,106 | 3,253(L) | | Z' S19 |
| q | -0,67 (q43) | -0,70 (q44) | 1,553 | 3,106 | | Z' S19 |
| q | 0,81 (-q32) | 0,81 (-q32) | 1,553 | 3,106 | | Z' S19 |
| q | -1,08 (q45) | -1,08 (q45) | 1,700 | 3,253(L) | | Z' S22 |
| q | 0,81 (-q32) | 0,81 (-q32) | 1,700 | 3,253(L) | | Z' S22 |
| q | -1,43 (q41) | -1,43 (q41) | 0,000 | 0,147 | | Z' S22 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,000 | 0,147 | | Z' S22 |
| q | -1,13 (q46) | -1,08 (q45) | 0,147 | 1,700 | | Z' S22 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,147 | 1,700 | | Z' S22 |
| **Som lasten** | **X: 16,39** | **kN Z: -3,66** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



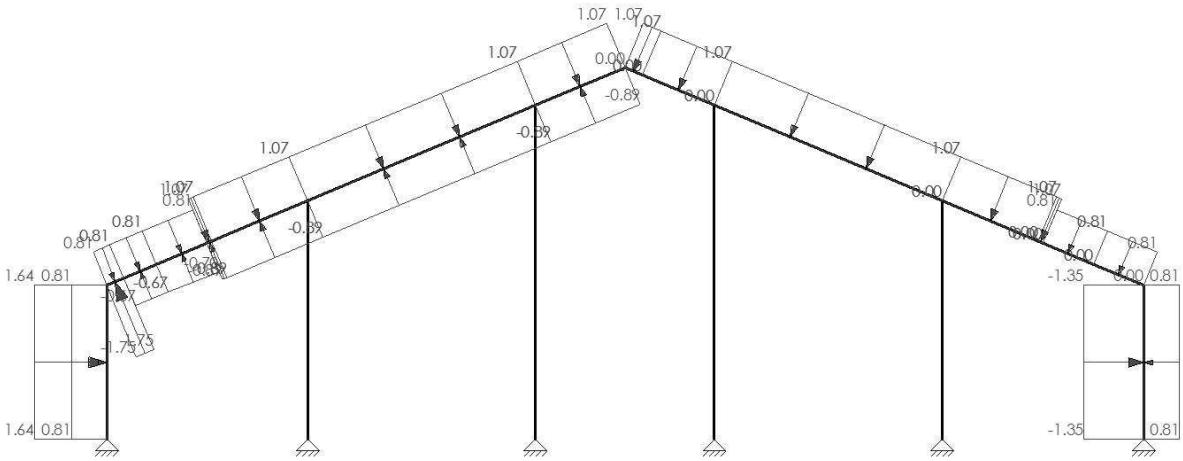
## B.G.15: WINDBELASTING VAN LINKS + ONDERDRUK (2E CPE) (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.15: Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor)** | | | | | | |
| q | 1,64 (q51) | 1,64 (q51) | 0,000 | 4,400(L) | | Z' S1 |
| q | -1,35 (q52) | -1,35 (q52) | 0,000 | 4,400(L) | | Z' S4 |
| q | 0,81 (-q47) | 0,81 (-q47) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | 1,09 (q54) | 1,09 (q54) | 0,000 | 7,047(L) | | Z' S14-S15,S20 |
| q | 1,07 (-q49) | 1,07 (-q49) | 0,000 | 7,047(L) | | Z' S14-S15,S18,S20-S21 |
| q | 0,00 (q55) | 0,00 (q55) | 0,000 | 0,542 | | Z' S17 |
| q | 1,07 (-q49) | 1,07 (-q49) | 0,000 | 0,542 | | Z' S17 |
| q | 0,00 (q56) | 0,00 (q56) | 0,542 | 2,765(L) | | Z' S17 |
| q | 1,07 (-q49) | 1,07 (-q49) | 0,542 | 2,765(L) | | Z' S17 |
| q | 0,00 (q56) | 0,00 (q56) | 0,000 | 7,047(L) | | Z' S18,S21 |
| q | 1,24 (q57) | 1,24 (q57) | 0,000 | 0,542 | | Z' S19 |
| q | 0,81 (-q47) | 0,81 (-q47) | 0,000 | 0,542 | | Z' S19 |
| q | 0,82 (q58) | 0,82 (q58) | 0,542 | 1,553 | | Z' S19 |
| q | 0,81 (-q47) | 0,81 (-q47) | 0,542 | 1,553 | | Z' S19 |
| q | 1,09 (q54) | 1,09 (q54) | 3,106 | 3,253(L) | | Z' S19 |
| q | 1,07 (-q49) | 1,07 (-q49) | 3,106 | 3,253(L) | | Z' S19 |
| q | 0,82 (q58) | 0,86 (q59) | 1,553 | 3,106 | | Z' S19 |
| q | 0,81 (-q47) | 0,81 (-q47) | 1,553 | 3,106 | | Z' S19 |
| q | 0,00 (q60) | 0,00 (q60) | 1,700 | 3,253(L) | | Z' S22 |
| q | 0,81 (-q47) | 0,81 (-q47) | 1,700 | 3,253(L) | | Z' S22 |
| q | 0,00 (q56) | 0,00 (q56) | 0,000 | 0,147 | | Z' S22 |
| q | 1,07 (-q49) | 1,07 (-q49) | 0,000 | 0,147 | | Z' S22 |
| q | 0,00 (q61) | 0,00 (q60) | 0,147 | 1,700 | | Z' S22 |
| q | 0,81 (-q47) | 0,81 (-q47) | 0,147 | 1,700 | | Z' S22 |
| **Som lasten** | **X: 19,66** | **kN Z: 45,83** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | | **- -** |



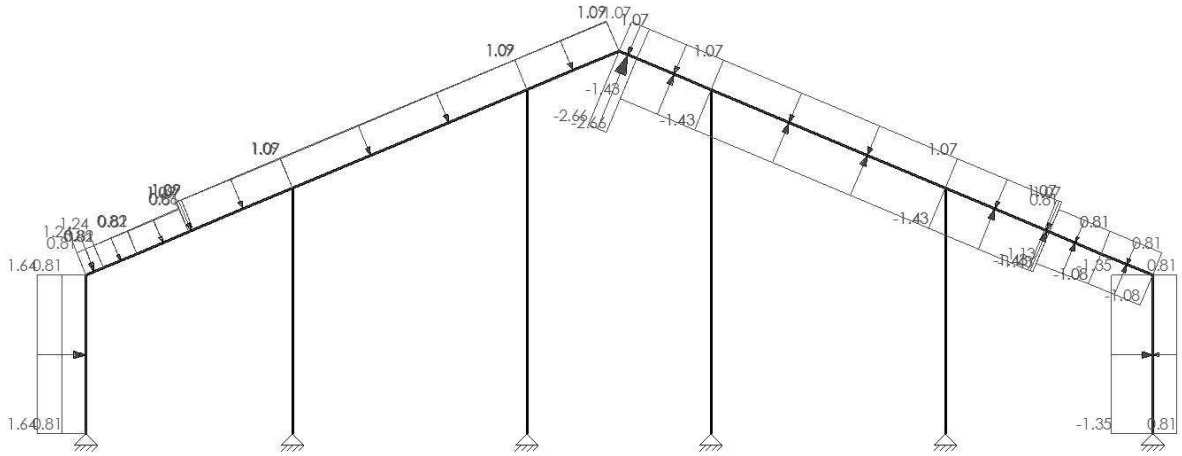

## B.G.16: WINDBELASTING VAN LINKS + ONDERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE) (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.16: Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor)** | | | | | | |
| q | 1,64 (q36) | 1,64 (q36) | 0,000 | 4,400(L) | | Z' S1 |
| q | -1,35 (q37) | -1,35 (q37) | 0,000 | 4,400(L) | | Z' S4 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | -0,89 (q39) | -0,89 (q39) | 0,000 | 7,047(L) | | Z' S14-S15,S20 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,000 | 7,047(L) | | Z' S14-S15,S18,S20-S21 |
| q | 0,00 (q55) | 0,00 (q55) | 0,000 | 0,542 | | Z' S17 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,000 | 0,542 | | Z' S17 |
| q | 0,00 (q56) | 0,00 (q56) | 0,542 | 2,765(L) | | Z' S17 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,542 | 2,765(L) | | Z' S17 |
| q | 0,00 (q56) | 0,00 (q56) | 0,000 | 7,047(L) | | Z' S18,S21 |
| q | -1,75 (q42) | -1,75 (q42) | 0,000 | 0,542 | | Z' S19 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,000 | 0,542 | | Z' S19 |
| q | -0,67 (q43) | -0,67 (q43) | 0,542 | 1,553 | | Z' S19 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,542 | 1,553 | | Z' S19 |
| q | -0,89 (q39) | -0,89 (q39) | 3,106 | 3,253(L) | | Z' S19 |
| q | 1,07 (-q34) | 1,07 (-q34) | 3,106 | 3,253(L) | | Z' S19 |
| q | -0,67 (q43) | -0,70 (q44) | 1,553 | 3,106 | | Z' S19 |
| q | 0,81 (-q32) | 0,81 (-q32) | 1,553 | 3,106 | | Z' S19 |
| q | 0,00 (q60) | 0,00 (q60) | 1,700 | 3,253(L) | | Z' S22 |
| q | 0,81 (-q32) | 0,81 (-q32) | 1,700 | 3,253(L) | | Z' S22 |
| q | 0,00 (q56) | 0,00 (q56) | 0,000 | 0,147 | | Z' S22 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,000 | 0,147 | | Z' S22 |
| q | 0,00 (q61) | 0,00 (q60) | 0,147 | 1,700 | | Z' S22 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,147 | 1,700 | | Z' S22 |
| **Som lasten** | **X: 7,66** | **kN Z: 17,19** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |




## B.G.17: WINDBELASTING VAN LINKS + ONDERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE) (2E CORR. FACTOR)

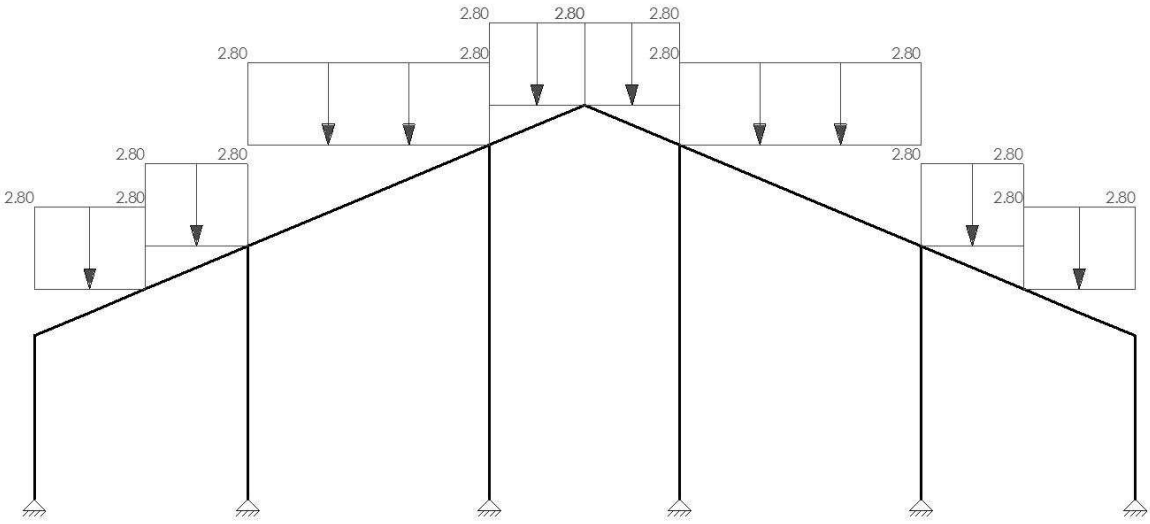
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.17: Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor)** | | | | | | |
| q | 1,64 (q36) | 1,64 (q36) | 0,000 | 4,400(L) | | Z' S1 |
| q | -1,35 (q37) | -1,35 (q37) | 0,000 | 4,400(L) | | Z' S4 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | 1,09 (q54) | 1,09 (q54) | 0,000 | 7,047(L) | | Z' S14-S15,S20 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,000 | 7,047(L) | | Z' S14-S15,S18,S20-S21 |
| q | -2,66 (q40) | -2,66 (q40) | 0,000 | 0,542 | | Z' S17 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,000 | 0,542 | | Z' S17 |
| q | -1,43 (q41) | -1,43 (q41) | 0,542 | 2,765(L) | | Z' S17 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,542 | 2,765(L) | | Z' S17 |
| q | -1,43 (q41) | -1,43 (q41) | 0,000 | 7,047(L) | | Z' S18,S21 |
| q | 1,24 (q57) | 1,24 (q57) | 0,000 | 0,542 | | Z' S19 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,000 | 0,542 | | Z' S19 |
| q | 0,82 (q58) | 0,82 (q58) | 0,542 | 1,553 | | Z' S19 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,542 | 1,553 | | Z' S19 |
| q | 1,09 (q54) | 1,09 (q54) | 3,106 | 3,253(L) | | Z' S19 |
| q | 1,07 (-q34) | 1,07 (-q34) | 3,106 | 3,253(L) | | Z' S19 |
| q | 0,82 (q58) | 0,86 (q59) | 1,553 | 3,106 | | Z' S19 |
| q | 0,81 (-q32) | 0,81 (-q32) | 1,553 | 3,106 | | Z' S19 |
| q | -1,08 (q45) | -1,08 (q45) | 1,700 | 3,253(L) | | Z' S22 |
| q | 0,81 (-q32) | 0,81 (-q32) | 1,700 | 3,253(L) | | Z' S22 |
| q | -1,43 (q41) | -1,43 (q41) | 0,000 | 0,147 | | Z' S22 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,000 | 0,147 | | Z' S22 |
| q | -1,13 (q46) | -1,08 (q45) | 0,147 | 1,700 | | Z' S22 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,147 | 1,700 | | Z' S22 |
| **Som lasten** | **X: 28,39** | **kN Z: 24,99** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | | **- -** |




## B.G.18: SNEEUWBELASTING 1

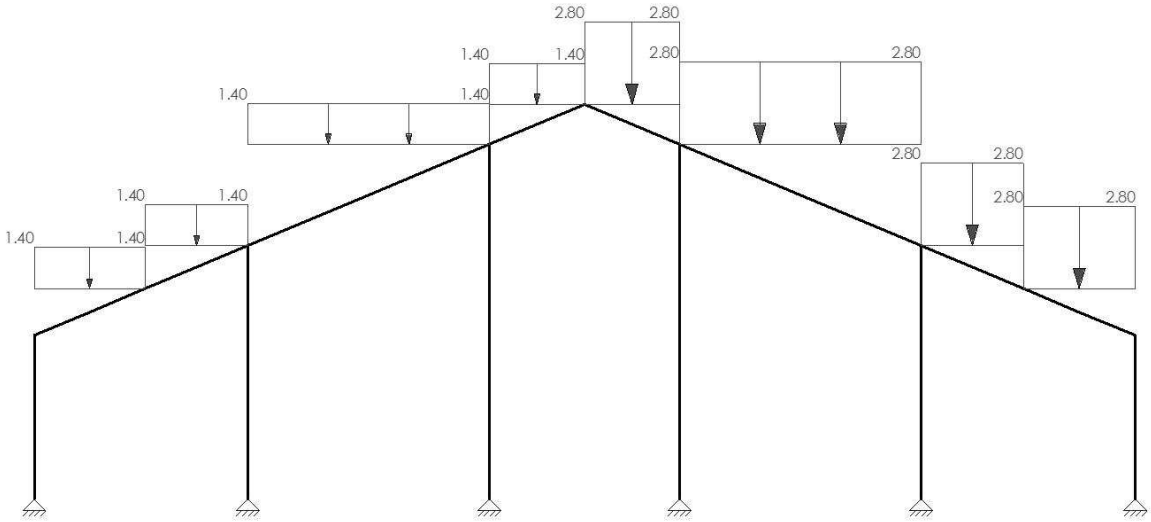
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.18: Sneeuwbelasting 1** | | | | | | |
| q | 2,80 (q62) | 2,80 (q62) | 0,000 | 6,500(L) | Z | S14-S15,S17-S22 |
| **Som lasten** | **X: 0,00** | **kN Z: 82,88** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |

B.G.18: SNEEUWBELASTING 1




## B.G.19: SNEEUWBELASTING 2

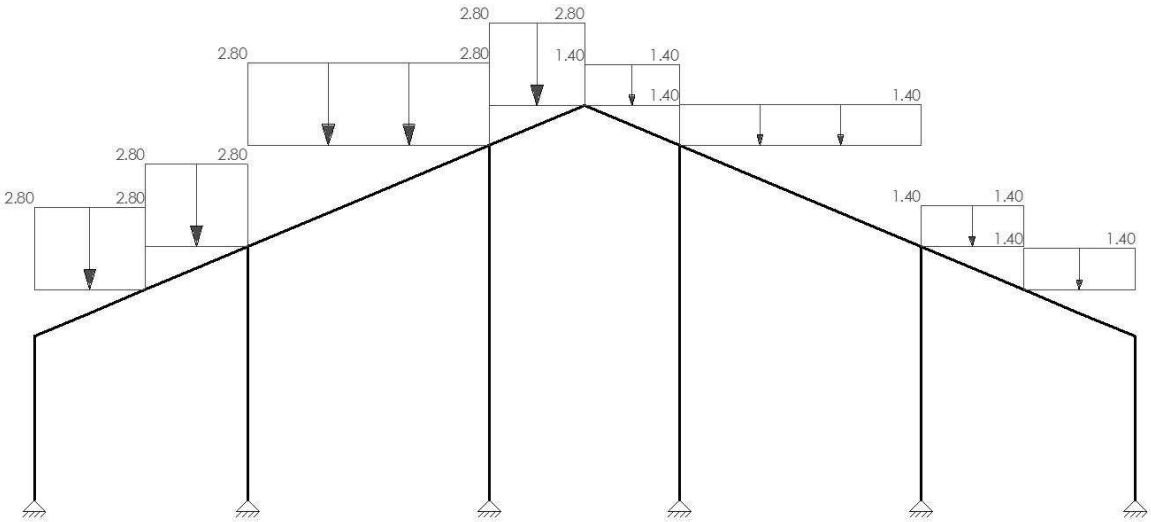
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.19: Sneeuwbelasting 2** | | | | | | |
| q | 1,40 (q63) | 1,40 (q63) | 0,000 | 6,500(L) | Z | S14-S15,S19-S20 |
| q | 2,80 (q62) | 2,80 (q62) | 0,000 | 2,550(L) | Z | S17-S18,S21-S22 |
| **Som lasten** | **X: 0,00** | **kN Z: 62,16** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |




## B.G.20: SNEEUWBELASTING 3

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.20: Sneeuwbelasting 3** | | | | | | |
| q | 2,80 (q62) | 2,80 (q62) | 0,000 | 6,500(L) | Z | S14-S15,S19-S20 |
| q | 1,40 (q63) | 1,40 (q63) | 0,000 | 2,550(L) | Z | S17-S18,S21-S22 |
| **Som lasten** | **X: 0,00** | **kN Z: 62,16** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



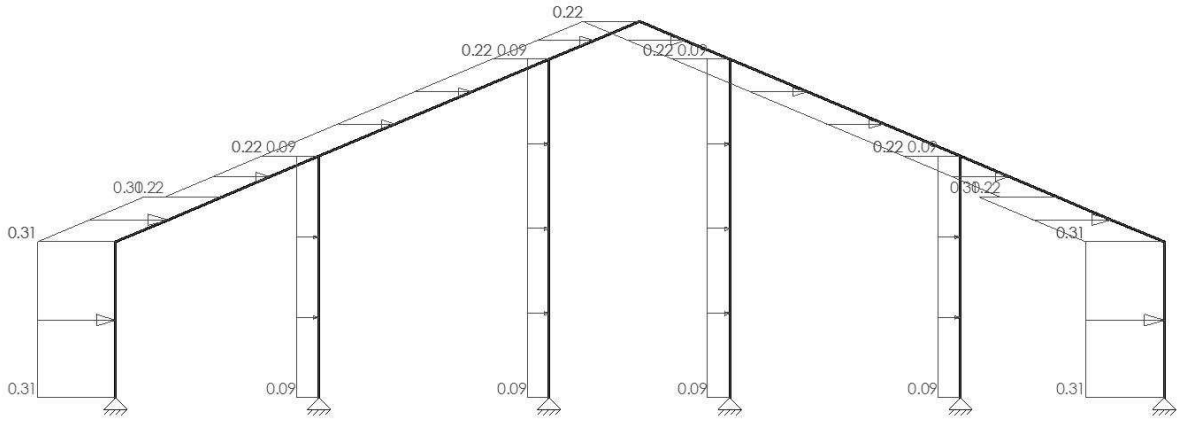



## B.G.21: KNIKLENGTE (ASSYMETRISCH)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.21: Kniklengte (Assymetrisch)** | | | | | | |
| qG | 0,31 (1.00x) | 0,31 (1.00x) | 0,000 | 4,400(L) | X" | S1,S4 |
| qG | 0,09 (1.00x) | 0,09 (1.00x) | 0,000 | 6,809(L) | X" | S5,S8 |
| qG | 0,09 (1.00x) | 0,09 (1.00x) | 0,000 | 9,532(L) | X" | S12,S16 |
| qG | 0,22 (1.00x) | 0,22 (1.00x) | 0,000 | 7,047(L) | X" | S14,S18 |

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.21: Kniklengte (Assymetrisch)** | | | | | | |
| qG | 0,22 (1.00x) | 0,22 (1.00x) | 0,000 | 2,765(L) | | X" S15,S17 |
| qG | 0,31 (1.00x) | 0,31 (1.00x) | 0,000 | 3,253(L) | | X" S19,S22 |
| qG | 0,22 (1.00x) | 0,22 (1.00x) | 0,000 | 2,982(L) | | X" S20-S21 |
| **Som lasten** | **X: 13,29** | **kN Z: 0,00** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |

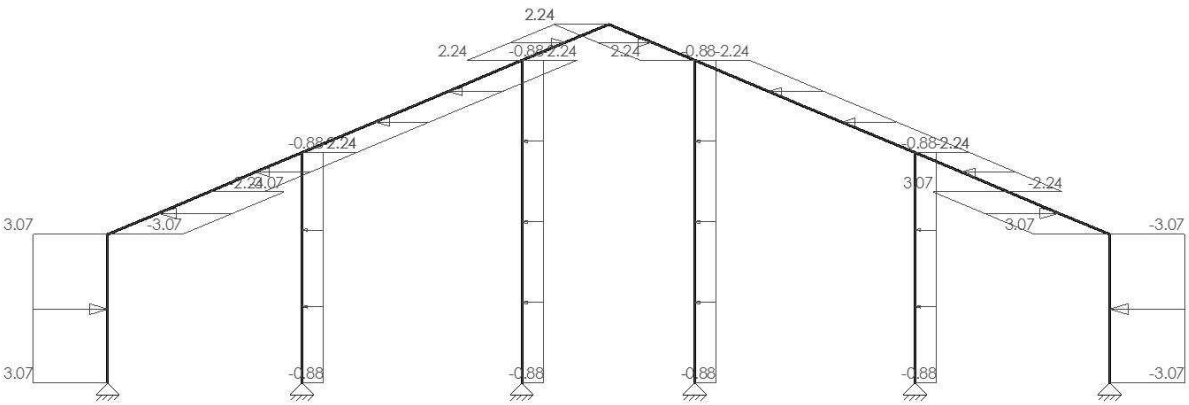
B.G.21: KNIKLENGTE (ASSYMETRISCH)




## B.G.22: KNIKLENGTE (SYMMETRISCH)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.22: Kniklengte (Symmetrisch)** | | | | | | |
| qG | 0,31 (10.00x) | 0,31 (10.00x) | 0,000 | 4,400(L) | | X" S1 |
| qG | 0,31 (-10.00x) | 0,31 (-10.00x) | 0,000 | 4,400(L) | | X" S4 |
| qG | 0,09 (-10.00x) | 0,09 (-10.00x) | 0,000 | 6,809(L) | | X" S5,S8 |
| qG | 0,09 (-10.00x) | 0,09 (-10.00x) | 0,000 | 9,532(L) | | X" S12,S16 |
| qG | 0,22 (-10.00x) | 0,22 (-10.00x) | 0,000 | 7,047(L) | | X" S14,S18 |
| qG | 0,22 (10.00x) | 0,22 (10.00x) | 0,000 | 2,765(L) | | X" S15,S17 |
| qG | 0,31 (-10.00x) | 0,31 (-10.00x) | 0,000 | 3,253(L) | | X" S19 |
| qG | 0,22 (-10.00x) | 0,22 (-10.00x) | 0,000 | 2,982(L) | | X" S20-S21 |
| qG | 0,31 (10.00x) | 0,31 (10.00x) | 0,000 | 3,253(L) | | X" S22 |
| **Som lasten** | **X: -61,14** | **kN Z: 0,00** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |

B.G.22: KNIKLENGTE (SYMMETRISCH)



## FUNDAMENTEEL BELASTINGSCOMBINATIES (TABEL)

| B.G. | Omschrijving | Fu.C.1 | Fu.C.2 | Fu.C.3 | Fu.C.4 | Fu.C.5 | Fu.C.6 | Fu.C.7 | Fu.C.8 |
|---|---|---|---|---|---|---|---|---|---|
| B.G.1 | Permanente Belasting | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| B.G.2 | Windbelasting van Links + Overdruk | 1.13 | - | - | - | - | - | - | - |
| B.G.3 | Windbelasting van Links + Overdruk (2e Cpe) | - | 1.13 | - | - | - | - | - | - |
| B.G.4 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | 1.13 | - | - | - | - | - |
| B.G.5 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | 1.13 | - | - | - | - |
| B.G.6 | Windbelasting van Links + Overdruk (2e corr. factor) | - | - | - | - | 1.13 | - | - | - |
| B.G.7 | Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | 1.13 | - | - |
| B.G.8 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | 1.13 | - |
| B.G.9 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | 1.13 |
| B.G.10 | Windbelasting van Links + Onderdruk | - | - | - | - | - | - | - | - |
| B.G.11 | Windbelasting van Links + Onderdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.12 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.13 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.14 | Windbelasting van Links + Onderdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.15 | Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.16 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.17 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.18 | Sneeuwbelasting 1 | - | - | - | - | - | - | - | - |
| B.G.19 | Sneeuwbelasting 2 | - | - | - | - | - | - | - | - |
| B.G.20 | Sneeuwbelasting 3 | - | - | - | - | - | - | - | - |
| B.G.21 | Kniklengte (Assymetrisch) | - | - | - | - | - | - | - | - |
| B.G.22 | Kniklengte (Symmetrisch) | - | - | - | - | - | - | - | - |

| B.G. | Omschrijving | Fu.C.9 | Fu.C.10 | Fu.C.11 | Fu.C.12 | Fu.C.13 | Fu.C.14 | Fu.C.15 | Fu.C.16 |
|---|---|---|---|---|---|---|---|---|---|
| B.G.1 | Permanente Belasting | 1.08 | 1.08 | 1.08 | 1.08 | 1.08 | 1.08 | 1.08 | 1.08 |
| B.G.2 | Windbelasting van Links + Overdruk | - | - | - | - | - | - | - | - |
| B.G.3 | Windbelasting van Links + Overdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.4 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.5 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.6 | Windbelasting van Links + Overdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.7 | Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.8 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.9 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.10 | Windbelasting van Links + Onderdruk | 1.13 | - | - | - | - | - | - | - |
| B.G.11 | Windbelasting van Links + Onderdruk (2e Cpe) | - | 1.13 | - | - | - | - | - | - |
| B.G.12 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | 1.13 | - | - | - | - | - |
| B.G.13 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | 1.13 | - | - | - | - |
| B.G.14 | Windbelasting van Links + Onderdruk (2e corr. factor) | - | - | - | - | 1.13 | - | - | - |
| B.G.15 | Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | 1.13 | - | - |
| B.G.16 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | 1.13 | - |
| B.G.17 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | 1.13 |
| B.G.18 | Sneeuwbelasting 1 | - | - | - | - | - | - | - | - |
| B.G.19 | Sneeuwbelasting 2 | - | - | - | - | - | - | - | - |
| B.G.20 | Sneeuwbelasting 3 | - | - | - | - | - | - | - | - |
| B.G.21 | Kniklengte (Assymetrisch) | - | - | - | - | - | - | - | - |
| B.G.22 | Kniklengte (Symmetrisch) | - | - | - | - | - | - | - | - |

| B.G. | Omschrijving | Fu.C.17 | Fu.C.18 | Fu.C.19 | Fu.C.20 | Fu.C.21 |
|---|---|---|---|---|---|---|
| B.G.1 | Permanente Belasting | 1.08 | 1.08 | 1.08 | 1.22 | 0.90 |
| B.G.2 | Windbelasting van Links + Overdruk | - | - | - | - | - |
| B.G.3 | Windbelasting van Links + Overdruk (2e Cpe) | - | - | - | - | - |
| B.G.4 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - |
| B.G.5 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - |
| B.G.6 | Windbelasting van Links + Overdruk (2e corr. factor) | - | - | - | - | - |
| B.G.7 | Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.8 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.9 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.10 | Windbelasting van Links + Onderdruk | - | - | - | - | - |
| B.G.11 | Windbelasting van Links + Onderdruk (2e Cpe) | - | - | - | - | - |
| B.G.12 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - |
| B.G.13 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - |
| B.G.14 | Windbelasting van Links + Onderdruk (2e corr. factor) | - | - | - | - | - |
| B.G.15 | Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.16 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.17 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.18 | Sneeuwbelasting 1 | 1.01 | - | - | - | - |
| B.G.19 | Sneeuwbelasting 2 | - | 1.01 | - | - | - |
| B.G.20 | Sneeuwbelasting 3 | - | - | 1.01 | - | - |
| B.G.21 | Kniklengte (Assymetrisch) | - | - | - | - | - |
| B.G.22 | Kniklengte (Symmetrisch) | - | - | - | - | - |

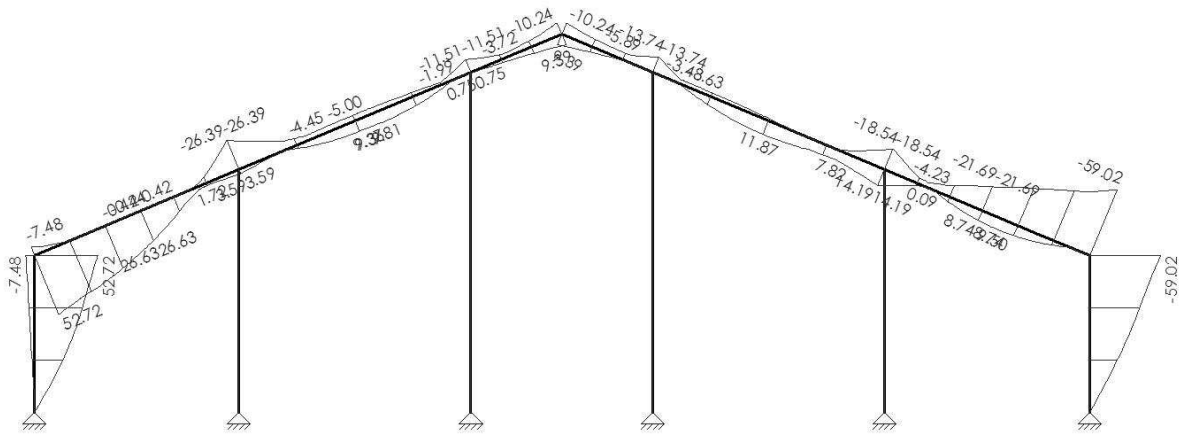
## KARAKTERISTIEK BELASTINGSCOMBINATIES (TABEL)

| B.G. | Omschrijving | Ka.C.(w1) | Ka.C.1 | Ka.C.2 | Ka.C.3 | Ka.C.4 | Ka.C.5 | Ka.C.6 | Ka.C.7 |
|---|---|---|---|---|---|---|---|---|---|
| B.G.1 | Permanente Belasting | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| B.G.2 | Windbelasting van Links + Overdruk | - | - | 0.84 | - | - | - | - | - |
| B.G.3 | Windbelasting van Links + Overdruk (2e Cpe) | - | - | - | 0.84 | - | - | - | - |
| B.G.4 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | 0.84 | - | - | - |
| B.G.5 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | 0.84 | - | - |
| B.G.6 | Windbelasting van Links + Overdruk (2e corr. factor) | - | - | - | - | - | - | 0.84 | - |
| B.G.7 | Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | 0.84 |
| B.G.8 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.9 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.10 | Windbelasting van Links + Onderdruk | - | - | - | - | - | - | - | - |
| B.G.11 | Windbelasting van Links + Onderdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.12 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.13 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.14 | Windbelasting van Links + Onderdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.15 | Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.16 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.17 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.18 | Sneeuwbelasting 1 | - | - | - | - | - | - | - | - |
| B.G.19 | Sneeuwbelasting 2 | - | - | - | - | - | - | - | - |
| B.G.20 | Sneeuwbelasting 3 | - | - | - | - | - | - | - | - |
| B.G.21 | Kniklengte (Assymetrisch) | - | - | - | - | - | - | - | - |

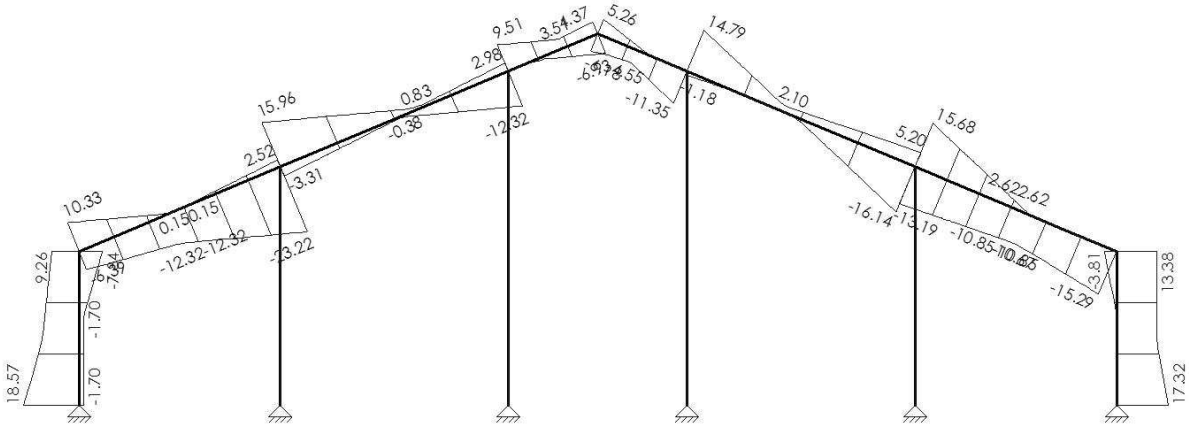
| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| B.G.22 | Kniklengte (Symmetrisch) | - | - | - | - | - | - | - | - |
| **B.G.** | **Omschrijving** | **Ka.C.8** | **Ka.C.9** | **Ka.C.10** | **Ka.C.11** | **Ka.C.12** | **Ka.C.13** | **Ka.C.14** | **Ka.C.15** |
| B.G.1 | Permanente Belasting | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| B.G.2 | Windbelasting van Links + Overdruk | - | - | - | - | - | - | - | - |
| B.G.3 | Windbelasting van Links + Overdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.4 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.5 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.6 | Windbelasting van Links + Overdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.7 | Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.8 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | 0.84 | - | - | - | - | - | - | - |
| B.G.9 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | 0.84 | - | - | - | - | - | - |
| B.G.10 | Windbelasting van Links + Onderdruk | - | - | 0.84 | - | - | - | - | - |
| B.G.11 | Windbelasting van Links + Onderdruk (2e Cpe) | - | - | - | 0.84 | - | - | - | - |
| B.G.12 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | 0.84 | - | - | - |
| B.G.13 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | 0.84 | - | - |
| B.G.14 | Windbelasting van Links + Onderdruk (2e corr. factor) | - | - | - | - | - | - | 0.84 | - |
| B.G.15 | Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | 0.84 |
| B.G.16 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.17 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.18 | Sneeuwbelasting 1 | - | - | - | - | - | - | - | - |
| B.G.19 | Sneeuwbelasting 2 | - | - | - | - | - | - | - | - |
| B.G.20 | Sneeuwbelasting 3 | - | - | - | - | - | - | - | - |
| B.G.21 | Kniklengte (Assymetrisch) | - | - | - | - | - | - | - | - |
| B.G.22 | Kniklengte (Symmetrisch) | - | - | - | - | - | - | - | - |

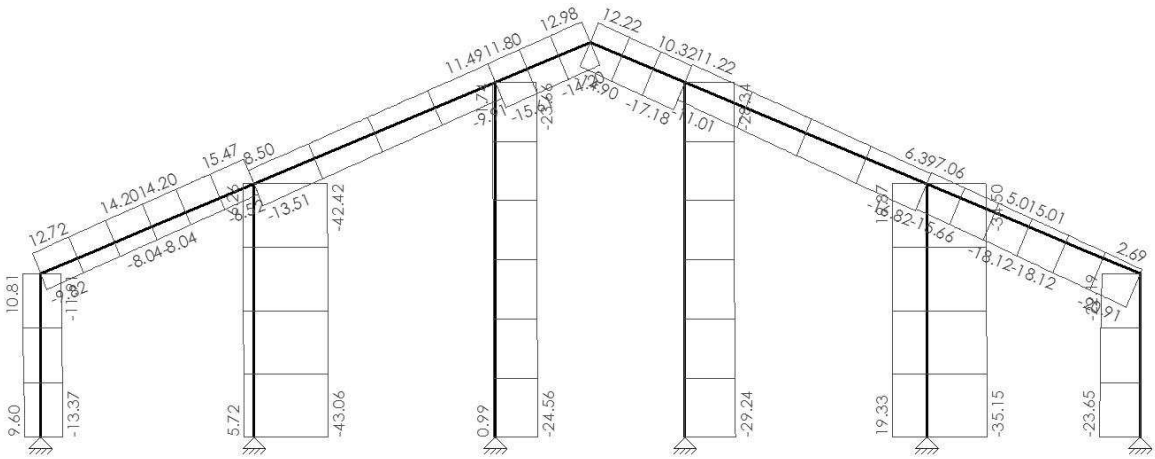
| **B.G.** | **Omschrijving** | **Ka.C.16** | **Ka.C.17** | **Ka.C.18** | **Ka.C.19** | **Ka.C.20** |
|---|---|---|---|---|---|---|
| B.G.1 | Permanente Belasting | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| B.G.2 | Windbelasting van Links + Overdruk | - | - | - | - | - |
| B.G.3 | Windbelasting van Links + Overdruk (2e Cpe) | - | - | - | - | - |
| B.G.4 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - |
| B.G.5 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - |
| B.G.6 | Windbelasting van Links + Overdruk (2e corr. factor) | - | - | - | - | - |
| B.G.7 | Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.8 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.9 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.10 | Windbelasting van Links + Onderdruk | - | - | - | - | - |
| B.G.11 | Windbelasting van Links + Onderdruk (2e Cpe) | - | - | - | - | - |
| B.G.12 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - |
| B.G.13 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - |
| B.G.14 | Windbelasting van Links + Onderdruk (2e corr. factor) | - | - | - | - | - |
| B.G.15 | Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.16 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | 0.84 | - | - | - | - |
| B.G.17 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | 0.84 | - | - | - |
| B.G.18 | Sneeuwbelasting 1 | - | - | 0.75 | - | - |
| B.G.19 | Sneeuwbelasting 2 | - | - | - | 0.75 | - |
| B.G.20 | Sneeuwbelasting 3 | - | - | - | - | 0.75 |
| B.G.21 | Kniklengte (Assymetrisch) | - | - | - | - | - |
| B.G.22 | Kniklengte (Symmetrisch) | - | - | - | - | - |

AFB. FU.C. MOMENT (MY) OMHULLENDE — Fundamenteel Belastingscombinaties

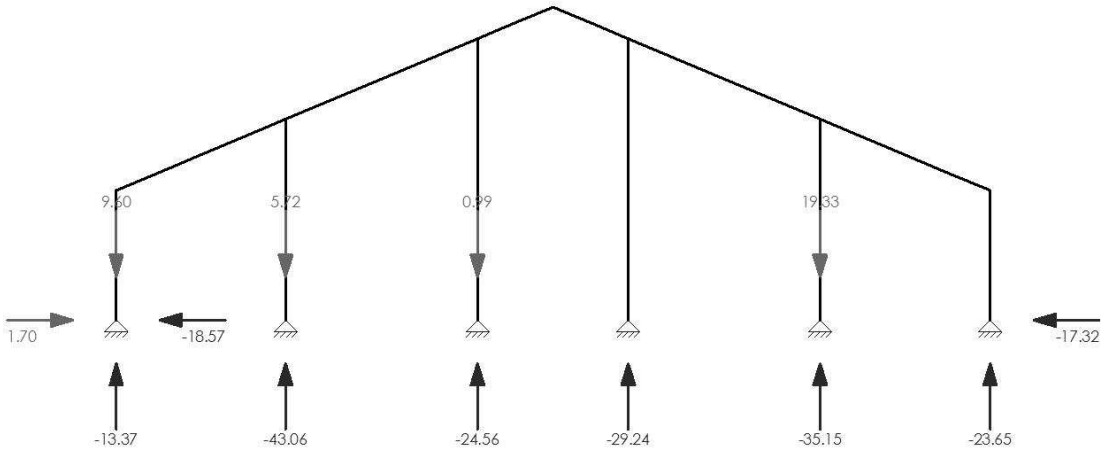



AFB. FU.C. DWARSKRACHT (VZ) OMHULLENDE — Fundamenteel Belastingscombinaties



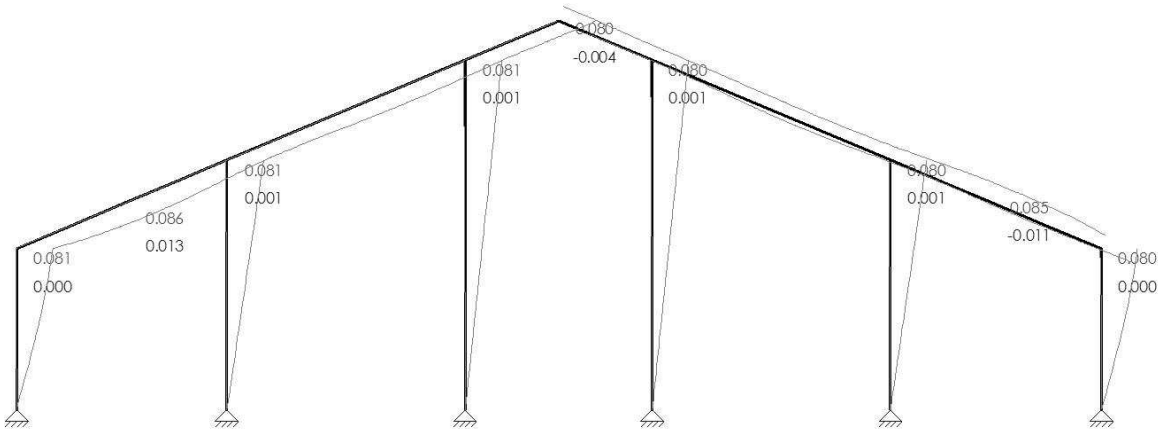





## FU.C. EXTREME OPLEGREACTIES

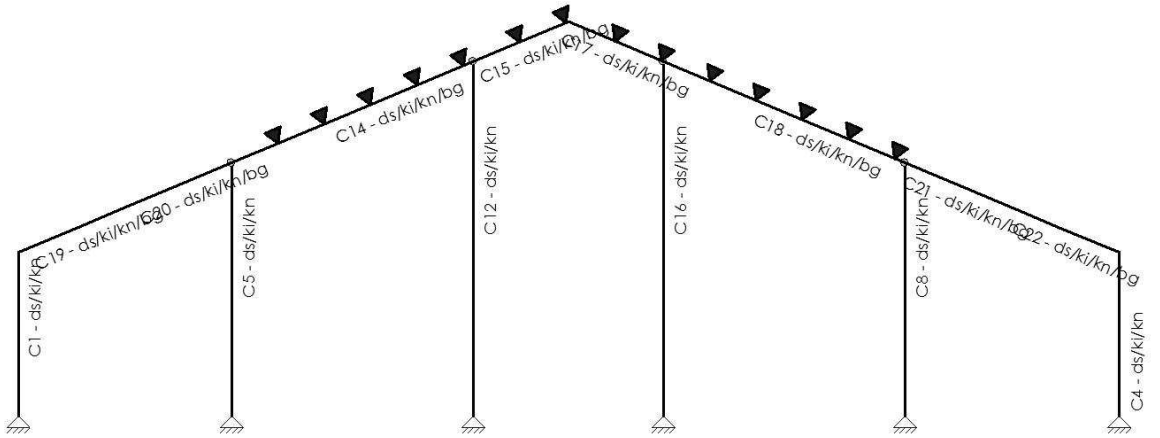
| Oplegging | Knoop | B.C. | Xmax | Z | My | B.C. | X | Zmax | My | B.C. | X | Z | Mymax |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| O1 | K1 | Fu.C.17 | **1.70** | -13.37 | 0.00 | Fu.C.8 | -14.70 | **9.60** | 0.00 | | | | |
| O1 | K1 | Fu.C.12 | **-18.57** | 1.94 | 0.00 | Fu.C.17 | 1.70 | **-13.37** | 0.00 | | | | |
| O2 | K5 | Fu.C.8 | **-17.32** | -15.66 | 0.00 | Fu.C.12 | -13.45 | **-23.65** | 0.00 | | | | |
| O3 | K6 | | | | | Fu.C.7 | 0.00 | **5.72** | 0.00 | | | | |
| O3 | K6 | | | | | Fu.C.12 | 0.00 | **-43.06** | 0.00 | | | | |
| O4 | K10 | | | | | Fu.C.3 | 0.00 | **0.99** | 0.00 | | | | |
| O4 | K10 | | | | | Fu.C.17 | 0.00 | **-24.56** | 0.00 | | | | |
| O5 | K14 | | | | | Fu.C.17 | 0.00 | **-29.24** | 0.00 | | | | |
| O6 | K8 | | | | | Fu.C.8 | 0.00 | **19.33** | 0.00 | | | | |
| O6 | K8 | | | | | Fu.C.18 | 0.00 | **-35.15** | 0.00 | | | | |
| **Globale extreme waarden** | | | | | | | | | | | | | |
| O1 | K1 | Fu.C.17 | **1.70** | -13.37 | 0.00 | | | | | | | | |
| O1 | K1 | Fu.C.12 | **-18.57** | 1.94 | 0.00 | | | | | | | | |
| O6 | K8 | | | | | Fu.C.8 | 0.00 | **19.33** | 0.00 | | | | |
| O3 | K6 | | | | | Fu.C.12 | 0.00 | **-43.06** | 0.00 | | | | |
| **-** | **-** | **-** | **kN** | **kN** | **kNm** | **-** | **kN** | **kN** | **kNm** | | **kN** | **kN** | **kNm** |




## KA.C. EXTREME DOORBUIGINGEN

| Staaf | B.C. | Knoop Begin | | Staaf | | Knoop Eind | |
|---|---|---|---|---|---|---|---|
| | | X | Z | Z'afst | Z' | X | Z |
| S1 | Ka.C.13 | 0,000 | 0,000 | 2.463 | **0.0069** | 0,081 | 0,000 |
| S1 | Ka.C.18 | 0,000 | 0,000 | 2.540 | **-0.0009** | -0,001 | 0,000 |
| S4 | Ka.C.9 | 0,080 | 0,000 | 1.906 | **-0.0073** | 0,000 | 0,000 |
| S14 | Ka.C.6 | 0,034 | 0,000 | 3.426 | **-0.0038** | 0,034 | 0,000 |
| S14 | Ka.C.18 | -0,001 | 0,001 | 3.631 | **0.0068** | -0,001 | 0,001 |
| S15 | Ka.C.6 | 0,034 | 0,000 | 1.665 | **0.0007** | 0,036 | 0,003 |
| S15 | Ka.C.11 | 0,050 | 0,001 | 1.491 | **-0.0009** | 0,048 | -0,004 |
| S17 | Ka.C.6 | 0,036 | 0,003 | 0.876 | **0.0004** | 0,037 | 0,000 |
| S17 | Ka.C.11 | 0,048 | -0,004 | 1.368 | **-0.0012** | 0,046 | 0,001 |
| S18 | Ka.C.11 | 0,046 | 0,001 | 3.510 | **0.0105** | 0,046 | 0,000 |
| S19 | Ka.C.17 | 0,081 | 0,000 | 1.557 | **0.0050** | 0,086 | 0,013 |
| S20 | Ka.C.9 | 0,084 | 0,012 | 0.921 | **0.0013** | 0,079 | 0,001 |
| S20 | Ka.C.18 | 0,000 | 0,002 | 2.274 | **-0.0005** | -0,001 | 0,001 |
| S21 | Ka.C.13 | 0,078 | 0,000 | 1.829 | **-0.0013** | 0,082 | -0,010 |
| S22 | Ka.C.5 | 0,085 | -0,011 | 1.757 | **-0.0046** | 0,080 | 0,000 |
| S22 | Ka.C.19 | -0,004 | 0,004 | 1.358 | **0.0008** | -0,003 | 0,000 |
| **-** | **-** | **m** | **m** | **m** | **m** | **m** | **m** |

AFB. STAALCONTROLE



## SAMENSTELLING CONSTRUCTIEDELEN

| Constructiedeel | Staaf/staven |
|---|---|
| C1 | S1 |
| C4 | S4 |
| C5 | S5 |
| C8 | S8 |
| C12 | S12 |
| C14 | S14 |
| C15 | S15 |
| C16 | S16 |
| C17 | S17 |
| C18 | S18 |
| C19 | S19 |
| C20 | S20 |
| C21 | S21 |
| C22 | S22 |

## KNIKLENGTEGEGEVENS

| Staaf | Profiel | Lokale Y-as | | | | Lokale Z-as | | |
|---|---|---|---|---|---|---|---|---|
| | | Lsys | methode | Lbuc | Lbuc/Lsys | methode | Lbuc | Lbuc/Lsys |
| C1 - V1 (0.000-4.400) | P1 | 4.400 | Ongeschoord | 11.409 | 2.59 | Cons. gesch. | 4.400 | 1.00 |
| C4 - V1 (0.000-4.400) | P1 | 4.400 | Ongeschoord | 11.362 | 2.58 | Cons. gesch. | 4.400 | 1.00 |
| C5 - V1 (0.000-6.809) | P2 | 6.810 | Geschoord | 6.553 | 0.96 | Cons. gesch. | 6.809 | 1.00 |
| C8 - V1 (0.000-6.809) | P2 | 6.810 | Geschoord | 6.553 | 0.96 | Cons. gesch. | 6.809 | 1.00 |
| C12 - V1 (0.000-9.532) | P2 | 9.530 | Geschoord | 9.174 | 0.96 | Cons. gesch. | 9.532 | 1.00 |
| C14 - V1 (0.000-7.047) | P3 | 7.050 | Ongeschoord | 10.318 | 1.46 | Handmatige Invoer | 1.350 | 0.19 |
| C15 - V1 (0.000-2.765) | P3 | 2.760 | Ongeschoord | 6.773 | 2.45 | Handmatige Invoer | 1.350 | 0.49 |
| C16 - V1 (0.000-9.532) | P2 | 9.530 | Geschoord | 9.174 | 0.96 | Cons. gesch. | 9.532 | 1.00 |
| C17 - V1 (0.000-2.765) | P3 | 2.760 | Ongeschoord | 6.773 | 2.45 | Handmatige Invoer | 1.350 | 0.49 |
| C18 - V1 (0.000-7.047) | P3 | 7.050 | Ongeschoord | 10.318 | 1.46 | Handmatige Invoer | 1.350 | 0.19 |
| C19 - V1 (0.000-3.253) | P1 | 3.250 | Handmatige Invoer | 7.500 | 2.31 | Handmatige Invoer | 1.350 | 0.42 |
| C20 - V1 (0.000-2.982) | P3 | 2.980 | Handmatige Invoer | 7.500 | 2.52 | Handmatige Invoer | 1.350 | 0.45 |
| C21 - V1 (0.000-2.982) | P3 | 2.980 | Handmatige Invoer | 7.500 | 2.52 | Handmatige Invoer | 1.350 | 0.45 |
| C22 - V1 (0.000-3.253) | P1 | 3.250 | Handmatige Invoer | 7.500 | 2.31 | Handmatige Invoer | 1.350 | 0.42 |
| - | - | m | - | m | - | - | m | - |

## KIPSTEUNENGEGEVENS

| Staaf | Profiel | Begin: | Eind: | Kipsteunen boven | Kipsteunen onder | Aangrijphoogte |
|---|---|---|---|---|---|---|
| C1 - V1 (0.000-4.400) | P1 | Gesteund | Gesteund | | | Centrum |
| C4 - V1 (0.000-4.400) | P1 | Gesteund | Gesteund | | | Centrum |
| C5 - V1 (0.000-6.809) | P2 | Gesteund | Gesteund | | | Centrum |
| C8 - V1 (0.000-6.809) | P2 | Gesteund | Gesteund | | | Centrum |
| C12 - V1 (0.000-9.532) | P2 | Gesteund | Gesteund | | | Centrum |
| C14 - V1 (0.000-7.047) | P3 | Gesteund | Gesteund | 1.35, 2.7, 4.05, 5.4, 6.75 | | Centrum |
| C15 - V1 (0.000-2.765) | P3 | Gesteund | Gesteund | 1.35, 2.7 | | Centrum |
| C16 - V1 (0.000-9.532) | P2 | Gesteund | Gesteund | | | Centrum |
| C17 - V1 (0.000-2.765) | P3 | Gesteund | Gesteund | 1.35, 2.7 | | Centrum |
| C18 - V1 (0.000-7.047) | P3 | Gesteund | Gesteund | 1.35, 2.7, 4.05, 5.4, 6.75 | | Centrum |
| C19 - V1 (0.000-3.253) | P1 | Gesteund | Gesteund | | | Centrum |
| C20 - V1 (0.000-2.982) | P3 | Gesteund | Gesteund | | | Centrum |
| C21 - V1 (0.000-2.982) | P3 | Gesteund | Gesteund | | | Centrum |
| C22 - V1 (0.000-3.253) | P1 | Gesteund | Gesteund | | | Centrum |
| - | - | - | - | m | m | - |

## DOORBUIGINGGEGEVENS

| Staaf | Constructietype | Toetsing | Zeeg Y' | Zeeg Z' | Zeegvorm | Eis U;eind | Eis U;bij |
|---|---|---|---|---|---|---|---|
| C14 - V1 (0.000-7.047) | Dak | Algemeen | 0 | 0 | 3-Punt | L/250 | L/250 |

| Staaf | Constructietype | Toetsing | Zeeg Y' | Zeeg Z' | Zeegvorm | Eis U;eind | Eis U;bij |
|---|---|---|---|---|---|---|---|
| C15 - V1 (0.000-2.765) | Dak | Algemeen | 0 | 0 | 3-Punt | L/250 | L/250 |
| C17 - V1 (0.000-2.765) | Dak | Algemeen | 0 | 0 | 3-Punt | L/250 | L/250 |
| C18 - V1 (0.000-7.047) | Dak | Algemeen | 0 | 0 | 3-Punt | L/250 | L/250 |
| C19 - V1 (0.000-3.253) | Dak | Algemeen | 0 | 0 | 3-Punt | L/250 | L/250 |
| C20 - V1 (0.000-2.982) | Dak | Algemeen | 0 | 0 | 3-Punt | L/250 | L/250 |
| C21 - V1 (0.000-2.982) | Dak | Algemeen | 0 | 0 | 3-Punt | L/250 | L/250 |
| C22 - V1 (0.000-3.253) | Dak | Algemeen | 0 | 0 | 3-Punt | L/250 | L/250 |
| - | - | - | mm | mm | - | - | - |

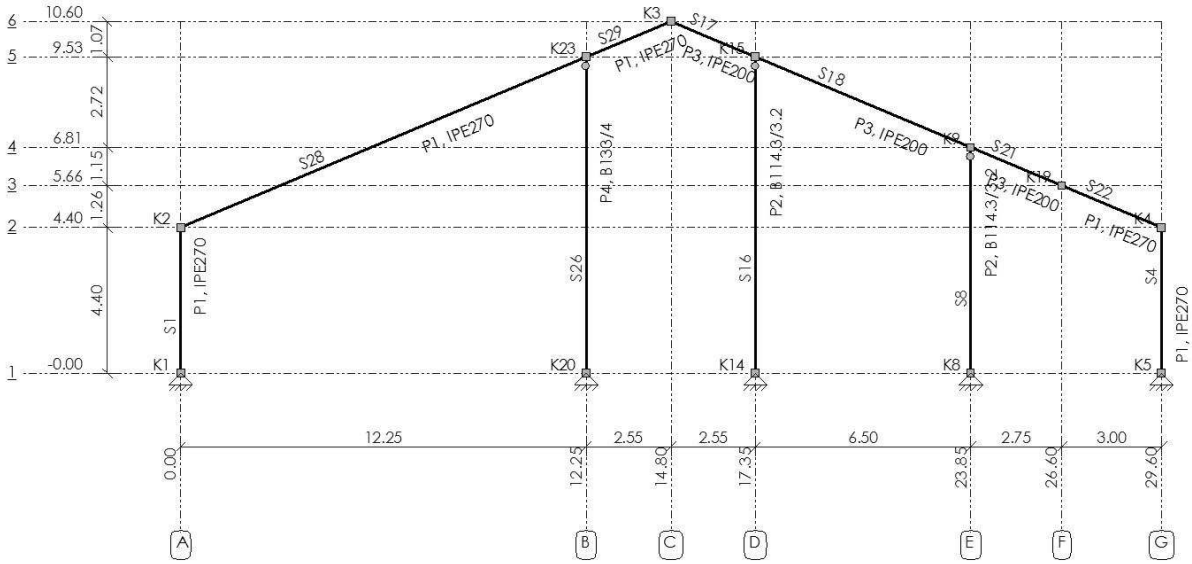
## UNITY CHECK NEN-EN1993-1-1:2009/NB:2011

| Veld | Toetsing | Combinatie | Artikel | UC max |
|---|---|---|---|---|
| C1-V1 (0.000-4.400) | Doorsnede | Fu.C.8 | NEN-EN1993-1-1(6.12) | 0,61 |
| C1-V1 (0.000-4.400) | Stabiliteit | Fu.C.10 | NEN-EN1993-1-1(6.46) | 0,01 |
| C1-V1 (0.000-4.400) | Stabiliteit | Fu.C.10 | NEN-EN1993-1-1(6.46) | 0,02 |
| C1-V1 (0.000-4.400) | Stabiliteit | Fu.C.10 | NEN-EN1993-1-1(6.61&6.62) | 0,50 |
| C1-V1 (0.000-4.400) | Kiptoetsing | Fu.C.4 | NEN-EN1993-1-1(6.54) | 0,83 |
| C4-V1 (0.000-4.400) | Doorsnede | Fu.C.12 | NEN-EN1993-1-1(6.12) | 0,68 |
| C4-V1 (0.000-4.400) | Stabiliteit | Fu.C.16 | NEN-EN1993-1-1(6.46) | 0,05 |
| C4-V1 (0.000-4.400) | Stabiliteit | Fu.C.16 | NEN-EN1993-1-1(6.46) | 0,09 |
| C4-V1 (0.000-4.400) | Stabiliteit | Fu.C.16 | NEN-EN1993-1-1(6.61&6.62) | 0,98 |
| C4-V1 (0.000-4.400) | Kiptoetsing | Fu.C.16 | NEN-EN1993-1-1(6.54) | 0,90 |
| C5-V1 (0.000-6.809) | Doorsnede | Fu.C.12 | NEN-EN1993-1-1(6.9) | 0,16 |
| C5-V1 (0.000-6.809) | Stabiliteit | Fu.C.12 | NEN-EN1993-1-1(6.46) | 0,68 |
| C5-V1 (0.000-6.809) | Stabiliteit | Fu.C.12 | NEN-EN1993-1-1(6.46) | 0,73 |
| C5-V1 (0.000-6.809) | Stabiliteit | Fu.C.12 | NEN-EN1993-1-1(6.61&6.62) | 0,73 |
| C5-V1 (0.000-6.809) | Kiptoetsing | Fu.C.21 | NEN-EN1993-1-1(6.54) | 0,00 |
| C8-V1 (0.000-6.809) | Doorsnede | Fu.C.18 | NEN-EN1993-1-1(6.9) | 0,13 |
| C8-V1 (0.000-6.809) | Stabiliteit | Fu.C.18 | NEN-EN1993-1-1(6.46) | 0,56 |
| C8-V1 (0.000-6.809) | Stabiliteit | Fu.C.18 | NEN-EN1993-1-1(6.46) | 0,60 |
| C8-V1 (0.000-6.809) | Stabiliteit | Fu.C.18 | NEN-EN1993-1-1(6.61&6.62) | 0,60 |
| C8-V1 (0.000-6.809) | Kiptoetsing | Fu.C.21 | NEN-EN1993-1-1(6.54) | 0,00 |
| C12-V1 (0.000-9.532) | Doorsnede | Fu.C.17 | NEN-EN1993-1-1(6.9) | 0,09 |
| C12-V1 (0.000-9.532) | Stabiliteit | Fu.C.17 | NEN-EN1993-1-1(6.46) | 0,70 |
| C12-V1 (0.000-9.532) | Stabiliteit | Fu.C.17 | NEN-EN1993-1-1(6.46) | 0,75 |
| C12-V1 (0.000-9.532) | Stabiliteit | Fu.C.17 | NEN-EN1993-1-1(6.61&6.62) | 0,75 |
| C12-V1 (0.000-9.532) | Kiptoetsing | Fu.C.21 | NEN-EN1993-1-1(6.54) | 0,00 |
| C14-V1 (0.000-7.047) | Doorsnede | Fu.C.12 | NEN-EN1993-1-1(6.12) | 0,51 |
| C14-V1 (0.000-7.047) | Stabiliteit | Fu.C.12 | NEN-EN1993-1-1(6.46) | 0,03 |
| C14-V1 (0.000-7.047) | Stabiliteit | Fu.C.12 | NEN-EN1993-1-1(6.46) | 0,02 |
| C14-V1 (0.000-7.047) | Stabiliteit | Fu.C.12 | NEN-EN1993-1-1(6.61&6.62) | 0,57 |
| C14-V1 (0.000-7.047) | Kiptoetsing | Fu.C.12 | NEN-EN1993-1-1(6.54) | 0,55 |
| C14-V1 (0.000-7.047) | Doorbuigingstoetsing | Ka.C.18 | NEN-EN \| NEN-EN1990/NB A1.4.2 | 0,24 |
| C15-V1 (0.000-2.765) | Doorsnede | Fu.C.17 | NEN-EN1993-1-1(6.12) | 0,22 |
| C15-V1 (0.000-2.765) | Stabiliteit | Fu.C.17 | NEN-EN1993-1-1(6.46) | 0,01 |
| C15-V1 (0.000-2.765) | Stabiliteit | Fu.C.17 | NEN-EN1993-1-1(6.46) | 0,01 |
| C15-V1 (0.000-2.765) | Stabiliteit | Fu.C.17 | NEN-EN1993-1-1(6.61&6.62) | 0,26 |
| C15-V1 (0.000-2.765) | Kiptoetsing | Fu.C.17 | NEN-EN1993-1-1(6.54) | 0,25 |
| C15-V1 (0.000-2.765) | Doorbuigingstoetsing | Ka.C.11 | NEN-EN \| NEN-EN1990/NB A1.4.2 | 0,08 |
| C16-V1 (0.000-9.532) | Doorsnede | Fu.C.17 | NEN-EN1993-1-1(6.9) | 0,11 |
| C16-V1 (0.000-9.532) | Stabiliteit | Fu.C.17 | NEN-EN1993-1-1(6.46) | 0,83 |
| C16-V1 (0.000-9.532) | Stabiliteit | Fu.C.17 | NEN-EN1993-1-1(6.46) | 0,89 |
| C16-V1 (0.000-9.532) | Stabiliteit | Fu.C.17 | NEN-EN1993-1-1(6.61&6.62) | 0,89 |
| C16-V1 (0.000-9.532) | Kiptoetsing | Fu.C.21 | NEN-EN1993-1-1(6.54) | 0,00 |
| C17-V1 (0.000-2.765) | Doorsnede | Fu.C.17 | NEN-EN1993-1-1(6.12) | 0,26 |
| C17-V1 (0.000-2.765) | Stabiliteit | Fu.C.17 | NEN-EN1993-1-1(6.46) | 0,01 |
| C17-V1 (0.000-2.765) | Stabiliteit | Fu.C.17 | NEN-EN1993-1-1(6.46) | 0,01 |
| C17-V1 (0.000-2.765) | Stabiliteit | Fu.C.17 | NEN-EN1993-1-1(6.61&6.62) | 0,31 |
| C17-V1 (0.000-2.765) | Kiptoetsing | Fu.C.17 | NEN-EN1993-1-1(6.54) | 0,30 |
| C17-V1 (0.000-2.765) | Doorbuigingstoetsing | Ka.C.11 | NEN-EN \| NEN-EN1990/NB A1.4.2 | 0,11 |

| Veld | Toetsing | Combinatie | Artikel | UC max |
|---|---|---|---|---|
| C18-V1 (0.000-7.047) | Doorsnede | Fu.C.18 | NEN-EN1993-1-1(6.12) | 0,36 |
| C18-V1 (0.000-7.047) | Stabiliteit | Fu.C.18 | NEN-EN1993-1-1(6.46) | 0,03 |
| C18-V1 (0.000-7.047) | Stabiliteit | Fu.C.18 | NEN-EN1993-1-1(6.46) | 0,02 |
| C18-V1 (0.000-7.047) | Stabiliteit | Fu.C.18 | NEN-EN1993-1-1(6.61&6.62) | 0,41 |
| C18-V1 (0.000-7.047) | Kiptoetsing | Fu.C.18 | NEN-EN1993-1-1(6.54) | 0,29 |
| C18-V1 (0.000-7.047) | Doorbuigingstoetsing | Ka.C.11 | NEN-EN \| NEN-EN1990/NB A1.4.2 | 0,37 |
| C19-V1 (0.000-3.253) | Doorsnede | Fu.C.8 | NEN-EN1993-1-1(6.12) | 0,61 |
| C19-V1 (0.000-3.253) | Stabiliteit | Fu.C.14 | NEN-EN1993-1-1(6.46) | 0,00 |
| C19-V1 (0.000-3.253) | Stabiliteit | Fu.C.14 | NEN-EN1993-1-1(6.46) | 0,00 |
| C19-V1 (0.000-3.253) | Stabiliteit | Fu.C.14 | NEN-EN1993-1-1(6.61&6.62) | 0,37 |
| C19-V1 (0.000-3.253) | Kiptoetsing | Fu.C.8 | NEN-EN1993-1-1(6.54) | 0,69 |
| C19-V1 (0.000-3.253) | Doorbuigingstoetsing | Ka.C.17 | NEN-EN \| NEN-EN1990/NB A1.4.2 | 0,39 |
| C20-V1 (0.000-2.982) | Doorsnede | Fu.C.16 | NEN-EN1993-1-1(6.12) | 0,51 |
| C20-V1 (0.000-2.982) | Stabiliteit | Fu.C.10 | NEN-EN1993-1-1(6.46) | 0,00 |
| C20-V1 (0.000-2.982) | Stabiliteit | Fu.C.10 | NEN-EN1993-1-1(6.46) | 0,00 |
| C20-V1 (0.000-2.982) | Stabiliteit | Fu.C.10 | NEN-EN1993-1-1(6.61&6.62) | 0,50 |
| C20-V1 (0.000-2.982) | Kiptoetsing | Fu.C.16 | NEN-EN1993-1-1(6.54) | 0,59 |
| C20-V1 (0.000-2.982) | Doorbuigingstoetsing | Ka.C.9 | NEN-EN \| NEN-EN1990/NB A1.4.2 | 0,11 |
| C21-V1 (0.000-2.982) | Doorsnede | Fu.C.4 | NEN-EN1993-1-1(6.12) | 0,42 |
| C21-V1 (0.000-2.982) | Stabiliteit | Fu.C.4 | NEN-EN1993-1-1(6.46) | 0,03 |
| C21-V1 (0.000-2.982) | Stabiliteit | Fu.C.4 | NEN-EN1993-1-1(6.46) | 0,02 |
| C21-V1 (0.000-2.982) | Stabiliteit | Fu.C.4 | NEN-EN1993-1-1(6.61&6.62) | 0,50 |
| C21-V1 (0.000-2.982) | Kiptoetsing | Fu.C.4 | NEN-EN1993-1-1(6.54) | 0,48 |
| C21-V1 (0.000-2.982) | Doorbuigingstoetsing | Ka.C.13 | NEN-EN \| NEN-EN1990/NB A1.4.2 | 0,11 |
| C22-V1 (0.000-3.253) | Doorsnede | Fu.C.12 | NEN-EN1993-1-1(6.12) | 0,68 |
| C22-V1 (0.000-3.253) | Stabiliteit | Fu.C.12 | NEN-EN1993-1-1(6.46) | 0,03 |
| C22-V1 (0.000-3.253) | Stabiliteit | Fu.C.12 | NEN-EN1993-1-1(6.46) | 0,03 |
| C22-V1 (0.000-3.253) | Stabiliteit | Fu.C.12 | NEN-EN1993-1-1(6.61&6.62) | 0,80 |
| C22-V1 (0.000-3.253) | Kiptoetsing | Fu.C.12 | NEN-EN1993-1-1(6.54) | 0,77 |
| C22-V1 (0.000-3.253) | Doorbuigingstoetsing | Ka.C.5 | NEN-EN \| NEN-EN1990/NB A1.4.2 | 0,38 |

## Bijlage B

Berekening Spant 2




## STAVEN

| Staaf | Knoop B | | Scharnier E | Knoop E | Profiel | X-B | Z-B | X-E | Z-E | Lengte |
|---|---|---|---|---|---|---|---|---|---|---|
| S1 | K1 | NVM | NVM | K2 | P1 | 0,000 | 0,000 | 0,000 | -4,400 | 4,400 |
| S4 | K4 | NVM | NVM | K5 | P1 | 29,600 | -4,400 | 29,600 | 0,000 | 4,400 |
| S8 | K8 | NVM | NV- | K9 | P2 | 23,850 | 0,000 | 23,850 | -6,809 | 6,809 |
| S16 | K14 | NVM | NV- | K15 | P2 | 17,350 | 0,000 | 17,350 | -9,532 | 9,532 |
| S17 | K3 | NVM | NVM | K15 | P3 | 14,800 | -10,600 | 17,350 | -9,532 | 2,765 |
| S18 | K15 | NVM | NVM | K9 | P3 | 17,350 | -9,532 | 23,850 | -6,809 | 7,047 |
| S21 | K9 | NVM | NVM | K19 | P3 | 23,850 | -6,809 | 26,600 | -5,657 | 2,982 |
| S22 | K19 | NVM | NVM | K4 | P1 | 26,600 | -5,657 | 29,600 | -4,400 | 3,253 |
| S26 | K20 | NVM | NV- | K23 | P4 | 12,250 | 0,000 | 12,250 | -9,532 | 9,532 |
| S28 | K2 | NVM | NVM | K23 | P1 | 0,000 | -4,400 | 12,250 | -9,532 | 13,281 |
| S29 | K23 | NVM | NVM | K3 | P1 | 12,250 | -9,532 | 14,800 | -10,600 | 2,765 |
| - | - | - | - | - | - | m | m | m | m | m |

## PROFIELEN

| Profiel | Profielnaam | Oppervlakte | Iy | Materiaal | Hoek |
|---|---|---|---|---|---|
| P1 | IPE270 | 4.5945e-03 | 5.7898e-05 | S235 | 0 |
| P2 | B114.3/3.2 | 1.1169e-03 | 1.7247e-06 | S235H(EN10219-1) | 0 |
| P3 | IPE200 | 2.8484e-03 | 1.9432e-05 | S235 | 0 |
| P4 | B133/4 | 1.6211e-03 | 3.3753e-06 | S235H(EN10219-1) | 0 |
| - | - | m2 | m4 | - | ° |

## MATERIALEN

| Materiaal | Dichtheid | E-Modulus | Uitzettingcoeff |
|---|---|---|---|
| S235 | 78.50 | 2.1000e+08 | 12.0000e-06 |
| S235H(EN10219-1) | 78.50 | 2.1000e+08 | 12.0000e-06 |
| - | kN/m3 | kN/m2 | C°m |

## OPLEGGINGEN

| Oplegging | Knoop | X | Z | Yr | HoekYr |
|---|---|---|---|---|---|
| O1 | K1 | vast | vast | vrij | 0 |
| O2 | K5 | vast | vast | vrij | 0 |
| O5 | K14 | vast | vast | vrij | 0 |
| O6 | K8 | vast | vast | vrij | 0 |
| O7 | K20 | vast | vast | vrij | 0 |
| - | - | kN/m | kN/m | kNmrad | ° |

## GEWICHTSBEREKENING

| Index | Staven | Berekening | Waarde | Eenheden |
|---|---|---|---|---|
| | Belastingen en vervormingen | NEN-EN1991 | | |

| Index | Staven | Berekening | Waarde | Eenheden |
|---|---|---|---|---|
| Lsys1 | Systeemmaat | 5.00 | 5,00 | [m] |
| Height1 | Totale hoogte van constructie | 10.60 | 10,60 | [m] |
| Width1 | Totale breedte van constructie | 29.60 | 29,60 | [m] |
| **LR1** | | | | |
| | Permanente Belasting | NEN-EN1991-1-1:2011/NB:2011 | | |
| | Hellend dak (S17,S18,S21,S22,S28,S29) | | | |
| Pp1 | Sandwich + gordingen | 0.20 | 0,20 | [kN/m²] |
| q1 | Permanente Belasting | Pp1*Lsys1 | 1,00 | [kN/m] |
| **LR2** | | | | |
| | Windbelasting van Links + Overdruk | NEN-EN1991-1-4:2011/NB:2011 | | |
| Height2 | Totale hoogte (incl. gedeelte boven de grond) (h) | 10.60 | 10,60 | [m] |
| Width2 | Gemiddelde breedte (b) | 5.00 | 5,00 | [m] |
| Width3 | Constructie diepte (d) | 29.60 | 29,60 | [m] |
| A1 | Belast oppervlak (A) | 53.00 | 53,00 | [m²] |
| Co1 | Orthografie factor (C0) | 1.00 | 1,00 | |
| CsCd1 | Constructie factor (CsCd) | 1.00 | 1,00 | |
| Cpe1 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.36) | 0,80 | |
| Cpi1 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe1,Openingen=0.00,Over=True) | 0,20 | |
| Z1 | z=b; (h>2b) voor knopen: K1,K2,K4,K5,K8,K14,K20 | 5.00 | 5,00 | [m] |
| Qp1 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z1,Terrein=Onbebouwd,Regio=3,C0=Co1) | 0,54 | [kN/m²] |
| q2 | Interne druk; Verdeelde element belasting (q) | (Cpi1*Qp1) * Lsys1 | 0,54 | [kN/m] |
| Z2 | z=h-b; (h>2b) | 5.60 | 5,60 | [m] |
| Qp2 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z2,Terrein=Onbebouwd,Regio=3,C0=Co1) | 0,57 | [kN/m²] |
| q3 | Interne druk; Verdeelde element belasting (q) | (Cpi1*Qp2) * Lsys1 | 0,57 | [kN/m] |
| Z3 | z=h; (h>2b) voor knopen: K3,K9,K15,K19,K23 | 10.60 | 10,60 | [m] |
| Qp3 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z3,Terrein=Onbebouwd,Regio=3,C0=Co1) | 0,72 | [kN/m²] |
| q4 | Interne druk; Verdeelde element belasting (q) | (Cpi1*Qp3) * Lsys1 | 0,72 | [kN/m] |
| Cpe2 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.36) | 0,80 | |
| q5 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp1*Cpe2*CsCd1) * Lsys1 | 2,16 | [kN/m] |
| Cpe3 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.36) | -0,50 | |
| C1 | Vertikale wand S1; Druk coefficient (Cpe) incl. correlatiefactor | (Cpe2-Cpe3) * 0.85 | 1,11 | |
| q6 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp1*(Cpe3+C1)*CsCd1) * Lsys1 | 1,64 | [kN/m] |
| q7 | Vertikale wand S4; Verdeelde element belasting (q) | (Qp1*Cpe3*CsCd1) * Lsys1 | -1,35 | [kN/m] |
| q8 | Vertikale wand S4; Verdeelde element belasting (q) | (Qp1*(Cpe2-C1)*CsCd1) * Lsys1 | -0,82 | [kN/m] |
| Cpe4 | Zadeldak S17; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=22.73) | -0,74 | |
| q9 | Zadeldak S17; Verdeelde element belasting (q) | (Qp3*Cpe4*CsCd1) * Lsys1 | -2,66 | [kN/m] |
| Cpe5 | Zadeldak S17; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=22.73) | -0,40 | |
| q10 | Zadeldak S17; Verdeelde element belasting (q) | (Qp3*Cpe5*CsCd1) * Lsys1 | -1,43 | [kN/m] |
| q11 | Zadeldak S22; Verdeelde element belasting (q) | (Qp1*Cpe5*CsCd1) * Lsys1 | -1,08 | [kN/m] |
| q12 | Zadeldak S22; Verdeelde element belasting (q) | (Qp2*Cpe5*CsCd1) * Lsys1 | -1,13 | [kN/m] |
| Cpe6 | Zadeldak S28; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=22.73) | -0,65 | |
| q13 | Zadeldak S28; Verdeelde element belasting (q) | (Qp1*Cpe6*CsCd1) * Lsys1 | -1,75 | [kN/m] |
| Cpe7 | Zadeldak S28; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=22.73) | -0,25 | |
| q14 | Zadeldak S28; Verdeelde element belasting (q) | (Qp1*Cpe7*CsCd1) * Lsys1 | -0,67 | [kN/m] |
| q15 | Zadeldak S28; Verdeelde element belasting (q) | (Qp3*Cpe7*CsCd1) * Lsys1 | -0,89 | [kN/m] |
| q16 | Zadeldak S28; Verdeelde element belasting (q) | (Qp2*Cpe7*CsCd1) * Lsys1 | -0,70 | [kN/m] |
| **LR3** | | | | |
| | Windbelasting van Links + Overdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2011 | | |
| Height3 | Totale hoogte (incl. gedeelte boven de grond) (h) | 10.60 | 10,60 | [m] |
| Width4 | Gemiddelde breedte (b) | 5.00 | 5,00 | [m] |
| Width5 | Constructie diepte (d) | 29.60 | 29,60 | [m] |
| A2 | Belast oppervlak (A) | 53.00 | 53,00 | [m²] |
| Co2 | Orthografie factor (C0) | 1.00 | 1,00 | |
| CsCd2 | Constructie factor (CsCd) | 1.00 | 1,00 | |
| Cpe8 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.36) | 0,80 | |
| Cpi2 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe8,Openingen=0.00,Over=True) | 0,20 | |
| Z4 | z=b; (h>2b) voor knopen: K1,K2,K4,K5,K8,K14,K20 | 5.00 | 5,00 | [m] |
| Qp4 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z4,Terrein=Onbebouwd,Regio=3,C0=Co2) | 0,54 | [kN/m²] |

| Index | Staven | Berekening | Waarde | Eenheden |
|---|---|---|---|---|
| **LR3** | | | | |
| q17 | Interne druk; Verdeelde element belasting (q) | (Cpi2*Qp4) * Lsys1 | 0,54 | [kN/m] |
| Z5 | z=h-b; (h>2b) | 5.60 | 5,60 | [m] |
| Qp5 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z5,Terrein=Onbebouwd,Regio=3,C0=Co2) | 0,57 | [kN/m²] |
| q18 | Interne druk; Verdeelde element belasting (q) | (Cpi2*Qp5) * Lsys1 | 0,57 | [kN/m] |
| Z6 | z=h; (h>2b) voor knopen: K3,K9,K15,K19,K23 | 10.60 | 10,60 | [m] |
| Qp6 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z6,Terrein=Onbebouwd,Regio=3,C0=Co2) | 0,72 | [kN/m²] |
| q19 | Interne druk; Verdeelde element belasting (q) | (Cpi2*Qp6) * Lsys1 | 0,72 | [kN/m] |
| Cpe9 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.36,Eerst=False) | 0,80 | |
| q20 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp4*Cpe9*CsCd2) * Lsys1 | 2,16 | [kN/m] |
| Cpe10 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.36,Eerst=False) | -0,50 | |
| C2 | Vertikale wand S1; Druk coefficient (Cpe) incl. correlatiefactor | (Cpe9-Cpe10) * 0.85 | 1,11 | |
| q21 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp4*(Cpe10+C2)*CsCd2) * Lsys1 | 1,64 | [kN/m] |
| q22 | Vertikale wand S4; Verdeelde element belasting (q) | (Qp4*Cpe10*CsCd2) * Lsys1 | -1,35 | [kN/m] |
| q23 | Vertikale wand S4; Verdeelde element belasting (q) | (Qp4*(Cpe9-C2)*CsCd2) * Lsys1 | -0,82 | [kN/m] |
| Cpe11 | Zadeldak S17; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=22.73,Eerst=False) | 0,00 | |
| q24 | Zadeldak S17; Verdeelde element belasting (q) | (Qp6*Cpe11*CsCd2) * Lsys1 | 0,00 | [kN/m] |
| Cpe12 | Zadeldak S17; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=22.73,Eerst=False) | 0,00 | |
| q25 | Zadeldak S17; Verdeelde element belasting (q) | (Qp6*Cpe12*CsCd2) * Lsys1 | 0,00 | [kN/m] |
| q26 | Zadeldak S22; Verdeelde element belasting (q) | (Qp4*Cpe12*CsCd2) * Lsys1 | 0,00 | [kN/m] |
| q27 | Zadeldak S22; Verdeelde element belasting (q) | (Qp5*Cpe12*CsCd2) * Lsys1 | 0,00 | [kN/m] |
| Cpe13 | Zadeldak S28; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=22.73,Eerst=False) | 0,46 | |
| q28 | Zadeldak S28; Verdeelde element belasting (q) | (Qp4*Cpe13*CsCd2) * Lsys1 | 1,24 | [kN/m] |
| Cpe14 | Zadeldak S28; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=22.73,Eerst=False) | 0,30 | |
| q29 | Zadeldak S28; Verdeelde element belasting (q) | (Qp4*Cpe14*CsCd2) * Lsys1 | 0,82 | [kN/m] |
| q30 | Zadeldak S28; Verdeelde element belasting (q) | (Qp6*Cpe14*CsCd2) * Lsys1 | 1,09 | [kN/m] |
| q31 | Zadeldak S28; Verdeelde element belasting (q) | (Qp5*Cpe14*CsCd2) * Lsys1 | 0,86 | [kN/m] |
| **LR4** | | | | |
| | Windbelasting van Links + Onderdruk | NEN-EN1991-1-4:2011/NB:2011 | | |
| Height4 | Totale hoogte (incl. gedeelte boven de grond) (h) | 10.60 | 10,60 | [m] |
| Width6 | Gemiddelde breedte (b) | 5.00 | 5,00 | [m] |
| Width7 | Constructie diepte (d) | 29.60 | 29,60 | [m] |
| A3 | Belast oppervlak (A) | 53.00 | 53,00 | [m²] |
| Co3 | Orthografie factor (C0) | 1.00 | 1,00 | |
| CsCd3 | Constructie factor (CsCd) | 1.00 | 1,00 | |
| Cpe15 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.36) | -0,50 | |
| Cpi3 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe15,Openingen=0.00,Over=False) | -0,30 | |
| Z7 | z=b; (h>2b) voor knopen: K1,K2,K4,K5,K8,K14,K20 | 5.00 | 5,00 | [m] |
| Qp7 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z7,Terrein=Onbebouwd,Regio=3,C0=Co3) | 0,54 | [kN/m²] |
| q32 | Interne druk; Verdeelde element belasting (q) | (Cpi3*Qp7) * Lsys1 | -0,81 | [kN/m] |
| Z8 | z=h-b; (h>2b) | 5.60 | 5,60 | [m] |
| Qp8 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z8,Terrein=Onbebouwd,Regio=3,C0=Co3) | 0,57 | [kN/m²] |
| q33 | Interne druk; Verdeelde element belasting (q) | (Cpi3*Qp8) * Lsys1 | -0,85 | [kN/m] |
| Z9 | z=h; (h>2b) voor knopen: K3,K9,K15,K19,K23 | 10.60 | 10,60 | [m] |
| Qp9 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z9,Terrein=Onbebouwd,Regio=3,C0=Co3) | 0,72 | [kN/m²] |
| q34 | Interne druk; Verdeelde element belasting (q) | (Cpi3*Qp9) * Lsys1 | -1,07 | [kN/m] |
| Cpe16 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.36) | 0,80 | |
| q35 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp7*Cpe16*CsCd3) * Lsys1 | 2,16 | [kN/m] |
| Cpe17 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.36) | -0,50 | |
| C3 | Vertikale wand S1; Druk coefficient (Cpe) incl. correlatiefactor | (Cpe16-Cpe17) * 0.85 | 1,11 | |
| q36 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp7*(Cpe17+C3)*CsCd3) * Lsys1 | 1,64 | [kN/m] |
| q37 | Vertikale wand S4; Verdeelde element belasting (q) | (Qp7*Cpe17*CsCd3) * Lsys1 | -1,35 | [kN/m] |
| q38 | Vertikale wand S4; Verdeelde element belasting (q) | (Qp7*(Cpe16-C3)*CsCd3) * Lsys1 | -0,82 | [kN/m] |
| Cpe18 | Zadeldak S17; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=22.73) | -0,74 | |
| q39 | Zadeldak S17; Verdeelde element belasting (q) | (Qp9*Cpe18*CsCd3) * Lsys1 | -2,66 | [kN/m] |

| Index | Staven | Berekening | Waarde | Eenheden |
|---|---|---|---|---|
| **LR4** | | | | |
| Cpe19 | Zadeldak S17; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=22.73) | -0,40 | |
| q40 | Zadeldak S17; Verdeelde element belasting (q) | (Qp9*Cpe19*CsCd3) * Lsys1 | -1,43 | [kN/m] |
| q41 | Zadeldak S22; Verdeelde element belasting (q) | (Qp7*Cpe19*CsCd3) * Lsys1 | -1,08 | [kN/m] |
| q42 | Zadeldak S22; Verdeelde element belasting (q) | (Qp8*Cpe19*CsCd3) * Lsys1 | -1,13 | [kN/m] |
| Cpe20 | Zadeldak S28; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=22.73) | -0,65 | |
| q43 | Zadeldak S28; Verdeelde element belasting (q) | (Qp7*Cpe20*CsCd3) * Lsys1 | -1,75 | [kN/m] |
| Cpe21 | Zadeldak S28; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=22.73) | -0,25 | |
| q44 | Zadeldak S28; Verdeelde element belasting (q) | (Qp7*Cpe21*CsCd3) * Lsys1 | -0,67 | [kN/m] |
| q45 | Zadeldak S28; Verdeelde element belasting (q) | (Qp9*Cpe21*CsCd3) * Lsys1 | -0,89 | [kN/m] |
| q46 | Zadeldak S28; Verdeelde element belasting (q) | (Qp8*Cpe21*CsCd3) * Lsys1 | -0,70 | [kN/m] |
| **LR5** | | | | |
| | Windbelasting van Links + Onderdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2011 | | |
| Height5 | Totale hoogte (incl. gedeelte boven de grond) (h) | 10.60 | 10,60 | [m] |
| Width8 | Gemiddelde breedte (b) | 5.00 | 5,00 | [m] |
| Width9 | Constructie diepte (d) | 29.60 | 29,60 | [m] |
| A4 | Belast oppervlak (A) | 53.00 | 53,00 | [m²] |
| Co4 | Orthografie factor (C0) | 1.00 | 1,00 | |
| CsCd4 | Constructie factor (CsCd) | 1.00 | 1,00 | |
| Cpe22 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.36) | -0,50 | |
| Cpi4 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe22,Openingen=0.00,Over=False) | -0,30 | |
| Z10 | z=b; (h>2b) voor knopen: K1,K2,K4,K5,K8,K14,K20 | 5.00 | 5,00 | [m] |
| Qp10 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z10,Terrein=Onbebouwd,Regio=3,C0=Co4) | 0,54 | [kN/m²] |
| q47 | Interne druk; Verdeelde element belasting (q) | (Cpi4*Qp10) * Lsys1 | -0,81 | [kN/m] |
| Z11 | z=h-b; (h>2b) | 5.60 | 5,60 | [m] |
| Qp11 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z11,Terrein=Onbebouwd,Regio=3,C0=Co4) | 0,57 | [kN/m²] |
| q48 | Interne druk; Verdeelde element belasting (q) | (Cpi4*Qp11) * Lsys1 | -0,85 | [kN/m] |
| Z12 | z=h; (h>2b) voor knopen: K3,K9,K15,K19,K23 | 10.60 | 10,60 | [m] |
| Qp12 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z12,Terrein=Onbebouwd,Regio=3,C0=Co4) | 0,72 | [kN/m²] |
| q49 | Interne druk; Verdeelde element belasting (q) | (Cpi4*Qp12) * Lsys1 | -1,07 | [kN/m] |
| Cpe23 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.36,Eerst=False) | 0,80 | |
| q50 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp10*Cpe23*CsCd4) * Lsys1 | 2,16 | [kN/m] |
| Cpe24 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.36,Eerst=False) | -0,50 | |
| C4 | Vertikale wand S1; Druk coefficient (Cpe) incl. correlatiefactor | (Cpe23-Cpe24) * 0.85 | 1,11 | |
| q51 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp10*(Cpe24+C4)*CsCd4) * Lsys1 | 1,64 | [kN/m] |
| q52 | Vertikale wand S4; Verdeelde element belasting (q) | (Qp10*Cpe24*CsCd4) * Lsys1 | -1,35 | [kN/m] |
| q53 | Vertikale wand S4; Verdeelde element belasting (q) | (Qp10*(Cpe23-C4)*CsCd4) * Lsys1 | -0,82 | [kN/m] |
| Cpe25 | Zadeldak S17; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=22.73,Eerst=False) | 0,00 | |
| q54 | Zadeldak S17; Verdeelde element belasting (q) | (Qp12*Cpe25*CsCd4) * Lsys1 | 0,00 | [kN/m] |
| Cpe26 | Zadeldak S17; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=22.73,Eerst=False) | 0,00 | |
| q55 | Zadeldak S17; Verdeelde element belasting (q) | (Qp12*Cpe26*CsCd4) * Lsys1 | 0,00 | [kN/m] |
| q56 | Zadeldak S22; Verdeelde element belasting (q) | (Qp10*Cpe26*CsCd4) * Lsys1 | 0,00 | [kN/m] |
| q57 | Zadeldak S22; Verdeelde element belasting (q) | (Qp11*Cpe26*CsCd4) * Lsys1 | 0,00 | [kN/m] |
| Cpe27 | Zadeldak S28; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=22.73,Eerst=False) | 0,46 | |
| q58 | Zadeldak S28; Verdeelde element belasting (q) | (Qp10*Cpe27*CsCd4) * Lsys1 | 1,24 | [kN/m] |
| Cpe28 | Zadeldak S28; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=22.73,Eerst=False) | 0,30 | |
| q59 | Zadeldak S28; Verdeelde element belasting (q) | (Qp10*Cpe28*CsCd4) * Lsys1 | 0,82 | [kN/m] |
| q60 | Zadeldak S28; Verdeelde element belasting (q) | (Qp12*Cpe28*CsCd4) * Lsys1 | 1,09 | [kN/m] |
| q61 | Zadeldak S28; Verdeelde element belasting (q) | (Qp11*Cpe28*CsCd4) * Lsys1 | 0,86 | [kN/m] |
| **LR6** | | | | |
| | Windbelasting van Rechts + Overdruk | NEN-EN1991-1-4:2011/NB:2011 | | |
| Height6 | Totale hoogte (incl. gedeelte boven de grond) (h) | 10.60 | 10,60 | [m] |
| Width10 | Gemiddelde breedte (b) | 5.00 | 5,00 | [m] |
| Width11 | Constructie diepte (d) | 29.60 | 29,60 | [m] |
| A5 | Belast oppervlak (A) | 53.00 | 53,00 | [m²] |
| Co5 | Orthografie factor (C0) | 1.00 | 1,00 | |
| CsCd5 | Constructie factor (CsCd) | 1.00 | 1,00 | |
| Cpe29 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.36) | 0,80 | |

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|---|---|---|---|---|
| **LR6** | | | | |
| Cpi5 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe29,Opening en=0.00,Over=True) | 0,20 | |
| Z13 | z=b; (h>2b) voor knopen: K1,K2,K4,K5,K8,K14,K20 | 5.00 | 5,00 | [m] |
| Qp13 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z13,Terrein=Onbebouwd,Regio=3,C0=Co5) | 0,54 | [kN/m²] |
| q62 | Interne druk; Verdeelde element belasting (q) | (Cpi5*Qp13) * Lsys1 | 0,54 | [kN/m] |
| Z14 | z=h-b; (h>2b) | 5.60 | 5,60 | [m] |
| Qp14 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z14,Terrein=Onbebouwd,Regio=3,C0=Co5) | 0,57 | [kN/m²] |
| q63 | Interne druk; Verdeelde element belasting (q) | (Cpi5*Qp14) * Lsys1 | 0,57 | [kN/m] |
| Z15 | z=h; (h>2b) voor knopen: K3,K9,K15,K19,K23 | 10.60 | 10,60 | [m] |
| Qp15 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z15,Terrein=Onbebouwd,Regio=3,C0=Co5) | 0,72 | [kN/m²] |
| q64 | Interne druk; Verdeelde element belasting (q) | (Cpi5*Qp15) * Lsys1 | 0,72 | [kN/m] |
| Cpe30 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.36) | -0,50 | |
| q65 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp13*Cpe30*CsCd5) * Lsys1 | -1,35 | [kN/m] |
| Cpe31 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.36) | 0,80 | |
| C5 | Vertikale wand S1; Druk coefficient (Cpe) incl. correlatiefactor | (Cpe31-Cpe30) * 0.85 | 1,11 | |
| q66 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp13*(Cpe31-C5)*CsCd5) * Lsys1 | -0,82 | [kN/m] |
| q67 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp13*(Cpe30+C5)*CsCd5) * Lsys1 | 1,64 | [kN/m] |
| q68 | Vertikale wand S4; Verdeelde element belasting (q) | (Qp13*Cpe31*CsCd5) * Lsys1 | 2,16 | [kN/m] |
| Cpe32 | Zadeldak S17; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=22.73) | -0,25 | |
| q69 | Zadeldak S17; Verdeelde element belasting (q) | (Qp15*Cpe32*CsCd5) * Lsys1 | -0,89 | [kN/m] |
| q70 | Zadeldak S22; Verdeelde element belasting (q) | (Qp13*Cpe32*CsCd5) * Lsys1 | -0,67 | [kN/m] |
| Cpe33 | Zadeldak S22; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=22.73) | -0,65 | |
| q71 | Zadeldak S22; Verdeelde element belasting (q) | (Qp13*Cpe33*CsCd5) * Lsys1 | -1,75 | [kN/m] |
| q72 | Zadeldak S22; Verdeelde element belasting (q) | (Qp14*Cpe32*CsCd5) * Lsys1 | -0,70 | [kN/m] |
| Cpe34 | Zadeldak S28; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=22.73) | -0,40 | |
| q73 | Zadeldak S28; Verdeelde element belasting (q) | (Qp13*Cpe34*CsCd5) * Lsys1 | -1,08 | [kN/m] |
| q74 | Zadeldak S28; Verdeelde element belasting (q) | (Qp15*Cpe34*CsCd5) * Lsys1 | -1,43 | [kN/m] |
| q75 | Zadeldak S28; Verdeelde element belasting (q) | (Qp14*Cpe34*CsCd5) * Lsys1 | -1,13 | [kN/m] |
| Cpe35 | Zadeldak S29; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=22.73) | -0,74 | |
| q76 | Zadeldak S29; Verdeelde element belasting (q) | (Qp15*Cpe35*CsCd5) * Lsys1 | -2,66 | [kN/m] |
| **LR7** | | | | |
| | Windbelasting van Rechts + Overdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2011 | | |
| Height7 | Totale hoogte (incl. gedeelte boven de grond) (h) | 10.60 | 10,60 | [m] |
| Width12 | Gemiddelde breedte (b) | 5.00 | 5,00 | [m] |
| Width13 | Constructie diepte (d) | 29.60 | 29,60 | [m] |
| A6 | Belast oppervlak (A) | 53.00 | 53,00 | [m²] |
| Co6 | Orthografie factor (C0) | 1.00 | 1,00 | |
| CsCd6 | Constructie factor (CsCd) | 1.00 | 1,00 | |
| Cpe36 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.36) | 0,80 | |
| Cpi6 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe36,Opening en=0.00,Over=True) | 0,20 | |
| Z16 | z=b; (h>2b) voor knopen: K1,K2,K4,K5,K8,K14,K20 | 5.00 | 5,00 | [m] |
| Qp16 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z16,Terrein=Onbebouwd,Regio=3,C0=Co6) | 0,54 | [kN/m²] |
| q77 | Interne druk; Verdeelde element belasting (q) | (Cpi6*Qp16) * Lsys1 | 0,54 | [kN/m] |
| Z17 | z=h-b; (h>2b) | 5.60 | 5,60 | [m] |
| Qp17 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z17,Terrein=Onbebouwd,Regio=3,C0=Co6) | 0,57 | [kN/m²] |
| q78 | Interne druk; Verdeelde element belasting (q) | (Cpi6*Qp17) * Lsys1 | 0,57 | [kN/m] |
| Z18 | z=h; (h>2b) voor knopen: K3,K9,K15,K19,K23 | 10.60 | 10,60 | [m] |
| Qp18 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z18,Terrein=Onbebouwd,Regio=3,C0=Co6) | 0,72 | [kN/m²] |
| q79 | Interne druk; Verdeelde element belasting (q) | (Cpi6*Qp18) * Lsys1 | 0,72 | [kN/m] |
| Cpe37 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.36,Eerst=False) | -0,50 | |
| q80 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp16*Cpe37*CsCd6) * Lsys1 | -1,35 | [kN/m] |
| Cpe38 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.36,Eerst=False) | 0,80 | |
| C6 | Vertikale wand S1; Druk coefficient (Cpe) incl. correlatiefactor | (Cpe38-Cpe37) * 0.85 | 1,11 | |
| q81 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp16*(Cpe38-C6)*CsCd6) * Lsys1 | -0,82 | [kN/m] |

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| **LR7** | | | | |
| q82 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp16*(Cpe37+C6)*CsCd6) * Lsys1 | 1,64 | [kN/m] |
| q83 | Vertikale wand S4; Verdeelde element belasting (q) | (Qp16*Cpe38*CsCd6) * Lsys1 | 2,16 | [kN/m] |
| Cpe39 | Zadeldak S17; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=22.73,Eerst=False) | 0,30 | |
| q84 | Zadeldak S17; Verdeelde element belasting (q) | (Qp18*Cpe39*CsCd6) * Lsys1 | 1,09 | [kN/m] |
| q85 | Zadeldak S22; Verdeelde element belasting (q) | (Qp16*Cpe39*CsCd6) * Lsys1 | 0,82 | [kN/m] |
| Cpe40 | Zadeldak S22; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=22.73,Eerst=False) | 0,46 | |
| q86 | Zadeldak S22; Verdeelde element belasting (q) | (Qp16*Cpe40*CsCd6) * Lsys1 | 1,24 | [kN/m] |
| q87 | Zadeldak S22; Verdeelde element belasting (q) | (Qp17*Cpe39*CsCd6) * Lsys1 | 0,86 | [kN/m] |
| Cpe41 | Zadeldak S28; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=22.73,Eerst=False) | 0,00 | |
| q88 | Zadeldak S28; Verdeelde element belasting (q) | (Qp16*Cpe41*CsCd6) * Lsys1 | 0,00 | [kN/m] |
| q89 | Zadeldak S28; Verdeelde element belasting (q) | (Qp18*Cpe41*CsCd6) * Lsys1 | 0,00 | [kN/m] |
| q90 | Zadeldak S28; Verdeelde element belasting (q) | (Qp17*Cpe41*CsCd6) * Lsys1 | 0,00 | [kN/m] |
| Cpe42 | Zadeldak S29; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=22.73,Eerst=False) | 0,00 | |
| q91 | Zadeldak S29; Verdeelde element belasting (q) | (Qp18*Cpe42*CsCd6) * Lsys1 | 0,00 | [kN/m] |
| **LR8** | | | | |
| | Windbelasting van Rechts + Onderdruk | NEN-EN1991-1-4:2011/NB:2011 | | |
| Height8 | Totale hoogte (incl. gedeelte boven de grond) (h) | 10.60 | 10,60 | [m] |
| Width14 | Gemiddelde breedte (b) | 5.00 | 5,00 | [m] |
| Width15 | Constructie diepte (d) | 29.60 | 29,60 | [m] |
| A7 | Belast oppervlak (A) | 53.00 | 53,00 | [m²] |
| Co7 | Orthografie factor (C0) | 1.00 | 1,00 | |
| CsCd7 | Constructie factor (CsCd) | 1.00 | 1,00 | |
| Cpe43 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.36) | -0,50 | |
| Cpi7 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe43,Openingen=0.00,Over=False) | -0,30 | |
| Z19 | z=b; (h>2b) voor knopen: K1,K2,K4,K5,K8,K14,K20 | 5.00 | 5,00 | [m] |
| Qp19 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z19,Terrein=Onbebouwd,Regio=3,C0=Co7) | 0,54 | [kN/m²] |
| q92 | Interne druk; Verdeelde element belasting (q) | (Cpi7*Qp19) * Lsys1 | -0,81 | [kN/m] |
| Z20 | z=h-b; (h>2b) | 5.60 | 5,60 | [m] |
| Qp20 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z20,Terrein=Onbebouwd,Regio=3,C0=Co7) | 0,57 | [kN/m²] |
| q93 | Interne druk; Verdeelde element belasting (q) | (Cpi7*Qp20) * Lsys1 | -0,85 | [kN/m] |
| Z21 | z=h; (h>2b) voor knopen: K3,K9,K15,K19,K23 | 10.60 | 10,60 | [m] |
| Qp21 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z21,Terrein=Onbebouwd,Regio=3,C0=Co7) | 0,72 | [kN/m²] |
| q94 | Interne druk; Verdeelde element belasting (q) | (Cpi7*Qp21) * Lsys1 | -1,07 | [kN/m] |
| Cpe44 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.36) | -0,50 | |
| q95 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp19*Cpe44*CsCd7) * Lsys1 | -1,35 | [kN/m] |
| Cpe45 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.36) | 0,80 | |
| C7 | Vertikale wand S1; Druk coefficient (Cpe) incl. correlatiefactor | (Cpe45-Cpe44) * 0.85 | 1,11 | |
| q96 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp19*(Cpe45-C7)*CsCd7) * Lsys1 | -0,82 | [kN/m] |
| q97 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp19*(Cpe44+C7)*CsCd7) * Lsys1 | 1,64 | [kN/m] |
| q98 | Vertikale wand S4; Verdeelde element belasting (q) | (Qp19*Cpe45*CsCd7) * Lsys1 | 2,16 | [kN/m] |
| Cpe46 | Zadeldak S17; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=22.73) | -0,25 | |
| q99 | Zadeldak S17; Verdeelde element belasting (q) | (Qp21*Cpe46*CsCd7) * Lsys1 | -0,89 | [kN/m] |
| q100 | Zadeldak S22; Verdeelde element belasting (q) | (Qp19*Cpe46*CsCd7) * Lsys1 | -0,67 | [kN/m] |
| Cpe47 | Zadeldak S22; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=22.73) | -0,65 | |
| q101 | Zadeldak S22; Verdeelde element belasting (q) | (Qp19*Cpe47*CsCd7) * Lsys1 | -1,75 | [kN/m] |
| q102 | Zadeldak S22; Verdeelde element belasting (q) | (Qp20*Cpe46*CsCd7) * Lsys1 | -0,70 | [kN/m] |
| Cpe48 | Zadeldak S28; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=22.73) | -0,40 | |
| q103 | Zadeldak S28; Verdeelde element belasting (q) | (Qp19*Cpe48*CsCd7) * Lsys1 | -1,08 | [kN/m] |
| q104 | Zadeldak S28; Verdeelde element belasting (q) | (Qp21*Cpe48*CsCd7) * Lsys1 | -1,43 | [kN/m] |
| q105 | Zadeldak S28; Verdeelde element belasting (q) | (Qp20*Cpe48*CsCd7) * Lsys1 | -1,13 | [kN/m] |
| Cpe49 | Zadeldak S29; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=22.73) | -0,74 | |
| q106 | Zadeldak S29; Verdeelde element belasting (q) | (Qp21*Cpe49*CsCd7) * Lsys1 | -2,66 | [kN/m] |
| **LR9** | | | | |
| | Windbelasting van Rechts + Onderdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2011 | | |
| Height9 | Totale hoogte (incl. gedeelte boven de grond) (h) | 10.60 | 10,60 | [m] |
| Width16 | Gemiddelde breedte (b) | 5.00 | 5,00 | [m] |
| Width17 | Constructie diepte (d) | 29.60 | 29,60 | [m] |
| A8 | Belast oppervlak (A) | 53.00 | 53,00 | [m²] |

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| **LR9** | | | | |
| Co8 | Orthografie factor (C0) | 1.00 | 1,00 | |
| CsCd8 | Constructie factor (CsCd) | 1.00 | 1,00 | |
| Cpe50 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.36) | -0,50 | |
| Cpi8 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe50,Openingen=0.00,Over=False) | -0,30 | |
| Z22 | z=b; (h>2b) voor knopen: K1,K2,K4,K5,K8,K14,K20 | 5.00 | 5,00 | [m] |
| Qp22 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z22,Terrein=Onbebouwd,Regio=3,C0=Co8) | 0,54 | [kN/m²] |
| q107 | Interne druk; Verdeelde element belasting (q) | (Cpi8*Qp22) * Lsys1 | -0,81 | [kN/m] |
| Z23 | z=h-b; (h>2b) | 5.60 | 5,60 | [m] |
| Qp23 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z23,Terrein=Onbebouwd,Regio=3,C0=Co8) | 0,57 | [kN/m²] |
| q108 | Interne druk; Verdeelde element belasting (q) | (Cpi8*Qp23) * Lsys1 | -0,85 | [kN/m] |
| Z24 | z=h; (h>2b) voor knopen: K3,K9,K15,K19,K23 | 10.60 | 10,60 | [m] |
| Qp24 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z24,Terrein=Onbebouwd,Regio=3,C0=Co8) | 0,72 | [kN/m²] |
| q109 | Interne druk; Verdeelde element belasting (q) | (Cpi8*Qp24) * Lsys1 | -1,07 | [kN/m] |
| Cpe51 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.36,Eerst=False) | -0,50 | |
| q110 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp22*Cpe51*CsCd8) * Lsys1 | -1,35 | [kN/m] |
| Cpe52 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.36,Eerst=False) | 0,80 | |
| C8 | Vertikale wand S1; Druk coefficient (Cpe) incl. correlatiefactor | (Cpe52-Cpe51) * 0.85 | 1,11 | |
| q111 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp22*(Cpe52-C8)*CsCd8) * Lsys1 | -0,82 | [kN/m] |
| q112 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp22*(Cpe51+C8)*CsCd8) * Lsys1 | 1,64 | [kN/m] |
| q113 | Vertikale wand S4; Verdeelde element belasting (q) | (Qp22*Cpe52*CsCd8) * Lsys1 | 2,16 | [kN/m] |
| Cpe53 | Zadeldak S17; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=22.73,Eerst=False) | 0,30 | |
| q114 | Zadeldak S17; Verdeelde element belasting (q) | (Qp24*Cpe53*CsCd8) * Lsys1 | 1,09 | [kN/m] |
| q115 | Zadeldak S22; Verdeelde element belasting (q) | (Qp22*Cpe53*CsCd8) * Lsys1 | 0,82 | [kN/m] |
| Cpe54 | Zadeldak S22; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=22.73,Eerst=False) | 0,46 | |
| q116 | Zadeldak S22; Verdeelde element belasting (q) | (Qp22*Cpe54*CsCd8) * Lsys1 | 1,24 | [kN/m] |
| q117 | Zadeldak S22; Verdeelde element belasting (q) | (Qp23*Cpe53*CsCd8) * Lsys1 | 0,86 | [kN/m] |
| Cpe55 | Zadeldak S28; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=22.73,Eerst=False) | 0,00 | |
| q118 | Zadeldak S28; Verdeelde element belasting (q) | (Qp22*Cpe55*CsCd8) * Lsys1 | 0,00 | [kN/m] |
| q119 | Zadeldak S28; Verdeelde element belasting (q) | (Qp24*Cpe55*CsCd8) * Lsys1 | 0,00 | [kN/m] |
| q120 | Zadeldak S28; Verdeelde element belasting (q) | (Qp23*Cpe55*CsCd8) * Lsys1 | 0,00 | [kN/m] |
| Cpe56 | Zadeldak S29; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=22.73,Eerst=False) | 0,00 | |
| q121 | Zadeldak S29; Verdeelde element belasting (q) | (Qp24*Cpe56*CsCd8) * Lsys1 | 0,00 | [kN/m] |
| **LR10** | | | | |
| | Sneeuwbelasting | NEN-EN1991-1-3:2011/NB:2011 | | |
| Sk1 | Karakteristiek waarde van de sneeuwlast op de grond (Sk) | NEN-EN1991-1-3#4.1(Zone=1) | 0,70 | [kN/m²] |
| Ce1 | De milieucoefficient (Ce) | NEN-EN1991-1-3#5.2.7() | 1,00 | |
| Ct1 | De thermische coefficient (Ct) | NEN-EN1991-1-3#5.2.8() | 1,00 | |
| | Zadeldak, Mu1 Hoek: 22.73; S17,S18,S21,S22,S28,S29 | | | |
| Mu1 | Mu1; Sneeuwbelasting coefficient (Mu) | EN1991-1-3#5.3(Dak=Hellend,Hoek=22.73,Mu=Mu1,Sk=Sk1) | 0,80 | |
| q122 | Verdeelde element belasting (q) | (Sk1*Ce1*Ct1*Mu1) * Lsys1 | 2,80 | [kN/m] |
| q123 | Verdeelde element belasting (q) | q122*0.50 | 1,40 | [kN/m] |

## BELASTINGSGEVALLEN TYPEN

| Oplegg. | Staven | B.G.Type | Gunstig/Ong. | Element | Niveau | Veld | Psi0 | Psi1 | Psi2 | Cprob |
|---|---|---|---|---|---|---|---|---|---|---|
| B.G.1 | Permanente Belasting | Permanent | - | | N.v.t. | N.v.t. | | | | |
| B.G.2 | Windbelasting van Links + Overdruk | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.3 | Windbelasting van Links + Overdruk (2e Cpe) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.4 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.5 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.6 | Windbelasting van Links + Overdruk (2e corr. factor) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.7 | Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |

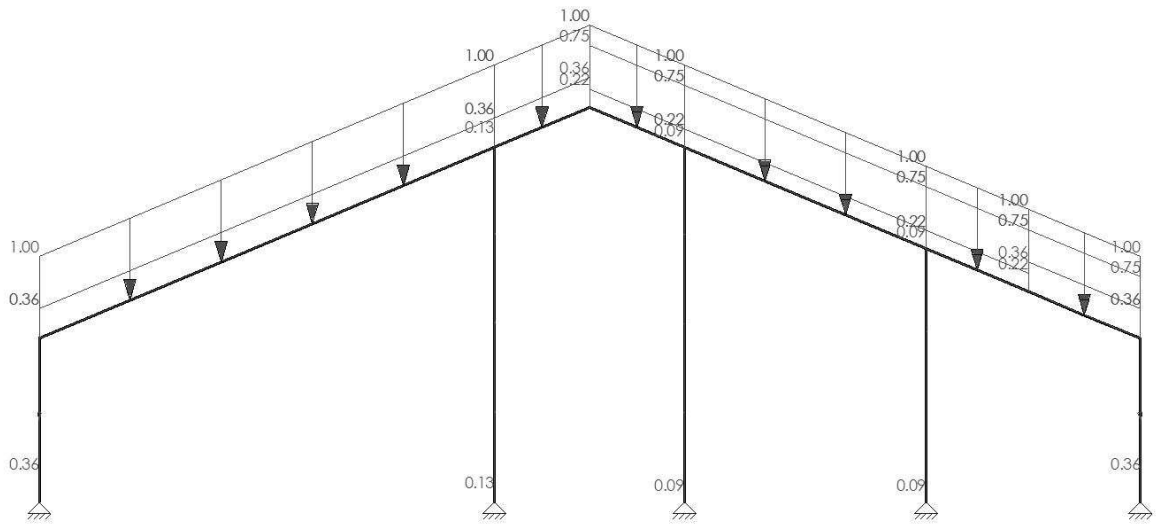
| Oplegg. | Staven | B.G.Type | Gunstig/Ong. | Element | Niveau | Veld | Psi0 | Psi1 | Psi2 | Cprob |
|---|---|---|---|---|---|---|---|---|---|---|
| B.G.8 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.9 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.10 | Windbelasting van Links + Onderdruk | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.11 | Windbelasting van Links + Onderdruk (2e Cpe) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.12 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.13 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.14 | Windbelasting van Links + Onderdruk (2e corr. factor) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.15 | Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.16 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.17 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.18 | Windbelasting van Rechts + Overdruk | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.19 | Windbelasting van Rechts + Overdruk (2e Cpe) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.20 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.21 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.22 | Windbelasting van Rechts + Overdruk (2e corr. factor) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.23 | Windbelasting van Rechts + Overdruk (2e Cpe) (2e corr. factor) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.24 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.25 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.26 | Windbelasting van Rechts + Onderdruk | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.27 | Windbelasting van Rechts + Onderdruk (2e Cpe) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.28 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.29 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.30 | Windbelasting van Rechts + Onderdruk (2e corr. factor) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.31 | Windbelasting van Rechts + Onderdruk (2e Cpe) (2e corr. factor) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.32 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.33 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.34 | Sneeuwbelasting 1 | Sneeuwbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,75 |
| B.G.35 | Sneeuwbelasting 2 | Sneeuwbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,75 |
| B.G.36 | Sneeuwbelasting 3 | Sneeuwbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,75 |

| Oplegg. | Staven | B.G.Type | Gunstig/Ong. | Element | Niveau | Veld | Psi0 | Psi1 | Psi2 | Cprob |
|---|---|---|---|---|---|---|---|---|---|---|
| B.G.37 | Kniklengte (Assymetrisch) | Kniklengte | | | N.v.t. | N.v.t. | | | | |
| B.G.38 | Kniklengte (Symmetrisch) | Kniklengte | | | N.v.t. | N.v.t. | | | | |

## B.G.1: PERMANENTE BELASTING

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.1: Permanente Belasting** | | | | | | |
| qG | 0,36 (1.00x) | 0,36 (1.00x) | 0,000 | 4,400(L) | Z' | S1,S4 |
| qG | 0,09 (1.00x) | 0,09 (1.00x) | 0,000 | 6,809(L) | Z' | S8 |
| qG | 0,09 (1.00x) | 0,09 (1.00x) | 0,000 | 9,532(L) | Z' | S16 |
| qG | 0,22 (1.00x) | 0,22 (1.00x) | 0,000 | 2,765(L) | Z' | S17 |
| qG | 0,22 (1.00x) | 0,22 (1.00x) | 0,000 | 7,047(L) | Z' | S18 |
| qG | 0,22 (1.00x) | 0,22 (1.00x) | 0,000 | 2,982(L) | Z' | S21 |
| qG | 0,36 (1.00x) | 0,36 (1.00x) | 0,000 | 3,253(L) | Z' | S22 |
| qG | 0,13 (1.00x) | 0,13 (1.00x) | 0,000 | 9,532(L) | Z' | S26 |
| qG | 0,36 (1.00x) | 0,36 (1.00x) | 0,000 | 13,281(L) | Z' | S28 |
| qG | 0,36 (1.00x) | 0,36 (1.00x) | 0,000 | 2,765(L) | Z' | S29 |
| q | 1,00 (q1) | 1,00 (q1) | 0,000 | 2,765(L) | Z' | S17-S18,S21-S22, S28-S29 |
| q | 0,75 | 0,75 | 0,000 | 2,765(L) | Z' | S17-S18,S21-S22 |
| **Som lasten** | **X: 0,00** | **kN Z: 59,77** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |

B.G.1: PERMANENTE BELASTING

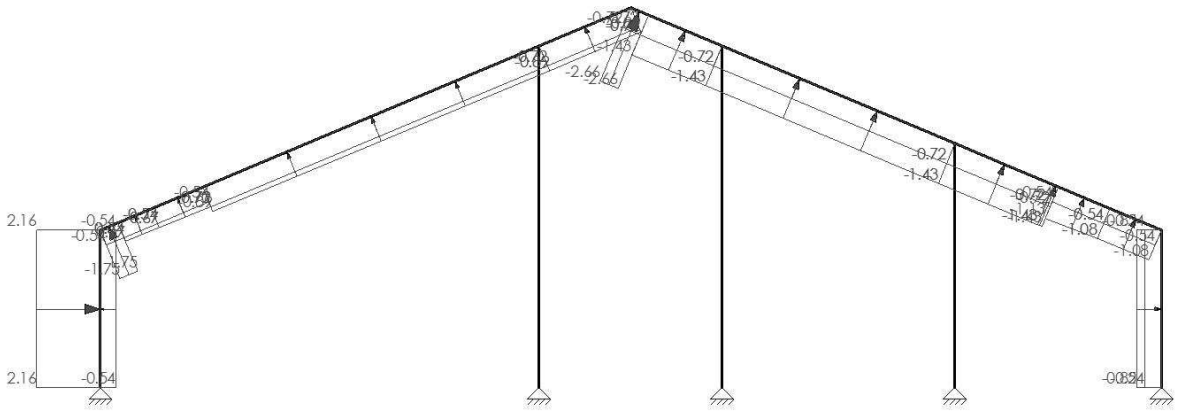



## B.G.2: WINDBELASTING VAN LINKS + OVERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.2: Windbelasting van Links + Overdruk** | | | | | | |
| q | 2,16 (q5) | 2,16 (q5) | 0,000 | 4,400(L) | Z' | S1 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,000 | 4,400(L) | Z' | S1,S4 |
| q | -0,82 (q8) | -0,82 (q8) | 0,000 | 4,400(L) | Z' | S4 |
| q | -2,66 (q9) | -2,66 (q9) | 0,000 | 0,542 | Z' | S17 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 0,542 | Z' | S17 |
| q | -1,43 (q10) | -1,43 (q10) | 0,542 | 2,765(L) | Z' | S17 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,542 | 2,765(L) | Z' | S17 |
| q | -1,43 (q10) | -1,43 (q10) | 0,000 | 7,047(L) | Z' | S18,S21 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 7,047(L) | Z' | S18,S21,S29 |
| q | -1,08 (q11) | -1,08 (q11) | 1,700 | 3,253(L) | Z' | S22 |
| q | -0,54 (-q2) | -0,54 (-q2) | 1,700 | 3,253(L) | Z' | S22 |
| q | -1,43 (q10) | -1,43 (q10) | 0,000 | 0,147 | Z' | S22 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 0,147 | Z' | S22 |
| q | -1,13 (q12) | -1,08 (q11) | 0,147 | 1,700 | Z' | S22 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,147 | 1,700 | Z' | S22 |

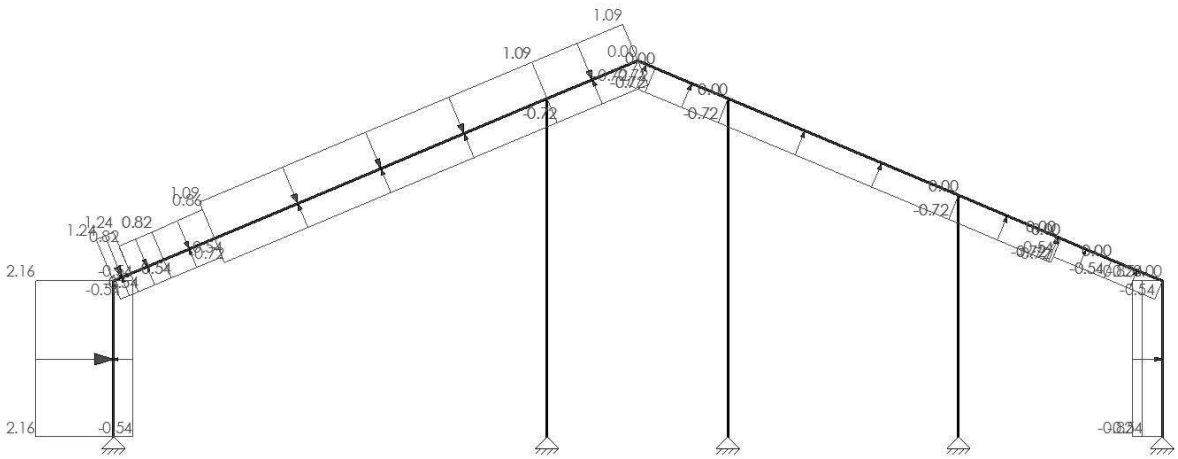
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.2: Windbelasting van Links + Overdruk** | | | | | | |
| q | -1,75 (q13) | -1,75 (q13) | 0,000 | 0,542 | Z' | S28 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,000 | 0,542 | Z' | S28 |
| q | -0,67 (q14) | -0,67 (q14) | 0,542 | 1,553 | Z' | S28 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,542 | 1,553 | Z' | S28 |
| q | -0,89 (q15) | -0,89 (q15) | 3,106 | 13,281(L) | Z' | S28 |
| q | -0,72 (-q4) | -0,72 (-q4) | 3,106 | 13,281(L) | Z' | S28 |
| q | -0,67 (q14) | -0,70 (q16) | 1,553 | 3,106 | Z' | S28 |
| q | -0,54 (-q2) | -0,54 (-q2) | 1,553 | 3,106 | Z' | S28 |
| q | -0,89 (q15) | -0,89 (q15) | 0,000 | 2,765(L) | Z' | S29 |
| **Som lasten** | **X: 16,39** | **kN Z: -54,14** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **-** | **-** |

B.G.2: WINDBELASTING VAN LINKS + OVERDRUK



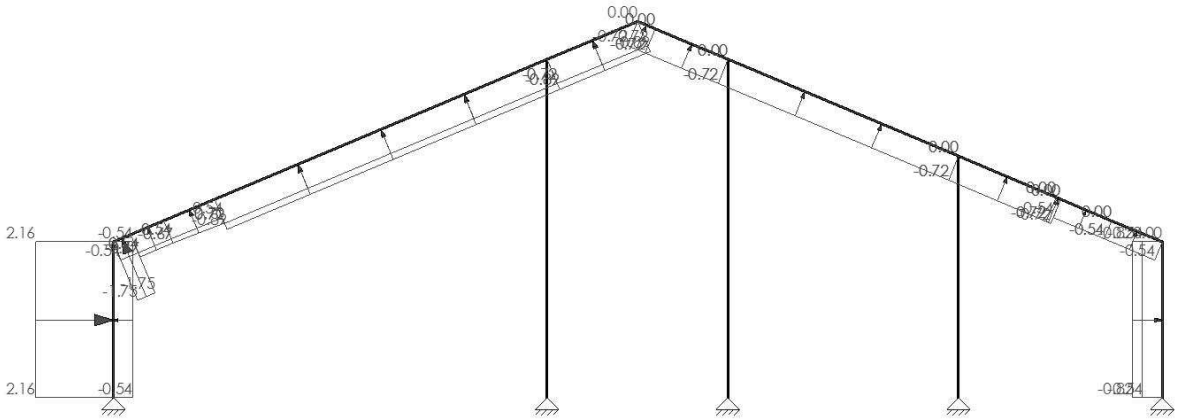

## B.G.3: WINDBELASTING VAN LINKS + OVERDRUK (2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.3: Windbelasting van Links + Overdruk (2e Cpe)** | | | | | | |
| q | 2,16 (q20) | 2,16 (q20) | 0,000 | 4,400(L) | Z' | S1 |
| q | -0,54 (-q17) | -0,54 (-q17) | 0,000 | 4,400(L) | Z' | S1,S4 |
| q | -0,82 (q23) | -0,82 (q23) | 0,000 | 4,400(L) | Z' | S4 |
| q | 0,00 (q24) | 0,00 (q24) | 0,000 | 0,542 | Z' | S17 |
| q | -0,72 (-q19) | -0,72 (-q19) | 0,000 | 0,542 | Z' | S17 |
| q | 0,00 (q25) | 0,00 (q25) | 0,542 | 2,765(L) | Z' | S17 |
| q | -0,72 (-q19) | -0,72 (-q19) | 0,542 | 2,765(L) | Z' | S17 |
| q | 0,00 (q25) | 0,00 (q25) | 0,000 | 7,047(L) | Z' | S18,S21 |
| q | -0,72 (-q19) | -0,72 (-q19) | 0,000 | 7,047(L) | Z' | S18,S21,S29 |
| q | 0,00 (q26) | 0,00 (q26) | 1,700 | 3,253(L) | Z' | S22 |
| q | -0,54 (-q17) | -0,54 (-q17) | 1,700 | 3,253(L) | Z' | S22 |
| q | 0,00 (q25) | 0,00 (q25) | 0,000 | 0,147 | Z' | S22 |
| q | -0,72 (-q19) | -0,72 (-q19) | 0,000 | 0,147 | Z' | S22 |
| q | 0,00 (q27) | 0,00 (q26) | 0,147 | 1,700 | Z' | S22 |
| q | -0,54 (-q17) | -0,54 (-q17) | 0,147 | 1,700 | Z' | S22 |
| q | 1,24 (q28) | 1,24 (q28) | 0,000 | 0,542 | Z' | S28 |
| q | -0,54 (-q17) | -0,54 (-q17) | 0,000 | 0,542 | Z' | S28 |
| q | 0,82 (q29) | 0,82 (q29) | 0,542 | 1,553 | Z' | S28 |
| q | -0,54 (-q17) | -0,54 (-q17) | 0,542 | 1,553 | Z' | S28 |
| q | 1,09 (q30) | 1,09 (q30) | 3,106 | 13,281(L) | Z' | S28 |
| q | -0,72 (-q19) | -0,72 (-q19) | 3,106 | 13,281(L) | Z' | S28 |
| q | 0,82 (q29) | 0,86 (q31) | 1,553 | 3,106 | Z' | S28 |
| q | -0,54 (-q17) | -0,54 (-q17) | 1,553 | 3,106 | Z' | S28 |
| q | 1,09 (q30) | 1,09 (q30) | 0,000 | 2,765(L) | Z' | S29 |
| **Som lasten** | **X: 19,66** | **kN Z: -4,66** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **-** | **-** |



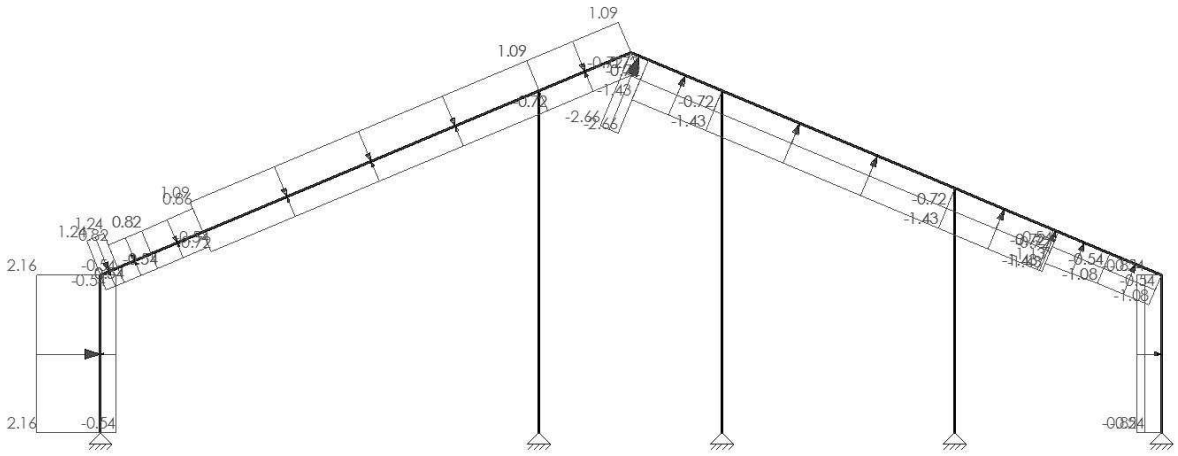

## B.G.4: WINDBELASTING VAN LINKS + OVERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.4: Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe)** | | | | | | |
| q | 2,16 (q5) | 2,16 (q5) | 0,000 | 4,400(L) | | Z' S1 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | -0,82 (q8) | -0,82 (q8) | 0,000 | 4,400(L) | | Z' S4 |
| q | 0,00 (q24) | 0,00 (q24) | 0,000 | 0,542 | | Z' S17 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 0,542 | | Z' S17 |
| q | 0,00 (q25) | 0,00 (q25) | 0,542 | 2,765(L) | | Z' S17 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,542 | 2,765(L) | | Z' S17 |
| q | 0,00 (q25) | 0,00 (q25) | 0,000 | 7,047(L) | | Z' S18,S21 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 7,047(L) | | Z' S18,S21,S29 |
| q | 0,00 (q26) | 0,00 (q26) | 1,700 | 3,253(L) | | Z' S22 |
| q | -0,54 (-q2) | -0,54 (-q2) | 1,700 | 3,253(L) | | Z' S22 |
| q | 0,00 (q25) | 0,00 (q25) | 0,000 | 0,147 | | Z' S22 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 0,147 | | Z' S22 |
| q | 0,00 (q27) | 0,00 (q26) | 0,147 | 1,700 | | Z' S22 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,147 | 1,700 | | Z' S22 |
| q | -1,75 (q13) | -1,75 (q13) | 0,000 | 0,542 | | Z' S28 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,000 | 0,542 | | Z' S28 |
| q | -0,67 (q14) | -0,67 (q14) | 0,542 | 1,553 | | Z' S28 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,542 | 1,553 | | Z' S28 |
| q | -0,89 (q15) | -0,89 (q15) | 3,106 | 13,281(L) | | Z' S28 |
| q | -0,72 (-q4) | -0,72 (-q4) | 3,106 | 13,281(L) | | Z' S28 |
| q | -0,67 (q14) | -0,70 (q16) | 1,553 | 3,106 | | Z' S28 |
| q | -0,54 (-q2) | -0,54 (-q2) | 1,553 | 3,106 | | Z' S28 |
| q | -0,89 (q15) | -0,89 (q15) | 0,000 | 2,765(L) | | Z' S29 |
| **Som lasten** | **X: 7,66** | **kN Z: -33,30** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



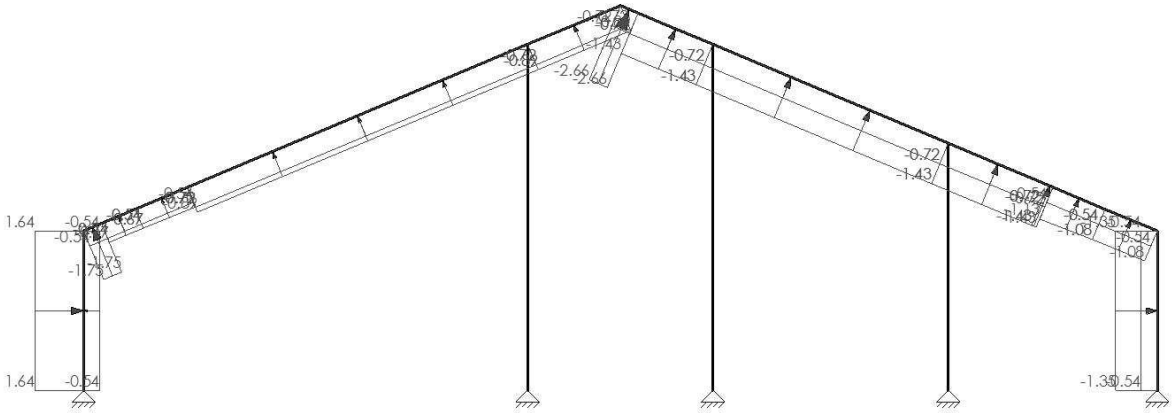

## B.G.5: WINDBELASTING VAN LINKS + OVERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.5: Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe)** | | | | | | |
| q | 2,16 (q5) | 2,16 (q5) | 0,000 | 4,400(L) | | Z' S1 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | -0,82 (q8) | -0,82 (q8) | 0,000 | 4,400(L) | | Z' S4 |
| q | -2,66 (q9) | -2,66 (q9) | 0,000 | 0,542 | | Z' S17 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 0,542 | | Z' S17 |
| q | -1,43 (q10) | -1,43 (q10) | 0,542 | 2,765(L) | | Z' S17 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,542 | 2,765(L) | | Z' S17 |
| q | -1,43 (q10) | -1,43 (q10) | 0,000 | 7,047(L) | | Z' S18,S21 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 7,047(L) | | Z' S18,S21,S29 |
| q | -1,08 (q11) | -1,08 (q11) | 1,700 | 3,253(L) | | Z' S22 |
| q | -0,54 (-q2) | -0,54 (-q2) | 1,700 | 3,253(L) | | Z' S22 |
| q | -1,43 (q10) | -1,43 (q10) | 0,000 | 0,147 | | Z' S22 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 0,147 | | Z' S22 |
| q | -1,13 (q12) | -1,08 (q11) | 0,147 | 1,700 | | Z' S22 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,147 | 1,700 | | Z' S22 |
| q | 1,24 (q28) | 1,24 (q28) | 0,000 | 0,542 | | Z' S28 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,000 | 0,542 | | Z' S28 |
| q | 0,82 (q29) | 0,82 (q29) | 0,542 | 1,553 | | Z' S28 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,542 | 1,553 | | Z' S28 |
| q | 1,09 (q30) | 1,09 (q30) | 3,106 | 13,281(L) | | Z' S28 |
| q | -0,72 (-q4) | -0,72 (-q4) | 3,106 | 13,281(L) | | Z' S28 |
| q | 0,82 (q29) | 0,86 (q31) | 1,553 | 3,106 | | Z' S28 |
| q | -0,54 (-q2) | -0,54 (-q2) | 1,553 | 3,106 | | Z' S28 |
| q | 1,09 (q30) | 1,09 (q30) | 0,000 | 2,765(L) | | Z' S29 |
| **Som lasten** | **X: 28,39** | **kN Z: -25,50** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



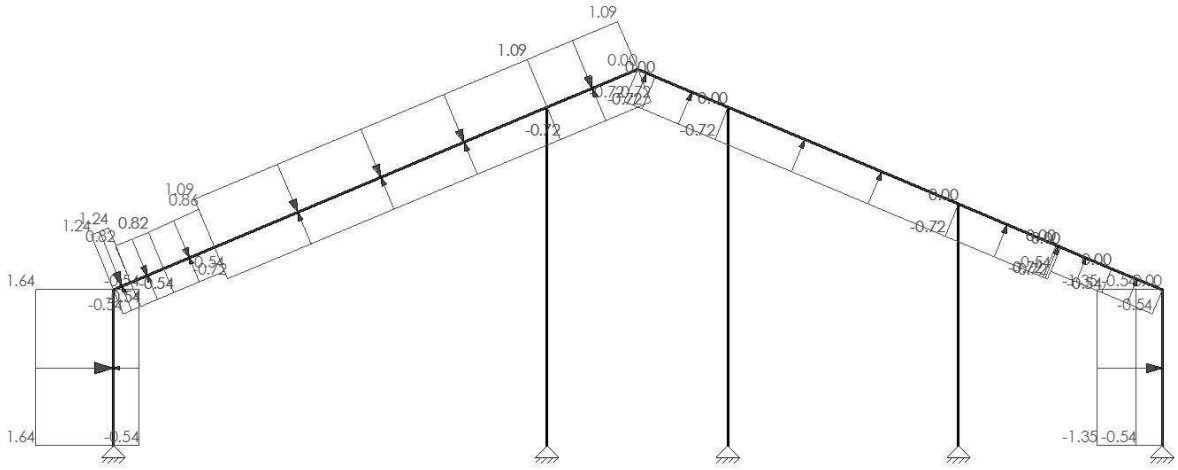

## B.G.6: WINDBELASTING VAN LINKS + OVERDRUK (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.6: Windbelasting van Links + Overdruk (2e corr. factor)** | | | | | | |
| q | 1,64 (q6) | 1,64 (q6) | 0,000 | 4,400(L) | | Z' S1 |
| q | -1,35 (q7) | -1,35 (q7) | 0,000 | 4,400(L) | | Z' S4 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | -2,66 (q9) | -2,66 (q9) | 0,000 | 0,542 | | Z' S17 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 0,542 | | Z' S17 |
| q | -1,43 (q10) | -1,43 (q10) | 0,542 | 2,765(L) | | Z' S17 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,542 | 2,765(L) | | Z' S17 |
| q | -1,43 (q10) | -1,43 (q10) | 0,000 | 7,047(L) | | Z' S18,S21 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 7,047(L) | | Z' S18,S21,S29 |
| q | -1,08 (q11) | -1,08 (q11) | 1,700 | 3,253(L) | | Z' S22 |
| q | -0,54 (-q2) | -0,54 (-q2) | 1,700 | 3,253(L) | | Z' S22 |
| q | -1,43 (q10) | -1,43 (q10) | 0,000 | 0,147 | | Z' S22 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 0,147 | | Z' S22 |
| q | -1,13 (q12) | -1,08 (q11) | 0,147 | 1,700 | | Z' S22 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,147 | 1,700 | | Z' S22 |
| q | -1,75 (q13) | -1,75 (q13) | 0,000 | 0,542 | | Z' S28 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,000 | 0,542 | | Z' S28 |
| q | -0,67 (q14) | -0,67 (q14) | 0,542 | 1,553 | | Z' S28 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,542 | 1,553 | | Z' S28 |
| q | -0,89 (q15) | -0,89 (q15) | 3,106 | 13,281(L) | | Z' S28 |
| q | -0,72 (-q4) | -0,72 (-q4) | 3,106 | 13,281(L) | | Z' S28 |
| q | -0,67 (q14) | -0,70 (q16) | 1,553 | 3,106 | | Z' S28 |
| q | -0,54 (-q2) | -0,54 (-q2) | 1,553 | 3,106 | | Z' S28 |
| q | -0,89 (q15) | -0,89 (q15) | 0,000 | 2,765(L) | | Z' S29 |
| **Som lasten** | **X: 16,39** | **kN Z: -54,14** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | | **- -** |



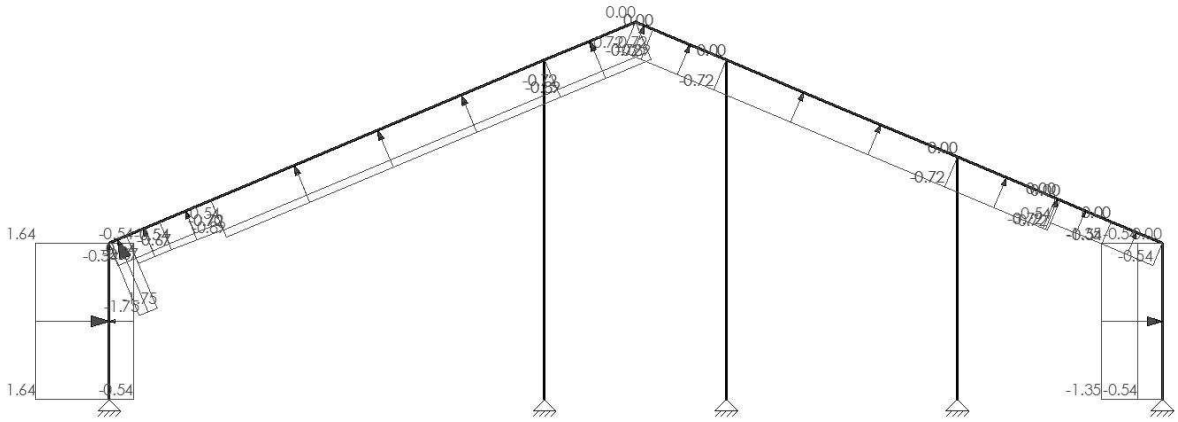

## B.G.7: WINDBELASTING VAN LINKS + OVERDRUK (2E CPE) (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.7: Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor)** | | | | | | |
| q | 1,64 (q21) | 1,64 (q21) | 0,000 | 4,400(L) | | Z' S1 |
| q | -1,35 (q22) | -1,35 (q22) | 0,000 | 4,400(L) | | Z' S4 |
| q | -0,54 (-q17) | -0,54 (-q17) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | 0,00 (q24) | 0,00 (q24) | 0,000 | 0,542 | | Z' S17 |
| q | -0,72 (-q19) | -0,72 (-q19) | 0,000 | 0,542 | | Z' S17 |
| q | 0,00 (q25) | 0,00 (q25) | 0,542 | 2,765(L) | | Z' S17 |
| q | -0,72 (-q19) | -0,72 (-q19) | 0,542 | 2,765(L) | | Z' S17 |
| q | 0,00 (q25) | 0,00 (q25) | 0,000 | 7,047(L) | | Z' S18,S21 |
| q | -0,72 (-q19) | -0,72 (-q19) | 0,000 | 7,047(L) | | Z' S18,S21,S29 |
| q | 0,00 (q26) | 0,00 (q26) | 1,700 | 3,253(L) | | Z' S22 |
| q | -0,54 (-q17) | -0,54 (-q17) | 1,700 | 3,253(L) | | Z' S22 |
| q | 0,00 (q25) | 0,00 (q25) | 0,000 | 0,147 | | Z' S22 |
| q | -0,72 (-q19) | -0,72 (-q19) | 0,000 | 0,147 | | Z' S22 |
| q | 0,00 (q27) | 0,00 (q26) | 0,147 | 1,700 | | Z' S22 |
| q | -0,54 (-q17) | -0,54 (-q17) | 0,147 | 1,700 | | Z' S22 |
| q | 1,24 (q28) | 1,24 (q28) | 0,000 | 0,542 | | Z' S28 |
| q | -0,54 (-q17) | -0,54 (-q17) | 0,000 | 0,542 | | Z' S28 |
| q | 0,82 (q29) | 0,82 (q29) | 0,542 | 1,553 | | Z' S28 |
| q | -0,54 (-q17) | -0,54 (-q17) | 0,542 | 1,553 | | Z' S28 |
| q | 1,09 (q30) | 1,09 (q30) | 3,106 | 13,281(L) | | Z' S28 |
| q | -0,72 (-q19) | -0,72 (-q19) | 3,106 | 13,281(L) | | Z' S28 |
| q | 0,82 (q29) | 0,86 (q31) | 1,553 | 3,106 | | Z' S28 |
| q | -0,54 (-q17) | -0,54 (-q17) | 1,553 | 3,106 | | Z' S28 |
| q | 1,09 (q30) | 1,09 (q30) | 0,000 | 2,765(L) | | Z' S29 |
| **Som lasten** | **X: 19,66** | **kN Z: -4,66** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



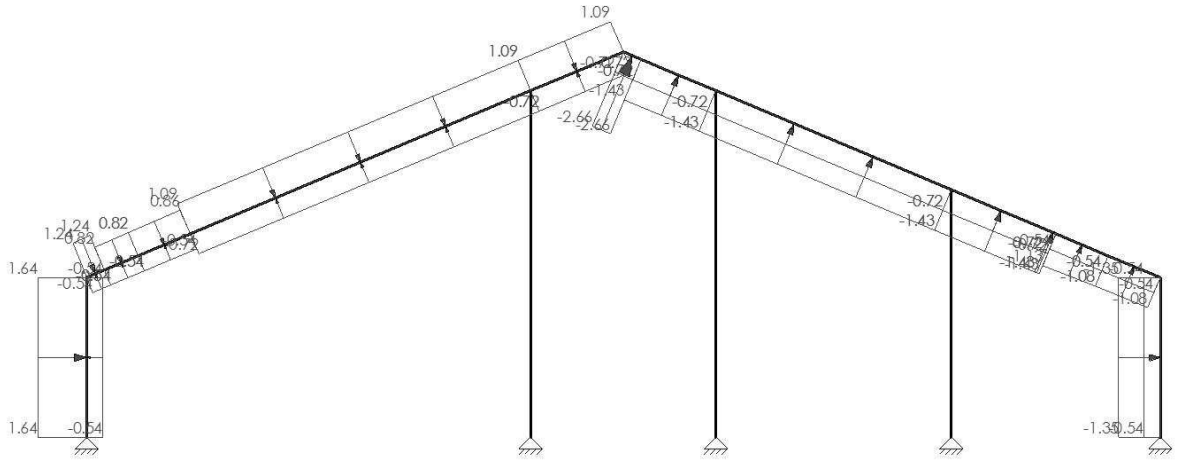

## B.G.8: WINDBELASTING VAN LINKS + OVERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE) (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.8: Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor)** | | | | | | |
| q | 1,64 (q6) | 1,64 (q6) | 0,000 | 4,400(L) | | Z' S1 |
| q | -1,35 (q7) | -1,35 (q7) | 0,000 | 4,400(L) | | Z' S4 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | 0,00 (q24) | 0,00 (q24) | 0,000 | 0,542 | | Z' S17 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 0,542 | | Z' S17 |
| q | 0,00 (q25) | 0,00 (q25) | 0,542 | 2,765(L) | | Z' S17 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,542 | 2,765(L) | | Z' S17 |
| q | 0,00 (q25) | 0,00 (q25) | 0,000 | 7,047(L) | | Z' S18,S21 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 7,047(L) | | Z' S18,S21,S29 |
| q | 0,00 (q26) | 0,00 (q26) | 1,700 | 3,253(L) | | Z' S22 |
| q | -0,54 (-q2) | -0,54 (-q2) | 1,700 | 3,253(L) | | Z' S22 |
| q | 0,00 (q25) | 0,00 (q25) | 0,000 | 0,147 | | Z' S22 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 0,147 | | Z' S22 |
| q | 0,00 (q27) | 0,00 (q26) | 0,147 | 1,700 | | Z' S22 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,147 | 1,700 | | Z' S22 |
| q | -1,75 (q13) | -1,75 (q13) | 0,000 | 0,542 | | Z' S28 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,000 | 0,542 | | Z' S28 |
| q | -0,67 (q14) | -0,67 (q14) | 0,542 | 1,553 | | Z' S28 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,542 | 1,553 | | Z' S28 |
| q | -0,89 (q15) | -0,89 (q15) | 3,106 | 13,281(L) | | Z' S28 |
| q | -0,72 (-q4) | -0,72 (-q4) | 3,106 | 13,281(L) | | Z' S28 |
| q | -0,67 (q14) | -0,70 (q16) | 1,553 | 3,106 | | Z' S28 |
| q | -0,54 (-q2) | -0,54 (-q2) | 1,553 | 3,106 | | Z' S28 |
| q | -0,89 (q15) | -0,89 (q15) | 0,000 | 2,765(L) | | Z' S29 |
| **Som lasten** | **X: 7,66** | **kN Z:** | **-33,30** | **kN** | | |
| **-** | **-** | **-** | | **m** | **m** | **- -** |



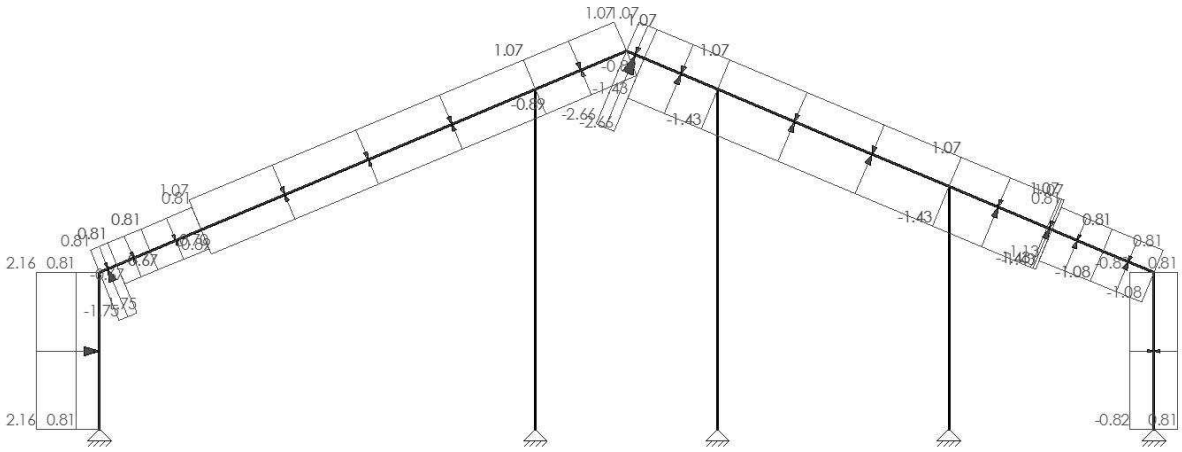

## B.G.9: WINDBELASTING VAN LINKS + OVERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE) (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.9: Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor)** | | | | | | |
| q | 1,64 (q6) | 1,64 (q6) | 0,000 | 4,400(L) | | Z' S1 |
| q | -1,35 (q7) | -1,35 (q7) | 0,000 | 4,400(L) | | Z' S4 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | -2,66 (q9) | -2,66 (q9) | 0,000 | 0,542 | | Z' S17 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 0,542 | | Z' S17 |
| q | -1,43 (q10) | -1,43 (q10) | 0,542 | 2,765(L) | | Z' S17 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,542 | 2,765(L) | | Z' S17 |
| q | -1,43 (q10) | -1,43 (q10) | 0,000 | 7,047(L) | | Z' S18,S21 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 7,047(L) | | Z' S18,S21,S29 |
| q | -1,08 (q11) | -1,08 (q11) | 1,700 | 3,253(L) | | Z' S22 |
| q | -0,54 (-q2) | -0,54 (-q2) | 1,700 | 3,253(L) | | Z' S22 |
| q | -1,43 (q10) | -1,43 (q10) | 0,000 | 0,147 | | Z' S22 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 0,147 | | Z' S22 |
| q | -1,13 (q12) | -1,08 (q11) | 0,147 | 1,700 | | Z' S22 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,147 | 1,700 | | Z' S22 |
| q | 1,24 (q28) | 1,24 (q28) | 0,000 | 0,542 | | Z' S28 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,000 | 0,542 | | Z' S28 |
| q | 0,82 (q29) | 0,82 (q29) | 0,542 | 1,553 | | Z' S28 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,542 | 1,553 | | Z' S28 |
| q | 1,09 (q30) | 1,09 (q30) | 3,106 | 13,281(L) | | Z' S28 |
| q | -0,72 (-q4) | -0,72 (-q4) | 3,106 | 13,281(L) | | Z' S28 |
| q | 0,82 (q29) | 0,86 (q31) | 1,553 | 3,106 | | Z' S28 |
| q | -0,54 (-q2) | -0,54 (-q2) | 1,553 | 3,106 | | Z' S28 |
| q | 1,09 (q30) | 1,09 (q30) | 0,000 | 2,765(L) | | Z' S29 |
| **Som lasten** | **X: 28,39** | **kN Z: -25,50** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



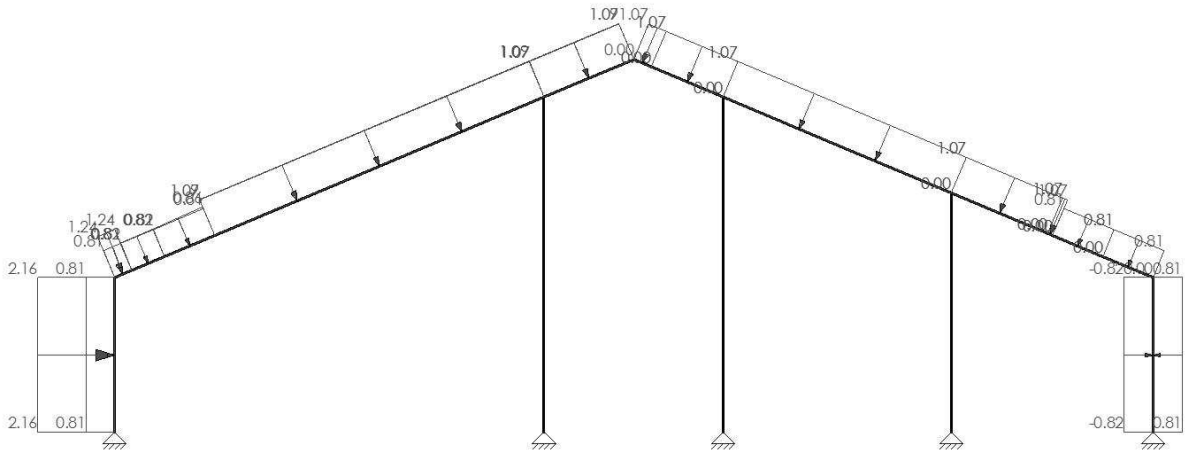

## B.G.10: WINDBELASTING VAN LINKS + ONDERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.10: Windbelasting van Links + Onderdruk** | | | | | | |
| q | 2,16 (q35) | 2,16 (q35) | 0,000 | 4,400(L) | | Z' S1 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | -0,82 (q38) | -0,82 (q38) | 0,000 | 4,400(L) | | Z' S4 |
| q | -2,66 (q39) | -2,66 (q39) | 0,000 | 0,542 | | Z' S17 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,000 | 0,542 | | Z' S17 |
| q | -1,43 (q40) | -1,43 (q40) | 0,542 | 2,765(L) | | Z' S17 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,542 | 2,765(L) | | Z' S17 |
| q | -1,43 (q40) | -1,43 (q40) | 0,000 | 7,047(L) | | Z' S18,S21 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,000 | 7,047(L) | | Z' S18,S21,S29 |
| q | -1,08 (q41) | -1,08 (q41) | 1,700 | 3,253(L) | | Z' S22 |
| q | 0,81 (-q32) | 0,81 (-q32) | 1,700 | 3,253(L) | | Z' S22 |
| q | -1,43 (q40) | -1,43 (q40) | 0,000 | 0,147 | | Z' S22 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,000 | 0,147 | | Z' S22 |
| q | -1,13 (q42) | -1,08 (q41) | 0,147 | 1,700 | | Z' S22 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,147 | 1,700 | | Z' S22 |
| q | -1,75 (q43) | -1,75 (q43) | 0,000 | 0,542 | | Z' S28 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,000 | 0,542 | | Z' S28 |
| q | -0,67 (q44) | -0,67 (q44) | 0,542 | 1,553 | | Z' S28 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,542 | 1,553 | | Z' S28 |
| q | -0,89 (q45) | -0,89 (q45) | 3,106 | 13,281(L) | | Z' S28 |
| q | 1,07 (-q34) | 1,07 (-q34) | 3,106 | 13,281(L) | | Z' S28 |
| q | -0,67 (q44) | -0,70 (q46) | 1,553 | 3,106 | | Z' S28 |
| q | 0,81 (-q32) | 0,81 (-q32) | 1,553 | 3,106 | | Z' S28 |
| q | -0,89 (q45) | -0,89 (q45) | 0,000 | 2,765(L) | | Z' S29 |
| **Som lasten** | **X: 16,39** | **kN Z: -3,66** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | | **- -** |



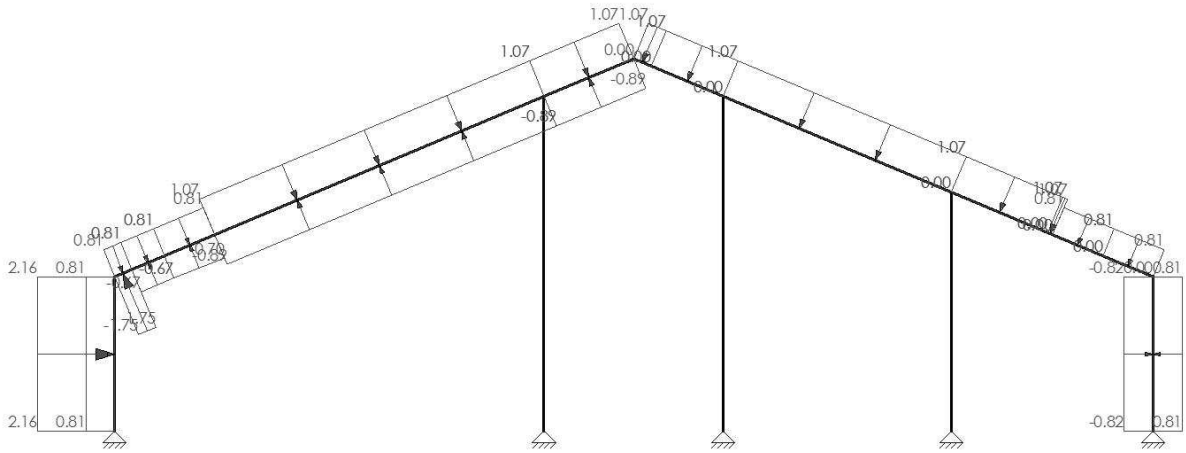

## B.G.11: WINDBELASTING VAN LINKS + ONDERDRUK (2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.11: Windbelasting van Links + Onderdruk (2e Cpe)** | | | | | | |
| q | 2,16 (q50) | 2,16 (q50) | 0,000 | 4,400(L) | | Z' S1 |
| q | 0,81 (-q47) | 0,81 (-q47) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | -0,82 (q53) | -0,82 (q53) | 0,000 | 4,400(L) | | Z' S4 |
| q | 0,00 (q54) | 0,00 (q54) | 0,000 | 0,542 | | Z' S17 |
| q | 1,07 (-q49) | 1,07 (-q49) | 0,000 | 0,542 | | Z' S17 |
| q | 0,00 (q55) | 0,00 (q55) | 0,542 | 2,765(L) | | Z' S17 |
| q | 1,07 (-q49) | 1,07 (-q49) | 0,542 | 2,765(L) | | Z' S17 |
| q | 0,00 (q55) | 0,00 (q55) | 0,000 | 7,047(L) | | Z' S18,S21 |
| q | 1,07 (-q49) | 1,07 (-q49) | 0,000 | 7,047(L) | | Z' S18,S21,S29 |
| q | 0,00 (q56) | 0,00 (q56) | 1,700 | 3,253(L) | | Z' S22 |
| q | 0,81 (-q47) | 0,81 (-q47) | 1,700 | 3,253(L) | | Z' S22 |
| q | 0,00 (q55) | 0,00 (q55) | 0,000 | 0,147 | | Z' S22 |
| q | 1,07 (-q49) | 1,07 (-q49) | 0,000 | 0,147 | | Z' S22 |
| q | 0,00 (q57) | 0,00 (q56) | 0,147 | 1,700 | | Z' S22 |
| q | 0,81 (-q47) | 0,81 (-q47) | 0,147 | 1,700 | | Z' S22 |
| q | 1,24 (q58) | 1,24 (q58) | 0,000 | 0,542 | | Z' S28 |
| q | 0,81 (-q47) | 0,81 (-q47) | 0,000 | 0,542 | | Z' S28 |
| q | 0,82 (q59) | 0,82 (q59) | 0,542 | 1,553 | | Z' S28 |
| q | 0,81 (-q47) | 0,81 (-q47) | 0,542 | 1,553 | | Z' S28 |
| q | 1,09 (q60) | 1,09 (q60) | 3,106 | 13,281(L) | | Z' S28 |
| q | 1,07 (-q49) | 1,07 (-q49) | 3,106 | 13,281(L) | | Z' S28 |
| q | 0,82 (q59) | 0,86 (q61) | 1,553 | 3,106 | | Z' S28 |
| q | 0,81 (-q47) | 0,81 (-q47) | 1,553 | 3,106 | | Z' S28 |
| q | 1,09 (q60) | 1,09 (q60) | 0,000 | 2,765(L) | | Z' S29 |
| **Som lasten** | **X: 19,66** | **kN Z: 45,83** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



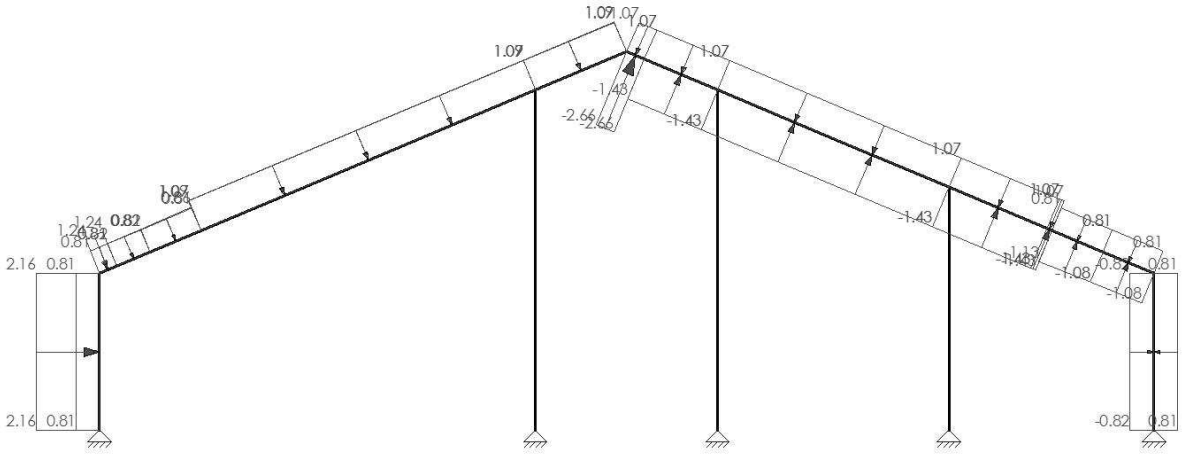

## B.G.12: WINDBELASTING VAN LINKS + ONDERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.12: Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe)** | | | | | | |
| q | 2,16 (q35) | 2,16 (q35) | 0,000 | 4,400(L) | | Z' S1 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | -0,82 (q38) | -0,82 (q38) | 0,000 | 4,400(L) | | Z' S4 |
| q | 0,00 (q54) | 0,00 (q54) | 0,000 | 0,542 | | Z' S17 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,000 | 0,542 | | Z' S17 |
| q | 0,00 (q55) | 0,00 (q55) | 0,542 | 2,765(L) | | Z' S17 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,542 | 2,765(L) | | Z' S17 |
| q | 0,00 (q55) | 0,00 (q55) | 0,000 | 7,047(L) | | Z' S18,S21 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,000 | 7,047(L) | | Z' S18,S21,S29 |
| q | 0,00 (q56) | 0,00 (q56) | 1,700 | 3,253(L) | | Z' S22 |
| q | 0,81 (-q32) | 0,81 (-q32) | 1,700 | 3,253(L) | | Z' S22 |
| q | 0,00 (q55) | 0,00 (q55) | 0,000 | 0,147 | | Z' S22 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,000 | 0,147 | | Z' S22 |
| q | 0,00 (q57) | 0,00 (q56) | 0,147 | 1,700 | | Z' S22 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,147 | 1,700 | | Z' S22 |
| q | -1,75 (q43) | -1,75 (q43) | 0,000 | 0,542 | | Z' S28 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,000 | 0,542 | | Z' S28 |
| q | -0,67 (q44) | -0,67 (q44) | 0,542 | 1,553 | | Z' S28 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,542 | 1,553 | | Z' S28 |
| q | -0,89 (q45) | -0,89 (q45) | 3,106 | 13,281(L) | | Z' S28 |
| q | 1,07 (-q34) | 1,07 (-q34) | 3,106 | 13,281(L) | | Z' S28 |
| q | -0,67 (q44) | -0,70 (q46) | 1,553 | 3,106 | | Z' S28 |
| q | 0,81 (-q32) | 0,81 (-q32) | 1,553 | 3,106 | | Z' S28 |
| q | -0,89 (q45) | -0,89 (q45) | 0,000 | 2,765(L) | | Z' S29 |
| **Som lasten** | **X: 7,66** | **kN Z: 17,19** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



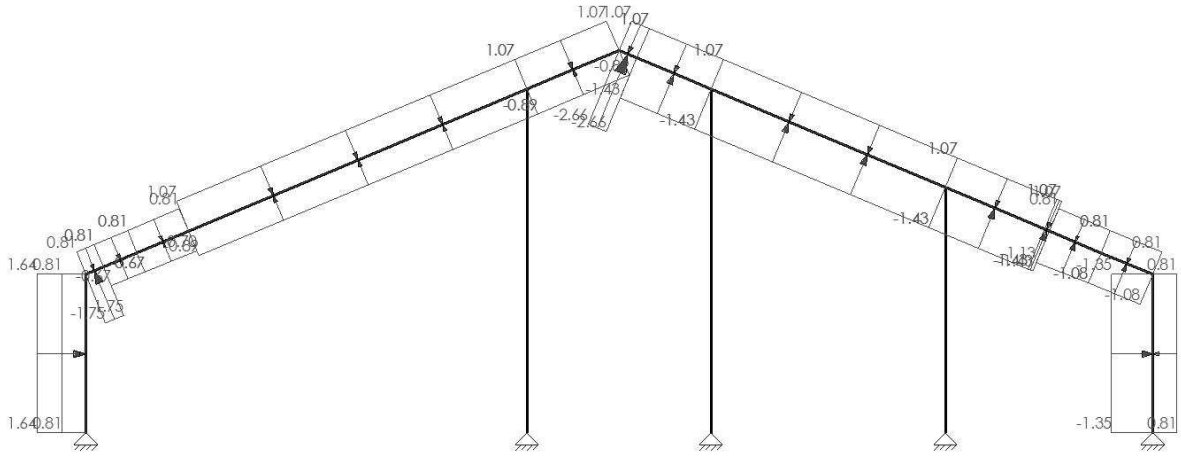

## B.G.13: WINDBELASTING VAN LINKS + ONDERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting Staaf of knoop |
|---|---|---|---|---|---|
| **B.G.13: Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe)** | | | | | |
| q | 2,16 (q35) | 2,16 (q35) | 0,000 | 4,400(L) | Z' S1 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,000 | 4,400(L) | Z' S1,S4 |
| q | -0,82 (q38) | -0,82 (q38) | 0,000 | 4,400(L) | Z' S4 |
| q | -2,66 (q39) | -2,66 (q39) | 0,000 | 0,542 | Z' S17 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,000 | 0,542 | Z' S17 |
| q | -1,43 (q40) | -1,43 (q40) | 0,542 | 2,765(L) | Z' S17 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,542 | 2,765(L) | Z' S17 |
| q | -1,43 (q40) | -1,43 (q40) | 0,000 | 7,047(L) | Z' S18,S21 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,000 | 7,047(L) | Z' S18,S21,S29 |
| q | -1,08 (q41) | -1,08 (q41) | 1,700 | 3,253(L) | Z' S22 |
| q | 0,81 (-q32) | 0,81 (-q32) | 1,700 | 3,253(L) | Z' S22 |
| q | -1,43 (q40) | -1,43 (q40) | 0,000 | 0,147 | Z' S22 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,000 | 0,147 | Z' S22 |
| q | -1,13 (q42) | -1,08 (q41) | 0,147 | 1,700 | Z' S22 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,147 | 1,700 | Z' S22 |
| q | 1,24 (q58) | 1,24 (q58) | 0,000 | 0,542 | Z' S28 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,000 | 0,542 | Z' S28 |
| q | 0,82 (q59) | 0,82 (q59) | 0,542 | 1,553 | Z' S28 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,542 | 1,553 | Z' S28 |
| q | 1,09 (q60) | 1,09 (q60) | 3,106 | 13,281(L) | Z' S28 |
| q | 1,07 (-q34) | 1,07 (-q34) | 3,106 | 13,281(L) | Z' S28 |
| q | 0,82 (q59) | 0,86 (q61) | 1,553 | 3,106 | Z' S28 |
| q | 0,81 (-q32) | 0,81 (-q32) | 1,553 | 3,106 | Z' S28 |
| q | 1,09 (q60) | 1,09 (q60) | 0,000 | 2,765(L) | Z' S29 |
| **Som lasten** | **X: 28,39** | **kN Z: 24,99** | **kN** | | |
| **-** | **-** | **-** | **m** | **m** | **- -** |



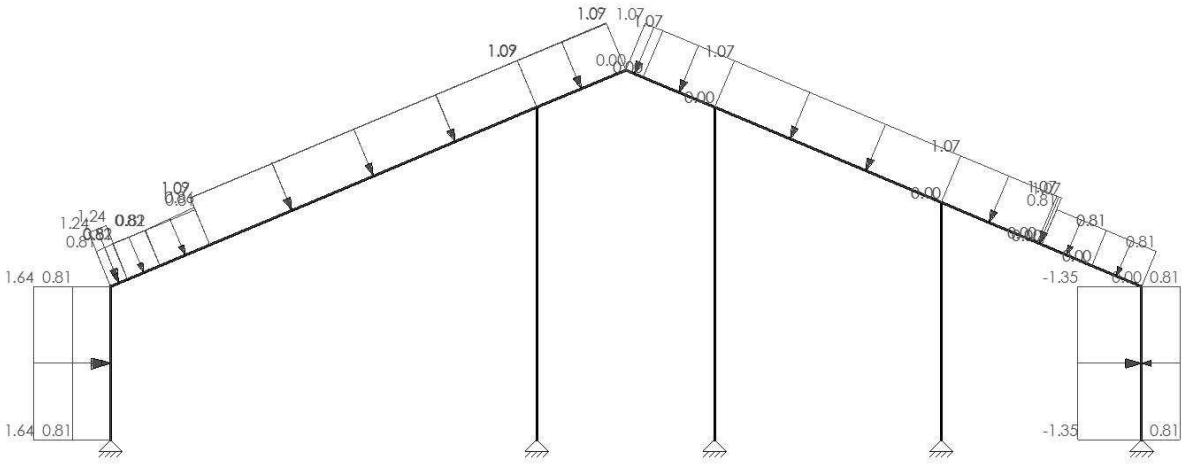

## B.G.14: WINDBELASTING VAN LINKS + ONDERDRUK (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.14: Windbelasting van Links + Onderdruk (2e corr. factor)** | | | | | | |
| q | 1,64 (q36) | 1,64 (q36) | 0,000 | 4,400(L) | Z' | S1 |
| q | -1,35 (q37) | -1,35 (q37) | 0,000 | 4,400(L) | Z' | S4 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,000 | 4,400(L) | Z' | S1,S4 |
| q | -2,66 (q39) | -2,66 (q39) | 0,000 | 0,542 | Z' | S17 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,000 | 0,542 | Z' | S17 |
| q | -1,43 (q40) | -1,43 (q40) | 0,542 | 2,765(L) | Z' | S17 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,542 | 2,765(L) | Z' | S17 |
| q | -1,43 (q40) | -1,43 (q40) | 0,000 | 7,047(L) | Z' | S18,S21 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,000 | 7,047(L) | Z' | S18,S21,S29 |
| q | -1,08 (q41) | -1,08 (q41) | 1,700 | 3,253(L) | Z' | S22 |
| q | 0,81 (-q32) | 0,81 (-q32) | 1,700 | 3,253(L) | Z' | S22 |
| q | -1,43 (q40) | -1,43 (q40) | 0,000 | 0,147 | Z' | S22 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,000 | 0,147 | Z' | S22 |
| q | -1,13 (q42) | -1,08 (q41) | 0,147 | 1,700 | Z' | S22 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,147 | 1,700 | Z' | S22 |
| q | -1,75 (q43) | -1,75 (q43) | 0,000 | 0,542 | Z' | S28 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,000 | 0,542 | Z' | S28 |
| q | -0,67 (q44) | -0,67 (q44) | 0,542 | 1,553 | Z' | S28 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,542 | 1,553 | Z' | S28 |
| q | -0,89 (q45) | -0,89 (q45) | 3,106 | 13,281(L) | Z' | S28 |
| q | 1,07 (-q34) | 1,07 (-q34) | 3,106 | 13,281(L) | Z' | S28 |
| q | -0,67 (q44) | -0,70 (q46) | 1,553 | 3,106 | Z' | S28 |
| q | 0,81 (-q32) | 0,81 (-q32) | 1,553 | 3,106 | Z' | S28 |
| q | -0,89 (q45) | -0,89 (q45) | 0,000 | 2,765(L) | Z' | S29 |
| **Som lasten** | **X: 16,39** | **kN Z: -3,66** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **-** | **-** |



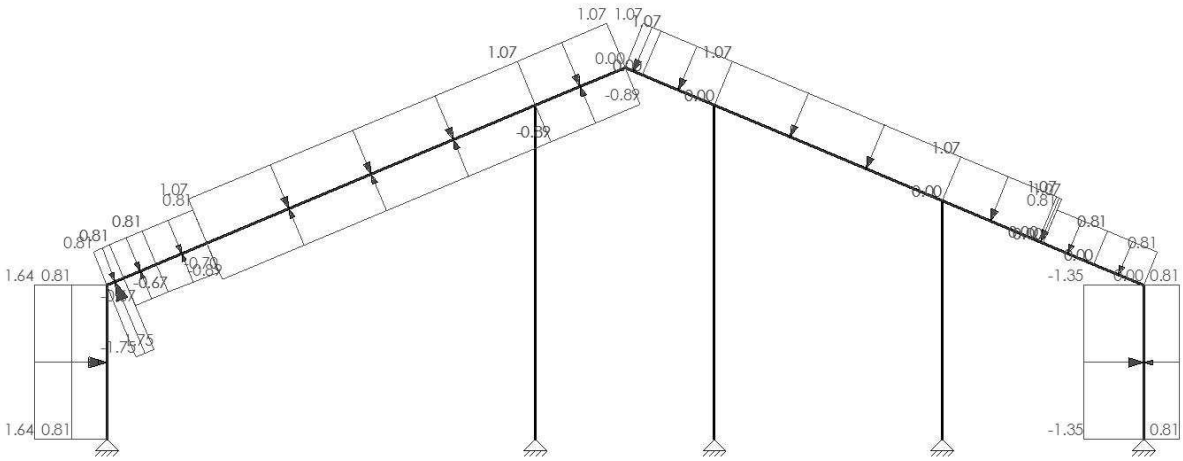

## B.G.15: WINDBELASTING VAN LINKS + ONDERDRUK (2E CPE) (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.15: Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor)** | | | | | | |
| q | 1,64 (q51) | 1,64 (q51) | 0,000 | 4,400(L) | | Z' S1 |
| q | -1,35 (q52) | -1,35 (q52) | 0,000 | 4,400(L) | | Z' S4 |
| q | 0,81 (-q47) | 0,81 (-q47) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | 0,00 (q54) | 0,00 (q54) | 0,000 | 0,542 | | Z' S17 |
| q | 1,07 (-q49) | 1,07 (-q49) | 0,000 | 0,542 | | Z' S17 |
| q | 0,00 (q55) | 0,00 (q55) | 0,542 | 2,765(L) | | Z' S17 |
| q | 1,07 (-q49) | 1,07 (-q49) | 0,542 | 2,765(L) | | Z' S17 |
| q | 0,00 (q55) | 0,00 (q55) | 0,000 | 7,047(L) | | Z' S18,S21 |
| q | 1,07 (-q49) | 1,07 (-q49) | 0,000 | 7,047(L) | | Z' S18,S21,S29 |
| q | 0,00 (q56) | 0,00 (q56) | 1,700 | 3,253(L) | | Z' S22 |
| q | 0,81 (-q47) | 0,81 (-q47) | 1,700 | 3,253(L) | | Z' S22 |
| q | 0,00 (q55) | 0,00 (q55) | 0,000 | 0,147 | | Z' S22 |
| q | 1,07 (-q49) | 1,07 (-q49) | 0,000 | 0,147 | | Z' S22 |
| q | 0,00 (q57) | 0,00 (q56) | 0,147 | 1,700 | | Z' S22 |
| q | 0,81 (-q47) | 0,81 (-q47) | 0,147 | 1,700 | | Z' S22 |
| q | 1,24 (q58) | 1,24 (q58) | 0,000 | 0,542 | | Z' S28 |
| q | 0,81 (-q47) | 0,81 (-q47) | 0,000 | 0,542 | | Z' S28 |
| q | 0,82 (q59) | 0,82 (q59) | 0,542 | 1,553 | | Z' S28 |
| q | 0,81 (-q47) | 0,81 (-q47) | 0,542 | 1,553 | | Z' S28 |
| q | 1,09 (q60) | 1,09 (q60) | 3,106 | 13,281(L) | | Z' S28 |
| q | 1,07 (-q49) | 1,07 (-q49) | 3,106 | 13,281(L) | | Z' S28 |
| q | 0,82 (q59) | 0,86 (q61) | 1,553 | 3,106 | | Z' S28 |
| q | 0,81 (-q47) | 0,81 (-q47) | 1,553 | 3,106 | | Z' S28 |
| q | 1,09 (q60) | 1,09 (q60) | 0,000 | 2,765(L) | | Z' S29 |
| **Som lasten** | **X: 19,66** | **kN Z: 45,83** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | | **- -** |



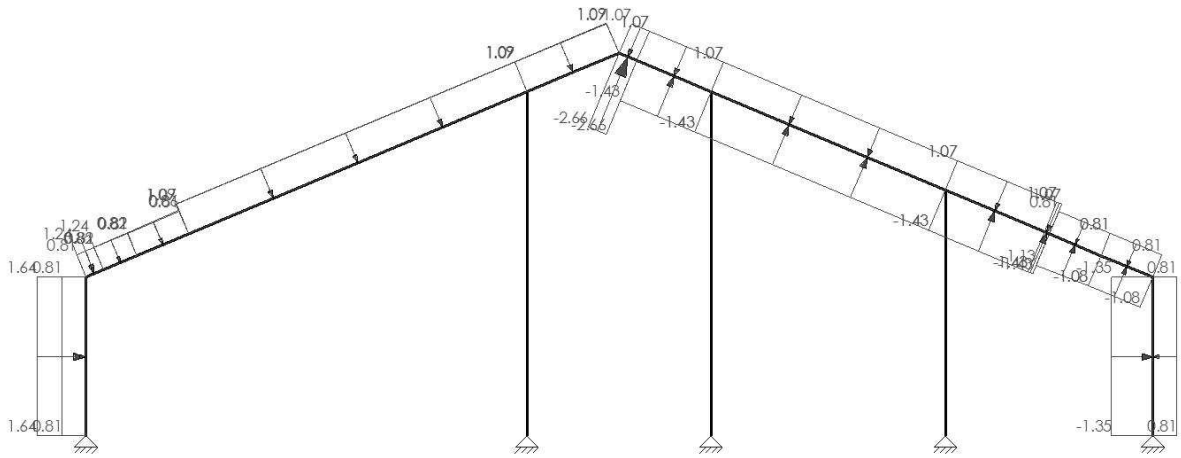

## B.G.16: WINDBELASTING VAN LINKS + ONDERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE) (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.16: Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor)** | | | | | | |
| q | 1,64 (q36) | 1,64 (q36) | 0,000 | 4,400(L) | | Z' S1 |
| q | -1,35 (q37) | -1,35 (q37) | 0,000 | 4,400(L) | | Z' S4 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | 0,00 (q54) | 0,00 (q54) | 0,000 | 0,542 | | Z' S17 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,000 | 0,542 | | Z' S17 |
| q | 0,00 (q55) | 0,00 (q55) | 0,542 | 2,765(L) | | Z' S17 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,542 | 2,765(L) | | Z' S17 |
| q | 0,00 (q55) | 0,00 (q55) | 0,000 | 7,047(L) | | Z' S18,S21 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,000 | 7,047(L) | | Z' S18,S21,S29 |
| q | 0,00 (q56) | 0,00 (q56) | 1,700 | 3,253(L) | | Z' S22 |
| q | 0,81 (-q32) | 0,81 (-q32) | 1,700 | 3,253(L) | | Z' S22 |
| q | 0,00 (q55) | 0,00 (q55) | 0,000 | 0,147 | | Z' S22 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,000 | 0,147 | | Z' S22 |
| q | 0,00 (q57) | 0,00 (q56) | 0,147 | 1,700 | | Z' S22 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,147 | 1,700 | | Z' S22 |
| q | -1,75 (q43) | -1,75 (q43) | 0,000 | 0,542 | | Z' S28 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,000 | 0,542 | | Z' S28 |
| q | -0,67 (q44) | -0,67 (q44) | 0,542 | 1,553 | | Z' S28 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,542 | 1,553 | | Z' S28 |
| q | -0,89 (q45) | -0,89 (q45) | 3,106 | 13,281(L) | | Z' S28 |
| q | 1,07 (-q34) | 1,07 (-q34) | 3,106 | 13,281(L) | | Z' S28 |
| q | -0,67 (q44) | -0,70 (q46) | 1,553 | 3,106 | | Z' S28 |
| q | 0,81 (-q32) | 0,81 (-q32) | 1,553 | 3,106 | | Z' S28 |
| q | -0,89 (q45) | -0,89 (q45) | 0,000 | 2,765(L) | | Z' S29 |
| **Som lasten** | **X: 7,66** | **kN Z: 17,19** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | | **- -** |



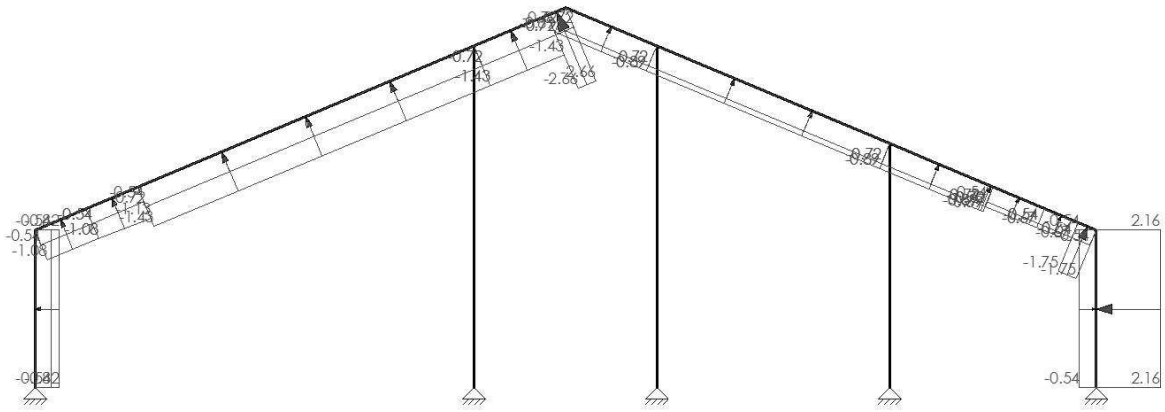

## B.G.17: WINDBELASTING VAN LINKS + ONDERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE) (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.17: Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor)** | | | | | | |
| q | 1,64 (q36) | 1,64 (q36) | 0,000 | 4,400(L) | | Z' S1 |
| q | -1,35 (q37) | -1,35 (q37) | 0,000 | 4,400(L) | | Z' S4 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | -2,66 (q39) | -2,66 (q39) | 0,000 | 0,542 | | Z' S17 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,000 | 0,542 | | Z' S17 |
| q | -1,43 (q40) | -1,43 (q40) | 0,542 | 2,765(L) | | Z' S17 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,542 | 2,765(L) | | Z' S17 |
| q | -1,43 (q40) | -1,43 (q40) | 0,000 | 7,047(L) | | Z' S18,S21 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,000 | 7,047(L) | | Z' S18,S21,S29 |
| q | -1,08 (q41) | -1,08 (q41) | 1,700 | 3,253(L) | | Z' S22 |
| q | 0,81 (-q32) | 0,81 (-q32) | 1,700 | 3,253(L) | | Z' S22 |
| q | -1,43 (q40) | -1,43 (q40) | 0,000 | 0,147 | | Z' S22 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,000 | 0,147 | | Z' S22 |
| q | -1,13 (q42) | -1,08 (q41) | 0,147 | 1,700 | | Z' S22 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,147 | 1,700 | | Z' S22 |
| q | 1,24 (q58) | 1,24 (q58) | 0,000 | 0,542 | | Z' S28 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,000 | 0,542 | | Z' S28 |
| q | 0,82 (q59) | 0,82 (q59) | 0,542 | 1,553 | | Z' S28 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,542 | 1,553 | | Z' S28 |
| q | 1,09 (q60) | 1,09 (q60) | 3,106 | 13,281(L) | | Z' S28 |
| q | 1,07 (-q34) | 1,07 (-q34) | 3,106 | 13,281(L) | | Z' S28 |
| q | 0,82 (q59) | 0,86 (q61) | 1,553 | 3,106 | | Z' S28 |
| q | 0,81 (-q32) | 0,81 (-q32) | 1,553 | 3,106 | | Z' S28 |
| q | 1,09 (q60) | 1,09 (q60) | 0,000 | 2,765(L) | | Z' S29 |
| **Som lasten** | **X: 28,39** | **kN Z: 24,99** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | | **- -** |



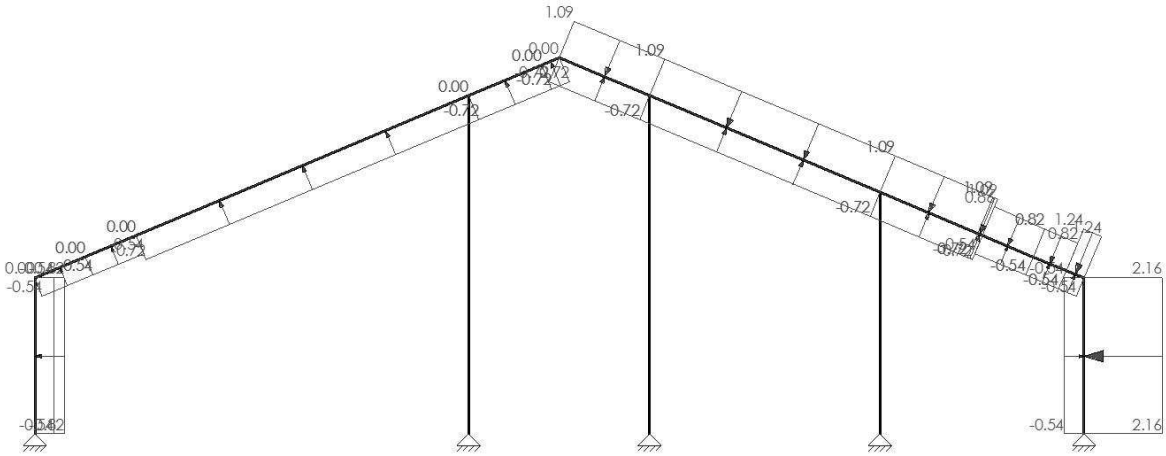

## B.G.18: WINDBELASTING VAN RECHTS + OVERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.18: Windbelasting van Rechts + Overdruk** | | | | | | |
| q | -0,82 (q66) | -0,82 (q66) | 0,000 | 4,400(L) | Z' | S1 |
| q | -0,54 (-q62) | -0,54 (-q62) | 0,000 | 4,400(L) | Z' | S1,S4 |
| q | 2,16 (q68) | 2,16 (q68) | 0,000 | 4,400(L) | Z' | S4 |
| q | -0,89 (q69) | -0,89 (q69) | 0,000 | 2,765(L) | Z' | S17-S18,S21 |
| q | -0,72 (-q64) | -0,72 (-q64) | 0,000 | 2,765(L) | Z' | S17-S18,S21 |
| q | -0,67 (q70) | -0,67 (q70) | 1,700 | 2,711 | Z' | S22 |
| q | -0,54 (-q62) | -0,54 (-q62) | 1,700 | 2,711 | Z' | S22 |
| q | -1,75 (q71) | -1,75 (q71) | 2,711 | 3,253(L) | Z' | S22 |
| q | -0,54 (-q62) | -0,54 (-q62) | 2,711 | 3,253(L) | Z' | S22 |
| q | -0,89 (q69) | -0,89 (q69) | 0,000 | 0,147 | Z' | S22 |
| q | -0,72 (-q64) | -0,72 (-q64) | 0,000 | 0,147 | Z' | S22 |
| q | -0,70 (q72) | -0,67 (q70) | 0,147 | 1,700 | Z' | S22 |
| q | -0,54 (-q62) | -0,54 (-q62) | 0,147 | 1,700 | Z' | S22 |
| q | -1,08 (q73) | -1,08 (q73) | 0,000 | 1,553 | Z' | S28 |
| q | -0,54 (-q62) | -0,54 (-q62) | 0,000 | 1,553 | Z' | S28 |
| q | -1,43 (q74) | -1,43 (q74) | 3,106 | 13,281(L) | Z' | S28 |
| q | -0,72 (-q64) | -0,72 (-q64) | 3,106 | 13,281(L) | Z' | S28 |
| q | -1,08 (q73) | -1,13 (q75) | 1,553 | 3,106 | Z' | S28 |
| q | -0,54 (-q62) | -0,54 (-q62) | 1,553 | 3,106 | Z' | S28 |
| q | -1,43 (q74) | -1,43 (q74) | 0,000 | 2,223 | Z' | S29 |
| q | -0,72 (-q64) | -0,72 (-q64) | 0,000 | 2,223 | Z' | S29 |
| q | -2,66 (q76) | -2,66 (q76) | 2,223 | 2,765(L) | Z' | S29 |
| q | -0,72 (-q64) | -0,72 (-q64) | 2,223 | 2,765(L) | Z' | S29 |
| **Som lasten** | **X: -16,39** | **kN Z: -54,14** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



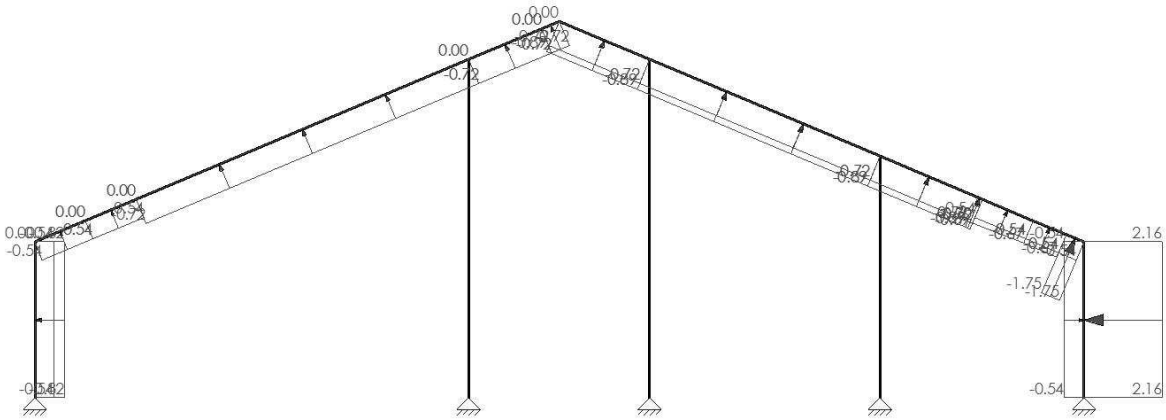

## B.G.19: WINDBELASTING VAN RECHTS + OVERDRUK (2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.19: Windbelasting van Rechts + Overdruk (2e Cpe)** | | | | | | |
| q | -0,82 (q81) | -0,82 (q81) | 0,000 | 4,400(L) | Z' | S1 |
| q | -0,54 (-q77) | -0,54 (-q77) | 0,000 | 4,400(L) | Z' | S1,S4 |
| q | 2,16 (q83) | 2,16 (q83) | 0,000 | 4,400(L) | Z' | S4 |
| q | 1,09 (q84) | 1,09 (q84) | 0,000 | 2,765(L) | Z' | S17-S18,S21 |
| q | -0,72 (-q79) | -0,72 (-q79) | 0,000 | 2,765(L) | Z' | S17-S18,S21 |
| q | 0,82 (q85) | 0,82 (q85) | 1,700 | 2,711 | Z' | S22 |
| q | -0,54 (-q77) | -0,54 (-q77) | 1,700 | 2,711 | Z' | S22 |
| q | 1,24 (q86) | 1,24 (q86) | 2,711 | 3,253(L) | Z' | S22 |
| q | -0,54 (-q77) | -0,54 (-q77) | 2,711 | 3,253(L) | Z' | S22 |
| q | 1,09 (q84) | 1,09 (q84) | 0,000 | 0,147 | Z' | S22 |
| q | -0,72 (-q79) | -0,72 (-q79) | 0,000 | 0,147 | Z' | S22 |
| q | 0,86 (q87) | 0,82 (q85) | 0,147 | 1,700 | Z' | S22 |
| q | -0,54 (-q77) | -0,54 (-q77) | 0,147 | 1,700 | Z' | S22 |
| q | 0,00 (q88) | 0,00 (q88) | 0,000 | 1,553 | Z' | S28 |
| q | -0,54 (-q77) | -0,54 (-q77) | 0,000 | 1,553 | Z' | S28 |
| q | 0,00 (q89) | 0,00 (q89) | 3,106 | 13,281(L) | Z' | S28 |
| q | -0,72 (-q79) | -0,72 (-q79) | 3,106 | 13,281(L) | Z' | S28 |
| q | 0,00 (q88) | 0,00 (q90) | 1,553 | 3,106 | Z' | S28 |
| q | -0,54 (-q77) | -0,54 (-q77) | 1,553 | 3,106 | Z' | S28 |
| q | 0,00 (q89) | 0,00 (q89) | 0,000 | 2,223 | Z' | S29 |
| q | -0,72 (-q79) | -0,72 (-q79) | 0,000 | 2,223 | Z' | S29 |
| q | 0,00 (q91) | 0,00 (q91) | 2,223 | 2,765(L) | Z' | S29 |
| q | -0,72 (-q79) | -0,72 (-q79) | 2,223 | 2,765(L) | Z' | S29 |
| **Som lasten** | **X: -19,66** | **kN Z: -4,66** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **-** | **-** |



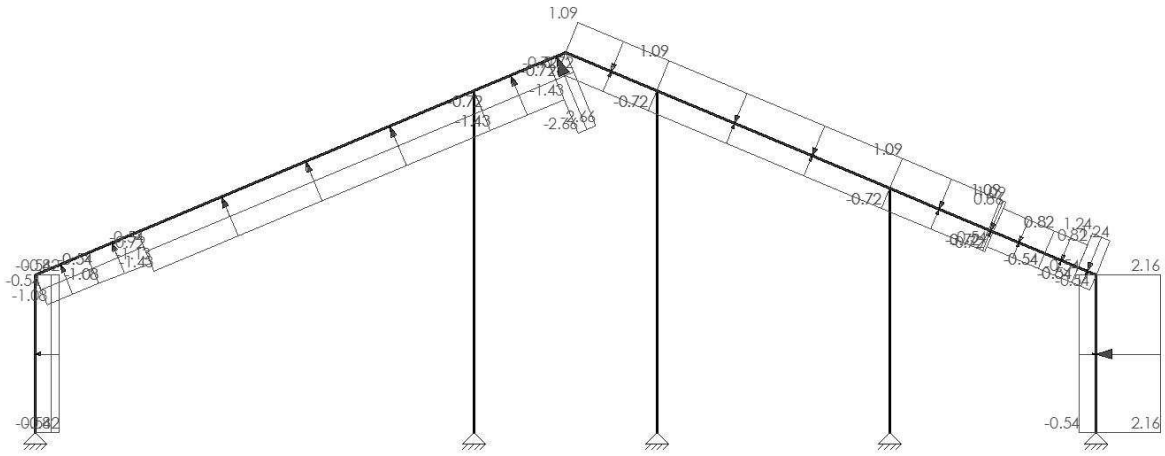

## B.G.20: WINDBELASTING VAN RECHTS + OVERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.20: Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe)** | | | | | | |
| q | -0,82 (q66) | -0,82 (q66) | 0,000 | 4,400(L) | Z' | S1 |
| q | -0,54 (-q62) | -0,54 (-q62) | 0,000 | 4,400(L) | Z' | S1,S4 |
| q | 2,16 (q68) | 2,16 (q68) | 0,000 | 4,400(L) | Z' | S4 |
| q | -0,89 (q69) | -0,89 (q69) | 0,000 | 2,765(L) | Z' | S17-S18,S21 |
| q | -0,72 (-q64) | -0,72 (-q64) | 0,000 | 2,765(L) | Z' | S17-S18,S21 |
| q | -0,67 (q70) | -0,67 (q70) | 1,700 | 2,711 | Z' | S22 |
| q | -0,54 (-q62) | -0,54 (-q62) | 1,700 | 2,711 | Z' | S22 |
| q | -1,75 (q71) | -1,75 (q71) | 2,711 | 3,253(L) | Z' | S22 |
| q | -0,54 (-q62) | -0,54 (-q62) | 2,711 | 3,253(L) | Z' | S22 |
| q | -0,89 (q69) | -0,89 (q69) | 0,000 | 0,147 | Z' | S22 |
| q | -0,72 (-q64) | -0,72 (-q64) | 0,000 | 0,147 | Z' | S22 |
| q | -0,70 (q72) | -0,67 (q70) | 0,147 | 1,700 | Z' | S22 |
| q | -0,54 (-q62) | -0,54 (-q62) | 0,147 | 1,700 | Z' | S22 |
| q | 0,00 (q88) | 0,00 (q88) | 0,000 | 1,553 | Z' | S28 |
| q | -0,54 (-q62) | -0,54 (-q62) | 0,000 | 1,553 | Z' | S28 |
| q | 0,00 (q89) | 0,00 (q89) | 3,106 | 13,281(L) | Z' | S28 |
| q | -0,72 (-q64) | -0,72 (-q64) | 3,106 | 13,281(L) | Z' | S28 |
| q | 0,00 (q88) | 0,00 (q90) | 1,553 | 3,106 | Z' | S28 |
| q | -0,54 (-q62) | -0,54 (-q62) | 1,553 | 3,106 | Z' | S28 |
| q | 0,00 (q89) | 0,00 (q89) | 0,000 | 2,223 | Z' | S29 |
| q | -0,72 (-q64) | -0,72 (-q64) | 0,000 | 2,223 | Z' | S29 |
| q | 0,00 (q91) | 0,00 (q91) | 2,223 | 2,765(L) | Z' | S29 |
| q | -0,72 (-q64) | -0,72 (-q64) | 2,223 | 2,765(L) | Z' | S29 |
| **Som lasten** | **X: -7,66** | **kN Z: -33,30** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **-** | **-** |



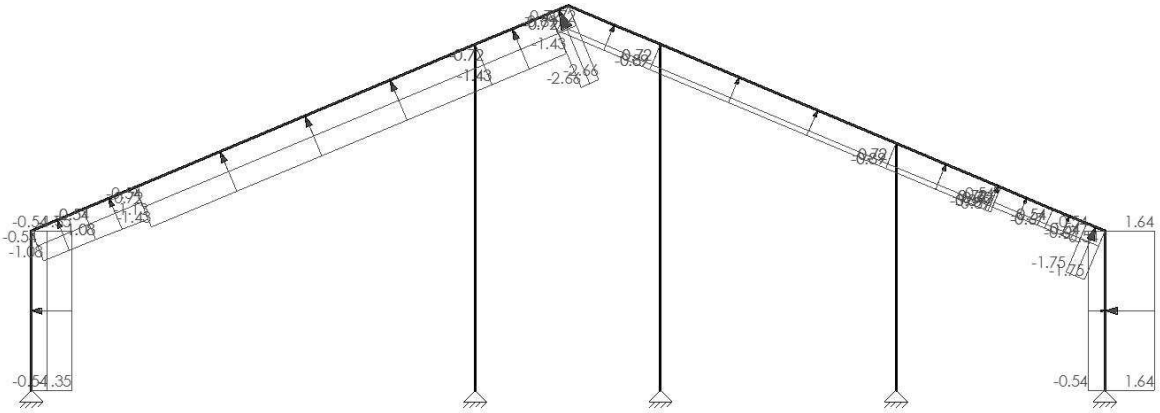

## B.G.21: WINDBELASTING VAN RECHTS + OVERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.21: Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe)** | | | | | | |
| q | -0,82 (q66) | -0,82 (q66) | 0,000 | 4,400(L) | | Z' S1 |
| q | -0,54 (-q62) | -0,54 (-q62) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | 2,16 (q68) | 2,16 (q68) | 0,000 | 4,400(L) | | Z' S4 |
| q | 1,09 (q84) | 1,09 (q84) | 0,000 | 2,765(L) | | Z' S17-S18,S21 |
| q | -0,72 (-q64) | -0,72 (-q64) | 0,000 | 2,765(L) | | Z' S17-S18,S21 |
| q | 0,82 (q85) | 0,82 (q85) | 1,700 | 2,711 | | Z' S22 |
| q | -0,54 (-q62) | -0,54 (-q62) | 1,700 | 2,711 | | Z' S22 |
| q | 1,24 (q86) | 1,24 (q86) | 2,711 | 3,253(L) | | Z' S22 |
| q | -0,54 (-q62) | -0,54 (-q62) | 2,711 | 3,253(L) | | Z' S22 |
| q | 1,09 (q84) | 1,09 (q84) | 0,000 | 0,147 | | Z' S22 |
| q | -0,72 (-q64) | -0,72 (-q64) | 0,000 | 0,147 | | Z' S22 |
| q | 0,86 (q87) | 0,82 (q85) | 0,147 | 1,700 | | Z' S22 |
| q | -0,54 (-q62) | -0,54 (-q62) | 0,147 | 1,700 | | Z' S22 |
| q | -1,08 (q73) | -1,08 (q73) | 0,000 | 1,553 | | Z' S28 |
| q | -0,54 (-q62) | -0,54 (-q62) | 0,000 | 1,553 | | Z' S28 |
| q | -1,43 (q74) | -1,43 (q74) | 3,106 | 13,281(L) | | Z' S28 |
| q | -0,72 (-q64) | -0,72 (-q64) | 3,106 | 13,281(L) | | Z' S28 |
| q | -1,08 (q73) | -1,13 (q75) | 1,553 | 3,106 | | Z' S28 |
| q | -0,54 (-q62) | -0,54 (-q62) | 1,553 | 3,106 | | Z' S28 |
| q | -1,43 (q74) | -1,43 (q74) | 0,000 | 2,223 | | Z' S29 |
| q | -0,72 (-q64) | -0,72 (-q64) | 0,000 | 2,223 | | Z' S29 |
| q | -2,66 (q76) | -2,66 (q76) | 2,223 | 2,765(L) | | Z' S29 |
| q | -0,72 (-q64) | -0,72 (-q64) | 2,223 | 2,765(L) | | Z' S29 |
| **Som lasten** | **X: -28,39** | **kN Z: -25,50** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



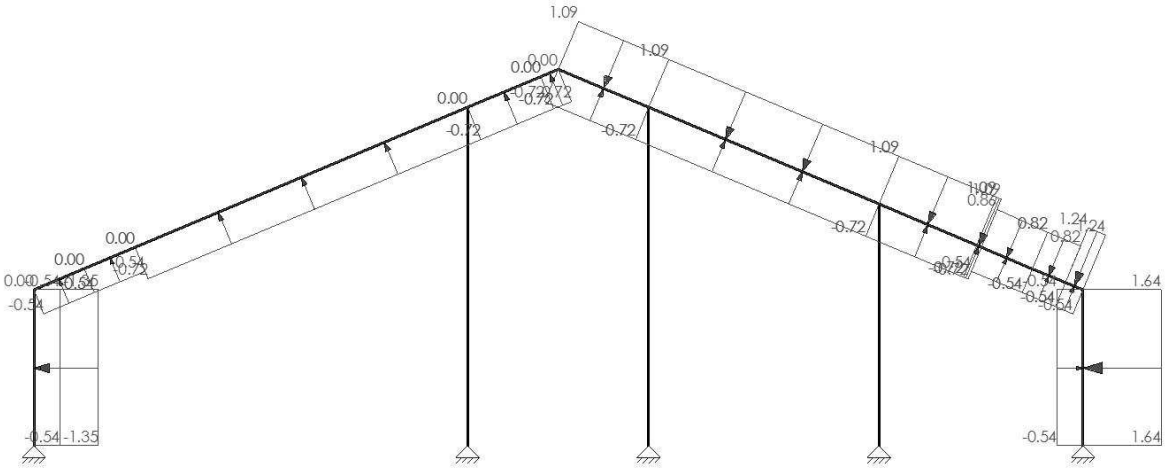

## B.G.22: WINDBELASTING VAN RECHTS + OVERDRUK (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.22: Windbelasting van Rechts + Overdruk (2e corr. factor)** | | | | | | |
| q | -1,35 (q65) | -1,35 (q65) | 0,000 | 4,400(L) | | Z' S1 |
| q | 1,64 (q67) | 1,64 (q67) | 0,000 | 4,400(L) | | Z' S4 |
| q | -0,54 (-q62) | -0,54 (-q62) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | -0,89 (q69) | -0,89 (q69) | 0,000 | 2,765(L) | | Z' S17-S18,S21 |
| q | -0,72 (-q64) | -0,72 (-q64) | 0,000 | 2,765(L) | | Z' S17-S18,S21 |
| q | -0,67 (q70) | -0,67 (q70) | 1,700 | 2,711 | | Z' S22 |
| q | -0,54 (-q62) | -0,54 (-q62) | 1,700 | 2,711 | | Z' S22 |
| q | -1,75 (q71) | -1,75 (q71) | 2,711 | 3,253(L) | | Z' S22 |
| q | -0,54 (-q62) | -0,54 (-q62) | 2,711 | 3,253(L) | | Z' S22 |
| q | -0,89 (q69) | -0,89 (q69) | 0,000 | 0,147 | | Z' S22 |
| q | -0,72 (-q64) | -0,72 (-q64) | 0,000 | 0,147 | | Z' S22 |
| q | -0,70 (q72) | -0,67 (q70) | 0,147 | 1,700 | | Z' S22 |
| q | -0,54 (-q62) | -0,54 (-q62) | 0,147 | 1,700 | | Z' S22 |
| q | -1,08 (q73) | -1,08 (q73) | 0,000 | 1,553 | | Z' S28 |
| q | -0,54 (-q62) | -0,54 (-q62) | 0,000 | 1,553 | | Z' S28 |
| q | -1,43 (q74) | -1,43 (q74) | 3,106 | 13,281(L) | | Z' S28 |
| q | -0,72 (-q64) | -0,72 (-q64) | 3,106 | 13,281(L) | | Z' S28 |
| q | -1,08 (q73) | -1,13 (q75) | 1,553 | 3,106 | | Z' S28 |
| q | -0,54 (-q62) | -0,54 (-q62) | 1,553 | 3,106 | | Z' S28 |
| q | -1,43 (q74) | -1,43 (q74) | 0,000 | 2,223 | | Z' S29 |
| q | -0,72 (-q64) | -0,72 (-q64) | 0,000 | 2,223 | | Z' S29 |
| q | -2,66 (q76) | -2,66 (q76) | 2,223 | 2,765(L) | | Z' S29 |
| q | -0,72 (-q64) | -0,72 (-q64) | 2,223 | 2,765(L) | | Z' S29 |
| **Som lasten** | **X: -16,39** | **kN Z: -54,14** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



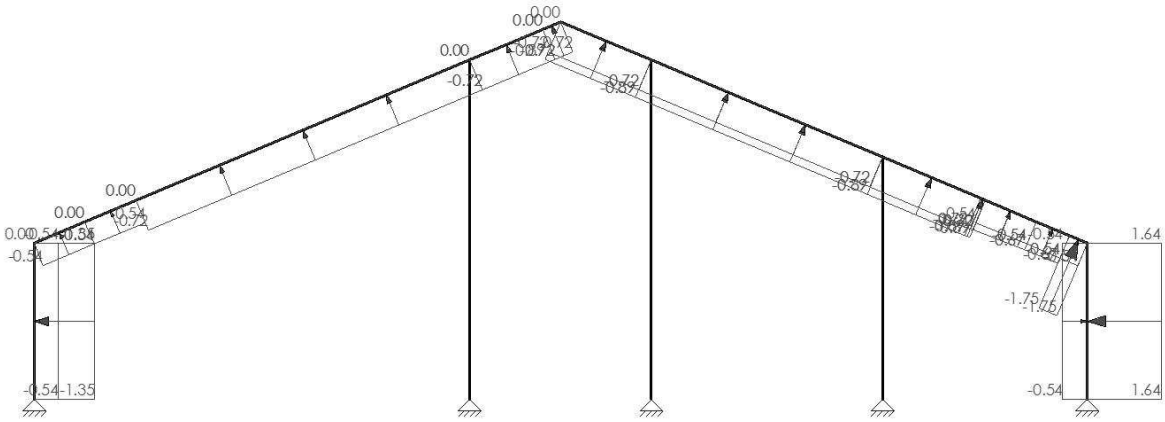

## B.G.23: WINDBELASTING VAN RECHTS + OVERDRUK (2E CPE) (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.23: Windbelasting van Rechts + Overdruk (2e Cpe) (2e corr. factor)** | | | | | | |
| q | -1,35 (q80) | -1,35 (q80) | 0,000 | 4,400(L) | | Z' S1 |
| q | 1,64 (q82) | 1,64 (q82) | 0,000 | 4,400(L) | | Z' S4 |
| q | -0,54 (-q77) | -0,54 (-q77) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | 1,09 (q84) | 1,09 (q84) | 0,000 | 2,765(L) | | Z' S17-S18,S21 |
| q | -0,72 (-q79) | -0,72 (-q79) | 0,000 | 2,765(L) | | Z' S17-S18,S21 |
| q | 0,82 (q85) | 0,82 (q85) | 1,700 | 2,711 | | Z' S22 |
| q | -0,54 (-q77) | -0,54 (-q77) | 1,700 | 2,711 | | Z' S22 |
| q | 1,24 (q86) | 1,24 (q86) | 2,711 | 3,253(L) | | Z' S22 |
| q | -0,54 (-q77) | -0,54 (-q77) | 2,711 | 3,253(L) | | Z' S22 |
| q | 1,09 (q84) | 1,09 (q84) | 0,000 | 0,147 | | Z' S22 |
| q | -0,72 (-q79) | -0,72 (-q79) | 0,000 | 0,147 | | Z' S22 |
| q | 0,86 (q87) | 0,82 (q85) | 0,147 | 1,700 | | Z' S22 |
| q | -0,54 (-q77) | -0,54 (-q77) | 0,147 | 1,700 | | Z' S22 |
| q | 0,00 (q88) | 0,00 (q88) | 0,000 | 1,553 | | Z' S28 |
| q | -0,54 (-q77) | -0,54 (-q77) | 0,000 | 1,553 | | Z' S28 |
| q | 0,00 (q89) | 0,00 (q89) | 3,106 | 13,281(L) | | Z' S28 |
| q | -0,72 (-q79) | -0,72 (-q79) | 3,106 | 13,281(L) | | Z' S28 |
| q | 0,00 (q88) | 0,00 (q90) | 1,553 | 3,106 | | Z' S28 |
| q | -0,54 (-q77) | -0,54 (-q77) | 1,553 | 3,106 | | Z' S28 |
| q | 0,00 (q89) | 0,00 (q89) | 0,000 | 2,223 | | Z' S29 |
| q | -0,72 (-q79) | -0,72 (-q79) | 0,000 | 2,223 | | Z' S29 |
| q | 0,00 (q91) | 0,00 (q91) | 2,223 | 2,765(L) | | Z' S29 |
| q | -0,72 (-q79) | -0,72 (-q79) | 2,223 | 2,765(L) | | Z' S29 |
| **Som lasten** | **X: -19,66** | **kN Z: -4,66** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



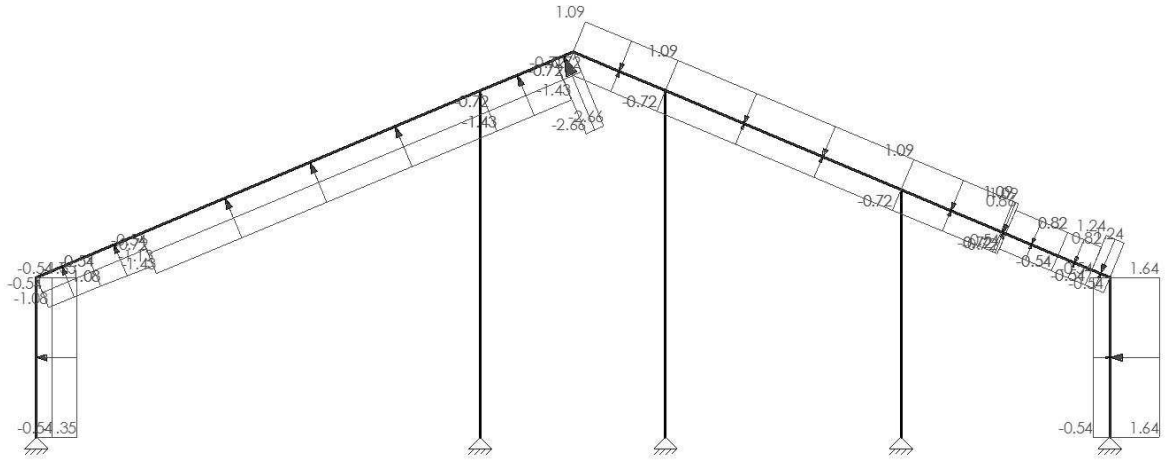

## B.G.24: WINDBELASTING VAN RECHTS + OVERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE) (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.24: Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor)** | | | | | | |
| q | -1,35 (q65) | -1,35 (q65) | 0,000 | 4,400(L) | | Z' S1 |
| q | 1,64 (q67) | 1,64 (q67) | 0,000 | 4,400(L) | | Z' S4 |
| q | -0,54 (-q62) | -0,54 (-q62) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | -0,89 (q69) | -0,89 (q69) | 0,000 | 2,765(L) | | Z' S17-S18,S21 |
| q | -0,72 (-q64) | -0,72 (-q64) | 0,000 | 2,765(L) | | Z' S17-S18,S21 |
| q | -0,67 (q70) | -0,67 (q70) | 1,700 | 2,711 | | Z' S22 |
| q | -0,54 (-q62) | -0,54 (-q62) | 1,700 | 2,711 | | Z' S22 |
| q | -1,75 (q71) | -1,75 (q71) | 2,711 | 3,253(L) | | Z' S22 |
| q | -0,54 (-q62) | -0,54 (-q62) | 2,711 | 3,253(L) | | Z' S22 |
| q | -0,89 (q69) | -0,89 (q69) | 0,000 | 0,147 | | Z' S22 |
| q | -0,72 (-q64) | -0,72 (-q64) | 0,000 | 0,147 | | Z' S22 |
| q | -0,70 (q72) | -0,67 (q70) | 0,147 | 1,700 | | Z' S22 |
| q | -0,54 (-q62) | -0,54 (-q62) | 0,147 | 1,700 | | Z' S22 |
| q | 0,00 (q88) | 0,00 (q88) | 0,000 | 1,553 | | Z' S28 |
| q | -0,54 (-q62) | -0,54 (-q62) | 0,000 | 1,553 | | Z' S28 |
| q | 0,00 (q89) | 0,00 (q89) | 3,106 | 13,281(L) | | Z' S28 |
| q | -0,72 (-q64) | -0,72 (-q64) | 3,106 | 13,281(L) | | Z' S28 |
| q | 0,00 (q88) | 0,00 (q90) | 1,553 | 3,106 | | Z' S28 |
| q | -0,54 (-q62) | -0,54 (-q62) | 1,553 | 3,106 | | Z' S28 |
| q | 0,00 (q89) | 0,00 (q89) | 0,000 | 2,223 | | Z' S29 |
| q | -0,72 (-q64) | -0,72 (-q64) | 0,000 | 2,223 | | Z' S29 |
| q | 0,00 (q91) | 0,00 (q91) | 2,223 | 2,765(L) | | Z' S29 |
| q | -0,72 (-q64) | -0,72 (-q64) | 2,223 | 2,765(L) | | Z' S29 |
| **Som lasten** | **X: -7,66** | **kN Z: -33,30** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | | **- -** |



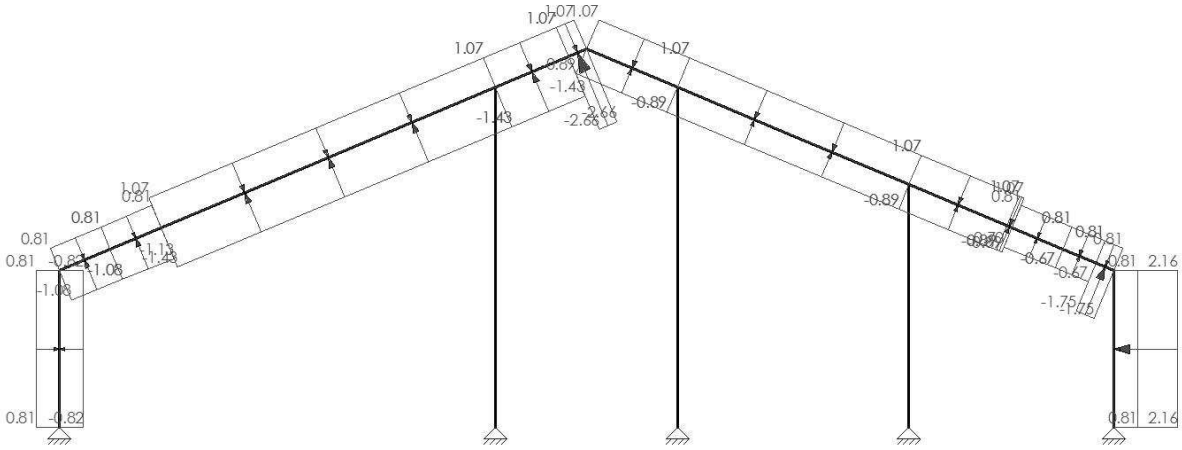

## B.G.25: WINDBELASTING VAN RECHTS + OVERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE) (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.25: Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor)** | | | | | | |
| q | -1,35 (q65) | -1,35 (q65) | 0,000 | 4,400(L) | | Z' S1 |
| q | 1,64 (q67) | 1,64 (q67) | 0,000 | 4,400(L) | | Z' S4 |
| q | -0,54 (-q62) | -0,54 (-q62) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | 1,09 (q84) | 1,09 (q84) | 0,000 | 2,765(L) | | Z' S17-S18,S21 |
| q | -0,72 (-q64) | -0,72 (-q64) | 0,000 | 2,765(L) | | Z' S17-S18,S21 |
| q | 0,82 (q85) | 0,82 (q85) | 1,700 | 2,711 | | Z' S22 |
| q | -0,54 (-q62) | -0,54 (-q62) | 1,700 | 2,711 | | Z' S22 |
| q | 1,24 (q86) | 1,24 (q86) | 2,711 | 3,253(L) | | Z' S22 |
| q | -0,54 (-q62) | -0,54 (-q62) | 2,711 | 3,253(L) | | Z' S22 |
| q | 1,09 (q84) | 1,09 (q84) | 0,000 | 0,147 | | Z' S22 |
| q | -0,72 (-q64) | -0,72 (-q64) | 0,000 | 0,147 | | Z' S22 |
| q | 0,86 (q87) | 0,82 (q85) | 0,147 | 1,700 | | Z' S22 |
| q | -0,54 (-q62) | -0,54 (-q62) | 0,147 | 1,700 | | Z' S22 |
| q | -1,08 (q73) | -1,08 (q73) | 0,000 | 1,553 | | Z' S28 |
| q | -0,54 (-q62) | -0,54 (-q62) | 0,000 | 1,553 | | Z' S28 |
| q | -1,43 (q74) | -1,43 (q74) | 3,106 | 13,281(L) | | Z' S28 |
| q | -0,72 (-q64) | -0,72 (-q64) | 3,106 | 13,281(L) | | Z' S28 |
| q | -1,08 (q73) | -1,13 (q75) | 1,553 | 3,106 | | Z' S28 |
| q | -0,54 (-q62) | -0,54 (-q62) | 1,553 | 3,106 | | Z' S28 |
| q | -1,43 (q74) | -1,43 (q74) | 0,000 | 2,223 | | Z' S29 |
| q | -0,72 (-q64) | -0,72 (-q64) | 0,000 | 2,223 | | Z' S29 |
| q | -2,66 (q76) | -2,66 (q76) | 2,223 | 2,765(L) | | Z' S29 |
| q | -0,72 (-q64) | -0,72 (-q64) | 2,223 | 2,765(L) | | Z' S29 |
| **Som lasten** | **X: -28,39** | **kN Z: -25,50** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



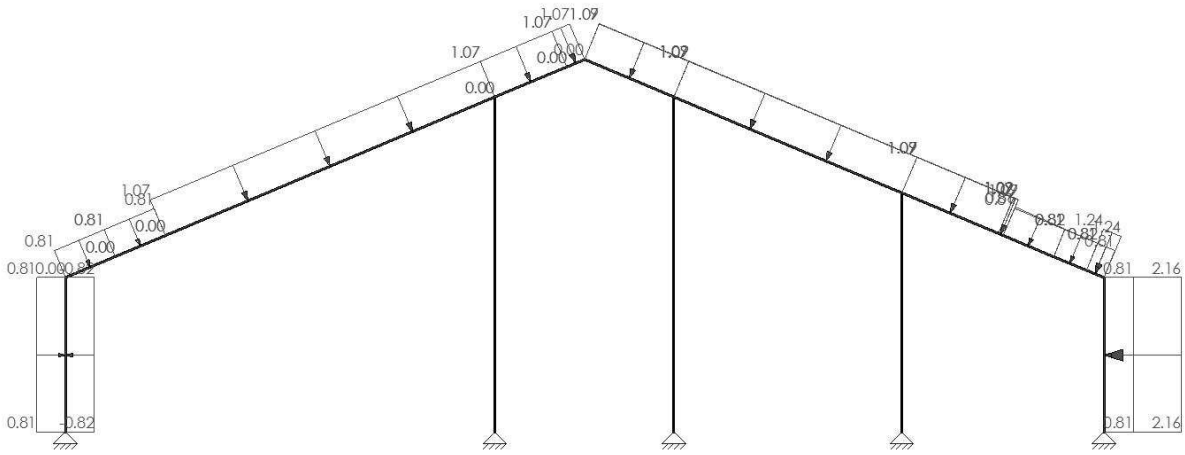

## B.G.26: WINDBELASTING VAN RECHTS + ONDERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.26: Windbelasting van Rechts + Onderdruk** | | | | | | |
| q | -0,82 (q96) | -0,82 (q96) | 0,000 | 4,400(L) | | Z' S1 |
| q | 0,81 (-q92) | 0,81 (-q92) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | 2,16 (q98) | 2,16 (q98) | 0,000 | 4,400(L) | | Z' S4 |
| q | -0,89 (q99) | -0,89 (q99) | 0,000 | 2,765(L) | | Z' S17-S18,S21 |
| q | 1,07 (-q94) | 1,07 (-q94) | 0,000 | 2,765(L) | | Z' S17-S18,S21 |
| q | -0,67 (q100) | -0,67 (q100) | 1,700 | 2,711 | | Z' S22 |
| q | 0,81 (-q92) | 0,81 (-q92) | 1,700 | 2,711 | | Z' S22 |
| q | -1,75 (q101) | -1,75 (q101) | 2,711 | 3,253(L) | | Z' S22 |
| q | 0,81 (-q92) | 0,81 (-q92) | 2,711 | 3,253(L) | | Z' S22 |
| q | -0,89 (q99) | -0,89 (q99) | 0,000 | 0,147 | | Z' S22 |
| q | 1,07 (-q94) | 1,07 (-q94) | 0,000 | 0,147 | | Z' S22 |
| q | -0,70 (q102) | -0,67 (q100) | 0,147 | 1,700 | | Z' S22 |
| q | 0,81 (-q92) | 0,81 (-q92) | 0,147 | 1,700 | | Z' S22 |
| q | -1,08 (q103) | -1,08 (q103) | 0,000 | 1,553 | | Z' S28 |
| q | 0,81 (-q92) | 0,81 (-q92) | 0,000 | 1,553 | | Z' S28 |
| q | -1,43 (q104) | -1,43 (q104) | 3,106 | 13,281(L) | | Z' S28 |
| q | 1,07 (-q94) | 1,07 (-q94) | 3,106 | 13,281(L) | | Z' S28 |
| q | -1,08 (q103) | -1,13 (q105) | 1,553 | 3,106 | | Z' S28 |
| q | 0,81 (-q92) | 0,81 (-q92) | 1,553 | 3,106 | | Z' S28 |
| q | -1,43 (q104) | -1,43 (q104) | 0,000 | 2,223 | | Z' S29 |
| q | 1,07 (-q94) | 1,07 (-q94) | 0,000 | 2,223 | | Z' S29 |
| q | -2,66 (q106) | -2,66 (q106) | 2,223 | 2,765(L) | | Z' S29 |
| q | 1,07 (-q94) | 1,07 (-q94) | 2,223 | 2,765(L) | | Z' S29 |
| **Som lasten** | | **X: -16,39 kN Z: -3,65 kN** | | | | |
| **-** | **-** | **-** | **m** | **m** | | **- -** |



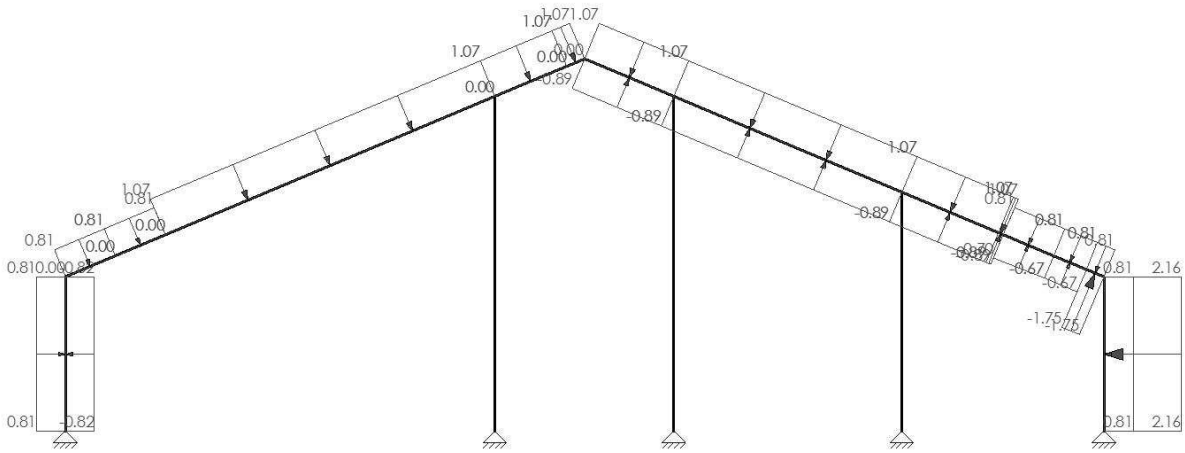

## B.G.27: WINDBELASTING VAN RECHTS + ONDERDRUK (2E CPE)

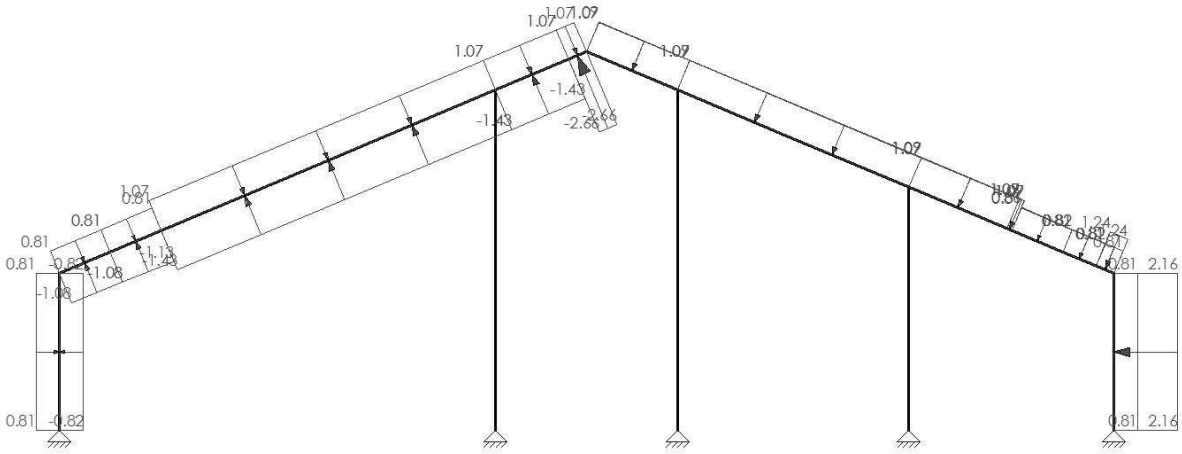
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.27: Windbelasting van Rechts + Onderdruk (2e Cpe)** | | | | | | |
| q | -0,82 (q111) | -0,82 (q111) | 0,000 | 4,400(L) | | Z' S1 |
| q | 0,81 (-q107) | 0,81 (-q107) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | 2,16 (q113) | 2,16 (q113) | 0,000 | 4,400(L) | | Z' S4 |
| q | 1,09 (q114) | 1,09 (q114) | 0,000 | 2,765(L) | | Z' S17-S18,S21 |
| q | 1,07 (-q109) | 1,07 (-q109) | 0,000 | 2,765(L) | | Z' S17-S18,S21 |
| q | 0,82 (q115) | 0,82 (q115) | 1,700 | 2,711 | | Z' S22 |
| q | 0,81 (-q107) | 0,81 (-q107) | 1,700 | 2,711 | | Z' S22 |
| q | 1,24 (q116) | 1,24 (q116) | 2,711 | 3,253(L) | | Z' S22 |
| q | 0,81 (-q107) | 0,81 (-q107) | 2,711 | 3,253(L) | | Z' S22 |
| q | 1,09 (q114) | 1,09 (q114) | 0,000 | 0,147 | | Z' S22 |
| q | 1,07 (-q109) | 1,07 (-q109) | 0,000 | 0,147 | | Z' S22 |
| q | 0,86 (q117) | 0,82 (q115) | 0,147 | 1,700 | | Z' S22 |
| q | 0,81 (-q107) | 0,81 (-q107) | 0,147 | 1,700 | | Z' S22 |
| q | 0,00 (q118) | 0,00 (q118) | 0,000 | 1,553 | | Z' S28 |
| q | 0,81 (-q107) | 0,81 (-q107) | 0,000 | 1,553 | | Z' S28 |
| q | 0,00 (q119) | 0,00 (q119) | 3,106 | 13,281(L) | | Z' S28 |
| q | 1,07 (-q109) | 1,07 (-q109) | 3,106 | 13,281(L) | | Z' S28 |
| q | 0,00 (q118) | 0,00 (q120) | 1,553 | 3,106 | | Z' S28 |
| q | 0,81 (-q107) | 0,81 (-q107) | 1,553 | 3,106 | | Z' S28 |
| q | 0,00 (q119) | 0,00 (q119) | 0,000 | 2,223 | | Z' S29 |
| q | 1,07 (-q109) | 1,07 (-q109) | 0,000 | 2,223 | | Z' S29 |
| q | 0,00 (q121) | 0,00 (q121) | 2,223 | 2,765(L) | | Z' S29 |
| q | 1,07 (-q109) | 1,07 (-q109) | 2,223 | 2,765(L) | | Z' S29 |
| **Som lasten** | **X: -19,66** | **kN Z: 45,83** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |




## B.G.28: WINDBELASTING VAN RECHTS + ONDERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE)

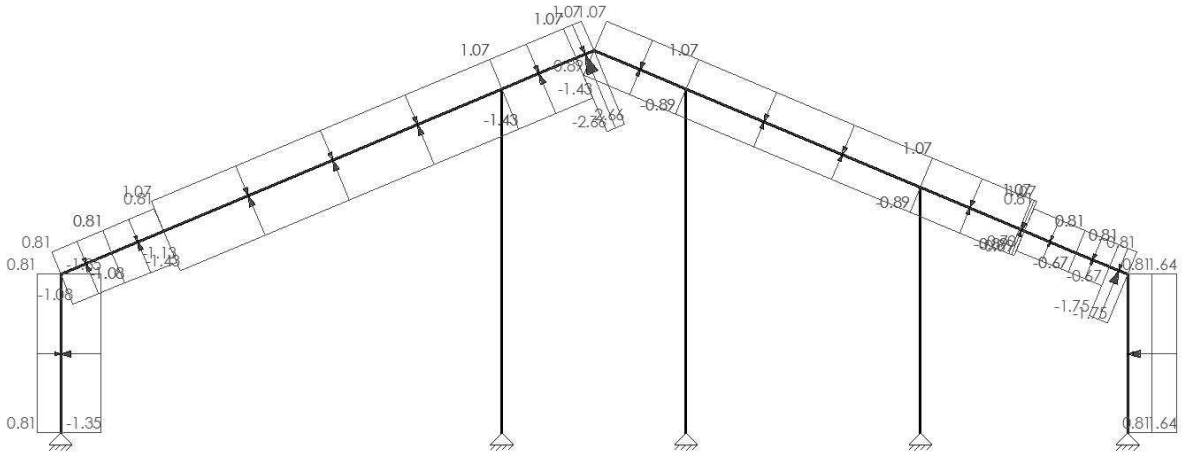
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting Staaf of knoop |
|---|---|---|---|---|---|
| **B.G.28: Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe)** | | | | | |
| q | -0,82 (q96) | -0,82 (q96) | 0,000 | 4,400(L) | Z' S1 |
| q | 0,81 (-q92) | 0,81 (-q92) | 0,000 | 4,400(L) | Z' S1,S4 |
| q | 2,16 (q98) | 2,16 (q98) | 0,000 | 4,400(L) | Z' S4 |
| q | -0,89 (q99) | -0,89 (q99) | 0,000 | 2,765(L) | Z' S17-S18,S21 |
| q | 1,07 (-q94) | 1,07 (-q94) | 0,000 | 2,765(L) | Z' S17-S18,S21 |
| q | -0,67 (q100) | -0,67 (q100) | 1,700 | 2,711 | Z' S22 |
| q | 0,81 (-q92) | 0,81 (-q92) | 1,700 | 2,711 | Z' S22 |
| q | -1,75 (q101) | -1,75 (q101) | 2,711 | 3,253(L) | Z' S22 |
| q | 0,81 (-q92) | 0,81 (-q92) | 2,711 | 3,253(L) | Z' S22 |
| q | -0,89 (q99) | -0,89 (q99) | 0,000 | 0,147 | Z' S22 |
| q | 1,07 (-q94) | 1,07 (-q94) | 0,000 | 0,147 | Z' S22 |
| q | -0,70 (q102) | -0,67 (q100) | 0,147 | 1,700 | Z' S22 |
| q | 0,81 (-q92) | 0,81 (-q92) | 0,147 | 1,700 | Z' S22 |
| q | 0,00 (q118) | 0,00 (q118) | 0,000 | 1,553 | Z' S28 |
| q | 0,81 (-q92) | 0,81 (-q92) | 0,000 | 1,553 | Z' S28 |
| q | 0,00 (q119) | 0,00 (q119) | 3,106 | 13,281(L) | Z' S28 |
| q | 1,07 (-q94) | 1,07 (-q94) | 3,106 | 13,281(L) | Z' S28 |
| q | 0,00 (q118) | 0,00 (q120) | 1,553 | 3,106 | Z' S28 |
| q | 0,81 (-q92) | 0,81 (-q92) | 1,553 | 3,106 | Z' S28 |
| q | 0,00 (q119) | 0,00 (q119) | 0,000 | 2,223 | Z' S29 |
| q | 1,07 (-q94) | 1,07 (-q94) | 0,000 | 2,223 | Z' S29 |
| q | 0,00 (q121) | 0,00 (q121) | 2,223 | 2,765(L) | Z' S29 |
| q | 1,07 (-q94) | 1,07 (-q94) | 2,223 | 2,765(L) | Z' S29 |
| **Som lasten** | **X: -7,66** | **kN Z: 17,19** | **kN** | | |
| **-** | **-** | **-** | **m** | **m** | **- -** |


1.07
1.07
1.07
0.00
0.00
0.00
-0.89
-0.89
-0.89
0.81
0.81
0.81



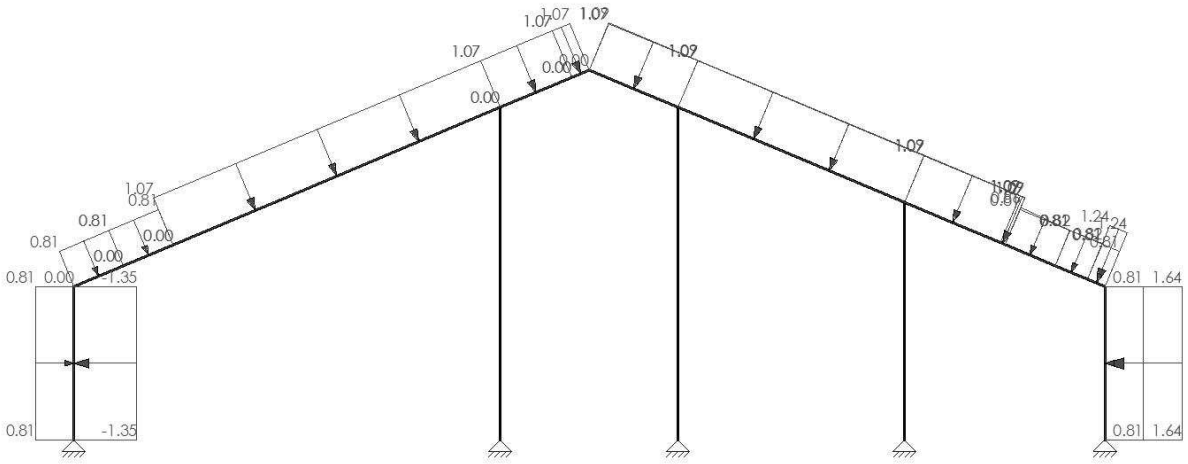

## B.G.30: WINDBELASTING VAN RECHTS + ONDERDRUK (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.30: Windbelasting van Rechts + Onderdruk (2e corr. factor)** | | | | | | |
| q | -1,35 (q95) | -1,35 (q95) | 0,000 | 4,400(L) | | Z' S1 |
| q | 1,64 (q97) | 1,64 (q97) | 0,000 | 4,400(L) | | Z' S4 |
| q | 0,81 (-q92) | 0,81 (-q92) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | -0,89 (q99) | -0,89 (q99) | 0,000 | 2,765(L) | | Z' S17-S18,S21 |
| q | 1,07 (-q94) | 1,07 (-q94) | 0,000 | 2,765(L) | | Z' S17-S18,S21 |
| q | -0,67 (q100) | -0,67 (q100) | 1,700 | 2,711 | | Z' S22 |
| q | 0,81 (-q92) | 0,81 (-q92) | 1,700 | 2,711 | | Z' S22 |
| q | -1,75 (q101) | -1,75 (q101) | 2,711 | 3,253(L) | | Z' S22 |
| q | 0,81 (-q92) | 0,81 (-q92) | 2,711 | 3,253(L) | | Z' S22 |
| q | -0,89 (q99) | -0,89 (q99) | 0,000 | 0,147 | | Z' S22 |
| q | 1,07 (-q94) | 1,07 (-q94) | 0,000 | 0,147 | | Z' S22 |
| q | -0,70 (q102) | -0,67 (q100) | 0,147 | 1,700 | | Z' S22 |
| q | 0,81 (-q92) | 0,81 (-q92) | 0,147 | 1,700 | | Z' S22 |
| q | -1,08 (q103) | -1,08 (q103) | 0,000 | 1,553 | | Z' S28 |
| q | 0,81 (-q92) | 0,81 (-q92) | 0,000 | 1,553 | | Z' S28 |
| q | -1,43 (q104) | -1,43 (q104) | 3,106 | 13,281(L) | | Z' S28 |
| q | 1,07 (-q94) | 1,07 (-q94) | 3,106 | 13,281(L) | | Z' S28 |
| q | -1,08 (q103) | -1,13 (q105) | 1,553 | 3,106 | | Z' S28 |
| q | 0,81 (-q92) | 0,81 (-q92) | 1,553 | 3,106 | | Z' S28 |
| q | -1,43 (q104) | -1,43 (q104) | 0,000 | 2,223 | | Z' S29 |
| q | 1,07 (-q94) | 1,07 (-q94) | 0,000 | 2,223 | | Z' S29 |
| q | -2,66 (q106) | -2,66 (q106) | 2,223 | 2,765(L) | | Z' S29 |
| q | 1,07 (-q94) | 1,07 (-q94) | 2,223 | 2,765(L) | | Z' S29 |
| **Som lasten** | **X: -16,39** | **kN Z: -3,65** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



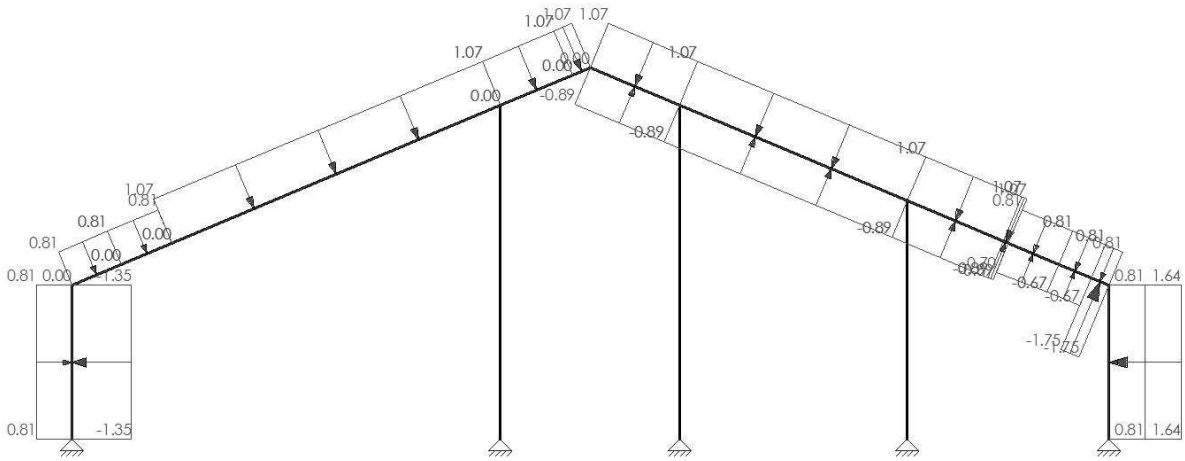

## B.G.31: WINDBELASTING VAN RECHTS + ONDERDRUK (2E CPE) (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.31: Windbelasting van Rechts + Onderdruk (2e Cpe) (2e corr. factor)** | | | | | | |
| q | -1,35 (q110) | -1,35 (q110) | 0,000 | 4,400(L) | | Z' S1 |
| q | 1,64 (q112) | 1,64 (q112) | 0,000 | 4,400(L) | | Z' S4 |
| q | 0,81 (-q107) | 0,81 (-q107) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | 1,09 (q114) | 1,09 (q114) | 0,000 | 2,765(L) | | Z' S17-S18,S21 |
| q | 1,07 (-q109) | 1,07 (-q109) | 0,000 | 2,765(L) | | Z' S17-S18,S21 |
| q | 0,82 (q115) | 0,82 (q115) | 1,700 | 2,711 | | Z' S22 |
| q | 0,81 (-q107) | 0,81 (-q107) | 1,700 | 2,711 | | Z' S22 |
| q | 1,24 (q116) | 1,24 (q116) | 2,711 | 3,253(L) | | Z' S22 |
| q | 0,81 (-q107) | 0,81 (-q107) | 2,711 | 3,253(L) | | Z' S22 |
| q | 1,09 (q114) | 1,09 (q114) | 0,000 | 0,147 | | Z' S22 |
| q | 1,07 (-q109) | 1,07 (-q109) | 0,000 | 0,147 | | Z' S22 |
| q | 0,86 (q117) | 0,82 (q115) | 0,147 | 1,700 | | Z' S22 |
| q | 0,81 (-q107) | 0,81 (-q107) | 0,147 | 1,700 | | Z' S22 |
| q | 0,00 (q118) | 0,00 (q118) | 0,000 | 1,553 | | Z' S28 |
| q | 0,81 (-q107) | 0,81 (-q107) | 0,000 | 1,553 | | Z' S28 |
| q | 0,00 (q119) | 0,00 (q119) | 3,106 | 13,281(L) | | Z' S28 |
| q | 1,07 (-q109) | 1,07 (-q109) | 3,106 | 13,281(L) | | Z' S28 |
| q | 0,00 (q118) | 0,00 (q120) | 1,553 | 3,106 | | Z' S28 |
| q | 0,81 (-q107) | 0,81 (-q107) | 1,553 | 3,106 | | Z' S28 |
| q | 0,00 (q119) | 0,00 (q119) | 0,000 | 2,223 | | Z' S29 |
| q | 1,07 (-q109) | 1,07 (-q109) | 0,000 | 2,223 | | Z' S29 |
| q | 0,00 (q121) | 0,00 (q121) | 2,223 | 2,765(L) | | Z' S29 |
| q | 1,07 (-q109) | 1,07 (-q109) | 2,223 | 2,765(L) | | Z' S29 |
| **Som lasten** | **X: -19,66** | **kN Z: 45,83** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



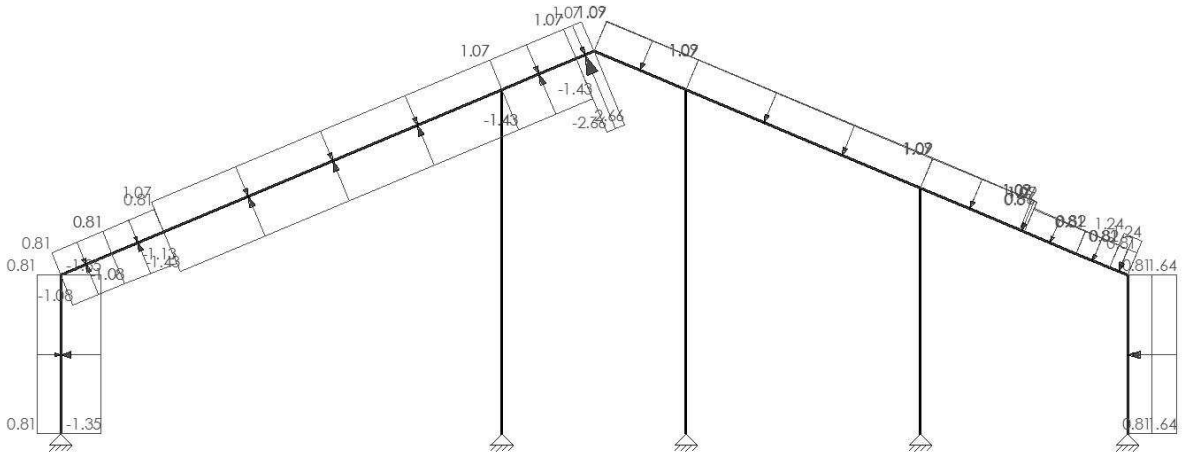

## B.G.32: WINDBELASTING VAN RECHTS + ONDERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE) (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.32: Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor)** | | | | | | |
| q | -1,35 (q95) | -1,35 (q95) | 0,000 | 4,400(L) | | Z' S1 |
| q | 1,64 (q97) | 1,64 (q97) | 0,000 | 4,400(L) | | Z' S4 |
| q | 0,81 (-q92) | 0,81 (-q92) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | -0,89 (q99) | -0,89 (q99) | 0,000 | 2,765(L) | | Z' S17-S18,S21 |
| q | 1,07 (-q94) | 1,07 (-q94) | 0,000 | 2,765(L) | | Z' S17-S18,S21 |
| q | -0,67 (q100) | -0,67 (q100) | 1,700 | 2,711 | | Z' S22 |
| q | 0,81 (-q92) | 0,81 (-q92) | 1,700 | 2,711 | | Z' S22 |
| q | -1,75 (q101) | -1,75 (q101) | 2,711 | 3,253(L) | | Z' S22 |
| q | 0,81 (-q92) | 0,81 (-q92) | 2,711 | 3,253(L) | | Z' S22 |
| q | -0,89 (q99) | -0,89 (q99) | 0,000 | 0,147 | | Z' S22 |
| q | 1,07 (-q94) | 1,07 (-q94) | 0,000 | 0,147 | | Z' S22 |
| q | -0,70 (q102) | -0,67 (q100) | 0,147 | 1,700 | | Z' S22 |
| q | 0,81 (-q92) | 0,81 (-q92) | 0,147 | 1,700 | | Z' S22 |
| q | 0,00 (q118) | 0,00 (q118) | 0,000 | 1,553 | | Z' S28 |
| q | 0,81 (-q92) | 0,81 (-q92) | 0,000 | 1,553 | | Z' S28 |
| q | 0,00 (q119) | 0,00 (q119) | 3,106 | 13,281(L) | | Z' S28 |
| q | 1,07 (-q94) | 1,07 (-q94) | 3,106 | 13,281(L) | | Z' S28 |
| q | 0,00 (q118) | 0,00 (q120) | 1,553 | 3,106 | | Z' S28 |
| q | 0,81 (-q92) | 0,81 (-q92) | 1,553 | 3,106 | | Z' S28 |
| q | 0,00 (q119) | 0,00 (q119) | 0,000 | 2,223 | | Z' S29 |
| q | 1,07 (-q94) | 1,07 (-q94) | 0,000 | 2,223 | | Z' S29 |
| q | 0,00 (q121) | 0,00 (q121) | 2,223 | 2,765(L) | | Z' S29 |
| q | 1,07 (-q94) | 1,07 (-q94) | 2,223 | 2,765(L) | | Z' S29 |
| **Som lasten** | **X: -7,66** | **kN Z: 17,19** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |




## B.G.33: WINDBELASTING VAN RECHTS + ONDERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE) (2E CORR. FACTOR)

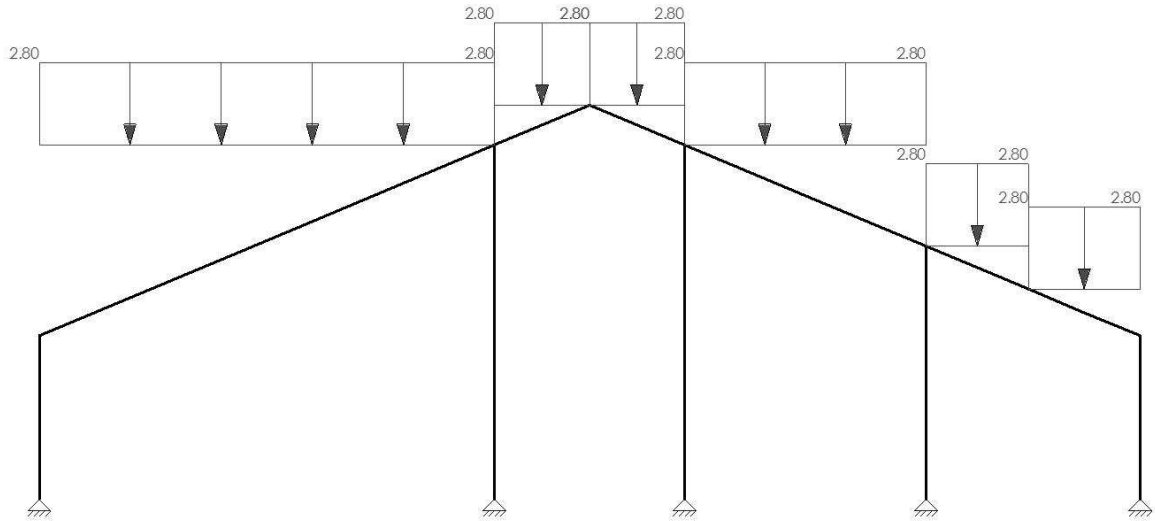
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.33: Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor)** | | | | | | |
| q | -1,35 (q95) | -1,35 (q95) | 0,000 | 4,400(L) | | Z' S1 |
| q | 1,64 (q97) | 1,64 (q97) | 0,000 | 4,400(L) | | Z' S4 |
| q | 0,81 (-q92) | 0,81 (-q92) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | 1,09 (q114) | 1,09 (q114) | 0,000 | 2,765(L) | | Z' S17-S18,S21 |
| q | 1,07 (-q94) | 1,07 (-q94) | 0,000 | 2,765(L) | | Z' S17-S18,S21 |
| q | 0,82 (q115) | 0,82 (q115) | 1,700 | 2,711 | | Z' S22 |
| q | 0,81 (-q92) | 0,81 (-q92) | 1,700 | 2,711 | | Z' S22 |
| q | 1,24 (q116) | 1,24 (q116) | 2,711 | 3,253(L) | | Z' S22 |
| q | 0,81 (-q92) | 0,81 (-q92) | 2,711 | 3,253(L) | | Z' S22 |
| q | 1,09 (q114) | 1,09 (q114) | 0,000 | 0,147 | | Z' S22 |
| q | 1,07 (-q94) | 1,07 (-q94) | 0,000 | 0,147 | | Z' S22 |
| q | 0,86 (q117) | 0,82 (q115) | 0,147 | 1,700 | | Z' S22 |
| q | 0,81 (-q92) | 0,81 (-q92) | 0,147 | 1,700 | | Z' S22 |
| q | -1,08 (q103) | -1,08 (q103) | 0,000 | 1,553 | | Z' S28 |
| q | 0,81 (-q92) | 0,81 (-q92) | 0,000 | 1,553 | | Z' S28 |
| q | -1,43 (q104) | -1,43 (q104) | 3,106 | 13,281(L) | | Z' S28 |
| q | 1,07 (-q94) | 1,07 (-q94) | 3,106 | 13,281(L) | | Z' S28 |
| q | -1,08 (q103) | -1,13 (q105) | 1,553 | 3,106 | | Z' S28 |
| q | 0,81 (-q92) | 0,81 (-q92) | 1,553 | 3,106 | | Z' S28 |
| q | -1,43 (q104) | -1,43 (q104) | 0,000 | 2,223 | | Z' S29 |
| q | 1,07 (-q94) | 1,07 (-q94) | 0,000 | 2,223 | | Z' S29 |
| q | -2,66 (q106) | -2,66 (q106) | 2,223 | 2,765(L) | | Z' S29 |
| q | 1,07 (-q94) | 1,07 (-q94) | 2,223 | 2,765(L) | | Z' S29 |
| **Som lasten** | **X: -28,39** | **kN Z: 24,99** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |




## B.G.34: SNEEUWBELASTING 1

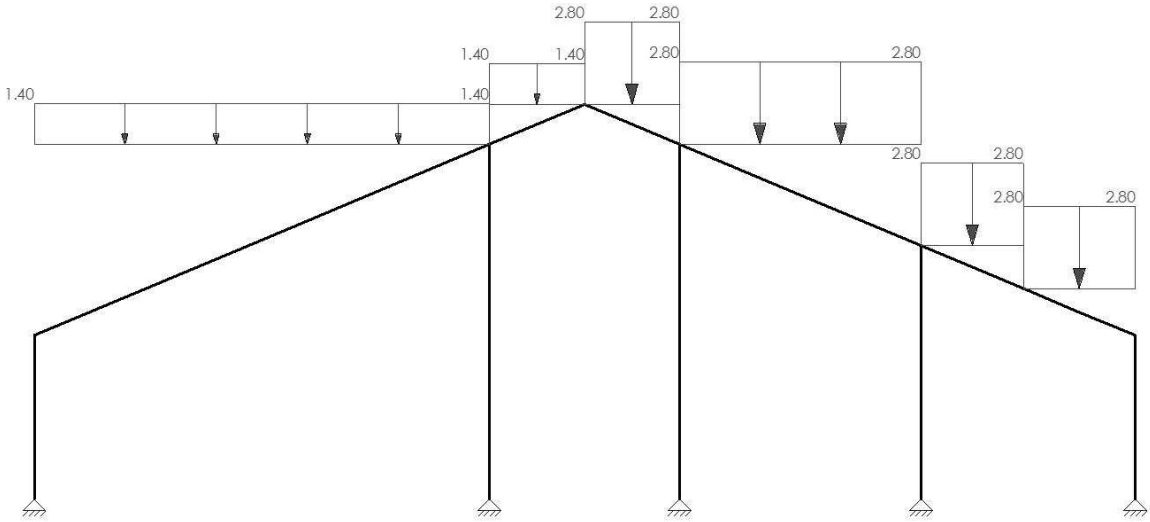
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.34: Sneeuwbelasting 1** | | | | | | |
| q | 2,80 (q122) | 2,80 (q122) | 0,000 | 2,550(L) | Z | S17-S18,S21-S22, S28-S29 |
| **Som lasten** | **X: 0,00** | **kN Z: 82,88** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |






## B.G.35: SNEEUWBELASTING 2

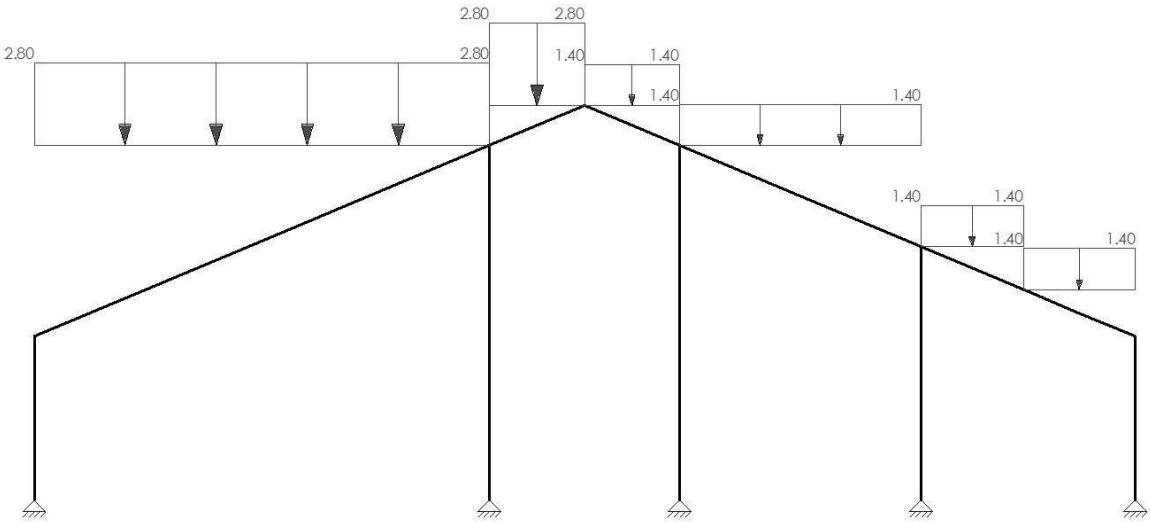
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.35: Sneeuwbelasting 2** | | | | | | |
| q | 2,80 (q122) | 2,80 (q122) | 0,000 | 2,550(L) | Z | S17-S18,S21-S22 |
| q | 1,40 (q123) | 1,40 (q123) | 0,000 | 12,250(L) | Z | S28-S29 |
| **Som lasten** | **X: 0,00** | **kN Z: 62,16** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |




## B.G.36: SNEEUWBELASTING 3

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.36: Sneeuwbelasting 3** | | | | | | |
| q | 1,40 (q123) | 1,40 (q123) | 0,000 | 2,550(L) | Z | S17-S18,S21-S22 |
| q | 2,80 (q122) | 2,80 (q122) | 0,000 | 12,250(L) | Z | S28-S29 |
| **Som lasten** | **X: 0,00** | **kN Z: 62,16** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



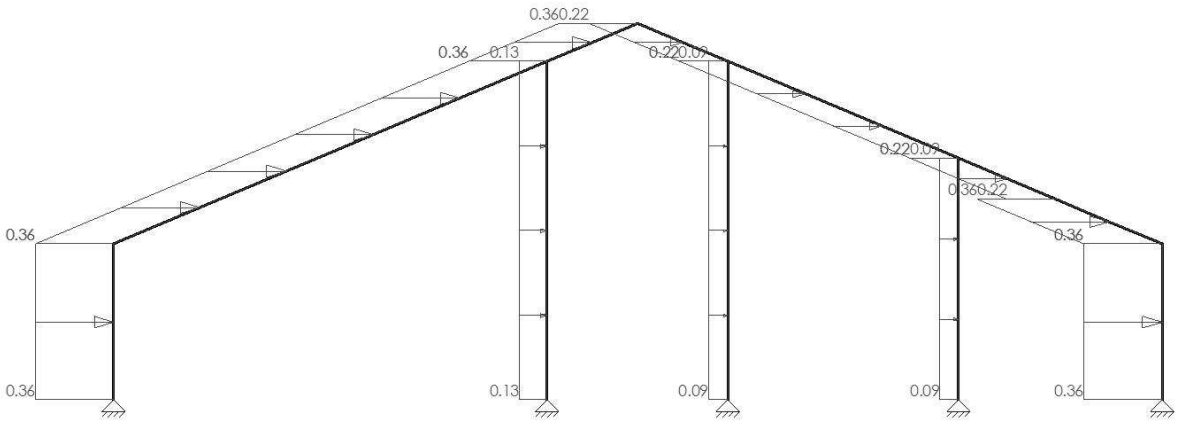



## B.G.37: KNIKLENGTE (ASSYMETRISCH)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.37: Kniklengte (Assymetrisch)** | | | | | | |
| qG | 0,36 (1.00x) | 0,36 (1.00x) | 0,000 | 4,400(L) | X" | S1,S4 |
| qG | 0,09 (1.00x) | 0,09 (1.00x) | 0,000 | 6,809(L) | X" | S8 |
| qG | 0,09 (1.00x) | 0,09 (1.00x) | 0,000 | 9,532(L) | X" | S16 |
| qG | 0,22 (1.00x) | 0,22 (1.00x) | 0,000 | 2,765(L) | X" | S17 |

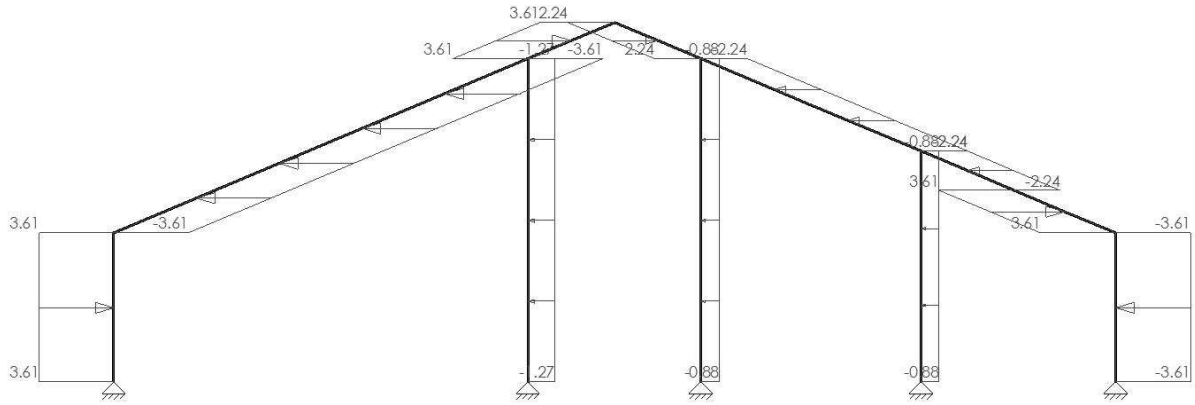
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.37: Kniklengte (Assymetrisch)** | | | | | | |
| qG | 0,22 (1.00x) | 0,22 (1.00x) | 0,000 | 7,047(L) | X" | S18 |
| qG | 0,22 (1.00x) | 0,22 (1.00x) | 0,000 | 2,982(L) | X" | S21 |
| qG | 0,36 (1.00x) | 0,36 (1.00x) | 0,000 | 3,253(L) | X" | S22 |
| qG | 0,13 (1.00x) | 0,13 (1.00x) | 0,000 | 9,532(L) | X" | S26 |
| qG | 0,36 (1.00x) | 0,36 (1.00x) | 0,000 | 13,281(L) | X" | S28 |
| qG | 0,36 (1.00x) | 0,36 (1.00x) | 0,000 | 2,765(L) | X" | S29 |
| **Som lasten** | **X: 15,64** | **kN Z: 0,00** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |

B.G.37: KNIKLENGTE (ASSYMETRISCH)




## B.G.38: KNIKLENGTE (SYMMETRISCH)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.38: Kniklengte (Symmetrisch)** | | | | | | |
| qG | 0,36 (10.00x) | 0,36 (10.00x) | 0,000 | 4,400(L) | X" | S1 |
| qG | 0,36 (-10.00x) | 0,36 (-10.00x) | 0,000 | 4,400(L) | X" | S4 |
| qG | 0,09 (-10.00x) | 0,09 (-10.00x) | 0,000 | 6,809(L) | X" | S8 |
| qG | 0,09 (-10.00x) | 0,09 (-10.00x) | 0,000 | 9,532(L) | X" | S16 |
| qG | 0,22 (10.00x) | 0,22 (10.00x) | 0,000 | 2,765(L) | X" | S17 |
| qG | 0,22 (-10.00x) | 0,22 (-10.00x) | 0,000 | 7,047(L) | X" | S18 |
| qG | 0,22 (-10.00x) | 0,22 (-10.00x) | 0,000 | 2,982(L) | X" | S21 |
| qG | 0,36 (10.00x) | 0,36 (10.00x) | 0,000 | 3,253(L) | X" | S22 |
| qG | 0,13 (-10.00x) | 0,13 (-10.00x) | 0,000 | 9,532(L) | X" | S26 |
| qG | 0,36 (-10.00x) | 0,36 (-10.00x) | 0,000 | 13,281(L) | X" | S28 |
| qG | 0,36 (10.00x) | 0,36 (10.00x) | 0,000 | 2,765(L) | X" | S29 |
| **Som lasten** | **X: -68,90** | **kN Z: 0,00** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |




## FUNDAMENTEEL BELASTINGSCOMBINATIES (TABEL)

| B.G. | Omschrijving | Fu.C.1 | Fu.C.2 | Fu.C.3 | Fu.C.4 | Fu.C.5 | Fu.C.6 | Fu.C.7 | Fu.C.8 |
|---|---|---|---|---|---|---|---|---|---|
| B.G.1 | Permanente Belasting | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| B.G.2 | Windbelasting van Links + Overdruk | 1.13 | - | - | - | - | - | - | - |
| B.G.3 | Windbelasting van Links + Overdruk (2e Cpe) | - | 1.13 | - | - | - | - | - | - |
| B.G.4 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | 1.13 | - | - | - | - | - |
| B.G.5 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | 1.13 | - | - | - | - |
| B.G.6 | Windbelasting van Links + Overdruk (2e corr. factor) | - | - | - | - | 1.13 | - | - | - |
| B.G.7 | Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | 1.13 | - | - |
| B.G.8 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | 1.13 | - |
| B.G.9 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | 1.13 |
| B.G.10 | Windbelasting van Links + Onderdruk | - | - | - | - | - | - | - | - |
| B.G.11 | Windbelasting van Links + Onderdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.12 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.13 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.14 | Windbelasting van Links + Onderdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.15 | Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.16 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.17 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.18 | Windbelasting van Rechts + Overdruk | - | - | - | - | - | - | - | - |
| B.G.19 | Windbelasting van Rechts + Overdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.20 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.21 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.22 | Windbelasting van Rechts + Overdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.23 | Windbelasting van Rechts + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.24 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.25 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.26 | Windbelasting van Rechts + Onderdruk | - | - | - | - | - | - | - | - |
| B.G.27 | Windbelasting van Rechts + Onderdruk (2e Cpe) | - | - | - | - | - | - | - | - |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| B.G.28 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.29 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.30 | Windbelasting van Rechts + Onderdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.31 | Windbelasting van Rechts + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.32 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.33 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.34 | Sneeuwbelasting 1 | - | - | - | - | - | - | - | - |
| B.G.35 | Sneeuwbelasting 2 | - | - | - | - | - | - | - | - |
| B.G.36 | Sneeuwbelasting 3 | - | - | - | - | - | - | - | - |
| B.G.37 | Kniklengte (Assymetrisch) | - | - | - | - | - | - | - | - |
| B.G.38 | Kniklengte (Symmetrisch) | - | - | - | - | - | - | - | - |

| **B.G.** | **Omschrijving** | **Fu.C.9** | **Fu.C.10** | **Fu.C.11 (Overslaan)** | **Fu.C.12** | **Fu.C.13** | **Fu.C.14** | **Fu.C.15 (Overslaan)** | **Fu.C.16** |
|---|---|---|---|---|---|---|---|---|---|
| B.G.1 | Permanente Belasting | 1.08 | 1.08 | 1.08 | 1.08 | 1.08 | 1.08 | 1.08 | 1.08 |
| B.G.2 | Windbelasting van Links + Overdruk | - | - | - | - | - | - | - | - |
| B.G.3 | Windbelasting van Links + Overdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.4 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.5 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.6 | Windbelasting van Links + Overdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.7 | Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.8 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.9 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.10 | Windbelasting van Links + Onderdruk | 1.13 | - | - | - | - | - | - | - |
| B.G.11 | Windbelasting van Links + Onderdruk (2e Cpe) | - | 1.13 | - | - | - | - | - | - |
| B.G.12 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | 1.13 | - | - | - | - | - |
| B.G.13 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | 1.13 | - | - | - | - |
| B.G.14 | Windbelasting van Links + Onderdruk (2e corr. factor) | - | - | - | - | 1.13 | - | - | - |
| B.G.15 | Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | 1.13 | - | - |
| B.G.16 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | 1.13 | - |
| B.G.17 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | 1.13 |
| B.G.18 | Windbelasting van Rechts + Overdruk | - | - | - | - | - | - | - | - |
| B.G.19 | Windbelasting van Rechts + Overdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.20 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.21 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.22 | Windbelasting van Rechts + Overdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.23 | Windbelasting van Rechts + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.24 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.25 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.26 | Windbelasting van Rechts + Onderdruk | - | - | - | - | - | - | - | - |
| B.G.27 | Windbelasting van Rechts + Onderdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.28 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.29 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.30 | Windbelasting van Rechts + Onderdruk (2e corr. factor) | - | - | - | - | - | - | - | - |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| B.G.31 | Windbelasting van Rechts + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.32 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.33 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.34 | Sneeuwbelasting 1 | - | - | - | - | - | - | - | - |
| B.G.35 | Sneeuwbelasting 2 | - | - | - | - | - | - | - | - |
| B.G.36 | Sneeuwbelasting 3 | - | - | - | - | - | - | - | - |
| B.G.37 | Kniklengte (Assymetrisch) | - | - | - | - | - | - | - | - |
| B.G.38 | Kniklengte (Symmetrisch) | - | - | - | - | - | - | - | - |
| **B.G.** | **Omschrijving** | **Fu.C.17** | **Fu.C.18** | **Fu.C.19** | **Fu.C.20** | **Fu.C.21** | **Fu.C.22** | **Fu.C.23** | **Fu.C.24** |
| B.G.1 | Permanente Belasting | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| B.G.2 | Windbelasting van Links + Overdruk | - | - | - | - | - | - | - | - |
| B.G.3 | Windbelasting van Links + Overdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.4 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.5 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.6 | Windbelasting van Links + Overdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.7 | Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.8 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.9 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.10 | Windbelasting van Links + Onderdruk | - | - | - | - | - | - | - | - |
| B.G.11 | Windbelasting van Links + Onderdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.12 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.13 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.14 | Windbelasting van Links + Onderdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.15 | Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.16 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.17 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.18 | Windbelasting van Rechts + Overdruk | 1.13 | - | - | - | - | - | - | - |
| B.G.19 | Windbelasting van Rechts + Overdruk (2e Cpe) | - | 1.13 | - | - | - | - | - | - |
| B.G.20 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | 1.13 | - | - | - | - | - |
| B.G.21 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | 1.13 | - | - | - | - |
| B.G.22 | Windbelasting van Rechts + Overdruk (2e corr. factor) | - | - | - | - | 1.13 | - | - | - |
| B.G.23 | Windbelasting van Rechts + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | 1.13 | - | - |
| B.G.24 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | 1.13 | - |
| B.G.25 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | 1.13 |
| B.G.26 | Windbelasting van Rechts + Onderdruk | - | - | - | - | - | - | - | - |
| B.G.27 | Windbelasting van Rechts + Onderdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.28 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.29 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.30 | Windbelasting van Rechts + Onderdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.31 | Windbelasting van Rechts + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.32 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.33 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| B.G.34 | Sneeuwbelasting 1 | - | - | - | - | - | - | - | - |
| B.G.35 | Sneeuwbelasting 2 | - | - | - | - | - | - | - | - |
| B.G.36 | Sneeuwbelasting 3 | - | - | - | - | - | - | - | - |
| B.G.37 | Kniklengte (Assymetrisch) | - | - | - | - | - | - | - | - |
| B.G.38 | Kniklengte (Symmetrisch) | - | - | - | - | - | - | - | - |
| **B.G.** | **Omschrijving** | **Fu.C.25** | **Fu.C.26** | **Fu.C.27** | **Fu.C.28** | **Fu.C.29** | **Fu.C.30 (Overslaan)** | **Fu.C.31 (Overslaan)** | **Fu.C.32** |
| B.G.1 | Permanente Belasting | 1.08 | 1.08 | 1.08 | 1.08 | 1.08 | 1.08 | 1.08 | 1.08 |
| B.G.2 | Windbelasting van Links + Overdruk | - | - | - | - | - | - | - | - |
| B.G.3 | Windbelasting van Links + Overdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.4 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.5 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.6 | Windbelasting van Links + Overdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.7 | Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.8 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.9 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.10 | Windbelasting van Links + Onderdruk | - | - | - | - | - | - | - | - |
| B.G.11 | Windbelasting van Links + Onderdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.12 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.13 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.14 | Windbelasting van Links + Onderdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.15 | Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.16 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.17 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.18 | Windbelasting van Rechts + Overdruk | - | - | - | - | - | - | - | - |
| B.G.19 | Windbelasting van Rechts + Overdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.20 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.21 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.22 | Windbelasting van Rechts + Overdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.23 | Windbelasting van Rechts + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.24 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.25 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.26 | Windbelasting van Rechts + Onderdruk | 1.13 | - | - | - | - | - | - | - |
| B.G.27 | Windbelasting van Rechts + Onderdruk (2e Cpe) | - | 1.13 | - | - | - | - | - | - |
| B.G.28 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | 1.13 | - | - | - | - | - |
| B.G.29 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | 1.13 | - | - | - | - |
| B.G.30 | Windbelasting van Rechts + Onderdruk (2e corr. factor) | - | - | - | - | 1.13 | - | - | - |
| B.G.31 | Windbelasting van Rechts + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | 1.13 | - | - |
| B.G.32 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | 1.13 | - |
| B.G.33 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | 1.13 |
| B.G.34 | Sneeuwbelasting 1 | - | - | - | - | - | - | - | - |
| B.G.35 | Sneeuwbelasting 2 | - | - | - | - | - | - | - | - |
| B.G.36 | Sneeuwbelasting 3 | - | - | - | - | - | - | - | - |
| B.G.37 | Kniklengte (Assymetrisch) | - | - | - | - | - | - | - | - |
| B.G.38 | Kniklengte (Symmetrisch) | - | - | - | - | - | - | - | - |

| B.G. | Omschrijving | Fu.C.33 | Fu.C.34 | Fu.C.35 | Fu.C.36 (Overslaan) | Fu.C.37 |
|---|---|---|---|---|---|---|
| B.G.1 | Permanente Belasting | 1.08 | 1.08 | 1.08 | 1.22 | 0.90 |
| B.G.2 | Windbelasting van Links + Overdruk | - | - | - | - | - |
| B.G.3 | Windbelasting van Links + Overdruk (2e Cpe) | - | - | - | - | - |
| B.G.4 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - |
| B.G.5 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - |
| B.G.6 | Windbelasting van Links + Overdruk (2e corr. factor) | - | - | - | - | - |
| B.G.7 | Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.8 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.9 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.10 | Windbelasting van Links + Onderdruk | - | - | - | - | - |
| B.G.11 | Windbelasting van Links + Onderdruk (2e Cpe) | - | - | - | - | - |
| B.G.12 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - |
| B.G.13 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - |
| B.G.14 | Windbelasting van Links + Onderdruk (2e corr. factor) | - | - | - | - | - |
| B.G.15 | Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.16 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.17 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.18 | Windbelasting van Rechts + Overdruk | - | - | - | - | - |
| B.G.19 | Windbelasting van Rechts + Overdruk (2e Cpe) | - | - | - | - | - |
| B.G.20 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - |
| B.G.21 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - |
| B.G.22 | Windbelasting van Rechts + Overdruk (2e corr. factor) | - | - | - | - | - |
| B.G.23 | Windbelasting van Rechts + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.24 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.25 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.26 | Windbelasting van Rechts + Onderdruk | - | - | - | - | - |
| B.G.27 | Windbelasting van Rechts + Onderdruk (2e Cpe) | - | - | - | - | - |
| B.G.28 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - |
| B.G.29 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - |
| B.G.30 | Windbelasting van Rechts + Onderdruk (2e corr. factor) | - | - | - | - | - |
| B.G.31 | Windbelasting van Rechts + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.32 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.33 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.34 | Sneeuwbelasting 1 | 1.01 | - | - | - | - |
| B.G.35 | Sneeuwbelasting 2 | - | 1.01 | - | - | - |
| B.G.36 | Sneeuwbelasting 3 | - | - | 1.01 | - | - |
| B.G.37 | Kniklengte (Assymetrisch) | - | - | - | - | - |
| B.G.38 | Kniklengte (Symmetrisch) | - | - | - | - | - |

## KARAKTERISTIEK BELASTINGSCOMBINATIES (TABEL)

| B.G. | Omschrijving | Ka.C.(w1) | Ka.C.1 | Ka.C.2 | Ka.C.3 | Ka.C.4 | Ka.C.5 | Ka.C.6 | Ka.C.7 |
|---|---|---|---|---|---|---|---|---|---|
| B.G.1 | Permanente Belasting | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| B.G.2 | Windbelasting van Links + Overdruk | - | - | 0.84 | - | - | - | - | - |
| B.G.3 | Windbelasting van Links + Overdruk (2e Cpe) | - | - | - | 0.84 | - | - | - | - |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| B.G.4 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | 0.84 | - | - | - |
| B.G.5 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | 0.84 | - | - |
| B.G.6 | Windbelasting van Links + Overdruk (2e corr. factor) | - | - | - | - | - | - | 0.84 | - |
| B.G.7 | Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | 0.84 |
| B.G.8 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.9 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.10 | Windbelasting van Links + Onderdruk | - | - | - | - | - | - | - | - |
| B.G.11 | Windbelasting van Links + Onderdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.12 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.13 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.14 | Windbelasting van Links + Onderdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.15 | Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.16 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.17 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.18 | Windbelasting van Rechts + Overdruk | - | - | - | - | - | - | - | - |
| B.G.19 | Windbelasting van Rechts + Overdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.20 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.21 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.22 | Windbelasting van Rechts + Overdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.23 | Windbelasting van Rechts + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.24 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.25 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.26 | Windbelasting van Rechts + Onderdruk | - | - | - | - | - | - | - | - |
| B.G.27 | Windbelasting van Rechts + Onderdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.28 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.29 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.30 | Windbelasting van Rechts + Onderdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.31 | Windbelasting van Rechts + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.32 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.33 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.34 | Sneeuwbelasting 1 | - | - | - | - | - | - | - | - |
| B.G.35 | Sneeuwbelasting 2 | - | - | - | - | - | - | - | - |
| B.G.36 | Sneeuwbelasting 3 | - | - | - | - | - | - | - | - |
| B.G.37 | Kniklengte (Assymetrisch) | - | - | - | - | - | - | - | - |
| B.G.38 | Kniklengte (Symmetrisch) | - | - | - | - | - | - | - | - |

| **B.G.** | **Omschrijving** | **Ka.C.8** | **Ka.C.9** | **Ka.C.10** | **Ka.C.11** | **Ka.C.12 (Overslaan)** | **Ka.C.13** | **Ka.C.14** | **Ka.C.15 (Overslaan)** |
|---|---|---|---|---|---|---|---|---|---|
| B.G.1 | Permanente Belasting | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| B.G.2 | Windbelasting van Links + Overdruk | - | - | - | - | - | - | - | - |
| B.G.3 | Windbelasting van Links + Overdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.4 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.5 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.6 | Windbelasting van Links + Overdruk (2e corr. factor) | - | - | - | - | - | - | - | - |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| B.G.7 | Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.8 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | 0.84 | - | - | - | - | - | - | - |
| B.G.9 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | 0.84 | - | - | - | - | - | - |
| B.G.10 | Windbelasting van Links + Onderdruk | - | - | 0.84 | - | - | - | - | - |
| B.G.11 | Windbelasting van Links + Onderdruk (2e Cpe) | - | - | - | 0.84 | - | - | - | - |
| B.G.12 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | 0.84 | - | - | - |
| B.G.13 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | 0.84 | - | - |
| B.G.14 | Windbelasting van Links + Onderdruk (2e corr. factor) | - | - | - | - | - | - | 0.84 | - |
| B.G.15 | Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | 0.84 |
| B.G.16 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.17 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.18 | Windbelasting van Rechts + Overdruk | - | - | - | - | - | - | - | - |
| B.G.19 | Windbelasting van Rechts + Overdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.20 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.21 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.22 | Windbelasting van Rechts + Overdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.23 | Windbelasting van Rechts + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.24 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.25 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.26 | Windbelasting van Rechts + Onderdruk | - | - | - | - | - | - | - | - |
| B.G.27 | Windbelasting van Rechts + Onderdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.28 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.29 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.30 | Windbelasting van Rechts + Onderdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.31 | Windbelasting van Rechts + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.32 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.33 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.34 | Sneeuwbelasting 1 | - | - | - | - | - | - | - | - |
| B.G.35 | Sneeuwbelasting 2 | - | - | - | - | - | - | - | - |
| B.G.36 | Sneeuwbelasting 3 | - | - | - | - | - | - | - | - |
| B.G.37 | Kniklengte (Assymetrisch) | - | - | - | - | - | - | - | - |
| B.G.38 | Kniklengte (Symmetrisch) | - | - | - | - | - | - | - | - |
| **B.G.** | **Omschrijving** | **Ka.C.16 (Overslaan)** | **Ka.C.17** | **Ka.C.18** | **Ka.C.19** | **Ka.C.20** | **Ka.C.21** | **Ka.C.22** | **Ka.C.23** |
| B.G.1 | Permanente Belasting | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| B.G.2 | Windbelasting van Links + Overdruk | - | - | - | - | - | - | - | - |
| B.G.3 | Windbelasting van Links + Overdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.4 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.5 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.6 | Windbelasting van Links + Overdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.7 | Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.8 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| B.G.9 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.10 | Windbelasting van Links + Onderdruk | - | - | - | - | - | - | - | - |
| B.G.11 | Windbelasting van Links + Onderdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.12 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.13 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.14 | Windbelasting van Links + Onderdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.15 | Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.16 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | 0.84 | - | - | - | - | - | - | - |
| B.G.17 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | 0.84 | - | - | - | - | - | - |
| B.G.18 | Windbelasting van Rechts + Overdruk | - | - | 0.84 | - | - | - | - | - |
| B.G.19 | Windbelasting van Rechts + Overdruk (2e Cpe) | - | - | - | 0.84 | - | - | - | - |
| B.G.20 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | 0.84 | - | - | - |
| B.G.21 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | 0.84 | - | - |
| B.G.22 | Windbelasting van Rechts + Overdruk (2e corr. factor) | - | - | - | - | - | - | 0.84 | - |
| B.G.23 | Windbelasting van Rechts + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | 0.84 |
| B.G.24 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.25 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.26 | Windbelasting van Rechts + Onderdruk | - | - | - | - | - | - | - | - |
| B.G.27 | Windbelasting van Rechts + Onderdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.28 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.29 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.30 | Windbelasting van Rechts + Onderdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.31 | Windbelasting van Rechts + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.32 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.33 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.34 | Sneeuwbelasting 1 | - | - | - | - | - | - | - | - |
| B.G.35 | Sneeuwbelasting 2 | - | - | - | - | - | - | - | - |
| B.G.36 | Sneeuwbelasting 3 | - | - | - | - | - | - | - | - |
| B.G.37 | Kniklengte (Assymetrisch) | - | - | - | - | - | - | - | - |
| B.G.38 | Kniklengte (Symmetrisch) | - | - | - | - | - | - | - | - |

| **B.G.** | **Omschrijving** | **Ka.C.24** | **Ka.C.25** | **Ka.C.26 (Overslaan)** | **Ka.C.27** | **Ka.C.28 (Overslaan)** | **Ka.C.29** | **Ka.C.30** | **Ka.C.31 (Overslaan)** |
|---|---|---|---|---|---|---|---|---|---|
| B.G.1 | Permanente Belasting | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| B.G.2 | Windbelasting van Links + Overdruk | - | - | - | - | - | - | - | - |
| B.G.3 | Windbelasting van Links + Overdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.4 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.5 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.6 | Windbelasting van Links + Overdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.7 | Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.8 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.9 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.10 | Windbelasting van Links + Onderdruk | - | - | - | - | - | - | - | - |
| B.G.11 | Windbelasting van Links + Onderdruk (2e Cpe) | - | - | - | - | - | - | - | - |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| B.G.12 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.13 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.14 | Windbelasting van Links + Onderdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.15 | Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.16 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.17 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.18 | Windbelasting van Rechts + Overdruk | - | - | - | - | - | - | - | - |
| B.G.19 | Windbelasting van Rechts + Overdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.20 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.21 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.22 | Windbelasting van Rechts + Overdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.23 | Windbelasting van Rechts + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.24 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | 0.84 | - | - | - | - | - | - | - |
| B.G.25 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | 0.84 | - | - | - | - | - | - |
| B.G.26 | Windbelasting van Rechts + Onderdruk | - | - | 0.84 | - | - | - | - | - |
| B.G.27 | Windbelasting van Rechts + Onderdruk (2e Cpe) | - | - | - | 0.84 | - | - | - | - |
| B.G.28 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | 0.84 | - | - | - |
| B.G.29 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | 0.84 | - | - |
| B.G.30 | Windbelasting van Rechts + Onderdruk (2e corr. factor) | - | - | - | - | - | - | 0.84 | - |
| B.G.31 | Windbelasting van Rechts + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | 0.84 |
| B.G.32 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.33 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.34 | Sneeuwbelasting 1 | - | - | - | - | - | - | - | - |
| B.G.35 | Sneeuwbelasting 2 | - | - | - | - | - | - | - | - |
| B.G.36 | Sneeuwbelasting 3 | - | - | - | - | - | - | - | - |
| B.G.37 | Kniklengte (Assymetrisch) | - | - | - | - | - | - | - | - |
| B.G.38 | Kniklengte (Symmetrisch) | - | - | - | - | - | - | - | - |

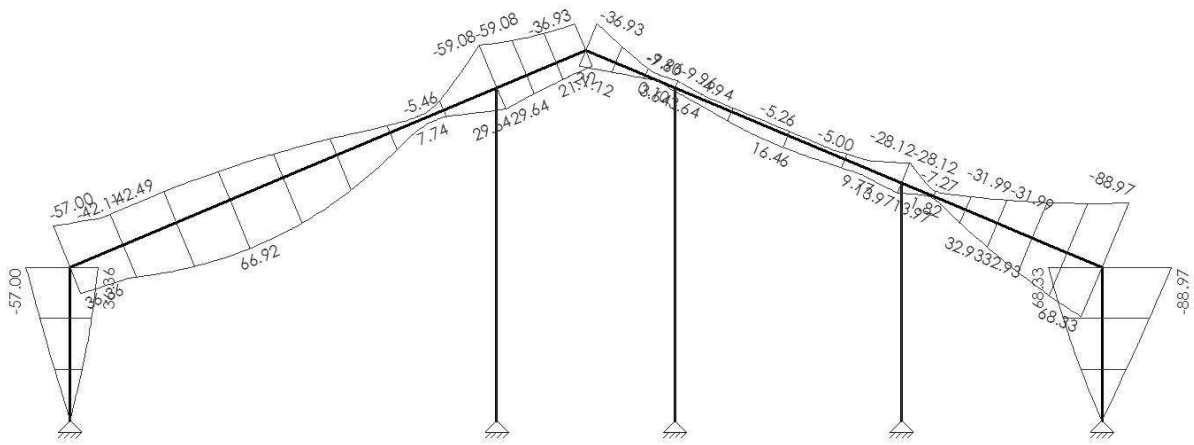
| **B.G.** | **Omschrijving** | **Ka.C.32 (Overslaan)** | **Ka.C.33** | **Ka.C.34** | **Ka.C.35** | **Ka.C.36** |
|---|---|---|---|---|---|---|
| B.G.1 | Permanente Belasting | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| B.G.2 | Windbelasting van Links + Overdruk | - | - | - | - | - |
| B.G.3 | Windbelasting van Links + Overdruk (2e Cpe) | - | - | - | - | - |
| B.G.4 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - |
| B.G.5 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - |
| B.G.6 | Windbelasting van Links + Overdruk (2e corr. factor) | - | - | - | - | - |
| B.G.7 | Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.8 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.9 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.10 | Windbelasting van Links + Onderdruk | - | - | - | - | - |
| B.G.11 | Windbelasting van Links + Onderdruk (2e Cpe) | - | - | - | - | - |
| B.G.12 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - |
| B.G.13 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - |
| B.G.14 | Windbelasting van Links + Onderdruk (2e corr. factor) | - | - | - | - | - |

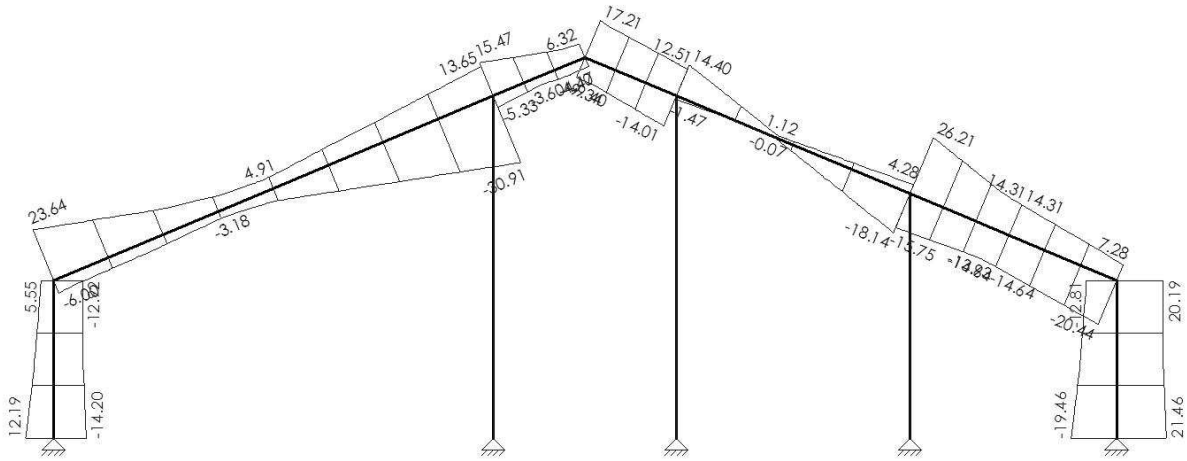
| | | | | | | |
|---|---|---|---|---|---|---|
| B.G.15 | Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.16 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.17 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.18 | Windbelasting van Rechts + Overdruk | - | - | - | - | - |
| B.G.19 | Windbelasting van Rechts + Overdruk (2e Cpe) | - | - | - | - | - |
| B.G.20 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - |
| B.G.21 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - |
| B.G.22 | Windbelasting van Rechts + Overdruk (2e corr. factor) | - | - | - | - | - |
| B.G.23 | Windbelasting van Rechts + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.24 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.25 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.26 | Windbelasting van Rechts + Onderdruk | - | - | - | - | - |
| B.G.27 | Windbelasting van Rechts + Onderdruk (2e Cpe) | - | - | - | - | - |
| B.G.28 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - |
| B.G.29 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - |
| B.G.30 | Windbelasting van Rechts + Onderdruk (2e corr. factor) | - | - | - | - | - |
| B.G.31 | Windbelasting van Rechts + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.32 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | 0.84 | - | - | - | - |
| B.G.33 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | 0.84 | - | - | - |
| B.G.34 | Sneeuwbelasting 1 | - | - | 0.75 | - | - |
| B.G.35 | Sneeuwbelasting 2 | - | - | - | 0.75 | - |
| B.G.36 | Sneeuwbelasting 3 | - | - | - | - | 0.75 |
| B.G.37 | Kniklengte (Assymetrisch) | - | - | - | - | - |
| B.G.38 | Kniklengte (Symmetrisch) | - | - | - | - | - |

## UITGANGSPUNTEN VAN DE ANALYSE

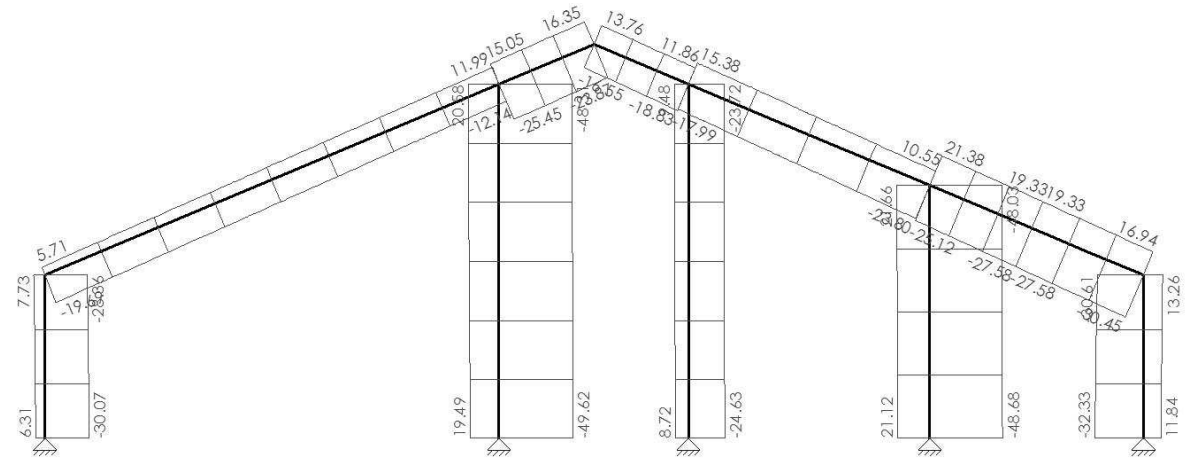
Lineaire Elastische Analyse uitgevoerd

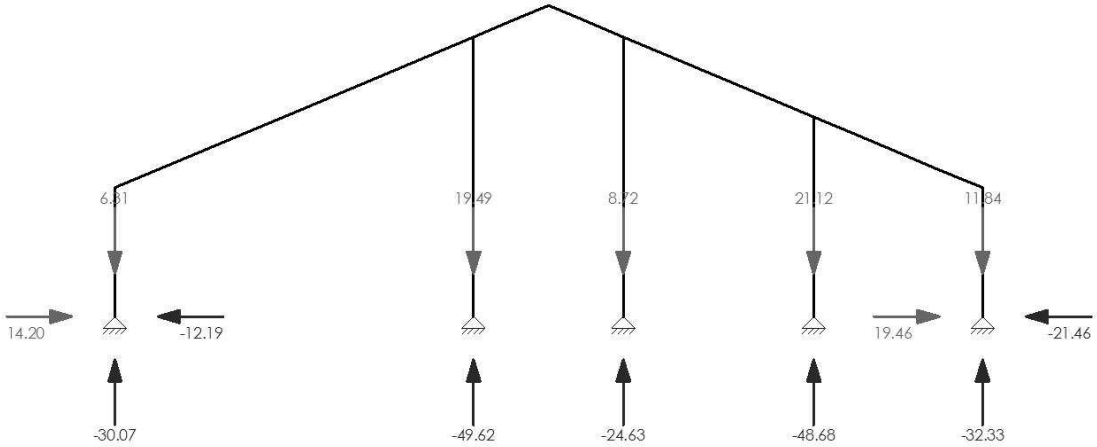
AFB. FU.C. MOMENT (MY) OMHULLENDE — Fundamenteel Belastingscombinaties




23.64
4.91
-3.18
13.65
15.47
6.32
-20.91
5.33
3.60
17.21
12.51
14.40
-14.01
1.47
1.12
-0.07
4.28
-18.14
-15.75
26.21
14.31
14.31
7.28
-20.44
5.55
-6.08
-12.82
12.19
-14.20
20.19
-19.46
21.46



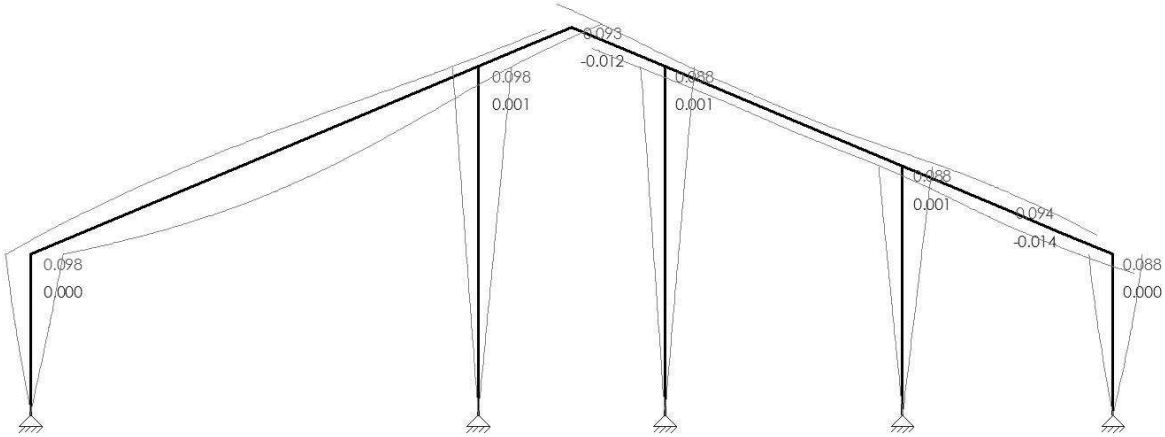

5.71
11.99
15.05
16.35
13.76
11.86
15.38
-12.74
-25.45
-18.83
-17.99
10.55
21.38
19.33
19.33
16.94
-25.12
-27.58
-27.58
-30.45
7.73
-30.07
6.31
19.49
-49.62
8.72
-24.63
21.12
-48.68
-32.33
13.26
11.84




## FU.C. EXTREME OPLEGREACTIES

| Oplegging | Knoop | B.C. | Xmax | Z | My | B.C. | X | Zmax | My | B.C. | X | Z | Mymax |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| O1 | K1 | Fu.C.32 | **14.20** | -18.77 | 0.00 | Fu.C.5 | -8.38 | **6.31** | 0.00 | | | | |
| O1 | K1 | Fu.C.4 | **-12.19** | -4.99 | 0.00 | Fu.C.33 | 6.51 | **-30.07** | 0.00 | | | | |
| O2 | K5 | Fu.C.20 | **19.46** | 11.17 | 0.00 | Fu.C.24 | 18.25 | **11.84** | 0.00 | | | | |
| O2 | K5 | Fu.C.16 | **-21.46** | -31.67 | 0.00 | Fu.C.12 | -20.25 | **-32.33** | 0.00 | | | | |
| O5 | K14 | | | | | Fu.C.4 | 0.00 | **8.72** | 0.00 | | | | |
| O5 | K14 | | | | | Fu.C.32 | 0.00 | **-24.63** | 0.00 | | | | |
| O6 | K8 | | | | | Fu.C.4 | 0.00 | **21.12** | 0.00 | | | | |
| O6 | K8 | | | | | Fu.C.32 | 0.00 | **-48.68** | 0.00 | | | | |
| O7 | K20 | | | | | Fu.C.20 | 0.00 | **19.49** | 0.00 | | | | |
| O7 | K20 | | | | | Fu.C.16 | 0.00 | **-49.62** | 0.00 | | | | |
| **Globale extreme waarden** | | | | | | | | | | | | | |
| O2 | K5 | Fu.C.20 | **19.46** | 11.17 | 0.00 | | | | | | | | |
| O2 | K5 | Fu.C.16 | **-21.46** | -31.67 | 0.00 | | | | | | | | |
| O6 | K8 | | | | | Fu.C.4 | 0.00 | **21.12** | 0.00 | | | | |
| O7 | K20 | | | | | Fu.C.16 | 0.00 | **-49.62** | 0.00 | | | | |
| **-** | **-** | **-** | **kN** | **kN** | **kNm** | **-** | **kN** | **kN** | **kNm** | | **kN** | **kN** | **kNm** |



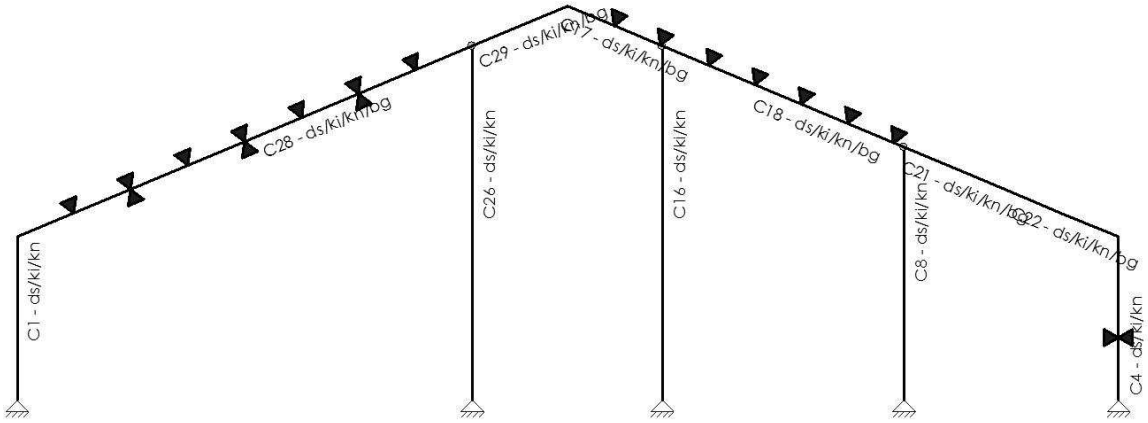



## KA.C. EXTREME DOORBUIGINGEN

| Staaf | B.C. | Knoop Begin | | Staaf | | Knoop Eind | |
|---|---|---|---|---|---|---|---|
| | | X | Z | Z'afst | Z' | X | Z |

| Staaf | B.C. | Knoop Begin | | Staaf | | Knoop Eind | |
|---|---|---|---|---|---|---|---|
| | | X | Z | Z'afst | Z' | X | Z |
| S1 | Ka.C.5 | 0,000 | 0,000 | 2.473 | **0.0029** | 0,081 | 0,000 |
| S1 | Ka.C.33 | 0,000 | 0,000 | 2.526 | **-0.0047** | -0,059 | 0,000 |
| S4 | Ka.C.17 | 0,088 | 0,000 | 1.869 | **-0.0071** | 0,000 | 0,000 |
| S4 | Ka.C.21 | -0,071 | 0,000 | 1.896 | **0.0053** | 0,000 | 0,000 |
| S17 | Ka.C.11 | 0,067 | -0,011 | 1.148 | **-0.0030** | 0,062 | 0,000 |
| S17 | Ka.C.22 | -0,037 | 0,005 | 1.037 | **0.0012** | -0,035 | 0,000 |
| S18 | Ka.C.11 | 0,062 | 0,000 | 3.420 | **0.0160** | 0,062 | 0,000 |
| S18 | Ka.C.22 | -0,035 | 0,000 | 3.622 | **-0.0037** | -0,035 | 0,000 |
| S21 | Ka.C.13 | 0,088 | 0,000 | 1.798 | **-0.0027** | 0,094 | -0,014 |
| S21 | Ka.C.25 | -0,071 | 0,001 | 2.002 | **0.0020** | -0,077 | 0,014 |
| S22 | Ka.C.13 | 0,094 | -0,014 | 1.762 | **-0.0048** | 0,088 | 0,000 |
| S22 | Ka.C.25 | -0,077 | 0,014 | 1.705 | **0.0042** | -0,071 | 0,000 |
| S28 | Ka.C.13 | 0,098 | 0,000 | 6.017 | **0.0700** | 0,098 | 0,001 |
| S28 | Ka.C.25 | -0,076 | 0,000 | 5.405 | **-0.0326** | -0,076 | 0,000 |
| S29 | Ka.C.13 | 0,098 | 0,001 | 1.323 | **-0.0028** | 0,093 | -0,012 |
| S29 | Ka.C.25 | -0,076 | 0,000 | 1.359 | **0.0011** | -0,073 | 0,006 |
| **-** | **-** | **m** | **m** | **m** | **m** | **m** | **m** |

AFB. STAALCONTROLE




## SAMENSTELLING CONSTRUCTIEDELEN

| Constructiedeel | Staaf/staven |
|---|---|
| C1 | S1 |
| C4 | S4 |
| C8 | S8 |
| C16 | S16 |
| C17 | S17 |
| C18 | S18 |
| C21 | S21 |
| C22 | S22 |
| C26 | S26 |
| C28 | S28 |
| C29 | S29 |

## KNIKLENGTEGEGEVENS

| Staaf | Profiel | | Lokale Y-as | | | Lokale Z-as | | |
|---|---|---|---|---|---|---|---|---|
| | | Lsys | methode | Lbuc | Lbuc/Lsys | methode | Lbuc | Lbuc/Lsys |
| C1 - V1 (0.000-4.400) | P1 | 4.400 | Ongeschoord | 14.283 | 3.25 | Cons. gesch. | 4.400 | 1.00 |
| C4 - V1 (0.000-4.400) | P1 | 4.400 | Ongeschoord | 11.636 | 2.64 | Cons. gesch. | 4.400 | 1.00 |
| C8 - V1 (0.000-6.809) | P2 | 6.810 | Geschoord | 6.553 | 0.96 | Cons. gesch. | 6.809 | 1.00 |
| C16 - V1 (0.000-9.532) | P2 | 9.530 | Geschoord | 9.174 | 0.96 | Cons. gesch. | 9.532 | 1.00 |
| C17 - V1 (0.000-2.765) | P3 | 2.760 | Ongeschoord | 6.155 | 2.23 | Handmatige Invoer | 1.350 | 0.49 |

| Staaf | Profiel | | Lokale Y-as | | | Lokale Z-as | | |
|---|---|---|---|---|---|---|---|---|
| | | Lsys | methode | Lbuc | Lbuc/Lsys | methode | Lbuc | Lbuc/Lsys |
| C18 - V1 (0.000-7.047) | P3 | 7.050 | Ongeschoord | 14.551 | 2.06 | Handmatige Invoer | 1.350 | 0.19 |
| C21 - V1 (0.000-2.982) | P3 | 2.980 | Handmatige Invoer | 9.000 | 3.02 | Handmatige Invoer | 1.350 | 0.45 |
| C22 - V1 (0.000-3.253) | P1 | 3.250 | Handmatige Invoer | 9.000 | 2.77 | Handmatige Invoer | 1.350 | 0.42 |
| C26 - V1 (0.000-9.532) | P4 | 9.530 | Geschoord | 9.174 | 0.96 | Cons. gesch. | 9.532 | 1.00 |
| C28 - V1 (0.000-13.281) | P1 | 13.280 | Ongeschoord | 20.452 | 1.54 | Handmatige Invoer | 1.350 | 0.10 |
| C29 - V1 (0.000-2.765) | P1 | 2.760 | Ongeschoord | 5.144 | 1.86 | Handmatige Invoer | 1.350 | 0.49 |
| - | - | m | - | m | - | - | m | - |

## KIPSTEUNENGEGEVENS

| Staaf | Profiel | Begin: | Eind: | Kipsteunen boven | Kipsteunen onder | Aangrijphoogte |
|---|---|---|---|---|---|---|
| C1 - V1 (0.000-4.400) | P1 | Gesteund | Gesteund | | | Centrum |
| C4 - V1 (0.000-4.400) | P1 | Gesteund | Gesteund | 2.7 | 2.7 | Centrum |
| C8 - V1 (0.000-6.809) | P2 | Gesteund | Gesteund | | | Centrum |
| C16 - V1 (0.000-9.532) | P2 | Gesteund | Gesteund | | | Centrum |
| C17 - V1 (0.000-2.765) | P3 | Gesteund | Gesteund | 1.35, 2.7 | | Centrum |
| C18 - V1 (0.000-7.047) | P3 | Gesteund | Gesteund | 1.35, 2.7, 4.05, 5.4, 6.75 | | Centrum |
| C21 - V1 (0.000-2.982) | P3 | Gesteund | Gesteund | | | Centrum |
| C22 - V1 (0.000-3.253) | P1 | Gesteund | Gesteund | | | Centrum |
| C26 - V1 (0.000-9.532) | P4 | Gesteund | Gesteund | | | Centrum |
| C28 - V1 (0.000-13.281) | P1 | Gesteund | Gesteund | 1.66,3.32,4.98,6.64,8.3,9.96 ,11.62 | 3.32,6.64,9.96 | Centrum |
| C29 - V1 (0.000-2.765) | P1 | Gesteund | Gesteund | | | Centrum |
| - | - | - | - | m | m | - |

## DOORBUIGINGGEGEVENS

| Staaf | Constructietype | Toetsing | Zeeg Y' | Zeeg Z' | Zeegvorm | Eis U;eind | Eis U;bij |
|---|---|---|---|---|---|---|---|
| C17 - V1 (0.000-2.765) | Dak | Algemeen | 0 | 0 | 3-Punt | L/250 | L/250 |
| C18 - V1 (0.000-7.047) | Dak | Algemeen | 0 | 0 | 3-Punt | L/250 | L/250 |
| C21 - V1 (0.000-2.982) | Dak | Algemeen | 0 | 0 | 3-Punt | L/250 | L/250 |
| C22 - V1 (0.000-3.253) | Dak | Algemeen | 0 | 0 | 3-Punt | L/250 | L/250 |
| C28 - V1 (0.000-13.281) | Dak | Algemeen | 0 | 25 | 3-Punt | L/250 | L/250 |
| C29 - V1 (0.000-2.765) | Dak | Algemeen | 0 | 0 | 3-Punt | L/250 | L/250 |
| - | - | - | mm | mm | - | - | - |

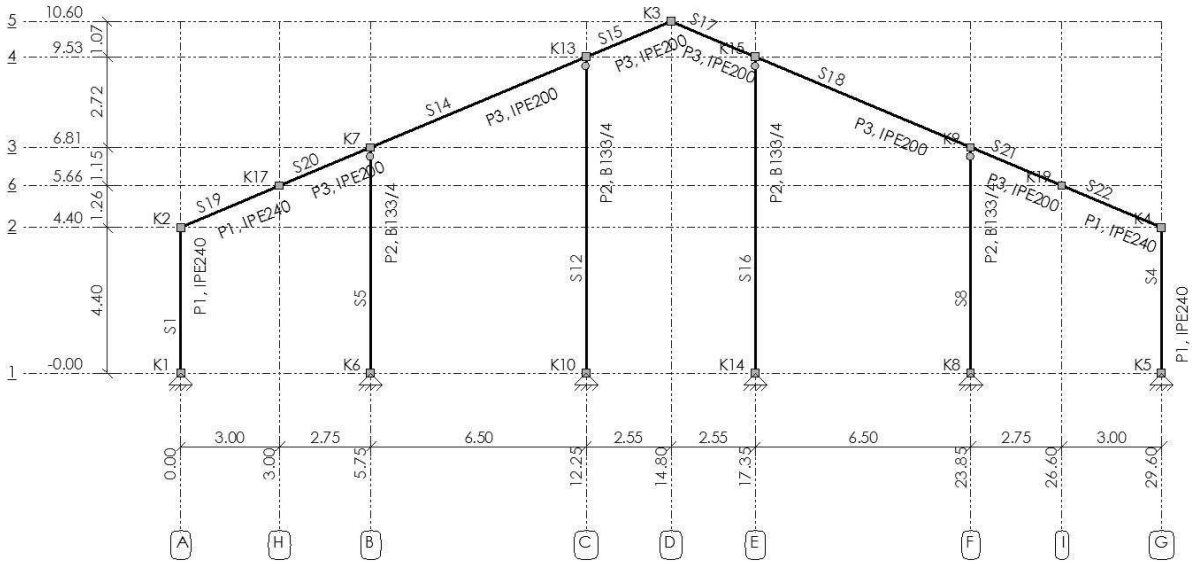
## UNITY CHECK NEN-EN1993-1-1:2009/NB:2011

| Veld | Toetsing | Combinatie | Artikel | UC max |
|---|---|---|---|---|
| C1-V1 (0.000-4.400) | Doorsnede | Fu.C.28 | NEN-EN1993-1-1(6.12) | 0,50 |
| C1-V1 (0.000-4.400) | Stabiliteit | Fu.C.32 | NEN-EN1993-1-1(6.46) | 0,04 |
| C1-V1 (0.000-4.400) | Stabiliteit | Fu.C.32 | NEN-EN1993-1-1(6.46) | 0,05 |
| C1-V1 (0.000-4.400) | Stabiliteit | Fu.C.32 | NEN-EN1993-1-1(6.61&6.62) | 0,69 |
| C1-V1 (0.000-4.400) | Kiptoetsing | Fu.C.32 | NEN-EN1993-1-1(6.54) | 0,64 |
| C4-V1 (0.000-4.400) | Doorsnede | Fu.C.12 | NEN-EN1993-1-1(6.12) | 0,78 |
| C4-V1 (0.000-4.400) | Stabiliteit | Fu.C.12 | NEN-EN1993-1-1(6.46) | 0,05 |
| C4-V1 (0.000-4.400) | Stabiliteit | Fu.C.12 | NEN-EN1993-1-1(6.46) | 0,09 |
| C4-V1 (0.000-4.400) | Stabiliteit | Fu.C.12 | NEN-EN1993-1-1(6.61&6.62) | 0,99 |
| C4-V1 (0.000-4.400) | Kiptoetsing | Fu.C.12 | NEN-EN1993-1-1(6.54) | 0,91 |
| C8-V1 (0.000-6.809) | Doorsnede | Fu.C.32 | NEN-EN1993-1-1(6.9) | 0,19 |
| C8-V1 (0.000-6.809) | Stabiliteit | Fu.C.32 | NEN-EN1993-1-1(6.46) | 0,77 |
| C8-V1 (0.000-6.809) | Stabiliteit | Fu.C.32 | NEN-EN1993-1-1(6.46) | 0,82 |
| C8-V1 (0.000-6.809) | Stabiliteit | Fu.C.32 | NEN-EN1993-1-1(6.61&6.62) | 0,82 |
| C8-V1 (0.000-6.809) | Kiptoetsing | Fu.C.37 | NEN-EN1993-1-1(6.54) | 0,00 |
| C16-V1 (0.000-9.532) | Doorsnede | Fu.C.32 | NEN-EN1993-1-1(6.9) | 0,09 |
| C16-V1 (0.000-9.532) | Stabiliteit | Fu.C.32 | NEN-EN1993-1-1(6.46) | 0,70 |
| C16-V1 (0.000-9.532) | Stabiliteit | Fu.C.32 | NEN-EN1993-1-1(6.46) | 0,75 |
| C16-V1 (0.000-9.532) | Stabiliteit | Fu.C.32 | NEN-EN1993-1-1(6.61&6.62) | 0,75 |
| C16-V1 (0.000-9.532) | Kiptoetsing | Fu.C.37 | NEN-EN1993-1-1(6.54) | 0,00 |
| C17-V1 (0.000-2.765) | Doorsnede | Fu.C.12 | NEN-EN1993-1-1(6.12) | 0,71 |

| Veld | Toetsing | Combinatie | Artikel | UC max |
|---|---|---|---|---|
| C17-V1 (0.000-2.765) | Stabiliteit | Fu.C.12 | NEN-EN1993-1-1(6.46) | 0,03 |
| C17-V1 (0.000-2.765) | Stabiliteit | Fu.C.12 | NEN-EN1993-1-1(6.46) | 0,03 |
| C17-V1 (0.000-2.765) | Stabiliteit | Fu.C.12 | NEN-EN1993-1-1(6.61&6.62) | 0,85 |
| C17-V1 (0.000-2.765) | Kiptoetsing | Fu.C.12 | NEN-EN1993-1-1(6.54) | 0,82 |
| C17-V1 (0.000-2.765) | Doorbuigingstoetsing | Ka.C.11 | NEN-EN \| NEN-EN1990/NB A1.4.2 | 0,27 |
| C18-V1 (0.000-7.047) | Doorsnede | Fu.C.28 | NEN-EN1993-1-1(6.12) | 0,54 |
| C18-V1 (0.000-7.047) | Stabiliteit | Fu.C.28 | NEN-EN1993-1-1(6.46) | 0,05 |
| C18-V1 (0.000-7.047) | Stabiliteit | Fu.C.28 | NEN-EN1993-1-1(6.46) | 0,02 |
| C18-V1 (0.000-7.047) | Stabiliteit | Fu.C.28 | NEN-EN1993-1-1(6.61&6.62) | 0,60 |
| C18-V1 (0.000-7.047) | Kiptoetsing | Fu.C.20 | NEN-EN1993-1-1(6.54) | 0,60 |
| C18-V1 (0.000-7.047) | Doorbuigingstoetsing | Ka.C.11 | NEN-EN \| NEN-EN1990/NB A1.4.2 | 0,57 |
| C21-V1 (0.000-2.982) | Doorsnede | Fu.C.24 | NEN-EN1993-1-1(6.12) | 0,64 |
| C21-V1 (0.000-2.982) | Stabiliteit | Fu.C.12 | NEN-EN1993-1-1(6.46) | 0,07 |
| C21-V1 (0.000-2.982) | Stabiliteit | Fu.C.12 | NEN-EN1993-1-1(6.46) | 0,05 |
| C21-V1 (0.000-2.982) | Stabiliteit | Fu.C.12 | NEN-EN1993-1-1(6.61&6.62) | 0,76 |
| C21-V1 (0.000-2.982) | Kiptoetsing | Fu.C.24 | NEN-EN1993-1-1(6.54) | 0,73 |
| C21-V1 (0.000-2.982) | Doorbuigingstoetsing | Ka.C.13 | NEN-EN \| NEN-EN1990/NB A1.4.2 | 0,22 |
| C22-V1 (0.000-3.253) | Doorsnede | Fu.C.12 | NEN-EN1993-1-1(6.12) | 0,78 |
| C22-V1 (0.000-3.253) | Stabiliteit | Fu.C.12 | NEN-EN1993-1-1(6.46) | 0,04 |
| C22-V1 (0.000-3.253) | Stabiliteit | Fu.C.12 | NEN-EN1993-1-1(6.46) | 0,03 |
| C22-V1 (0.000-3.253) | Stabiliteit | Fu.C.12 | NEN-EN1993-1-1(6.61&6.62) | 0,90 |
| C22-V1 (0.000-3.253) | Kiptoetsing | Fu.C.12 | NEN-EN1993-1-1(6.54) | 0,87 |
| C22-V1 (0.000-3.253) | Doorbuigingstoetsing | Ka.C.13 | NEN-EN \| NEN-EN1990/NB A1.4.2 | 0,37 |
| C26-V1 (0.000-9.532) | Doorsnede | Fu.C.16 | NEN-EN1993-1-1(6.9) | 0,13 |
| C26-V1 (0.000-9.532) | Stabiliteit | Fu.C.16 | NEN-EN1993-1-1(6.46) | 0,75 |
| C26-V1 (0.000-9.532) | Stabiliteit | Fu.C.16 | NEN-EN1993-1-1(6.46) | 0,80 |
| C26-V1 (0.000-9.532) | Stabiliteit | Fu.C.16 | NEN-EN1993-1-1(6.61&6.62) | 0,80 |
| C26-V1 (0.000-9.532) | Kiptoetsing | Fu.C.37 | NEN-EN1993-1-1(6.54) | 0,00 |
| C28-V1 (0.000-13.281) | Doorsnede | Fu.C.16 | NEN-EN1993-1-1(6.12) | 0,59 |
| C28-V1 (0.000-13.281) | Stabiliteit | Fu.C.28 | NEN-EN1993-1-1(6.46) | 0,07 |
| C28-V1 (0.000-13.281) | Stabiliteit | Fu.C.28 | NEN-EN1993-1-1(6.46) | 0,02 |
| C28-V1 (0.000-13.281) | Stabiliteit | Fu.C.28 | NEN-EN1993-1-1(6.61&6.62) | 0,69 |
| C28-V1 (0.000-13.281) | Kiptoetsing | Fu.C.16 | NEN-EN1993-1-1(6.54) | 0,63 |
| C28-V1 (0.000-13.281) | Doorbuigingstoetsing | Ka.C.13 | NEN-EN \| NEN-EN1990/NB A1.4.2 | 0,97 |
| C29-V1 (0.000-2.765) | Doorsnede | Fu.C.16 | NEN-EN1993-1-1(6.12) | 0,52 |
| C29-V1 (0.000-2.765) | Stabiliteit | Fu.C.16 | NEN-EN1993-1-1(6.46) | 0,02 |
| C29-V1 (0.000-2.765) | Stabiliteit | Fu.C.16 | NEN-EN1993-1-1(6.46) | 0,02 |
| C29-V1 (0.000-2.765) | Stabiliteit | Fu.C.16 | NEN-EN1993-1-1(6.61&6.62) | 0,62 |
| C29-V1 (0.000-2.765) | Kiptoetsing | Fu.C.16 | NEN-EN1993-1-1(6.54) | 0,60 |
| C29-V1 (0.000-2.765) | Doorbuigingstoetsing | Ka.C.13 | NEN-EN \| NEN-EN1990/NB A1.4.2 | 0,25 |

## Bijlage C

Berekening Spant 3




## STAVEN

| Staaf | Knoop B | B | Scharnier E | Knoop E | Profiel | X-B | Z-B | X-E | Z-E | Lengte |
|---|---|---|---|---|---|---|---|---|---|---|
| S1 | K1 | NVM | NVM | K2 | P1 | 0,000 | 0,000 | 0,000 | -4,400 | 4,400 |
| S4 | K4 | NVM | NVM | K5 | P1 | 29,600 | -4,400 | 29,600 | 0,000 | 4,400 |
| S5 | K6 | NVM | NV- | K7 | P2 | 5,750 | 0,000 | 5,750 | -6,809 | 6,809 |
| S8 | K8 | NVM | NV- | K9 | P2 | 23,850 | 0,000 | 23,850 | -6,809 | 6,809 |
| S12 | K10 | NVM | NV- | K13 | P2 | 12,250 | 0,000 | 12,250 | -9,532 | 9,532 |
| S14 | K7 | NVM | NVM | K13 | P3 | 5,750 | -6,809 | 12,250 | -9,532 | 7,047 |
| S15 | K13 | NVM | NVM | K3 | P3 | 12,250 | -9,532 | 14,800 | -10,600 | 2,765 |
| S16 | K14 | NVM | NV- | K15 | P2 | 17,350 | 0,000 | 17,350 | -9,532 | 9,532 |
| S17 | K3 | NVM | NVM | K15 | P3 | 14,800 | -10,600 | 17,350 | -9,532 | 2,765 |
| S18 | K15 | NVM | NVM | K9 | P3 | 17,350 | -9,532 | 23,850 | -6,809 | 7,047 |
| S19 | K2 | NVM | NVM | K17 | P1 | 0,000 | -4,400 | 3,000 | -5,657 | 3,253 |
| S20 | K17 | NVM | NVM | K7 | P3 | 3,000 | -5,657 | 5,750 | -6,809 | 2,982 |
| S21 | K9 | NVM | NVM | K19 | P3 | 23,850 | -6,809 | 26,600 | -5,657 | 2,982 |
| S22 | K19 | NVM | NVM | K4 | P1 | 26,600 | -5,657 | 29,600 | -4,400 | 3,253 |
| - | - | - | - | - | - | m | m | m | m | m |

## PROFIELEN

| Profiel | Profielnaam | Oppervlakte | Iy | Materiaal | Hoek |
|---|---|---|---|---|---|
| P1 | IPE240 | 3.9116e-03 | 3.8916e-05 | S235 | 0 |
| P2 | B133/4 | 1.6211e-03 | 3.3753e-06 | S235H(EN10219-1) | 0 |
| P3 | IPE200 | 2.8484e-03 | 1.9432e-05 | S235 | 0 |
| - | - | m2 | m4 | - | ° |

## MATERIALEN

| Materiaal | Dichtheid | E-Modulus | Uitzettingcoeff |
|---|---|---|---|
| S235 | 78.50 | 2.1000e+08 | 12.0000e-06 |
| S235H(EN10219-1) | 78.50 | 2.1000e+08 | 12.0000e-06 |
| - | kN/m3 | kN/m2 | C°m |

## OPLEGGINGEN

| Oplegging | Knoop | X | Z | Yr | HoekYr |
|---|---|---|---|---|---|
| O1 | K1 | vast | vast | vrij | 0 |
| O2 | K5 | vast | vast | vrij | 0 |
| O3 | K6 | vast | vast | vrij | 0 |
| O4 | K10 | vast | vast | vrij | 0 |
| O5 | K14 | vast | vast | vrij | 0 |
| O6 | K8 | vast | vast | vrij | 0 |
| - | - | kN/m | kN/m | kNmrad | ° |

## GEWICHTSBEREKENING

| Index | Staven | Berekening | Waarde | Eenheden |
|---|---|---|---|---|
| | Belastingen en vervormingen | NEN-EN1991 | | |
| Lsys1 | Systeemmaat | 5.00 | 5,00 | [m] |
| Height1 | Totale hoogte van constructie | 10.60 | 10,60 | [m] |
| Width1 | Totale breedte van constructie | 29.60 | 29,60 | [m] |
| **LR1** | | | | |
| | Permanente Belasting | NEN-EN1991-1-1:2011/NB:2011 | | |
| | Hellend dak (S14,S15,S17,S18,S19,S20,S21,S22) | | | |
| Pp1 | Sandwich | 0.20 | 0,20 | [kN/m²] |
| q1 | Permanente Belasting | Pp1*Lsys1 | 1,00 | [kN/m] |
| **LR2** | | | | |
| | Windbelasting van Links + Overdruk | NEN-EN1991-1-4:2011/NB:2011 | | |
| Height2 | Totale hoogte (incl. gedeelte boven de grond) (h) | 10.60 | 10,60 | [m] |
| Width2 | Gemiddelde breedte (b) | 5.00 | 5,00 | [m] |
| Width3 | Constructie diepte (d) | 29.60 | 29,60 | [m] |
| A1 | Belast oppervlak (A) | 53.00 | 53,00 | [m²] |
| Co1 | Orthografie factor (C0) | 1.00 | 1,00 | |
| CsCd1 | Constructie factor (CsCd) | 1.00 | 1,00 | |
| Cpe1 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.36) | 0,80 | |
| Cpi1 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe1,Openingen=0.00,Over=True) | 0,20 | |
| Z1 | z=b; (h>2b) voor knopen: K1,K2,K4,K5,K6,K8,K10,K14 | 5.00 | 5,00 | [m] |
| Qp1 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z1,Terrein=Onbebouwd,Regio=3,C0=Co1) | 0,54 | [kN/m²] |
| q2 | Interne druk; Verdeelde element belasting (q) | (Cpi1*Qp1) * Lsys1 | 0,54 | [kN/m] |
| Z2 | z=h-b; (h>2b) | 5.60 | 5,60 | [m] |
| Qp2 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z2,Terrein=Onbebouwd,Regio=3,C0=Co1) | 0,57 | [kN/m²] |
| q3 | Interne druk; Verdeelde element belasting (q) | (Cpi1*Qp2) * Lsys1 | 0,57 | [kN/m] |
| Z3 | z=h; (h>2b) voor knopen: K3,K7,K9,K13,K15,K17,K19 | 10.60 | 10,60 | [m] |
| Qp3 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z3,Terrein=Onbebouwd,Regio=3,C0=Co1) | 0,72 | [kN/m²] |
| q4 | Interne druk; Verdeelde element belasting (q) | (Cpi1*Qp3) * Lsys1 | 0,72 | [kN/m] |
| Cpe2 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.36) | 0,80 | |
| q5 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp1*Cpe2*CsCd1) * Lsys1 | 2,16 | [kN/m] |
| Cpe3 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.36) | -0,50 | |
| C1 | Vertikale wand S1; Druk coefficient (Cpe) incl. correlatiefactor | (Cpe2-Cpe3) * 0.85 | 1,11 | |
| q6 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp1*(Cpe3+C1)*CsCd1) * Lsys1 | 1,64 | [kN/m] |
| q7 | Vertikale wand S4; Verdeelde element belasting (q) | (Qp1*Cpe3*CsCd1) * Lsys1 | -1,35 | [kN/m] |
| q8 | Vertikale wand S4; Verdeelde element belasting (q) | (Qp1*(Cpe2-C1)*CsCd1) * Lsys1 | -0,82 | [kN/m] |
| Cpe4 | Zadeldak S14; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=22.73) | -0,25 | |
| q9 | Zadeldak S14; Verdeelde element belasting (q) | (Qp3*Cpe4*CsCd1) * Lsys1 | -0,89 | [kN/m] |
| Cpe5 | Zadeldak S17; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=22.73) | -0,74 | |
| q10 | Zadeldak S17; Verdeelde element belasting (q) | (Qp3*Cpe5*CsCd1) * Lsys1 | -2,66 | [kN/m] |
| Cpe6 | Zadeldak S17; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=22.73) | -0,40 | |
| q11 | Zadeldak S17; Verdeelde element belasting (q) | (Qp3*Cpe6*CsCd1) * Lsys1 | -1,43 | [kN/m] |
| Cpe7 | Zadeldak S19; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=22.73) | -0,65 | |
| q12 | Zadeldak S19; Verdeelde element belasting (q) | (Qp1*Cpe7*CsCd1) * Lsys1 | -1,75 | [kN/m] |
| q13 | Zadeldak S19; Verdeelde element belasting (q) | (Qp1*Cpe4*CsCd1) * Lsys1 | -0,67 | [kN/m] |
| q14 | Zadeldak S19; Verdeelde element belasting (q) | (Qp2*Cpe4*CsCd1) * Lsys1 | -0,70 | [kN/m] |
| q15 | Zadeldak S22; Verdeelde element belasting (q) | (Qp1*Cpe6*CsCd1) * Lsys1 | -1,08 | [kN/m] |
| q16 | Zadeldak S22; Verdeelde element belasting (q) | (Qp2*Cpe6*CsCd1) * Lsys1 | -1,13 | [kN/m] |
| **LR3** | | | | |
| | Windbelasting van Links + Overdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2011 | | |
| Height3 | Totale hoogte (incl. gedeelte boven de grond) (h) | 10.60 | 10,60 | [m] |
| Width4 | Gemiddelde breedte (b) | 5.00 | 5,00 | [m] |
| Width5 | Constructie diepte (d) | 29.60 | 29,60 | [m] |
| A2 | Belast oppervlak (A) | 53.00 | 53,00 | [m²] |
| Co2 | Orthografie factor (C0) | 1.00 | 1,00 | |
| CsCd2 | Constructie factor (CsCd) | 1.00 | 1,00 | |
| Cpe8 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.36) | 0,80 | |
| Cpi2 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe8,Openingen=0.00,Over=True) | 0,20 | |
| Z4 | z=b; (h>2b) voor knopen: K1,K2,K4,K5,K6,K8,K10,K14 | 5.00 | 5,00 | [m] |

| Index | Staven | Berekening | Waarde | Eenheden |
|---|---|---|---|---|
| **LR3** | | | | |
| Qp4 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z4,Terrein=Onbebouwd,Regio=3,C0=Co2) | 0,54 | [kN/m²] |
| q17 | Interne druk; Verdeelde element belasting (q) | (Cpi2*Qp4) * Lsys1 | 0,54 | [kN/m] |
| Z5 | z=h-b; (h>2b) | 5.60 | 5,60 | [m] |
| Qp5 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z5,Terrein=Onbebouwd,Regio=3,C0=Co2) | 0,57 | [kN/m²] |
| q18 | Interne druk; Verdeelde element belasting (q) | (Cpi2*Qp5) * Lsys1 | 0,57 | [kN/m] |
| Z6 | z=h; (h>2b) voor knopen: K3,K7,K9,K13,K15,K17,K19 | 10.60 | 10,60 | [m] |
| Qp6 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z6,Terrein=Onbebouwd,Regio=3,C0=Co2) | 0,72 | [kN/m²] |
| q19 | Interne druk; Verdeelde element belasting (q) | (Cpi2*Qp6) * Lsys1 | 0,72 | [kN/m] |
| Cpe9 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.36,Eerst=False) | 0,80 | |
| q20 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp4*Cpe9*CsCd2) * Lsys1 | 2,16 | [kN/m] |
| Cpe10 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.36,Eerst=False) | -0,50 | |
| C2 | Vertikale wand S1; Druk coefficient (Cpe) incl. correlatiefactor | (Cpe9-Cpe10) * 0.85 | 1,11 | |
| q21 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp4*(Cpe10+C2)*CsCd2) * Lsys1 | 1,64 | [kN/m] |
| q22 | Vertikale wand S4; Verdeelde element belasting (q) | (Qp4*Cpe10*CsCd2) * Lsys1 | -1,35 | [kN/m] |
| q23 | Vertikale wand S4; Verdeelde element belasting (q) | (Qp4*(Cpe9-C2)*CsCd2) * Lsys1 | -0,82 | [kN/m] |
| Cpe11 | Zadeldak S14; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=22.73,Eerst=False) | 0,30 | |
| q24 | Zadeldak S14; Verdeelde element belasting (q) | (Qp6*Cpe11*CsCd2) * Lsys1 | 1,09 | [kN/m] |
| Cpe12 | Zadeldak S17; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=22.73,Eerst=False) | 0,00 | |
| q25 | Zadeldak S17; Verdeelde element belasting (q) | (Qp6*Cpe12*CsCd2) * Lsys1 | 0,00 | [kN/m] |
| Cpe13 | Zadeldak S17; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=22.73,Eerst=False) | 0,00 | |
| q26 | Zadeldak S17; Verdeelde element belasting (q) | (Qp6*Cpe13*CsCd2) * Lsys1 | 0,00 | [kN/m] |
| Cpe14 | Zadeldak S19; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=22.73,Eerst=False) | 0,46 | |
| q27 | Zadeldak S19; Verdeelde element belasting (q) | (Qp4*Cpe14*CsCd2) * Lsys1 | 1,24 | [kN/m] |
| q28 | Zadeldak S19; Verdeelde element belasting (q) | (Qp4*Cpe11*CsCd2) * Lsys1 | 0,82 | [kN/m] |
| q29 | Zadeldak S19; Verdeelde element belasting (q) | (Qp5*Cpe11*CsCd2) * Lsys1 | 0,86 | [kN/m] |
| q30 | Zadeldak S22; Verdeelde element belasting (q) | (Qp4*Cpe13*CsCd2) * Lsys1 | 0,00 | [kN/m] |
| q31 | Zadeldak S22; Verdeelde element belasting (q) | (Qp5*Cpe13*CsCd2) * Lsys1 | 0,00 | [kN/m] |
| **LR4** | | | | |
| | Windbelasting van Links + Onderdruk | NEN-EN1991-1-4:2011/NB:2011 | | |
| Height4 | Totale hoogte (incl. gedeelte boven de grond) (h) | 10.60 | 10,60 | [m] |
| Width6 | Gemiddelde breedte (b) | 5.00 | 5,00 | [m] |
| Width7 | Constructie diepte (d) | 29.60 | 29,60 | [m] |
| A3 | Belast oppervlak (A) | 53.00 | 53,00 | [m²] |
| Co3 | Orthografie factor (C0) | 1.00 | 1,00 | |
| CsCd3 | Constructie factor (CsCd) | 1.00 | 1,00 | |
| Cpe15 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.36) | -0,50 | |
| Cpi3 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe15,Openingen=0.00,Over=False) | -0,30 | |
| Z7 | z=b; (h>2b) voor knopen: K1,K2,K4,K5,K6,K8,K10,K14 | 5.00 | 5,00 | [m] |
| Qp7 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z7,Terrein=Onbebouwd,Regio=3,C0=Co3) | 0,54 | [kN/m²] |
| q32 | Interne druk; Verdeelde element belasting (q) | (Cpi3*Qp7) * Lsys1 | -0,81 | [kN/m] |
| Z8 | z=h-b; (h>2b) | 5.60 | 5,60 | [m] |
| Qp8 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z8,Terrein=Onbebouwd,Regio=3,C0=Co3) | 0,57 | [kN/m²] |
| q33 | Interne druk; Verdeelde element belasting (q) | (Cpi3*Qp8) * Lsys1 | -0,85 | [kN/m] |
| Z9 | z=h; (h>2b) voor knopen: K3,K7,K9,K13,K15,K17,K19 | 10.60 | 10,60 | [m] |
| Qp9 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z9,Terrein=Onbebouwd,Regio=3,C0=Co3) | 0,72 | [kN/m²] |
| q34 | Interne druk; Verdeelde element belasting (q) | (Cpi3*Qp9) * Lsys1 | -1,07 | [kN/m] |
| Cpe16 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.36) | 0,80 | |
| q35 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp7*Cpe16*CsCd3) * Lsys1 | 2,16 | [kN/m] |
| Cpe17 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.36) | -0,50 | |
| C3 | Vertikale wand S1; Druk coefficient (Cpe) incl. correlatiefactor | (Cpe16-Cpe17) * 0.85 | 1,11 | |
| q36 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp7*(Cpe17+C3)*CsCd3) * Lsys1 | 1,64 | [kN/m] |
| q37 | Vertikale wand S4; Verdeelde element belasting (q) | (Qp7*Cpe17*CsCd3) * Lsys1 | -1,35 | [kN/m] |
| q38 | Vertikale wand S4; Verdeelde element belasting (q) | (Qp7*(Cpe16-C3)*CsCd3) * Lsys1 | -0,82 | [kN/m] |

| Index | Staven | Berekening | Waarde | Eenheden |
|---|---|---|---|---|
| **LR4** | | | | |
| Cpe18 | Zadeldak S14; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=22.73) | -0,25 | |
| q39 | Zadeldak S14; Verdeelde element belasting (q) | (Qp9*Cpe18*CsCd3) * Lsys1 | -0,89 | [kN/m] |
| Cpe19 | Zadeldak S17; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=22.73) | -0,74 | |
| q40 | Zadeldak S17; Verdeelde element belasting (q) | (Qp9*Cpe19*CsCd3) * Lsys1 | -2,66 | [kN/m] |
| Cpe20 | Zadeldak S17; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=22.73) | -0,40 | |
| q41 | Zadeldak S17; Verdeelde element belasting (q) | (Qp9*Cpe20*CsCd3) * Lsys1 | -1,43 | [kN/m] |
| Cpe21 | Zadeldak S19; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=22.73) | -0,65 | |
| q42 | Zadeldak S19; Verdeelde element belasting (q) | (Qp7*Cpe21*CsCd3) * Lsys1 | -1,75 | [kN/m] |
| q43 | Zadeldak S19; Verdeelde element belasting (q) | (Qp7*Cpe18*CsCd3) * Lsys1 | -0,67 | [kN/m] |
| q44 | Zadeldak S19; Verdeelde element belasting (q) | (Qp8*Cpe18*CsCd3) * Lsys1 | -0,70 | [kN/m] |
| q45 | Zadeldak S22; Verdeelde element belasting (q) | (Qp7*Cpe20*CsCd3) * Lsys1 | -1,08 | [kN/m] |
| q46 | Zadeldak S22; Verdeelde element belasting (q) | (Qp8*Cpe20*CsCd3) * Lsys1 | -1,13 | [kN/m] |
| **LR5** | | | | |
| | Windbelasting van Links + Onderdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2011 | | |
| Height5 | Totale hoogte (incl. gedeelte boven de grond) (h) | 10.60 | 10,60 | [m] |
| Width8 | Gemiddelde breedte (b) | 5.00 | 5,00 | [m] |
| Width9 | Constructie diepte (d) | 29.60 | 29,60 | [m] |
| A4 | Belast oppervlak (A) | 53.00 | 53,00 | [m²] |
| Co4 | Orthografie factor (C0) | 1.00 | 1,00 | |
| CsCd4 | Constructie factor (CsCd) | 1.00 | 1,00 | |
| Cpe22 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.36) | -0,50 | |
| Cpi4 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe22,Openingen=0.00,Over=False) | -0,30 | |
| Z10 | z=b; (h>2b) voor knopen: K1,K2,K4,K5,K6,K8,K10,K14 | 5.00 | 5,00 | [m] |
| Qp10 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z10,Terrein=Onbebouwd,Regio=3,C0=Co4) | 0,54 | [kN/m²] |
| q47 | Interne druk; Verdeelde element belasting (q) | (Cpi4*Qp10) * Lsys1 | -0,81 | [kN/m] |
| Z11 | z=h-b; (h>2b) | 5.60 | 5,60 | [m] |
| Qp11 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z11,Terrein=Onbebouwd,Regio=3,C0=Co4) | 0,57 | [kN/m²] |
| q48 | Interne druk; Verdeelde element belasting (q) | (Cpi4*Qp11) * Lsys1 | -0,85 | [kN/m] |
| Z12 | z=h; (h>2b) voor knopen: K3,K7,K9,K13,K15,K17,K19 | 10.60 | 10,60 | [m] |
| Qp12 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z12,Terrein=Onbebouwd,Regio=3,C0=Co4) | 0,72 | [kN/m²] |
| q49 | Interne druk; Verdeelde element belasting (q) | (Cpi4*Qp12) * Lsys1 | -1,07 | [kN/m] |
| Cpe23 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.36,Eerst=False) | 0,80 | |
| q50 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp10*Cpe23*CsCd4) * Lsys1 | 2,16 | [kN/m] |
| Cpe24 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.36,Eerst=False) | -0,50 | |
| C4 | Vertikale wand S1; Druk coefficient (Cpe) incl. correlatiefactor | (Cpe23-Cpe24) * 0.85 | 1,11 | |
| q51 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp10*(Cpe24+C4)*CsCd4) * Lsys1 | 1,64 | [kN/m] |
| q52 | Vertikale wand S4; Verdeelde element belasting (q) | (Qp10*Cpe24*CsCd4) * Lsys1 | -1,35 | [kN/m] |
| q53 | Vertikale wand S4; Verdeelde element belasting (q) | (Qp10*(Cpe23-C4)*CsCd4) * Lsys1 | -0,82 | [kN/m] |
| Cpe25 | Zadeldak S14; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=22.73,Eerst=False) | 0,30 | |
| q54 | Zadeldak S14; Verdeelde element belasting (q) | (Qp12*Cpe25*CsCd4) * Lsys1 | 1,09 | [kN/m] |
| Cpe26 | Zadeldak S17; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=22.73,Eerst=False) | 0,00 | |
| q55 | Zadeldak S17; Verdeelde element belasting (q) | (Qp12*Cpe26*CsCd4) * Lsys1 | 0,00 | [kN/m] |
| Cpe27 | Zadeldak S17; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=22.73,Eerst=False) | 0,00 | |
| q56 | Zadeldak S17; Verdeelde element belasting (q) | (Qp12*Cpe27*CsCd4) * Lsys1 | 0,00 | [kN/m] |
| Cpe28 | Zadeldak S19; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=22.73,Eerst=False) | 0,46 | |
| q57 | Zadeldak S19; Verdeelde element belasting (q) | (Qp10*Cpe28*CsCd4) * Lsys1 | 1,24 | [kN/m] |
| q58 | Zadeldak S19; Verdeelde element belasting (q) | (Qp10*Cpe25*CsCd4) * Lsys1 | 0,82 | [kN/m] |
| q59 | Zadeldak S19; Verdeelde element belasting (q) | (Qp11*Cpe25*CsCd4) * Lsys1 | 0,86 | [kN/m] |
| q60 | Zadeldak S22; Verdeelde element belasting (q) | (Qp10*Cpe27*CsCd4) * Lsys1 | 0,00 | [kN/m] |
| q61 | Zadeldak S22; Verdeelde element belasting (q) | (Qp11*Cpe27*CsCd4) * Lsys1 | 0,00 | [kN/m] |
| **LR6** | | | | |
| | Windbelasting van Rechts + Overdruk | NEN-EN1991-1-4:2011/NB:2011 | | |
| Height6 | Totale hoogte (incl. gedeelte boven de grond) (h) | 10.60 | 10,60 | [m] |
| Width10 | Gemiddelde breedte (b) | 5.00 | 5,00 | [m] |
| Width11 | Constructie diepte (d) | 29.60 | 29,60 | [m] |
| A5 | Belast oppervlak (A) | 53.00 | 53,00 | [m²] |
| Co5 | Orthografie factor (C0) | 1.00 | 1,00 | |
| CsCd5 | Constructie factor (CsCd) | 1.00 | 1,00 | |

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|---|---|---|---|---|
| **LR6** | | | | |
| Cpe29 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.36) | 0,80 | |
| Cpi5 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe29,Openingen=0.00,Over=True) | 0,20 | |
| Z13 | z=b; (h>2b) voor knopen: K1,K2,K4,K5,K6,K8,K10,K14 | 5.00 | 5,00 | [m] |
| Qp13 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z13,Terrein=Onbebouwd,Regio=3,C0=Co5) | 0,54 | [kN/m²] |
| q62 | Interne druk; Verdeelde element belasting (q) | (Cpi5*Qp13) * Lsys1 | 0,54 | [kN/m] |
| Z14 | z=h-b; (h>2b) | 5.60 | 5,60 | [m] |
| Qp14 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z14,Terrein=Onbebouwd,Regio=3,C0=Co5) | 0,57 | [kN/m²] |
| q63 | Interne druk; Verdeelde element belasting (q) | (Cpi5*Qp14) * Lsys1 | 0,57 | [kN/m] |
| Z15 | z=h; (h>2b) voor knopen: K3,K7,K9,K13,K15,K17,K19 | 10.60 | 10,60 | [m] |
| Qp15 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z15,Terrein=Onbebouwd,Regio=3,C0=Co5) | 0,72 | [kN/m²] |
| q64 | Interne druk; Verdeelde element belasting (q) | (Cpi5*Qp15) * Lsys1 | 0,72 | [kN/m] |
| Cpe30 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.36) | -0,50 | |
| q65 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp13*Cpe30*CsCd5) * Lsys1 | -1,35 | [kN/m] |
| Cpe31 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.36) | 0,80 | |
| C5 | Vertikale wand S1; Druk coefficient (Cpe) incl. correlatiefactor | (Cpe31-Cpe30) * 0.85 | 1,11 | |
| q66 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp13*(Cpe31-C5)*CsCd5) * Lsys1 | -0,82 | [kN/m] |
| q67 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp13*(Cpe30+C5)*CsCd5) * Lsys1 | 1,64 | [kN/m] |
| q68 | Vertikale wand S4; Verdeelde element belasting (q) | (Qp13*Cpe31*CsCd5) * Lsys1 | 2,16 | [kN/m] |
| Cpe32 | Zadeldak S14; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=22.73) | -0,40 | |
| q69 | Zadeldak S14; Verdeelde element belasting (q) | (Qp15*Cpe32*CsCd5) * Lsys1 | -1,43 | [kN/m] |
| Cpe33 | Zadeldak S15; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=22.73) | -0,74 | |
| q70 | Zadeldak S15; Verdeelde element belasting (q) | (Qp15*Cpe33*CsCd5) * Lsys1 | -2,66 | [kN/m] |
| Cpe34 | Zadeldak S17; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=22.73) | -0,25 | |
| q71 | Zadeldak S17; Verdeelde element belasting (q) | (Qp15*Cpe34*CsCd5) * Lsys1 | -0,89 | [kN/m] |
| q72 | Zadeldak S19; Verdeelde element belasting (q) | (Qp13*Cpe32*CsCd5) * Lsys1 | -1,08 | [kN/m] |
| q73 | Zadeldak S19; Verdeelde element belasting (q) | (Qp14*Cpe32*CsCd5) * Lsys1 | -1,13 | [kN/m] |
| q74 | Zadeldak S22; Verdeelde element belasting (q) | (Qp13*Cpe34*CsCd5) * Lsys1 | -0,67 | [kN/m] |
| Cpe35 | Zadeldak S22; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=22.73) | -0,65 | |
| q75 | Zadeldak S22; Verdeelde element belasting (q) | (Qp13*Cpe35*CsCd5) * Lsys1 | -1,75 | [kN/m] |
| q76 | Zadeldak S22; Verdeelde element belasting (q) | (Qp14*Cpe34*CsCd5) * Lsys1 | -0,70 | [kN/m] |
| **LR7** | | | | |
| | Windbelasting van Rechts + Overdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2011 | | |
| Height7 | Totale hoogte (incl. gedeelte boven de grond) (h) | 10.60 | 10,60 | [m] |
| Width12 | Gemiddelde breedte (b) | 5.00 | 5,00 | [m] |
| Width13 | Constructie diepte (d) | 29.60 | 29,60 | [m] |
| A6 | Belast oppervlak (A) | 53.00 | 53,00 | [m²] |
| Co6 | Orthografie factor (C0) | 1.00 | 1,00 | |
| CsCd6 | Constructie factor (CsCd) | 1.00 | 1,00 | |
| Cpe36 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.36) | 0,80 | |
| Cpi6 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe36,Openingen=0.00,Over=True) | 0,20 | |
| Z16 | z=b; (h>2b) voor knopen: K1,K2,K4,K5,K6,K8,K10,K14 | 5.00 | 5,00 | [m] |
| Qp16 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z16,Terrein=Onbebouwd,Regio=3,C0=Co6) | 0,54 | [kN/m²] |
| q77 | Interne druk; Verdeelde element belasting (q) | (Cpi6*Qp16) * Lsys1 | 0,54 | [kN/m] |
| Z17 | z=h-b; (h>2b) | 5.60 | 5,60 | [m] |
| Qp17 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z17,Terrein=Onbebouwd,Regio=3,C0=Co6) | 0,57 | [kN/m²] |
| q78 | Interne druk; Verdeelde element belasting (q) | (Cpi6*Qp17) * Lsys1 | 0,57 | [kN/m] |
| Z18 | z=h; (h>2b) voor knopen: K3,K7,K9,K13,K15,K17,K19 | 10.60 | 10,60 | [m] |
| Qp18 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z18,Terrein=Onbebouwd,Regio=3,C0=Co6) | 0,72 | [kN/m²] |
| q79 | Interne druk; Verdeelde element belasting (q) | (Cpi6*Qp18) * Lsys1 | 0,72 | [kN/m] |
| Cpe37 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.36,Eerst=False) | -0,50 | |
| q80 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp16*Cpe37*CsCd6) * Lsys1 | -1,35 | [kN/m] |
| Cpe38 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.36,Eerst=False) | 0,80 | |

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|---|---|---|---|---|
| **LR7** | | | | |
| C6 | Vertikale wand S1; Druk coefficient (Cpe) incl. correlatiefactor | (Cpe38-Cpe37) * 0.85 | 1,11 | |
| q81 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp16*(Cpe38-C6)*CsCd6) * Lsys1 | -0,82 | [kN/m] |
| q82 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp16*(Cpe37+C6)*CsCd6) * Lsys1 | 1,64 | [kN/m] |
| q83 | Vertikale wand S4; Verdeelde element belasting (q) | (Qp16*Cpe38*CsCd6) * Lsys1 | 2,16 | [kN/m] |
| Cpe39 | Zadeldak S14; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=22.73,Eerst=False) | 0,00 | |
| q84 | Zadeldak S14; Verdeelde element belasting (q) | (Qp18*Cpe39*CsCd6) * Lsys1 | 0,00 | [kN/m] |
| Cpe40 | Zadeldak S15; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=22.73,Eerst=False) | 0,00 | |
| q85 | Zadeldak S15; Verdeelde element belasting (q) | (Qp18*Cpe40*CsCd6) * Lsys1 | 0,00 | [kN/m] |
| Cpe41 | Zadeldak S17; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=22.73,Eerst=False) | 0,30 | |
| q86 | Zadeldak S17; Verdeelde element belasting (q) | (Qp18*Cpe41*CsCd6) * Lsys1 | 1,09 | [kN/m] |
| q87 | Zadeldak S19; Verdeelde element belasting (q) | (Qp16*Cpe39*CsCd6) * Lsys1 | 0,00 | [kN/m] |
| q88 | Zadeldak S19; Verdeelde element belasting (q) | (Qp17*Cpe39*CsCd6) * Lsys1 | 0,00 | [kN/m] |
| q89 | Zadeldak S22; Verdeelde element belasting (q) | (Qp16*Cpe41*CsCd6) * Lsys1 | 0,82 | [kN/m] |
| Cpe42 | Zadeldak S22; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=22.73,Eerst=False) | 0,46 | |
| q90 | Zadeldak S22; Verdeelde element belasting (q) | (Qp16*Cpe42*CsCd6) * Lsys1 | 1,24 | [kN/m] |
| q91 | Zadeldak S22; Verdeelde element belasting (q) | (Qp17*Cpe41*CsCd6) * Lsys1 | 0,86 | [kN/m] |
| **LR8** | | | | |
| | Windbelasting van Rechts + Onderdruk | NEN-EN1991-1-4:2011/NB:2011 | | |
| Height8 | Totale hoogte (incl. gedeelte boven de grond) (h) | 10.60 | 10,60 | [m] |
| Width14 | Gemiddelde breedte (b) | 5.00 | 5,00 | [m] |
| Width15 | Constructie diepte (d) | 29.60 | 29,60 | [m] |
| A7 | Belast oppervlak (A) | 53.00 | 53,00 | [m²] |
| Co7 | Orthografie factor (C0) | 1.00 | 1,00 | |
| CsCd7 | Constructie factor (CsCd) | 1.00 | 1,00 | |
| Cpe43 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.36) | -0,50 | |
| Cpi7 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe43,Openingen=0.00,Over=False) | -0,30 | |
| Z19 | z=b; (h>2b) voor knopen: K1,K2,K4,K5,K6,K8,K10,K14 | 5.00 | 5,00 | [m] |
| Qp19 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z19,Terrein=Onbebouwd,Regio=3,C0=Co7) | 0,54 | [kN/m²] |
| q92 | Interne druk; Verdeelde element belasting (q) | (Cpi7*Qp19) * Lsys1 | -0,81 | [kN/m] |
| Z20 | z=h-b; (h>2b) | 5.60 | 5,60 | [m] |
| Qp20 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z20,Terrein=Onbebouwd,Regio=3,C0=Co7) | 0,57 | [kN/m²] |
| q93 | Interne druk; Verdeelde element belasting (q) | (Cpi7*Qp20) * Lsys1 | -0,85 | [kN/m] |
| Z21 | z=h; (h>2b) voor knopen: K3,K7,K9,K13,K15,K17,K19 | 10.60 | 10,60 | [m] |
| Qp21 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z21,Terrein=Onbebouwd,Regio=3,C0=Co7) | 0,72 | [kN/m²] |
| q94 | Interne druk; Verdeelde element belasting (q) | (Cpi7*Qp21) * Lsys1 | -1,07 | [kN/m] |
| Cpe44 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.36) | -0,50 | |
| q95 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp19*Cpe44*CsCd7) * Lsys1 | -1,35 | [kN/m] |
| Cpe45 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.36) | 0,80 | |
| C7 | Vertikale wand S1; Druk coefficient (Cpe) incl. correlatiefactor | (Cpe45-Cpe44) * 0.85 | 1,11 | |
| q96 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp19*(Cpe45-C7)*CsCd7) * Lsys1 | -0,82 | [kN/m] |
| q97 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp19*(Cpe44+C7)*CsCd7) * Lsys1 | 1,64 | [kN/m] |
| q98 | Vertikale wand S4; Verdeelde element belasting (q) | (Qp19*Cpe45*CsCd7) * Lsys1 | 2,16 | [kN/m] |
| Cpe46 | Zadeldak S14; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=22.73) | -0,40 | |
| q99 | Zadeldak S14; Verdeelde element belasting (q) | (Qp21*Cpe46*CsCd7) * Lsys1 | -1,43 | [kN/m] |
| Cpe47 | Zadeldak S15; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=22.73) | -0,74 | |
| q100 | Zadeldak S15; Verdeelde element belasting (q) | (Qp21*Cpe47*CsCd7) * Lsys1 | -2,66 | [kN/m] |
| Cpe48 | Zadeldak S17; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=22.73) | -0,25 | |
| q101 | Zadeldak S17; Verdeelde element belasting (q) | (Qp21*Cpe48*CsCd7) * Lsys1 | -0,89 | [kN/m] |
| q102 | Zadeldak S19; Verdeelde element belasting (q) | (Qp19*Cpe46*CsCd7) * Lsys1 | -1,08 | [kN/m] |
| q103 | Zadeldak S19; Verdeelde element belasting (q) | (Qp20*Cpe46*CsCd7) * Lsys1 | -1,13 | [kN/m] |
| q104 | Zadeldak S22; Verdeelde element belasting (q) | (Qp19*Cpe48*CsCd7) * Lsys1 | -0,67 | [kN/m] |
| Cpe49 | Zadeldak S22; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=22.73) | -0,65 | |
| q105 | Zadeldak S22; Verdeelde element belasting (q) | (Qp19*Cpe49*CsCd7) * Lsys1 | -1,75 | [kN/m] |
| q106 | Zadeldak S22; Verdeelde element belasting (q) | (Qp20*Cpe48*CsCd7) * Lsys1 | -0,70 | [kN/m] |
| **LR9** | | | | |
| | Windbelasting van Rechts + Onderdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2011 | | |
| Height9 | Totale hoogte (incl. gedeelte boven de grond) (h) | 10.60 | 10,60 | [m] |
| Width16 | Gemiddelde breedte (b) | 5.00 | 5,00 | [m] |

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|---|---|---|---|---|
| **LR9** | | | | |
| Width17 | Constructie diepte (d) | 29.60 | 29,60 | [m] |
| A8 | Belast oppervlak (A) | 53.00 | 53,00 | [m²] |
| Co8 | Orthografie factor (C0) | 1.00 | 1,00 | |
| CsCd8 | Constructie factor (CsCd) | 1.00 | 1,00 | |
| Cpe50 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.36) | -0,50 | |
| Cpi8 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe50,Openingen=0.00,Over=False) | -0,30 | |
| Z22 | z=b; (h>2b) voor knopen: K1,K2,K4,K5,K6,K8,K10,K14 | 5.00 | 5,00 | [m] |
| Qp22 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z22,Terrein=Onbebouwd,Regio=3,C0=Co8) | 0,54 | [kN/m²] |
| q107 | Interne druk; Verdeelde element belasting (q) | (Cpi8*Qp22) * Lsys1 | -0,81 | [kN/m] |
| Z23 | z=h-b; (h>2b) | 5.60 | 5,60 | [m] |
| Qp23 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z23,Terrein=Onbebouwd,Regio=3,C0=Co8) | 0,57 | [kN/m²] |
| q108 | Interne druk; Verdeelde element belasting (q) | (Cpi8*Qp23) * Lsys1 | -0,85 | [kN/m] |
| Z24 | z=h; (h>2b) voor knopen: K3,K7,K9,K13,K15,K17,K19 | 10.60 | 10,60 | [m] |
| Qp24 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z24,Terrein=Onbebouwd,Regio=3,C0=Co8) | 0,72 | [kN/m²] |
| q109 | Interne druk; Verdeelde element belasting (q) | (Cpi8*Qp24) * Lsys1 | -1,07 | [kN/m] |
| Cpe51 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.36,Eerst=False) | -0,50 | |
| q110 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp22*Cpe51*CsCd8) * Lsys1 | -1,35 | [kN/m] |
| Cpe52 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.36,Eerst=False) | 0,80 | |
| C8 | Vertikale wand S1; Druk coefficient (Cpe) incl. correlatiefactor | (Cpe52-Cpe51) * 0.85 | 1,11 | |
| q111 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp22*(Cpe52-C8)*CsCd8) * Lsys1 | -0,82 | [kN/m] |
| q112 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp22*(Cpe51+C8)*CsCd8) * Lsys1 | 1,64 | [kN/m] |
| q113 | Vertikale wand S4; Verdeelde element belasting (q) | (Qp22*Cpe52*CsCd8) * Lsys1 | 2,16 | [kN/m] |
| Cpe53 | Zadeldak S14; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=22.73,Eerst=False) | 0,00 | |
| q114 | Zadeldak S14; Verdeelde element belasting (q) | (Qp24*Cpe53*CsCd8) * Lsys1 | 0,00 | [kN/m] |
| Cpe54 | Zadeldak S15; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=22.73,Eerst=False) | 0,00 | |
| q115 | Zadeldak S15; Verdeelde element belasting (q) | (Qp24*Cpe54*CsCd8) * Lsys1 | 0,00 | [kN/m] |
| Cpe55 | Zadeldak S17; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=22.73,Eerst=False) | 0,30 | |
| q116 | Zadeldak S17; Verdeelde element belasting (q) | (Qp24*Cpe55*CsCd8) * Lsys1 | 1,09 | [kN/m] |
| q117 | Zadeldak S19; Verdeelde element belasting (q) | (Qp22*Cpe53*CsCd8) * Lsys1 | 0,00 | [kN/m] |
| q118 | Zadeldak S19; Verdeelde element belasting (q) | (Qp23*Cpe53*CsCd8) * Lsys1 | 0,00 | [kN/m] |
| q119 | Zadeldak S22; Verdeelde element belasting (q) | (Qp22*Cpe55*CsCd8) * Lsys1 | 0,82 | [kN/m] |
| Cpe56 | Zadeldak S22; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=22.73,Eerst=False) | 0,46 | |
| q120 | Zadeldak S22; Verdeelde element belasting (q) | (Qp22*Cpe56*CsCd8) * Lsys1 | 1,24 | [kN/m] |
| q121 | Zadeldak S22; Verdeelde element belasting (q) | (Qp23*Cpe55*CsCd8) * Lsys1 | 0,86 | [kN/m] |
| **LR10** | | | | |
| | Sneeuwbelasting | NEN-EN1991-1-3:2011/NB:2011 | | |
| Sk1 | Karakteristiek waarde van de sneeuwlast op de grond (Sk) | NEN-EN1991-1-3#4.1(Zone=1) | 0,70 | [kN/m²] |
| Ce1 | De milieucoefficient (Ce) | NEN-EN1991-1-3#5.2.7() | 1,00 | |
| Ct1 | De thermische coefficient (Ct) | NEN-EN1991-1-3#5.2.8() | 1,00 | |
| | Zadeldak, Mu1 Hoek: 22.73; S14,S15,S17,S18,S19,S20,S21,S22 | | | |
| Mu1 | Mu1; Sneeuwbelasting coefficient (Mu) | EN1991-1-3#5.3(Dak=Hellend,Hoek=22.73,Mu=Mu1,Sk=Sk1) | 0,80 | |
| q122 | Verdeelde element belasting (q) | (Sk1*Ce1*Ct1*Mu1) * Lsys1 | 2,80 | [kN/m] |
| q123 | Verdeelde element belasting (q) | q122*0.50 | 1,40 | [kN/m] |

## BELASTINGSGEVALLEN TYPEN

| Oplegg. | Staven | B.G.Type | Gunstig/Ong. | Element | Niveau | Veld | Psi0 | Psi1 | Psi2 | Cprob |
|---|---|---|---|---|---|---|---|---|---|---|
| B.G.1 | Permanente Belasting | Permanent | - | | N.v.t. | N.v.t. | | | | |
| B.G.2 | Windbelasting van Links + Overdruk | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.3 | Windbelasting van Links + Overdruk (2e Cpe) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.4 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.5 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.6 | Windbelasting van Links + Overdruk (2e corr. factor) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |

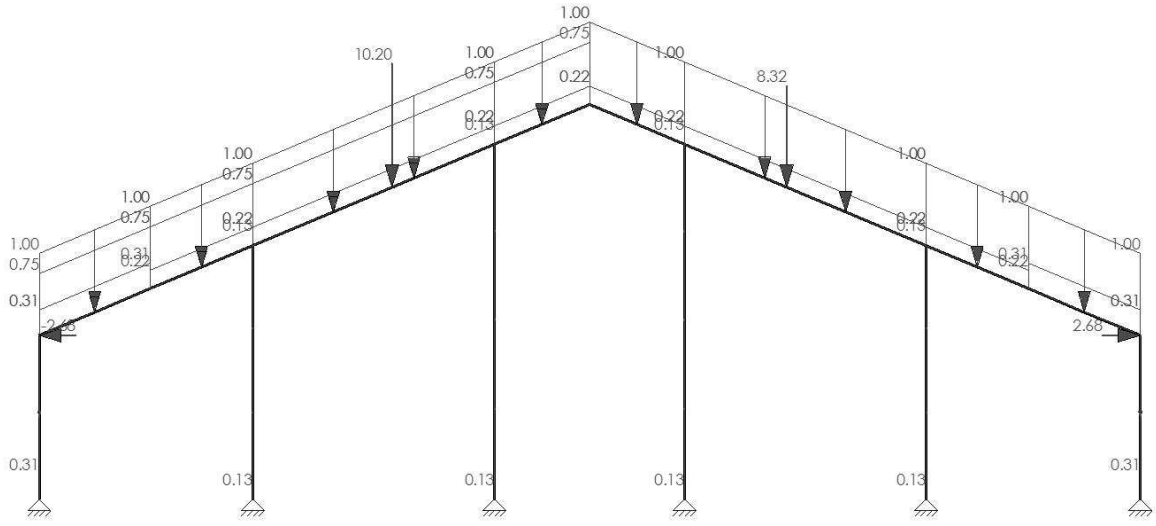
| Oplegg. | Staven | B.G.Type | Gunstig/Ong. | Element | Niveau | Veld | Psi0 | Psi1 | Psi2 | Cprob |
|---|---|---|---|---|---|---|---|---|---|---|
| B.G.7 | Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.8 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.9 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.10 | Windbelasting van Links + Onderdruk | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.11 | Windbelasting van Links + Onderdruk (2e Cpe) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.12 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.13 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.14 | Windbelasting van Links + Onderdruk (2e corr. factor) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.15 | Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.16 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.17 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.18 | Windbelasting van Rechts + Overdruk | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.19 | Windbelasting van Rechts + Overdruk (2e Cpe) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.20 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.21 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.22 | Windbelasting van Rechts + Overdruk (2e corr. factor) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.23 | Windbelasting van Rechts + Overdruk (2e Cpe) (2e corr. factor) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.24 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.25 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.26 | Windbelasting van Rechts + Onderdruk | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.27 | Windbelasting van Rechts + Onderdruk (2e Cpe) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.28 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.29 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.30 | Windbelasting van Rechts + Onderdruk (2e corr. factor) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.31 | Windbelasting van Rechts + Onderdruk (2e Cpe) (2e corr. factor) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.32 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.33 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.34 | Sneeuwbelasting 1 | Sneeuwbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,75 |

| Oplegg. | Staven | B.G.Type | Gunstig/Ong. | Element | Niveau | Veld | Psi0 | Psi1 | Psi2 | Cprob |
|---|---|---|---|---|---|---|---|---|---|---|
| B.G.35 | Sneeuwbelasting 2 | Sneeuwbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,75 |
| B.G.36 | Sneeuwbelasting 3 | Sneeuwbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,75 |
| B.G.37 | Kniklengte (Assymetrisch) | Kniklengte | | | N.v.t. | N.v.t. | | | | |
| B.G.38 | Kniklengte (Symmetrisch) | Kniklengte | | | N.v.t. | N.v.t. | | | | |
| B.G.39 | sneeuw | Sneeuwbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,75 |
| B.G.40 | Wind links | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,93 |

## B.G.1: PERMANENTE BELASTING

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.1: Permanente Belasting** | | | | | | |
| qG | 0,31 (1.00x) | 0,31 (1.00x) | 0,000 | 4,400(L) | Z' | S1,S4 |
| qG | 0,13 (1.00x) | 0,13 (1.00x) | 0,000 | 6,809(L) | Z' | S5,S8 |
| qG | 0,13 (1.00x) | 0,13 (1.00x) | 0,000 | 9,532(L) | Z' | S12,S16 |
| qG | 0,22 (1.00x) | 0,22 (1.00x) | 0,000 | 7,047(L) | Z' | S14,S18 |
| qG | 0,22 (1.00x) | 0,22 (1.00x) | 0,000 | 2,765(L) | Z' | S15,S17 |
| qG | 0,31 (1.00x) | 0,31 (1.00x) | 0,000 | 3,253(L) | Z' | S19,S22 |
| qG | 0,22 (1.00x) | 0,22 (1.00x) | 0,000 | 2,982(L) | Z' | S20-S21 |
| q | 1,00 (q1) | 1,00 (q1) | 0,000 | 7,047(L) | Z' | S14-S15,S17-S22 |
| q | 0,75 | 0,75 | 0,000 | 3,253(L) | Z' | S14-S15,S19-S20 |
| N | -2,68 | | | | X | K2 |
| N | 2,68 | | | | X | K4 |
| F | 10,20 | | 3,750 | | Z | S14 |
| F | 8,32 | | 2,750 | | Z | S18 |
| **Som lasten** | **X: 0,00** | **kN Z: 77,23** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |

B.G.1: PERMANENTE BELASTING

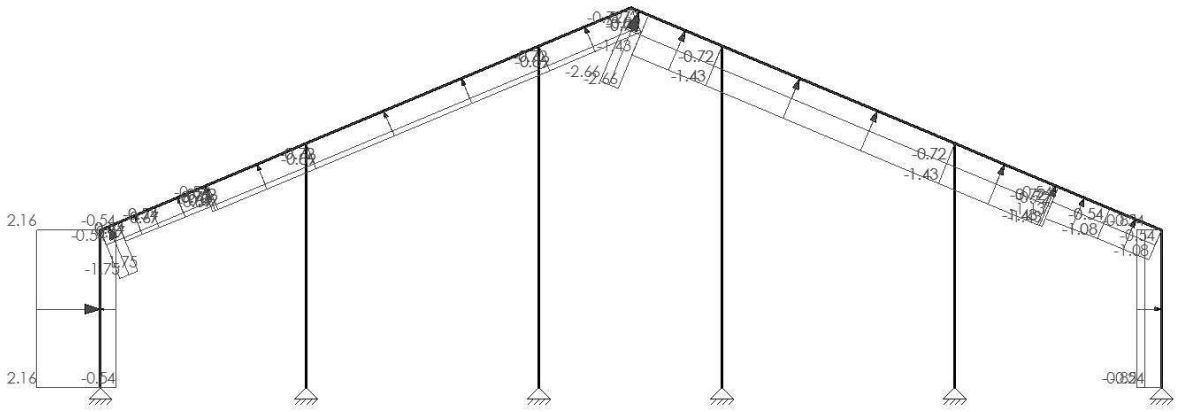



## B.G.2: WINDBELASTING VAN LINKS + OVERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.2: Windbelasting van Links + Overdruk** | | | | | | |
| q | 2,16 (q5) | 2,16 (q5) | 0,000 | 4,400(L) | Z' | S1 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,000 | 4,400(L) | Z' | S1,S4 |
| q | -0,82 (q8) | -0,82 (q8) | 0,000 | 4,400(L) | Z' | S4 |
| q | -0,89 (q9) | -0,89 (q9) | 0,000 | 7,047(L) | Z' | S14-S15,S20 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 7,047(L) | Z' | S14-S15,S18,S20-S21 |
| q | -2,66 (q10) | -2,66 (q10) | 0,000 | 0,542 | Z' | S17 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 0,542 | Z' | S17 |
| q | -1,43 (q11) | -1,43 (q11) | 0,542 | 2,765(L) | Z' | S17 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,542 | 2,765(L) | Z' | S17 |
| q | -1,43 (q11) | -1,43 (q11) | 0,000 | 7,047(L) | Z' | S18,S21 |
| q | -1,75 (q12) | -1,75 (q12) | 0,000 | 0,542 | Z' | S19 |

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.2: Windbelasting van Links + Overdruk** | | | | | | |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,000 | 0,542 | | Z' S19 |
| q | -0,67 (q13) | -0,67 (q13) | 0,542 | 1,553 | | Z' S19 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,542 | 1,553 | | Z' S19 |
| q | -0,89 (q9) | -0,89 (q9) | 3,106 | 3,253(L) | | Z' S19 |
| q | -0,72 (-q4) | -0,72 (-q4) | 3,106 | 3,253(L) | | Z' S19 |
| q | -0,67 (q13) | -0,70 (q14) | 1,553 | 3,106 | | Z' S19 |
| q | -0,54 (-q2) | -0,54 (-q2) | 1,553 | 3,106 | | Z' S19 |
| q | -1,08 (q15) | -1,08 (q15) | 1,700 | 3,253(L) | | Z' S22 |
| q | -0,54 (-q2) | -0,54 (-q2) | 1,700 | 3,253(L) | | Z' S22 |
| q | -1,43 (q11) | -1,43 (q11) | 0,000 | 0,147 | | Z' S22 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 0,147 | | Z' S22 |
| q | -1,13 (q16) | -1,08 (q15) | 0,147 | 1,700 | | Z' S22 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,147 | 1,700 | | Z' S22 |
| **Som lasten** | **X: 16,39** | **kN Z: -54,14** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |

B.G.2: WINDBELASTING VAN LINKS + OVERDRUK

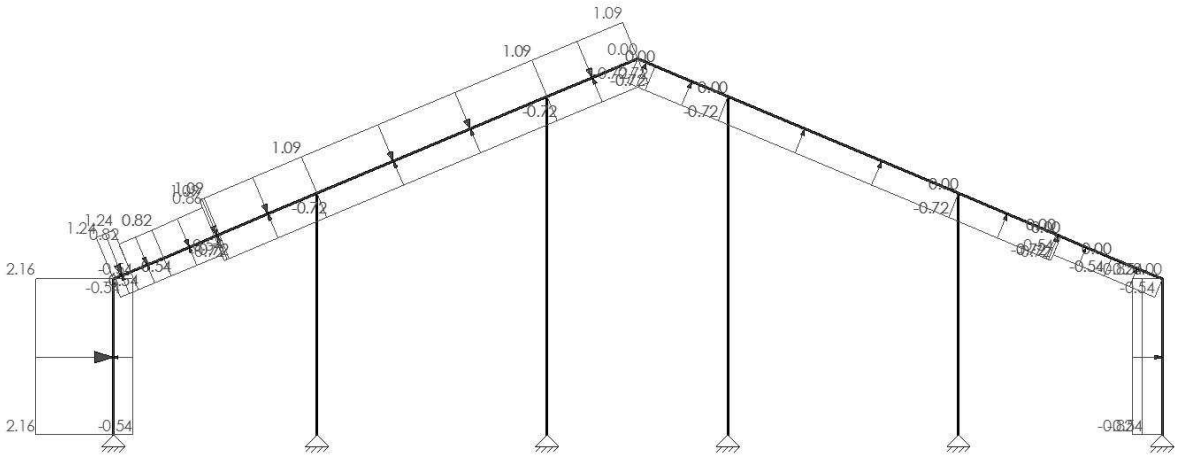



## B.G.3: WINDBELASTING VAN LINKS + OVERDRUK (2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.3: Windbelasting van Links + Overdruk (2e Cpe)** | | | | | | |
| q | 2,16 (q20) | 2,16 (q20) | 0,000 | 4,400(L) | | Z' S1 |
| q | -0,54 (-q17) | -0,54 (-q17) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | -0,82 (q23) | -0,82 (q23) | 0,000 | 4,400(L) | | Z' S4 |
| q | 1,09 (q24) | 1,09 (q24) | 0,000 | 7,047(L) | | Z' S14-S15,S20 |
| q | -0,72 (-q19) | -0,72 (-q19) | 0,000 | 7,047(L) | | Z' S14-S15,S18,S20-S21 |
| q | 0,00 (q25) | 0,00 (q25) | 0,000 | 0,542 | | Z' S17 |
| q | -0,72 (-q19) | -0,72 (-q19) | 0,000 | 0,542 | | Z' S17 |
| q | 0,00 (q26) | 0,00 (q26) | 0,542 | 2,765(L) | | Z' S17 |
| q | -0,72 (-q19) | -0,72 (-q19) | 0,542 | 2,765(L) | | Z' S17 |
| q | 0,00 (q26) | 0,00 (q26) | 0,000 | 7,047(L) | | Z' S18,S21 |
| q | 1,24 (q27) | 1,24 (q27) | 0,000 | 0,542 | | Z' S19 |
| q | -0,54 (-q17) | -0,54 (-q17) | 0,000 | 0,542 | | Z' S19 |
| q | 0,82 (q28) | 0,82 (q28) | 0,542 | 1,553 | | Z' S19 |
| q | -0,54 (-q17) | -0,54 (-q17) | 0,542 | 1,553 | | Z' S19 |
| q | 1,09 (q24) | 1,09 (q24) | 3,106 | 3,253(L) | | Z' S19 |
| q | -0,72 (-q19) | -0,72 (-q19) | 3,106 | 3,253(L) | | Z' S19 |
| q | 0,82 (q28) | 0,86 (q29) | 1,553 | 3,106 | | Z' S19 |
| q | -0,54 (-q17) | -0,54 (-q17) | 1,553 | 3,106 | | Z' S19 |
| q | 0,00 (q30) | 0,00 (q30) | 1,700 | 3,253(L) | | Z' S22 |
| q | -0,54 (-q17) | -0,54 (-q17) | 1,700 | 3,253(L) | | Z' S22 |
| q | 0,00 (q26) | 0,00 (q26) | 0,000 | 0,147 | | Z' S22 |
| q | -0,72 (-q19) | -0,72 (-q19) | 0,000 | 0,147 | | Z' S22 |
| q | 0,00 (q31) | 0,00 (q30) | 0,147 | 1,700 | | Z' S22 |

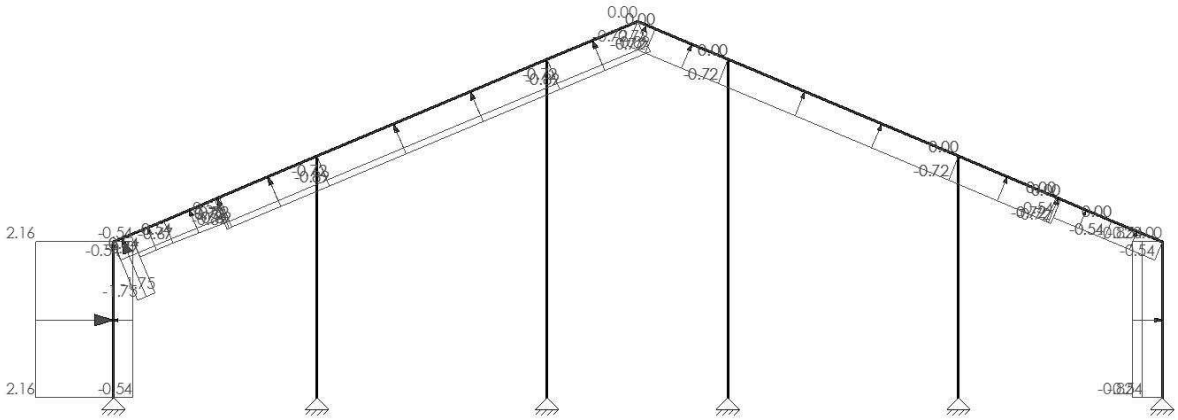
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.3: Windbelasting van Links + Overdruk (2e Cpe)** | | | | | | |
| q | -0,54 (-q17) | -0,54 (-q17) | 0,147 | 1,700 | Z' | S22 |
| **Som lasten** | **X: 19,66** | **kN Z: -4,66** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **-** | **-** |

B.G.3: WINDBELASTING VAN LINKS + OVERDRUK (2E CPE)



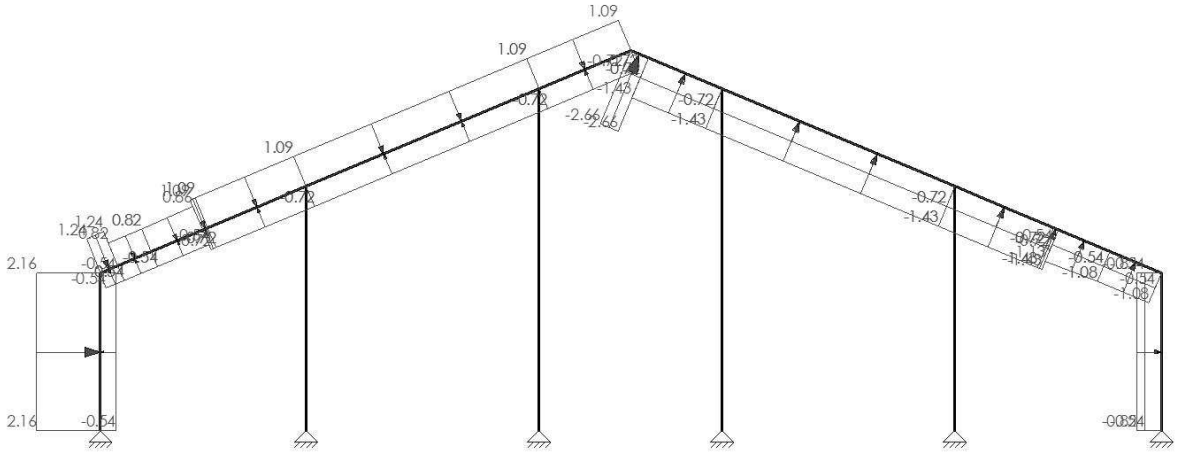

## B.G.4: WINDBELASTING VAN LINKS + OVERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.4: Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe)** | | | | | | |
| q | 2,16 (q5) | 2,16 (q5) | 0,000 | 4,400(L) | Z' | S1 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,000 | 4,400(L) | Z' | S1,S4 |
| q | -0,82 (q8) | -0,82 (q8) | 0,000 | 4,400(L) | Z' | S4 |
| q | -0,89 (q9) | -0,89 (q9) | 0,000 | 7,047(L) | Z' | S14-S15,S20 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 7,047(L) | Z' | S14-S15,S18,S20-S21 |
| q | 0,00 (q25) | 0,00 (q25) | 0,000 | 0,542 | Z' | S17 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 0,542 | Z' | S17 |
| q | 0,00 (q26) | 0,00 (q26) | 0,542 | 2,765(L) | Z' | S17 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,542 | 2,765(L) | Z' | S17 |
| q | 0,00 (q26) | 0,00 (q26) | 0,000 | 7,047(L) | Z' | S18,S21 |
| q | -1,75 (q12) | -1,75 (q12) | 0,000 | 0,542 | Z' | S19 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,000 | 0,542 | Z' | S19 |
| q | -0,67 (q13) | -0,67 (q13) | 0,542 | 1,553 | Z' | S19 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,542 | 1,553 | Z' | S19 |
| q | -0,89 (q9) | -0,89 (q9) | 3,106 | 3,253(L) | Z' | S19 |
| q | -0,72 (-q4) | -0,72 (-q4) | 3,106 | 3,253(L) | Z' | S19 |
| q | -0,67 (q13) | -0,70 (q14) | 1,553 | 3,106 | Z' | S19 |
| q | -0,54 (-q2) | -0,54 (-q2) | 1,553 | 3,106 | Z' | S19 |
| q | 0,00 (q30) | 0,00 (q30) | 1,700 | 3,253(L) | Z' | S22 |
| q | -0,54 (-q2) | -0,54 (-q2) | 1,700 | 3,253(L) | Z' | S22 |
| q | 0,00 (q26) | 0,00 (q26) | 0,000 | 0,147 | Z' | S22 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 0,147 | Z' | S22 |
| q | 0,00 (q31) | 0,00 (q30) | 0,147 | 1,700 | Z' | S22 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,147 | 1,700 | Z' | S22 |
| **Som lasten** | **X: 7,66** | **kN Z: -33,30** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **-** | **-** |



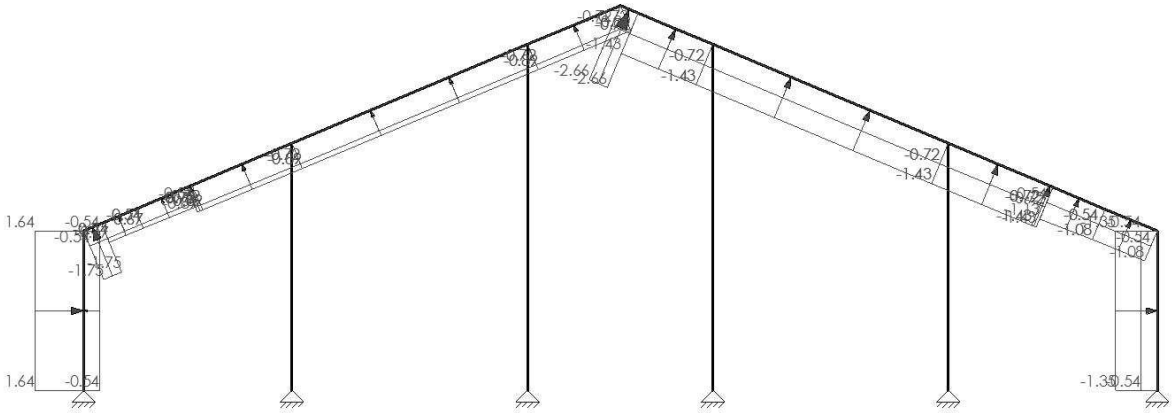

## B.G.5: WINDBELASTING VAN LINKS + OVERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.5: Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe)** | | | | | | |
| q | 2,16 (q5) | 2,16 (q5) | 0,000 | 4,400(L) | | Z' S1 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | -0,82 (q8) | -0,82 (q8) | 0,000 | 4,400(L) | | Z' S4 |
| q | 1,09 (q24) | 1,09 (q24) | 0,000 | 7,047(L) | | Z' S14-S15,S20 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 7,047(L) | | Z' S14-S15,S18,S20-S21 |
| q | -2,66 (q10) | -2,66 (q10) | 0,000 | 0,542 | | Z' S17 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 0,542 | | Z' S17 |
| q | -1,43 (q11) | -1,43 (q11) | 0,542 | 2,765(L) | | Z' S17 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,542 | 2,765(L) | | Z' S17 |
| q | -1,43 (q11) | -1,43 (q11) | 0,000 | 7,047(L) | | Z' S18,S21 |
| q | 1,24 (q27) | 1,24 (q27) | 0,000 | 0,542 | | Z' S19 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,000 | 0,542 | | Z' S19 |
| q | 0,82 (q28) | 0,82 (q28) | 0,542 | 1,553 | | Z' S19 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,542 | 1,553 | | Z' S19 |
| q | 1,09 (q24) | 1,09 (q24) | 3,106 | 3,253(L) | | Z' S19 |
| q | -0,72 (-q4) | -0,72 (-q4) | 3,106 | 3,253(L) | | Z' S19 |
| q | 0,82 (q28) | 0,86 (q29) | 1,553 | 3,106 | | Z' S19 |
| q | -0,54 (-q2) | -0,54 (-q2) | 1,553 | 3,106 | | Z' S19 |
| q | -1,08 (q15) | -1,08 (q15) | 1,700 | 3,253(L) | | Z' S22 |
| q | -0,54 (-q2) | -0,54 (-q2) | 1,700 | 3,253(L) | | Z' S22 |
| q | -1,43 (q11) | -1,43 (q11) | 0,000 | 0,147 | | Z' S22 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 0,147 | | Z' S22 |
| q | -1,13 (q16) | -1,08 (q15) | 0,147 | 1,700 | | Z' S22 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,147 | 1,700 | | Z' S22 |
| **Som lasten** | **X: 28,39** | **kN Z: -25,50** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



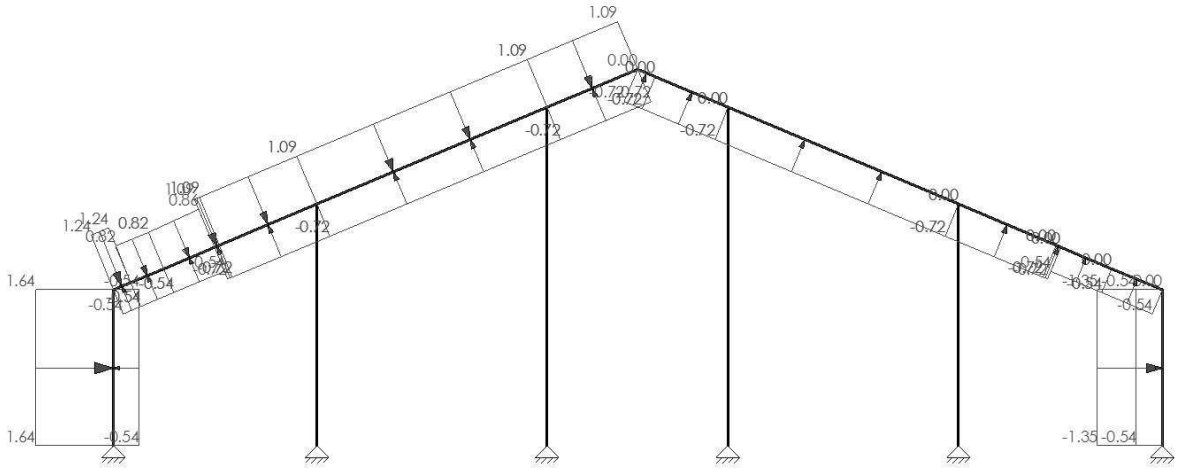

## B.G.6: WINDBELASTING VAN LINKS + OVERDRUK (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.6: Windbelasting van Links + Overdruk (2e corr. factor)** | | | | | | |
| q | 1,64 (q6) | 1,64 (q6) | 0,000 | 4,400(L) | | Z' S1 |
| q | -1,35 (q7) | -1,35 (q7) | 0,000 | 4,400(L) | | Z' S4 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | -0,89 (q9) | -0,89 (q9) | 0,000 | 7,047(L) | | Z' S14-S15,S20 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 7,047(L) | | Z' S14-S15,S18,S20-S21 |
| q | -2,66 (q10) | -2,66 (q10) | 0,000 | 0,542 | | Z' S17 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 0,542 | | Z' S17 |
| q | -1,43 (q11) | -1,43 (q11) | 0,542 | 2,765(L) | | Z' S17 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,542 | 2,765(L) | | Z' S17 |
| q | -1,43 (q11) | -1,43 (q11) | 0,000 | 7,047(L) | | Z' S18,S21 |
| q | -1,75 (q12) | -1,75 (q12) | 0,000 | 0,542 | | Z' S19 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,000 | 0,542 | | Z' S19 |
| q | -0,67 (q13) | -0,67 (q13) | 0,542 | 1,553 | | Z' S19 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,542 | 1,553 | | Z' S19 |
| q | -0,89 (q9) | -0,89 (q9) | 3,106 | 3,253(L) | | Z' S19 |
| q | -0,72 (-q4) | -0,72 (-q4) | 3,106 | 3,253(L) | | Z' S19 |
| q | -0,67 (q13) | -0,70 (q14) | 1,553 | 3,106 | | Z' S19 |
| q | -0,54 (-q2) | -0,54 (-q2) | 1,553 | 3,106 | | Z' S19 |
| q | -1,08 (q15) | -1,08 (q15) | 1,700 | 3,253(L) | | Z' S22 |
| q | -0,54 (-q2) | -0,54 (-q2) | 1,700 | 3,253(L) | | Z' S22 |
| q | -1,43 (q11) | -1,43 (q11) | 0,000 | 0,147 | | Z' S22 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 0,147 | | Z' S22 |
| q | -1,13 (q16) | -1,08 (q15) | 0,147 | 1,700 | | Z' S22 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,147 | 1,700 | | Z' S22 |
| **Som lasten** | **X: 16,39** | **kN Z: -54,14** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



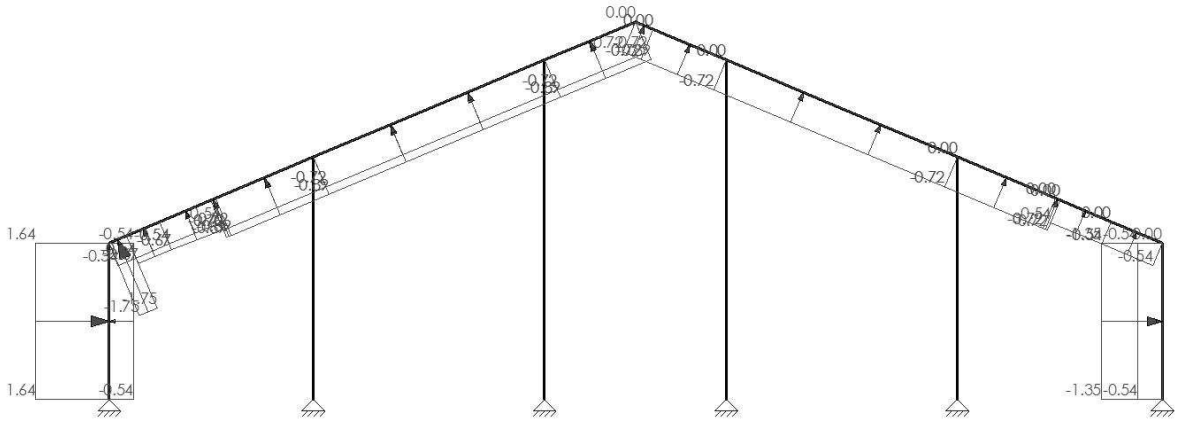

## B.G.7: WINDBELASTING VAN LINKS + OVERDRUK (2E CPE) (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.7: Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor)** | | | | | | |
| q | 1,64 (q21) | 1,64 (q21) | 0,000 | 4,400(L) | | Z' S1 |
| q | -1,35 (q22) | -1,35 (q22) | 0,000 | 4,400(L) | | Z' S4 |
| q | -0,54 (-q17) | -0,54 (-q17) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | 1,09 (q24) | 1,09 (q24) | 0,000 | 7,047(L) | | Z' S14-S15,S20 |
| q | -0,72 (-q19) | -0,72 (-q19) | 0,000 | 7,047(L) | | Z' S14-S15,S18,S20-S21 |
| q | 0,00 (q25) | 0,00 (q25) | 0,000 | 0,542 | | Z' S17 |
| q | -0,72 (-q19) | -0,72 (-q19) | 0,000 | 0,542 | | Z' S17 |
| q | 0,00 (q26) | 0,00 (q26) | 0,542 | 2,765(L) | | Z' S17 |
| q | -0,72 (-q19) | -0,72 (-q19) | 0,542 | 2,765(L) | | Z' S17 |
| q | 0,00 (q26) | 0,00 (q26) | 0,000 | 7,047(L) | | Z' S18,S21 |
| q | 1,24 (q27) | 1,24 (q27) | 0,000 | 0,542 | | Z' S19 |
| q | -0,54 (-q17) | -0,54 (-q17) | 0,000 | 0,542 | | Z' S19 |
| q | 0,82 (q28) | 0,82 (q28) | 0,542 | 1,553 | | Z' S19 |
| q | -0,54 (-q17) | -0,54 (-q17) | 0,542 | 1,553 | | Z' S19 |
| q | 1,09 (q24) | 1,09 (q24) | 3,106 | 3,253(L) | | Z' S19 |
| q | -0,72 (-q19) | -0,72 (-q19) | 3,106 | 3,253(L) | | Z' S19 |
| q | 0,82 (q28) | 0,86 (q29) | 1,553 | 3,106 | | Z' S19 |
| q | -0,54 (-q17) | -0,54 (-q17) | 1,553 | 3,106 | | Z' S19 |
| q | 0,00 (q30) | 0,00 (q30) | 1,700 | 3,253(L) | | Z' S22 |
| q | -0,54 (-q17) | -0,54 (-q17) | 1,700 | 3,253(L) | | Z' S22 |
| q | 0,00 (q26) | 0,00 (q26) | 0,000 | 0,147 | | Z' S22 |
| q | -0,72 (-q19) | -0,72 (-q19) | 0,000 | 0,147 | | Z' S22 |
| q | 0,00 (q31) | 0,00 (q30) | 0,147 | 1,700 | | Z' S22 |
| q | -0,54 (-q17) | -0,54 (-q17) | 0,147 | 1,700 | | Z' S22 |
| **Som lasten** | **X: 19,66** | **kN Z: -4,66** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



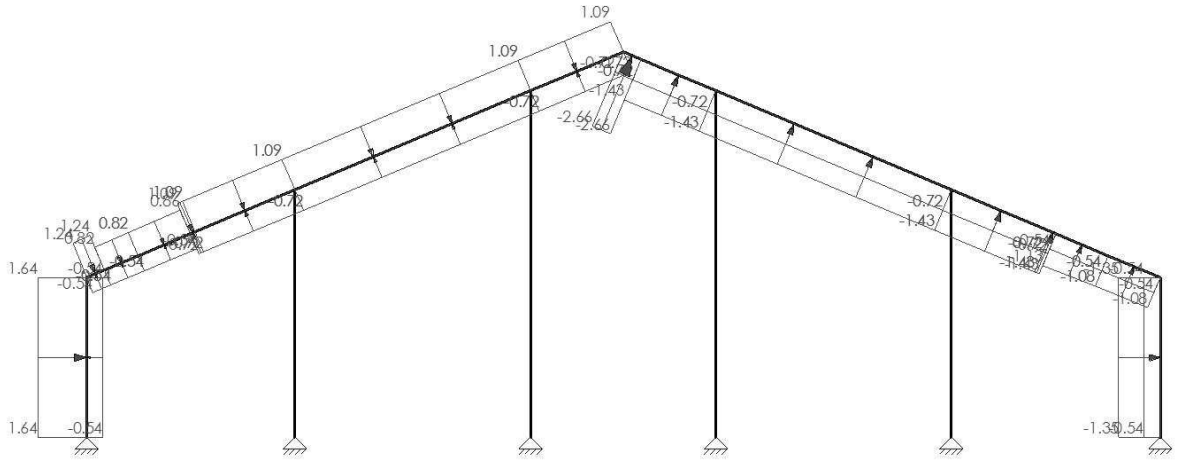

## B.G.8: WINDBELASTING VAN LINKS + OVERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE) (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.8: Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor)** | | | | | | |
| q | 1,64 (q6) | 1,64 (q6) | 0,000 | 4,400(L) | | Z' S1 |
| q | -1,35 (q7) | -1,35 (q7) | 0,000 | 4,400(L) | | Z' S4 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | -0,89 (q9) | -0,89 (q9) | 0,000 | 7,047(L) | | Z' S14-S15,S20 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 7,047(L) | | Z' S14-S15,S18,S20-S21 |
| q | 0,00 (q25) | 0,00 (q25) | 0,000 | 0,542 | | Z' S17 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 0,542 | | Z' S17 |
| q | 0,00 (q26) | 0,00 (q26) | 0,542 | 2,765(L) | | Z' S17 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,542 | 2,765(L) | | Z' S17 |
| q | 0,00 (q26) | 0,00 (q26) | 0,000 | 7,047(L) | | Z' S18,S21 |
| q | -1,75 (q12) | -1,75 (q12) | 0,000 | 0,542 | | Z' S19 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,000 | 0,542 | | Z' S19 |
| q | -0,67 (q13) | -0,67 (q13) | 0,542 | 1,553 | | Z' S19 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,542 | 1,553 | | Z' S19 |
| q | -0,89 (q9) | -0,89 (q9) | 3,106 | 3,253(L) | | Z' S19 |
| q | -0,72 (-q4) | -0,72 (-q4) | 3,106 | 3,253(L) | | Z' S19 |
| q | -0,67 (q13) | -0,70 (q14) | 1,553 | 3,106 | | Z' S19 |
| q | -0,54 (-q2) | -0,54 (-q2) | 1,553 | 3,106 | | Z' S19 |
| q | 0,00 (q30) | 0,00 (q30) | 1,700 | 3,253(L) | | Z' S22 |
| q | -0,54 (-q2) | -0,54 (-q2) | 1,700 | 3,253(L) | | Z' S22 |
| q | 0,00 (q26) | 0,00 (q26) | 0,000 | 0,147 | | Z' S22 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 0,147 | | Z' S22 |
| q | 0,00 (q31) | 0,00 (q30) | 0,147 | 1,700 | | Z' S22 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,147 | 1,700 | | Z' S22 |
| **Som lasten** | **X: 7,66** | **kN Z:** | **-33,30** | **kN** | | |
| **-** | **-** | **-** | | **m** | **m** | **- -** |



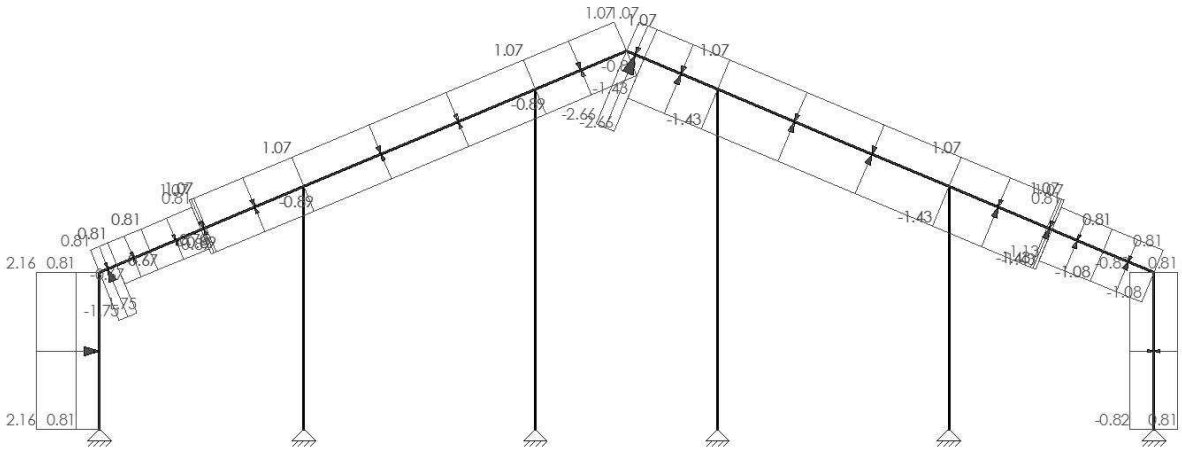

## B.G.9: WINDBELASTING VAN LINKS + OVERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE) (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.9: Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor)** | | | | | | |
| q | 1,64 (q6) | 1,64 (q6) | 0,000 | 4,400(L) | | Z' S1 |
| q | -1,35 (q7) | -1,35 (q7) | 0,000 | 4,400(L) | | Z' S4 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | 1,09 (q24) | 1,09 (q24) | 0,000 | 7,047(L) | | Z' S14-S15,S20 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 7,047(L) | | Z' S14-S15,S18,S20-S21 |
| q | -2,66 (q10) | -2,66 (q10) | 0,000 | 0,542 | | Z' S17 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 0,542 | | Z' S17 |
| q | -1,43 (q11) | -1,43 (q11) | 0,542 | 2,765(L) | | Z' S17 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,542 | 2,765(L) | | Z' S17 |
| q | -1,43 (q11) | -1,43 (q11) | 0,000 | 7,047(L) | | Z' S18,S21 |
| q | 1,24 (q27) | 1,24 (q27) | 0,000 | 0,542 | | Z' S19 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,000 | 0,542 | | Z' S19 |
| q | 0,82 (q28) | 0,82 (q28) | 0,542 | 1,553 | | Z' S19 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,542 | 1,553 | | Z' S19 |
| q | 1,09 (q24) | 1,09 (q24) | 3,106 | 3,253(L) | | Z' S19 |
| q | -0,72 (-q4) | -0,72 (-q4) | 3,106 | 3,253(L) | | Z' S19 |
| q | 0,82 (q28) | 0,86 (q29) | 1,553 | 3,106 | | Z' S19 |
| q | -0,54 (-q2) | -0,54 (-q2) | 1,553 | 3,106 | | Z' S19 |
| q | -1,08 (q15) | -1,08 (q15) | 1,700 | 3,253(L) | | Z' S22 |
| q | -0,54 (-q2) | -0,54 (-q2) | 1,700 | 3,253(L) | | Z' S22 |
| q | -1,43 (q11) | -1,43 (q11) | 0,000 | 0,147 | | Z' S22 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 0,147 | | Z' S22 |
| q | -1,13 (q16) | -1,08 (q15) | 0,147 | 1,700 | | Z' S22 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,147 | 1,700 | | Z' S22 |
| **Som lasten** | **X: 28,39** | **kN Z: -25,50** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



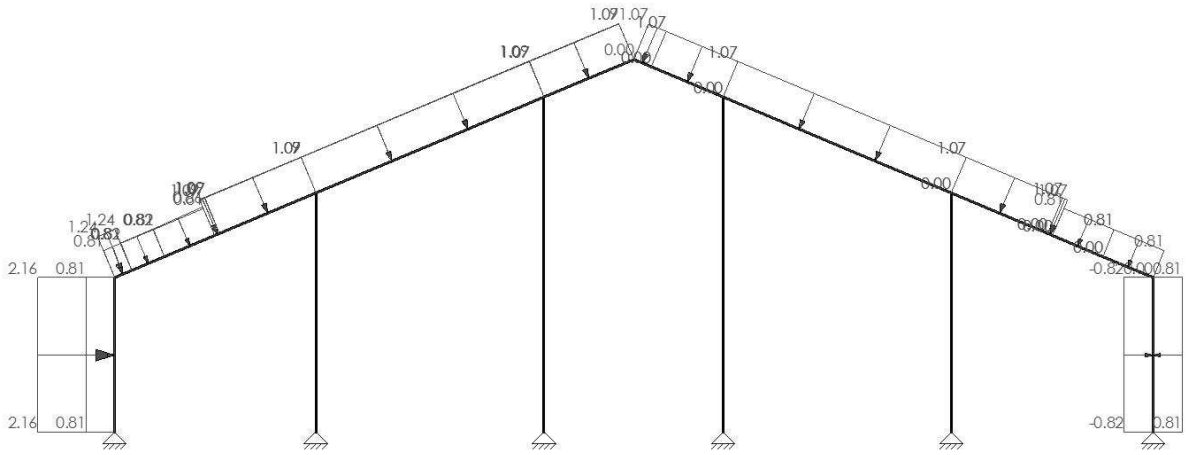

## B.G.10: WINDBELASTING VAN LINKS + ONDERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.10: Windbelasting van Links + Onderdruk** | | | | | | |
| q | 2,16 (q35) | 2,16 (q35) | 0,000 | 4,400(L) | | Z' S1 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | -0,82 (q38) | -0,82 (q38) | 0,000 | 4,400(L) | | Z' S4 |
| q | -0,89 (q39) | -0,89 (q39) | 0,000 | 7,047(L) | | Z' S14-S15,S20 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,000 | 7,047(L) | | Z' S14-S15,S18,S20-S21 |
| q | -2,66 (q40) | -2,66 (q40) | 0,000 | 0,542 | | Z' S17 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,000 | 0,542 | | Z' S17 |
| q | -1,43 (q41) | -1,43 (q41) | 0,542 | 2,765(L) | | Z' S17 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,542 | 2,765(L) | | Z' S17 |
| q | -1,43 (q41) | -1,43 (q41) | 0,000 | 7,047(L) | | Z' S18,S21 |
| q | -1,75 (q42) | -1,75 (q42) | 0,000 | 0,542 | | Z' S19 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,000 | 0,542 | | Z' S19 |
| q | -0,67 (q43) | -0,67 (q43) | 0,542 | 1,553 | | Z' S19 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,542 | 1,553 | | Z' S19 |
| q | -0,89 (q39) | -0,89 (q39) | 3,106 | 3,253(L) | | Z' S19 |
| q | 1,07 (-q34) | 1,07 (-q34) | 3,106 | 3,253(L) | | Z' S19 |
| q | -0,67 (q43) | -0,70 (q44) | 1,553 | 3,106 | | Z' S19 |
| q | 0,81 (-q32) | 0,81 (-q32) | 1,553 | 3,106 | | Z' S19 |
| q | -1,08 (q45) | -1,08 (q45) | 1,700 | 3,253(L) | | Z' S22 |
| q | 0,81 (-q32) | 0,81 (-q32) | 1,700 | 3,253(L) | | Z' S22 |
| q | -1,43 (q41) | -1,43 (q41) | 0,000 | 0,147 | | Z' S22 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,000 | 0,147 | | Z' S22 |
| q | -1,13 (q46) | -1,08 (q45) | 0,147 | 1,700 | | Z' S22 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,147 | 1,700 | | Z' S22 |
| **Som lasten** | **X: 16,39** | **kN Z: -3,66** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



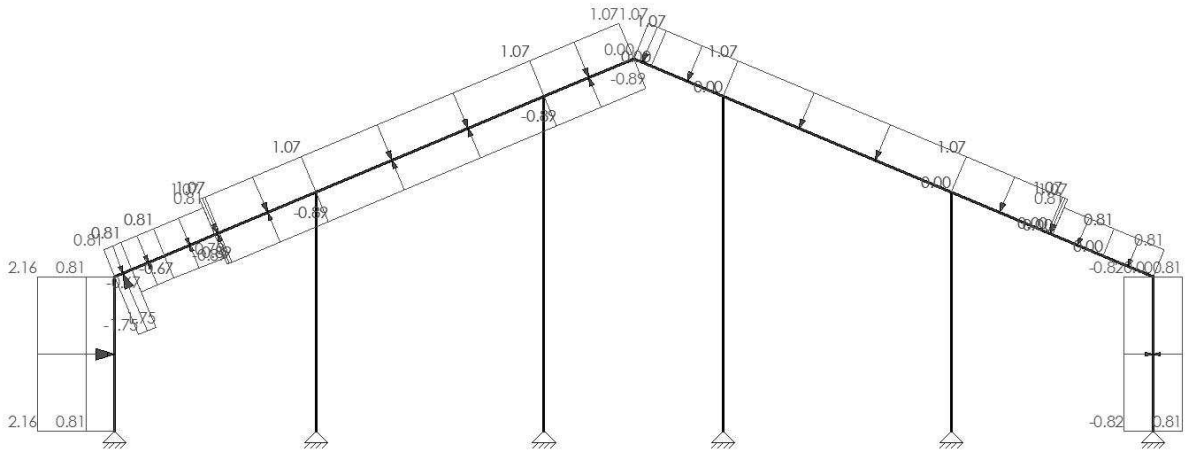

## B.G.11: WINDBELASTING VAN LINKS + ONDERDRUK (2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.11: Windbelasting van Links + Onderdruk (2e Cpe)** | | | | | | |
| q | 2,16 (q50) | 2,16 (q50) | 0,000 | 4,400(L) | | Z' S1 |
| q | 0,81 (-q47) | 0,81 (-q47) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | -0,82 (q53) | -0,82 (q53) | 0,000 | 4,400(L) | | Z' S4 |
| q | 1,09 (q54) | 1,09 (q54) | 0,000 | 7,047(L) | | Z' S14-S15,S20 |
| q | 1,07 (-q49) | 1,07 (-q49) | 0,000 | 7,047(L) | | Z' S14-S15,S18,S20-S21 |
| q | 0,00 (q55) | 0,00 (q55) | 0,000 | 0,542 | | Z' S17 |
| q | 1,07 (-q49) | 1,07 (-q49) | 0,000 | 0,542 | | Z' S17 |
| q | 0,00 (q56) | 0,00 (q56) | 0,542 | 2,765(L) | | Z' S17 |
| q | 1,07 (-q49) | 1,07 (-q49) | 0,542 | 2,765(L) | | Z' S17 |
| q | 0,00 (q56) | 0,00 (q56) | 0,000 | 7,047(L) | | Z' S18,S21 |
| q | 1,24 (q57) | 1,24 (q57) | 0,000 | 0,542 | | Z' S19 |
| q | 0,81 (-q47) | 0,81 (-q47) | 0,000 | 0,542 | | Z' S19 |
| q | 0,82 (q58) | 0,82 (q58) | 0,542 | 1,553 | | Z' S19 |
| q | 0,81 (-q47) | 0,81 (-q47) | 0,542 | 1,553 | | Z' S19 |
| q | 1,09 (q54) | 1,09 (q54) | 3,106 | 3,253(L) | | Z' S19 |
| q | 1,07 (-q49) | 1,07 (-q49) | 3,106 | 3,253(L) | | Z' S19 |
| q | 0,82 (q58) | 0,86 (q59) | 1,553 | 3,106 | | Z' S19 |
| q | 0,81 (-q47) | 0,81 (-q47) | 1,553 | 3,106 | | Z' S19 |
| q | 0,00 (q60) | 0,00 (q60) | 1,700 | 3,253(L) | | Z' S22 |
| q | 0,81 (-q47) | 0,81 (-q47) | 1,700 | 3,253(L) | | Z' S22 |
| q | 0,00 (q56) | 0,00 (q56) | 0,000 | 0,147 | | Z' S22 |
| q | 1,07 (-q49) | 1,07 (-q49) | 0,000 | 0,147 | | Z' S22 |
| q | 0,00 (q61) | 0,00 (q60) | 0,147 | 1,700 | | Z' S22 |
| q | 0,81 (-q47) | 0,81 (-q47) | 0,147 | 1,700 | | Z' S22 |
| **Som lasten** | **X: 19,66** | **kN Z: 45,83** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



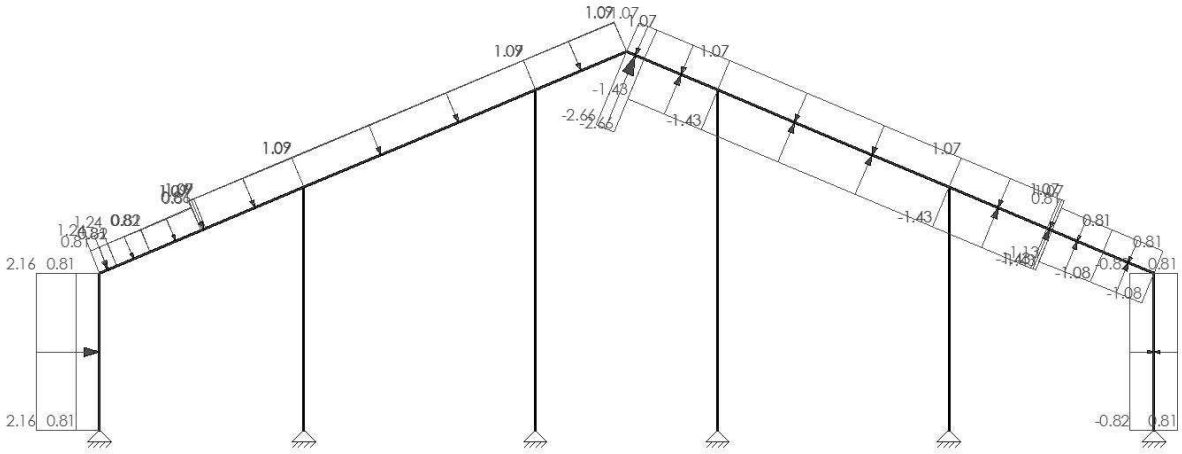

## B.G.12: WINDBELASTING VAN LINKS + ONDERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.12: Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe)** | | | | | | |
| q | 2,16 (q35) | 2,16 (q35) | 0,000 | 4,400(L) | | Z' S1 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | -0,82 (q38) | -0,82 (q38) | 0,000 | 4,400(L) | | Z' S4 |
| q | -0,89 (q39) | -0,89 (q39) | 0,000 | 7,047(L) | | Z' S14-S15,S20 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,000 | 7,047(L) | | Z' S14-S15,S18,S20-S21 |
| q | 0,00 (q55) | 0,00 (q55) | 0,000 | 0,542 | | Z' S17 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,000 | 0,542 | | Z' S17 |
| q | 0,00 (q56) | 0,00 (q56) | 0,542 | 2,765(L) | | Z' S17 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,542 | 2,765(L) | | Z' S17 |
| q | 0,00 (q56) | 0,00 (q56) | 0,000 | 7,047(L) | | Z' S18,S21 |
| q | -1,75 (q42) | -1,75 (q42) | 0,000 | 0,542 | | Z' S19 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,000 | 0,542 | | Z' S19 |
| q | -0,67 (q43) | -0,67 (q43) | 0,542 | 1,553 | | Z' S19 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,542 | 1,553 | | Z' S19 |
| q | -0,89 (q39) | -0,89 (q39) | 3,106 | 3,253(L) | | Z' S19 |
| q | 1,07 (-q34) | 1,07 (-q34) | 3,106 | 3,253(L) | | Z' S19 |
| q | -0,67 (q43) | -0,70 (q44) | 1,553 | 3,106 | | Z' S19 |
| q | 0,81 (-q32) | 0,81 (-q32) | 1,553 | 3,106 | | Z' S19 |
| q | 0,00 (q60) | 0,00 (q60) | 1,700 | 3,253(L) | | Z' S22 |
| q | 0,81 (-q32) | 0,81 (-q32) | 1,700 | 3,253(L) | | Z' S22 |
| q | 0,00 (q56) | 0,00 (q56) | 0,000 | 0,147 | | Z' S22 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,000 | 0,147 | | Z' S22 |
| q | 0,00 (q61) | 0,00 (q60) | 0,147 | 1,700 | | Z' S22 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,147 | 1,700 | | Z' S22 |
| **Som lasten** | **X: 7,66** | **kN Z: 17,19** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



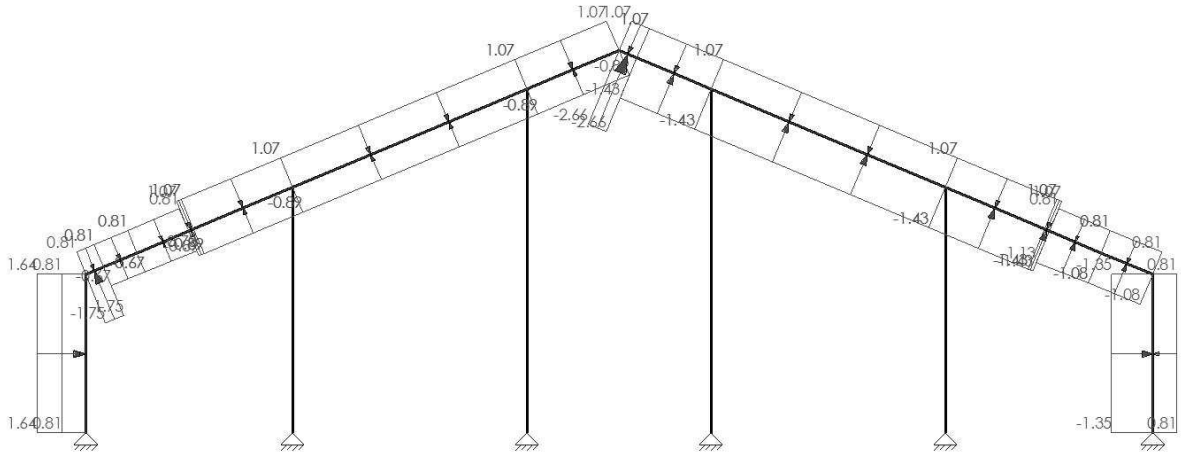

## B.G.13: WINDBELASTING VAN LINKS + ONDERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting Staaf of knoop |
|---|---|---|---|---|---|
| **B.G.13: Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe)** | | | | | |
| q | 2,16 (q35) | 2,16 (q35) | 0,000 | 4,400(L) | Z' S1 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,000 | 4,400(L) | Z' S1,S4 |
| q | -0,82 (q38) | -0,82 (q38) | 0,000 | 4,400(L) | Z' S4 |
| q | 1,09 (q54) | 1,09 (q54) | 0,000 | 7,047(L) | Z' S14-S15,S20 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,000 | 7,047(L) | Z' S14-S15,S18,S20-S21 |
| q | -2,66 (q40) | -2,66 (q40) | 0,000 | 0,542 | Z' S17 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,000 | 0,542 | Z' S17 |
| q | -1,43 (q41) | -1,43 (q41) | 0,542 | 2,765(L) | Z' S17 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,542 | 2,765(L) | Z' S17 |
| q | -1,43 (q41) | -1,43 (q41) | 0,000 | 7,047(L) | Z' S18,S21 |
| q | 1,24 (q57) | 1,24 (q57) | 0,000 | 0,542 | Z' S19 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,000 | 0,542 | Z' S19 |
| q | 0,82 (q58) | 0,82 (q58) | 0,542 | 1,553 | Z' S19 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,542 | 1,553 | Z' S19 |
| q | 1,09 (q54) | 1,09 (q54) | 3,106 | 3,253(L) | Z' S19 |
| q | 1,07 (-q34) | 1,07 (-q34) | 3,106 | 3,253(L) | Z' S19 |
| q | 0,82 (q58) | 0,86 (q59) | 1,553 | 3,106 | Z' S19 |
| q | 0,81 (-q32) | 0,81 (-q32) | 1,553 | 3,106 | Z' S19 |
| q | -1,08 (q45) | -1,08 (q45) | 1,700 | 3,253(L) | Z' S22 |
| q | 0,81 (-q32) | 0,81 (-q32) | 1,700 | 3,253(L) | Z' S22 |
| q | -1,43 (q41) | -1,43 (q41) | 0,000 | 0,147 | Z' S22 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,000 | 0,147 | Z' S22 |
| q | -1,13 (q46) | -1,08 (q45) | 0,147 | 1,700 | Z' S22 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,147 | 1,700 | Z' S22 |
| **Som lasten** | **X: 28,39** | **kN Z: 24,99** | **kN** | | |
| **-** | **-** | **-** | **m** | **m** | **- -** |



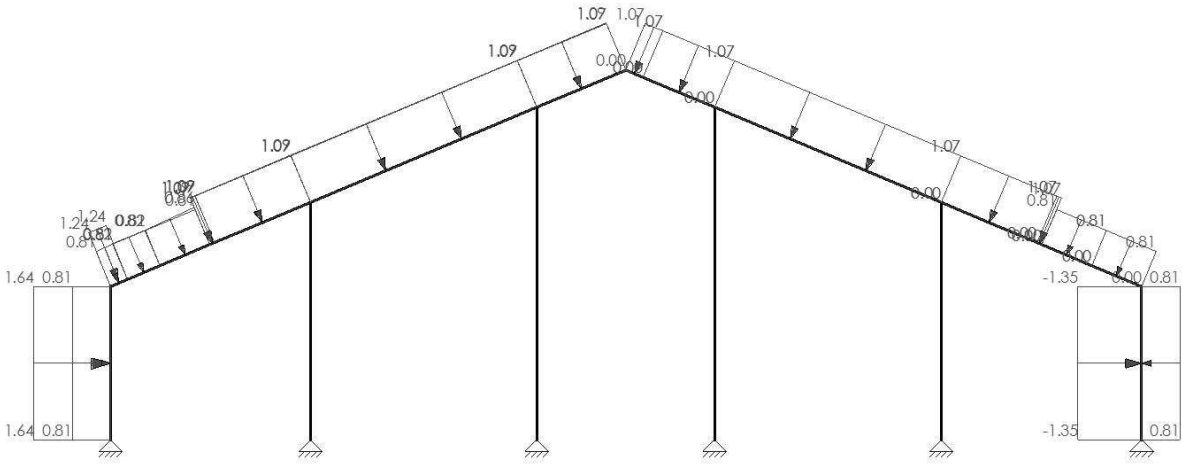

## B.G.14: WINDBELASTING VAN LINKS + ONDERDRUK (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.14: Windbelasting van Links + Onderdruk (2e corr. factor)** | | | | | | |
| q | 1,64 (q36) | 1,64 (q36) | 0,000 | 4,400(L) | | Z' S1 |
| q | -1,35 (q37) | -1,35 (q37) | 0,000 | 4,400(L) | | Z' S4 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | -0,89 (q39) | -0,89 (q39) | 0,000 | 7,047(L) | | Z' S14-S15,S20 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,000 | 7,047(L) | | Z' S14-S15,S18,S20-S21 |
| q | -2,66 (q40) | -2,66 (q40) | 0,000 | 0,542 | | Z' S17 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,000 | 0,542 | | Z' S17 |
| q | -1,43 (q41) | -1,43 (q41) | 0,542 | 2,765(L) | | Z' S17 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,542 | 2,765(L) | | Z' S17 |
| q | -1,43 (q41) | -1,43 (q41) | 0,000 | 7,047(L) | | Z' S18,S21 |
| q | -1,75 (q42) | -1,75 (q42) | 0,000 | 0,542 | | Z' S19 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,000 | 0,542 | | Z' S19 |
| q | -0,67 (q43) | -0,67 (q43) | 0,542 | 1,553 | | Z' S19 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,542 | 1,553 | | Z' S19 |
| q | -0,89 (q39) | -0,89 (q39) | 3,106 | 3,253(L) | | Z' S19 |
| q | 1,07 (-q34) | 1,07 (-q34) | 3,106 | 3,253(L) | | Z' S19 |
| q | -0,67 (q43) | -0,70 (q44) | 1,553 | 3,106 | | Z' S19 |
| q | 0,81 (-q32) | 0,81 (-q32) | 1,553 | 3,106 | | Z' S19 |
| q | -1,08 (q45) | -1,08 (q45) | 1,700 | 3,253(L) | | Z' S22 |
| q | 0,81 (-q32) | 0,81 (-q32) | 1,700 | 3,253(L) | | Z' S22 |
| q | -1,43 (q41) | -1,43 (q41) | 0,000 | 0,147 | | Z' S22 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,000 | 0,147 | | Z' S22 |
| q | -1,13 (q46) | -1,08 (q45) | 0,147 | 1,700 | | Z' S22 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,147 | 1,700 | | Z' S22 |
| **Som lasten** | **X: 16,39** | **kN Z: -3,66** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



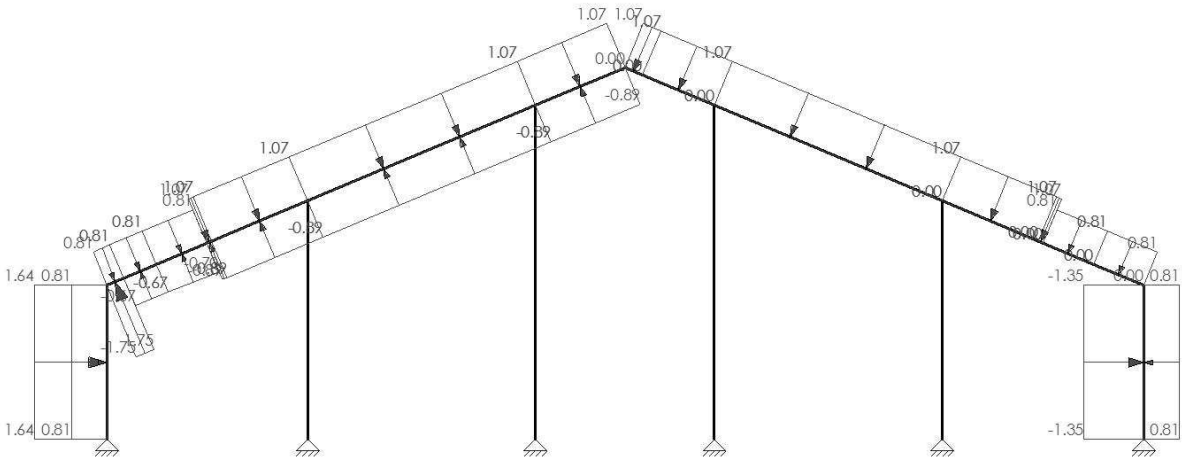
## B.G.15: WINDBELASTING VAN LINKS + ONDERDRUK (2E CPE) (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.15: Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor)** | | | | | | |
| q | 1,64 (q51) | 1,64 (q51) | 0,000 | 4,400(L) | | Z' S1 |
| q | -1,35 (q52) | -1,35 (q52) | 0,000 | 4,400(L) | | Z' S4 |
| q | 0,81 (-q47) | 0,81 (-q47) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | 1,09 (q54) | 1,09 (q54) | 0,000 | 7,047(L) | | Z' S14-S15,S20 |
| q | 1,07 (-q49) | 1,07 (-q49) | 0,000 | 7,047(L) | | Z' S14-S15,S18,S20-S21 |
| q | 0,00 (q55) | 0,00 (q55) | 0,000 | 0,542 | | Z' S17 |
| q | 1,07 (-q49) | 1,07 (-q49) | 0,000 | 0,542 | | Z' S17 |
| q | 0,00 (q56) | 0,00 (q56) | 0,542 | 2,765(L) | | Z' S17 |
| q | 1,07 (-q49) | 1,07 (-q49) | 0,542 | 2,765(L) | | Z' S17 |
| q | 0,00 (q56) | 0,00 (q56) | 0,000 | 7,047(L) | | Z' S18,S21 |
| q | 1,24 (q57) | 1,24 (q57) | 0,000 | 0,542 | | Z' S19 |
| q | 0,81 (-q47) | 0,81 (-q47) | 0,000 | 0,542 | | Z' S19 |
| q | 0,82 (q58) | 0,82 (q58) | 0,542 | 1,553 | | Z' S19 |
| q | 0,81 (-q47) | 0,81 (-q47) | 0,542 | 1,553 | | Z' S19 |
| q | 1,09 (q54) | 1,09 (q54) | 3,106 | 3,253(L) | | Z' S19 |
| q | 1,07 (-q49) | 1,07 (-q49) | 3,106 | 3,253(L) | | Z' S19 |
| q | 0,82 (q58) | 0,86 (q59) | 1,553 | 3,106 | | Z' S19 |
| q | 0,81 (-q47) | 0,81 (-q47) | 1,553 | 3,106 | | Z' S19 |
| q | 0,00 (q60) | 0,00 (q60) | 1,700 | 3,253(L) | | Z' S22 |
| q | 0,81 (-q47) | 0,81 (-q47) | 1,700 | 3,253(L) | | Z' S22 |
| q | 0,00 (q56) | 0,00 (q56) | 0,000 | 0,147 | | Z' S22 |
| q | 1,07 (-q49) | 1,07 (-q49) | 0,000 | 0,147 | | Z' S22 |
| q | 0,00 (q61) | 0,00 (q60) | 0,147 | 1,700 | | Z' S22 |
| q | 0,81 (-q47) | 0,81 (-q47) | 0,147 | 1,700 | | Z' S22 |
| **Som lasten** | **X: 19,66** | **kN Z: 45,83** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | | **- -** |



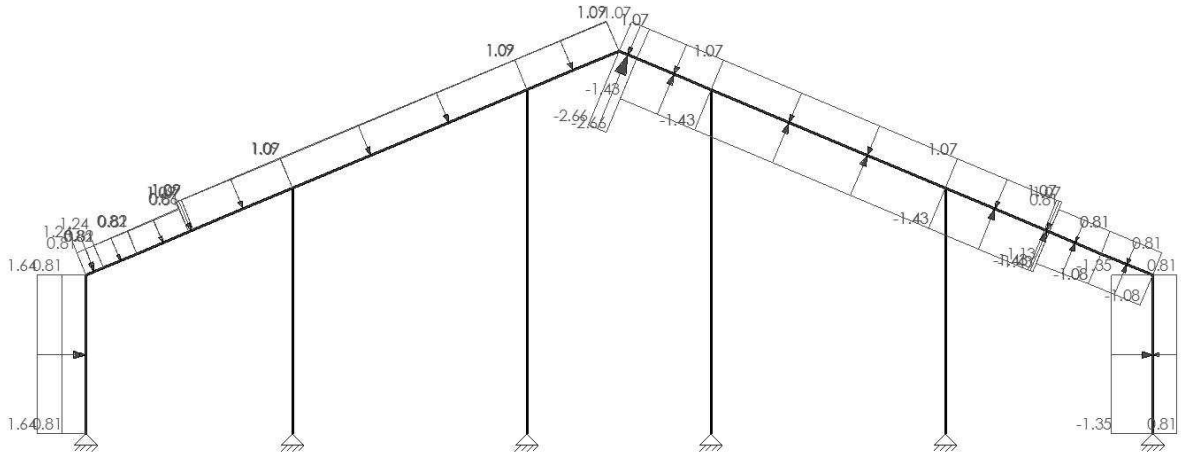

## B.G.16: WINDBELASTING VAN LINKS + ONDERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE) (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.16: Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor)** | | | | | | |
| q | 1,64 (q36) | 1,64 (q36) | 0,000 | 4,400(L) | | Z' S1 |
| q | -1,35 (q37) | -1,35 (q37) | 0,000 | 4,400(L) | | Z' S4 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | -0,89 (q39) | -0,89 (q39) | 0,000 | 7,047(L) | | Z' S14-S15,S20 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,000 | 7,047(L) | | Z' S14-S15,S18,S20-S21 |
| q | 0,00 (q55) | 0,00 (q55) | 0,000 | 0,542 | | Z' S17 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,000 | 0,542 | | Z' S17 |
| q | 0,00 (q56) | 0,00 (q56) | 0,542 | 2,765(L) | | Z' S17 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,542 | 2,765(L) | | Z' S17 |
| q | 0,00 (q56) | 0,00 (q56) | 0,000 | 7,047(L) | | Z' S18,S21 |
| q | -1,75 (q42) | -1,75 (q42) | 0,000 | 0,542 | | Z' S19 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,000 | 0,542 | | Z' S19 |
| q | -0,67 (q43) | -0,67 (q43) | 0,542 | 1,553 | | Z' S19 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,542 | 1,553 | | Z' S19 |
| q | -0,89 (q39) | -0,89 (q39) | 3,106 | 3,253(L) | | Z' S19 |
| q | 1,07 (-q34) | 1,07 (-q34) | 3,106 | 3,253(L) | | Z' S19 |
| q | -0,67 (q43) | -0,70 (q44) | 1,553 | 3,106 | | Z' S19 |
| q | 0,81 (-q32) | 0,81 (-q32) | 1,553 | 3,106 | | Z' S19 |
| q | 0,00 (q60) | 0,00 (q60) | 1,700 | 3,253(L) | | Z' S22 |
| q | 0,81 (-q32) | 0,81 (-q32) | 1,700 | 3,253(L) | | Z' S22 |
| q | 0,00 (q56) | 0,00 (q56) | 0,000 | 0,147 | | Z' S22 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,000 | 0,147 | | Z' S22 |
| q | 0,00 (q61) | 0,00 (q60) | 0,147 | 1,700 | | Z' S22 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,147 | 1,700 | | Z' S22 |
| **Som lasten** | **X: 7,66** | **kN Z: 17,19** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



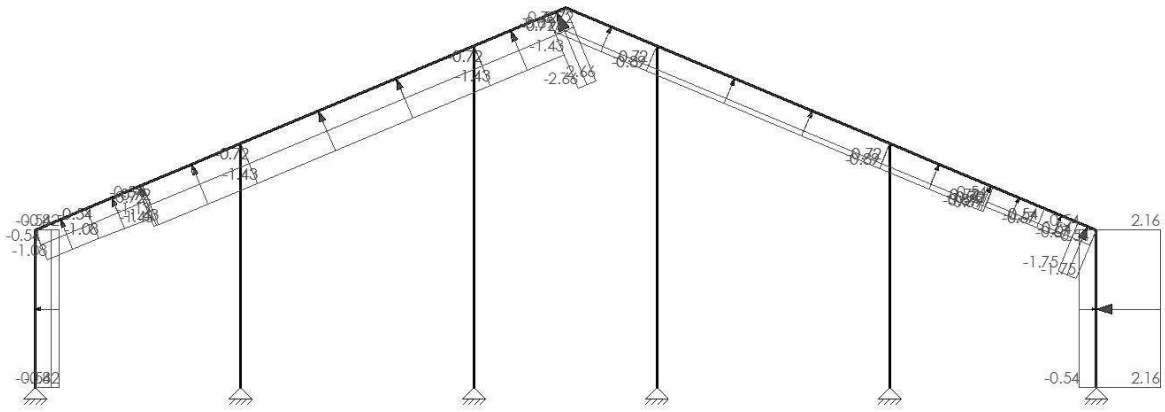

## B.G.17: WINDBELASTING VAN LINKS + ONDERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE) (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.17: Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor)** | | | | | | |
| q | 1,64 (q36) | 1,64 (q36) | 0,000 | 4,400(L) | | Z' S1 |
| q | -1,35 (q37) | -1,35 (q37) | 0,000 | 4,400(L) | | Z' S4 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | 1,09 (q54) | 1,09 (q54) | 0,000 | 7,047(L) | | Z' S14-S15,S20 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,000 | 7,047(L) | | Z' S14-S15,S18,S20-S21 |
| q | -2,66 (q40) | -2,66 (q40) | 0,000 | 0,542 | | Z' S17 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,000 | 0,542 | | Z' S17 |
| q | -1,43 (q41) | -1,43 (q41) | 0,542 | 2,765(L) | | Z' S17 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,542 | 2,765(L) | | Z' S17 |
| q | -1,43 (q41) | -1,43 (q41) | 0,000 | 7,047(L) | | Z' S18,S21 |
| q | 1,24 (q57) | 1,24 (q57) | 0,000 | 0,542 | | Z' S19 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,000 | 0,542 | | Z' S19 |
| q | 0,82 (q58) | 0,82 (q58) | 0,542 | 1,553 | | Z' S19 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,542 | 1,553 | | Z' S19 |
| q | 1,09 (q54) | 1,09 (q54) | 3,106 | 3,253(L) | | Z' S19 |
| q | 1,07 (-q34) | 1,07 (-q34) | 3,106 | 3,253(L) | | Z' S19 |
| q | 0,82 (q58) | 0,86 (q59) | 1,553 | 3,106 | | Z' S19 |
| q | 0,81 (-q32) | 0,81 (-q32) | 1,553 | 3,106 | | Z' S19 |
| q | -1,08 (q45) | -1,08 (q45) | 1,700 | 3,253(L) | | Z' S22 |
| q | 0,81 (-q32) | 0,81 (-q32) | 1,700 | 3,253(L) | | Z' S22 |
| q | -1,43 (q41) | -1,43 (q41) | 0,000 | 0,147 | | Z' S22 |
| q | 1,07 (-q34) | 1,07 (-q34) | 0,000 | 0,147 | | Z' S22 |
| q | -1,13 (q46) | -1,08 (q45) | 0,147 | 1,700 | | Z' S22 |
| q | 0,81 (-q32) | 0,81 (-q32) | 0,147 | 1,700 | | Z' S22 |
| **Som lasten** | **X: 28,39** | **kN Z: 24,99** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | | **- -** |



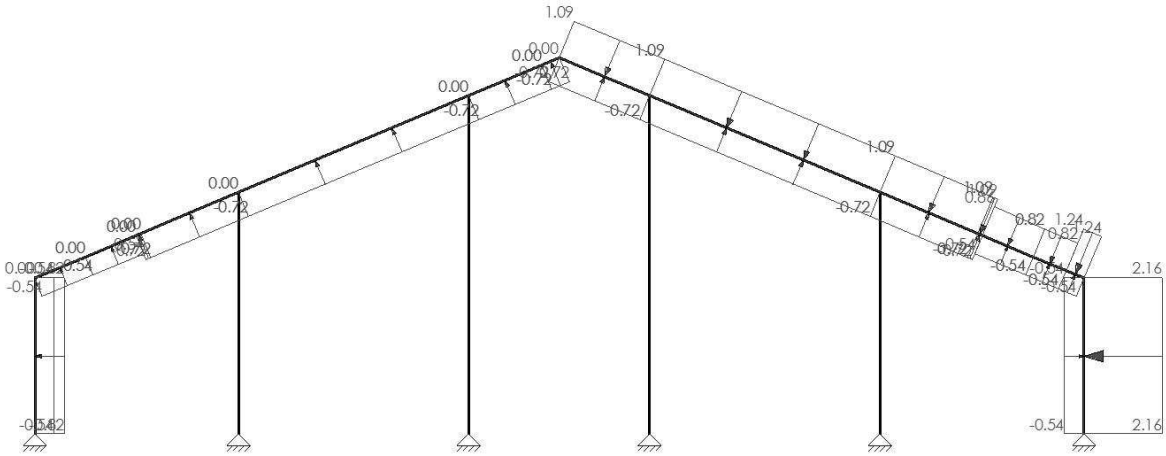

## B.G.18: WINDBELASTING VAN RECHTS + OVERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.18: Windbelasting van Rechts + Overdruk** | | | | | | |
| q | -0,82 (q66) | -0,82 (q66) | 0,000 | 4,400(L) | | Z' S1 |
| q | -0,54 (-q62) | -0,54 (-q62) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | 2,16 (q68) | 2,16 (q68) | 0,000 | 4,400(L) | | Z' S4 |
| q | -1,43 (q69) | -1,43 (q69) | 0,000 | 7,047(L) | | Z' S14,S20 |
| q | -0,72 (-q64) | -0,72 (-q64) | 0,000 | 7,047(L) | | Z' S14,S17-S18,S20-S21 |
| q | -1,43 (q69) | -1,43 (q69) | 0,000 | 2,223 | | Z' S15 |
| q | -0,72 (-q64) | -0,72 (-q64) | 0,000 | 2,223 | | Z' S15 |
| q | -2,66 (q70) | -2,66 (q70) | 2,223 | 2,765(L) | | Z' S15 |
| q | -0,72 (-q64) | -0,72 (-q64) | 2,223 | 2,765(L) | | Z' S15 |
| q | -0,89 (q71) | -0,89 (q71) | 0,000 | 2,765(L) | | Z' S17-S18,S21 |
| q | -1,08 (q72) | -1,08 (q72) | 0,000 | 1,553 | | Z' S19 |
| q | -0,54 (-q62) | -0,54 (-q62) | 0,000 | 1,553 | | Z' S19 |
| q | -1,43 (q69) | -1,43 (q69) | 3,106 | 3,253(L) | | Z' S19 |
| q | -0,72 (-q64) | -0,72 (-q64) | 3,106 | 3,253(L) | | Z' S19 |
| q | -1,08 (q72) | -1,13 (q73) | 1,553 | 3,106 | | Z' S19 |
| q | -0,54 (-q62) | -0,54 (-q62) | 1,553 | 3,106 | | Z' S19 |
| q | -0,67 (q74) | -0,67 (q74) | 1,700 | 2,711 | | Z' S22 |
| q | -0,54 (-q62) | -0,54 (-q62) | 1,700 | 2,711 | | Z' S22 |
| q | -1,75 (q75) | -1,75 (q75) | 2,711 | 3,253(L) | | Z' S22 |
| q | -0,54 (-q62) | -0,54 (-q62) | 2,711 | 3,253(L) | | Z' S22 |
| q | -0,89 (q71) | -0,89 (q71) | 0,000 | 0,147 | | Z' S22 |
| q | -0,72 (-q64) | -0,72 (-q64) | 0,000 | 0,147 | | Z' S22 |
| q | -0,70 (q76) | -0,67 (q74) | 0,147 | 1,700 | | Z' S22 |
| q | -0,54 (-q62) | -0,54 (-q62) | 0,147 | 1,700 | | Z' S22 |
| **Som lasten** | **X: -16,39** | **kN Z: -54,14** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



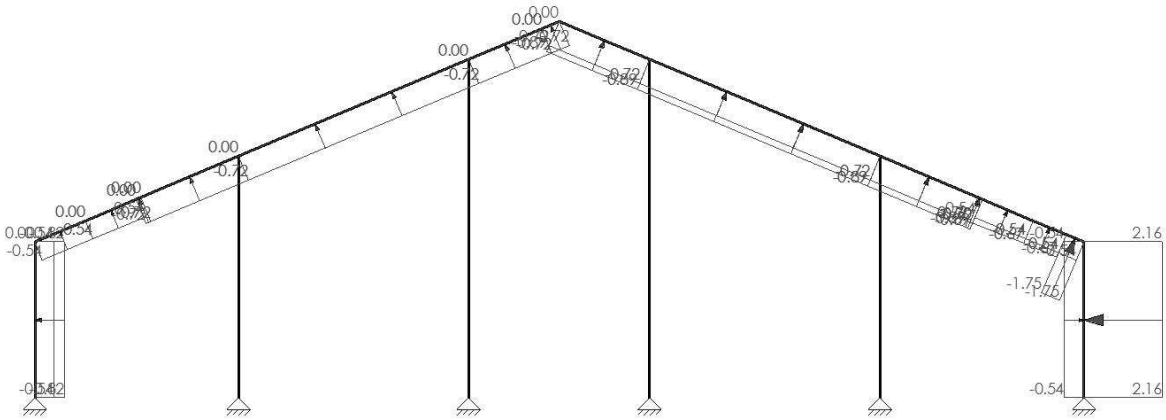

## B.G.19: WINDBELASTING VAN RECHTS + OVERDRUK (2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.19: Windbelasting van Rechts + Overdruk (2e Cpe)** | | | | | | |
| q | -0,82 (q81) | -0,82 (q81) | 0,000 | 4,400(L) | | Z' S1 |
| q | -0,54 (-q77) | -0,54 (-q77) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | 2,16 (q83) | 2,16 (q83) | 0,000 | 4,400(L) | | Z' S4 |
| q | 0,00 (q84) | 0,00 (q84) | 0,000 | 7,047(L) | | Z' S14,S20 |
| q | -0,72 (-q79) | -0,72 (-q79) | 0,000 | 7,047(L) | | Z' S14,S17-S18,S20-S21 |
| q | 0,00 (q84) | 0,00 (q84) | 0,000 | 2,223 | | Z' S15 |
| q | -0,72 (-q79) | -0,72 (-q79) | 0,000 | 2,223 | | Z' S15 |
| q | 0,00 (q85) | 0,00 (q85) | 2,223 | 2,765(L) | | Z' S15 |
| q | -0,72 (-q79) | -0,72 (-q79) | 2,223 | 2,765(L) | | Z' S15 |
| q | 1,09 (q86) | 1,09 (q86) | 0,000 | 2,765(L) | | Z' S17-S18,S21 |
| q | 0,00 (q87) | 0,00 (q87) | 0,000 | 1,553 | | Z' S19 |
| q | -0,54 (-q77) | -0,54 (-q77) | 0,000 | 1,553 | | Z' S19 |
| q | 0,00 (q84) | 0,00 (q84) | 3,106 | 3,253(L) | | Z' S19 |
| q | -0,72 (-q79) | -0,72 (-q79) | 3,106 | 3,253(L) | | Z' S19 |
| q | 0,00 (q87) | 0,00 (q88) | 1,553 | 3,106 | | Z' S19 |
| q | -0,54 (-q77) | -0,54 (-q77) | 1,553 | 3,106 | | Z' S19 |
| q | 0,82 (q89) | 0,82 (q89) | 1,700 | 2,711 | | Z' S22 |
| q | -0,54 (-q77) | -0,54 (-q77) | 1,700 | 2,711 | | Z' S22 |
| q | 1,24 (q90) | 1,24 (q90) | 2,711 | 3,253(L) | | Z' S22 |
| q | -0,54 (-q77) | -0,54 (-q77) | 2,711 | 3,253(L) | | Z' S22 |
| q | 1,09 (q86) | 1,09 (q86) | 0,000 | 0,147 | | Z' S22 |
| q | -0,72 (-q79) | -0,72 (-q79) | 0,000 | 0,147 | | Z' S22 |
| q | 0,86 (q91) | 0,82 (q89) | 0,147 | 1,700 | | Z' S22 |
| q | -0,54 (-q77) | -0,54 (-q77) | 0,147 | 1,700 | | Z' S22 |
| **Som lasten** | **X: -19,66** | **kN Z: -4,66** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **-** | **-** |



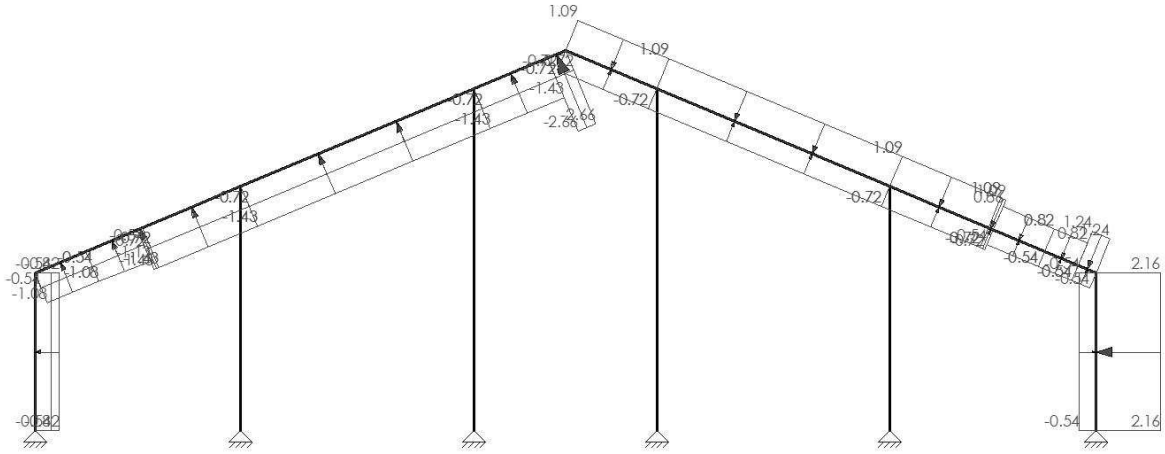

## B.G.20: WINDBELASTING VAN RECHTS + OVERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.20: Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe)** | | | | | | |
| q | -0,82 (q66) | -0,82 (q66) | 0,000 | 4,400(L) | | Z' S1 |
| q | -0,54 (-q62) | -0,54 (-q62) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | 2,16 (q68) | 2,16 (q68) | 0,000 | 4,400(L) | | Z' S4 |
| q | 0,00 (q84) | 0,00 (q84) | 0,000 | 7,047(L) | | Z' S14,S20 |
| q | -0,72 (-q64) | -0,72 (-q64) | 0,000 | 7,047(L) | | Z' S14,S17-S18,S20-S21 |
| q | 0,00 (q84) | 0,00 (q84) | 0,000 | 2,223 | | Z' S15 |
| q | -0,72 (-q64) | -0,72 (-q64) | 0,000 | 2,223 | | Z' S15 |
| q | 0,00 (q85) | 0,00 (q85) | 2,223 | 2,765(L) | | Z' S15 |
| q | -0,72 (-q64) | -0,72 (-q64) | 2,223 | 2,765(L) | | Z' S15 |
| q | -0,89 (q71) | -0,89 (q71) | 0,000 | 2,765(L) | | Z' S17-S18,S21 |
| q | 0,00 (q87) | 0,00 (q87) | 0,000 | 1,553 | | Z' S19 |
| q | -0,54 (-q62) | -0,54 (-q62) | 0,000 | 1,553 | | Z' S19 |
| q | 0,00 (q84) | 0,00 (q84) | 3,106 | 3,253(L) | | Z' S19 |
| q | -0,72 (-q64) | -0,72 (-q64) | 3,106 | 3,253(L) | | Z' S19 |
| q | 0,00 (q87) | 0,00 (q88) | 1,553 | 3,106 | | Z' S19 |
| q | -0,54 (-q62) | -0,54 (-q62) | 1,553 | 3,106 | | Z' S19 |
| q | -0,67 (q74) | -0,67 (q74) | 1,700 | 2,711 | | Z' S22 |
| q | -0,54 (-q62) | -0,54 (-q62) | 1,700 | 2,711 | | Z' S22 |
| q | -1,75 (q75) | -1,75 (q75) | 2,711 | 3,253(L) | | Z' S22 |
| q | -0,54 (-q62) | -0,54 (-q62) | 2,711 | 3,253(L) | | Z' S22 |
| q | -0,89 (q71) | -0,89 (q71) | 0,000 | 0,147 | | Z' S22 |
| q | -0,72 (-q64) | -0,72 (-q64) | 0,000 | 0,147 | | Z' S22 |
| q | -0,70 (q76) | -0,67 (q74) | 0,147 | 1,700 | | Z' S22 |
| q | -0,54 (-q62) | -0,54 (-q62) | 0,147 | 1,700 | | Z' S22 |
| **Som lasten** | **X: -7,66** | **kN Z: -33,30** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



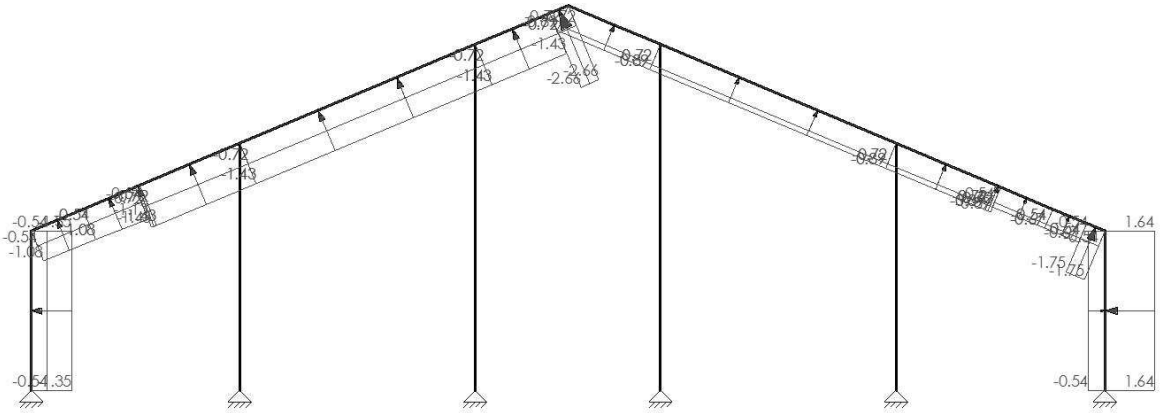

## B.G.21: WINDBELASTING VAN RECHTS + OVERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.21: Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe)** | | | | | | |
| q | -0,82 (q66) | -0,82 (q66) | 0,000 | 4,400(L) | | Z' S1 |
| q | -0,54 (-q62) | -0,54 (-q62) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | 2,16 (q68) | 2,16 (q68) | 0,000 | 4,400(L) | | Z' S4 |
| q | -1,43 (q69) | -1,43 (q69) | 0,000 | 7,047(L) | | Z' S14,S20 |
| q | -0,72 (-q64) | -0,72 (-q64) | 0,000 | 7,047(L) | | Z' S14,S17-S18,S20-S21 |
| q | -1,43 (q69) | -1,43 (q69) | 0,000 | 2,223 | | Z' S15 |
| q | -0,72 (-q64) | -0,72 (-q64) | 0,000 | 2,223 | | Z' S15 |
| q | -2,66 (q70) | -2,66 (q70) | 2,223 | 2,765(L) | | Z' S15 |
| q | -0,72 (-q64) | -0,72 (-q64) | 2,223 | 2,765(L) | | Z' S15 |
| q | 1,09 (q86) | 1,09 (q86) | 0,000 | 2,765(L) | | Z' S17-S18,S21 |
| q | -1,08 (q72) | -1,08 (q72) | 0,000 | 1,553 | | Z' S19 |
| q | -0,54 (-q62) | -0,54 (-q62) | 0,000 | 1,553 | | Z' S19 |
| q | -1,43 (q69) | -1,43 (q69) | 3,106 | 3,253(L) | | Z' S19 |
| q | -0,72 (-q64) | -0,72 (-q64) | 3,106 | 3,253(L) | | Z' S19 |
| q | -1,08 (q72) | -1,13 (q73) | 1,553 | 3,106 | | Z' S19 |
| q | -0,54 (-q62) | -0,54 (-q62) | 1,553 | 3,106 | | Z' S19 |
| q | 0,82 (q89) | 0,82 (q89) | 1,700 | 2,711 | | Z' S22 |
| q | -0,54 (-q62) | -0,54 (-q62) | 1,700 | 2,711 | | Z' S22 |
| q | 1,24 (q90) | 1,24 (q90) | 2,711 | 3,253(L) | | Z' S22 |
| q | -0,54 (-q62) | -0,54 (-q62) | 2,711 | 3,253(L) | | Z' S22 |
| q | 1,09 (q86) | 1,09 (q86) | 0,000 | 0,147 | | Z' S22 |
| q | -0,72 (-q64) | -0,72 (-q64) | 0,000 | 0,147 | | Z' S22 |
| q | 0,86 (q91) | 0,82 (q89) | 0,147 | 1,700 | | Z' S22 |
| q | -0,54 (-q62) | -0,54 (-q62) | 0,147 | 1,700 | | Z' S22 |
| **Som lasten** | **X: -28,39** | **kN Z: -25,50** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



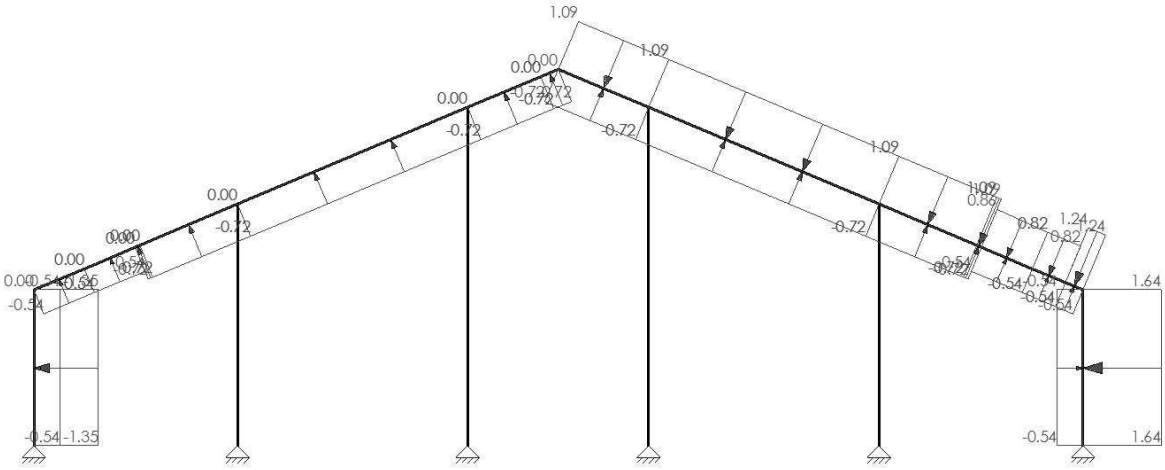

## B.G.22: WINDBELASTING VAN RECHTS + OVERDRUK (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.22: Windbelasting van Rechts + Overdruk (2e corr. factor)** | | | | | | |
| q | -1,35 (q65) | -1,35 (q65) | 0,000 | 4,400(L) | | Z' S1 |
| q | 1,64 (q67) | 1,64 (q67) | 0,000 | 4,400(L) | | Z' S4 |
| q | -0,54 (-q62) | -0,54 (-q62) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | -1,43 (q69) | -1,43 (q69) | 0,000 | 7,047(L) | | Z' S14,S20 |
| q | -0,72 (-q64) | -0,72 (-q64) | 0,000 | 7,047(L) | | Z' S14,S17-S18,S20-S21 |
| q | -1,43 (q69) | -1,43 (q69) | 0,000 | 2,223 | | Z' S15 |
| q | -0,72 (-q64) | -0,72 (-q64) | 0,000 | 2,223 | | Z' S15 |
| q | -2,66 (q70) | -2,66 (q70) | 2,223 | 2,765(L) | | Z' S15 |
| q | -0,72 (-q64) | -0,72 (-q64) | 2,223 | 2,765(L) | | Z' S15 |
| q | -0,89 (q71) | -0,89 (q71) | 0,000 | 2,765(L) | | Z' S17-S18,S21 |
| q | -1,08 (q72) | -1,08 (q72) | 0,000 | 1,553 | | Z' S19 |
| q | -0,54 (-q62) | -0,54 (-q62) | 0,000 | 1,553 | | Z' S19 |
| q | -1,43 (q69) | -1,43 (q69) | 3,106 | 3,253(L) | | Z' S19 |
| q | -0,72 (-q64) | -0,72 (-q64) | 3,106 | 3,253(L) | | Z' S19 |
| q | -1,08 (q72) | -1,13 (q73) | 1,553 | 3,106 | | Z' S19 |
| q | -0,54 (-q62) | -0,54 (-q62) | 1,553 | 3,106 | | Z' S19 |
| q | -0,67 (q74) | -0,67 (q74) | 1,700 | 2,711 | | Z' S22 |
| q | -0,54 (-q62) | -0,54 (-q62) | 1,700 | 2,711 | | Z' S22 |
| q | -1,75 (q75) | -1,75 (q75) | 2,711 | 3,253(L) | | Z' S22 |
| q | -0,54 (-q62) | -0,54 (-q62) | 2,711 | 3,253(L) | | Z' S22 |
| q | -0,89 (q71) | -0,89 (q71) | 0,000 | 0,147 | | Z' S22 |
| q | -0,72 (-q64) | -0,72 (-q64) | 0,000 | 0,147 | | Z' S22 |
| q | -0,70 (q76) | -0,67 (q74) | 0,147 | 1,700 | | Z' S22 |
| q | -0,54 (-q62) | -0,54 (-q62) | 0,147 | 1,700 | | Z' S22 |
| **Som lasten** | **X: -16,39** | **kN Z: -54,14** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



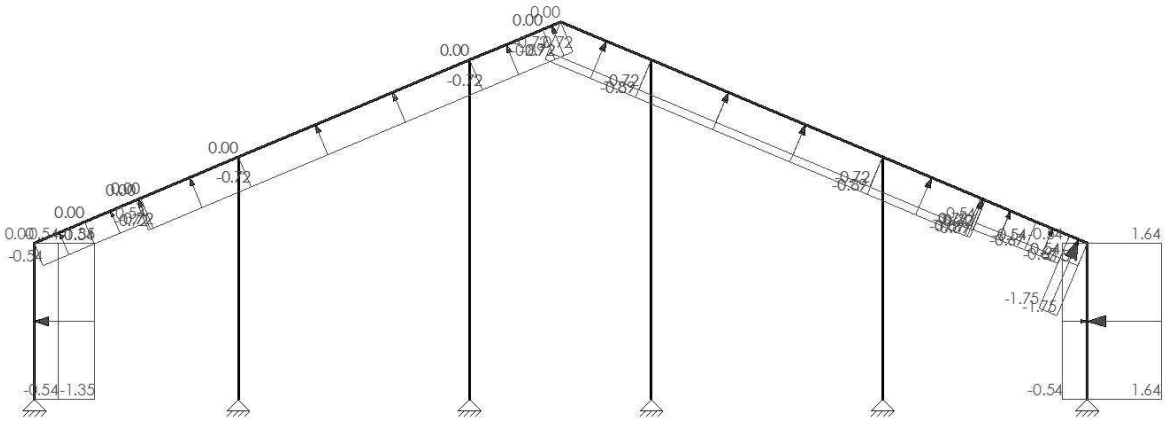

## B.G.23: WINDBELASTING VAN RECHTS + OVERDRUK (2E CPE) (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.23: Windbelasting van Rechts + Overdruk (2e Cpe) (2e corr. factor)** | | | | | | |
| q | -1,35 (q80) | -1,35 (q80) | 0,000 | 4,400(L) | | Z' S1 |
| q | 1,64 (q82) | 1,64 (q82) | 0,000 | 4,400(L) | | Z' S4 |
| q | -0,54 (-q77) | -0,54 (-q77) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | 0,00 (q84) | 0,00 (q84) | 0,000 | 7,047(L) | | Z' S14,S20 |
| q | -0,72 (-q79) | -0,72 (-q79) | 0,000 | 7,047(L) | | Z' S14,S17-S18,S20-S21 |
| q | 0,00 (q84) | 0,00 (q84) | 0,000 | 2,223 | | Z' S15 |
| q | -0,72 (-q79) | -0,72 (-q79) | 0,000 | 2,223 | | Z' S15 |
| q | 0,00 (q85) | 0,00 (q85) | 2,223 | 2,765(L) | | Z' S15 |
| q | -0,72 (-q79) | -0,72 (-q79) | 2,223 | 2,765(L) | | Z' S15 |
| q | 1,09 (q86) | 1,09 (q86) | 0,000 | 2,765(L) | | Z' S17-S18,S21 |
| q | 0,00 (q87) | 0,00 (q87) | 0,000 | 1,553 | | Z' S19 |
| q | -0,54 (-q77) | -0,54 (-q77) | 0,000 | 1,553 | | Z' S19 |
| q | 0,00 (q84) | 0,00 (q84) | 3,106 | 3,253(L) | | Z' S19 |
| q | -0,72 (-q79) | -0,72 (-q79) | 3,106 | 3,253(L) | | Z' S19 |
| q | 0,00 (q87) | 0,00 (q88) | 1,553 | 3,106 | | Z' S19 |
| q | -0,54 (-q77) | -0,54 (-q77) | 1,553 | 3,106 | | Z' S19 |
| q | 0,82 (q89) | 0,82 (q89) | 1,700 | 2,711 | | Z' S22 |
| q | -0,54 (-q77) | -0,54 (-q77) | 1,700 | 2,711 | | Z' S22 |
| q | 1,24 (q90) | 1,24 (q90) | 2,711 | 3,253(L) | | Z' S22 |
| q | -0,54 (-q77) | -0,54 (-q77) | 2,711 | 3,253(L) | | Z' S22 |
| q | 1,09 (q86) | 1,09 (q86) | 0,000 | 0,147 | | Z' S22 |
| q | -0,72 (-q79) | -0,72 (-q79) | 0,000 | 0,147 | | Z' S22 |
| q | 0,86 (q91) | 0,82 (q89) | 0,147 | 1,700 | | Z' S22 |
| q | -0,54 (-q77) | -0,54 (-q77) | 0,147 | 1,700 | | Z' S22 |
| **Som lasten** | **X: -19,66** | **kN Z: -4,66** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | | **- -** |



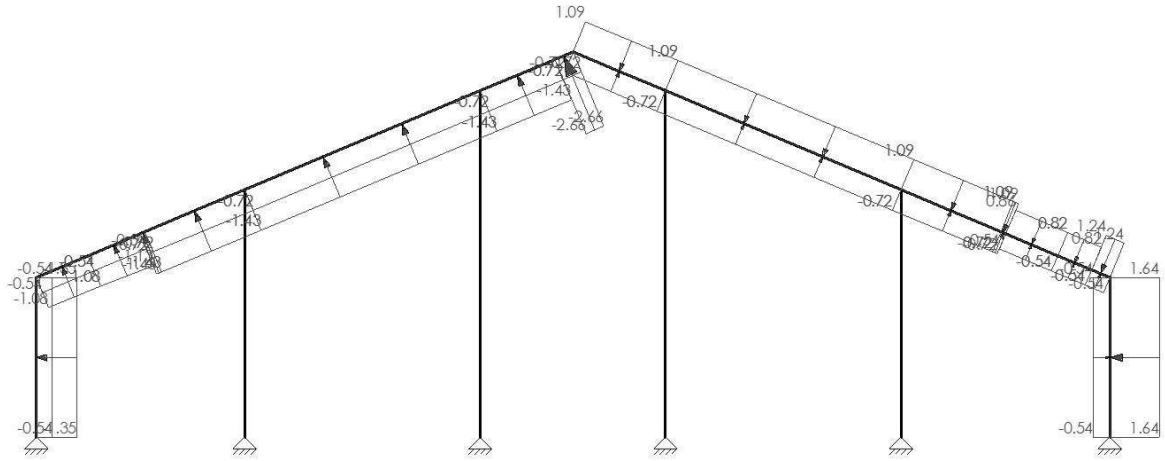

## B.G.24: WINDBELASTING VAN RECHTS + OVERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE) (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.24: Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor)** | | | | | | |
| q | -1,35 (q65) | -1,35 (q65) | 0,000 | 4,400(L) | | Z' S1 |
| q | 1,64 (q67) | 1,64 (q67) | 0,000 | 4,400(L) | | Z' S4 |
| q | -0,54 (-q62) | -0,54 (-q62) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | 0,00 (q84) | 0,00 (q84) | 0,000 | 7,047(L) | | Z' S14,S20 |
| q | -0,72 (-q64) | -0,72 (-q64) | 0,000 | 7,047(L) | | Z' S14,S17-S18,S20-S21 |
| q | 0,00 (q84) | 0,00 (q84) | 0,000 | 2,223 | | Z' S15 |
| q | -0,72 (-q64) | -0,72 (-q64) | 0,000 | 2,223 | | Z' S15 |
| q | 0,00 (q85) | 0,00 (q85) | 2,223 | 2,765(L) | | Z' S15 |
| q | -0,72 (-q64) | -0,72 (-q64) | 2,223 | 2,765(L) | | Z' S15 |
| q | -0,89 (q71) | -0,89 (q71) | 0,000 | 2,765(L) | | Z' S17-S18,S21 |
| q | 0,00 (q87) | 0,00 (q87) | 0,000 | 1,553 | | Z' S19 |
| q | -0,54 (-q62) | -0,54 (-q62) | 0,000 | 1,553 | | Z' S19 |
| q | 0,00 (q84) | 0,00 (q84) | 3,106 | 3,253(L) | | Z' S19 |
| q | -0,72 (-q64) | -0,72 (-q64) | 3,106 | 3,253(L) | | Z' S19 |
| q | 0,00 (q87) | 0,00 (q88) | 1,553 | 3,106 | | Z' S19 |
| q | -0,54 (-q62) | -0,54 (-q62) | 1,553 | 3,106 | | Z' S19 |
| q | -0,67 (q74) | -0,67 (q74) | 1,700 | 2,711 | | Z' S22 |
| q | -0,54 (-q62) | -0,54 (-q62) | 1,700 | 2,711 | | Z' S22 |
| q | -1,75 (q75) | -1,75 (q75) | 2,711 | 3,253(L) | | Z' S22 |
| q | -0,54 (-q62) | -0,54 (-q62) | 2,711 | 3,253(L) | | Z' S22 |
| q | -0,89 (q71) | -0,89 (q71) | 0,000 | 0,147 | | Z' S22 |
| q | -0,72 (-q64) | -0,72 (-q64) | 0,000 | 0,147 | | Z' S22 |
| q | -0,70 (q76) | -0,67 (q74) | 0,147 | 1,700 | | Z' S22 |
| q | -0,54 (-q62) | -0,54 (-q62) | 0,147 | 1,700 | | Z' S22 |
| **Som lasten** | **X: -7,66** | **kN Z:** | **-33,30** | **kN** | | |
| **-** | **-** | **-** | | **m** | **m** | **- -** |



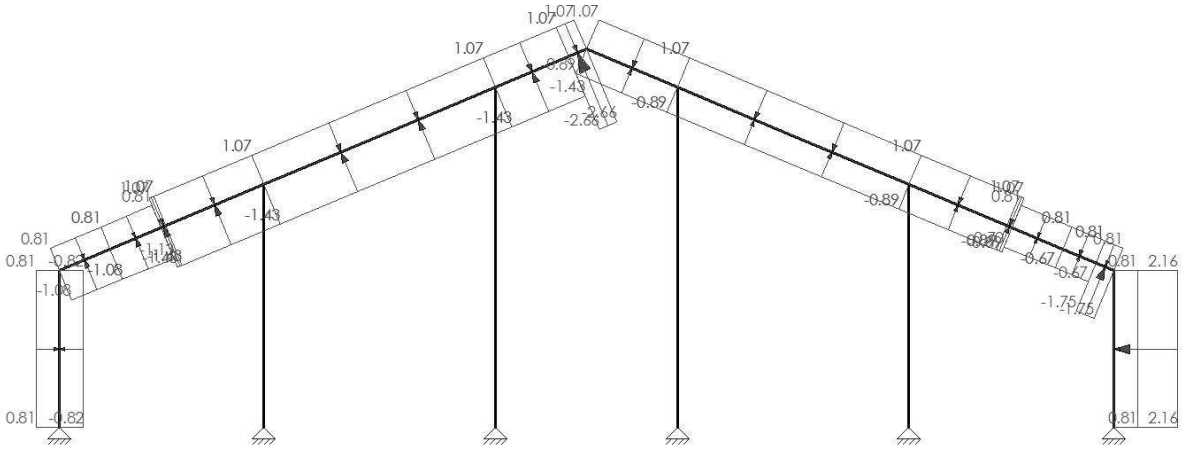

## B.G.25: WINDBELASTING VAN RECHTS + OVERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE) (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.25: Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor)** | | | | | | |
| q | -1,35 (q65) | -1,35 (q65) | 0,000 | 4,400(L) | | Z' S1 |
| q | 1,64 (q67) | 1,64 (q67) | 0,000 | 4,400(L) | | Z' S4 |
| q | -0,54 (-q62) | -0,54 (-q62) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | -1,43 (q69) | -1,43 (q69) | 0,000 | 7,047(L) | | Z' S14,S20 |
| q | -0,72 (-q64) | -0,72 (-q64) | 0,000 | 7,047(L) | | Z' S14,S17-S18,S20-S21 |
| q | -1,43 (q69) | -1,43 (q69) | 0,000 | 2,223 | | Z' S15 |
| q | -0,72 (-q64) | -0,72 (-q64) | 0,000 | 2,223 | | Z' S15 |
| q | -2,66 (q70) | -2,66 (q70) | 2,223 | 2,765(L) | | Z' S15 |
| q | -0,72 (-q64) | -0,72 (-q64) | 2,223 | 2,765(L) | | Z' S15 |
| q | 1,09 (q86) | 1,09 (q86) | 0,000 | 2,765(L) | | Z' S17-S18,S21 |
| q | -1,08 (q72) | -1,08 (q72) | 0,000 | 1,553 | | Z' S19 |
| q | -0,54 (-q62) | -0,54 (-q62) | 0,000 | 1,553 | | Z' S19 |
| q | -1,43 (q69) | -1,43 (q69) | 3,106 | 3,253(L) | | Z' S19 |
| q | -0,72 (-q64) | -0,72 (-q64) | 3,106 | 3,253(L) | | Z' S19 |
| q | -1,08 (q72) | -1,13 (q73) | 1,553 | 3,106 | | Z' S19 |
| q | -0,54 (-q62) | -0,54 (-q62) | 1,553 | 3,106 | | Z' S19 |
| q | 0,82 (q89) | 0,82 (q89) | 1,700 | 2,711 | | Z' S22 |
| q | -0,54 (-q62) | -0,54 (-q62) | 1,700 | 2,711 | | Z' S22 |
| q | 1,24 (q90) | 1,24 (q90) | 2,711 | 3,253(L) | | Z' S22 |
| q | -0,54 (-q62) | -0,54 (-q62) | 2,711 | 3,253(L) | | Z' S22 |
| q | 1,09 (q86) | 1,09 (q86) | 0,000 | 0,147 | | Z' S22 |
| q | -0,72 (-q64) | -0,72 (-q64) | 0,000 | 0,147 | | Z' S22 |
| q | 0,86 (q91) | 0,82 (q89) | 0,147 | 1,700 | | Z' S22 |
| q | -0,54 (-q62) | -0,54 (-q62) | 0,147 | 1,700 | | Z' S22 |
| **Som lasten** | **X: -28,39** | **kN Z: -25,50** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



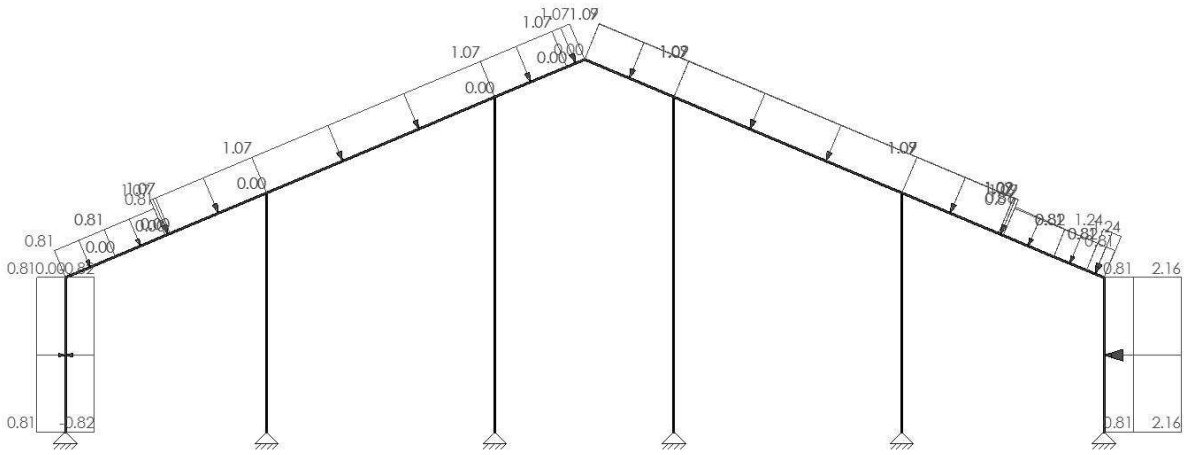

## B.G.26: WINDBELASTING VAN RECHTS + ONDERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.26: Windbelasting van Rechts + Onderdruk** | | | | | | |
| q | -0,82 (q96) | -0,82 (q96) | 0,000 | 4,400(L) | | Z' S1 |
| q | 0,81 (-q92) | 0,81 (-q92) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | 2,16 (q98) | 2,16 (q98) | 0,000 | 4,400(L) | | Z' S4 |
| q | -1,43 (q99) | -1,43 (q99) | 0,000 | 7,047(L) | | Z' S14,S20 |
| q | 1,07 (-q94) | 1,07 (-q94) | 0,000 | 7,047(L) | | Z' S14,S17-S18,S20-S21 |
| q | -1,43 (q99) | -1,43 (q99) | 0,000 | 2,223 | | Z' S15 |
| q | 1,07 (-q94) | 1,07 (-q94) | 0,000 | 2,223 | | Z' S15 |
| q | -2,66 (q100) | -2,66 (q100) | 2,223 | 2,765(L) | | Z' S15 |
| q | 1,07 (-q94) | 1,07 (-q94) | 2,223 | 2,765(L) | | Z' S15 |
| q | -0,89 (q101) | -0,89 (q101) | 0,000 | 2,765(L) | | Z' S17-S18,S21 |
| q | -1,08 (q102) | -1,08 (q102) | 0,000 | 1,553 | | Z' S19 |
| q | 0,81 (-q92) | 0,81 (-q92) | 0,000 | 1,553 | | Z' S19 |
| q | -1,43 (q99) | -1,43 (q99) | 3,106 | 3,253(L) | | Z' S19 |
| q | 1,07 (-q94) | 1,07 (-q94) | 3,106 | 3,253(L) | | Z' S19 |
| q | -1,08 (q102) | -1,13 (q103) | 1,553 | 3,106 | | Z' S19 |
| q | 0,81 (-q92) | 0,81 (-q92) | 1,553 | 3,106 | | Z' S19 |
| q | -0,67 (q104) | -0,67 (q104) | 1,700 | 2,711 | | Z' S22 |
| q | 0,81 (-q92) | 0,81 (-q92) | 1,700 | 2,711 | | Z' S22 |
| q | -1,75 (q105) | -1,75 (q105) | 2,711 | 3,253(L) | | Z' S22 |
| q | 0,81 (-q92) | 0,81 (-q92) | 2,711 | 3,253(L) | | Z' S22 |
| q | -0,89 (q101) | -0,89 (q101) | 0,000 | 0,147 | | Z' S22 |
| q | 1,07 (-q94) | 1,07 (-q94) | 0,000 | 0,147 | | Z' S22 |
| q | -0,70 (q106) | -0,67 (q104) | 0,147 | 1,700 | | Z' S22 |
| q | 0,81 (-q92) | 0,81 (-q92) | 0,147 | 1,700 | | Z' S22 |
| **Som lasten** | **X: -16,39** | **kN Z: -3,65** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



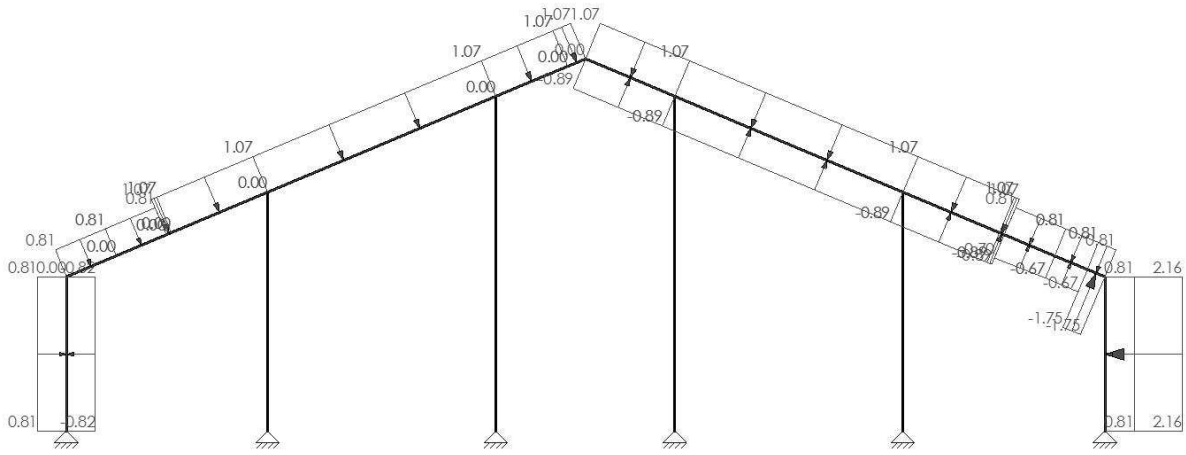

## B.G.27: WINDBELASTING VAN RECHTS + ONDERDRUK (2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.27: Windbelasting van Rechts + Onderdruk (2e Cpe)** | | | | | | |
| q | -0,82 (q111) | -0,82 (q111) | 0,000 | 4,400(L) | | Z' S1 |
| q | 0,81 (-q107) | 0,81 (-q107) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | 2,16 (q113) | 2,16 (q113) | 0,000 | 4,400(L) | | Z' S4 |
| q | 0,00 (q114) | 0,00 (q114) | 0,000 | 7,047(L) | | Z' S14,S20 |
| q | 1,07 (-q109) | 1,07 (-q109) | 0,000 | 7,047(L) | | Z' S14,S17-S18,S20-S21 |
| q | 0,00 (q114) | 0,00 (q114) | 0,000 | 2,223 | | Z' S15 |
| q | 1,07 (-q109) | 1,07 (-q109) | 0,000 | 2,223 | | Z' S15 |
| q | 0,00 (q115) | 0,00 (q115) | 2,223 | 2,765(L) | | Z' S15 |
| q | 1,07 (-q109) | 1,07 (-q109) | 2,223 | 2,765(L) | | Z' S15 |
| q | 1,09 (q116) | 1,09 (q116) | 0,000 | 2,765(L) | | Z' S17-S18,S21 |
| q | 0,00 (q117) | 0,00 (q117) | 0,000 | 1,553 | | Z' S19 |
| q | 0,81 (-q107) | 0,81 (-q107) | 0,000 | 1,553 | | Z' S19 |
| q | 0,00 (q114) | 0,00 (q114) | 3,106 | 3,253(L) | | Z' S19 |
| q | 1,07 (-q109) | 1,07 (-q109) | 3,106 | 3,253(L) | | Z' S19 |
| q | 0,00 (q117) | 0,00 (q118) | 1,553 | 3,106 | | Z' S19 |
| q | 0,81 (-q107) | 0,81 (-q107) | 1,553 | 3,106 | | Z' S19 |
| q | 0,82 (q119) | 0,82 (q119) | 1,700 | 2,711 | | Z' S22 |
| q | 0,81 (-q107) | 0,81 (-q107) | 1,700 | 2,711 | | Z' S22 |
| q | 1,24 (q120) | 1,24 (q120) | 2,711 | 3,253(L) | | Z' S22 |
| q | 0,81 (-q107) | 0,81 (-q107) | 2,711 | 3,253(L) | | Z' S22 |
| q | 1,09 (q116) | 1,09 (q116) | 0,000 | 0,147 | | Z' S22 |
| q | 1,07 (-q109) | 1,07 (-q109) | 0,000 | 0,147 | | Z' S22 |
| q | 0,86 (q121) | 0,82 (q119) | 0,147 | 1,700 | | Z' S22 |
| q | 0,81 (-q107) | 0,81 (-q107) | 0,147 | 1,700 | | Z' S22 |
| **Som lasten** | **X: -19,66** | **kN Z: 45,83** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | | **- -** |



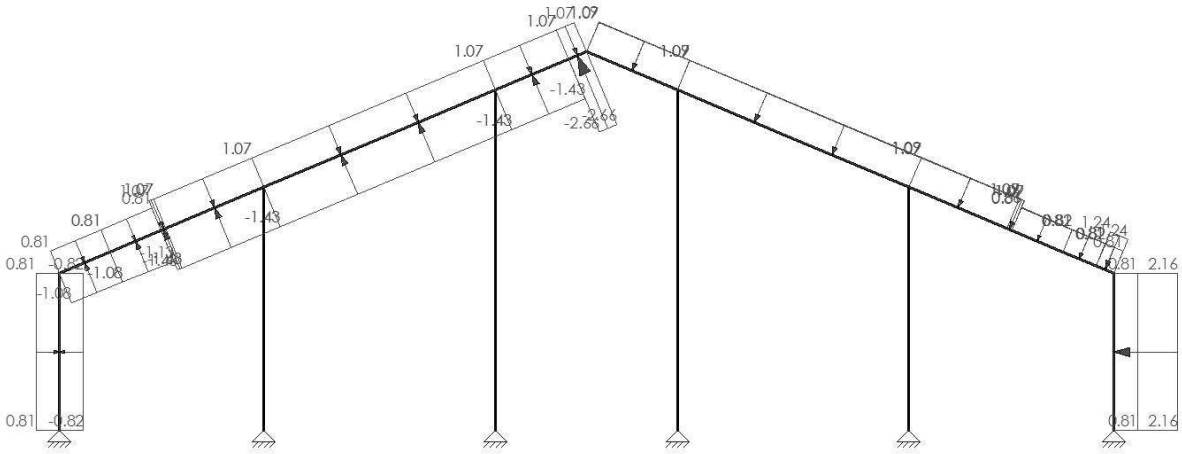

## B.G.28: WINDBELASTING VAN RECHTS + ONDERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.28: Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe)** | | | | | | |
| q | -0,82 (q96) | -0,82 (q96) | 0,000 | 4,400(L) | | Z' S1 |
| q | 0,81 (-q92) | 0,81 (-q92) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | 2,16 (q98) | 2,16 (q98) | 0,000 | 4,400(L) | | Z' S4 |
| q | 0,00 (q114) | 0,00 (q114) | 0,000 | 7,047(L) | | Z' S14,S20 |
| q | 1,07 (-q94) | 1,07 (-q94) | 0,000 | 7,047(L) | | Z' S14,S17-S18,S20-S21 |
| q | 0,00 (q114) | 0,00 (q114) | 0,000 | 2,223 | | Z' S15 |
| q | 1,07 (-q94) | 1,07 (-q94) | 0,000 | 2,223 | | Z' S15 |
| q | 0,00 (q115) | 0,00 (q115) | 2,223 | 2,765(L) | | Z' S15 |
| q | 1,07 (-q94) | 1,07 (-q94) | 2,223 | 2,765(L) | | Z' S15 |
| q | -0,89 (q101) | -0,89 (q101) | 0,000 | 2,765(L) | | Z' S17-S18,S21 |
| q | 0,00 (q117) | 0,00 (q117) | 0,000 | 1,553 | | Z' S19 |
| q | 0,81 (-q92) | 0,81 (-q92) | 0,000 | 1,553 | | Z' S19 |
| q | 0,00 (q114) | 0,00 (q114) | 3,106 | 3,253(L) | | Z' S19 |
| q | 1,07 (-q94) | 1,07 (-q94) | 3,106 | 3,253(L) | | Z' S19 |
| q | 0,00 (q117) | 0,00 (q118) | 1,553 | 3,106 | | Z' S19 |
| q | 0,81 (-q92) | 0,81 (-q92) | 1,553 | 3,106 | | Z' S19 |
| q | -0,67 (q104) | -0,67 (q104) | 1,700 | 2,711 | | Z' S22 |
| q | 0,81 (-q92) | 0,81 (-q92) | 1,700 | 2,711 | | Z' S22 |
| q | -1,75 (q105) | -1,75 (q105) | 2,711 | 3,253(L) | | Z' S22 |
| q | 0,81 (-q92) | 0,81 (-q92) | 2,711 | 3,253(L) | | Z' S22 |
| q | -0,89 (q101) | -0,89 (q101) | 0,000 | 0,147 | | Z' S22 |
| q | 1,07 (-q94) | 1,07 (-q94) | 0,000 | 0,147 | | Z' S22 |
| q | -0,70 (q106) | -0,67 (q104) | 0,147 | 1,700 | | Z' S22 |
| q | 0,81 (-q92) | 0,81 (-q92) | 0,147 | 1,700 | | Z' S22 |
| **Som lasten** | **X: -7,66** | **kN Z: 17,19** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



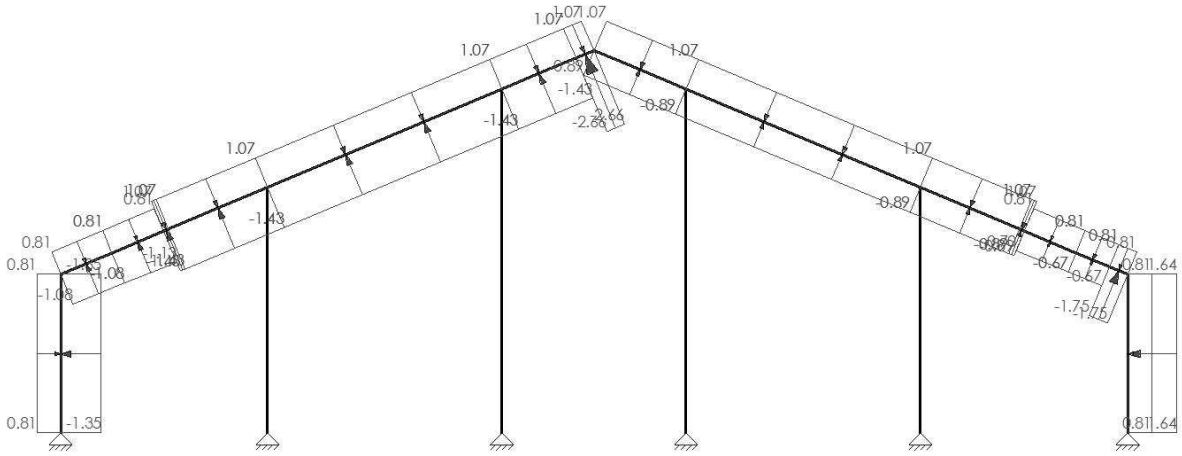

## B.G.29: WINDBELASTING VAN RECHTS + ONDERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.29: Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe)** | | | | | | |
| q | -0,82 (q96) | -0,82 (q96) | 0,000 | 4,400(L) | | Z' S1 |
| q | 0,81 (-q92) | 0,81 (-q92) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | 2,16 (q98) | 2,16 (q98) | 0,000 | 4,400(L) | | Z' S4 |
| q | -1,43 (q99) | -1,43 (q99) | 0,000 | 7,047(L) | | Z' S14,S20 |
| q | 1,07 (-q94) | 1,07 (-q94) | 0,000 | 7,047(L) | | Z' S14,S17-S18,S20-S21 |
| q | -1,43 (q99) | -1,43 (q99) | 0,000 | 2,223 | | Z' S15 |
| q | 1,07 (-q94) | 1,07 (-q94) | 0,000 | 2,223 | | Z' S15 |
| q | -2,66 (q100) | -2,66 (q100) | 2,223 | 2,765(L) | | Z' S15 |
| q | 1,07 (-q94) | 1,07 (-q94) | 2,223 | 2,765(L) | | Z' S15 |
| q | 1,09 (q116) | 1,09 (q116) | 0,000 | 2,765(L) | | Z' S17-S18,S21 |
| q | -1,08 (q102) | -1,08 (q102) | 0,000 | 1,553 | | Z' S19 |
| q | 0,81 (-q92) | 0,81 (-q92) | 0,000 | 1,553 | | Z' S19 |
| q | -1,43 (q99) | -1,43 (q99) | 3,106 | 3,253(L) | | Z' S19 |
| q | 1,07 (-q94) | 1,07 (-q94) | 3,106 | 3,253(L) | | Z' S19 |
| q | -1,08 (q102) | -1,13 (q103) | 1,553 | 3,106 | | Z' S19 |
| q | 0,81 (-q92) | 0,81 (-q92) | 1,553 | 3,106 | | Z' S19 |
| q | 0,82 (q119) | 0,82 (q119) | 1,700 | 2,711 | | Z' S22 |
| q | 0,81 (-q92) | 0,81 (-q92) | 1,700 | 2,711 | | Z' S22 |
| q | 1,24 (q120) | 1,24 (q120) | 2,711 | 3,253(L) | | Z' S22 |
| q | 0,81 (-q92) | 0,81 (-q92) | 2,711 | 3,253(L) | | Z' S22 |
| q | 1,09 (q116) | 1,09 (q116) | 0,000 | 0,147 | | Z' S22 |
| q | 1,07 (-q94) | 1,07 (-q94) | 0,000 | 0,147 | | Z' S22 |
| q | 0,86 (q121) | 0,82 (q119) | 0,147 | 1,700 | | Z' S22 |
| q | 0,81 (-q92) | 0,81 (-q92) | 0,147 | 1,700 | | Z' S22 |
| **Som lasten** | **X: -28,39** | **kN Z: 24,99** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



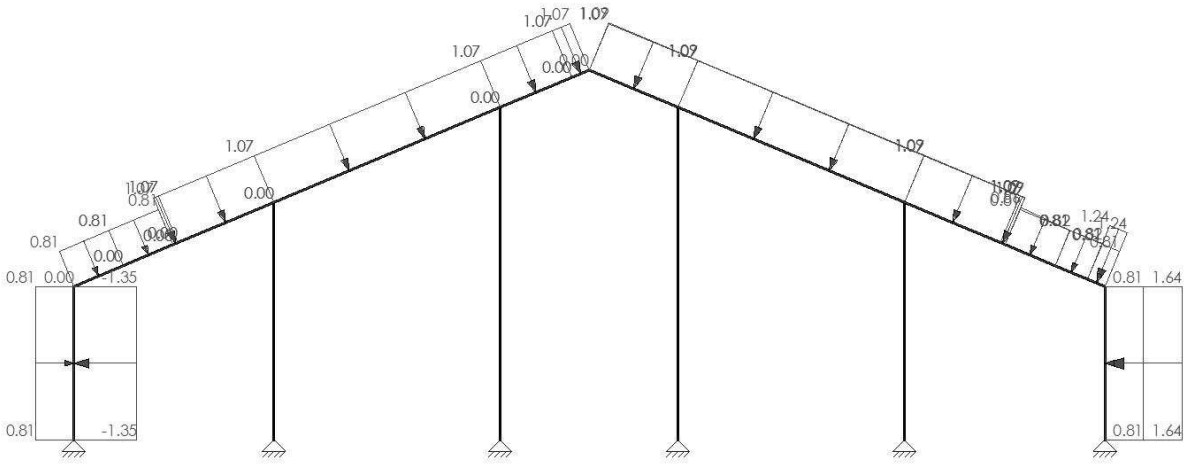

## B.G.30: WINDBELASTING VAN RECHTS + ONDERDRUK (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.30: Windbelasting van Rechts + Onderdruk (2e corr. factor)** | | | | | | |
| q | -1,35 (q95) | -1,35 (q95) | 0,000 | 4,400(L) | | Z' S1 |
| q | 1,64 (q97) | 1,64 (q97) | 0,000 | 4,400(L) | | Z' S4 |
| q | 0,81 (-q92) | 0,81 (-q92) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | -1,43 (q99) | -1,43 (q99) | 0,000 | 7,047(L) | | Z' S14,S20 |
| q | 1,07 (-q94) | 1,07 (-q94) | 0,000 | 7,047(L) | | Z' S14,S17-S18,S20-S21 |
| q | -1,43 (q99) | -1,43 (q99) | 0,000 | 2,223 | | Z' S15 |
| q | 1,07 (-q94) | 1,07 (-q94) | 0,000 | 2,223 | | Z' S15 |
| q | -2,66 (q100) | -2,66 (q100) | 2,223 | 2,765(L) | | Z' S15 |
| q | 1,07 (-q94) | 1,07 (-q94) | 2,223 | 2,765(L) | | Z' S15 |
| q | -0,89 (q101) | -0,89 (q101) | 0,000 | 2,765(L) | | Z' S17-S18,S21 |
| q | -1,08 (q102) | -1,08 (q102) | 0,000 | 1,553 | | Z' S19 |
| q | 0,81 (-q92) | 0,81 (-q92) | 0,000 | 1,553 | | Z' S19 |
| q | -1,43 (q99) | -1,43 (q99) | 3,106 | 3,253(L) | | Z' S19 |
| q | 1,07 (-q94) | 1,07 (-q94) | 3,106 | 3,253(L) | | Z' S19 |
| q | -1,08 (q102) | -1,13 (q103) | 1,553 | 3,106 | | Z' S19 |
| q | 0,81 (-q92) | 0,81 (-q92) | 1,553 | 3,106 | | Z' S19 |
| q | -0,67 (q104) | -0,67 (q104) | 1,700 | 2,711 | | Z' S22 |
| q | 0,81 (-q92) | 0,81 (-q92) | 1,700 | 2,711 | | Z' S22 |
| q | -1,75 (q105) | -1,75 (q105) | 2,711 | 3,253(L) | | Z' S22 |
| q | 0,81 (-q92) | 0,81 (-q92) | 2,711 | 3,253(L) | | Z' S22 |
| q | -0,89 (q101) | -0,89 (q101) | 0,000 | 0,147 | | Z' S22 |
| q | 1,07 (-q94) | 1,07 (-q94) | 0,000 | 0,147 | | Z' S22 |
| q | -0,70 (q106) | -0,67 (q104) | 0,147 | 1,700 | | Z' S22 |
| q | 0,81 (-q92) | 0,81 (-q92) | 0,147 | 1,700 | | Z' S22 |
| **Som lasten** | **X: -16,39** | **kN Z: -3,65** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | | **- -** |



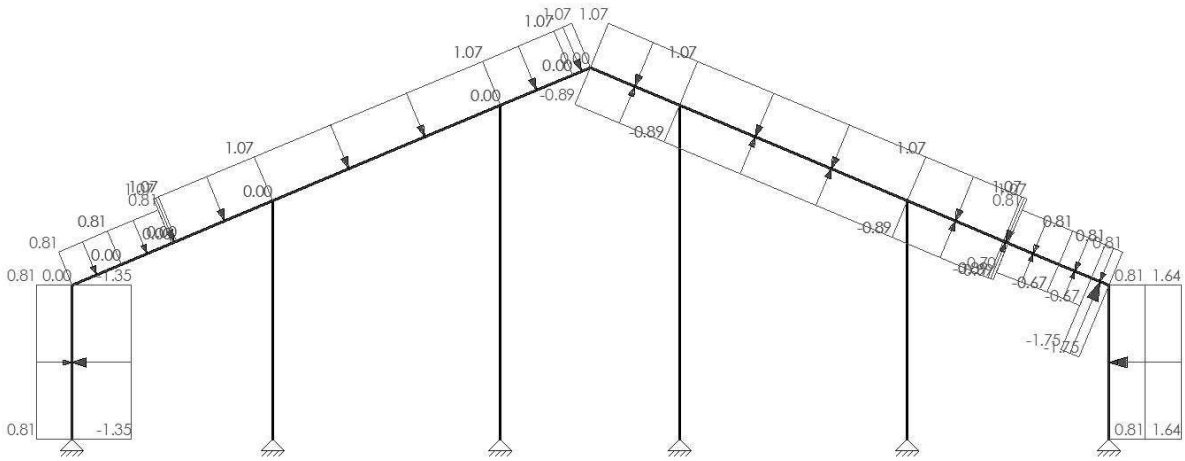

## B.G.31: WINDBELASTING VAN RECHTS + ONDERDRUK (2E CPE) (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.31: Windbelasting van Rechts + Onderdruk (2e Cpe) (2e corr. factor)** | | | | | | |
| q | -1,35 (q110) | -1,35 (q110) | 0,000 | 4,400(L) | | Z' S1 |
| q | 1,64 (q112) | 1,64 (q112) | 0,000 | 4,400(L) | | Z' S4 |
| q | 0,81 (-q107) | 0,81 (-q107) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | 0,00 (q114) | 0,00 (q114) | 0,000 | 7,047(L) | | Z' S14,S20 |
| q | 1,07 (-q109) | 1,07 (-q109) | 0,000 | 7,047(L) | | Z' S14,S17-S18,S20-S21 |
| q | 0,00 (q114) | 0,00 (q114) | 0,000 | 2,223 | | Z' S15 |
| q | 1,07 (-q109) | 1,07 (-q109) | 0,000 | 2,223 | | Z' S15 |
| q | 0,00 (q115) | 0,00 (q115) | 2,223 | 2,765(L) | | Z' S15 |
| q | 1,07 (-q109) | 1,07 (-q109) | 2,223 | 2,765(L) | | Z' S15 |
| q | 1,09 (q116) | 1,09 (q116) | 0,000 | 2,765(L) | | Z' S17-S18,S21 |
| q | 0,00 (q117) | 0,00 (q117) | 0,000 | 1,553 | | Z' S19 |
| q | 0,81 (-q107) | 0,81 (-q107) | 0,000 | 1,553 | | Z' S19 |
| q | 0,00 (q114) | 0,00 (q114) | 3,106 | 3,253(L) | | Z' S19 |
| q | 1,07 (-q109) | 1,07 (-q109) | 3,106 | 3,253(L) | | Z' S19 |
| q | 0,00 (q117) | 0,00 (q118) | 1,553 | 3,106 | | Z' S19 |
| q | 0,81 (-q107) | 0,81 (-q107) | 1,553 | 3,106 | | Z' S19 |
| q | 0,82 (q119) | 0,82 (q119) | 1,700 | 2,711 | | Z' S22 |
| q | 0,81 (-q107) | 0,81 (-q107) | 1,700 | 2,711 | | Z' S22 |
| q | 1,24 (q120) | 1,24 (q120) | 2,711 | 3,253(L) | | Z' S22 |
| q | 0,81 (-q107) | 0,81 (-q107) | 2,711 | 3,253(L) | | Z' S22 |
| q | 1,09 (q116) | 1,09 (q116) | 0,000 | 0,147 | | Z' S22 |
| q | 1,07 (-q109) | 1,07 (-q109) | 0,000 | 0,147 | | Z' S22 |
| q | 0,86 (q121) | 0,82 (q119) | 0,147 | 1,700 | | Z' S22 |
| q | 0,81 (-q107) | 0,81 (-q107) | 0,147 | 1,700 | | Z' S22 |
| **Som lasten** | **X: -19,66** | **kN Z: 45,83** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | | **- -** |



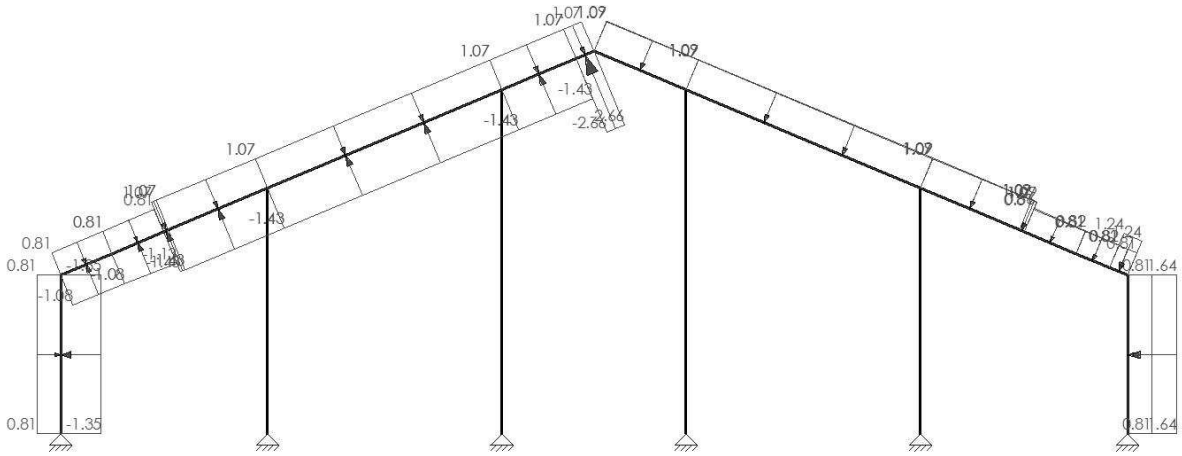

## B.G.32: WINDBELASTING VAN RECHTS + ONDERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE) (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.32: Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor)** | | | | | | |
| q | -1,35 (q95) | -1,35 (q95) | 0,000 | 4,400(L) | | Z' S1 |
| q | 1,64 (q97) | 1,64 (q97) | 0,000 | 4,400(L) | | Z' S4 |
| q | 0,81 (-q92) | 0,81 (-q92) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | 0,00 (q114) | 0,00 (q114) | 0,000 | 7,047(L) | | Z' S14,S20 |
| q | 1,07 (-q94) | 1,07 (-q94) | 0,000 | 7,047(L) | | Z' S14,S17-S18,S20-S21 |
| q | 0,00 (q114) | 0,00 (q114) | 0,000 | 2,223 | | Z' S15 |
| q | 1,07 (-q94) | 1,07 (-q94) | 0,000 | 2,223 | | Z' S15 |
| q | 0,00 (q115) | 0,00 (q115) | 2,223 | 2,765(L) | | Z' S15 |
| q | 1,07 (-q94) | 1,07 (-q94) | 2,223 | 2,765(L) | | Z' S15 |
| q | -0,89 (q101) | -0,89 (q101) | 0,000 | 2,765(L) | | Z' S17-S18,S21 |
| q | 0,00 (q117) | 0,00 (q117) | 0,000 | 1,553 | | Z' S19 |
| q | 0,81 (-q92) | 0,81 (-q92) | 0,000 | 1,553 | | Z' S19 |
| q | 0,00 (q114) | 0,00 (q114) | 3,106 | 3,253(L) | | Z' S19 |
| q | 1,07 (-q94) | 1,07 (-q94) | 3,106 | 3,253(L) | | Z' S19 |
| q | 0,00 (q117) | 0,00 (q118) | 1,553 | 3,106 | | Z' S19 |
| q | 0,81 (-q92) | 0,81 (-q92) | 1,553 | 3,106 | | Z' S19 |
| q | -0,67 (q104) | -0,67 (q104) | 1,700 | 2,711 | | Z' S22 |
| q | 0,81 (-q92) | 0,81 (-q92) | 1,700 | 2,711 | | Z' S22 |
| q | -1,75 (q105) | -1,75 (q105) | 2,711 | 3,253(L) | | Z' S22 |
| q | 0,81 (-q92) | 0,81 (-q92) | 2,711 | 3,253(L) | | Z' S22 |
| q | -0,89 (q101) | -0,89 (q101) | 0,000 | 0,147 | | Z' S22 |
| q | 1,07 (-q94) | 1,07 (-q94) | 0,000 | 0,147 | | Z' S22 |
| q | -0,70 (q106) | -0,67 (q104) | 0,147 | 1,700 | | Z' S22 |
| q | 0,81 (-q92) | 0,81 (-q92) | 0,147 | 1,700 | | Z' S22 |
| **Som lasten** | **X: -7,66** | **kN Z: 17,19** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |




## B.G.33: WINDBELASTING VAN RECHTS + ONDERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE) (2E CORR. FACTOR)

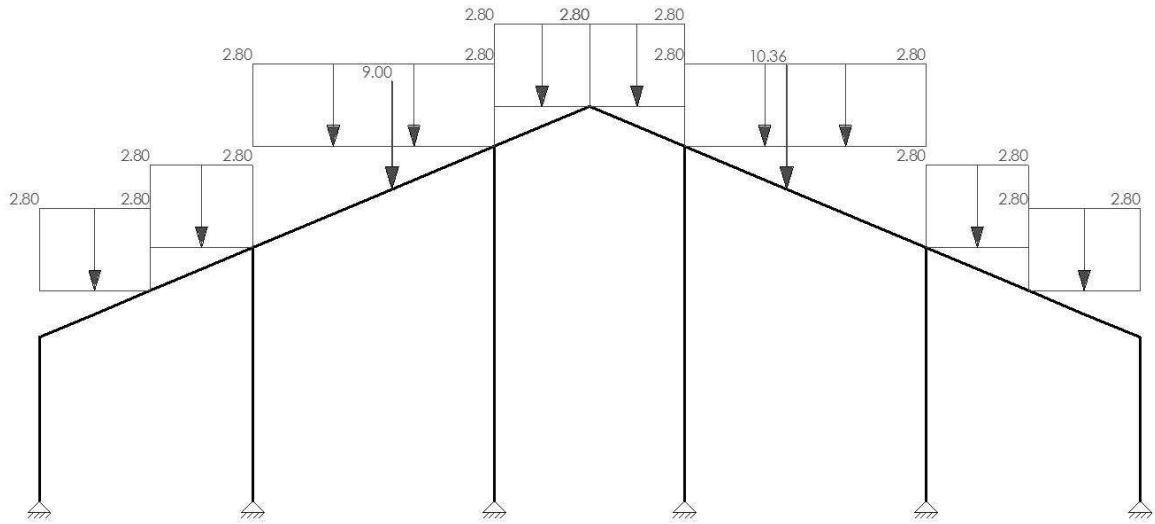
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.33: Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor)** | | | | | | |
| q | -1,35 (q95) | -1,35 (q95) | 0,000 | 4,400(L) | | Z' S1 |
| q | 1,64 (q97) | 1,64 (q97) | 0,000 | 4,400(L) | | Z' S4 |
| q | 0,81 (-q92) | 0,81 (-q92) | 0,000 | 4,400(L) | | Z' S1,S4 |
| q | -1,43 (q99) | -1,43 (q99) | 0,000 | 7,047(L) | | Z' S14,S20 |
| q | 1,07 (-q94) | 1,07 (-q94) | 0,000 | 7,047(L) | | Z' S14,S17-S18,S20-S21 |
| q | -1,43 (q99) | -1,43 (q99) | 0,000 | 2,223 | | Z' S15 |
| q | 1,07 (-q94) | 1,07 (-q94) | 0,000 | 2,223 | | Z' S15 |
| q | -2,66 (q100) | -2,66 (q100) | 2,223 | 2,765(L) | | Z' S15 |
| q | 1,07 (-q94) | 1,07 (-q94) | 2,223 | 2,765(L) | | Z' S15 |
| q | 1,09 (q116) | 1,09 (q116) | 0,000 | 2,765(L) | | Z' S17-S18,S21 |
| q | -1,08 (q102) | -1,08 (q102) | 0,000 | 1,553 | | Z' S19 |
| q | 0,81 (-q92) | 0,81 (-q92) | 0,000 | 1,553 | | Z' S19 |
| q | -1,43 (q99) | -1,43 (q99) | 3,106 | 3,253(L) | | Z' S19 |
| q | 1,07 (-q94) | 1,07 (-q94) | 3,106 | 3,253(L) | | Z' S19 |
| q | -1,08 (q102) | -1,13 (q103) | 1,553 | 3,106 | | Z' S19 |
| q | 0,81 (-q92) | 0,81 (-q92) | 1,553 | 3,106 | | Z' S19 |
| q | 0,82 (q119) | 0,82 (q119) | 1,700 | 2,711 | | Z' S22 |
| q | 0,81 (-q92) | 0,81 (-q92) | 1,700 | 2,711 | | Z' S22 |
| q | 1,24 (q120) | 1,24 (q120) | 2,711 | 3,253(L) | | Z' S22 |
| q | 0,81 (-q92) | 0,81 (-q92) | 2,711 | 3,253(L) | | Z' S22 |
| q | 1,09 (q116) | 1,09 (q116) | 0,000 | 0,147 | | Z' S22 |
| q | 1,07 (-q94) | 1,07 (-q94) | 0,000 | 0,147 | | Z' S22 |
| q | 0,86 (q121) | 0,82 (q119) | 0,147 | 1,700 | | Z' S22 |
| q | 0,81 (-q92) | 0,81 (-q92) | 0,147 | 1,700 | | Z' S22 |
| **Som lasten** | **X: -28,39** | **kN Z: 24,99** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |




## B.G.34: SNEEUWBELASTING 1

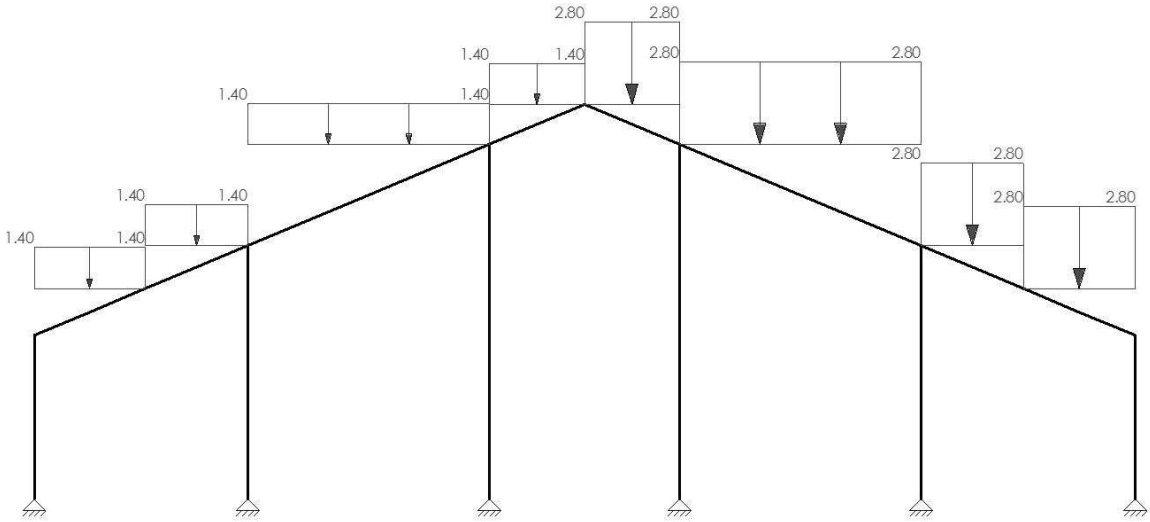
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.34: Sneeuwbelasting 1** | | | | | | |
| q | 2,80 (q122) | 2,80 (q122) | 0,000 | 6,500(L) | Z | S14-S15,S17-S22 |
| F | 9,00 | | 3,750 | | Z | S14 |
| F | 10,36 | | 2,750 | | Z | S18 |
| **Som lasten** | **X: 0,00** | **kN Z: 102,24** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **-** | **-** |

B.G.34: SNEEUWBELASTING 1




## B.G.35: SNEEUWBELASTING 2

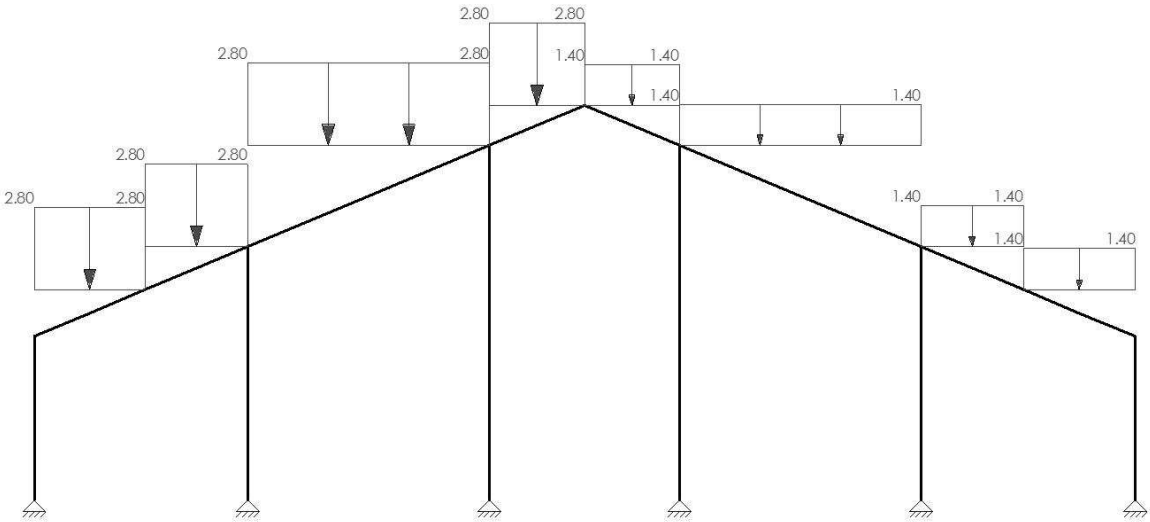
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.35: Sneeuwbelasting 2** | | | | | | |
| q | 1,40 (q123) | 1,40 (q123) | 0,000 | 6,500(L) | Z | S14-S15,S19-S20 |
| q | 2,80 (q122) | 2,80 (q122) | 0,000 | 2,550(L) | Z | S17-S18,S21-S22 |
| **Som lasten** | **X: 0,00** | **kN Z: 62,16** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **-** | **-** |




## B.G.36: SNEEUWBELASTING 3

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.36: Sneeuwbelasting 3** | | | | | | |
| q | 2,80 (q122) | 2,80 (q122) | 0,000 | 6,500(L) | Z | S14-S15,S19-S20 |
| q | 1,40 (q123) | 1,40 (q123) | 0,000 | 2,550(L) | Z | S17-S18,S21-S22 |
| **Som lasten** | **X: 0,00** | **kN Z: 62,16** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



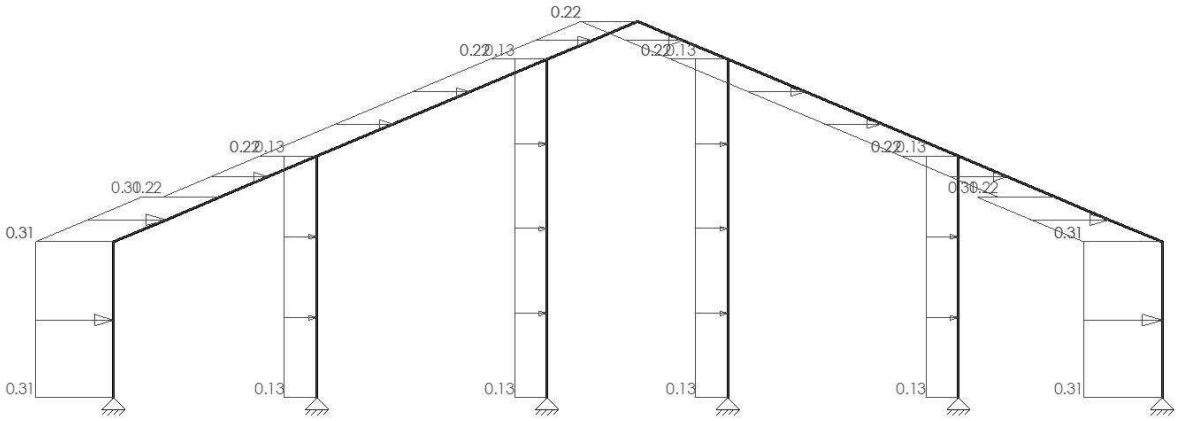



## B.G.37: KNIKLENGTE (ASSYMETRISCH)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.37: Kniklengte (Assymetrisch)** | | | | | | |
| qG | 0,31 (1.00x) | 0,31 (1.00x) | 0,000 | 4,400(L) | X" | S1,S4 |
| qG | 0,13 (1.00x) | 0,13 (1.00x) | 0,000 | 6,809(L) | X" | S5,S8 |
| qG | 0,13 (1.00x) | 0,13 (1.00x) | 0,000 | 9,532(L) | X" | S12,S16 |
| qG | 0,22 (1.00x) | 0,22 (1.00x) | 0,000 | 7,047(L) | X" | S14,S18 |

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.37: Kniklengte (Assymetrisch)** | | | | | | |
| qG | 0,22 (1.00x) | 0,22 (1.00x) | 0,000 | 2,765(L) | | X" S15,S17 |
| qG | 0,31 (1.00x) | 0,31 (1.00x) | 0,000 | 3,253(L) | | X" S19,S22 |
| qG | 0,22 (1.00x) | 0,22 (1.00x) | 0,000 | 2,982(L) | | X" S20-S21 |
| **Som lasten** | **X: 14,58** | **kN Z: 0,00** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |

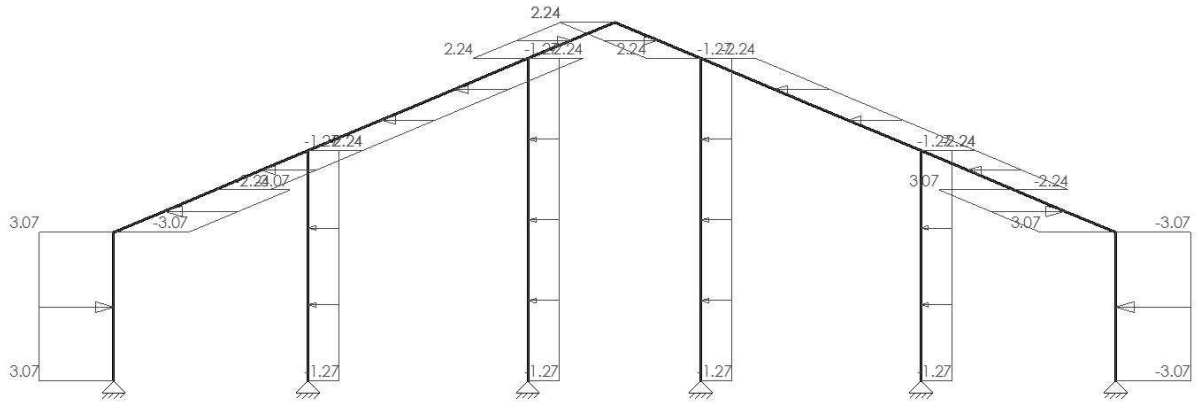
B.G.37: KNIKLENGTE (ASSYMETRISCH)




## B.G.38: KNIKLENGTE (SYMMETRISCH)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.38: Kniklengte (Symmetrisch)** | | | | | | |
| qG | 0,31 (10.00x) | 0,31 (10.00x) | 0,000 | 4,400(L) | | X" S1 |
| qG | 0,31 (-10.00x) | 0,31 (-10.00x) | 0,000 | 4,400(L) | | X" S4 |
| qG | 0,13 (-10.00x) | 0,13 (-10.00x) | 0,000 | 6,809(L) | | X" S5,S8 |
| qG | 0,13 (-10.00x) | 0,13 (-10.00x) | 0,000 | 9,532(L) | | X" S12,S16 |
| qG | 0,22 (-10.00x) | 0,22 (-10.00x) | 0,000 | 7,047(L) | | X" S14,S18 |
| qG | 0,22 (10.00x) | 0,22 (10.00x) | 0,000 | 2,765(L) | | X" S15,S17 |
| qG | 0,31 (-10.00x) | 0,31 (-10.00x) | 0,000 | 3,253(L) | | X" S19 |
| qG | 0,22 (-10.00x) | 0,22 (-10.00x) | 0,000 | 2,982(L) | | X" S20-S21 |
| qG | 0,31 (10.00x) | 0,31 (10.00x) | 0,000 | 3,253(L) | | X" S22 |
| **Som lasten** | **X: -74,07** | **kN Z: 0,00** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |

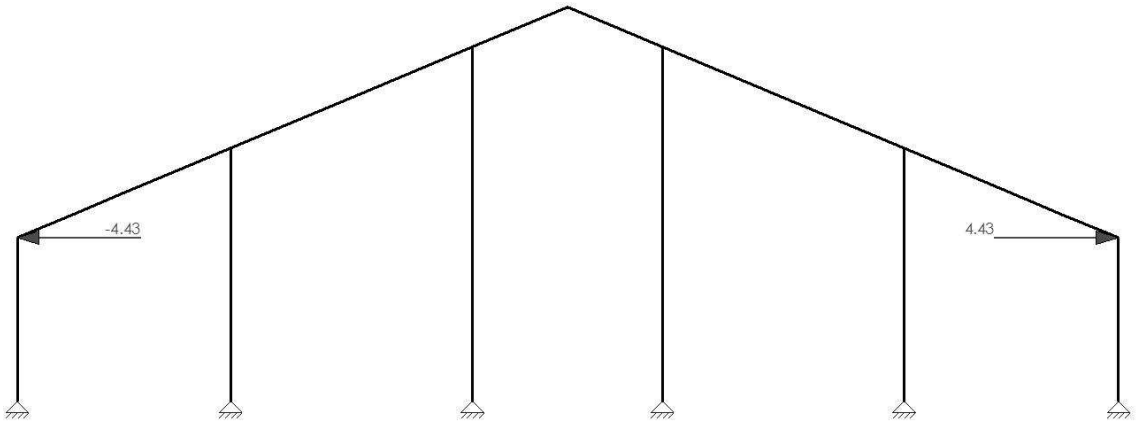
B.G.38: KNIKLENGTE (SYMMETRISCH)



## B.G.39: SNEEUW

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.39: sneeuw** | | | | | | |
| N | -4,43 | | | | X | K2 |
| N | 4,43 | | | | X | K4 |
| **Som lasten** | **X: 0,00** | **kN Z: 0,00** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |

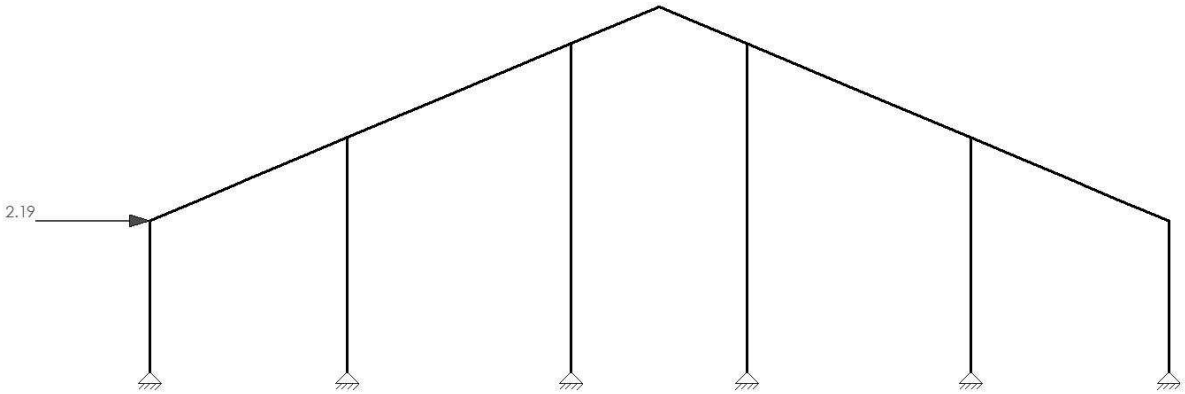
B.G.39: SNEEUW




## B.G.40: WIND LINKS

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.40: Wind links** | | | | | | |
| N | 2,19 | | | | X | K2 |
| **Som lasten** | **X: 2,19** | **kN Z: 0,00** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |

B.G.40: WIND LINKS




## FUNDAMENTEEL BELASTINGSCOMBINATIES (TABEL)

| B.G. | Omschrijving | Fu.C.1 | Fu.C.2 | Fu.C.3 | Fu.C.4 | Fu.C.5 | Fu.C.6 | Fu.C.7 | Fu.C.8 |
|---|---|---|---|---|---|---|---|---|---|
| B.G.1 | Permanente Belasting | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| B.G.2 | Windbelasting van Links + Overdruk | 1.13 | - | - | - | - | - | - | - |
| B.G.3 | Windbelasting van Links + Overdruk (2e Cpe) | - | 1.13 | - | - | - | - | - | - |
| B.G.4 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | 1.13 | - | - | - | - | - |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| B.G.5 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | 1.13 | - | - | - | - |
| B.G.6 | Windbelasting van Links + Overdruk (2e corr. factor) | - | - | - | - | 1.13 | - | - | - |
| B.G.7 | Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | 1.13 | - | - |
| B.G.8 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | 1.13 | - |
| B.G.9 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | 1.13 |
| B.G.10 | Windbelasting van Links + Onderdruk | - | - | - | - | - | - | - | - |
| B.G.11 | Windbelasting van Links + Onderdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.12 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.13 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.14 | Windbelasting van Links + Onderdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.15 | Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.16 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.17 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.18 | Windbelasting van Rechts + Overdruk | - | - | - | - | - | - | - | - |
| B.G.19 | Windbelasting van Rechts + Overdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.20 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.21 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.22 | Windbelasting van Rechts + Overdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.23 | Windbelasting van Rechts + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.24 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.25 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.26 | Windbelasting van Rechts + Onderdruk | - | - | - | - | - | - | - | - |
| B.G.27 | Windbelasting van Rechts + Onderdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.28 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.29 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.30 | Windbelasting van Rechts + Onderdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.31 | Windbelasting van Rechts + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.32 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.33 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.34 | Sneeuwbelasting 1 | - | - | - | - | - | - | - | - |
| B.G.35 | Sneeuwbelasting 2 | - | - | - | - | - | - | - | - |
| B.G.36 | Sneeuwbelasting 3 | - | - | - | - | - | - | - | - |
| B.G.37 | Kniklengte (Assymetrisch) | - | - | - | - | - | - | - | - |
| B.G.38 | Kniklengte (Symmetrisch) | - | - | - | - | - | - | - | - |
| B.G.39 | sneeuw | - | - | - | - | - | - | - | - |
| B.G.40 | Wind links | 1.13 | 1.13 | 1.13 | 1.13 | 1.13 | 1.13 | 1.00 | 1.13 |

| **B.G.** | **Omschrijving** | **Fu.C.9** | **Fu.C.10** | **Fu.C.11 (Overslaan)** | **Fu.C.12** | **Fu.C.13** | **Fu.C.14** | **Fu.C.15** | **Fu.C.16** |
|---|---|---|---|---|---|---|---|---|---|
| B.G.1 | Permanente Belasting | 1.08 | 1.08 | 1.08 | 1.08 | 1.08 | 1.08 | 1.08 | 1.08 |
| B.G.2 | Windbelasting van Links + Overdruk | - | - | - | - | - | - | - | - |
| B.G.3 | Windbelasting van Links + Overdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.4 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.5 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.6 | Windbelasting van Links + Overdruk (2e corr. factor) | - | - | - | - | - | - | - | - |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| B.G.7 | Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.8 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.9 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.10 | Windbelasting van Links + Onderdruk | 1.13 | - | - | - | - | - | - | - |
| B.G.11 | Windbelasting van Links + Onderdruk (2e Cpe) | - | 1.13 | - | - | - | - | - | - |
| B.G.12 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | 1.13 | - | - | - | - | - |
| B.G.13 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | 1.13 | - | - | - | - |
| B.G.14 | Windbelasting van Links + Onderdruk (2e corr. factor) | - | - | - | - | 1.13 | - | - | - |
| B.G.15 | Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | 1.13 | - | - |
| B.G.16 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | 1.13 | - |
| B.G.17 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | 1.13 |
| B.G.18 | Windbelasting van Rechts + Overdruk | - | - | - | - | - | - | - | - |
| B.G.19 | Windbelasting van Rechts + Overdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.20 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.21 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.22 | Windbelasting van Rechts + Overdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.23 | Windbelasting van Rechts + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.24 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.25 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.26 | Windbelasting van Rechts + Onderdruk | - | - | - | - | - | - | - | - |
| B.G.27 | Windbelasting van Rechts + Onderdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.28 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.29 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.30 | Windbelasting van Rechts + Onderdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.31 | Windbelasting van Rechts + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.32 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.33 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.34 | Sneeuwbelasting 1 | - | - | - | - | - | - | - | - |
| B.G.35 | Sneeuwbelasting 2 | - | - | - | - | - | - | - | - |
| B.G.36 | Sneeuwbelasting 3 | - | - | - | - | - | - | - | - |
| B.G.37 | Kniklengte (Assymetrisch) | - | - | - | - | - | - | - | - |
| B.G.38 | Kniklengte (Symmetrisch) | - | - | - | - | - | - | - | - |
| B.G.39 | sneeuw | - | - | - | - | - | - | - | - |
| B.G.40 | Wind links | 1.13 | 1.13 | - | 1.13 | 1.13 | 1.13 | 1.13 | 1.13 |
| **B.G.** | **Omschrijving** | **Fu.C.17** | **Fu.C.18** | **Fu.C.19** | **Fu.C.20** | **Fu.C.21** | **Fu.C.22** | **Fu.C.23** | **Fu.C.24** |
| B.G.1 | Permanente Belasting | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| B.G.2 | Windbelasting van Links + Overdruk | - | - | - | - | - | - | - | - |
| B.G.3 | Windbelasting van Links + Overdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.4 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.5 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.6 | Windbelasting van Links + Overdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.7 | Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.8 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| B.G.9 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.10 | Windbelasting van Links + Onderdruk | - | - | - | - | - | - | - | - |
| B.G.11 | Windbelasting van Links + Onderdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.12 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.13 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.14 | Windbelasting van Links + Onderdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.15 | Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.16 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.17 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.18 | Windbelasting van Rechts + Overdruk | 1.13 | - | - | - | - | - | - | - |
| B.G.19 | Windbelasting van Rechts + Overdruk (2e Cpe) | - | 1.13 | - | - | - | - | - | - |
| B.G.20 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | 1.13 | - | - | - | - | - |
| B.G.21 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | 1.13 | - | - | - | - |
| B.G.22 | Windbelasting van Rechts + Overdruk (2e corr. factor) | - | - | - | - | 1.13 | - | - | - |
| B.G.23 | Windbelasting van Rechts + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | 1.13 | - | - |
| B.G.24 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | 1.13 | - |
| B.G.25 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | 1.13 |
| B.G.26 | Windbelasting van Rechts + Onderdruk | - | - | - | - | - | - | - | - |
| B.G.27 | Windbelasting van Rechts + Onderdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.28 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.29 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.30 | Windbelasting van Rechts + Onderdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.31 | Windbelasting van Rechts + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.32 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.33 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.34 | Sneeuwbelasting 1 | - | - | - | - | - | - | - | - |
| B.G.35 | Sneeuwbelasting 2 | - | - | - | - | - | - | - | - |
| B.G.36 | Sneeuwbelasting 3 | - | - | - | - | - | - | - | - |
| B.G.37 | Kniklengte (Assymetrisch) | - | - | - | - | - | - | - | - |
| B.G.38 | Kniklengte (Symmetrisch) | - | - | - | - | - | - | - | - |
| B.G.39 | sneeuw | - | - | - | - | - | - | - | - |
| B.G.40 | Wind links | - | - | - | - | - | - | - | - |

| **B.G.** | **Omschrijving** | **Fu.C.25** | **Fu.C.26** | **Fu.C.27 (Overslaan)** | **Fu.C.28** | **Fu.C.29** | **Fu.C.30** | **Fu.C.31** | **Fu.C.32** |
|---|---|---|---|---|---|---|---|---|---|
| B.G.1 | Permanente Belasting | 1.08 | 1.08 | 1.08 | 1.08 | 1.08 | 1.08 | 1.08 | 1.08 |
| B.G.2 | Windbelasting van Links + Overdruk | - | - | - | - | - | - | - | - |
| B.G.3 | Windbelasting van Links + Overdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.4 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.5 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.6 | Windbelasting van Links + Overdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.7 | Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.8 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.9 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.10 | Windbelasting van Links + Onderdruk | - | - | - | - | - | - | - | - |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| B.G.11 | Windbelasting van Links + Onderdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.12 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.13 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.14 | Windbelasting van Links + Onderdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.15 | Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.16 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.17 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.18 | Windbelasting van Rechts + Overdruk | - | - | - | - | - | - | - | - |
| B.G.19 | Windbelasting van Rechts + Overdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.20 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.21 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.22 | Windbelasting van Rechts + Overdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.23 | Windbelasting van Rechts + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.24 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.25 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.26 | Windbelasting van Rechts + Onderdruk | 1.13 | - | - | - | - | - | - | - |
| B.G.27 | Windbelasting van Rechts + Onderdruk (2e Cpe) | - | 1.13 | - | - | - | - | - | - |
| B.G.28 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | 1.13 | - | - | - | - | - |
| B.G.29 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | 1.13 | - | - | - | - |
| B.G.30 | Windbelasting van Rechts + Onderdruk (2e corr. factor) | - | - | - | - | 1.13 | - | - | - |
| B.G.31 | Windbelasting van Rechts + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | 1.13 | - | - |
| B.G.32 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | 1.13 | - |
| B.G.33 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | 1.13 |
| B.G.34 | Sneeuwbelasting 1 | - | - | - | - | - | - | - | - |
| B.G.35 | Sneeuwbelasting 2 | - | - | - | - | - | - | - | - |
| B.G.36 | Sneeuwbelasting 3 | - | - | - | - | - | - | - | - |
| B.G.37 | Kniklengte (Assymetrisch) | - | - | - | - | - | - | - | - |
| B.G.38 | Kniklengte (Symmetrisch) | - | - | - | - | - | - | - | - |
| B.G.39 | sneeuw | - | - | - | - | - | - | - | - |
| B.G.40 | Wind links | - | - | - | - | - | - | - | - |

| **B.G.** | **Omschrijving** | **Fu.C.33** | **Fu.C.34** | **Fu.C.35** | **Fu.C.36 (Overslaan)** | **Fu.C.37** | **Fu.C.38** |
|---|---|---|---|---|---|---|---|
| B.G.1 | Permanente Belasting | 1.08 | 1.08 | 1.08 | 1.22 | 0.90 | - |
| B.G.2 | Windbelasting van Links + Overdruk | - | - | - | - | - | - |
| B.G.3 | Windbelasting van Links + Overdruk (2e Cpe) | - | - | - | - | - | - |
| B.G.4 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - |
| B.G.5 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - |
| B.G.6 | Windbelasting van Links + Overdruk (2e corr. factor) | - | - | - | - | - | - |
| B.G.7 | Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - |
| B.G.8 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - |
| B.G.9 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - |
| B.G.10 | Windbelasting van Links + Onderdruk | - | - | - | - | - | - |
| B.G.11 | Windbelasting van Links + Onderdruk (2e Cpe) | - | - | - | - | - | - |
| B.G.12 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| B.G.13 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - |
| B.G.14 | Windbelasting van Links + Onderdruk (2e corr. factor) | - | - | - | - | - | - |
| B.G.15 | Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - |
| B.G.16 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - |
| B.G.17 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - |
| B.G.18 | Windbelasting van Rechts + Overdruk | - | - | - | - | - | - |
| B.G.19 | Windbelasting van Rechts + Overdruk (2e Cpe) | - | - | - | - | - | - |
| B.G.20 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - |
| B.G.21 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - |
| B.G.22 | Windbelasting van Rechts + Overdruk (2e corr. factor) | - | - | - | - | - | - |
| B.G.23 | Windbelasting van Rechts + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - |
| B.G.24 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - |
| B.G.25 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - |
| B.G.26 | Windbelasting van Rechts + Onderdruk | - | - | - | - | - | - |
| B.G.27 | Windbelasting van Rechts + Onderdruk (2e Cpe) | - | - | - | - | - | - |
| B.G.28 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - |
| B.G.29 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - |
| B.G.30 | Windbelasting van Rechts + Onderdruk (2e corr. factor) | - | - | - | - | - | - |
| B.G.31 | Windbelasting van Rechts + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - |
| B.G.32 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - |
| B.G.33 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - |
| B.G.34 | Sneeuwbelasting 1 | 1.01 | - | - | - | - | - |
| B.G.35 | Sneeuwbelasting 2 | - | 1.01 | - | - | - | - |
| B.G.36 | Sneeuwbelasting 3 | - | - | 1.01 | - | - | - |
| B.G.37 | Kniklengte (Assymetrisch) | - | - | - | - | - | - |
| B.G.38 | Kniklengte (Symmetrisch) | - | - | - | - | - | - |
| B.G.39 | sneeuw | 1.00 | 1.00 | 1.00 | - | - | - |
| B.G.40 | Wind links | - | - | - | - | - | - |

## KARAKTERISTIEK BELASTINGSCOMBINATIES (TABEL)

| B.G. | Omschrijving | Ka.C.(w1) | Ka.C.1 | Ka.C.2 | Ka.C.3 | Ka.C.4 | Ka.C.5 | Ka.C.6 | Ka.C.7 |
|---|---|---|---|---|---|---|---|---|---|
| B.G.1 | Permanente Belasting | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| B.G.2 | Windbelasting van Links + Overdruk | - | - | 0.84 | - | - | - | - | - |
| B.G.3 | Windbelasting van Links + Overdruk (2e Cpe) | - | - | - | 0.84 | - | - | - | - |
| B.G.4 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | 0.84 | - | - | - |
| B.G.5 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | 0.84 | - | - |
| B.G.6 | Windbelasting van Links + Overdruk (2e corr. factor) | - | - | - | - | - | - | 0.84 | - |
| B.G.7 | Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | 0.84 |
| B.G.8 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.9 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.10 | Windbelasting van Links + Onderdruk | - | - | - | - | - | - | - | - |
| B.G.11 | Windbelasting van Links + Onderdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.12 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.13 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.14 | Windbelasting van Links + Onderdruk (2e corr. factor) | - | - | - | - | - | - | - | - |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| B.G.15 | Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.16 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.17 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.18 | Windbelasting van Rechts + Overdruk | - | - | - | - | - | - | - | - |
| B.G.19 | Windbelasting van Rechts + Overdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.20 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.21 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.22 | Windbelasting van Rechts + Overdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.23 | Windbelasting van Rechts + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.24 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.25 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.26 | Windbelasting van Rechts + Onderdruk | - | - | - | - | - | - | - | - |
| B.G.27 | Windbelasting van Rechts + Onderdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.28 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.29 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.30 | Windbelasting van Rechts + Onderdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.31 | Windbelasting van Rechts + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.32 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.33 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.34 | Sneeuwbelasting 1 | - | - | - | - | - | - | - | - |
| B.G.35 | Sneeuwbelasting 2 | - | - | - | - | - | - | - | - |
| B.G.36 | Sneeuwbelasting 3 | - | - | - | - | - | - | - | - |
| B.G.37 | Kniklengte (Assymetrisch) | - | - | - | - | - | - | - | - |
| B.G.38 | Kniklengte (Symmetrisch) | - | - | - | - | - | - | - | - |
| B.G.39 | sneeuw | - | - | - | - | - | - | - | - |
| B.G.40 | Wind links | - | - | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 |

| **B.G.** | **Omschrijving** | **Ka.C.8** | **Ka.C.9** | **Ka.C.10** | **Ka.C.11** | **Ka.C.12** | **Ka.C.13** | **Ka.C.14** | **Ka.C.15** |
|---|---|---|---|---|---|---|---|---|---|
| B.G.1 | Permanente Belasting | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| B.G.2 | Windbelasting van Links + Overdruk | - | - | - | - | - | - | - | - |
| B.G.3 | Windbelasting van Links + Overdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.4 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.5 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.6 | Windbelasting van Links + Overdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.7 | Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.8 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | 0.84 | - | - | - | - | - | - | - |
| B.G.9 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | 0.84 | - | - | - | - | - | - |
| B.G.10 | Windbelasting van Links + Onderdruk | - | - | 0.84 | - | - | - | - | - |
| B.G.11 | Windbelasting van Links + Onderdruk (2e Cpe) | - | - | - | 0.84 | - | - | - | - |
| B.G.12 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | 0.84 | - | - | - |
| B.G.13 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | 0.84 | - | - |
| B.G.14 | Windbelasting van Links + Onderdruk (2e corr. factor) | - | - | - | - | - | - | 0.84 | - |
| B.G.15 | Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | 0.84 |
| B.G.16 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |

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|---|---|---|---|---|---|---|---|---|---|
| B.G.17 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.18 | Windbelasting van Rechts + Overdruk | - | - | - | - | - | - | - | - |
| B.G.19 | Windbelasting van Rechts + Overdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.20 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.21 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.22 | Windbelasting van Rechts + Overdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.23 | Windbelasting van Rechts + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.24 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.25 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.26 | Windbelasting van Rechts + Onderdruk | - | - | - | - | - | - | - | - |
| B.G.27 | Windbelasting van Rechts + Onderdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.28 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.29 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.30 | Windbelasting van Rechts + Onderdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.31 | Windbelasting van Rechts + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.32 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.33 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.34 | Sneeuwbelasting 1 | - | - | - | - | - | - | - | - |
| B.G.35 | Sneeuwbelasting 2 | - | - | - | - | - | - | - | - |
| B.G.36 | Sneeuwbelasting 3 | - | - | - | - | - | - | - | - |
| B.G.37 | Kniklengte (Assymetrisch) | - | - | - | - | - | - | - | - |
| B.G.38 | Kniklengte (Symmetrisch) | - | - | - | - | - | - | - | - |
| B.G.39 | sneeuw | - | - | - | - | - | - | - | - |
| B.G.40 | Wind links | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 |
| **B.G.** | **Omschrijving** | **Ka.C.16** | **Ka.C.17** | **Ka.C.18** | **Ka.C.19** | **Ka.C.20** | **Ka.C.21** | **Ka.C.22** | **Ka.C.23** |
| B.G.1 | Permanente Belasting | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| B.G.2 | Windbelasting van Links + Overdruk | - | - | - | - | - | - | - | - |
| B.G.3 | Windbelasting van Links + Overdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.4 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.5 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.6 | Windbelasting van Links + Overdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.7 | Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.8 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.9 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.10 | Windbelasting van Links + Onderdruk | - | - | - | - | - | - | - | - |
| B.G.11 | Windbelasting van Links + Onderdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.12 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.13 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.14 | Windbelasting van Links + Onderdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.15 | Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.16 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | 0.84 | - | - | - | - | - | - | - |
| B.G.17 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | 0.84 | - | - | - | - | - | - |
| B.G.18 | Windbelasting van Rechts + Overdruk | - | - | 0.84 | - | - | - | - | - |
| B.G.19 | Windbelasting van Rechts + Overdruk (2e Cpe) | - | - | - | 0.84 | - | - | - | - |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| B.G.20 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | 0.84 | - | - | - |
| B.G.21 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | 0.84 | - | - |
| B.G.22 | Windbelasting van Rechts + Overdruk (2e corr. factor) | - | - | - | - | - | - | 0.84 | - |
| B.G.23 | Windbelasting van Rechts + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | 0.84 |
| B.G.24 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.25 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.26 | Windbelasting van Rechts + Onderdruk | - | - | - | - | - | - | - | - |
| B.G.27 | Windbelasting van Rechts + Onderdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.28 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.29 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.30 | Windbelasting van Rechts + Onderdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.31 | Windbelasting van Rechts + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.32 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.33 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.34 | Sneeuwbelasting 1 | - | - | - | - | - | - | - | - |
| B.G.35 | Sneeuwbelasting 2 | - | - | - | - | - | - | - | - |
| B.G.36 | Sneeuwbelasting 3 | - | - | - | - | - | - | - | - |
| B.G.37 | Kniklengte (Assymetrisch) | - | - | - | - | - | - | - | - |
| B.G.38 | Kniklengte (Symmetrisch) | - | - | - | - | - | - | - | - |
| B.G.39 | sneeuw | - | - | - | - | - | - | - | - |
| B.G.40 | Wind links | 0.84 | 0.84 | - | - | - | - | - | - |
| **B.G.** | **Omschrijving** | **Ka.C.24** | **Ka.C.25** | **Ka.C.26** | **Ka.C.27** | **Ka.C.28** | **Ka.C.29** | **Ka.C.30** | **Ka.C.31** |
| B.G.1 | Permanente Belasting | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| B.G.2 | Windbelasting van Links + Overdruk | - | - | - | - | - | - | - | - |
| B.G.3 | Windbelasting van Links + Overdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.4 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.5 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.6 | Windbelasting van Links + Overdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.7 | Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.8 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.9 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.10 | Windbelasting van Links + Onderdruk | - | - | - | - | - | - | - | - |
| B.G.11 | Windbelasting van Links + Onderdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.12 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.13 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.14 | Windbelasting van Links + Onderdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.15 | Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.16 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.17 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.18 | Windbelasting van Rechts + Overdruk | - | - | - | - | - | - | - | - |
| B.G.19 | Windbelasting van Rechts + Overdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.20 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.21 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.22 | Windbelasting van Rechts + Overdruk (2e corr. factor) | - | - | - | - | - | - | - | - |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| B.G.23 | Windbelasting van Rechts + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.24 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | 0.84 | - | - | - | - | - | - | - |
| B.G.25 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | 0.84 | - | - | - | - | - | - |
| B.G.26 | Windbelasting van Rechts + Onderdruk | - | - | 0.84 | - | - | - | - | - |
| B.G.27 | Windbelasting van Rechts + Onderdruk (2e Cpe) | - | - | - | 0.84 | - | - | - | - |
| B.G.28 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | 0.84 | - | - | - |
| B.G.29 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | 0.84 | - | - |
| B.G.30 | Windbelasting van Rechts + Onderdruk (2e corr. factor) | - | - | - | - | - | - | 0.84 | - |
| B.G.31 | Windbelasting van Rechts + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | 0.84 |
| B.G.32 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.33 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.34 | Sneeuwbelasting 1 | - | - | - | - | - | - | - | - |
| B.G.35 | Sneeuwbelasting 2 | - | - | - | - | - | - | - | - |
| B.G.36 | Sneeuwbelasting 3 | - | - | - | - | - | - | - | - |
| B.G.37 | Kniklengte (Assymetrisch) | - | - | - | - | - | - | - | - |
| B.G.38 | Kniklengte (Symmetrisch) | - | - | - | - | - | - | - | - |
| B.G.39 | sneeuw | - | - | - | - | - | - | - | - |
| B.G.40 | Wind links | - | - | - | - | - | - | - | - |

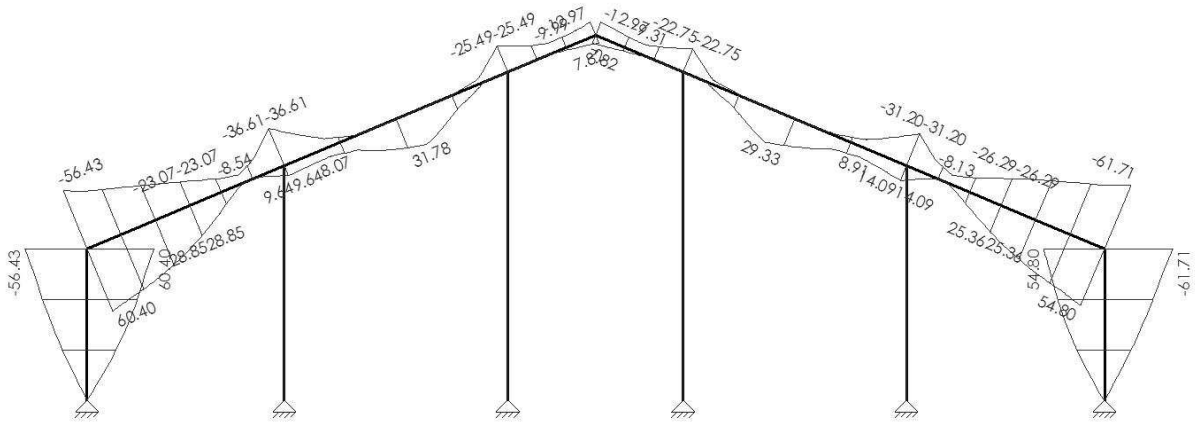
| **B.G.** | **Omschrijving** | **Ka.C.32** | **Ka.C.33** | **Ka.C.34** | **Ka.C.35** | **Ka.C.36** |
|---|---|---|---|---|---|---|
| B.G.1 | Permanente Belasting | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| B.G.2 | Windbelasting van Links + Overdruk | - | - | - | - | - |
| B.G.3 | Windbelasting van Links + Overdruk (2e Cpe) | - | - | - | - | - |
| B.G.4 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - |
| B.G.5 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - |
| B.G.6 | Windbelasting van Links + Overdruk (2e corr. factor) | - | - | - | - | - |
| B.G.7 | Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.8 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.9 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.10 | Windbelasting van Links + Onderdruk | - | - | - | - | - |
| B.G.11 | Windbelasting van Links + Onderdruk (2e Cpe) | - | - | - | - | - |
| B.G.12 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - |
| B.G.13 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - |
| B.G.14 | Windbelasting van Links + Onderdruk (2e corr. factor) | - | - | - | - | - |
| B.G.15 | Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.16 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.17 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.18 | Windbelasting van Rechts + Overdruk | - | - | - | - | - |
| B.G.19 | Windbelasting van Rechts + Overdruk (2e Cpe) | - | - | - | - | - |
| B.G.20 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - |
| B.G.21 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - |
| B.G.22 | Windbelasting van Rechts + Overdruk (2e corr. factor) | - | - | - | - | - |
| B.G.23 | Windbelasting van Rechts + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.24 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - |

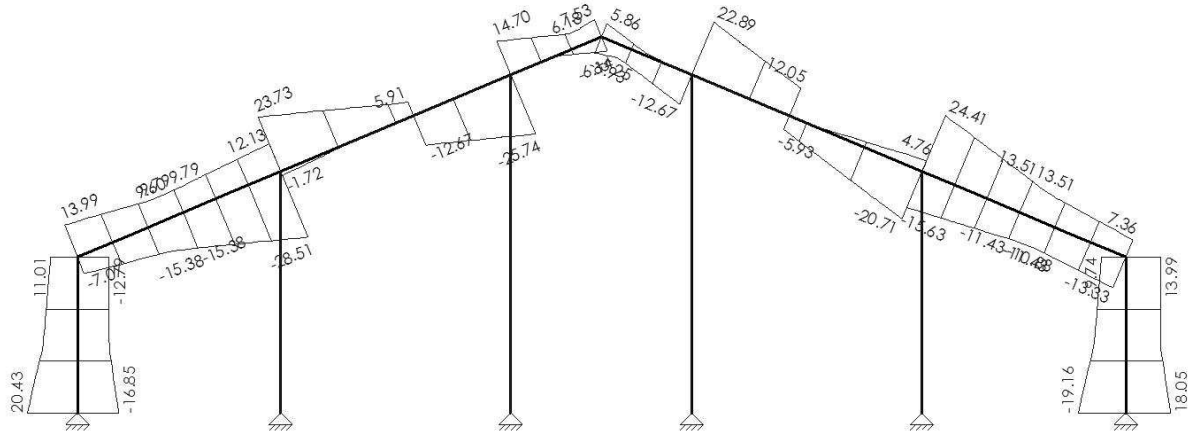
| | | | | | | |
|---|---|---|---|---|---|---|
| B.G.25 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.26 | Windbelasting van Rechts + Onderdruk | - | - | - | - | - |
| B.G.27 | Windbelasting van Rechts + Onderdruk (2e Cpe) | - | - | - | - | - |
| B.G.28 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - |
| B.G.29 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - |
| B.G.30 | Windbelasting van Rechts + Onderdruk (2e corr. factor) | - | - | - | - | - |
| B.G.31 | Windbelasting van Rechts + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.32 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | 0.84 | - | - | - | - |
| B.G.33 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | 0.84 | - | - | - |
| B.G.34 | Sneeuwbelasting 1 | - | - | 0.75 | - | - |
| B.G.35 | Sneeuwbelasting 2 | - | - | - | 0.75 | - |
| B.G.36 | Sneeuwbelasting 3 | - | - | - | - | 0.75 |
| B.G.37 | Kniklengte (Assymetrisch) | - | - | - | - | - |
| B.G.38 | Kniklengte (Symmetrisch) | - | - | - | - | - |
| B.G.39 | sneeuw | - | - | 0.75 | 0.75 | 0.75 |
| B.G.40 | Wind links | - | - | - | - | - |

## UITGANGSPUNTEN VAN DE ANALYSE

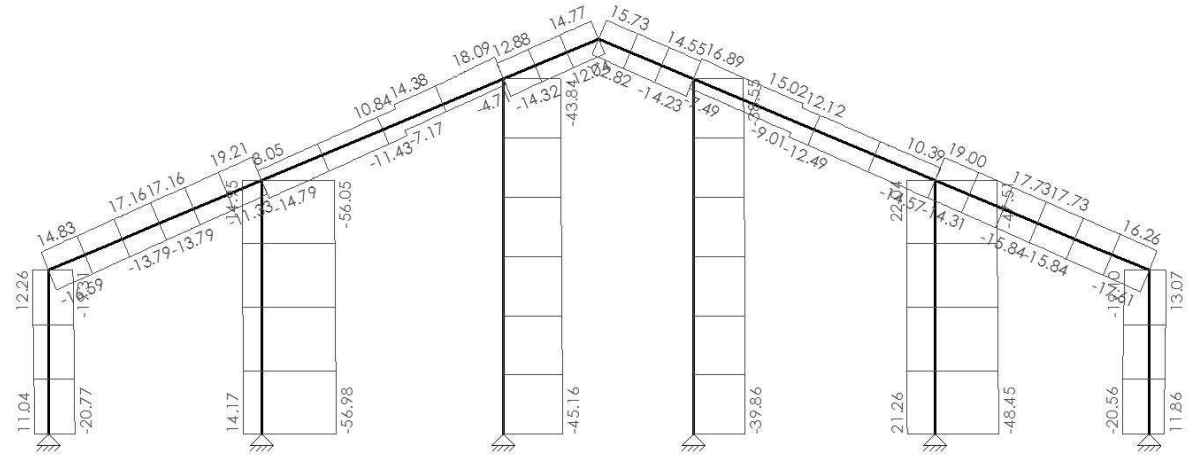
Lineaire Elastische Analyse uitgevoerd

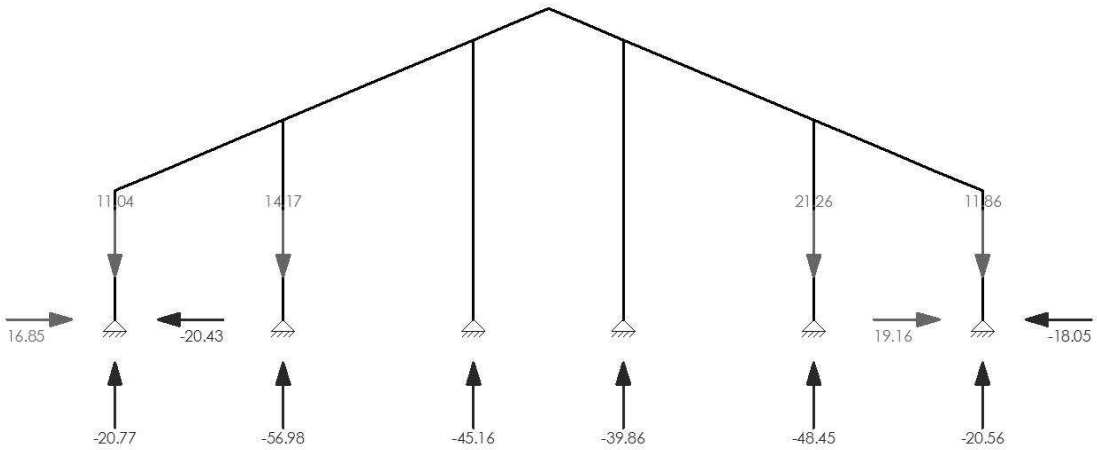
AFB. FU.C. MOMENT (MY) OMHULLENDE — Fundamenteel Belastingscombinaties




14.70
5.86
22.89
12.05
23.73
5.91
12.13
-12.67
-25.74
-12.67
24.41
4.76
13.51
13.51
7.36
-5.93
-20.71
-15.63
-11.43
-1.72
13.99
-15.38
-15.38
-28.51
11.01
20.43
-16.85
13.99
-19.16
18.05



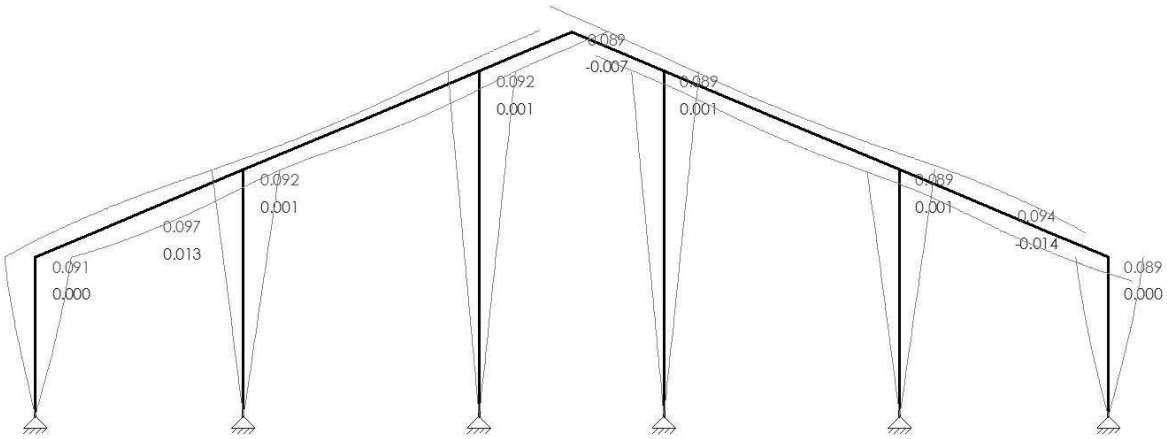

14.77
15.73
14.55
16.89
18.09
12.88
15.02
12.12
10.84
14.38
-14.32
-14.23
-12.49
10.39
19.00
19.21
8.05
-11.43
-7.17
17.73
17.73
17.16
17.16
14.83
-13.79
-13.79
-11.33
-14.79
-56.05
-14.31
-15.84
-15.84
16.26
12.26
13.07
11.04
-20.77
14.17
-56.98
-45.16
-39.86
21.26
-48.45
-20.56
11.86




## FU.C. EXTREME OPLEGREACTIES

| Oplegging | Knoop | B.C. | Xmax | Z | My | B.C. | X | Zmax | My | B.C. | X | Z | Mymax |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| O1 | K1 | Fu.C.24 | **16.85** | -13.30 | 0.00 | Fu.C.8 | -16.45 | **11.04** | 0.00 | | | | |
| O1 | K1 | Fu.C.12 | **-20.43** | 3.57 | 0.00 | Fu.C.28 | 12.86 | **-20.77** | 0.00 | | | | |
| O2 | K5 | Fu.C.28 | **19.16** | 4.68 | 0.00 | Fu.C.24 | 15.17 | **11.86** | 0.00 | | | | |
| O2 | K5 | Fu.C.8 | **-18.05** | -13.39 | 0.00 | Fu.C.12 | -14.06 | **-20.56** | 0.00 | | | | |
| O3 | K6 | | | | | Fu.C.24 | 0.00 | **14.17** | 0.00 | | | | |
| O3 | K6 | | | | | Fu.C.12 | 0.00 | **-56.98** | 0.00 | | | | |
| O4 | K10 | | | | | Fu.C.33 | 0.00 | **-45.16** | 0.00 | | | | |
| O5 | K14 | | | | | Fu.C.33 | 0.00 | **-39.86** | 0.00 | | | | |
| O6 | K8 | | | | | Fu.C.8 | 0.00 | **21.26** | 0.00 | | | | |
| O6 | K8 | | | | | Fu.C.28 | 0.00 | **-48.45** | 0.00 | | | | |
| **Globale extreme waarden** | | | | | | | | | | | | | |
| O2 | K5 | Fu.C.28 | **19.16** | 4.68 | 0.00 | | | | | | | | |
| O1 | K1 | Fu.C.12 | **-20.43** | 3.57 | 0.00 | | | | | | | | |
| O6 | K8 | | | | | Fu.C.8 | 0.00 | **21.26** | 0.00 | | | | |
| O3 | K6 | | | | | Fu.C.12 | 0.00 | **-56.98** | 0.00 | | | | |
| **-** | **-** | **-** | **kN** | **kN** | **kNm** | **-** | **kN** | **kN** | **kNm** | | **kN** | **kN** | **kNm** |



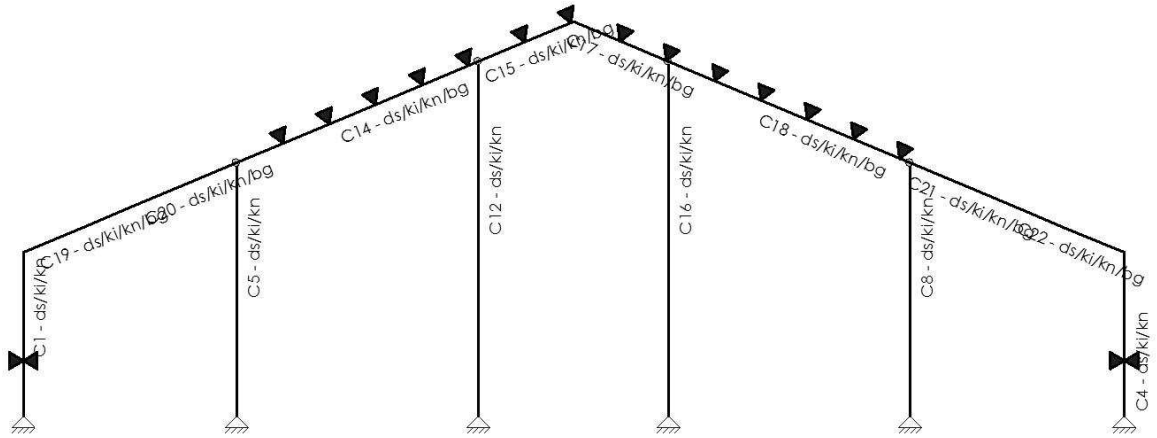



## KA.C. EXTREME DOORBUIGINGEN

| Staaf | B.C. | Knoop Begin | | Staaf | | Knoop Eind | |
|---|---|---|---|---|---|---|---|
| | | X | Z | Z'afst | Z' | X | Z |

| Staaf | B.C. | Knoop Begin | | Staaf | | Knoop Eind | |
|---|---|---|---|---|---|---|---|
| | | X | Z | Z'afst | Z' | X | Z |
| S1 | Ka.C.13 | 0,000 | 0,000 | 2.473 | **0.0079** | 0,091 | 0,000 |
| S1 | Ka.C.25 | 0,000 | 0,000 | 2.492 | **-0.0070** | -0,080 | 0,000 |
| S4 | Ka.C.9 | 0,089 | 0,000 | 1.905 | **-0.0076** | 0,000 | 0,000 |
| S4 | Ka.C.29 | -0,082 | 0,000 | 1.933 | **0.0073** | 0,000 | 0,000 |
| S14 | Ka.C.34 | 0,003 | 0,001 | 3.716 | **0.0214** | 0,003 | 0,001 |
| S15 | Ka.C.27 | -0,045 | 0,001 | 1.333 | **-0.0021** | -0,048 | -0,006 |
| S17 | Ka.C.11 | 0,057 | -0,007 | 1.374 | **-0.0019** | 0,054 | 0,000 |
| S18 | Ka.C.34 | -0,001 | 0,001 | 3.329 | **0.0193** | -0,001 | 0,001 |
| S19 | Ka.C.17 | 0,091 | 0,000 | 1.549 | **0.0058** | 0,097 | 0,013 |
| S19 | Ka.C.21 | -0,079 | 0,000 | 1.512 | **-0.0045** | -0,084 | -0,012 |
| S20 | Ka.C.9 | 0,095 | 0,013 | 0.680 | **0.0008** | 0,090 | 0,001 |
| S20 | Ka.C.29 | -0,082 | -0,011 | 1.328 | **-0.0022** | -0,077 | 0,000 |
| S21 | Ka.C.13 | 0,087 | 0,000 | 1.756 | **-0.0022** | 0,092 | -0,013 |
| S21 | Ka.C.25 | -0,080 | 0,001 | 2.268 | **0.0008** | -0,085 | 0,011 |
| S22 | Ka.C.5 | 0,094 | -0,014 | 1.730 | **-0.0052** | 0,088 | 0,000 |
| S22 | Ka.C.33 | -0,087 | 0,012 | 1.709 | **0.0051** | -0,082 | 0,000 |
| **-** | **-** | **m** | **m** | **m** | **m** | **m** | **m** |

AFB. STAALCONTROLE




## SAMENSTELLING CONSTRUCTIEDELEN

| Constructiedeel | Staaf/staven |
|---|---|
| C1 | S1 |
| C4 | S4 |
| C5 | S5 |
| C8 | S8 |
| C12 | S12 |
| C14 | S14 |
| C15 | S15 |
| C16 | S16 |
| C17 | S17 |
| C18 | S18 |
| C19 | S19 |
| C20 | S20 |
| C21 | S21 |
| C22 | S22 |

## KNIKLENGTEGEGEVENS

| Staaf | Profiel | Lokale Y-as | | | | Lokale Z-as | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Lsys | methode | Lbuc | Lbuc/Lsys | methode | Lbuc | Lbuc/Lsys |
| C1 - V1 (0.000-4.400) | P1 | 4.400 | Ongeschoord | 11.390 | 2.59 | Cons. gesch. | 4.400 | 1.00 |
| C4 - V1 (0.000-4.400) | P1 | 4.400 | Ongeschoord | 11.352 | 2.58 | Cons. gesch. | 4.400 | 1.00 |

| Staaf | Profiel | Lokale Y-as | | | | Lokale Z-as | | |
|---|---|---|---|---|---|---|---|---|
| | | Lsys | methode | Lbuc | Lbuc/Lsys | methode | Lbuc | Lbuc/Lsys |
| C5 - V1 (0.000-6.809) | P2 | 6.810 | Geschoord | 6.553 | 0.96 | Cons. gesch. | 6.809 | 1.00 |
| C8 - V1 (0.000-6.809) | P2 | 6.810 | Geschoord | 6.553 | 0.96 | Cons. gesch. | 6.809 | 1.00 |
| C12 - V1 (0.000-9.532) | P2 | 9.530 | Geschoord | 9.174 | 0.96 | Cons. gesch. | 9.532 | 1.00 |
| C14 - V1 (0.000-7.047) | P3 | 7.050 | Ongeschoord | 10.315 | 1.46 | Handmatige Invoer | 1.700 | 0.24 |
| C15 - V1 (0.000-2.765) | P3 | 2.760 | Ongeschoord | 6.745 | 2.44 | Handmatige Invoer | 1.700 | 0.61 |
| C16 - V1 (0.000-9.532) | P2 | 9.530 | Geschoord | 9.174 | 0.96 | Cons. gesch. | 9.532 | 1.00 |
| C17 - V1 (0.000-2.765) | P3 | 2.760 | Ongeschoord | 6.745 | 2.44 | Handmatige Invoer | 1.700 | 0.61 |
| C18 - V1 (0.000-7.047) | P3 | 7.050 | Ongeschoord | 10.315 | 1.46 | Handmatige Invoer | 1.700 | 0.24 |
| C19 - V1 (0.000-3.253) | P1 | 3.250 | Ongeschoord | 5.544 | 1.70 | Cons. gesch. | 3.253 | 1.00 |
| C20 - V1 (0.000-2.982) | P3 | 2.980 | Handmatige Invoer | 7.500 | 2.52 | Handmatige Invoer | 1.700 | 0.57 |
| C21 - V1 (0.000-2.982) | P3 | 2.980 | Handmatige Invoer | 7.500 | 2.52 | Handmatige Invoer | 1.700 | 0.57 |
| C22 - V1 (0.000-3.253) | P1 | 3.250 | Ongeschoord | 5.530 | 1.70 | Cons. gesch. | 3.253 | 1.00 |
| - | - | m | - | m | - | - | m | - |

## KIPSTEUNENGEGEVENS

| Staaf | Profiel | Begin: | Eind: | Kipsteunen boven | Kipsteunen onder | Aangrijphoogte |
|---|---|---|---|---|---|---|
| C1 - V1 (0.000-4.400) | P1 | Gesteund | Gesteund | 1.5 | 1.5 | Centrum |
| C4 - V1 (0.000-4.400) | P1 | Gesteund | Gesteund | 2.9 | 2.9 | Centrum |
| C5 - V1 (0.000-6.809) | P2 | Gesteund | Gesteund | | | Centrum |
| C8 - V1 (0.000-6.809) | P2 | Gesteund | Gesteund | | | Centrum |
| C12 - V1 (0.000-9.532) | P2 | Gesteund | Gesteund | | | Centrum |
| C14 - V1 (0.000-7.047) | P3 | Gesteund | Gesteund | 1.35, 2.7, 4.05, 5.4, 6.75 | | Centrum |
| C15 - V1 (0.000-2.765) | P3 | Gesteund | Gesteund | 1.35, 2.7 | | Centrum |
| C16 - V1 (0.000-9.532) | P2 | Gesteund | Gesteund | | | Centrum |
| C17 - V1 (0.000-2.765) | P3 | Gesteund | Gesteund | 1.35, 2.7 | | Centrum |
| C18 - V1 (0.000-7.047) | P3 | Gesteund | Gesteund | 1.35, 2.7, 4.05, 5.4, 6.75 | | Centrum |
| C19 - V1 (0.000-3.253) | P1 | Gesteund | Gesteund | | | Centrum |
| C20 - V1 (0.000-2.982) | P3 | Gesteund | Gesteund | | | Centrum |
| C21 - V1 (0.000-2.982) | P3 | Gesteund | Gesteund | | | Centrum |
| C22 - V1 (0.000-3.253) | P1 | Gesteund | Gesteund | | | Centrum |
| - | - | - | - | m | m | - |

## DOORBUIGINGGEGEVENS

| Staaf | Constructietype | Toetsing | Zeeg Y' | Zeeg Z' | Zeegvorm | Eis U;eind | Eis U;bij |
|---|---|---|---|---|---|---|---|
| C14 - V1 (0.000-7.047) | Dak | Algemeen | 0 | 0 | 3-Punt | L/250 | L/250 |
| C15 - V1 (0.000-2.765) | Dak | Algemeen | 0 | 0 | 3-Punt | L/250 | L/250 |
| C17 - V1 (0.000-2.765) | Dak | Algemeen | 0 | 0 | 3-Punt | L/250 | L/250 |
| C18 - V1 (0.000-7.047) | Dak | Algemeen | 0 | 0 | 3-Punt | L/250 | L/250 |
| C19 - V1 (0.000-3.253) | Dak | Algemeen | 0 | 0 | 3-Punt | L/250 | L/250 |
| C20 - V1 (0.000-2.982) | Dak | Algemeen | 0 | 0 | 3-Punt | L/250 | L/250 |
| C21 - V1 (0.000-2.982) | Dak | Algemeen | 0 | 0 | 3-Punt | L/250 | L/250 |
| C22 - V1 (0.000-3.253) | Dak | Algemeen | 0 | 0 | 3-Punt | L/250 | L/250 |
| - | - | - | mm | mm | - | - | - |

## UNITY CHECK NEN-EN1993-1-1:2009/NB:2011

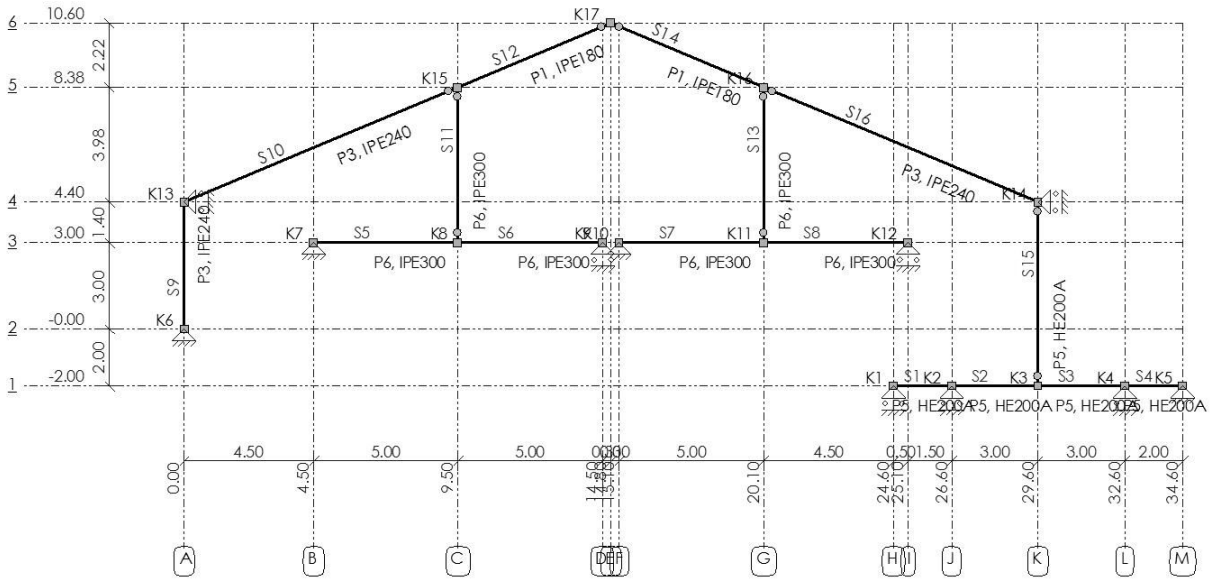
| Veld | Toetsing | Combinatie | Artikel | UC max |
|---|---|---|---|---|
| C1-V1 (0.000-4.400) | Doorsnede | Fu.C.8 | NEN-EN1993-1-1(6.12) | 0,70 |
| C1-V1 (0.000-4.400) | Stabiliteit | Fu.C.28 | NEN-EN1993-1-1(6.46) | 0,04 |
| C1-V1 (0.000-4.400) | Stabiliteit | Fu.C.28 | NEN-EN1993-1-1(6.46) | 0,08 |
| C1-V1 (0.000-4.400) | Stabiliteit | Fu.C.28 | NEN-EN1993-1-1(6.61&6.62) | 0,88 |
| C1-V1 (0.000-4.400) | Kiptoetsing | Fu.C.8 | NEN-EN1993-1-1(6.54) | 0,87 |
| C4-V1 (0.000-4.400) | Doorsnede | Fu.C.12 | NEN-EN1993-1-1(6.12) | 0,72 |
| C4-V1 (0.000-4.400) | Stabiliteit | Fu.C.12 | NEN-EN1993-1-1(6.46) | 0,04 |
| C4-V1 (0.000-4.400) | Stabiliteit | Fu.C.12 | NEN-EN1993-1-1(6.46) | 0,08 |

| Veld | Toetsing | Combinatie | Artikel | UC max |
|---|---|---|---|---|
| C4-V1 (0.000-4.400) | Stabiliteit | Fu.C.12 | NEN-EN1993-1-1(6.61&6.62) | 0,95 |
| C4-V1 (0.000-4.400) | Kiptoetsing | Fu.C.12 | NEN-EN1993-1-1(6.54) | 0,88 |
| C5-V1 (0.000-6.809) | Doorsnede | Fu.C.12 | NEN-EN1993-1-1(6.9) | 0,15 |
| C5-V1 (0.000-6.809) | Stabiliteit | Fu.C.12 | NEN-EN1993-1-1(6.46) | 0,49 |
| C5-V1 (0.000-6.809) | Stabiliteit | Fu.C.12 | NEN-EN1993-1-1(6.46) | 0,52 |
| C5-V1 (0.000-6.809) | Stabiliteit | Fu.C.12 | NEN-EN1993-1-1(6.61&6.62) | 0,52 |
| C5-V1 (0.000-6.809) | Kiptoetsing | Fu.C.37 | NEN-EN1993-1-1(6.54) | 0,00 |
| C8-V1 (0.000-6.809) | Doorsnede | Fu.C.28 | NEN-EN1993-1-1(6.9) | 0,13 |
| C8-V1 (0.000-6.809) | Stabiliteit | Fu.C.28 | NEN-EN1993-1-1(6.46) | 0,42 |
| C8-V1 (0.000-6.809) | Stabiliteit | Fu.C.28 | NEN-EN1993-1-1(6.46) | 0,44 |
| C8-V1 (0.000-6.809) | Stabiliteit | Fu.C.28 | NEN-EN1993-1-1(6.61&6.62) | 0,44 |
| C8-V1 (0.000-6.809) | Kiptoetsing | Fu.C.37 | NEN-EN1993-1-1(6.54) | 0,00 |
| C12-V1 (0.000-9.532) | Doorsnede | Fu.C.33 | NEN-EN1993-1-1(6.9) | 0,12 |
| C12-V1 (0.000-9.532) | Stabiliteit | Fu.C.33 | NEN-EN1993-1-1(6.46) | 0,68 |
| C12-V1 (0.000-9.532) | Stabiliteit | Fu.C.33 | NEN-EN1993-1-1(6.46) | 0,73 |
| C12-V1 (0.000-9.532) | Stabiliteit | Fu.C.33 | NEN-EN1993-1-1(6.61&6.62) | 0,73 |
| C12-V1 (0.000-9.532) | Kiptoetsing | Fu.C.37 | NEN-EN1993-1-1(6.54) | 0,00 |
| C14-V1 (0.000-7.047) | Doorsnede | Fu.C.12 | NEN-EN1993-1-1(6.12) | 0,71 |
| C14-V1 (0.000-7.047) | Stabiliteit | Fu.C.12 | NEN-EN1993-1-1(6.46) | 0,03 |
| C14-V1 (0.000-7.047) | Stabiliteit | Fu.C.12 | NEN-EN1993-1-1(6.46) | 0,02 |
| C14-V1 (0.000-7.047) | Stabiliteit | Fu.C.12 | NEN-EN1993-1-1(6.61&6.62) | 0,78 |
| C14-V1 (0.000-7.047) | Kiptoetsing | Fu.C.12 | NEN-EN1993-1-1(6.54) | 0,76 |
| C14-V1 (0.000-7.047) | Doorbuigingstoetsing | Ka.C.34 | NEN-EN \| NEN-EN1990/NB A1.4.2 | 0,76 |
| C15-V1 (0.000-2.765) | Doorsnede | Fu.C.33 | NEN-EN1993-1-1(6.12) | 0,49 |
| C15-V1 (0.000-2.765) | Stabiliteit | Fu.C.30 | NEN-EN1993-1-1(6.46) | 0,03 |
| C15-V1 (0.000-2.765) | Stabiliteit | Fu.C.30 | NEN-EN1993-1-1(6.46) | 0,03 |
| C15-V1 (0.000-2.765) | Stabiliteit | Fu.C.30 | NEN-EN1993-1-1(6.61&6.62) | 0,37 |
| C15-V1 (0.000-2.765) | Kiptoetsing | Fu.C.33 | NEN-EN1993-1-1(6.54) | 0,56 |
| C15-V1 (0.000-2.765) | Doorbuigingstoetsing | Ka.C.27 | NEN-EN \| NEN-EN1990/NB A1.4.2 | 0,19 |
| C16-V1 (0.000-9.532) | Doorsnede | Fu.C.33 | NEN-EN1993-1-1(6.9) | 0,10 |
| C16-V1 (0.000-9.532) | Stabiliteit | Fu.C.33 | NEN-EN1993-1-1(6.46) | 0,60 |
| C16-V1 (0.000-9.532) | Stabiliteit | Fu.C.33 | NEN-EN1993-1-1(6.46) | 0,64 |
| C16-V1 (0.000-9.532) | Stabiliteit | Fu.C.33 | NEN-EN1993-1-1(6.61&6.62) | 0,64 |
| C16-V1 (0.000-9.532) | Kiptoetsing | Fu.C.37 | NEN-EN1993-1-1(6.54) | 0,00 |
| C17-V1 (0.000-2.765) | Doorsnede | Fu.C.33 | NEN-EN1993-1-1(6.12) | 0,44 |
| C17-V1 (0.000-2.765) | Stabiliteit | Fu.C.10 | NEN-EN1993-1-1(6.46) | 0,03 |
| C17-V1 (0.000-2.765) | Stabiliteit | Fu.C.10 | NEN-EN1993-1-1(6.46) | 0,03 |
| C17-V1 (0.000-2.765) | Stabiliteit | Fu.C.10 | NEN-EN1993-1-1(6.61&6.62) | 0,34 |
| C17-V1 (0.000-2.765) | Kiptoetsing | Fu.C.33 | NEN-EN1993-1-1(6.54) | 0,50 |
| C17-V1 (0.000-2.765) | Doorbuigingstoetsing | Ka.C.11 | NEN-EN \| NEN-EN1990/NB A1.4.2 | 0,17 |
| C18-V1 (0.000-7.047) | Doorsnede | Fu.C.28 | NEN-EN1993-1-1(6.12) | 0,60 |
| C18-V1 (0.000-7.047) | Stabiliteit | Fu.C.28 | NEN-EN1993-1-1(6.46) | 0,02 |
| C18-V1 (0.000-7.047) | Stabiliteit | Fu.C.28 | NEN-EN1993-1-1(6.46) | 0,01 |
| C18-V1 (0.000-7.047) | Stabiliteit | Fu.C.28 | NEN-EN1993-1-1(6.61&6.62) | 0,66 |
| C18-V1 (0.000-7.047) | Kiptoetsing | Fu.C.33 | NEN-EN1993-1-1(6.54) | 0,62 |
| C18-V1 (0.000-7.047) | Doorbuigingstoetsing | Ka.C.34 | NEN-EN \| NEN-EN1990/NB A1.4.2 | 0,68 |
| C19-V1 (0.000-3.253) | Doorsnede | Fu.C.8 | NEN-EN1993-1-1(6.12) | 0,70 |
| C19-V1 (0.000-3.253) | Stabiliteit | Fu.C.28 | NEN-EN1993-1-1(6.46) | 0,02 |
| C19-V1 (0.000-3.253) | Stabiliteit | Fu.C.28 | NEN-EN1993-1-1(6.46) | 0,04 |
| C19-V1 (0.000-3.253) | Stabiliteit | Fu.C.28 | NEN-EN1993-1-1(6.61&6.62) | 0,78 |
| C19-V1 (0.000-3.253) | Kiptoetsing | Fu.C.8 | NEN-EN1993-1-1(6.54) | 0,79 |
| C19-V1 (0.000-3.253) | Doorbuigingstoetsing | Ka.C.17 | NEN-EN \| NEN-EN1990/NB A1.4.2 | 0,45 |
| C20-V1 (0.000-2.982) | Doorsnede | Fu.C.12 | NEN-EN1993-1-1(6.12) | 0,71 |
| C20-V1 (0.000-2.982) | Stabiliteit | Fu.C.20 | NEN-EN1993-1-1(6.46) | 0,02 |
| C20-V1 (0.000-2.982) | Stabiliteit | Fu.C.20 | NEN-EN1993-1-1(6.46) | 0,02 |
| C20-V1 (0.000-2.982) | Stabiliteit | Fu.C.20 | NEN-EN1993-1-1(6.61&6.62) | 0,53 |
| C20-V1 (0.000-2.982) | Kiptoetsing | Fu.C.12 | NEN-EN1993-1-1(6.54) | 0,81 |
| C20-V1 (0.000-2.982) | Doorbuigingstoetsing | Ka.C.29 | NEN-EN \| NEN-EN1990/NB A1.4.2 | 0,18 |
| C21-V1 (0.000-2.982) | Doorsnede | Fu.C.28 | NEN-EN1993-1-1(6.12) | 0,60 |
| C21-V1 (0.000-2.982) | Stabiliteit | Fu.C.4 | NEN-EN1993-1-1(6.46) | 0,02 |

| Veld | Toetsing | Combinatie | Artikel | UC max |
|---|---|---|---|---|
| C21-V1 (0.000-2.982) | Stabiliteit | Fu.C.4 | NEN-EN1993-1-1(6.46) | 0,02 |
| C21-V1 (0.000-2.982) | Stabiliteit | Fu.C.4 | NEN-EN1993-1-1(6.61&6.62) | 0,60 |
| C21-V1 (0.000-2.982) | Kiptoetsing | Fu.C.28 | NEN-EN1993-1-1(6.54) | 0,69 |
| C21-V1 (0.000-2.982) | Doorbuigingstoetsing | Ka.C.13 | NEN-EN\|NEN-EN1990/NB A1.4.2 | 0,18 |
| C22-V1 (0.000-3.253) | Doorsnede | Fu.C.12 | NEN-EN1993-1-1(6.12) | 0,72 |
| C22-V1 (0.000-3.253) | Stabiliteit | Fu.C.12 | NEN-EN1993-1-1(6.46) | 0,02 |
| C22-V1 (0.000-3.253) | Stabiliteit | Fu.C.12 | NEN-EN1993-1-1(6.46) | 0,04 |
| C22-V1 (0.000-3.253) | Stabiliteit | Fu.C.12 | NEN-EN1993-1-1(6.61&6.62) | 0,85 |
| C22-V1 (0.000-3.253) | Kiptoetsing | Fu.C.12 | NEN-EN1993-1-1(6.54) | 0,81 |
| C22-V1 (0.000-3.253) | Doorbuigingstoetsing | Ka.C.5 | NEN-EN\|NEN-EN1990/NB A1.4.2 | 0,42 |

## Bijlage D

Berekening Spant 4




## STAVEN

| Staaf | Knoop B | | Scharnier B | Scharnier E | Knoop E | Profiel | X-B | Z-B | X-E | Z-E | Lengte |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S1 | K1 | NVM | NVM | | K2 | P5 | 24,600 | 2,000 | 26,600 | 2,000 | 2,000 |
| S2 | K2 | NVM | NVM | | K3 | P5 | 26,600 | 2,000 | 29,600 | 2,000 | 3,000 |
| S3 | K3 | NVM | NVM | | K4 | P5 | 29,600 | 2,000 | 32,600 | 2,000 | 3,000 |
| S4 | K4 | NVM | NVM | | K5 | P5 | 32,600 | 2,000 | 34,600 | 2,000 | 2,000 |
| S5 | K7 | NVM | NVM | | K8 | P6 | 4,500 | -3,000 | 9,500 | -3,000 | 5,000 |
| S6 | K8 | NVM | NVM | | K9 | P6 | 9,500 | -3,000 | 14,500 | -3,000 | 5,000 |
| S7 | K10 | NVM | NVM | | K11 | P6 | 15,100 | -3,000 | 20,100 | -3,000 | 5,000 |
| S8 | K11 | NVM | NVM | | K12 | P6 | 20,100 | -3,000 | 25,100 | -3,000 | 5,000 |
| S9 | K6 | NVM | NVM | | K13 | P3 | 0,000 | 0,000 | 0,000 | -4,400 | 4,400 |
| S10 | K13 | NVM | NV- | | K15 | P3 | 0,000 | -4,400 | 9,500 | -8,380 | 10,300 |
| S11 | K15 | NV- | NV- | | K8 | P6 | 9,500 | -8,380 | 9,500 | -3,000 | 5,380 |
| S12 | K15 | NVM | NV- | | K17 | P1 | 9,500 | -8,380 | 14,800 | -10,600 | 5,746 |
| S13 | K16 | NV- | NV- | | K11 | P6 | 20,100 | -8,380 | 20,100 | -3,000 | 5,380 |
| S14 | K17 | NV- | NVM | | K16 | P1 | 14,800 | -10,600 | 20,100 | -8,380 | 5,746 |
| S15 | K14 | NV- | NV- | | K3 | P5 | 29,600 | -4,400 | 29,600 | 2,000 | 6,400 |
| S16 | K16 | NV- | NVM | | K14 | P3 | 20,100 | -8,380 | 29,600 | -4,400 | 10,300 |
| - | - | - | - | | - | - | m | m | m | m | m |

## PROFIELEN

| Profiel | Profielnaam | Oppervlakte | Iy | Materiaal | Hoek |
|---|---|---|---|---|---|
| P1 | IPE180 | 2.3947e-03 | 1.3170e-05 | S235 | 0 |
| P3 | IPE240 | 3.9116e-03 | 3.8916e-05 | S235 | 0 |
| P5 | HE200A | 5.3831e-03 | 3.6922e-05 | S235 | 0 |
| P6 | IPE300 | 5.3812e-03 | 8.3561e-05 | S235 | 0 |
| - | - | m2 | m4 | - | ° |

## MATERIALEN

| Materiaal | Dichtheid | E-Modulus | Uitzettingcoeff |
|---|---|---|---|
| S235 | 78.50 | 2.1000e+08 | 12.0000e-06 |
| - | kN/m3 | kN/m2 | C°m |

## OPLEGGINGEN

| Oplegging | Knoop | X | Z | Yr | HoekYr |
|---|---|---|---|---|---|
| O1 | K6 | vast | vast | vrij | 0 |
| O11 | K14 | vast | vrij | vrij | 0 |
| O12 | K1 | vrij | vast | vrij | 0 |

| Oplegging | Knoop | X | Z | Yr | HoekYr |
|---|---|---|---|---|---|
| O13 | K5 | vast | vast | vrij | 0 |
| O14 | K2 | vrij | vast | vrij | 0 |
| O15 | K4 | vrij | vast | vrij | 0 |
| O16 | K13 | vast | vrij | vrij | 0 |
| O35 | K7 | vast | vast | vrij | 0 |
| O36 | K10 | vast | vast | vrij | 0 |
| O37 | K9 | vrij | vast | vrij | 0 |
| O38 | K12 | vrij | vast | vrij | 0 |
| - | - | kN/m | kN/m | kNmrad | ° |

## GEWICHTSBEREKENING

| Index | Staven | Berekening | Waarde | Eenheden |
|---|---|---|---|---|
| | Belastingen en vervormingen | NEN-EN1991 | | |
| Lsys1 | Systeemmaat | 5.00 | 5,00 | [m] |
| Height1 | Totale hoogte van constructie | 10.60 | 10,60 | [m] |
| Width1 | Totale breedte van constructie | 34.60 | 34,60 | [m] |
| **LR1** | | | | |
| | Permanente Belasting | NEN-EN1991-1-1:2011/NB:2011 | | |
| | Hellend dak (S10,S12,S14,S16) | | | |
| Pp1 | Sandwich | 0.20 | 0,20 | [kN/m²] |
| q1 | Permanente Belasting | Pp1*Lsys1 | 1,00 | [kN/m] |
| **LR2** | | | | |
| | Windbelasting van Links + Overdruk | NEN-EN1991-1-4:2011/NB:2011 | | |
| Height2 | Totale hoogte (incl. gedeelte boven de grond) (h) | 10.60 | 10,60 | [m] |
| Width2 | Gemiddelde breedte (b) | 5.00 | 5,00 | [m] |
| Width3 | Constructie diepte (d) | 29.60 | 29,60 | [m] |
| A1 | Belast oppervlak (A) | 53.00 | 53,00 | [m²] |
| Co1 | Orthografie factor (C0) | 1.00 | 1,00 | |
| CsCd1 | Constructie factor (CsCd) | 1.00 | 1,00 | |
| Cpe1 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.36) | 0,80 | |
| Cpi1 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe1,Openingen=0.00,Over=True) | 0,20 | |
| Z1 | z=b; (h>2b) voor knopen: K6,K7,K8,K9,K10,K11,K12,K13,K14 | 5.00 | 5,00 | [m] |
| Qp1 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z1,Terrein=Onbebouwd,Regio=3,C0=Co1) | 0,54 | [kN/m²] |
| q2 | Interne druk; Verdeelde element belasting (q) | (Cpi1*Qp1) * Lsys1 | 0,54 | [kN/m] |
| Z2 | z=h-b; (h>2b) | 5.60 | 5,60 | [m] |
| Qp2 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z2,Terrein=Onbebouwd,Regio=3,C0=Co1) | 0,57 | [kN/m²] |
| q3 | Interne druk; Verdeelde element belasting (q) | (Cpi1*Qp2) * Lsys1 | 0,57 | [kN/m] |
| Z3 | z=h; (h>2b) voor knopen: K15,K16,K17 | 10.60 | 10,60 | [m] |
| Qp3 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z3,Terrein=Onbebouwd,Regio=3,C0=Co1) | 0,72 | [kN/m²] |
| q4 | Interne druk; Verdeelde element belasting (q) | (Cpi1*Qp3) * Lsys1 | 0,72 | [kN/m] |
| Cpe2 | Vertikale wand S9; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.36) | 0,80 | |
| q5 | Vertikale wand S9; Verdeelde element belasting (q) | (Qp1*Cpe2*CsCd1) * Lsys1 | 2,16 | [kN/m] |
| Cpe3 | Vertikale wand S9; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.36) | -0,50 | |
| C1 | Vertikale wand S9; Druk coefficient (Cpe) incl. correlatiefactor | (Cpe2-Cpe3) * 0.85 | 1,11 | |
| q6 | Vertikale wand S9; Verdeelde element belasting (q) | (Qp1*(Cpe3+C1)*CsCd1) * Lsys1 | 1,64 | [kN/m] |
| Cpe4 | Zadeldak S10; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=22.73) | -0,65 | |
| q7 | Zadeldak S10; Verdeelde element belasting (q) | (Qp1*Cpe4*CsCd1) * Lsys1 | -1,75 | [kN/m] |
| Cpe5 | Zadeldak S10; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=22.73) | -0,25 | |
| q8 | Zadeldak S10; Verdeelde element belasting (q) | (Qp1*Cpe5*CsCd1) * Lsys1 | -0,67 | [kN/m] |
| q9 | Zadeldak S10; Verdeelde element belasting (q) | (Qp3*Cpe5*CsCd1) * Lsys1 | -0,89 | [kN/m] |
| q10 | Zadeldak S10; Verdeelde element belasting (q) | (Qp2*Cpe5*CsCd1) * Lsys1 | -0,70 | [kN/m] |
| Cpe6 | Zadeldak S14; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=22.73) | -0,74 | |
| q11 | Zadeldak S14; Verdeelde element belasting (q) | (Qp3*Cpe6*CsCd1) * Lsys1 | -2,66 | [kN/m] |
| Cpe7 | Zadeldak S14; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=22.73) | -0,40 | |

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|---|---|---|---|---|
| **LR2** | | | | |
| q12 | Zadeldak S14; Verdeelde element belasting (q) | (Qp3*Cpe7*CsCd1) * Lsys1 | -1,43 | [kN/m] |
| q13 | Zadeldak S16; Verdeelde element belasting (q) | (Qp1*Cpe7*CsCd1) * Lsys1 | -1,08 | [kN/m] |
| q14 | Zadeldak S16; Verdeelde element belasting (q) | (Qp2*Cpe7*CsCd1) * Lsys1 | -1,13 | [kN/m] |
| **LR3** | | | | |
| | Windbelasting van Links + Overdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2011 | | |
| Height3 | Totale hoogte (incl. gedeelte boven de grond) (h) | 10.60 | 10,60 | [m] |
| Width4 | Gemiddelde breedte (b) | 5.00 | 5,00 | [m] |
| Width5 | Constructie diepte (d) | 29.60 | 29,60 | [m] |
| A2 | Belast oppervlak (A) | 53.00 | 53,00 | [m²] |
| Co2 | Orthografie factor (C0) | 1.00 | 1,00 | |
| CsCd2 | Constructie factor (CsCd) | 1.00 | 1,00 | |
| Cpe8 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.36) | 0,80 | |
| Cpi2 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe8,Openingen=0.00,Over=True) | 0,20 | |
| Z4 | z=b; (h>2b) voor knopen: K6,K7,K8,K9,K10,K11,K12,K13,K14 | 5.00 | 5,00 | [m] |
| Qp4 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z4,Terrein=Onbebouwd,Regio=3,C0=Co2) | 0,54 | [kN/m²] |
| q15 | Interne druk; Verdeelde element belasting (q) | (Cpi2*Qp4) * Lsys1 | 0,54 | [kN/m] |
| Z5 | z=h-b; (h>2b) | 5.60 | 5,60 | [m] |
| Qp5 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z5,Terrein=Onbebouwd,Regio=3,C0=Co2) | 0,57 | [kN/m²] |
| q16 | Interne druk; Verdeelde element belasting (q) | (Cpi2*Qp5) * Lsys1 | 0,57 | [kN/m] |
| Z6 | z=h; (h>2b) voor knopen: K15,K16,K17 | 10.60 | 10,60 | [m] |
| Qp6 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z6,Terrein=Onbebouwd,Regio=3,C0=Co2) | 0,72 | [kN/m²] |
| q17 | Interne druk; Verdeelde element belasting (q) | (Cpi2*Qp6) * Lsys1 | 0,72 | [kN/m] |
| Cpe9 | Vertikale wand S9; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.36,Eerst=False) | 0,80 | |
| q18 | Vertikale wand S9; Verdeelde element belasting (q) | (Qp4*Cpe9*CsCd2) * Lsys1 | 2,16 | [kN/m] |
| Cpe10 | Vertikale wand S9; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.36,Eerst=False) | -0,50 | |
| C2 | Vertikale wand S9; Druk coefficient (Cpe) incl. correlatiefactor | (Cpe9-Cpe10) * 0.85 | 1,11 | |
| q19 | Vertikale wand S9; Verdeelde element belasting (q) | (Qp4*(Cpe10+C2)*CsCd2) * Lsys1 | 1,64 | [kN/m] |
| Cpe11 | Zadeldak S10; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=22.73,Eerst=False) | 0,46 | |
| q20 | Zadeldak S10; Verdeelde element belasting (q) | (Qp4*Cpe11*CsCd2) * Lsys1 | 1,24 | [kN/m] |
| Cpe12 | Zadeldak S10; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=22.73,Eerst=False) | 0,30 | |
| q21 | Zadeldak S10; Verdeelde element belasting (q) | (Qp4*Cpe12*CsCd2) * Lsys1 | 0,82 | [kN/m] |
| q22 | Zadeldak S10; Verdeelde element belasting (q) | (Qp6*Cpe12*CsCd2) * Lsys1 | 1,09 | [kN/m] |
| q23 | Zadeldak S10; Verdeelde element belasting (q) | (Qp5*Cpe12*CsCd2) * Lsys1 | 0,86 | [kN/m] |
| Cpe13 | Zadeldak S14; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=22.73,Eerst=False) | 0,00 | |
| q24 | Zadeldak S14; Verdeelde element belasting (q) | (Qp6*Cpe13*CsCd2) * Lsys1 | 0,00 | [kN/m] |
| Cpe14 | Zadeldak S14; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=22.73,Eerst=False) | 0,00 | |
| q25 | Zadeldak S14; Verdeelde element belasting (q) | (Qp6*Cpe14*CsCd2) * Lsys1 | 0,00 | [kN/m] |
| q26 | Zadeldak S16; Verdeelde element belasting (q) | (Qp4*Cpe14*CsCd2) * Lsys1 | 0,00 | [kN/m] |
| q27 | Zadeldak S16; Verdeelde element belasting (q) | (Qp5*Cpe14*CsCd2) * Lsys1 | 0,00 | [kN/m] |
| **LR4** | | | | |
| | Windbelasting van Links + Onderdruk | NEN-EN1991-1-4:2011/NB:2011 | | |
| Height4 | Totale hoogte (incl. gedeelte boven de grond) (h) | 10.60 | 10,60 | [m] |
| Width6 | Gemiddelde breedte (b) | 5.00 | 5,00 | [m] |
| Width7 | Constructie diepte (d) | 29.60 | 29,60 | [m] |
| A3 | Belast oppervlak (A) | 53.00 | 53,00 | [m²] |
| Co3 | Orthografie factor (C0) | 1.00 | 1,00 | |
| CsCd3 | Constructie factor (CsCd) | 1.00 | 1,00 | |
| Cpe15 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.36) | -0,50 | |
| Cpi3 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe15,Opening=0.00,Over=False) | -0,30 | |
| Z7 | z=b; (h>2b) voor knopen: K6,K7,K8,K9,K10,K11,K12,K13,K14 | 5.00 | 5,00 | [m] |
| Qp7 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z7,Terrein=Onbebouwd,Regio=3,C0=Co3) | 0,54 | [kN/m²] |
| q28 | Interne druk; Verdeelde element belasting (q) | (Cpi3*Qp7) * Lsys1 | -0,81 | [kN/m] |

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|---|---|---|---|---|
| **LR4** | | | | |
| Z8 | z=h-b; (h>2b) | 5.60 | 5,60 | [m] |
| Qp8 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z8,Terrein=Onbebouwd,Regio=3,C0=Co3) | 0,57 | [kN/m²] |
| q29 | Interne druk; Verdeelde element belasting (q) | (Cpi3*Qp8) * Lsys1 | -0,85 | [kN/m] |
| Z9 | z=h; (h>2b) voor knopen: K15,K16,K17 | 10.60 | 10,60 | [m] |
| Qp9 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z9,Terrein=Onbebouwd,Regio=3,C0=Co3) | 0,72 | [kN/m²] |
| q30 | Interne druk; Verdeelde element belasting (q) | (Cpi3*Qp9) * Lsys1 | -1,07 | [kN/m] |
| Cpe16 | Vertikale wand S9; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.36) | 0,80 | |
| q31 | Vertikale wand S9; Verdeelde element belasting (q) | (Qp7*Cpe16*CsCd3) * Lsys1 | 2,16 | [kN/m] |
| Cpe17 | Vertikale wand S9; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.36) | -0,50 | |
| C3 | Vertikale wand S9; Druk coefficient (Cpe) incl. correlatiefactor | (Cpe16-Cpe17) * 0.85 | 1,11 | |
| q32 | Vertikale wand S9; Verdeelde element belasting (q) | (Qp7*(Cpe17+C3)*CsCd3) * Lsys1 | 1,64 | [kN/m] |
| Cpe18 | Zadeldak S10; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=22.73) | -0,65 | |
| q33 | Zadeldak S10; Verdeelde element belasting (q) | (Qp7*Cpe18*CsCd3) * Lsys1 | -1,75 | [kN/m] |
| Cpe19 | Zadeldak S10; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=22.73) | -0,25 | |
| q34 | Zadeldak S10; Verdeelde element belasting (q) | (Qp7*Cpe19*CsCd3) * Lsys1 | -0,67 | [kN/m] |
| q35 | Zadeldak S10; Verdeelde element belasting (q) | (Qp9*Cpe19*CsCd3) * Lsys1 | -0,89 | [kN/m] |
| q36 | Zadeldak S10; Verdeelde element belasting (q) | (Qp8*Cpe19*CsCd3) * Lsys1 | -0,70 | [kN/m] |
| Cpe20 | Zadeldak S14; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=22.73) | -0,74 | |
| q37 | Zadeldak S14; Verdeelde element belasting (q) | (Qp9*Cpe20*CsCd3) * Lsys1 | -2,66 | [kN/m] |
| Cpe21 | Zadeldak S14; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=22.73) | -0,40 | |
| q38 | Zadeldak S14; Verdeelde element belasting (q) | (Qp9*Cpe21*CsCd3) * Lsys1 | -1,43 | [kN/m] |
| q39 | Zadeldak S16; Verdeelde element belasting (q) | (Qp7*Cpe21*CsCd3) * Lsys1 | -1,08 | [kN/m] |
| q40 | Zadeldak S16; Verdeelde element belasting (q) | (Qp8*Cpe21*CsCd3) * Lsys1 | -1,13 | [kN/m] |
| **LR5** | | | | |
| | Windbelasting van Links + Onderdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2011 | | |
| Height5 | Totale hoogte (incl. gedeelte boven de grond) (h) | 10.60 | 10,60 | [m] |
| Width8 | Gemiddelde breedte (b) | 5.00 | 5,00 | [m] |
| Width9 | Constructie diepte (d) | 29.60 | 29,60 | [m] |
| A4 | Belast oppervlak (A) | 53.00 | 53,00 | [m²] |
| Co4 | Orthografie factor (C0) | 1.00 | 1,00 | |
| CsCd4 | Constructie factor (CsCd) | 1.00 | 1,00 | |
| Cpe22 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.36) | -0,50 | |
| Cpi4 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe22,Openingen=0.00,Over=False) | -0,30 | |
| Z10 | z=b; (h>2b) voor knopen: K6,K7,K8,K9,K10,K11,K12,K13,K14 | 5.00 | 5,00 | [m] |
| Qp10 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z10,Terrein=Onbebouwd,Regio=3,C0=Co4) | 0,54 | [kN/m²] |
| q41 | Interne druk; Verdeelde element belasting (q) | (Cpi4*Qp10) * Lsys1 | -0,81 | [kN/m] |
| Z11 | z=h-b; (h>2b) | 5.60 | 5,60 | [m] |
| Qp11 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z11,Terrein=Onbebouwd,Regio=3,C0=Co4) | 0,57 | [kN/m²] |
| q42 | Interne druk; Verdeelde element belasting (q) | (Cpi4*Qp11) * Lsys1 | -0,85 | [kN/m] |
| Z12 | z=h; (h>2b) voor knopen: K15,K16,K17 | 10.60 | 10,60 | [m] |
| Qp12 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z12,Terrein=Onbebouwd,Regio=3,C0=Co4) | 0,72 | [kN/m²] |
| q43 | Interne druk; Verdeelde element belasting (q) | (Cpi4*Qp12) * Lsys1 | -1,07 | [kN/m] |
| Cpe23 | Vertikale wand S9; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.36,Eerst=False) | 0,80 | |
| q44 | Vertikale wand S9; Verdeelde element belasting (q) | (Qp10*Cpe23*CsCd4) * Lsys1 | 2,16 | [kN/m] |
| Cpe24 | Vertikale wand S9; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.36,Eerst=False) | -0,50 | |
| C4 | Vertikale wand S9; Druk coefficient (Cpe) incl. correlatiefactor | (Cpe23-Cpe24) * 0.85 | 1,11 | |
| q45 | Vertikale wand S9; Verdeelde element belasting (q) | (Qp10*(Cpe24+C4)*CsCd4) * Lsys1 | 1,64 | [kN/m] |
| Cpe25 | Zadeldak S10; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=22.73,Eerst=False) | 0,46 | |

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|---|---|---|---|---|
| **LR5** | | | | |
| q46 | Zadeldak S10; Verdeelde element belasting (q) | (Qp10*Cpe25*CsCd4) * Lsys1 | 1,24 | [kN/m] |
| Cpe26 | Zadeldak S10; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=22.73,Eerst=False) | 0,30 | |
| q47 | Zadeldak S10; Verdeelde element belasting (q) | (Qp10*Cpe26*CsCd4) * Lsys1 | 0,82 | [kN/m] |
| q48 | Zadeldak S10; Verdeelde element belasting (q) | (Qp12*Cpe26*CsCd4) * Lsys1 | 1,09 | [kN/m] |
| q49 | Zadeldak S10; Verdeelde element belasting (q) | (Qp11*Cpe26*CsCd4) * Lsys1 | 0,86 | [kN/m] |
| Cpe27 | Zadeldak S14; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=22.73,Eerst=False) | 0,00 | |
| q50 | Zadeldak S14; Verdeelde element belasting (q) | (Qp12*Cpe27*CsCd4) * Lsys1 | 0,00 | [kN/m] |
| Cpe28 | Zadeldak S14; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=22.73,Eerst=False) | 0,00 | |
| q51 | Zadeldak S14; Verdeelde element belasting (q) | (Qp12*Cpe28*CsCd4) * Lsys1 | 0,00 | [kN/m] |
| q52 | Zadeldak S16; Verdeelde element belasting (q) | (Qp10*Cpe28*CsCd4) * Lsys1 | 0,00 | [kN/m] |
| q53 | Zadeldak S16; Verdeelde element belasting (q) | (Qp11*Cpe28*CsCd4) * Lsys1 | 0,00 | [kN/m] |
| **LR6** | | | | |
| | Windbelasting van Rechts + Overdruk | NEN-EN1991-1-4:2011/NB:2011 | | |
| Height6 | Totale hoogte (incl. gedeelte boven de grond) (h) | 10.60 | 10,60 | [m] |
| Width10 | Gemiddelde breedte (b) | 5.00 | 5,00 | [m] |
| Width11 | Constructie diepte (d) | 29.60 | 29,60 | [m] |
| A5 | Belast oppervlak (A) | 53.00 | 53,00 | [m²] |
| Co5 | Orthografie factor (C0) | 1.00 | 1,00 | |
| CsCd5 | Constructie factor (CsCd) | 1.00 | 1,00 | |
| Cpe29 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.36) | 0,80 | |
| Cpi5 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe29,Openingen=0.00,Over=True) | 0,20 | |
| Z13 | z=b; (h>2b) voor knopen: K6,K7,K8,K9,K10,K11,K12,K13,K14 | 5.00 | 5,00 | [m] |
| Qp13 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z13,Terrein=Onbebouwd,Regio=3,C0=Co5) | 0,54 | [kN/m²] |
| q54 | Interne druk; Verdeelde element belasting (q) | (Cpi5*Qp13) * Lsys1 | 0,54 | [kN/m] |
| Z14 | z=h-b; (h>2b) | 5.60 | 5,60 | [m] |
| Qp14 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z14,Terrein=Onbebouwd,Regio=3,C0=Co5) | 0,57 | [kN/m²] |
| q55 | Interne druk; Verdeelde element belasting (q) | (Cpi5*Qp14) * Lsys1 | 0,57 | [kN/m] |
| Z15 | z=h; (h>2b) voor knopen: K15,K16,K17 | 10.60 | 10,60 | [m] |
| Qp15 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z15,Terrein=Onbebouwd,Regio=3,C0=Co5) | 0,72 | [kN/m²] |
| q56 | Interne druk; Verdeelde element belasting (q) | (Cpi5*Qp15) * Lsys1 | 0,72 | [kN/m] |
| Cpe30 | Vertikale wand S9; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.36) | -0,50 | |
| q57 | Vertikale wand S9; Verdeelde element belasting (q) | (Qp13*Cpe30*CsCd5) * Lsys1 | -1,35 | [kN/m] |
| Cpe31 | Vertikale wand S9; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.36) | 0,80 | |
| C5 | Vertikale wand S9; Druk coefficient (Cpe) incl. correlatiefactor | (Cpe31-Cpe30) * 0.85 | 1,11 | |
| q58 | Vertikale wand S9; Verdeelde element belasting (q) | (Qp13*(Cpe31-C5)*CsCd5) * Lsys1 | -0,82 | [kN/m] |
| q59 | Vertikale wand S9; Verdeelde element belasting (q) | (Qp13*(Cpe30+C5)*CsCd5) * Lsys1 | 1,64 | [kN/m] |
| Cpe32 | Zadeldak S10; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=22.73) | -0,40 | |
| q60 | Zadeldak S10; Verdeelde element belasting (q) | (Qp13*Cpe32*CsCd5) * Lsys1 | -1,08 | [kN/m] |
| q61 | Zadeldak S10; Verdeelde element belasting (q) | (Qp15*Cpe32*CsCd5) * Lsys1 | -1,43 | [kN/m] |
| q62 | Zadeldak S10; Verdeelde element belasting (q) | (Qp14*Cpe32*CsCd5) * Lsys1 | -1,13 | [kN/m] |
| Cpe33 | Zadeldak S12; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=22.73) | -0,74 | |
| q63 | Zadeldak S12; Verdeelde element belasting (q) | (Qp15*Cpe33*CsCd5) * Lsys1 | -2,66 | [kN/m] |
| Cpe34 | Zadeldak S14; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=22.73) | -0,25 | |
| q64 | Zadeldak S14; Verdeelde element belasting (q) | (Qp15*Cpe34*CsCd5) * Lsys1 | -0,89 | [kN/m] |
| q65 | Zadeldak S16; Verdeelde element belasting (q) | (Qp13*Cpe34*CsCd5) * Lsys1 | -0,67 | [kN/m] |
| Cpe35 | Zadeldak S16; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=22.73) | -0,65 | |
| q66 | Zadeldak S16; Verdeelde element belasting (q) | (Qp13*Cpe35*CsCd5) * Lsys1 | -1,75 | [kN/m] |
| q67 | Zadeldak S16; Verdeelde element belasting (q) | (Qp14*Cpe34*CsCd5) * Lsys1 | -0,70 | [kN/m] |
| **LR7** | | | | |
| | Windbelasting van Rechts + Overdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2011 | | |
| Height7 | Totale hoogte (incl. gedeelte boven de grond) (h) | 10.60 | 10,60 | [m] |
| Width12 | Gemiddelde breedte (b) | 5.00 | 5,00 | [m] |
| Width13 | Constructie diepte (d) | 29.60 | 29,60 | [m] |

| Index | Staven | Berekening | Waarde | Eenheden |
|---|---|---|---|---|
| **LR7** | | | | |
| A6 | Belast oppervlak (A) | 53.00 | 53,00 | [m²] |
| Co6 | Orthografie factor (C0) | 1.00 | 1,00 | |
| CsCd6 | Constructie factor (CsCd) | 1.00 | 1,00 | |
| Cpe36 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.36) | 0,80 | |
| Cpi6 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe36,Openingen=0.00,Over=True) | 0,20 | |
| Z16 | z=b; (h>2b) voor knopen: K6,K7,K8,K9,K10,K11,K12,K13,K14 | 5.00 | 5,00 | [m] |
| Qp16 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z16,Terrein=Onbebouwd,Regio=3,C0=Co6) | 0,54 | [kN/m²] |
| q68 | Interne druk; Verdeelde element belasting (q) | (Cpi6*Qp16) * Lsys1 | 0,54 | [kN/m] |
| Z17 | z=h-b; (h>2b) | 5.60 | 5,60 | [m] |
| Qp17 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z17,Terrein=Onbebouwd,Regio=3,C0=Co6) | 0,57 | [kN/m²] |
| q69 | Interne druk; Verdeelde element belasting (q) | (Cpi6*Qp17) * Lsys1 | 0,57 | [kN/m] |
| Z18 | z=h; (h>2b) voor knopen: K15,K16,K17 | 10.60 | 10,60 | [m] |
| Qp18 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z18,Terrein=Onbebouwd,Regio=3,C0=Co6) | 0,72 | [kN/m²] |
| q70 | Interne druk; Verdeelde element belasting (q) | (Cpi6*Qp18) * Lsys1 | 0,72 | [kN/m] |
| Cpe37 | Vertikale wand S9; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.36,Eerst=False) | -0,50 | |
| q71 | Vertikale wand S9; Verdeelde element belasting (q) | (Qp16*Cpe37*CsCd6) * Lsys1 | -1,35 | [kN/m] |
| Cpe38 | Vertikale wand S9; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.36,Eerst=False) | 0,80 | |
| C6 | Vertikale wand S9; Druk coefficient (Cpe) incl. correlatiefactor | (Cpe38-Cpe37) * 0.85 | 1,11 | |
| q72 | Vertikale wand S9; Verdeelde element belasting (q) | (Qp16*(Cpe38-C6)*CsCd6) * Lsys1 | -0,82 | [kN/m] |
| q73 | Vertikale wand S9; Verdeelde element belasting (q) | (Qp16*(Cpe37+C6)*CsCd6) * Lsys1 | 1,64 | [kN/m] |
| Cpe39 | Zadeldak S10; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=22.73,Eerst=False) | 0,00 | |
| q74 | Zadeldak S10; Verdeelde element belasting (q) | (Qp16*Cpe39*CsCd6) * Lsys1 | 0,00 | [kN/m] |
| q75 | Zadeldak S10; Verdeelde element belasting (q) | (Qp18*Cpe39*CsCd6) * Lsys1 | 0,00 | [kN/m] |
| q76 | Zadeldak S10; Verdeelde element belasting (q) | (Qp17*Cpe39*CsCd6) * Lsys1 | 0,00 | [kN/m] |
| Cpe40 | Zadeldak S12; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=22.73,Eerst=False) | 0,00 | |
| q77 | Zadeldak S12; Verdeelde element belasting (q) | (Qp18*Cpe40*CsCd6) * Lsys1 | 0,00 | [kN/m] |
| Cpe41 | Zadeldak S14; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=22.73,Eerst=False) | 0,30 | |
| q78 | Zadeldak S14; Verdeelde element belasting (q) | (Qp18*Cpe41*CsCd6) * Lsys1 | 1,09 | [kN/m] |
| q79 | Zadeldak S16; Verdeelde element belasting (q) | (Qp16*Cpe41*CsCd6) * Lsys1 | 0,82 | [kN/m] |
| Cpe42 | Zadeldak S16; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=22.73,Eerst=False) | 0,46 | |
| q80 | Zadeldak S16; Verdeelde element belasting (q) | (Qp16*Cpe42*CsCd6) * Lsys1 | 1,24 | [kN/m] |
| q81 | Zadeldak S16; Verdeelde element belasting (q) | (Qp17*Cpe41*CsCd6) * Lsys1 | 0,86 | [kN/m] |
| **LR8** | | | | |
| | Windbelasting van Rechts + Onderdruk | NEN-EN1991-1-4:2011/NB:2011 | | |
| Height8 | Totale hoogte (incl. gedeelte boven de grond) (h) | 10.60 | 10,60 | [m] |
| Width14 | Gemiddelde breedte (b) | 5.00 | 5,00 | [m] |
| Width15 | Constructie diepte (d) | 29.60 | 29,60 | [m] |
| A7 | Belast oppervlak (A) | 53.00 | 53,00 | [m²] |
| Co7 | Orthografie factor (C0) | 1.00 | 1,00 | |
| CsCd7 | Constructie factor (CsCd) | 1.00 | 1,00 | |
| Cpe43 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.36) | -0,50 | |
| Cpi7 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe43,Openingen=0.00,Over=False) | -0,30 | |
| Z19 | z=b; (h>2b) voor knopen: K6,K7,K8,K9,K10,K11,K12,K13,K14 | 5.00 | 5,00 | [m] |
| Qp19 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z19,Terrein=Onbebouwd,Regio=3,C0=Co7) | 0,54 | [kN/m²] |
| q82 | Interne druk; Verdeelde element belasting (q) | (Cpi7*Qp19) * Lsys1 | -0,81 | [kN/m] |
| Z20 | z=h-b; (h>2b) | 5.60 | 5,60 | [m] |
| Qp20 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z20,Terrein=Onbebouwd,Regio=3,C0=Co7) | 0,57 | [kN/m²] |
| q83 | Interne druk; Verdeelde element belasting (q) | (Cpi7*Qp20) * Lsys1 | -0,85 | [kN/m] |
| Z21 | z=h; (h>2b) voor knopen: K15,K16,K17 | 10.60 | 10,60 | [m] |

| Index | Staven | Berekening | Waarde | Eenheden |
|---|---|---|---|---|
| **LR8** | | | | |
| Qp21 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z21,Terrein=Onbebouwd,Regio=3,C0=Co7) | 0,72 | [kN/m²] |
| q84 | Interne druk; Verdeelde element belasting (q) | (Cpi7*Qp21) * Lsys1 | -1,07 | [kN/m] |
| Cpe44 | Vertikale wand S9; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.36) | -0,50 | |
| q85 | Vertikale wand S9; Verdeelde element belasting (q) | (Qp19*Cpe44*CsCd7) * Lsys1 | -1,35 | [kN/m] |
| Cpe45 | Vertikale wand S9; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.36) | 0,80 | |
| C7 | Vertikale wand S9; Druk coefficient (Cpe) incl. correlatiefactor | (Cpe45-Cpe44) * 0.85 | 1,11 | |
| q86 | Vertikale wand S9; Verdeelde element belasting (q) | (Qp19*(Cpe45-C7)*CsCd7) * Lsys1 | -0,82 | [kN/m] |
| q87 | Vertikale wand S9; Verdeelde element belasting (q) | (Qp19*(Cpe44+C7)*CsCd7) * Lsys1 | 1,64 | [kN/m] |
| Cpe46 | Zadeldak S10; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=22.73) | -0,40 | |
| q88 | Zadeldak S10; Verdeelde element belasting (q) | (Qp19*Cpe46*CsCd7) * Lsys1 | -1,08 | [kN/m] |
| q89 | Zadeldak S10; Verdeelde element belasting (q) | (Qp21*Cpe46*CsCd7) * Lsys1 | -1,43 | [kN/m] |
| q90 | Zadeldak S10; Verdeelde element belasting (q) | (Qp20*Cpe46*CsCd7) * Lsys1 | -1,13 | [kN/m] |
| Cpe47 | Zadeldak S12; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=22.73) | -0,74 | |
| q91 | Zadeldak S12; Verdeelde element belasting (q) | (Qp21*Cpe47*CsCd7) * Lsys1 | -2,66 | [kN/m] |
| Cpe48 | Zadeldak S14; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=22.73) | -0,25 | |
| q92 | Zadeldak S14; Verdeelde element belasting (q) | (Qp21*Cpe48*CsCd7) * Lsys1 | -0,89 | [kN/m] |
| q93 | Zadeldak S16; Verdeelde element belasting (q) | (Qp19*Cpe48*CsCd7) * Lsys1 | -0,67 | [kN/m] |
| Cpe49 | Zadeldak S16; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=22.73) | -0,65 | |
| q94 | Zadeldak S16; Verdeelde element belasting (q) | (Qp19*Cpe49*CsCd7) * Lsys1 | -1,75 | [kN/m] |
| q95 | Zadeldak S16; Verdeelde element belasting (q) | (Qp20*Cpe48*CsCd7) * Lsys1 | -0,70 | [kN/m] |
| **LR9** | | | | |
| | Windbelasting van Rechts + Onderdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2011 | | |
| Height9 | Totale hoogte (incl. gedeelte boven de grond) (h) | 10.60 | 10,60 | [m] |
| Width16 | Gemiddelde breedte (b) | 5.00 | 5,00 | [m] |
| Width17 | Constructie diepte (d) | 29.60 | 29,60 | [m] |
| A8 | Belast oppervlak (A) | 53.00 | 53,00 | [m²] |
| Co8 | Orthografie factor (C0) | 1.00 | 1,00 | |
| CsCd8 | Constructie factor (CsCd) | 1.00 | 1,00 | |
| Cpe50 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.36) | -0,50 | |
| Cpi8 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe50,Openingen=0.00,Over=False) | -0,30 | |
| Z22 | z=b; (h>2b) voor knopen: K6,K7,K8,K9,K10,K11,K12,K13,K14 | 5.00 | 5,00 | [m] |
| Qp22 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z22,Terrein=Onbebouwd,Regio=3,C0=Co8) | 0,54 | [kN/m²] |
| q96 | Interne druk; Verdeelde element belasting (q) | (Cpi8*Qp22) * Lsys1 | -0,81 | [kN/m] |
| Z23 | z=h-b; (h>2b) | 5.60 | 5,60 | [m] |
| Qp23 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z23,Terrein=Onbebouwd,Regio=3,C0=Co8) | 0,57 | [kN/m²] |
| q97 | Interne druk; Verdeelde element belasting (q) | (Cpi8*Qp23) * Lsys1 | -0,85 | [kN/m] |
| Z24 | z=h; (h>2b) voor knopen: K15,K16,K17 | 10.60 | 10,60 | [m] |
| Qp24 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z24,Terrein=Onbebouwd,Regio=3,C0=Co8) | 0,72 | [kN/m²] |
| q98 | Interne druk; Verdeelde element belasting (q) | (Cpi8*Qp24) * Lsys1 | -1,07 | [kN/m] |
| Cpe51 | Vertikale wand S9; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.36,Eerst=False) | -0,50 | |
| q99 | Vertikale wand S9; Verdeelde element belasting (q) | (Qp22*Cpe51*CsCd8) * Lsys1 | -1,35 | [kN/m] |
| Cpe52 | Vertikale wand S9; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.36,Eerst=False) | 0,80 | |
| C8 | Vertikale wand S9; Druk coefficient (Cpe) incl. correlatiefactor | (Cpe52-Cpe51) * 0.85 | 1,11 | |
| q100 | Vertikale wand S9; Verdeelde element belasting (q) | (Qp22*(Cpe52-C8)*CsCd8) * Lsys1 | -0,82 | [kN/m] |
| q101 | Vertikale wand S9; Verdeelde element belasting (q) | (Qp22*(Cpe51+C8)*CsCd8) * Lsys1 | 1,64 | [kN/m] |
| Cpe53 | Zadeldak S10; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=22.73,Eerst=False) | 0,00 | |
| q102 | Zadeldak S10; Verdeelde element belasting (q) | (Qp22*Cpe53*CsCd8) * Lsys1 | 0,00 | [kN/m] |
| q103 | Zadeldak S10; Verdeelde element belasting (q) | (Qp24*Cpe53*CsCd8) * Lsys1 | 0,00 | [kN/m] |
| q104 | Zadeldak S10; Verdeelde element belasting (q) | (Qp23*Cpe53*CsCd8) * Lsys1 | 0,00 | [kN/m] |
| Cpe54 | Zadeldak S12; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=22.73,Eerst=False) | 0,00 | |

| Index | Staven | Berekening | Waarde | Eenheden |
|---|---|---|---|---|
| **LR9** | | | | |
| q105 | Zadeldak S12; Verdeelde element belasting (q) | (Qp24*Cpe54*CsCd8) * Lsys1 | 0,00 | [kN/m] |
| Cpe55 | Zadeldak S14; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=22.73,Eerst=False) | 0,30 | |
| q106 | Zadeldak S14; Verdeelde element belasting (q) | (Qp24*Cpe55*CsCd8) * Lsys1 | 1,09 | [kN/m] |
| q107 | Zadeldak S16; Verdeelde element belasting (q) | (Qp22*Cpe55*CsCd8) * Lsys1 | 0,82 | [kN/m] |
| Cpe56 | Zadeldak S16; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=22.73,Eerst=False) | 0,46 | |
| q108 | Zadeldak S16; Verdeelde element belasting (q) | (Qp22*Cpe56*CsCd8) * Lsys1 | 1,24 | [kN/m] |
| q109 | Zadeldak S16; Verdeelde element belasting (q) | (Qp23*Cpe55*CsCd8) * Lsys1 | 0,86 | [kN/m] |
| **LR10** | | | | |
| | Sneeuwbelasting | NEN-EN1991-1-3:2011/NB:2011 | | |
| Sk1 | Karakteristiek waarde van de sneeuwlast op de grond (Sk) | NEN-EN1991-1-3#4.1(Zone=1) | 0,70 | [kN/m²] |
| Ce1 | De milieucoefficient (Ce) | NEN-EN1991-1-3#5.2.7() | 1,00 | |
| Ct1 | De thermische coefficient (Ct) | NEN-EN1991-1-3#5.2.8() | 1,00 | |
| | Zadeldak, Mu1 Hoek: 22.73; S10,S12,S14,S16 | | | |
| Mu1 | Mu1; Sneeuwbelasting coefficient (Mu) | EN1991-1-3#5.3(Dak=Hellend,Hoek=22.73,Mu=Mu1,Sk=Sk1) | 0,80 | |
| q110 | Verdeelde element belasting (q) | (Sk1*Ce1*Ct1*Mu1) * Lsys1 | 2,80 | [kN/m] |
| q111 | Verdeelde element belasting (q) | q110*0.50 | 1,40 | [kN/m] |

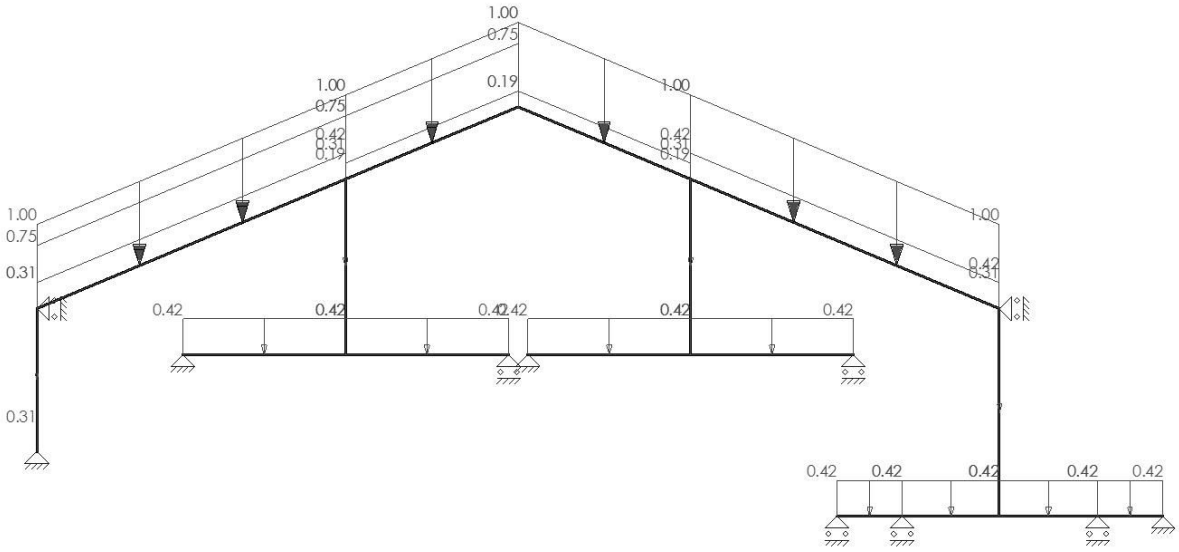
## BELASTINGSGEVALLEN TYPEN

| Oplegg. | Staven | B.G.Type | Gunstig/Ong. | Element | Niveau | Veld | Psi0 | Psi1 | Psi2 | Cprob |
|---|---|---|---|---|---|---|---|---|---|---|
| B.G.1 | Permanente Belasting | Permanent | - | | N.v.t. | N.v.t. | | | | |
| B.G.2 | Windbelasting van Links + Overdruk | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.3 | Windbelasting van Links + Overdruk (2e Cpe) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.4 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.5 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.6 | Windbelasting van Links + Overdruk (2e corr. factor) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.7 | Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.8 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.9 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.10 | Windbelasting van Links + Onderdruk | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.11 | Windbelasting van Links + Onderdruk (2e Cpe) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.12 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.13 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.14 | Windbelasting van Links + Onderdruk (2e corr. factor) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.15 | Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.16 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.17 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.18 | Windbelasting van Rechts + Overdruk | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |

| Oplegg. | Staven | B.G.Type | Gunstig/Ong. | Element | Niveau | Veld | Psi0 | Psi1 | Psi2 | Cprob |
|---|---|---|---|---|---|---|---|---|---|---|
| B.G.19 | Windbelasting van Rechts + Overdruk (2e Cpe) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.20 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.21 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.22 | Windbelasting van Rechts + Overdruk (2e corr. factor) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.23 | Windbelasting van Rechts + Overdruk (2e Cpe) (2e corr. factor) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.24 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.25 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.26 | Windbelasting van Rechts + Onderdruk | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.27 | Windbelasting van Rechts + Onderdruk (2e Cpe) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.28 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.29 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.30 | Windbelasting van Rechts + Onderdruk (2e corr. factor) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.31 | Windbelasting van Rechts + Onderdruk (2e Cpe) (2e corr. factor) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.32 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.33 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.34 | Sneeuwbelasting 1 | Sneeuwbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,75 |
| B.G.35 | Sneeuwbelasting 2 | Sneeuwbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,75 |
| B.G.36 | Sneeuwbelasting 3 | Sneeuwbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,75 |
| B.G.37 | Kniklengte (Assymetrisch) | Kniklengte | | | N.v.t. | N.v.t. | | | | |
| B.G.38 | Kniklengte (Symmetrisch) | Kniklengte | | | N.v.t. | N.v.t. | | | | |

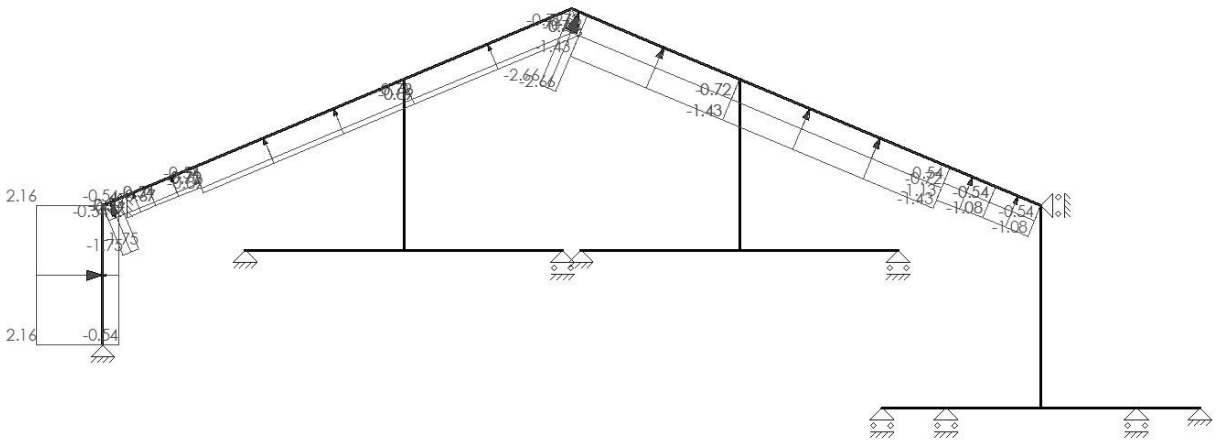
## B.G.1: PERMANENTE BELASTING

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.1: Permanente Belasting** | | | | | | |
| qG | 0,42 (1.00x) | 0,42 (1.00x) | 0,000 | 2,000(L) | | Z" S1,S4 |
| qG | 0,42 (1.00x) | 0,42 (1.00x) | 0,000 | 3,000(L) | | Z" S2-S3 |
| qG | 0,42 (1.00x) | 0,42 (1.00x) | 0,000 | 5,000(L) | | Z" S5-S8 |
| qG | 0,31 (1.00x) | 0,31 (1.00x) | 0,000 | 4,400(L) | | Z" S9 |
| qG | 0,31 (1.00x) | 0,31 (1.00x) | 0,000 | 10,300(L) | | Z" S10,S16 |
| qG | 0,42 (1.00x) | 0,42 (1.00x) | 0,000 | 5,380(L) | | Z" S11,S13 |
| qG | 0,19 (1.00x) | 0,19 (1.00x) | 0,000 | 5,746(L) | | Z" S12,S14 |
| qG | 0,42 (1.00x) | 0,42 (1.00x) | 0,000 | 6,400(L) | | Z" S15 |
| q | 1,00 (q1) | 1,00 (q1) | 0,000 | 10,300(L) | | Z" S10,S12,S14,S16 |
| q | 0,75 | 0,75 | 0,000 | 10,300(L) | | Z" S10,S12 |
| **Som lasten** | **X: 0,00** | **kN Z: 73,89** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



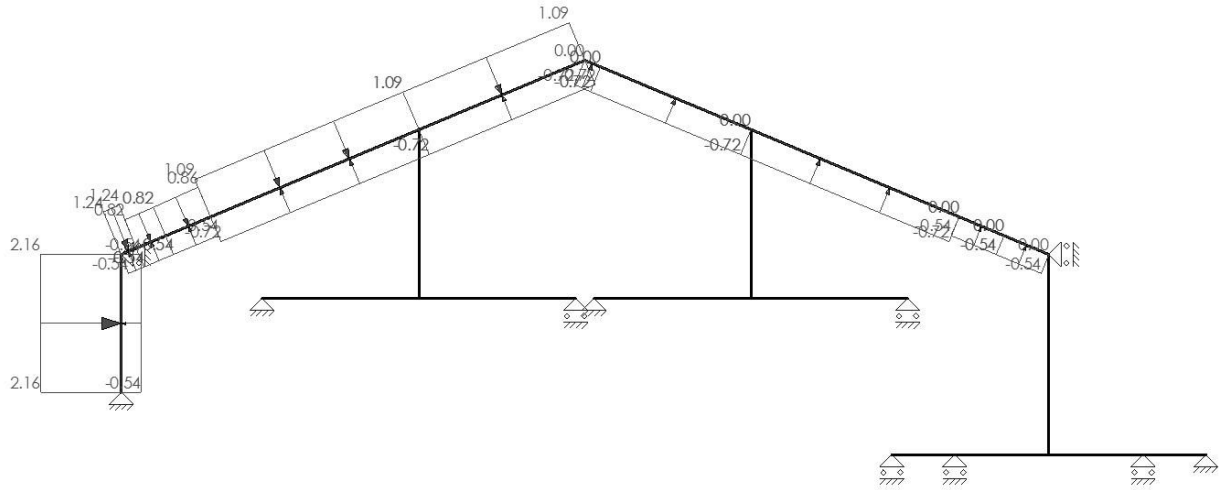

## B.G.2: WINDBELASTING VAN LINKS + OVERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting Staaf of knoop |
|---|---|---|---|---|---|
| **B.G.2: Windbelasting van Links + Overdruk** | | | | | |
| q | 2,16 (q5) | 2,16 (q5) | 0,000 | 4,400(L) | Z' S9 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,000 | 4,400(L) | Z' S9 |
| q | -1,75 (q7) | -1,75 (q7) | 0,000 | 0,542 | Z' S10 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,000 | 0,542 | Z' S10 |
| q | -0,67 (q8) | -0,67 (q8) | 0,542 | 1,553 | Z' S10 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,542 | 1,553 | Z' S10 |
| q | -0,89 (q9) | -0,89 (q9) | 3,106 | 10,300(L) | Z' S10 |
| q | -0,72 (-q4) | -0,72 (-q4) | 3,106 | 10,300(L) | Z' S10 |
| q | -0,67 (q8) | -0,70 (q10) | 1,553 | 3,106 | Z' S10 |
| q | -0,54 (-q2) | -0,54 (-q2) | 1,553 | 3,106 | Z' S10 |
| q | -0,89 (q9) | -0,89 (q9) | 0,000 | 5,746(L) | Z' S12 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 5,746(L) | Z' S12 |
| q | -2,66 (q11) | -2,66 (q11) | 0,000 | 0,542 | Z' S14 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 0,542 | Z' S14 |
| q | -1,43 (q12) | -1,43 (q12) | 0,542 | 5,746(L) | Z' S14 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,542 | 5,746(L) | Z' S14 |
| q | -1,08 (q13) | -1,08 (q13) | 8,747 | 10,300(L) | Z' S16 |
| q | -0,54 (-q2) | -0,54 (-q2) | 8,747 | 10,300(L) | Z' S16 |
| q | -1,43 (q12) | -1,43 (q12) | 0,000 | 7,194 | Z' S16 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 7,194 | Z' S16 |
| q | -1,13 (q14) | -1,08 (q13) | 7,194 | 8,747 | Z' S16 |
| q | -0,54 (-q2) | -0,54 (-q2) | 7,194 | 8,747 | Z' S16 |
| **Som lasten** | **X: 10,38** | **kN Z: -54,14** | **kN** | | |
| **-** | **-** | **-** | **m** | **m** | **- -** |



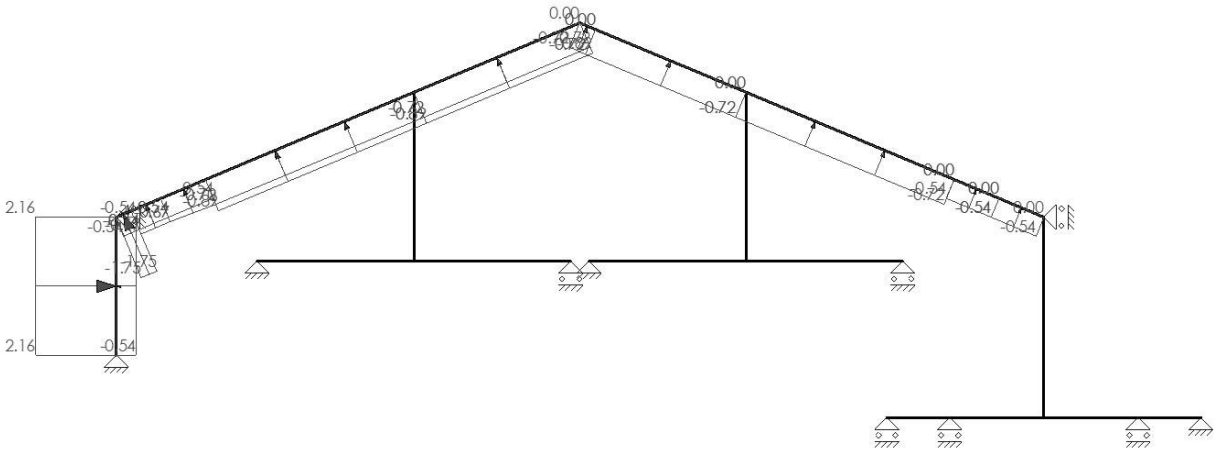

## B.G.3: WINDBELASTING VAN LINKS + OVERDRUK (2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting Staaf of knoop |
|---|---|---|---|---|---|
| **B.G.3: Windbelasting van Links + Overdruk (2e Cpe)** | | | | | |
| q | 2,16 (q18) | 2,16 (q18) | 0,000 | 4,400(L) | Z' S9 |
| q | -0,54 (-q15) | -0,54 (-q15) | 0,000 | 4,400(L) | Z' S9 |
| q | 1,24 (q20) | 1,24 (q20) | 0,000 | 0,542 | Z' S10 |
| q | -0,54 (-q15) | -0,54 (-q15) | 0,000 | 0,542 | Z' S10 |
| q | 0,82 (q21) | 0,82 (q21) | 0,542 | 1,553 | Z' S10 |
| q | -0,54 (-q15) | -0,54 (-q15) | 0,542 | 1,553 | Z' S10 |
| q | 1,09 (q22) | 1,09 (q22) | 3,106 | 10,300(L) | Z' S10 |
| q | -0,72 (-q17) | -0,72 (-q17) | 3,106 | 10,300(L) | Z' S10 |
| q | 0,82 (q21) | 0,86 (q23) | 1,553 | 3,106 | Z' S10 |
| q | -0,54 (-q15) | -0,54 (-q15) | 1,553 | 3,106 | Z' S10 |
| q | 1,09 (q22) | 1,09 (q22) | 0,000 | 5,746(L) | Z' S12 |
| q | -0,72 (-q17) | -0,72 (-q17) | 0,000 | 5,746(L) | Z' S12 |
| q | 0,00 (q24) | 0,00 (q24) | 0,000 | 0,542 | Z' S14 |
| q | -0,72 (-q17) | -0,72 (-q17) | 0,000 | 0,542 | Z' S14 |
| q | 0,00 (q25) | 0,00 (q25) | 0,542 | 5,746(L) | Z' S14 |
| q | -0,72 (-q17) | -0,72 (-q17) | 0,542 | 5,746(L) | Z' S14 |
| q | 0,00 (q26) | 0,00 (q26) | 8,747 | 10,300(L) | Z' S16 |
| q | -0,54 (-q15) | -0,54 (-q15) | 8,747 | 10,300(L) | Z' S16 |
| q | 0,00 (q25) | 0,00 (q25) | 0,000 | 7,194 | Z' S16 |
| q | -0,72 (-q17) | -0,72 (-q17) | 0,000 | 7,194 | Z' S16 |
| q | 0,00 (q27) | 0,00 (q26) | 7,194 | 8,747 | Z' S16 |
| q | -0,54 (-q15) | -0,54 (-q15) | 7,194 | 8,747 | Z' S16 |
| **Som lasten** | | **X: 13,65 kN Z: -4,66 kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** |



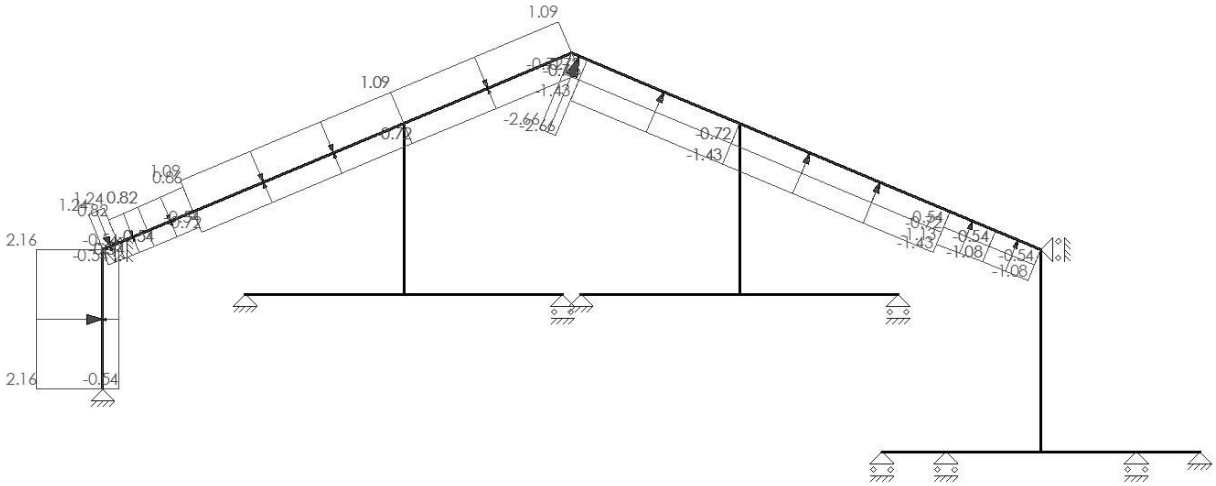

## B.G.4: WINDBELASTING VAN LINKS + OVERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting Staaf of knoop |
|---|---|---|---|---|---|
| **B.G.4: Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe)** | | | | | |
| q | 2,16 (q5) | 2,16 (q5) | 0,000 | 4,400(L) | Z' S9 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,000 | 4,400(L) | Z' S9 |
| q | -1,75 (q7) | -1,75 (q7) | 0,000 | 0,542 | Z' S10 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,000 | 0,542 | Z' S10 |
| q | -0,67 (q8) | -0,67 (q8) | 0,542 | 1,553 | Z' S10 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,542 | 1,553 | Z' S10 |
| q | -0,89 (q9) | -0,89 (q9) | 3,106 | 10,300(L) | Z' S10 |
| q | -0,72 (-q4) | -0,72 (-q4) | 3,106 | 10,300(L) | Z' S10 |
| q | -0,67 (q8) | -0,70 (q10) | 1,553 | 3,106 | Z' S10 |
| q | -0,54 (-q2) | -0,54 (-q2) | 1,553 | 3,106 | Z' S10 |
| q | -0,89 (q9) | -0,89 (q9) | 0,000 | 5,746(L) | Z' S12 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 5,746(L) | Z' S12 |
| q | 0,00 (q24) | 0,00 (q24) | 0,000 | 0,542 | Z' S14 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 0,542 | Z' S14 |
| q | 0,00 (q25) | 0,00 (q25) | 0,542 | 5,746(L) | Z' S14 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,542 | 5,746(L) | Z' S14 |
| q | 0,00 (q26) | 0,00 (q26) | 8,747 | 10,300(L) | Z' S16 |
| q | -0,54 (-q2) | -0,54 (-q2) | 8,747 | 10,300(L) | Z' S16 |
| q | 0,00 (q25) | 0,00 (q25) | 0,000 | 7,194 | Z' S16 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 7,194 | Z' S16 |
| q | 0,00 (q27) | 0,00 (q26) | 7,194 | 8,747 | Z' S16 |
| q | -0,54 (-q2) | -0,54 (-q2) | 7,194 | 8,747 | Z' S16 |
| **Som lasten** | **X: 1,65** | **kN Z: -33,30** | **kN** | | |
| **-** | **-** | **-** | **m** | **m** | **- -** |



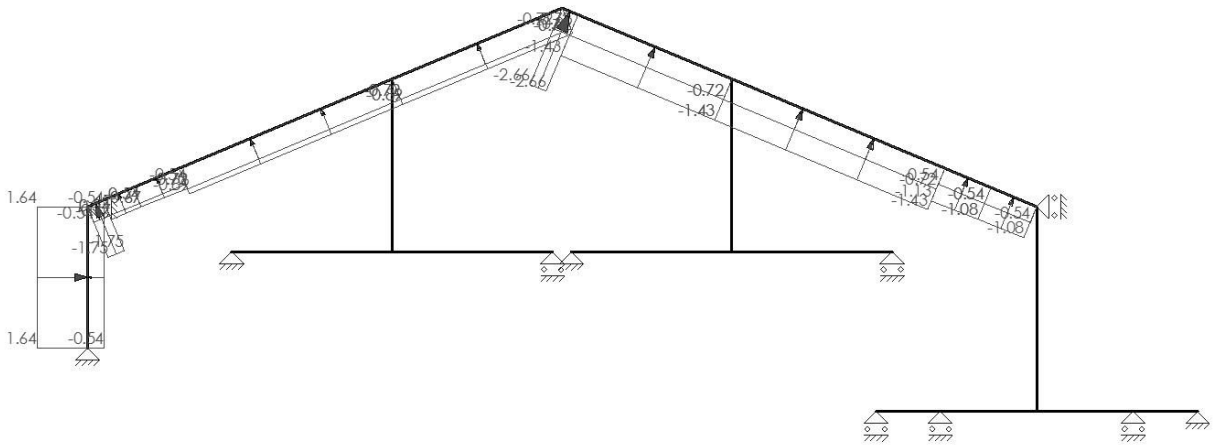

## B.G.5: WINDBELASTING VAN LINKS + OVERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting Staaf of knoop |
|---|---|---|---|---|---|
| **B.G.5: Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe)** | | | | | |
| q | 2,16 (q5) | 2,16 (q5) | 0,000 | 4,400(L) | Z' S9 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,000 | 4,400(L) | Z' S9 |
| q | 1,24 (q20) | 1,24 (q20) | 0,000 | 0,542 | Z' S10 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,000 | 0,542 | Z' S10 |
| q | 0,82 (q21) | 0,82 (q21) | 0,542 | 1,553 | Z' S10 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,542 | 1,553 | Z' S10 |
| q | 1,09 (q22) | 1,09 (q22) | 3,106 | 10,300(L) | Z' S10 |
| q | -0,72 (-q4) | -0,72 (-q4) | 3,106 | 10,300(L) | Z' S10 |
| q | 0,82 (q21) | 0,86 (q23) | 1,553 | 3,106 | Z' S10 |
| q | -0,54 (-q2) | -0,54 (-q2) | 1,553 | 3,106 | Z' S10 |
| q | 1,09 (q22) | 1,09 (q22) | 0,000 | 5,746(L) | Z' S12 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 5,746(L) | Z' S12 |
| q | -2,66 (q11) | -2,66 (q11) | 0,000 | 0,542 | Z' S14 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 0,542 | Z' S14 |
| q | -1,43 (q12) | -1,43 (q12) | 0,542 | 5,746(L) | Z' S14 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,542 | 5,746(L) | Z' S14 |
| q | -1,08 (q13) | -1,08 (q13) | 8,747 | 10,300(L) | Z' S16 |
| q | -0,54 (-q2) | -0,54 (-q2) | 8,747 | 10,300(L) | Z' S16 |
| q | -1,43 (q12) | -1,43 (q12) | 0,000 | 7,194 | Z' S16 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 7,194 | Z' S16 |
| q | -1,13 (q14) | -1,08 (q13) | 7,194 | 8,747 | Z' S16 |
| q | -0,54 (-q2) | -0,54 (-q2) | 7,194 | 8,747 | Z' S16 |
| **Som lasten** | **X: 22,38** | **kN Z: -25,50** | **kN** | | |
| **-** | **-** | **-** | **m** | **m** | **- -** |



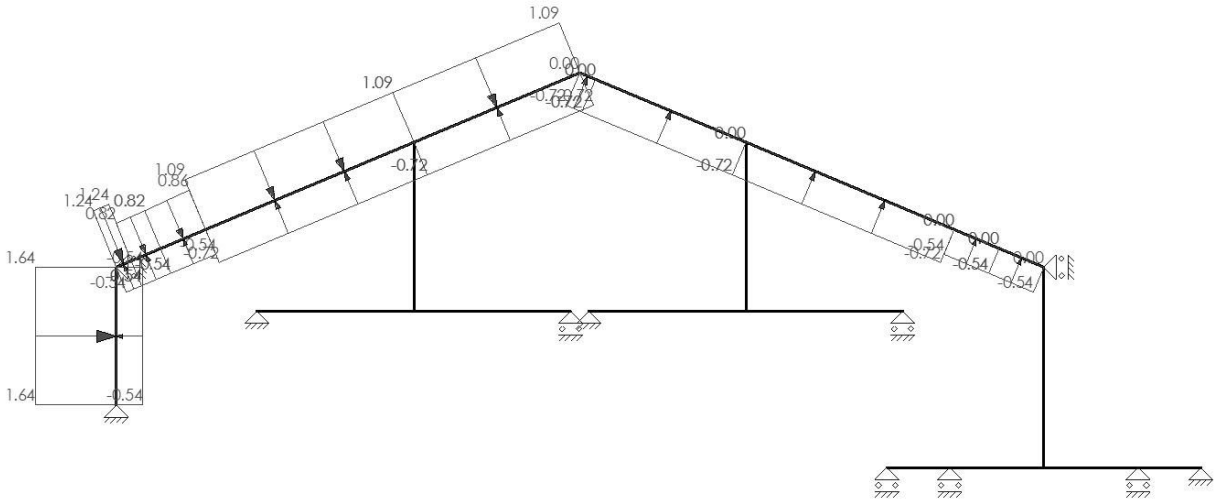

## B.G.6: WINDBELASTING VAN LINKS + OVERDRUK (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting Staaf of knoop |
|---|---|---|---|---|---|
| **B.G.6: Windbelasting van Links + Overdruk (2e corr. factor)** | | | | | |
| q | 1,64 (q6) | 1,64 (q6) | 0,000 | 4,400(L) | Z' S9 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,000 | 4,400(L) | Z' S9 |
| q | -1,75 (q7) | -1,75 (q7) | 0,000 | 0,542 | Z' S10 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,000 | 0,542 | Z' S10 |
| q | -0,67 (q8) | -0,67 (q8) | 0,542 | 1,553 | Z' S10 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,542 | 1,553 | Z' S10 |
| q | -0,89 (q9) | -0,89 (q9) | 3,106 | 10,300(L) | Z' S10 |
| q | -0,72 (-q4) | -0,72 (-q4) | 3,106 | 10,300(L) | Z' S10 |
| q | -0,67 (q8) | -0,70 (q10) | 1,553 | 3,106 | Z' S10 |
| q | -0,54 (-q2) | -0,54 (-q2) | 1,553 | 3,106 | Z' S10 |
| q | -0,89 (q9) | -0,89 (q9) | 0,000 | 5,746(L) | Z' S12 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 5,746(L) | Z' S12 |
| q | -2,66 (q11) | -2,66 (q11) | 0,000 | 0,542 | Z' S14 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 0,542 | Z' S14 |
| q | -1,43 (q12) | -1,43 (q12) | 0,542 | 5,746(L) | Z' S14 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,542 | 5,746(L) | Z' S14 |
| q | -1,08 (q13) | -1,08 (q13) | 8,747 | 10,300(L) | Z' S16 |
| q | -0,54 (-q2) | -0,54 (-q2) | 8,747 | 10,300(L) | Z' S16 |
| q | -1,43 (q12) | -1,43 (q12) | 0,000 | 7,194 | Z' S16 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 7,194 | Z' S16 |
| q | -1,13 (q14) | -1,08 (q13) | 7,194 | 8,747 | Z' S16 |
| q | -0,54 (-q2) | -0,54 (-q2) | 7,194 | 8,747 | Z' S16 |
| **Som lasten** | **X: 8,06** | **kN Z: -54,14** | **kN** | | |
| **-** | **-** | **-** | **m** | **m** | **- -** |



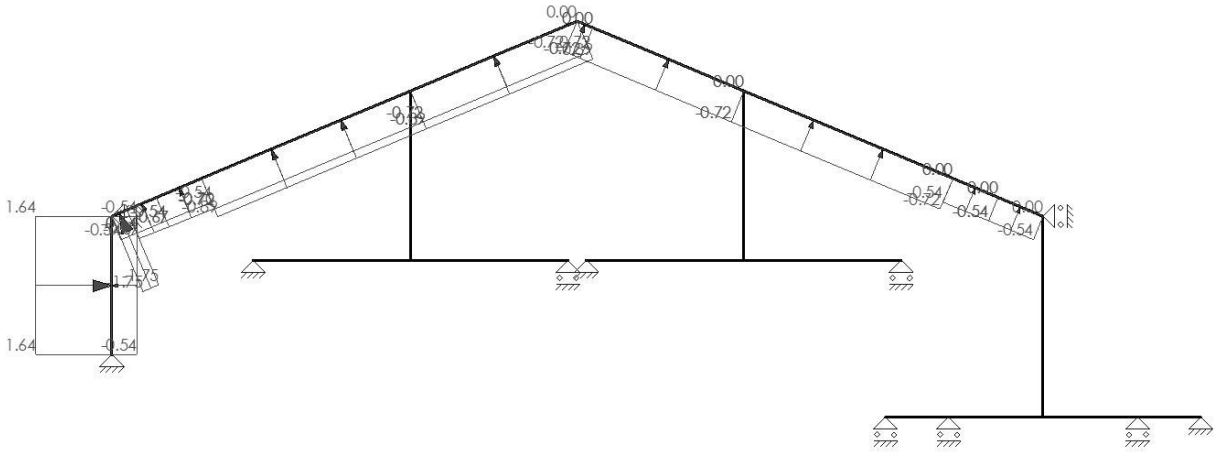

## B.G.7: WINDBELASTING VAN LINKS + OVERDRUK (2E CPE) (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting Staaf of knoop |
|---|---|---|---|---|---|
| **B.G.7: Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor)** | | | | | |
| q | 1,64 (q19) | 1,64 (q19) | 0,000 | 4,400(L) | Z' S9 |
| q | -0,54 (-q15) | -0,54 (-q15) | 0,000 | 4,400(L) | Z' S9 |
| q | 1,24 (q20) | 1,24 (q20) | 0,000 | 0,542 | Z' S10 |
| q | -0,54 (-q15) | -0,54 (-q15) | 0,000 | 0,542 | Z' S10 |
| q | 0,82 (q21) | 0,82 (q21) | 0,542 | 1,553 | Z' S10 |
| q | -0,54 (-q15) | -0,54 (-q15) | 0,542 | 1,553 | Z' S10 |
| q | 1,09 (q22) | 1,09 (q22) | 3,106 | 10,300(L) | Z' S10 |
| q | -0,72 (-q17) | -0,72 (-q17) | 3,106 | 10,300(L) | Z' S10 |
| q | 0,82 (q21) | 0,86 (q23) | 1,553 | 3,106 | Z' S10 |
| q | -0,54 (-q15) | -0,54 (-q15) | 1,553 | 3,106 | Z' S10 |
| q | 1,09 (q22) | 1,09 (q22) | 0,000 | 5,746(L) | Z' S12 |
| q | -0,72 (-q17) | -0,72 (-q17) | 0,000 | 5,746(L) | Z' S12 |
| q | 0,00 (q24) | 0,00 (q24) | 0,000 | 0,542 | Z' S14 |
| q | -0,72 (-q17) | -0,72 (-q17) | 0,000 | 0,542 | Z' S14 |
| q | 0,00 (q25) | 0,00 (q25) | 0,542 | 5,746(L) | Z' S14 |
| q | -0,72 (-q17) | -0,72 (-q17) | 0,542 | 5,746(L) | Z' S14 |
| q | 0,00 (q26) | 0,00 (q26) | 8,747 | 10,300(L) | Z' S16 |
| q | -0,54 (-q15) | -0,54 (-q15) | 8,747 | 10,300(L) | Z' S16 |
| q | 0,00 (q25) | 0,00 (q25) | 0,000 | 7,194 | Z' S16 |
| q | -0,72 (-q17) | -0,72 (-q17) | 0,000 | 7,194 | Z' S16 |
| q | 0,00 (q27) | 0,00 (q26) | 7,194 | 8,747 | Z' S16 |
| q | -0,54 (-q15) | -0,54 (-q15) | 7,194 | 8,747 | Z' S16 |
| **Som lasten** | | **X: 11,33 kN Z: -4,66 kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** |



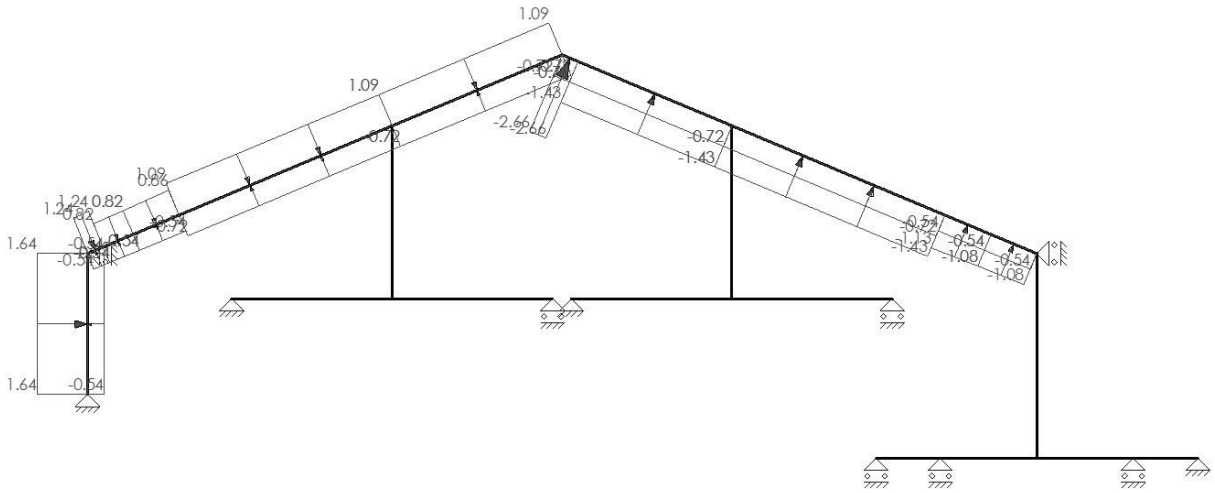

## B.G.8: WINDBELASTING VAN LINKS + OVERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE) (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting Staaf of knoop |
|---|---|---|---|---|---|
| **B.G.8: Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor)** | | | | | |
| q | 1,64 (q6) | 1,64 (q6) | 0,000 | 4,400(L) | Z' S9 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,000 | 4,400(L) | Z' S9 |
| q | -1,75 (q7) | -1,75 (q7) | 0,000 | 0,542 | Z' S10 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,000 | 0,542 | Z' S10 |
| q | -0,67 (q8) | -0,67 (q8) | 0,542 | 1,553 | Z' S10 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,542 | 1,553 | Z' S10 |
| q | -0,89 (q9) | -0,89 (q9) | 3,106 | 10,300(L) | Z' S10 |
| q | -0,72 (-q4) | -0,72 (-q4) | 3,106 | 10,300(L) | Z' S10 |
| q | -0,67 (q8) | -0,70 (q10) | 1,553 | 3,106 | Z' S10 |
| q | -0,54 (-q2) | -0,54 (-q2) | 1,553 | 3,106 | Z' S10 |
| q | -0,89 (q9) | -0,89 (q9) | 0,000 | 5,746(L) | Z' S12 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 5,746(L) | Z' S12 |
| q | 0,00 (q24) | 0,00 (q24) | 0,000 | 0,542 | Z' S14 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 0,542 | Z' S14 |
| q | 0,00 (q25) | 0,00 (q25) | 0,542 | 5,746(L) | Z' S14 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,542 | 5,746(L) | Z' S14 |
| q | 0,00 (q26) | 0,00 (q26) | 8,747 | 10,300(L) | Z' S16 |
| q | -0,54 (-q2) | -0,54 (-q2) | 8,747 | 10,300(L) | Z' S16 |
| q | 0,00 (q25) | 0,00 (q25) | 0,000 | 7,194 | Z' S16 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 7,194 | Z' S16 |
| q | 0,00 (q27) | 0,00 (q26) | 7,194 | 8,747 | Z' S16 |
| q | -0,54 (-q2) | -0,54 (-q2) | 7,194 | 8,747 | Z' S16 |
| **Som lasten** | **X: -0,67** | **kN Z: -33,30** | **kN** | | |
| **-** | **-** | **-** | **m** | **m** | **- -** |



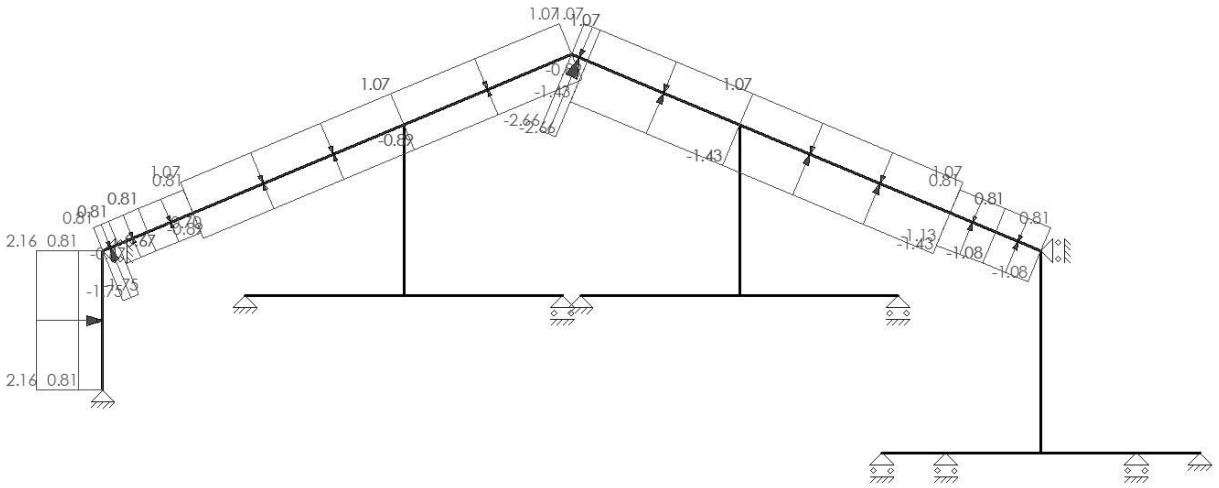

## B.G.9: WINDBELASTING VAN LINKS + OVERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE) (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting Staaf of knoop |
|---|---|---|---|---|---|
| **B.G.9: Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor)** | | | | | |
| q | 1,64 (q6) | 1,64 (q6) | 0,000 | 4,400(L) | Z' S9 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,000 | 4,400(L) | Z' S9 |
| q | 1,24 (q20) | 1,24 (q20) | 0,000 | 0,542 | Z' S10 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,000 | 0,542 | Z' S10 |
| q | 0,82 (q21) | 0,82 (q21) | 0,542 | 1,553 | Z' S10 |
| q | -0,54 (-q2) | -0,54 (-q2) | 0,542 | 1,553 | Z' S10 |
| q | 1,09 (q22) | 1,09 (q22) | 3,106 | 10,300(L) | Z' S10 |
| q | -0,72 (-q4) | -0,72 (-q4) | 3,106 | 10,300(L) | Z' S10 |
| q | 0,82 (q21) | 0,86 (q23) | 1,553 | 3,106 | Z' S10 |
| q | -0,54 (-q2) | -0,54 (-q2) | 1,553 | 3,106 | Z' S10 |
| q | 1,09 (q22) | 1,09 (q22) | 0,000 | 5,746(L) | Z' S12 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 5,746(L) | Z' S12 |
| q | -2,66 (q11) | -2,66 (q11) | 0,000 | 0,542 | Z' S14 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 0,542 | Z' S14 |
| q | -1,43 (q12) | -1,43 (q12) | 0,542 | 5,746(L) | Z' S14 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,542 | 5,746(L) | Z' S14 |
| q | -1,08 (q13) | -1,08 (q13) | 8,747 | 10,300(L) | Z' S16 |
| q | -0,54 (-q2) | -0,54 (-q2) | 8,747 | 10,300(L) | Z' S16 |
| q | -1,43 (q12) | -1,43 (q12) | 0,000 | 7,194 | Z' S16 |
| q | -0,72 (-q4) | -0,72 (-q4) | 0,000 | 7,194 | Z' S16 |
| q | -1,13 (q14) | -1,08 (q13) | 7,194 | 8,747 | Z' S16 |
| q | -0,54 (-q2) | -0,54 (-q2) | 7,194 | 8,747 | Z' S16 |
| **Som lasten** | **X: 20,06** | **kN Z: -25,50** | **kN** | | |
| **-** | **-** | **-** | **m** | **m** | **- -** |



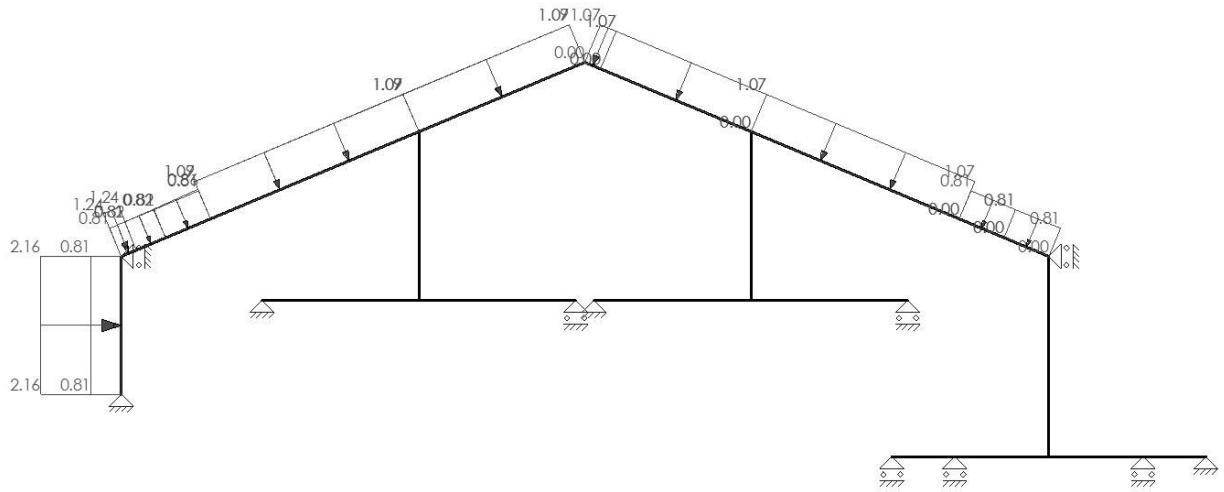

## B.G.10: WINDBELASTING VAN LINKS + ONDERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting Staaf of knoop |
|---|---|---|---|---|---|
| **B.G.10: Windbelasting van Links + Onderdruk** | | | | | |
| q | 2,16 (q31) | 2,16 (q31) | 0,000 | 4,400(L) | Z' S9 |
| q | 0,81 (-q28) | 0,81 (-q28) | 0,000 | 4,400(L) | Z' S9 |
| q | -1,75 (q33) | -1,75 (q33) | 0,000 | 0,542 | Z' S10 |
| q | 0,81 (-q28) | 0,81 (-q28) | 0,000 | 0,542 | Z' S10 |
| q | -0,67 (q34) | -0,67 (q34) | 0,542 | 1,553 | Z' S10 |
| q | 0,81 (-q28) | 0,81 (-q28) | 0,542 | 1,553 | Z' S10 |
| q | -0,89 (q35) | -0,89 (q35) | 3,106 | 10,300(L) | Z' S10 |
| q | 1,07 (-q30) | 1,07 (-q30) | 3,106 | 10,300(L) | Z' S10 |
| q | -0,67 (q34) | -0,70 (q36) | 1,553 | 3,106 | Z' S10 |
| q | 0,81 (-q28) | 0,81 (-q28) | 1,553 | 3,106 | Z' S10 |
| q | -0,89 (q35) | -0,89 (q35) | 0,000 | 5,746(L) | Z' S12 |
| q | 1,07 (-q30) | 1,07 (-q30) | 0,000 | 5,746(L) | Z' S12 |
| q | -2,66 (q37) | -2,66 (q37) | 0,000 | 0,542 | Z' S14 |
| q | 1,07 (-q30) | 1,07 (-q30) | 0,000 | 0,542 | Z' S14 |
| q | -1,43 (q38) | -1,43 (q38) | 0,542 | 5,746(L) | Z' S14 |
| q | 1,07 (-q30) | 1,07 (-q30) | 0,542 | 5,746(L) | Z' S14 |
| q | -1,08 (q39) | -1,08 (q39) | 8,747 | 10,300(L) | Z' S16 |
| q | 0,81 (-q28) | 0,81 (-q28) | 8,747 | 10,300(L) | Z' S16 |
| q | -1,43 (q38) | -1,43 (q38) | 0,000 | 7,194 | Z' S16 |
| q | 1,07 (-q30) | 1,07 (-q30) | 0,000 | 7,194 | Z' S16 |
| q | -1,13 (q40) | -1,08 (q39) | 7,194 | 8,747 | Z' S16 |
| q | 0,81 (-q28) | 0,81 (-q28) | 7,194 | 8,747 | Z' S16 |
| **Som lasten** | **X: 16,33** | **kN Z: -3,66** | **kN** | | |
| **-** | **-** | **-** | **m** | **m** | **- -** |



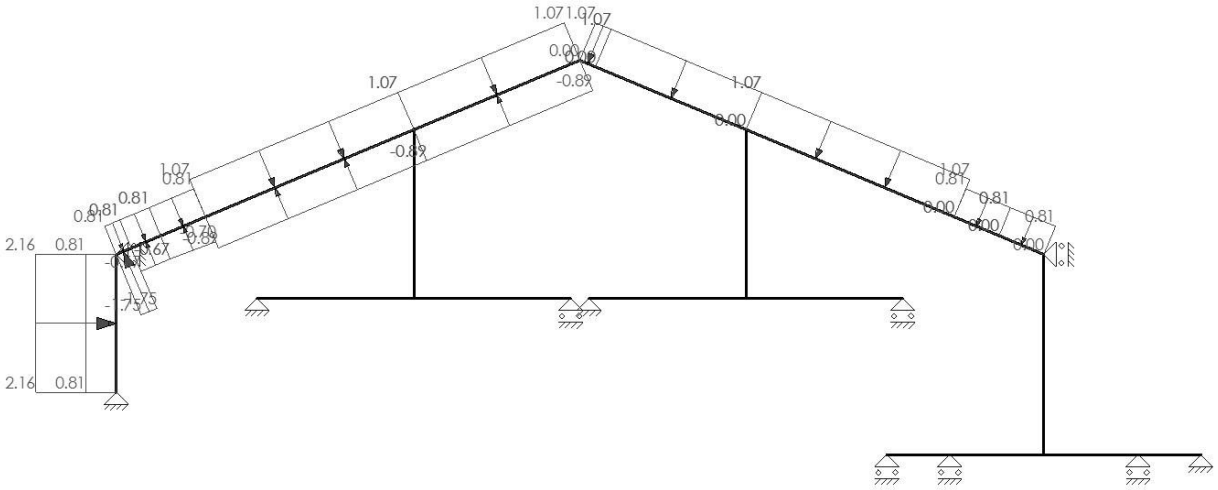

## B.G.11: WINDBELASTING VAN LINKS + ONDERDRUK (2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting Staaf of knoop |
|---|---|---|---|---|---|
| **B.G.11: Windbelasting van Links + Onderdruk (2e Cpe)** | | | | | |
| q | 2,16 (q44) | 2,16 (q44) | 0,000 | 4,400(L) | Z' S9 |
| q | 0,81 (-q41) | 0,81 (-q41) | 0,000 | 4,400(L) | Z' S9 |
| q | 1,24 (q46) | 1,24 (q46) | 0,000 | 0,542 | Z' S10 |
| q | 0,81 (-q41) | 0,81 (-q41) | 0,000 | 0,542 | Z' S10 |
| q | 0,82 (q47) | 0,82 (q47) | 0,542 | 1,553 | Z' S10 |
| q | 0,81 (-q41) | 0,81 (-q41) | 0,542 | 1,553 | Z' S10 |
| q | 1,09 (q48) | 1,09 (q48) | 3,106 | 10,300(L) | Z' S10 |
| q | 1,07 (-q43) | 1,07 (-q43) | 3,106 | 10,300(L) | Z' S10 |
| q | 0,82 (q47) | 0,86 (q49) | 1,553 | 3,106 | Z' S10 |
| q | 0,81 (-q41) | 0,81 (-q41) | 1,553 | 3,106 | Z' S10 |
| q | 1,09 (q48) | 1,09 (q48) | 0,000 | 5,746(L) | Z' S12 |
| q | 1,07 (-q43) | 1,07 (-q43) | 0,000 | 5,746(L) | Z' S12 |
| q | 0,00 (q50) | 0,00 (q50) | 0,000 | 0,542 | Z' S14 |
| q | 1,07 (-q43) | 1,07 (-q43) | 0,000 | 0,542 | Z' S14 |
| q | 0,00 (q51) | 0,00 (q51) | 0,542 | 5,746(L) | Z' S14 |
| q | 1,07 (-q43) | 1,07 (-q43) | 0,542 | 5,746(L) | Z' S14 |
| q | 0,00 (q52) | 0,00 (q52) | 8,747 | 10,300(L) | Z' S16 |
| q | 0,81 (-q41) | 0,81 (-q41) | 8,747 | 10,300(L) | Z' S16 |
| q | 0,00 (q51) | 0,00 (q51) | 0,000 | 7,194 | Z' S16 |
| q | 1,07 (-q43) | 1,07 (-q43) | 0,000 | 7,194 | Z' S16 |
| q | 0,00 (q53) | 0,00 (q52) | 7,194 | 8,747 | Z' S16 |
| q | 0,81 (-q41) | 0,81 (-q41) | 7,194 | 8,747 | Z' S16 |
| **Som lasten** | **X: 19,60** | **kN Z: 45,83** | **kN** | | |
| **-** | **-** | **-** | **m** | **m** | **- -** |



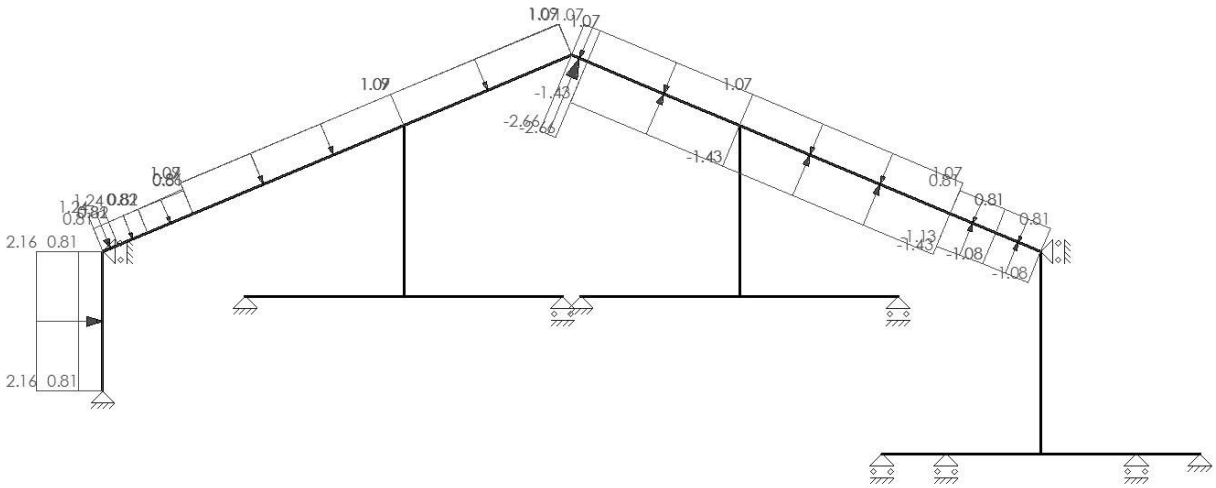

## B.G.12: WINDBELASTING VAN LINKS + ONDERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting Staaf of knoop |
|---|---|---|---|---|---|
| **B.G.12: Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe)** | | | | | |
| q | 2,16 (q31) | 2,16 (q31) | 0,000 | 4,400(L) | Z' S9 |
| q | 0,81 (-q28) | 0,81 (-q28) | 0,000 | 4,400(L) | Z' S9 |
| q | -1,75 (q33) | -1,75 (q33) | 0,000 | 0,542 | Z' S10 |
| q | 0,81 (-q28) | 0,81 (-q28) | 0,000 | 0,542 | Z' S10 |
| q | -0,67 (q34) | -0,67 (q34) | 0,542 | 1,553 | Z' S10 |
| q | 0,81 (-q28) | 0,81 (-q28) | 0,542 | 1,553 | Z' S10 |
| q | -0,89 (q35) | -0,89 (q35) | 3,106 | 10,300(L) | Z' S10 |
| q | 1,07 (-q30) | 1,07 (-q30) | 3,106 | 10,300(L) | Z' S10 |
| q | -0,67 (q34) | -0,70 (q36) | 1,553 | 3,106 | Z' S10 |
| q | 0,81 (-q28) | 0,81 (-q28) | 1,553 | 3,106 | Z' S10 |
| q | -0,89 (q35) | -0,89 (q35) | 0,000 | 5,746(L) | Z' S12 |
| q | 1,07 (-q30) | 1,07 (-q30) | 0,000 | 5,746(L) | Z' S12 |
| q | 0,00 (q50) | 0,00 (q50) | 0,000 | 0,542 | Z' S14 |
| q | 1,07 (-q30) | 1,07 (-q30) | 0,000 | 0,542 | Z' S14 |
| q | 0,00 (q51) | 0,00 (q51) | 0,542 | 5,746(L) | Z' S14 |
| q | 1,07 (-q30) | 1,07 (-q30) | 0,542 | 5,746(L) | Z' S14 |
| q | 0,00 (q52) | 0,00 (q52) | 8,747 | 10,300(L) | Z' S16 |
| q | 0,81 (-q28) | 0,81 (-q28) | 8,747 | 10,300(L) | Z' S16 |
| q | 0,00 (q51) | 0,00 (q51) | 0,000 | 7,194 | Z' S16 |
| q | 1,07 (-q30) | 1,07 (-q30) | 0,000 | 7,194 | Z' S16 |
| q | 0,00 (q53) | 0,00 (q52) | 7,194 | 8,747 | Z' S16 |
| q | 0,81 (-q28) | 0,81 (-q28) | 7,194 | 8,747 | Z' S16 |
| **Som lasten** | **X: 7,60** | **kN Z: 17,19** | **kN** | | |
| **-** | **-** | **-** | **m** | **m** | **- -** |



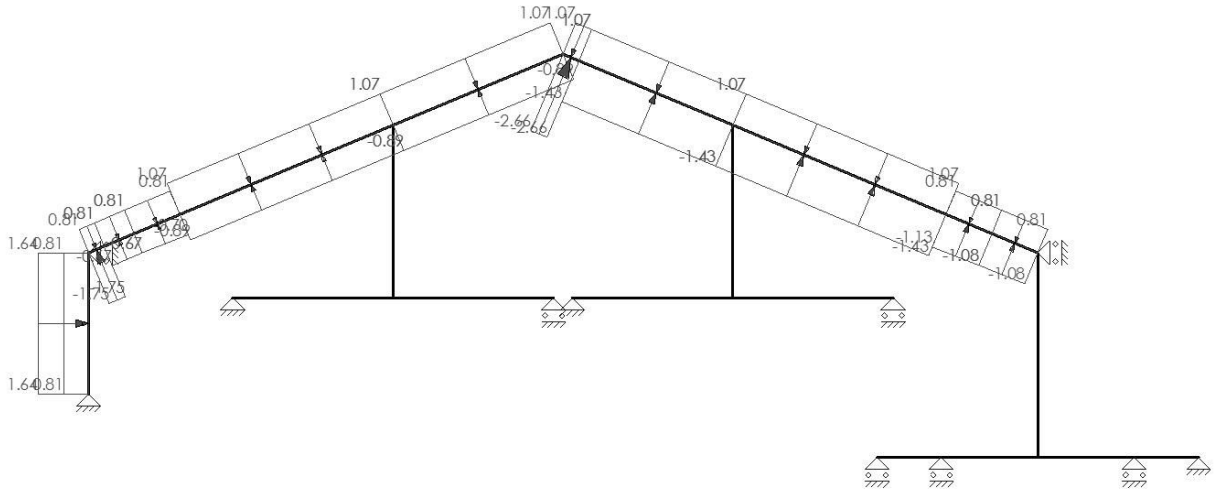

## B.G.13: WINDBELASTING VAN LINKS + ONDERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting Staaf of knoop |
|---|---|---|---|---|---|
| **B.G.13: Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe)** | | | | | |
| q | 2,16 (q31) | 2,16 (q31) | 0,000 | 4,400(L) | Z' S9 |
| q | 0,81 (-q28) | 0,81 (-q28) | 0,000 | 4,400(L) | Z' S9 |
| q | 1,24 (q46) | 1,24 (q46) | 0,000 | 0,542 | Z' S10 |
| q | 0,81 (-q28) | 0,81 (-q28) | 0,000 | 0,542 | Z' S10 |
| q | 0,82 (q47) | 0,82 (q47) | 0,542 | 1,553 | Z' S10 |
| q | 0,81 (-q28) | 0,81 (-q28) | 0,542 | 1,553 | Z' S10 |
| q | 1,09 (q48) | 1,09 (q48) | 3,106 | 10,300(L) | Z' S10 |
| q | 1,07 (-q30) | 1,07 (-q30) | 3,106 | 10,300(L) | Z' S10 |
| q | 0,82 (q47) | 0,86 (q49) | 1,553 | 3,106 | Z' S10 |
| q | 0,81 (-q28) | 0,81 (-q28) | 1,553 | 3,106 | Z' S10 |
| q | 1,09 (q48) | 1,09 (q48) | 0,000 | 5,746(L) | Z' S12 |
| q | 1,07 (-q30) | 1,07 (-q30) | 0,000 | 5,746(L) | Z' S12 |
| q | -2,66 (q37) | -2,66 (q37) | 0,000 | 0,542 | Z' S14 |
| q | 1,07 (-q30) | 1,07 (-q30) | 0,000 | 0,542 | Z' S14 |
| q | -1,43 (q38) | -1,43 (q38) | 0,542 | 5,746(L) | Z' S14 |
| q | 1,07 (-q30) | 1,07 (-q30) | 0,542 | 5,746(L) | Z' S14 |
| q | -1,08 (q39) | -1,08 (q39) | 8,747 | 10,300(L) | Z' S16 |
| q | 0,81 (-q28) | 0,81 (-q28) | 8,747 | 10,300(L) | Z' S16 |
| q | -1,43 (q38) | -1,43 (q38) | 0,000 | 7,194 | Z' S16 |
| q | 1,07 (-q30) | 1,07 (-q30) | 0,000 | 7,194 | Z' S16 |
| q | -1,13 (q40) | -1,08 (q39) | 7,194 | 8,747 | Z' S16 |
| q | 0,81 (-q28) | 0,81 (-q28) | 7,194 | 8,747 | Z' S16 |
| **Som lasten** | **X: 28,33** | **kN Z: 24,99** | **kN** | | |
| **-** | **-** | **-** | **m** | **m** | **- -** |



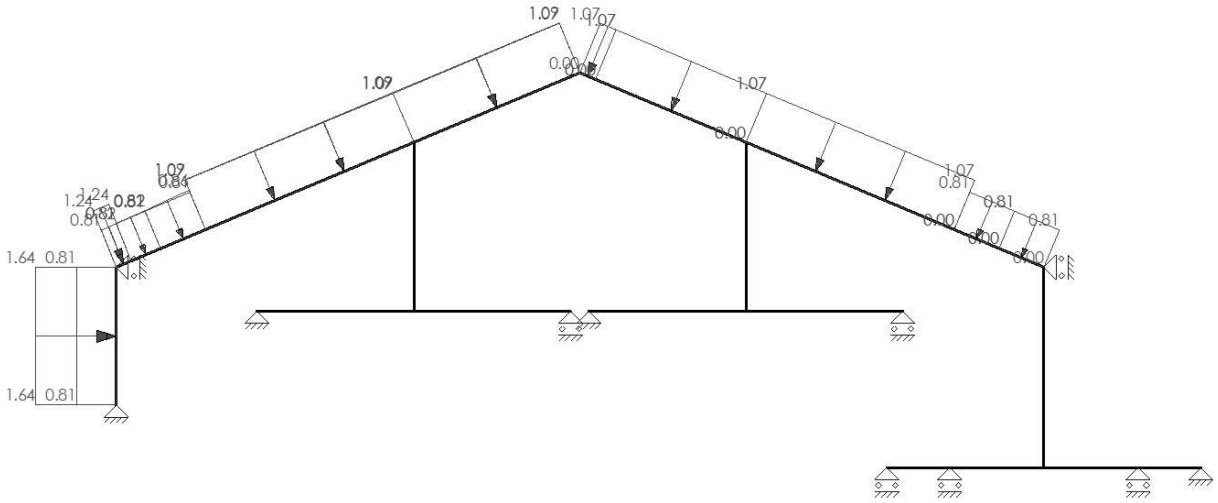

## B.G.14: WINDBELASTING VAN LINKS + ONDERDRUK (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting Staaf of knoop |
|---|---|---|---|---|---|
| **B.G.14: Windbelasting van Links + Onderdruk (2e corr. factor)** | | | | | |
| q | 1,64 (q32) | 1,64 (q32) | 0,000 | 4,400(L) | Z' S9 |
| q | 0,81 (-q28) | 0,81 (-q28) | 0,000 | 4,400(L) | Z' S9 |
| q | -1,75 (q33) | -1,75 (q33) | 0,000 | 0,542 | Z' S10 |
| q | 0,81 (-q28) | 0,81 (-q28) | 0,000 | 0,542 | Z' S10 |
| q | -0,67 (q34) | -0,67 (q34) | 0,542 | 1,553 | Z' S10 |
| q | 0,81 (-q28) | 0,81 (-q28) | 0,542 | 1,553 | Z' S10 |
| q | -0,89 (q35) | -0,89 (q35) | 3,106 | 10,300(L) | Z' S10 |
| q | 1,07 (-q30) | 1,07 (-q30) | 3,106 | 10,300(L) | Z' S10 |
| q | -0,67 (q34) | -0,70 (q36) | 1,553 | 3,106 | Z' S10 |
| q | 0,81 (-q28) | 0,81 (-q28) | 1,553 | 3,106 | Z' S10 |
| q | -0,89 (q35) | -0,89 (q35) | 0,000 | 5,746(L) | Z' S12 |
| q | 1,07 (-q30) | 1,07 (-q30) | 0,000 | 5,746(L) | Z' S12 |
| q | -2,66 (q37) | -2,66 (q37) | 0,000 | 0,542 | Z' S14 |
| q | 1,07 (-q30) | 1,07 (-q30) | 0,000 | 0,542 | Z' S14 |
| q | -1,43 (q38) | -1,43 (q38) | 0,542 | 5,746(L) | Z' S14 |
| q | 1,07 (-q30) | 1,07 (-q30) | 0,542 | 5,746(L) | Z' S14 |
| q | -1,08 (q39) | -1,08 (q39) | 8,747 | 10,300(L) | Z' S16 |
| q | 0,81 (-q28) | 0,81 (-q28) | 8,747 | 10,300(L) | Z' S16 |
| q | -1,43 (q38) | -1,43 (q38) | 0,000 | 7,194 | Z' S16 |
| q | 1,07 (-q30) | 1,07 (-q30) | 0,000 | 7,194 | Z' S16 |
| q | -1,13 (q40) | -1,08 (q39) | 7,194 | 8,747 | Z' S16 |
| q | 0,81 (-q28) | 0,81 (-q28) | 7,194 | 8,747 | Z' S16 |
| **Som lasten** | **X: 14,01** | **kN Z: -3,66** | **kN** | | |
| **-** | **-** | **-** | **m** | **m** | **- -** |



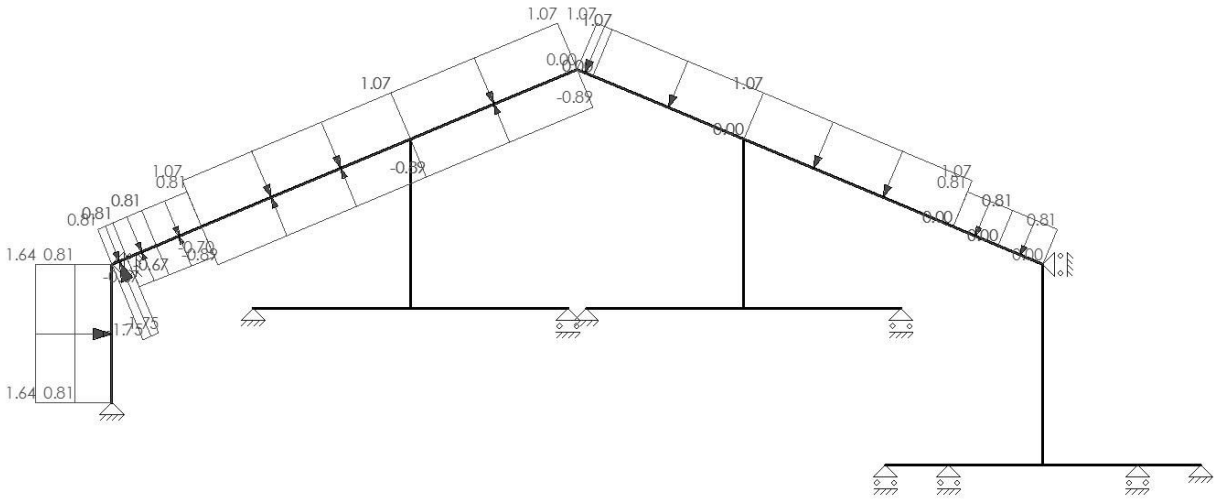

## B.G.15: WINDBELASTING VAN LINKS + ONDERDRUK (2E CPE) (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting Staaf of knoop |
|---|---|---|---|---|---|
| **B.G.15: Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor)** | | | | | |
| q | 1,64 (q45) | 1,64 (q45) | 0,000 | 4,400(L) | Z' S9 |
| q | 0,81 (-q41) | 0,81 (-q41) | 0,000 | 4,400(L) | Z' S9 |
| q | 1,24 (q46) | 1,24 (q46) | 0,000 | 0,542 | Z' S10 |
| q | 0,81 (-q41) | 0,81 (-q41) | 0,000 | 0,542 | Z' S10 |
| q | 0,82 (q47) | 0,82 (q47) | 0,542 | 1,553 | Z' S10 |
| q | 0,81 (-q41) | 0,81 (-q41) | 0,542 | 1,553 | Z' S10 |
| q | 1,09 (q48) | 1,09 (q48) | 3,106 | 10,300(L) | Z' S10 |
| q | 1,07 (-q43) | 1,07 (-q43) | 3,106 | 10,300(L) | Z' S10 |
| q | 0,82 (q47) | 0,86 (q49) | 1,553 | 3,106 | Z' S10 |
| q | 0,81 (-q41) | 0,81 (-q41) | 1,553 | 3,106 | Z' S10 |
| q | 1,09 (q48) | 1,09 (q48) | 0,000 | 5,746(L) | Z' S12 |
| q | 1,07 (-q43) | 1,07 (-q43) | 0,000 | 5,746(L) | Z' S12 |
| q | 0,00 (q50) | 0,00 (q50) | 0,000 | 0,542 | Z' S14 |
| q | 1,07 (-q43) | 1,07 (-q43) | 0,000 | 0,542 | Z' S14 |
| q | 0,00 (q51) | 0,00 (q51) | 0,542 | 5,746(L) | Z' S14 |
| q | 1,07 (-q43) | 1,07 (-q43) | 0,542 | 5,746(L) | Z' S14 |
| q | 0,00 (q52) | 0,00 (q52) | 8,747 | 10,300(L) | Z' S16 |
| q | 0,81 (-q41) | 0,81 (-q41) | 8,747 | 10,300(L) | Z' S16 |
| q | 0,00 (q51) | 0,00 (q51) | 0,000 | 7,194 | Z' S16 |
| q | 1,07 (-q43) | 1,07 (-q43) | 0,000 | 7,194 | Z' S16 |
| q | 0,00 (q53) | 0,00 (q52) | 7,194 | 8,747 | Z' S16 |
| q | 0,81 (-q41) | 0,81 (-q41) | 7,194 | 8,747 | Z' S16 |
| **Som lasten** | **X: 17,28** | **kN Z: 45,83** | **kN** | | |
| **-** | **-** | **-** | **m** | **m** | **- -** |



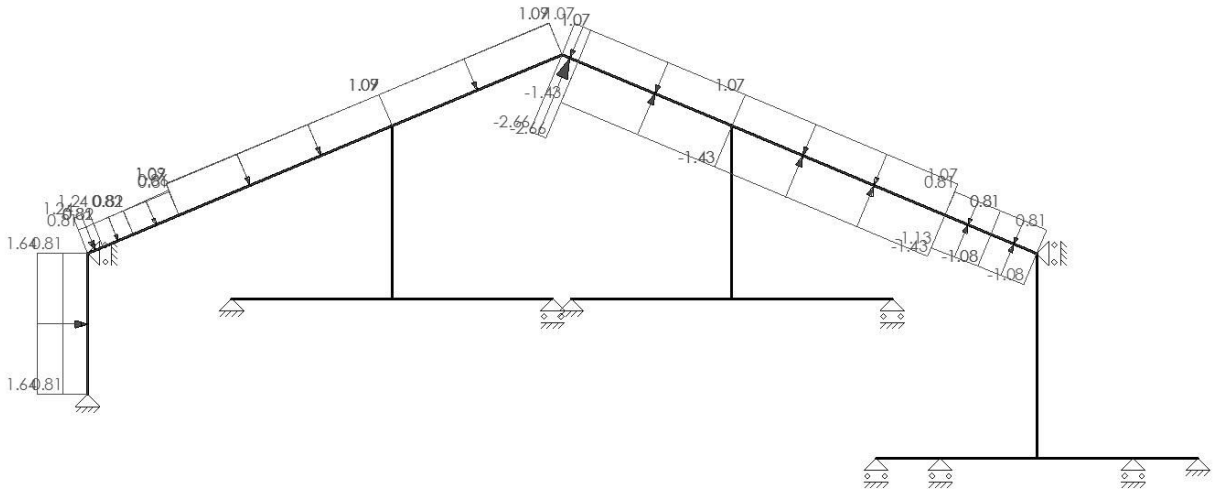

## B.G.16: WINDBELASTING VAN LINKS + ONDERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE) (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.16: Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor)** | | | | | | |
| q | 1,64 (q32) | 1,64 (q32) | 0,000 | 4,400(L) | | Z' S9 |
| q | 0,81 (-q28) | 0,81 (-q28) | 0,000 | 4,400(L) | | Z' S9 |
| q | -1,75 (q33) | -1,75 (q33) | 0,000 | 0,542 | | Z' S10 |
| q | 0,81 (-q28) | 0,81 (-q28) | 0,000 | 0,542 | | Z' S10 |
| q | -0,67 (q34) | -0,67 (q34) | 0,542 | 1,553 | | Z' S10 |
| q | 0,81 (-q28) | 0,81 (-q28) | 0,542 | 1,553 | | Z' S10 |
| q | -0,89 (q35) | -0,89 (q35) | 3,106 | 10,300(L) | | Z' S10 |
| q | 1,07 (-q30) | 1,07 (-q30) | 3,106 | 10,300(L) | | Z' S10 |
| q | -0,67 (q34) | -0,70 (q36) | 1,553 | 3,106 | | Z' S10 |
| q | 0,81 (-q28) | 0,81 (-q28) | 1,553 | 3,106 | | Z' S10 |
| q | -0,89 (q35) | -0,89 (q35) | 0,000 | 5,746(L) | | Z' S12 |
| q | 1,07 (-q30) | 1,07 (-q30) | 0,000 | 5,746(L) | | Z' S12 |
| q | 0,00 (q50) | 0,00 (q50) | 0,000 | 0,542 | | Z' S14 |
| q | 1,07 (-q30) | 1,07 (-q30) | 0,000 | 0,542 | | Z' S14 |
| q | 0,00 (q51) | 0,00 (q51) | 0,542 | 5,746(L) | | Z' S14 |
| q | 1,07 (-q30) | 1,07 (-q30) | 0,542 | 5,746(L) | | Z' S14 |
| q | 0,00 (q52) | 0,00 (q52) | 8,747 | 10,300(L) | | Z' S16 |
| q | 0,81 (-q28) | 0,81 (-q28) | 8,747 | 10,300(L) | | Z' S16 |
| q | 0,00 (q51) | 0,00 (q51) | 0,000 | 7,194 | | Z' S16 |
| q | 1,07 (-q30) | 1,07 (-q30) | 0,000 | 7,194 | | Z' S16 |
| q | 0,00 (q53) | 0,00 (q52) | 7,194 | 8,747 | | Z' S16 |
| q | 0,81 (-q28) | 0,81 (-q28) | 7,194 | 8,747 | | Z' S16 |
| **Som lasten** | **X: 5,28** | **kN Z: 17,19** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | | **- -** |



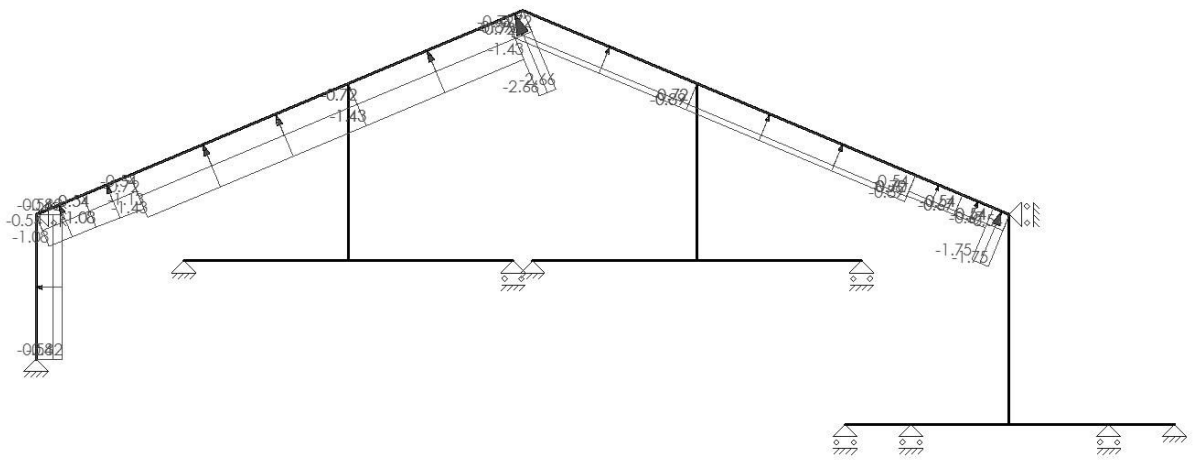

## B.G.17: WINDBELASTING VAN LINKS + ONDERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE) (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting Staaf of knoop |
|---|---|---|---|---|---|
| **B.G.17: Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor)** | | | | | |
| q | 1,64 (q32) | 1,64 (q32) | 0,000 | 4,400(L) | Z' S9 |
| q | 0,81 (-q28) | 0,81 (-q28) | 0,000 | 4,400(L) | Z' S9 |
| q | 1,24 (q46) | 1,24 (q46) | 0,000 | 0,542 | Z' S10 |
| q | 0,81 (-q28) | 0,81 (-q28) | 0,000 | 0,542 | Z' S10 |
| q | 0,82 (q47) | 0,82 (q47) | 0,542 | 1,553 | Z' S10 |
| q | 0,81 (-q28) | 0,81 (-q28) | 0,542 | 1,553 | Z' S10 |
| q | 1,09 (q48) | 1,09 (q48) | 3,106 | 10,300(L) | Z' S10 |
| q | 1,07 (-q30) | 1,07 (-q30) | 3,106 | 10,300(L) | Z' S10 |
| q | 0,82 (q47) | 0,86 (q49) | 1,553 | 3,106 | Z' S10 |
| q | 0,81 (-q28) | 0,81 (-q28) | 1,553 | 3,106 | Z' S10 |
| q | 1,09 (q48) | 1,09 (q48) | 0,000 | 5,746(L) | Z' S12 |
| q | 1,07 (-q30) | 1,07 (-q30) | 0,000 | 5,746(L) | Z' S12 |
| q | -2,66 (q37) | -2,66 (q37) | 0,000 | 0,542 | Z' S14 |
| q | 1,07 (-q30) | 1,07 (-q30) | 0,000 | 0,542 | Z' S14 |
| q | -1,43 (q38) | -1,43 (q38) | 0,542 | 5,746(L) | Z' S14 |
| q | 1,07 (-q30) | 1,07 (-q30) | 0,542 | 5,746(L) | Z' S14 |
| q | -1,08 (q39) | -1,08 (q39) | 8,747 | 10,300(L) | Z' S16 |
| q | 0,81 (-q28) | 0,81 (-q28) | 8,747 | 10,300(L) | Z' S16 |
| q | -1,43 (q38) | -1,43 (q38) | 0,000 | 7,194 | Z' S16 |
| q | 1,07 (-q30) | 1,07 (-q30) | 0,000 | 7,194 | Z' S16 |
| q | -1,13 (q40) | -1,08 (q39) | 7,194 | 8,747 | Z' S16 |
| q | 0,81 (-q28) | 0,81 (-q28) | 7,194 | 8,747 | Z' S16 |
| **Som lasten** | **X: 26,01** | **kN Z: 24,99** | **kN** | | |
| **-** | **-** | **-** | **m** | **m** | **- -** |



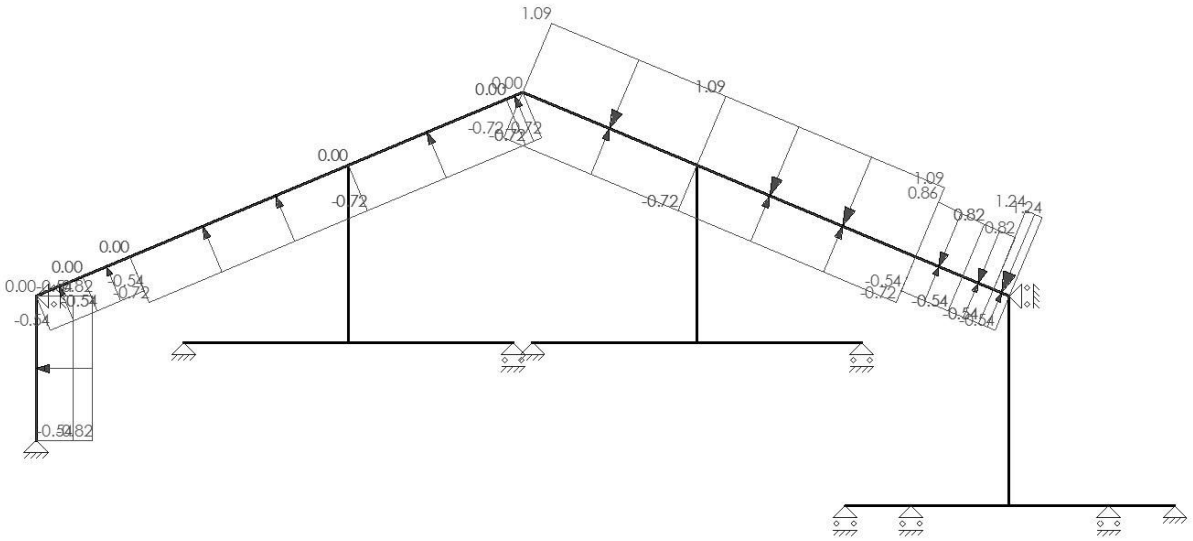

## B.G.18: WINDBELASTING VAN RECHTS + OVERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting Staaf of knoop |
|---|---|---|---|---|---|
| **B.G.18: Windbelasting van Rechts + Overdruk** | | | | | |
| q | -0,82 (q58) | -0,82 (q58) | 0,000 | 4,400(L) | Z' S9 |
| q | -0,54 (-q54) | -0,54 (-q54) | 0,000 | 4,400(L) | Z' S9 |
| q | -1,08 (q60) | -1,08 (q60) | 0,000 | 1,553 | Z' S10 |
| q | -0,54 (-q54) | -0,54 (-q54) | 0,000 | 1,553 | Z' S10 |
| q | -1,43 (q61) | -1,43 (q61) | 3,106 | 10,300(L) | Z' S10 |
| q | -0,72 (-q56) | -0,72 (-q56) | 3,106 | 10,300(L) | Z' S10 |
| q | -1,08 (q60) | -1,13 (q62) | 1,553 | 3,106 | Z' S10 |
| q | -0,54 (-q54) | -0,54 (-q54) | 1,553 | 3,106 | Z' S10 |
| q | -1,43 (q61) | -1,43 (q61) | 0,000 | 5,204 | Z' S12 |
| q | -0,72 (-q56) | -0,72 (-q56) | 0,000 | 5,204 | Z' S12 |
| q | -2,66 (q63) | -2,66 (q63) | 5,204 | 5,746(L) | Z' S12 |
| q | -0,72 (-q56) | -0,72 (-q56) | 5,204 | 5,746(L) | Z' S12 |
| q | -0,89 (q64) | -0,89 (q64) | 0,000 | 5,746(L) | Z' S14 |
| q | -0,72 (-q56) | -0,72 (-q56) | 0,000 | 5,746(L) | Z' S14 |
| q | -0,67 (q65) | -0,67 (q65) | 8,747 | 9,758 | Z' S16 |
| q | -0,54 (-q54) | -0,54 (-q54) | 8,747 | 9,758 | Z' S16 |
| q | -1,75 (q66) | -1,75 (q66) | 9,758 | 10,300(L) | Z' S16 |
| q | -0,54 (-q54) | -0,54 (-q54) | 9,758 | 10,300(L) | Z' S16 |
| q | -0,89 (q64) | -0,89 (q64) | 0,000 | 7,194 | Z' S16 |
| q | -0,72 (-q56) | -0,72 (-q56) | 0,000 | 7,194 | Z' S16 |
| q | -0,70 (q67) | -0,67 (q65) | 7,194 | 8,747 | Z' S16 |
| q | -0,54 (-q54) | -0,54 (-q54) | 7,194 | 8,747 | Z' S16 |
| **Som lasten** | **X: -9,25** | **kN Z: -54,14** | **kN** | | |
| **-** | **-** | **-** | **m** | **m** | **- -** |



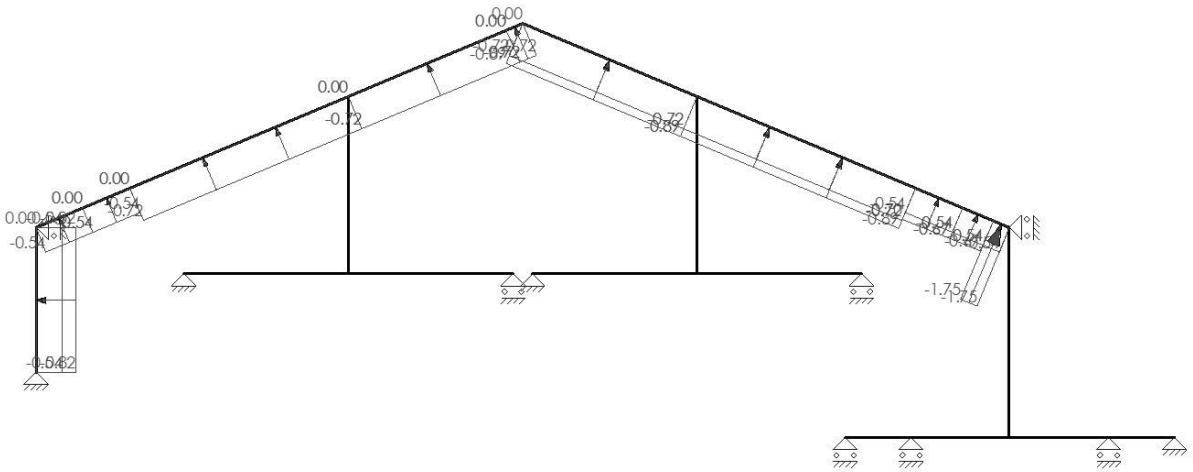

## B.G.19: WINDBELASTING VAN RECHTS + OVERDRUK (2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting Staaf of knoop |
|---|---|---|---|---|---|
| **B.G.19: Windbelasting van Rechts + Overdruk (2e Cpe)** | | | | | |
| q | -0,82 (q72) | -0,82 (q72) | 0,000 | 4,400(L) | Z' S9 |
| q | -0,54 (-q68) | -0,54 (-q68) | 0,000 | 4,400(L) | Z' S9 |
| q | 0,00 (q74) | 0,00 (q74) | 0,000 | 1,553 | Z' S10 |
| q | -0,54 (-q68) | -0,54 (-q68) | 0,000 | 1,553 | Z' S10 |
| q | 0,00 (q75) | 0,00 (q75) | 3,106 | 10,300(L) | Z' S10 |
| q | -0,72 (-q70) | -0,72 (-q70) | 3,106 | 10,300(L) | Z' S10 |
| q | 0,00 (q74) | 0,00 (q76) | 1,553 | 3,106 | Z' S10 |
| q | -0,54 (-q68) | -0,54 (-q68) | 1,553 | 3,106 | Z' S10 |
| q | 0,00 (q75) | 0,00 (q75) | 0,000 | 5,204 | Z' S12 |
| q | -0,72 (-q70) | -0,72 (-q70) | 0,000 | 5,204 | Z' S12 |
| q | 0,00 (q77) | 0,00 (q77) | 5,204 | 5,746(L) | Z' S12 |
| q | -0,72 (-q70) | -0,72 (-q70) | 5,204 | 5,746(L) | Z' S12 |
| q | 1,09 (q78) | 1,09 (q78) | 0,000 | 5,746(L) | Z' S14 |
| q | -0,72 (-q70) | -0,72 (-q70) | 0,000 | 5,746(L) | Z' S14 |
| q | 0,82 (q79) | 0,82 (q79) | 8,747 | 9,758 | Z' S16 |
| q | -0,54 (-q68) | -0,54 (-q68) | 8,747 | 9,758 | Z' S16 |
| q | 1,24 (q80) | 1,24 (q80) | 9,758 | 10,300(L) | Z' S16 |
| q | -0,54 (-q68) | -0,54 (-q68) | 9,758 | 10,300(L) | Z' S16 |
| q | 1,09 (q78) | 1,09 (q78) | 0,000 | 7,194 | Z' S16 |
| q | -0,72 (-q70) | -0,72 (-q70) | 0,000 | 7,194 | Z' S16 |
| q | 0,86 (q81) | 0,82 (q79) | 7,194 | 8,747 | Z' S16 |
| q | -0,54 (-q68) | -0,54 (-q68) | 7,194 | 8,747 | Z' S16 |
| **Som lasten** | **X: -12,52** | **kN Z: -4,66** | **kN** | | |
| **-** | **-** | **-** | **m** | **m** | **- -** |



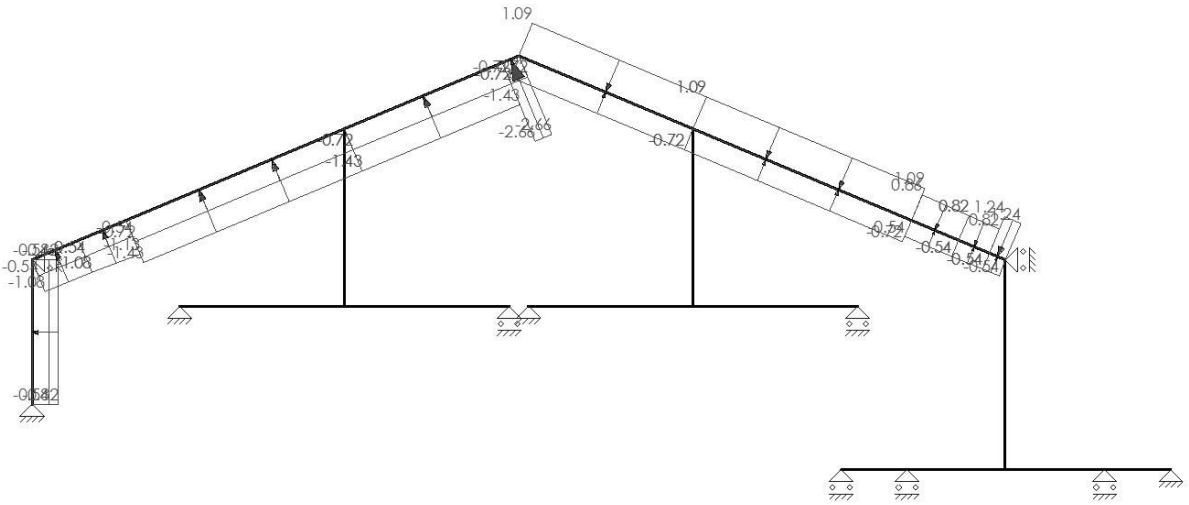

## B.G.20: WINDBELASTING VAN RECHTS + OVERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting Staaf of knoop |
|---|---|---|---|---|---|
| **B.G.20: Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe)** | | | | | |
| q | -0,82 (q58) | -0,82 (q58) | 0,000 | 4,400(L) | Z' S9 |
| q | -0,54 (-q54) | -0,54 (-q54) | 0,000 | 4,400(L) | Z' S9 |
| q | 0,00 (q74) | 0,00 (q74) | 0,000 | 1,553 | Z' S10 |
| q | -0,54 (-q54) | -0,54 (-q54) | 0,000 | 1,553 | Z' S10 |
| q | 0,00 (q75) | 0,00 (q75) | 3,106 | 10,300(L) | Z' S10 |
| q | -0,72 (-q56) | -0,72 (-q56) | 3,106 | 10,300(L) | Z' S10 |
| q | 0,00 (q74) | 0,00 (q76) | 1,553 | 3,106 | Z' S10 |
| q | -0,54 (-q54) | -0,54 (-q54) | 1,553 | 3,106 | Z' S10 |
| q | 0,00 (q75) | 0,00 (q75) | 0,000 | 5,204 | Z' S12 |
| q | -0,72 (-q56) | -0,72 (-q56) | 0,000 | 5,204 | Z' S12 |
| q | 0,00 (q77) | 0,00 (q77) | 5,204 | 5,746(L) | Z' S12 |
| q | -0,72 (-q56) | -0,72 (-q56) | 5,204 | 5,746(L) | Z' S12 |
| q | -0,89 (q64) | -0,89 (q64) | 0,000 | 5,746(L) | Z' S14 |
| q | -0,72 (-q56) | -0,72 (-q56) | 0,000 | 5,746(L) | Z' S14 |
| q | -0,67 (q65) | -0,67 (q65) | 8,747 | 9,758 | Z' S16 |
| q | -0,54 (-q54) | -0,54 (-q54) | 8,747 | 9,758 | Z' S16 |
| q | -1,75 (q66) | -1,75 (q66) | 9,758 | 10,300(L) | Z' S16 |
| q | -0,54 (-q54) | -0,54 (-q54) | 9,758 | 10,300(L) | Z' S16 |
| q | -0,89 (q64) | -0,89 (q64) | 0,000 | 7,194 | Z' S16 |
| q | -0,72 (-q56) | -0,72 (-q56) | 0,000 | 7,194 | Z' S16 |
| q | -0,70 (q67) | -0,67 (q65) | 7,194 | 8,747 | Z' S16 |
| q | -0,54 (-q54) | -0,54 (-q54) | 7,194 | 8,747 | Z' S16 |
| **Som lasten** | **X: -0,52** | **kN Z: -33,30** | **kN** | | |
| **-** | **-** | **-** | **m** | **m** | **- -** |



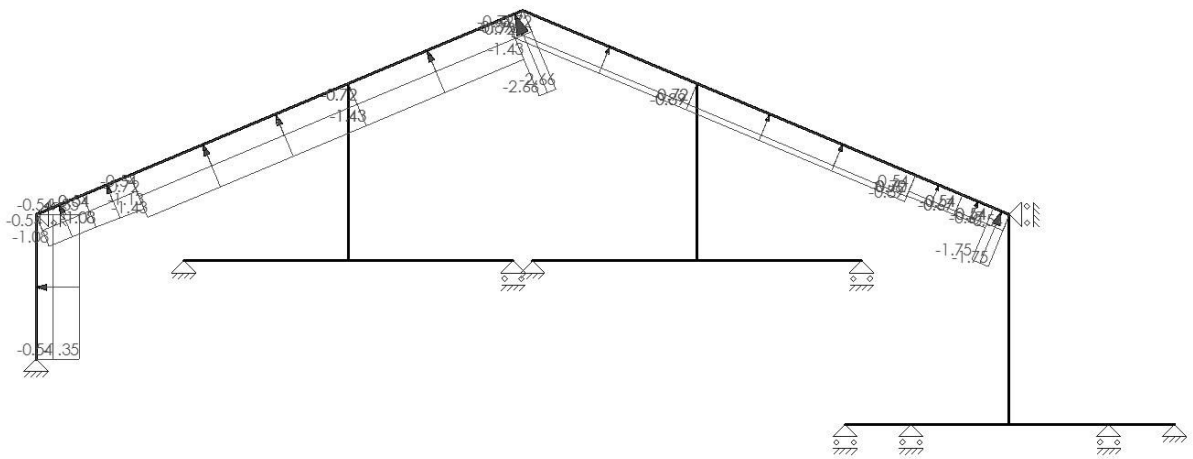
## B.G.21: WINDBELASTING VAN RECHTS + OVERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting Staaf of knoop |
|---|---|---|---|---|---|
| **B.G.21: Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe)** | | | | | |
| q | -0,82 (q58) | -0,82 (q58) | 0,000 | 4,400(L) | Z' S9 |
| q | -0,54 (-q54) | -0,54 (-q54) | 0,000 | 4,400(L) | Z' S9 |
| q | -1,08 (q60) | -1,08 (q60) | 0,000 | 1,553 | Z' S10 |
| q | -0,54 (-q54) | -0,54 (-q54) | 0,000 | 1,553 | Z' S10 |
| q | -1,43 (q61) | -1,43 (q61) | 3,106 | 10,300(L) | Z' S10 |
| q | -0,72 (-q56) | -0,72 (-q56) | 3,106 | 10,300(L) | Z' S10 |
| q | -1,08 (q60) | -1,13 (q62) | 1,553 | 3,106 | Z' S10 |
| q | -0,54 (-q54) | -0,54 (-q54) | 1,553 | 3,106 | Z' S10 |
| q | -1,43 (q61) | -1,43 (q61) | 0,000 | 5,204 | Z' S12 |
| q | -0,72 (-q56) | -0,72 (-q56) | 0,000 | 5,204 | Z' S12 |
| q | -2,66 (q63) | -2,66 (q63) | 5,204 | 5,746(L) | Z' S12 |
| q | -0,72 (-q56) | -0,72 (-q56) | 5,204 | 5,746(L) | Z' S12 |
| q | 1,09 (q78) | 1,09 (q78) | 0,000 | 5,746(L) | Z' S14 |
| q | -0,72 (-q56) | -0,72 (-q56) | 0,000 | 5,746(L) | Z' S14 |
| q | 0,82 (q79) | 0,82 (q79) | 8,747 | 9,758 | Z' S16 |
| q | -0,54 (-q54) | -0,54 (-q54) | 8,747 | 9,758 | Z' S16 |
| q | 1,24 (q80) | 1,24 (q80) | 9,758 | 10,300(L) | Z' S16 |
| q | -0,54 (-q54) | -0,54 (-q54) | 9,758 | 10,300(L) | Z' S16 |
| q | 1,09 (q78) | 1,09 (q78) | 0,000 | 7,194 | Z' S16 |
| q | -0,72 (-q56) | -0,72 (-q56) | 0,000 | 7,194 | Z' S16 |
| q | 0,86 (q81) | 0,82 (q79) | 7,194 | 8,747 | Z' S16 |
| q | -0,54 (-q54) | -0,54 (-q54) | 7,194 | 8,747 | Z' S16 |
| **Som lasten** | **X: -21,25** | **kN Z: -25,50** | **kN** | | |
| **-** | **-** | **-** | **m** | **m** | **- -** |



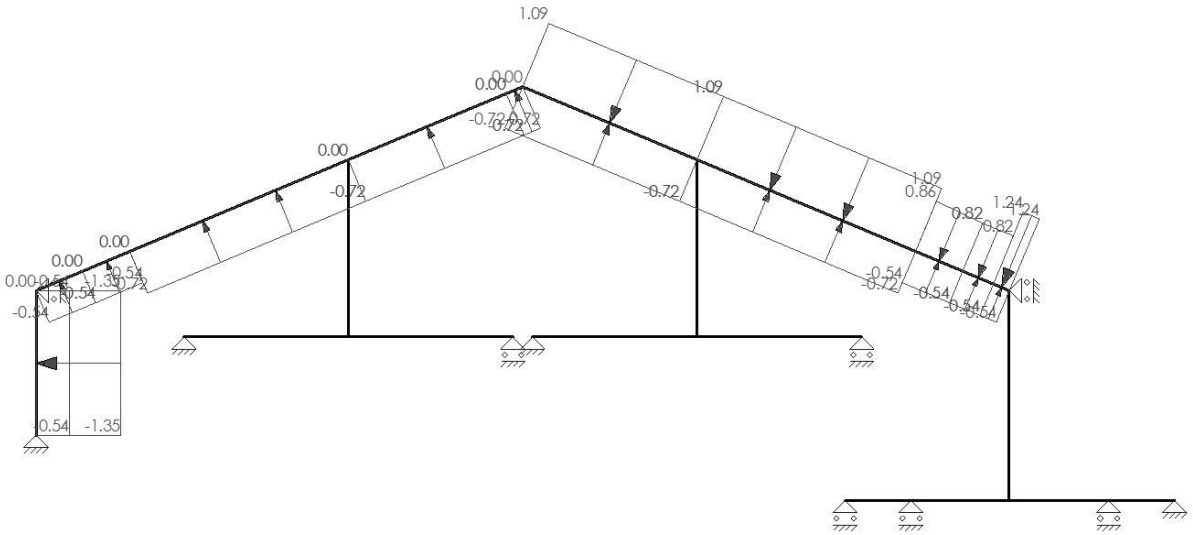

## B.G.22: WINDBELASTING VAN RECHTS + OVERDRUK (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting Staaf of knoop |
|---|---|---|---|---|---|
| **B.G.22: Windbelasting van Rechts + Overdruk (2e corr. factor)** | | | | | |
| q | -1,35 (q57) | -1,35 (q57) | 0,000 | 4,400(L) | Z' S9 |
| q | -0,54 (-q54) | -0,54 (-q54) | 0,000 | 4,400(L) | Z' S9 |
| q | -1,08 (q60) | -1,08 (q60) | 0,000 | 1,553 | Z' S10 |
| q | -0,54 (-q54) | -0,54 (-q54) | 0,000 | 1,553 | Z' S10 |
| q | -1,43 (q61) | -1,43 (q61) | 3,106 | 10,300(L) | Z' S10 |
| q | -0,72 (-q56) | -0,72 (-q56) | 3,106 | 10,300(L) | Z' S10 |
| q | -1,08 (q60) | -1,13 (q62) | 1,553 | 3,106 | Z' S10 |
| q | -0,54 (-q54) | -0,54 (-q54) | 1,553 | 3,106 | Z' S10 |
| q | -1,43 (q61) | -1,43 (q61) | 0,000 | 5,204 | Z' S12 |
| q | -0,72 (-q56) | -0,72 (-q56) | 0,000 | 5,204 | Z' S12 |
| q | -2,66 (q63) | -2,66 (q63) | 5,204 | 5,746(L) | Z' S12 |
| q | -0,72 (-q56) | -0,72 (-q56) | 5,204 | 5,746(L) | Z' S12 |
| q | -0,89 (q64) | -0,89 (q64) | 0,000 | 5,746(L) | Z' S14 |
| q | -0,72 (-q56) | -0,72 (-q56) | 0,000 | 5,746(L) | Z' S14 |
| q | -0,67 (q65) | -0,67 (q65) | 8,747 | 9,758 | Z' S16 |
| q | -0,54 (-q54) | -0,54 (-q54) | 8,747 | 9,758 | Z' S16 |
| q | -1,75 (q66) | -1,75 (q66) | 9,758 | 10,300(L) | Z' S16 |
| q | -0,54 (-q54) | -0,54 (-q54) | 9,758 | 10,300(L) | Z' S16 |
| q | -0,89 (q64) | -0,89 (q64) | 0,000 | 7,194 | Z' S16 |
| q | -0,72 (-q56) | -0,72 (-q56) | 0,000 | 7,194 | Z' S16 |
| q | -0,70 (q67) | -0,67 (q65) | 7,194 | 8,747 | Z' S16 |
| q | -0,54 (-q54) | -0,54 (-q54) | 7,194 | 8,747 | Z' S16 |
| **Som lasten** | **X: -11,57** | **kN Z: -54,14** | **kN** | | |
| **-** | **-** | **-** | **m** | **m** | **- -** |



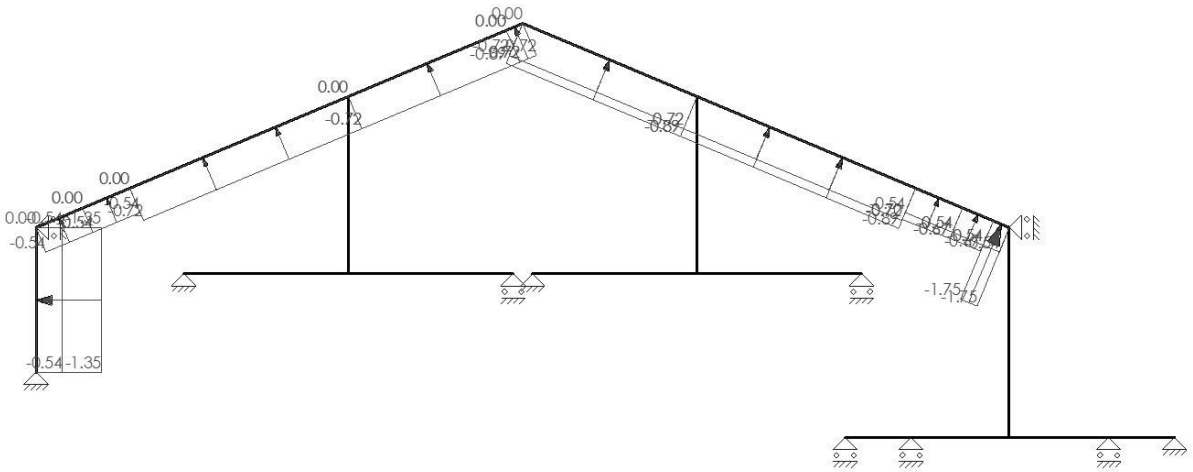
## B.G.23: WINDBELASTING VAN RECHTS + OVERDRUK (2E CPE) (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting Staaf of knoop |
|---|---|---|---|---|---|
| **B.G.23: Windbelasting van Rechts + Overdruk (2e Cpe) (2e corr. factor)** | | | | | |
| q | -1,35 (q71) | -1,35 (q71) | 0,000 | 4,400(L) | Z' S9 |
| q | -0,54 (-q68) | -0,54 (-q68) | 0,000 | 4,400(L) | Z' S9 |
| q | 0,00 (q74) | 0,00 (q74) | 0,000 | 1,553 | Z' S10 |
| q | -0,54 (-q68) | -0,54 (-q68) | 0,000 | 1,553 | Z' S10 |
| q | 0,00 (q75) | 0,00 (q75) | 3,106 | 10,300(L) | Z' S10 |
| q | -0,72 (-q70) | -0,72 (-q70) | 3,106 | 10,300(L) | Z' S10 |
| q | 0,00 (q74) | 0,00 (q76) | 1,553 | 3,106 | Z' S10 |
| q | -0,54 (-q68) | -0,54 (-q68) | 1,553 | 3,106 | Z' S10 |
| q | 0,00 (q75) | 0,00 (q75) | 0,000 | 5,204 | Z' S12 |
| q | -0,72 (-q70) | -0,72 (-q70) | 0,000 | 5,204 | Z' S12 |
| q | 0,00 (q77) | 0,00 (q77) | 5,204 | 5,746(L) | Z' S12 |
| q | -0,72 (-q70) | -0,72 (-q70) | 5,204 | 5,746(L) | Z' S12 |
| q | 1,09 (q78) | 1,09 (q78) | 0,000 | 5,746(L) | Z' S14 |
| q | -0,72 (-q70) | -0,72 (-q70) | 0,000 | 5,746(L) | Z' S14 |
| q | 0,82 (q79) | 0,82 (q79) | 8,747 | 9,758 | Z' S16 |
| q | -0,54 (-q68) | -0,54 (-q68) | 8,747 | 9,758 | Z' S16 |
| q | 1,24 (q80) | 1,24 (q80) | 9,758 | 10,300(L) | Z' S16 |
| q | -0,54 (-q68) | -0,54 (-q68) | 9,758 | 10,300(L) | Z' S16 |
| q | 1,09 (q78) | 1,09 (q78) | 0,000 | 7,194 | Z' S16 |
| q | -0,72 (-q70) | -0,72 (-q70) | 0,000 | 7,194 | Z' S16 |
| q | 0,86 (q81) | 0,82 (q79) | 7,194 | 8,747 | Z' S16 |
| q | -0,54 (-q68) | -0,54 (-q68) | 7,194 | 8,747 | Z' S16 |
| **Som lasten** | **X: -14,84** | **kN Z: -4,66** | **kN** | | |
| **-** | **-** | **-** | **m** | **m** | **- -** |



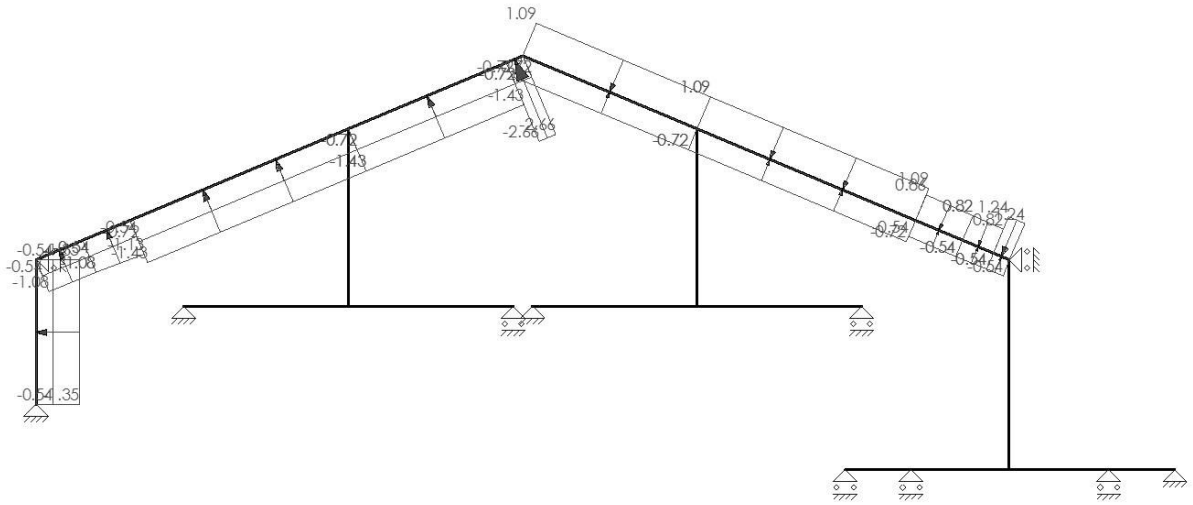

## B.G.24: WINDBELASTING VAN RECHTS + OVERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE) (2E CORR. FACTOR)

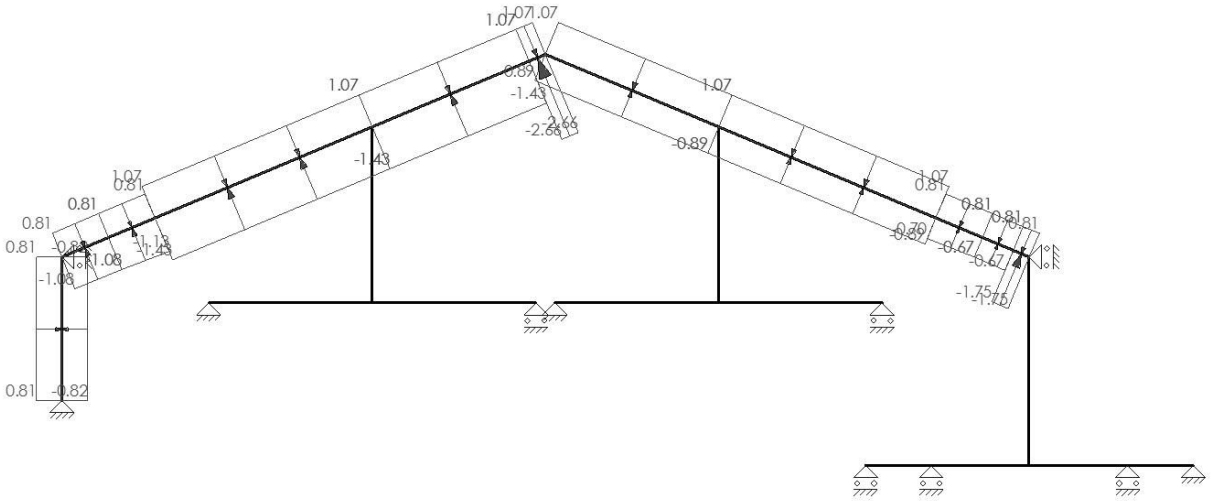
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.24: Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor)** | | | | | | |
| q | -1,35 (q57) | -1,35 (q57) | 0,000 | 4,400(L) | Z' | S9 |
| q | -0,54 (-q54) | -0,54 (-q54) | 0,000 | 4,400(L) | Z' | S9 |
| q | 0,00 (q74) | 0,00 (q74) | 0,000 | 1,553 | Z' | S10 |
| q | -0,54 (-q54) | -0,54 (-q54) | 0,000 | 1,553 | Z' | S10 |
| q | 0,00 (q75) | 0,00 (q75) | 3,106 | 10,300(L) | Z' | S10 |
| q | -0,72 (-q56) | -0,72 (-q56) | 3,106 | 10,300(L) | Z' | S10 |
| q | 0,00 (q74) | 0,00 (q76) | 1,553 | 3,106 | Z' | S10 |
| q | -0,54 (-q54) | -0,54 (-q54) | 1,553 | 3,106 | Z' | S10 |
| q | 0,00 (q75) | 0,00 (q75) | 0,000 | 5,204 | Z' | S12 |
| q | -0,72 (-q56) | -0,72 (-q56) | 0,000 | 5,204 | Z' | S12 |
| q | 0,00 (q77) | 0,00 (q77) | 5,204 | 5,746(L) | Z' | S12 |
| q | -0,72 (-q56) | -0,72 (-q56) | 5,204 | 5,746(L) | Z' | S12 |
| q | -0,89 (q64) | -0,89 (q64) | 0,000 | 5,746(L) | Z' | S14 |
| q | -0,72 (-q56) | -0,72 (-q56) | 0,000 | 5,746(L) | Z' | S14 |
| q | -0,67 (q65) | -0,67 (q65) | 8,747 | 9,758 | Z' | S16 |
| q | -0,54 (-q54) | -0,54 (-q54) | 8,747 | 9,758 | Z' | S16 |
| q | -1,75 (q66) | -1,75 (q66) | 9,758 | 10,300(L) | Z' | S16 |
| q | -0,54 (-q54) | -0,54 (-q54) | 9,758 | 10,300(L) | Z' | S16 |
| q | -0,89 (q64) | -0,89 (q64) | 0,000 | 7,194 | Z' | S16 |
| q | -0,72 (-q56) | -0,72 (-q56) | 0,000 | 7,194 | Z' | S16 |
| q | -0,70 (q67) | -0,67 (q65) | 7,194 | 8,747 | Z' | S16 |
| q | -0,54 (-q54) | -0,54 (-q54) | 7,194 | 8,747 | Z' | S16 |
| **Som lasten** | **X: -2,84** | **kN Z: -33,30** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |




## B.G.25: WINDBELASTING VAN RECHTS + OVERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE) (2E CORR. FACTOR)

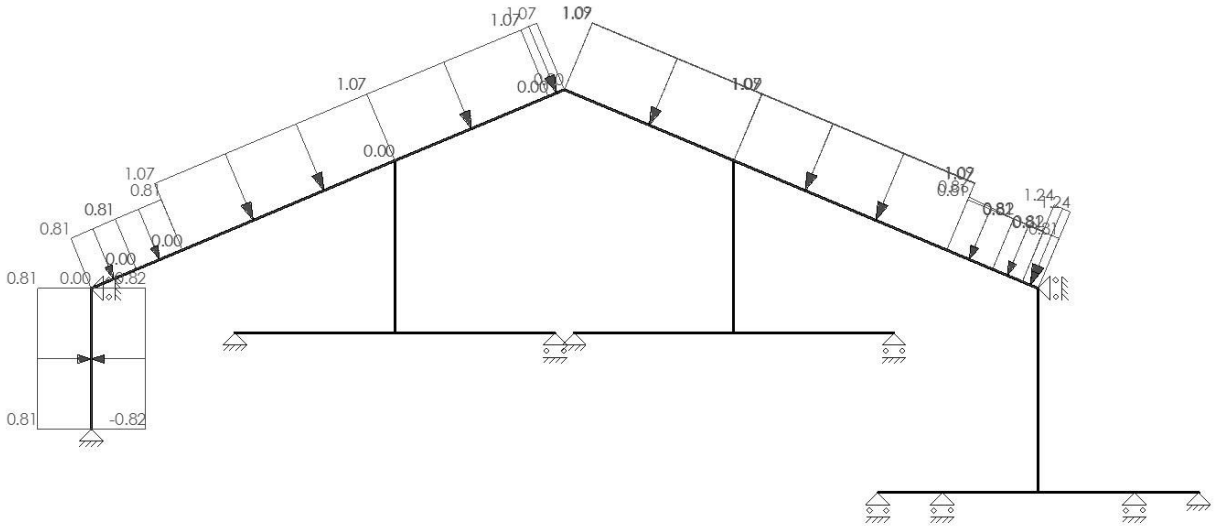
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting Staaf of knoop |
|---|---|---|---|---|---|
| **B.G.25: Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor)** | | | | | |
| q | -1,35 (q57) | -1,35 (q57) | 0,000 | 4,400(L) | Z' S9 |
| q | -0,54 (-q54) | -0,54 (-q54) | 0,000 | 4,400(L) | Z' S9 |
| q | -1,08 (q60) | -1,08 (q60) | 0,000 | 1,553 | Z' S10 |
| q | -0,54 (-q54) | -0,54 (-q54) | 0,000 | 1,553 | Z' S10 |
| q | -1,43 (q61) | -1,43 (q61) | 3,106 | 10,300(L) | Z' S10 |
| q | -0,72 (-q56) | -0,72 (-q56) | 3,106 | 10,300(L) | Z' S10 |
| q | -1,08 (q60) | -1,13 (q62) | 1,553 | 3,106 | Z' S10 |
| q | -0,54 (-q54) | -0,54 (-q54) | 1,553 | 3,106 | Z' S10 |
| q | -1,43 (q61) | -1,43 (q61) | 0,000 | 5,204 | Z' S12 |
| q | -0,72 (-q56) | -0,72 (-q56) | 0,000 | 5,204 | Z' S12 |
| q | -2,66 (q63) | -2,66 (q63) | 5,204 | 5,746(L) | Z' S12 |
| q | -0,72 (-q56) | -0,72 (-q56) | 5,204 | 5,746(L) | Z' S12 |
| q | 1,09 (q78) | 1,09 (q78) | 0,000 | 5,746(L) | Z' S14 |
| q | -0,72 (-q56) | -0,72 (-q56) | 0,000 | 5,746(L) | Z' S14 |
| q | 0,82 (q79) | 0,82 (q79) | 8,747 | 9,758 | Z' S16 |
| q | -0,54 (-q54) | -0,54 (-q54) | 8,747 | 9,758 | Z' S16 |
| q | 1,24 (q80) | 1,24 (q80) | 9,758 | 10,300(L) | Z' S16 |
| q | -0,54 (-q54) | -0,54 (-q54) | 9,758 | 10,300(L) | Z' S16 |
| q | 1,09 (q78) | 1,09 (q78) | 0,000 | 7,194 | Z' S16 |
| q | -0,72 (-q56) | -0,72 (-q56) | 0,000 | 7,194 | Z' S16 |
| q | 0,86 (q81) | 0,82 (q79) | 7,194 | 8,747 | Z' S16 |
| q | -0,54 (-q54) | -0,54 (-q54) | 7,194 | 8,747 | Z' S16 |
| **Som lasten** | **X: -23,57** | **kN Z: -25,50** | **kN** | | |
| **-** | **-** | **-** | **m** | **m** | **- -** |


1.09
1.09
-1.43
-2.66
-0.72
-1.43
-0.72
0.82
1.24
-0.54
-0.54
-0.54



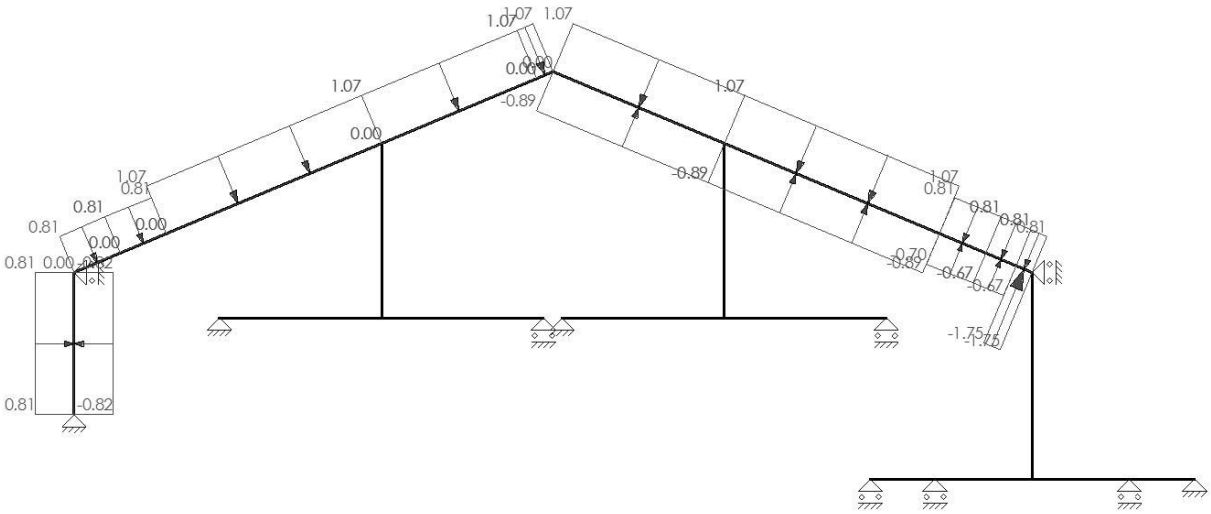

## B.G.27: WINDBELASTING VAN RECHTS + ONDERDRUK (2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting Staaf of knoop |
|---|---|---|---|---|---|
| **B.G.27: Windbelasting van Rechts + Onderdruk (2e Cpe)** | | | | | |
| q | -0,82 (q100) | -0,82 (q100) | 0,000 | 4,400(L) | Z' S9 |
| q | 0,81 (-q96) | 0,81 (-q96) | 0,000 | 4,400(L) | Z' S9 |
| q | 0,00 (q102) | 0,00 (q102) | 0,000 | 1,553 | Z' S10 |
| q | 0,81 (-q96) | 0,81 (-q96) | 0,000 | 1,553 | Z' S10 |
| q | 0,00 (q103) | 0,00 (q103) | 3,106 | 10,300(L) | Z' S10 |
| q | 1,07 (-q98) | 1,07 (-q98) | 3,106 | 10,300(L) | Z' S10 |
| q | 0,00 (q102) | 0,00 (q104) | 1,553 | 3,106 | Z' S10 |
| q | 0,81 (-q96) | 0,81 (-q96) | 1,553 | 3,106 | Z' S10 |
| q | 0,00 (q103) | 0,00 (q103) | 0,000 | 5,204 | Z' S12 |
| q | 1,07 (-q98) | 1,07 (-q98) | 0,000 | 5,204 | Z' S12 |
| q | 0,00 (q105) | 0,00 (q105) | 5,204 | 5,746(L) | Z' S12 |
| q | 1,07 (-q98) | 1,07 (-q98) | 5,204 | 5,746(L) | Z' S12 |
| q | 1,09 (q106) | 1,09 (q106) | 0,000 | 5,746(L) | Z' S14 |
| q | 1,07 (-q98) | 1,07 (-q98) | 0,000 | 5,746(L) | Z' S14 |
| q | 0,82 (q107) | 0,82 (q107) | 8,747 | 9,758 | Z' S16 |
| q | 0,81 (-q96) | 0,81 (-q96) | 8,747 | 9,758 | Z' S16 |
| q | 1,24 (q108) | 1,24 (q108) | 9,758 | 10,300(L) | Z' S16 |
| q | 0,81 (-q96) | 0,81 (-q96) | 9,758 | 10,300(L) | Z' S16 |
| q | 1,09 (q106) | 1,09 (q106) | 0,000 | 7,194 | Z' S16 |
| q | 1,07 (-q98) | 1,07 (-q98) | 0,000 | 7,194 | Z' S16 |
| q | 0,86 (q109) | 0,82 (q107) | 7,194 | 8,747 | Z' S16 |
| q | 0,81 (-q96) | 0,81 (-q96) | 7,194 | 8,747 | Z' S16 |
| **Som lasten** | **X: -6,57** | **kN Z: 45,83** | **kN** | | |
| **-** | **-** | **-** | **m** | **m** | **- -** |



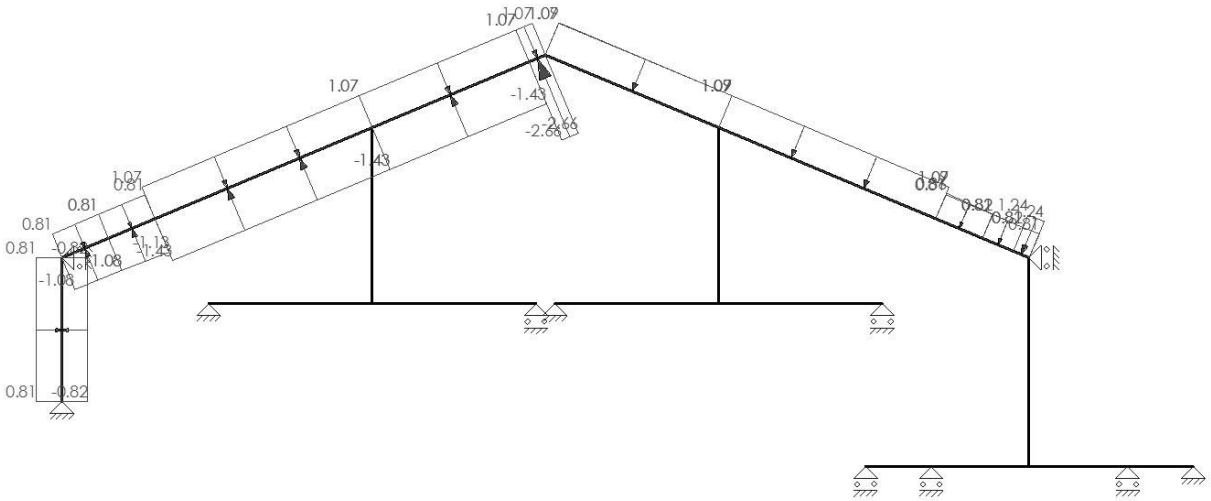

## B.G.28: WINDBELASTING VAN RECHTS + ONDERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting Staaf of knoop |
|---|---|---|---|---|---|
| **B.G.28: Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe)** | | | | | |
| q | -0,82 (q86) | -0,82 (q86) | 0,000 | 4,400(L) | Z' S9 |
| q | 0,81 (-q82) | 0,81 (-q82) | 0,000 | 4,400(L) | Z' S9 |
| q | 0,00 (q102) | 0,00 (q102) | 0,000 | 1,553 | Z' S10 |
| q | 0,81 (-q82) | 0,81 (-q82) | 0,000 | 1,553 | Z' S10 |
| q | 0,00 (q103) | 0,00 (q103) | 3,106 | 10,300(L) | Z' S10 |
| q | 1,07 (-q84) | 1,07 (-q84) | 3,106 | 10,300(L) | Z' S10 |
| q | 0,00 (q102) | 0,00 (q104) | 1,553 | 3,106 | Z' S10 |
| q | 0,81 (-q82) | 0,81 (-q82) | 1,553 | 3,106 | Z' S10 |
| q | 0,00 (q103) | 0,00 (q103) | 0,000 | 5,204 | Z' S12 |
| q | 1,07 (-q84) | 1,07 (-q84) | 0,000 | 5,204 | Z' S12 |
| q | 0,00 (q105) | 0,00 (q105) | 5,204 | 5,746(L) | Z' S12 |
| q | 1,07 (-q84) | 1,07 (-q84) | 5,204 | 5,746(L) | Z' S12 |
| q | -0,89 (q92) | -0,89 (q92) | 0,000 | 5,746(L) | Z' S14 |
| q | 1,07 (-q84) | 1,07 (-q84) | 0,000 | 5,746(L) | Z' S14 |
| q | -0,67 (q93) | -0,67 (q93) | 8,747 | 9,758 | Z' S16 |
| q | 0,81 (-q82) | 0,81 (-q82) | 8,747 | 9,758 | Z' S16 |
| q | -1,75 (q94) | -1,75 (q94) | 9,758 | 10,300(L) | Z' S16 |
| q | 0,81 (-q82) | 0,81 (-q82) | 9,758 | 10,300(L) | Z' S16 |
| q | -0,89 (q92) | -0,89 (q92) | 0,000 | 7,194 | Z' S16 |
| q | 1,07 (-q84) | 1,07 (-q84) | 0,000 | 7,194 | Z' S16 |
| q | -0,70 (q95) | -0,67 (q93) | 7,194 | 8,747 | Z' S16 |
| q | 0,81 (-q82) | 0,81 (-q82) | 7,194 | 8,747 | Z' S16 |
| **Som lasten** | **X: 5,43** | **kN Z: 17,19** | **kN** | | |
| **-** | **-** | **-** | **m** | **m** | **- -** |



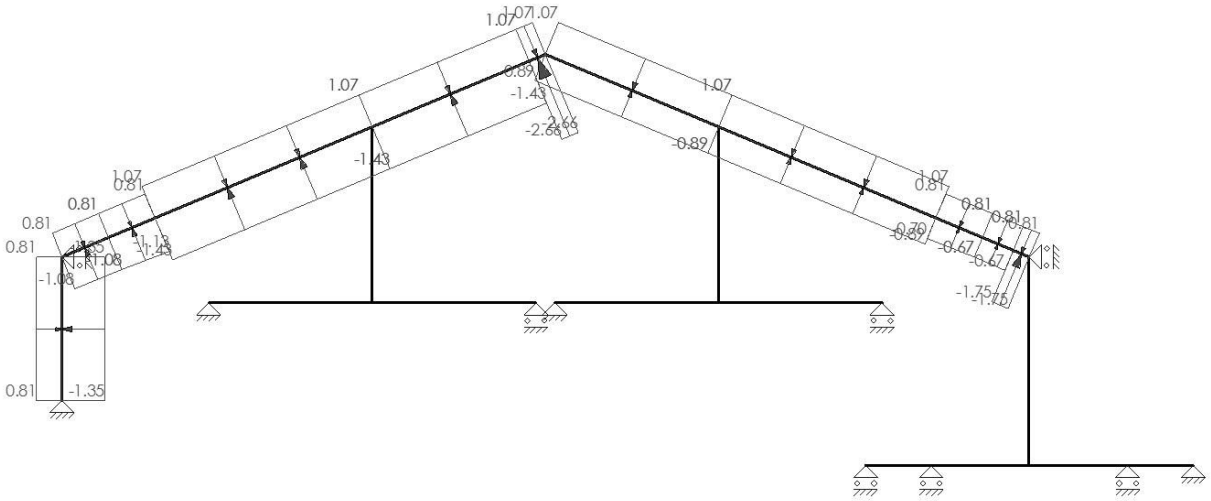

## B.G.29: WINDBELASTING VAN RECHTS + ONDERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting Staaf of knoop |
|---|---|---|---|---|---|
| **B.G.29: Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe)** | | | | | |
| q | -0,82 (q86) | -0,82 (q86) | 0,000 | 4,400(L) | Z' S9 |
| q | 0,81 (-q82) | 0,81 (-q82) | 0,000 | 4,400(L) | Z' S9 |
| q | -1,08 (q88) | -1,08 (q88) | 0,000 | 1,553 | Z' S10 |
| q | 0,81 (-q82) | 0,81 (-q82) | 0,000 | 1,553 | Z' S10 |
| q | -1,43 (q89) | -1,43 (q89) | 3,106 | 10,300(L) | Z' S10 |
| q | 1,07 (-q84) | 1,07 (-q84) | 3,106 | 10,300(L) | Z' S10 |
| q | -1,08 (q88) | -1,13 (q90) | 1,553 | 3,106 | Z' S10 |
| q | 0,81 (-q82) | 0,81 (-q82) | 1,553 | 3,106 | Z' S10 |
| q | -1,43 (q89) | -1,43 (q89) | 0,000 | 5,204 | Z' S12 |
| q | 1,07 (-q84) | 1,07 (-q84) | 0,000 | 5,204 | Z' S12 |
| q | -2,66 (q91) | -2,66 (q91) | 5,204 | 5,746(L) | Z' S12 |
| q | 1,07 (-q84) | 1,07 (-q84) | 5,204 | 5,746(L) | Z' S12 |
| q | 1,09 (q106) | 1,09 (q106) | 0,000 | 5,746(L) | Z' S14 |
| q | 1,07 (-q84) | 1,07 (-q84) | 0,000 | 5,746(L) | Z' S14 |
| q | 0,82 (q107) | 0,82 (q107) | 8,747 | 9,758 | Z' S16 |
| q | 0,81 (-q82) | 0,81 (-q82) | 8,747 | 9,758 | Z' S16 |
| q | 1,24 (q108) | 1,24 (q108) | 9,758 | 10,300(L) | Z' S16 |
| q | 0,81 (-q82) | 0,81 (-q82) | 9,758 | 10,300(L) | Z' S16 |
| q | 1,09 (q106) | 1,09 (q106) | 0,000 | 7,194 | Z' S16 |
| q | 1,07 (-q84) | 1,07 (-q84) | 0,000 | 7,194 | Z' S16 |
| q | 0,86 (q109) | 0,82 (q107) | 7,194 | 8,747 | Z' S16 |
| q | 0,81 (-q82) | 0,81 (-q82) | 7,194 | 8,747 | Z' S16 |
| **Som lasten** | **X: -15,30** | **kN Z: 24,99** | **kN** | | |
| **-** | **-** | **-** | **m** | **m** | **- -** |



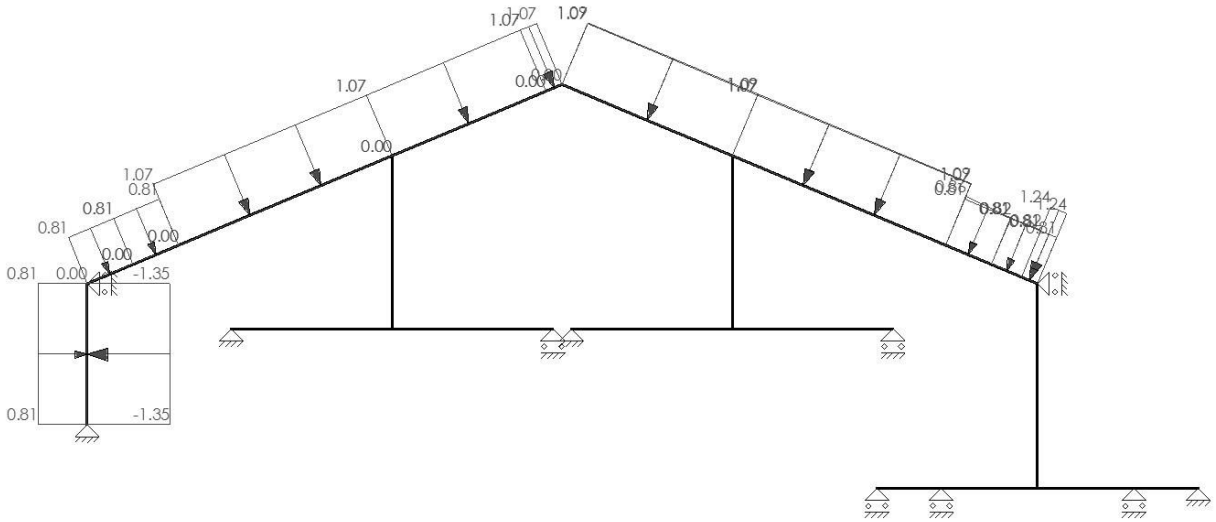

## B.G.30: WINDBELASTING VAN RECHTS + ONDERDRUK (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting Staaf of knoop |
|---|---|---|---|---|---|
| **B.G.30: Windbelasting van Rechts + Onderdruk (2e corr. factor)** | | | | | |
| q | -1,35 (q85) | -1,35 (q85) | 0,000 | 4,400(L) | Z' S9 |
| q | 0,81 (-q82) | 0,81 (-q82) | 0,000 | 4,400(L) | Z' S9 |
| q | -1,08 (q88) | -1,08 (q88) | 0,000 | 1,553 | Z' S10 |
| q | 0,81 (-q82) | 0,81 (-q82) | 0,000 | 1,553 | Z' S10 |
| q | -1,43 (q89) | -1,43 (q89) | 3,106 | 10,300(L) | Z' S10 |
| q | 1,07 (-q84) | 1,07 (-q84) | 3,106 | 10,300(L) | Z' S10 |
| q | -1,08 (q88) | -1,13 (q90) | 1,553 | 3,106 | Z' S10 |
| q | 0,81 (-q82) | 0,81 (-q82) | 1,553 | 3,106 | Z' S10 |
| q | -1,43 (q89) | -1,43 (q89) | 0,000 | 5,204 | Z' S12 |
| q | 1,07 (-q84) | 1,07 (-q84) | 0,000 | 5,204 | Z' S12 |
| q | -2,66 (q91) | -2,66 (q91) | 5,204 | 5,746(L) | Z' S12 |
| q | 1,07 (-q84) | 1,07 (-q84) | 5,204 | 5,746(L) | Z' S12 |
| q | -0,89 (q92) | -0,89 (q92) | 0,000 | 5,746(L) | Z' S14 |
| q | 1,07 (-q84) | 1,07 (-q84) | 0,000 | 5,746(L) | Z' S14 |
| q | -0,67 (q93) | -0,67 (q93) | 8,747 | 9,758 | Z' S16 |
| q | 0,81 (-q82) | 0,81 (-q82) | 8,747 | 9,758 | Z' S16 |
| q | -1,75 (q94) | -1,75 (q94) | 9,758 | 10,300(L) | Z' S16 |
| q | 0,81 (-q82) | 0,81 (-q82) | 9,758 | 10,300(L) | Z' S16 |
| q | -0,89 (q92) | -0,89 (q92) | 0,000 | 7,194 | Z' S16 |
| q | 1,07 (-q84) | 1,07 (-q84) | 0,000 | 7,194 | Z' S16 |
| q | -0,70 (q95) | -0,67 (q93) | 7,194 | 8,747 | Z' S16 |
| q | 0,81 (-q82) | 0,81 (-q82) | 7,194 | 8,747 | Z' S16 |
| **Som lasten** | **X: -5,62** | **kN Z: -3,66** | **kN** | | |
| **-** | **-** | **-** | **m** | **m** | **- -** |



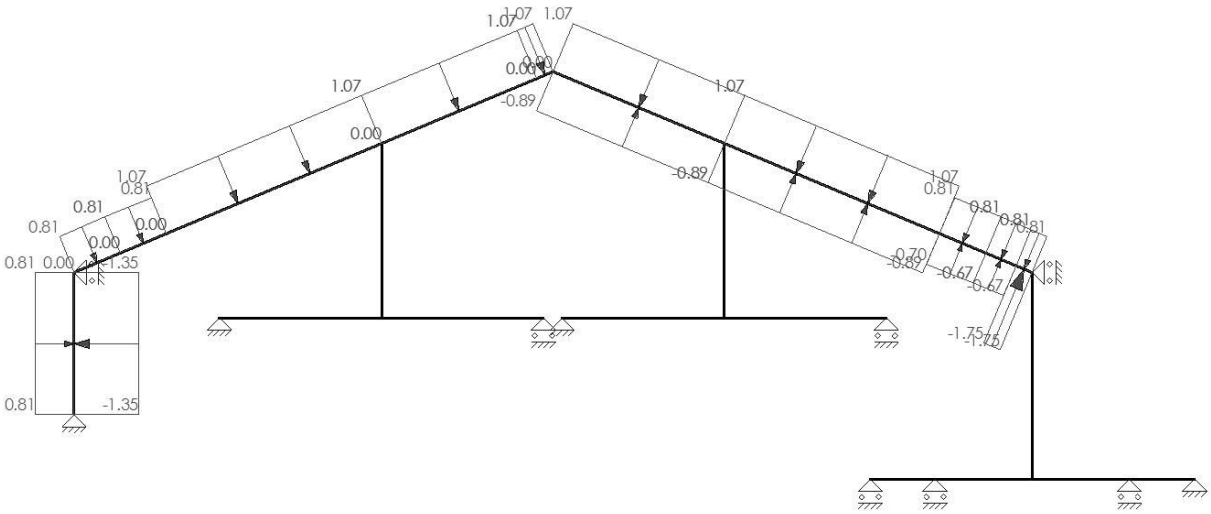

## B.G.31: WINDBELASTING VAN RECHTS + ONDERDRUK (2E CPE) (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting Staaf of knoop |
|---|---|---|---|---|---|
| **B.G.31: Windbelasting van Rechts + Onderdruk (2e Cpe) (2e corr. factor)** | | | | | |
| q | -1,35 (q99) | -1,35 (q99) | 0,000 | 4,400(L) | Z' S9 |
| q | 0,81 (-q96) | 0,81 (-q96) | 0,000 | 4,400(L) | Z' S9 |
| q | 0,00 (q102) | 0,00 (q102) | 0,000 | 1,553 | Z' S10 |
| q | 0,81 (-q96) | 0,81 (-q96) | 0,000 | 1,553 | Z' S10 |
| q | 0,00 (q103) | 0,00 (q103) | 3,106 | 10,300(L) | Z' S10 |
| q | 1,07 (-q98) | 1,07 (-q98) | 3,106 | 10,300(L) | Z' S10 |
| q | 0,00 (q102) | 0,00 (q104) | 1,553 | 3,106 | Z' S10 |
| q | 0,81 (-q96) | 0,81 (-q96) | 1,553 | 3,106 | Z' S10 |
| q | 0,00 (q103) | 0,00 (q103) | 0,000 | 5,204 | Z' S12 |
| q | 1,07 (-q98) | 1,07 (-q98) | 0,000 | 5,204 | Z' S12 |
| q | 0,00 (q105) | 0,00 (q105) | 5,204 | 5,746(L) | Z' S12 |
| q | 1,07 (-q98) | 1,07 (-q98) | 5,204 | 5,746(L) | Z' S12 |
| q | 1,09 (q106) | 1,09 (q106) | 0,000 | 5,746(L) | Z' S14 |
| q | 1,07 (-q98) | 1,07 (-q98) | 0,000 | 5,746(L) | Z' S14 |
| q | 0,82 (q107) | 0,82 (q107) | 8,747 | 9,758 | Z' S16 |
| q | 0,81 (-q96) | 0,81 (-q96) | 8,747 | 9,758 | Z' S16 |
| q | 1,24 (q108) | 1,24 (q108) | 9,758 | 10,300(L) | Z' S16 |
| q | 0,81 (-q96) | 0,81 (-q96) | 9,758 | 10,300(L) | Z' S16 |
| q | 1,09 (q106) | 1,09 (q106) | 0,000 | 7,194 | Z' S16 |
| q | 1,07 (-q98) | 1,07 (-q98) | 0,000 | 7,194 | Z' S16 |
| q | 0,86 (q109) | 0,82 (q107) | 7,194 | 8,747 | Z' S16 |
| q | 0,81 (-q96) | 0,81 (-q96) | 7,194 | 8,747 | Z' S16 |
| **Som lasten** | **X: -8,89** | **kN Z: 45,83** | **kN** | | |
| **-** | **-** | **-** | **m** | **m** | **- -** |



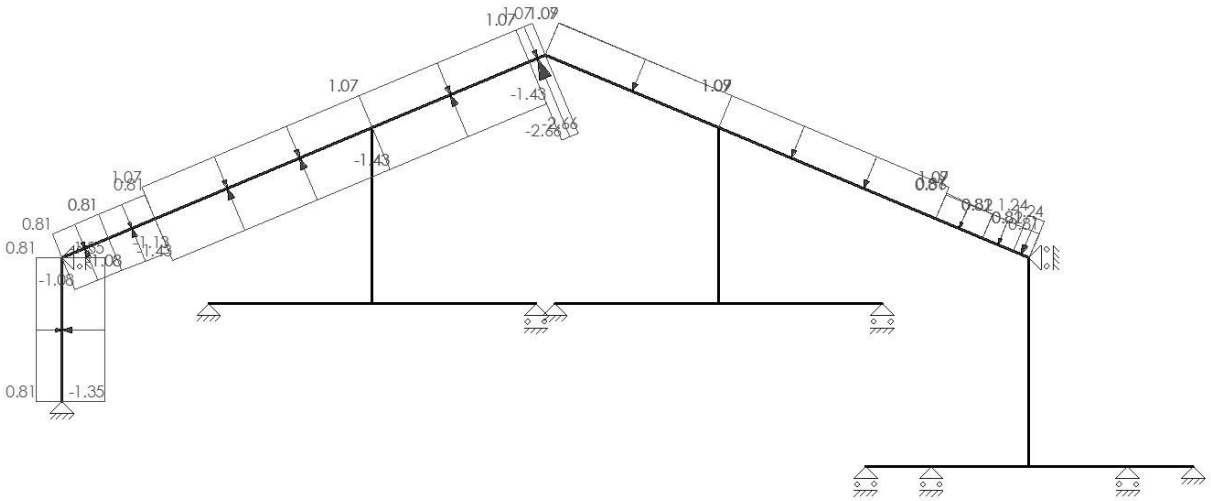

## B.G.32: WINDBELASTING VAN RECHTS + ONDERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE) (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting Staaf of knoop |
|---|---|---|---|---|---|
| **B.G.32: Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor)** | | | | | |
| q | -1,35 (q85) | -1,35 (q85) | 0,000 | 4,400(L) | Z' S9 |
| q | 0,81 (-q82) | 0,81 (-q82) | 0,000 | 4,400(L) | Z' S9 |
| q | 0,00 (q102) | 0,00 (q102) | 0,000 | 1,553 | Z' S10 |
| q | 0,81 (-q82) | 0,81 (-q82) | 0,000 | 1,553 | Z' S10 |
| q | 0,00 (q103) | 0,00 (q103) | 3,106 | 10,300(L) | Z' S10 |
| q | 1,07 (-q84) | 1,07 (-q84) | 3,106 | 10,300(L) | Z' S10 |
| q | 0,00 (q102) | 0,00 (q104) | 1,553 | 3,106 | Z' S10 |
| q | 0,81 (-q82) | 0,81 (-q82) | 1,553 | 3,106 | Z' S10 |
| q | 0,00 (q103) | 0,00 (q103) | 0,000 | 5,204 | Z' S12 |
| q | 1,07 (-q84) | 1,07 (-q84) | 0,000 | 5,204 | Z' S12 |
| q | 0,00 (q105) | 0,00 (q105) | 5,204 | 5,746(L) | Z' S12 |
| q | 1,07 (-q84) | 1,07 (-q84) | 5,204 | 5,746(L) | Z' S12 |
| q | -0,89 (q92) | -0,89 (q92) | 0,000 | 5,746(L) | Z' S14 |
| q | 1,07 (-q84) | 1,07 (-q84) | 0,000 | 5,746(L) | Z' S14 |
| q | -0,67 (q93) | -0,67 (q93) | 8,747 | 9,758 | Z' S16 |
| q | 0,81 (-q82) | 0,81 (-q82) | 8,747 | 9,758 | Z' S16 |
| q | -1,75 (q94) | -1,75 (q94) | 9,758 | 10,300(L) | Z' S16 |
| q | 0,81 (-q82) | 0,81 (-q82) | 9,758 | 10,300(L) | Z' S16 |
| q | -0,89 (q92) | -0,89 (q92) | 0,000 | 7,194 | Z' S16 |
| q | 1,07 (-q84) | 1,07 (-q84) | 0,000 | 7,194 | Z' S16 |
| q | -0,70 (q95) | -0,67 (q93) | 7,194 | 8,747 | Z' S16 |
| q | 0,81 (-q82) | 0,81 (-q82) | 7,194 | 8,747 | Z' S16 |
| **Som lasten** | **X: 3,11** | **kN Z: 17,19** | **kN** | | |
| **-** | **-** | **-** | **m** | **m** | **- -** |




## B.G.33: WINDBELASTING VAN RECHTS + ONDERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE) (2E CORR. FACTOR)

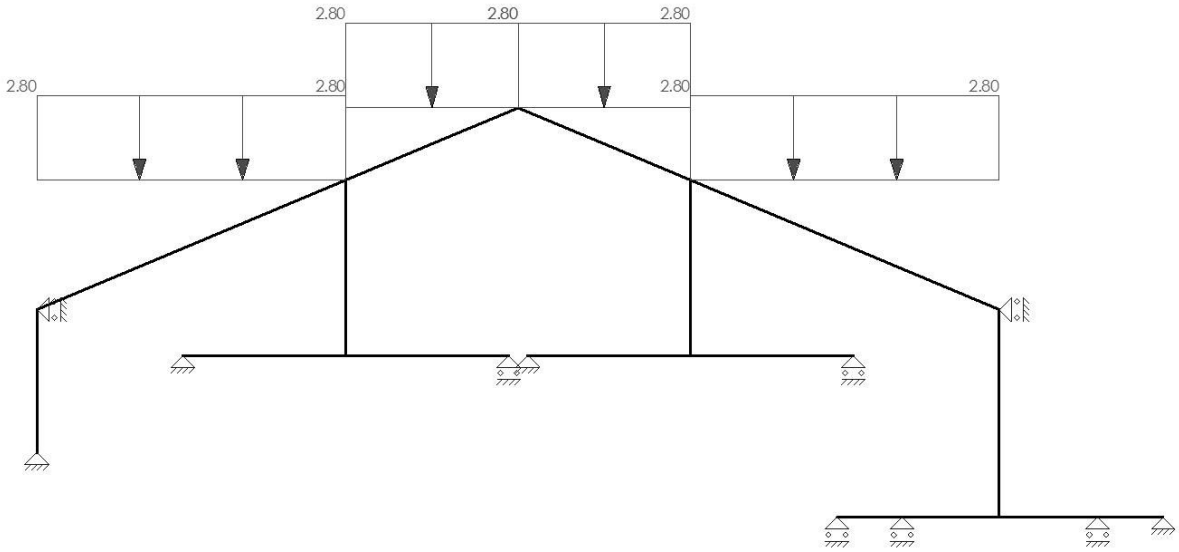
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting Staaf of knoop |
|---|---|---|---|---|---|
| **B.G.33: Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor)** | | | | | |
| q | -1,35 (q85) | -1,35 (q85) | 0,000 | 4,400(L) | Z' S9 |
| q | 0,81 (-q82) | 0,81 (-q82) | 0,000 | 4,400(L) | Z' S9 |
| q | -1,08 (q88) | -1,08 (q88) | 0,000 | 1,553 | Z' S10 |
| q | 0,81 (-q82) | 0,81 (-q82) | 0,000 | 1,553 | Z' S10 |
| q | -1,43 (q89) | -1,43 (q89) | 3,106 | 10,300(L) | Z' S10 |
| q | 1,07 (-q84) | 1,07 (-q84) | 3,106 | 10,300(L) | Z' S10 |
| q | -1,08 (q88) | -1,13 (q90) | 1,553 | 3,106 | Z' S10 |
| q | 0,81 (-q82) | 0,81 (-q82) | 1,553 | 3,106 | Z' S10 |
| q | -1,43 (q89) | -1,43 (q89) | 0,000 | 5,204 | Z' S12 |
| q | 1,07 (-q84) | 1,07 (-q84) | 0,000 | 5,204 | Z' S12 |
| q | -2,66 (q91) | -2,66 (q91) | 5,204 | 5,746(L) | Z' S12 |
| q | 1,07 (-q84) | 1,07 (-q84) | 5,204 | 5,746(L) | Z' S12 |
| q | 1,09 (q106) | 1,09 (q106) | 0,000 | 5,746(L) | Z' S14 |
| q | 1,07 (-q84) | 1,07 (-q84) | 0,000 | 5,746(L) | Z' S14 |
| q | 0,82 (q107) | 0,82 (q107) | 8,747 | 9,758 | Z' S16 |
| q | 0,81 (-q82) | 0,81 (-q82) | 8,747 | 9,758 | Z' S16 |
| q | 1,24 (q108) | 1,24 (q108) | 9,758 | 10,300(L) | Z' S16 |
| q | 0,81 (-q82) | 0,81 (-q82) | 9,758 | 10,300(L) | Z' S16 |
| q | 1,09 (q106) | 1,09 (q106) | 0,000 | 7,194 | Z' S16 |
| q | 1,07 (-q84) | 1,07 (-q84) | 0,000 | 7,194 | Z' S16 |
| q | 0,86 (q109) | 0,82 (q107) | 7,194 | 8,747 | Z' S16 |
| q | 0,81 (-q82) | 0,81 (-q82) | 7,194 | 8,747 | Z' S16 |
| **Som lasten** | **X: -17,62** | **kN Z: 24,99** | **kN** | | |
| **-** | **-** | **-** | **m** | **m** | **- -** |




## B.G.34: SNEEUWBELASTING 1

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting Staaf of knoop |
|---|---|---|---|---|---|
| **B.G.34: Sneeuwbelasting 1** | | | | | |
| q | 2,80 (q110) | 2,80 (q110) | 0,000 | 9,500(L) | Z S10,S12,S14,S16 |
| **Som lasten** | **X: 0,00** | **kN Z: 82,88** | **kN** | | |
| **-** | **-** | **-** | **m** | **m** | **- -** |

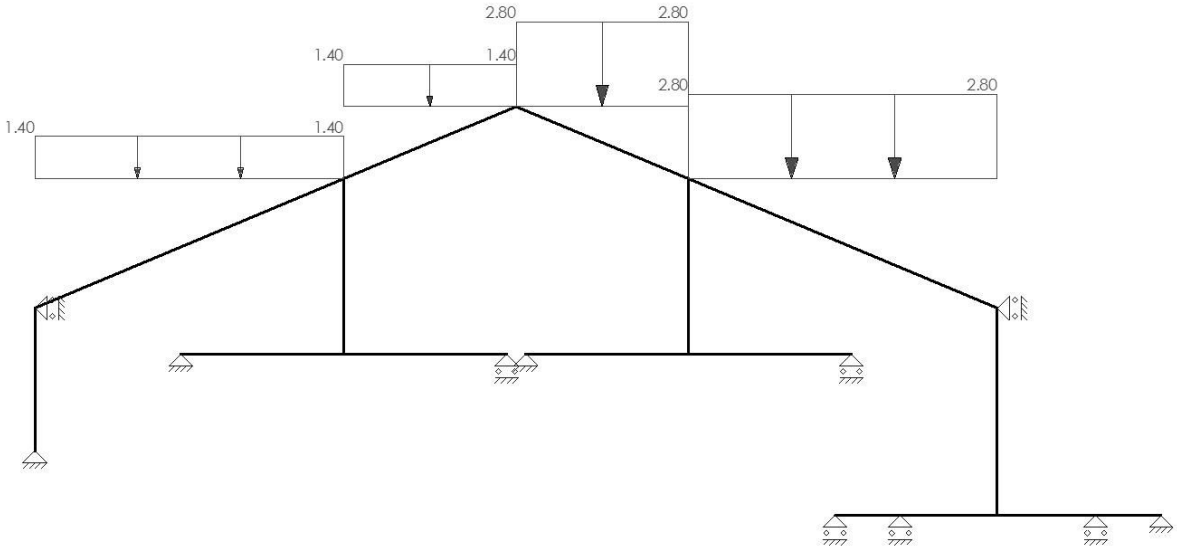
B.G.34: SNEEUWBELASTING 1



## B.G.35: SNEEUWBELASTING 2

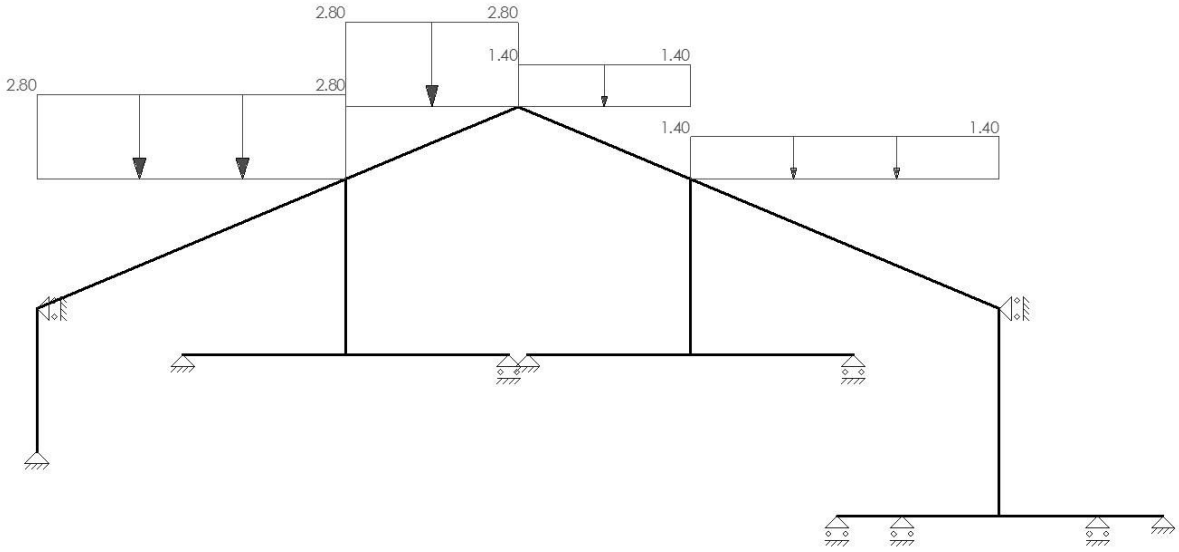
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting Staaf of knoop |
|---|---|---|---|---|---|
| **B.G.35: Sneeuwbelasting 2** | | | | | |
| q | 1,40 (q111) | 1,40 (q111) | 0,000 | 9,500(L) | Z S10,S12 |
| q | 2,80 (q110) | 2,80 (q110) | 0,000 | 5,300(L) | Z S14,S16 |
| **Som lasten** | **X: 0,00** | **kN Z: 62,16** | **kN** | | |
| **-** | **-** | **-** | **m** | **m** | **- -** |

B.G.35: SNEEUWBELASTING 2



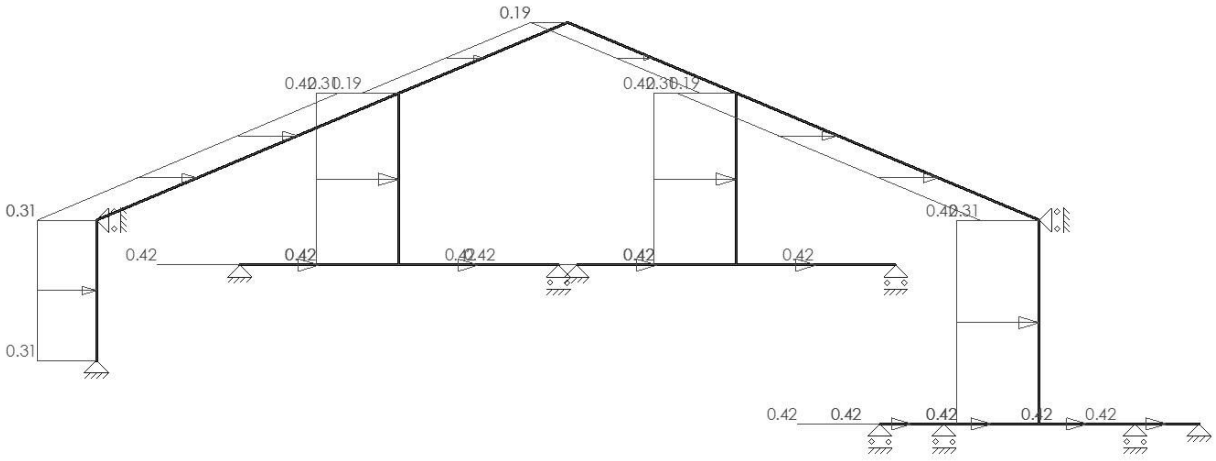

## B.G.36: SNEEUWBELASTING 3

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting Staaf of knoop |
|---|---|---|---|---|---|
| **B.G.36: Sneeuwbelasting 3** | | | | | |
| q | 2,80 (q110) | 2,80 (q110) | 0,000 | 9,500(L) | Z S10,S12 |
| q | 1,40 (q111) | 1,40 (q111) | 0,000 | 5,300(L) | Z S14,S16 |
| **Som lasten** | **X: 0,00** | **kN Z: 62,16** | **kN** | | |
| **-** | **-** | **-** | **m** | **m** | **- -** |




## B.G.37: KNIKLENGTE (ASSYMETRISCH)

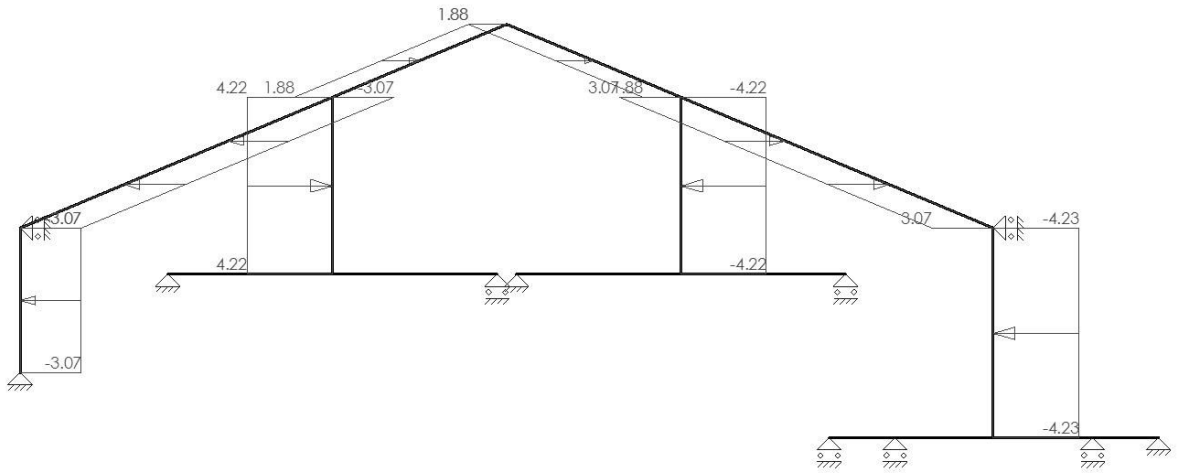
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting Staaf of knoop |
|---|---|---|---|---|---|
| **B.G.37: Kniklengte (Assymetrisch)** | | | | | |
| qG | 0,42 (1.00x) | 0,42 (1.00x) | 0,000 | 2,000(L) | X" S1,S4 |
| qG | 0,42 (1.00x) | 0,42 (1.00x) | 0,000 | 3,000(L) | X" S2-S3 |
| qG | 0,42 (1.00x) | 0,42 (1.00x) | 0,000 | 5,000(L) | X" S5-S8 |
| qG | 0,31 (1.00x) | 0,31 (1.00x) | 0,000 | 4,400(L) | X" S9 |
| qG | 0,31 (1.00x) | 0,31 (1.00x) | 0,000 | 10,300(L) | X" S10,S16 |
| qG | 0,42 (1.00x) | 0,42 (1.00x) | 0,000 | 5,380(L) | X" S11,S13 |
| qG | 0,19 (1.00x) | 0,19 (1.00x) | 0,000 | 5,746(L) | X" S12,S14 |
| qG | 0,42 (1.00x) | 0,42 (1.00x) | 0,000 | 6,400(L) | X" S15 |
| **Som lasten** | **X: 29,76** | **kN Z: 0,00** | **kN** | | |
| **-** | **-** | **-** | **m** | **m** | **- -** |




## B.G.38: KNIKLENGTE (SYMMETRISCH)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting Staaf of knoop |
|---|---|---|---|---|---|
| **B.G.38: Kniklengte (Symmetrisch)** | | | | | |
| qG | 0,31 (-10.00x) | 0,31 (-10.00x) | 0,000 | 4,400(L) | X" S9 |
| qG | 0,31 (-10.00x) | 0,31 (-10.00x) | 0,000 | 10,300(L) | X" S10 |
| qG | 0,42 (10.00x) | 0,42 (10.00x) | 0,000 | 5,380(L) | X" S11 |
| qG | 0,19 (10.00x) | 0,19 (10.00x) | 0,000 | 5,746(L) | X" S12,S14 |
| qG | 0,42 (-10.00x) | 0,42 (-10.00x) | 0,000 | 5,380(L) | X" S13 |
| qG | 0,42 (-10.00x) | 0,42 (-10.00x) | 0,000 | 6,400(L) | X" S15 |
| qG | 0,31 (10.00x) | 0,31 (10.00x) | 0,000 | 10,300(L) | X" S16 |
| **Som lasten** | **X: -18,95** | **kN Z: 0,00** | **kN** | | |
| **-** | **-** | **-** | **m** | **m** | **- -** |





## FUNDAMENTEEL BELASTINGSCOMBINATIES (TABEL)

| B.G. | Omschrijving | Fu.C.1 | Fu.C.2 | Fu.C.3 | Fu.C.4 | Fu.C.5 | Fu.C.6 (Overslaan) | Fu.C.7 | Fu.C.8 |
|---|---|---|---|---|---|---|---|---|---|
| B.G.1 | Permanente Belasting | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| B.G.2 | Windbelasting van Links + Overdruk | 1.13 | - | - | - | - | - | - | - |
| B.G.3 | Windbelasting van Links + Overdruk (2e Cpe) | - | 1.13 | - | - | - | - | - | - |
| B.G.4 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | 1.13 | - | - | - | - | - |
| B.G.5 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | 1.13 | - | - | - | - |
| B.G.6 | Windbelasting van Links + Overdruk (2e corr. factor) | - | - | - | - | 1.13 | - | - | - |
| B.G.7 | Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | 1.13 | - | - |
| B.G.8 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | 1.13 | - |
| B.G.9 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | 1.13 |
| B.G.10 | Windbelasting van Links + Onderdruk | - | - | - | - | - | - | - | - |
| B.G.11 | Windbelasting van Links + Onderdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.12 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.13 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.14 | Windbelasting van Links + Onderdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.15 | Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.16 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.17 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.18 | Windbelasting van Rechts + Overdruk | - | - | - | - | - | - | - | - |
| B.G.19 | Windbelasting van Rechts + Overdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.20 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.21 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.22 | Windbelasting van Rechts + Overdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.23 | Windbelasting van Rechts + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.24 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.25 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.26 | Windbelasting van Rechts + Onderdruk | - | - | - | - | - | - | - | - |
| B.G.27 | Windbelasting van Rechts + Onderdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.28 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.29 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.30 | Windbelasting van Rechts + Onderdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.31 | Windbelasting van Rechts + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.32 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.33 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.34 | Sneeuwbelasting 1 | - | - | - | - | - | - | - | - |
| B.G.35 | Sneeuwbelasting 2 | - | - | - | - | - | - | - | - |
| B.G.36 | Sneeuwbelasting 3 | - | - | - | - | - | - | - | - |
| B.G.37 | Kniklengte (Assymetrisch) | - | - | - | - | - | - | - | - |

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|---|---|---|---|---|---|---|---|---|---|
| B.G.38 | Kniklengte (Symmetrisch) | - | - | - | - | - | - | - | - |
| **B.G.** | **Omschrijving** | **Fu.C.9** | **Fu.C.10** | **Fu.C.11 (Overslaan)** | **Fu.C.12** | **Fu.C.13 (Overslaan)** | **Fu.C.14 (Overslaan)** | **Fu.C.15 (Overslaan)** | **Fu.C.16 (Overslaan)** |
| B.G.1 | Permanente Belasting | 1.08 | 1.08 | 1.08 | 1.08 | 1.08 | 1.08 | 1.08 | 1.08 |
| B.G.2 | Windbelasting van Links + Overdruk | - | - | - | - | - | - | - | - |
| B.G.3 | Windbelasting van Links + Overdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.4 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.5 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.6 | Windbelasting van Links + Overdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.7 | Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.8 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.9 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.10 | Windbelasting van Links + Onderdruk | 1.13 | - | - | - | - | - | - | - |
| B.G.11 | Windbelasting van Links + Onderdruk (2e Cpe) | - | 1.13 | - | - | - | - | - | - |
| B.G.12 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | 1.13 | - | - | - | - | - |
| B.G.13 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | 1.13 | - | - | - | - |
| B.G.14 | Windbelasting van Links + Onderdruk (2e corr. factor) | - | - | - | - | 1.13 | - | - | - |
| B.G.15 | Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | 1.13 | - | - |
| B.G.16 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | 1.13 | - |
| B.G.17 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | 1.13 |
| B.G.18 | Windbelasting van Rechts + Overdruk | - | - | - | - | - | - | - | - |
| B.G.19 | Windbelasting van Rechts + Overdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.20 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.21 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.22 | Windbelasting van Rechts + Overdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.23 | Windbelasting van Rechts + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.24 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.25 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.26 | Windbelasting van Rechts + Onderdruk | - | - | - | - | - | - | - | - |
| B.G.27 | Windbelasting van Rechts + Onderdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.28 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.29 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.30 | Windbelasting van Rechts + Onderdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.31 | Windbelasting van Rechts + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.32 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.33 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.34 | Sneeuwbelasting 1 | - | - | - | - | - | - | - | - |
| B.G.35 | Sneeuwbelasting 2 | - | - | - | - | - | - | - | - |
| B.G.36 | Sneeuwbelasting 3 | - | - | - | - | - | - | - | - |
| B.G.37 | Kniklengte (Assymetrisch) | - | - | - | - | - | - | - | - |

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|---|---|---|---|---|---|---|---|---|---|
| B.G.38 | Kniklengte (Symmetrisch) | - | - | - | - | - | - | - | - |
| **B.G.** | **Omschrijving** | **Fu.C.17** | **Fu.C.18** | **Fu.C.19** | **Fu.C.20** | **Fu.C.21** | **Fu.C.22** | **Fu.C.23 (Overslaan)** | **Fu.C.24** |
| B.G.1 | Permanente Belasting | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| B.G.2 | Windbelasting van Links + Overdruk | - | - | - | - | - | - | - | - |
| B.G.3 | Windbelasting van Links + Overdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.4 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.5 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.6 | Windbelasting van Links + Overdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.7 | Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.8 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.9 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.10 | Windbelasting van Links + Onderdruk | - | - | - | - | - | - | - | - |
| B.G.11 | Windbelasting van Links + Onderdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.12 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.13 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.14 | Windbelasting van Links + Onderdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.15 | Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.16 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.17 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.18 | Windbelasting van Rechts + Overdruk | 1.13 | - | - | - | - | - | - | - |
| B.G.19 | Windbelasting van Rechts + Overdruk (2e Cpe) | - | 1.13 | - | - | - | - | - | - |
| B.G.20 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | 1.13 | - | - | - | - | - |
| B.G.21 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | 1.13 | - | - | - | - |
| B.G.22 | Windbelasting van Rechts + Overdruk (2e corr. factor) | - | - | - | - | 1.13 | - | - | - |
| B.G.23 | Windbelasting van Rechts + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | 1.13 | - | - |
| B.G.24 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | 1.13 | - |
| B.G.25 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | 1.13 |
| B.G.26 | Windbelasting van Rechts + Onderdruk | - | - | - | - | - | - | - | - |
| B.G.27 | Windbelasting van Rechts + Onderdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.28 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.29 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.30 | Windbelasting van Rechts + Onderdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.31 | Windbelasting van Rechts + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.32 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.33 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.34 | Sneeuwbelasting 1 | - | - | - | - | - | - | - | - |
| B.G.35 | Sneeuwbelasting 2 | - | - | - | - | - | - | - | - |
| B.G.36 | Sneeuwbelasting 3 | - | - | - | - | - | - | - | - |
| B.G.37 | Kniklengte (Assymetrisch) | - | - | - | - | - | - | - | - |

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|---|---|---|---|---|---|---|---|---|---|
| B.G.38 | Kniklengte (Symmetrisch) | - | - | - | - | - | - | - | - |
| **B.G.** | **Omschrijving** | **Fu.C.25 (Overslaan)** | **Fu.C.26** | **Fu.C.27 (Overslaan)** | **Fu.C.28 (Overslaan)** | **Fu.C.29 (Overslaan)** | **Fu.C.30 (Overslaan)** | **Fu.C.31 (Overslaan)** | **Fu.C.32 (Overslaan)** |
| B.G.1 | Permanente Belasting | 1.08 | 1.08 | 1.08 | 1.08 | 1.08 | 1.08 | 1.08 | 1.08 |
| B.G.2 | Windbelasting van Links + Overdruk | - | - | - | - | - | - | - | - |
| B.G.3 | Windbelasting van Links + Overdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.4 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.5 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.6 | Windbelasting van Links + Overdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.7 | Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.8 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.9 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.10 | Windbelasting van Links + Onderdruk | - | - | - | - | - | - | - | - |
| B.G.11 | Windbelasting van Links + Onderdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.12 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.13 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.14 | Windbelasting van Links + Onderdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.15 | Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.16 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.17 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.18 | Windbelasting van Rechts + Overdruk | - | - | - | - | - | - | - | - |
| B.G.19 | Windbelasting van Rechts + Overdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.20 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.21 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.22 | Windbelasting van Rechts + Overdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.23 | Windbelasting van Rechts + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.24 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.25 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.26 | Windbelasting van Rechts + Onderdruk | 1.13 | - | - | - | - | - | - | - |
| B.G.27 | Windbelasting van Rechts + Onderdruk (2e Cpe) | - | 1.13 | - | - | - | - | - | - |
| B.G.28 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | 1.13 | - | - | - | - | - |
| B.G.29 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | 1.13 | - | - | - | - |
| B.G.30 | Windbelasting van Rechts + Onderdruk (2e corr. factor) | - | - | - | - | 1.13 | - | - | - |
| B.G.31 | Windbelasting van Rechts + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | 1.13 | - | - |
| B.G.32 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | 1.13 | - |
| B.G.33 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | 1.13 |
| B.G.34 | Sneeuwbelasting 1 | - | - | - | - | - | - | - | - |
| B.G.35 | Sneeuwbelasting 2 | - | - | - | - | - | - | - | - |
| B.G.36 | Sneeuwbelasting 3 | - | - | - | - | - | - | - | - |
| B.G.37 | Kniklengte (Assymetrisch) | - | - | - | - | - | - | - | - |

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|---|---|---|---|---|---|---|---|---|---|
| B.G.38 | Kniklengte (Symmetrisch) | - | - | - | - | - | - | - | - |

| B.G. | Omschrijving | Fu.C.33 | Fu.C.34 | Fu.C.35 | Fu.C.36 | Fu.C.37 (Overslaan) |
|---|---|---|---|---|---|---|
| B.G.1 | Permanente Belasting | 1.08 | 1.08 | 1.08 | 1.22 | 0.90 |
| B.G.2 | Windbelasting van Links + Overdruk | - | - | - | - | - |
| B.G.3 | Windbelasting van Links + Overdruk (2e Cpe) | - | - | - | - | - |
| B.G.4 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - |
| B.G.5 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - |
| B.G.6 | Windbelasting van Links + Overdruk (2e corr. factor) | - | - | - | - | - |
| B.G.7 | Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.8 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.9 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.10 | Windbelasting van Links + Onderdruk | - | - | - | - | - |
| B.G.11 | Windbelasting van Links + Onderdruk (2e Cpe) | - | - | - | - | - |
| B.G.12 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - |
| B.G.13 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - |
| B.G.14 | Windbelasting van Links + Onderdruk (2e corr. factor) | - | - | - | - | - |
| B.G.15 | Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.16 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.17 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.18 | Windbelasting van Rechts + Overdruk | - | - | - | - | - |
| B.G.19 | Windbelasting van Rechts + Overdruk (2e Cpe) | - | - | - | - | - |
| B.G.20 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - |
| B.G.21 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - |
| B.G.22 | Windbelasting van Rechts + Overdruk (2e corr. factor) | - | - | - | - | - |
| B.G.23 | Windbelasting van Rechts + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.24 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.25 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.26 | Windbelasting van Rechts + Onderdruk | - | - | - | - | - |
| B.G.27 | Windbelasting van Rechts + Onderdruk (2e Cpe) | - | - | - | - | - |
| B.G.28 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - |
| B.G.29 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - |
| B.G.30 | Windbelasting van Rechts + Onderdruk (2e corr. factor) | - | - | - | - | - |
| B.G.31 | Windbelasting van Rechts + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.32 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.33 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.34 | Sneeuwbelasting 1 | 1.01 | - | - | - | - |
| B.G.35 | Sneeuwbelasting 2 | - | 1.01 | - | - | - |
| B.G.36 | Sneeuwbelasting 3 | - | - | 1.01 | - | - |
| B.G.37 | Kniklengte (Assymetrisch) | - | - | - | - | - |

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|---|---|---|---|---|---|---|---|---|---|
| B.G.38 | Kniklengte (Symmetrisch) | - | - | - | - | - | | | |

## KARAKTERISTIEK BELASTINGSCOMBINATIES (TABEL)

| B.G. | Omschrijving | Ka.C.(w1) | Ka.C.1 (Overslaan) | Ka.C.2 | Ka.C.3 (Overslaan) | Ka.C.4 | Ka.C.5 | Ka.C.6 (Overslaan) | Ka.C.7 (Overslaan) |
|---|---|---|---|---|---|---|---|---|---|
| B.G.1 | Permanente Belasting | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| B.G.2 | Windbelasting van Links + Overdruk | - | - | 0.84 | - | - | - | - | - |
| B.G.3 | Windbelasting van Links + Overdruk (2e Cpe) | - | - | - | 0.84 | - | - | - | - |
| B.G.4 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | 0.84 | - | - | - |
| B.G.5 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | 0.84 | - | - |
| B.G.6 | Windbelasting van Links + Overdruk (2e corr. factor) | - | - | - | - | - | - | 0.84 | - |
| B.G.7 | Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | 0.84 |
| B.G.8 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.9 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.10 | Windbelasting van Links + Onderdruk | - | - | - | - | - | - | - | - |
| B.G.11 | Windbelasting van Links + Onderdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.12 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.13 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.14 | Windbelasting van Links + Onderdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.15 | Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.16 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.17 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.18 | Windbelasting van Rechts + Overdruk | - | - | - | - | - | - | - | - |
| B.G.19 | Windbelasting van Rechts + Overdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.20 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.21 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.22 | Windbelasting van Rechts + Overdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.23 | Windbelasting van Rechts + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.24 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.25 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.26 | Windbelasting van Rechts + Onderdruk | - | - | - | - | - | - | - | - |
| B.G.27 | Windbelasting van Rechts + Onderdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.28 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.29 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.30 | Windbelasting van Rechts + Onderdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.31 | Windbelasting van Rechts + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.32 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.33 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.34 | Sneeuwbelasting 1 | - | - | - | - | - | - | - | - |
| B.G.35 | Sneeuwbelasting 2 | - | - | - | - | - | - | - | - |

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|---|---|---|---|---|---|---|---|---|---|
| B.G.36 | Sneeuwbelasting 3 | - | - | - | - | - | - | - | - |
| B.G.37 | Kniklengte (Assymetrisch) | - | - | - | - | - | - | - | - |
| B.G.38 | Kniklengte (Symmetrisch) | - | - | - | - | - | - | - | - |
| **B.G.** | **Omschrijving** | **Ka.C.8 (Overslaan)** | **Ka.C.9** | **Ka.C.10** | **Ka.C.11** | **Ka.C.12 (Overslaan)** | **Ka.C.13** | **Ka.C.14 (Overslaan)** | **Ka.C.15** |
| B.G.1 | Permanente Belasting | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| B.G.2 | Windbelasting van Links + Overdruk | - | - | - | - | - | - | - | - |
| B.G.3 | Windbelasting van Links + Overdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.4 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.5 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.6 | Windbelasting van Links + Overdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.7 | Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.8 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | 0.84 | - | - | - | - | - | - | - |
| B.G.9 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | 0.84 | - | - | - | - | - | - |
| B.G.10 | Windbelasting van Links + Onderdruk | - | - | 0.84 | - | - | - | - | - |
| B.G.11 | Windbelasting van Links + Onderdruk (2e Cpe) | - | - | - | 0.84 | - | - | - | - |
| B.G.12 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | 0.84 | - | - | - |
| B.G.13 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | 0.84 | - | - |
| B.G.14 | Windbelasting van Links + Onderdruk (2e corr. factor) | - | - | - | - | - | - | 0.84 | - |
| B.G.15 | Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | 0.84 |
| B.G.16 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.17 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.18 | Windbelasting van Rechts + Overdruk | - | - | - | - | - | - | - | - |
| B.G.19 | Windbelasting van Rechts + Overdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.20 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.21 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.22 | Windbelasting van Rechts + Overdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.23 | Windbelasting van Rechts + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.24 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.25 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.26 | Windbelasting van Rechts + Onderdruk | - | - | - | - | - | - | - | - |
| B.G.27 | Windbelasting van Rechts + Onderdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.28 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.29 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.30 | Windbelasting van Rechts + Onderdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.31 | Windbelasting van Rechts + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.32 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.33 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.34 | Sneeuwbelasting 1 | - | - | - | - | - | - | - | - |
| B.G.35 | Sneeuwbelasting 2 | - | - | - | - | - | - | - | - |

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|---|---|---|---|---|---|---|---|---|---|
| B.G.36 | Sneeuwbelasting 3 | - | - | - | - | - | - | - | - |
| B.G.37 | Kniklengte (Assymetrisch) | - | - | - | - | - | - | - | - |
| B.G.38 | Kniklengte (Symmetrisch) | - | - | - | - | - | - | - | - |
| **B.G.** | **Omschrijving** | **Ka.C.16** | **Ka.C.17** | **Ka.C.18** | **Ka.C.19 (Overslaan)** | **Ka.C.20 (Overslaan)** | **Ka.C.21** | **Ka.C.22** | **Ka.C.23** |
| B.G.1 | Permanente Belasting | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| B.G.2 | Windbelasting van Links + Overdruk | - | - | - | - | - | - | - | - |
| B.G.3 | Windbelasting van Links + Overdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.4 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.5 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.6 | Windbelasting van Links + Overdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.7 | Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.8 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.9 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.10 | Windbelasting van Links + Onderdruk | - | - | - | - | - | - | - | - |
| B.G.11 | Windbelasting van Links + Onderdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.12 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.13 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.14 | Windbelasting van Links + Onderdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.15 | Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.16 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | 0.84 | - | - | - | - | - | - | - |
| B.G.17 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | 0.84 | - | - | - | - | - | - |
| B.G.18 | Windbelasting van Rechts + Overdruk | - | - | 0.84 | - | - | - | - | - |
| B.G.19 | Windbelasting van Rechts + Overdruk (2e Cpe) | - | - | - | 0.84 | - | - | - | - |
| B.G.20 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | 0.84 | - | - | - |
| B.G.21 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | 0.84 | - | - |
| B.G.22 | Windbelasting van Rechts + Overdruk (2e corr. factor) | - | - | - | - | - | - | 0.84 | - |
| B.G.23 | Windbelasting van Rechts + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | 0.84 |
| B.G.24 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.25 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.26 | Windbelasting van Rechts + Onderdruk | - | - | - | - | - | - | - | - |
| B.G.27 | Windbelasting van Rechts + Onderdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.28 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.29 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.30 | Windbelasting van Rechts + Onderdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.31 | Windbelasting van Rechts + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.32 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.33 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.34 | Sneeuwbelasting 1 | - | - | - | - | - | - | - | - |
| B.G.35 | Sneeuwbelasting 2 | - | - | - | - | - | - | - | - |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| B.G.36 | Sneeuwbelasting 3 | - | - | - | - | - | - | - | - |
| B.G.37 | Kniklengte (Assymetrisch) | - | - | - | - | - | - | - | - |
| B.G.38 | Kniklengte (Symmetrisch) | - | - | - | - | - | - | - | - |
| **B.G.** | **Omschrijving** | **Ka.C.24 (Overslaan)** | **Ka.C.25** | **Ka.C.26** | **Ka.C.27** | **Ka.C.28 (Overslaan)** | **Ka.C.29** | **Ka.C.30 (Overslaan)** | **Ka.C.31 (Overslaan)** |
| B.G.1 | Permanente Belasting | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| B.G.2 | Windbelasting van Links + Overdruk | - | - | - | - | - | - | - | - |
| B.G.3 | Windbelasting van Links + Overdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.4 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.5 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.6 | Windbelasting van Links + Overdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.7 | Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.8 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.9 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.10 | Windbelasting van Links + Onderdruk | - | - | - | - | - | - | - | - |
| B.G.11 | Windbelasting van Links + Onderdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.12 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.13 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.14 | Windbelasting van Links + Onderdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.15 | Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.16 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.17 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.18 | Windbelasting van Rechts + Overdruk | - | - | - | - | - | - | - | - |
| B.G.19 | Windbelasting van Rechts + Overdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.20 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.21 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.22 | Windbelasting van Rechts + Overdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.23 | Windbelasting van Rechts + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.24 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | 0.84 | - | - | - | - | - | - | - |
| B.G.25 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | 0.84 | - | - | - | - | - | - |
| B.G.26 | Windbelasting van Rechts + Onderdruk | - | - | 0.84 | - | - | - | - | - |
| B.G.27 | Windbelasting van Rechts + Onderdruk (2e Cpe) | - | - | - | 0.84 | - | - | - | - |
| B.G.28 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | 0.84 | - | - | - |
| B.G.29 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | 0.84 | - | - |
| B.G.30 | Windbelasting van Rechts + Onderdruk (2e corr. factor) | - | - | - | - | - | - | 0.84 | - |
| B.G.31 | Windbelasting van Rechts + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | 0.84 |
| B.G.32 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.33 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.34 | Sneeuwbelasting 1 | - | - | - | - | - | - | - | - |
| B.G.35 | Sneeuwbelasting 2 | - | - | - | - | - | - | - | - |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| B.G.36 | Sneeuwbelasting 3 | - | - | - | - | - | - | - | - |
| B.G.37 | Kniklengte (Assymetrisch) | - | - | - | - | - | - | - | - |
| B.G.38 | Kniklengte (Symmetrisch) | - | - | - | - | - | - | - | - |

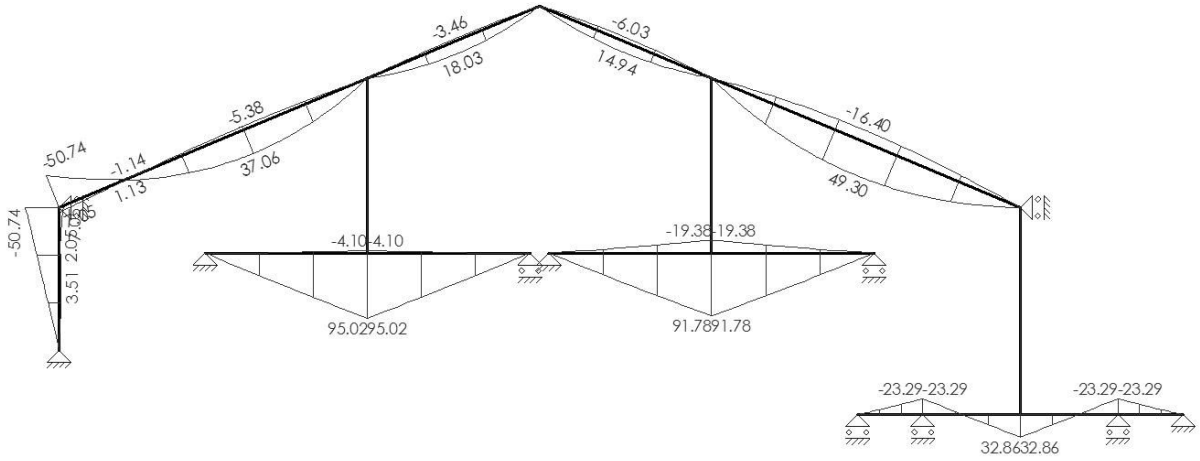
| **B.G.** | **Omschrijving** | **Ka.C.32 (Overslaan)** | **Ka.C.33 (Overslaan)** | **Ka.C.34** | **Ka.C.35** | **Ka.C.36** |
|---|---|---|---|---|---|---|
| B.G.1 | Permanente Belasting | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| B.G.2 | Windbelasting van Links + Overdruk | - | - | - | - | - |
| B.G.3 | Windbelasting van Links + Overdruk (2e Cpe) | - | - | - | - | - |
| B.G.4 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - |
| B.G.5 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - |
| B.G.6 | Windbelasting van Links + Overdruk (2e corr. factor) | - | - | - | - | - |
| B.G.7 | Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.8 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.9 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.10 | Windbelasting van Links + Onderdruk | - | - | - | - | - |
| B.G.11 | Windbelasting van Links + Onderdruk (2e Cpe) | - | - | - | - | - |
| B.G.12 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - |
| B.G.13 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - |
| B.G.14 | Windbelasting van Links + Onderdruk (2e corr. factor) | - | - | - | - | - |
| B.G.15 | Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.16 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.17 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.18 | Windbelasting van Rechts + Overdruk | - | - | - | - | - |
| B.G.19 | Windbelasting van Rechts + Overdruk (2e Cpe) | - | - | - | - | - |
| B.G.20 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - |
| B.G.21 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - |
| B.G.22 | Windbelasting van Rechts + Overdruk (2e corr. factor) | - | - | - | - | - |
| B.G.23 | Windbelasting van Rechts + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.24 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.25 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.26 | Windbelasting van Rechts + Onderdruk | - | - | - | - | - |
| B.G.27 | Windbelasting van Rechts + Onderdruk (2e Cpe) | - | - | - | - | - |
| B.G.28 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - |
| B.G.29 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - |
| B.G.30 | Windbelasting van Rechts + Onderdruk (2e corr. factor) | - | - | - | - | - |
| B.G.31 | Windbelasting van Rechts + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - |
| B.G.32 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | 0.84 | - | - | - | - |
| B.G.33 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | 0.84 | - | - | - |
| B.G.34 | Sneeuwbelasting 1 | - | - | 0.75 | - | - |
| B.G.35 | Sneeuwbelasting 2 | - | - | - | 0.75 | - |

| | | | | | | |
|---|---|---|---|---|---|---|
| B.G.36 | Sneeuwbelasting 3 | - | - | - | - | 0.75 |
| B.G.37 | Kniklengte (Assymetrisch) | - | - | - | - | - |
| B.G.38 | Kniklengte (Symmetrisch) | - | - | - | - | - |

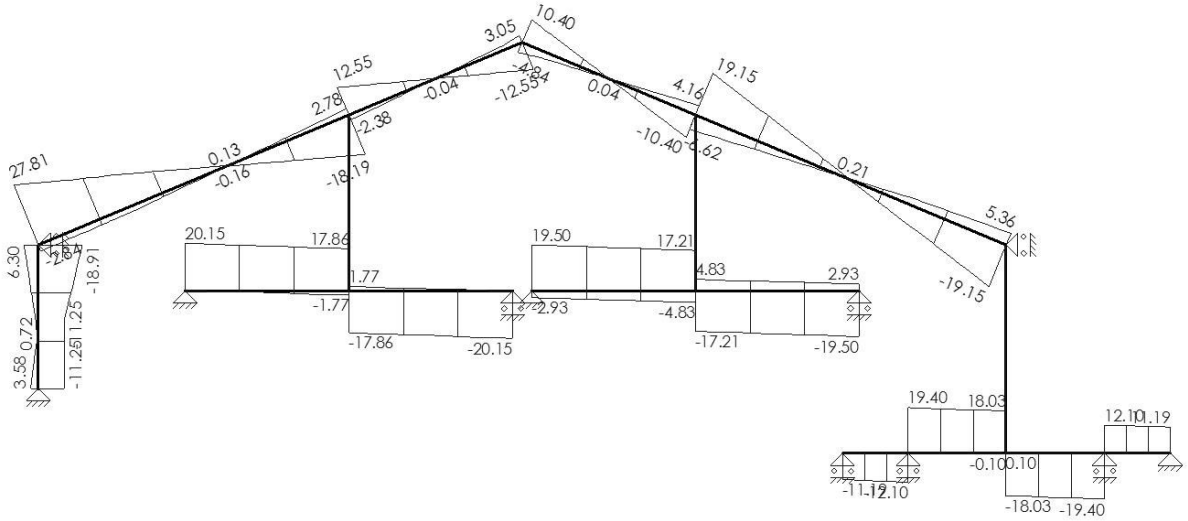
## UITGANGSPUNTEN VAN DE ANALYSE

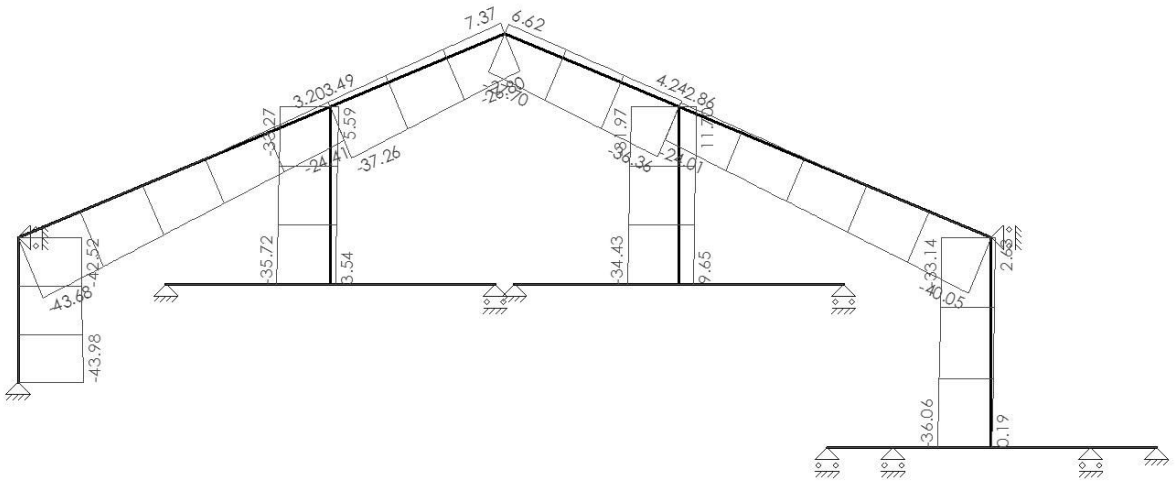
Lineaire Elastische Analyse uitgevoerd

AFB. FU.C. MOMENT (MY) OMHULLENDE — Fundamenteel Belastingscombinaties

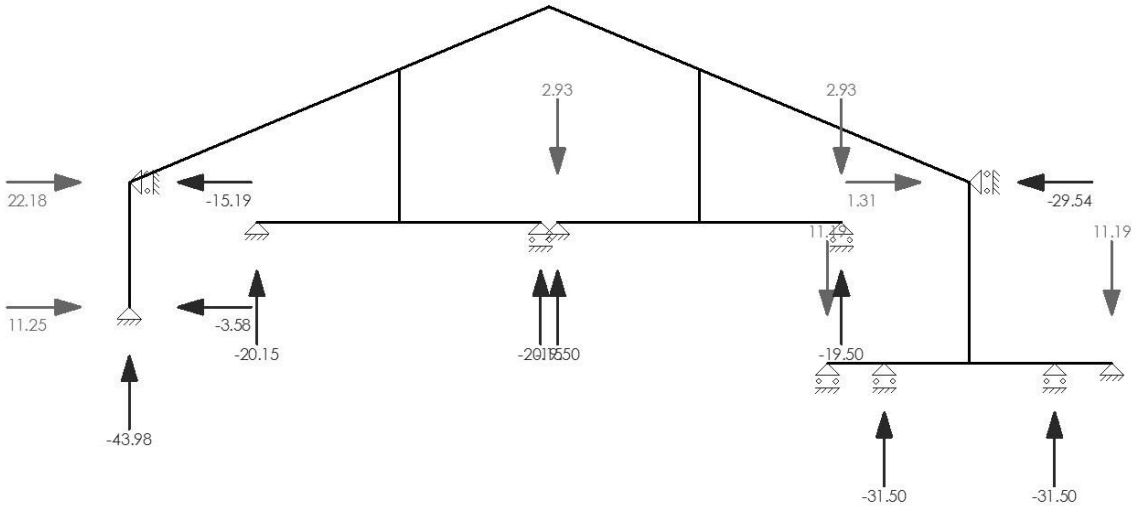



AFB. FU.C. DWARSKRACHT (VZ) OMHULLENDE — Fundamenteel Belastingscombinaties







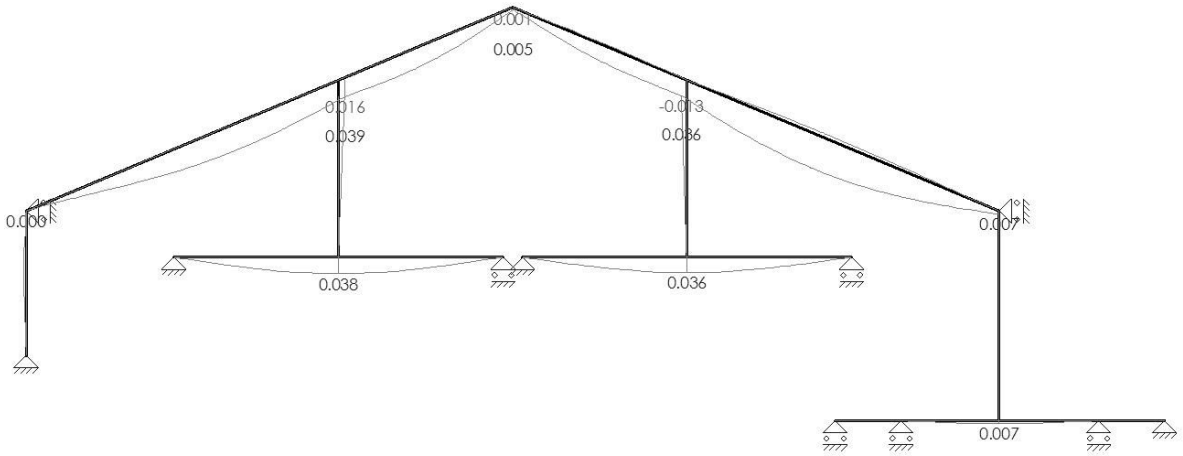




## FU.C. EXTREME OPLEGREACTIES

| Oplegging | Knoop | B.C. | Xmax | Z | My B.C. | X | Zmax | My B.C. | X | Z Mymax |
|---|---|---|---|---|---|---|---|---|---|---|
| O1 | K6 | Fu.C.35 | **11.25** | -42.10 | 0.00 | | | | | |
| O1 | K6 | Fu.C.3 | **-3.58** | -5.95 | 0.00 | Fu.C.33 | 11.25 | **-43.98** | 0.00 | |
| O11 | K14 | Fu.C.20 | **1.31** | 0.00 | 0.00 | | | | | |
| O11 | K14 | Fu.C.33 | **-29.54** | 0.00 | 0.00 | | | | | |
| O12 | K1 | | | | | Fu.C.33 | 0.00 | **11.19** | 0.00 | |
| O13 | K5 | | | | | Fu.C.33 | 0.00 | **11.19** | 0.00 | |
| O14 | K2 | | | | | Fu.C.33 | 0.00 | **-31.50** | 0.00 | |
| O15 | K4 | | | | | Fu.C.33 | 0.00 | **-31.50** | 0.00 | |
| O16 | K13 | Fu.C.24 | **22.18** | 0.00 | 0.00 | | | | | |
| O16 | K13 | Fu.C.12 | **-15.19** | 0.00 | 0.00 | | | | | |
| O35 | K7 | | | | | Fu.C.33 | 0.00 | **-20.15** | 0.00 | |

| Oplegging | Knoop | B.C. | Xmax | Z | My | B.C. | X | Zmax | My | B.C. | X | Z | Mymax |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| O36 | K10 | | | | | Fu.C.1 | 0.00 | **2.93** | 0.00 | | | | |
| O36 | K10 | | | | | Fu.C.33 | 0.00 | **-19.50** | 0.00 | | | | |
| O37 | K9 | | | | | Fu.C.33 | 0.00 | **-20.15** | 0.00 | | | | |
| O38 | K12 | | | | | Fu.C.1 | 0.00 | **2.93** | 0.00 | | | | |
| O38 | K12 | | | | | Fu.C.33 | 0.00 | **-19.50** | 0.00 | | | | |
| **Globale extreme waarden** | | | | | | | | | | | | | |
| O16 | K13 | Fu.C.24 | **22.18** | 0.00 | 0.00 | | | | | | | | |
| O11 | K14 | Fu.C.33 | **-29.54** | 0.00 | 0.00 | | | | | | | | |
| O13 | K5 | | | | | Fu.C.33 | 0.00 | **11.19** | 0.00 | | | | |
| O1 | K6 | | | | | Fu.C.33 | 11.25 | **-43.98** | 0.00 | | | | |
| **-** | **-** | **-** | **kN** | **kN** | **kNm** | **-** | **kN** | **kN** | **kNm** | | **kN** | **kN** | **kNm** |



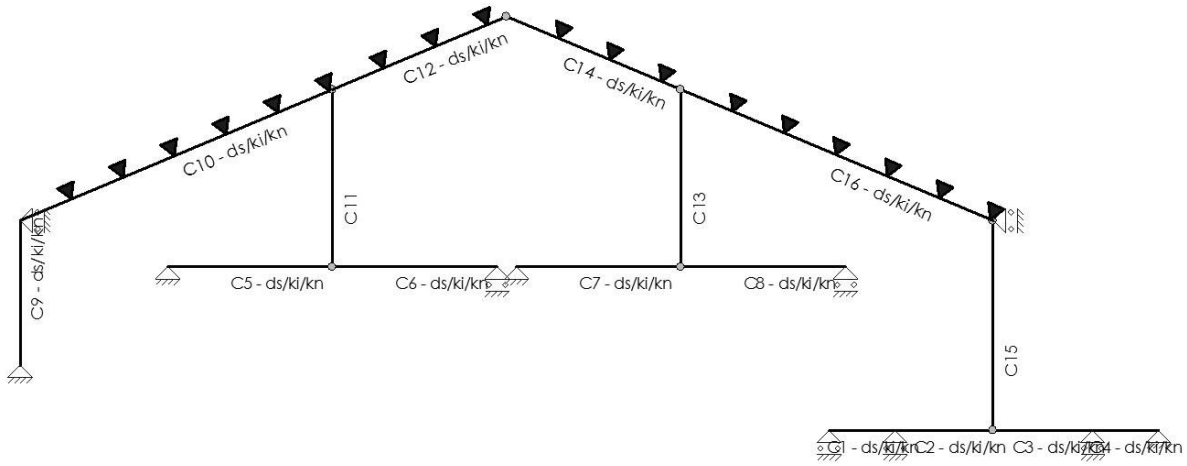



## KA.C. EXTREME DOORBUIGINGEN

| Staaf | B.C. | Knoop Begin | | Staaf | | Knoop Eind | |
|---|---|---|---|---|---|---|---|
| | | X | Z | Z'afst | Z' | X | Z |
| S1 | Ka.C.34 | 0,000 | 0,000 | 1.158 | **-0.0006** | 0,000 | 0,000 |
| S2 | Ka.C.34 | 0,000 | 0,000 | 2.128 | **0.0009** | 0,000 | 0,007 |
| S3 | Ka.C.34 | 0,000 | 0,007 | 0.872 | **0.0009** | 0,000 | 0,000 |
| S4 | Ka.C.34 | 0,000 | 0,000 | 0.842 | **-0.0006** | 0,000 | 0,000 |
| S5 | Ka.C.34 | 0,000 | 0,000 | 2.876 | **0.0075** | 0,000 | 0,038 |
| S6 | Ka.C.34 | 0,000 | 0,038 | 2.124 | **0.0075** | 0,000 | 0,000 |
| S7 | Ka.C.2 | 0,000 | 0,000 | 4.021 | **0.0000** | 0,000 | 0,000 |
| S7 | Ka.C.5 | 0,000 | 0,000 | 4.021 | **0.0000** | 0,000 | 0,000 |
| S7 | Ka.C.9 | 0,000 | 0,000 | 4.021 | **0.0000** | 0,000 | 0,000 |
| S7 | Ka.C.34 | 0,000 | 0,000 | 2.875 | **0.0071** | 0,000 | 0,036 |
| S7 | Ka.C.35 | 0,000 | 0,000 | 2.875 | **0.0071** | 0,000 | 0,036 |
| S8 | Ka.C.2 | 0,000 | 0,000 | 0.979 | **0.0000** | 0,000 | 0,000 |
| S8 | Ka.C.5 | 0,000 | 0,000 | 0.979 | **0.0000** | 0,000 | 0,000 |
| S8 | Ka.C.9 | 0,000 | 0,000 | 0.979 | **0.0000** | 0,000 | 0,000 |
| S8 | Ka.C.34 | 0,000 | 0,036 | 2.125 | **0.0071** | 0,000 | 0,000 |
| S8 | Ka.C.35 | 0,000 | 0,036 | 2.125 | **0.0071** | 0,000 | 0,000 |
| S9 | Ka.C.36 | 0,000 | 0,000 | 2.540 | **-0.0062** | 0,000 | 0,000 |
| S10 | Ka.C.34 | 0,000 | 0,000 | 5.748 | **0.0335** | 0,016 | 0,039 |
| S12 | Ka.C.11 | 0,016 | 0,038 | 2.873 | **0.0184** | 0,001 | 0,004 |
| S12 | Ka.C.18 | 0,003 | 0,006 | 3.194 | **-0.0002** | 0,000 | 0,001 |
| S14 | Ka.C.2 | 0,000 | 0,001 | 2.861 | **-0.0037** | 0,001 | 0,000 |
| S14 | Ka.C.29 | 0,001 | 0,003 | 2.873 | **0.0149** | -0,013 | 0,036 |
| S16 | Ka.C.2 | 0,001 | 0,000 | 5.045 | **-0.0090** | 0,000 | 0,001 |
| S16 | Ka.C.34 | -0,012 | 0,036 | 5.150 | **0.0537** | 0,000 | 0,007 |

| - | - | m | m | m | m | m | m |
|---|---|---|---|---|---|---|---|






## SAMENSTELLING CONSTRUCTIEDELEN

| Constructiedeel | Staaf/staven |
|---|---|
| C1 | S1 |
| C2 | S2 |
| C3 | S3 |
| C4 | S4 |
| C5 | S5 |
| C6 | S6 |
| C7 | S7 |
| C8 | S8 |
| C9 | S9 |
| C10 | S10 |
| C11 | S11 |
| C12 | S12 |
| C13 | S13 |
| C14 | S14 |
| C15 | S15 |
| C16 | S16 |

## KNIKLENGTEGEGEVENS

| Staaf | Profiel | | Lokale Y-as | | | Lokale Z-as | | |
|---|---|---|---|---|---|---|---|---|
| | | Lsys | methode | Lbuc | Lbuc/Lsys | methode | Lbuc | Lbuc/Lsys |
| C9 - V1 (0.000-4.400) | P3 | 4.400 | Geschoord | 3.551 | 0.81 | Cons. gesch. | 4.400 | 1.00 |
| C10 - V1 (0.000-10.300) | P3 | 10.300 | Geschoord | 8.313 | 0.81 | Handmatige Invoer | 1.700 | 0.17 |
| C12 - V1 (0.000-5.746) | P1 | 5.750 | Geschoord | 5.531 | 0.96 | Handmatige Invoer | 1.700 | 0.30 |
| C14 - V1 (0.000-5.746) | P1 | 5.750 | Geschoord | 5.531 | 0.96 | Handmatige Invoer | 1.700 | 0.30 |
| C16 - V1 (0.000-10.300) | P3 | 10.300 | Geschoord | 9.914 | 0.96 | Handmatige Invoer | 1.700 | 0.17 |
| - | - | m | - | m | - | - | m | - |

## KIPSTEUNENGEGEVENS

| Staaf | Profiel | Begin: | Eind: | Kipsteunen boven | Kipsteunen onder | Aangrijphoogte |
|---|---|---|---|---|---|---|
| C1 - V1 (0.000-2.000) | P5 | Gesteund | Gesteund | | | Centrum |

| Staaf | Profiel | Begin: | Eind: | Kipsteunen boven | Kipsteunen onder | Aangrijphoogte |
|---|---|---|---|---|---|---|
| C2 - V1 (0.000-3.000) | P5 | Gesteund | Gesteund | | | Centrum |
| C3 - V1 (0.000-3.000) | P5 | Gesteund | Gesteund | | | Centrum |
| C4 - V1 (0.000-2.000) | P5 | Gesteund | Gesteund | | | Centrum |
| C5 - V1 (0.000-5.000) | P6 | Gesteund | Gesteund | | | Centrum |
| C6 - V1 (0.000-5.000) | P6 | Gesteund | Gesteund | | | Centrum |
| C7 - V1 (0.000-5.000) | P6 | Gesteund | Gesteund | | | Centrum |
| C8 - V1 (0.000-5.000) | P6 | Gesteund | Gesteund | | | Centrum |
| C9 - V1 (0.000-4.400) | P3 | Gesteund | Gesteund | | | Centrum |
| C10 - V1 (0.000-10.300) | P3 | Gesteund | Gesteund | 1.7, 3.4, 5.1, 6.8, 8.5, 10.2 | | Centrum |
| C12 - V1 (0.000-5.746) | P1 | Gesteund | Gesteund | 1.7, 3.4, 5.1 | | Centrum |
| C14 - V1 (0.000-5.746) | P1 | Gesteund | Gesteund | 1.7, 3.4, 5.1 | | Centrum |
| C16 - V1 (0.000-10.300) | P3 | Gesteund | Gesteund | 1.7, 3.4, 5.1, 6.8, 8.5, 10.2 | | Centrum |
| - | - | - | - | m | m | - |

## UNITY CHECK NEN-EN1993-1-1:2009/NB:2011

| Veld | Toetsing | Combinatie | Artikel | UC max |
|---|---|---|---|---|
| C1-V1 (0.000-2.000) | Doorsnede | Fu.C.33 | NEN-EN1993-1-1(6.12) | 0,23 |
| C1-V1 (0.000-2.000) | Kiptoetsing | Fu.C.36 | NEN-EN1993-1-1(6.54) | 0,00 |
| C2-V1 (0.000-3.000) | Doorsnede | Fu.C.33 | NEN-EN1993-1-1(6.12) | 0,33 |
| C2-V1 (0.000-3.000) | Kiptoetsing | Fu.C.36 | NEN-EN1993-1-1(6.54) | 0,00 |
| C3-V1 (0.000-3.000) | Doorsnede | Fu.C.33 | NEN-EN1993-1-1(6.12) | 0,33 |
| C3-V1 (0.000-3.000) | Kiptoetsing | Fu.C.36 | NEN-EN1993-1-1(6.54) | 0,00 |
| C4-V1 (0.000-2.000) | Doorsnede | Fu.C.33 | NEN-EN1993-1-1(6.12) | 0,23 |
| C4-V1 (0.000-2.000) | Kiptoetsing | Fu.C.36 | NEN-EN1993-1-1(6.54) | 0,00 |
| C5-V1 (0.000-5.000) | Doorsnede | Fu.C.33 | NEN-EN1993-1-1(6.12) | 0,64 |
| C5-V1 (0.000-5.000) | Kiptoetsing | Fu.C.33 | NEN-EN1993-1-1(6.54) | 0,84 |
| C6-V1 (0.000-5.000) | Doorsnede | Fu.C.33 | NEN-EN1993-1-1(6.12) | 0,64 |
| C6-V1 (0.000-5.000) | Kiptoetsing | Fu.C.33 | NEN-EN1993-1-1(6.54) | 0,84 |
| C7-V1 (0.000-5.000) | Doorsnede | Fu.C.33 | NEN-EN1993-1-1(6.12) | 0,62 |
| C7-V1 (0.000-5.000) | Kiptoetsing | Fu.C.33 | NEN-EN1993-1-1(6.54) | 0,81 |
| C8-V1 (0.000-5.000) | Doorsnede | Fu.C.33 | NEN-EN1993-1-1(6.12) | 0,62 |
| C8-V1 (0.000-5.000) | Kiptoetsing | Fu.C.33 | NEN-EN1993-1-1(6.54) | 0,81 |
| C9-V1 (0.000-4.400) | Doorsnede | Fu.C.12 | NEN-EN1993-1-1(6.12) | 0,59 |
| C9-V1 (0.000-4.400) | Stabiliteit | Fu.C.33 | NEN-EN1993-1-1(6.46) | 0,05 |
| C9-V1 (0.000-4.400) | Stabiliteit | Fu.C.33 | NEN-EN1993-1-1(6.46) | 0,18 |
| C9-V1 (0.000-4.400) | Stabiliteit | Fu.C.33 | NEN-EN1993-1-1(6.61&6.62) | 0,90 |
| C9-V1 (0.000-4.400) | Kiptoetsing | Fu.C.35 | NEN-EN1993-1-1(6.54) | 0,76 |
| C10-V1 (0.000-10.300) | Doorsnede | Fu.C.12 | NEN-EN1993-1-1(6.12) | 0,59 |
| C10-V1 (0.000-10.300) | Stabiliteit | Fu.C.33 | NEN-EN1993-1-1(6.46) | 0,06 |
| C10-V1 (0.000-10.300) | Stabiliteit | Fu.C.33 | NEN-EN1993-1-1(6.46) | 0,06 |
| C10-V1 (0.000-10.300) | Stabiliteit | Fu.C.33 | NEN-EN1993-1-1(6.61&6.62) | 0,69 |
| C10-V1 (0.000-10.300) | Kiptoetsing | Fu.C.12 | NEN-EN1993-1-1(6.54) | 0,64 |
| C12-V1 (0.000-5.746) | Doorsnede | Fu.C.10 | NEN-EN1993-1-1(6.12) | 0,46 |
| C12-V1 (0.000-5.746) | Stabiliteit | Fu.C.33 | NEN-EN1993-1-1(6.46) | 0,08 |
| C12-V1 (0.000-5.746) | Stabiliteit | Fu.C.33 | NEN-EN1993-1-1(6.46) | 0,10 |
| C12-V1 (0.000-5.746) | Stabiliteit | Fu.C.33 | NEN-EN1993-1-1(6.61&6.62) | 0,64 |
| C12-V1 (0.000-5.746) | Kiptoetsing | Fu.C.10 | NEN-EN1993-1-1(6.54) | 0,54 |
| C14-V1 (0.000-5.746) | Doorsnede | Fu.C.26 | NEN-EN1993-1-1(6.12) | 0,38 |
| C14-V1 (0.000-5.746) | Stabiliteit | Fu.C.33 | NEN-EN1993-1-1(6.46) | 0,08 |
| C14-V1 (0.000-5.746) | Stabiliteit | Fu.C.33 | NEN-EN1993-1-1(6.46) | 0,10 |
| C14-V1 (0.000-5.746) | Stabiliteit | Fu.C.33 | NEN-EN1993-1-1(6.61&6.62) | 0,54 |
| C14-V1 (0.000-5.746) | Kiptoetsing | Fu.C.26 | NEN-EN1993-1-1(6.54) | 0,44 |
| C16-V1 (0.000-10.300) | Doorsnede | Fu.C.33 | NEN-EN1993-1-1(6.12) | 0,57 |
| C16-V1 (0.000-10.300) | Stabiliteit | Fu.C.33 | NEN-EN1993-1-1(6.46) | 0,07 |
| C16-V1 (0.000-10.300) | Stabiliteit | Fu.C.33 | NEN-EN1993-1-1(6.46) | 0,05 |

| Veld | Toetsing | Combinatie | Artikel | UC max |
|---|---|---|---|---|
| C16-V1 (0.000-10.300) | Stabiliteit | Fu.C.33 | NEN-EN1993-1-1(6.61&6.62) | 0,71 |
| C16-V1 (0.000-10.300) | Kiptoetsing | Fu.C.1 | NEN-EN1993-1-1(6.54) | 0,67 |

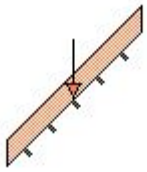
## Bijlage E

Berekening Gordingen

## 1. Hellend dak (NEN-EN1995-1-1:2011/NB:2013)

### PROFIELGEGEVENS: R71X221

| | | | | | |
|---|---|---|---|---|---|
| Breedte | b | 71 mm | Oppervlak | A | 15691 mm^2 |
| Hoogte | h | 221 mm | | | |
| | | | Traagheidsmoment | Itor | 2103e+04 mm^4 |
| Weerstandsmoment | Wy | 5780e+02 mm^3 | Traagheidsmoment | Iy | 6386e+04 mm^4 |
| Weerstandsmoment | Wz | 1857e+02 mm^3 | Traagheidsmoment | Iz | 6592e+03 mm^4 |
| Sterkte klasse | | C24 | | | |
| | f,m,0,k | 24.0 N/mm^2 | | f,c,0,k | 21.0 N/mm^2 |
| | f,t,0,k | 14.0 N/mm^2 | | f,v,0,k | 4.0 N/mm^2 |
| Elasticiteitsmodulus | E;0;mean | 11000.0 N/mm^2 | | G;mean | 690.0 N/mm^2 |



| | | | | | |
|---|---|---|---|---|---|
| Klimaatklasse | | I | | Gamma;M | 1.30 |
| | k;h | 1.00 | I (Permanent) | k;mod | 0.60 |
| | | | II (Lange termijn) | k;mod | 0.70 |
| | Beta;c | 0.2 | III (Middellange termijn) | k;mod | 0.80 |
| Ontwerplevensduur | | 15 Jaar | IV (Korte termijn) | k;mod | 0.90 |
| Betrouwbaarheidsklasse | | 1 | V (Onmiddellijk) | k;mod | 1.10 |
| lsys | | 5.000 m | Beschot kwaliteit | | C18 |
| hoh afstand | Lt | 1.700 m | Beschot dikte | | 0 mm |
| Zeeg | | 0 mm | | | |
| dakhelling | alfa | 20 ° | | | |
| systeemlengte L (Z as) | | 2.500 m m | Hellend | | Ja |
| Doorbuigingen beschouwen | | Ja | Dubbele buiging | | Nee |
| Stootbelasting | | Nee | | | |
| Reductiefactor spreiding | | 1.00 | | | |

### BELASTINGEN

| | | | CPROB |
|---|---|---|---|
| Permanent | Eigen gewicht | 0.04 kN/m^2 | |
| | overig | 0.31 kN/m^2 | |
| | **Totaal** | **0.35** kN/m^2 | |
| Opgelegd | q;k | 0.00 kN/m^2 | 0.87 |
| | psi (-)_0; psi (-)_1; psi (-)_2 | 0.00; 0.00; 0.00 | |
| | Q;k | 1.50 kN | |
| Wind | Winddruk | 0.48 kN/m^2 | 0.91 |
| | Windzuiging | -0.69 kN/m^2 | |
| Sneeuw | p_sneeuw | 0.56 kN/m^2 | 0.75 |
| Bijzonder | Bijzonder; Fbijz | 0.00 kN | |
| | Bijzonder; pbijz | 0.00 kN/m^2 | |

### BELASTINGSCOMBINATIES VOOR UITERSTE GRENSTOESTAND (610A + 6.10B)

| | | | |
|---|---|---|---|
| Fu.C.1 | p = + yG * G_rep * cos(alfa) | = + 1.22 * 0.35 * 0.94 = | 0.40 kN/m^2 |
| Fu.C.2 | p = + yG * G_rep * cos(alfa) | = + 0.90 * 0.35 * 0.94 = | 0.29 kN/m^2 |
| Fu.C.3 | p = + yG * G_rep * cos(alfa) + yQ * Q_rep * cos²(alfa) | = + 1.08 * 0.35 * 0.94 + 1.17 * 0.00 * 0.88 = | 0.35 kN/m^2 |
| Fu.C.4 | p = + yG * G_rep * cos(alfa) + yQ * Q_wind_druk | = + 1.08 * 0.35 * 0.94 + 1.13 * 0.48 = | 0.90 kN/m^2 |
| Fu.C.5 | p = + yG * G_rep * cos(alfa) + yQ * Q_wind_zuiging | = + 0.90 * 0.35 * 0.94 + 1.13 * (-0.69) = | -0.48 kN/m^2 |
| Fu.C.6 | p = + yG * G_rep * cos(alfa) + yQ * Q_sneeuw * cos²(alfa) | = + 1.08 * 0.35 * 0.94 + 1.01 * 0.56 * 0.88 = | 0.86 kN/m^2 |
| Fu.C.7 | p = + yG * G_rep * cos(alfa) | = + 1.08 * 0.35 * 0.94 = | 0.35 kN/m^2 |
| | F = + yQ * F_rep * cos(alfa) | = + 1.35 * 1.50 * 0.94 = | 1.90 kN |
| Bi.C.1 | p = + yG * G_rep * cos(alfa) | = + 1.00 * 0.35 * 0.94 = | 0.33 kN/m^2 |
| Bi.C.2 | p = + yG * G_rep * cos(alfa) + yQ * Q_wind_druk | = + 1.00 * 0.35 * 0.94 + 0.17 * 0.48 = | 0.41 kN/m^2 |
| Bi.C.3 | p = + yG * G_rep * cos(alfa) + yQ * Q_wind_zuiging | = + 1.00 * 0.35 * 0.94 + 0.17 * (-0.69) = | 0.21 kN/m^2 |

### MAATGEVENDE SNEDEKRACHTEN

| Comb. | Nc;Ed, Nt;Ed | Vy;Ed | Vz;Ed | My;Ed | Mz;Ed |
|---|---|---|---|---|---|
| Fu.C.1 | 0.00 | 0.00 | 1.69 | 2.12 | 0.00 |

| | | | | | |
|---|---|---|---|---|---|
| Fu.C.2 | 0.00 | 0.00 | 1.25 | 1.57 | 0.00 |
| Fu.C.3 | 0.00 | 0.00 | 1.51 | 1.88 | 0.00 |
| Fu.C.4 | 0.00 | 0.00 | 3.81 | 4.76 | 0.00 |
| Fu.C.5 | 0.00 | 0.00 | -2.05 | -2.57 | 0.00 |
| Fu.C.6 | 0.00 | 0.00 | 3.64 | 4.55 | 0.00 |
| Fu.C.7 | 0.00 | 0.00 | 3.41 | 4.26 | 0.00 |
| Bi.C.1 | 0.00 | 0.00 | 1.39 | 1.74 | 0.00 |
| Bi.C.2 | 0.00 | 0.00 | 1.73 | 2.17 | 0.00 |
| Bi.C.3 | 0.00 | 0.00 | 0.90 | 1.13 | 0.00 |
| | **kN** | **kN** | **kN** | **kNm** | **kNm** |

## MAX UC SNEDEKRACHT

| Comb. | Nc;Ed, Nt;Ed | Vy;Ed | Vz;Ed | My;Ed | Mz;Ed |
|---|---|---|---|---|---|
| Fu.C.1 | 0.00 | 0.00 | 0.00 | 2.12 | 0.00 |
| Fu.C.2 | 0.00 | 0.00 | 0.00 | 1.57 | 0.00 |
| Fu.C.3 | 0.00 | 0.00 | 0.00 | 1.88 | 0.00 |
| Fu.C.4 | 0.00 | 0.00 | 0.00 | 4.76 | 0.00 |
| Fu.C.5 | 0.00 | 0.00 | 0.00 | -2.57 | 0.00 |
| Fu.C.6 | 0.00 | 0.00 | 0.00 | 4.55 | 0.00 |
| Fu.C.7 | 0.00 | 0.00 | 0.95 | 4.26 | 0.00 |
| Bi.C.1 | 0.00 | 0.00 | 0.00 | 1.74 | 0.00 |
| Bi.C.2 | 0.00 | 0.00 | 0.00 | 2.17 | 0.00 |
| Bi.C.3 | 0.00 | 0.00 | 0.00 | 1.13 | 0.00 |
| | **kN** | **kN** | **kN** | **kNm** | **kNm** |

## REKENSTERKTE

| Comb. | Belasting duurklasse | f;m,y,d | f;m,z,d | f;t,0,d | f;c,0,d | f;v,0,d |
|---|---|---|---|---|---|---|
| Fu.C.1 | I (Permanent) | 11.08 | 12.86 | 6.46 | 9.69 | 1.85 |
| Fu.C.2 | I (Permanent) | 11.08 | 12.86 | 6.46 | 9.69 | 1.85 |
| Fu.C.3 | I (Permanent) | 11.08 | 12.86 | 6.46 | 9.69 | 1.85 |
| Fu.C.4 | IV (Korte termijn) | 16.62 | 19.30 | 9.69 | 14.54 | 2.77 |
| Fu.C.5 | IV (Korte termijn) | 16.62 | 19.30 | 9.69 | 14.54 | 2.77 |
| Fu.C.6 | IV (Korte termijn) | 16.62 | 19.30 | 9.69 | 14.54 | 2.77 |
| Fu.C.7 | III (Middellange termijn) | 14.77 | 17.15 | 8.62 | 12.92 | 2.46 |
| Bi.C.1 | I (Permanent) | 11.08 | 12.86 | 6.46 | 9.69 | 1.85 |
| Bi.C.2 | IV (Korte termijn) | 16.62 | 19.30 | 9.69 | 14.54 | 2.77 |
| Bi.C.3 | IV (Korte termijn) | 16.62 | 19.30 | 9.69 | 14.54 | 2.77 |
| | | **N/mm^2** | **N/mm^2** | **N/mm^2** | **N/mm^2** | **N/mm^2** |

## REKENSPANNING

| Comb. | sigma;m,y,d | sigma;m,z,d | tau;v,y,d | tau;v,z,d | sigma;c(t),0,d |
|---|---|---|---|---|---|
| Fu.C.1 | 3.66 | 0.00 | 0.00 | 0.00 | 0.00 |
| Fu.C.2 | 2.71 | 0.00 | 0.00 | 0.00 | 0.00 |
| Fu.C.3 | 3.26 | 0.00 | 0.00 | 0.00 | 0.00 |
| Fu.C.4 | 8.23 | 0.00 | 0.00 | 0.00 | 0.00 |
| Fu.C.5 | 4.44 | 0.00 | 0.00 | 0.00 | 0.00 |
| Fu.C.6 | 7.86 | 0.00 | 0.00 | 0.00 | 0.00 |
| Fu.C.7 | 7.37 | 0.00 | 0.00 | 0.09 | 0.00 |
| Bi.C.1 | 3.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| Bi.C.2 | 3.75 | 0.00 | 0.00 | 0.00 | 0.00 |
| Bi.C.3 | 1.95 | 0.00 | 0.00 | 0.00 | 0.00 |
| | **N/mm^2** | **N/mm^2** | **N/mm^2** | **N/mm^2** | **N/mm^2** |

## UC DOORSNEDE PER BELASTINGSCOMBINATIE

| | | | | |
|---|---|---|---|---|
| Fu.C.1 | NEN-EN1995-1-1#6.1.6 (6.11) | | 3.66 / 11.077 + 0.7 x 0 / 12.864 | 0.33 Ok |
| Fu.C.2 | NEN-EN1995-1-1#6.1.6 (6.11) | | 2.711 / 11.077 + 0.7 x 0 / 12.864 | 0.24 Ok |
| Fu.C.3 | NEN-EN1995-1-1#6.1.6 (6.11) | | 3.258 / 11.077 + 0.7 x 0 / 12.864 | 0.29 Ok |
| Fu.C.4 | NEN-EN1995-1-1#6.1.6 (6.11) | | 8.233 / 16.615 + 0.7 x 0 / 19.296 | 0.50 Ok |
| Fu.C.5 | NEN-EN1995-1-1#6.1.6 (6.11) | | 4.442 / 16.615 + 0.7 x 0 / 19.296 | 0.27 Ok |
| Fu.C.6 | NEN-EN1995-1-1#6.1.6 (6.11) | | 7.864 / 16.615 + 0.7 x 0 / 19.296 | 0.47 Ok |
| Fu.C.7 | NEN-EN1995-1-1#6.1.6 (6.11) | | 7.373 / 14.769 + 0.7 x 0 / 17.152 | 0.50 Ok |
| Fu.C.7 | NEN-EN1995-1-1#6.1.7 (6.13) | Vz | 0.091 / 2.462 | 0.04 Ok |
| Bi.C.1 | NEN-EN1995-1-1#6.1.6 (6.11) | | 3.013 / 11.077 + 0.7 x 0 / 12.864 | 0.27 Ok |
| Bi.C.2 | NEN-EN1995-1-1#6.1.6 (6.11) | | 3.75 / 16.615 + 0.7 x 0 / 19.296 | 0.23 Ok |
| Bi.C.3 | NEN-EN1995-1-1#6.1.6 (6.11) | | 1.953 / 16.615 + 0.7 x 0 / 19.296 | 0.12 Ok |

## BELASTINGSCOMBINATIES VOOR BRUIKBAARHEIDSGRENSTOESTAND

| | | | |
|---|---|---|---|
| Ka.C.1 | p = + yG * G_rep * cos(alfa) | = + 1.00 * 0.35 * 0.94 = | 0.33 kN/m^2 |
| Ka.C.2 | p = + yG * G_rep * cos(alfa) + yQ * Q_rep * cos²(alfa) | = + 1.00 * 0.35 * 0.94 + 0.87 * 0.00 * 0.88 = | 0.33 kN/m^2 |
| Ka.C.3 | p = + yG * G_rep * cos(alfa) + yQ * Q_wind_druk | = + 1.00 * 0.35 * 0.94 + 0.84 * 0.48 = | 0.73 kN/m^2 |
| Ka.C.4 | p = + yG * G_rep * cos(alfa) + yQ * Q_wind_zuiging | = + 1.00 * 0.35 * 0.94 + 0.84 * (-0.69) = | -0.25 kN/m^2 |
| Ka.C.5 | p = + yG * G_rep * cos(alfa) + yQ * Q_sneeuw * cos²(alfa) | = + 1.00 * 0.35 * 0.94 + 0.75 * 0.56 * 0.88 = | 0.70 kN/m^2 |
| Qu.C.1 | p = + yG * G_rep * cos(alfa) | = + 1.00 * 0.35 * 0.94 = | 0.33 kN/m^2 |
| Ka.C.(w1) | p = + yG * G_rep * cos(alfa) | = + 1.00 * 0.35 * 0.94 = | 0.33 kN/m^2 |

## UC DOORBUIGINGEN PER BELASTINGSCOMBINATIE

| | | | | | |
|---|---|---|---|---|---|
| L/250 | Limiet w;max | 20.0 mm | L/250 | Limiet w;2+w;3 | 20.0 mm |
| E;mean | E;0;ser;d;inst | 11000.0 N/mm^2 | E;mean / Kdef | E;0;ser;d;cr | 18333.3 N/mm^2 |
| | | | E-Mod/E;0;ser;d;cr | | 0.60 |
| Ka.C.(w1) | w;1 | 6.5 mm | | w;c | 0.0 mm |
| Qu.C.1 | w;2 | 3.9 mm | | | |

| Comb. | w;3 | w;tot | w;max | w;2+w;3 | UC(w;max) | UC(w;2+w;3) |
|---|---|---|---|---|---|---|
| Ka.C.1 | 0.0 | 10.3 | 10.3 | 3.9 | 0.52 | 0.19 |
| Ka.C.2 | 0.0 | 10.3 | 10.3 | 3.9 | 0.52 | 0.19 |
| Ka.C.3 | 7.9 | 18.2 | 18.2 | 11.8 | 0.91 | 0.59 |
| Ka.C.4 | -11.4 | -1.0 | -1.0 | -7.5 | 0.05 | 0.37 |
| Ka.C.5 | 7.3 | 17.6 | 17.6 | 11.2 | 0.88 | 0.56 |
| | mm | mm | mm | mm | | |

## MAATGEVENDE KRACHTEN (FU.C.7)

| | | |
|---|---|---|
| Normaalkracht | Nt;Ed | 0.00 kN |
| Dwarskracht | Vy;Ed | 0.00 kN |
| Dwarskracht | Vz;Ed | 0.95 kN |
| Torsie | Mx;Ed | 0.00 kNm |
| Moment | My;Ed | 4.26 kNm |
| Moment | Mz;Ed | 0.00 kNm |

## MAATGEVENDE DOORBUIGINGEN (KA.C.3)

| | | |
|---|---|---|
| Ka.C.(w1) | w;1 | 6.5 mm |
| Qu.C.1 | w;2 | 3.9 mm |
| Ka.C.3 | w;3 | 7.9 mm |
| | w;tot | 18.2 mm |
| | w;max | 18.2 mm |
| | w;2+w;3 | 11.8 mm |
| | Limiet w;max | 20.0 mm |
| | Limiet w;2+w;3 | 20.0 mm |
| | UC(w;max) | 0.91 |
| | UC(w;2+w;3) | 0.59 |

## UITGEVOERDE CONTROLES

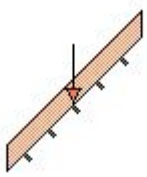
| | | | | |
|---|---|---|---|---|
| Doorsnede | NEN-EN1995-1-1#6.1.7 (6.13) | Vz | 0.326 / 2.462 | 0.13 Ok |
| Doorsnede | NEN-EN1995-1-1#6.1.6 (6.11) | | 7.373 / 14.769 + 0.7 x 0 / 17.152 | 0.50 Ok |
| Doorbuigingen | NEN-EN1995#7.2\|NEN-EN1990#A1.4.3 (4) | | 18.2 / 20.0 | 0.91 Ok |

***Ligger gecontroleerd op sterkte en doorbuiging***
***Ligger Ok***

## 2. Hellend dak (NEN-EN1995-1-1:2011/NB:2013)

## PROFIELGEGEVENS: R71X196

| | | | | | |
|---|---|---|---|---|---|
| Breedte | b | 71 mm | Oppervlak | A | 13916 mm^2 |
| Hoogte | h | 196 mm | | | |
| | | | Traagheidsmoment | Itor | 1803e+04 mm^4 |
| Weerstandsmoment | Wy | 4546e+02 mm^3 | Traagheidsmoment | Iy | 4455e+04 mm^4 |
| Weerstandsmoment | Wz | 1647e+02 mm^3 | Traagheidsmoment | Iz | 5846e+03 mm^4 |
| Sterkte klasse | | C24 | | | |
| | f,m,0,k | 24.0 N/mm^2 | | f,c,0,k | 21.0 N/mm^2 |
| | f,t,0,k | 14.0 N/mm^2 | | f,v,0,k | 4.0 N/mm^2 |
| Elasticiteitsmodulus | E;0;mean | 11000.0 N/mm^2 | | G;mean | 690.0 N/mm^2 |



| | | | | | |
|---|---|---|---|---|---|
| Klimaatklasse | | I | | Gamma;M | 1.30 |
| | k;h | 1.00 | I (Permanent) | k;mod | 0.60 |
| | | | II (Lange termijn) | k;mod | 0.70 |
| | Beta;c | 0.2 | III (Middellange termijn) | k;mod | 0.80 |
| Ontwerplevensduur | | 15 Jaar | IV (Korte termijn) | k;mod | 0.90 |
| Betrouwbaarheidsklasse | | 1 | V (Onmiddellijk) | k;mod | 1.10 |
| lsys | | 5.000 m | Beschot kwaliteit | | C18 |
| hoh afstand | Lt | 1.700 m | Beschot dikte | | 0 mm |
| Zeeg | | 0 mm | | | |
| dakhelling | alfa | 20 ° | | | |
| systeemlengte L (Z as) | | 2.500 m m | Hellend | | Ja |
| Doorbuigingen beschouwen | | Ja | Dubbele buiging | | Nee |
| Stootbelasting | | Nee | | | |
| Reductiefactor spreiding | | 1.00 | | | |

## BELASTINGEN

| | | | CPROB |
|---|---|---|---|
| Permanent | Eigen gewicht | 0.03 kN/m^2 | |
| | overig | 0.16 kN/m^2 | |
| | **Totaal** | **0.19** kN/m^2 | |
| Opgelegd | q;k | 0.00 kN/m^2 | 0.87 |
| | psi (-)_0; psi (-)_1; psi (-)_2 | 0.00; 0.00; 0.00 | |
| | Q;k | 1.50 kN | |
| Wind | Winddruk | 0.48 kN/m^2 | 0.91 |
| | Windzuiging | -0.69 kN/m^2 | |
| Sneeuw | p_sneeuw | 0.56 kN/m^2 | 0.75 |
| Bijzonder | Bijzonder; Fbijz | 0.00 kN | |
| | Bijzonder; pbijz | 0.00 kN/m^2 | |

## BELASTINGSCOMBINATIES VOOR UITERSTE GRENSTOESTAND (610A + 6.10B)

| | | | |
|---|---|---|---|
| Fu.C.1 | p = + yG * G_rep * cos(alfa) | = + 1.22 * 0.19 * 0.94 = | 0.22 kN/m^2 |
| Fu.C.2 | p = + yG * G_rep * cos(alfa) | = + 0.90 * 0.19 * 0.94 = | 0.16 kN/m^2 |
| Fu.C.3 | p = + yG * G_rep * cos(alfa) + yQ * Q_rep * cos²(alfa) | = + 1.08 * 0.19 * 0.94 + 1.17 * 0.00 * 0.88 = | 0.20 kN/m^2 |
| Fu.C.4 | p = + yG * G_rep * cos(alfa) + yQ * Q_wind_druk | = + 1.08 * 0.19 * 0.94 + 1.13 * 0.48 = | 0.74 kN/m^2 |
| Fu.C.5 | p = + yG * G_rep * cos(alfa) + yQ * Q_wind_zuiging | = + 0.90 * 0.19 * 0.94 + 1.13 * (-0.69) = | -0.61 kN/m^2 |
| Fu.C.6 | p = + yG * G_rep * cos(alfa) + yQ * Q_sneeuw * cos²(alfa) | = + 1.08 * 0.19 * 0.94 + 1.01 * 0.56 * 0.88 = | 0.70 kN/m^2 |
| Fu.C.7 | p = + yG * G_rep * cos(alfa) | = + 1.08 * 0.19 * 0.94 = | 0.20 kN/m^2 |
| | F = + yQ * F_rep * cos(alfa) | = + 1.35 * 1.50 * 0.94 = | 1.90 kN |
| Bi.C.1 | p = + yG * G_rep * cos(alfa) | = + 1.00 * 0.19 * 0.94 = | 0.18 kN/m^2 |
| Bi.C.2 | p = + yG * G_rep * cos(alfa) + yQ * Q_wind_druk | = + 1.00 * 0.19 * 0.94 + 0.17 * 0.48 = | 0.26 kN/m^2 |
| Bi.C.3 | p = + yG * G_rep * cos(alfa) + yQ * Q_wind_zuiging | = + 1.00 * 0.19 * 0.94 + 0.17 * (-0.69) = | 0.07 kN/m^2 |

## MAATGEVENDE SNEDEKRACHTEN

| Comb. | Nc;Ed, Nt;Ed | Vy;Ed | Vz;Ed | My;Ed | Mz;Ed |
|---|---|---|---|---|---|
| Fu.C.1 | 0.00 | 0.00 | 0.94 | 1.18 | 0.00 |
| Fu.C.2 | 0.00 | 0.00 | 0.70 | 0.87 | 0.00 |
| Fu.C.3 | 0.00 | 0.00 | 0.84 | 1.05 | 0.00 |
| Fu.C.4 | 0.00 | 0.00 | 3.14 | 3.93 | 0.00 |
| Fu.C.5 | 0.00 | 0.00 | -2.61 | -3.26 | 0.00 |
| Fu.C.6 | 0.00 | 0.00 | 2.97 | 3.71 | 0.00 |
| Fu.C.7 | 0.00 | 0.00 | 2.74 | 3.43 | 0.00 |
| Bi.C.1 | 0.00 | 0.00 | 0.78 | 0.97 | 0.00 |
| Bi.C.2 | 0.00 | 0.00 | 1.12 | 1.40 | 0.00 |
| Bi.C.3 | 0.00 | 0.00 | 0.29 | 0.36 | 0.00 |
| | **kN** | **kN** | **kN** | **kNm** | **kNm** |

## MAX UC SNEDEKRACHT

| Comb. | Nc;Ed, Nt;Ed | Vy;Ed | Vz;Ed | My;Ed | Mz;Ed |
|---|---|---|---|---|---|
| Fu.C.1 | 0.00 | 0.00 | 0.00 | 1.18 | 0.00 |
| Fu.C.2 | 0.00 | 0.00 | 0.00 | 0.87 | 0.00 |
| Fu.C.3 | 0.00 | 0.00 | 0.00 | 1.05 | 0.00 |
| Fu.C.4 | 0.00 | 0.00 | 0.00 | 3.93 | 0.00 |
| Fu.C.5 | 0.00 | 0.00 | 0.00 | -3.26 | 0.00 |
| Fu.C.6 | 0.00 | 0.00 | 0.00 | 3.71 | 0.00 |
| Fu.C.7 | 0.00 | 0.00 | 0.95 | 3.43 | 0.00 |
| Bi.C.1 | 0.00 | 0.00 | 0.00 | 0.97 | 0.00 |
| Bi.C.2 | 0.00 | 0.00 | 0.00 | 1.40 | 0.00 |

| | | | | | |
|---|---|---|---|---|---|
| Bi.C.3 | 0.00 | 0.00 | 0.00 | 0.36 | 0.00 |
| | **kN** | **kN** | **kN** | **kNm** | **kNm** |

## REKENSTERKTE

| Comb. | Belasting duurklasse | f;m,y,d | f;m,z,d | f;t,0,d | f;c,0,d | f;v,0,d |
|---|---|---|---|---|---|---|
| Fu.C.1 | I (Permanent) | 11.08 | 12.86 | 6.46 | 9.69 | 1.85 |
| Fu.C.2 | I (Permanent) | 11.08 | 12.86 | 6.46 | 9.69 | 1.85 |
| Fu.C.3 | I (Permanent) | 11.08 | 12.86 | 6.46 | 9.69 | 1.85 |
| Fu.C.4 | IV (Korte termijn) | 16.62 | 19.30 | 9.69 | 14.54 | 2.77 |
| Fu.C.5 | IV (Korte termijn) | 16.62 | 19.30 | 9.69 | 14.54 | 2.77 |
| Fu.C.6 | IV (Korte termijn) | 16.62 | 19.30 | 9.69 | 14.54 | 2.77 |
| Fu.C.7 | III (Middellange termijn) | 14.77 | 17.15 | 8.62 | 12.92 | 2.46 |
| Bi.C.1 | I (Permanent) | 11.08 | 12.86 | 6.46 | 9.69 | 1.85 |
| Bi.C.2 | IV (Korte termijn) | 16.62 | 19.30 | 9.69 | 14.54 | 2.77 |
| Bi.C.3 | IV (Korte termijn) | 16.62 | 19.30 | 9.69 | 14.54 | 2.77 |
| | | **N/mm^2** | **N/mm^2** | **N/mm^2** | **N/mm^2** | **N/mm^2** |

## REKENSPANNING

| Comb. | sigma;m,y,d | sigma;m,z,d | tau;v,y,d | tau;v,z,d | sigma;c(t),0,d |
|---|---|---|---|---|---|
| Fu.C.1 | 2.59 | 0.00 | 0.00 | 0.00 | 0.00 |
| Fu.C.2 | 1.92 | 0.00 | 0.00 | 0.00 | 0.00 |
| Fu.C.3 | 2.31 | 0.00 | 0.00 | 0.00 | 0.00 |
| Fu.C.4 | 8.63 | 0.00 | 0.00 | 0.00 | 0.00 |
| Fu.C.5 | 7.17 | 0.00 | 0.00 | 0.00 | 0.00 |
| Fu.C.6 | 8.17 | 0.00 | 0.00 | 0.00 | 0.00 |
| Fu.C.7 | 7.54 | 0.00 | 0.00 | 0.10 | 0.00 |
| Bi.C.1 | 2.13 | 0.00 | 0.00 | 0.00 | 0.00 |
| Bi.C.2 | 3.07 | 0.00 | 0.00 | 0.00 | 0.00 |
| Bi.C.3 | 0.79 | 0.00 | 0.00 | 0.00 | 0.00 |
| | **N/mm^2** | **N/mm^2** | **N/mm^2** | **N/mm^2** | **N/mm^2** |

## UC DOORSNEDE PER BELASTINGSCOMBINATIE

| | | | | |
|---|---|---|---|---|
| Fu.C.1 | NEN-EN1995-1-1#6.1.6 (6.11) | | 2.594 / 11.077 + 0.7 x 0 / 12.864 | 0.23 Ok |
| Fu.C.2 | NEN-EN1995-1-1#6.1.6 (6.11) | | 1.921 / 11.077 + 0.7 x 0 / 12.864 | 0.17 Ok |
| Fu.C.3 | NEN-EN1995-1-1#6.1.6 (6.11) | | 2.308 / 11.077 + 0.7 x 0 / 12.864 | 0.21 Ok |
| Fu.C.4 | NEN-EN1995-1-1#6.1.6 (6.11) | | 8.634 / 16.615 + 0.7 x 0 / 19.296 | 0.52 Ok |
| Fu.C.5 | NEN-EN1995-1-1#6.1.6 (6.11) | | 7.173 / 16.615 + 0.7 x 0 / 19.296 | 0.43 Ok |
| Fu.C.6 | NEN-EN1995-1-1#6.1.6 (6.11) | | 8.165 / 16.615 + 0.7 x 0 / 19.296 | 0.49 Ok |
| Fu.C.7 | NEN-EN1995-1-1#6.1.6 (6.11) | | 7.541 / 14.769 + 0.7 x 0 / 17.152 | 0.51 Ok |
| Fu.C.7 | NEN-EN1995-1-1#6.1.7 (6.13) | Vz | 0.103 / 2.462 | 0.04 Ok |
| Bi.C.1 | NEN-EN1995-1-1#6.1.6 (6.11) | | 2.135 / 11.077 + 0.7 x 0 / 12.864 | 0.19 Ok |
| Bi.C.2 | NEN-EN1995-1-1#6.1.6 (6.11) | | 3.072 / 16.615 + 0.7 x 0 / 19.296 | 0.18 Ok |
| Bi.C.3 | NEN-EN1995-1-1#6.1.6 (6.11) | | 0.787 / 16.615 + 0.7 x 0 / 19.296 | 0.05 Ok |

## BELASTINGSCOMBINATIES VOOR BRUIKBAARHEIDSGRENSTOESTAND

| | | | |
|---|---|---|---|
| Ka.C.1 | p = + yG * G_rep * cos(alfa) | = + 1.00 * 0.19 * 0.94 = | 0.18 kN/m^2 |
| Ka.C.2 | p = + yG * G_rep * cos(alfa) + yQ * Q_rep * cos²(alfa) | = + 1.00 * 0.19 * 0.94 + 0.87 * 0.00 * 0.88 = | 0.18 kN/m^2 |
| Ka.C.3 | p = + yG * G_rep * cos(alfa) + yQ * Q_wind_druk | = + 1.00 * 0.19 * 0.94 + 0.84 * 0.48 = | 0.58 kN/m^2 |
| Ka.C.4 | p = + yG * G_rep * cos(alfa) + yQ * Q_wind_zuiging | = + 1.00 * 0.19 * 0.94 + 0.84 * (-0.69) = | -0.39 kN/m^2 |
| Ka.C.5 | p = + yG * G_rep * cos(alfa) + yQ * Q_sneeuw * cos²(alfa) | = + 1.00 * 0.19 * 0.94 + 0.75 * 0.56 * 0.88 = | 0.55 kN/m^2 |
| Qu.C.1 | p = + yG * G_rep * cos(alfa) | = + 1.00 * 0.19 * 0.94 = | 0.18 kN/m^2 |
| Ka.C.(w1) | p = + yG * G_rep * cos(alfa) | = + 1.00 * 0.19 * 0.94 = | 0.18 kN/m^2 |

## UC DOORBUIGINGEN PER BELASTINGSCOMBINATIE

| | | | | | |
|---|---|---|---|---|---|
| L/250 | Limiet w;max | 20.0 mm | L/250 | Limiet w;2+w;3 | 20.0 mm |
| E;mean | E;0;ser;d;inst | 11000.0 N/mm^2 | E;mean / Kdef | E;0;ser;d;cr | 18333.3 N/mm^2 |
| | | | E-Mod/E;0;ser;d;cr | | 0.60 |
| Ka.C.(w1) | w;1 | 5.2 mm | | w;c | 0.0 mm |
| Qu.C.1 | w;2 | 3.1 mm | | | |

| Comb. | w;3 | w;tot | w;max | w;2+w;3 | UC(w;max) | UC(w;2+w;3) |
|---|---|---|---|---|---|---|
| Ka.C.1 | 0.0 | 8.3 | 8.3 | 3.1 | 0.41 | 0.15 |
| Ka.C.2 | 0.0 | 8.3 | 8.3 | 3.1 | 0.41 | 0.15 |
| Ka.C.3 | 11.3 | 19.6 | 19.6 | 14.4 | 0.98 | 0.72 |
| Ka.C.4 | -16.3 | -8.0 | -8.0 | -13.2 | 0.40 | 0.66 |
| Ka.C.5 | 10.5 | 18.7 | 18.7 | 13.6 | 0.94 | 0.68 |

| mm | mm | mm | mm |
|---|---|---|---|

## MAATGEVENDE KRACHTEN (FU.C.4)

| | | | |
|---|---|---|---|
| Normaalkracht | Nt;Ed | 0.00 | kN |
| Dwarskracht | Vy;Ed | 0.00 | kN |
| Dwarskracht | Vz;Ed | 0.00 | kN |
| Torsie | Mx;Ed | 0.00 | kNm |
| Moment | My;Ed | 3.93 | kNm |
| Moment | Mz;Ed | 0.00 | kNm |

## MAATGEVENDE DOORBUIGINGEN (KA.C.3)

| | | | |
|---|---|---|---|
| Ka.C.(w1) | w;1 | 5.2 | mm |
| Qu.C.1 | w;2 | 3.1 | mm |
| Ka.C.3 | w;3 | 11.3 | mm |
| | w;tot | 19.6 | mm |
| | w;max | 19.6 | mm |
| | w;2+w;3 | 14.4 | mm |
| | Limiet w;max | 20.0 | mm |
| | Limiet w;2+w;3 | 20.0 | mm |
| | UC(w;max) | 0.98 | |
| | UC(w;2+w;3) | 0.72 | |

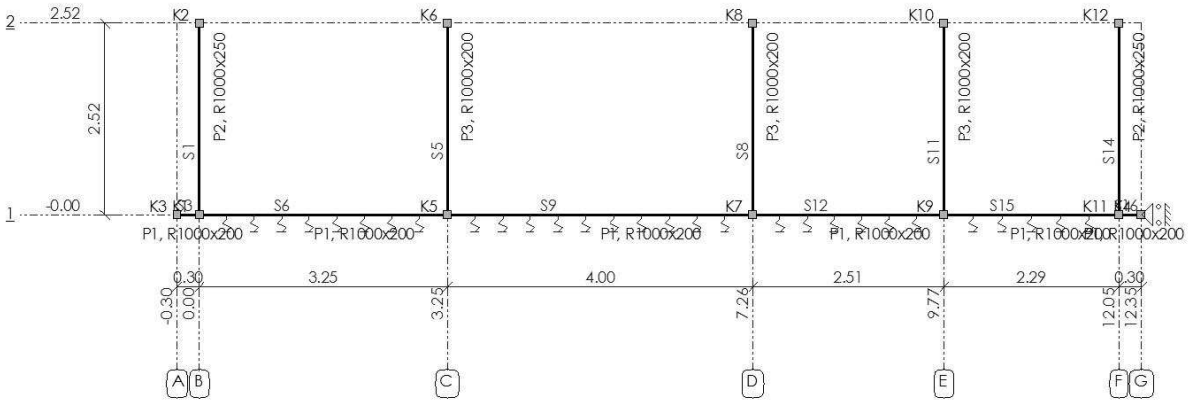
## UITGEVOERDE CONTROLES

| | | | | | |
|---|---|---|---|---|---|
| Doorsnede | NEN-EN1995-1-1#6.1.7 (6.13) | Vz | 0.338 / 2.769 | 0.12 | Ok |
| Doorsnede | NEN-EN1995-1-1#6.1.6 (6.11) | | 8.634 / 16.615 + 0.7 x 0 / 19.296 | 0.52 | Ok |
| Doorbuigingen | NEN-EN1995#7.2\|NEN-EN1990#A1.4.3 (4) | | 19.6 / 20.0 | 0.98 | Ok |

***Ligger gecontroleerd op sterkte en doorbuiging***
***Ligger Ok***

## Bijlage F

Berekening Mestkelder




## STAVEN

| Staaf | Knoop B | B | Scharnier E | E | Knoop E | Profiel | X-B | Z-B | X-E | Z-E | Lengte |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S1 | K1 | NVM | NVM | | K2 | P2 | 0,000 | 0,000 | 0,000 | -2,515 | 2,515 |
| S3 | K3 | NVM | NVM | | K1 | P1 | -0,300 | 0,000 | 0,000 | 0,000 | 0,300 |
| S5 | K5 | NVM | NVM | | K6 | P3 | 3,255 | 0,000 | 3,255 | -2,515 | 2,515 |
| S6 | K1 | NVM | NVM | | K5 | P1 | 0,000 | 0,000 | 3,255 | 0,000 | 3,255 |
| S8 | K7 | NVM | NVM | | K8 | P3 | 7,260 | 0,000 | 7,260 | -2,515 | 2,515 |
| S9 | K5 | NVM | NVM | | K7 | P1 | 3,255 | 0,000 | 7,260 | 0,000 | 4,005 |
| S11 | K9 | NVM | NVM | | K10 | P3 | 9,765 | 0,000 | 9,765 | -2,515 | 2,515 |
| S12 | K7 | NVM | NVM | | K9 | P1 | 7,260 | 0,000 | 9,765 | 0,000 | 2,505 |
| S14 | K11 | NVM | NVM | | K12 | P2 | 12,050 | 0,000 | 12,050 | -2,515 | 2,515 |
| S15 | K9 | NVM | NVM | | K11 | P1 | 9,765 | 0,000 | 12,050 | 0,000 | 2,285 |
| S16 | K11 | NVM | NVM | | K4 | P1 | 12,050 | 0,000 | 12,350 | 0,000 | 0,300 |
| - | - | - | - | | - | - | m | m | m | m | m |

## PROFIELEN

| Profiel | Profielnaam | Oppervlakte | Iy | Materiaal | Hoek |
|---|---|---|---|---|---|
| P1 | R1000x200 | 2.0000e-01 | 6.6667e-04 | C20/25 | 0 |
| P2 | R1000x250 | 2.5000e-01 | 1.3021e-03 | C30/37 | 0 |
| P3 | R1000x200 | 2.0000e-01 | 6.6667e-04 | C30/37 | 0 |
| - | - | m2 | m4 | - | ° |

## PROFIELVORMEN

| Profiel | Verl. h. | hB | hE | tf | tw | tf2 | B | bL | bR | Raatl. | Hoogte |
|---|---|---|---|---|---|---|---|---|---|---|---|
| P1 | Nee | 0.200 | 0.200 | 0.000 | 0.000 | 0.000 | 1.000 | 0.000 | 0.000 | Nee | 0.000 |
| P2 | Nee | 0.250 | 0.250 | 0.000 | 0.000 | 0.000 | 1.000 | 0.000 | 0.000 | Nee | 0.000 |
| P3 | Nee | 0.200 | 0.200 | 0.000 | 0.000 | 0.000 | 1.000 | 0.000 | 0.000 | Nee | 0.000 |
| - | - | m | m | m | m | m | m | m | m | - | m |

## MATERIALEN

| Materiaal | Dichtheid | E-Modulus | Uitzettingcoeff |
|---|---|---|---|
| C20/25 | 25.00 | 3.0000e+07 | 10.0000e-06 |
| C30/37 | 25.00 | 3.3000e+07 | 10.0000e-06 |
| - | kN/m3 | kN/m2 | C°m |

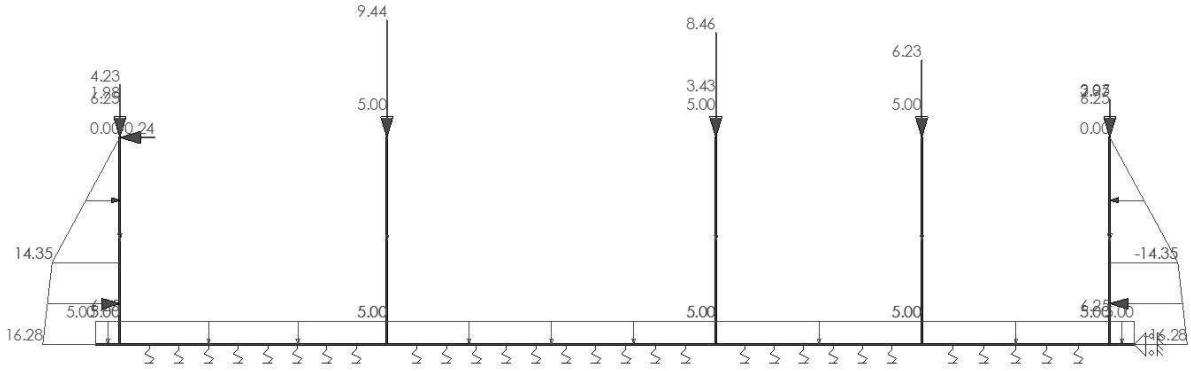
## OPLEGGINGEN

| Oplegging | Knoop | X | Z | Yr | HoekYr |
|---|---|---|---|---|---|
| O1 | K4 | vast | vrij | vrij | 0 |
| - | - | kN/m | kN/m | kNmrad | ° |

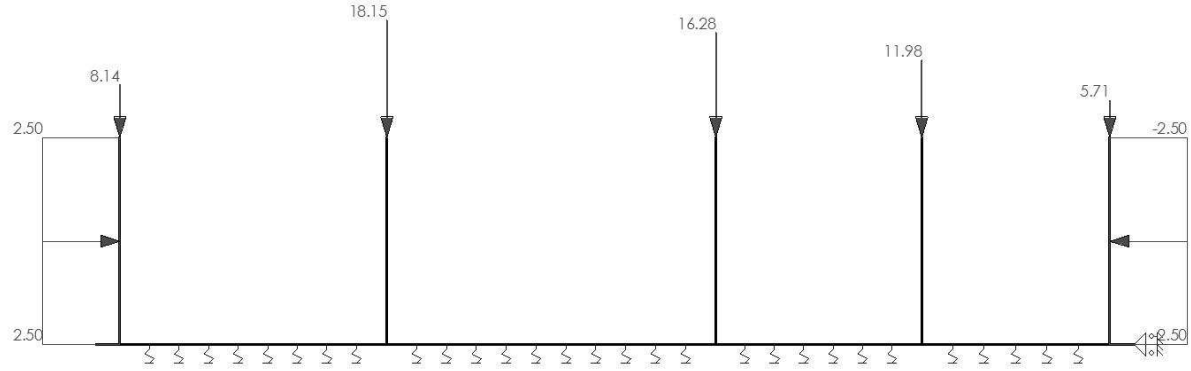
## BELASTINGSGEVALLEN TYPEN

| Oplegg. | Staven | B.G.Type | Gunstig/Ong. | Element | Niveau | Veld | Psi0 | Psi1 | Psi2 | Cprob |
|---|---|---|---|---|---|---|---|---|---|---|
| B.G.1 | Permanent | Permanent | - | | N.v.t. | N.v.t. | | | | |
| B.G.2 | Verdeelde veranderlijke belasting | Verdeelde veranderlijke belasting | - | Cat. E1) Andere | 1 | 1 | 1.00 | 0.90 | 0.80 | 1,00 |
| B.G.3 | Sneeuwbelasting | Sneeuwbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,75 |
| B.G.4 | Mest | Niet gedefinieerd | | | N.v.t. | N.v.t. | | | | |
| B.G.5 | GWS | Niet gedefinieerd | | | N.v.t. | N.v.t. | | | | |

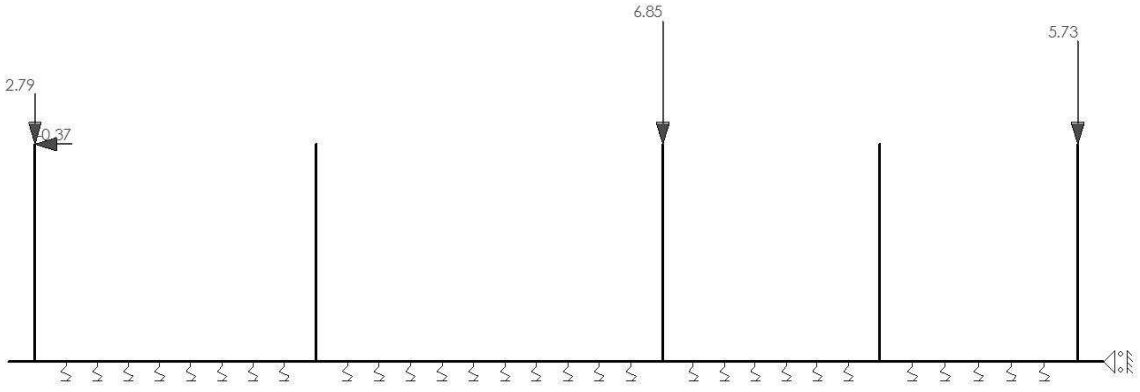
AFB. LASTEN B.G.1 PERMANENT

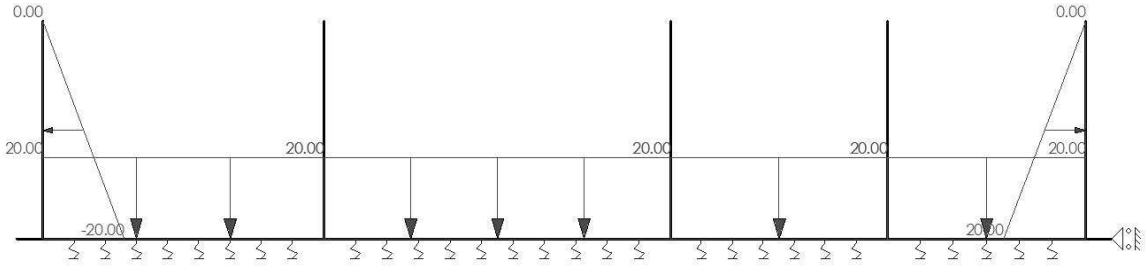



AFB. LASTEN B.G.2 VERDEELDE VERANDERLIJKE BELASTING

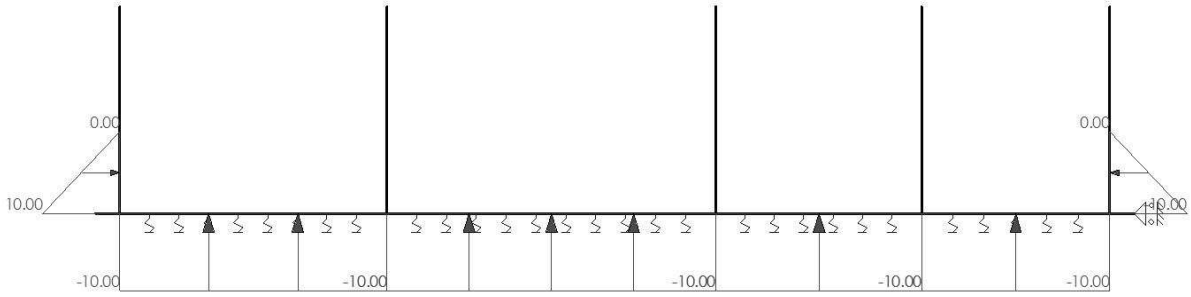



AFB. LASTEN B.G.3 SNEEUWBELASTING








## FUNDAMENTEEL BELASTINGSCOMBINATIES (TABEL)

| B.G. | Omschrijving | Fu.C.1 | Fu.C.2 | Fu.C.3 | Fu.C.4 |
|---|---|---|---|---|---|
| B.G.1 | Permanent | 0.90 | 1.08 | 1.08 | 1.08 |
| B.G.2 | Verdeelde veranderlijke belasting | - | 1.35 | 1.35 | 1.35 |
| B.G.3 | Sneeuwbelasting | - | 1.01 | - | - |
| B.G.4 | Mest | - | - | 1.35 | - |
| B.G.5 | GWS | 1.00 | 0.50 | 0.50 | 0.50 |

## KARAKTERISTIEK BELASTINGSCOMBINATIES (TABEL)

| B.G. | Omschrijving | Ka.C.(w1) | Ka.C.1 | Ka.C.2 | Ka.C.3 | Ka.C.4 |
|---|---|---|---|---|---|---|
| B.G.1 | Permanent | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| B.G.2 | Verdeelde veranderlijke belasting | - | - | 1.00 | 1.00 | 1.00 |
| B.G.3 | Sneeuwbelasting | - | - | 1.00 | - | - |
| B.G.4 | Mest | - | - | - | 1.00 | - |
| B.G.5 | GWS | - | 1.00 | 0.50 | 0.50 | 0.50 |

## FREQUENT BELASTINGSCOMBINATIES (TABEL)

| B.G. | Omschrijving | Fr.C.(w1) | Fr.C.1 | Fr.C.2 |
|---|---|---|---|---|
| B.G.1 | Permanent | 1.00 | 1.00 | 1.00 |
| B.G.2 | Verdeelde veranderlijke belasting | - | 0.90 | 0.80 |
| B.G.3 | Sneeuwbelasting | - | - | 0.20 |
| B.G.4 | Mest | - | - | - |
| B.G.5 | GWS | - | - | - |

## QUASI-PERMANENT BELASTINGSCOMBINATIES (TABEL)

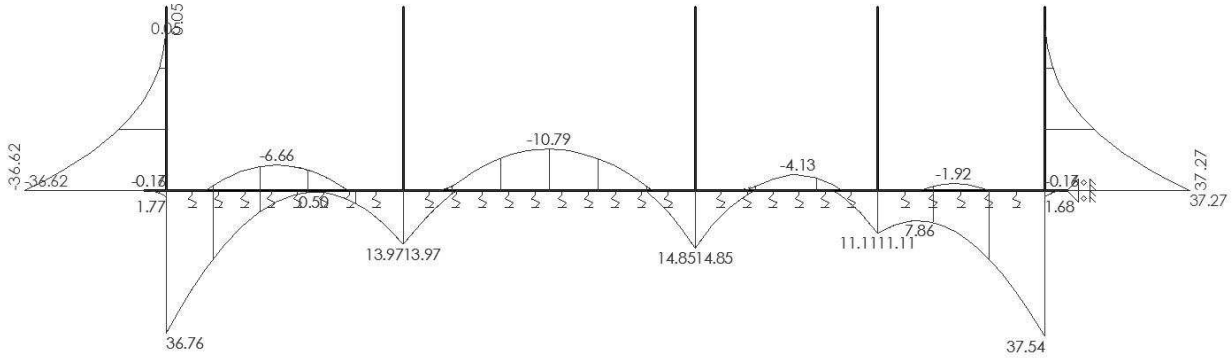
| B.G. | Omschrijving | Qu.C.1 |
|---|---|---|
| B.G.1 | Permanent | 1.00 |
| B.G.2 | Verdeelde veranderlijke belasting | 0.80 |
| B.G.3 | Sneeuwbelasting | - |
| B.G.4 | Mest | - |
| B.G.5 | GWS | - |

## UITGANGSPUNTEN VAN DE ANALYSE

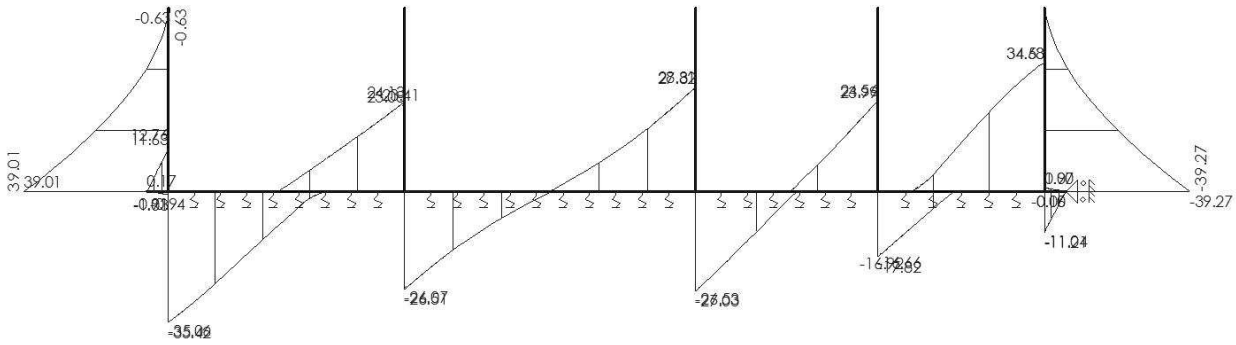
Geavanceerde Analyse

Trekeliminatie voor fundering(en) gebruikt

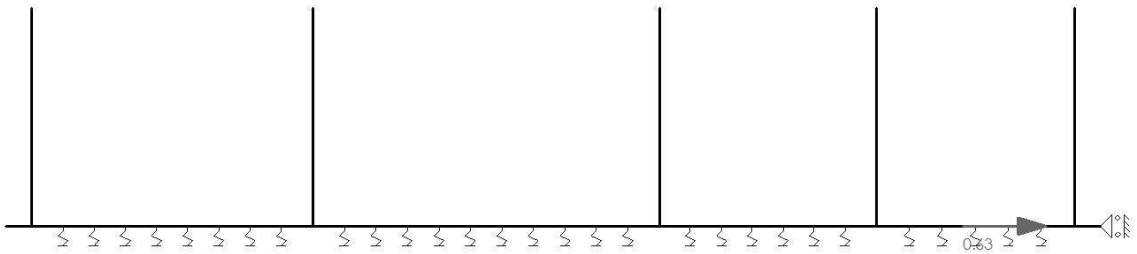
AFB. FU.C. MOMENT (MY) OMHULLENDE — Fundamenteel Belastingscombinaties




AFB. FU.C. DWARSKRACHT (VZ) OMHULLENDE — Fundamenteel Belastingscombinaties

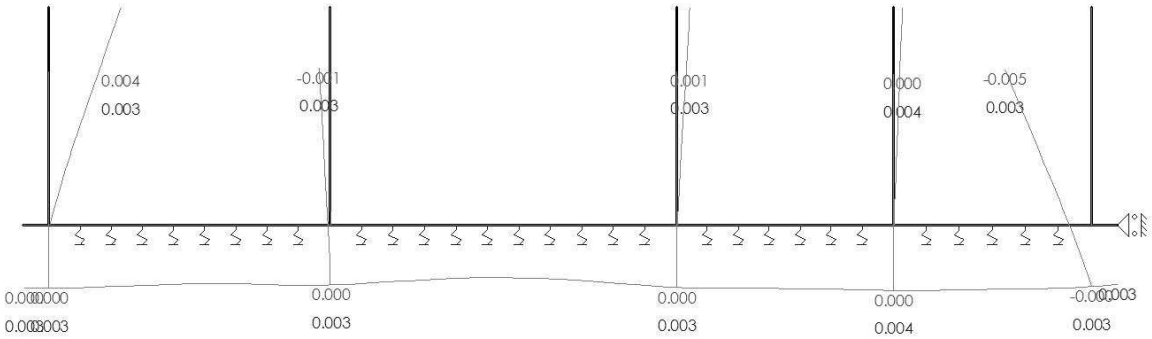



AFB. FU.C. OPLEGREACTIES OMHULLENDE — Fundamenteel Belastingscombinaties




## FU.C. EXTREME OPLEGREACTIES ANALYSE

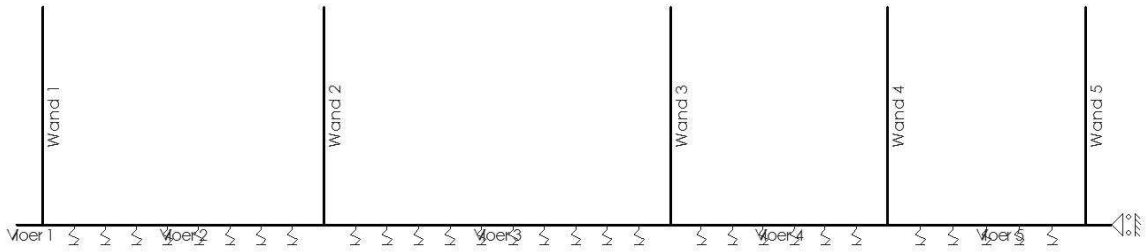
| Oplegging | Knoop | B.C. | Xmax | Z | My | B.C. | X | Zmax | My | B.C. | X | Z | Mymax |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| O1 | K4 | Fu.C.2 | **0.63** | 0.00 | 0.00 | | | | | | | | |
| **Globale extreme waarden** | | | | | | | | | | | | | |
| O1 | K4 | Fu.C.2 | **0.63** | 0.00 | 0.00 | | | | | | | | |
| **-** | **-** | **-** | **kN** | **kN** | **kNm** | **-** | **kN** | **kN** | **kNm** | | **kN** | **kN** | **kNm** |




## KA.C. EXTREME DOORBUIGINGEN ANALYSE

| Staaf | B.C. | Knoop Begin | | Staaf | | Knoop Eind | |
|---|---|---|---|---|---|---|---|
| | | X | Z | Z'afst | Z' | X | Z |
| S1 | Ka.C.4 | 0,000 | 0,001 | 0.857 | **-0.0001** | 0,004 | 0,001 |
| S6 | Ka.C.3 | 0,000 | 0,003 | 1.729 | **-0.0001** | 0,000 | 0,003 |
| S6 | Ka.C.4 | 0,000 | 0,001 | 1.068 | **0.0004** | 0,000 | 0,001 |
| S9 | Ka.C.2 | 0,000 | 0,001 | 2.003 | **-0.0006** | 0,000 | 0,002 |
| S12 | Ka.C.2 | 0,000 | 0,002 | 1.513 | **-0.0001** | 0,000 | 0,002 |
| S14 | Ka.C.4 | 0,000 | 0,001 | 0.864 | **0.0001** | -0,005 | 0,001 |
| S15 | Ka.C.4 | 0,000 | 0,002 | 1.402 | **0.0004** | 0,000 | 0,001 |
| **-** | **-** | **m** | **m** | **m** | **m** | **m** | **m** |

FIG. BETONDEFINITIE




## BETON EIGENSCHAPPEN (NEN-EN1992-1-1+C2:2010/NB:2011)

| Naam | Waarde | Eenheden |
|---|---|---|
| Hoek drukdiagonaal | 21.80 | ° |

## CONSTRUCTIEDELEN

| Staaf | Profiellabel | Profiel | Betonkwal. | Constr.Dl. | Type | Begin: | Eind: | Groep |
|---|---|---|---|---|---|---|---|---|
| S1 | P2 | R1000x250 | C30/37 | Wand 1 | Wand | 0.000 | 2.515 | G1 |
| S3 | P1 | R1000x200 | C20/25 | Vloer 1 | Vloer | 0.000 | 0.300 | G2 |
| S5 | P3 | R1000x200 | C30/37 | Wand 2 | Wand | 0.000 | 2.515 | G3 |
| S6 | P1 | R1000x200 | C20/25 | Vloer 2 | Vloer | 0.000 | 3.255 | G2 |
| S8 | P3 | R1000x200 | C30/37 | Wand 3 | Wand | 0.000 | 2.515 | G3 |
| S9 | P1 | R1000x200 | C20/25 | Vloer 3 | Vloer | 0.000 | 4.005 | G2 |
| S11 | P3 | R1000x200 | C30/37 | Wand 4 | Wand | 0.000 | 2.515 | G3 |
| S12 | P1 | R1000x200 | C20/25 | Vloer 4 | Vloer | 0.000 | 2.505 | G2 |
| S14 | P2 | R1000x250 | C30/37 | Wand 5 | Wand | 0.000 | 2.515 | G1 |
| S15 | P1 | R1000x200 | C20/25 | Vloer 5 | Vloer | 0.000 | 2.285 | G2 |
| S16 | P1 | R1000x200 | C20/25 | Vloer 5 | Vloer | 0.000 | 0.300 | G2 |
| - | - | - | - | - | - | m | m | - |

## GROEPGEGEVENS

| Groep | Constr.Dl. | Voorspanning | L1 | L2 | Staal | Fabric. | N.Kor. | Stortsl. | Toetsing afmeting | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| G1 | Wand | Nee | N/A | N/A | B500A | I.h.w. | 31.5 | 0 | h,min: | 250 >= 120 | NEN-EN1992-1-1#9.6.1(2) |
| G2 | Vloer | Nee | N/A | N/A | B500A | I.h.w. | 31.5 | 0 | h,min: | 200 >= 80 | NEN-EN1992-1-1#9.3(1) |
| G3 | Wand | Nee | N/A | N/A | B500A | I.h.w. | 31.5 | 0 | h,min: | 200 >= 120 | NEN-EN1992-1-1#9.6.1(2) |
| - | - | - | - | - | - | - | mm | mm | - | | |

## BRAND

| Groep | Label | Profiel | Constr. | Brandw. | Br.res. | Boven | Links | Onder | Rechts | Staal |
|---|---|---|---|---|---|---|---|---|---|---|
| G1 | P2 | R1000x250 | Wand | Nee | 120 | Nee | Nee | Nee | Nee | Koud |
| G2 | P1 | R1000x200 | Vloer | Nee | 120 | Nee | Nee | Nee | Nee | Warm |
| G3 | P3 | R1000x200 | Wand | Nee | 120 | Nee | Nee | Nee | Nee | Koud |
| **-** | **-** | **-** | **-** | **-** | **min.** | **-** | **-** | **-** | **-** | **-** |

## KRUIP

| Groep | Cement | RV (%) | Ouderdom | Tijd T | Kruip type | Kruipcoeff. |
|---|---|---|---|---|---|---|
| G1 | S | 60 % | 28 Dagen | Inf | Berekend | 2.2 |
| G2 | S | 60 % | 28 Dagen | Inf | Berekend | 2.7 |
| G3 | S | 60 % | 28 Dagen | Inf | Berekend | 2.3 |
| - | - | - | - | - | - | - |

## DEKKING

| Groep | Str.Class | Boven | | | | | | Onder | | | | | | Zij- + Voorkant | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Mil. | Ruw | Met. | C,min | C,no | C,toe | Mil. | Ruw | Met. | C,min | C,no | C,toe | Mil. | Ruw | Met. | C,min | C,no | C,toe |
| G1 | S4 | XC3 | Nee | Norm. | 25 | 30 | 30 | XC3 | Nee | Norm. | 25 | 30 | 30 | XC3 | Nee | Norm. | 25 | 30 | 30 |
| G2 | S4 | XC3 | Nee | Norm. | 25 | 30 | 30 | XC3 | Nee | Norm. | 25 | 30 | 30 | XC3 | Nee | Norm. | 25 | 30 | 30 |
| G3 | S4 | XC3 | Nee | Norm. | 25 | 30 | 30 | XC3 | Nee | Norm. | 25 | 30 | 30 | XC3 | Nee | Norm. | 25 | 30 | 30 |
| - | - | - | - | - | mm | mm | mm | - | - | - | mm | mm | mm | - | - | - | mm | mm | mm |

## OPLEGGEGEVENS

**Wand 1**

| Positie | Oplegg. | Type | Afmeting | Staaf | Afmeting | Mti | Mti bov. | Mti ond. | Dwarskr. | Moment |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.000 | | | | S3 | 0,200 | Nee | | | Niet afgetopt | Niet afgetopt |
| m | - | - | m | - | m | - | kNm | kNm | - | - |

**Vloer 1**

| Positie | Oplegg. | Type | Afmeting | Staaf | Afmeting | Mti | Mti bov. | Mti ond. | Dwarskr. | Moment |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.300 | | | | S1 | 0,250 | Nee | | | Niet afgetopt | Niet afgetopt |
| m | - | - | m | - | m | - | kNm | kNm | - | - |

**Wand 2**

| Positie | Oplegg. | Type | Afmeting | Staaf | Afmeting | Mti | Mti bov. | Mti ond. | Dwarskr. | Moment |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.000 | | | | S6 | 0,200 | Nee | | | Niet afgetopt | Niet afgetopt |
| m | - | - | m | - | m | - | kNm | kNm | - | - |

**Vloer 2**

| Positie | Oplegg. | Type | Afmeting | Staaf | Afmeting | Mti | Mti bov. | Mti ond. | Dwarskr. | Moment |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.000 | | | | S1 | 0,250 | Nee | | | Niet afgetopt | Niet afgetopt |
| 3.255 | | | | S5 | 0,200 | Nee | | | Niet afgetopt | Niet afgetopt |
| m | - | - | m | - | m | - | kNm | kNm | - | - |

**Wand 3**

| Positie | Oplegg. | Type | Afmeting | Staaf | Afmeting | Mti | Mti bov. | Mti ond. | Dwarskr. | Moment |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.000 | | | | S9 | 0,200 | Nee | | | Niet afgetopt | Niet afgetopt |
| m | - | - | m | - | m | - | kNm | kNm | - | - |

**Vloer 3**

| Positie | Oplegg. | Type | Afmeting | Staaf | Afmeting | Mti | Mti bov. | Mti ond. | Dwarskr. | Moment |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.000 | | | | S5 | 0,200 | Nee | | | Niet afgetopt | Niet afgetopt |
| 4.005 | | | | S8 | 0,200 | Nee | | | Niet afgetopt | Niet afgetopt |
| m | - | - | m | - | m | - | kNm | kNm | - | - |

**Wand 4**

| Positie | Oplegg. | Type | Afmeting | Staaf | Afmeting | Mti | Mti bov. | Mti ond. | Dwarskr. | Moment |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.000 | | | | S12 | 0,200 | Nee | | | Niet afgetopt | Niet afgetopt |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| m | - | - | m | - | m | - | kNm | kNm | - | - |

**Vloer 4**

| Positie | Oplegg. | Type | Afmeting | Staaf | Afmeting | Mti | Mti bov. | Mti ond. | Dwarskr. | Moment |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.000 | | | | S8 | 0,200 | Nee | | | Niet afgetopt | Niet afgetopt |
| 2.505 | | | | S11 | 0,200 | Nee | | | Niet afgetopt | Niet afgetopt |
| m | - | - | m | - | m | - | kNm | kNm | - | - |

**Wand 5**

| Positie | Oplegg. | Type | Afmeting | Staaf | Afmeting | Mti | Mti bov. | Mti ond. | Dwarskr. | Moment |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.000 | | | | S15 | 0,200 | Nee | | | Niet afgetopt | Niet afgetopt |
| m | - | - | m | - | m | - | kNm | kNm | - | - |

**Vloer 5**

| Positie | Oplegg. | Type | Afmeting | Staaf | Afmeting | Mti | Mti bov. | Mti ond. | Dwarskr. | Moment |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.000 | | | | S11 | 0,200 | Nee | | | Niet afgetopt | Niet afgetopt |
| 2.285 | | | | S14 | 0,250 | Nee | | | Niet afgetopt | Niet afgetopt |
| 2.585 | O1 | n.v.t. | 0,000 | | | Nee | | | Niet afgetopt | Niet afgetopt |
| m | - | - | m | - | m | - | kNm | kNm | - | - |

## VLOER 1

**DOORSNEDE BOVENWAPENING** — **Vloer 1**

| Positie | Md | Basis | Mod. | Bijleg | As,ben | As,toe | Scheurvorming | D,max | S,max |
|---|---|---|---|---|---|---|---|---|---|
| 0.000 | 0.00 | R8-150 | | | 0 | 335 | N/B | | |
| m | kNm | - | - | - | mm | mm | - | mm | mm |

**DOORSNEDE ONDERWAPENING** — **Vloer 1**

| Positie | Md | Basis | Mod. | Bijleg | As,ben | As,toe | Scheurvorming | D,max | S,max |
|---|---|---|---|---|---|---|---|---|---|
| 0.300 | 1.77 | R8-150 | | | 25 | 335 | | 14,35 | 300,00 |
| m | kNm | - | - | - | mm | mm | - | mm | mm |

**DOORSNEDE FLANKWAPENING** — **Vloer 1**

| Positie | Mx | Wapening | As,ben | As,toe |
|---|---|---|---|---|
| 0.000 | 0,00 | | 0 | 0 |
| m | kNm | - | mm | mm |

**DOORSNEDE BEUGELWAPENING** — **Vloer 1**

| Positie | Zijde | Vd | Wapening | AsV;ben. | AsT;ben. | As,toe | Vrd;c | Vrd | Ved | VRdi | VEdi |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.000 | Rechts | 0.00 | - | 0 | 0 | 0 | 73.491 | 73.49 | 0.00 | N/B | N/B |
| 0.292 | Links | 11.50 | - | 0 | 0 | 0 | 73.491 | 73.49 | 11.50 | N/B | N/B |
| 0.292 | Rechts | 11.50 | - | 0 | 0 | 0 | 73.491 | 73.49 | 11.50 | N/B | N/B |
| 0.300 | Links | 12.76 | - | 0 | 0 | 0 | 73.491 | 73.49 | 12.76 | N/B | N/B |
| m | - | kN | - | mm | mm | mm | kN | kN | kN | kN | kN |

## VLOER 2

**DOORSNEDE BOVENWAPENING** — **Vloer 2**

| Positie | Md | Basis | Mod. | Bijleg | As,ben | As,toe | Scheurvorming | D,max | S,max |
|---|---|---|---|---|---|---|---|---|---|
| 1.526 | 6.66 | R8-150 | | | 93 | 335 | | 14,55 | 300,00 |
| m | kNm | - | - | - | mm | mm | - | mm | mm |

**DOORSNEDE ONDERWAPENING** — **Vloer 2**

| Positie | Md | Basis | Mod. | Bijleg | As,ben | As,toe | Scheurvorming | D,max | S,max |
|---|---|---|---|---|---|---|---|---|---|
| 0.000 | 36.76 | R8-150 | | R10-150 | 541 | 859 | | 8,21 | 204,35 |
| 3.255 | 13.97 | R8-150 | | | 197 | 335 | | 11,05 | 246,04 |
| m | kNm | - | - | - | mm | mm | - | mm | mm |

**DOORSNEDE FLANKWAPENING** — **Vloer 2**

| Positie | Mx | Wapening | As,ben | As,toe |
|---|---|---|---|---|
| 0.000 | 0,00 | | 0 | 0 |
| m | kNm | - | mm | mm |

**DOORSNEDE BEUGELWAPENING** — **Vloer 2**

| Positie | Zijde | Vd | Wapening | AsV;ben. | AsT;ben. | As,toe | Vrd;c | Vrd | Ved | VRdi | VEdi |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.000 | Rechts | 35.42 | - | 0 | 0 | 0 | 78.060 | 78.06 | 35.42 | N/B | N/B |
| 3.255 | Links | 24.13 | - | 0 | 0 | 0 | 74.121 | 74.12 | 24.13 | N/B | N/B |
| m | - | kN | - | mm | mm | mm | kN | kN | kN | kN | kN |

**VLOER 3**

**DOORSNEDE BOVENWAPENING** — **Vloer 3**

| Positie | Md | Basis | Mod. | Bijleg | As,ben | As,toe | Scheurvorming | D,max | S,max |
|---|---|---|---|---|---|---|---|---|---|
| 2.003 | 10.79 | R8-150 | | | 152 | 335 | | 15,91 | 300,00 |
| m | kNm | - | - | - | mm | mm | - | mm | mm |

**DOORSNEDE ONDERWAPENING** — **Vloer 3**

| Positie | Md | Basis | Mod. | Bijleg | As,ben | As,toe | Scheurvorming | D,max | S,max |
|---|---|---|---|---|---|---|---|---|---|
| 0.000 | 13.97 | R8-150 | | | 197 | 335 | | 11,05 | 246,04 |
| 4.005 | 14.85 | R8-150 | | | 210 | 335 | | 13,95 | 271,77 |
| m | kNm | - | - | - | mm | mm | - | mm | mm |

**DOORSNEDE FLANKWAPENING** — **Vloer 3**

| Positie | Mx | Wapening | As,ben | As,toe |
|---|---|---|---|---|
| 0.000 | 0,00 | | 0 | 0 |
| m | kNm | - | mm | mm |

**DOORSNEDE BEUGELWAPENING** — **Vloer 3**

| Positie | Zijde | Vd | Wapening | AsV;ben. | AsT;ben. | As,toe | Vrd;c | Vrd | Ved | VRdi | VEdi |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.000 | Rechts | 26.51 | - | 0 | 0 | 0 | 74.121 | 74.12 | 26.51 | N/B | N/B |
| 4.005 | Links | 28.31 | - | 0 | 0 | 0 | 78.301 | 78.30 | 28.31 | N/B | N/B |
| m | - | kN | - | mm | mm | mm | kN | kN | kN | kN | kN |

**VLOER 4**

**DOORSNEDE BOVENWAPENING** — **Vloer 4**

| Positie | Md | Basis | Mod. | Bijleg | As,ben | As,toe | Scheurvorming | D,max | S,max |
|---|---|---|---|---|---|---|---|---|---|
| 1.409 | 4.13 | R8-150 | | | 58 | 335 | | 15,91 | 300,00 |
| m | kNm | - | - | - | mm | mm | - | mm | mm |

**DOORSNEDE ONDERWAPENING** — **Vloer 4**

| Positie | Md | Basis | Mod. | Bijleg | As,ben | As,toe | Scheurvorming | D,max | S,max |
|---|---|---|---|---|---|---|---|---|---|
| 0.000 | 14.85 | R8-150 | | | 210 | 335 | | 13,95 | 271,77 |
| 2.505 | 11.11 | R8-150 | | | 156 | 335 | | 15,08 | 287,76 |
| m | kNm | - | - | - | mm | mm | - | mm | mm |

**DOORSNEDE FLANKWAPENING** — **Vloer 4**

| Positie | Mx | Wapening | As,ben | As,toe |
|---|---|---|---|---|
| 0.000 | 0,00 | | 0 | 0 |
| m | kNm | - | mm | mm |

**DOORSNEDE BEUGELWAPENING** — **Vloer 4**

| Positie | Zijde | Vd | Wapening | AsV;ben. | AsT;ben. | As,toe | Vrd;c | Vrd | Ved | VRdi | VEdi |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.000 | Rechts | 27.03 | - | 0 | 0 | 0 | 78.301 | 78.30 | 27.03 | N/B | N/B |
| 2.505 | Links | 24.56 | - | 0 | 0 | 0 | 78.348 | 78.35 | 24.56 | N/B | N/B |
| m | - | kN | - | mm | mm | mm | kN | kN | kN | kN | kN |

**VLOER 5**

**DOORSNEDE BOVENWAPENING** — **Vloer 5**

| Positie | Md | Basis | Mod. | Bijleg | As,ben | As,toe | Scheurvorming | D,max | S,max |
|---|---|---|---|---|---|---|---|---|---|
| 1.039 | 1.92 | R8-150 | | | 27 | 335 | | 14,55 | 300,00 |
| m | kNm | - | - | - | mm | mm | - | mm | mm |

**DOORSNEDE ONDERWAPENING** — **Vloer 5**

| Positie | Md | Basis | Mod. | Bijleg | As,ben | As,toe | Scheurvorming | D,max | S,max |
|---|---|---|---|---|---|---|---|---|---|
| 0.000 | 11.11 | R8-150 | | | 156 | 335 | | 15,08 | 287,76 |
| 2.285 | 37.54 | R8-150 | | R10-150 | 553 | 859 | | 7,78 | 199,15 |
| m | kNm | - | - | - | mm | mm | - | mm | mm |

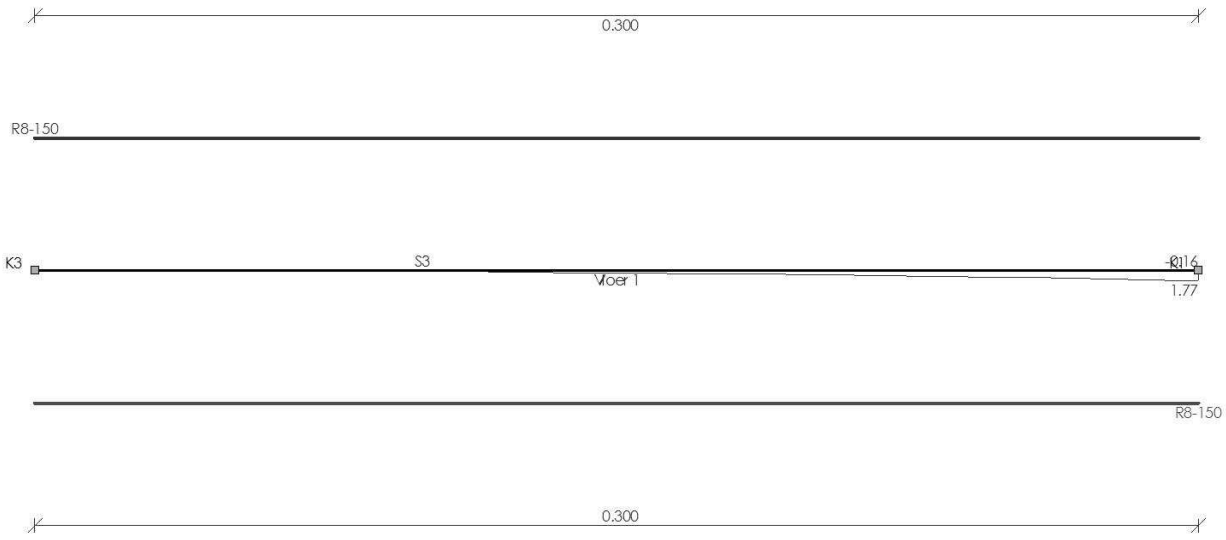
**DOORSNEDE FLANKWAPENING** **Vloer 5**

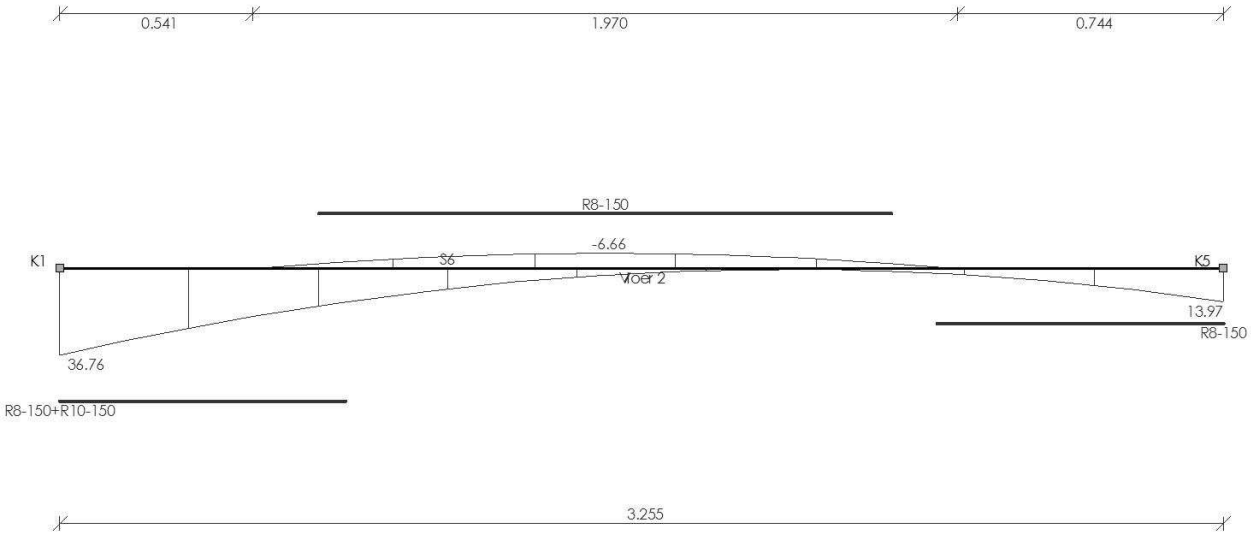
| Positie | Mx | Wapening | As,ben | As,toe |
|---|---|---|---|---|
| 0.000 | 0,00 | | 0 | 0 |
| 2.285 | 0,00 | | 0 | 0 |
| m | kNm | - | mm | mm |

**DOORSNEDE BEUGELWAPENING** **Vloer 5**

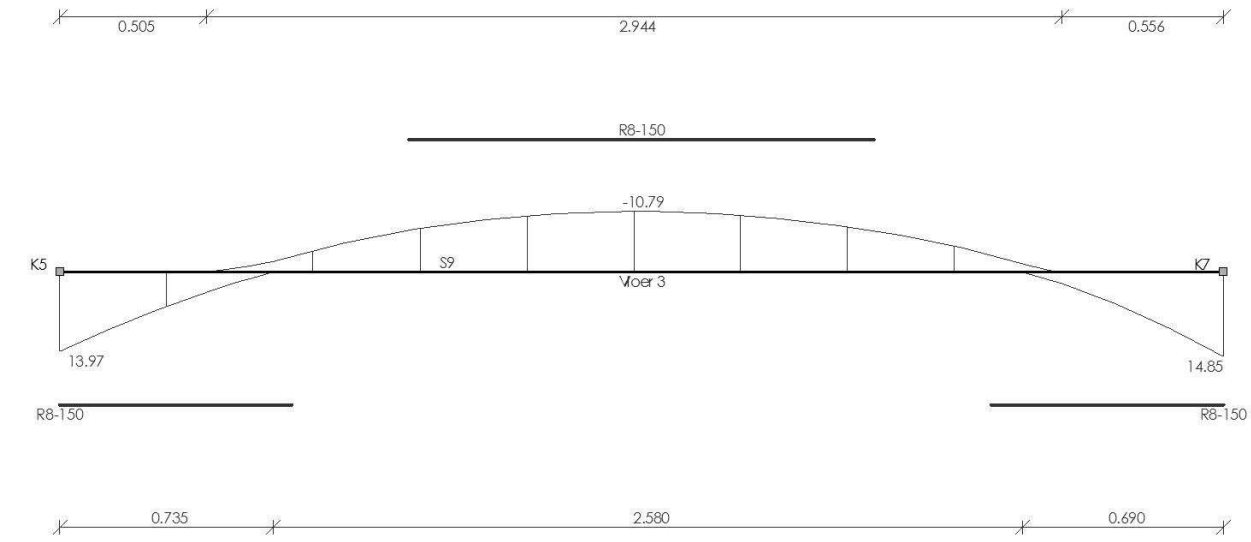
| Positie | Zijde | Vd | Wapening | AsV;ben. | AsT;ben. | As,toe | Vrd;c | Vrd | Ved | VRdi | VEdi |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.000 | Rechts | 17.82 | - | 0 | 0 | 0 | 78.348 | 78.35 | 17.82 | N/B | N/B |
| 2.285 | Links | 34.63 | - | 0 | 0 | 0 | 78.014 | 78.01 | 34.63 | N/B | N/B |
| 2.285 | Rechts | 11.21 | - | 0 | 0 | 0 | 73.189 | 73.19 | 11.21 | N/B | N/B |
| 2.585 | Links | 0.00 | - | 0 | 0 | 0 | 73.143 | 73.14 | 0.00 | N/B | N/B |
| m | - | kN | - | mm | mm | mm | kN | kN | kN | kN | kN |

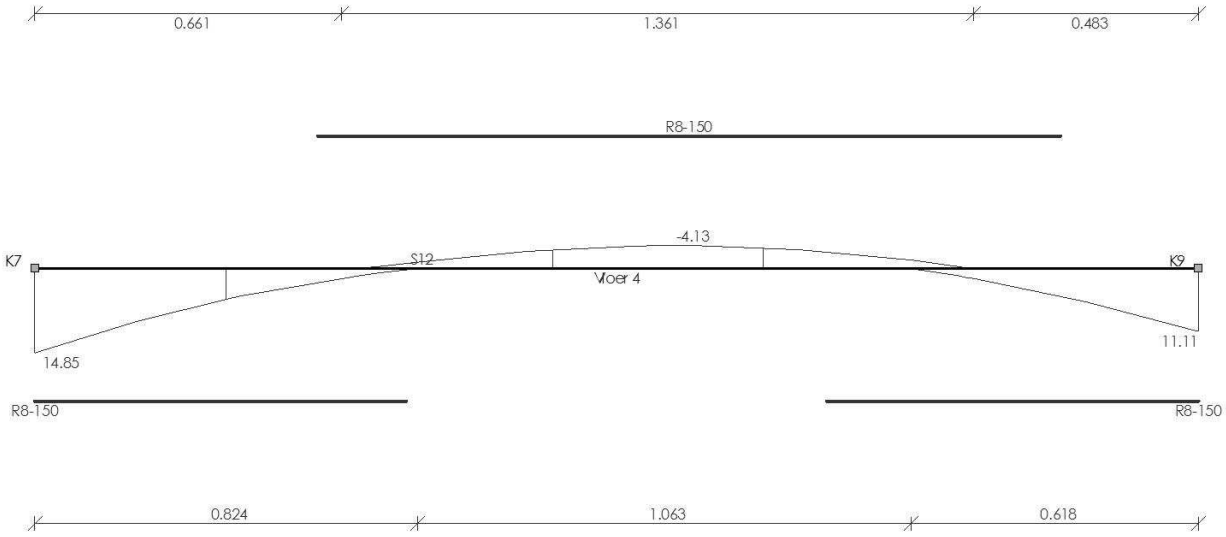
AFB. LANGSWAPENING. (CAPACITEIT) VLOER 1



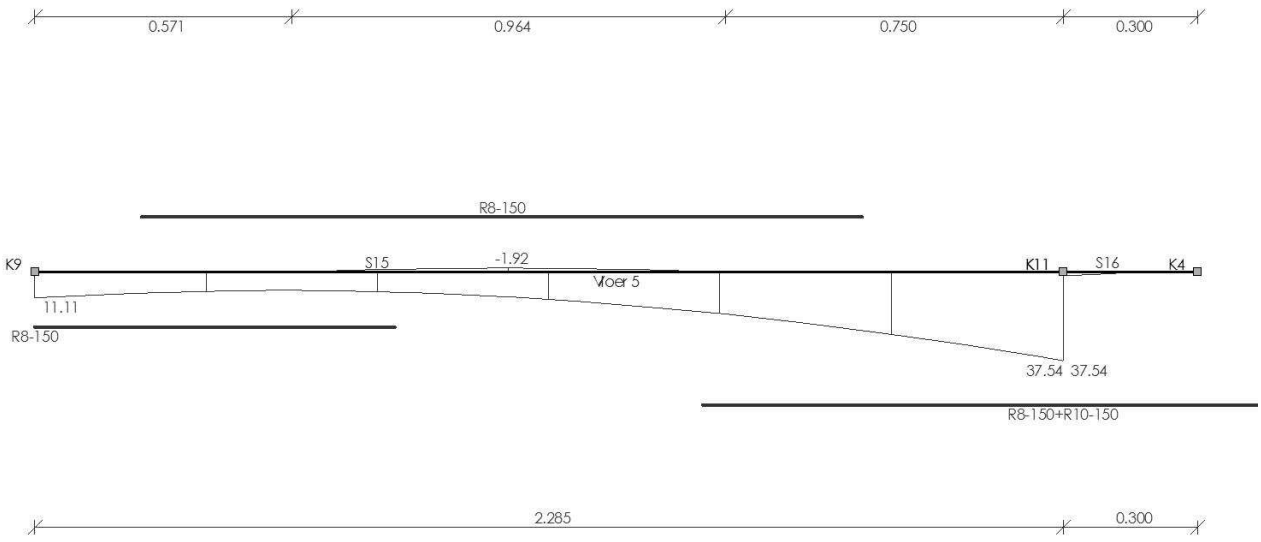

0.541
1.970
0.744
R8-150
-6.66
K1
S6
K5
Vloer 2
13.97
R8-150
36.76
R8-150+R10-150
3.255




0.505
2.944
0.556
R8-150
-10.79
K5
S9
K7
Vloer 3
13.97
14.85
R8-150
R8-150
0.735
2.580
0.690

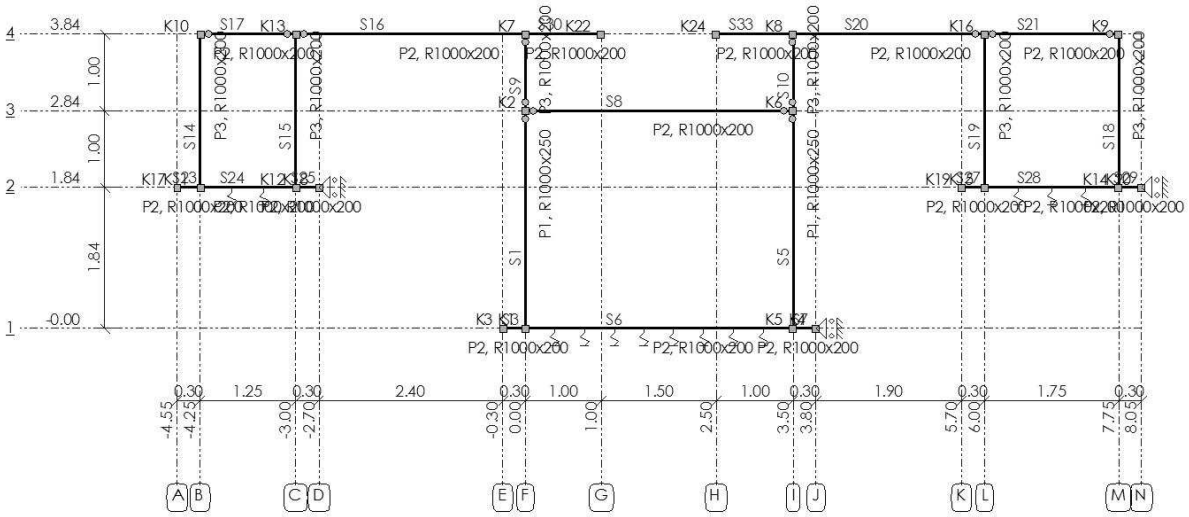

0.661
1.361
0.483
R8-150
-4.13
K7
S12
K9
Vloer 4
14.85
11.11
R8-150
R8-150
0.824
1.063
0.618




0.571
0.964
0.750
0.300
R8-150
K9
S15
-1.92
K11
S16
K4
Vloer 5
11.11
R8-150
37.54 37.54
R8-150+R10-150
2.285
0.300

## Bijlage G

Berekening Melkput




## STAVEN

| Staaf | Knoop B | B | Scharnier E | Knoop E | Profiel | X-B | Z-B | X-E | Z-E | Lengte |
|---|---|---|---|---|---|---|---|---|---|---|
| S1 | K1 | NVM | NV- | K2 | P1 | 0,000 | 0,000 | 0,000 | -2,840 | 2,840 |
| S3 | K3 | NVM | NVM | K1 | P2 | -0,300 | 0,000 | 0,000 | 0,000 | 0,300 |
| S5 | K5 | NVM | NV- | K6 | P1 | 3,500 | 0,000 | 3,500 | -2,840 | 2,840 |
| S6 | K1 | NVM | NVM | K5 | P2 | 0,000 | 0,000 | 3,500 | 0,000 | 3,500 |
| S7 | K5 | NVM | NVM | K4 | P2 | 3,500 | 0,000 | 3,800 | 0,000 | 0,300 |
| S8 | K2 | NV- | NV- | K6 | P2 | 0,000 | -2,840 | 3,500 | -2,840 | 3,500 |
| S9 | K2 | NV- | NV- | K7 | P3 | 0,000 | -2,840 | 0,000 | -3,840 | 1,000 |
| S10 | K6 | NV- | NV- | K8 | P3 | 3,500 | -2,840 | 3,500 | -3,840 | 1,000 |
| S14 | K11 | NVM | NVM | K10 | P3 | -4,250 | -1,840 | -4,250 | -3,840 | 2,000 |
| S15 | K12 | NVM | NVM | K13 | P3 | -3,000 | -1,840 | -3,000 | -3,840 | 2,000 |
| S16 | K13 | NV- | NVM | K7 | P2 | -3,000 | -3,840 | 0,000 | -3,840 | 3,000 |
| S17 | K10 | NV- | NV- | K13 | P2 | -4,250 | -3,840 | -3,000 | -3,840 | 1,250 |
| S18 | K14 | NVM | NVM | K9 | P3 | 7,750 | -1,840 | 7,750 | -3,840 | 2,000 |
| S19 | K15 | NVM | NVM | K16 | P3 | 6,000 | -1,840 | 6,000 | -3,840 | 2,000 |
| S20 | K8 | NVM | NV- | K16 | P2 | 3,500 | -3,840 | 6,000 | -3,840 | 2,500 |
| S21 | K16 | NV- | NV- | K9 | P2 | 6,000 | -3,840 | 7,750 | -3,840 | 1,750 |
| S23 | K17 | NVM | NVM | K11 | P2 | -4,550 | -1,840 | -4,250 | -1,840 | 0,300 |
| S24 | K11 | NVM | NVM | K12 | P2 | -4,250 | -1,840 | -3,000 | -1,840 | 1,250 |
| S25 | K12 | NVM | NVM | K18 | P2 | -3,000 | -1,840 | -2,700 | -1,840 | 0,300 |
| S27 | K19 | NVM | NVM | K15 | P2 | 5,700 | -1,840 | 6,000 | -1,840 | 0,300 |
| S28 | K15 | NVM | NVM | K14 | P2 | 6,000 | -1,840 | 7,750 | -1,840 | 1,750 |
| S29 | K14 | NVM | NVM | K20 | P2 | 7,750 | -1,840 | 8,050 | -1,840 | 0,300 |
| S30 | K7 | NVM | NVM | K22 | P2 | 0,000 | -3,840 | 1,000 | -3,840 | 1,000 |
| S33 | K24 | NVM | NVM | K8 | P2 | 2,500 | -3,840 | 3,500 | -3,840 | 1,000 |
| - | - | - | - | - | - | m | m | m | m | m |

## PROFIELEN

| Profiel | Profielnaam | Oppervlakte | Iy | Materiaal | Hoek |
|---|---|---|---|---|---|
| P1 | R1000x250 | 2.5000e-01 | 1.3021e-03 | C30/37 | 0 |
| P2 | R1000x200 | 2.0000e-01 | 6.6667e-04 | C20/25 | 0 |
| P3 | R1000x200 | 2.0000e-01 | 6.6667e-04 | C30/37 | 0 |
| - | - | m2 | m4 | - | ° |

## PROFIELVORMEN

| Profiel | Verl. h. | hB | hE | tf | tw | tf2 | B | bL | bR | Raatl. | Hoogte |
|---|---|---|---|---|---|---|---|---|---|---|---|
| P1 | Nee | 0.250 | 0.250 | 0.000 | 0.000 | 0.000 | 1.000 | 0.000 | 0.000 | Nee | 0.000 |
| P2 | Nee | 0.200 | 0.200 | 0.000 | 0.000 | 0.000 | 1.000 | 0.000 | 0.000 | Nee | 0.000 |
| P3 | Nee | 0.200 | 0.200 | 0.000 | 0.000 | 0.000 | 1.000 | 0.000 | 0.000 | Nee | 0.000 |
| - | - | m | m | m | m | m | m | m | m | - | m |

## MATERIALEN

| Materiaal | Dichtheid | E-Modulus | Uitzettingcoeff |
|---|---|---|---|
| C30/37 | 25.00 | 3.3000e+07 | 10.0000e-06 |
| C20/25 | 25.00 | 3.0000e+07 | 10.0000e-06 |
| - | kN/m3 | kN/m2 | C°m |

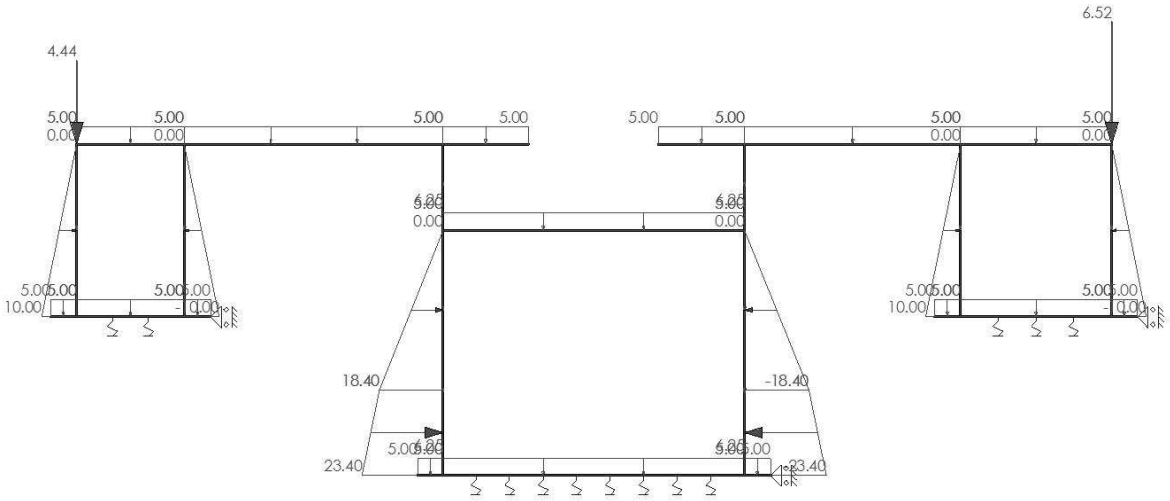
## OPLEGGINGEN

| Oplegging | Knoop | X | Z | Yr | HoekYr |
|---|---|---|---|---|---|
| O1 | K4 | vast | vrij | vrij | 0 |
| O6 | K18 | vast | vrij | vrij | 0 |
| O7 | K20 | vast | vrij | vrij | 0 |
| - | - | kN/m | kN/m | kNmrad | ° |

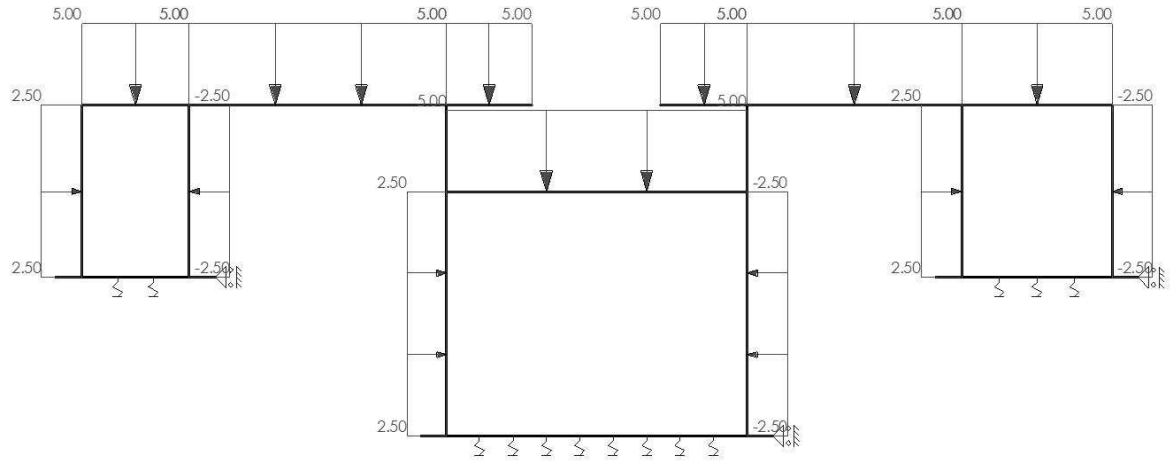
## BELASTINGSGEVALLEN TYPEN

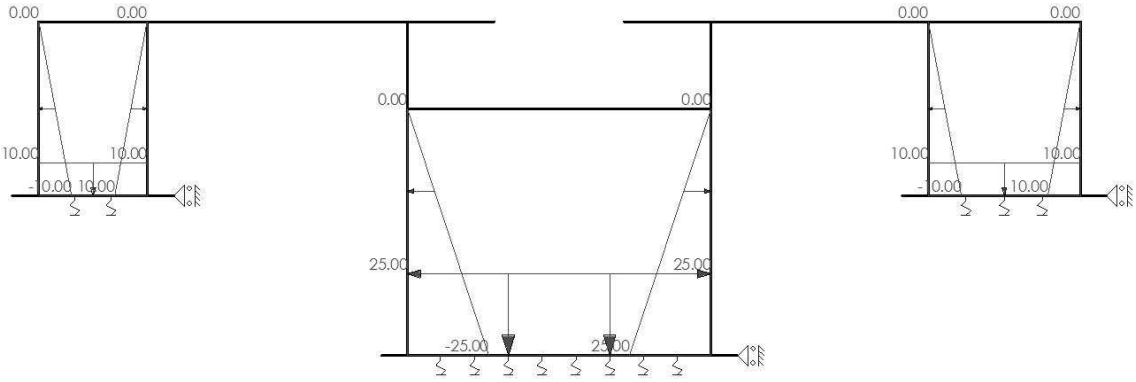
| Oplegg. | Staven | B.G.Type | Gunstig/Ong. | Element | Niveau | Veld | Psi0 | Psi1 | Psi2 | Cprob |
|---|---|---|---|---|---|---|---|---|---|---|
| B.G.1 | Permanent | Permanent | - | | N.v.t. | N.v.t. | | | | |
| B.G.2 | Verdeelde veranderlijke belasting | Verdeelde veranderlijke belasting | - | Cat. E1) Andere | 1 | 1 | 1.00 | 0.90 | 0.80 | 1,00 |
| B.G.3 | Melk | Niet gedefinieerd | | | N.v.t. | N.v.t. | | | | |
| B.G.4 | GWS | Niet gedefinieerd | | | N.v.t. | N.v.t. | | | | |
| B.G.5 | Sneeuwbelasting | Sneeuwbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,75 |

AFB. LASTEN B.G.1 PERMANENT

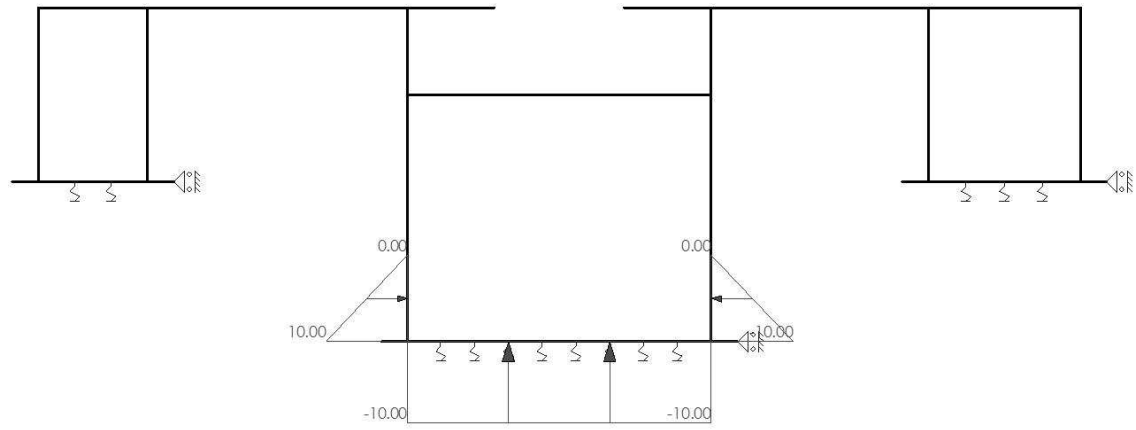


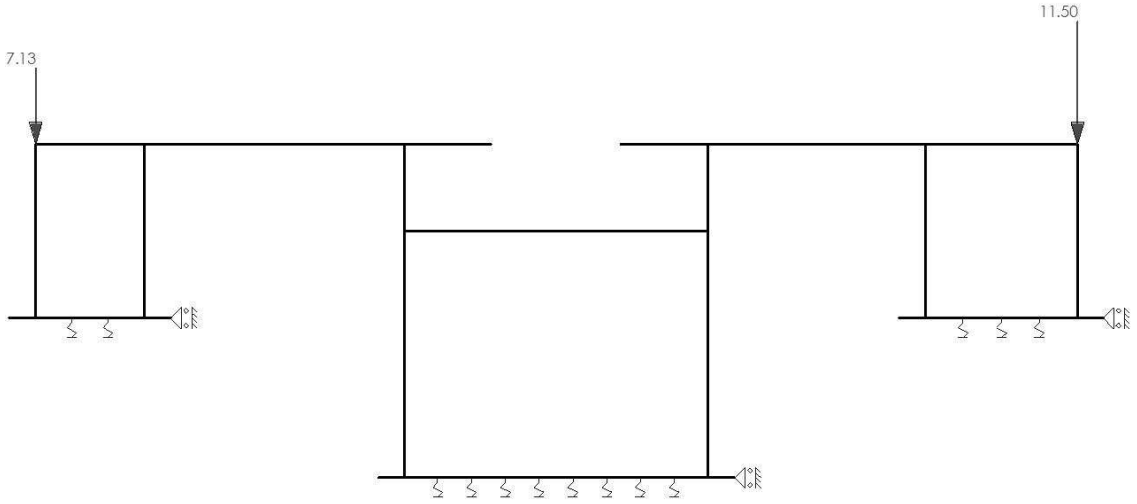

AFB. LASTEN B.G.2 VERDEELDE VERANDERLIJKE BELASTING




0.00
0.00
10.00
10.00
-10.00
10.00
0.00
0.00
25.00
25.00
-25.00
25.00
0.00
0.00
10.00
10.00
-10.00
10.00




0.00
0.00
10.00
10.00
-10.00
-10.00




## FUNDAMENTEEL BELASTINGSCOMBINATIES (TABEL)

| B.G. | Omschrijving | Fu.C.1 | Fu.C.2 | Fu.C.3 | Fu.C.4 | Fu.C.5 | Fu.C.6 |
|---|---|---|---|---|---|---|---|
| B.G.1 | Permanent | 0.90 | 1.08 | 1.08 | 1.08 | 1.08 | - |
| B.G.2 | Verdeelde veranderlijke belasting | - | 1.35 | 1.35 | 1.35 | 1.35 | - |
| B.G.3 | Melk | - | - | 1.35 | - | - | - |
| B.G.4 | GWS | 1.00 | 0.50 | 0.50 | 0.50 | 0.50 | - |
| B.G.5 | Sneeuwbelasting | - | - | - | - | 1.35 | - |

## KARAKTERISTIEK BELASTINGSCOMBINATIES (TABEL)

| B.G. | Omschrijving | Ka.C.(w1) | Ka.C.1 | Ka.C.2 | Ka.C.3 | Ka.C.4 | Ka.C.5 |
|---|---|---|---|---|---|---|---|
| B.G.1 | Permanent | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| B.G.2 | Verdeelde veranderlijke belasting | - | - | 1.00 | 1.00 | 1.00 | 1.00 |
| B.G.3 | Melk | - | - | - | 1.00 | - | - |
| B.G.4 | GWS | - | 1.00 | 0.50 | 0.50 | 0.50 | 0.50 |
| B.G.5 | Sneeuwbelasting | - | - | - | - | - | 1.00 |

## FREQUENT BELASTINGSCOMBINATIES (TABEL)

| B.G. | Omschrijving | Fr.C.(w1) | Fr.C.1 | Fr.C.2 |
|---|---|---|---|---|
| B.G.1 | Permanent | 1.00 | 1.00 | 1.00 |
| B.G.2 | Verdeelde veranderlijke belasting | - | 0.90 | 0.80 |
| B.G.3 | Melk | - | - | - |
| B.G.4 | GWS | - | - | - |
| B.G.5 | Sneeuwbelasting | - | - | - |

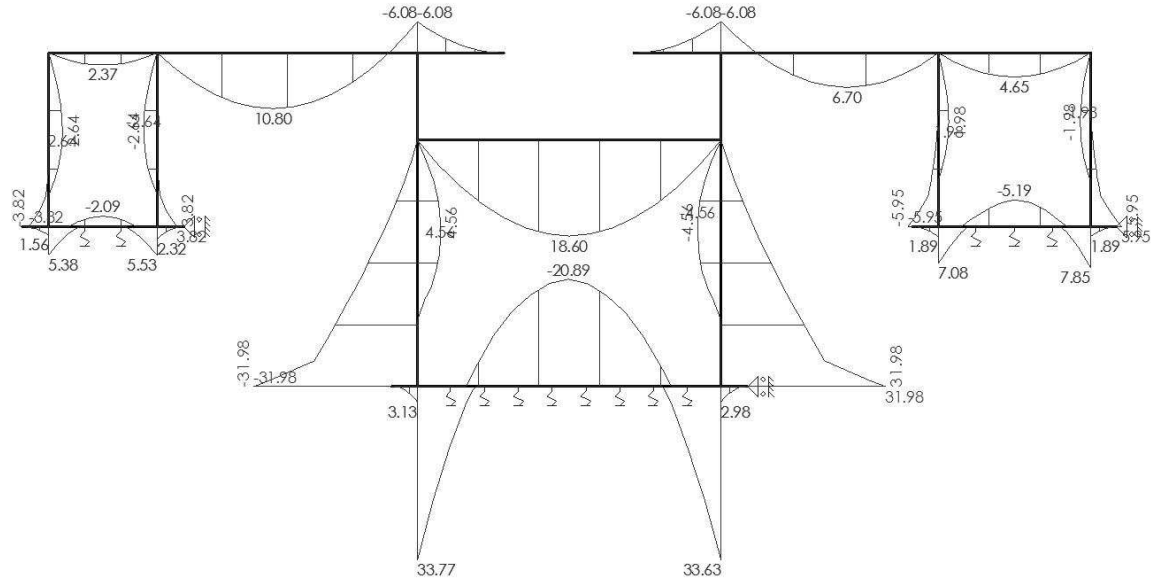
## QUASI-PERMANENT BELASTINGSCOMBINATIES (TABEL)

| B.G. | Omschrijving | Qu.C.1 |
|---|---|---|
| B.G.1 | Permanent | 1.00 |
| B.G.2 | Verdeelde veranderlijke belasting | 0.80 |
| B.G.3 | Melk | - |
| B.G.4 | GWS | - |
| B.G.5 | Sneeuwbelasting | - |

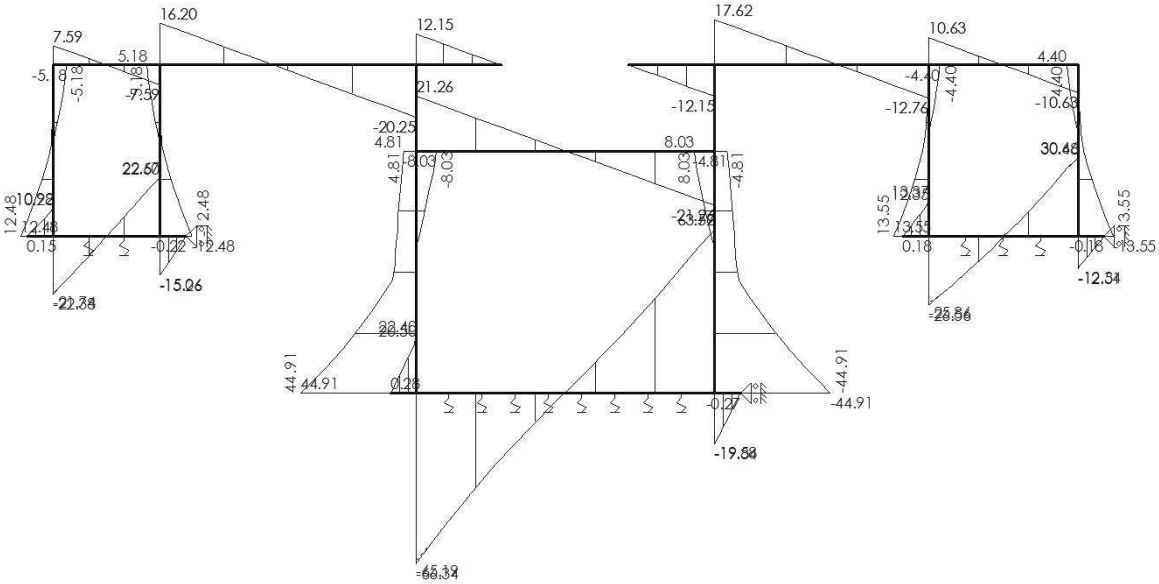
## UITGANGSPUNTEN VAN DE ANALYSE

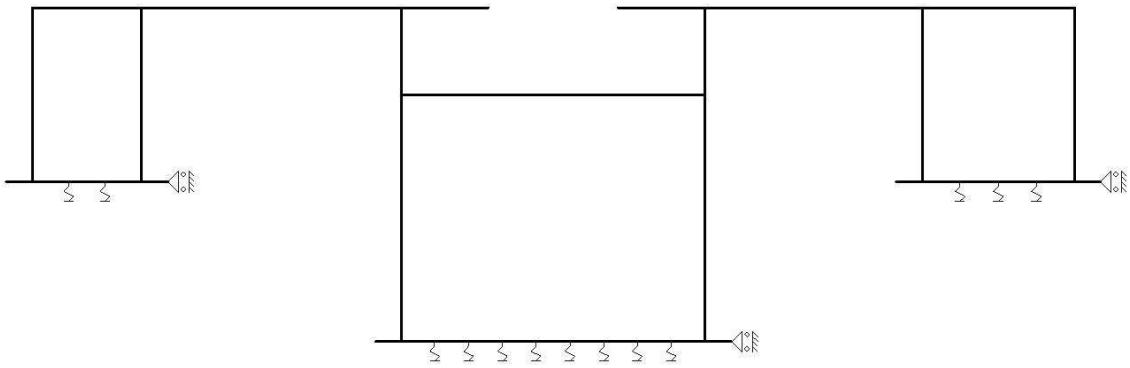
Geavanceerde Analyse

Trekeliminatie voor fundering(en) gebruikt

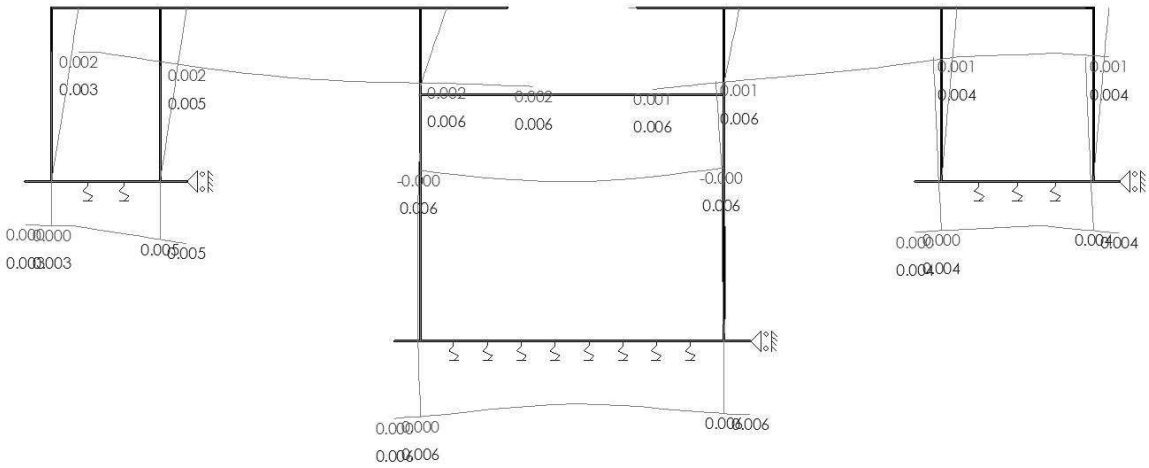

-6.08-6.08
-6.08-6.08
2.37
10.80
6.70
4.65
-2.09
-5.19
1.56
5.38
5.53
2.32
1.89
7.08
7.85
1.89
4.56
18.60
-20.89
-31.98
-31.98
31.98
3.13
2.98
33.77
33.63




16.20
12.15
17.62
10.63
7.59
5.18
21.26
-20.25
4.81
8.03
-12.15
-12.76
4.40
-10.63
30.46
22.50
10.28
12.48
2.48
0.15
-15.26
13.55
-12.54
44.91
-44.91
-19.58





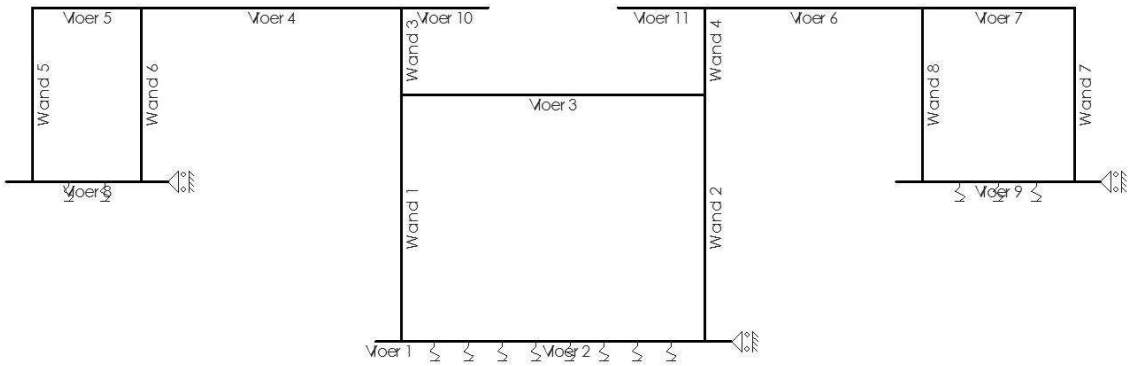



## KA.C. EXTREME DOORBUIGINGEN ANALYSE

| Staaf | B.C. | Knoop Begin | | Staaf | | Knoop Eind | |
|---|---|---|---|---|---|---|---|
| | | X | Z | Z'afst | Z' | X | Z |
| S1 | Ka.C. (w1) | 0,000 | 0,003 | 1.732 | **0.0001** | 0,000 | 0,003 |
| S1 | Ka.C.3 | 0,000 | 0,006 | 1.100 | **-0.0002** | 0,000 | 0,006 |
| S5 | Ka.C. (w1) | 0,000 | 0,003 | 1.732 | **-0.0001** | 0,000 | 0,003 |
| S5 | Ka.C.3 | 0,000 | 0,006 | 1.100 | **0.0002** | 0,000 | 0,006 |
| S6 | Ka.C.3 | 0,000 | 0,006 | 1.750 | **-0.0008** | 0,000 | 0,006 |
| S8 | Ka.C.2 | 0,000 | 0,004 | 1.750 | **0.0010** | 0,000 | 0,004 |
| S8 | Ka.C.4 | 0,000 | 0,004 | 1.750 | **0.0010** | 0,000 | 0,004 |
| S8 | Ka.C.5 | 0,000 | 0,004 | 1.750 | **0.0010** | 0,000 | 0,004 |
| S14 | Ka.C.2 | 0,000 | 0,003 | 1.073 | **0.0000** | 0,002 | 0,003 |
| S14 | Ka.C.4 | 0,000 | 0,003 | 1.073 | **0.0000** | 0,002 | 0,003 |
| S15 | Ka.C.2 | 0,000 | 0,004 | 1.073 | **0.0000** | 0,002 | 0,004 |
| S15 | Ka.C.4 | 0,000 | 0,004 | 1.073 | **0.0000** | 0,002 | 0,004 |
| S16 | Ka.C.2 | 0,002 | 0,004 | 1.429 | **0.0004** | 0,002 | 0,004 |
| S16 | Ka.C.4 | 0,002 | 0,004 | 1.429 | **0.0004** | 0,002 | 0,004 |
| S16 | Ka.C.5 | 0,000 | 0,004 | 1.429 | **0.0004** | 0,000 | 0,004 |
| S17 | Ka.C.2 | 0,002 | 0,003 | 0.625 | **0.0000** | 0,002 | 0,004 |
| S17 | Ka.C.3 | 0,002 | 0,003 | 0.625 | **0.0000** | 0,002 | 0,005 |
| S17 | Ka.C.4 | 0,002 | 0,003 | 0.625 | **0.0000** | 0,002 | 0,004 |
| S17 | Ka.C.5 | 0,000 | 0,003 | 0.625 | **0.0000** | 0,000 | 0,004 |
| S18 | Ka.C.2 | 0,000 | 0,003 | 1.170 | **0.0000** | -0,001 | 0,003 |

| Staaf | B.C. | Knoop Begin | | Staaf | | Knoop Eind | |
|---|---|---|---|---|---|---|---|
| | | X | Z | Z'afst | Z' | X | Z |
| S18 | Ka.C.3 | 0,000 | 0,003 | 0.559 | **0.0000** | -0,001 | 0,003 |
| S18 | Ka.C.4 | 0,000 | 0,003 | 1.170 | **0.0000** | -0,001 | 0,003 |
| S19 | Ka.C.2 | 0,000 | 0,003 | 1.170 | **0.0000** | -0,001 | 0,003 |
| S19 | Ka.C.3 | 0,000 | 0,004 | 0.559 | **0.0000** | -0,001 | 0,004 |
| S19 | Ka.C.4 | 0,000 | 0,003 | 1.170 | **0.0000** | -0,001 | 0,003 |
| S20 | Ka.C.5 | 0,001 | 0,004 | 1.347 | **0.0002** | 0,001 | 0,003 |
| S21 | Ka.C.3 | -0,001 | 0,004 | 0.875 | **0.0001** | -0,001 | 0,003 |
| S28 | Ka.C.5 | 0,000 | 0,003 | 1.006 | **0.0000** | 0,000 | 0,004 |
| S30 | Ka.C.2 | 0,002 | 0,004 | 0.370 | **0.0000** | 0,002 | 0,004 |
| S30 | Ka.C.4 | 0,002 | 0,004 | 0.370 | **0.0000** | 0,002 | 0,004 |
| S30 | Ka.C.5 | 0,000 | 0,004 | 0.370 | **0.0000** | 0,000 | 0,004 |
| S33 | Ka.C.2 | -0,001 | 0,004 | 0.630 | **0.0000** | -0,001 | 0,004 |
| S33 | Ka.C.4 | -0,001 | 0,004 | 0.630 | **0.0000** | -0,001 | 0,004 |
| **-** | **-** | **m** | **m** | **m** | **m** | **m** | **m** |

FIG. BETONDEFINITIE




## BETON EIGENSCHAPPEN (NEN-EN1992-1-1+C2:2010/NB:2011)

| Naam | Waarde | Eenheden |
|---|---|---|
| Hoek drukdiagonaal | 21.80 | ° |

## CONSTRUCTIEDELEN

| Staaf | Profiellabel | Profiel | Betonkwal. | Constr.Dl. | Type | Begin: | Eind: | Groep |
|---|---|---|---|---|---|---|---|---|
| S1 | P1 | R1000x250 | C30/37 | Wand 1 | Wand | 0.000 | 2.840 | G1 |
| S3 | P2 | R1000x200 | C20/25 | Vloer 1 | Vloer | 0.000 | 0.300 | G2 |
| S5 | P1 | R1000x250 | C30/37 | Wand 2 | Wand | 0.000 | 2.840 | G1 |
| S6 | P2 | R1000x200 | C20/25 | Vloer 2 | Vloer | 0.000 | 3.500 | G2 |
| S7 | P2 | R1000x200 | C20/25 | Vloer 2 | Vloer | 0.000 | 0.300 | G2 |
| S8 | P2 | R1000x200 | C20/25 | Vloer 3 | Vloer | 0.000 | 3.500 | G2 |
| S9 | P3 | R1000x200 | C30/37 | Wand 3 | Wand | 0.000 | 1.000 | G3 |
| S10 | P3 | R1000x200 | C30/37 | Wand 4 | Wand | 0.000 | 1.000 | G3 |
| S14 | P3 | R1000x200 | C30/37 | Wand 5 | Wand | 0.000 | 2.000 | G3 |
| S15 | P3 | R1000x200 | C30/37 | Wand 6 | Wand | 0.000 | 2.000 | G3 |
| S16 | P2 | R1000x200 | C20/25 | Vloer 4 | Vloer | 0.000 | 3.000 | G2 |
| S17 | P2 | R1000x200 | C20/25 | Vloer 5 | Vloer | 0.000 | 1.250 | G2 |
| S18 | P3 | R1000x200 | C30/37 | Wand 7 | Wand | 0.000 | 2.000 | G3 |
| S19 | P3 | R1000x200 | C30/37 | Wand 8 | Wand | 0.000 | 2.000 | G3 |
| S20 | P2 | R1000x200 | C20/25 | Vloer 6 | Vloer | 0.000 | 2.500 | G2 |
| S21 | P2 | R1000x200 | C20/25 | Vloer 7 | Vloer | 0.000 | 1.750 | G2 |
| S23 | P2 | R1000x200 | C20/25 | Vloer 8 | Vloer | 0.000 | 0.300 | G2 |
| S24 | P2 | R1000x200 | C20/25 | Vloer 8 | Vloer | 0.000 | 1.250 | G2 |
| S25 | P2 | R1000x200 | C20/25 | Vloer 8 | Vloer | 0.000 | 0.300 | G2 |
| S27 | P2 | R1000x200 | C20/25 | Vloer 9 | Vloer | 0.000 | 0.300 | G2 |
| S28 | P2 | R1000x200 | C20/25 | Vloer 9 | Vloer | 0.000 | 1.750 | G2 |
| S29 | P2 | R1000x200 | C20/25 | Vloer 9 | Vloer | 0.000 | 0.300 | G2 |

| Staaf | Profiellabel | Profiel | Betonkwal. | Constr.Dl. | Type | Begin: | Eind: | Groep |
|---|---|---|---|---|---|---|---|---|
| S30 | P2 | R1000x200 | C20/25 | Vloer 10 | Vloer | 0.000 | 1.000 | G2 |
| S33 | P2 | R1000x200 | C20/25 | Vloer 11 | Vloer | 0.000 | 1.000 | G2 |
| - | - | - | - | - | - | m | m | - |

## GROEPGEGEVENS

| Groep | Constr.Dl. | Voorspanning | L1 | L2 | Staal | Fabric. | N.Kor. | Stortsl. | Toetsing afmeting | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| G1 | Wand | Nee | N/A | N/A | B500A | I.h.w. | 31.5 | 0 | h,min: | 250 >= 120 | NEN-EN1992-1-1#9.6.1(2) |
| G2 | Vloer | Nee | N/A | N/A | B500A | I.h.w. | 31.5 | 0 | h,min: | 200 >= 80 | NEN-EN1992-1-1#9.3(1) |
| G3 | Wand | Nee | N/A | N/A | B500A | I.h.w. | 31.5 | 0 | h,min: | 200 >= 120 | NEN-EN1992-1-1#9.6.1(2) |
| - | - | - | - | - | - | - | mm | mm | - | | |

## BRAND

| Groep | Label | Profiel | Constr. | Brandw. | Br.res. | Boven | Links | Onder | Rechts | Staal |
|---|---|---|---|---|---|---|---|---|---|---|
| G1 | P1 | R1000x250 | Wand | Nee | 120 | Nee | Nee | Nee | Nee | Koud |
| G2 | P2 | R1000x200 | Vloer | Nee | 120 | Nee | Nee | Nee | Nee | Warm |
| G3 | P3 | R1000x200 | Wand | Nee | 120 | Nee | Nee | Nee | Nee | Koud |
| **-** | **-** | **-** | **-** | **-** | **min.** | **-** | **-** | **-** | **-** | **-** |

## KRUIP

| Groep | Cement | RV (%) | Ouderdom | Tijd T | Kruip type | Kruipcoeff. |
|---|---|---|---|---|---|---|
| G1 | S | 60 % | 28 Dagen | Inf | Berekend | 2.2 |
| G2 | S | 60 % | 28 Dagen | Inf | Berekend | 2.7 |
| G3 | S | 60 % | 28 Dagen | Inf | Berekend | 2.3 |
| - | - | - | - | - | - | - |

## DEKKING

| Groep | Str.Class | Boven | | | | | | Onder | | | | | | Zij- + Voorkant | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Mil. | Ruw | Met. | C,min | C,no | C,toe | Mil. | Ruw | Met. | C,min | C,no | C,toe | Mil. | Ruw | Met. | C,min | C,no | C,toe |
| G1 | S4 | XC3 | Nee | Norm. | 25 | 30 | 30 | XC3 | Nee | Norm. | 25 | 30 | 30 | XC3 | Nee | Norm. | 25 | 30 | 30 |
| G2 | S4 | XC3 | Nee | Norm. | 25 | 30 | 30 | XC3 | Nee | Norm. | 25 | 30 | 30 | XC3 | Nee | Norm. | 25 | 30 | 30 |
| G3 | S4 | XC3 | Nee | Norm. | 25 | 30 | 30 | XC3 | Nee | Norm. | 25 | 30 | 30 | XC3 | Nee | Norm. | 25 | 30 | 30 |
| - | - | - | - | - | mm | mm | mm | - | - | - | mm | mm | mm | - | - | - | mm | mm | mm |

## OPLEGGEGEVENS

**Wand 1**

| Positie | Oplegg. | Type | Afmeting | Staaf | Afmeting | Mti | Mti bov. | Mti ond. | Dwarskr. | Moment |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.000 | | | | S3 | 0,200 | Nee | | | Niet afgetopt | Niet afgetopt |
| 2.840 | | | | S8 | 0,200 | Nee | | | Niet afgetopt | Niet afgetopt |
| m | - | - | m | - | m | - | kNm | kNm | - | - |

**Vloer 1**

| Positie | Oplegg. | Type | Afmeting | Staaf | Afmeting | Mti | Mti bov. | Mti ond. | Dwarskr. | Moment |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.300 | | | | S1 | 0,250 | Nee | | | Niet afgetopt | Niet afgetopt |
| m | - | - | m | - | m | - | kNm | kNm | - | - |

**Wand 2**

| Positie | Oplegg. | Type | Afmeting | Staaf | Afmeting | Mti | Mti bov. | Mti ond. | Dwarskr. | Moment |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.000 | | | | S6 | 0,200 | Nee | | | Niet afgetopt | Niet afgetopt |
| 2.840 | | | | S8 | 0,200 | Nee | | | Niet afgetopt | Niet afgetopt |
| m | - | - | m | - | m | - | kNm | kNm | - | - |

**Vloer 2**

| Positie | Oplegg. | Type | Afmeting | Staaf | Afmeting | Mti | Mti bov. | Mti ond. | Dwarskr. | Moment |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.000 | | | | S1 | 0,250 | Nee | | | Niet afgetopt | Niet afgetopt |
| 3.500 | | | | S5 | 0,250 | Nee | | | Niet afgetopt | Niet afgetopt |
| 3.800 | O1 | n.v.t. | 0,000 | | | Nee | | | Niet afgetopt | Niet afgetopt |
| m | - | - | m | - | m | - | kNm | kNm | - | - |

**Vloer 3**

| Positie | Oplegg. | Type | Afmeting | Staaf | Afmeting | Mti | Mti bov. | Mti ond. | Dwarskr. | Moment |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.000 | | | | S1 | 0,250 | Ja | 2,79 | 0,00 | Niet afgetopt | Niet afgetopt |
| 3.500 | | | | S5 | 0,250 | Ja | 2,79 | 0,00 | Niet afgetopt | Niet afgetopt |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| m | - | - | m | - | m | - | kNm | kNm | - | - |

**Wand 3**

| Positie | Oplegg. | Type | Afmeting | Staaf | Afmeting | Mti | Mti bov. | Mti ond. | Dwarskr. | Moment |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.000 | | | | S8 | 0,200 | Nee | | | Niet afgetopt | Niet afgetopt |
| 1.000 | | | | S16 | 0,200 | Nee | | | Niet afgetopt | Niet afgetopt |
| m | - | - | m | - | m | - | kNm | kNm | - | - |

**Wand 4**

| Positie | Oplegg. | Type | Afmeting | Staaf | Afmeting | Mti | Mti bov. | Mti ond. | Dwarskr. | Moment |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.000 | | | | S8 | 0,200 | Nee | | | Niet afgetopt | Niet afgetopt |
| 1.000 | | | | S20 | 0,200 | Nee | | | Niet afgetopt | Niet afgetopt |
| m | - | - | m | - | m | - | kNm | kNm | - | - |

**Vloer 4**

| Positie | Oplegg. | Type | Afmeting | Staaf | Afmeting | Mti | Mti bov. | Mti ond. | Dwarskr. | Moment |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.000 | | | | S15 | 0,200 | Ja | 1,62 | 0,00 | Niet afgetopt | Niet afgetopt |
| 3.000 | | | | S9 | 0,200 | Ja | 1,62 | 0,00 | Niet afgetopt | Niet afgetopt |
| m | - | - | m | - | m | - | kNm | kNm | - | - |

**Wand 5**

| Positie | Oplegg. | Type | Afmeting | Staaf | Afmeting | Mti | Mti bov. | Mti ond. | Dwarskr. | Moment |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.000 | | | | S23 | 0,200 | Nee | | | Niet afgetopt | Niet afgetopt |
| 2.000 | | | | S17 | 0,200 | Nee | | | Niet afgetopt | Niet afgetopt |
| m | - | - | m | - | m | - | kNm | kNm | - | - |

**Vloer 5**

| Positie | Oplegg. | Type | Afmeting | Staaf | Afmeting | Mti | Mti bov. | Mti ond. | Dwarskr. | Moment |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.000 | | | | S14 | 0,200 | Ja | 0,36 | 0,00 | Niet afgetopt | Niet afgetopt |
| 1.250 | | | | S15 | 0,200 | Ja | 0,36 | 0,00 | Niet afgetopt | Niet afgetopt |
| m | - | - | m | - | m | - | kNm | kNm | - | - |

**Wand 6**

| Positie | Oplegg. | Type | Afmeting | Staaf | Afmeting | Mti | Mti bov. | Mti ond. | Dwarskr. | Moment |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.000 | | | | S24 | 0,200 | Nee | | | Niet afgetopt | Niet afgetopt |
| 2.000 | | | | S16 | 0,200 | Nee | | | Niet afgetopt | Niet afgetopt |
| m | - | - | m | - | m | - | kNm | kNm | - | - |

**Vloer 6**

| Positie | Oplegg. | Type | Afmeting | Staaf | Afmeting | Mti | Mti bov. | Mti ond. | Dwarskr. | Moment |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.000 | | | | S10 | 0,200 | Nee | | | Niet afgetopt | Niet afgetopt |
| 2.500 | | | | S19 | 0,200 | Ja | 1,00 | 0,00 | Niet afgetopt | Niet afgetopt |
| m | - | - | m | - | m | - | kNm | kNm | - | - |

**Wand 7**

| Positie | Oplegg. | Type | Afmeting | Staaf | Afmeting | Mti | Mti bov. | Mti ond. | Dwarskr. | Moment |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.000 | | | | S28 | 0,200 | Nee | | | Niet afgetopt | Niet afgetopt |
| 2.000 | | | | S21 | 0,200 | Nee | | | Niet afgetopt | Niet afgetopt |
| m | - | - | m | - | m | - | kNm | kNm | - | - |

**Vloer 7**

| Positie | Oplegg. | Type | Afmeting | Staaf | Afmeting | Mti | Mti bov. | Mti ond. | Dwarskr. | Moment |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.000 | | | | S19 | 0,200 | Ja | 0,70 | 0,00 | Niet afgetopt | Niet afgetopt |
| 1.750 | | | | S18 | 0,200 | Ja | 0,70 | 0,00 | Niet afgetopt | Niet afgetopt |
| m | - | - | m | - | m | - | kNm | kNm | - | - |

**Wand 8**

| Positie | Oplegg. | Type | Afmeting | Staaf | Afmeting | Mti | Mti bov. | Mti ond. | Dwarskr. | Moment |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.000 | | | | S27 | 0,200 | Nee | | | Niet afgetopt | Niet afgetopt |
| 2.000 | | | | S20 | 0,200 | Nee | | | Niet afgetopt | Niet afgetopt |
| m | - | - | m | - | m | - | kNm | kNm | - | - |

**Vloer 8**

| Positie | Oplegg. | Type | Afmeting | Staaf | Afmeting | Mti | Mti bov. | Mti ond. | Dwarskr. | Moment |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.300 | | | | S14 | 0,200 | Nee | | | Niet afgetopt | Niet afgetopt |
| 1.550 | | | | S15 | 0,200 | Nee | | | Niet afgetopt | Niet afgetopt |
| 1.850 | O6 | n.v.t. | 0,000 | | | Nee | | | Niet afgetopt | Niet afgetopt |
| m | - | - | m | - | m | - | kNm | kNm | - | - |

**Vloer 9**

| Positie | Oplegg. | Type | Afmeting | Staaf | Afmeting | Mti | Mti bov. | Mti ond. | Dwarskr. | Moment |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.300 | | | | S19 | 0,200 | Nee | | | Niet afgetopt | Niet afgetopt |
| 2.050 | | | | S18 | 0,200 | Nee | | | Niet afgetopt | Niet afgetopt |
| 2.350 | O7 | n.v.t. | 0,000 | | | Nee | | | Niet afgetopt | Niet afgetopt |
| m | - | - | m | - | m | - | kNm | kNm | - | - |

**Vloer 10**

| Positie | Oplegg. | Type | Afmeting | Staaf | Afmeting | Mti | Mti bov. | Mti ond. | Dwarskr. | Moment |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.000 | | | | S9 | 0,200 | Nee | | | Niet afgetopt | Niet afgetopt |
| m | - | - | m | - | m | - | kNm | kNm | - | - |

**Vloer 11**

| Positie | Oplegg. | Type | Afmeting | Staaf | Afmeting | Mti | Mti bov. | Mti ond. | Dwarskr. | Moment |
|---|---|---|---|---|---|---|---|---|---|---|
| 1.000 | | | | S10 | 0,200 | Nee | | | Niet afgetopt | Niet afgetopt |
| m | - | - | m | - | m | - | kNm | kNm | - | - |

## VLOER 1

**DOORSNEDE BOVENWAPENING** — **Vloer 1**

| Positie | Md | Basis | Mod. | Bijleg | As,ben | As,toe | Scheurvorming | D,max | S,max |
|---|---|---|---|---|---|---|---|---|---|
| 0.000 | 0.00 | R8-150 | | | 0 | 335 | N/B | | |
| m | kNm | - | - | - | mm | mm | - | mm | mm |

**DOORSNEDE ONDERWAPENING** — **Vloer 1**

| Positie | Md | Basis | Mod. | Bijleg | As,ben | As,toe | Scheurvorming | D,max | S,max |
|---|---|---|---|---|---|---|---|---|---|
| 0.300 | 3.13 | R8-150 | | | 44 | 335 | | 14,35 | 300,00 |
| m | kNm | - | - | - | mm | mm | - | mm | mm |

**DOORSNEDE FLANKWAPENING** — **Vloer 1**

| Positie | Mx | Wapening | As,ben | As,toe |
|---|---|---|---|---|
| 0.000 | 0,00 | | 0 | 0 |
| m | kNm | - | mm | mm |

**DOORSNEDE BEUGELWAPENING** — **Vloer 1**

| Positie | Zijde | Vd | Wapening | AsV;ben. | AsT;ben. | As,toe | Vrd;c | Vrd | Ved | VRdi | VEdi |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.000 | Rechts | 0.00 | - | 0 | 0 | 0 | 73.491 | 73.49 | 0.00 | N/B | N/B |
| 0.300 | Links | 22.40 | - | 0 | 0 | 0 | 73.491 | 73.49 | 22.40 | N/B | N/B |
| m | - | kN | - | mm | mm | mm | kN | kN | kN | kN | kN |

## VLOER 2

**DOORSNEDE BOVENWAPENING** — **Vloer 2**

| Positie | Md | Basis | Mod. | Bijleg | As,ben | As,toe | Scheurvorming | D,max | S,max |
|---|---|---|---|---|---|---|---|---|---|
| 1.750 | 20.89 | R8-150 | | | 298 | 335 | | 5,24 | 109,18 |
| m | kNm | - | - | - | mm | mm | - | mm | mm |

**DOORSNEDE ONDERWAPENING** — **Vloer 2**

| Positie | Md | Basis | Mod. | Bijleg | As,ben | As,toe | Scheurvorming | D,max | S,max |
|---|---|---|---|---|---|---|---|---|---|
| 0.000 | 33.77 | R8-150 | | | 493 | 335 | | 2,53 | 50,00 |
| 3.500 | 33.63 | R8-150 | | | 490 | 335 | | 2,53 | 50,00 |
| m | kNm | - | - | - | mm | mm | - | mm | mm |

**DOORSNEDE FLANKWAPENING** — **Vloer 2**

| Positie | Mx | Wapening | As,ben | As,toe |
|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| 0.000 | 0,00 | | 0 | 0 | |
| 3.500 | 0,00 | | 0 | 0 | |
| m | kNm | - | mm | mm | |

**DOORSNEDE BEUGELWAPENING** — **Vloer 2**

| Positie | Zijde | Vd | Wapening | AsV;ben. | AsT;ben. | As,toe | Vrd;c | Vrd | Ved | VRdi | VEdi |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.000 | Rechts | 66.34 | - | 0 | 0 | 0 | 79.083 | 79.08 | 66.34 | N/B | N/B |
| 3.500 | Links | 63.72 | - | 0 | 0 | 0 | 79.083 | 79.08 | 63.72 | N/B | N/B |
| 3.500 | Rechts | 19.84 | - | 0 | 0 | 0 | 73.491 | 73.49 | 19.84 | N/B | N/B |
| 3.800 | Links | 0.00 | - | 0 | 0 | 0 | 73.491 | 73.49 | 0.00 | N/B | N/B |
| m | - | kN | - | mm | mm | mm | kN | kN | kN | kN | kN |

## VLOER 3

**DOORSNEDE BOVENWAPENING** — **Vloer 3**

| Positie | Md | Basis | Mod. | Bijleg | As,ben | As,toe | Scheurvorming | D,max | S,max |
|---|---|---|---|---|---|---|---|---|---|
| 0.000 | 2.79 | R8-150 | Mti | | 39 | 335 | | 14,67 | 300,00 |
| 3.500 | 2.79 | R8-150 | Mti | | 39 | 335 | | 14,67 | 300,00 |
| m | kNm | - | - | - | mm | mm | - | mm | mm |

**DOORSNEDE ONDERWAPENING** — **Vloer 3**

| Positie | Md | Basis | Mod. | Bijleg | As,ben | As,toe | Scheurvorming | D,max | S,max |
|---|---|---|---|---|---|---|---|---|---|
| 1.750 | 18.60 | R8-150 | | | 265 | 335 | | 5,93 | 161,56 |
| m | kNm | - | - | - | mm | mm | - | mm | mm |

**DOORSNEDE FLANKWAPENING** — **Vloer 3**

| Positie | Mx | Wapening | As,ben | As,toe |
|---|---|---|---|---|
| 0.000 | 0,00 | | 0 | 0 |
| m | kNm | - | mm | mm |

**DOORSNEDE BEUGELWAPENING** — **Vloer 3**

| Positie | Zijde | Vd | Wapening | AsV;ben. | AsT;ben. | As,toe | Vrd;c | Vrd | Ved | VRdi | VEdi |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.000 | Rechts | 21.26 | - | 0 | 0 | 0 | 74.491 | 74.49 | 21.26 | N/B | N/B |
| 3.500 | Links | 21.26 | - | 0 | 0 | 0 | 74.491 | 74.49 | 21.26 | N/B | N/B |
| m | - | kN | - | mm | mm | mm | kN | kN | kN | kN | kN |

## VLOER 4

**DOORSNEDE BOVENWAPENING** — **Vloer 4**

| Positie | Md | Basis | Mod. | Bijleg | As,ben | As,toe | Scheurvorming | D,max | S,max |
|---|---|---|---|---|---|---|---|---|---|
| 0.000 | 1.62 | R8-150 | Mti | | 22 | 335 | | 14,35 | 300,00 |
| 3.000 | 6.08 | R8-150 | | | 85 | 335 | | 14,35 | 300,00 |
| m | kNm | - | - | - | mm | mm | - | mm | mm |

**DOORSNEDE ONDERWAPENING** — **Vloer 4**

| Positie | Md | Basis | Mod. | Bijleg | As,ben | As,toe | Scheurvorming | D,max | S,max |
|---|---|---|---|---|---|---|---|---|---|
| 1.333 | 10.80 | R8-150 | | | 152 | 335 | | 14,35 | 300,00 |
| m | kNm | - | - | - | mm | mm | - | mm | mm |

**DOORSNEDE FLANKWAPENING** — **Vloer 4**

| Positie | Mx | Wapening | As,ben | As,toe |
|---|---|---|---|---|
| 0.000 | 0,00 | | 0 | 0 |
| m | kNm | - | mm | mm |

**DOORSNEDE BEUGELWAPENING** — **Vloer 4**

| Positie | Zijde | Vd | Wapening | AsV;ben. | AsT;ben. | As,toe | Vrd;c | Vrd | Ved | VRdi | VEdi |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.000 | Rechts | 16.20 | - | 0 | 0 | 0 | 73.491 | 73.49 | 16.20 | N/B | N/B |
| 3.000 | Links | 20.25 | - | 0 | 0 | 0 | 73.491 | 73.49 | 20.25 | N/B | N/B |
| m | - | kN | - | mm | mm | mm | kN | kN | kN | kN | kN |

## VLOER 5

**DOORSNEDE BOVENWAPENING** — **Vloer 5**

| Positie | Md | Basis | Mod. | Bijleg | As,ben | As,toe | Scheurvorming | D,max | S,max |
|---|---|---|---|---|---|---|---|---|---|

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.000 | 0.36 | R8-150 | Mti | | 5 | 335 | | 14,56 | 300,00 |
| 1.250 | 0.36 | R8-150 | Mti | | 5 | 335 | | 14,56 | 300,00 |
| m | kNm | - | - | - | mm | mm | - | mm | mm |

**DOORSNEDE ONDERWAPENING** **Vloer 5**

| Positie | Md | Basis | Mod. | Bijleg | As,ben | As,toe | Scheurvorming | D,max | S,max |
|---|---|---|---|---|---|---|---|---|---|
| 0.625 | 2.37 | R8-150 | | | 33 | 335 | | 14,56 | 300,00 |
| m | kNm | - | - | - | mm | mm | - | mm | mm |

**DOORSNEDE FLANKWAPENING** **Vloer 5**

| Positie | Mx | Wapening | As,ben | As,toe |
|---|---|---|---|---|
| 0.000 | 0,00 | | 0 | 0 |
| m | kNm | - | mm | mm |

**DOORSNEDE BEUGELWAPENING** **Vloer 5**

| Positie | Zijde | Vd | Wapening | AsV;ben. | AsT;ben. | As,toe | Vrd;c | Vrd | Ved | VRdi | VEdi |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.000 | Rechts | 7.59 | - | 0 | 0 | 0 | 74.136 | 74.14 | 7.59 | N/B | N/B |
| 1.250 | Links | 7.59 | - | 0 | 0 | 0 | 74.136 | 74.14 | 7.59 | N/B | N/B |
| m | - | kN | - | mm | mm | mm | kN | kN | kN | kN | kN |

## VLOER 6

**DOORSNEDE BOVENWAPENING** **Vloer 6**

| Positie | Md | Basis | Mod. | Bijleg | As,ben | As,toe | Scheurvorming | D,max | S,max |
|---|---|---|---|---|---|---|---|---|---|
| 0.000 | 6.08 | R8-150 | | | 85 | 335 | | 14,35 | 300,00 |
| 2.500 | 1.00 | R8-150 | Mti | | 14 | 335 | | 14,35 | 300,00 |
| m | kNm | - | - | - | mm | mm | - | mm | mm |

**DOORSNEDE ONDERWAPENING** **Vloer 6**

| Positie | Md | Basis | Mod. | Bijleg | As,ben | As,toe | Scheurvorming | D,max | S,max |
|---|---|---|---|---|---|---|---|---|---|
| 1.450 | 6.70 | R8-150 | | | 94 | 335 | | 14,35 | 300,00 |
| m | kNm | - | - | - | mm | mm | - | mm | mm |

**DOORSNEDE FLANKWAPENING** **Vloer 6**

| Positie | Mx | Wapening | As,ben | As,toe |
|---|---|---|---|---|
| 0.000 | 0,00 | | 0 | 0 |
| m | kNm | - | mm | mm |

**DOORSNEDE BEUGELWAPENING** **Vloer 6**

| Positie | Zijde | Vd | Wapening | AsV;ben. | AsT;ben. | As,toe | Vrd;c | Vrd | Ved | VRdi | VEdi |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.000 | Rechts | 17.62 | - | 0 | 0 | 0 | 73.491 | 73.49 | 17.62 | N/B | N/B |
| 2.500 | Links | 12.76 | - | 0 | 0 | 0 | 73.491 | 73.49 | 12.76 | N/B | N/B |
| m | - | kN | - | mm | mm | mm | kN | kN | kN | kN | kN |

## VLOER 7

**DOORSNEDE BOVENWAPENING** **Vloer 7**

| Positie | Md | Basis | Mod. | Bijleg | As,ben | As,toe | Scheurvorming | D,max | S,max |
|---|---|---|---|---|---|---|---|---|---|
| 0.000 | 0.70 | R8-150 | Mti | | 10 | 335 | | 14,53 | 300,00 |
| 1.750 | 0.70 | R8-150 | Mti | | 10 | 335 | | 14,53 | 300,00 |
| m | kNm | - | - | - | mm | mm | - | mm | mm |

**DOORSNEDE ONDERWAPENING** **Vloer 7**

| Positie | Md | Basis | Mod. | Bijleg | As,ben | As,toe | Scheurvorming | D,max | S,max |
|---|---|---|---|---|---|---|---|---|---|
| 0.875 | 4.65 | R8-150 | | | 65 | 335 | | 14,53 | 300,00 |
| m | kNm | - | - | - | mm | mm | - | mm | mm |

**DOORSNEDE FLANKWAPENING** **Vloer 7**

| Positie | Mx | Wapening | As,ben | As,toe |
|---|---|---|---|---|
| 0.000 | 0,00 | | 0 | 0 |
| m | kNm | - | mm | mm |

**DOORSNEDE BEUGELWAPENING** **Vloer 7**

| Positie | Zijde | Vd | Wapening | AsV;ben. | AsT;ben. | As,toe | Vrd;c | Vrd | Ved | VRdi | VEdi |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.000 | Rechts | 10.63 | - | 0 | 0 | 0 | 74.039 | 74.04 | 10.63 | N/B | N/B |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.750 | Links | 10.63 | - | 0 | 0 | 0 | 74.039 | 74.04 | 10.63 | N/B | N/B |
| m | - | kN | - | mm | mm | mm | kN | kN | kN | kN | kN |

**VLOER 8**

**DOORSNEDE BOVENWAPENING** **Vloer 8**

| Positie | Md | Basis | Mod. | Bijleg | As,ben | As,toe | Scheurvorming | D,max | S,max |
|---|---|---|---|---|---|---|---|---|---|
| 0.925 | 2.09 | R8-150 | | | 30 | 335 | | 14,35 | 300,00 |
| m | kNm | - | - | - | mm | mm | - | mm | mm |

**DOORSNEDE ONDERWAPENING** **Vloer 8**

| Positie | Md | Basis | Mod. | Bijleg | As,ben | As,toe | Scheurvorming | D,max | S,max |
|---|---|---|---|---|---|---|---|---|---|
| 0.300 | 5.38 | R8-150 | | | 75 | 335 | | 14,85 | 300,00 |
| 1.550 | 5.53 | R8-150 | | | 77 | 335 | | 14,85 | 300,00 |
| m | kNm | - | - | - | mm | mm | - | mm | mm |

**DOORSNEDE FLANKWAPENING** **Vloer 8**

| Positie | Mx | Wapening | As,ben | As,toe |
|---|---|---|---|---|
| 0.000 | 0,00 | | 0 | 0 |
| 0.300 | 0,00 | | 0 | 0 |
| 1.550 | 0,00 | | 0 | 0 |
| m | kNm | - | mm | mm |

**DOORSNEDE BEUGELWAPENING** **Vloer 8**

| Positie | Zijde | Vd | Wapening | AsV;ben. | AsT;ben. | As,toe | Vrd;c | Vrd | Ved | VRdi | VEdi |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.000 | Rechts | 0.00 | - | 0 | 0 | 0 | 73.491 | 73.49 | 0.00 | N/B | N/B |
| 0.300 | Links | 10.92 | - | 0 | 0 | 0 | 73.491 | 73.49 | 10.92 | N/B | N/B |
| 0.300 | Rechts | 22.38 | - | 0 | 0 | 0 | 75.046 | 75.05 | 22.38 | N/B | N/B |
| 1.550 | Links | 22.67 | - | 0 | 0 | 0 | 75.046 | 75.05 | 22.67 | N/B | N/B |
| 1.550 | Rechts | 15.26 | - | 0 | 0 | 0 | 73.491 | 73.49 | 15.26 | N/B | N/B |
| 1.850 | Links | 0.00 | - | 0 | 0 | 0 | 73.491 | 73.49 | 0.00 | N/B | N/B |
| m | - | kN | - | mm | mm | mm | kN | kN | kN | kN | kN |

**VLOER 9**

**DOORSNEDE BOVENWAPENING** **Vloer 9**

| Positie | Md | Basis | Mod. | Bijleg | As,ben | As,toe | Scheurvorming | D,max | S,max |
|---|---|---|---|---|---|---|---|---|---|
| 1.175 | 5.19 | R8-150 | | | 72 | 335 | | 14,90 | 300,00 |
| m | kNm | - | - | - | mm | mm | - | mm | mm |

**DOORSNEDE ONDERWAPENING** **Vloer 9**

| Positie | Md | Basis | Mod. | Bijleg | As,ben | As,toe | Scheurvorming | D,max | S,max |
|---|---|---|---|---|---|---|---|---|---|
| 0.300 | 7.08 | R8-150 | | | 99 | 335 | | 14,90 | 300,00 |
| 2.050 | 7.85 | R8-150 | | | 110 | 335 | | 14,90 | 300,00 |
| m | kNm | - | - | - | mm | mm | - | mm | mm |

**DOORSNEDE FLANKWAPENING** **Vloer 9**

| Positie | Mx | Wapening | As,ben | As,toe |
|---|---|---|---|---|
| 0.000 | 0,00 | | 0 | 0 |
| 0.300 | 0,00 | | 0 | 0 |
| 2.050 | 0,00 | | 0 | 0 |
| m | kNm | - | mm | mm |

**DOORSNEDE BEUGELWAPENING** **Vloer 9**

| Positie | Zijde | Vd | Wapening | AsV;ben. | AsT;ben. | As,toe | Vrd;c | Vrd | Ved | VRdi | VEdi |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.000 | Rechts | 0.00 | - | 0 | 0 | 0 | 73.491 | 73.49 | 0.00 | N/B | N/B |
| 0.300 | Links | 13.37 | - | 0 | 0 | 0 | 73.491 | 73.49 | 13.37 | N/B | N/B |
| 0.300 | Rechts | 26.56 | - | 0 | 0 | 0 | 75.178 | 75.18 | 26.56 | N/B | N/B |
| 2.050 | Links | 30.66 | - | 0 | 0 | 0 | 75.178 | 75.18 | 30.66 | N/B | N/B |
| 2.050 | Rechts | 12.51 | - | 0 | 0 | 0 | 73.491 | 73.49 | 12.51 | N/B | N/B |
| 2.350 | Links | 0.00 | - | 0 | 0 | 0 | 73.491 | 73.49 | 0.00 | N/B | N/B |
| m | - | kN | - | mm | mm | mm | kN | kN | kN | kN | kN |

## VLOER 10

**DOORSNEDE BOVENWAPENING** — **Vloer 10**

| Positie | Md | Basis | Mod. | Bijleg | As,ben | As,toe | Scheurvorming | D,max | S,max |
|---|---|---|---|---|---|---|---|---|---|
| 0.000 | 6.08 | | | | 86 | 0 | | | |
| m | kNm | - | - | - | mm | mm | - | mm | mm |

**DOORSNEDE ONDERWAPENING** — **Vloer 10**

| Positie | Md | Basis | Mod. | Bijleg | As,ben | As,toe | Scheurvorming | D,max | S,max |
|---|---|---|---|---|---|---|---|---|---|
| 0.000 | 0.00 | | | | 0 | 0 | N/B | | |
| m | kNm | - | - | - | mm | mm | - | mm | mm |

**DOORSNEDE FLANKWAPENING** — **Vloer 10**

| Positie | Mx | Wapening | As,ben | As,toe |
|---|---|---|---|---|
| 0.000 | 0,00 | | 0 | 0 |
| m | kNm | - | mm | mm |

**DOORSNEDE BEUGELWAPENING** — **Vloer 10**

| Positie | Zijde | Vd | Wapening | AsV;ben. | AsT;ben. | As,toe | Vrd;c | Vrd | Ved | VRdi | VEdi |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.000 | Rechts | 12.15 | - | 0 | 0 | 0 | 72.606 | 72.61 | 12.15 | N/B | N/B |
| 1.000 | Links | 0.00 | - | 0 | 0 | 0 | 72.606 | 72.61 | 0.00 | N/B | N/B |
| m | - | kN | - | mm | mm | mm | kN | kN | kN | kN | kN |

## VLOER 11

**DOORSNEDE BOVENWAPENING** — **Vloer 11**

| Positie | Md | Basis | Mod. | Bijleg | As,ben | As,toe | Scheurvorming | D,max | S,max |
|---|---|---|---|---|---|---|---|---|---|
| 1.000 | 6.08 | | | | 86 | 0 | | | |
| m | kNm | - | - | - | mm | mm | - | mm | mm |

**DOORSNEDE ONDERWAPENING** — **Vloer 11**

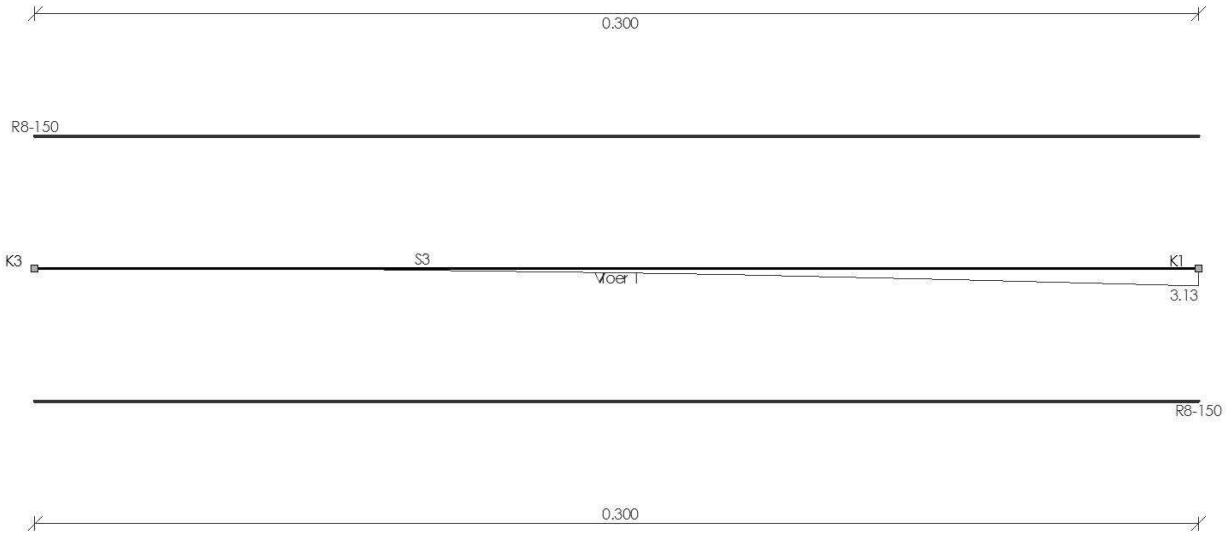
| Positie | Md | Basis | Mod. | Bijleg | As,ben | As,toe | Scheurvorming | D,max | S,max |
|---|---|---|---|---|---|---|---|---|---|
| 0.000 | 0.00 | | | | 0 | 0 | N/B | | |
| m | kNm | - | - | - | mm | mm | - | mm | mm |

**DOORSNEDE FLANKWAPENING** — **Vloer 11**

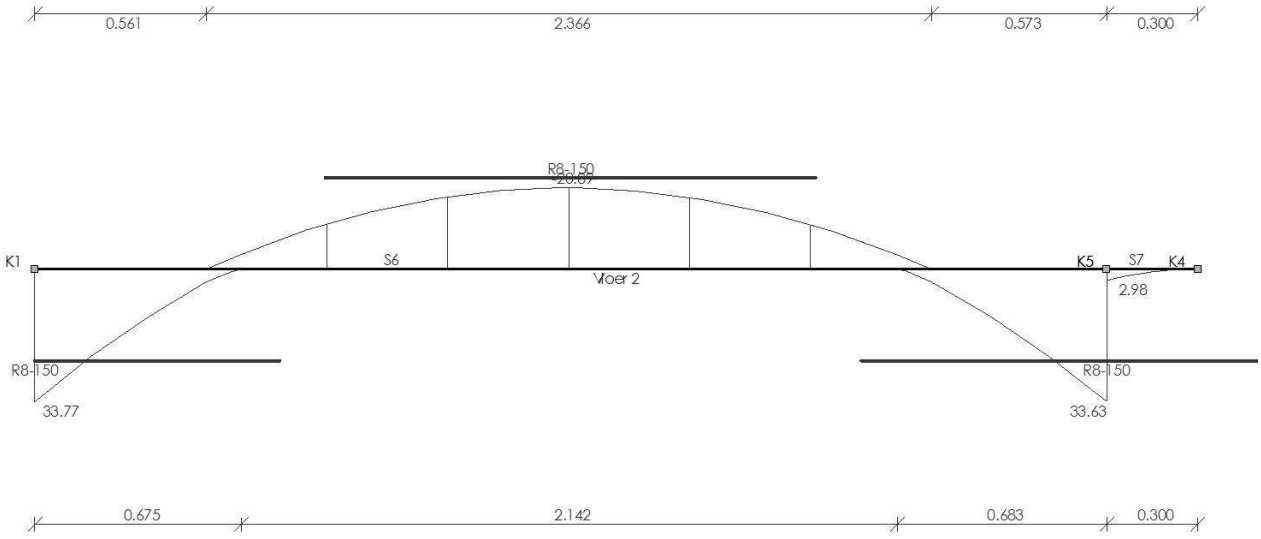
| Positie | Mx | Wapening | As,ben | As,toe |
|---|---|---|---|---|
| 0.000 | 0,00 | | 0 | 0 |
| m | kNm | - | mm | mm |

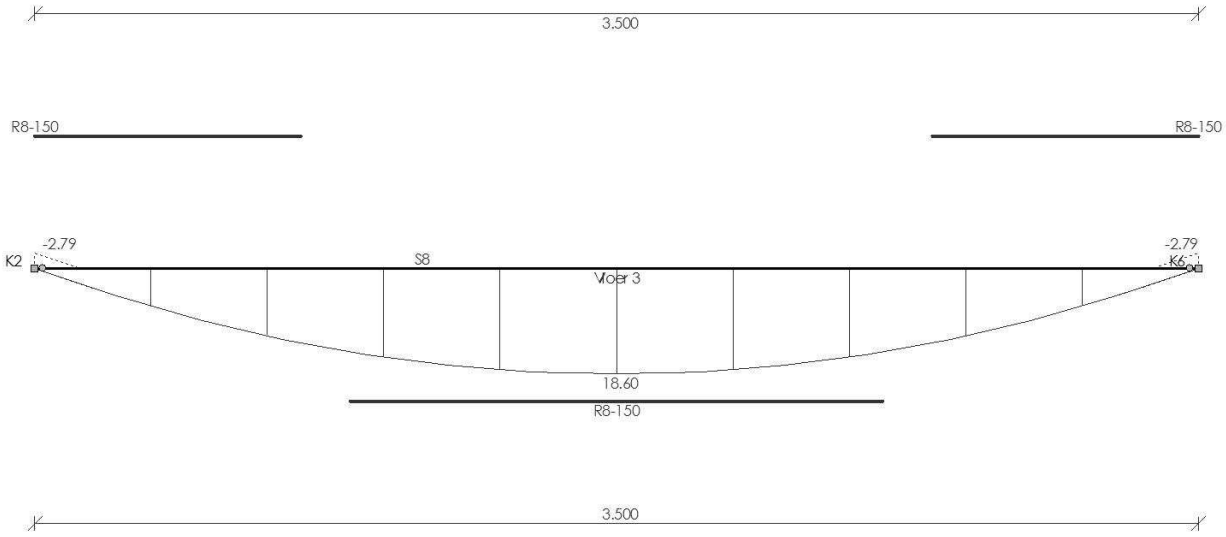
**DOORSNEDE BEUGELWAPENING** — **Vloer 11**

| Positie | Zijde | Vd | Wapening | AsV;ben. | AsT;ben. | As,toe | Vrd;c | Vrd | Ved | VRdi | VEdi |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.000 | Rechts | 0.00 | - | 0 | 0 | 0 | 72.606 | 72.61 | 0.00 | N/B | N/B |
| 1.000 | Links | 12.15 | - | 0 | 0 | 0 | 72.606 | 72.61 | 12.15 | N/B | N/B |
| m | - | kN | - | mm | mm | mm | kN | kN | kN | kN | kN |

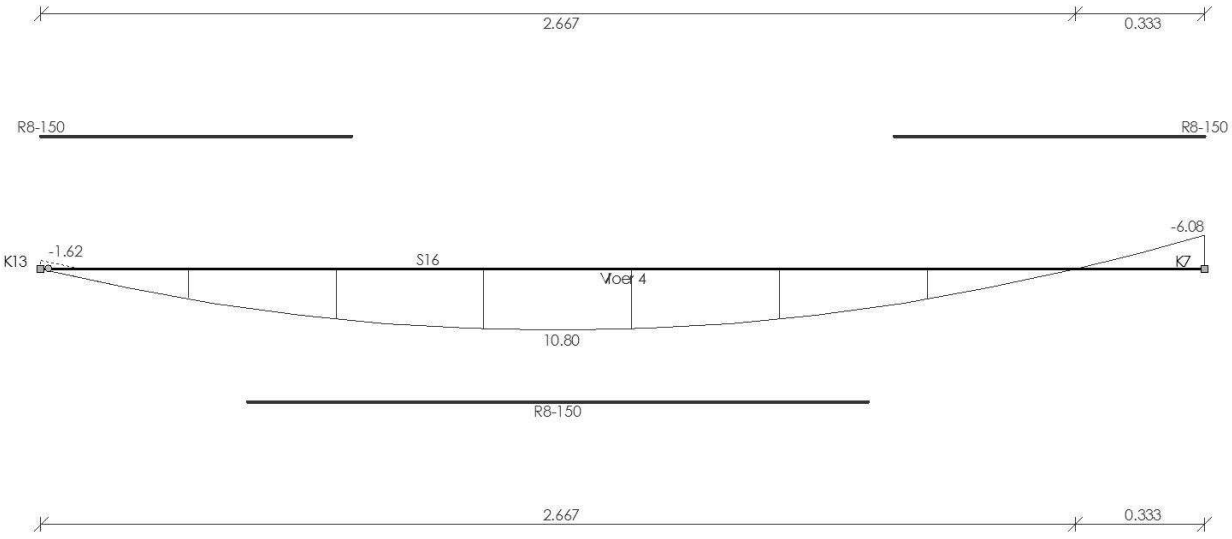

0.300
R8-150
K3
S3
K1
Vloer 1
3.13
R8-150
0.300

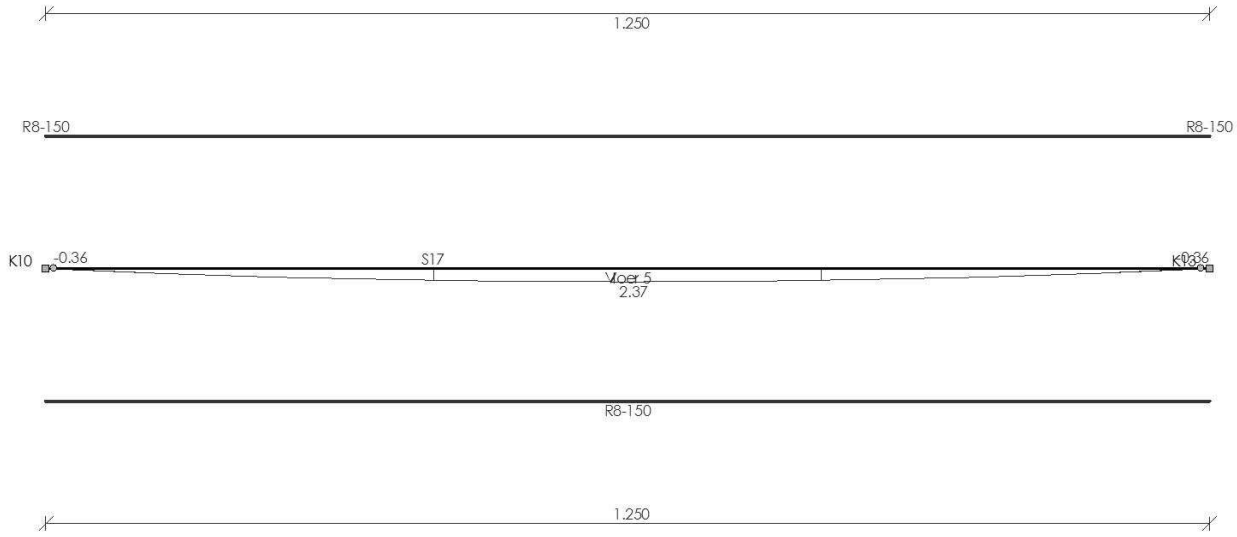



0.561
2.366
0.573
0.300
R8-150
20.07
K1
S6
K5
S7
K4
Vloer 2
2.98
R8-150
R8-150
33.77
33.63
0.675
2.142
0.683
0.300

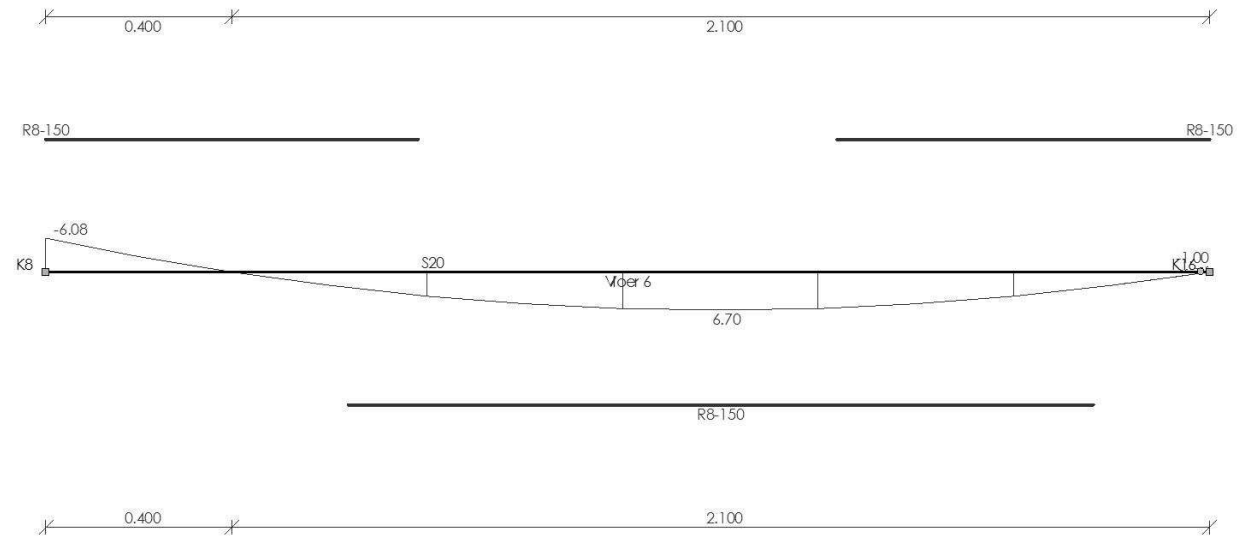

3.500
R8-150
R8-150
-2.79
K2
S8
-2.79
K6
Vloer 3
18.60
R8-150
3.500

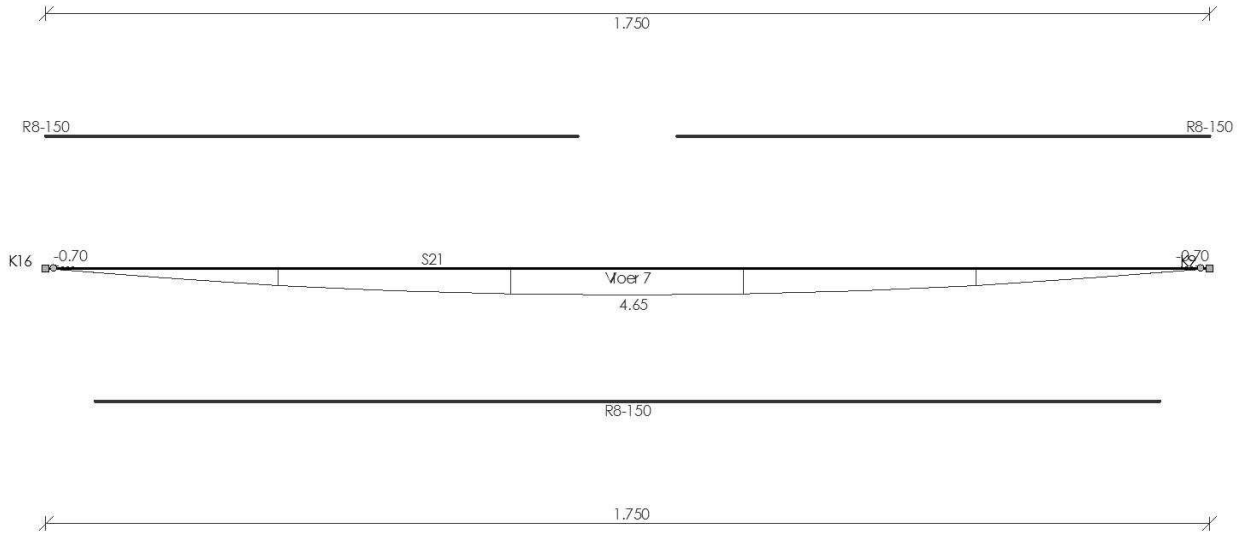



2.667
0.333
R8-150
R8-150
-6.08
K13
-1.62
S16
K7
Vloer 4
10.80
R8-150
2.667
0.333

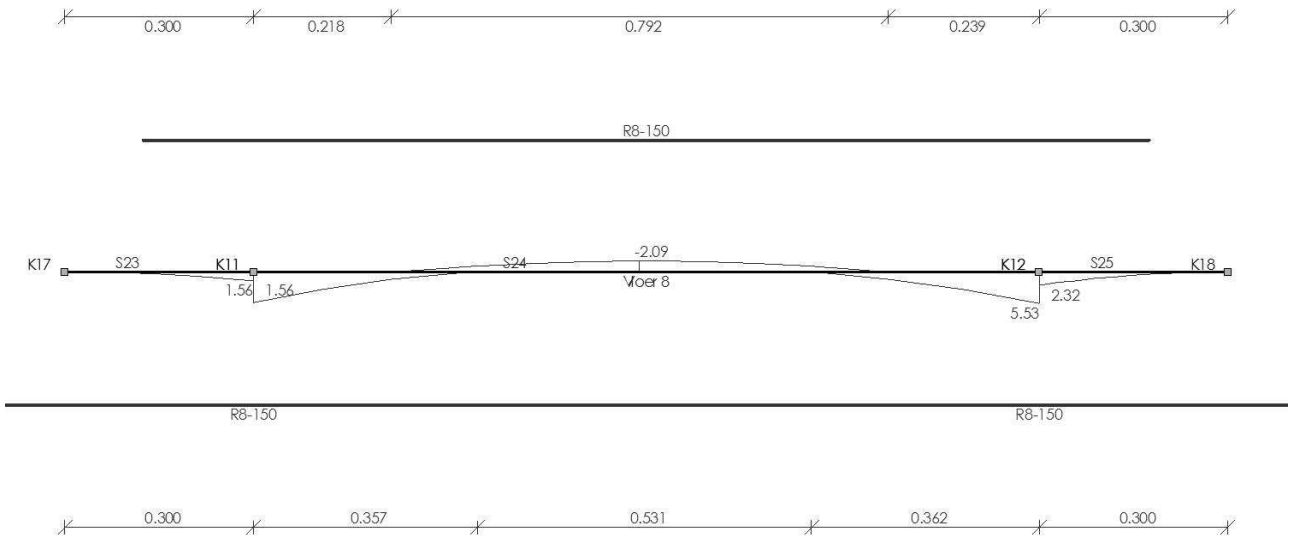

1.250
R8-150
R8-150
K10
-0.36
S17
Vloer 5
2.37
R8-150
1.250

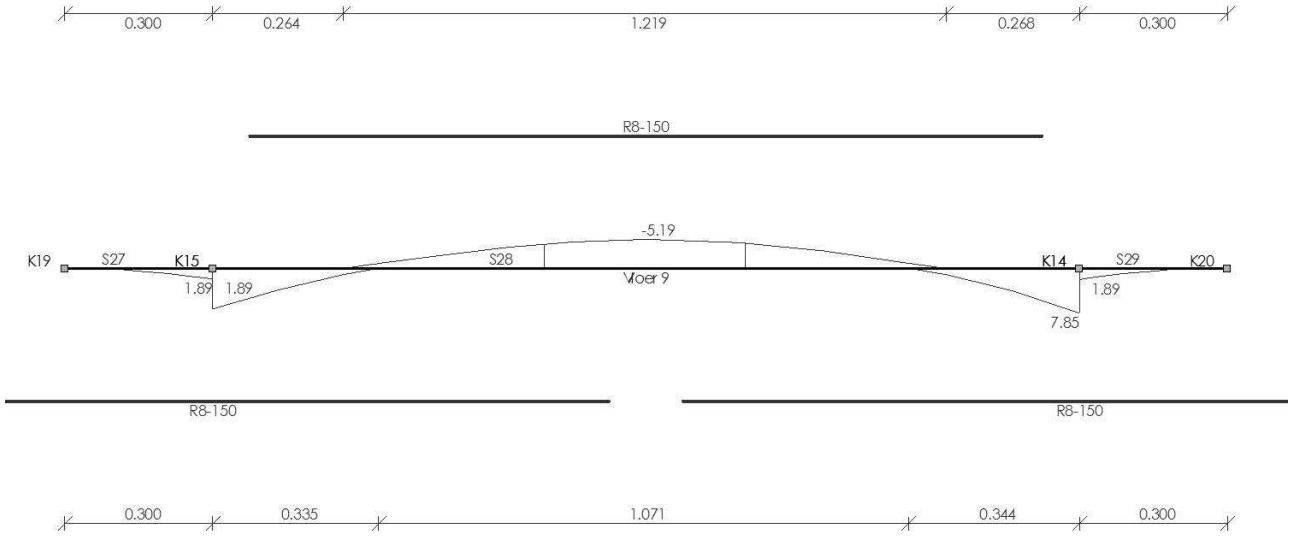



0.400
2.100
R8-150
R8-150
-6.08
K8
S20
Vloer 6
6.70
R8-150
0.400
2.100

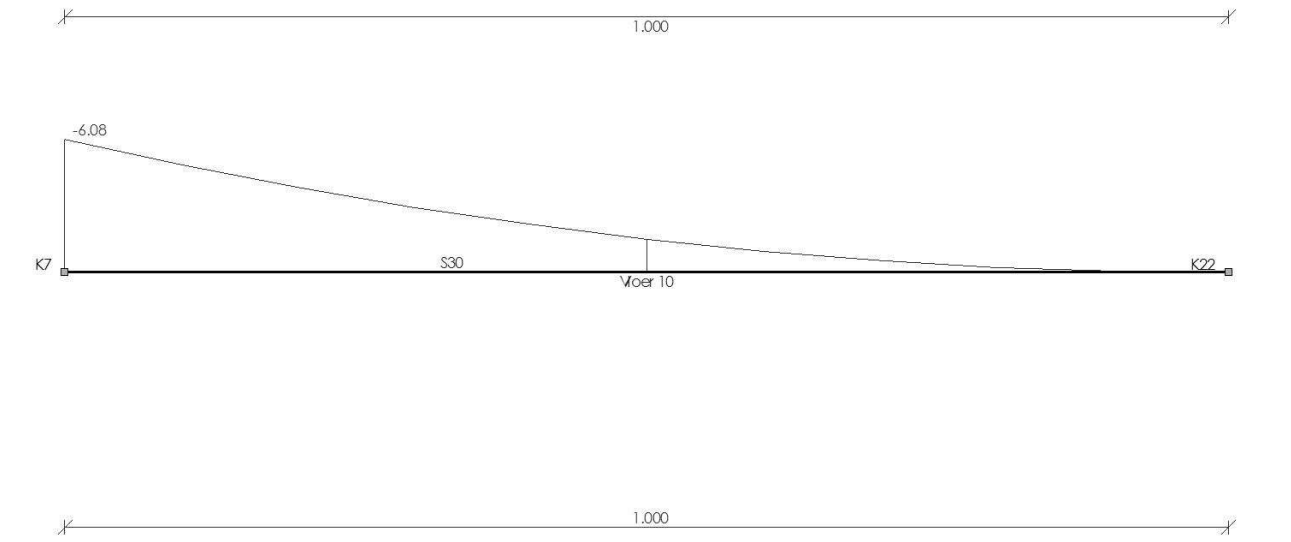

1.750
R8-150
R8-150
K16
-0.70
S21
-0.70
K17
Vloer 7
4.65
R8-150
1.750

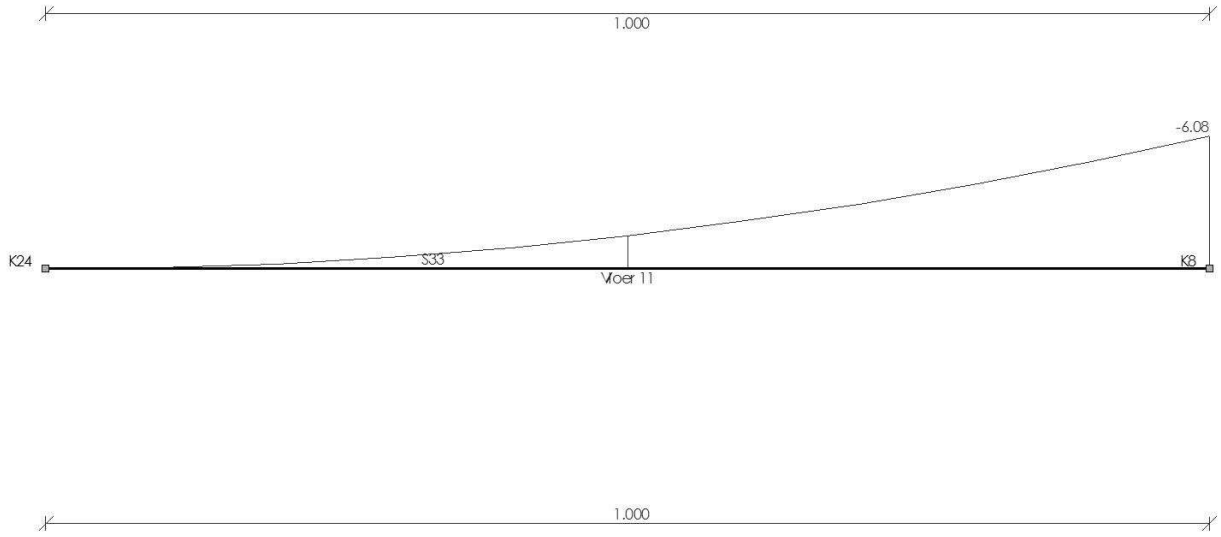



0.300
0.218
0.792
0.239
0.300
R8-150
K17
S23
K11
S24
-2.09
K12
S25
K18
Vloer 8
1.56
1.56
2.32
5.53
R8-150
R8-150
0.300
0.357
0.531
0.362
0.300

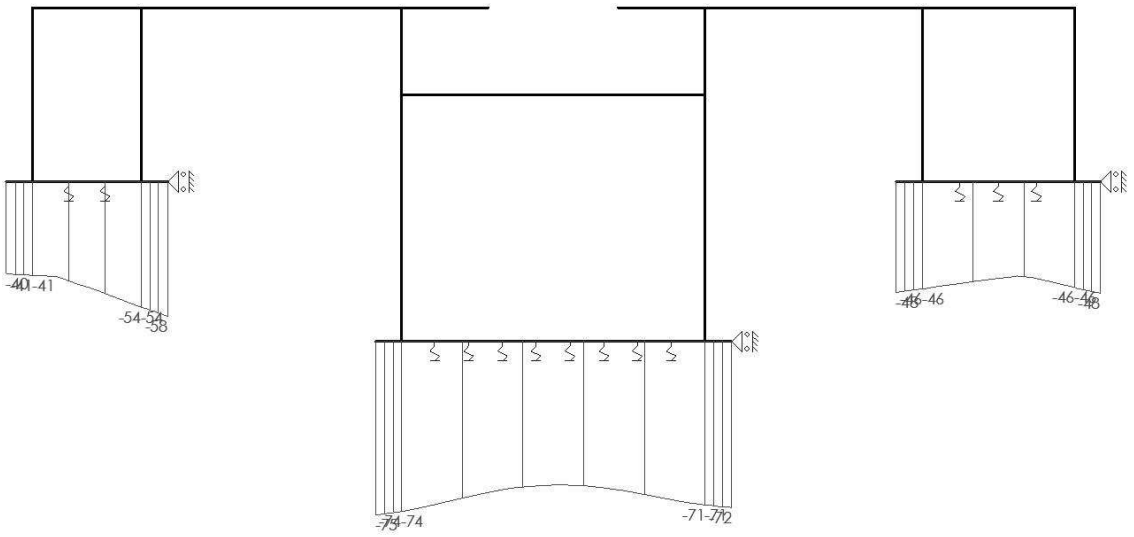

0.300
0.264
1.219
0.268
0.300
R8-150
-5.19
K19
S27
K15
S28
K14
S29
K20
1.89
1.89
Vloer 9
1.89
7.85
R8-150
R8-150
0.300
0.335
1.071
0.344
0.300




1.000
-6.08
K7
S30
K22
Vloer 10
1.000

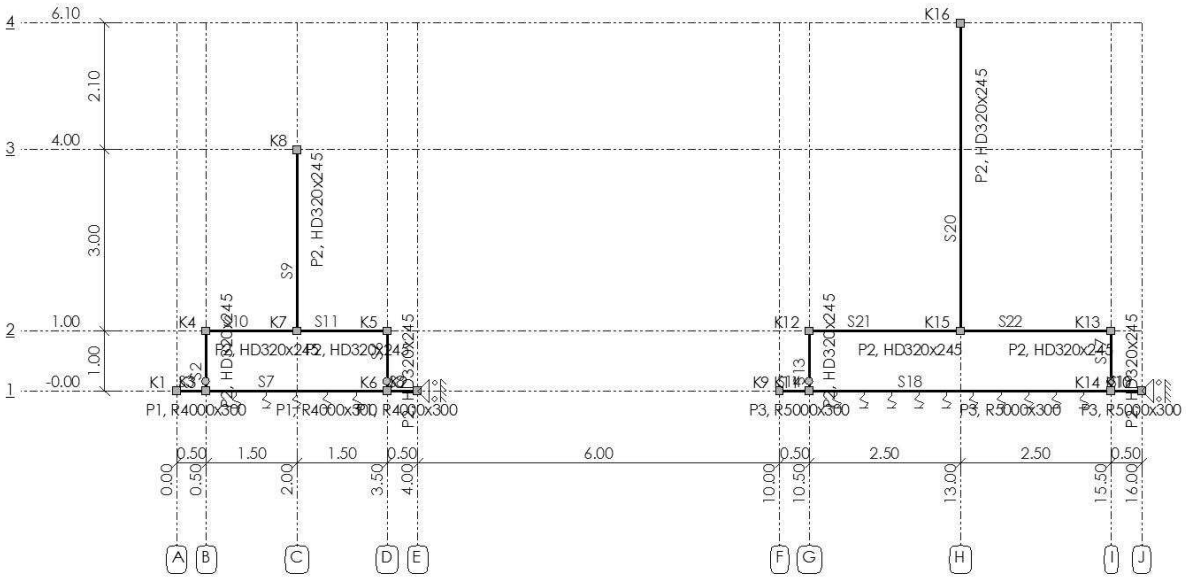

1.000
-6.08
K24
S33
K8
Vloer 11
1.000




-40 -41
-54 -54
-58
-46 -46
-46 -46
-74 -74
-71 -72

## Bijlage H

Berekening Siloplaten




## STAVEN

| Staaf | Knoop B | B | Scharnier E | Knoop E | Profiel | X-B | Z-B | X-E | Z-E | Lengte |
|---|---|---|---|---|---|---|---|---|---|---|
| S2 | K3 | NV- | NVM | K4 | P2 | 0,500 | 0,000 | 0,500 | -1,000 | 1,000 |
| S3 | K1 | NVM | NVM | K3 | P1 | 0,000 | 0,000 | 0,500 | 0,000 | 0,500 |
| S6 | K5 | NVM | NV- | K6 | P2 | 3,500 | -1,000 | 3,500 | 0,000 | 1,000 |
| S7 | K3 | NVM | NVM | K6 | P1 | 0,500 | 0,000 | 3,500 | 0,000 | 3,000 |
| S8 | K6 | NVM | NVM | K2 | P1 | 3,500 | 0,000 | 4,000 | 0,000 | 0,500 |
| S9 | K7 | NVM | NVM | K8 | P2 | 2,000 | -1,000 | 2,000 | -4,000 | 3,000 |
| S10 | K4 | NVM | NVM | K7 | P2 | 0,500 | -1,000 | 2,000 | -1,000 | 1,500 |
| S11 | K7 | NVM | NVM | K5 | P2 | 2,000 | -1,000 | 3,500 | -1,000 | 1,500 |
| S13 | K11 | NV- | NVM | K12 | P2 | 10,500 | 0,000 | 10,500 | -1,000 | 1,000 |
| S14 | K9 | NVM | NVM | K11 | P3 | 10,000 | 0,000 | 10,500 | 0,000 | 0,500 |
| S17 | K13 | NVM | NV- | K14 | P2 | 15,500 | -1,000 | 15,500 | 0,000 | 1,000 |
| S18 | K11 | NVM | NVM | K14 | P3 | 10,500 | 0,000 | 15,500 | 0,000 | 5,000 |
| S19 | K14 | NVM | NVM | K10 | P3 | 15,500 | 0,000 | 16,000 | 0,000 | 0,500 |
| S20 | K15 | NVM | NVM | K16 | P2 | 13,000 | -1,000 | 13,000 | -6,100 | 5,100 |
| S21 | K12 | NVM | NVM | K15 | P2 | 10,500 | -1,000 | 13,000 | -1,000 | 2,500 |
| S22 | K15 | NVM | NVM | K13 | P2 | 13,000 | -1,000 | 15,500 | -1,000 | 2,500 |
| - | - | - | - | - | - | m | m | m | m | m |

## PROFIELEN

| Profiel | Profielnaam | Oppervlakte | Iy | Materiaal | Hoek |
|---|---|---|---|---|---|
| P1 | R4000x300 | 1.2000e+00 | 9.0000e-03 | C20/25 | 0 |
| P2 | HD320x245 | 3.1205e-02 | 6.8135e-04 | S235 | 0 |
| P3 | R5000x300 | 1.5000e+00 | 1.1250e-02 | C20/25 | 0 |
| - | - | m2 | m4 | - | ° |

## PROFIELVORMEN

| Profiel | Verl. h. | hB | hE | tf | tw | tf2 | B | bL | bR | Raatl. | Hoogte |
|---|---|---|---|---|---|---|---|---|---|---|---|
| P1 | Nee | 0.300 | 0.300 | 0.000 | 0.000 | 0.000 | 4.000 | 0.000 | 0.000 | Nee | 0.000 |
| P3 | Nee | 0.300 | 0.300 | 0.000 | 0.000 | 0.000 | 5.000 | 0.000 | 0.000 | Nee | 0.000 |
| - | - | m | m | m | m | m | m | m | m | - | m |

## MATERIALEN

| Materiaal | Dichtheid | E-Modulus | Uitzettingcoeff |
|---|---|---|---|
| C20/25 | 25.00 | 3.0000e+07 | 10.0000e-06 |
| S235 | 78.50 | 2.1000e+08 | 12.0000e-06 |
| - | kN/m3 | kN/m2 | C°m |

## OPLEGGINGEN

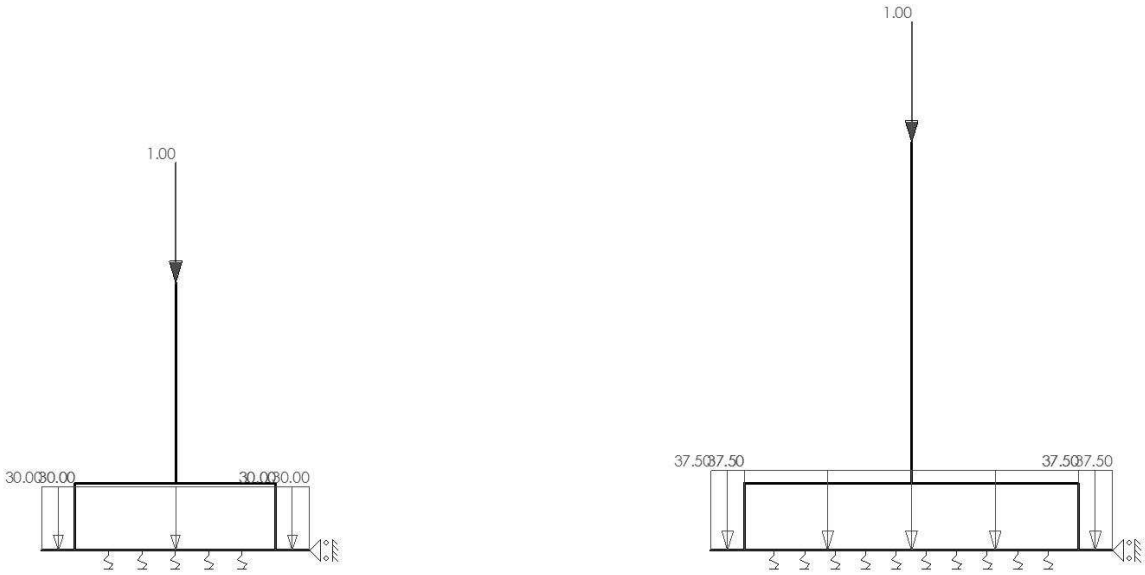
| Oplegging | Knoop | X | Z | Yr | HoekYr |
|---|---|---|---|---|---|
| O1 | K2 | vast | vrij | vrij | 0 |
| O2 | K10 | vast | vrij | vrij | 0 |

| - | - | kN/m | kN/m | kNmrad | ° |
|---|---|---|---|---|---|

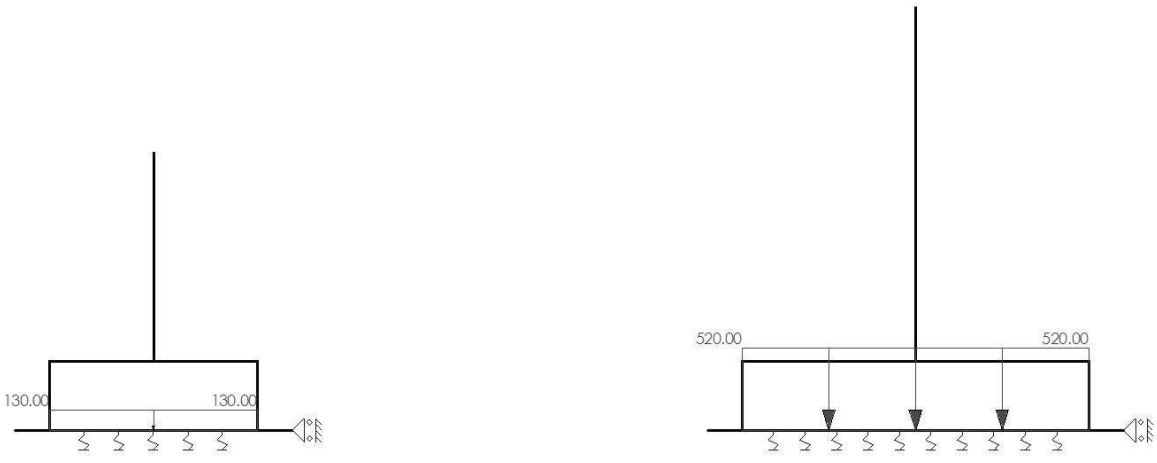
## BELASTINGSGEVALLEN TYPEN

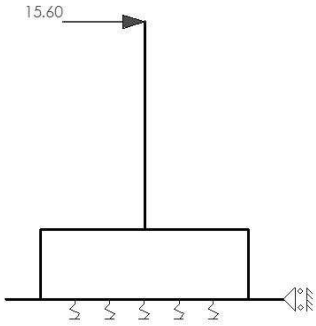
| Oplegg. | Staven | B.G.Type | Gunstig/Ong. | Element | Niveau | Veld | Psi0 | Psi1 | Psi2 | Cprob |
|---|---|---|---|---|---|---|---|---|---|---|
| B.G.1 | Permanent | Permanent | - | | N.v.t. | N.v.t. | | | | |
| B.G.2 | Silo | Verdeelde veranderlijke belasting | - | Cat. E1) Andere | 1 | 1 | 1.00 | 0.90 | 0.80 | 1.00 |
| B.G.3 | Windbelasting | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,93 |

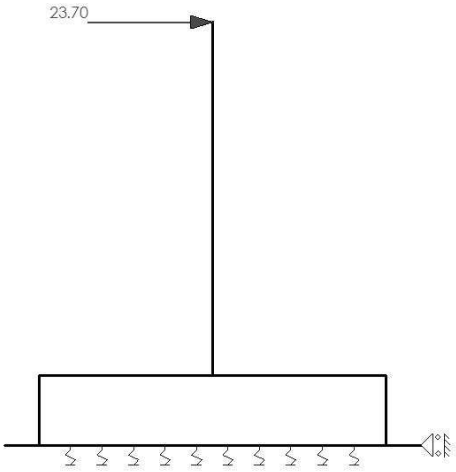
AFB. LASTEN B.G.1 PERMANENT




AFB. LASTEN B.G.2 SILO






## FUNDAMENTEEL BELASTINGSCOMBINATIES (TABEL)

| B.G. | Omschrijving | Fu.C.1 | Fu.C.2 | Fu.C.3 |
|---|---|---|---|---|
| B.G.1 | Permanent | 1.08 | 1.08 | 1.08 |
| B.G.2 | Silo | 1.35 | 1.35 | - |
| B.G.3 | Windbelasting | - | 1.16 | 1.16 |

## KARAKTERISTIEK BELASTINGSCOMBINATIES (TABEL)

| B.G. | Omschrijving | Ka.C.(w1) | Ka.C.1 | Ka.C.2 | Ka.C.3 |
|---|---|---|---|---|---|
| B.G.1 | Permanent | 1.00 | 1.00 | 1.00 | 1.00 |
| B.G.2 | Silo | - | 1.00 | 1.00 | - |
| B.G.3 | Windbelasting | - | - | 0.86 | 0.86 |

## FREQUENT BELASTINGSCOMBINATIES (TABEL)

| B.G. | Omschrijving | Fr.C.(w1) | Fr.C.1 | Fr.C.2 |
|---|---|---|---|---|
| B.G.1 | Permanent | 1.00 | 1.00 | 1.00 |
| B.G.2 | Silo | - | 0.90 | 0.80 |
| B.G.3 | Windbelasting | - | - | 0.20 |

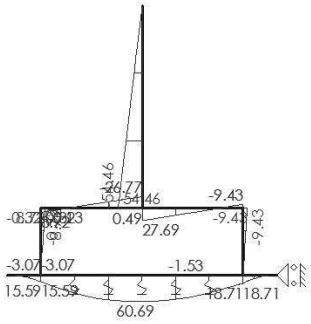
## QUASI-PERMANENT BELASTINGSCOMBINATIES (TABEL)

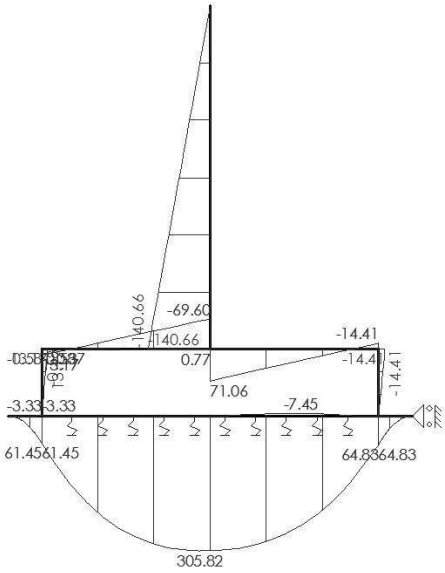
| B.G. | Omschrijving | Qu.C.1 |
|---|---|---|
| B.G.1 | Permanent | 1.00 |
| B.G.2 | Silo | 0.80 |
| B.G.3 | Windbelasting | - |

## UITGANGSPUNTEN VAN DE ANALYSE

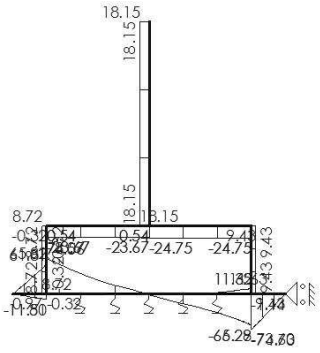
Geavanceerde Analyse

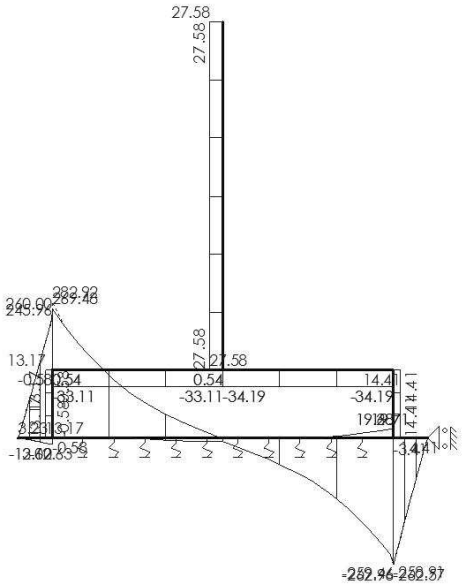
Trekeliminatie voor fundering(en) gebruikt

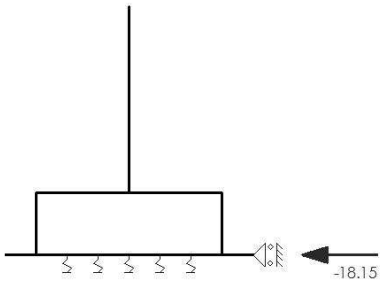

-9.43
0.49
27.69
-9.43
-3.07
-3.07
-1.53
60.69

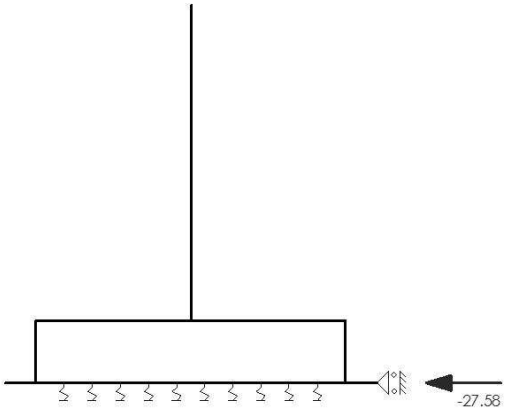

-69.60
140.66
-14.41
0.77
71.06
-14.41
-3.33
-3.33
-7.45
61.45
61.45
64.83
64.83
305.82




18.15
18.15
18.15
8.72
18.15
0.54
-23.67
-24.75
-24.75
9.43
9.43
-0.32


27.58
27.58
27.58
27.58
13.17
0.54
-33.11
-34.19
-34.19
14.41
14.41
-3.44

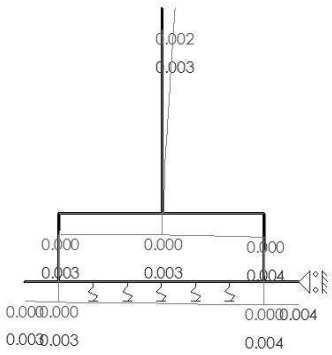


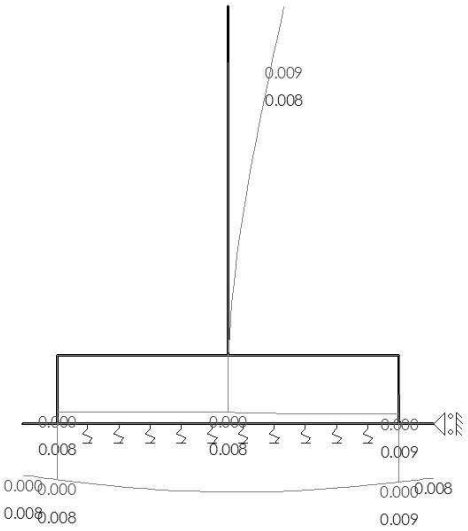




## FU.C. EXTREME OPLEGREACTIES ANALYSE

| Oplegging | Knoop | B.C. | Xmax | Z | My B.C. | X | Zmax | My B.C. | X | Z | Mymax |
|---|---|---|---|---|---|---|---|---|---|---|---|
| O1 | K2 | Fu.C.2 | **-18.15** | 0.00 | 0.00 | | | | | | |
| O2 | K10 | Fu.C.2 | **-27.58** | 0.00 | 0.00 | | | | | | |
| **Globale extreme waarden** | | | | | | | | | | | |
| O2 | K10 | Fu.C.2 | **-27.58** | 0.00 | 0.00 | | | | | | |
| **-** | **-** | **-** | **kN** | **kN** | **kNm -** | **kN** | **kN** | **kNm** | **kN** | **kN** | **kNm** |





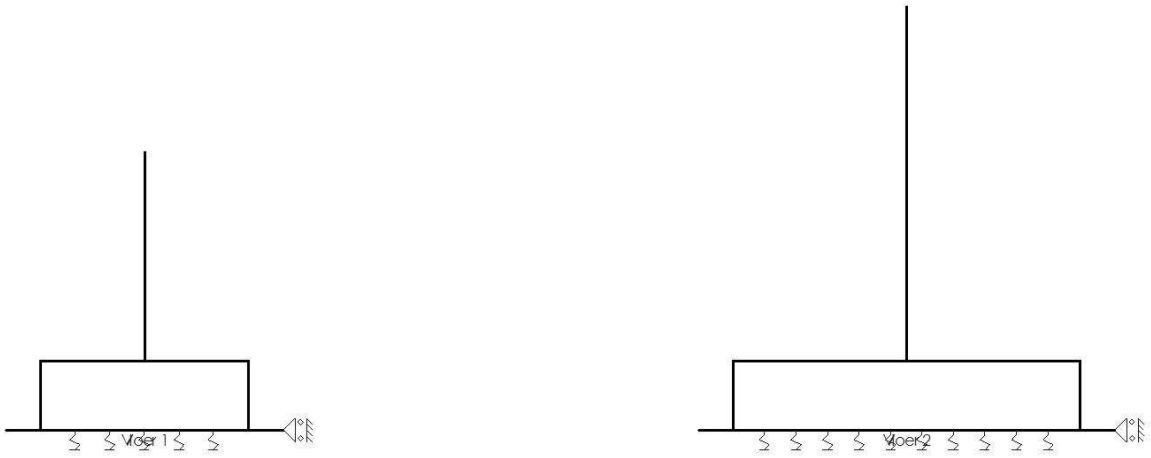




## KA.C. EXTREME DOORBUIGINGEN ANALYSE

| Staaf | B.C. | Knoop Begin | | Staaf | | Knoop Eind | |
|---|---|---|---|---|---|---|---|
| | | X | Z | Z'afst | Z' | X | Z |
| S2 | Ka.C.2 | 0,000 | 0,003 | 0.577 | **0.0000** | 0,000 | 0,003 |
| S6 | Ka.C.2 | 0,000 | 0,004 | 0.423 | **0.0000** | 0,000 | 0,004 |
| S7 | Ka.C.1 | 0,000 | 0,003 | 1.600 | **0.0002** | 0,000 | 0,003 |
| S9 | Ka.C.2 | 0,000 | 0,003 | 1.268 | **-0.0002** | 0,002 | 0,003 |
| S10 | Ka.C.2 | 0,000 | 0,003 | 0.945 | **0.0000** | 0,000 | 0,003 |
| S11 | Ka.C.2 | 0,000 | 0,003 | 0.550 | **0.0000** | 0,000 | 0,004 |
| S13 | Ka.C.2 | 0,000 | 0,008 | 0.577 | **0.0000** | 0,000 | 0,008 |
| S17 | Ka.C.2 | 0,000 | 0,009 | 0.423 | **0.0000** | 0,000 | 0,009 |
| S18 | Ka.C.2 | 0,000 | 0,008 | 2.500 | **0.0019** | 0,000 | 0,009 |

| Staaf | B.C. | Knoop Begin | | Staaf | | Knoop Eind | |
|---|---|---|---|---|---|---|---|
| | | X | Z | Z'afst | Z' | X | Z |
| S20 | Ka.C.2 | 0,000 | 0,008 | 2.156 | **-0.0012** | 0,009 | 0,008 |
| S21 | Ka.C.2 | 0,000 | 0,008 | 1.514 | **-0.0001** | 0,000 | 0,008 |
| S22 | Ka.C.2 | 0,000 | 0,008 | 0.979 | **0.0001** | 0,000 | 0,009 |
| **-** | **-** | **m** | **m** | **m** | **m** | **m** | **m** |

FIG. BETONDEFINITIE




## BETON EIGENSCHAPPEN (NEN-EN1992-1-1+C2:2010/NB:2011)

| Naam | Waarde | Eenheden |
|---|---|---|
| Hoek drukdiagonaal | 21.80 | ° |

## CONSTRUCTIEDELEN

| Staaf | Profiellabel | Profiel | Betonkwal. | Constr.Dl. | Type | Begin: | Eind: | Groep |
|---|---|---|---|---|---|---|---|---|
| S3 | P1 | R4000x300 | C20/25 | Vloer 1 | Vloer | 0.000 | 0.500 | G1 |
| S7 | P1 | R4000x300 | C20/25 | Vloer 1 | Vloer | 0.000 | 3.000 | G1 |
| S8 | P1 | R4000x300 | C20/25 | Vloer 1 | Vloer | 0.000 | 0.500 | G1 |
| S14 | P3 | R5000x300 | C20/25 | Vloer 2 | Vloer | 0.000 | 0.500 | G2 |
| S18 | P3 | R5000x300 | C20/25 | Vloer 2 | Vloer | 0.000 | 5.000 | G2 |
| S19 | P3 | R5000x300 | C20/25 | Vloer 2 | Vloer | 0.000 | 0.500 | G2 |
| - | - | - | - | - | - | m | m | - |

## GROEPGEGEVENS

| Groep | Constr.Dl. | Voorspanning | L1 | L2 | Staal | Fabric. | N.Kor. | Stortsl. | Toetsing afmeting | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| G1 | Vloer | Nee | N/A | N/A | B500A | I.h.w. | 31.5 | 0 | h,min: | 300 >= 80 | NEN-EN1992-1-1#9.3(1) |
| G2 | Vloer | Nee | N/A | N/A | B500A | I.h.w. | 31.5 | 0 | h,min: | 300 >= 80 | NEN-EN1992-1-1#9.3(1) |
| - | - | - | - | - | - | - | mm | mm | - | | |

## BRAND

| Groep | Label | Profiel | Constr. | Brandw. | Br.res. | Boven | Links | Onder | Rechts | Staal |
|---|---|---|---|---|---|---|---|---|---|---|
| G1 | P1 | R4000x300 | Vloer | Nee | 120 | Nee | Nee | Nee | Nee | Warm |
| G2 | P3 | R5000x300 | Vloer | Nee | 120 | Nee | Nee | Nee | Nee | Warm |
| **-** | **-** | **-** | **-** | **-** | **min.** | **-** | **-** | **-** | **-** | **-** |

## KRUIP

| Groep | Cement | RV (%) | Ouderdom | Tijd T | Kruip type | Kruipcoeff. |
|---|---|---|---|---|---|---|
| G1 | S | 60 % | 28 Dagen | Inf | Berekend | 2.5 |
| G2 | S | 60 % | 28 Dagen | Inf | Berekend | 2.5 |
| - | - | - | - | - | - | - |

## DEKKING

| Groep | Str.Class | Boven | | | | | | Onder | | | | | | Zij- + Voorkant | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Mil. | Ruw | Met. | C,min | C,no | C,toe | Mil. | Ruw | Met. | C,min | C,no | C,toe | Mil. | Ruw | Met. | C,min | C,no | C,toe |
| G1 | S4 | XC3 | Nee | Norm. | 25 | 30 | 30 | XC3 | Nee | Norm. | 25 | 30 | 30 | XC3 | Nee | Norm. | 25 | 30 | 30 |

| Groep | Str.Class | Boven | | | | | | Onder | | | | | | Zij- + Voorkant | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Mil. | Ruw | Met. | C,min | C,no | C,toe | Mil. | Ruw | Met. | C,min | C,no | C,toe | Mil. | Ruw | Met. | C,min | C,no | C,toe |
| G2 | S4 | XC3 | Nee | Norm. | 25 | 30 | 30 | XC3 | Nee | Norm. | 25 | 30 | 30 | XC3 | Nee | Norm. | 25 | 30 | 30 |
| - | - | - | - | - | mm | mm | mm | - | - | - | mm | mm | mm | - | - | - | mm | mm | mm |

## OPLEGGEGEVENS

**Vloer 1**

| Positie | Oplegg. | Type | Afmeting | Staaf | Afmeting | Mti | Mti bov. | Mti ond. | Dwarskr. | Moment |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.500 | | | | S2 | 0,000 | Nee | | | Niet afgetopt | Niet afgetopt |
| 3.500 | | | | S6 | 0,000 | Nee | | | Niet afgetopt | Niet afgetopt |
| 4.000 | O1 | n.v.t. | 0,000 | | | Nee | | | Niet afgetopt | Niet afgetopt |
| m | - | - | m | - | m | - | kNm | kNm | - | - |

**Vloer 2**

| Positie | Oplegg. | Type | Afmeting | Staaf | Afmeting | Mti | Mti bov. | Mti ond. | Dwarskr. | Moment |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.500 | | | | S13 | 0,000 | Nee | | | Niet afgetopt | Niet afgetopt |
| 5.500 | | | | S17 | 0,000 | Nee | | | Niet afgetopt | Niet afgetopt |
| 6.000 | O2 | n.v.t. | 0,000 | | | Nee | | | Niet afgetopt | Niet afgetopt |
| m | - | - | m | - | m | - | kNm | kNm | - | - |

**VLOER 1**

**DOORSNEDE BOVENWAPENING** — **Vloer 1**

| Positie | Md | Basis | Mod. | Bijleg | As,ben | As,toe | Scheurvorming | D,max | S,max |
|---|---|---|---|---|---|---|---|---|---|
| 0.500 | 3.07 | R10-150 | | | 27 | 2094 | | 20,99 | 300,00 |
| 2.650 | 1.53 | R10-150 | | | 13 | 2094 | | 20,99 | 300,00 |
| m | kNm | - | - | - | mm | mm | - | mm | mm |

**DOORSNEDE ONDERWAPENING** — **Vloer 1**

| Positie | Md | Basis | Mod. | Bijleg | As,ben | As,toe | Scheurvorming | D,max | S,max |
|---|---|---|---|---|---|---|---|---|---|
| 0.500 | 15.59 | R10-150 | | | 136 | 2094 | | 52,27 | 150,00 |
| 1.900 | 60.69 | R10-150 | | | 531 | 2094 | | 20,99 | 300,00 |
| 3.500 | 18.71 | R10-150 | | | 163 | 2094 | | 21,09 | 300,00 |
| m | kNm | - | - | - | mm | mm | - | mm | mm |

**DOORSNEDE FLANKWAPENING** — **Vloer 1**

| Positie | Mx | Wapening | As,ben | As,toe |
|---|---|---|---|---|
| 0.000 | 0,00 | | 0 | 0 |
| 0.500 | 0,00 | | 0 | 0 |
| 3.500 | 0,00 | | 0 | 0 |
| m | kNm | - | mm | mm |

**DOORSNEDE BEUGELWAPENING** — **Vloer 1**

| Positie | Zijde | Vd | Wapening | AsV;ben. | AsT;ben. | As,toe | Vrd;c | Vrd | Ved | VRdi | VEdi |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.000 | Rechts | 0.00 | - | 0 | 0 | 0 | 423.852 | 423.85 | 0.00 | N/B | N/B |
| 0.500 | Links | 65.82 | - | 0 | 0 | 0 | 423.809 | 423.81 | 65.82 | N/B | N/B |
| 0.500 | Rechts | 74.56 | - | 0 | 0 | 0 | 423.809 | 423.81 | 74.56 | N/B | N/B |
| 3.500 | Links | 65.28 | - | 0 | 0 | 0 | 426.257 | 426.26 | 65.28 | N/B | N/B |
| 3.500 | Rechts | 74.73 | - | 0 | 0 | 0 | 426.257 | 426.26 | 74.73 | N/B | N/B |
| 4.000 | Links | 0.00 | - | 0 | 0 | 0 | 426.257 | 426.26 | 0.00 | N/B | N/B |
| m | - | kN | - | mm | mm | mm | kN | kN | kN | kN | kN |

**VLOER 2**

**DOORSNEDE BOVENWAPENING** — **Vloer 2**

| Positie | Md | Basis | Mod. | Bijleg | As,ben | As,toe | Scheurvorming | D,max | S,max |
|---|---|---|---|---|---|---|---|---|---|
| 0.500 | 3.33 | R10-150 | | | 29 | 2618 | | 21,01 | 300,00 |
| 4.350 | 7.45 | R10-150 | | | 65 | 2618 | | 21,01 | 300,00 |
| m | kNm | - | - | - | mm | mm | - | mm | mm |

**DOORSNEDE ONDERWAPENING** — **Vloer 2**

| Positie | Md | Basis | Mod. | Bijleg | As,ben | As,toe | Scheurvorming | D,max | S,max |
|---|---|---|---|---|---|---|---|---|---|

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.500 | 61.45 | R10-100 | | | 537 | 3927 | | 52,27 | 150,00 |
| 2.850 | 305.82 | R10-100 | | | 2751 | 3927 | | 15,67 | 243,67 |
| 5.500 | 64.83 | R10-100 | | | 567 | 3927 | | 21,12 | 300,00 |
| m | kNm | - | - | - | mm | mm | - | mm | mm |

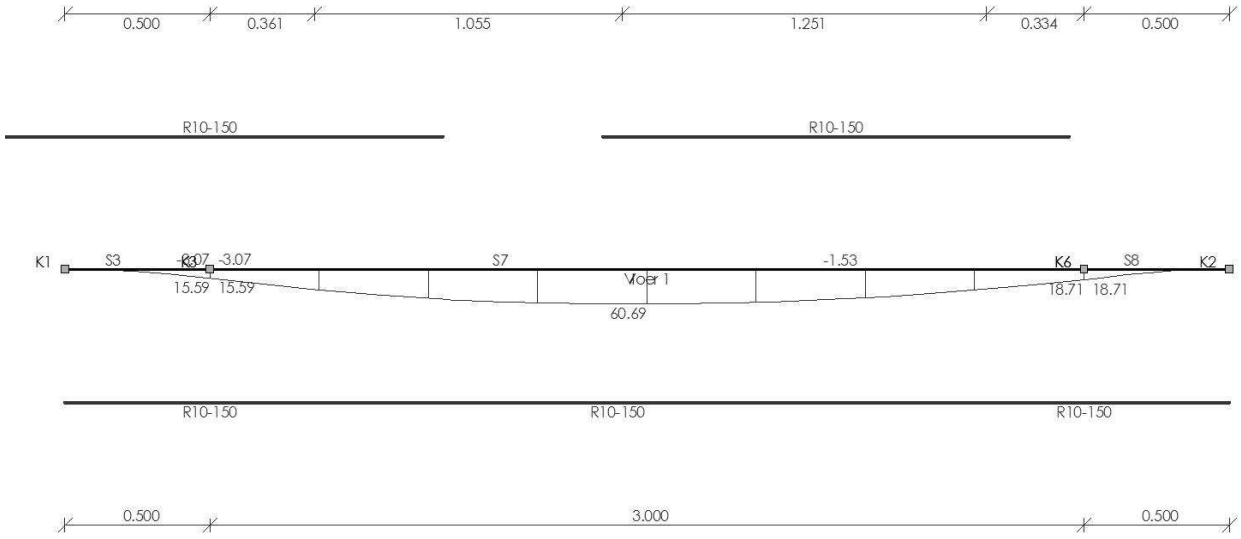
**DOORSNEDE FLANKWAPENING** **Vloer 2**

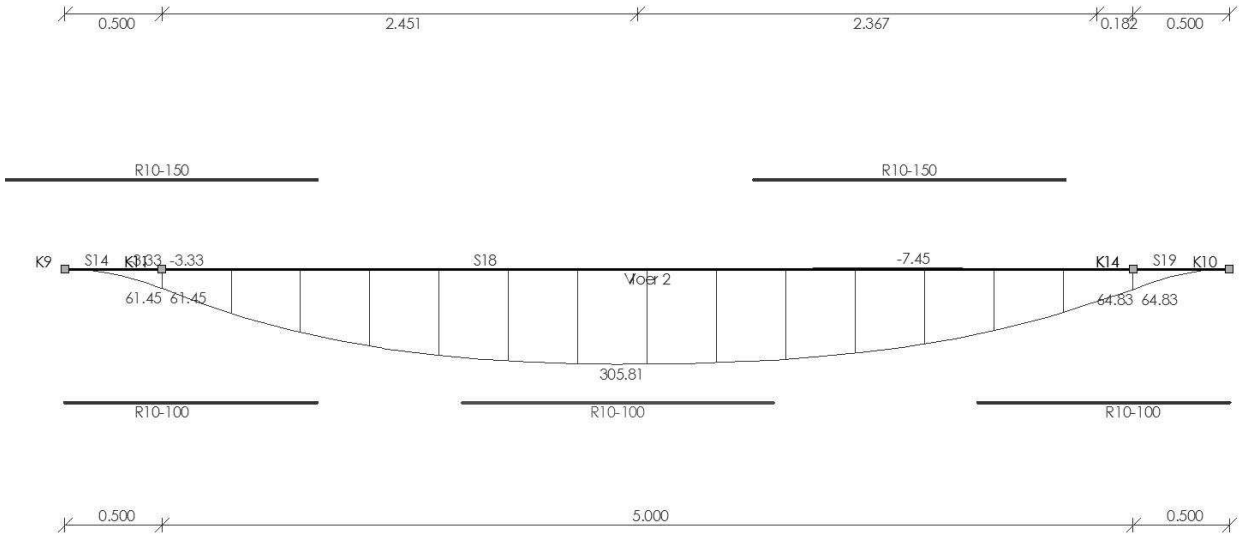
| Positie | Mx | Wapening | As,ben | As,toe |
|---|---|---|---|---|
| 0.000 | 0,00 | | 0 | 0 |
| 0.500 | 0,00 | | 0 | 0 |
| 5.500 | 0,00 | | 0 | 0 |
| m | kNm | - | mm | mm |

**DOORSNEDE BEUGELWAPENING** **Vloer 2**

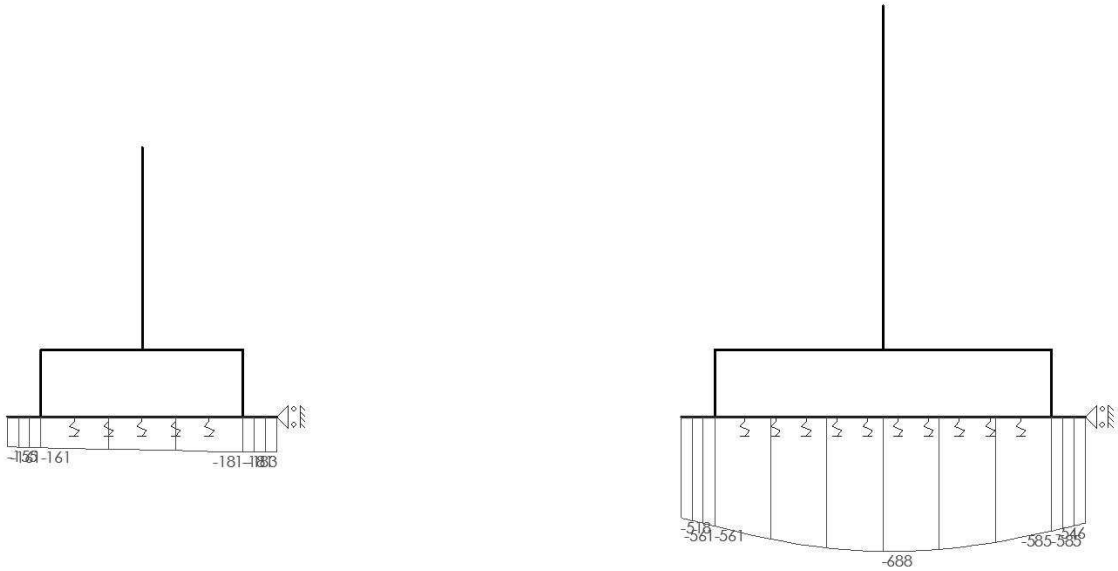
| Positie | Zijde | Vd | Wapening | AsV;ben. | AsT;ben. | As,toe | Vrd;c | Vrd | Ved | VRdi | VEdi |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.000 | Rechts | 0.00 | - | 0 | 0 | 0 | 537.739 | 537.74 | 0.00 | N/B | N/B |
| 0.488 | Rechts | 242.97 | - | 0 | 0 | 0 | 537.739 | 537.74 | 242.97 | N/B | N/B |
| 0.500 | Links | 260.00 | - | 0 | 0 | 0 | 529.737 | 529.74 | 260.00 | N/B | N/B |
| 0.500 | Rechts | 269.48 | - | 0 | 0 | 0 | 529.737 | 529.74 | 269.48 | N/B | N/B |
| 5.450 | Rechts | 239.98 | - | 0 | 0 | 0 | 539.484 | 539.48 | 239.98 | N/B | N/B |
| 5.500 | Links | 259.46 | - | 0 | 0 | 0 | 541.394 | 541.39 | 259.46 | N/B | N/B |
| 5.500 | Rechts | 262.57 | - | 0 | 0 | 0 | 541.394 | 541.39 | 262.57 | N/B | N/B |
| 6.000 | Links | 0.00 | - | 0 | 0 | 0 | 541.394 | 541.39 | 0.00 | N/B | N/B |
| m | - | kN | - | mm | mm | mm | kN | kN | kN | kN | kN |

AFB. LANGSWAPENING. (CAPACITEIT) VLOER 1



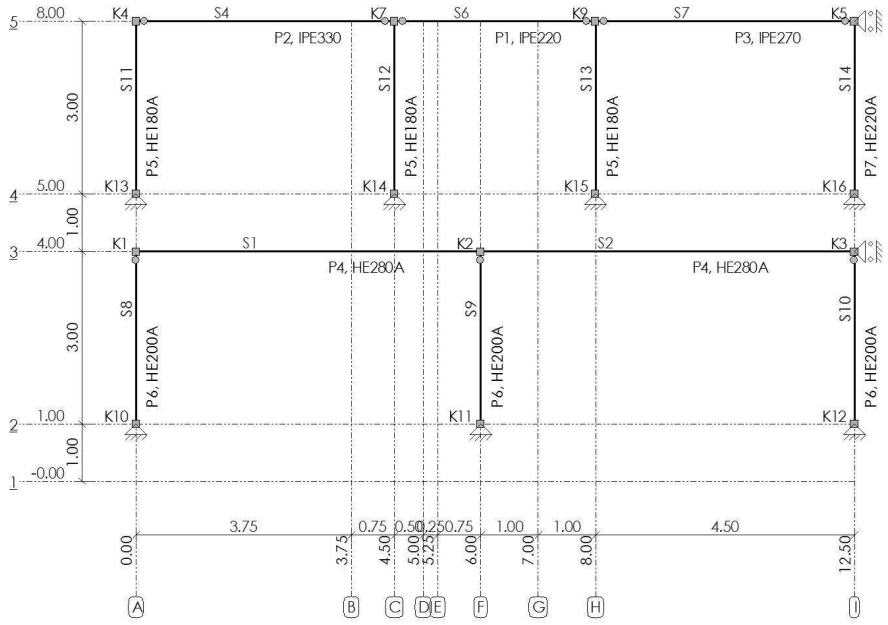

0.500
2.451
2.367
0.182
0.500
R10-150
R10-150
K9
S14
K11
-3.33
S18
-7.45
K14
S19
K10
Vloer 2
61.45
61.45
64.83
64.83
305.81
R10-100
R10-100
R10-100
0.500
5.000
0.500




-161
-181
-561
-561
-688
-585

## Bijlage I

Liggers t.b.v. verdieping




## STAVEN

| Staaf | Knoop B | Scharnier B | Scharnier E | Knoop E | Profiel | X-B | Z-B | X-E | Z-E | Lengte |
|---|---|---|---|---|---|---|---|---|---|---|
| S1 | K1 | NVM | NVM | K2 | P4 | 0,000 | -4,000 | 6,000 | -4,000 | 6,000 |
| S2 | K2 | NVM | NVM | K3 | P4 | 6,000 | -4,000 | 12,500 | -4,000 | 6,500 |
| S4 | K4 | NV- | NV- | K7 | P2 | 0,000 | -8,000 | 4,500 | -8,000 | 4,500 |
| S6 | K7 | NV- | NV- | K9 | P1 | 4,500 | -8,000 | 8,000 | -8,000 | 3,500 |
| S7 | K9 | NV- | NV- | K5 | P3 | 8,000 | -8,000 | 12,500 | -8,000 | 4,500 |
| S8 | K1 | NV- | NVM | K10 | P6 | 0,000 | -4,000 | 0,000 | -1,000 | 3,000 |
| S9 | K2 | NV- | NVM | K11 | P6 | 6,000 | -4,000 | 6,000 | -1,000 | 3,000 |
| S10 | K3 | NV- | NVM | K12 | P6 | 12,500 | -4,000 | 12,500 | -1,000 | 3,000 |
| S11 | K4 | NVM | NVM | K13 | P5 | 0,000 | -8,000 | 0,000 | -5,000 | 3,000 |
| S12 | K7 | NVM | NVM | K14 | P5 | 4,500 | -8,000 | 4,500 | -5,000 | 3,000 |
| S13 | K9 | NVM | NVM | K15 | P5 | 8,000 | -8,000 | 8,000 | -5,000 | 3,000 |
| S14 | K5 | NVM | NVM | K16 | P7 | 12,500 | -8,000 | 12,500 | -5,000 | 3,000 |
| - | - | - | - | - | - | m | m | m | m | m |

## PROFIELEN

| Profiel | Profielnaam | Oppervlakte | Iy | Materiaal | Hoek |
|---|---|---|---|---|---|
| P1 | IPE220 | 3.3371e-03 | 2.7718e-05 | S235 | 0 |
| P3 | IPE270 | 4.5945e-03 | 5.7898e-05 | S235 | 0 |
| P4 | HE280A | 9.7264e-03 | 1.3673e-04 | S235 | 0 |
| P2 | IPE330 | 6.2606e-03 | 1.1767e-04 | S235 | 0 |
| P5 | HE180A | 4.5251e-03 | 2.5103e-05 | S235 | 0 |
| P6 | HE200A | 5.3831e-03 | 3.6922e-05 | S235 | 0 |
| P7 | HE220A | 6.4341e-03 | 5.4097e-05 | S235 | 0 |
| - | - | m2 | m4 | - | ° |

## MATERIALEN

| Materiaal | Dichtheid | E-Modulus | Uitzettingcoeff |
|---|---|---|---|
| S235 | 78.50 | 2.1000e+08 | 12.0000e-06 |
| - | kN/m3 | kN/m2 | C°m |

## OPLEGGINGEN

| Oplegging | Knoop | X | Z | Yr | HoekYr |
|---|---|---|---|---|---|
| O12 | K13 | vast | vast | vrij | 0 |
| O13 | K14 | vast | vast | vrij | 0 |
| O14 | K15 | vast | vast | vrij | 0 |
| O15 | K16 | vast | vast | vrij | 0 |
| O16 | K10 | vast | vast | vrij | 0 |
| O17 | K11 | vast | vast | vrij | 0 |
| O18 | K12 | vast | vast | vrij | 0 |
| O19 | K5 | vast | vrij | vrij | 0 |
| O20 | K3 | vast | vrij | vrij | 0 |

| - | - | kN/m | kN/m | kNmrad | ° |
|---|---|---|---|---|---|

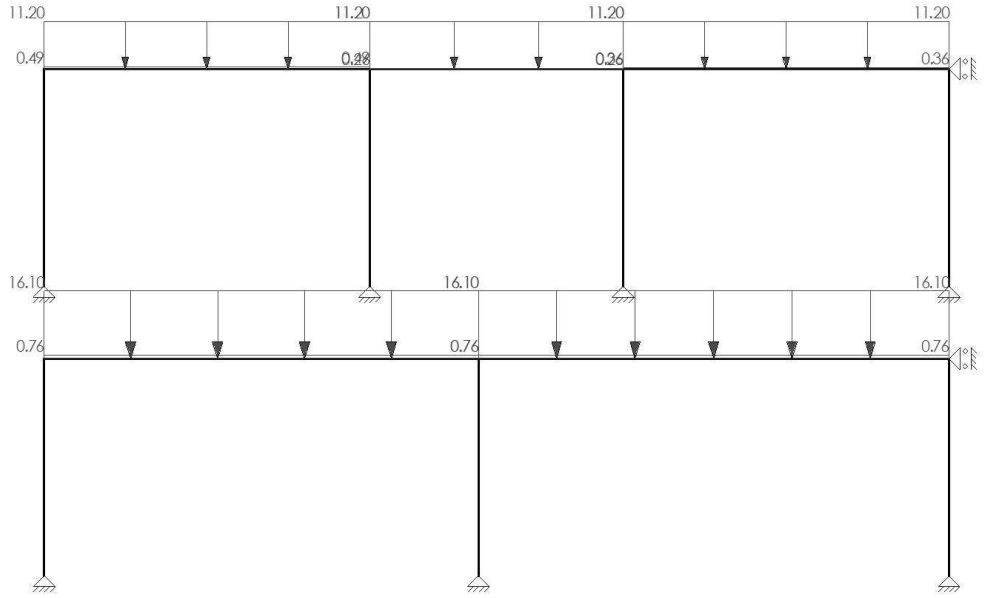
## BELASTINGSGEVALLEN TYPEN

| Oplegg. | Staven | B.G.Type | Gunstig/Ong. | Element | Niveau | Veld | Psi0 | Psi1 | Psi2 | Cprob |
|---|---|---|---|---|---|---|---|---|---|---|
| B.G.1 | Permanent | Permanent | - | | N.v.t. | N.v.t. | | | | |
| B.G.2 | Verdeelde veranderlijke belasting | Verdeelde veranderlijke belasting | - | Cat. E1) Andere | 1 | 1 | 1.00 | 0.90 | 0.80 | 1.00 |

## B.G.1: PERMANENT

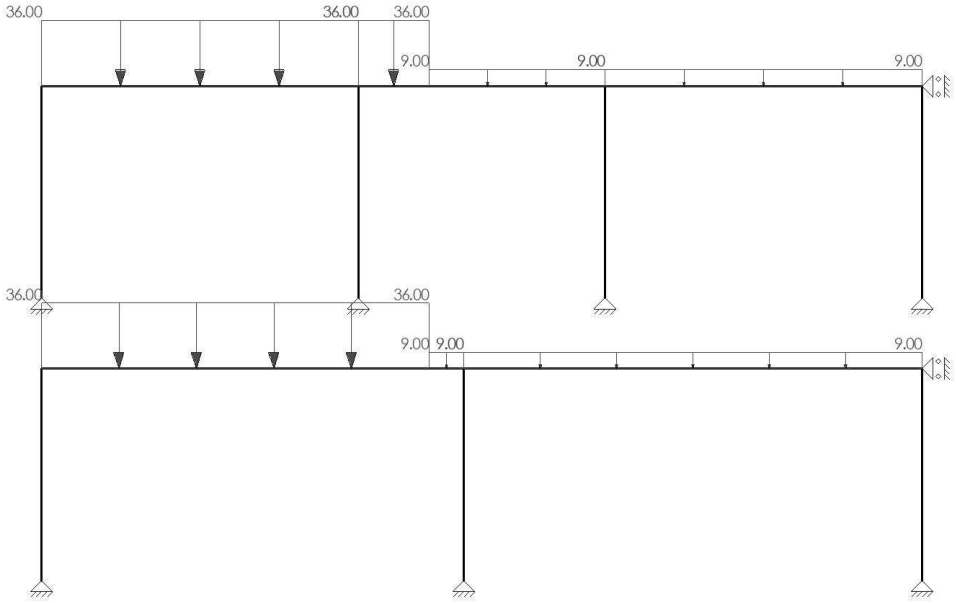
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.1: Permanent** | | | | | | |
| qG | 0,76 (1.00x) | 0,76 (1.00x) | 0,000 | 6,000(L) | Z" | S1 |
| qG | 0,76 (1.00x) | 0,76 (1.00x) | 0,000 | 6,500(L) | Z" | S2 |
| q | 16,10 | 16,10 | 0,000 | 6,000(L) | Z" | S1-S2 |
| qG | 0,49 (1.00x) | 0,49 (1.00x) | 0,000 | 4,500(L) | Z" | S4 |
| qG | 0,26 (1.00x) | 0,26 (1.00x) | 0,000 | 3,500(L) | Z" | S6 |
| qG | 0,36 (1.00x) | 0,36 (1.00x) | 0,000 | 4,500(L) | Z" | S7 |
| q | 11,20 | 11,20 | 0,000 | 4,500(L) | Z' | S4,S6-S7 |
| **Som lasten** | **X: 0,00** | **kN Z: 355,55** | **kN** | | | |
| - | - | - | m | m | - | - |

B.G.1: PERMANENT




## B.G.2: VERDEELDE VERANDERLIJKE BELASTING

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.2: Verdeelde veranderlijke belasting** | | | | | | |
| q | 36,00 | 36,00 | 0,000 | 5,500 | Z' | S1 |
| q | 9,00 | 9,00 | 0,000 | 6,500(L) | Z' | S2 |
| q | 9,00 | 9,00 | 5,500 | 6,000(L) | Z' | S1 |
| q | 36,00 | 36,00 | 0,000 | 4,500(L) | Z' | S4 |
| q | 36,00 | 36,00 | 0,000 | 1,000 | Z' | S6 |
| q | 9,00 | 9,00 | 1,000 | 3,500(L) | Z' | S6 |
| q | 9,00 | 9,00 | 0,000 | 4,500(L) | Z' | S7 |
| **Som lasten** | **X: 0,00** | **kN Z: 522,00** | **kN** | | | |
| - | - | - | m | m | - | - |




## FUNDAMENTEEL BELASTINGSCOMBINATIES (TABEL)

| B.G. | Omschrijving | Fu.C.1 | Fu.C.2 |
|---|---|---|---|
| B.G.1 | Permanent | 1.08 | 1.22 |
| B.G.2 | Verdeelde veranderlijke belasting | 1.35 | 1.35 |

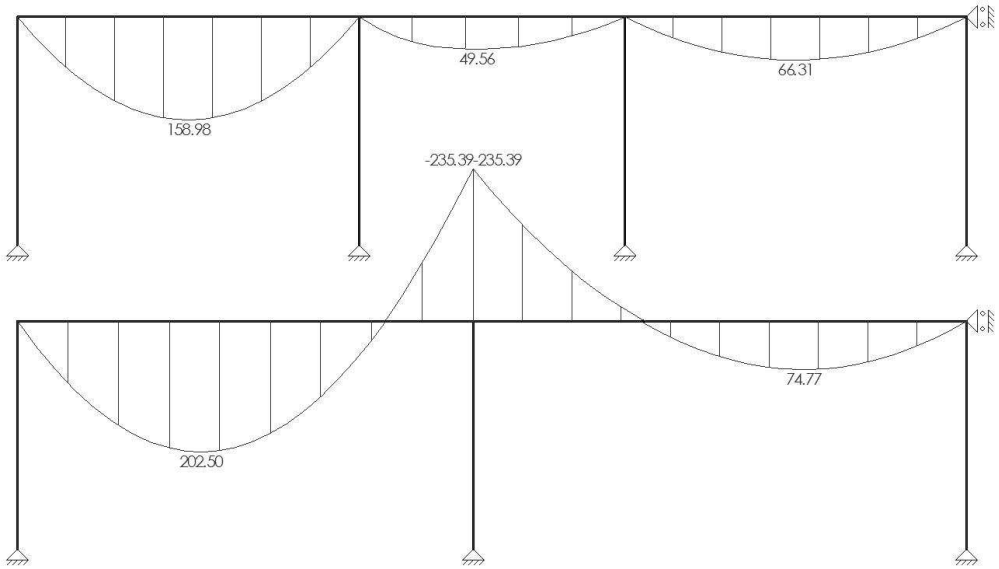
## KARAKTERISTIEK BELASTINGSCOMBINATIES (TABEL)

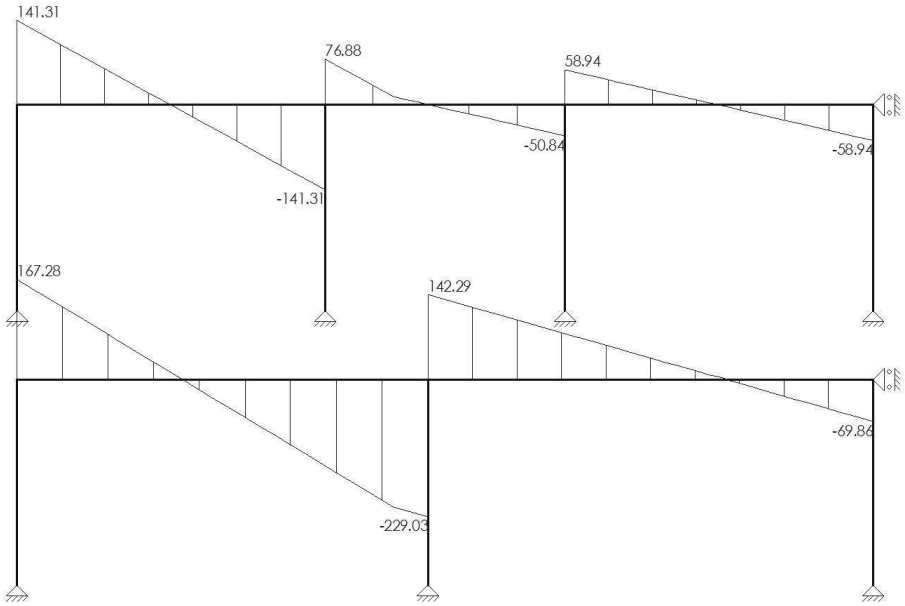
| B.G. | Omschrijving | Ka.C.(w1) | Ka.C.1 |
|---|---|---|---|
| B.G.1 | Permanent | 1.00 | 1.00 |
| B.G.2 | Verdeelde veranderlijke belasting | - | 1.00 |

## UITGANGSPUNTEN VAN DE ANALYSE

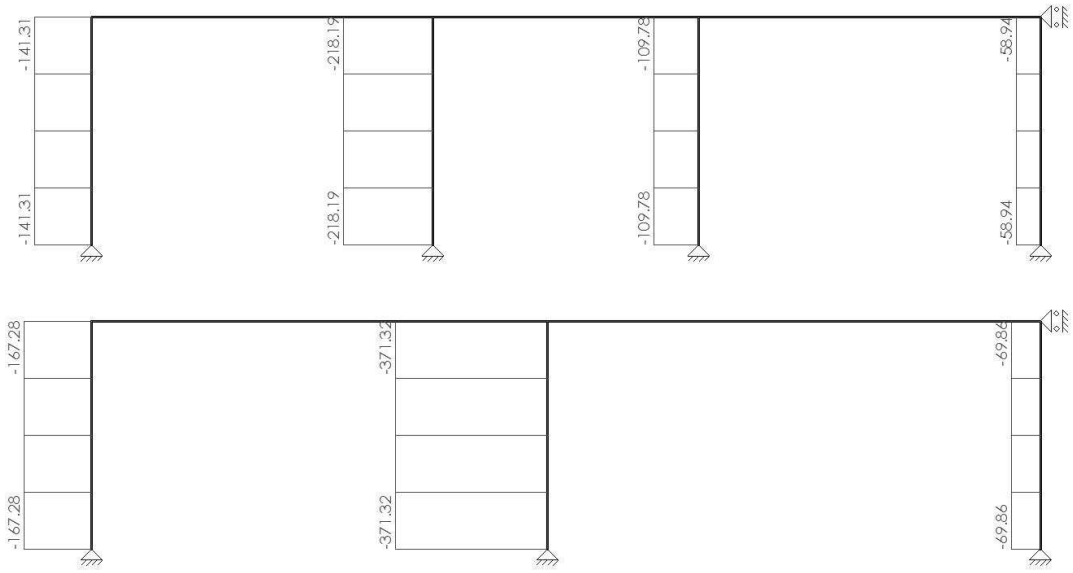
Lineaire Elastische Analyse uitgevoerd

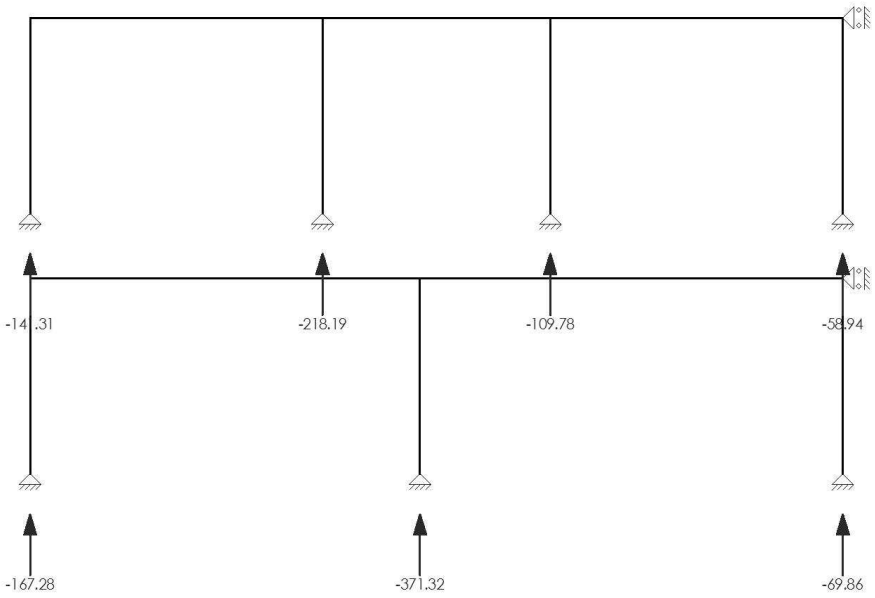
AFB. FU.C. MOMENT (MY) OMHULLENDE — Fundamenteel Belastingscombinaties




141.31
76.88
58.94
-50.84
-58.94
-141.31
167.28
142.29
-69.86
-229.03



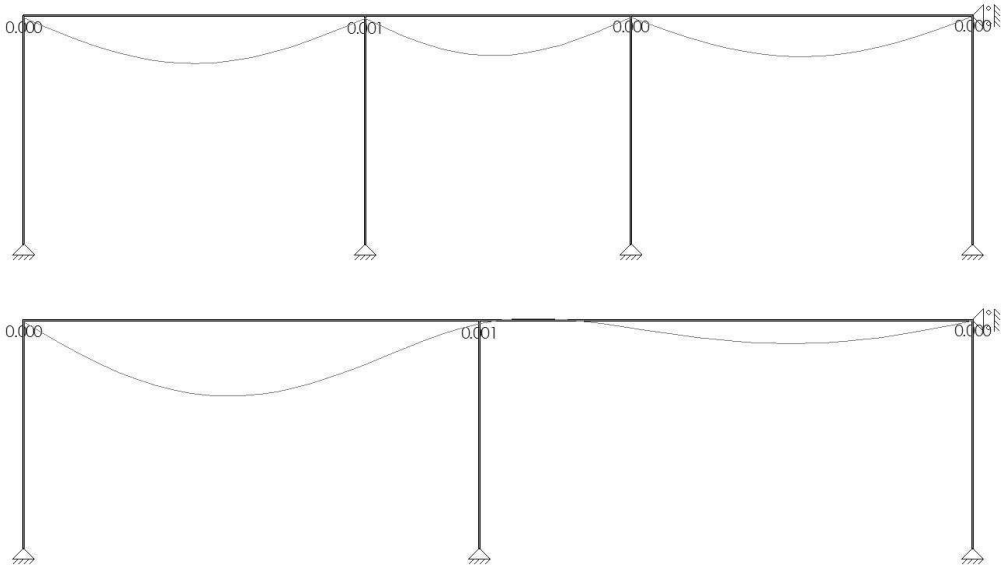

-141.31
-218.19
-109.78
-58.94
-141.31
-218.19
-109.78
-58.94
-167.28
-371.32
-69.86
-167.28
-371.32
-69.86




## FU.C. EXTREME OPLEGREACTIES

| Oplegging | Knoop | B.C. | Xmax | Z | My | B.C. | X | Zmax | My | B.C. | X | Z | Mymax |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| O12 | K13 | | | | | Fu.C.2 | 0.00 | **-141.31** | 0.00 | | | | |
| O13 | K14 | | | | | Fu.C.2 | 0.00 | **-218.19** | 0.00 | | | | |
| O14 | K15 | | | | | Fu.C.2 | 0.00 | **-109.78** | 0.00 | | | | |
| O15 | K16 | | | | | Fu.C.2 | 0.00 | **-58.94** | 0.00 | | | | |
| O16 | K10 | | | | | Fu.C.2 | 0.00 | **-167.28** | 0.00 | | | | |
| O17 | K11 | | | | | Fu.C.2 | 0.00 | **-371.32** | 0.00 | | | | |
| O18 | K12 | | | | | Fu.C.2 | 0.00 | **-69.86** | 0.00 | | | | |
| **Globale extreme waarden** | | | | | | | | | | | | | |
| O17 | K11 | | | | | Fu.C.2 | 0.00 | **-371.32** | 0.00 | | | | |
| **-** | **-** | **-** | **kN** | **kN** | **kNm** | **-** | **kN** | **kN** | **kNm** | | **kN** | **kN** | **kNm** |

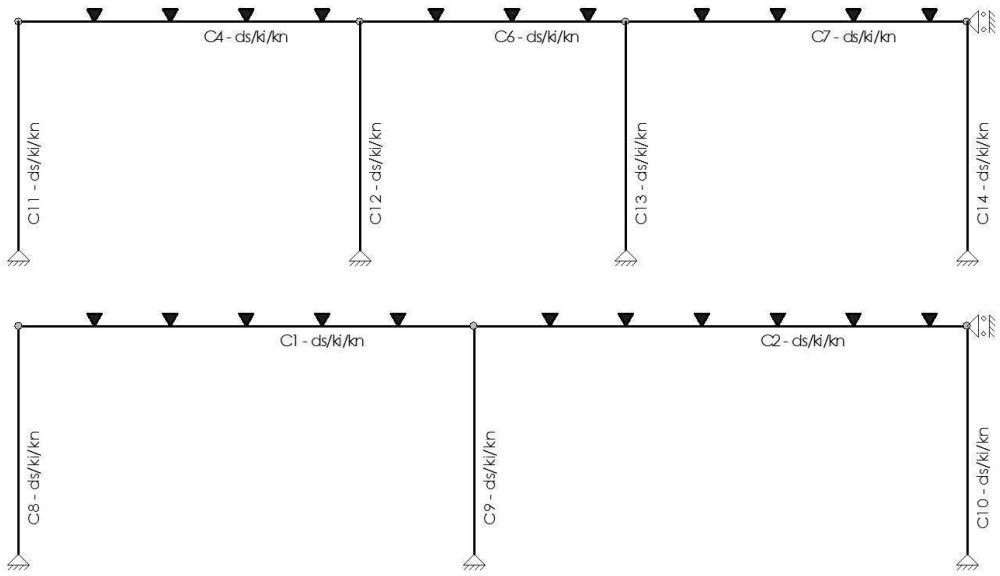




## KA.C. EXTREME DOORBUIGINGEN

| Staaf | B.C. | Knoop Begin | | Staaf | | Knoop Eind | |
|---|---|---|---|---|---|---|---|
| | | X | Z | Z'afst | Z' | X | Z |
| S1 | Ka.C.1 | 0,000 | 0,000 | 2.688 | **0.0168** | 0,000 | 0,001 |
| S2 | Ka.C. (w1) | 0,000 | 0,000 | 3.693 | **0.0063** | 0,000 | 0,000 |
| S4 | Ka.C.1 | 0,000 | 0,000 | 2.250 | **0.0103** | 0,000 | 0,001 |
| S6 | Ka.C.1 | 0,000 | 0,001 | 1.707 | **0.0086** | 0,000 | 0,000 |
| S7 | Ka.C.1 | 0,000 | 0,000 | 2.250 | **0.0090** | 0,000 | 0,000 |
| - | - | m | m | m | m | m | m |

AFB. STAALCONTROLE




## SAMENSTELLING CONSTRUCTIEDELEN

| Constructiedeel | Staaf/staven |
|---|---|
| C1 | S1 |
| C2 | S2 |
| C4 | S4 |
| C6 | S6 |
| C7 | S7 |
| C8 | S8 |
| C9 | S9 |
| C10 | S10 |
| C11 | S11 |
| C12 | S12 |
| C13 | S13 |
| C14 | S14 |

## KNIKLENGTEGEGEVENS

| Staaf | Profiel | Lokale Y-as | | | | Lokale Z-as | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Lsys | methode | Lbuc | Lbuc/Lsys | methode | Lbuc | Lbuc/Lsys |
| C8 - V1 (0.000-3.000) | P6 | 3.000 | Cons. gesch. | 3.000 | 1.00 | Cons. gesch. | 3.000 | 1.00 |
| C9 - V1 (0.000-3.000) | P6 | 3.000 | Cons. gesch. | 3.000 | 1.00 | Cons. gesch. | 3.000 | 1.00 |
| C10 - V1 (0.000-3.000) | P6 | 3.000 | Cons. gesch. | 3.000 | 1.00 | Cons. gesch. | 3.000 | 1.00 |
| C11 - V1 (0.000-3.000) | P5 | 3.000 | Cons. gesch. | 3.000 | 1.00 | Cons. gesch. | 3.000 | 1.00 |
| C12 - V1 (0.000-3.000) | P5 | 3.000 | Cons. gesch. | 3.000 | 1.00 | Cons. gesch. | 3.000 | 1.00 |
| C13 - V1 (0.000-3.000) | P5 | 3.000 | Cons. gesch. | 3.000 | 1.00 | Cons. gesch. | 3.000 | 1.00 |
| C14 - V1 (0.000-3.000) | P7 | 3.000 | Cons. gesch. | 3.000 | 1.00 | Cons. gesch. | 3.000 | 1.00 |
| - | - | m | - | m | - | - | m | - |

## KIPSTEUNENGEGEVENS

| Staaf | Profiel | Begin: | Eind: | Kipsteunen boven | Kipsteunen onder | Aangrijphoogte |
|---|---|---|---|---|---|---|
| C1 - V1 (0.000-6.000) | P4 | Gesteund | Gesteund | 1, 2, 3, 4, 5 | | Centrum |
| C2 - V1 (0.000-6.500) | P4 | Gesteund | Gesteund | 1, 2, 3, 4, 5, 6 | | Centrum |
| C4 - V1 (0.000-4.500) | P2 | Gesteund | Gesteund | 1, 2, 3, 4 | | Centrum |
| C6 - V1 (0.000-3.500) | P1 | Gesteund | Gesteund | 1, 2, 3 | | Centrum |
| C7 - V1 (0.000-4.500) | P3 | Gesteund | Gesteund | 1, 2, 3, 4 | | Centrum |
| C8 - V1 (0.000-3.000) | P6 | Gesteund | Gesteund | | | Centrum |
| C9 - V1 (0.000-3.000) | P6 | Gesteund | Gesteund | | | Centrum |
| C10 - V1 (0.000-3.000) | P6 | Gesteund | Gesteund | | | Centrum |
| C11 - V1 (0.000-3.000) | P5 | Gesteund | Gesteund | | | Centrum |
| C12 - V1 (0.000-3.000) | P5 | Gesteund | Gesteund | | | Centrum |
| C13 - V1 (0.000-3.000) | P5 | Gesteund | Gesteund | | | Centrum |
| C14 - V1 (0.000-3.000) | P7 | Gesteund | Gesteund | | | Centrum |
| - | - | - | - | m | m | - |

## UNITY CHECK NEN-EN1993-1-1:2009/NB:2011

| Veld | Toetsing | Combinatie | Artikel | UC max |
|---|---|---|---|---|
| C1-V1 (0.000-6.000) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.30) | 0,90 |
| C1-V1 (0.000-6.000) | Kiptoetsing | Fu.C.2 | NEN-EN1993-1-1(6.54) | 0,00 |
| C2-V1 (0.000-6.500) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.12) | 0,90 |
| C2-V1 (0.000-6.500) | Kiptoetsing | Fu.C.2 | NEN-EN1993-1-1(6.54) | 0,00 |
| C4-V1 (0.000-4.500) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.12) | 0,84 |
| C4-V1 (0.000-4.500) | Kiptoetsing | Fu.C.2 | NEN-EN1993-1-1(6.54) | 0,00 |
| C6-V1 (0.000-3.500) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.12) | 0,74 |
| C6-V1 (0.000-3.500) | Kiptoetsing | Fu.C.2 | NEN-EN1993-1-1(6.54) | 0,72 |
| C7-V1 (0.000-4.500) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.12) | 0,58 |
| C7-V1 (0.000-4.500) | Kiptoetsing | Fu.C.2 | NEN-EN1993-1-1(6.54) | 0,00 |
| C8-V1 (0.000-3.000) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.9) | 0,13 |
| C8-V1 (0.000-3.000) | Stabiliteit | Fu.C.2 | NEN-EN1993-1-1(6.46) | 0,14 |
| C8-V1 (0.000-3.000) | Stabiliteit | Fu.C.2 | NEN-EN1993-1-1(6.46) | 0,17 |
| C8-V1 (0.000-3.000) | Stabiliteit | Fu.C.2 | NEN-EN1993-1-1(6.61&6.62) | 0,17 |
| C8-V1 (0.000-3.000) | Kiptoetsing | Fu.C.2 | NEN-EN1993-1-1(6.54) | 0,00 |
| C9-V1 (0.000-3.000) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.9) | 0,29 |
| C9-V1 (0.000-3.000) | Stabiliteit | Fu.C.2 | NEN-EN1993-1-1(6.46) | 0,32 |
| C9-V1 (0.000-3.000) | Stabiliteit | Fu.C.2 | NEN-EN1993-1-1(6.46) | 0,39 |
| C9-V1 (0.000-3.000) | Stabiliteit | Fu.C.2 | NEN-EN1993-1-1(6.61&6.62) | 0,39 |
| C9-V1 (0.000-3.000) | Kiptoetsing | Fu.C.2 | NEN-EN1993-1-1(6.54) | 0,00 |
| C10-V1 (0.000-3.000) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.9) | 0,06 |
| C10-V1 (0.000-3.000) | Stabiliteit | Fu.C.2 | NEN-EN1993-1-1(6.46) | 0,06 |
| C10-V1 (0.000-3.000) | Stabiliteit | Fu.C.2 | NEN-EN1993-1-1(6.46) | 0,07 |
| C10-V1 (0.000-3.000) | Stabiliteit | Fu.C.2 | NEN-EN1993-1-1(6.61&6.62) | 0,07 |
| C10-V1 (0.000-3.000) | Kiptoetsing | Fu.C.2 | NEN-EN1993-1-1(6.54) | 0,00 |
| C11-V1 (0.000-3.000) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.9) | 0,13 |
| C11-V1 (0.000-3.000) | Stabiliteit | Fu.C.2 | NEN-EN1993-1-1(6.46) | 0,15 |
| C11-V1 (0.000-3.000) | Stabiliteit | Fu.C.2 | NEN-EN1993-1-1(6.46) | 0,18 |
| C11-V1 (0.000-3.000) | Stabiliteit | Fu.C.2 | NEN-EN1993-1-1(6.61&6.62) | 0,18 |
| C11-V1 (0.000-3.000) | Kiptoetsing | Fu.C.2 | NEN-EN1993-1-1(6.54) | 0,00 |
| C12-V1 (0.000-3.000) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.9) | 0,21 |
| C12-V1 (0.000-3.000) | Stabiliteit | Fu.C.2 | NEN-EN1993-1-1(6.46) | 0,22 |
| C12-V1 (0.000-3.000) | Stabiliteit | Fu.C.2 | NEN-EN1993-1-1(6.46) | 0,28 |
| C12-V1 (0.000-3.000) | Stabiliteit | Fu.C.2 | NEN-EN1993-1-1(6.61&6.62) | 0,28 |
| C12-V1 (0.000-3.000) | Kiptoetsing | Fu.C.2 | NEN-EN1993-1-1(6.54) | 0,00 |
| C13-V1 (0.000-3.000) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.9) | 0,10 |
| C13-V1 (0.000-3.000) | Stabiliteit | Fu.C.2 | NEN-EN1993-1-1(6.46) | 0,11 |
| C13-V1 (0.000-3.000) | Stabiliteit | Fu.C.2 | NEN-EN1993-1-1(6.46) | 0,14 |
| C13-V1 (0.000-3.000) | Stabiliteit | Fu.C.2 | NEN-EN1993-1-1(6.61&6.62) | 0,14 |
| C13-V1 (0.000-3.000) | Kiptoetsing | Fu.C.2 | NEN-EN1993-1-1(6.54) | 0,00 |
| C14-V1 (0.000-3.000) | Doorsnede | Fu.C.2 | NEN-EN1993-1-1(6.9) | 0,04 |
| C14-V1 (0.000-3.000) | Stabiliteit | Fu.C.2 | NEN-EN1993-1-1(6.46) | 0,04 |
| C14-V1 (0.000-3.000) | Stabiliteit | Fu.C.2 | NEN-EN1993-1-1(6.46) | 0,05 |

| Veld | Toetsing | Combinatie | Artikel | UC max |
|---|---|---|---|---|
| C14-V1 (0.000-3.000) | Stabiliteit | Fu.C.2 | NEN-EN1993-1-1(6.61&6.62) | 0,05 |
| C14-V1 (0.000-3.000) | Kiptoetsing | Fu.C.2 | NEN-EN1993-1-1(6.54) | 0,00 |

## Bijlage J

Sonderingen

**Bouwplan De Cremerhoeve aan de Minister Cremerstraat 5 te Zeijen.**

Ordernr. **2016-831**

Koops & Romeijn grondmechanica

Samenwerkende, zelfstandige adviseurs voor grondonderzoek, geotechniek en geohydrologie

Geotechnisch onderzoek tbv:

**Bouwplan De Cremerhoeve aan de Minister Cremerstraat 5 te Zeijen.**

Ordernr. **2016-831**

Opdrachtgever: BTA Dwingeloo
Tolweg 18a
7991 TC Dwingeloo.

Datum grondonderzoek: 09 november 2016

Datum rapportage: 28 november 2016

Bijlagen:

| | |
|---|---|
| Situatietekening | |
| Sondeergrafieken | DKM-01, D-03 t/m D-07, DKM-08, D-09 t/m D-16, DKM-17, D-18 t/m D-20, DKM-21 en D-22. |
| Handboorstaten | HB-1 t/m HB-4. |

Koops grondmechanica b.v.
adviesbureau voor technisch bodemonderzoek

Postbus 428, 7940 AK Meppel
Telefoon 0522 - 260084
Fax 0522 - 245479
E-mail koopsgrondmechanica@planet.nl
IBAN nr. NL35 RABO 0341 8768 95
BIC code RABONL2U

BTA Dwingeloo
**t.a.v. de heer A. Barendsen**
Tolweg 18a
7991 TC Dwingeloo.

**2016-831** HK/hk Meppel, 28 nov. 2016

Betreft : **Bouwplan De Cremerhoeve aan de Minister Cremerstraat 5 te Zeijen.**
Uw werknr.:**15-06**

**Geachte heer Barendsen,**

Op 21 okt. 2016 ontvingen wij de opdracht voor het uitvoeren van een geotechnisch onderzoek ten behoeve van bovengenoemd project. In de vorm van dit briefrapport, doen wij u de resultaten toekomen.

Veldwerkzaamheden.

Het grondonderzoek heeft bestaan uit 21 sonderingen, waarvan de resultaten zijn gepresenteerd op de sondeergrafieken DKM-01 t/m D-22, m.u.v. sondering 02. De conus- en wrijvingsweerstand, uitgedrukt in mN/m2, is hierop uitgezet tegen de diepte in meters ten opzichte van NAP

Vanwege nog aanwezige bebouwing, was de geplande sondeerlokatie 02 ( nog ) niet bereikbaar.

De sonderingen zijn uitgevoerd vanaf onze 20-tons track-truck rupssondeereenheid.

De metingen zijn verricht met een gladde elektrische ( kleef )mantelconus met hellingmeter, een en ander conform Norm NEN 5140, klasse 2.

Bij de kleefmantelsonderingen ( DKM ) is naast de conusweerstand eveneens de plaatselijke wrijvingsweerstand geregistreerd. Het op de betreffende sondeergrafieken weergegeven wrijvingsgetal, geeft de verhouding weer tussen de wrijvingsweerstand en de conusweerstand in procenten en is kenmerkend voor de verschillende grondsoorten.

Alle opdrachten worden aanvaard volgens onze Algemene Voorwaarden, die op verzoek worden toegezonden.
Waar deze voorwaarden niet in voorzien, geldt de RVOI 1987.

KvK nr. 04083974
BTW nr. NL 8181.76.787.B.01

Als indicatie kunnen voor normaal geconsolideerde grondlagen, **onder** de grondwaterstand de volgende percentages worden aangehouden;

| Wrijvingsgetal in % | Grondsoort |
|---|---|
| 0.3 - 1.2 | Zand, grof tot fijn |
| 1.5 - 2.0 | Silt |
| 2.5 - 5.0 | Klei |
| > 5.0 | Veen |

Tussen de verschillende grondsoorten komen overgangsvormen voor waardoor de aangegeven grenzen niet als maatgevend zijn te beschouwen.

Teneinde een inzicht te krijgen in de aard van de toplagen en de ligging van de grondwaterstand, is in aanvulling op de sonderingen een viertal korte boringen uitgevoerd.
Het opgeboorde materiaal is in het veld geklassificeerd, waarvan de resultaten zijn weergegeven op de hand boorstaten HB-1 t/m HB-4.

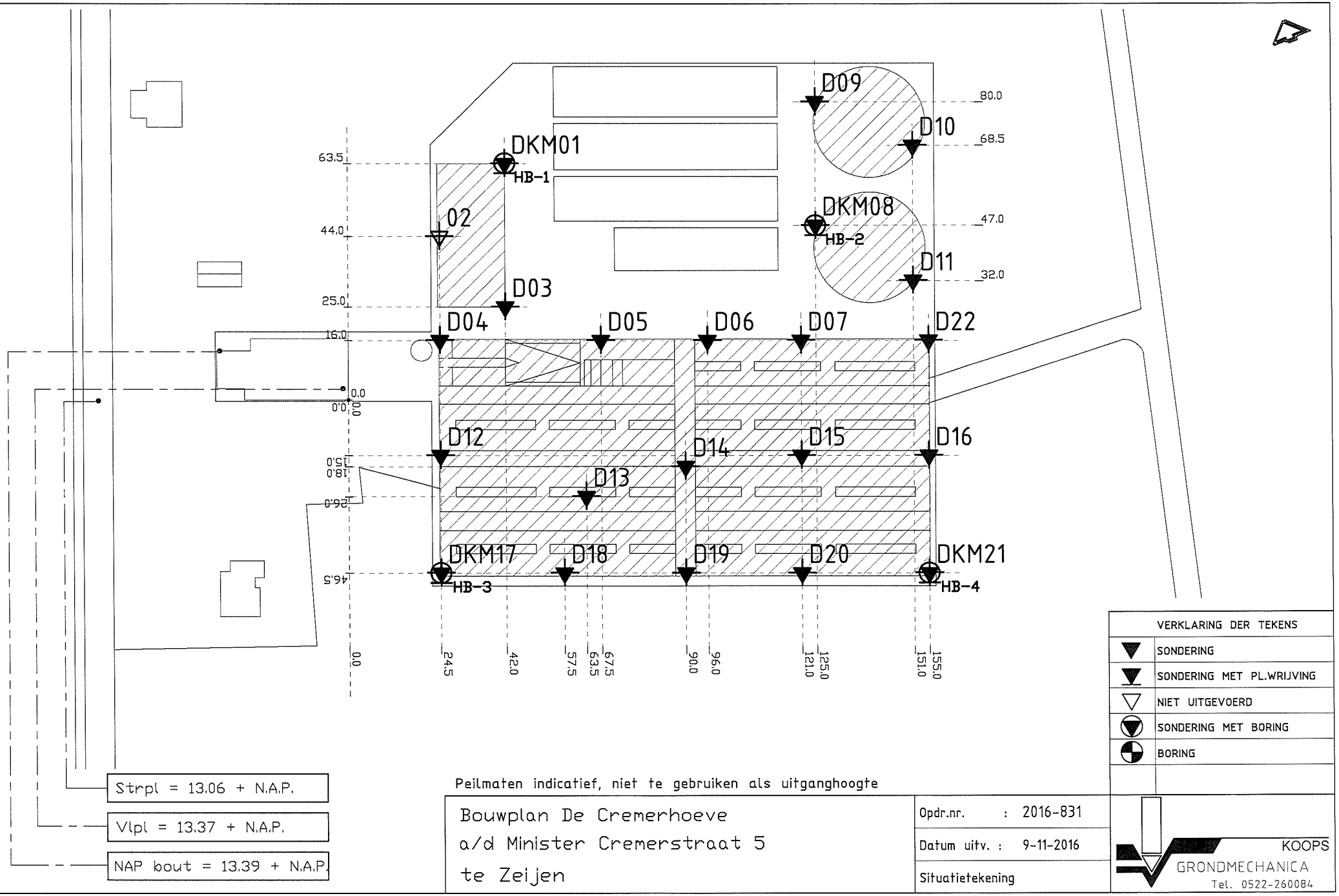
De onderzochte punten zijn door onze veldmedewerker uitgezet en in hoogte vastgelegd ten opzichte van NAP.

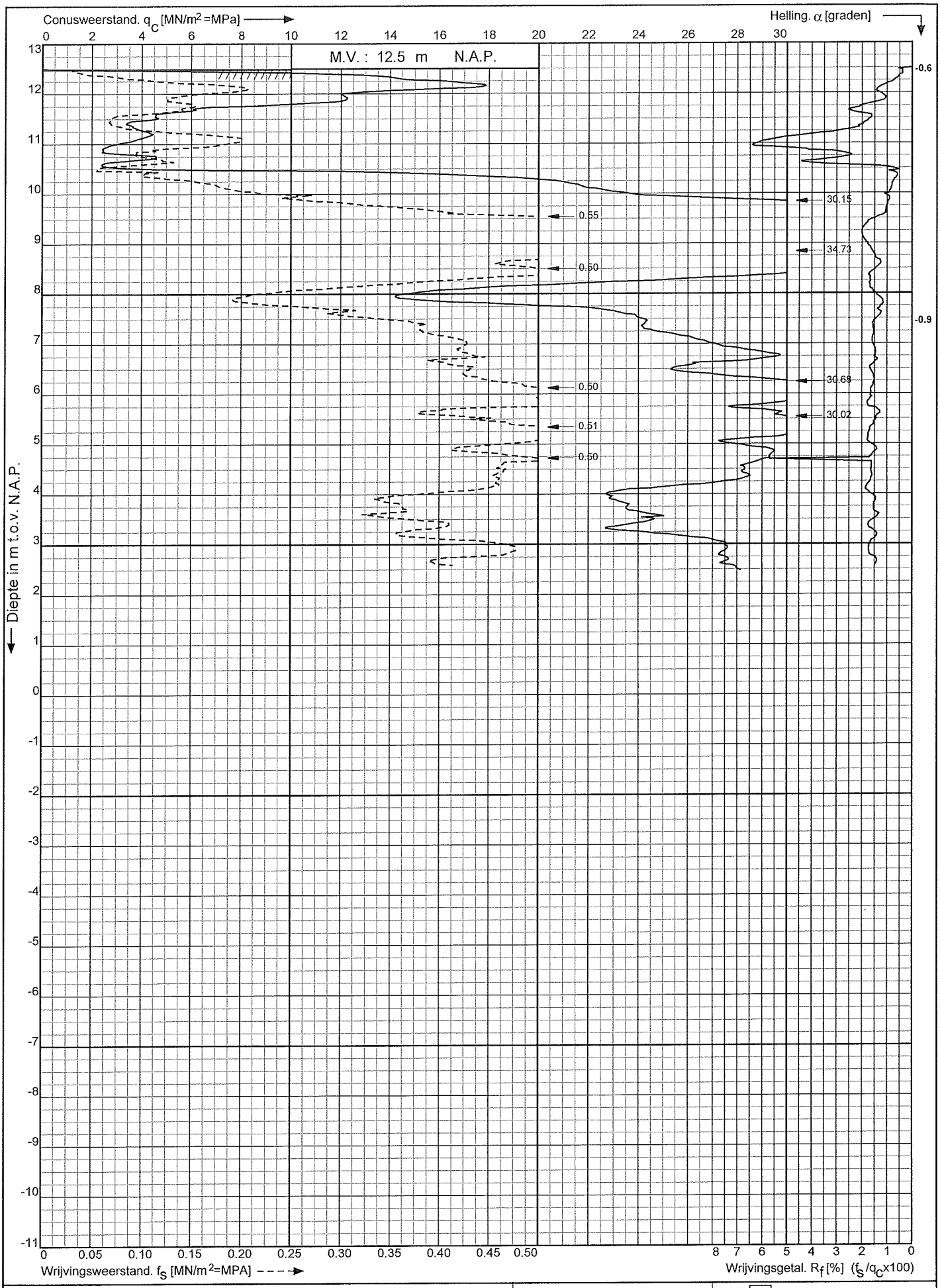
De ligging van de sondeer- en boorlocaties is weergegeven op de bijgaande situatietekening.

Vertrouwende u hierbij van dienst te zijn geweest,
verblijven wij,

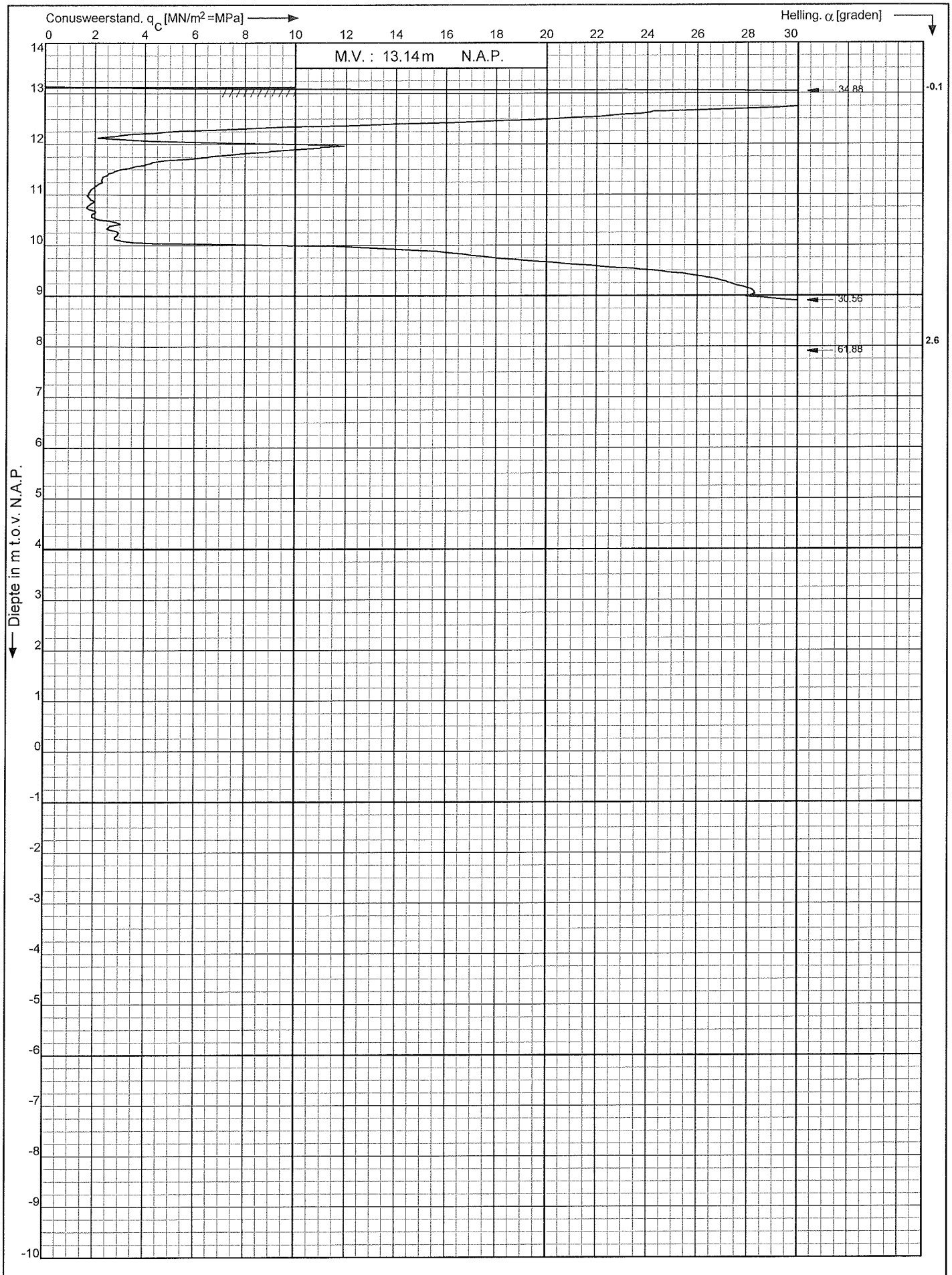
met vriendelijke groet,

Henk Koops.


D09
80.0
D10
68.5
DKM01
HB-1
63.5
02
44.0
DKM08
HB-2
47.0
D11
32.0
D03
25.0
D04
D05
D06
D07
D22
16.0
0.0
D12
D14
D15
D16
D13
DKM17
D18
D19
D20
DKM21
HB-3
HB-4
46.5
0.0
24.5
42.0
57.5
63.5
67.5
90.0
96.0
121.0
125.0
151.0
155.0
Strpl = 13.06 + N.A.P.
Vlpl = 13.37 + N.A.P.
NAP bout = 13.39 + N.A.P.
Peilmaten indicatief, niet te gebruiken als uitganghoogte
VERKLARING DER TEKENS
SONDERING
SONDERING MET PL.WRIJVING
NIET UITGEVOERD
SONDERING MET BORING
BORING
Bouwplan De Cremerhoeve
a/d Minister Cremerstraat 5
te Zeijen
Opdr.nr. : 2016-831
Datum uitv. : 9-11-2016
Situatietekening
KOOPS
GRONDMECHANICA
Tel. 0522-260084




| | | |
|---|---|---|
| Bouwplan De Cremerhoeve a/d Minister Cremerstraat 5 te Zeijen. | Opdr. nr. : 2016-831 | KOOPS GRONDMECHANICA 0522-260084 |
| | Datum uitv.: 9-11-2016 | |
| Sondering volgens : NEN 5140 Oppervlakte conuspunt : 1500 mm $^2$ | Sond. nr. : 1 | |




Bouwplan De Cremerhoeve a/d Minister Cremerstraat 5 te Zeijen.

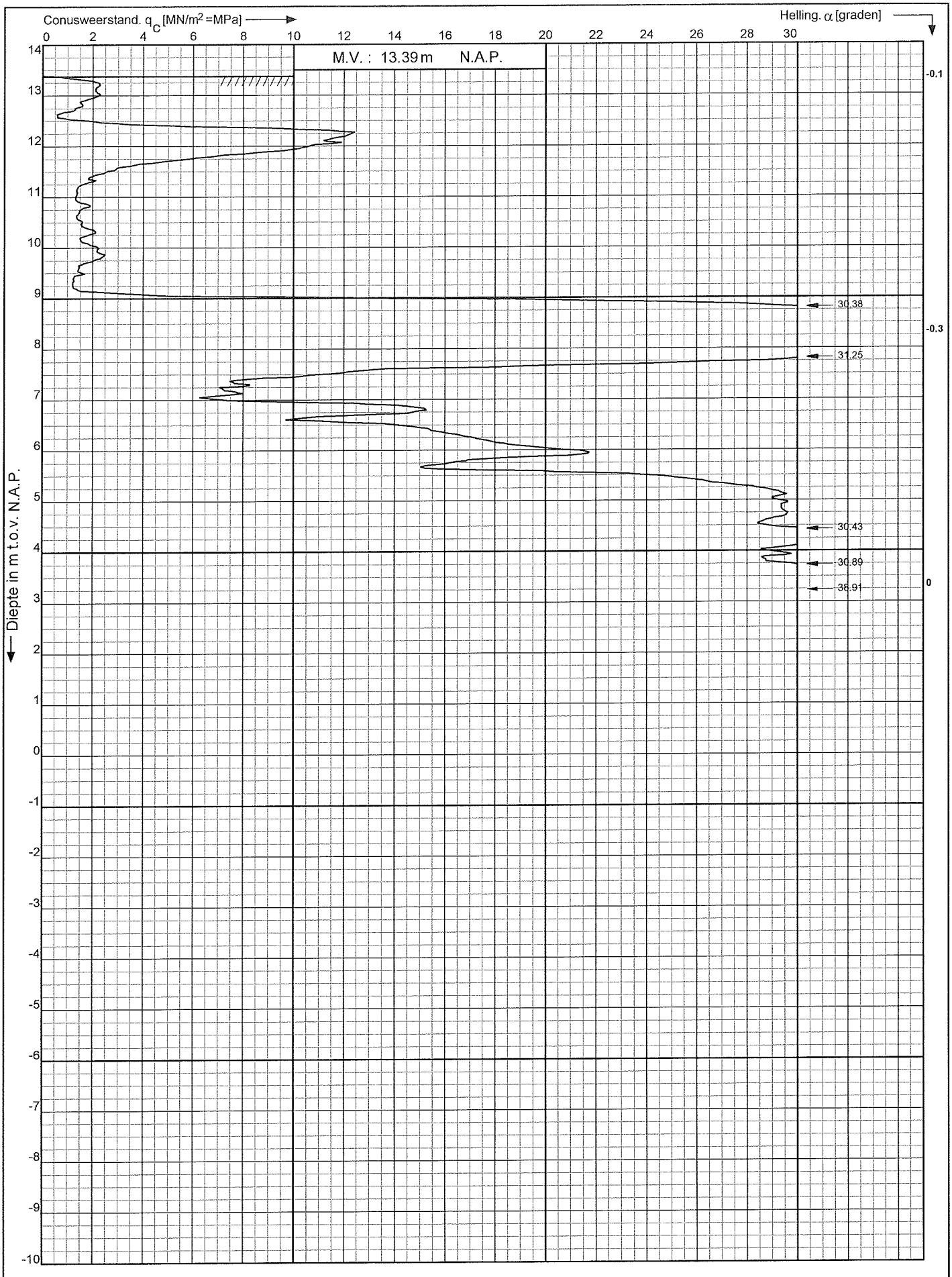
Opdr. nr. : 2016-831

Datum uitv. : 9-11-2016

Sond. nr. : 3

Sondering volgens : NEN 5140 Oppervlakte conuspunt : 1500 mm ²

KOOPS GRONDMECHANICA 0522-260084




Bouwplan De Cremerhoeve a/d Minister Cremerstraat 5 te Zeijen.

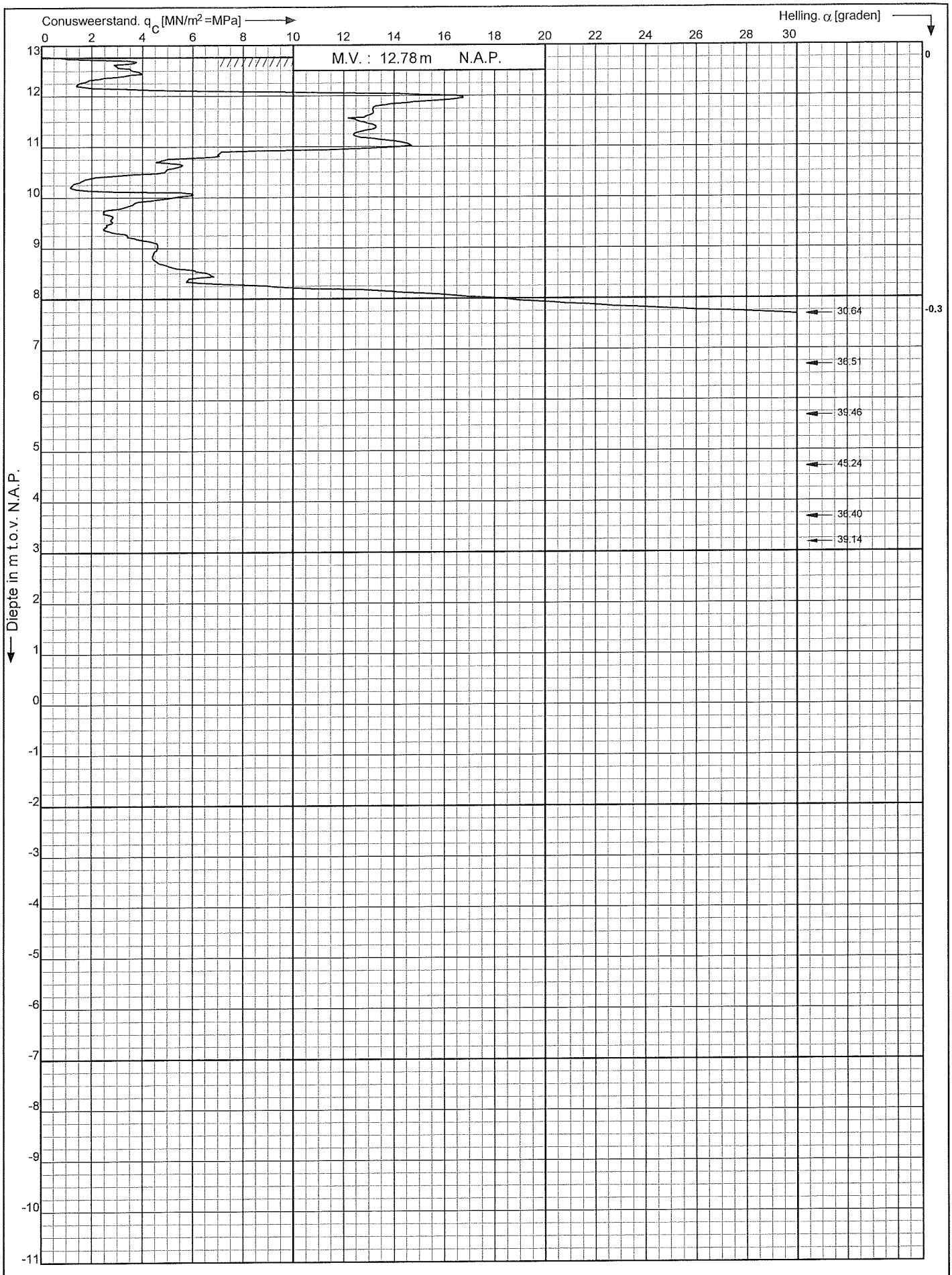
Opdr. nr. : 2016-831

Datum uitv. : 9-11-2016

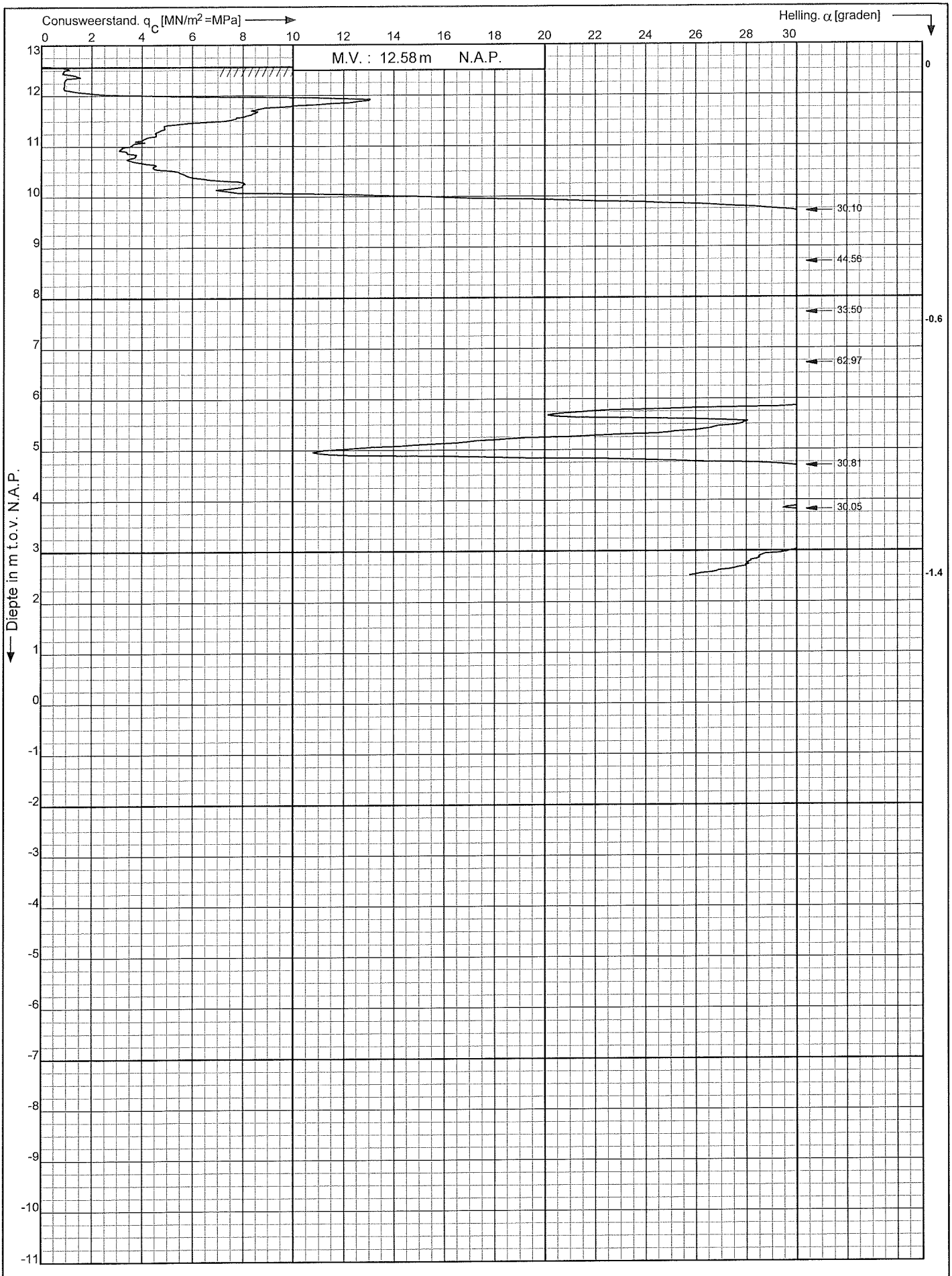
Sond. nr. : 4

Sondering volgens : NEN 5140 Oppervlakte conuspunt : 1500 mm ²

KOOPS GRONDMECHANICA 0522-260084




| | | |
|---|---|---|
| Bouwplan De Cremerhoeve a/d Minister Cremerstraat 5 te Zeijen. | Opdr. nr. : 2016-831 | KOOPS GRONDMECHANICA 0522-260084 |
| | Datum uitv. : 9-11-2016 | |
| Sondering volgens : NEN 5140 Oppervlakte conuspunt : 1500 mm ² | Sond. nr. : 5 | |




Bouwplan De Cremerhoeve a/d Minister Cremerstraat 5 te Zeijen.

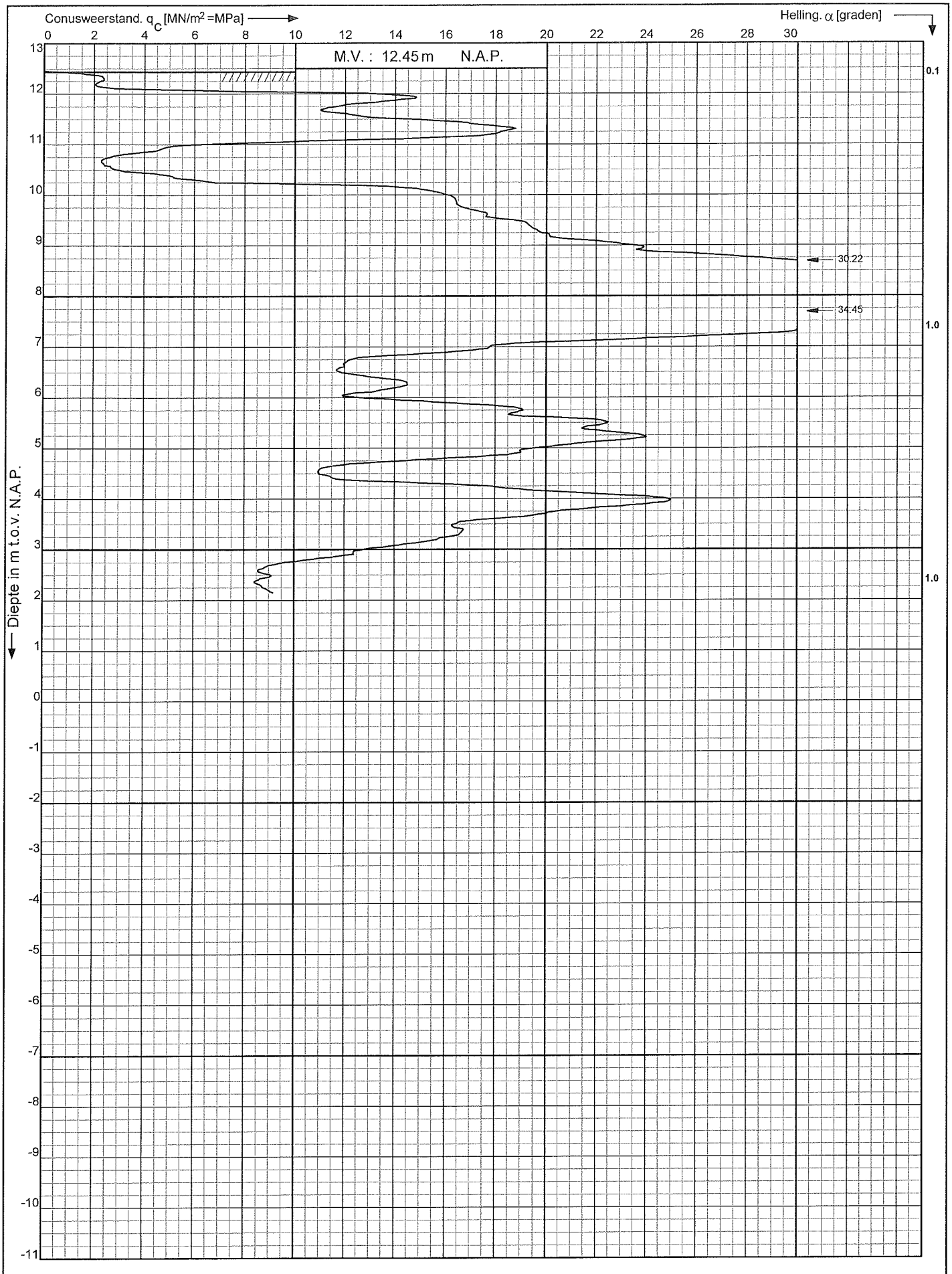
Sondering volgens : NEN 5140 Oppervlakte conuspunt : 1500 mm ²

Opdr. nr. : 2016-831

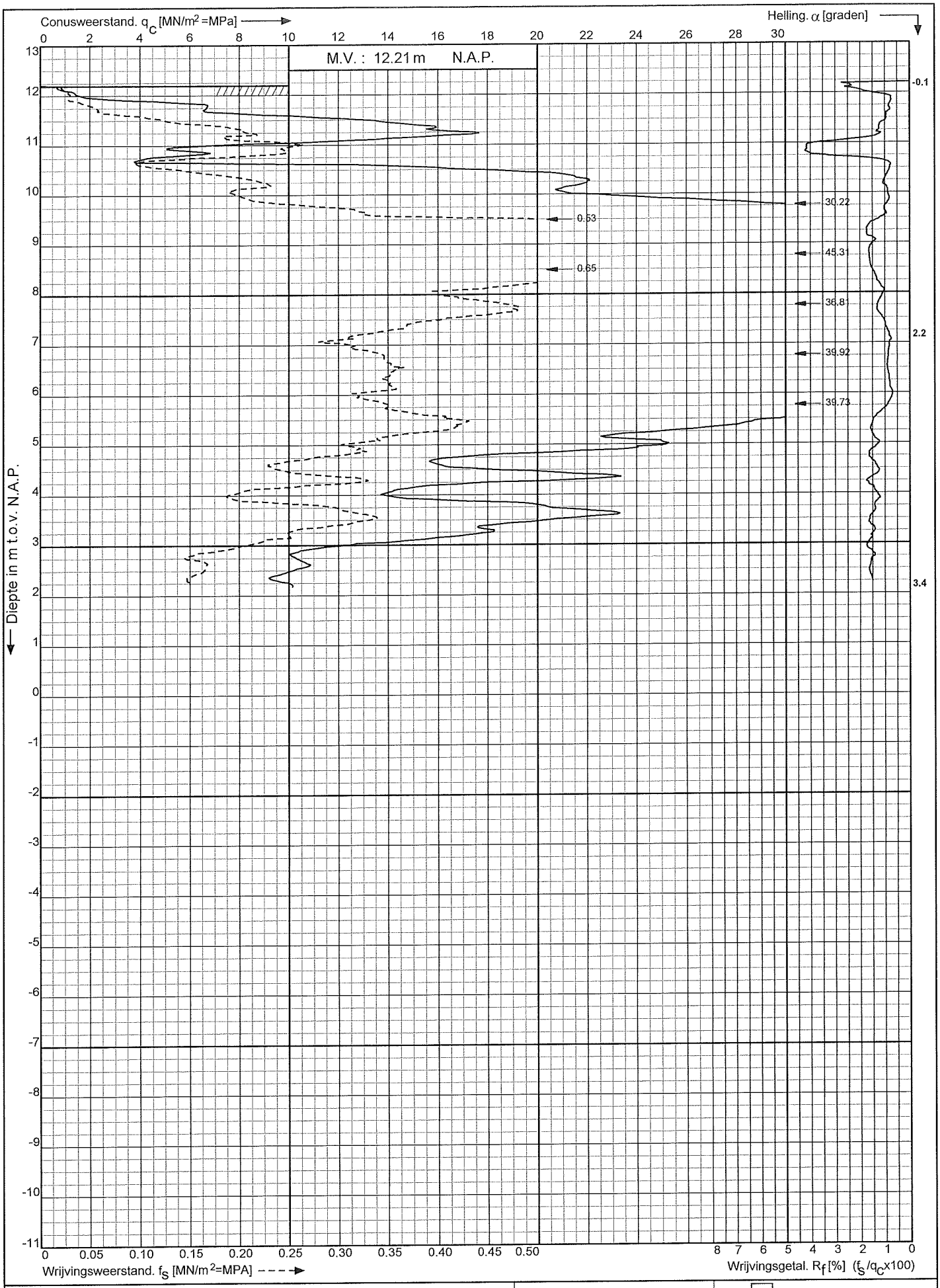
Datum uitv. : 9-11-2016

Sond. nr. : 6

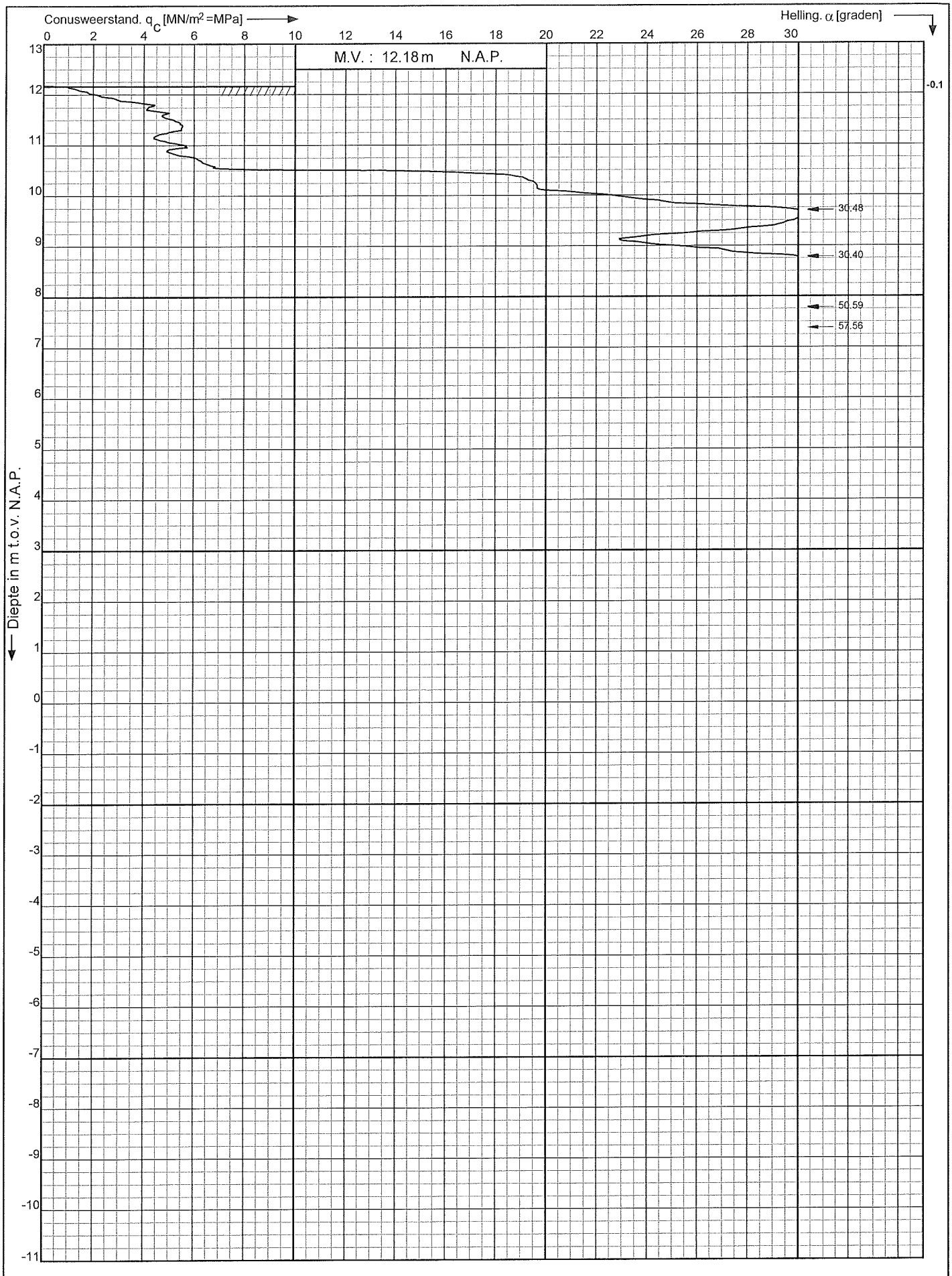
KOOPS GRONDMECHANICA 0522-260084




| | | |
|---|---|---|
| Bouwplan De Cremerhoeve a/d Minister Cremerstraat 5 te Zeijen. | Opdr. nr. : 2016-831 | KOOPS GRONDMECHANICA 0522-260084 |
| | Datum uitv. : 9-11-2016 | |
| Sondering volgens : NEN 5140 Oppervlakte conuspunt : 1500 mm ² | Sond. nr. : 7 | |




| | | |
|---|---|---|
| Bouwplan De Cremerhoeve a/d Minister Cremerstraat 5 te Zeijen. | Opdr. nr. : 2016-831 | KOOPS GRONDMECHANICA 0522-260084 |
| | Datum uitv. : 9-11-2016 | |
| Sondering volgens : NEN 5140 Oppervlakte conuspunt : 1500 mm ² | Sond. nr. : 8 | |




Bouwplan De Cremerhoeve a/d Minister Cremerstraat 5 te Zeijen.

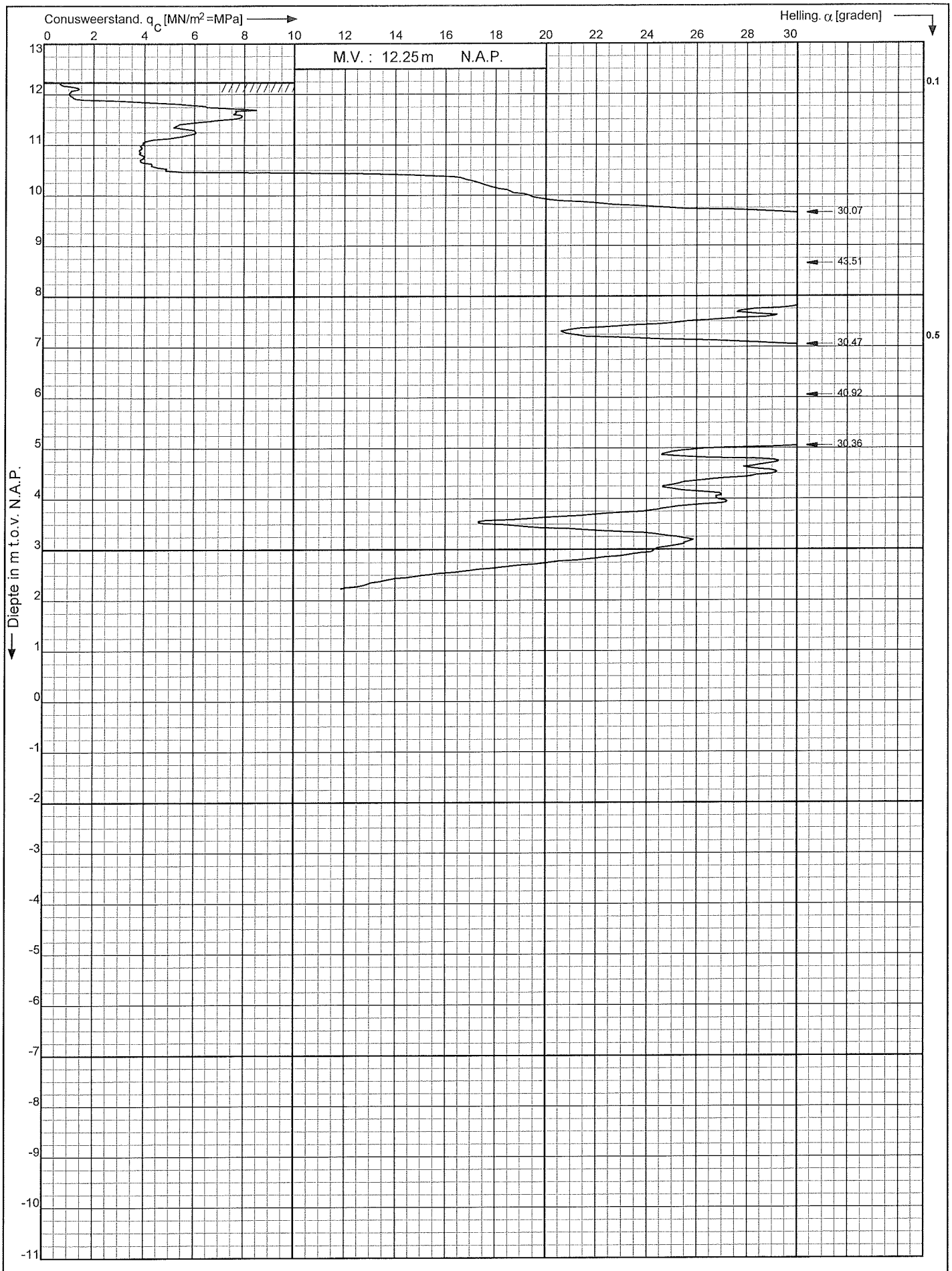
Opdr. nr. : 2016-831

Datum uitv. : 9-11-2016

Sond. nr. : 9

Sondering volgens : NEN 5140 Oppervlakte conuspunt : 1500 mm ²

KOOPS GRONDMECHANICA 0522-260084




Bouwplan De Cremerhoeve a/d Minister Cremerstraat 5 te Zeijen.

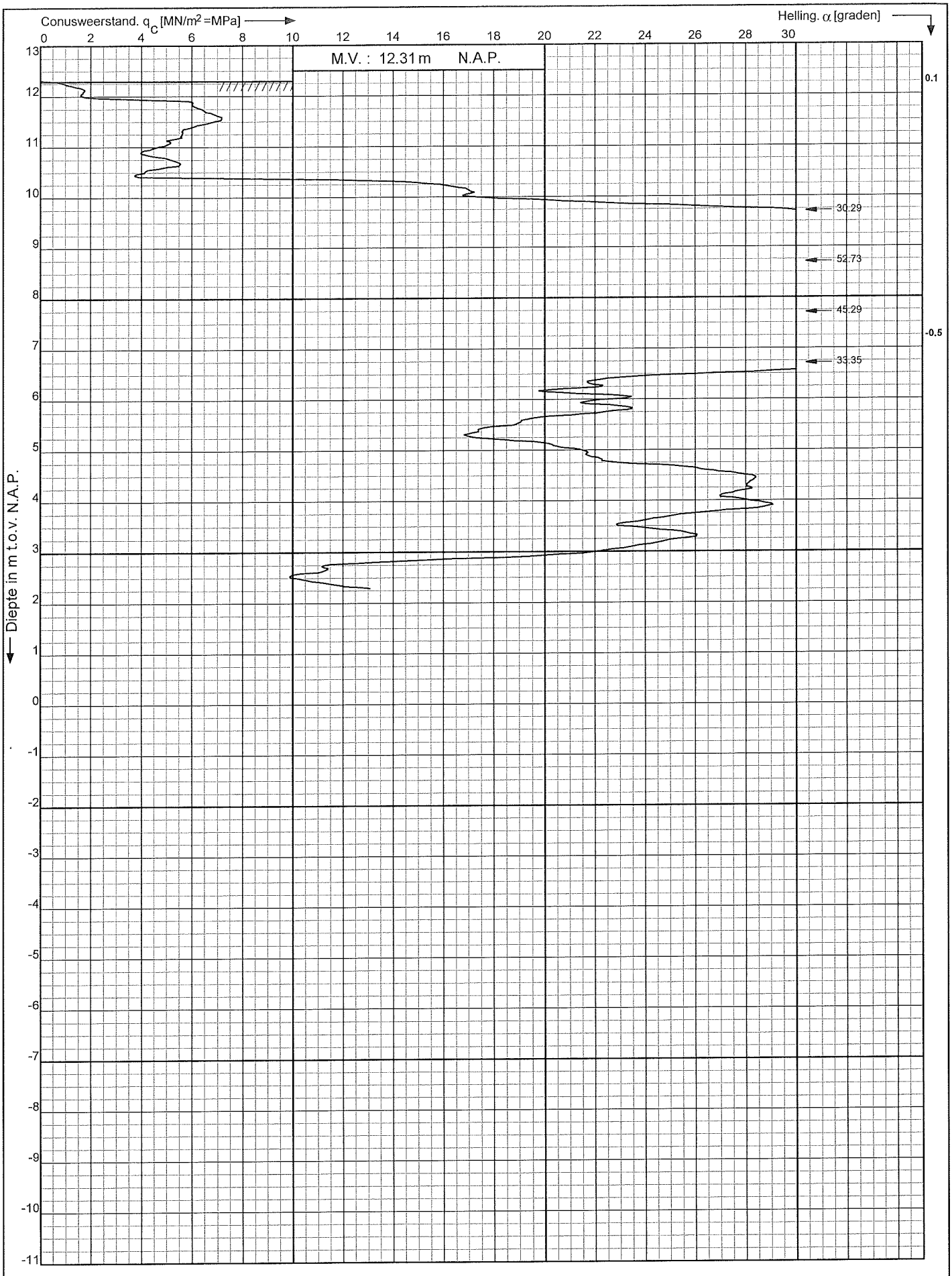
Sondering volgens : NEN 5140 Oppervlakte conuspunt : 1500 mm ²

Opdr. nr. : 2016-831

Datum uitv. : 9-11-2016

Sond. nr. : 10

KOOPS GRONDMECHANICA 0522-260084




Bouwplan De Cremerhoeve a/d Minister Cremerstraat 5 te Zeijen.

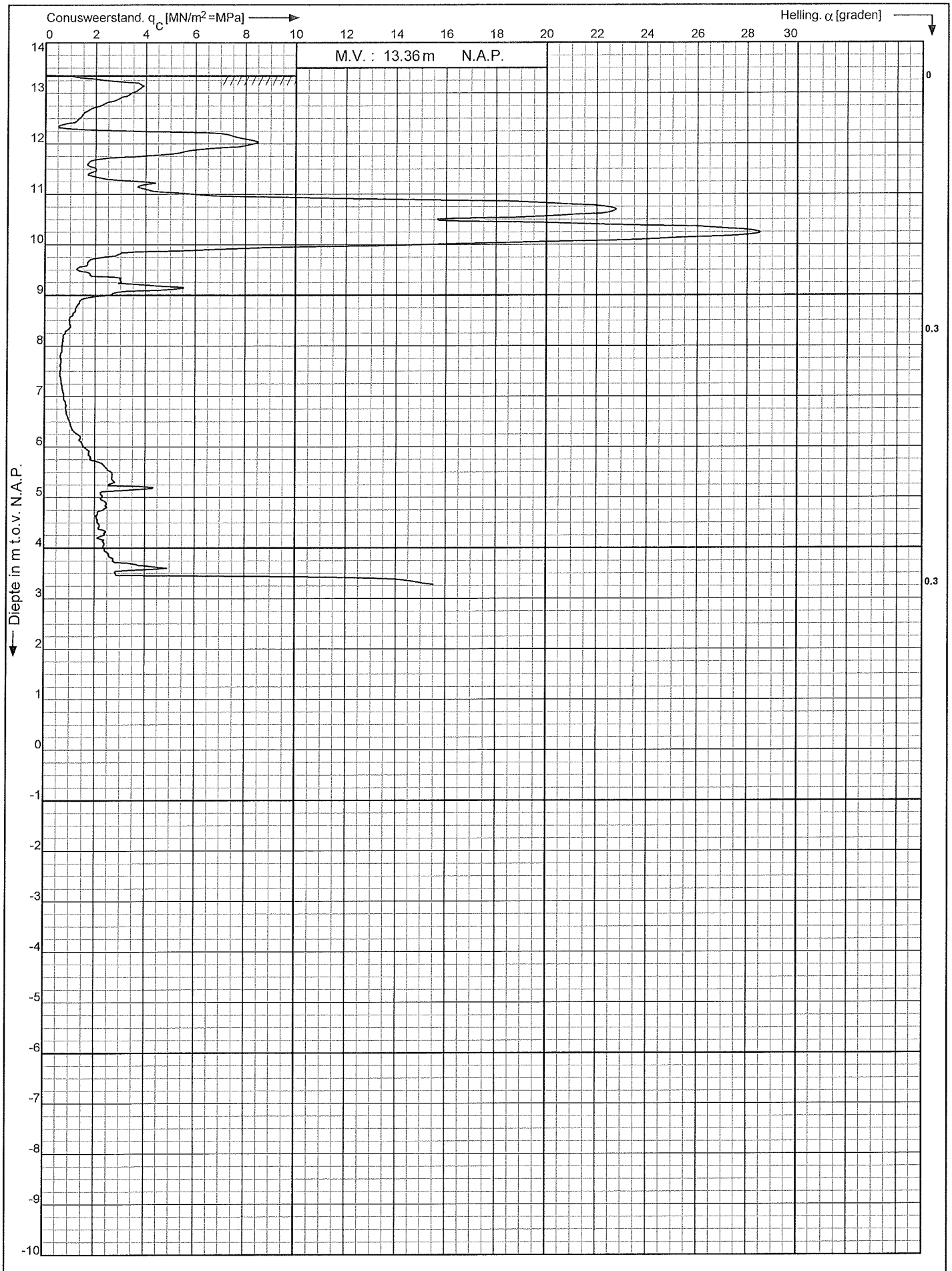
Opdr. nr. : 2016-831

Datum uitv. : 9-11-2016

Sond. nr. : 11

Sondering volgens : NEN 5140 Oppervlakte conuspunt : 1500 mm ²

KOOPS GRONDMECHANICA 0522-260084




Bouwplan De Cremerhoeve a/d Minister Cremerstraat 5 te Zeijen.

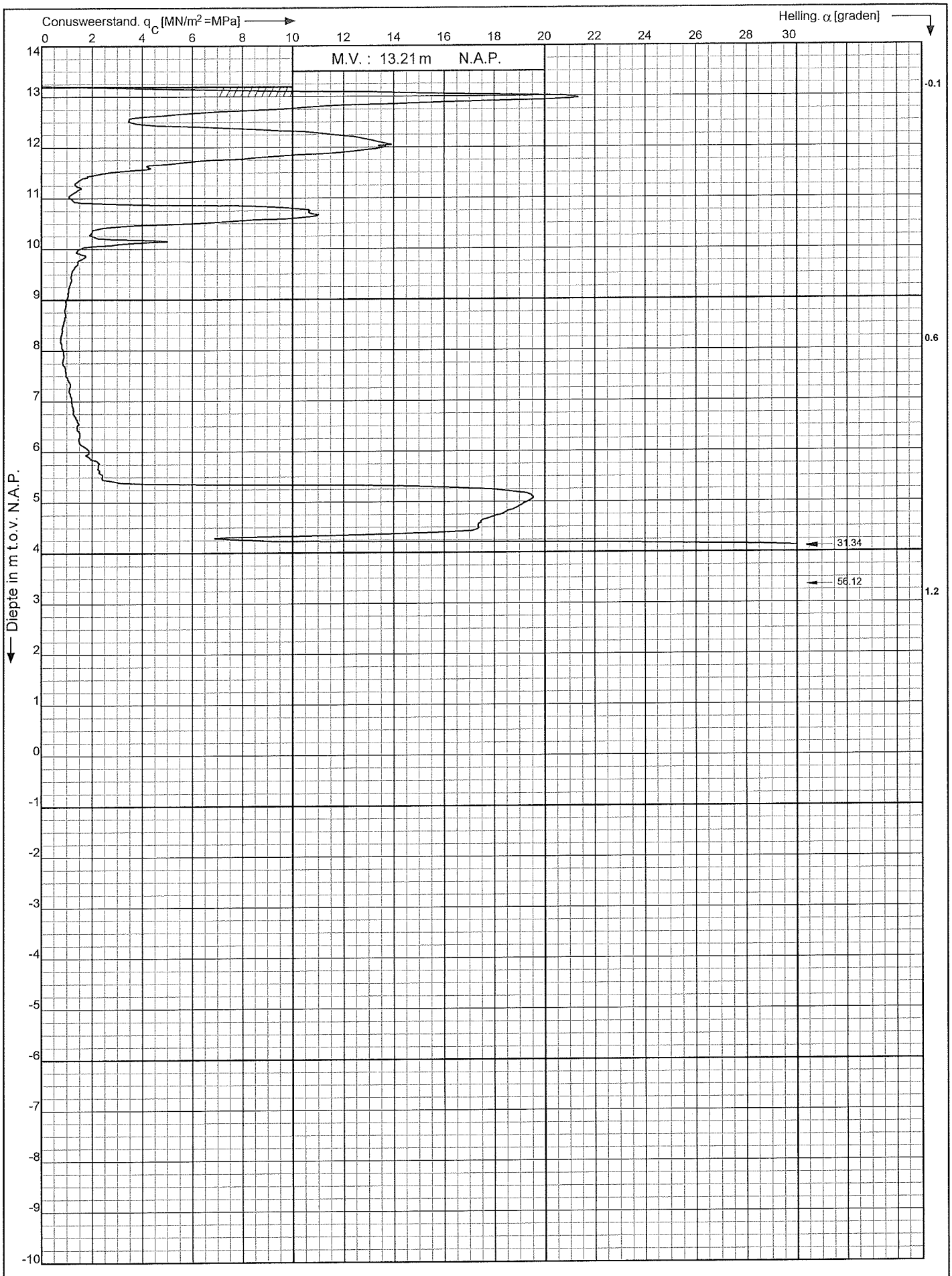
Opdr. nr. : 2016-831

Datum uitv. : 9-11-2016

Sond. nr. : 12

Sondering volgens : NEN 5140 Oppervlakte conuspunt : 1500 mm ²

KOOPS GRONDMECHANICA 0522-260084




Bouwplan De Cremerhoeve a/d Minister Cremerstraat 5 te Zeijen.

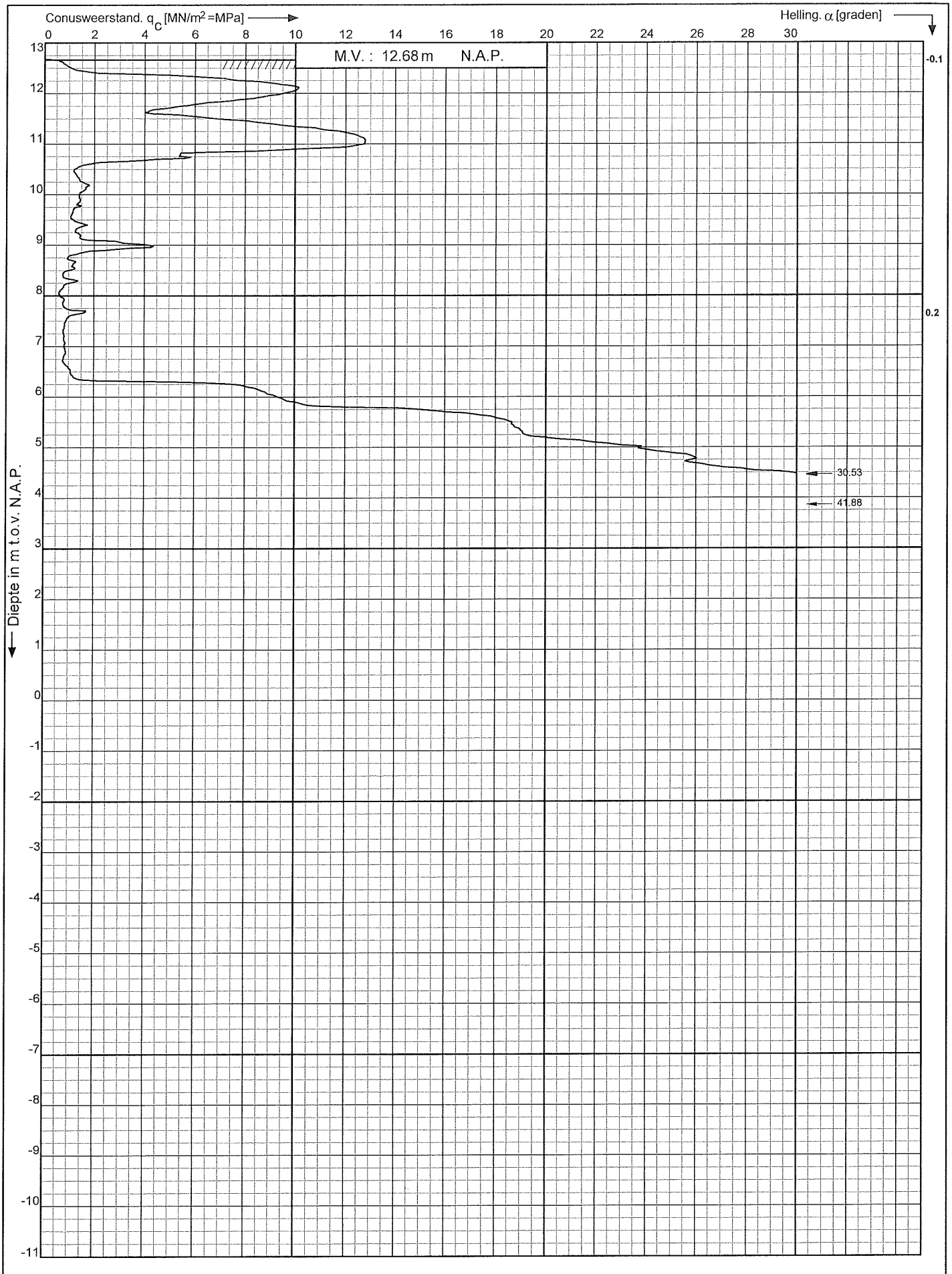
Opdr. nr. : 2016-831

Datum uitv. : 9-11-2016

Sond. nr. : 13

Sondering volgens : NEN 5140 Oppervlakte conuspunt : 1500 mm ²

KOOPS GRONDMECHANICA 0522-260084




Bouwplan De Cremerhoeve a/d Minister Cremerstraat 5 te Zeijen.

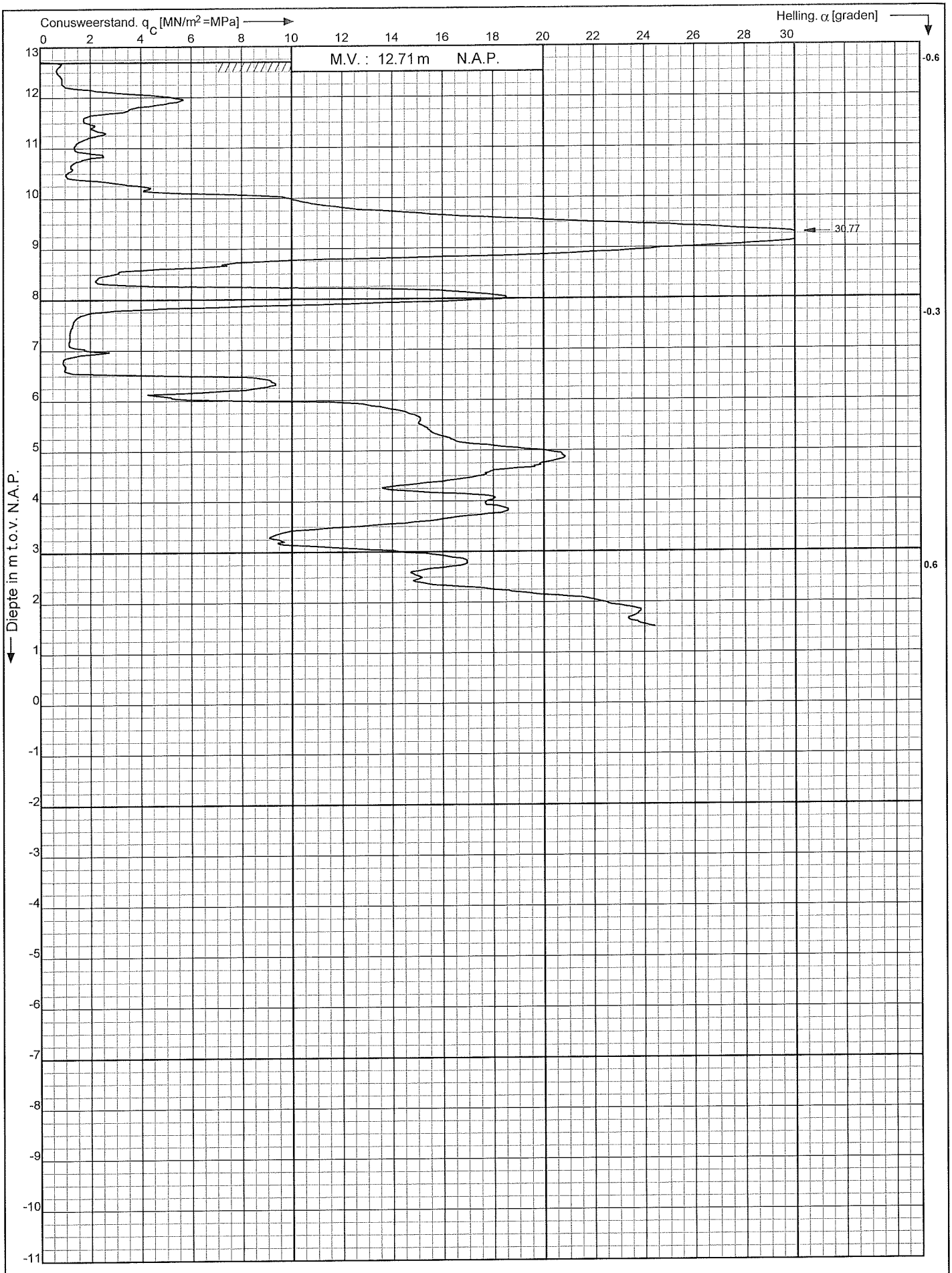
Opdr. nr. : 2016-831

Datum uitv. : 9-11-2016

Sond. nr. : 14

Sondering volgens : NEN 5140 Oppervlakte conuspunt : 1500 mm ²

KOOPS GRONDMECHANICA 0522-260084




Bouwplan De Cremerhoeve a/d Minister Cremerstraat 5 te Zeijen.

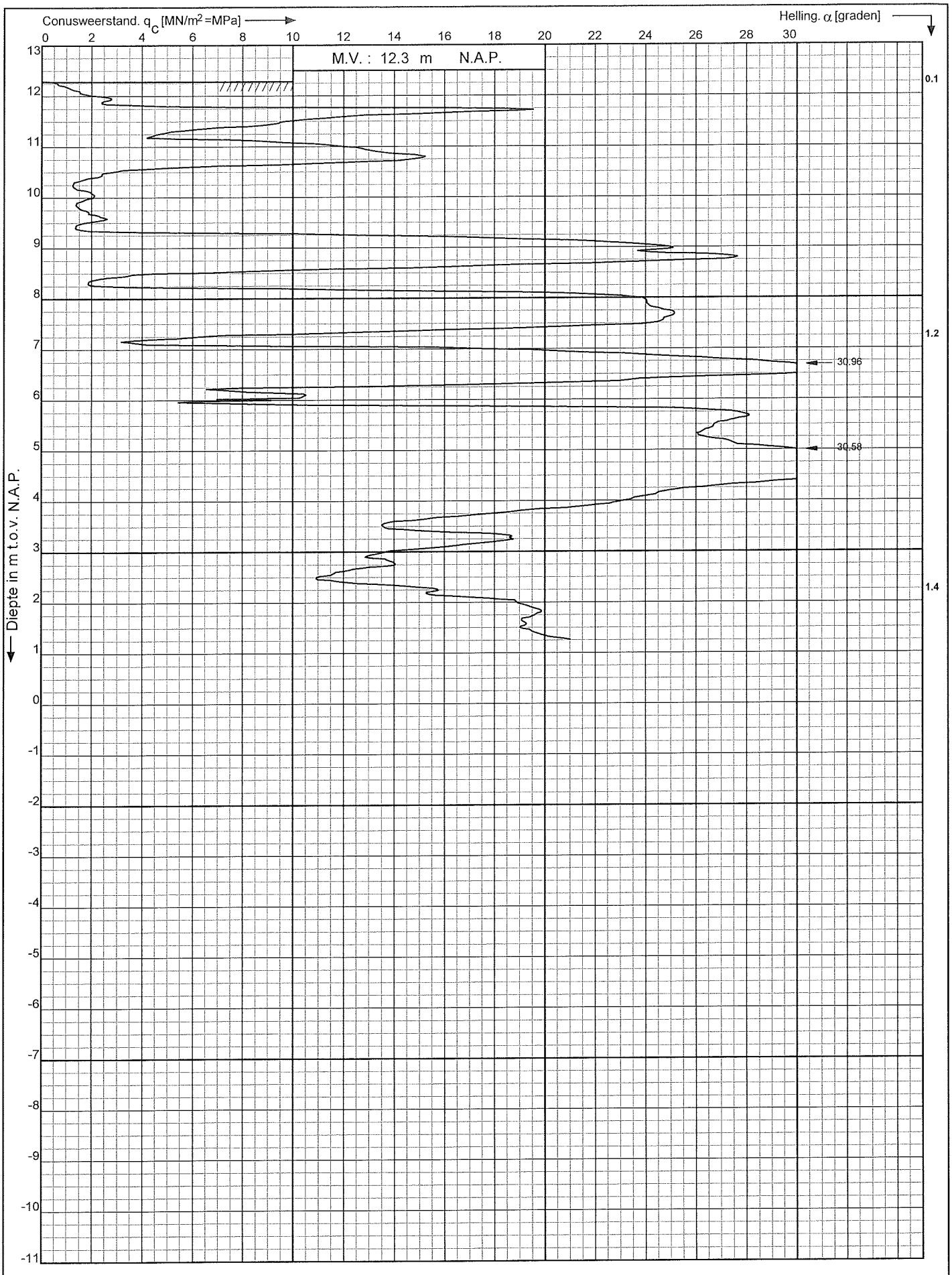
Opdr. nr. : 2016-831

Datum uitv. : 9-11-2016

Sond. nr. : 15

Sondering volgens : NEN 5140 Oppervlakte conuspunt : 1500 mm ²

KOOPS GRONDMECHANICA 0522-260084




Bouwplan De Cremerhoeve a/d Minister Cremerstraat 5 te Zeijen.

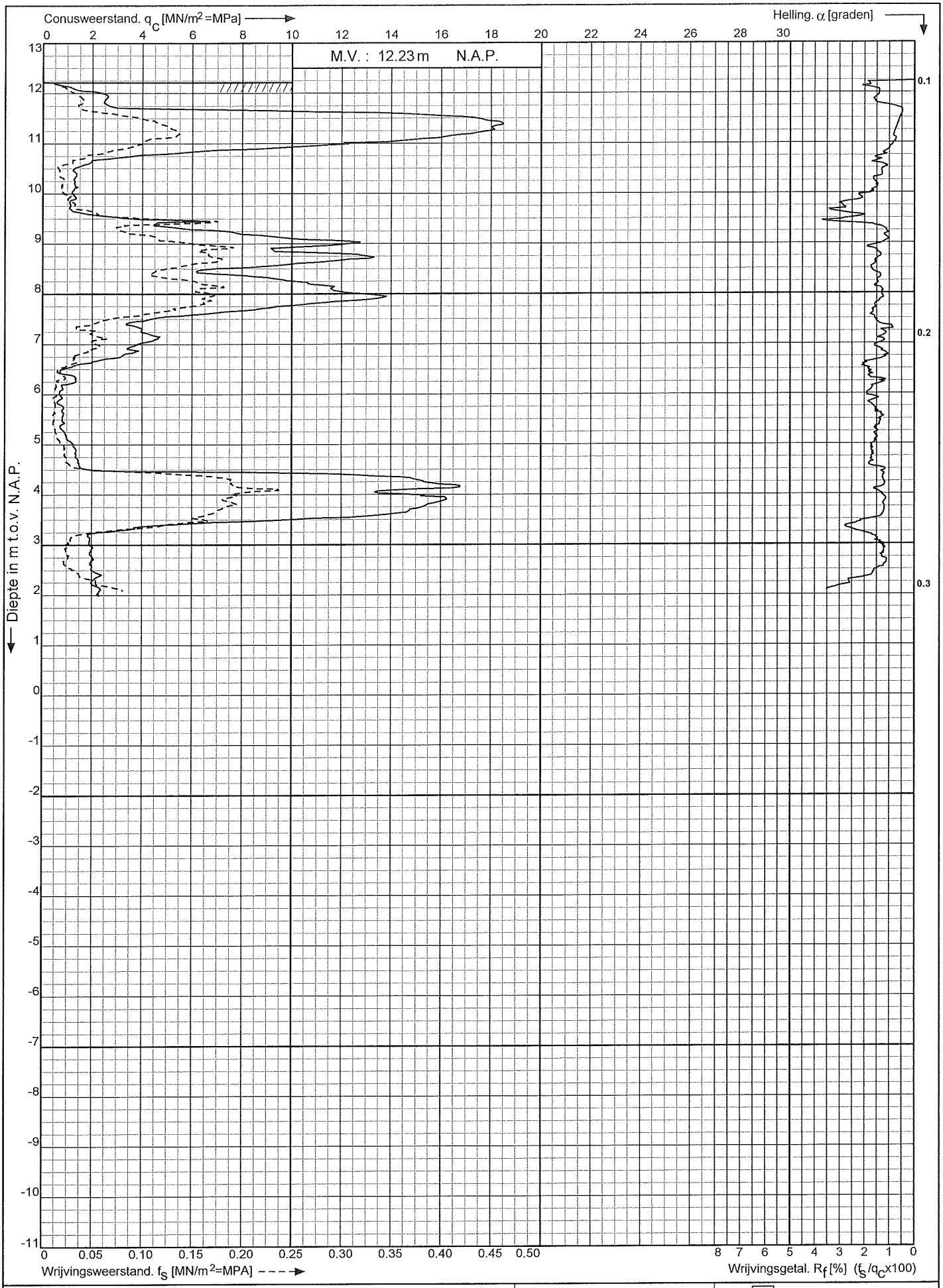
Opdr. nr. : 2016-831

Datum uitv. : 9-11-2016

Sond. nr. : 16

Sondering volgens : NEN 5140 Oppervlakte conuspunt : 1500 mm ²

KOOPS GRONDMECHANICA 0522-260084




Bouwplan De Cremerhoeve a/d Minister Cremerstraat 5 te Zeijen.

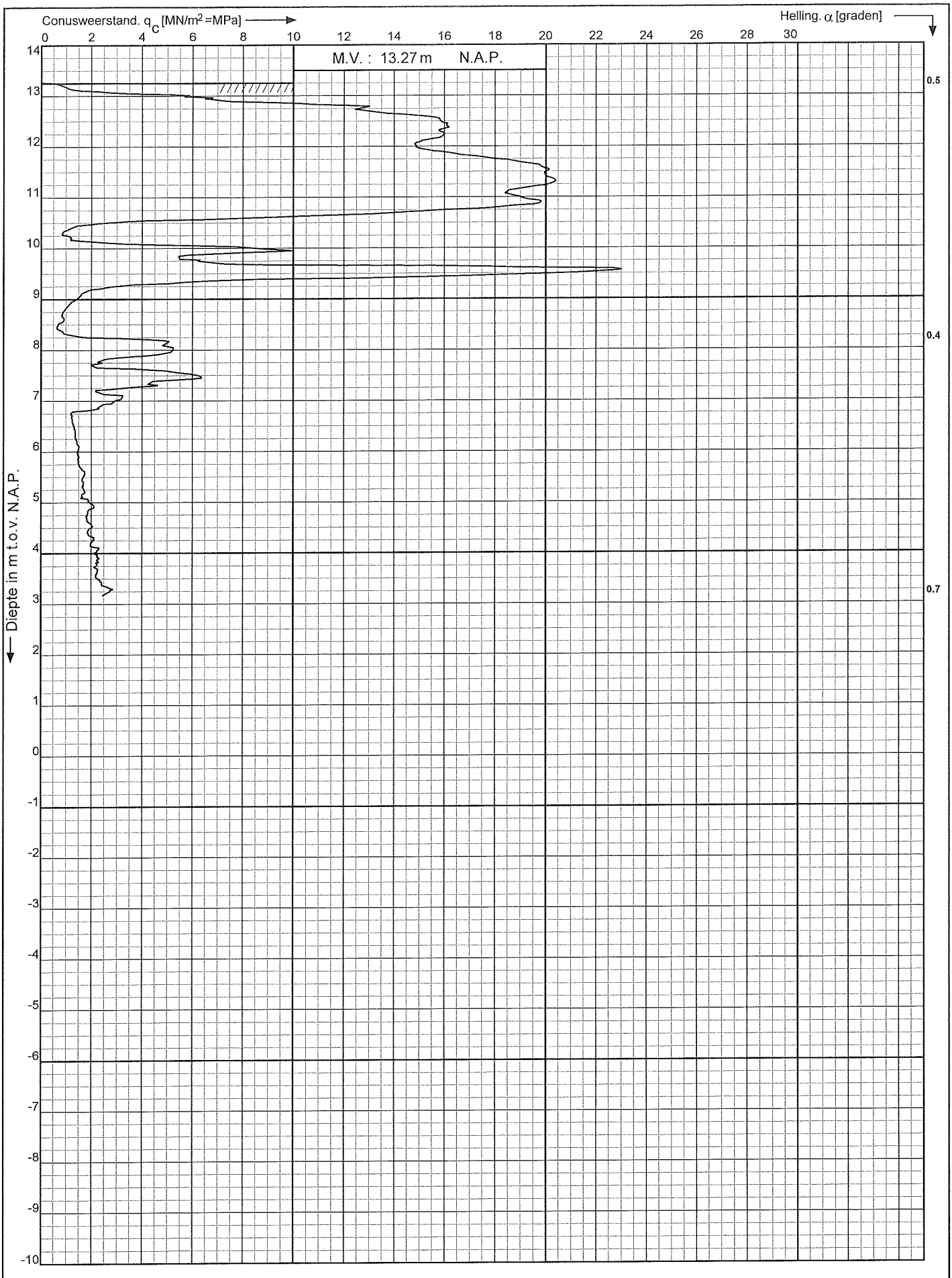
Opdr. nr. : 2016-831

Datum uitv. : 9-11-2016

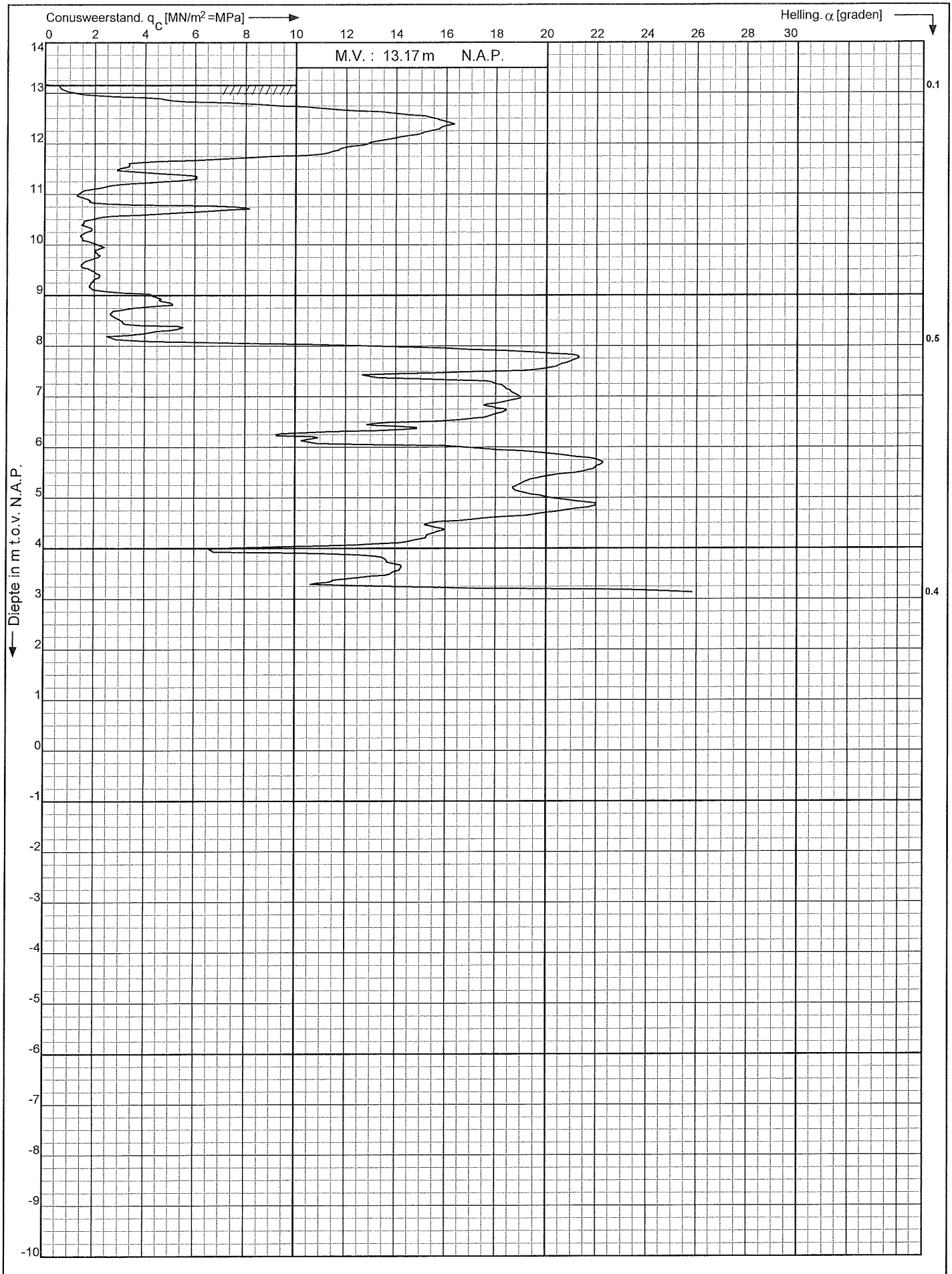
Sond. nr. : 17

Sondering volgens : NEN 5140 Oppervlakte conuspunt : 1500 mm $^2$

KOOPS GRONDMECHANICA 0522-260084




| | | |
|---|---|---|
| Bouwplan De Cremerhoeve a/d Minister Cremerstraat 5 te Zeijen. | Opdr. nr. : 2016-831 | KOOPS GRONDMECHANICA 0522-260084 |
| | Datum uitv. : 9-11-2016 | |
| Sondering volgens : NEN 5140 Oppervlakte conuspunt : 1500 mm ² | Sond. nr. : 18 | |




Bouwplan De Cremerhoeve a/d Minister Cremerstraat 5 te Zeijen.

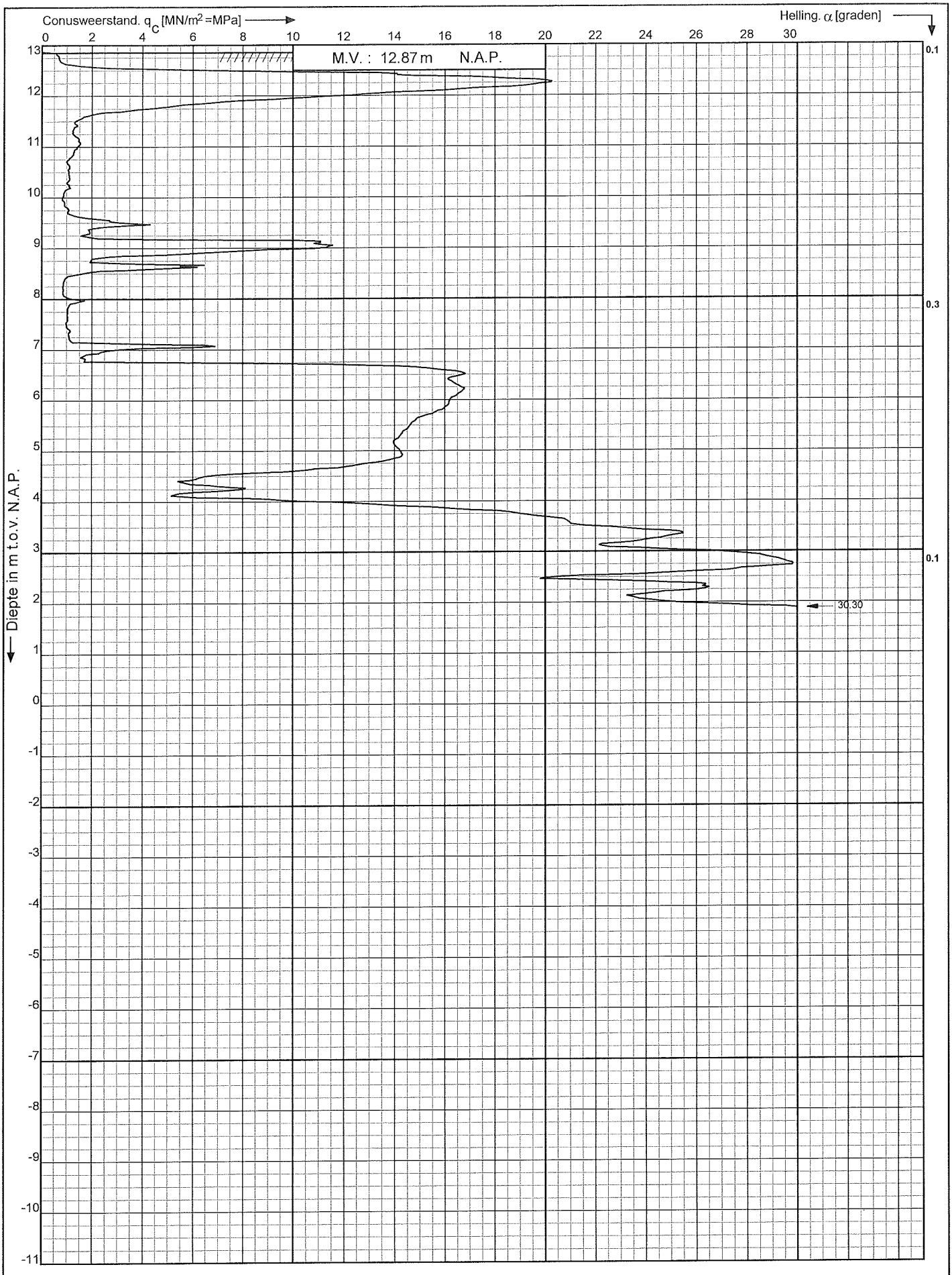
Opdr. nr. : 2016-831

Datum uitv. : 9-11-2016

Sond. nr. : 19

Sondering volgens : NEN 5140 Oppervlakte conuspunt : 1500 mm ²

KOOPS GRONDMECHANICA 0522-260084




Bouwplan De Cremerhoeve a/d Minister Cremerstraat 5 te Zeijen.

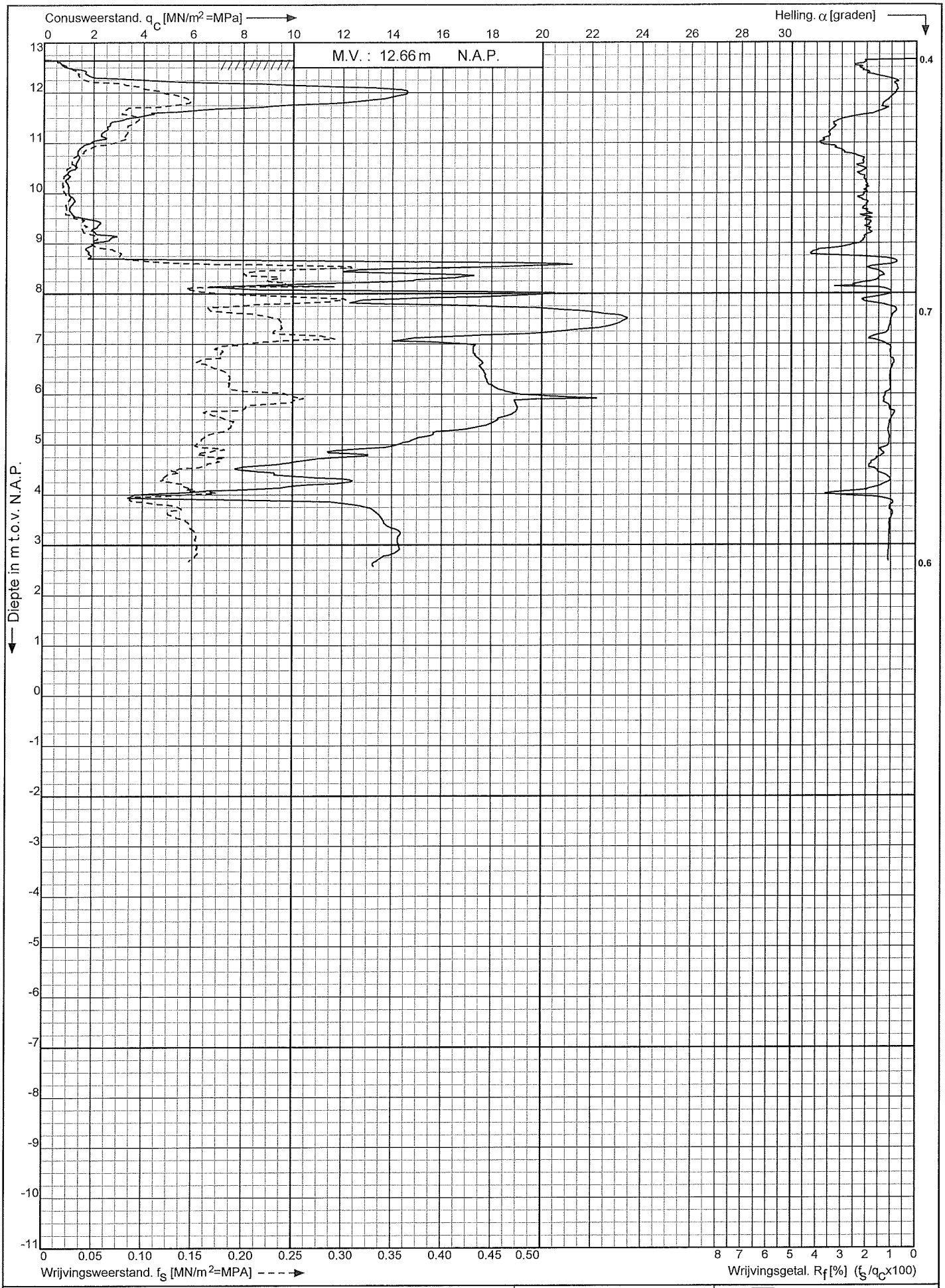
Sondering volgens : NEN 5140 Oppervlakte conuspunt : 1500 mm ²

Opdr. nr. : 2016-831

Datum uitv. : 9-11-2016

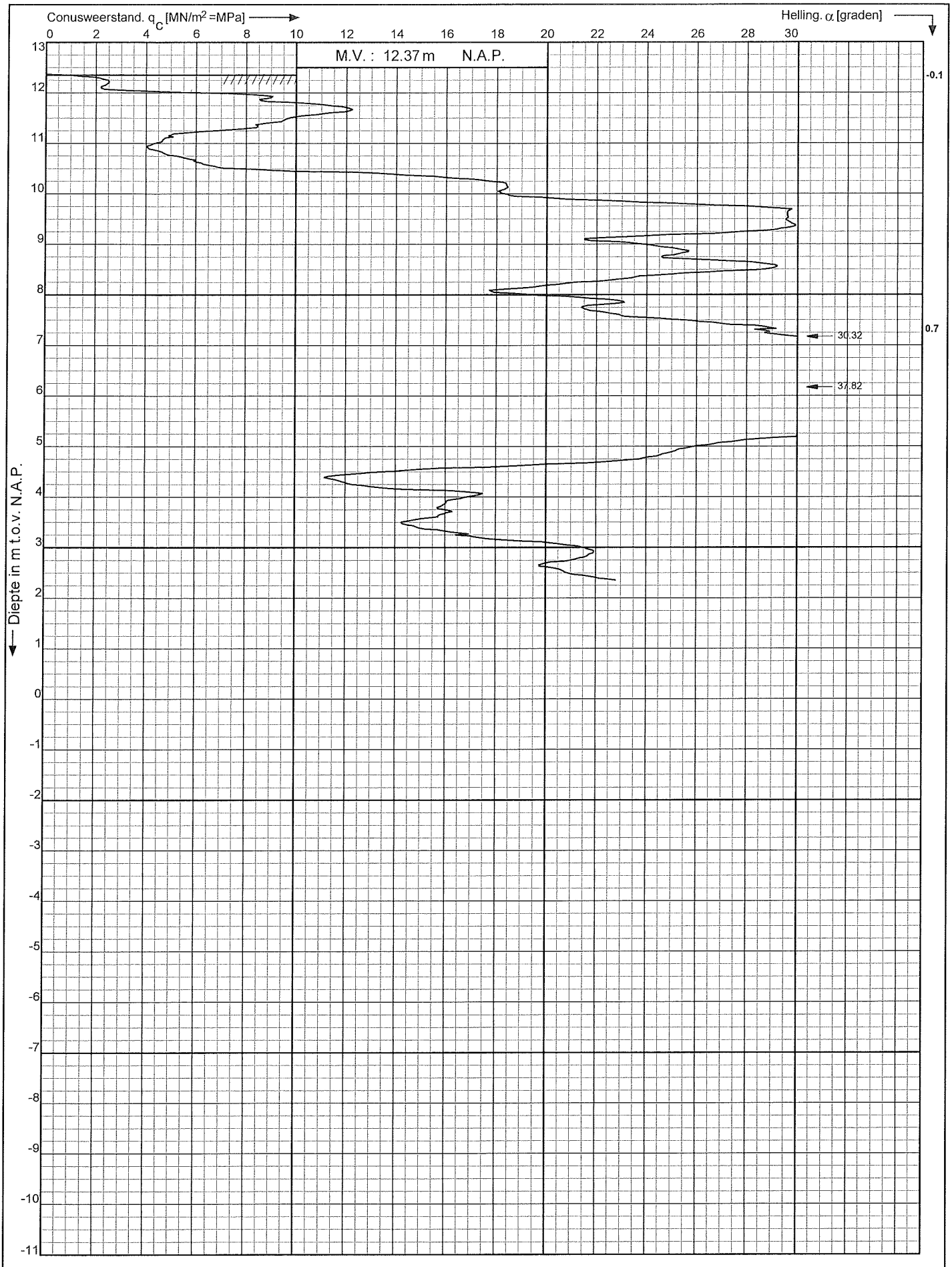
Sond. nr. : 20

KOOPS GRONDMECHANICA 0522-260084




| | |
|---|---|
| Bouwplan De Cremerhoeve a/d Minister Cremerstraat 5 te Zeijen. | Opdr. nr. : 2016-831 |
| | Datum uitv. : 9-11-2016 |
| Sondering volgens : NEN 5140 Oppervlakte conuspunt : 1500 mm $^2$ | Sond. nr. : 21 |

KOOPS
GRONDMECHANICA
0522-260084




| | | |
|---|---|---|
| Bouwplan De Cremerhoeve a/d Minister Cremerstraat 5 te Zeijen. | Opdr. nr. : 2016-831 | KOOPS GRONDMECHANICA 0522-260084 |
| | Datum uitv. : 9-11-2016 | |
| Sondering volgens : NEN 5140 Oppervlakte conuspunt : 1500 mm ² | Sond. nr. : 22 | |

## Resultaten Handboring HB-1.

0.00 – 0.55 m-mv. Zand, fijn, grijs, siltig.
0.55 – 0.60 m-mv. Zand, fijn, zwart, humeus.
0.60 – 0.75 m-mv. Zand, fijn, bruin/grijs, siltig.
0.75 – 1.35 m-mv. Zand, m.fijn, grijs, siltig, leemhoudend.
1.35 – 1.70 m-mv. Leem, grijs.
1.70 – 2.10 m-mv. Zand, m.fijn, bruin/grijs, st.leemhoudend, ijzerhoudend.
2.10 – 3.10 m-mv. Zand, fijn, geel/wit.
3.10 – 3.20 m-mv. Zand, fijn, l.grijs/wit, w.siltig.

Datum uitvoering : 9 november 2016
Uitgevoerd t.p.v. : Sondering DKM-001
Maaiveldhoogte : 12.50 m + N.A.P.
Grondwaterstand : op 3.20 m –mv. geen grondwater aangetroffen.

## Resultaten Handboring HB-2.

0.00 – 0.30 m-mv. Zand, m.fijn, d.bruin/zwart.
0.30 – 0.60 m-mv. Zand, fijn, bruin/rood, st.ijzerhoudend.
0.60 – 1.20 m-mv. Zand, m.fijn, grijs/grijs, w.leemhoudend, siltig.
1.20 – 1.60 m-mv. Leem, grijs, zandhoudend.
1.60 – 2.40 m-mv. Zand, fijn, geel/wit.
2.40 – 3.20 m-mv. Zand, fijn, wit/l.grijs, siltig.

Datum uitvoering : 9 november 2016
Uitgevoerd t.p.v. : Sondering DKM-008
Maaiveldhoogte : 12.21 m + N.A.P.
Grondwaterstand : op 3.20 m –mv. geen grondwater aangetroffen.

## Resultaten Handboring HB-3.

0.00 – 0.50 m-mv. Zand, m.fijn, d.bruin, w.humeus.
0.50 – 0.80 m-mv. Zand, fijn, bruin/bruin, ijzerhoudend.
0.80 – 1.65 m-mv. Zand, fijn, l.bruin/bruin, w.ijzerhoudend.
1.65 – 2.60 m-mv. Zand, m.fijn, grijs, st.leemhoudend.
2.60 – 3.00 m-mv. Zand, fijn, l.grijs/wit, w.siltig, w.leemhoudend.

Datum uitvoering : 9 november 2016
Uitgevoerd t.p.v. : Sondering DKM-017
Maaiveldhoogte : 12.23 m + N.A.P.
Grondwaterstand : niet representatief.

2016-831

# Resultaten Handboring HB-4.

| | | |
|---|---|---|
| 0.00 – 0.55 | m-mv. | Zand, m.fijn, d. bruin/zwart, humeus. |
| 0.55 – 1.10 | m-mv. | Zand, m.fijn, bruin/rood, ijzerhoudend. |
| 1.10 – 1.40 | m-mv. | Zand, fijn, l.bruin/l.grijs, siltig. |
| 1.40 – 1.60 | m-mv. | Leem, grijs, zandhoudend, zandlagen. |
| 1.60 – 2.20 | m-mv. | Zand, m.fijn, l.bruin, leemhoudend. |
| 2.20 – 3.20 | m-mv. | Zand, m.fijn, grijs, st.leemhoudend. |

| | | |
|---|---|---|
| Datum uitvoering | : | 9 november 2016 |
| Uitgevoerd t.p.v. | : | Sondering DKM-021 |
| Maaiveldhoogte | : | 12.66 m + N.A.P. |
| Grondwaterstand | : | niet representatief. |

# Koops & Romeijn grondmechanica

Samenwerkende, zelfstandige adviseurs voor grondonderzoek, geotechniek en geohydrologie


Koops grondmechanica bv
Postbus 428
7940 AK Meppel
tel.: (0522) 260 084
fax: (0522) 245 479
a.palsma@koops-romeijn.nl

Ros grondmechanica advies
Lange Voorst 249
2343 CE Oestgeest
tel.: 06 - 51 06 74 20
j.ros@koops-romeijn.nl

Meurs grondmechanica advies
De Plak 23
6681 DN Bemmel
tel.: (0481) 451 179
fax: (0481) 450 880
j.meurs@koops-romeijn.nl

Teeuw Grondmechanica
Lekdijk 134
2865 LG Ammerstol
tel.: (0182) 672 708
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j.teeuw@koops-romeijn.nl

Kranendonk Geohydrologie
Reinaldstraat 95
6883 HL Velp
tel.: (026) 369 00 30
fax: (026) 369 00 39
p.kranendonk@koops-romeijn.nl

Fundatech
De Ververt 11-08
6605 AD Wijchen
tel.: (024) 645 44 01
fax: (024) 645 44 02
j.nicolasen@koops-romeijn.nl


## Diensten

### Geotechnisch bodemonderzoek
- sonderingen
- grondboringen

### Geotechnisch labonderzoek

### Geotechnische adviezen
- funderingsadviezen
- zettinsanalyses
- schade en expertise
- damwandberekeningen
- bemalingsadviezen

### Milieukundig Bodem- en grondwateronderzoek en advies

W2N engineers b.v.
Dopheide 2
Postbus 258
9200 AG Drachten

T: 0512 544888
E: drachten@w2n.nl
W: www.w2n.nl

B: NL79 RABO 0369 0496 83
k.v.k. Leeuwarden 59819588

# NIEUWBOUW WAGENBERGING
# MINISTER CREMERSTRAAT 5
# ZEIJEN

CONSTRUCTIEBEREKENING

opdrachtgever:

BTA Dwingeloo Bouwkundig Teken & Adviesbureau
Tolweg 18a
7991 TC Dwingeloo

| | |
|---|---|
| opgesteld door: | ing. J. Gols |
| gecontroleerd door: | ing. J.M. van der Reest |
| projectleider: | ing. R. van Althuis MSEng. RC |
| werknummer: | 15-2158 |
| versie: | 1 |
| status: | definitief |
| datum: | 7 december 2016 |

## Algemeen

Deze berekening omvat de dimensionering van de hoofddraagconstructie ten behoeve van de nieuw te bouwen wagenberging aan de Minister Cremerstraat 5 te Zeijen.

## Toegepaste voorschriften en richtlijnen

NEN-EN-1990/NB - Grondslagen
NEN-EN-1991/NB - Belastingen op constructies
NEN-EN-1992/NB - Ontwerp en berekening van betonconstructies
NEN-EN-1993/NB - Ontwerp en berekening van staalconstructies
NEN-EN-1995/NB - Ontwerp en berekening van houtconstructies
NEN-EN-1997/NB - Geotechnisch ontwerp

## Ontwerpcriteria

| gebouwfunctie | ontwerp-levensduur-klasse | gevolg-klasse | betrouw-baarheids-klasse |
|---|---|---|---|
| Industriëel gebouw 1 of 2 verdiepingen | 2 | CC1 | RC1 |

ontwerplevens-duur = 15 jaar
$K_{FI}$ = 0,9

$\gamma_G$ = 1,08 = 1,22 $\gamma_Q$ = 1,35

## Toegepaste materialen

staal — walsprofielen — kwaliteit = S235 — $f_{y;d}$ = 235,00 N/mm²
kokers — kwaliteit = S275 — $f_{y;d}$ = 275,00 N/mm²

hout — Gezaagd — kwaliteit = C24 — $f_k$ = 24,00 N/mm²
$\gamma_m$ = 1,30

$k_{mod}$ conform Tabel 3.1 van NEN/EN 1995-1-1

| klimaat-klasse | belastingduurklasse | | | | |
|---|---|---|---|---|---|
| | blijvend | lang | middellang | kort | zeer kort |
| 1 | 0,60 | 0,70 | 0,80 | 0,90 | 1,10 |
| 2 | 0,60 | 0,70 | 0,80 | 0,90 | 1,10 |
| 3 | 0,50 | 0,55 | 0,65 | 0,70 | 0,90 |

$k_{def}$ conform Tabel 3.2 van NEN/EN 1995-1-1

| klimaatklasse | | |
|---|---|---|
| 1 | 2 | 3 |
| 0,60 | 0,80 | 2,00 |

beton — platen — kwaliteit = C20/25 — $f_{cd}$ = 13,30 N/mm²
opstort — kwaliteit = C20/25 — $f_{cd}$ = 13,30 N/mm²
wanden — kwaliteit = C20/25 — $f_{cd}$ = 13,30 N/mm²

betonstaal — kwaliteit = B500B — $f_s$ = 435,00 N/mm²

**Betondekking per onderdeel**

| onderdeel: | soort: | milieuklasse(n): | | | | speciaal: | dekking: |
|---|---|---|---|---|---|---|---|
| platen | plaat | XC3 | | | | geen | 25 mm* |
| opstort | balk | XC3 | | | | geen | 30 mm* |
| wanden | wand | XC3 | | | | geen | 25 mm* |

*dekking t.b.v. brandwerendheid buiten beschouwing gelaten
Toeslagen: indien oncontroleerbaar of nabewerkt oppervlak is de dekking verhoogd met 5 mm.

**Uitgangspunten**

In deze berekening wordt de hoofddraagconstructie verantwoord. Buiten verantwoording van deze berekening vallen:

- detailberekening van de staalconstructie
- detailberekening van de houtconstructie

sonderingen

- sondeeronderzoek met projectnummer 2016-831 d.d. 28-11-2016 van Koops & Romeijn grondmechanica.

tekeningen

- bouwkundige tekeningen met projectnummer 15-06 d.d. 24-11-2016 van BTA Dwingeloo.

**Constructieopzet**

horizontale draagstructuur

| onderdeel | omschrijving |
|---|---|
| hellend dak | stalen spant, houten gordingen, |
| hellend dak | vezelc.golfplaat |

verticale draagstructuur

| onderdeel | omschrijving |
|---|---|
| kolommen | stalen kolommen |

fundering

Het gebouw is gefundeerd op staal middels gewapende betonnen poeren en stroken. Het gebouw valt binnen de criteria van de Geotechnische Categorie 1 volgens NEN-EN-1997/NB.

stabiliteit

De stabiliteit van het gebouw wordt verzorgd door portaalwerking in de dwarsrichting en stabiliteitsverbanden in de lengterichting.

## Belastingen en gewichten

hellend dak

permanent Vezel-golpl + gordingen 0,27

$G_k$ = 0,27 kN/m²

α = 20 ° → grondvlak $G_k$ = 0,29 kN/m²

sneeuw $s_{ki} = 0{,}75 \times s_{k50} = 0{,}53$

$\mu_1$ = 0,80 $Q_k$ = 0,42 kN/m²

$\mu_2$ = 0,40 $Q_k$ = 0,21 kN/m²

| | $\psi_0$ | $\psi_1$ | $\psi_2$ |
|---|---|---|---|
| | 0,00 | 0,00 | 0,00 |

karakteristieke waarde $Q_k$ = 0,69 kN/m²

rekenwaarde 6.10a $Q_{Ed}$ = 0,33 kN/m²

rekenwaarde 6,10b $Q_{Ed}$ = **0,86** kN/m² * $\psi_0$ = 0,29 kN/m²

frequente combinatie $Q_{freq}$ = 0,27 kN/m²

## Variabele gevelbelasting door wind

windbelasting volgens NEN-EN 1991-1-4 gebouwen met rechthoekige plattegrond gesloten

$$F = c_s\ c_d \times c_f \times q_p\ (Z_e) \times A_{ref}$$

$c_s\ c_d$ = bouwwerkfactor = 1,0

$c_f$ = krachtcoëficiënt = $C_{pe}/C_{pi}/C_{fr}$

$C_{prob;(wind)}^2$ = 0,84

$A_{ref}$ = referentie oppervlakte

hoogte = 8,4 m

windgebied = gebied 3

terrein = onbebouwd

$q_p$ (z) conform tabel N.B. = 0,66 kN/m²

$q_p$ (z) x $C_{prob;(wind)}^2$ = 0,56 kN/m²

| | $c_{pe}$ |
|---|---|
| druk | 0,8 |
| zuiging | -0,5 |

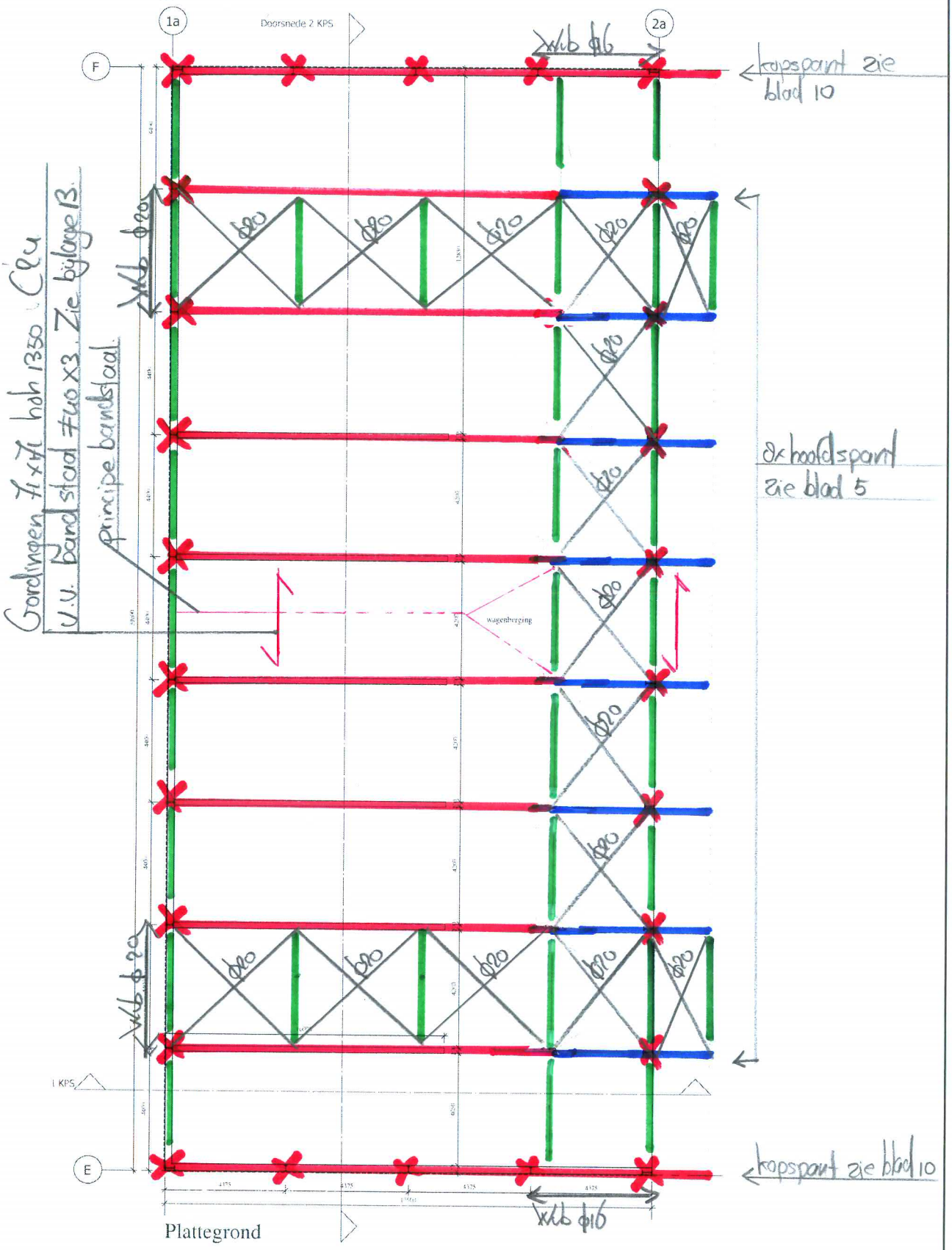
| | $c_{pi}$ |
|---|---|
| overdruk | 0,2 |
| onderdruk | -0,3 |

| | $c_{fr}$ |
|---|---|
| wrijving | 0,02 |

NEN-EN 1991-1-4/NB 7.2.2.4: Het gebrek aan correlatie van de winddrukken tussen de windzijde en de lijzijde moet bij de beschouwing van de stabiliteit in rekening zijn gebracht door de resulterende kracht met een factor 0,85 te vermenigvuldigen.

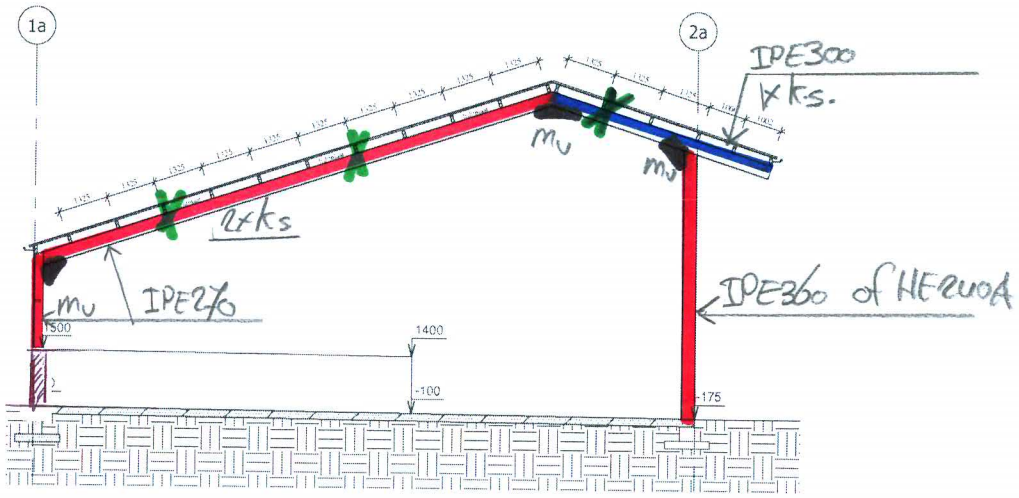
# Overzicht dak

Wvb ϕ20 + koppelingen ϕ70x3
Overige " ϕ60x4
] Zie blad 7-9



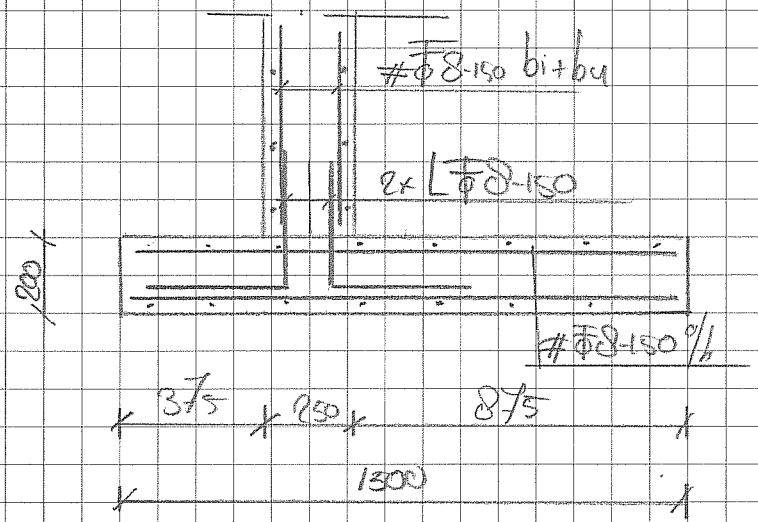

| | | | | |
|---|---|---|---|---|
| W2N engineers | | Projectnummer | Paraaf | Blad 4 |
| | | | | Van |

# Hoofdspant




Zie bijlage A.

# Detail strook B

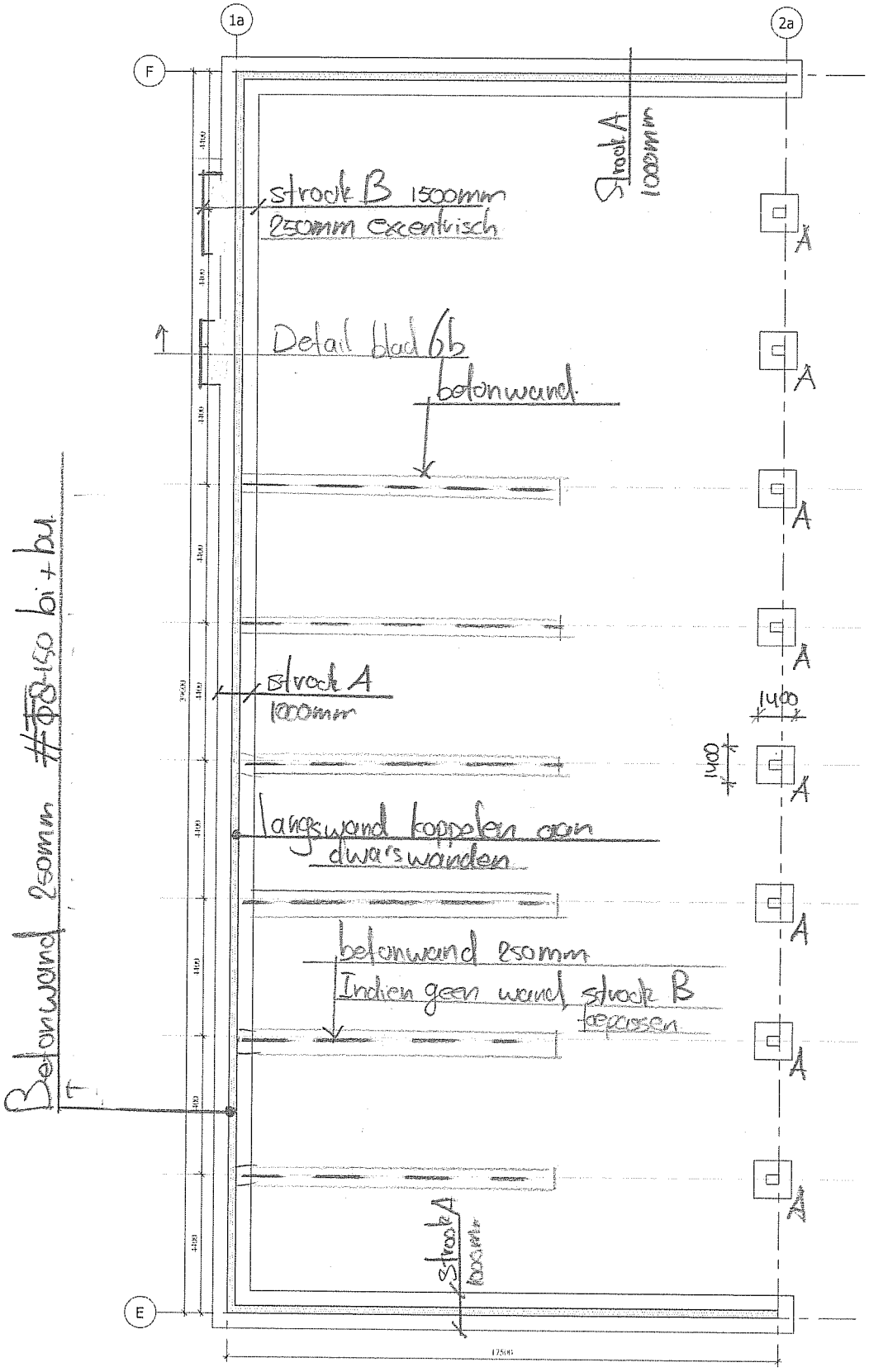



| | | | | |
|---|---|---|---|---|
| W2N engineers | | Projectnummer | Paraaf | Blad 6b |
| | | | | Van |

# Overzicht onderbouw

Poer A ϕ1400×200 mm #T8-150 % opstort ϕ300 8T10 + bgls T8300

Stroken 1000 × 200 mm #T8-150 %



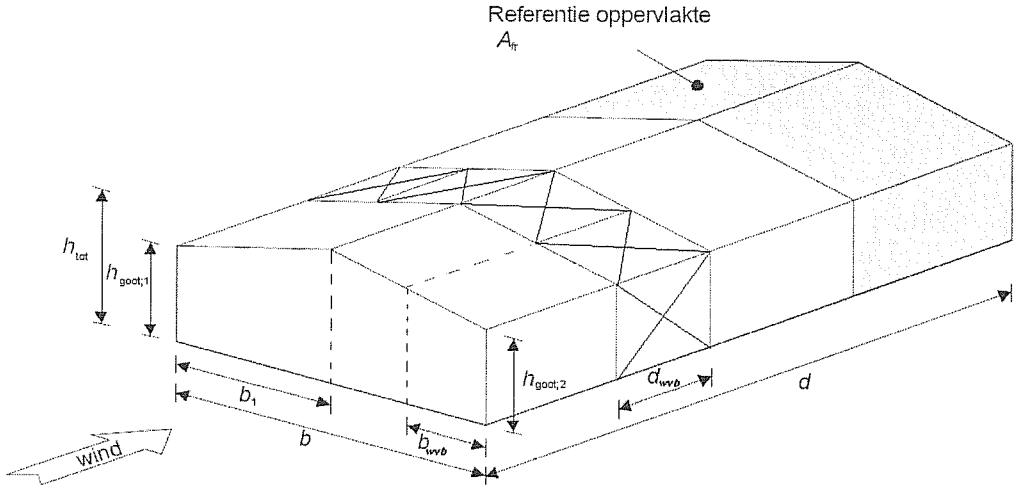

| | | | | |
|---|---|---|---|---|
| W2N engineers | | Projectnummer | Paraaf | Blad 69 |
| | | | | Van |

## Berekening stabiliteit in langsrichting

gegevens

| | | | | | |
|---|---|---|---|---|---|
| gebouw functie | = | Industriëel gebouw 1 of 2 verdiepingen | $h_{tot}$ | = | 8,4 m |
| ontwerplevensduur | = | 15 jaar | $h_{goot;1}$ | = | 3,6 m |
| gevolgklasse | = | CC1 | $h_{goot;2}$ | = | 7,0 m |
| betrouwbaarheidsklasse | = | RC1 | b | = | 17,2 m |
| $K_{FI}$ | = | 0,9 | $b_1$ | = | 13,4 m |
| gebied | = | gebied 3 | d | = | 40,0 m |
| bebouwing | = | onbebouwd | $b_{wvb}$ | = | 4,5 m |
| aantal windbokken (n) | = | 2 | $d_{wvb}$ | = | 4,4 m |
| | | | $c_{prob;(wind)}^2$ | = | 0,84 |
| | | | α | = | 20 ° |

overzicht




referentie oppervlakte A

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | d - 2b | = | 40 | - | 34 = | 5,6 | m |
| Of: | d - 4h | = | 40 | - | 34 = | 6,4 | m |

bepalen winddruk loodrecht op kopgevel volgens NEN-EN 1991-4/NB

| | | |
|---|---|---|
| F | = | $c_s\ c_d$ x $c_f$ x $q_p\ (Z_e)$ x $A_{ref}$ |
| $c_s\ c_d$ | = | 1,00 |
| $q_p\ (z)$ | = | 0,66 kN/m² |
| $q_p\ (z)$ :$_{prob;(wind)}^2$ | = | 0,56 kN/m² |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| druk | = | 0,80 | * | 0,56 | * | 3,19 | * | 0,85 | = | 1,21 kN/m |
| zuiging | = | 0,50 | * | 0,56 | * | 3,19 | * | 0,85 | = | 0,75 kN/m |
| wrijving dak | = | 0,02 | * | 0,56 | * | 6,4 | * | | = | 0,07 kN/m |
| wrijving gevel | = | 0,02 | * | 0,56 | * | 6,4 | * | | = | 0,07 kN/m + |

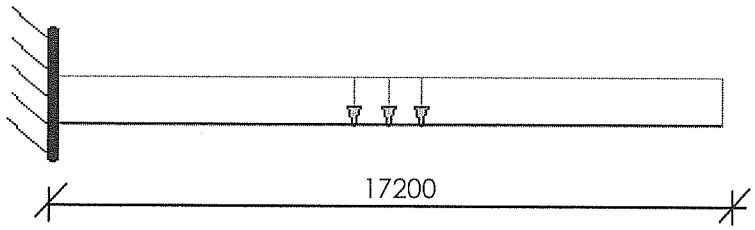
| | | | | | |
|---|---|---|---|---|---|
| totaal $q_{k;dak}$ | = | 2,03 kN/m | $q_{Ed}$ | = | 2,74 kN/m |
| totaal $q_{k;gevel}$ | = | 0,07 kN/m | $q_{Ed}$ | = | 0,10 kN/m |

stabilieitsverband dakvlak S235 ger Ø20

schema

$q_{Ed}$ = 2,74 kN/m

$b_{wvb;dakvlak}$ = 4,75 m

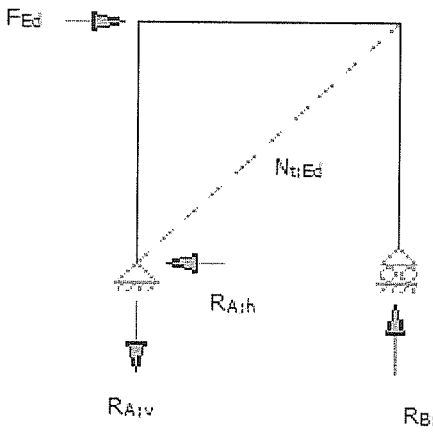



$F_{Ed}$ = 15,0 * 2,7 / 2 = 20,5 kN
$N_{t;Ed}$ = V(( 20,5 * 4,8 / 4,4 )$^2$ + 20,5 $^2$) = 30,2 kN
$N_{t;Rd}$ = 63,5 kN

$$\frac{N_{t;Ed}}{N_{t;Rd}} \leq 1{,}00 \longrightarrow \frac{30{,}19}{63{,}50} = 0{,}48 < 1{,}00$$ **akkoord**

stabilieitsverband gevel S235 ger Ø20

schema




$F_{Ed}$ = 17,2 * 2,74 + 1,8 * 0 / 1
= 23,7 kN
$R_{A;v}$ = 37,6 kN
$R_{A;h}$ = 23,7 kN
$R_{B;v}$ = 37,6 kN

$N_{t;Ed}$ = V( 37,6 $^2$ + 23,7 $^2$)
$N_{t;Ed}$ = 44,4 kN

$N_{t;Rd}$ = 63,5 kN

$$\frac{N_{t;Ed}}{N_{t;Rd}} \leq 1{,}00 \longrightarrow \frac{44{,}45}{63{,}50} = 0{,}70 < 1{,}00$$ **akkoord**

extra belasting spant t.g.v. eenzijdig open

$M_{Ed}$ = 0,5 * 2,74 * 17,2 $^2$ = 405 kNm
verdeeld over 7 spantvakken á 4,4 m = 30,8 m

$F_{Ed}$ = 405 / 30,8 = 13,2 kN
in de nok van het spant, in te voeren in 2 richtingen, met fundamentele combinatie van 1,0.

stabiliteitsverband kopgevel praktisch: S235 ger Ø16

**Berekening koppelingen**

4400 mm — 70x70x3
kwaliteit: S275
instabiliteitskromme: c

$N_{Ed}$ = 23,7 kN

$$\bar{\lambda} = \frac{L_{cr}}{\lambda_1 * i_y} = \frac{4400}{86,8 * 27,1} = 1,87$$

$\chi$ = 0,22

$N_{Rd}$ = 0,22 * 781 * 275 = 47,3 kN

$$\frac{N_{Ed}}{N_{Rd}} \leq 1,00 \longrightarrow \frac{23,7}{47,3} = 0,50 < 1,00$$ **akkoord**

overige koppelinge 60x60x4

| | | | | |
|---|---|---|---|---|
| W2N engineers | | Projectnummer | Paraaf | Blad 9 |
| | | | | Van |

## Berekening kopspant conform NEN-EN-1993

gegevens

| | | | | | |
|---|---|---|---|---|---|
| gebouw functie | = | Industriëel gebouw 1 of 2 verdiepingen | $h_{tot}$ | = | 8,4 m |
| ontwerplevensduur | = | 15 jaar | $h_{goot}$ | = | 3,6 m |
| gevolgklasse | = | CC1 | b | = | 17,2 m |
| betrouwbaarheidsklasse | = | RC1 | d | = | 40,0 m |
| $K_{FI}$ | = | 0,9 | $b_{wvb}$ | = | 4,5 m |
| gebied | = | gebied 3 | $d_{wvb}$ | = | 4,4 m |
| bebouwing | = | onbebouwd | $c_{prob;(wind)}^2$ | = | 0,8 |

bepalen winddruk loodrecht op kopgevel volgens NEN-EN 1991-4/NB

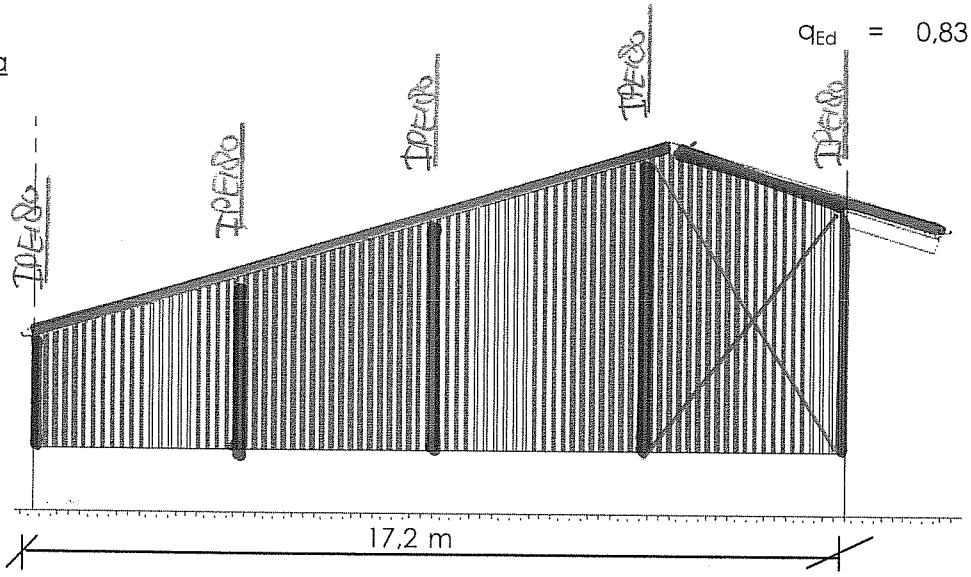
F = $c_s\ c_d \times c_f \times q_p\ (Z_e) \times A_{ref}$

$c_s\ c_d$ = 1,00

$q_p\ (z)$ = 0,66 kN/m²

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| druk | = | 0,80 | * | 0,66 | * | 1,00 | * | 0,84 | = | 0,44 kN/m² |
| onderdruk | = | 0,30 | * | 0,66 | * | 1,00 | * | 0,84 | = | 0,17 kN/m² + |
| | | | | | | | totaal $q_k$ | = | 0,61 kN/m² |
| | | | | | | | $q_{Ed}$ | = | 0,83 kN/m² |

schema




windverbanden kopgevel praktisch: S235 ger Ø16

## Berekening spant

IPE 180

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| opbouw dak | = | Vezel-golpl + gordingen | | | | | |
| kwaliteit | = | S235 | | $W_{y;el}$ | = | 146 x10³ | mm³ |
| $l_{max}$ | = | 4400 | mm | $I_y$ | = | 1317 x10⁴ | mm⁴ |
| h.o.h spanten | = | 4375 | mm | | | | |
| $q_{G,k}$ (dak) | = | 0,27 | kN/m² | $q_{G,k}$ (ligger) | = | 0,19 | kN/m |
| $q_{Q,k}$ | = | 1,00 | kN/m² | $q_{Ed}$ | = | 3,79 | kN/m |

$M_{Ed}$ = $1/8\ q_{Ed} \times l_{max}^2$ = 9,2 kNm

$$\sigma_s = \frac{M_{Ed}}{W_{y;el}} = 63\ N/mm^2 < 235\ N/mm^2$$

**voldoet**

| | | | | |
|---|---|---|---|---|
| W2N engineers | | Projectnummer | Paraaf | Blad 10 |
| | | | | Van |

**Berekening kolommen**

kolom IPE 180

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| kwaliteit | = | S235 | | | | | |
| lengte (l) | = | 6600 | mm | $W_{y;el}$ | = | 146 x$10^3$ | $mm^3$ |
| belastingbreedte | = | 4375 | mm | $I_y$ | = | 1317 x$10^4$ | $mm^4$ |
| $q_{Ed}$ | = | 0,83 | $kN/m^2$ | $q_k$ | = | 0,61 $kN/m^2$ | |
| $q_{Ed}$ | = | 3,61 | kN/m | $q_k$ | = | 2,68 kN/m | |

sterkte

$M_{Ed}$ = $1/8\ q_{Ed} \times l^2$ = 19,7 kNm

$$\sigma_s = \frac{M_{Ed}}{W_{y;el}} = 135\ N/mm^2 < 235\ N/mm^2$$

**voldoet**

doorbuiging

$$w_3 = \frac{5 \times q_k \times l_4}{384 \times E \times I_y} = 24\ mm$$

$w_{max}$ = l / 150 = 44 mm

**voldoet**

**Fundering op poeren volgens NEN-EN 1997-1:2005 en NEN-EN 9997-1:2011** **Poer A**

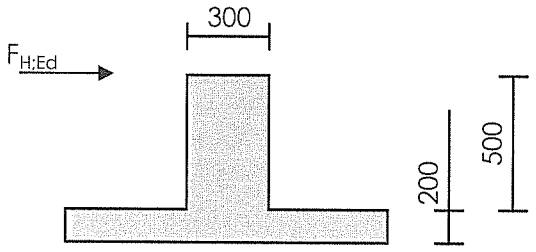
materiaaleigenschappen

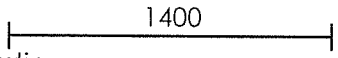
| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| beton | = | 25,00 | kN/m³ | $f_{cd}$ | = | 13,3 | N/mm² | kwaliteit = C20/25 |
| grond | = | 18,00 | kN/m³ | grond tot b.k. strook | = | 400 | mm | |

afmetingen

| plaat | | | opstort | |
|---|---|---|---|---|
| lengte (l) | = | 1400 mm | lengte (l) | 300 mm |
| breedte (b) | = | 1400 mm | breedte (b) | 300 mm |
| dikte (d) | = | 200 mm | hoogte (h) | 500 mm |
| dekking (c) | = | 30 mm | excentriciteit (e) | 0 mm |
| | | | dekking (c) | 35 mm |

overzicht




belastingen

| | | karakteristiek | | $\gamma_G$ = 1,08 ongunstig | | $\gamma_G$ = 0,90 gunstig | |
|---|---|---|---|---|---|---|---|
| eigen gewicht gronc | = | 13,46 kN | | 14,54 kN | | 12,12 kN | |
| eigen gewicht plaat | = | 9,80 kN | | 10,58 kN | | 8,82 kN | |
| eigen gewicht opstort | = | 1,13 kN | | 1,22 kN | | 1,01 kN | + |
| totaal | = | 24,39 kN | | 26,34 kN | | 21,95 kN | |
| | | | $F_{V;Ed;kolom;}$ = | 51,91 kN | | 51,91 kN | + |
| | | | | 78,25 kN | | 73,86 kN | |
| Fu.C.35 | | | $F_{H;Ed;kolom;}$ = | 0,00 kN | | 0,00 kN | |
| | | | $M_{Ed;inklemming}$ = | 0,00 kNm | | 0,00 kNm | |
| | | | $M_{H;Ed;kracht}$ = | 0,00 kNm | | 0,00 kNm | |
| | | | $M_{Ed;excentrisch}$ = | 0,00 kNm | | 0,00 kNm | + |
| | | | $M_{Ed;totaal}$ = | 0,00 kNm | | 0,00 kNm | |
| | | | e = | 0,000 m' | | 0,000 m' | |
| | | | x = | 2,100 m' | | 2,100 m' | |
| | | | $e_{max}$ = | 0,000 m' | ≤ | 0,467 m' | akkoord |
| | | | $x_{min}$ = | 2,100 m' | ≥ | 0,700 m' | akkoord |
| | | grondspanning = | | **53,23** kN/m² | | **50,24** kN/m² | |
| | | grondspanning excl. e.g. grond | | 45,81 kN/m² | | 44,06 kN/m² | |

## Wapeningsberekening plaat volgens NEN-EN-1992

### gegevens plaat

$q_{Ed}$ = 45,81 kN/m$^2$
$M_{Ed}$ = 6,93 kNm

d = 166 mm
$\rho_{;min}$ = 0,13 %
$f_s$ = 435 N/mm$^2$

### wapeningsegevens plaat

onderwapening
$\varnothing_{hoofdwapening}$ = 8 mm
h.o.h$_{hoofdwapeni}$ = 150 mm

bovenwapening
$\varnothing_{hoofdwapening}$ = 8 mm
h.o.h$_{hoofdwapening}$ = 150 mm

### berekening onderwapening plaat

$A_{s;prov}$ = 335 mm$^2$ $A_{s;min}$ = 216 mm$^2$
$N_s$ = 145,8 kN
$N_c$ = - $N_s$ = 0,75 x $X_u$ x 13,3 = 145,8 kN
$X_u$ = 14,6 mm
z = 166 - 0,39 x 14,6 = 160,3 mm
$M_{Rd}$ = 160,3 x 145,8 = 23,37 kNm

### toetsing plaat

$$\frac{M_{Ed}}{M_{Rd}} = \frac{6,93}{23,37} = 0,30 \leq 1,00$$ **voldoet**

$$\frac{A_{s;min}}{A_{s;prov}} = \frac{216}{335} = 0,64 \leq 1,00$$ **voldoet**

## Wapeningsberekening opstort volgens NEN-EN-1992

### gegevens opstort

$M_{Ed}$ = 0,00 kNm
$V_{Ed}$ = 0,00 kN

d = 259 mm
$\rho_{;min}$ = 0,13 %
$f_s$ = 435 N/mm$^2$

### wapeningsegevens opstort/zijde

wapening

$\varnothing_{hoofdwapening}$ = 12 mm
$n_{hoofdwapening}$ = 2 mm

$\varnothing_{beugel}$ = 8 mm
$h.o.h_{beugel}$ = 200 mm

$n_{snedig}$ = 2

### berekening wapening opstort

$A_{s;prov}$ = 226 mm$^2$
$A_{s;min}$ = 101 mm$^2$
$N_s$ = 98,4 kN
$N_c$ = - $N_s$ = 0,75 x $X_u$ x 13,3 = 98,4 kN
$X_u$ = 9,9 mm
z = 259 - 0,39 x 9,9 = 255,2 mm
$M_{Rd}$ = 255,2 x 98,4 = 25,11 kNm

### toetsing wapening opstort

$$\frac{M_{Ed}}{M_{Rd}} = \frac{0,00}{25,11} = 0,00 \leq 1,00$$ **voldoet**

$$\frac{A_{s;min}}{A_{s;prov}} = \frac{101}{226} = 0,45 \leq 1,00$$ **voldoet**

### berekening beugels opstort

$$v_{Ed} = \frac{V_{Ed}}{b \times d} = \frac{0,00}{77700} = 0,00 \text{ N/mm}^2$$

$\Theta$ = 21,8 °
cot$\Theta$ = 2,5

$$A_{s;req} = \frac{v_{Ed} \times b \times s}{f_s \times 0,9 \times \cot\Theta} = 0 \text{ mm}^2/\text{m}$$

$A_{s;prov}$ = 503 mm$^2$

### toetsing beugels opstort

$$\frac{A_{s;req}}{A_{s;prov}} = \frac{0,00}{502,65} = 0,00 \leq 1,00$$ **voldoet**

**Fundering op poeren volgens NEN-EN 1997-1:2005 en NEN-EN 9997-1:2011** **Strook A**

materiaaleigenschappen

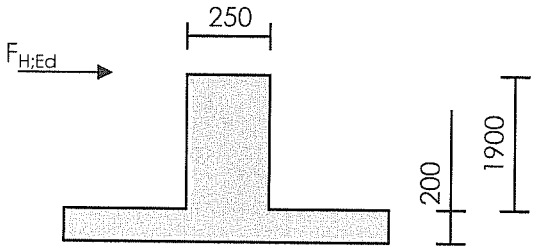
| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| beton | = | 25,00 | kN/m³ | $f_{cd}$ | = | 13,3 N/mm² | kwaliteit | = C20/25 |
| grond | = | 18,00 | kN/m³ | grond tot b.k. strook | = | 400 mm | | |

afmetingen

| plaat | | |
|---|---|---|
| lengte (l) | = | 1000 mm |
| breedte (b) | = | 2000 mm |
| dikte (d) | = | 200 mm |
| dekking (c) | = | 30 mm |

| wand | |
|---|---|
| dikte (l) | 250 mm |
| breedte (b) | 2000 mm |
| hoogte (h) | 1900 mm |
| excentriciteit (e) | 0 mm |
| dekking (c) | 35 mm |

overzicht




belastingen

| | | karakteristiek | $\gamma_G$ = 1,08 ongunstig | $\gamma_G$ = 0,90 gunstig | |
|---|---|---|---|---|---|
| eigen gewicht gronc | = | 10,80 kN | 11,66 kN | 9,72 kN | |
| eigen gewicht plaat | = | 10,00 kN | 10,80 kN | 9,00 kN | |
| eigen gewicht opstort | = | 23,75 kN | 25,65 kN | 21,38 kN | + |
| totaal | = | 44,55 kN | 48,11 kN | 40,10 kN | |
| | $F_{V;Ed;kolom;}$ = | | 35,81 kN | 35,81 kN | + |
| | | | 83,92 kN | 75,91 kN | |
| Fu.C.35 | $F_{H;Ed;kolom;}$ = | | 0,00 kN | 0,00 kN | |
| | $M_{Ed;inklemming}$ = | | 0,00 kNm | 0,00 kNm | |
| | $M_{H;Ed;kracht}$ = | | 0,00 kNm | 0,00 kNm | |
| | $M_{Ed;excentrisch}$ = | | 0,00 kNm | 0,00 kNm | + |
| | $M_{Ed;totaal}$ = | | 0,00 kNm | 0,00 kNm | |
| | e = | | 0,000 m¹ | 0,000 m¹ | |
| | x = | | 1,500 m¹ | 1,500 m¹ | |
| | $e_{max}$ = | | 0,000 m¹ ≤ | 0,333 m¹ | akkoord |
| | $x_{min}$ = | | 1,500 m¹ ≥ | 0,500 m¹ | akkoord |
| | grondspanning = | | **55,95** kN/m² | **50,60** kN/m² | |
| | grondspanning excl. e.g. grond | | 50,12 kN/m² | 45,74 kN/m² | |

## Wapeningsberekening plaat volgens NEN-EN-1992

### gegevens plaat

$q_{Ed}$ = 50,12 kN/m$^2$
$M_{Ed}$ = 3,52 kNm

d = 166 mm
$\rho_{;min}$ = 0,13 %
$f_s$ = 435 N/mm$^2$

### wapeningsegevens plaat

onderwapening
$\varnothing_{hoofdwapening}$ = 8 mm
h.o.h$_{hoofdwapeni}$ = 150 mm

bovenwapening
$\varnothing_{hoofdwapening}$ = 8 mm
h.o.h$_{hoofdwapening}$ = 150 mm

### berekening onderwapening plaat

$A_{s;prov}$ = 335 mm$^2$ $A_{s;min}$ = 216 mm$^2$
$N_s$ = 145,8 kN
$N_c$ = - $N_s$ = 0,75 x $X_u$ x 13,3 = 145,8 kN
$X_u$ = 14,6 mm
z = 166 - 0,39 x 14,6 = 160,3 mm
$M_{Rd}$ = 160,3 x 145,8 = 23,37 kNm

### toetsing plaat

$$\frac{M_{Ed}}{M_{Rd}} = \frac{3,52}{23,37} = 0,15 \leq 1,00$$ **voldoet**

$$\frac{A_{s;min}}{A_{s;prov}} = \frac{216}{335} = 0,64 \leq 1,00$$ **voldoet**

**Fundering op poeren volgens NEN-EN 1997-1:2005 en NEN-EN 9997-1:2011** **Strook B**

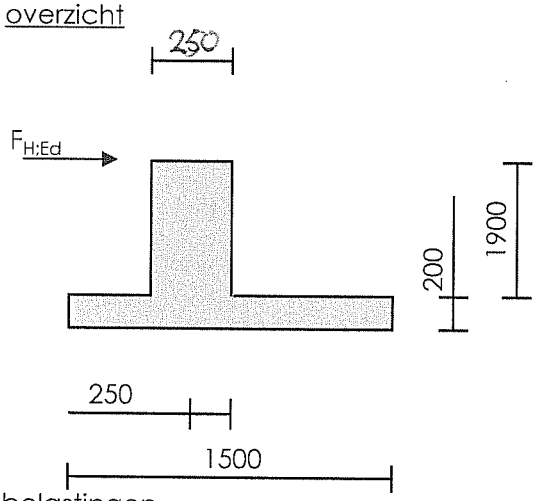
materiaaleigenschappen

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| beton | = | 25,00 | kN/m³ | $f_{cd}$ | = | 13,3 N/mm² | kwaliteit | = C20/25 |
| grond | = | 18,00 | kN/m³ | grond tot b.k. strook | = | 400 mm | | |

afmetingen

| strook | | | wand | |
|---|---|---|---|---|
| lengte (l) | = | 1500 mm | dikte (l) | 250 mm |
| breedte (b) | = | 2000 mm | breedte (b) | 2000 mm |
| dikte (d) | = | 200 mm | hoogte (h) | 1900 mm |
| dekking (c) | = | 30 mm | excentriciteit (e) | -250 mm |
| | | | dekking (c) | 35 mm |

overzicht




belastingen

| | | karakteristiek | | ongunstig | | gunstig | |
|---|---|---|---|---|---|---|---|
| | | | $\gamma_G$ = | 1,08 | $\gamma_G$ = | 0,90 | |
| eigen gewicht gronc | = | 18,00 kN | | 19,44 kN | | 16,20 kN | |
| eigen gewicht plaat | = | 15,00 kN | | 16,20 kN | | 13,50 kN | |
| eigen gewicht opstort | = | 23,75 kN | | 25,65 kN | | 21,38 kN | + |
| totaal | = | 56,75 kN | | 61,29 kN | | 51,08 kN | |
| | | | $F_{V;Ed;kolom;}$ = | 23,76 kN | | 23,76 kN | + |
| | | | | 85,05 kN | | 74,84 kN | |
| Fu.C.28 | | | $F_{H;Ed;kolom;}$ = | 19,87 kN | | 19,87 kN | |
| | | | $M_{Ed;inklemming}$ = | 0,00 kNm | | 0,00 kNm | |
| | | | $M_{H;Ed;kracht}$ = | 39,74 kNm | | 39,74 kNm | |
| | | | $M_{Ed;excentrisch}$ = | -5,94 kNm | | -5,94 kNm | + |
| | | | $M_{Ed;totaal}$ = | 33,80 kNm | | 33,80 kNm | |
| | | | e = | 0,397 m' | | 0,452 m' | |
| | | | x = | 1,058 m' | | 0,895 m' | |
| | | | $e_{max}$ = | 0,452 m' | ≤ | 0,500 m' | akkoord |
| | | | $x_{min}$ = | 0,895 m' | ≥ | 0,750 m' | akkoord |
| | | grondspanning | = | **80,41** kN/m² | | **83,61** kN/m² | |
| | | grondspanning excl. e.g. grond | | 73,93 kN/m² | | 78,21 kN/m² | |

**Wapeningsberekening plaat volgens NEN-EN-1992**

## gegevens plaat

$q_{Ed}$ = 78,21 kN/m$^2$
$M_{Ed}$ = 15,28 kNm

d = 166 mm
$\rho_{;min}$ = 0,13 %
$f_s$ = 435 N/mm$^2$

## wapeningsegevens plaat

onderwapening
$\varnothing_{hoofdwapening}$ = 8 mm
h.o.h$_{hoofdwapening}$ = 150 mm

bovenwapening
$\varnothing_{hoofdwapening}$ = 8 mm
h.o.h$_{hoofdwapening}$ = 150 mm

## berekening onderwapening plaat

$A_{s;prov}$ = 335 mm$^2$ $A_{s;min}$ = 216 mm$^2$
$N_s$ = 145,8 kN
$N_c$ = - $N_s$ = 0,75 x $X_u$ x 13,3 = 145,8 kN
$X_u$ = 14,6 mm
z = 166 - 0,39 x 14,6 = 160,3 mm
$M_{Rd}$ = 160,3 x 145,8 = 23,37 kNm

## toetsing plaat

$$\frac{M_{Ed}}{M_{Rd}} = \frac{15,28}{23,37} = 0,65 \leq 1,00$$ **voldoet**

$$\frac{A_{s;min}}{A_{s;prov}} = \frac{216}{335} = 0,64 \leq 1,00$$ **voldoet**

## Wapeningsberekening betonwand volgens NEN-EN-1992

### gegevens wand

$M_{Ed}$ = 33,80 kNm

$d$ = 211 mm

$\rho_{;min}$ = 0,13 %

$f_s$ = 435 N/mm$^2$

### wapeningsegevens wand

wapening

$\varnothing_{hoofdwapening}$ = 8 mm

$h.o.h_{hoofdwapeni}$ = 150 mm

### berekening wapening wand

$A_{s;prov}$ = 670 mm$^2$ $A_{s;min}$ = 549 mm$^2$

$N_s$ = 291,5 kN

$N_c$ = $-N_s$ = 0,75 x $X_u$ x 13,3 = 291,5 kN

$X_u$ = 29,2 mm

$z$ = 211 - 0,39 x 29,2 = 199,6 mm

$M_{Rd}$ = 199,6 x 291,5 = 58,18 kNm

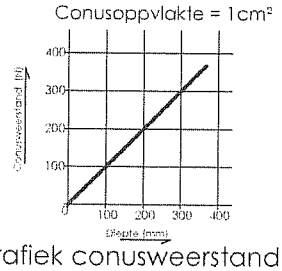
### toetsing wapening opstort

$$\frac{M_{Ed}}{M_{Rd}} = \frac{33,80}{58,18} = 0,58 \leq 1,00$$ **voldoet**

$$\frac{A_{s;min}}{A_{s;prov}} = \frac{549}{670} = 0,82 \leq 1,00$$ **voldoet**

RENVOOI FUNDEREN OP STAAL

- grondverbetering : verdichten in lagen van max. 0,3 m
  gelijkmatig verdichten in min 4 gangen
  overlappend en kruislings trillen energie trilslede 3/5 kN
  controle grondverbetering middels handsondering zie hiervoor grafiek conusweerstand verdicht zandbed
- ontgraven tot op de vaste grondslag
- ook indien geen grondverbetering nodig is ontgravingsniveau in meerdere gangen aftrillen en verdichten
- grondwaterstand niet hoger dan 0,5 meter onder het te verdichten oppervlak, zonodig tijdelijk de grondwaterstand verlagen
- N O O I T dieper ontgraven dan de eventueel bestaande fundering




grafiek conusweerstand verdicht zandbed

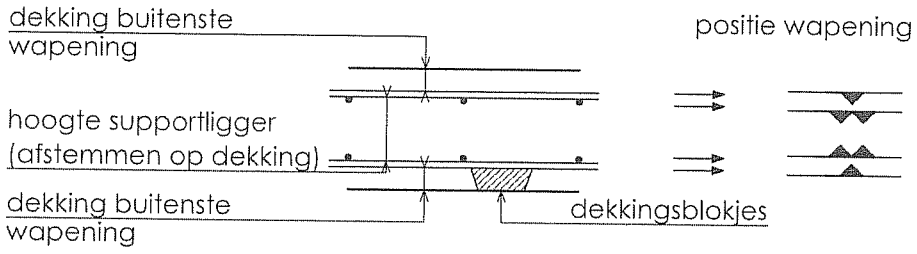
Aanlegbreedte grondverbetering : - mm
Gronddekking op aanlegniveau : - mm

I.H.W. GESTORT BETON

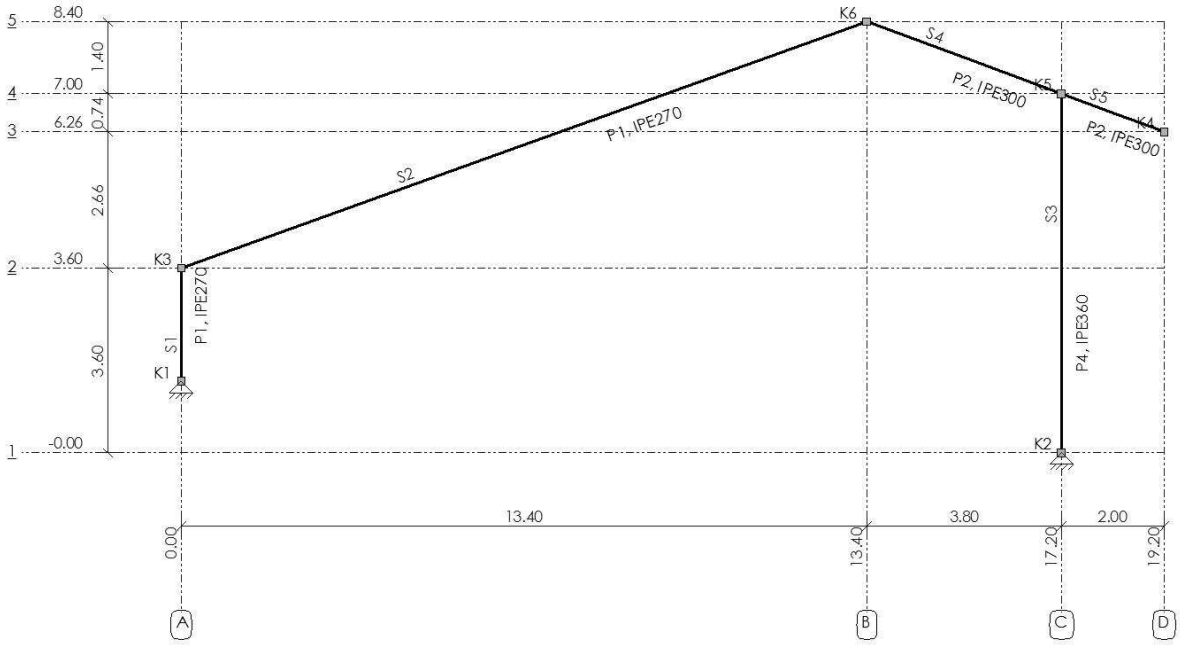
- beton vlgs. NEN-EN 206-1 en NEN 8005
- cement CEM III/B 42,5 LH HS
- wapening uitvoeren vlgs. NEN-EN 1992, NEN-EN 10080 en NEN 6008
- kwaliteit betonstaal B500B
- lassen verspringend aanbrengen
- algemene gegevens:
  eventuele hulpwapening is niet getekend
  werkvloeren minimaal betonkwaliteit C12/15, milieuklasse X0
  voor aanvullende eisen zie bestek
  opgave van alle onderstempelingsvoorzieningen dienen door de aannemer te worden aangeleverd

laslengten en verankeringslengten
(toepassen tenzij er op tekening anders is aangegeven)

| staafdiameter | Ø8 | Ø10 | Ø12 | Ø16 | Ø20 | Ø25 | Ø32 | Ø40 |
|---|---|---|---|---|---|---|---|---|
| min. laslengte | 400 | 500 | 600 | 800 | 1000 | 1250 | 1600 | 2000 |




| | | | | |
|---|---|---|---|---|
| W2N engineers | | Projectnummer | Paraaf | Blad 2<br>Van |




## STAVEN

| Staaf | Knoop B | B | Scharnier E | E | Knoop E | Profiel | X-B | Z-B | X-E | Z-E | Lengte |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S1 | K1 | NVM | NVM | | K3 | P1 | 0,000 | -1,400 | 0,000 | -3,600 | 2,200 |
| S2 | K3 | NVM | NVM | | K6 | P1 | 0,000 | -3,600 | 13,400 | -8,400 | 14,234 |
| S3 | K5 | NVM | NVM | | K2 | P4 | 17,200 | -7,000 | 17,200 | 0,000 | 7,000 |
| S4 | K6 | NVM | NVM | | K5 | P2 | 13,400 | -8,400 | 17,200 | -7,000 | 4,050 |
| S5 | K5 | NVM | NVM | | K4 | P2 | 17,200 | -7,000 | 19,200 | -6,264 | 2,131 |
| - | - | - | - | | - | - | m | m | m | m | m |

## PROFIELEN

| Profiel | Profielnaam | Oppervlakte | Iy | Materiaal | Hoek |
|---|---|---|---|---|---|
| P1 | IPE270 | 4.5945e-03 | 5.7898e-05 | S235 | 0 |
| P2 | IPE300 | 5.3812e-03 | 8.3561e-05 | S235 | 0 |
| P4 | IPE360 | 7.2729e-03 | 1.6266e-04 | S235 | 0 |
| - | - | m2 | m4 | - | ° |

## MATERIALEN

| Materiaal | Dichtheid | E-Modulus | Uitzettingcoeff |
|---|---|---|---|
| S235 | 78.50 | 2.1000e+08 | 12.0000e-06 |
| - | kN/m3 | kN/m2 | C°m |

## OPLEGGINGEN

| Oplegging | Knoop | X | Z | Yr | HoekYr |
|---|---|---|---|---|---|
| O1 | K1 | vast | vast | vrij | 0 |
| O2 | K2 | vast | vast | vrij | 0 |
| - | - | kN/m | kN/m | kNmrad | ° |

## GEWICHTSBEREKENING

| Index | Staven | Berekening | Waarde | Eenheden |
|---|---|---|---|---|
| | Belastingen en vervormingen | NEN-EN1991 | | |
| Lsys1 | Systeemmaat | 4.40 | 4,40 | [m] |
| Height1 | Totale hoogte van constructie | 8.40 | 8,40 | [m] |
| Width1 | Totale breedte van constructie | 19.20 | 19,20 | [m] |
| **LR1** | | | | |
| | Permanente Belasting | NEN-EN1991-1-1:2011/NB:2011 | | |
| | Hellend dak (S2,S4,S5) | | | |
| Pp1 | Vezel-golpl + gordingen | 0.27 | 0,27 | [kN/m²] |
| q1 | Permanente Belasting | Pp1*Lsys1 | 1,19 | [kN/m] |
| **LR2** | | | | |
| | Windbelasting van Links + Overdruk | NEN-EN1991-1-4:2011/NB:2011 | | |

| Index | Staven | Berekening | Waarde | Eenheden |
|---|---|---|---|---|
| **LR2** | | | | |
| Height2 | Totale hoogte (incl. gedeelte boven de grond) (h) | 8.40 | 8,40 | [m] |
| Width2 | Gemiddelde breedte (b) | 39.60 | 39,60 | [m] |
| Width3 | Constructie diepte (d) | 19.20 | 19,20 | [m] |
| A1 | Belast oppervlak (A) | 332.64 | 332,64 | [m²] |
| Co1 | Orthografie factor (C0) | 1.00 | 1,00 | |
| CsCd1 | Constructie factor (CsCd) | 1.00 | 1,00 | |
| Cpe1 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.44) | 0,80 | |
| Cpi1 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe1,Openingen=0.00,Over=True) | 0,20 | |
| Z1 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K6 | 8.40 | 8,40 | [m] |
| Qp1 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z1,Terrein=Onbebouwd,Regio=3,C0=Co1) | 0,66 | [kN/m²] |
| q2 | Interne druk; Verdeelde element belasting (q) | (Cpi1*Qp1) * Lsys1 | 0,58 | [kN/m] |
| Cpe2 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.44) | 0,80 | |
| q3 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp1*Cpe2*CsCd1) * Lsys1 | 2,32 | [kN/m] |
| Cpe3 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.44) | -0,50 | |
| C1 | Vertikale wand S1; Druk coefficient (Cpe) incl. correlatiefactor | (Cpe2-Cpe3) * 0.85 | 1,11 | |
| q4 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp1*(Cpe3+C1)*CsCd1) * Lsys1 | 1,76 | [kN/m] |
| Cpe4 | Zadeldak S2; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=19.71) | -0,71 | |
| q5 | Zadeldak S2; Verdeelde element belasting (q) | (Qp1*Cpe4*CsCd1) * Lsys1 | -2,05 | [kN/m] |
| Cpe5 | Zadeldak S2; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=19.71) | -0,27 | |
| q6 | Zadeldak S2; Verdeelde element belasting (q) | (Qp1*Cpe5*CsCd1) * Lsys1 | -0,78 | [kN/m] |
| q7 | Vertikale wand S3; Verdeelde element belasting (q) | (Qp1*Cpe3*CsCd1) * Lsys1 | -1,45 | [kN/m] |
| q8 | Vertikale wand S3; Verdeelde element belasting (q) | (Qp1*(Cpe2-C1)*CsCd1) * Lsys1 | -0,89 | [kN/m] |
| Cpe6 | Zadeldak S4; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=20.22) | -0,83 | |
| q9 | Zadeldak S4; Verdeelde element belasting (q) | (Qp1*Cpe6*CsCd1) * Lsys1 | -2,40 | [kN/m] |
| Cpe7 | Zadeldak S4; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=20.22) | -0,40 | |
| q10 | Zadeldak S4; Verdeelde element belasting (q) | (Qp1*Cpe7*CsCd1) * Lsys1 | -1,16 | [kN/m] |
| Cpe8 | Zadeldak S5; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=20.20) | -0,40 | |
| q11 | Zadeldak S5; Verdeelde element belasting (q) | (Qp1*Cpe8*CsCd1) * Lsys1 | -1,16 | [kN/m] |
| **LR3** | | | | |
| | Windbelasting van Links + Overdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2011 | | |
| Height3 | Totale hoogte (incl. gedeelte boven de grond) (h) | 8.40 | 8,40 | [m] |
| Width4 | Gemiddelde breedte (b) | 39.60 | 39,60 | [m] |
| Width5 | Constructie diepte (d) | 19.20 | 19,20 | [m] |
| A2 | Belast oppervlak (A) | 332.64 | 332,64 | [m²] |
| Co2 | Orthografie factor (C0) | 1.00 | 1,00 | |
| CsCd2 | Constructie factor (CsCd) | 1.00 | 1,00 | |
| Cpe9 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.44) | 0,80 | |
| Cpi2 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe9,Openingen=0.00,Over=True) | 0,20 | |
| Z2 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K6 | 8.40 | 8,40 | [m] |
| Qp2 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z2,Terrein=Onbebouwd,Regio=3,C0=Co2) | 0,66 | [kN/m²] |
| q12 | Interne druk; Verdeelde element belasting (q) | (Cpi2*Qp2) * Lsys1 | 0,58 | [kN/m] |
| Cpe10 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.44,Eerst=False) | 0,80 | |
| q13 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp2*Cpe10*CsCd2) * Lsys1 | 2,32 | [kN/m] |
| Cpe11 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.44,Eerst=False) | -0,50 | |
| C2 | Vertikale wand S1; Druk coefficient (Cpe) incl. correlatiefactor | (Cpe10-Cpe11) * 0.85 | 1,11 | |
| q14 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp2*(Cpe11+C2)*CsCd2) * Lsys1 | 1,76 | [kN/m] |
| Cpe12 | Zadeldak S2; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=19.71,Eerst=False) | 0,36 | |
| q15 | Zadeldak S2; Verdeelde element belasting (q) | (Qp2*Cpe12*CsCd2) * Lsys1 | 1,04 | [kN/m] |
| Cpe13 | Zadeldak S2; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=19.71,Eerst=False) | 0,26 | |
| q16 | Zadeldak S2; Verdeelde element belasting (q) | (Qp2*Cpe13*CsCd2) * Lsys1 | 0,76 | [kN/m] |
| q17 | Vertikale wand S3; Verdeelde element belasting (q) | (Qp2*Cpe11*CsCd2) * Lsys1 | -1,45 | [kN/m] |
| q18 | Vertikale wand S3; Verdeelde element belasting (q) | (Qp2*(Cpe10-C2)*CsCd2) * Lsys1 | -0,89 | [kN/m] |
| Cpe14 | Zadeldak S4; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=20.22,Eerst=False) | 0,00 | |
| q19 | Zadeldak S4; Verdeelde element belasting (q) | (Qp2*Cpe14*CsCd2) * Lsys1 | 0,00 | [kN/m] |

| Index | Staven | Berekening | Waarde | Eenheden |
|---|---|---|---|---|
| **LR3** | | | | |
| Cpe15 | Zadeldak S4; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=20.22,Eerst=False) | 0,00 | |
| q20 | Zadeldak S4; Verdeelde element belasting (q) | (Qp2*Cpe15*CsCd2) * Lsys1 | 0,00 | [kN/m] |
| Cpe16 | Zadeldak S5; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=20.20,Eerst=False) | 0,00 | |
| q21 | Zadeldak S5; Verdeelde element belasting (q) | (Qp2*Cpe16*CsCd2) * Lsys1 | 0,00 | [kN/m] |
| **LR4** | | | | |
| | Windbelasting van Links + Onderdruk | NEN-EN1991-1-4:2011/NB:2011 | | |
| Height4 | Totale hoogte (incl. gedeelte boven de grond) (h) | 8.40 | 8,40 | [m] |
| Width6 | Gemiddelde breedte (b) | 39.60 | 39,60 | [m] |
| Width7 | Constructie diepte (d) | 19.20 | 19,20 | [m] |
| A3 | Belast oppervlak (A) | 332.64 | 332,64 | [m²] |
| Co3 | Orthografie factor (C0) | 1.00 | 1,00 | |
| CsCd3 | Constructie factor (CsCd) | 1.00 | 1,00 | |
| Cpe17 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.44) | -0,50 | |
| Cpi3 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe17,Openingen=0.00,Over=False) | -0,30 | |
| Z3 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K6 | 8.40 | 8,40 | [m] |
| Qp3 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z3,Terrein=Onbebouwd,Regio=3,C0=Co3) | 0,66 | [kN/m²] |
| q22 | Interne druk; Verdeelde element belasting (q) | (Cpi3*Qp3) * Lsys1 | -0,87 | [kN/m] |
| Cpe18 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.44) | 0,80 | |
| q23 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp3*Cpe18*CsCd3) * Lsys1 | 2,32 | [kN/m] |
| Cpe19 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.44) | -0,50 | |
| C3 | Vertikale wand S1; Druk coefficient (Cpe) incl. correlatiefactor | (Cpe18-Cpe19) * 0.85 | 1,11 | |
| q24 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp3*(Cpe19+C3)*CsCd3) * Lsys1 | 1,76 | [kN/m] |
| Cpe20 | Zadeldak S2; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=19.71) | -0,71 | |
| q25 | Zadeldak S2; Verdeelde element belasting (q) | (Qp3*Cpe20*CsCd3) * Lsys1 | -2,05 | [kN/m] |
| Cpe21 | Zadeldak S2; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=19.71) | -0,27 | |
| q26 | Zadeldak S2; Verdeelde element belasting (q) | (Qp3*Cpe21*CsCd3) * Lsys1 | -0,78 | [kN/m] |
| q27 | Vertikale wand S3; Verdeelde element belasting (q) | (Qp3*Cpe19*CsCd3) * Lsys1 | -1,45 | [kN/m] |
| q28 | Vertikale wand S3; Verdeelde element belasting (q) | (Qp3*(Cpe18-C3)*CsCd3) * Lsys1 | -0,89 | [kN/m] |
| Cpe22 | Zadeldak S4; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=20.22) | -0,83 | |
| q29 | Zadeldak S4; Verdeelde element belasting (q) | (Qp3*Cpe22*CsCd3) * Lsys1 | -2,40 | [kN/m] |
| Cpe23 | Zadeldak S4; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=20.22) | -0,40 | |
| q30 | Zadeldak S4; Verdeelde element belasting (q) | (Qp3*Cpe23*CsCd3) * Lsys1 | -1,16 | [kN/m] |
| Cpe24 | Zadeldak S5; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=20.20) | -0,40 | |
| q31 | Zadeldak S5; Verdeelde element belasting (q) | (Qp3*Cpe24*CsCd3) * Lsys1 | -1,16 | [kN/m] |
| **LR5** | | | | |
| | Windbelasting van Links + Onderdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2011 | | |
| Height5 | Totale hoogte (incl. gedeelte boven de grond) (h) | 8.40 | 8,40 | [m] |
| Width8 | Gemiddelde breedte (b) | 39.60 | 39,60 | [m] |
| Width9 | Constructie diepte (d) | 19.20 | 19,20 | [m] |
| A4 | Belast oppervlak (A) | 332.64 | 332,64 | [m²] |
| Co4 | Orthografie factor (C0) | 1.00 | 1,00 | |
| CsCd4 | Constructie factor (CsCd) | 1.00 | 1,00 | |
| Cpe25 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.44) | -0,50 | |
| Cpi4 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe25,Openingen=0.00,Over=False) | -0,30 | |
| Z4 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K6 | 8.40 | 8,40 | [m] |
| Qp4 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z4,Terrein=Onbebouwd,Regio=3,C0=Co4) | 0,66 | [kN/m²] |
| q32 | Interne druk; Verdeelde element belasting (q) | (Cpi4*Qp4) * Lsys1 | -0,87 | [kN/m] |
| Cpe26 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.44,Eerst=False) | 0,80 | |
| q33 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp4*Cpe26*CsCd4) * Lsys1 | 2,32 | [kN/m] |
| Cpe27 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.44,Eerst=False) | -0,50 | |
| C4 | Vertikale wand S1; Druk coefficient (Cpe) incl. correlatiefactor | (Cpe26-Cpe27) * 0.85 | 1,11 | |
| q34 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp4*(Cpe27+C4)*CsCd4) * Lsys1 | 1,76 | [kN/m] |
| Cpe28 | Zadeldak S2; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=19.71,Eerst=False) | 0,36 | |
| q35 | Zadeldak S2; Verdeelde element belasting (q) | (Qp4*Cpe28*CsCd4) * Lsys1 | 1,04 | [kN/m] |
| Cpe29 | Zadeldak S2; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=19.71,Eerst=False) | 0,26 | |

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| **LR5** | | | | |
| q36 | Zadeldak S2; Verdeelde element belasting (q) | (Qp4*Cpe29*CsCd4) * Lsys1 | 0,76 | [kN/m] |
| q37 | Vertikale wand S3; Verdeelde element belasting (q) | (Qp4*Cpe27*CsCd4) * Lsys1 | -1,45 | [kN/m] |
| q38 | Vertikale wand S3; Verdeelde element belasting (q) | (Qp4*(Cpe26-C4)*CsCd4) * Lsys1 | -0,89 | [kN/m] |
| Cpe30 | Zadeldak S4; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=20.22,Eerst=False) | 0,00 | |
| q39 | Zadeldak S4; Verdeelde element belasting (q) | (Qp4*Cpe30*CsCd4) * Lsys1 | 0,00 | [kN/m] |
| Cpe31 | Zadeldak S4; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=20.22,Eerst=False) | 0,00 | |
| q40 | Zadeldak S4; Verdeelde element belasting (q) | (Qp4*Cpe31*CsCd4) * Lsys1 | 0,00 | [kN/m] |
| Cpe32 | Zadeldak S5; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=20.20,Eerst=False) | 0,00 | |
| q41 | Zadeldak S5; Verdeelde element belasting (q) | (Qp4*Cpe32*CsCd4) * Lsys1 | 0,00 | [kN/m] |
| **LR6** | | | | |
| | Windbelasting van Rechts + Overdruk | NEN-EN1991-1-4:2011/NB:2011 | | |
| Height6 | Totale hoogte (incl. gedeelte boven de grond) (h) | 8.40 | 8,40 | [m] |
| Width10 | Gemiddelde breedte (b) | 39.60 | 39,60 | [m] |
| Width11 | Constructie diepte (d) | 19.20 | 19,20 | [m] |
| A5 | Belast oppervlak (A) | 332.64 | 332,64 | [m²] |
| Co5 | Orthografie factor (C0) | 1.00 | 1,00 | |
| CsCd5 | Constructie factor (CsCd) | 1.00 | 1,00 | |
| Cpe33 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.44) | 0,80 | |
| Cpi5 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe33,Openingen=3.00,Over=True) | 0,72 | |
| Z5 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K6 | 8.40 | 8,40 | [m] |
| Qp5 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z5,Terrein=Onbebouwd,Regio=3,C0=Co5) | 0,66 | [kN/m²] |
| q42 | Interne druk; Verdeelde element belasting (q) | (Cpi5*Qp5) * Lsys1 | 2,09 | [kN/m] |
| Cpe34 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.44) | -0,50 | |
| q43 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp5*Cpe34*CsCd5) * Lsys1 | -1,45 | [kN/m] |
| Cpe35 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.44) | 0,80 | |
| C5 | Vertikale wand S1; Druk coefficient (Cpe) incl. correlatiefactor | (Cpe35-Cpe34) * 0.85 | 1,11 | |
| q44 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp5*(Cpe35-C5)*CsCd5) * Lsys1 | -0,89 | [kN/m] |
| q45 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp5*(Cpe34+C5)*CsCd5) * Lsys1 | 1,76 | [kN/m] |
| Cpe36 | Zadeldak S2; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=19.71) | -0,40 | |
| q46 | Zadeldak S2; Verdeelde element belasting (q) | (Qp5*Cpe36*CsCd5) * Lsys1 | -1,16 | [kN/m] |
| Cpe37 | Zadeldak S2; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=19.71) | -0,84 | |
| q47 | Zadeldak S2; Verdeelde element belasting (q) | (Qp5*Cpe37*CsCd5) * Lsys1 | -2,45 | [kN/m] |
| q48 | Vertikale wand S3; Verdeelde element belasting (q) | (Qp5*Cpe35*CsCd5) * Lsys1 | 2,32 | [kN/m] |
| Cpe38 | Zadeldak S4; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=20.22) | -0,27 | |
| q49 | Zadeldak S4; Verdeelde element belasting (q) | (Qp5*Cpe38*CsCd5) * Lsys1 | -0,77 | [kN/m] |
| Cpe39 | Zadeldak S5; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=20.20) | -0,27 | |
| q50 | Zadeldak S5; Verdeelde element belasting (q) | (Qp5*Cpe39*CsCd5) * Lsys1 | -0,77 | [kN/m] |
| Cpe40 | Zadeldak S5; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=20.20) | -0,70 | |
| q51 | Zadeldak S5; Verdeelde element belasting (q) | (Qp5*Cpe40*CsCd5) * Lsys1 | -2,02 | [kN/m] |
| **LR7** | | | | |
| | Windbelasting van Rechts + Overdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2011 | | |
| Height7 | Totale hoogte (incl. gedeelte boven de grond) (h) | 8.40 | 8,40 | [m] |
| Width12 | Gemiddelde breedte (b) | 39.60 | 39,60 | [m] |
| Width13 | Constructie diepte (d) | 19.20 | 19,20 | [m] |
| A6 | Belast oppervlak (A) | 332.64 | 332,64 | [m²] |
| Co6 | Orthografie factor (C0) | 1.00 | 1,00 | |
| CsCd6 | Constructie factor (CsCd) | 1.00 | 1,00 | |
| Cpe41 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.44) | 0,80 | |
| Cpi6 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe41,Openingen=3.00,Over=True) | 0,72 | |
| Z6 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K6 | 8.40 | 8,40 | [m] |
| Qp6 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z6,Terrein=Onbebouwd,Regio=3,C0=Co6) | 0,66 | [kN/m²] |
| q52 | Interne druk; Verdeelde element belasting (q) | (Cpi6*Qp6) * Lsys1 | 2,09 | [kN/m] |
| Cpe42 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.44,Eerst=False) | -0,50 | |
| q53 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp6*Cpe42*CsCd6) * Lsys1 | -1,45 | [kN/m] |
| Cpe43 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.44,Eerst=False) | 0,80 | |

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| **LR7** | | | | |
| C6 | Vertikale wand S1; Druk coefficient (Cpe) incl. correlatiefactor | (Cpe43-Cpe42) * 0.85 | 1,11 | |
| q54 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp6*(Cpe43-C6)*CsCd6) * Lsys1 | -0,89 | [kN/m] |
| q55 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp6*(Cpe42+C6)*CsCd6) * Lsys1 | 1,76 | [kN/m] |
| Cpe44 | Zadeldak S2; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=19.71,Eerst=False) | 0,00 | |
| q56 | Zadeldak S2; Verdeelde element belasting (q) | (Qp6*Cpe44*CsCd6) * Lsys1 | 0,00 | [kN/m] |
| Cpe45 | Zadeldak S2; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=19.71,Eerst=False) | 0,00 | |
| q57 | Zadeldak S2; Verdeelde element belasting (q) | (Qp6*Cpe45*CsCd6) * Lsys1 | 0,00 | [kN/m] |
| q58 | Vertikale wand S3; Verdeelde element belasting (q) | (Qp6*Cpe43*CsCd6) * Lsys1 | 2,32 | [kN/m] |
| Cpe46 | Zadeldak S4; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=20.22,Eerst=False) | 0,27 | |
| q59 | Zadeldak S4; Verdeelde element belasting (q) | (Qp6*Cpe46*CsCd6) * Lsys1 | 0,78 | [kN/m] |
| Cpe47 | Zadeldak S5; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=20.20,Eerst=False) | 0,27 | |
| q60 | Zadeldak S5; Verdeelde element belasting (q) | (Qp6*Cpe47*CsCd6) * Lsys1 | 0,78 | [kN/m] |
| Cpe48 | Zadeldak S5; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=20.20,Eerst=False) | 0,37 | |
| q61 | Zadeldak S5; Verdeelde element belasting (q) | (Qp6*Cpe48*CsCd6) * Lsys1 | 1,08 | [kN/m] |
| **LR8** | | | | |
| | Windbelasting van Rechts + Onderdruk | NEN-EN1991-1-4:2011/NB:2011 | | |
| Height8 | Totale hoogte (incl. gedeelte boven de grond) (h) | 8.40 | 8,40 | [m] |
| Width14 | Gemiddelde breedte (b) | 39.60 | 39,60 | [m] |
| Width15 | Constructie diepte (d) | 19.20 | 19,20 | [m] |
| A7 | Belast oppervlak (A) | 332.64 | 332,64 | [m²] |
| Co7 | Orthografie factor (C0) | 1.00 | 1,00 | |
| CsCd7 | Constructie factor (CsCd) | 1.00 | 1,00 | |
| Cpe49 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.44) | -0,50 | |
| Cpi7 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe49,Openingen=3.00,Over=False) | -0,45 | |
| Z7 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K6 | 8.40 | 8,40 | [m] |
| Qp7 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z7,Terrein=Onbebouwd,Regio=3,C0=Co7) | 0,66 | [kN/m²] |
| q62 | Interne druk; Verdeelde element belasting (q) | (Cpi7*Qp7) * Lsys1 | -1,31 | [kN/m] |
| Cpe50 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.44) | -0,50 | |
| q63 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp7*Cpe50*CsCd7) * Lsys1 | -1,45 | [kN/m] |
| Cpe51 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.44) | 0,80 | |
| C7 | Vertikale wand S1; Druk coefficient (Cpe) incl. correlatiefactor | (Cpe51-Cpe50) * 0.85 | 1,11 | |
| q64 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp7*(Cpe51-C7)*CsCd7) * Lsys1 | -0,89 | [kN/m] |
| q65 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp7*(Cpe50+C7)*CsCd7) * Lsys1 | 1,76 | [kN/m] |
| Cpe52 | Zadeldak S2; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=19.71) | -0,40 | |
| q66 | Zadeldak S2; Verdeelde element belasting (q) | (Qp7*Cpe52*CsCd7) * Lsys1 | -1,16 | [kN/m] |
| Cpe53 | Zadeldak S2; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=19.71) | -0,84 | |
| q67 | Zadeldak S2; Verdeelde element belasting (q) | (Qp7*Cpe53*CsCd7) * Lsys1 | -2,45 | [kN/m] |
| q68 | Vertikale wand S3; Verdeelde element belasting (q) | (Qp7*Cpe51*CsCd7) * Lsys1 | 2,32 | [kN/m] |
| Cpe54 | Zadeldak S4; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=20.22) | -0,27 | |
| q69 | Zadeldak S4; Verdeelde element belasting (q) | (Qp7*Cpe54*CsCd7) * Lsys1 | -0,77 | [kN/m] |
| Cpe55 | Zadeldak S5; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=20.20) | -0,27 | |
| q70 | Zadeldak S5; Verdeelde element belasting (q) | (Qp7*Cpe55*CsCd7) * Lsys1 | -0,77 | [kN/m] |
| Cpe56 | Zadeldak S5; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=20.20) | -0,70 | |
| q71 | Zadeldak S5; Verdeelde element belasting (q) | (Qp7*Cpe56*CsCd7) * Lsys1 | -2,02 | [kN/m] |
| **LR9** | | | | |
| | Windbelasting van Rechts + Onderdruk (2e Cpe) | NEN-EN1991-1-4:2011/NB:2011 | | |
| Height9 | Totale hoogte (incl. gedeelte boven de grond) (h) | 8.40 | 8,40 | [m] |
| Width16 | Gemiddelde breedte (b) | 39.60 | 39,60 | [m] |
| Width17 | Constructie diepte (d) | 19.20 | 19,20 | [m] |
| A8 | Belast oppervlak (A) | 332.64 | 332,64 | [m²] |
| Co8 | Orthografie factor (C0) | 1.00 | 1,00 | |
| CsCd8 | Constructie factor (CsCd) | 1.00 | 1,00 | |
| Cpe57 | Uitwendige druk; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.44) | -0,50 | |
| Cpi8 | Interne druk; Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=Cpe57,Openingen=3.00,Over=False) | -0,45 | |
| Z8 | z=h; (h<=b) voor knopen: K1,K2,K3,K4,K5,K6 | 8.40 | 8,40 | [m] |
| Qp8 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=Z8,Terrein=Onbebouwd,Regio=3,C0=Co8) | 0,66 | [kN/m²] |

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| **LR9** | | | | |
| q72 | Interne druk; Verdeelde element belasting (q) | (Cpi8*Qp8) * Lsys1 | -1,31 | [kN/m] |
| Cpe58 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=E,hd=0.44,Eerst=False) | -0,50 | |
| q73 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp8*Cpe58*CsCd8) * Lsys1 | -1,45 | [kN/m] |
| Cpe59 | Vertikale wand S1; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Wand,Zone=D,hd=0.44,Eerst=False) | 0,80 | |
| C8 | Vertikale wand S1; Druk coefficient (Cpe) incl. correlatiefactor | (Cpe59-Cpe58) * 0.85 | 1,11 | |
| q74 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp8*(Cpe59-C8)*CsCd8) * Lsys1 | -0,89 | [kN/m] |
| q75 | Vertikale wand S1; Verdeelde element belasting (q) | (Qp8*(Cpe58+C8)*CsCd8) * Lsys1 | 1,76 | [kN/m] |
| Cpe60 | Zadeldak S2; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=I,Hoek=19.71,Eerst=False) | 0,00 | |
| q76 | Zadeldak S2; Verdeelde element belasting (q) | (Qp8*Cpe60*CsCd8) * Lsys1 | 0,00 | [kN/m] |
| Cpe61 | Zadeldak S2; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=J,Hoek=19.71,Eerst=False) | 0,00 | |
| q77 | Zadeldak S2; Verdeelde element belasting (q) | (Qp8*Cpe61*CsCd8) * Lsys1 | 0,00 | [kN/m] |
| q78 | Vertikale wand S3; Verdeelde element belasting (q) | (Qp8*Cpe59*CsCd8) * Lsys1 | 2,32 | [kN/m] |
| Cpe62 | Zadeldak S4; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=20.22,Eerst=False) | 0,27 | |
| q79 | Zadeldak S4; Verdeelde element belasting (q) | (Qp8*Cpe62*CsCd8) * Lsys1 | 0,78 | [kN/m] |
| Cpe63 | Zadeldak S5; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=H,Hoek=20.20,Eerst=False) | 0,27 | |
| q80 | Zadeldak S5; Verdeelde element belasting (q) | (Qp8*Cpe63*CsCd8) * Lsys1 | 0,78 | [kN/m] |
| Cpe64 | Zadeldak S5; Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=G,Hoek=20.20,Eerst=False) | 0,37 | |
| q81 | Zadeldak S5; Verdeelde element belasting (q) | (Qp8*Cpe64*CsCd8) * Lsys1 | 1,08 | [kN/m] |
| **LR10** | | | | |
| | Sneeuwbelasting | NEN-EN1991-1-3:2011/NB:2011 | | |
| Sk1 | Karakteristiek waarde van de sneeuwlast op de grond (Sk) | NEN-EN1991-1-3#4.1(Zone=1) | 0,70 | [kN/m²] |
| Ce1 | De milieucoefficient (Ce) | NEN-EN1991-1-3#5.2.7() | 1,00 | |
| Ct1 | De thermische coefficient (Ct) | NEN-EN1991-1-3#5.2.8() | 1,00 | |
| | Zadeldak, Mu1 Hoek: 19.71; S2,S4,S5 | | | |
| Mu1 | Mu1; Sneeuwbelasting coefficient (Mu) | EN1991-1-3#5.3(Dak=Hellend,Hoek=19.71,Mu=Mu1,Sk=Sk1) | 0,80 | |
| q82 | Verdeelde element belasting (q) | (Sk1*Ce1*Ct1*Mu1) * Lsys1 | 2,46 | [kN/m] |
| q83 | Verdeelde element belasting (q) | q82*0.50 | 1,23 | [kN/m] |

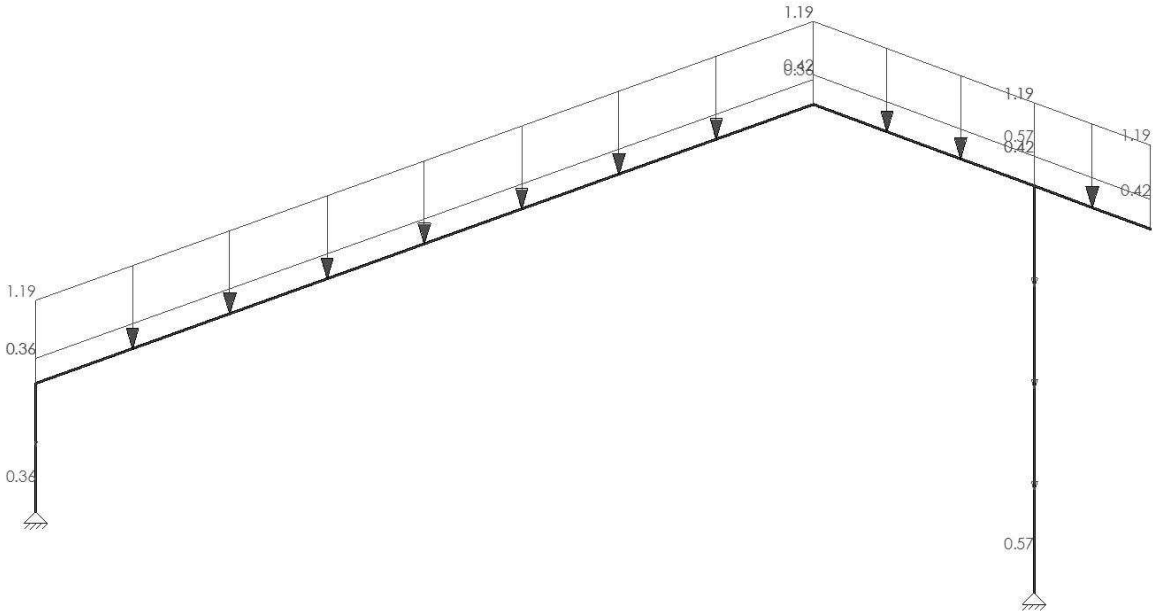
## BELASTINGSGEVALLEN TYPEN

| Oplegg. | Staven | B.G.Type | Gunstig/Ong. | Element | Niveau | Veld | Psi0 | Psi1 | Psi2 | Cprob |
|---|---|---|---|---|---|---|---|---|---|---|
| B.G.1 | Permanente Belasting | Permanent | - | | N.v.t. | N.v.t. | | | | |
| B.G.2 | Windbelasting van Links + Overdruk | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.3 | Windbelasting van Links + Overdruk (2e Cpe) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.4 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.5 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.6 | Windbelasting van Links + Overdruk (2e corr. factor) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.7 | Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.8 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.9 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.10 | Windbelasting van Links + Onderdruk | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.11 | Windbelasting van Links + Onderdruk (2e Cpe) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.12 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.13 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.14 | Windbelasting van Links + Onderdruk (2e corr. factor) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |

| Oplegg. | Staven | B.G.Type | Gunstig/Ong. | Element | Niveau | Veld | Psi0 | Psi1 | Psi2 | Cprob |
|---|---|---|---|---|---|---|---|---|---|---|
| B.G.15 | Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.16 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.17 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.18 | Windbelasting van Rechts + Overdruk | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.19 | Windbelasting van Rechts + Overdruk (2e Cpe) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.20 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.21 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.22 | Windbelasting van Rechts + Overdruk (2e corr. factor) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.23 | Windbelasting van Rechts + Overdruk (2e Cpe) (2e corr. factor) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.24 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.25 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | Windbelasting | + | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.26 | Windbelasting van Rechts + Onderdruk | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.27 | Windbelasting van Rechts + Onderdruk (2e Cpe) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.28 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.29 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.30 | Windbelasting van Rechts + Onderdruk (2e corr. factor) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.31 | Windbelasting van Rechts + Onderdruk (2e Cpe) (2e corr. factor) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.32 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.33 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,91 |
| B.G.34 | Sneeuwbelasting 1 | Sneeuwbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,75 |
| B.G.35 | Sneeuwbelasting 2 | Sneeuwbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,75 |
| B.G.36 | Sneeuwbelasting 3 | Sneeuwbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,75 |
| B.G.37 | Kniklengte (Assymetrisch) | Kniklengte | | | N.v.t. | N.v.t. | | | | |
| B.G.38 | Kniklengte (Symmetrisch) | Kniklengte | | | N.v.t. | N.v.t. | | | | |
| B.G.39 | Wind links | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,93 |
| B.G.40 | Wind rechts | Windbelasting | - | | N.v.t. | N.v.t. | | 0.20 | | 0,93 |

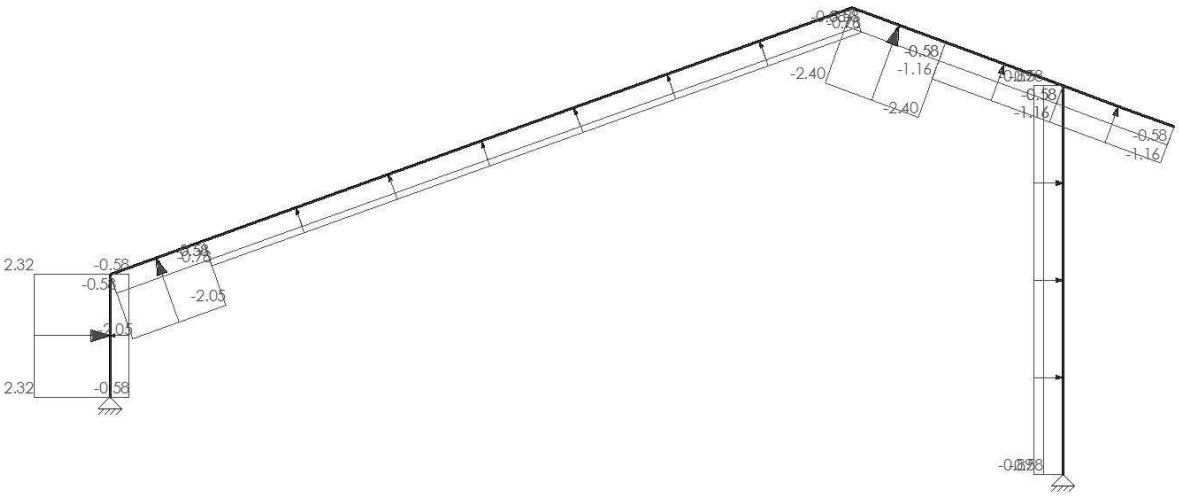
## B.G.1: PERMANENTE BELASTING

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.1: Permanente Belasting** | | | | | | |
| qG | 0,36 (1.00x) | 0,36 (1.00x) | 0,000 | 2,200(L) | Z' | S1 |
| qG | 0,36 (1.00x) | 0,36 (1.00x) | 0,000 | 14,234(L) | Z' | S2 |
| qG | 0,57 (1.00x) | 0,57 (1.00x) | 0,000 | 7,000(L) | Z' | S3 |
| qG | 0,42 (1.00x) | 0,42 (1.00x) | 0,000 | 4,050(L) | Z' | S4 |
| qG | 0,42 (1.00x) | 0,42 (1.00x) | 0,000 | 2,131(L) | Z' | S5 |
| q | 1,19 (q1) | 1,19 (q1) | 0,000 | 14,234(L) | Z' | S2,S4-S5 |
| **Som lasten** | **X: 0,00** | **kN Z: 36,79** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **-** | **-** |



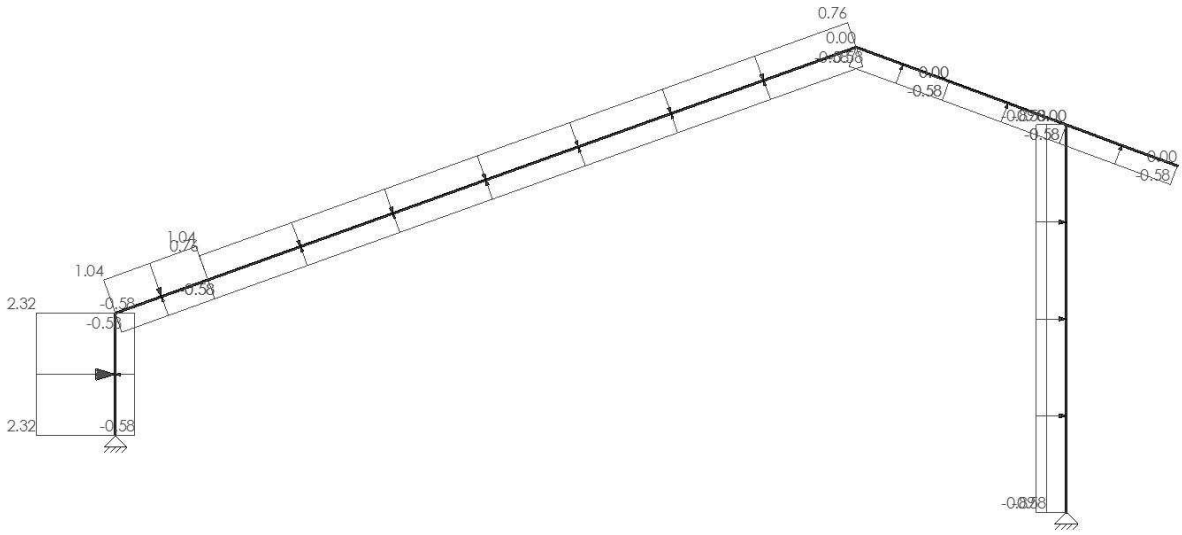

## B.G.2: WINDBELASTING VAN LINKS + OVERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.2: Windbelasting van Links + Overdruk** | | | | | | |
| q | 2,32 (q3) | 2,32 (q3) | 0,000 | 2,200(L) | Z' | S1 |
| q | -0,58 (-q2) | -0,58 (-q2) | 0,000 | 2,200(L) | Z' | S1,S3,S5 |
| q | -2,05 (q5) | -2,05 (q5) | 0,000 | 1,785 | Z' | S2 |
| q | -0,58 (-q2) | -0,58 (-q2) | 0,000 | 1,785 | Z' | S2 |
| q | -0,78 (q6) | -0,78 (q6) | 1,785 | 14,234(L) | Z' | S2 |
| q | -0,58 (-q2) | -0,58 (-q2) | 1,785 | 14,234(L) | Z' | S2 |
| q | -0,89 (q8) | -0,89 (q8) | 0,000 | 7,000(L) | Z' | S3 |
| q | -2,40 (q9) | -2,40 (q9) | 0,000 | 1,790 | Z' | S4 |
| q | -0,58 (-q2) | -0,58 (-q2) | 0,000 | 1,790 | Z' | S4 |
| q | -1,16 (q10) | -1,16 (q10) | 1,790 | 4,050(L) | Z' | S4 |
| q | -0,58 (-q2) | -0,58 (-q2) | 1,790 | 4,050(L) | Z' | S4 |
| q | -1,16 (q11) | -1,16 (q11) | 0,000 | 2,131(L) | Z' | S5 |
| **Som lasten** | **X: 11,29** | **kN Z: -32,55** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **-** | **-** |



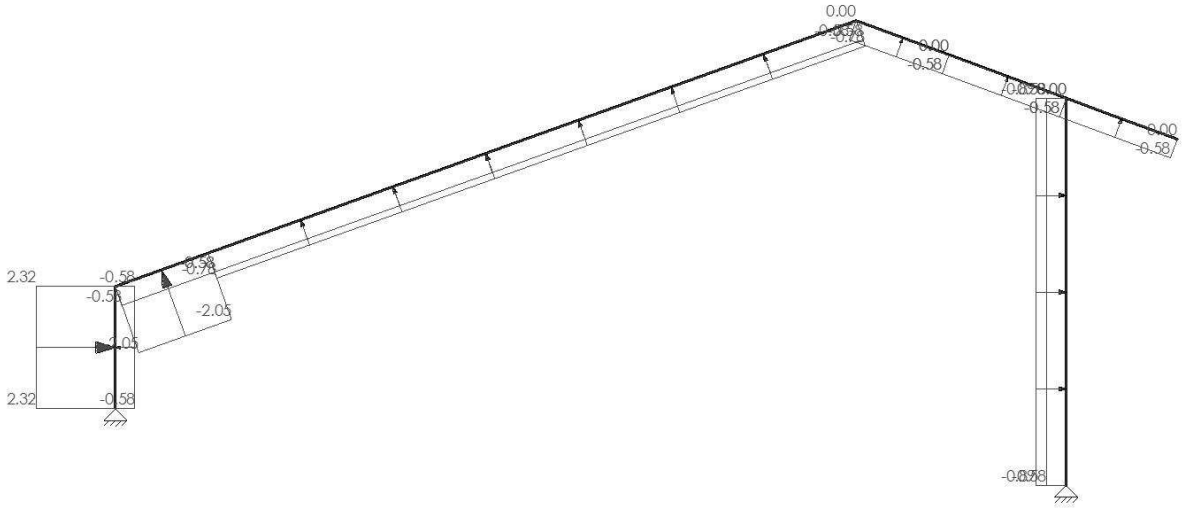

## B.G.3: WINDBELASTING VAN LINKS + OVERDRUK (2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.3: Windbelasting van Links + Overdruk (2e Cpe)** | | | | | | |
| q | 2,32 (q13) | 2,32 (q13) | 0,000 | 2,200(L) | Z' | S1 |
| q | -0,58 (-q12) | -0,58 (-q12) | 0,000 | 2,200(L) | Z' | S1,S3,S5 |
| q | 1,04 (q15) | 1,04 (q15) | 0,000 | 1,785 | Z' | S2 |
| q | -0,58 (-q12) | -0,58 (-q12) | 0,000 | 1,785 | Z' | S2 |
| q | 0,76 (q16) | 0,76 (q16) | 1,785 | 14,234(L) | Z' | S2 |
| q | -0,58 (-q12) | -0,58 (-q12) | 1,785 | 14,234(L) | Z' | S2 |
| q | -0,89 (q18) | -0,89 (q18) | 0,000 | 7,000(L) | Z' | S3 |
| q | 0,00 (q19) | 0,00 (q19) | 0,000 | 1,790 | Z' | S4 |
| q | -0,58 (-q12) | -0,58 (-q12) | 0,000 | 1,790 | Z' | S4 |
| q | 0,00 (q20) | 0,00 (q20) | 1,790 | 4,050(L) | Z' | S4 |
| q | -0,58 (-q12) | -0,58 (-q12) | 1,790 | 4,050(L) | Z' | S4 |
| q | 0,00 (q21) | 0,00 (q21) | 0,000 | 2,131(L) | Z' | S5 |
| **Som lasten** | **X: 16,38** | **kN Z: -0,47** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



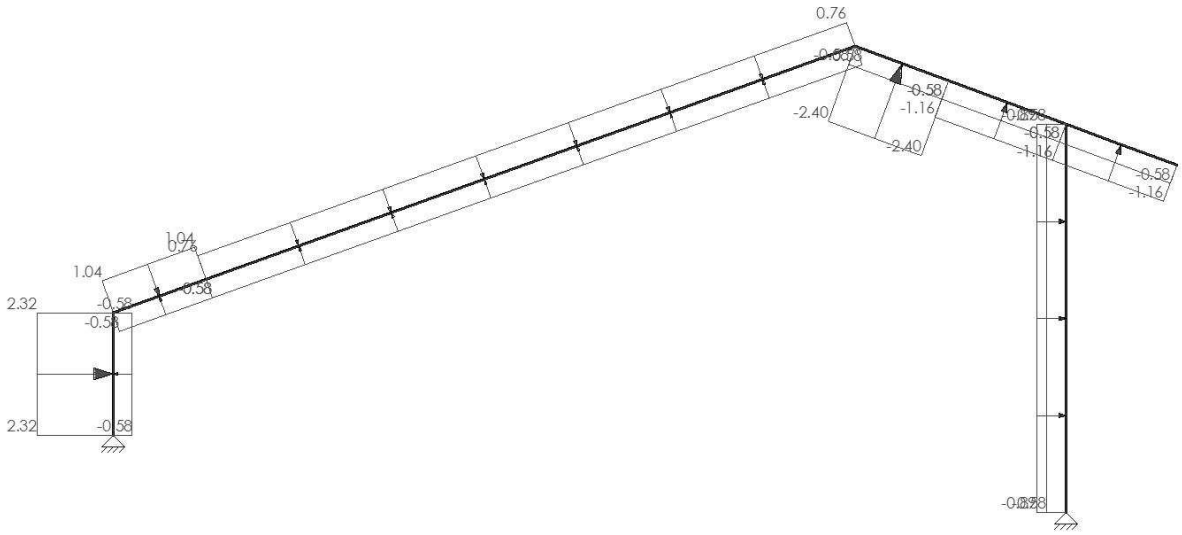

## B.G.4: WINDBELASTING VAN LINKS + OVERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.4: Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe)** | | | | | | |
| q | 2,32 (q3) | 2,32 (q3) | 0,000 | 2,200(L) | Z' | S1 |
| q | -0,58 (-q2) | -0,58 (-q2) | 0,000 | 2,200(L) | Z' | S1,S3,S5 |
| q | -2,05 (q5) | -2,05 (q5) | 0,000 | 1,785 | Z' | S2 |
| q | -0,58 (-q2) | -0,58 (-q2) | 0,000 | 1,785 | Z' | S2 |
| q | -0,78 (q6) | -0,78 (q6) | 1,785 | 14,234(L) | Z' | S2 |
| q | -0,58 (-q2) | -0,58 (-q2) | 1,785 | 14,234(L) | Z' | S2 |
| q | -0,89 (q8) | -0,89 (q8) | 0,000 | 7,000(L) | Z' | S3 |
| q | 0,00 (q19) | 0,00 (q19) | 0,000 | 1,790 | Z' | S4 |
| q | -0,58 (-q2) | -0,58 (-q2) | 0,000 | 1,790 | Z' | S4 |
| q | 0,00 (q20) | 0,00 (q20) | 1,790 | 4,050(L) | Z' | S4 |
| q | -0,58 (-q2) | -0,58 (-q2) | 1,790 | 4,050(L) | Z' | S4 |
| q | 0,00 (q21) | 0,00 (q21) | 0,000 | 2,131(L) | Z' | S5 |
| **Som lasten** | **X: 8,04** | **kN Z: -23,74** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **-** | **-** |



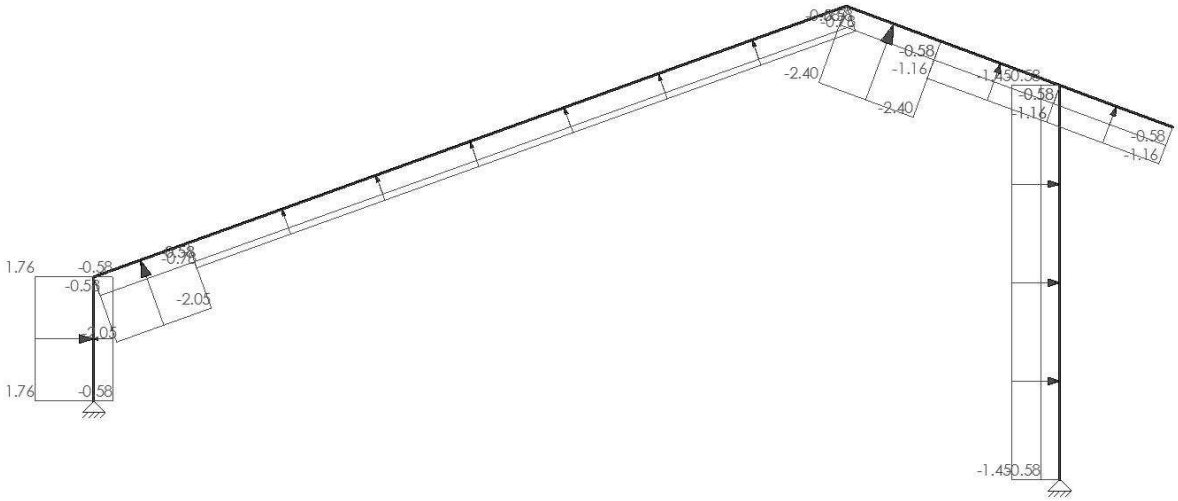

## B.G.5: WINDBELASTING VAN LINKS + OVERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.5: Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe)** | | | | | | |
| q | 2,32 (q3) | 2,32 (q3) | 0,000 | 2,200(L) | Z' | S1 |
| q | -0,58 (-q2) | -0,58 (-q2) | 0,000 | 2,200(L) | Z' | S1,S3,S5 |
| q | 1,04 (q15) | 1,04 (q15) | 0,000 | 1,785 | Z' | S2 |
| q | -0,58 (-q2) | -0,58 (-q2) | 0,000 | 1,785 | Z' | S2 |
| q | 0,76 (q16) | 0,76 (q16) | 1,785 | 14,234(L) | Z' | S2 |
| q | -0,58 (-q2) | -0,58 (-q2) | 1,785 | 14,234(L) | Z' | S2 |
| q | -0,89 (q8) | -0,89 (q8) | 0,000 | 7,000(L) | Z' | S3 |
| q | -2,40 (q9) | -2,40 (q9) | 0,000 | 1,790 | Z' | S4 |
| q | -0,58 (-q2) | -0,58 (-q2) | 0,000 | 1,790 | Z' | S4 |
| q | -1,16 (q10) | -1,16 (q10) | 1,790 | 4,050(L) | Z' | S4 |
| q | -0,58 (-q2) | -0,58 (-q2) | 1,790 | 4,050(L) | Z' | S4 |
| q | -1,16 (q11) | -1,16 (q11) | 0,000 | 2,131(L) | Z' | S5 |
| **Som lasten** | **X: 19,63** | **kN Z: -9,28** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



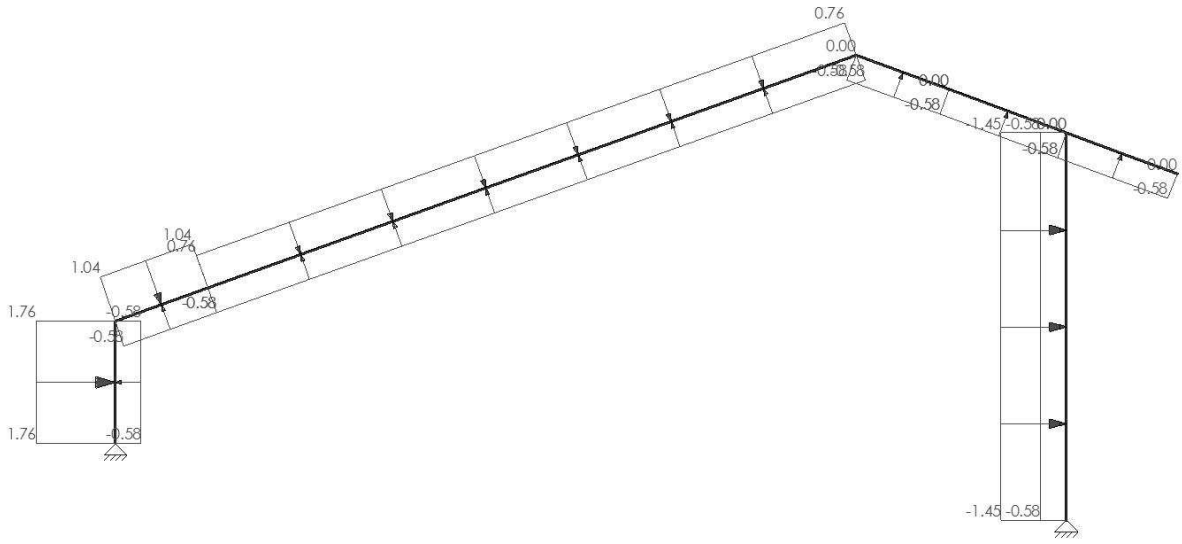

## B.G.6: WINDBELASTING VAN LINKS + OVERDRUK (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.6: Windbelasting van Links + Overdruk (2e corr. factor)** | | | | | | |
| q | 1,76 (q4) | 1,76 (q4) | 0,000 | 2,200(L) | Z' | S1 |
| q | -1,45 (q7) | -1,45 (q7) | 0,000 | 7,000(L) | Z' | S3 |
| q | -0,58 (-q2) | -0,58 (-q2) | 0,000 | 2,200(L) | Z' | S1,S3,S5 |
| q | -2,05 (q5) | -2,05 (q5) | 0,000 | 1,785 | Z' | S2 |
| q | -0,58 (-q2) | -0,58 (-q2) | 0,000 | 1,785 | Z' | S2 |
| q | -0,78 (q6) | -0,78 (q6) | 1,785 | 14,234(L) | Z' | S2 |
| q | -0,58 (-q2) | -0,58 (-q2) | 1,785 | 14,234(L) | Z' | S2 |
| q | -2,40 (q9) | -2,40 (q9) | 0,000 | 1,790 | Z' | S4 |
| q | -0,58 (-q2) | -0,58 (-q2) | 0,000 | 1,790 | Z' | S4 |
| q | -1,16 (q10) | -1,16 (q10) | 1,790 | 4,050(L) | Z' | S4 |
| q | -0,58 (-q2) | -0,58 (-q2) | 1,790 | 4,050(L) | Z' | S4 |
| q | -1,16 (q11) | -1,16 (q11) | 0,000 | 2,131(L) | Z' | S5 |
| **Som lasten** | **X: 14,01** | **kN Z: -32,55** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



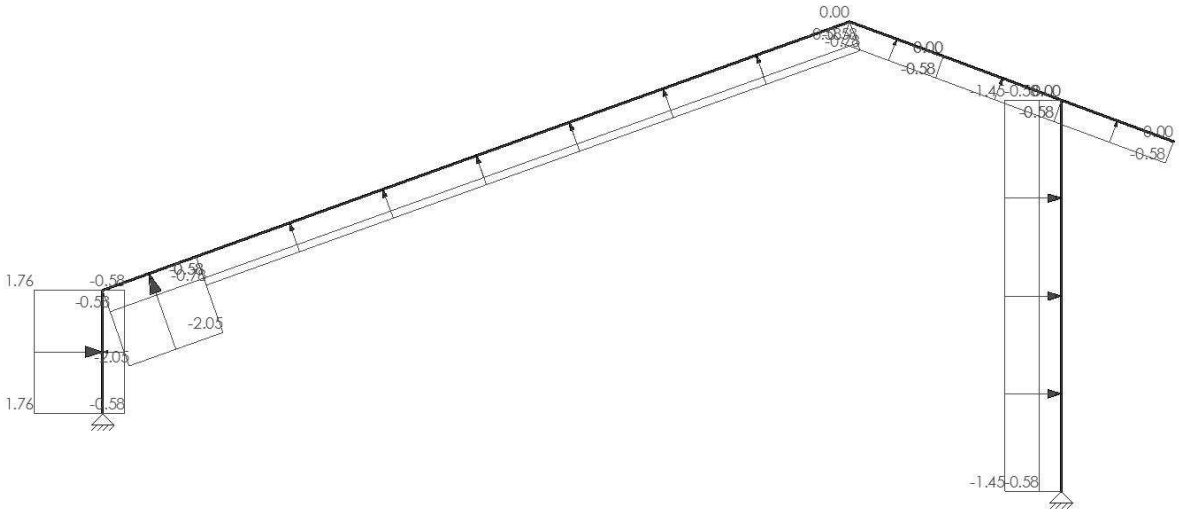

## B.G.7: WINDBELASTING VAN LINKS + OVERDRUK (2E CPE) (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.7: Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor)** | | | | | | |
| q | 1,76 (q14) | 1,76 (q14) | 0,000 | 2,200(L) | Z' | S1 |
| q | -1,45 (q17) | -1,45 (q17) | 0,000 | 7,000(L) | Z' | S3 |
| q | -0,58 (-q12) | -0,58 (-q12) | 0,000 | 2,200(L) | Z' | S1,S3,S5 |
| q | 1,04 (q15) | 1,04 (q15) | 0,000 | 1,785 | Z' | S2 |
| q | -0,58 (-q12) | -0,58 (-q12) | 0,000 | 1,785 | Z' | S2 |
| q | 0,76 (q16) | 0,76 (q16) | 1,785 | 14,234(L) | Z' | S2 |
| q | -0,58 (-q12) | -0,58 (-q12) | 1,785 | 14,234(L) | Z' | S2 |
| q | 0,00 (q19) | 0,00 (q19) | 0,000 | 1,790 | Z' | S4 |
| q | -0,58 (-q12) | -0,58 (-q12) | 0,000 | 1,790 | Z' | S4 |
| q | 0,00 (q20) | 0,00 (q20) | 1,790 | 4,050(L) | Z' | S4 |
| q | -0,58 (-q12) | -0,58 (-q12) | 1,790 | 4,050(L) | Z' | S4 |
| q | 0,00 (q21) | 0,00 (q21) | 0,000 | 2,131(L) | Z' | S5 |
| **Som lasten** | **X: 19,10** | **kN Z: -0,47** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **-** | **-** |



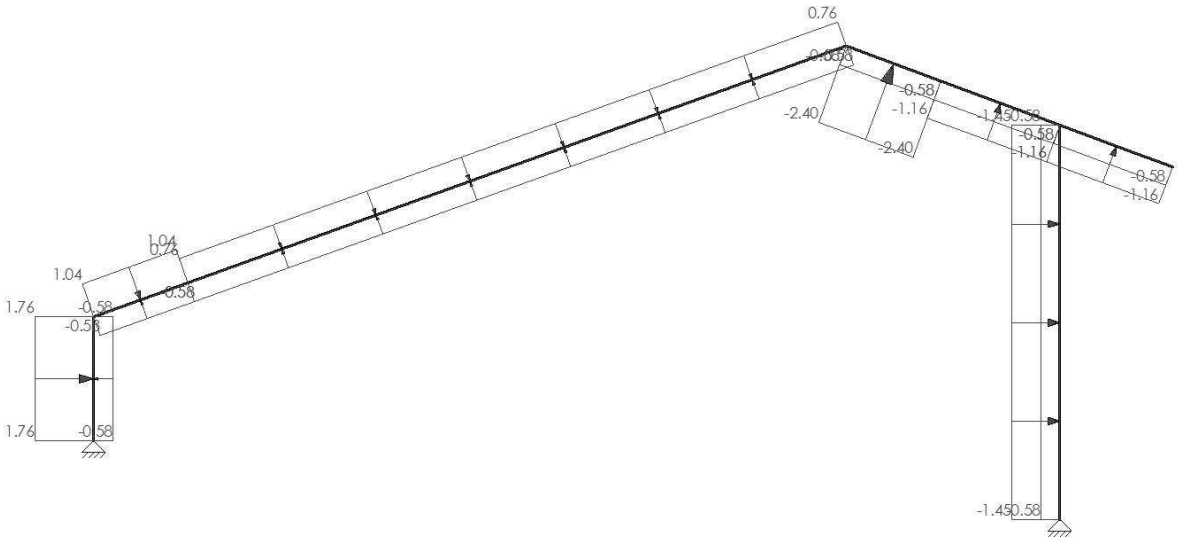

## B.G.8: WINDBELASTING VAN LINKS + OVERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE) (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.8: Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor)** | | | | | | |
| q | 1,76 (q4) | 1,76 (q4) | 0,000 | 2,200(L) | Z' | S1 |
| q | -1,45 (q7) | -1,45 (q7) | 0,000 | 7,000(L) | Z' | S3 |
| q | -0,58 (-q2) | -0,58 (-q2) | 0,000 | 2,200(L) | Z' | S1,S3,S5 |
| q | -2,05 (q5) | -2,05 (q5) | 0,000 | 1,785 | Z' | S2 |
| q | -0,58 (-q2) | -0,58 (-q2) | 0,000 | 1,785 | Z' | S2 |
| q | -0,78 (q6) | -0,78 (q6) | 1,785 | 14,234(L) | Z' | S2 |
| q | -0,58 (-q2) | -0,58 (-q2) | 1,785 | 14,234(L) | Z' | S2 |
| q | 0,00 (q19) | 0,00 (q19) | 0,000 | 1,790 | Z' | S4 |
| q | -0,58 (-q2) | -0,58 (-q2) | 0,000 | 1,790 | Z' | S4 |
| q | 0,00 (q20) | 0,00 (q20) | 1,790 | 4,050(L) | Z' | S4 |
| q | -0,58 (-q2) | -0,58 (-q2) | 1,790 | 4,050(L) | Z' | S4 |
| q | 0,00 (q21) | 0,00 (q21) | 0,000 | 2,131(L) | Z' | S5 |
| **Som lasten** | **X: 10,76** | **kN Z: -23,74** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



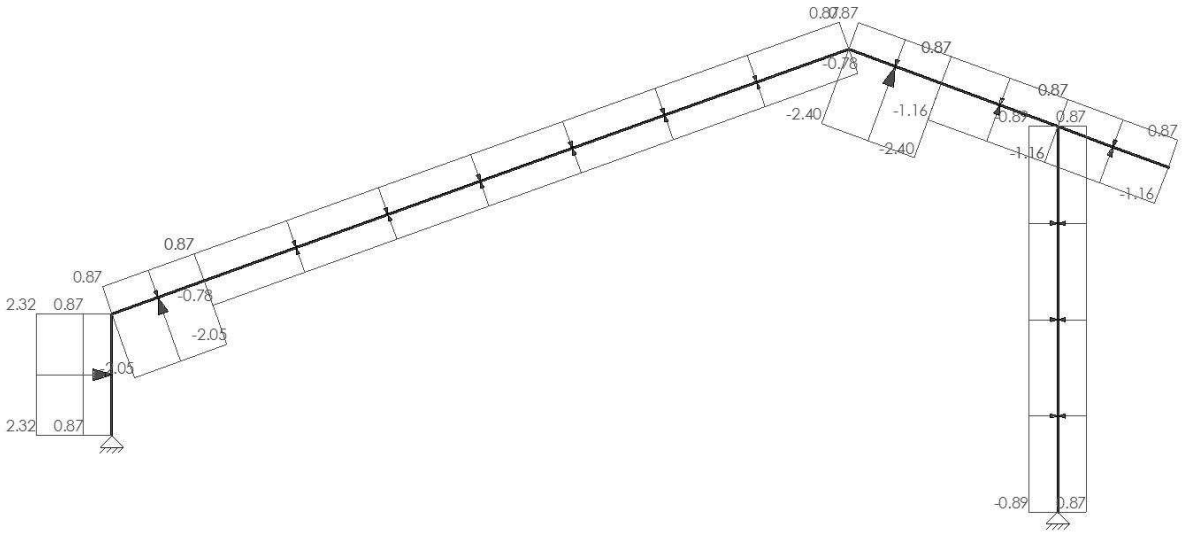

## B.G.9: WINDBELASTING VAN LINKS + OVERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE) (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.9: Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor)** | | | | | | |
| q | 1,76 (q4) | 1,76 (q4) | 0,000 | 2,200(L) | Z' | S1 |
| q | -1,45 (q7) | -1,45 (q7) | 0,000 | 7,000(L) | Z' | S3 |
| q | -0,58 (-q2) | -0,58 (-q2) | 0,000 | 2,200(L) | Z' | S1,S3,S5 |
| q | 1,04 (q15) | 1,04 (q15) | 0,000 | 1,785 | Z' | S2 |
| q | -0,58 (-q2) | -0,58 (-q2) | 0,000 | 1,785 | Z' | S2 |
| q | 0,76 (q16) | 0,76 (q16) | 1,785 | 14,234(L) | Z' | S2 |
| q | -0,58 (-q2) | -0,58 (-q2) | 1,785 | 14,234(L) | Z' | S2 |
| q | -2,40 (q9) | -2,40 (q9) | 0,000 | 1,790 | Z' | S4 |
| q | -0,58 (-q2) | -0,58 (-q2) | 0,000 | 1,790 | Z' | S4 |
| q | -1,16 (q10) | -1,16 (q10) | 1,790 | 4,050(L) | Z' | S4 |
| q | -0,58 (-q2) | -0,58 (-q2) | 1,790 | 4,050(L) | Z' | S4 |
| q | -1,16 (q11) | -1,16 (q11) | 0,000 | 2,131(L) | Z' | S5 |
| **Som lasten** | **X: 22,34** | **kN Z: -9,28** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



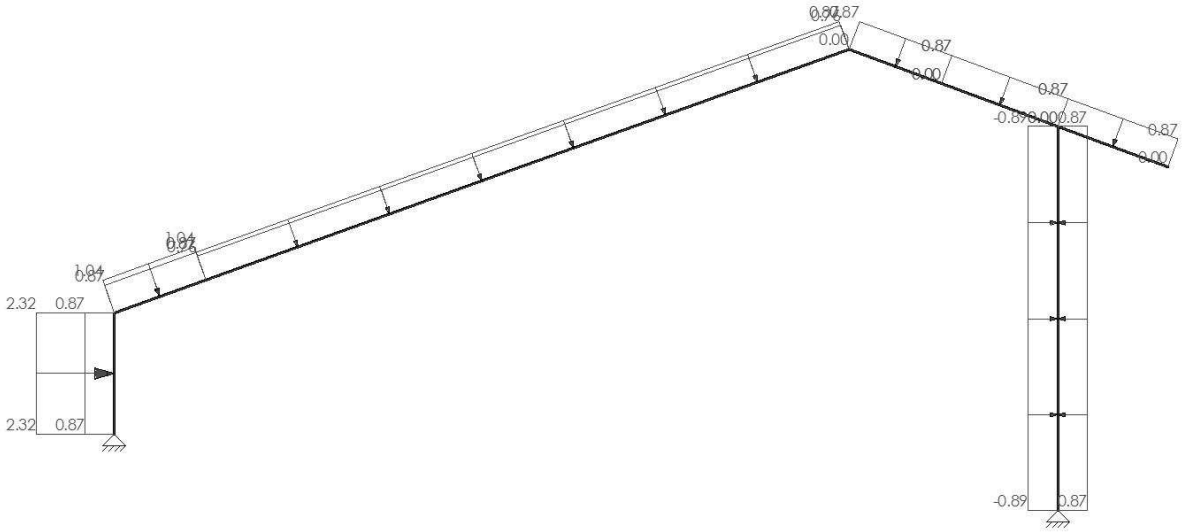

## B.G.10: WINDBELASTING VAN LINKS + ONDERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.10: Windbelasting van Links + Onderdruk** | | | | | | |
| q | 2,32 (q23) | 2,32 (q23) | 0,000 | 2,200(L) | Z' | S1 |
| q | 0,87 (-q22) | 0,87 (-q22) | 0,000 | 2,200(L) | Z' | S1,S3,S5 |
| q | -2,05 (q25) | -2,05 (q25) | 0,000 | 1,785 | Z' | S2 |
| q | 0,87 (-q22) | 0,87 (-q22) | 0,000 | 1,785 | Z' | S2 |
| q | -0,78 (q26) | -0,78 (q26) | 1,785 | 14,234(L) | Z' | S2 |
| q | 0,87 (-q22) | 0,87 (-q22) | 1,785 | 14,234(L) | Z' | S2 |
| q | -0,89 (q28) | -0,89 (q28) | 0,000 | 7,000(L) | Z' | S3 |
| q | -2,40 (q29) | -2,40 (q29) | 0,000 | 1,790 | Z' | S4 |
| q | 0,87 (-q22) | 0,87 (-q22) | 0,000 | 1,790 | Z' | S4 |
| q | -1,16 (q30) | -1,16 (q30) | 1,790 | 4,050(L) | Z' | S4 |
| q | 0,87 (-q22) | 0,87 (-q22) | 1,790 | 4,050(L) | Z' | S4 |
| q | -1,16 (q31) | -1,16 (q31) | 0,000 | 2,131(L) | Z' | S5 |
| **Som lasten** | **X: 8,19** | **kN Z: -4,67** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



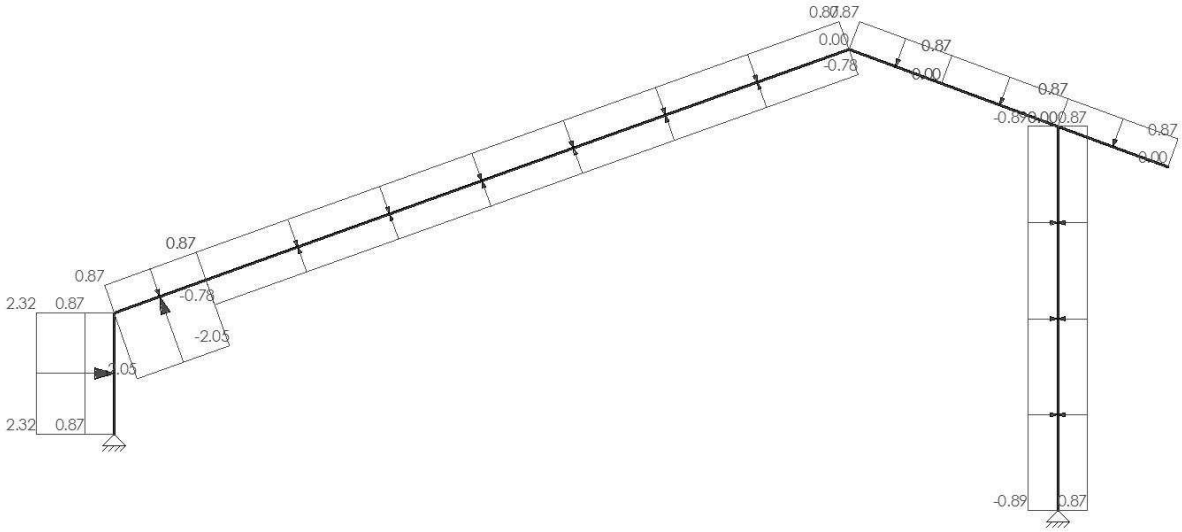

## B.G.11: WINDBELASTING VAN LINKS + ONDERDRUK (2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.11: Windbelasting van Links + Onderdruk (2e Cpe)** | | | | | | |
| q | 2,32 (q33) | 2,32 (q33) | 0,000 | 2,200(L) | Z' | S1 |
| q | 0,87 (-q32) | 0,87 (-q32) | 0,000 | 2,200(L) | Z' | S1,S3,S5 |
| q | 1,04 (q35) | 1,04 (q35) | 0,000 | 1,785 | Z' | S2 |
| q | 0,87 (-q32) | 0,87 (-q32) | 0,000 | 1,785 | Z' | S2 |
| q | 0,76 (q36) | 0,76 (q36) | 1,785 | 14,234(L) | Z' | S2 |
| q | 0,87 (-q32) | 0,87 (-q32) | 1,785 | 14,234(L) | Z' | S2 |
| q | -0,89 (q38) | -0,89 (q38) | 0,000 | 7,000(L) | Z' | S3 |
| q | 0,00 (q39) | 0,00 (q39) | 0,000 | 1,790 | Z' | S4 |
| q | 0,87 (-q32) | 0,87 (-q32) | 0,000 | 1,790 | Z' | S4 |
| q | 0,00 (q40) | 0,00 (q40) | 1,790 | 4,050(L) | Z' | S4 |
| q | 0,87 (-q32) | 0,87 (-q32) | 1,790 | 4,050(L) | Z' | S4 |
| q | 0,00 (q41) | 0,00 (q41) | 0,000 | 2,131(L) | Z' | S5 |
| **Som lasten** | **X: 13,28** | **kN Z: 27,41** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



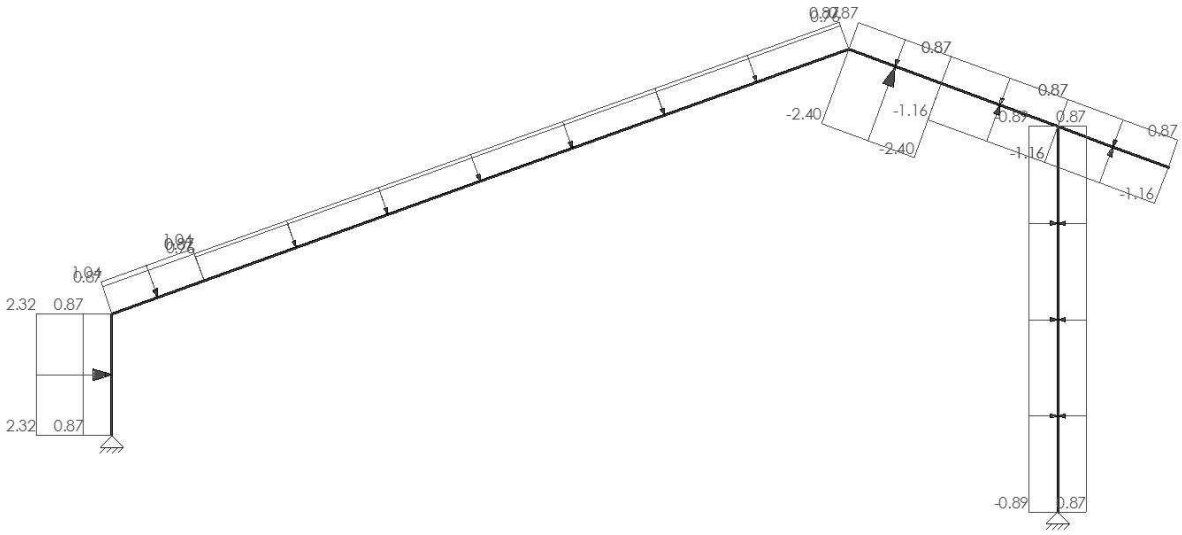

## B.G.12: WINDBELASTING VAN LINKS + ONDERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.12: Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe)** | | | | | | |
| q | 2,32 (q23) | 2,32 (q23) | 0,000 | 2,200(L) | Z' | S1 |
| q | 0,87 (-q22) | 0,87 (-q22) | 0,000 | 2,200(L) | Z' | S1,S3,S5 |
| q | -2,05 (q25) | -2,05 (q25) | 0,000 | 1,785 | Z' | S2 |
| q | 0,87 (-q22) | 0,87 (-q22) | 0,000 | 1,785 | Z' | S2 |
| q | -0,78 (q26) | -0,78 (q26) | 1,785 | 14,234(L) | Z' | S2 |
| q | 0,87 (-q22) | 0,87 (-q22) | 1,785 | 14,234(L) | Z' | S2 |
| q | -0,89 (q28) | -0,89 (q28) | 0,000 | 7,000(L) | Z' | S3 |
| q | 0,00 (q39) | 0,00 (q39) | 0,000 | 1,790 | Z' | S4 |
| q | 0,87 (-q22) | 0,87 (-q22) | 0,000 | 1,790 | Z' | S4 |
| q | 0,00 (q40) | 0,00 (q40) | 1,790 | 4,050(L) | Z' | S4 |
| q | 0,87 (-q22) | 0,87 (-q22) | 1,790 | 4,050(L) | Z' | S4 |
| q | 0,00 (q41) | 0,00 (q41) | 0,000 | 2,131(L) | Z' | S5 |
| **Som lasten** | **X: 4,94** | **kN Z: 4,14** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



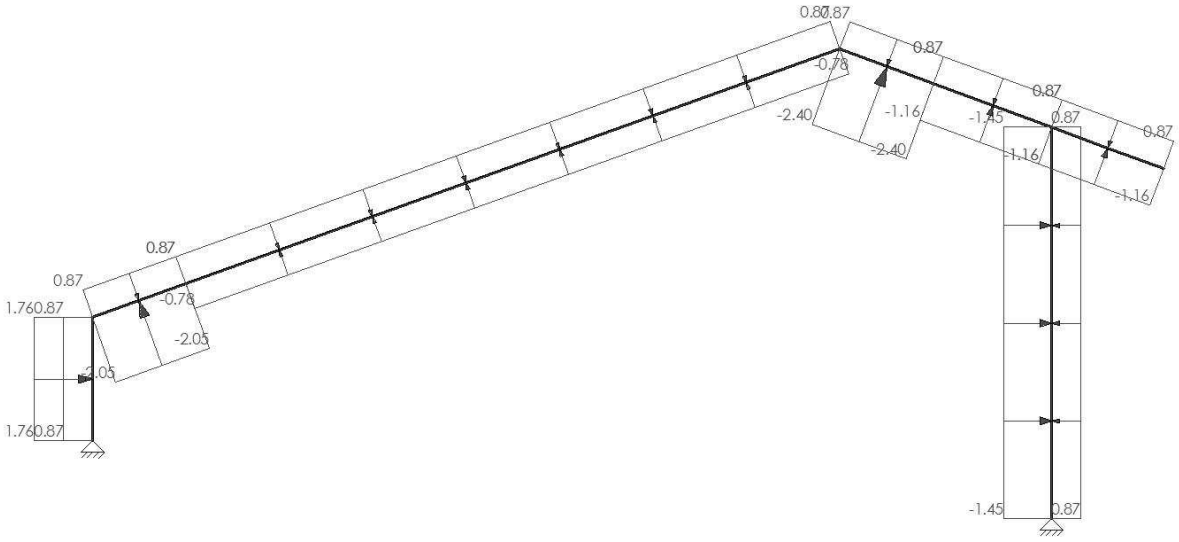

## B.G.13: WINDBELASTING VAN LINKS + ONDERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.13: Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe)** | | | | | | |
| q | 2,32 (q23) | 2,32 (q23) | 0,000 | 2,200(L) | Z' | S1 |
| q | 0,87 (-q22) | 0,87 (-q22) | 0,000 | 2,200(L) | Z' | S1,S3,S5 |
| q | 1,04 (q35) | 1,04 (q35) | 0,000 | 1,785 | Z' | S2 |
| q | 0,87 (-q22) | 0,87 (-q22) | 0,000 | 1,785 | Z' | S2 |
| q | 0,76 (q36) | 0,76 (q36) | 1,785 | 14,234(L) | Z' | S2 |
| q | 0,87 (-q22) | 0,87 (-q22) | 1,785 | 14,234(L) | Z' | S2 |
| q | -0,89 (q28) | -0,89 (q28) | 0,000 | 7,000(L) | Z' | S3 |
| q | -2,40 (q29) | -2,40 (q29) | 0,000 | 1,790 | Z' | S4 |
| q | 0,87 (-q22) | 0,87 (-q22) | 0,000 | 1,790 | Z' | S4 |
| q | -1,16 (q30) | -1,16 (q30) | 1,790 | 4,050(L) | Z' | S4 |
| q | 0,87 (-q22) | 0,87 (-q22) | 1,790 | 4,050(L) | Z' | S4 |
| q | -1,16 (q31) | -1,16 (q31) | 0,000 | 2,131(L) | Z' | S5 |
| **Som lasten** | **X: 16,52** | **kN Z: 18,60** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



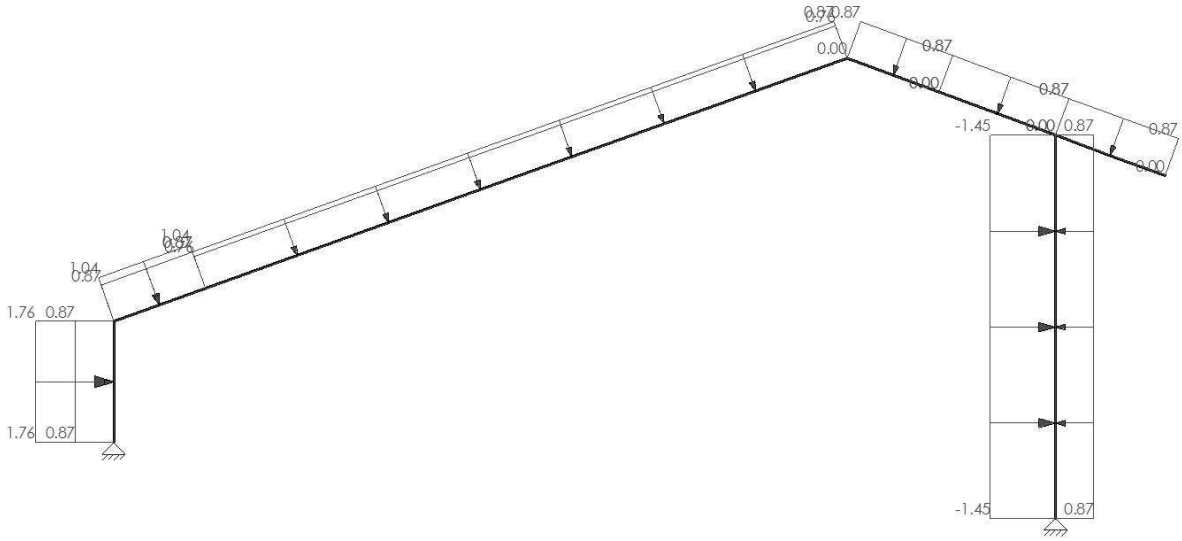

## B.G.14: WINDBELASTING VAN LINKS + ONDERDRUK (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.14: Windbelasting van Links + Onderdruk (2e corr. factor)** | | | | | | |
| q | 1,76 (q24) | 1,76 (q24) | 0,000 | 2,200(L) | Z' | S1 |
| q | -1,45 (q27) | -1,45 (q27) | 0,000 | 7,000(L) | Z' | S3 |
| q | 0,87 (-q22) | 0,87 (-q22) | 0,000 | 2,200(L) | Z' | S1,S3,S5 |
| q | -2,05 (q25) | -2,05 (q25) | 0,000 | 1,785 | Z' | S2 |
| q | 0,87 (-q22) | 0,87 (-q22) | 0,000 | 1,785 | Z' | S2 |
| q | -0,78 (q26) | -0,78 (q26) | 1,785 | 14,234(L) | Z' | S2 |
| q | 0,87 (-q22) | 0,87 (-q22) | 1,785 | 14,234(L) | Z' | S2 |
| q | -2,40 (q29) | -2,40 (q29) | 0,000 | 1,790 | Z' | S4 |
| q | 0,87 (-q22) | 0,87 (-q22) | 0,000 | 1,790 | Z' | S4 |
| q | -1,16 (q30) | -1,16 (q30) | 1,790 | 4,050(L) | Z' | S4 |
| q | 0,87 (-q22) | 0,87 (-q22) | 1,790 | 4,050(L) | Z' | S4 |
| q | -1,16 (q31) | -1,16 (q31) | 0,000 | 2,131(L) | Z' | S5 |
| **Som lasten** | **X: 10,91** | **kN Z: -4,67** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



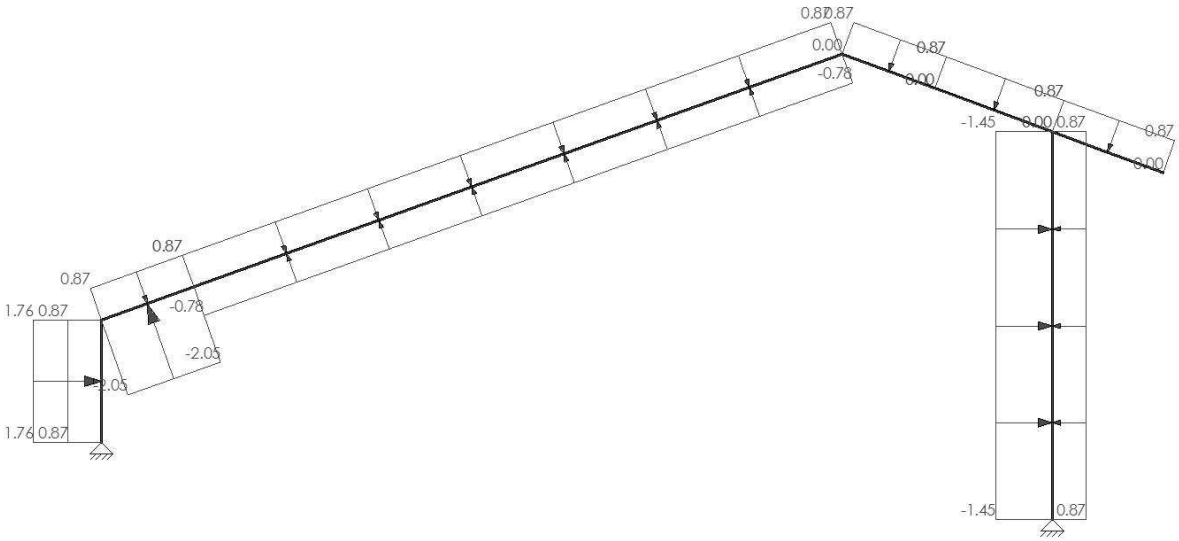

## B.G.15: WINDBELASTING VAN LINKS + ONDERDRUK (2E CPE) (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.15: Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor)** | | | | | | |
| q | 1,76 (q34) | 1,76 (q34) | 0,000 | 2,200(L) | Z' | S1 |
| q | -1,45 (q37) | -1,45 (q37) | 0,000 | 7,000(L) | Z' | S3 |
| q | 0,87 (-q32) | 0,87 (-q32) | 0,000 | 2,200(L) | Z' | S1,S3,S5 |
| q | 1,04 (q35) | 1,04 (q35) | 0,000 | 1,785 | Z' | S2 |
| q | 0,87 (-q32) | 0,87 (-q32) | 0,000 | 1,785 | Z' | S2 |
| q | 0,76 (q36) | 0,76 (q36) | 1,785 | 14,234(L) | Z' | S2 |
| q | 0,87 (-q32) | 0,87 (-q32) | 1,785 | 14,234(L) | Z' | S2 |
| q | 0,00 (q39) | 0,00 (q39) | 0,000 | 1,790 | Z' | S4 |
| q | 0,87 (-q32) | 0,87 (-q32) | 0,000 | 1,790 | Z' | S4 |
| q | 0,00 (q40) | 0,00 (q40) | 1,790 | 4,050(L) | Z' | S4 |
| q | 0,87 (-q32) | 0,87 (-q32) | 1,790 | 4,050(L) | Z' | S4 |
| q | 0,00 (q41) | 0,00 (q41) | 0,000 | 2,131(L) | Z' | S5 |
| **Som lasten** | **X: 16,00** | **kN Z: 27,41** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



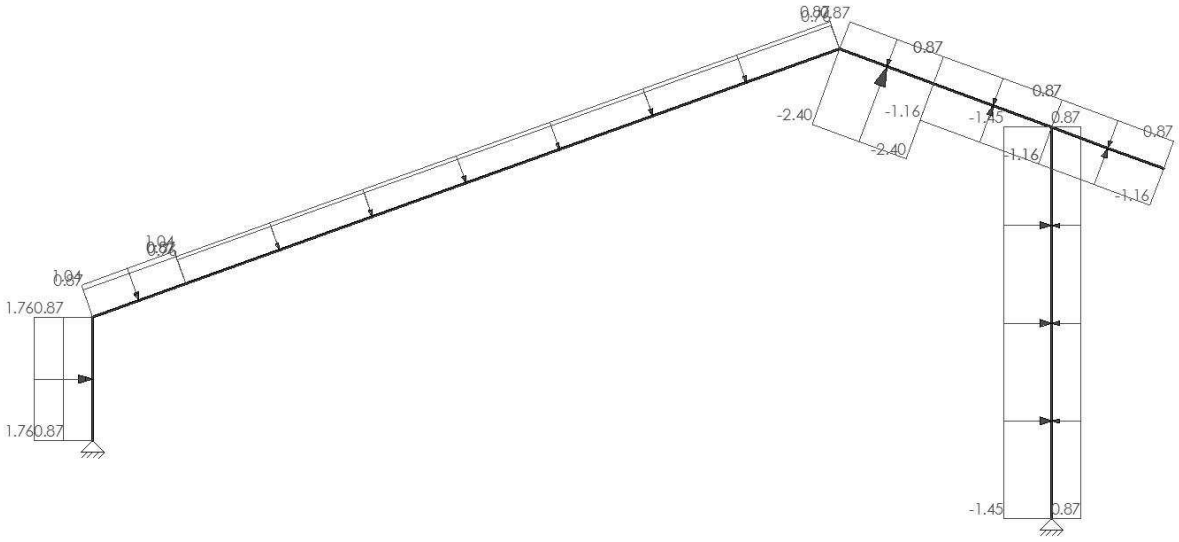

## B.G.16: WINDBELASTING VAN LINKS + ONDERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE) (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.16: Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor)** | | | | | | |
| q | 1,76 (q24) | 1,76 (q24) | 0,000 | 2,200(L) | Z' | S1 |
| q | -1,45 (q27) | -1,45 (q27) | 0,000 | 7,000(L) | Z' | S3 |
| q | 0,87 (-q22) | 0,87 (-q22) | 0,000 | 2,200(L) | Z' | S1,S3,S5 |
| q | -2,05 (q25) | -2,05 (q25) | 0,000 | 1,785 | Z' | S2 |
| q | 0,87 (-q22) | 0,87 (-q22) | 0,000 | 1,785 | Z' | S2 |
| q | -0,78 (q26) | -0,78 (q26) | 1,785 | 14,234(L) | Z' | S2 |
| q | 0,87 (-q22) | 0,87 (-q22) | 1,785 | 14,234(L) | Z' | S2 |
| q | 0,00 (q39) | 0,00 (q39) | 0,000 | 1,790 | Z' | S4 |
| q | 0,87 (-q22) | 0,87 (-q22) | 0,000 | 1,790 | Z' | S4 |
| q | 0,00 (q40) | 0,00 (q40) | 1,790 | 4,050(L) | Z' | S4 |
| q | 0,87 (-q22) | 0,87 (-q22) | 1,790 | 4,050(L) | Z' | S4 |
| q | 0,00 (q41) | 0,00 (q41) | 0,000 | 2,131(L) | Z' | S5 |
| **Som lasten** | **X: 7,66** | **kN Z: 4,14** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



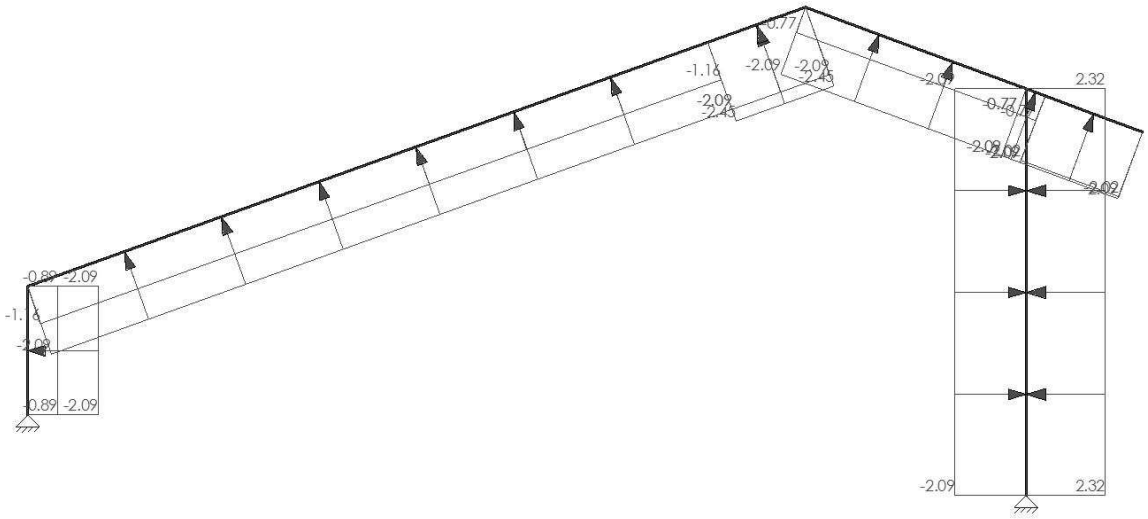

## B.G.17: WINDBELASTING VAN LINKS + ONDERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE) (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.17: Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor)** | | | | | | |
| q | 1,76 (q24) | 1,76 (q24) | 0,000 | 2,200(L) | Z' | S1 |
| q | -1,45 (q27) | -1,45 (q27) | 0,000 | 7,000(L) | Z' | S3 |
| q | 0,87 (-q22) | 0,87 (-q22) | 0,000 | 2,200(L) | Z' | S1,S3,S5 |
| q | 1,04 (q35) | 1,04 (q35) | 0,000 | 1,785 | Z' | S2 |
| q | 0,87 (-q22) | 0,87 (-q22) | 0,000 | 1,785 | Z' | S2 |
| q | 0,76 (q36) | 0,76 (q36) | 1,785 | 14,234(L) | Z' | S2 |
| q | 0,87 (-q22) | 0,87 (-q22) | 1,785 | 14,234(L) | Z' | S2 |
| q | -2,40 (q29) | -2,40 (q29) | 0,000 | 1,790 | Z' | S4 |
| q | 0,87 (-q22) | 0,87 (-q22) | 0,000 | 1,790 | Z' | S4 |
| q | -1,16 (q30) | -1,16 (q30) | 1,790 | 4,050(L) | Z' | S4 |
| q | 0,87 (-q22) | 0,87 (-q22) | 1,790 | 4,050(L) | Z' | S4 |
| q | -1,16 (q31) | -1,16 (q31) | 0,000 | 2,131(L) | Z' | S5 |
| **Som lasten** | **X: 19,24** | **kN Z: 18,60** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



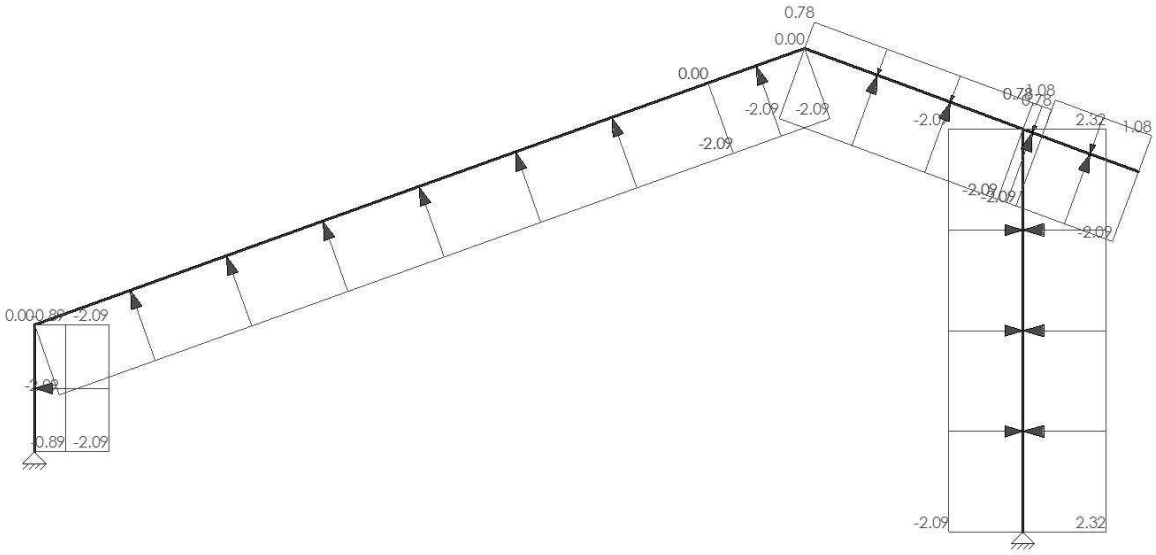

## B.G.18: WINDBELASTING VAN RECHTS + OVERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.18: Windbelasting van Rechts + Overdruk** | | | | | | |
| q | -0,89 (q44) | -0,89 (q44) | 0,000 | 2,200(L) | Z' | S1 |
| q | -2,09 (-q42) | -2,09 (-q42) | 0,000 | 2,200(L) | Z' | S1,S3-S4 |
| q | -1,16 (q46) | -1,16 (q46) | 0,000 | 12,449 | Z' | S2 |
| q | -2,09 (-q42) | -2,09 (-q42) | 0,000 | 12,449 | Z' | S2 |
| q | -2,45 (q47) | -2,45 (q47) | 12,449 | 14,234(L) | Z' | S2 |
| q | -2,09 (-q42) | -2,09 (-q42) | 12,449 | 14,234(L) | Z' | S2 |
| q | 2,32 (q48) | 2,32 (q48) | 0,000 | 7,000(L) | Z' | S3 |
| q | -0,77 (q49) | -0,77 (q49) | 0,000 | 4,050(L) | Z' | S4 |
| q | -0,77 (q50) | -0,77 (q50) | 0,000 | 0,341 | Z' | S5 |
| q | -2,09 (-q42) | -2,09 (-q42) | 0,000 | 0,341 | Z' | S5 |
| q | -2,02 (q51) | -2,02 (q51) | 0,341 | 2,131(L) | Z' | S5 |
| q | -2,09 (-q42) | -2,09 (-q42) | 0,341 | 2,131(L) | Z' | S5 |
| **Som lasten** | **X: -17,68** | **kN Z: -64,44** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **-** | **-** |



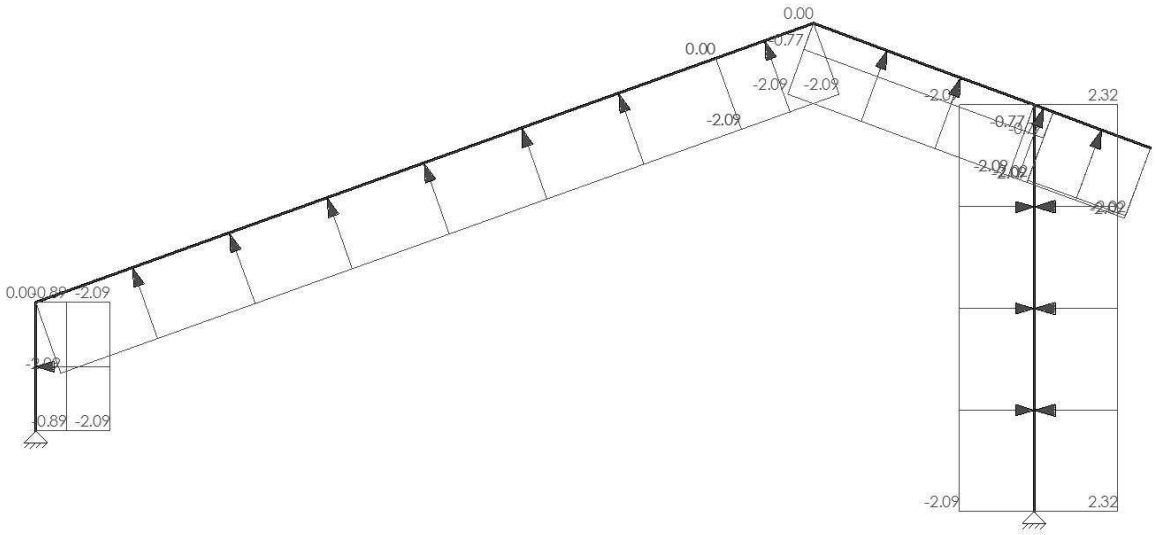

## B.G.19: WINDBELASTING VAN RECHTS + OVERDRUK (2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.19: Windbelasting van Rechts + Overdruk (2e Cpe)** | | | | | | |
| q | -0,89 (q54) | -0,89 (q54) | 0,000 | 2,200(L) | Z' | S1 |
| q | -2,09 (-q52) | -2,09 (-q52) | 0,000 | 2,200(L) | Z' | S1,S3-S4 |
| q | 0,00 (q56) | 0,00 (q56) | 0,000 | 12,449 | Z' | S2 |
| q | -2,09 (-q52) | -2,09 (-q52) | 0,000 | 12,449 | Z' | S2 |
| q | 0,00 (q57) | 0,00 (q57) | 12,449 | 14,234(L) | Z' | S2 |
| q | -2,09 (-q52) | -2,09 (-q52) | 12,449 | 14,234(L) | Z' | S2 |
| q | 2,32 (q58) | 2,32 (q58) | 0,000 | 7,000(L) | Z' | S3 |
| q | 0,78 (q59) | 0,78 (q59) | 0,000 | 4,050(L) | Z' | S4 |
| q | 0,78 (q60) | 0,78 (q60) | 0,000 | 0,341 | Z' | S5 |
| q | -2,09 (-q52) | -2,09 (-q52) | 0,000 | 0,341 | Z' | S5 |
| q | 1,08 (q61) | 1,08 (q61) | 0,341 | 2,131(L) | Z' | S5 |
| q | -2,09 (-q52) | -2,09 (-q52) | 0,341 | 2,131(L) | Z' | S5 |
| **Som lasten** | **X: -15,60** | **kN Z: -35,10** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **-** | **-** |



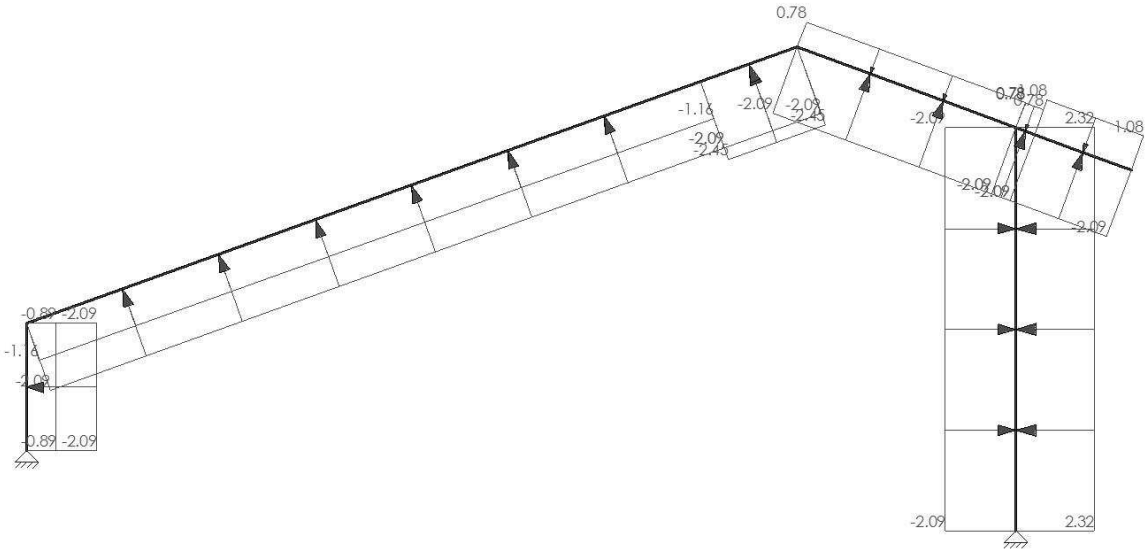

## B.G.20: WINDBELASTING VAN RECHTS + OVERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE)

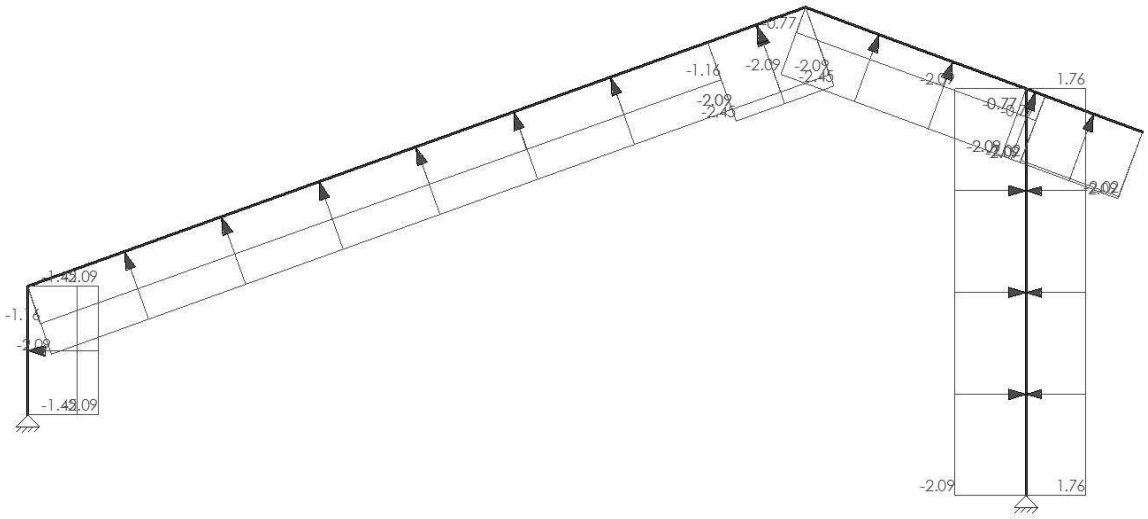
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.20: Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe)** | | | | | | |
| q | -0,89 (q44) | -0,89 (q44) | 0,000 | 2,200(L) | Z' | S1 |
| q | -2,09 (-q42) | -2,09 (-q42) | 0,000 | 2,200(L) | Z' | S1,S3-S4 |
| q | 0,00 (q56) | 0,00 (q56) | 0,000 | 12,449 | Z' | S2 |
| q | -2,09 (-q42) | -2,09 (-q42) | 0,000 | 12,449 | Z' | S2 |
| q | 0,00 (q57) | 0,00 (q57) | 12,449 | 14,234(L) | Z' | S2 |
| q | -2,09 (-q42) | -2,09 (-q42) | 12,449 | 14,234(L) | Z' | S2 |
| q | 2,32 (q48) | 2,32 (q48) | 0,000 | 7,000(L) | Z' | S3 |
| q | -0,77 (q49) | -0,77 (q49) | 0,000 | 4,050(L) | Z' | S4 |
| q | -0,77 (q50) | -0,77 (q50) | 0,000 | 0,341 | Z' | S5 |
| q | -2,09 (-q42) | -2,09 (-q42) | 0,000 | 0,341 | Z' | S5 |
| q | -2,02 (q51) | -2,02 (q51) | 0,341 | 2,131(L) | Z' | S5 |
| q | -2,09 (-q42) | -2,09 (-q42) | 0,341 | 2,131(L) | Z' | S5 |
| **Som lasten** | **X: -11,33** | **kN Z: -46,71** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |




## B.G.21: WINDBELASTING VAN RECHTS + OVERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE)

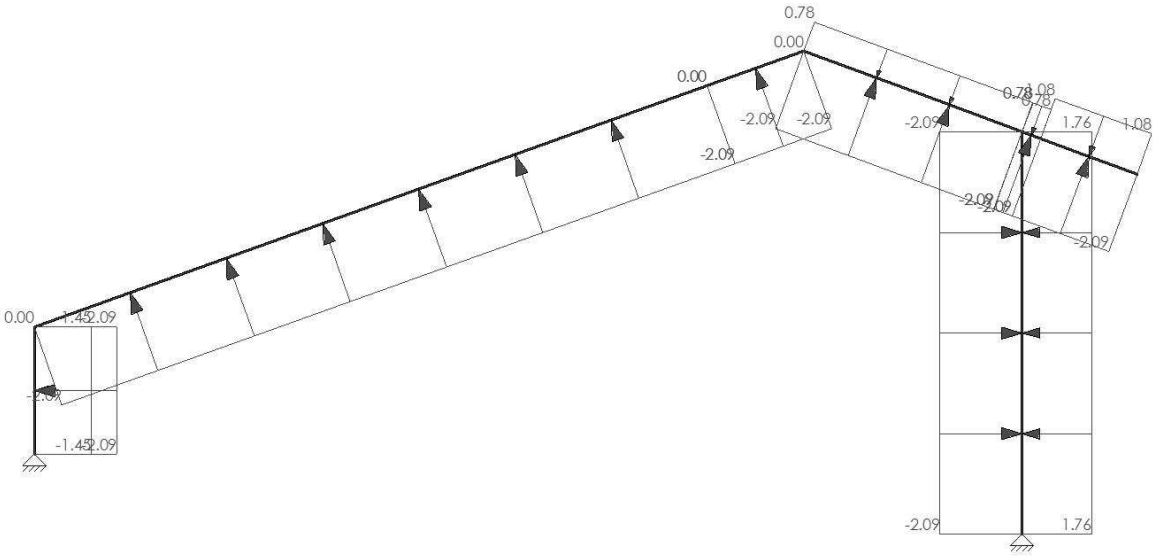
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.21: Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe)** | | | | | | |
| q | -0,89 (q44) | -0,89 (q44) | 0,000 | 2,200(L) | Z' | S1 |
| q | -2,09 (-q42) | -2,09 (-q42) | 0,000 | 2,200(L) | Z' | S1,S3-S4 |
| q | -1,16 (q46) | -1,16 (q46) | 0,000 | 12,449 | Z' | S2 |
| q | -2,09 (-q42) | -2,09 (-q42) | 0,000 | 12,449 | Z' | S2 |
| q | -2,45 (q47) | -2,45 (q47) | 12,449 | 14,234(L) | Z' | S2 |
| q | -2,09 (-q42) | -2,09 (-q42) | 12,449 | 14,234(L) | Z' | S2 |
| q | 2,32 (q48) | 2,32 (q48) | 0,000 | 7,000(L) | Z' | S3 |
| q | 0,78 (q59) | 0,78 (q59) | 0,000 | 4,050(L) | Z' | S4 |
| q | 0,78 (q60) | 0,78 (q60) | 0,000 | 0,341 | Z' | S5 |
| q | -2,09 (-q42) | -2,09 (-q42) | 0,000 | 0,341 | Z' | S5 |
| q | 1,08 (q61) | 1,08 (q61) | 0,341 | 2,131(L) | Z' | S5 |
| q | -2,09 (-q42) | -2,09 (-q42) | 0,341 | 2,131(L) | Z' | S5 |
| **Som lasten** | **X: -21,95** | **kN Z: -52,82** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **-** | **-** |


0.78
-1.16
-2.09
-2.45
-2.09
-2.09
-2.09



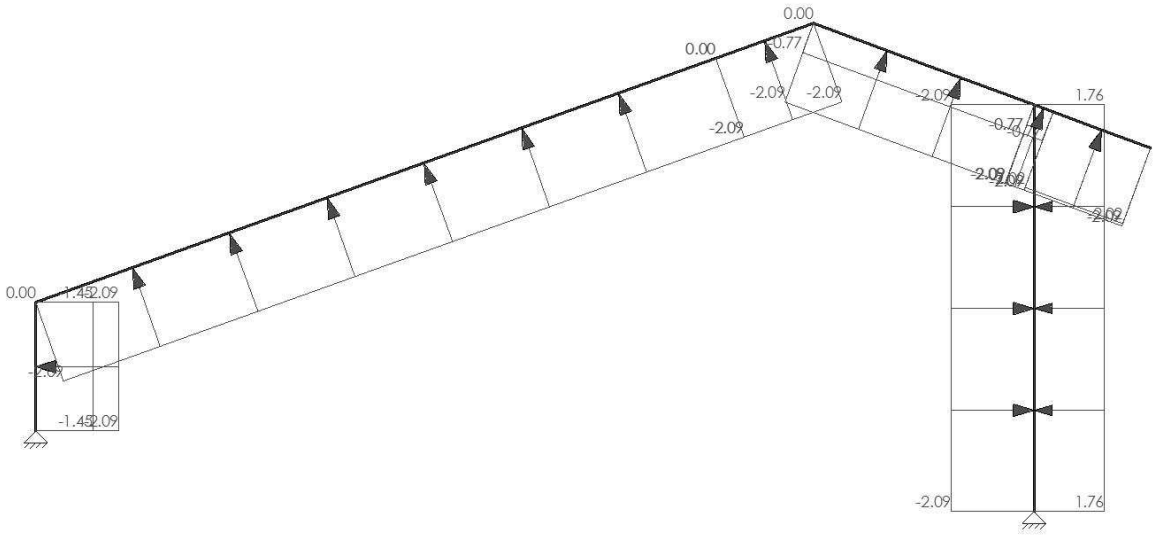

## B.G.23: WINDBELASTING VAN RECHTS + OVERDRUK (2E CPE) (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.23: Windbelasting van Rechts + Overdruk (2e Cpe) (2e corr. factor)** | | | | | | |
| q | -1,45 (q53) | -1,45 (q53) | 0,000 | 2,200(L) | Z' | S1 |
| q | 1,76 (q55) | 1,76 (q55) | 0,000 | 7,000(L) | Z' | S3 |
| q | -2,09 (-q52) | -2,09 (-q52) | 0,000 | 2,200(L) | Z' | S1,S3-S4 |
| q | 0,00 (q56) | 0,00 (q56) | 0,000 | 12,449 | Z' | S2 |
| q | -2,09 (-q52) | -2,09 (-q52) | 0,000 | 12,449 | Z' | S2 |
| q | 0,00 (q57) | 0,00 (q57) | 12,449 | 14,234(L) | Z' | S2 |
| q | -2,09 (-q52) | -2,09 (-q52) | 12,449 | 14,234(L) | Z' | S2 |
| q | 0,78 (q59) | 0,78 (q59) | 0,000 | 4,050(L) | Z' | S4 |
| q | 0,78 (q60) | 0,78 (q60) | 0,000 | 0,341 | Z' | S5 |
| q | -2,09 (-q52) | -2,09 (-q52) | 0,000 | 0,341 | Z' | S5 |
| q | 1,08 (q61) | 1,08 (q61) | 0,341 | 2,131(L) | Z' | S5 |
| q | -2,09 (-q52) | -2,09 (-q52) | 0,341 | 2,131(L) | Z' | S5 |
| **Som lasten** | **X: -12,88** | **kN Z: -35,10** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **-** | **-** |



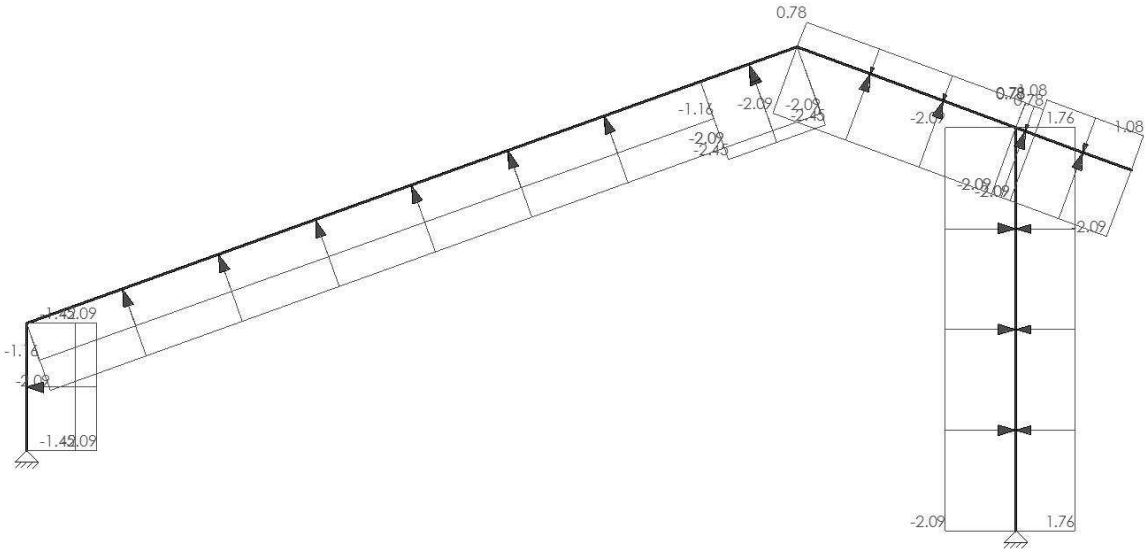

## B.G.24: WINDBELASTING VAN RECHTS + OVERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE) (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.24: Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor)** | | | | | | |
| q | -1,45 (q43) | -1,45 (q43) | 0,000 | 2,200(L) | Z' | S1 |
| q | 1,76 (q45) | 1,76 (q45) | 0,000 | 7,000(L) | Z' | S3 |
| q | -2,09 (-q42) | -2,09 (-q42) | 0,000 | 2,200(L) | Z' | S1,S3-S4 |
| q | 0,00 (q56) | 0,00 (q56) | 0,000 | 12,449 | Z' | S2 |
| q | -2,09 (-q42) | -2,09 (-q42) | 0,000 | 12,449 | Z' | S2 |
| q | 0,00 (q57) | 0,00 (q57) | 12,449 | 14,234(L) | Z' | S2 |
| q | -2,09 (-q42) | -2,09 (-q42) | 12,449 | 14,234(L) | Z' | S2 |
| q | -0,77 (q49) | -0,77 (q49) | 0,000 | 4,050(L) | Z' | S4 |
| q | -0,77 (q50) | -0,77 (q50) | 0,000 | 0,341 | Z' | S5 |
| q | -2,09 (-q42) | -2,09 (-q42) | 0,000 | 0,341 | Z' | S5 |
| q | -2,02 (q51) | -2,02 (q51) | 0,341 | 2,131(L) | Z' | S5 |
| q | -2,09 (-q42) | -2,09 (-q42) | 0,341 | 2,131(L) | Z' | S5 |
| **Som lasten** | **X: -8,61** | **kN Z: -46,71** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



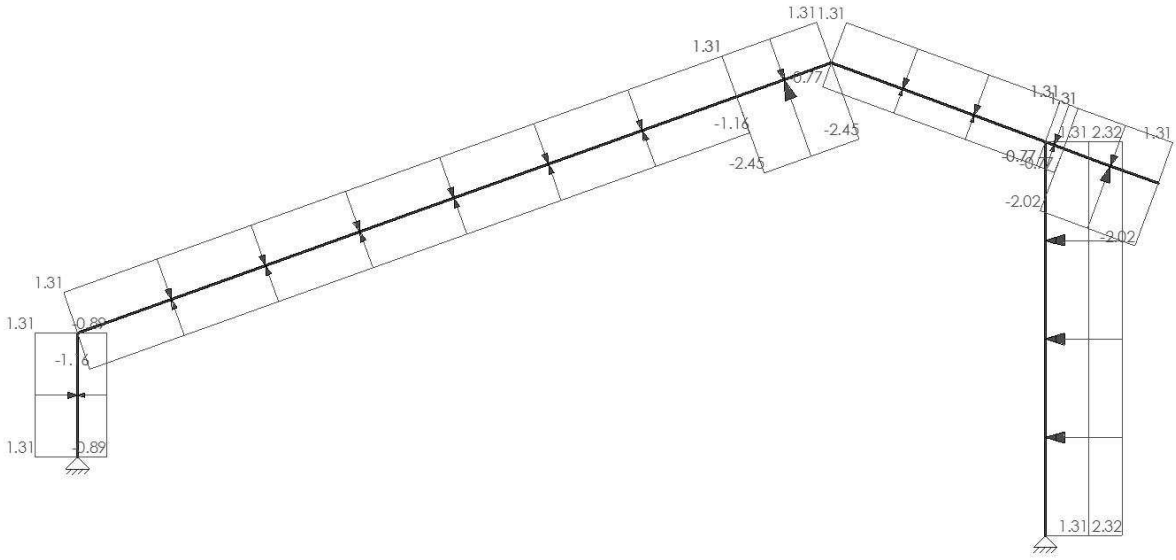

## B.G.25: WINDBELASTING VAN RECHTS + OVERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE) (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.25: Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor)** | | | | | | |
| q | -1,45 (q43) | -1,45 (q43) | 0,000 | 2,200(L) | Z' | S1 |
| q | 1,76 (q45) | 1,76 (q45) | 0,000 | 7,000(L) | Z' | S3 |
| q | -2,09 (-q42) | -2,09 (-q42) | 0,000 | 2,200(L) | Z' | S1,S3-S4 |
| q | -1,16 (q46) | -1,16 (q46) | 0,000 | 12,449 | Z' | S2 |
| q | -2,09 (-q42) | -2,09 (-q42) | 0,000 | 12,449 | Z' | S2 |
| q | -2,45 (q47) | -2,45 (q47) | 12,449 | 14,234(L) | Z' | S2 |
| q | -2,09 (-q42) | -2,09 (-q42) | 12,449 | 14,234(L) | Z' | S2 |
| q | 0,78 (q59) | 0,78 (q59) | 0,000 | 4,050(L) | Z' | S4 |
| q | 0,78 (q60) | 0,78 (q60) | 0,000 | 0,341 | Z' | S5 |
| q | -2,09 (-q42) | -2,09 (-q42) | 0,000 | 0,341 | Z' | S5 |
| q | 1,08 (q61) | 1,08 (q61) | 0,341 | 2,131(L) | Z' | S5 |
| q | -2,09 (-q42) | -2,09 (-q42) | 0,341 | 2,131(L) | Z' | S5 |
| **Som lasten** | **X: -19,23** | **kN Z: -52,82** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **-** | **-** |



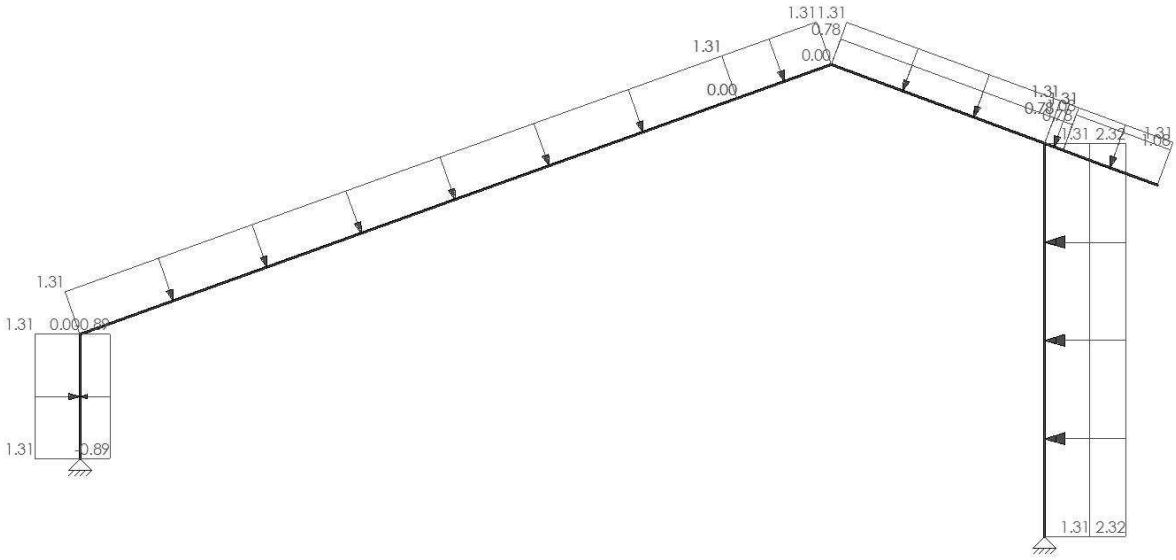

## B.G.26: WINDBELASTING VAN RECHTS + ONDERDRUK

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.26: Windbelasting van Rechts + Onderdruk** | | | | | | |
| q | -0,89 (q64) | -0,89 (q64) | 0,000 | 2,200(L) | Z' | S1 |
| q | 1,31 (-q62) | 1,31 (-q62) | 0,000 | 2,200(L) | Z' | S1,S3-S4 |
| q | -1,16 (q66) | -1,16 (q66) | 0,000 | 12,449 | Z' | S2 |
| q | 1,31 (-q62) | 1,31 (-q62) | 0,000 | 12,449 | Z' | S2 |
| q | -2,45 (q67) | -2,45 (q67) | 12,449 | 14,234(L) | Z' | S2 |
| q | 1,31 (-q62) | 1,31 (-q62) | 12,449 | 14,234(L) | Z' | S2 |
| q | 2,32 (q68) | 2,32 (q68) | 0,000 | 7,000(L) | Z' | S3 |
| q | -0,77 (q69) | -0,77 (q69) | 0,000 | 4,050(L) | Z' | S4 |
| q | -0,77 (q70) | -0,77 (q70) | 0,000 | 0,341 | Z' | S5 |
| q | 1,31 (-q62) | 1,31 (-q62) | 0,000 | 0,341 | Z' | S5 |
| q | -2,02 (q71) | -2,02 (q71) | 0,341 | 2,131(L) | Z' | S5 |
| q | 1,31 (-q62) | 1,31 (-q62) | 0,341 | 2,131(L) | Z' | S5 |
| **Som lasten** | **X: -24,93** | **kN Z: 0,79** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



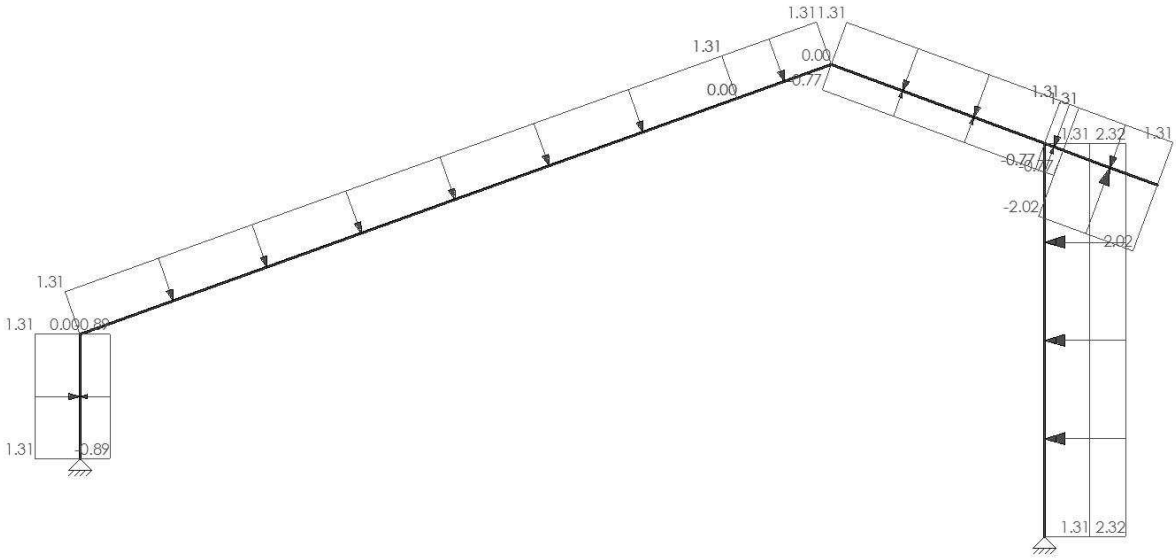

## B.G.27: WINDBELASTING VAN RECHTS + ONDERDRUK (2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.27: Windbelasting van Rechts + Onderdruk (2e Cpe)** | | | | | | |
| q | -0,89 (q74) | -0,89 (q74) | 0,000 | 2,200(L) | Z' | S1 |
| q | 1,31 (-q72) | 1,31 (-q72) | 0,000 | 2,200(L) | Z' | S1,S3-S4 |
| q | 0,00 (q76) | 0,00 (q76) | 0,000 | 12,449 | Z' | S2 |
| q | 1,31 (-q72) | 1,31 (-q72) | 0,000 | 12,449 | Z' | S2 |
| q | 0,00 (q77) | 0,00 (q77) | 12,449 | 14,234(L) | Z' | S2 |
| q | 1,31 (-q72) | 1,31 (-q72) | 12,449 | 14,234(L) | Z' | S2 |
| q | 2,32 (q78) | 2,32 (q78) | 0,000 | 7,000(L) | Z' | S3 |
| q | 0,78 (q79) | 0,78 (q79) | 0,000 | 4,050(L) | Z' | S4 |
| q | 0,78 (q80) | 0,78 (q80) | 0,000 | 0,341 | Z' | S5 |
| q | 1,31 (-q72) | 1,31 (-q72) | 0,000 | 0,341 | Z' | S5 |
| q | 1,08 (q81) | 1,08 (q81) | 0,341 | 2,131(L) | Z' | S5 |
| q | 1,31 (-q72) | 1,31 (-q72) | 0,341 | 2,131(L) | Z' | S5 |
| **Som lasten** | **X: -22,86** | **kN Z: 30,14** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



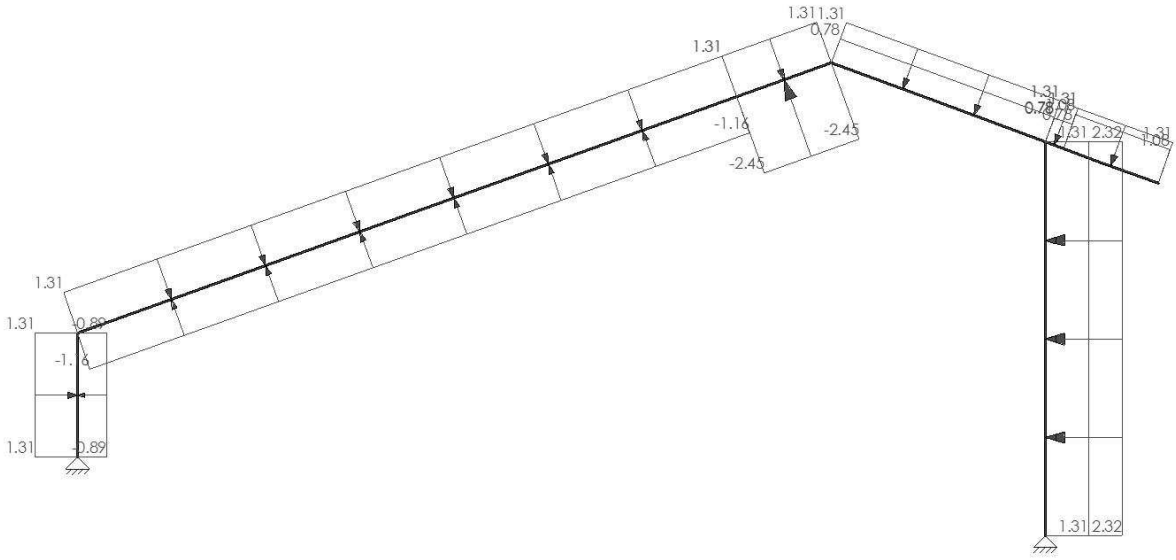

## B.G.28: WINDBELASTING VAN RECHTS + ONDERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.28: Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe)** | | | | | | |
| q | -0,89 (q64) | -0,89 (q64) | 0,000 | 2,200(L) | Z' | S1 |
| q | 1,31 (-q62) | 1,31 (-q62) | 0,000 | 2,200(L) | Z' | S1,S3-S4 |
| q | 0,00 (q76) | 0,00 (q76) | 0,000 | 12,449 | Z' | S2 |
| q | 1,31 (-q62) | 1,31 (-q62) | 0,000 | 12,449 | Z' | S2 |
| q | 0,00 (q77) | 0,00 (q77) | 12,449 | 14,234(L) | Z' | S2 |
| q | 1,31 (-q62) | 1,31 (-q62) | 12,449 | 14,234(L) | Z' | S2 |
| q | 2,32 (q68) | 2,32 (q68) | 0,000 | 7,000(L) | Z' | S3 |
| q | -0,77 (q69) | -0,77 (q69) | 0,000 | 4,050(L) | Z' | S4 |
| q | -0,77 (q70) | -0,77 (q70) | 0,000 | 0,341 | Z' | S5 |
| q | 1,31 (-q62) | 1,31 (-q62) | 0,000 | 0,341 | Z' | S5 |
| q | -2,02 (q71) | -2,02 (q71) | 0,341 | 2,131(L) | Z' | S5 |
| q | 1,31 (-q62) | 1,31 (-q62) | 0,341 | 2,131(L) | Z' | S5 |
| **Som lasten** | **X: -18,58** | **kN Z: 18,52** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



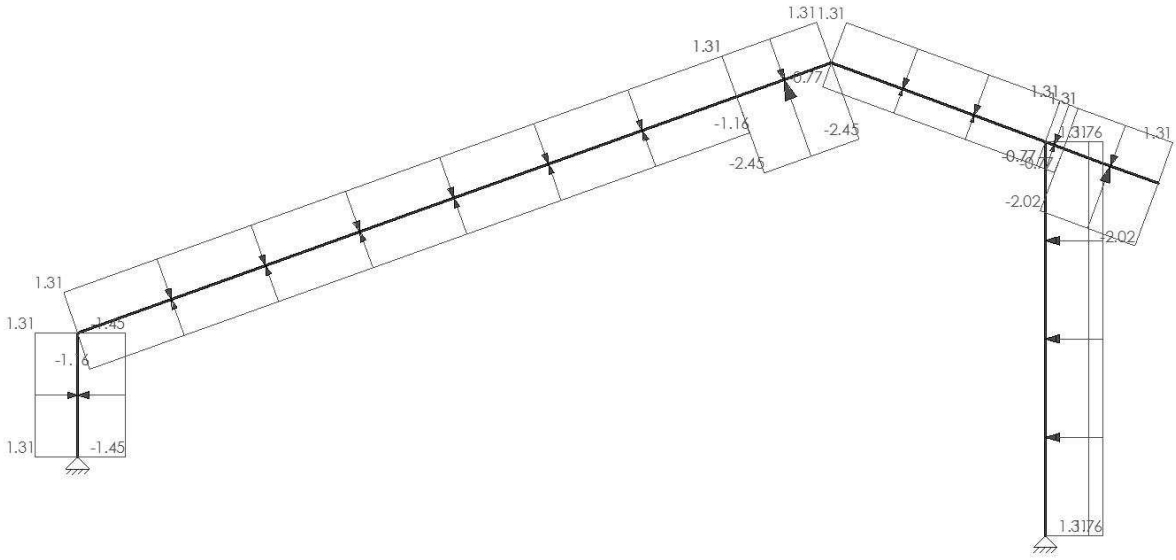

## B.G.29: WINDBELASTING VAN RECHTS + ONDERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.29: Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe)** | | | | | | |
| q | -0,89 (q64) | -0,89 (q64) | 0,000 | 2,200(L) | Z' | S1 |
| q | 1,31 (-q62) | 1,31 (-q62) | 0,000 | 2,200(L) | Z' | S1,S3-S4 |
| q | -1,16 (q66) | -1,16 (q66) | 0,000 | 12,449 | Z' | S2 |
| q | 1,31 (-q62) | 1,31 (-q62) | 0,000 | 12,449 | Z' | S2 |
| q | -2,45 (q67) | -2,45 (q67) | 12,449 | 14,234(L) | Z' | S2 |
| q | 1,31 (-q62) | 1,31 (-q62) | 12,449 | 14,234(L) | Z' | S2 |
| q | 2,32 (q68) | 2,32 (q68) | 0,000 | 7,000(L) | Z' | S3 |
| q | 0,78 (q79) | 0,78 (q79) | 0,000 | 4,050(L) | Z' | S4 |
| q | 0,78 (q80) | 0,78 (q80) | 0,000 | 0,341 | Z' | S5 |
| q | 1,31 (-q62) | 1,31 (-q62) | 0,000 | 0,341 | Z' | S5 |
| q | 1,08 (q81) | 1,08 (q81) | 0,341 | 2,131(L) | Z' | S5 |
| q | 1,31 (-q62) | 1,31 (-q62) | 0,341 | 2,131(L) | Z' | S5 |
| **Som lasten** | **X: -29,21** | **kN Z: 12,41** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



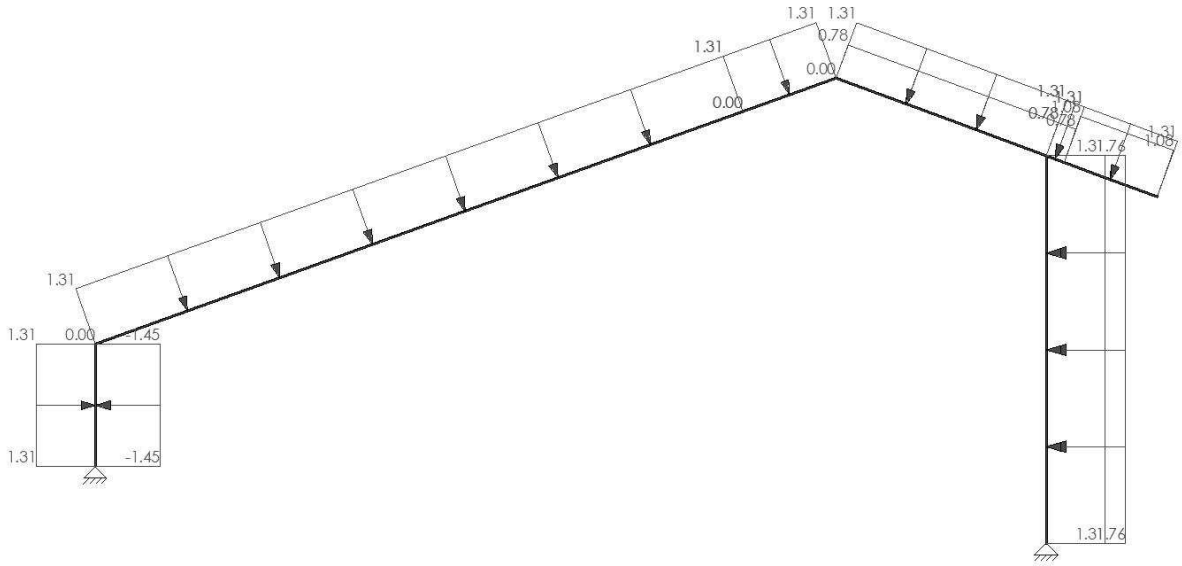

## B.G.30: WINDBELASTING VAN RECHTS + ONDERDRUK (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.30: Windbelasting van Rechts + Onderdruk (2e corr. factor)** | | | | | | |
| q | -1,45 (q63) | -1,45 (q63) | 0,000 | 2,200(L) | Z' | S1 |
| q | 1,76 (q65) | 1,76 (q65) | 0,000 | 7,000(L) | Z' | S3 |
| q | 1,31 (-q62) | 1,31 (-q62) | 0,000 | 2,200(L) | Z' | S1,S3-S4 |
| q | -1,16 (q66) | -1,16 (q66) | 0,000 | 12,449 | Z' | S2 |
| q | 1,31 (-q62) | 1,31 (-q62) | 0,000 | 12,449 | Z' | S2 |
| q | -2,45 (q67) | -2,45 (q67) | 12,449 | 14,234(L) | Z' | S2 |
| q | 1,31 (-q62) | 1,31 (-q62) | 12,449 | 14,234(L) | Z' | S2 |
| q | -0,77 (q69) | -0,77 (q69) | 0,000 | 4,050(L) | Z' | S4 |
| q | -0,77 (q70) | -0,77 (q70) | 0,000 | 0,341 | Z' | S5 |
| q | 1,31 (-q62) | 1,31 (-q62) | 0,000 | 0,341 | Z' | S5 |
| q | -2,02 (q71) | -2,02 (q71) | 0,341 | 2,131(L) | Z' | S5 |
| q | 1,31 (-q62) | 1,31 (-q62) | 0,341 | 2,131(L) | Z' | S5 |
| **Som lasten** | **X: -22,21** | **kN Z: 0,79** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



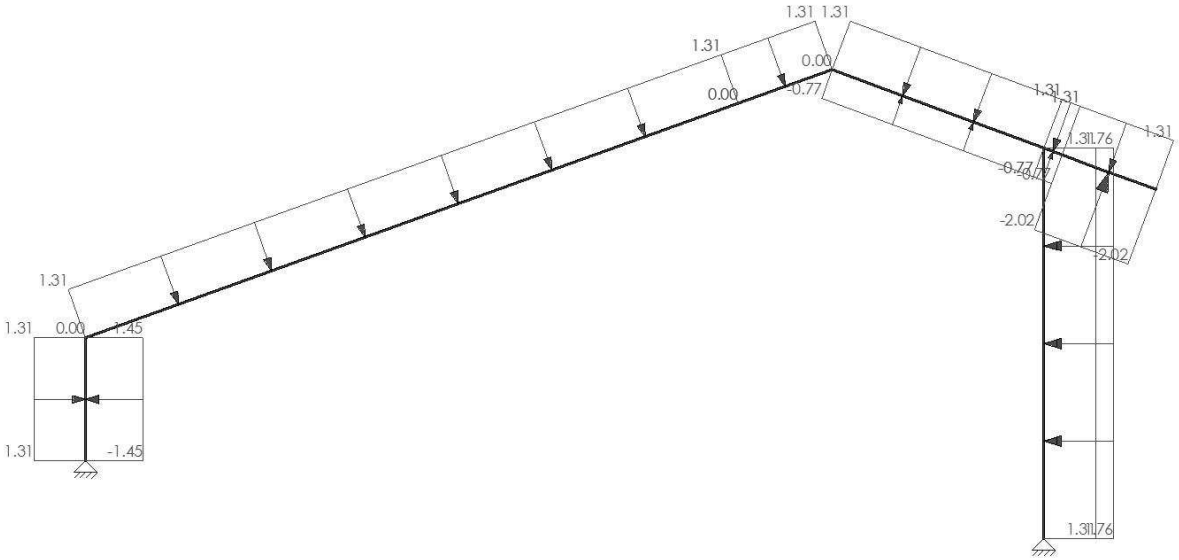

## B.G.31: WINDBELASTING VAN RECHTS + ONDERDRUK (2E CPE) (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.31: Windbelasting van Rechts + Onderdruk (2e Cpe) (2e corr. factor)** | | | | | | |
| q | -1,45 (q73) | -1,45 (q73) | 0,000 | 2,200(L) | Z' | S1 |
| q | 1,76 (q75) | 1,76 (q75) | 0,000 | 7,000(L) | Z' | S3 |
| q | 1,31 (-q72) | 1,31 (-q72) | 0,000 | 2,200(L) | Z' | S1,S3-S4 |
| q | 0,00 (q76) | 0,00 (q76) | 0,000 | 12,449 | Z' | S2 |
| q | 1,31 (-q72) | 1,31 (-q72) | 0,000 | 12,449 | Z' | S2 |
| q | 0,00 (q77) | 0,00 (q77) | 12,449 | 14,234(L) | Z' | S2 |
| q | 1,31 (-q72) | 1,31 (-q72) | 12,449 | 14,234(L) | Z' | S2 |
| q | 0,78 (q79) | 0,78 (q79) | 0,000 | 4,050(L) | Z' | S4 |
| q | 0,78 (q80) | 0,78 (q80) | 0,000 | 0,341 | Z' | S5 |
| q | 1,31 (-q72) | 1,31 (-q72) | 0,000 | 0,341 | Z' | S5 |
| q | 1,08 (q81) | 1,08 (q81) | 0,341 | 2,131(L) | Z' | S5 |
| q | 1,31 (-q72) | 1,31 (-q72) | 0,341 | 2,131(L) | Z' | S5 |
| **Som lasten** | **X: -20,14** | **kN Z: 30,14** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |



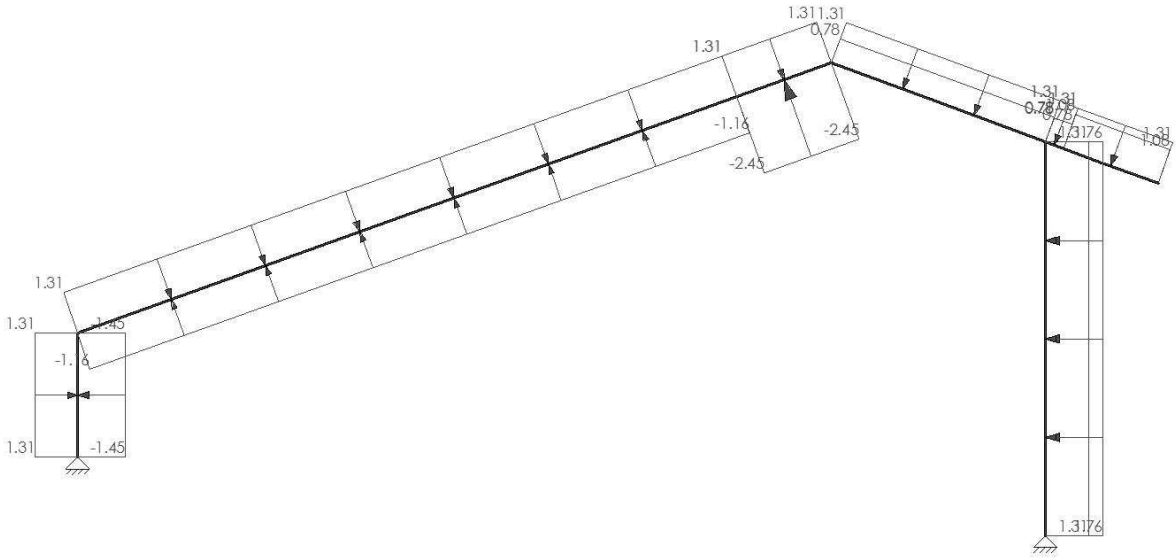

## B.G.32: WINDBELASTING VAN RECHTS + ONDERDRUK (ZADELDAK FGH 1E CPE + IJ 2E CPE) (2E CORR. FACTOR)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.32: Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor)** | | | | | | |
| q | -1,45 (q63) | -1,45 (q63) | 0,000 | 2,200(L) | | Z' S1 |
| q | 1,76 (q65) | 1,76 (q65) | 0,000 | 7,000(L) | | Z' S3 |
| q | 1,31 (-q62) | 1,31 (-q62) | 0,000 | 2,200(L) | | Z' S1,S3-S4 |
| q | 0,00 (q76) | 0,00 (q76) | 0,000 | 12,449 | | Z' S2 |
| q | 1,31 (-q62) | 1,31 (-q62) | 0,000 | 12,449 | | Z' S2 |
| q | 0,00 (q77) | 0,00 (q77) | 12,449 | 14,234(L) | | Z' S2 |
| q | 1,31 (-q62) | 1,31 (-q62) | 12,449 | 14,234(L) | | Z' S2 |
| q | -0,77 (q69) | -0,77 (q69) | 0,000 | 4,050(L) | | Z' S4 |
| q | -0,77 (q70) | -0,77 (q70) | 0,000 | 0,341 | | Z' S5 |
| q | 1,31 (-q62) | 1,31 (-q62) | 0,000 | 0,341 | | Z' S5 |
| q | -2,02 (q71) | -2,02 (q71) | 0,341 | 2,131(L) | | Z' S5 |
| q | 1,31 (-q62) | 1,31 (-q62) | 0,341 | 2,131(L) | | Z' S5 |
| **Som lasten** | **X: -15,86** | **kN Z: 18,52** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |




## B.G.33: WINDBELASTING VAN RECHTS + ONDERDRUK (ZADELDAK FGH 2E CPE + IJ 1E CPE) (2E CORR. FACTOR)

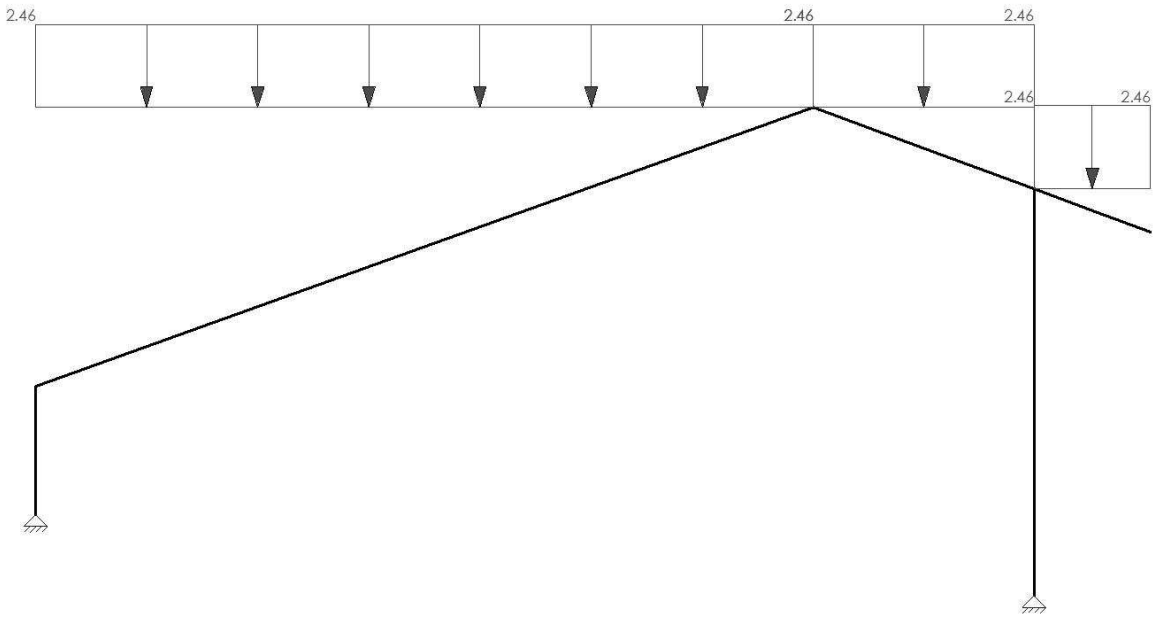
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.33: Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor)** | | | | | | |
| q | -1,45 (q63) | -1,45 (q63) | 0,000 | 2,200(L) | Z' | S1 |
| q | 1,76 (q65) | 1,76 (q65) | 0,000 | 7,000(L) | Z' | S3 |
| q | 1,31 (-q62) | 1,31 (-q62) | 0,000 | 2,200(L) | Z' | S1,S3-S4 |
| q | -1,16 (q66) | -1,16 (q66) | 0,000 | 12,449 | Z' | S2 |
| q | 1,31 (-q62) | 1,31 (-q62) | 0,000 | 12,449 | Z' | S2 |
| q | -2,45 (q67) | -2,45 (q67) | 12,449 | 14,234(L) | Z' | S2 |
| q | 1,31 (-q62) | 1,31 (-q62) | 12,449 | 14,234(L) | Z' | S2 |
| q | 0,78 (q79) | 0,78 (q79) | 0,000 | 4,050(L) | Z' | S4 |
| q | 0,78 (q80) | 0,78 (q80) | 0,000 | 0,341 | Z' | S5 |
| q | 1,31 (-q62) | 1,31 (-q62) | 0,000 | 0,341 | Z' | S5 |
| q | 1,08 (q81) | 1,08 (q81) | 0,341 | 2,131(L) | Z' | S5 |
| q | 1,31 (-q62) | 1,31 (-q62) | 0,341 | 2,131(L) | Z' | S5 |
| **Som lasten** | **X: -26,49** | **kN Z: 12,41** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |




## B.G.34: SNEEUWBELASTING 1

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.34: Sneeuwbelasting 1** | | | | | | |
| q | 2,46 (q82) | 2,46 (q82) | 0,000 | 13,400(L) | Z | S2,S4-S5 |
| **Som lasten** | **X: 0,00** | **kN Z: 47,31** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **-** | **-** |

B.G.34: SNEEUWBELASTING 1

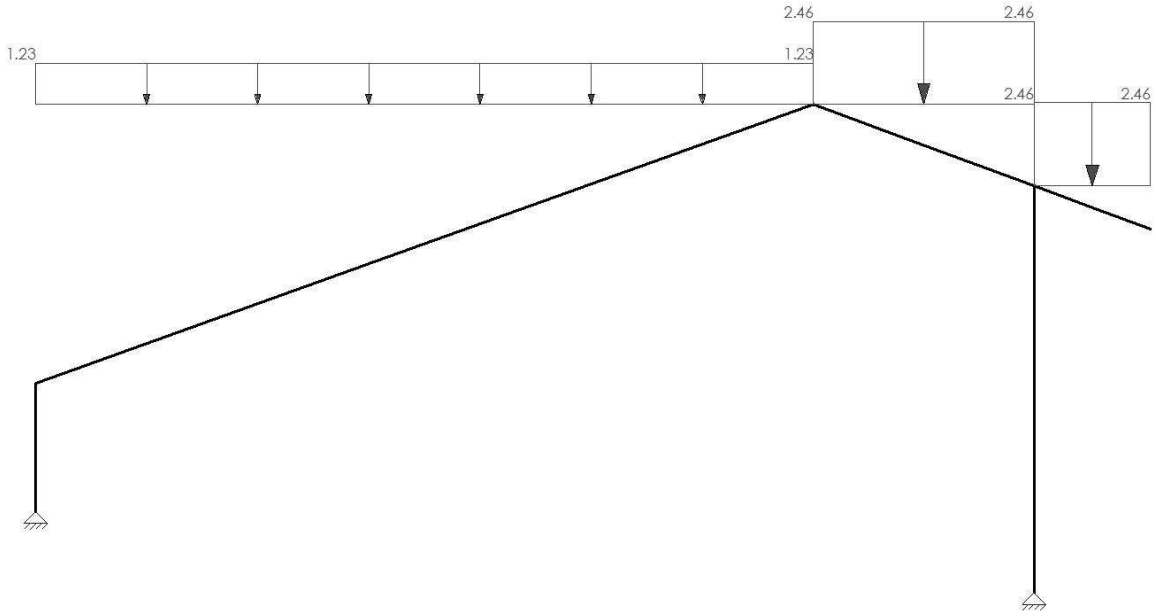



## B.G.35: SNEEUWBELASTING 2

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.35: Sneeuwbelasting 2** | | | | | | |
| q | 1,23 (q83) | 1,23 (q83) | 0,000 | 13,400(L) | Z | S2 |

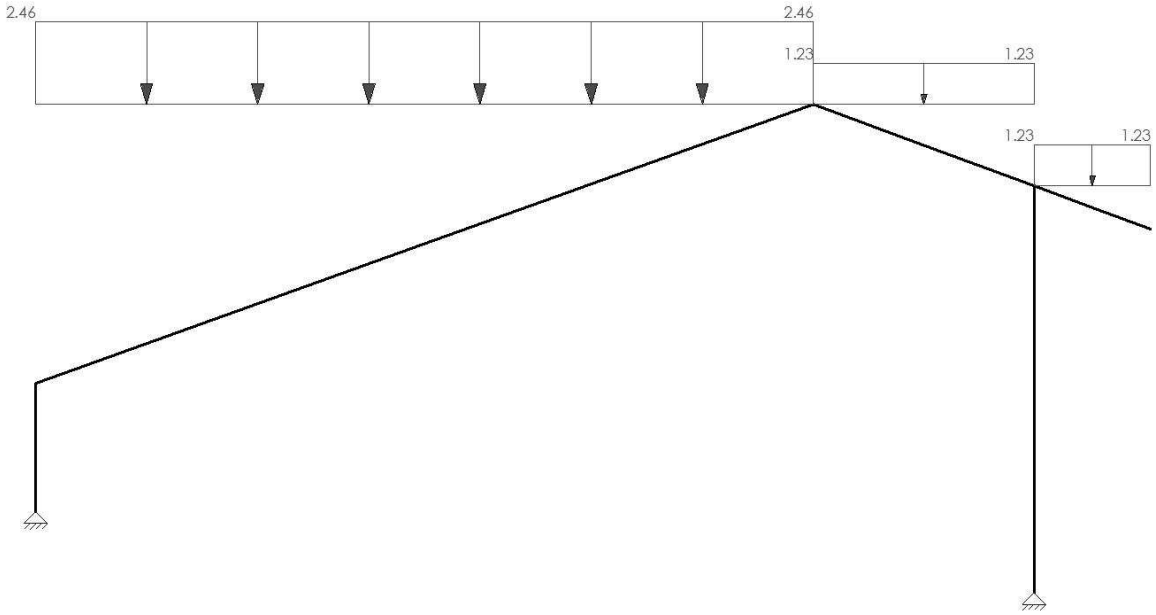
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.35: Sneeuwbelasting 2** | | | | | | |
| q | 2,46 (q82) | 2,46 (q82) | 0,000 | 3,800(L) | Z | S4-S5 |
| **Som lasten** | **X: 0,00** | **kN Z: 30,80** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **-** | **-** |

B.G.35: SNEEUWBELASTING 2




## B.G.36: SNEEUWBELASTING 3

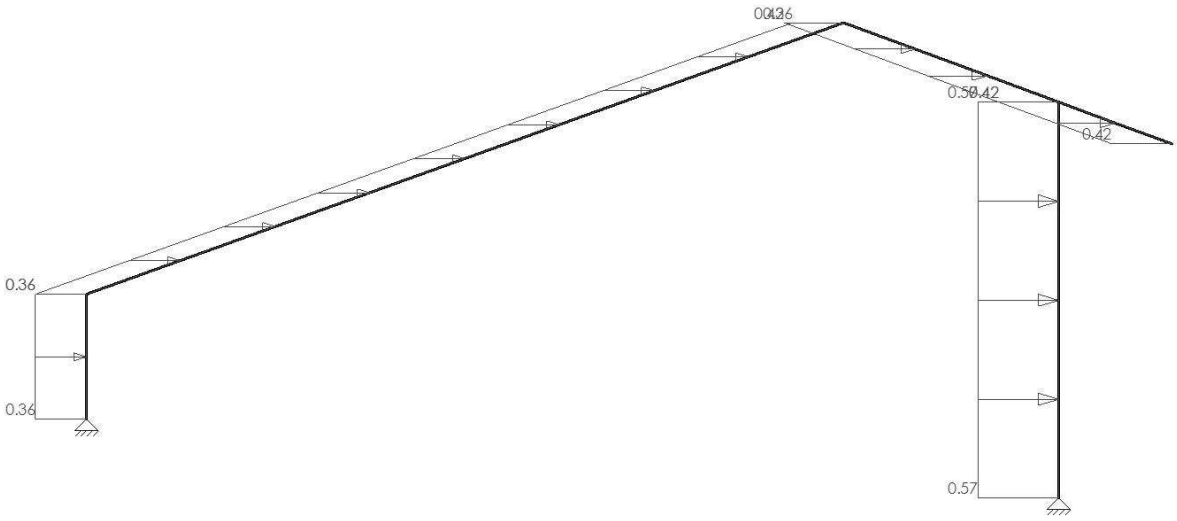
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.36: Sneeuwbelasting 3** | | | | | | |
| q | 2,46 (q82) | 2,46 (q82) | 0,000 | 13,400(L) | Z | S2 |
| q | 1,23 (q83) | 1,23 (q83) | 0,000 | 3,800(L) | Z | S4-S5 |
| **Som lasten** | **X: 0,00** | **kN Z: 40,16** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **-** | **-** |




## B.G.37: KNIKLENGTE (ASSYMETRISCH)

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.37: Kniklengte (Assymetrisch)** | | | | | | |
| qG | 0,36 (1.00x) | 0,36 (1.00x) | 0,000 | 2,200(L) | X" | S1 |
| qG | 0,36 (1.00x) | 0,36 (1.00x) | 0,000 | 14,234(L) | X" | S2 |
| qG | 0,57 (1.00x) | 0,57 (1.00x) | 0,000 | 7,000(L) | X" | S3 |
| qG | 0,42 (1.00x) | 0,42 (1.00x) | 0,000 | 4,050(L) | X" | S4 |
| qG | 0,42 (1.00x) | 0,42 (1.00x) | 0,000 | 2,131(L) | X" | S5 |
| **Som lasten** | **X: 12,53** | **kN Z: 0,00** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |

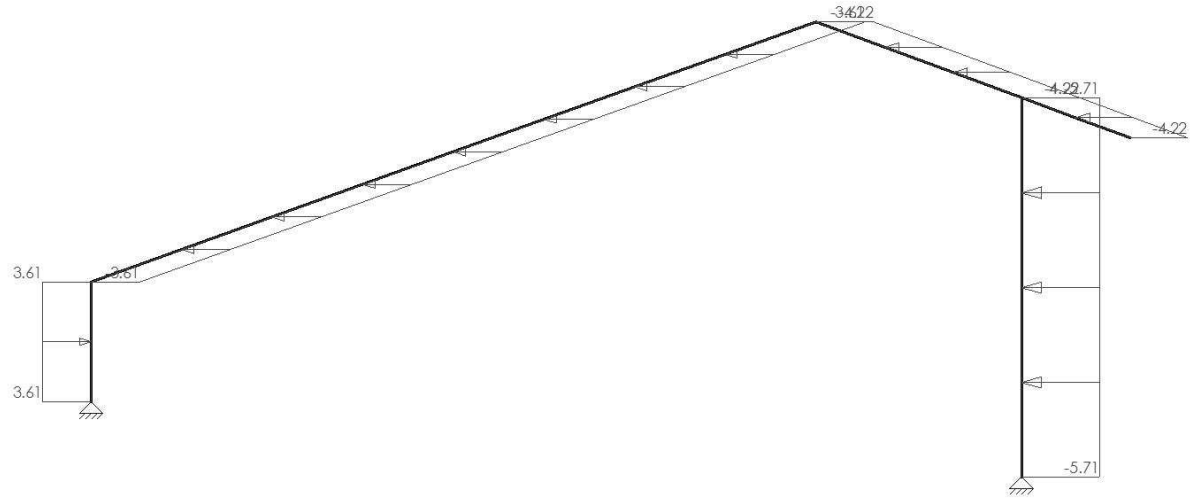
B.G.37: KNIKLENGTE (ASSYMETRISCH)



## B.G.38: KNIKLENGTE (SYMMETRISCH)

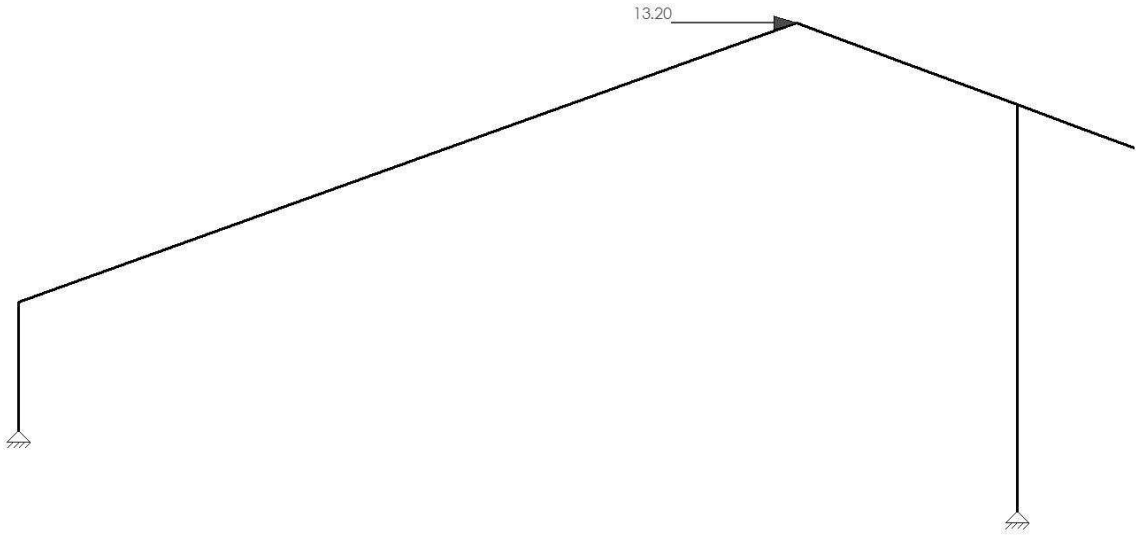
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.38: Kniklengte (Symmetrisch)** | | | | | | |
| qG | 0,36 (10.00x) | 0,36 (10.00x) | 0,000 | 2,200(L) | X" | S1 |
| qG | 0,36 (-10.00x) | 0,36 (-10.00x) | 0,000 | 14,234(L) | X" | S2 |
| qG | 0,57 (-10.00x) | 0,57 (-10.00x) | 0,000 | 7,000(L) | X" | S3 |
| qG | 0,42 (-10.00x) | 0,42 (-10.00x) | 0,000 | 4,050(L) | X" | S4 |
| qG | 0,42 (-10.00x) | 0,42 (-10.00x) | 0,000 | 2,131(L) | X" | S5 |
| **Som lasten** | **X: -109,48** | **kN Z: 0,00** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |

B.G.38: KNIKLENGTE (SYMMETRISCH)




## B.G.39: WIND LINKS

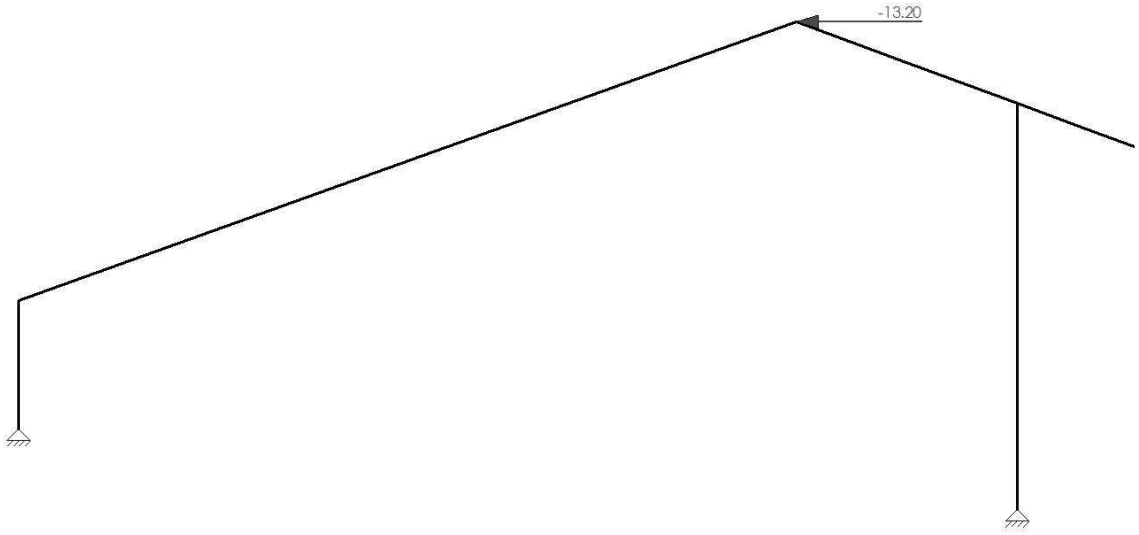
| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.39: Wind links** | | | | | | |
| N | 13,20 | | | | X | K6 |
| **Som lasten** | **X: 13,20** | **kN Z: 0,00** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |




## B.G.40: WIND RECHTS

| Type | Beginwaarde | Eindwaarde | Beginafstand | Eindafstand | Richting | Staaf of knoop |
|---|---|---|---|---|---|---|
| **B.G.40: Wind rechts** | | | | | | |
| N | -13,20 | | | | X | K6 |
| **Som lasten** | **X: -13,20** | **kN Z: 0,00** | **kN** | | | |
| **-** | **-** | **-** | **m** | **m** | **- -** | |






## FUNDAMENTEEL BELASTINGSCOMBINATIES (TABEL)

| B.G. | Omschrijving | Fu.C.1 | Fu.C.2 | Fu.C.3 | Fu.C.4 | Fu.C.5 | Fu.C.6 | Fu.C.7 (Overslaan) | Fu.C.8 |
|---|---|---|---|---|---|---|---|---|---|
| B.G.1 | Permanente Belasting | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| B.G.2 | Windbelasting van Links + Overdruk | 1.13 | - | - | - | - | - | - | - |
| B.G.3 | Windbelasting van Links + Overdruk (2e Cpe) | - | 1.13 | - | - | - | - | - | - |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| B.G.4 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | 1.13 | - | - | - | - | - |
| B.G.5 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | 1.13 | - | - | - | - |
| B.G.6 | Windbelasting van Links + Overdruk (2e corr. factor) | - | - | - | - | 1.13 | - | - | - |
| B.G.7 | Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | 1.13 | - | - |
| B.G.8 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | 1.13 | - |
| B.G.9 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | 1.13 |
| B.G.10 | Windbelasting van Links + Onderdruk | - | - | - | - | - | - | - | - |
| B.G.11 | Windbelasting van Links + Onderdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.12 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.13 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.14 | Windbelasting van Links + Onderdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.15 | Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.16 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.17 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.18 | Windbelasting van Rechts + Overdruk | - | - | - | - | - | - | - | - |
| B.G.19 | Windbelasting van Rechts + Overdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.20 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.21 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.22 | Windbelasting van Rechts + Overdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.23 | Windbelasting van Rechts + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.24 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.25 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.26 | Windbelasting van Rechts + Onderdruk | - | - | - | - | - | - | - | - |
| B.G.27 | Windbelasting van Rechts + Onderdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.28 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.29 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.30 | Windbelasting van Rechts + Onderdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.31 | Windbelasting van Rechts + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.32 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.33 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.34 | Sneeuwbelasting 1 | - | - | - | - | - | - | - | - |
| B.G.35 | Sneeuwbelasting 2 | - | - | - | - | - | - | - | - |
| B.G.36 | Sneeuwbelasting 3 | - | - | - | - | - | - | - | - |
| B.G.37 | Kniklengte (Assymetrisch) | - | - | - | - | - | - | - | - |
| B.G.38 | Kniklengte (Symmetrisch) | - | - | - | - | - | - | - | - |
| B.G.39 | Wind links | - | - | - | - | - | - | - | - |
| B.G.40 | Wind rechts | - | - | - | - | - | - | - | - |

| **B.G.** | **Omschrijving** | **Fu.C.9** | **Fu.C.10 (Overslaan)** | **Fu.C.11 (Overslaan)** | **Fu.C.12** | **Fu.C.13** | **Fu.C.14 (Overslaan)** | **Fu.C.15 (Overslaan)** | **Fu.C.16** |
|---|---|---|---|---|---|---|---|---|---|
| B.G.1 | Permanente Belasting | 1.08 | 1.08 | 1.08 | 1.08 | 1.08 | 1.08 | 1.08 | 1.08 |
| B.G.2 | Windbelasting van Links + Overdruk | - | - | - | - | - | - | - | - |
| B.G.3 | Windbelasting van Links + Overdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.4 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.5 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |

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|---|---|---|---|---|---|---|---|---|---|
| B.G.6 | Windbelasting van Links + Overdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.7 | Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.8 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.9 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.10 | Windbelasting van Links + Onderdruk | 1.13 | - | - | - | - | - | - | - |
| B.G.11 | Windbelasting van Links + Onderdruk (2e Cpe) | - | 1.13 | - | - | - | - | - | - |
| B.G.12 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | 1.13 | - | - | - | - | - |
| B.G.13 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | 1.13 | - | - | - | - |
| B.G.14 | Windbelasting van Links + Onderdruk (2e corr. factor) | - | - | - | - | 1.13 | - | - | - |
| B.G.15 | Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | 1.13 | - | - |
| B.G.16 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | 1.13 | - |
| B.G.17 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | 1.13 |
| B.G.18 | Windbelasting van Rechts + Overdruk | - | - | - | - | - | - | - | - |
| B.G.19 | Windbelasting van Rechts + Overdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.20 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.21 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.22 | Windbelasting van Rechts + Overdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.23 | Windbelasting van Rechts + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.24 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.25 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.26 | Windbelasting van Rechts + Onderdruk | - | - | - | - | - | - | - | - |
| B.G.27 | Windbelasting van Rechts + Onderdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.28 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.29 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.30 | Windbelasting van Rechts + Onderdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.31 | Windbelasting van Rechts + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.32 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.33 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.34 | Sneeuwbelasting 1 | - | - | - | - | - | - | - | - |
| B.G.35 | Sneeuwbelasting 2 | - | - | - | - | - | - | - | - |
| B.G.36 | Sneeuwbelasting 3 | - | - | - | - | - | - | - | - |
| B.G.37 | Kniklengte (Assymetrisch) | - | - | - | - | - | - | - | - |
| B.G.38 | Kniklengte (Symmetrisch) | - | - | - | - | - | - | - | - |
| B.G.39 | Wind links | - | - | - | - | - | - | - | - |
| B.G.40 | Wind rechts | - | - | - | - | - | - | - | - |

| **B.G.** | **Omschrijving** | **Fu.C.17** | **Fu.C.18** | **Fu.C.19 (Overslaan)** | **Fu.C.20** | **Fu.C.21** | **Fu.C.22** | **Fu.C.23 (Overslaan)** | **Fu.C.24** |
|---|---|---|---|---|---|---|---|---|---|
| B.G.1 | Permanente Belasting | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| B.G.2 | Windbelasting van Links + Overdruk | - | - | - | - | - | - | - | - |
| B.G.3 | Windbelasting van Links + Overdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.4 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.5 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.6 | Windbelasting van Links + Overdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.7 | Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |

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|---|---|---|---|---|---|---|---|---|---|
| B.G.8 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.9 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.10 | Windbelasting van Links + Onderdruk | - | - | - | - | - | - | - | - |
| B.G.11 | Windbelasting van Links + Onderdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.12 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.13 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.14 | Windbelasting van Links + Onderdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.15 | Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.16 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.17 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.18 | Windbelasting van Rechts + Overdruk | 1.13 | - | - | - | - | - | - | - |
| B.G.19 | Windbelasting van Rechts + Overdruk (2e Cpe) | - | 1.13 | - | - | - | - | - | - |
| B.G.20 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | 1.13 | - | - | - | - | - |
| B.G.21 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | 1.13 | - | - | - | - |
| B.G.22 | Windbelasting van Rechts + Overdruk (2e corr. factor) | - | - | - | - | 1.13 | - | - | - |
| B.G.23 | Windbelasting van Rechts + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | 1.13 | - | - |
| B.G.24 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | 1.13 | - |
| B.G.25 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | 1.13 |
| B.G.26 | Windbelasting van Rechts + Onderdruk | - | - | - | - | - | - | - | - |
| B.G.27 | Windbelasting van Rechts + Onderdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.28 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.29 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.30 | Windbelasting van Rechts + Onderdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.31 | Windbelasting van Rechts + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.32 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.33 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.34 | Sneeuwbelasting 1 | - | - | - | - | - | - | - | - |
| B.G.35 | Sneeuwbelasting 2 | - | - | - | - | - | - | - | - |
| B.G.36 | Sneeuwbelasting 3 | - | - | - | - | - | - | - | - |
| B.G.37 | Kniklengte (Assymetrisch) | - | - | - | - | - | - | - | - |
| B.G.38 | Kniklengte (Symmetrisch) | - | - | - | - | - | - | - | - |
| B.G.39 | Wind links | - | - | - | - | - | - | - | - |
| B.G.40 | Wind rechts | - | - | - | - | - | - | - | - |

| **B.G.** | **Omschrijving** | **Fu.C.25 (Overslaan)** | **Fu.C.26** | **Fu.C.27** | **Fu.C.28** | **Fu.C.29 (Overslaan)** | **Fu.C.30** | **Fu.C.31 (Overslaan)** | **Fu.C.32 (Overslaan)** |
|---|---|---|---|---|---|---|---|---|---|
| B.G.1 | Permanente Belasting | 1.08 | 1.08 | 1.08 | 1.08 | 1.08 | 1.08 | 1.08 | 1.08 |
| B.G.2 | Windbelasting van Links + Overdruk | - | - | - | - | - | - | - | - |
| B.G.3 | Windbelasting van Links + Overdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.4 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.5 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.6 | Windbelasting van Links + Overdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.7 | Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.8 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |

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|---|---|---|---|---|---|---|---|---|---|
| B.G.9 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.10 | Windbelasting van Links + Onderdruk | - | - | - | - | - | - | - | - |
| B.G.11 | Windbelasting van Links + Onderdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.12 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.13 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.14 | Windbelasting van Links + Onderdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.15 | Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.16 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.17 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.18 | Windbelasting van Rechts + Overdruk | - | - | - | - | - | - | - | - |
| B.G.19 | Windbelasting van Rechts + Overdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.20 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.21 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.22 | Windbelasting van Rechts + Overdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.23 | Windbelasting van Rechts + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.24 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.25 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.26 | Windbelasting van Rechts + Onderdruk | 1.13 | - | - | - | - | - | - | - |
| B.G.27 | Windbelasting van Rechts + Onderdruk (2e Cpe) | - | 1.13 | - | - | - | - | - | - |
| B.G.28 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | 1.13 | - | - | - | - | - |
| B.G.29 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | 1.13 | - | - | - | - |
| B.G.30 | Windbelasting van Rechts + Onderdruk (2e corr. factor) | - | - | - | - | 1.13 | - | - | - |
| B.G.31 | Windbelasting van Rechts + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | 1.13 | - | - |
| B.G.32 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | 1.13 | - |
| B.G.33 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | 1.13 |
| B.G.34 | Sneeuwbelasting 1 | - | - | - | - | - | - | - | - |
| B.G.35 | Sneeuwbelasting 2 | - | - | - | - | - | - | - | - |
| B.G.36 | Sneeuwbelasting 3 | - | - | - | - | - | - | - | - |
| B.G.37 | Kniklengte (Assymetrisch) | - | - | - | - | - | - | - | - |
| B.G.38 | Kniklengte (Symmetrisch) | - | - | - | - | - | - | - | - |
| B.G.39 | Wind links | - | - | - | - | - | - | - | - |
| B.G.40 | Wind rechts | - | - | - | - | - | - | - | - |

| **B.G.** | **Omschrijving** | **Fu.C.33** | **Fu.C.34** | **Fu.C.35** | **Fu.C.36 (Overslaan)** | **Fu.C.37** | **Fu.C.38** | **Fu.C.39 (Overslaan)** |
|---|---|---|---|---|---|---|---|---|
| B.G.1 | Permanente Belasting | 1.08 | 1.08 | 1.08 | 1.08 | 1.08 | 1.22 | 0.90 |
| B.G.2 | Windbelasting van Links + Overdruk | - | - | - | - | - | - | - |
| B.G.3 | Windbelasting van Links + Overdruk (2e Cpe) | - | - | - | - | - | - | - |
| B.G.4 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - |
| B.G.5 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - |
| B.G.6 | Windbelasting van Links + Overdruk (2e corr. factor) | - | - | - | - | - | - | - |
| B.G.7 | Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - |
| B.G.8 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - |
| B.G.9 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - |
| B.G.10 | Windbelasting van Links + Onderdruk | - | - | - | - | - | - | - |

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|---|---|---|---|---|---|---|---|---|
| B.G.11 | Windbelasting van Links + Onderdruk (2e Cpe) | - | - | - | - | - | - | - |
| B.G.12 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - |
| B.G.13 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - |
| B.G.14 | Windbelasting van Links + Onderdruk (2e corr. factor) | - | - | - | - | - | - | - |
| B.G.15 | Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - |
| B.G.16 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - |
| B.G.17 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - |
| B.G.18 | Windbelasting van Rechts + Overdruk | - | - | - | - | - | - | - |
| B.G.19 | Windbelasting van Rechts + Overdruk (2e Cpe) | - | - | - | - | - | - | - |
| B.G.20 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - |
| B.G.21 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - |
| B.G.22 | Windbelasting van Rechts + Overdruk (2e corr. factor) | - | - | - | - | - | - | - |
| B.G.23 | Windbelasting van Rechts + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - |
| B.G.24 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - |
| B.G.25 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - |
| B.G.26 | Windbelasting van Rechts + Onderdruk | - | - | - | - | - | - | - |
| B.G.27 | Windbelasting van Rechts + Onderdruk (2e Cpe) | - | - | - | - | - | - | - |
| B.G.28 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - |
| B.G.29 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - |
| B.G.30 | Windbelasting van Rechts + Onderdruk (2e corr. factor) | - | - | - | - | - | - | - |
| B.G.31 | Windbelasting van Rechts + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - |
| B.G.32 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - |
| B.G.33 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - |
| B.G.34 | Sneeuwbelasting 1 | - | - | 1.01 | - | - | - | - |
| B.G.35 | Sneeuwbelasting 2 | - | - | - | 1.01 | - | - | - |
| B.G.36 | Sneeuwbelasting 3 | - | - | - | - | 1.01 | - | - |
| B.G.37 | Kniklengte (Assymetrisch) | - | - | - | - | - | - | - |
| B.G.38 | Kniklengte (Symmetrisch) | - | - | - | - | - | - | - |
| B.G.39 | Wind links | 1.00 | - | - | - | - | - | - |
| B.G.40 | Wind rechts | - | 1.00 | - | - | - | - | - |

## KARAKTERISTIEK BELASTINGSCOMBINATIES (TABEL)

| B.G. | Omschrijving | Ka.C.(w1) | Ka.C.1 | Ka.C.2 | Ka.C.3 | Ka.C.4 | Ka.C.5 | Ka.C.6 | Ka.C.7 |
|---|---|---|---|---|---|---|---|---|---|
| B.G.1 | Permanente Belasting | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| B.G.2 | Windbelasting van Links + Overdruk | - | - | 0.84 | - | - | - | - | - |
| B.G.3 | Windbelasting van Links + Overdruk (2e Cpe) | - | - | - | 0.84 | - | - | - | - |
| B.G.4 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | 0.84 | - | - | - |
| B.G.5 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | 0.84 | - | - |
| B.G.6 | Windbelasting van Links + Overdruk (2e corr. factor) | - | - | - | - | - | - | 0.84 | - |
| B.G.7 | Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | 0.84 |
| B.G.8 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.9 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.10 | Windbelasting van Links + Onderdruk | - | - | - | - | - | - | - | - |
| B.G.11 | Windbelasting van Links + Onderdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.12 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| B.G.13 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.14 | Windbelasting van Links + Onderdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.15 | Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.16 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.17 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.18 | Windbelasting van Rechts + Overdruk | - | - | - | - | - | - | - | - |
| B.G.19 | Windbelasting van Rechts + Overdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.20 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.21 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.22 | Windbelasting van Rechts + Overdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.23 | Windbelasting van Rechts + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.24 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.25 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.26 | Windbelasting van Rechts + Onderdruk | - | - | - | - | - | - | - | - |
| B.G.27 | Windbelasting van Rechts + Onderdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.28 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.29 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.30 | Windbelasting van Rechts + Onderdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.31 | Windbelasting van Rechts + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.32 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.33 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.34 | Sneeuwbelasting 1 | - | - | - | - | - | - | - | - |
| B.G.35 | Sneeuwbelasting 2 | - | - | - | - | - | - | - | - |
| B.G.36 | Sneeuwbelasting 3 | - | - | - | - | - | - | - | - |
| B.G.37 | Kniklengte (Assymetrisch) | - | - | - | - | - | - | - | - |
| B.G.38 | Kniklengte (Symmetrisch) | - | - | - | - | - | - | - | - |
| B.G.39 | Wind links | - | - | - | - | - | - | - | - |
| B.G.40 | Wind rechts | - | - | - | - | - | - | - | - |

| **B.G.** | **Omschrijving** | **Ka.C.8** | **Ka.C.9** | **Ka.C.10 (Overslaan)** | **Ka.C.11** | **Ka.C.12 (Overslaan)** | **Ka.C.13** | **Ka.C.14** | **Ka.C.15 (Overslaan)** |
|---|---|---|---|---|---|---|---|---|---|
| B.G.1 | Permanente Belasting | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| B.G.2 | Windbelasting van Links + Overdruk | - | - | - | - | - | - | - | - |
| B.G.3 | Windbelasting van Links + Overdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.4 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.5 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.6 | Windbelasting van Links + Overdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.7 | Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.8 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | 0.84 | - | - | - | - | - | - | - |
| B.G.9 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | 0.84 | - | - | - | - | - | - |
| B.G.10 | Windbelasting van Links + Onderdruk | - | - | 0.84 | - | - | - | - | - |
| B.G.11 | Windbelasting van Links + Onderdruk (2e Cpe) | - | - | - | 0.84 | - | - | - | - |
| B.G.12 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | 0.84 | - | - | - |
| B.G.13 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | 0.84 | - | - |
| B.G.14 | Windbelasting van Links + Onderdruk (2e corr. factor) | - | - | - | - | - | - | 0.84 | - |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| B.G.15 | Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | 0.84 |
| B.G.16 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.17 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.18 | Windbelasting van Rechts + Overdruk | - | - | - | - | - | - | - | - |
| B.G.19 | Windbelasting van Rechts + Overdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.20 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.21 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.22 | Windbelasting van Rechts + Overdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.23 | Windbelasting van Rechts + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.24 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.25 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.26 | Windbelasting van Rechts + Onderdruk | - | - | - | - | - | - | - | - |
| B.G.27 | Windbelasting van Rechts + Onderdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.28 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.29 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.30 | Windbelasting van Rechts + Onderdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.31 | Windbelasting van Rechts + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.32 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.33 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.34 | Sneeuwbelasting 1 | - | - | - | - | - | - | - | - |
| B.G.35 | Sneeuwbelasting 2 | - | - | - | - | - | - | - | - |
| B.G.36 | Sneeuwbelasting 3 | - | - | - | - | - | - | - | - |
| B.G.37 | Kniklengte (Assymetrisch) | - | - | - | - | - | - | - | - |
| B.G.38 | Kniklengte (Symmetrisch) | - | - | - | - | - | - | - | - |
| B.G.39 | Wind links | - | - | - | - | - | - | - | - |
| B.G.40 | Wind rechts | - | - | - | - | - | - | - | - |

| **B.G.** | **Omschrijving** | **Ka.C.16 (Overslaan)** | **Ka.C.17** | **Ka.C.18** | **Ka.C.19** | **Ka.C.20** | **Ka.C.21** | **Ka.C.22** | **Ka.C.23** |
|---|---|---|---|---|---|---|---|---|---|
| B.G.1 | Permanente Belasting | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| B.G.2 | Windbelasting van Links + Overdruk | - | - | - | - | - | - | - | - |
| B.G.3 | Windbelasting van Links + Overdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.4 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.5 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.6 | Windbelasting van Links + Overdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.7 | Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.8 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.9 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.10 | Windbelasting van Links + Onderdruk | - | - | - | - | - | - | - | - |
| B.G.11 | Windbelasting van Links + Onderdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.12 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.13 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.14 | Windbelasting van Links + Onderdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.15 | Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.16 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | 0.84 | - | - | - | - | - | - | - |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| B.G.17 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | 0.84 | - | - | - | - | - | - |
| B.G.18 | Windbelasting van Rechts + Overdruk | - | - | 0.84 | - | - | - | - | - |
| B.G.19 | Windbelasting van Rechts + Overdruk (2e Cpe) | - | - | - | 0.84 | - | - | - | - |
| B.G.20 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | 0.84 | - | - | - |
| B.G.21 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | 0.84 | - | - |
| B.G.22 | Windbelasting van Rechts + Overdruk (2e corr. factor) | - | - | - | - | - | - | 0.84 | - |
| B.G.23 | Windbelasting van Rechts + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | 0.84 |
| B.G.24 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.25 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.26 | Windbelasting van Rechts + Onderdruk | - | - | - | - | - | - | - | - |
| B.G.27 | Windbelasting van Rechts + Onderdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.28 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.29 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.30 | Windbelasting van Rechts + Onderdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.31 | Windbelasting van Rechts + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.32 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.33 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.34 | Sneeuwbelasting 1 | - | - | - | - | - | - | - | - |
| B.G.35 | Sneeuwbelasting 2 | - | - | - | - | - | - | - | - |
| B.G.36 | Sneeuwbelasting 3 | - | - | - | - | - | - | - | - |
| B.G.37 | Kniklengte (Assymetrisch) | - | - | - | - | - | - | - | - |
| B.G.38 | Kniklengte (Symmetrisch) | - | - | - | - | - | - | - | - |
| B.G.39 | Wind links | - | - | - | - | - | - | - | - |
| B.G.40 | Wind rechts | - | - | - | - | - | - | - | - |

| **B.G.** | **Omschrijving** | **Ka.C.24** | **Ka.C.25** | **Ka.C.26 (Overslaan)** | **Ka.C.27** | **Ka.C.28** | **Ka.C.29** | **Ka.C.30 (Overslaan)** | **Ka.C.31** |
|---|---|---|---|---|---|---|---|---|---|
| B.G.1 | Permanente Belasting | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| B.G.2 | Windbelasting van Links + Overdruk | - | - | - | - | - | - | - | - |
| B.G.3 | Windbelasting van Links + Overdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.4 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.5 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.6 | Windbelasting van Links + Overdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.7 | Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.8 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.9 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.10 | Windbelasting van Links + Onderdruk | - | - | - | - | - | - | - | - |
| B.G.11 | Windbelasting van Links + Onderdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.12 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.13 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.14 | Windbelasting van Links + Onderdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.15 | Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.16 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.17 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.18 | Windbelasting van Rechts + Overdruk | - | - | - | - | - | - | - | - |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| B.G.19 | Windbelasting van Rechts + Overdruk (2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.20 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - | - |
| B.G.21 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - | - |
| B.G.22 | Windbelasting van Rechts + Overdruk (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.23 | Windbelasting van Rechts + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.24 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | 0.84 | - | - | - | - | - | - | - |
| B.G.25 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | 0.84 | - | - | - | - | - | - |
| B.G.26 | Windbelasting van Rechts + Onderdruk | - | - | 0.84 | - | - | - | - | - |
| B.G.27 | Windbelasting van Rechts + Onderdruk (2e Cpe) | - | - | - | 0.84 | - | - | - | - |
| B.G.28 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | 0.84 | - | - | - |
| B.G.29 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | 0.84 | - | - |
| B.G.30 | Windbelasting van Rechts + Onderdruk (2e corr. factor) | - | - | - | - | - | - | 0.84 | - |
| B.G.31 | Windbelasting van Rechts + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | 0.84 |
| B.G.32 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.33 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - | - |
| B.G.34 | Sneeuwbelasting 1 | - | - | - | - | - | - | - | - |
| B.G.35 | Sneeuwbelasting 2 | - | - | - | - | - | - | - | - |
| B.G.36 | Sneeuwbelasting 3 | - | - | - | - | - | - | - | - |
| B.G.37 | Kniklengte (Assymetrisch) | - | - | - | - | - | - | - | - |
| B.G.38 | Kniklengte (Symmetrisch) | - | - | - | - | - | - | - | - |
| B.G.39 | Wind links | - | - | - | - | - | - | - | - |
| B.G.40 | Wind rechts | - | - | - | - | - | - | - | - |

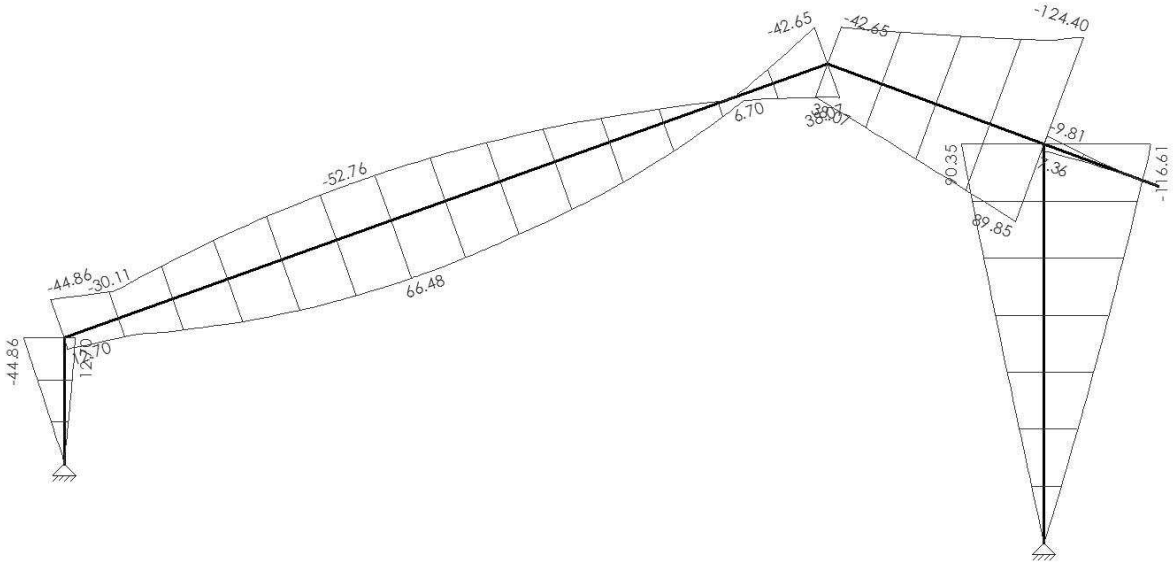
| **B.G.** | **Omschrijving** | **Ka.C.32** | **Ka.C.33 (Overslaan)** | **Ka.C.34** | **Ka.C.35** | **Ka.C.36** | **Ka.C.37 (Overslaan)** | **Ka.C.38 (Overslaan)** |
|---|---|---|---|---|---|---|---|---|
| B.G.1 | Permanente Belasting | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| B.G.2 | Windbelasting van Links + Overdruk | - | - | - | - | - | - | - |
| B.G.3 | Windbelasting van Links + Overdruk (2e Cpe) | - | - | - | - | - | - | - |
| B.G.4 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - |
| B.G.5 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - |
| B.G.6 | Windbelasting van Links + Overdruk (2e corr. factor) | - | - | - | - | - | - | - |
| B.G.7 | Windbelasting van Links + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - |
| B.G.8 | Windbelasting van Links + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - |
| B.G.9 | Windbelasting van Links + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - |
| B.G.10 | Windbelasting van Links + Onderdruk | - | - | - | - | - | - | - |
| B.G.11 | Windbelasting van Links + Onderdruk (2e Cpe) | - | - | - | - | - | - | - |
| B.G.12 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - |
| B.G.13 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - |
| B.G.14 | Windbelasting van Links + Onderdruk (2e corr. factor) | - | - | - | - | - | - | - |
| B.G.15 | Windbelasting van Links + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - |
| B.G.16 | Windbelasting van Links + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - |
| B.G.17 | Windbelasting van Links + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - |
| B.G.18 | Windbelasting van Rechts + Overdruk | - | - | - | - | - | - | - |
| B.G.19 | Windbelasting van Rechts + Overdruk (2e Cpe) | - | - | - | - | - | - | - |
| B.G.20 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - |

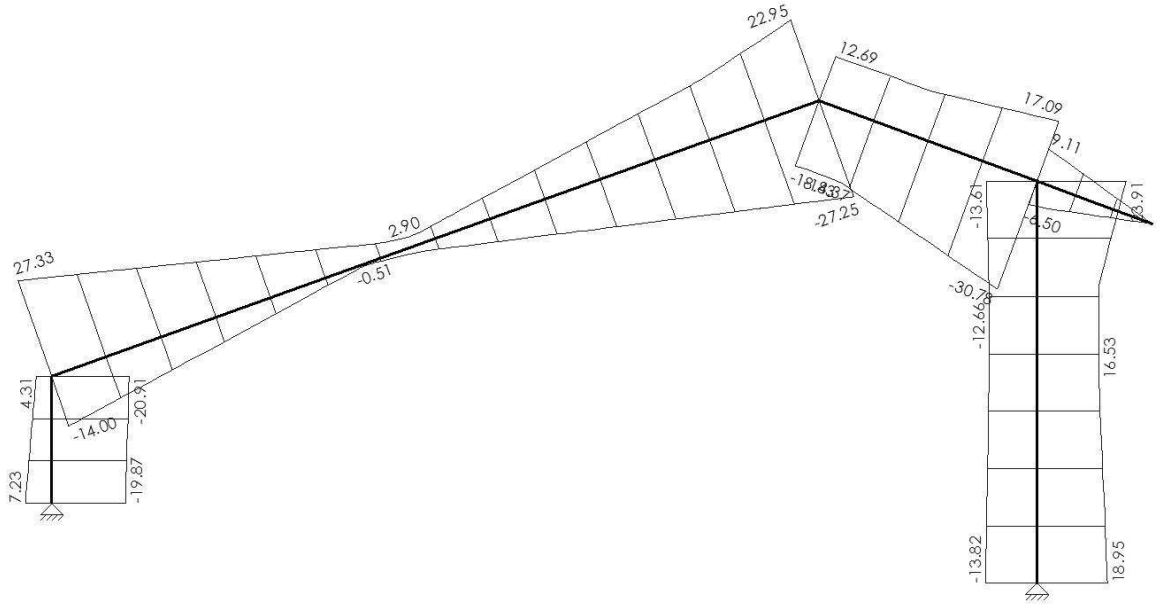
| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| B.G.21 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - |
| B.G.22 | Windbelasting van Rechts + Overdruk (2e corr. factor) | - | - | - | - | - | - | - |
| B.G.23 | Windbelasting van Rechts + Overdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - |
| B.G.24 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - |
| B.G.25 | Windbelasting van Rechts + Overdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | - | - | - | - | - | - |
| B.G.26 | Windbelasting van Rechts + Onderdruk | - | - | - | - | - | - | - |
| B.G.27 | Windbelasting van Rechts + Onderdruk (2e Cpe) | - | - | - | - | - | - | - |
| B.G.28 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) | - | - | - | - | - | - | - |
| B.G.29 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) | - | - | - | - | - | - | - |
| B.G.30 | Windbelasting van Rechts + Onderdruk (2e corr. factor) | - | - | - | - | - | - | - |
| B.G.31 | Windbelasting van Rechts + Onderdruk (2e Cpe) (2e corr. factor) | - | - | - | - | - | - | - |
| B.G.32 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 1e Cpe + IJ 2e Cpe) (2e corr. factor) | 0.84 | - | - | - | - | - | - |
| B.G.33 | Windbelasting van Rechts + Onderdruk (Zadeldak FGH 2e Cpe + IJ 1e Cpe) (2e corr. factor) | - | 0.84 | - | - | - | - | - |
| B.G.34 | Sneeuwbelasting 1 | - | - | - | - | 0.75 | - | - |
| B.G.35 | Sneeuwbelasting 2 | - | - | - | - | - | 0.75 | - |
| B.G.36 | Sneeuwbelasting 3 | - | - | - | - | - | - | 0.75 |
| B.G.37 | Kniklengte (Assymetrisch) | - | - | - | - | - | - | - |
| B.G.38 | Kniklengte (Symmetrisch) | - | - | - | - | - | - | - |
| B.G.39 | Wind links | - | - | 0.86 | - | - | - | - |
| B.G.40 | Wind rechts | - | - | - | 0.86 | - | - | - |

## UITGANGSPUNTEN VAN DE ANALYSE

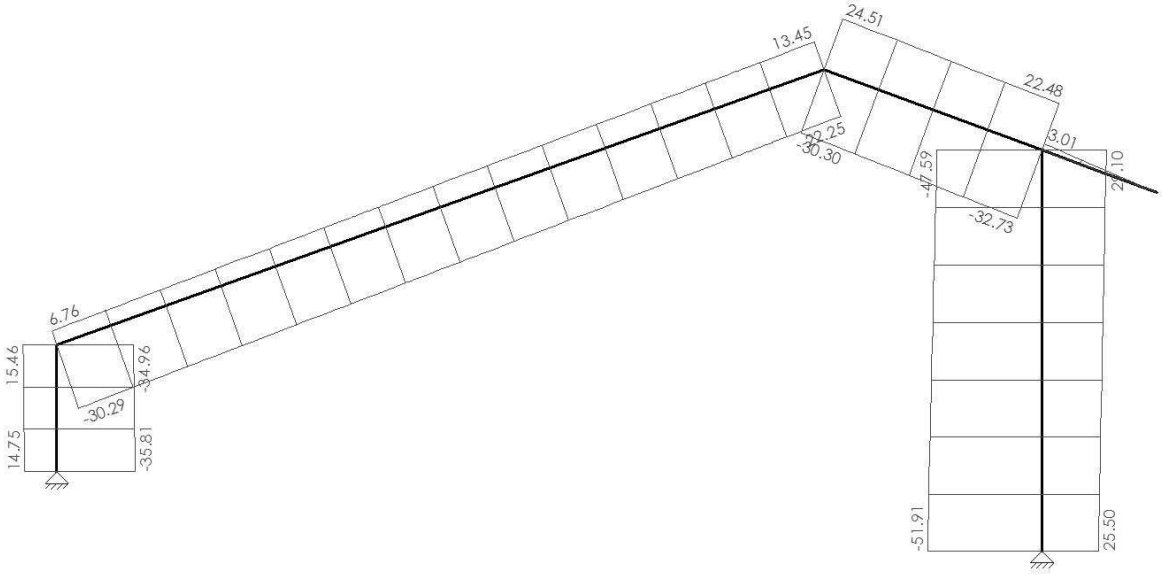
Lineaire Elastische Analyse uitgevoerd

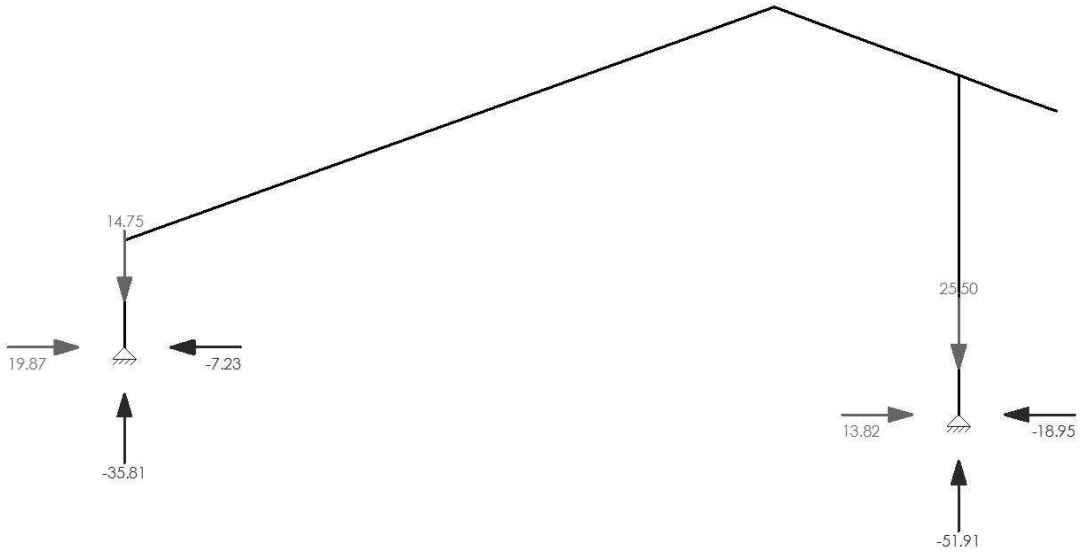
AFB. FU.C. MOMENT (MY) OMHULLENDE — Fundamenteel Belastingscombinaties




22.95
12.69
17.09
9.11
3.91
-18.83
-27.25
-13.61
-6.50
-30.78
-12.66
16.53
27.33
2.90
-0.51
4.31
-14.00
-20.91
7.23
-19.87
-13.82
18.95



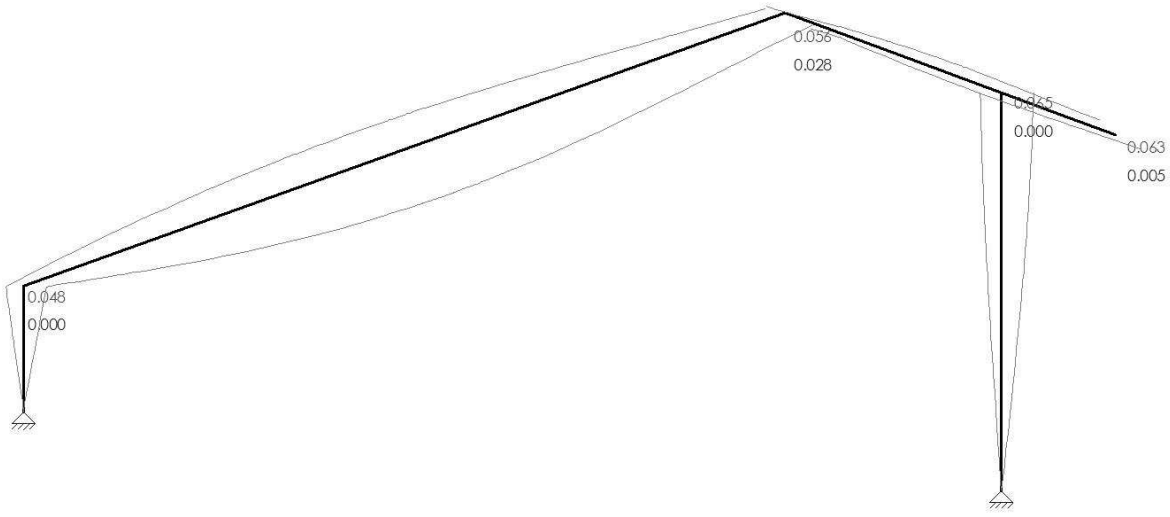

24.51
13.45
22.48
3.01
-20.25
-30.30
-47.59
-32.73
6.76
15.46
-34.96
-30.29
14.75
-35.81
-51.91
25.50




**FU.C. EXTREME OPLEGREACTIES**

| Oplegging | Knoop | B.C. | Xmax | Z | My | B.C. | X | Zmax | My | B.C. | X | Z | Mymax |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| O1 | K1 | Fu.C.28 | **19.87** | -23.76 | 0.00 | Fu.C.21 | 7.15 | **14.75** | 0.00 | | | | |
| O1 | K1 | Fu.C.8 | **-7.23** | -8.79 | 0.00 | Fu.C.35 | 16.53 | **-35.81** | 0.00 | | | | |
| O2 | K2 | Fu.C.20 | **13.82** | 14.46 | 0.00 | Fu.C.17 | 12.57 | **25.50** | 0.00 | | | | |
| O2 | K2 | Fu.C.16 | **-18.95** | -35.20 | 0.00 | Fu.C.35 | -16.53 | **-51.91** | 0.00 | | | | |
| **Globale extreme waarden** | | | | | | | | | | | | | |
| O1 | K1 | Fu.C.28 | **19.87** | -23.76 | 0.00 | | | | | | | | |
| O2 | K2 | Fu.C.16 | **-18.95** | -35.20 | 0.00 | | | | | | | | |
| O2 | K2 | | | | | Fu.C.17 | 12.57 | **25.50** | 0.00 | | | | |
| O2 | K2 | | | | | Fu.C.35 | -16.53 | **-51.91** | 0.00 | | | | |
| **-** | **-** | **-** | **kN** | **kN** | **kNm** | **-** | **kN** | **kN** | **kNm** | | **kN** | **kN** | **kNm** |

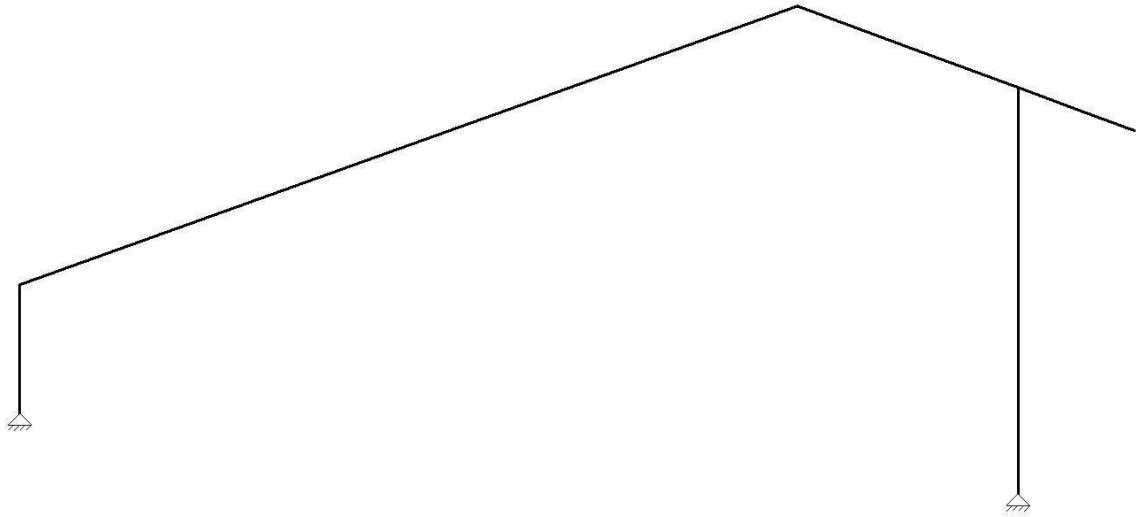




## KA.C. EXTREME DOORBUIGINGEN

| Staaf | B.C. | Knoop Begin | | Staaf | | Knoop Eind | |
|---|---|---|---|---|---|---|---|
| | | X | Z | Z'afst | Z' | X | Z |
| S1 | Ka.C.9 | 0,000 | 0,000 | 1.240 | **0.0001** | 0,035 | 0,000 |
| S1 | Ka.C.29 | 0,000 | 0,000 | 1.272 | **-0.0009** | -0,006 | 0,000 |
| S2 | Ka.C.17 | 0,048 | 0,000 | 6.780 | **0.0860** | 0,056 | 0,024 |
| S2 | Ka.C.21 | -0,036 | 0,000 | 6.353 | **-0.0502** | -0,039 | -0,009 |
| S3 | Ka.C.17 | 0,065 | 0,000 | 2.986 | **-0.0092** | 0,000 | 0,000 |
| S3 | Ka.C.21 | -0,043 | 0,000 | 2.979 | **0.0050** | 0,000 | 0,000 |
| S4 | Ka.C.17 | 0,056 | 0,024 | 2.189 | **-0.0076** | 0,065 | 0,000 |
| S4 | Ka.C.21 | -0,039 | -0,009 | 2.142 | **0.0044** | -0,043 | 0,000 |
| S5 | Ka.C.11 | 0,058 | 0,000 | 0.789 | **-0.0001** | 0,057 | 0,005 |
| **-** | **-** | **m** | **m** | **m** | **m** | **m** | **m** |

AFB. STAALCONTROLE



## SAMENSTELLING CONSTRUCTIEDELEN

| Constructiedeel | Staaf/staven |
|---|---|
| C1 | S1 |
| C2 | S2 |
| C3 | S3 |
| C4 | S4 |
| C5 | S5 |

## KNIKLENGTEGEGEVENS

| Staaf | Profiel | | Lokale Y-as | | | Lokale Z-as | | |
|---|---|---|---|---|---|---|---|---|
| | | Lsys | methode | Lbuc | Lbuc/Lsys | methode | Lbuc | Lbuc/Lsys |
| C1 - V1 (0.000-2.200) | P1 | 2.200 | Ongeschoord | 8.989 | 4.09 | Cons. gesch. | 2.200 | 1.00 |
| C2 - V1 (0.000-14.234) | P1 | 14.230 | Ongeschoord | 22.476 | 1.58 | Handmatige Invoer | 1.350 | 0.09 |
| C3 - V1 (0.000-7.000) | P4 | 7.000 | Ongeschoord | 16.067 | 2.30 | Cons. gesch. | 7.000 | 1.00 |
| C4 - V1 (0.000-4.050) | P2 | 4.050 | Ongeschoord | 8.016 | 1.98 | Handmatige Invoer | 1.350 | 0.33 |
| C5 - V1 (0.000-2.131) | P2 | 2.130 | Ongeschoord | 15.468 | 7.26 | Handmatige Invoer | 1.350 | 0.63 |
| **-** | **-** | **m** | **-** | **m** | **-** | **-** | **m** | **-** |

## KIPSTEUNENGEGEVENS

| Staaf | Profiel | Begin: | Eind: | Kipsteunen boven | Kipsteunen onder | Aangrijphoogte |
|---|---|---|---|---|---|---|
| C1 - V1 (0.000-2.200) | P1 | Gesteund | Gesteund | | | Centrum |
| C2 - V1 (0.000-14.234) | P1 | Gesteund | Gesteund | 1.58, 3.16, 4.74, 6.33, 7.91, 9.49, 11.07, 12.65 | 4.74, 9.49 | Centrum |

| Staaf | Profiel | Begin: | Eind: | Kipsteunen boven | Kipsteunen onder | Aangrijphoogte |
|---|---|---|---|---|---|---|
| C3 - V1 (0.000-7.000) | P4 | Gesteund | Gesteund | | | Centrum |
| C4 - V1 (0.000-4.050) | P2 | Gesteund | Gesteund | 2.02 | 2.02 | Centrum |
| C5 - V1 (0.000-2.131) | P2 | Gesteund | Overstek | | | Centrum |
| - | - | - | - | m | m | - |

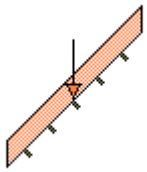
## UNITY CHECK NEN-EN1993-1-1:2009/NB:2011

| Veld | Toetsing | Combinatie | Artikel | UC max |
|---|---|---|---|---|
| C1-V1 (0.000-2.200) | Doorsnede | Fu.C.28 | NEN-EN1993-1-1(6.12) | 0,39 |
| C1-V1 (0.000-2.200) | Stabiliteit | Fu.C.26 | NEN-EN1993-1-1(6.46) | 0,04 |
| C1-V1 (0.000-2.200) | Stabiliteit | Fu.C.26 | NEN-EN1993-1-1(6.46) | 0,04 |
| C1-V1 (0.000-2.200) | Stabiliteit | Fu.C.26 | NEN-EN1993-1-1(6.61&6.62) | 0,46 |
| C1-V1 (0.000-2.200) | Kiptoetsing | Fu.C.28 | NEN-EN1993-1-1(6.54) | 0,42 |
| C2-V1 (0.000-14.234) | Doorsnede | Fu.C.16 | NEN-EN1993-1-1(6.12) | 0,58 |
| C2-V1 (0.000-14.234) | Stabiliteit | Fu.C.35 | NEN-EN1993-1-1(6.46) | 0,13 |
| C2-V1 (0.000-14.234) | Stabiliteit | Fu.C.35 | NEN-EN1993-1-1(6.46) | 0,03 |
| C2-V1 (0.000-14.234) | Stabiliteit | Fu.C.35 | NEN-EN1993-1-1(6.61&6.62) | 0,73 |
| C2-V1 (0.000-14.234) | Kiptoetsing | Fu.C.20 | NEN-EN1993-1-1(6.54) | 0,77 |
| C3-V1 (0.000-7.000) | Doorsnede | Fu.C.16 | NEN-EN1993-1-1(6.12) | 0,49 |
| C3-V1 (0.000-7.000) | Stabiliteit | Fu.C.35 | NEN-EN1993-1-1(6.46) | 0,05 |
| C3-V1 (0.000-7.000) | Stabiliteit | Fu.C.35 | NEN-EN1993-1-1(6.46) | 0,14 |
| C3-V1 (0.000-7.000) | Stabiliteit | Fu.C.35 | NEN-EN1993-1-1(6.61&6.62) | 0,93 |
| C3-V1 (0.000-7.000) | Kiptoetsing | Fu.C.16 | NEN-EN1993-1-1(6.54) | 0,82 |
| C4-V1 (0.000-4.050) | Doorsnede | Fu.C.35 | NEN-EN1993-1-1(6.12) | 0,84 |
| C4-V1 (0.000-4.050) | Stabiliteit | Fu.C.35 | NEN-EN1993-1-1(6.46) | 0,03 |
| C4-V1 (0.000-4.050) | Stabiliteit | Fu.C.35 | NEN-EN1993-1-1(6.46) | 0,03 |
| C4-V1 (0.000-4.050) | Stabiliteit | Fu.C.35 | NEN-EN1993-1-1(6.61&6.62) | 0,93 |
| C4-V1 (0.000-4.050) | Kiptoetsing | Fu.C.35 | NEN-EN1993-1-1(6.54) | 0,91 |
| C5-V1 (0.000-2.131) | Doorsnede | Fu.C.26 | NEN-EN1993-1-1(6.12) | 0,07 |
| C5-V1 (0.000-2.131) | Stabiliteit | Fu.C.26 | NEN-EN1993-1-1(6.46) | 0,00 |
| C5-V1 (0.000-2.131) | Stabiliteit | Fu.C.26 | NEN-EN1993-1-1(6.46) | 0,00 |
| C5-V1 (0.000-2.131) | Stabiliteit | Fu.C.26 | NEN-EN1993-1-1(6.61&6.62) | 0,07 |
| C5-V1 (0.000-2.131) | Kiptoetsing | Fu.C.26 | NEN-EN1993-1-1(6.54) | 0,07 |

## 1. Hellend dak (NEN-EN1995-1-1:2011/NB:2013)

### PROFIELGEGEVENS: R71X171

| | | | | | |
|---|---|---|---|---|---|
| Breedte | b | 71 mm | Oppervlak | A | 12141 mm^2 |
| Hoogte | h | 171 mm | | | |
| | | | Traagheidsmoment | Itor | 1504e+04 mm^4 |
| Weerstandsmoment | Wy | 3460e+02 mm^3 | Traagheidsmoment | Iy | 2958e+04 mm^4 |
| Weerstandsmoment | Wz | 1437e+02 mm^3 | Traagheidsmoment | Iz | 5100e+03 mm^4 |
| | | | | | |
| Sterkte klasse | | C24 | | | |
| | f,m,0,k | 24.0 N/mm^2 | | f,c,0,k | 21.0 N/mm^2 |
| | f,t,0,k | 14.0 N/mm^2 | | f,v,0,k | 4.0 N/mm^2 |
| Elasticiteitsmodulus | E;0;mean | 11000.0 N/mm^2 | | G;mean | 690.0 N/mm^2 |



| | | | | | |
|---|---|---|---|---|---|
| Klimaatklasse | | I | | Gamma;M | 1.30 |
| | k;h | 1.00 | I (Permanent) | k;mod | 0.60 |
| | | | II (Lange termijn) | k;mod | 0.70 |
| | Beta;c | 0.2 | III (Middellange termijn) | k;mod | 0.80 |
| Ontwerplevensduur | | 15 Jaar | IV (Korte termijn) | k;mod | 0.90 |
| Betrouwbaarheidsklasse | | 1 | V (Onmiddellijk) | k;mod | 1.10 |
| lsys | | 4.400 m | Beschot kwaliteit | | C18 |
| hoh afstand | Lt | 1.350 m | Beschot dikte | | 0 mm |
| Zeeg | Y' | 0 mm | Zeeg | Z' | 0 mm |
| dakhelling | alfa | 22 ° | | | |
| systeemlengte L (Z as) | | 2.200 m m | Hellend | | Ja |
| Doorbuigingen beschouwen | | Ja | Dubbele buiging | | Ja |
| Stootbelasting | | Nee | | | |
| Reductiefactor spreiding | | 1.00 | | | |

### GEWICHTS BEREKENING

| | | | |
|---|---|---|---|
| **Wind** | | | |
| Qp1 | Pieksnelheids druk (Qp voor referentieperiode 50) | NEN-EN1991-1-4#4(Z=8.40,Terrein=Onbebouwd,Regio=3,C0=1.00) | 0.66 kN/m^2 |
| CsCd1 | Constructie factor (CsCd) | 1.00 | 1.00 |
| Cpe1 | Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=F,Hoek=22.00,Eerst=False) | 0.43 |
| Cpi1 | Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=-0.50,Openingen=0.00,Over=False) | -0.30 |
| **Windzuiging** | | | |
| Cpe1 | Druk coefficient (Cpe) | NEN-EN1991-1-4#7.2(Dak=Zadeldak,Zone=F,Hoek=22.00) | -0.71 |
| Cpi1 | Druk coefficient (Cpi) | EN1991-1-4#7.2.9(Cpe=0.80,Openingen=0.00,Over=True) | 0.20 |
| **Sneeuw** | | | |
| Sk1 | Karakteristiek waarde van de sneeuwlast op de grond (Sk) | NEN-EN1991-1-3#4.1(Zone=1) | 0.70 kN/m^2 |
| Mu1 | Sneeuwbelasting coefficient (Mu) | EN1991-1-3#5.3(Dak=Hellend,Hoek=22.00,Mu=Mu1) | 0.80 |

### BELASTINGEN

| | | | | CPROB |
|---|---|---|---|---|
| Permanent | Eigen gewicht | 0.04 | kN/m^2 | |
| | overig | 0.27 | kN/m^2 | |
| | **Totaal** | **0.31** | kN/m^2 | |
| Opgelegd | q;k | 0.00 | kN/m^2 | 0.87 |
| | psi (-)_0; psi (-)_1; psi (-)_2 | 0.00; 0.00; 0.00 | | |
| | Q;k | 1.50 | kN | |
| Wind | Winddruk (CsCd = 1.00) | 0.48 | kN/m^2 | 0.91 |
| | Windzuiging (CsCd = 1.00) | -0.60 | kN/m^2 | |
| Sneeuw | p_sneeuw | 0.56 | kN/m^2 | 0.75 |
| Bijzonder | Bijzonder; Fbijz | 0.00 | kN | |
| | Bijzonder; pbijz | 0.00 | kN/m^2 | |

### BELASTINGSCOMBINATIES VOOR UITERSTE GRENSTOESTAND (610A + 6.10B)

| | | | |
|---|---|---|---|
| Fu.C.1 | p = + yG * G_rep * cos(alfa) | = + 1.22 * 0.31 * 0.93 = | 0.35 kN/m^2 |
| Fu.C.2 | p = + yG * G_rep * cos(alfa) | = + 0.90 * 0.31 * 0.93 = | 0.26 kN/m^2 |

| | | | |
|---|---|---|---|
| Fu.C.3 | p = + yG * G_rep * cos(alfa) + yQ * Q_rep * cos²(alfa) | = + 1.08 * 0.31 * 0.93 + 1.17 * 0.00 * 0.86 = | 0.31 kN/m^2 |
| Fu.C.4 | p = + yG * G_rep * cos(alfa) + yQ * Q_wind_druk | = + 1.08 * 0.31 * 0.93 + 1.13 * 0.48 = | 0.85 kN/m^2 |
| Fu.C.5 | p = + yG * G_rep * cos(alfa) + yQ * Q_wind_zuiging | = + 0.90 * 0.31 * 0.93 + 1.13 * (-0.60) = | -0.42 kN/m^2 |
| Fu.C.6 | p = + yG * G_rep * cos(alfa) + yQ * Q_sneeuw * cos²(alfa) | = + 1.08 * 0.31 * 0.93 + 1.01 * 0.56 * 0.86 = | 0.80 kN/m^2 |
| Fu.C.7 | p = + yG * G_rep * cos(alfa) | = + 1.08 * 0.31 * 0.93 = | 0.31 kN/m^2 |
| | F = + yQ * F_rep * cos(alfa) | = + 1.35 * 1.50 * 0.93 = | 1.88 kN |
| Bi.C.1 | p = + yG * G_rep * cos(alfa) | = + 1.00 * 0.31 * 0.93 = | 0.29 kN/m^2 |
| Bi.C.2 | p = + yG * G_rep * cos(alfa) + yQ * Q_wind_druk | = + 1.00 * 0.31 * 0.93 + 0.17 * 0.48 = | 0.37 kN/m^2 |
| Bi.C.3 | p = + yG * G_rep * cos(alfa) + yQ * Q_wind_zuiging | = + 1.00 * 0.31 * 0.93 + 0.17 * (-0.60) = | 0.18 kN/m^2 |

## MAATGEVENDE SNEDEKRACHTEN

| Comb. | Nc;Ed, Nt;Ed | Vy;Ed | Vz;Ed | My;Ed | Mz;Ed |
|---|---|---|---|---|---|
| Fu.C.1 | 0.00 | 0.21 | 1.03 | 1.13 | 0.11 |
| Fu.C.2 | 0.00 | 0.15 | 0.76 | 0.84 | 0.08 |
| Fu.C.3 | 0.00 | 0.19 | 0.92 | 1.01 | 0.10 |
| Fu.C.4 | 0.00 | 0.19 | 2.54 | 2.79 | 0.10 |
| Fu.C.5 | 0.00 | 0.15 | -1.26 | -1.38 | 0.08 |
| Fu.C.6 | 0.00 | 0.48 | 2.37 | 2.60 | 0.26 |
| Fu.C.7 | 0.00 | 0.94 | 2.79 | 3.07 | 0.52 |
| Bi.C.1 | 0.00 | 0.17 | 0.85 | 0.93 | 0.09 |
| Bi.C.2 | 0.00 | 0.17 | 1.09 | 1.20 | 0.09 |
| Bi.C.3 | 0.00 | 0.17 | 0.55 | 0.60 | 0.09 |
| | **kN** | **kN** | **kN** | **kNm** | **kNm** |

## MAX UC SNEDEKRACHT

| Comb. | Nc;Ed, Nt;Ed | Vy;Ed | Vz;Ed | My;Ed | Mz;Ed |
|---|---|---|---|---|---|
| Fu.C.1 | 0.00 | 0.00 | 0.00 | 1.13 | 0.11 |
| Fu.C.2 | 0.00 | 0.00 | 0.00 | 0.84 | 0.08 |
| Fu.C.3 | 0.00 | 0.00 | 0.00 | 1.01 | 0.10 |
| Fu.C.4 | 0.00 | 0.00 | 0.00 | 2.79 | 0.10 |
| Fu.C.5 | 0.00 | 0.00 | 0.00 | -1.38 | 0.08 |
| Fu.C.6 | 0.00 | 0.00 | 0.00 | 2.60 | 0.26 |
| Fu.C.7 | 0.00 | 0.38 | 0.94 | 3.07 | 0.52 |
| Bi.C.1 | 0.00 | 0.00 | 0.00 | 0.93 | 0.09 |
| Bi.C.2 | 0.00 | 0.00 | 0.00 | 1.20 | 0.09 |
| Bi.C.3 | 0.00 | 0.00 | 0.00 | 0.60 | 0.09 |
| | **kN** | **kN** | **kN** | **kNm** | **kNm** |

## REKENSTERKTE

| Comb. | Belasting duurklasse | f;m,y,d | f;m,z,d | f;t,0,d | f;c,0,d | f;v,0,d |
|---|---|---|---|---|---|---|
| Fu.C.1 | I (Permanent) | 11.08 | 12.86 | 6.46 | 9.69 | 1.85 |
| Fu.C.2 | I (Permanent) | 11.08 | 12.86 | 6.46 | 9.69 | 1.85 |
| Fu.C.3 | I (Permanent) | 11.08 | 12.86 | 6.46 | 9.69 | 1.85 |
| Fu.C.4 | IV (Korte termijn) | 16.62 | 19.30 | 9.69 | 14.54 | 2.77 |
| Fu.C.5 | IV (Korte termijn) | 16.62 | 19.30 | 9.69 | 14.54 | 2.77 |
| Fu.C.6 | IV (Korte termijn) | 16.62 | 19.30 | 9.69 | 14.54 | 2.77 |
| Fu.C.7 | III (Middellange termijn) | 14.77 | 17.15 | 8.62 | 12.92 | 2.46 |
| Bi.C.1 | I (Permanent) | 11.08 | 12.86 | 6.46 | 9.69 | 1.85 |
| Bi.C.2 | IV (Korte termijn) | 16.62 | 19.30 | 9.69 | 14.54 | 2.77 |
| Bi.C.3 | IV (Korte termijn) | 16.62 | 19.30 | 9.69 | 14.54 | 2.77 |
| | | **N/mm^2** | **N/mm^2** | **N/mm^2** | **N/mm^2** | **N/mm^2** |

## REKENSPANNING

| Comb. | sigma;m,y,d | sigma;m,z,d | tau;v,y,d | tau;v,z,d | sigma;c(t),0,d |
|---|---|---|---|---|---|
| Fu.C.1 | 3.27 | 0.80 | 0.00 | 0.00 | 0.00 |
| Fu.C.2 | 2.42 | 0.59 | 0.00 | 0.00 | 0.00 |
| Fu.C.3 | 2.91 | 0.71 | 0.00 | 0.00 | 0.00 |
| Fu.C.4 | 8.07 | 0.71 | 0.00 | 0.00 | 0.00 |
| Fu.C.5 | 3.99 | 0.59 | 0.00 | 0.00 | 0.00 |
| Fu.C.6 | 7.52 | 1.83 | 0.00 | 0.00 | 0.00 |
| Fu.C.7 | 8.88 | 3.61 | 0.05 | 0.12 | 0.00 |
| Bi.C.1 | 2.69 | 0.66 | 0.00 | 0.00 | 0.00 |
| Bi.C.2 | 3.46 | 0.66 | 0.00 | 0.00 | 0.00 |
| Bi.C.3 | 1.74 | 0.66 | 0.00 | 0.00 | 0.00 |
| | **N/mm^2** | **N/mm^2** | **N/mm^2** | **N/mm^2** | **N/mm^2** |

## UC DOORSNEDE PER BELASTINGSCOMBINATIE

| | | | |
|---|---|---|---|
| Fu.C.1 | NEN-EN1995-1-1#6.1.6 (6.11) | 3.274 / 11.077 + 0.7 x 0.796 / 12.864 | 0.34 Ok |
| Fu.C.1 | NEN-EN1995-1-1#6.1.6 (6.12) | 0.7 x 3.274 / 11.077 + 0.796 / 12.864 | 0.27 Ok |

| | | | | |
|---|---|---|---|---|
| Fu.C.2 | NEN-EN1995-1-1#6.1.6 (6.11) | | 2.425 / 11.077 + 0.7 x 0.59 / 12.864 | 0.25 Ok |
| Fu.C.2 | NEN-EN1995-1-1#6.1.6 (6.12) | | 0.7 x 2.425 / 11.077 + 0.59 / 12.864 | 0.20 Ok |
| Fu.C.3 | NEN-EN1995-1-1#6.1.6 (6.11) | | 2.913 / 11.077 + 0.7 x 0.709 / 12.864 | 0.30 Ok |
| Fu.C.3 | NEN-EN1995-1-1#6.1.6 (6.12) | | 0.7 x 2.913 / 11.077 + 0.709 / 12.864 | 0.24 Ok |
| Fu.C.4 | NEN-EN1995-1-1#6.1.6 (6.11) | | 8.067 / 16.615 + 0.7 x 0.709 / 19.296 | 0.51 Ok |
| Fu.C.4 | NEN-EN1995-1-1#6.1.6 (6.12) | | 0.7 x 8.067 / 16.615 + 0.709 / 19.296 | 0.38 Ok |
| Fu.C.5 | NEN-EN1995-1-1#6.1.6 (6.11) | | 3.993 / 16.615 + 0.7 x 0.59 / 19.296 | 0.26 Ok |
| Fu.C.5 | NEN-EN1995-1-1#6.1.6 (6.12) | | 0.7 x 3.993 / 16.615 + 0.59 / 19.296 | 0.20 Ok |
| Fu.C.6 | NEN-EN1995-1-1#6.1.6 (6.11) | | 7.52 / 16.615 + 0.7 x 1.829 / 19.296 | 0.52 Ok |
| Fu.C.6 | NEN-EN1995-1-1#6.1.6 (6.12) | | 0.7 x 7.52 / 16.615 + 1.829 / 19.296 | 0.41 Ok |
| Fu.C.7 | NEN-EN1995-1-1#6.1.6 (6.11) | | 8.882 / 14.769 + 0.7 x 3.613 / 17.152 | 0.75 Ok |
| Fu.C.7 | NEN-EN1995-1-1#6.1.6 (6.12) | | 0.7 x 8.882 / 14.769 + 3.613 / 17.152 | 0.63 Ok |
| Fu.C.7 | NEN-EN1995-1-1#6.1.7 (6.13) | Vy | 0.047 / 2.462 | 0.02 Ok |
| Fu.C.7 | NEN-EN1995-1-1#6.1.7 (6.13) | Vz | 0.116 / 2.462 | 0.05 Ok |
| Bi.C.1 | NEN-EN1995-1-1#6.1.6 (6.11) | | 2.694 / 11.077 + 0.7 x 0.655 / 12.864 | 0.28 Ok |
| Bi.C.1 | NEN-EN1995-1-1#6.1.6 (6.12) | | 0.7 x 2.694 / 11.077 + 0.655 / 12.864 | 0.22 Ok |
| Bi.C.2 | NEN-EN1995-1-1#6.1.6 (6.11) | | 3.458 / 16.615 + 0.7 x 0.655 / 19.296 | 0.23 Ok |
| Bi.C.2 | NEN-EN1995-1-1#6.1.6 (6.12) | | 0.7 x 3.458 / 16.615 + 0.655 / 19.296 | 0.18 Ok |
| Bi.C.3 | NEN-EN1995-1-1#6.1.6 (6.11) | | 1.743 / 16.615 + 0.7 x 0.655 / 19.296 | 0.13 Ok |
| Bi.C.3 | NEN-EN1995-1-1#6.1.6 (6.12) | | 0.7 x 1.743 / 16.615 + 0.655 / 19.296 | 0.11 Ok |

## BELASTINGSCOMBINATIES VOOR BRUIKBAARHEIDSGRENSTOESTAND

| | | | |
|---|---|---|---|
| Ka.C.1 | p = + yG * G_rep * cos(alfa) | = + 1.00 * 0.31 * 0.93 = | 0.29 kN/m^2 |
| Ka.C.2 | p = + yG * G_rep * cos(alfa) + yQ * Q_rep * cos²(alfa) | = + 1.00 * 0.31 * 0.93 + 0.87 * 0.00 * 0.86 = | 0.29 kN/m^2 |
| Ka.C.3 | p = + yG * G_rep * cos(alfa) + yQ * Q_wind_druk | = + 1.00 * 0.31 * 0.93 + 0.84 * 0.48 = | 0.69 kN/m^2 |
| Ka.C.4 | p = + yG * G_rep * cos(alfa) + yQ * Q_wind_zuiging | = + 1.00 * 0.31 * 0.93 + 0.84 * (-0.60) = | -0.22 kN/m^2 |
| Ka.C.5 | p = + yG * G_rep * cos(alfa) + yQ * Q_sneeuw * cos²(alfa) | = + 1.00 * 0.31 * 0.93 + 0.75 * 0.56 * 0.86 = | 0.65 kN/m^2 |
| Qu.C.1 | p = + yG * G_rep * cos(alfa) | = + 1.00 * 0.31 * 0.93 = | 0.29 kN/m^2 |
| Ka.C.(w1) | p = + yG * G_rep * cos(alfa) | = + 1.00 * 0.31 * 0.93 = | 0.29 kN/m^2 |

## UC DOORBUIGINGEN PER BELASTINGSCOMBINATIE

**Doorbuigingen in Y' richting**

| | | | | | |
|---|---|---|---|---|---|
| L/250 | Limiet w;max | 8.8 mm | L/250 | Limiet w;2+w;3 | 8.8 mm |
| E;mean | E;0;ser;d;inst | 11000.0 N/mm^2 | E;mean / Kdef | E;0;ser;d;cr | 18333.3 N/mm^2 |
| | | | E-Mod/E;0;ser;d;cr | | 0.60 |
| Ka.C.(w1) | w;1 | 0.8 mm | | w;c | 0.0 mm |
| Qu.C.1 | w;2 | 0.5 mm | | | |

| Comb. | w;3 | w;tot | w;max | w;2+w;3 | UC(w;max) | UC(w;2+w;3) |
|---|---|---|---|---|---|---|
| Ka.C.1 | 0.0 | 1.4 | 1.4 | 0.5 | 0.15 | 0.06 |
| Ka.C.2 | 0.0 | 1.4 | 1.4 | 0.5 | 0.15 | 0.06 |
| Ka.C.3 | 0.0 | 1.4 | 1.4 | 0.5 | 0.15 | 0.06 |
| Ka.C.4 | 0.0 | 1.4 | 1.4 | 0.5 | 0.15 | 0.06 |
| Ka.C.5 | 1.1 | 2.4 | 2.4 | 1.6 | 0.28 | 0.18 |
| | mm | mm | mm | mm | | |

**Doorbuigingen in Z' richting**

| | | | | | |
|---|---|---|---|---|---|
| L/250 | Limiet w;max | 17.6 mm | L/250 | Limiet w;2+w;3 | 17.6 mm |
| E;mean | E;0;ser;d;inst | 11000.0 N/mm^2 | E;mean / Kdef | E;0;ser;d;cr | 18333.3 N/mm^2 |
| | | | E-Mod/E;0;ser;d;cr | | 0.60 |
| Ka.C.(w1) | w;1 | 5.8 mm | | w;c | 0.0 mm |
| Qu.C.1 | w;2 | 3.5 mm | | | |

| Comb. | w;3 | w;tot | w;max | w;2+w;3 | UC(w;max) | UC(w;2+w;3) |
|---|---|---|---|---|---|---|
| Ka.C.1 | 0.0 | 9.2 | 9.2 | 3.5 | 0.53 | 0.20 |
| Ka.C.2 | 0.0 | 9.2 | 9.2 | 3.5 | 0.53 | 0.20 |
| Ka.C.3 | 8.2 | 17.4 | 17.4 | 11.7 | 0.99 | 0.66 |
| Ka.C.4 | -10.2 | -1.0 | -1.0 | -6.7 | 0.05 | 0.38 |
| Ka.C.5 | 7.3 | 16.6 | 16.6 | 10.8 | 0.94 | 0.61 |
| | mm | mm | mm | mm | | |

## MAATGEVENDE KRACHTEN (FU.C.7)

| | | |
|---|---|---|
| Normaalkracht | Nt;Ed | 0.00 kN |
| Dwarskracht | Vy;Ed | 0.38 kN |
| Dwarskracht | Vz;Ed | 0.94 kN |
| Torsie | Mx;Ed | 0.00 kNm |
| Moment | My;Ed | 3.07 kNm |
| Moment | Mz;Ed | 0.52 kNm |

## MAATGEVENDE DOORBUIGINGEN (KA.C.3)

| | | |
|---|---|---|
| Ka.C.(w1) | w;1 | 5.8 mm |
| Qu.C.1 | w;2 | 3.5 mm |
| Ka.C.3 | w;3 | 8.2 mm |
| | w;tot | 17.5 mm |
| | w;max | 17.5 mm |
| | w;2+w;3 | 11.7 mm |
| | Limiet w;max | 19.7 mm |
| | Limiet w;2+w;3 | 19.7 mm |
| | UC(w;max) | 0.89 |
| | UC(w;2+w;3) | 0.59 |

## UITGEVOERDE CONTROLES

| | | | | |
|---|---|---|---|---|
| Doorsnede | NEN-EN1995-1-1#6.1.7 (6.13) | Vy | 0.117 / 2.462 | 0.05 Ok |
| Doorsnede | NEN-EN1995-1-1#6.1.7 (6.13) | Vz | 0.345 / 2.462 | 0.14 Ok |
| Doorsnede | NEN-EN1995-1-1#6.1.6 (6.11) | | 8.882 / 14.769 + 0.7 x 3.613 / 17.152 | 0.75 Ok |
| Doorsnede | NEN-EN1995-1-1#6.1.6 (6.12) | | 0.7 x 8.882 / 14.769 + 3.613 / 17.152 | 0.63 Ok |
| Doorbuigingen | NEN-EN1995#7.2 \| NEN-EN1990#A1.4.3 (4) | Y' | 2.4 / 8.8 | 0.28 Ok |
| Doorbuigingen | NEN-EN1995#7.2 \| NEN-EN1990#A1.4.3 (4) | Z' | 17.4 / 17.6 | 0.99 Ok |
| Doorbuigingen | NEN-EN1995#7.2 \| NEN-EN1990#A1.4.3 (4) | | 17.5 / 19.7 | 0.89 Ok |

***Ligger gecontroleerd op sterkte en doorbuiging***
***Ligger Ok***

**Bouwplan De Cremerhoeve aan de Minister Cremerstraat 5 te Zeijen.**

Ordernr. **2016-831**

Koops & Romeijn grondmechanica

Samenwerkende, zelfstandige adviseurs voor grondonderzoek, geotechniek en geohydrologie

Geotechnisch onderzoek tbv:

**Bouwplan De Cremerhoeve aan de Minister Cremerstraat 5 te Zeijen.**

Ordernr. **2016-831**

Opdrachtgever: BTA Dwingeloo
Tolweg 18a
7991 TC Dwingeloo.

Datum grondonderzoek: 09 november 2016

Datum rapportage: 28 november 2016

Bijlagen:

| | |
|---|---|
| Situatietekening | |
| Sondeergrafieken | DKM-01, D-03 t/m D-07, DKM-08, D-09 t/m D-16, DKM-17, D-18 t/m D-20, DKM-21 en D-22. |
| Handboorstaten | HB-1 t/m HB-4. |

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Tolweg 18a
7991 TC Dwingeloo.

**2016-831** HK/hk Meppel, 28 nov. 2016

Betreft : **Bouwplan De Cremerhoeve aan de Minister Cremerstraat 5 te Zeijen.**
Uw werknr.:**15-06**

**Geachte heer Barendsen,**

Op 21 okt. 2016 ontvingen wij de opdracht voor het uitvoeren van een geotechnisch onderzoek ten behoeve van bovengenoemd project. In de vorm van dit briefrapport, doen wij u de resultaten toekomen.

Veldwerkzaamheden.

Het grondonderzoek heeft bestaan uit 21 sonderingen, waarvan de resultaten zijn gepresenteerd op de sondeergrafieken DKM-01 t/m D-22, m.u.v. sondering 02. De conus- en wrijvingsweerstand, uitgedrukt in mN/m2, is hierop uitgezet tegen de diepte in meters ten opzichte van NAP

Vanwege nog aanwezige bebouwing, was de geplande sondeerlokatie 02 ( nog ) niet bereikbaar.

De sonderingen zijn uitgevoerd vanaf onze 20-tons track-truck rupssondeereenheid.

De metingen zijn verricht met een gladde elektrische ( kleef )mantelconus met hellingmeter, een en ander conform Norm NEN 5140, klasse 2.

Bij de kleefmantelsonderingen ( DKM ) is naast de conusweerstand eveneens de plaatselijke wrijvingsweerstand geregistreerd. Het op de betreffende sondeergrafieken weergegeven wrijvingsgetal, geeft de verhouding weer tussen de wrijvingsweerstand en de conusweerstand in procenten en is kenmerkend voor de verschillende grondsoorten.

Alle opdrachten worden aanvaard volgens onze Algemene Voorwaarden, die op verzoek worden toegezonden.
Waar deze voorwaarden niet in voorzien, geldt de RVOI 1987.

KvK nr. 04083974
BTW nr. NL 8181.76.787.B.01

Als indicatie kunnen voor normaal geconsolideerde grondlagen, **onder** de grondwaterstand de volgende percentages worden aangehouden;

| Wrijvingsgetal in % | Grondsoort |
|---|---|
| 0.3 - 1.2 | Zand, grof tot fijn |
| 1.5 - 2.0 | Silt |
| 2.5 - 5.0 | Klei |
| > 5.0 | Veen |

Tussen de verschillende grondsoorten komen overgangsvormen voor waardoor de aangegeven grenzen niet als maatgevend zijn te beschouwen.

Teneinde een inzicht te krijgen in de aard van de toplagen en de ligging van de grondwaterstand, is in aanvulling op de sonderingen een viertal korte boringen uitgevoerd.
Het opgeboorde materiaal is in het veld geklassificeerd, waarvan de resultaten zijn weergegeven op de hand boorstaten HB-1 t/m HB-4.

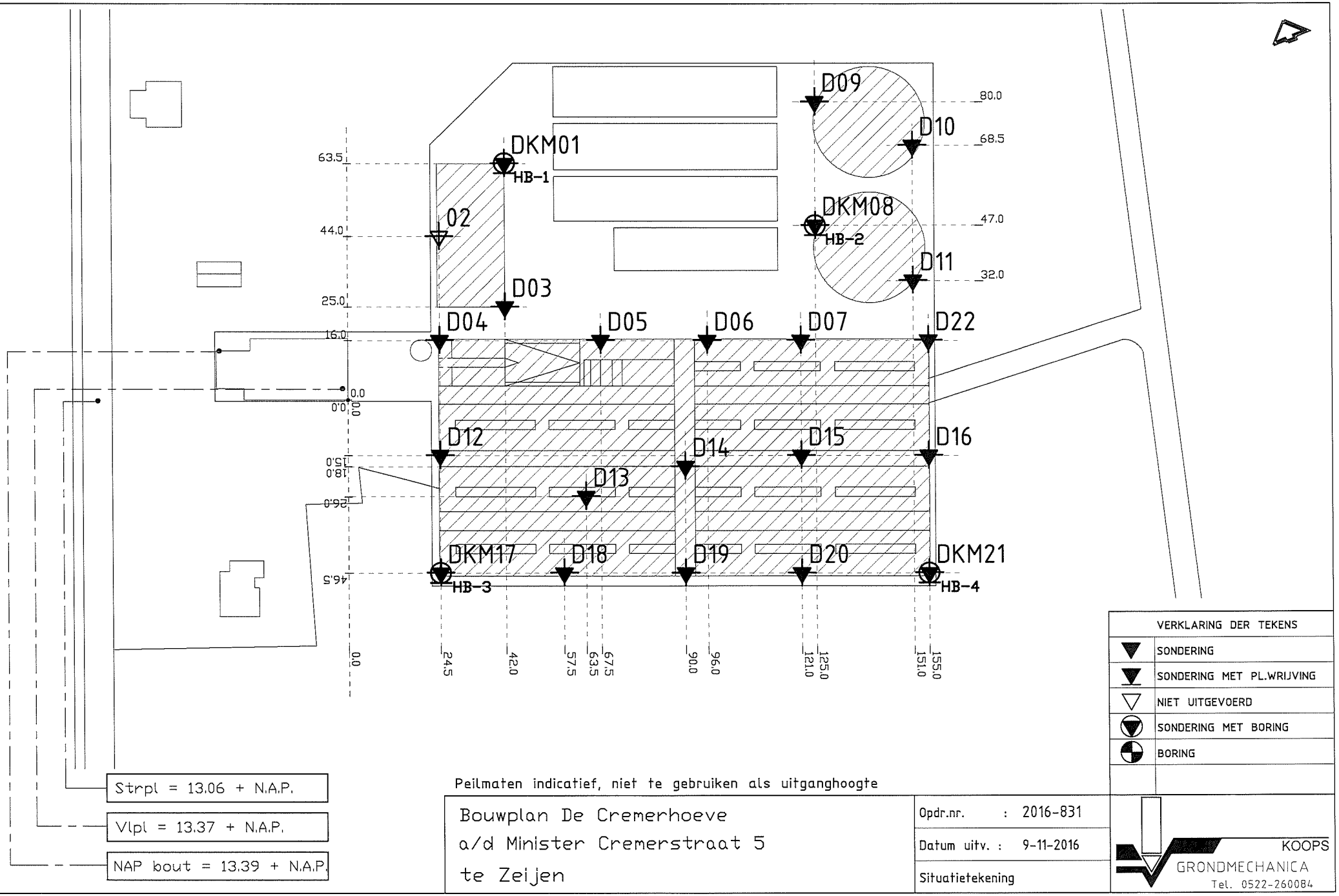
De onderzochte punten zijn door onze veldmedewerker uitgezet en in hoogte vastgelegd ten opzichte van NAP.

De ligging van de sondeer- en boorlocaties is weergegeven op de bijgaande situatietekening.

Vertrouwende u hierbij van dienst te zijn geweest,
verblijven wij,

met vriendelijke groet,

Henk Koops.

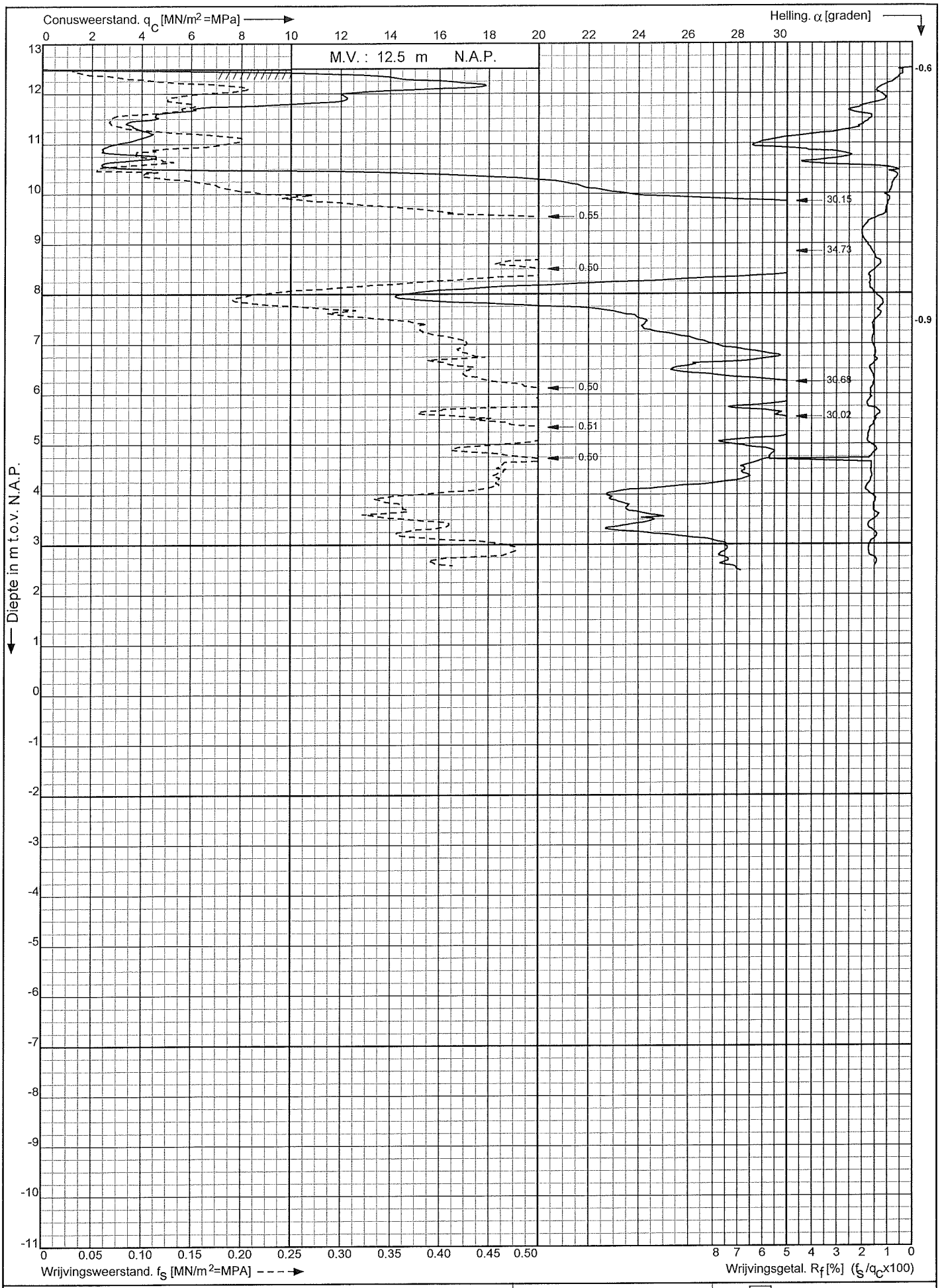



Peilmaten indicatief, niet te gebruiken als uitganghoogte

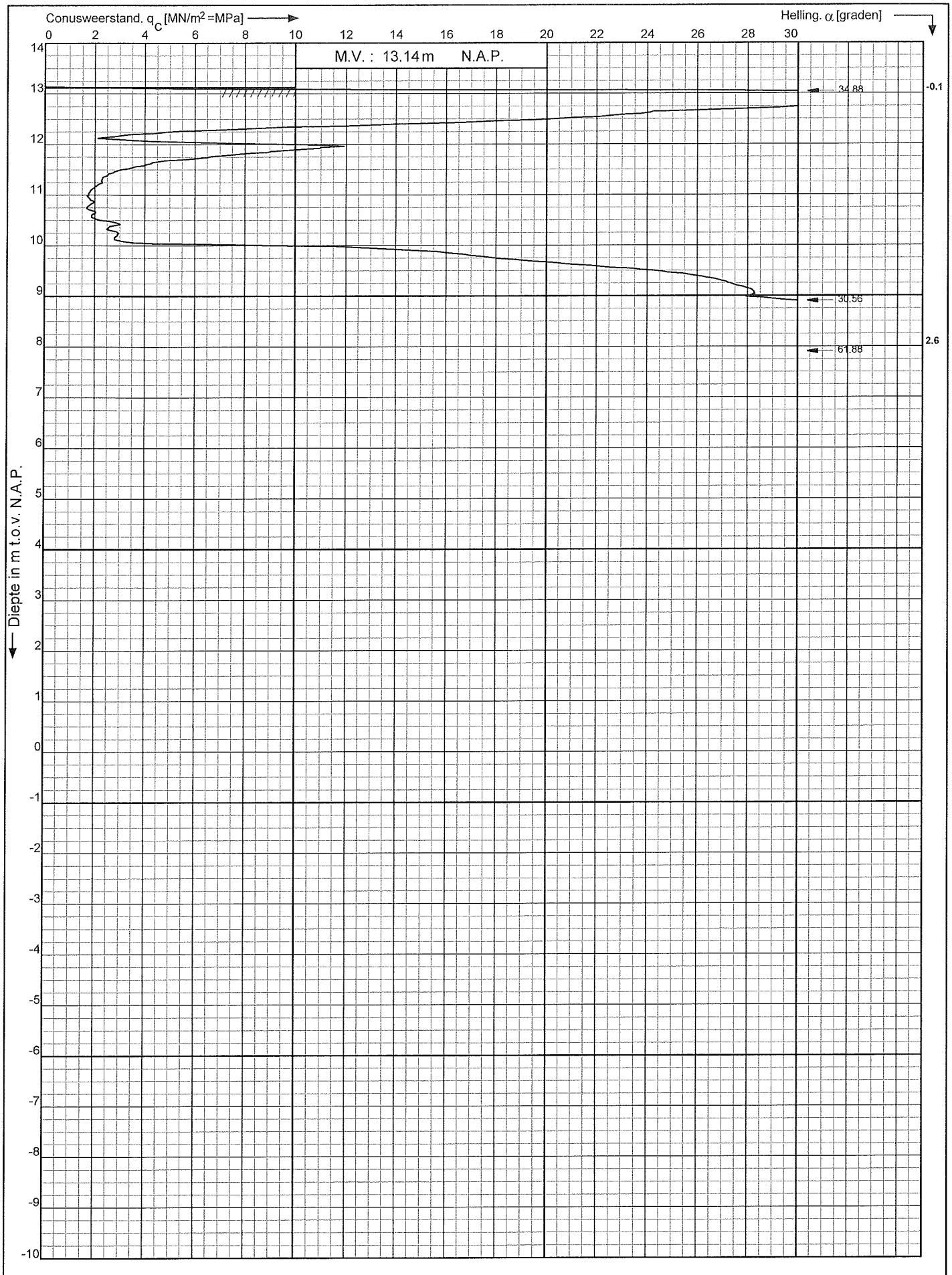
Bouwplan De Cremerhoeve
a/d Minister Cremerstraat 5
te Zeijen

Opdr.nr. : 2016-831
Datum uitv. : 9-11-2016
Situatietekening

KOOPS
GRONDMECHANICA
Tel. 0522-260084




| | | |
|---|---|---|
| Bouwplan De Cremerhoeve a/d Minister Cremerstraat 5 te Zeijen. | Opdr. nr. : 2016-831 | KOOPS GRONDMECHANICA 0522-260084 |
| | Datum uitv.: 9-11-2016 | |
| Sondering volgens : NEN 5140 Oppervlakte conuspunt : 1500 mm $^2$ | Sond. nr. : 1 | |




Bouwplan De Cremerhoeve a/d Minister Cremerstraat 5 te Zeijen.

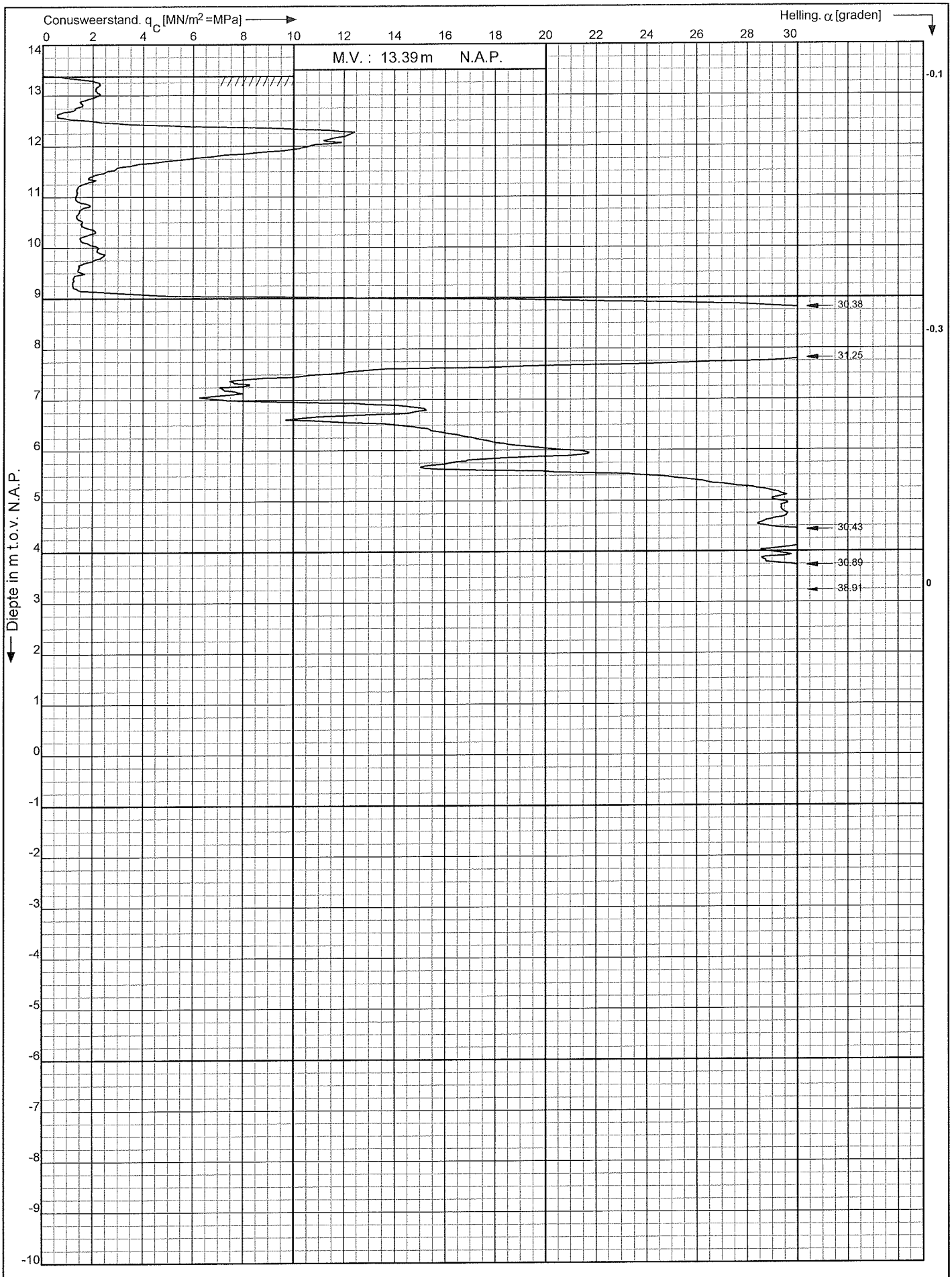
Opdr. nr. : 2016-831

Datum uitv. : 9-11-2016

Sond. nr. : 3

Sondering volgens : NEN 5140 Oppervlakte conuspunt : 1500 mm ²

KOOPS GRONDMECHANICA 0522-260084




Bouwplan De Cremerhoeve a/d Minister Cremerstraat 5 te Zeijen.

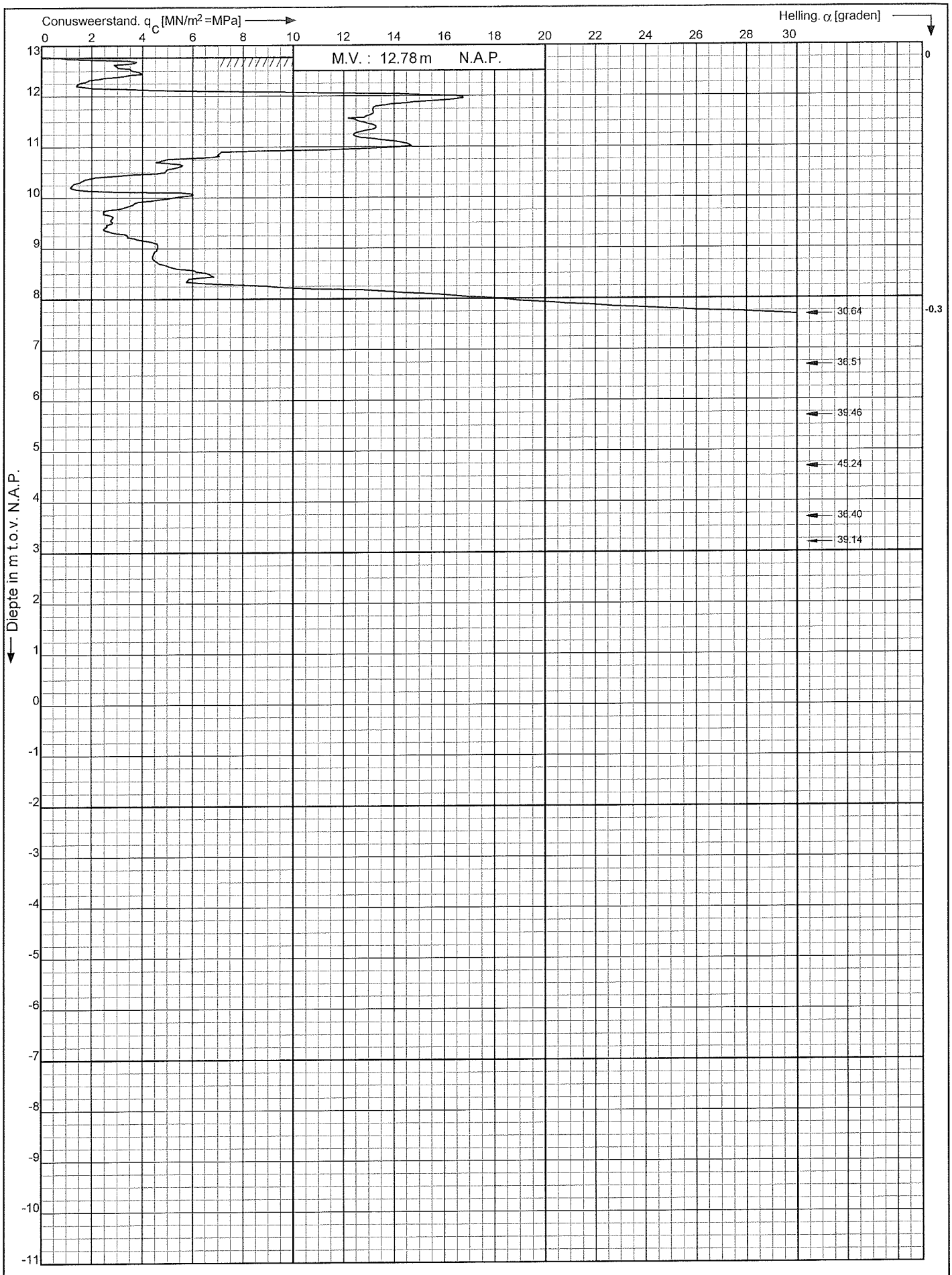
Opdr. nr. : 2016-831

Datum uitv. : 9-11-2016

Sond. nr. : 4

Sondering volgens : NEN 5140 Oppervlakte conuspunt : 1500 mm ²

KOOPS GRONDMECHANICA 0522-260084




Bouwplan De Cremerhoeve a/d Minister Cremerstraat 5 te Zeijen.

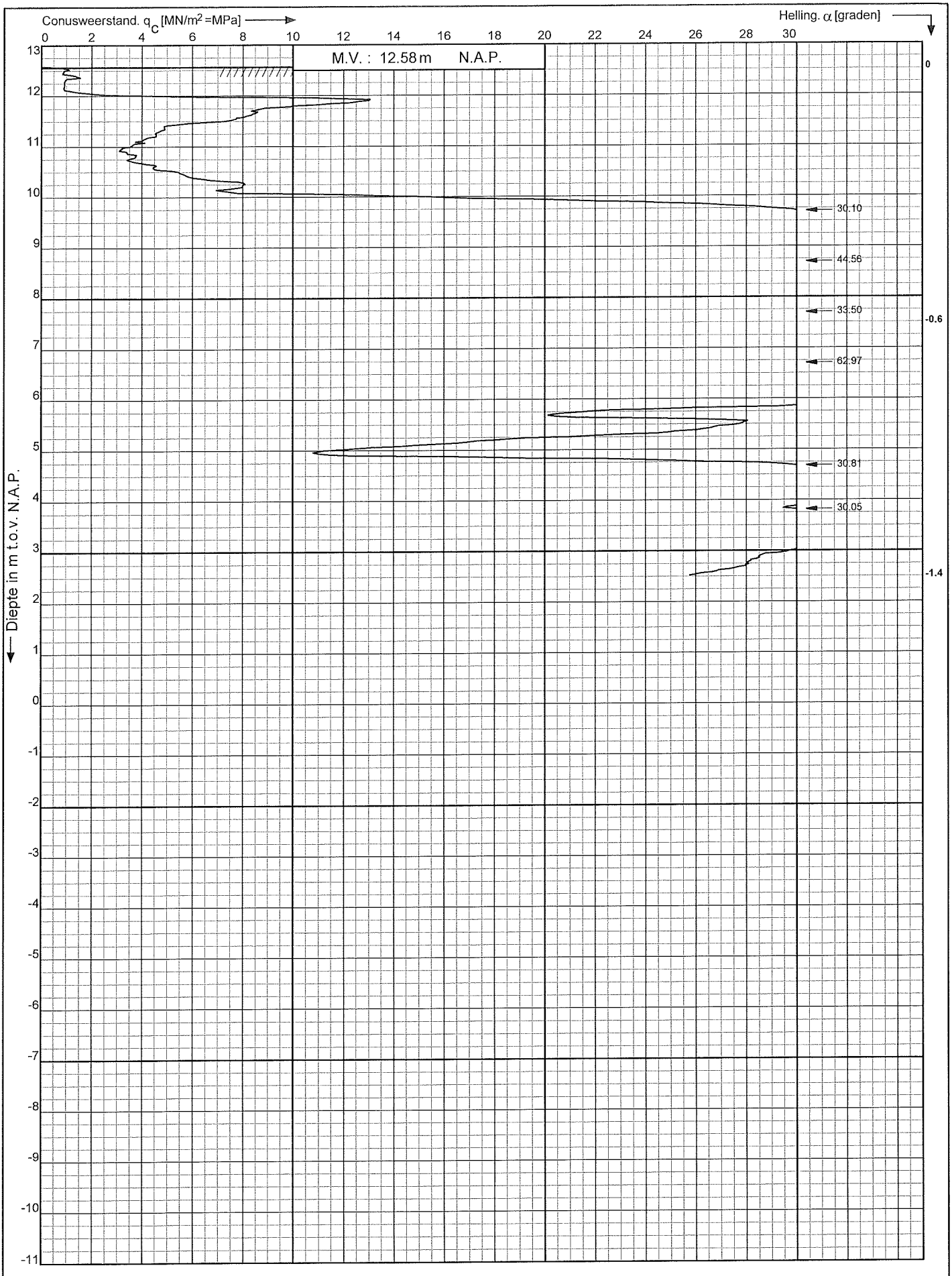
Opdr. nr. : 2016-831

Datum uitv. : 9-11-2016

Sond. nr. : 5

Sondering volgens : NEN 5140 Oppervlakte conuspunt : 1500 mm ²

KOOPS GRONDMECHANICA 0522-260084




Bouwplan De Cremerhoeve a/d Minister Cremerstraat 5 te Zeijen.

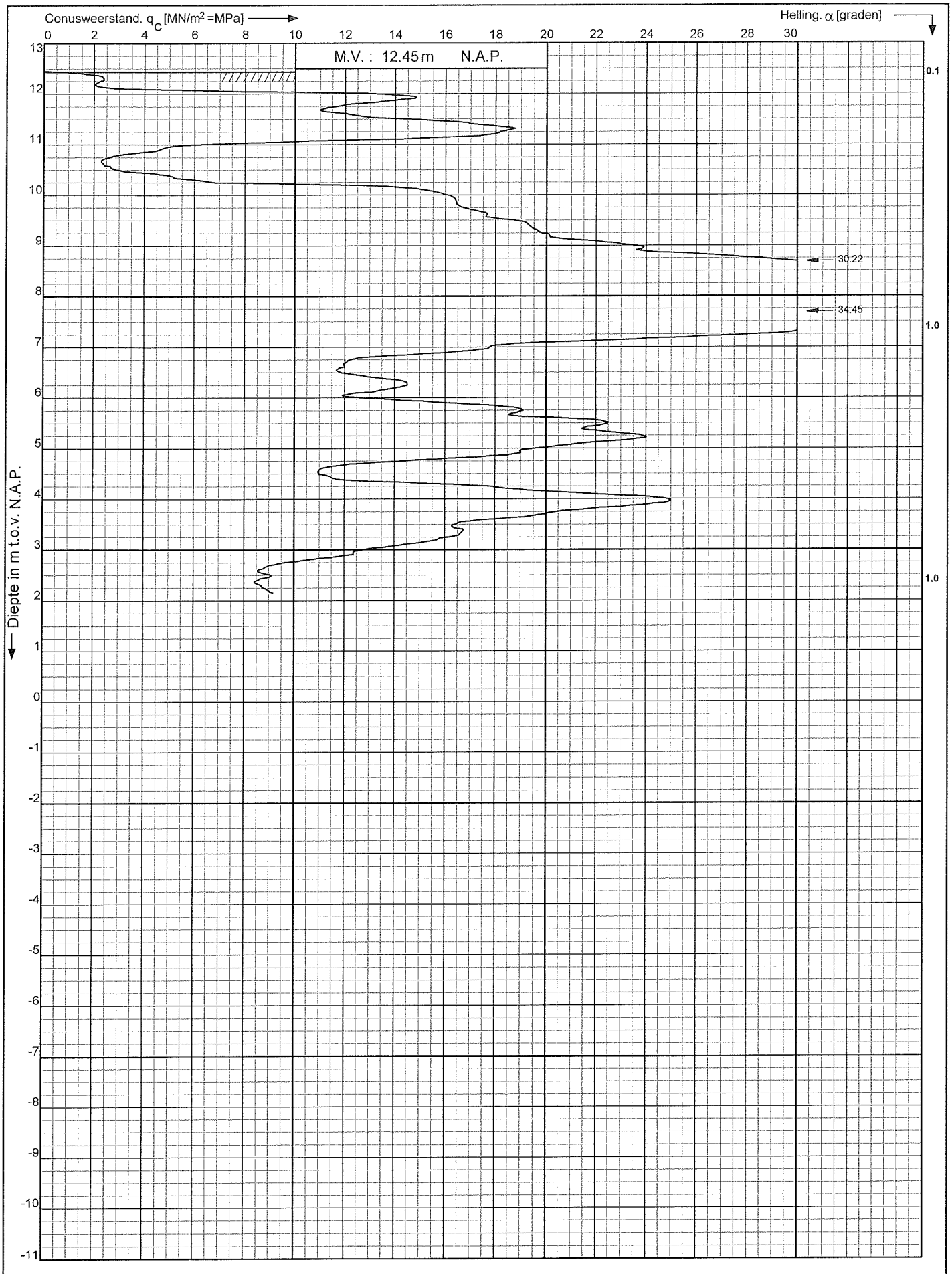
Opdr. nr. : 2016-831

Datum uitv. : 9-11-2016

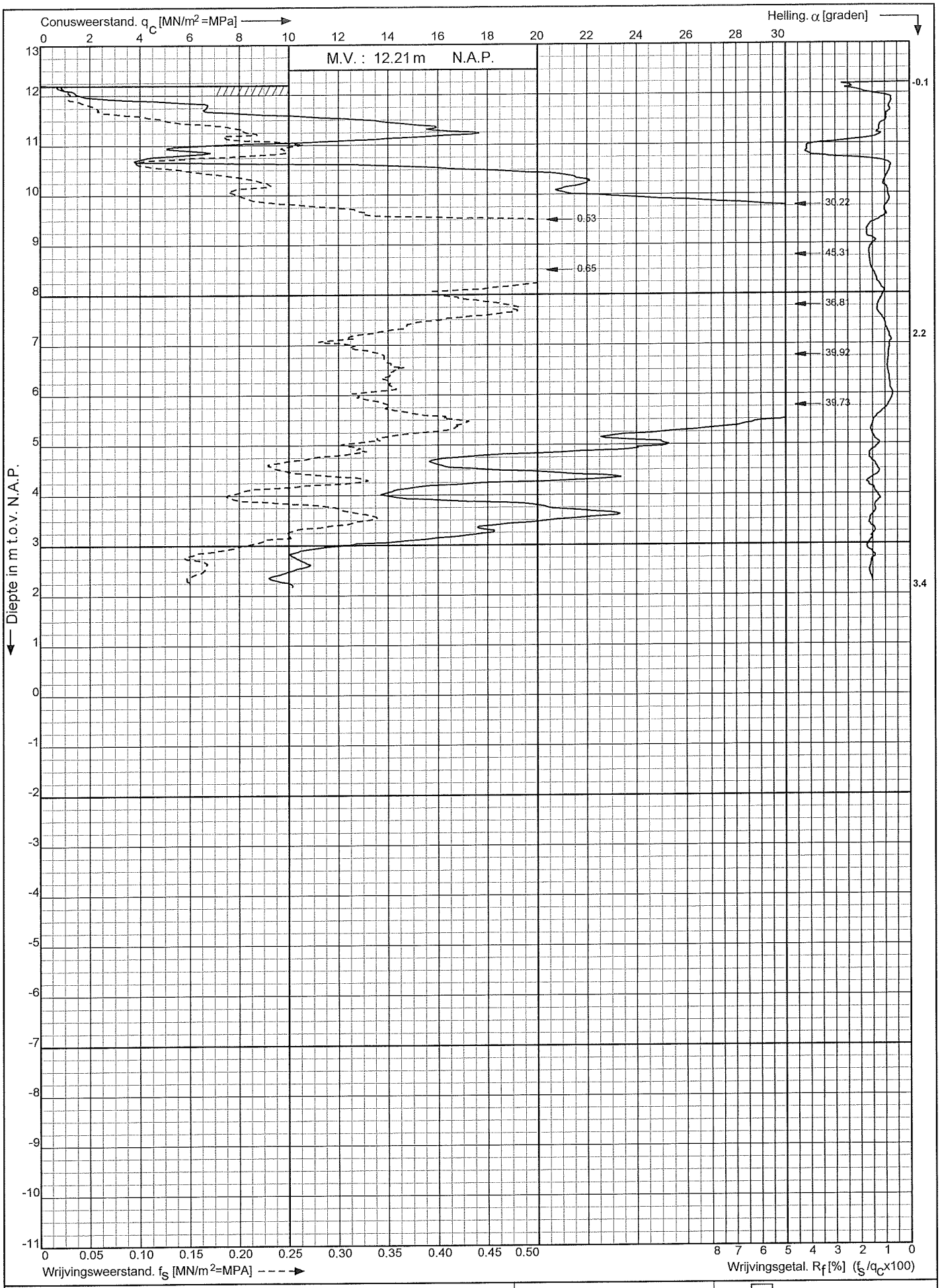
Sond. nr. : 6

Sondering volgens : NEN 5140 Oppervlakte conuspunt : 1500 mm ²

KOOPS GRONDMECHANICA 0522-260084




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|---|---|---|
| Bouwplan De Cremerhoeve a/d Minister Cremerstraat 5 te Zeijen. | Opdr. nr. : 2016-831 | KOOPS GRONDMECHANICA 0522-260084 |
| | Datum uitv. : 9-11-2016 | |
| Sondering volgens : NEN 5140 Oppervlakte conuspunt : 1500 mm ² | Sond. nr. : 7 | |




Bouwplan De Cremerhoeve a/d Minister Cremerstraat 5 te Zeijen.

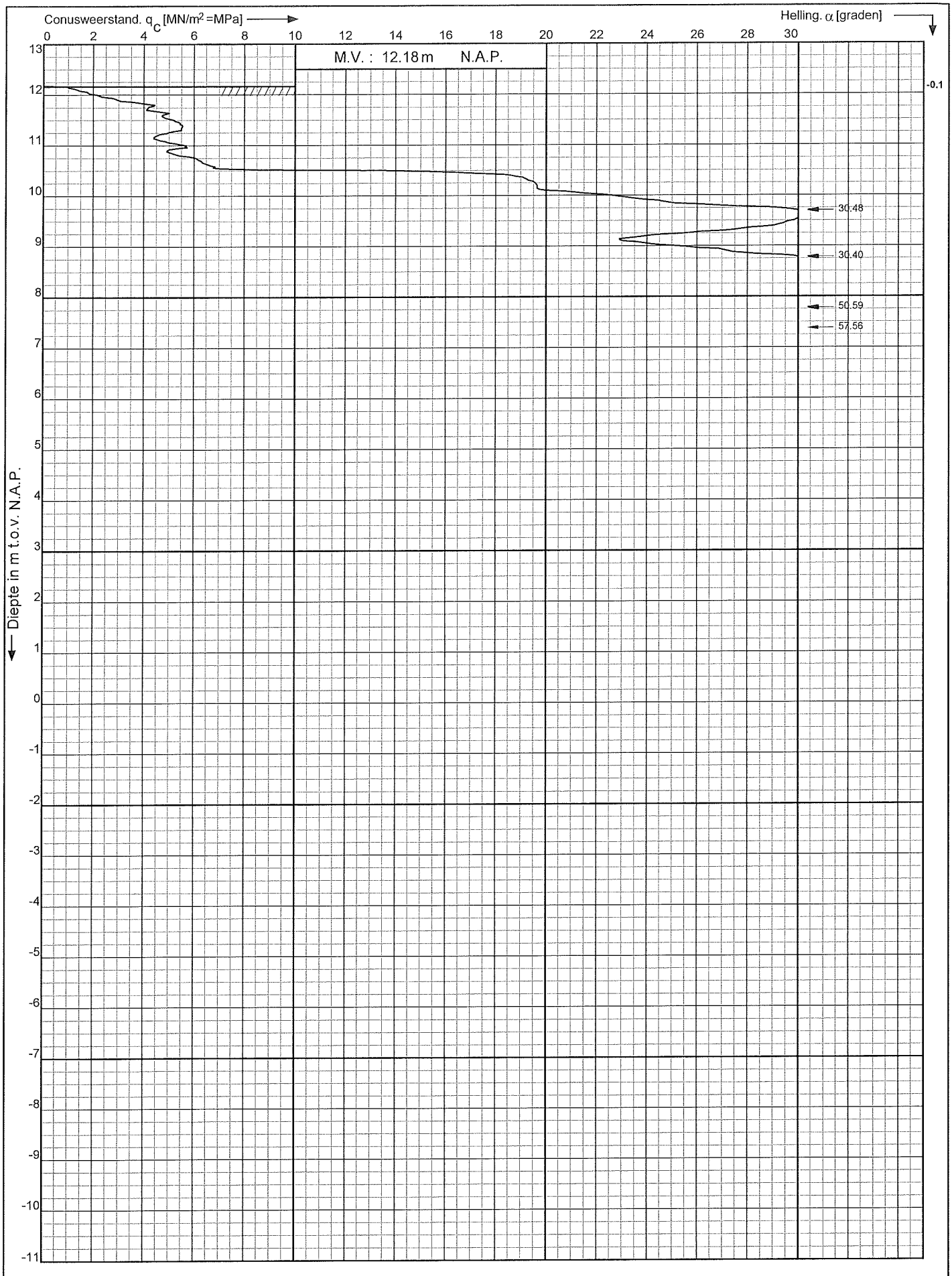
Opdr. nr. : 2016-831

Datum uitv. : 9-11-2016

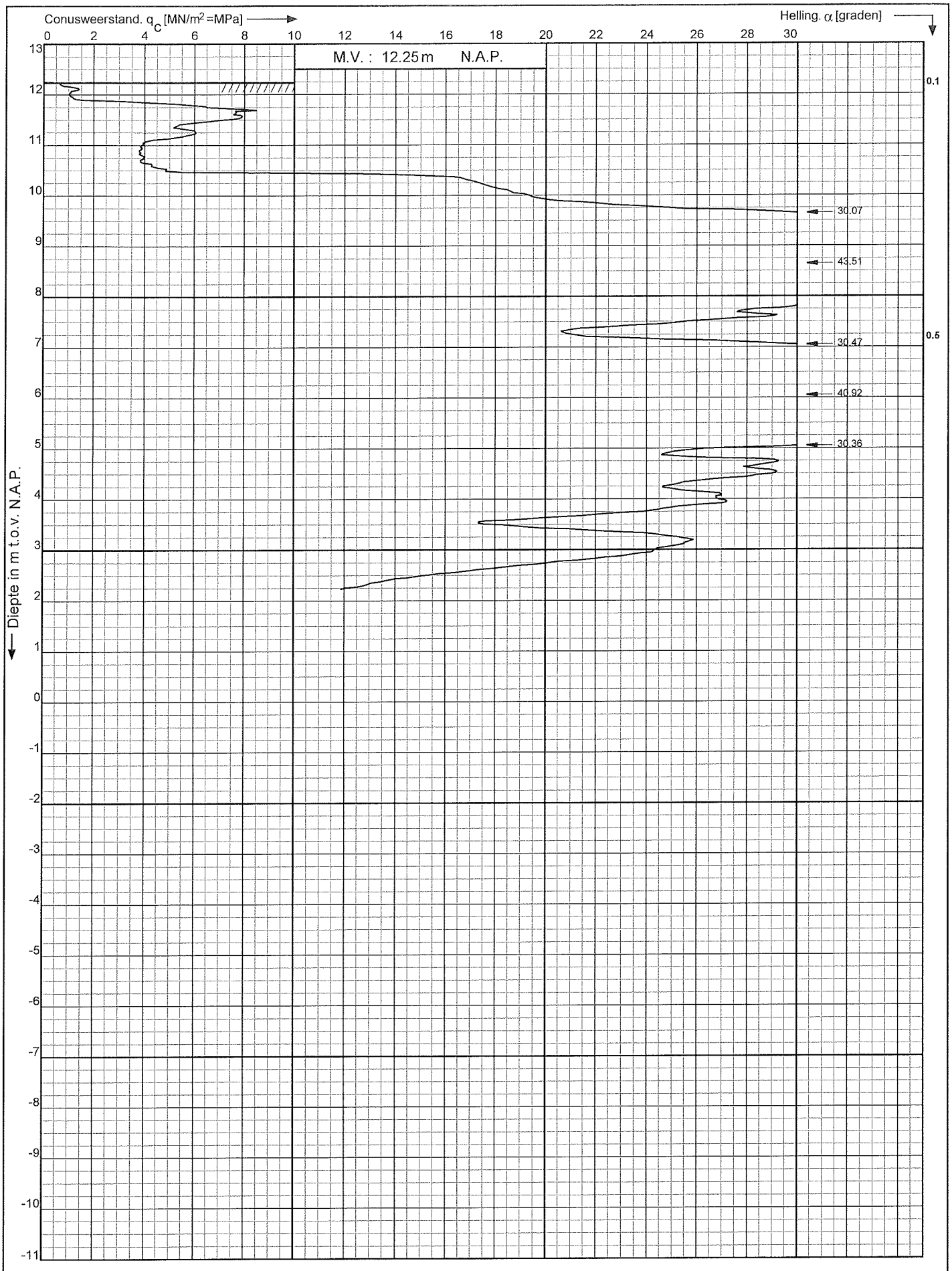
Sond. nr. : 8

Sondering volgens : NEN 5140 Oppervlakte conuspunt : 1500 mm $^2$

KOOPS GRONDMECHANICA 0522-260084




| | | |
|---|---|---|
| Bouwplan De Cremerhoeve a/d Minister Cremerstraat 5 te Zeijen. | Opdr. nr. : 2016-831 | KOOPS GRONDMECHANICA 0522-260084 |
| | Datum uitv. : 9-11-2016 | |
| Sondering volgens : NEN 5140 Oppervlakte conuspunt : 1500 mm ² | Sond. nr. : 9 | |




Bouwplan De Cremerhoeve a/d Minister Cremerstraat 5 te Zeijen.

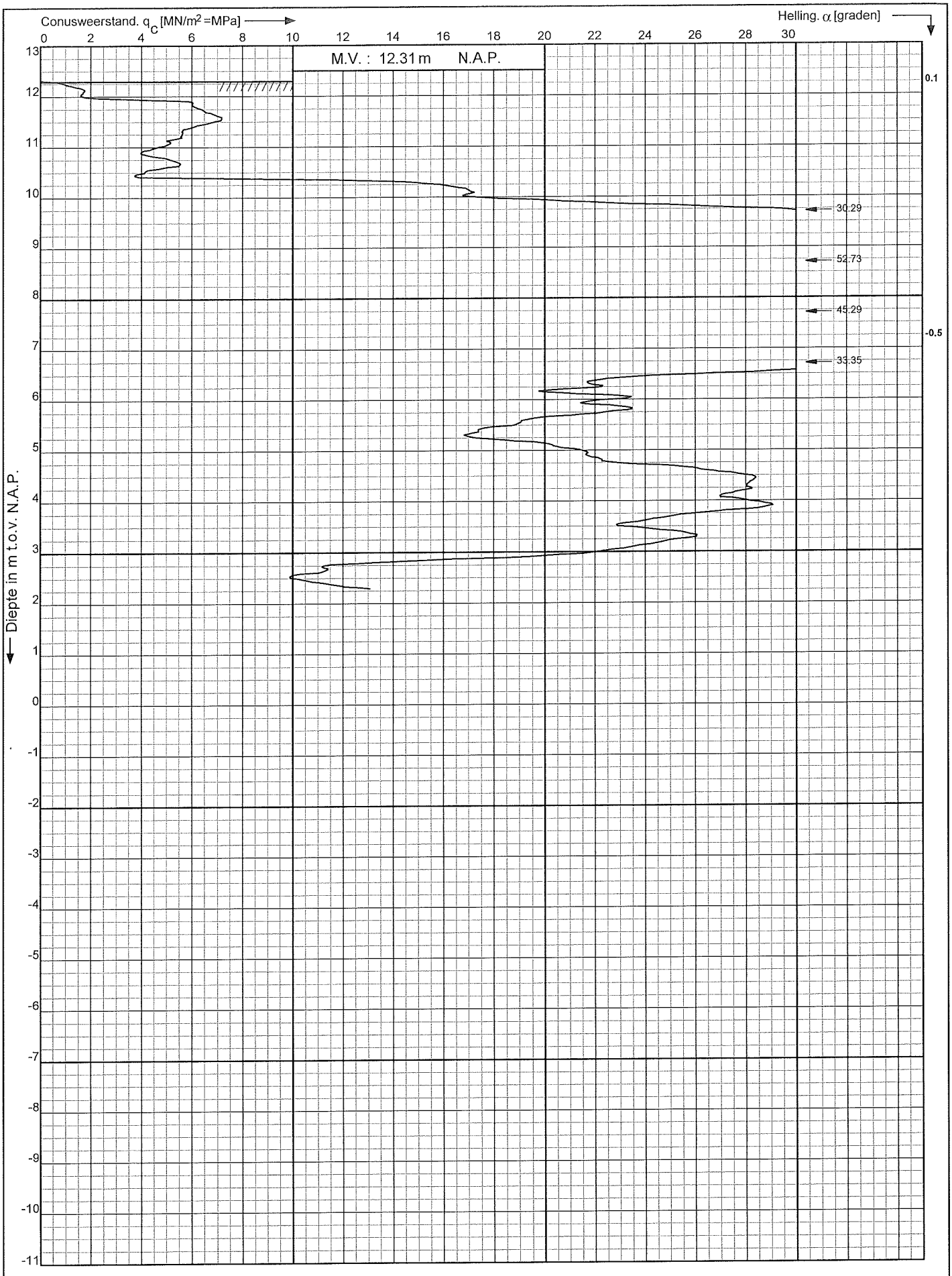
Sondering volgens : NEN 5140 Oppervlakte conuspunt : 1500 mm ²

Opdr. nr. : 2016-831

Datum uitv. : 9-11-2016

Sond. nr. : 10

KOOPS GRONDMECHANICA 0522-260084




Bouwplan De Cremerhoeve a/d Minister Cremerstraat 5 te Zeijen.

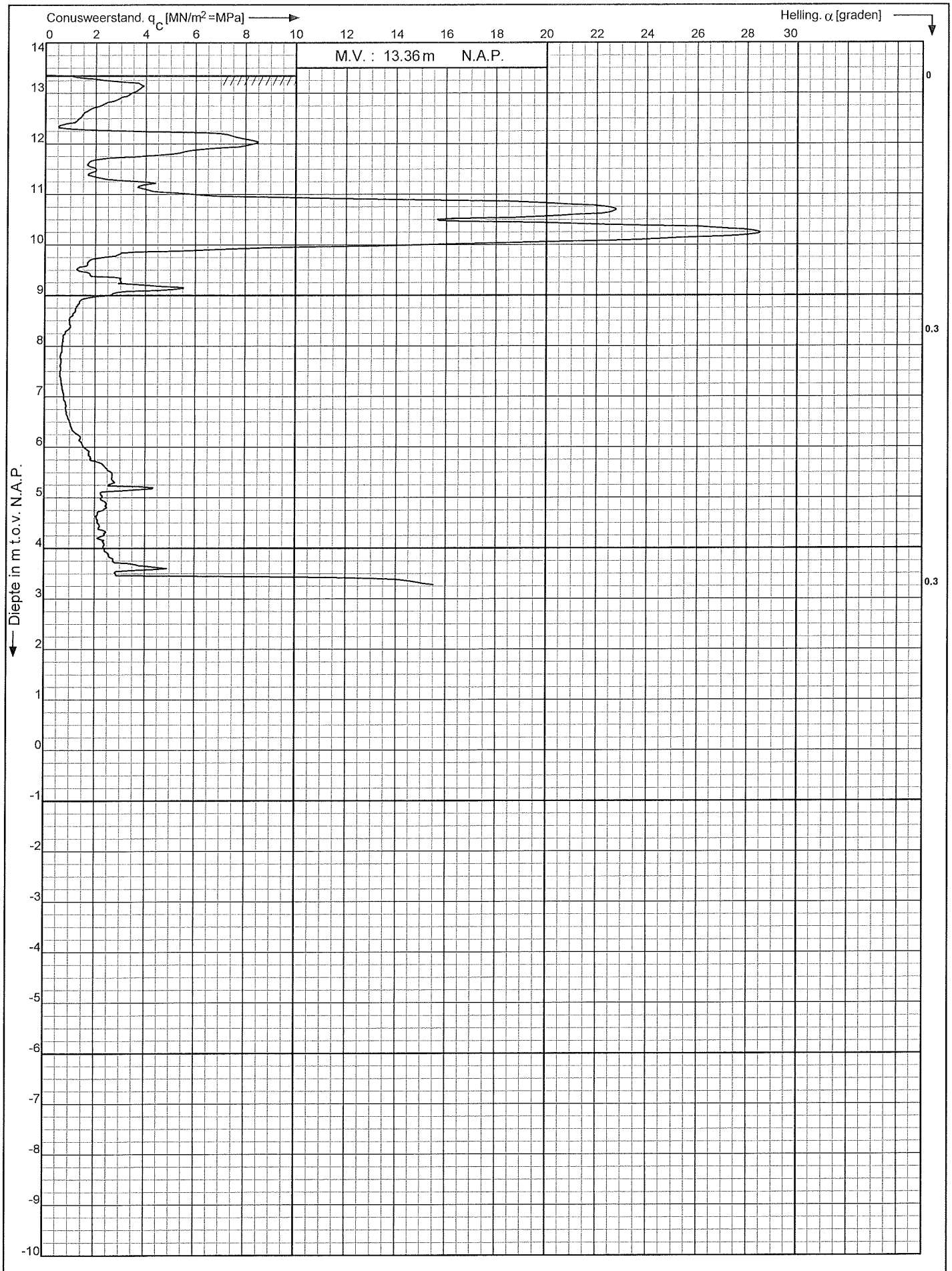
Opdr. nr. : 2016-831

Datum uitv. : 9-11-2016

Sond. nr. : 11

Sondering volgens : NEN 5140 Oppervlakte conuspunt : 1500 mm ²

KOOPS GRONDMECHANICA 0522-260084




Bouwplan De Cremerhoeve a/d Minister Cremerstraat 5 te Zeijen.

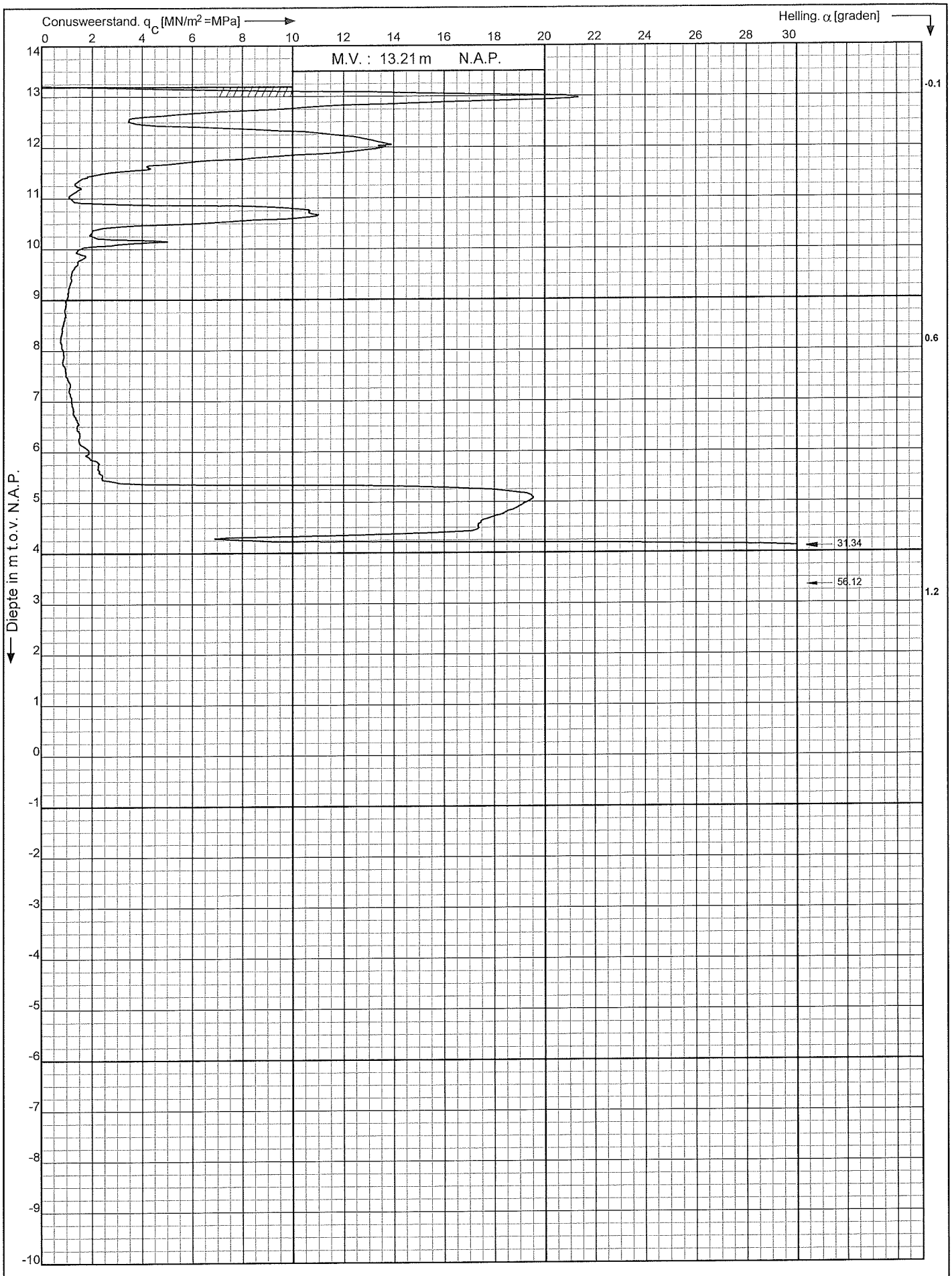
Opdr. nr. : 2016-831

Datum uitv. : 9-11-2016

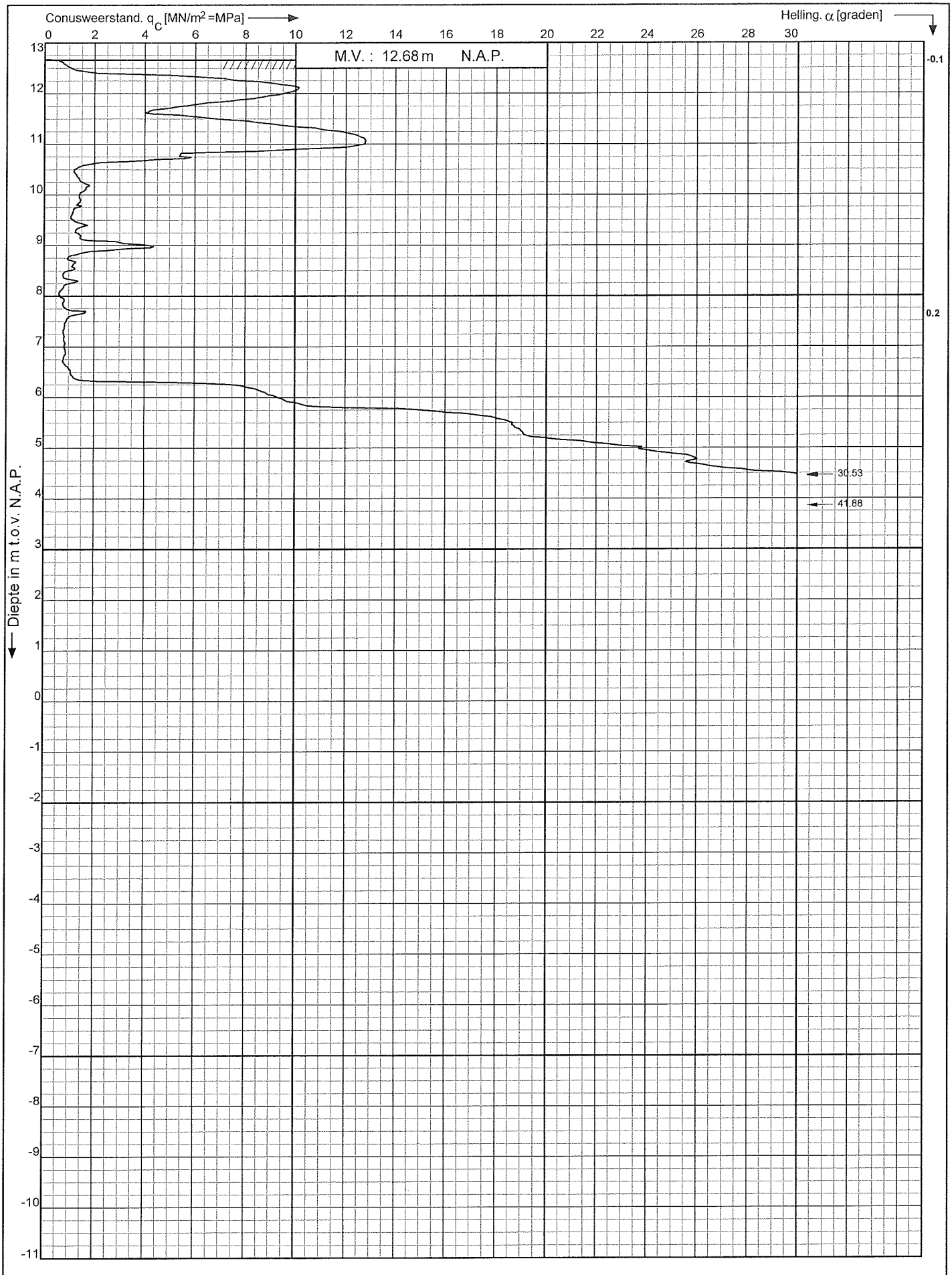
Sond. nr. : 12

Sondering volgens : NEN 5140 Oppervlakte conuspunt : 1500 mm ²

KOOPS GRONDMECHANICA 0522-260084




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|---|---|---|
| Bouwplan De Cremerhoeve a/d Minister Cremerstraat 5 te Zeijen. | Opdr. nr. : 2016-831 | KOOPS GRONDMECHANICA 0522-260084 |
| | Datum uitv. : 9-11-2016 | |
| Sondering volgens : NEN 5140 Oppervlakte conuspunt : 1500 mm ² | Sond. nr. : 13 | |




Bouwplan De Cremerhoeve a/d Minister Cremerstraat 5 te Zeijen.

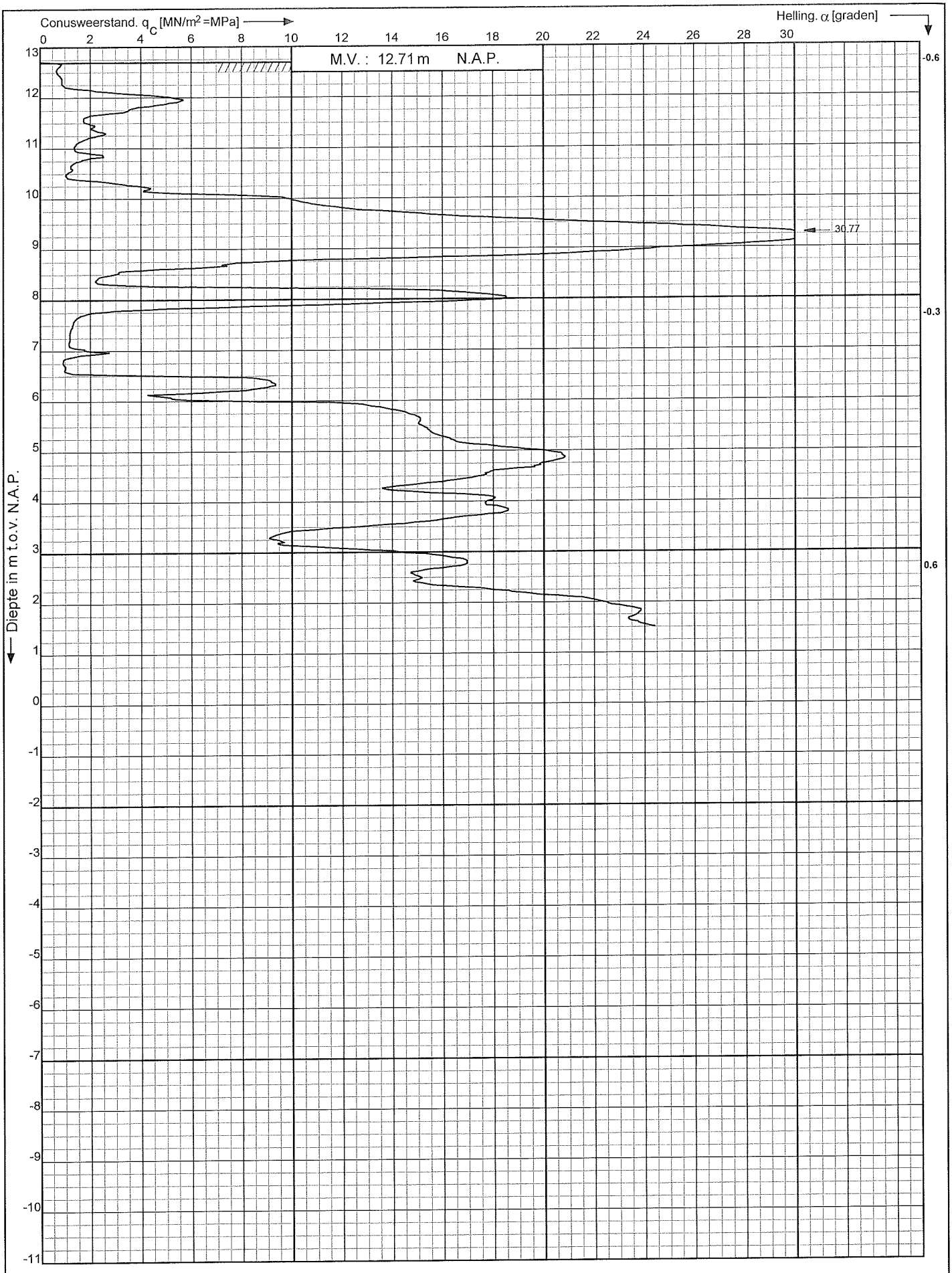
Opdr. nr. : 2016-831

Datum uitv. : 9-11-2016

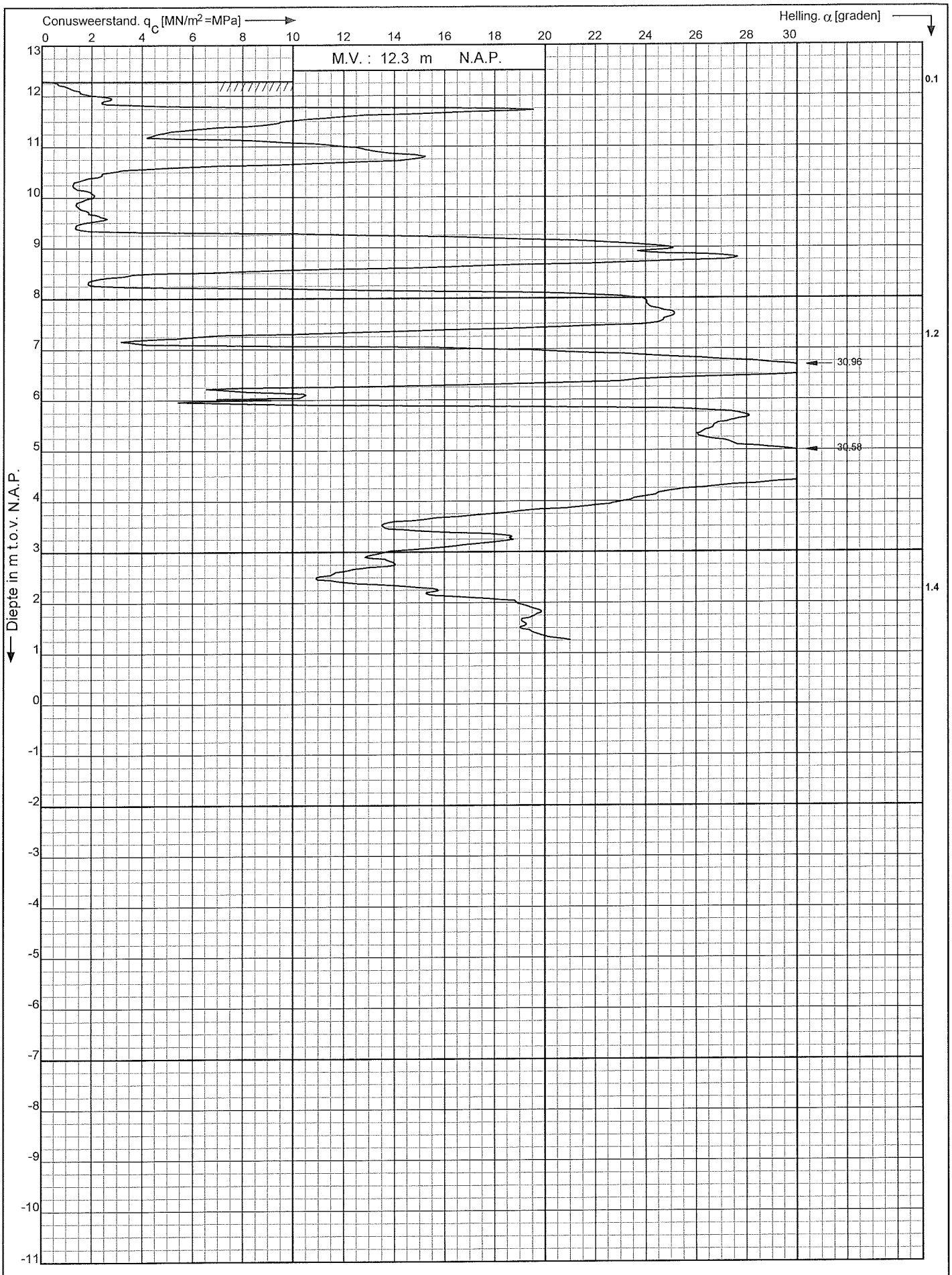
Sond. nr. : 14

Sondering volgens : NEN 5140 Oppervlakte conuspunt : 1500 mm ²

KOOPS GRONDMECHANICA 0522-260084




| | | |
|---|---|---|
| Bouwplan De Cremerhoeve a/d Minister Cremerstraat 5 te Zeijen. | Opdr. nr. : 2016-831 | KOOPS GRONDMECHANICA 0522-260084 |
| | Datum uitv. : 9-11-2016 | |
| Sondering volgens : NEN 5140 Oppervlakte conuspunt : 1500 mm ² | Sond. nr. : 15 | |




Bouwplan De Cremerhoeve a/d Minister Cremerstraat 5 te Zeijen.

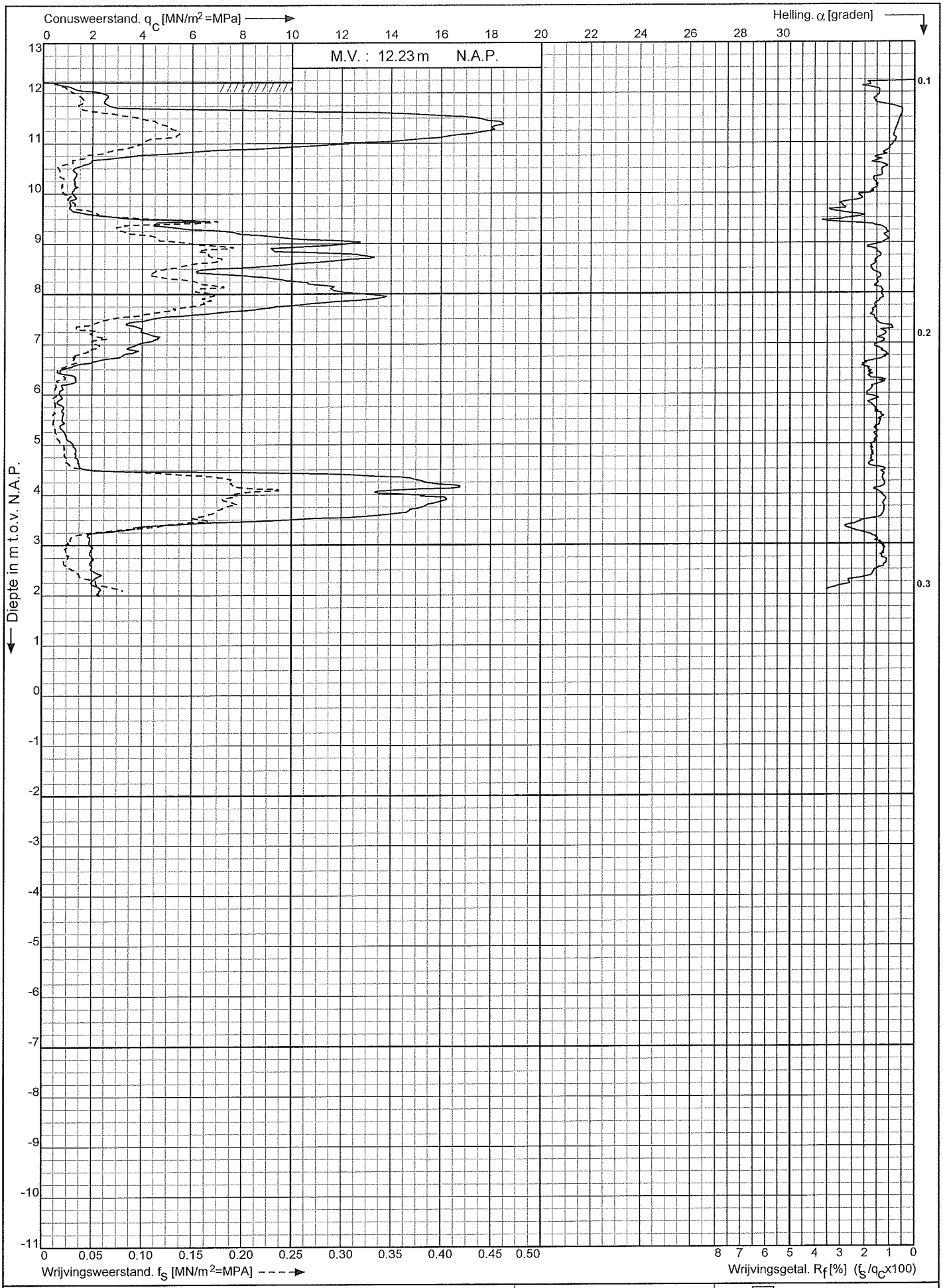
Opdr. nr. : 2016-831

Datum uitv. : 9-11-2016

Sond. nr. : 16

Sondering volgens : NEN 5140 Oppervlakte conuspunt : 1500 mm ²

KOOPS GRONDMECHANICA 0522-260084




Bouwplan De Cremerhoeve a/d Minister Cremerstraat 5 te Zeijen.

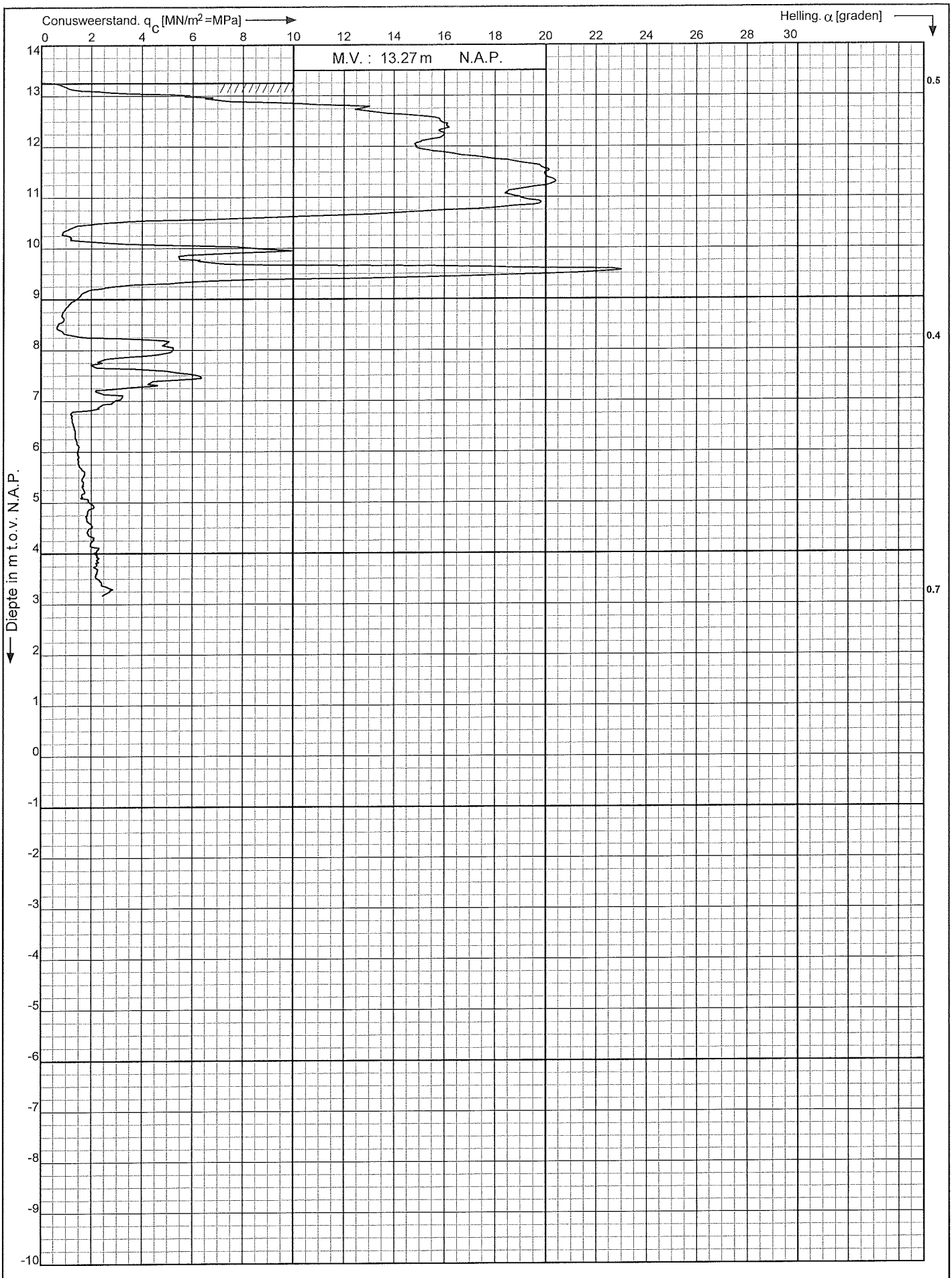
Opdr. nr. : 2016-831

Datum uitv. : 9-11-2016

Sond. nr. : 17

Sondering volgens : NEN 5140 Oppervlakte conuspunt : 1500 mm ²

KOOPS GRONDMECHANICA 0522-260084




Bouwplan De Cremerhoeve a/d Minister Cremerstraat 5 te Zeijen.

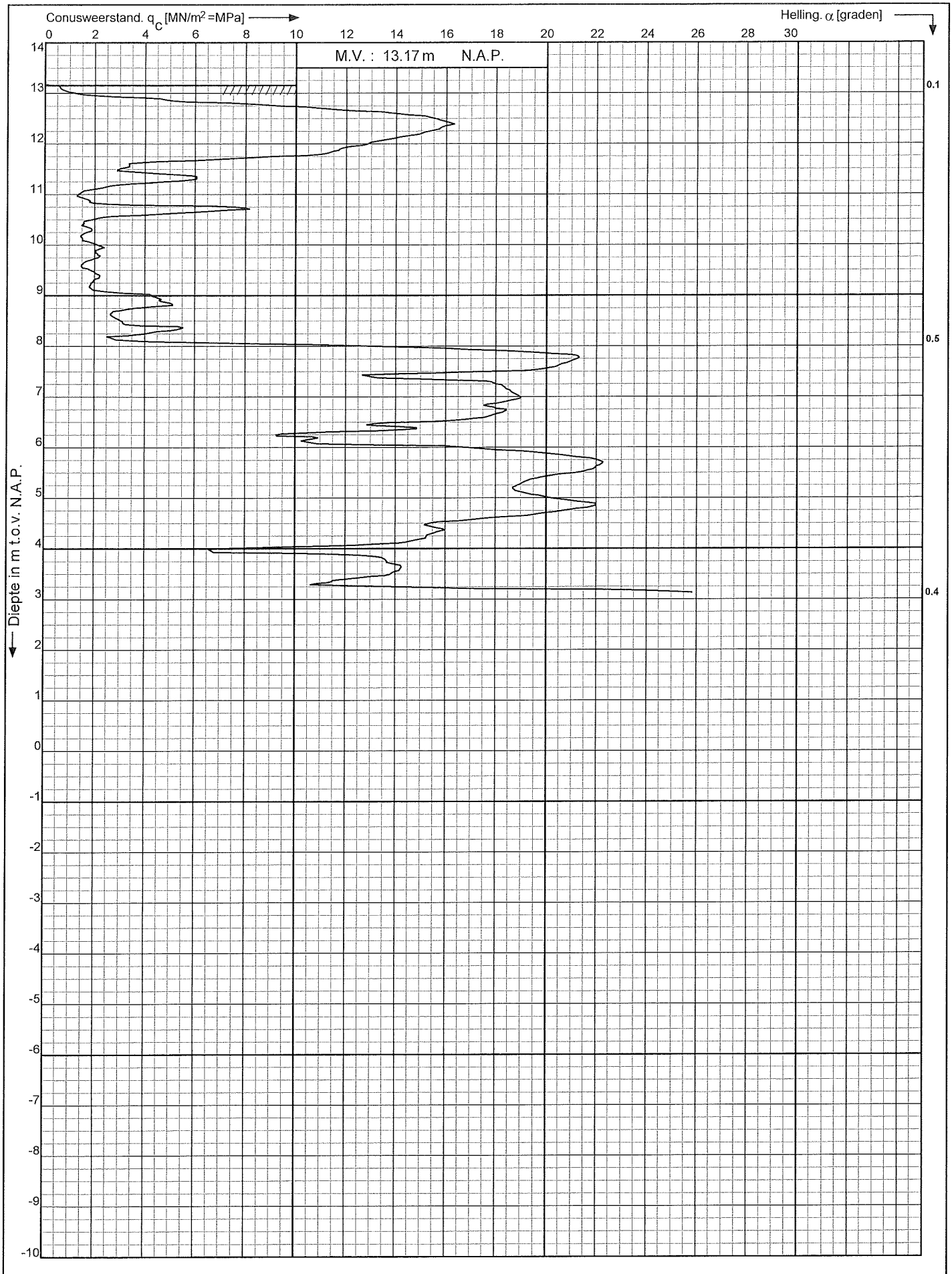
Sondering volgens : NEN 5140 Oppervlakte conuspunt : 1500 mm ²

Opdr. nr. : 2016-831

Datum uitv. : 9-11-2016

Sond. nr. : 18

KOOPS GRONDMECHANICA 0522-260084




Bouwplan De Cremerhoeve a/d Minister Cremerstraat 5 te Zeijen.

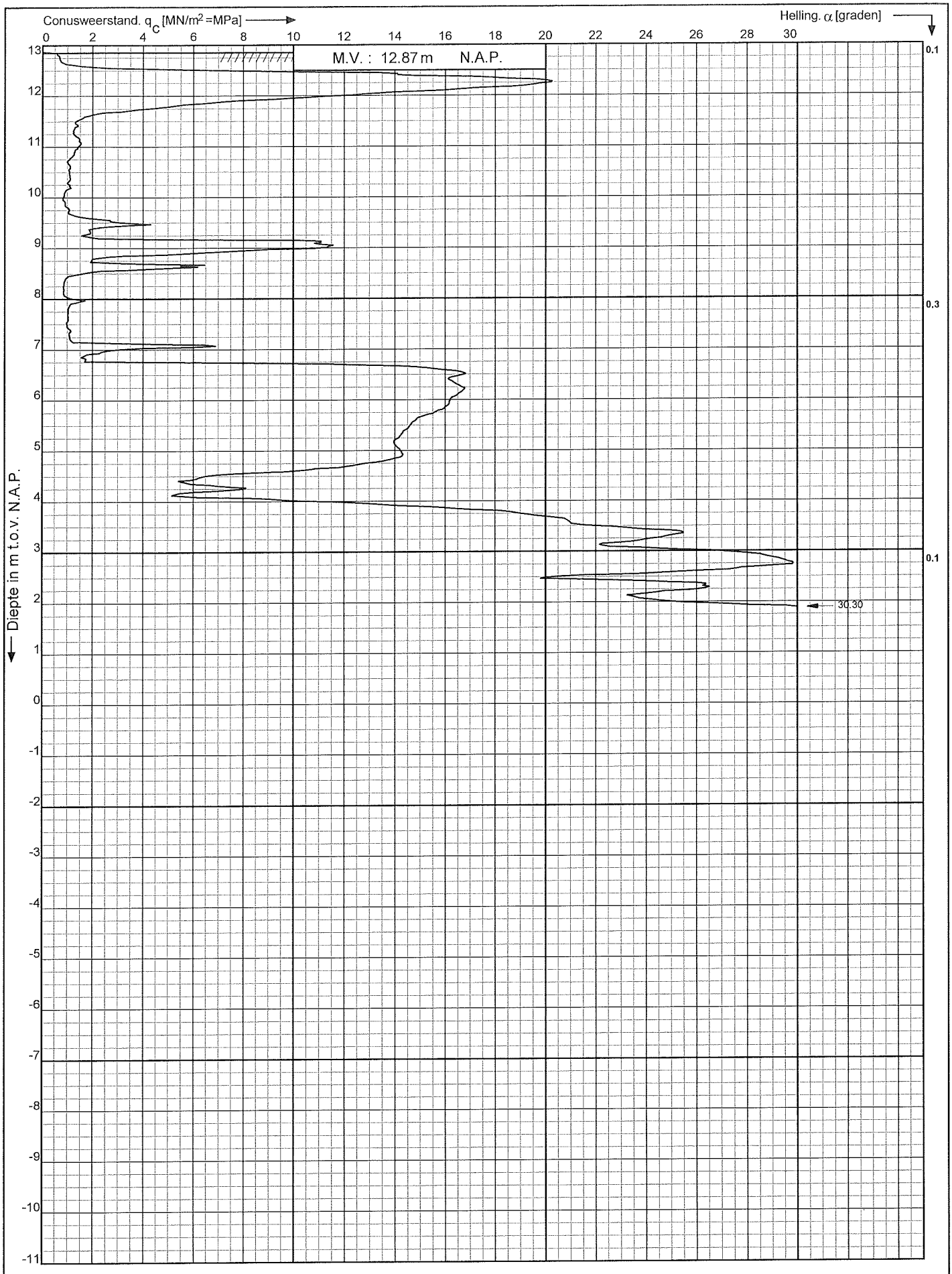
Opdr. nr. : 2016-831

Datum uitv. : 9-11-2016

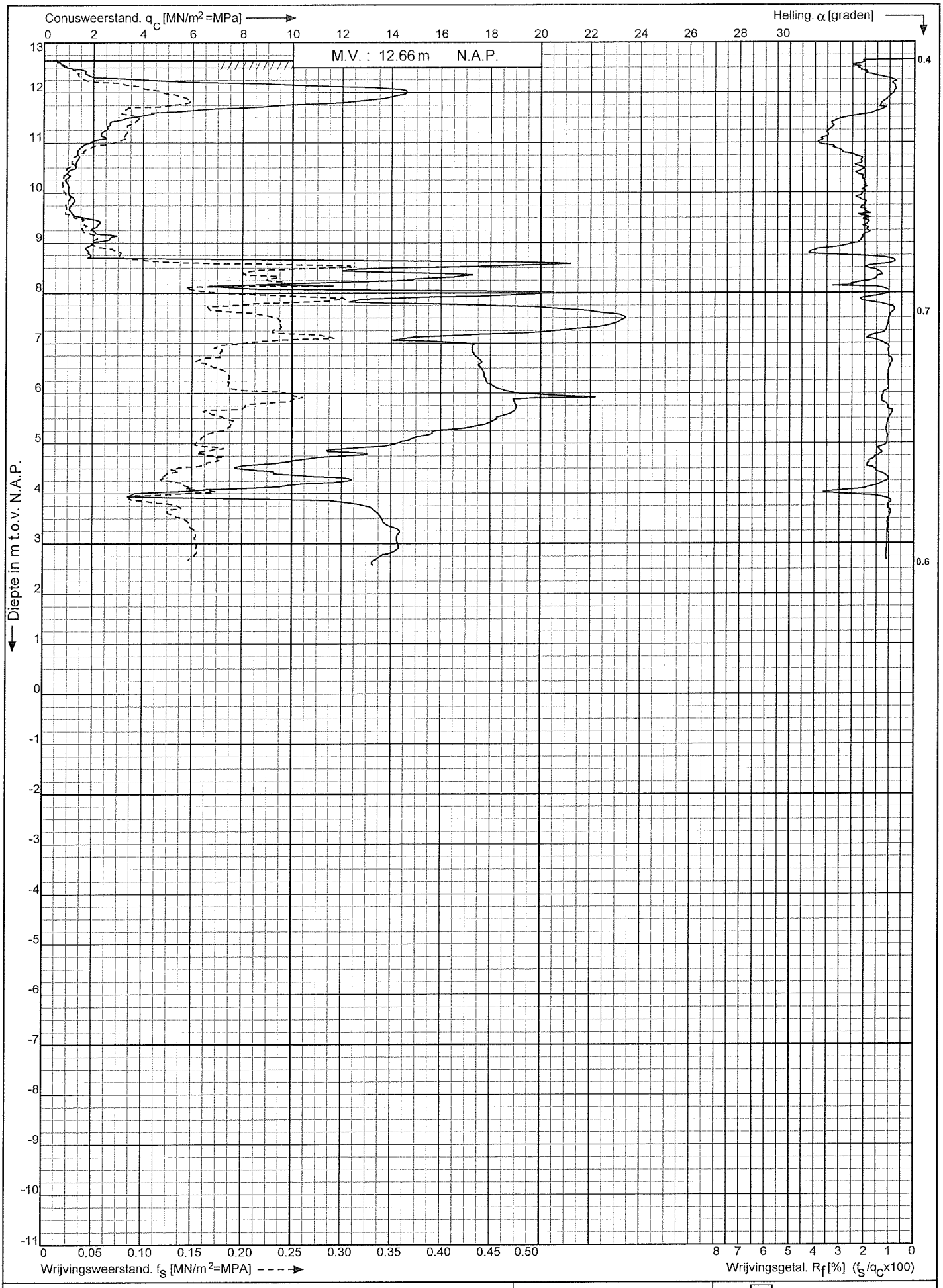
Sond. nr. : 19

Sondering volgens : NEN 5140 Oppervlakte conuspunt : 1500 mm ²

KOOPS GRONDMECHANICA 0522-260084

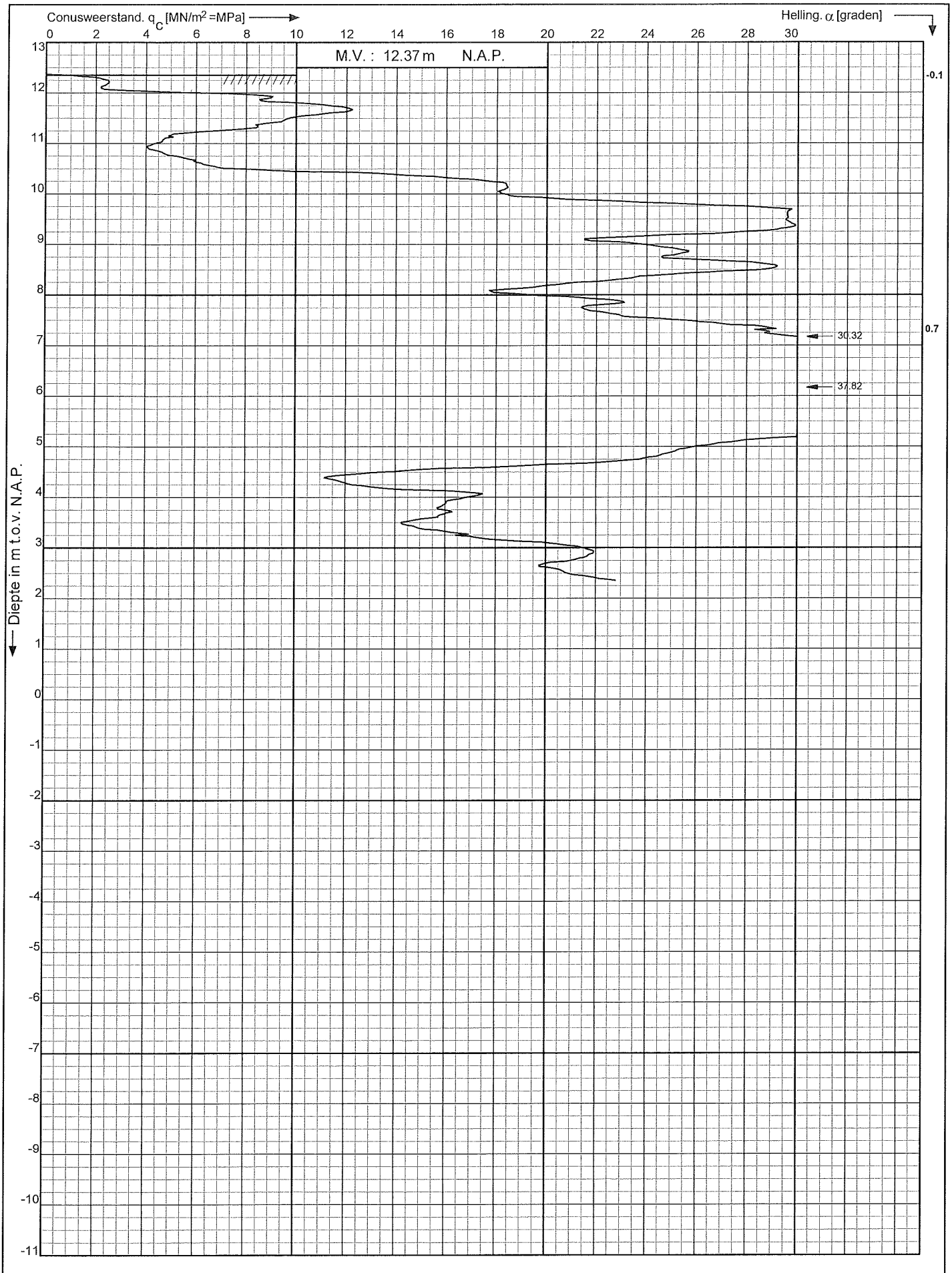



| | | |
|---|---|---|
| Bouwplan De Cremerhoeve a/d Minister Cremerstraat 5 te Zeijen. | Opdr. nr. : 2016-831 | KOOPS GRONDMECHANICA 0522-260084 |
| | Datum uitv. : 9-11-2016 | |
| Sondering volgens : NEN 5140 Oppervlakte conuspunt : 1500 mm ² | Sond. nr. : 20 | |




| | |
|---|---|
| Bouwplan De Cremerhoeve a/d Minister Cremerstraat 5 te Zeijen. | Opdr. nr. : 2016-831 |
| | Datum uitv. : 9-11-2016 |
| Sondering volgens : NEN 5140 Oppervlakte conuspunt : 1500 mm $^2$ | Sond. nr. : 21 |

KOOPS
GRONDMECHANICA
0522-260084




| | | |
|---|---|---|
| Bouwplan De Cremerhoeve a/d Minister Cremerstraat 5 te Zeijen. | Opdr. nr. : 2016-831 | KOOPS GRONDMECHANICA 0522-260084 |
| | Datum uitv. : 9-11-2016 | |
| Sondering volgens : NEN 5140 Oppervlakte conuspunt : 1500 mm ² | Sond. nr. : 22 | |

## Resultaten Handboring HB-1.

0.00 – 0.55 m-mv. Zand, fijn, grijs, siltig.
0.55 – 0.60 m-mv. Zand, fijn, zwart, humeus.
0.60 – 0.75 m-mv. Zand, fijn, bruin/grijs, siltig.
0.75 – 1.35 m-mv. Zand, m.fijn, grijs, siltig, leemhoudend.
1.35 – 1.70 m-mv. Leem, grijs.
1.70 – 2.10 m-mv. Zand, m.fijn, bruin/grijs, st.leemhoudend, ijzerhoudend.
2.10 – 3.10 m-mv. Zand, fijn, geel/wit.
3.10 – 3.20 m-mv. Zand, fijn, l.grijs/wit, w.siltig.

Datum uitvoering : 9 november 2016
Uitgevoerd t.p.v. : Sondering DKM-001
Maaiveldhoogte : 12.50 m + N.A.P.
Grondwaterstand : op 3.20 m –mv. geen grondwater aangetroffen.

## Resultaten Handboring HB-2.

0.00 – 0.30 m-mv. Zand, m.fijn, d.bruin/zwart.
0.30 – 0.60 m-mv. Zand, fijn, bruin/rood, st.ijzerhoudend.
0.60 – 1.20 m-mv. Zand, m.fijn, grijs/grijs, w.leemhoudend, siltig.
1.20 – 1.60 m-mv. Leem, grijs, zandhoudend.
1.60 – 2.40 m-mv. Zand, fijn, geel/wit.
2.40 – 3.20 m-mv. Zand, fijn, wit/l.grijs, siltig.

Datum uitvoering : 9 november 2016
Uitgevoerd t.p.v. : Sondering DKM-008
Maaiveldhoogte : 12.21 m + N.A.P.
Grondwaterstand : op 3.20 m –mv. geen grondwater aangetroffen.

## Resultaten Handboring HB-3.

0.00 – 0.50 m-mv. Zand, m.fijn, d.bruin, w.humeus.
0.50 – 0.80 m-mv. Zand, fijn, bruin/bruin, ijzerhoudend.
0.80 – 1.65 m-mv. Zand, fijn, l.bruin/bruin, w.ijzerhoudend.
1.65 – 2.60 m-mv. Zand, m.fijn, grijs, st.leemhoudend.
2.60 – 3.00 m-mv. Zand, fijn, l.grijs/wit, w.siltig, w.leemhoudend.

Datum uitvoering : 9 november 2016
Uitgevoerd t.p.v. : Sondering DKM-017
Maaiveldhoogte : 12.23 m + N.A.P.
Grondwaterstand : niet representatief.

2016-831

## Resultaten Handboring HB-4.

| | | |
|---|---|---|
| 0.00 – 0.55 | m-mv. | Zand, m.fijn, d. bruin/zwart, humeus. |
| 0.55 – 1.10 | m-mv. | Zand, m.fijn, bruin/rood, ijzerhoudend. |
| 1.10 – 1.40 | m-mv. | Zand, fijn, l.bruin/l.grijs, siltig. |
| 1.40 – 1.60 | m-mv. | Leem, grijs, zandhoudend, zandlagen. |
| 1.60 – 2.20 | m-mv. | Zand, m.fijn, l.bruin, leemhoudend. |
| 2.20 – 3.20 | m-mv. | Zand, m.fijn, grijs, st.leemhoudend. |

| | | |
|---|---|---|
| Datum uitvoering | : | 9 november 2016 |
| Uitgevoerd t.p.v. | : | Sondering DKM-021 |
| Maaiveldhoogte | : | 12.66 m + N.A.P. |
| Grondwaterstand | : | niet representatief. |

# Koops & Romeijn grondmechanica

Samenwerkende, zelfstandige adviseurs voor grondonderzoek, geotechniek en geohydrologie


Koops grondmechanica bv
Postbus 428
7940 AK Meppel
tel.: (0522) 260 084
fax: (0522) 245 479
a.palsma@koops-romeijn.nl

Ros grondmechanica advies
Lange Voorst 249
2343 CE Oestgeest
tel.: 06 - 51 06 74 20
j.ros@koops-romeijn.nl

Meurs grondmechanica advies
De Plak 23
6681 DN Bemmel
tel.: (0481) 451 179
fax: (0481) 450 880
j.meurs@koops-romeijn.nl

Teeuw Grondmechanica
Lekdijk 134
2865 LG Ammerstol
tel.: (0182) 672 708
fax: (0182) 670 176
j.teeuw@koops-romeijn.nl

Kranendonk Geohydrologie
Reinaldstraat 95
6883 HL Velp
tel.: (026) 369 00 30
fax: (026) 369 00 39
p.kranendonk@koops-romeijn.nl

Fundatech
De Ververt 11-08
6605 AD Wijchen
tel.: (024) 645 44 01
fax: (024) 645 44 02
j.nicolasen@koops-romeijn.nl

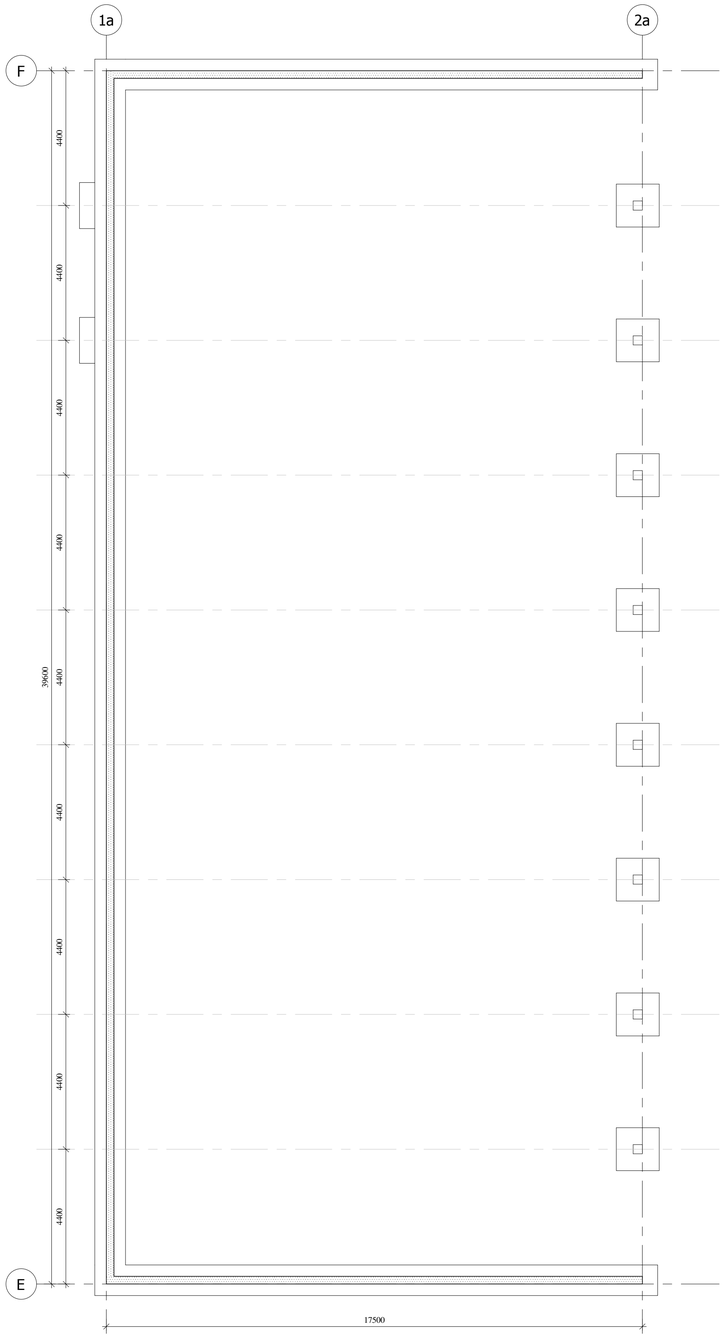

## Diensten

### Geotechnisch bodemonderzoek
- sonderingen
- grondboringen

### Geotechnisch labonderzoek

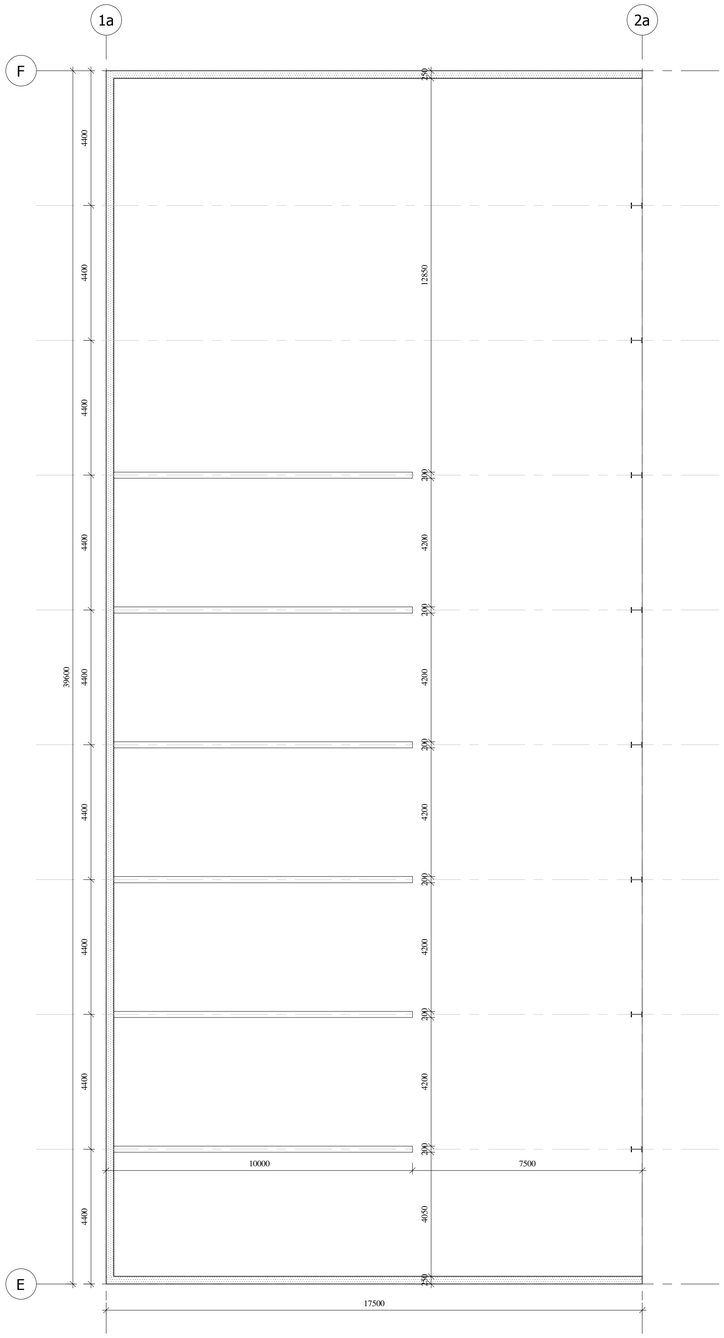
### Geotechnische adviezen
- funderingsadviezen
- zettinsanalyses
- schade en expertise
- damwandberekeningen
- bemalingsadviezen

### Milieukundig Bodem- en grondwateronderzoek en advies



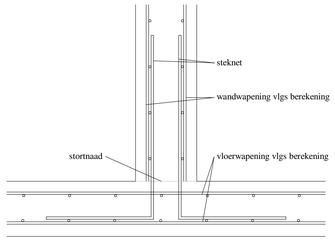

## Fundering

betonstrook en -poeren vlgs berekening W2N met werknummer 15-2158 d.d. 07-12-2016

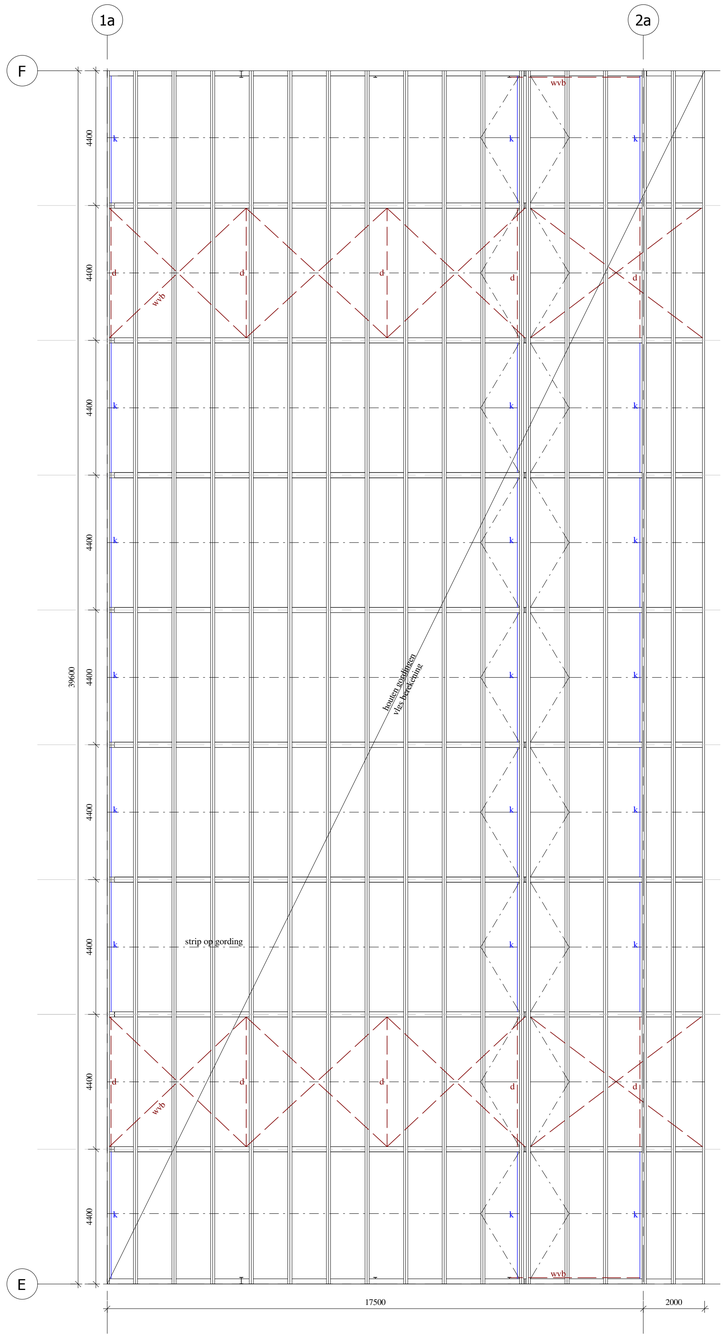



## Beganegrondvloer

betonvloer vlgs berekening W2N met werknummer 15-2158 d.d. 07-12-2016




Principe detail wapening binnenwand




## Kapplan

constructie vlgs berekening W2N met werknummer 15-2158 d.d. 07-12-2016
k = koppelkoker
d = drukkoker
wvb = windverband

BTA DWINGELOO Bouwkundig Teken & Adviesbureau
Tolweg 18a
7991 TC Dwingeloo
(Geeuwenbrug)
info@btadwingeloo.nl
www.btadwingeloo.nl
Arno Barendsen
06 53 50 01 90

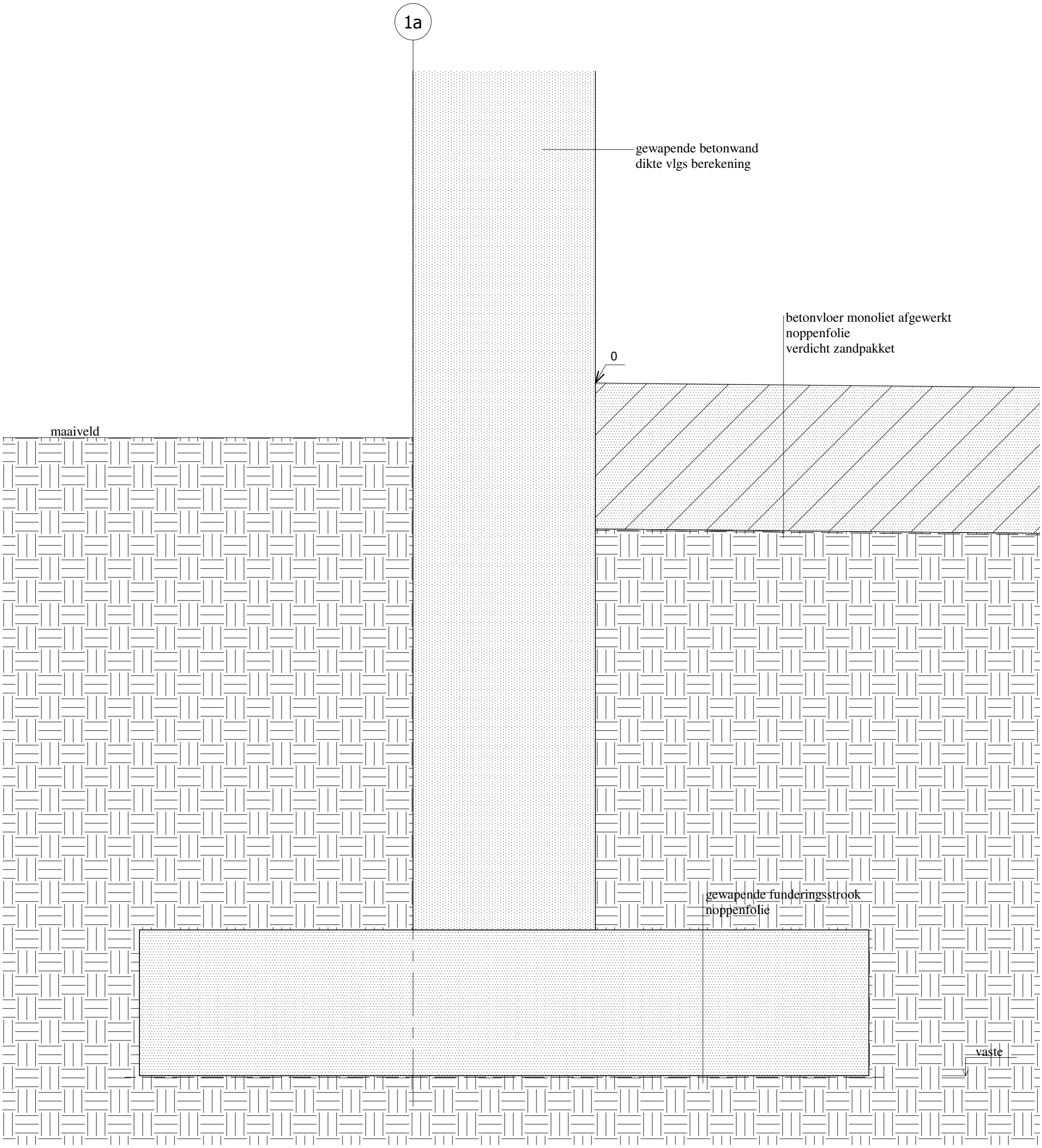
opdrachtgever: **De Cremerhoeve B.V.**
omschrijving: **Constructieblad**
project: **Nieuwbouw ligboxenstal**
**Minister Cremerstraat 5 9491 TJ Zeijen**

wijziging:

fase: **OA**
tek.nr.: **K02**

datum: **14-12-2016** | schaal: 1 a 100 | formaat: A1 | werknr.: **15-06**

Niets uit deze tekening mag geheel of gedeeltelijk worden overgenomen en/of gekopieerd zonder toestemming van BTA Dwingeloo



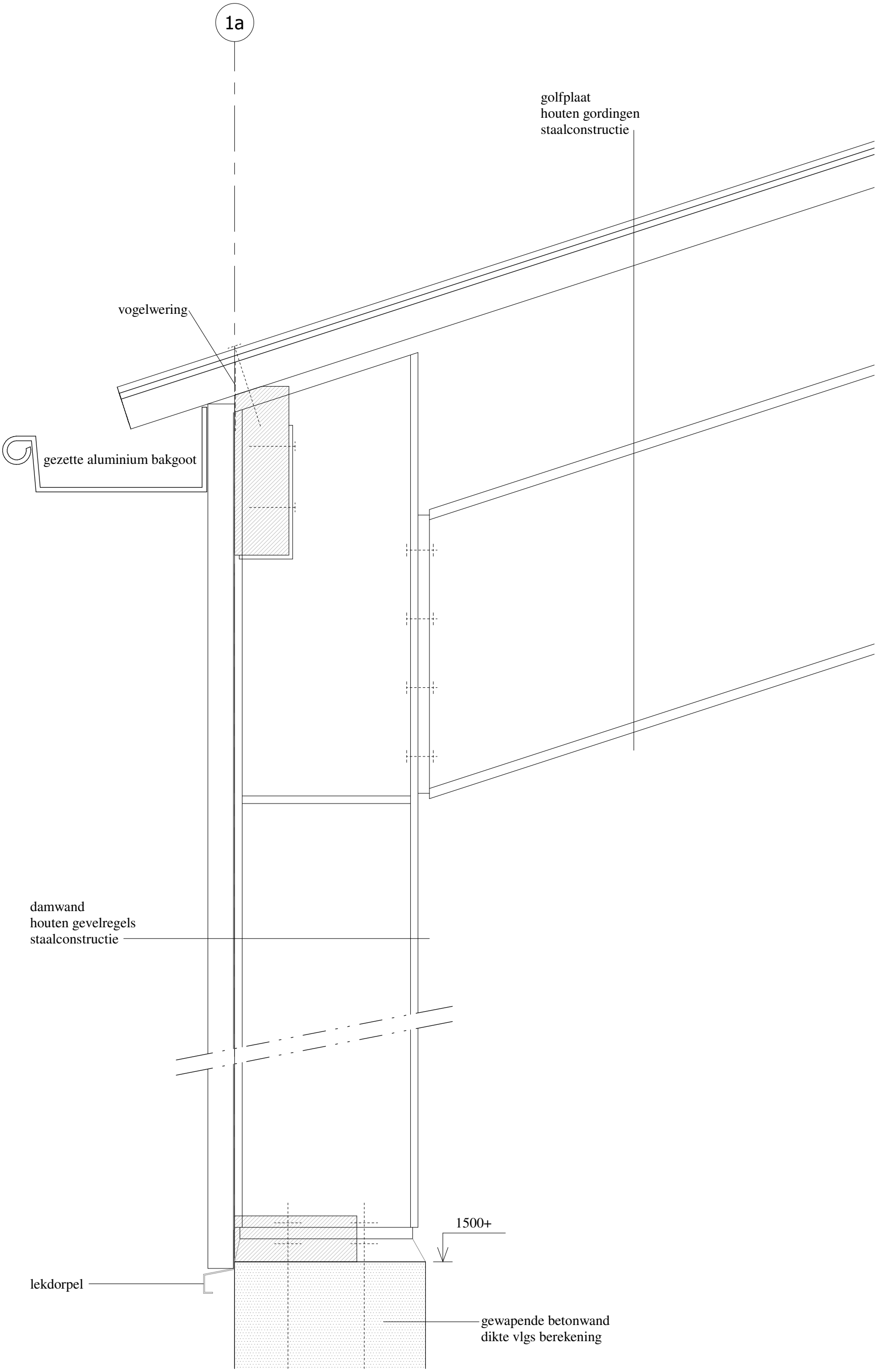

# Detail 1

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Arno Barendsen
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| | | | |
|---|---|---|---|
| opdrachtgever: | **De Cremerhoeve B.V.** | tek.nr.: | **K D1** |
| project: | **Nieuwbouw ligboxenstal** | werknr.: | **15-06** |
| schaal: | **1 : 5** | datum: | **14-12-2016** |



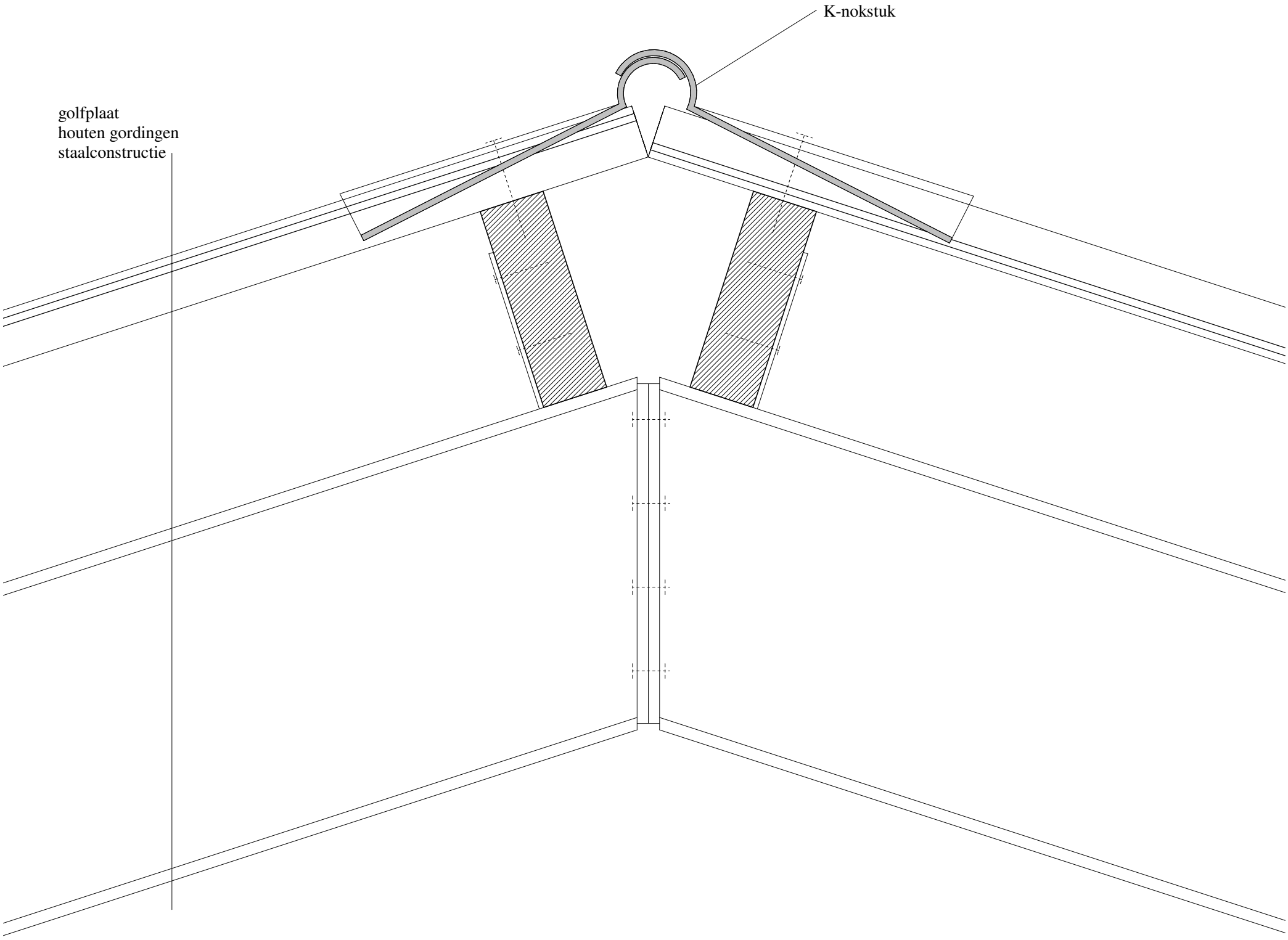

# Detail 2

BTA DWINGELOO Bouwkundig Teken & Adviesbureau

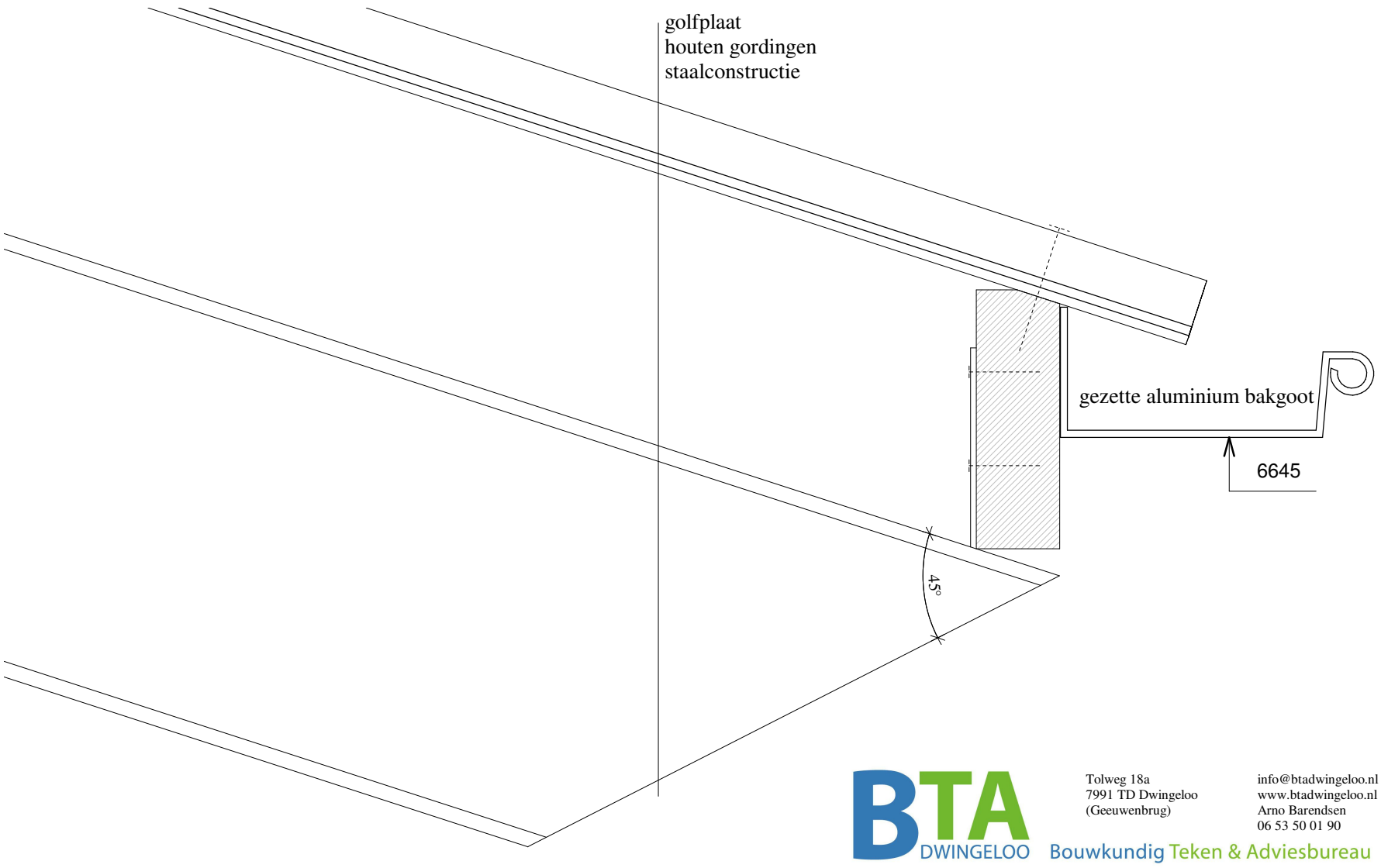
Tolweg 18a
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|---|---|---|---|
| opdrachtgever: | **De Cremerhoeve B.V.** | tek.nr.: | **K D2** |
| project: | **Nieuwbouw ligboxenstal** | werknr.: | **15-06** |
| schaal: | **1 : 5** | datum: | **14-12-2016** |




Detail 3



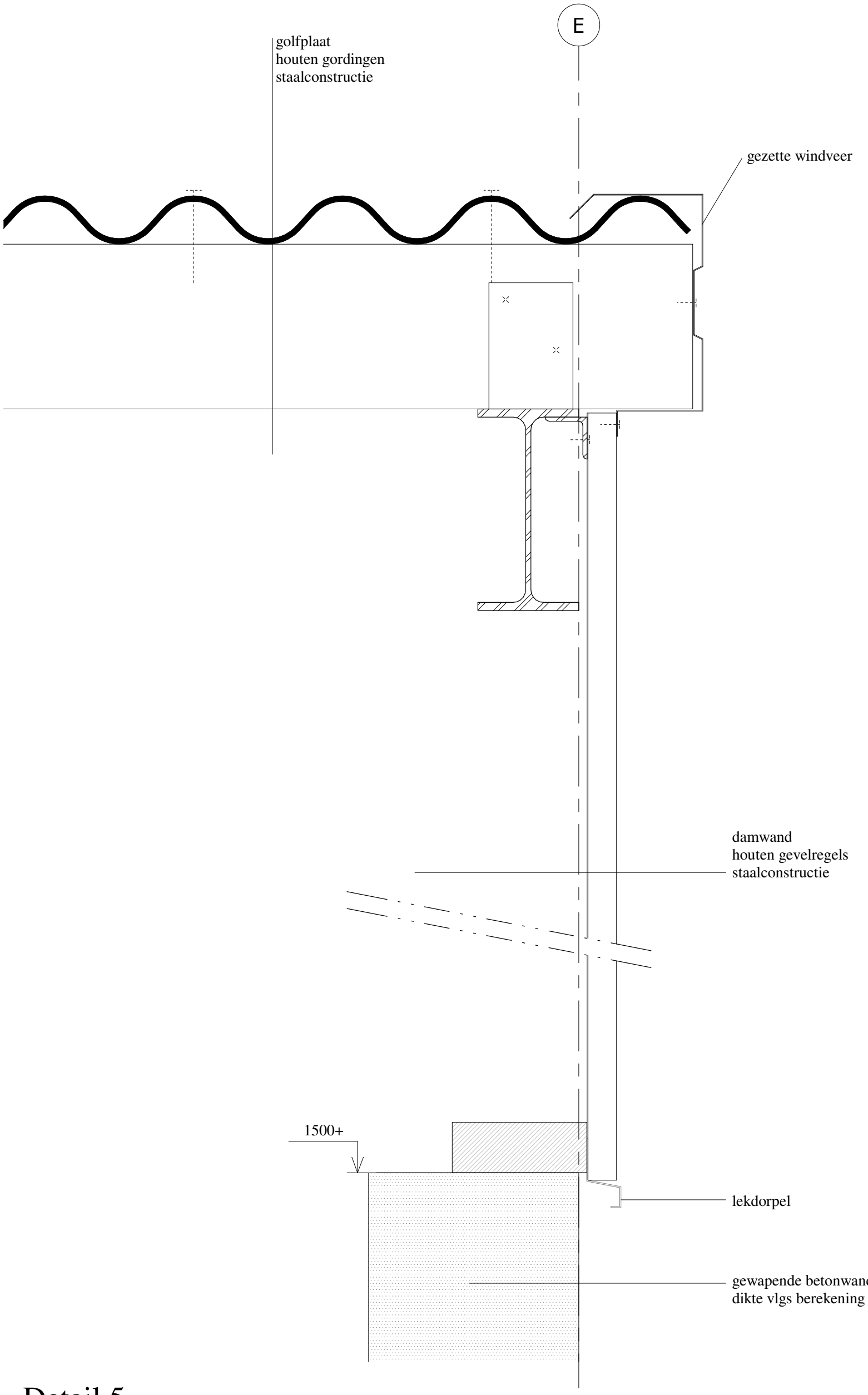

Detail 4

BTA DWINGELOO Bouwkundig Teken & Adviesbureau

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|---|---|---|---|
| opdrachtgever: | **De Cremerhoeve B.V.** | tek.nr.: | **K D3 / D4** |
| project: | **Nieuwbouw ligboxenstal** | werknr.: | **15-06** |
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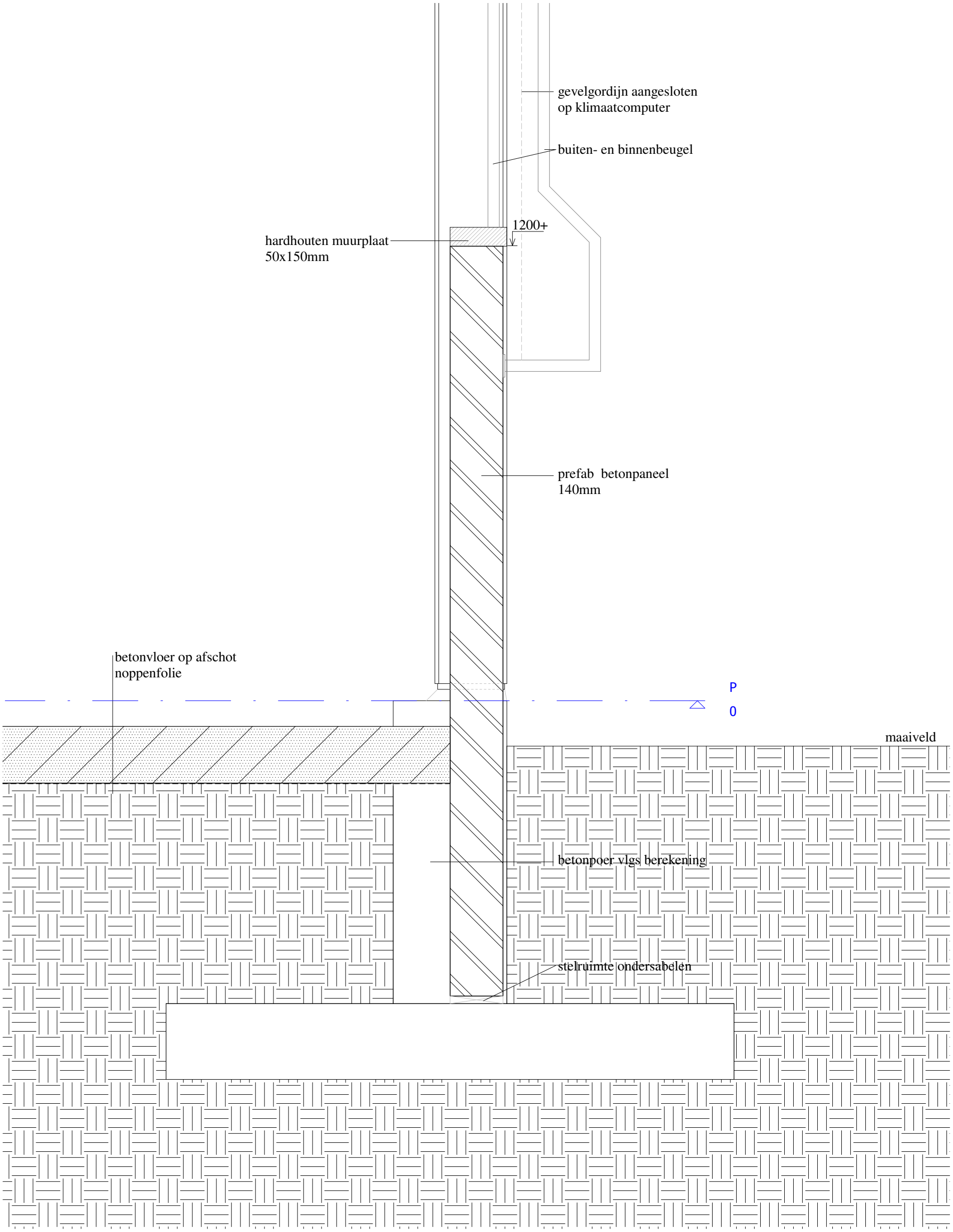

# Detail 5

BTA DWINGELOO Bouwkundig Teken & Adviesbureau

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|---|---|---|---|
| opdrachtgever: | **De Cremerhoeve B.V.** | tek.nr.: | **K D5** |
| project: | **Nieuwbouw ligboxenstal** | werknr.: | **15-06** |
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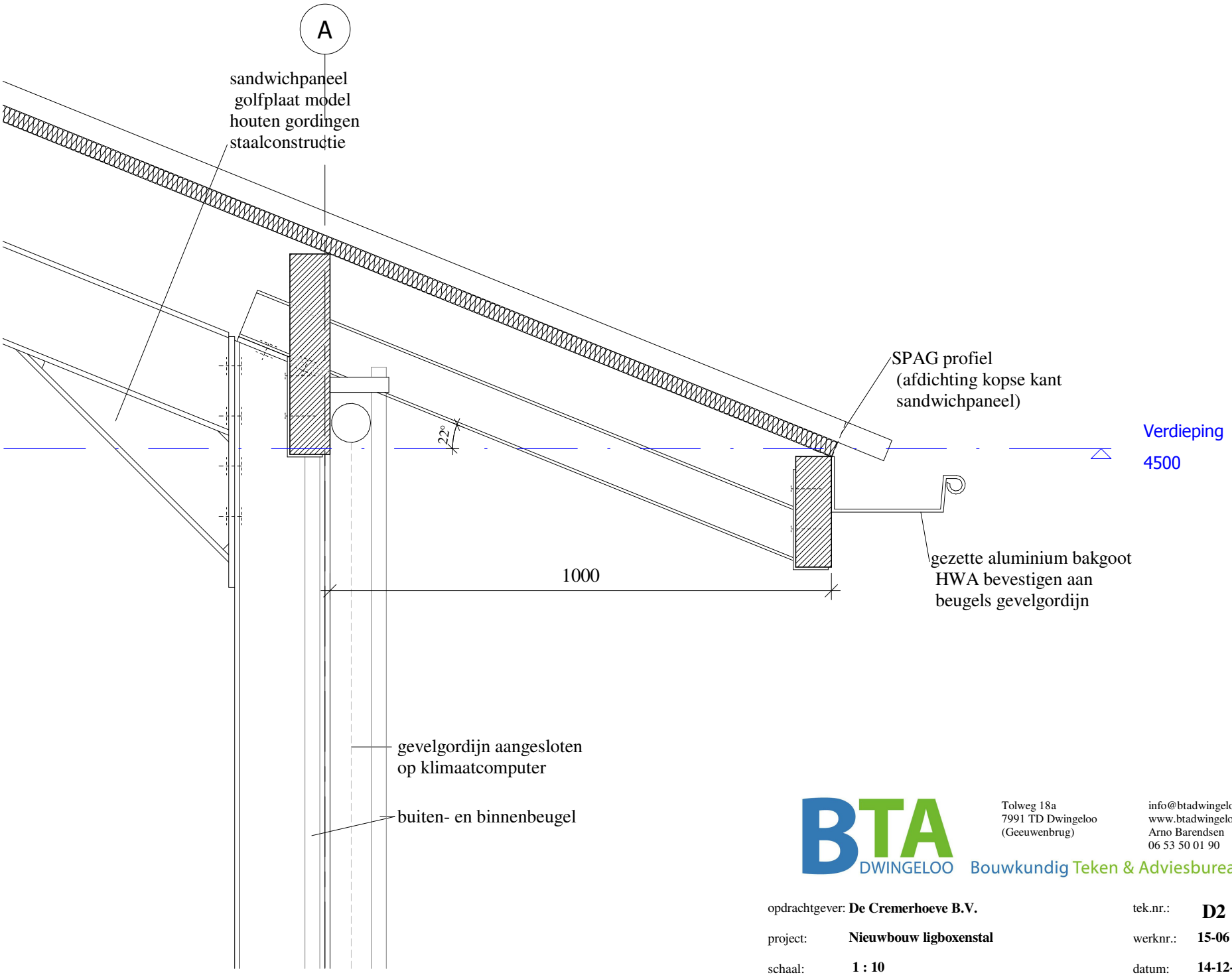

# Detail 1

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|---|---|---|---|
| opdrachtgever: | **De Cremerhoeve B.V.** | tek.nr.: | **D1** |
| project: | **Nieuwbouw ligboxenstal** | werknr.: | **15-06** |
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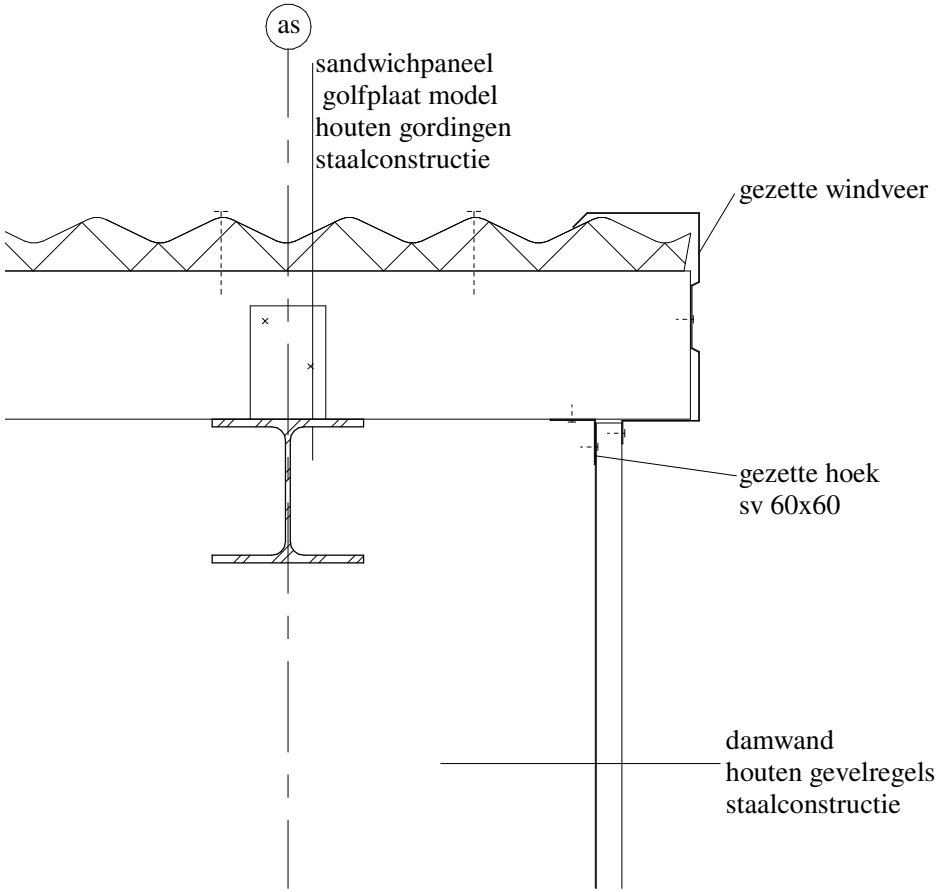



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|---|---|---|---|
| opdrachtgever: | **De Cremerhoeve B.V.** | tek.nr.: | **D2** |
| project: | **Nieuwbouw ligboxenstal** | werknr.: | **15-06** |
| schaal: | **1 : 10** | datum: | **14-12-2016** |



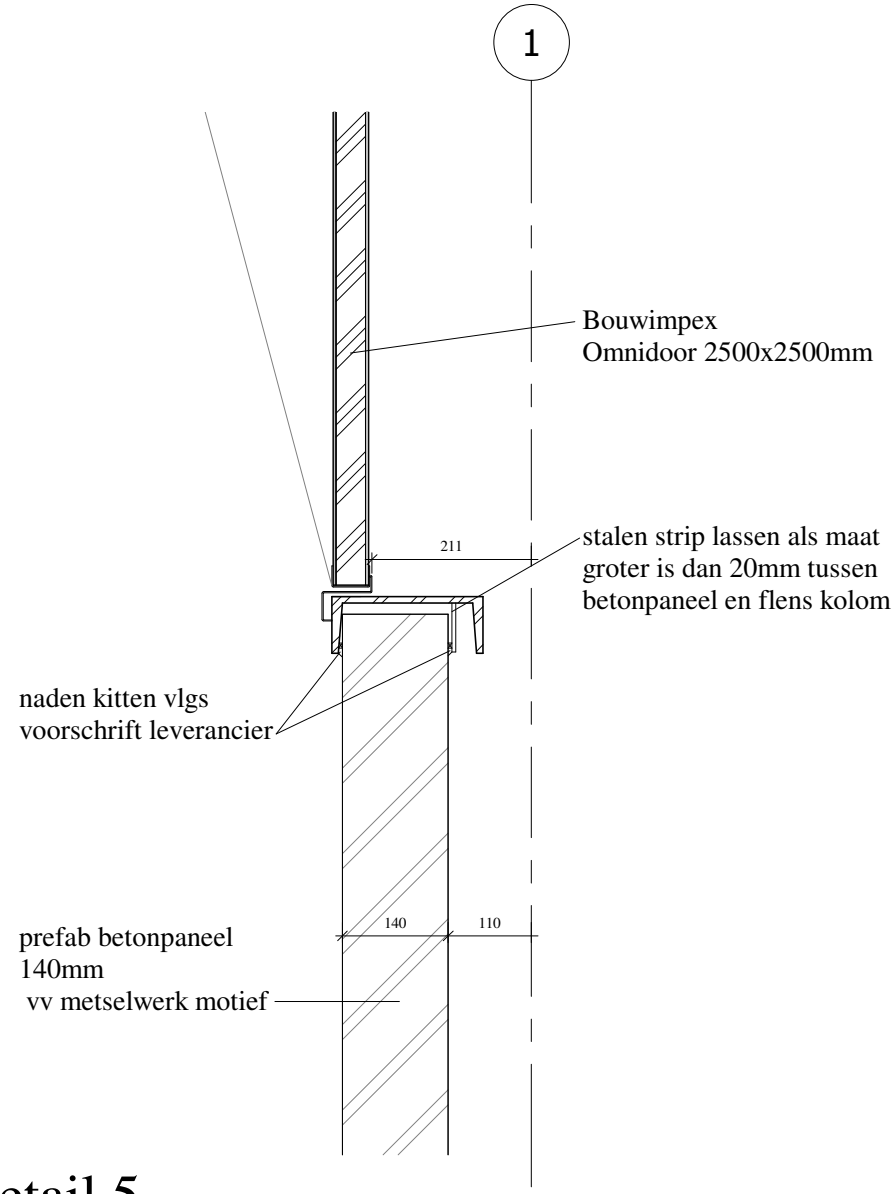

# Detail 4

BTA DWINGELOO Bouwkundig Teken & Adviesbureau

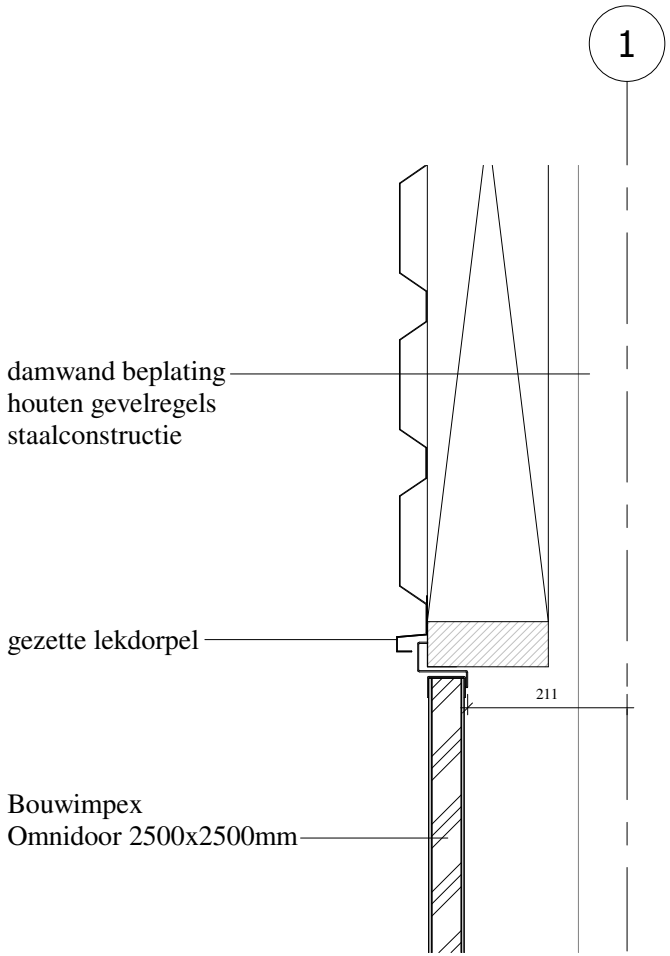
Tolweg 18a
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(Geeuwenbrug)

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Arno Barendsen
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|---|---|---|---|
| opdrachtgever: | **De Cremerhoeve B.V.** | tek.nr.: | **D4** |
| project: | **Nieuwbouw ligboxenstal** | werknr.: | **15-06** |
| schaal: | **1 : 10** | datum: | **14-12-2016** |




Detail 5



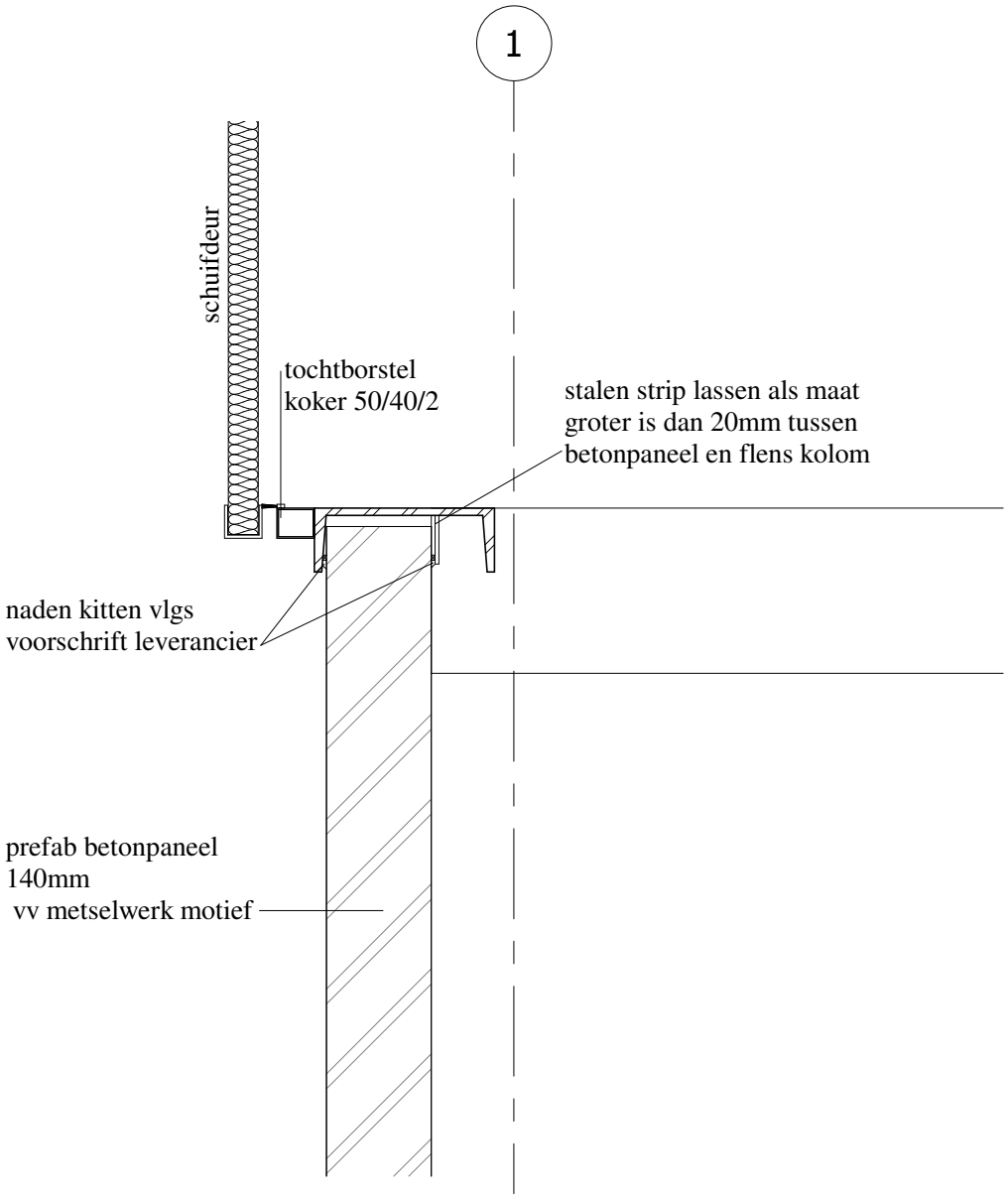

Detail 6

BTA DWINGELOO Bouwkundig Teken & Adviesbureau

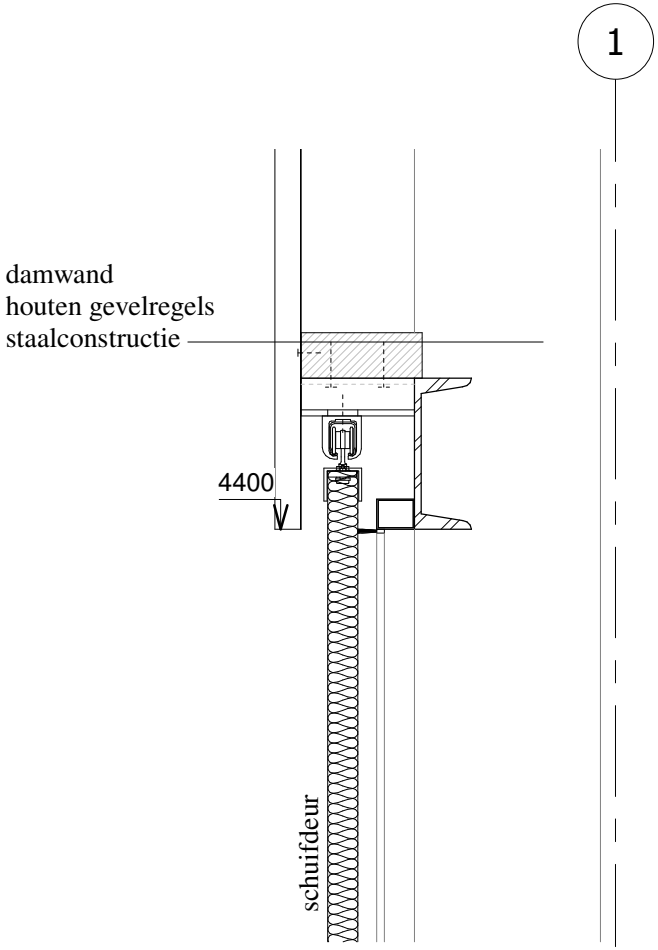
Tolweg 18a
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www.btadwingeloo.nl
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| | | | |
|---|---|---|---|
| opdrachtgever: | **De Cremerhoeve B.V.** | tek.nr.: | **D5 / D6** |
| project: | **Nieuwbouw ligboxenstal** | werknr.: | **15-06** |
| schaal: | **1 : 10** | datum: | **14-12-2016** |




Detail 7



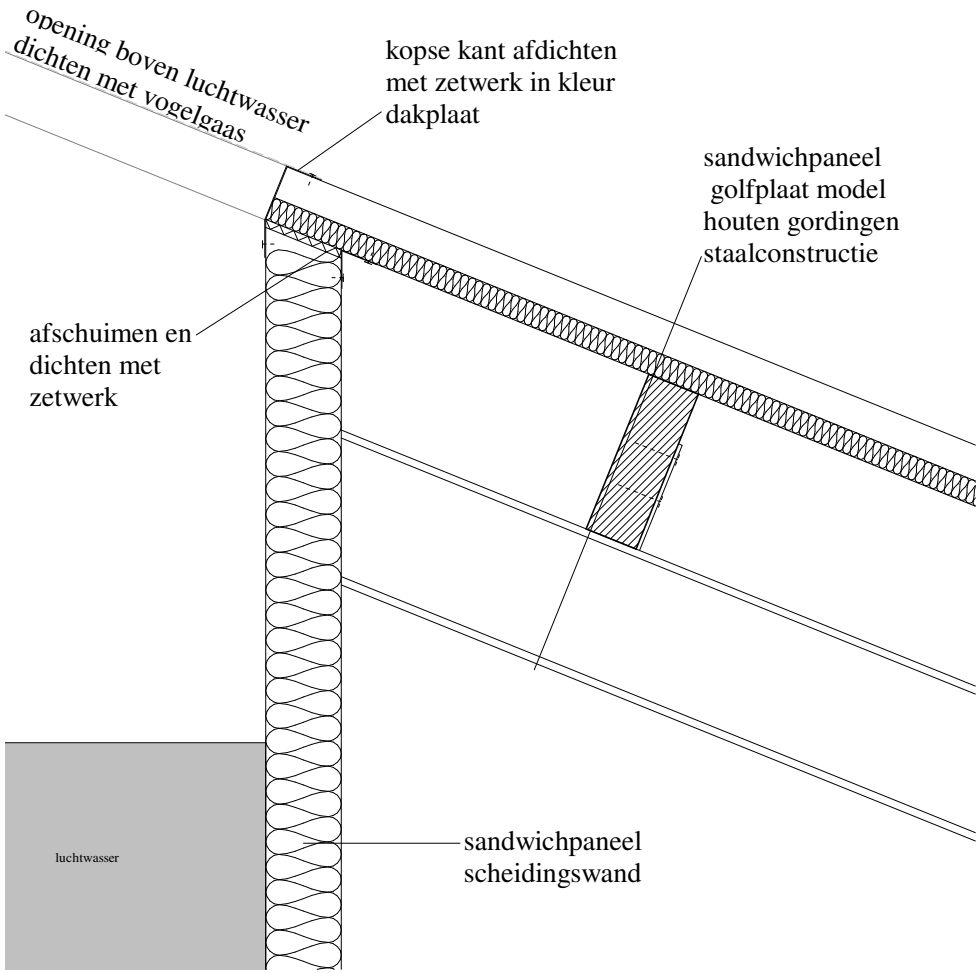

Detail 8

BTA DWINGELOO Bouwkundig Teken & Adviesbureau

Tolweg 18a
7991 TD Dwingeloo
(Geeuwenbrug)

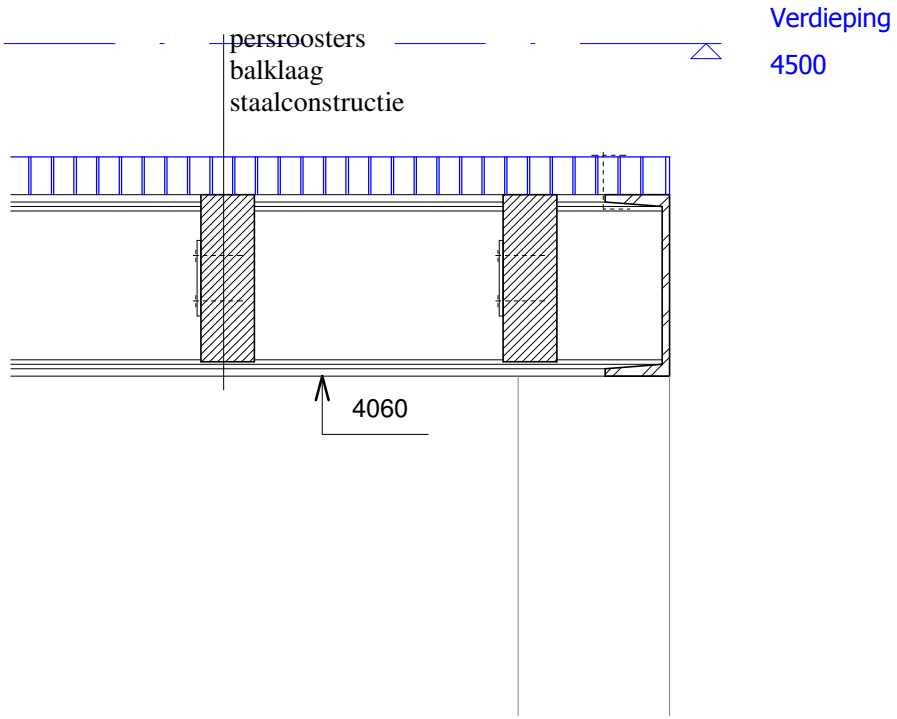
info@btadwingeloo.nl
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| | | | |
|---|---|---|---|
| opdrachtgever: | **De Cremerhoeve B.V.** | tek.nr.: | **D7 / D8** |
| project: | **Nieuwbouw ligboxenstal** | werknr.: | **15-06** |
| schaal: | **1 : 10** | datum: | **14-12-2016** |




Detail 10

belasting van luchtwasser 1000kg/m1



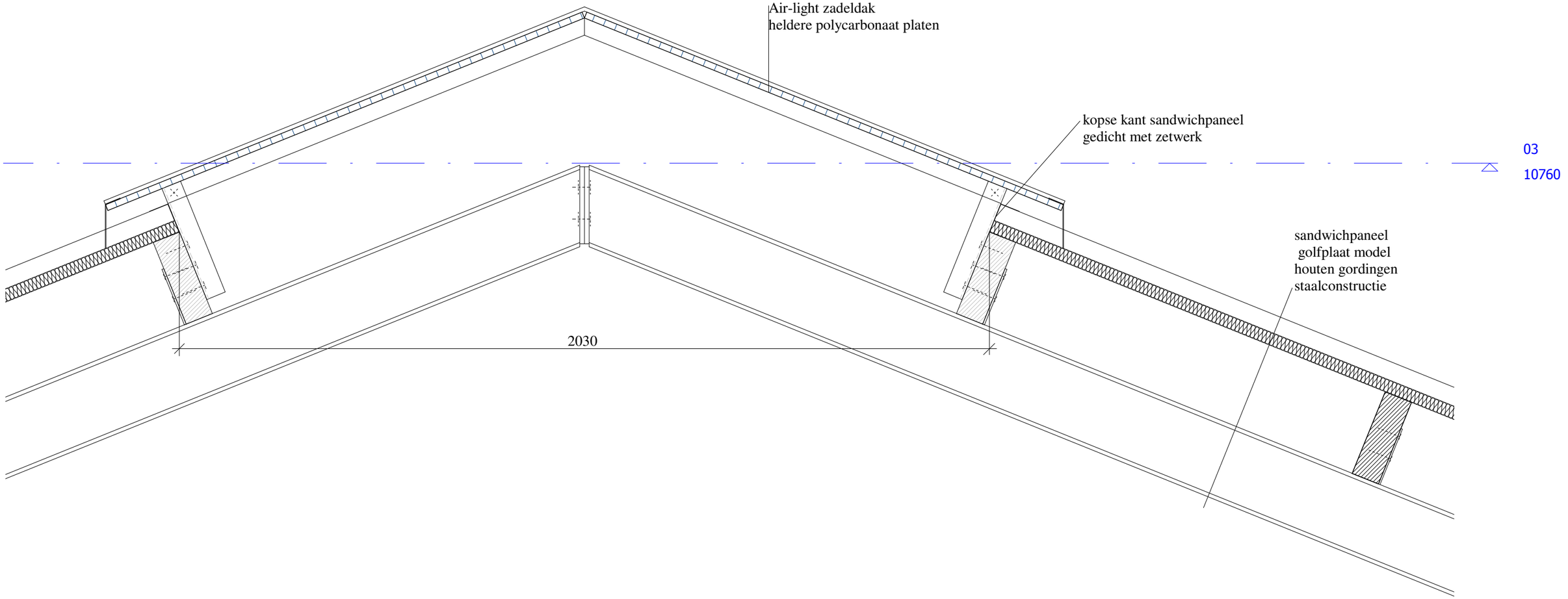

Detail 9

BTA DWINGELOO Bouwkundig Teken & Adviesbureau

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| | | | |
|---|---|---|---|
| opdrachtgever: | **De Cremerhoeve B.V.** | tek.nr.: | **D9 / D10** |
| project: | **Nieuwbouw ligboxenstal** | werknr.: | **15-06** |
| schaal: | **1 : 10** | datum: | **14-12-2016** |



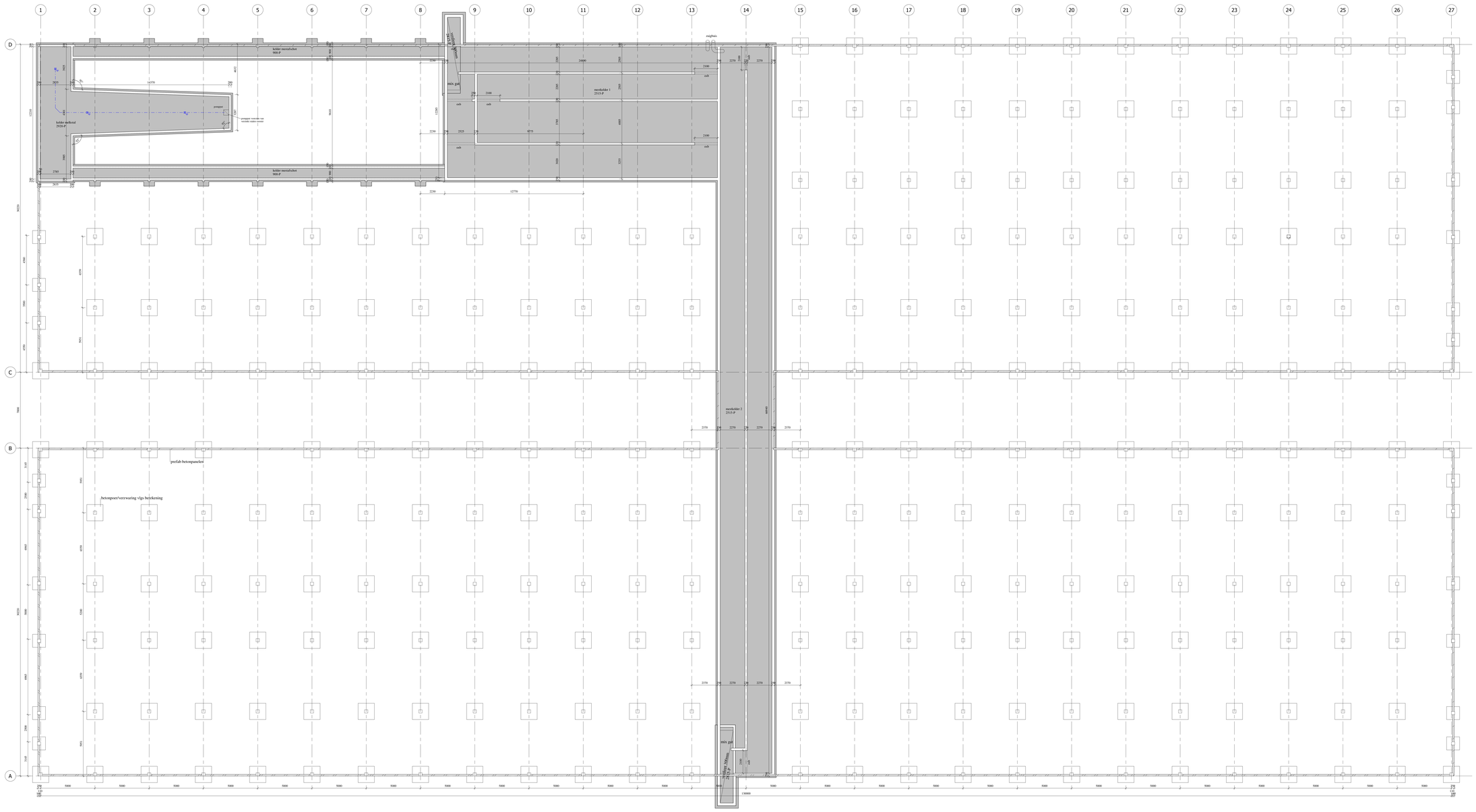

# Detail 3

BTA DWINGELOO Bouwkundig Teken & Adviesbureau

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| | | | |
|---|---|---|---|
| opdrachtgever: | **De Cremerhoeve B.V.** | tek.nr.: | **D3** |
| project: | **Nieuwbouw ligboxenstal** | werknr.: | **15-06** |
| schaal: | **1 : 10** | datum: | **14-12-2016** |




## Kelder/fundering

betonconstructies vlgs berekening W2N met werknummer 15-2158 d.d. 07-12-2016


BTA DWINGELOO Bouwkundig Teken & Adviesbureau

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| | | | |
|---|---|---|---|
| opdrachtgever: | **De Cremerhoeve B.V.** | wijziging: | fase: **OA** |
| omschrijving: | **Kelderplan/fundering** | | |
| project: | **Nieuwbouw ligboxenstal** | | tek.nr.: **03** |
| | **Minister Cremerstraat 5 9491 TJ Zeijen** | | |
| datum: **14-12-2016** | schaal: 1 a 100 | formaat: 840 x 1600 | werknr.: **15-06** |


Niets uit deze tekening mag geheel of gedeeltelijk worden overgenomen en/of gekopieerd zonder toestemming van BTA Dwingeloo